



Analytical Resources, LLC
Analytical Chemists and Consultants

07 June 2023

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

RE: AOC5 MR Phase 1

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

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

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

Associated Work Order(s)
23D0396

Associated SDG ID(s)
N/A

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

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

Analytical Resources, LLC

Susan Dunninghoo, Director, Client Services

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



CHAIN-OF-CUSTODY/TEST REQUEST FORM

No **4059**

Project/Client Name: AOCS MR Phase 1
 Project Number: 210075 01.02
 Contact Name: Amara Vandervert
 Sampled By: Windward

Ship to: ARL
 Attn: Sue Dumikoo
 Shipper: Cornier
 Form filled out by: KM
 Shipping Date: 4/12/23
 Airbill Number:
 Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
					PCBs	SMS SVOCs	TOC/TS	SMS Metals	D/P	Archive		
4/12/23	0956	LDW23-SS1801	4	sediment	X	X	X	X	NA	X		
	1015	LDW23-SC1801	4	I	X		X			X		
	1503	LDW23-SS1802	4	I	X	X	X	X	NA	X		
	1540	LDW23-SC1802	4	I	X		X			X		
<i>Table</i>												
Total Number of Containers			<u>16</u>	Purchase Order / Statement of Work # <u>APJ-110222-AOCS-ARL</u>								

1) Released by:	1) Rec'd by: <u>Phillip</u>	2) Released by:	2) Rec'd by:
Print name: <u>Kate McPeak</u>	Company: <u>AR</u>	Print name:	Company:
Signature: <u>[Signature]</u>	Date/Time: <u>4/12/23 16:32</u>	Signature:	Date/Time:
Company: <u>Windward</u>		Company:	

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



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

To be completed by Laboratory upon sample receipt:

Date of receipt: <u>4/12/23</u>	Laboratory W.O. #: <u>2300396</u>
Condition upon receipt: <u>good</u>	Time of receipt: <u>16:32</u>
Cooler temperature: <u>0.5°C</u>	Received by: <u>Phillip Bates</u>



Cooler Receipt Form

ARI Client: Anchor QEA/windward
 COC No(s): 4059 NA
 Assigned ARI Job No: 2300396

Project Name: AOC5 MR Phase 1
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
 Were custody papers included with the cooler? YES NO
 Were custody papers properly filled out (ink, signed, etc.) YES NO
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) _____
 Time 16:49 0.5
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 5009908
 Cooler Accepted by: PIB Date: 4/12/23 Time: 16:32

Complete custody forms and attach all shipping documents

Log-In Phase:

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

Samples Logged by: PIB Date: 4/17/23 Time: 12:25 Labels checked by: PIB

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

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

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



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

Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
06/07/2023 15:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
23D0396-01	LDW23-SS1801	Solid	04/12/23 09:56	04/12/23 16:32
23D0396-02	LDW23-SC1801	Solid	04/12/23 10:15	04/12/23 16:32
23D0396-03	LDW23-SS1802	Solid	04/12/23 15:03	04/12/23 16:32
23D0396-04	LDW23-SC1802	Solid	04/12/23 15:40	04/12/23 16:32



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Project: AOC5 MR Phase 1
Project Number: 210075-01.02
Project Manager: Ali Judkins

Reported:
07-Jun-2023 15:12

Case Narrative

Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Work Order: 23D0396

Sample receipt

Samples as listed on the preceding page were received 12-Apr-2023 16:32 under ARI work order 23D0396. For details regarding sample receipt, please refer to the Cooler Receipt Form. Samples were frozen on receipt to preserve holding times.

Semivolatiles - EPA Method SW8270E

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

Initial and continuing calibrations were within method requirements, with accepted excursions outside the 20% window. Associated positive results have been "Q"-flagged.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits, with low level response for naphthalene "J"-flagged in the results, and response for benzyl alcohol just over the reporting limit, reported in the full scan due to results in the SIM analysis over the calibration range of the instrument. The blank was rerun to initiate a second sequence and benzyl alcohol was noted. Associated benzyl alcohol results have been "B"-flagged. As results for the blank and associated samples were under the regulatory limit, the issue is noted and no further action taken for this sample set.

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

The batch BLD0607 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD) outside of advisory control limits are flagged on the summary sheet, reported under work order 23D0394.

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

Semivolatiles - EPA Method SW8270E-SIM

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries for 2,4-dimethyl phenol were outside of control limits. The relative percent differences (RPD) were within control limits. As the MS/MSD and SRM had recoveries low but within limits, outliers are flagged and no further action taken.

The batch BLD0607 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD)



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Case Narrative

were within advisory control limits, reported under work order 23D0394.

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

Results for benzyl alcohol were reported from the full-scan analysis, due to results above the calibrated range of the instrument.

Pesticides - EPA Method SW8081B (Hexachlorobenzene)

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits, with low level response "J"-flagged.

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

The batch BLD0606 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

PCB Aroclors - EPA Method SW8082A

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

Initial and continuing calibrations were within method requirements.

Hexabromobiphenyl failed low for samples on both columns for initial analyses due to matrix interference, and extracts were rerun at dilution to bring internal standards into control.

The surrogate percent recoveries were within control limits.

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

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

The batch BLD0608 matrix spike duplicate (MSD) percent recovery and relative percent differences (RPD) was high of advisory control limits and flagged on the summary sheet, reported under work order 23D0394.

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

The analyst noted identification of aroclors were made using the best possible fit, as there were miscellaneous interfering peaks throughout the runs inflating results and obscuring patterns.

Total Metals - EPA Method 6020B

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



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Case Narrative

SLE0209-CAL4 showed indium-1 slightly noisy, but %R and analytes were noted by the analyst to be okay. SLE0209- IFA showed chromium-53 high.

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

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

The batch BLD0687 duplicate (DUP) relative percent difference (RPD) were within advisory control limits, reported under work order 23D0394.

The batch BLD0687 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD) were within advisory control limits, reported under work order 23D0394.

Total Mercury - EPA Method 7471B

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

Initial and continuing calibrations were within method requirements.

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

The blank spike (BS/LCS) percent recovery was within control limits.

The batch BLD0688 duplicate (DUP) relative percent difference (RPD) were within advisory control limits, reported under work order 23D0394.

The batch BLD0688 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPD) were within advisory control limits, reported under work order 23D0394.

Wet Chemistry (Total Organic Carbon and Total Solids)

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

Initial and continuing calibrations were within method requirements.

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

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

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

The batch BLE0415 matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were run on a non-project sample and had results within advisory control limits.



QUALIFIERS AND NOTES

<u>Qualifier</u>	<u>Definition</u>
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
L	Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to \pm RL instead of 20% RPD
J	Estimated concentration value detected below the reporting limit.
HC	The natural concentration of the spiked analyte is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
H	Hold time violation - Hold time was exceeded.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D1	Surrogate was not detected due to sample extract dilution
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



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

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-01 A

SDG: 23D0396

Sampled: 04/12/23 09:56

Prepared: 04/24/23 16:38

File ID: NT1705262323.D

% Solids: 43.01

Preparation: EPA 3546 (Microwave)

Analyzed: 05/27/23 02:25

Batch: BLD0607

Sequence: SLE0434

Initial/Final: 23.25 g Wet / 1 mL

Instrument: NT17

Column: ZB-5MS

Calibration: GE00065

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	17.8	J	4.4	20.0
100-51-6	Benzyl Alcohol	1	46.0	B	16.3	20.0
106-44-5	4-Methylphenol	1	23.9		7.4	20.0
91-20-3	Naphthalene	1	33.3		4.2	20.0
91-57-6	2-Methylnaphthalene	1	19.3	J	4.5	20.0
208-96-8	Acenaphthylene	1	15.8	J	6.2	20.0
132-64-9	Dibenzofuran	1	25.5		14.1	20.0
86-73-7	Fluorene	1	24.5		14.6	20.0
85-01-8	Phenanthrene	1	126		8.7	20.0
120-12-7	Anthracene	1	42.6		7.2	20.0
206-44-0	Fluoranthene	1	202		6.1	20.0
129-00-0	Pyrene	1	207		5.7	20.0
85-68-7	Butylbenzylphthalate	1	17.8	J	9.4	20.0
56-55-3	Benzo(a)anthracene	1	136		6.0	20.0
218-01-9	Chrysene	1	211		6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	192		5.5	50.0
	Benzo(a)fluoranthene, Total	1	456		10.0	40.0
50-32-8	Benzo(a)pyrene	1	121		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	36.5	Q	14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	37.3	Q	13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	750.01	545	72.6	27 - 120	
Phenol-d5	750.01	543	72.3	29 - 120	
2-Chlorophenol-d4	750.01	573	76.5	31 - 120	
1,2-Dichlorobenzene-d4	500.01	358	71.6	32 - 120	
Nitrobenzene-d5	500.01	388	77.6	30 - 120	
2-Fluorobiphenyl	500.01	438	87.5	35 - 120	
2,4,6-Tribromophenol	750.01	583	77.7	24 - 134	



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

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-01 A

SDG: 23D0396

Sampled: 04/12/23 09:56

Prepared: 04/24/23 16:38

File ID: NT1705262323.D

% Solids: 43.01

Preparation: EPA 3546 (Microwave)

Analyzed: 05/27/23 02:25

Batch: BLD0607

Sequence: SLE0434

Initial/Final: 23.25 g Wet / 1 mL

Instrument: NT17

Column: ZB-5MS

Calibration: GE00065

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
p-Terphenyl-d14	500.01	331	66.1	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262323.D

Date: 27-May-2023 02:25

Client ID:

Sample Info: 23D0396-01

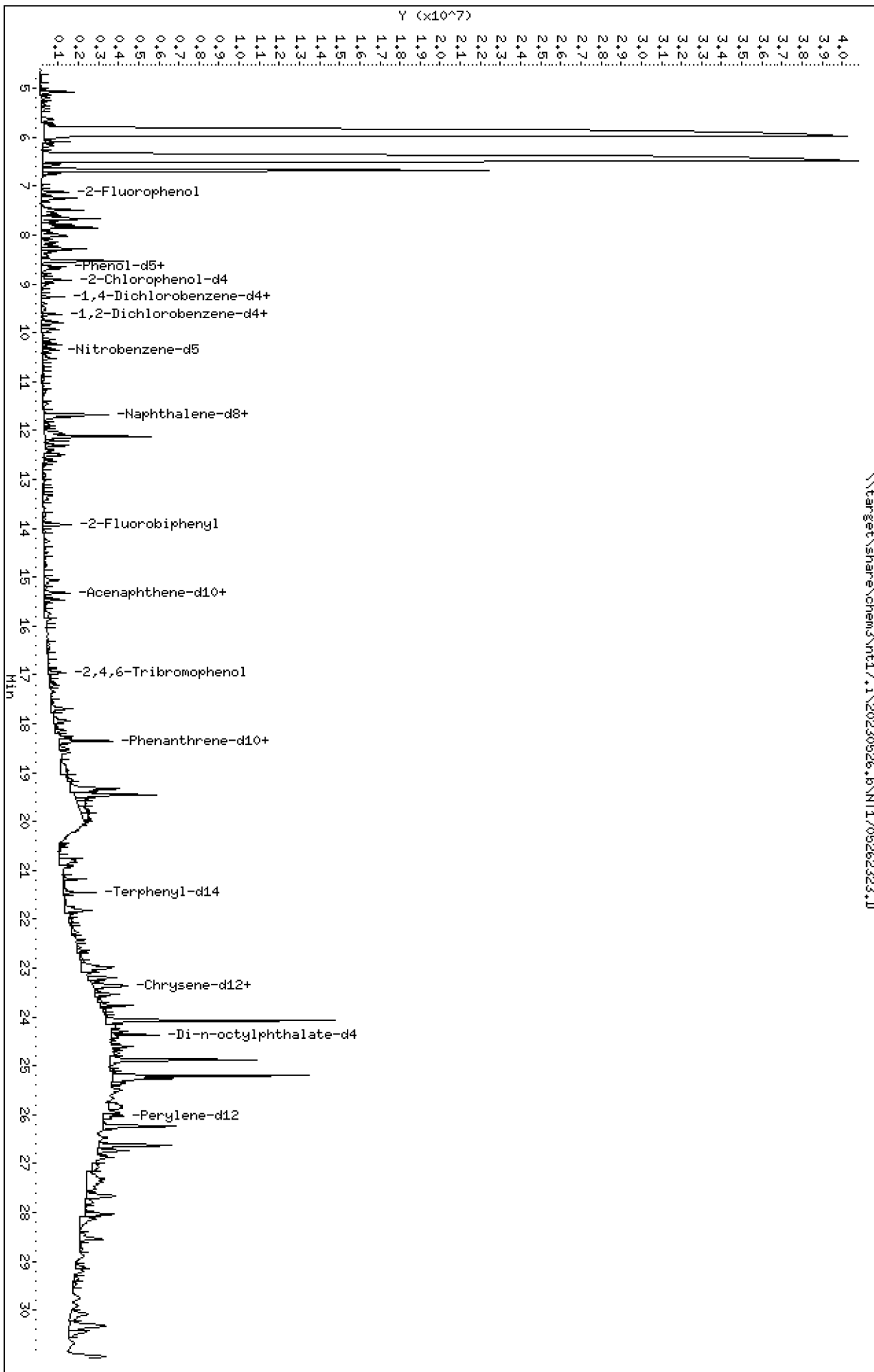
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230526.1\NT1705262323.D



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

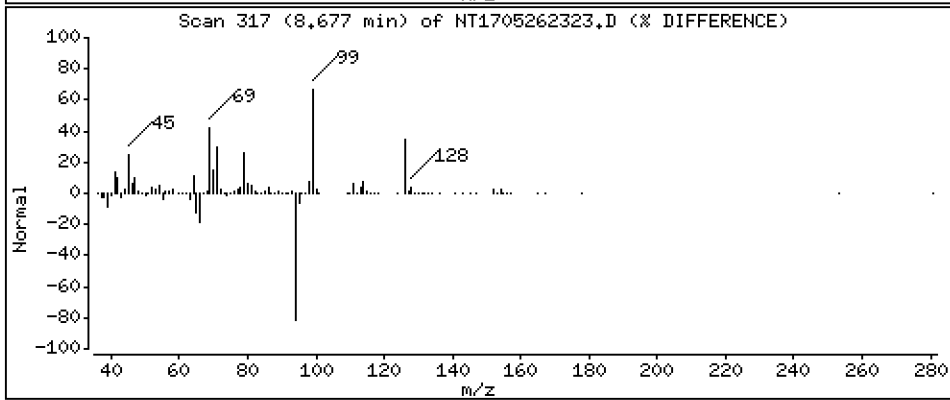
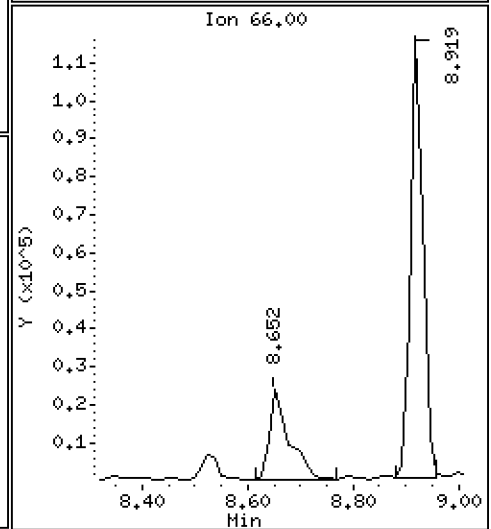
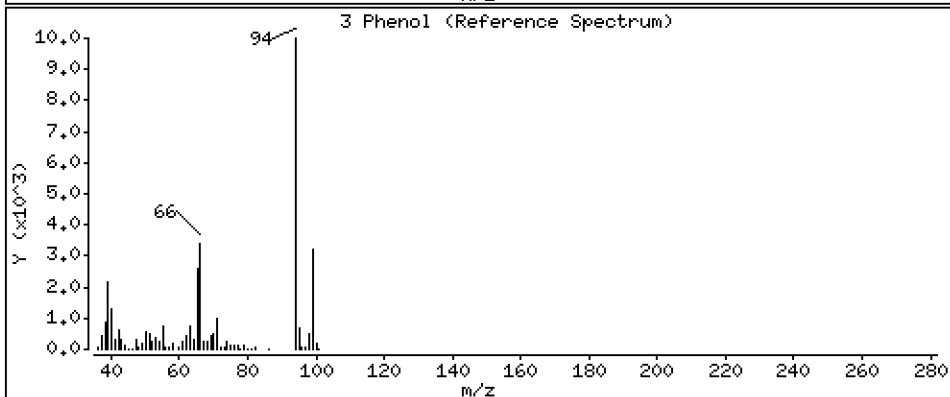
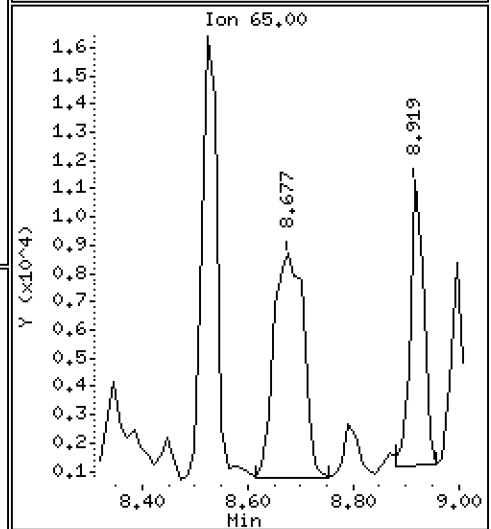
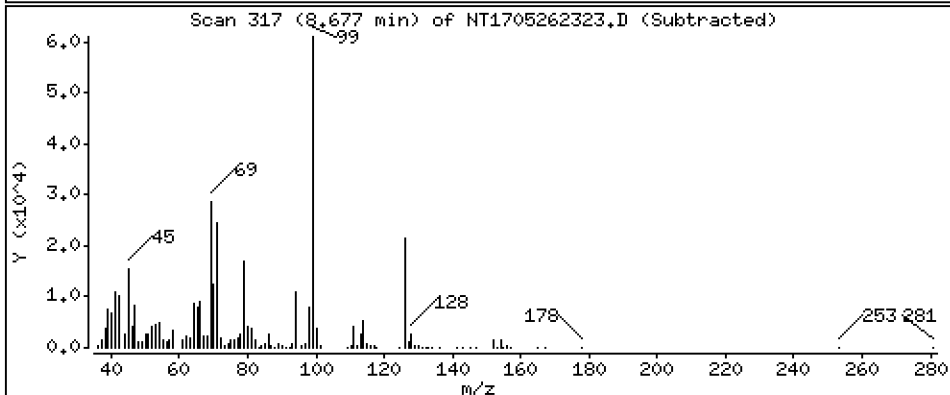
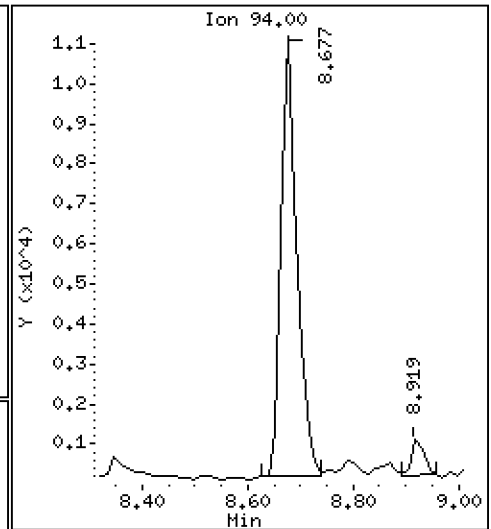
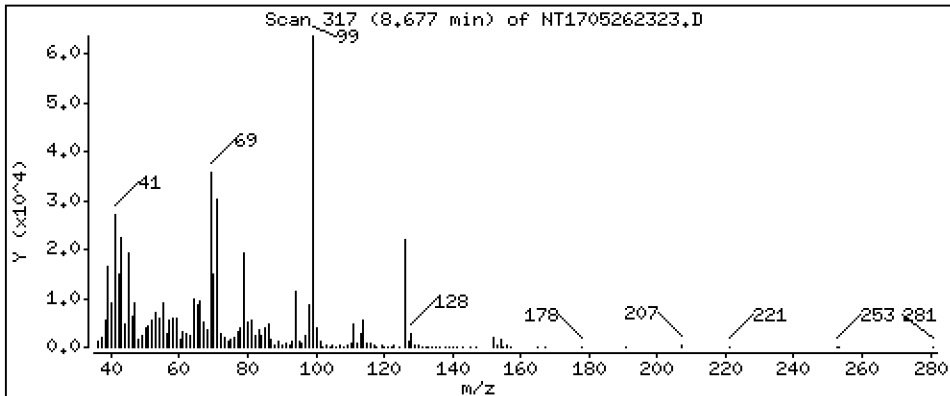
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1777 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

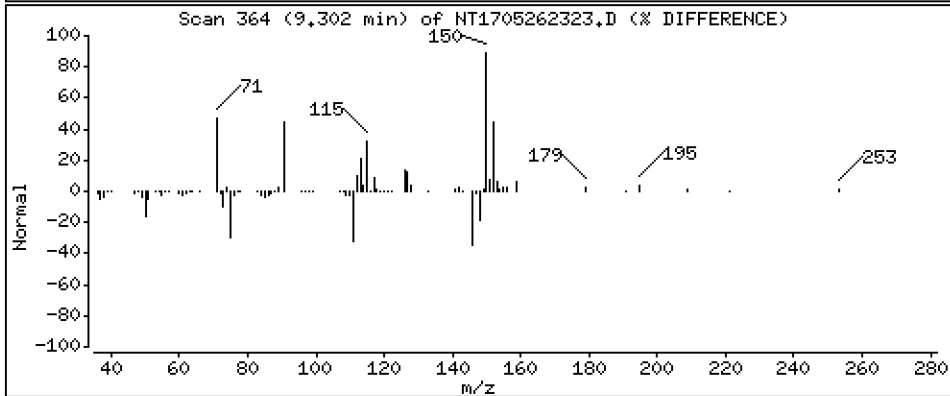
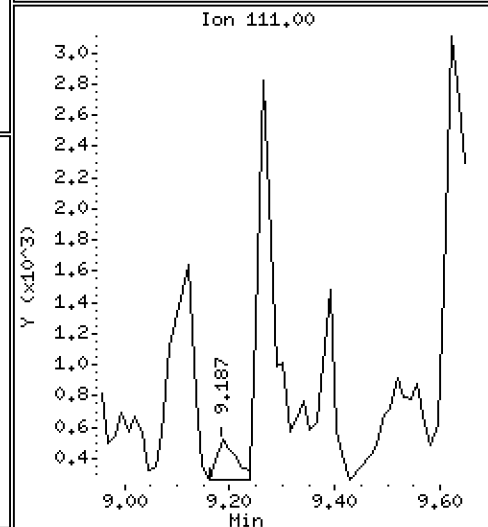
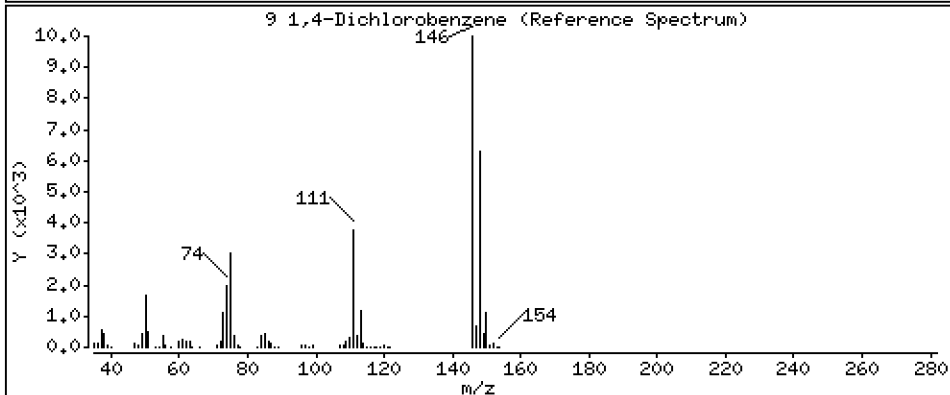
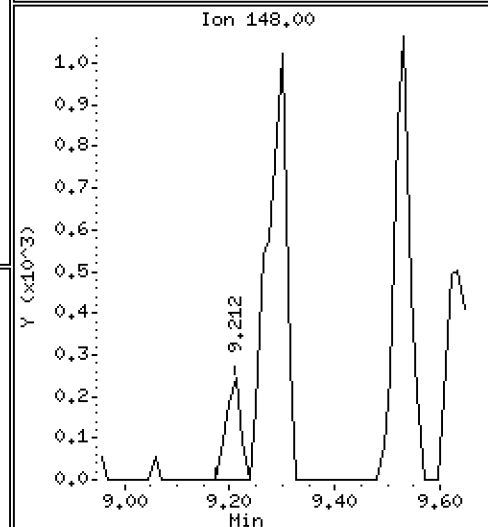
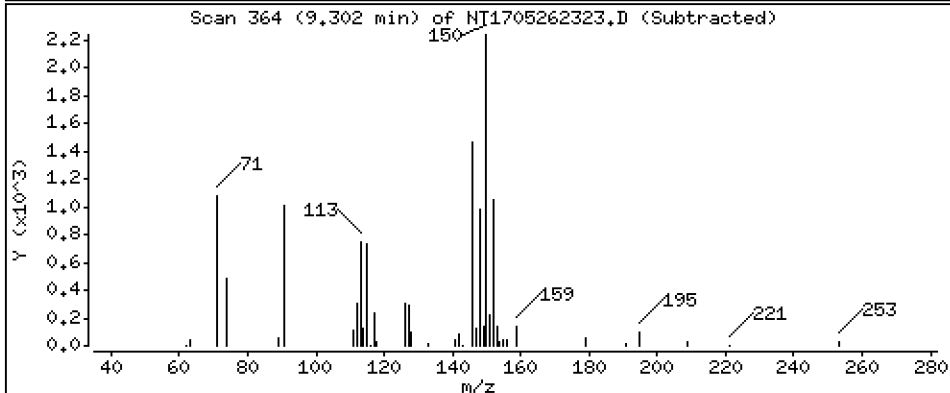
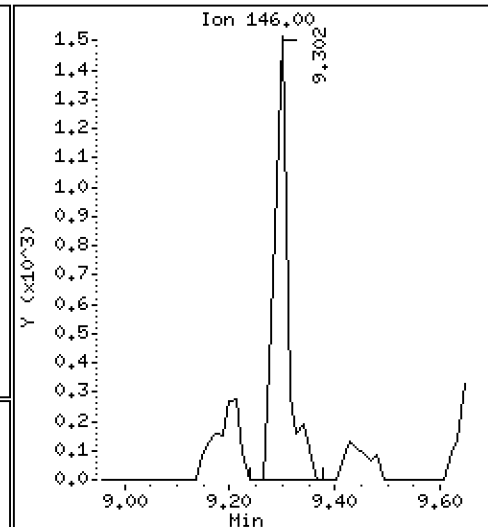
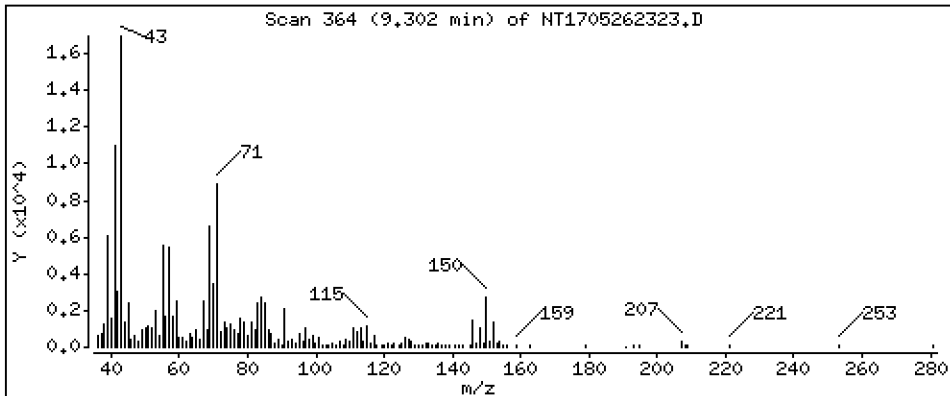
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.02453 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

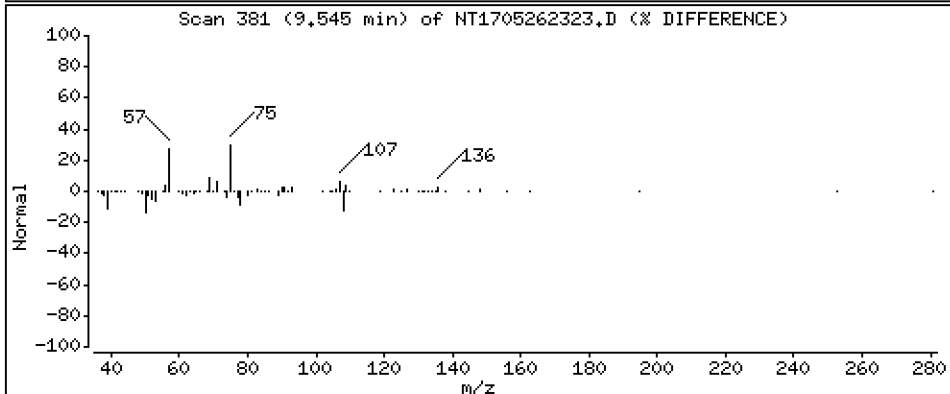
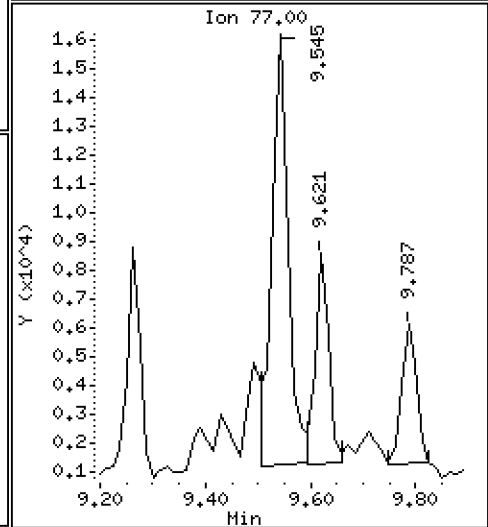
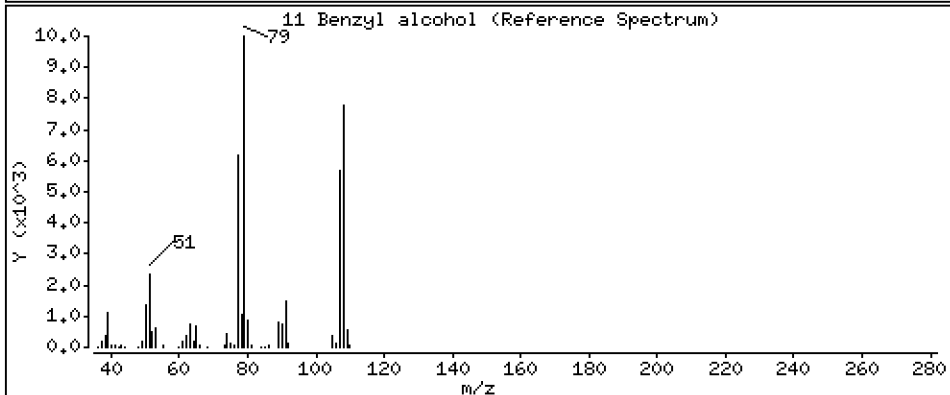
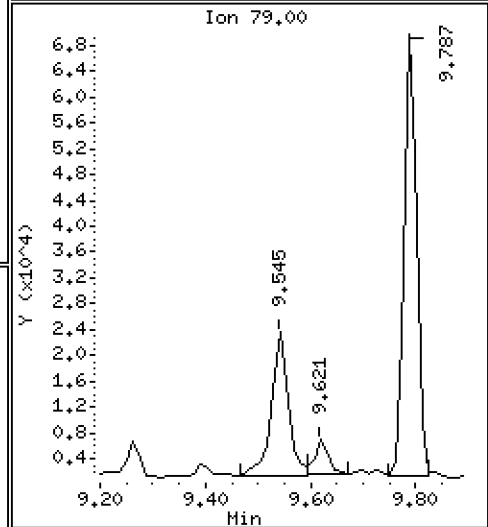
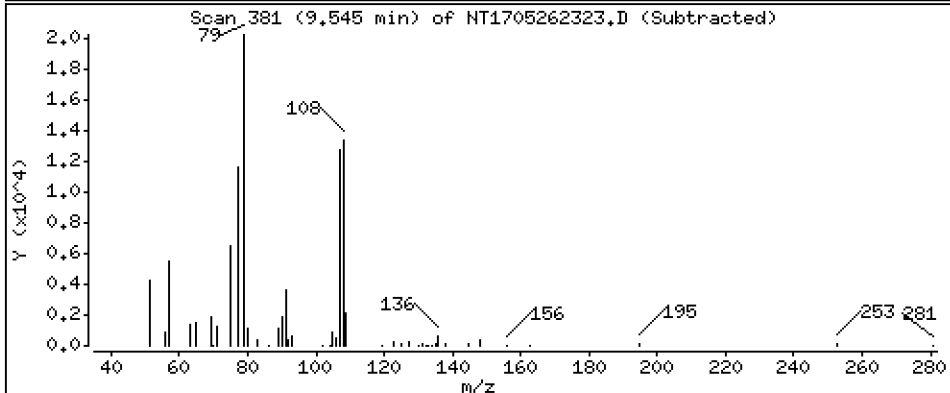
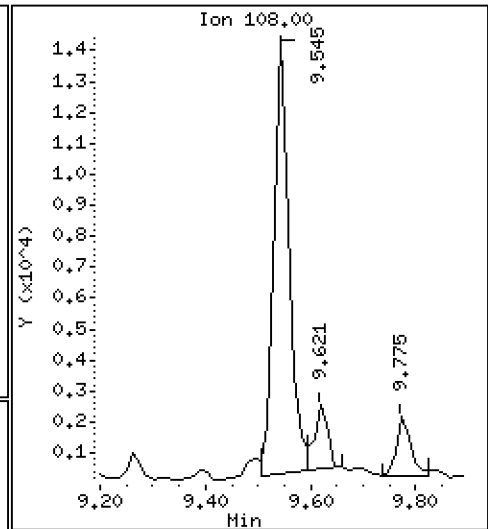
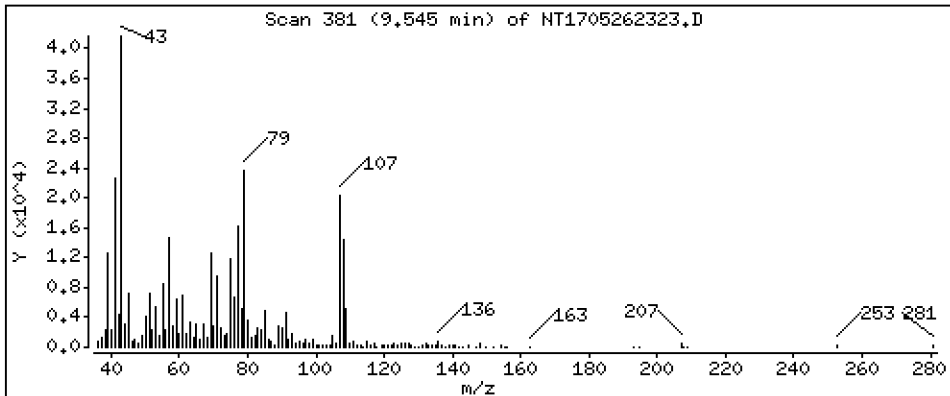
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4602 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

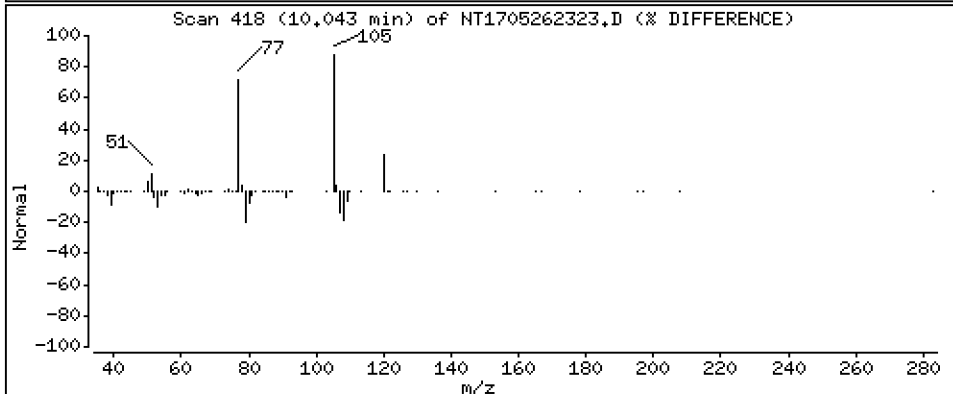
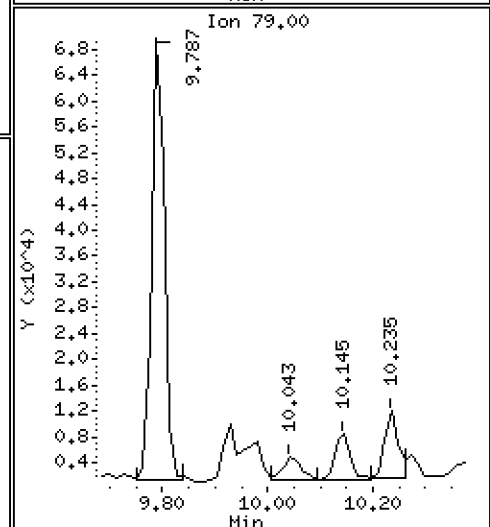
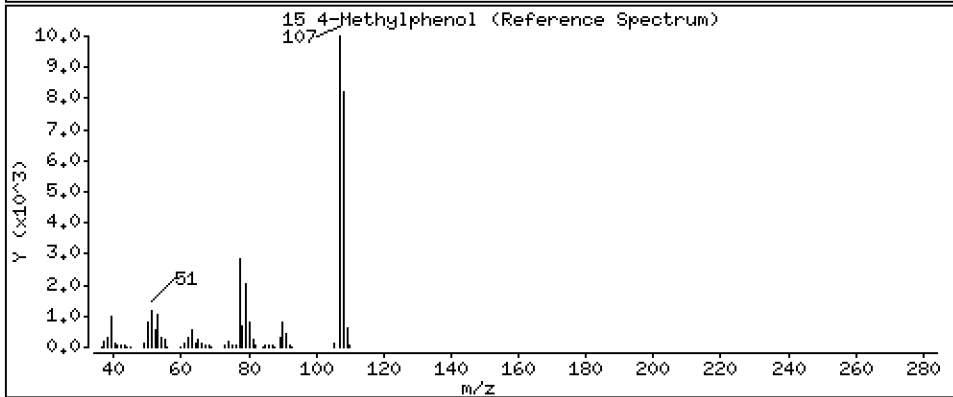
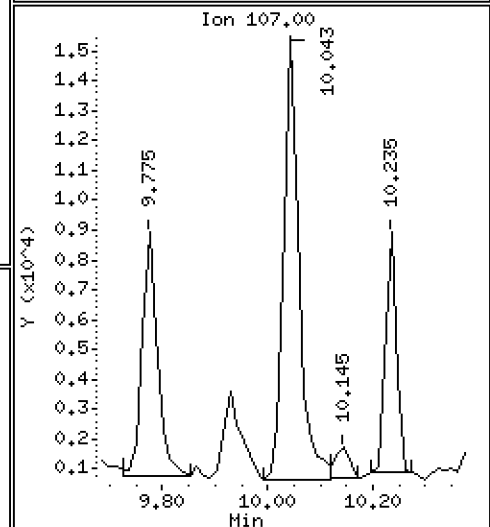
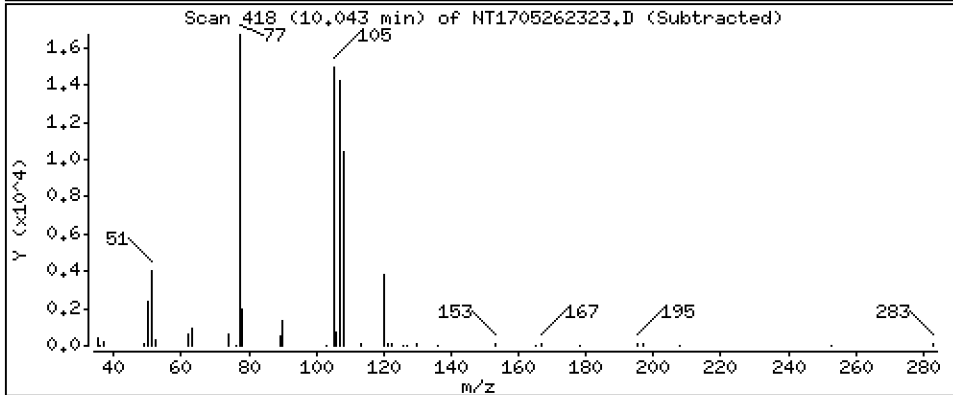
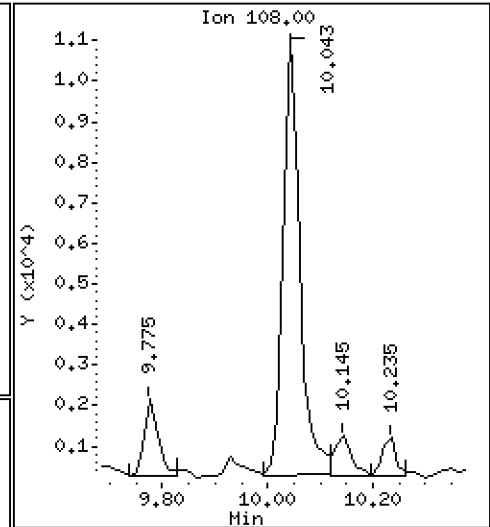
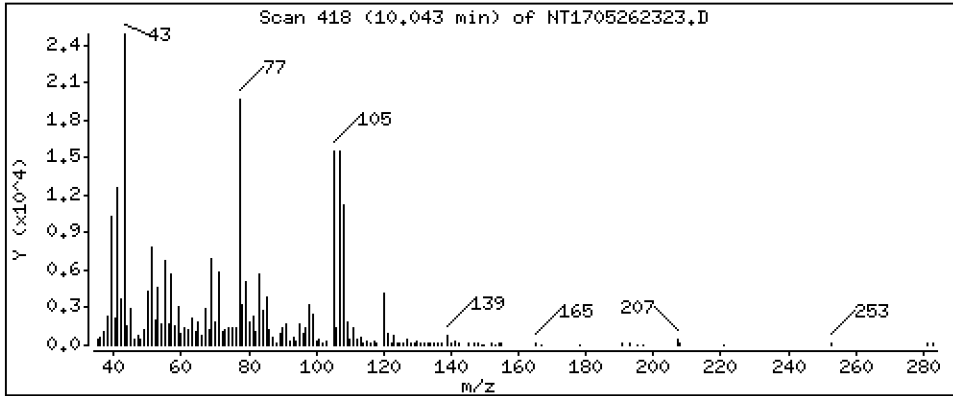
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,2392 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

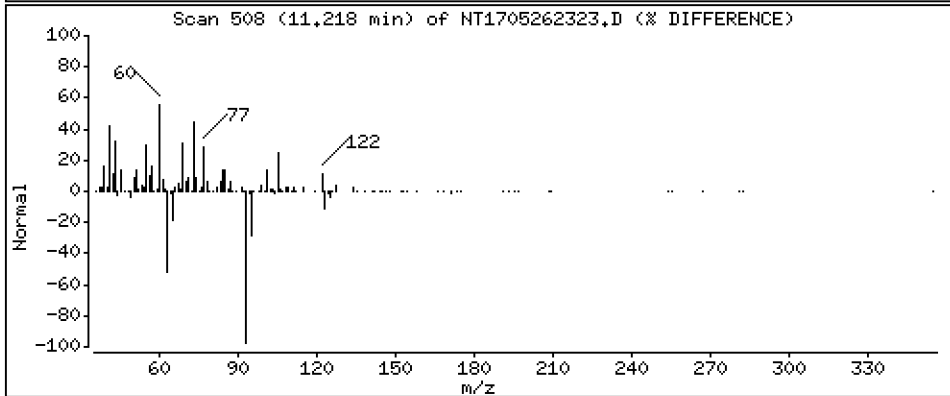
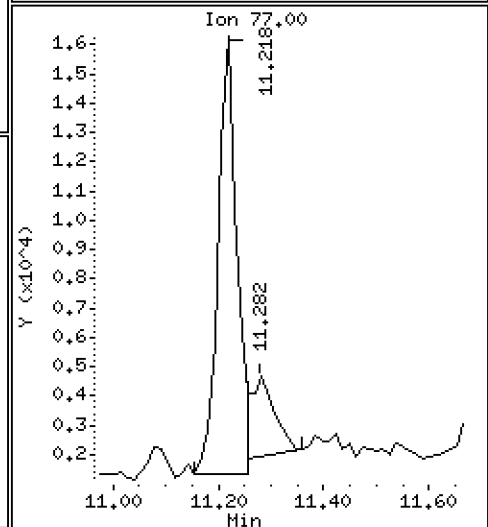
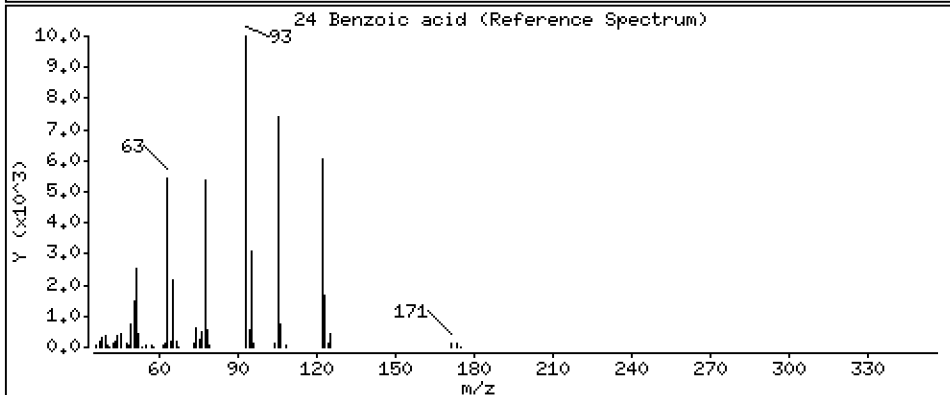
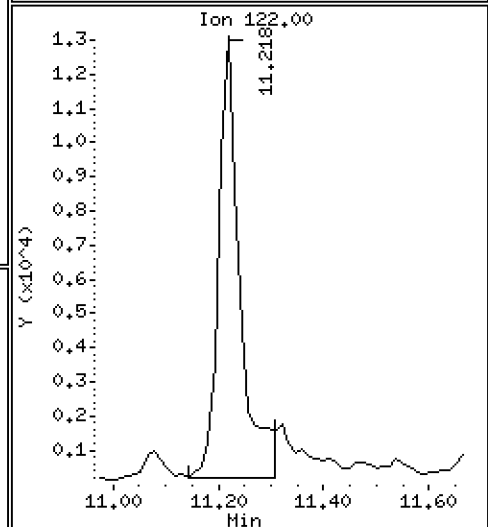
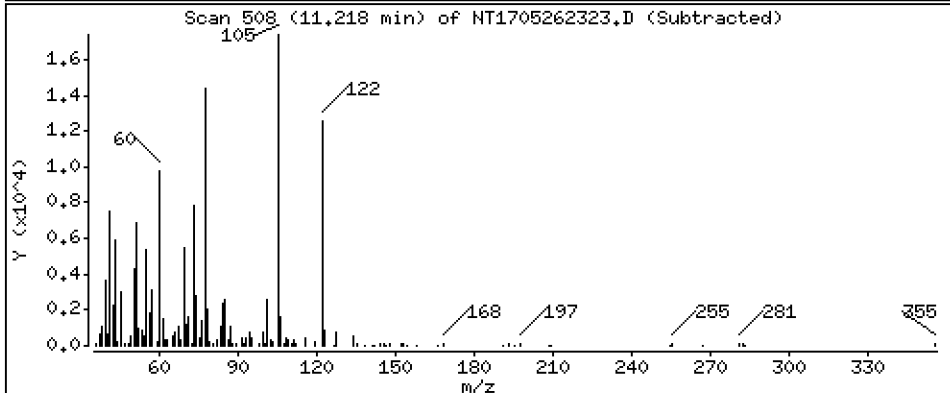
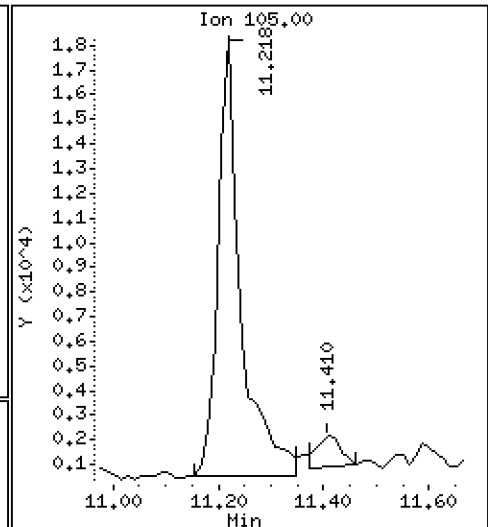
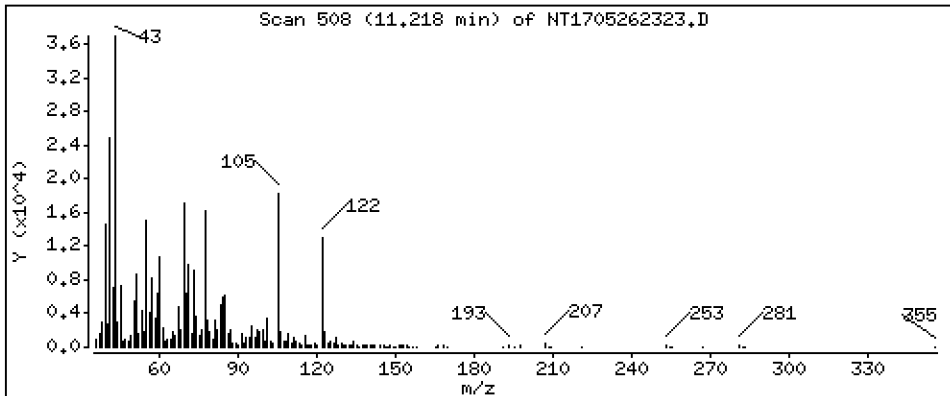
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.7413 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

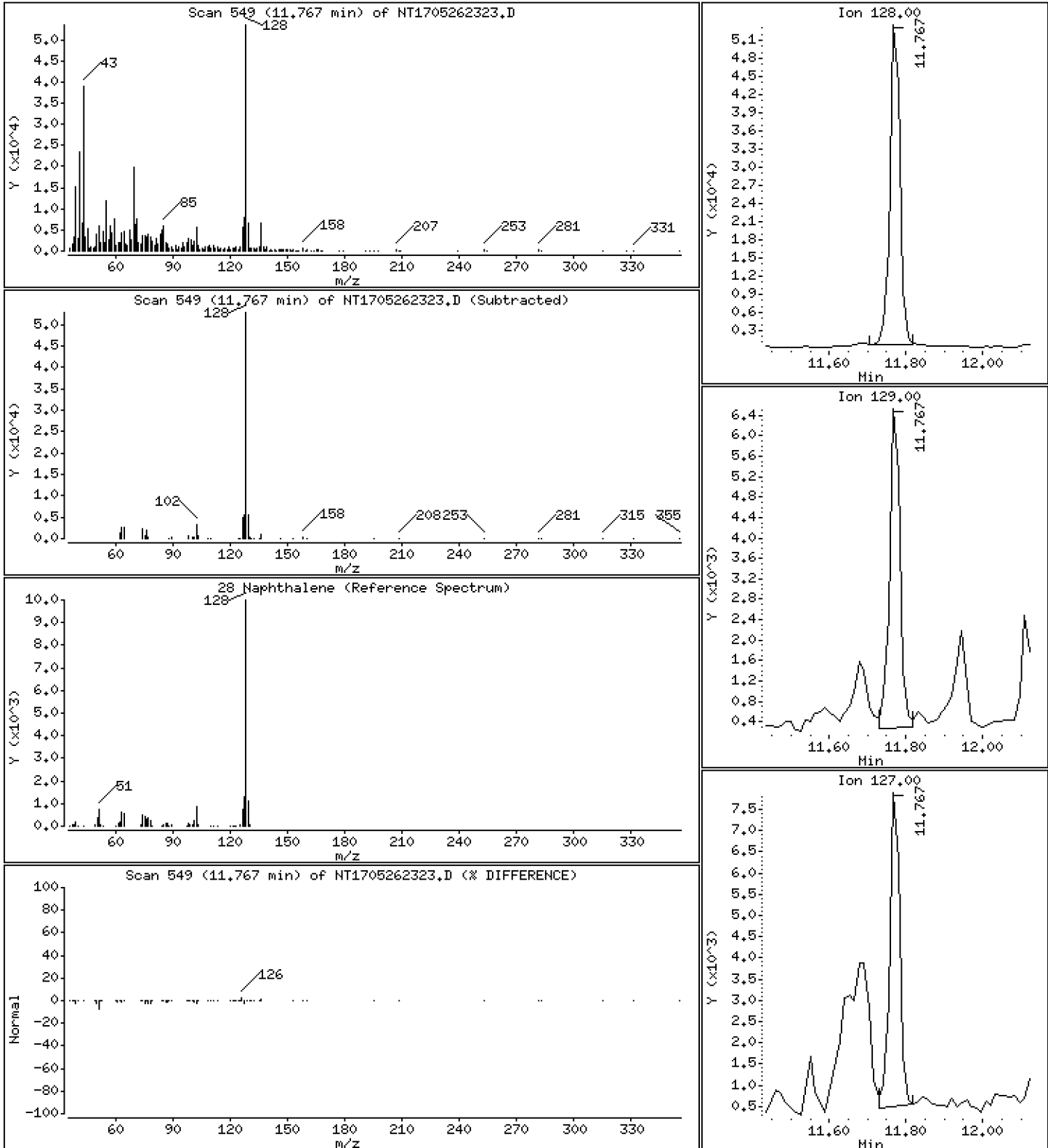
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,3335 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

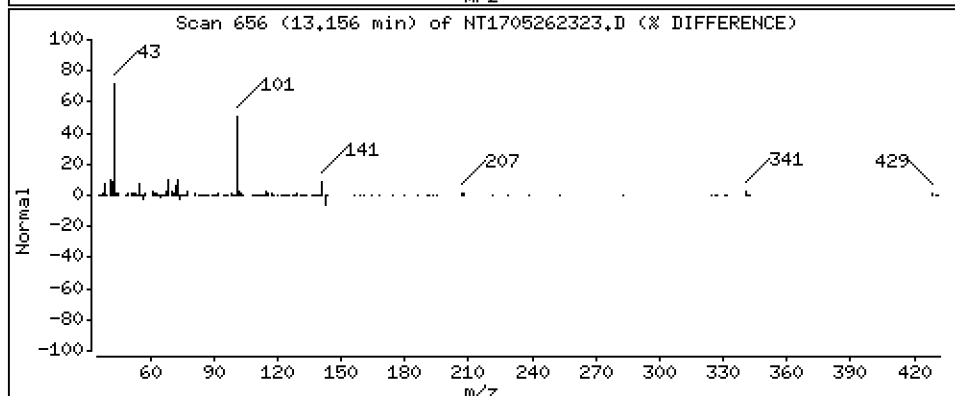
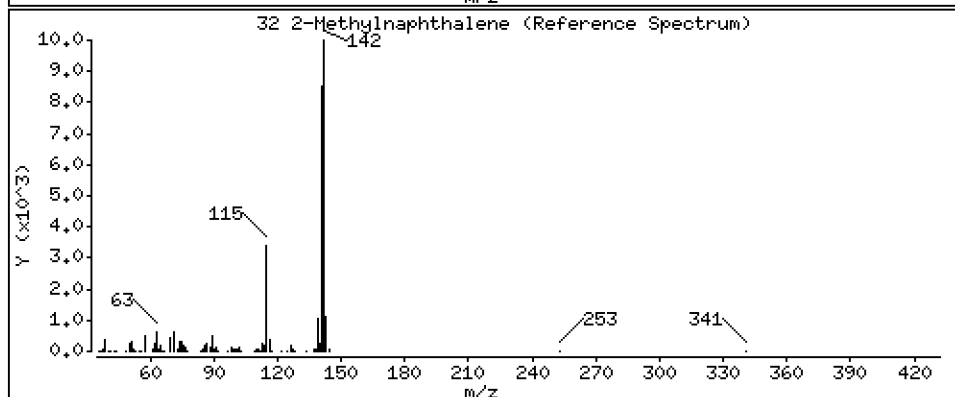
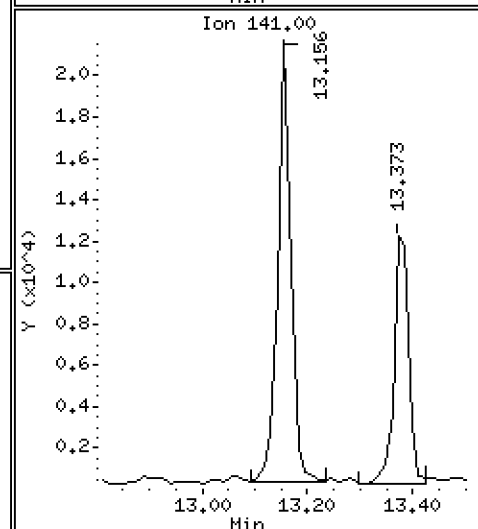
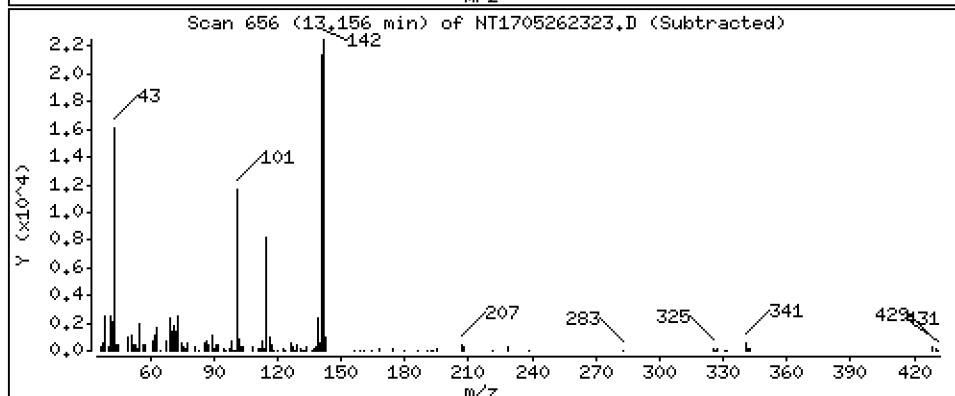
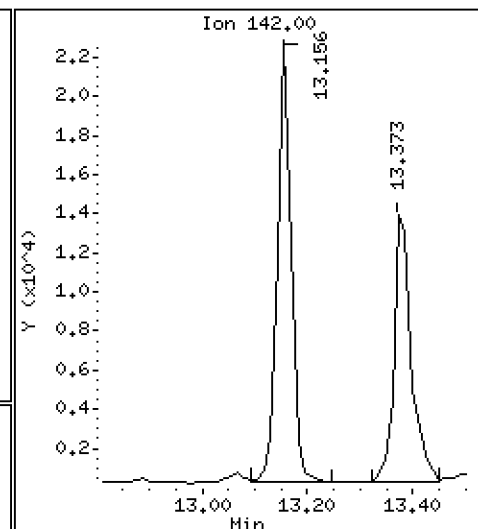
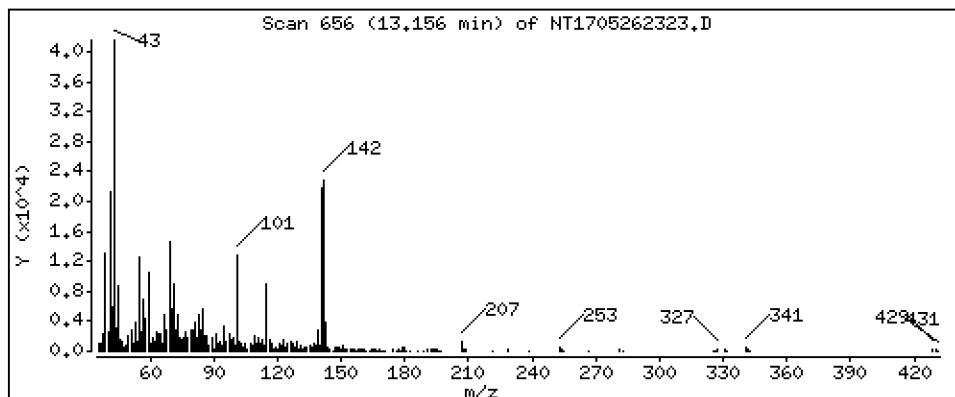
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,1932 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

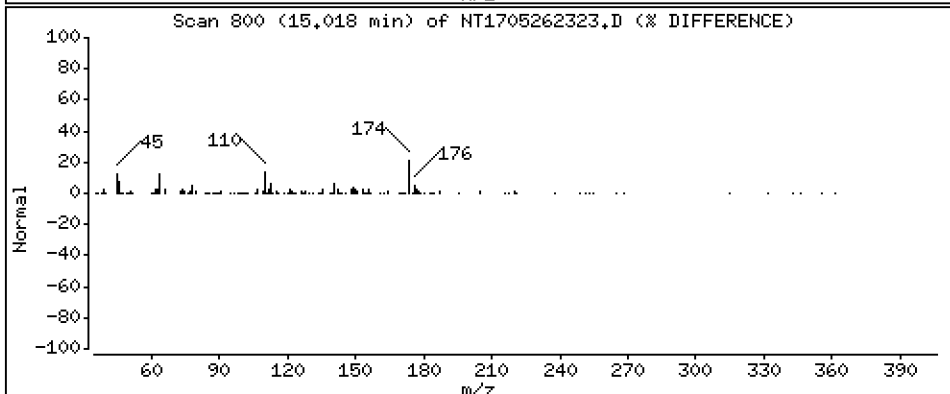
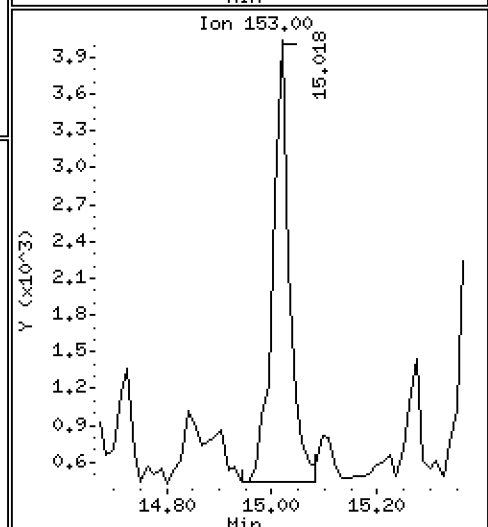
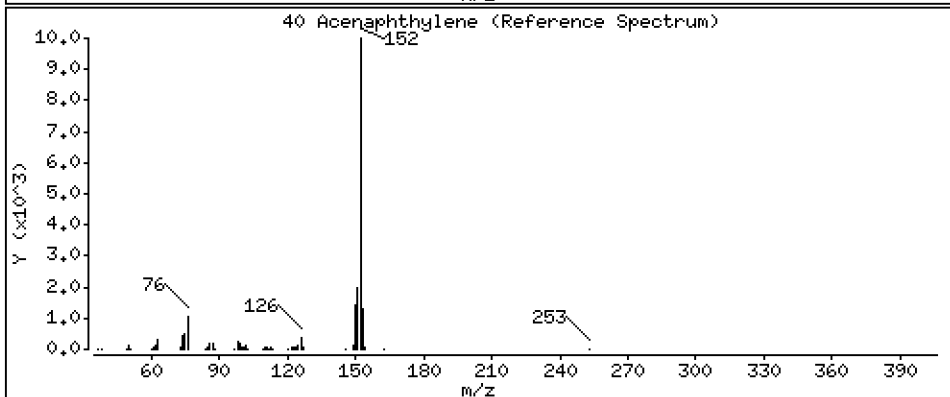
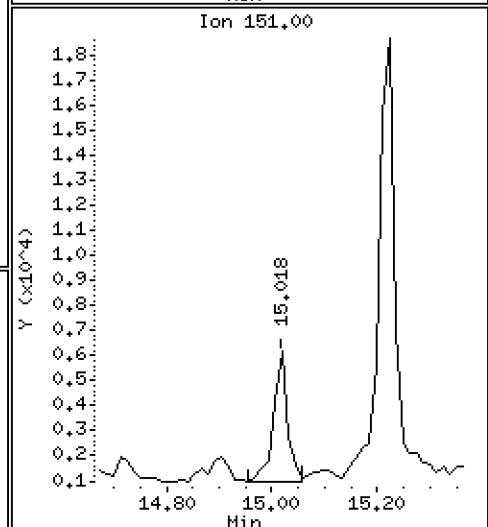
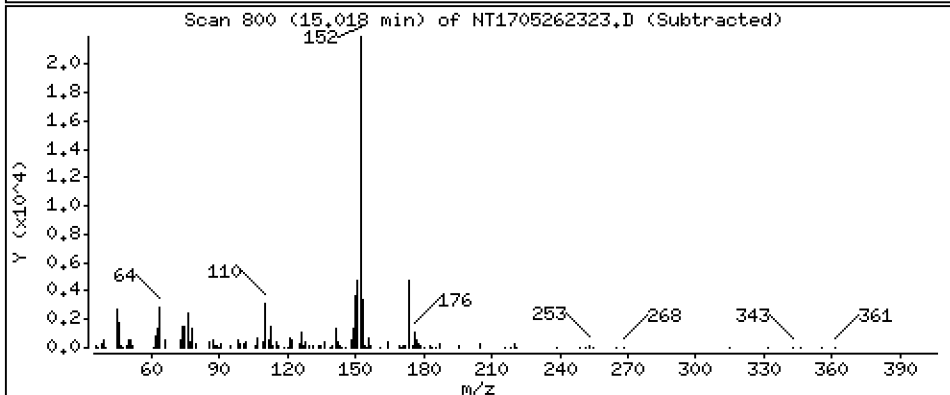
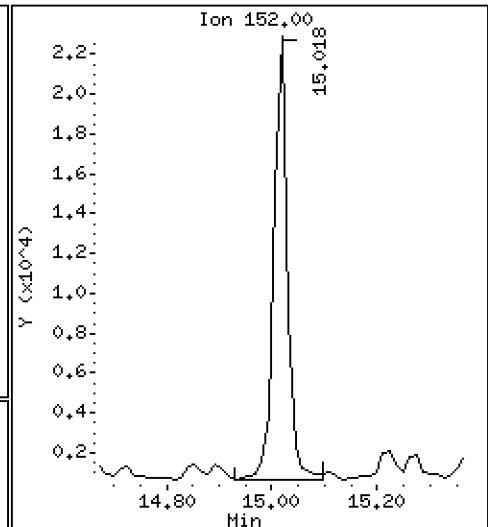
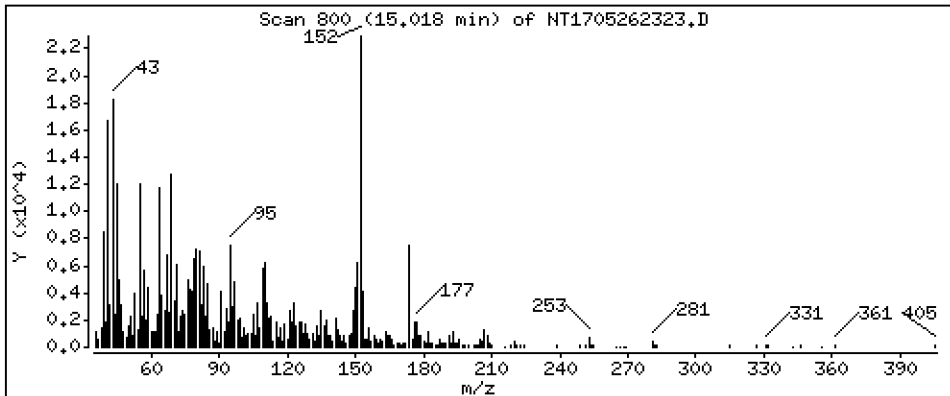
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.1575 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

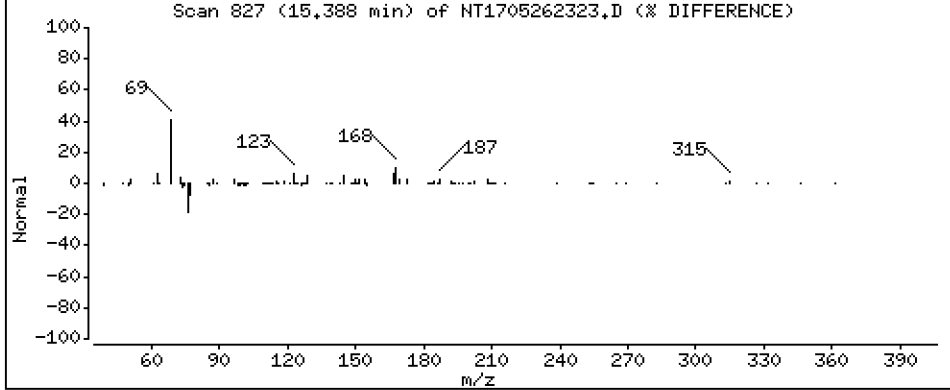
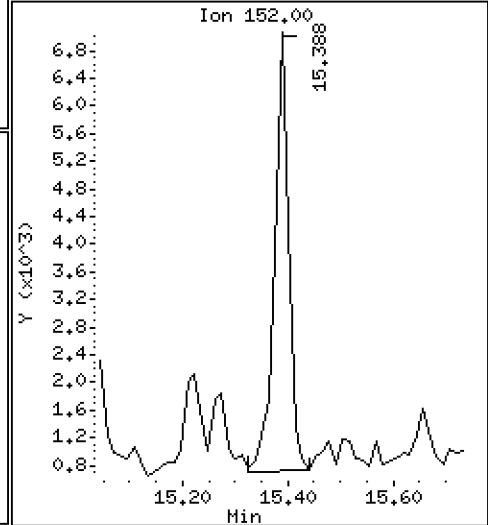
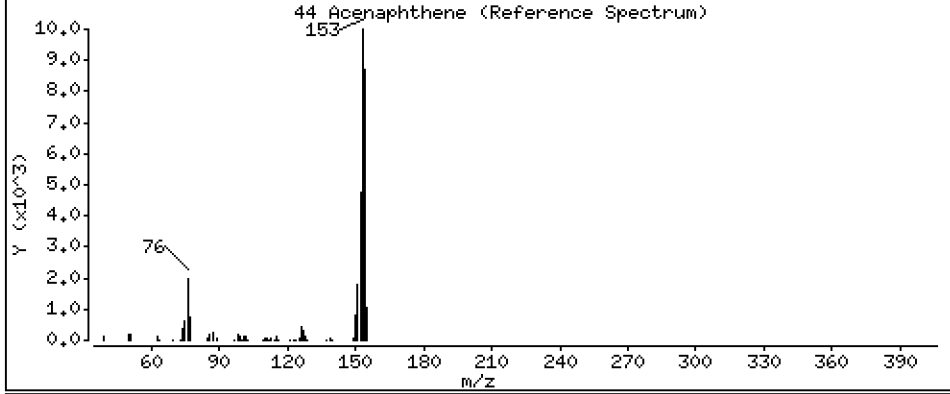
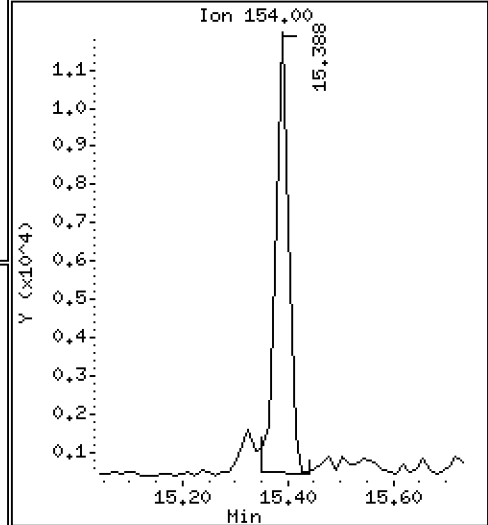
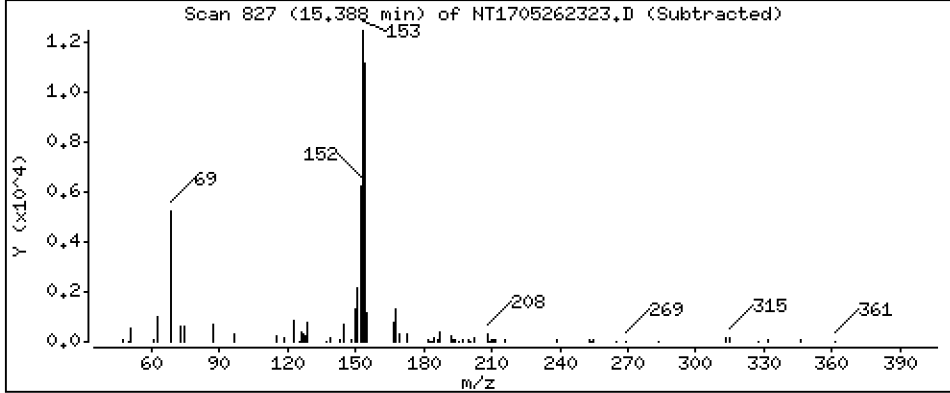
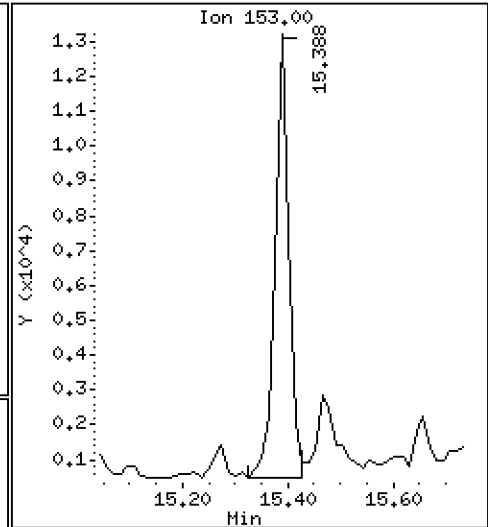
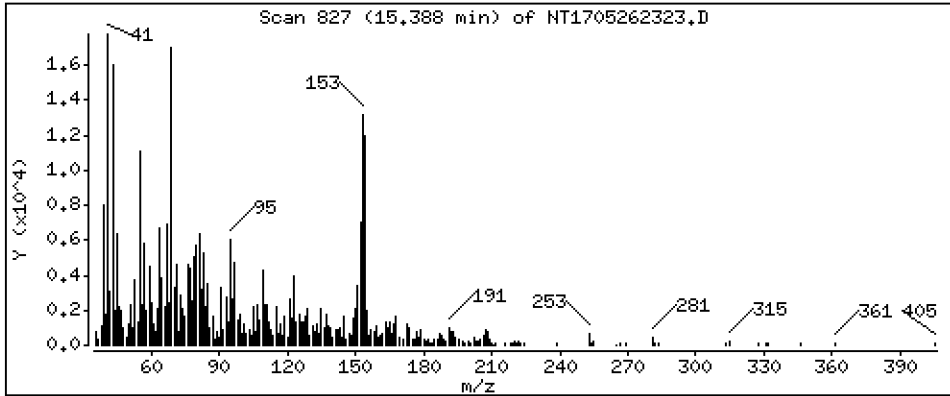
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1458 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

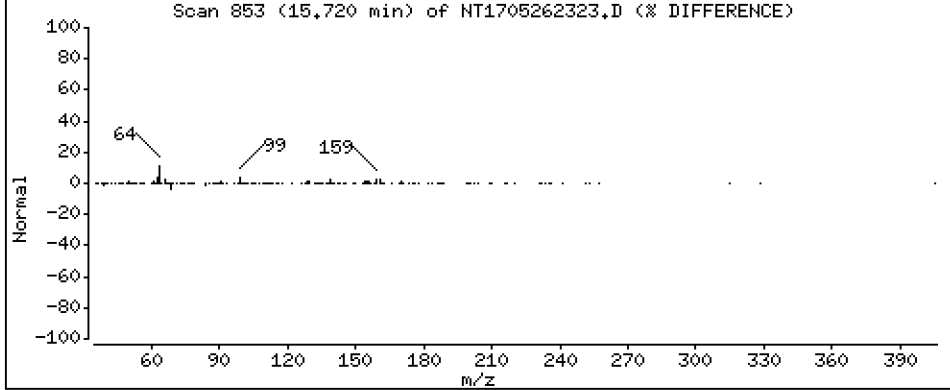
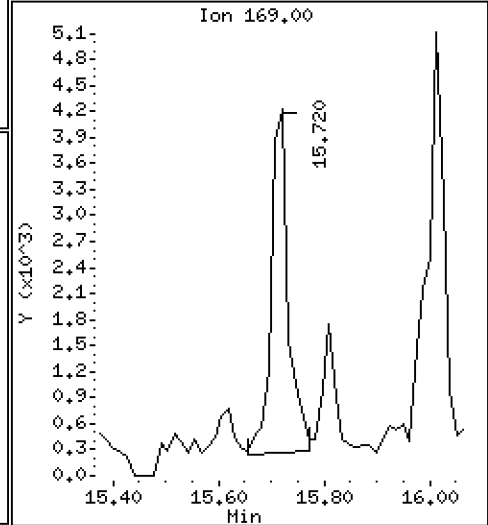
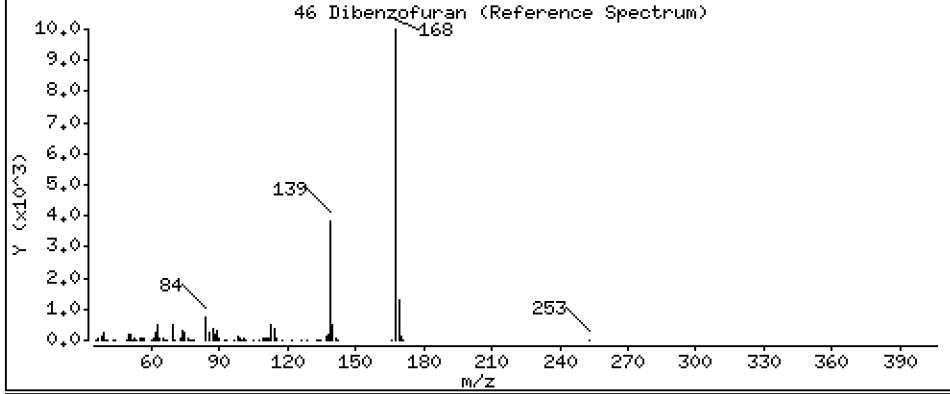
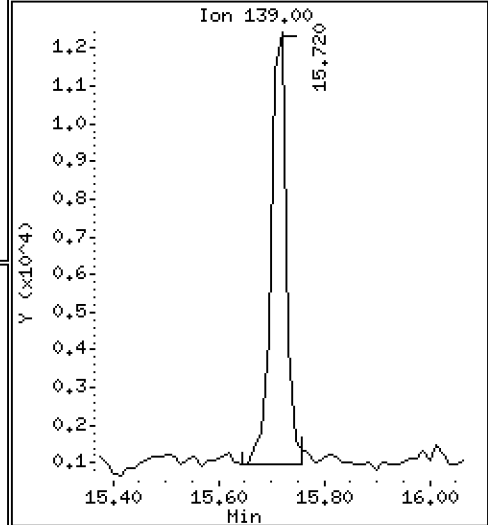
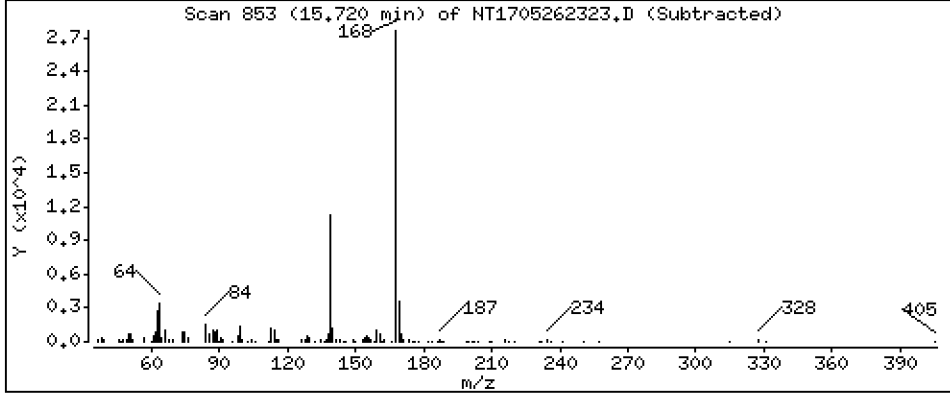
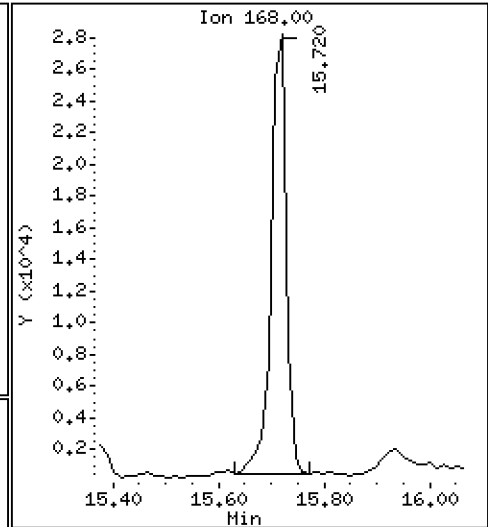
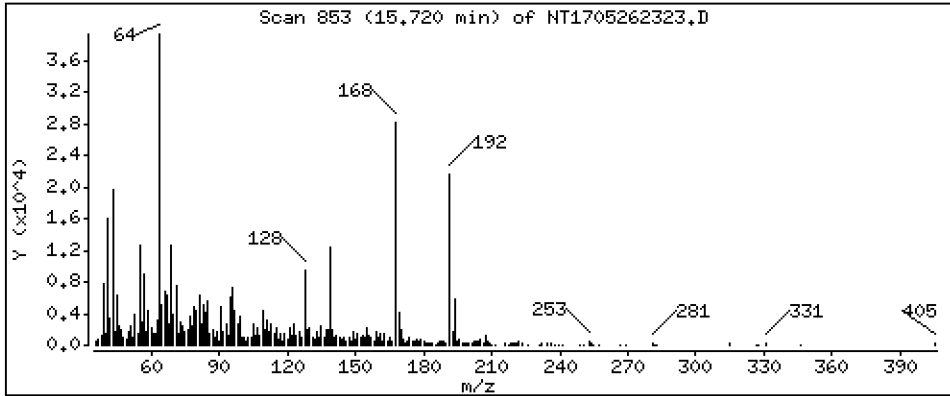
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,2553 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

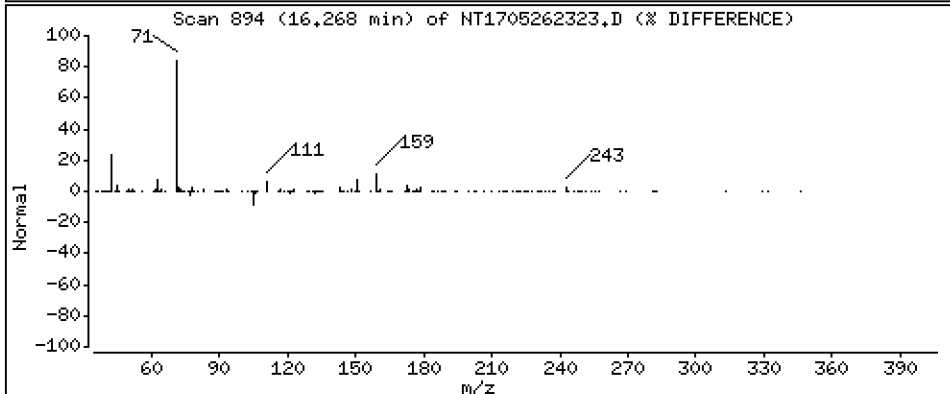
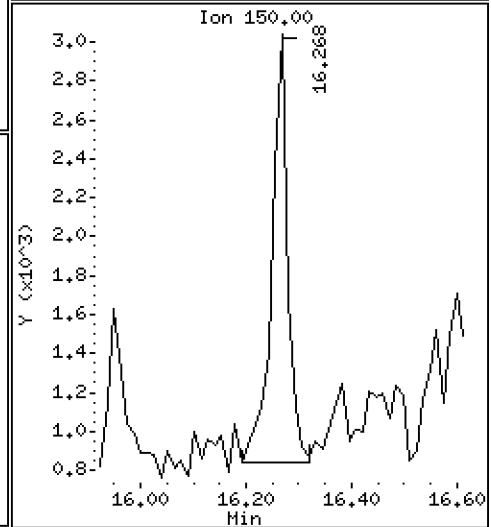
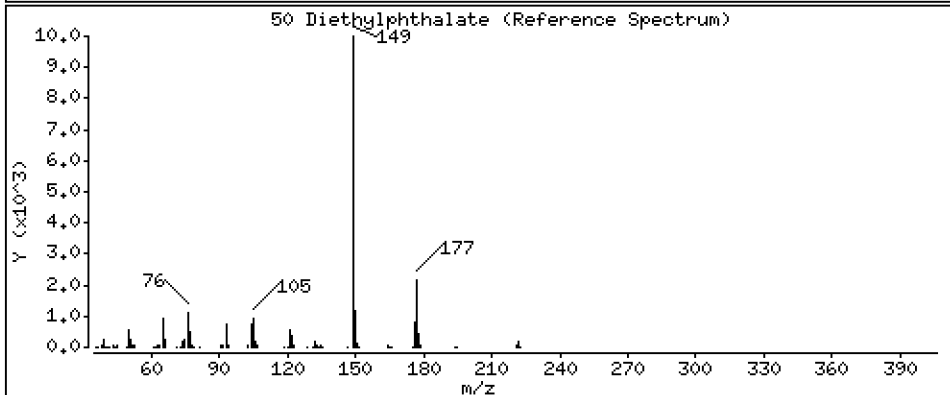
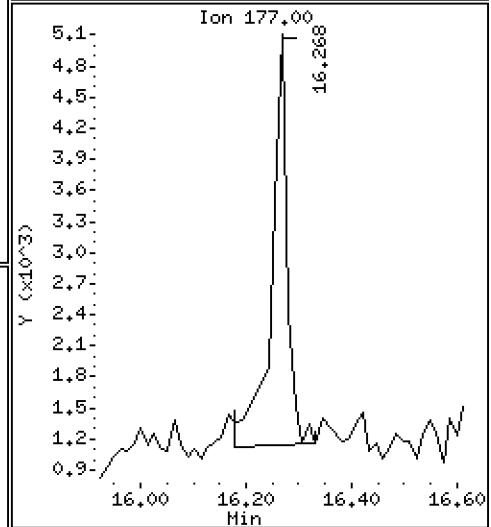
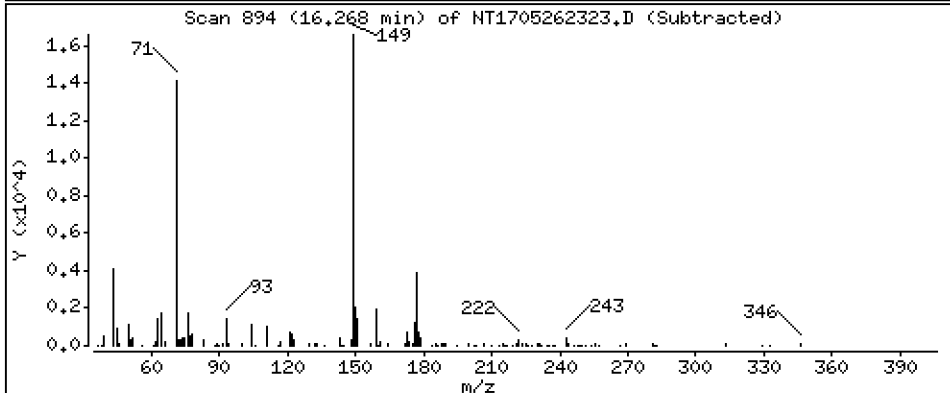
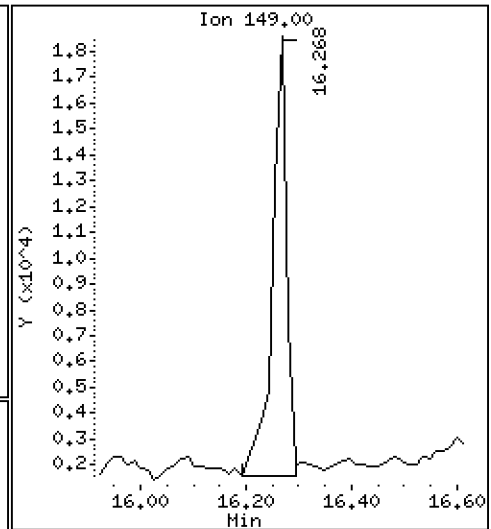
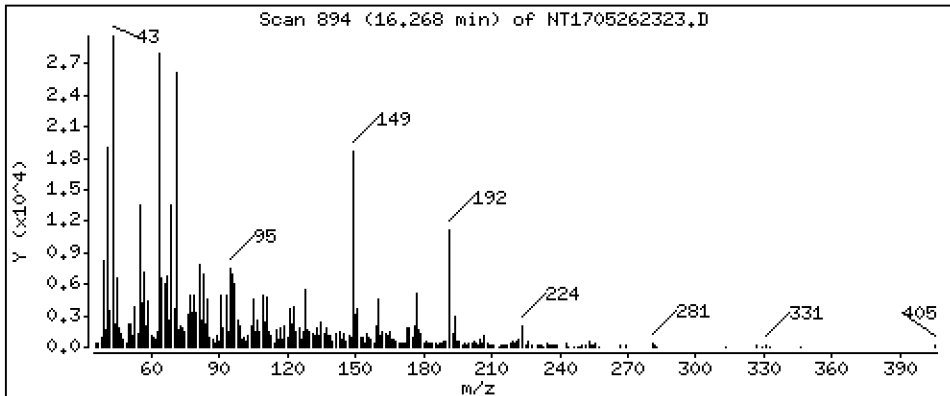
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.2433 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

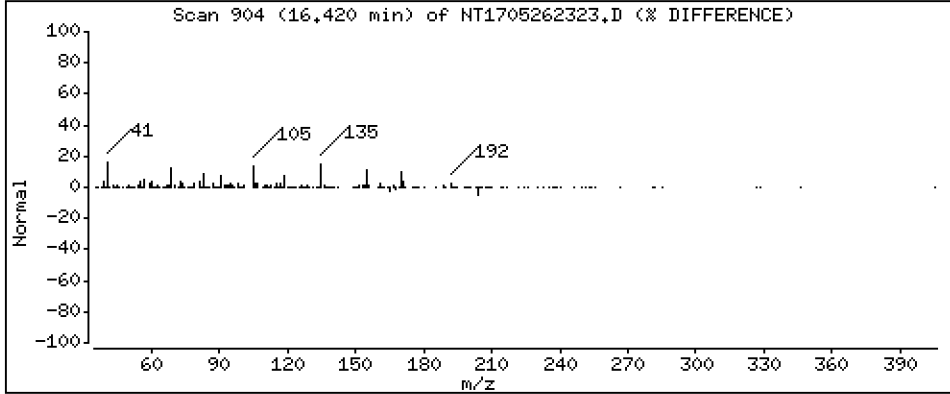
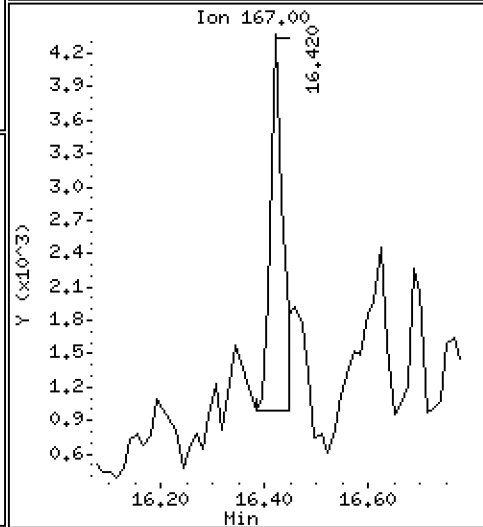
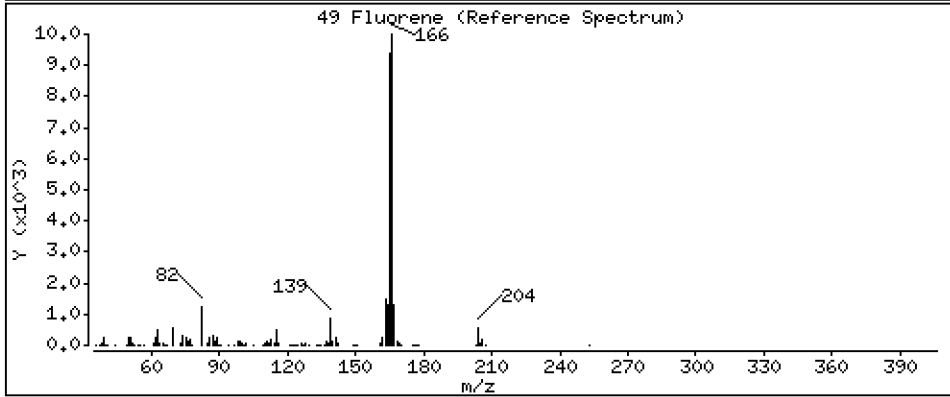
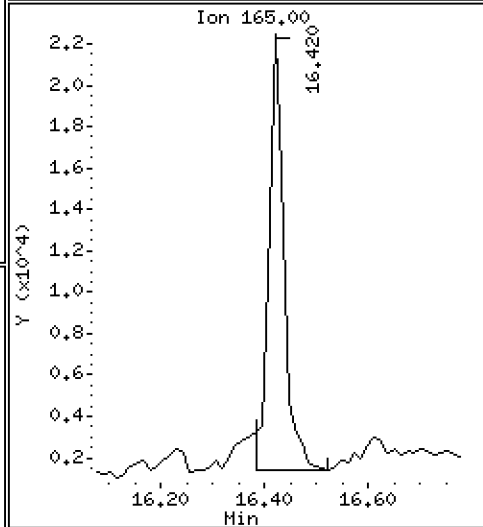
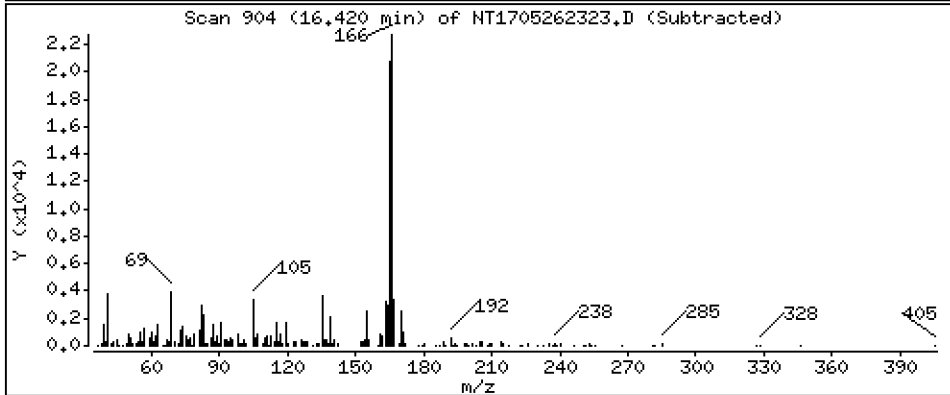
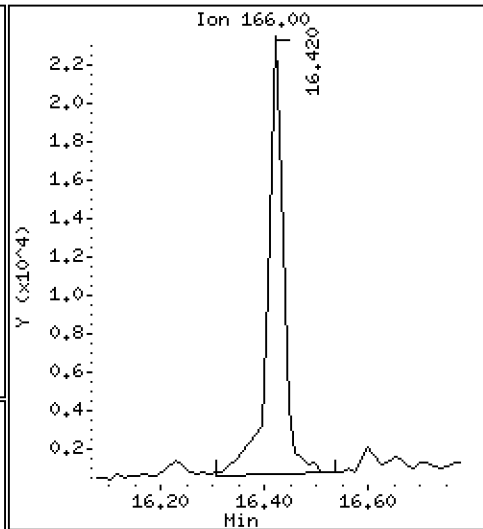
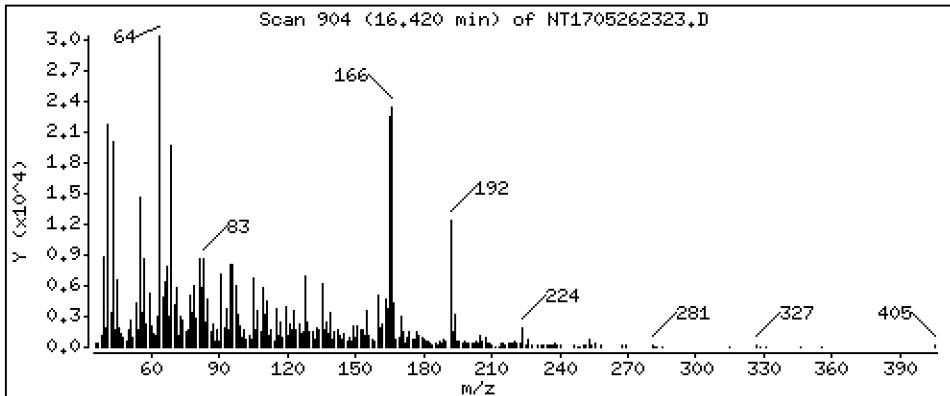
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,2448 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

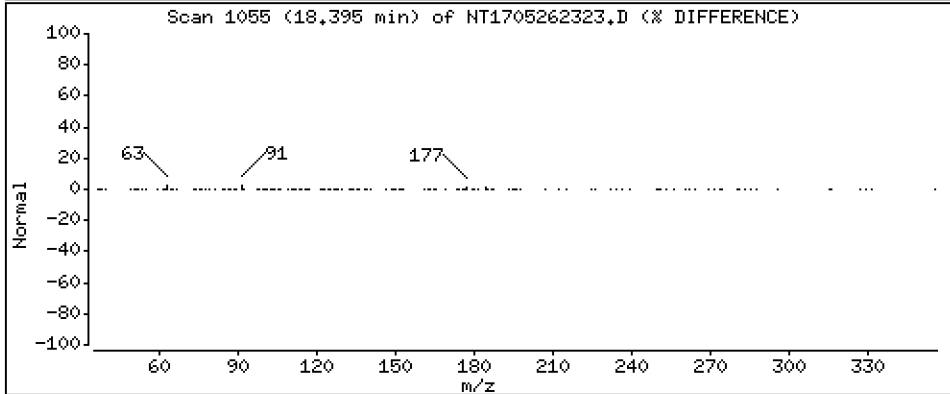
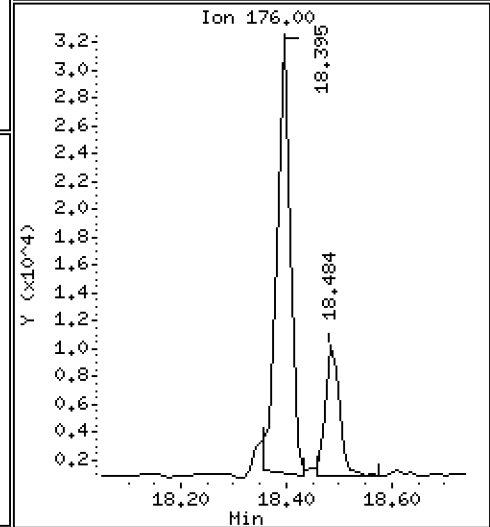
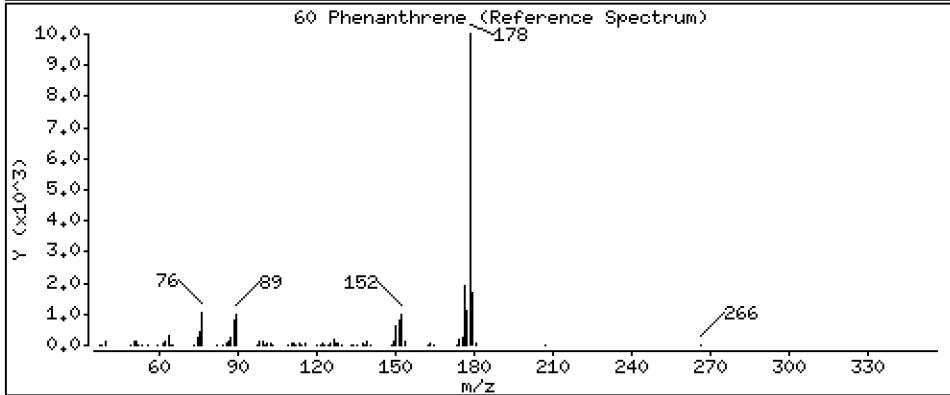
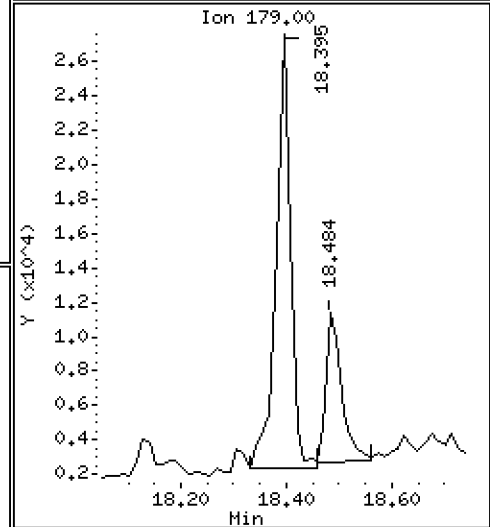
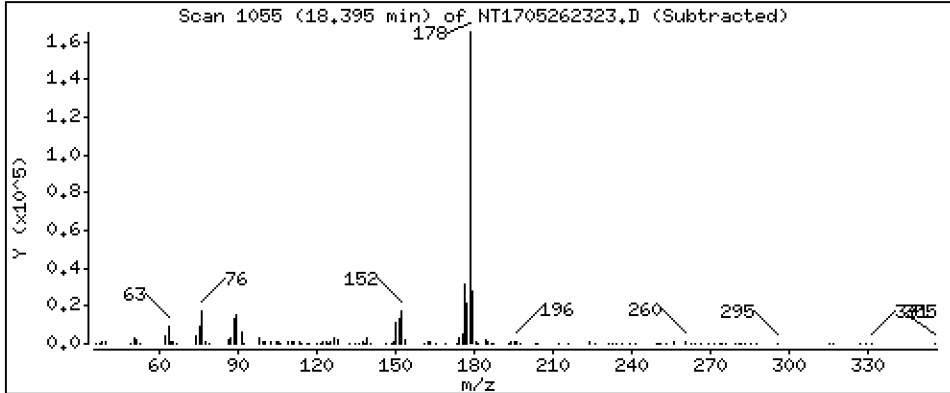
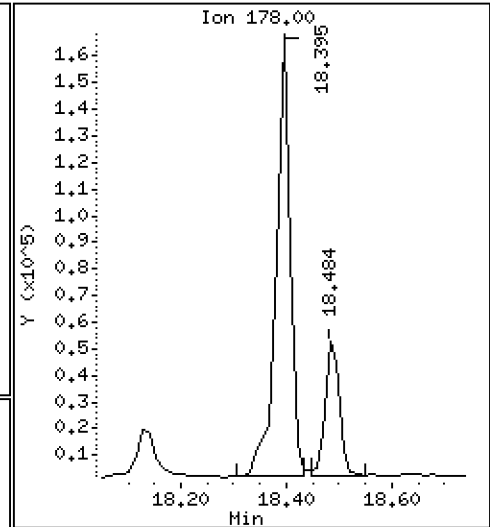
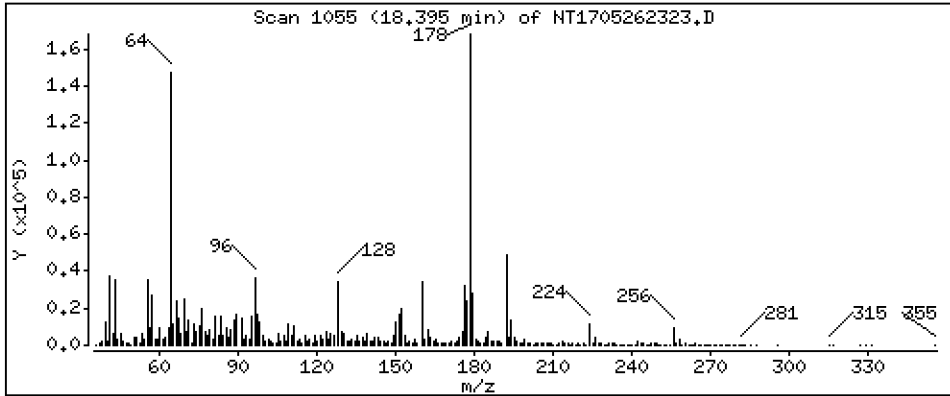
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 1,258 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

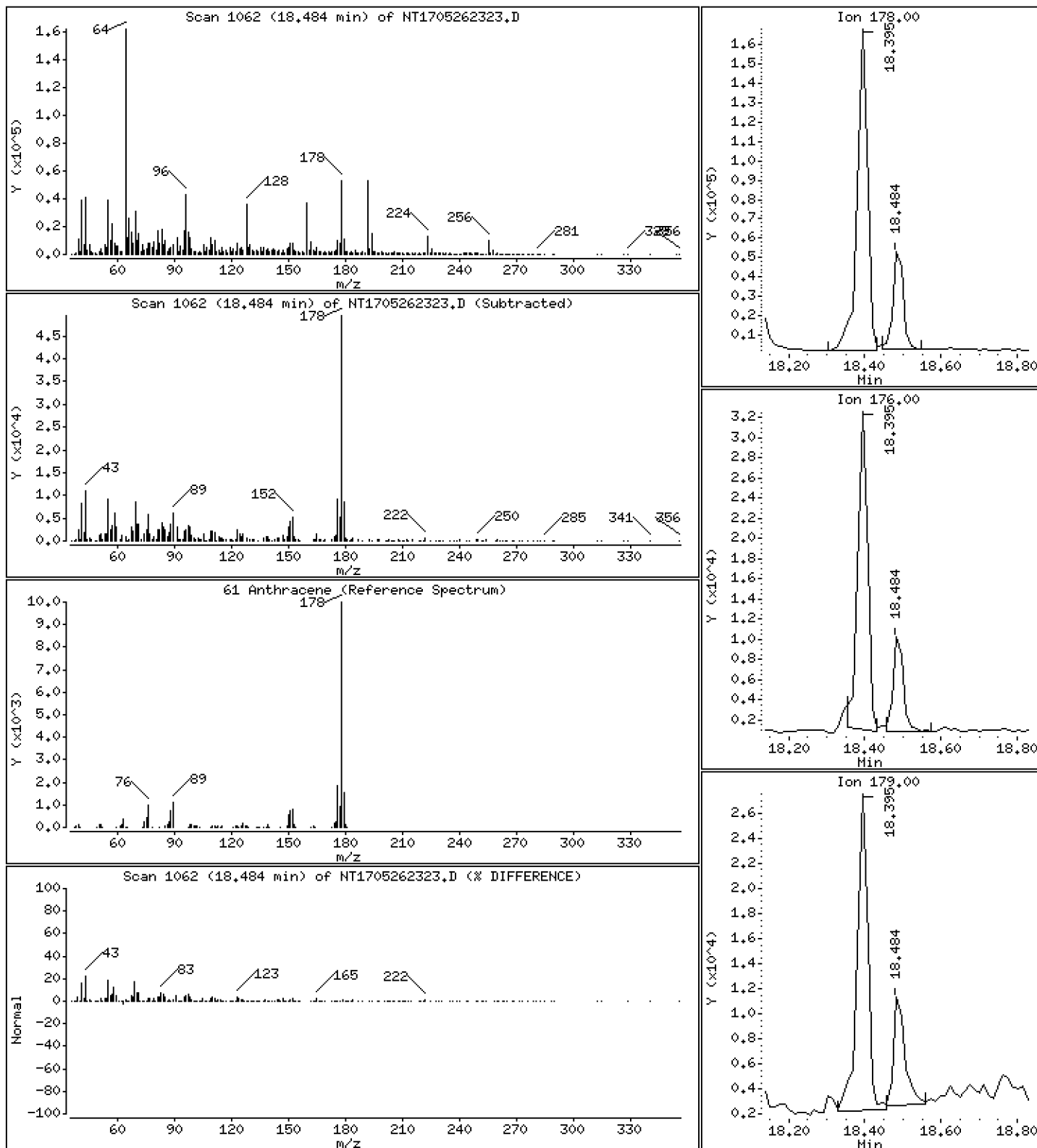
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,4257 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

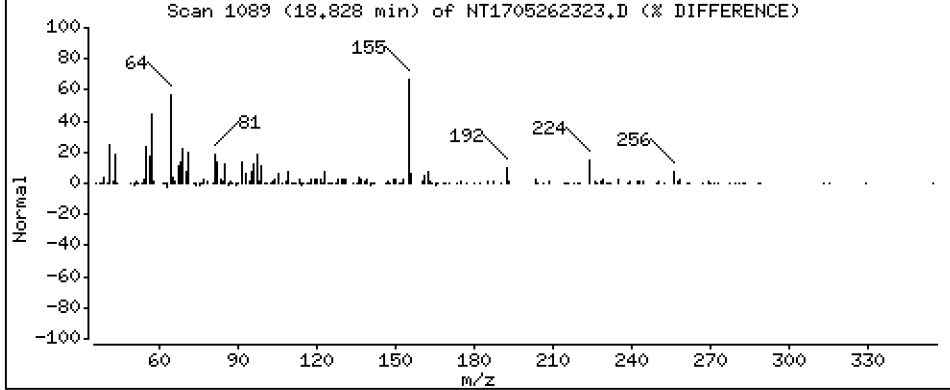
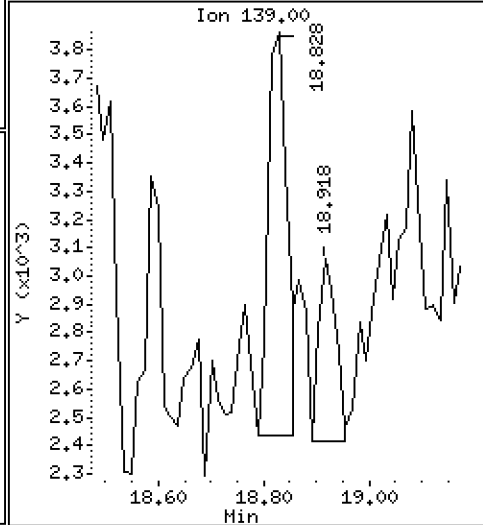
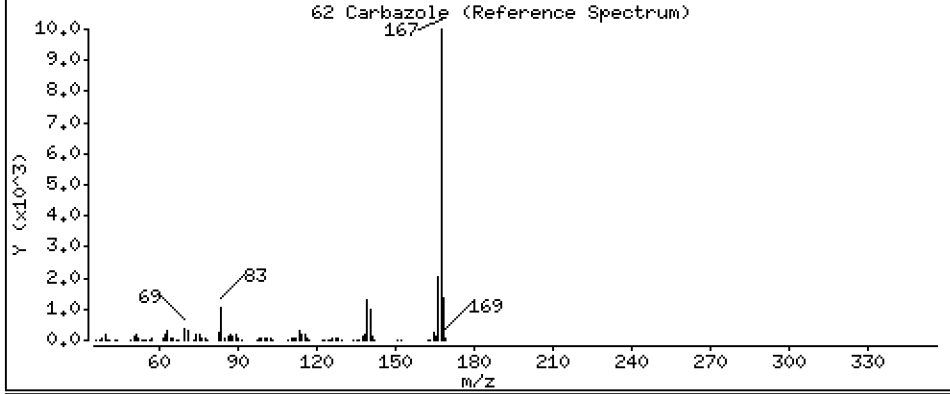
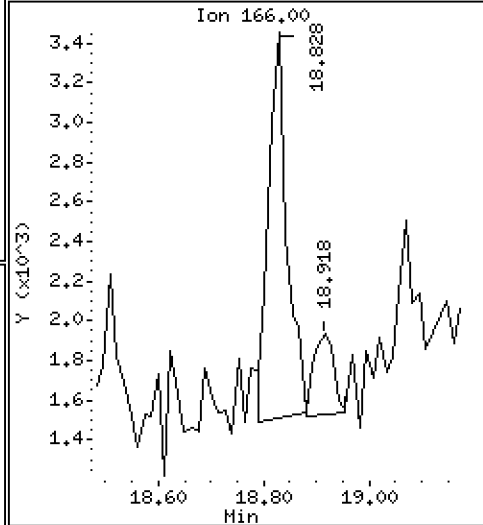
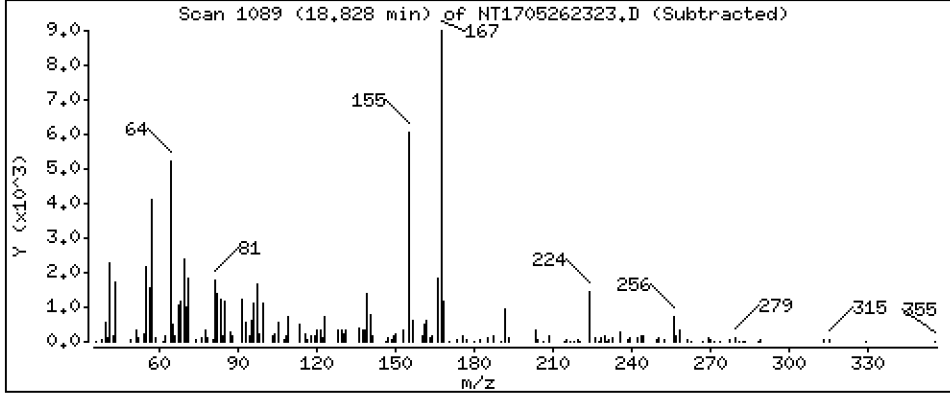
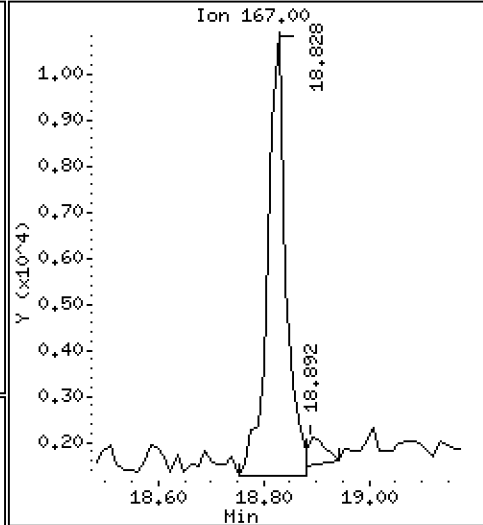
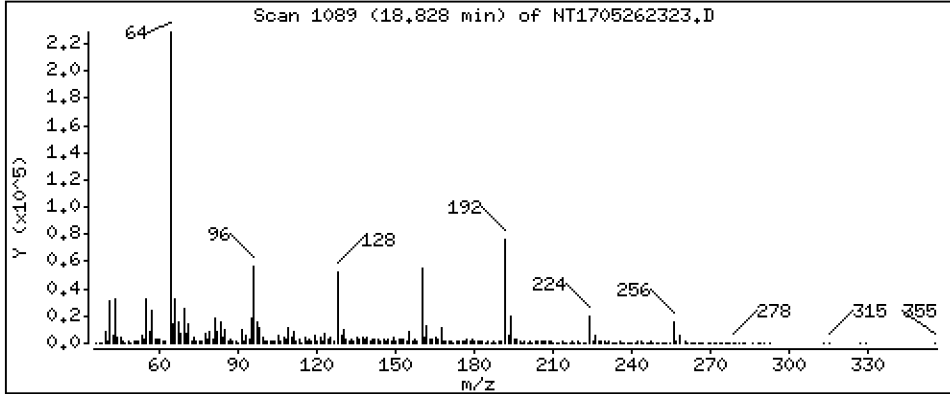
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,1682 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

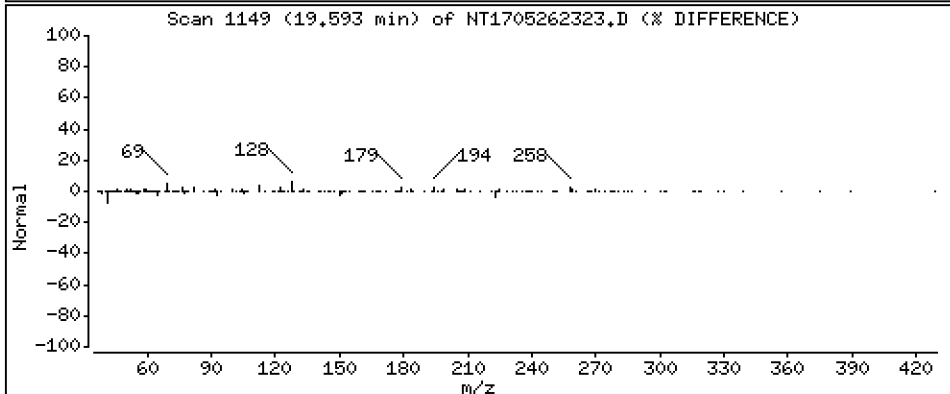
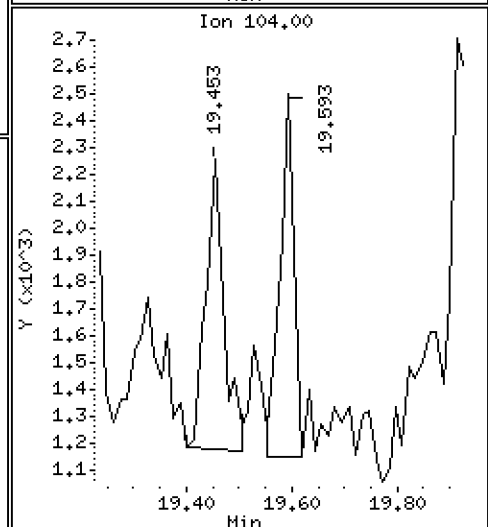
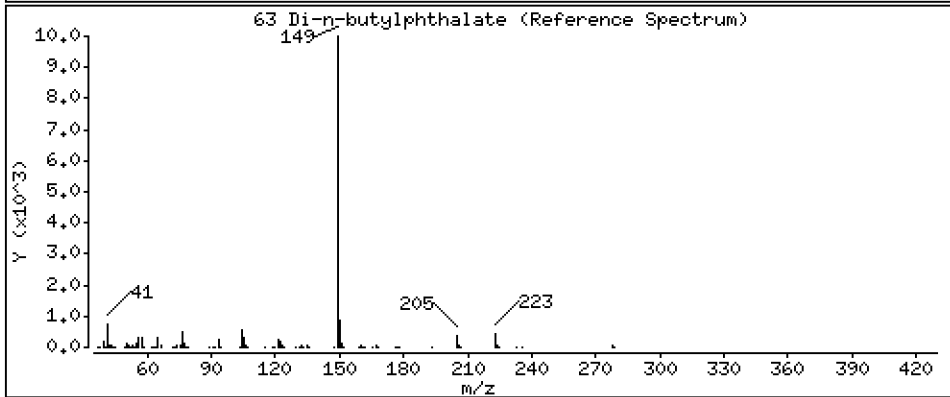
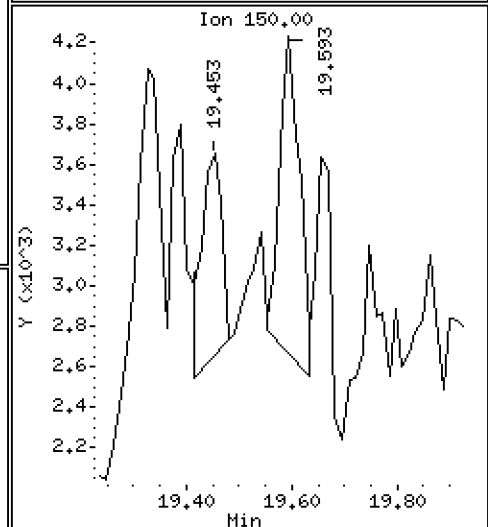
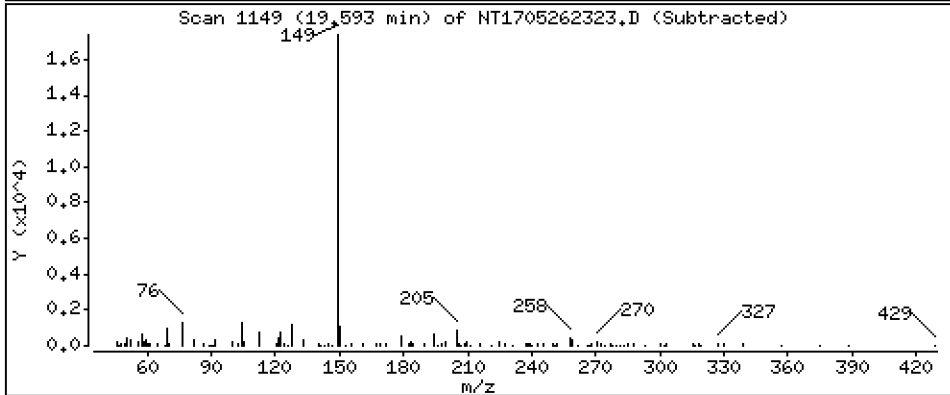
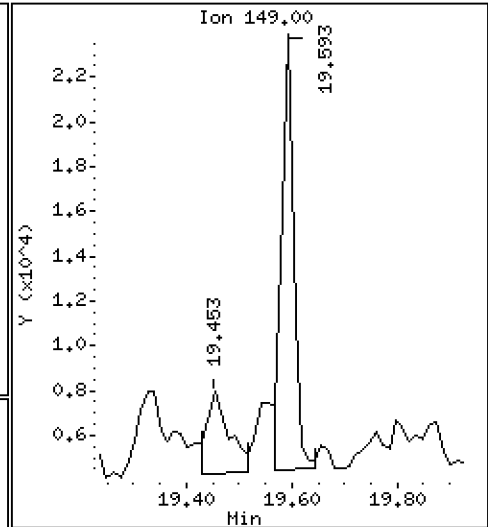
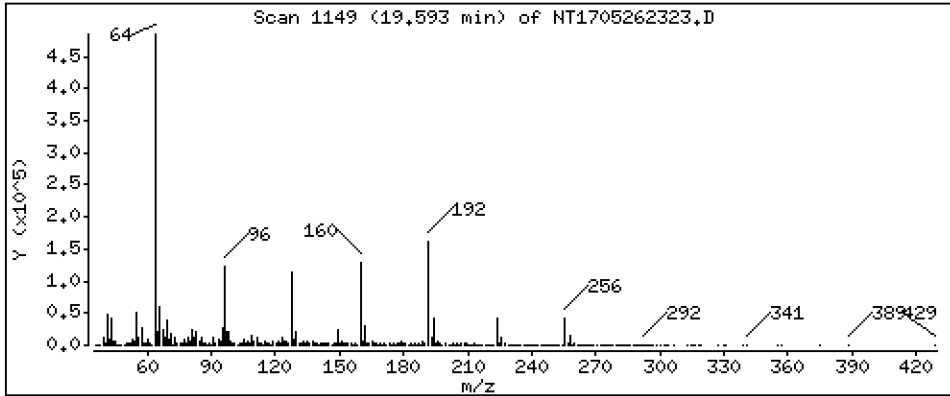
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,1198 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

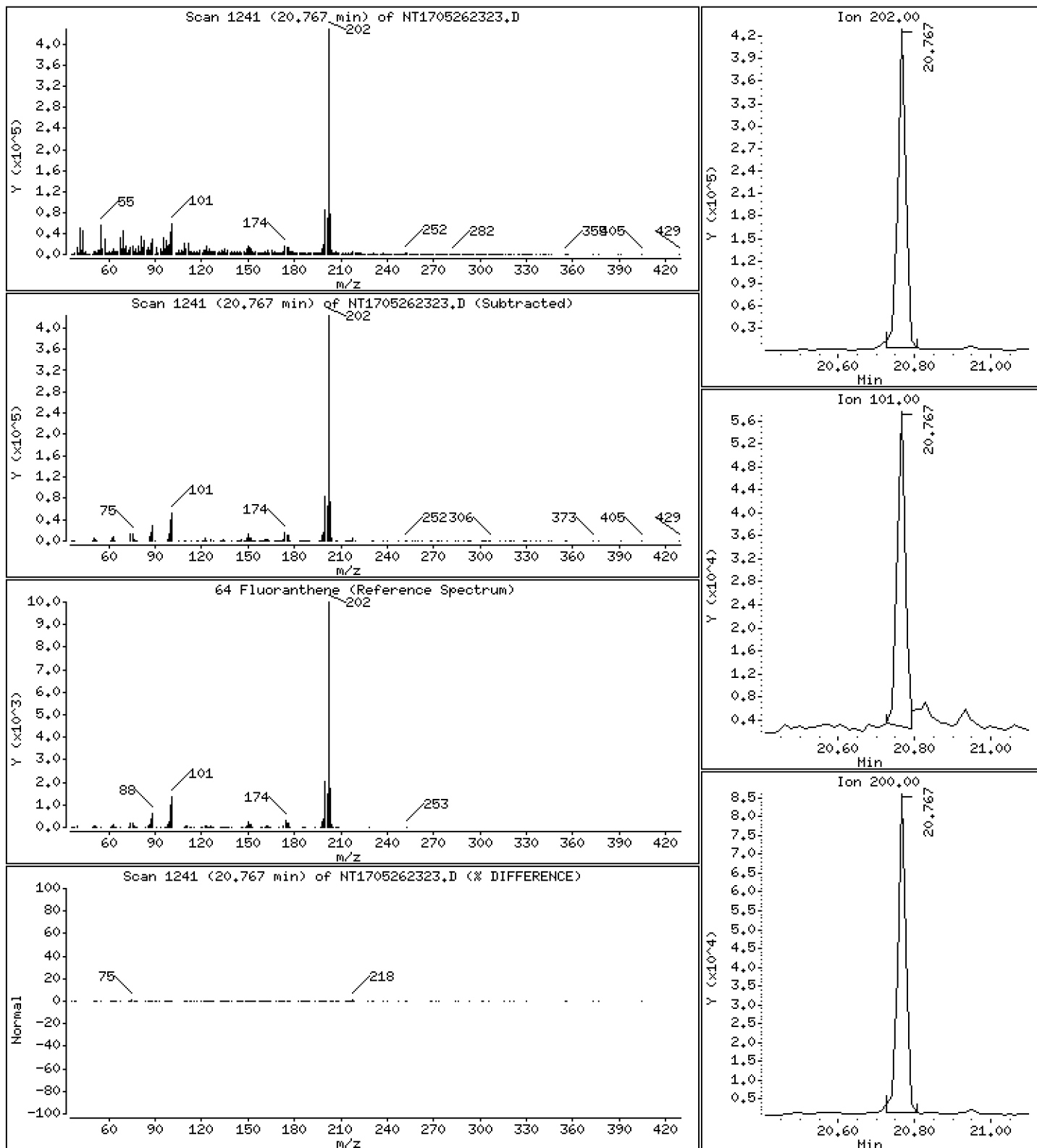
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,024 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

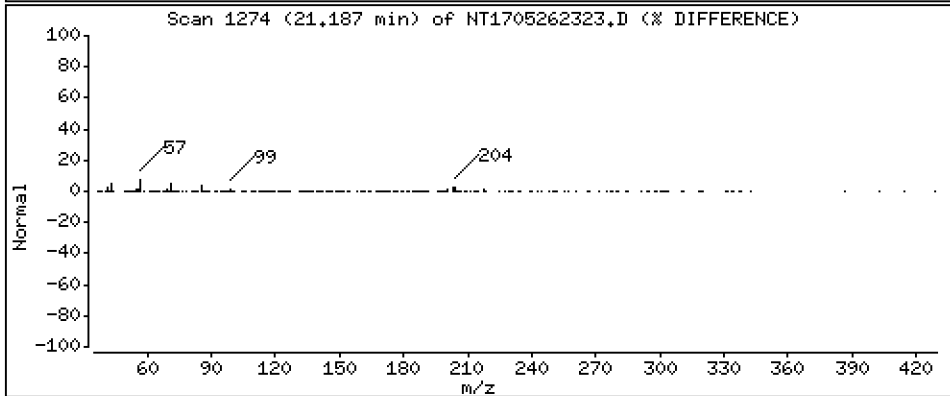
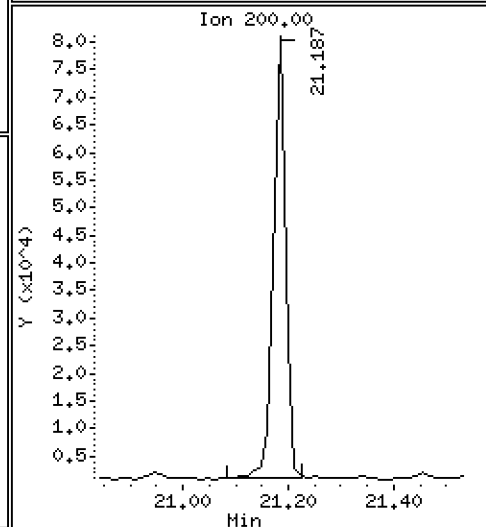
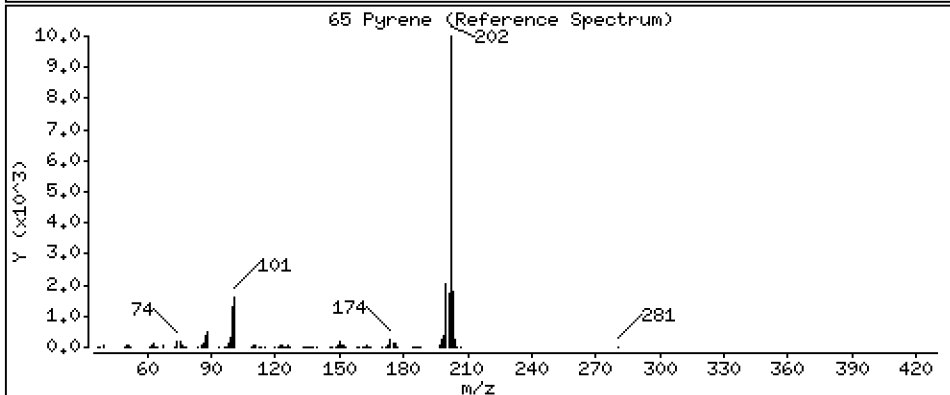
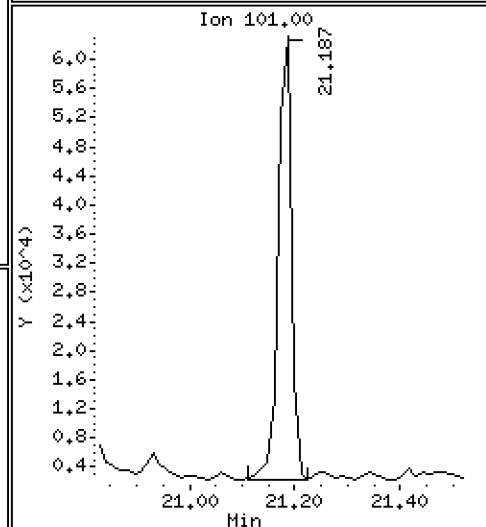
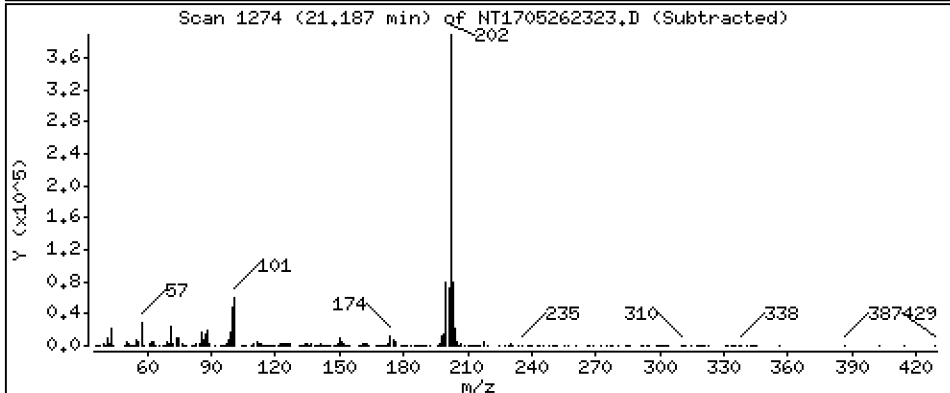
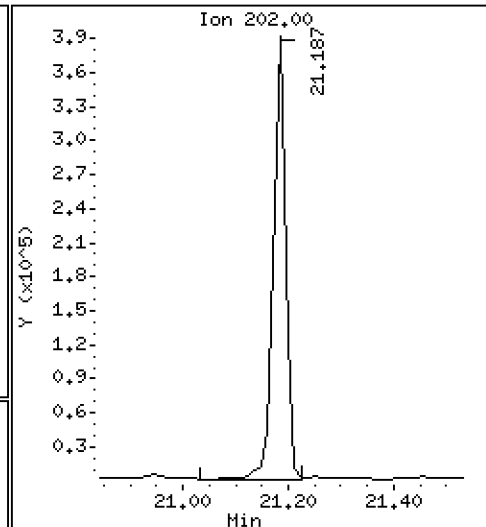
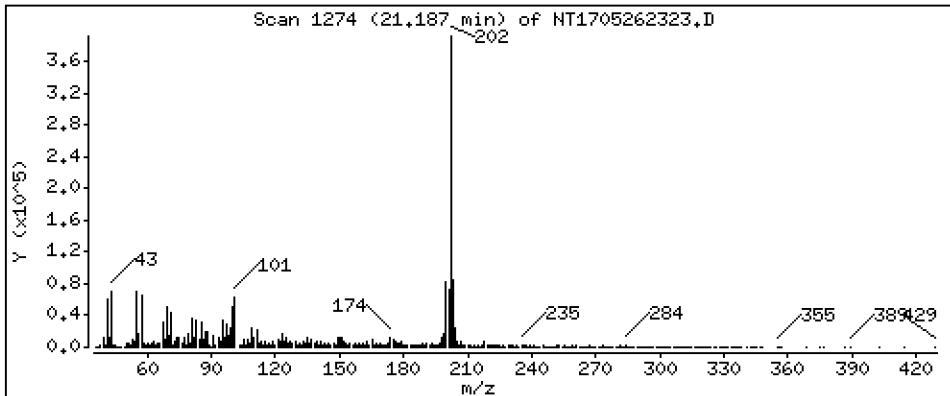
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,066 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

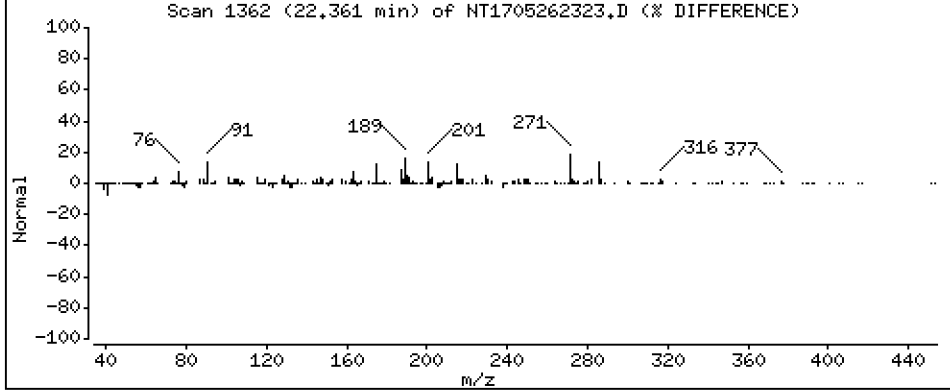
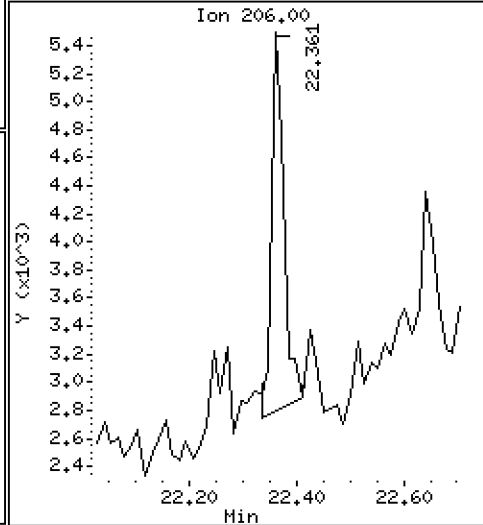
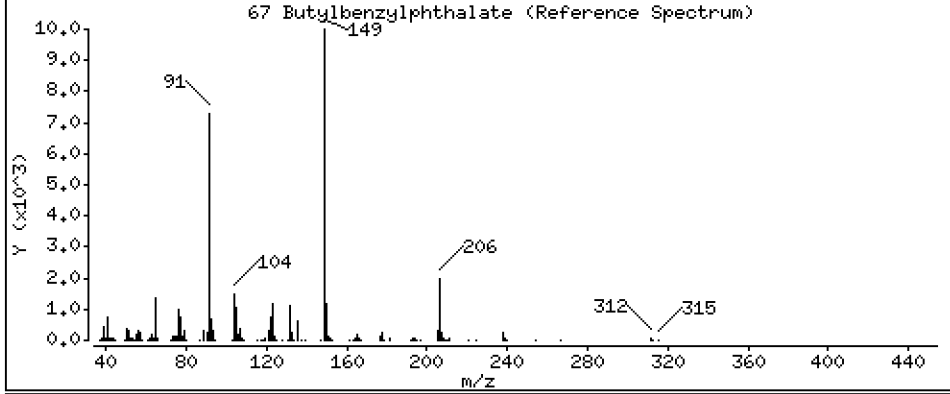
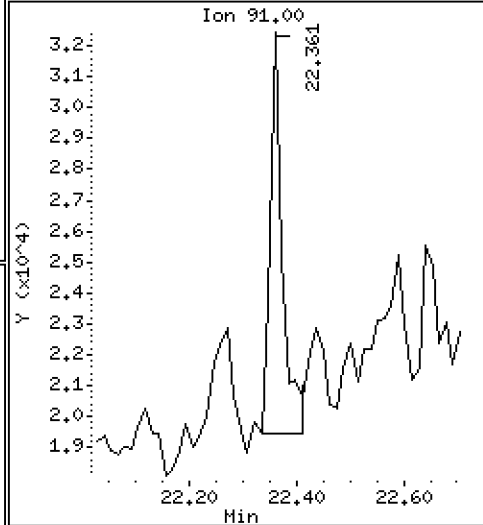
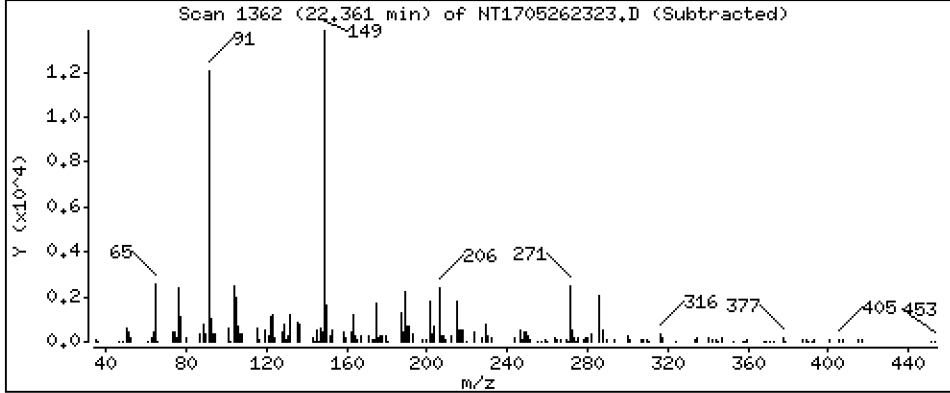
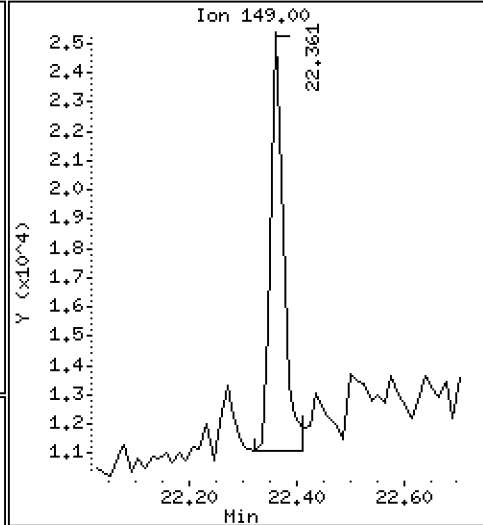
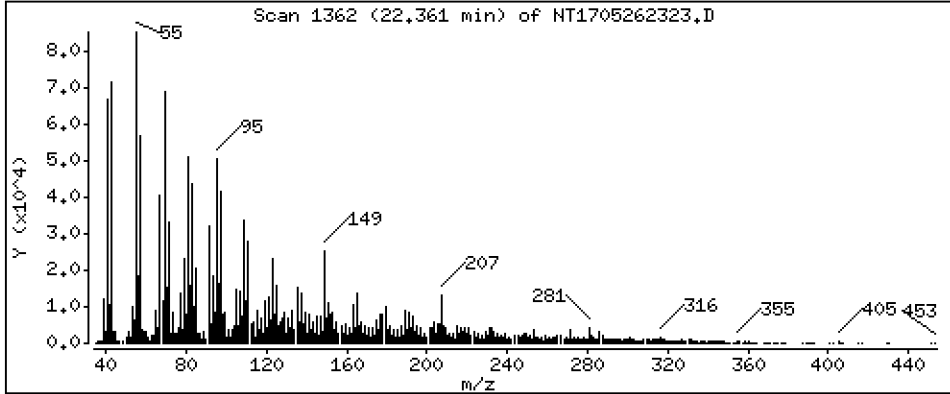
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1780 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

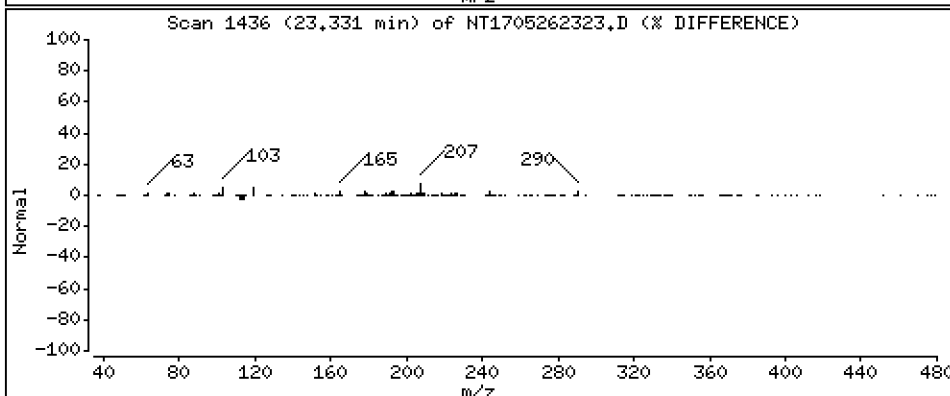
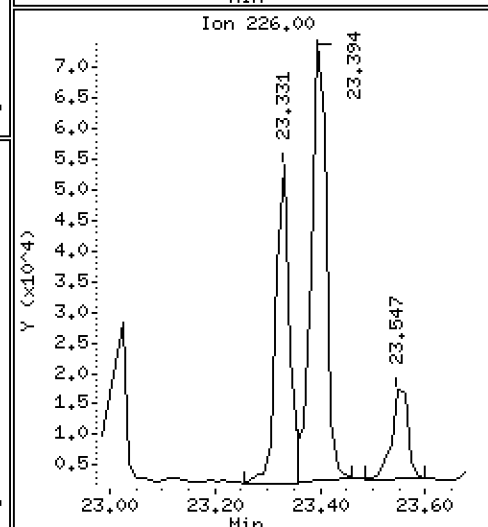
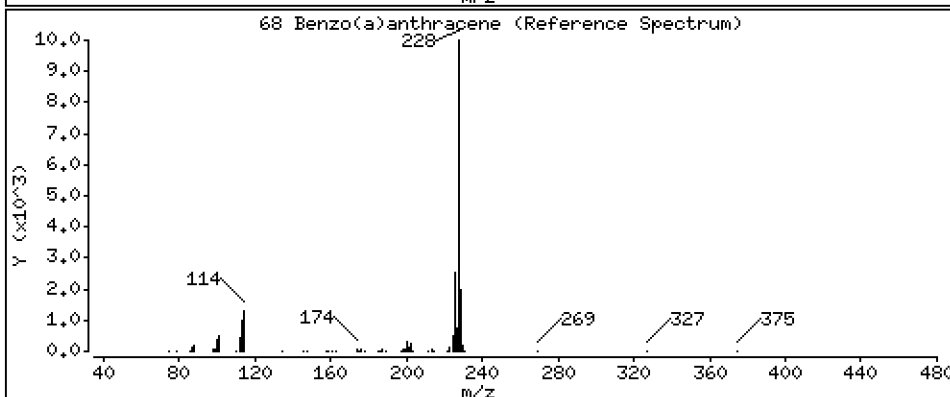
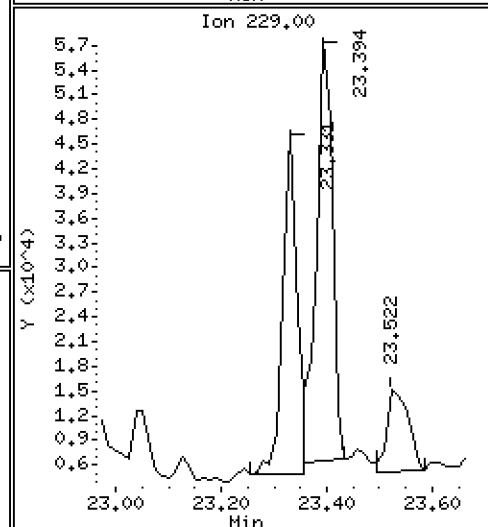
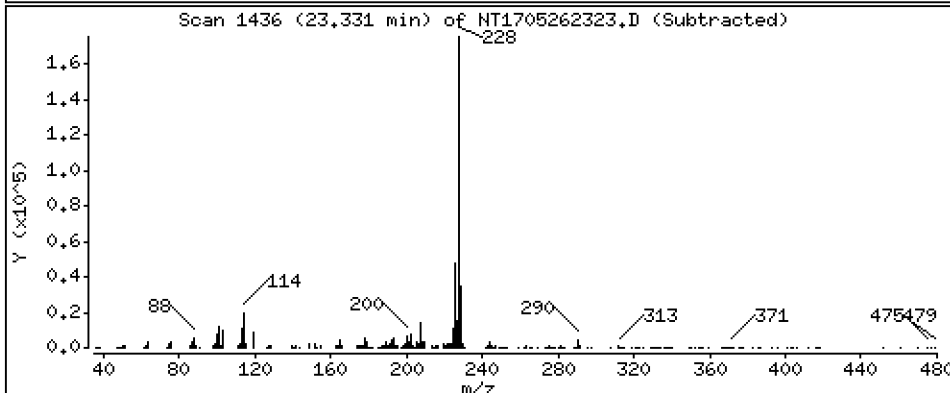
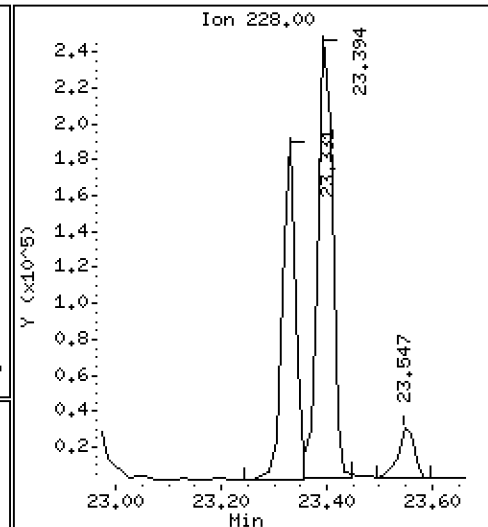
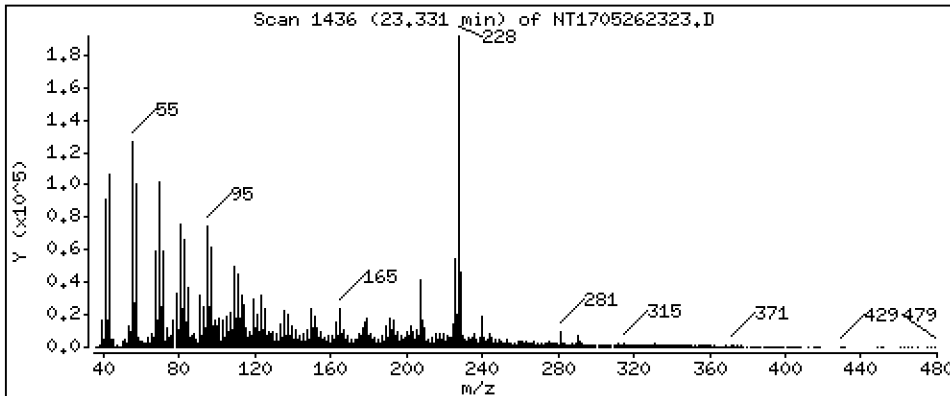
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,359 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

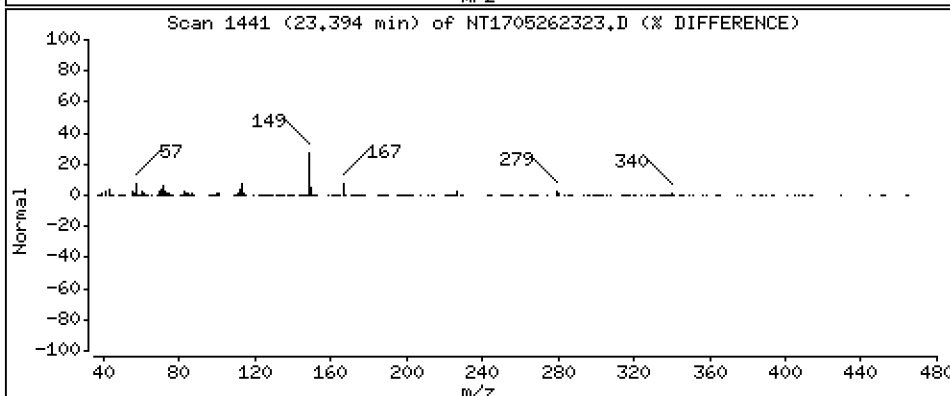
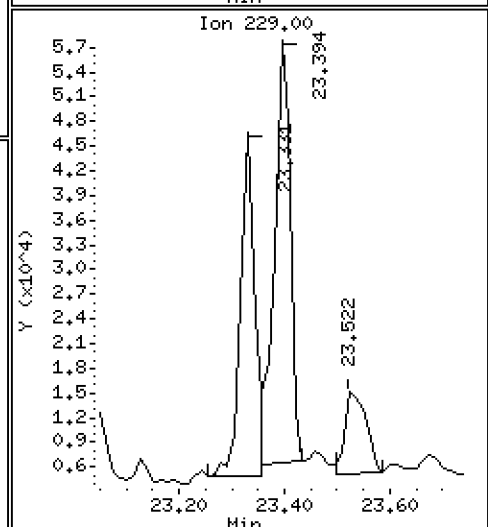
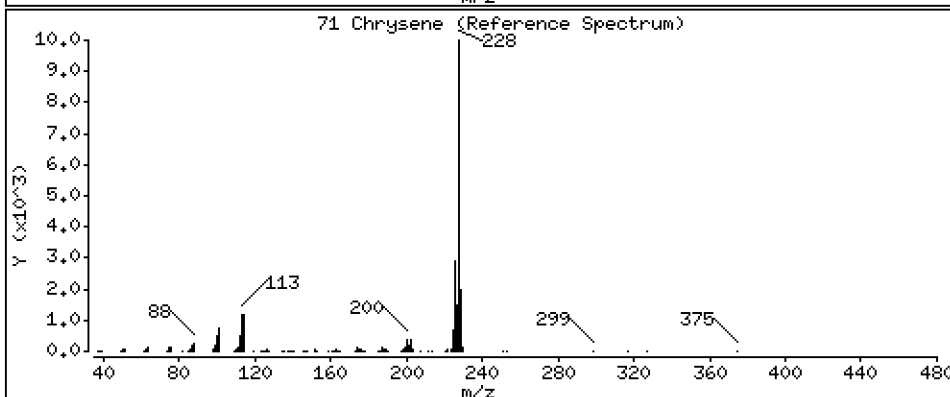
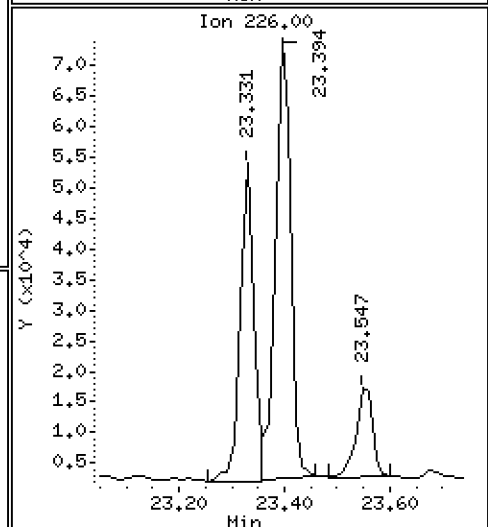
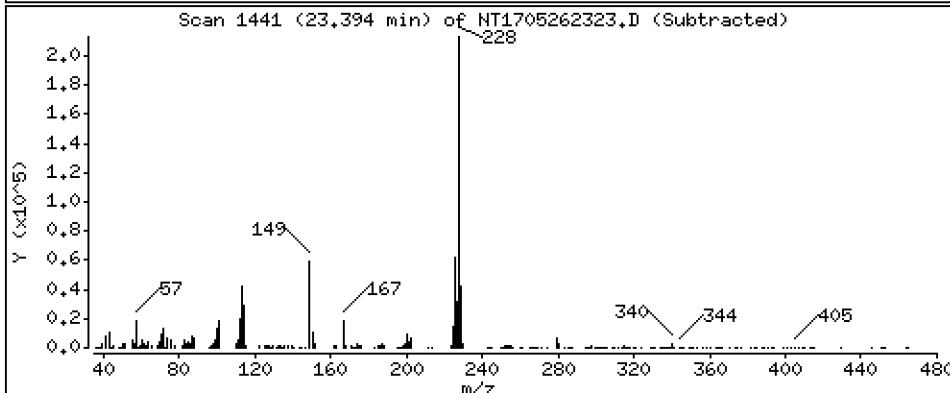
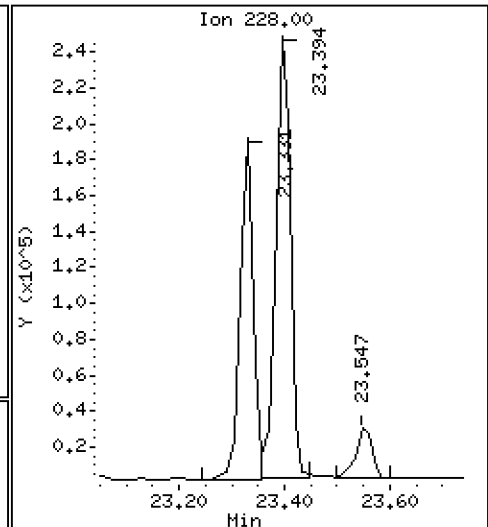
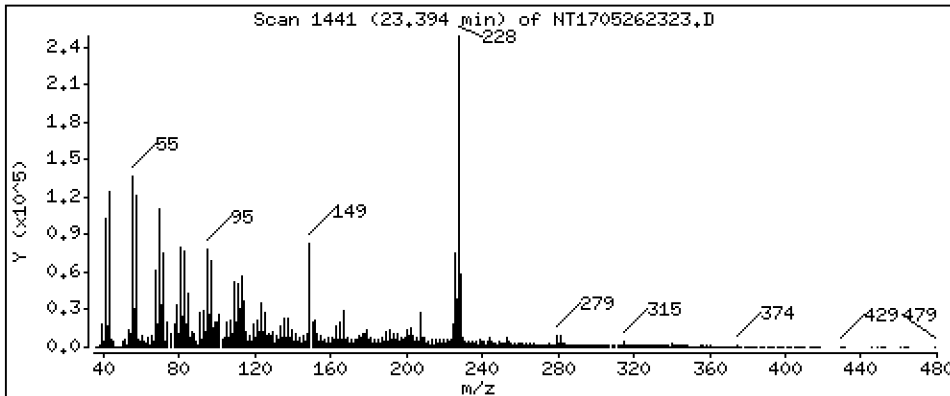
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 2,108 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

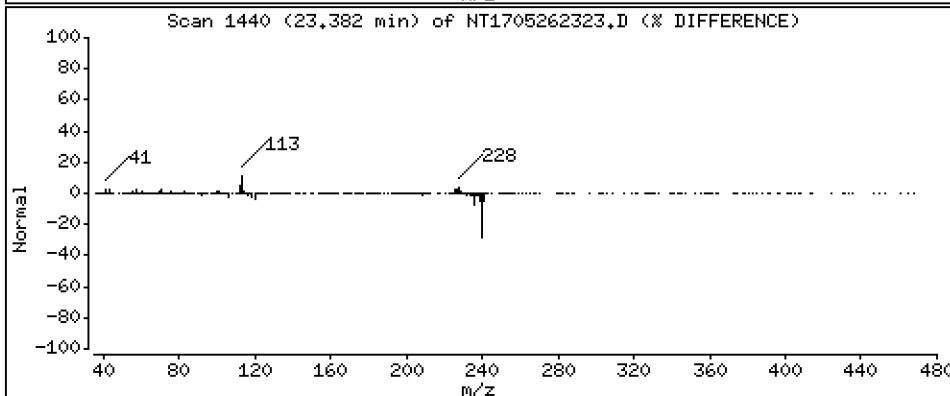
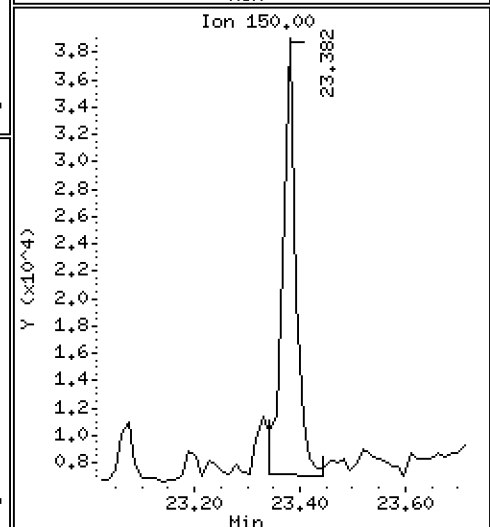
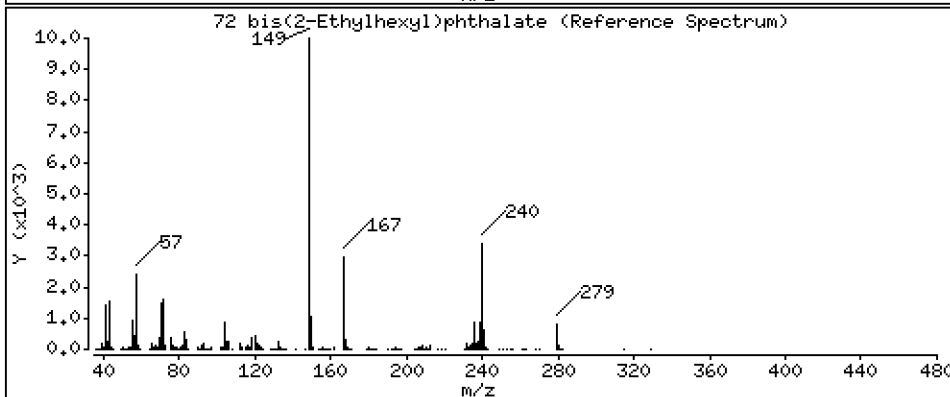
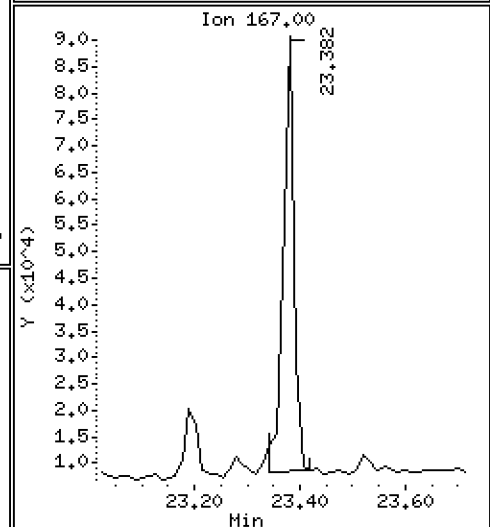
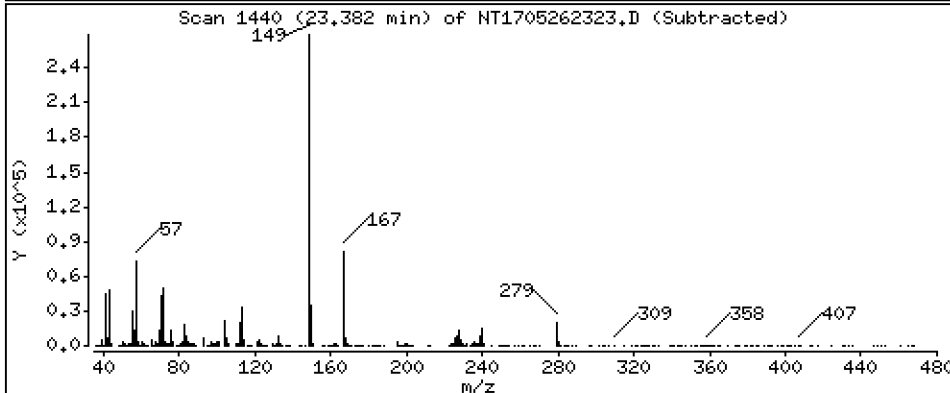
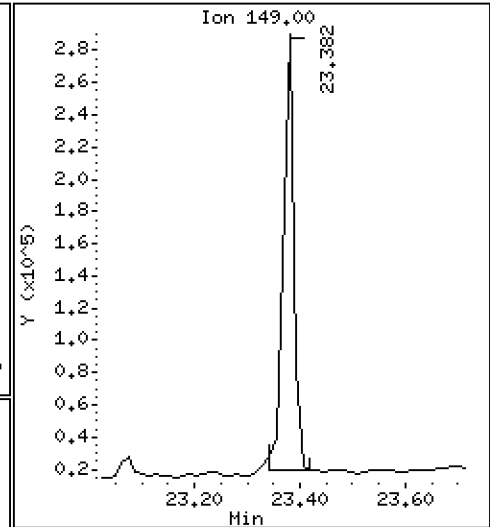
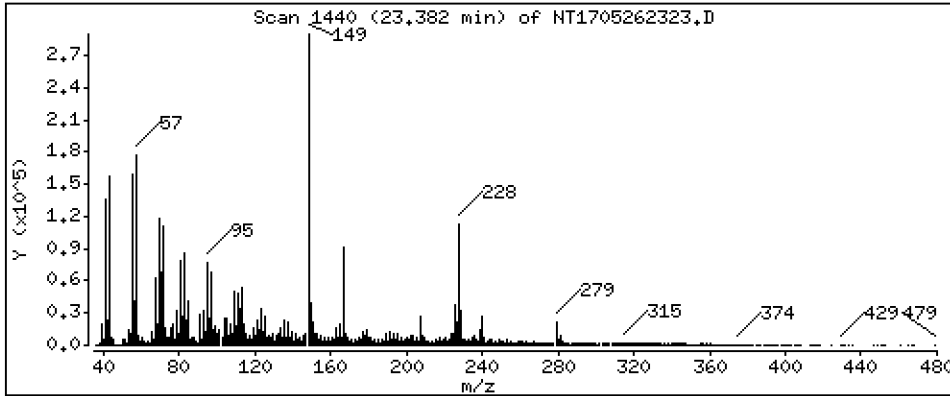
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,923 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

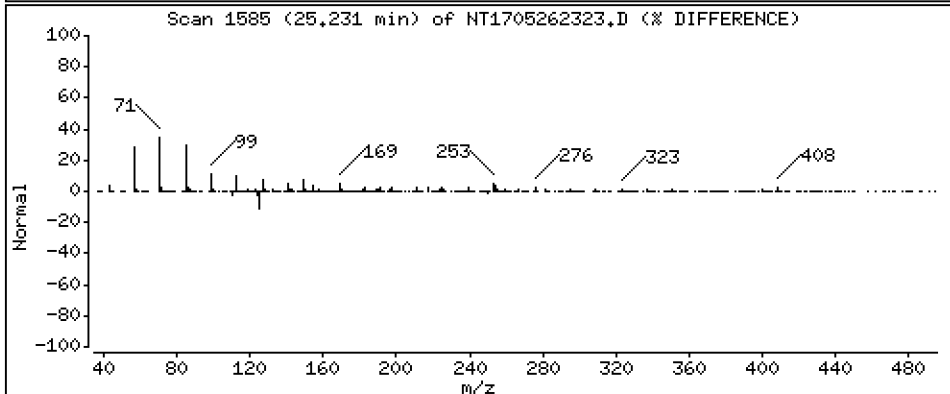
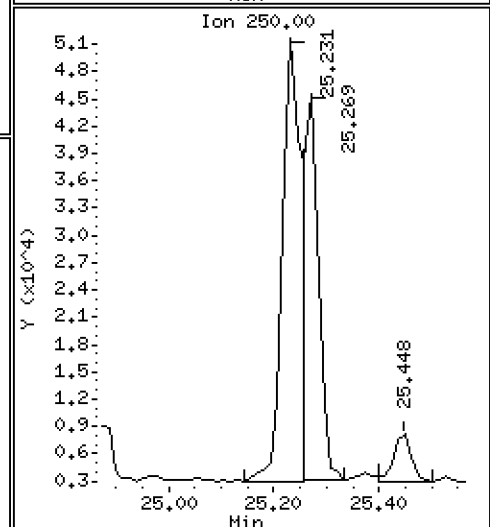
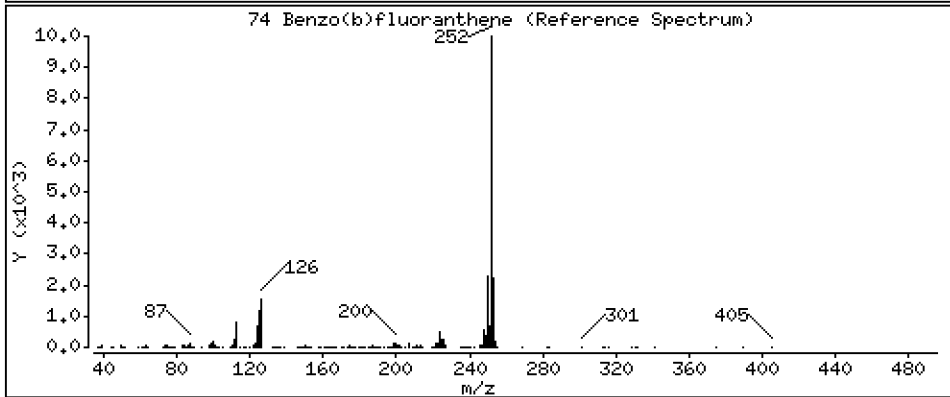
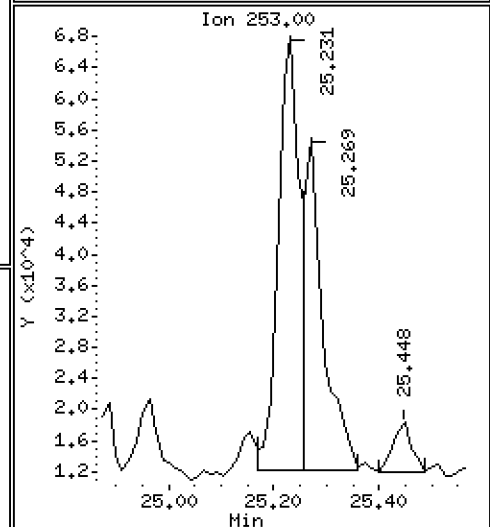
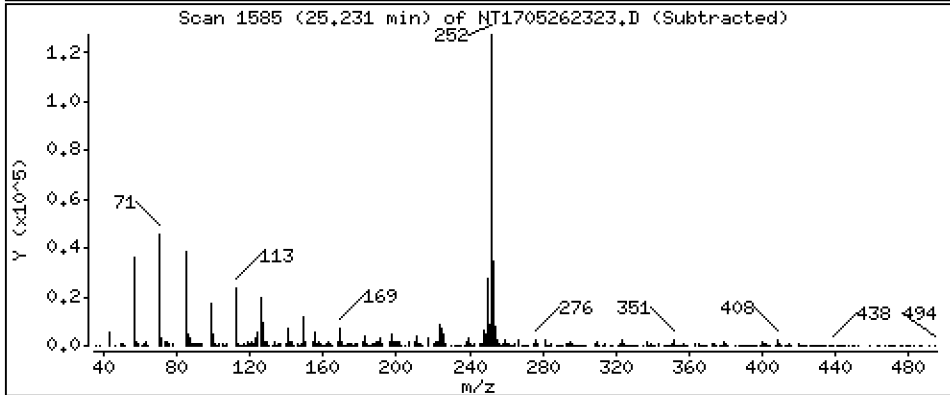
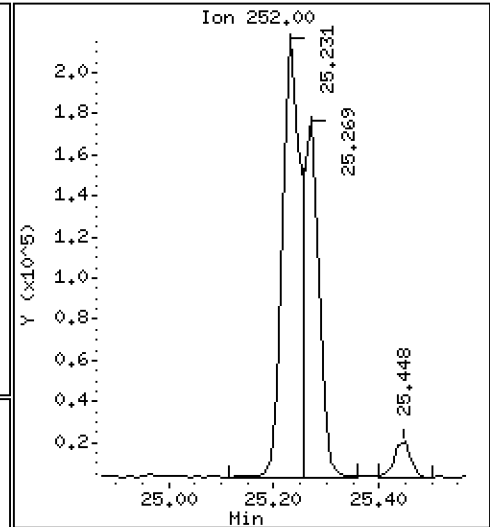
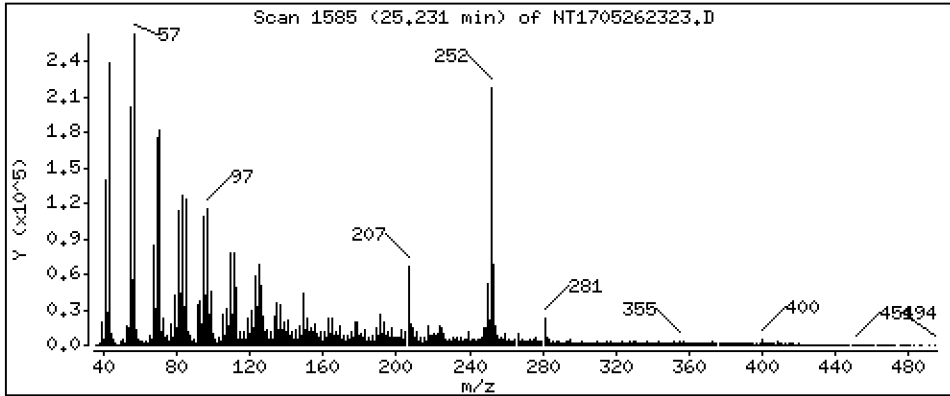
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 2,791 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

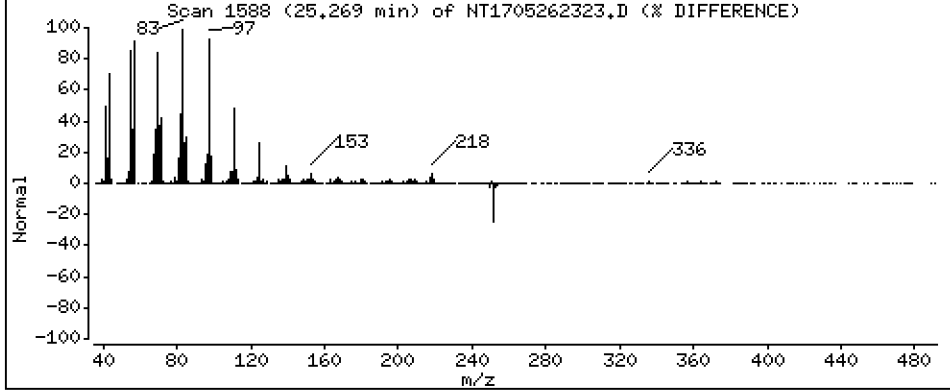
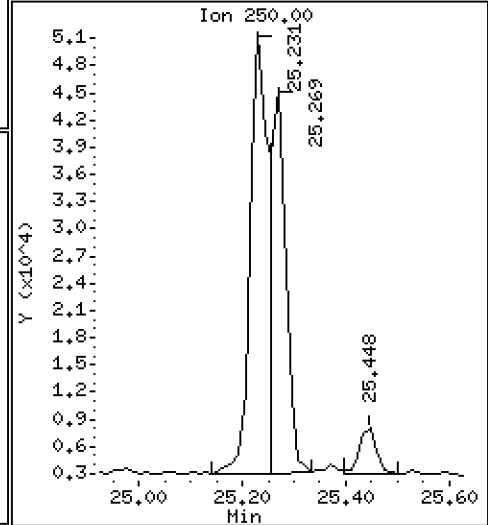
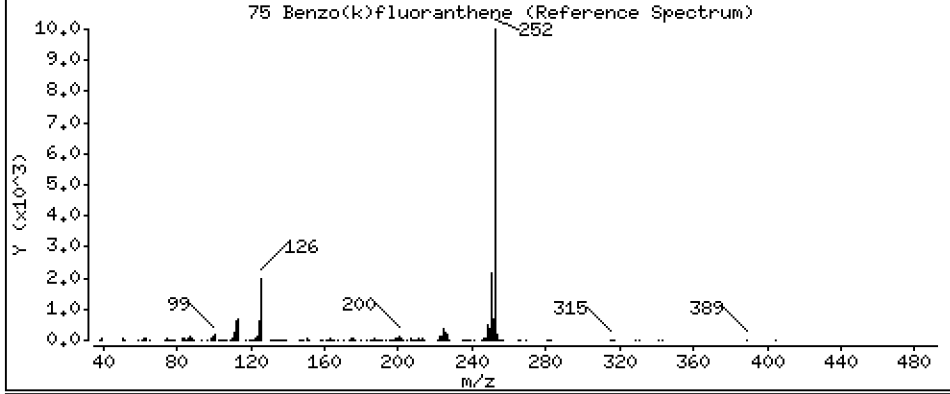
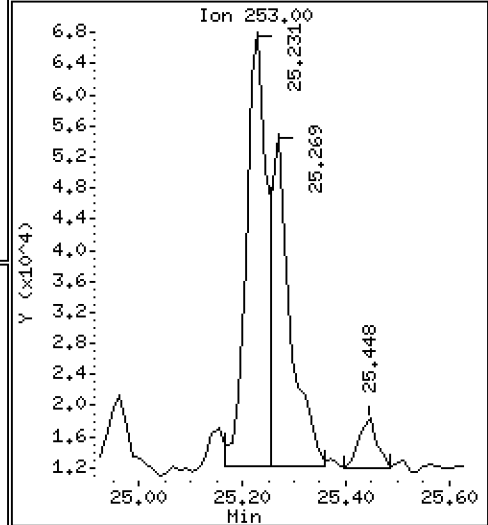
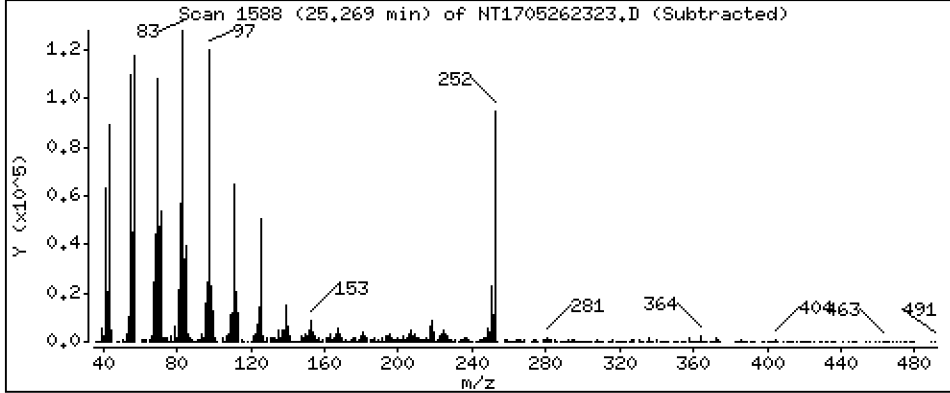
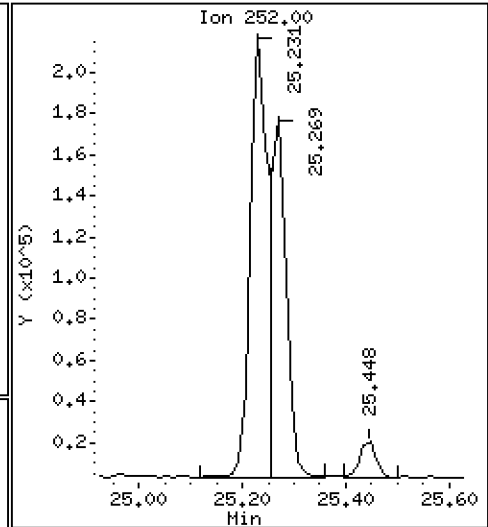
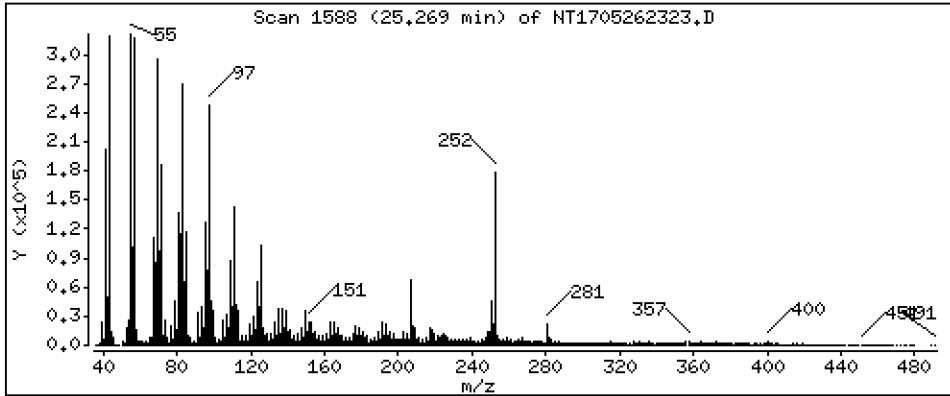
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,970 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

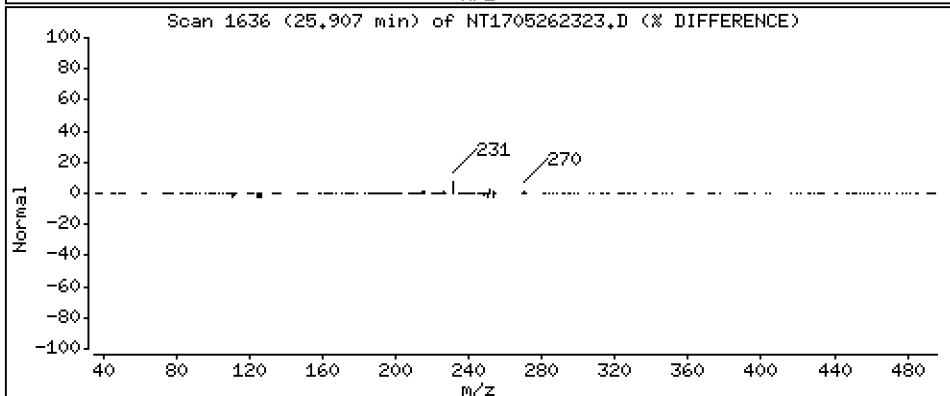
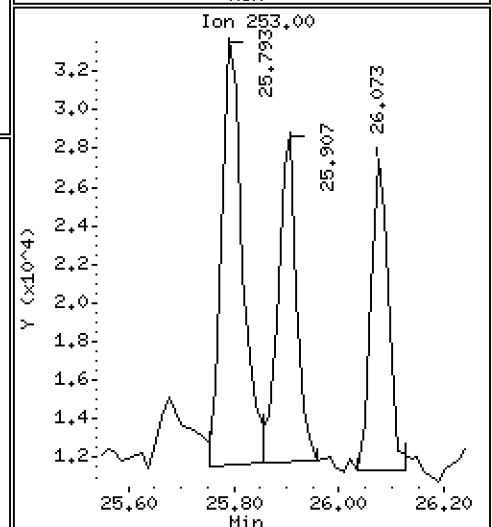
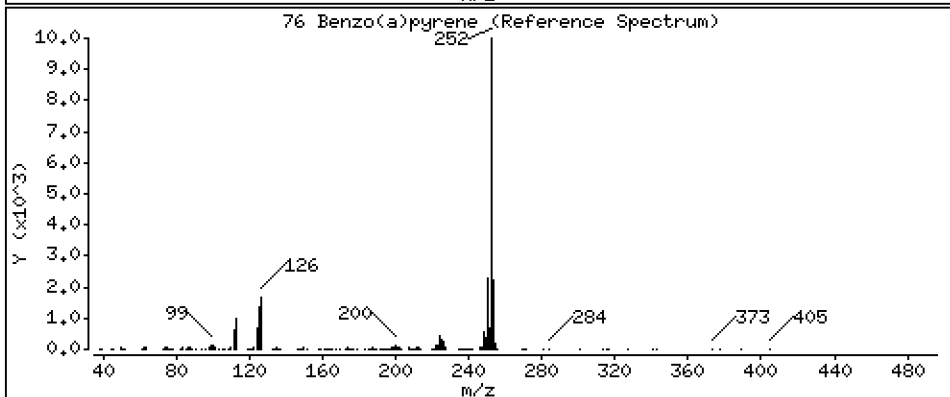
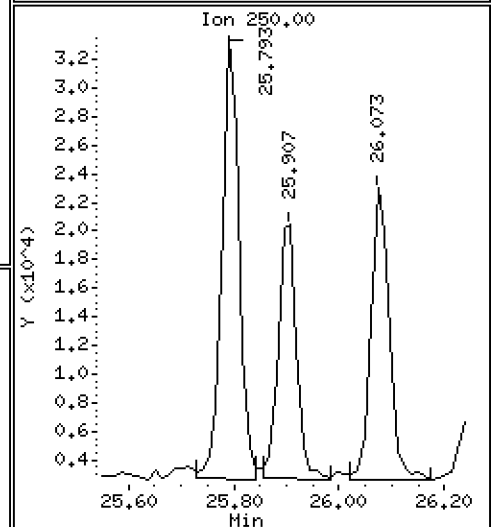
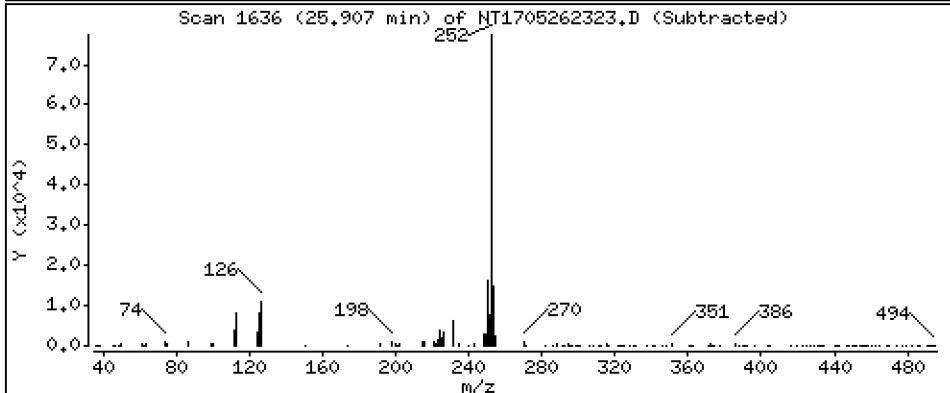
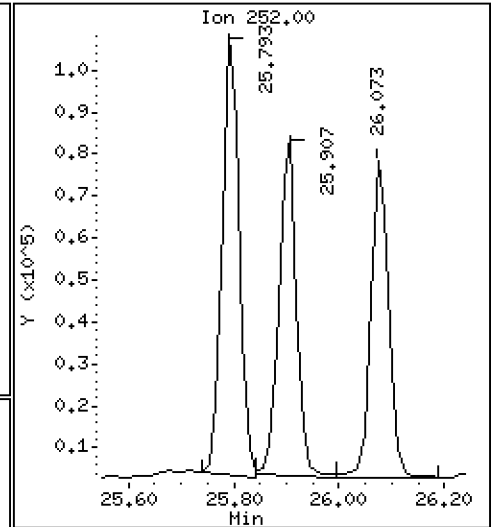
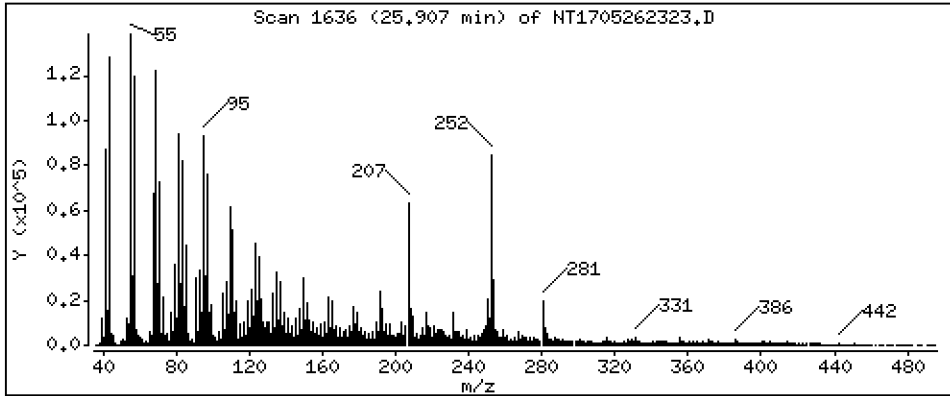
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,214 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

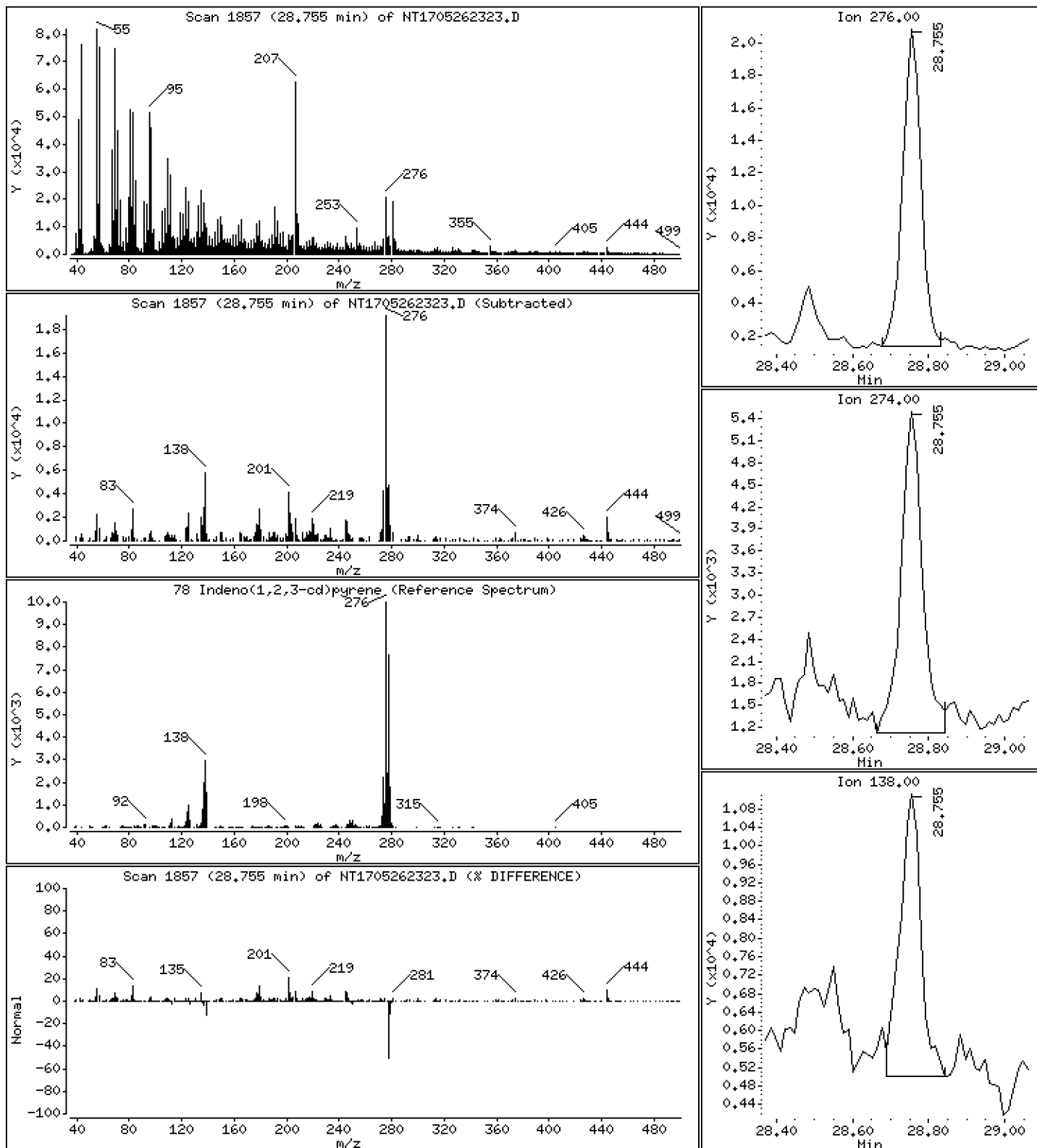
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.3647 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

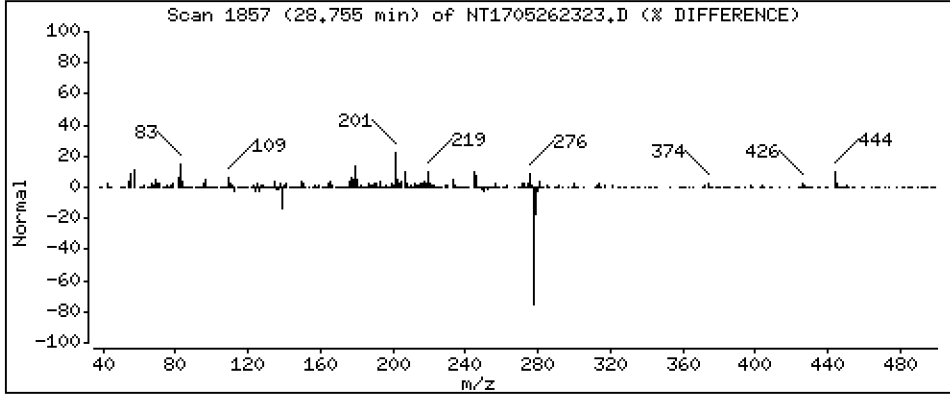
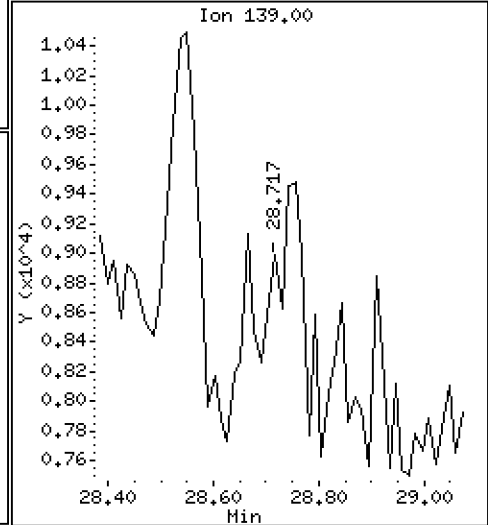
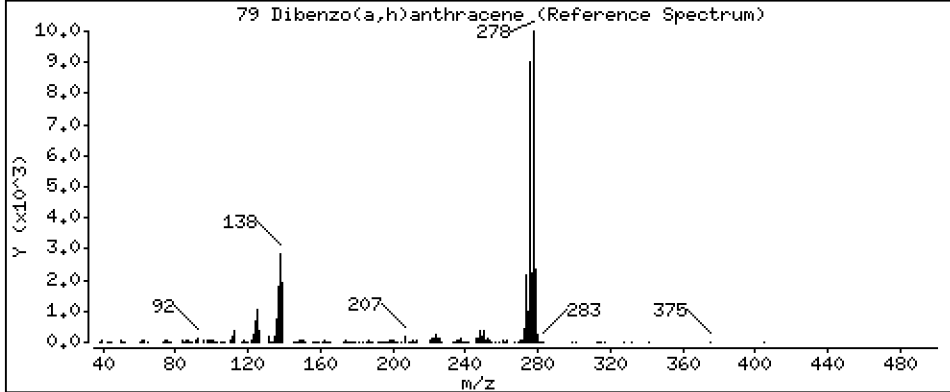
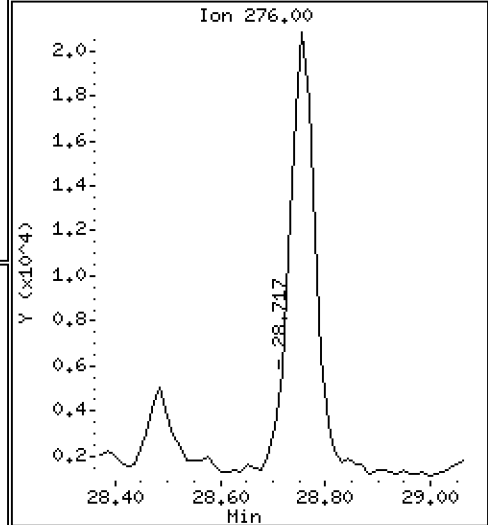
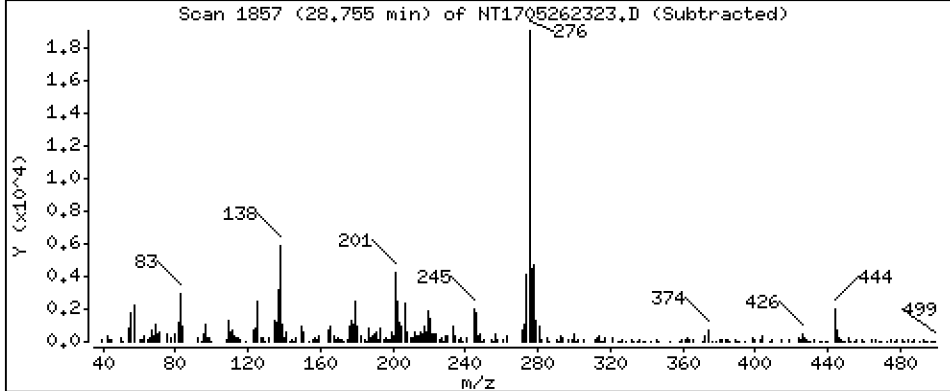
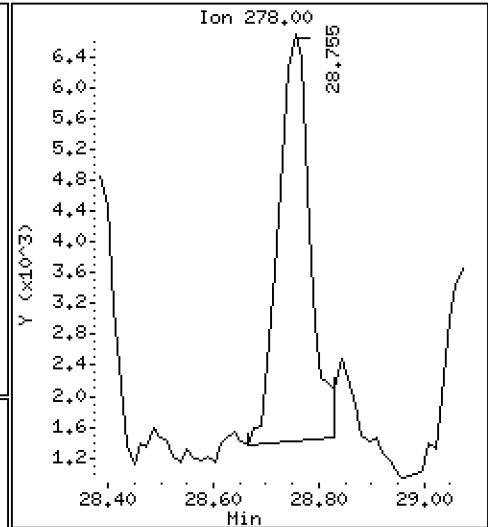
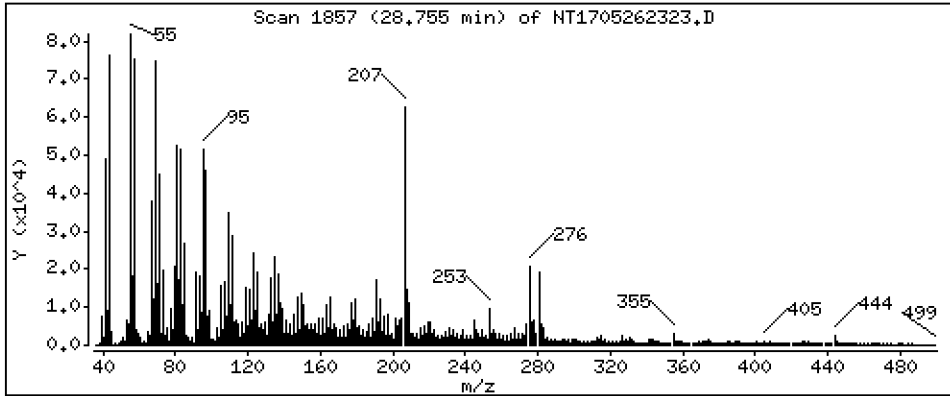
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1441 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

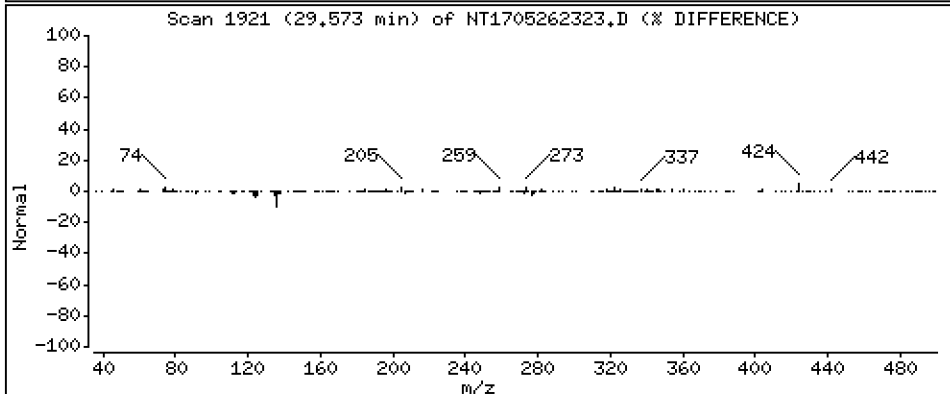
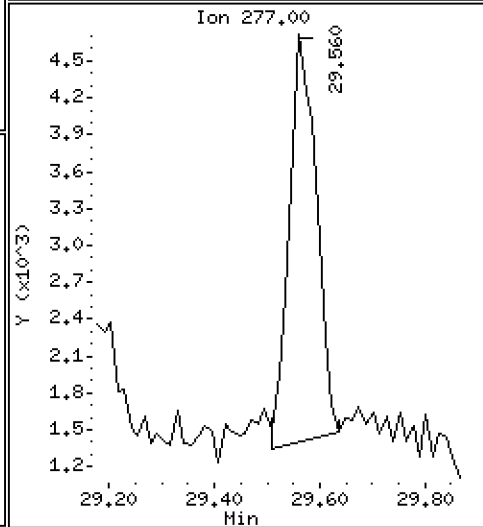
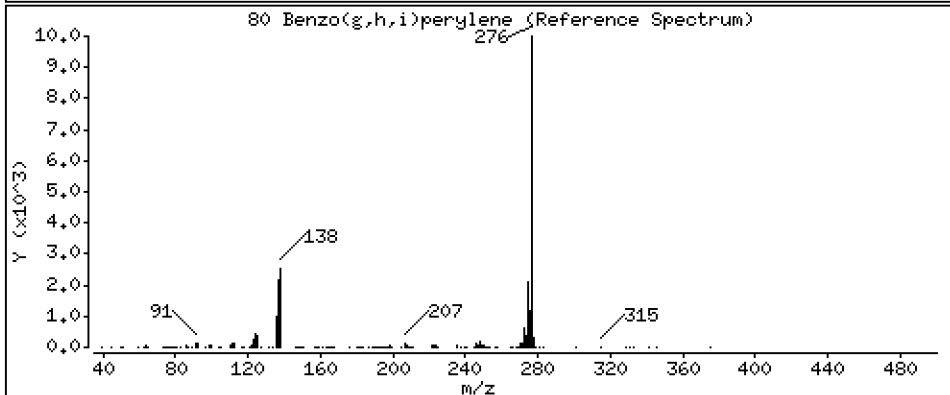
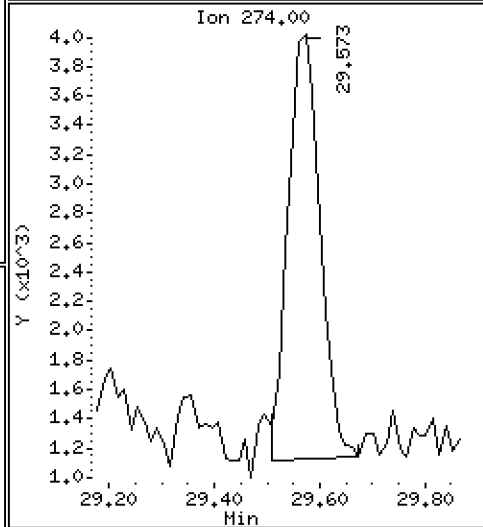
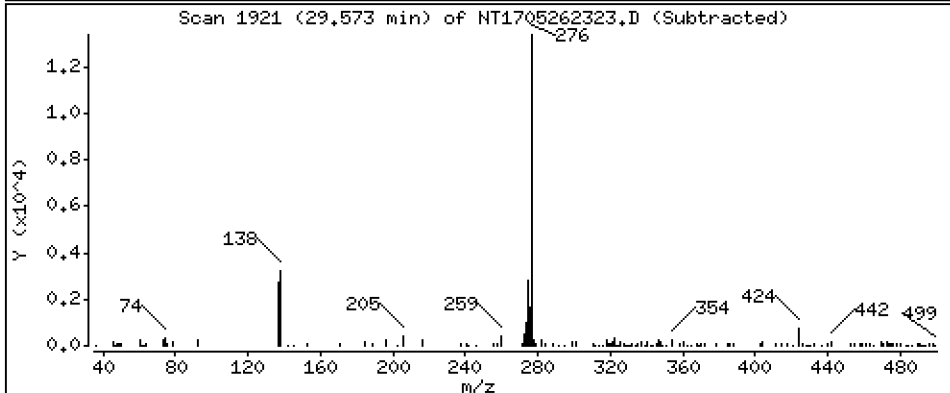
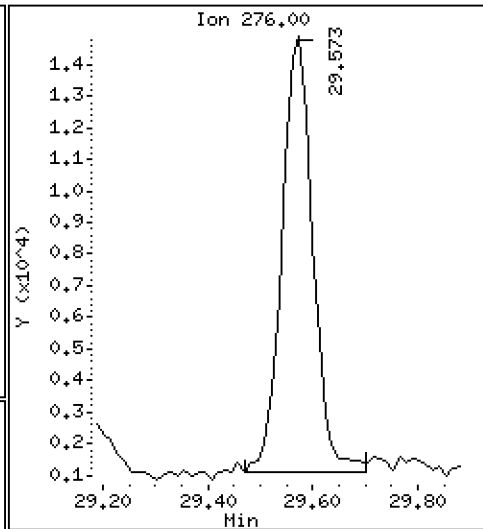
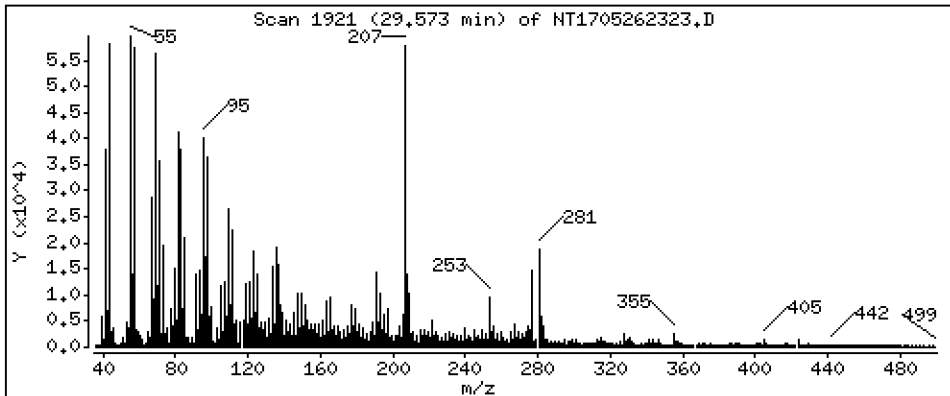
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3733 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

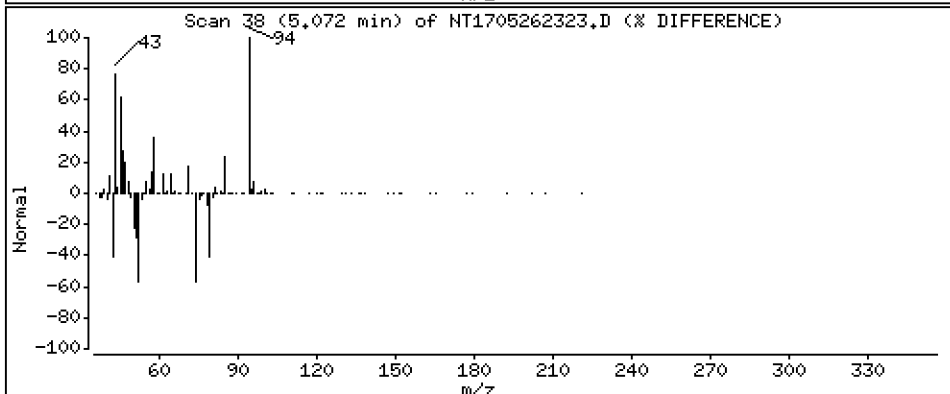
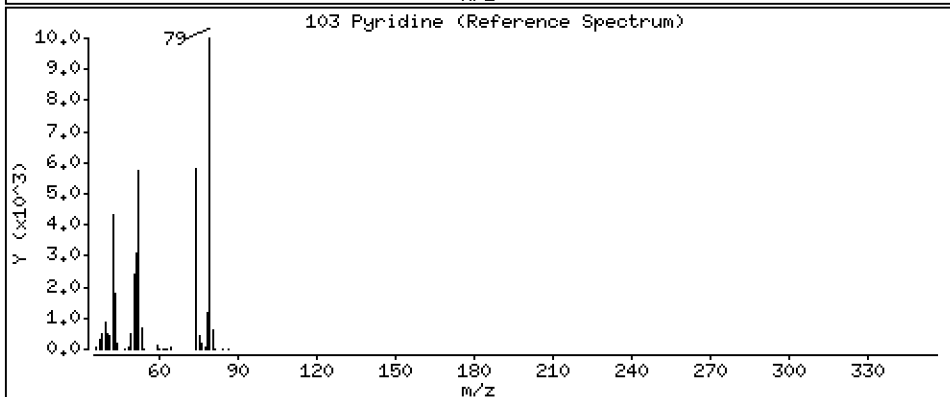
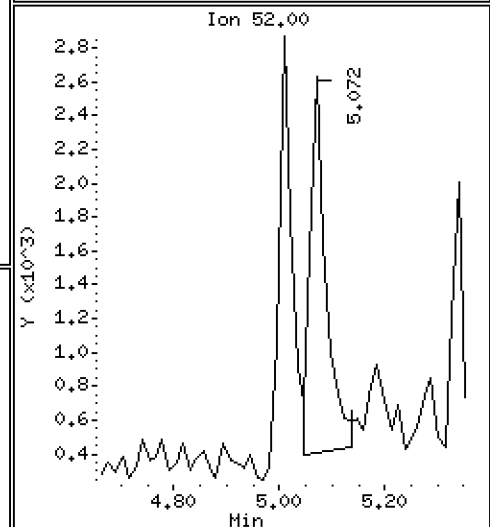
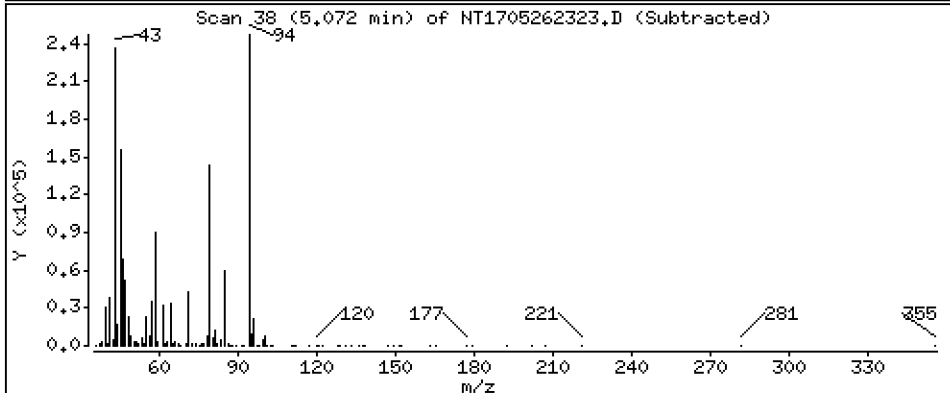
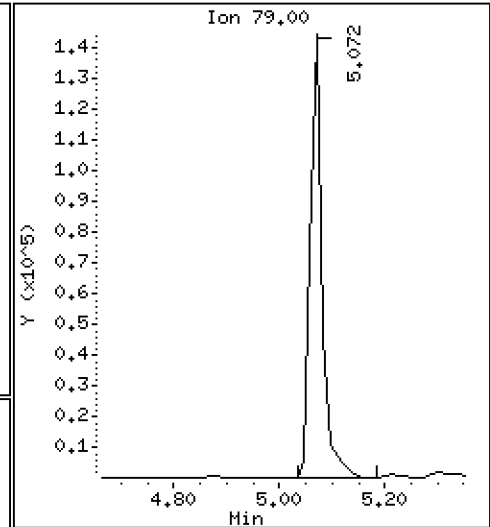
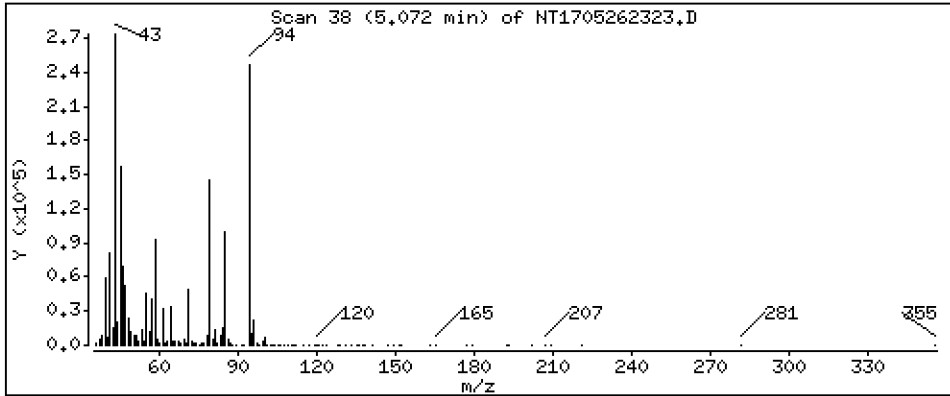
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 2,191 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

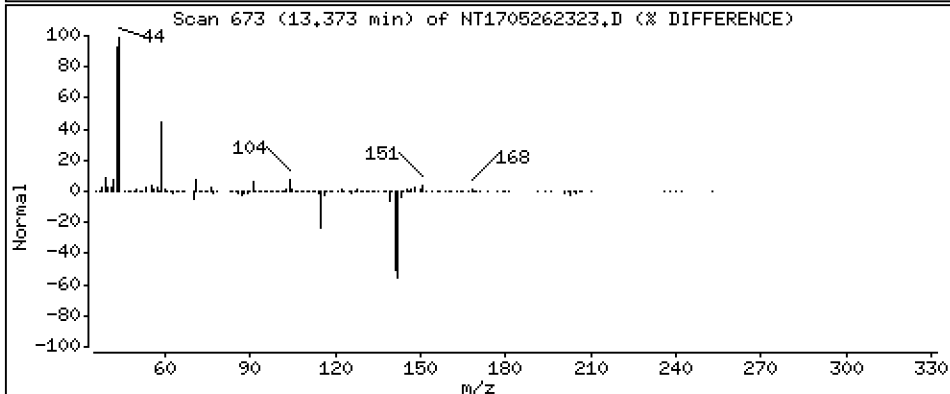
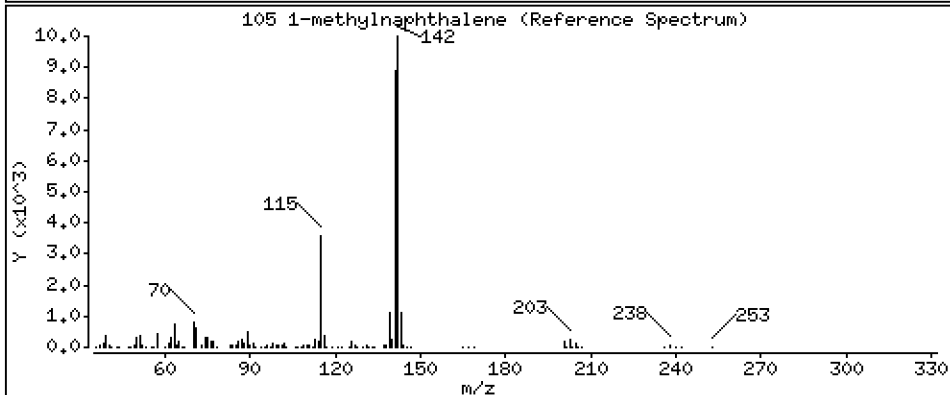
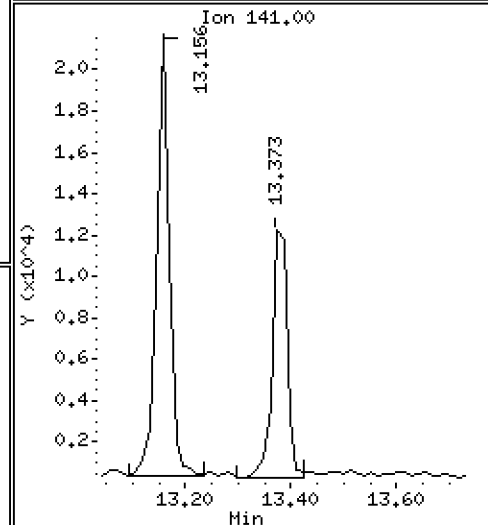
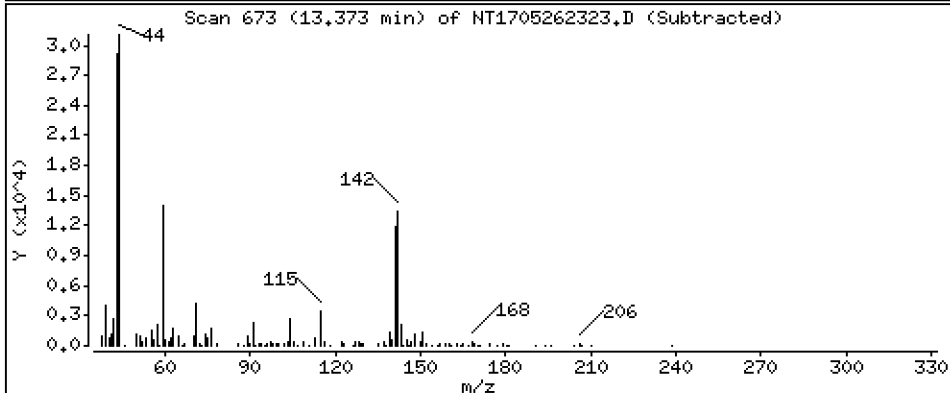
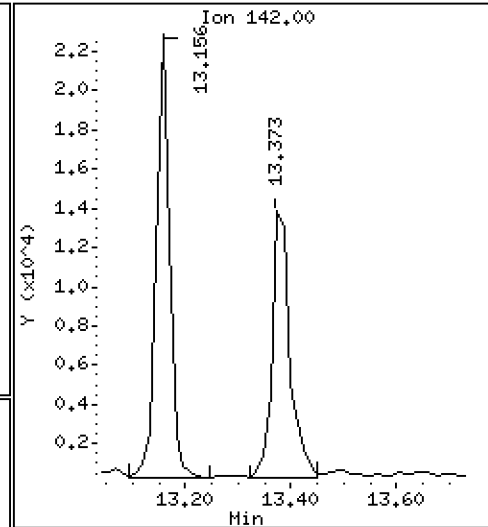
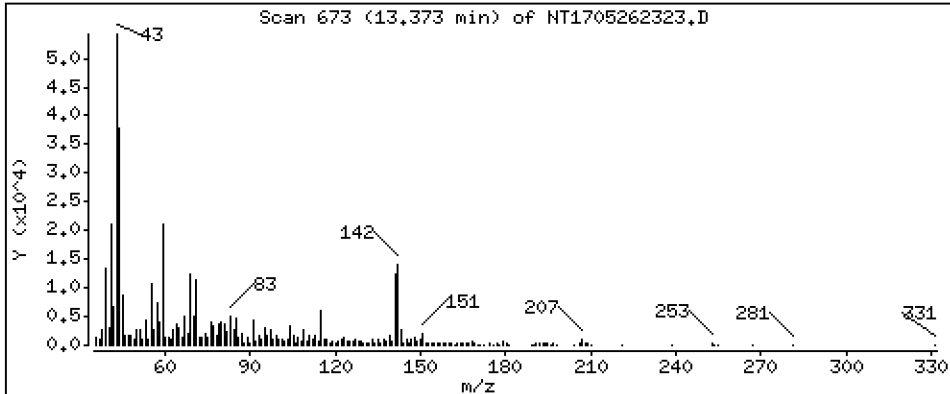
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1682 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

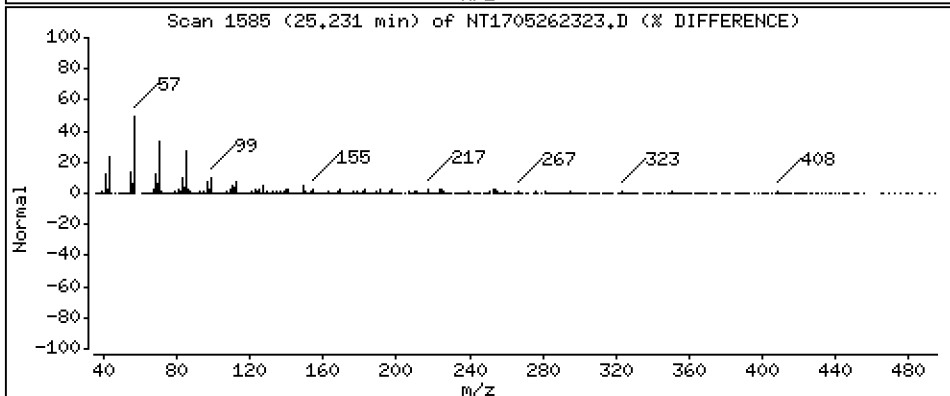
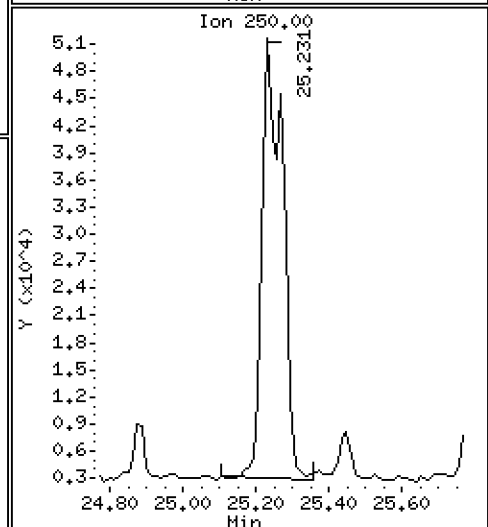
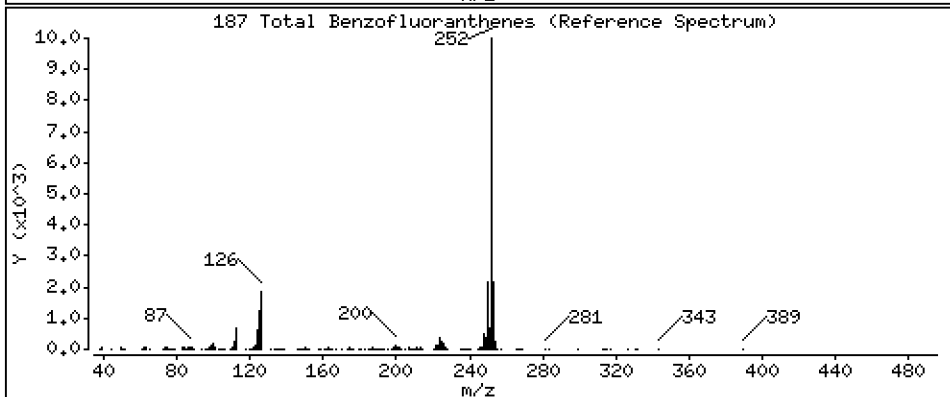
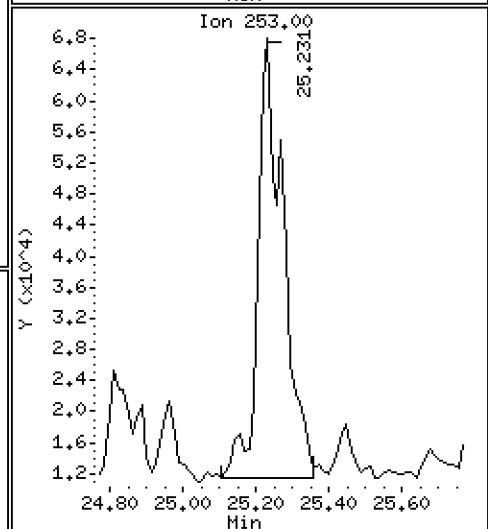
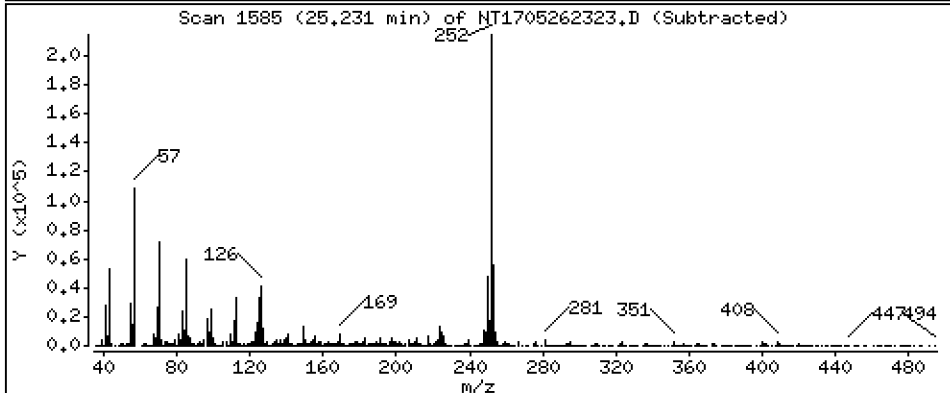
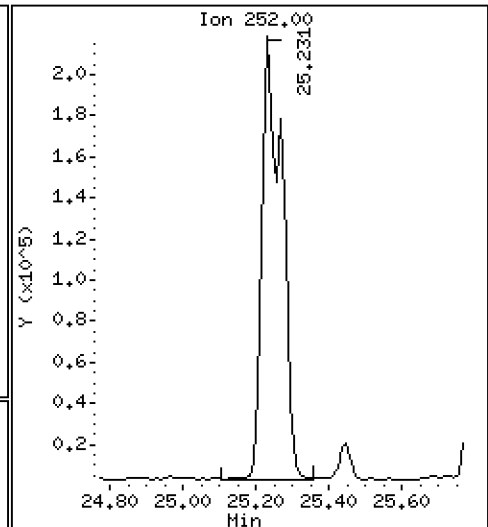
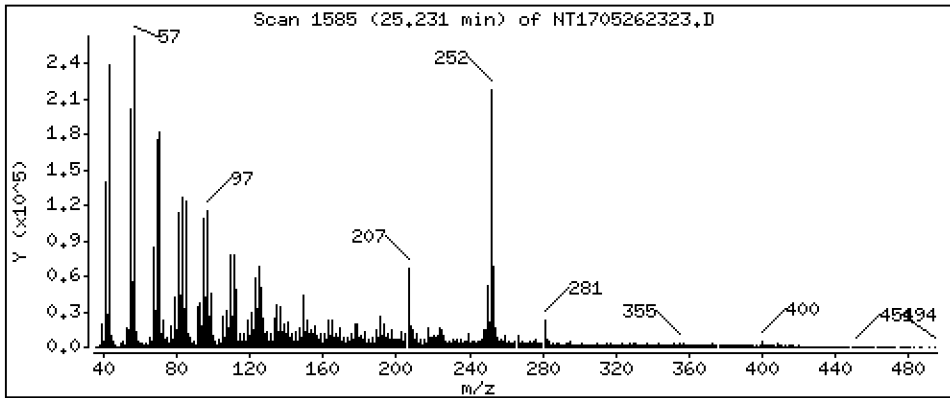
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 4,561 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262323.D
 Lab Smp Id: 23D0396-01
 Inj Date : 27-MAY-2023 02:25
 Operator : VTS
 Smp Info : 23D0396-01
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:34 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 20
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.122	7.071	(0.769)	525046	5.44732	5.447
\$ 2 Phenol-d5	99		8.651	8.639	(0.934)	692068	5.42565	5.426
3 Phenol	94		8.677	8.664	(0.937)	24005	0.17768	0.1777
\$ 5 2-Chlorophenol-d4	132		8.919	8.919	(0.963)	585904	5.73452	5.735
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	294445	4.00000	
9 1,4-Dichlorobenzene	146		9.301	9.301	(1.004)	2793	0.02453	0.02453 (M)
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	257024	3.57903	3.579
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.544	9.544	(1.030)	28949	0.46022	0.4602
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.042	10.030	(1.084)	24188	0.23925	0.2392
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	464640	3.87758	3.878
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.218	11.320	(0.956)	53338	0.74132	0.7413
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1052858	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	96556	0.33349	0.3335
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	40057	0.19323	0.1932
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
34 2,4,6-Trichlorophenol	196					Compound Not Detected.		
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		13.934	13.934	(0.909)	862517	4.37709	4.377
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163					Compound Not Detected.		
40 Acenaphthylene	152		15.018	15.018	(0.980)	39984	0.15750	0.1575
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		15.324	15.324	(1.000)	500193	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153		15.388	15.388	(1.004)	23130	0.14576	0.1458
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168		15.719	15.719	(1.026)	56537	0.25526	0.2553
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149		16.267	16.267	(1.062)	40843	0.24334	0.2433
49 Fluorene	166		16.420	16.420	(1.072)	51553	0.24483	0.2448
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		16.967	16.967	(1.107)	127227	5.83123	5.831
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		18.343	18.343	(1.000)	820099	4.00000	
60 Phenanthrene	178		18.394	18.394	(1.003)	301014	1.25793	1.258
61 Anthracene	178		18.484	18.484	(1.008)	95636	0.42570	0.4257
62 Carbazole	167		18.828	18.828	(1.026)	22872	0.16817	0.1682
63 Di-n-butylphthalate	149		19.593	19.580	(1.068)	32501	0.11981	0.1198
64 Fluoranthene	202		20.766	20.753	(0.889)	622665	2.02360	2.024
65 Pyrene	202		21.187	21.187	(0.907)	644339	2.06568	2.066
\$ 66 Terphenyl-d14	244		21.455	21.455	(0.919)	733272	3.30687	3.307
67 Butylbenzylphthalate	149		22.360	22.361	(0.957)	24852	0.17801	0.1780
68 Benzo(a)anthracene	228		23.330	23.317	(0.999)	329178	1.35899	1.359
* 69 Chrysene-d12	240		23.356	23.356	(1.000)	657803	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228		23.394	23.394	(1.002)	480502	2.10813	2.108
72 bis(2-Ethylhexyl)phthalate	149		23.381	23.368	(0.960)	404836	1.92288	1.923
* 134 Di-n-octylphthalate-d4	153		24.363	24.363	(1.000)	1455169	4.00000	
73 Di-n-octylphthalate	149					Compound Not Detected.		
74 Benzo(b)fluoranthene	252		25.231	25.218	(0.970)	558651	2.79147	2.791
75 Benzo(k)fluoranthene	252		25.269	25.269	(0.971)	372543	1.97033	1.970
76 Benzo(a)pyrene	252		25.907	25.894	(0.996)	191377	1.21395	1.214
* 77 Perylene-d12	264		26.022	26.009	(1.000)	504765	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.754	28.716	(1.105)	66695	0.36473	0.3647
79 Dibenzo(a,h)anthracene	278		28.754	28.729	(1.105)	22117	0.14411	0.1441 (M)
80 Benzo(g,h,i)perylene	276		29.573	29.534	(1.136)	56348	0.37334	0.3733
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79		5.071	5.008	(0.547)	223479	2.19142	2.191
105 1-methylnaphthalene	142		13.373	13.385	(1.140)	32343	0.16817	0.1682
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
187 Total Benzofluoranthenes	252		25.231	25.269	(0.970)	819428	4.56130	4.561	
120 2,3,4,6-Tetrachlorophenol	232		Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262323.D Calibration Time: 23:55
 Lab Smp Id: 23D0396-01
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	327251	163626	654502	294445	-10.02
27 Naphthalene-d8	1151610	575805	2303220	1052858	-8.58
42 Acenaphthene-d10	581592	290796	1163184	500193	-14.00
59 Phenanthrene-d10	918371	459186	1836742	820099	-10.70
69 Chrysene-d12	690072	345036	1380144	657803	-4.68
134 Di-n-octylphthala	1461689	730845	2923378	1455169	-0.45
77 Perylene-d12	568726	284363	1137452	504765	-11.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	-0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	-0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	-0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.36	-0.00
77 Perylene-d12	26.01	25.51	26.51	26.02	0.05

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

REVIEW SUMMARY FOR FILE - NT1705262323.D

Lab ID: 23D0396-01
nt17.i, ABN.m, 27-MAY-2023 02:25

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

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.956	0.965	-0.0087	Benzoic acid
0.547	0.541	0.0069	Pyridine
0.769	0.763	0.0055	2-Fluorophenol

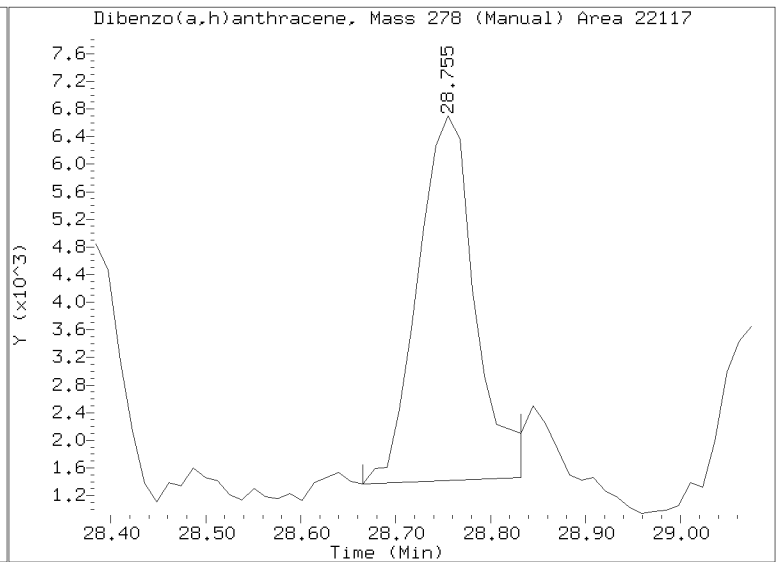
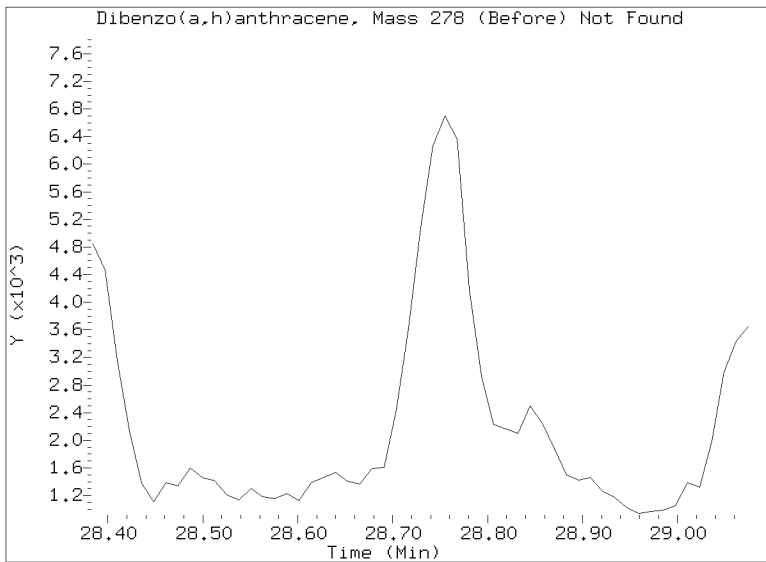
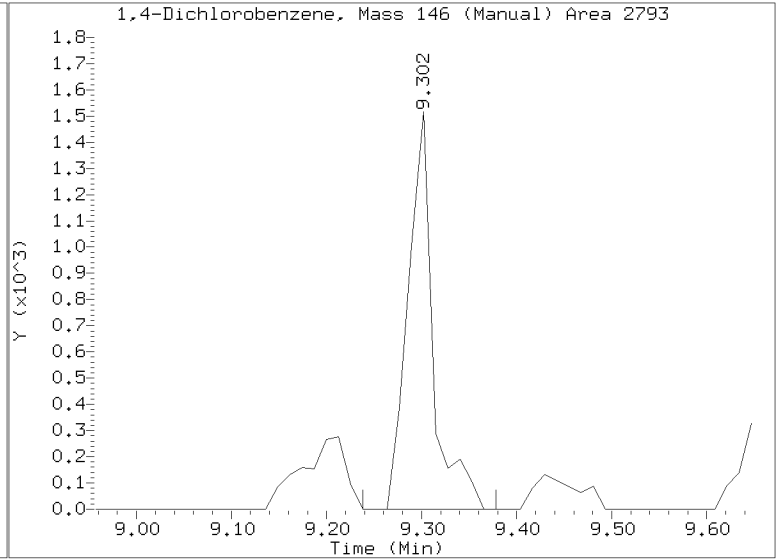
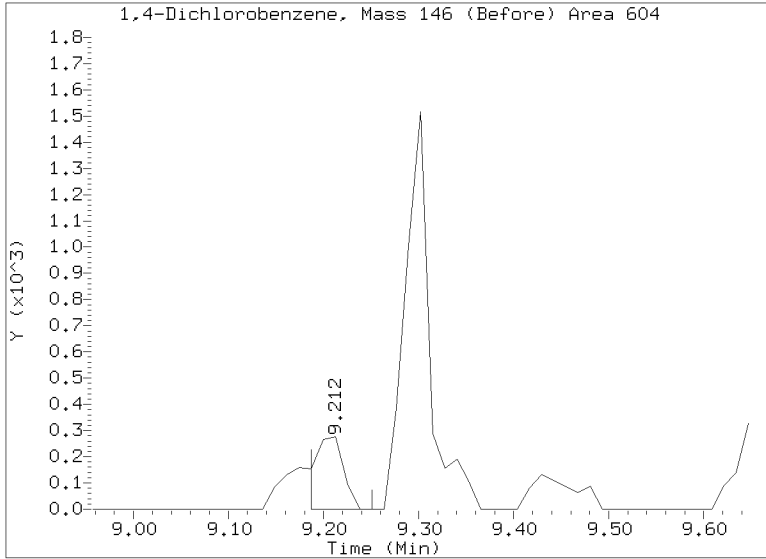
RRT check based on Ccal File: NT1705262319.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262323.D
Injection Date: 27-MAY-2023 02:25
Lab ID:23D0396-01 Client ID:
Report Date: 05/27/2023 13:34





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

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-03 A

SDG: 23D0396

Sampled: 04/12/23 15:03

Prepared: 04/24/23 16:38

File ID: NT1705262324.D

% Solids: 43.88

Preparation: EPA 3546 (Microwave)

Analyzed: 05/27/23 03:02

Batch: BLD0607

Sequence: SLE0434

Initial/Final: 22.79 g Wet / 1 mL

Instrument: NT17

Column: ZB-5MS

Calibration: GE00065

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	15.8	J	4.4	20.0
100-51-6	Benzyl Alcohol	1	36.8	B	16.3	20.0
106-44-5	4-Methylphenol	1	16.5	J	7.4	20.0
91-20-3	Naphthalene	1	17.2	J	4.2	20.0
91-57-6	2-Methylnaphthalene	1	18.0	J	4.5	20.0
208-96-8	Acenaphthylene	1	13.7	J	6.2	20.0
132-64-9	Dibenzofuran	1	30.9		14.1	20.0
86-73-7	Fluorene	1	37.9		14.6	20.0
85-01-8	Phenanthrene	1	139		8.7	20.0
120-12-7	Anthracene	1	65.5		7.2	20.0
206-44-0	Fluoranthene	1	297		6.1	20.0
129-00-0	Pyrene	1	262		5.7	20.0
85-68-7	Butylbenzylphthalate	1	13.5	J	9.4	20.0
56-55-3	Benzo(a)anthracene	1	182		6.0	20.0
218-01-9	Chrysene	1	290		6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	155		5.5	50.0
	Benzo(a)fluoranthene, Total	1	527		10.0	40.0
50-32-8	Benzo(a)pyrene	1	133		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	37.9	Q	14.6	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	36.1	Q	13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.98	519	69.2	27 - 120	
Phenol-d5	749.98	531	70.8	29 - 120	
2-Chlorophenol-d4	749.98	549	73.2	31 - 120	
1,2-Dichlorobenzene-d4	499.99	329	65.8	32 - 120	
Nitrobenzene-d5	499.99	375	74.9	30 - 120	
2-Fluorobiphenyl	499.99	413	82.6	35 - 120	
2,4,6-Tribromophenol	749.98	572	76.2	24 - 134	



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

Laboratory: Analytical Resources, LLC
 Client: Anchor OEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment
 Sampled: 04/12/23 15:03
 % Solids: 43.88
 Batch: BLD0607
 Instrument: NT17
 Cleanups: GPC

Laboratory ID: 23D0396-03 A
 Prepared: 04/24/23 16:38
 Preparation: EPA 3546 (Microwave)
 Sequence: SLE0434
 Column: ZB-5MS

SDG: 23D0396
 File ID: NT1705262324.D
 Analyzed: 05/27/23 03:02
 Initial/Final: 22.79 g Wet / 1 mL
 Calibration: GE00065

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
p-Terphenyl-d14	499.99	319	63.8	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262324.D

Date: 27-May-2023 03:02

Client ID:

Sample Info: 23D0396-03

Page 1

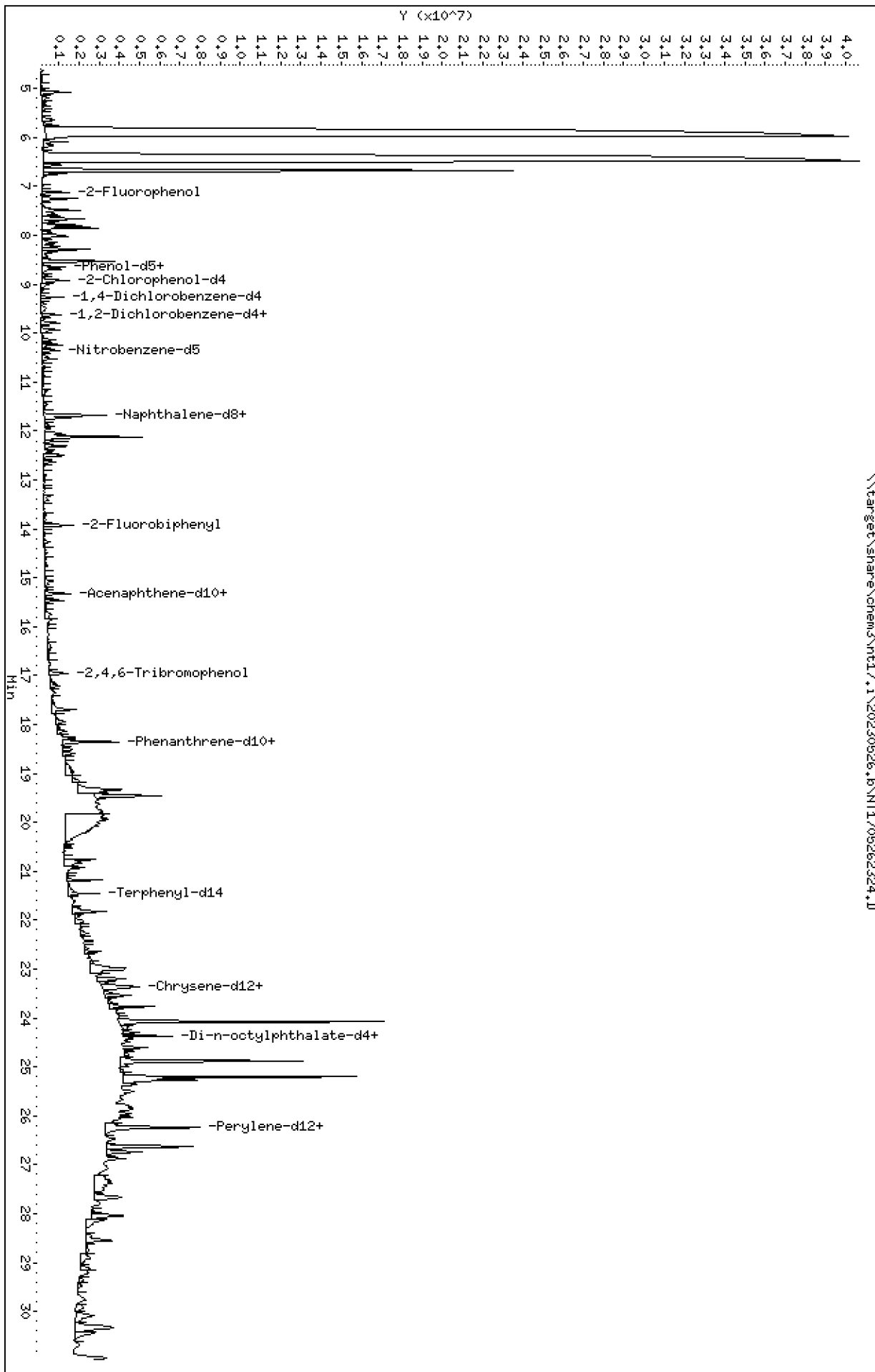
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230526.1\NT1705262324.D



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

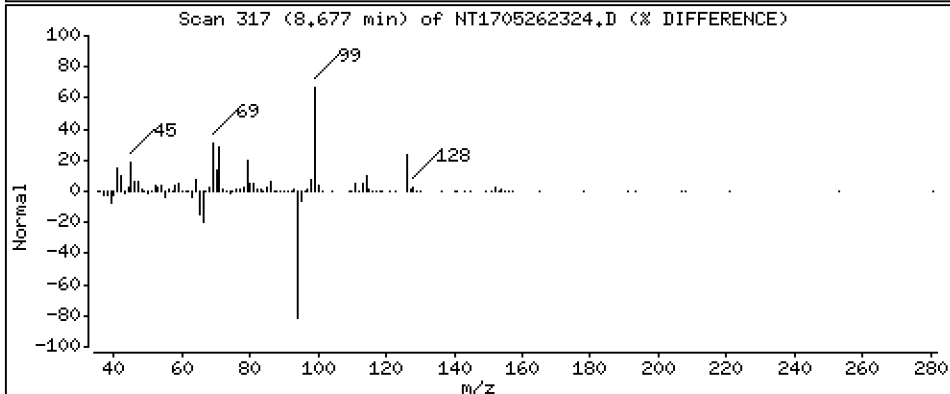
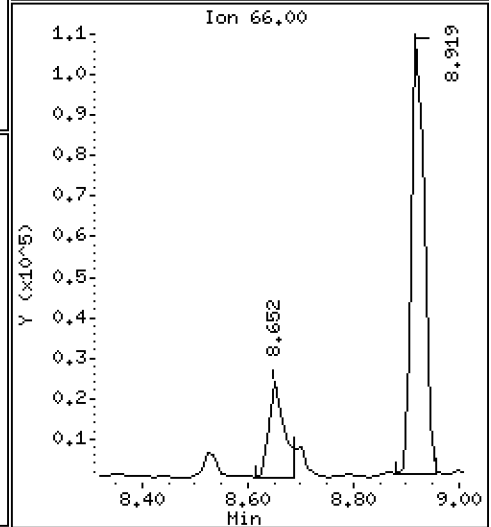
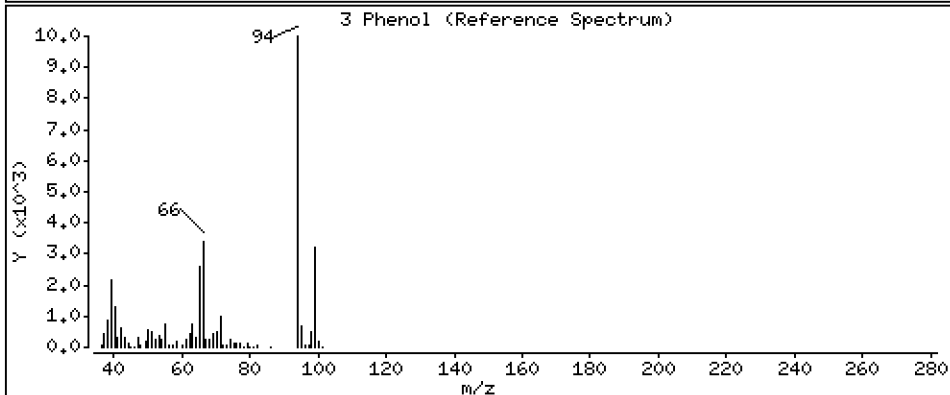
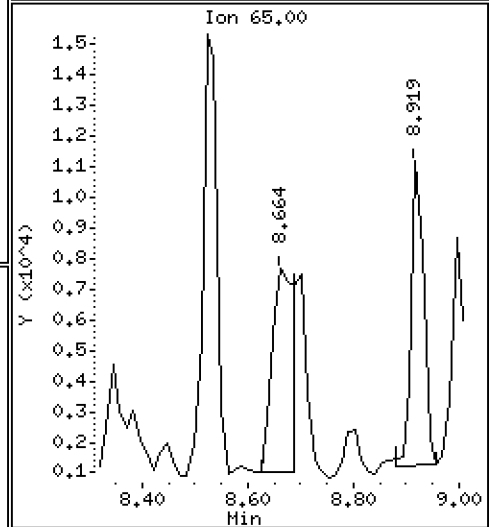
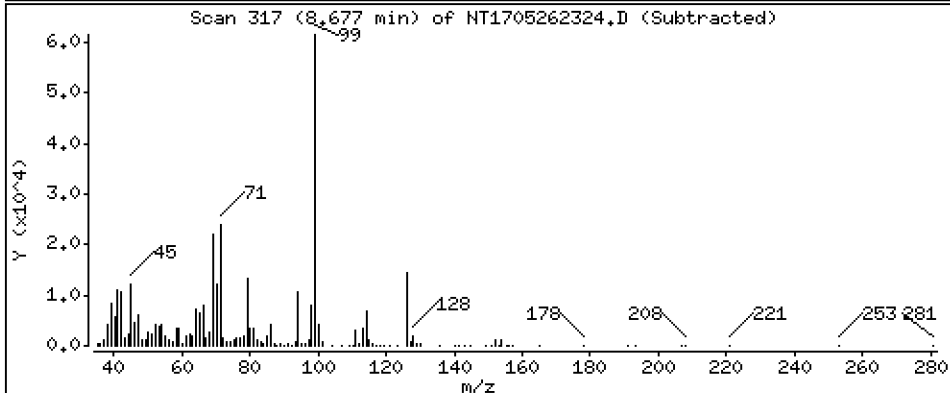
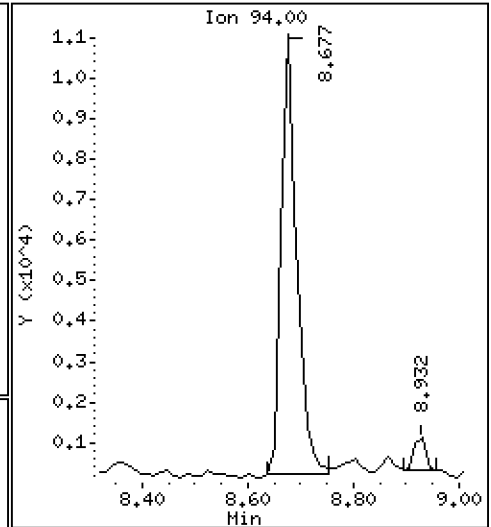
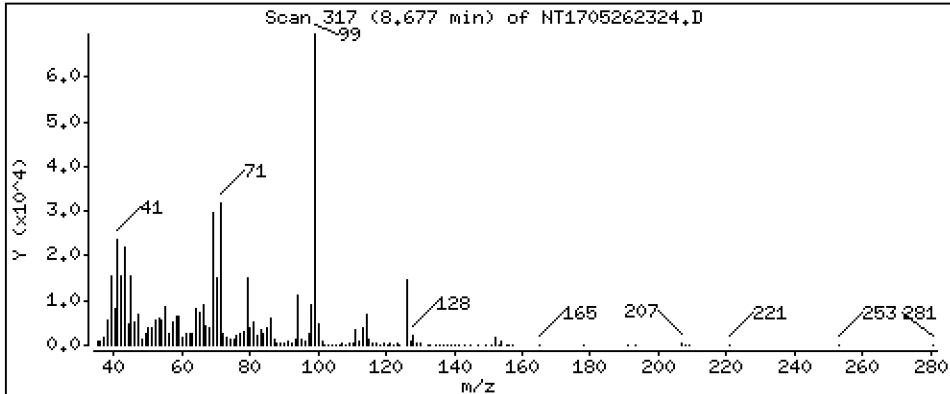
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1582 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

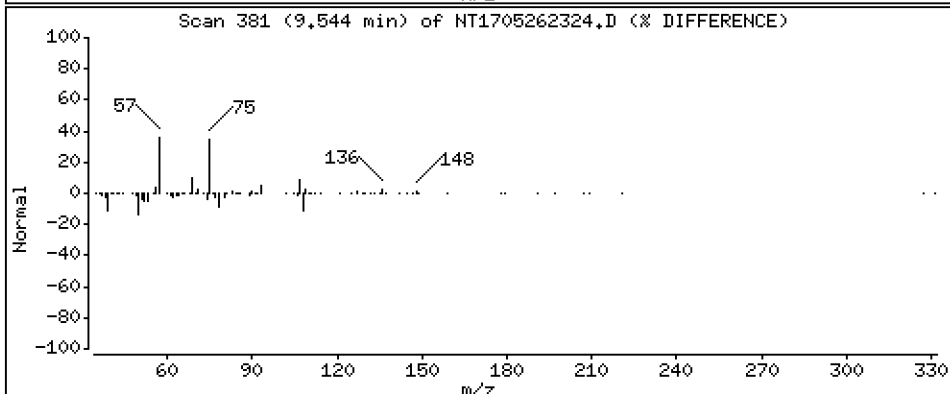
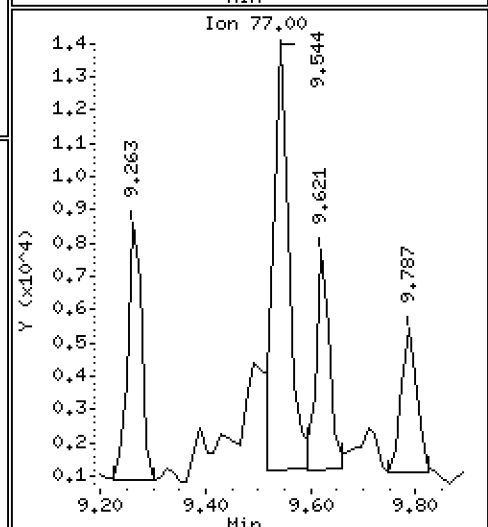
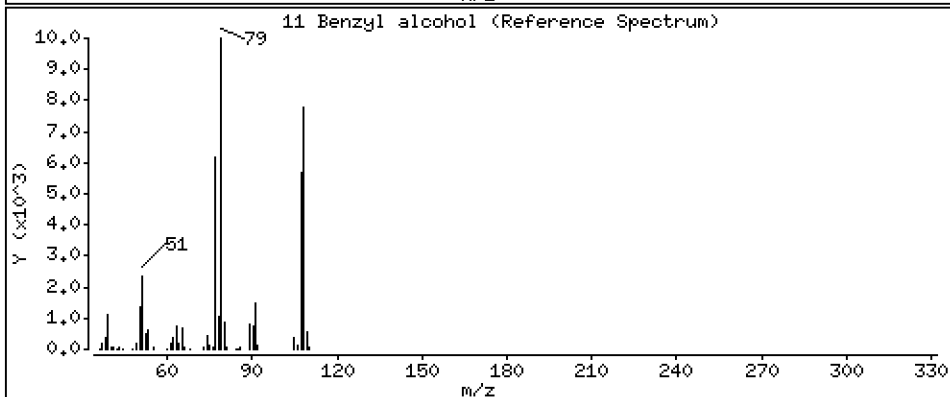
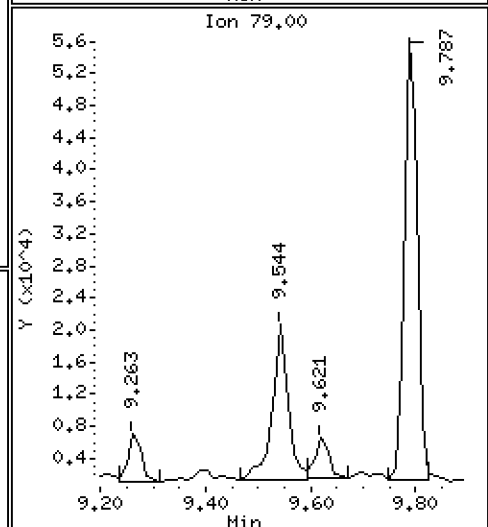
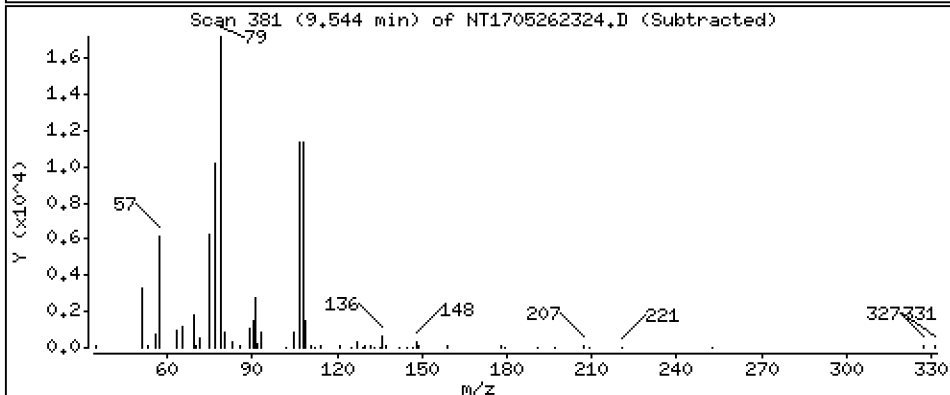
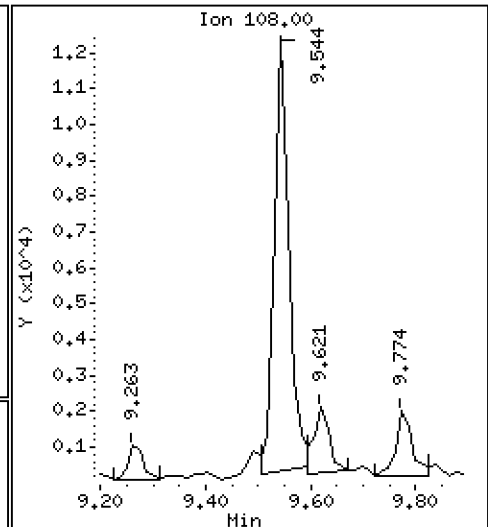
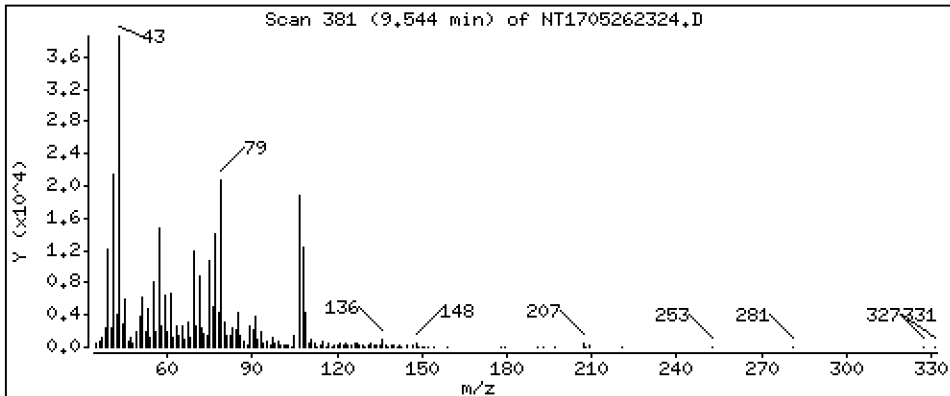
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,3677 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

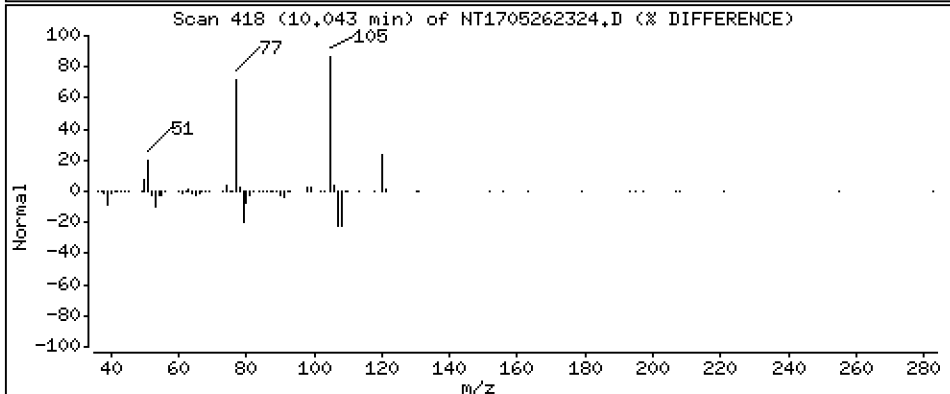
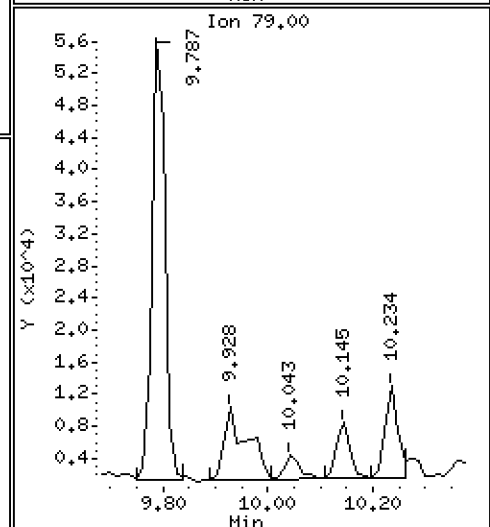
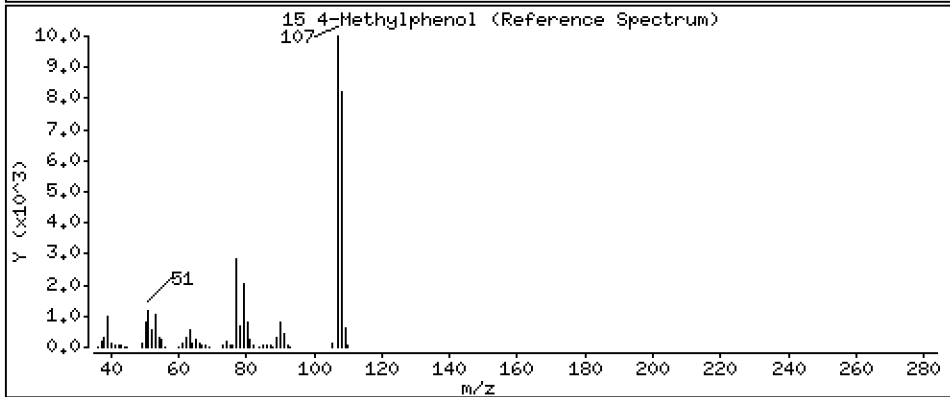
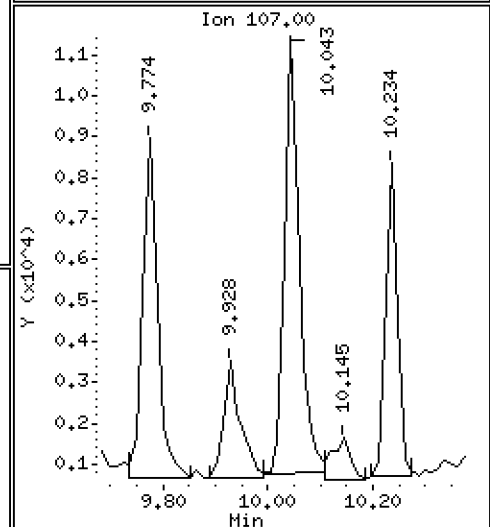
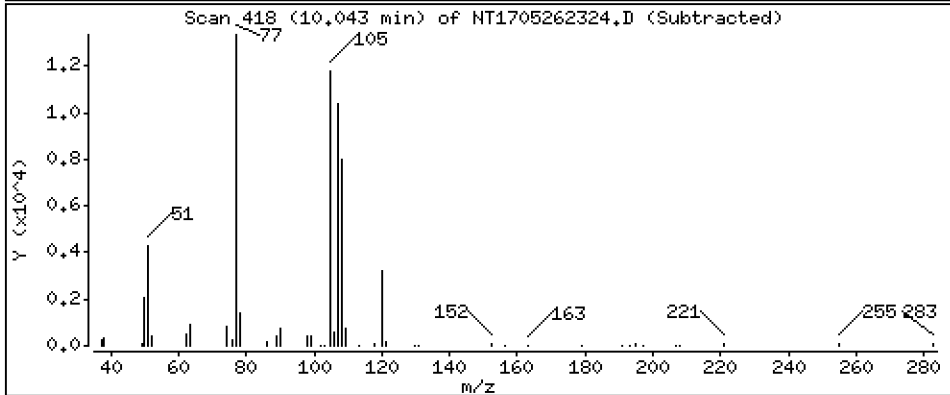
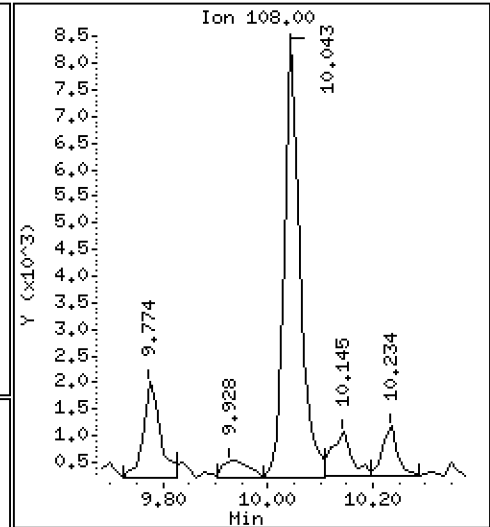
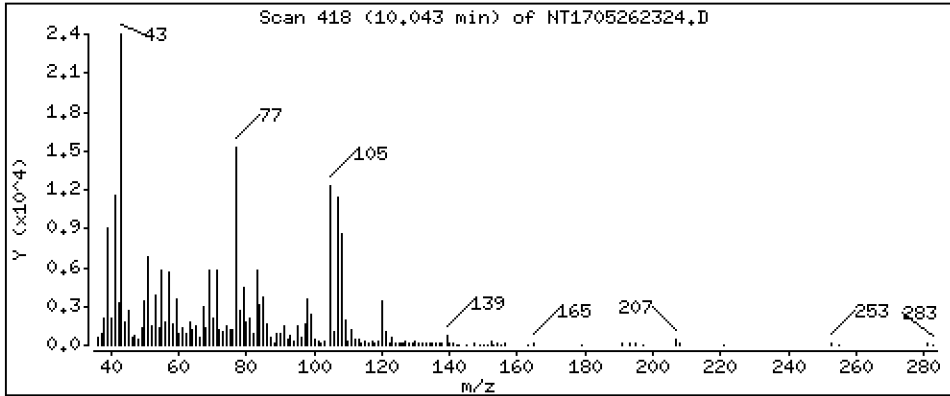
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,1650 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

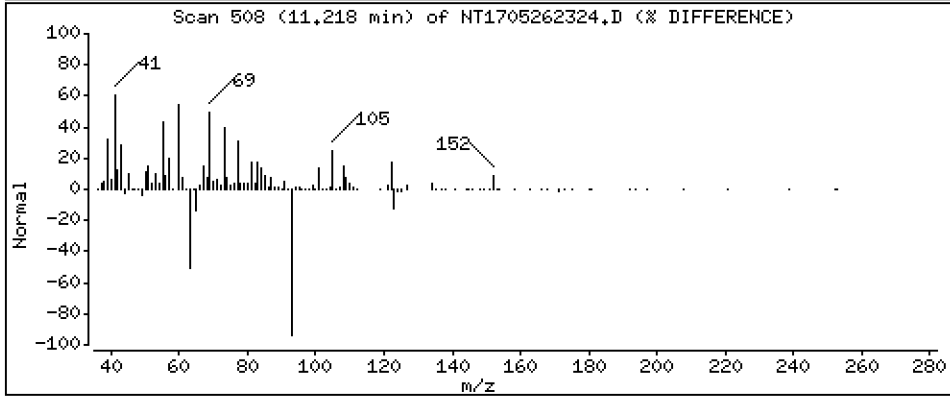
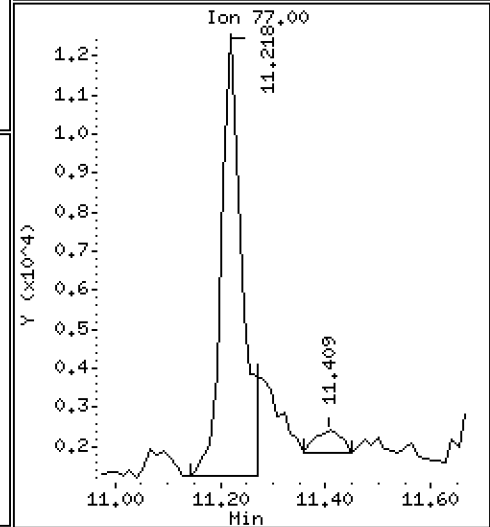
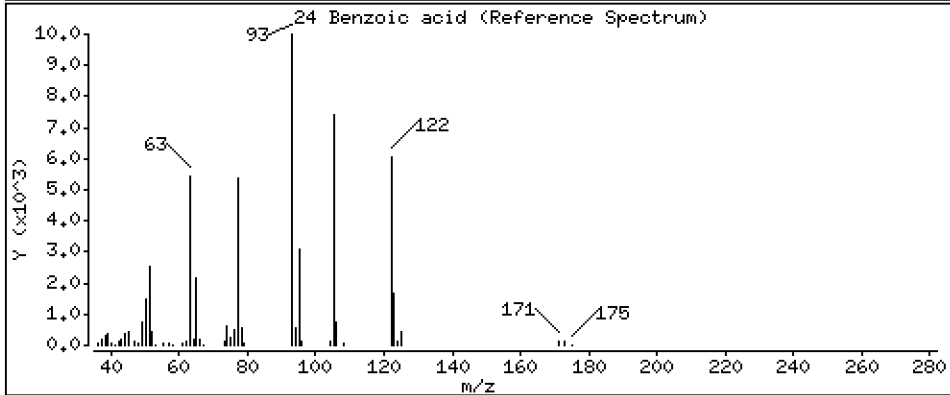
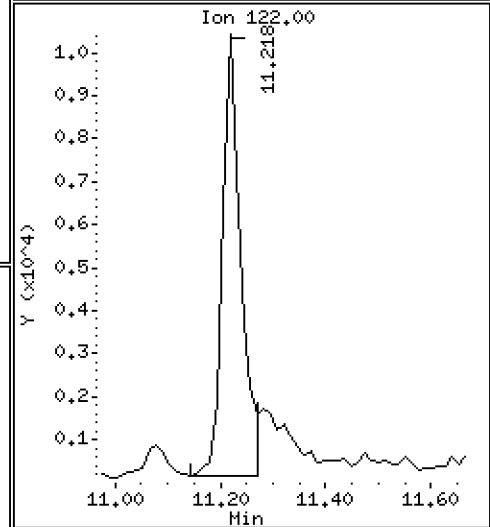
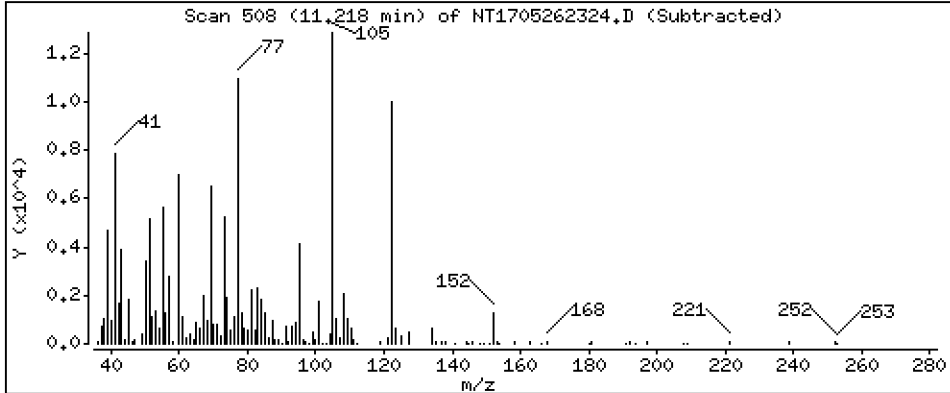
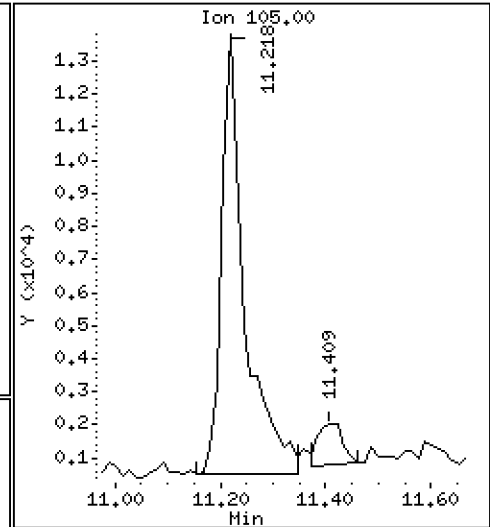
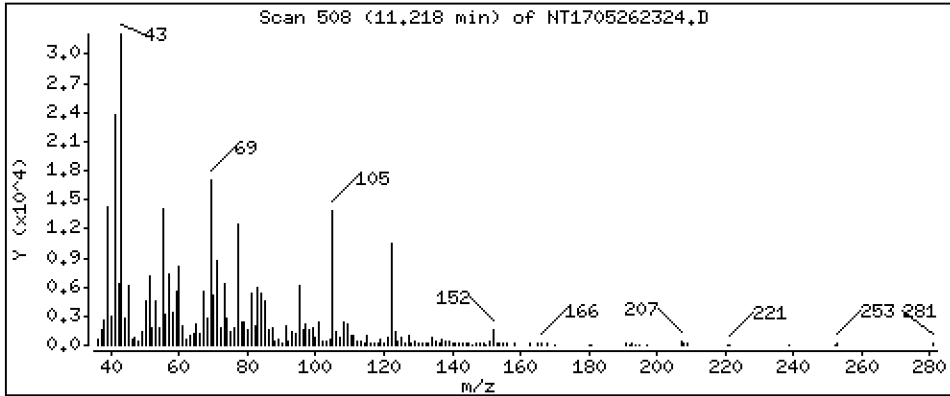
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.5527 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

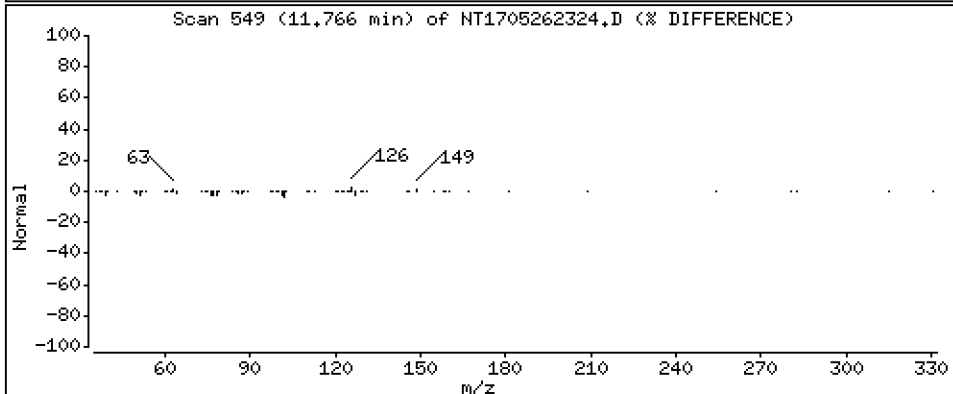
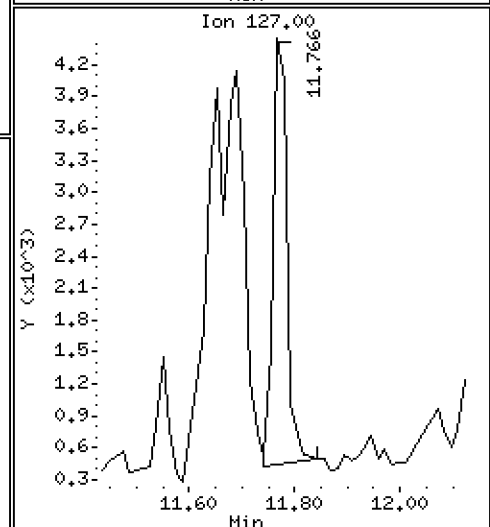
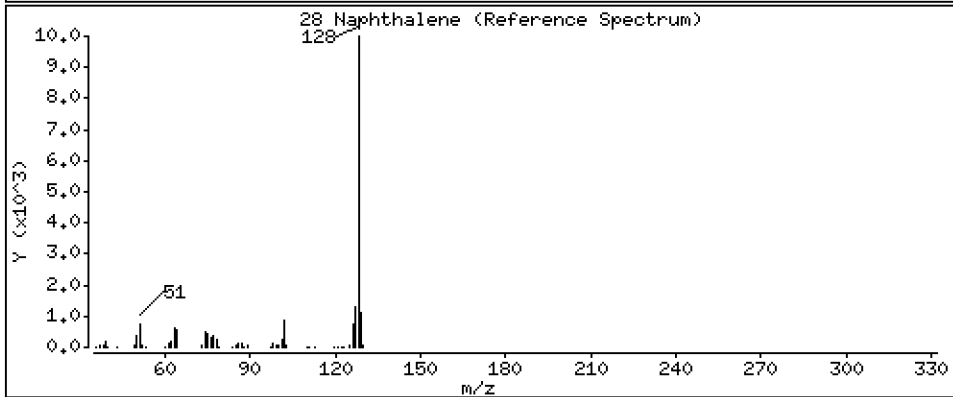
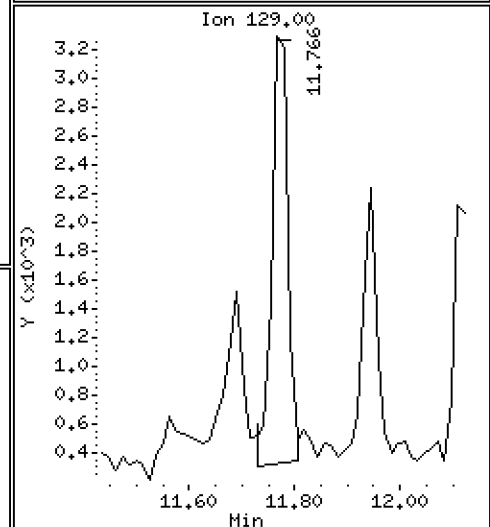
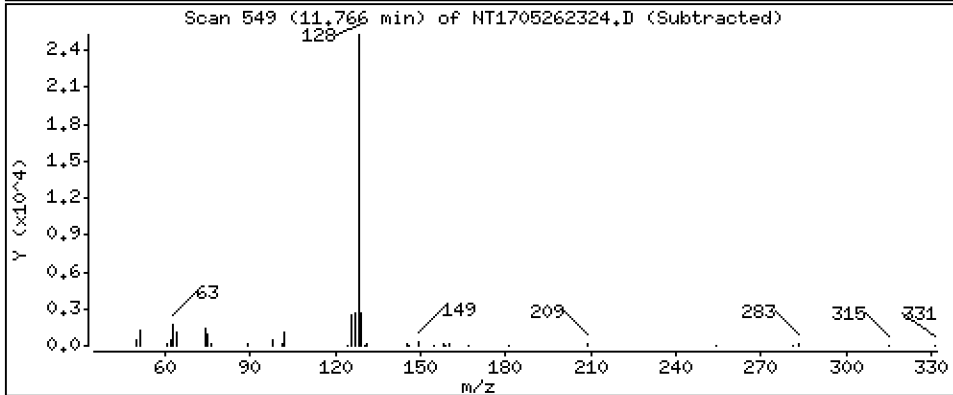
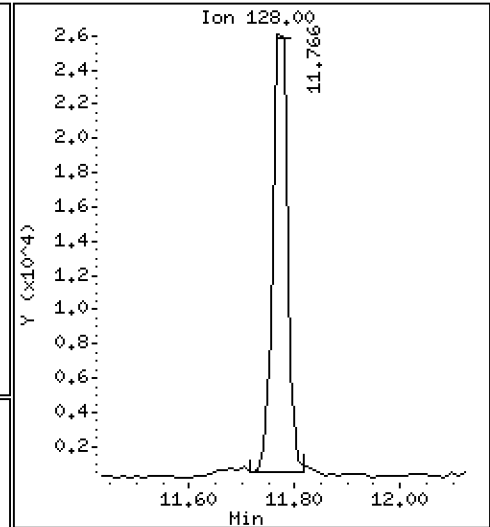
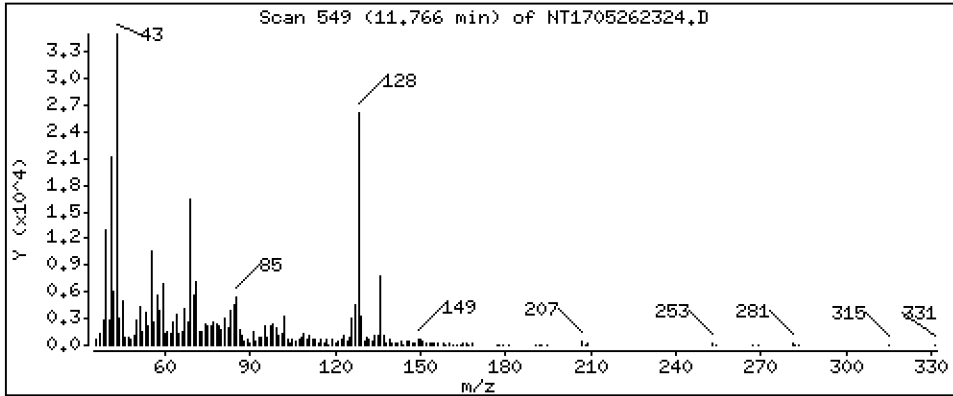
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.1717 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

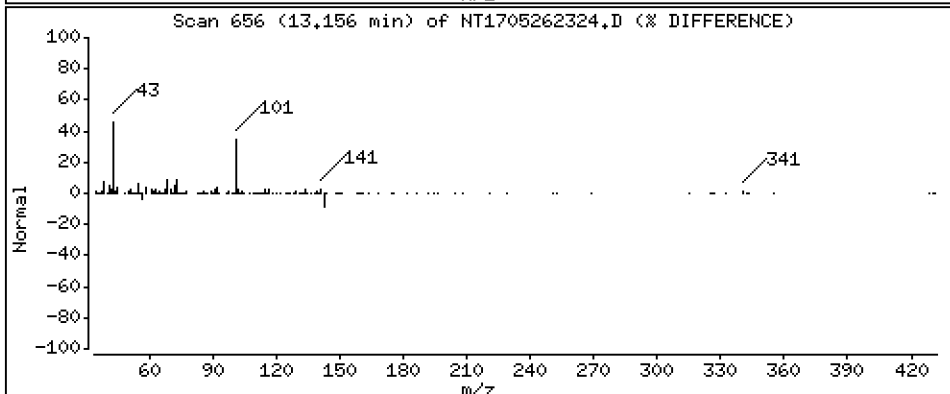
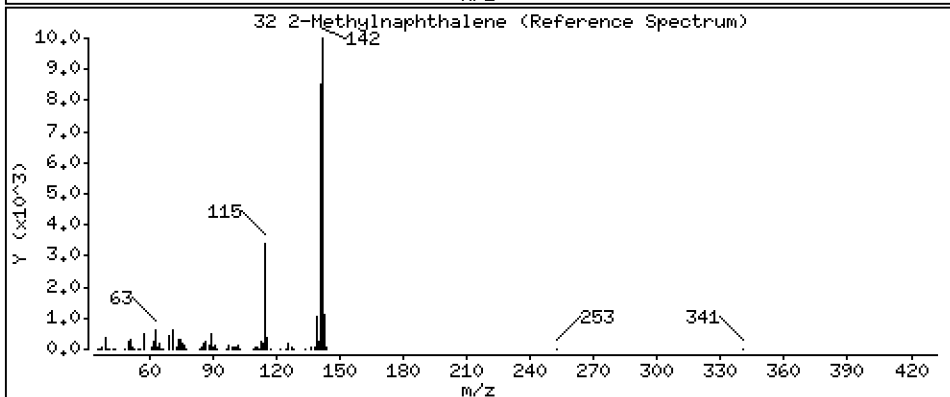
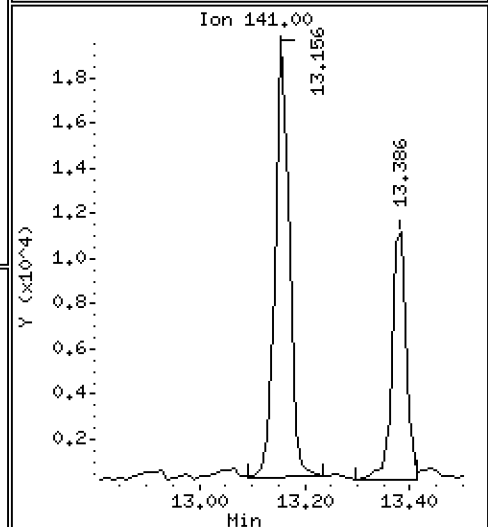
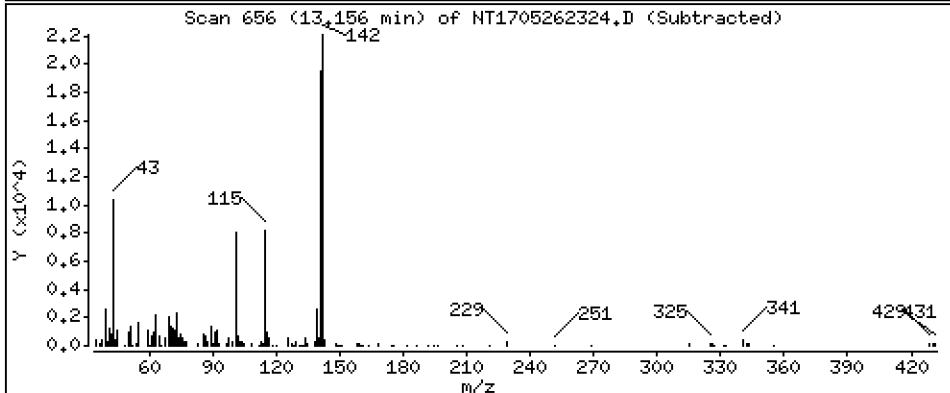
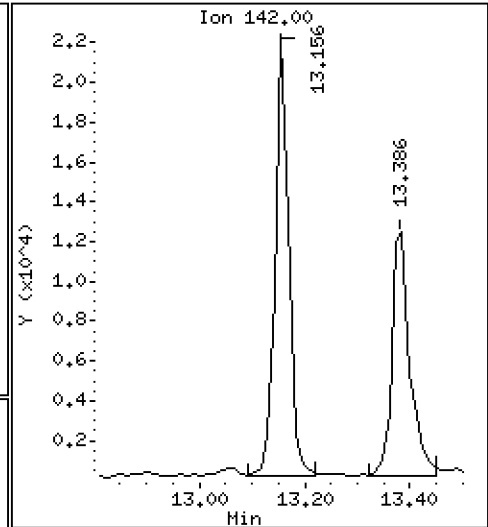
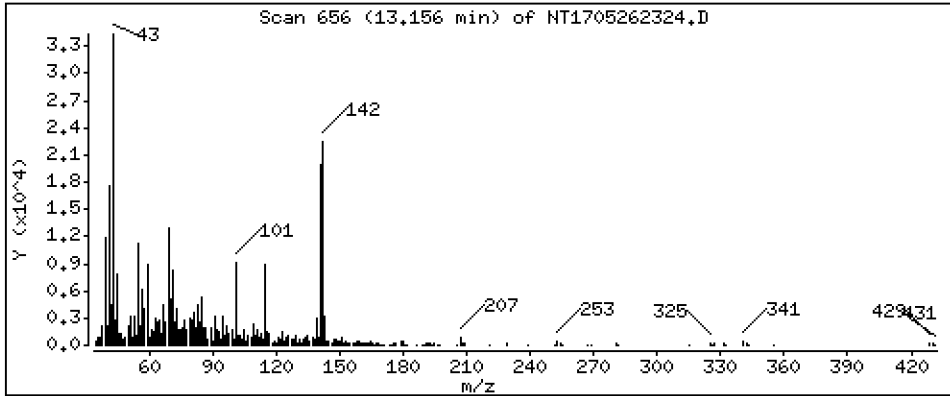
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,1800 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

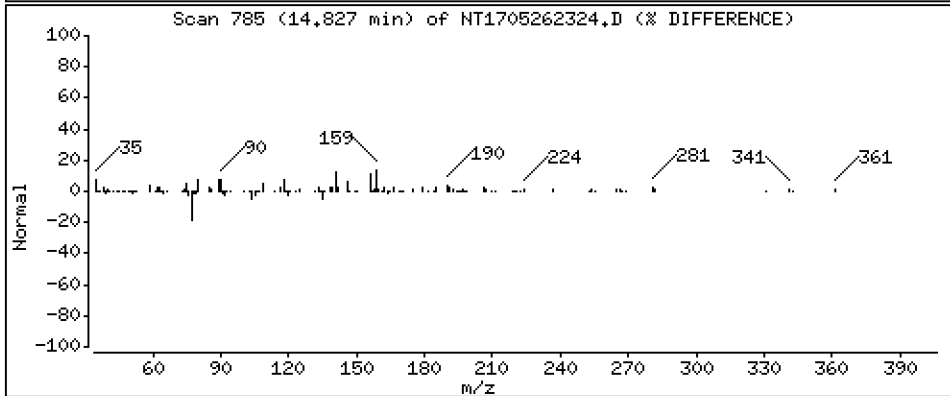
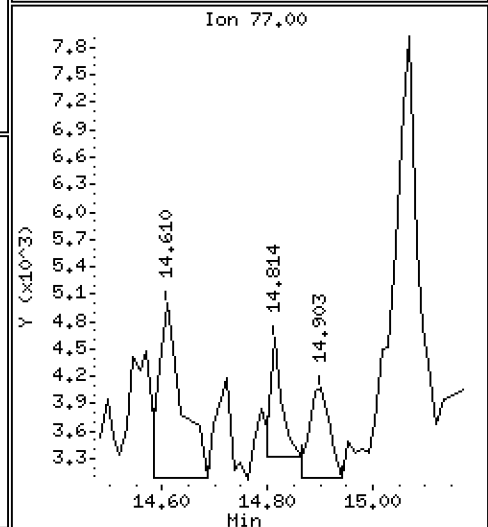
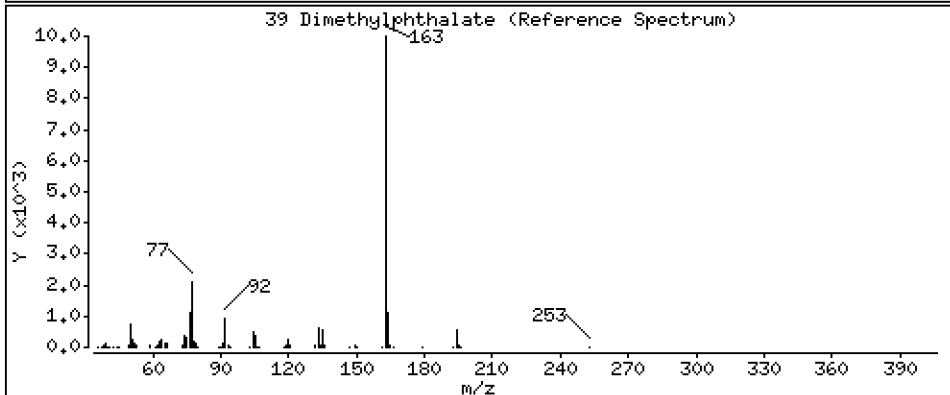
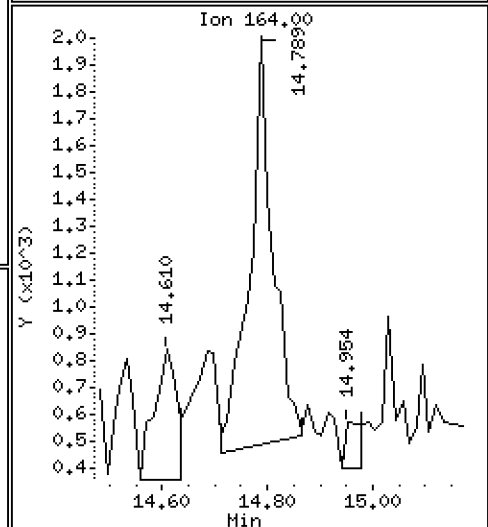
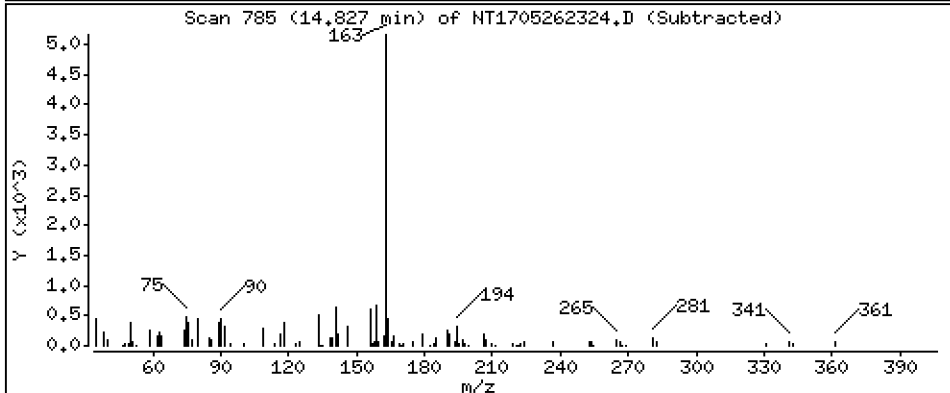
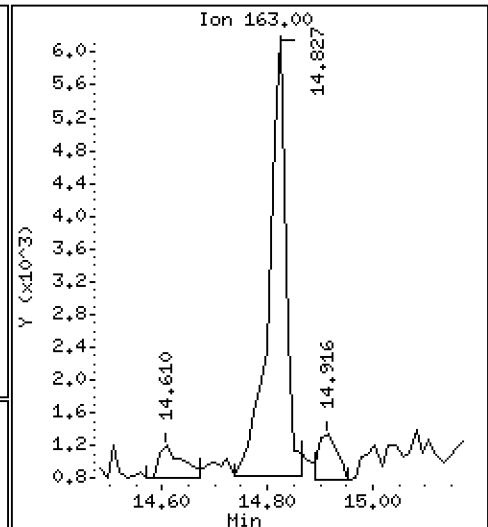
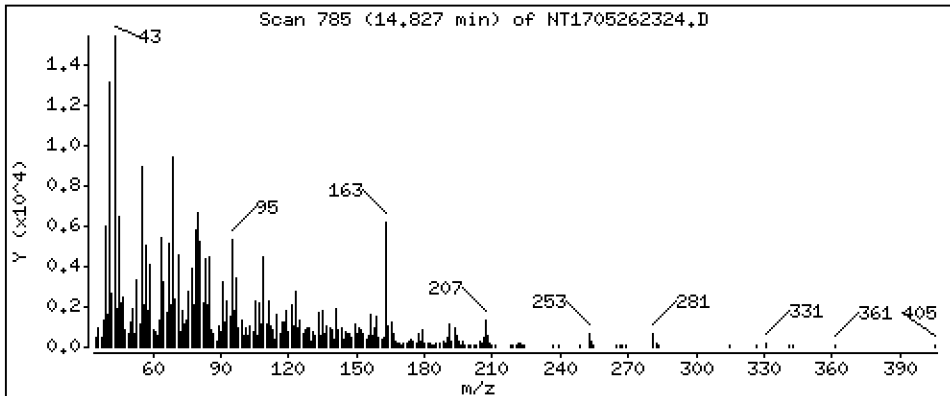
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.06638 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

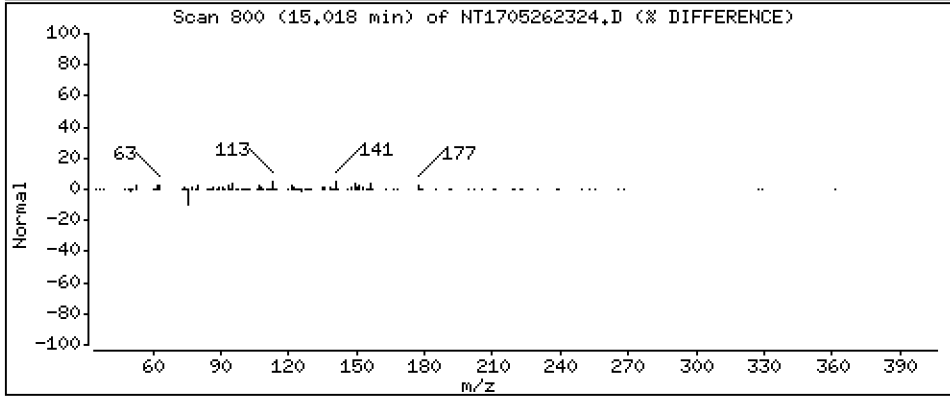
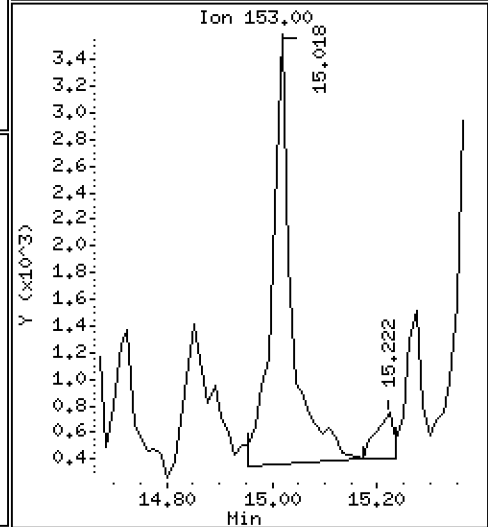
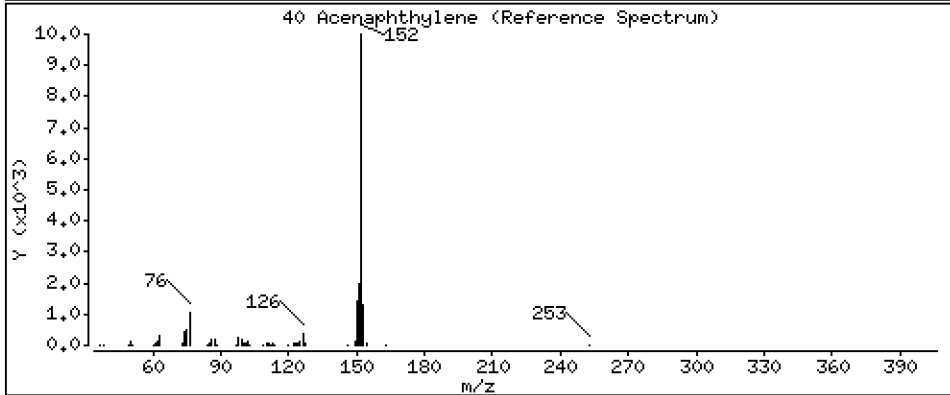
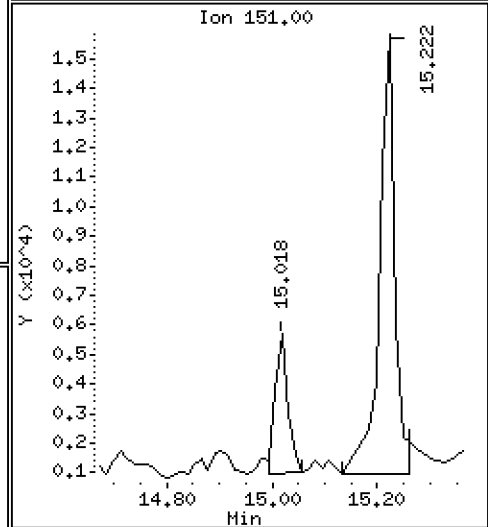
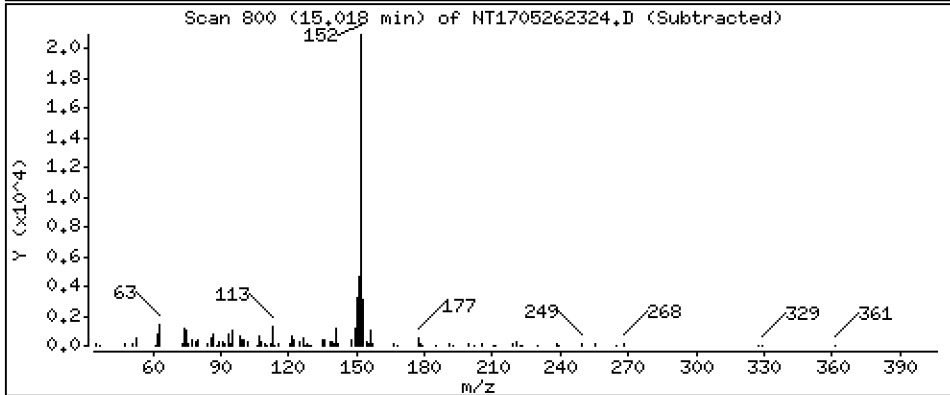
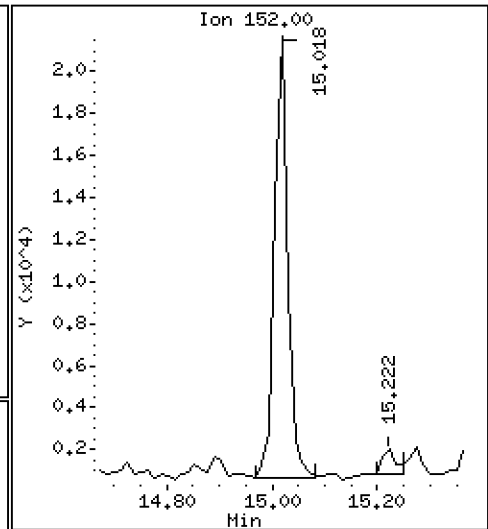
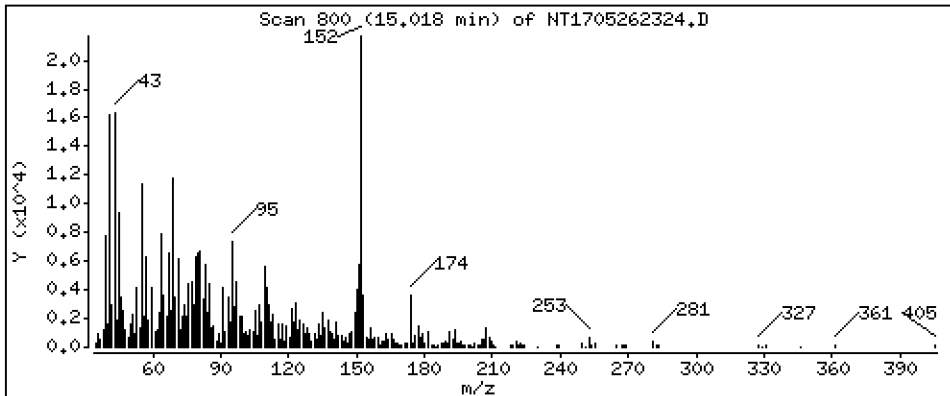
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.1371 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

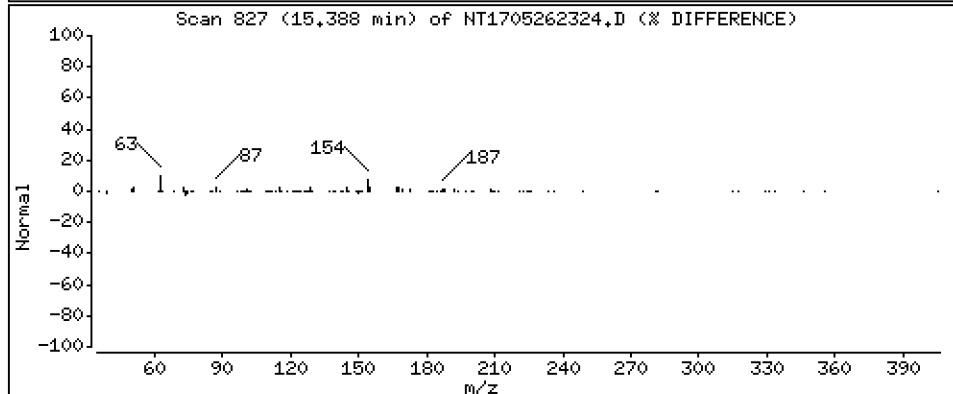
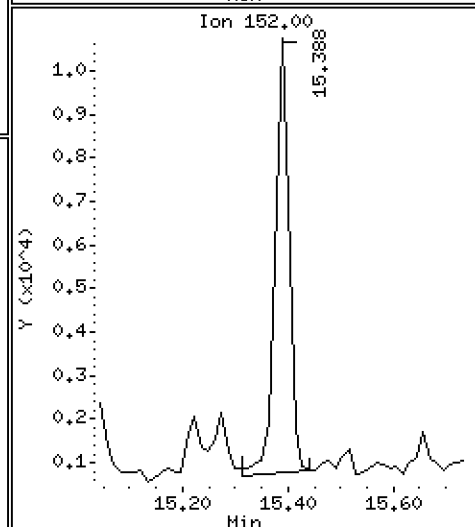
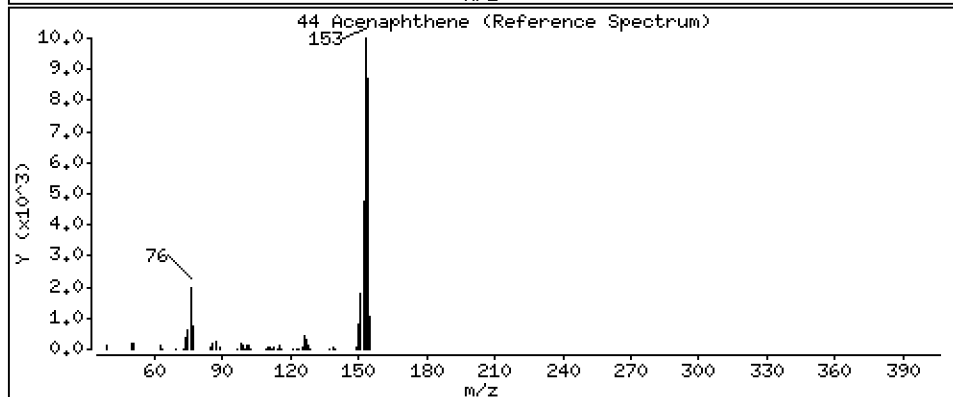
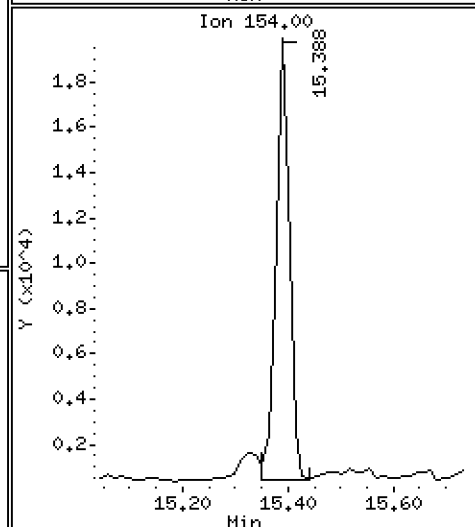
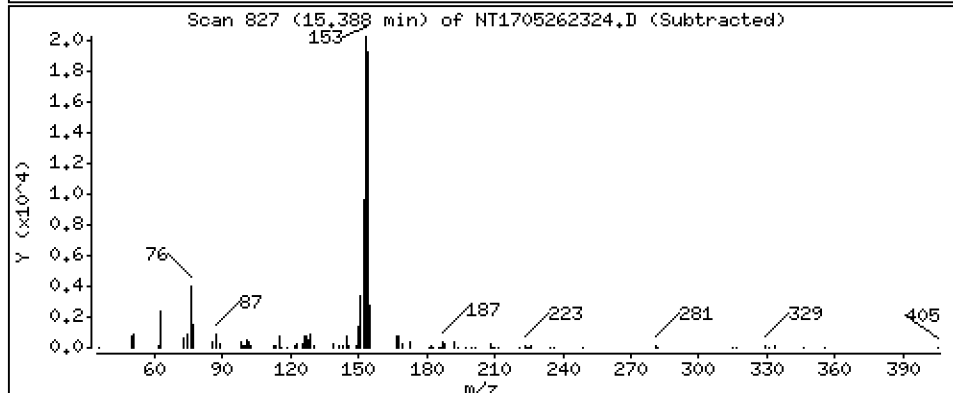
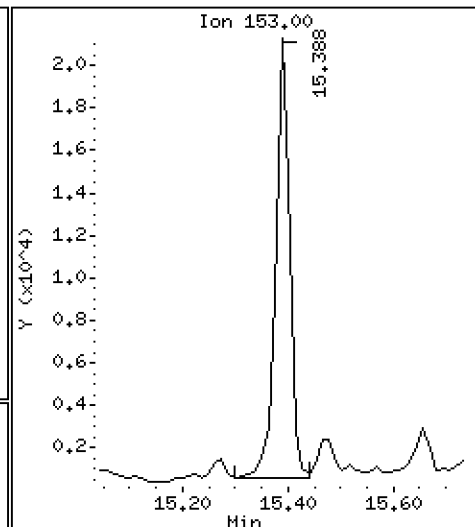
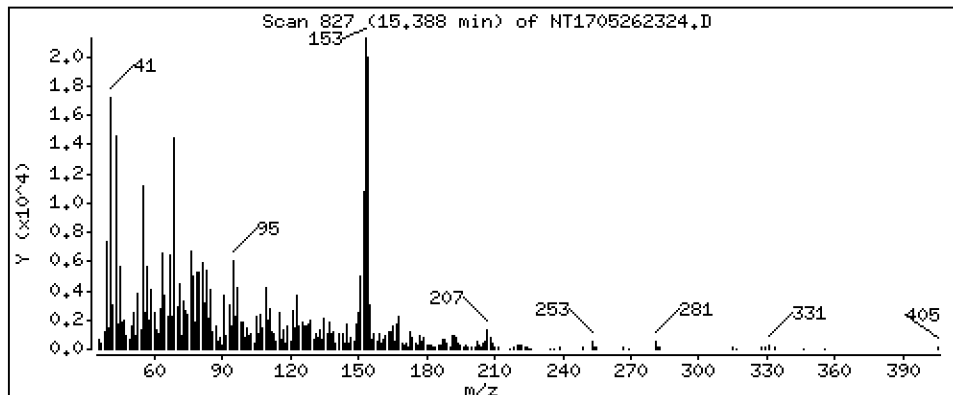
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,2293 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

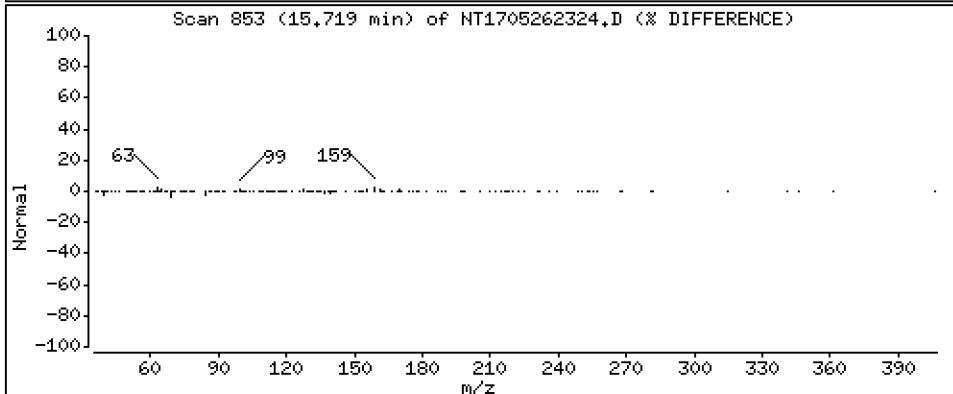
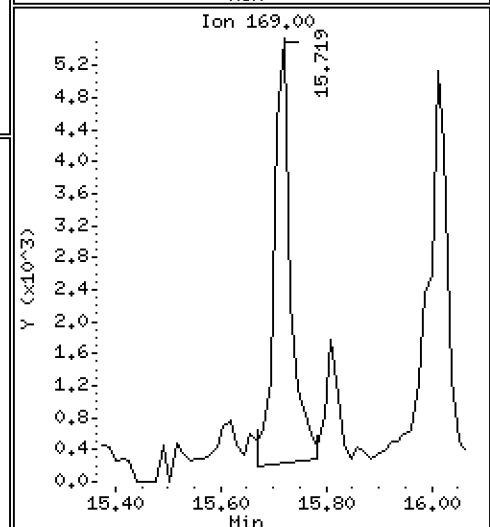
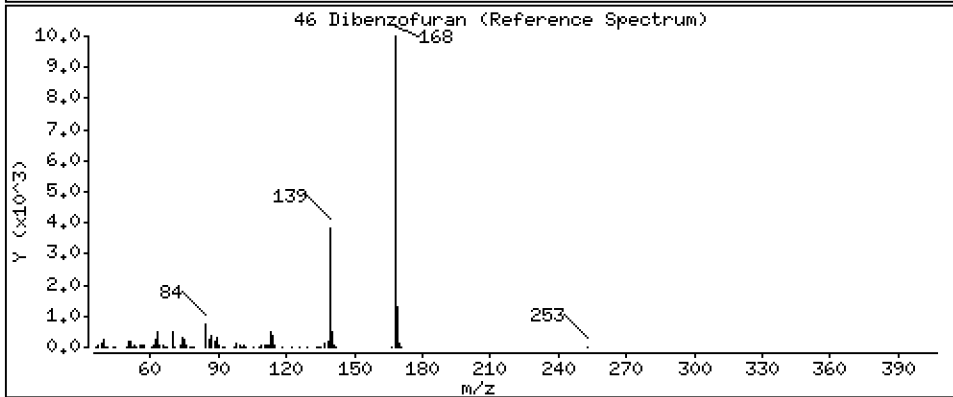
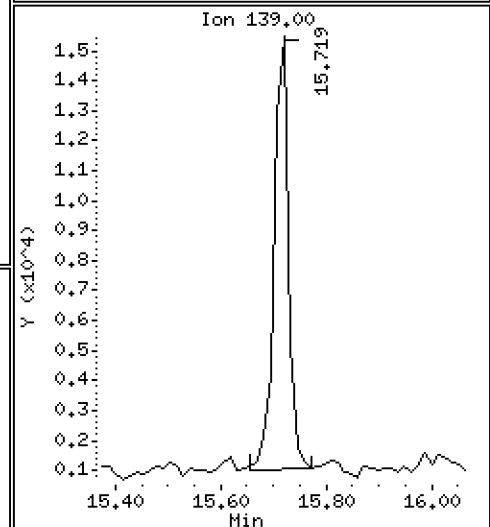
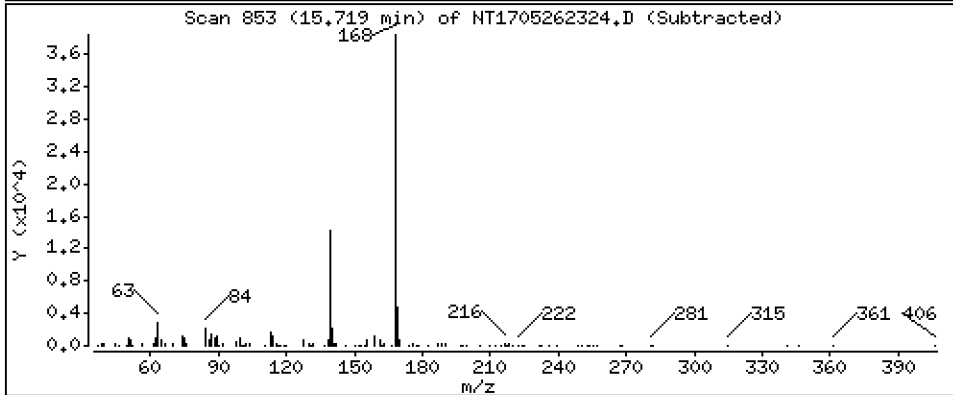
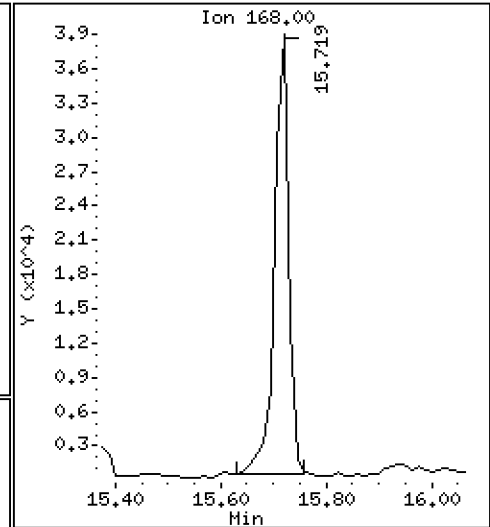
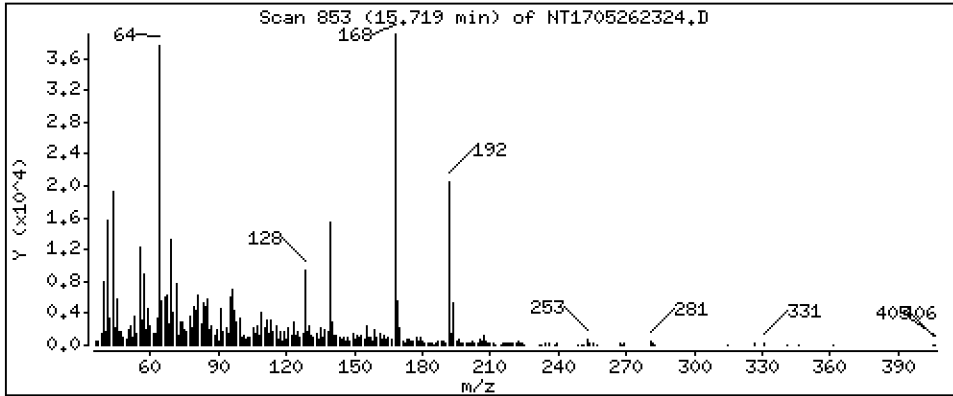
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,3089 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

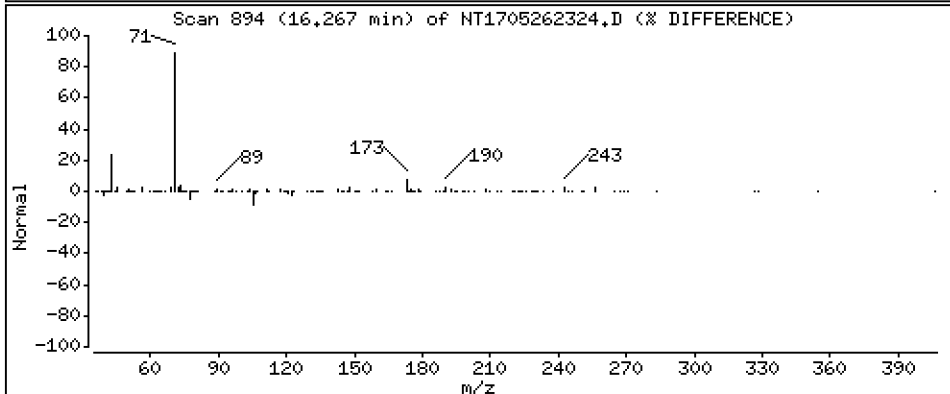
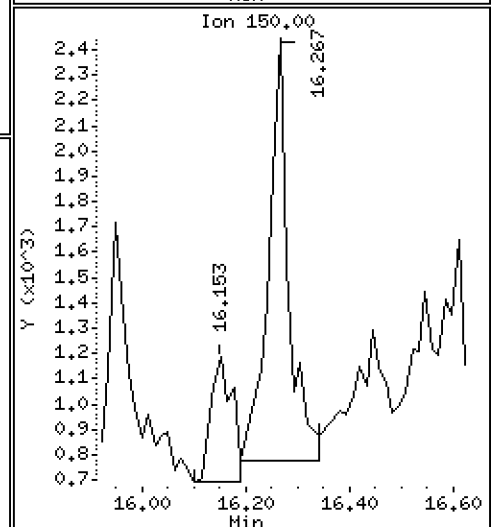
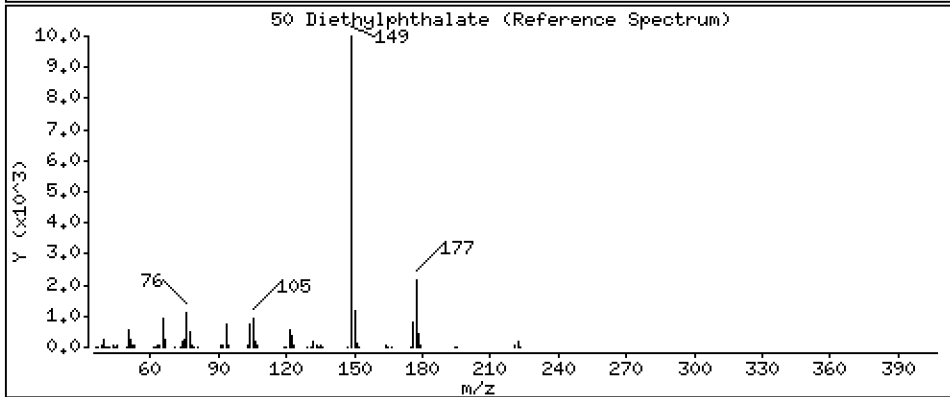
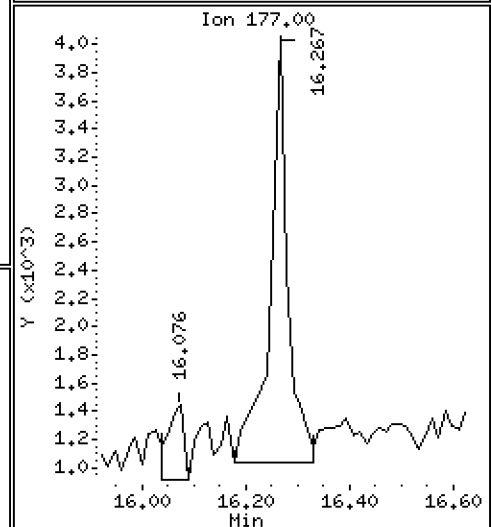
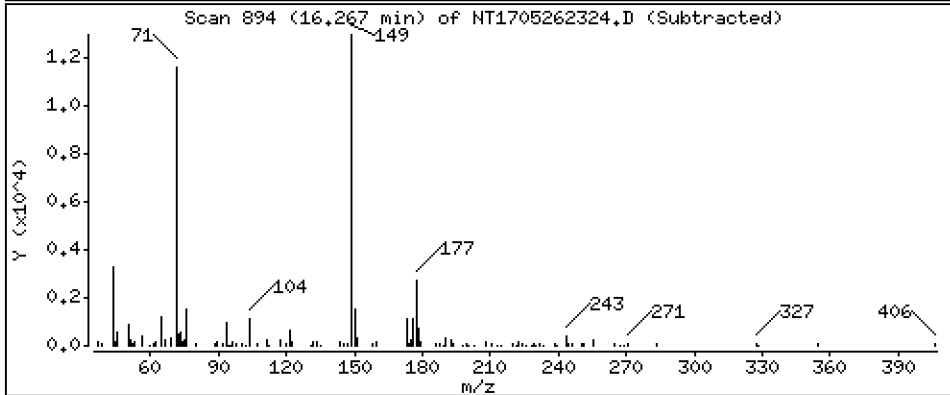
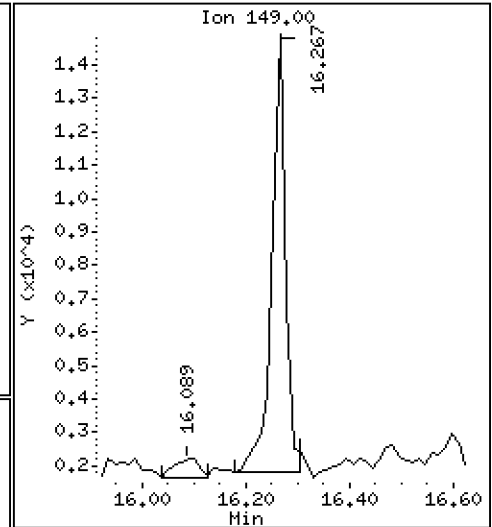
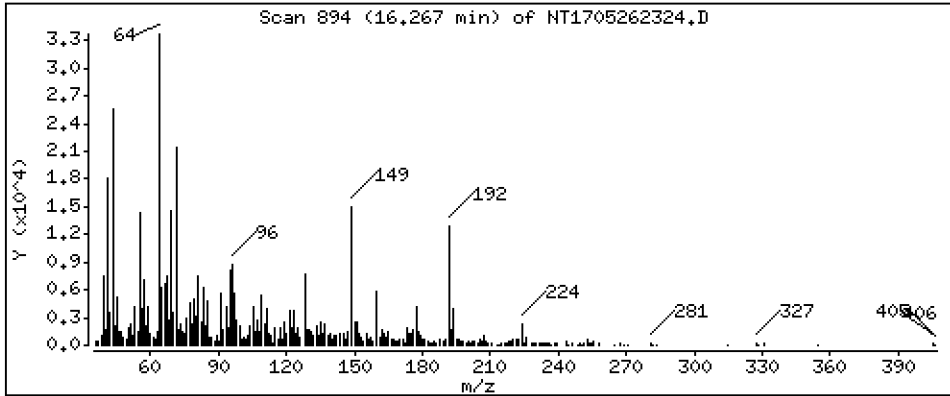
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1645 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

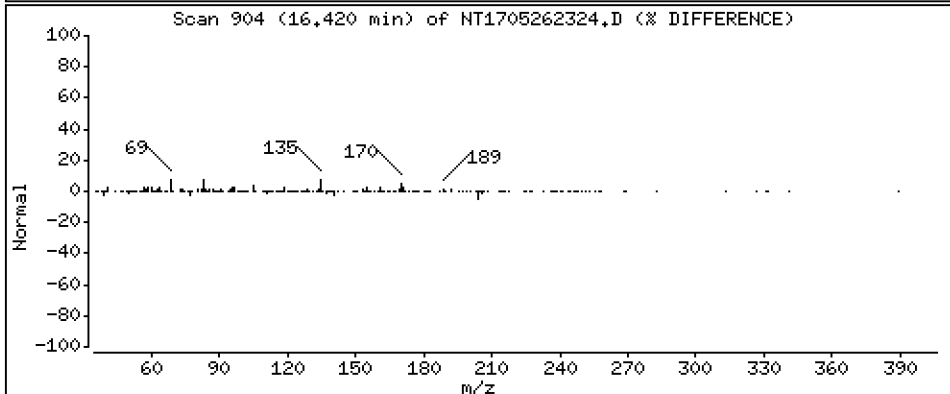
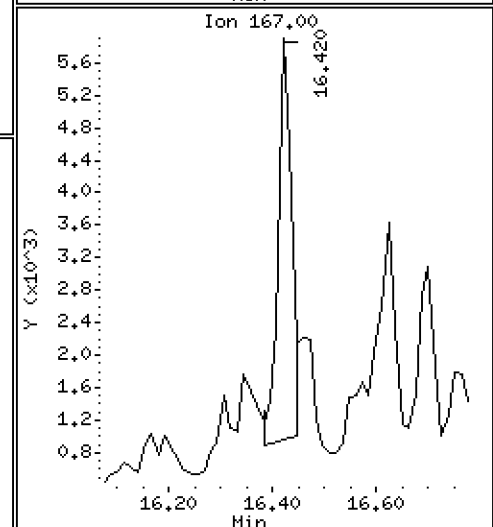
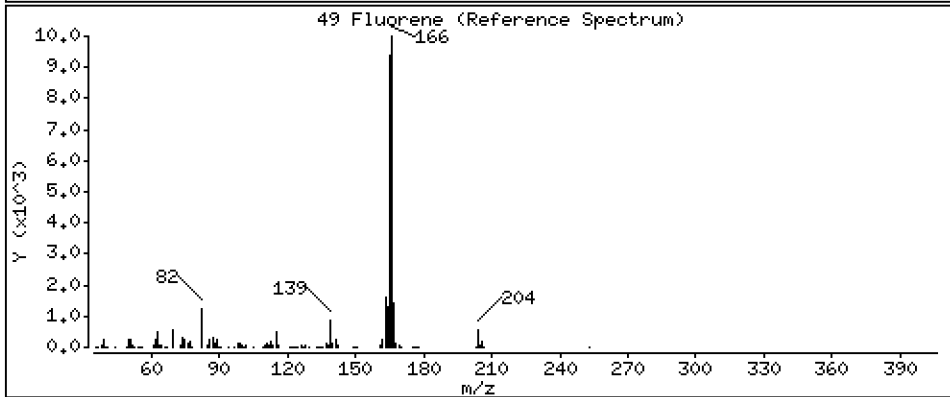
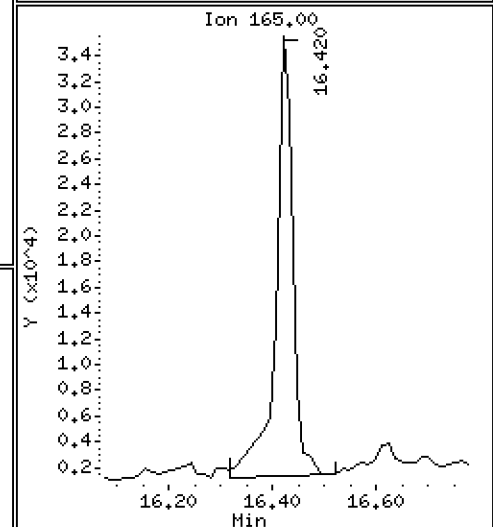
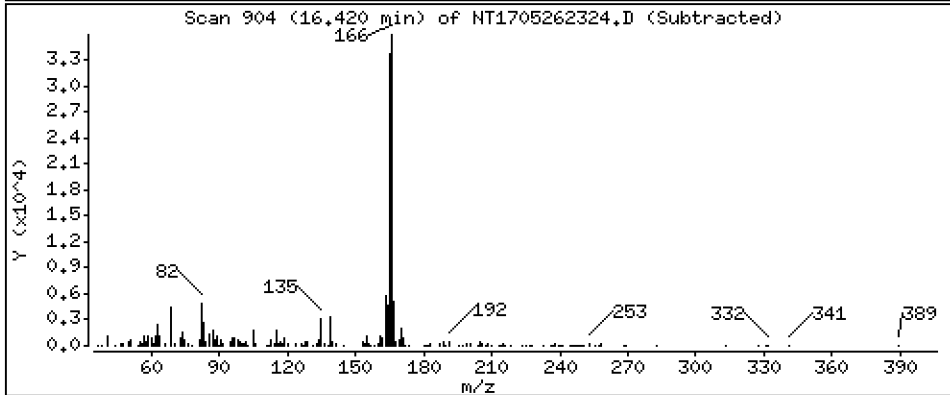
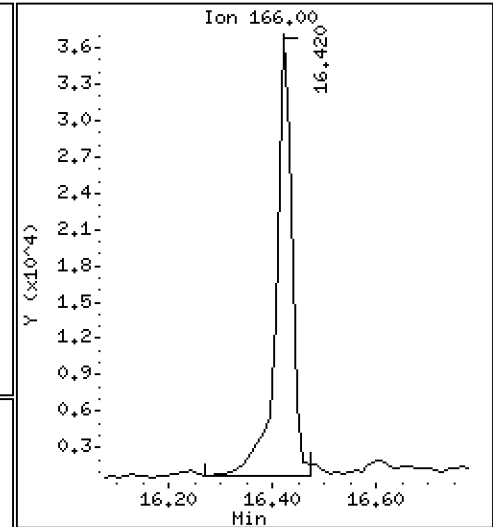
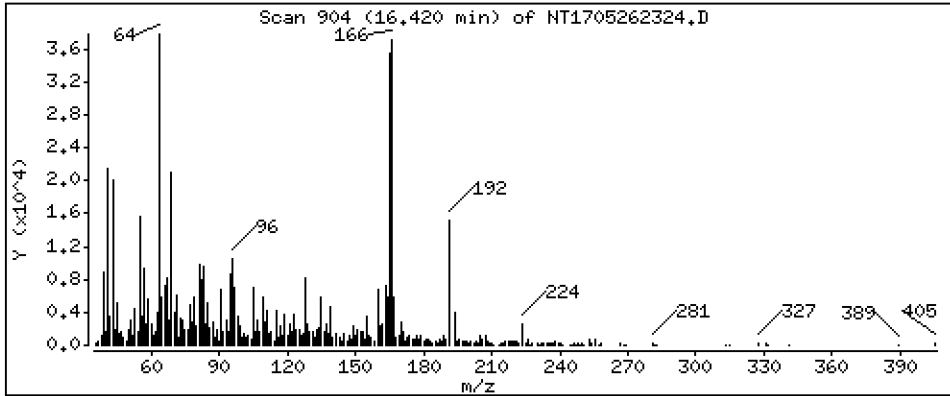
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,3790 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

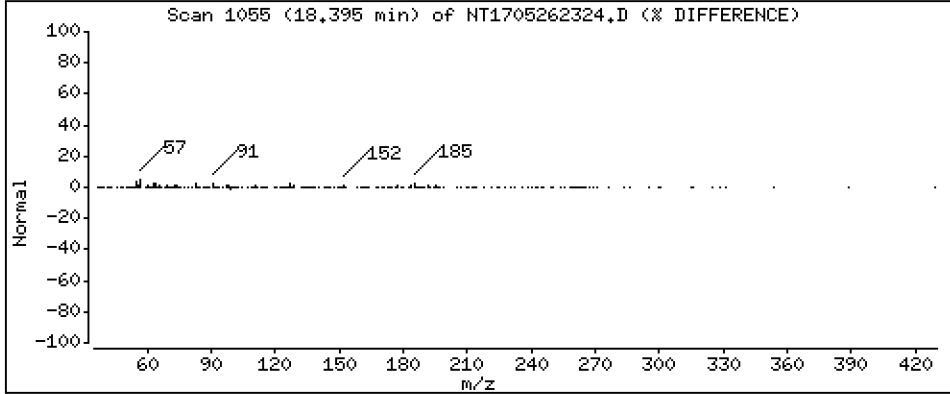
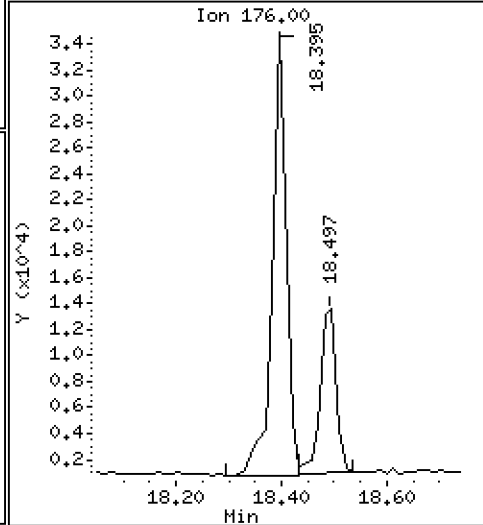
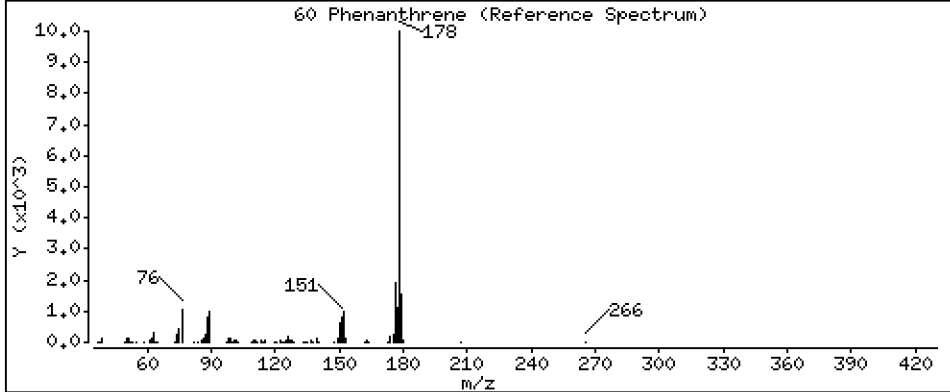
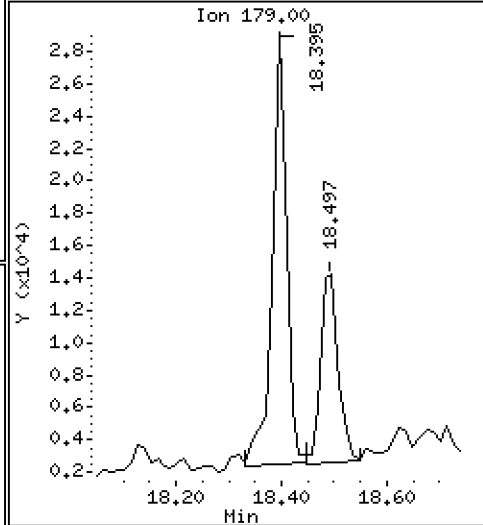
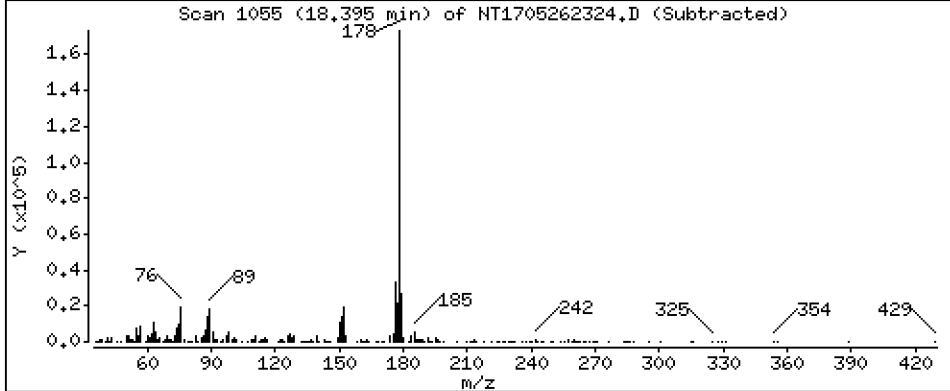
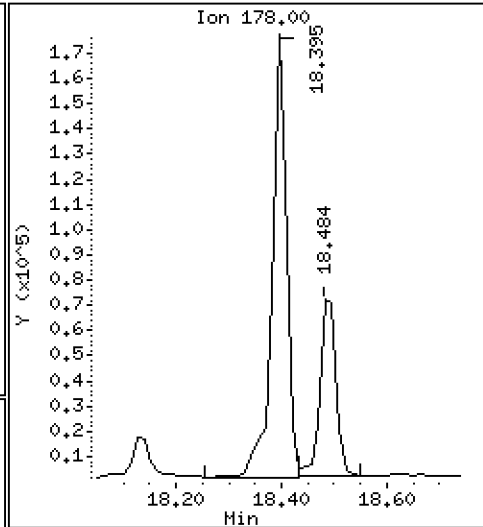
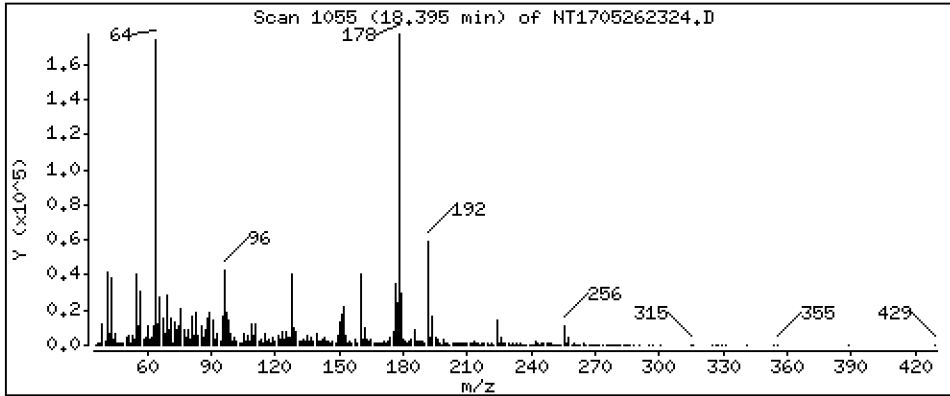
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 1,386 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

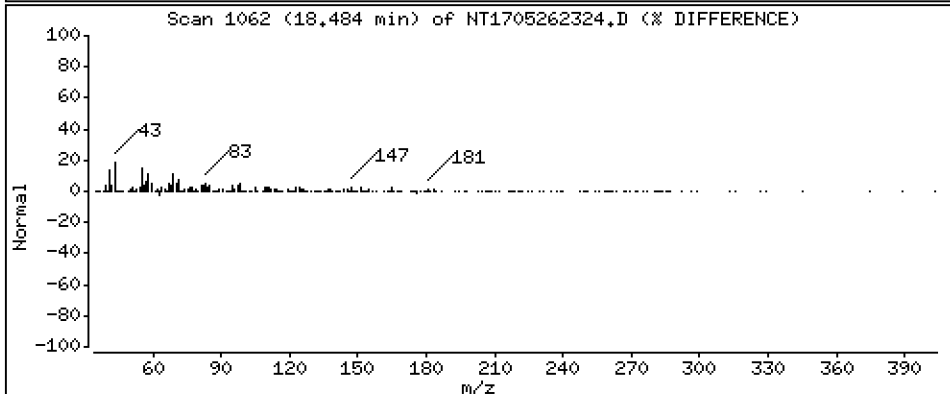
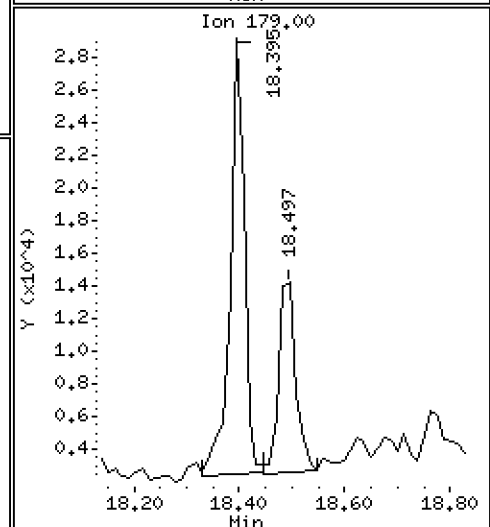
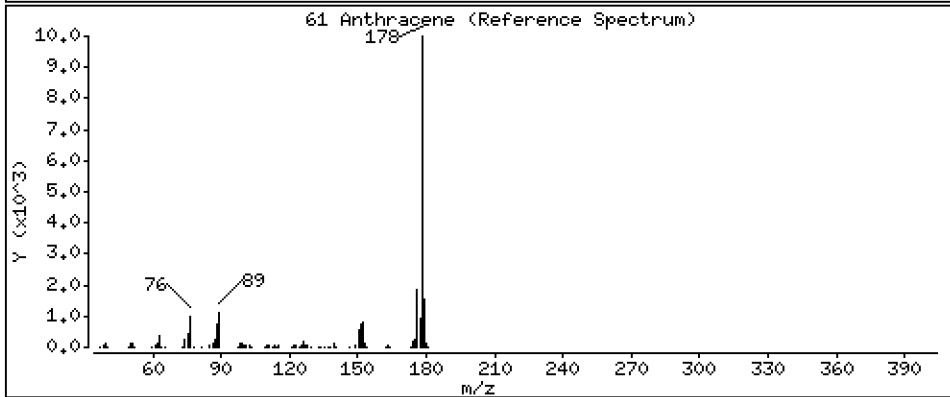
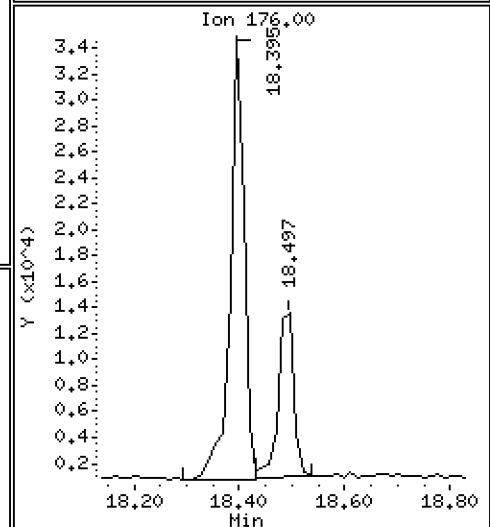
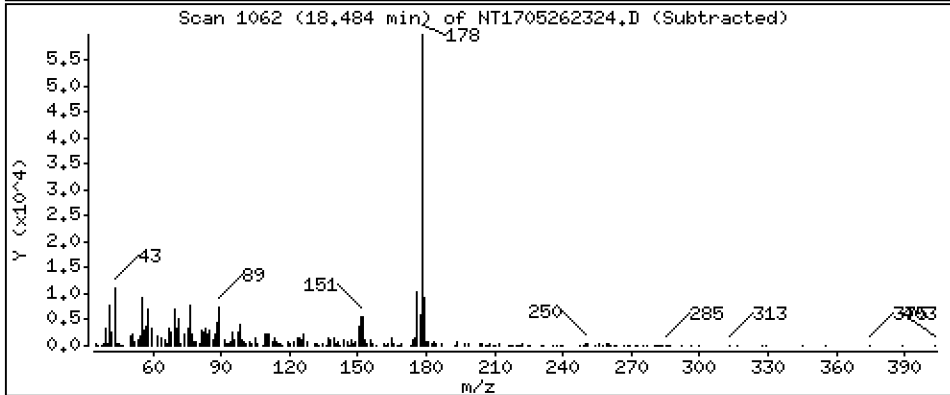
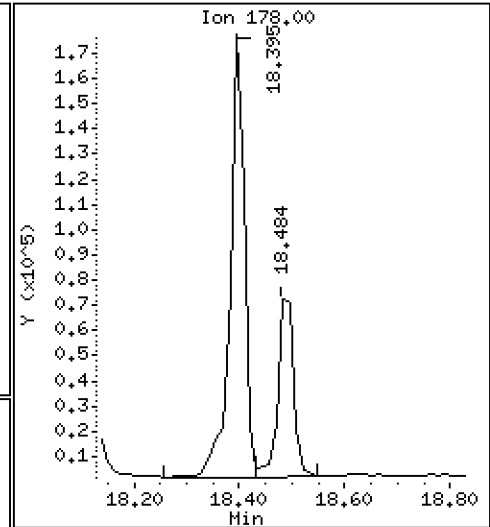
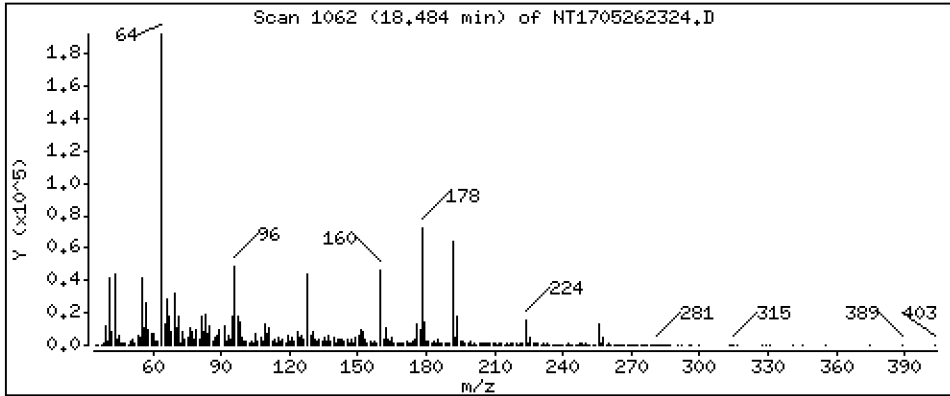
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,6551 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

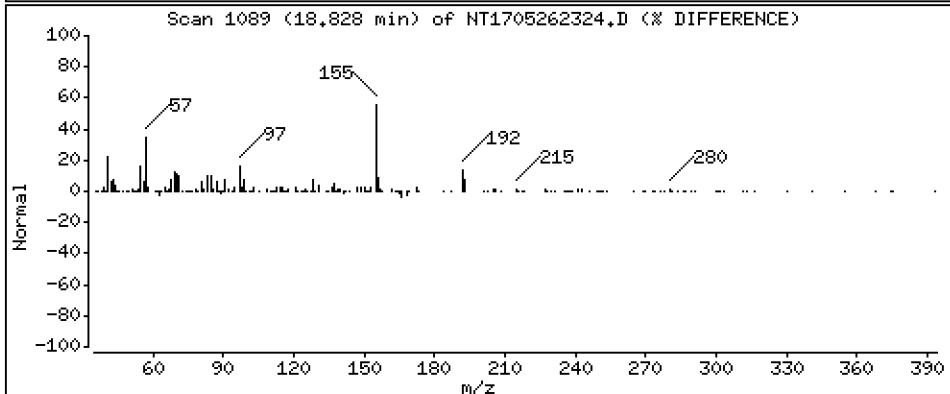
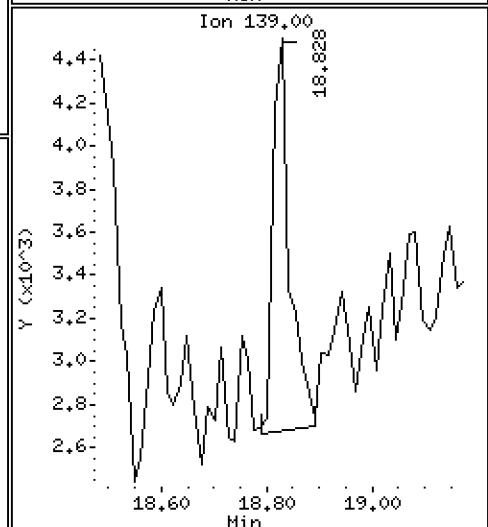
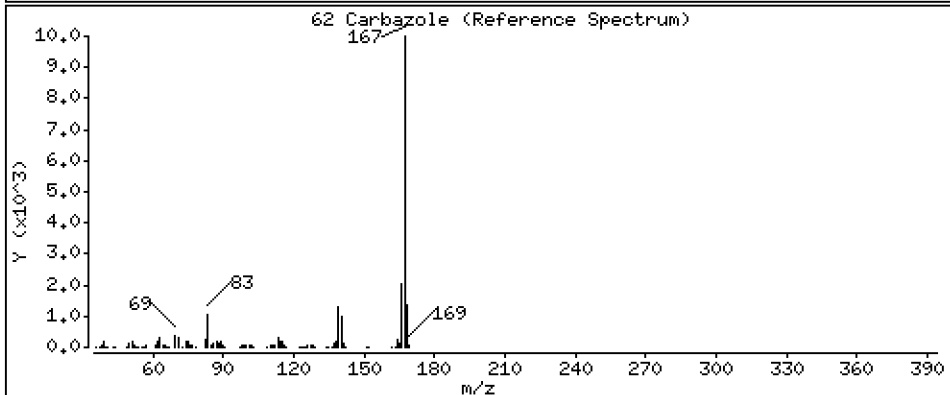
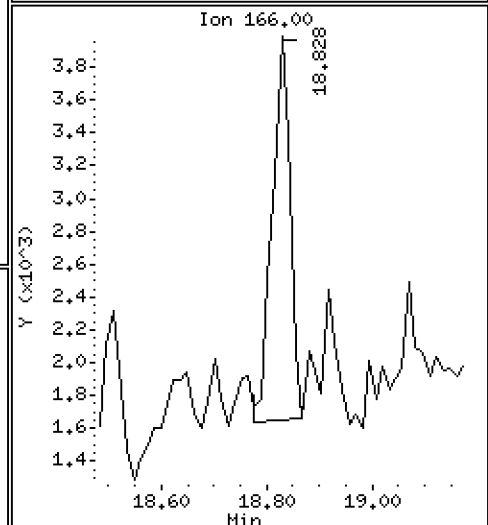
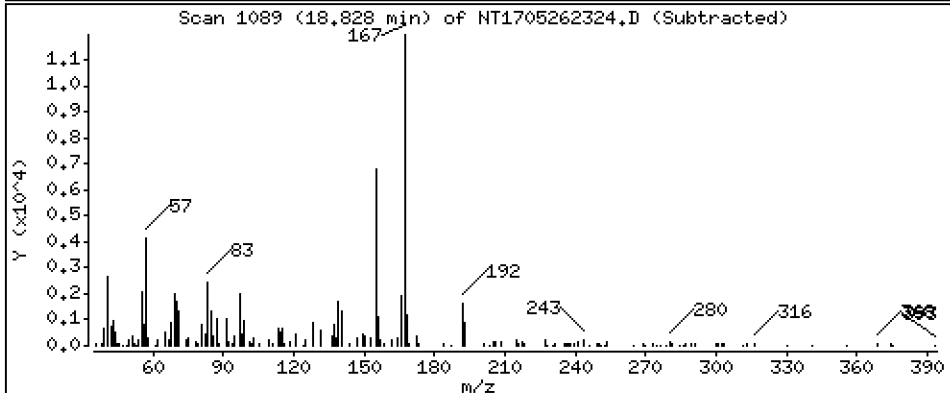
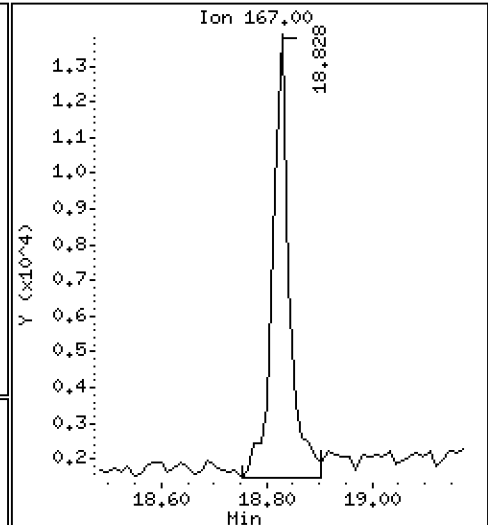
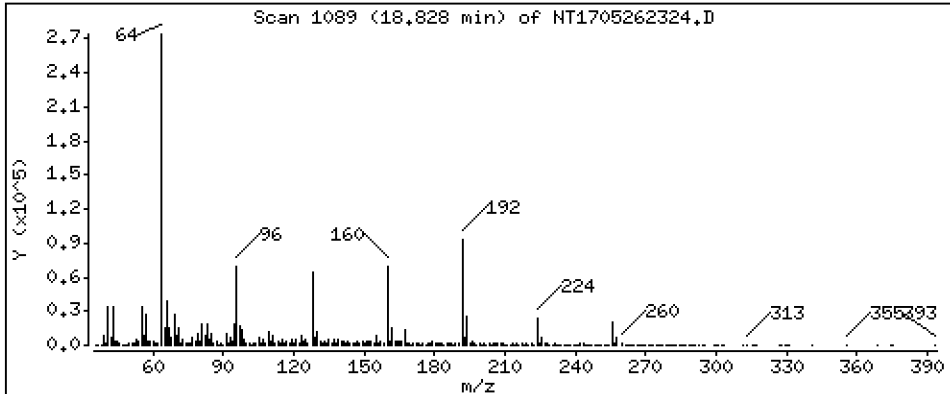
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.1969 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

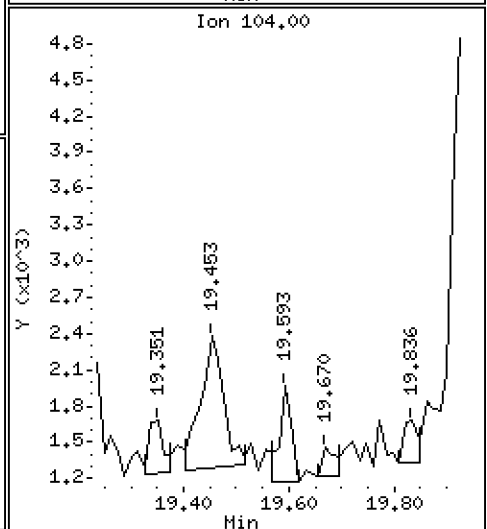
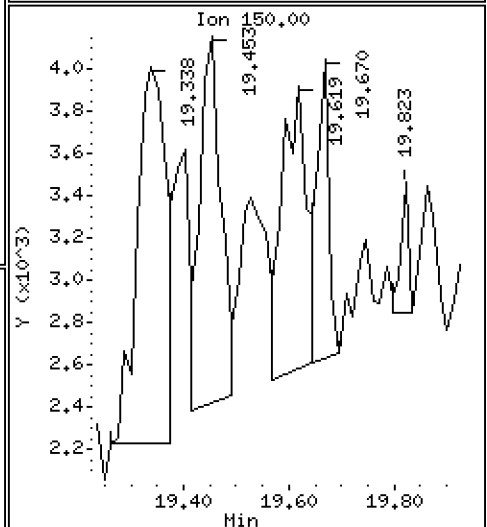
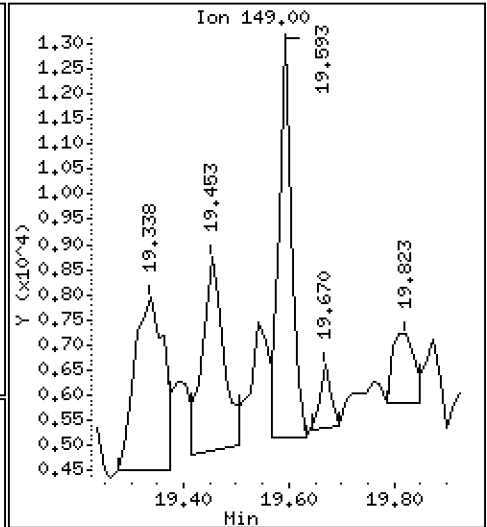
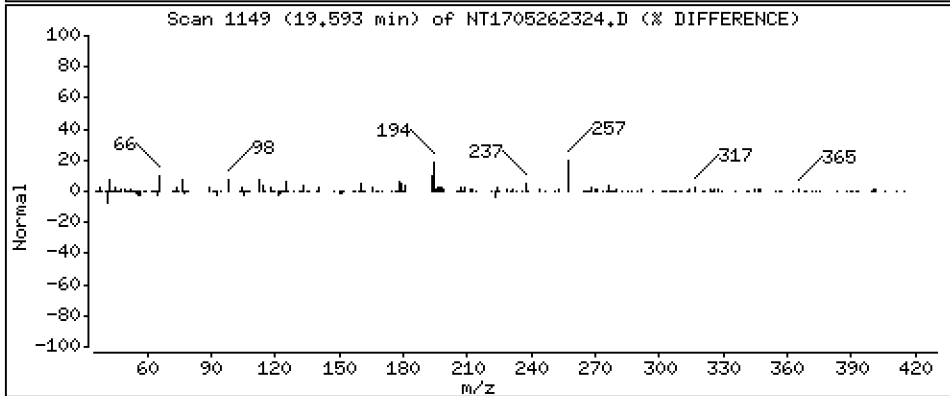
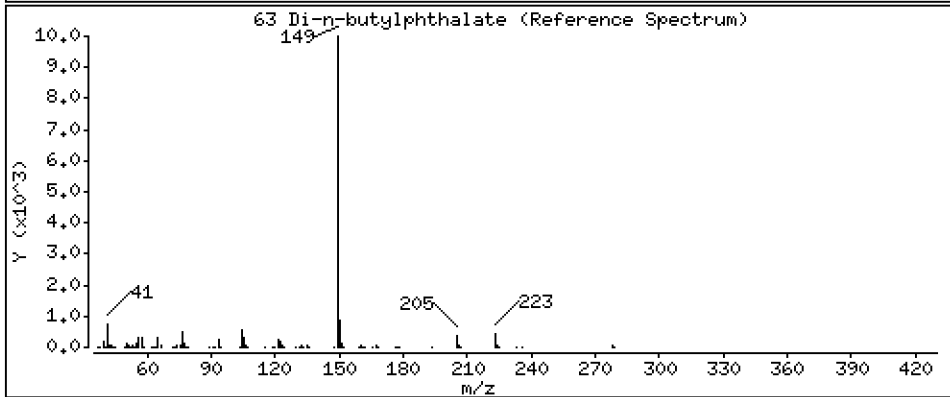
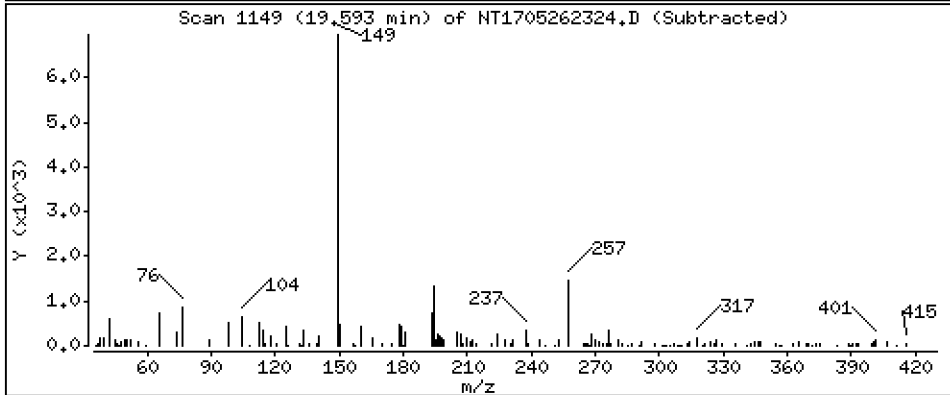
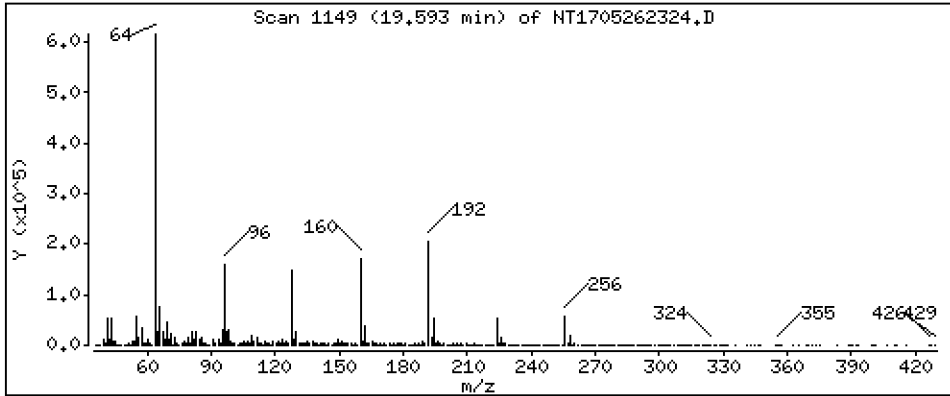
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.04993 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

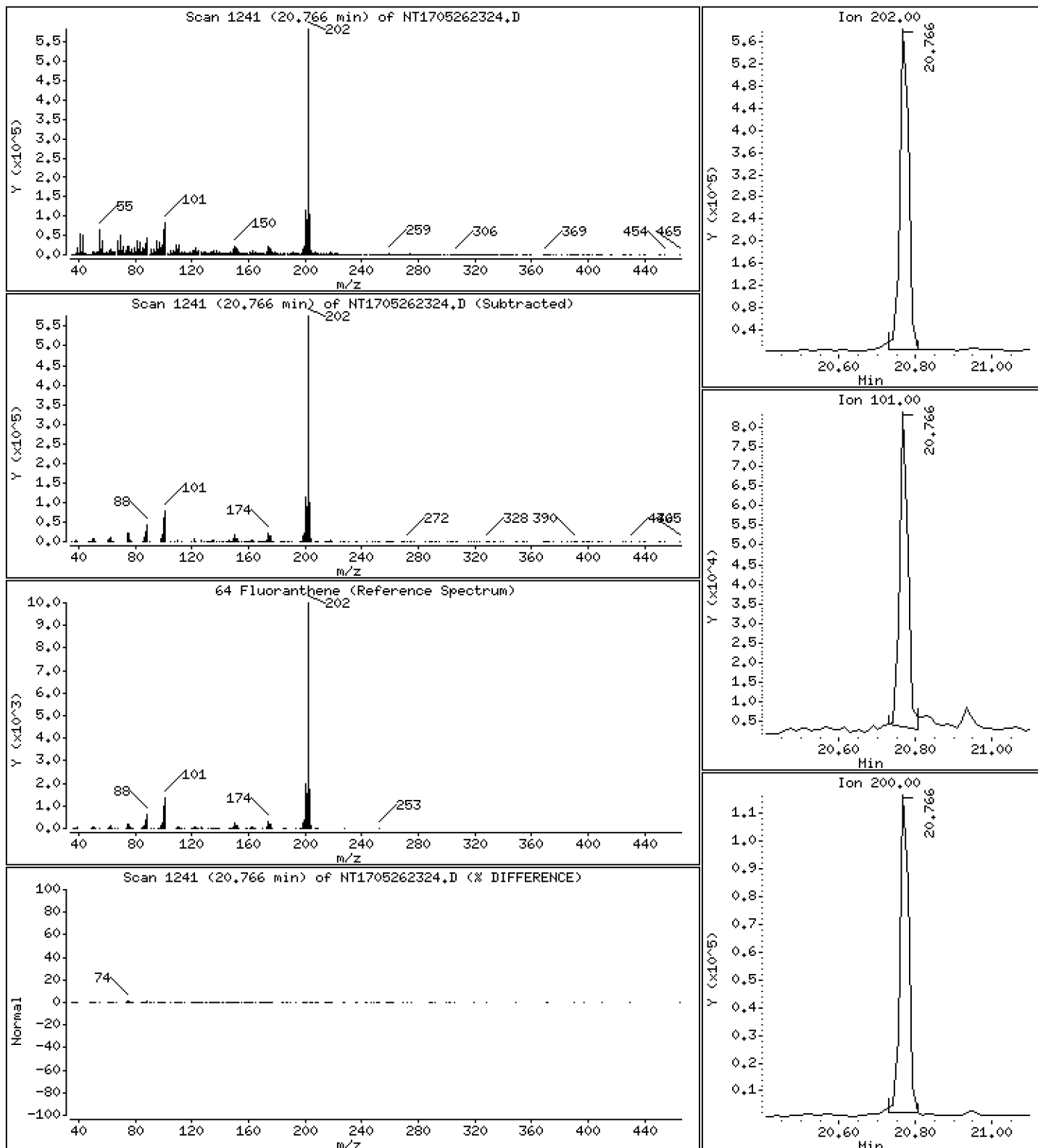
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,972 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

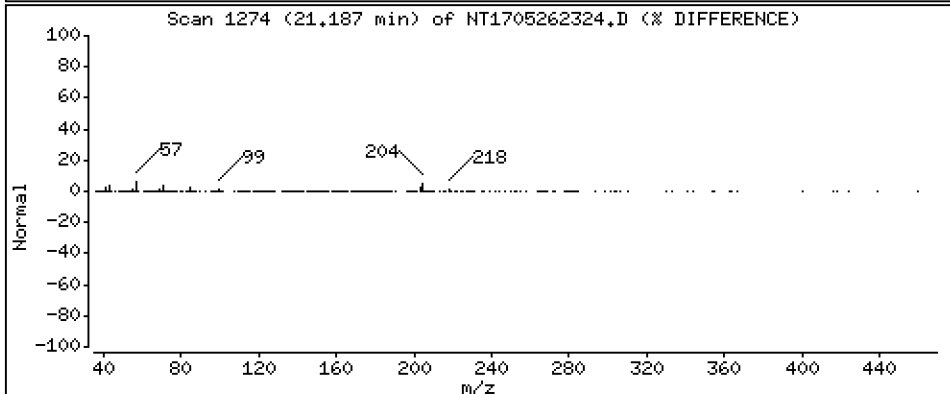
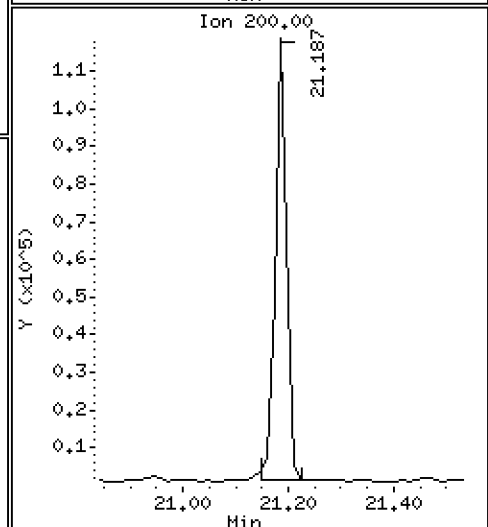
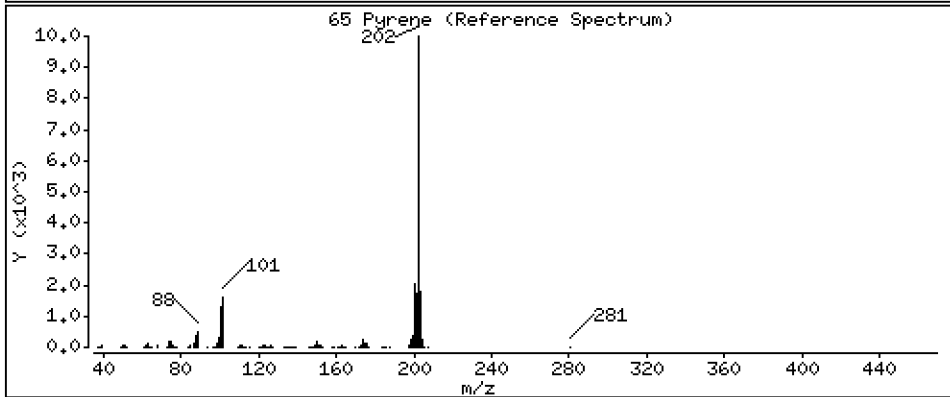
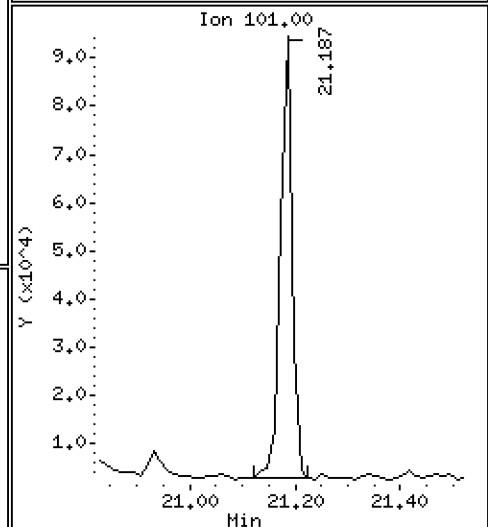
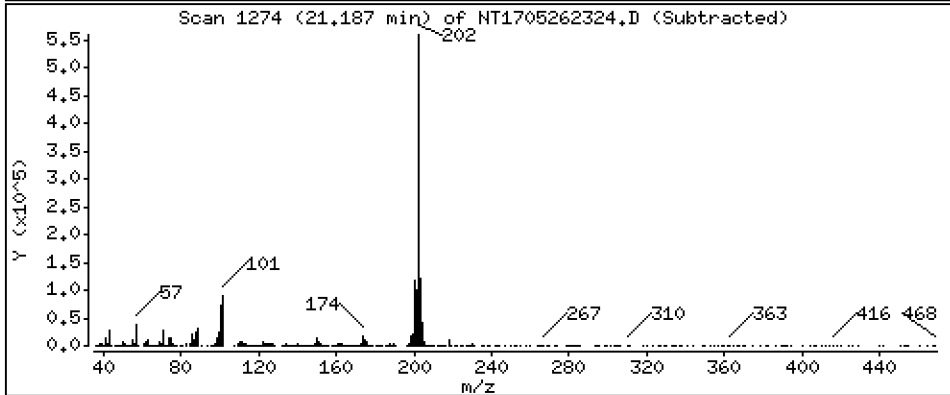
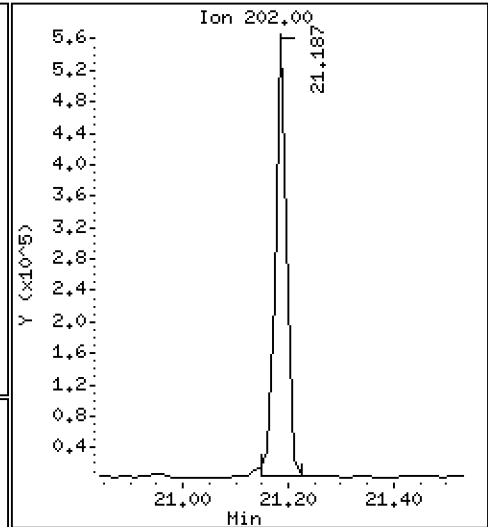
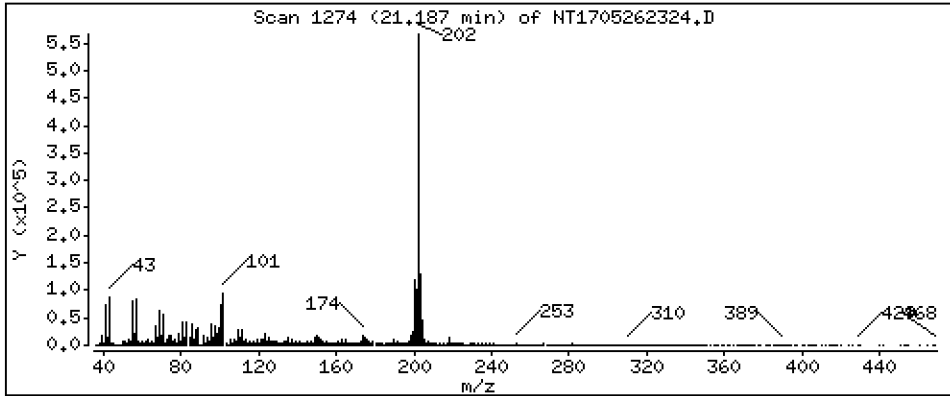
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,617 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

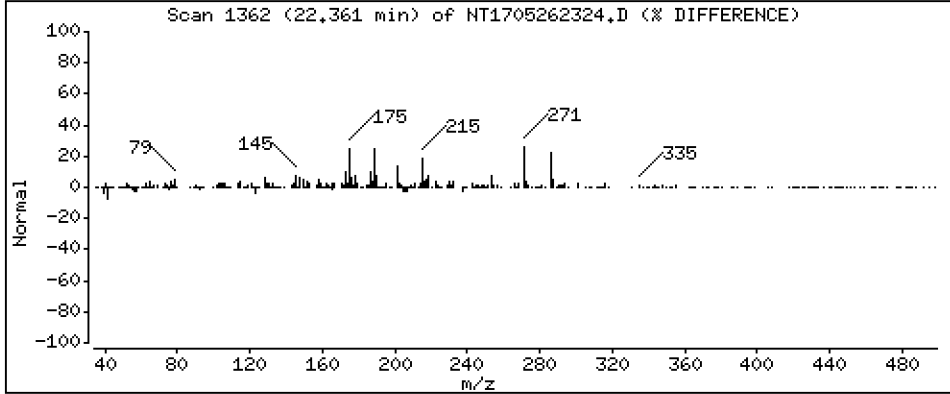
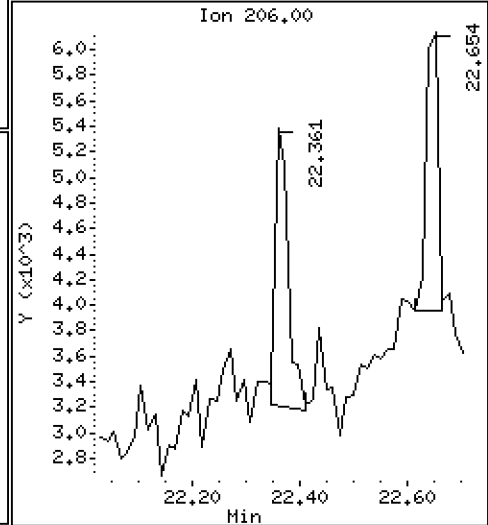
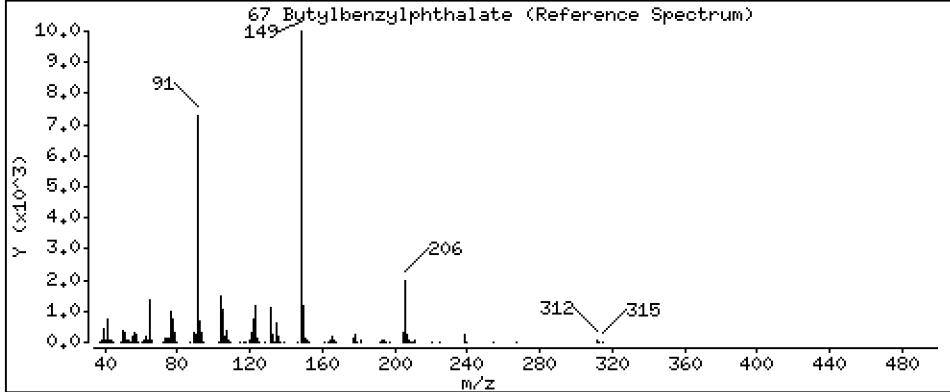
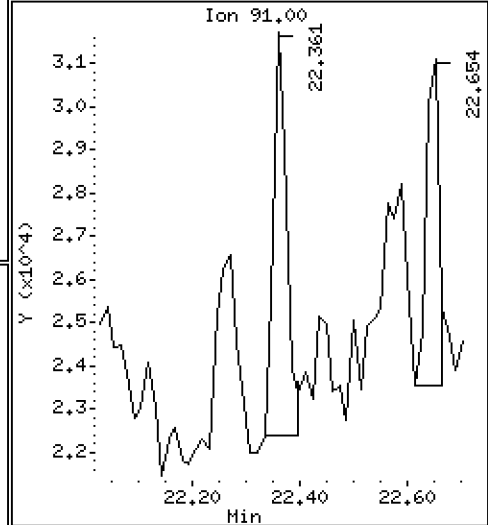
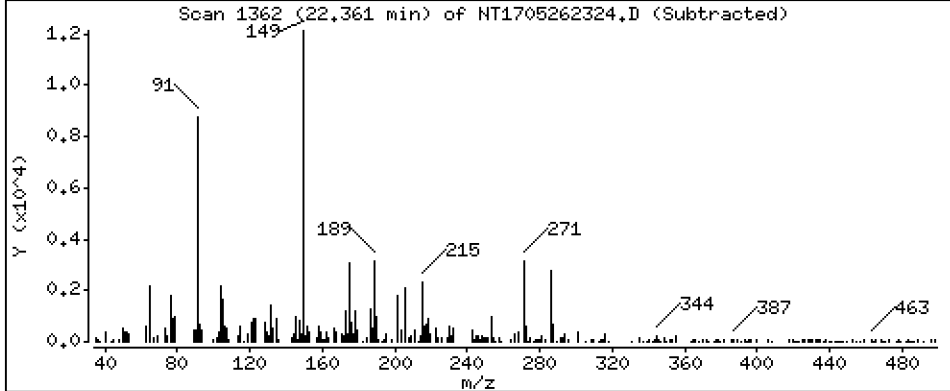
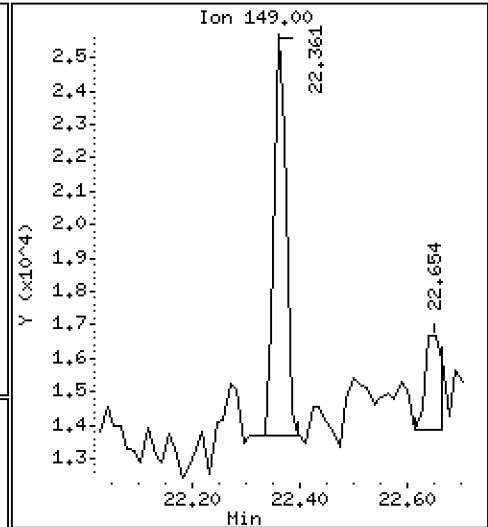
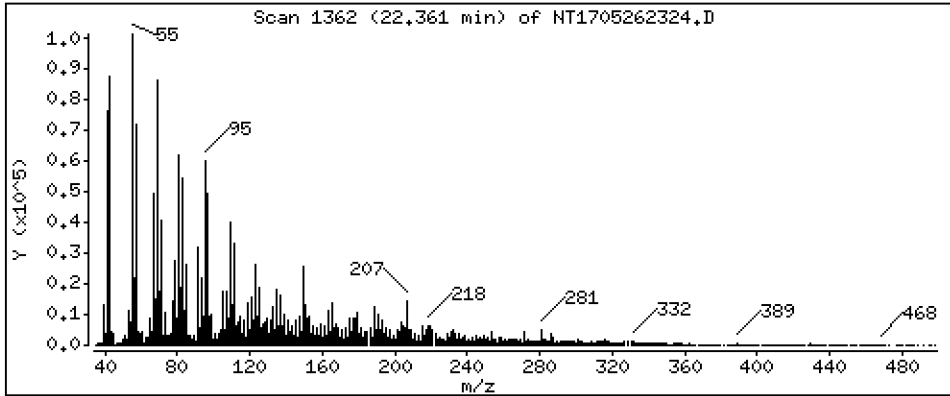
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1353 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

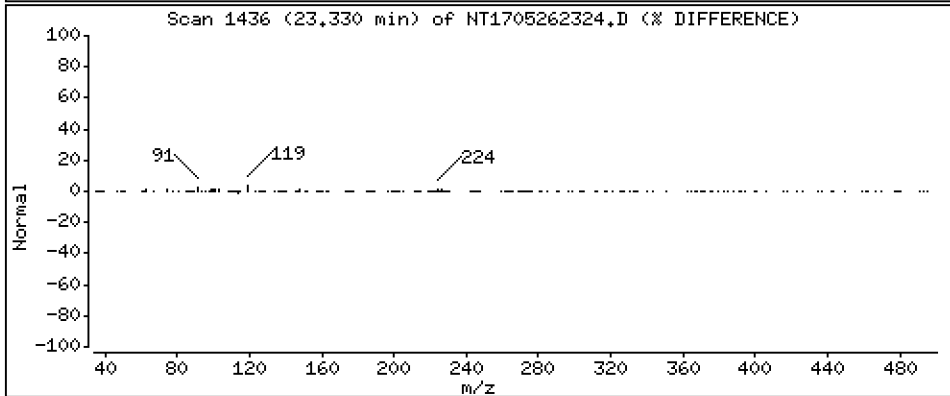
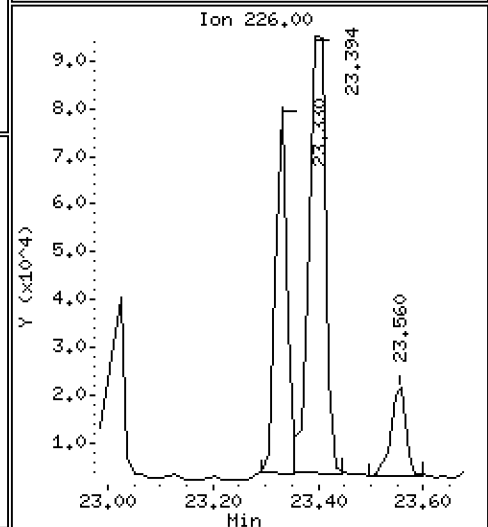
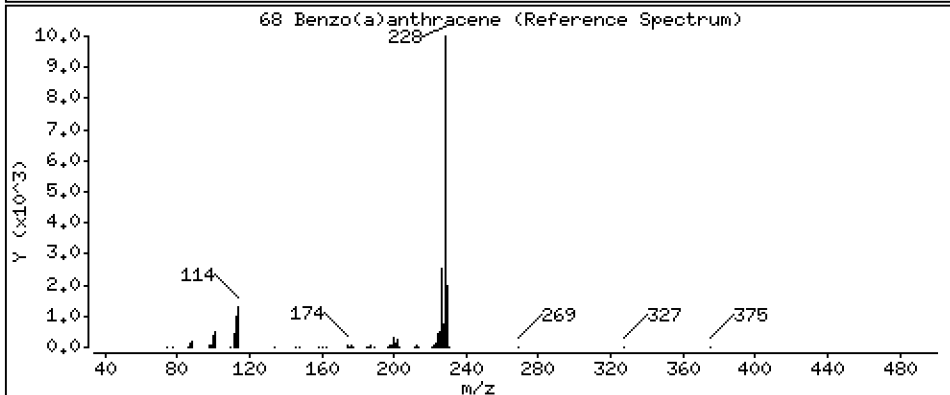
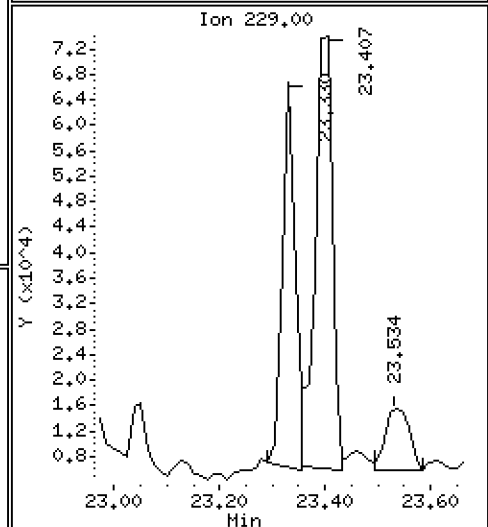
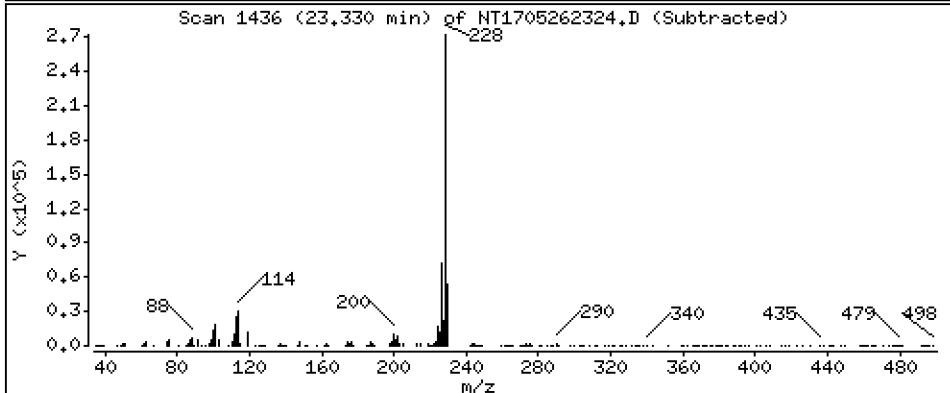
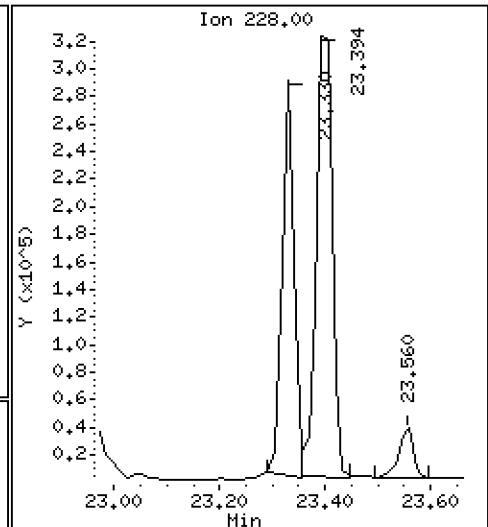
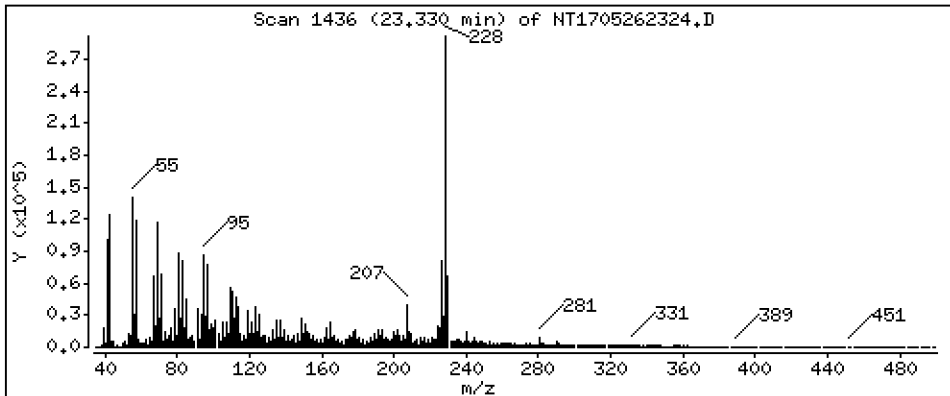
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,824 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

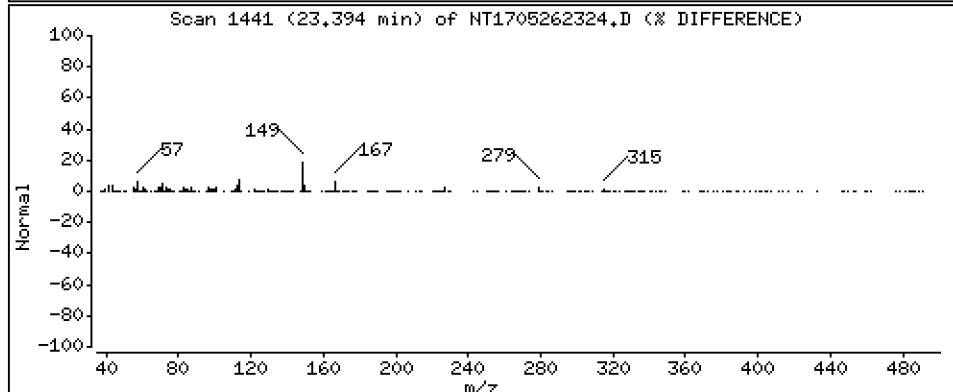
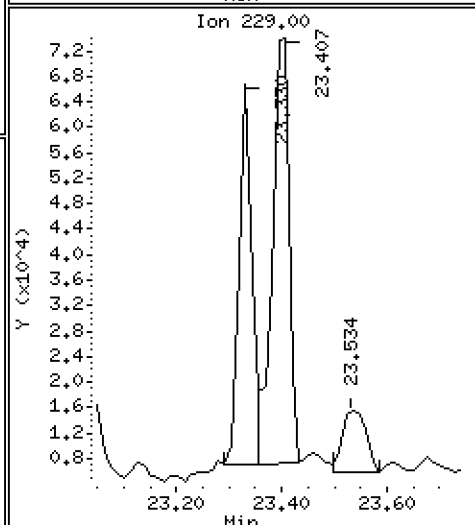
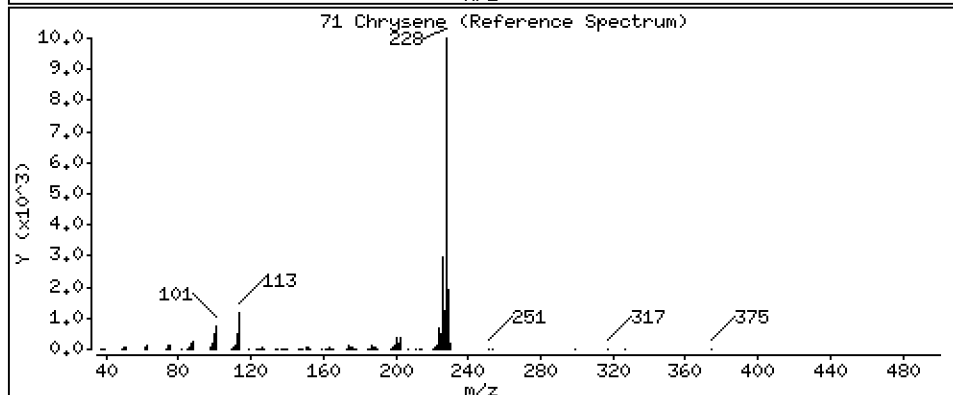
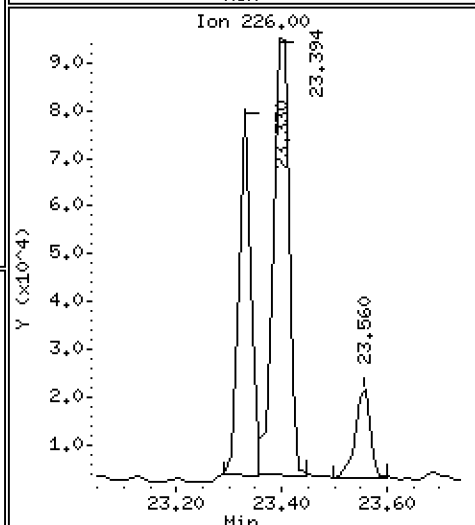
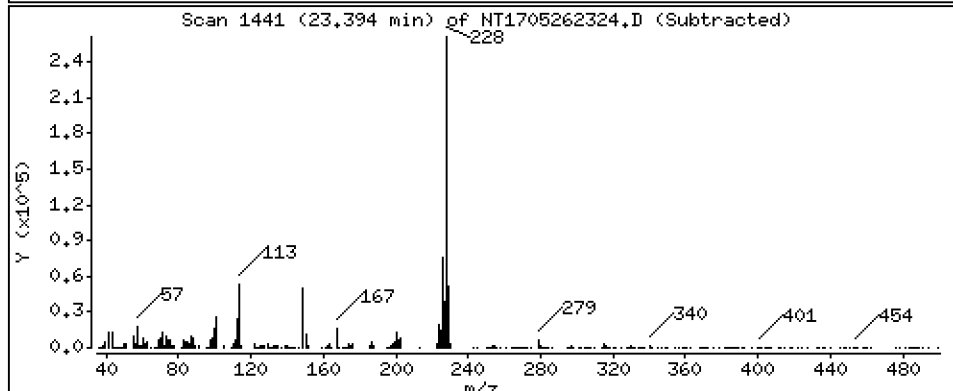
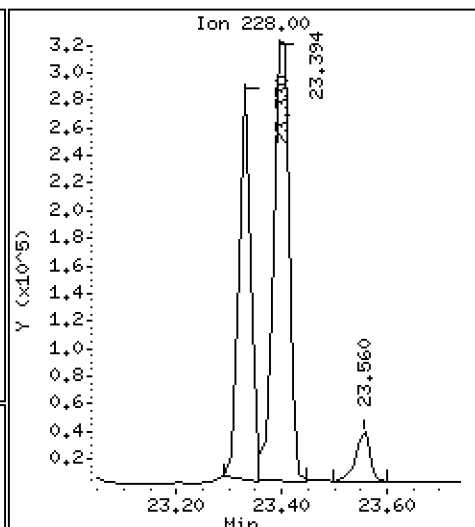
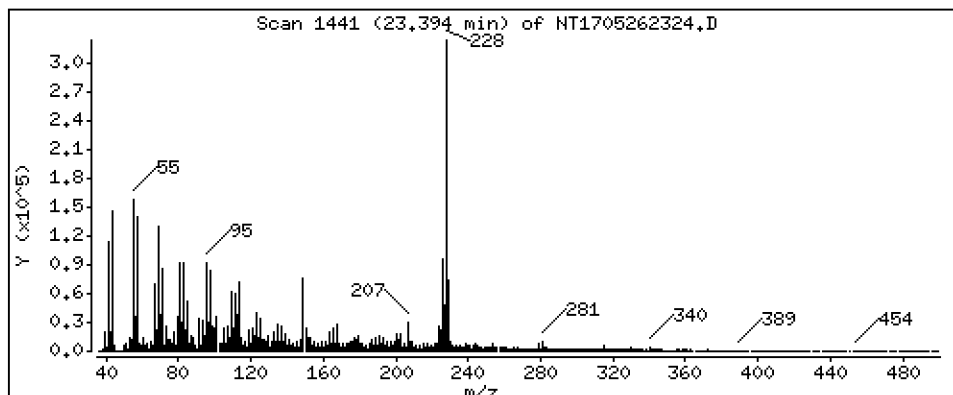
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 2,897 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

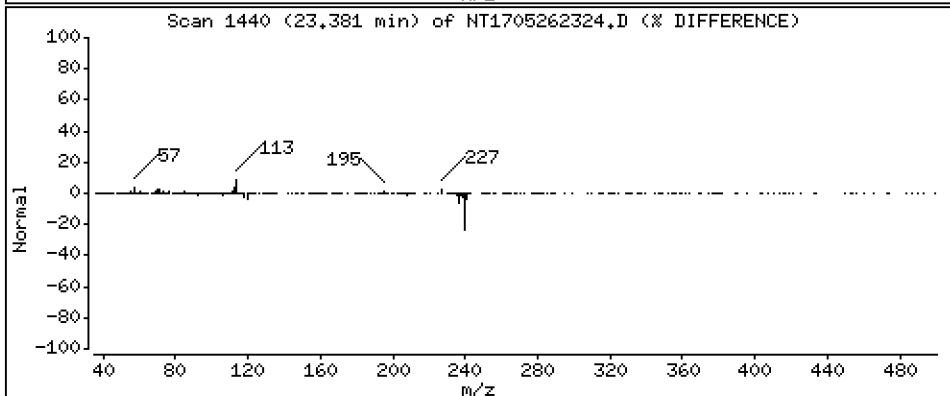
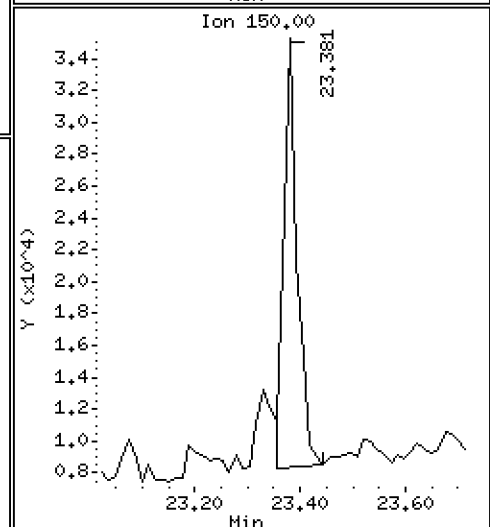
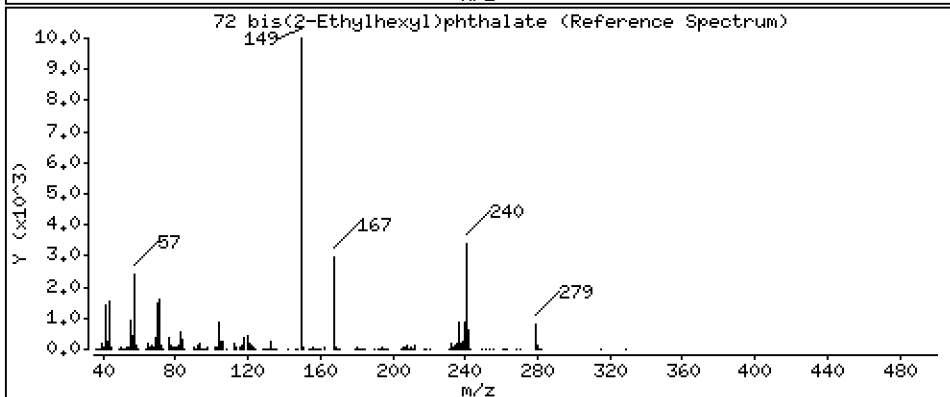
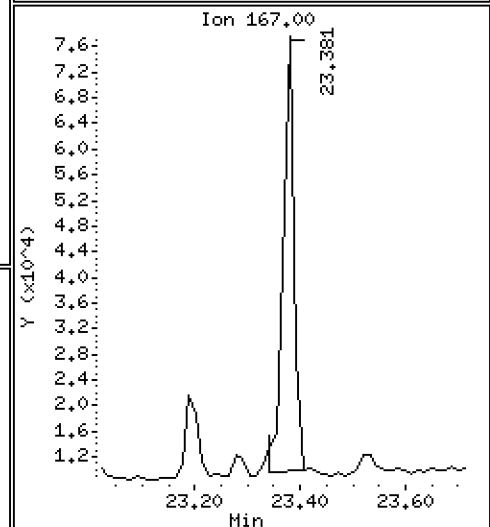
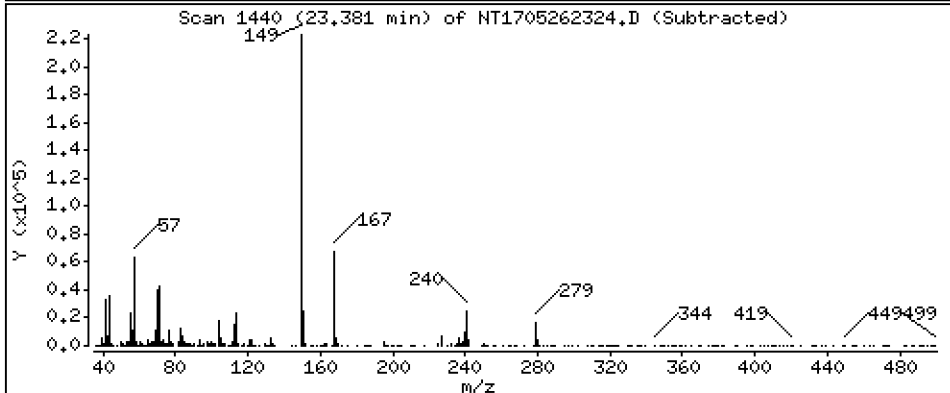
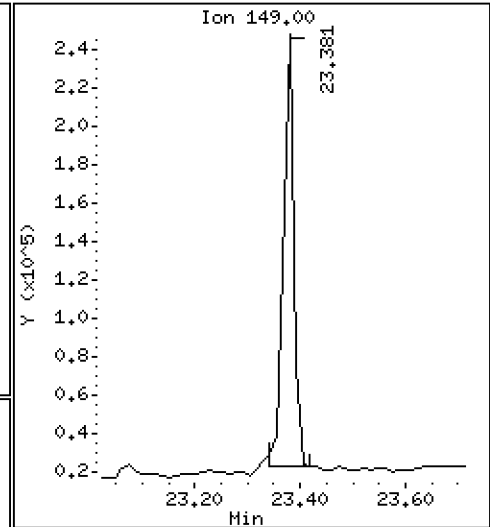
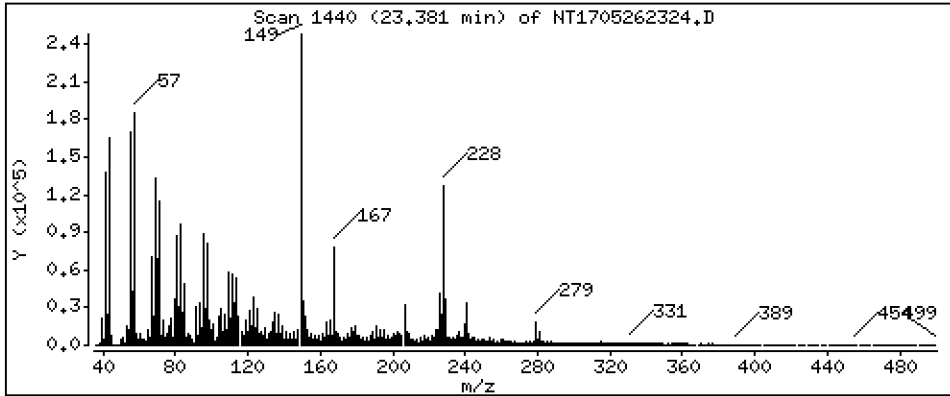
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,553 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

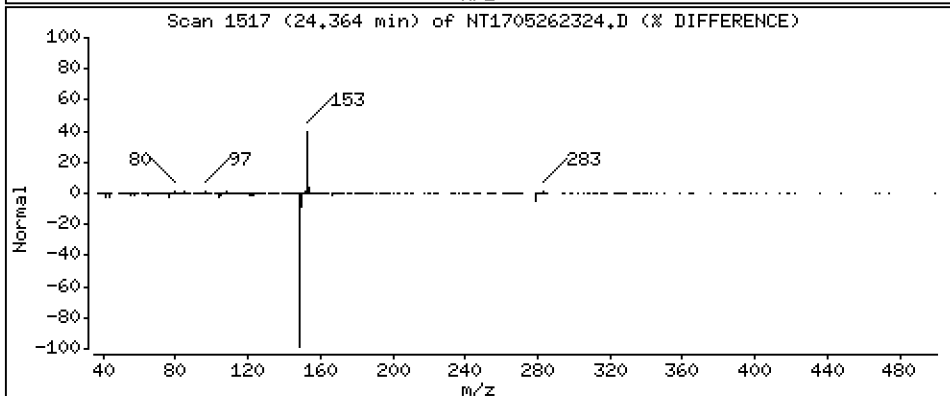
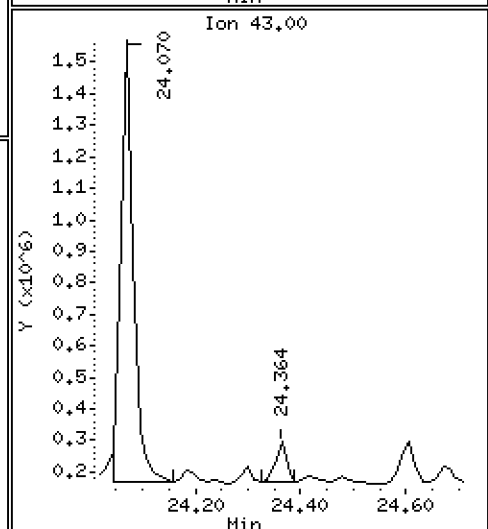
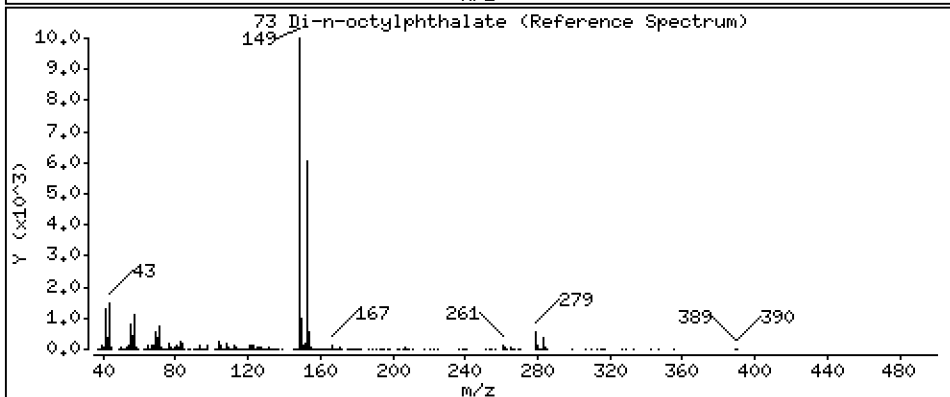
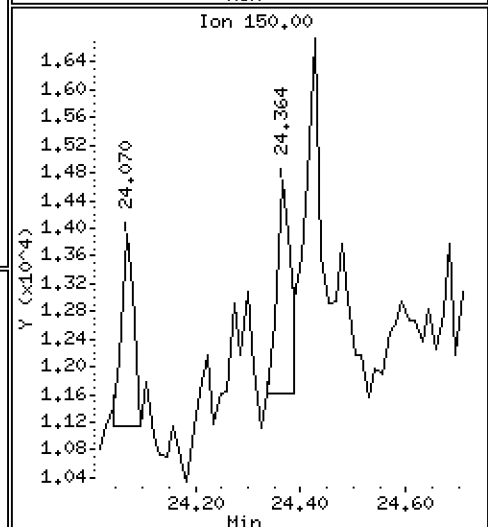
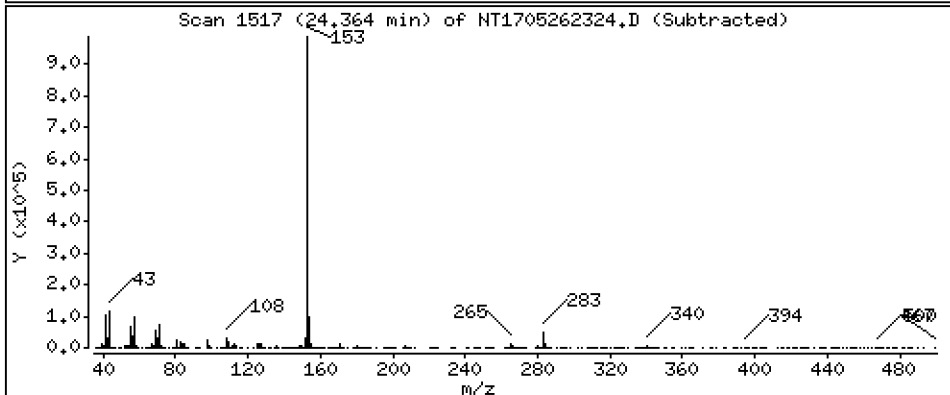
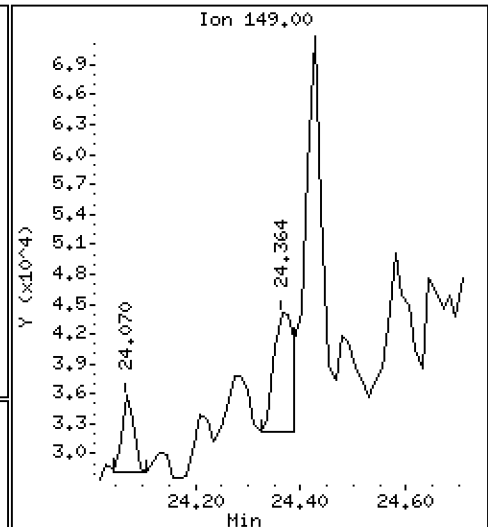
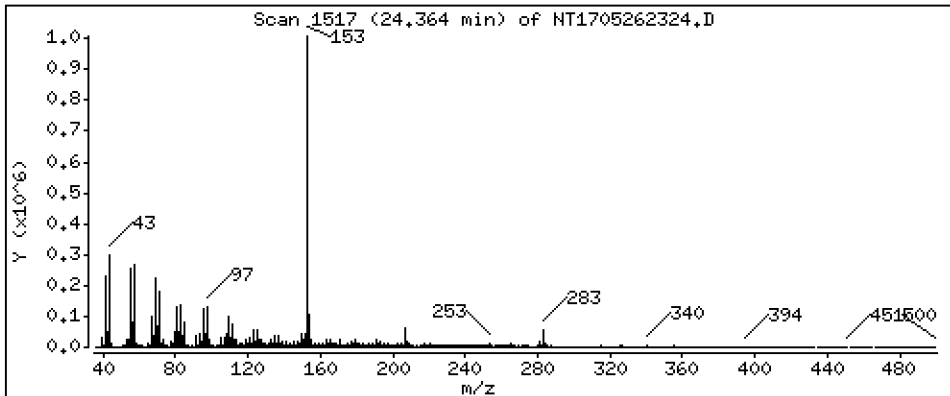
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

73 Di-n-octylphthalate

Concentration: 0.08650 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

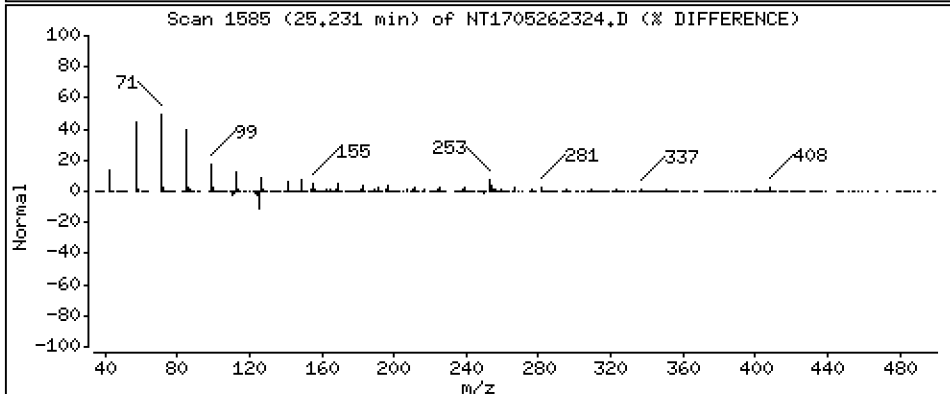
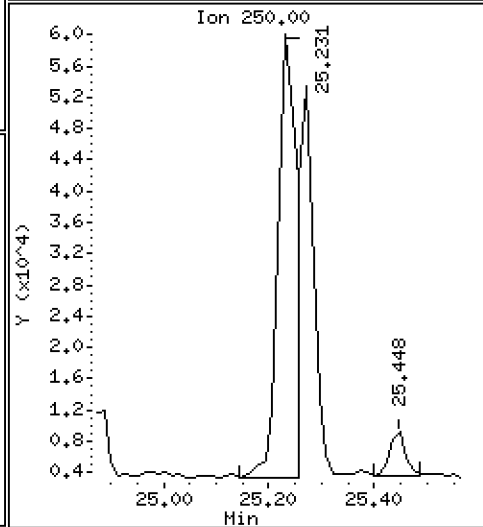
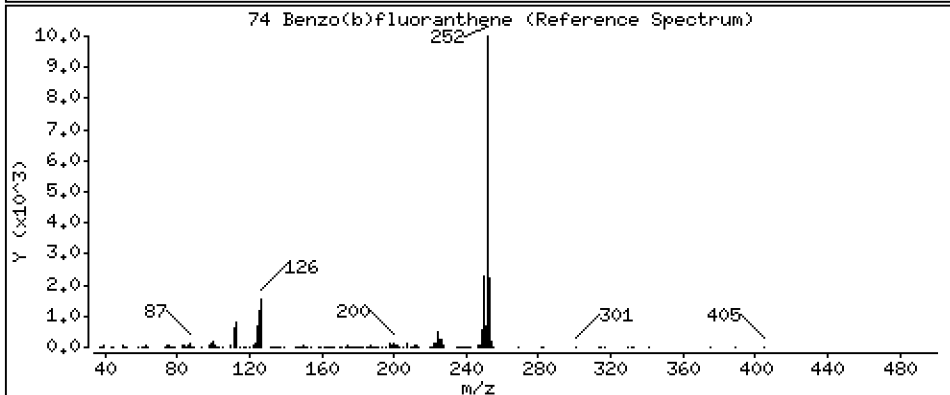
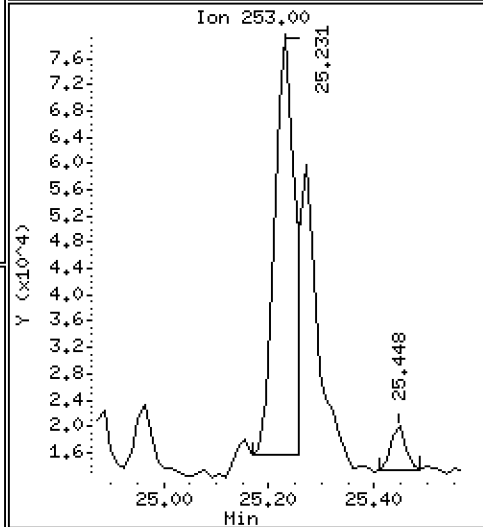
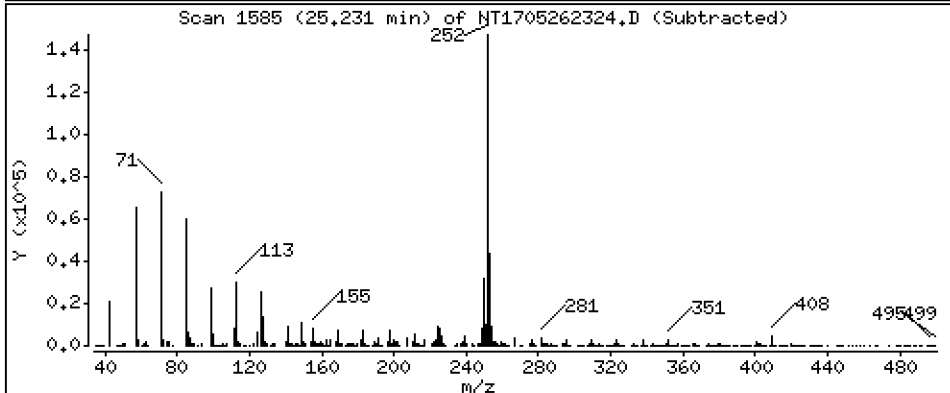
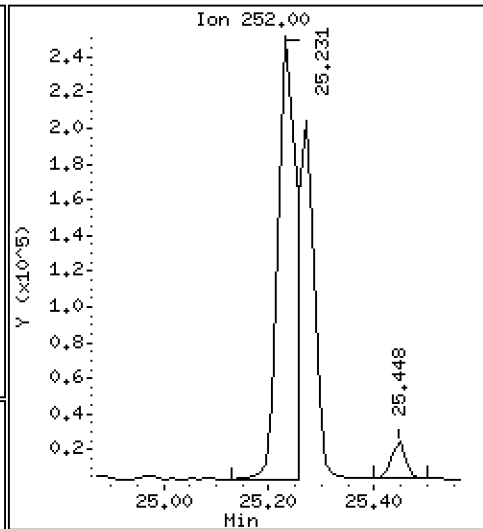
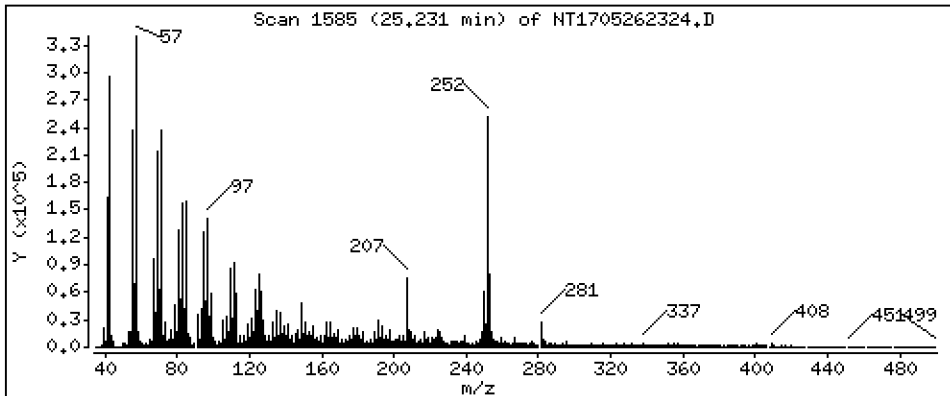
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 3,159 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

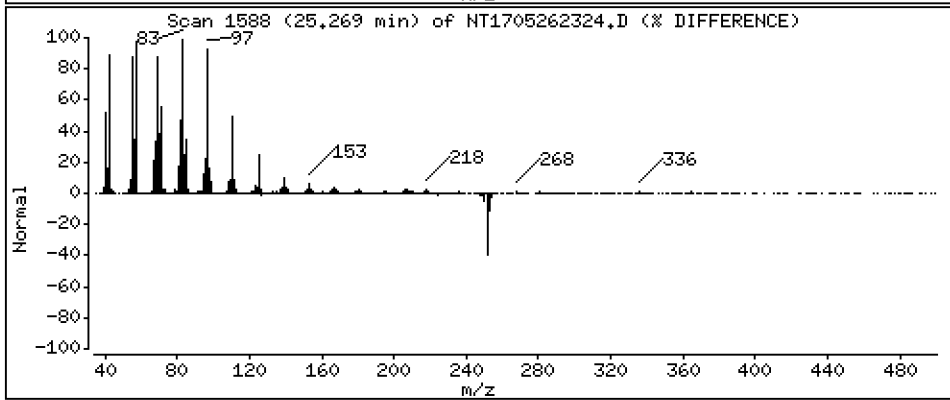
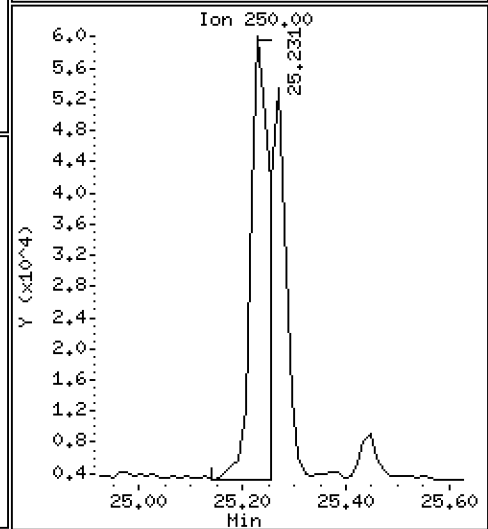
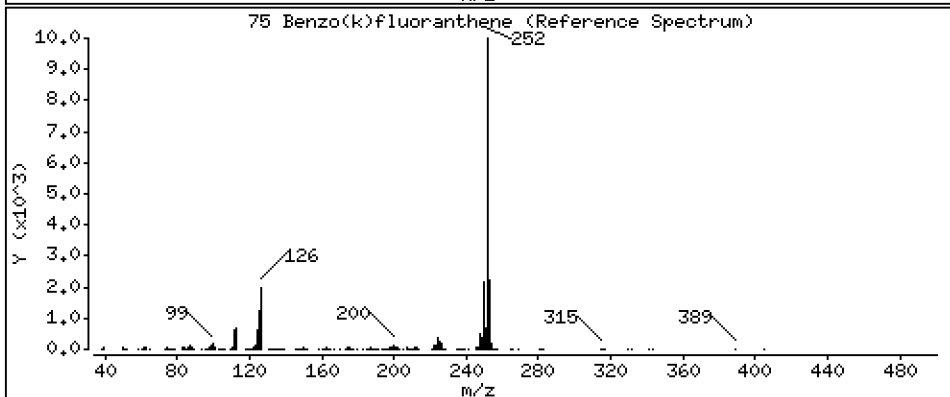
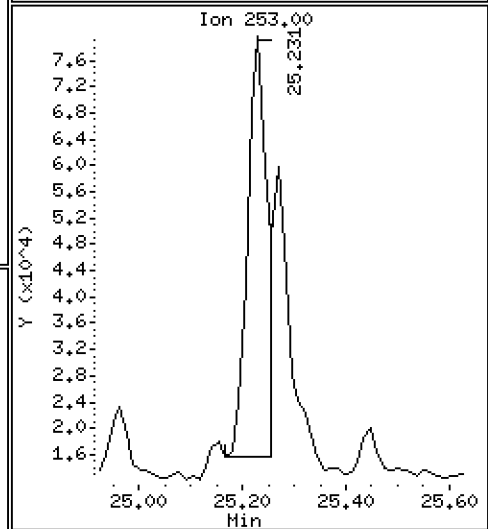
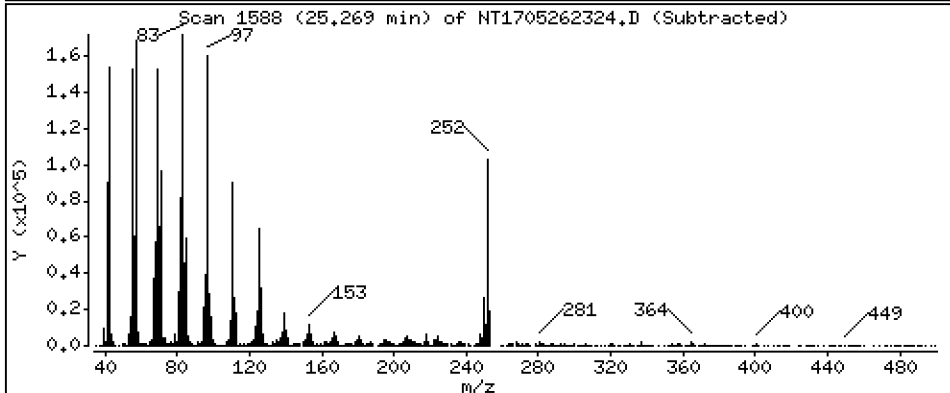
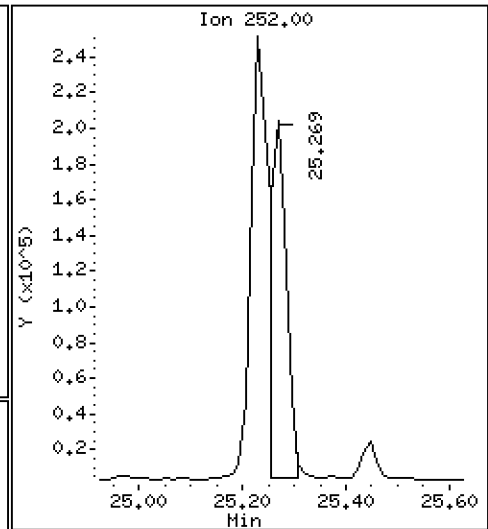
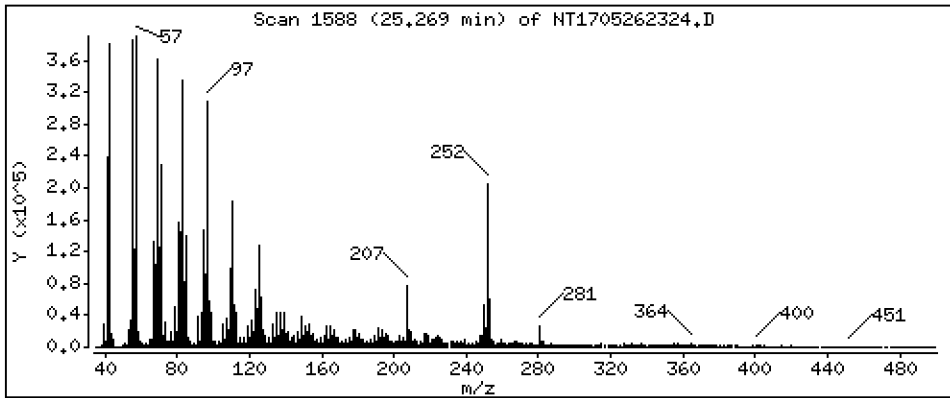
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 2,243 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

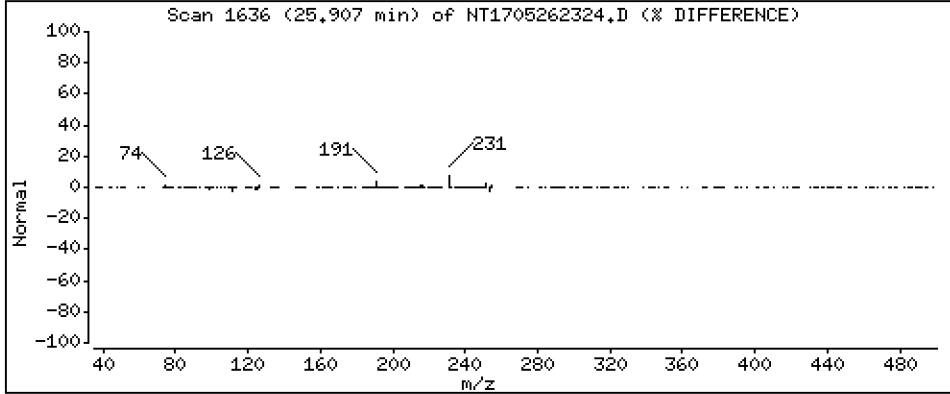
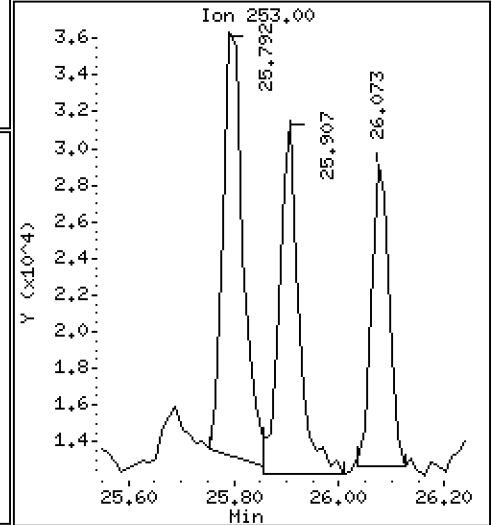
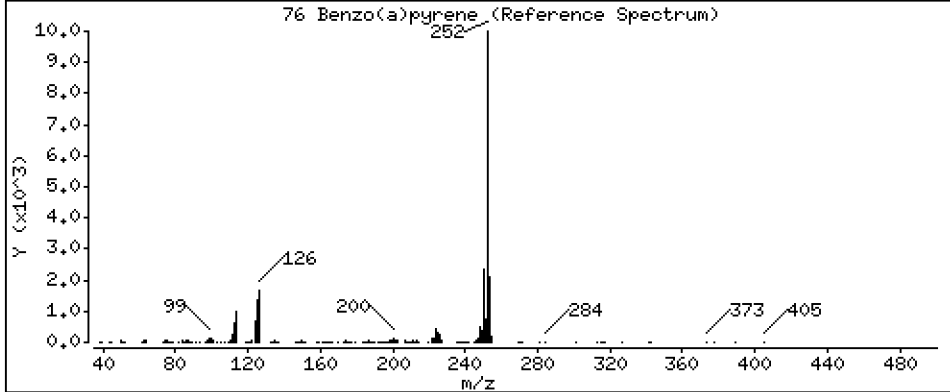
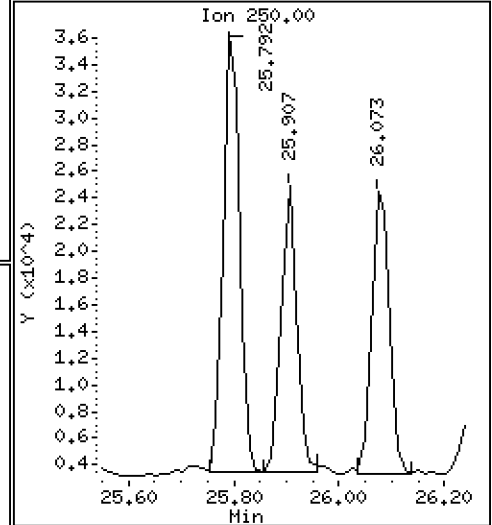
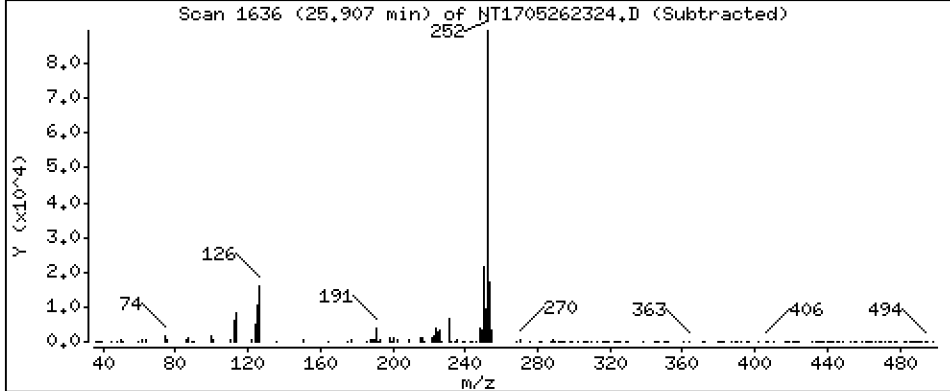
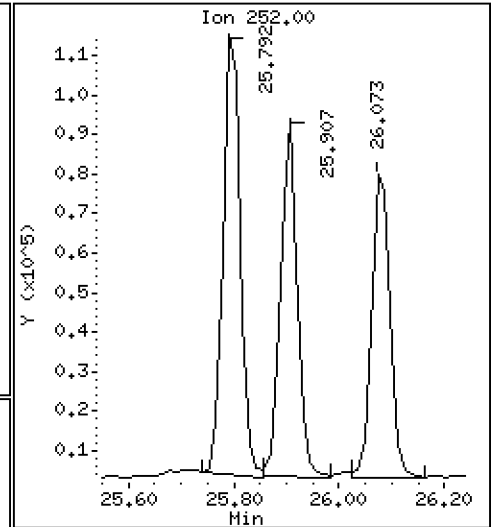
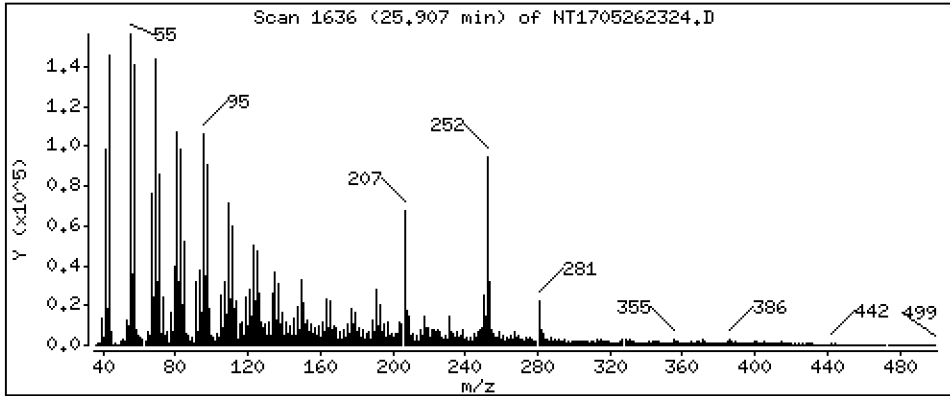
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,333 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

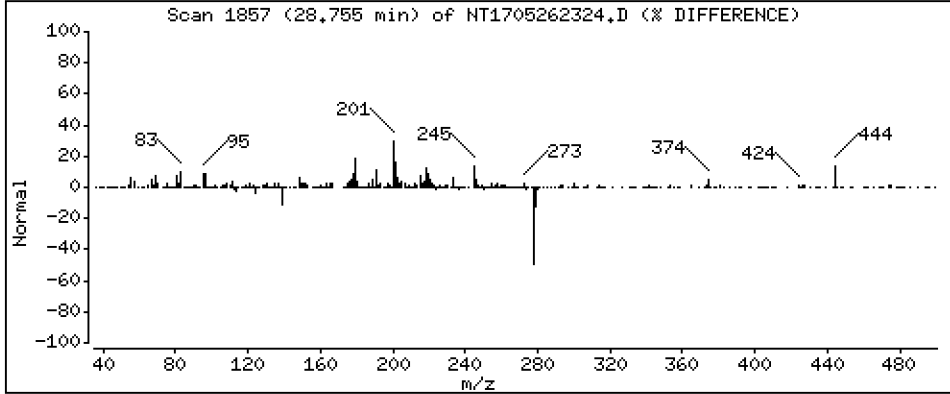
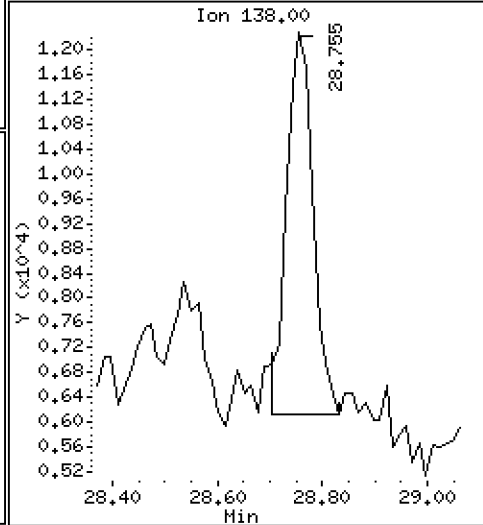
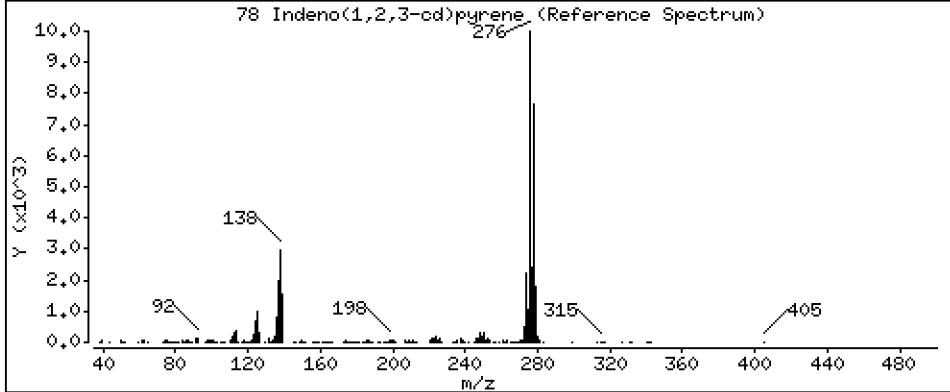
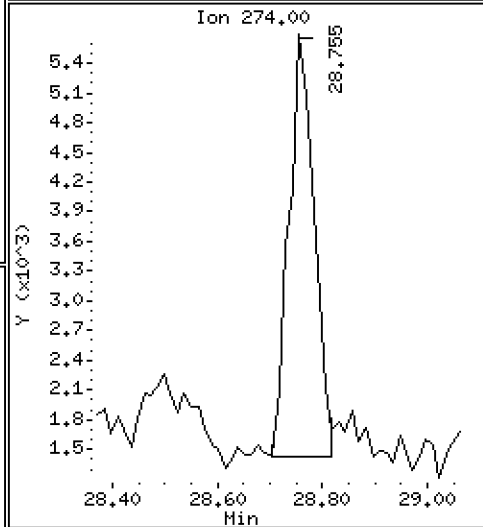
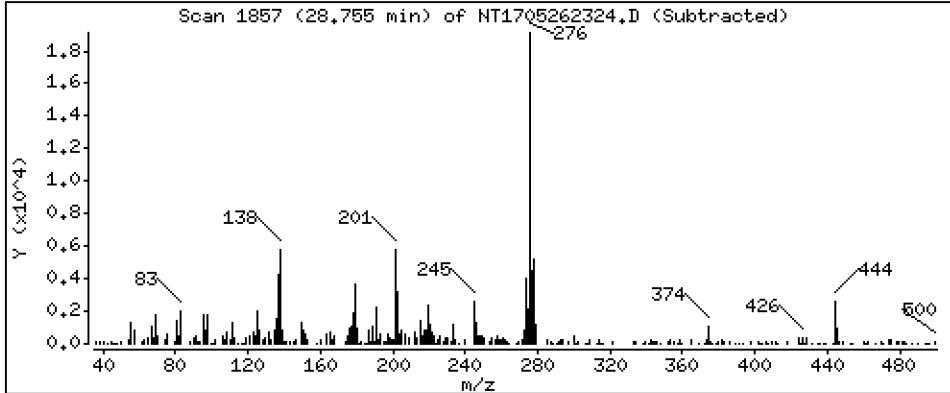
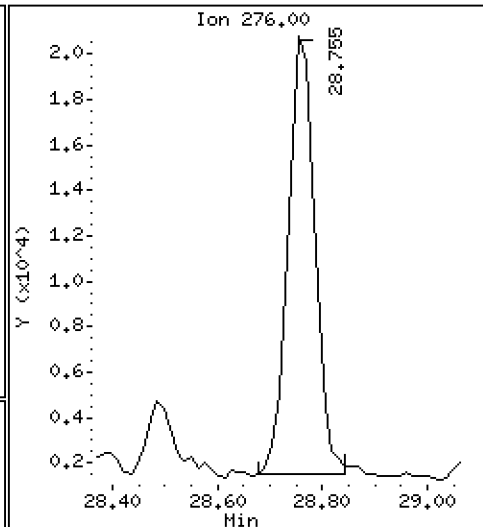
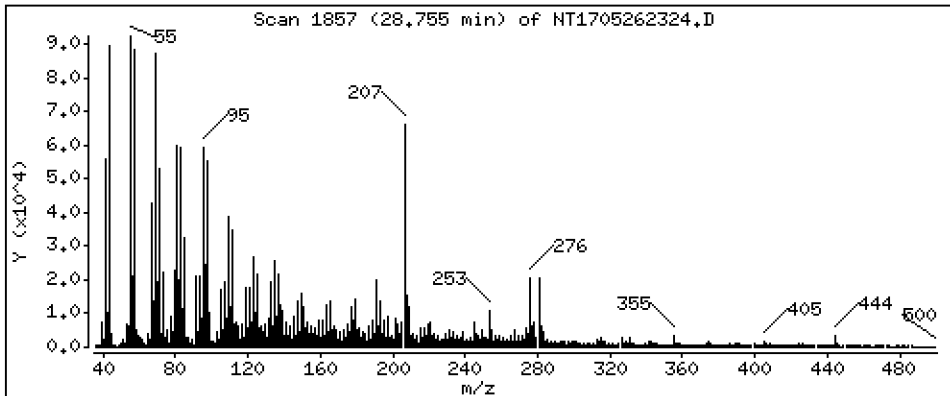
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.3790 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

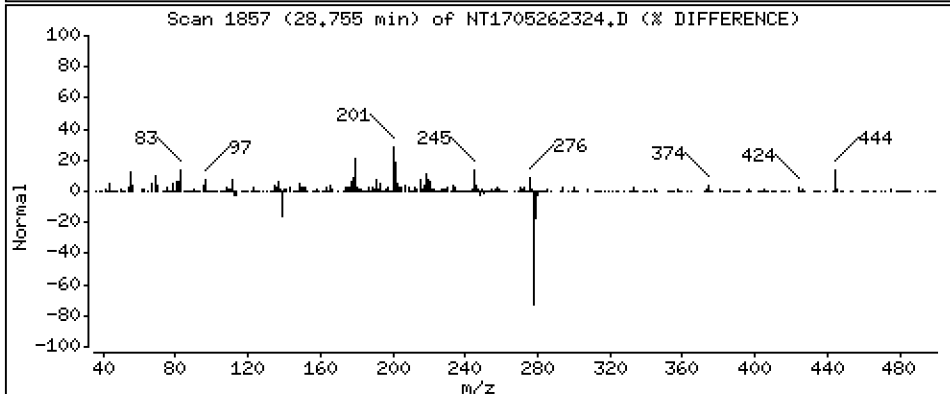
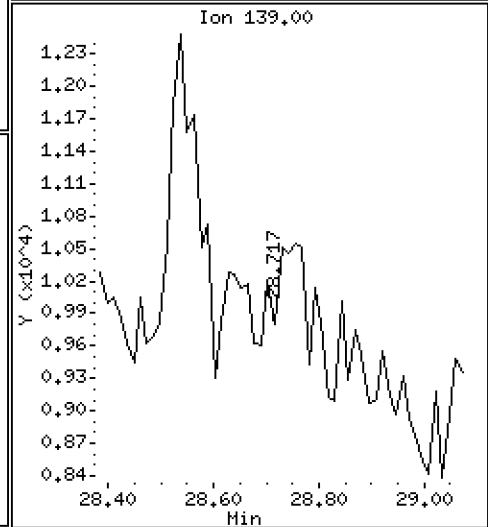
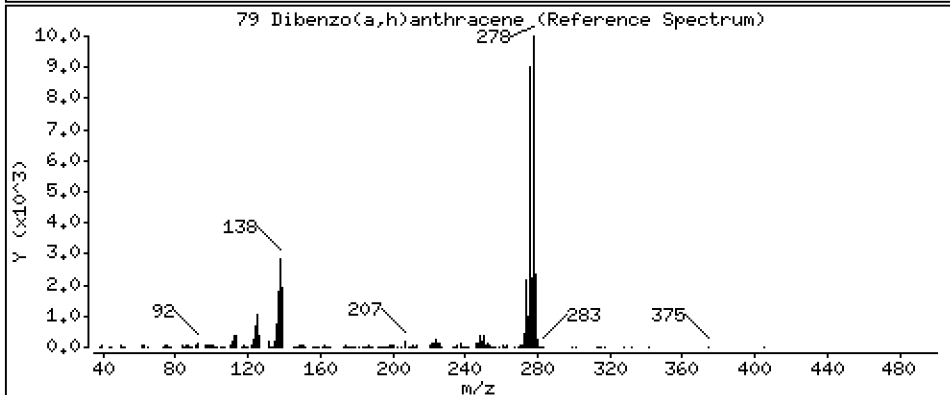
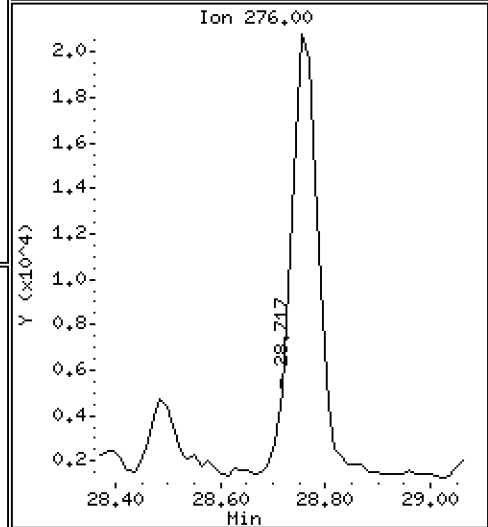
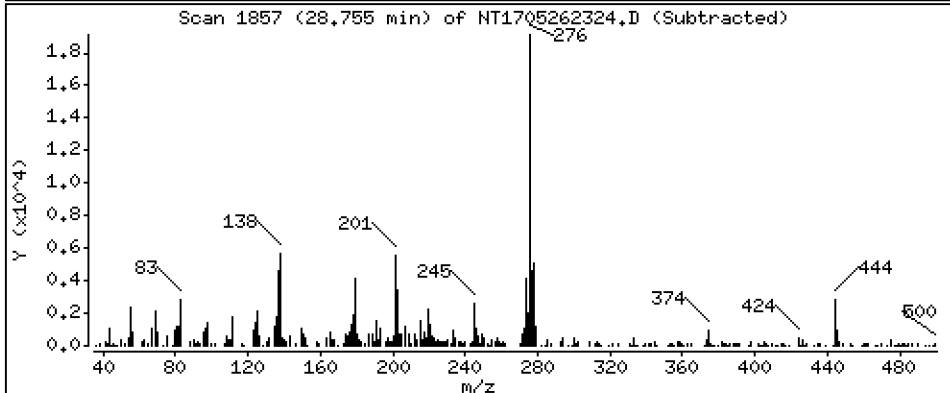
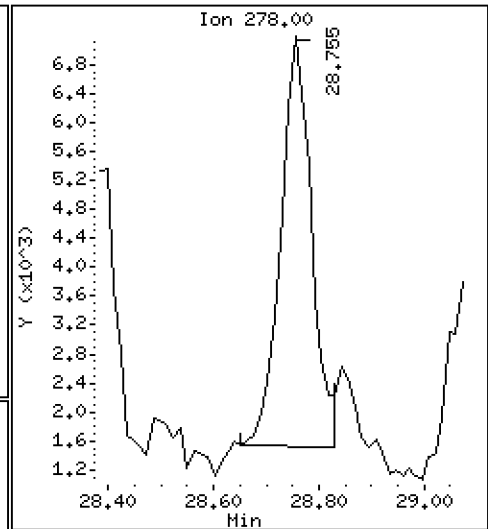
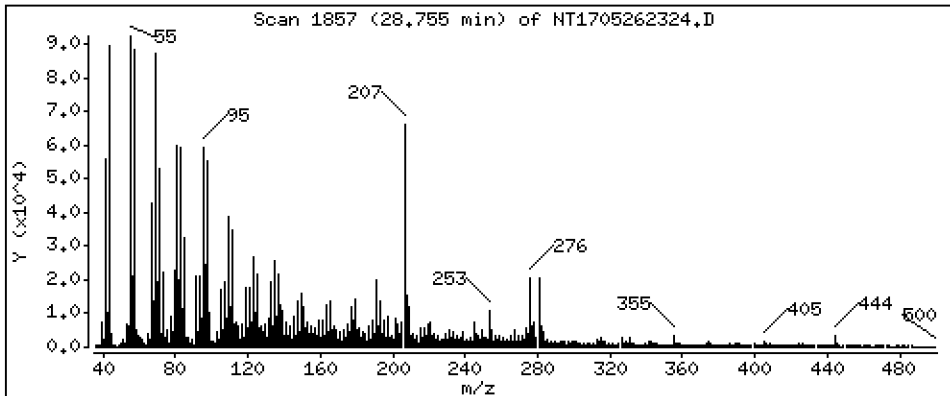
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1524 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

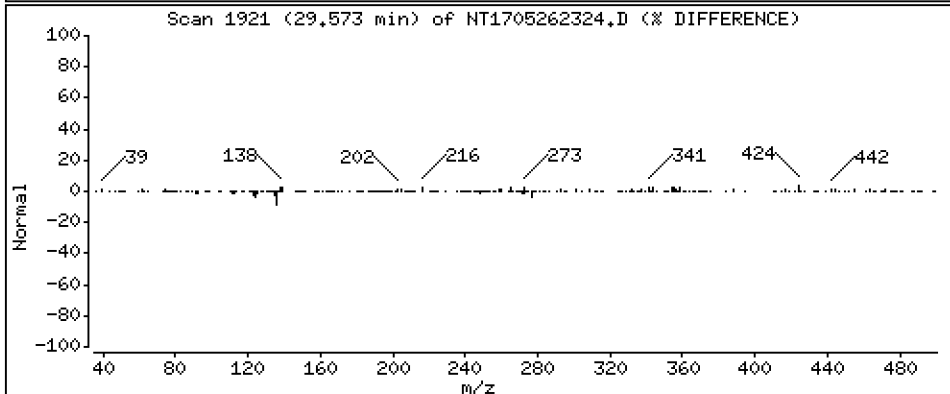
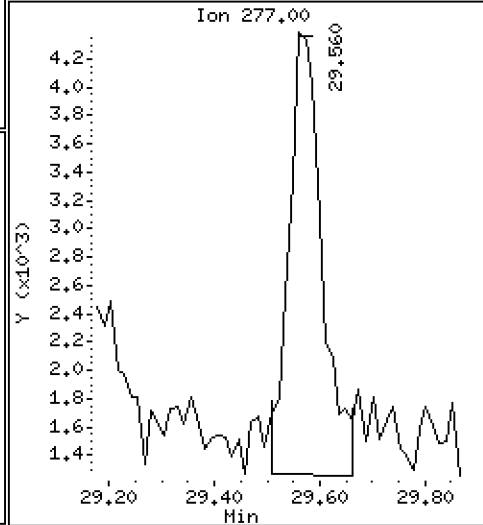
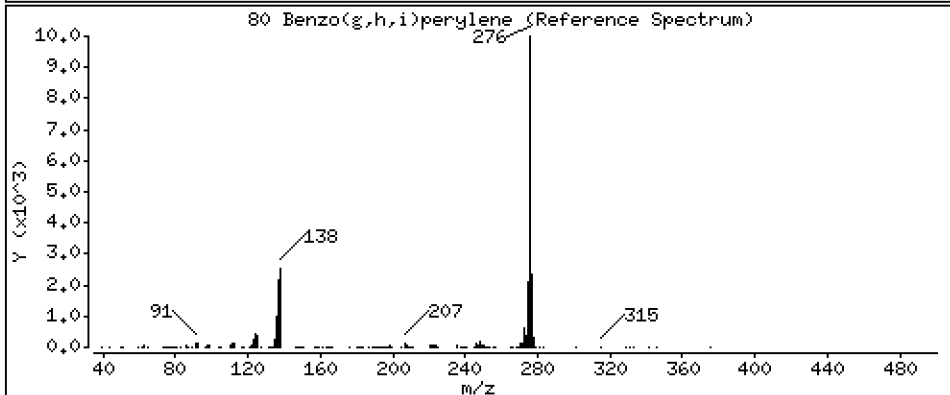
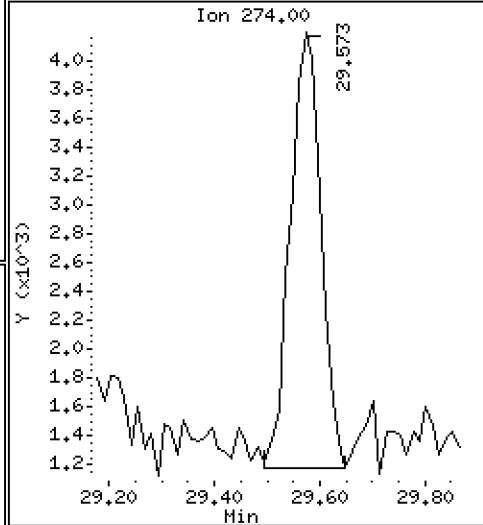
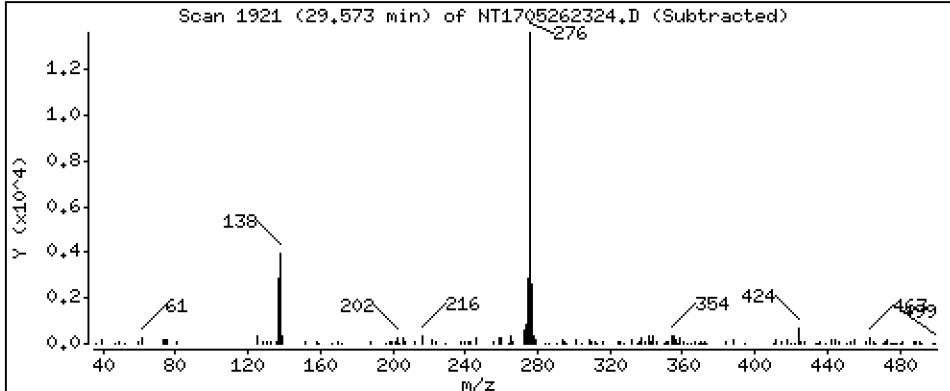
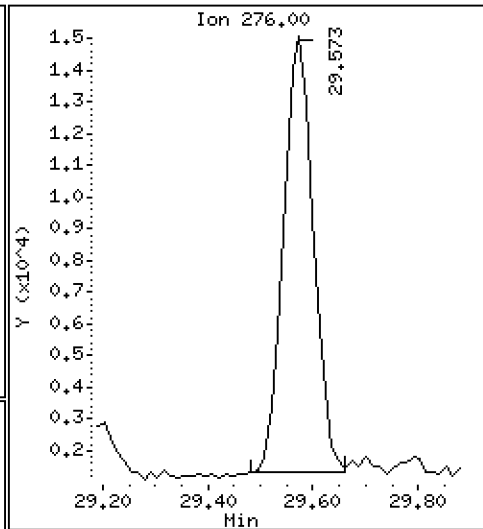
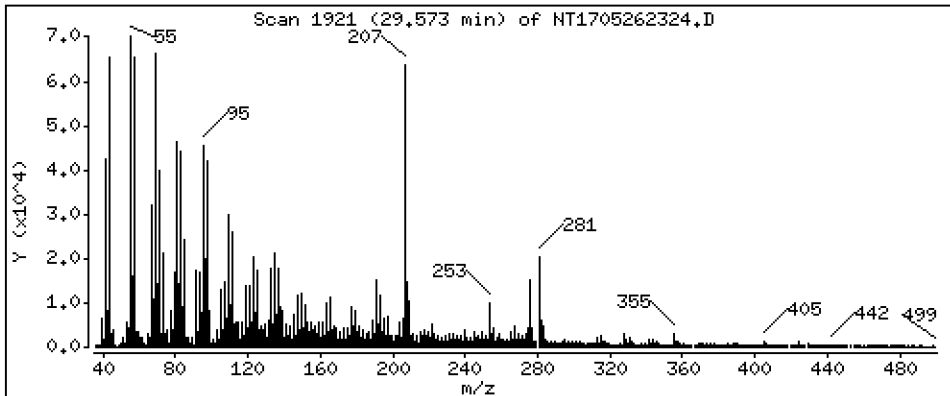
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

80 Benzo(g,h,i)perylene

Concentration: 0.3613 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

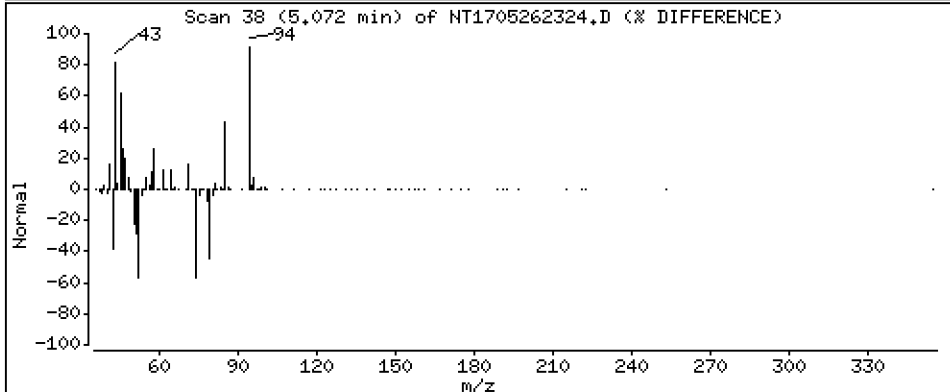
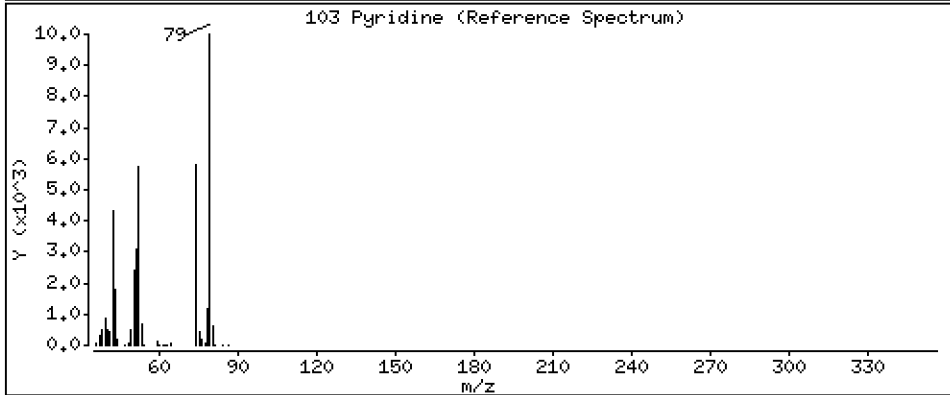
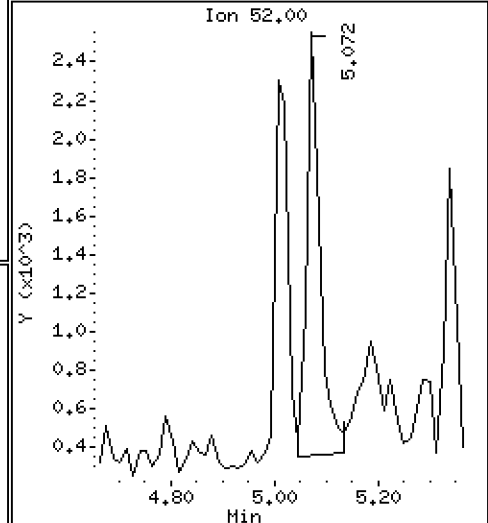
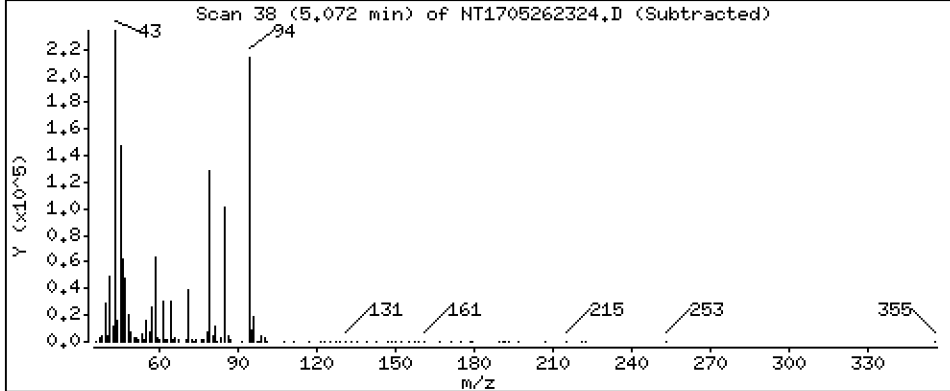
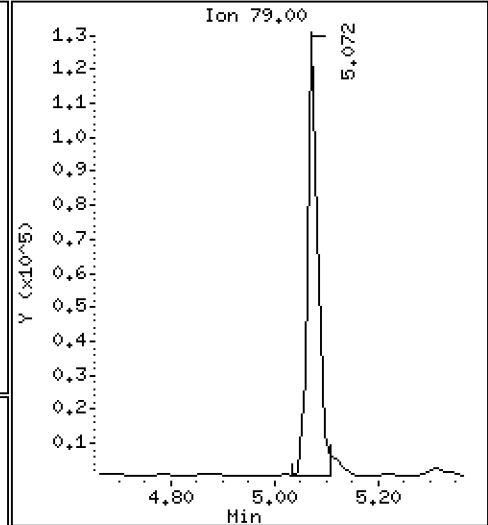
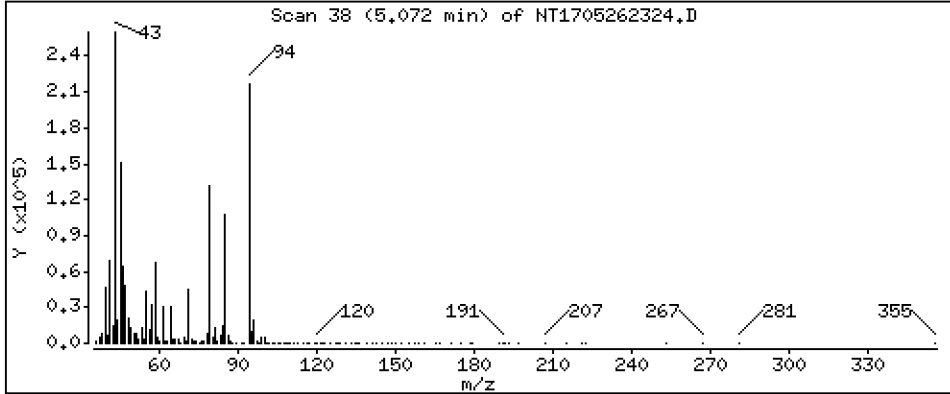
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,793 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

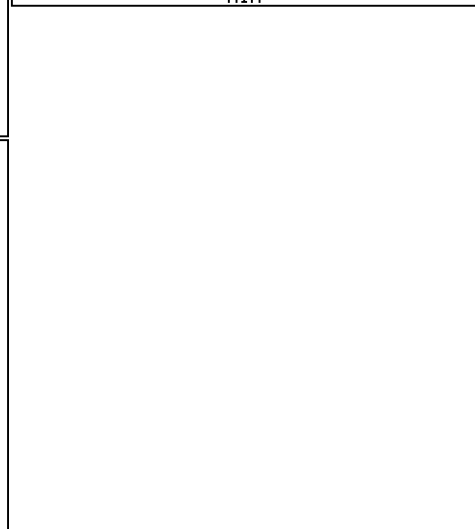
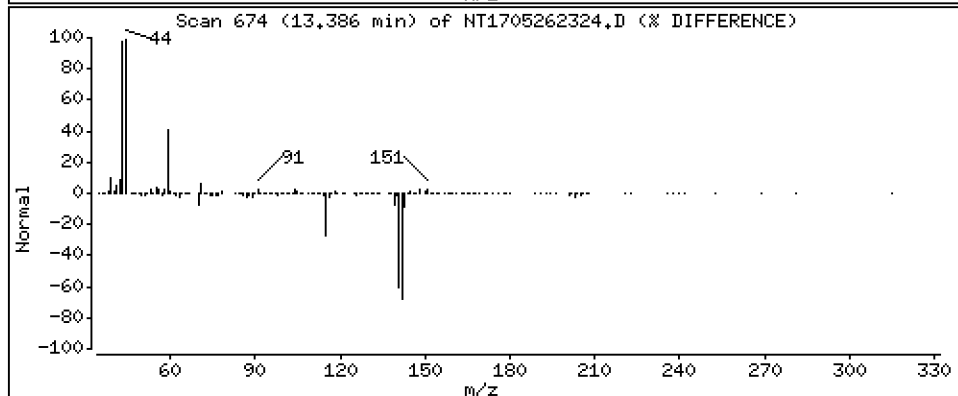
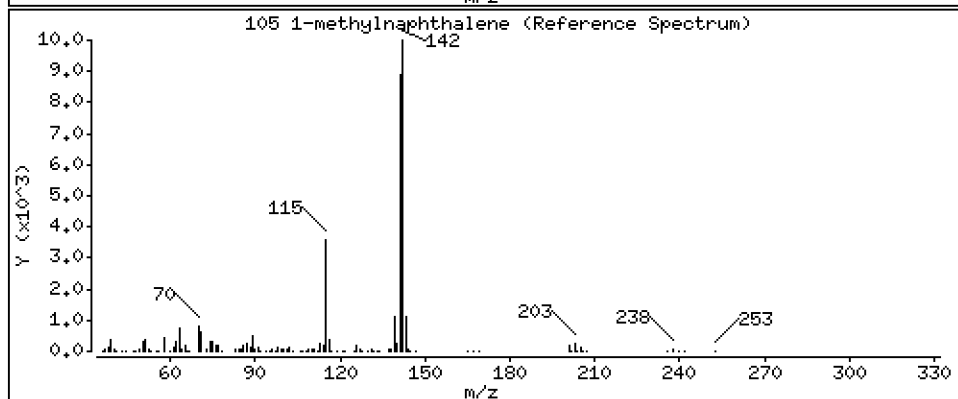
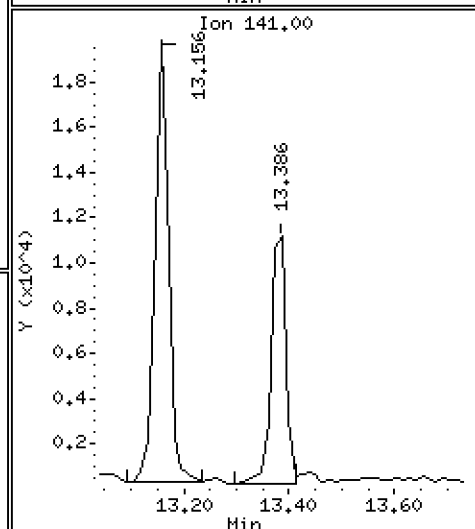
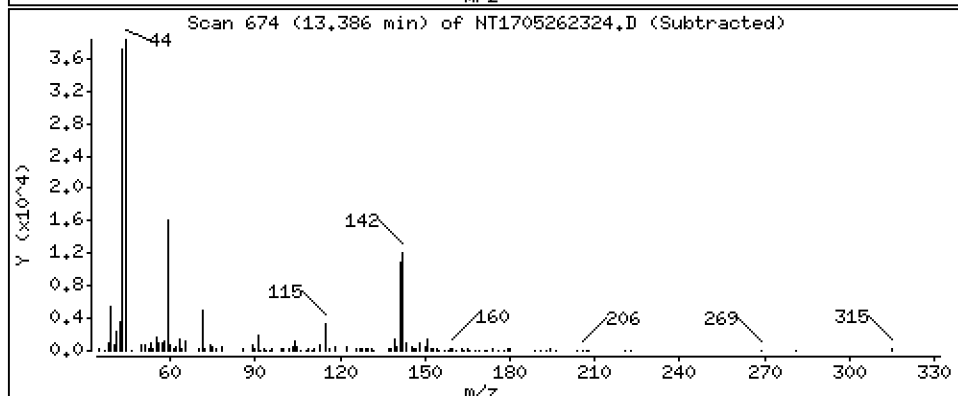
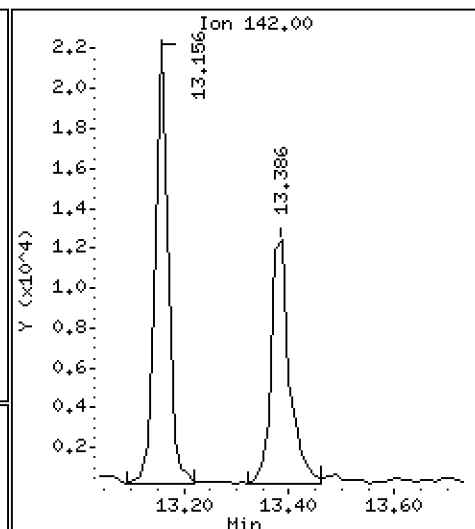
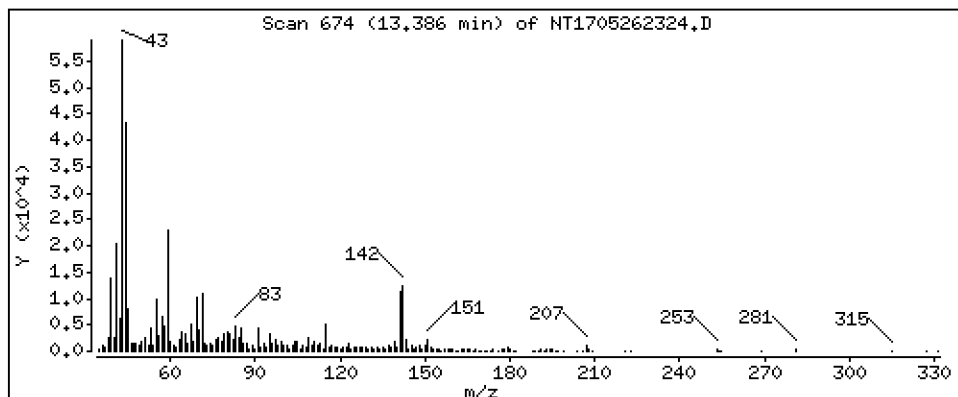
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1515 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

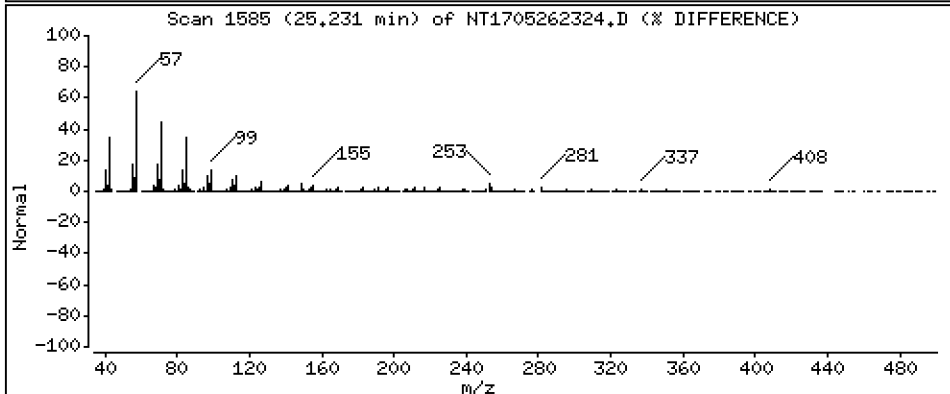
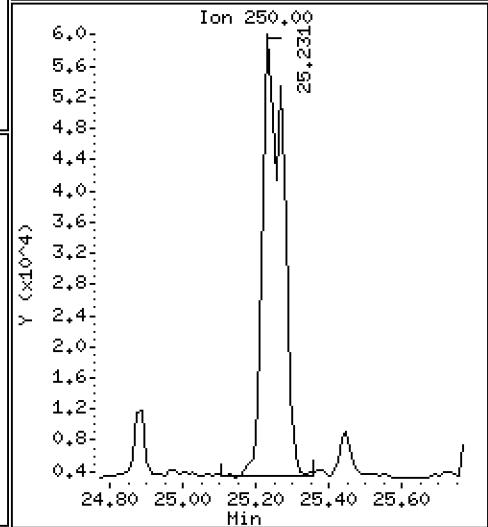
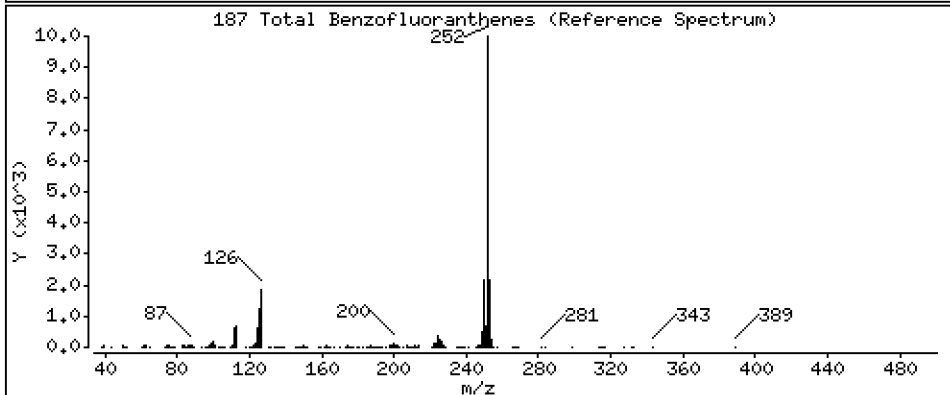
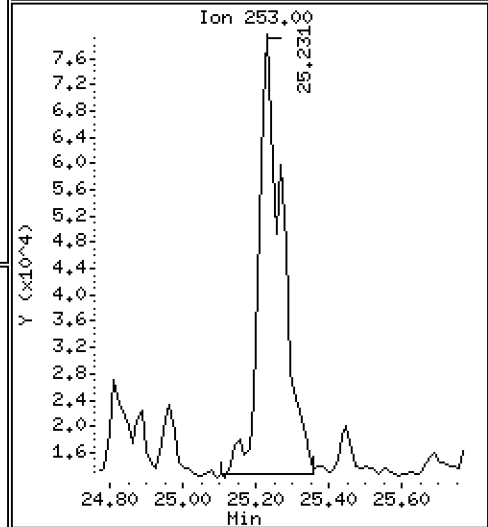
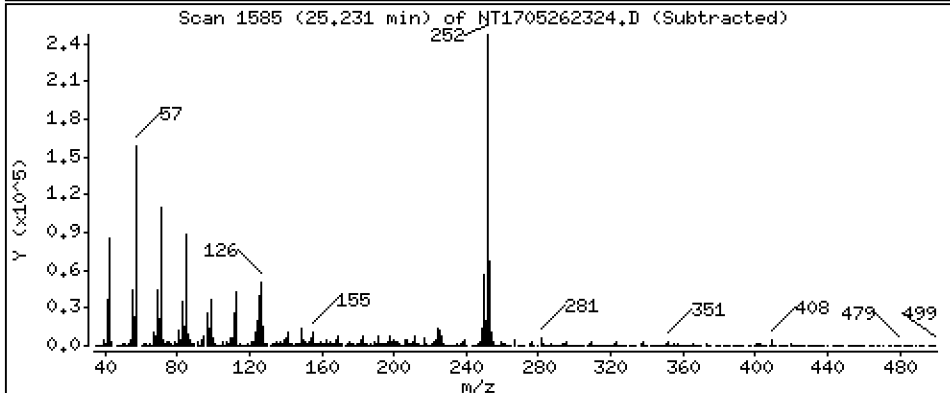
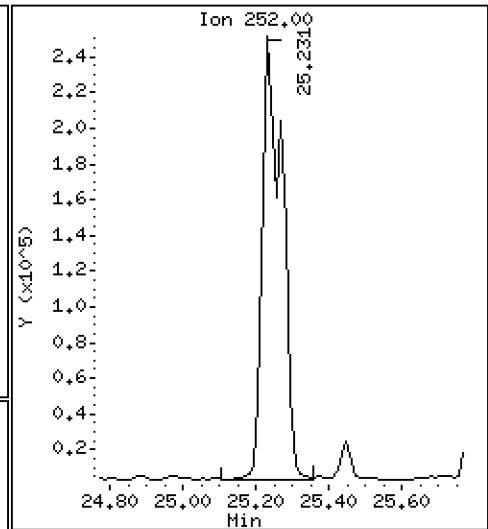
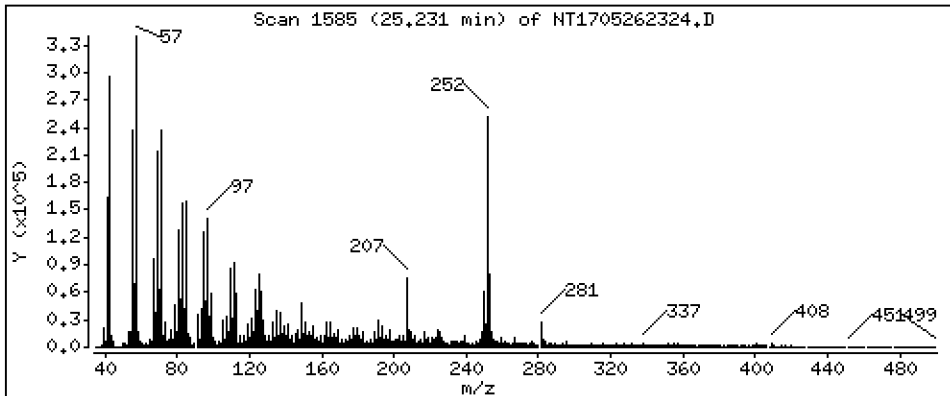
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 5,271 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262324.D
 Lab Smp Id: 23D0396-03
 Inj Date : 27-MAY-2023 03:02
 Operator : VTS
 Smp Info : 23D0396-03
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:34 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 21
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.122	7.071	(0.769)	519946	5.18791	5.188
\$ 2 Phenol-d5	99		8.651	8.639	(0.934)	703863	5.30689	5.307
3 Phenol	94		8.677	8.664	(0.937)	22225	0.15820	0.1582
\$ 5 2-Chlorophenol-d4	132		8.919	8.919	(0.963)	582898	5.48670	5.487
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	306165	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	245517	3.28793	3.288
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.544	9.544	(1.030)	24047	0.36766	0.3677
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.042	10.030	(1.084)	17346	0.16500	0.1650
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	462355	3.74574	3.746
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.217	11.320	(0.956)	40967	0.55274	0.5527
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1084556	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	51208	0.17169	0.1717
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	38446	0.18003	0.1800
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196					Compound Not Detected.		
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		13.934	13.934	(0.909)	859382	4.12769	4.128
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163		14.826	14.827	(0.968)	12071	0.06638	0.06638
40 Acenaphthylene	152		15.018	15.018	(0.980)	36777	0.13711	0.1371
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		15.324	15.324	(1.000)	528488	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153		15.387	15.388	(1.004)	38452	0.22934	0.2293
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168		15.719	15.719	(1.026)	72279	0.30887	0.3089
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149		16.267	16.267	(1.062)	29173	0.16451	0.1645
49 Fluorene	166		16.420	16.420	(1.072)	84327	0.37903	0.3790
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		16.967	16.967	(1.107)	131792	5.71705	5.717
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		18.356	18.343	(1.000)	828842	4.00000	
60 Phenanthrene	178		18.394	18.394	(1.002)	335178	1.38593	1.386
61 Anthracene	178		18.483	18.484	(1.007)	148732	0.65505	0.6551
62 Carbazole	167		18.828	18.828	(1.026)	27077	0.19693	0.1969
63 Di-n-butylphthalate	149		19.593	19.580	(1.067)	13688	0.04993	0.04993
64 Fluoranthene	202		20.766	20.753	(0.889)	929966	2.97197	2.972
65 Pyrene	202		21.187	21.187	(0.907)	830169	2.61711	2.617
\$ 66 Terphenyl-d14	244		21.455	21.455	(0.919)	718799	3.18762	3.188
67 Butylbenzylphthalate	149		22.360	22.361	(0.957)	19214	0.13534	0.1353
68 Benzo(a)anthracene	228		23.330	23.317	(0.999)	449330	1.82414	1.824
* 69 Chrysene-d12	240		23.355	23.356	(1.000)	668942	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228		23.394	23.394	(1.002)	671434	2.89676	2.897
72 bis(2-Ethylhexyl)phthalate	149		23.381	23.368	(0.960)	331419	1.55286	1.553
* 134 Di-n-octylphthalate-d4	153		24.363	24.363	(1.000)	1475136	4.00000	
73 Di-n-octylphthalate	149		24.363	24.363	(1.000)	32342	0.08650	0.08650
74 Benzo(b)fluoranthene	252		25.231	25.218	(0.970)	625935	3.15897	3.159
75 Benzo(k)fluoranthene	252		25.269	25.269	(0.971)	419928	2.24316	2.243 (M)
76 Benzo(a)pyrene	252		25.907	25.894	(0.996)	208084	1.33313	1.333
* 77 Perylene-d12	264		26.022	26.009	(1.000)	499764	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.754	28.716	(1.105)	68615	0.37899	0.3790
79 Dibenzo(a,h)anthracene	278		28.754	28.729	(1.105)	23161	0.15243	0.1524 (M)
80 Benzo(g,h,i)perylene	276		29.572	29.534	(1.136)	53997	0.36134	0.3613
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79		5.071	5.008	(0.547)	190151	1.79323	1.793
105 1-methylnaphthalene	142		13.385	13.385	(1.141)	30006	0.15146	0.1515
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
187 Total Benzofluoranthenes	252		25.231	25.269	(0.970)	937617	5.27143	5.271	
120 2,3,4,6-Tetrachlorophenol	232		Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262324.D Calibration Time: 23:55
 Lab Smp Id: 23D0396-03
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	327251	163626	654502	306165	-6.44
27 Naphthalene-d8	1151610	575805	2303220	1084556	-5.82
42 Acenaphthene-d10	581592	290796	1163184	528488	-9.13
59 Phenanthrene-d10	918371	459186	1836742	828842	-9.75
69 Chrysene-d12	690072	345036	1380144	668942	-3.06
134 Di-n-octylphthala	1461689	730845	2923378	1475136	0.92
77 Perylene-d12	568726	284363	1137452	499764	-12.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	-0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.36	0.07
69 Chrysene-d12	23.36	22.86	23.86	23.36	-0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.36	-0.00
77 Perylene-d12	26.01	25.51	26.51	26.02	0.05

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

REVIEW SUMMARY FOR FILE - NT1705262324.D

Lab ID: 23D0396-03
nt17.i, ABN.m, 27-MAY-2023 03:02

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

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.956	0.965	-0.0087	Benzoic acid
0.547	0.541	0.0069	Pyridine
0.769	0.763	0.0055	2-Fluorophenol

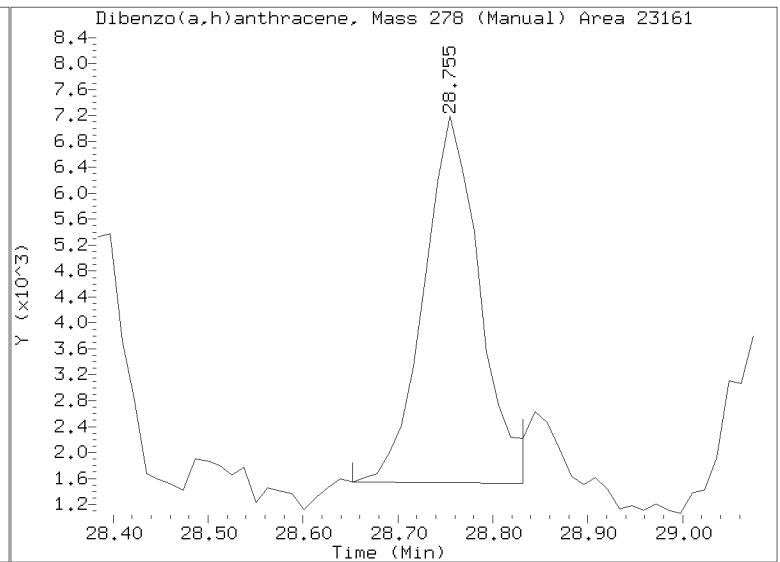
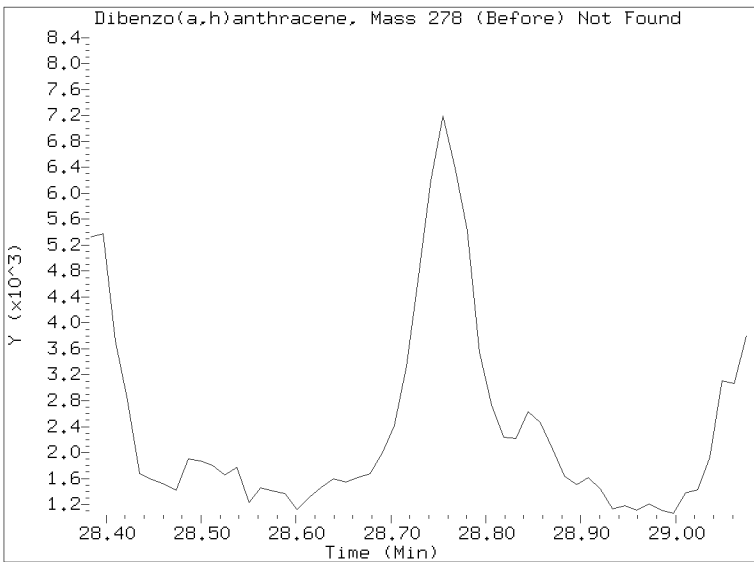
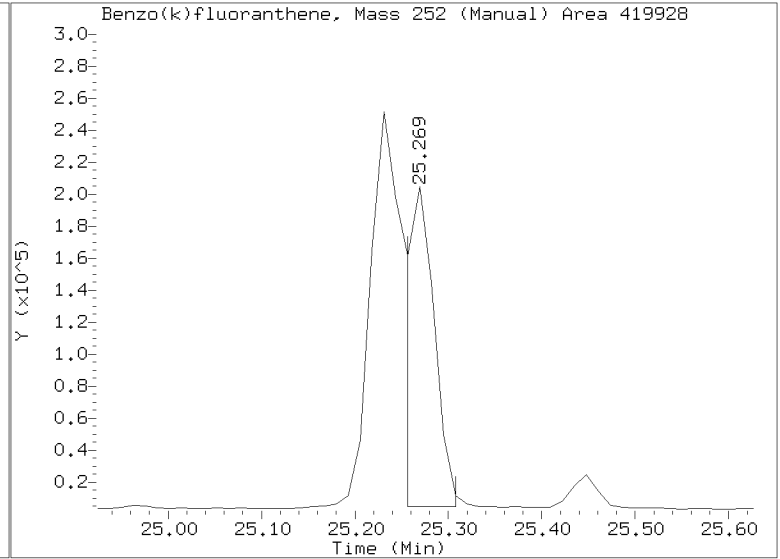
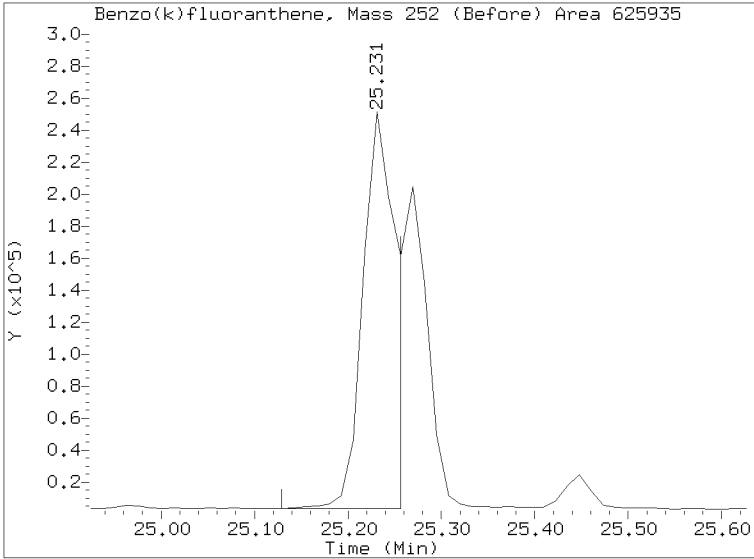
RRT check based on Ccal File: NT1705262319.D

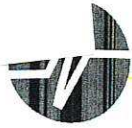
On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262324.D
Injection Date: 27-MAY-2023 03:02
Lab ID:23D0396-03 Client ID:
Report Date: 05/27/2023 13:35





Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

Matrix: Solid

Date Prepared: 4/24/23

Balance ID: B146462614

Set Up By: CTD 4/24/23

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

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

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

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash ImL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23D0394-01 A	46.4	(21.57)	21.57	1 2 3	1mL	1	0.5	
23D0394-02 A	76.2	(13.13)	13.23	(1:1)	1mL	1	0.5	
23D0394-04 A	76.8	(13.03)	13.06	(1:1)	1mL	1	0.5	
23D0394-06 A	90.3	(11.07)	11.08	(1:1)	1mL	1	0.5	
23D0394-08 A	78.3	(12.77)	12.78	(1:1)	1mL	1	0.5	
23D0394-11 A	77.4	(12.92)	12.97	(1:1)	1mL	1	0.5	
23D0394-12 A	80.4	(12.44)	12.46	(1:1)	1mL	1	0.5	
23D0396-01 A	43.0	(23.25)	23.25	(1:1)	1mL	1	0.5	
23D0396-03 A	43.9	(22.79)	22.79	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash ImL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLD0607-BLK1	100.0	(10.00)	10.00	1 2 3	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-BS1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-BSD1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-MS1	76.8	(13.03)	13.03	(1:1)	1mL	1	0.5	Use 23D0394-04
BLD0607-MSD1	76.8	(13.03)	13.03	(1:1)	1mL	1	0.5	Use 23D0394-04
BLD0607-SRM1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER

Client ID: 4/24/23 Date

Preparation Reviewed By: NKBS Date: 5/25/23

Extraction Date and Time: 4/24/23 16:38



Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

WO Comments
 23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
 23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used
Microwave ① 2 3 Analyst/Date: 4/25/23	Station/Reagent: Microwave Standard ID: L001153 Analyst: [Signature] Date: 4/25/23	Type: Surrogate Vial ID / Standard ID: A L001153 Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Anhydrous Sodium Sulfate Standard ID: L003875	Type: Full List Spike (Freezer) Vial ID / Standard ID: 7 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) ② ④ ⑤ 6 Analyst/Date: 5/3/23	Station/Reagent: 1:1 Methylene Chloride/Acetone Standard ID: L004178	Type: Base Spike Vial ID / Standard ID: 56 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Methylene Chloride Standard ID: K005941	Type: Acid Spike Vial ID / Standard ID: 38 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
TurboVap Pre GPC ① 2 3 ④ 5 Analyst/Date: 5/11/23	Station/Reagent: Pre-Deactivated Glass Wool Standard ID: L001924	Type: Surrogate Vial ID / Standard ID: A L001153 Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Anhydrous Sodium Sulfate Standard ID: L003875 Analyst: [Signature] Date: 5/11/23	Type: Full List Spike (Freezer) Vial ID / Standard ID: 7 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
Post GPC KD 80-85°C ② ④ ⑤ 6 Analyst/Date: 5/24/23	Station/Reagent: Methylene Chloride Standard ID: L004178	Type: Base Spike Vial ID / Standard ID: 56 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: GPC Filter Standard ID: L001799	Type: Acid Spike Vial ID / Standard ID: 38 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
TurboVap ① 2 3 ④ 5 Analyst/Date: 5/25/23	Station/Reagent: GPC Filter Prep Standard ID: L001799 Analyst: [Signature] Date: 5/10/23	Type: Surrogate Vial ID / Standard ID: A L001153 Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Methylene Chloride Standard ID: K005941	Type: Full List Spike (Freezer) Vial ID / Standard ID: 7 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
Water Wash Analyst/Date: 5/25/23	Station/Reagent: GPC Calibration File Standard ID: CLB0132-GR2	Type: Base Spike Vial ID / Standard ID: 56 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Post GPC KD Standard ID: L001924 Analyst: [Signature] Date: 5/24/23	Type: Acid Spike Vial ID / Standard ID: 38 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Methylene Chloride Standard ID: K005941	Type: Surrogate Vial ID / Standard ID: A L001153 Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Vialing Standard ID: L001924 Analyst: [Signature] Date: 5/25/23	Type: Full List Spike (Freezer) Vial ID / Standard ID: 7 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]
	Station/Reagent: Methylene Chloride Standard ID: K005941	Type: Base Spike Vial ID / Standard ID: 56 L001812 (V) Vol uL: 50µL Analyst: [Signature] Witness: [Signature]

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).



Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

WO Comments
 23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
 23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

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



Extraction Parameter: SWW Extraction Batch: BL00607

Total Solids Batch: BLD0431 Work Order(s): 23D0394

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= 01-13	CR 4/18/23
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= 01-05, 07-13	CR 4/18/23
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = 01-13	CR 4/18/23
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	CR 4/18/23
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	CR 4/18/23
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: SWA Extraction Batch: BLP0432

Total Solids Batch: BLP0432 Work Order(s): 23D0396

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = <u>01-04</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/ <input checked="" type="checkbox"/> N	<u>CR 4/18/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/ <input checked="" type="checkbox"/> N	<u>CR 4/18/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0214

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLD0607-BSD1	NT1705262308.D	05/25/2023	
Blank	BLD0607-BLK1	NT1705262306.D	05/25/2023	
Reference	BLD0607-SRM1	NT1705262311.D	05/25/2023	
LCS	BLD0607-BS1	NT1705262307.D	05/25/2023	
LDW23-SS1802	23D0396-03	NT1705262324.D	05/25/2023	
LDW23-SS1801	23D0396-01	NT1705262323.D	05/25/2023	



CLEANUP BENCH SHEET

CLE0214

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLC0092-GPC1 Printed: 5/25/2023 3:38:04PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0394-01	A	LDW23-SS1098	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-01	A	LDW23-SS1098	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
BLD0607-BLK1	-	Blank	-	1	1	-	5/25/2023	NRB	
BLD0607-BLK2	-	Blank	-	1	1	-	5/25/2023	NRB	
BLD0607-BS1	-	LCS	-	1	1	-	5/25/2023	NRB	
BLD0607-BS2	-	LCS	-	1	1	-	5/25/2023	NRB	



CLEANUP BENCH SHEET

CLE0214

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLC0092-GPC1 Printed: 5/25/2023 3:38:04PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLD0607-BSD1	-	LCS Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-BSD2	-	LCS Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-MS1	-	Matrix Spike	-	1	1	-	5/25/2023	NRB	
BLD0607-MS2	-	Matrix Spike	-	1	1	-	5/25/2023	NRB	
BLD0607-MSD1	-	Matrix Spike Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-MSD2	-	Matrix Spike Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-SRM1	-	Reference	-	1	1	-	5/25/2023	NRB	
BLD0607-SRM2	-	Reference	-	1	1	-	5/25/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8270E

Blank

Laboratory: Analytical Resources, LLC SDG: 23D0396
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Matrix: Solid Laboratory ID: BLD0607-BLK1 File ID: NT1705262306.D
 Sampled: N/A Prepared: 04/24/23 16:38 Analyzed: 05/26/23 15:47
 Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 1 mL
 Batch: BLD0607 Sequence: SLE0434 Calibration: GE00065
 Instrument: NT17 Column: ZB-5MS Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
108-95-2	Phenol	1	20.0	U	4.4	20.0
100-51-6	Benzyl Alcohol	1	24.8		16.3	20.0
106-44-5	4-Methylphenol	1	20.0	U	7.4	20.0
91-20-3	Naphthalene	1	13.7	J	4.2	20.0
91-57-6	2-Methylnaphthalene	1	20.0	U	4.5	20.0
208-96-8	Acenaphthylene	1	20.0	U	6.2	20.0
132-64-9	Dibenzofuran	1	20.0	U	14.1	20.0
86-73-7	Fluorene	1	20.0	U	14.6	20.0
85-01-8	Phenanthrene	1	20.0	U	8.7	20.0
120-12-7	Anthracene	1	20.0	U	7.2	20.0
206-44-0	Fluoranthene	1	20.0	U	6.1	20.0
129-00-0	Pyrene	1	20.0	U	5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	20.0	U	6.0	20.0
218-01-9	Chrysene	1	20.0	U	6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	50.0	U	5.5	50.0
	Benzo(a)fluoranthene, Total	1	40.0	U	10.0	40.0
50-32-8	Benzo(a)pyrene	1	20.0	U	4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	20.0	U	14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	20.0	U	13.6	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	495	66.0	27 - 120	
Phenol-d5	750.00	531	70.9	29 - 120	
2-Chlorophenol-d4	750.00	558	74.4	31 - 120	
1,2-Dichlorobenzene-d4	500.00	393	78.5	32 - 120	
Nitrobenzene-d5	500.00	409	81.8	30 - 120	
2-Fluorobiphenyl	500.00	407	81.4	35 - 120	
2,4,6-Tribromophenol	750.00	365	48.7	24 - 134	
p-Terphenyl-d14	500.00	459	91.8	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262306.D

Date: 26-May-2023 15:47

Client ID:

Sample Info: BLD0607-BLK1

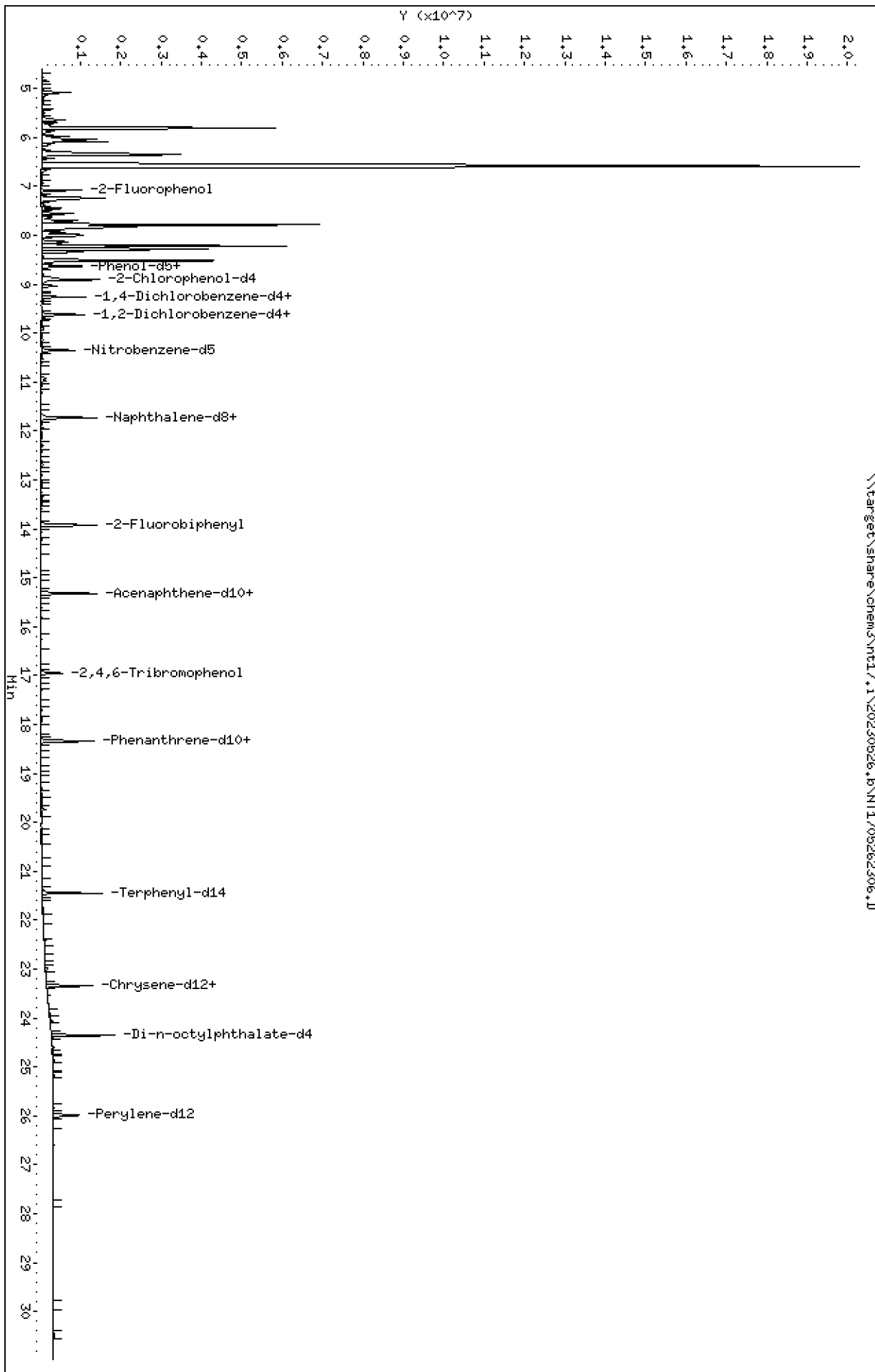
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

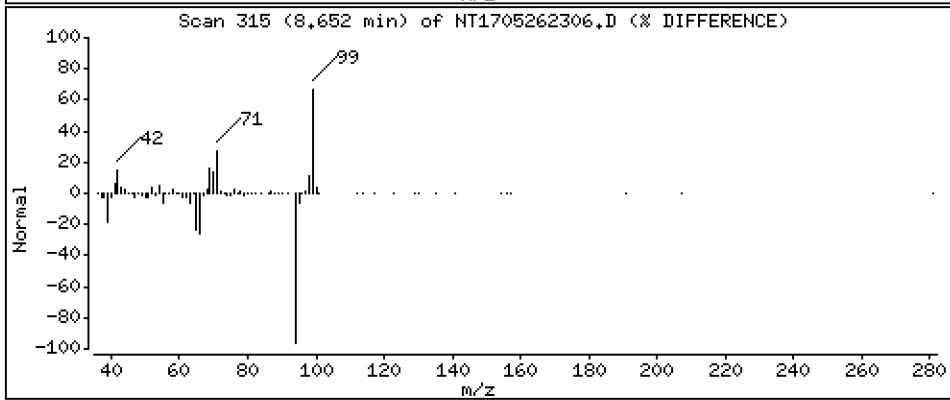
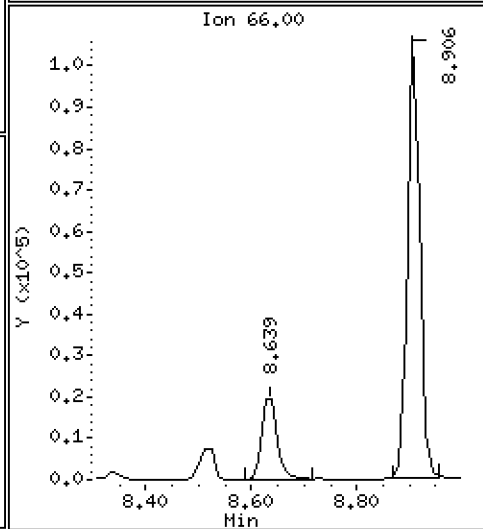
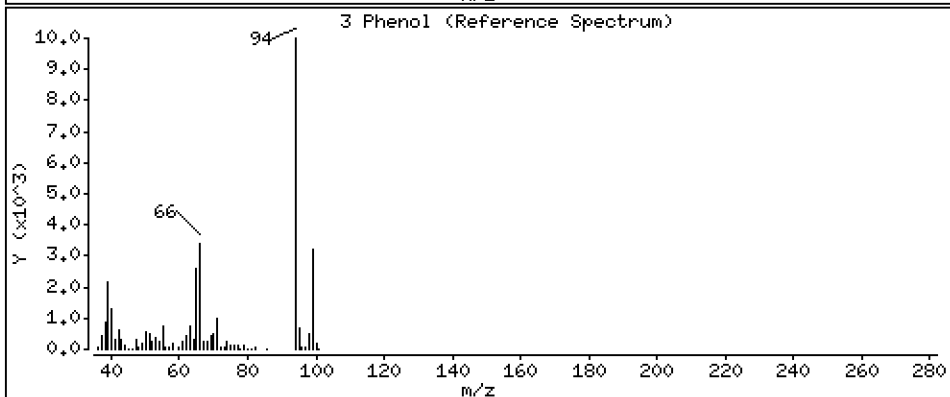
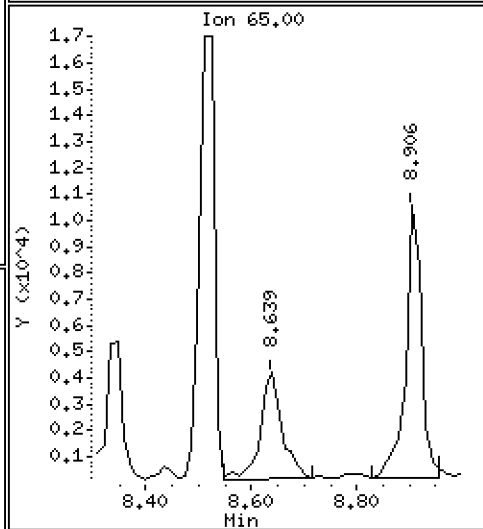
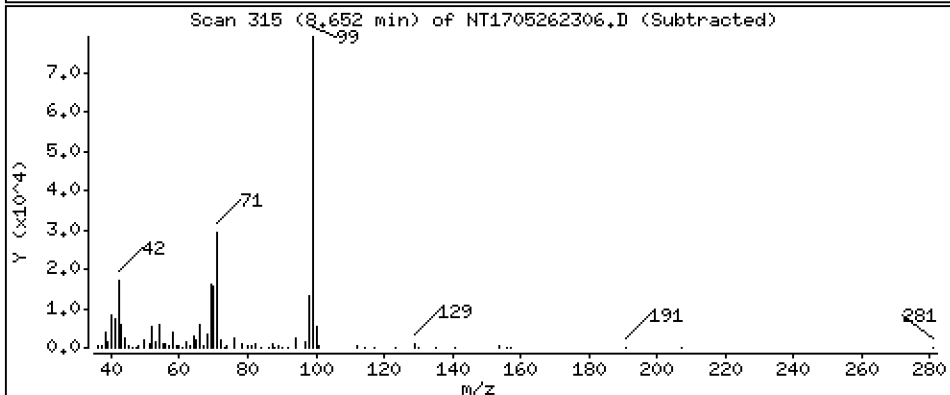
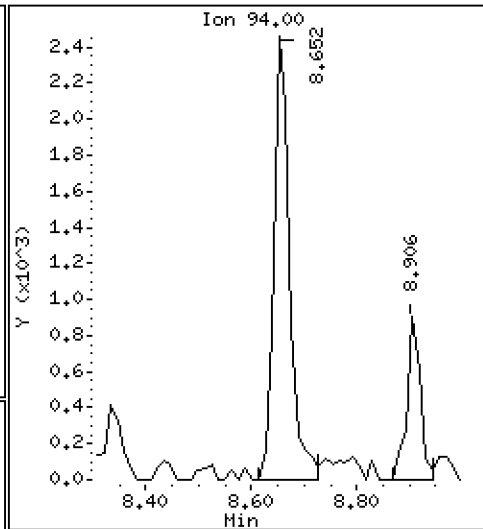
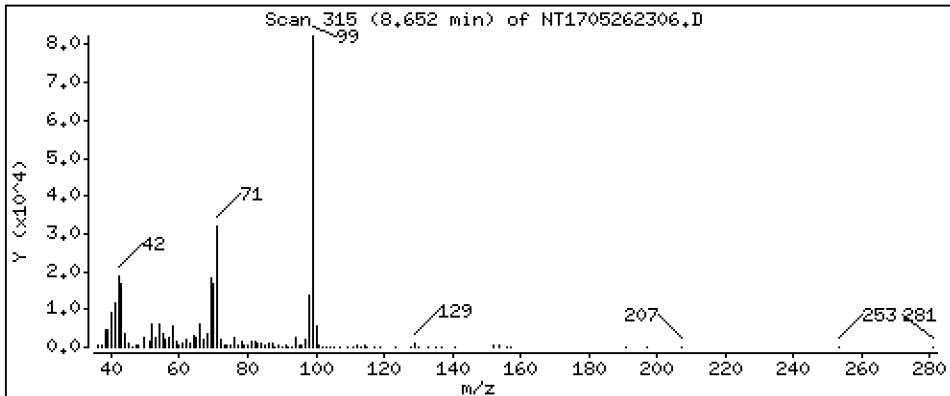
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,04309 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

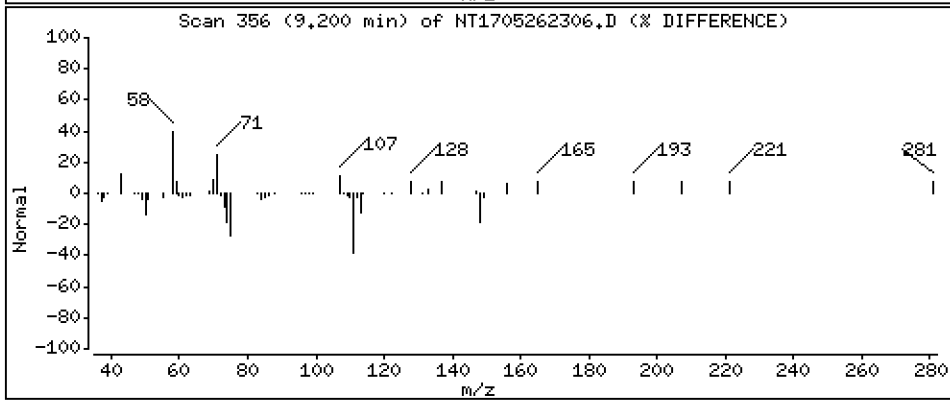
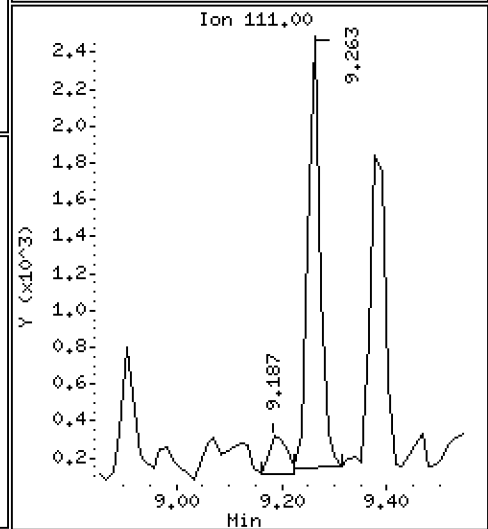
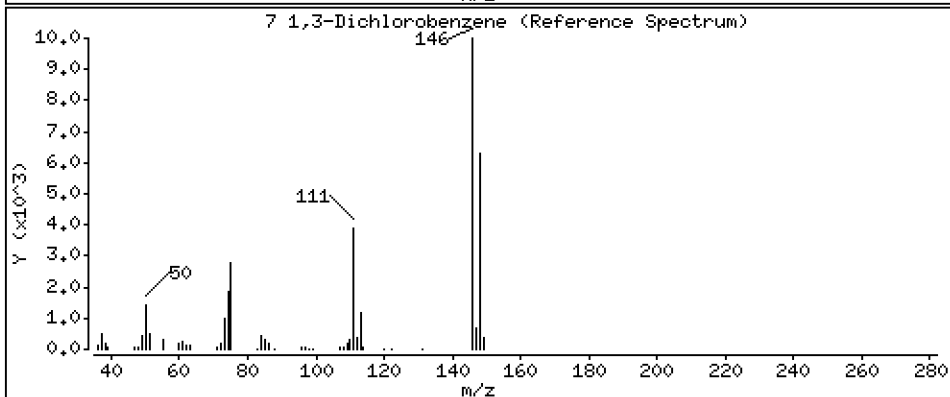
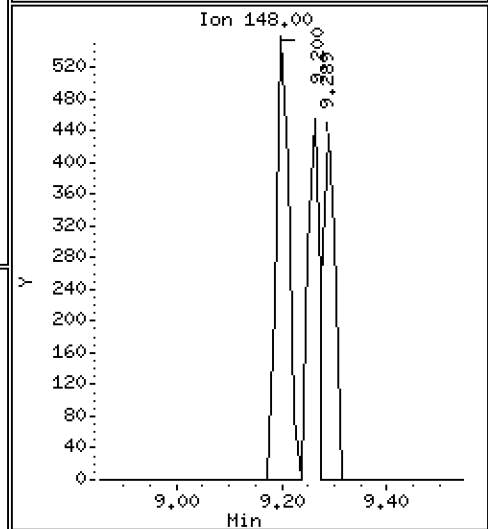
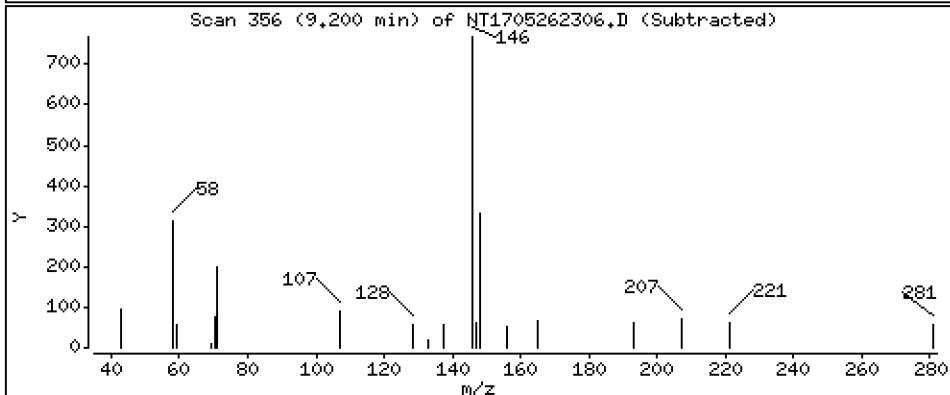
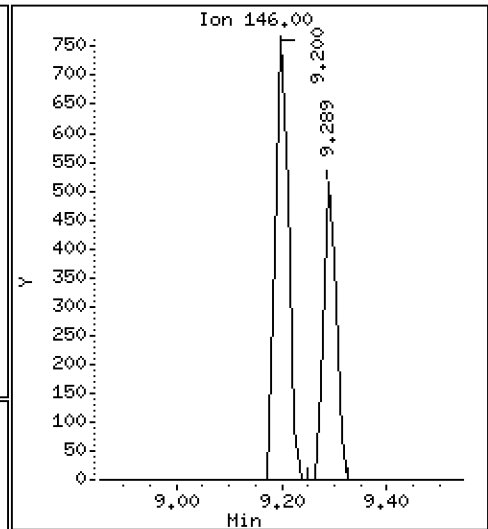
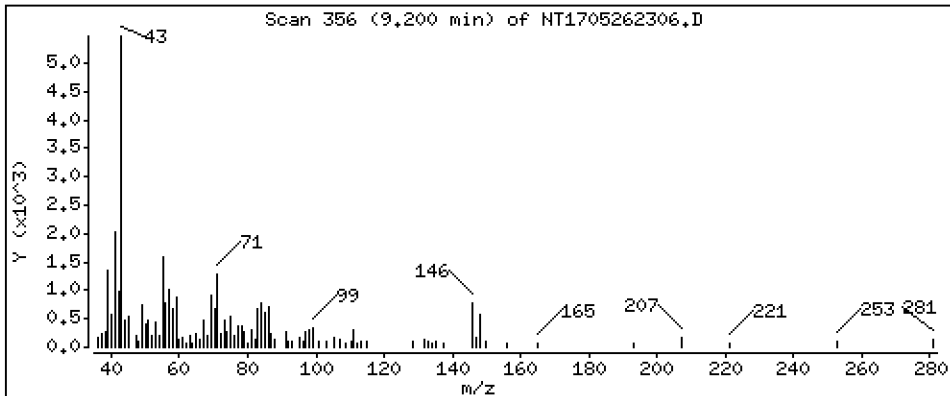
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.01288 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

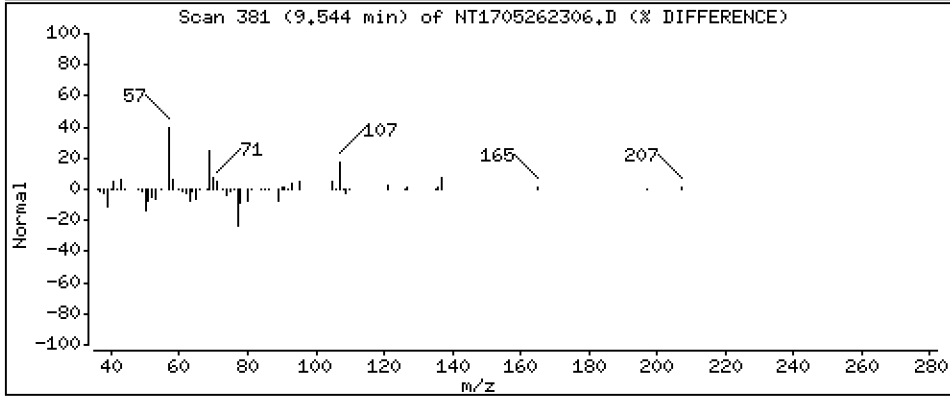
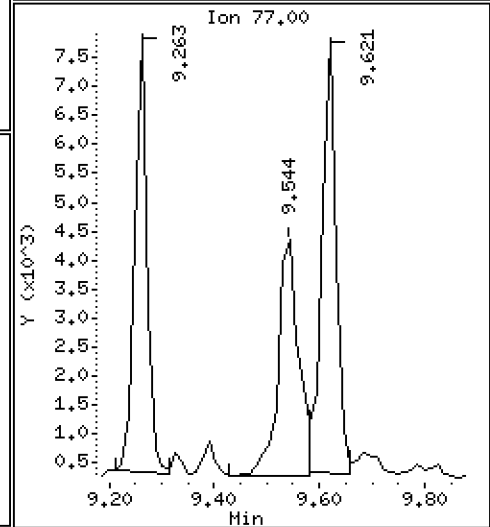
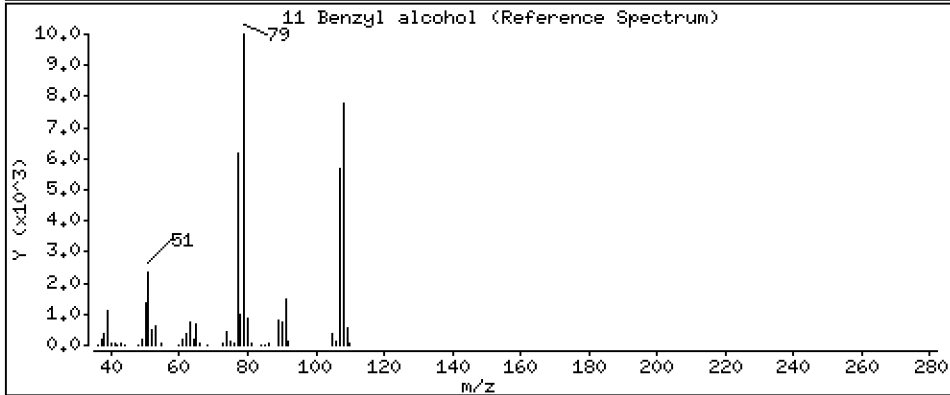
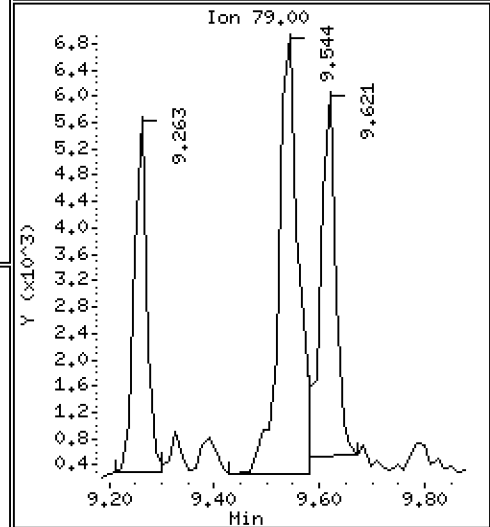
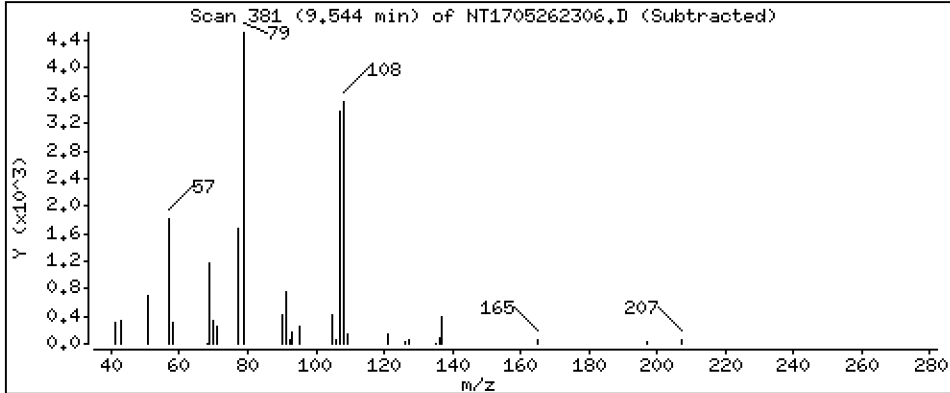
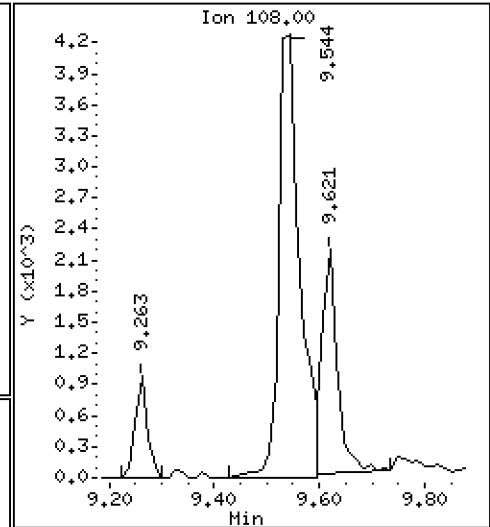
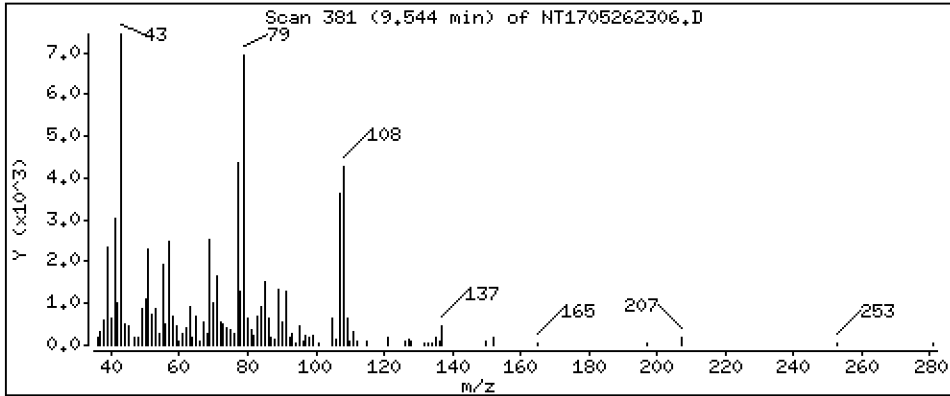
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,2480 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

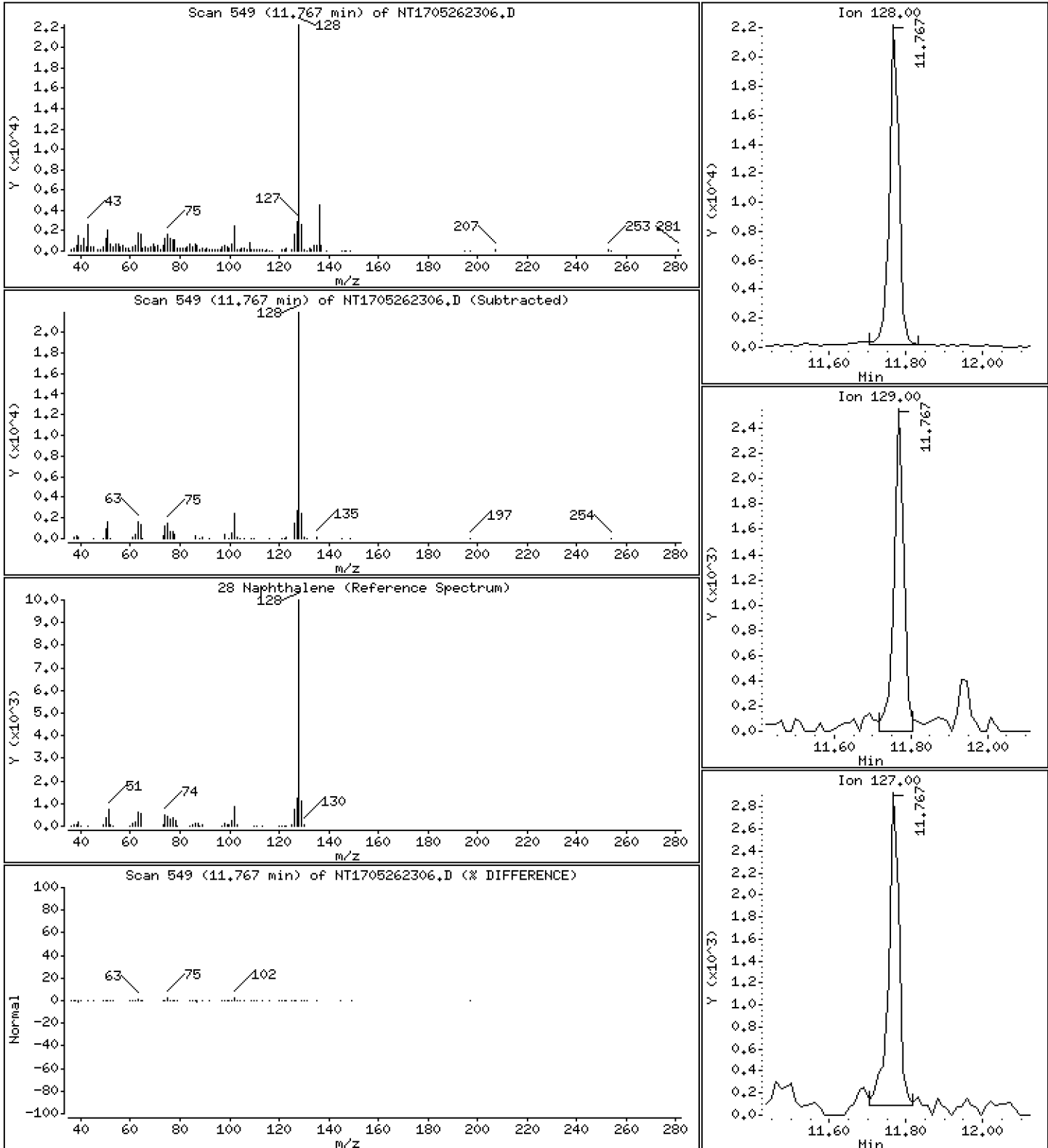
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,1369 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

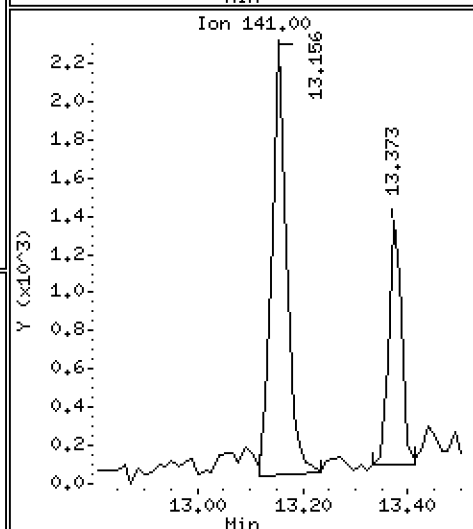
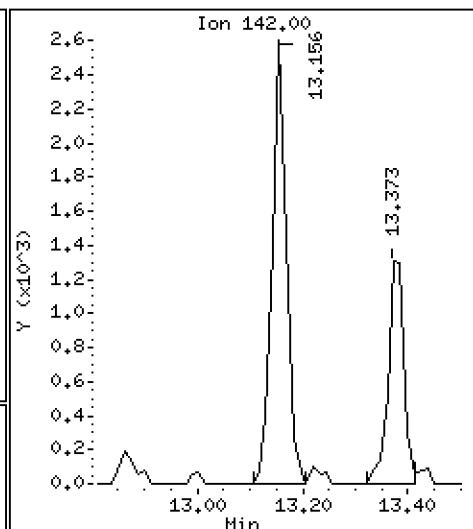
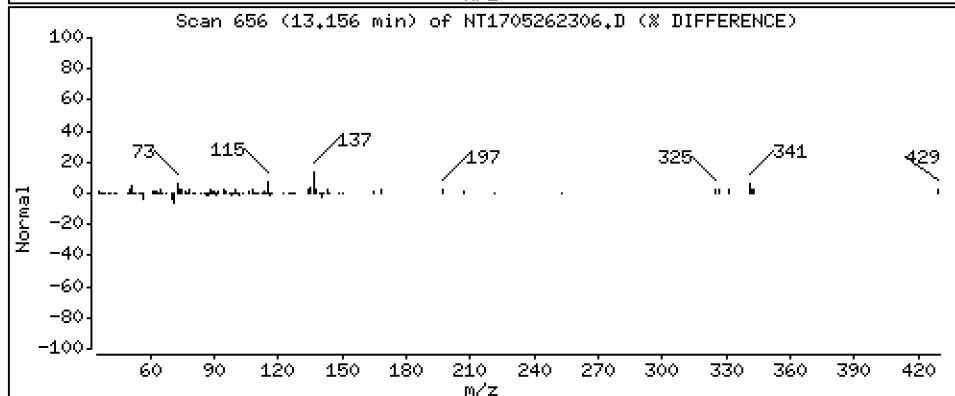
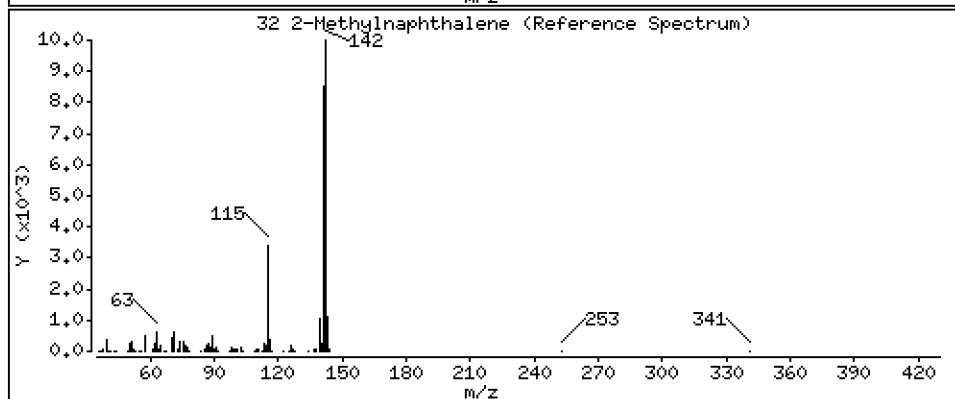
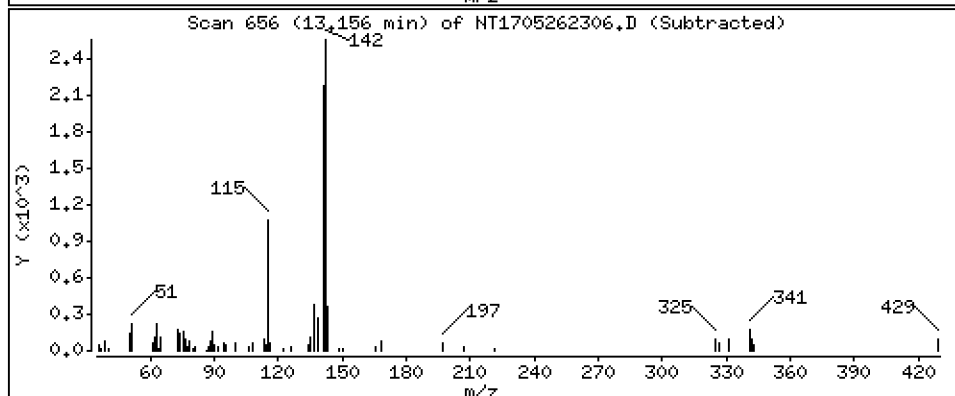
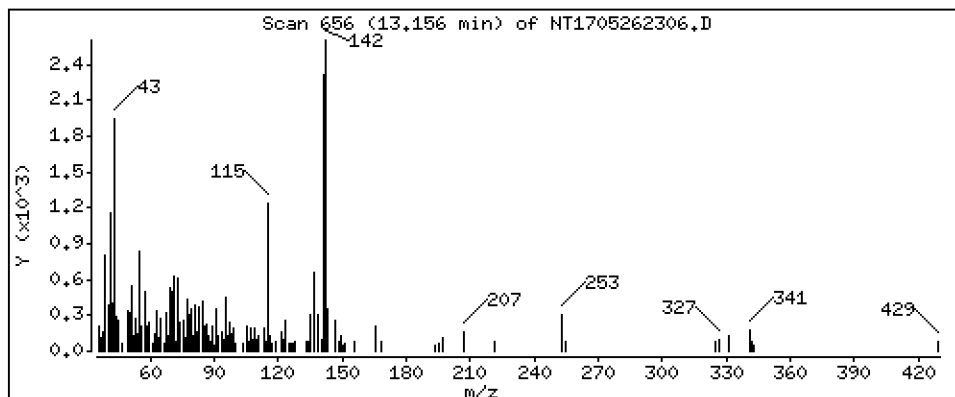
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.02394 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

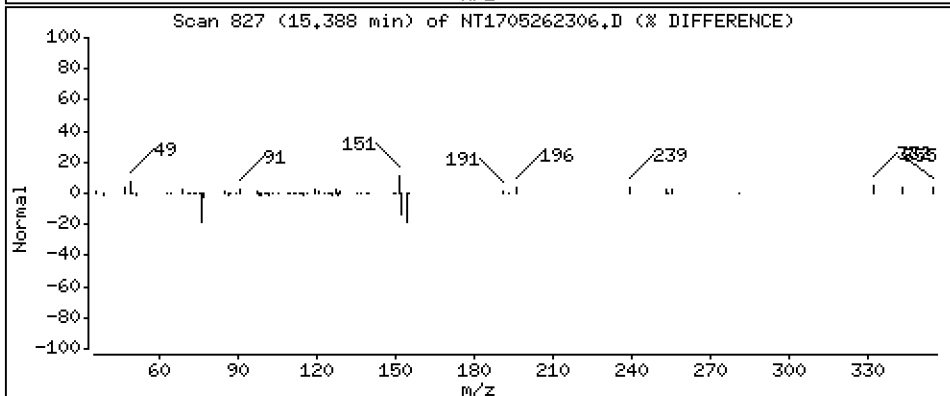
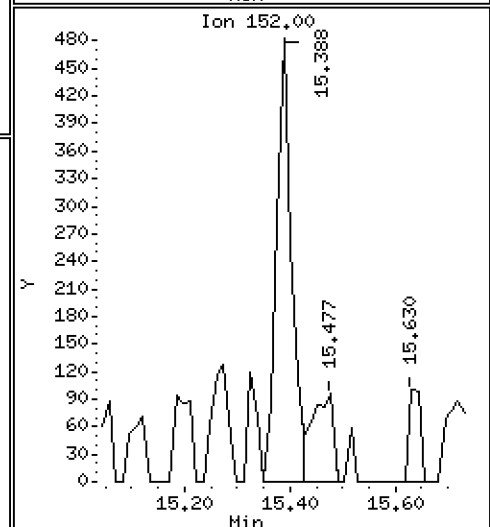
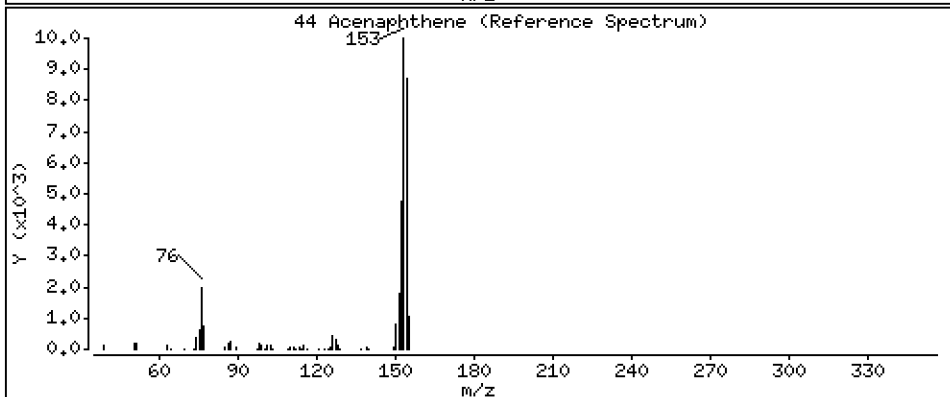
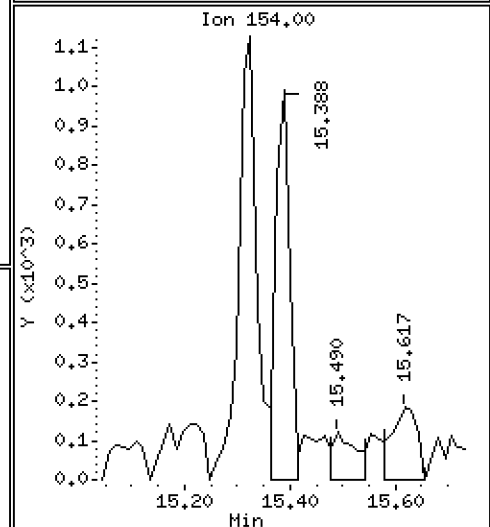
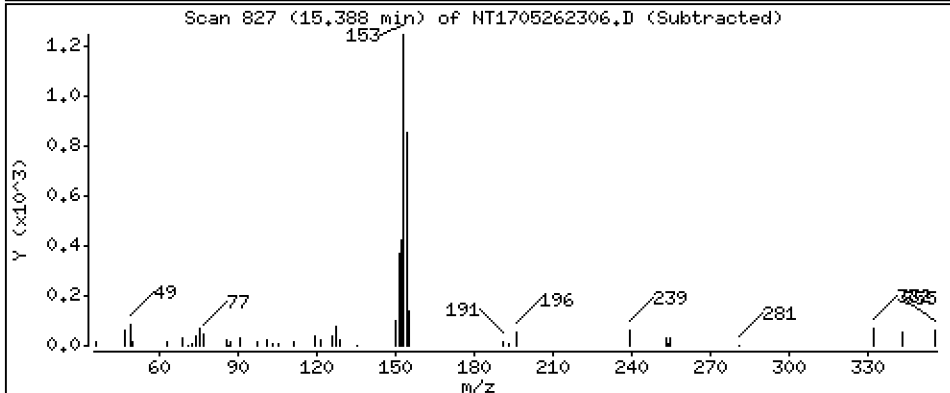
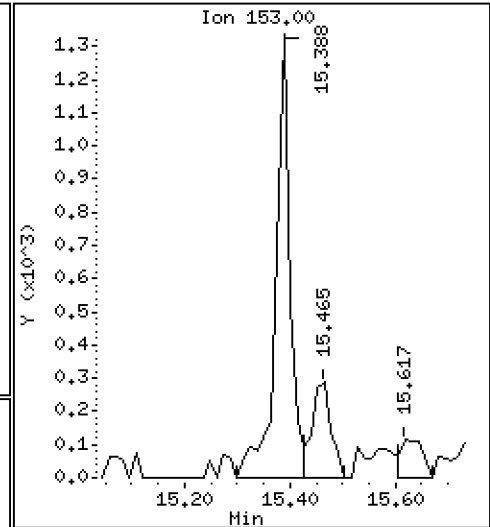
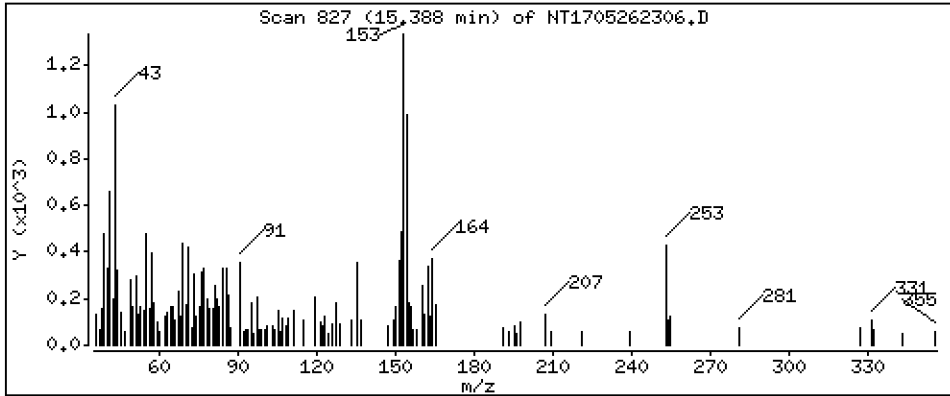
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,01498 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

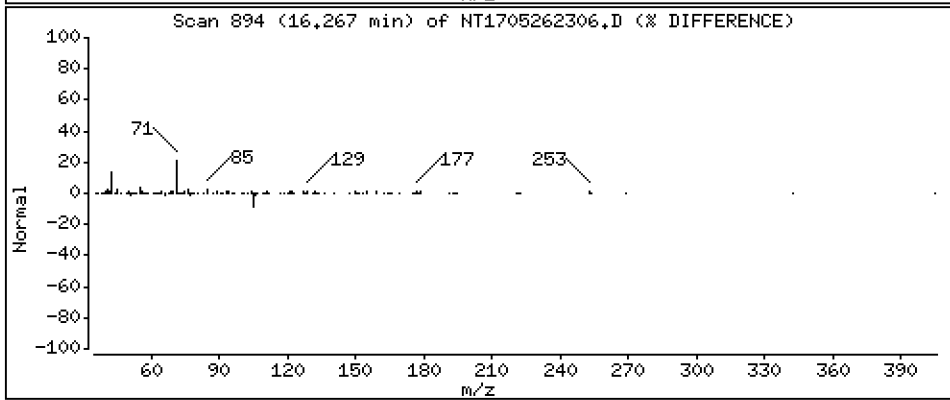
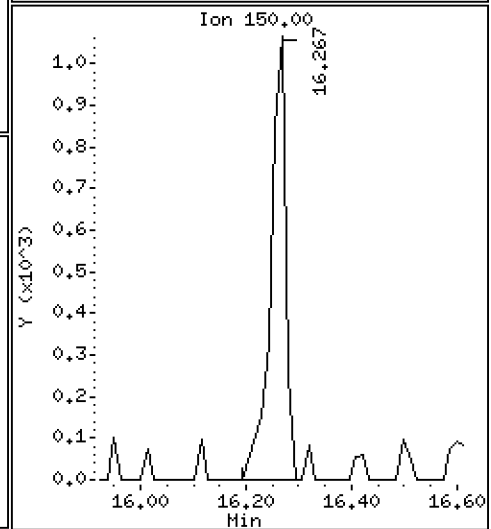
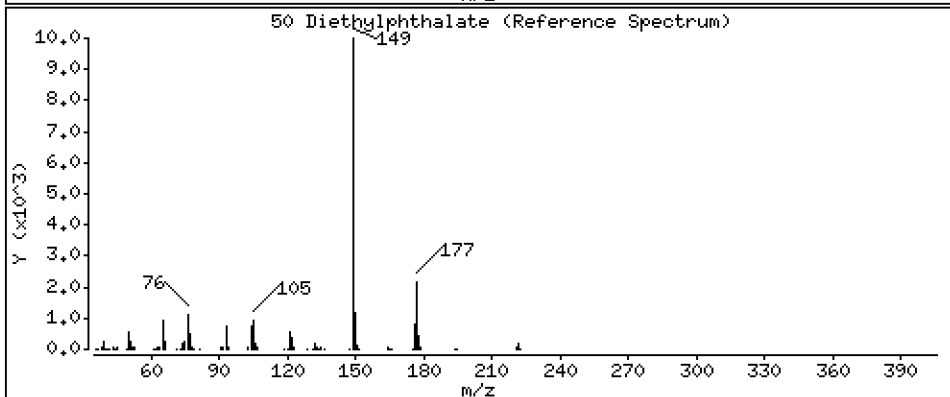
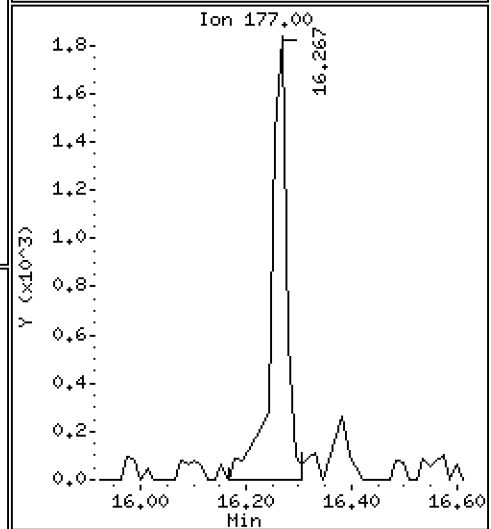
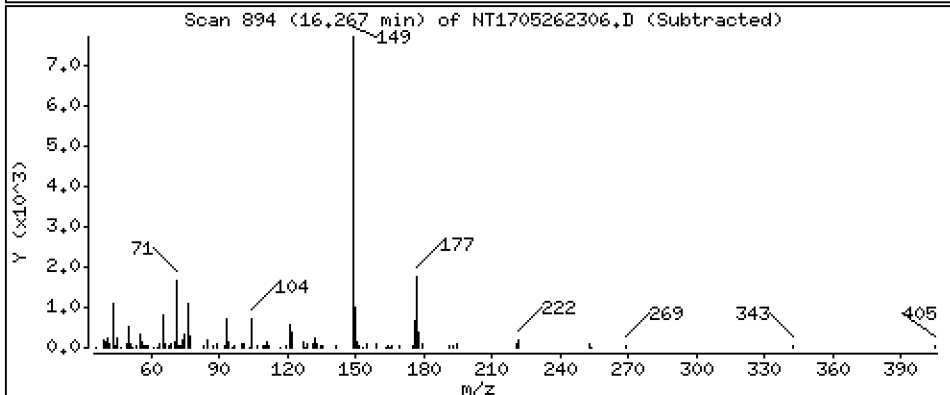
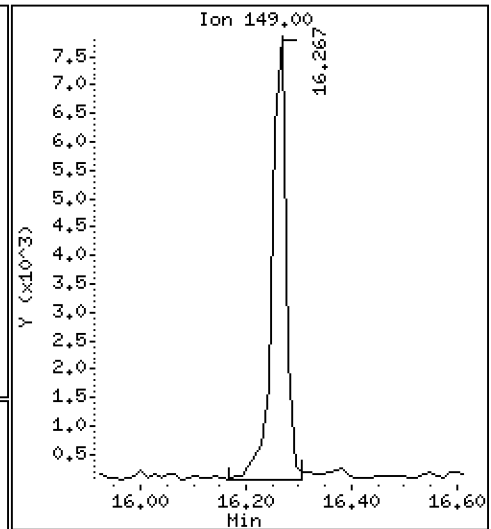
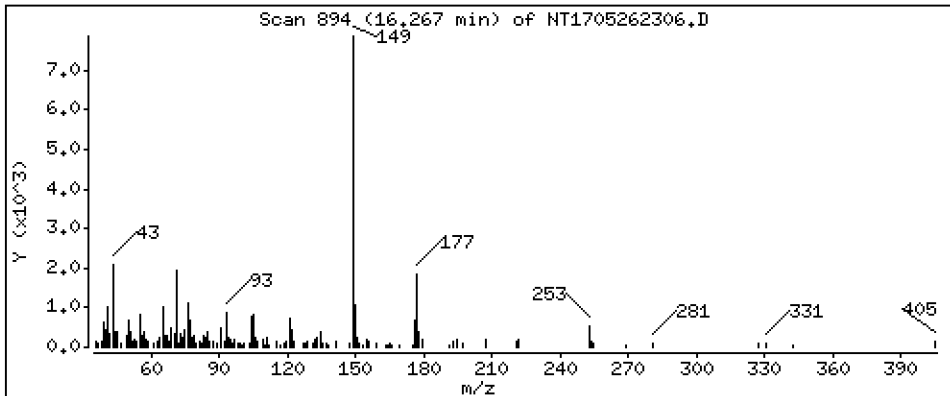
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.09808 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

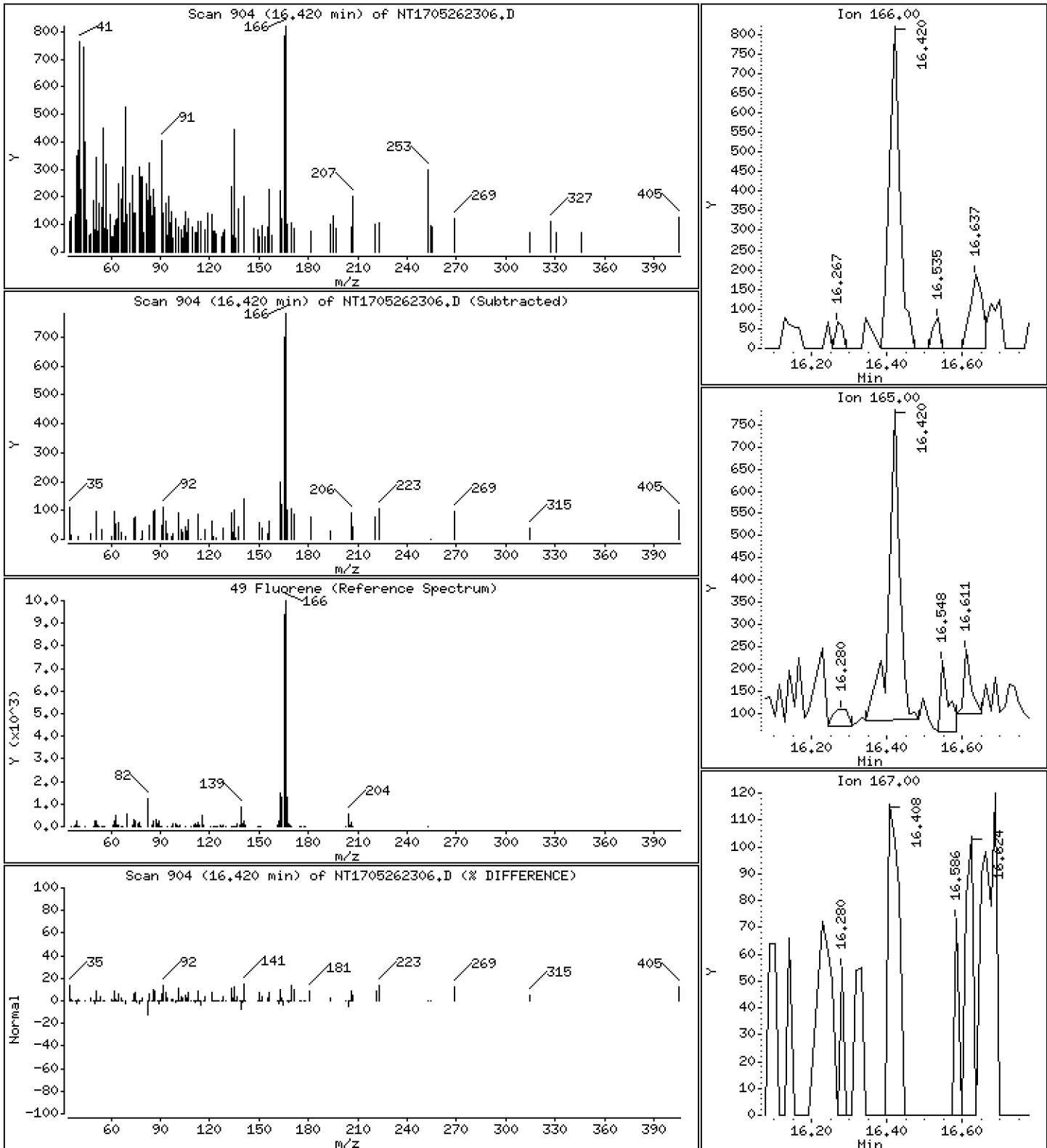
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,007011 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

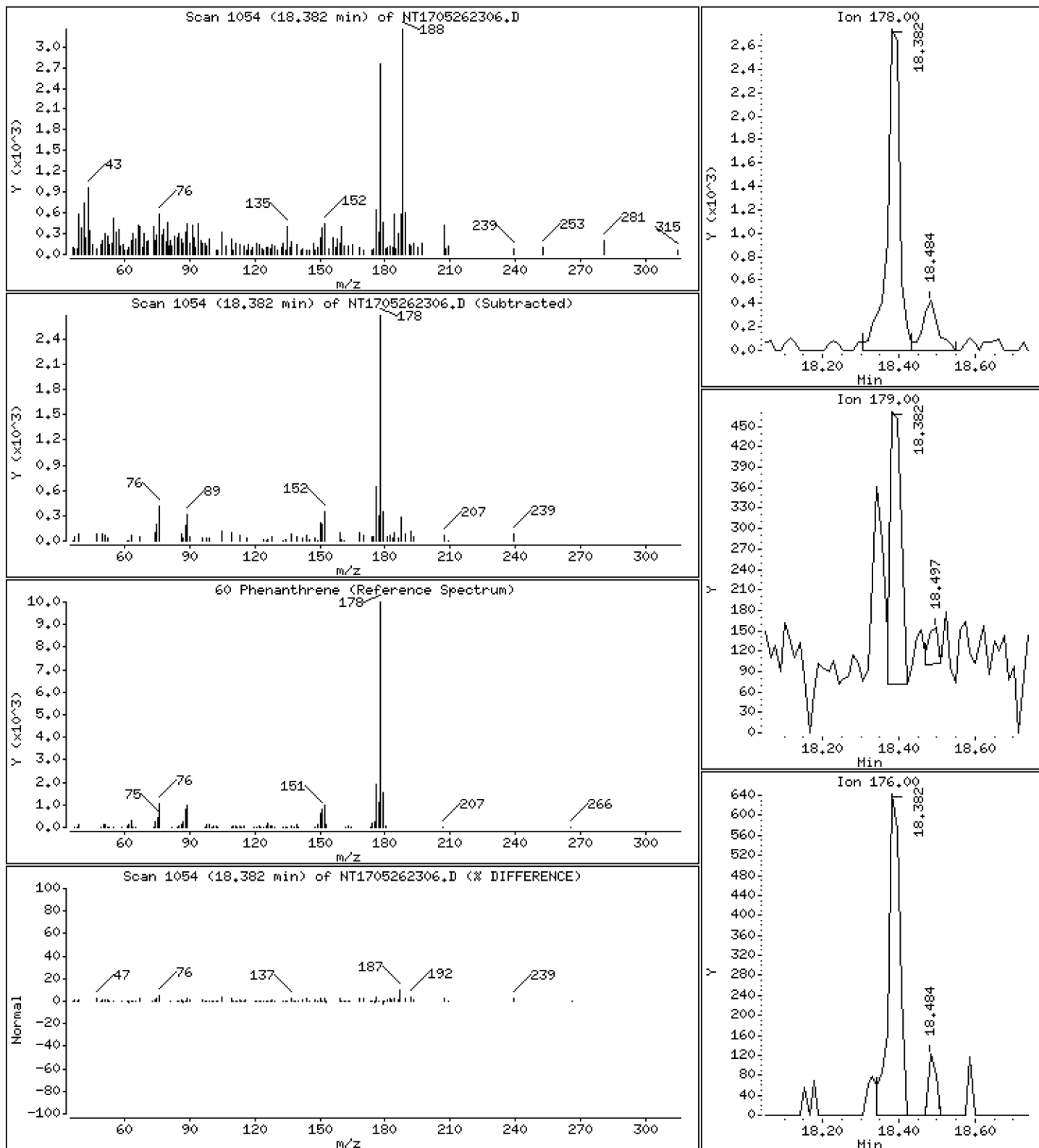
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,02493 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

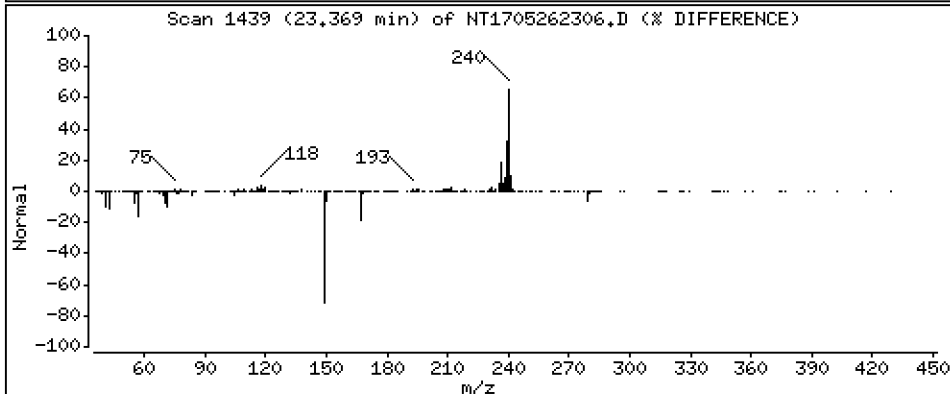
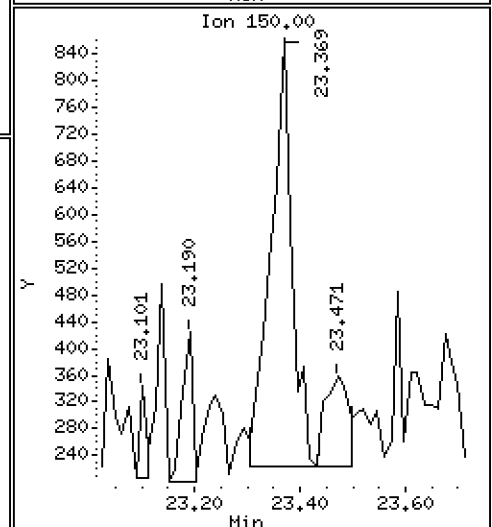
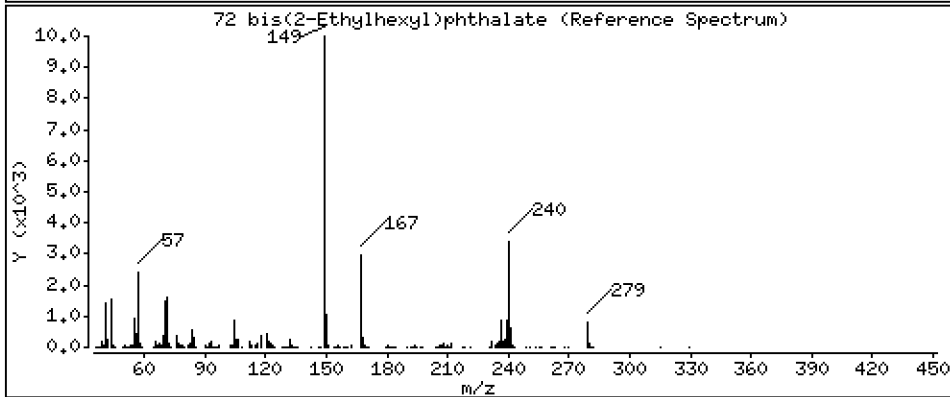
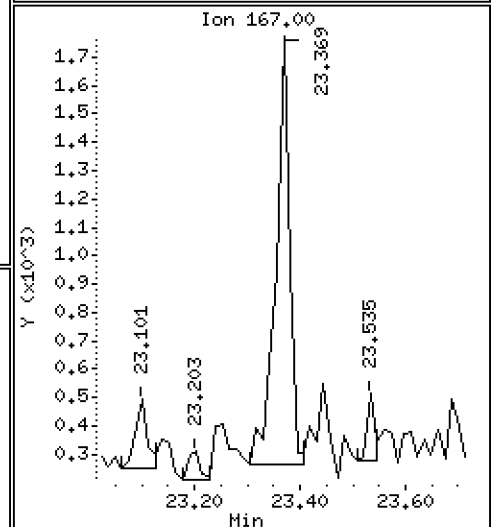
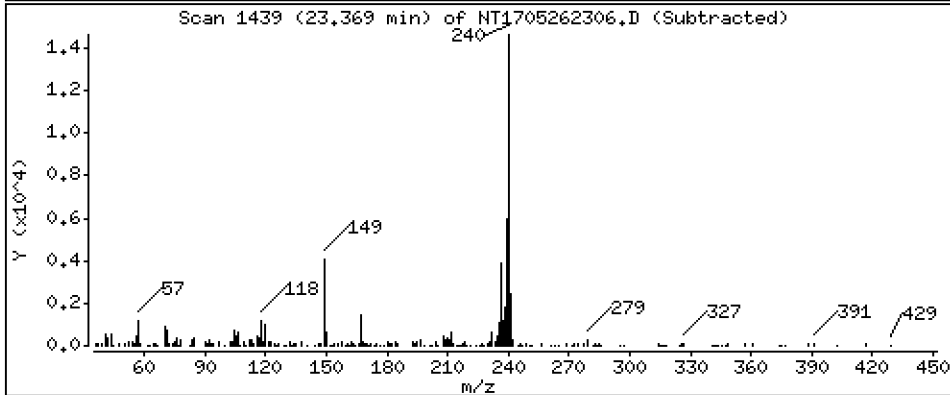
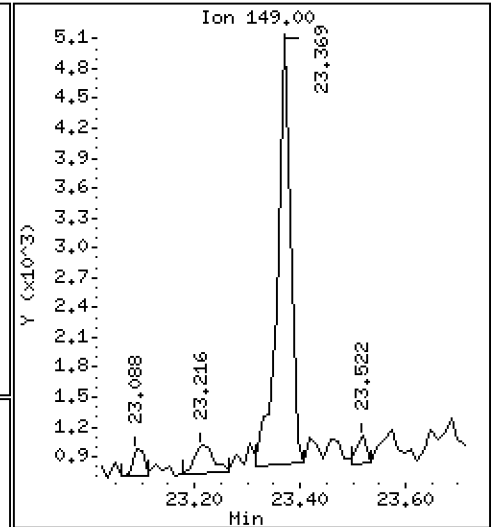
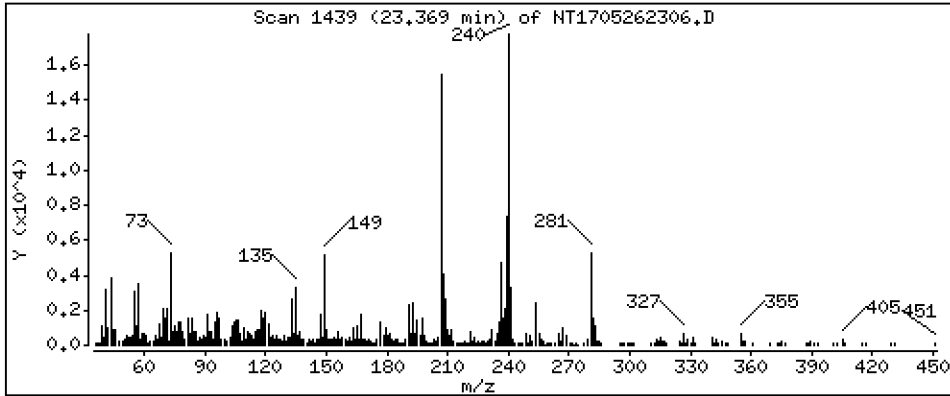
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0.04352 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK1

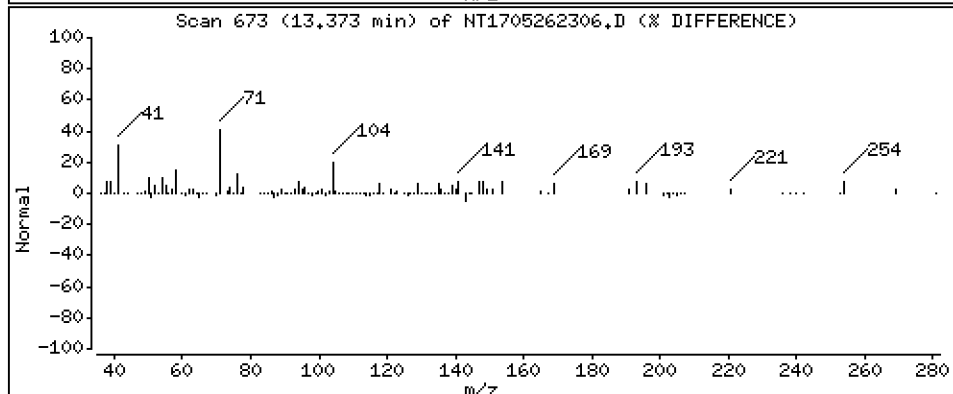
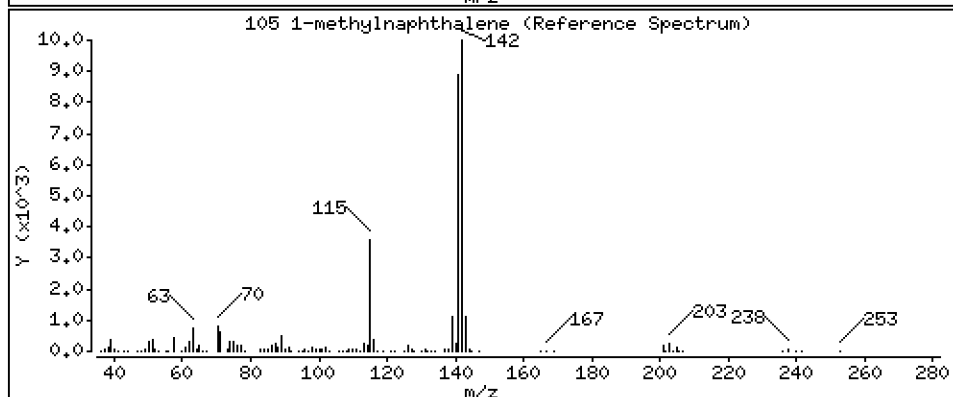
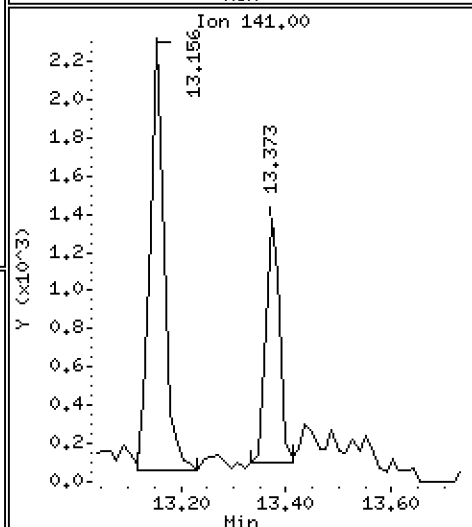
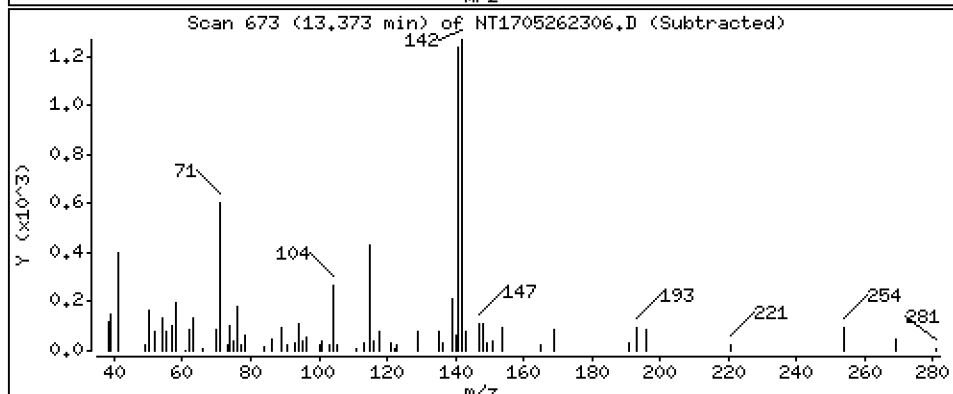
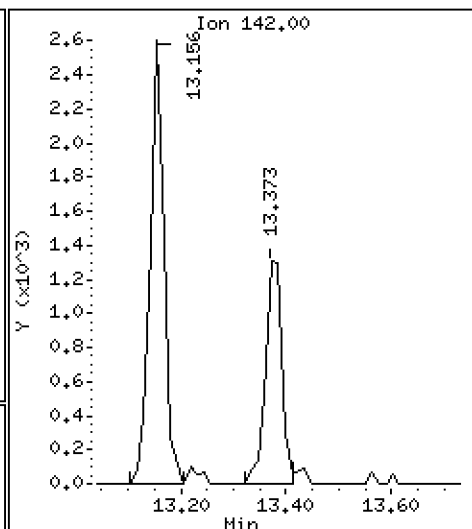
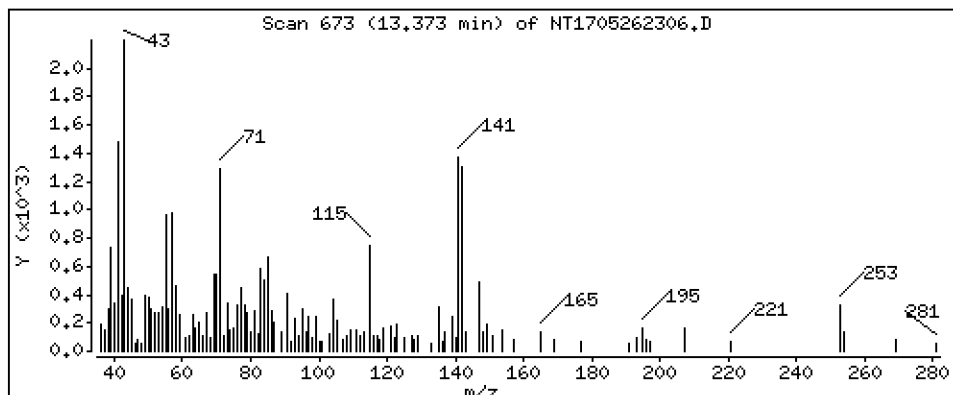
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,01512 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262306.D
 Lab Smp Id: BLD0607-BLK1
 Inj Date : 26-MAY-2023 15:47
 Operator : VTS
 Smp Info : BLD0607-BLK1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.084	7.071	(0.765)	436603	4.94765	4.948
\$ 2 Phenol-d5	99		8.638	8.638	(0.933)	620579	5.31406	5.314
3 Phenol	94		8.651	8.651	(0.934)	5330	0.04309	0.04309
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	522251	5.58311	5.583
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	1347	0.01288	0.01288
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	269574	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	258146	3.92630	3.926
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.544	9.531	(1.030)	14280	0.24796	0.2480
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	474661	4.08912	4.089
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1019925	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	38400	0.13691	0.1369
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	4808	0.02394	0.02394
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		13.934	13.934	(0.909)	861303	4.06847	4.068
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152							
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.324	15.324	(1.000)	537378	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153		15.388	15.388	(1.004)	2554	0.01498	0.01498
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168							
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.267	16.267	(1.062)	17685	0.09808	0.09808
49 Fluorene	166		16.420	16.420	(1.072)	1586	0.00701	0.007011
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		16.954	16.954	(1.106)	85530	3.64886	3.649
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.343	18.343	(1.000)	871516	4.00000	
60 Phenanthrene	178		18.381	18.394	(1.002)	6340	0.02493	0.02493
61 Anthracene	178							
62 Carbazole	167							
63 Di-n-butylphthalate	149							
64 Fluoranthene	202							
65 Pyrene	202							
\$ 66 Terphenyl-d14	244		21.455	21.455	(0.919)	866630	4.58825	4.588
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228							
* 69 Chrysene-d12	240		23.343	23.355	(1.000)	560318	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228							
72 bis(2-Ethylhexyl)phthalate	149		23.368	23.368	(0.960)	7286	0.04352	0.04352
* 134 Di-n-octylphthalate-d4	153		24.350	24.363	(1.000)	1157035	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252							
75 Benzo(k)fluoranthene	252							
76 Benzo(a)pyrene	252							
* 77 Perylene-d12	264		25.996	25.996	(1.000)	499749	4.00000	
78 Indeno(1,2,3-cd)pyrene	276							
79 Dibenzo(a,h)anthracene	278							
80 Benzo(g,h,i)perylene	276							
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142		13.373	13.385	(1.140)	2817	0.01512	0.01512
111 Azobenzene (1,2-DP-Hydrazine)	77							

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262306.D Calibration Time: 13:16
 Lab Smp Id: BLD0607-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	269574	-11.18
27 Naphthalene-d8	1140476	570238	2280952	1019925	-10.57
42 Acenaphthene-d10	622461	311231	1244922	537378	-13.67
59 Phenanthrene-d10	1074054	537027	2148108	871516	-18.86
69 Chrysene-d12	723807	361904	1447614	560318	-22.59
134 Di-n-octylphthala	1524055	762028	3048110	1157035	-24.08
77 Perylene-d12	666992	333496	1333984	499749	-25.07

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	-0.00
69 Chrysene-d12	23.36	22.86	23.86	23.34	-0.05
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.00	25.50	26.50	26.00	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262306.D

Lab ID: BLD0607-BLK1
nt17.i, ABN.m, 26-MAY-2023 15:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



Form I
METHOD BLANK DATA SHEET
EPA 8270E

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0607-BLK3</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/24/23 16:38</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0607</u>	Sequence:	<u>SLE0434</u>
Instrument:	<u>NT17</u>	Column:	<u>ZB-5MS</u>
		File ID:	<u>NT1705262327.D</u>
		Analyzed:	<u>05/27/23 04:54</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>GE00065</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
108-95-2	Phenol	1	20.0	U	4.4	20.0
100-51-6	Benzyl Alcohol	1	20.0	U	16.3	20.0
106-44-5	4-Methylphenol	1	20.0	U	7.4	20.0
91-20-3	Naphthalene	1	17.1	J	4.2	20.0
91-57-6	2-Methylnaphthalene	1	20.0	U	4.5	20.0
208-96-8	Acenaphthylene	1	20.0	U	6.2	20.0
132-64-9	Dibenzofuran	1	20.0	U	14.1	20.0
86-73-7	Fluorene	1	20.0	U	14.6	20.0
85-01-8	Phenanthrene	1	20.0	U	8.7	20.0
120-12-7	Anthracene	1	20.0	U	7.2	20.0
206-44-0	Fluoranthene	1	20.0	U	6.1	20.0
129-00-0	Pyrene	1	20.0	U	5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	20.0	U	6.0	20.0
218-01-9	Chrysene	1	20.0	U	6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	50.0	U	5.5	50.0
	Benzofluoranthenes, Total	1	40.0	U	10.0	40.0
50-32-8	Benzo(a)pyrene	1	20.0	U	4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	20.0	U	14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	20.0	U	13.6	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	490	65.4	27 - 120	
Phenol-d5	750.00	512	68.2	29 - 120	
2-Chlorophenol-d4	750.00	538	71.7	31 - 120	
1,2-Dichlorobenzene-d4	500.00	387	77.3	32 - 120	
Nitrobenzene-d5	500.00	425	85.0	30 - 120	
2-Fluorobiphenyl	500.00	418	83.6	35 - 120	
2,4,6-Tribromophenol	750.00	364	48.5	24 - 134	
p-Terphenyl-d14	500.00	382	76.5	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.6\NT1705262327.D

Date: 27-May-2023 04:54

Client ID:

Sample Info: BLD0607-BLK2

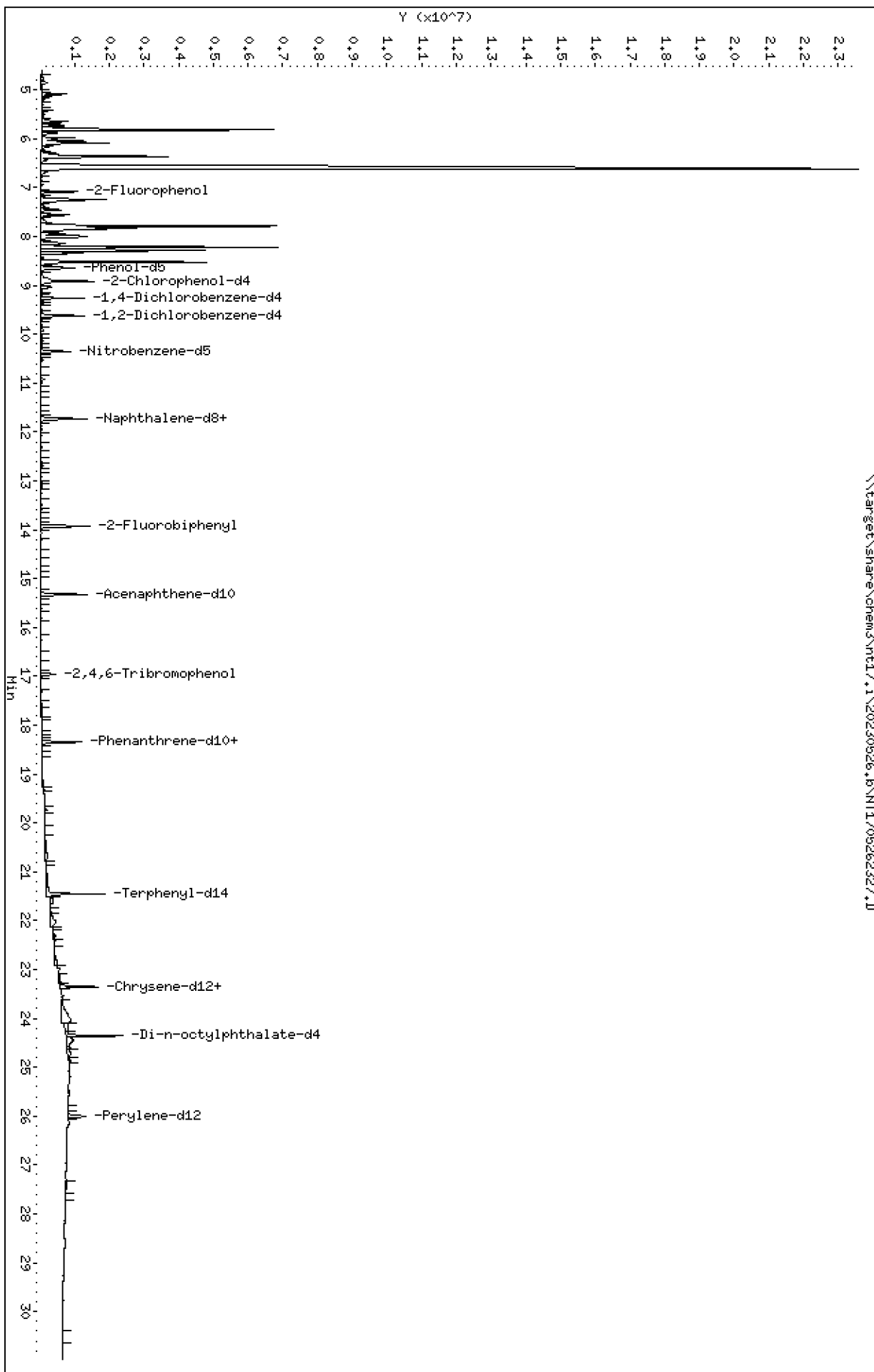
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230526.6\NT1705262327.D



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

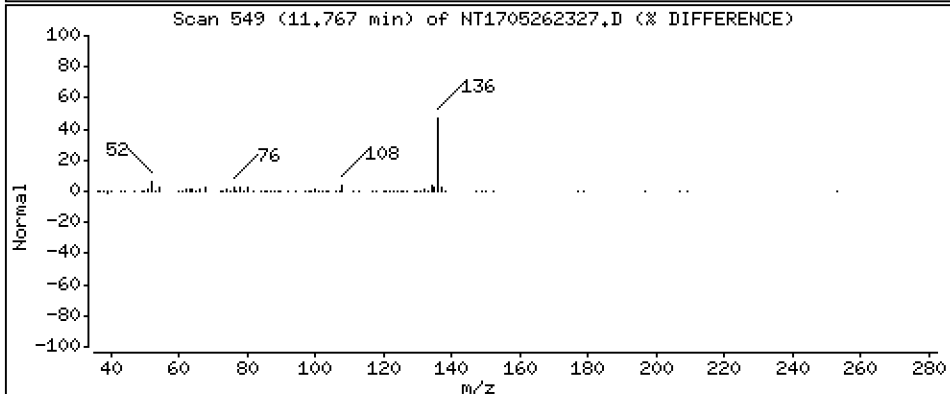
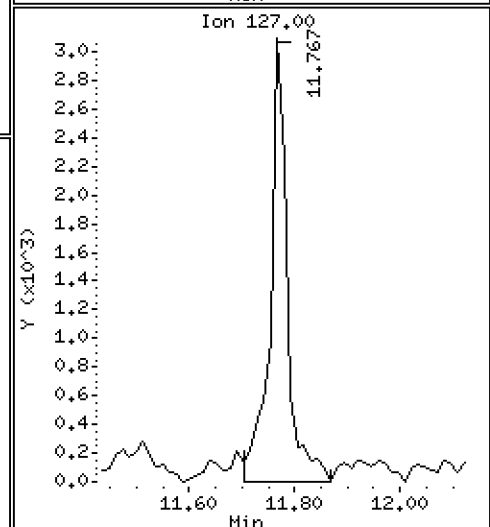
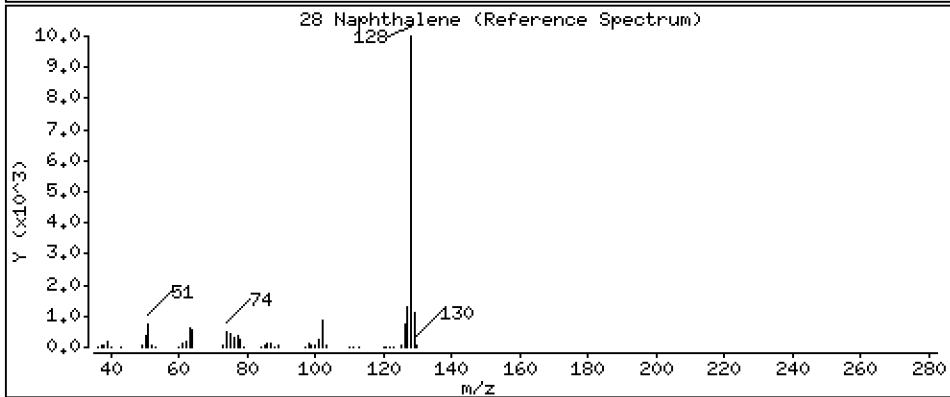
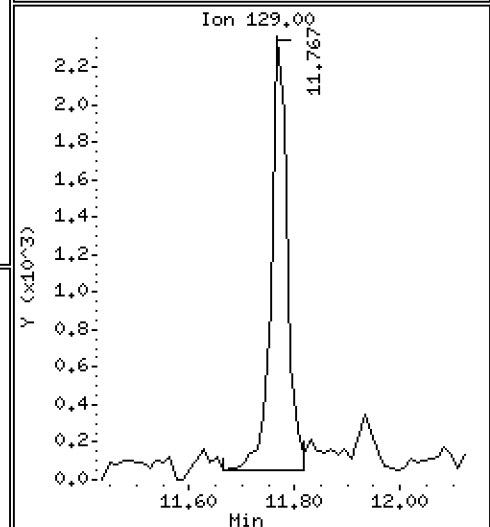
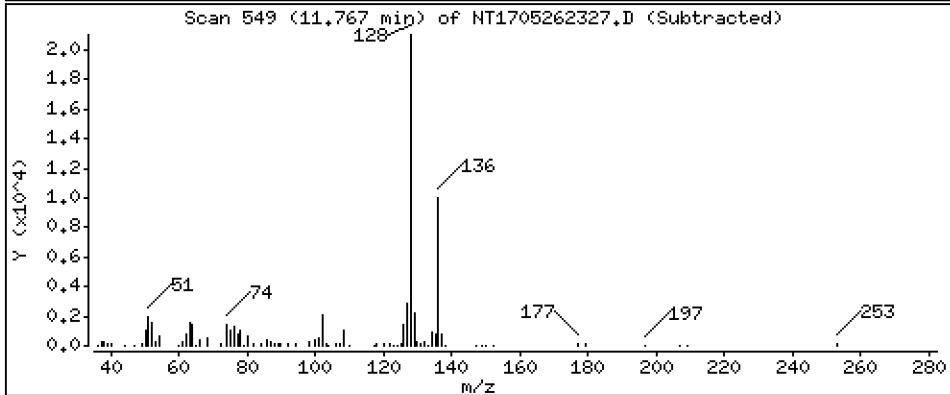
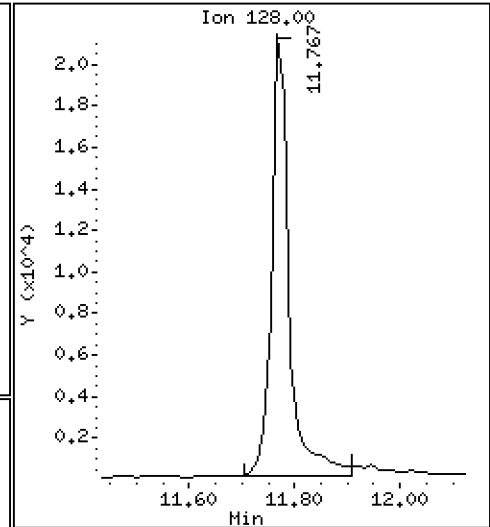
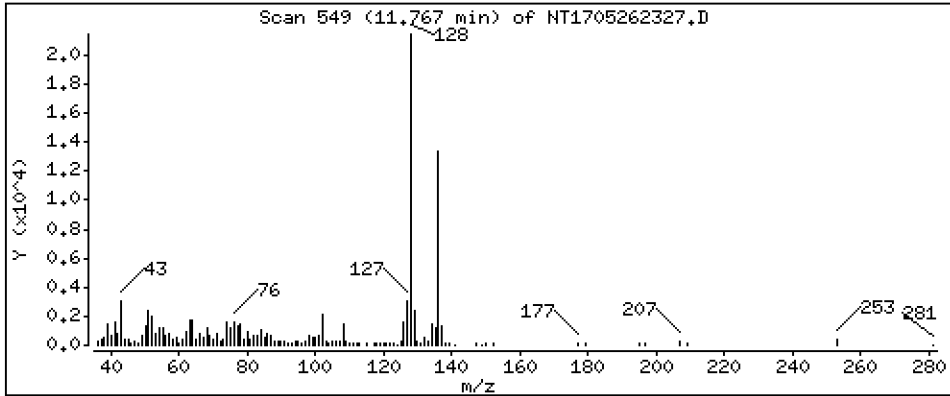
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,1709 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

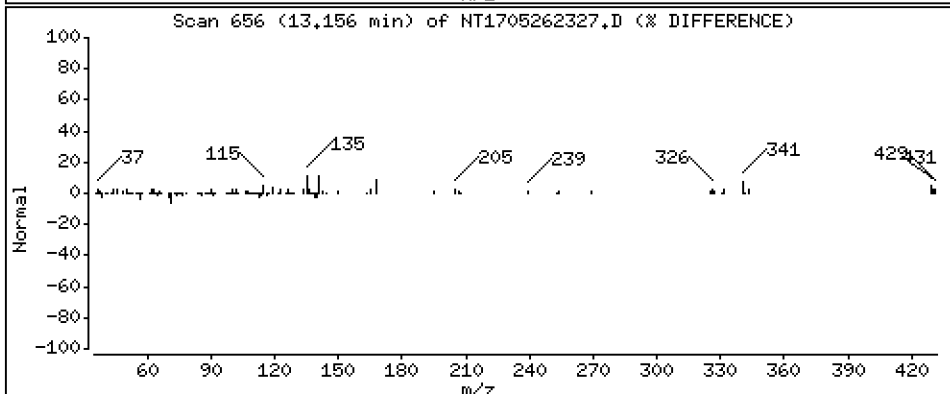
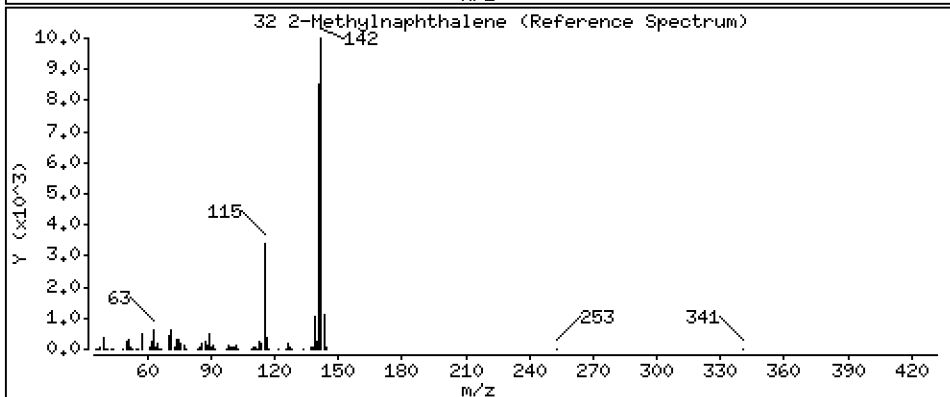
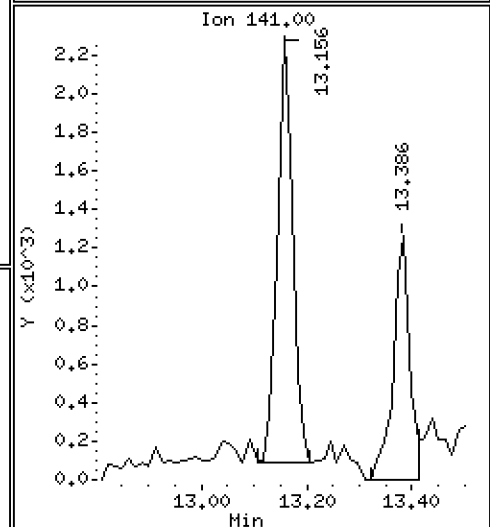
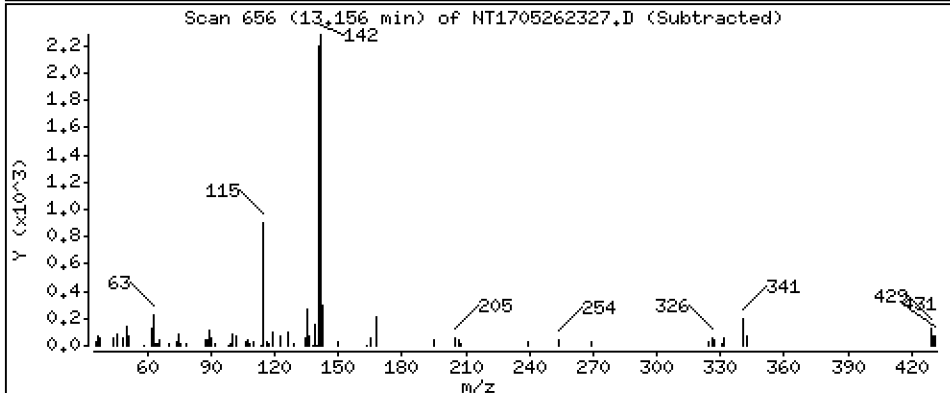
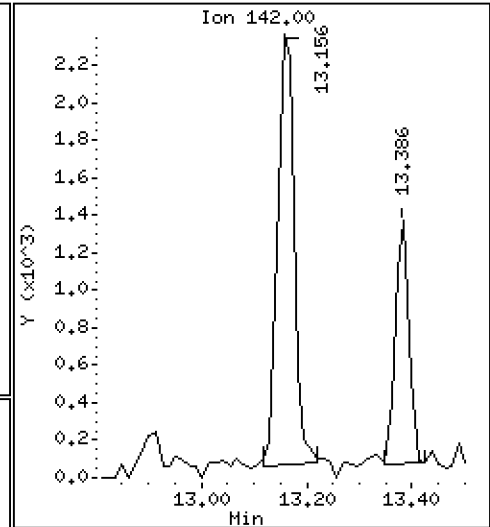
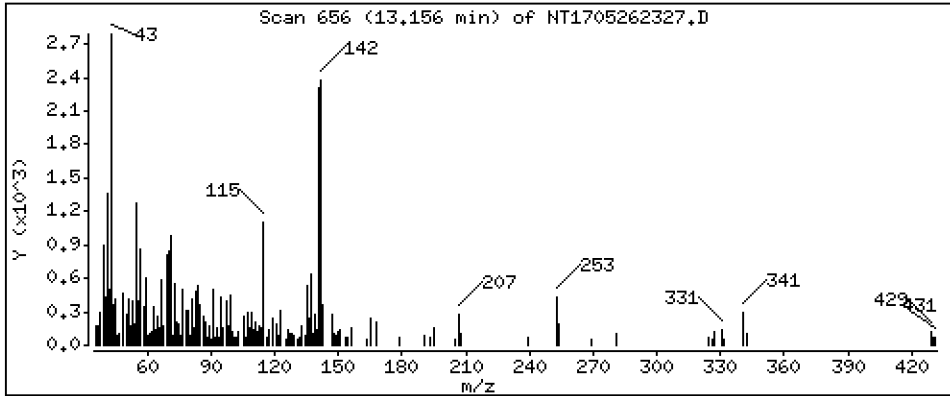
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.02405 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

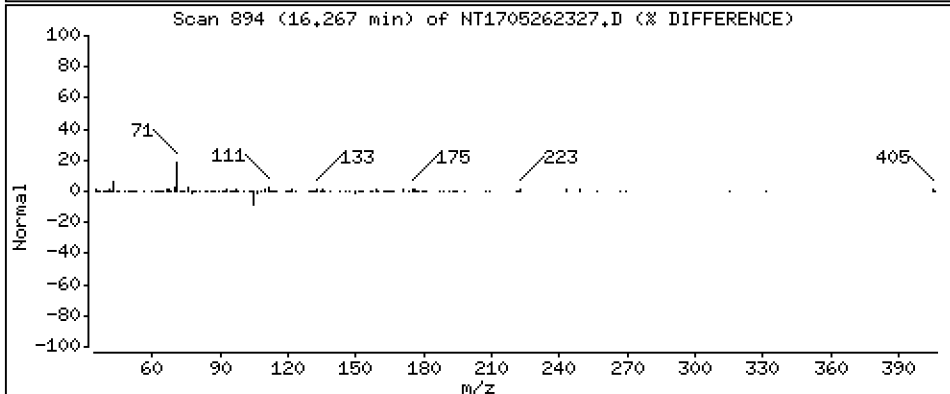
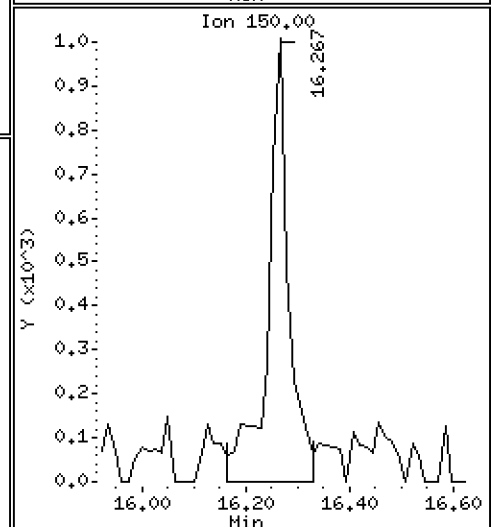
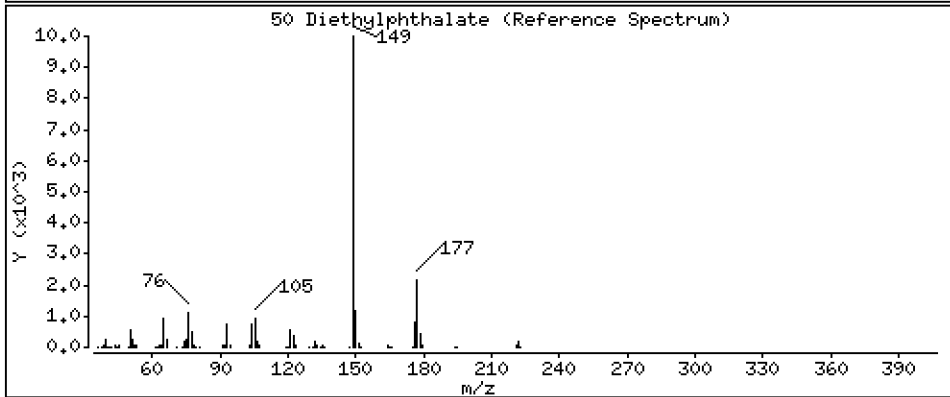
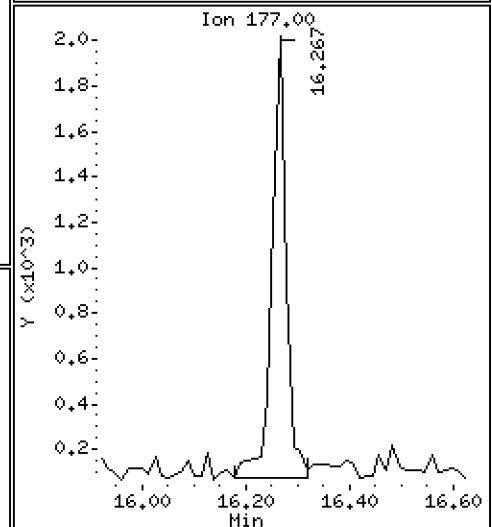
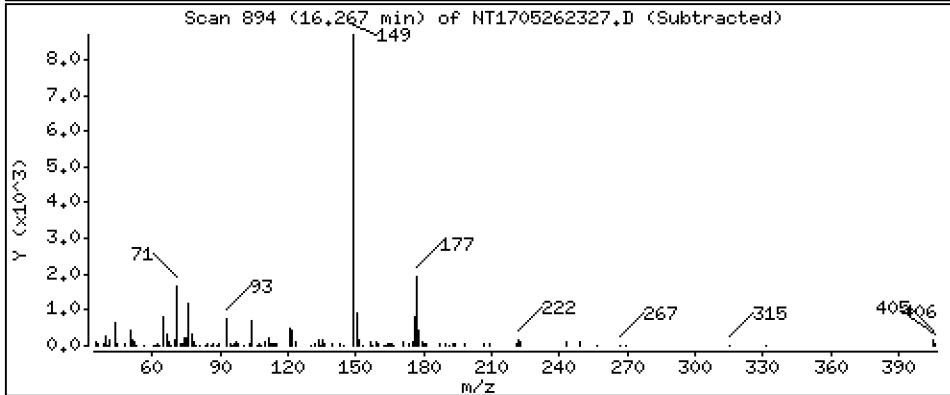
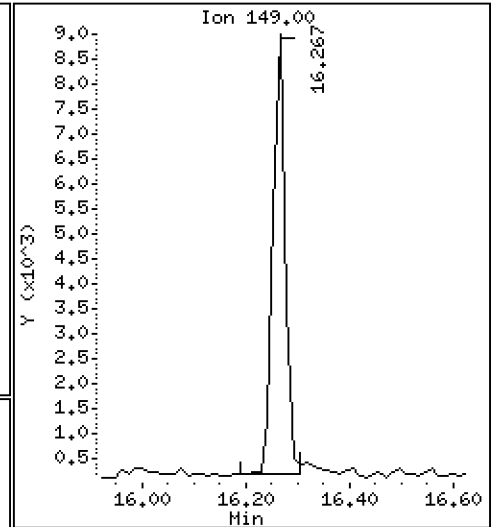
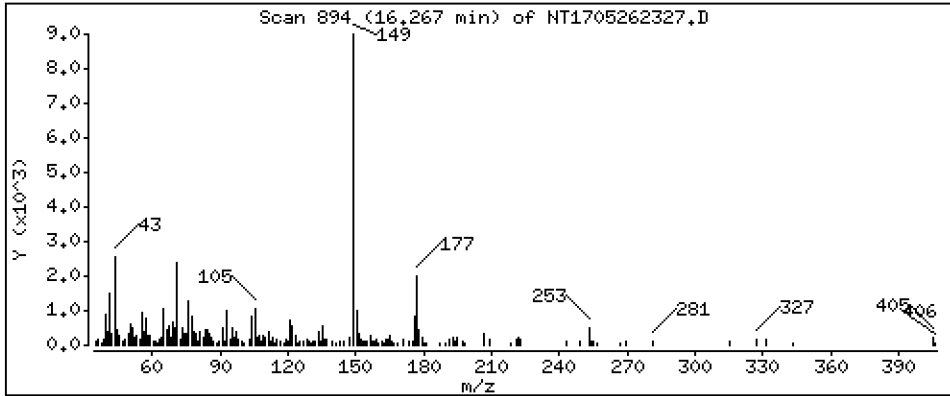
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1074 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

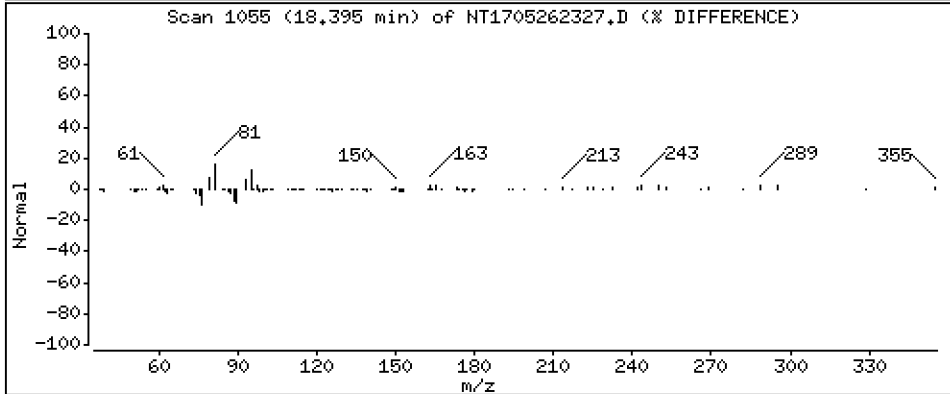
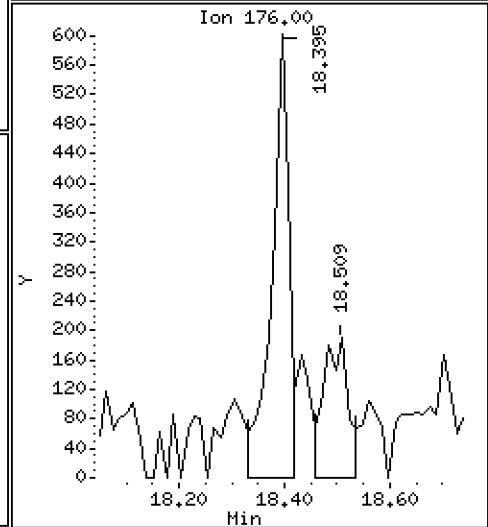
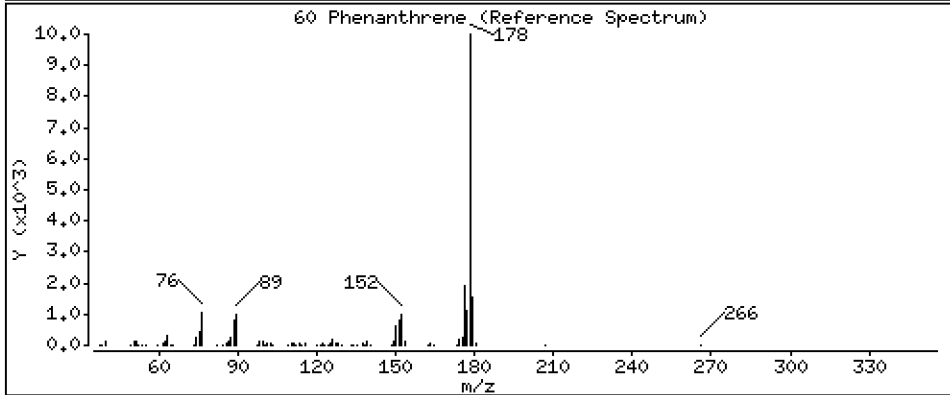
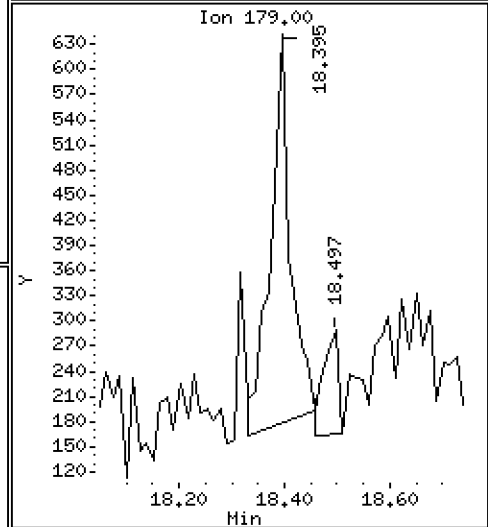
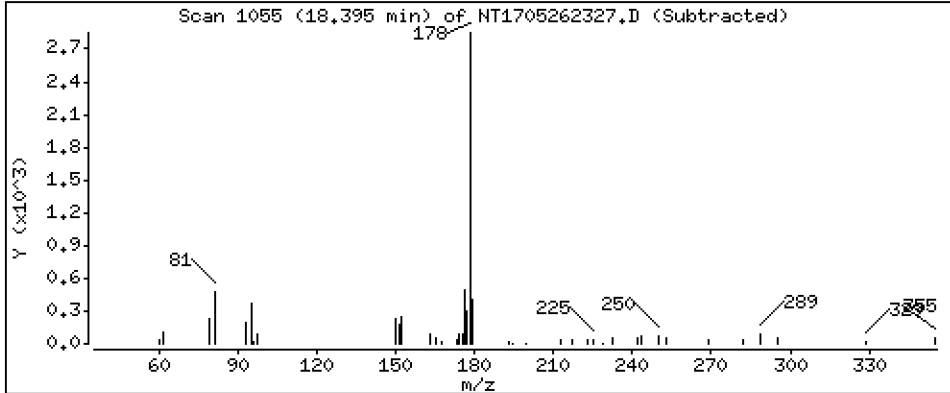
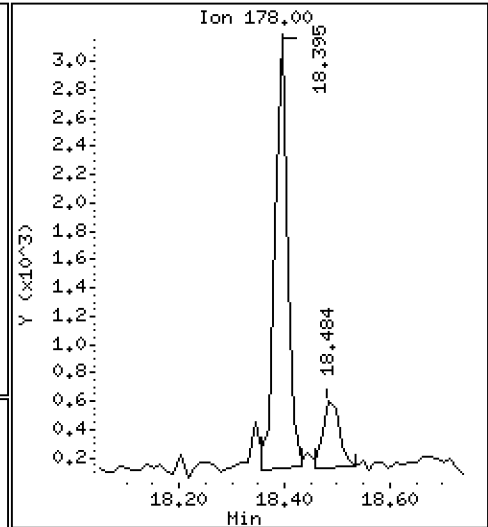
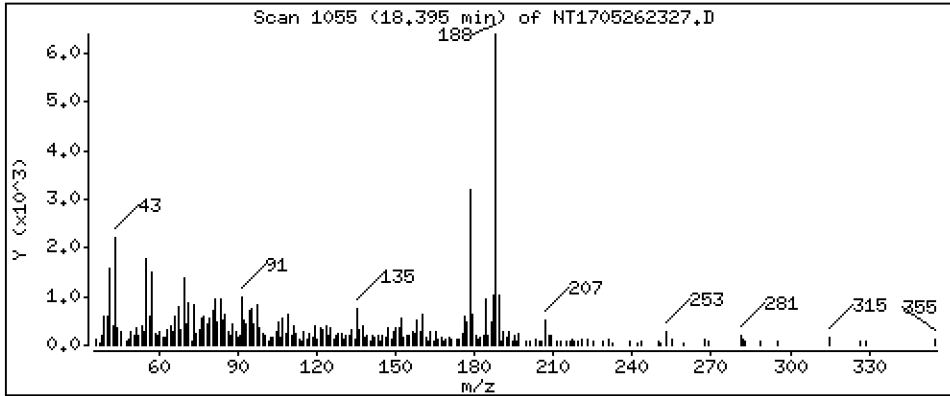
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,02293 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

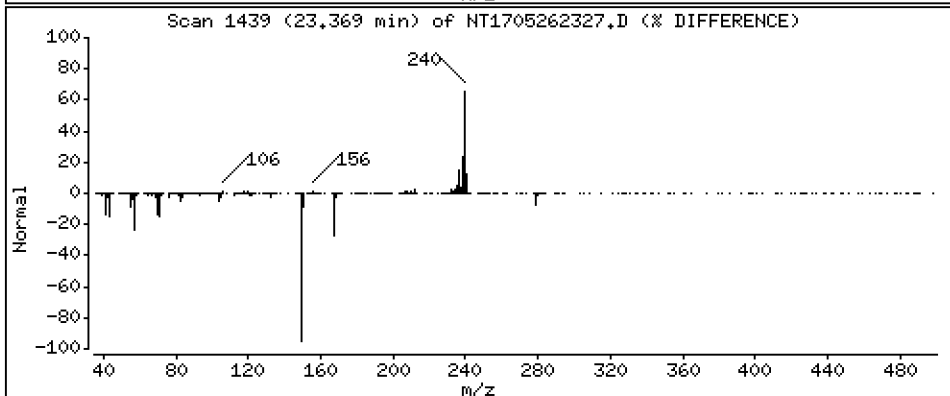
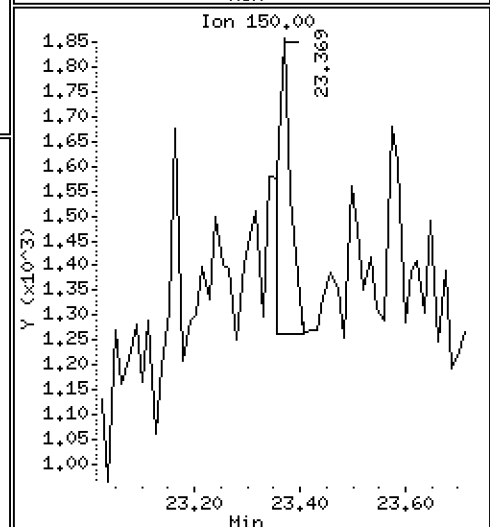
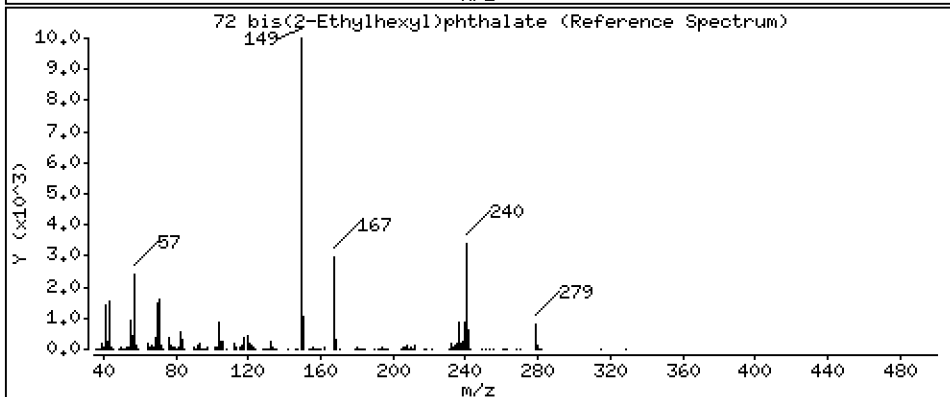
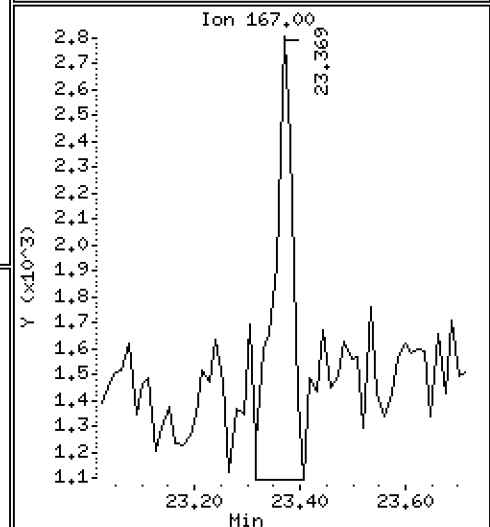
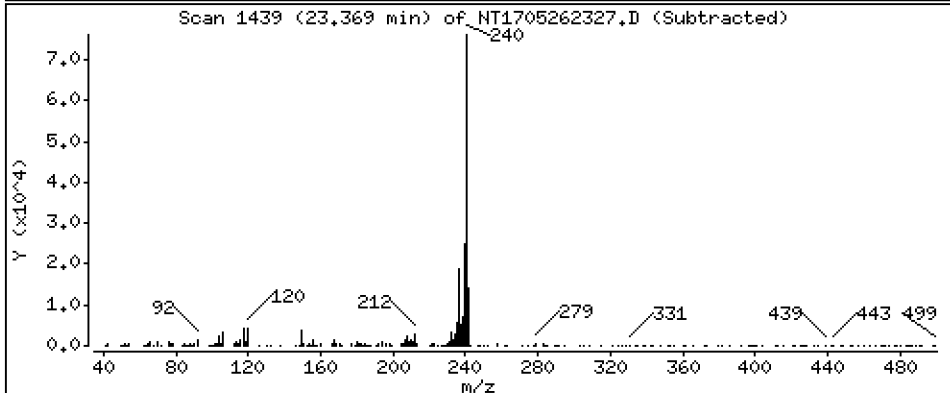
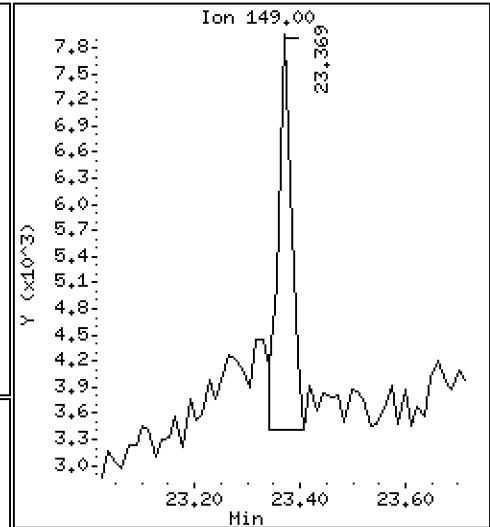
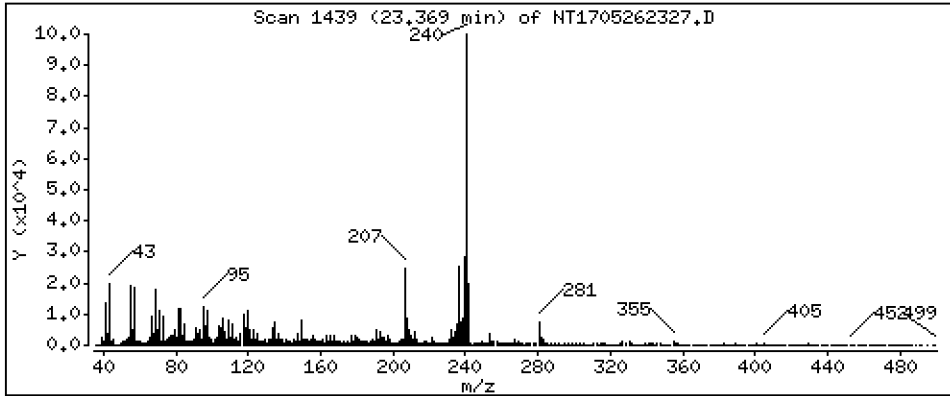
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,04751 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262327.D
 Lab Smp Id: BLD0607-BLK2
 Inj Date : 27-MAY-2023 04:54
 Operator : VTS
 Smp Info : BLD0607-BLK2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:35 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.084	7.071	(0.765)	495032	4.90126	4.901
\$ 2 Phenol-d5	99		8.638	8.639	(0.933)	684012	5.11747	5.117
3 Phenol	94		Compound Not Detected.					
\$ 5 2-Chlorophenol-d4	132		8.919	8.906	(0.963)	575674	5.37694	5.377
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	308543	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	290967	3.86656	3.867
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	509171	4.25052	4.251
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1052532	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	49462	0.17089	0.1709
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	4984	0.02405	0.02405
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		13.934	13.934	(0.909)	855282	4.18060	4.181
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152							
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.324	15.324	(1.000)	519310	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153							
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168							
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.267	16.267	(1.062)	18717	0.10741	0.1074
49 Fluorene	166							
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		16.967	16.967	(1.107)	82367	3.63618	3.636
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.343	18.343	(1.000)	793037	4.00000	
60 Phenanthrene	178		18.394	18.394	(1.003)	5306	0.02293	0.02293
61 Anthracene	178							
62 Carbazole	167							
63 Di-n-butylphthalate	149							
64 Fluoranthene	202							
65 Pyrene	202							
\$ 66 Terphenyl-d14	244		21.455	21.455	(0.919)	772407	3.82354	3.824
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228							
* 69 Chrysene-d12	240		23.355	23.356	(1.000)	599277	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228							
72 bis(2-Ethylhexyl)phthalate	149		23.368	23.368	(0.960)	8114	0.04751	0.04751
* 134 Di-n-octylphthalate-d4	153		24.350	24.351	(1.000)	1180466	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252							
75 Benzo(k)fluoranthene	252							
76 Benzo(a)pyrene	252							
* 77 Perylene-d12	264		26.009	26.009	(1.000)	437418	4.00000	
78 Indeno(1,2,3-cd)pyrene	276							
79 Dibenzo(a,h)anthracene	278							
80 Benzo(g,h,i)perylene	276							
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142							
111 Azobenzene (1,2-DP-Hydrazine)	77							

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 27-MAY-2023
 Lab File ID: NT1705262327.D Calibration Time: 05:31
 Lab Smp Id: BLD0607-BLK2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	317699	158850	635398	308543	-2.88
27 Naphthalene-d8	1109251	554626	2218502	1052532	-5.11
42 Acenaphthene-d10	572542	286271	1145084	519310	-9.30
59 Phenanthrene-d10	911027	455514	1822054	793037	-12.95
69 Chrysene-d12	675891	337946	1351782	599277	-11.34
134 Di-n-octylphthala	1331493	665747	2662986	1180466	-11.34
77 Perylene-d12	494128	247064	988256	437418	-11.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	-0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	-0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	-0.00
134 Di-n-octylphthala	24.35	23.85	24.85	24.35	-0.00
77 Perylene-d12	26.01	25.51	26.51	26.01	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262327.D

Lab ID: BLD0607-BLK2
nt17.i, ABN.m, 27-MAY-2023 04:54

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1705262328.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 05/26/23 16:25

Batch: BLD0607

Laboratory ID: BLD0607-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 1 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	500	367		73.4	34 - 120
Benzyl Alcohol	500	403	B	80.5	19 - 120
4-Methylphenol	500	308		61.6	29 - 120
Naphthalene	500	392		78.3	43 - 120
2-Methylnaphthalene	500	383		76.6	43 - 120
Acenaphthylene	500	346		69.2	42 - 120
Dibenzofuran	500	409		81.7	43 - 120
Fluorene	500	448		89.5	45 - 120
Phenanthrene	500	414		82.9	49 - 120
Anthracene	500	293		58.6	45 - 120
Fluoranthene	500	446		89.1	53 - 145
Pyrene	500	436		87.2	52 - 134
Butylbenzylphthalate	500	483		96.5	45 - 132
Benzo(a)anthracene	500	408		81.6	49 - 120
Chrysene	500	417		83.5	47 - 120
bis(2-Ethylhexyl)phthalate	500	472		94.4	34 - 130
Benzofluoranthenes, Total	1000	915		91.5	30 - 160
Benzo(a)pyrene	500	328		65.7	42 - 120
Indeno(1,2,3-cd)pyrene	500	467		93.4	42 - 163
Dibenzo(a,h)anthracene	500	471		94.2	30 - 133
Benzo(g,h,i)perylene	500	469		93.9	46 - 148

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Phenol	500	387		77.3	5.16	30	34 - 120
Benzyl Alcohol	500	451	B	90.1	11.2	30	19 - 120
4-Methylphenol	500	318		63.6	3.16	30	29 - 120
Naphthalene	500	394		78.8	0.559	30	43 - 120
2-Methylnaphthalene	500	380		76.1	0.729	30	43 - 120
Acenaphthylene	500	360		72.0	4.03	30	42 - 120
Dibenzofuran	500	415		83.0	1.48	30	43 - 120
Fluorene	500	453		90.6	1.26	30	45 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/26/23 17:02</u>
Batch:	<u>BLD0607</u>	Laboratory ID:	<u>BLD0607-BSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS Dup</u>
Initial/Final:	<u>10 g / 1 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Phenanthrene	500	410		82.1	0.965	30	49 - 120
Anthracene	500	300		60.1	2.45	30	45 - 120
Fluoranthene	500	456		91.2	2.29	30	53 - 145
Pyrene	500	447		89.3	2.38	30	52 - 134
Butylbenzylphthalate	500	491		98.3	1.84	30	45 - 132
Benzo(a)anthracene	500	429		85.8	5.02	30	49 - 120
Chrysene	500	434		86.9	3.99	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	472		94.5	0.152	30	34 - 130
Benzo(a)fluoranthene, Total	1000	910		91.0	0.615	30	30 - 160
Benzo(a)pyrene	500	338		67.7	3.03	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	458		91.6	1.87	30	42 - 163
Dibenzo(a,h)anthracene	500	456		91.3	3.13	30	30 - 133
Benzo(g,h,i)perylene	500	454		90.8	3.40	30	46 - 148

* Indicates values outside of QC limits

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Date: 26-May-2023 16:25

Client ID:

Sample Info: BLD0607-BS1

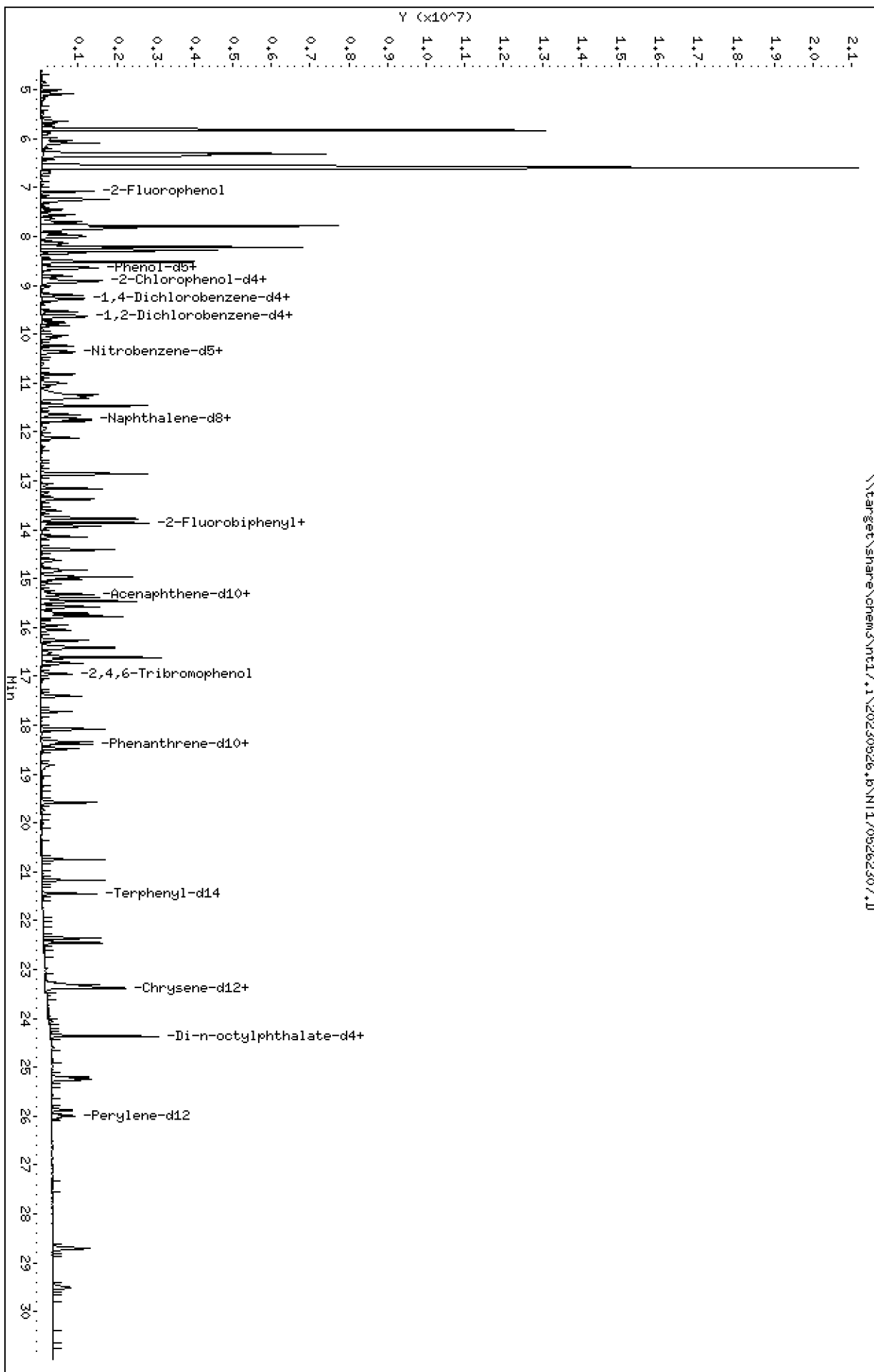
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

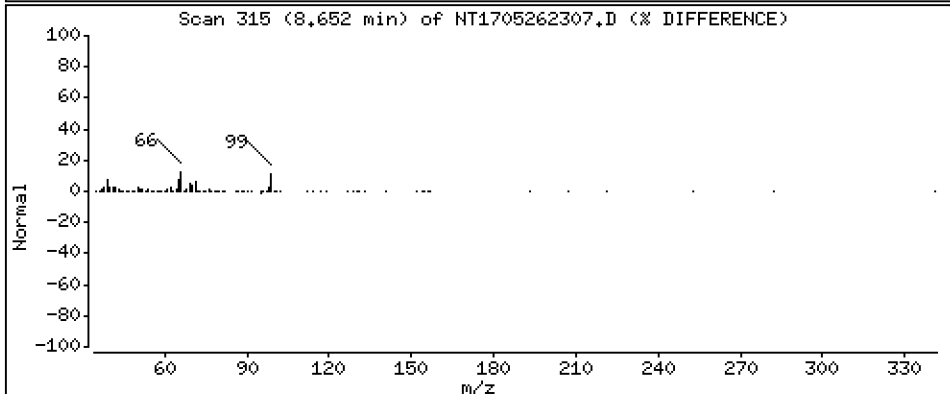
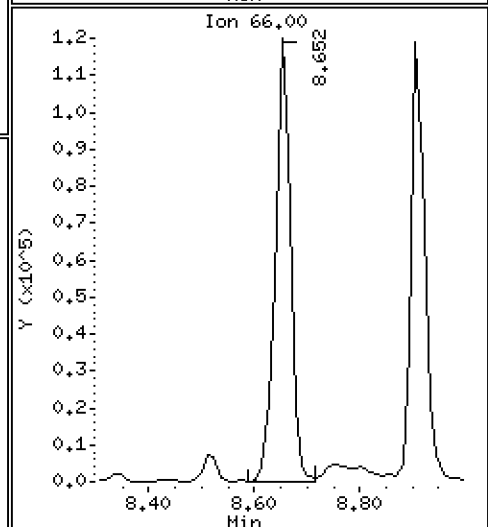
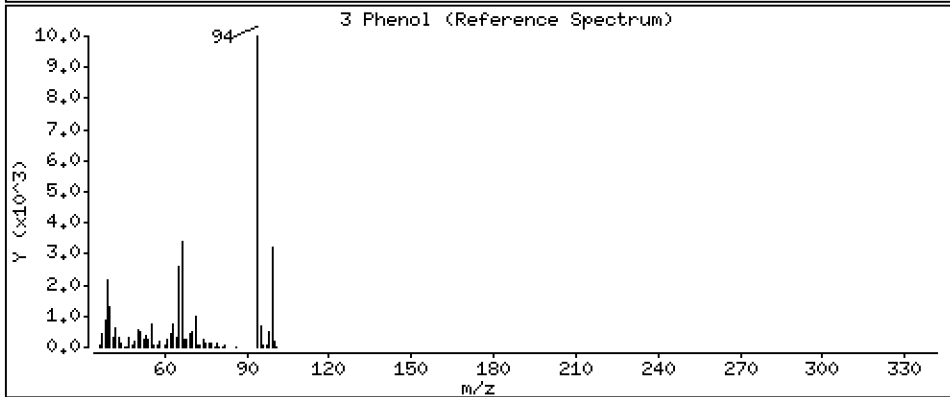
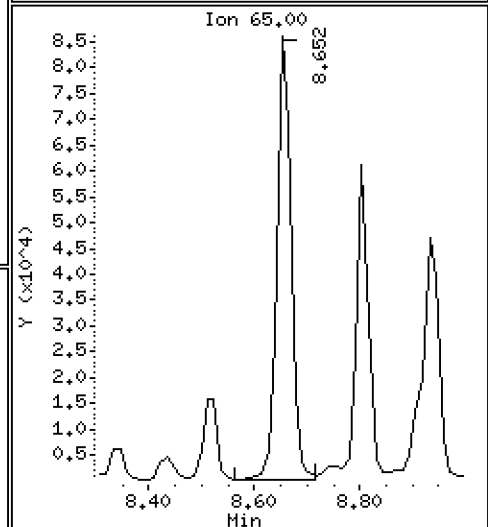
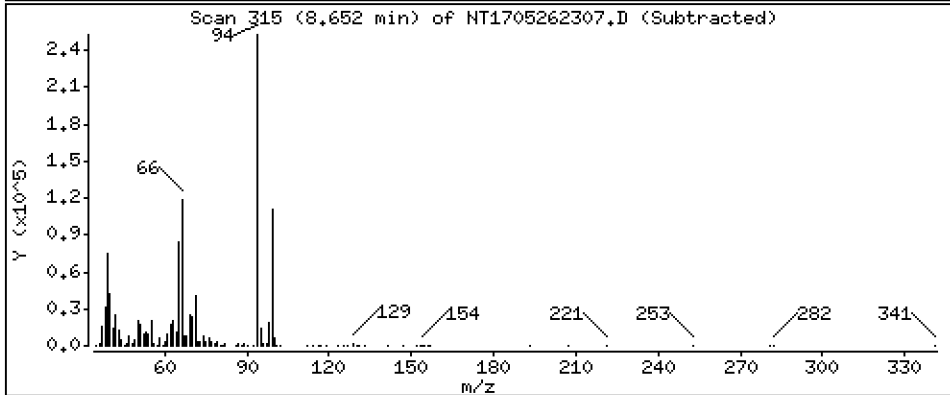
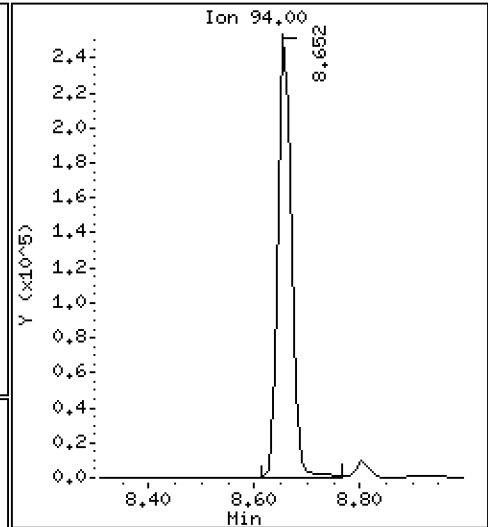
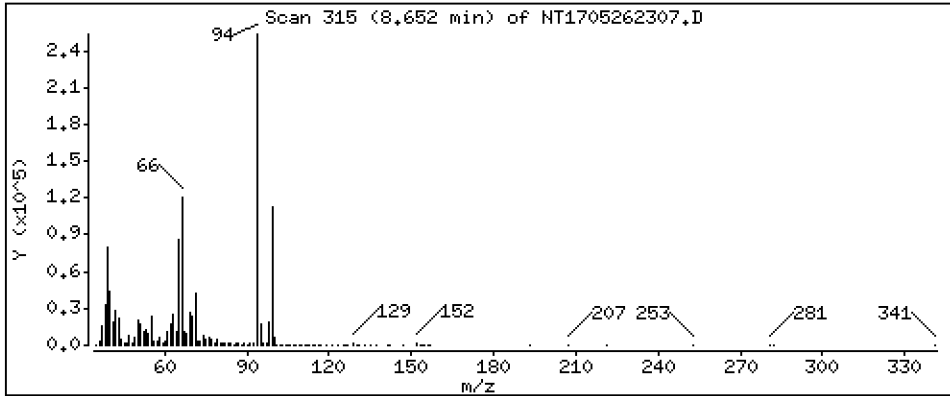
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,671 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

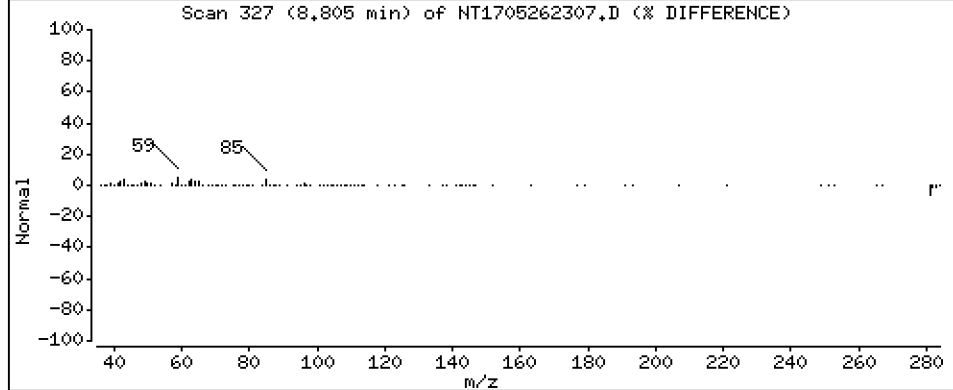
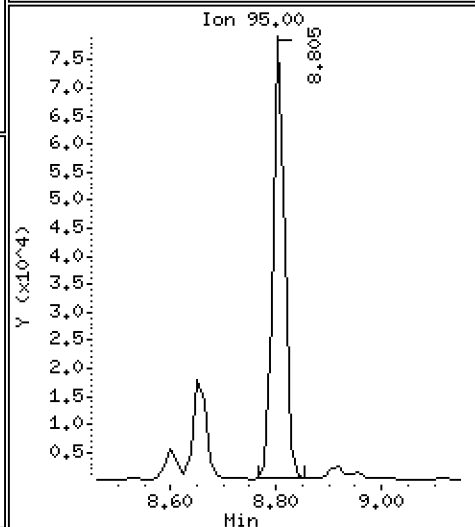
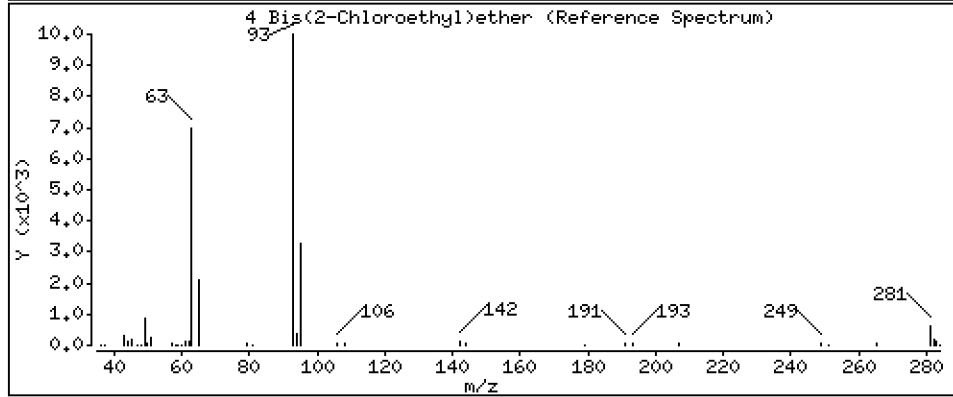
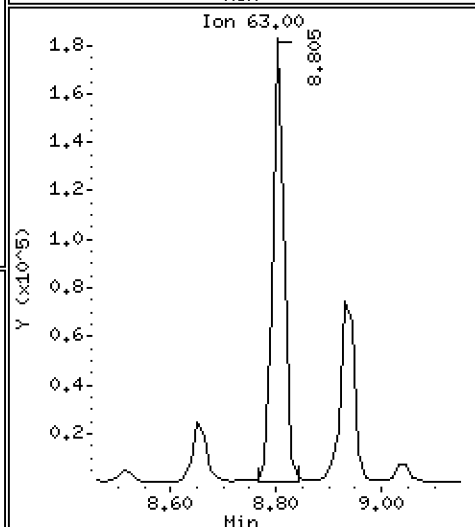
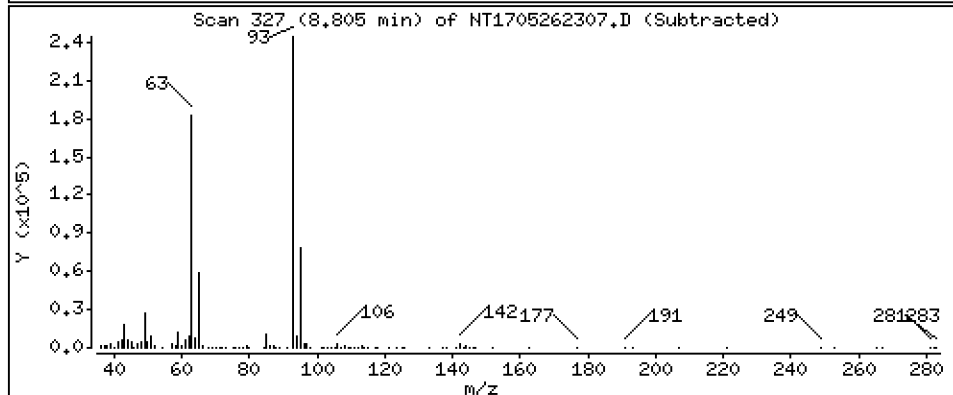
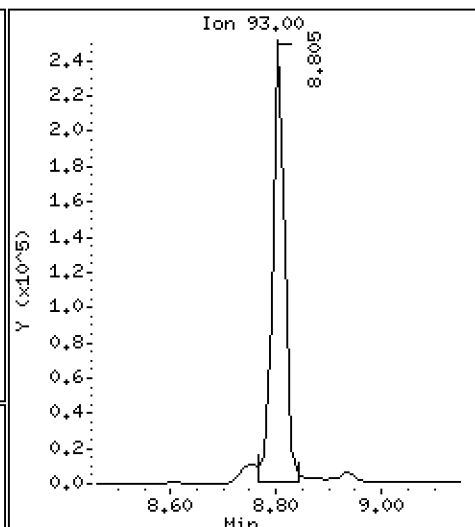
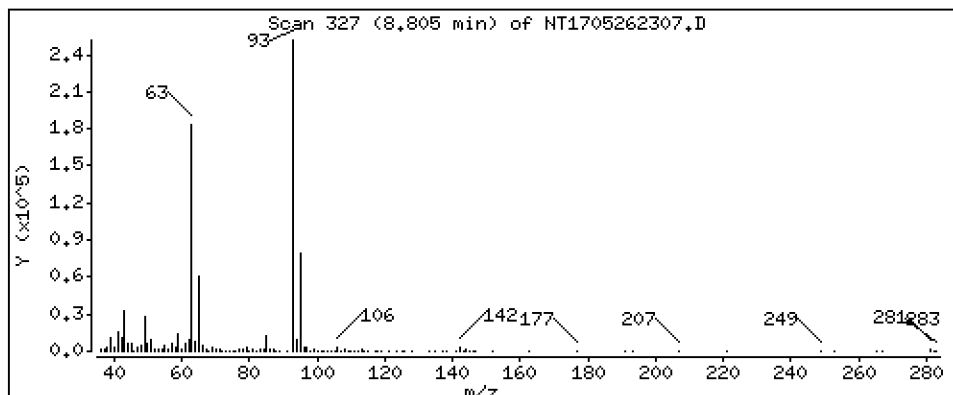
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,424 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

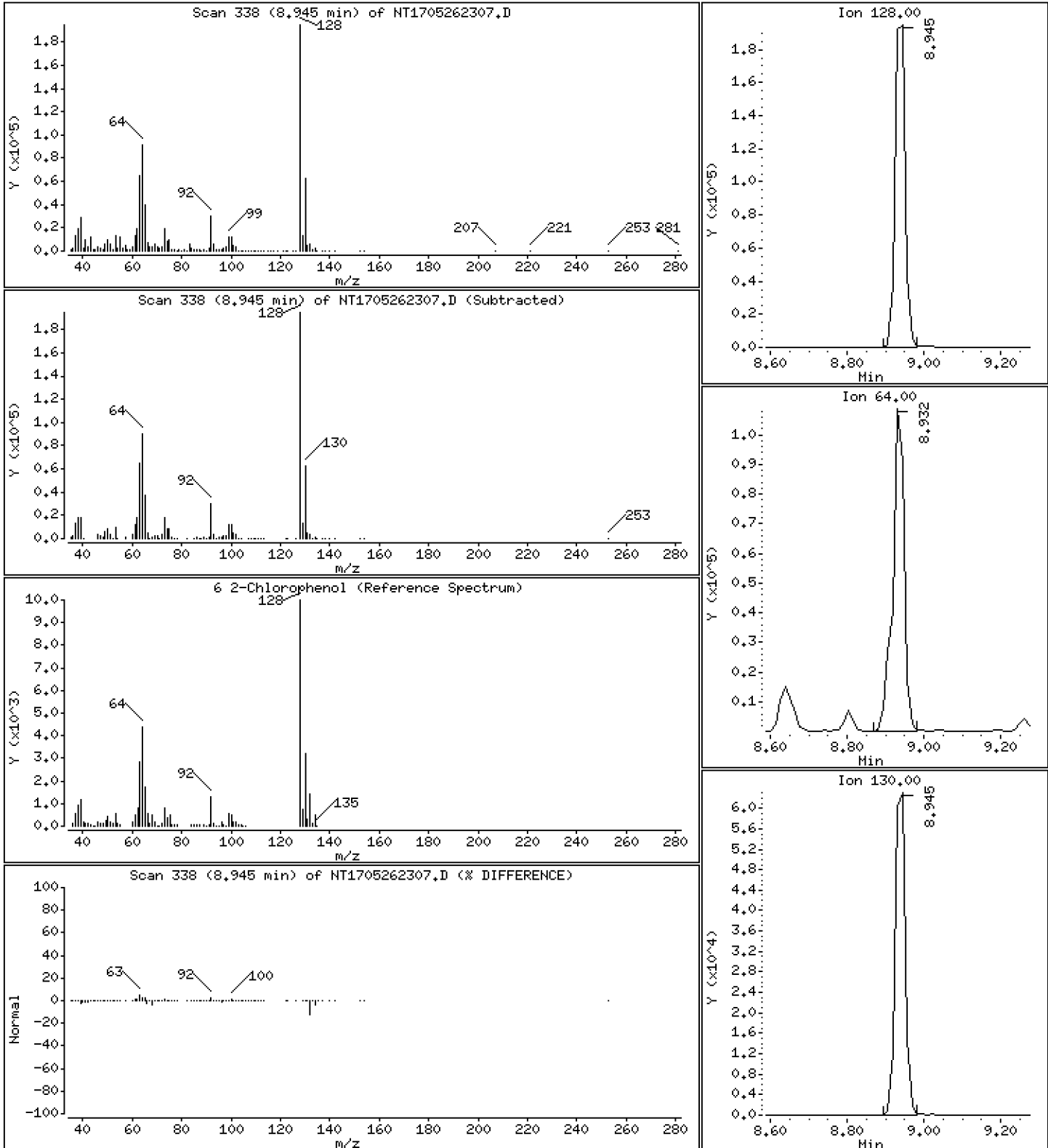
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 3,502 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

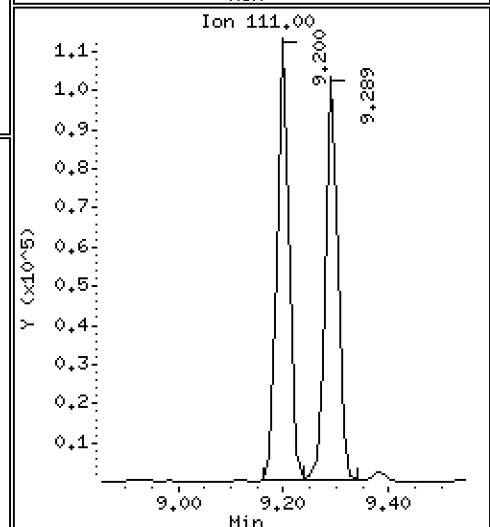
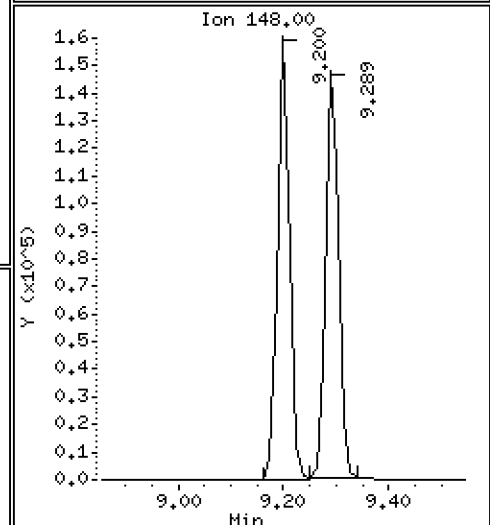
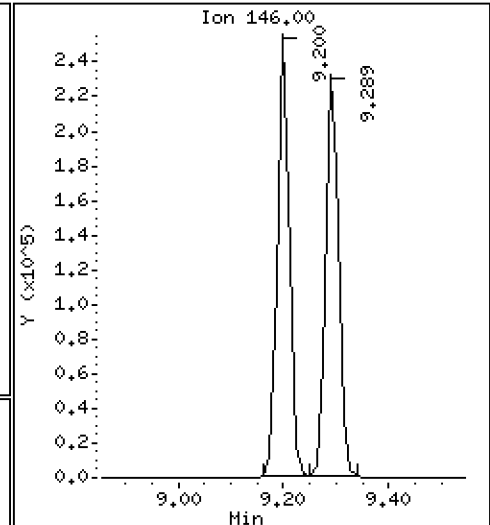
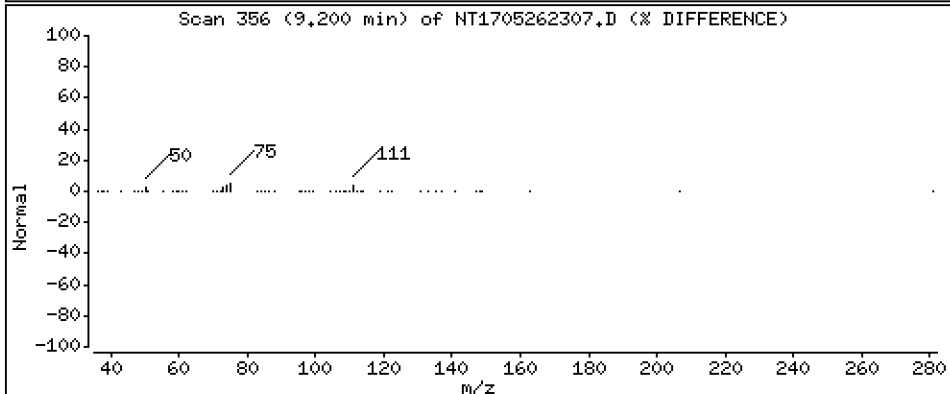
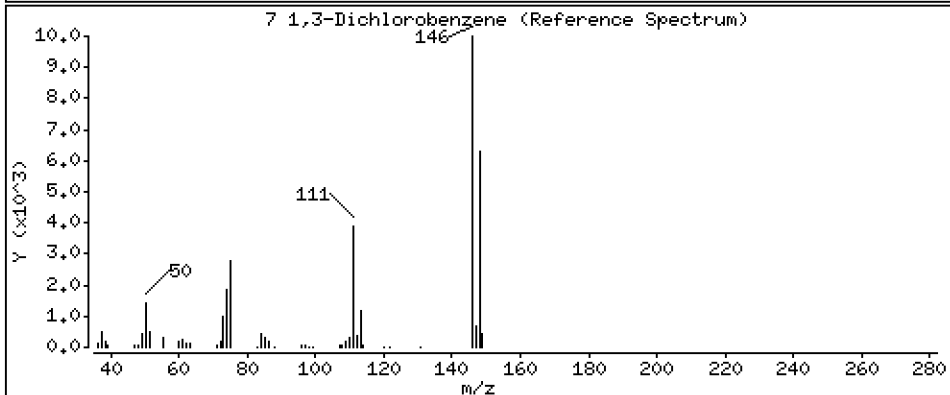
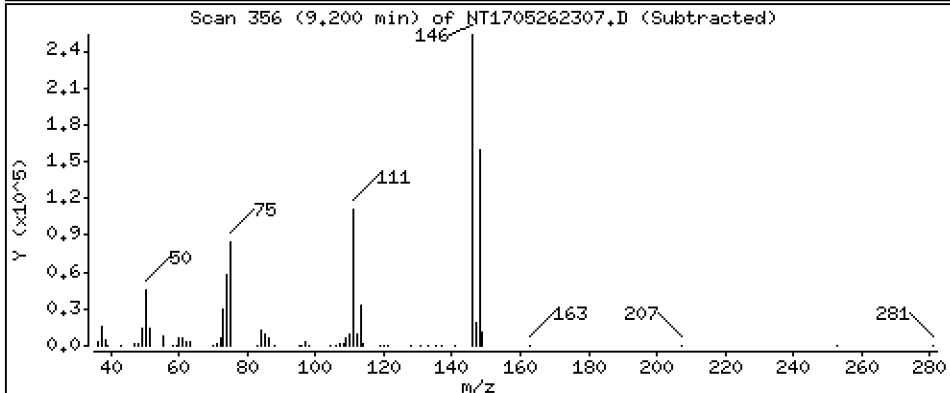
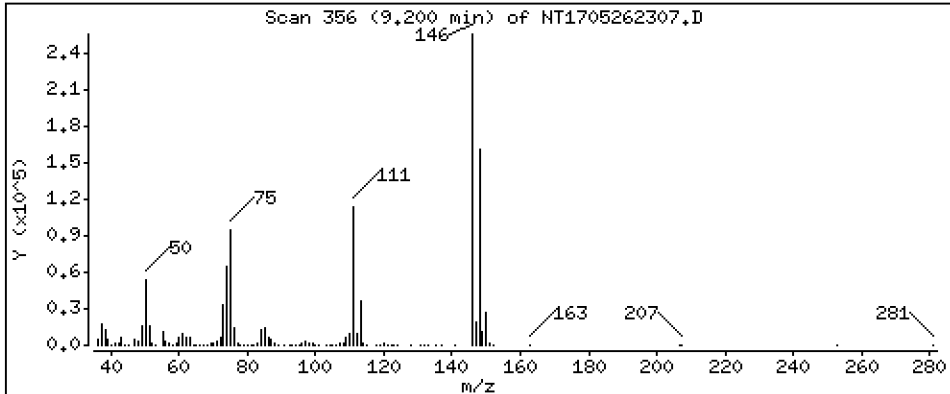
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,823 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

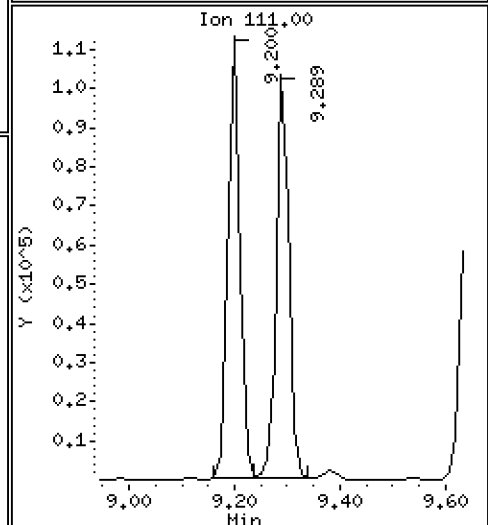
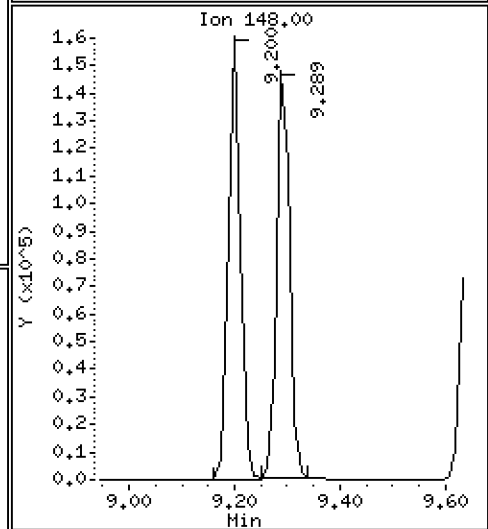
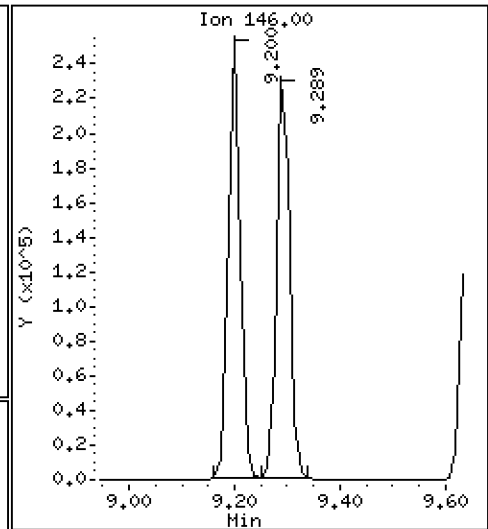
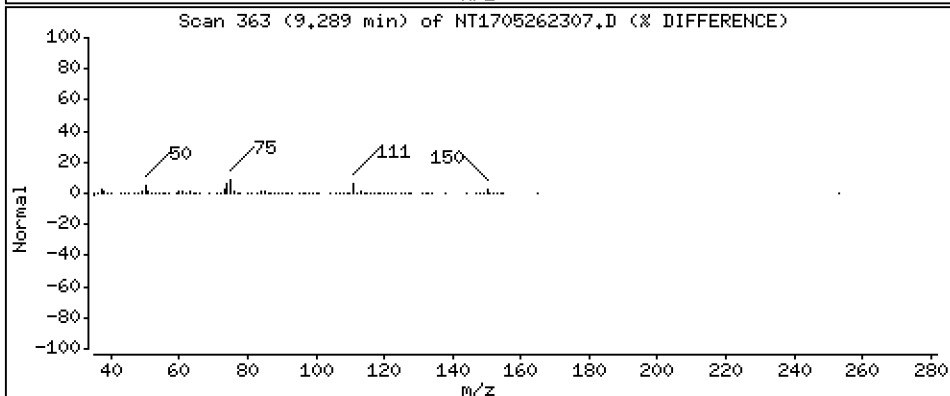
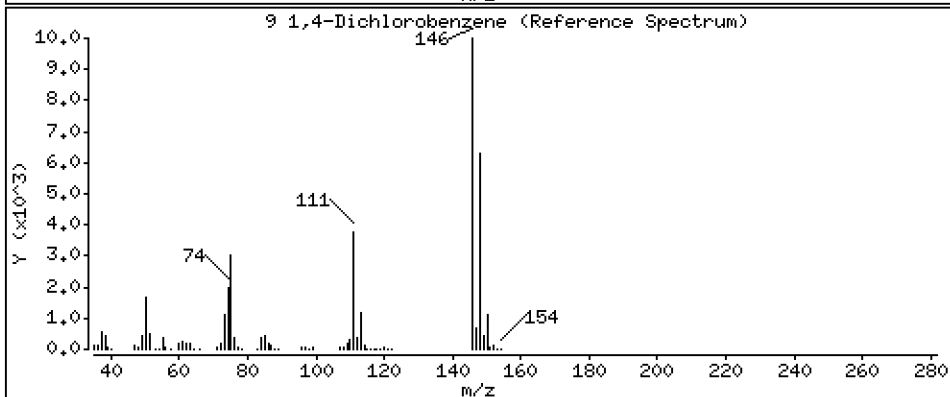
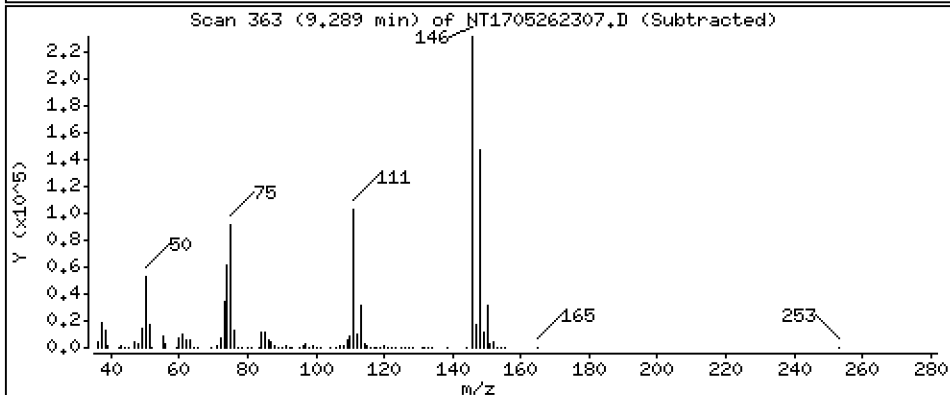
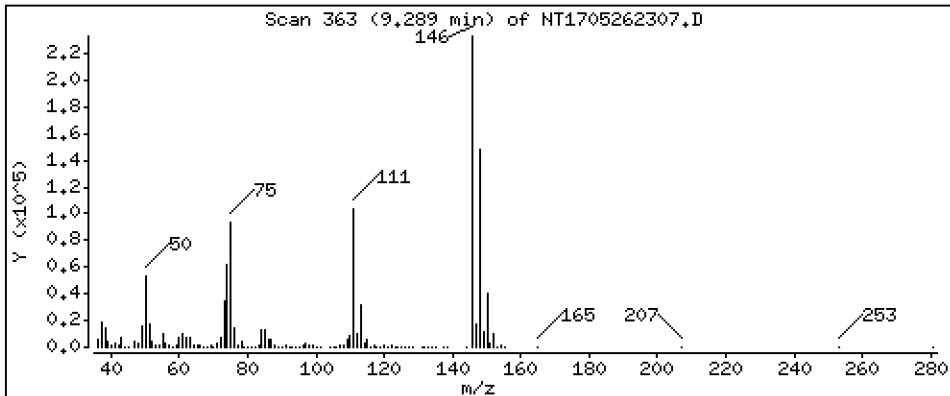
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,787 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

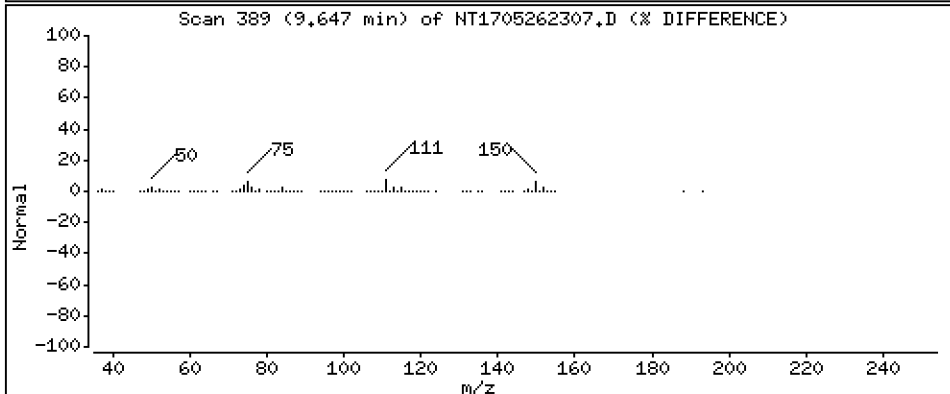
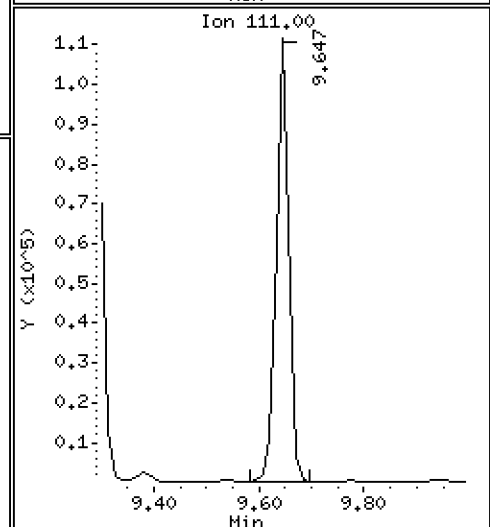
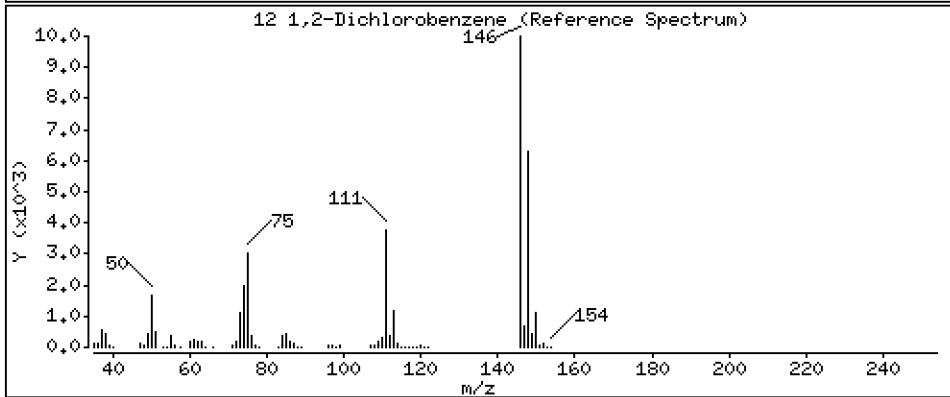
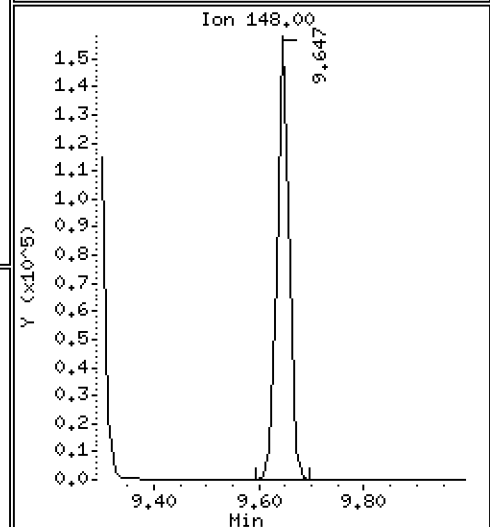
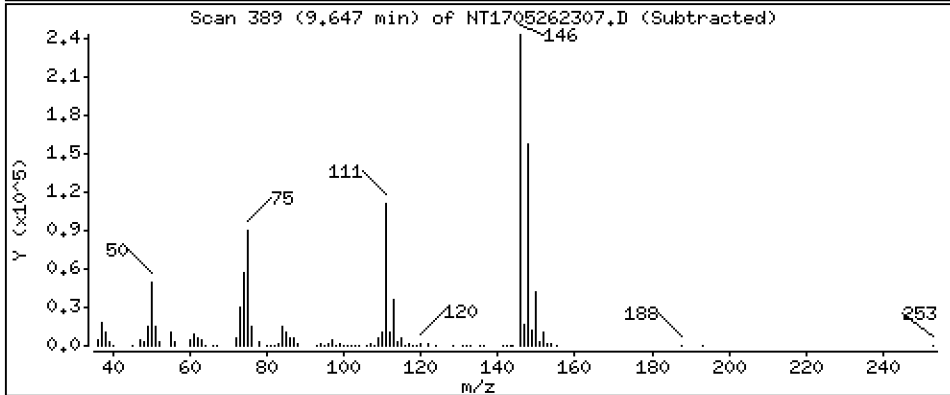
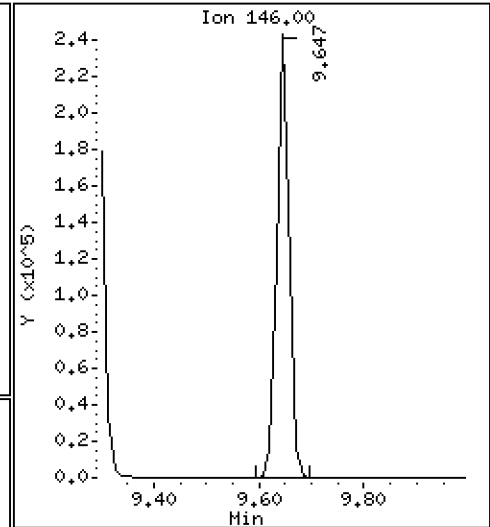
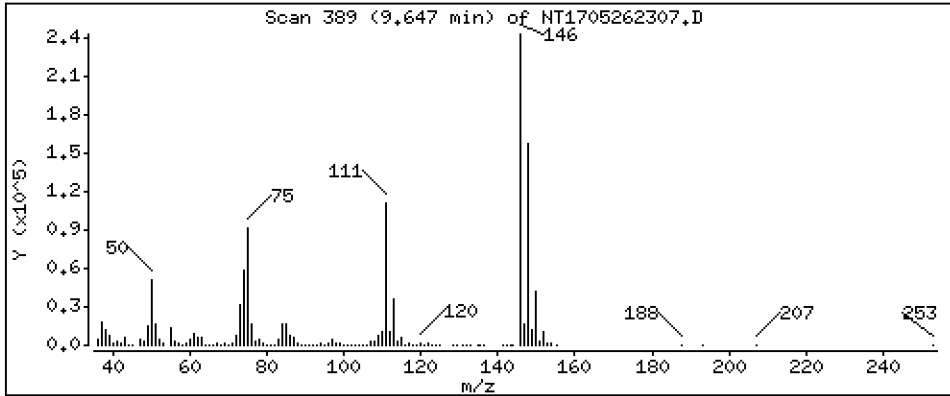
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,993 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

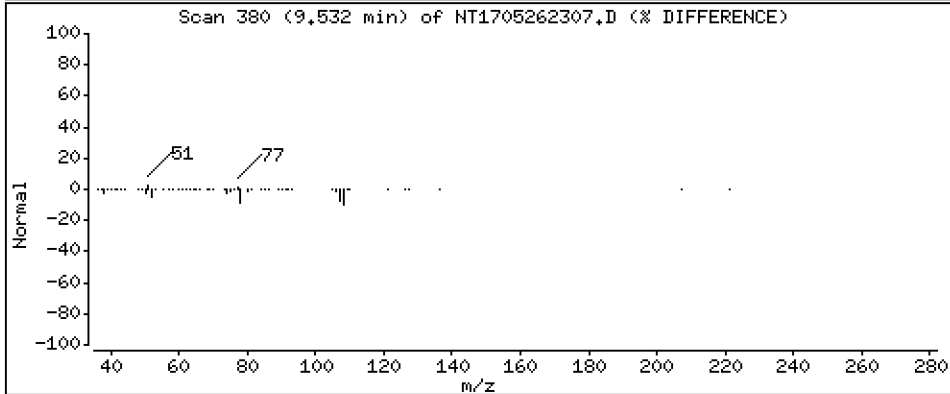
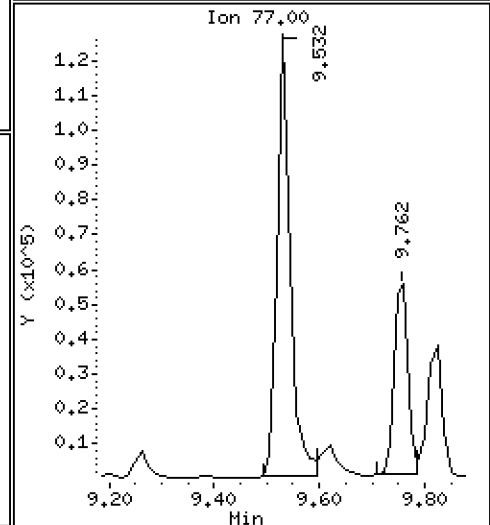
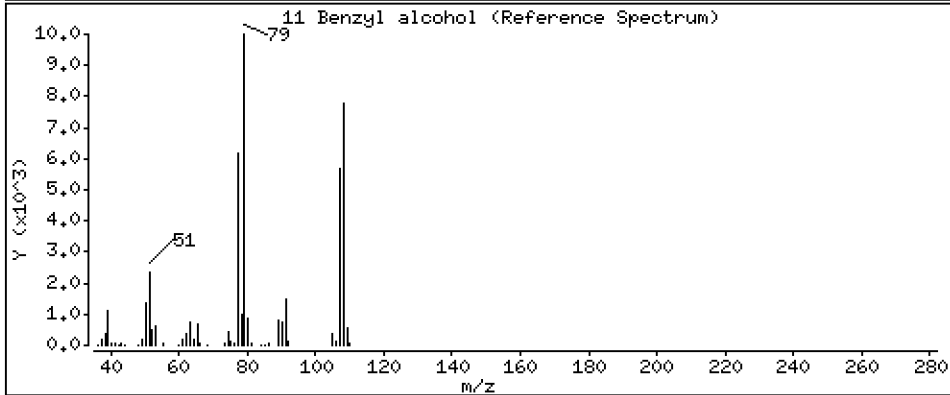
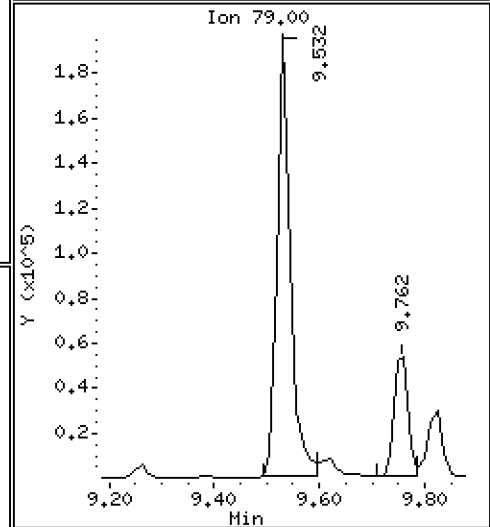
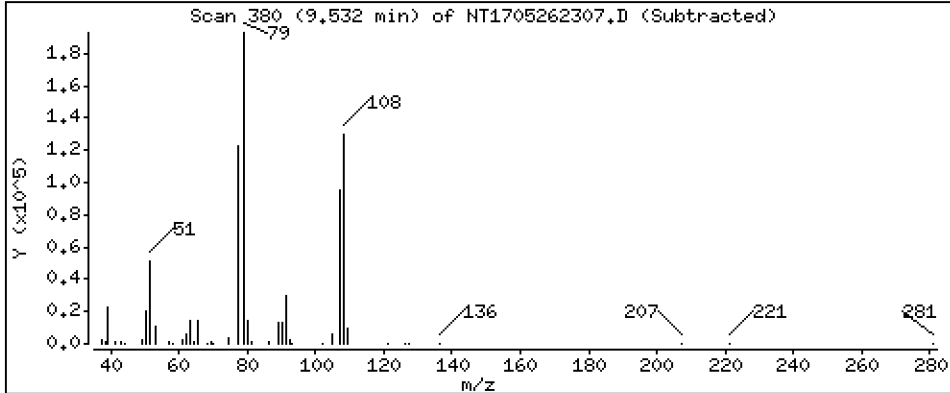
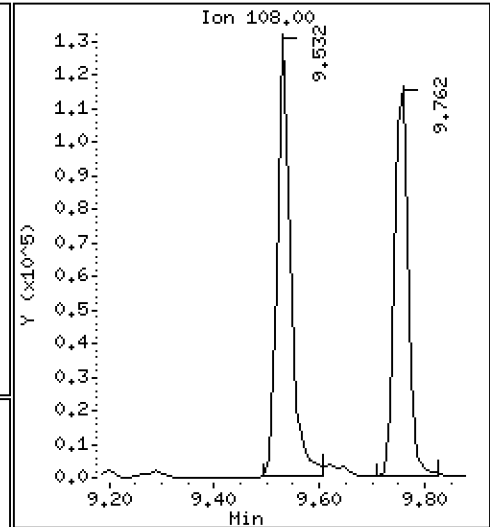
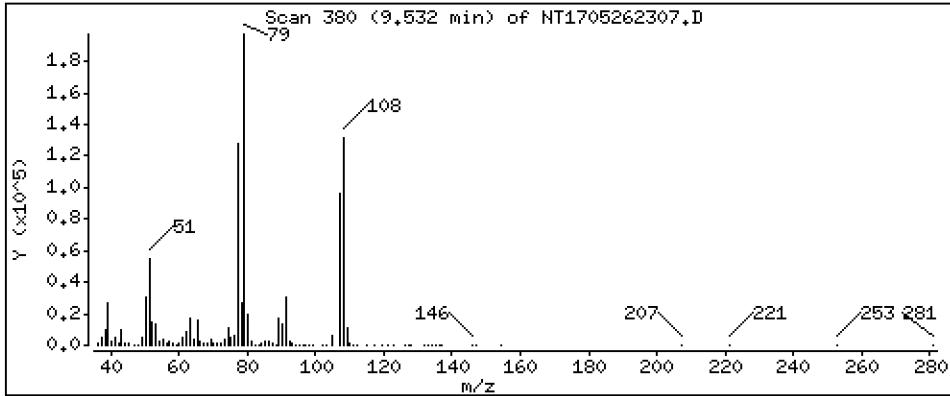
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 4,026 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

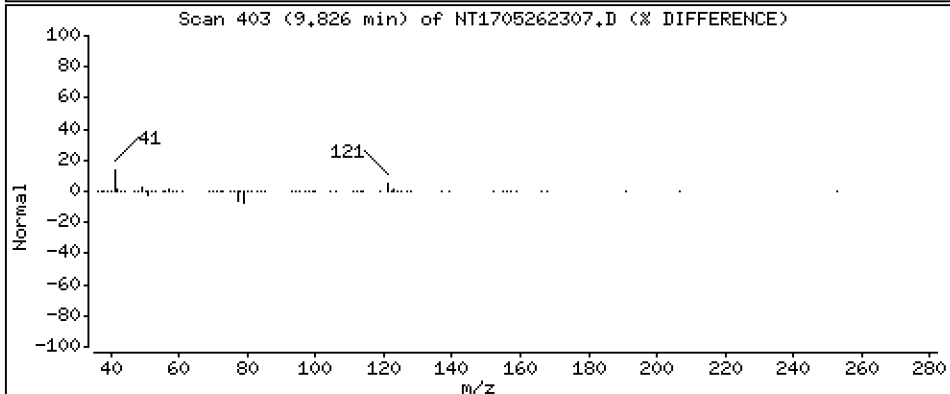
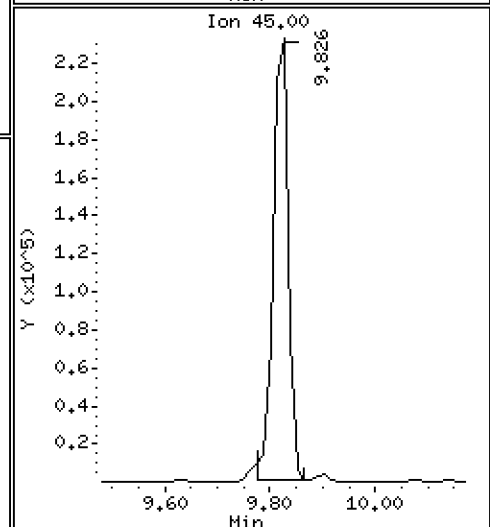
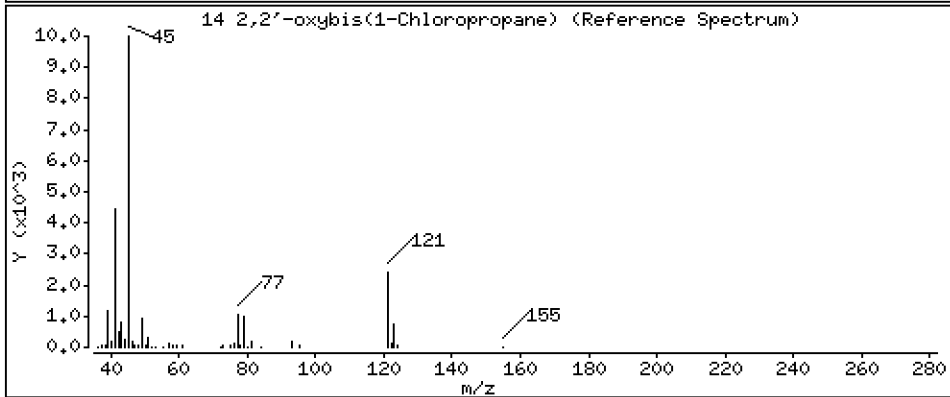
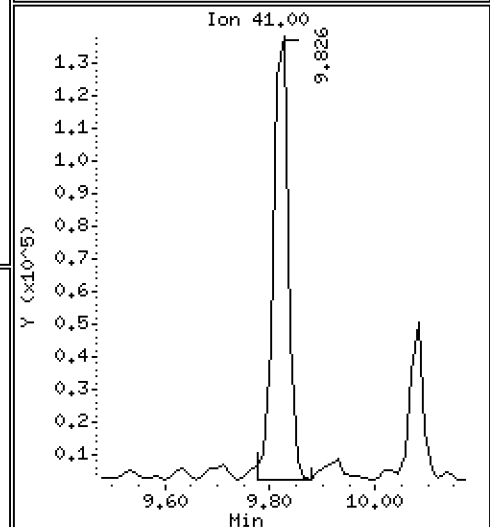
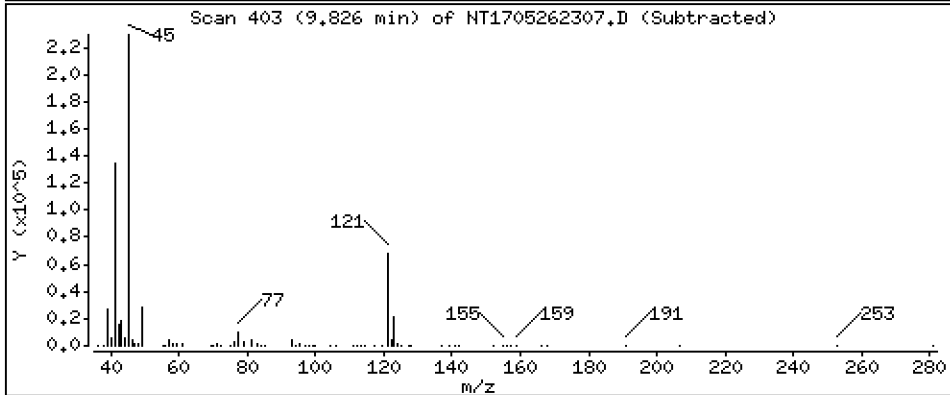
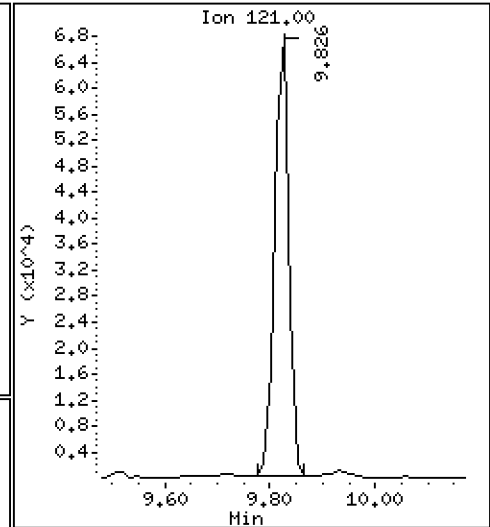
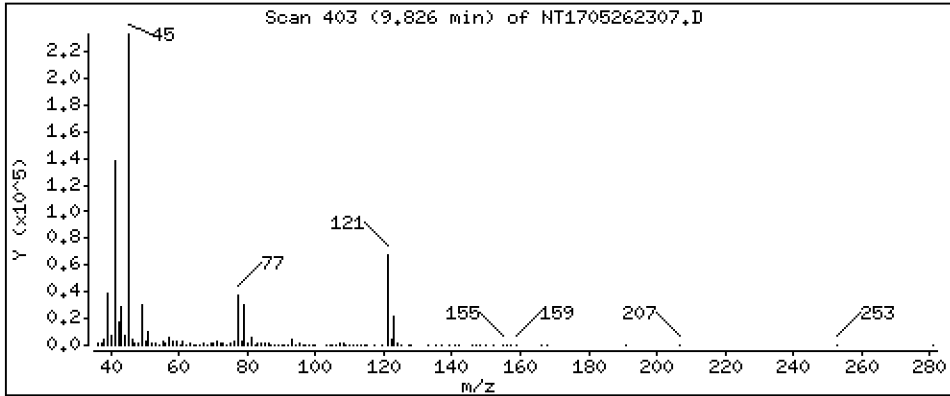
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,578 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

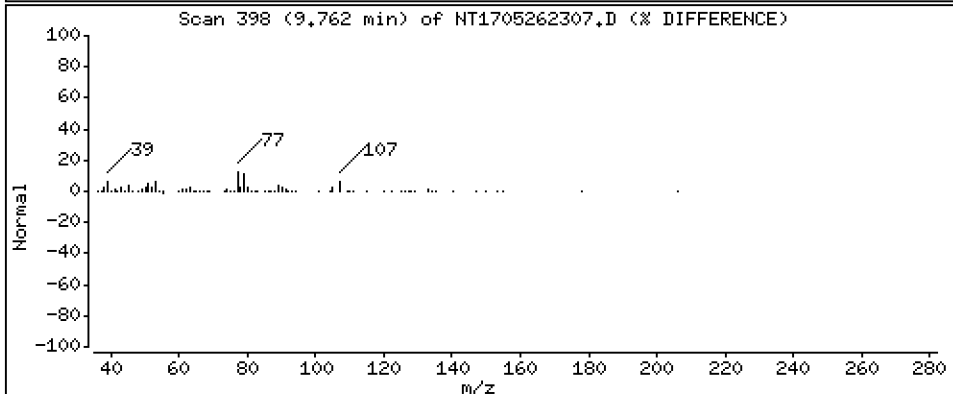
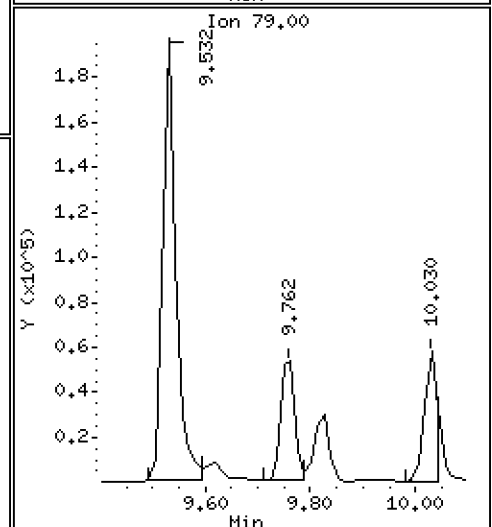
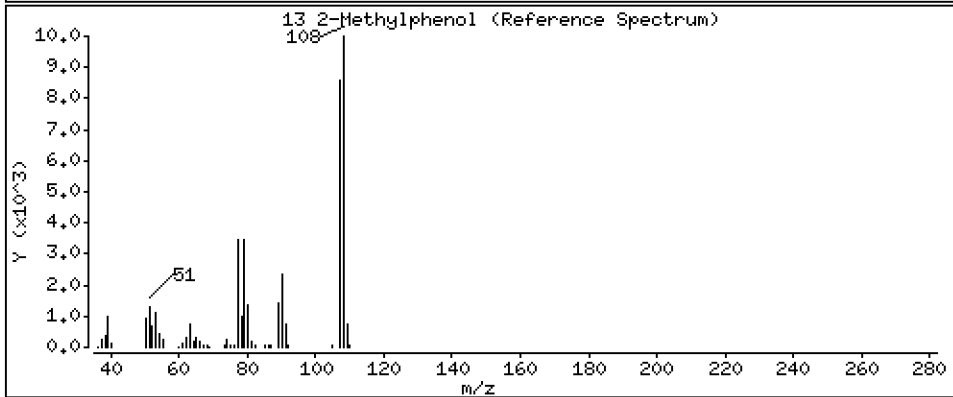
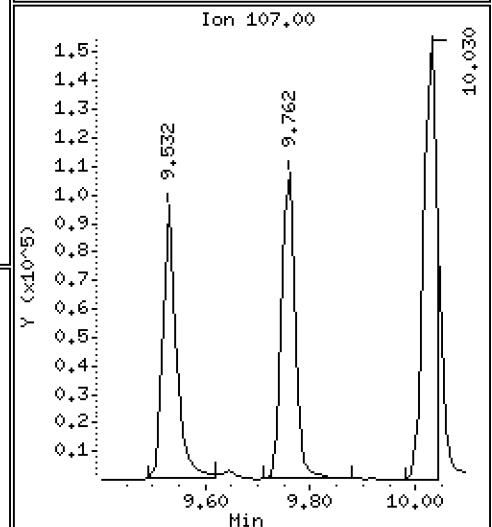
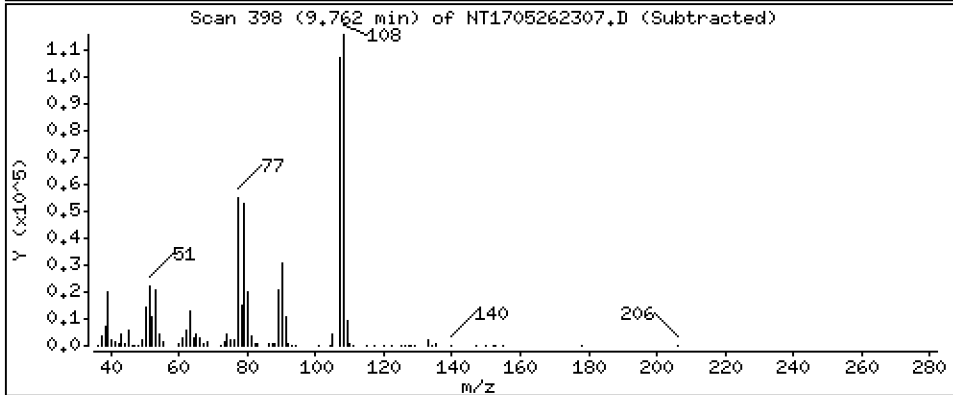
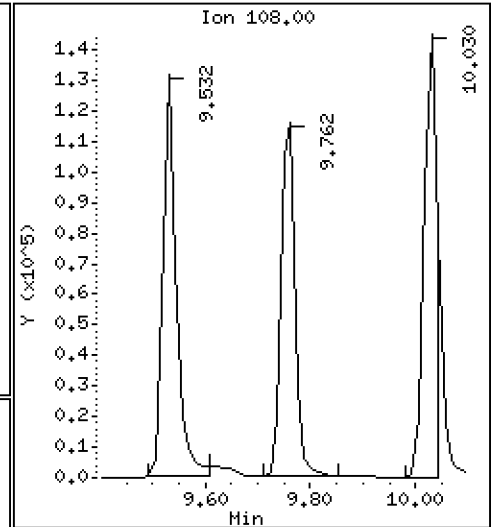
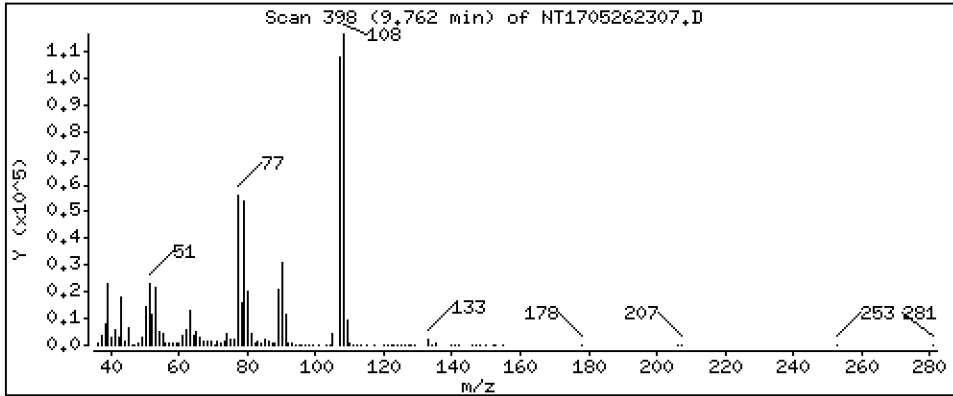
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 2,348 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

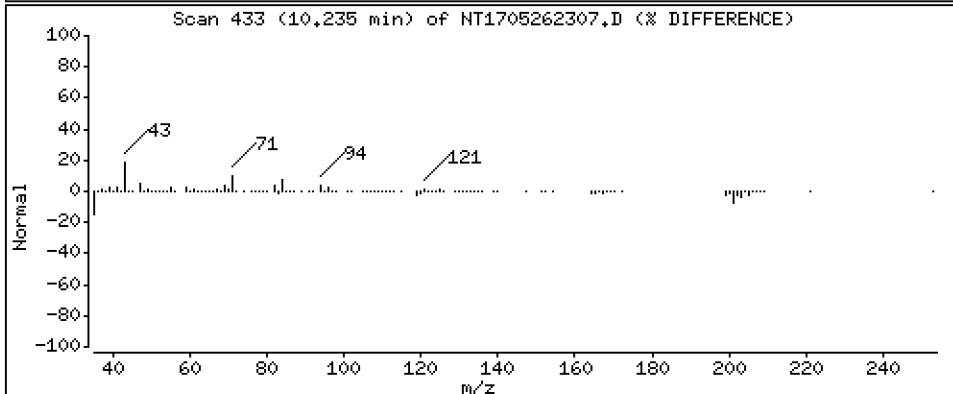
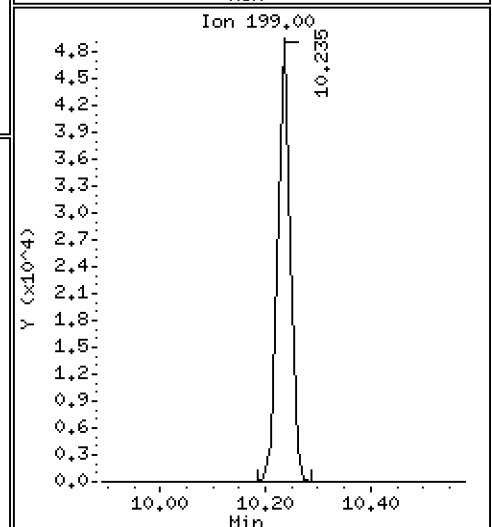
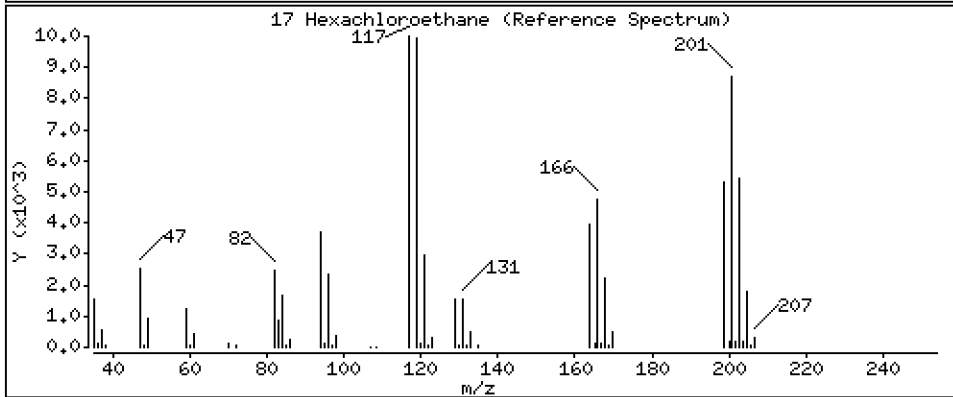
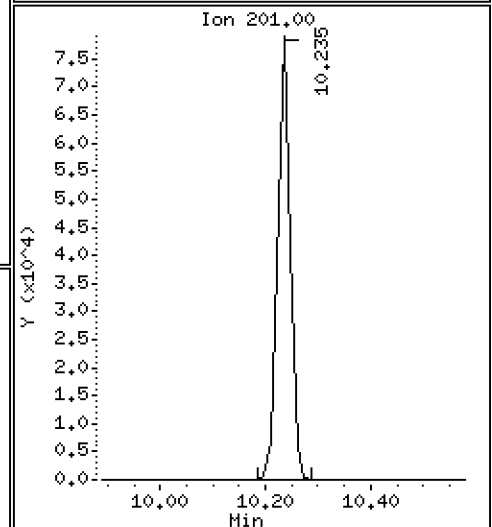
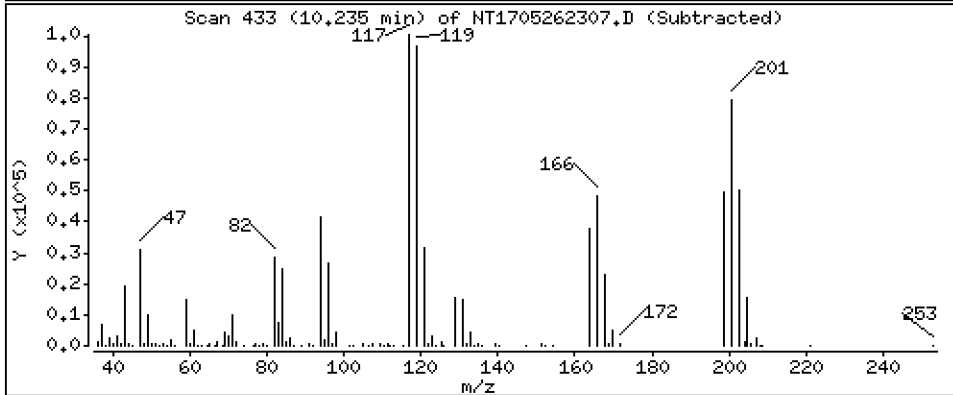
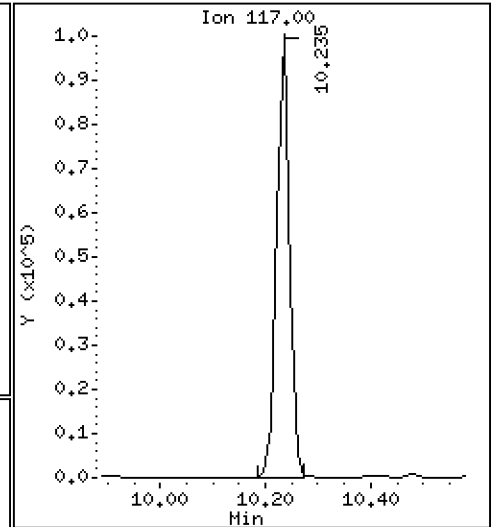
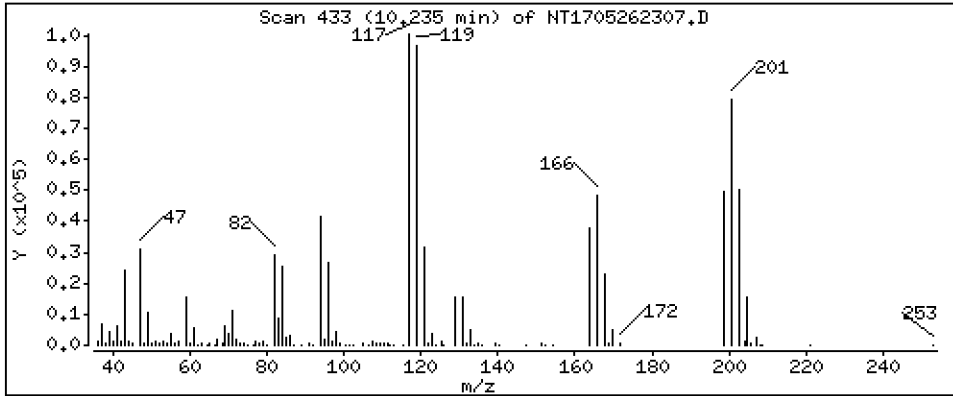
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,045 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

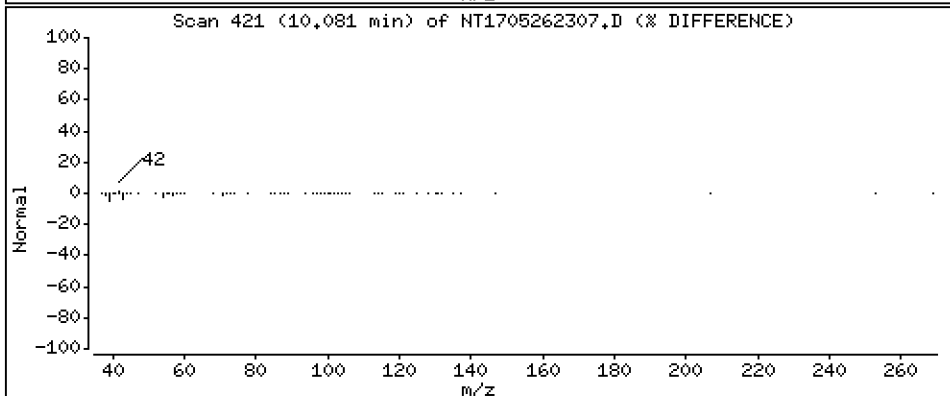
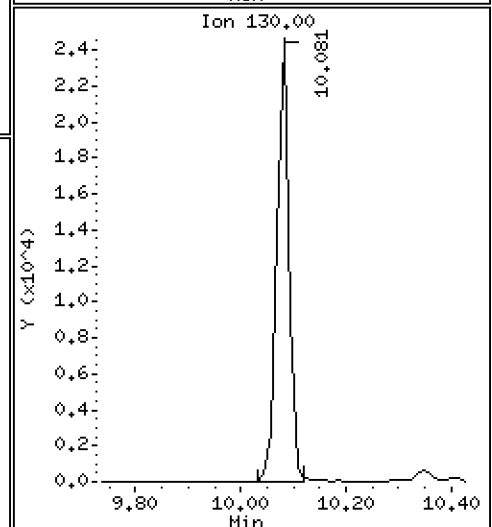
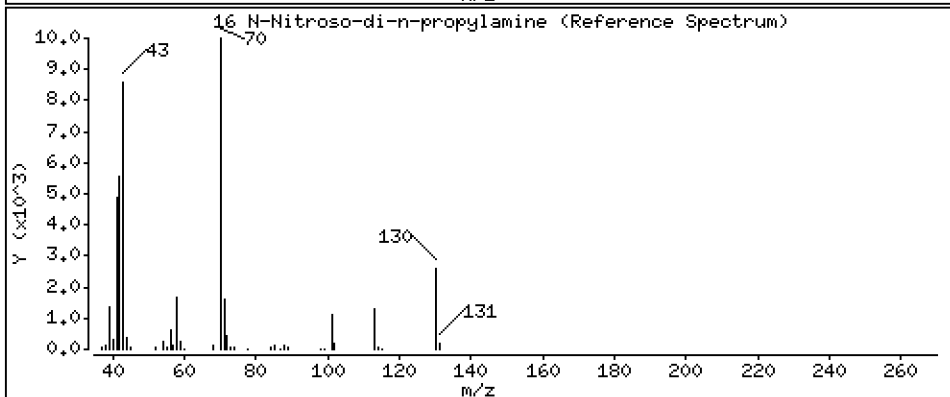
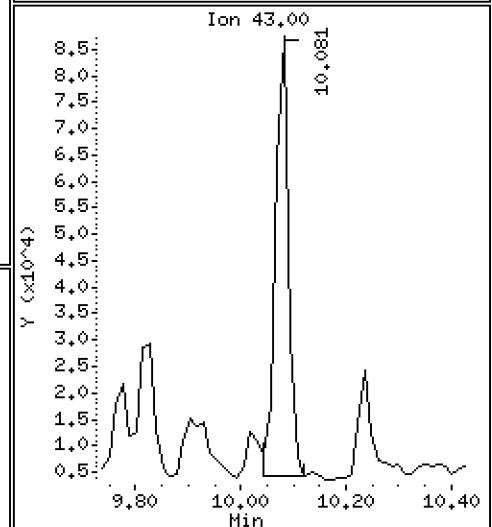
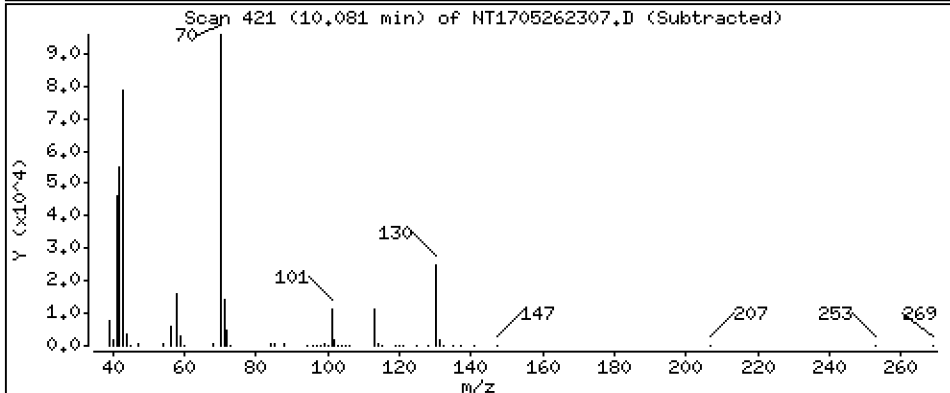
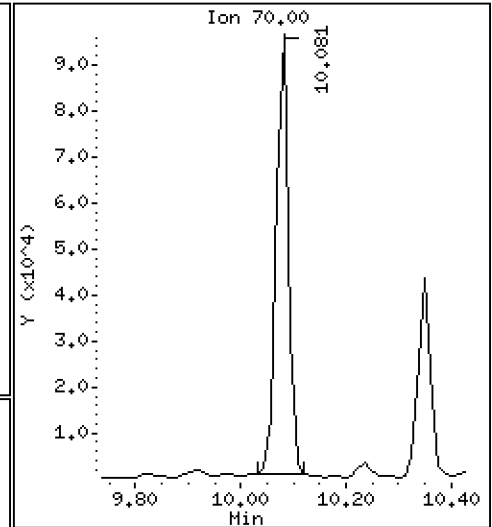
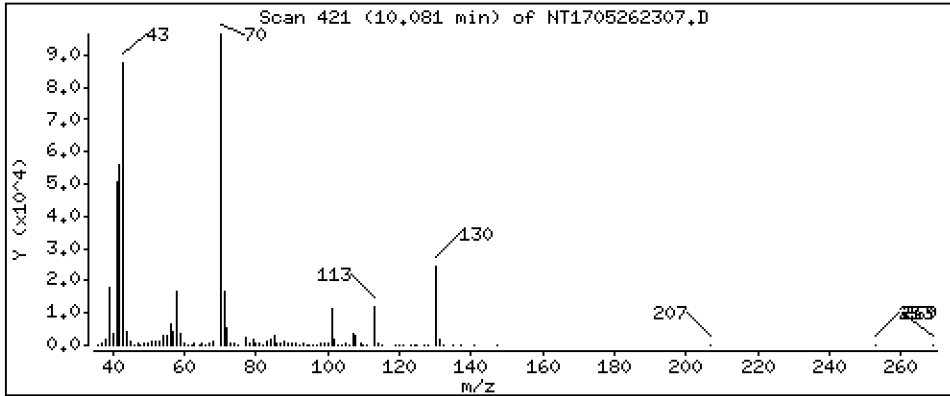
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 2,243 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

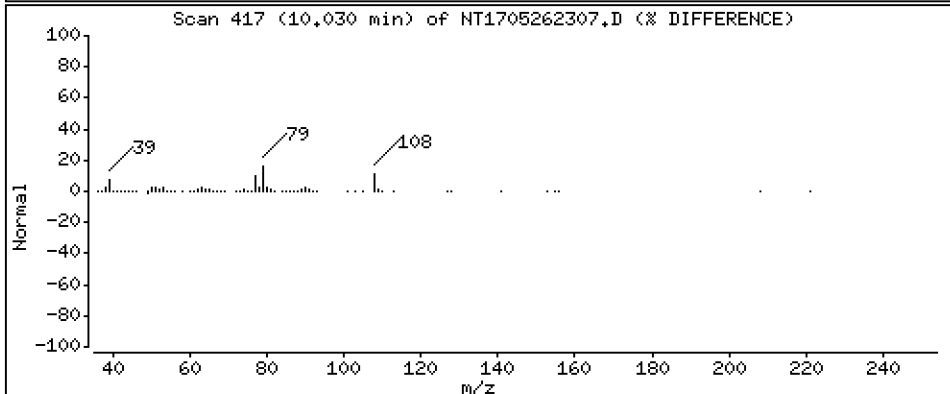
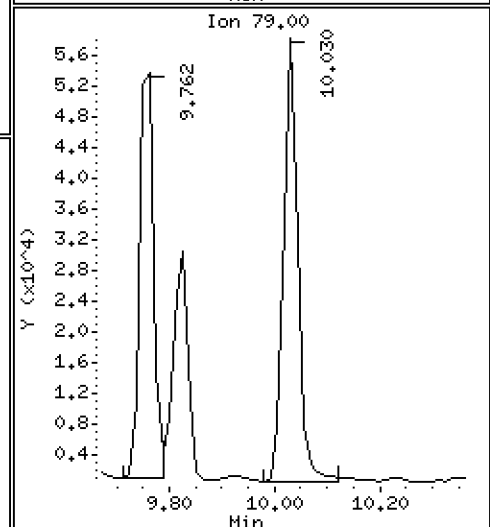
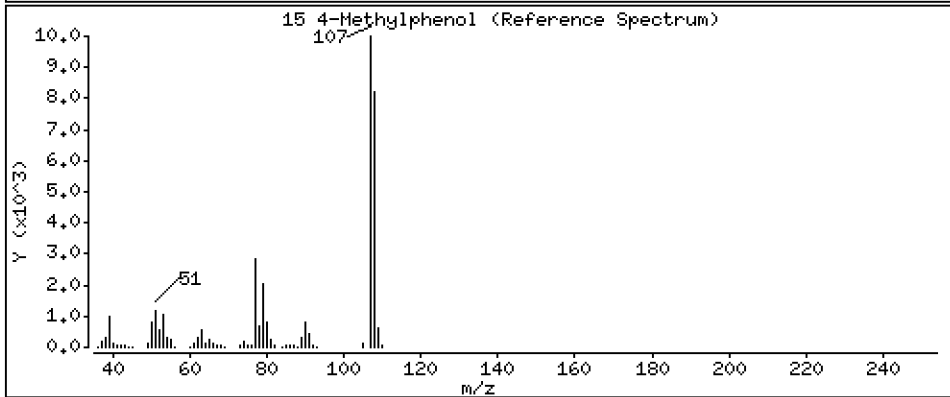
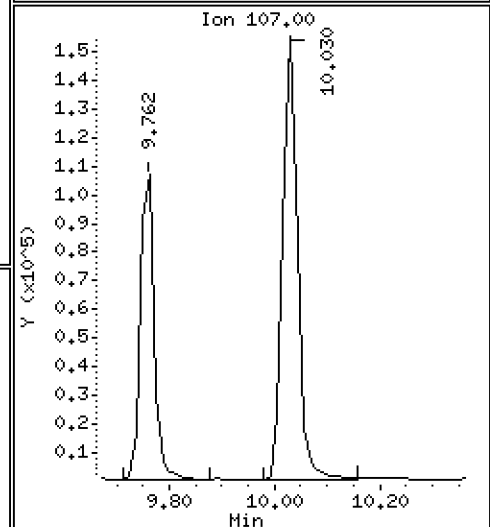
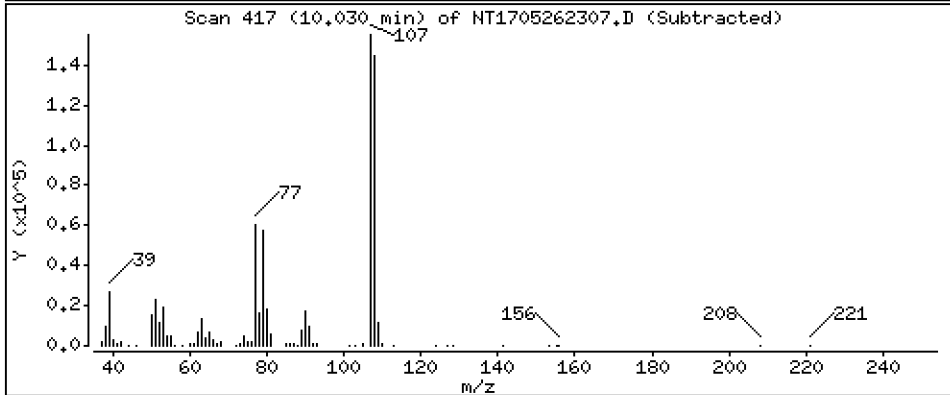
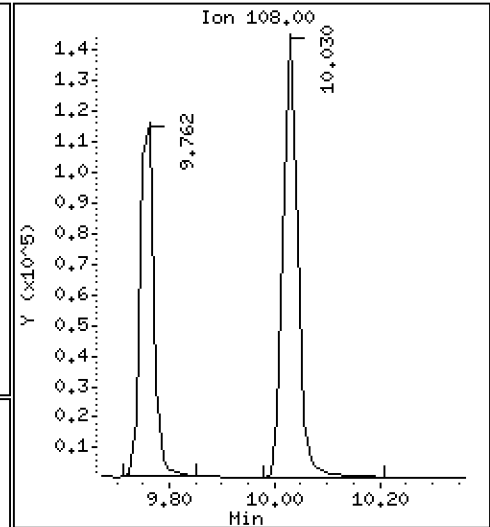
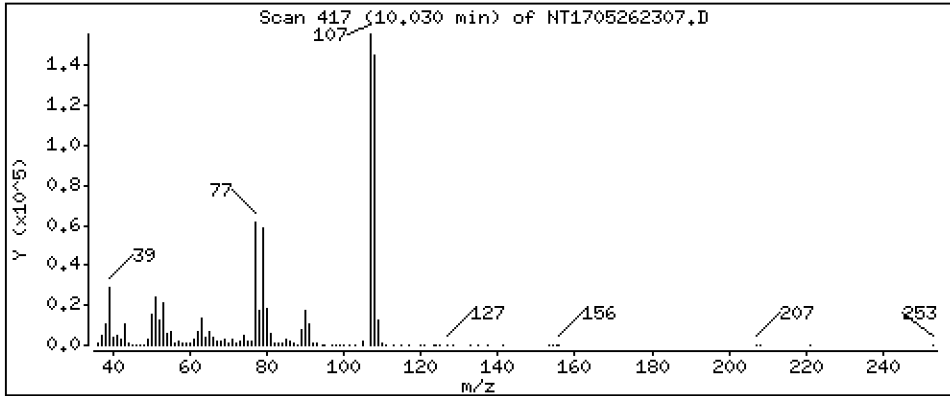
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3.080 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

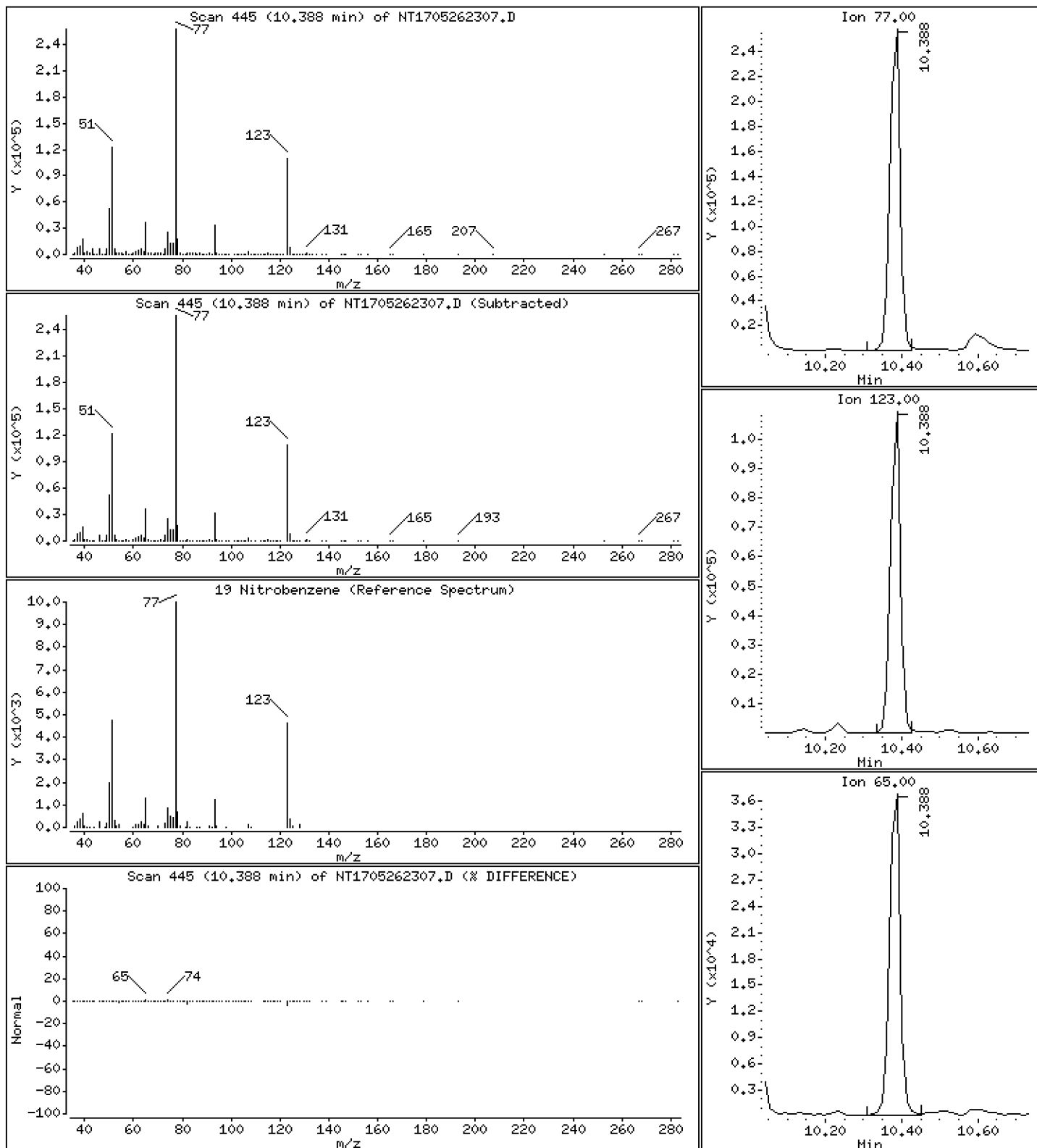
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,345 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

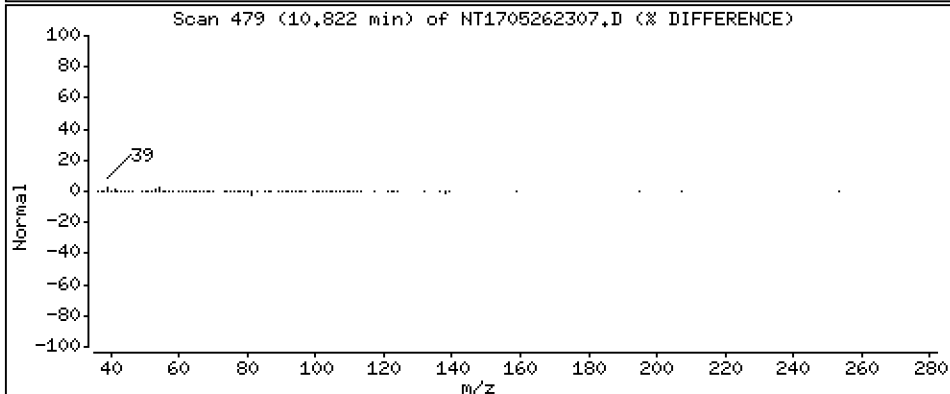
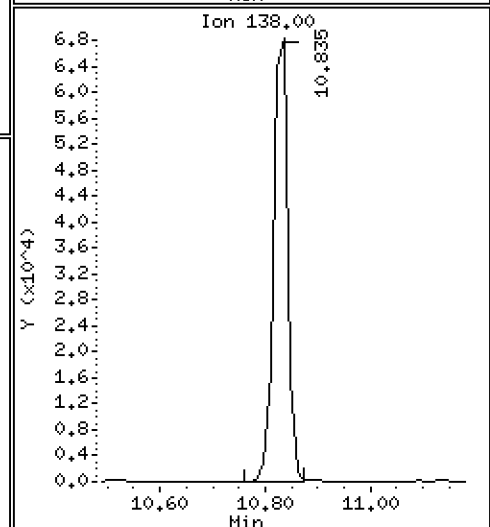
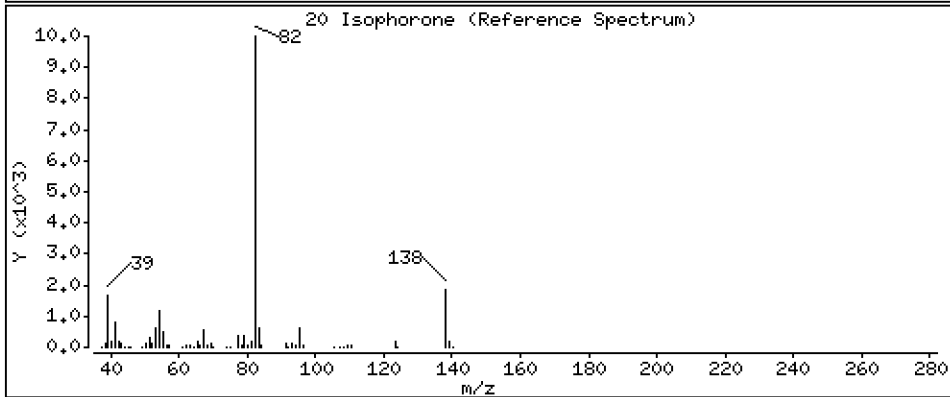
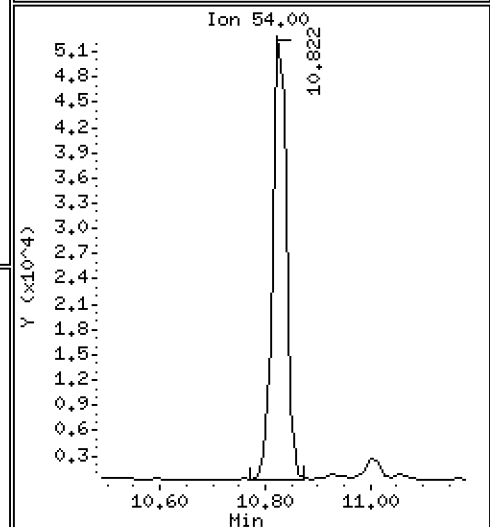
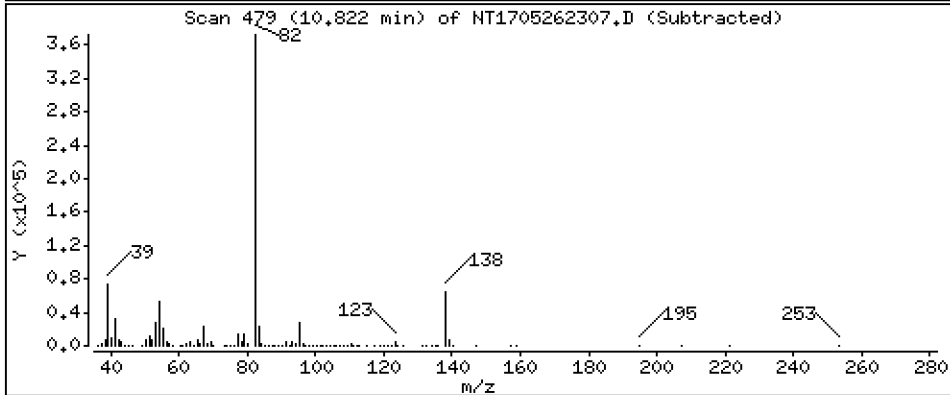
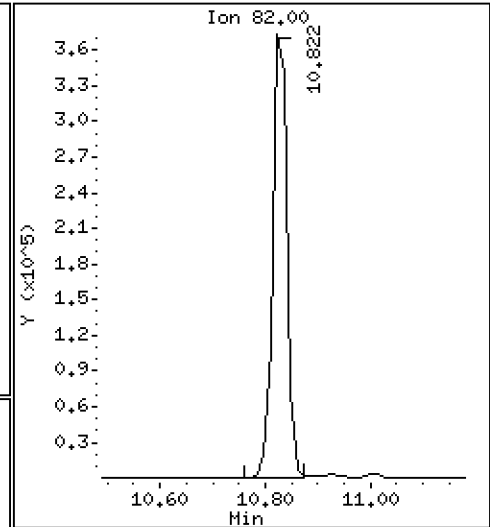
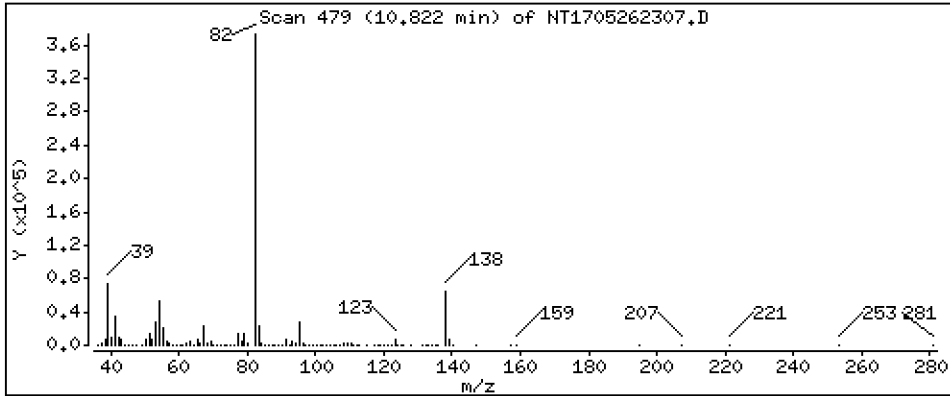
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 4,872 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

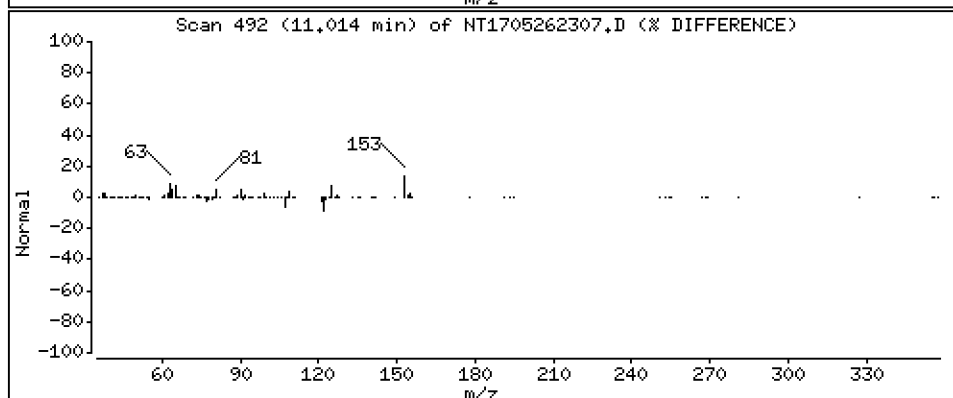
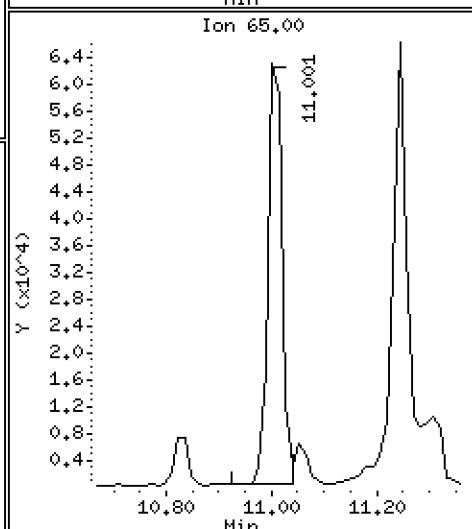
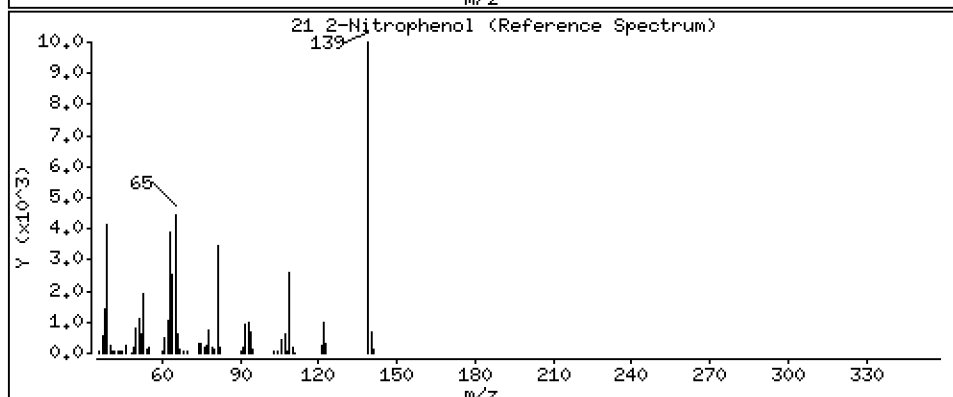
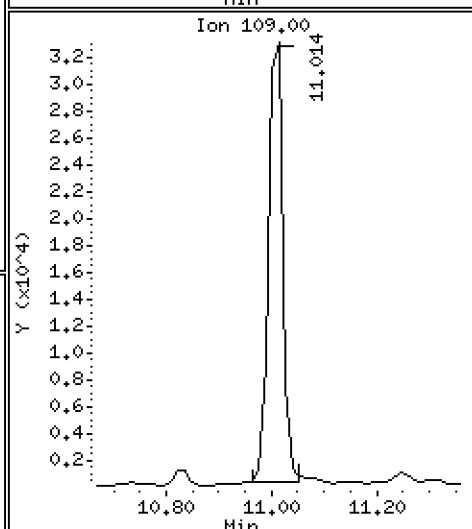
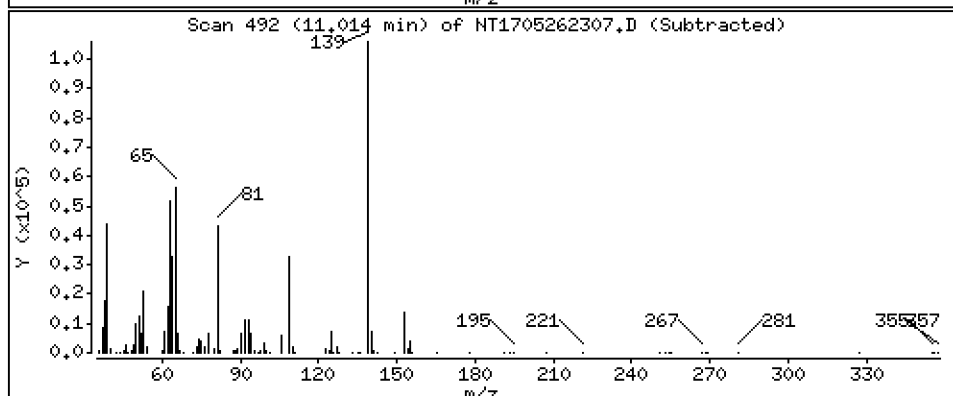
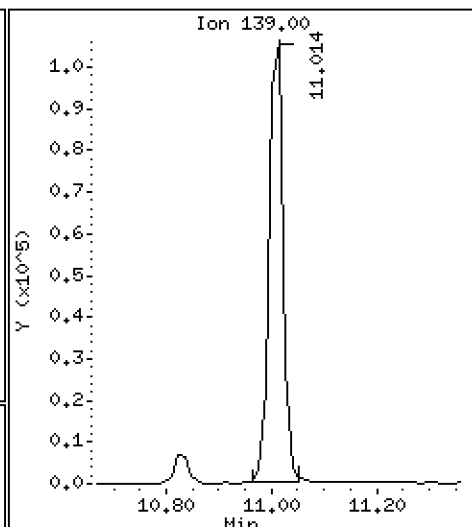
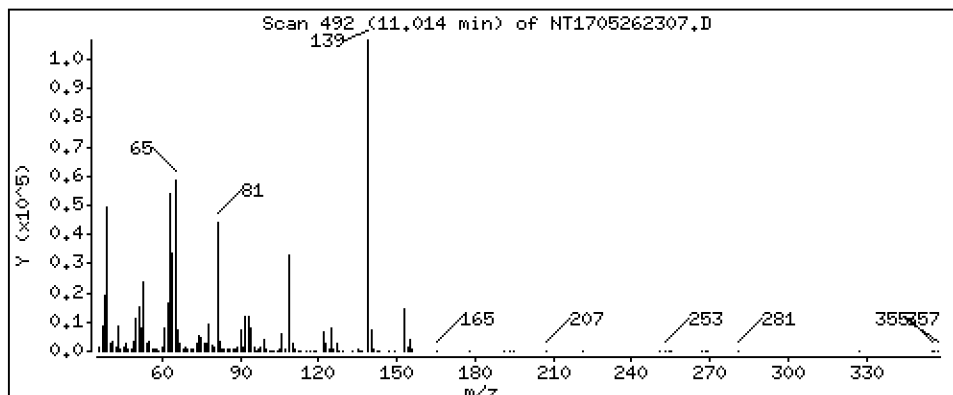
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,833 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

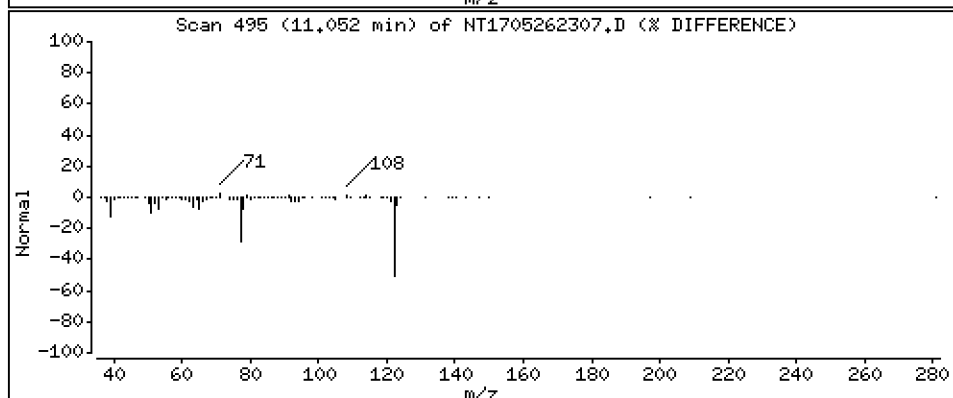
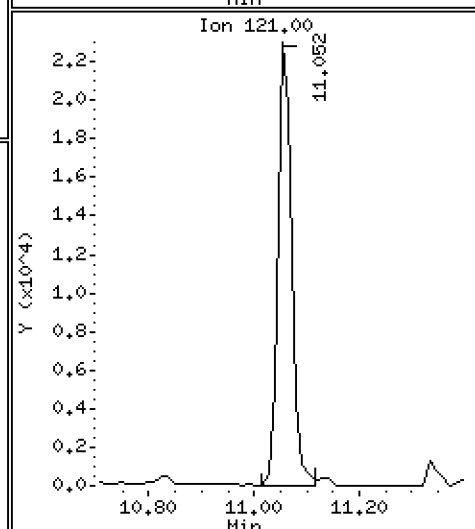
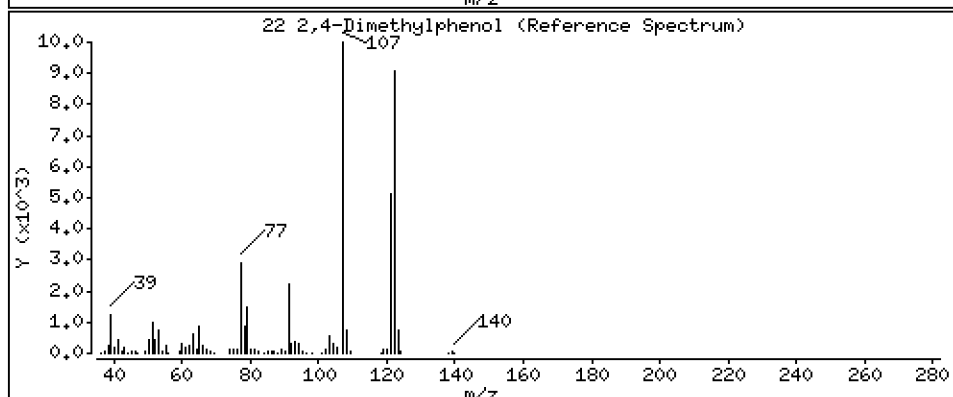
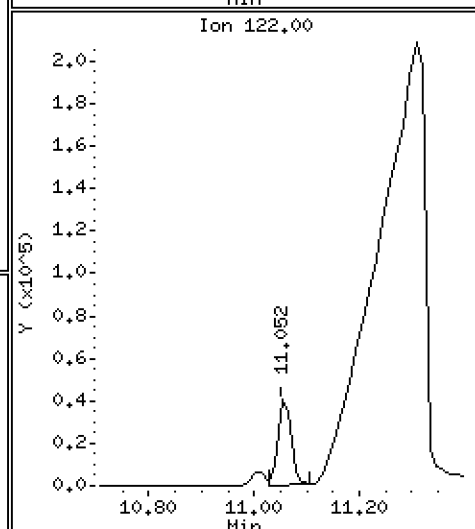
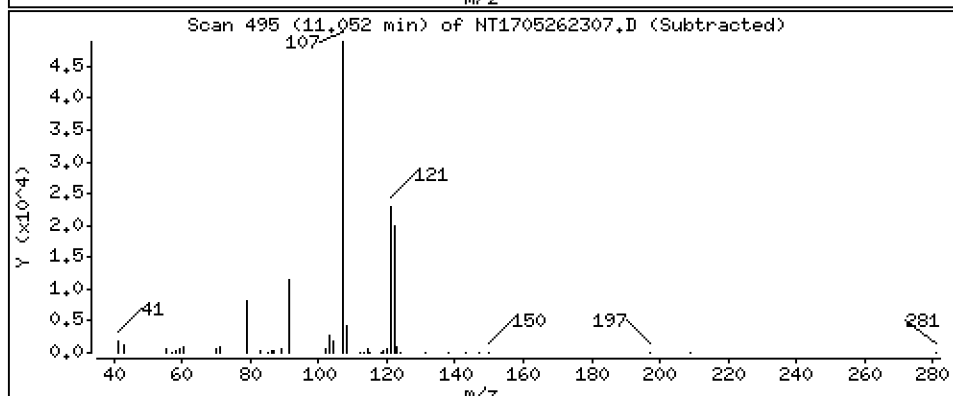
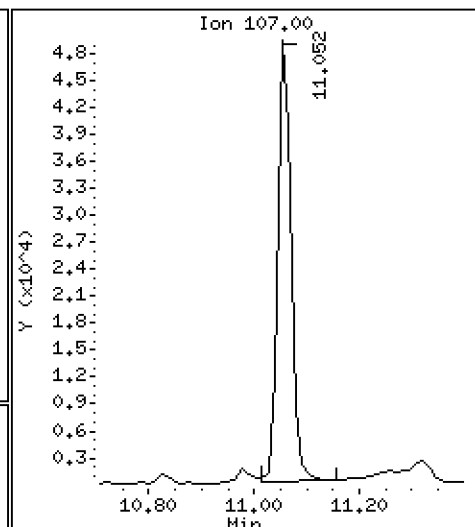
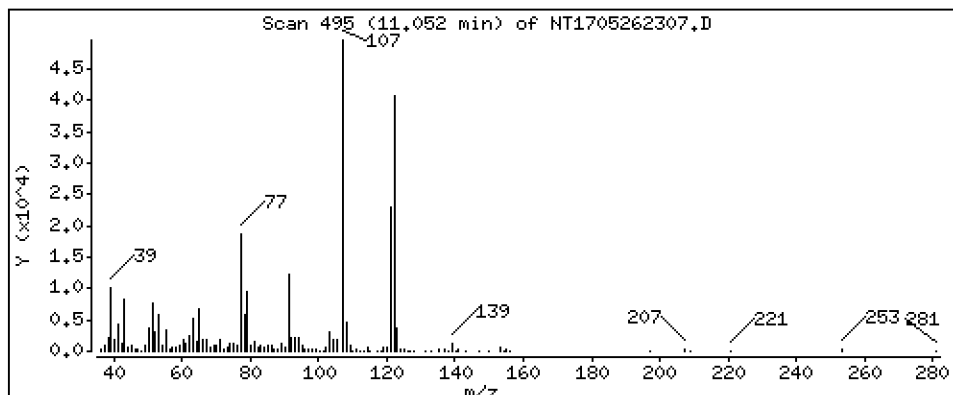
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,8717 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

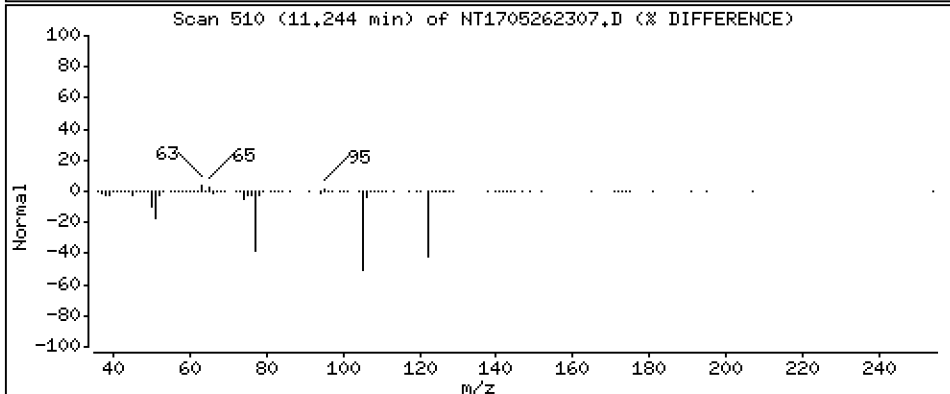
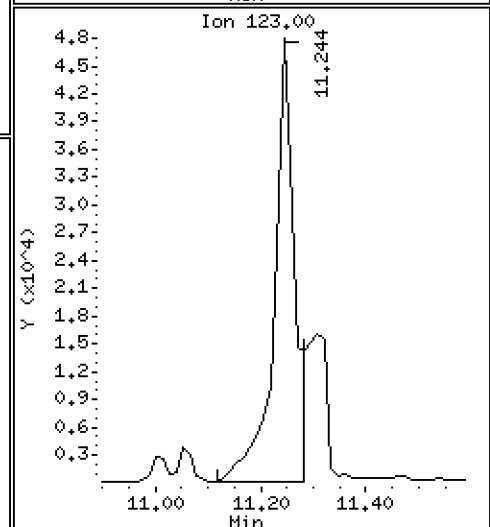
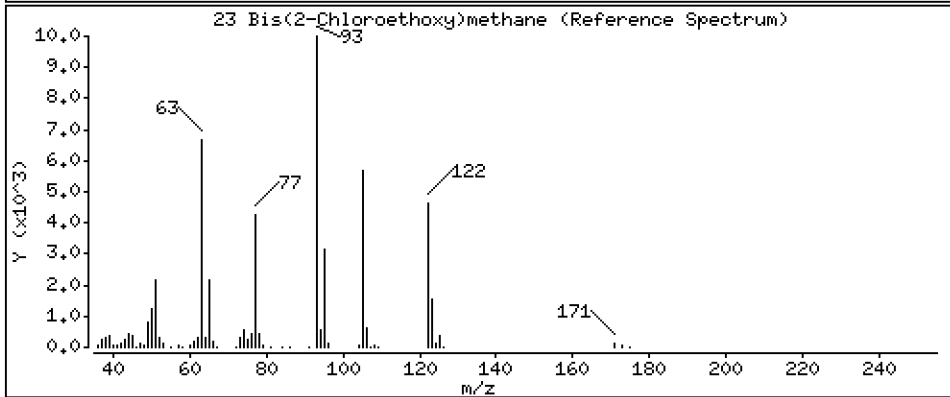
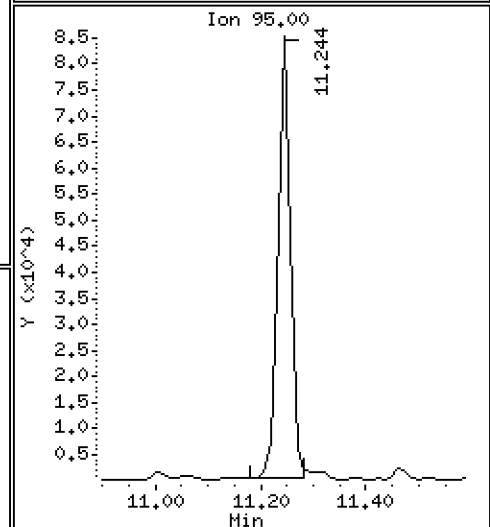
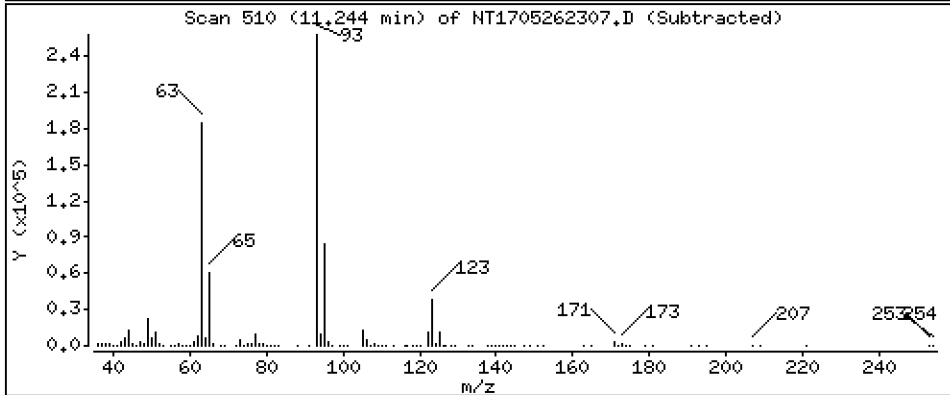
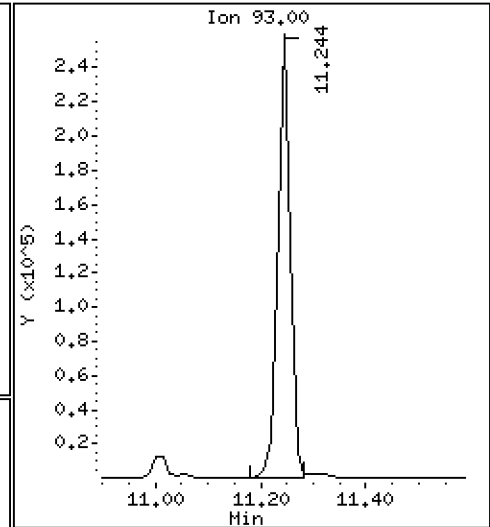
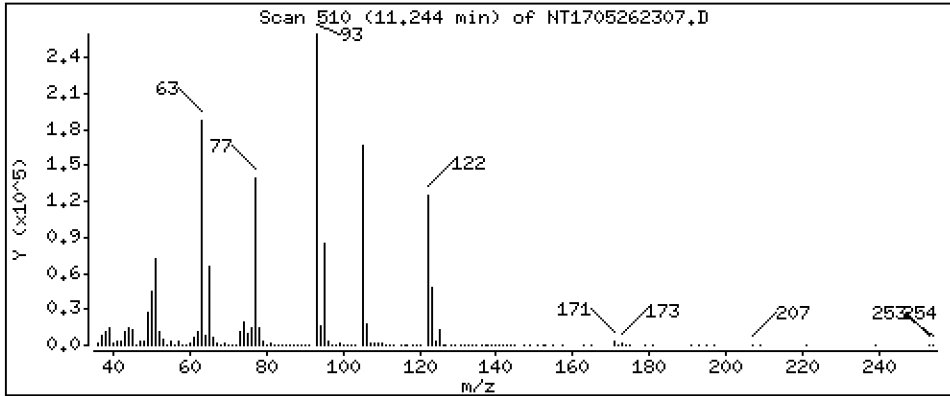
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,703 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

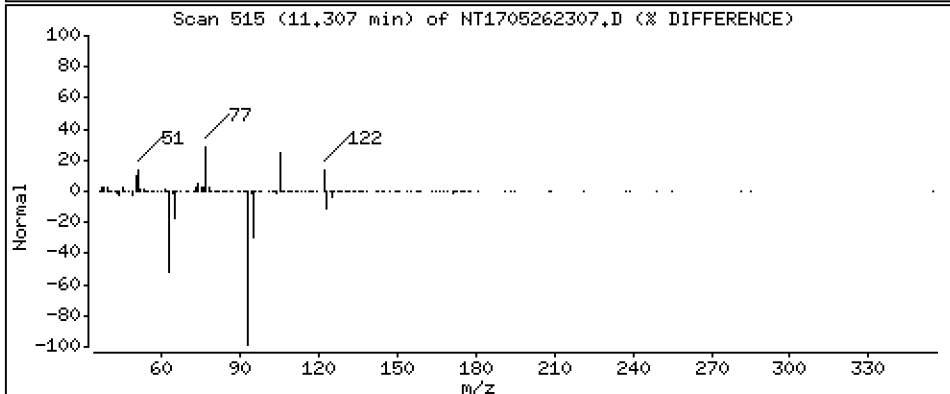
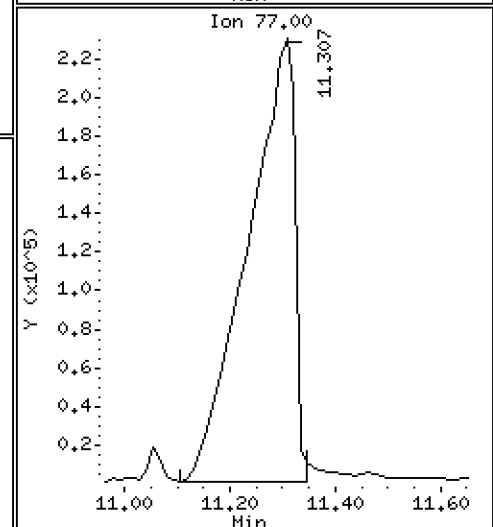
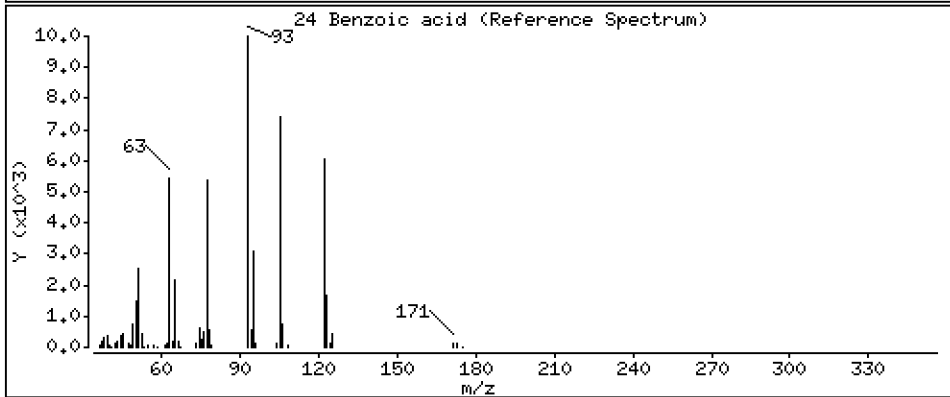
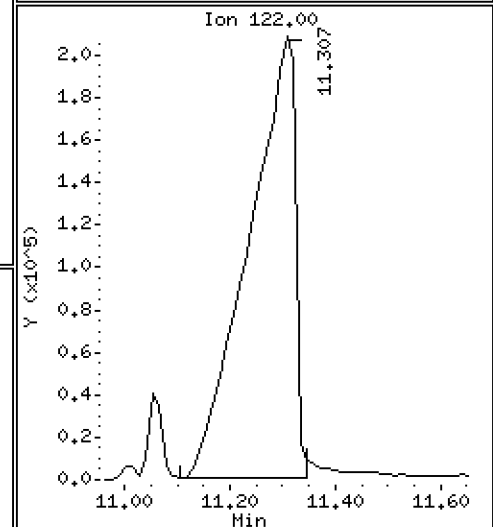
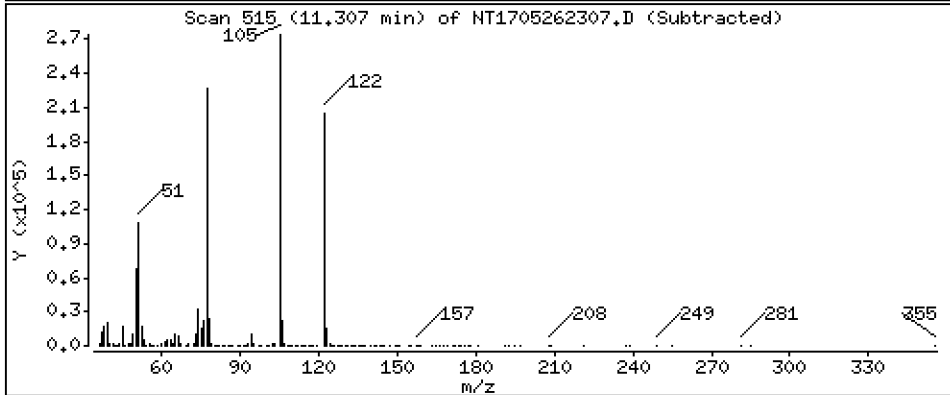
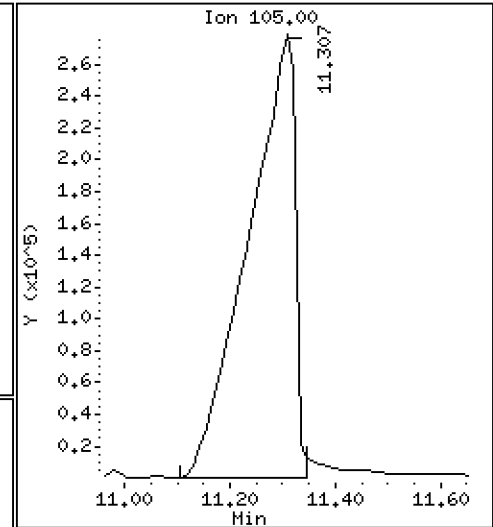
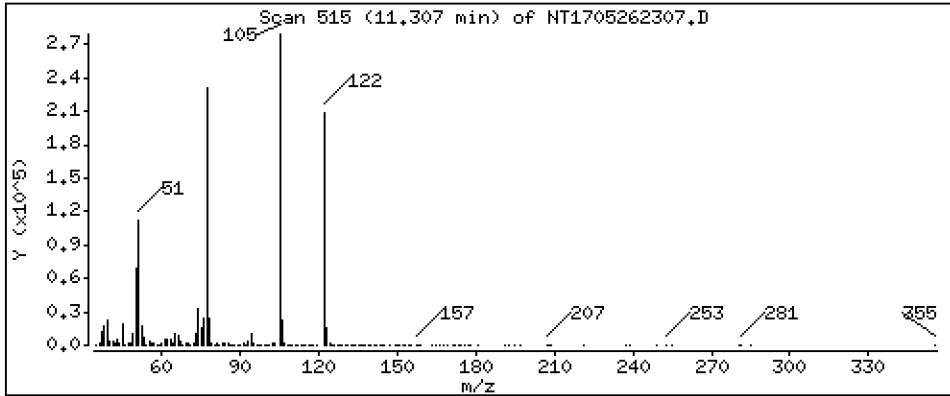
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 25,81 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

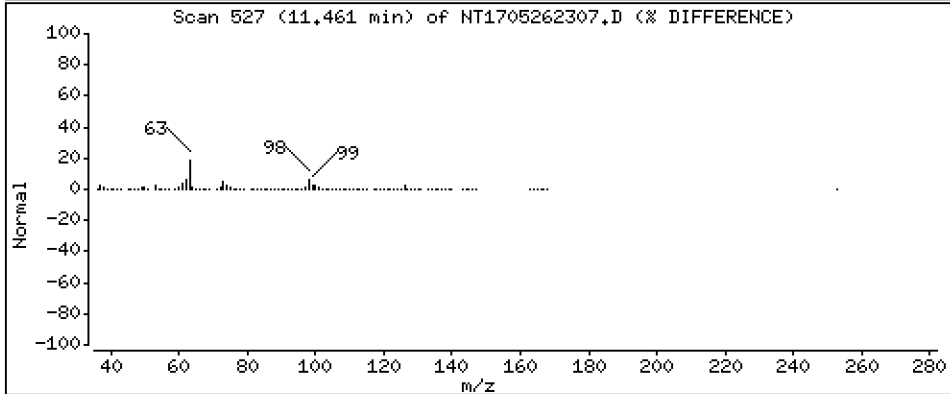
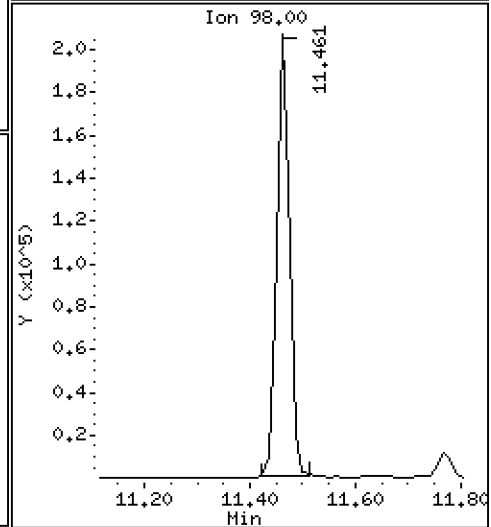
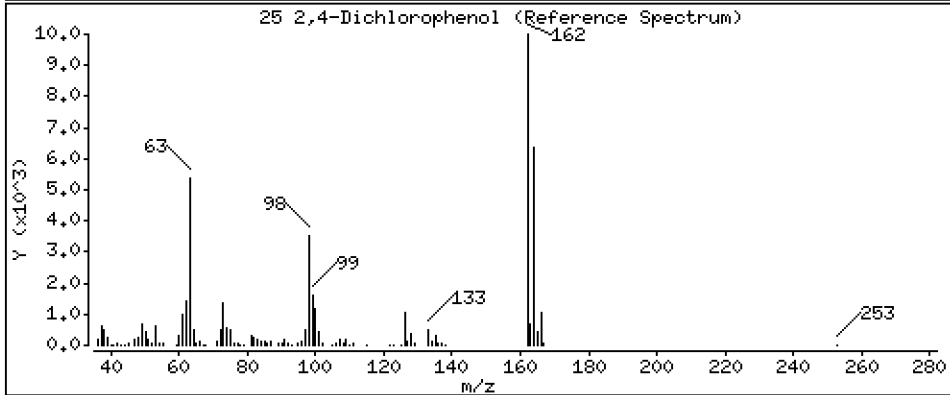
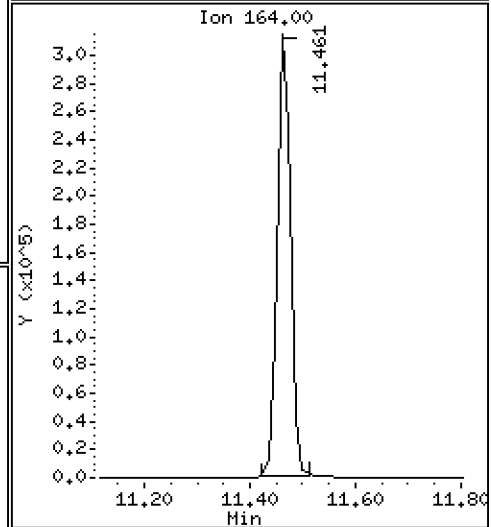
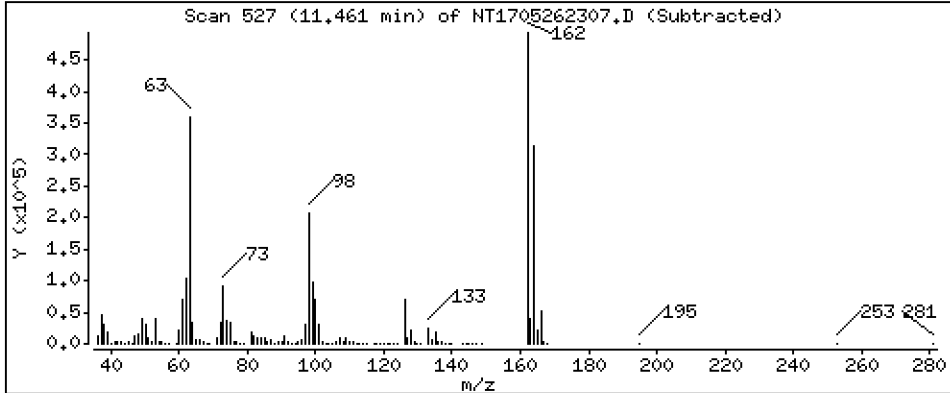
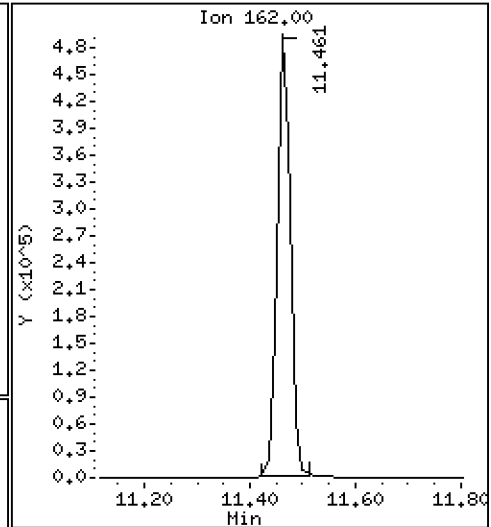
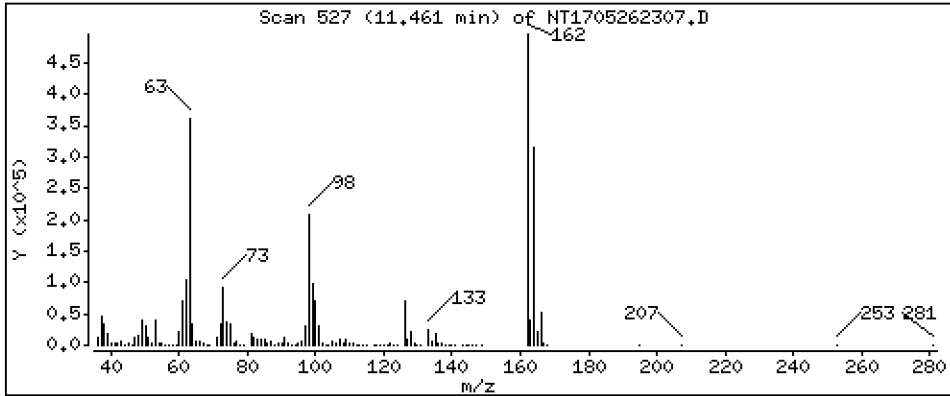
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 10,70 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

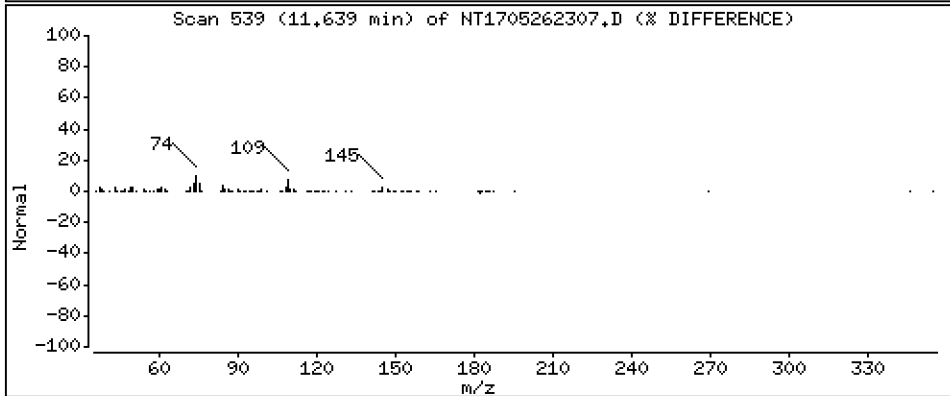
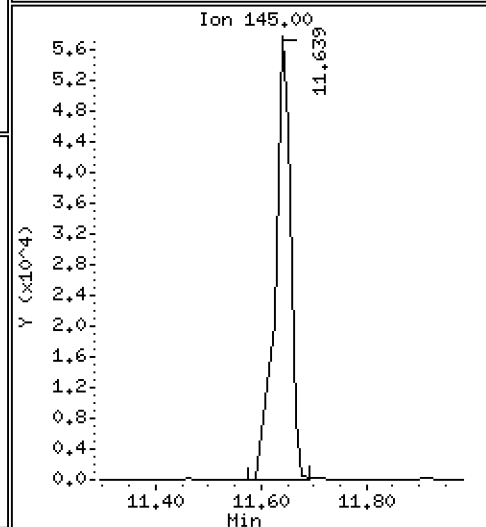
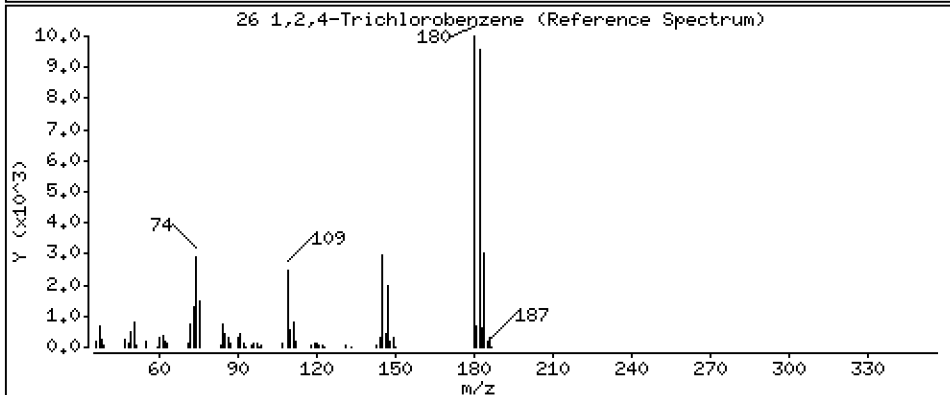
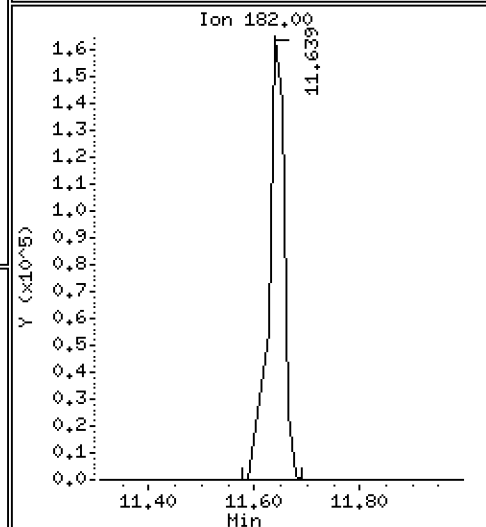
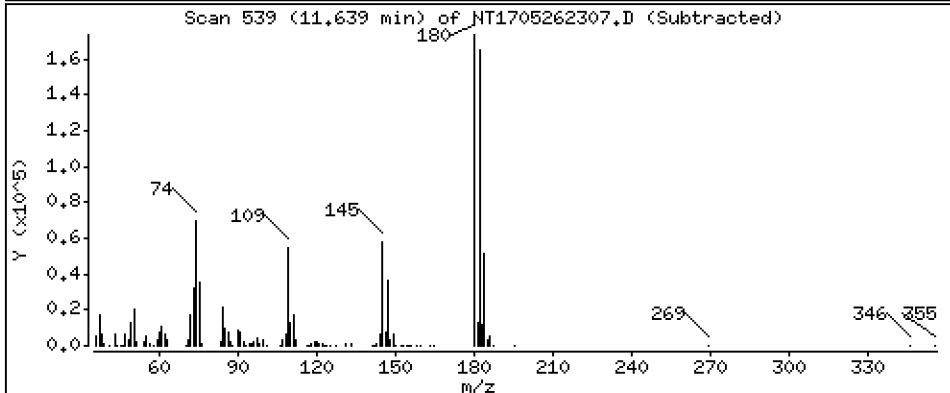
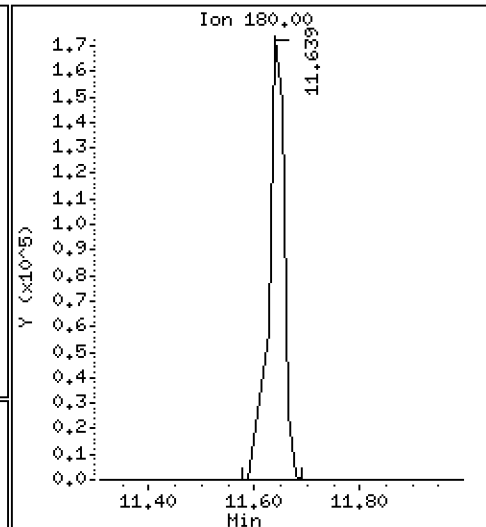
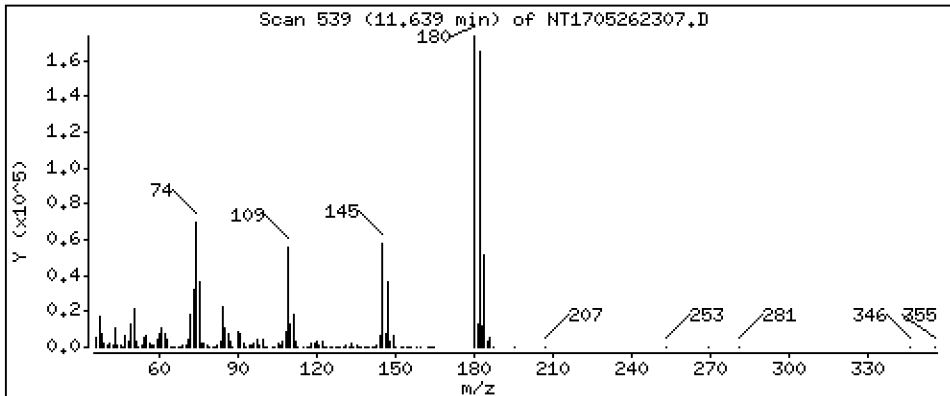
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,615 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

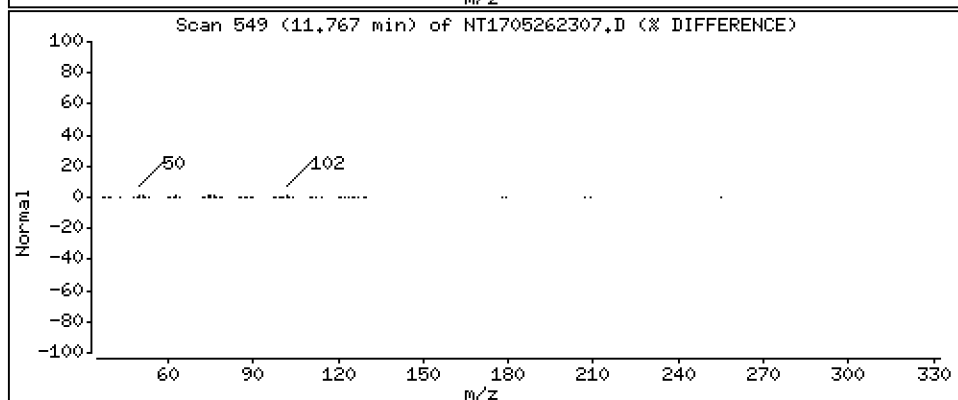
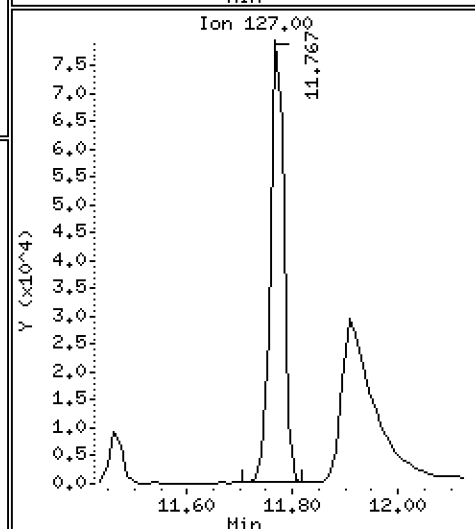
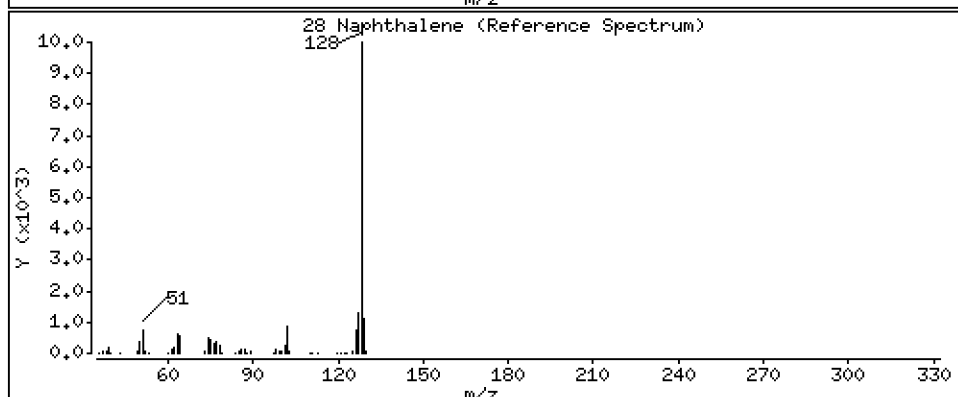
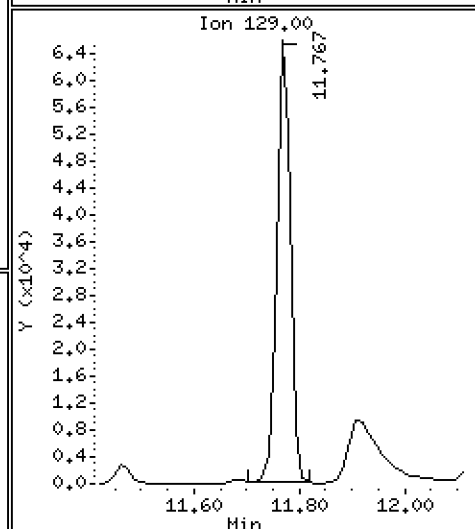
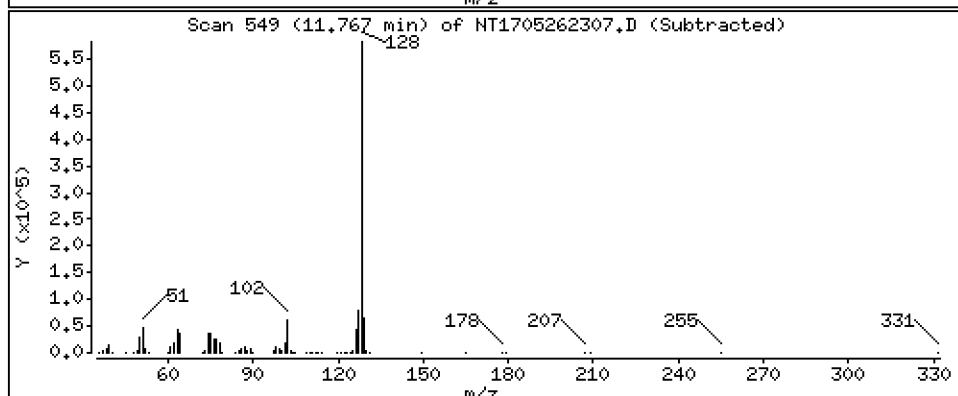
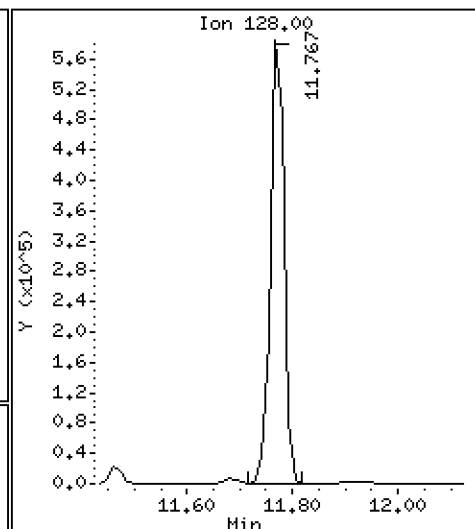
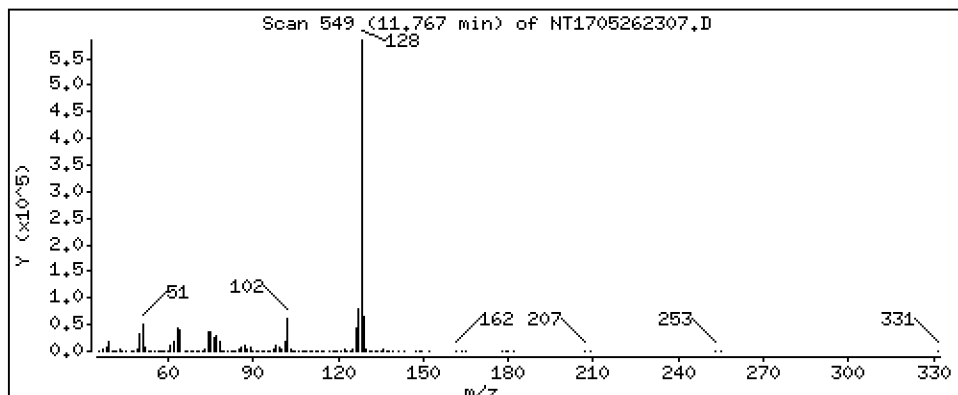
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,917 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

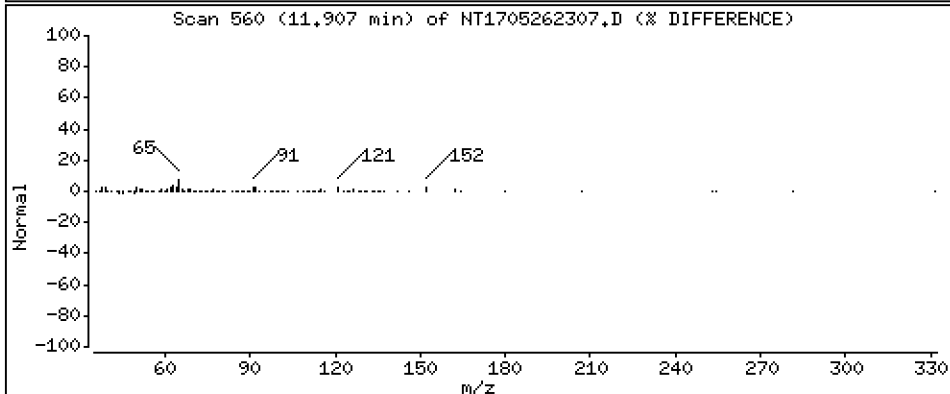
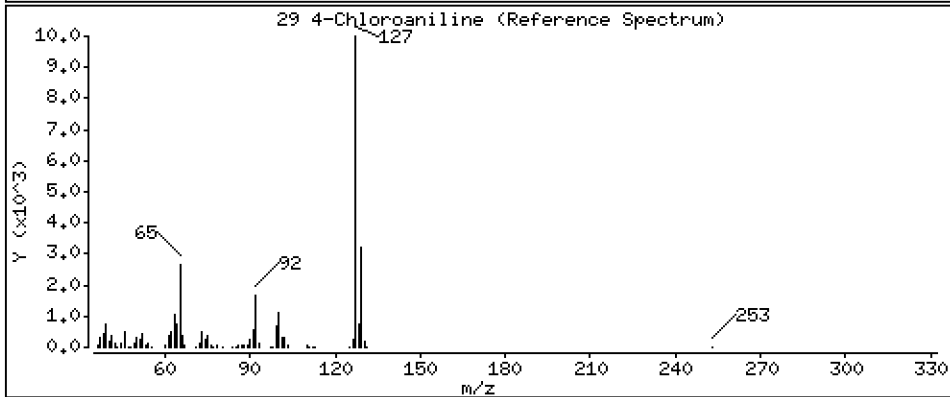
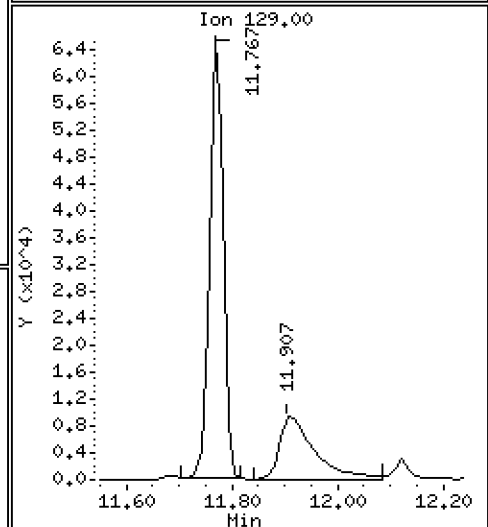
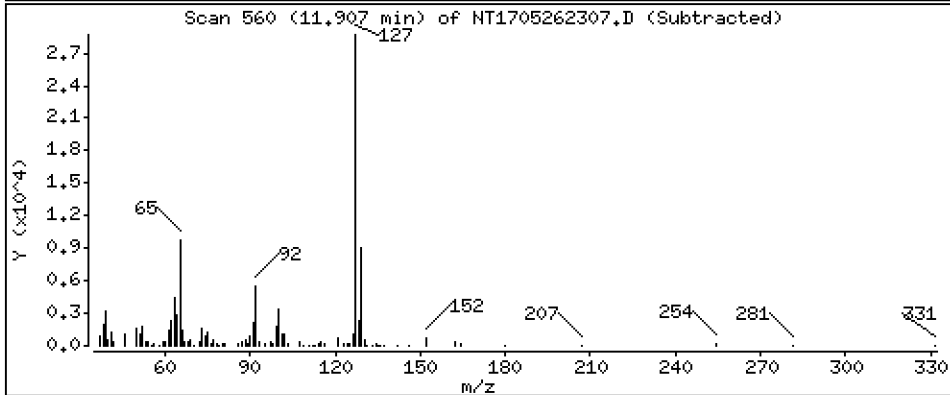
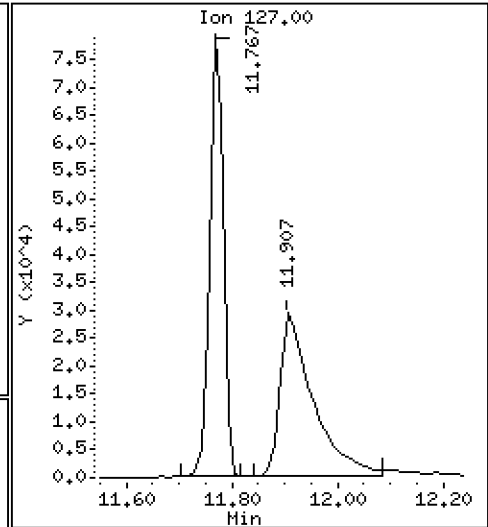
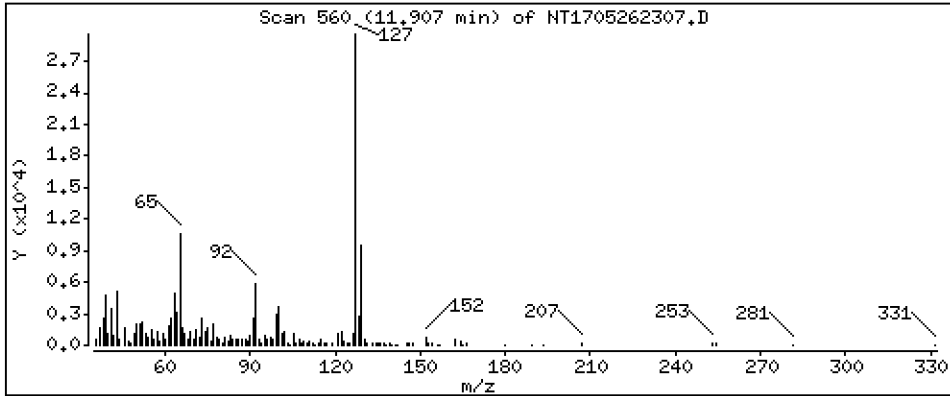
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 1,309 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

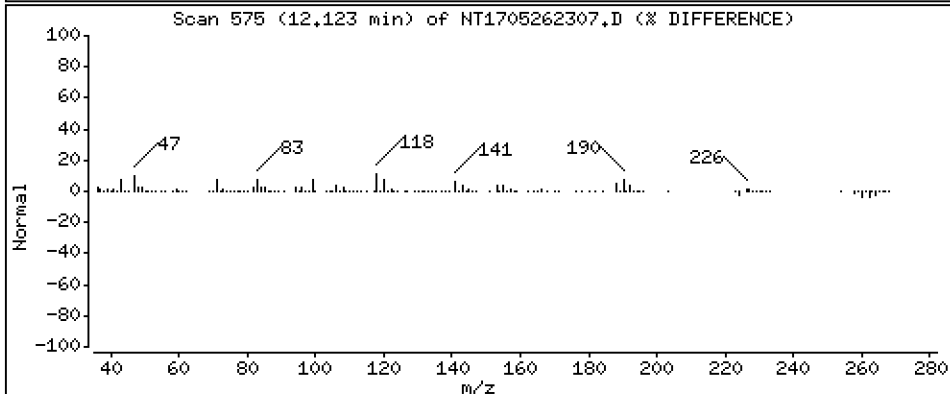
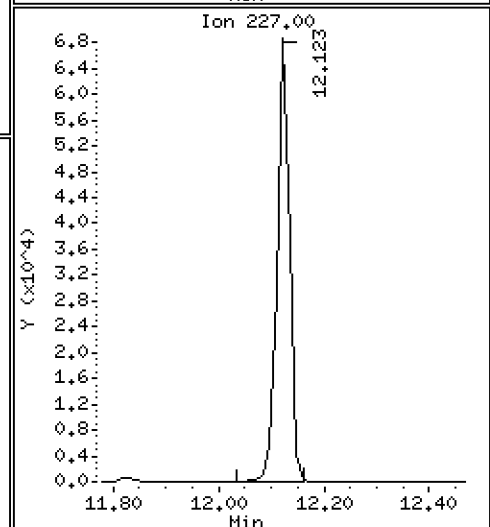
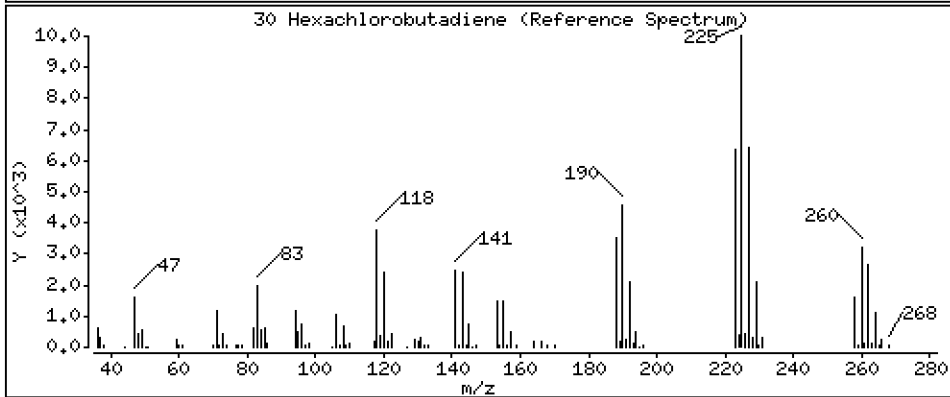
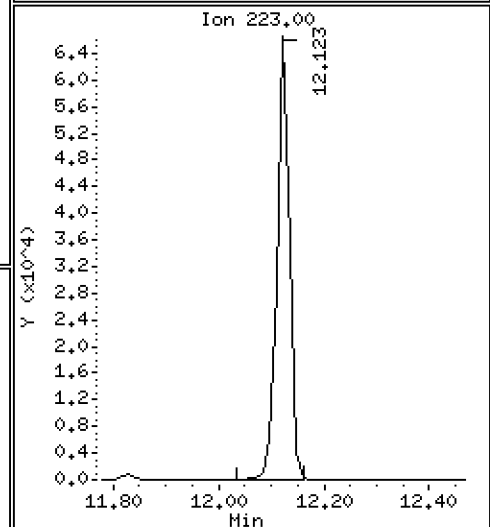
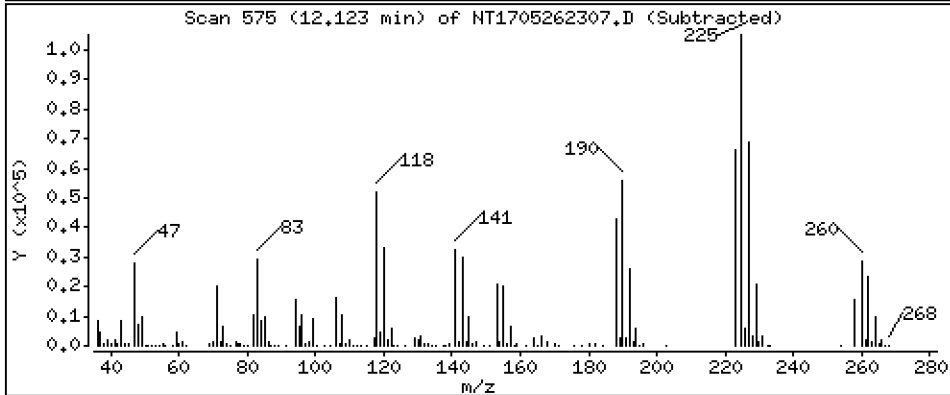
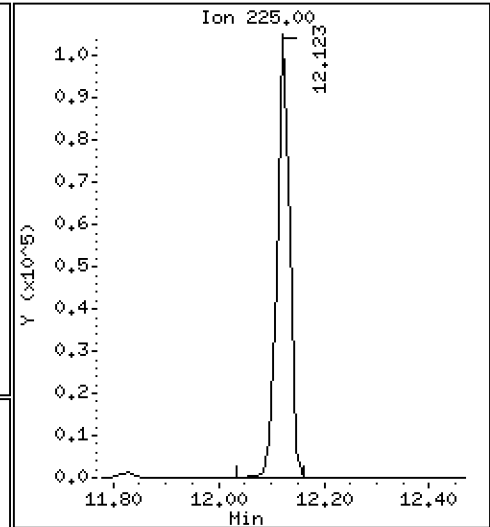
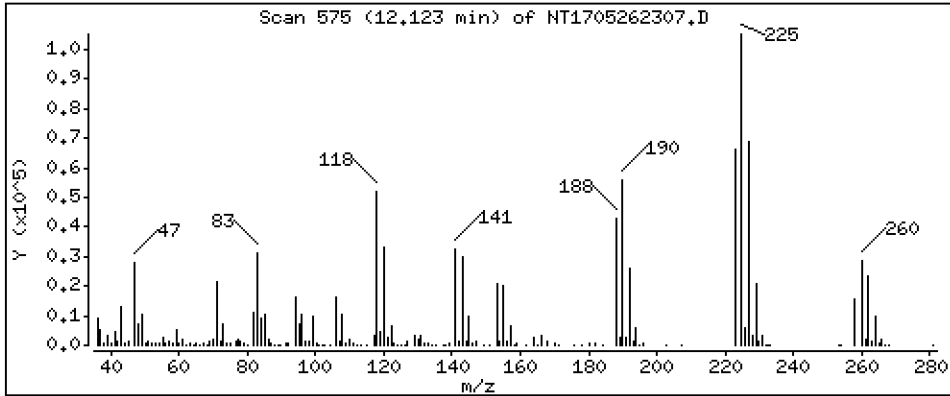
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 5.064 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

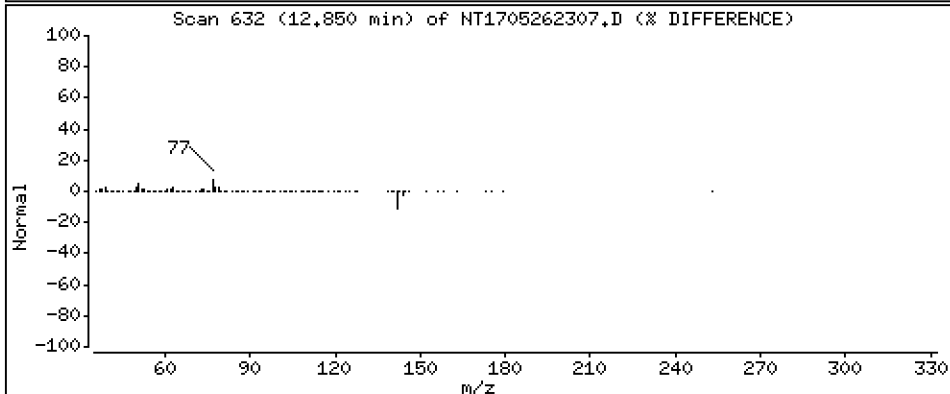
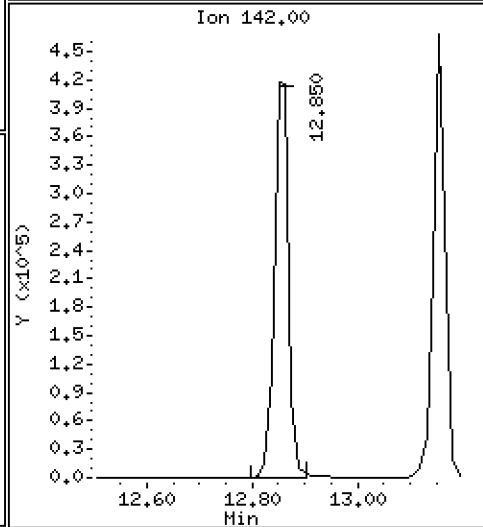
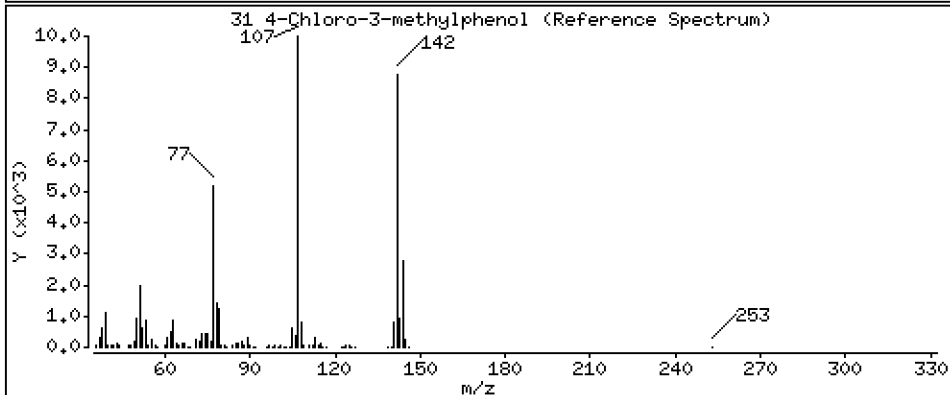
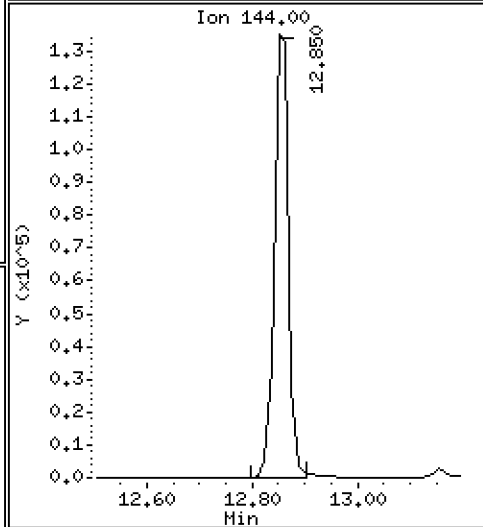
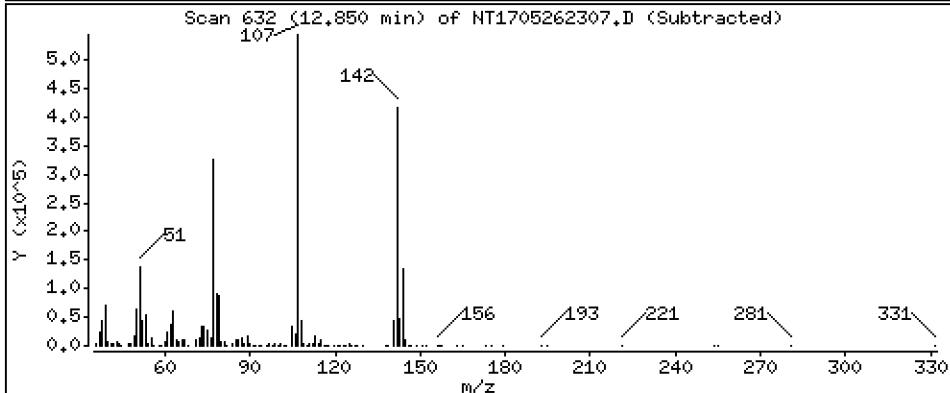
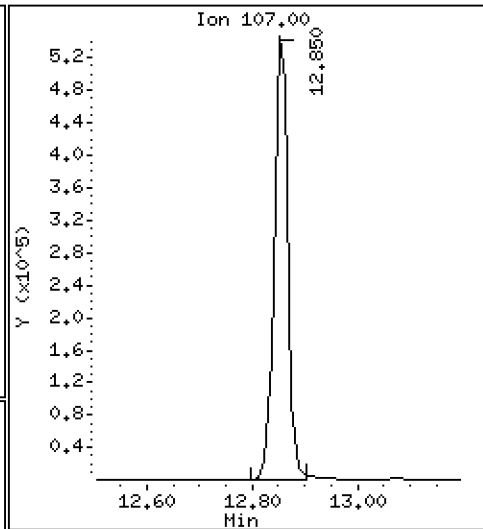
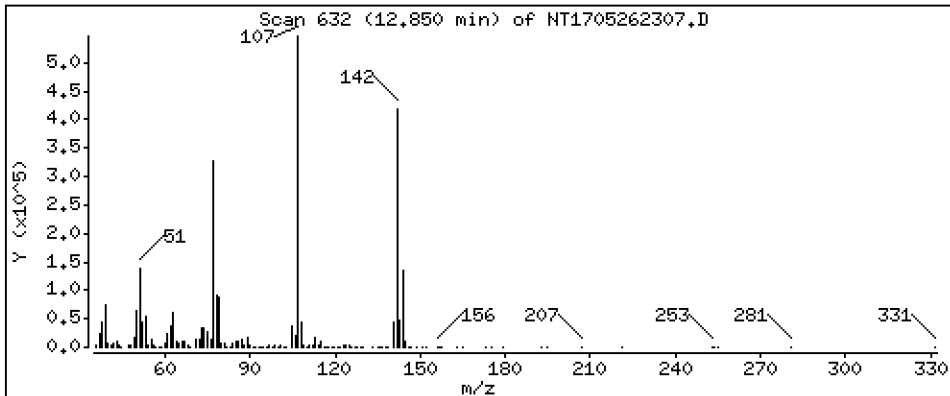
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 11,74 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

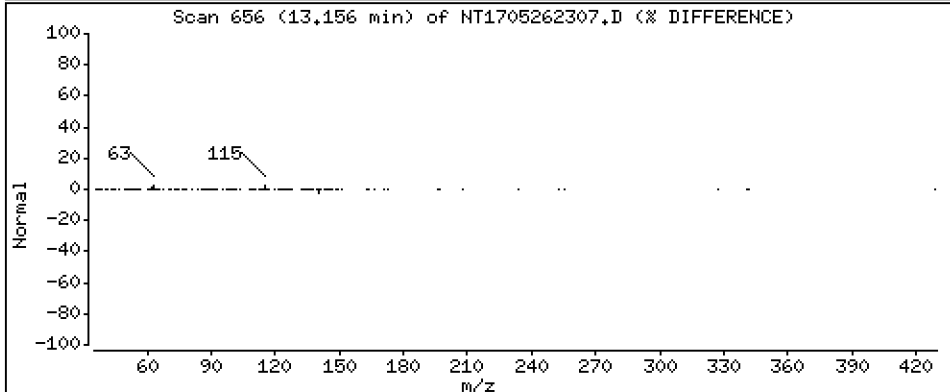
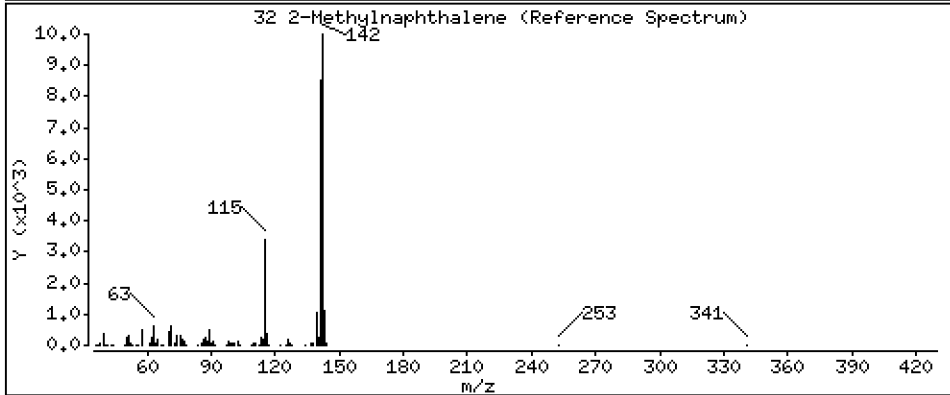
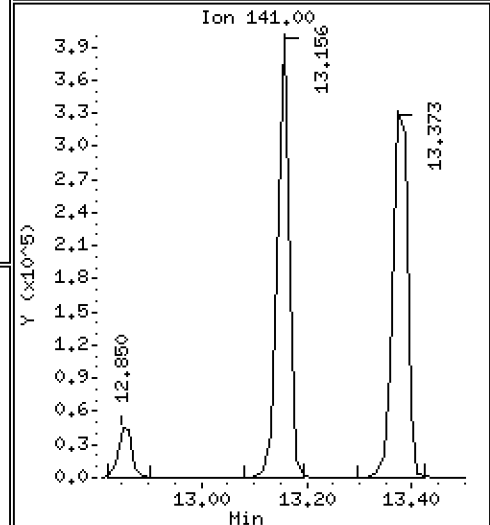
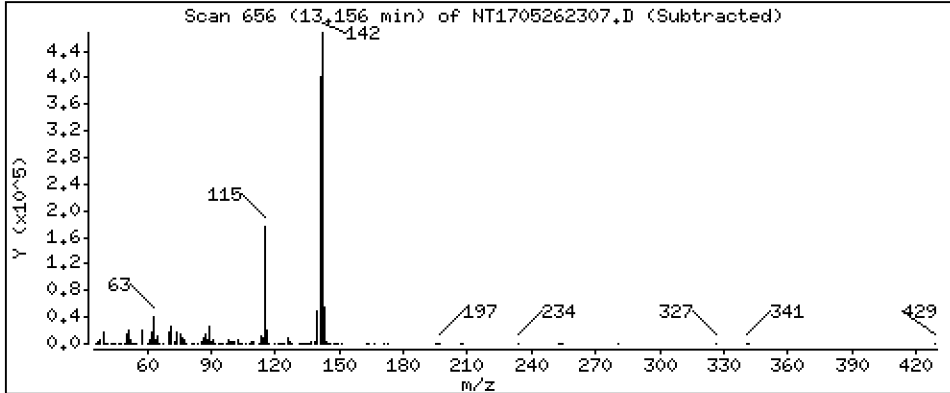
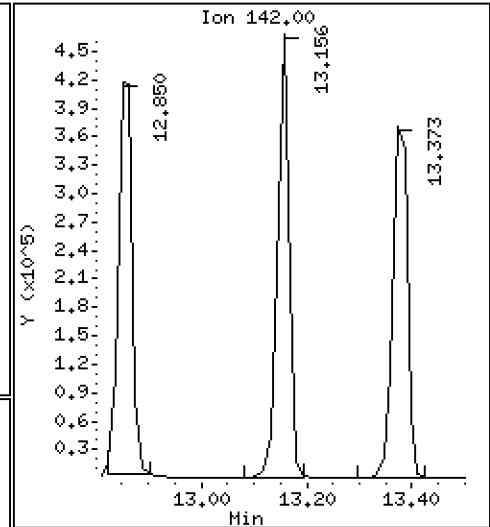
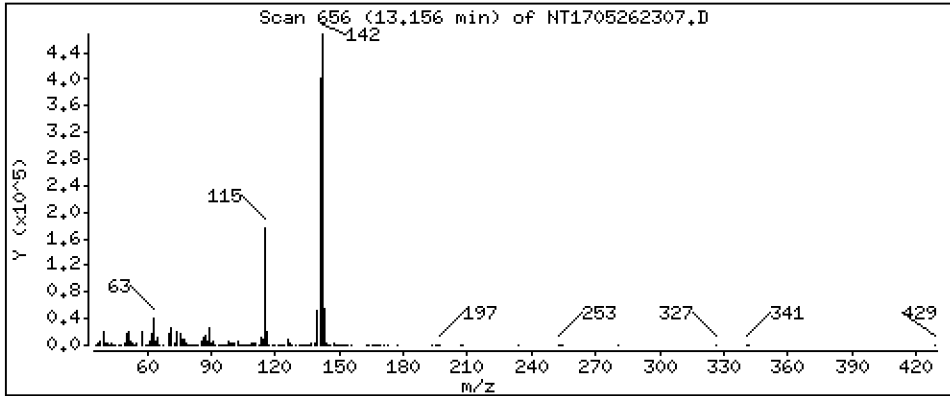
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,832 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

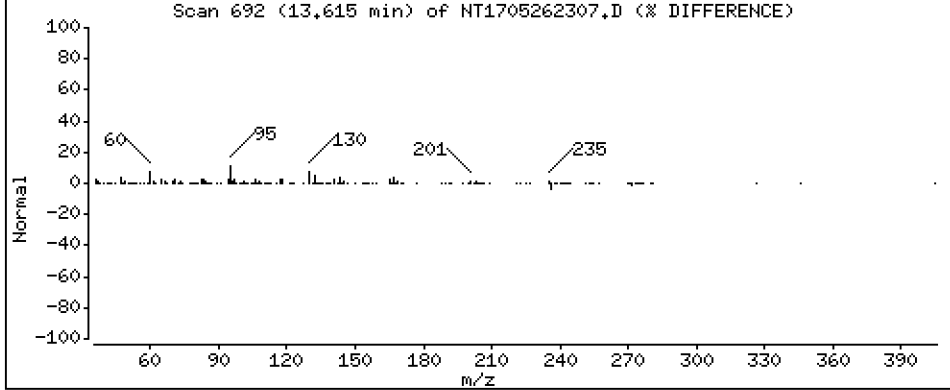
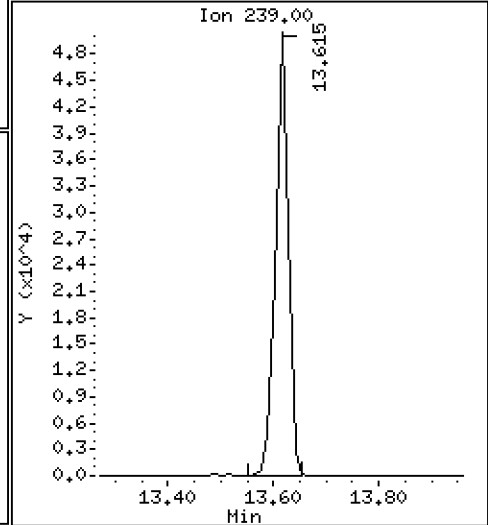
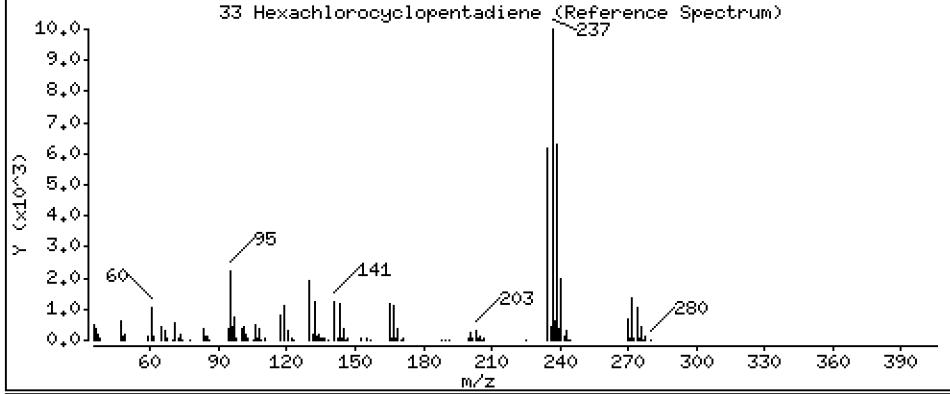
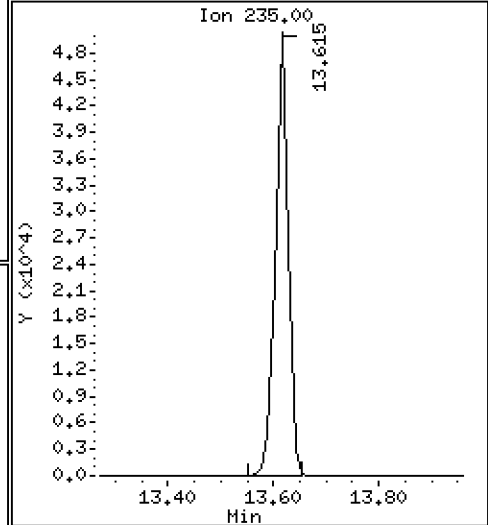
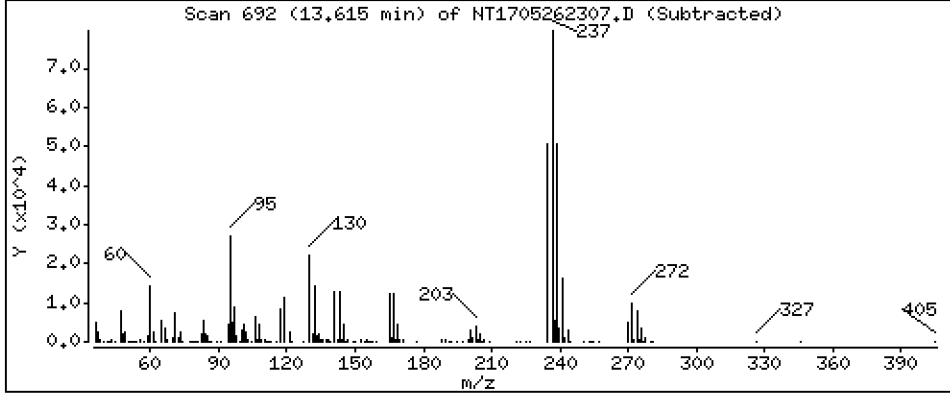
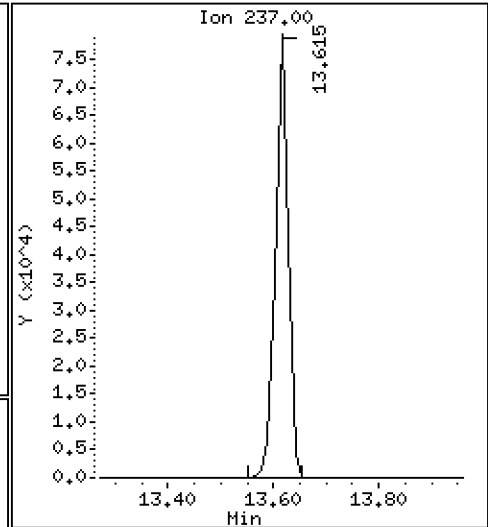
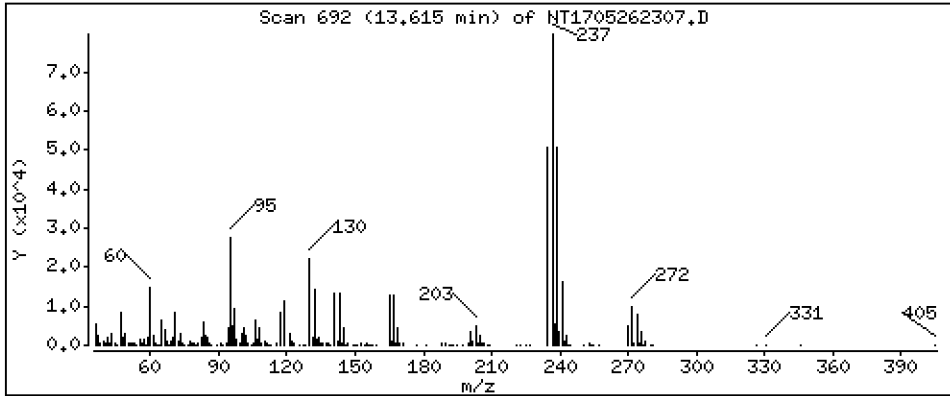
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 2,774 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

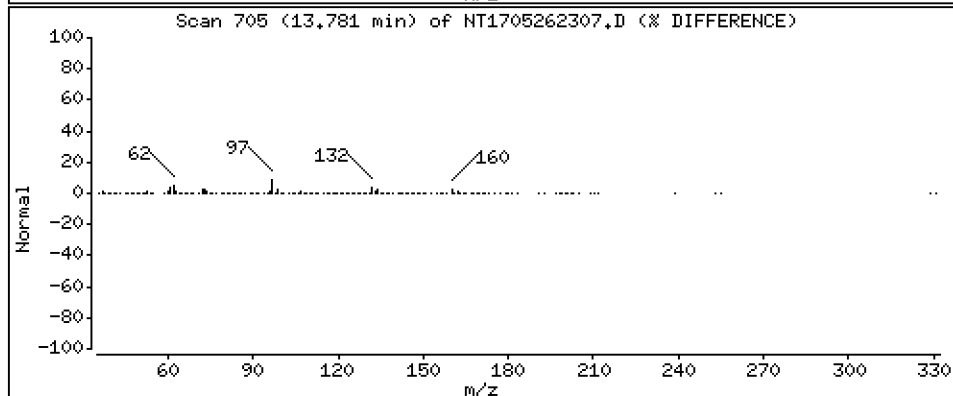
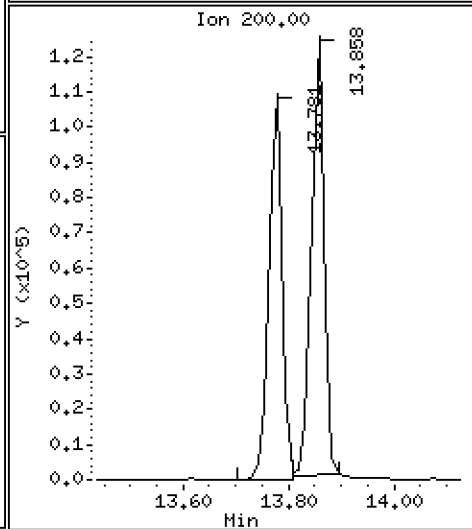
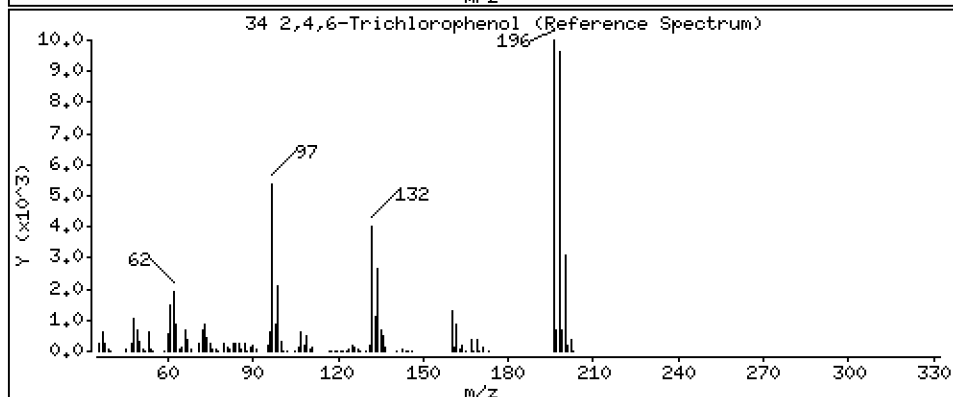
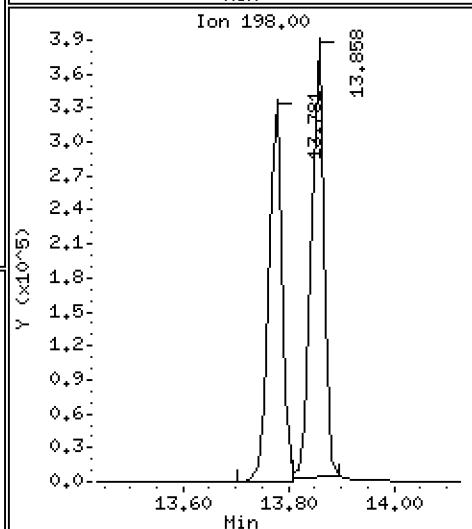
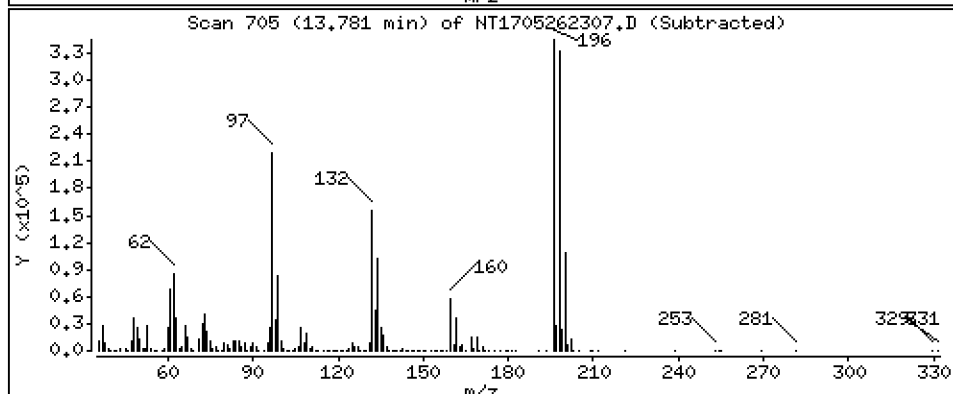
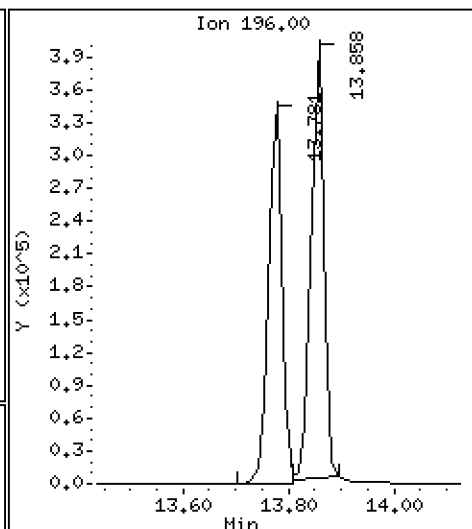
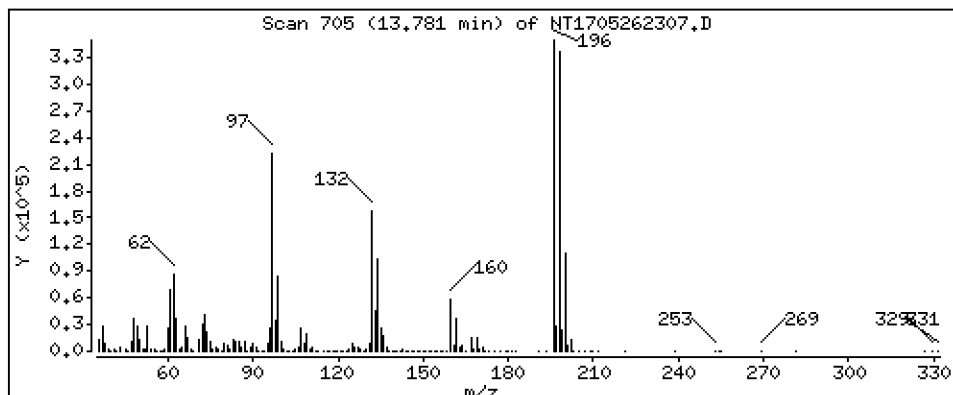
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 11.62 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

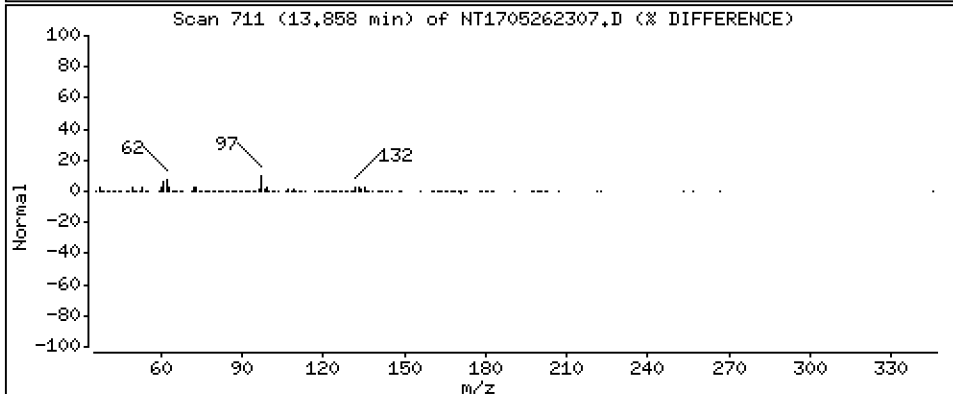
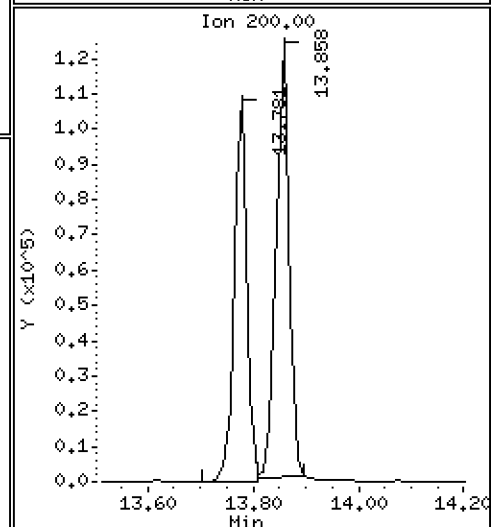
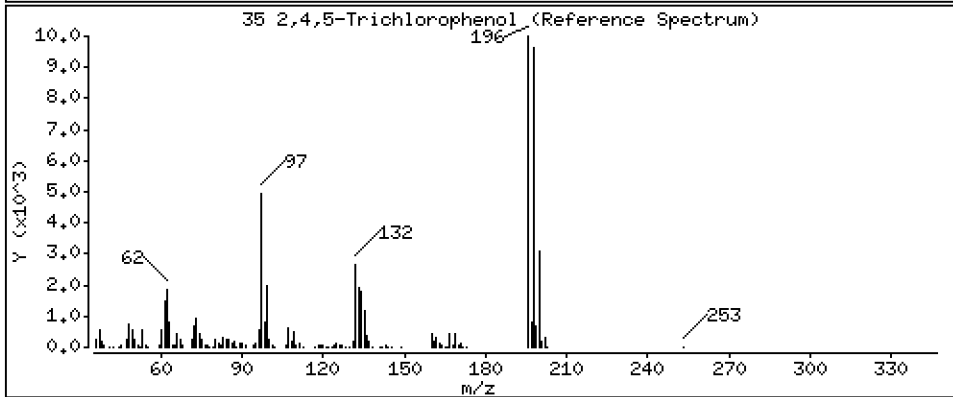
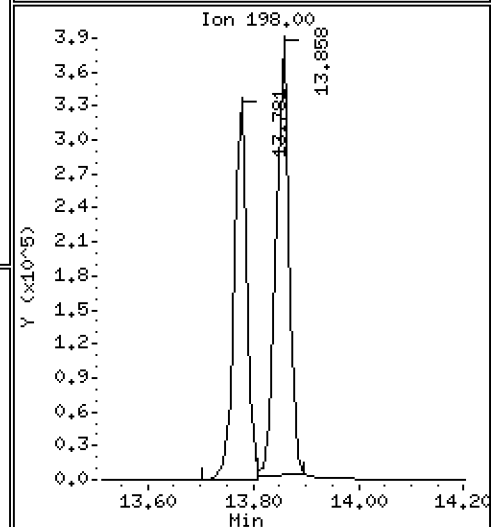
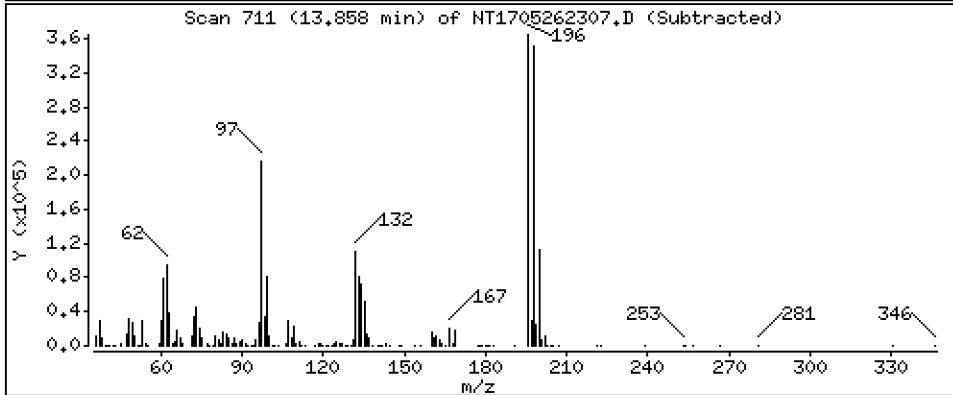
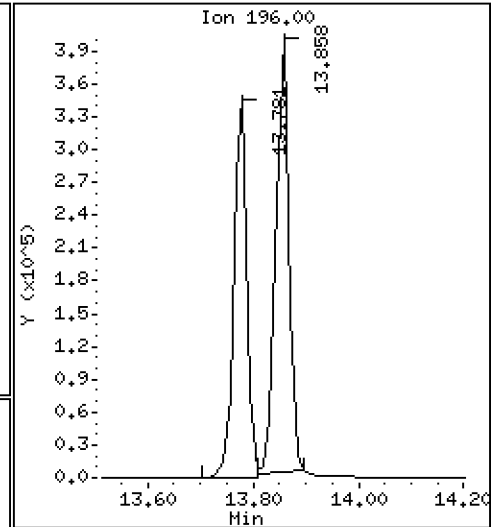
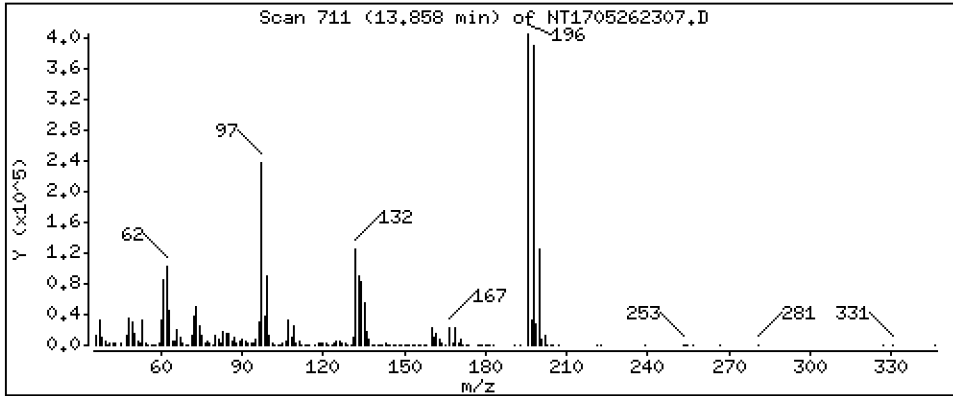
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 11,89 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

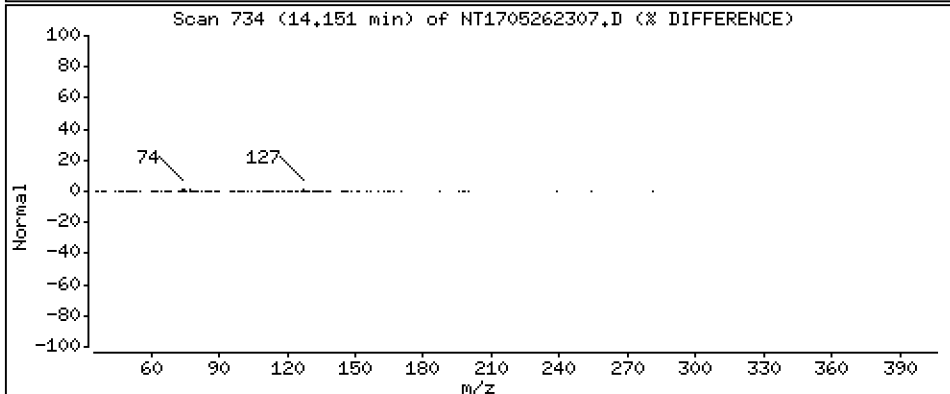
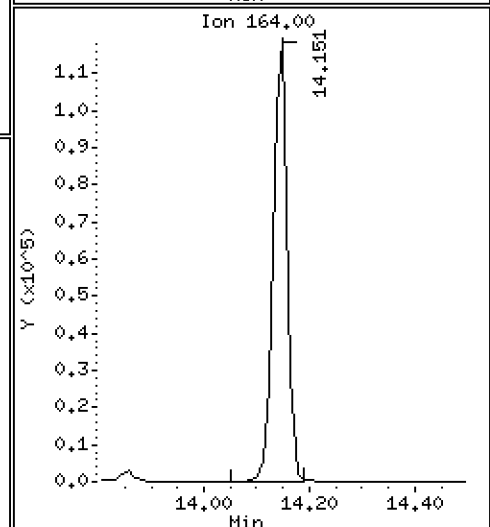
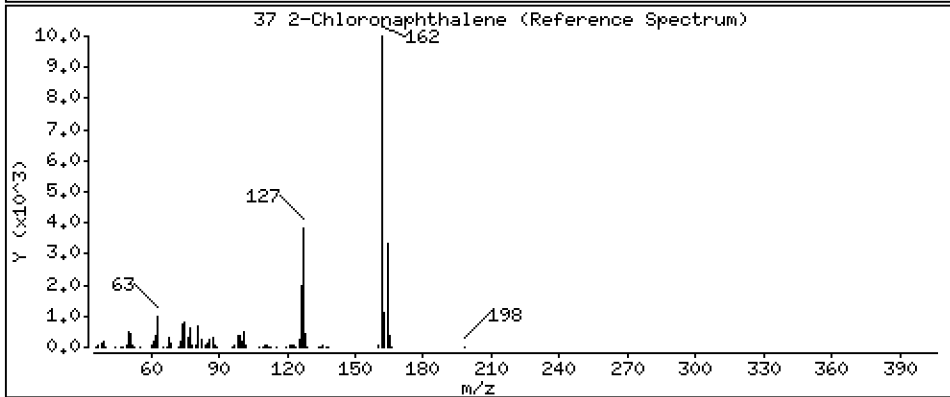
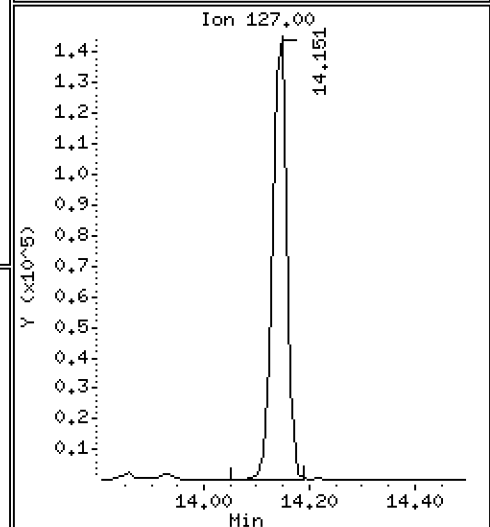
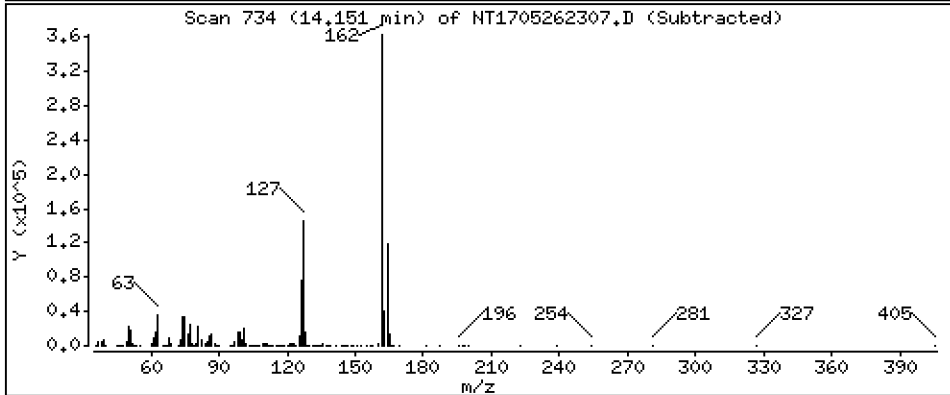
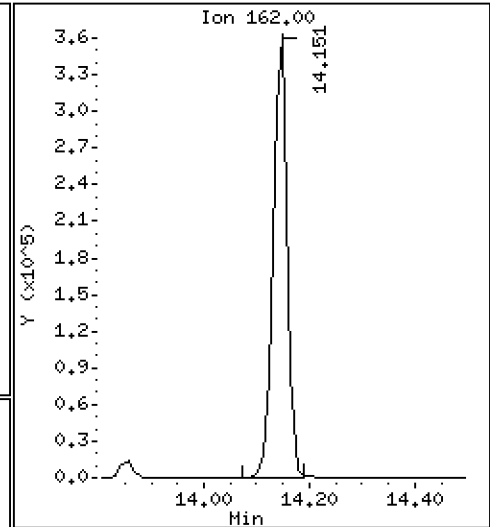
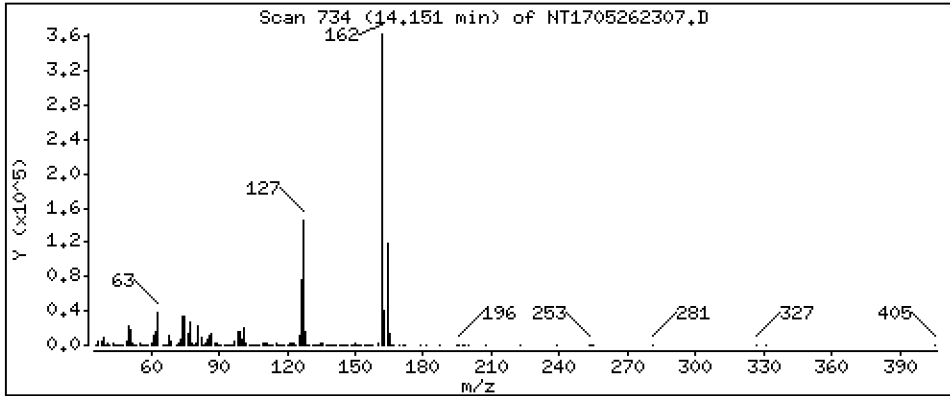
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,098 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

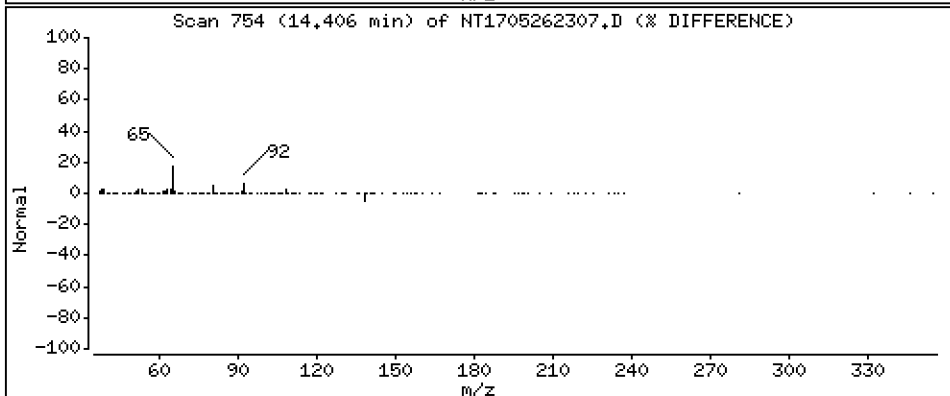
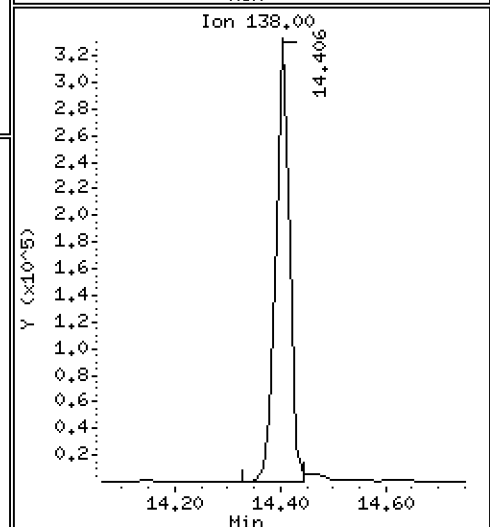
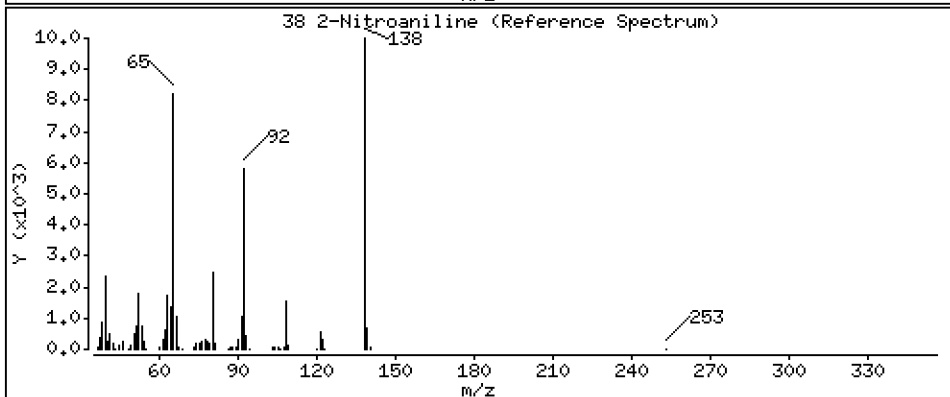
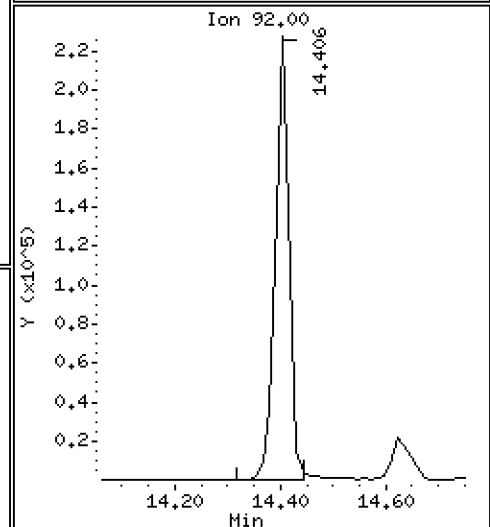
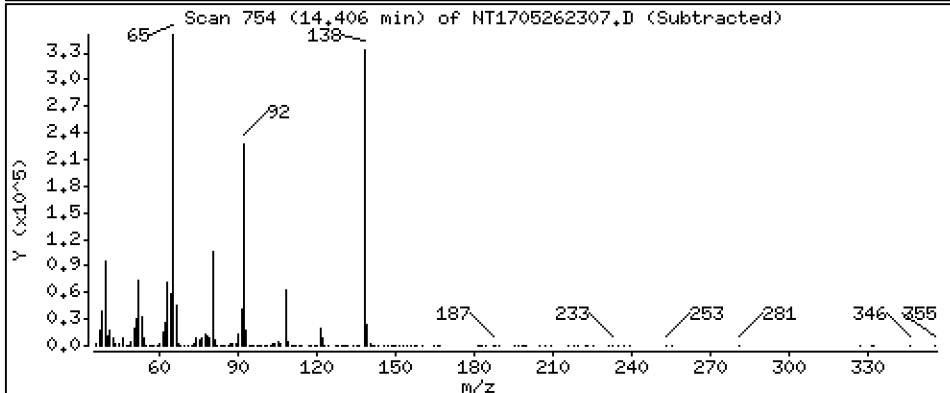
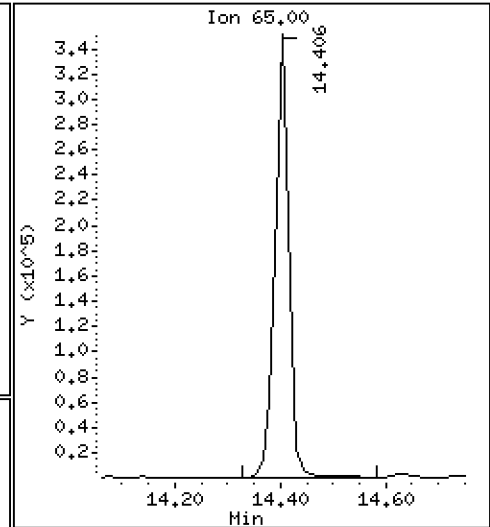
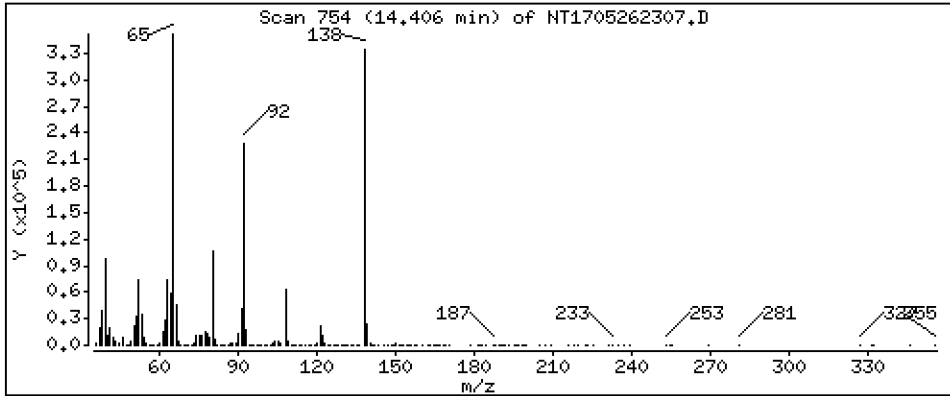
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 11,74 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

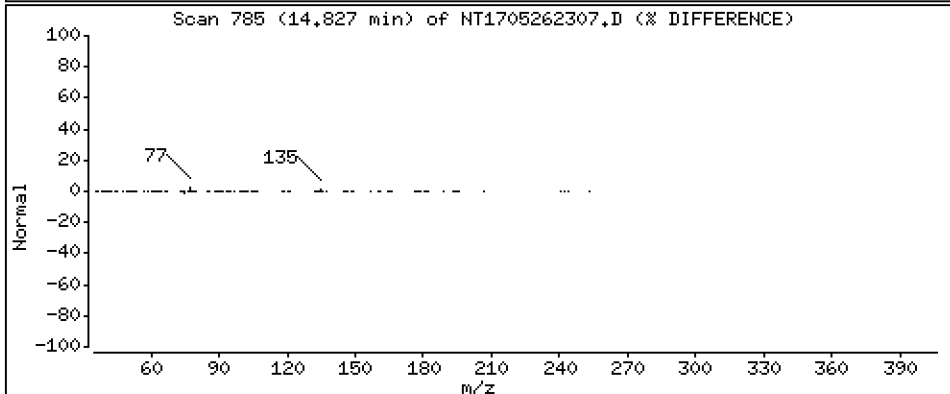
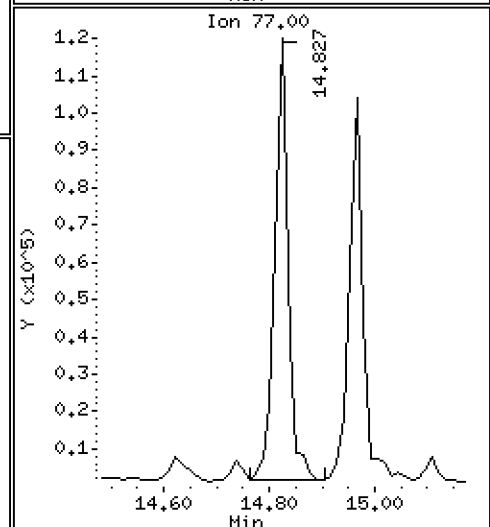
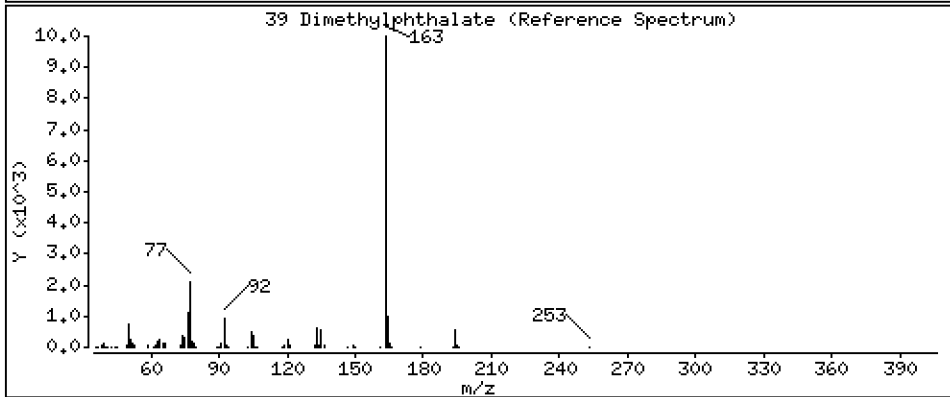
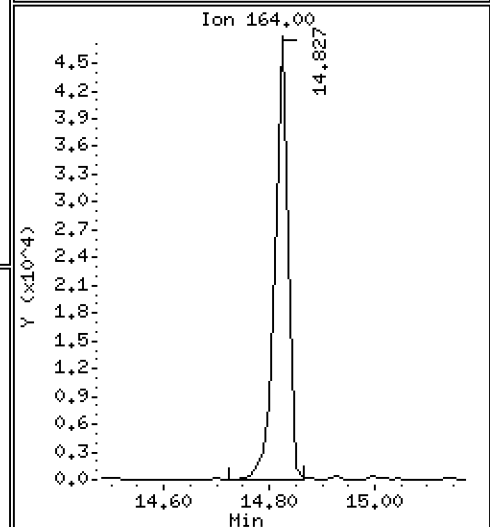
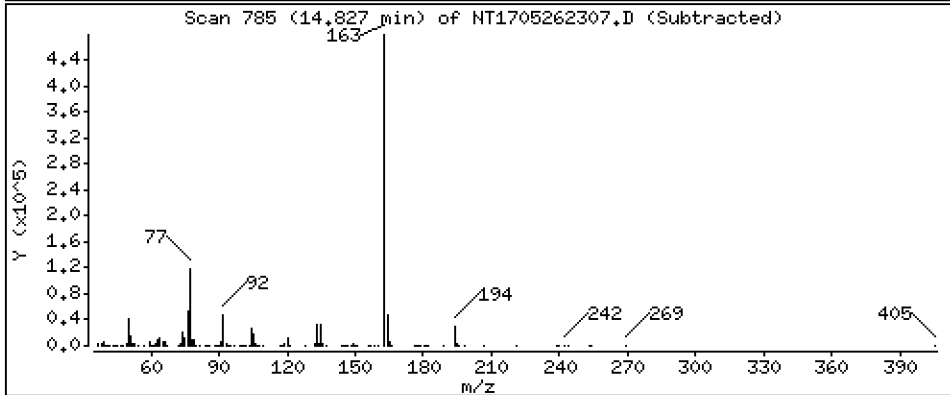
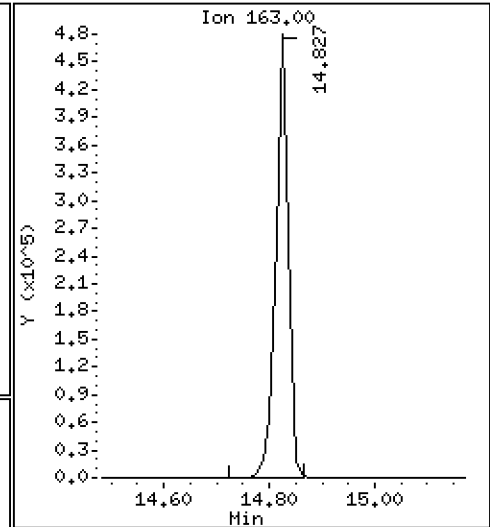
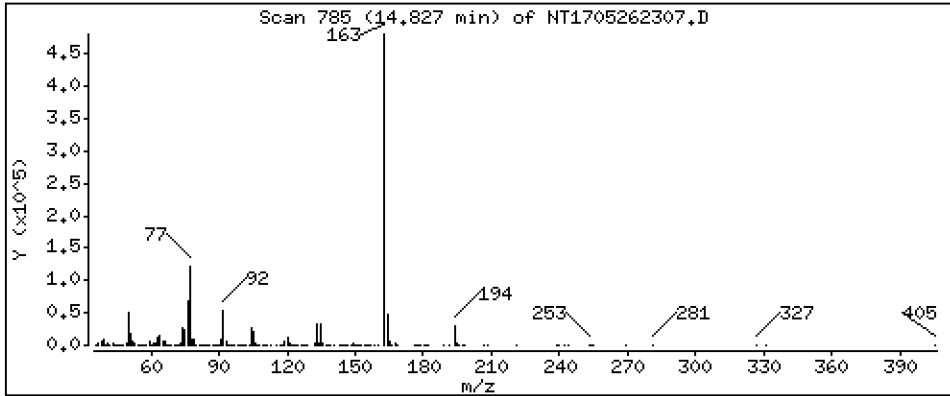
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,548 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

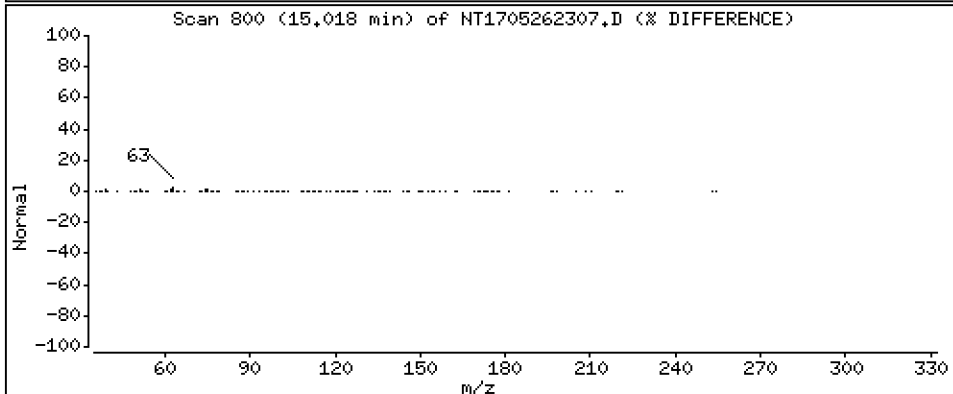
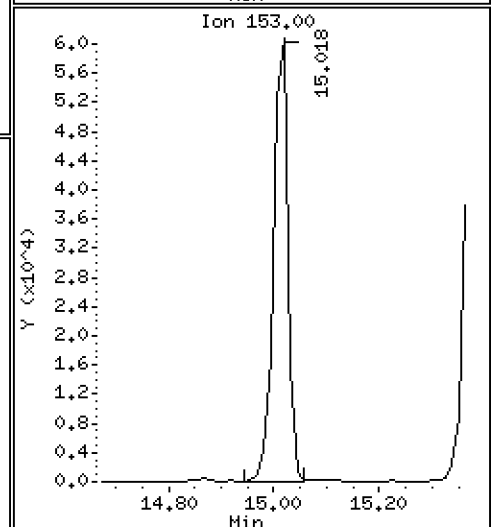
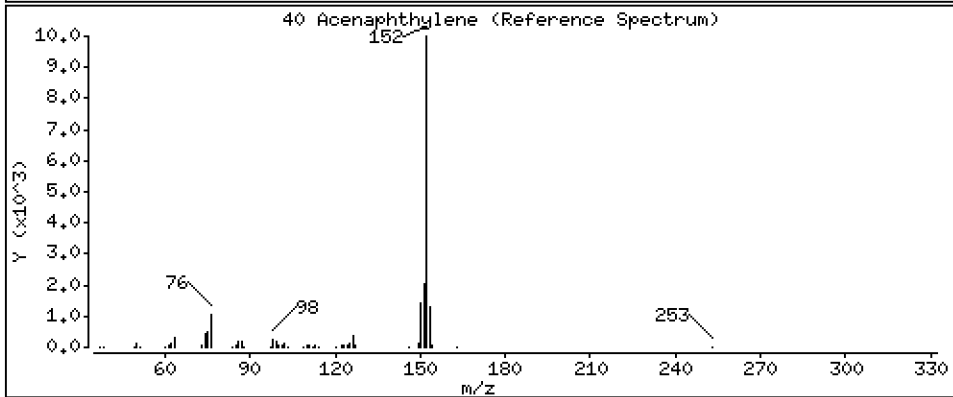
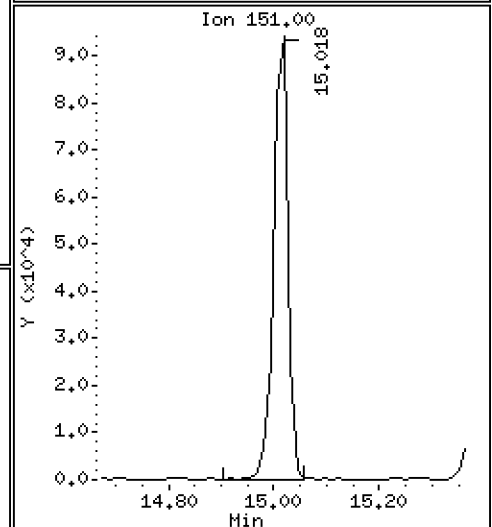
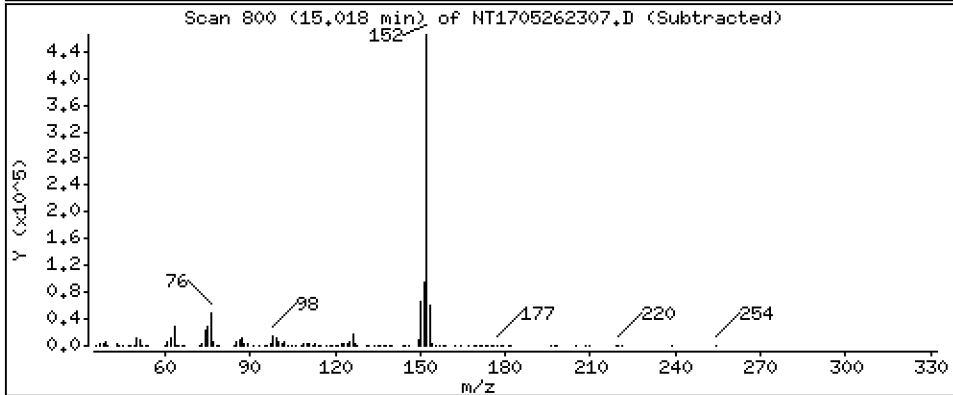
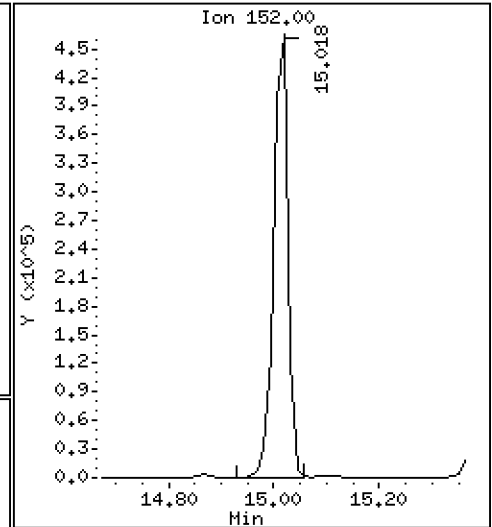
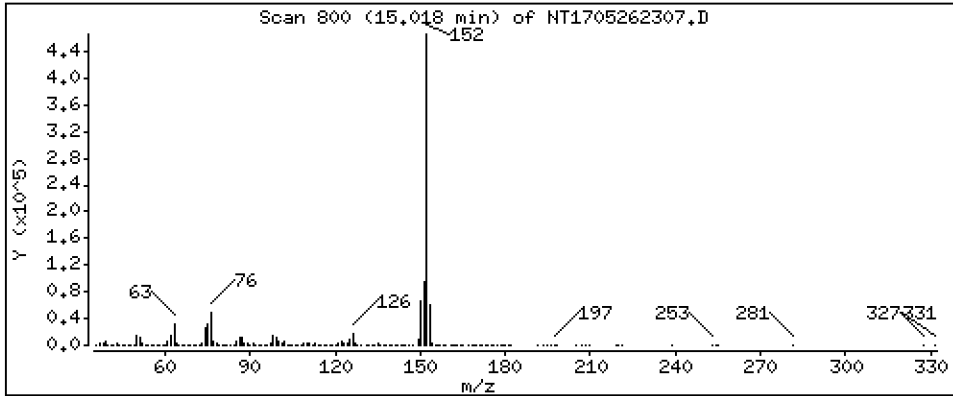
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,459 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

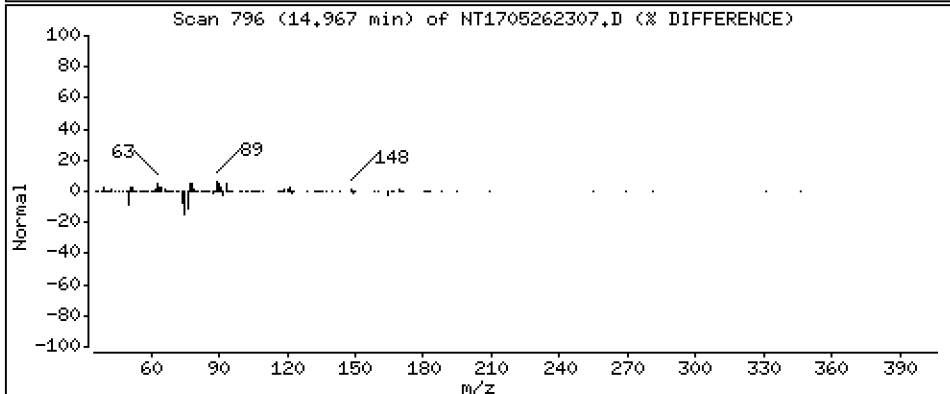
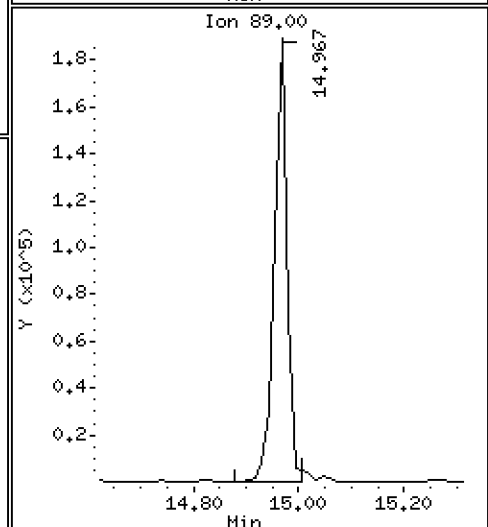
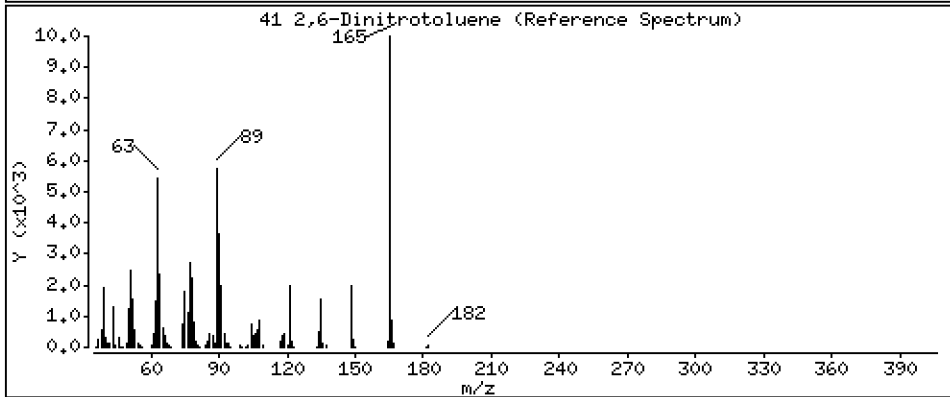
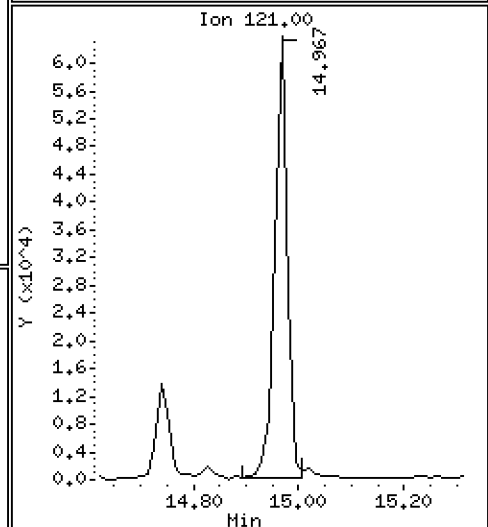
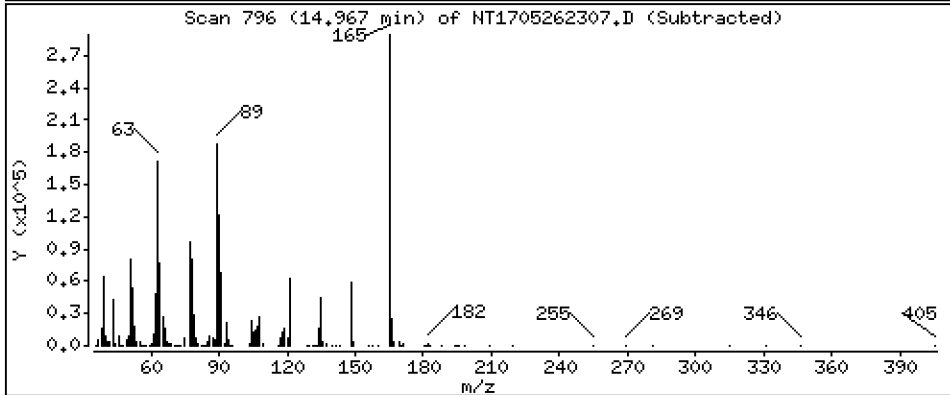
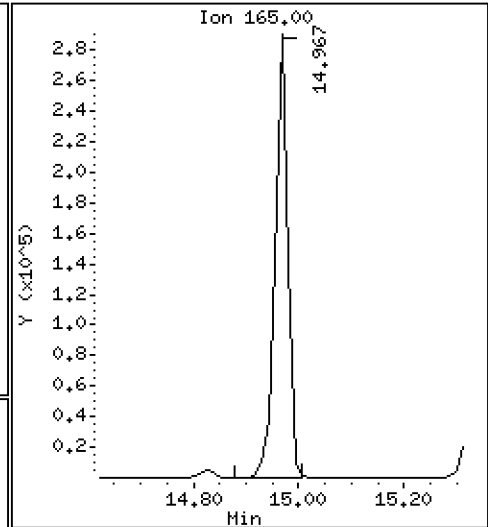
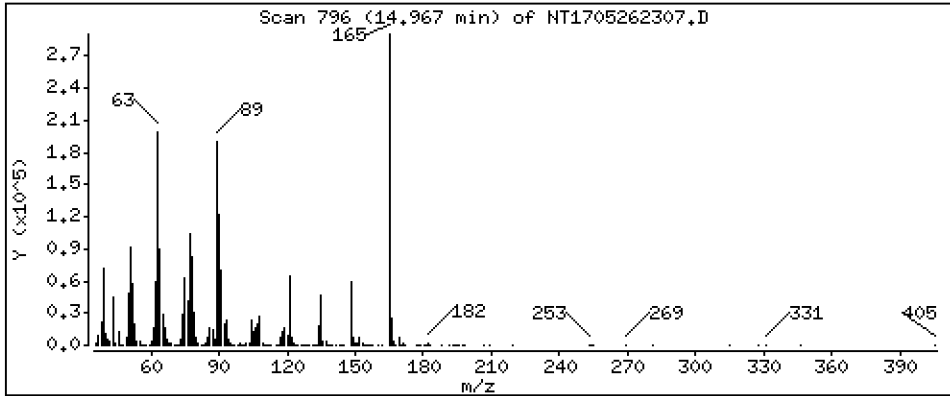
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 11,92 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

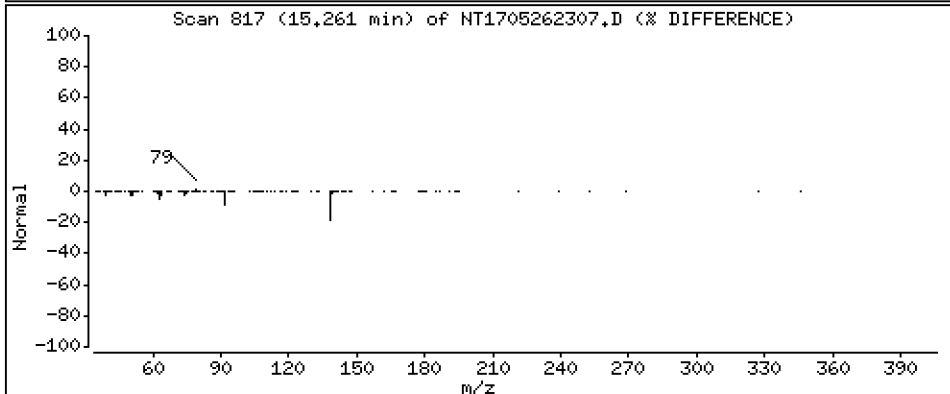
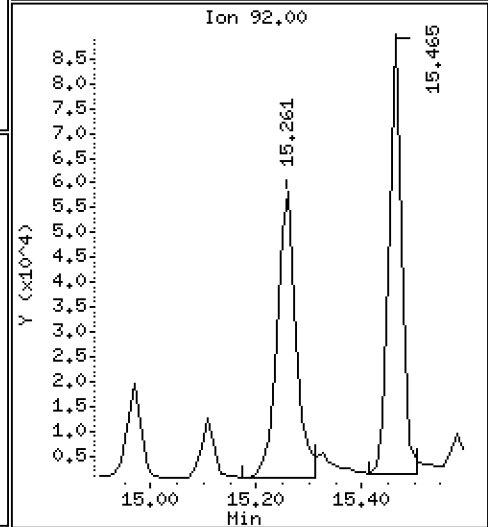
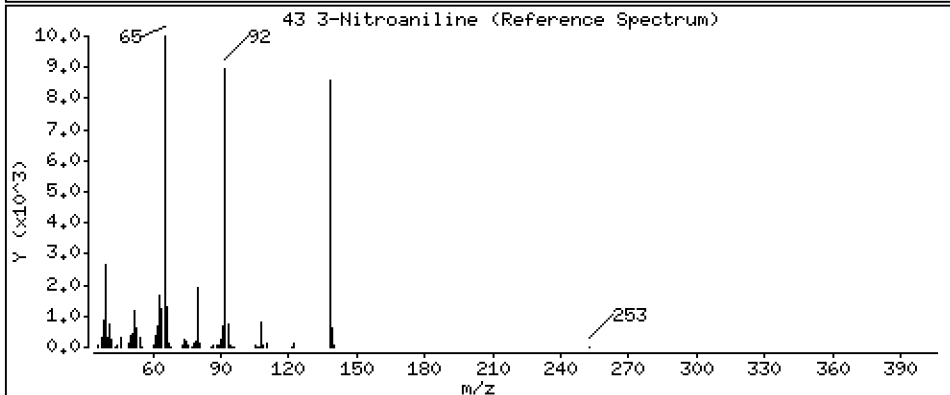
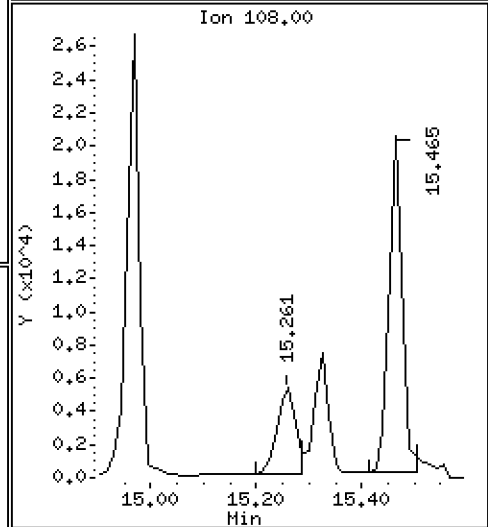
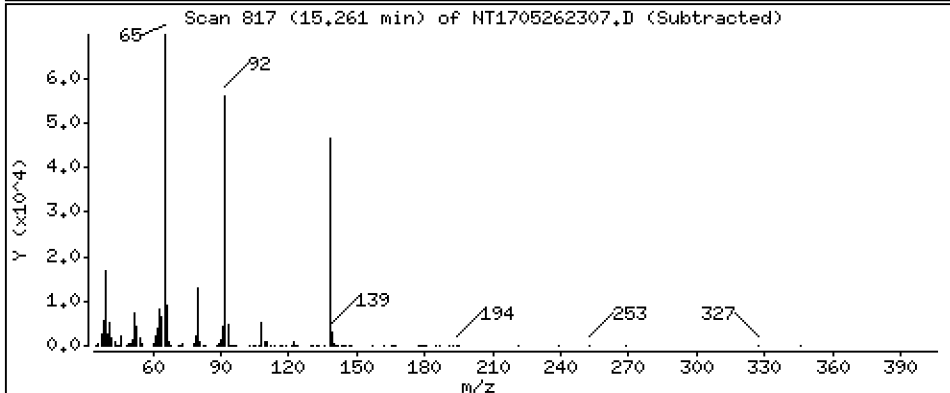
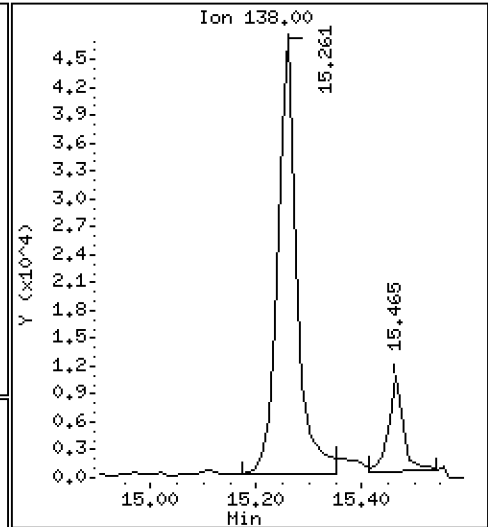
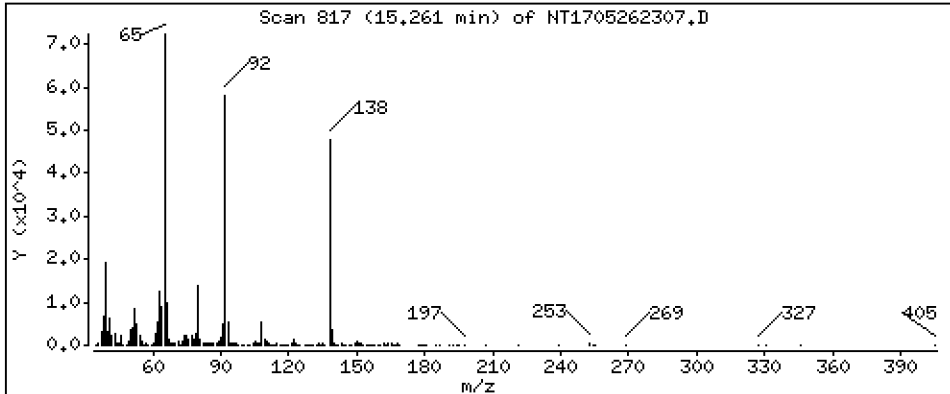
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 3,161 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

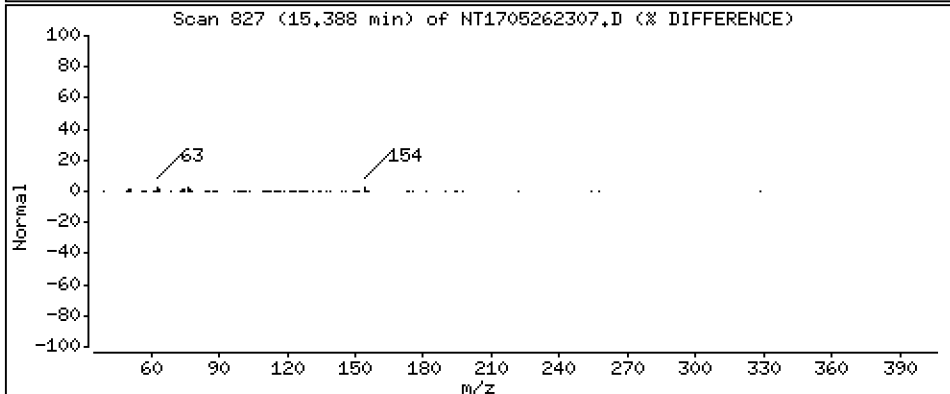
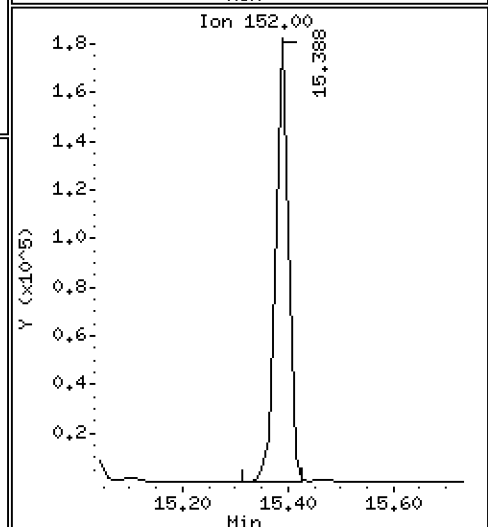
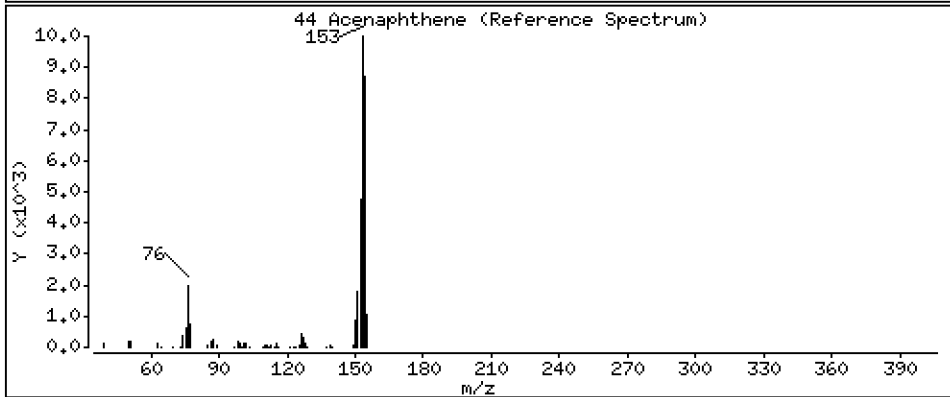
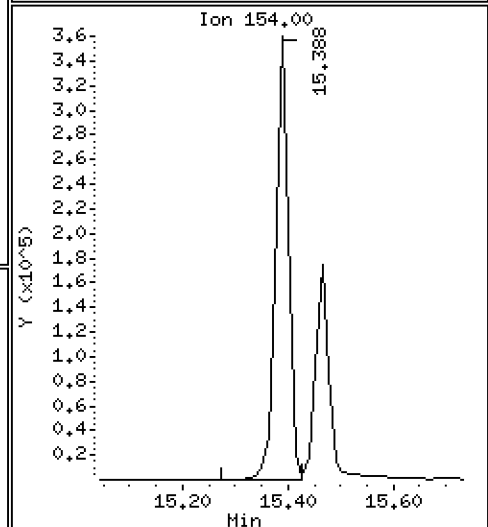
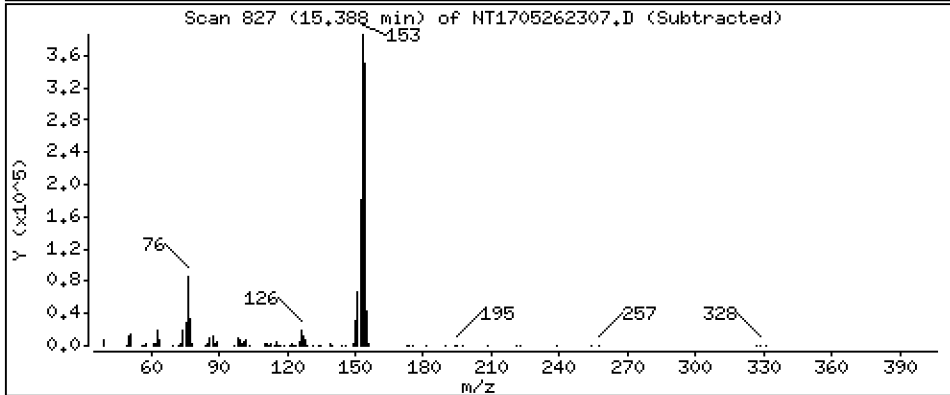
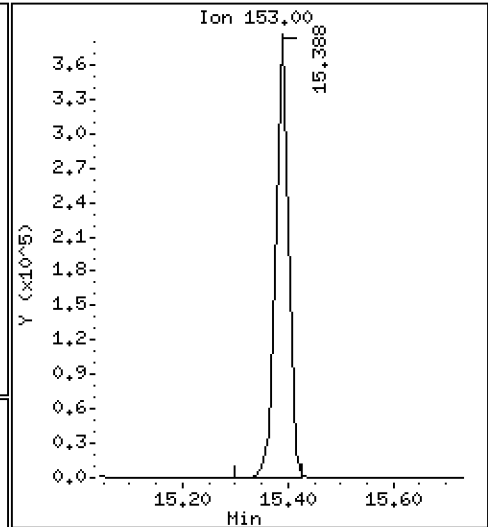
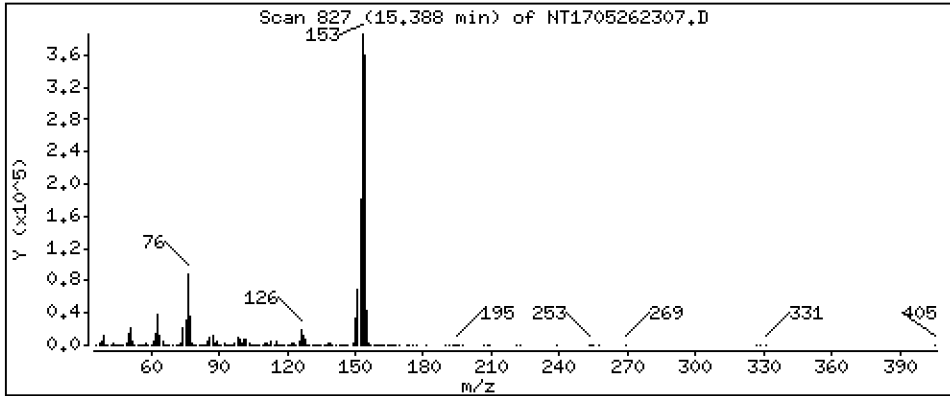
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,077 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

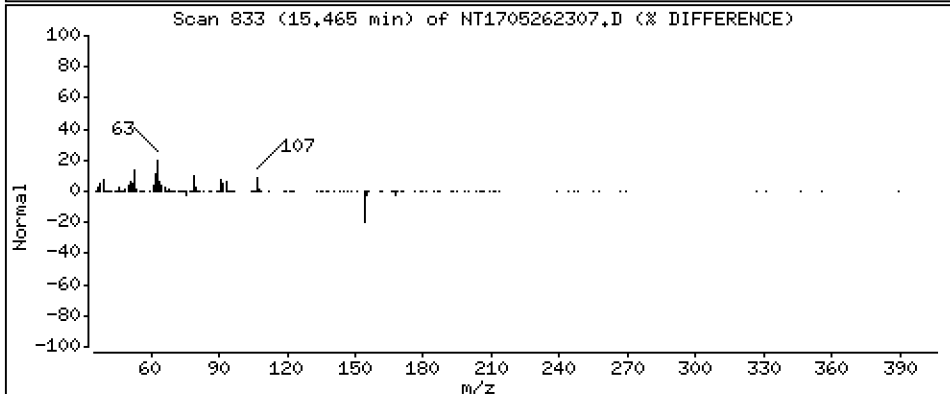
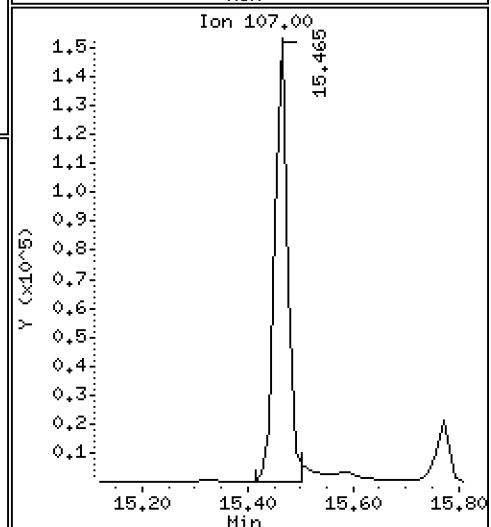
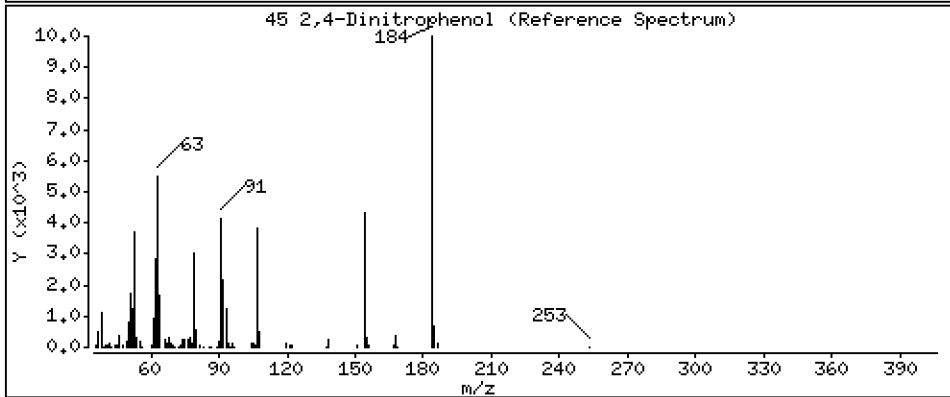
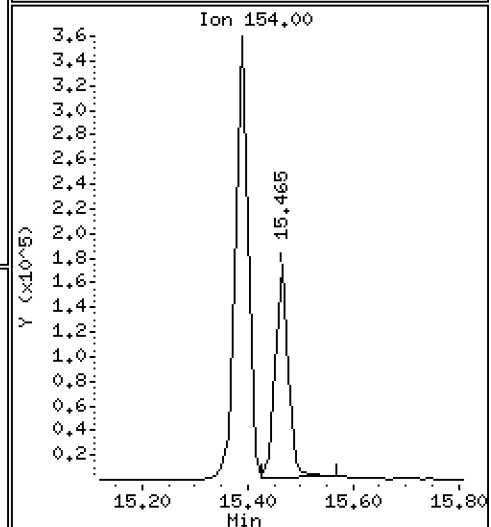
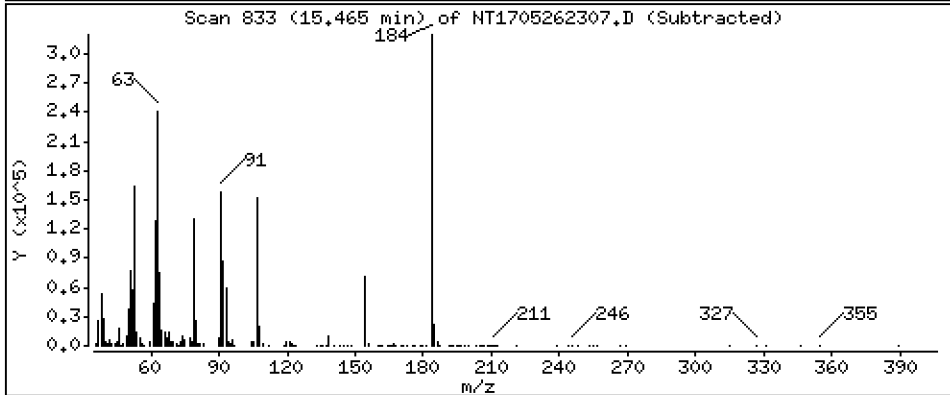
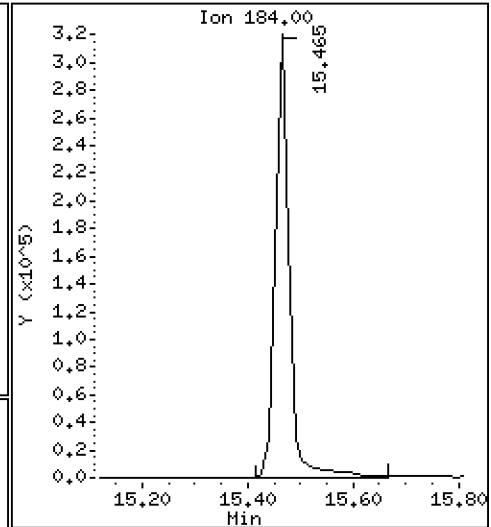
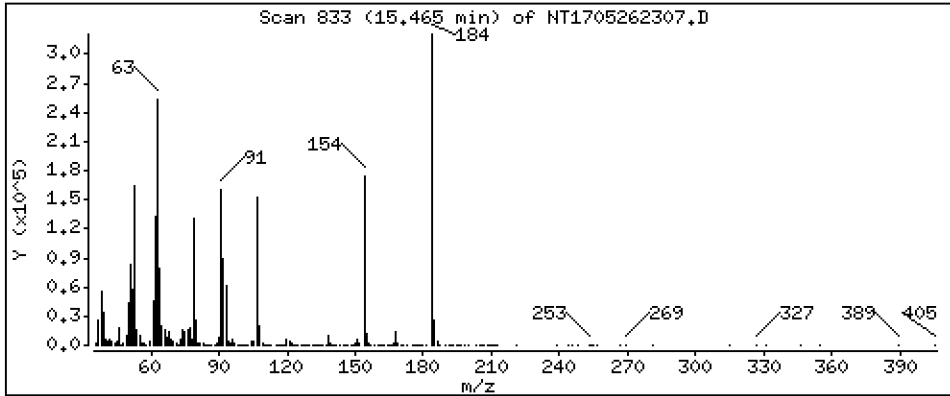
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 22,86 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

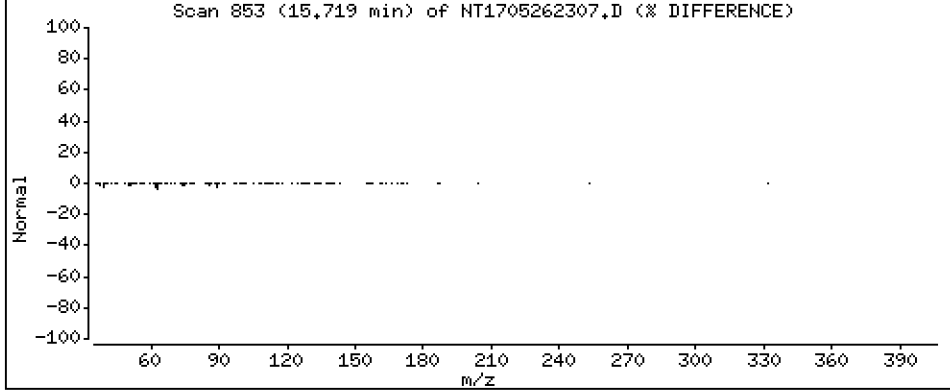
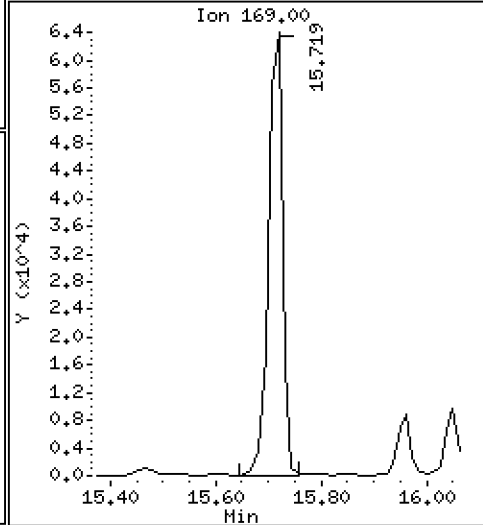
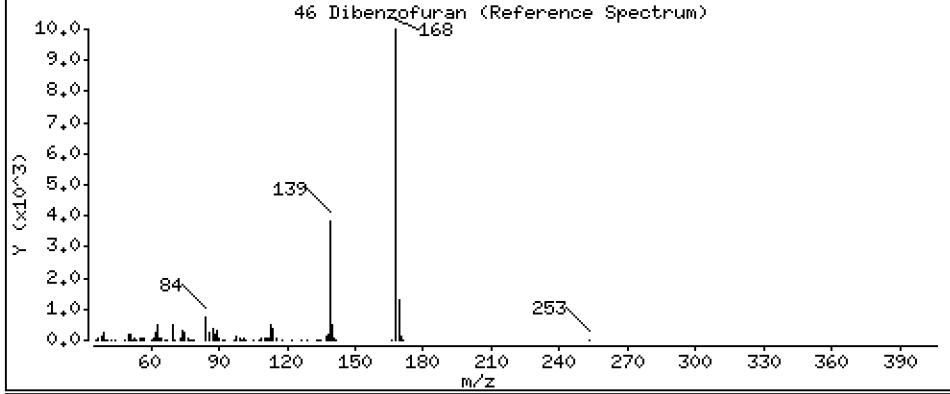
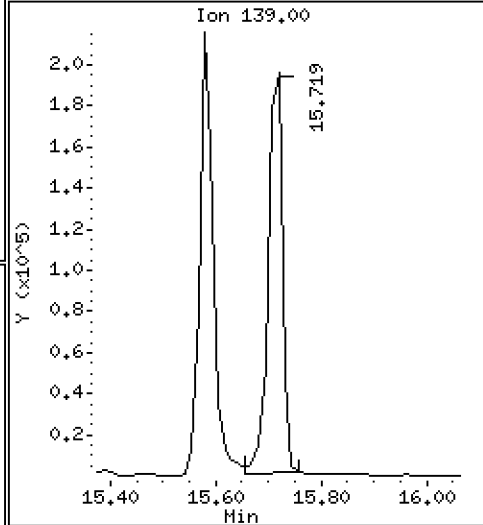
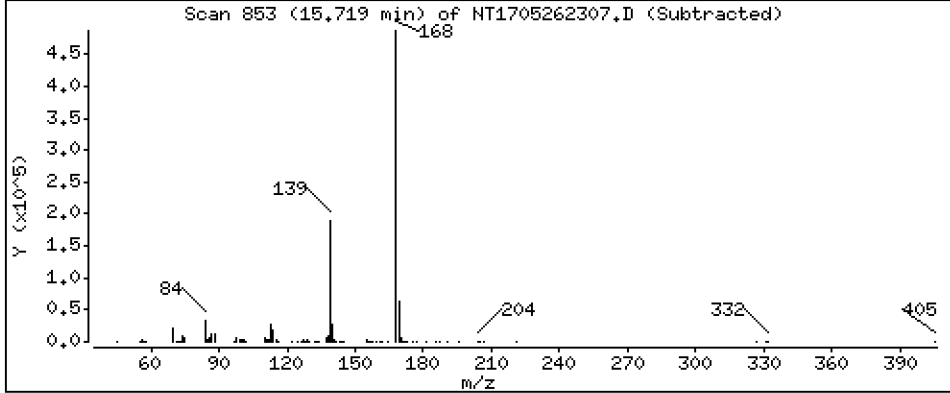
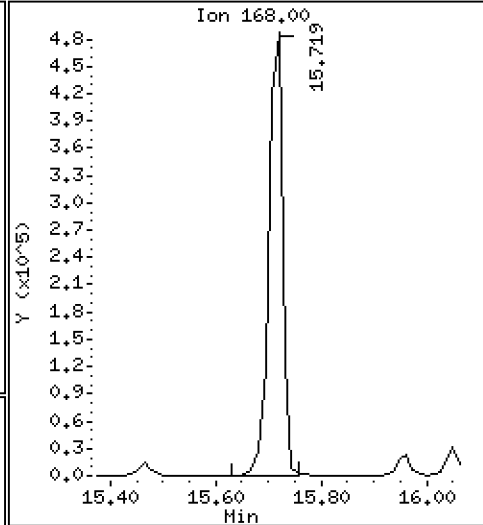
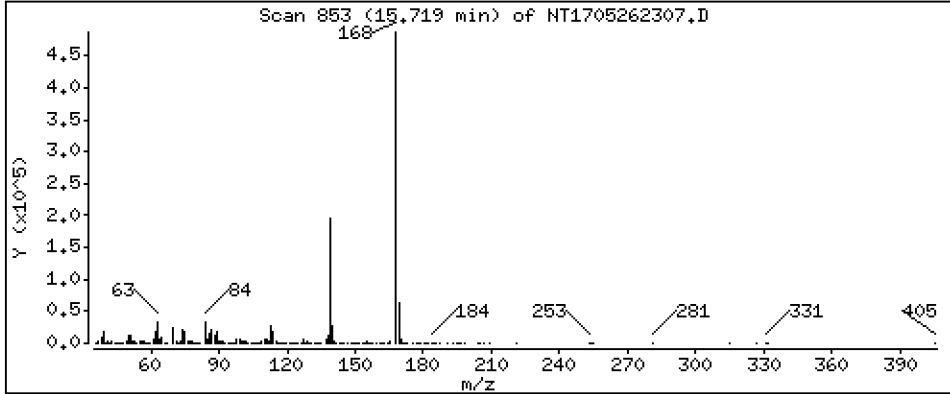
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,087 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

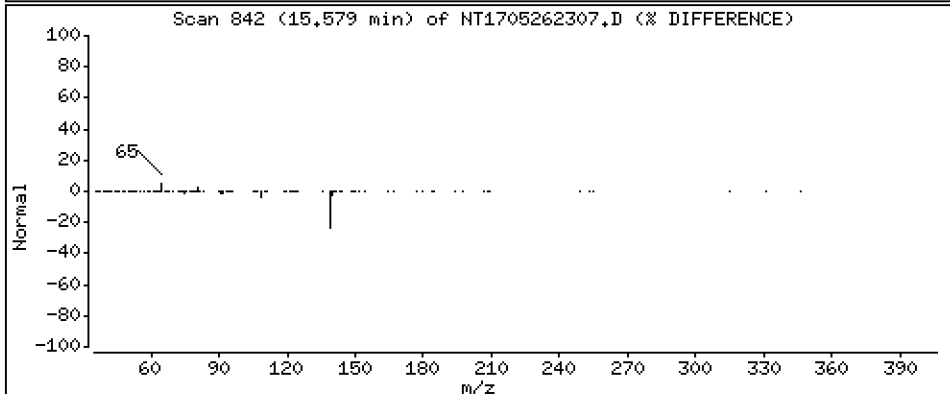
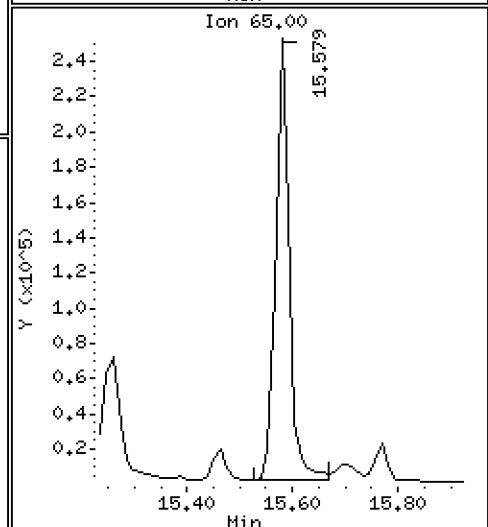
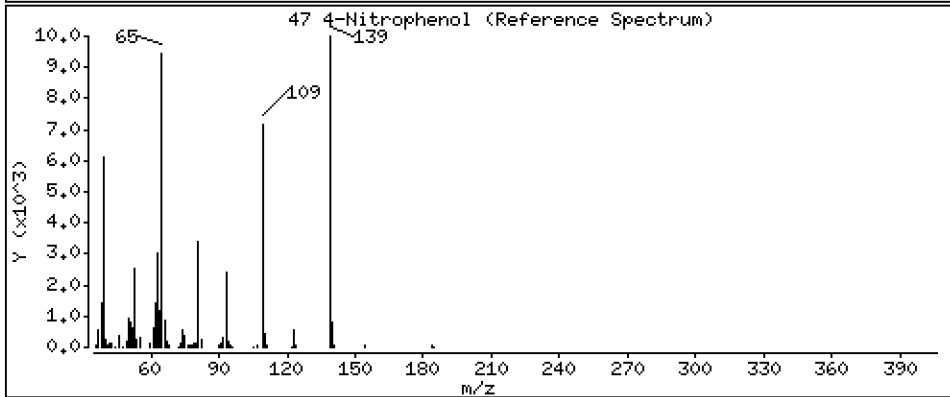
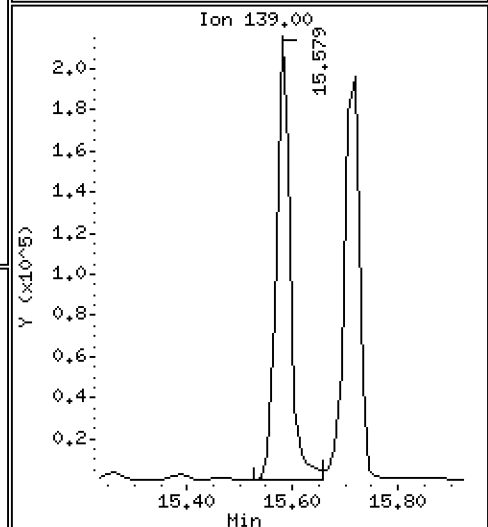
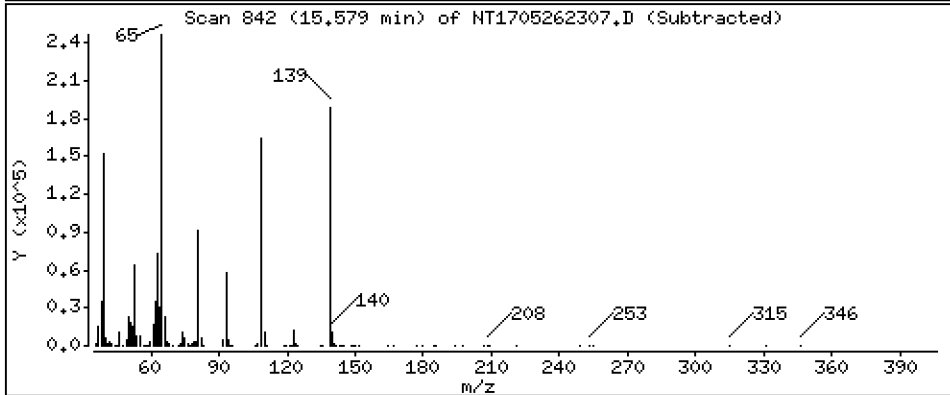
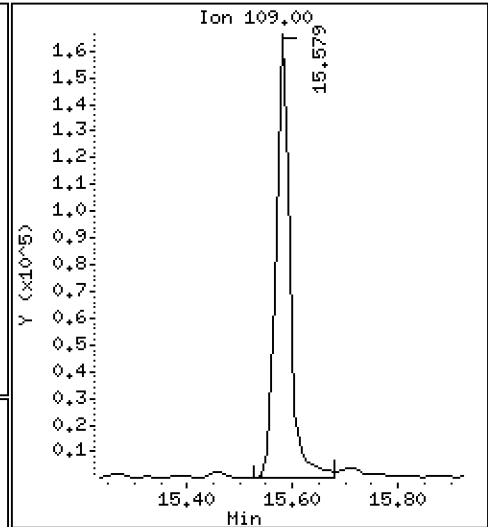
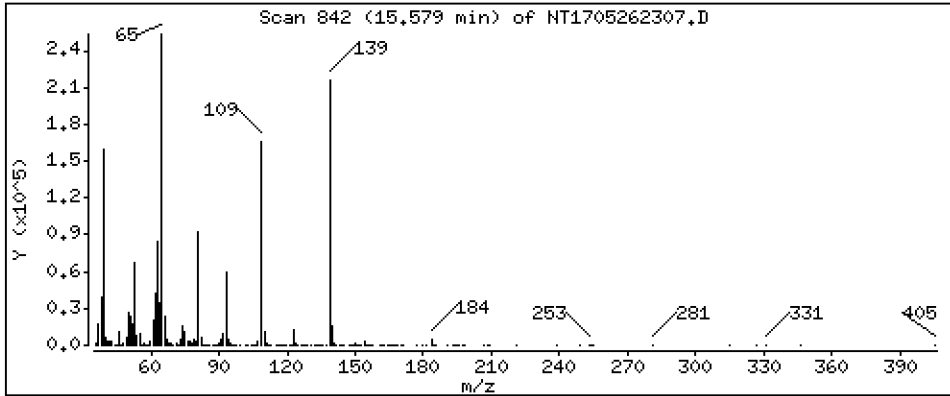
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 12,49 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

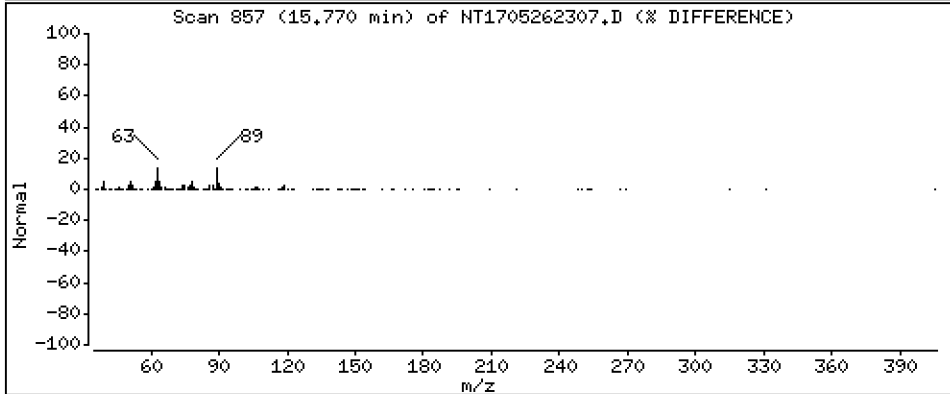
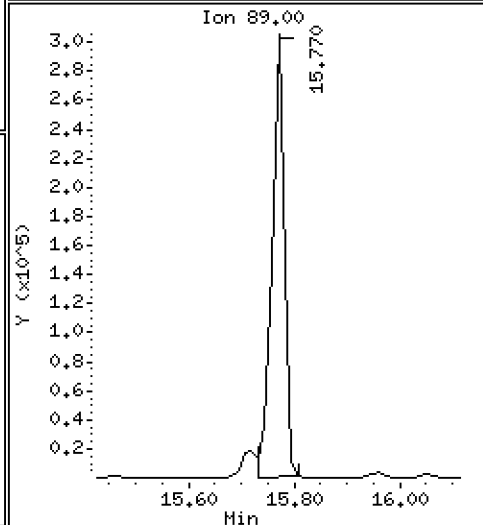
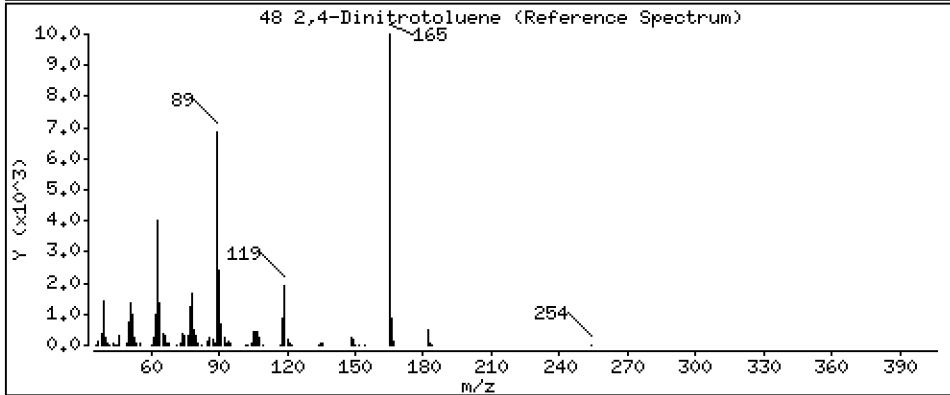
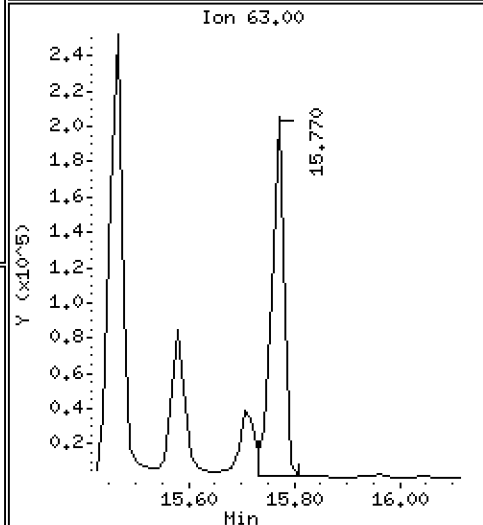
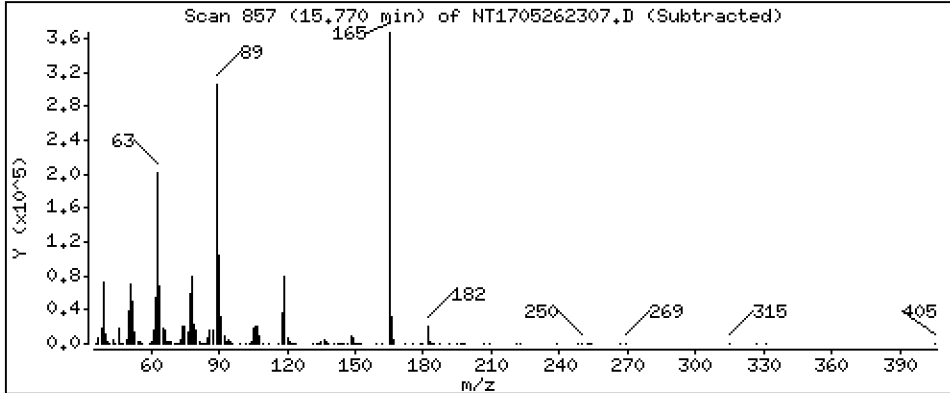
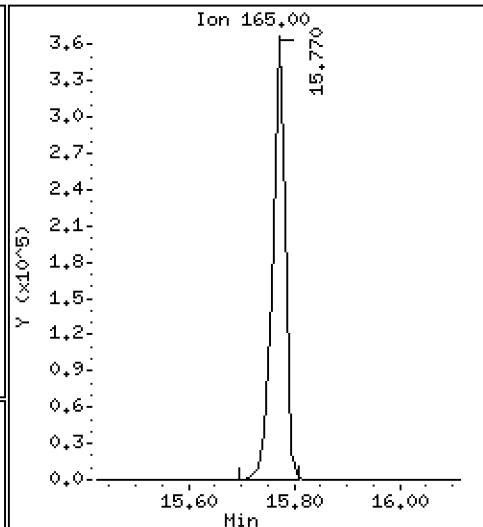
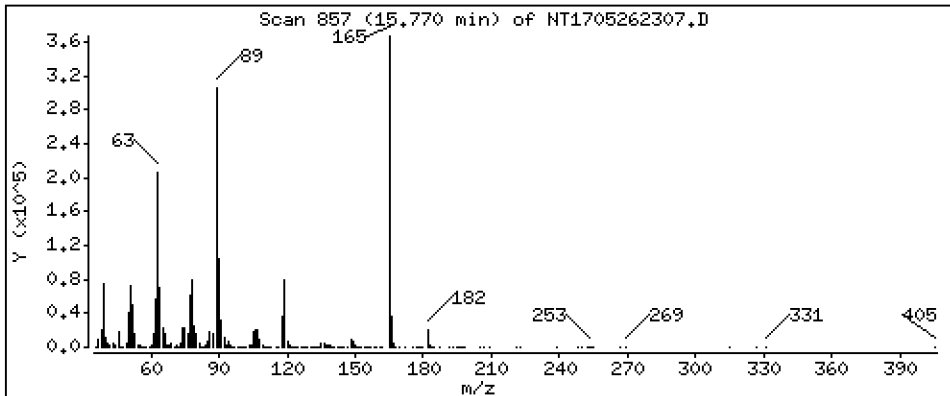
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 11,68 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

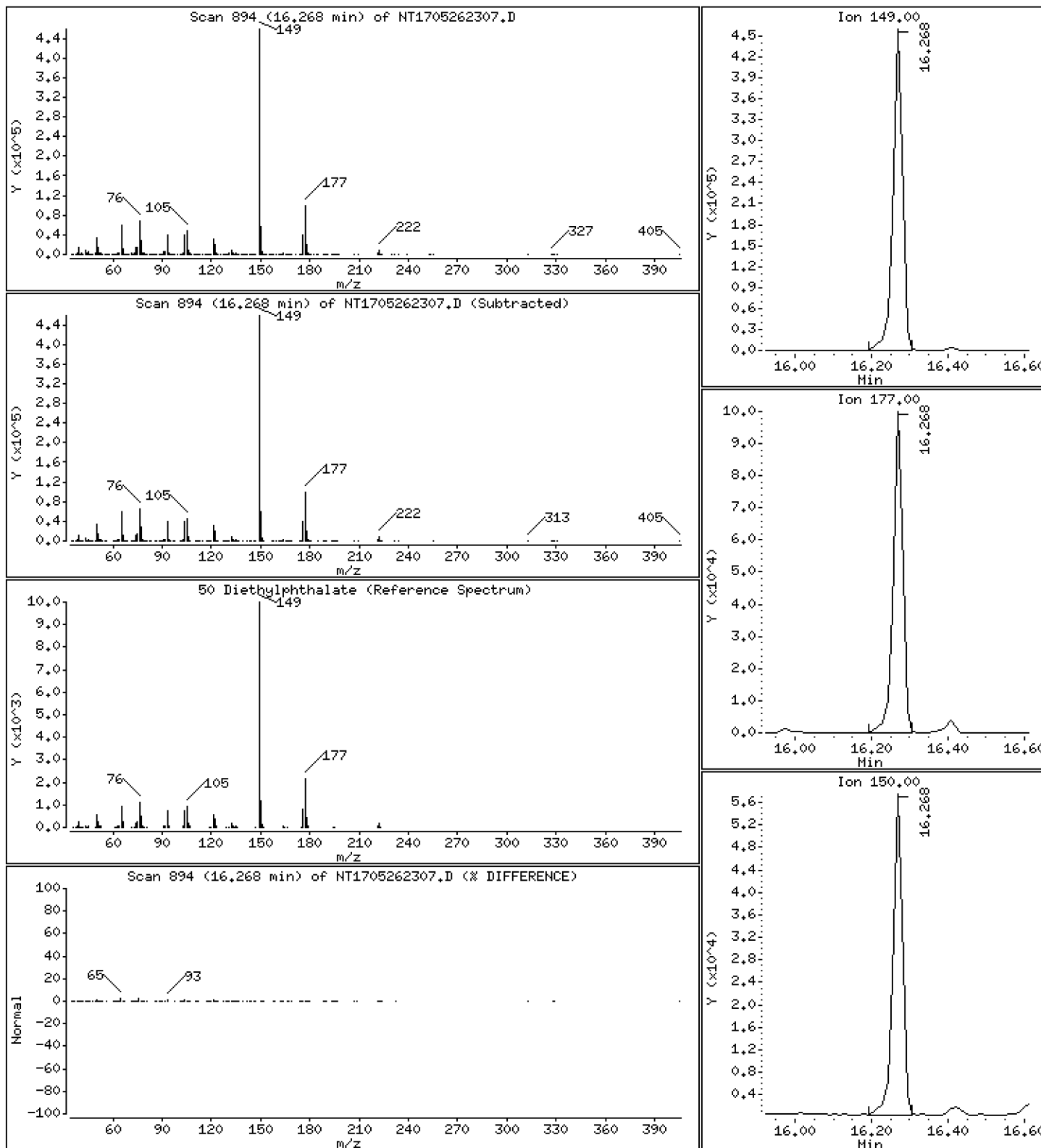
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,960 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

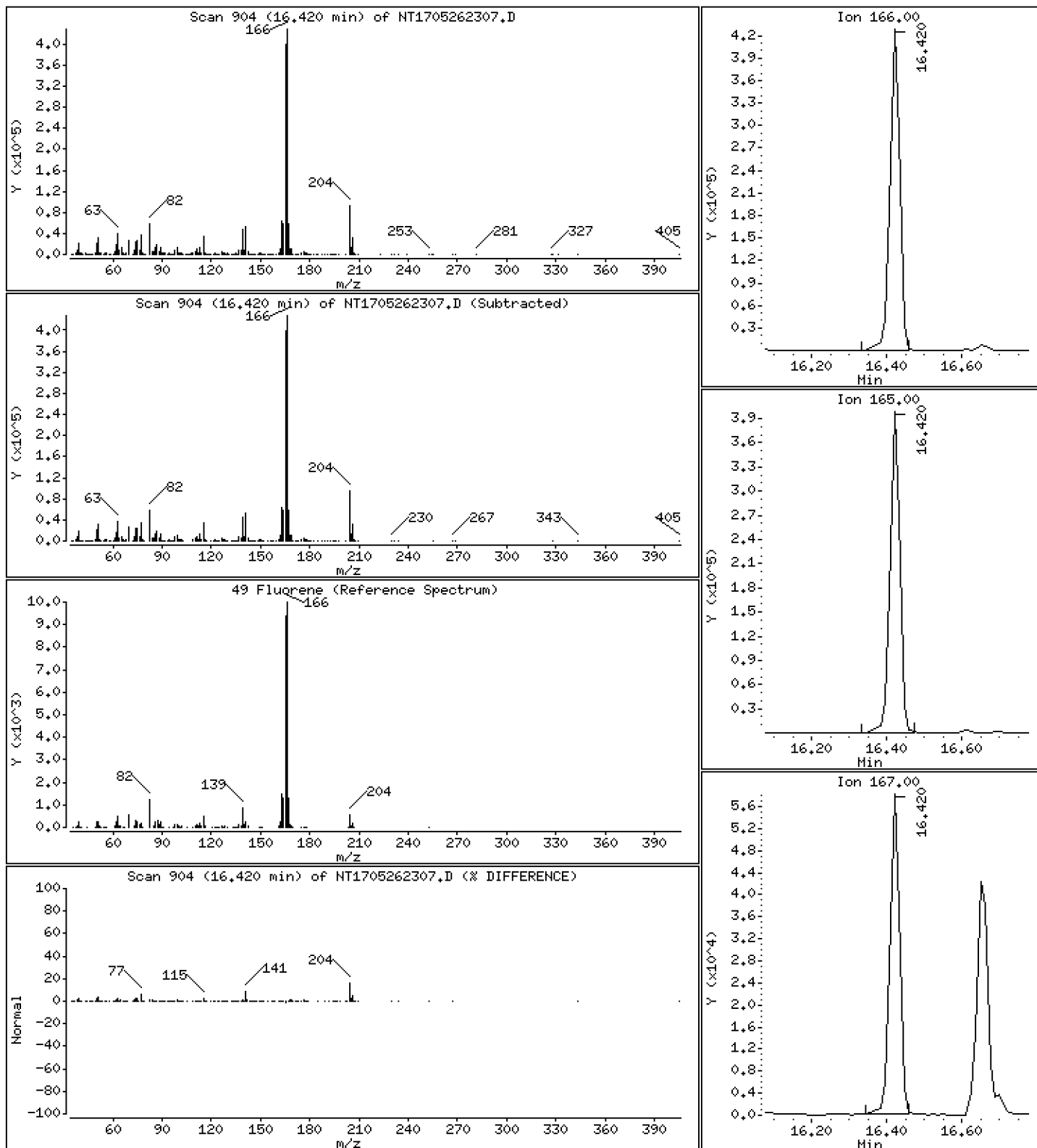
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,475 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

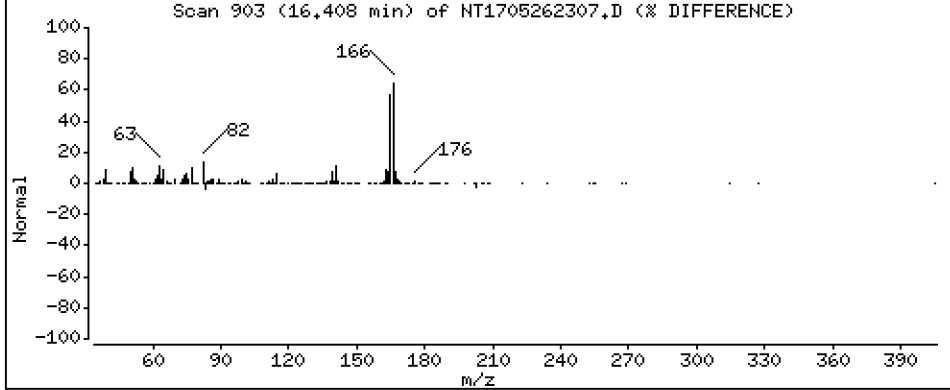
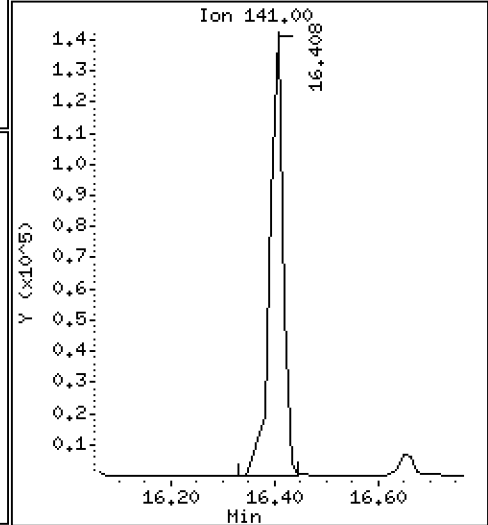
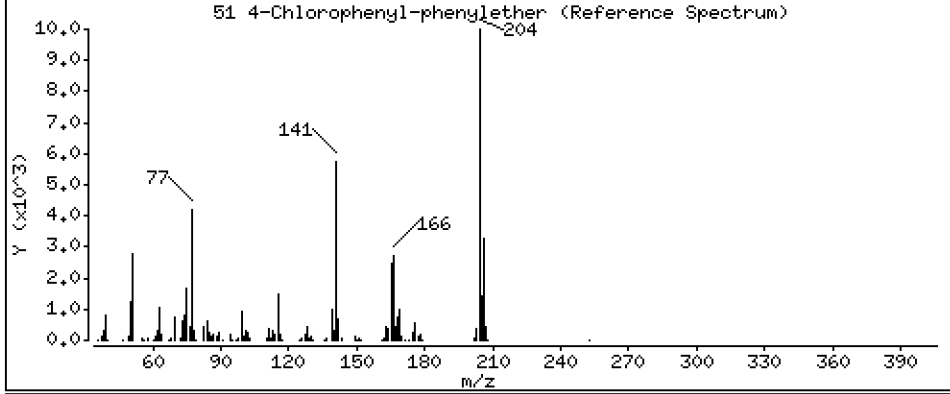
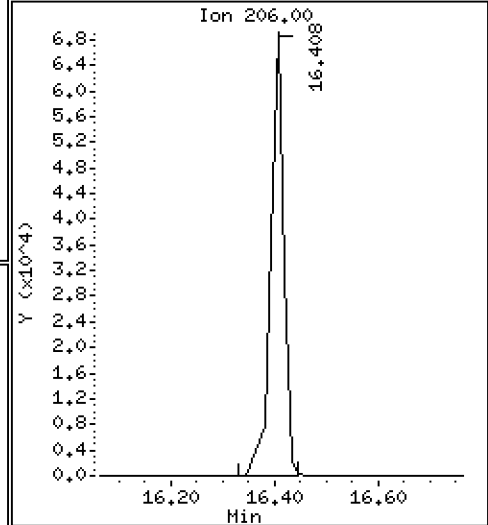
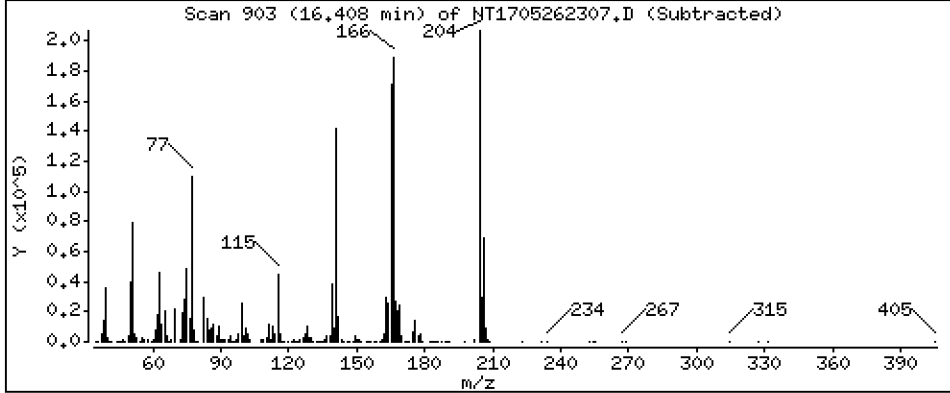
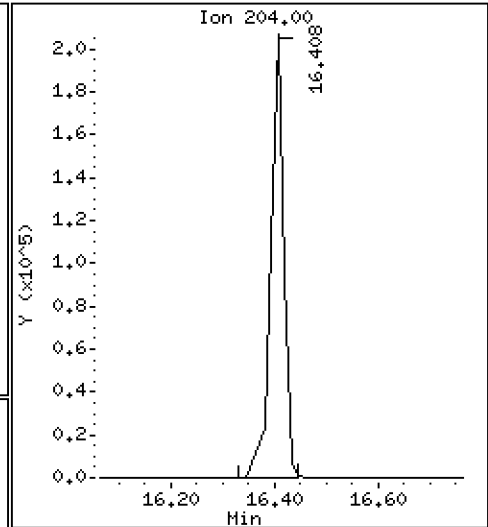
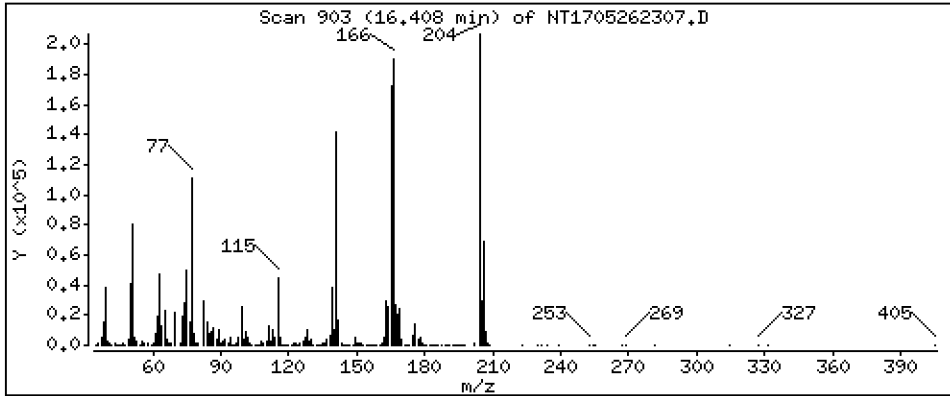
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,441 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

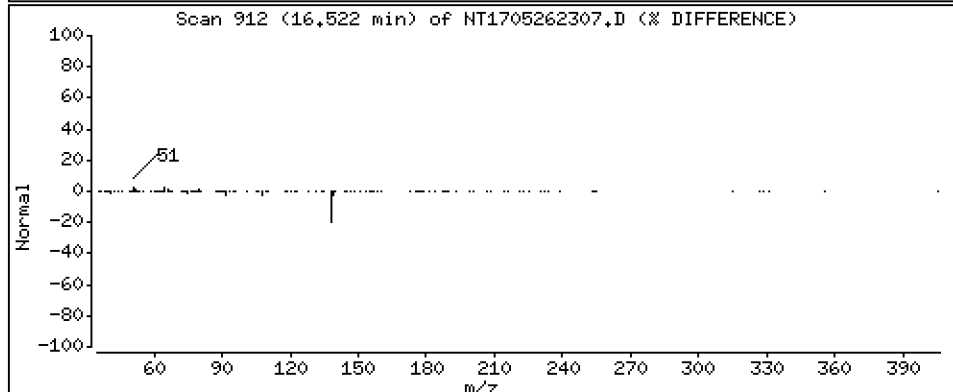
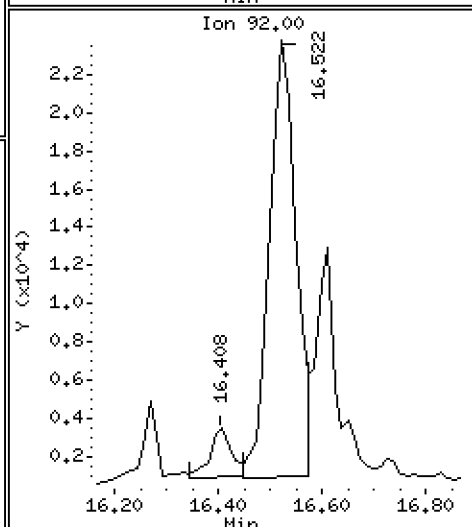
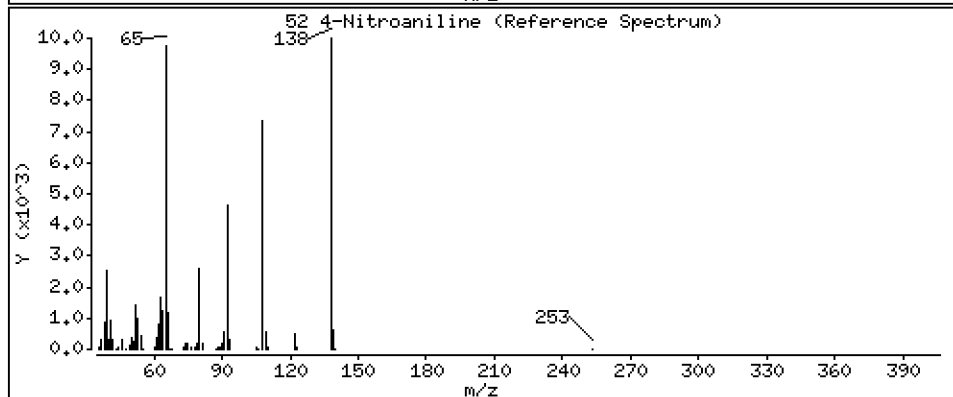
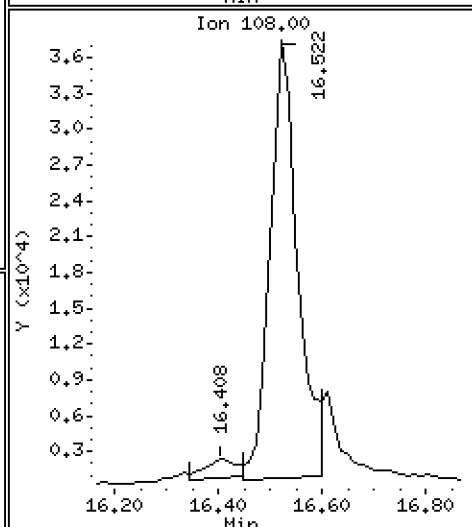
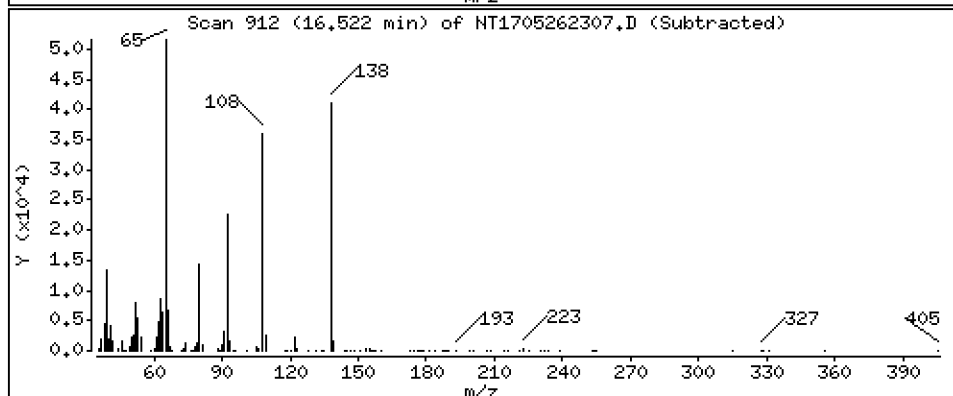
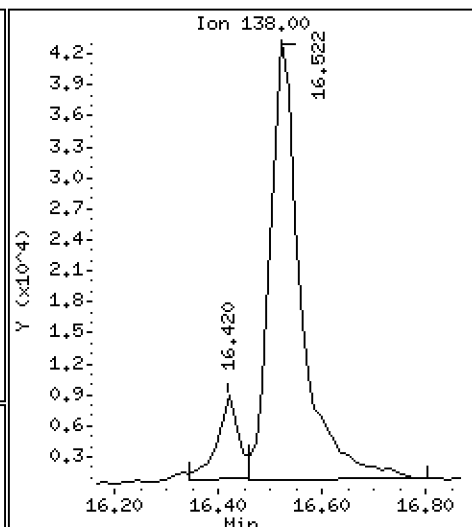
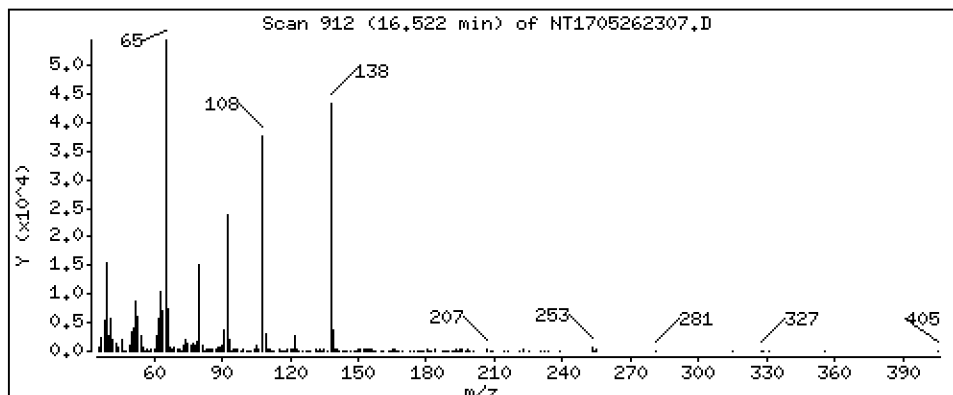
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,008 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

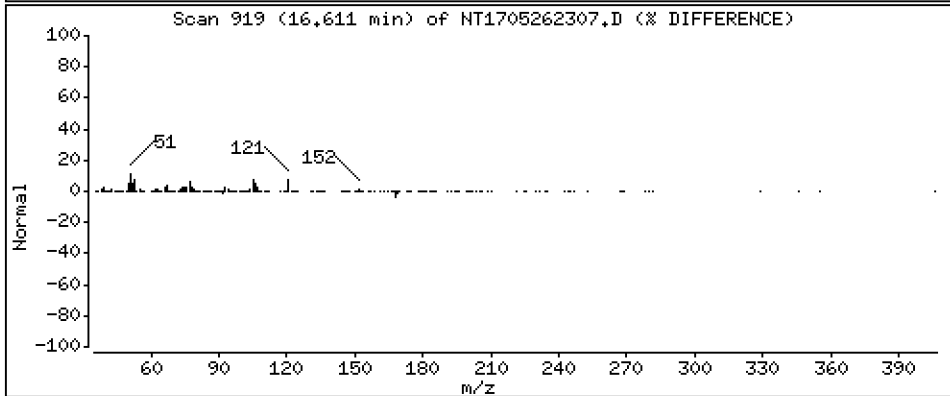
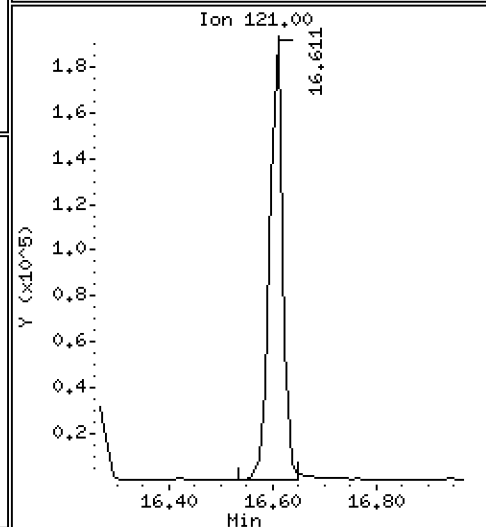
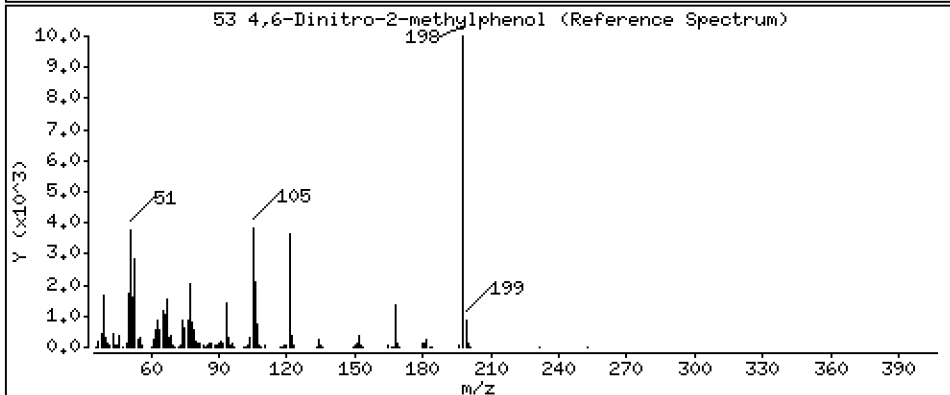
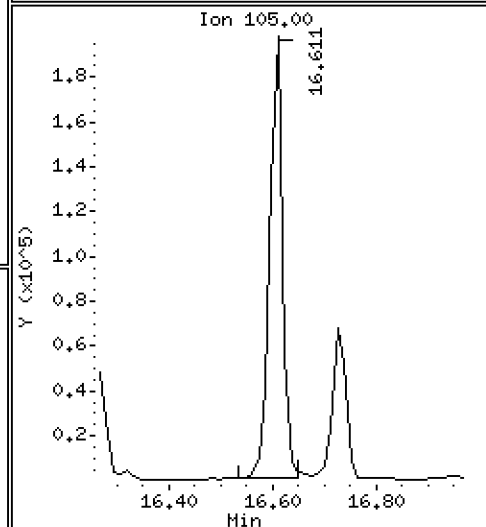
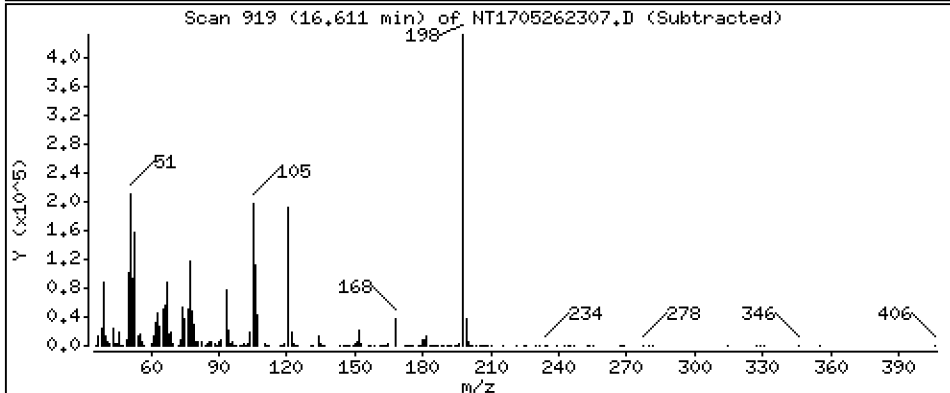
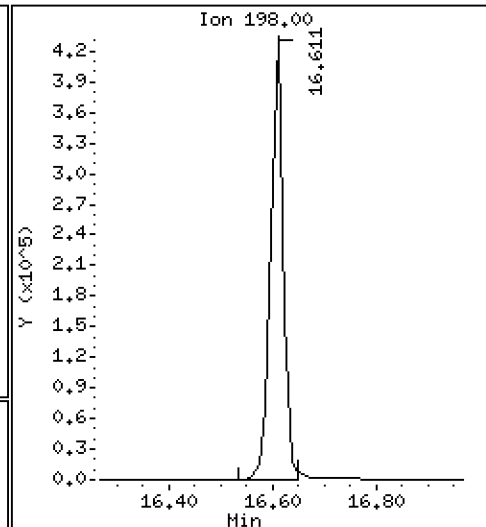
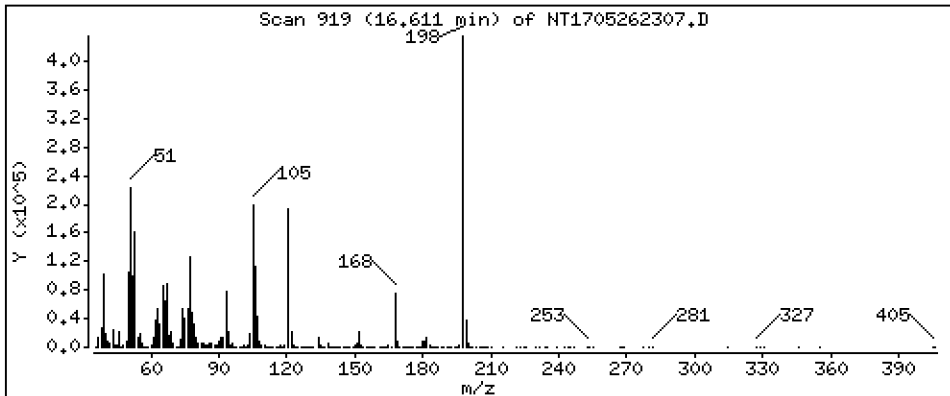
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 22.27 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

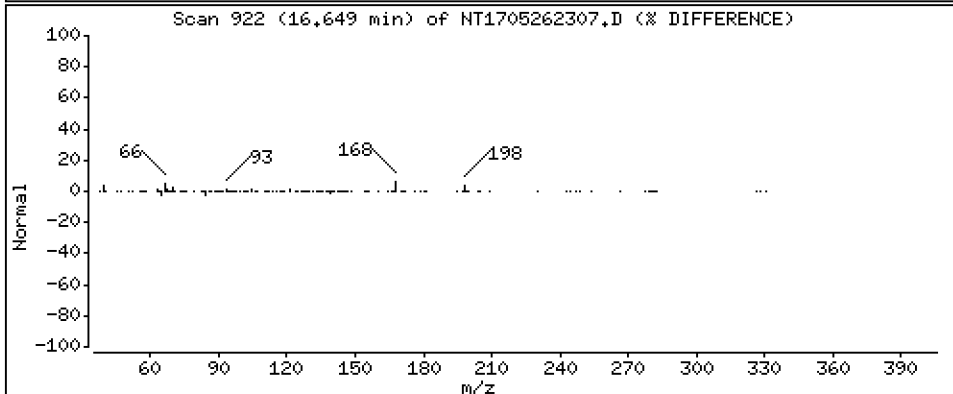
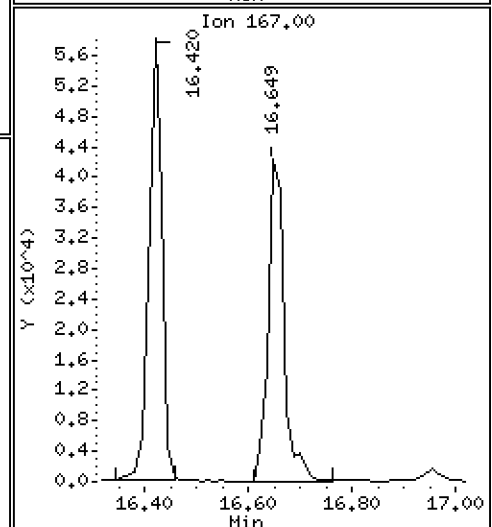
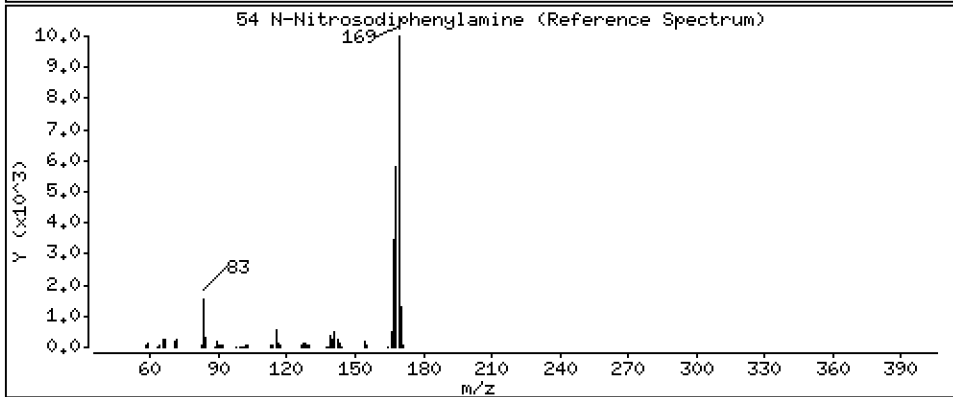
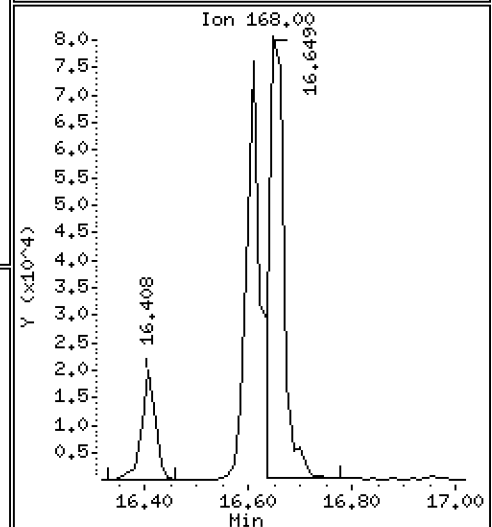
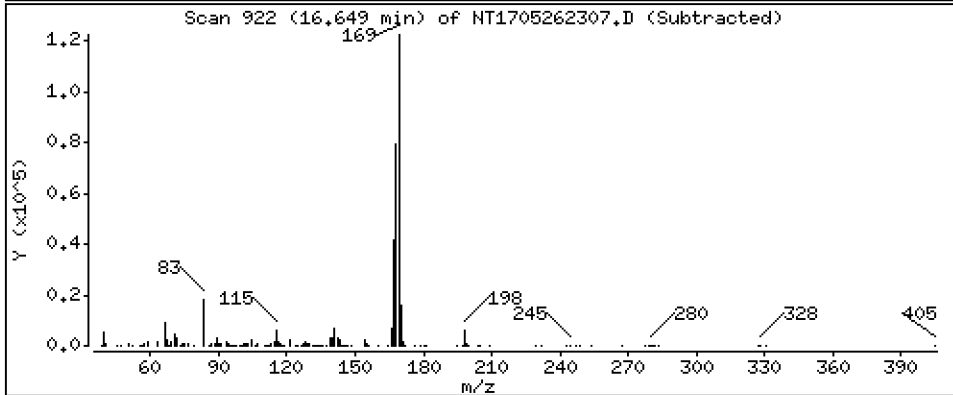
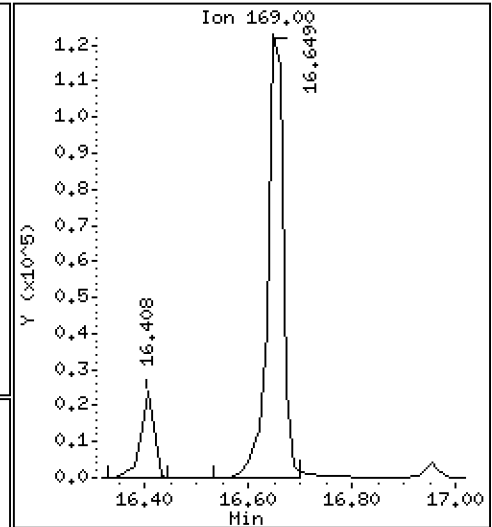
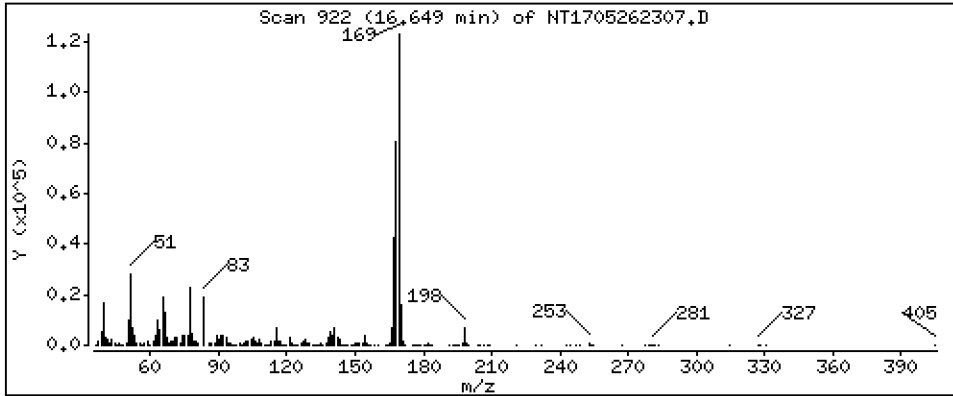
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,248 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

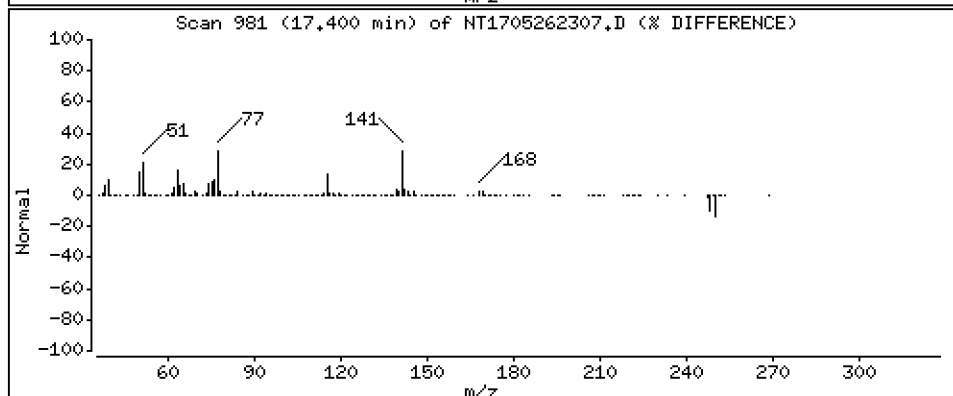
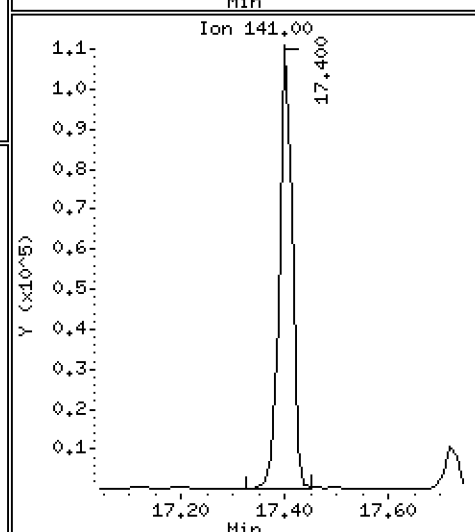
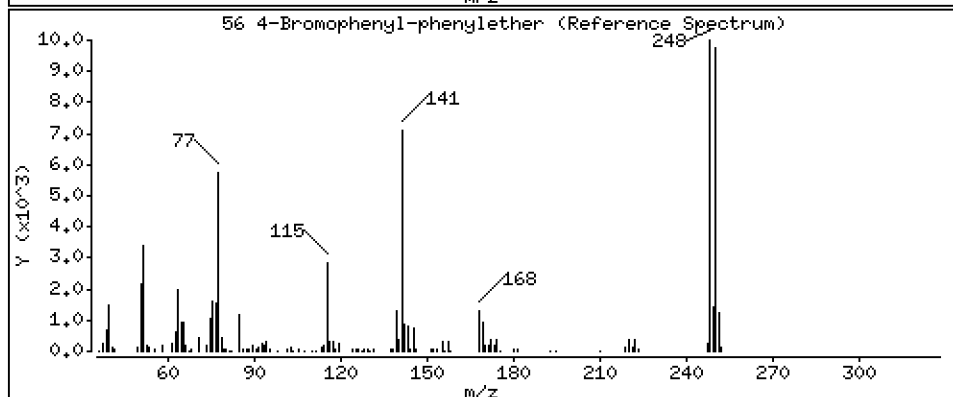
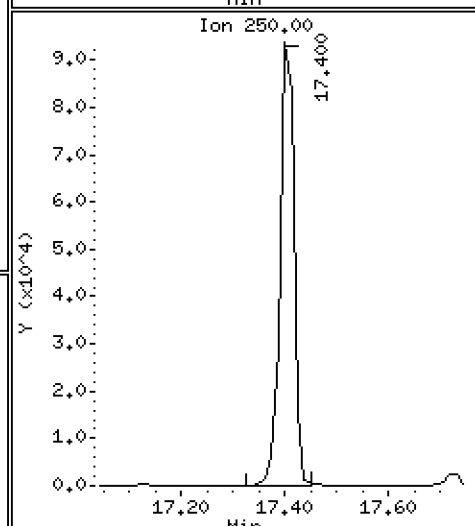
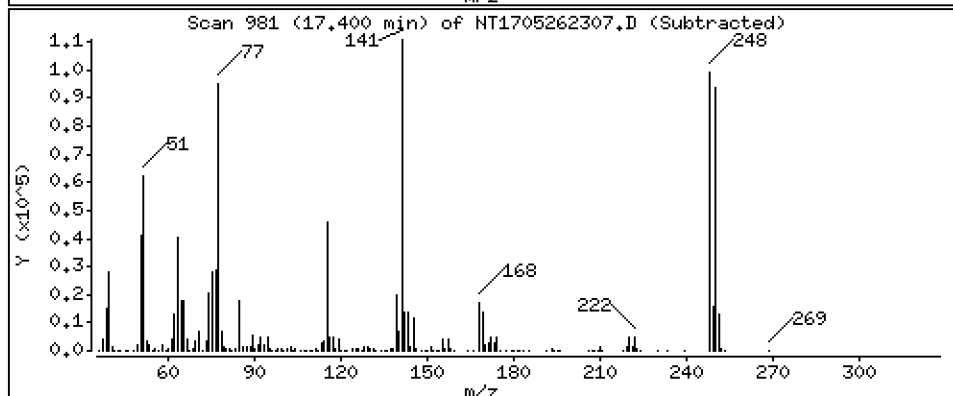
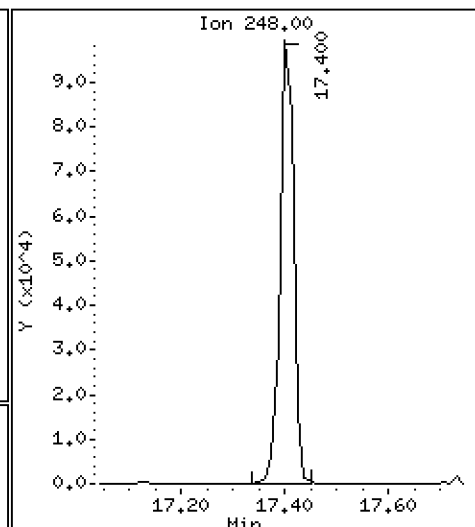
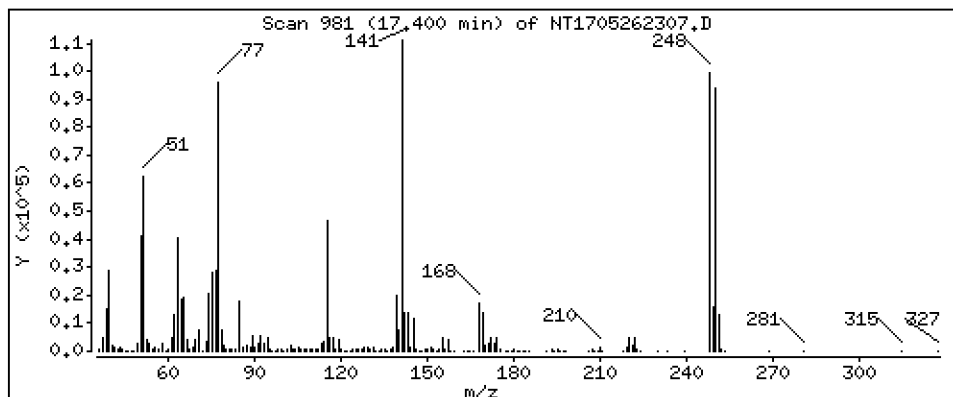
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,555 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

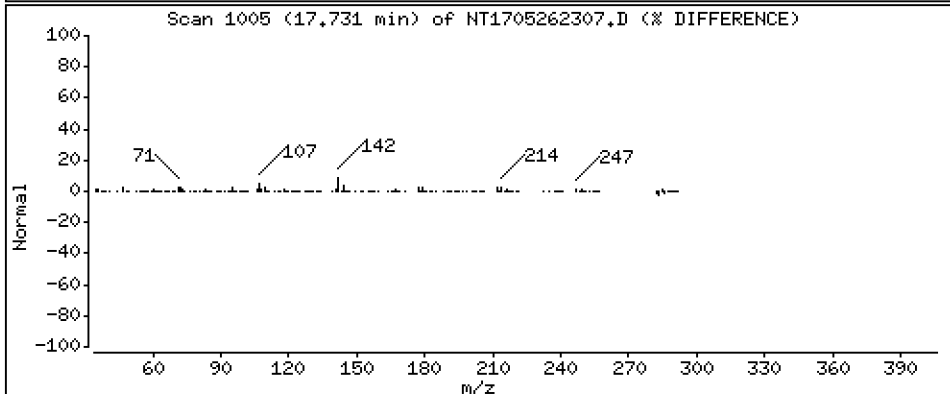
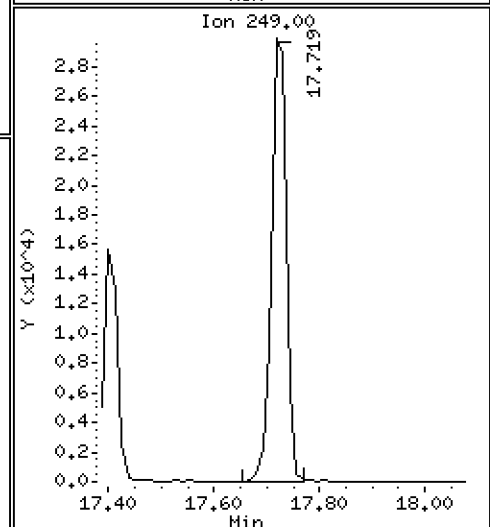
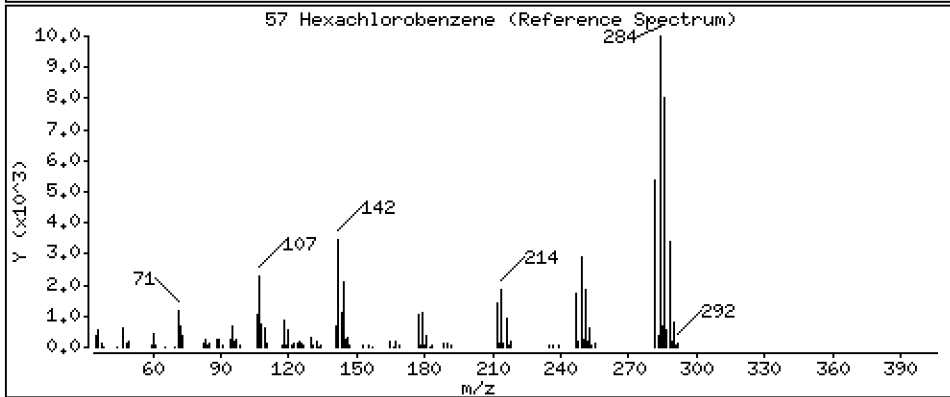
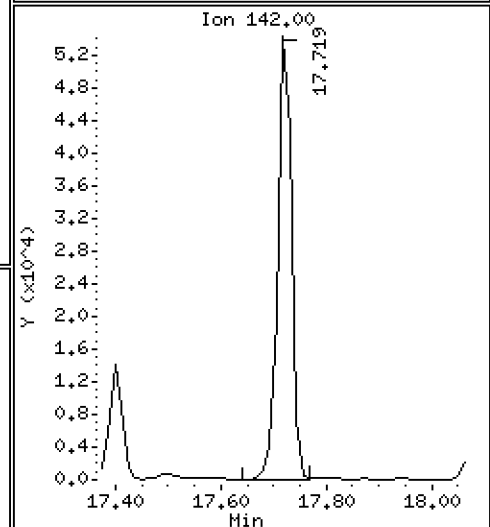
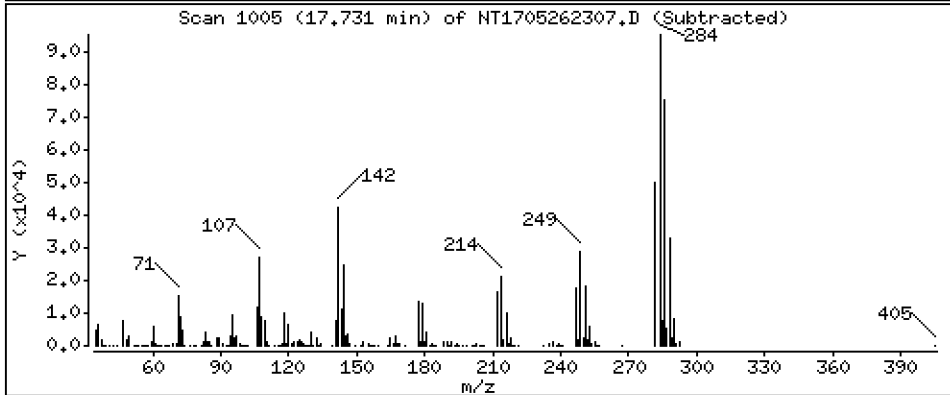
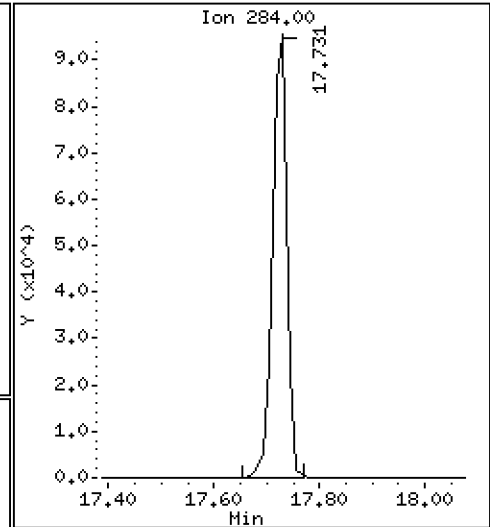
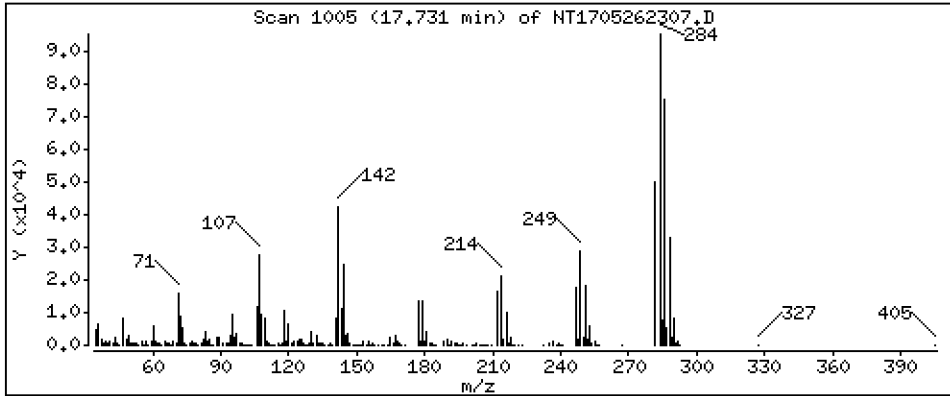
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,459 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

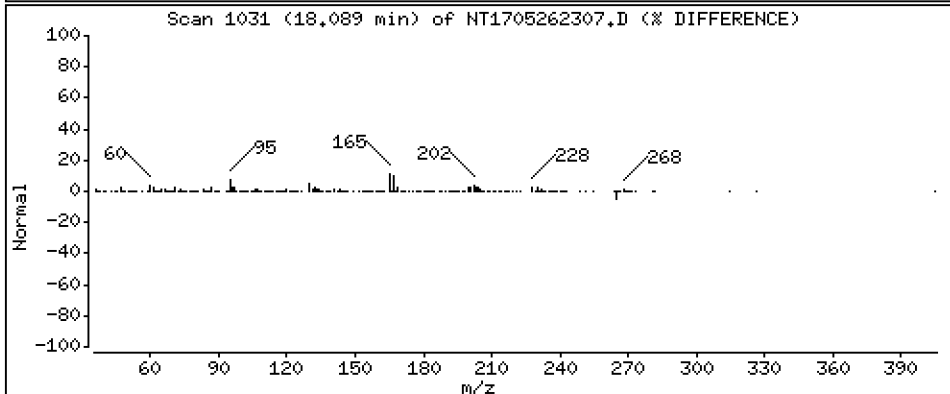
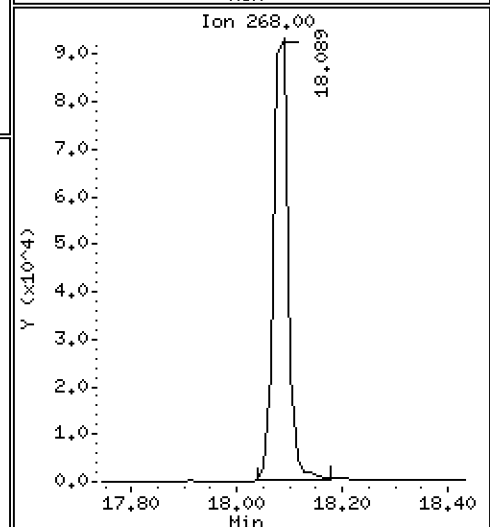
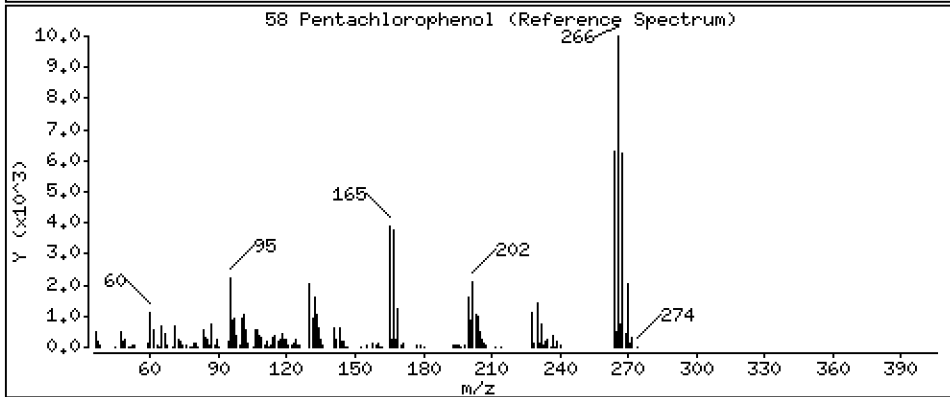
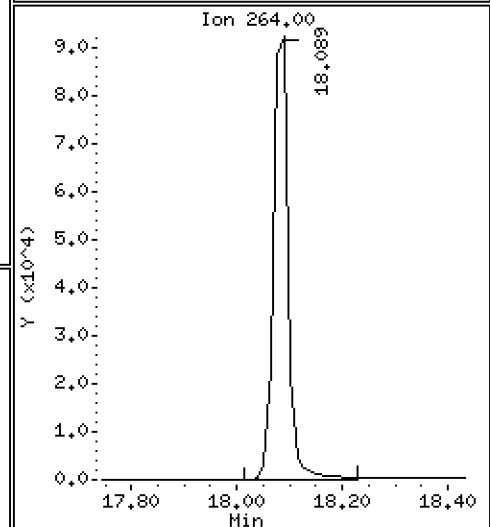
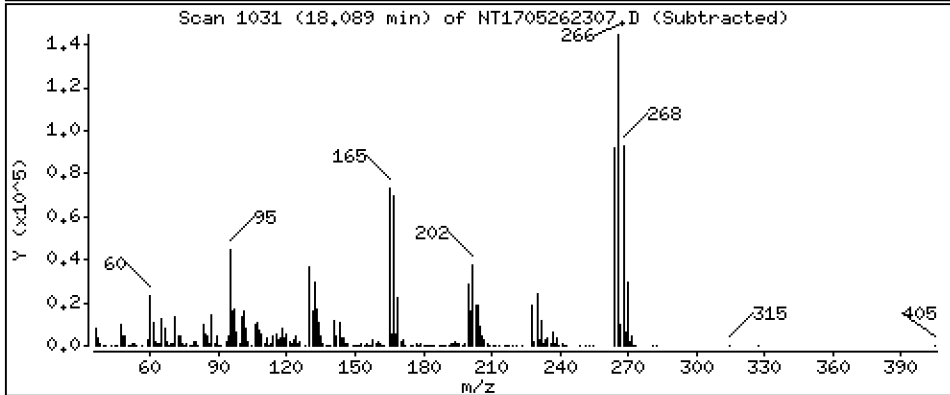
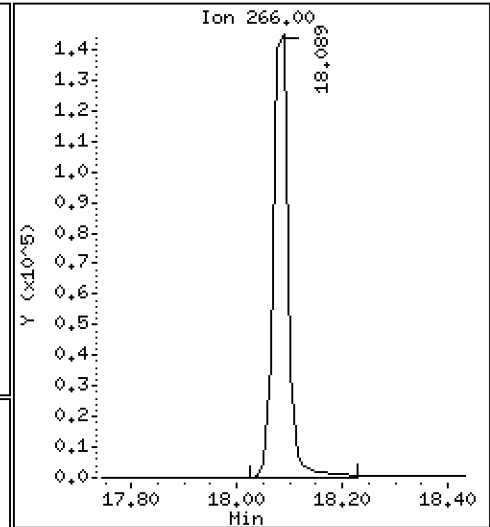
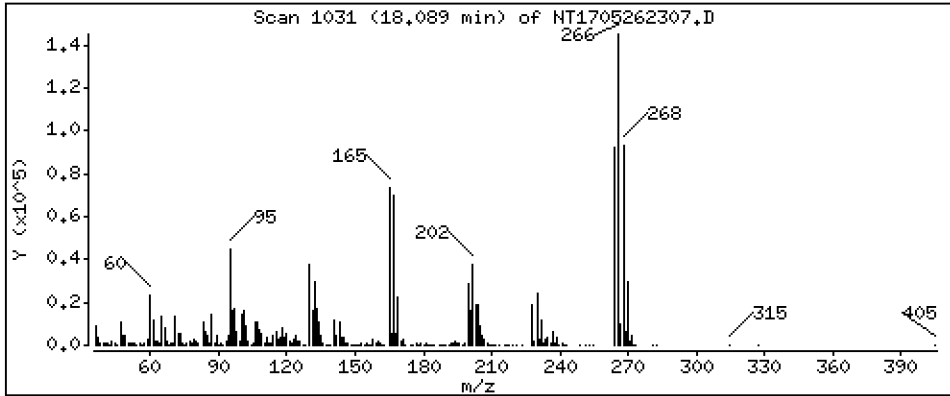
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 11,75 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

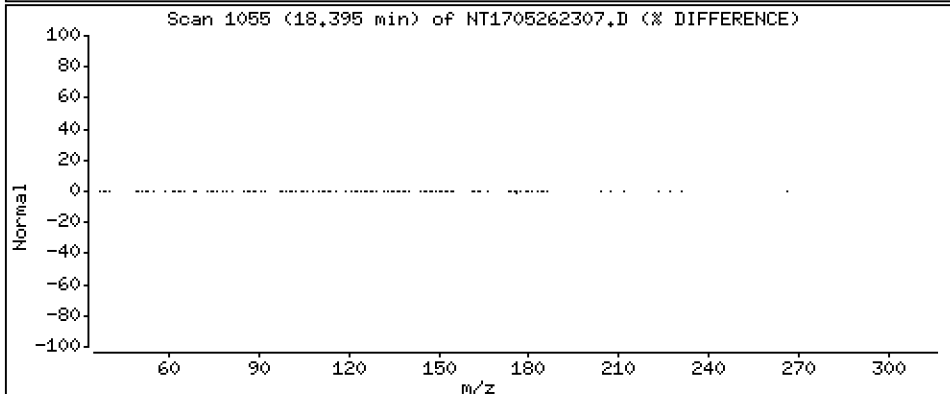
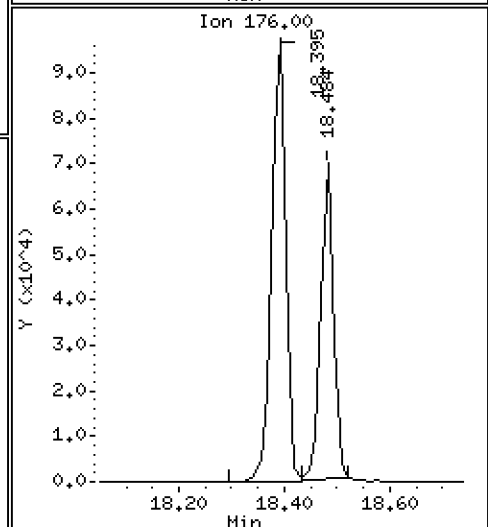
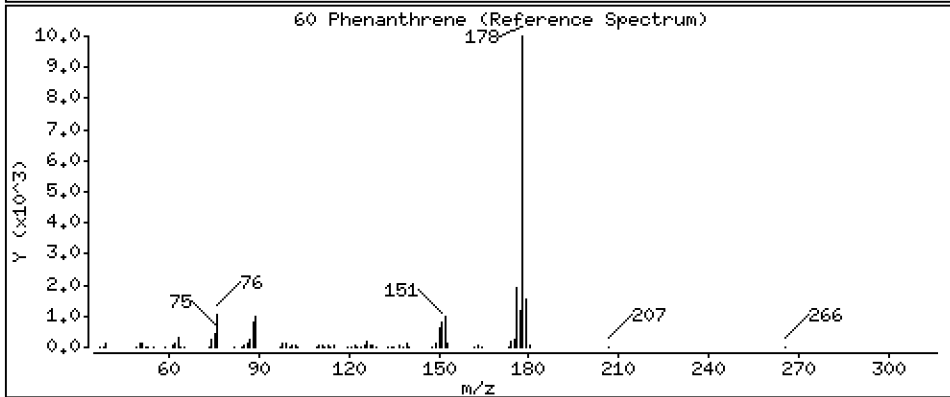
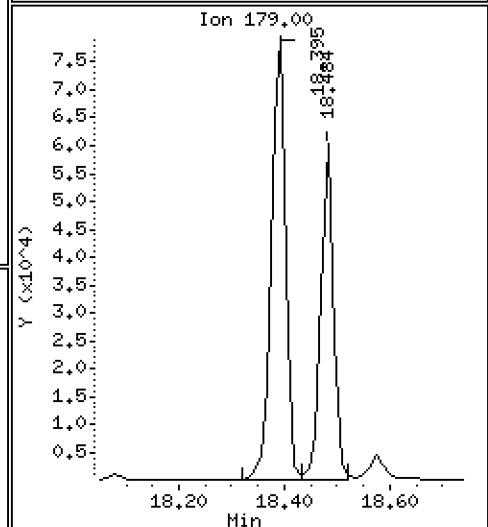
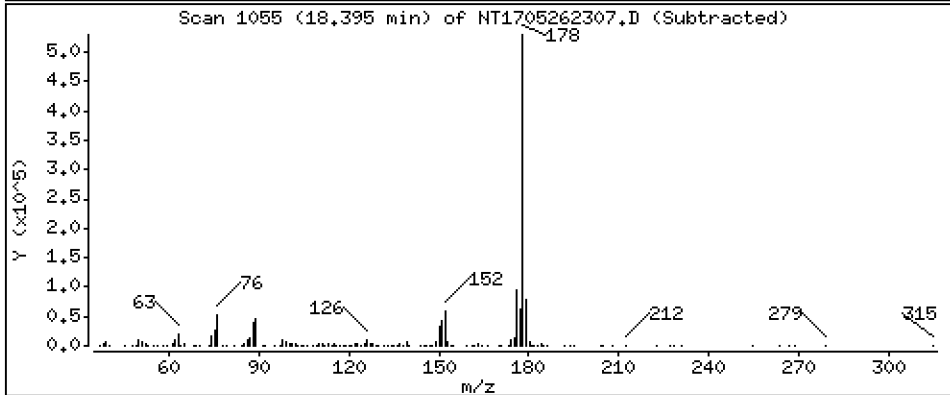
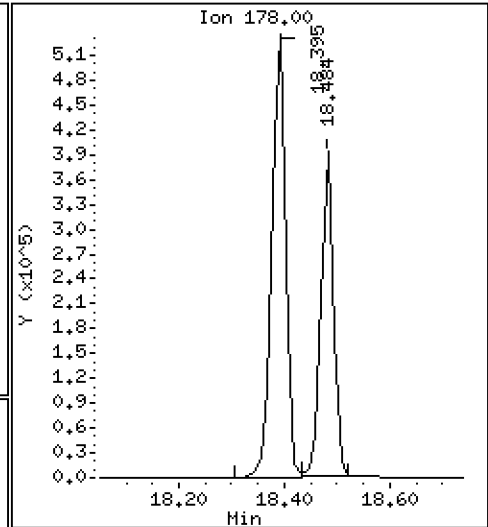
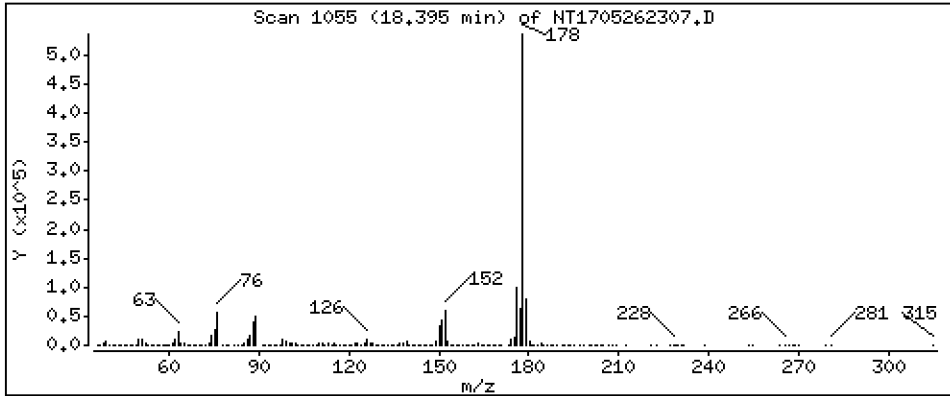
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,144 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

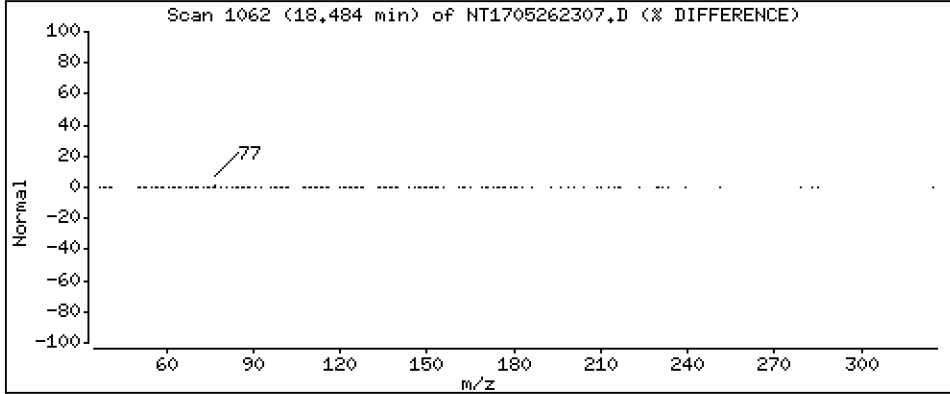
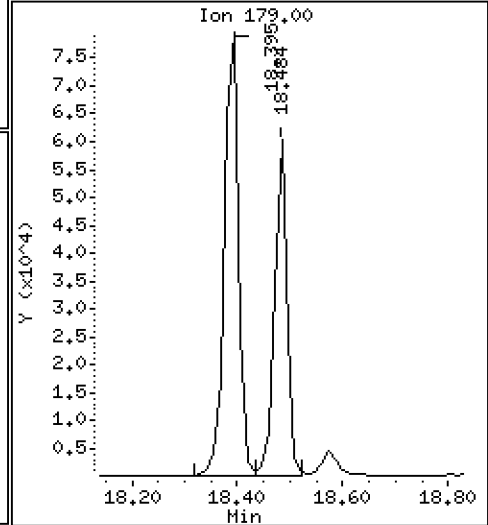
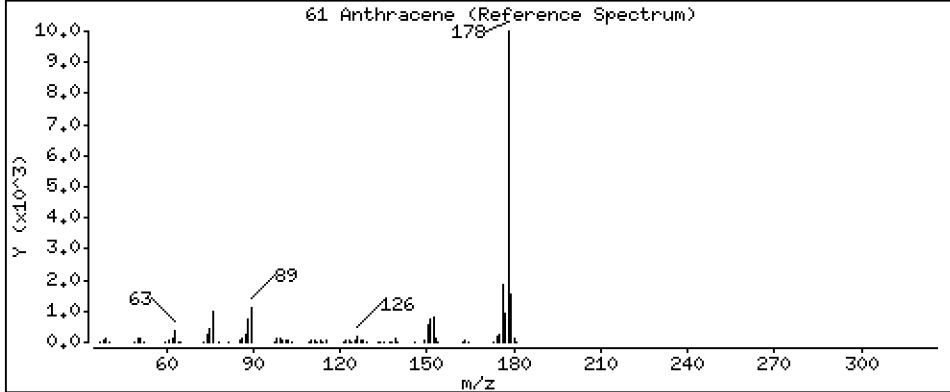
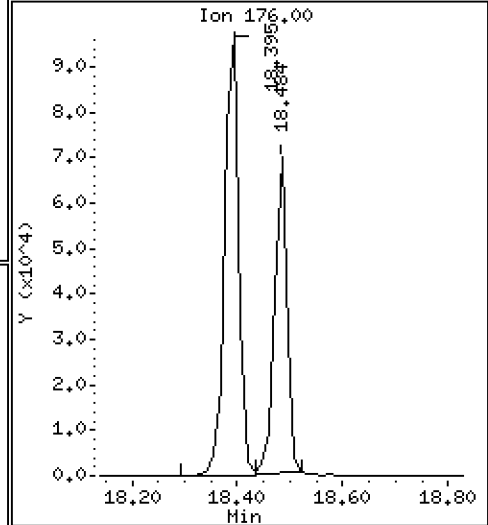
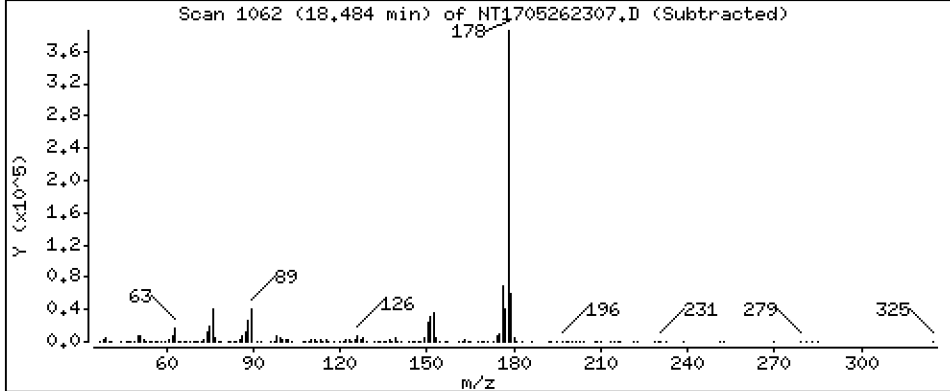
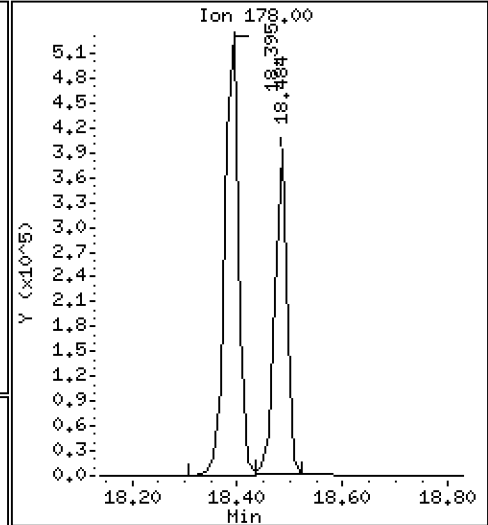
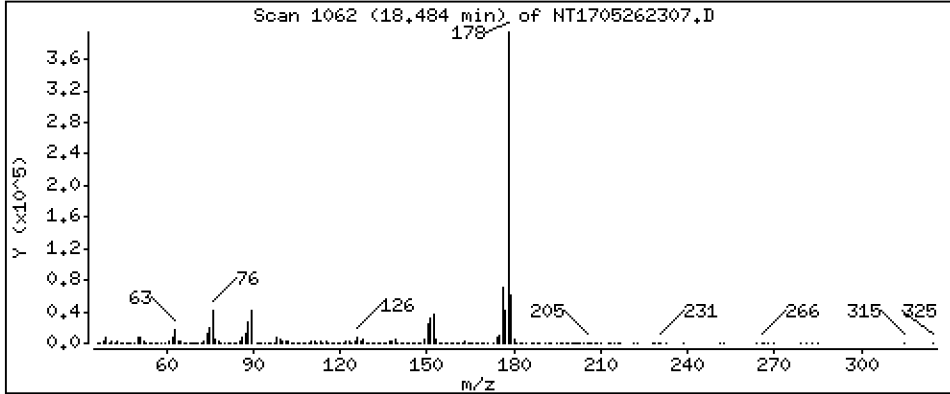
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 2,931 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

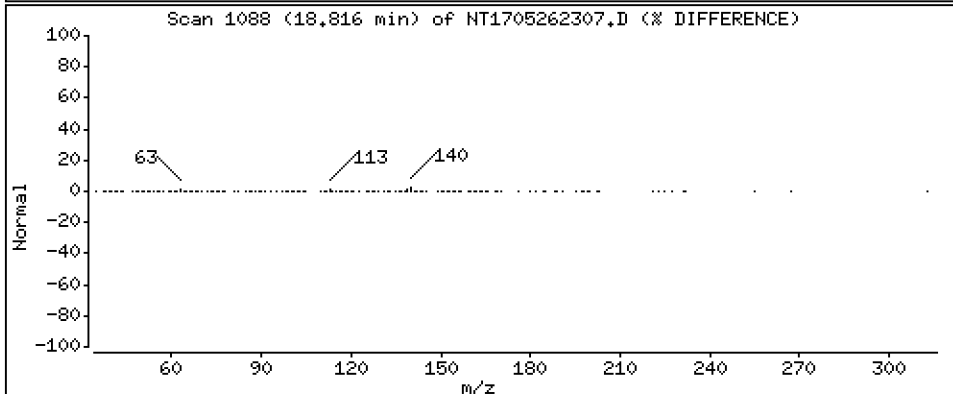
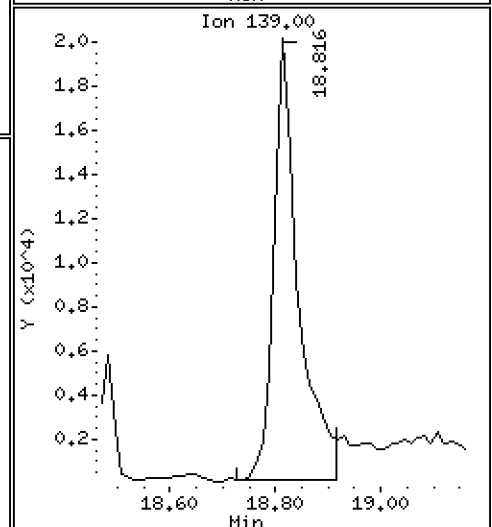
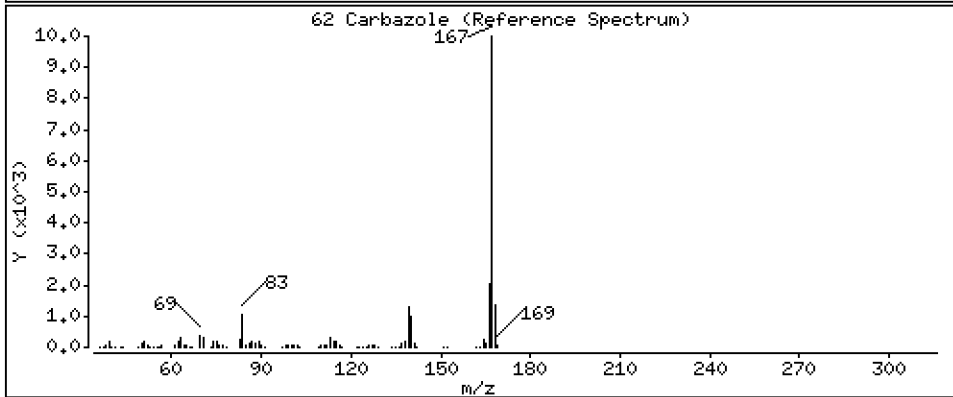
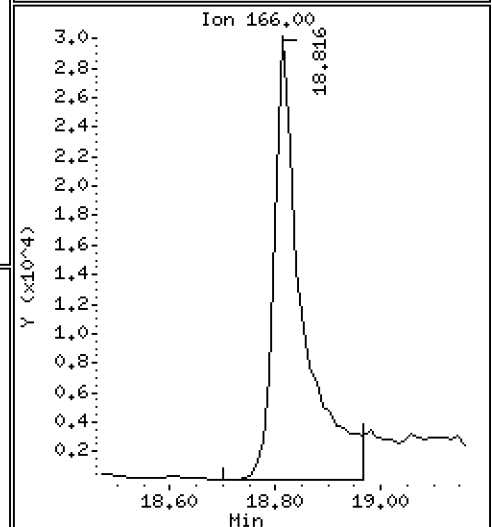
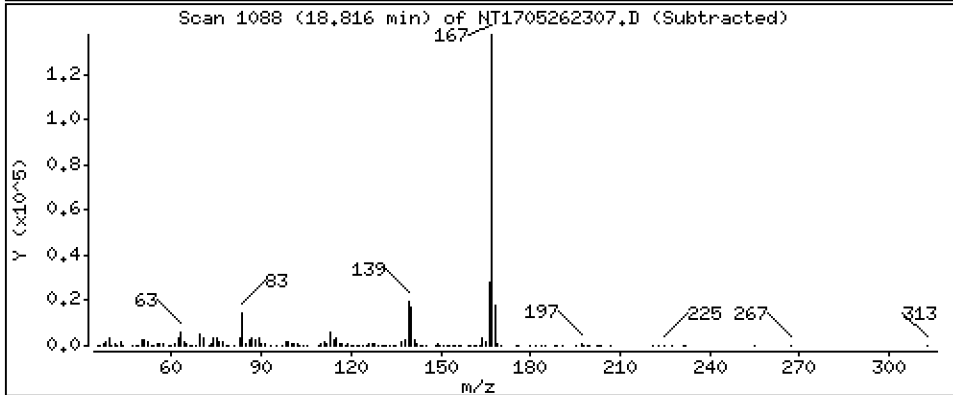
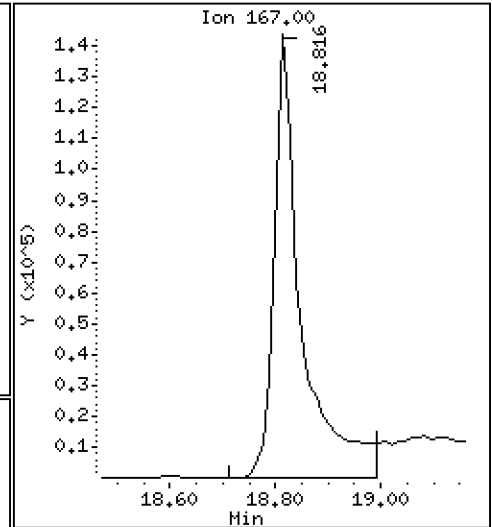
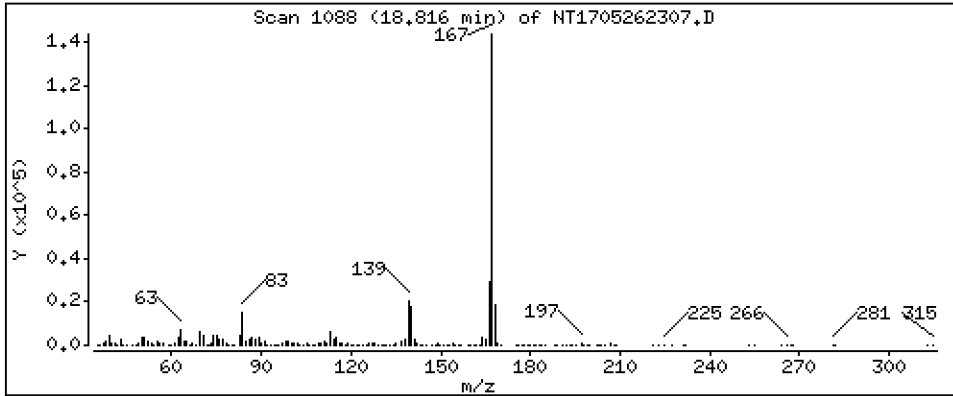
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,701 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

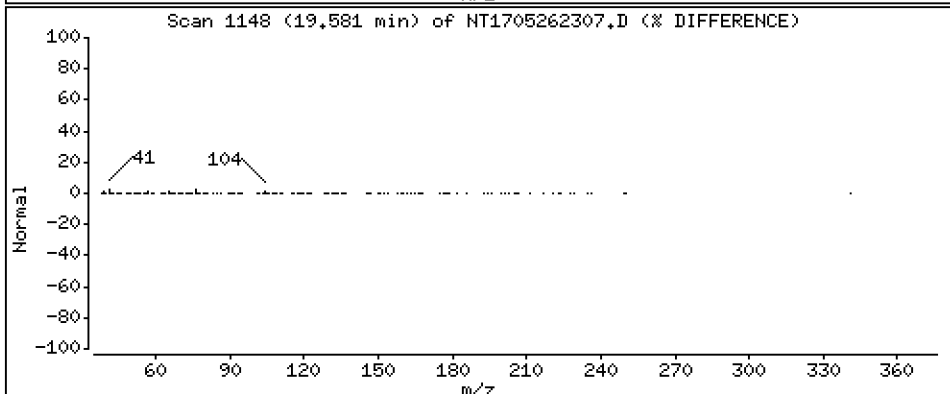
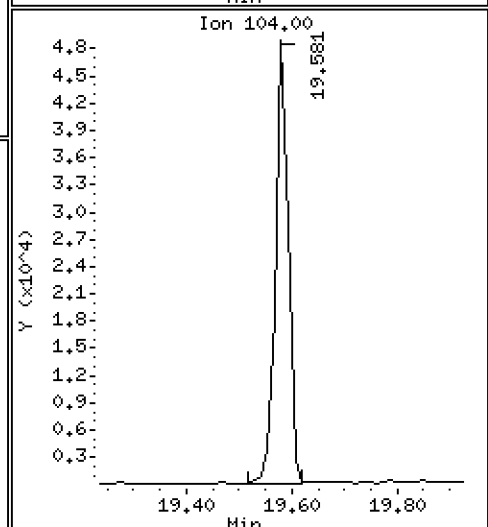
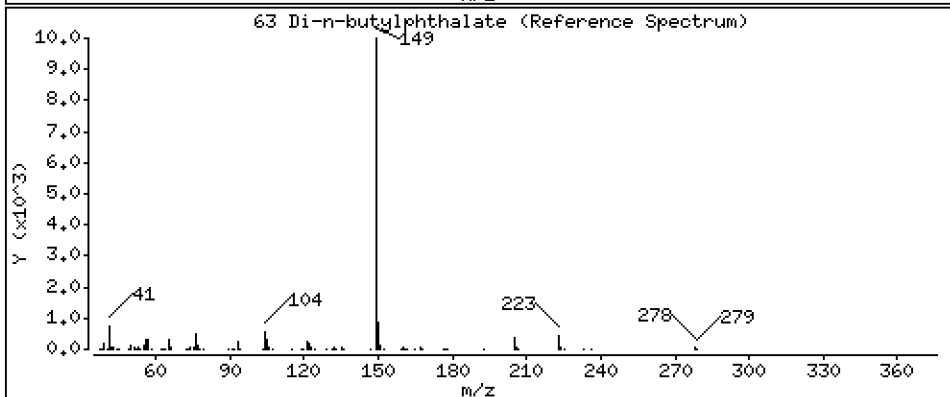
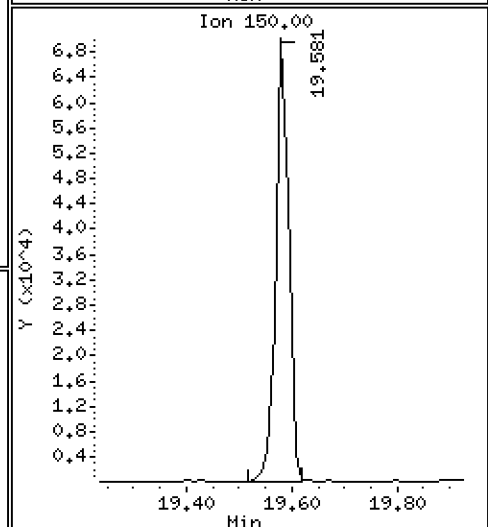
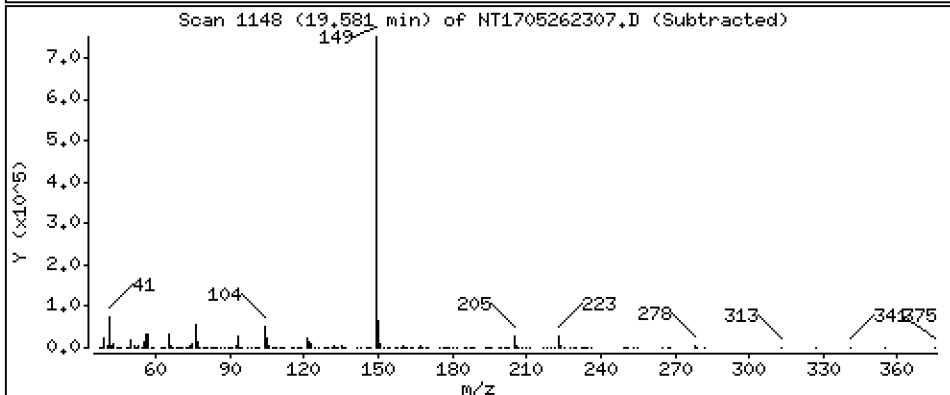
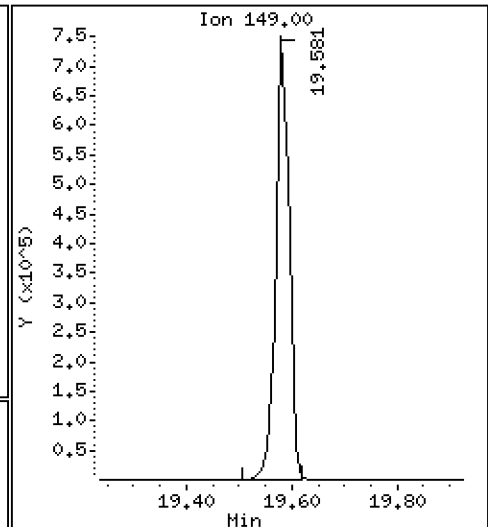
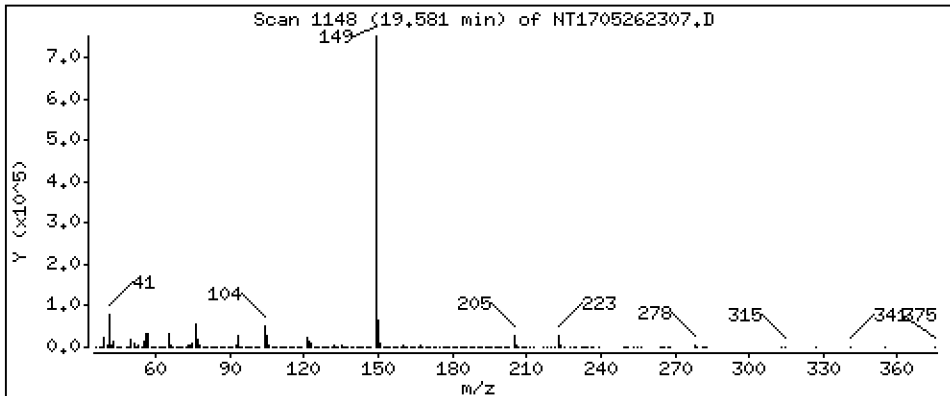
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,698 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

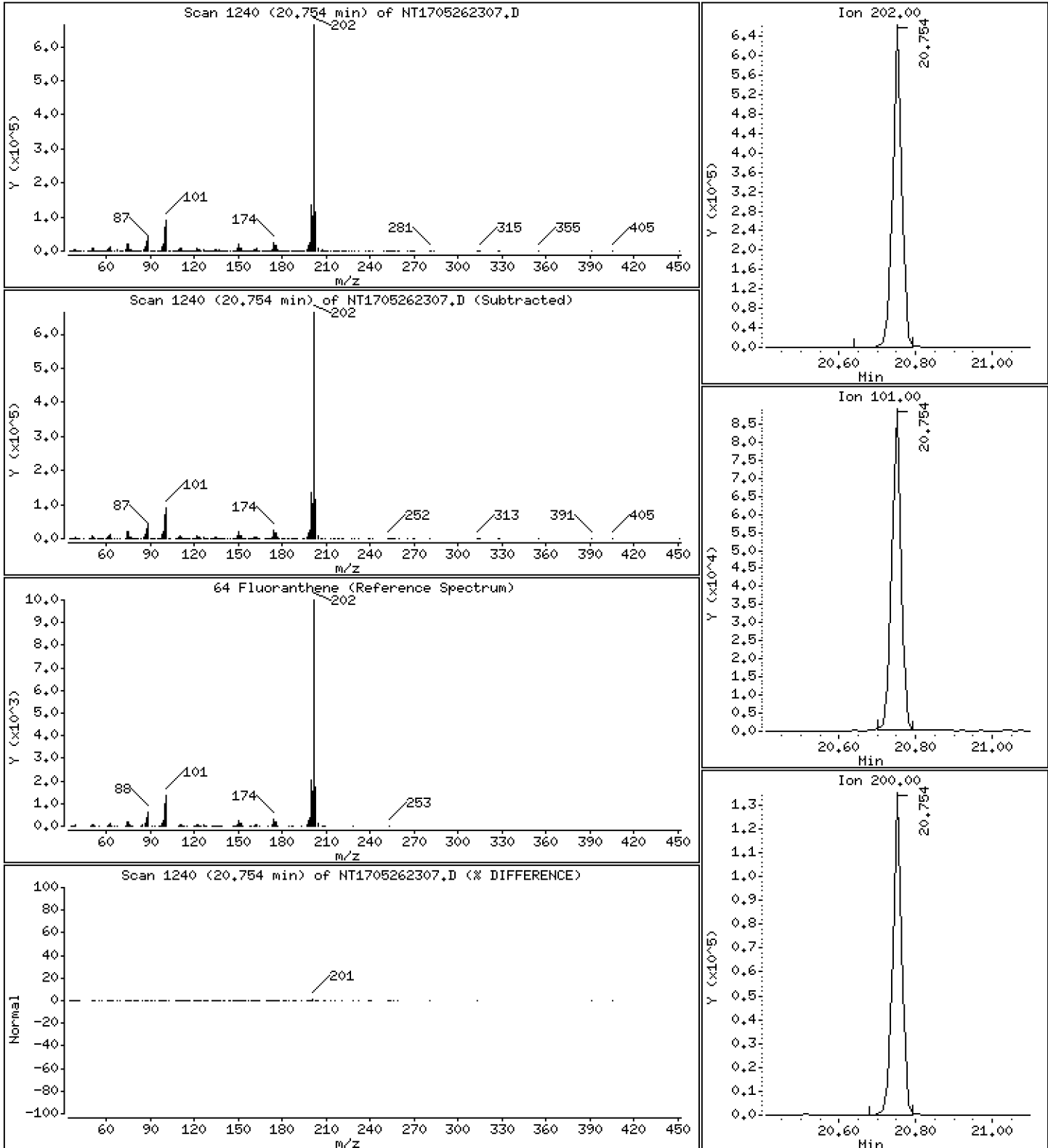
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,456 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

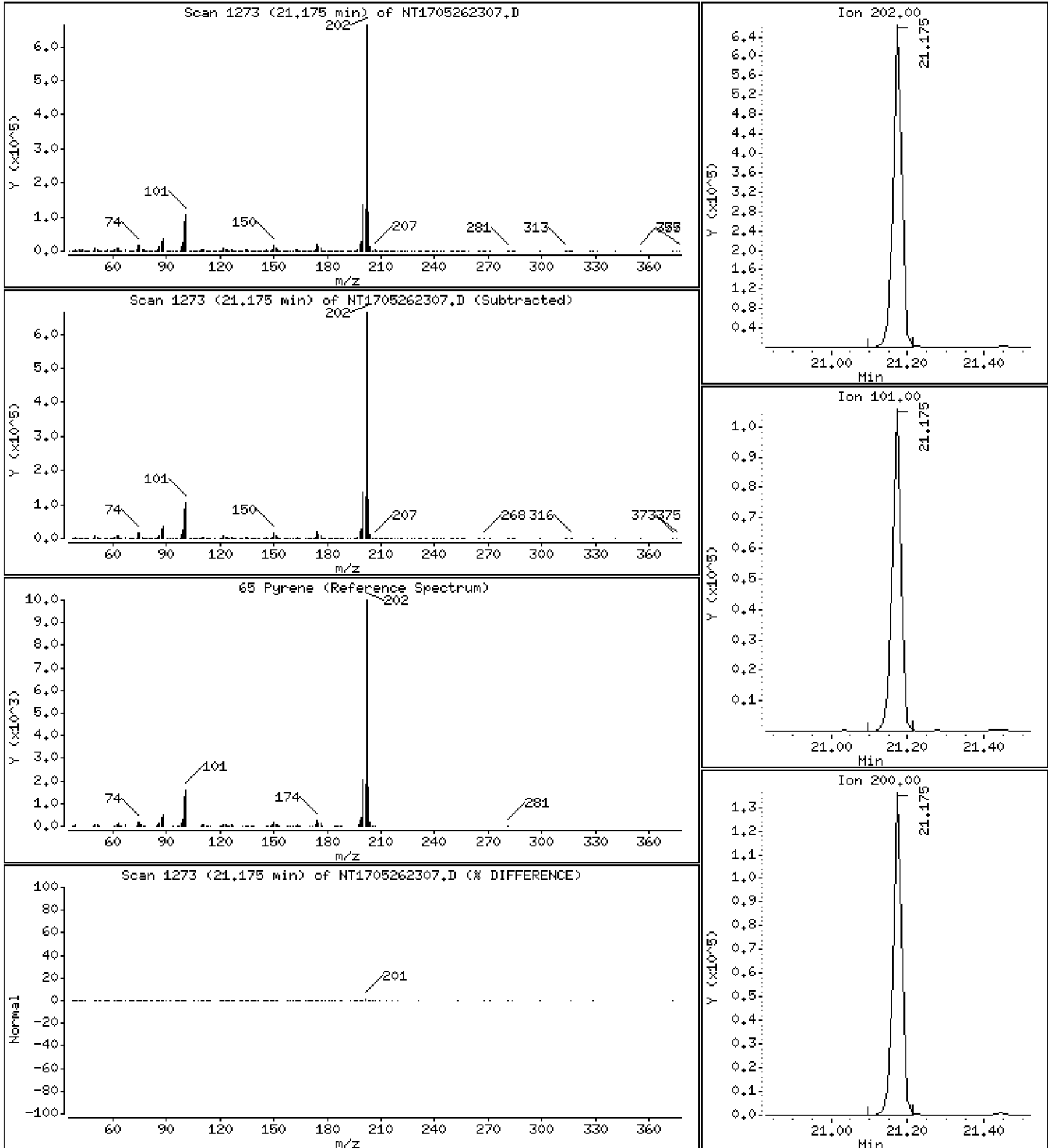
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,360 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

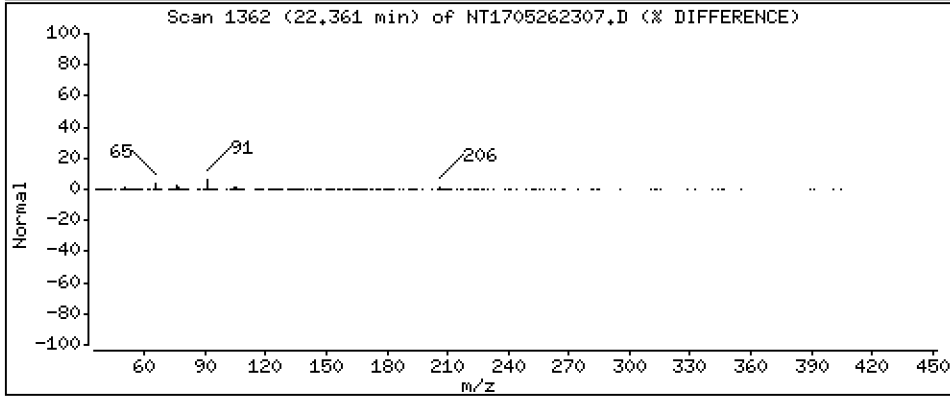
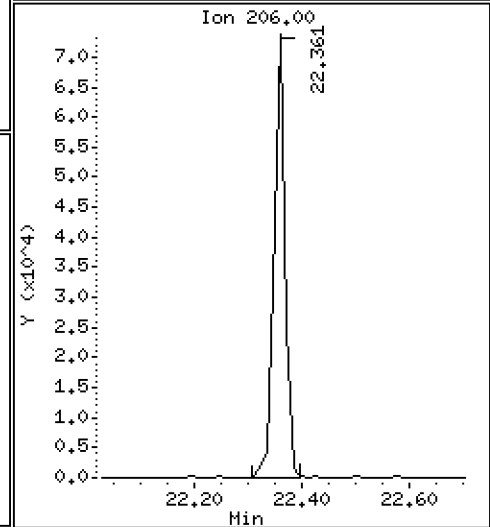
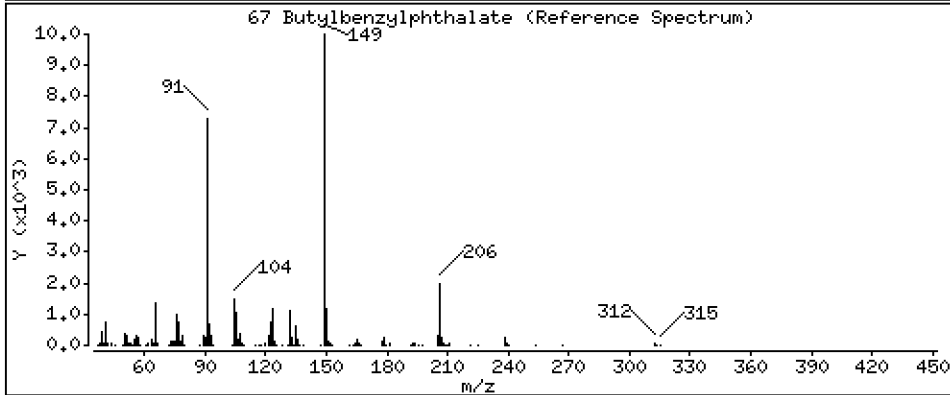
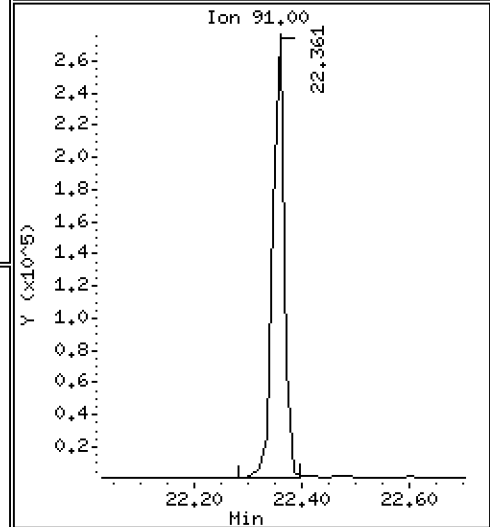
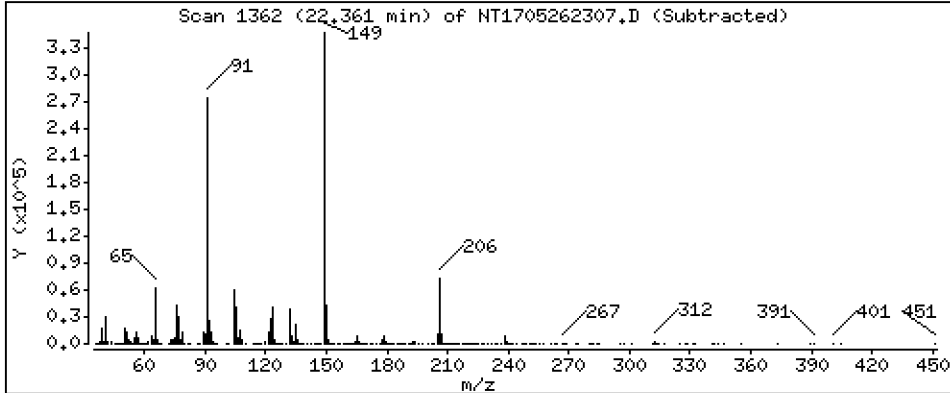
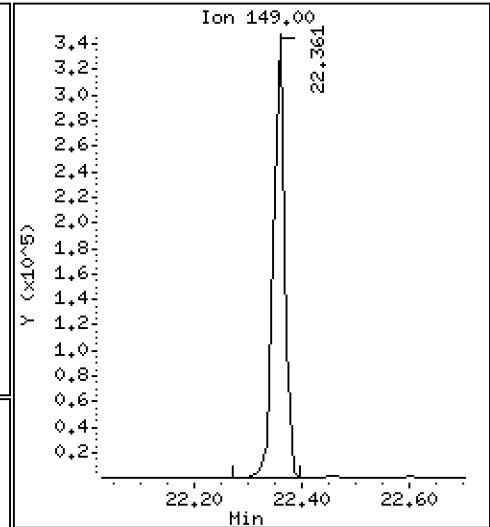
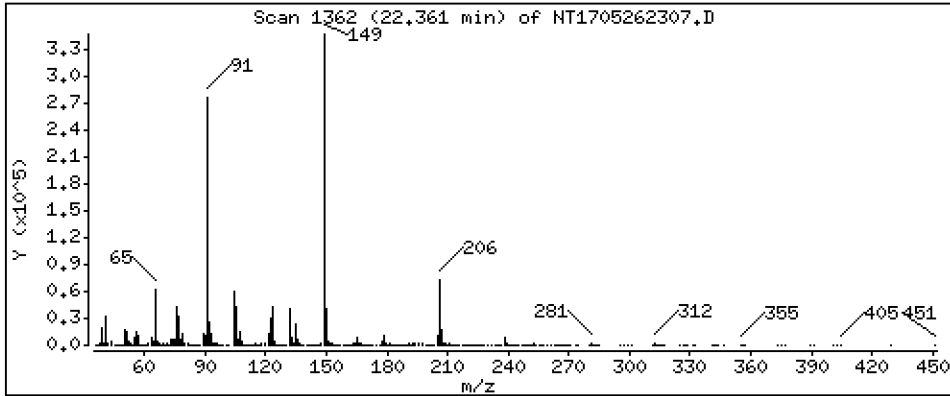
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,825 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

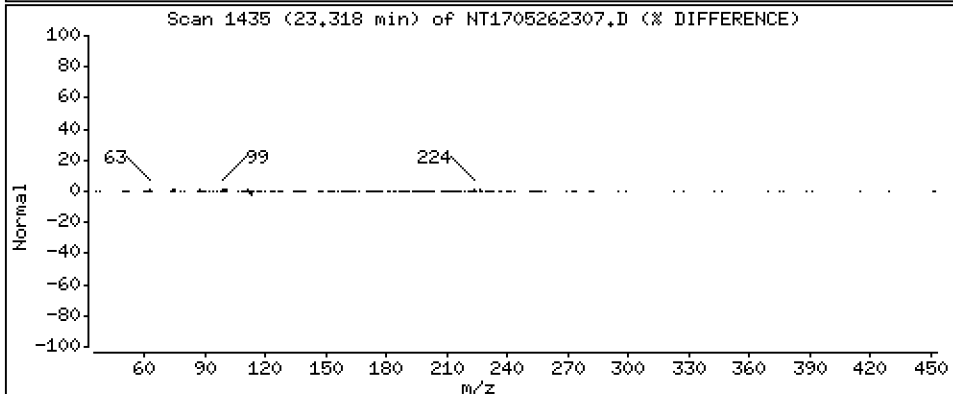
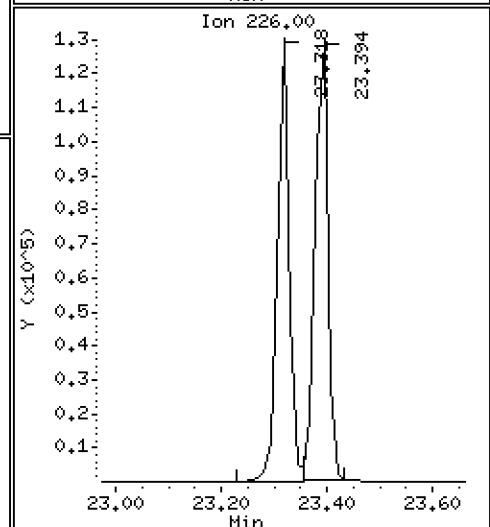
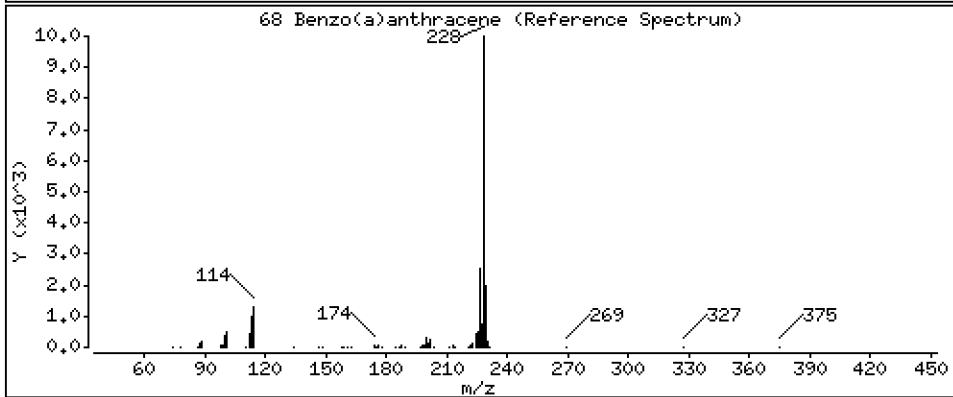
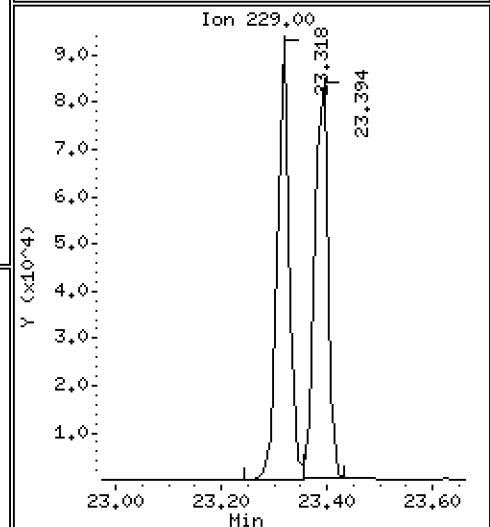
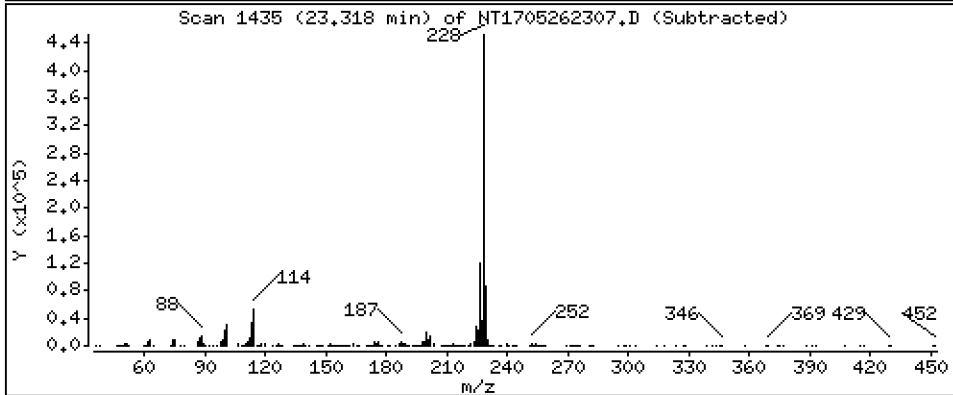
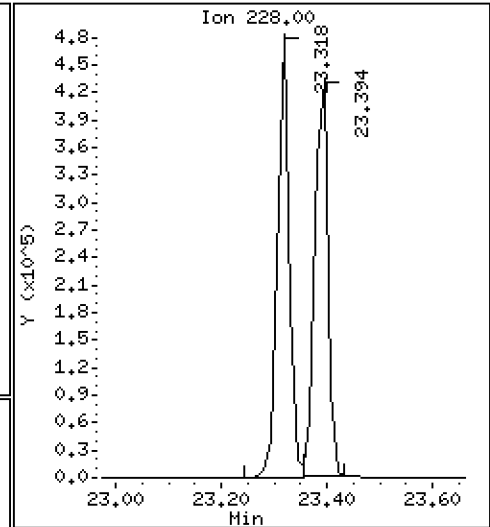
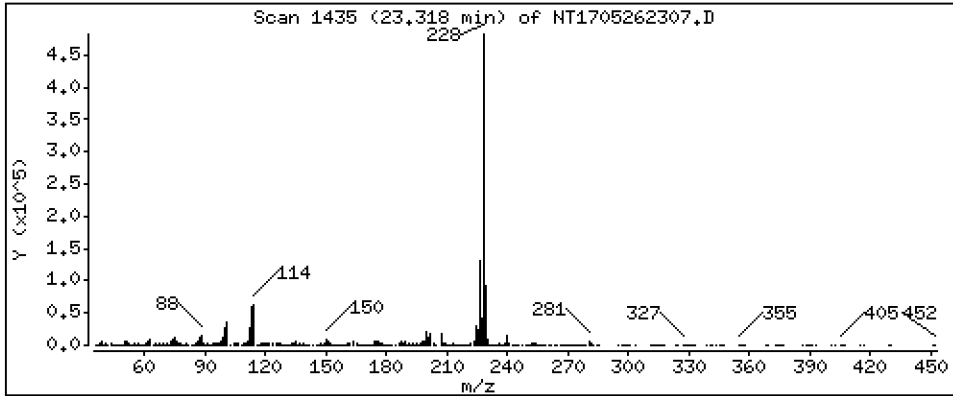
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,082 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

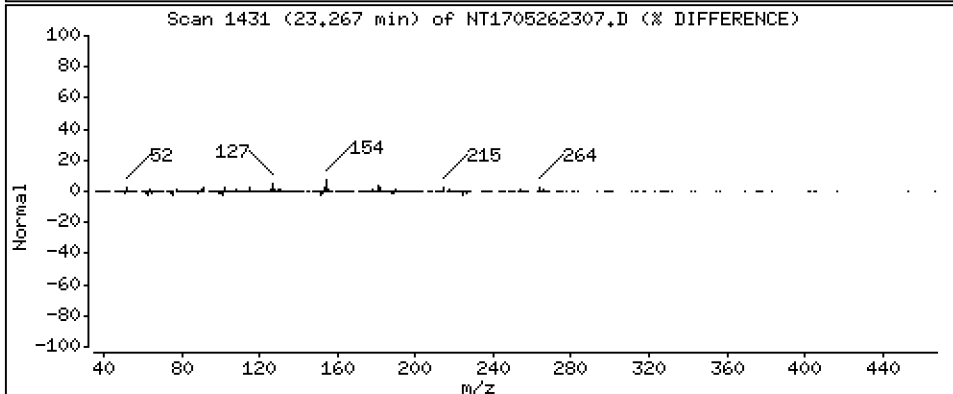
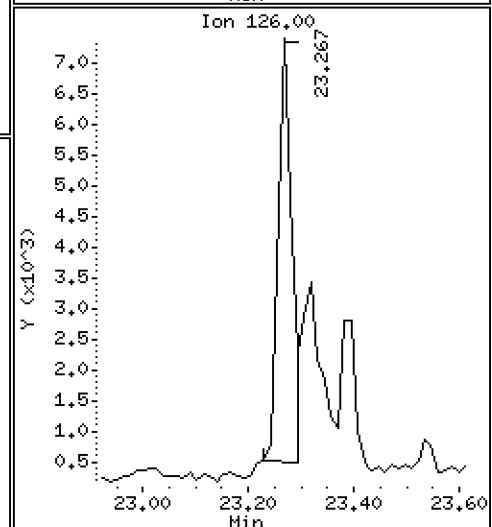
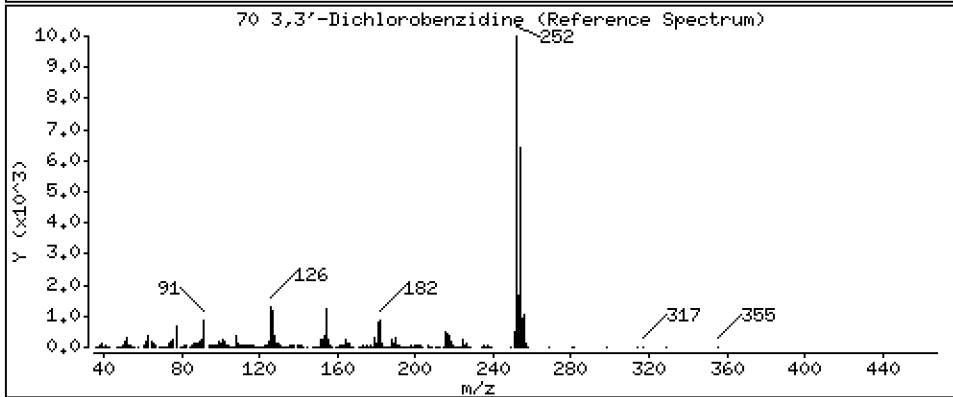
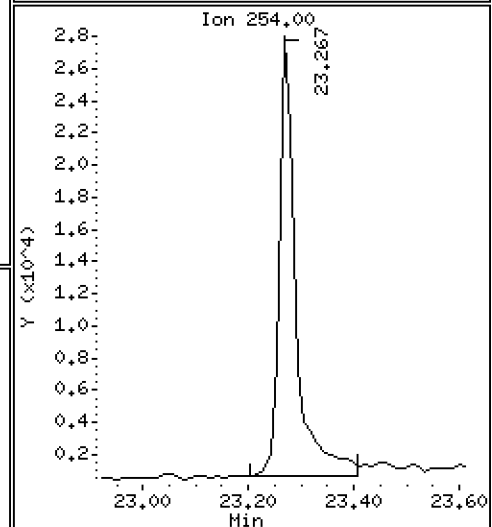
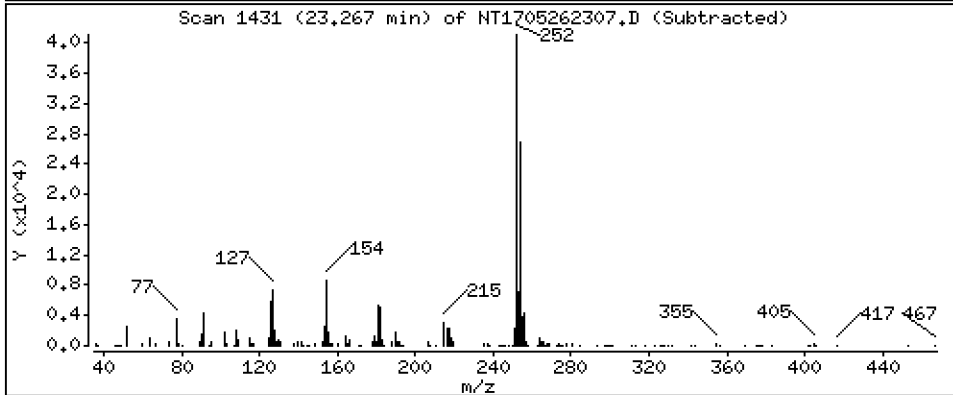
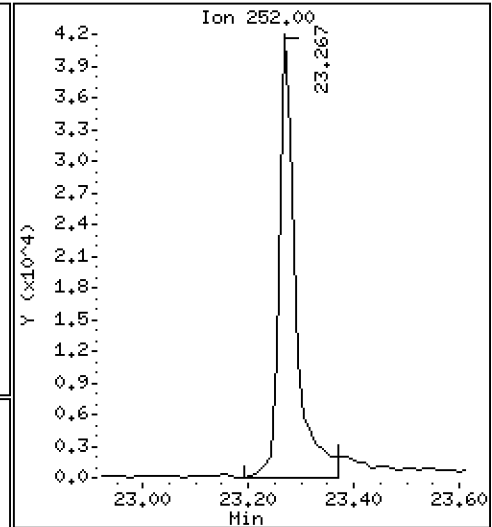
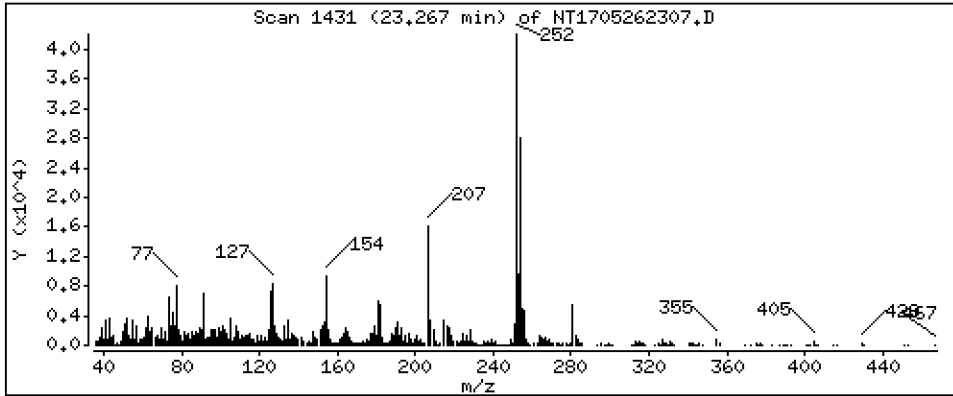
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 2,563 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

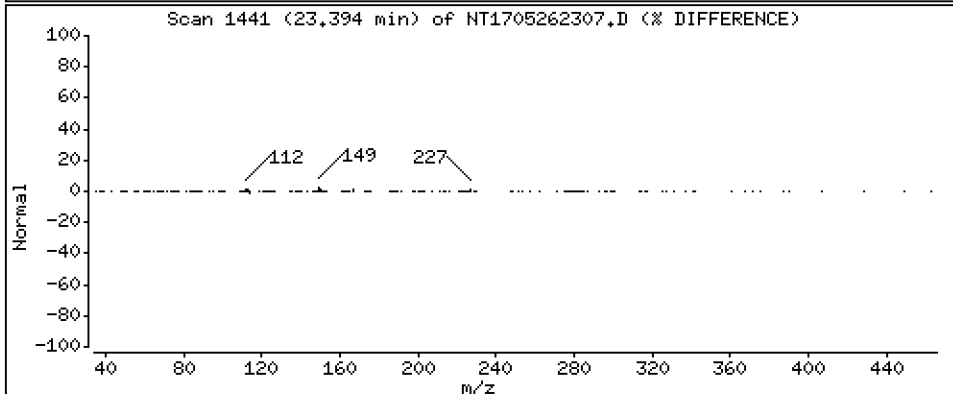
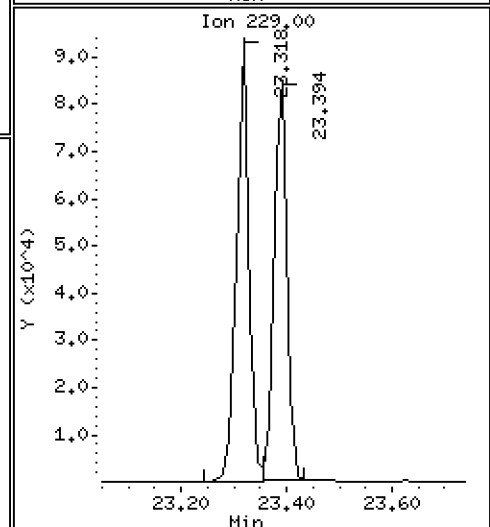
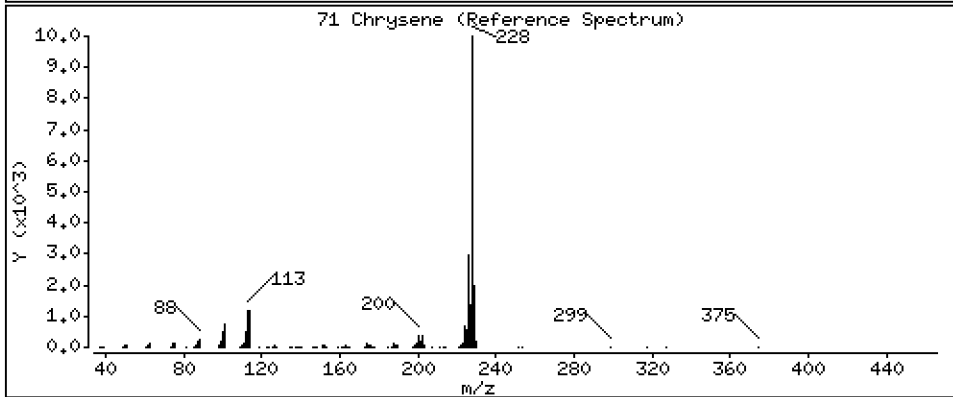
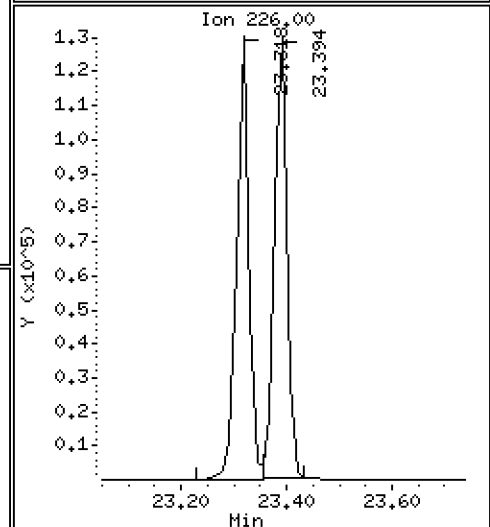
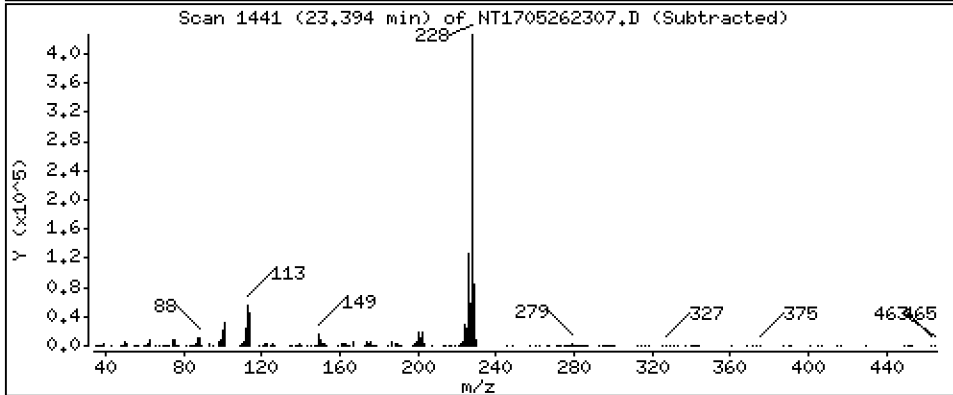
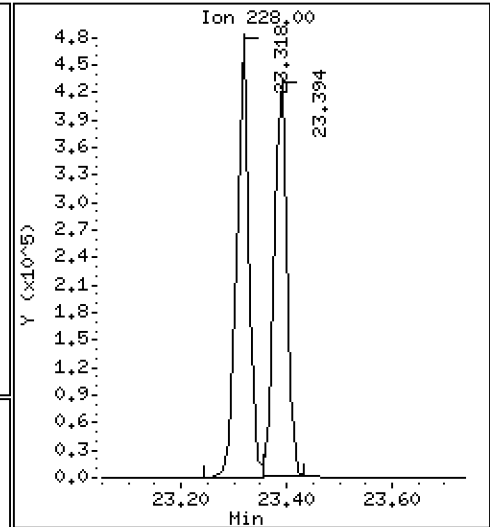
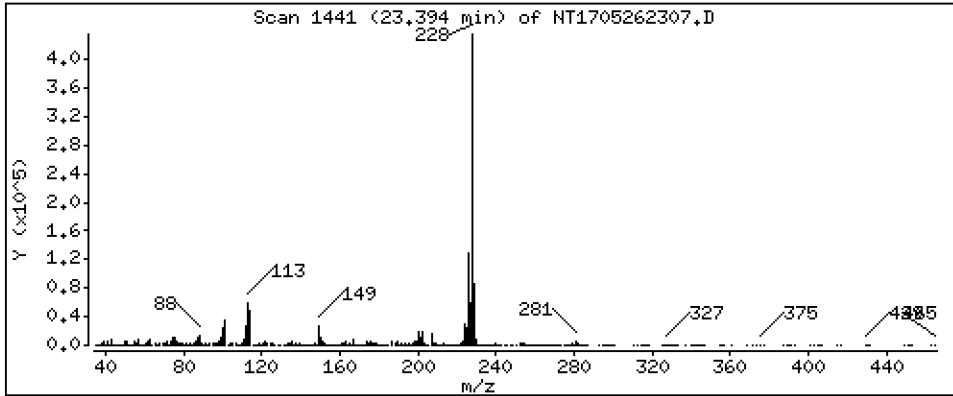
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,174 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

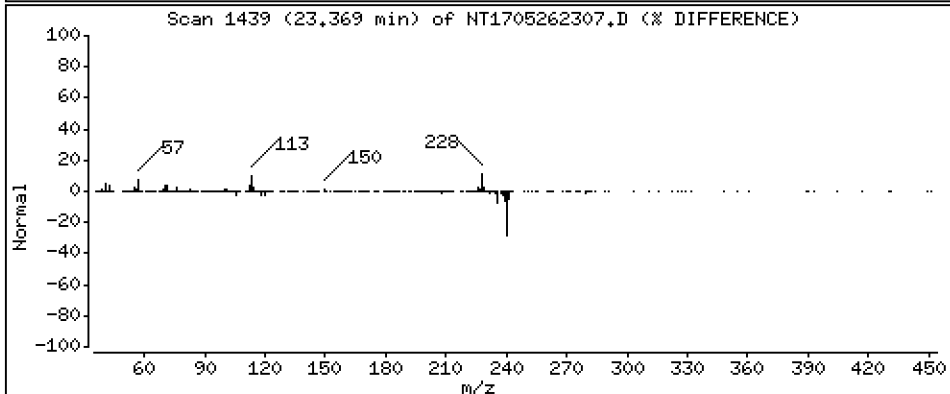
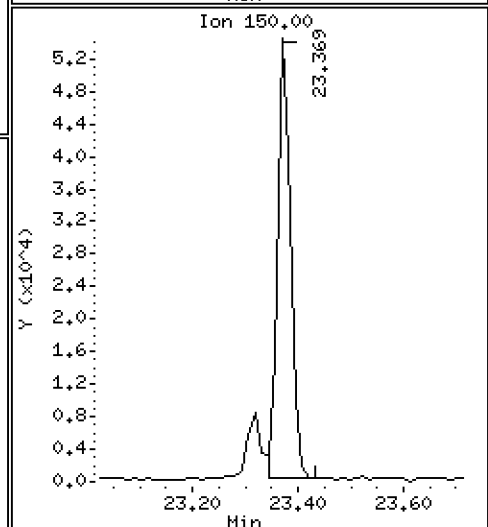
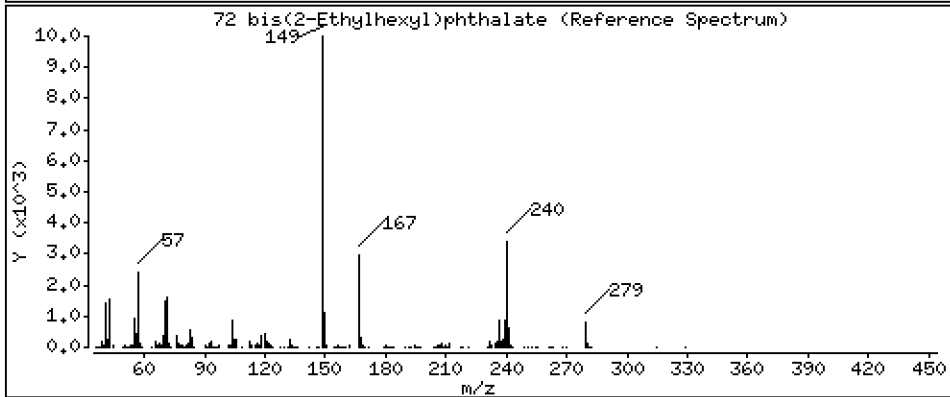
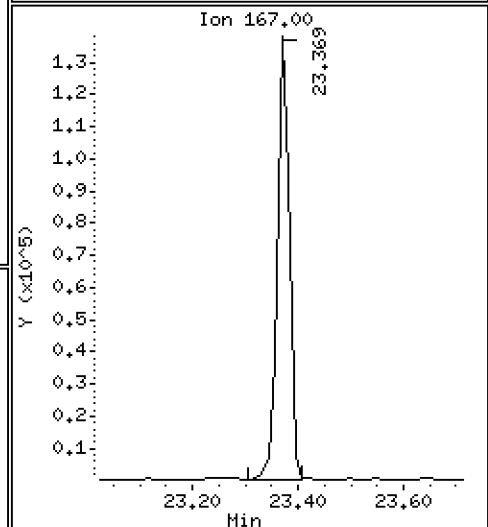
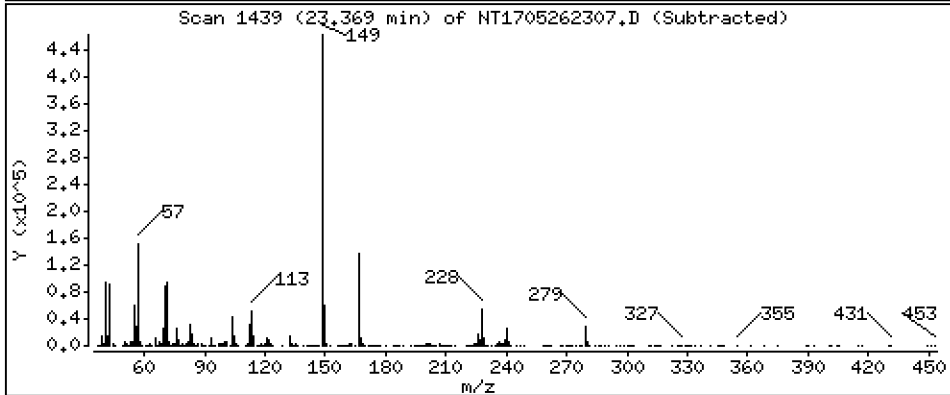
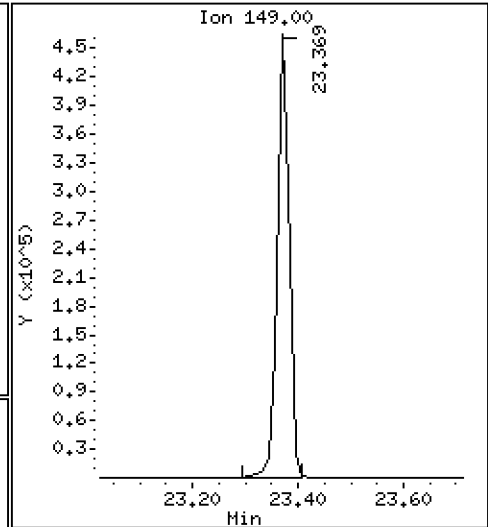
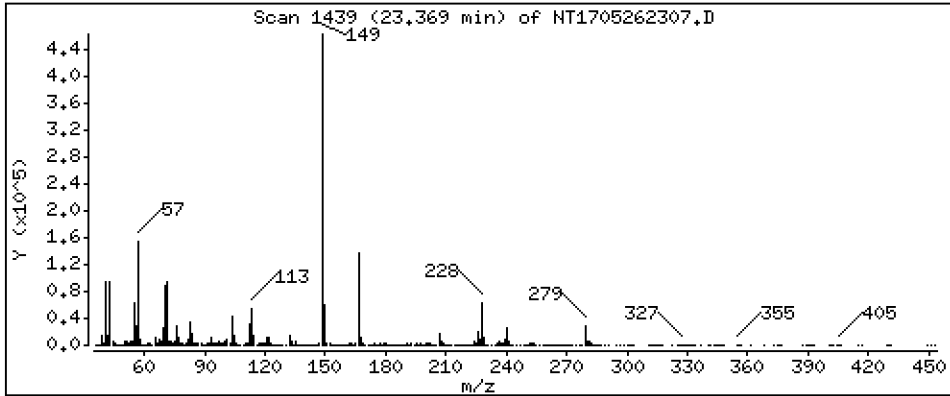
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,718 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

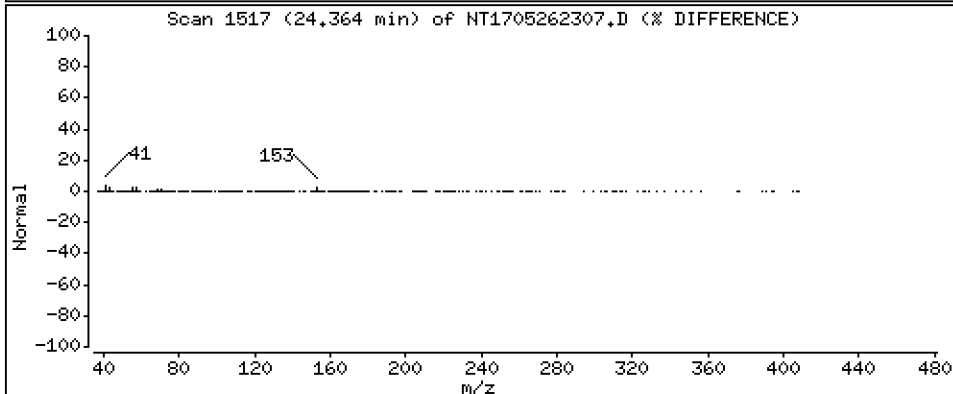
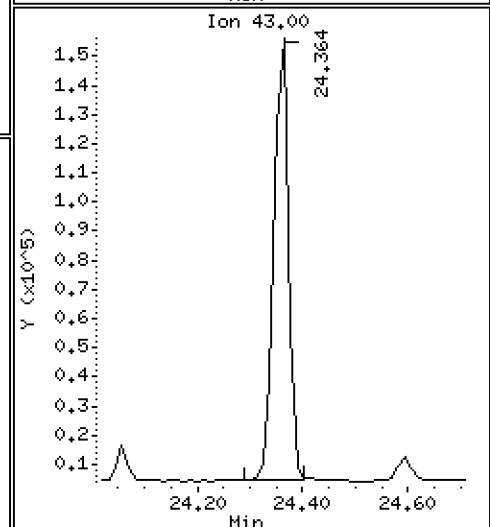
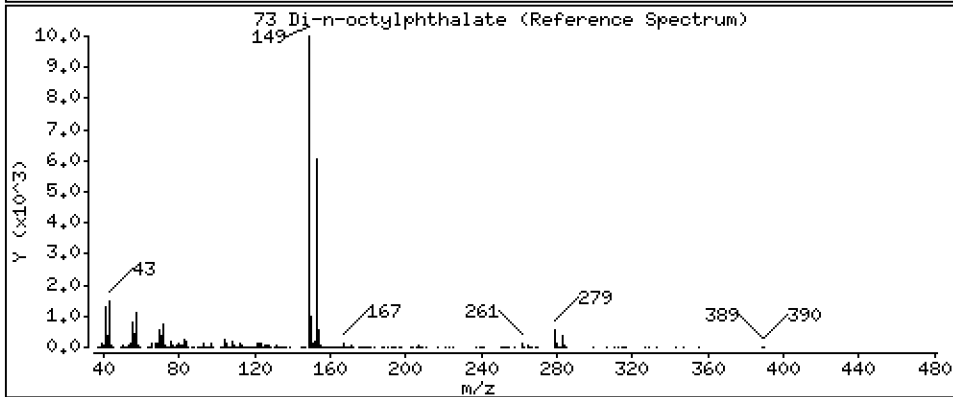
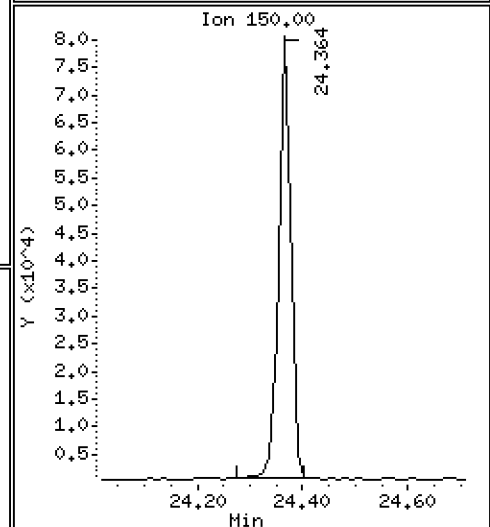
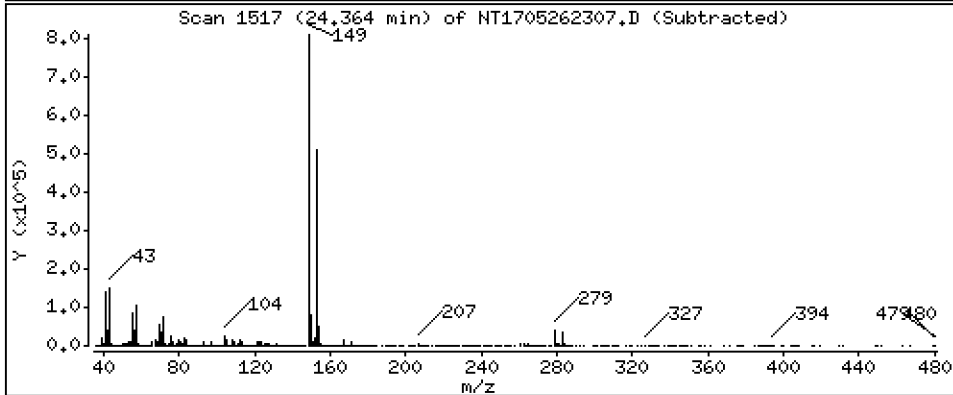
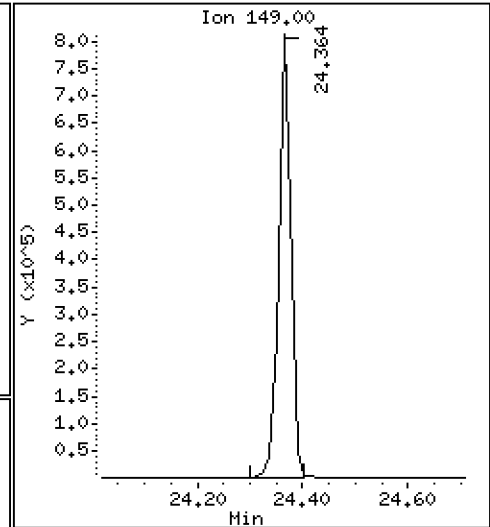
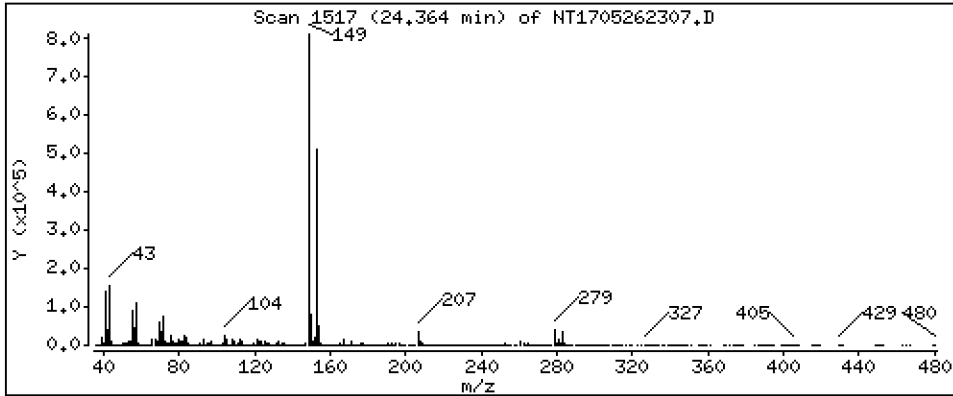
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,707 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

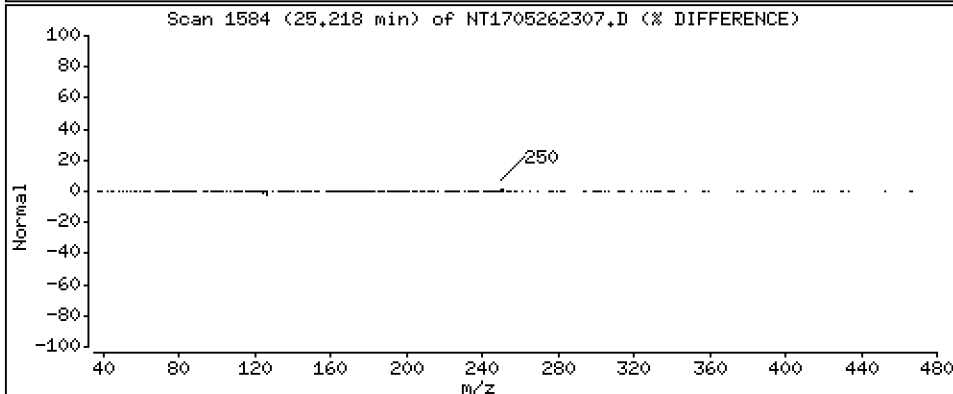
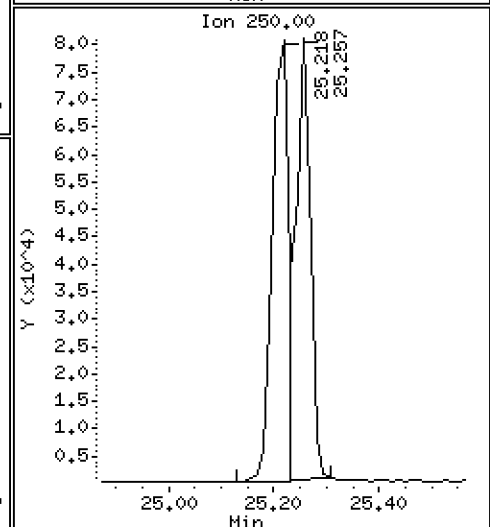
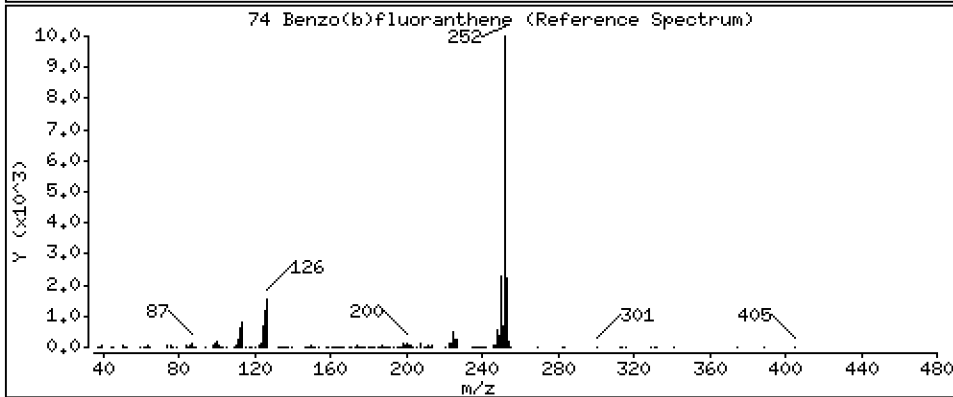
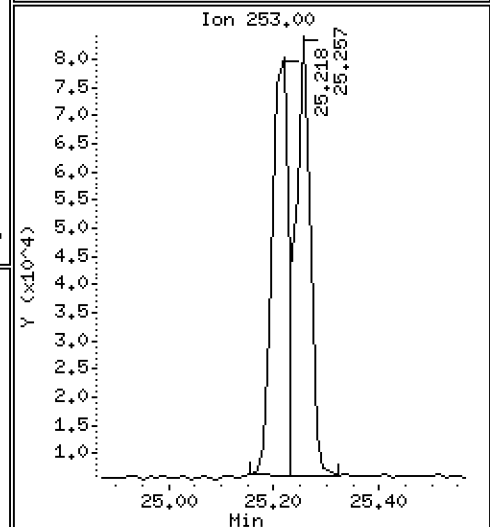
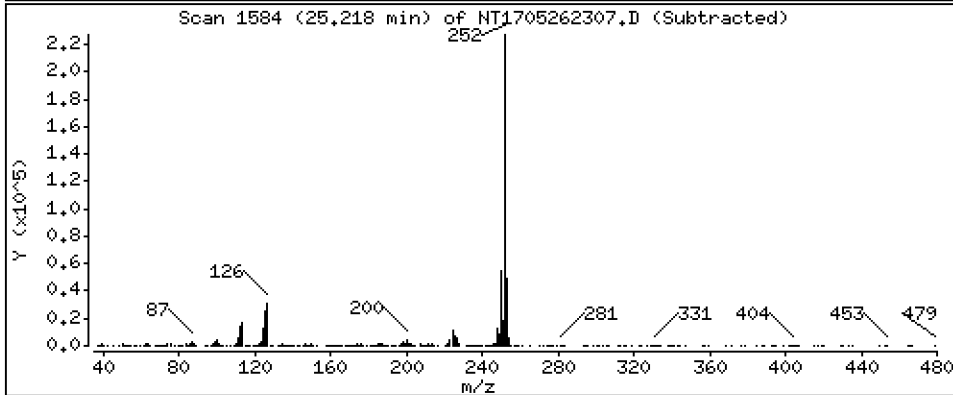
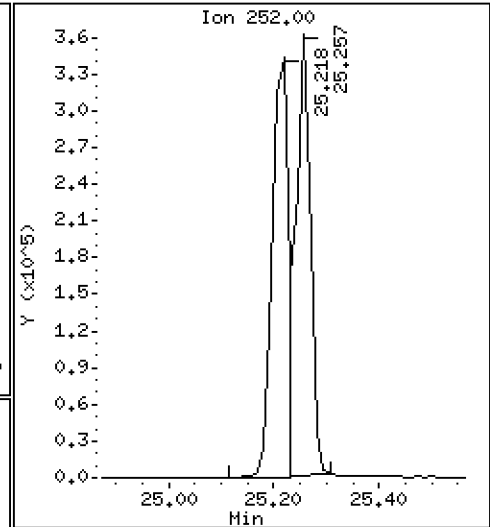
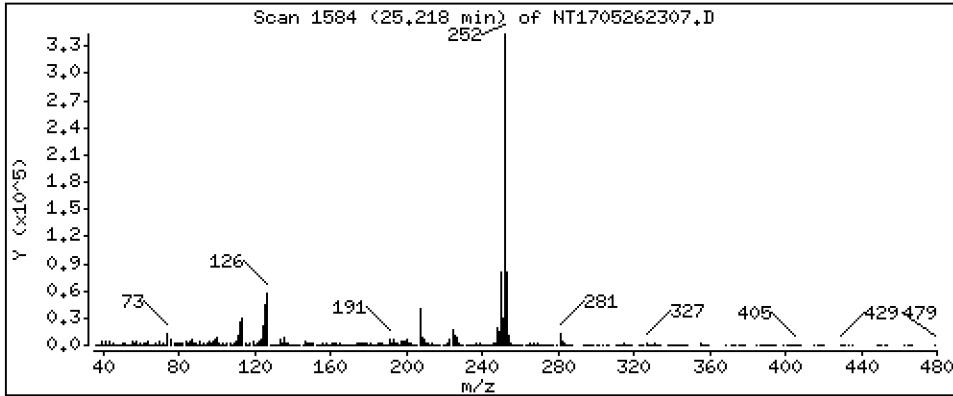
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,414 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

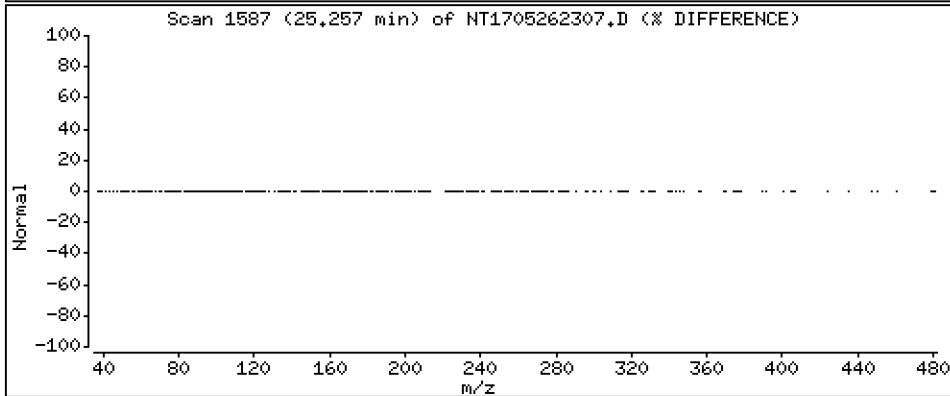
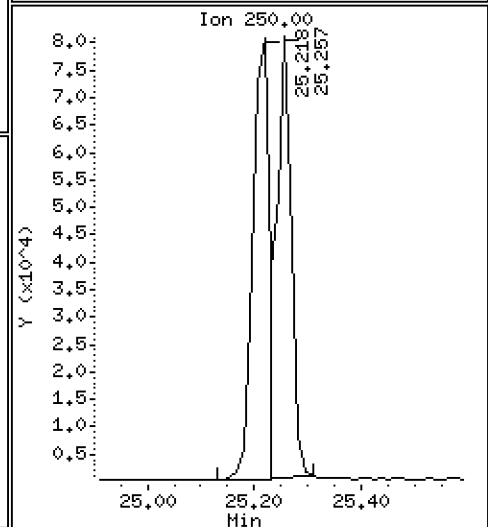
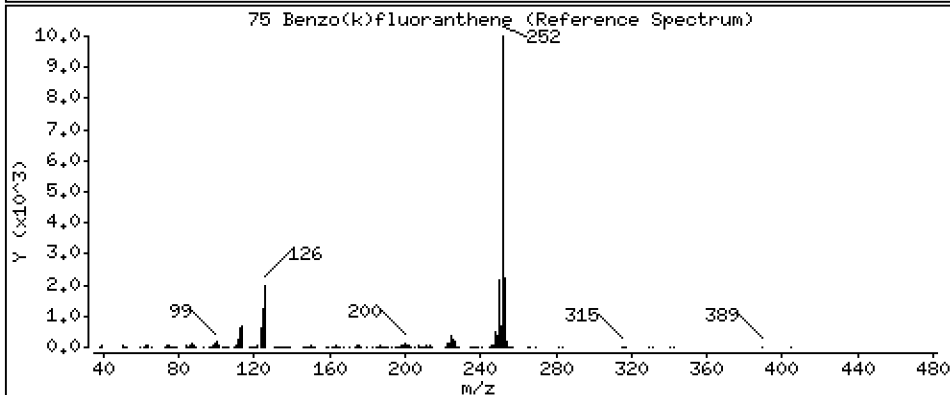
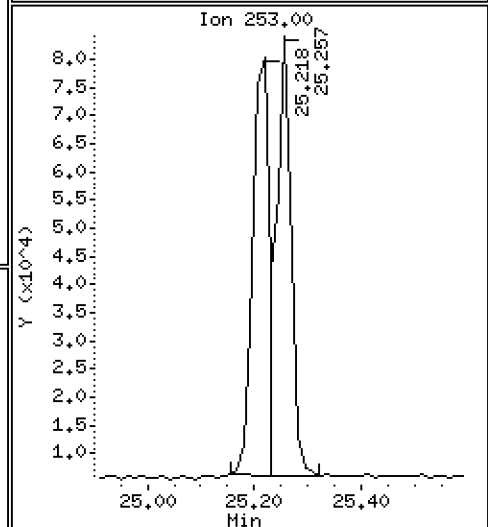
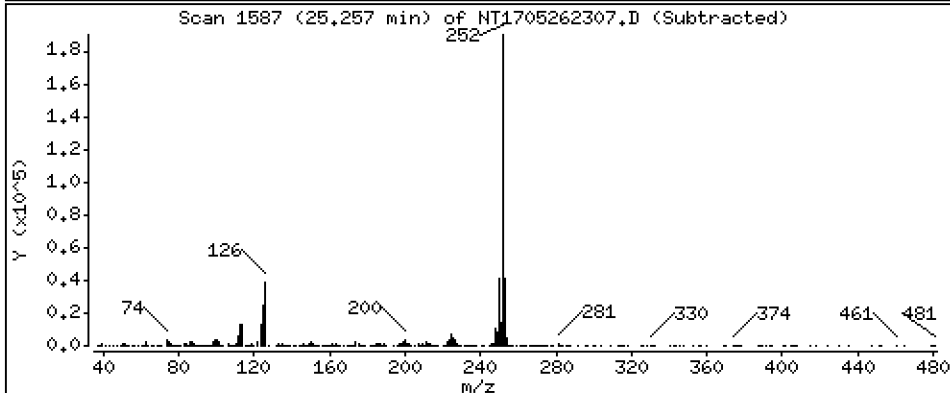
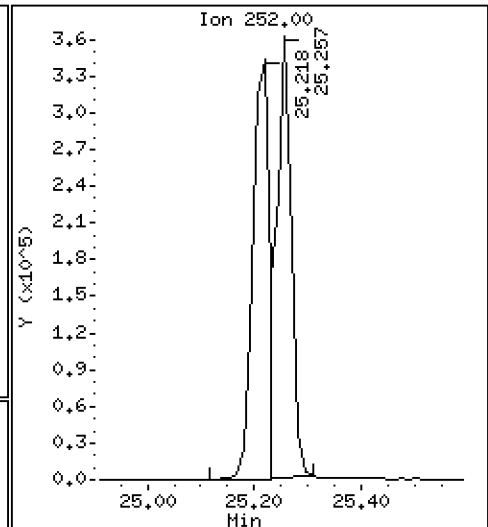
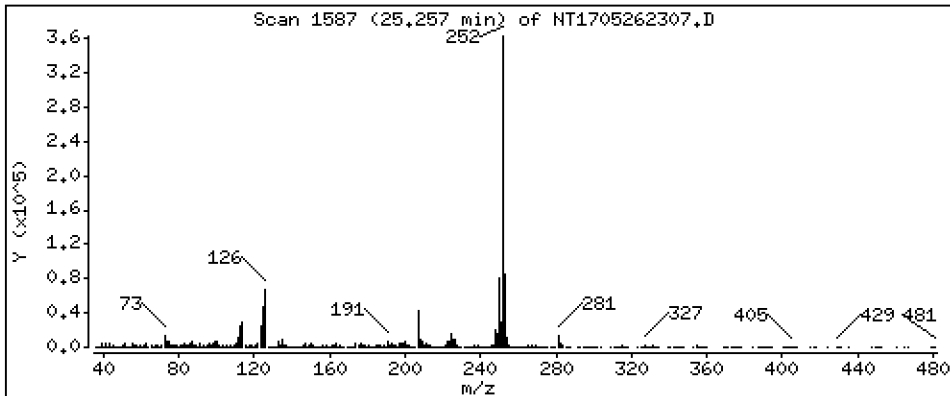
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,732 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

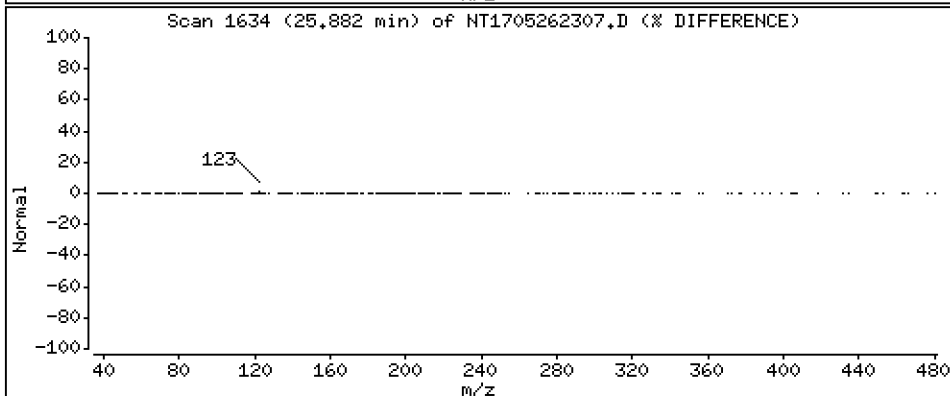
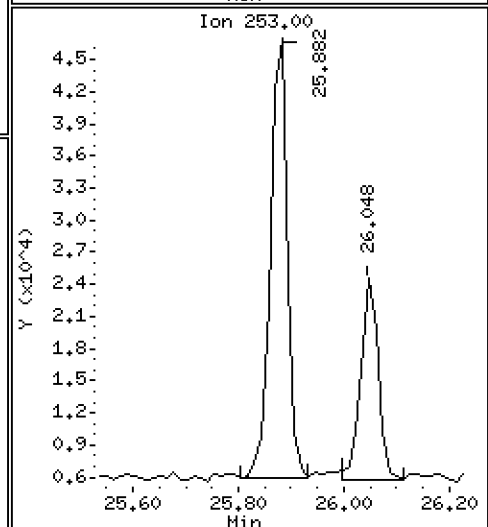
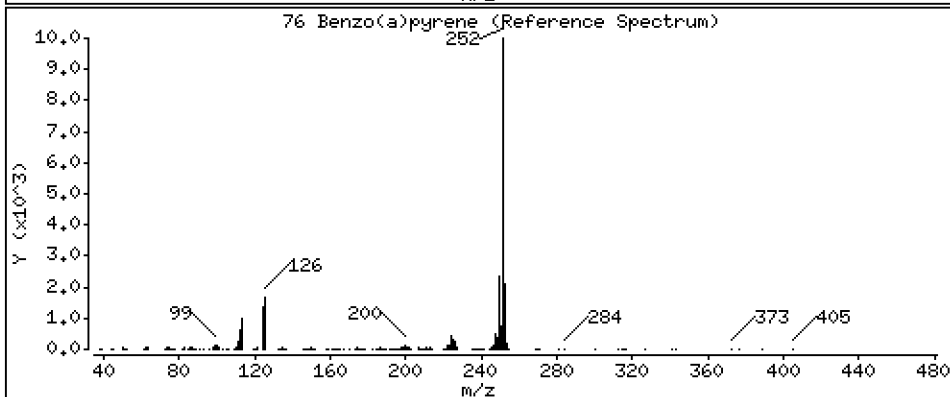
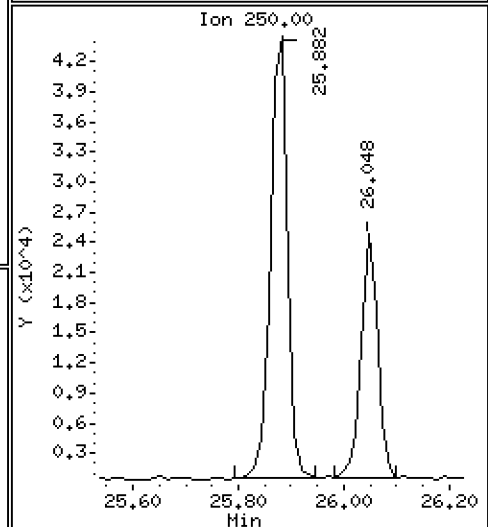
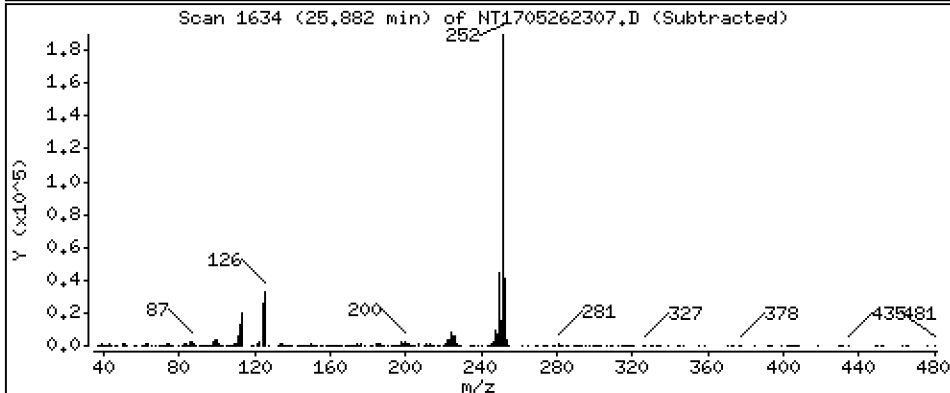
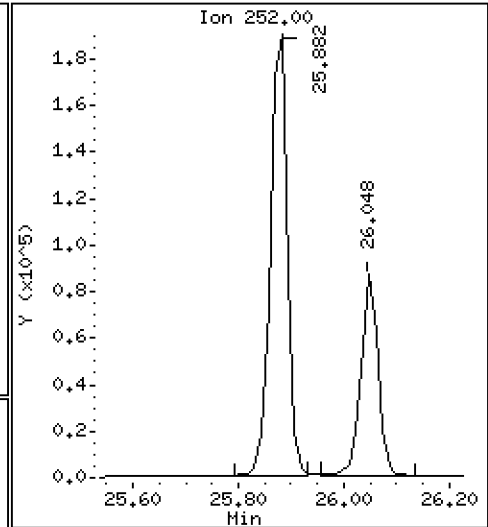
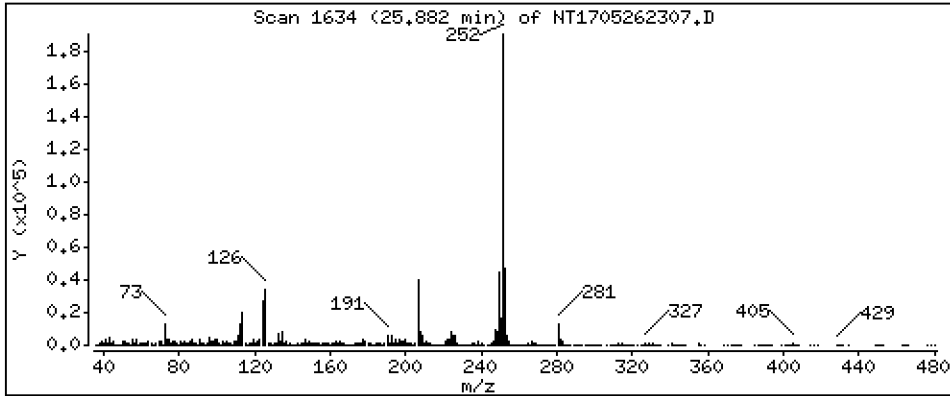
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 3,284 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

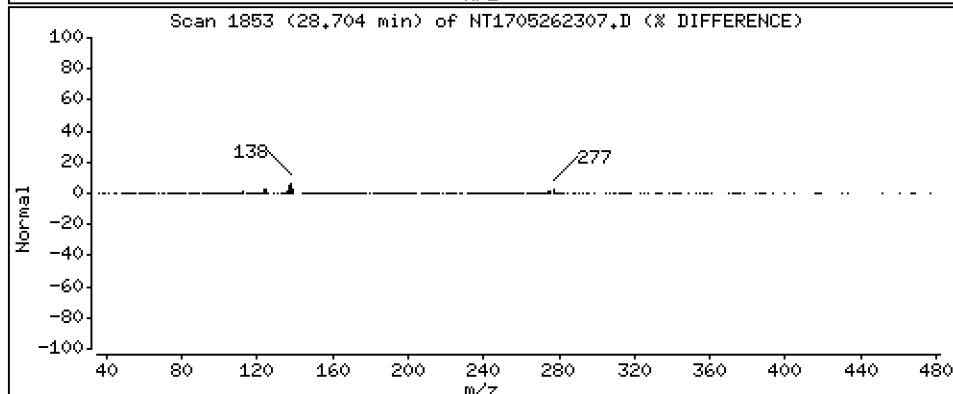
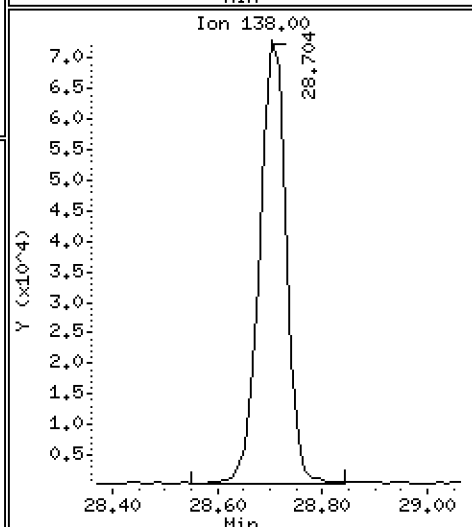
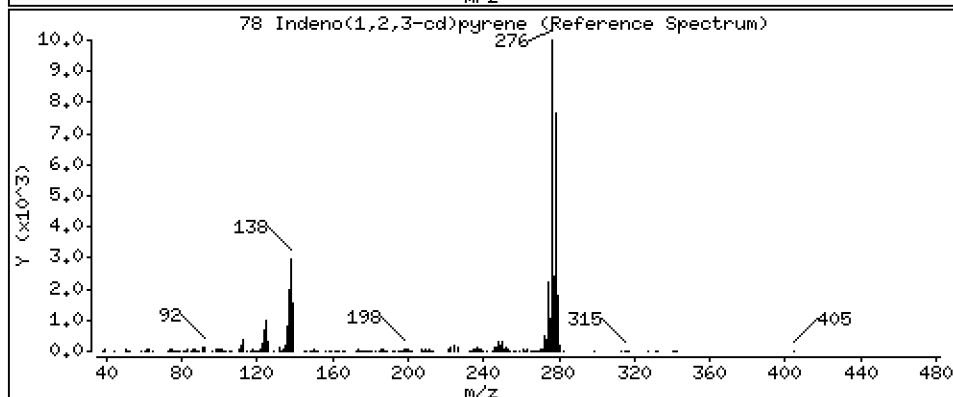
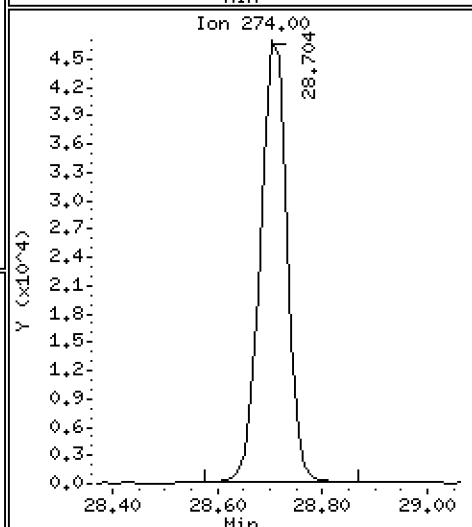
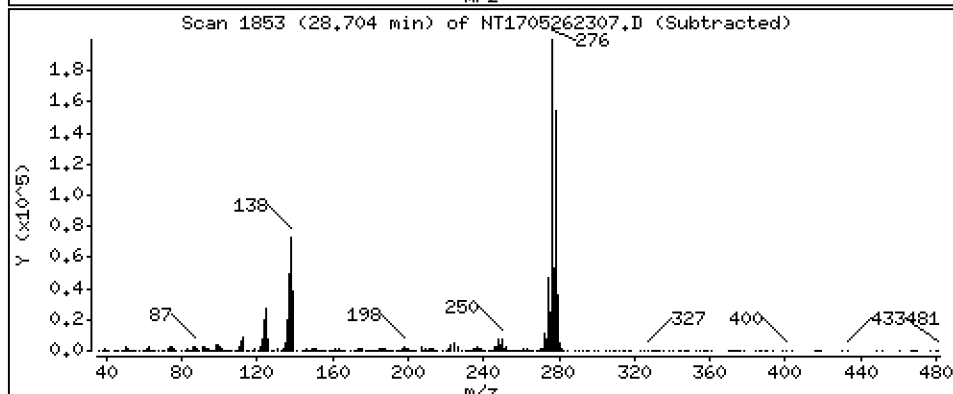
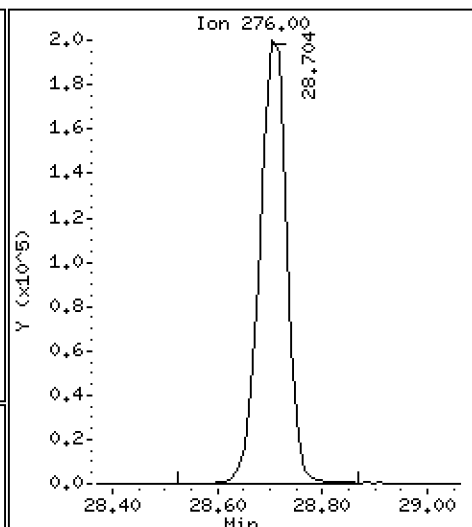
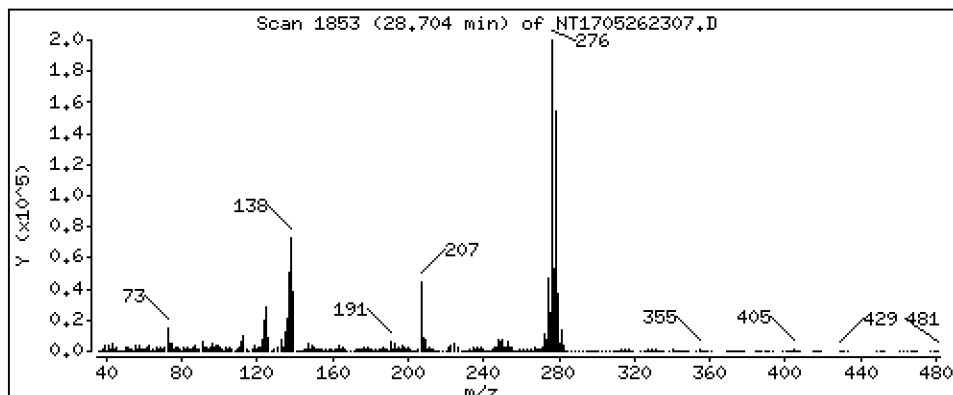
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,669 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

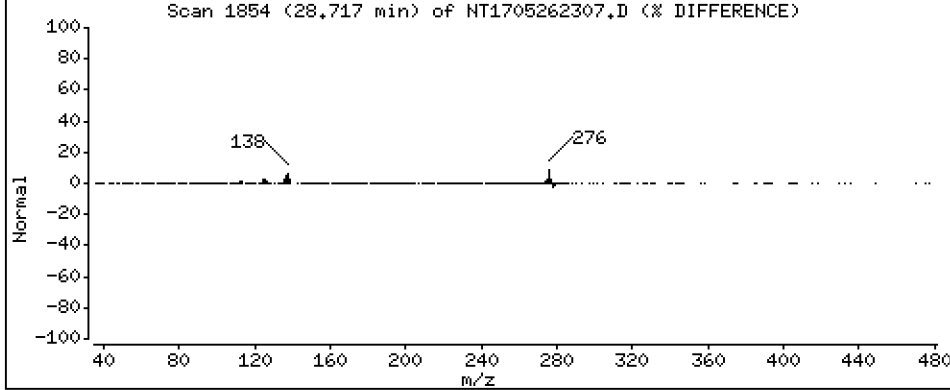
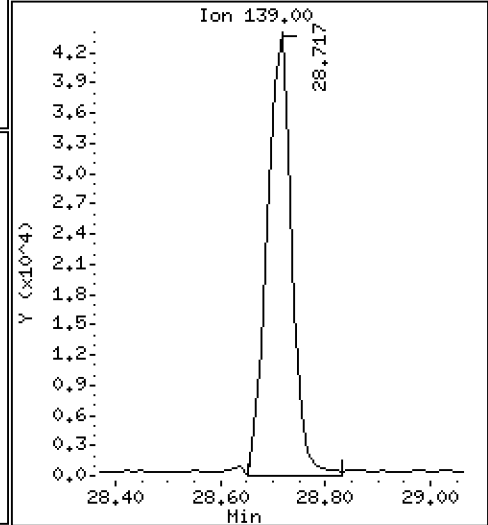
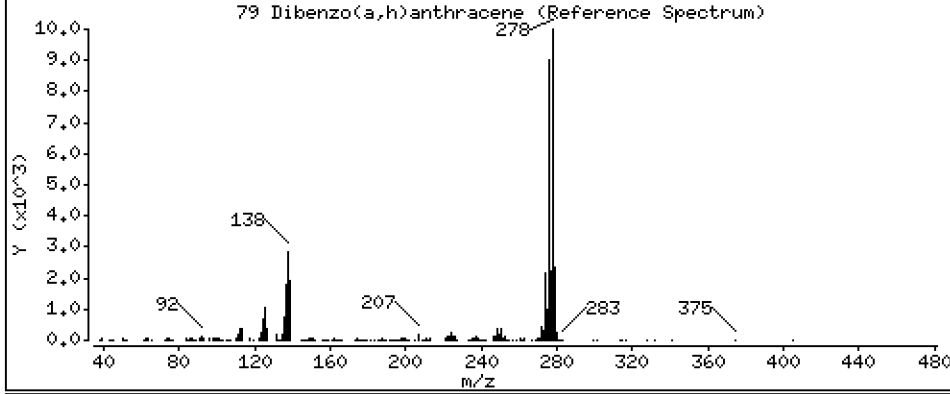
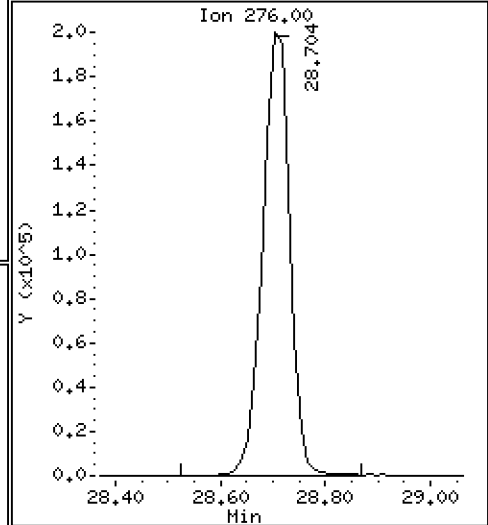
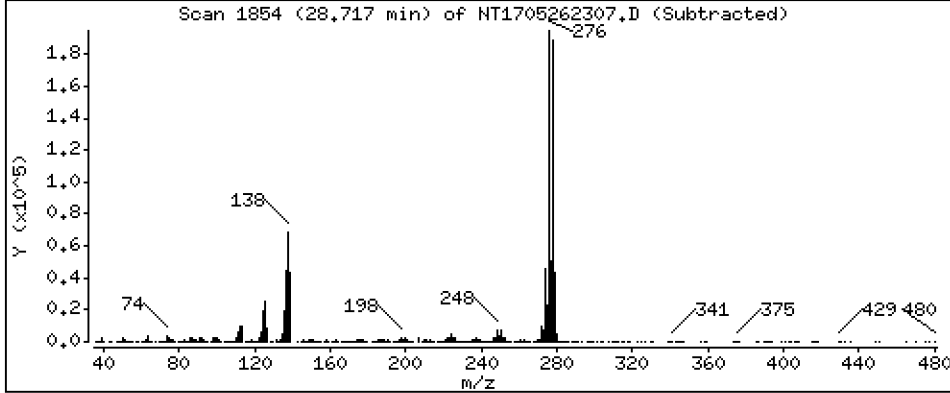
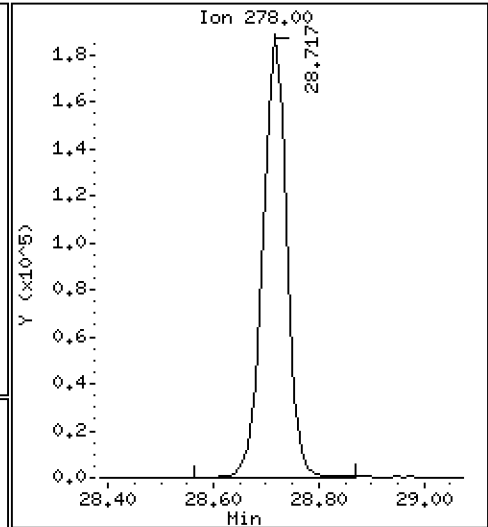
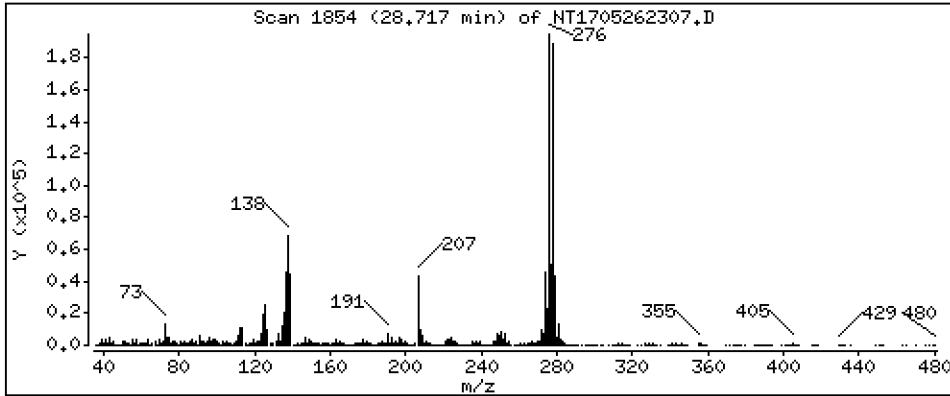
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,709 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

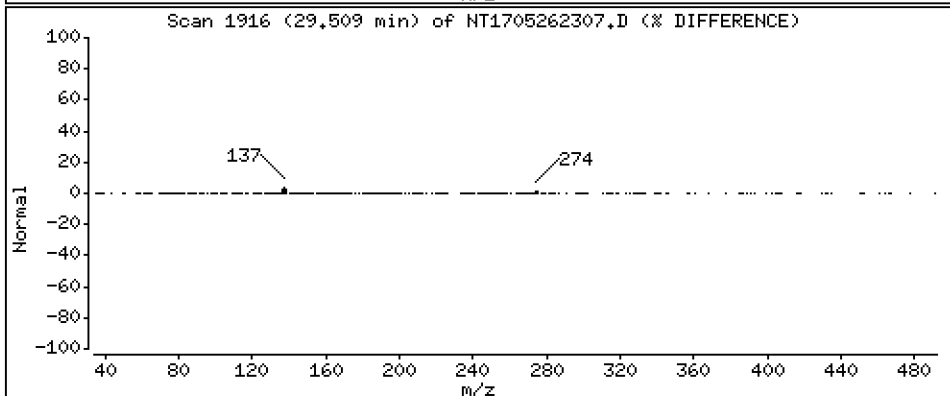
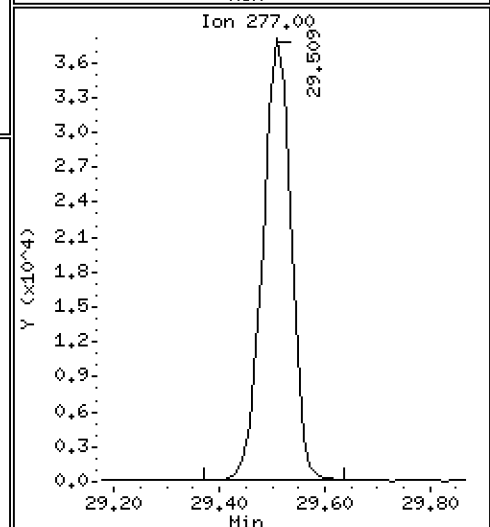
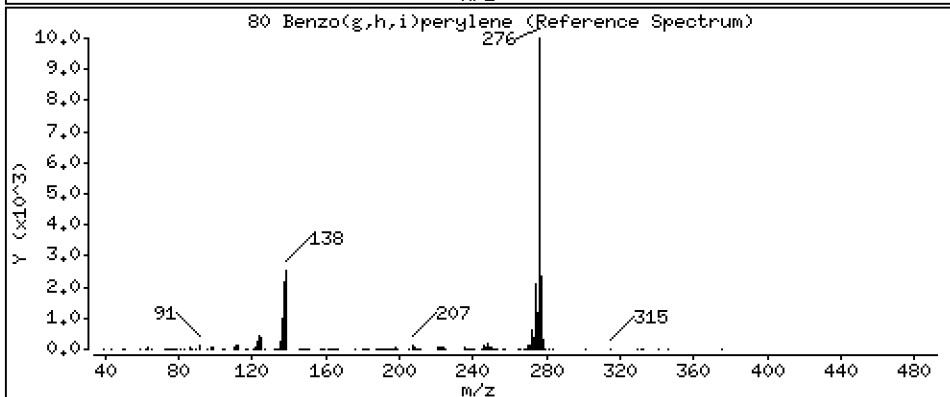
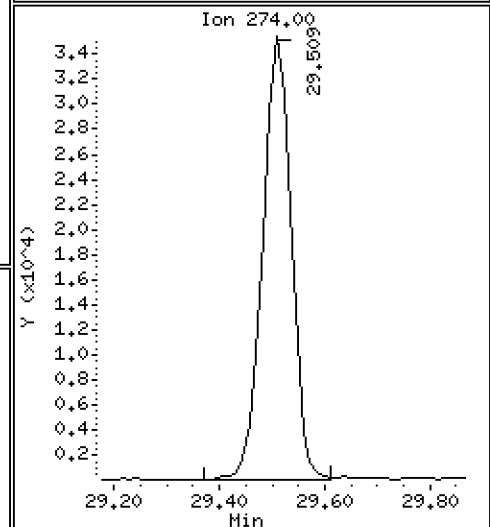
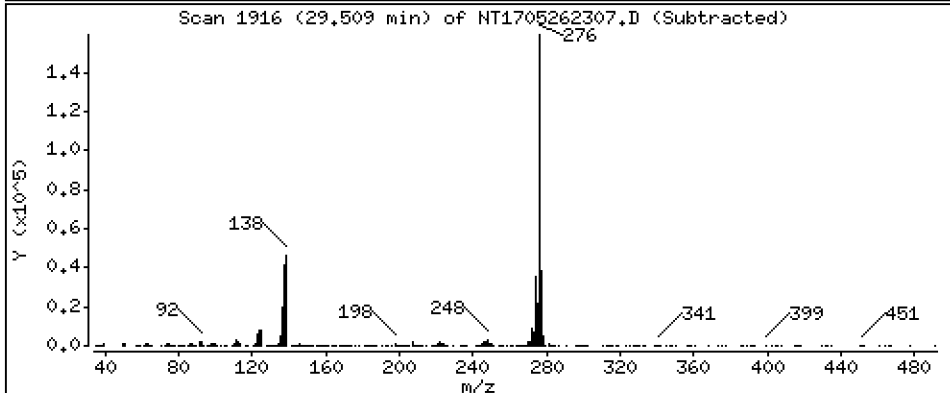
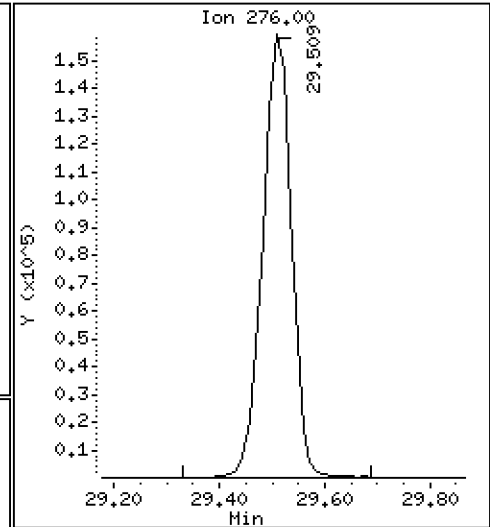
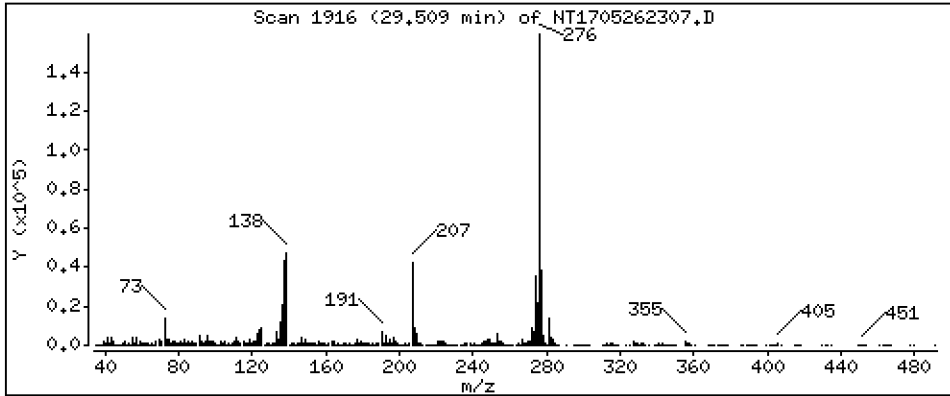
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,695 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

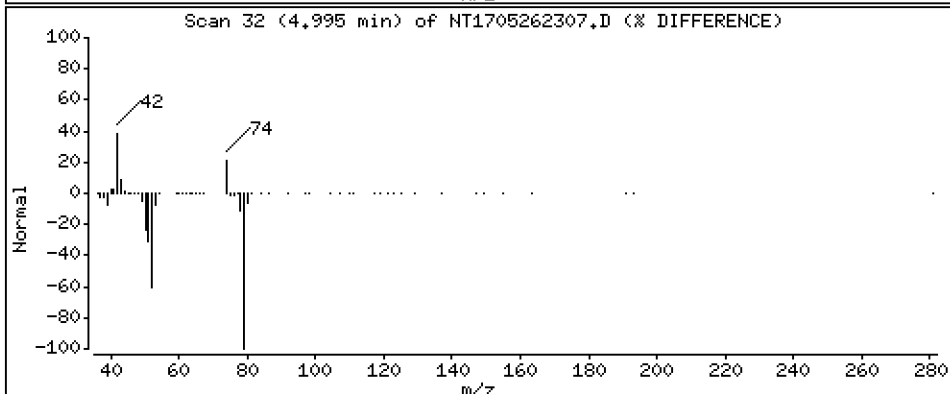
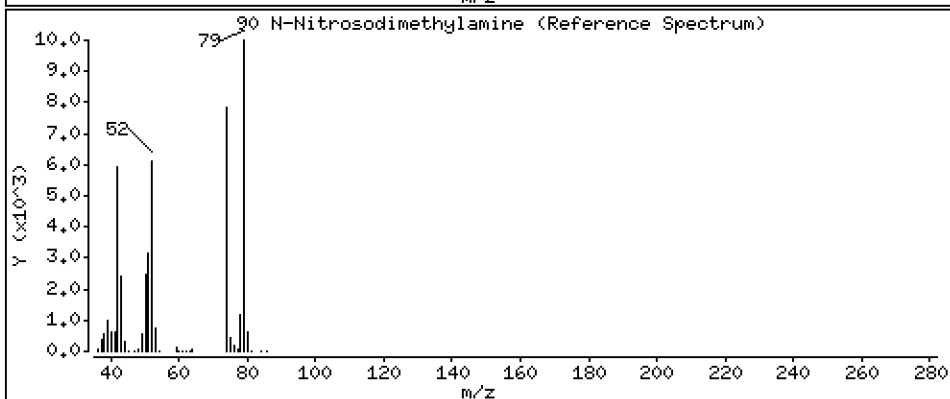
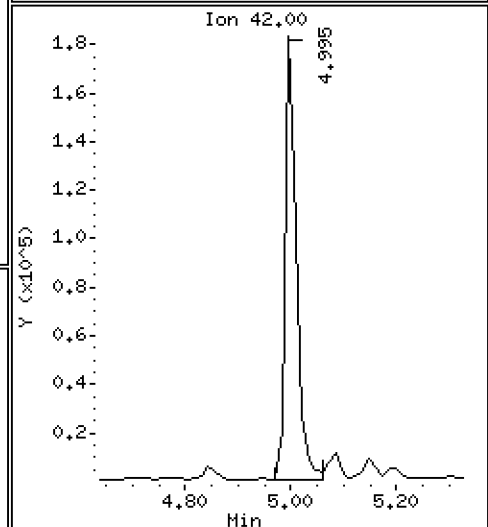
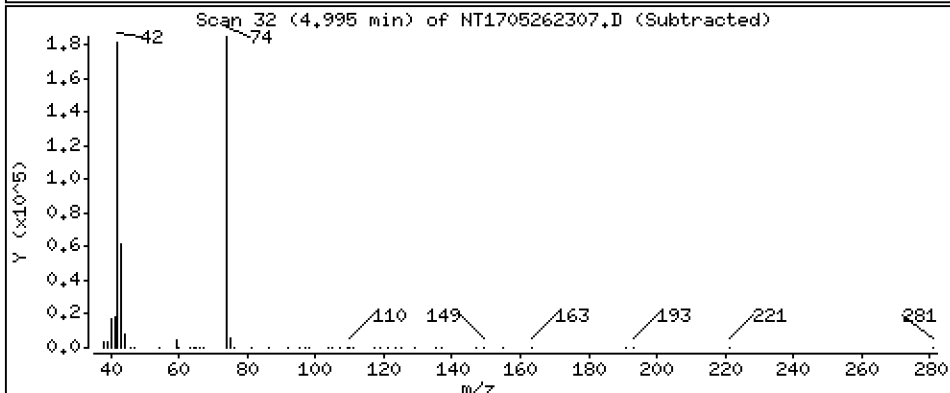
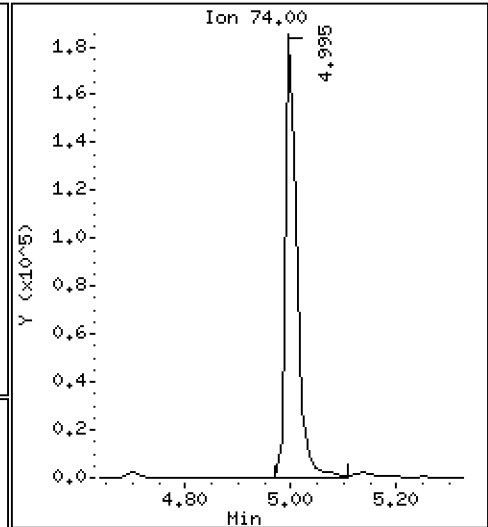
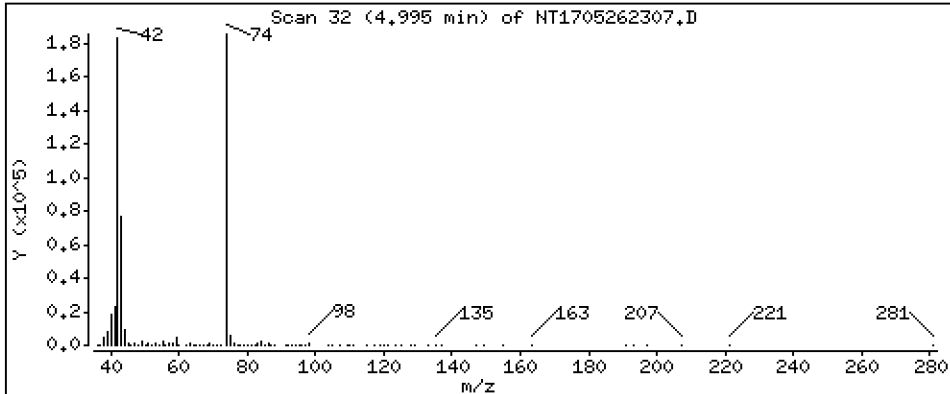
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,022 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

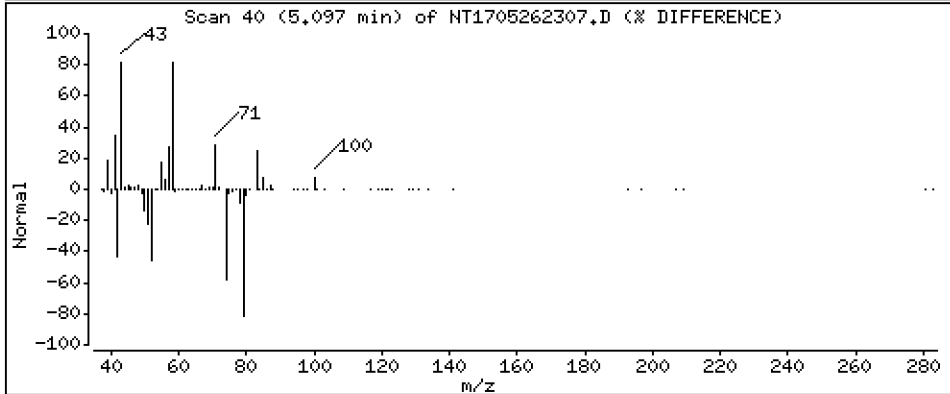
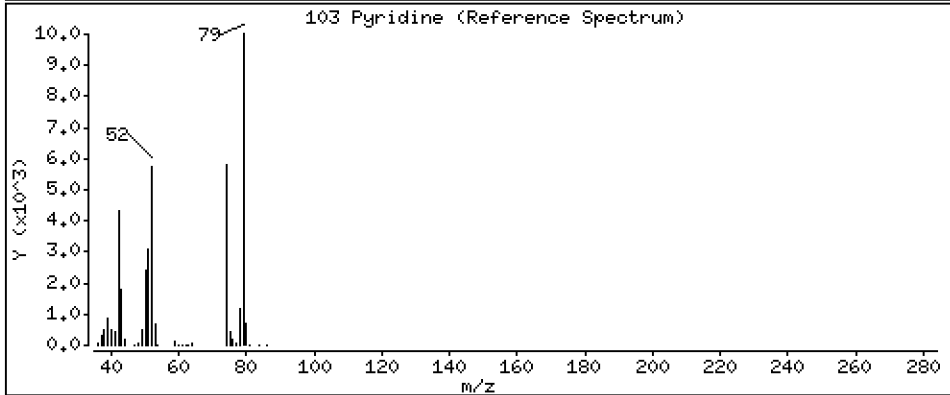
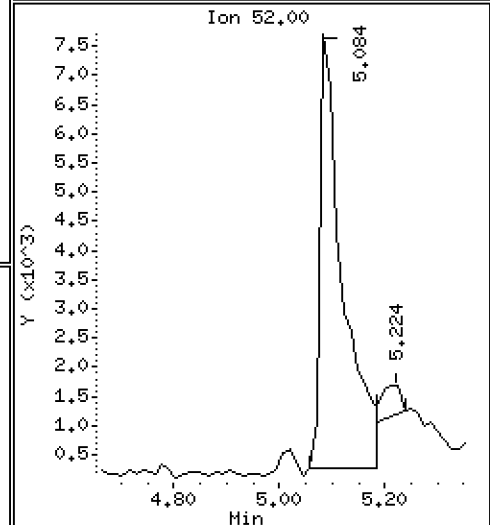
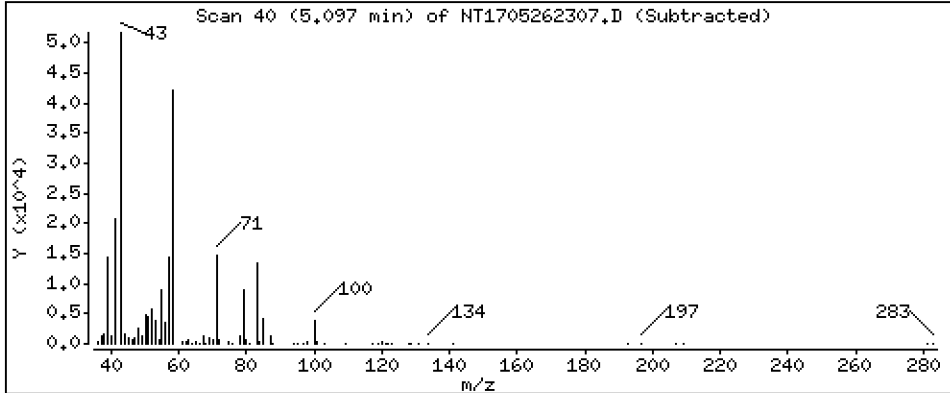
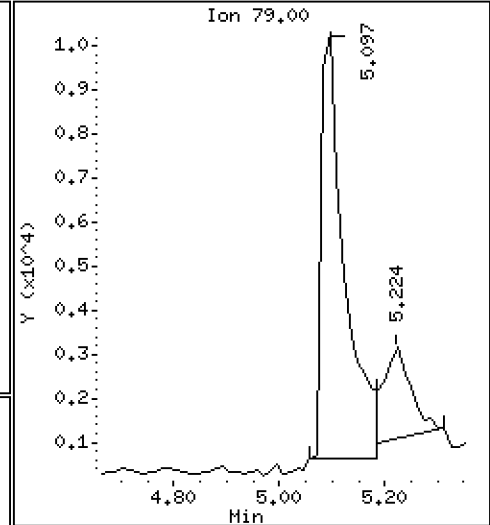
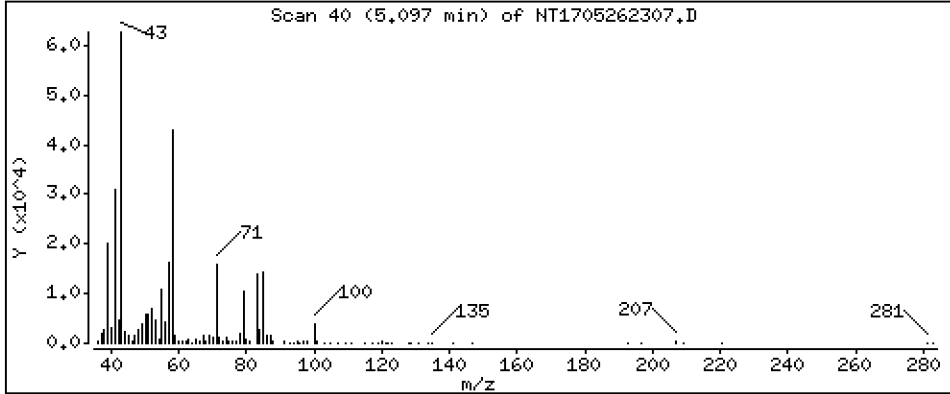
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,3212 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

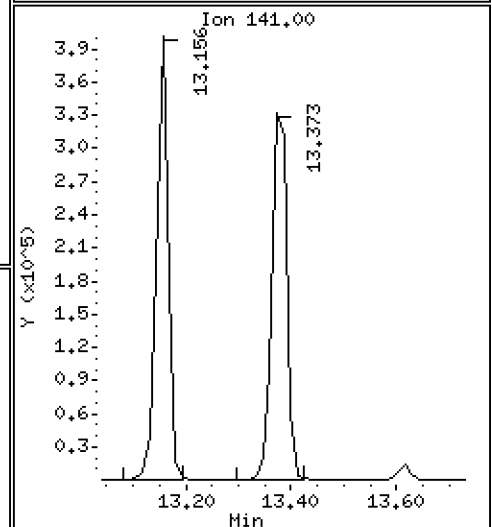
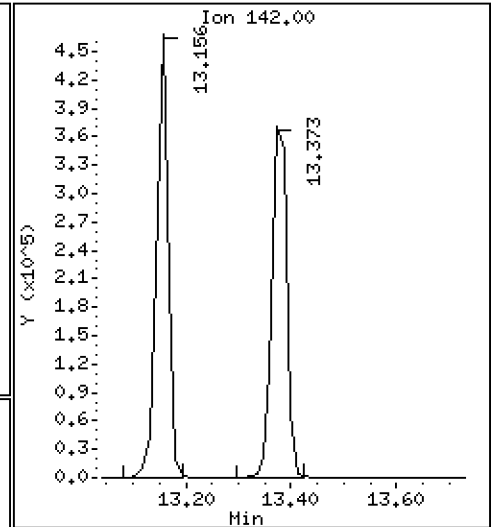
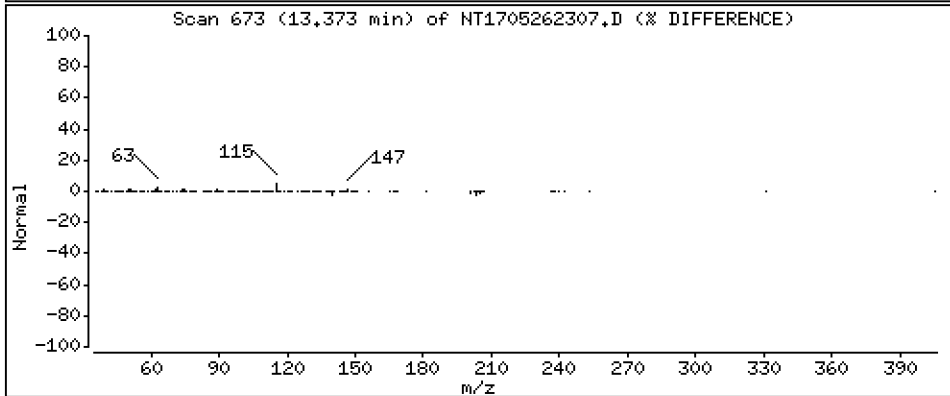
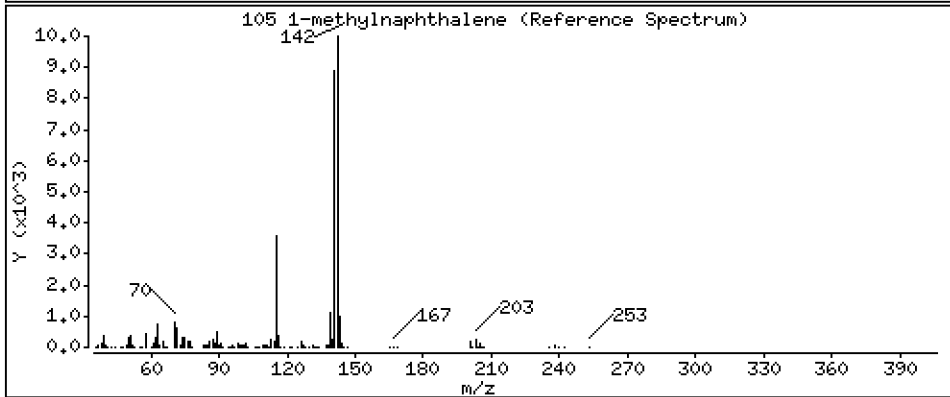
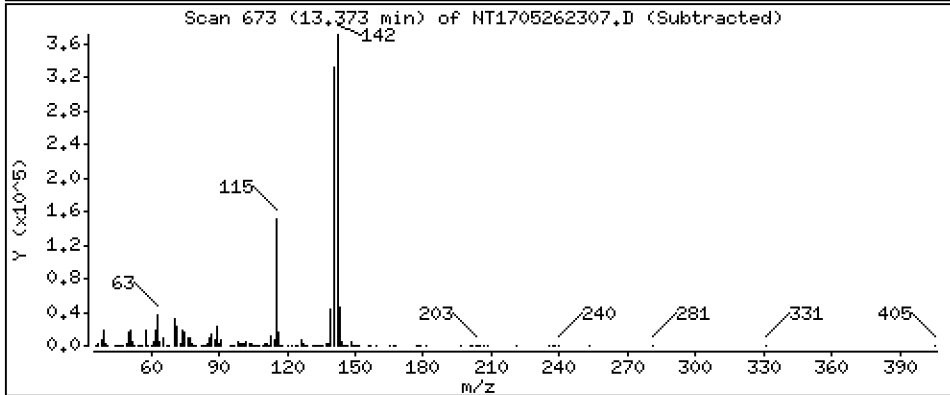
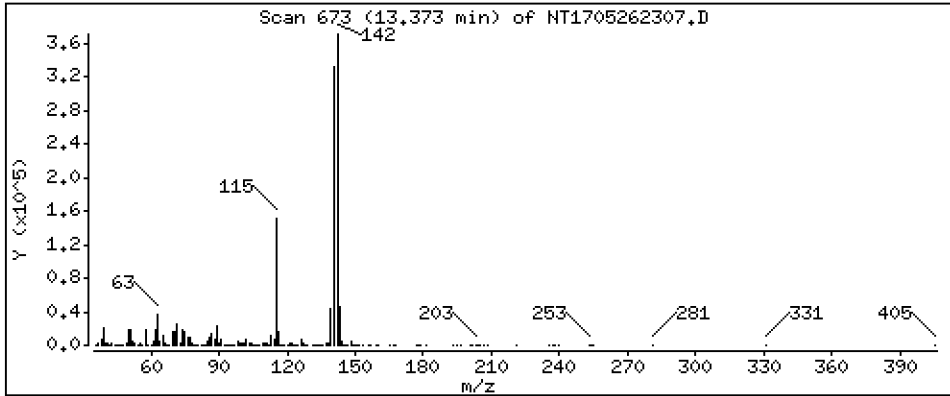
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,972 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

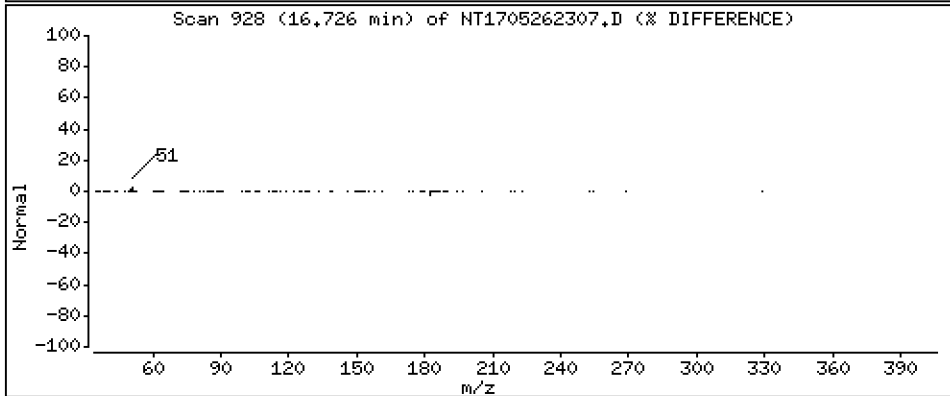
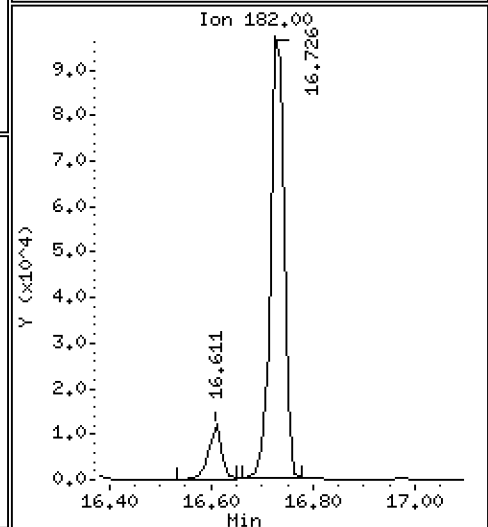
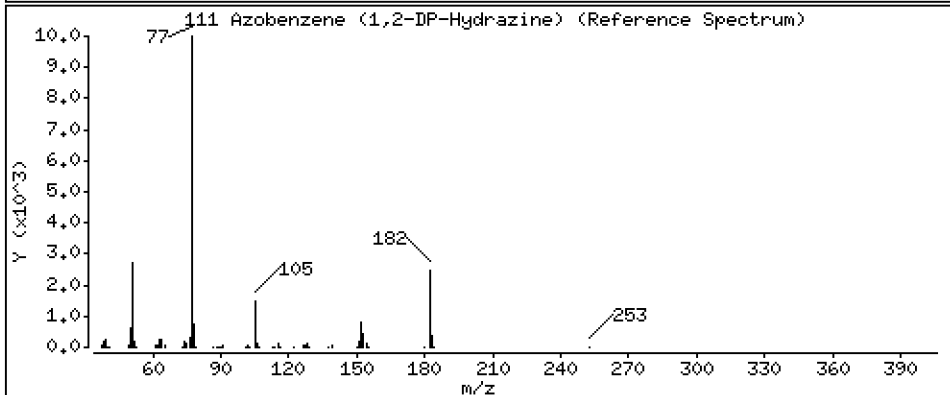
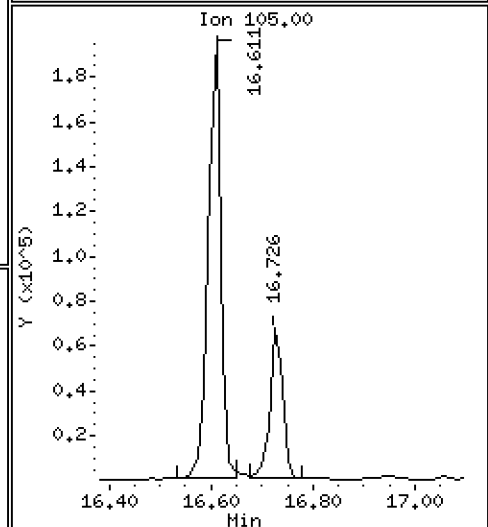
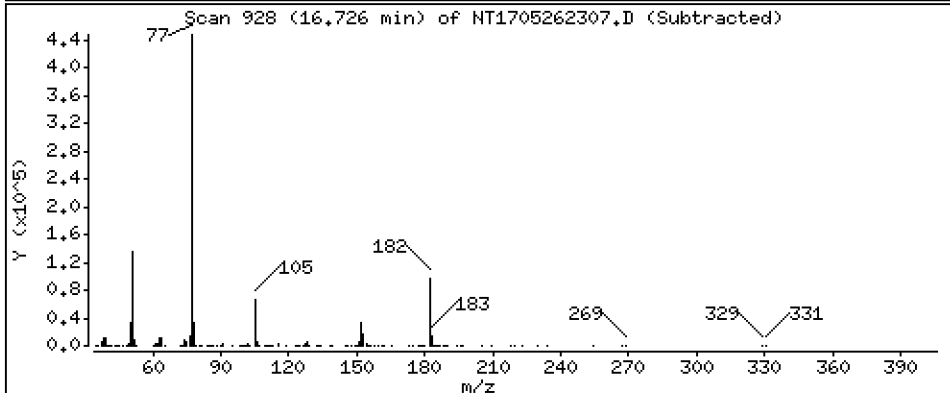
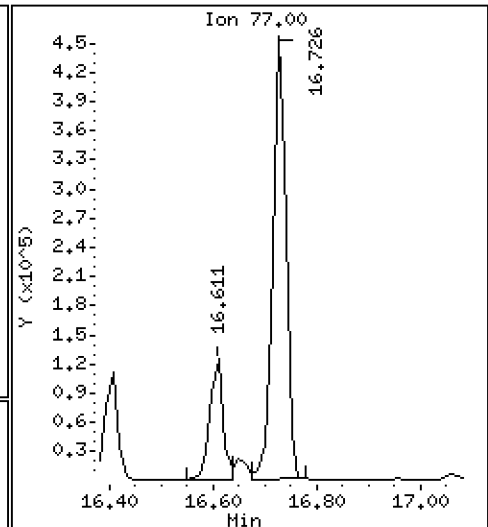
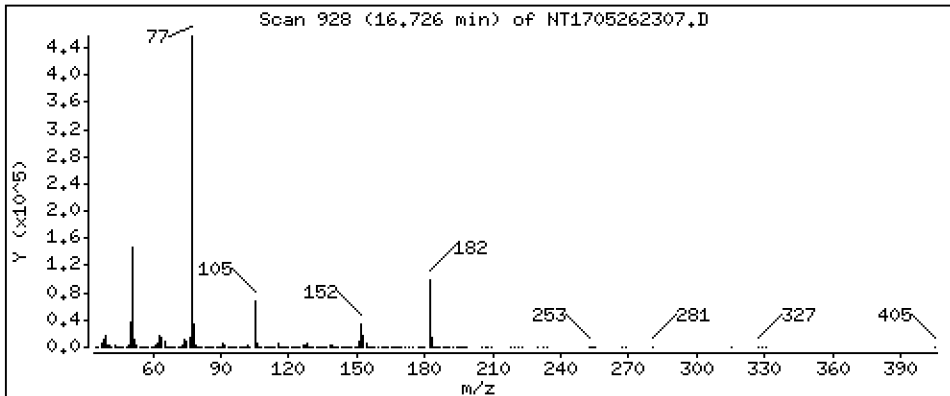
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,011 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

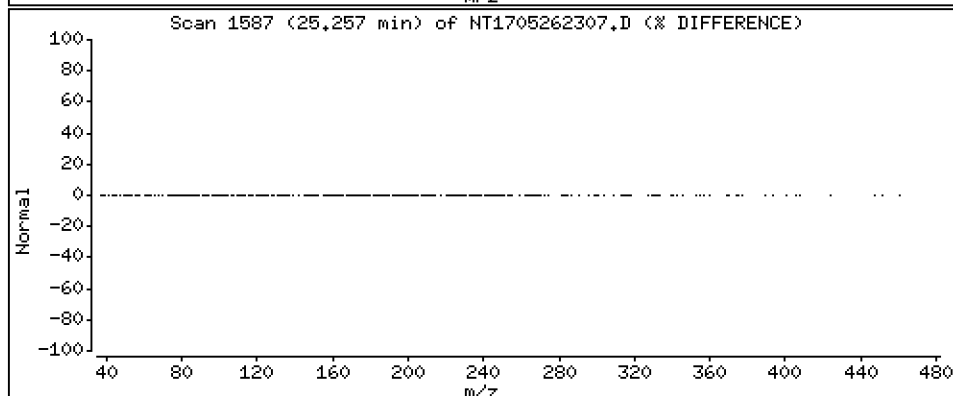
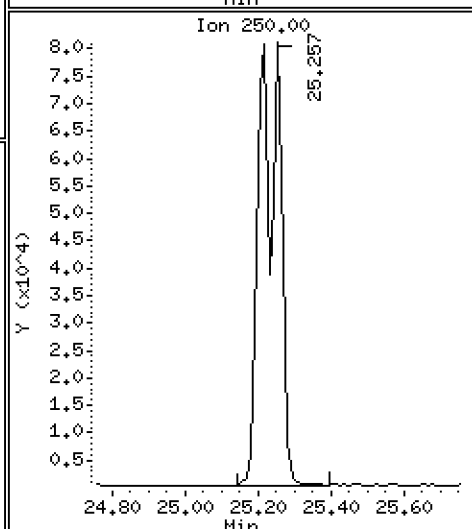
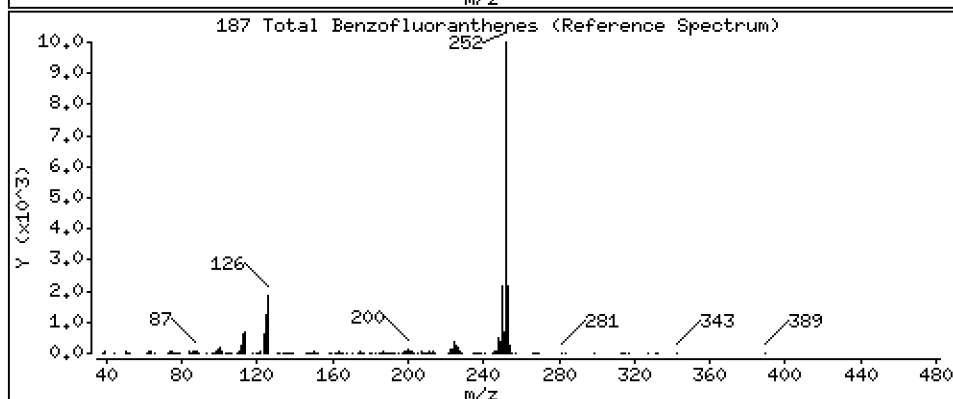
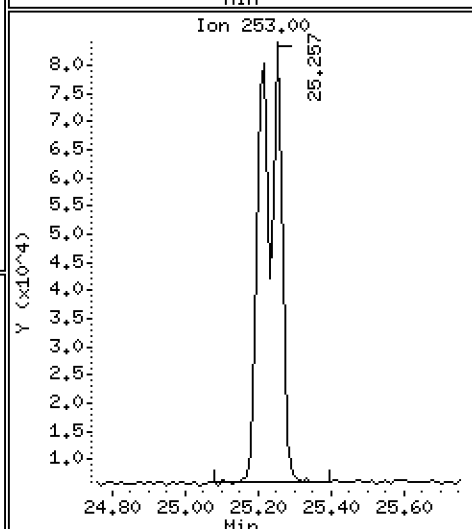
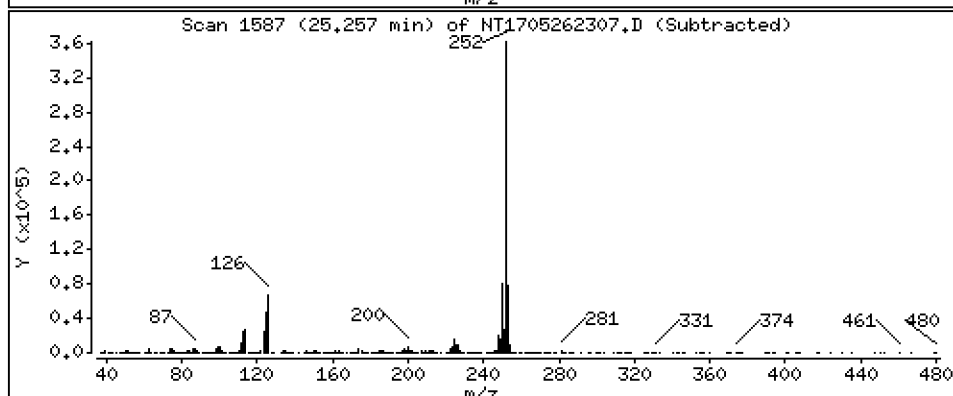
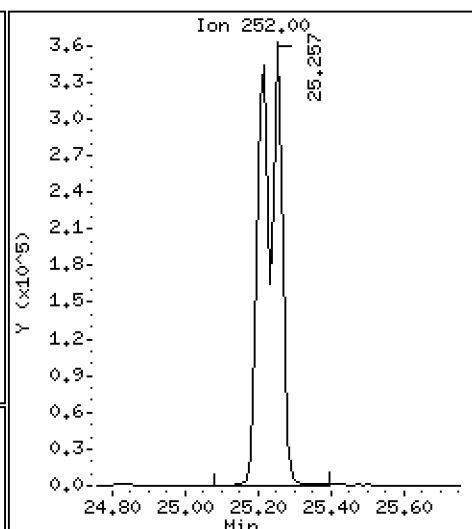
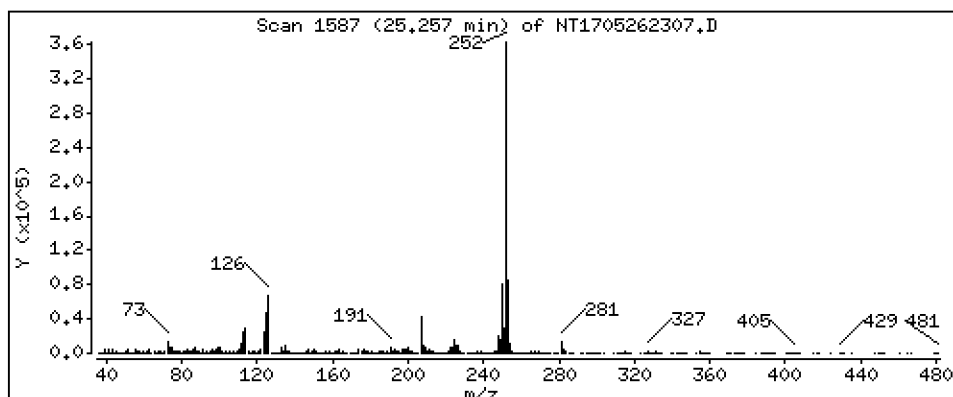
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,154 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS1

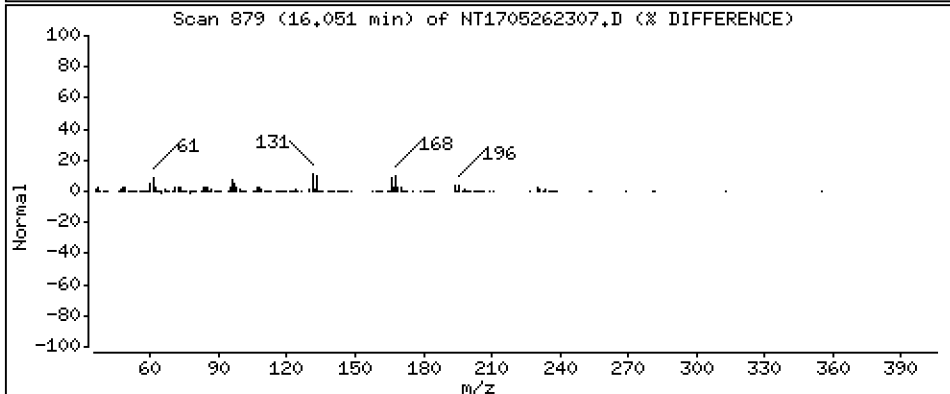
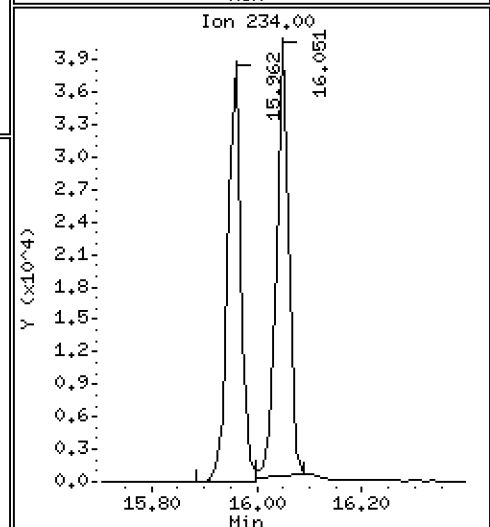
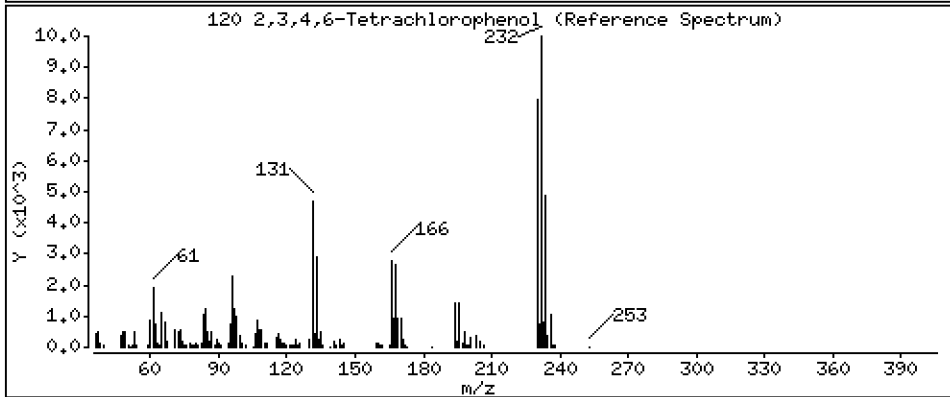
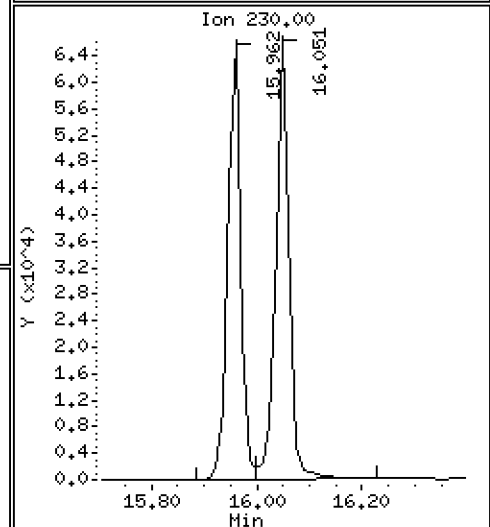
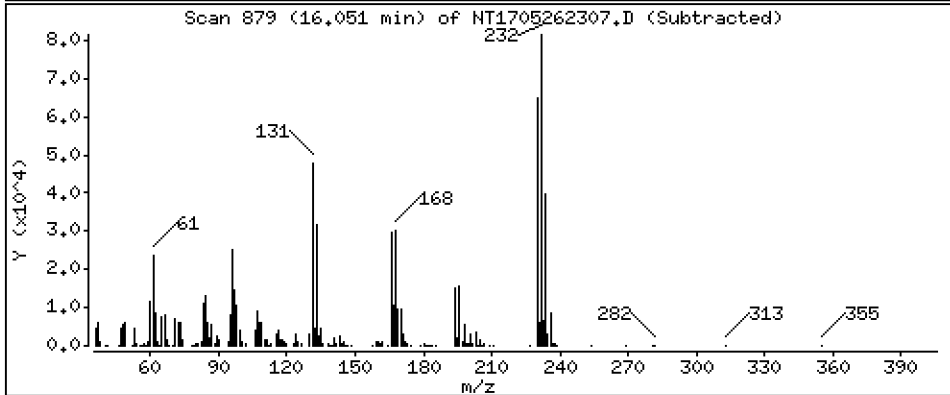
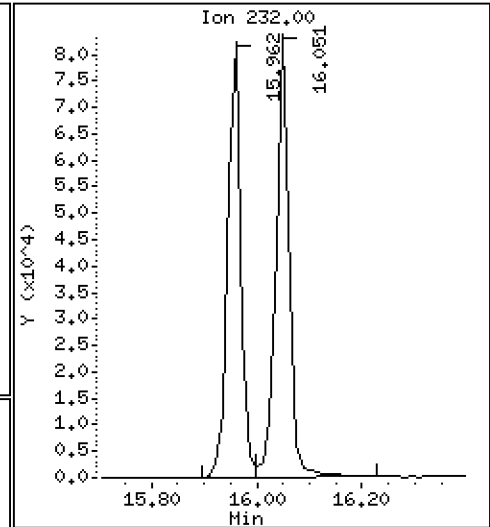
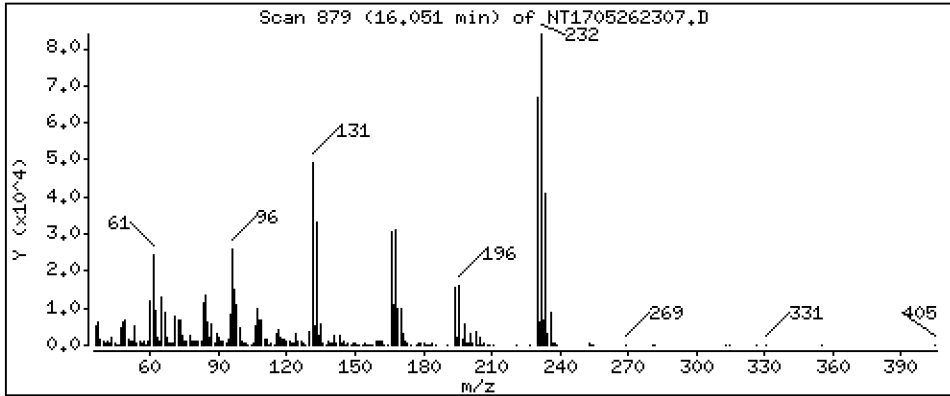
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,594 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262307.D
 Lab Smp Id: BLD0607-BS1
 Inj Date : 26-MAY-2023 16:25
 Operator : VTS
 Smp Info : BLD0607-BS1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.084	7.071	(0.765)	531735	6.00052	6.001
\$ 2 Phenol-d5	99		8.638	8.638	(0.933)	691245	5.89445	5.894
3 Phenol	94		8.651	8.651	(0.934)	455941	3.67067	3.671
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	589209	6.27260	6.273
4 Bis(2-Chloroethyl)ether	93		8.804	8.804	(0.950)	400595	4.42402	4.424
6 2-Chlorophenol	128		8.944	8.931	(0.966)	363273	3.50219	3.502
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	401329	3.82294	3.823
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	270705	4.00000	
9 1,4-Dichlorobenzene	146		9.289	9.289	(1.003)	396480	3.78683	3.787
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	263675	3.99364	3.994
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	393023	3.99320	3.993
11 Benzyl alcohol	108		9.531	9.531	(1.029)	232828	4.02603	4.026
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	127005	4.57811	4.578
13 2-Methylphenol	108		9.761	9.748	(1.054)	214361	2.34818	2.348
17 Hexachloroethane	117		10.234	10.234	(1.105)	169393	4.04454	4.045
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	156630	2.24260	2.243
15 4-Methylphenol	108		10.030	10.017	(1.083)	286305	3.08023	3.080
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	481330	4.31798	4.318
19 Nitrobenzene	77		10.387	10.387	(0.886)	462126	4.34527	4.345
20 Isophorone	82		10.822	10.834	(0.923)	709285	4.87204	4.872
21 2-Nitrophenol	139		11.013	11.013	(0.939)	196456	3.83347	3.833
22 2,4-Dimethylphenol	107		11.052	11.051	(0.942)	86735	0.87170	0.8717
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	419634	4.70313	4.703
24 Benzoic acid	105		11.307	11.307	(0.964)	1727850	25.8148	25.81
25 2,4-Dichlorophenol	162		11.460	11.460	(0.977)	855578	10.7007	10.70
26 1,2,4-Trichlorobenzene	180		11.639	11.651	(0.992)	400763	4.61507	4.615
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	979437	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	1054889	3.91652	3.917
29 4-Chloroaniline	127		11.906	11.893	(1.015)	138953	1.30878	1.309
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	217851	5.06445	5.064
31 4-Chloro-3-methylphenol	107		12.850	12.850	(1.096)	1010972	11.7429	11.74
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	739041	3.83221	3.832
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	130250	2.77382	2.774

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	613956	11.6202	11.62
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	665043	11.8902	11.89
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	842705	4.23597	4.236
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	661401	4.09812	4.098
38 2-Nitroaniline	65	14.406	14.406	(0.940)	641479	11.7361	11.74
39 Dimethylphthalate	163	14.827	14.826	(0.968)	790286	4.54834	4.548
40 Acenaphthylene	152	15.018	15.018	(0.980)	886452	3.45874	3.459
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	484891	11.9197	11.92
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	504985	4.00000	
43 3-Nitroaniline	138	15.260	15.247	(0.996)	119086	3.16068	3.161
44 Acenaphthene	153	15.388	15.388	(1.004)	653097	4.07654	4.077
45 2,4-Dinitrophenol	184	15.464	15.464	(1.009)	585895	22.8572	22.86
46 Dibenzofuran	168	15.719	15.719	(1.026)	913793	4.08662	4.087
47 4-Nitrophenol	109	15.579	15.579	(1.017)	312561	12.4894	12.49
48 2,4-Dinitrotoluene	165	15.770	15.770	(1.029)	622155	11.6834	11.68
50 Diethylphthalate	149	16.267	16.267	(1.062)	1009881	5.95979	5.960
49 Fluorene	166	16.420	16.420	(1.072)	951378	4.47526	4.475
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	434075	4.44135	4.441
52 4-Nitroaniline	138	16.522	16.509	(1.078)	178587	5.00765	5.008
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	723265	22.2683	22.27
54 N-Nitrosodiphenylamine	169	16.649	16.662	(0.908)	256286	2.24797	2.248
§ 55 2,4,6-Tribromophenol	330	16.954	16.954	(1.106)	122398	5.55666	5.557
56 4-Bromophenyl-phenylether	248	17.400	17.400	(0.949)	181963	4.55527	4.555
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	181483	4.45870	4.459
58 Pentachlorophenol	266	18.088	18.088	(0.986)	293562	11.7547	11.75
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	813869	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	984110	4.14406	4.144
61 Anthracene	178	18.484	18.483	(1.008)	653465	2.93097	2.931
62 Carbazole	167	18.815	18.815	(1.026)	520039	3.70116	3.701
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	1264831	4.69821	4.698
64 Fluoranthene	202	20.753	20.753	(0.889)	1047366	4.45627	4.456
65 Pyrene	202	21.174	21.174	(0.907)	1038798	4.35996	4.360
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	970174	5.72800	5.728
67 Butylbenzylphthalate	149	22.360	22.360	(0.958)	514573	4.82547	4.825
68 Benzo(a)anthracene	228	23.317	23.317	(0.999)	755237	4.08197	4.082
* 69 Chrysene-d12	240	23.343	23.355	(1.000)	502451	4.00000	
70 3,3'-Dichlorobenzidine	252	23.266	23.266	(0.997)	92466	2.56344	2.563
71 Chrysene	228	23.394	23.394	(1.002)	726697	4.17405	4.174
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	726283	4.71781	4.718
* 134 Di-n-octylphthalate-d4	153	24.350	24.363	(1.000)	1064023	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	1269555	4.70717	4.707
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	742841	4.41396	4.414
75 Benzo(k)fluoranthene	252	25.256	25.256	(0.972)	752360	4.73181	4.732
76 Benzo(a)pyrene	252	25.881	25.881	(0.996)	435338	3.28380	3.284
* 77 Perylene-d12	264	25.996	25.996	(1.000)	424472	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.703	28.716	(1.104)	717950	4.66892	4.669
79 Dibenzo(a,h)anthracene	278	28.716	28.729	(1.105)	607780	4.70937	4.709
80 Benzo(g,h,i)perylene	276	29.509	29.521	(1.135)	595880	4.69483	4.695
90 N-Nitrosodimethylamine	74	4.995	4.982	(0.539)	296874	5.02241	5.022
91 Aniline	93	Compound Not Detected.					
93 Benzidine	184	Compound Not Detected.					
103 Pyridine	79	5.097	5.007	(0.550)	30113	0.32118	0.3212 (H)
105 1-methylnaphthalene	142	13.373	13.385	(1.140)	710557	3.97164	3.972
111 Azobenzene (1,2-DP-Hydrazine)	77	16.725	16.725	(1.091)	793287	4.01058	4.011

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.256	25.256	(0.972)	1382840	9.15357	9.154
120 2,3,4,6-Tetrachlorophenol	232		16.050	16.050	(1.047)	163965	2.59372	2.594

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262307.D Calibration Time: 13:16
 Lab Smp Id: BLD0607-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	270705	-10.81
27 Naphthalene-d8	1140476	570238	2280952	979437	-14.12
42 Acenaphthene-d10	622461	311231	1244922	504985	-18.87
59 Phenanthrene-d10	1074054	537027	2148108	813869	-24.22
69 Chrysene-d12	723807	361904	1447614	502451	-30.58
134 Di-n-octylphthala	1524055	762028	3048110	1064023	-30.18
77 Perylene-d12	666992	333496	1333984	424472	-36.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.34	-0.05
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262307.D

Lab ID: BLD0607-BS1
nt17.i, ABN.m, 26-MAY-2023 16:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.550	0.541	0.0096	Pyridine

RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262308.D

Date: 26-May-2023 17:02

Client ID:

Sample Info: BLD0607-BSM1

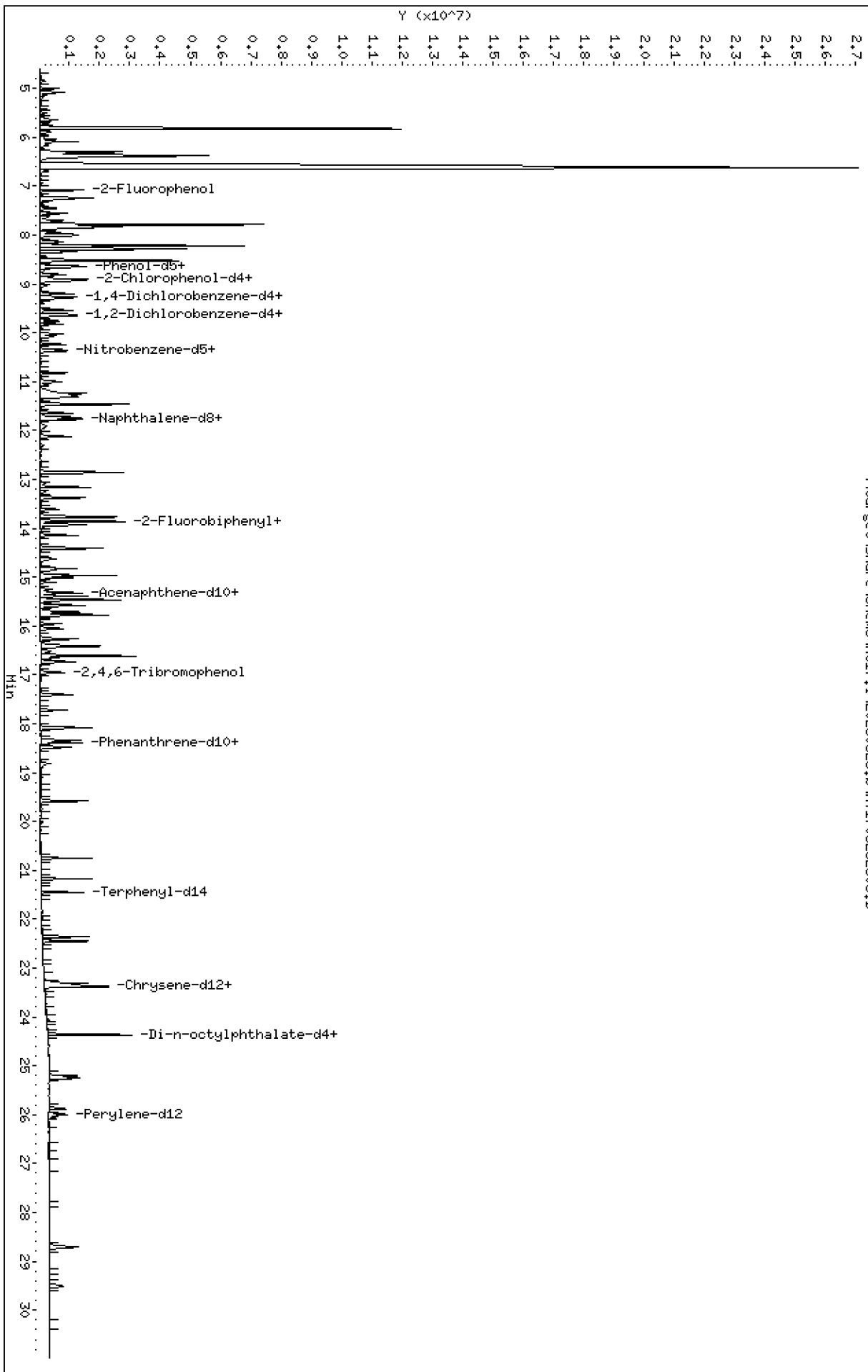
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

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Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

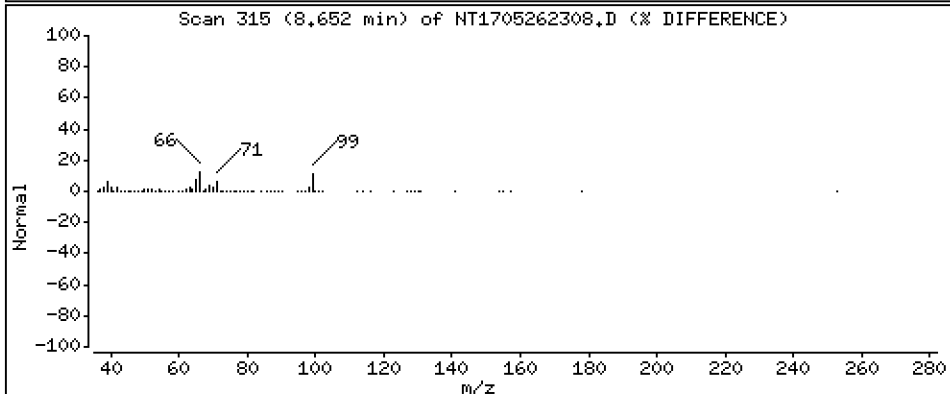
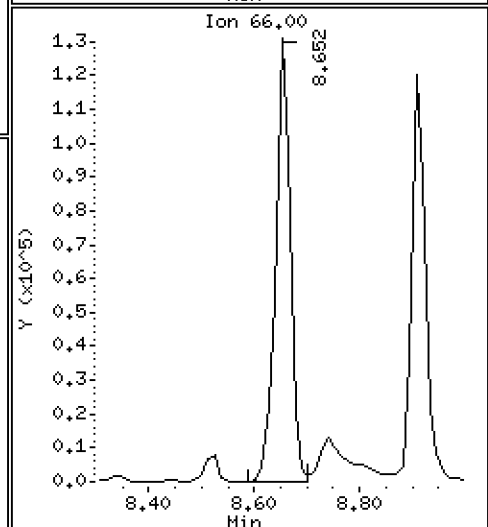
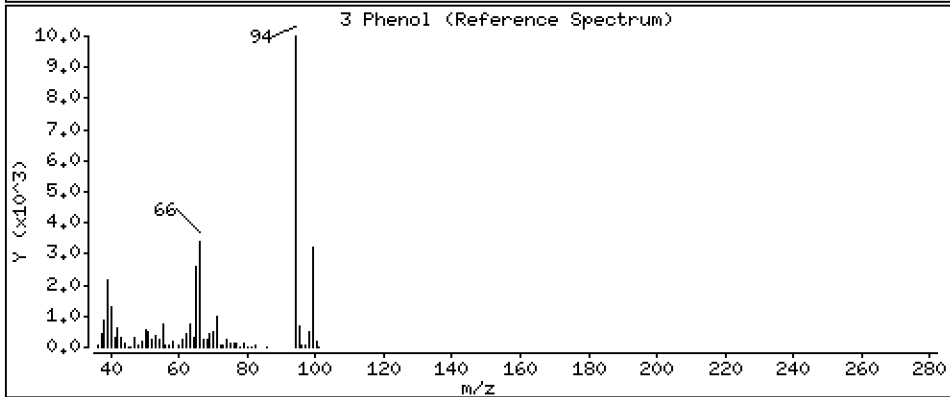
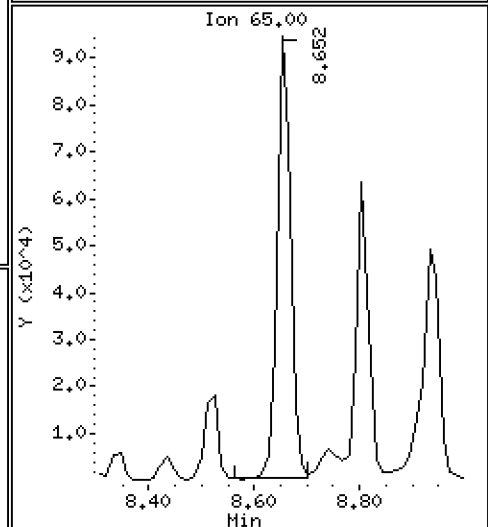
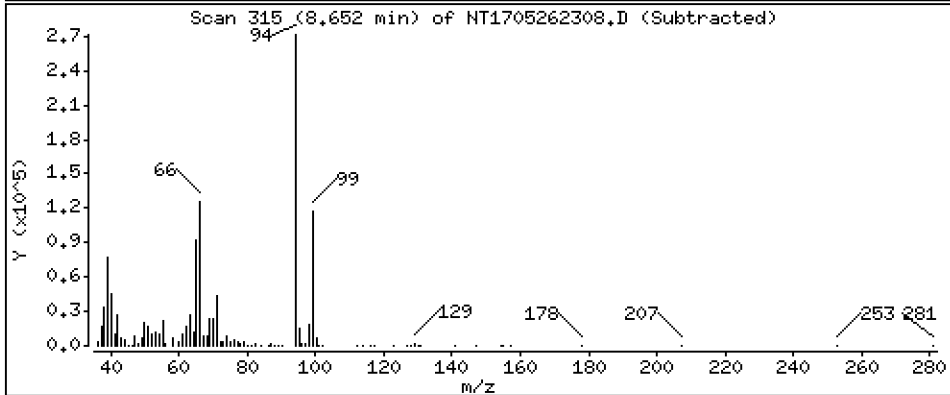
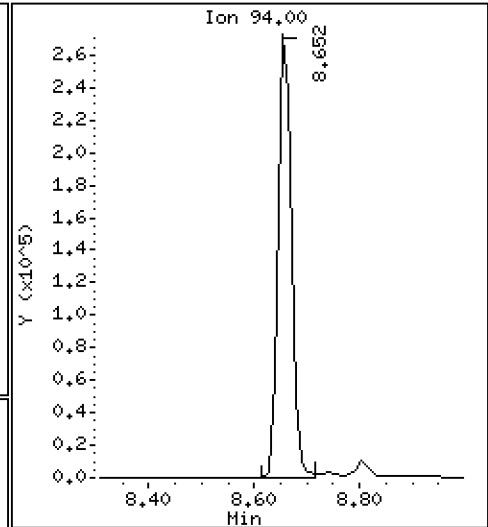
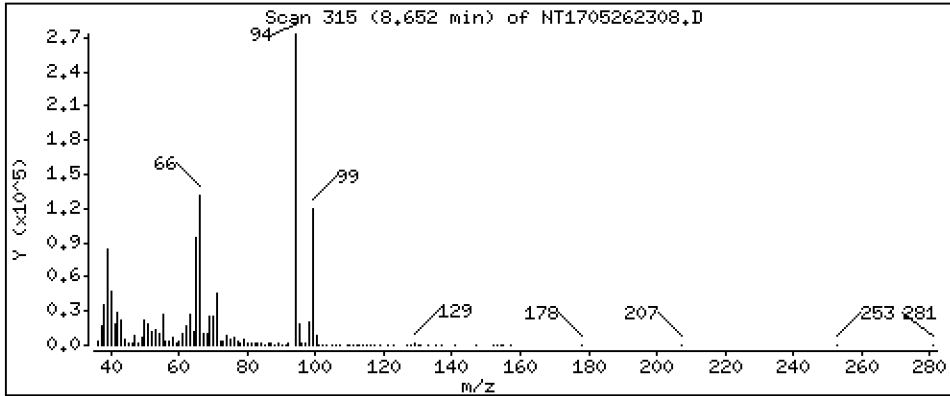
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,865 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

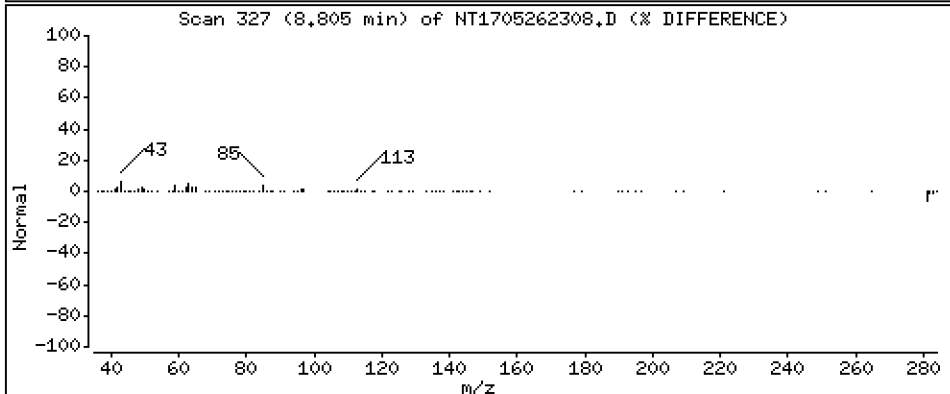
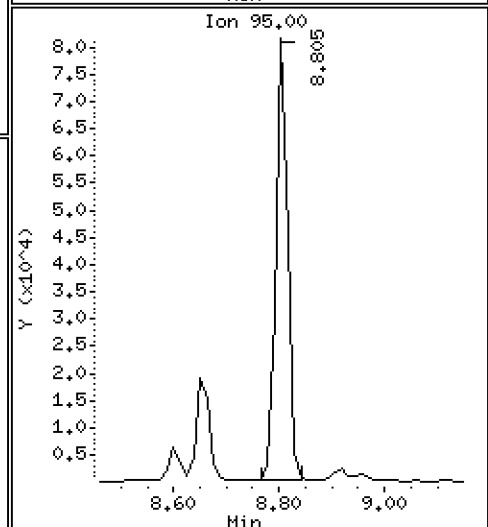
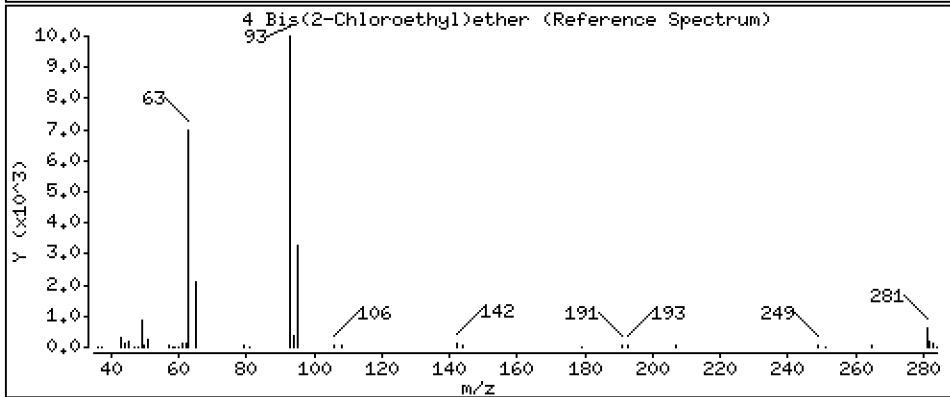
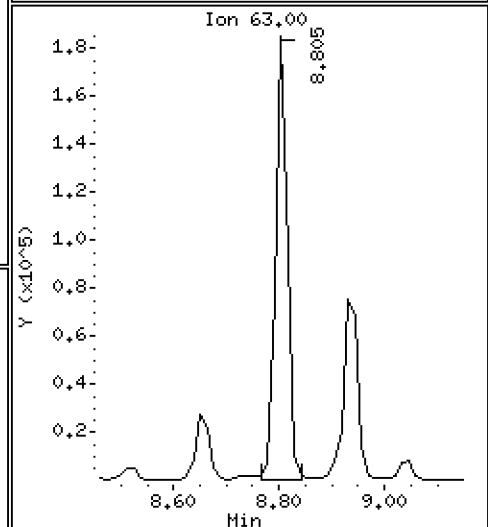
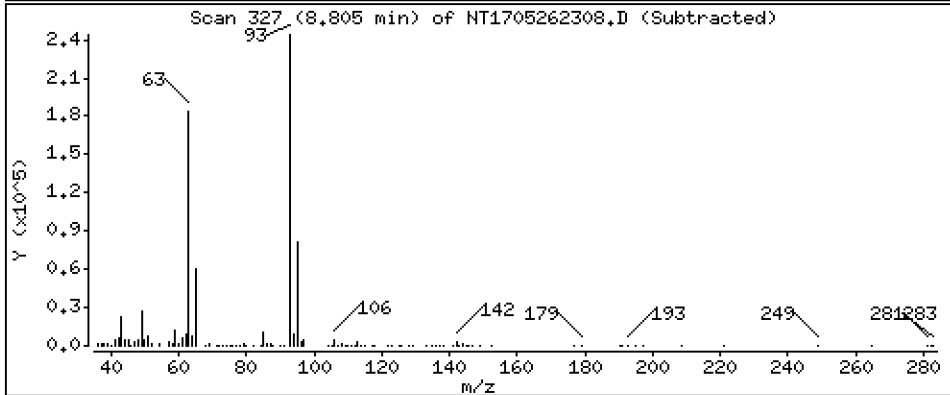
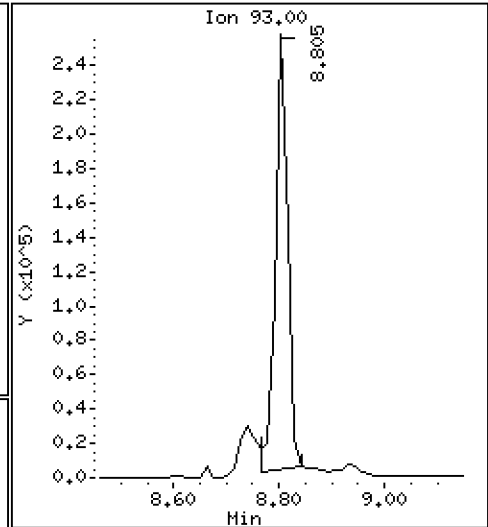
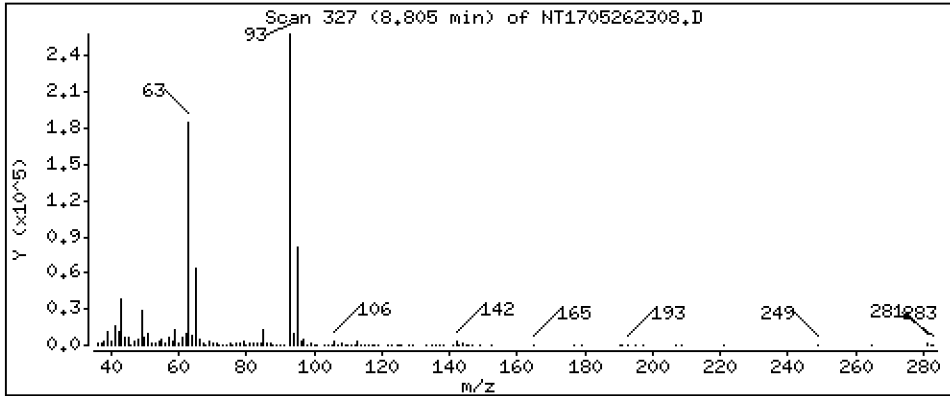
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,452 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

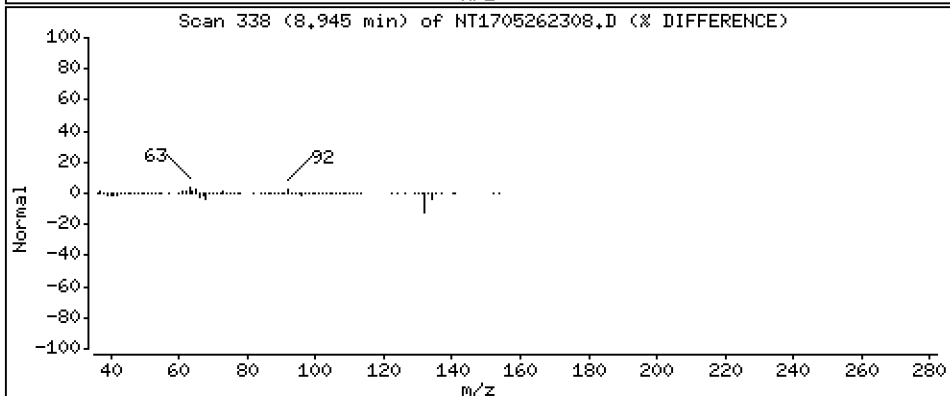
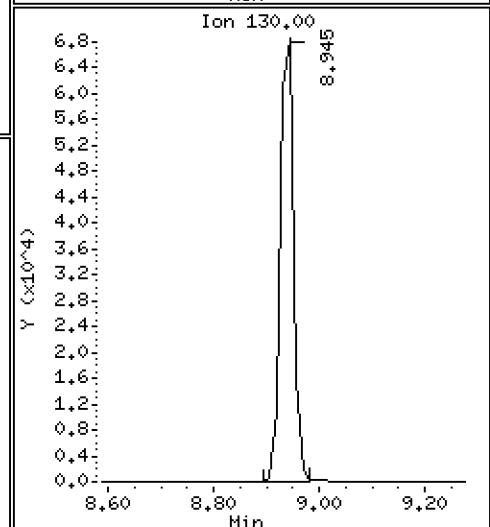
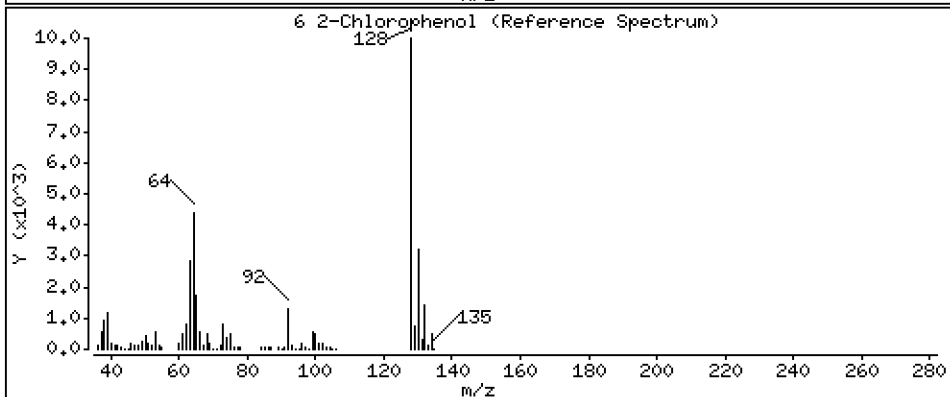
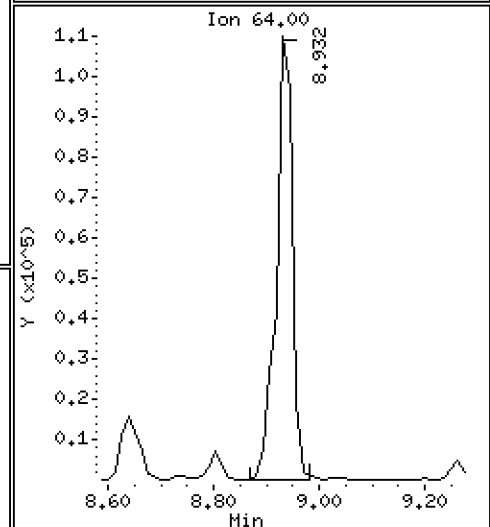
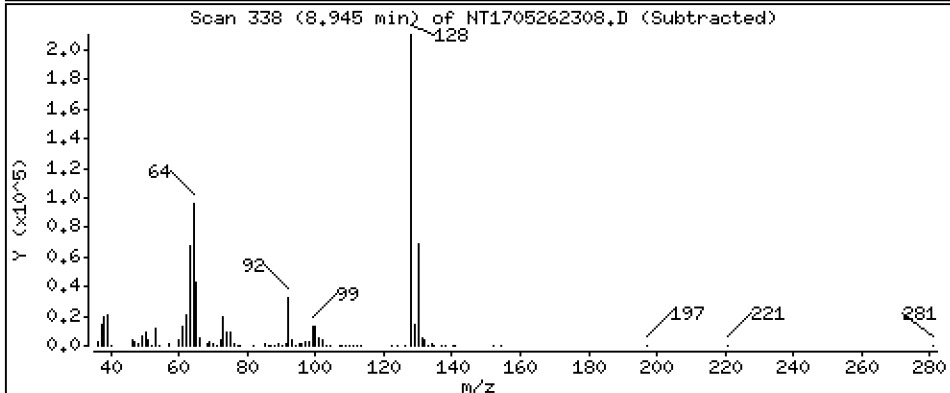
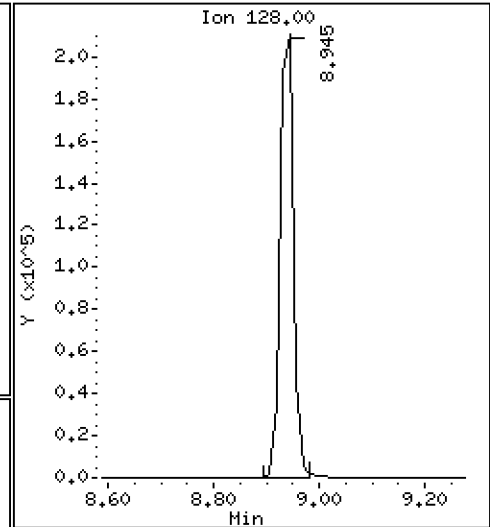
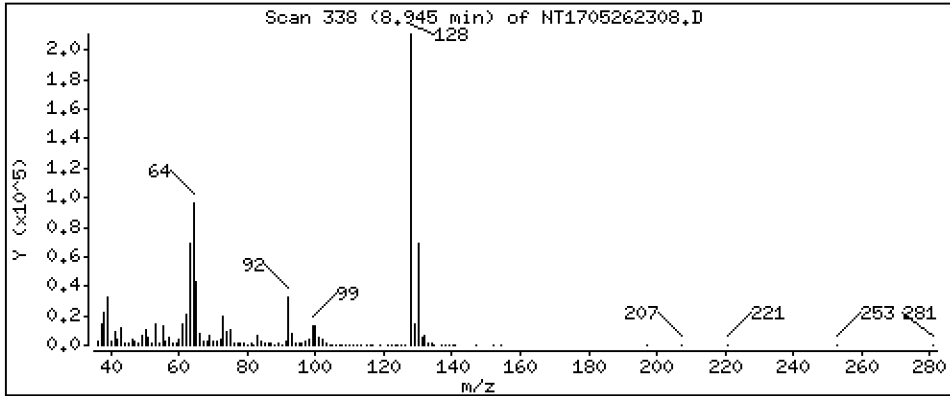
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 3,571 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

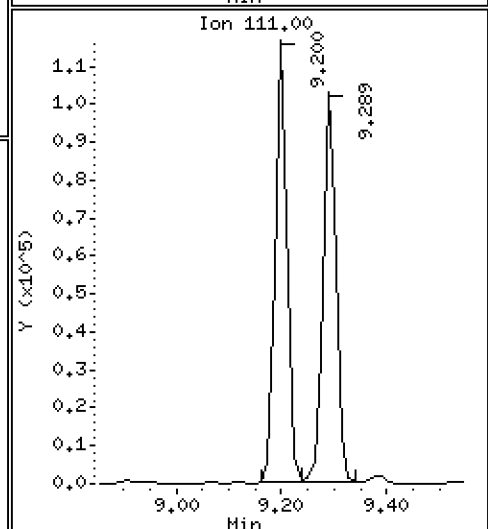
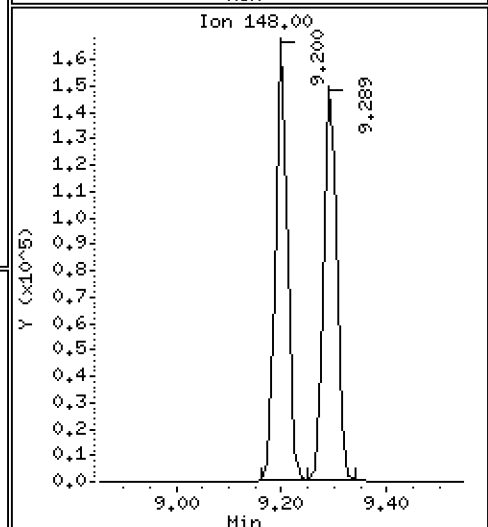
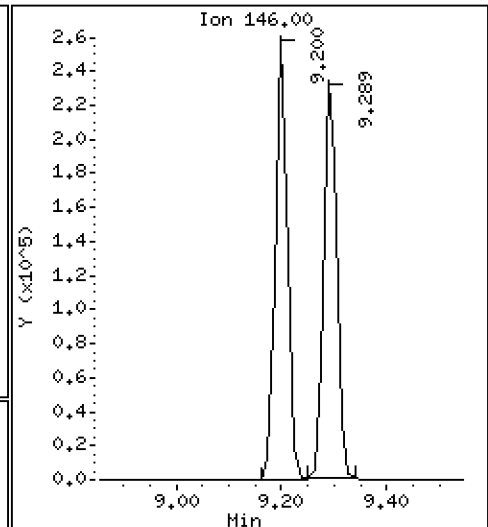
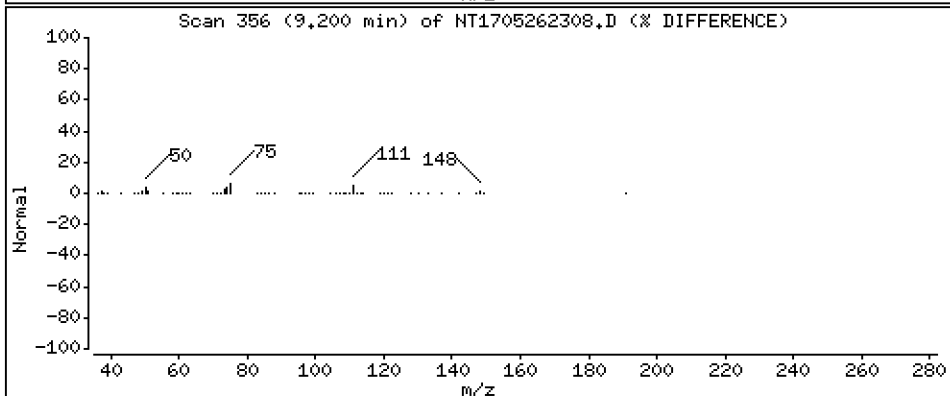
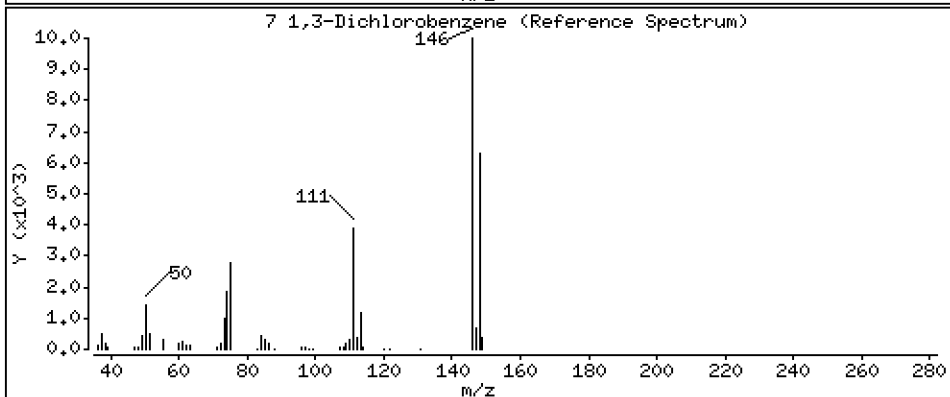
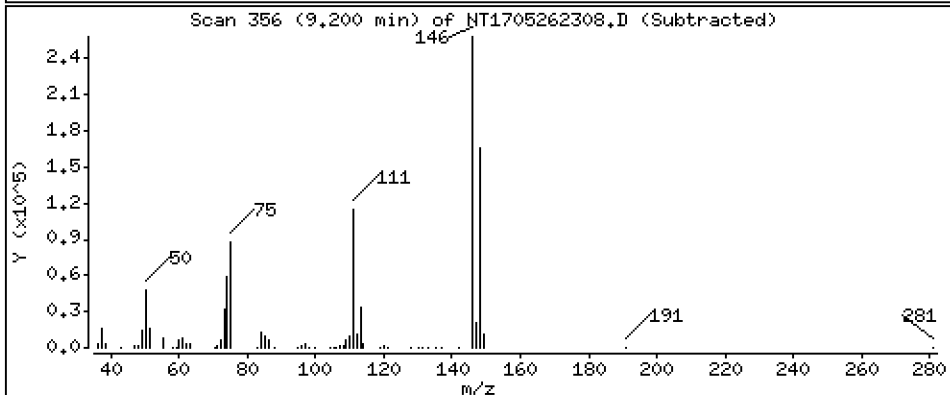
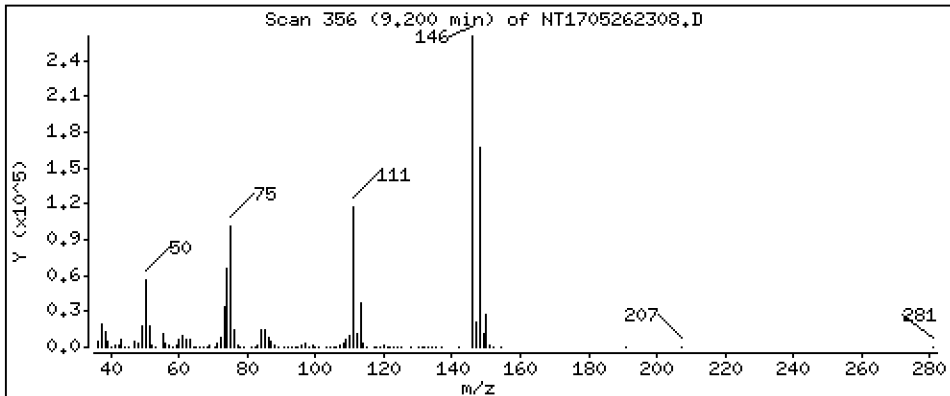
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,860 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

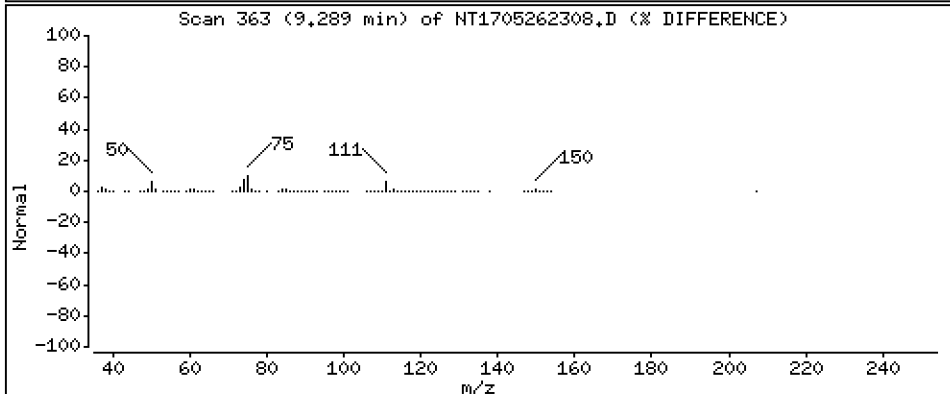
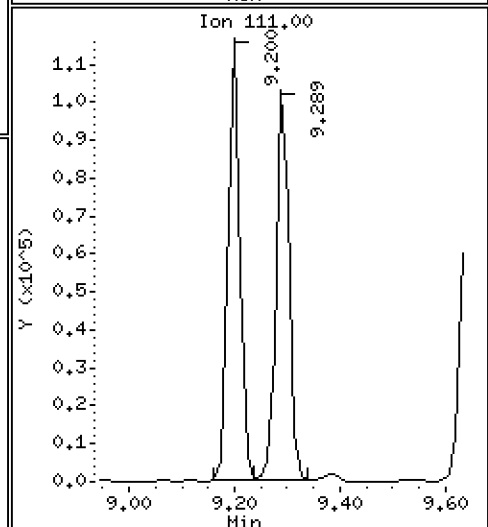
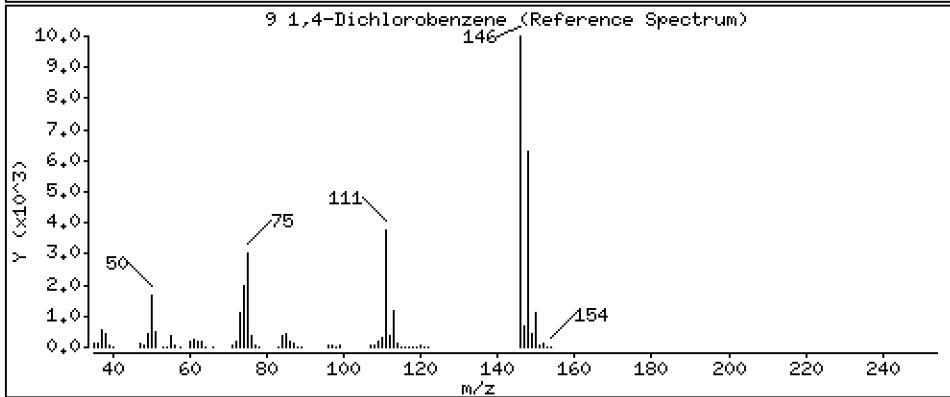
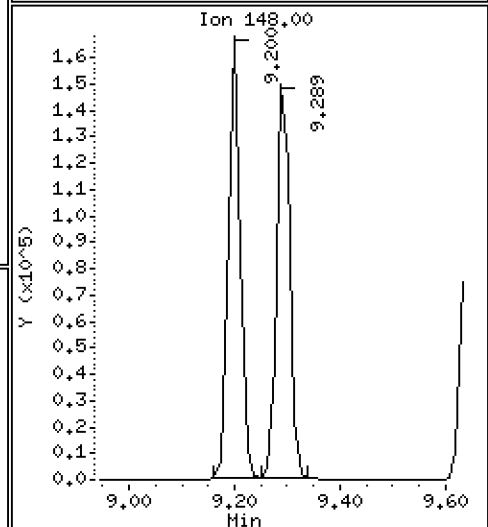
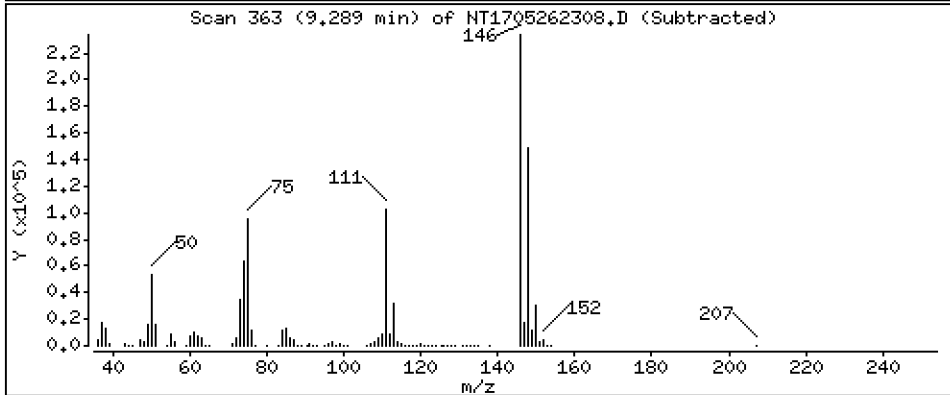
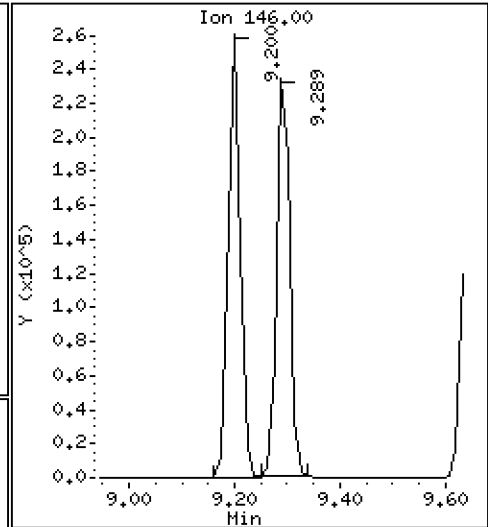
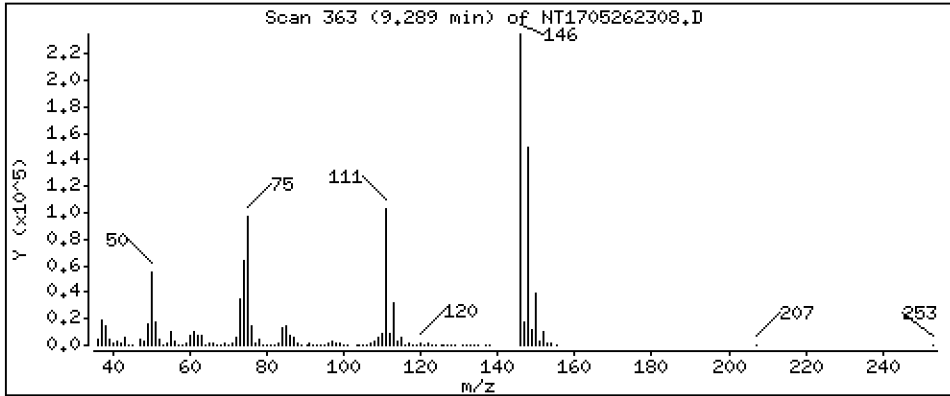
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,822 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

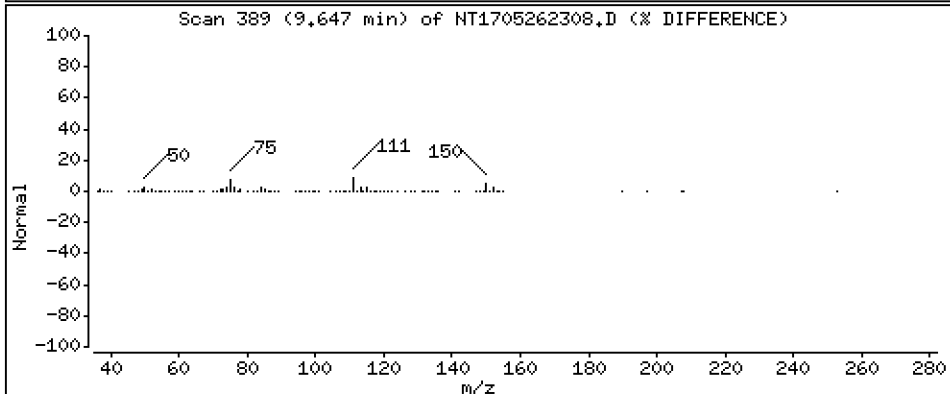
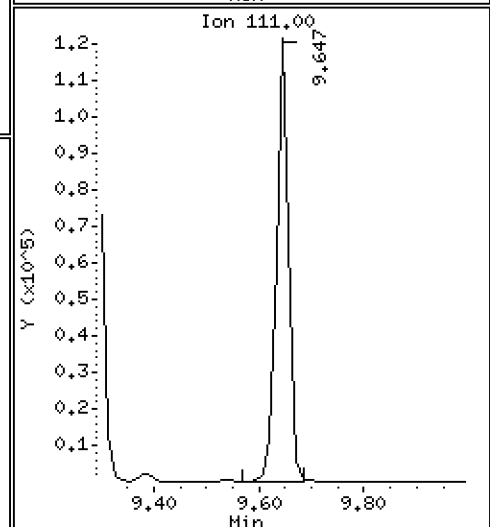
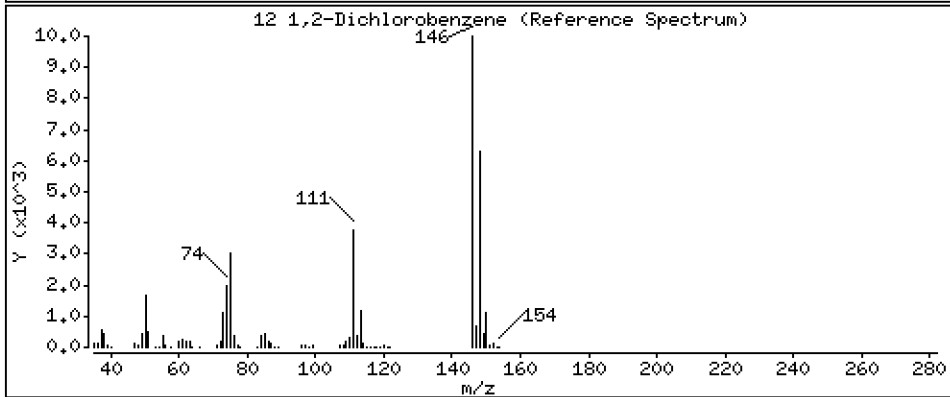
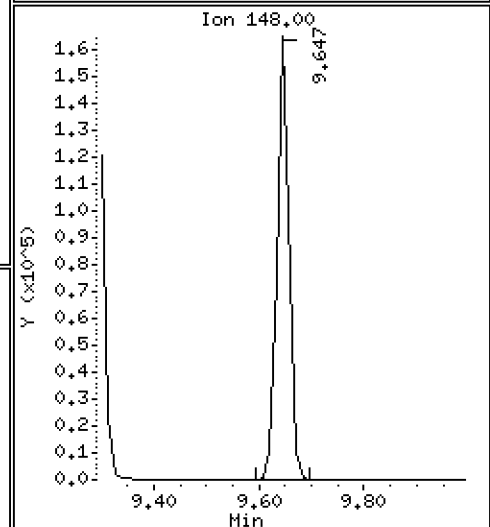
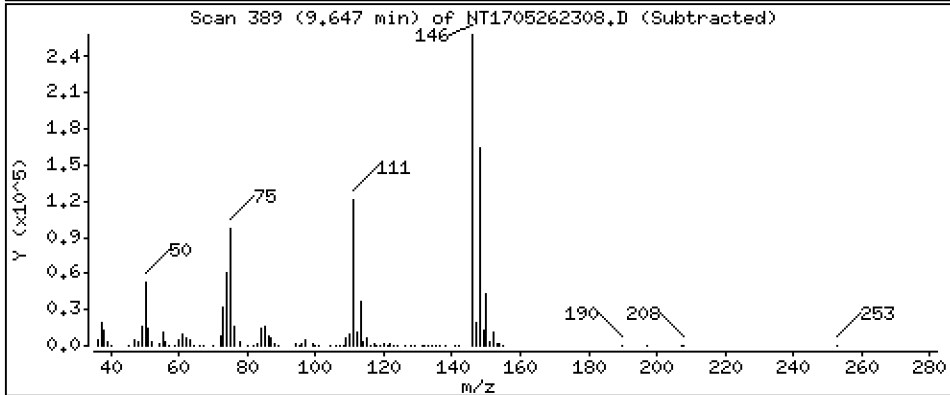
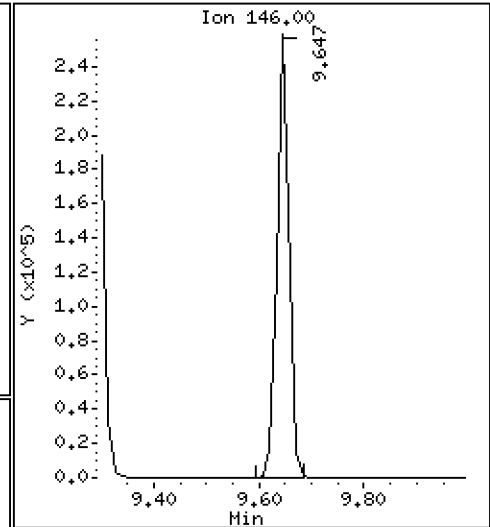
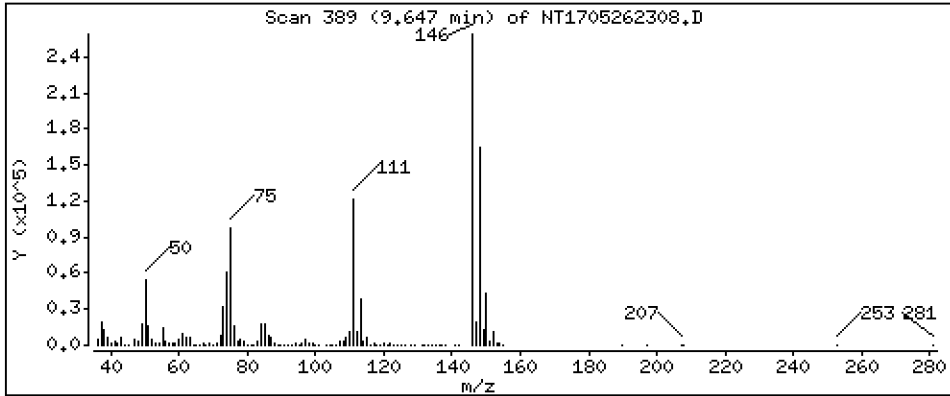
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,095 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

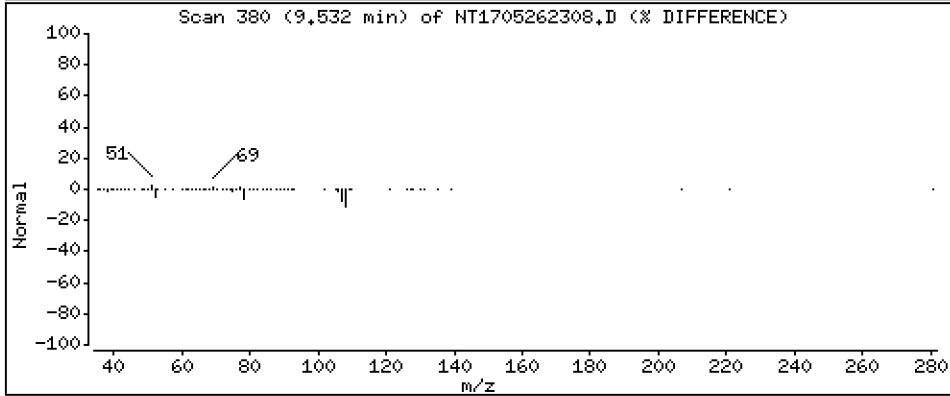
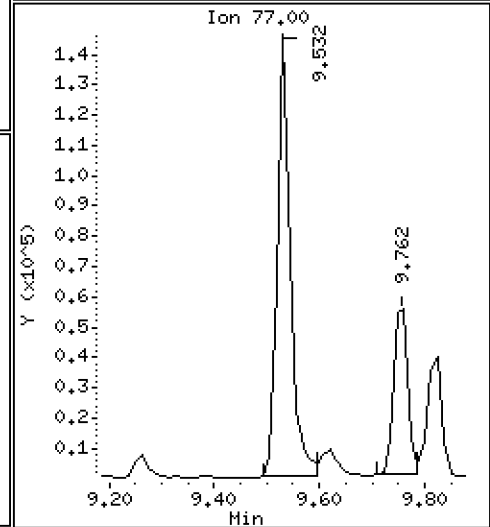
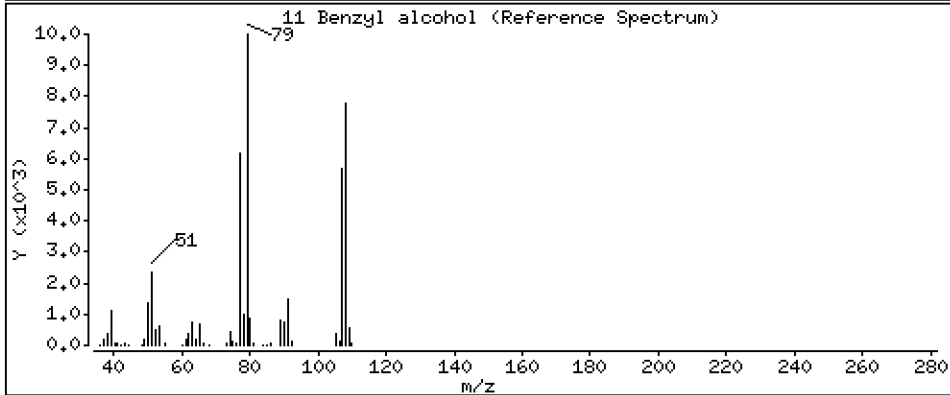
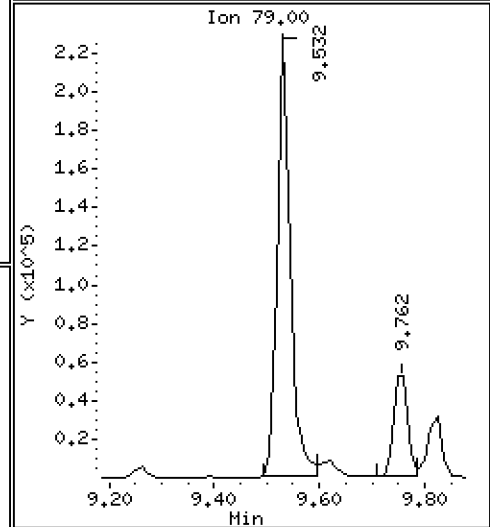
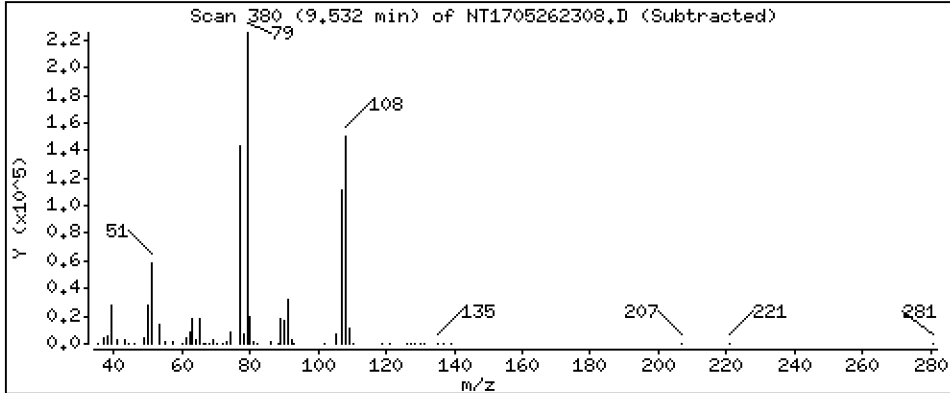
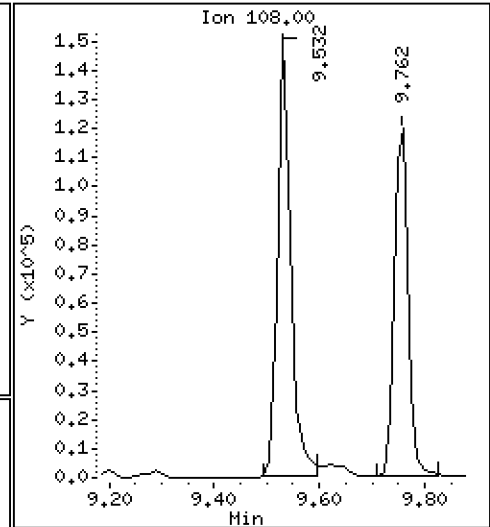
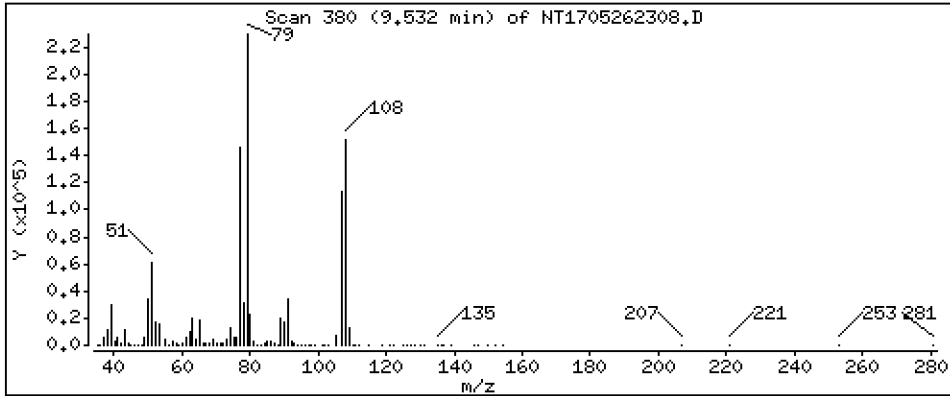
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 4,506 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

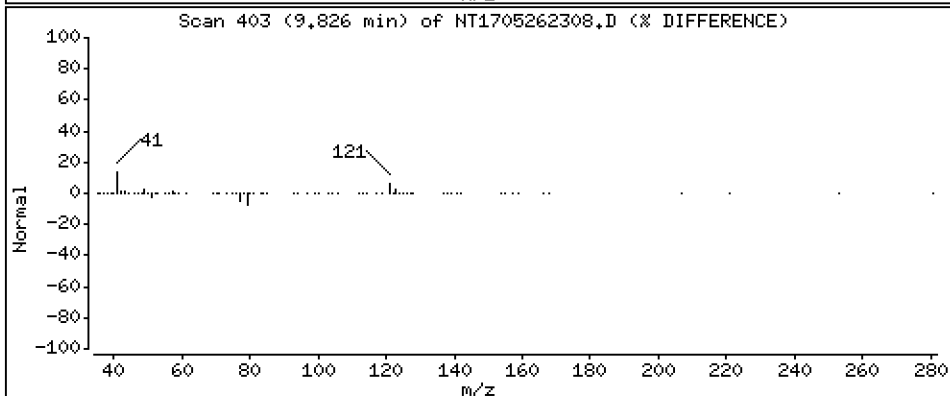
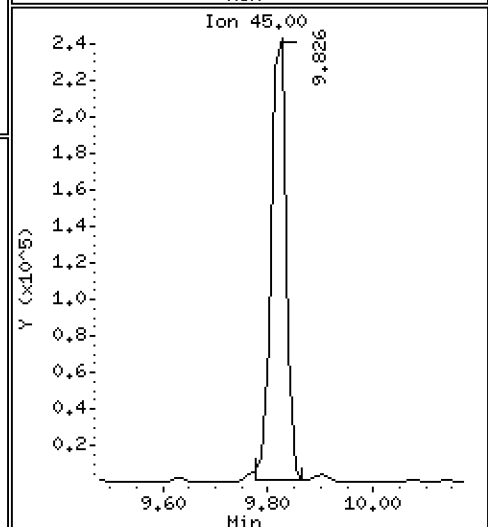
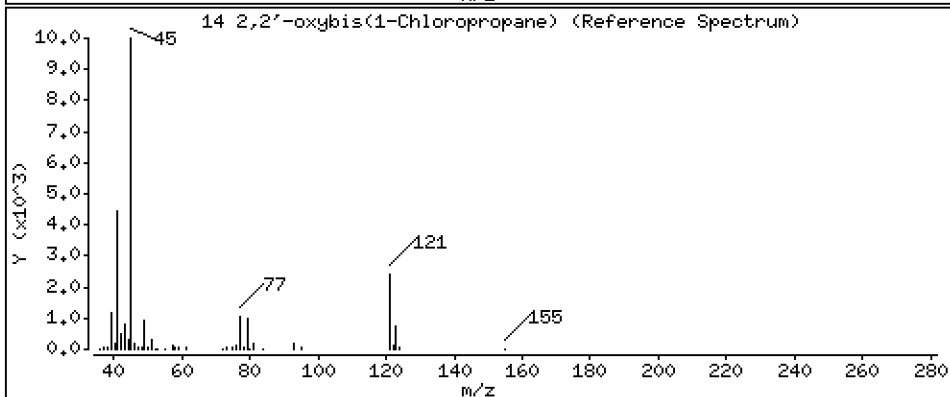
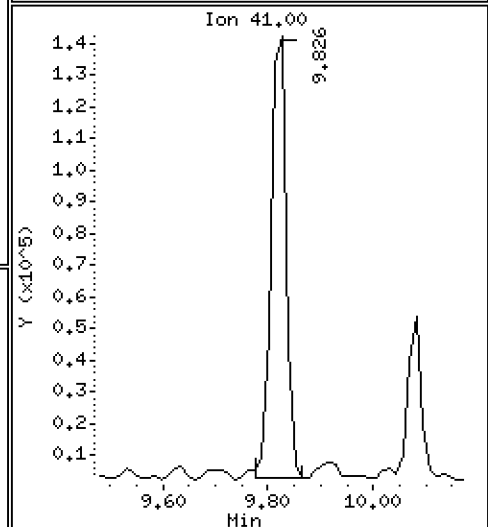
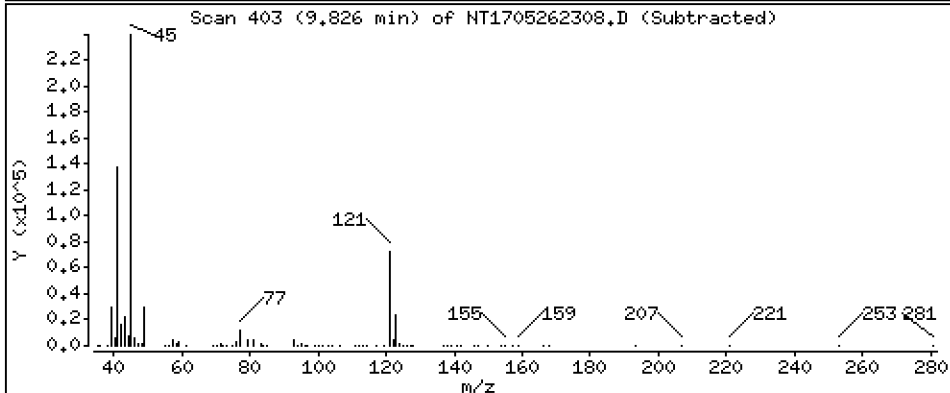
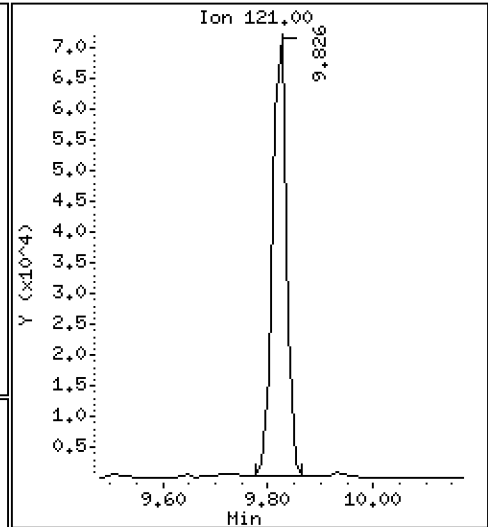
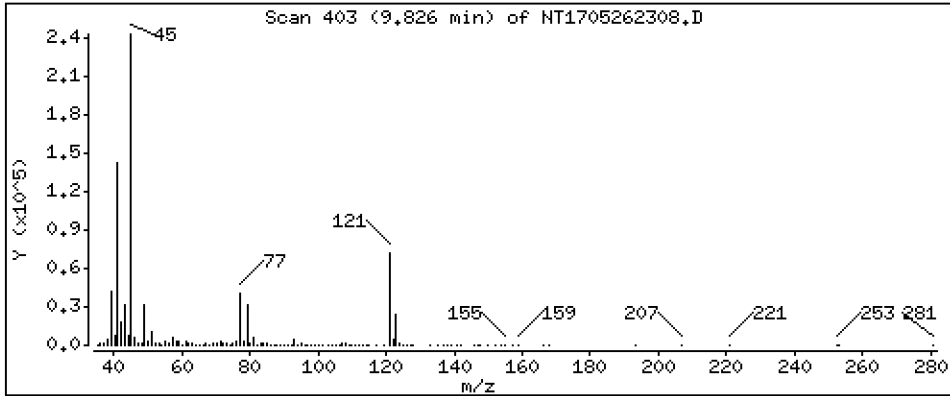
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,790 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

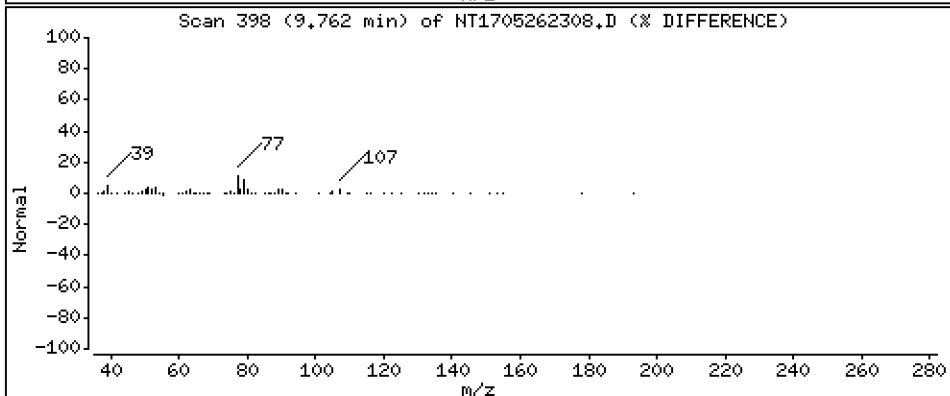
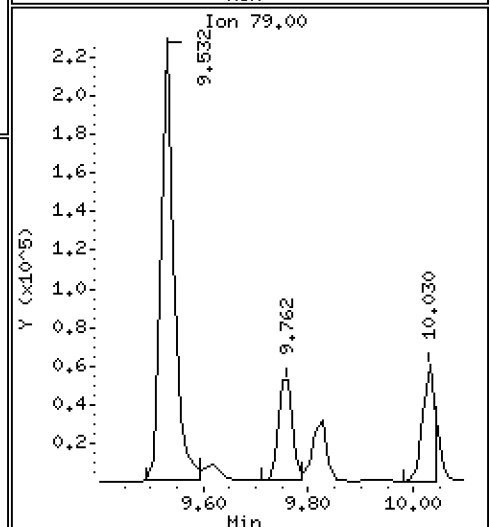
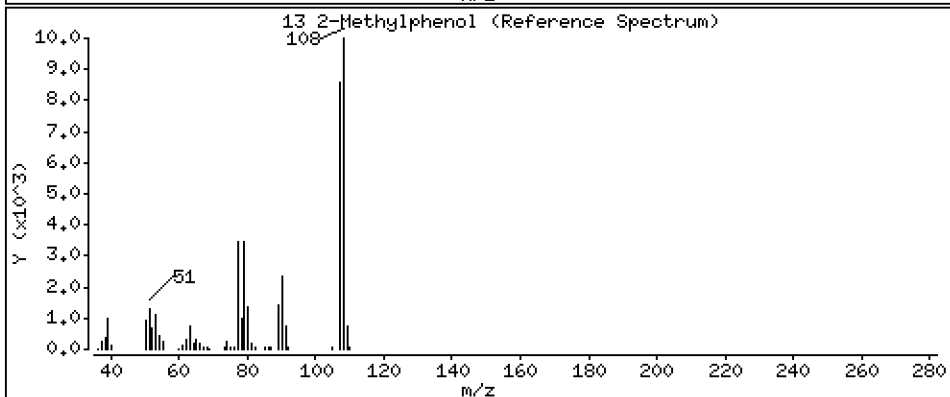
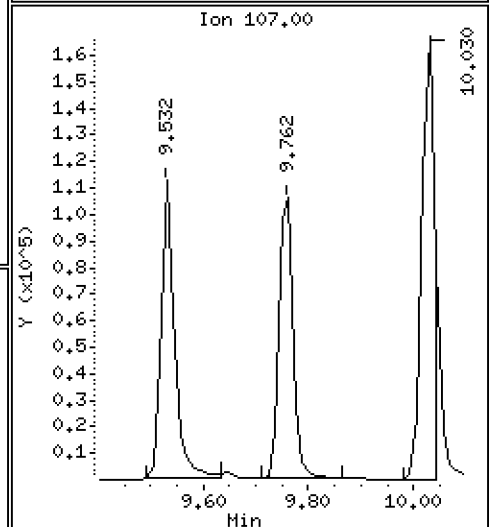
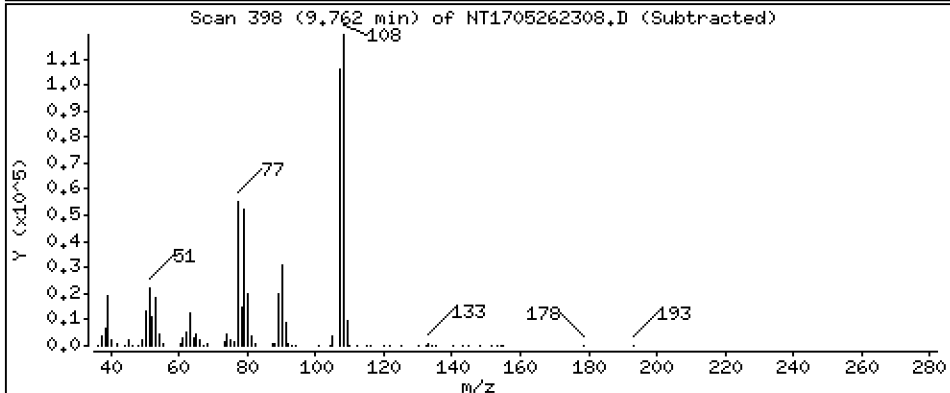
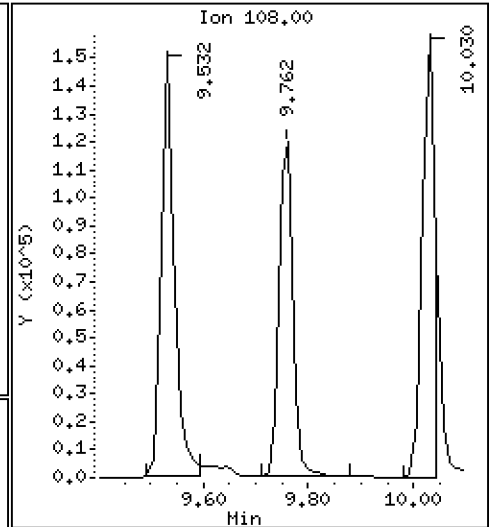
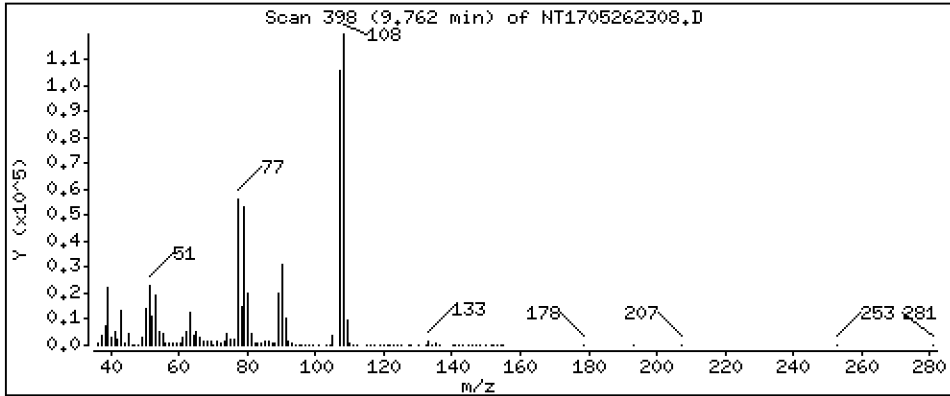
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2,400 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

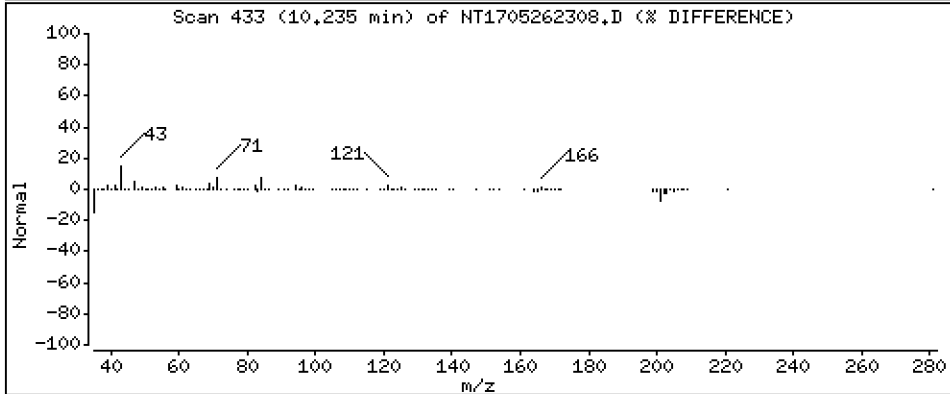
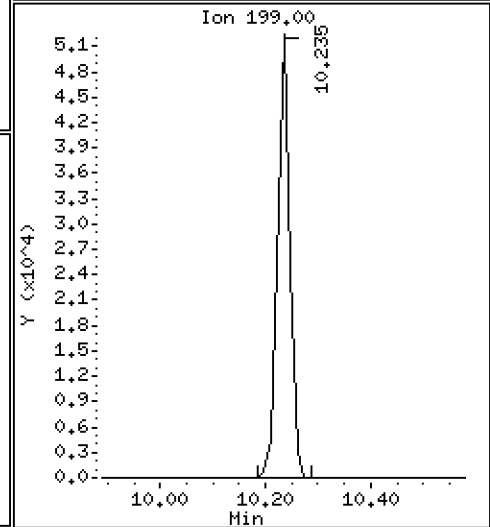
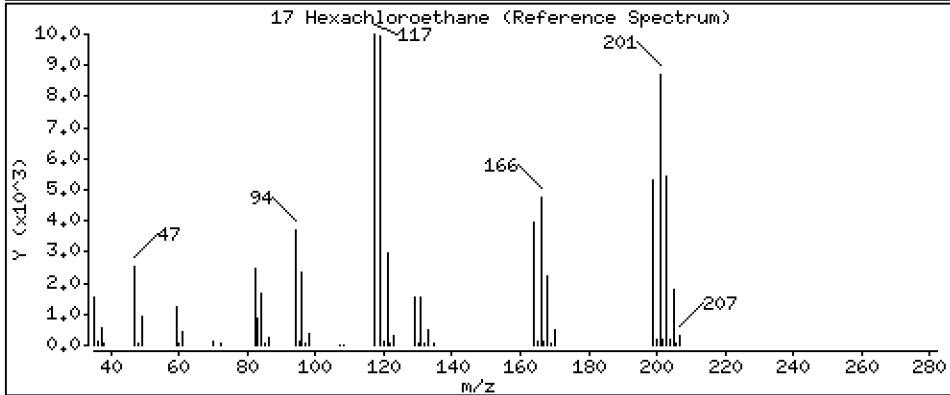
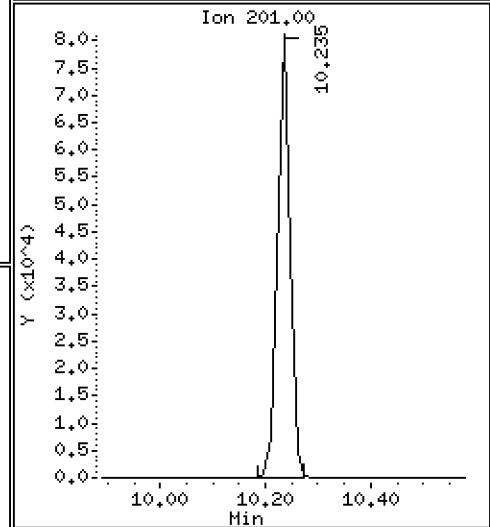
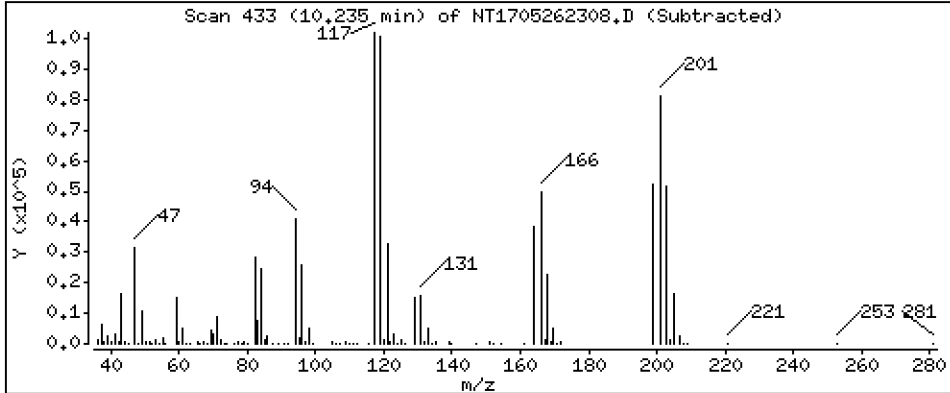
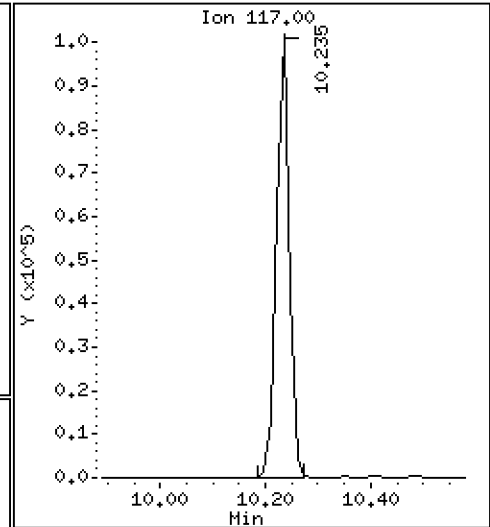
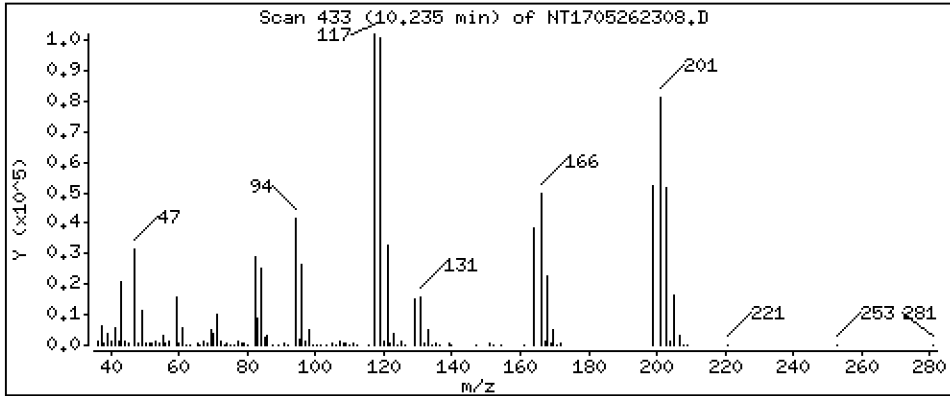
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,049 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

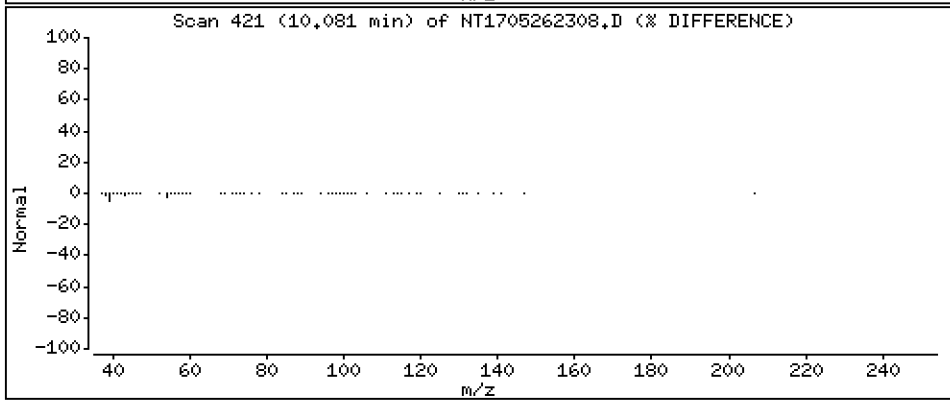
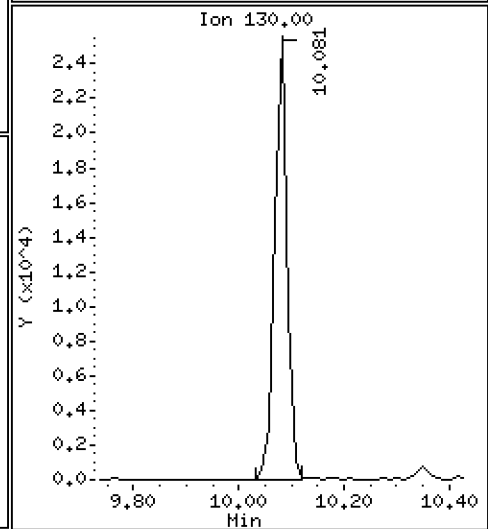
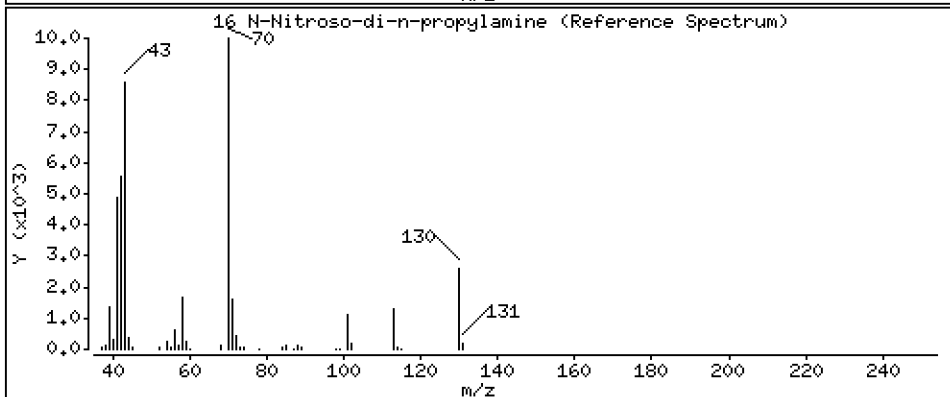
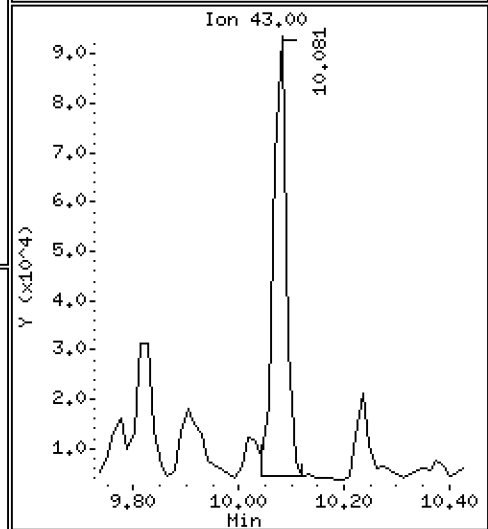
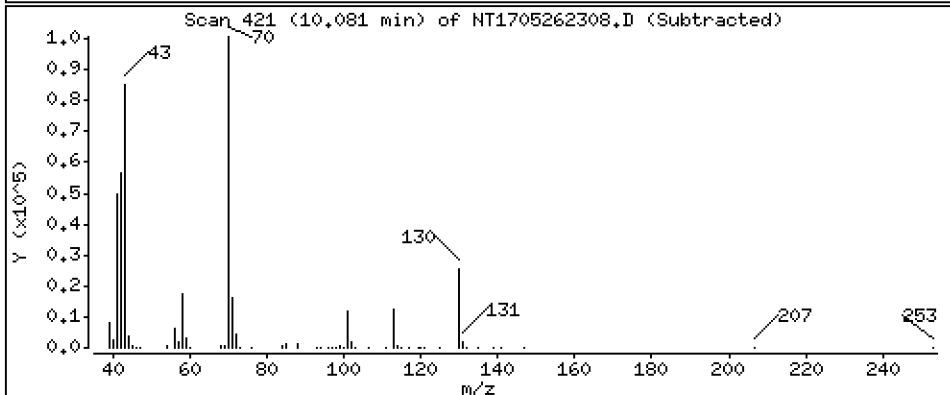
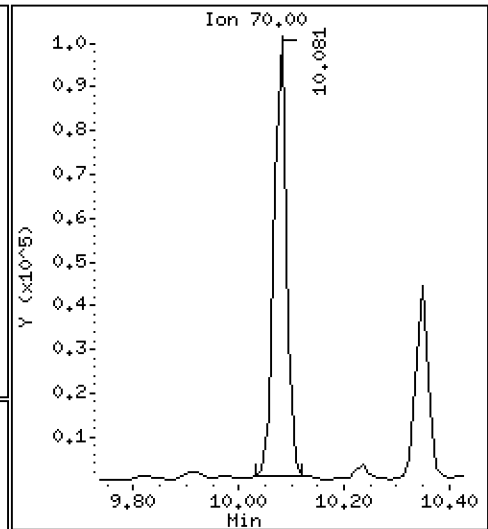
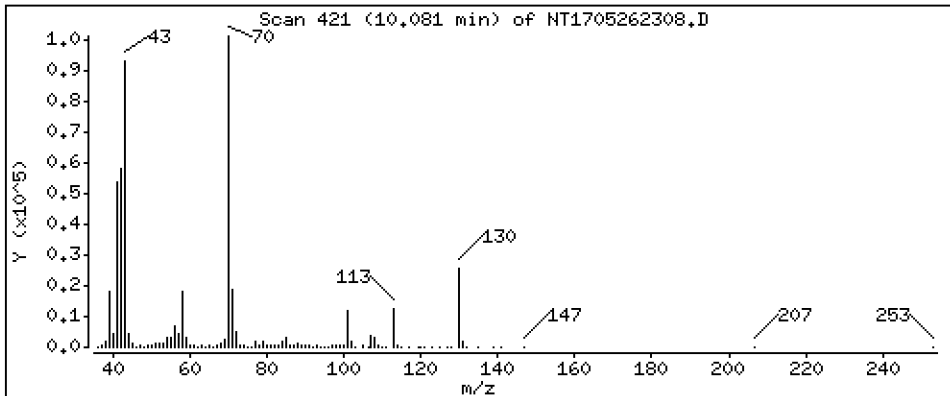
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 2,360 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

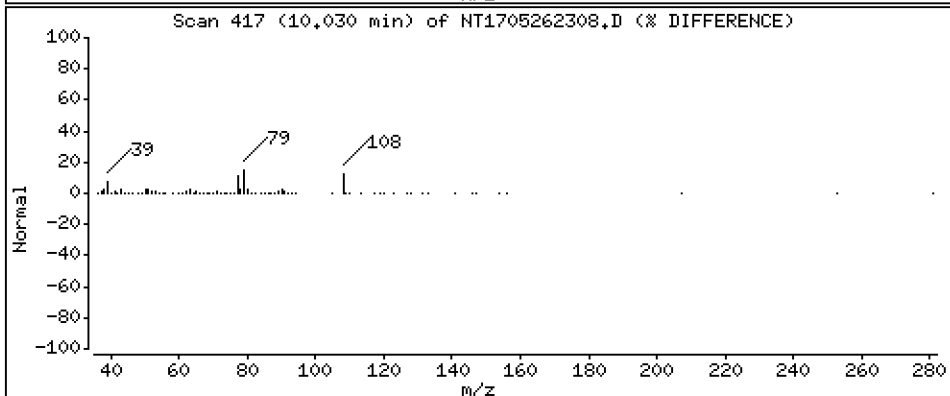
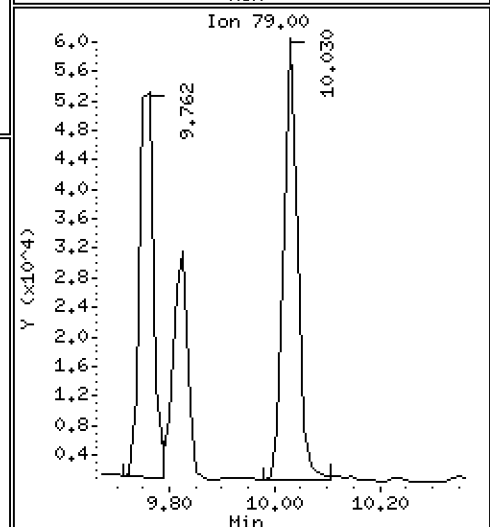
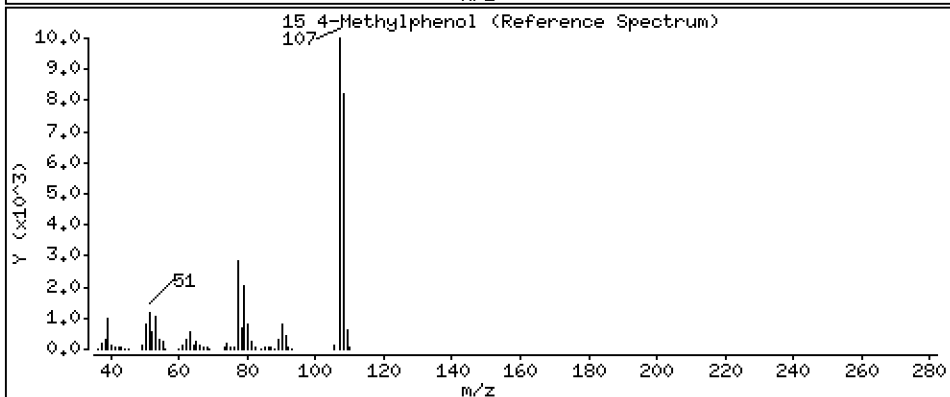
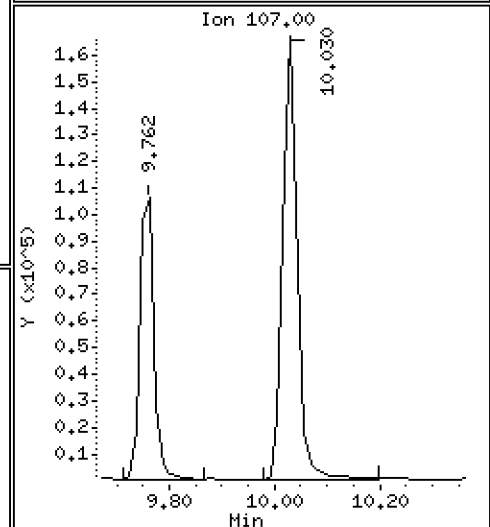
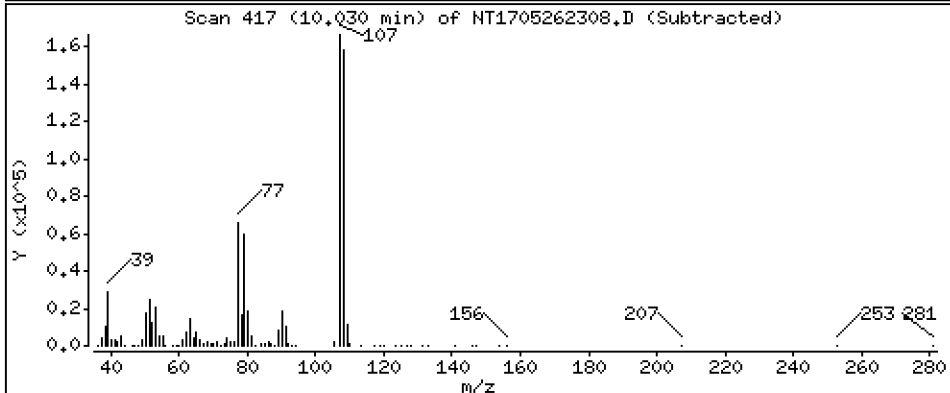
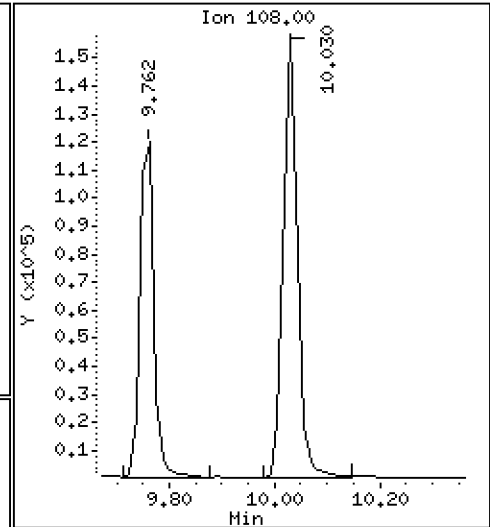
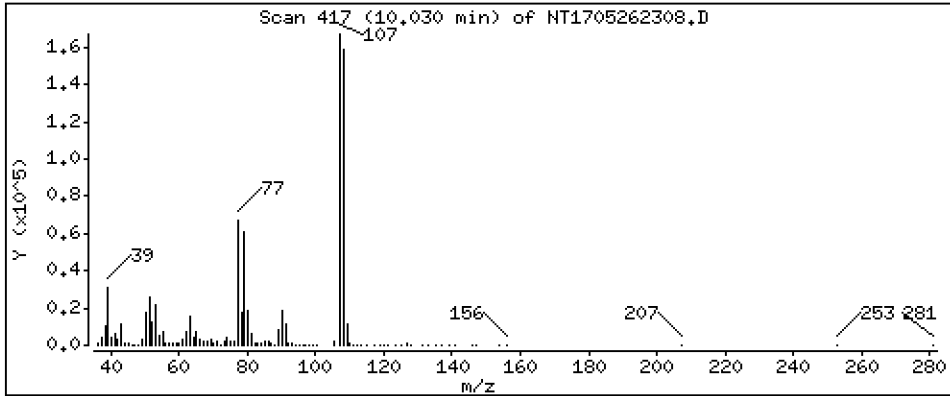
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,179 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

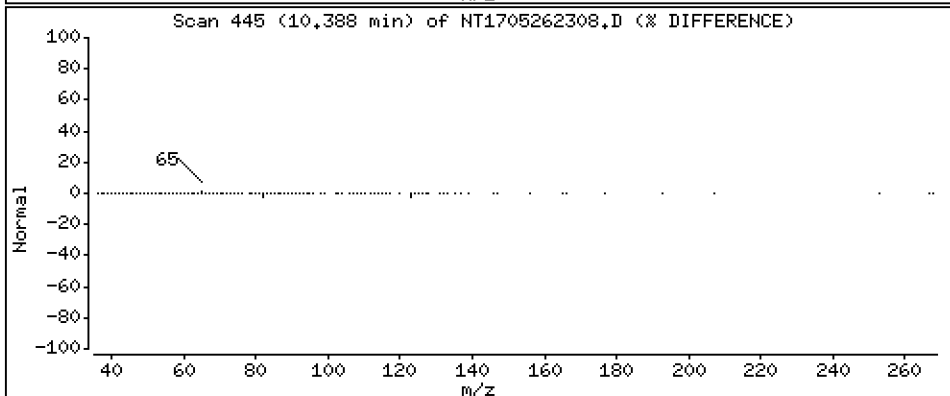
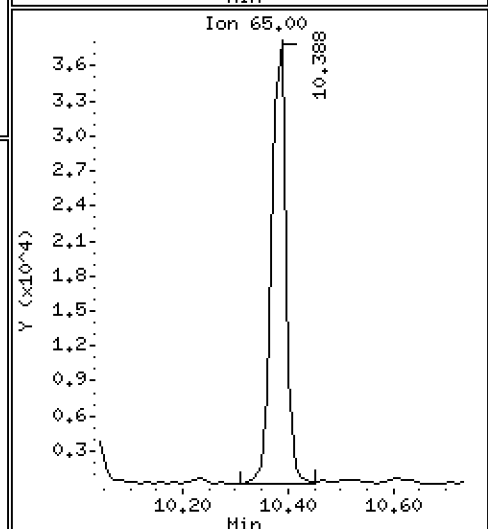
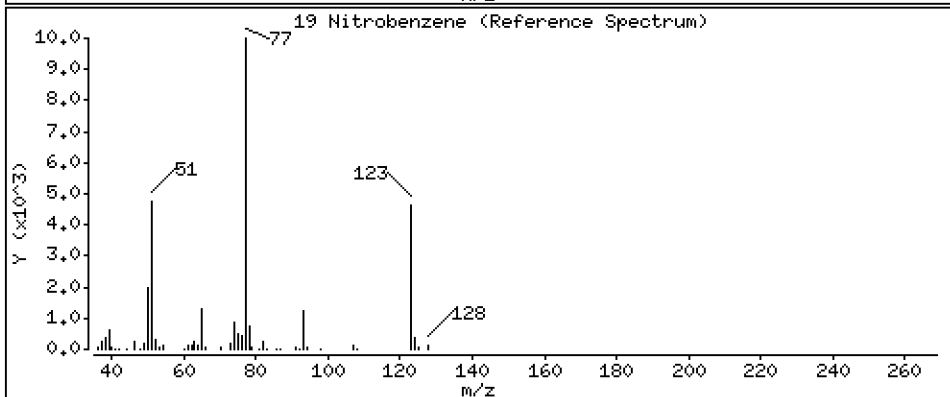
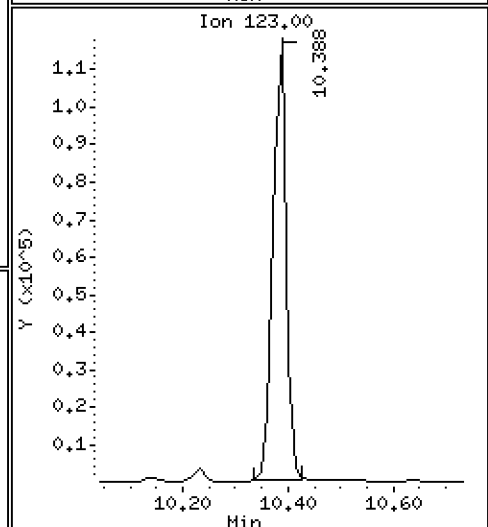
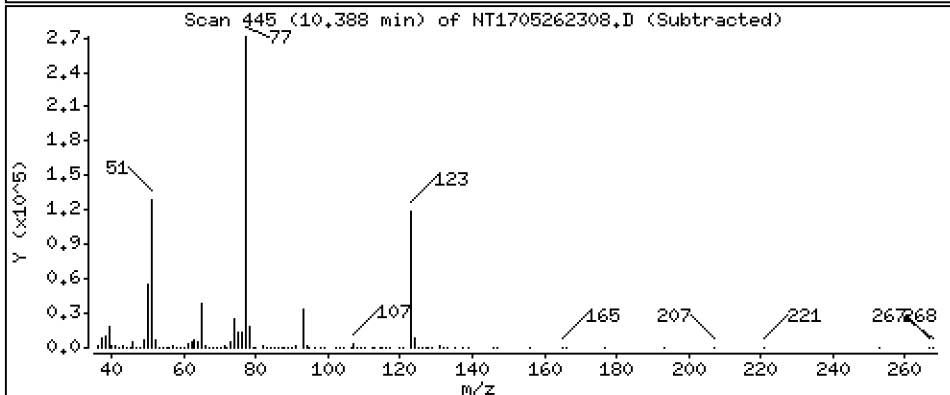
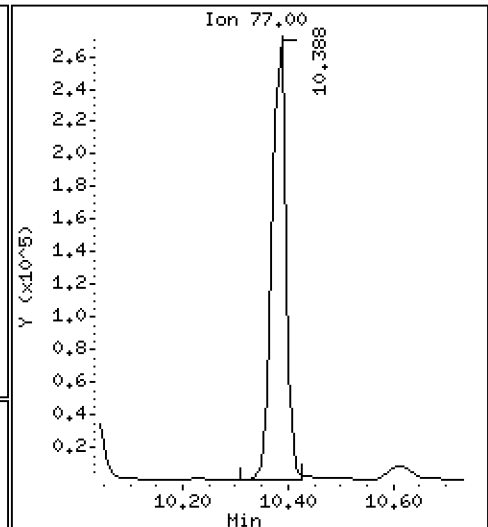
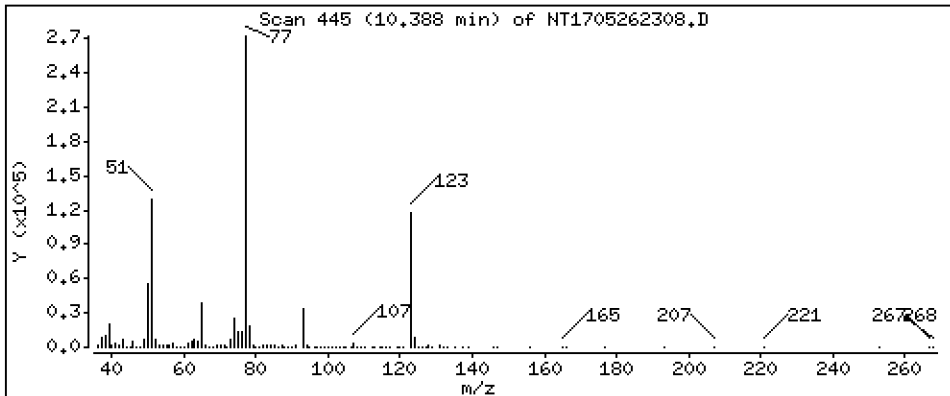
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,355 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

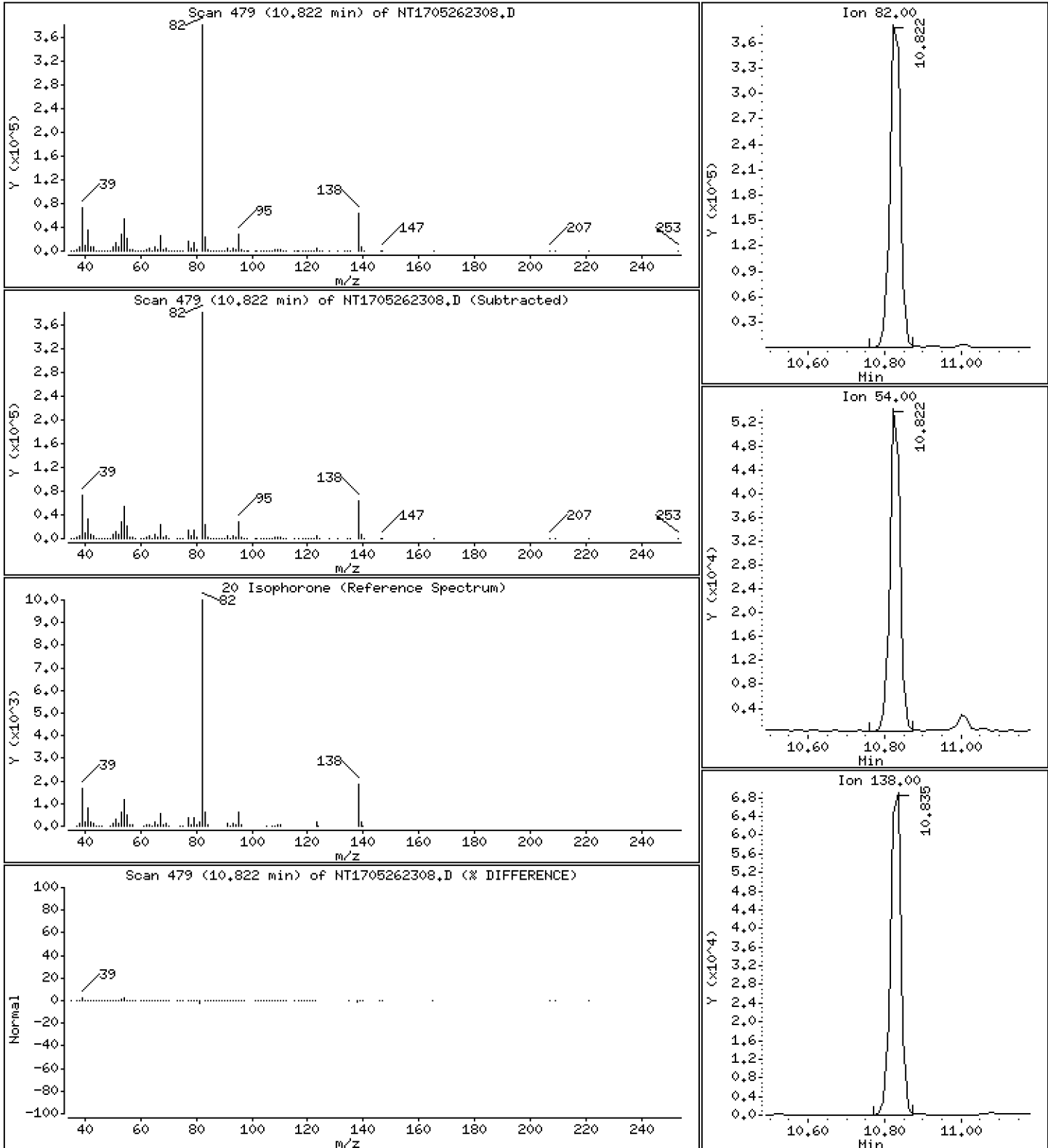
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 4,896 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

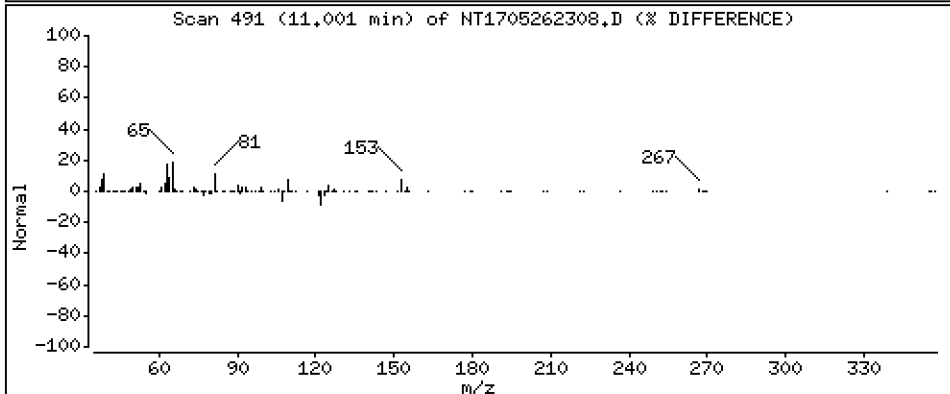
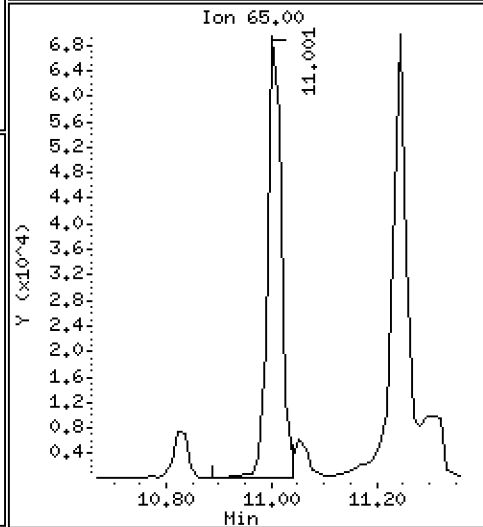
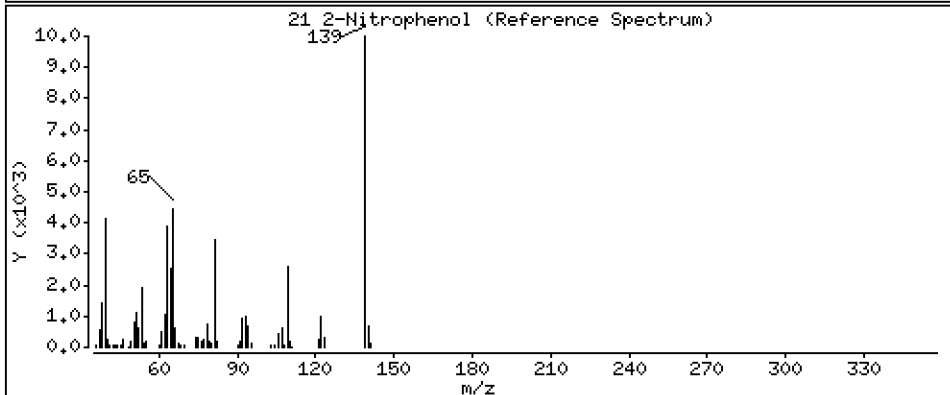
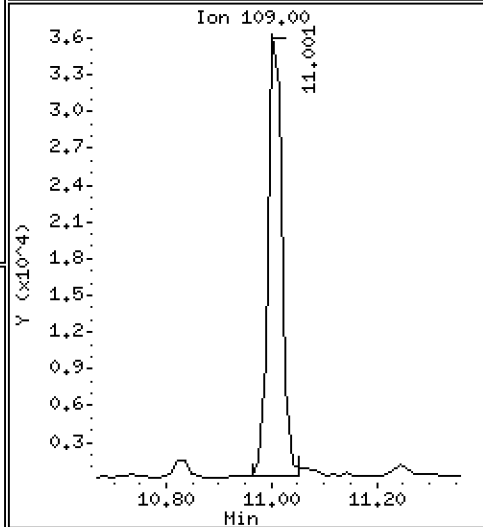
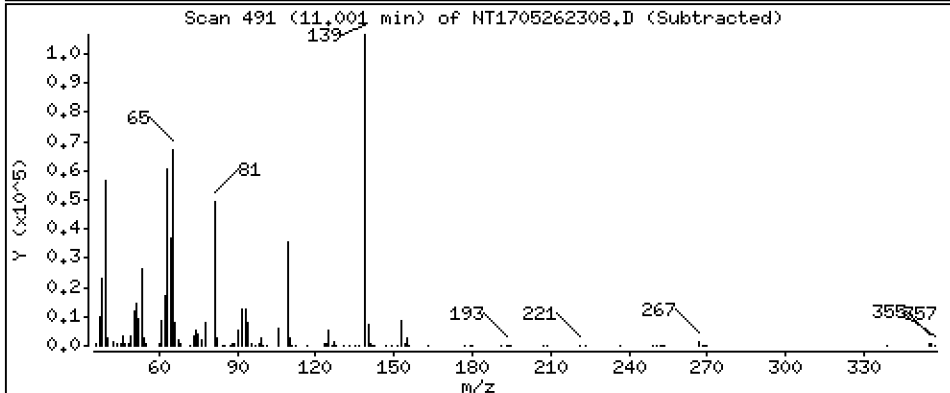
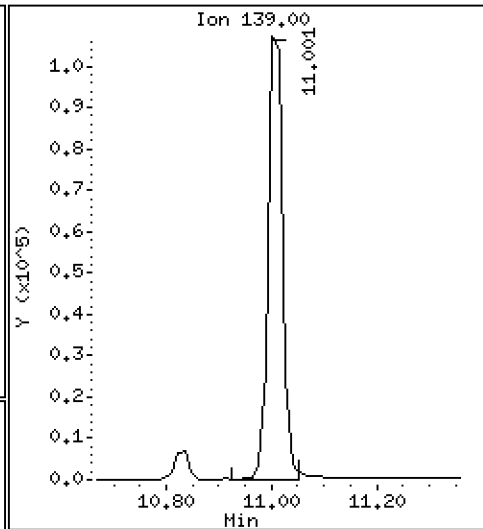
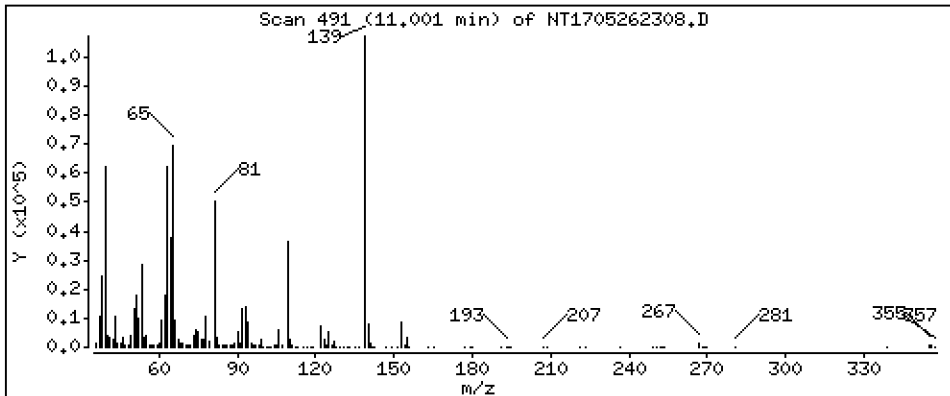
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,863 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

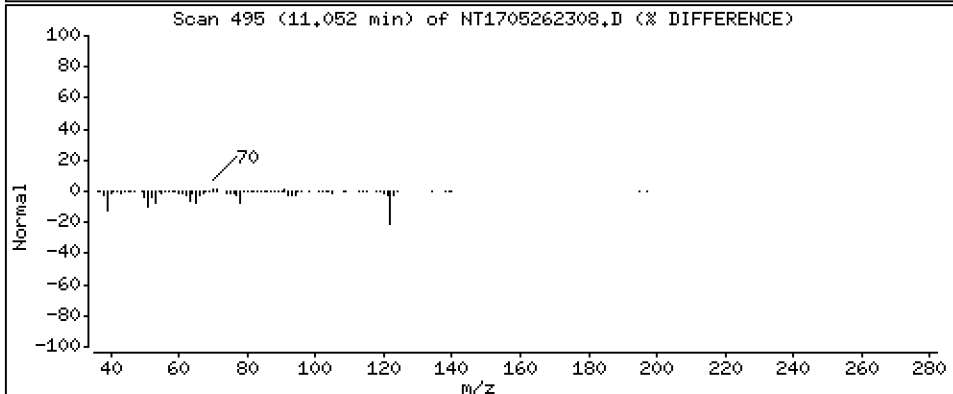
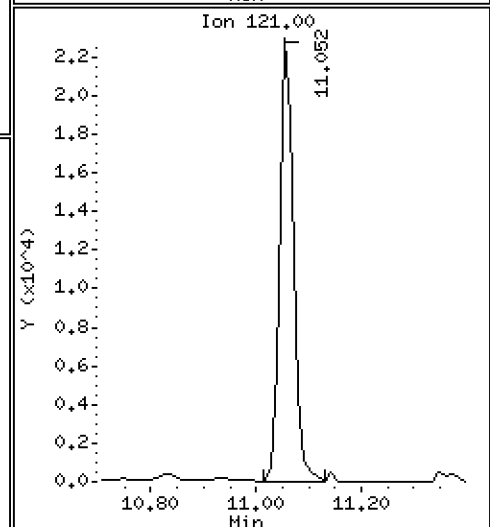
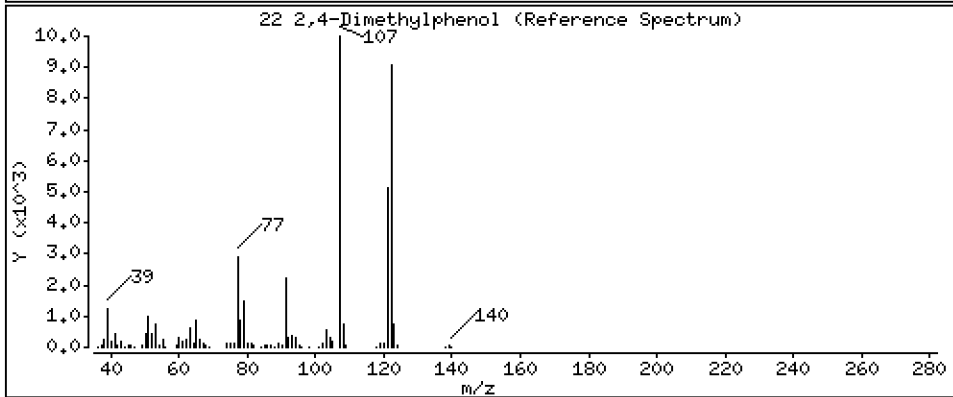
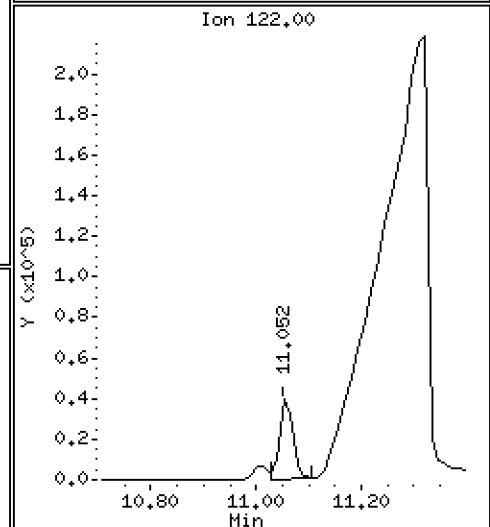
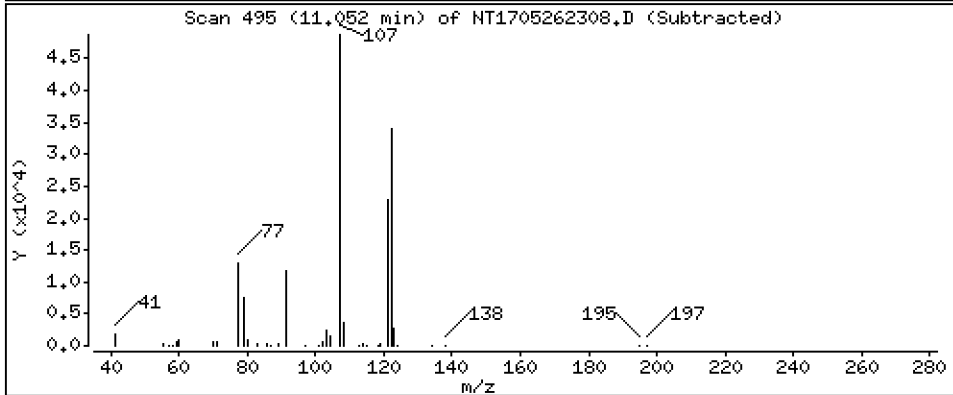
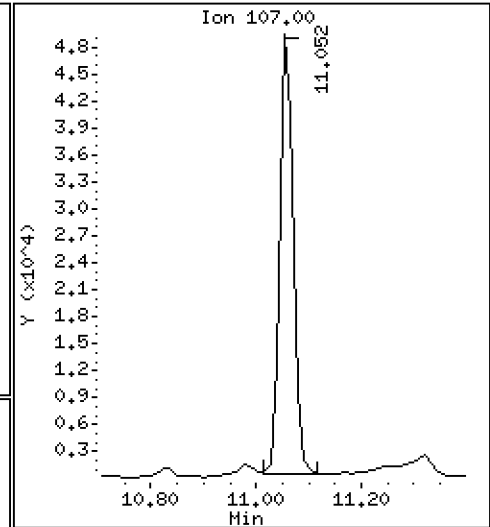
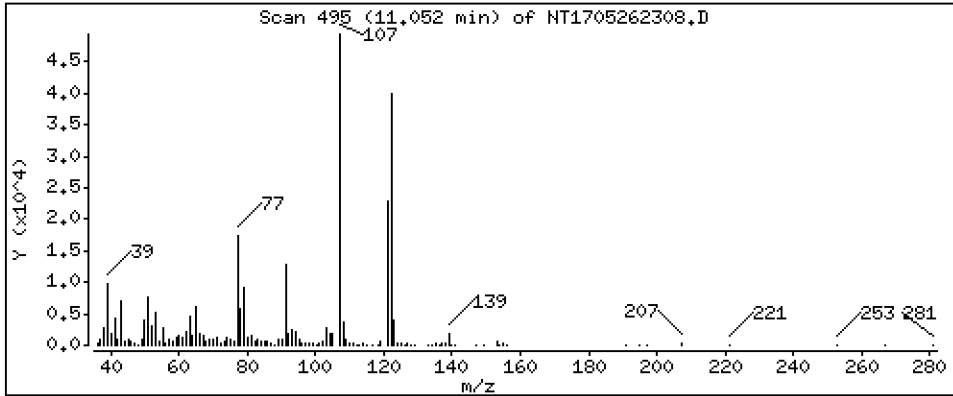
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,8378 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

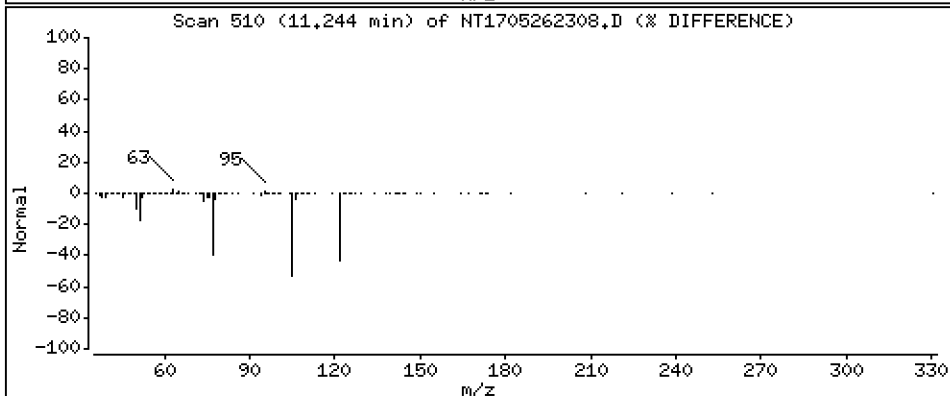
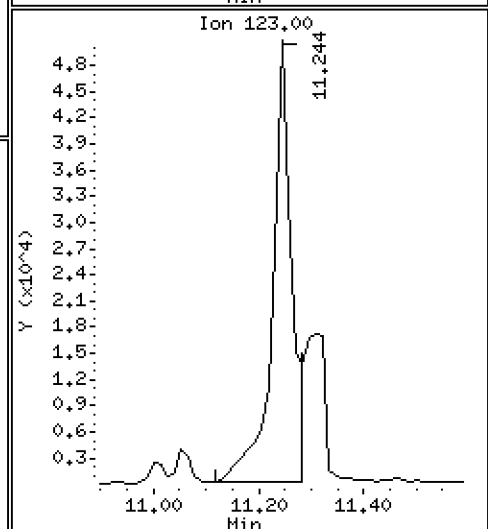
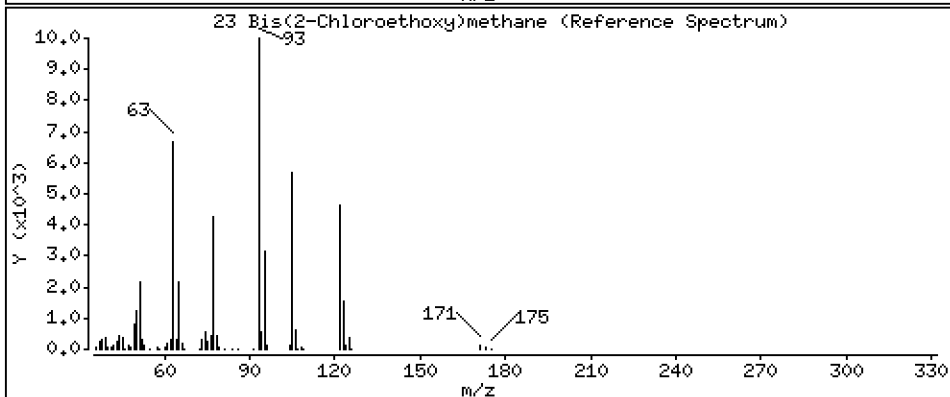
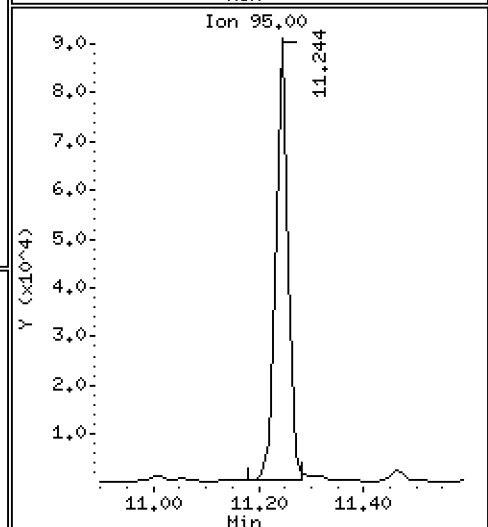
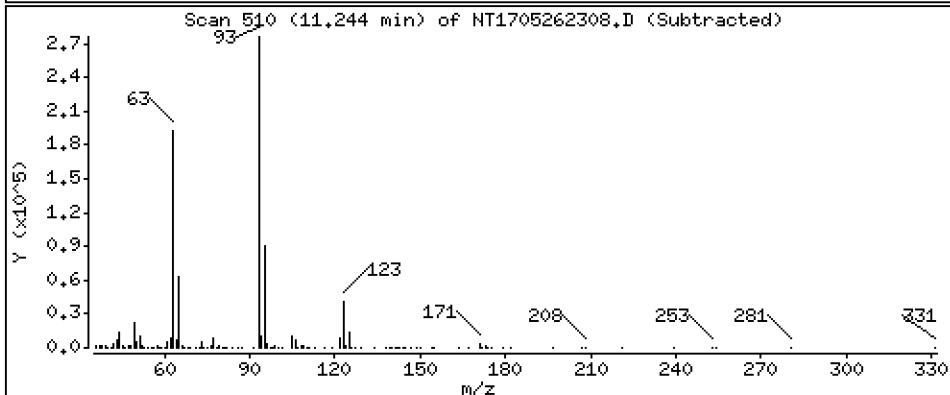
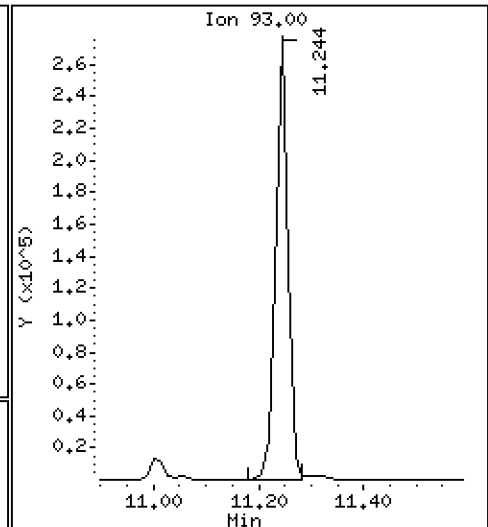
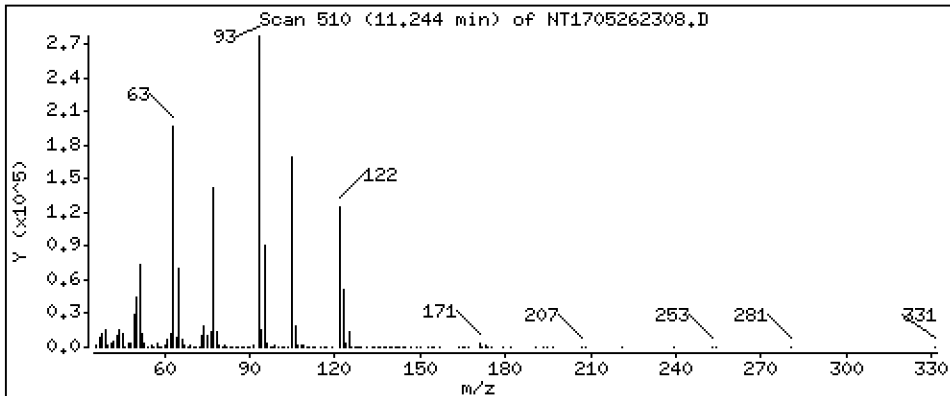
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,779 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

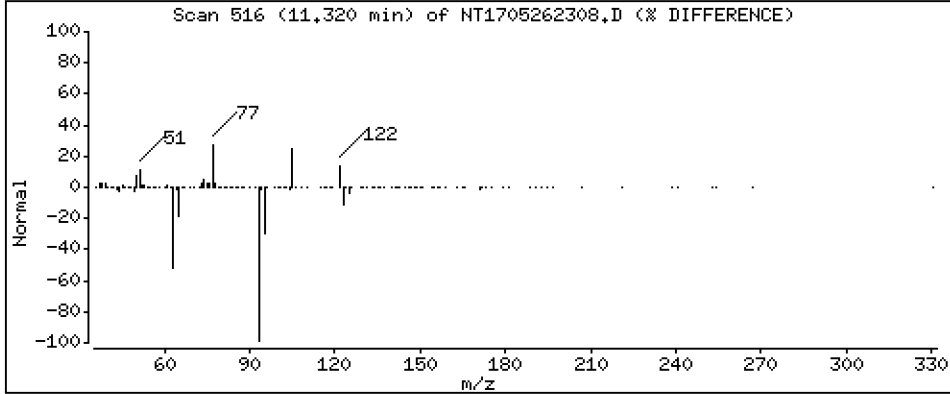
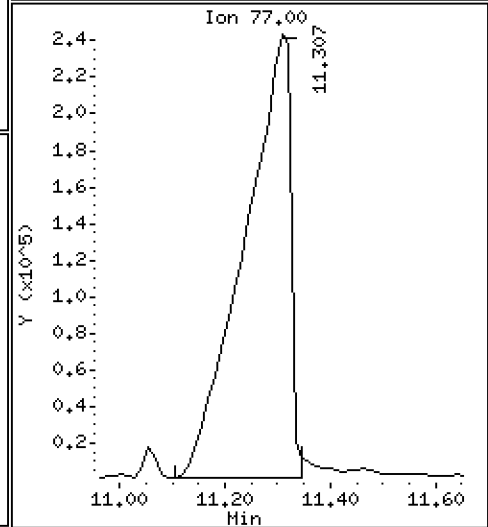
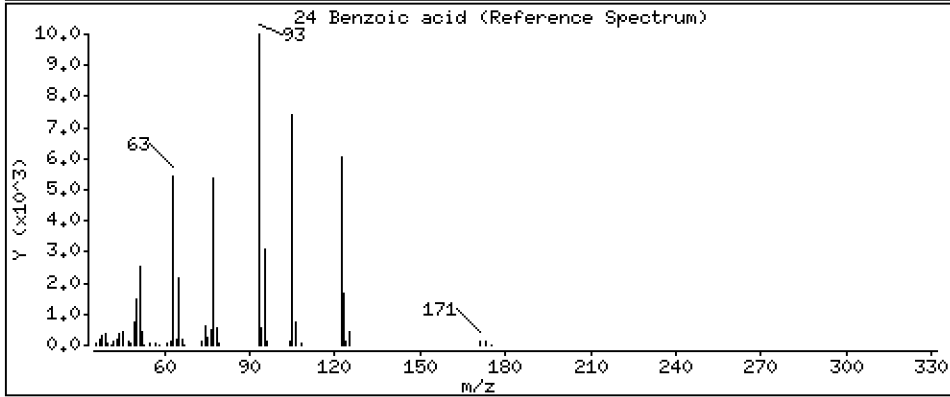
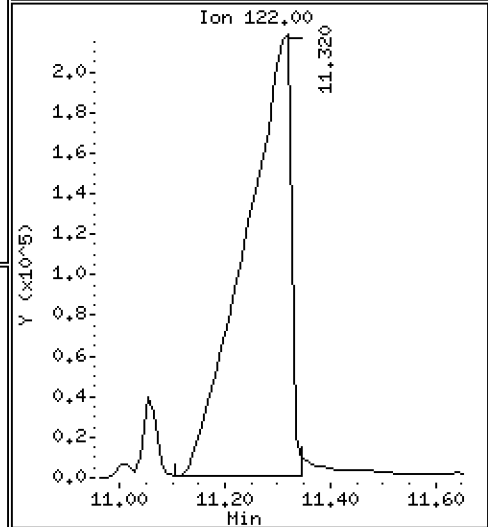
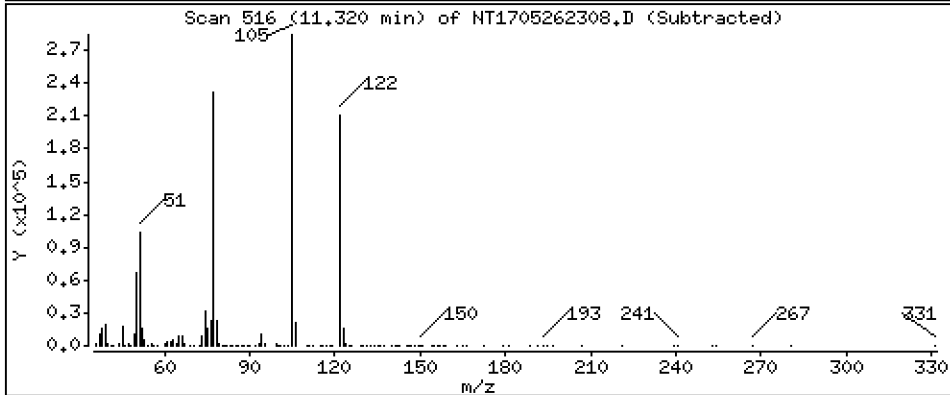
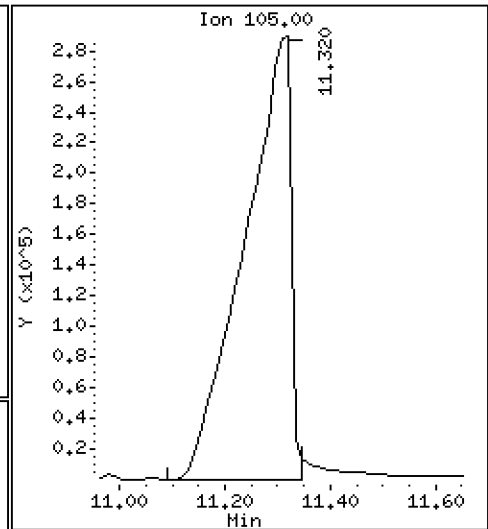
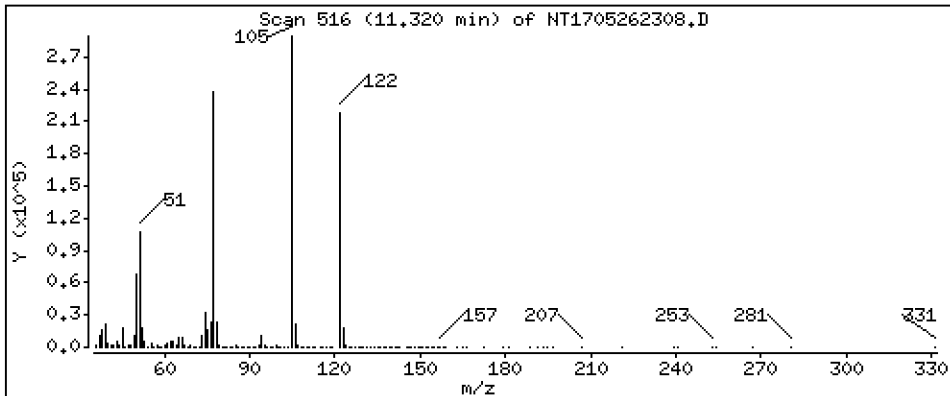
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 25,48 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

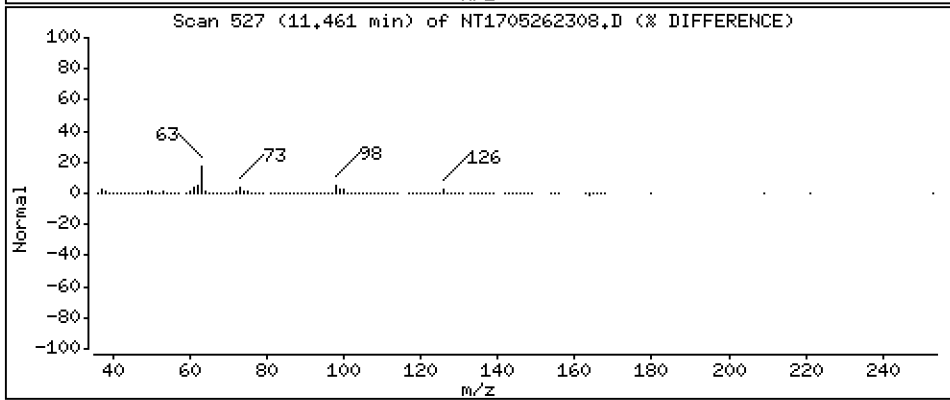
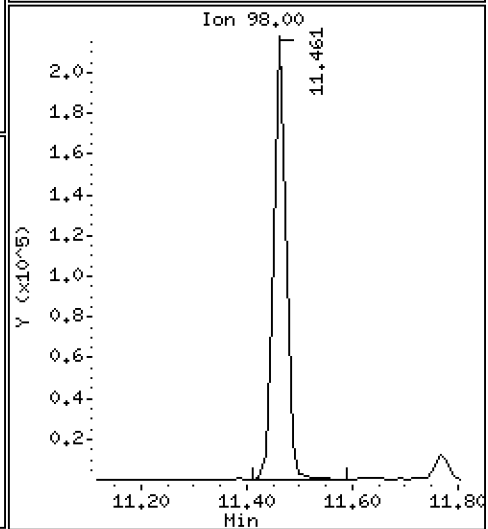
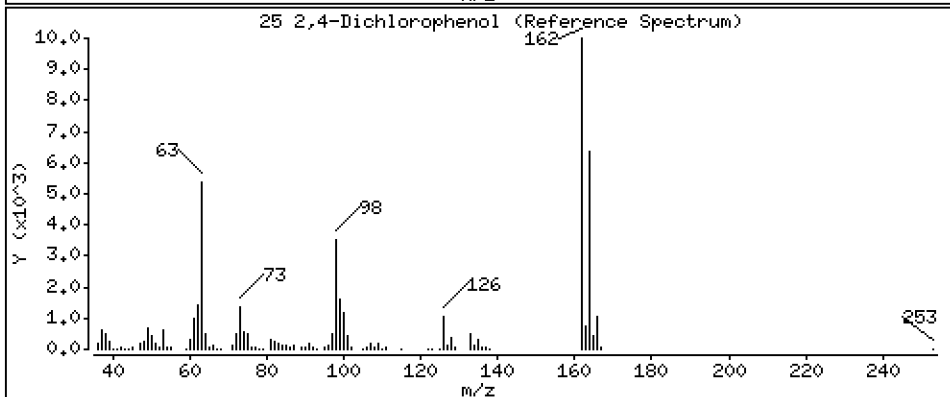
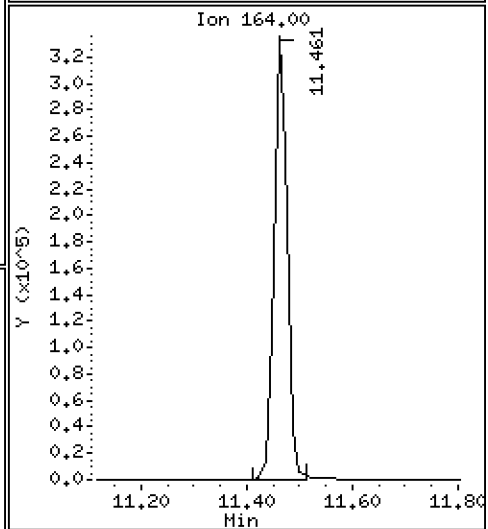
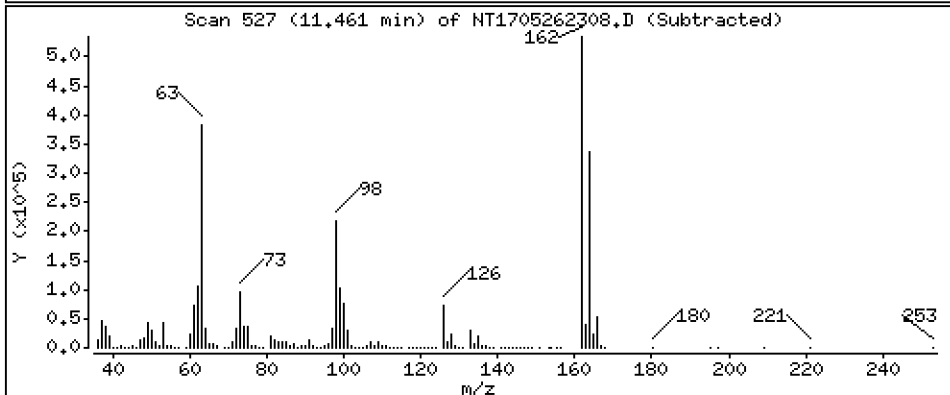
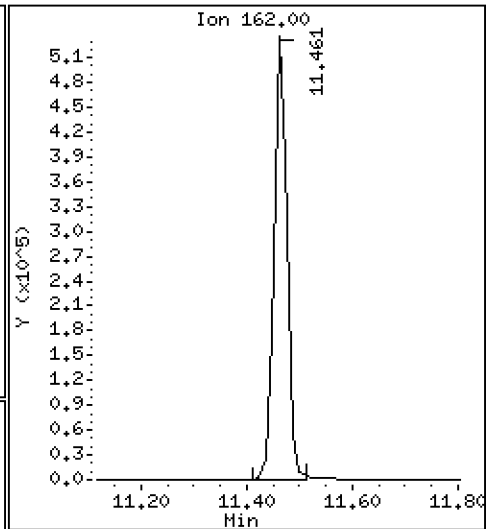
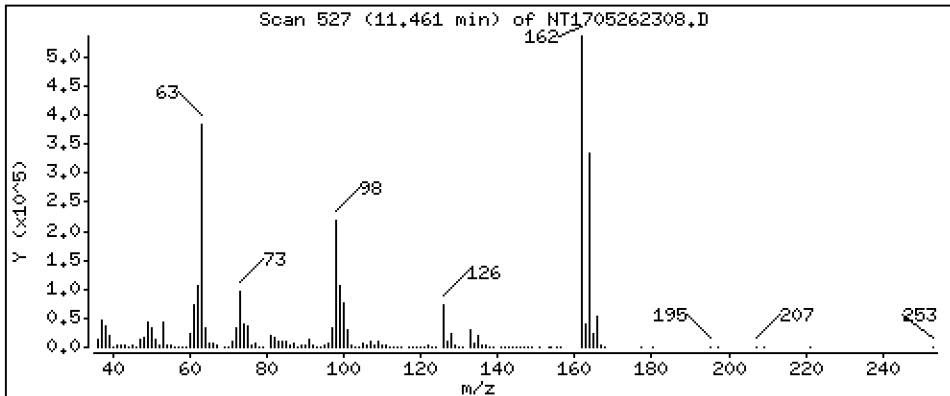
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 10,96 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

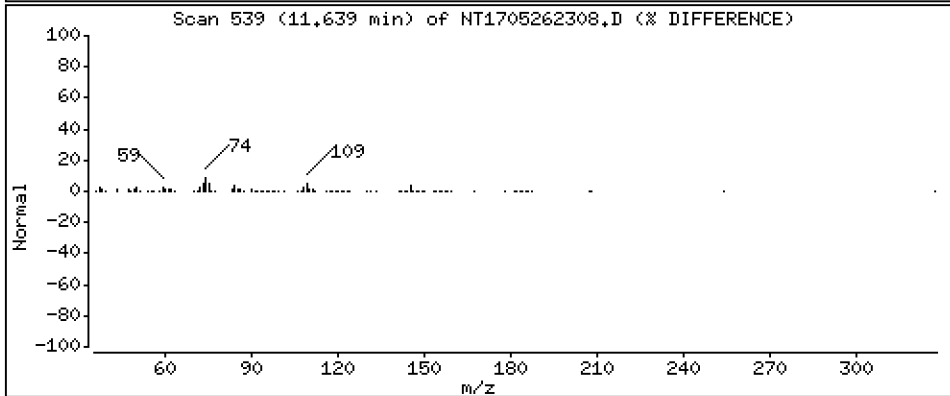
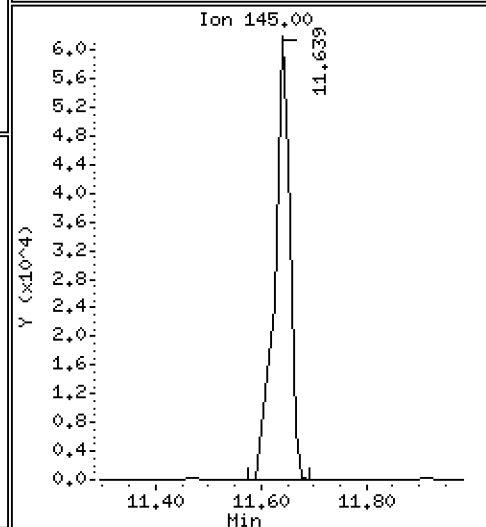
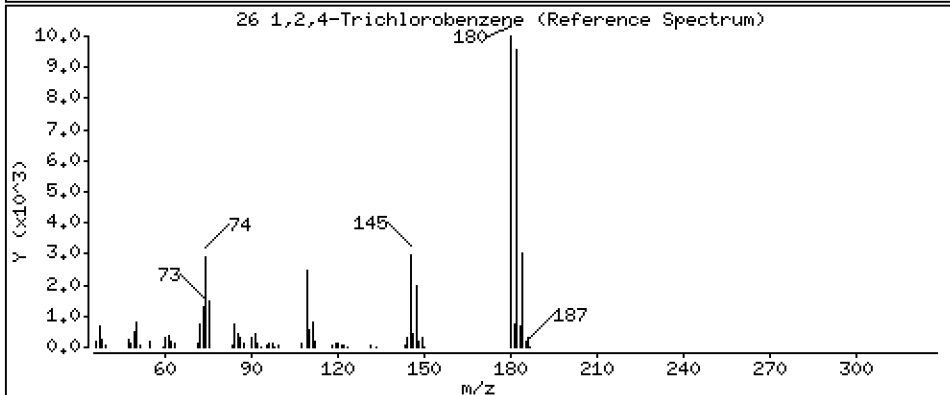
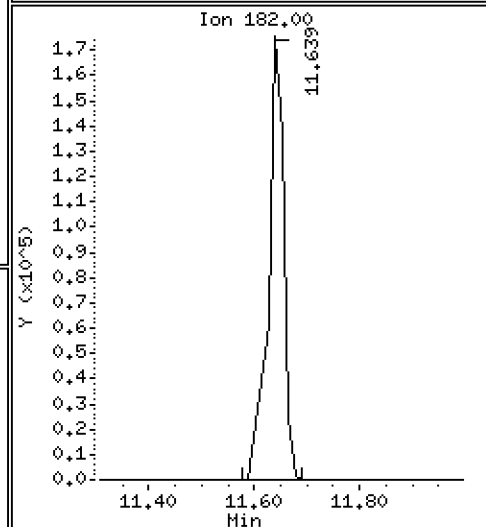
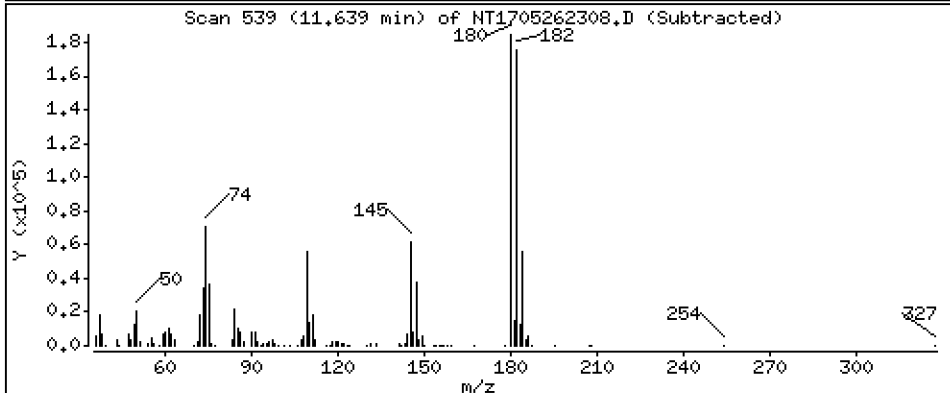
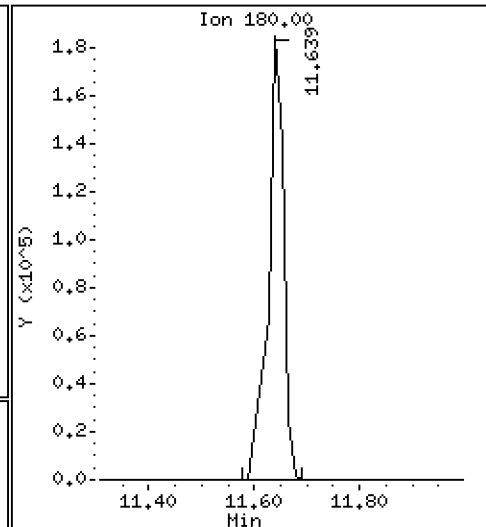
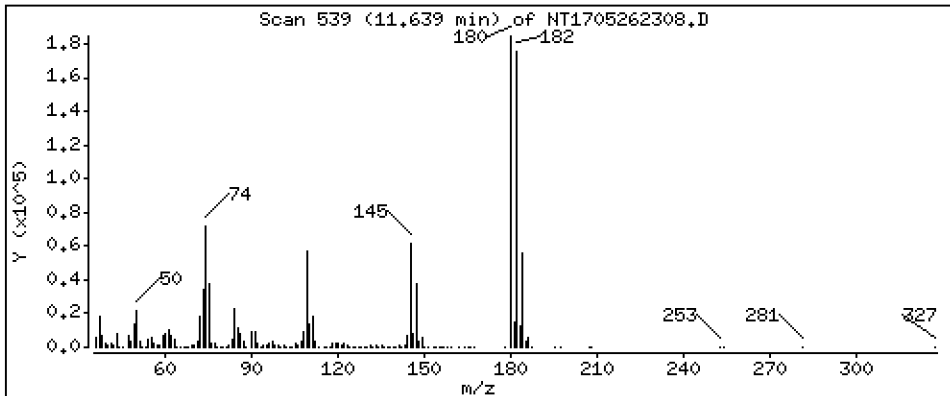
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,550 ug/mL



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Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

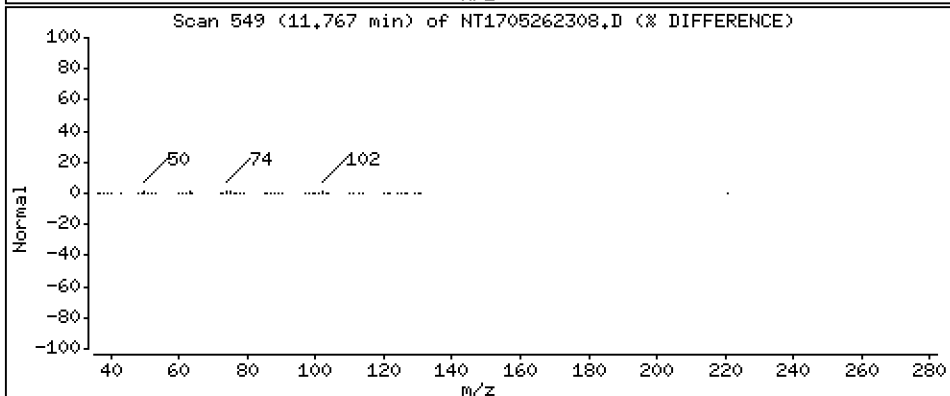
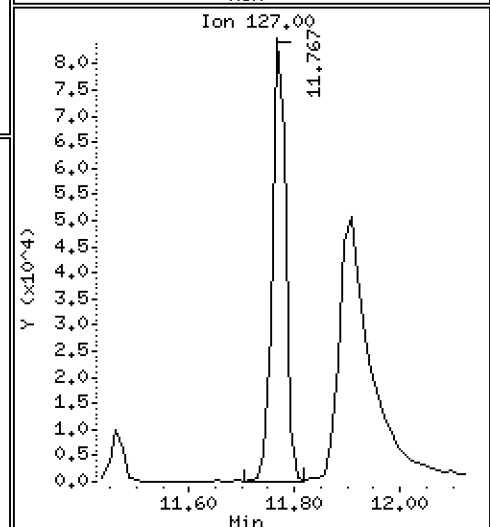
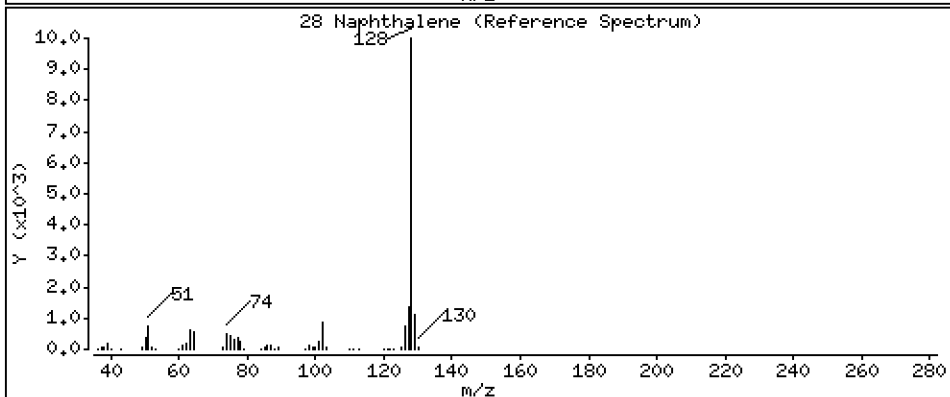
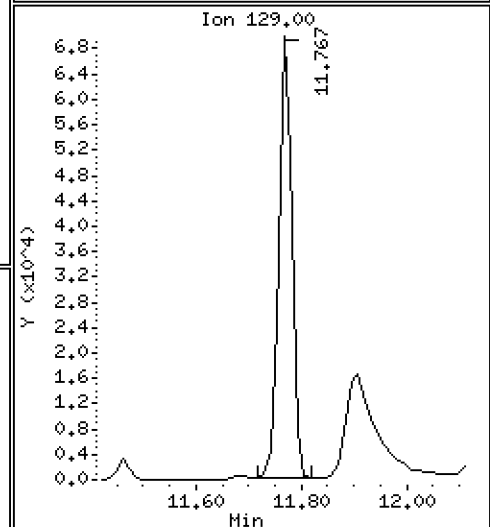
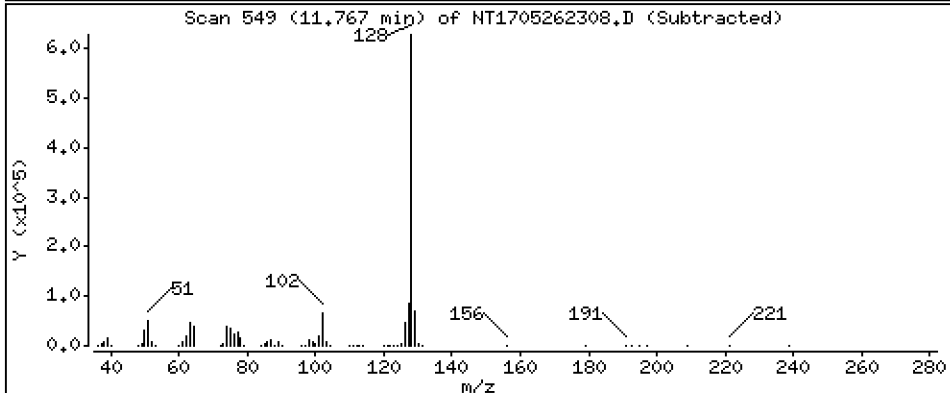
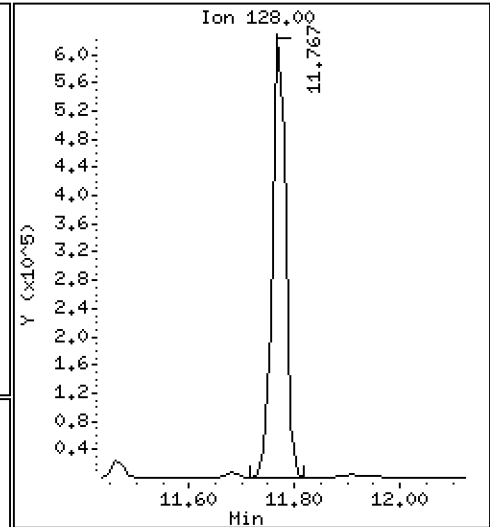
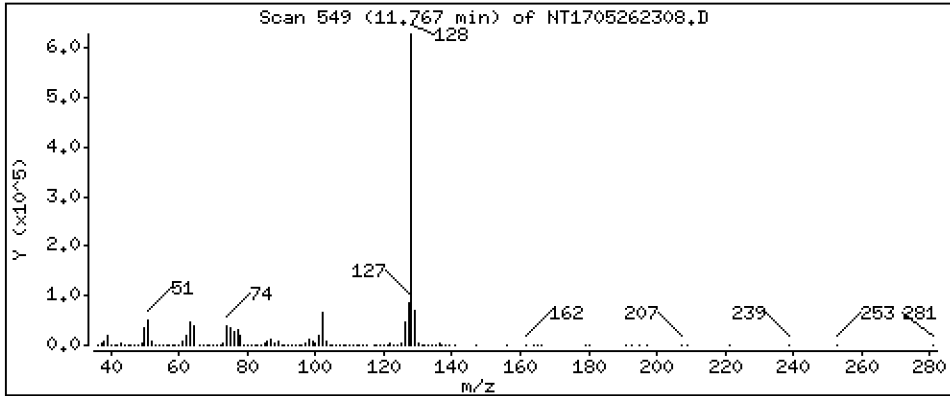
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,938 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

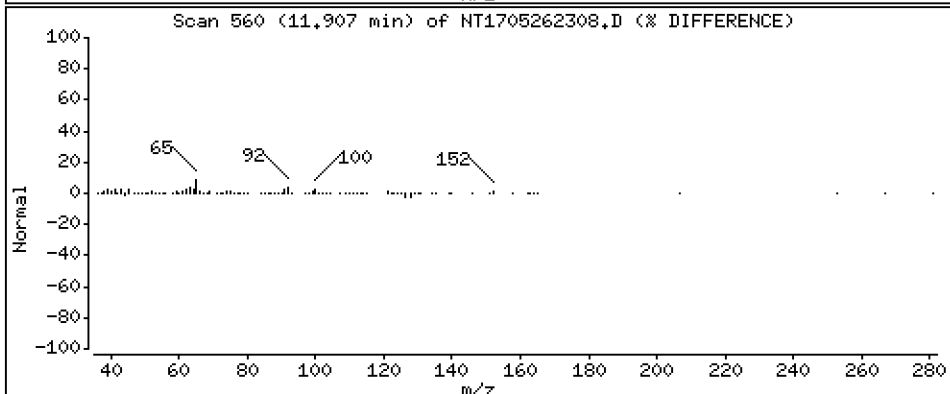
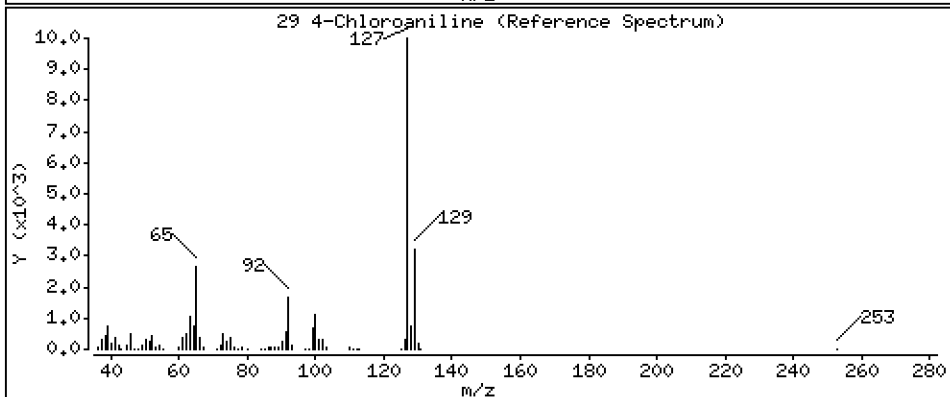
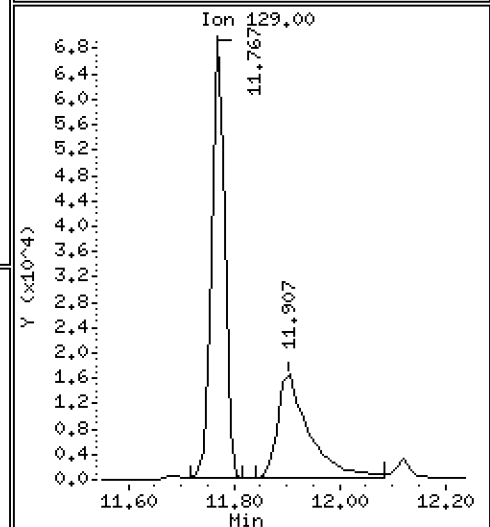
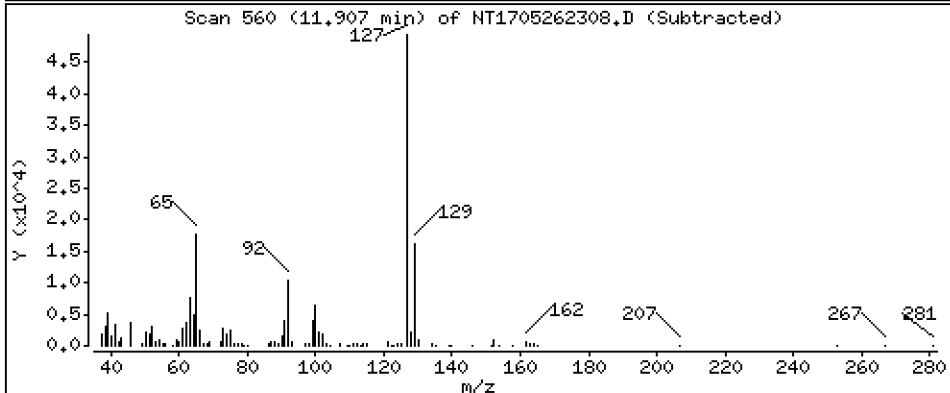
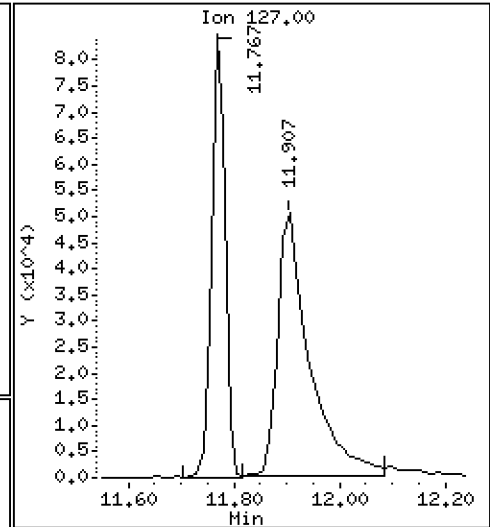
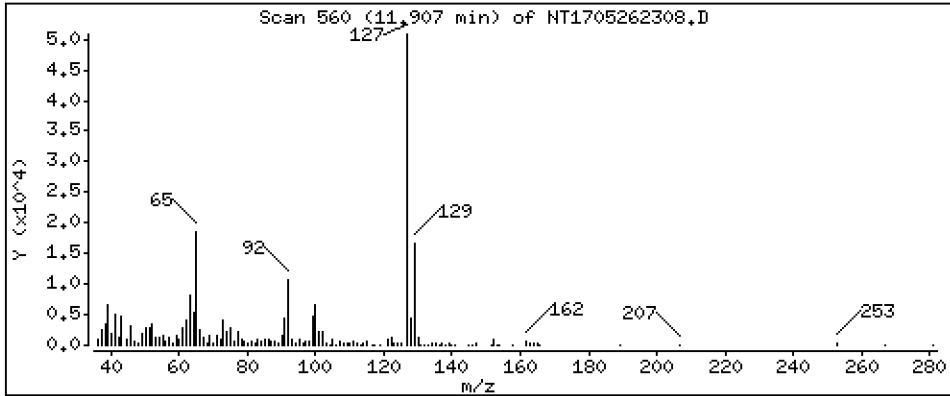
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 2,091 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

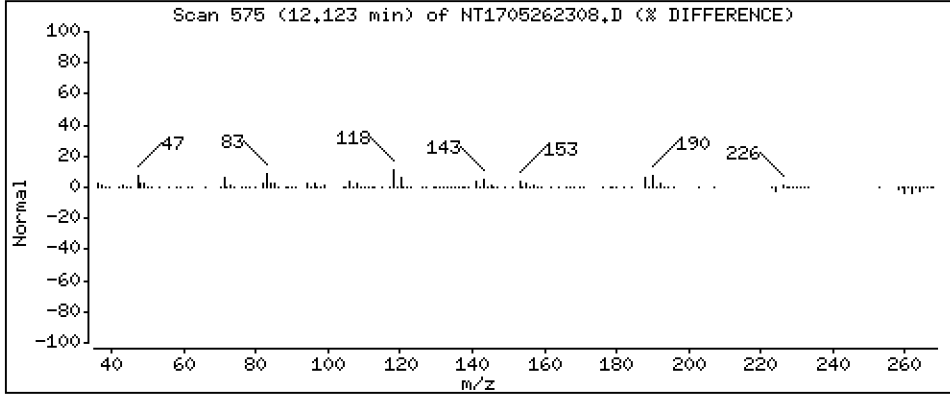
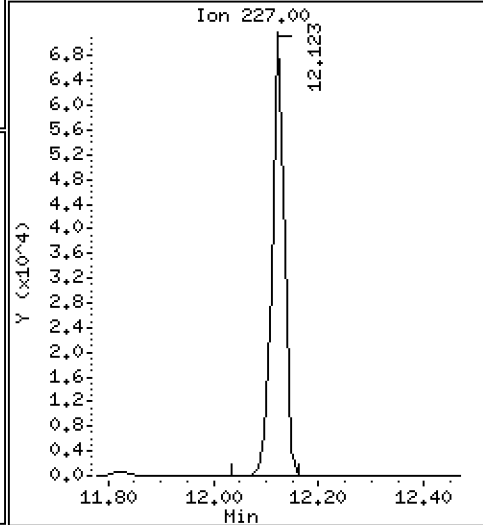
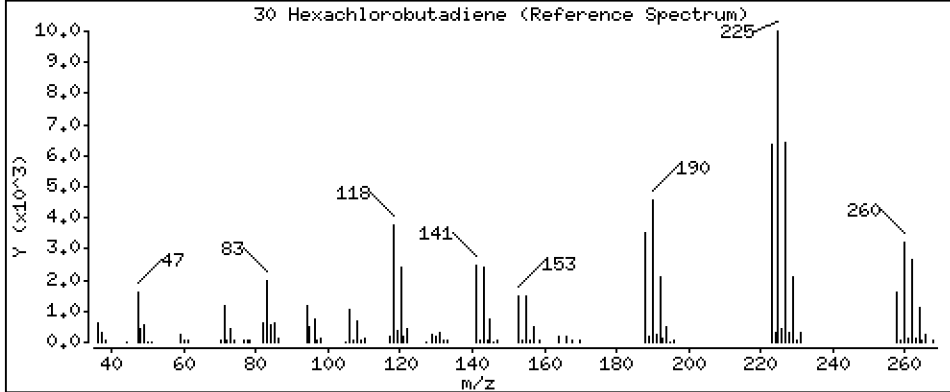
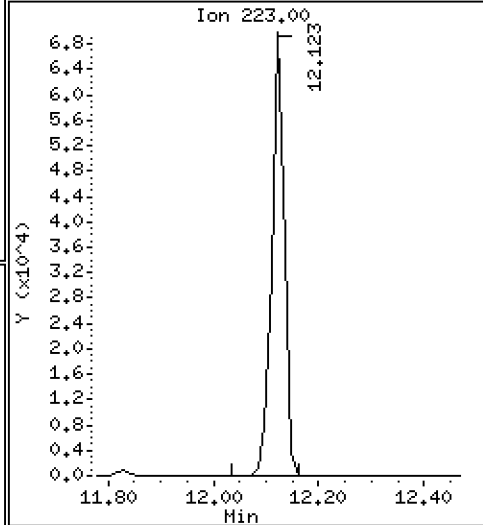
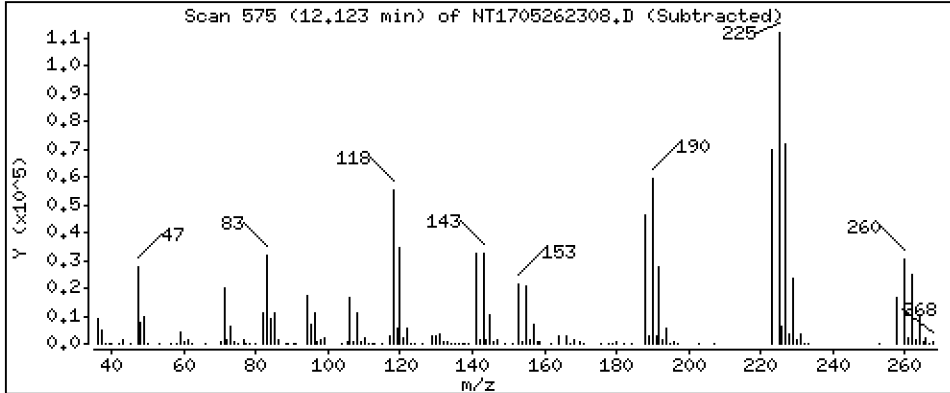
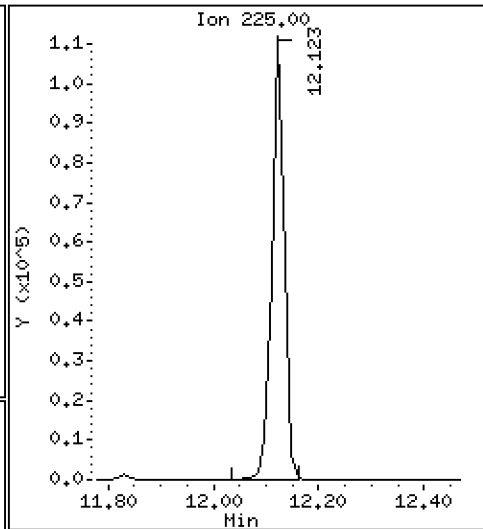
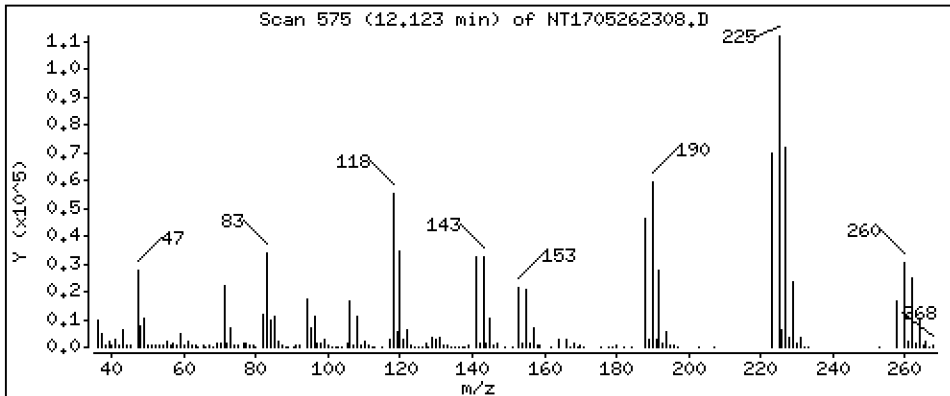
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,046 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

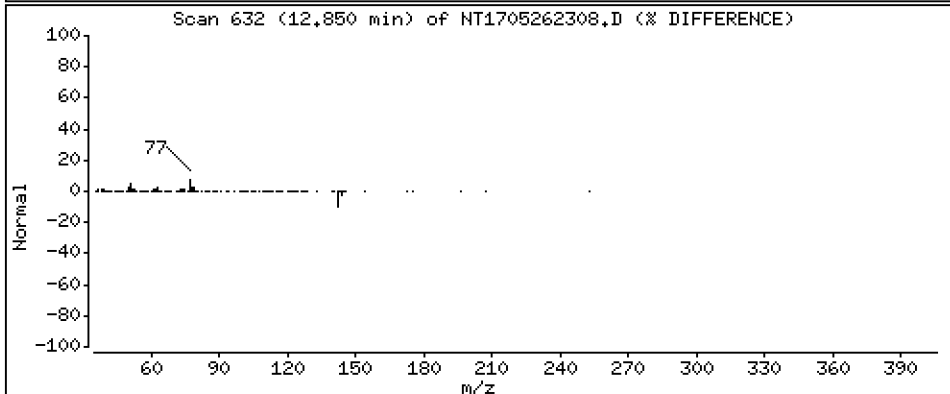
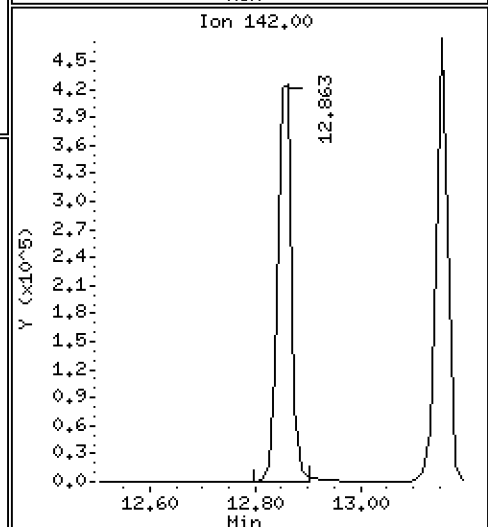
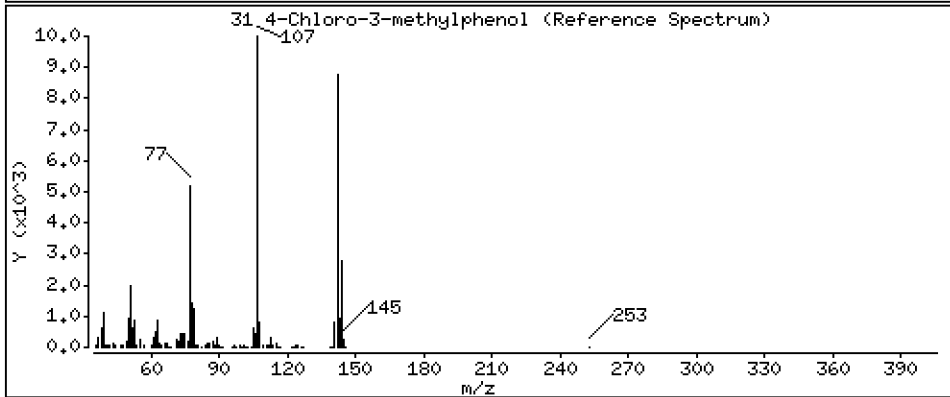
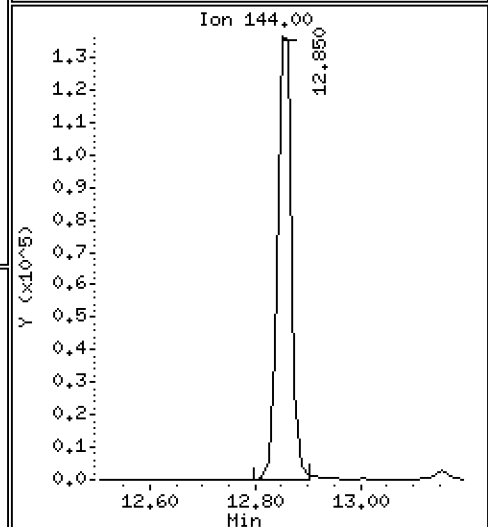
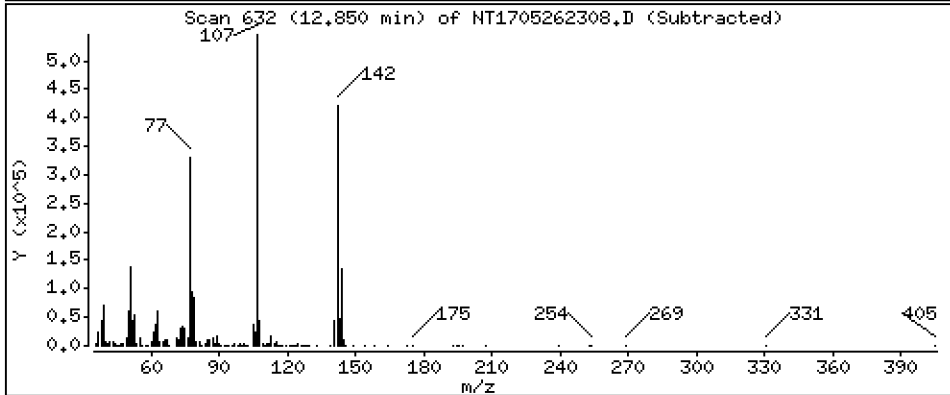
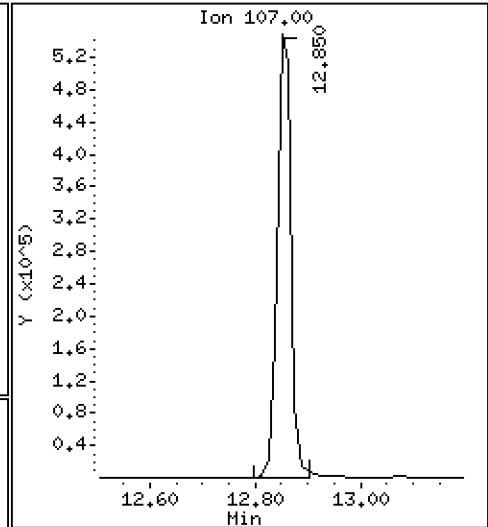
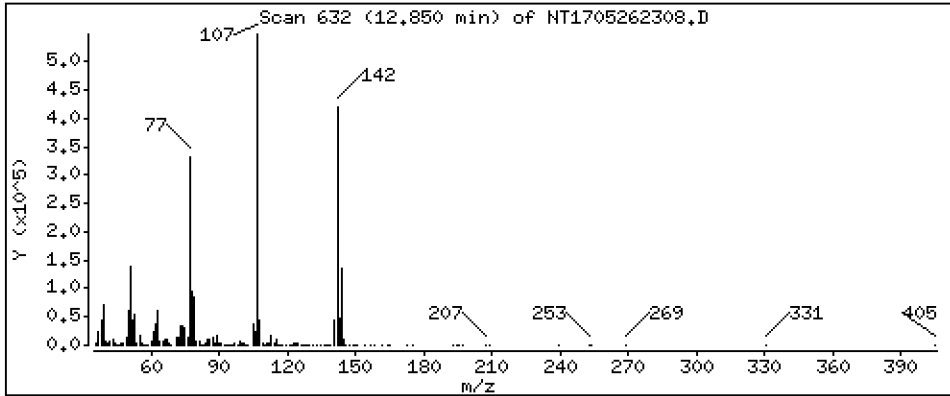
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 11,61 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

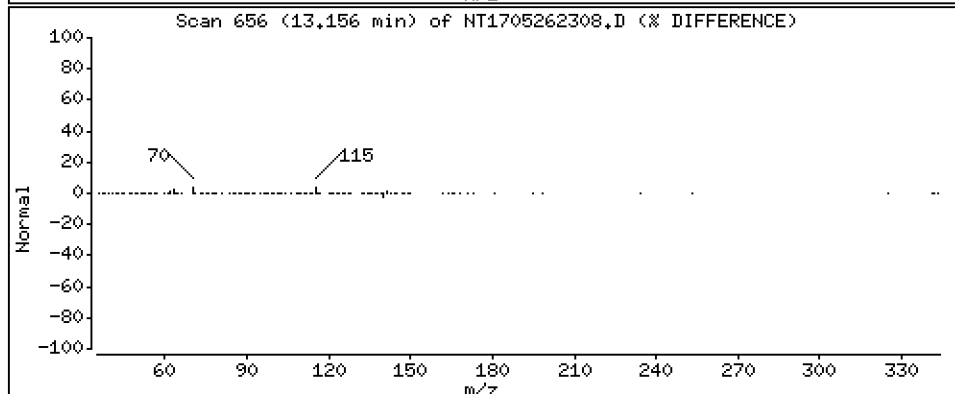
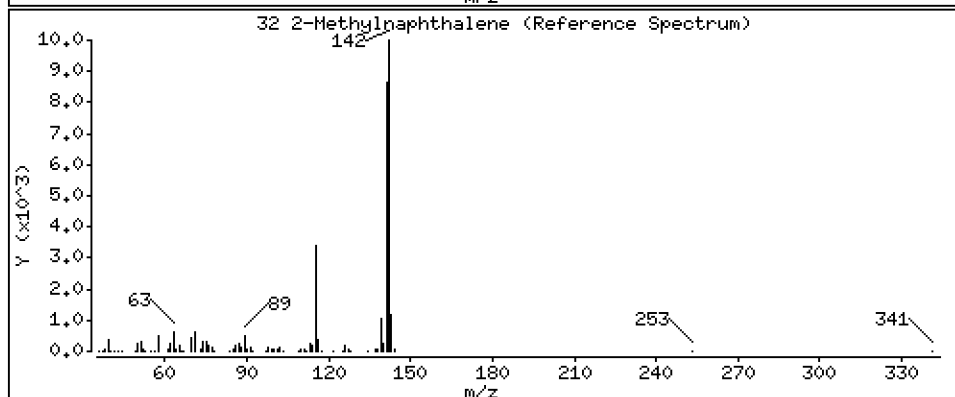
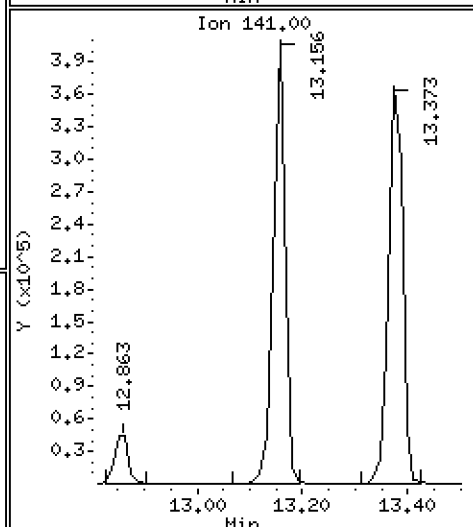
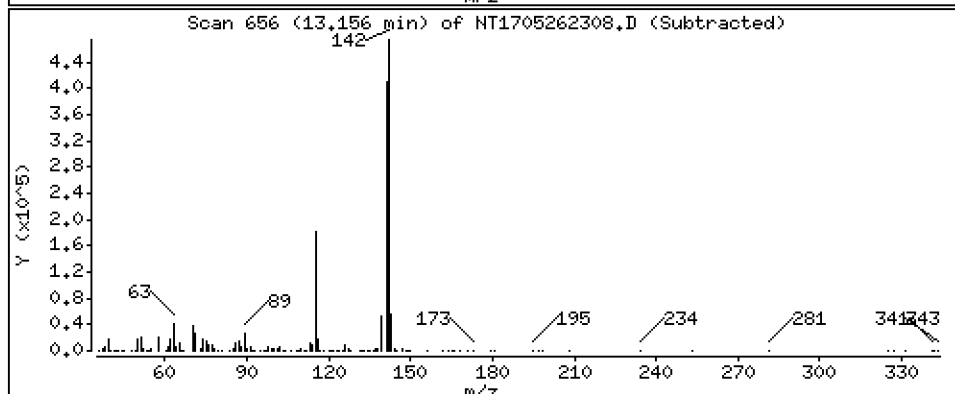
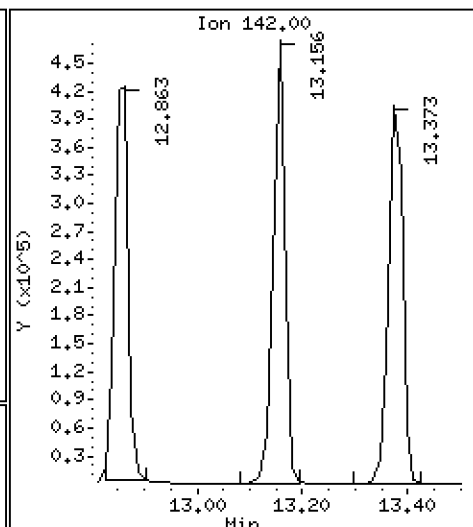
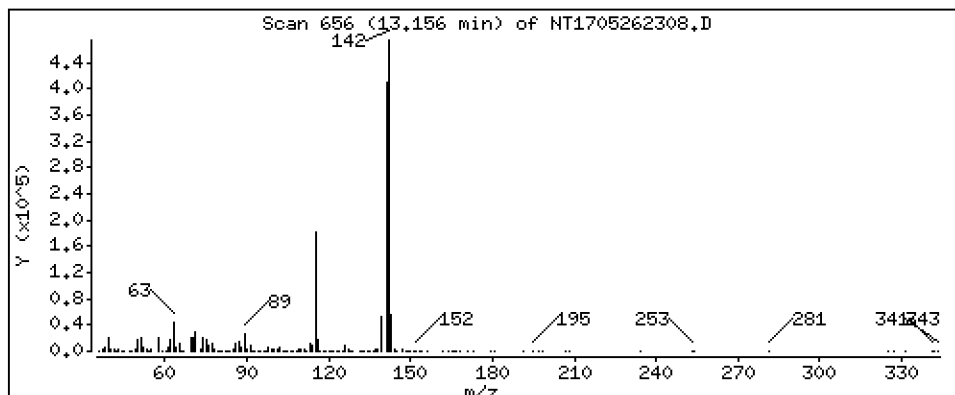
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,804 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

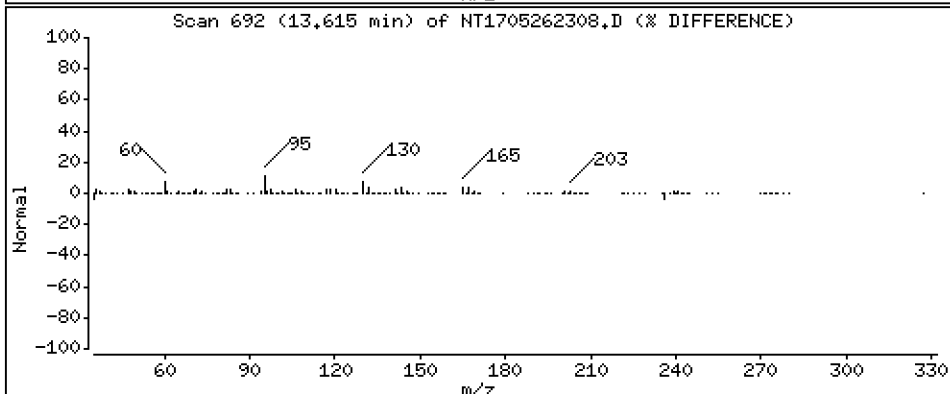
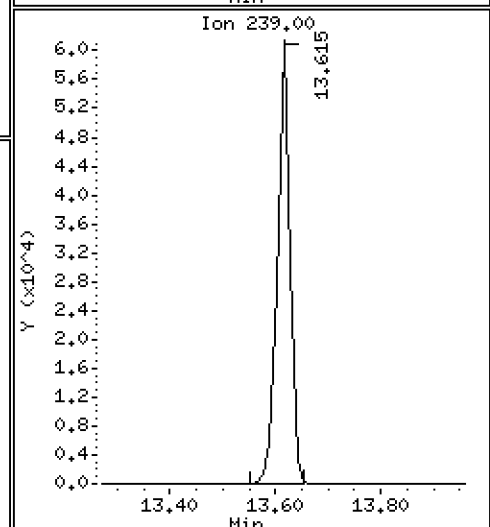
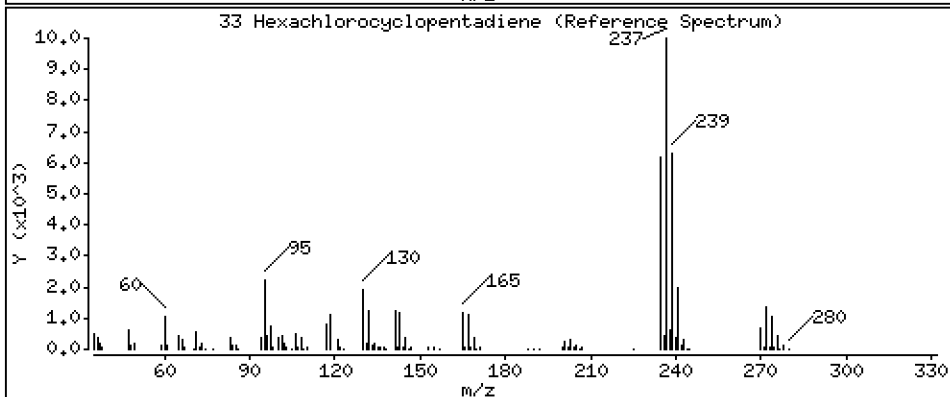
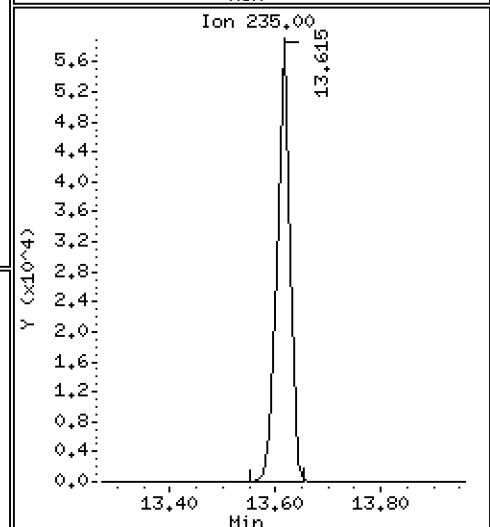
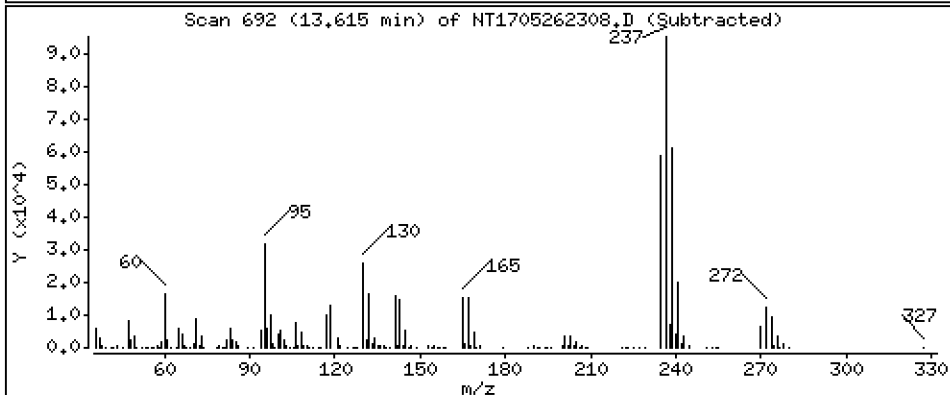
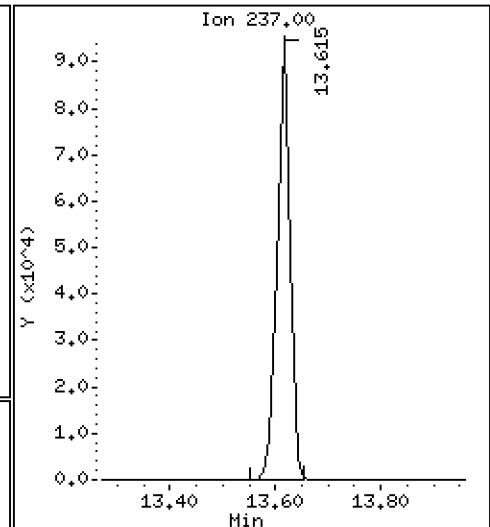
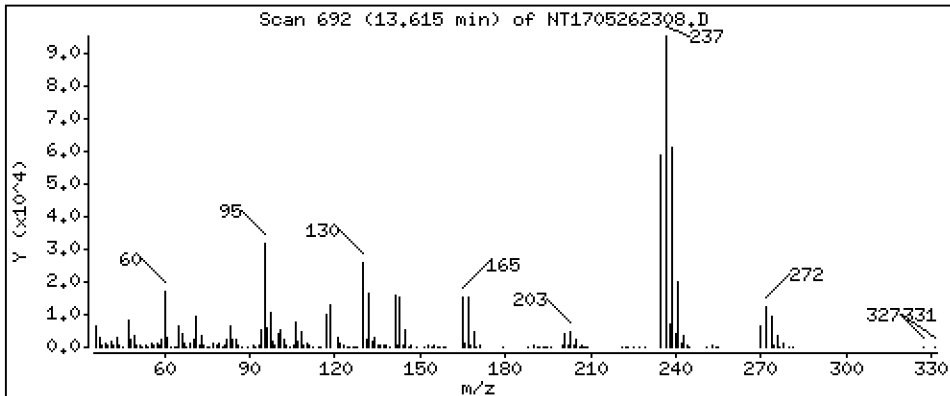
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 3,234 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

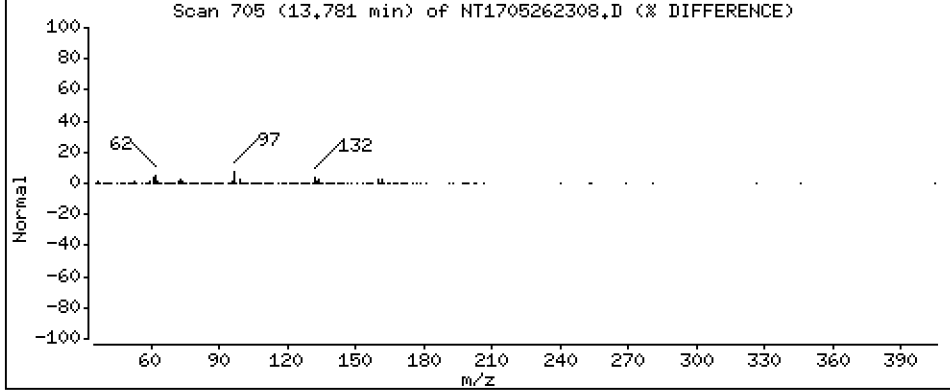
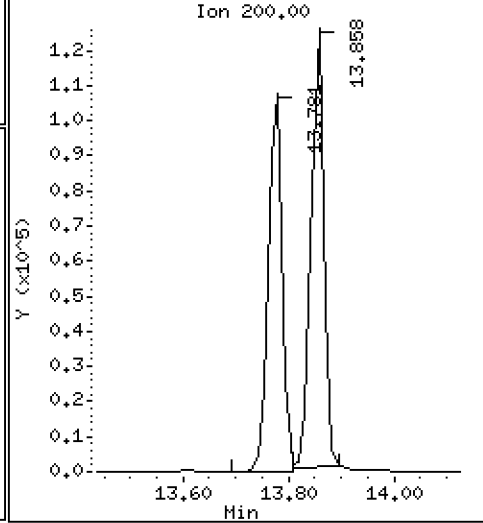
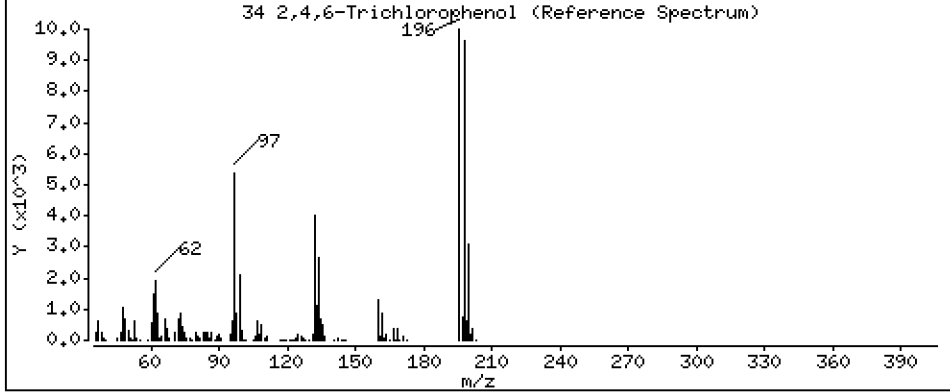
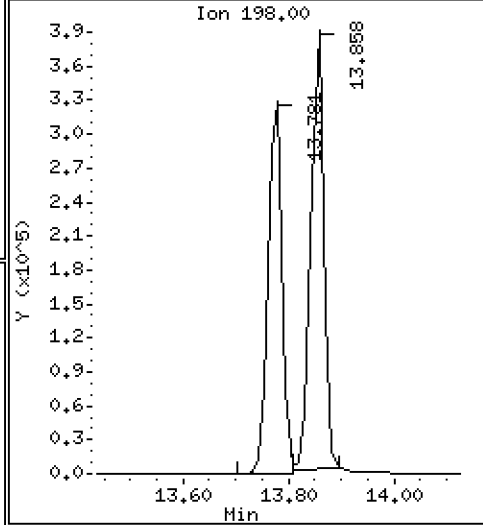
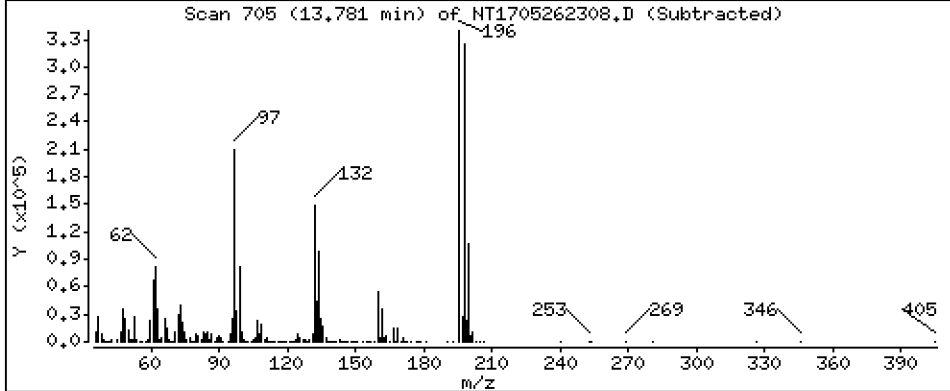
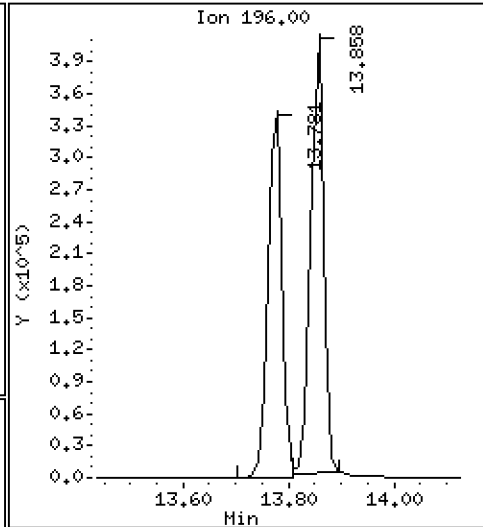
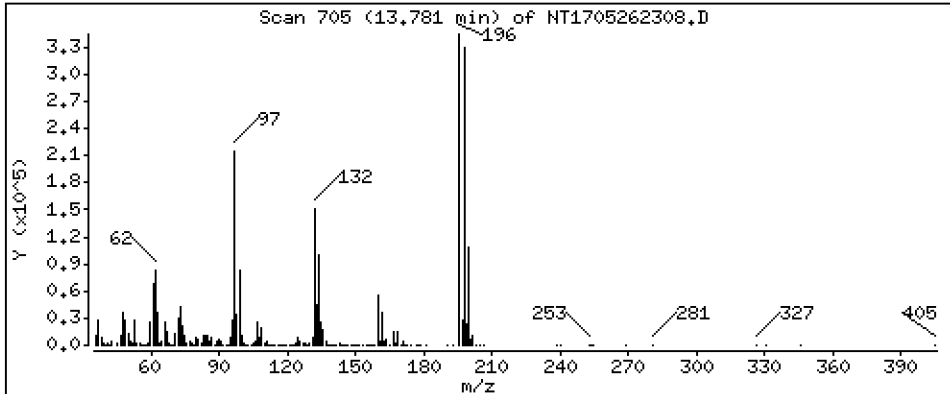
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 11,67 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

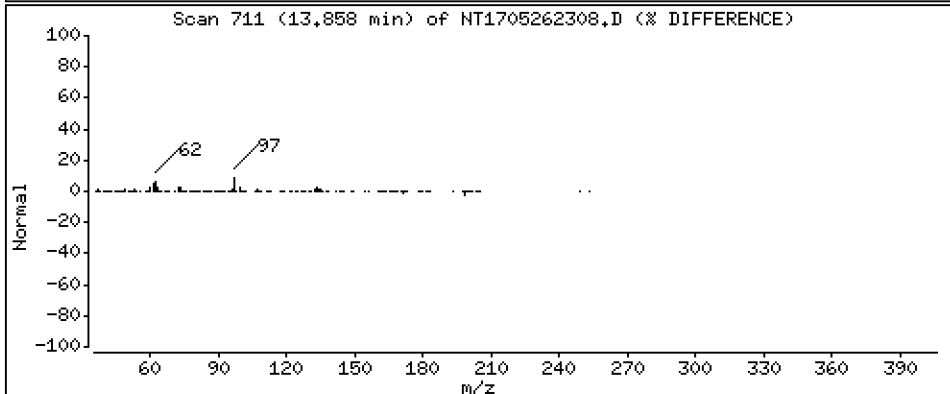
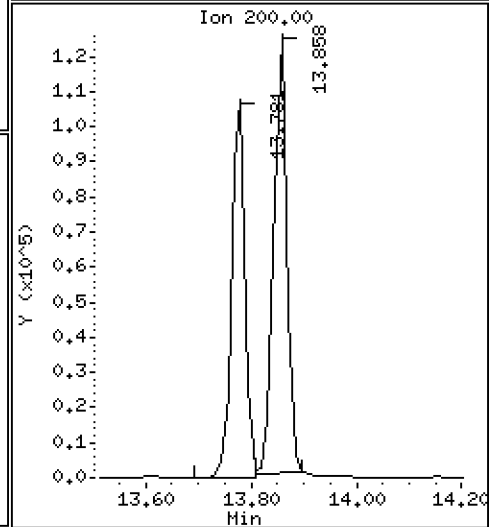
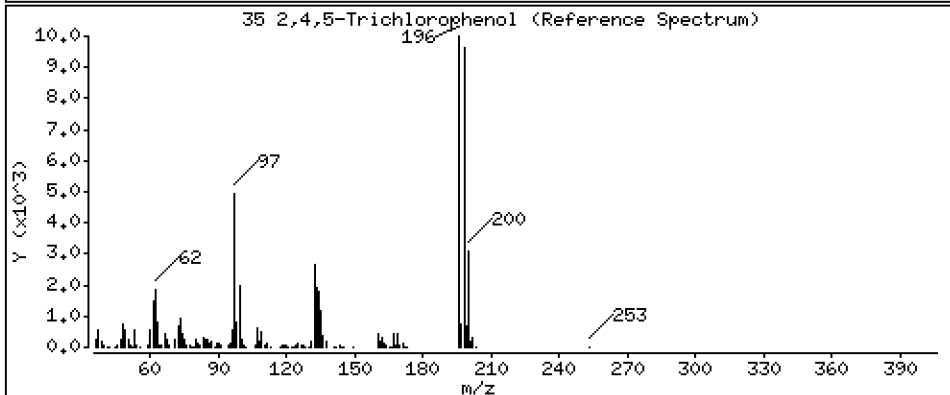
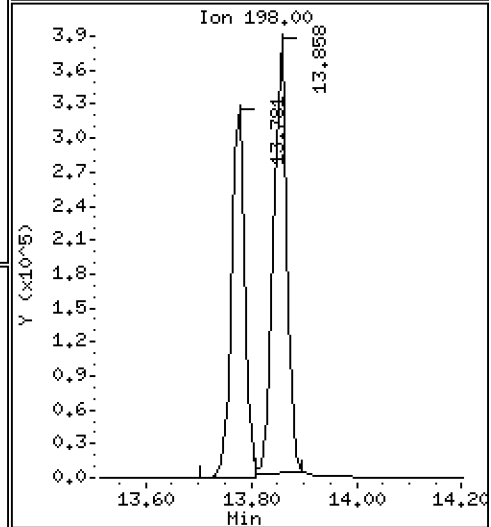
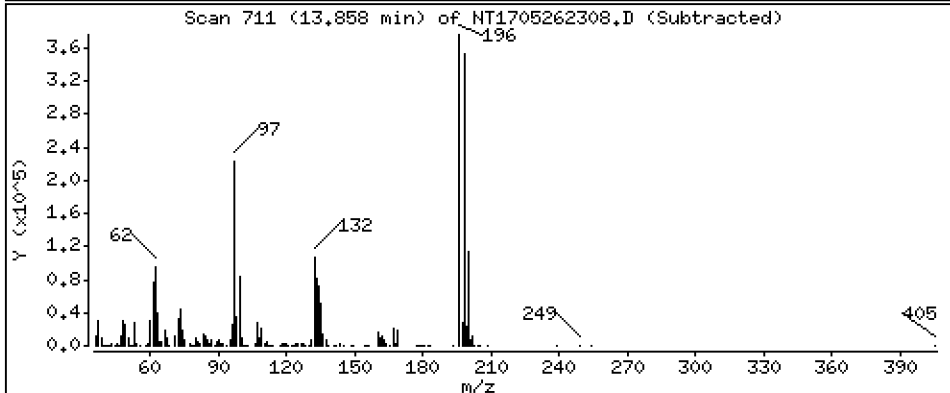
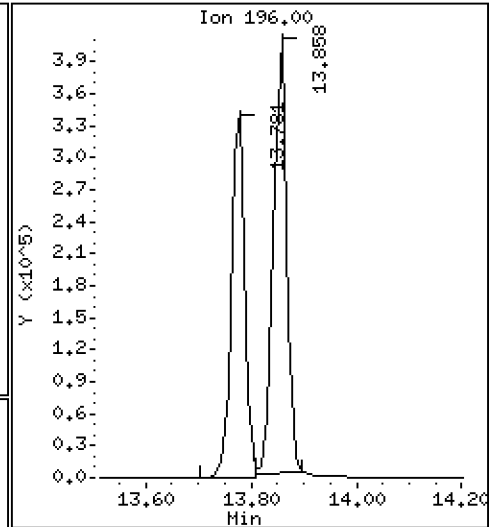
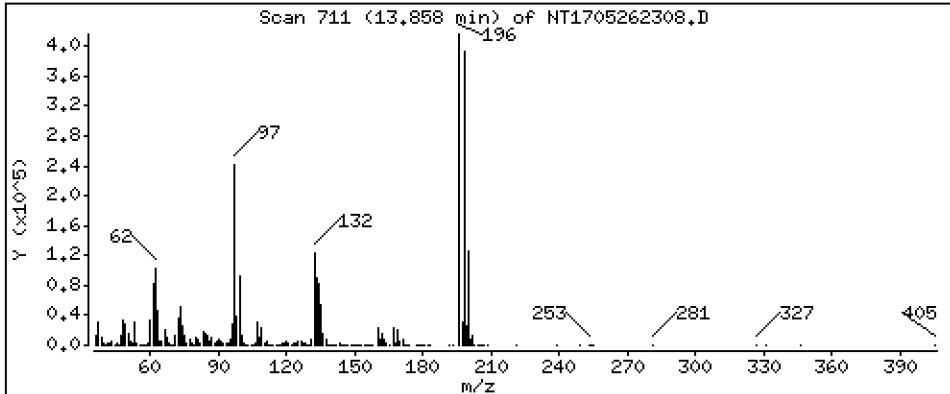
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 12,02 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

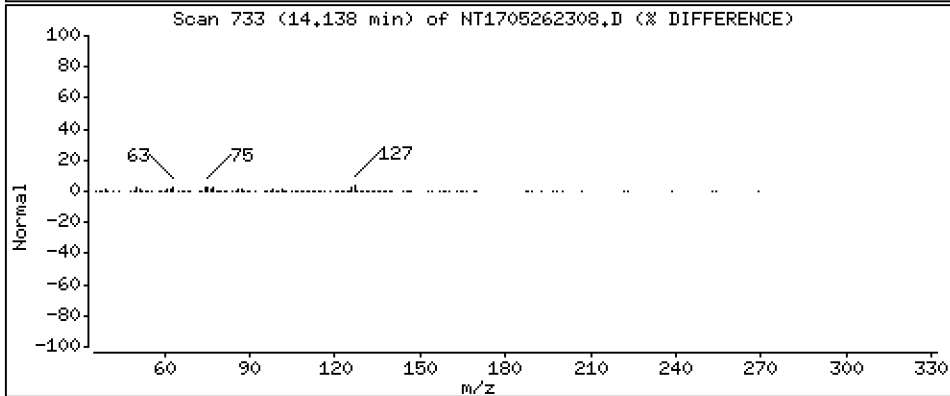
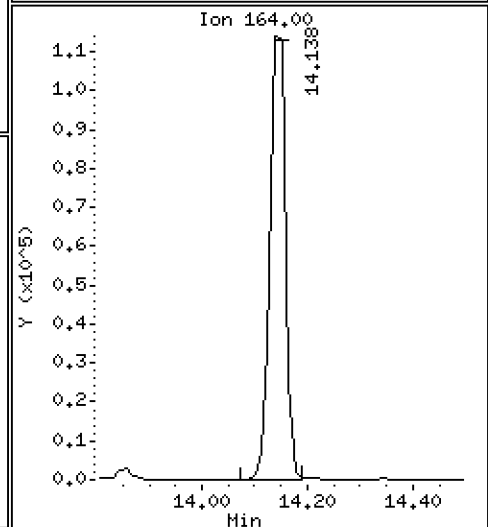
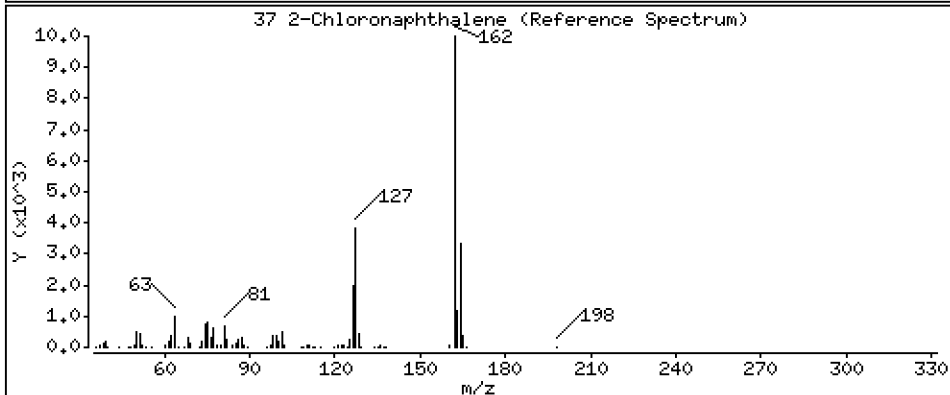
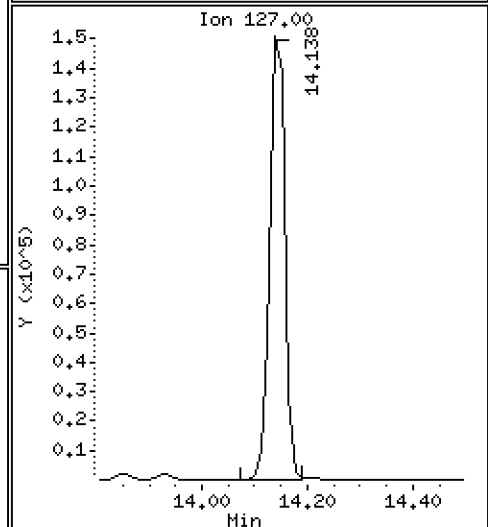
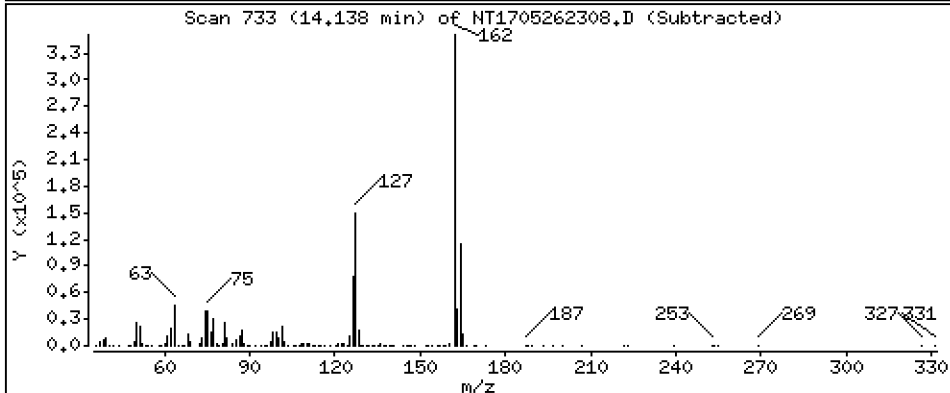
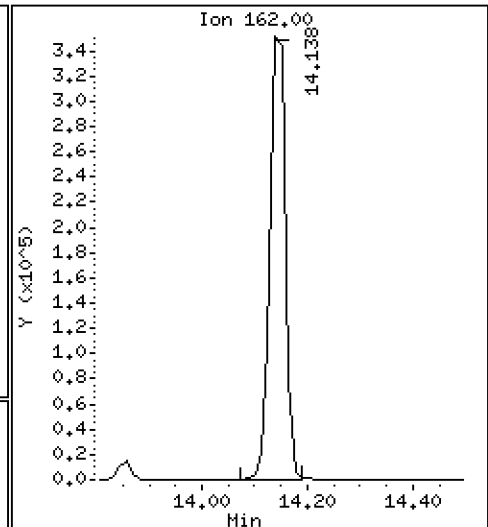
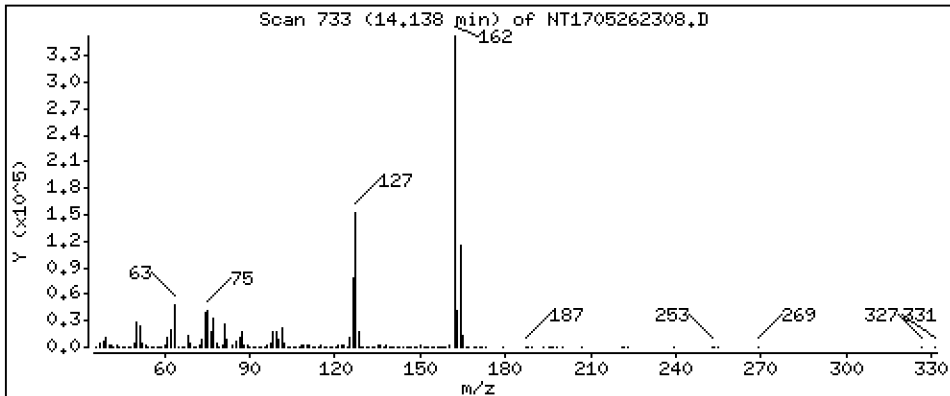
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.210 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

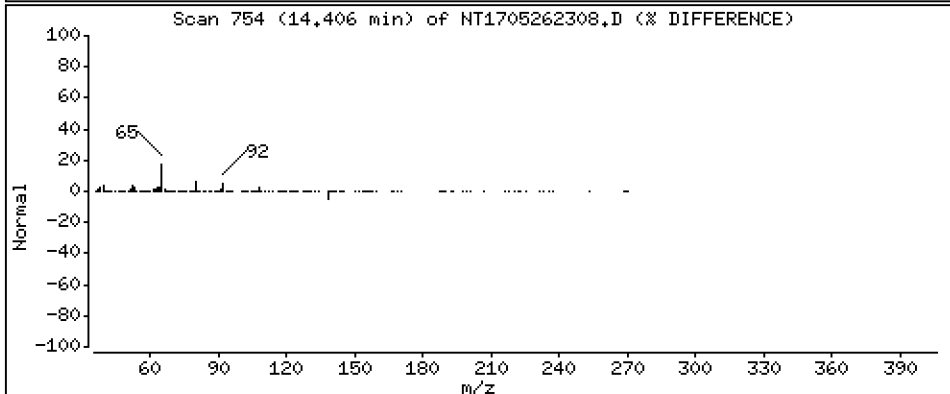
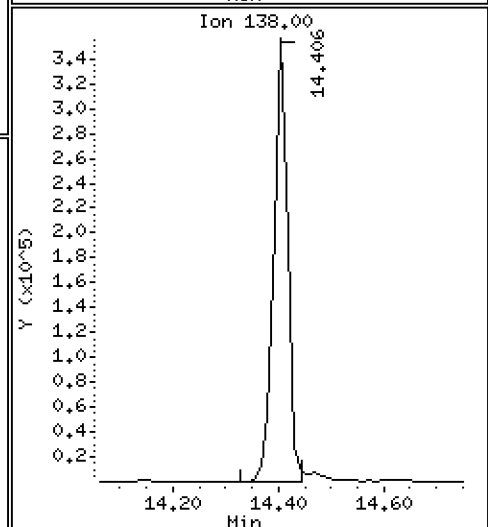
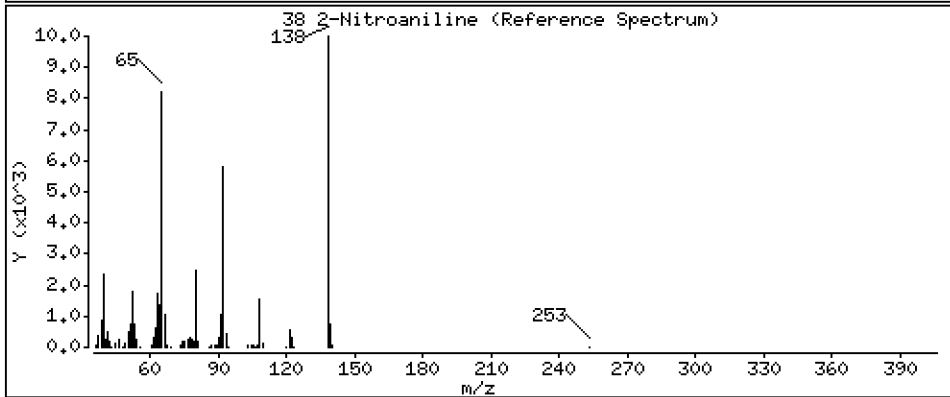
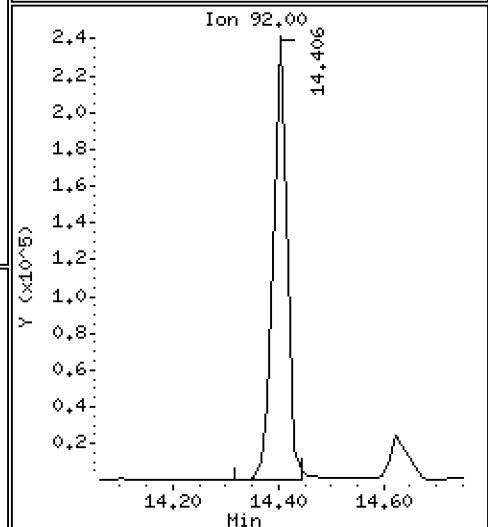
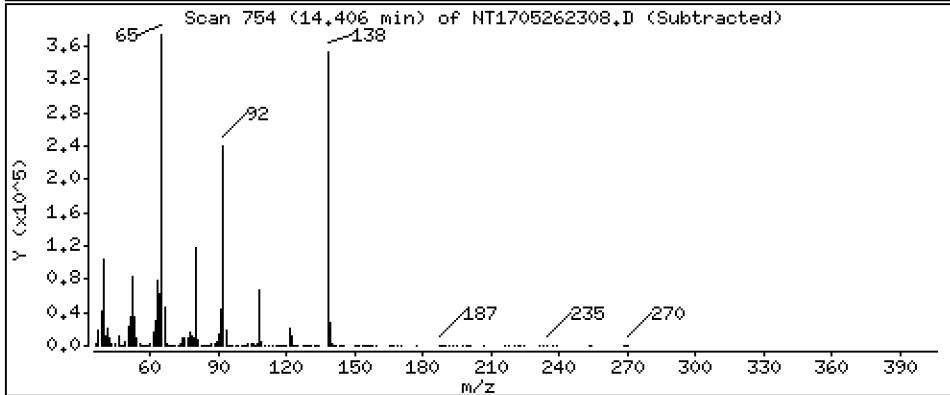
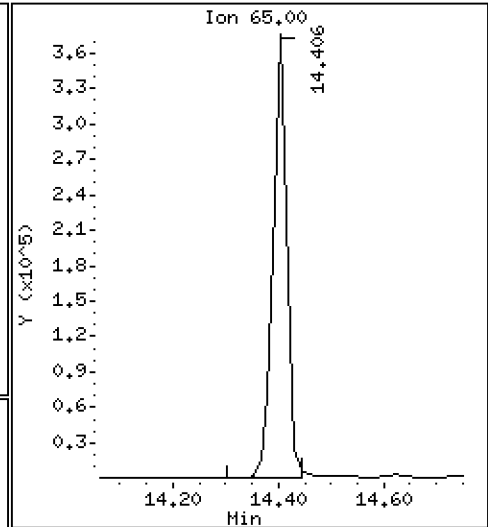
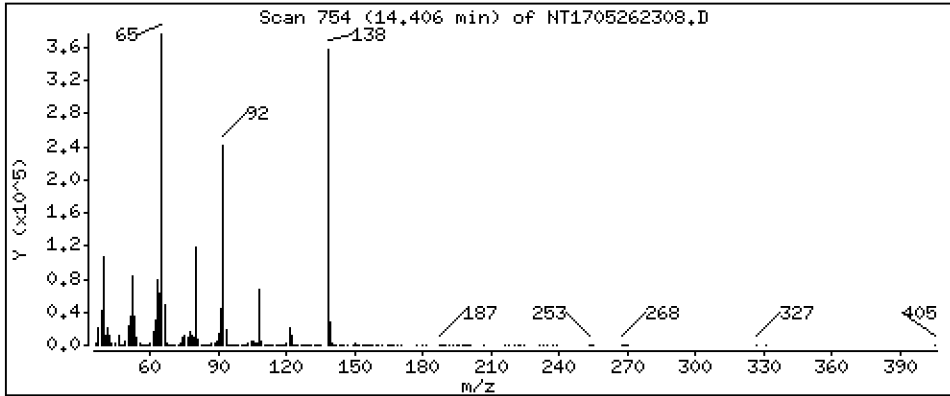
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 12,26 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

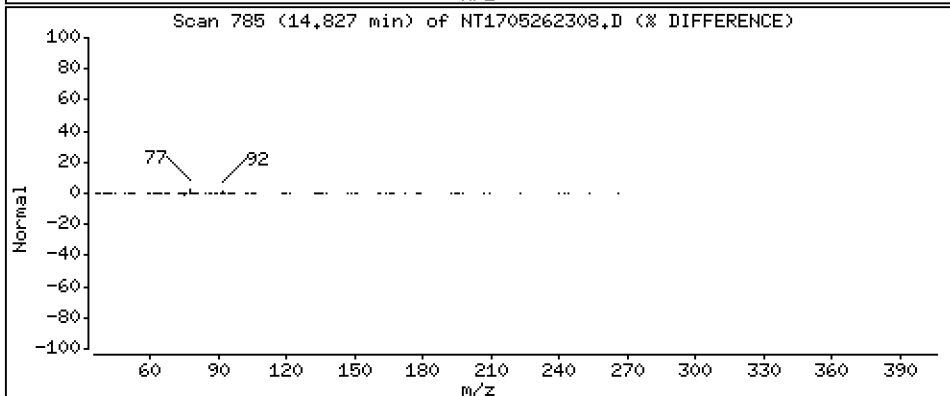
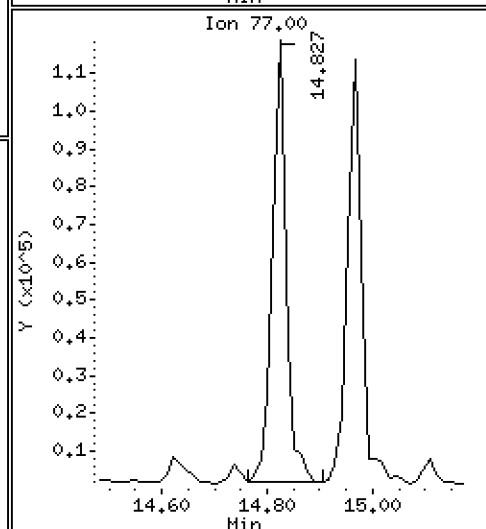
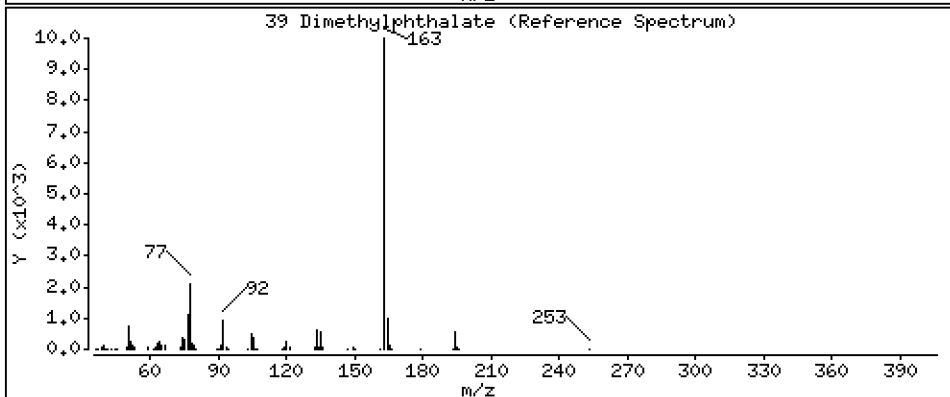
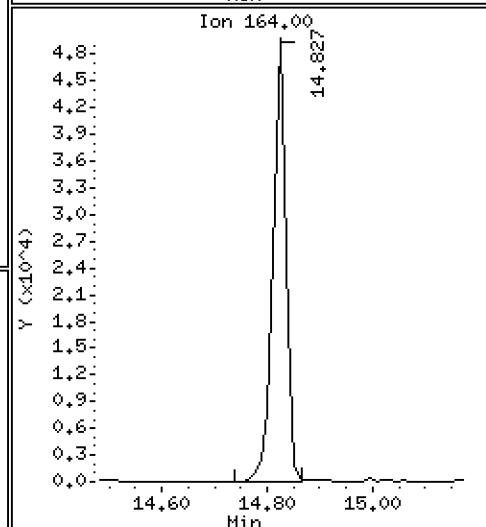
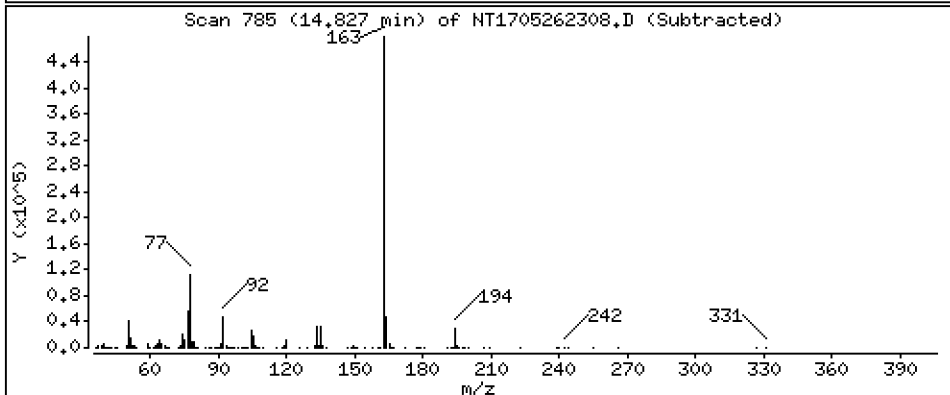
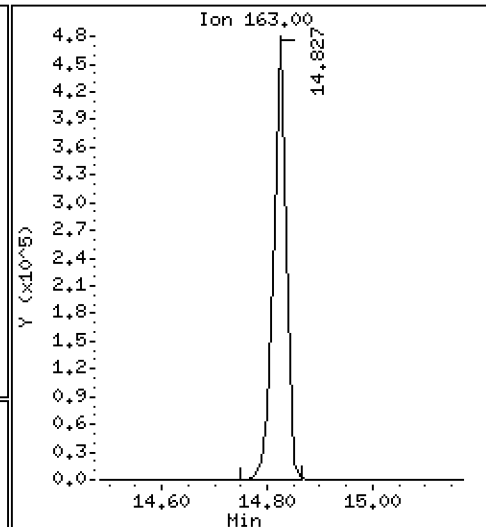
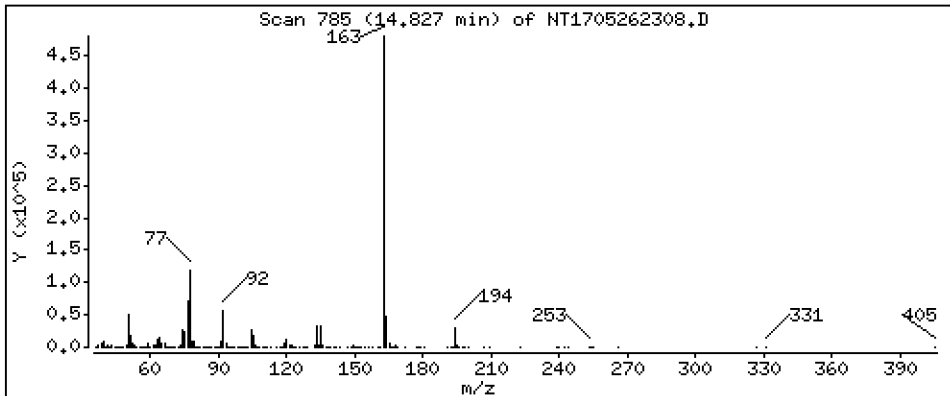
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,541 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

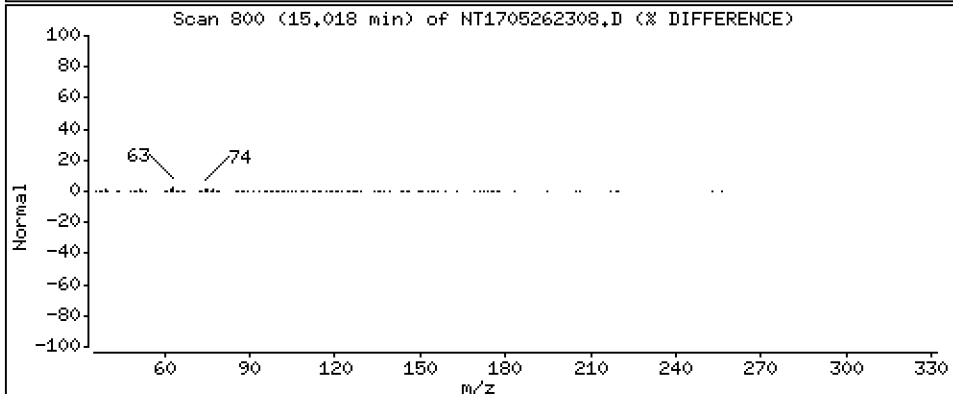
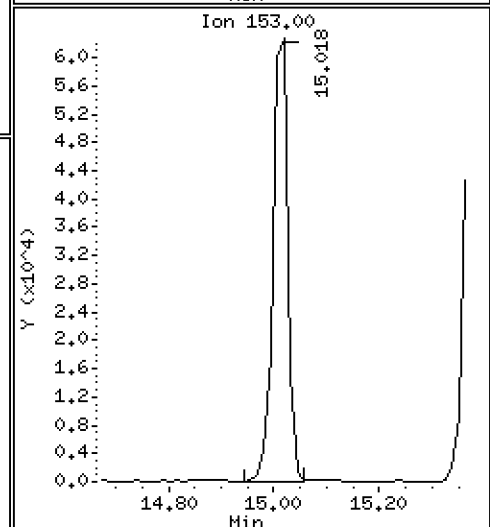
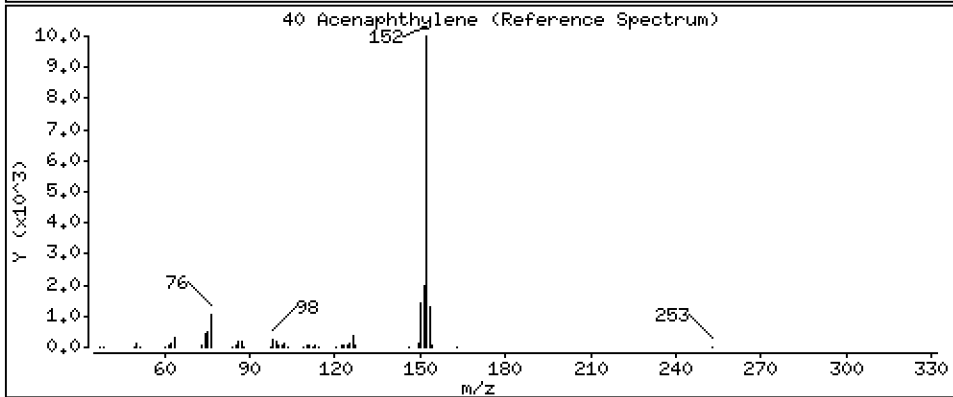
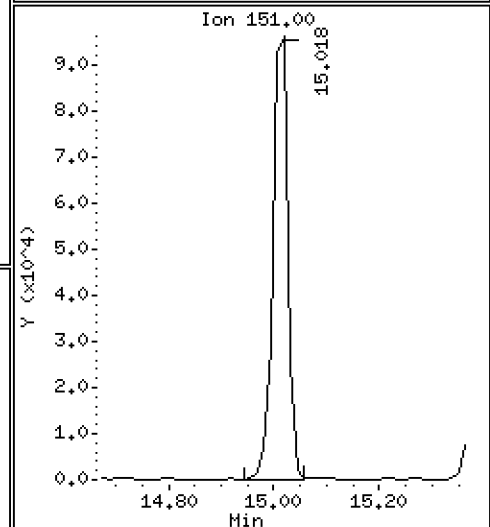
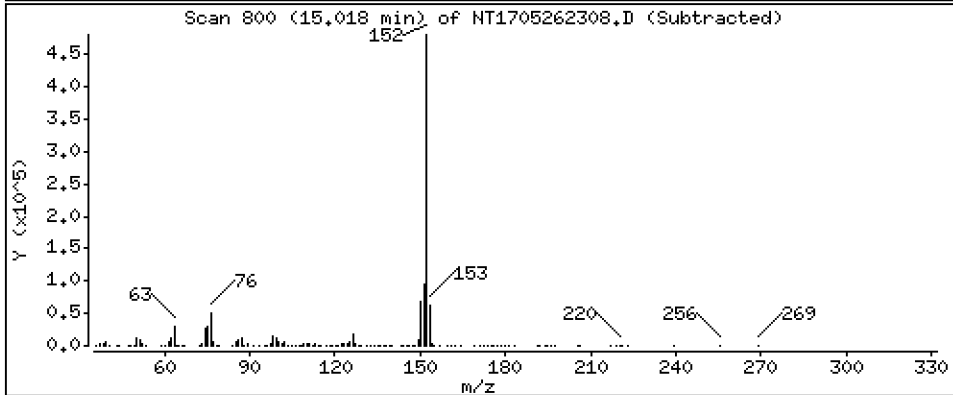
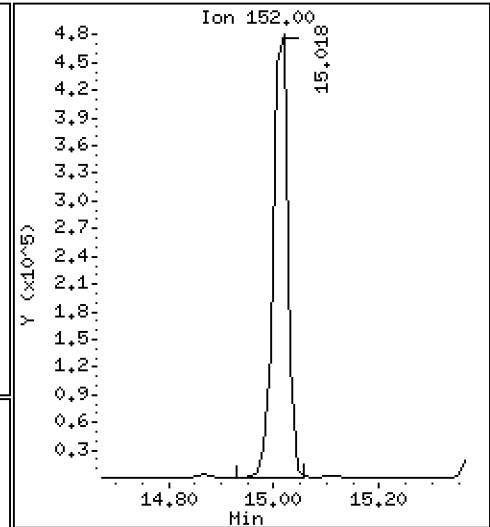
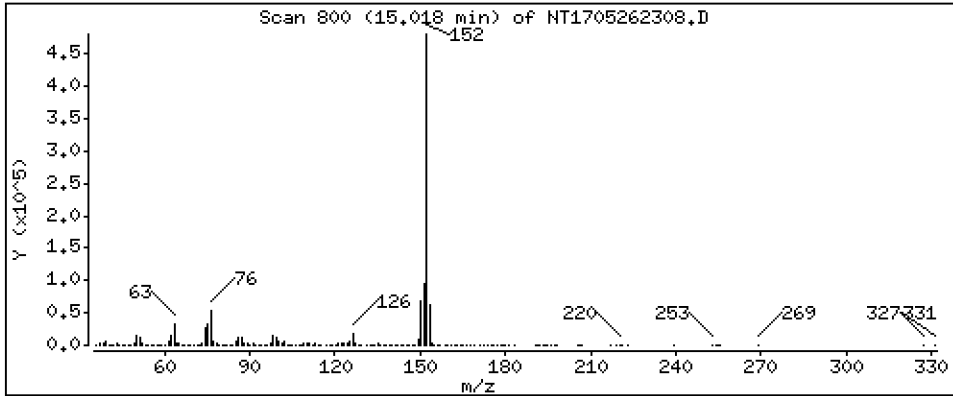
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,601 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

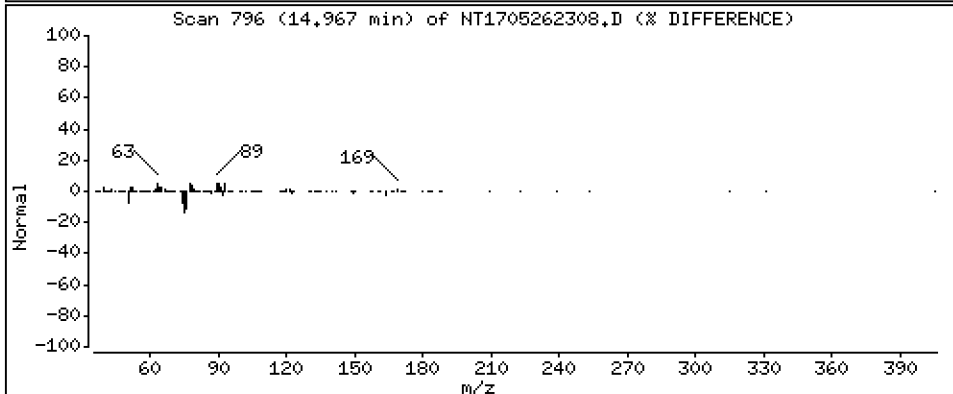
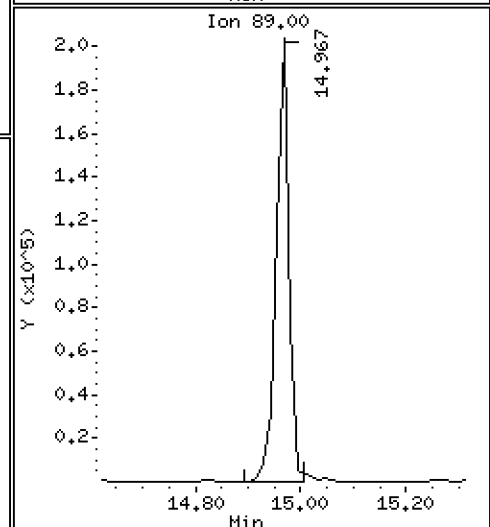
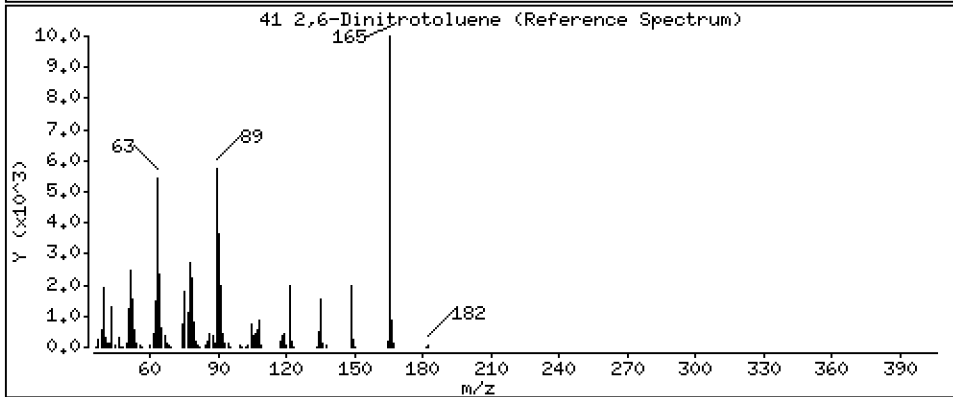
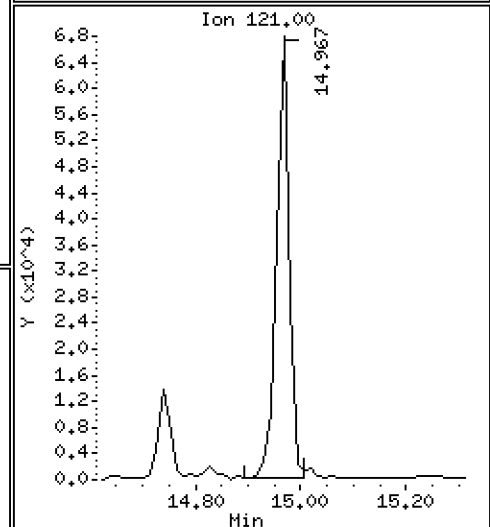
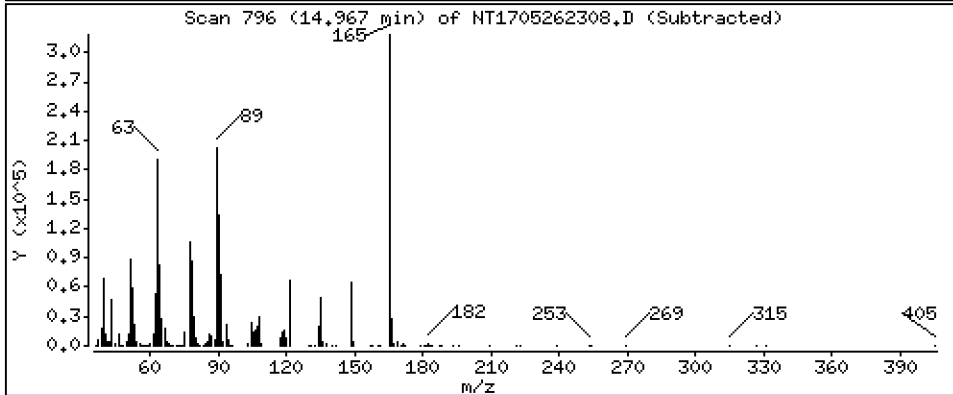
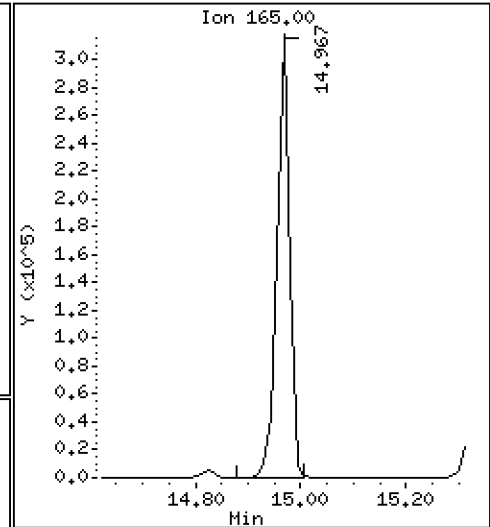
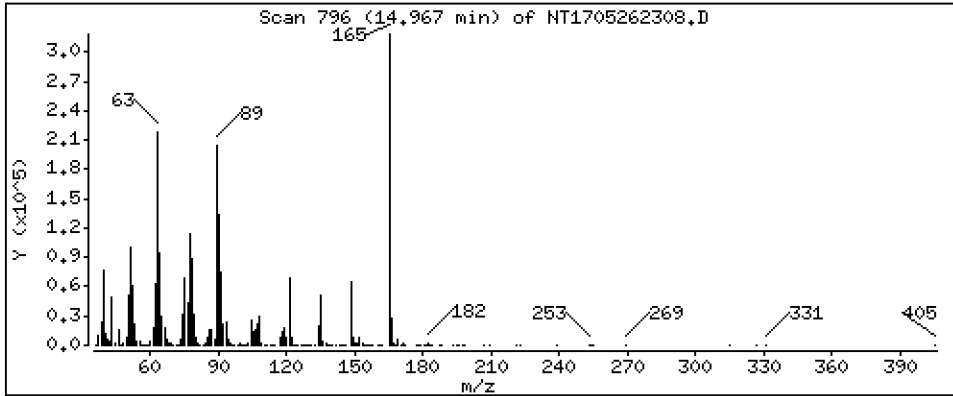
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 12,62 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

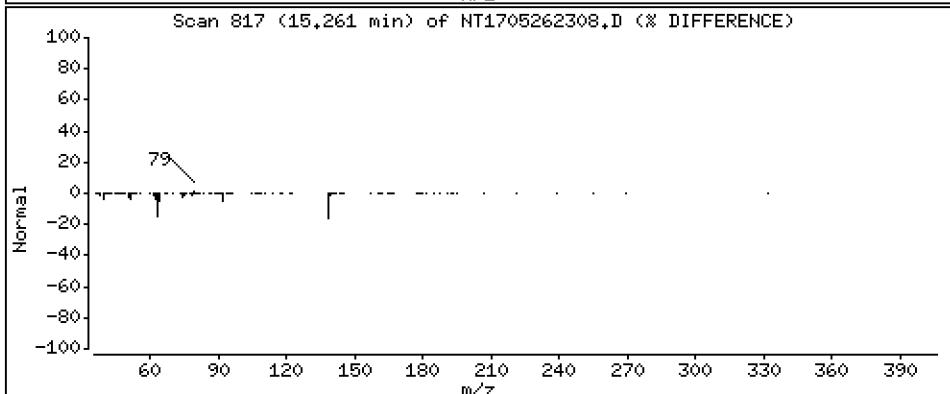
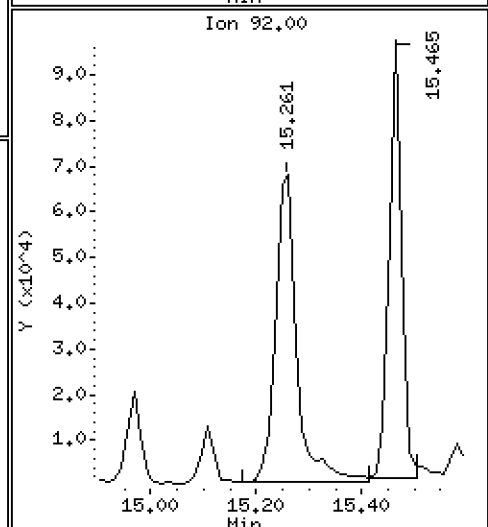
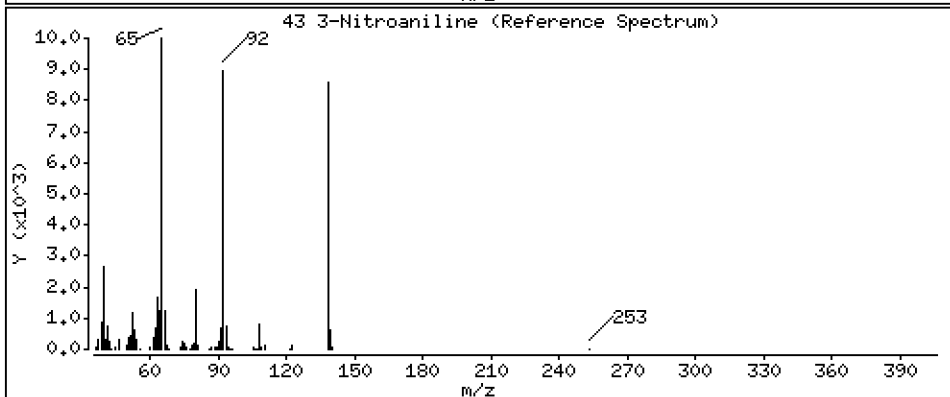
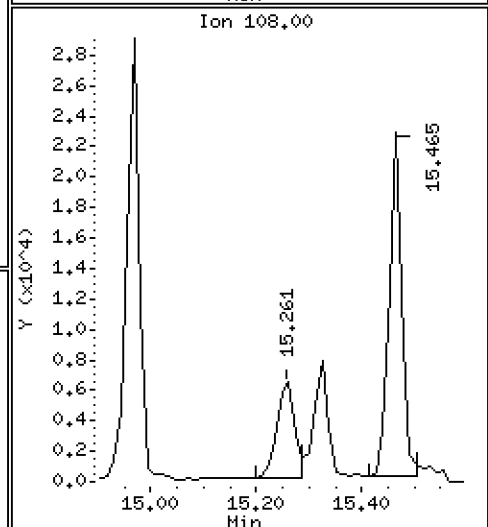
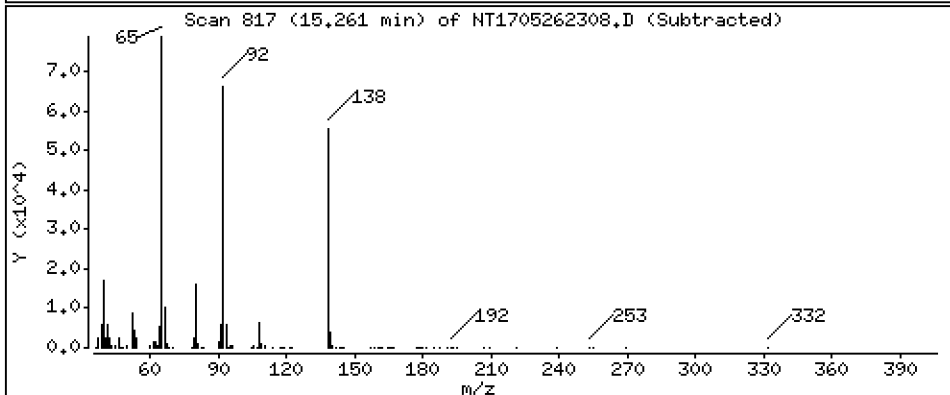
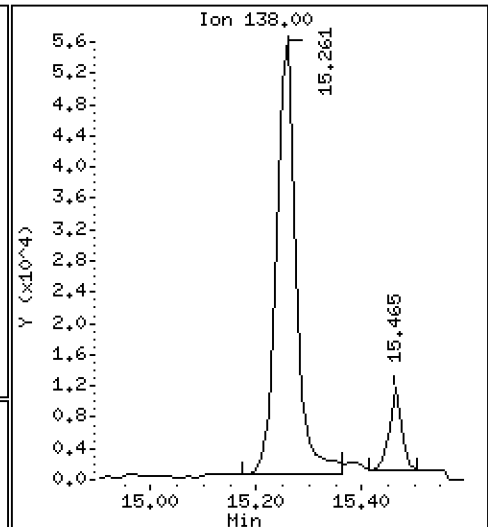
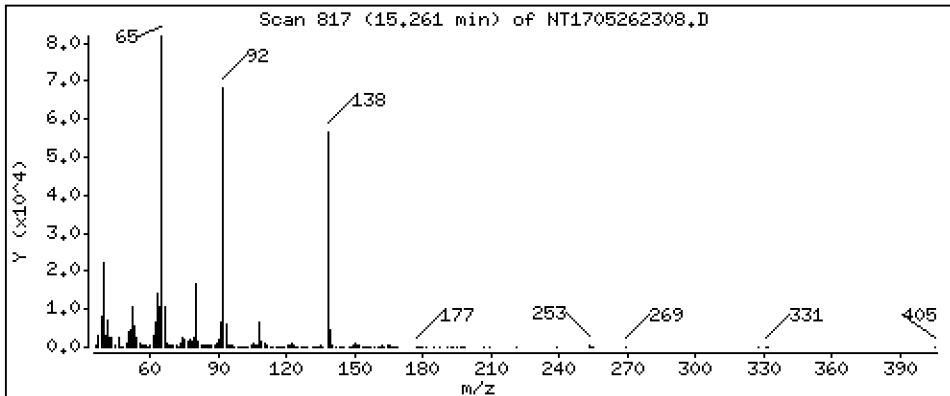
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 3,776 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

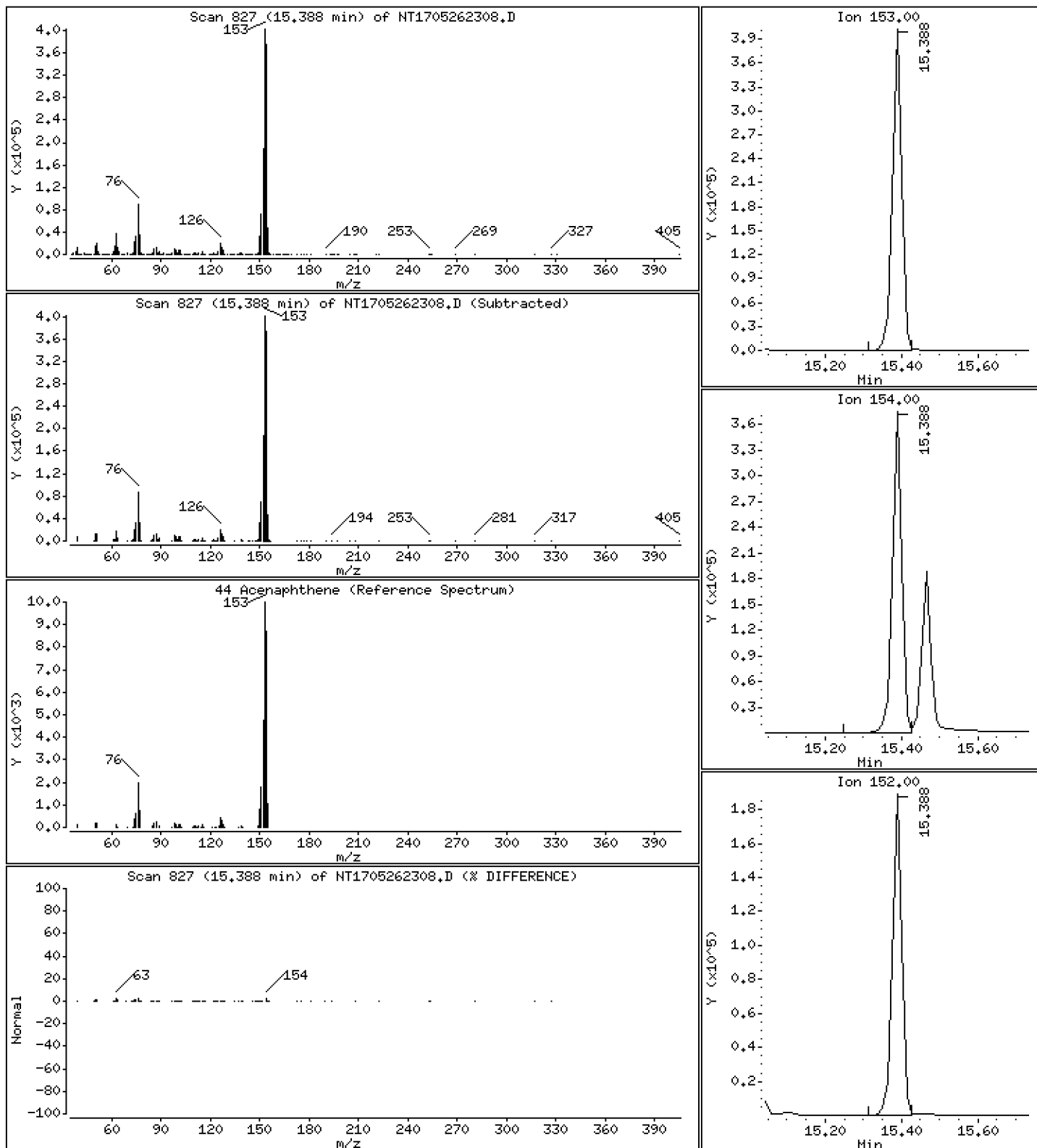
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,134 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

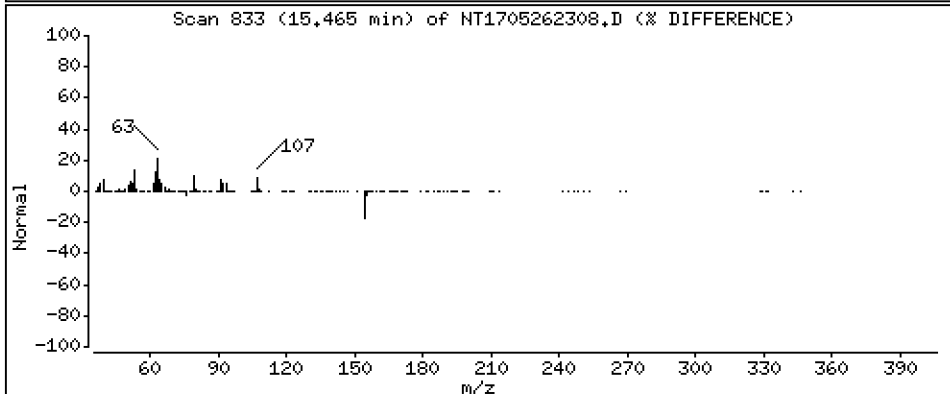
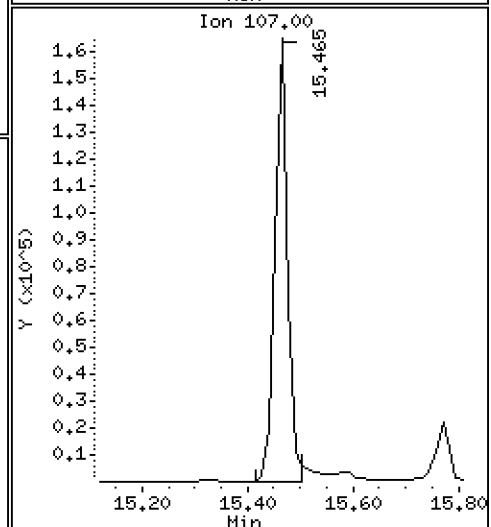
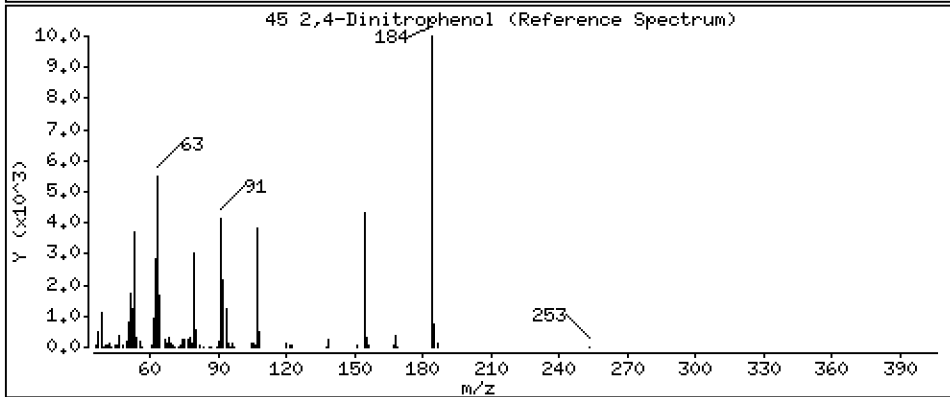
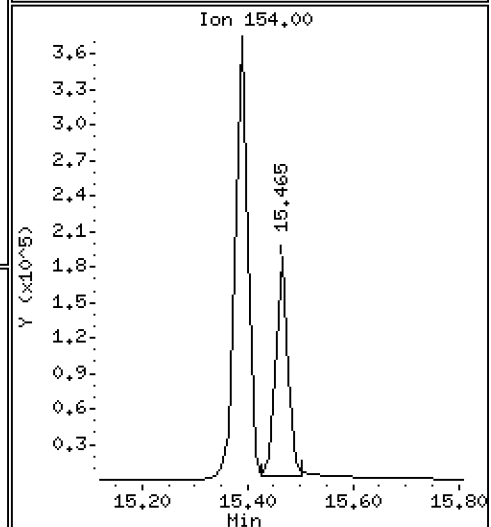
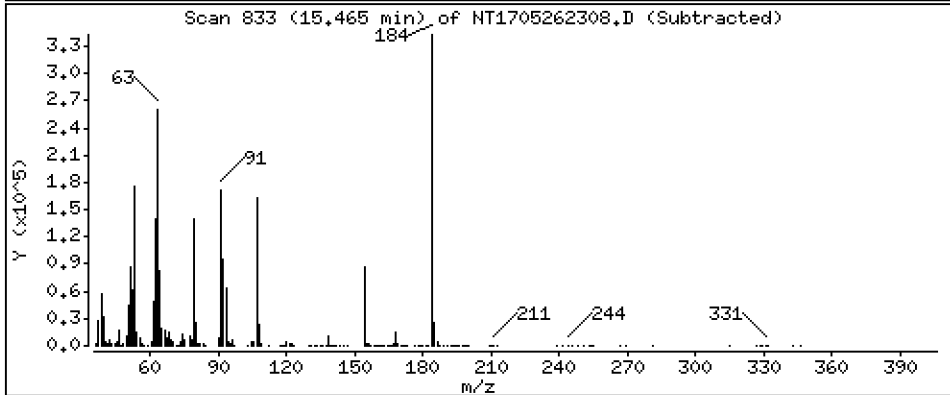
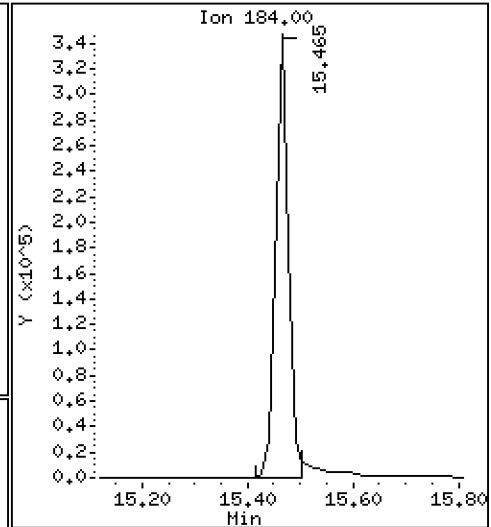
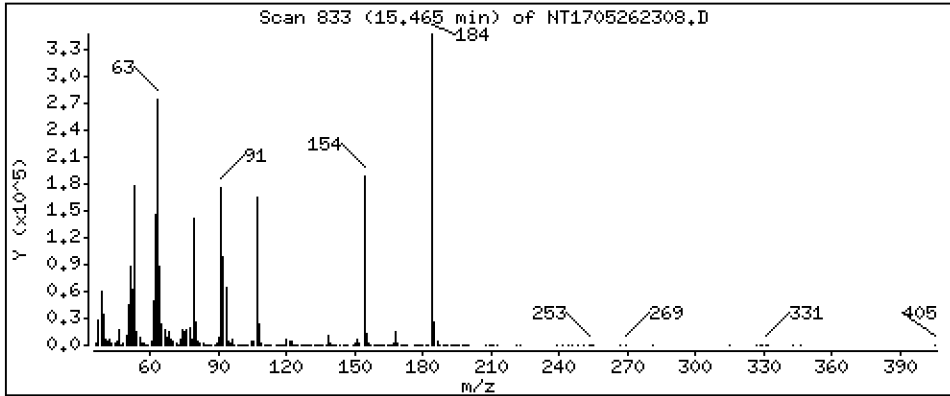
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 22,14 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

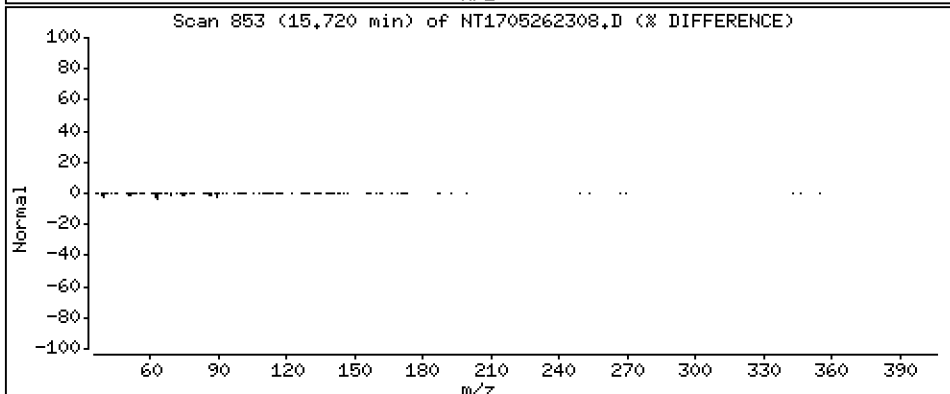
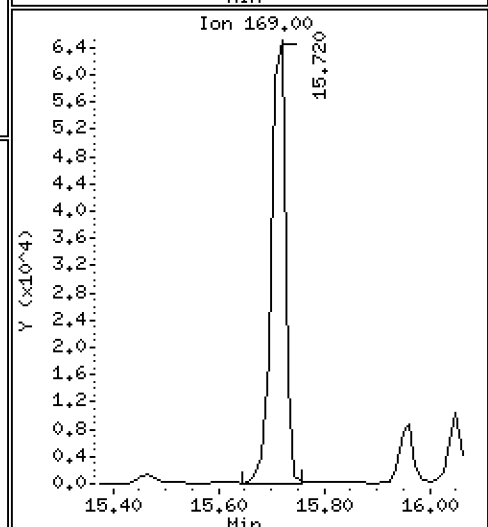
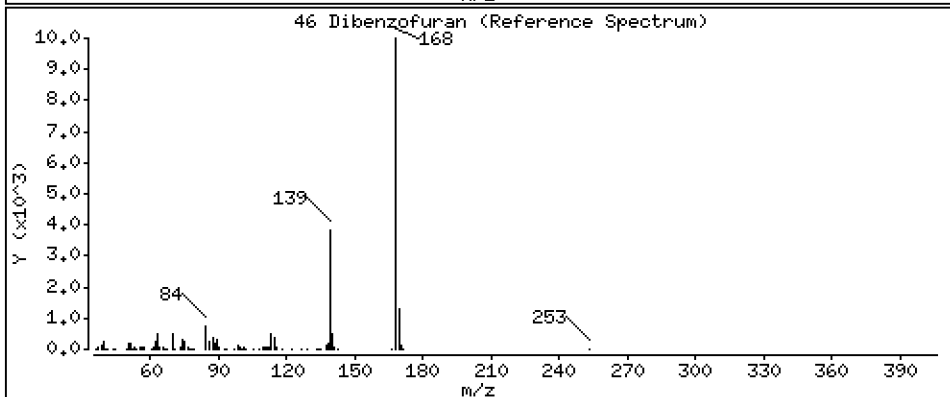
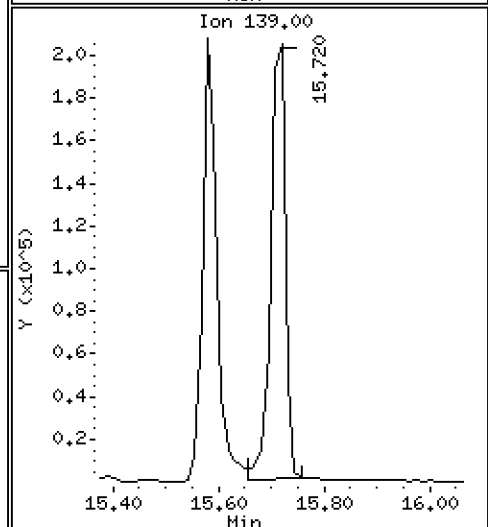
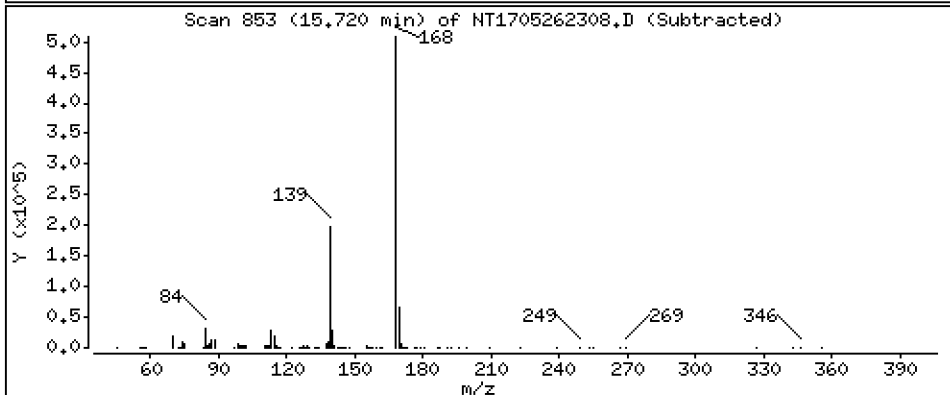
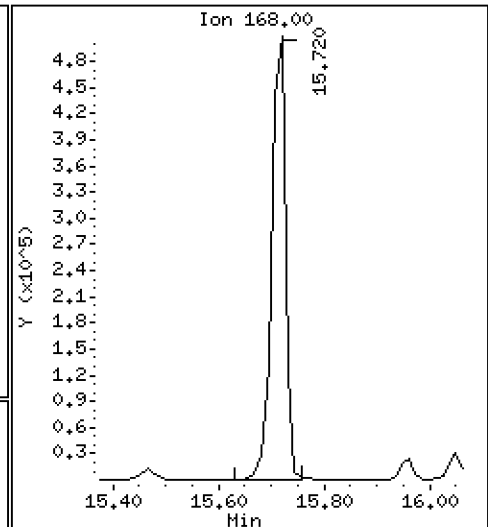
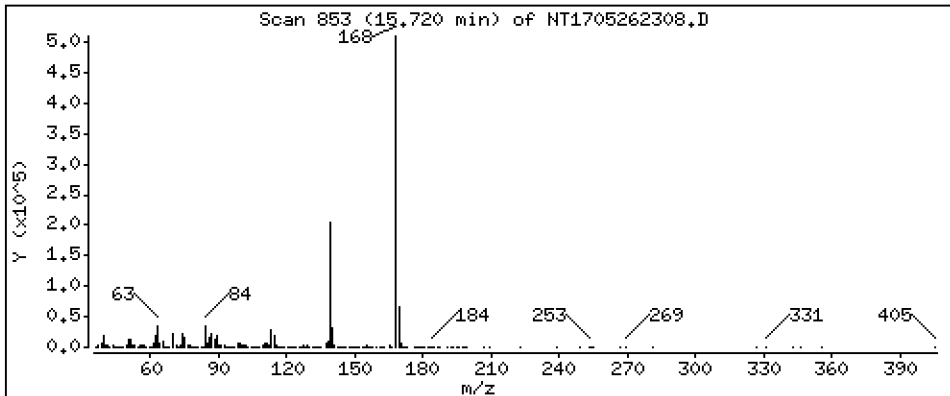
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,148 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

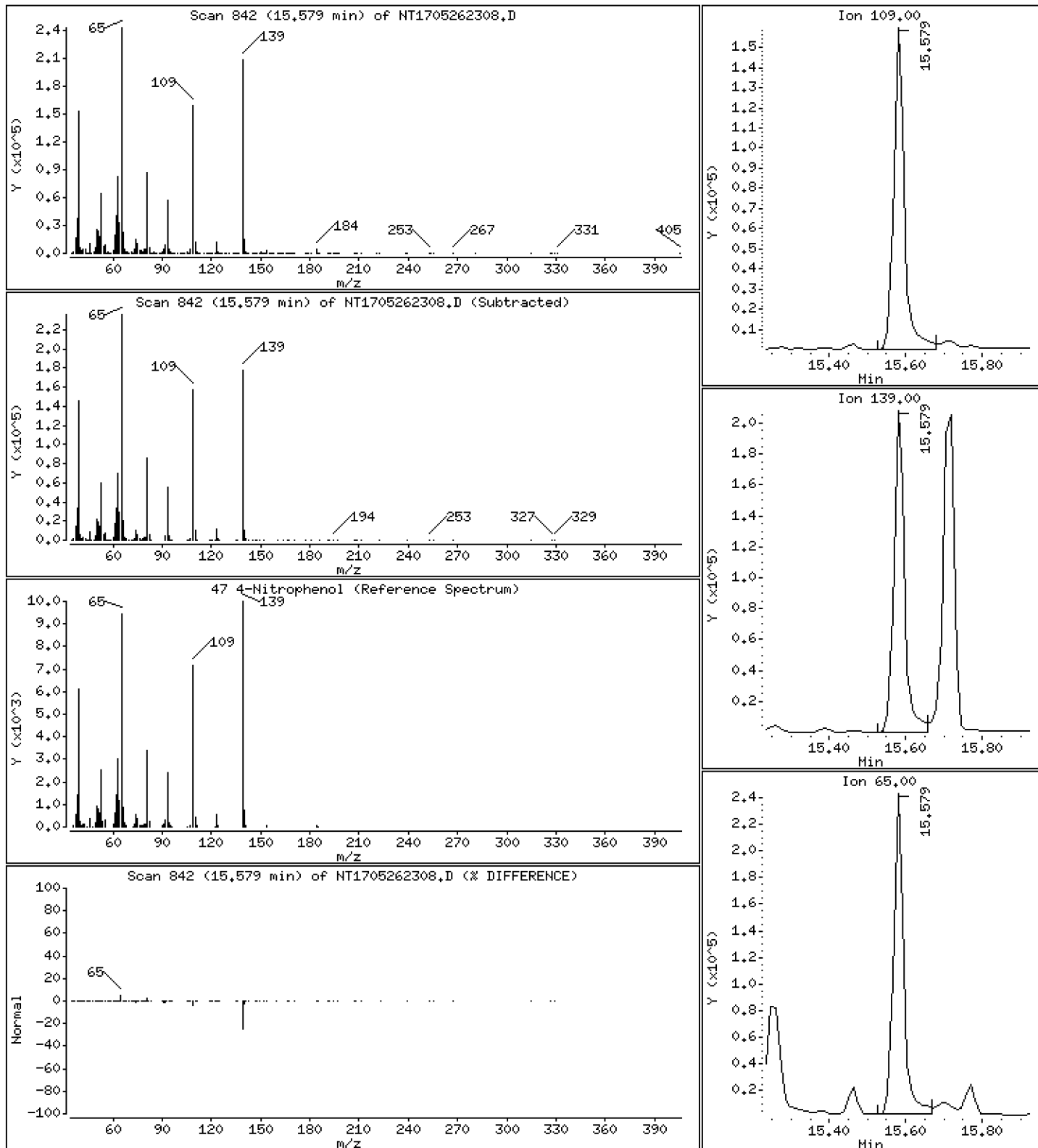
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 12,12 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

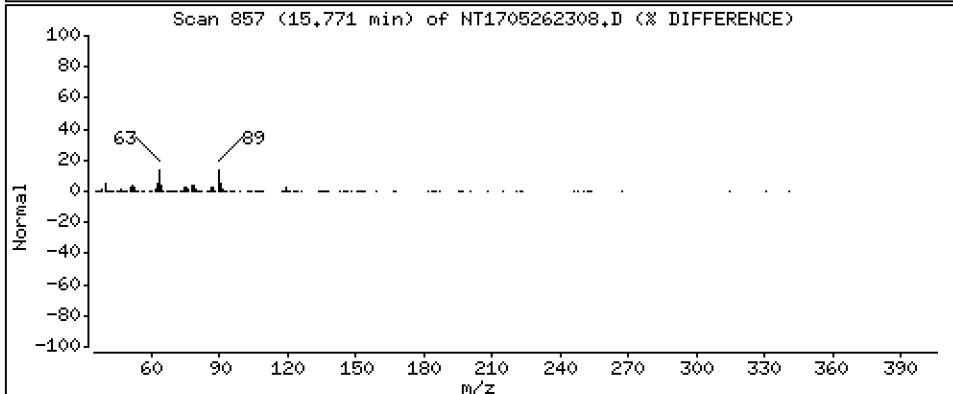
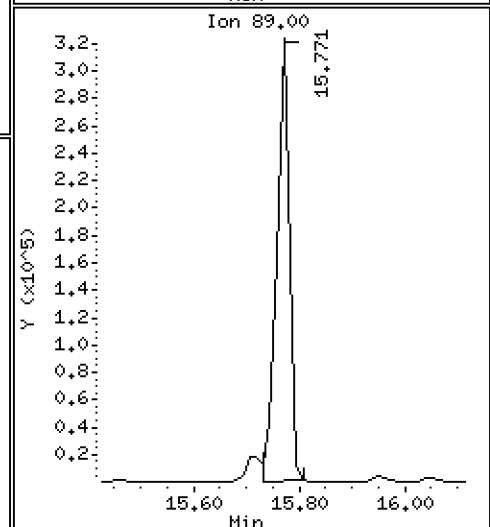
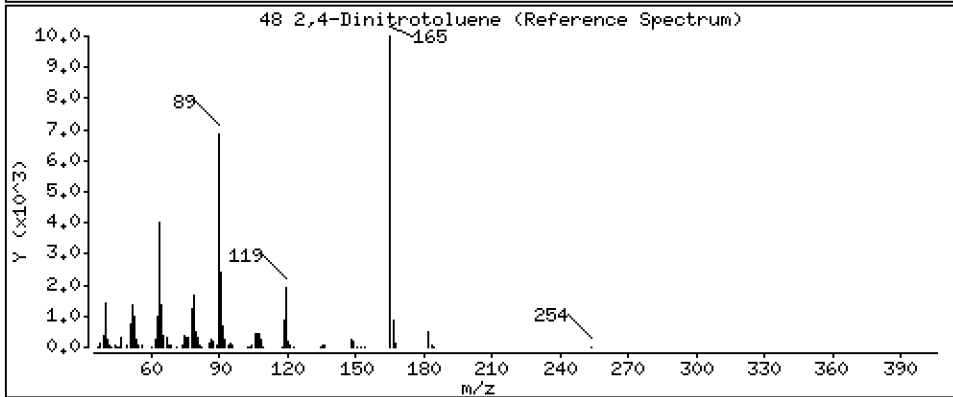
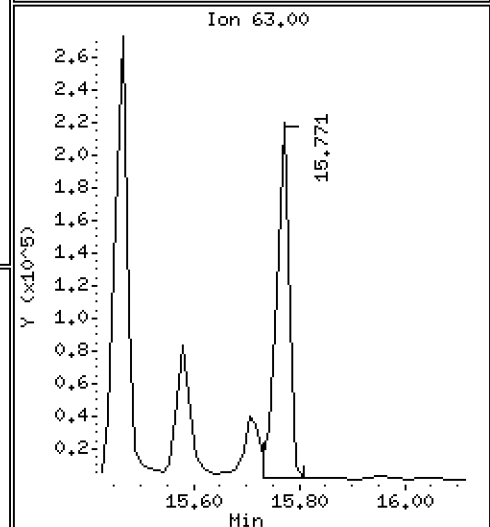
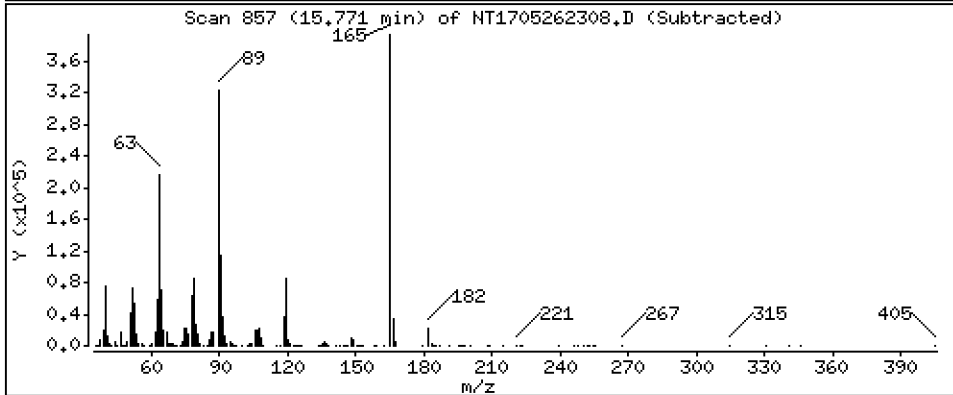
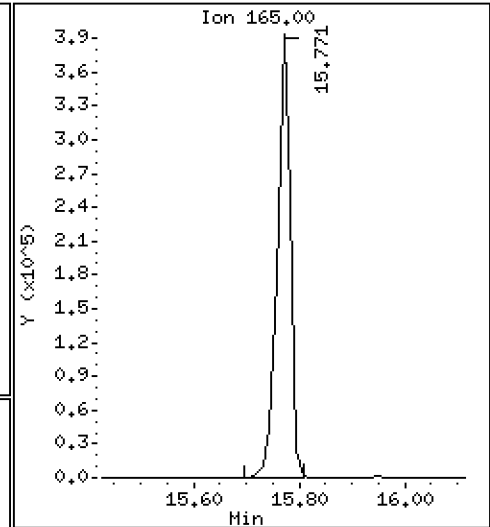
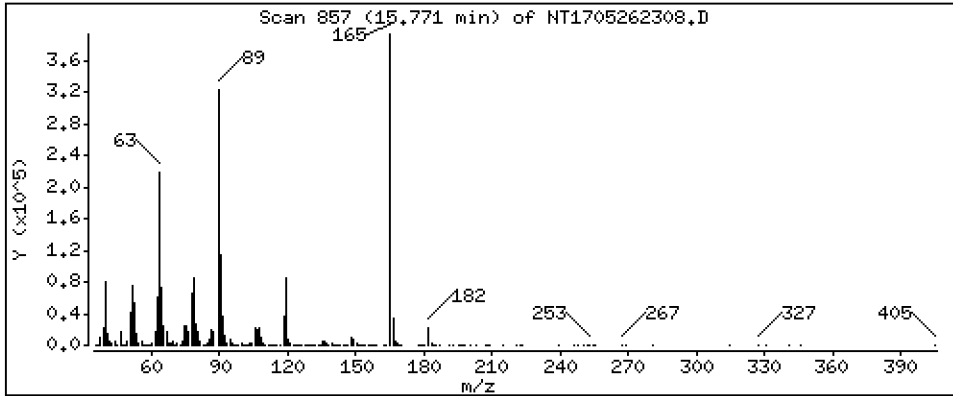
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 12,59 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

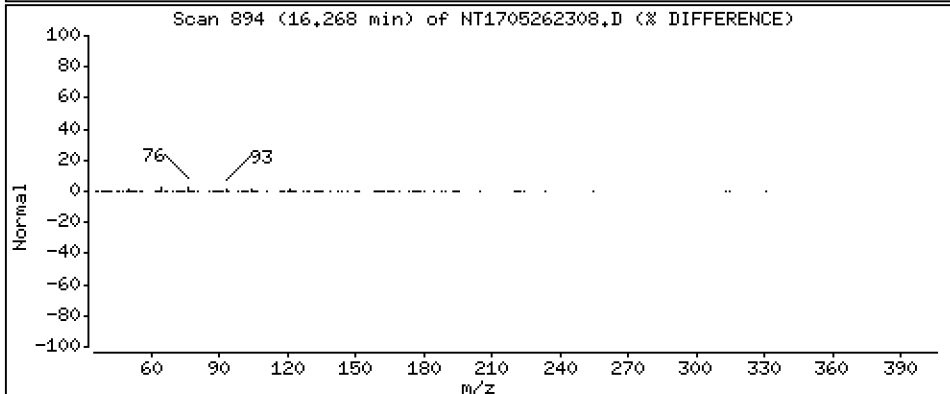
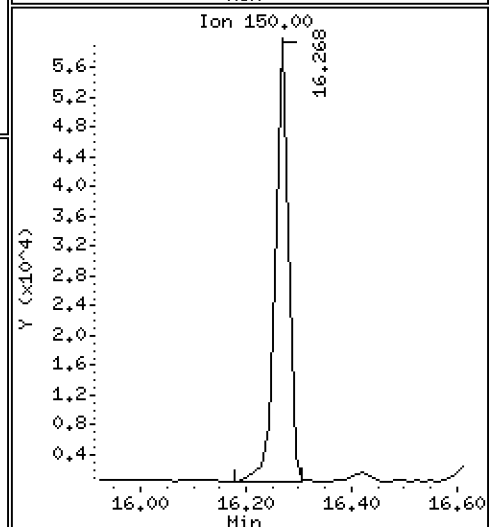
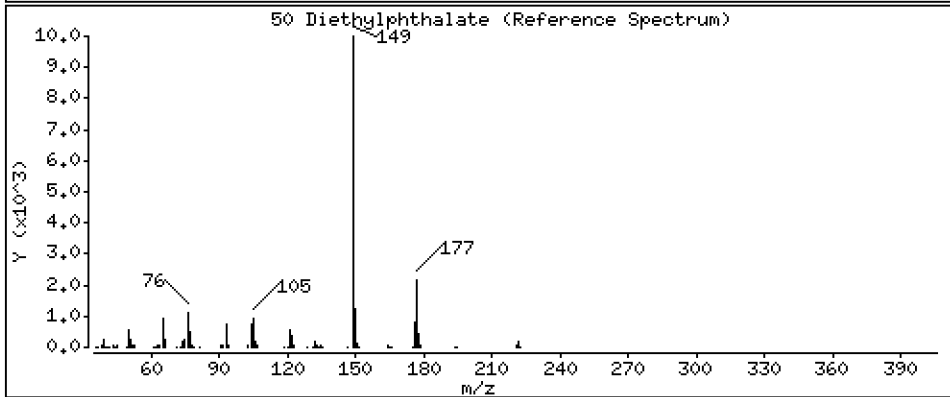
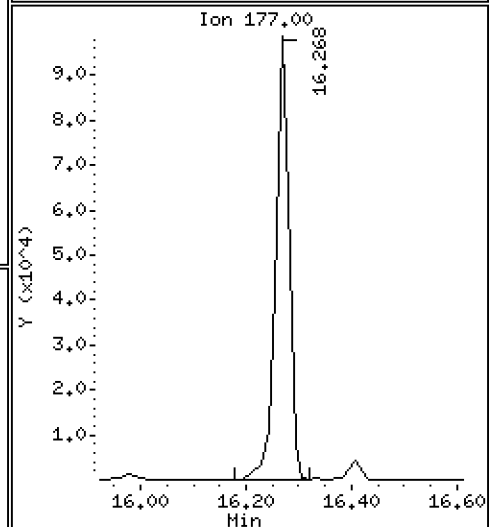
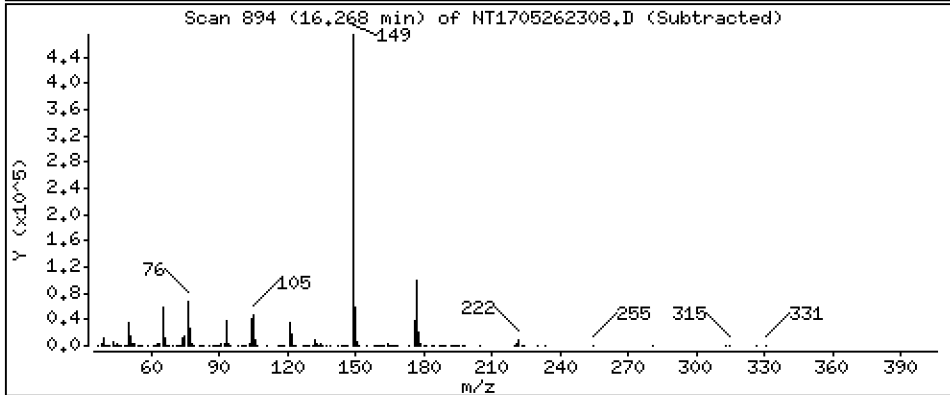
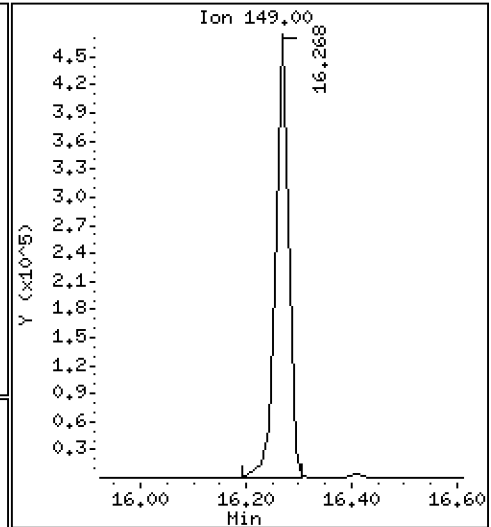
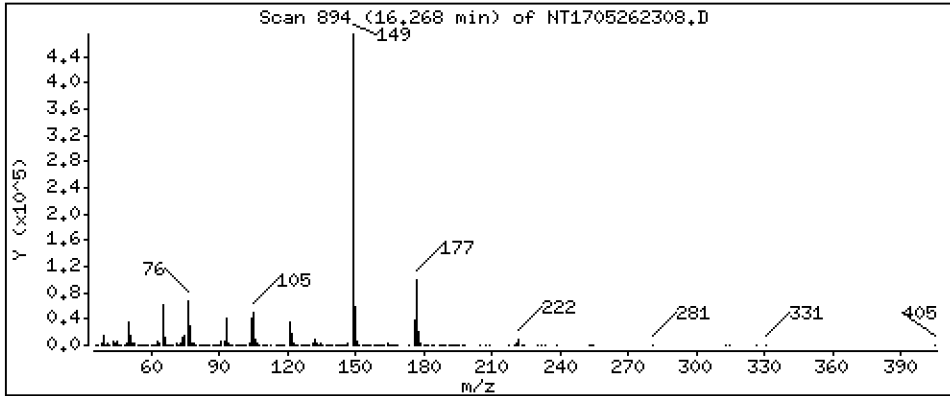
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 6,000 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

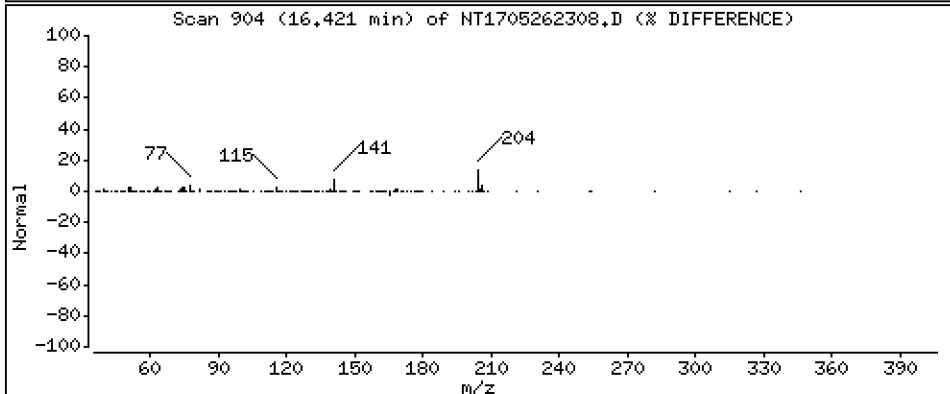
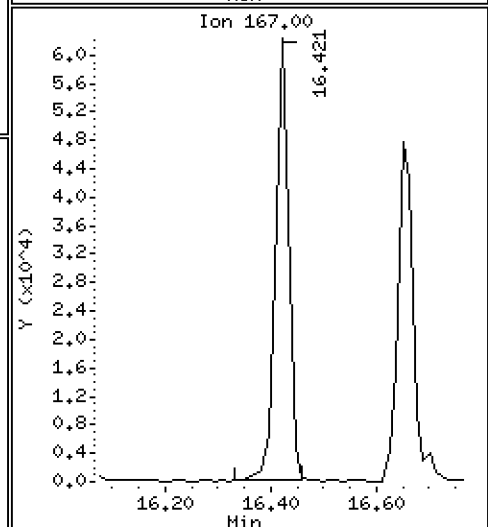
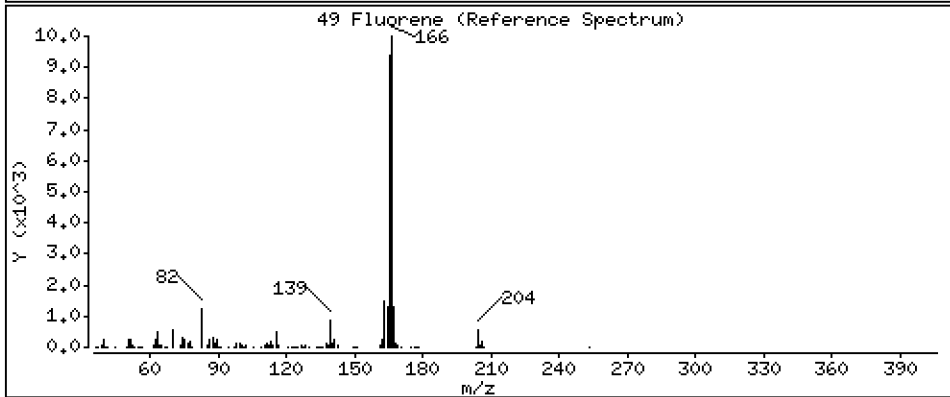
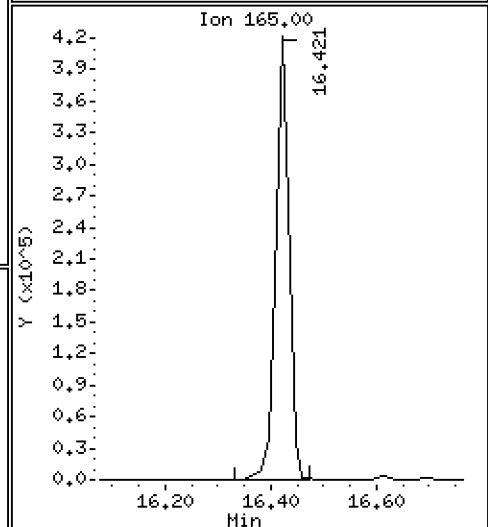
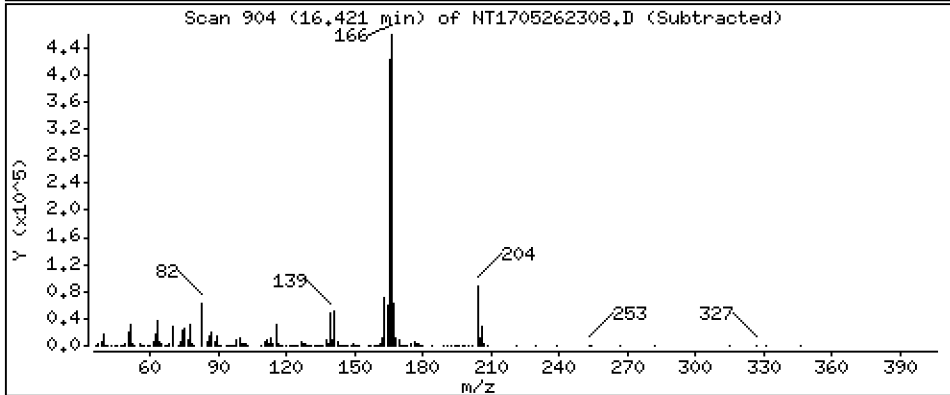
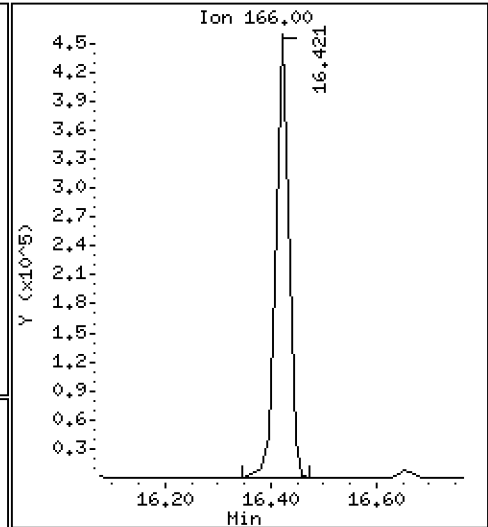
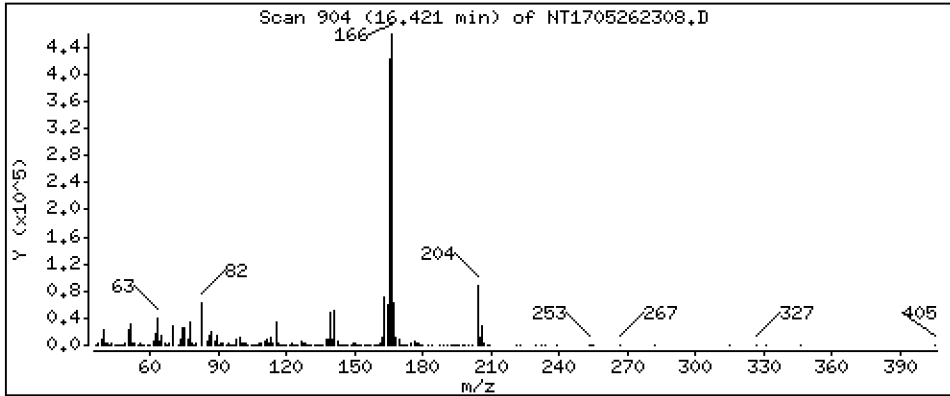
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,532 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

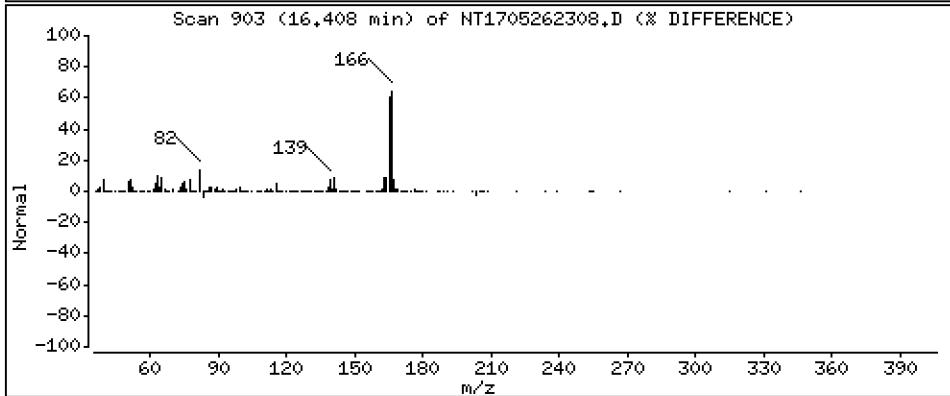
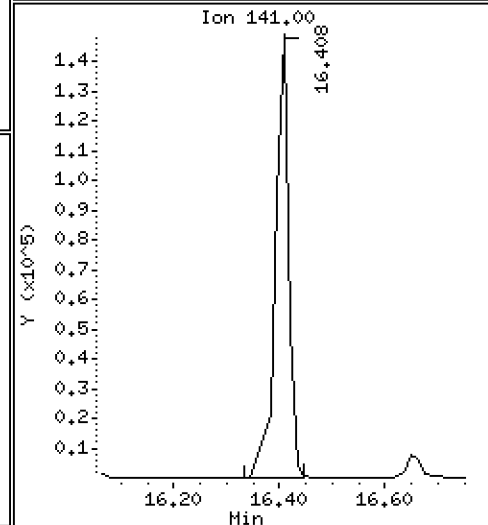
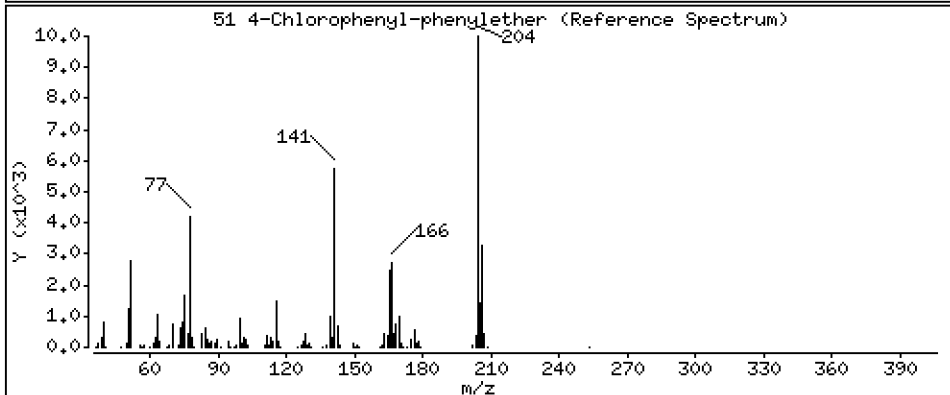
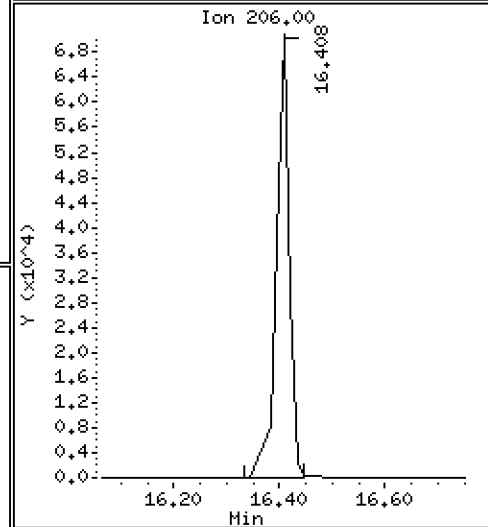
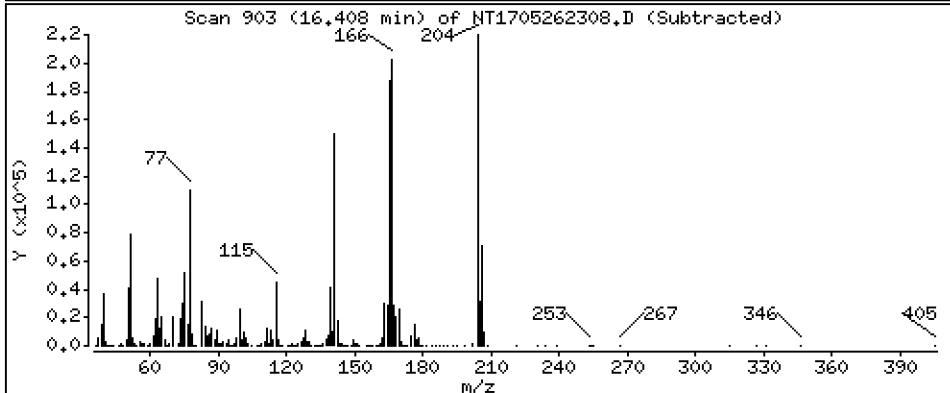
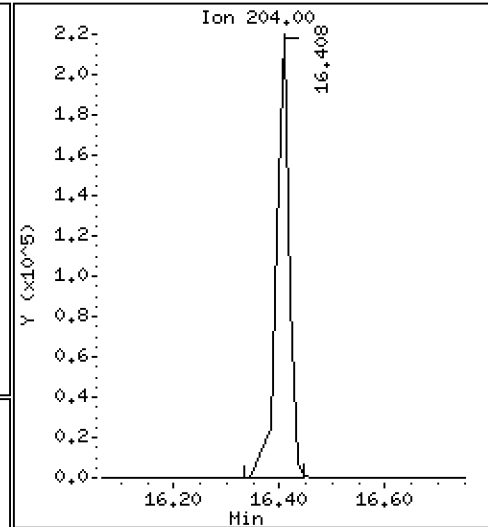
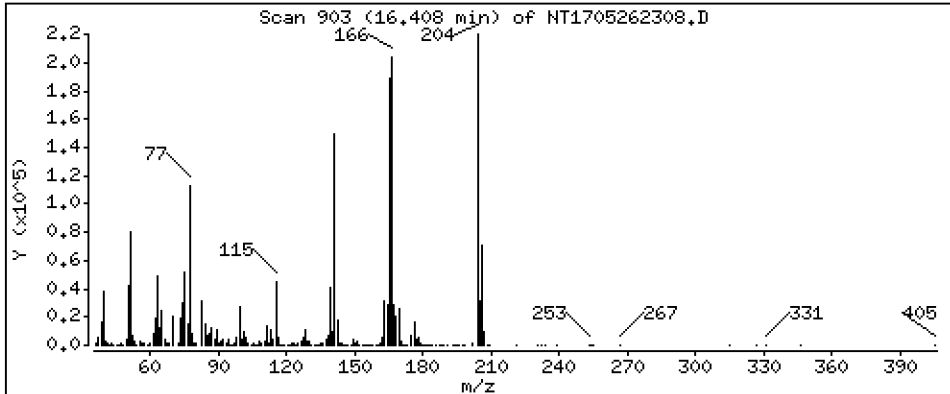
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,514 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

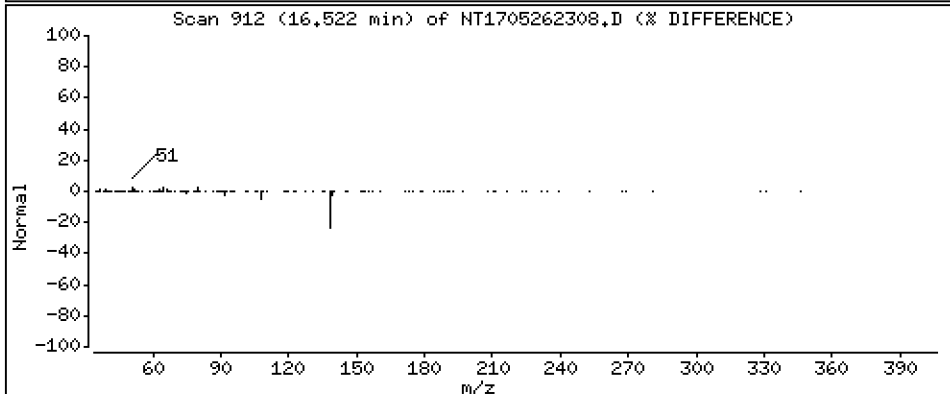
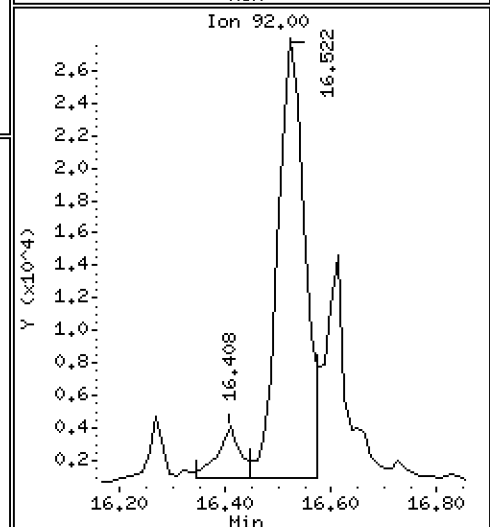
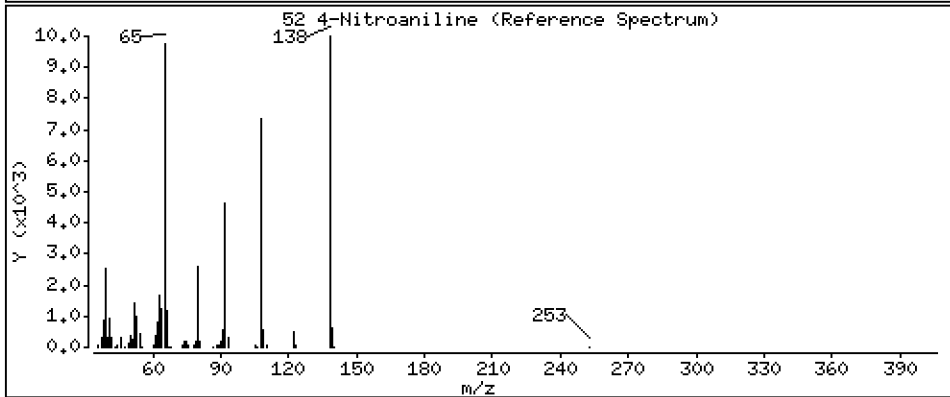
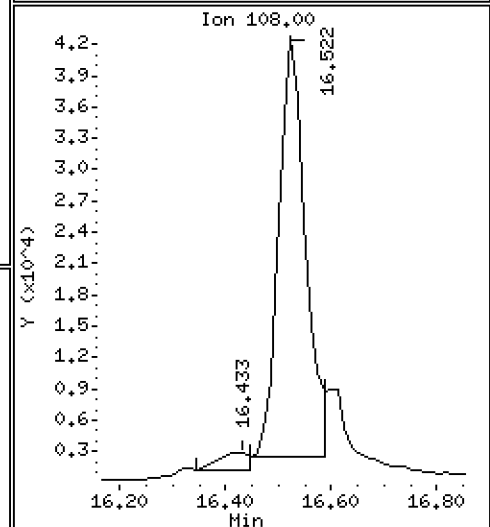
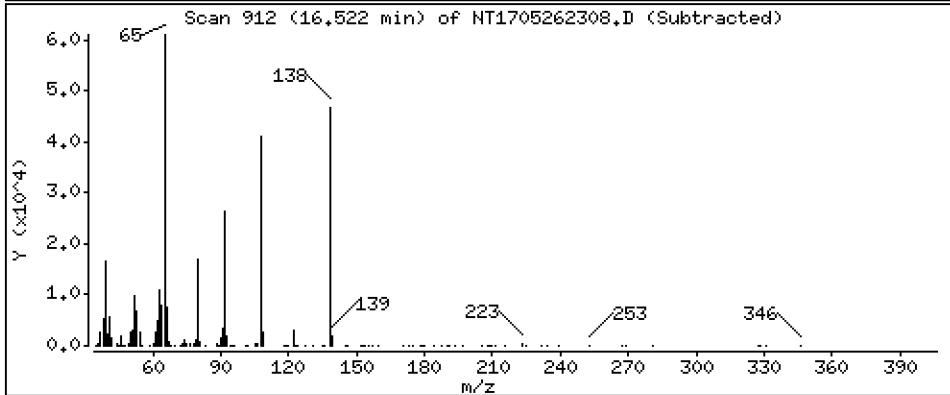
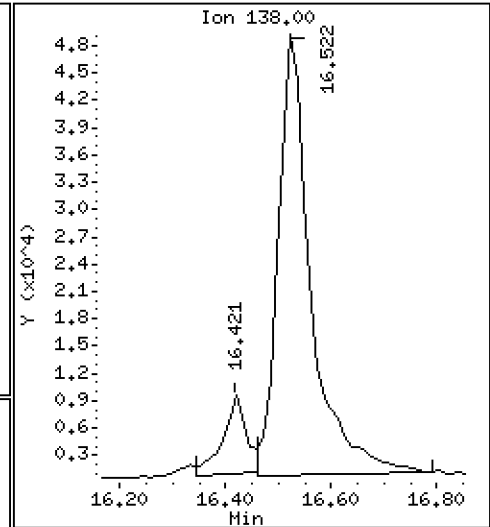
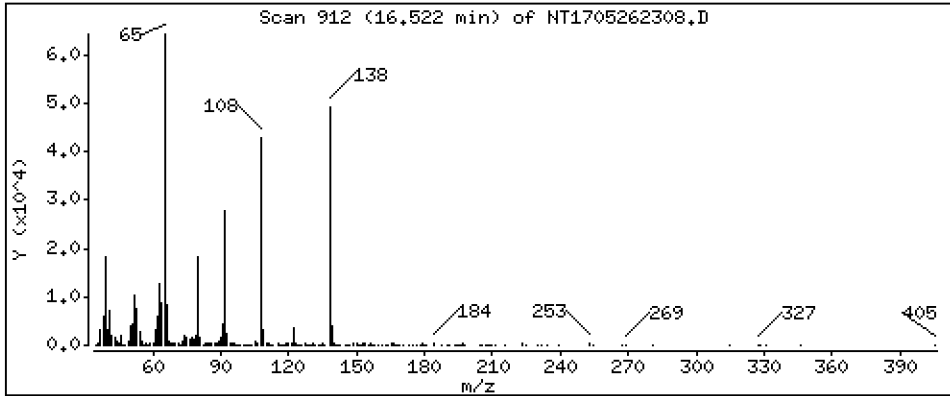
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,743 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

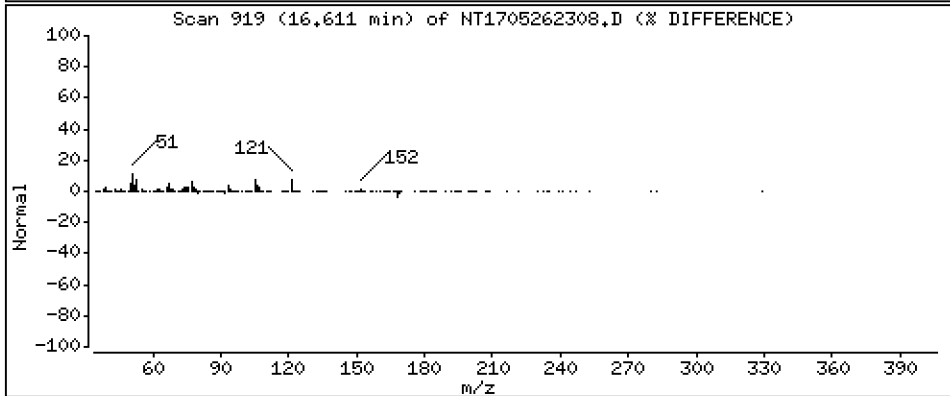
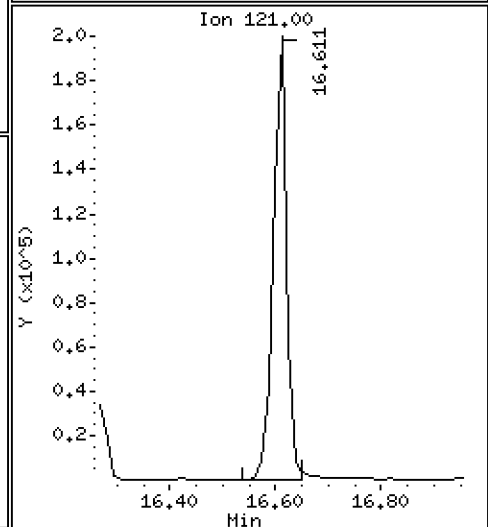
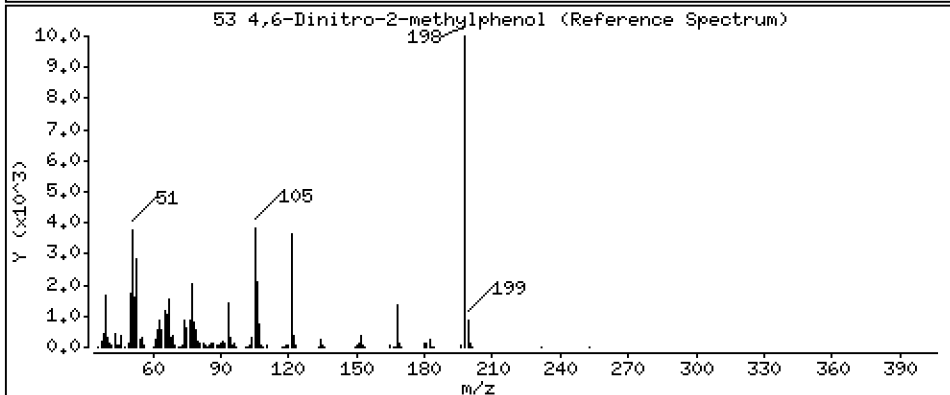
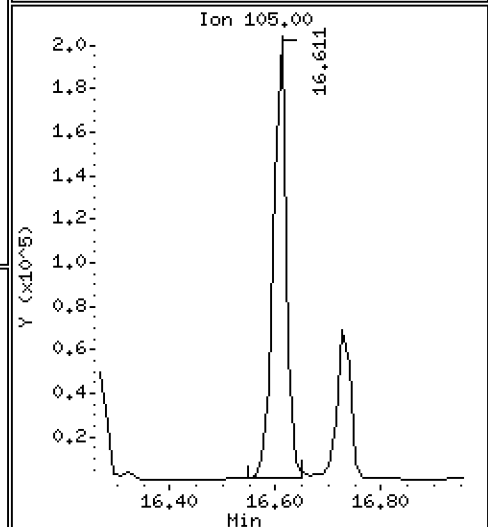
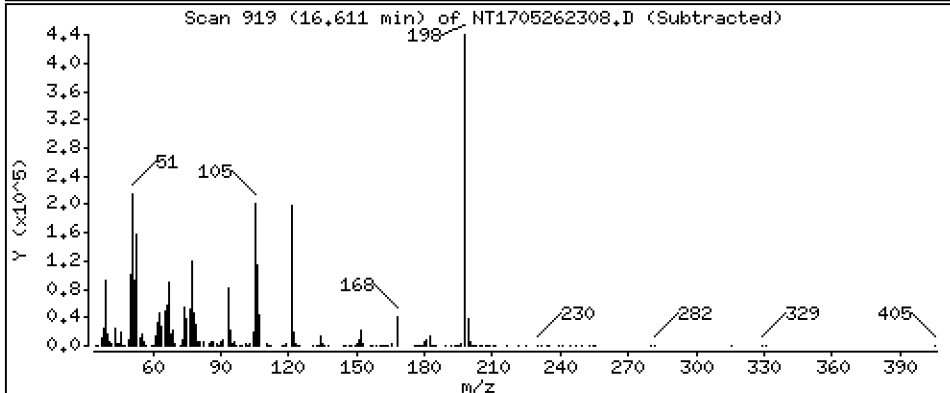
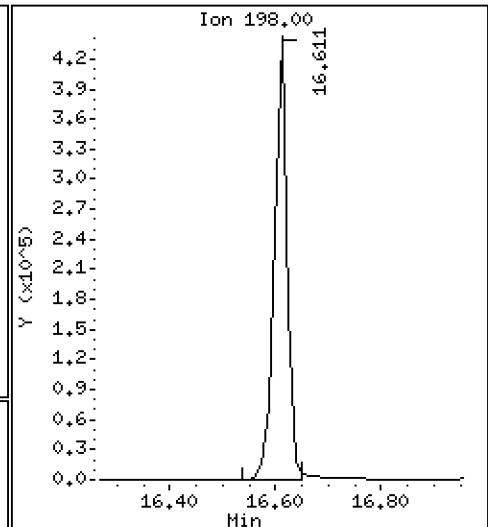
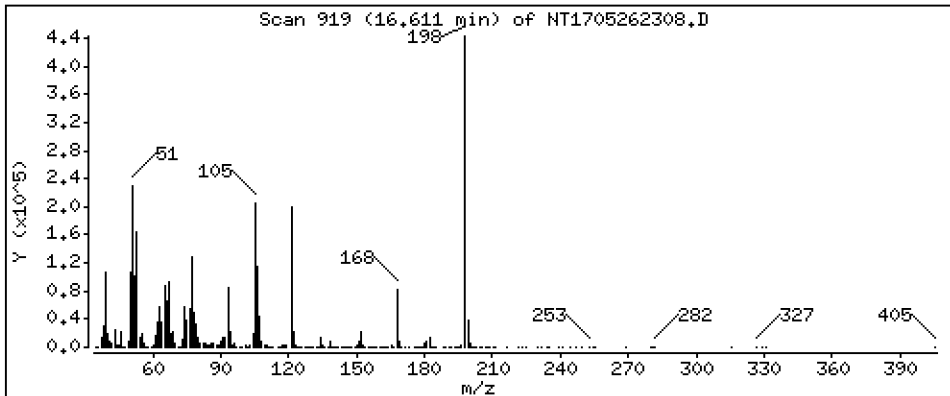
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 22,06 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

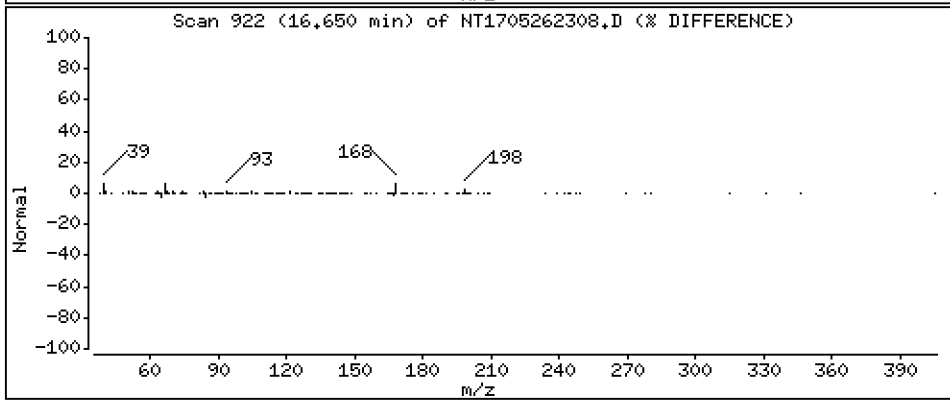
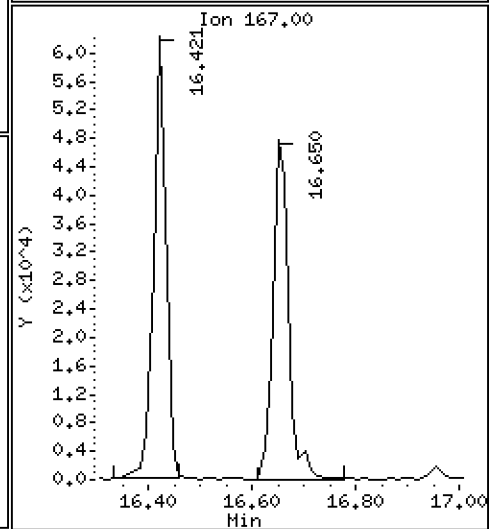
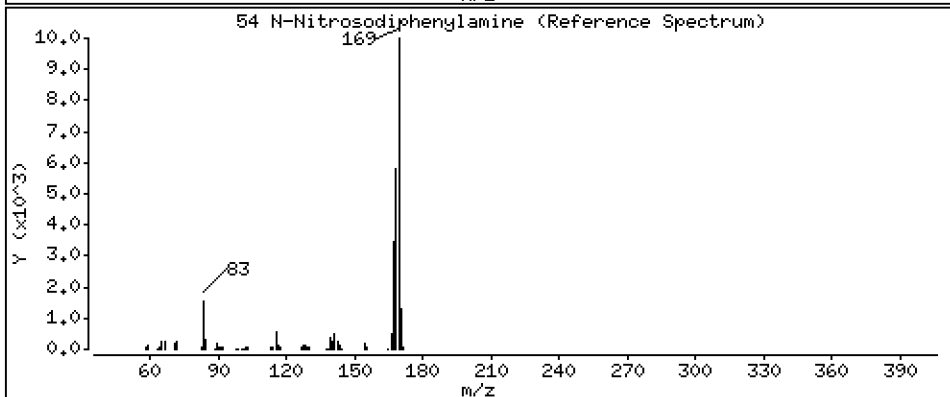
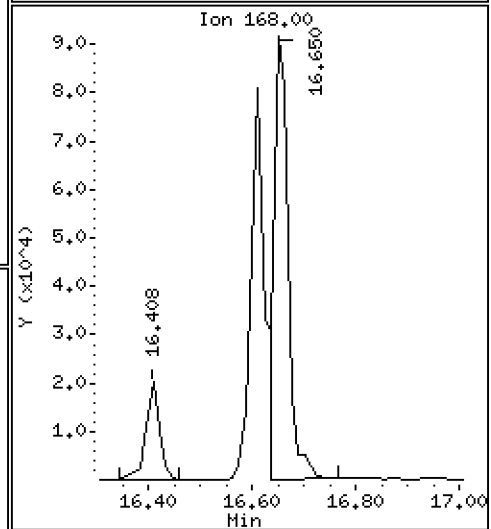
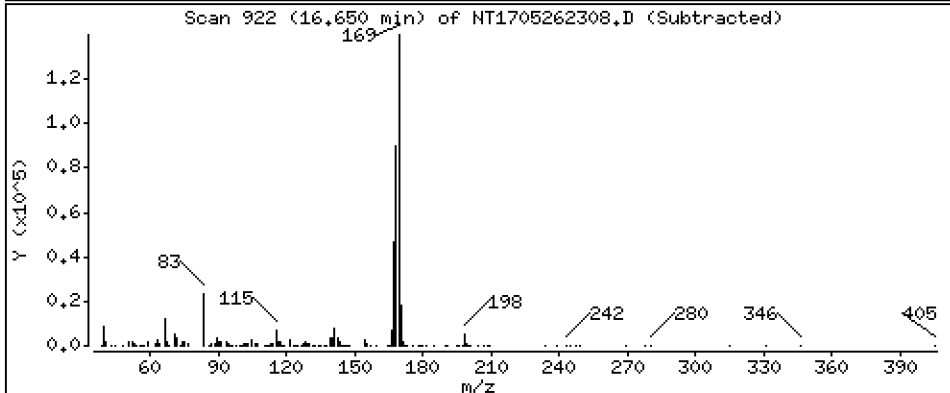
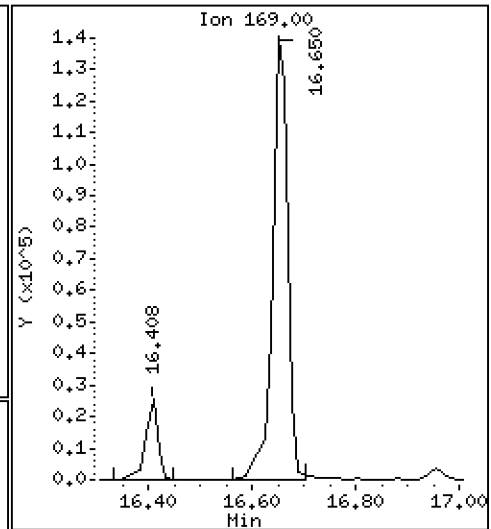
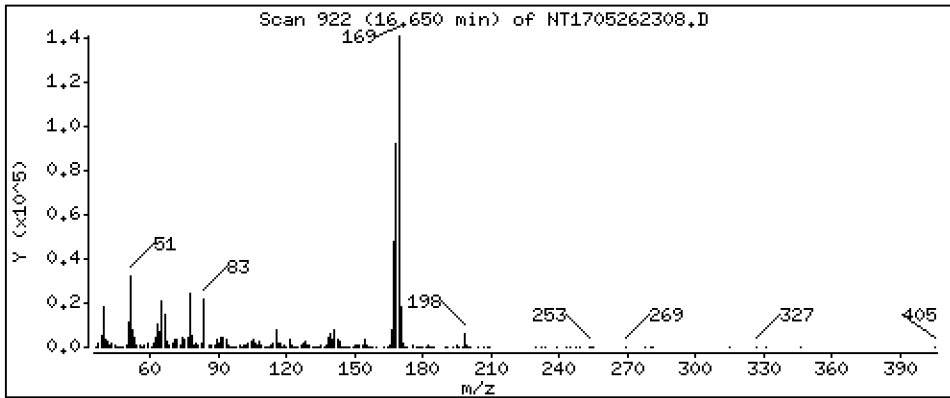
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,366 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

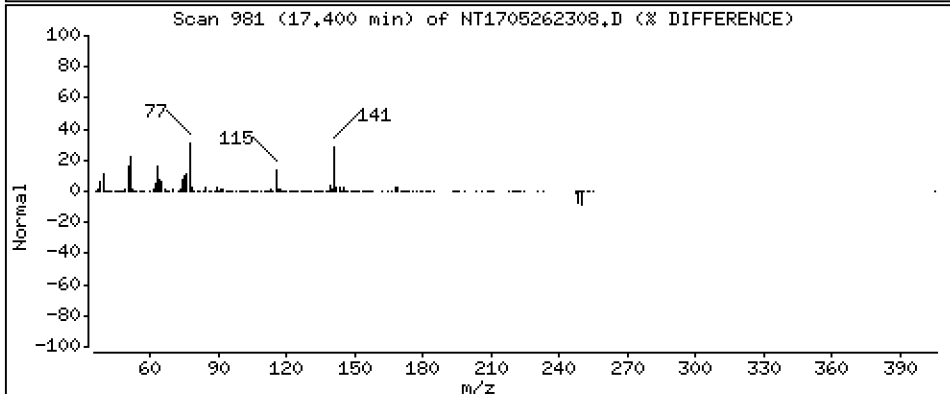
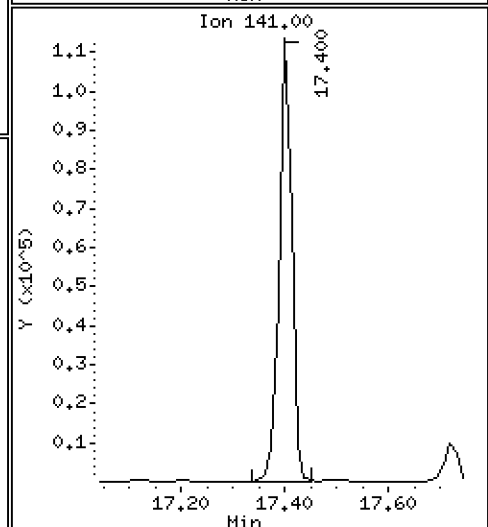
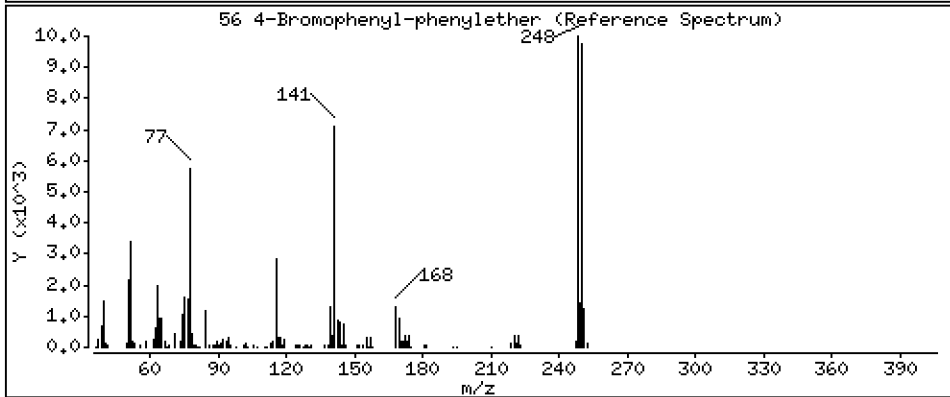
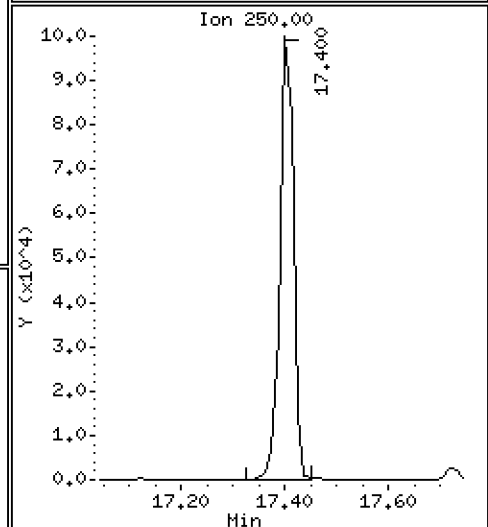
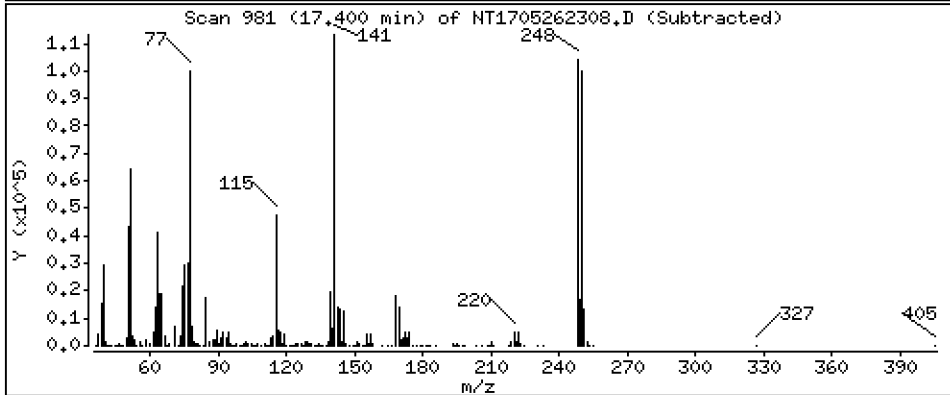
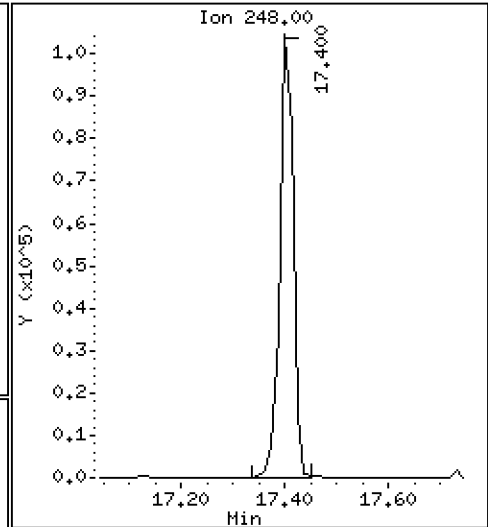
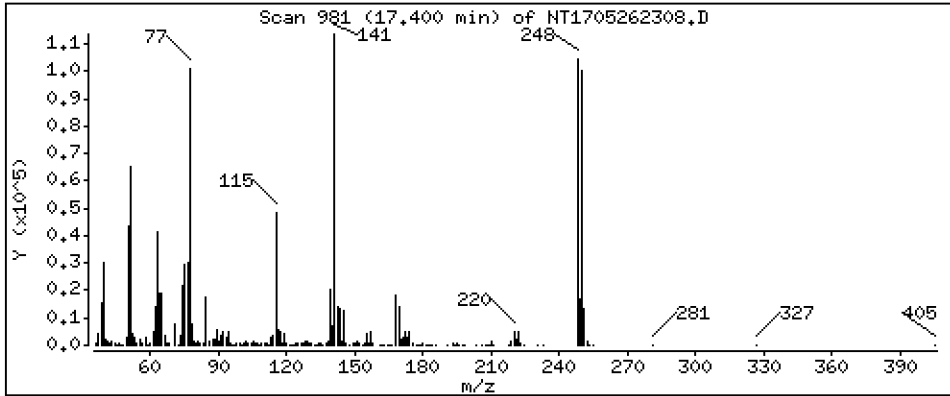
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,548 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

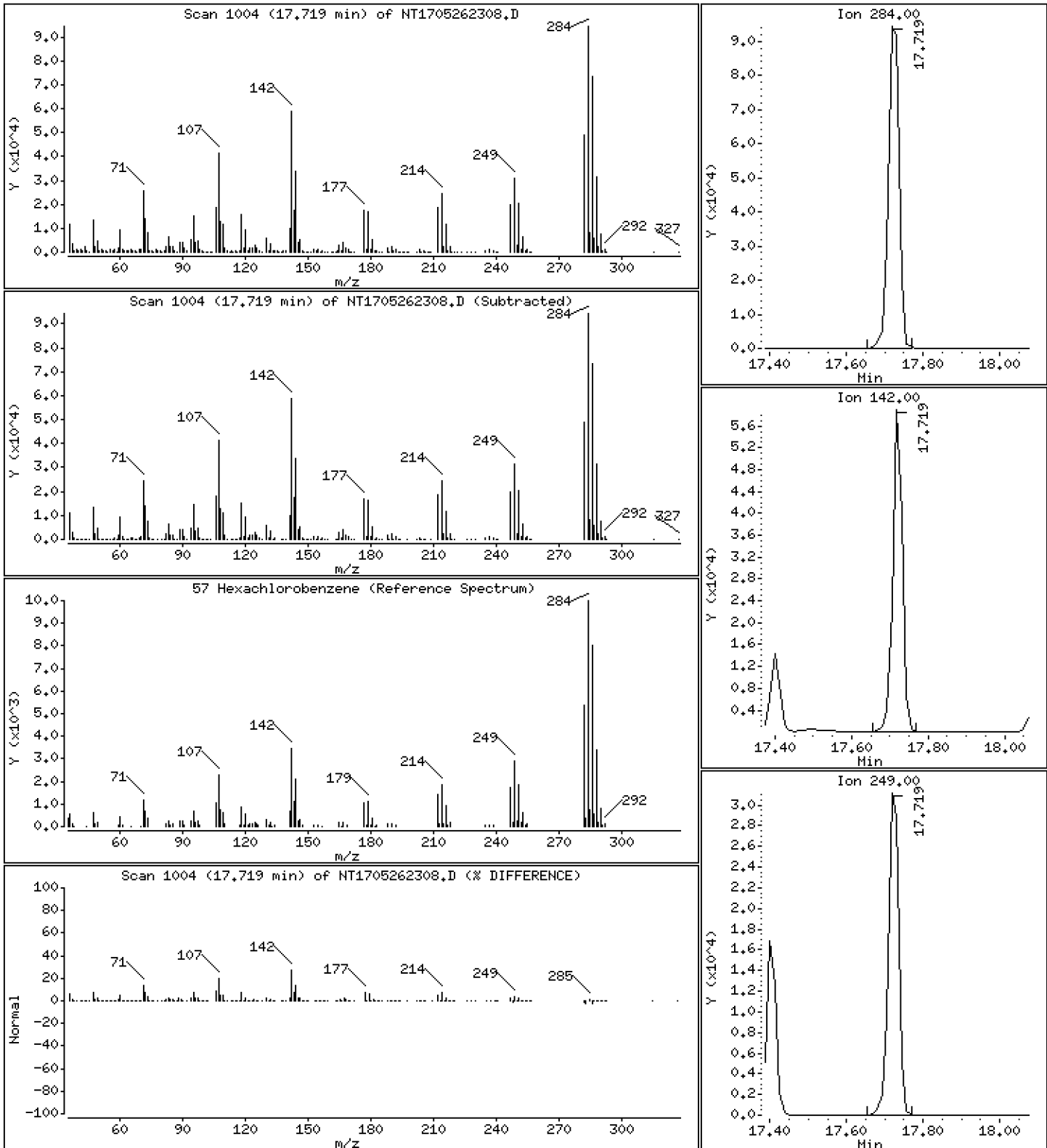
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,448 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

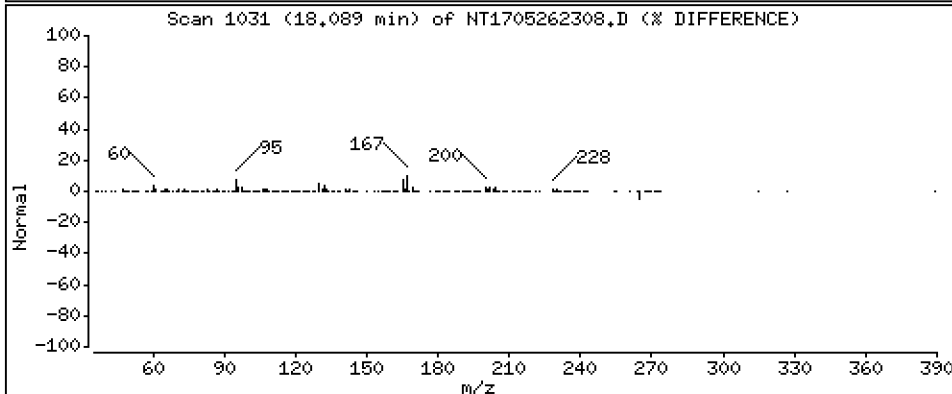
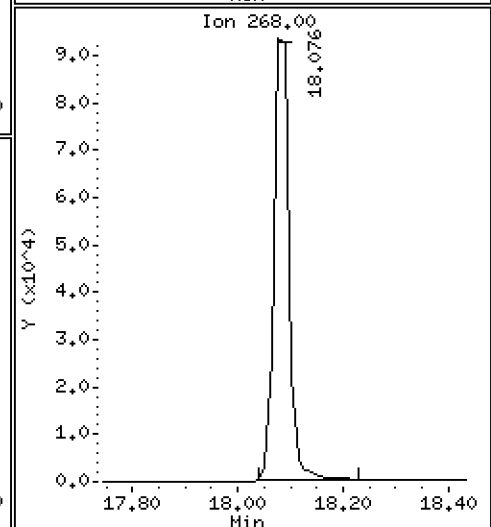
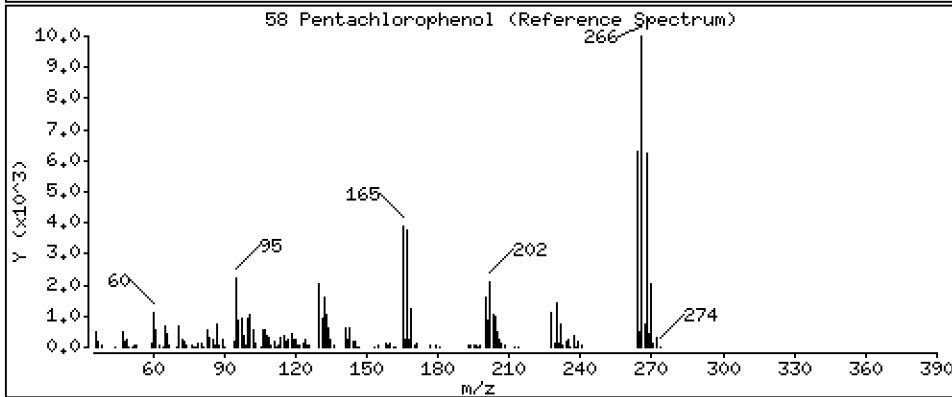
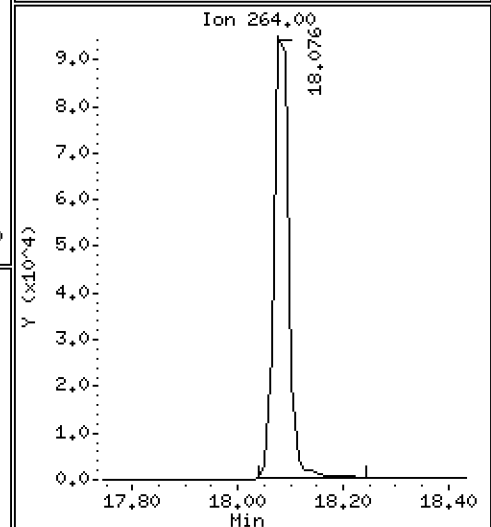
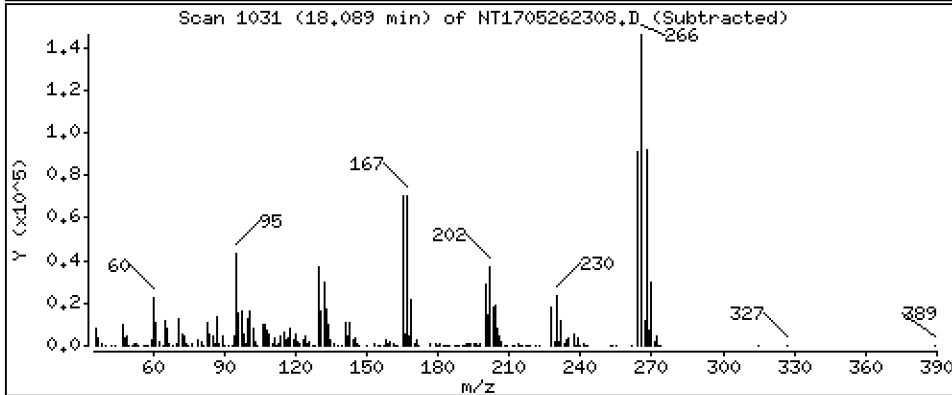
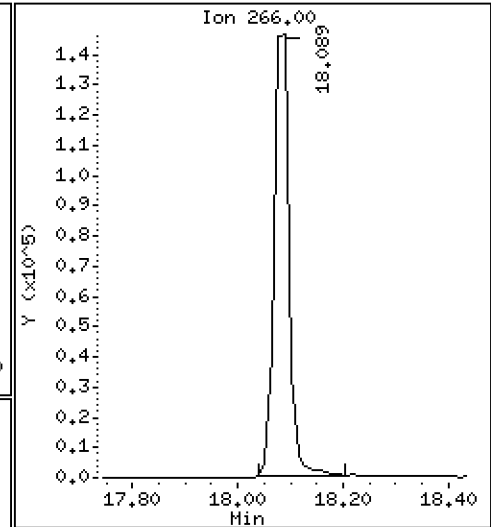
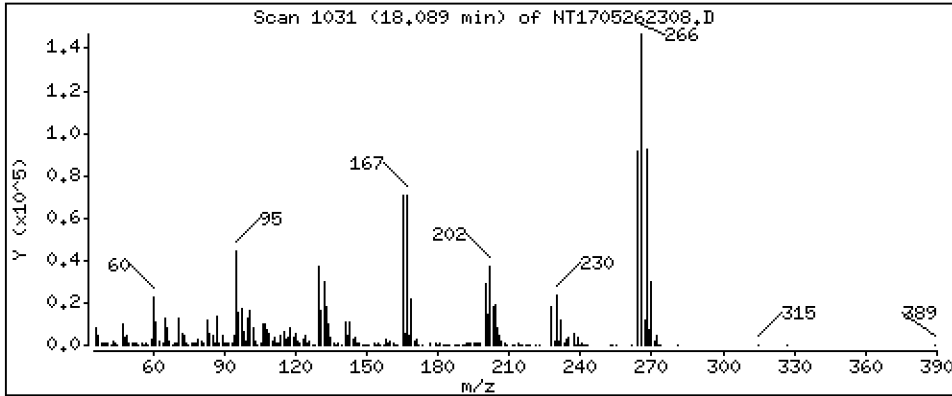
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 11,38 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

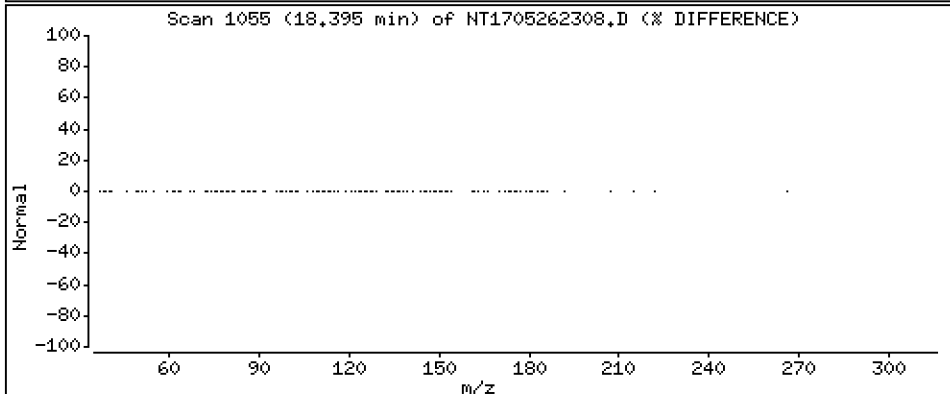
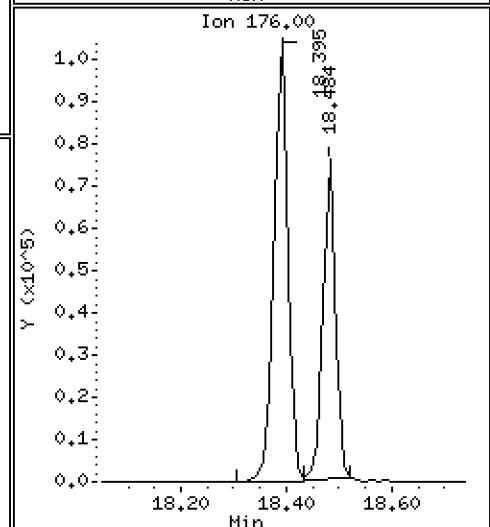
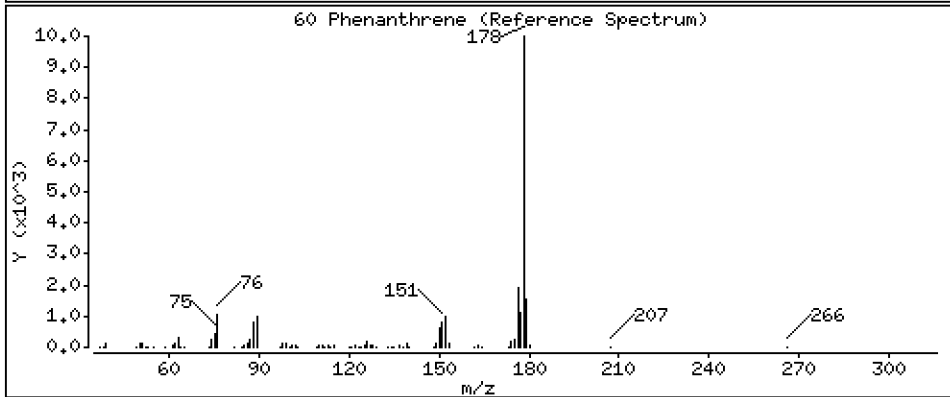
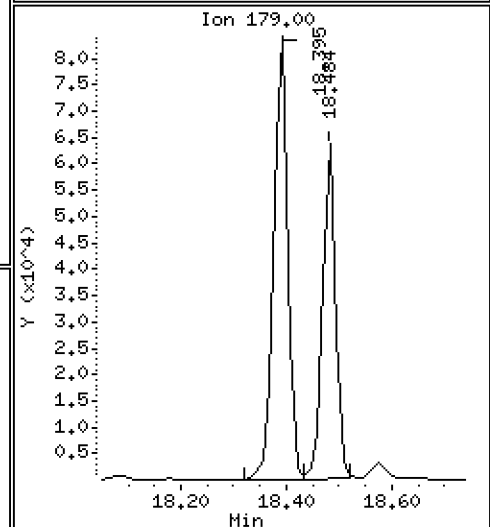
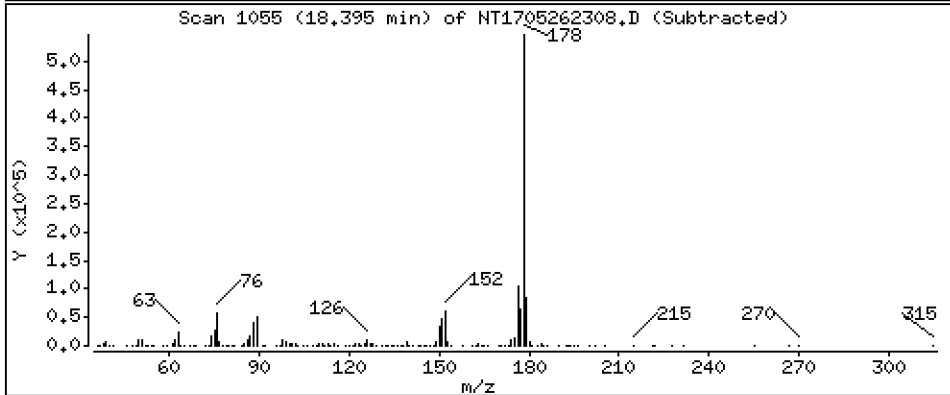
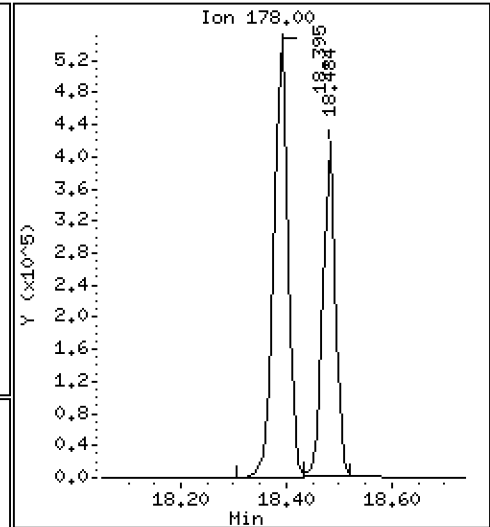
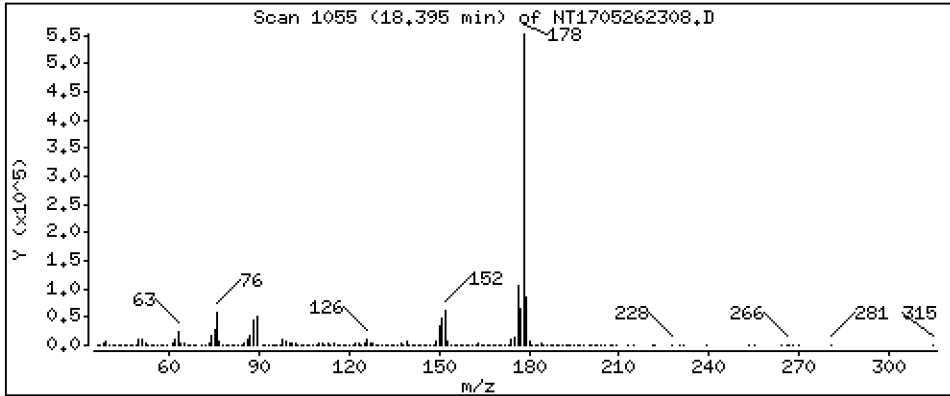
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,104 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

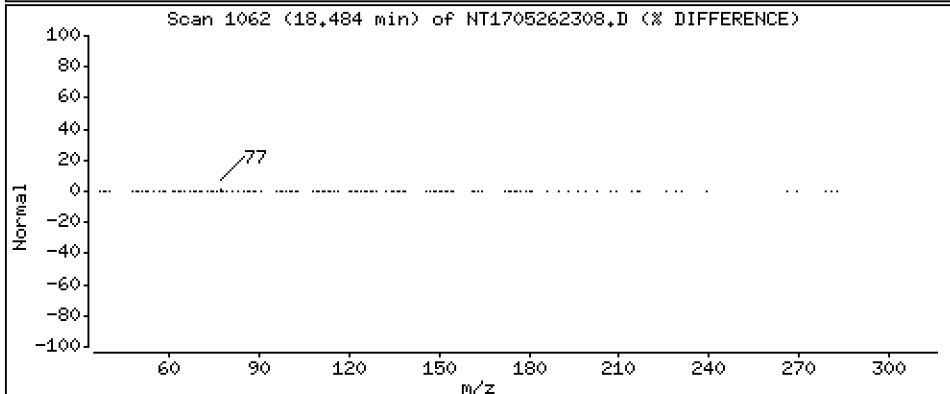
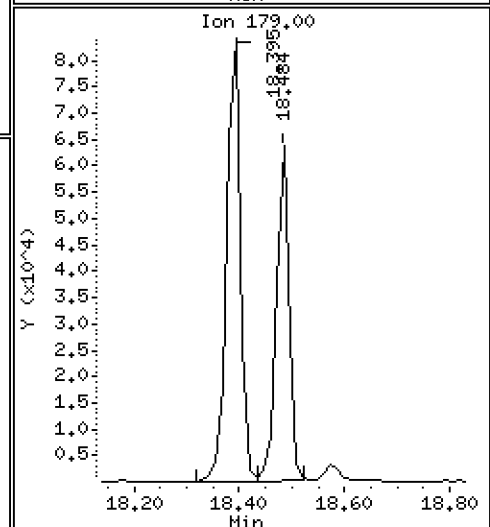
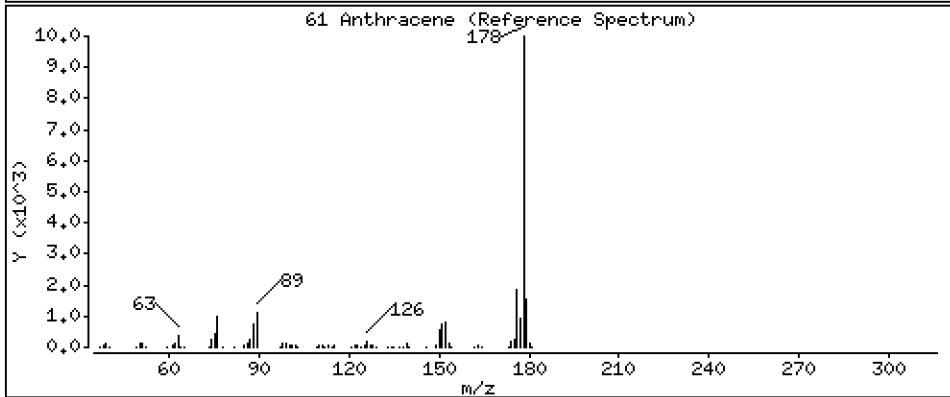
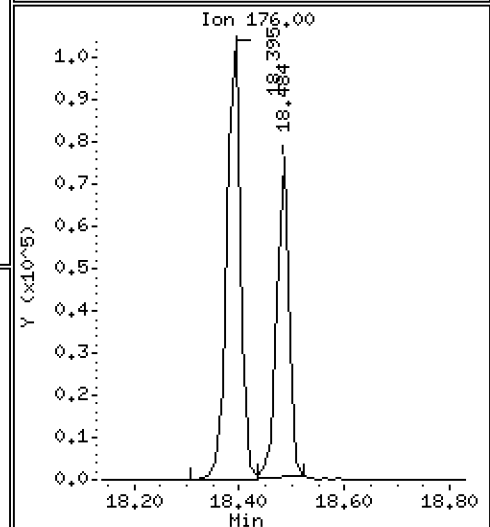
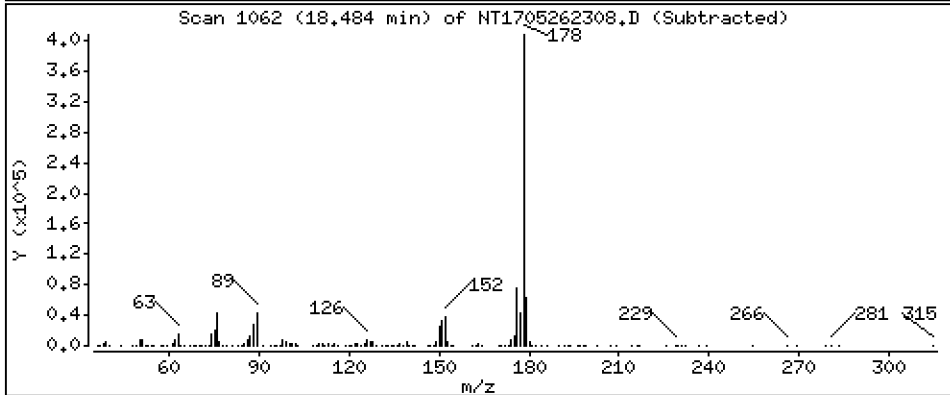
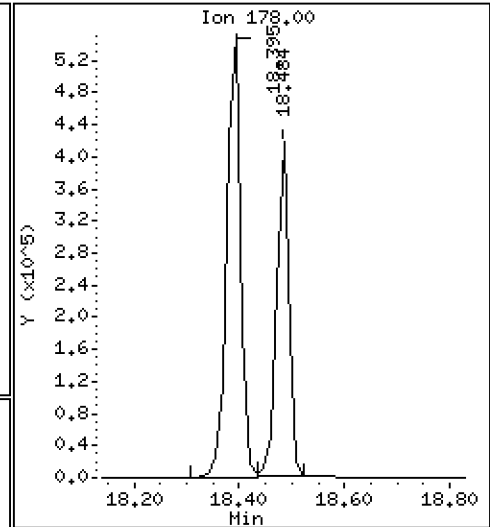
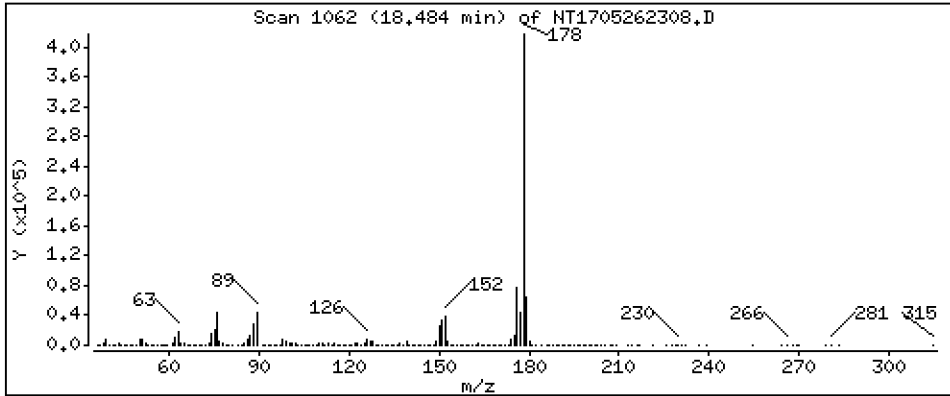
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,004 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

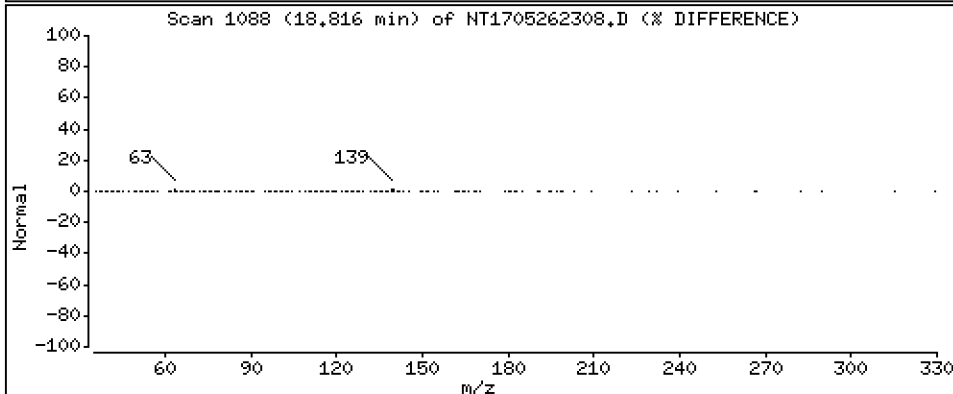
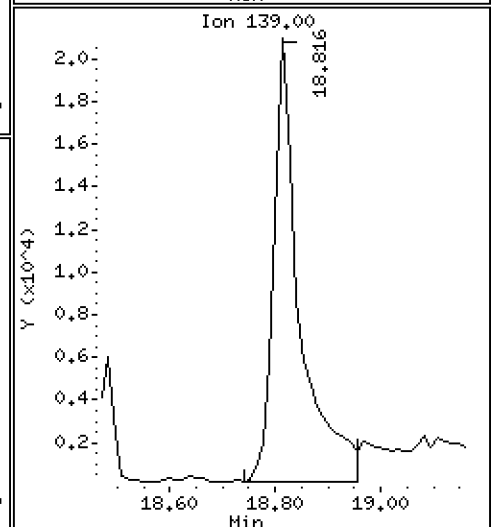
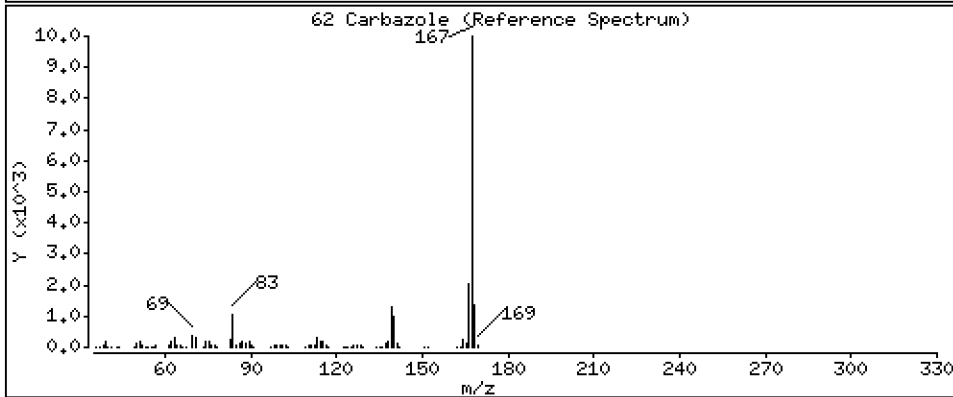
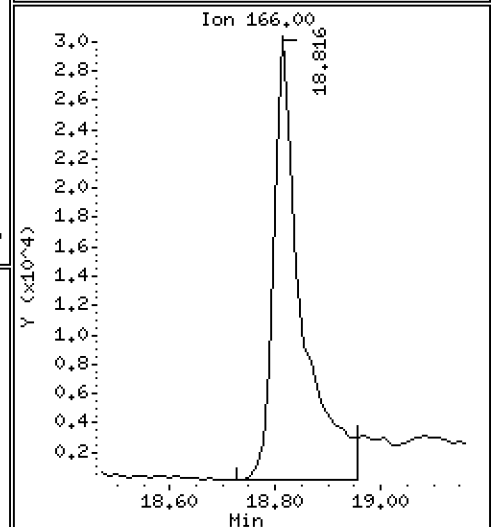
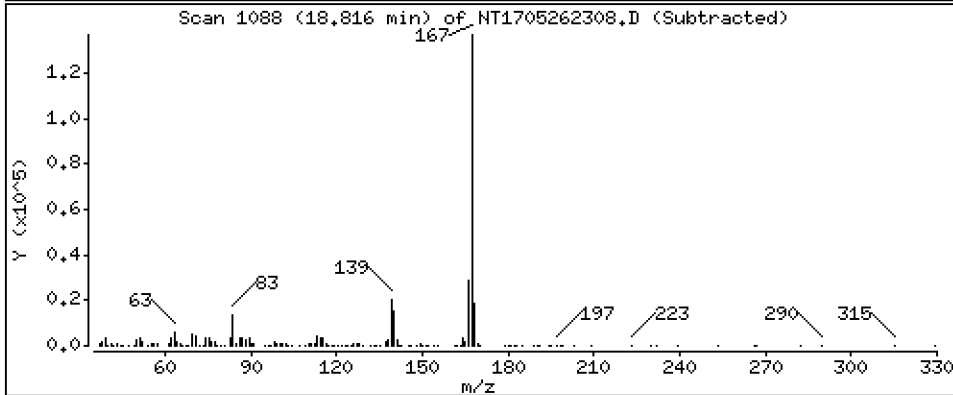
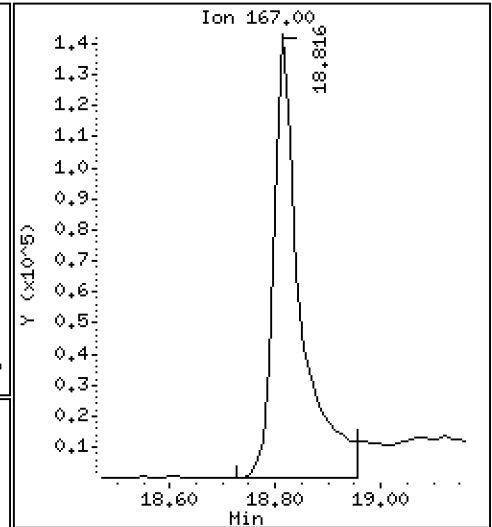
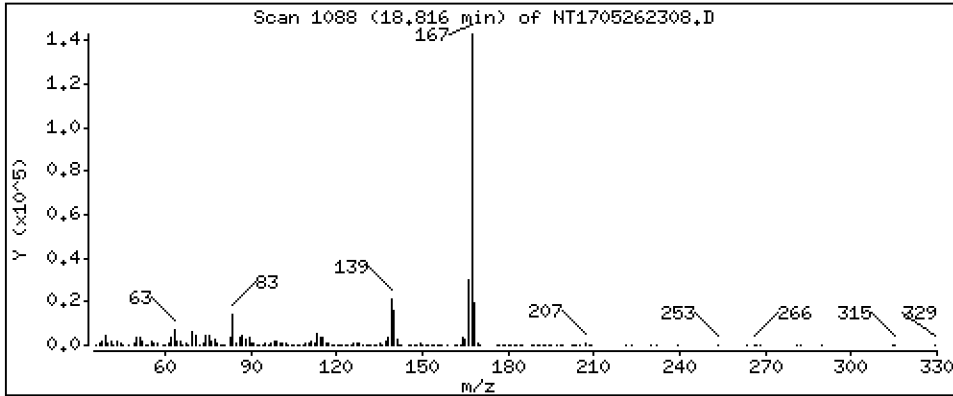
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,482 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

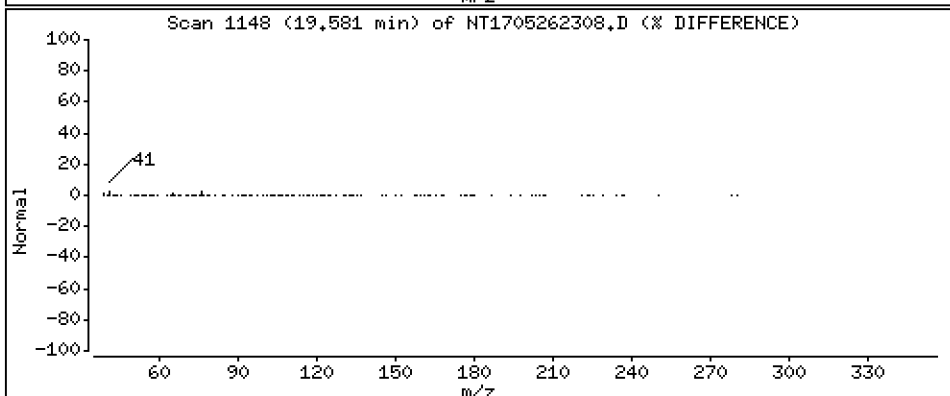
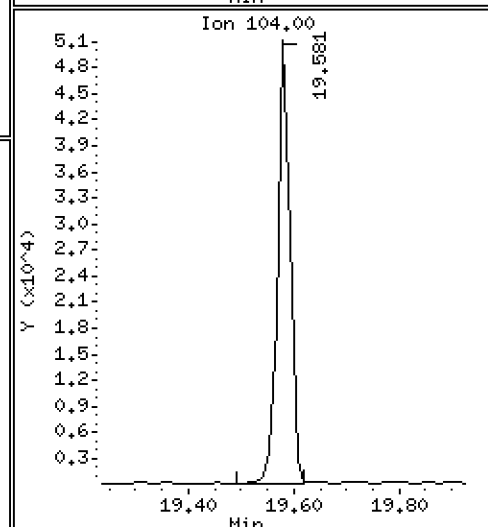
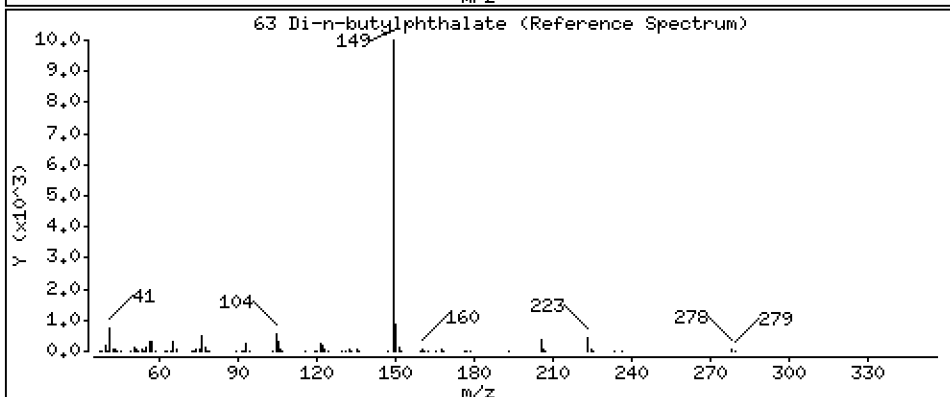
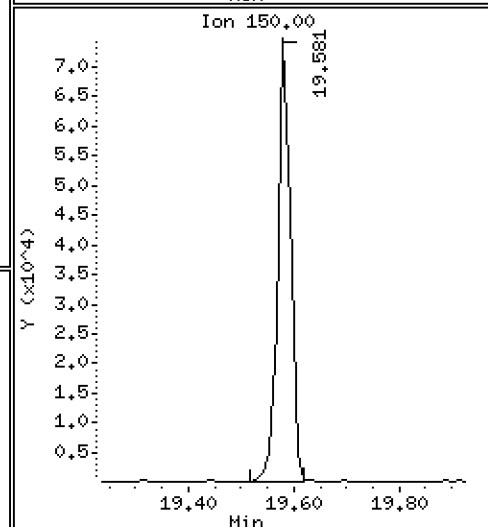
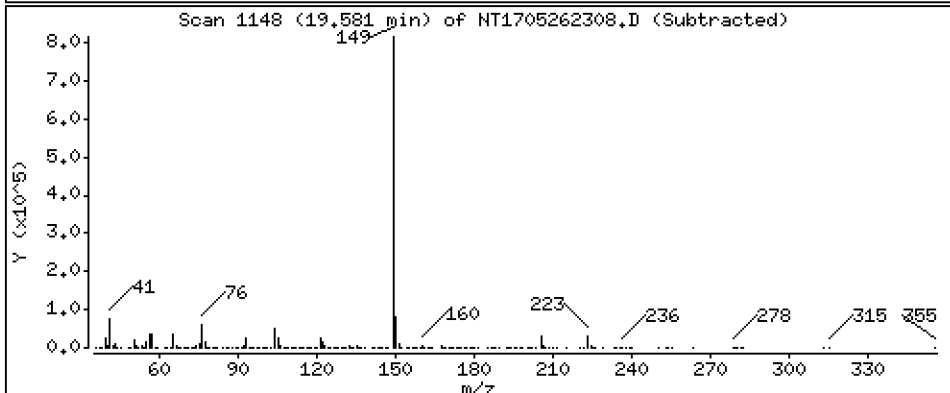
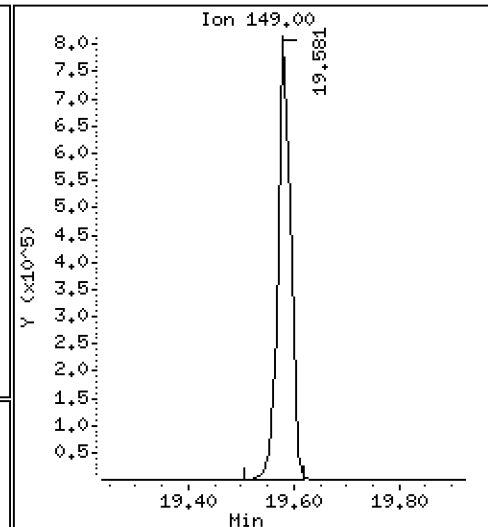
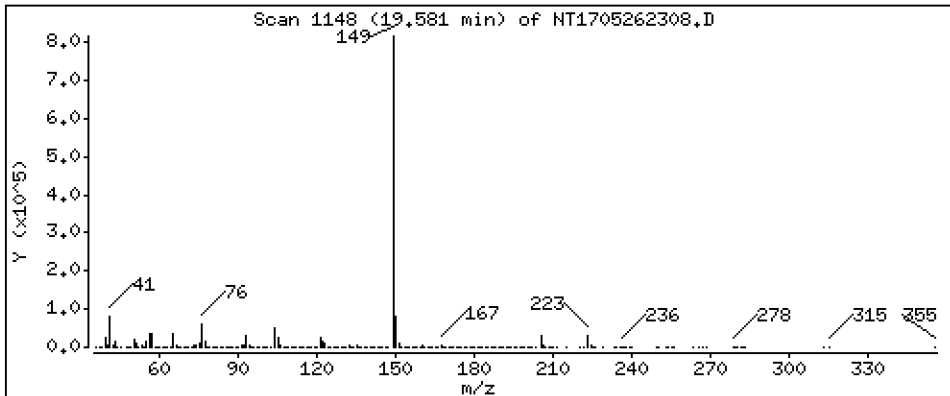
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,673 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

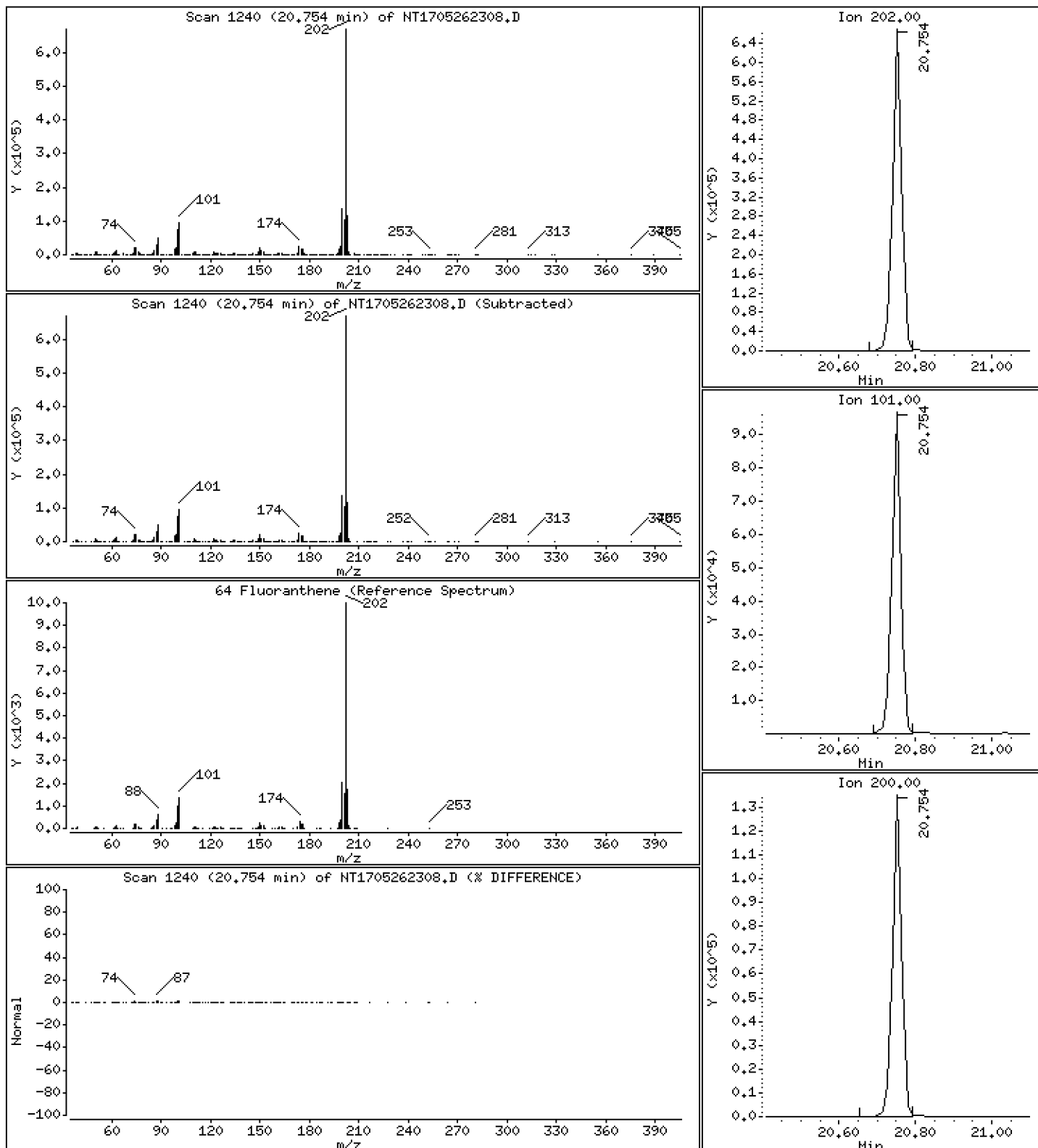
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,560 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

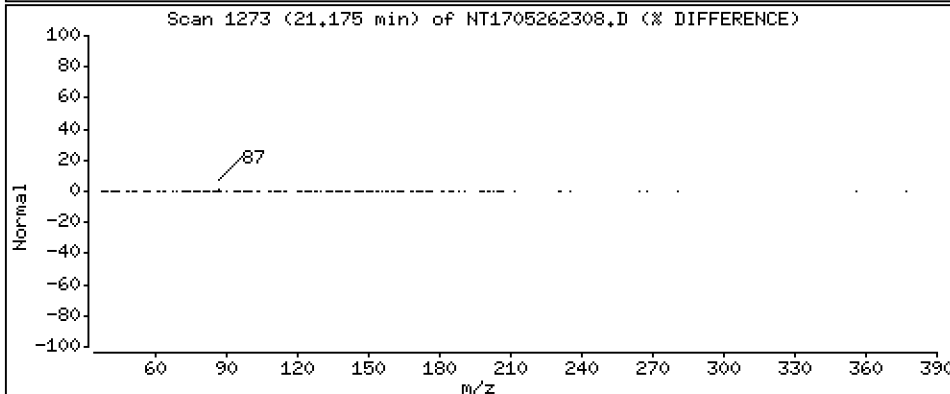
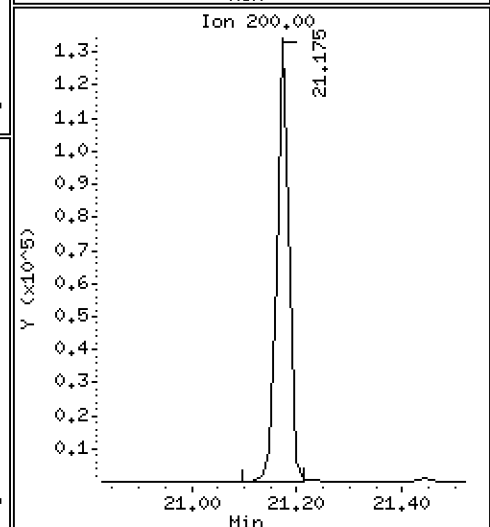
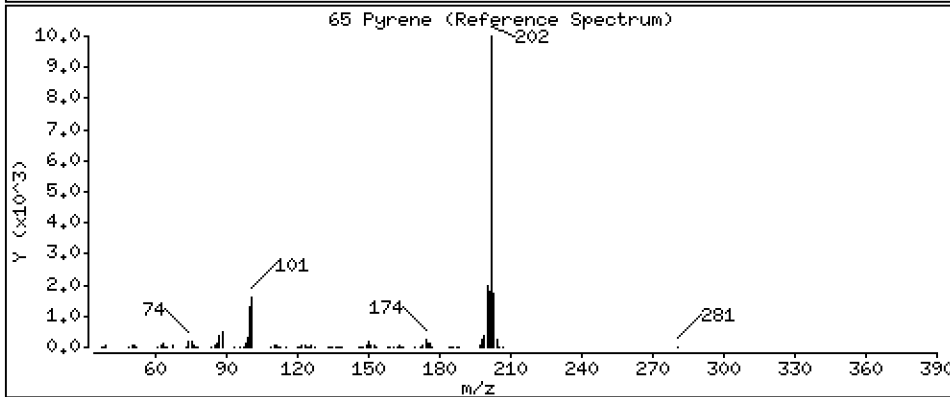
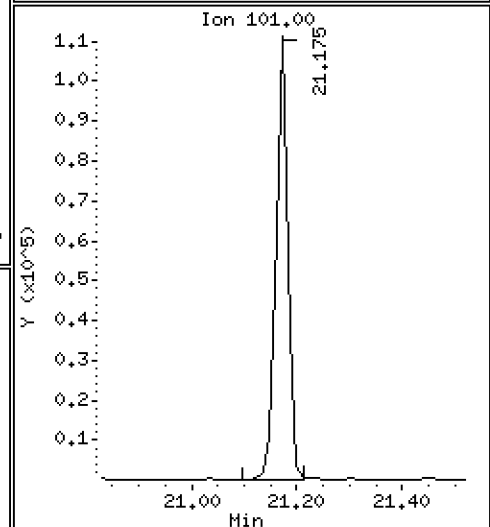
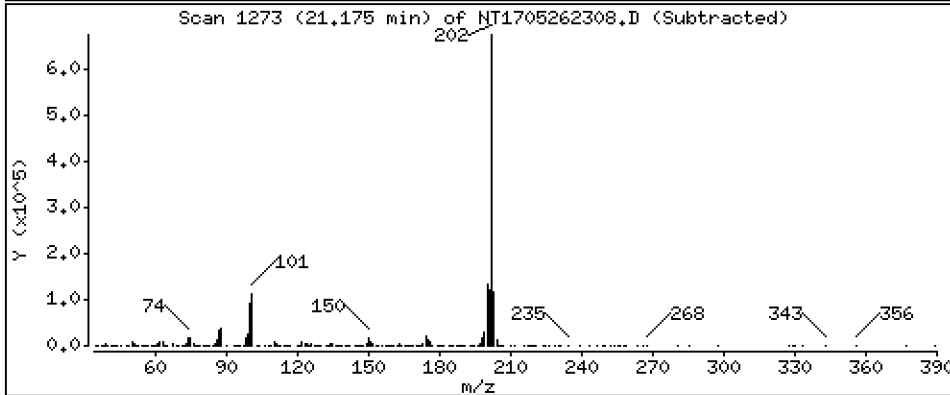
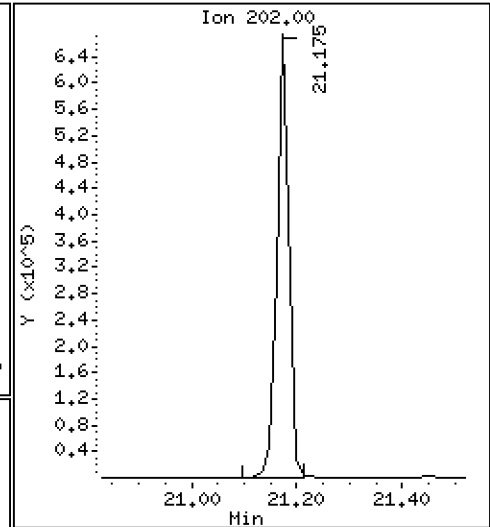
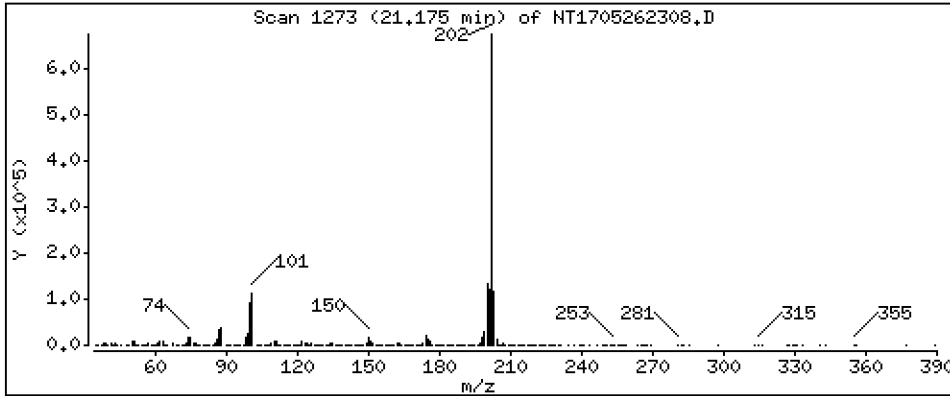
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,465 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

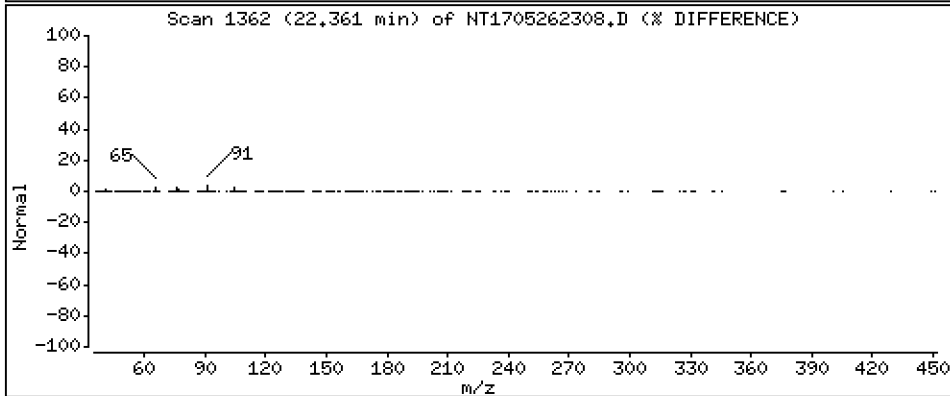
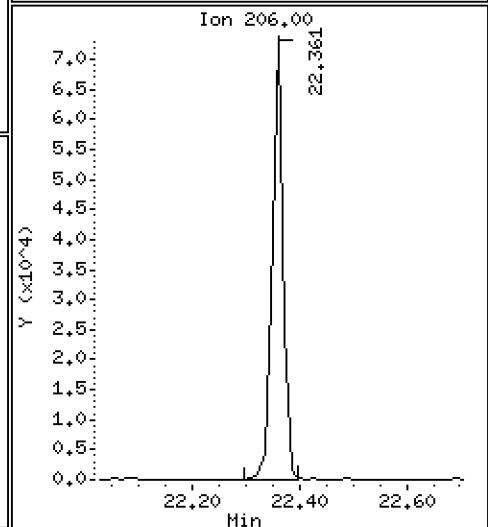
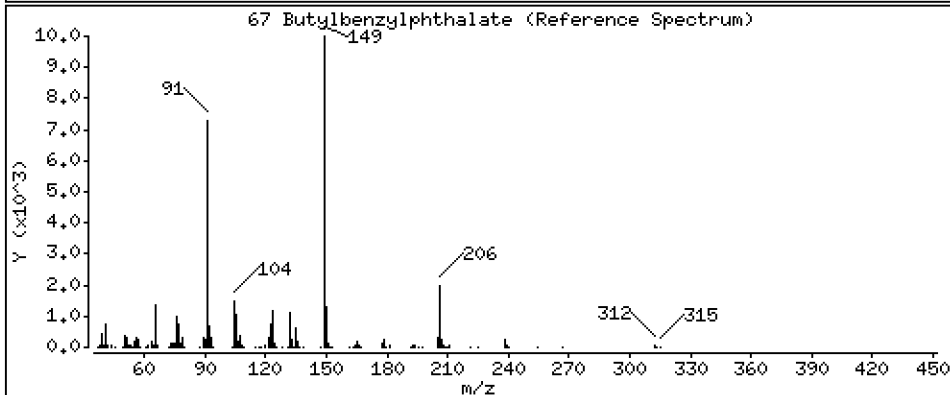
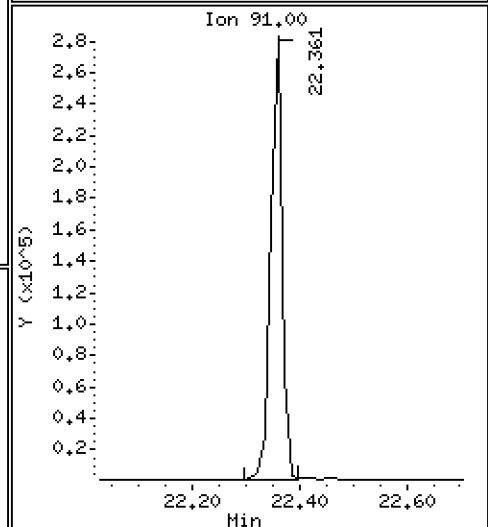
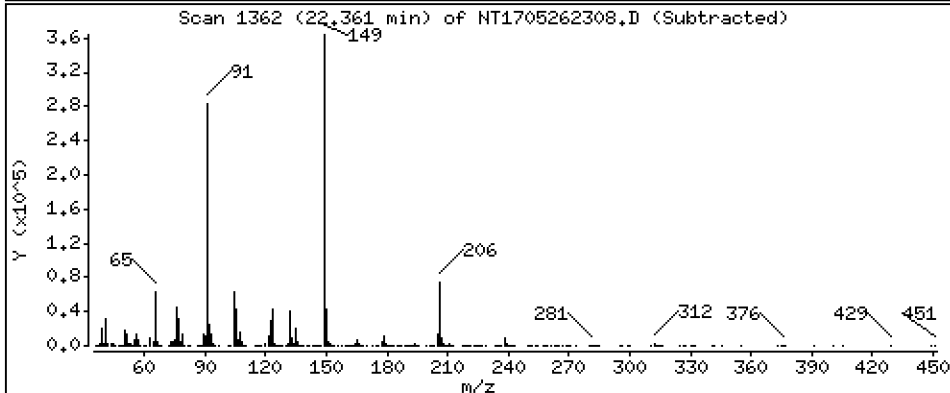
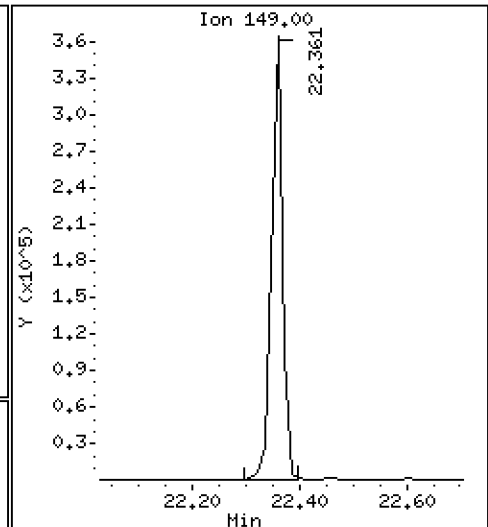
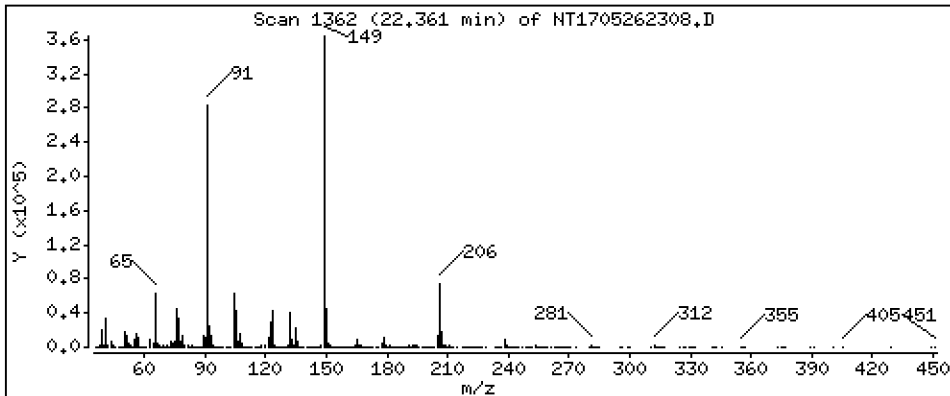
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,915 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

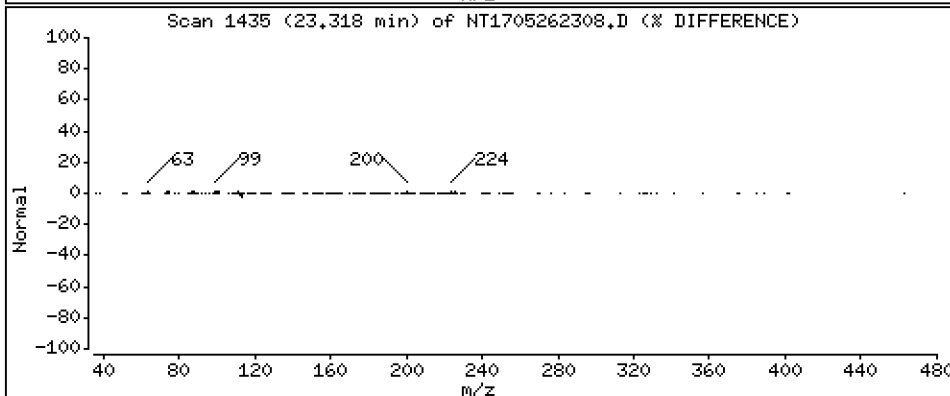
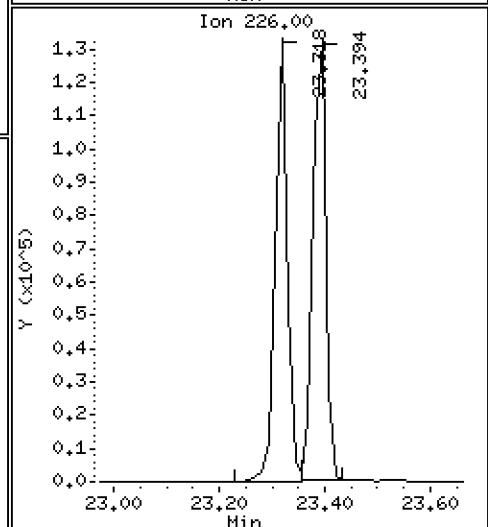
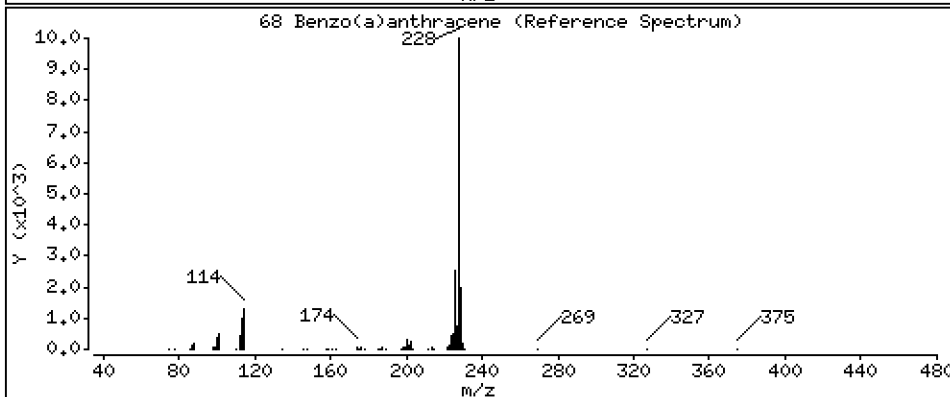
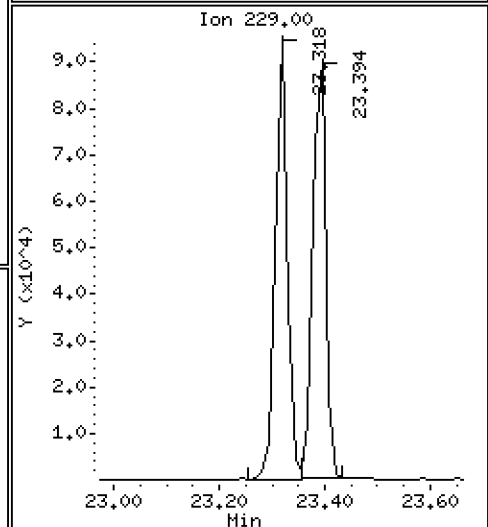
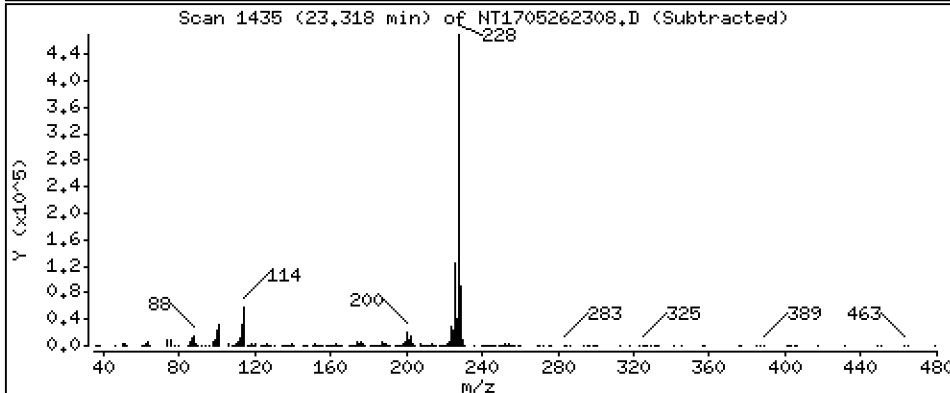
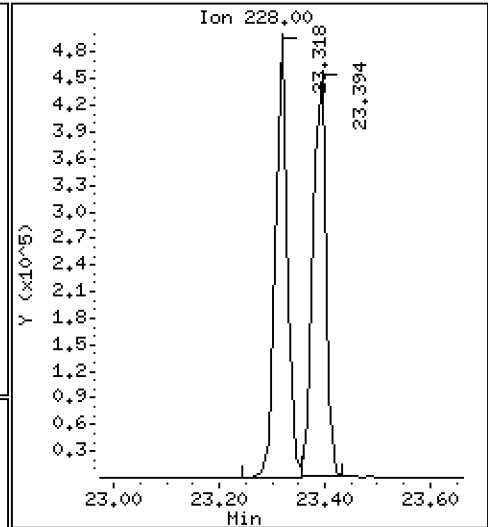
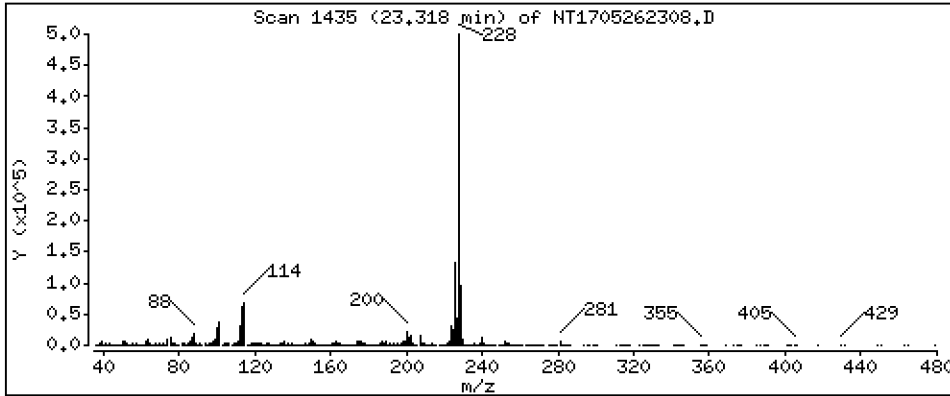
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,292 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

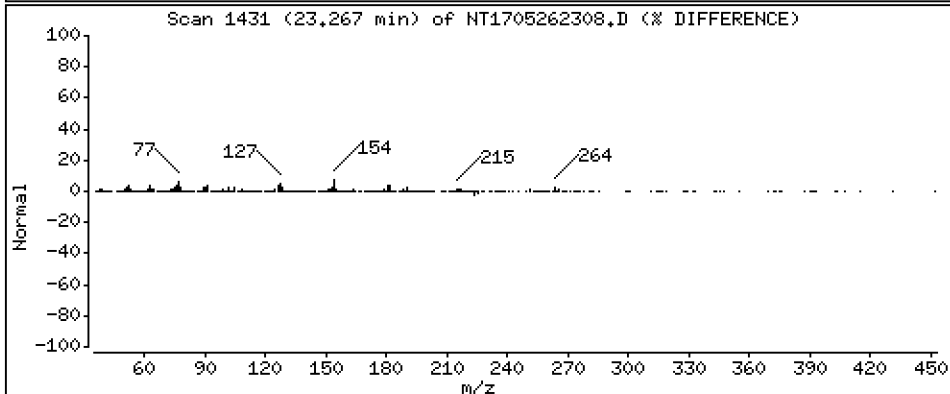
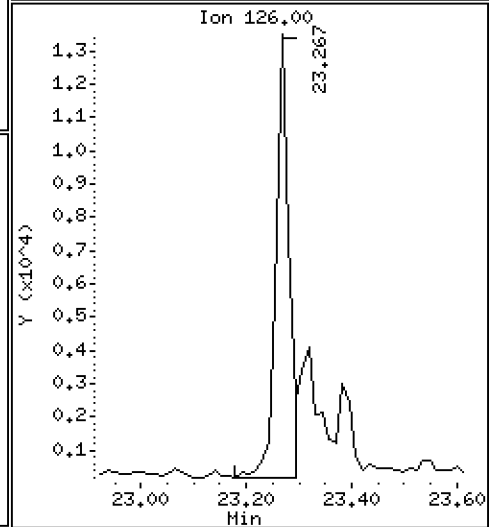
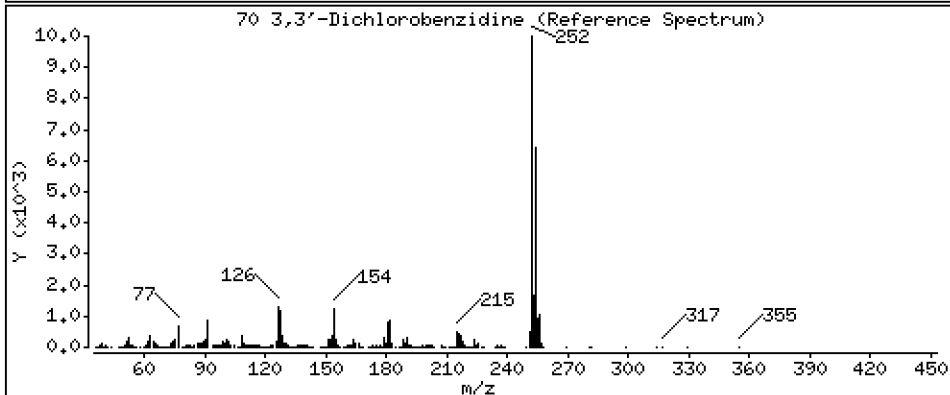
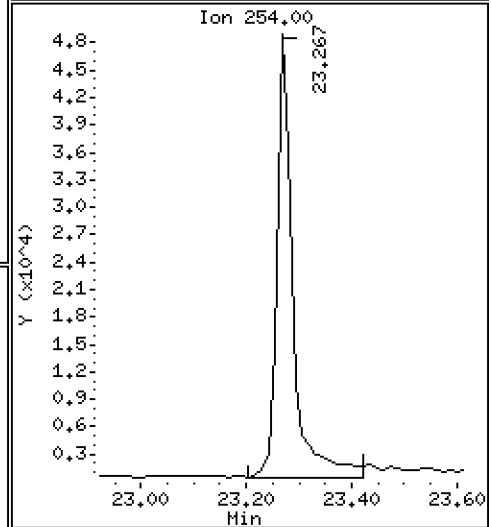
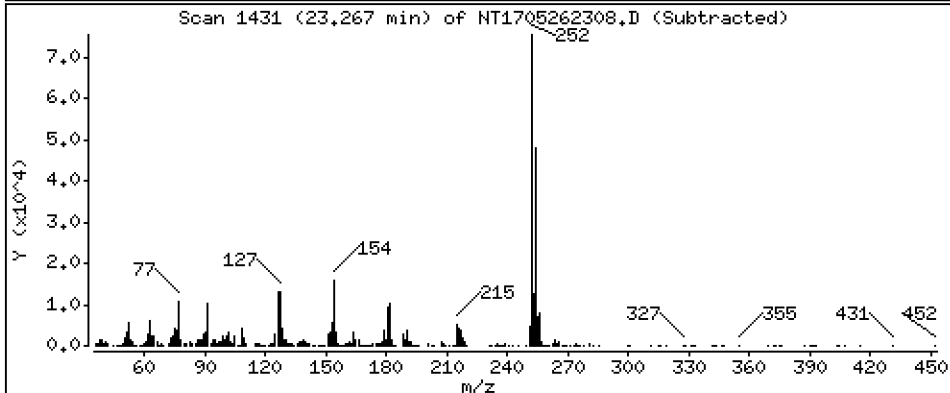
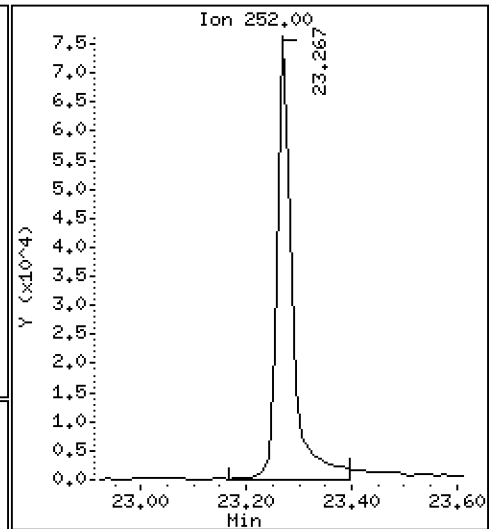
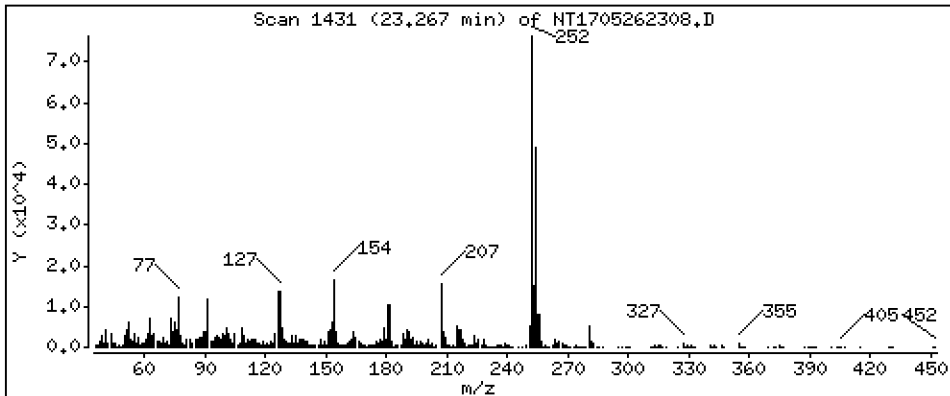
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 4,300 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

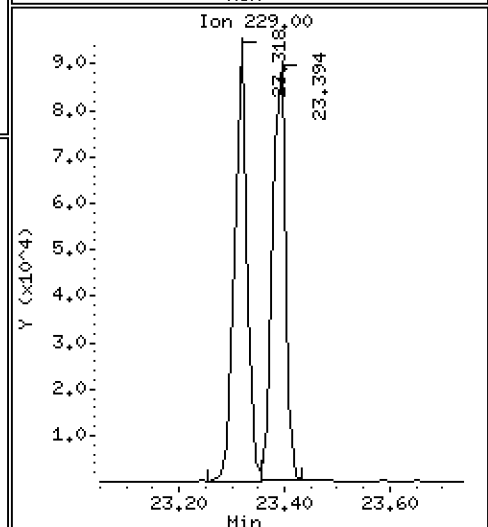
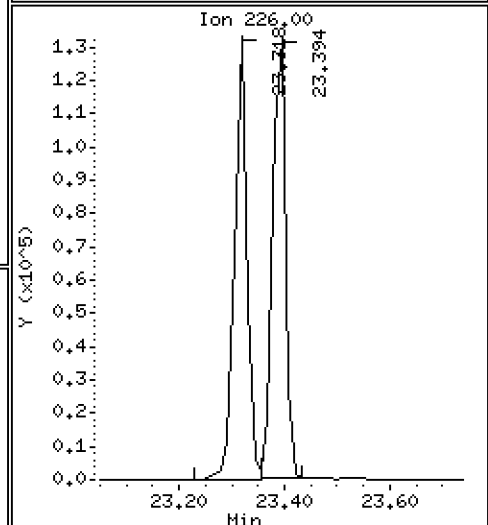
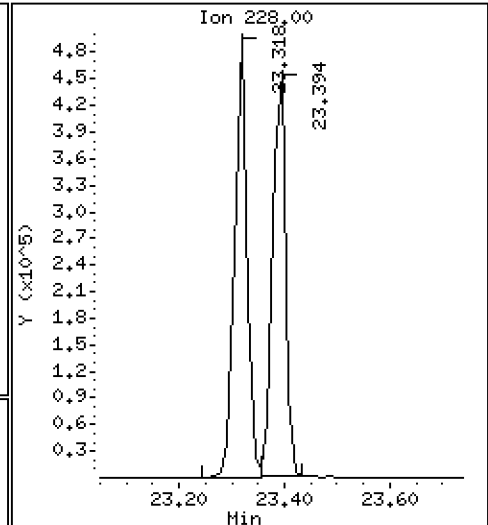
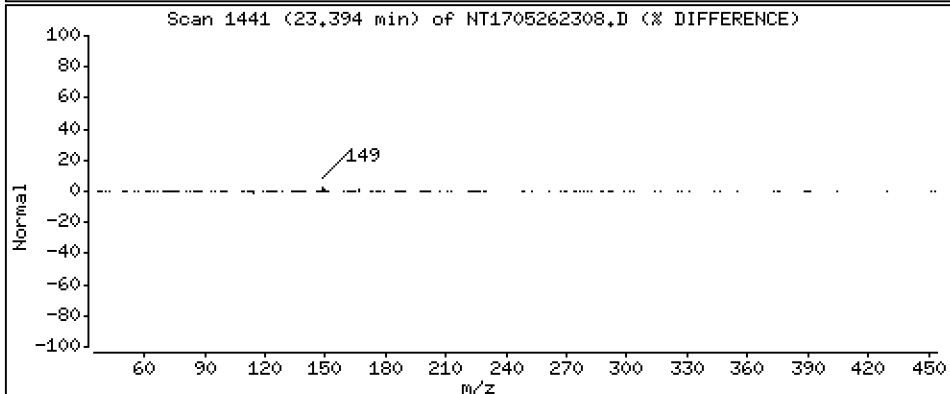
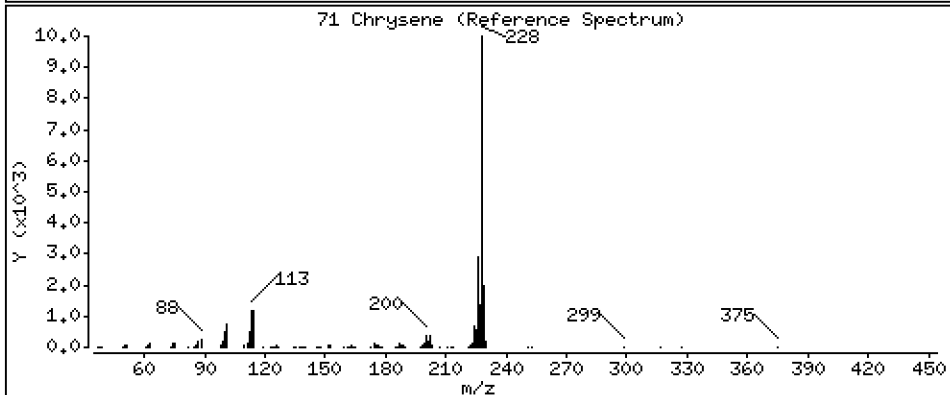
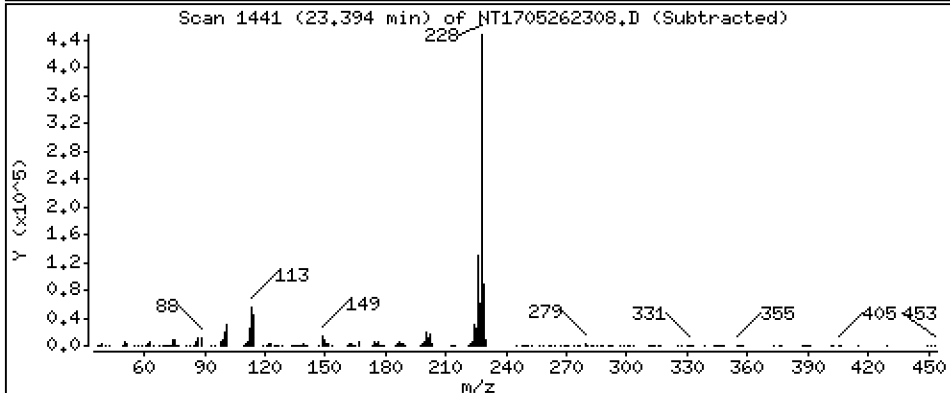
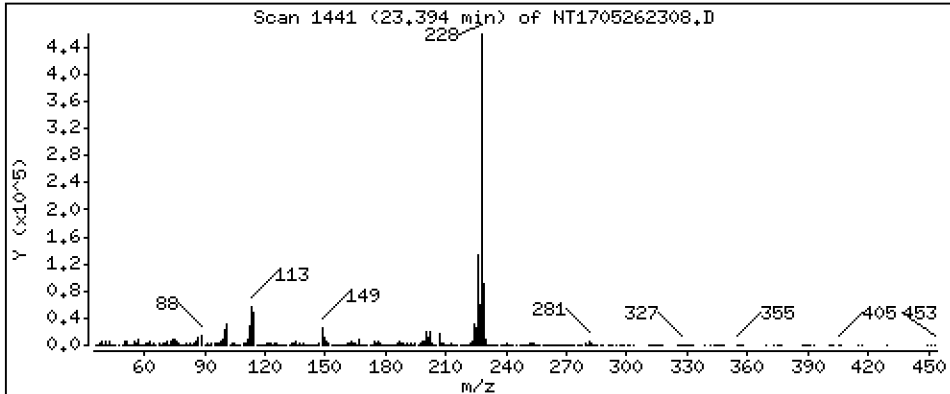
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,344 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

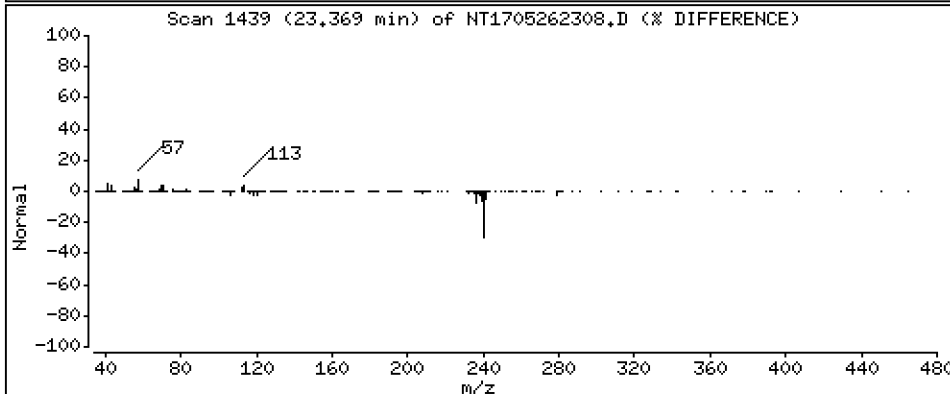
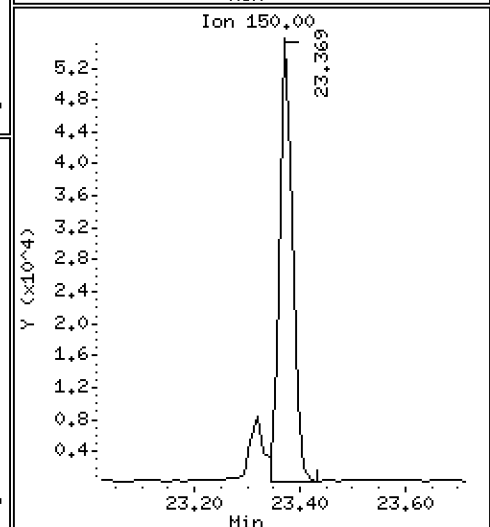
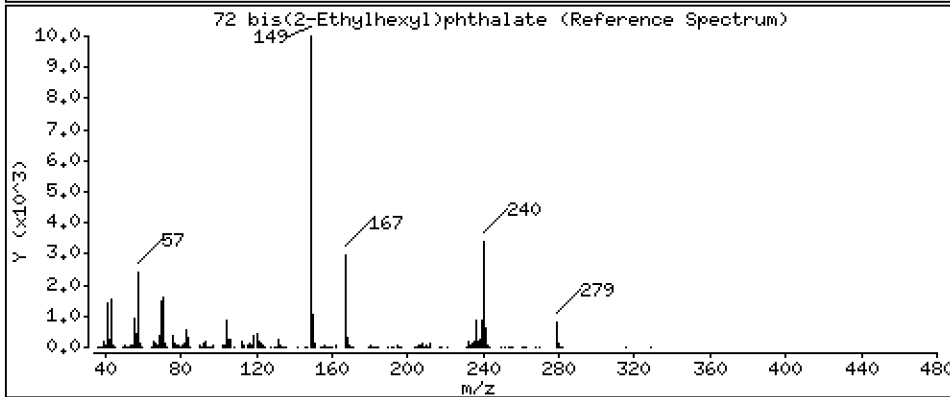
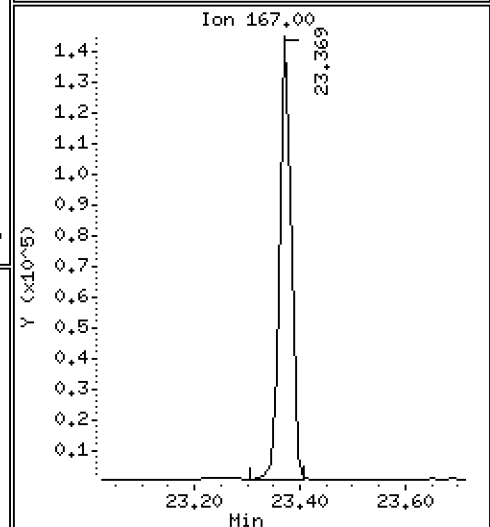
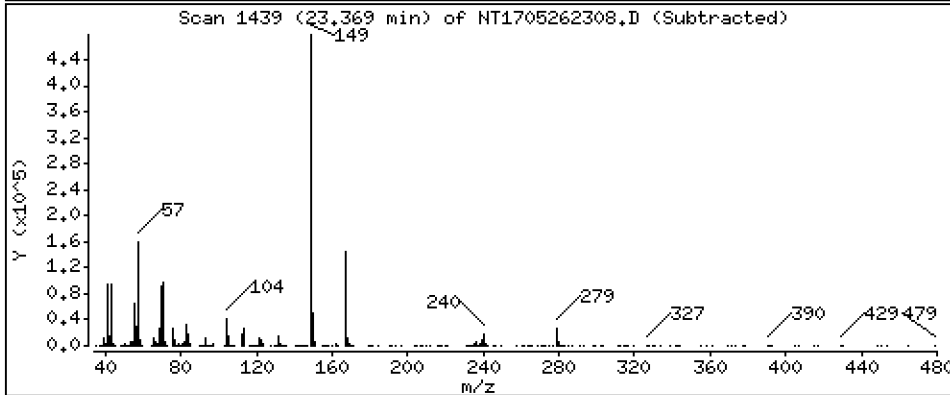
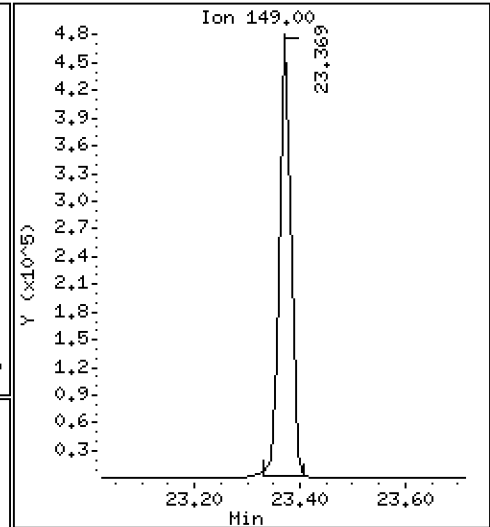
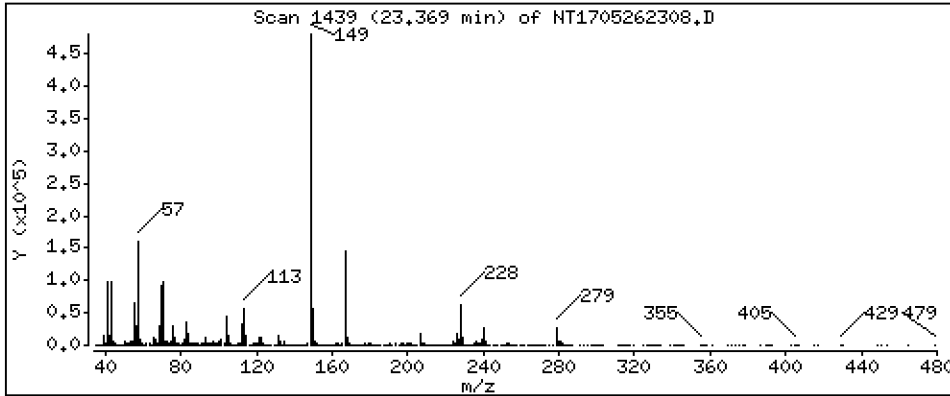
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,725 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

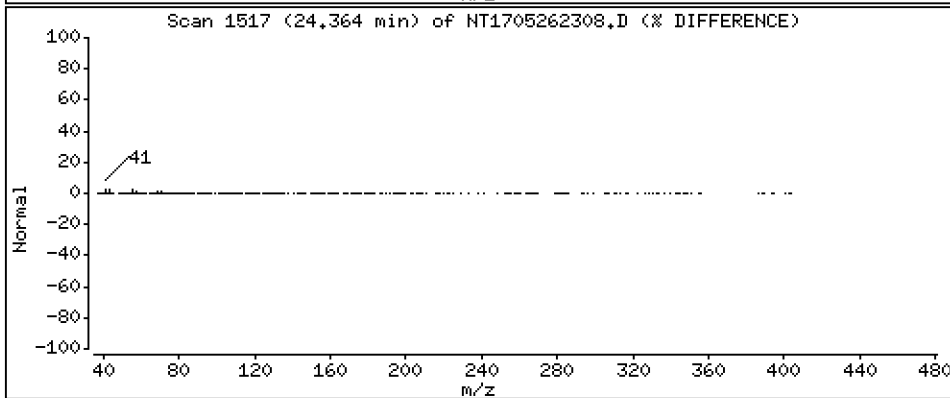
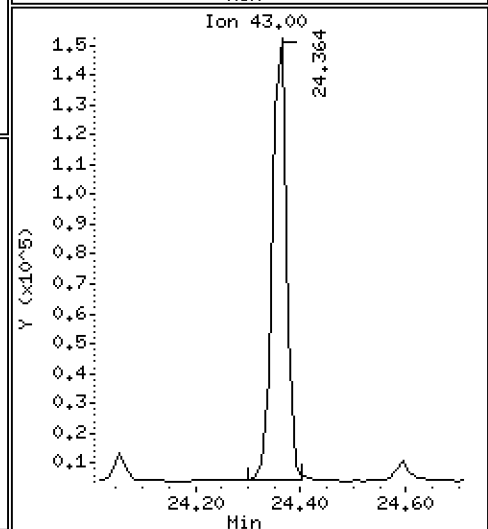
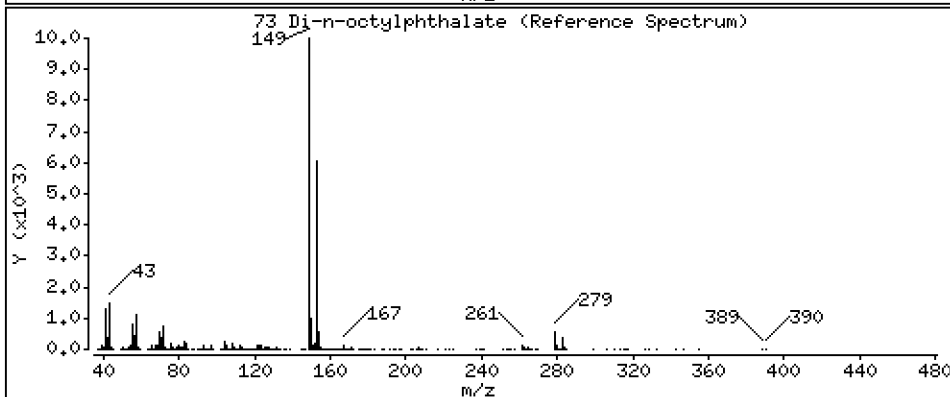
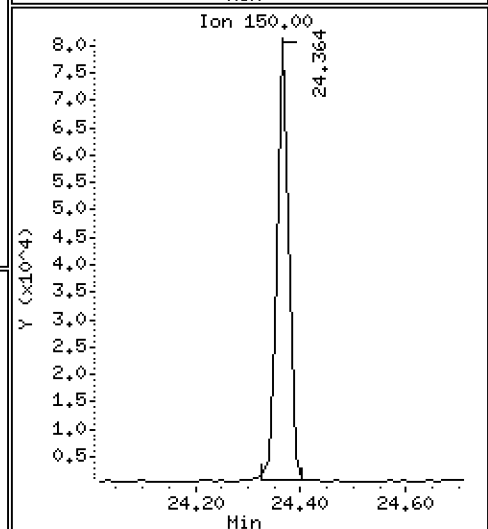
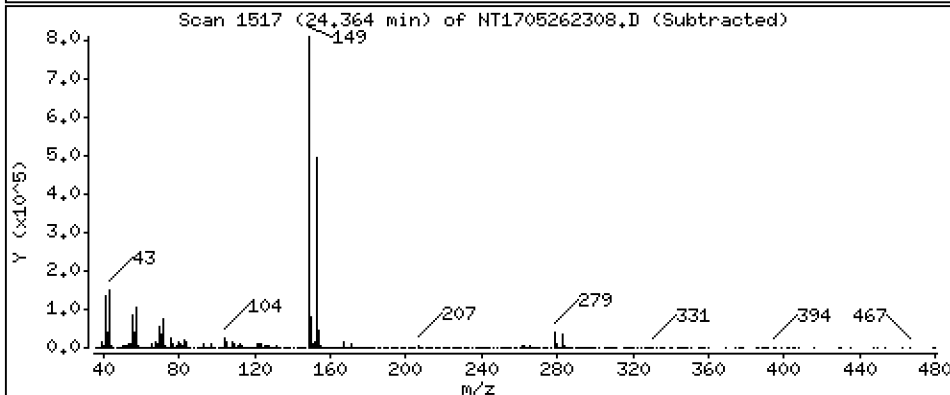
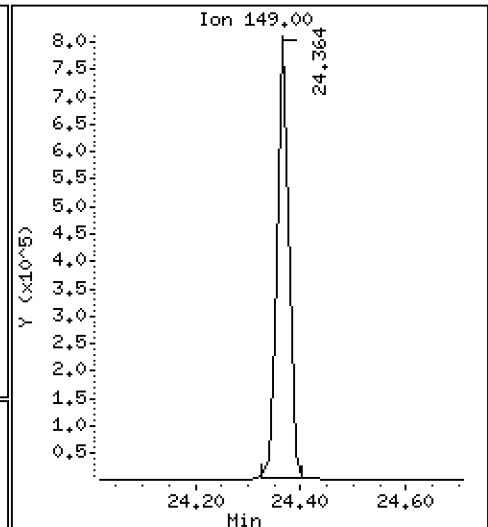
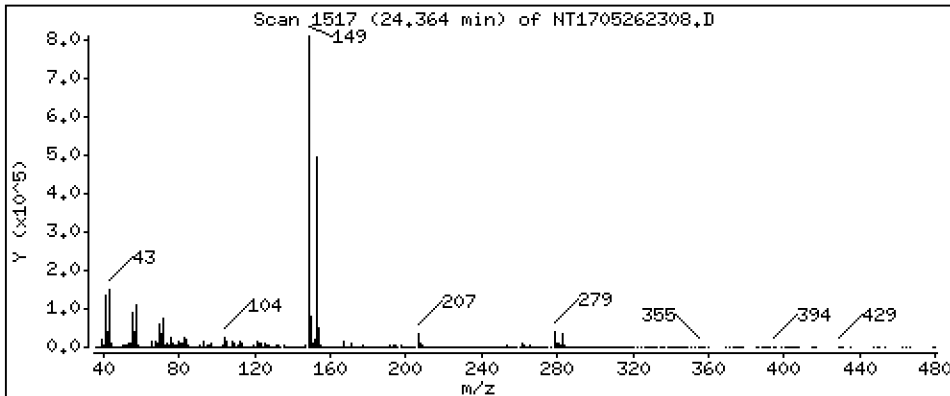
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,608 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

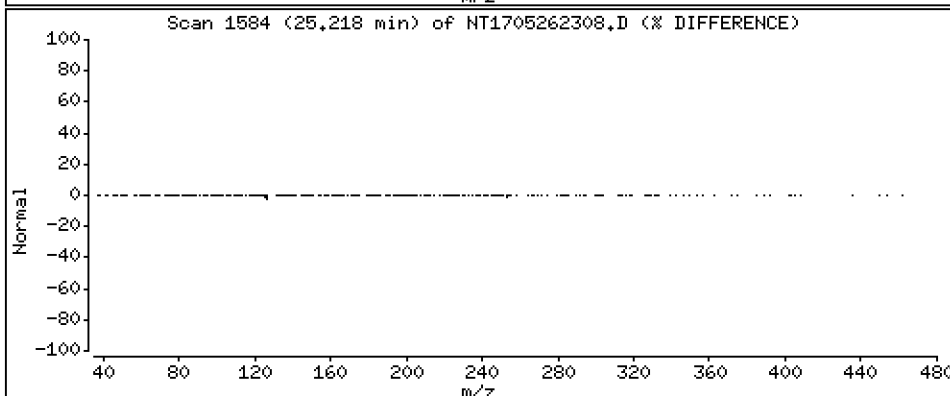
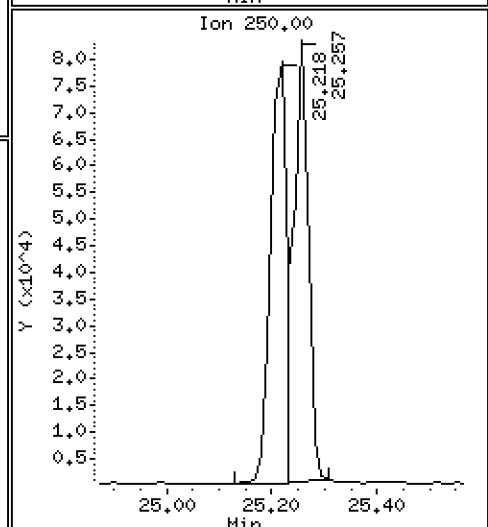
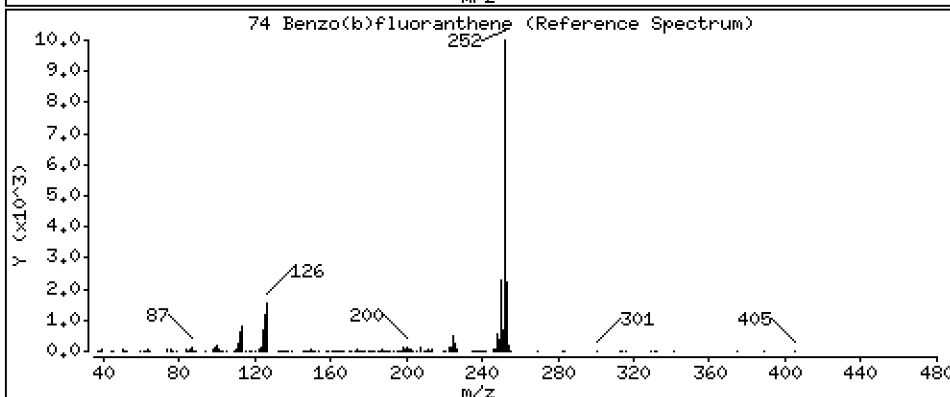
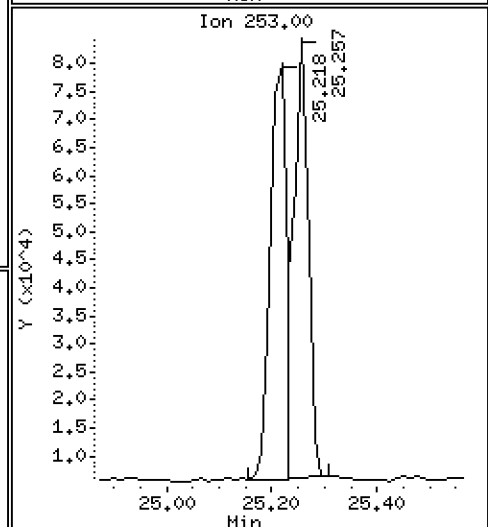
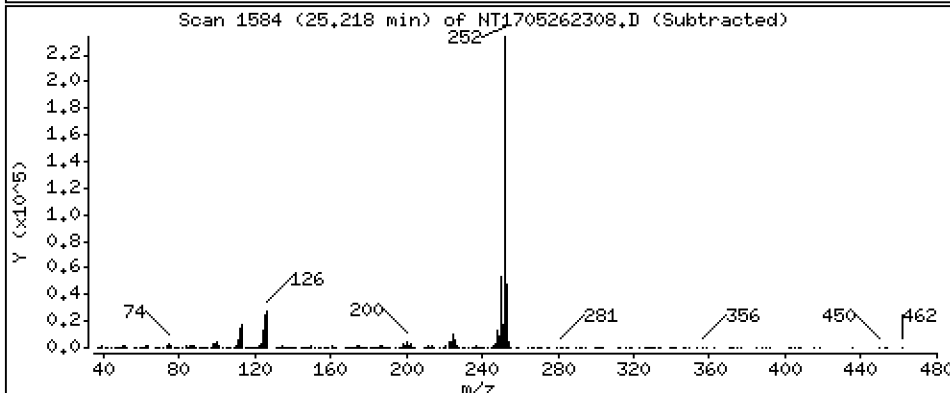
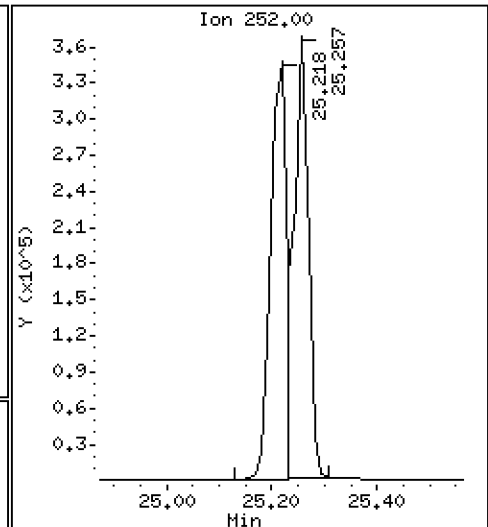
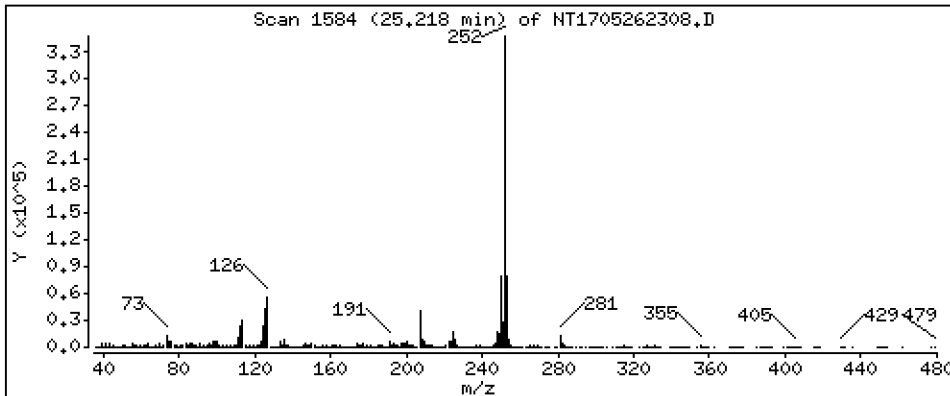
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,361 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

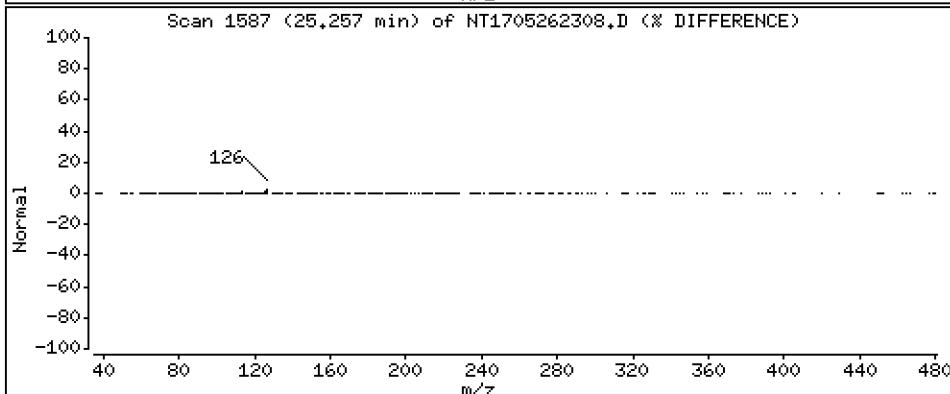
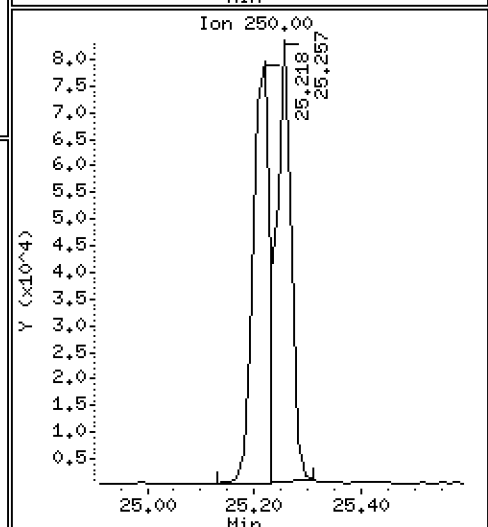
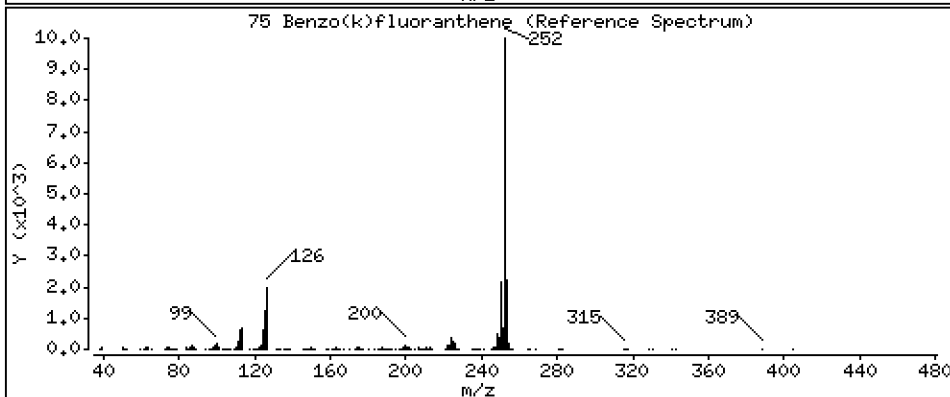
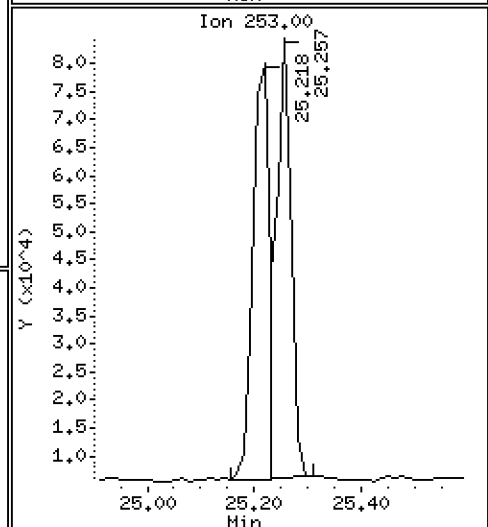
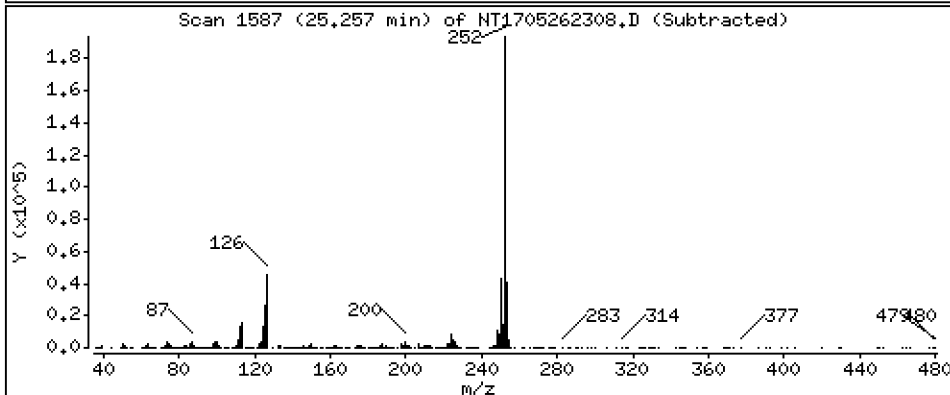
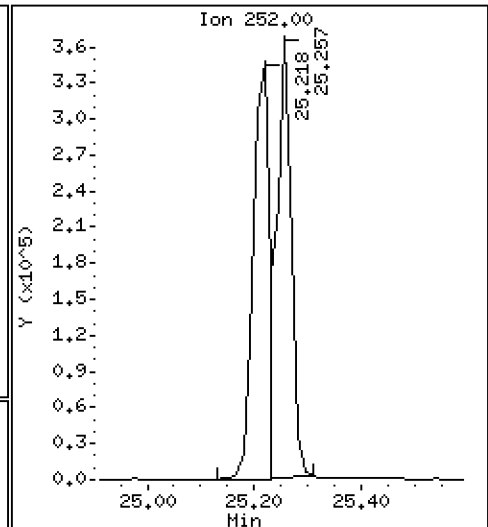
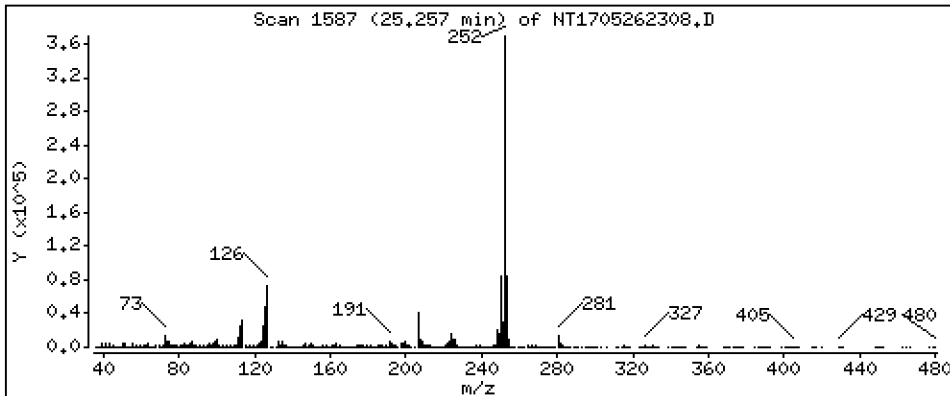
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,755 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

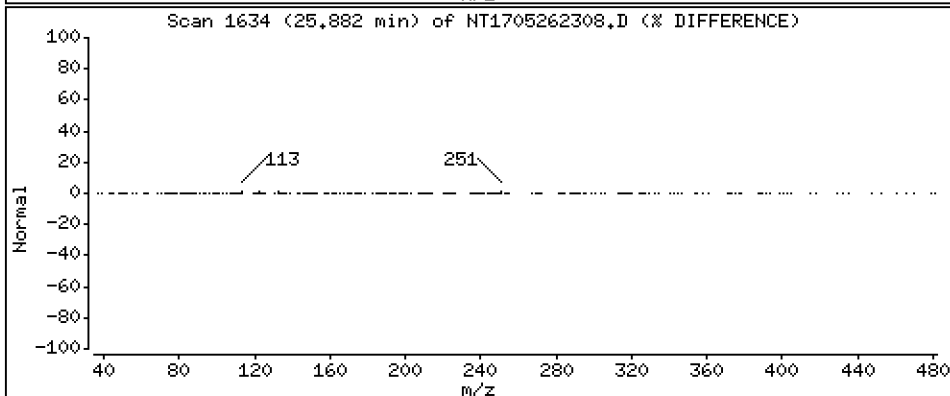
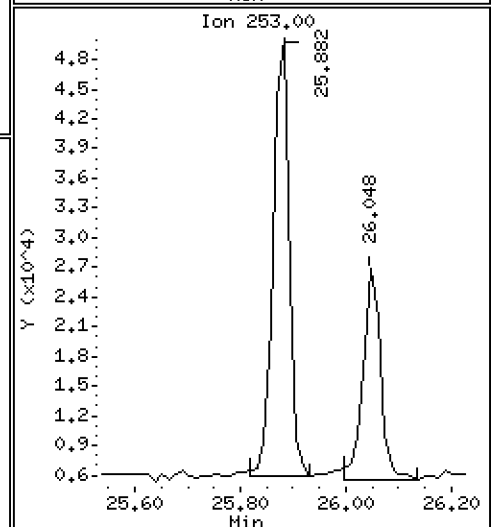
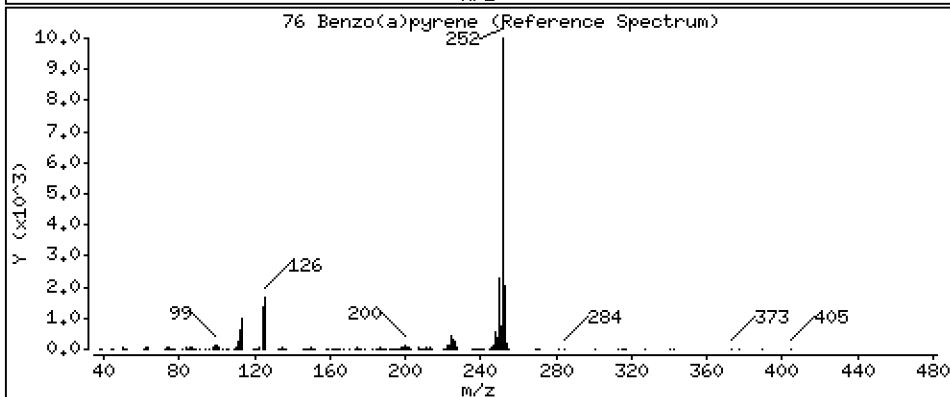
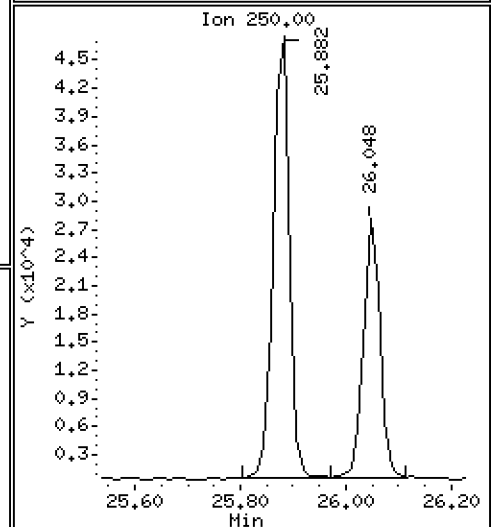
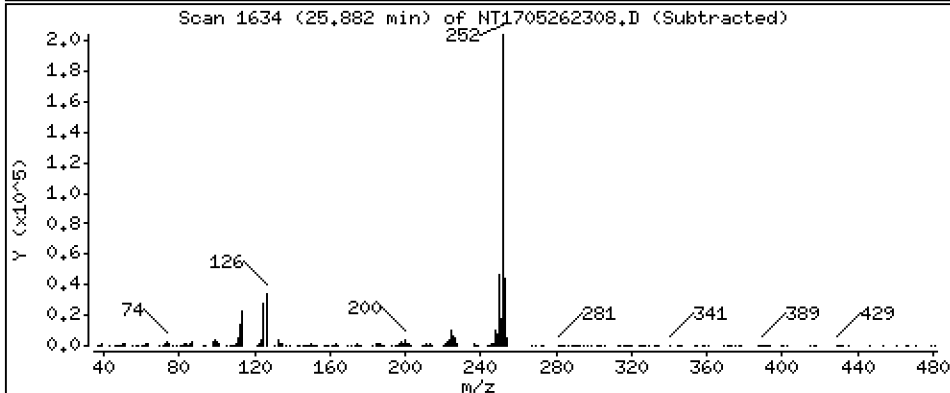
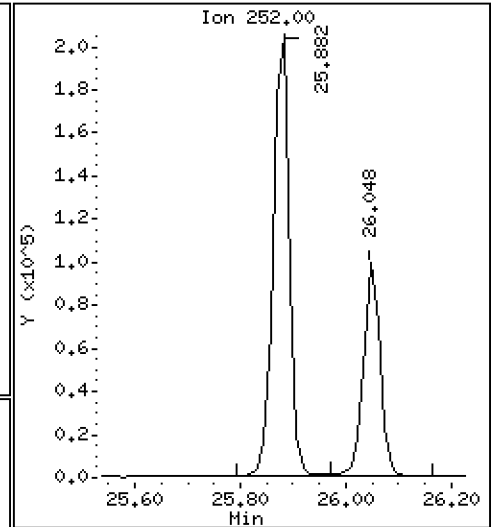
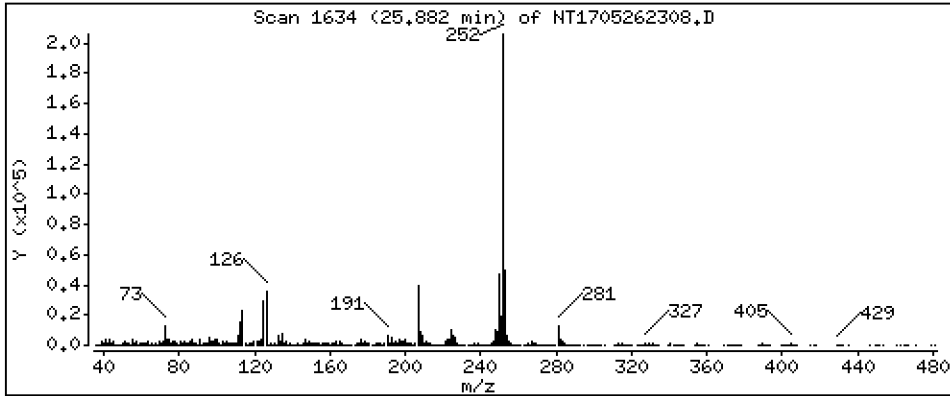
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 3,385 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

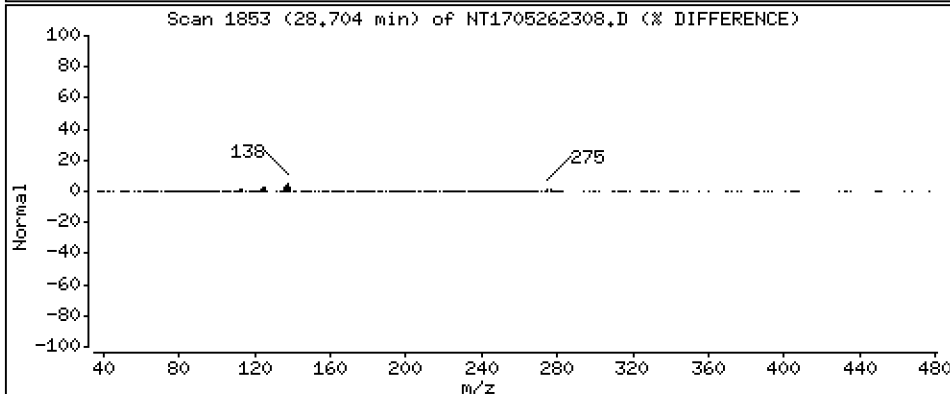
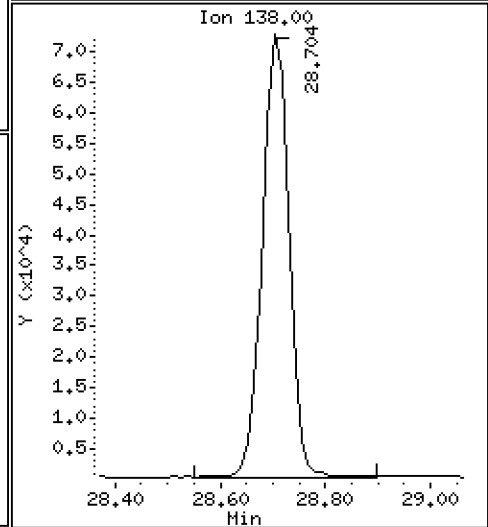
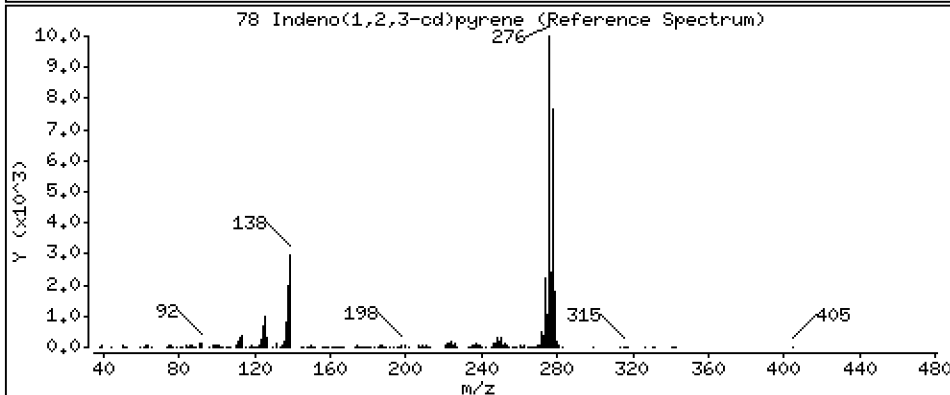
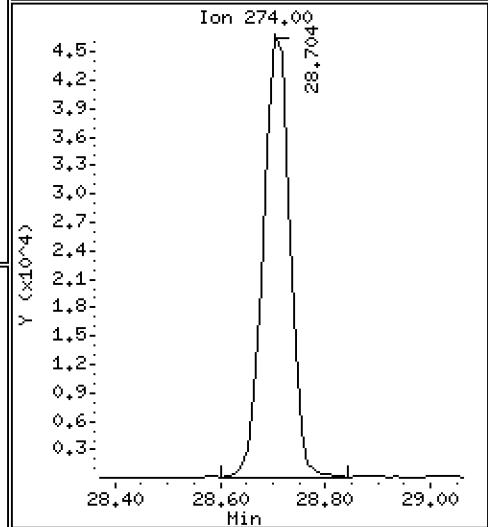
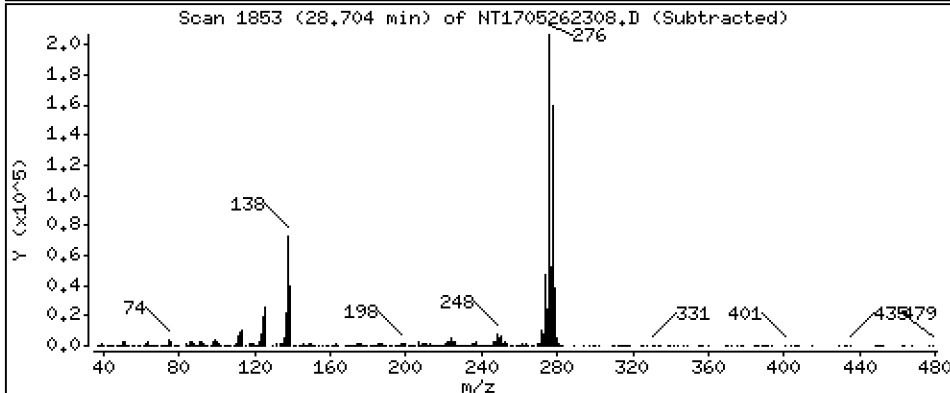
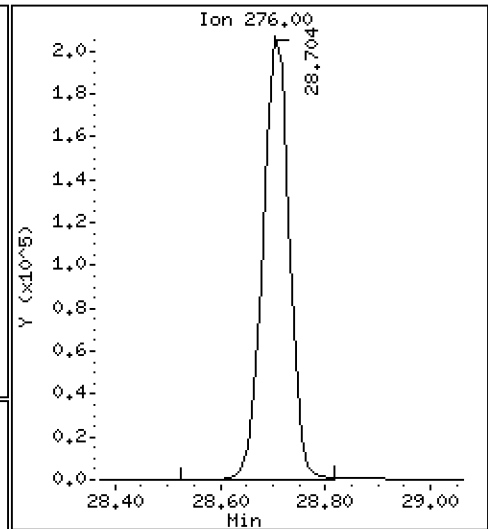
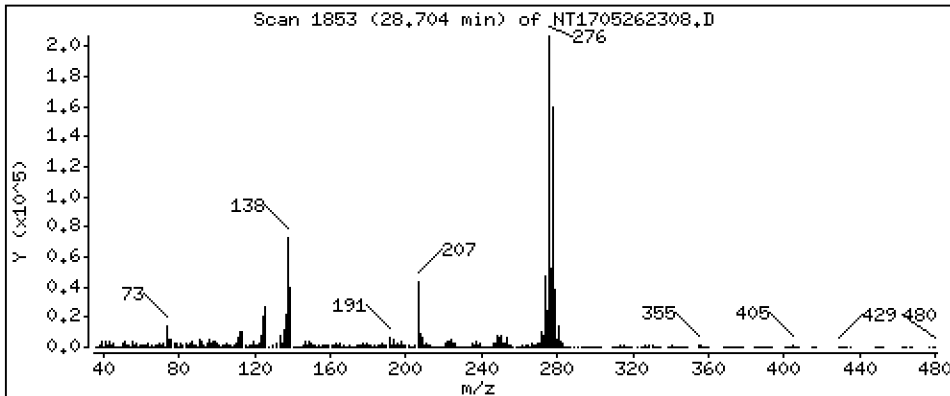
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 4,582 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

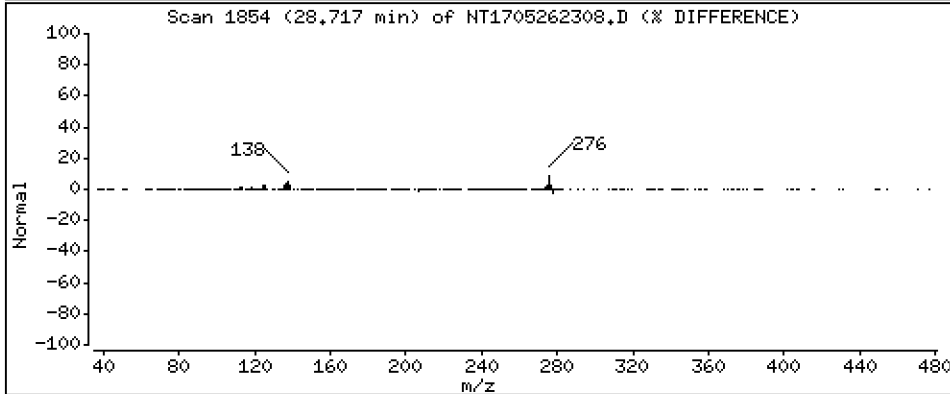
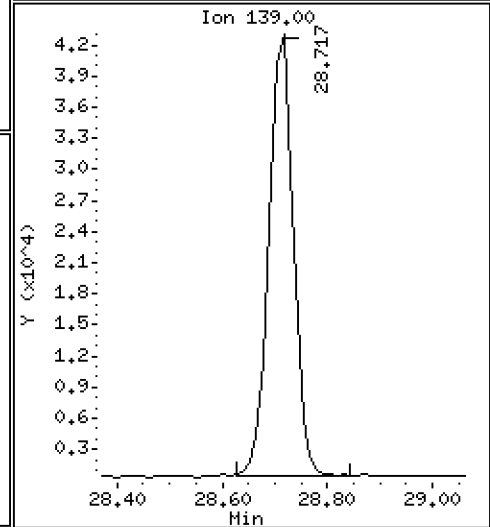
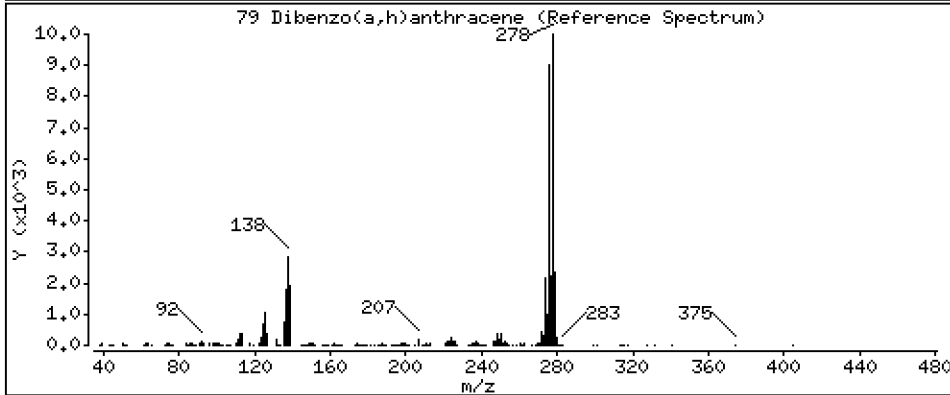
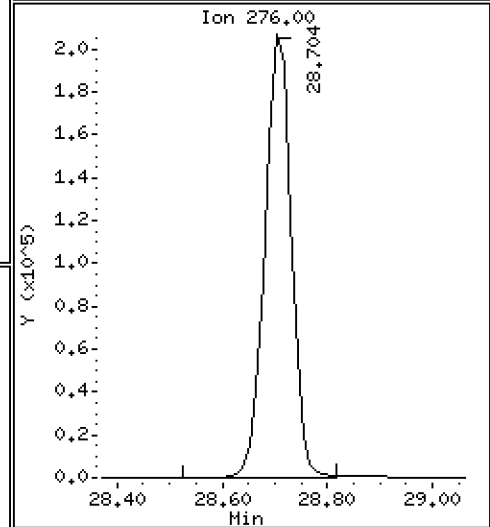
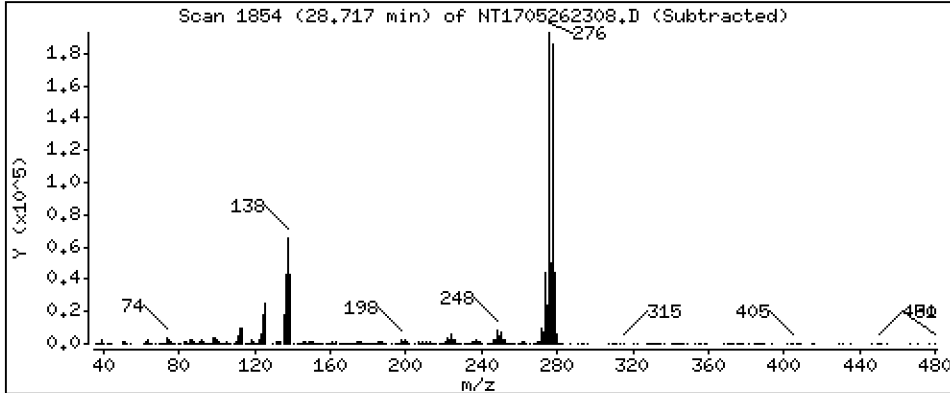
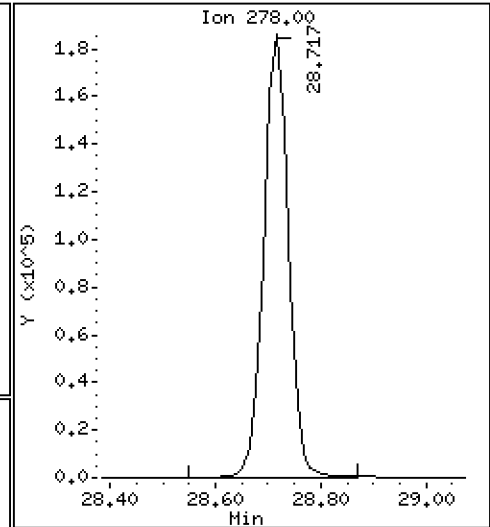
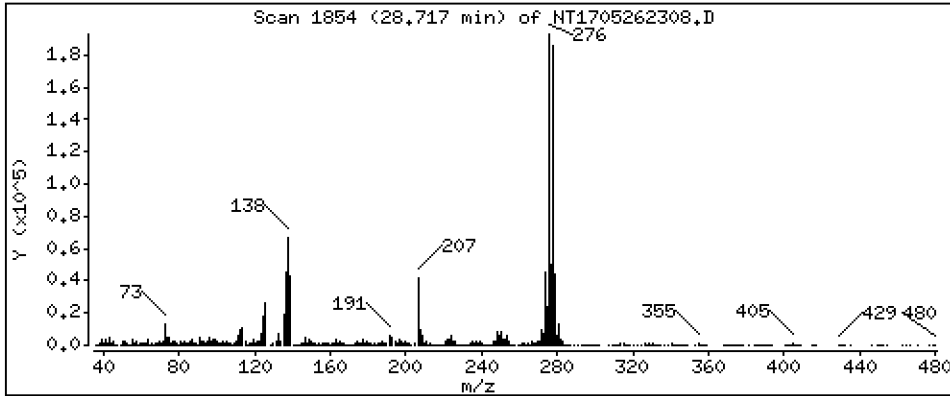
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,564 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

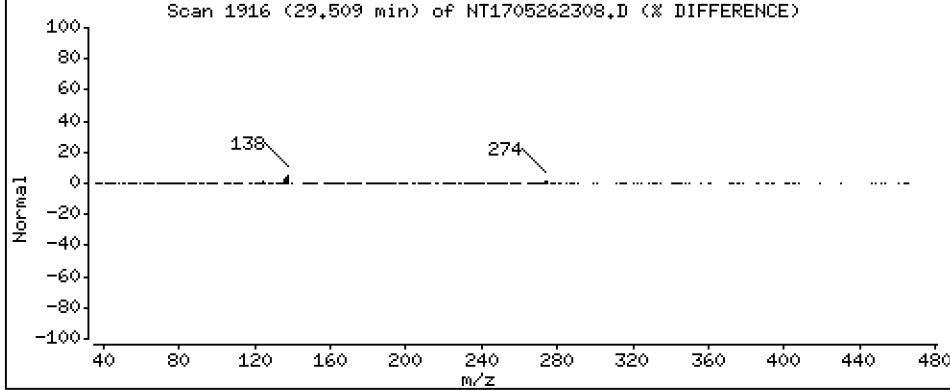
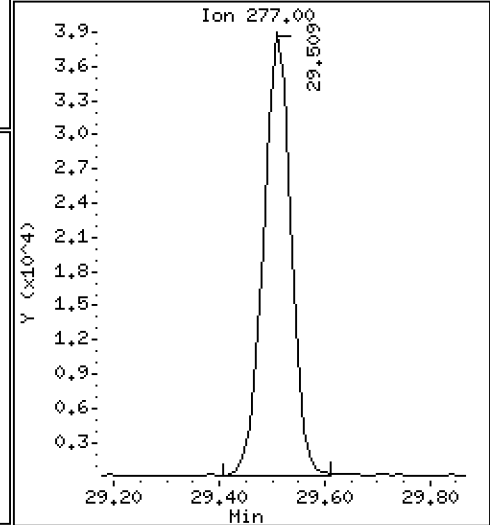
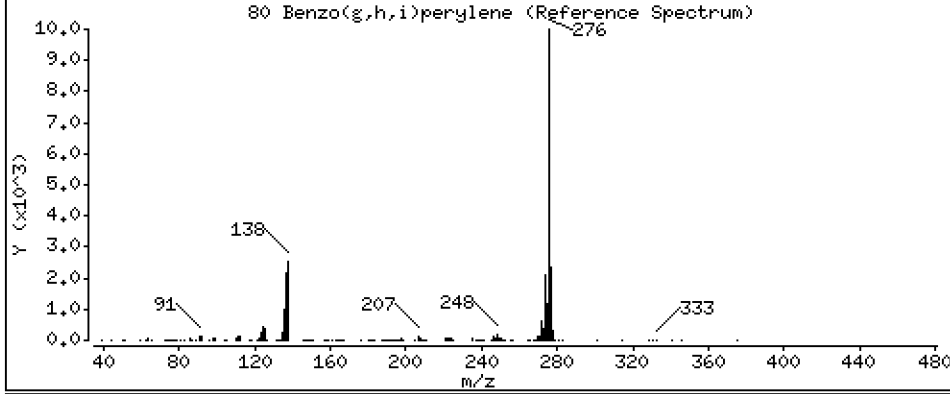
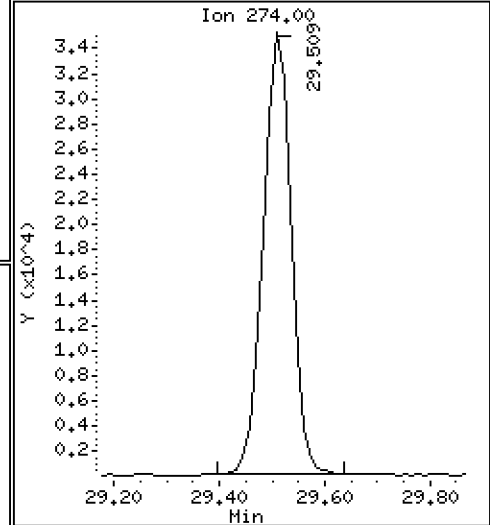
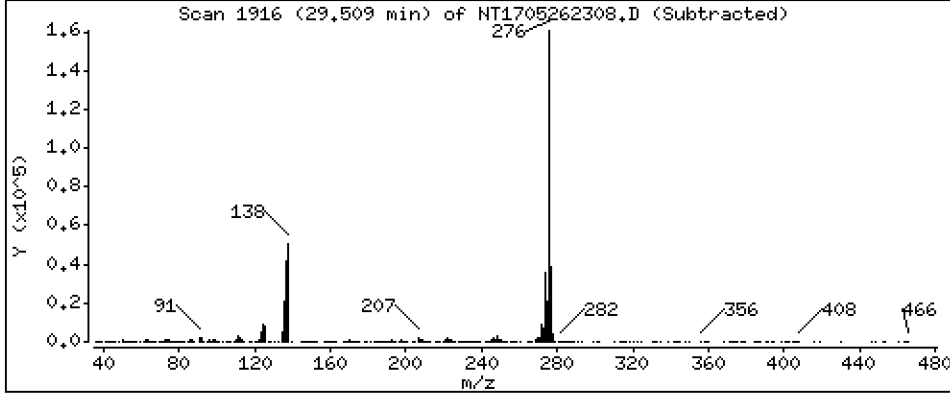
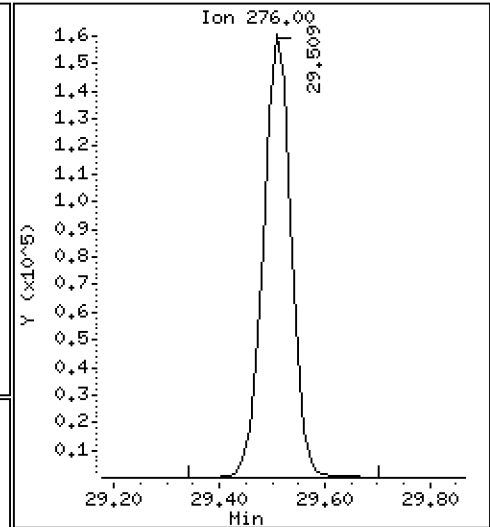
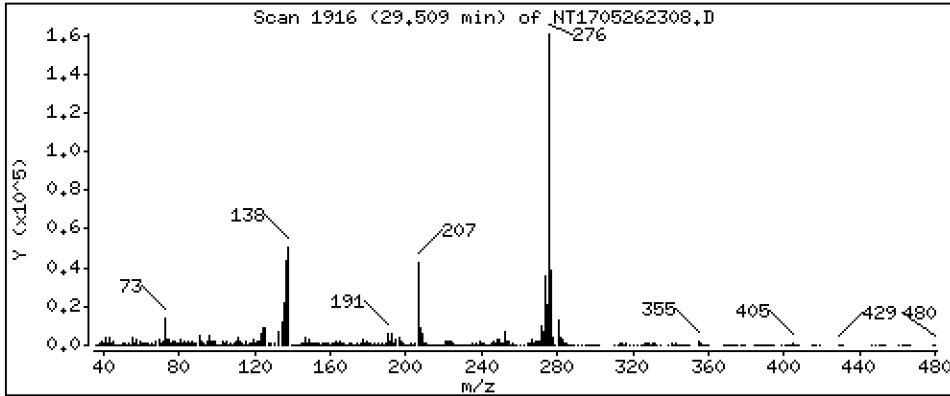
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,538 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

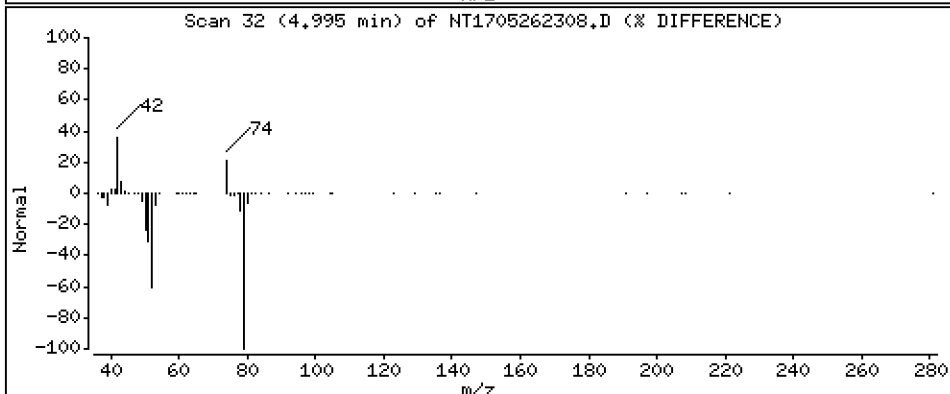
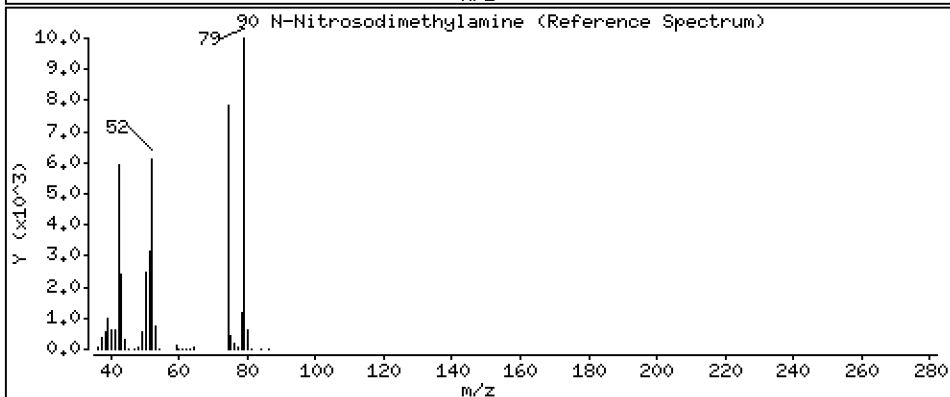
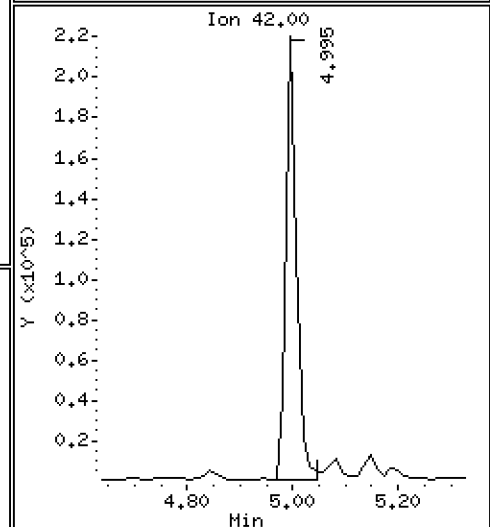
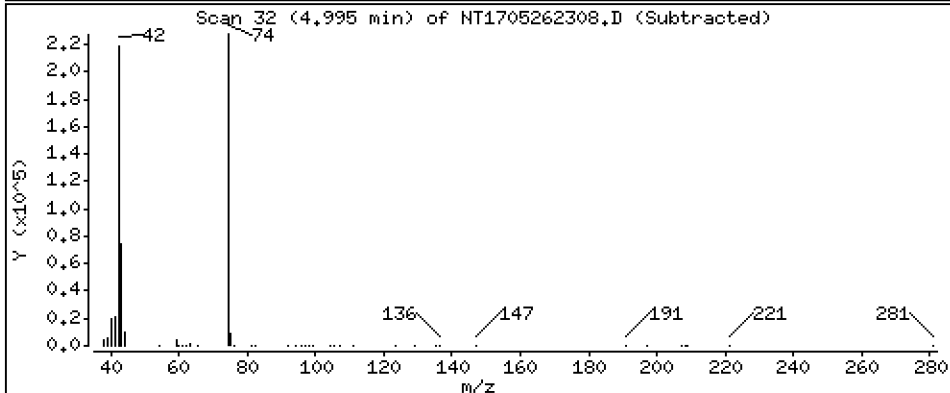
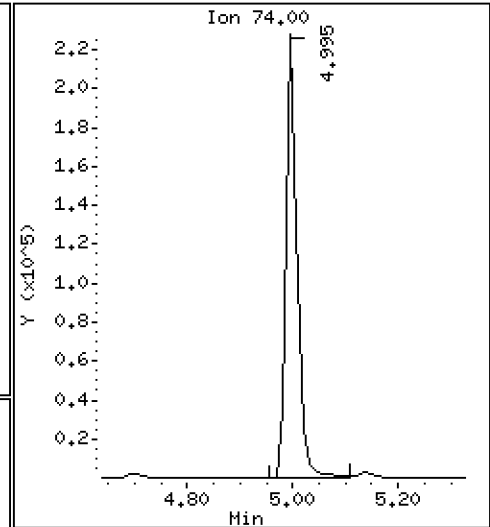
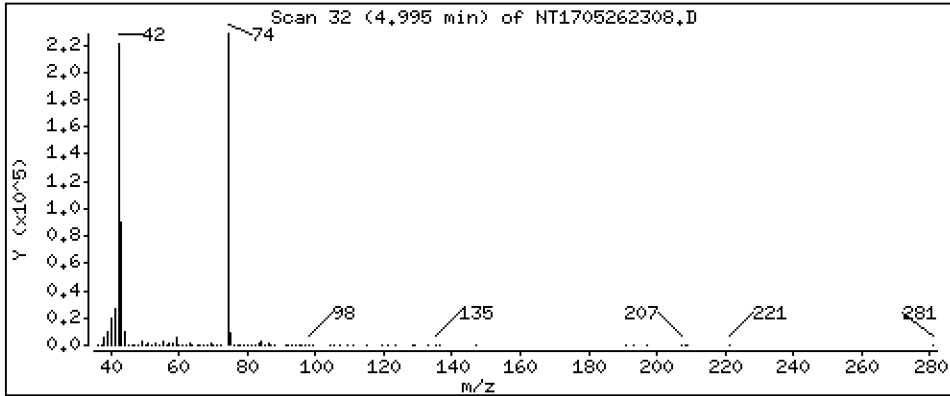
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,528 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

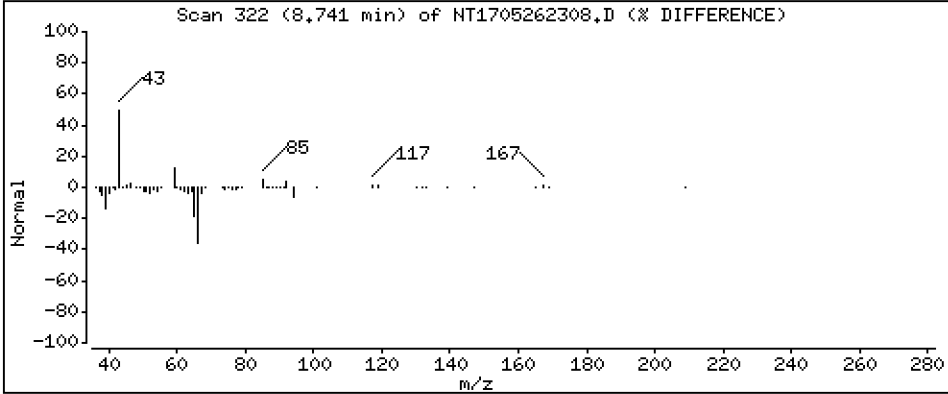
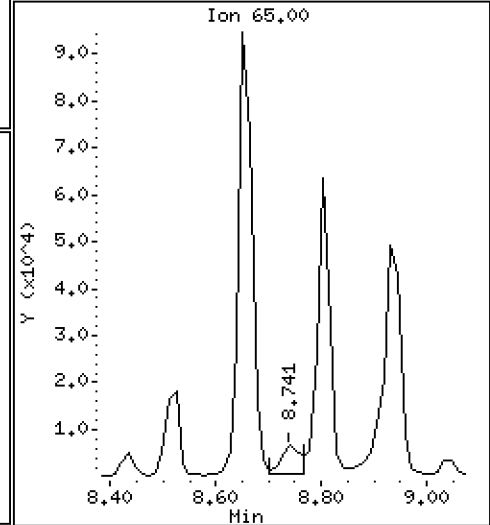
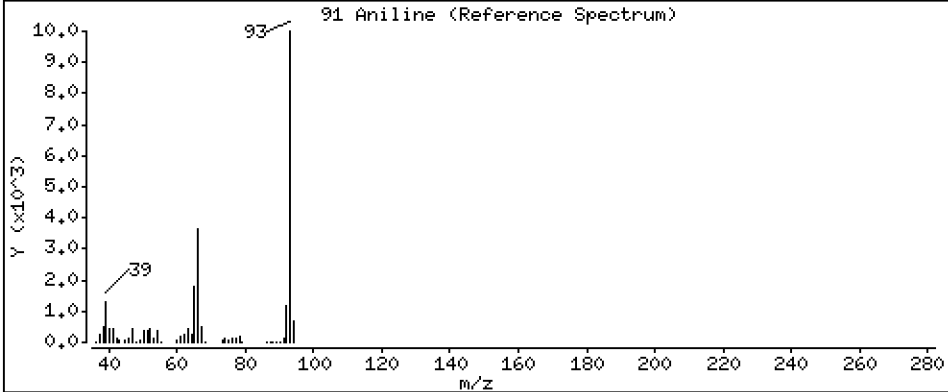
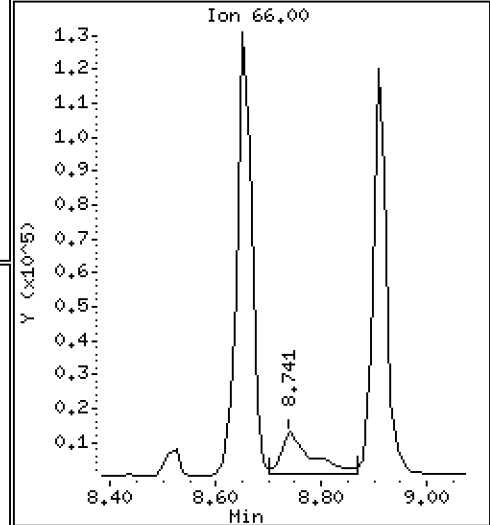
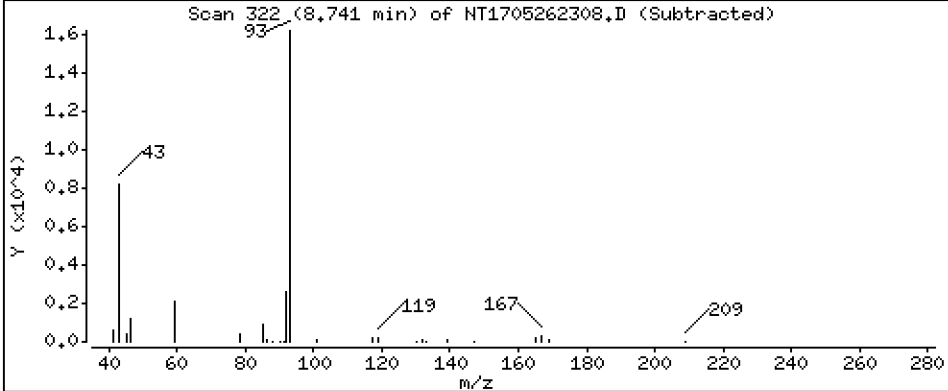
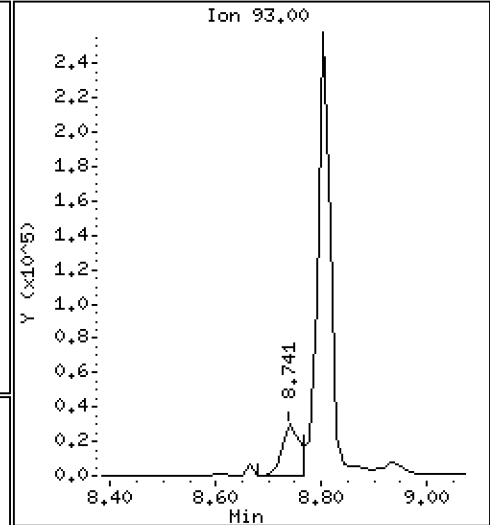
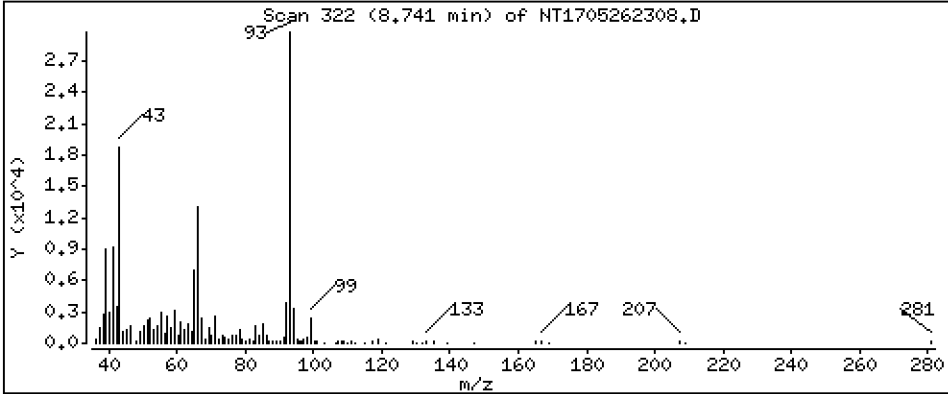
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,7147 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

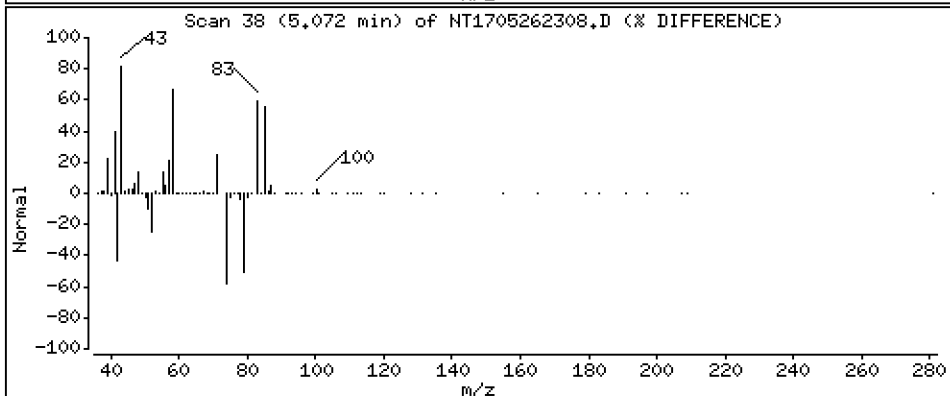
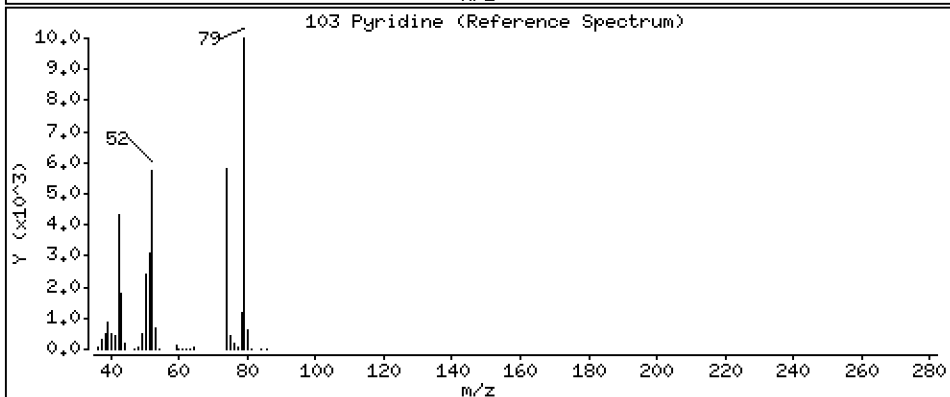
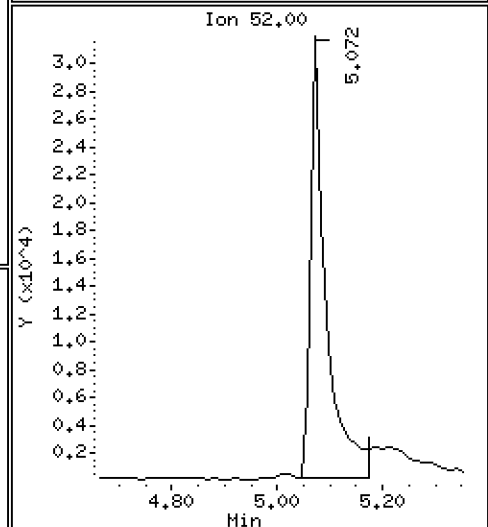
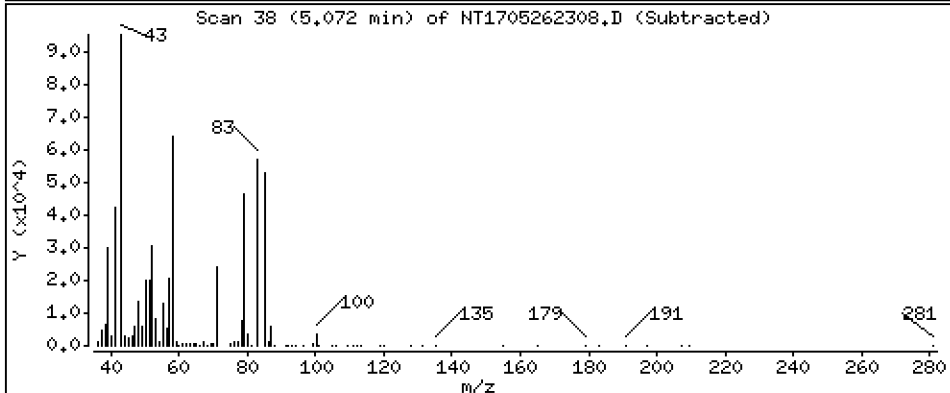
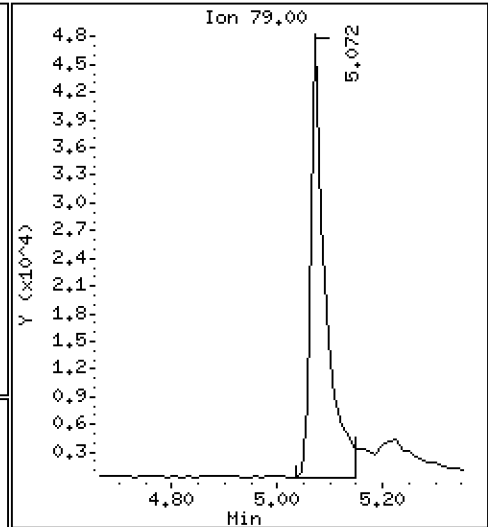
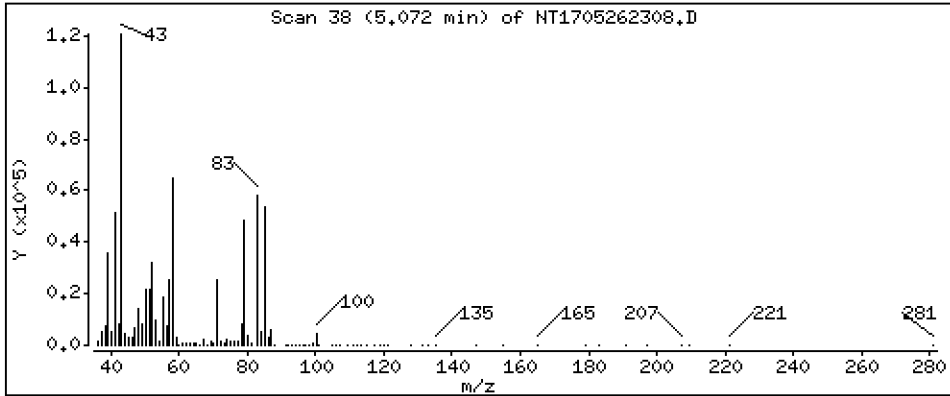
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9713 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

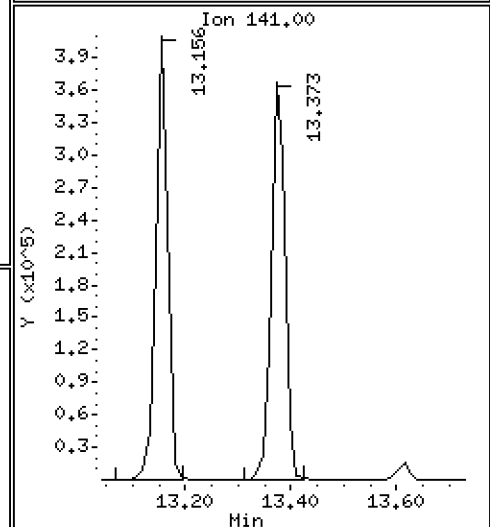
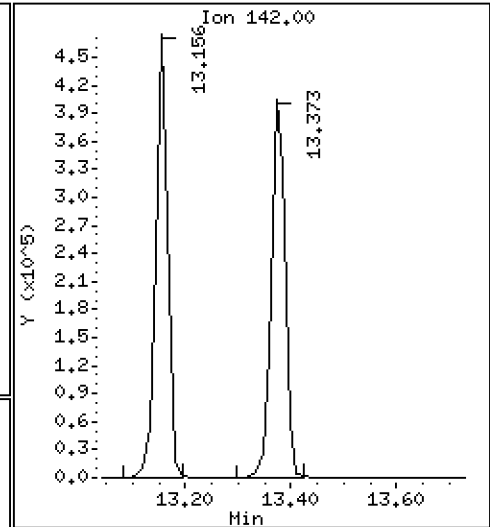
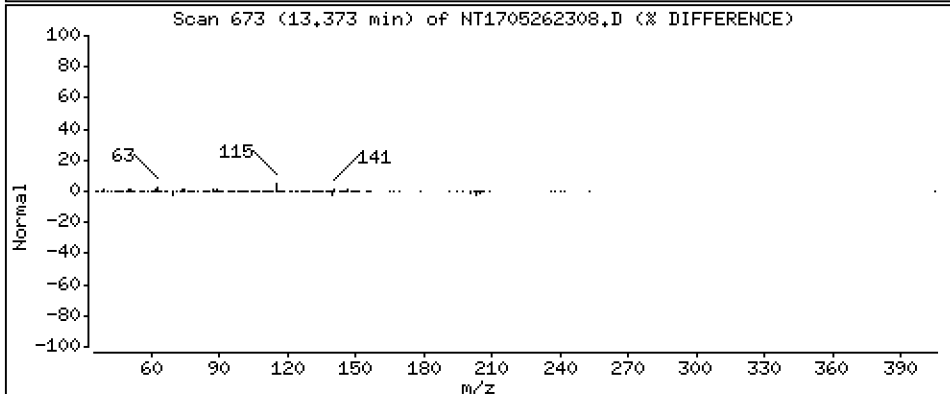
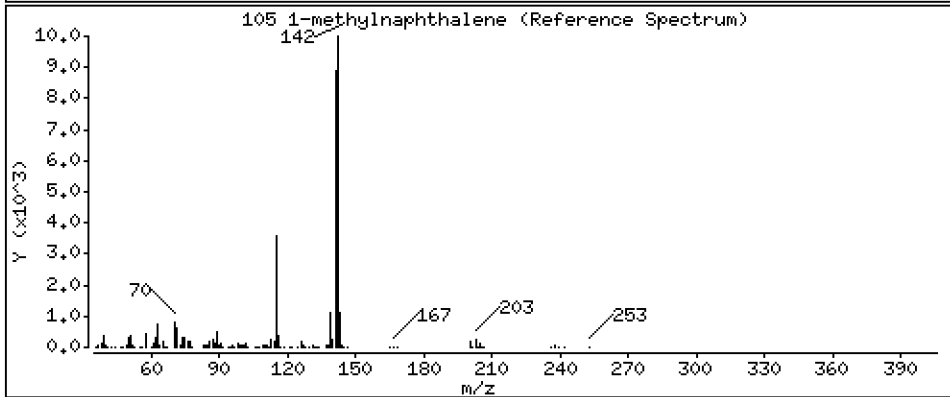
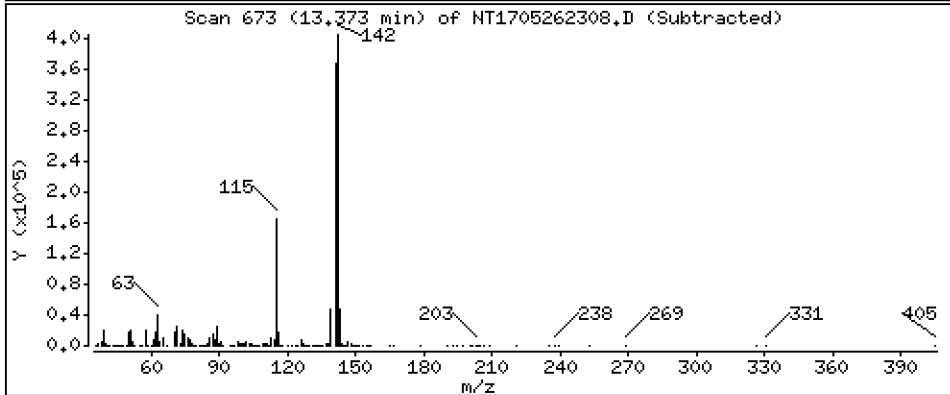
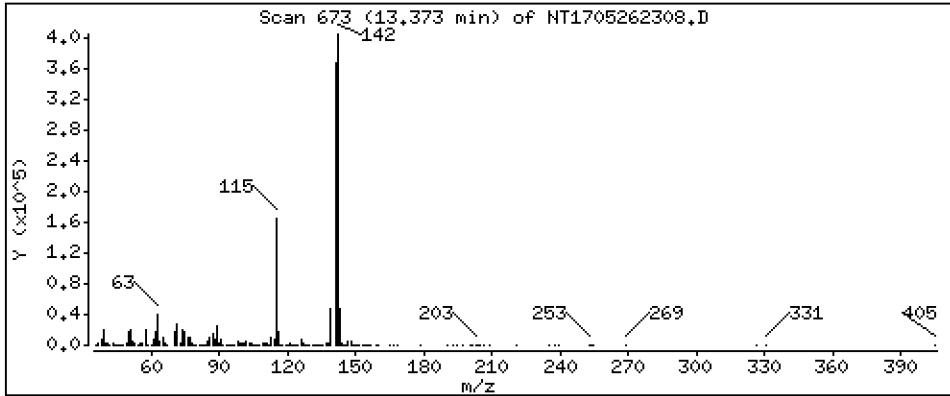
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,962 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

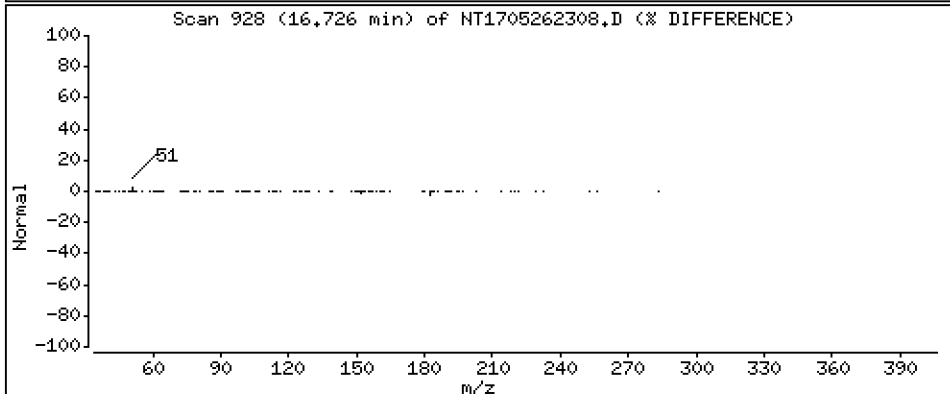
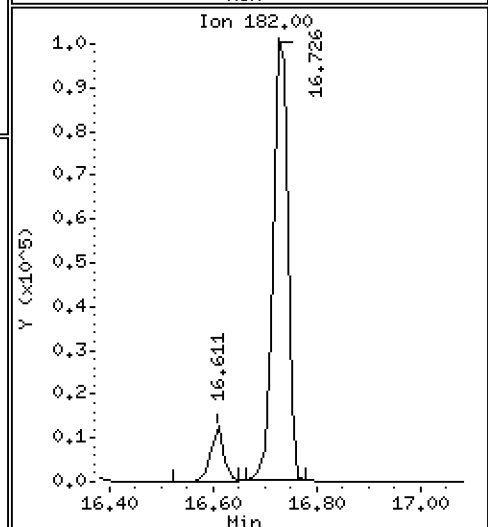
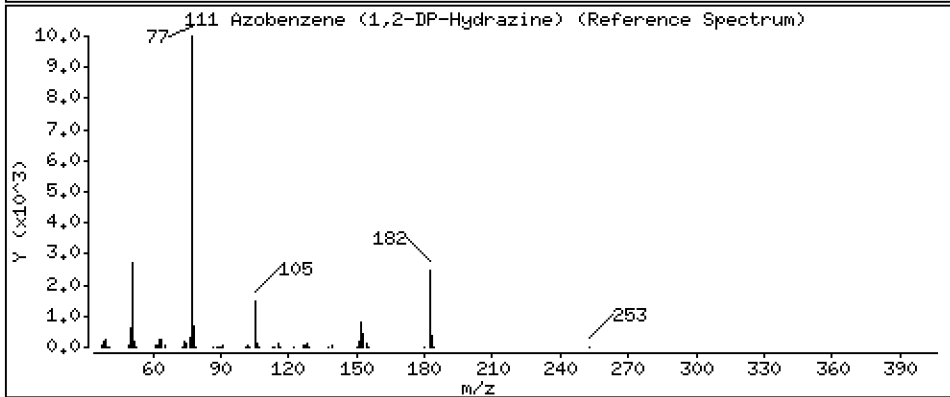
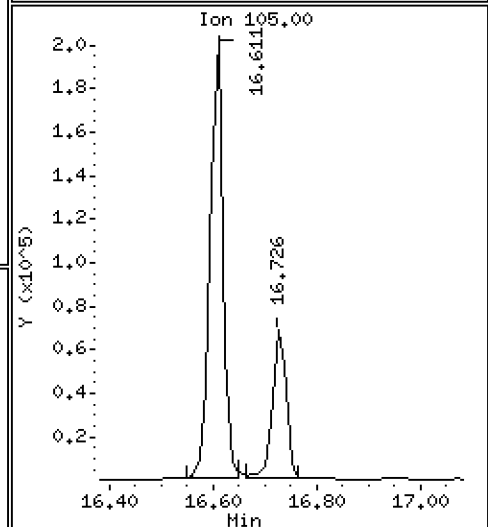
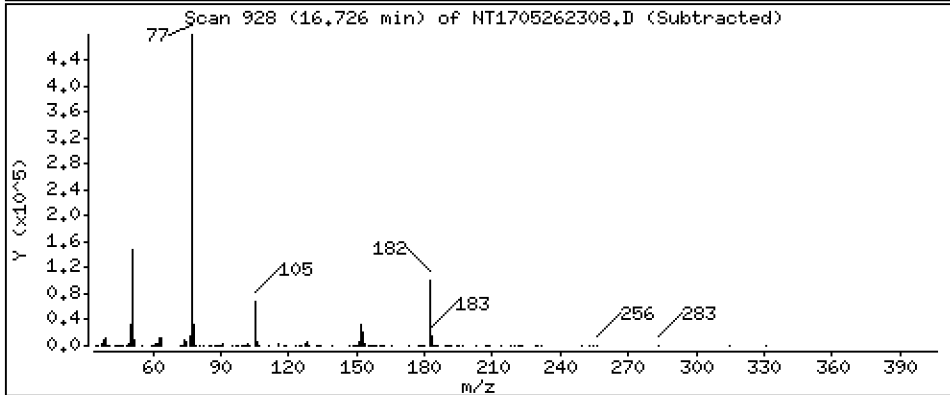
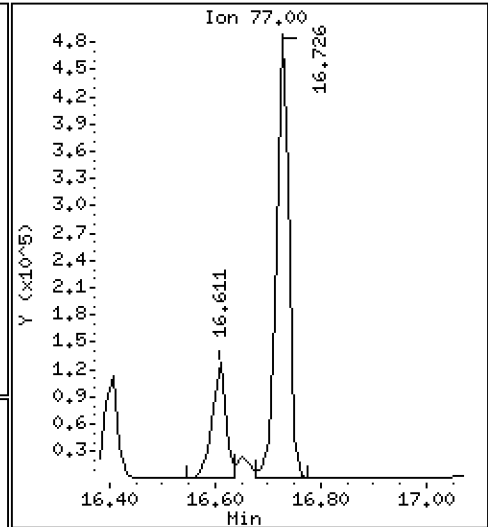
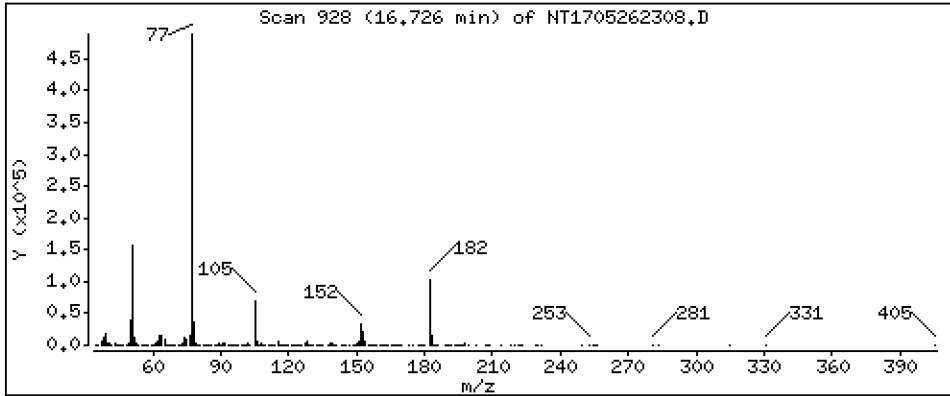
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,131 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

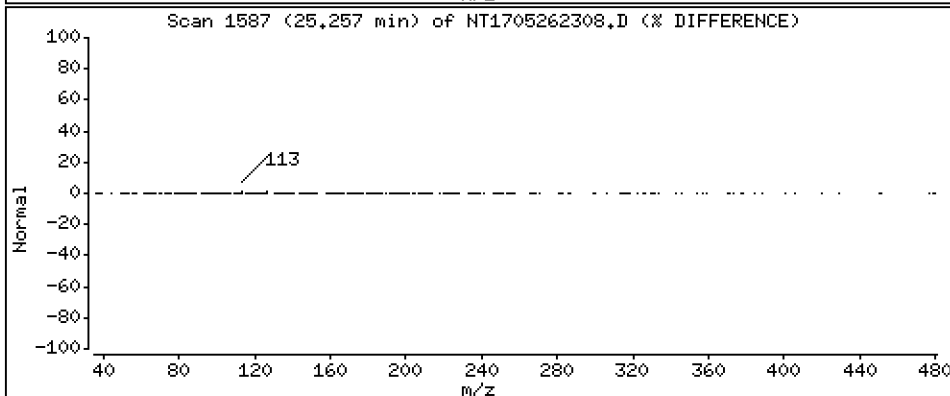
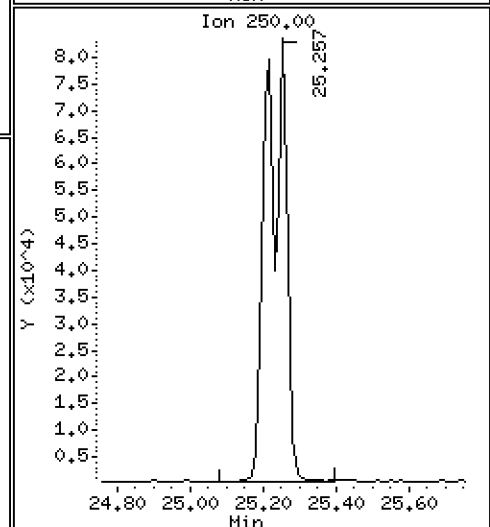
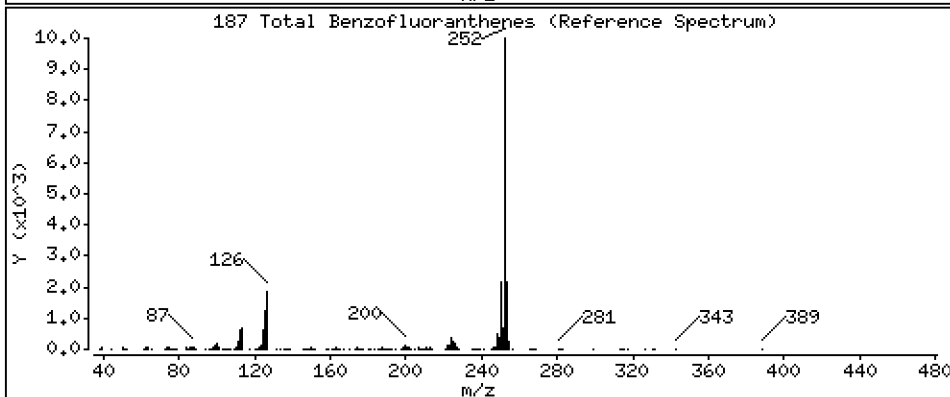
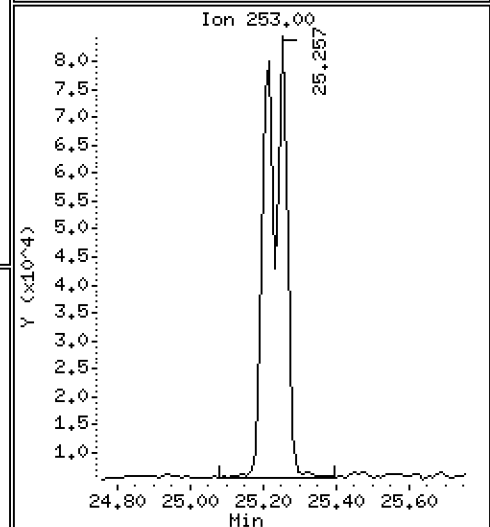
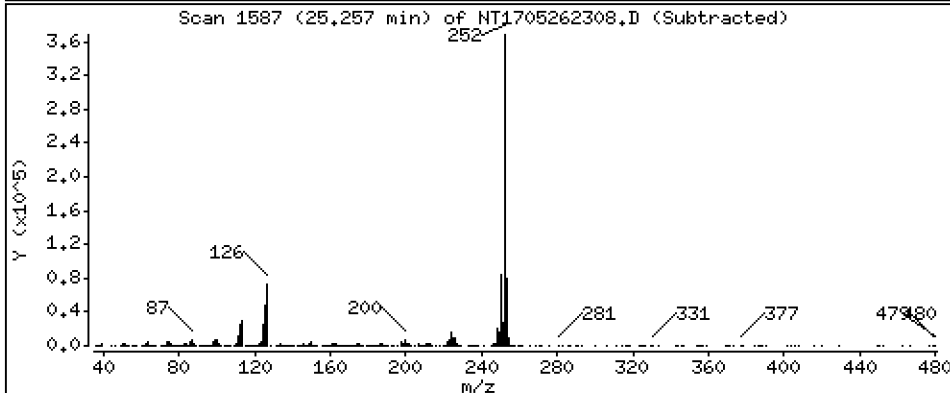
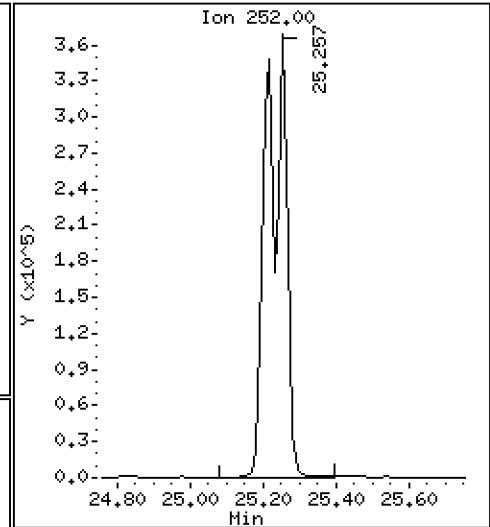
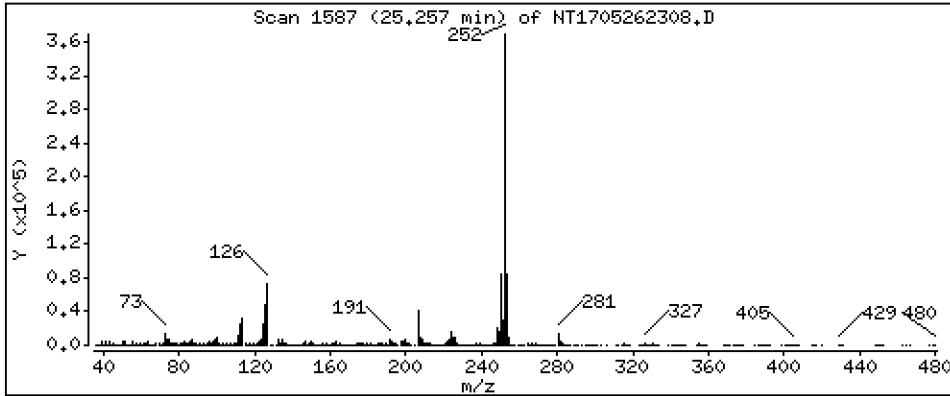
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,097 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD1

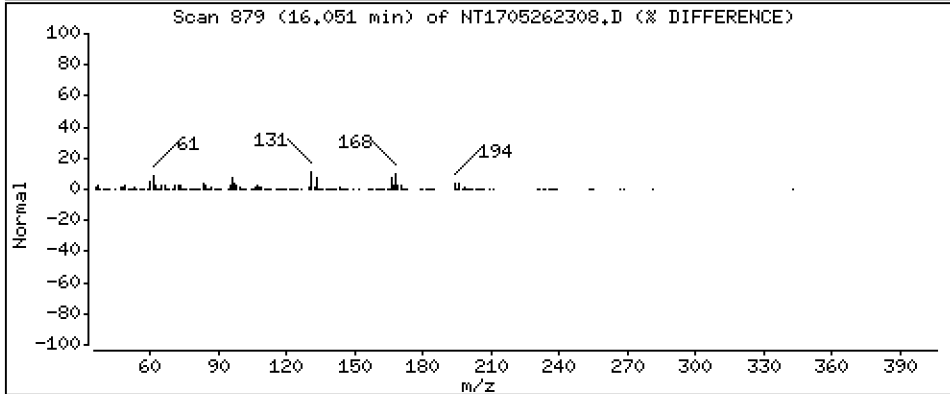
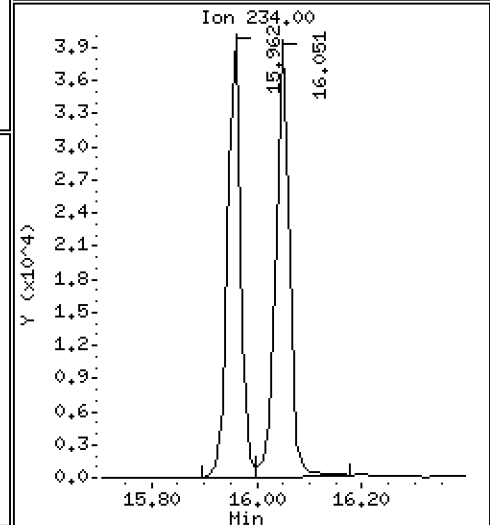
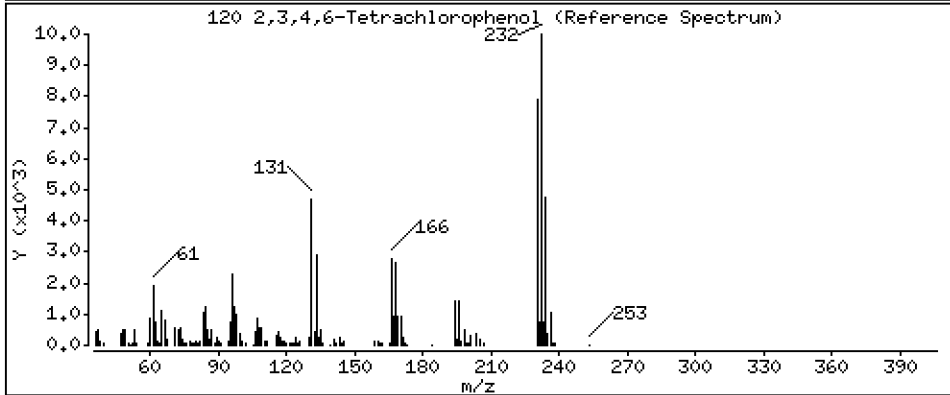
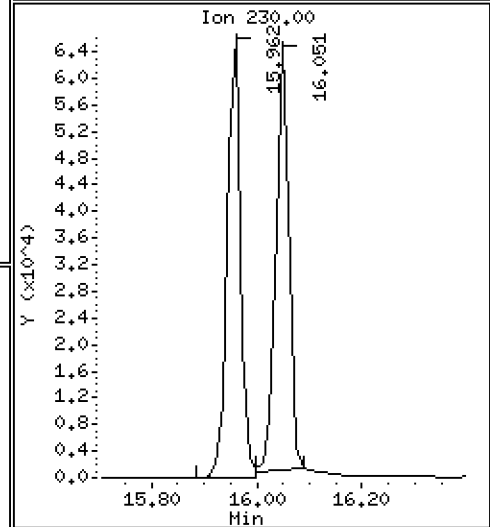
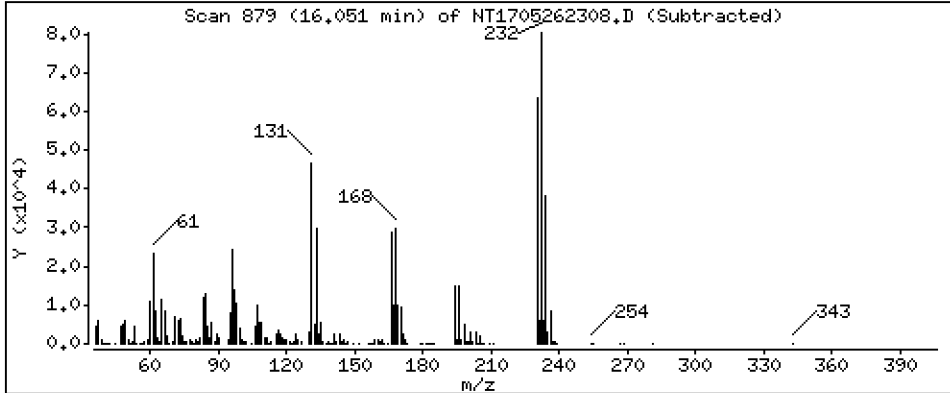
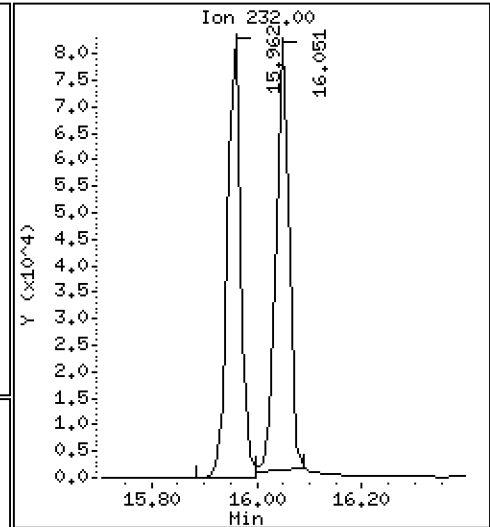
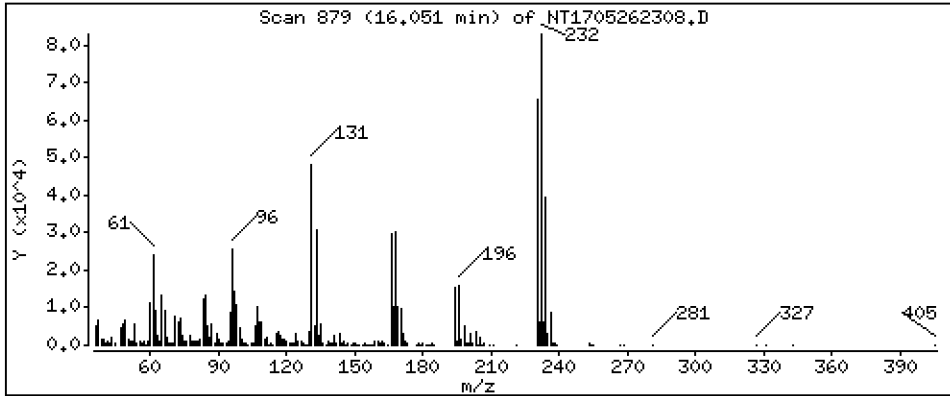
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 2,164 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262308.D
 Lab Smp Id: BLD0607-BSD1
 Inj Date : 26-MAY-2023 17:02
 Operator : VTS
 Smp Info : BLD0607-BSD1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.084	7.071	(0.765)	549216	6.12031	6.120
\$ 2 Phenol-d5	99		8.639	8.638	(0.933)	712590	6.00050	6.001
3 Phenol	94		8.651	8.651	(0.934)	486178	3.86517	3.865
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	605165	6.36193	6.362
4 Bis(2-Chloroethyl)ether	93		8.804	8.804	(0.950)	408186	4.45150	4.452
6 2-Chlorophenol	128		8.944	8.931	(0.966)	375056	3.57059	3.571
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	410360	3.86010	3.860
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	274132	4.00000	
9 1,4-Dichlorobenzene	146		9.289	9.289	(1.003)	405188	3.82162	3.822
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	270357	4.04366	4.044
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	408181	4.09537	4.095
11 Benzyl alcohol	108		9.531	9.531	(1.029)	263857	4.50554	4.506
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	134570	4.79016	4.790
13 2-Methylphenol	108		9.761	9.748	(1.054)	221853	2.39987	2.400
17 Hexachloroethane	117		10.234	10.234	(1.105)	171743	4.04938	4.049
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	166890	2.35963	2.360
15 4-Methylphenol	108		10.030	10.017	(1.083)	299243	3.17917	3.179
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	497278	4.28054	4.281
19 Nitrobenzene	77		10.387	10.387	(0.886)	482668	4.35478	4.355
20 Isophorone	82		10.822	10.834	(0.923)	742762	4.89555	4.896
21 2-Nitrophenol	139		11.001	11.013	(0.938)	259723	4.86294	4.863
22 2,4-Dimethylphenol	107		11.052	11.051	(0.942)	86878	0.83780	0.8378
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	444430	4.77949	4.779
24 Benzoic acid	105		11.320	11.307	(0.965)	1777357	25.4800	25.48
25 2,4-Dichlorophenol	162		11.460	11.460	(0.977)	913335	10.9608	10.96
26 1,2,4-Trichlorobenzene	180		11.639	11.651	(0.992)	411783	4.55009	4.550
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1020740	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	1105543	3.93849	3.938
29 4-Chloroaniline	127		11.906	11.893	(1.015)	231341	2.09080	2.091
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	226202	5.04581	5.046
31 4-Chloro-3-methylphenol	107		12.850	12.850	(1.096)	1041551	11.6086	11.61
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	764615	3.80439	3.804
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	156007	3.23429	3.234

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	633105	11.6650	11.67	
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	690394	12.0163	12.02	
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	881002	4.31110	4.311	
37 2-Chloronaphthalene	162	14.138	14.151	(0.923)	698028	4.21043	4.210	
38 2-Nitroaniline	65	14.406	14.406	(0.940)	688206	12.2572	12.26	
39 Dimethylphthalate	163	14.827	14.826	(0.968)	810489	4.54098	4.541	
40 Acenaphthylene	152	15.018	15.018	(0.980)	948008	3.60089	3.601	
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	527392	12.6209	12.62	
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	518733	4.00000		
43 3-Nitroaniline	138	15.260	15.247	(0.996)	146130	3.77567	3.776	
44 Acenaphthene	153	15.388	15.388	(1.004)	680369	4.13421	4.134	
45 2,4-Dinitrophenol	184	15.464	15.464	(1.009)	582121	22.1412	22.14	
46 Dibenzofuran	168	15.719	15.719	(1.026)	952702	4.14771	4.148	
47 4-Nitrophenol	109	15.579	15.579	(1.017)	311619	12.1218	12.12	
48 2,4-Dinitrotoluene	165	15.770	15.770	(1.029)	688674	12.5898	12.59	
50 Diethylphthalate	149	16.267	16.267	(1.062)	1044308	5.99963	6.000	
49 Fluorene	166	16.420	16.420	(1.072)	989672	4.53201	4.532	
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	453201	4.51415	4.514	
52 4-Nitroaniline	138	16.522	16.509	(1.078)	210375	5.74266	5.743	
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	743546	22.0626	22.06	
54 N-Nitrosodiphenylamine	169	16.649	16.662	(0.908)	279914	2.36618	2.366	
§ 55 2,4,6-Tribromophenol	330	16.954	16.954	(1.106)	126211	5.57791	5.578	
56 4-Bromophenyl-phenylether	248	17.400	17.400	(0.949)	188489	4.54753	4.548	
57 Hexachlorobenzene	284	17.718	17.731	(0.966)	187840	4.44753	4.448	
58 Pentachlorophenol	266	18.088	18.088	(0.986)	294333	11.3809	11.38	
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	844493	4.00000		
60 Phenanthrene	178	18.394	18.394	(1.003)	1011338	4.10428	4.104	
61 Anthracene	178	18.484	18.483	(1.008)	694872	3.00367	3.004	
62 Carbazole	167	18.815	18.815	(1.026)	506371	3.48238	3.482	
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	1305362	4.67293	4.673	
64 Fluoranthene	202	20.753	20.753	(0.889)	1065487	4.55972	4.560	
65 Pyrene	202	21.174	21.174	(0.907)	1057712	4.46515	4.465	
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	811913	4.82148	4.821	
67 Butylbenzylphthalate	149	22.360	22.360	(0.958)	521085	4.91494	4.915	
68 Benzo(a)anthracene	228	23.317	23.317	(0.999)	789563	4.29231	4.292	
* 69 Chrysene-d12	240	23.343	23.355	(1.000)	499547	4.00000		
70 3,3'-Dichlorobenzidine	252	23.266	23.266	(0.997)	155321	4.29984	4.300	
71 Chrysene	228	23.394	23.394	(1.002)	751876	4.34378	4.344	
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	723524	4.72498	4.725	
* 134 Di-n-octylphthalate-d4	153	24.351	24.363	(1.000)	1058373	4.00000		
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	1236144	4.60776	4.608	
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	738598	4.36126	4.361	
75 Benzo(k)fluoranthene	252	25.256	25.256	(0.972)	760770	4.75473	4.755	
76 Benzo(a)pyrene	252	25.881	25.881	(0.996)	451573	3.38492	3.385	
* 77 Perylene-d12	264	25.996	25.996	(1.000)	427148	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	28.703	28.716	(1.104)	709073	4.58230	4.582	
79 Dibenzo(a,h)anthracene	278	28.716	28.729	(1.105)	592757	4.56419	4.564	
80 Benzo(g,h,i)perylene	276	29.509	29.521	(1.135)	579570	4.53772	4.538	
90 N-Nitrosodimethylamine	74	4.995	4.982	(0.539)	330905	5.52816	5.528	
91 Aniline	93	8.740	8.728	(0.944)	75331	0.71467	0.7147	
93 Benzidine	184	Compound Not Detected.						
103 Pyridine	79	5.071	5.007	(0.547)	92215	0.97126	0.9713	
105 1-methylnaphthalene	142	13.373	13.385	(1.140)	738762	3.96221	3.962	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.725	16.725	(1.091)	839417	4.13132	4.131	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.256	25.256	(0.972)	1383033	9.09749	9.097
120 2,3,4,6-Tetrachlorophenol	232	16.050	16.050	(1.047)	140531	2.16410	2.164

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262308.D Calibration Time: 13:16
 Lab Smp Id: BLD0607-BSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	274132	-9.68
27 Naphthalene-d8	1140476	570238	2280952	1020740	-10.50
42 Acenaphthene-d10	622461	311231	1244922	518733	-16.66
59 Phenanthrene-d10	1074054	537027	2148108	844493	-21.37
69 Chrysene-d12	723807	361904	1447614	499547	-30.98
134 Di-n-octylphthala	1524055	762028	3048110	1058373	-30.56
77 Perylene-d12	666992	333496	1333984	427148	-35.96

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.34	-0.05
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262308.D

Lab ID: BLD0607-BSD1
nt17.i, ABN.m, 26-MAY-2023 17:02

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.547	0.541	0.0069	Pyridine

RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



STANDARD REFERENCE MATERIAL RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0607-SRM1

Batch: BLD0607

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/26/2023 18:56

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Phenol	2660.0	2180	43.9	200		81.9	26 - 174
4-Methylphenol	6617.0	5220	73.9	200		78.9	40 - 160
Naphthalene	4458.0	4200	42.4	200		94.3	25 - 175
Acenaphthylene	1948.0	1400	62.4	200		71.7	37 - 167
Dibenzofuran	6130.0	5490	141	200		89.6	45 - 155
Fluorene	3724.0	3330	146	200		89.4	44 - 156
Phenanthrene	5052.0	4160	87.2	200		82.3	46 - 154
Anthracene	2866.0	1650	71.9	200		57.6	42 - 158
Fluoranthene	2497.0	1590	60.9	200		63.8	39 - 161
Pyrene	2964.0	2040	56.8	200		68.7	38 - 162
Butylbenzylphthalate	3511.0	2630	94.1	200		74.9	36 - 164
Benzo(a)anthracene	5751.0	4670	59.6	200		81.1	49 - 151
Chrysene	1477.0	1170	60.6	200		79.2	45 - 155
bis(2-Ethylhexyl)phthalate	2905.0	1840	54.6	500		63.2	26 - 174
Benzofluoranthenes, Total	6534.0	4660	100	400		71.4	40 - 160
Benzo(a)pyrene	5902.0	3360	42.3	200		57.0	43 - 157
Indeno(1,2,3-cd)pyrene	3914.0	2170	147	200		55.3	22 - 178
Dibenzo(a,h)anthracene	3420.0	2070	172	200		60.6	37 - 163
Benzo(g,h,i)perylene	1380.0	630	136	200		45.6	35 - 165

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262311.D

Date: 26-May-2023 18:56

Client ID:

Sample Info: BLD0607-SRM1

Page 1

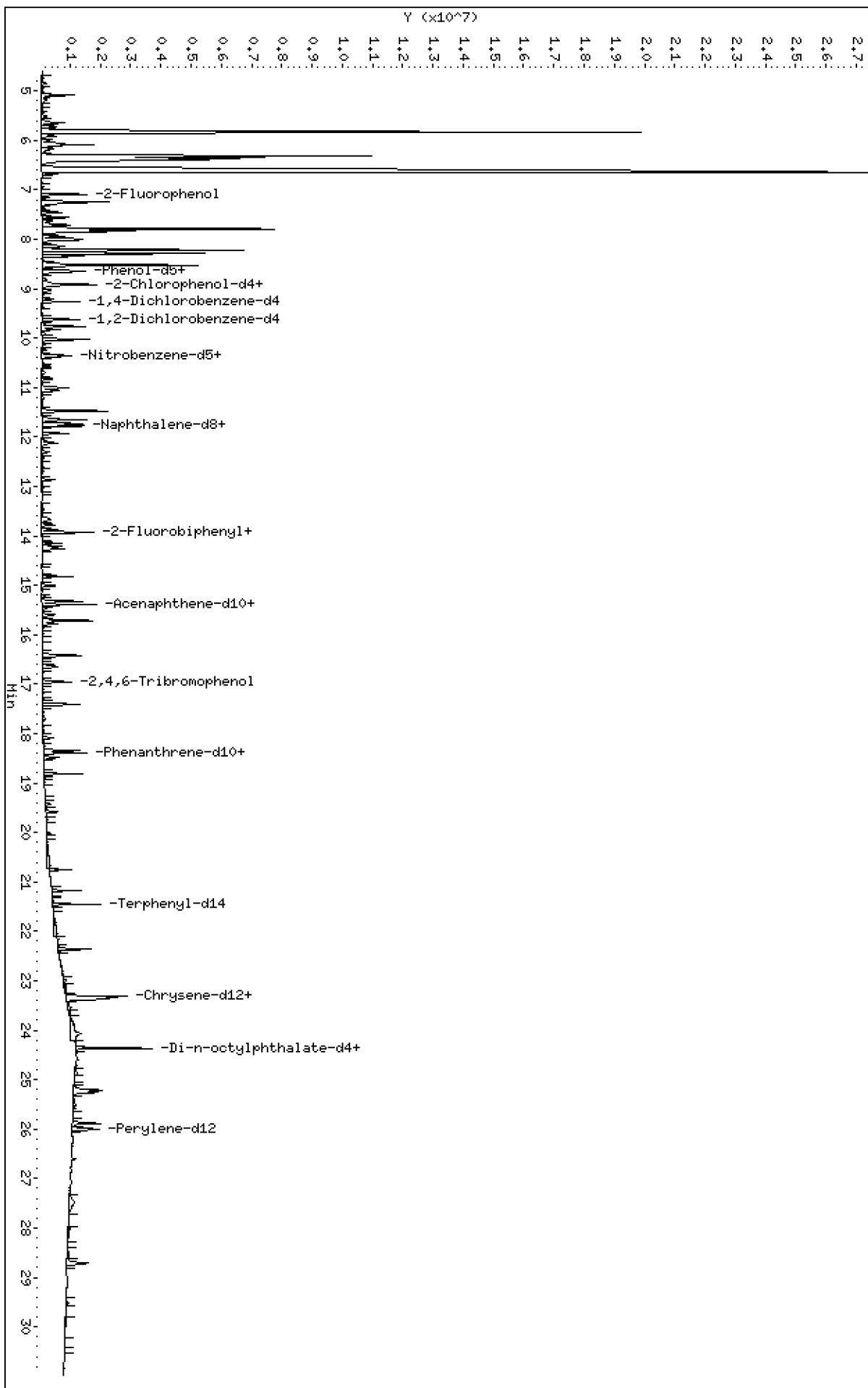
Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

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Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

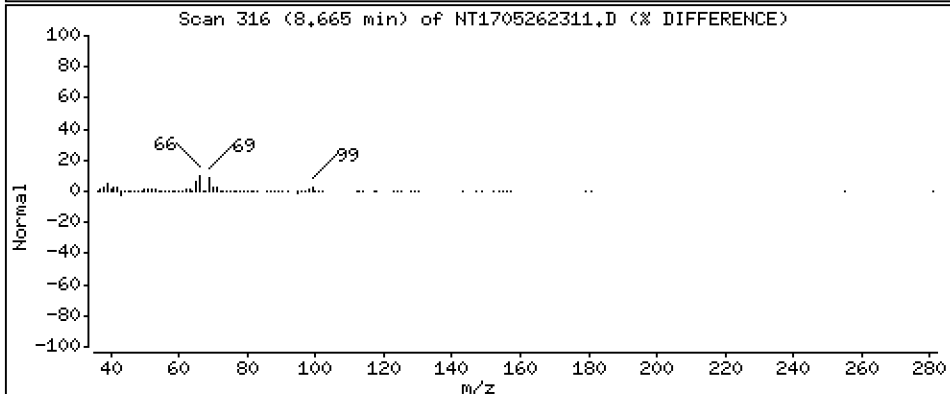
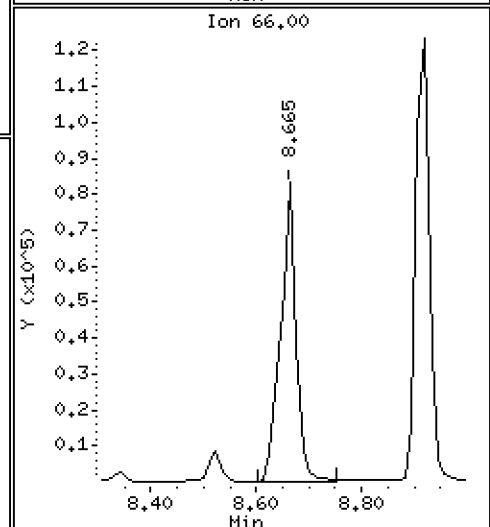
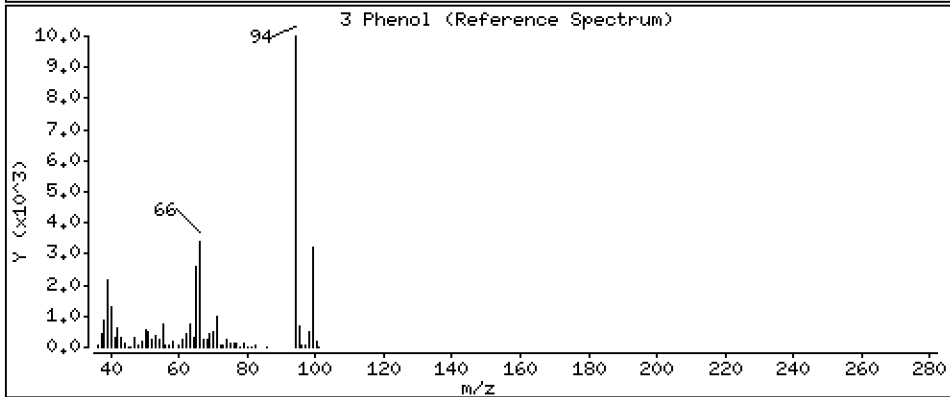
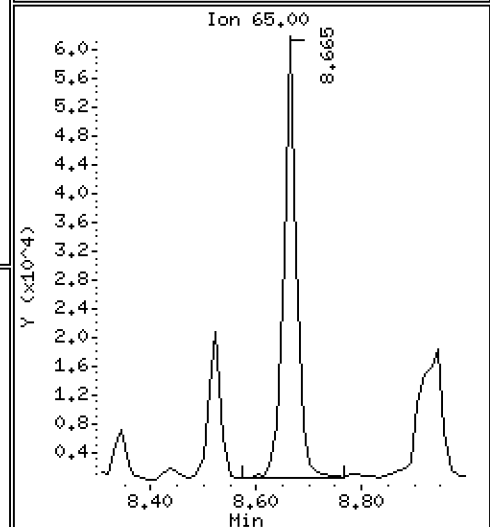
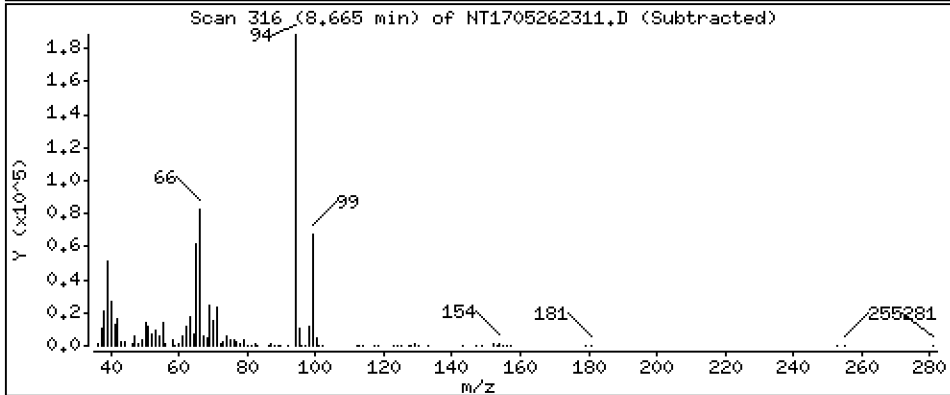
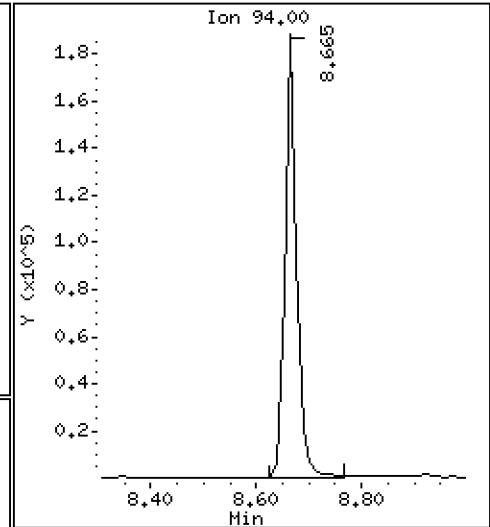
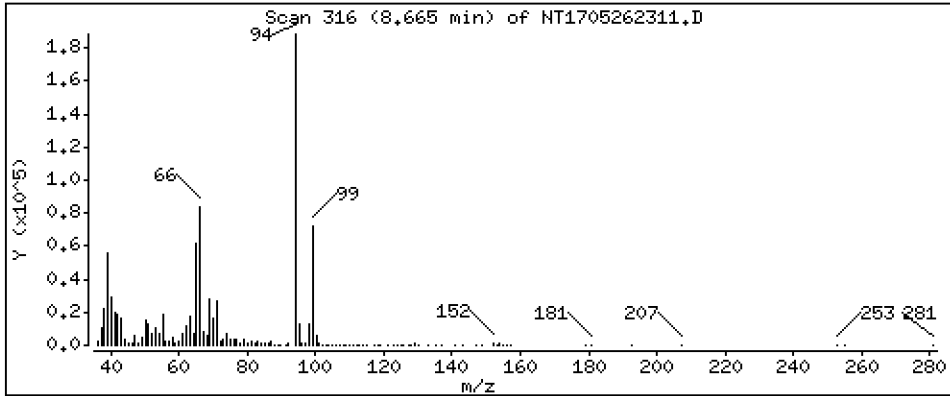
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,178 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

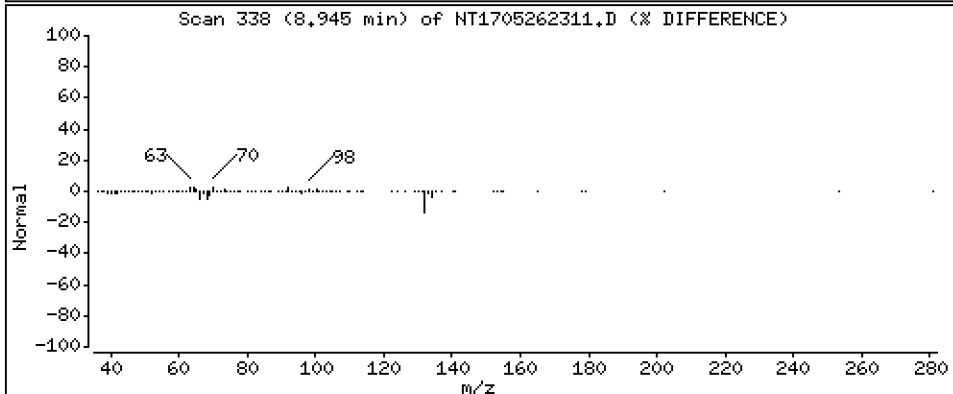
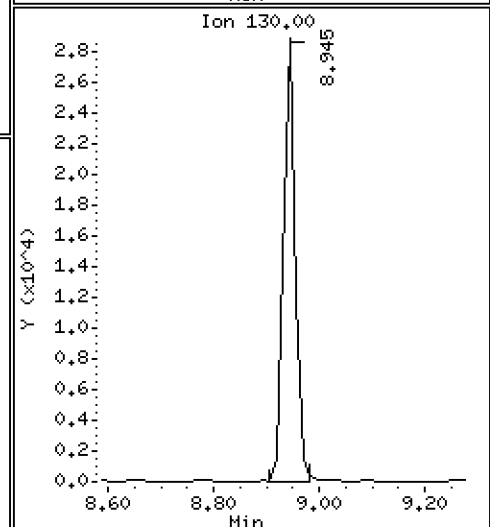
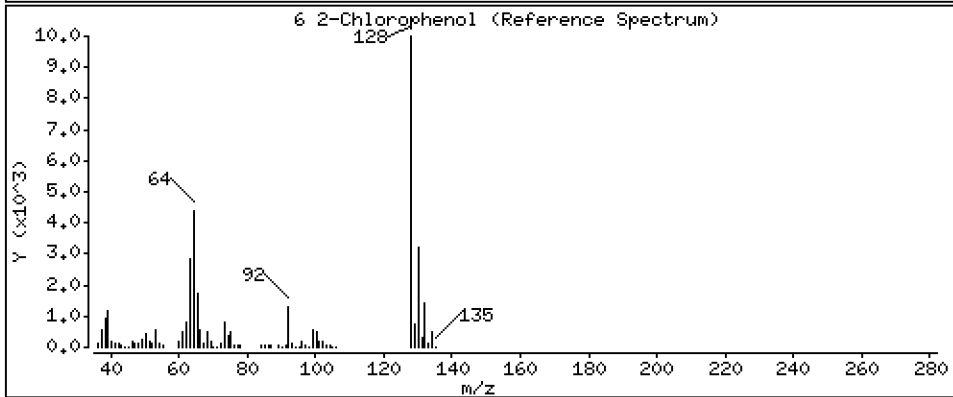
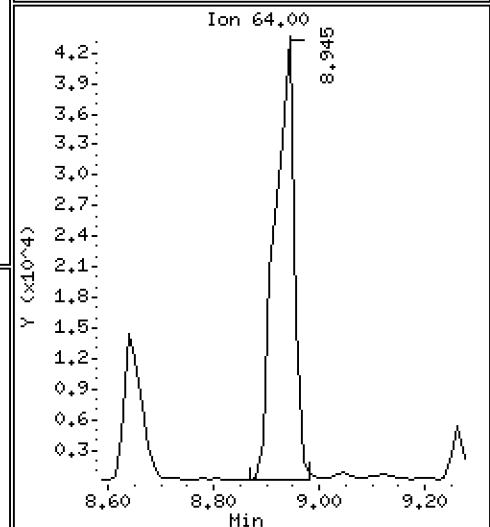
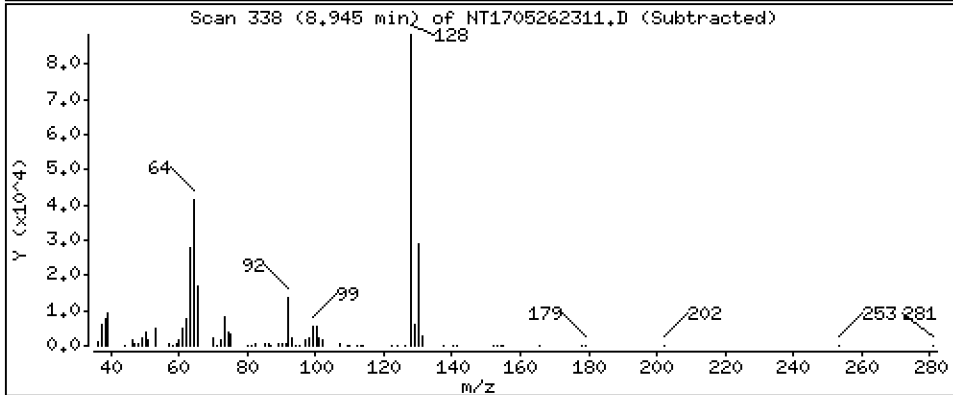
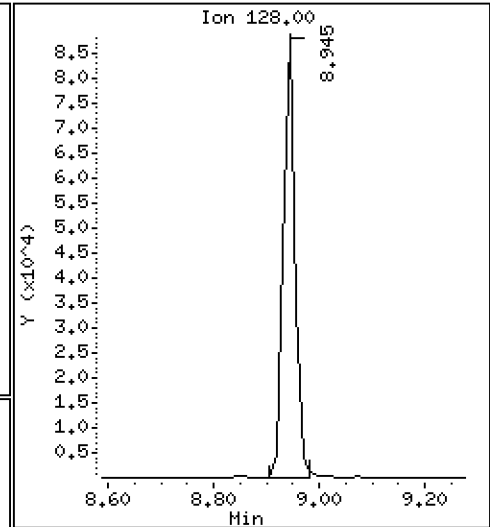
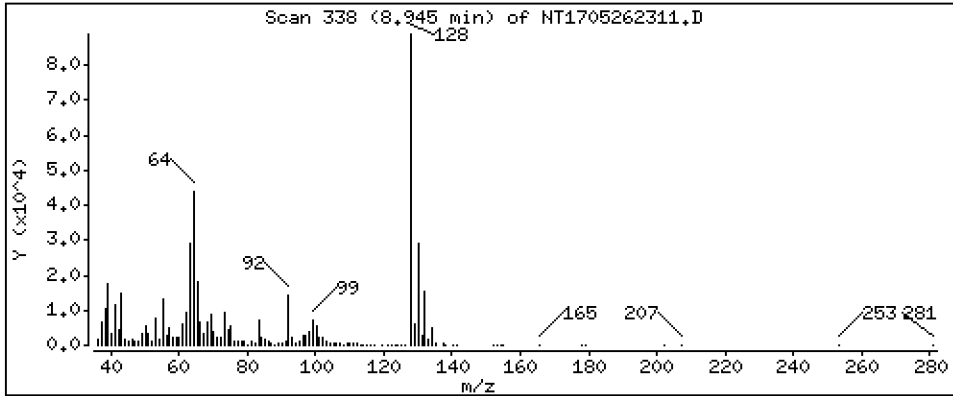
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 1,166 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

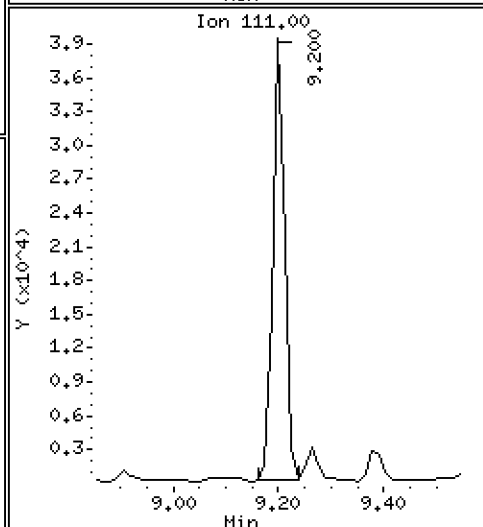
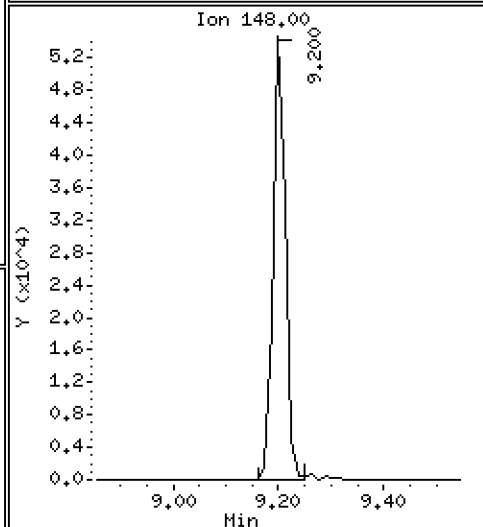
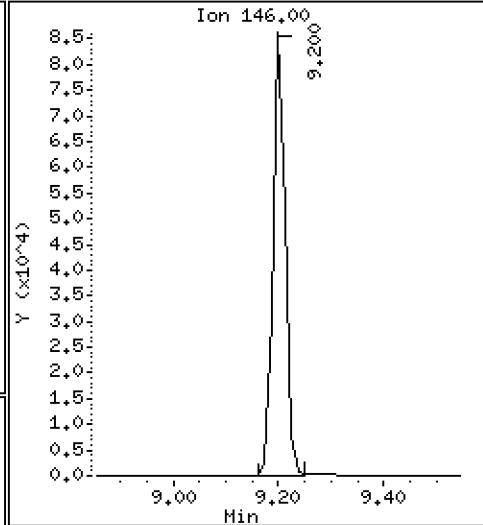
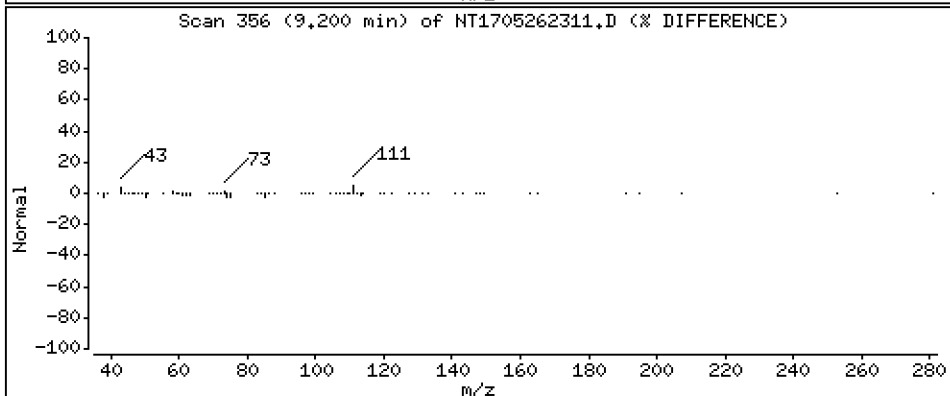
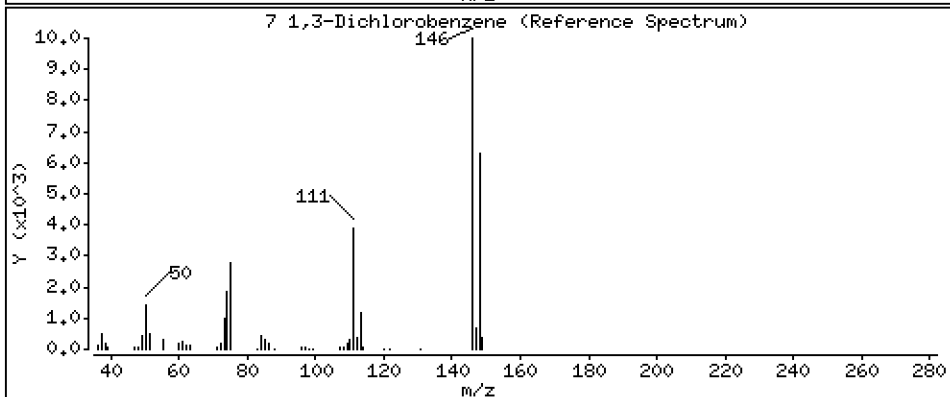
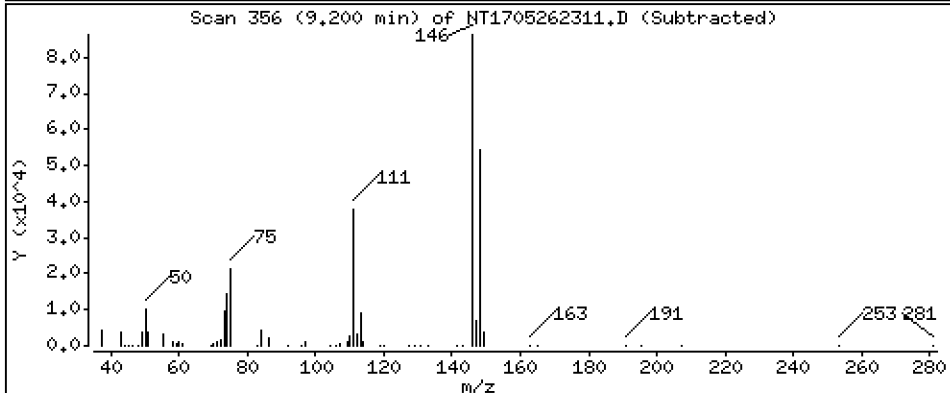
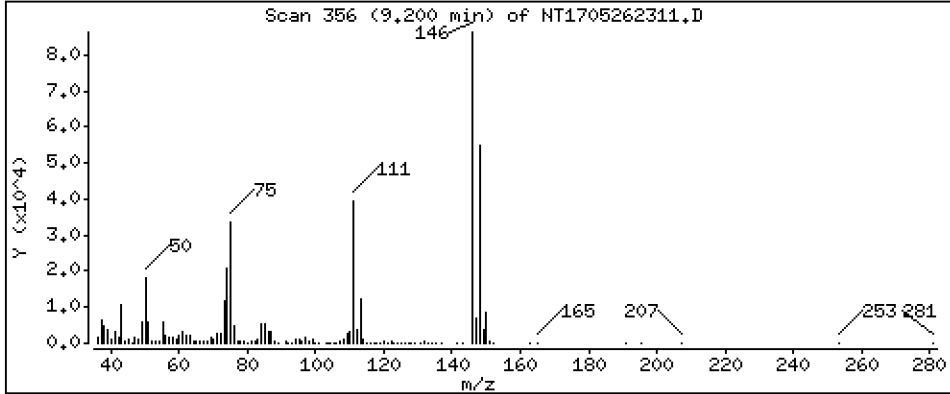
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1.171 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

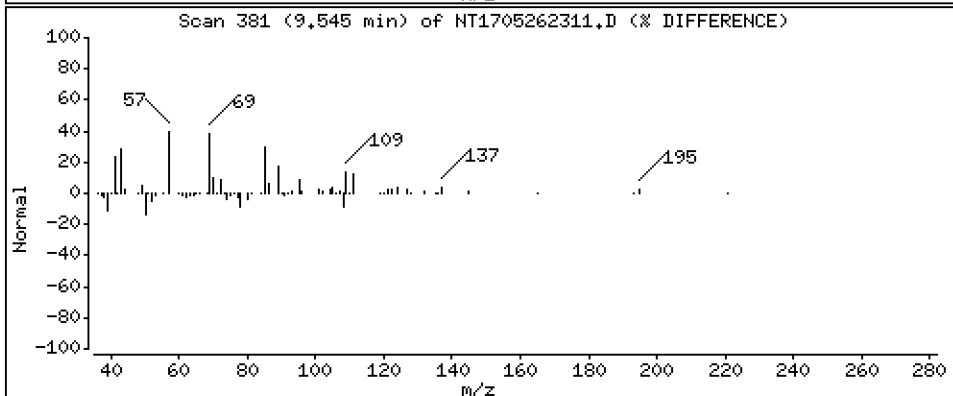
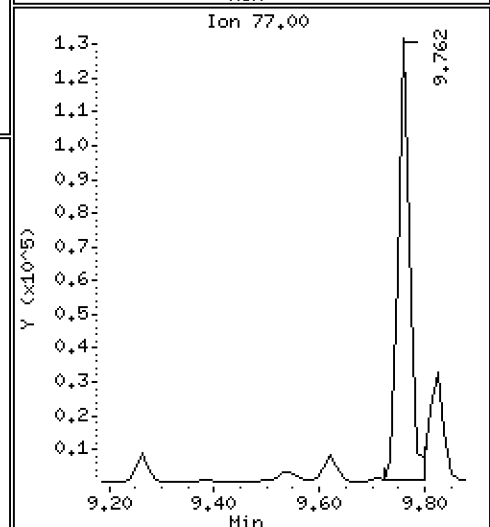
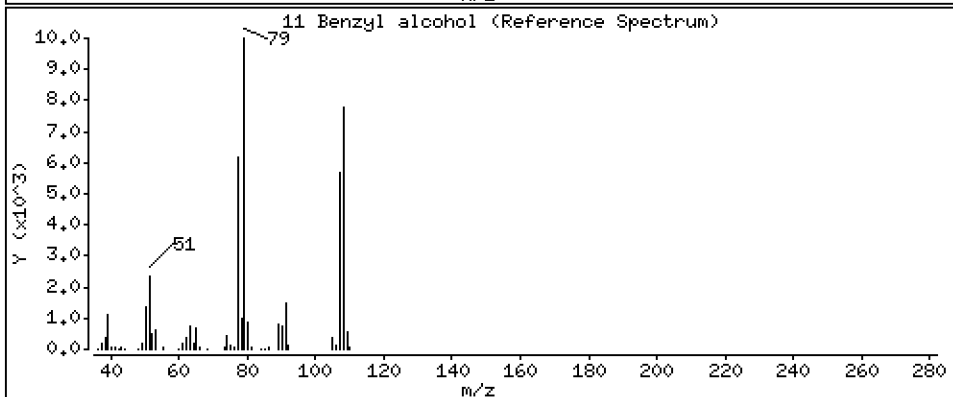
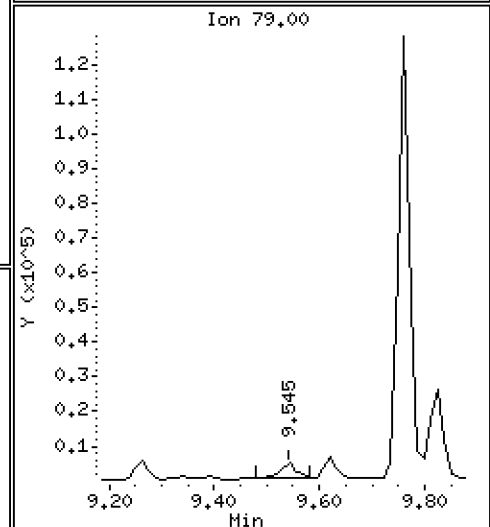
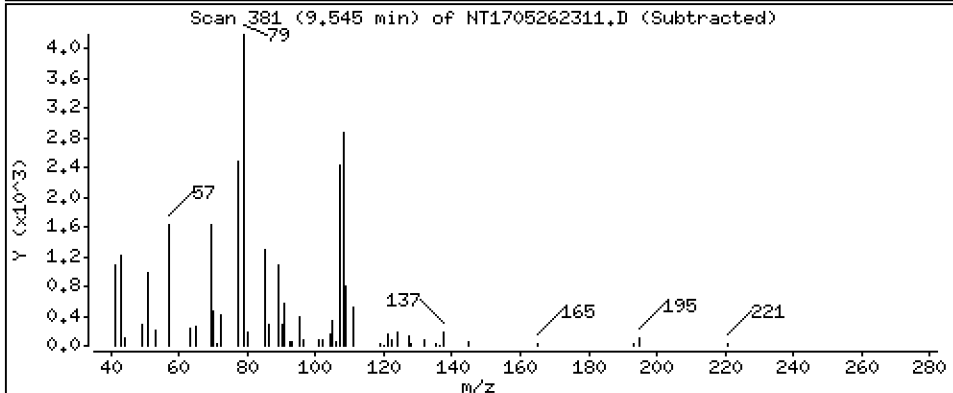
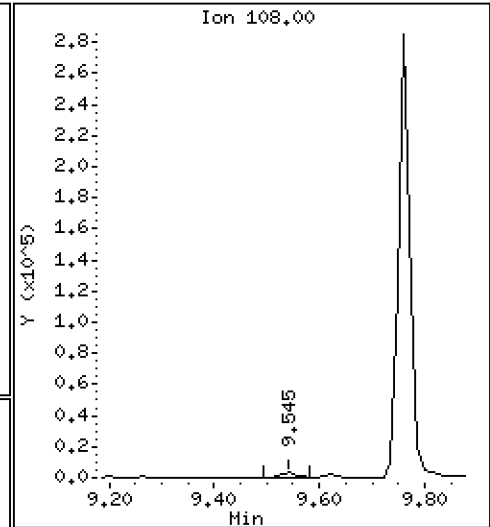
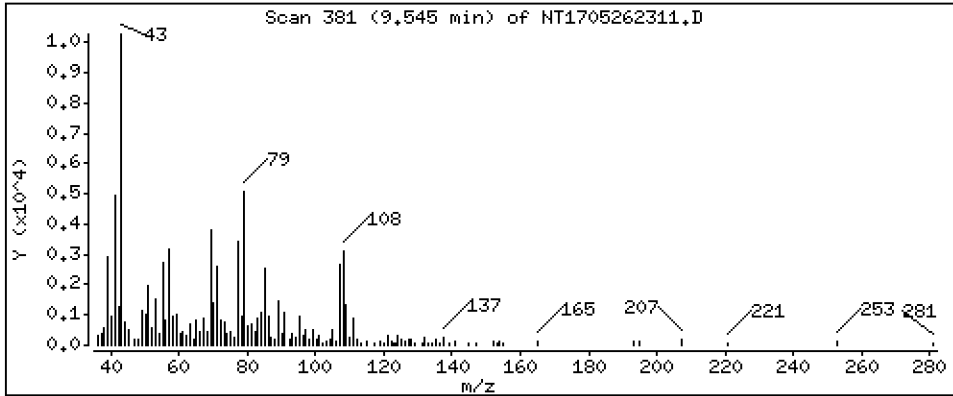
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,08820 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

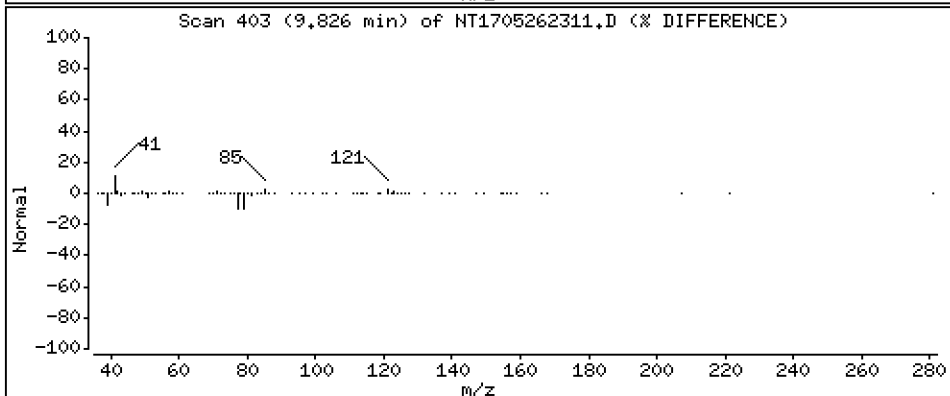
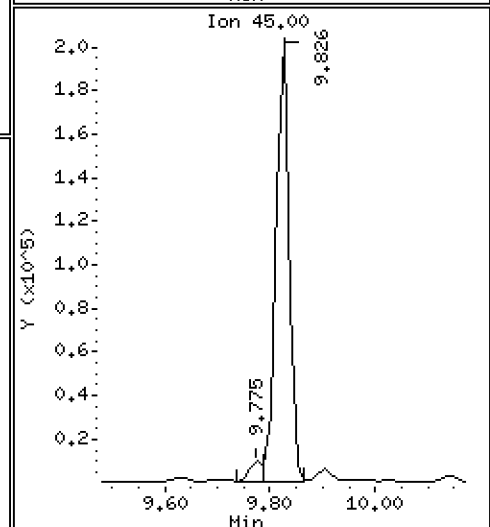
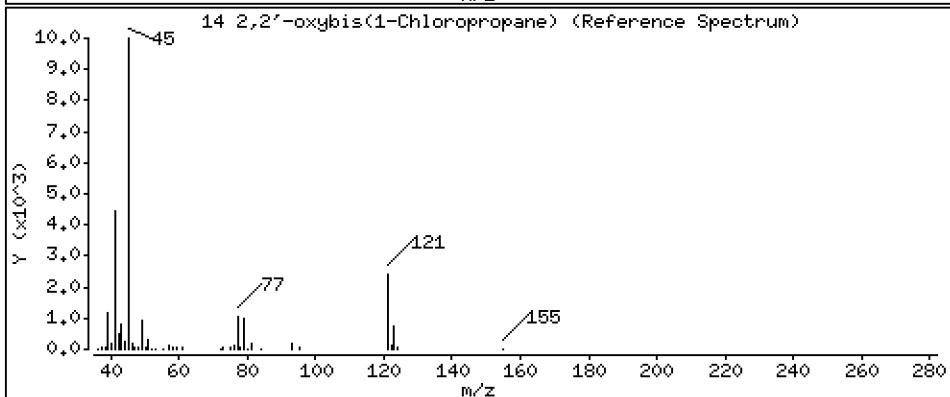
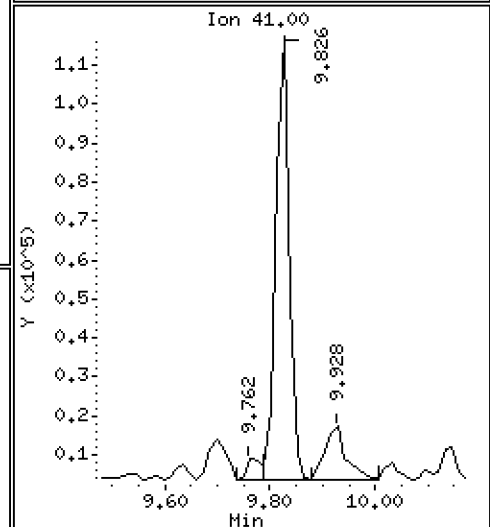
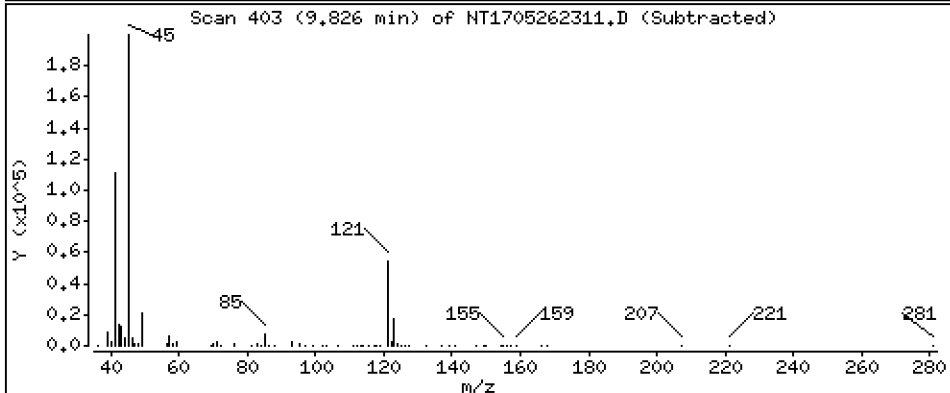
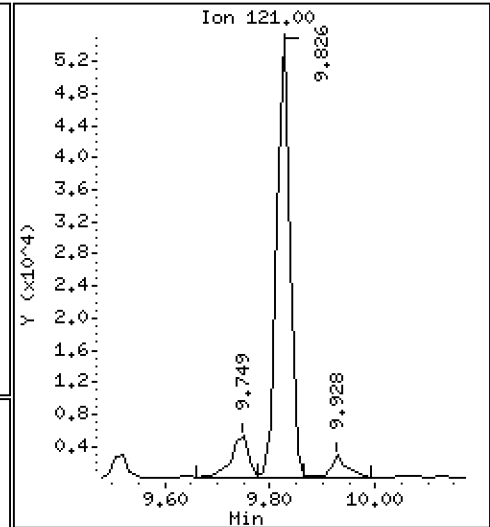
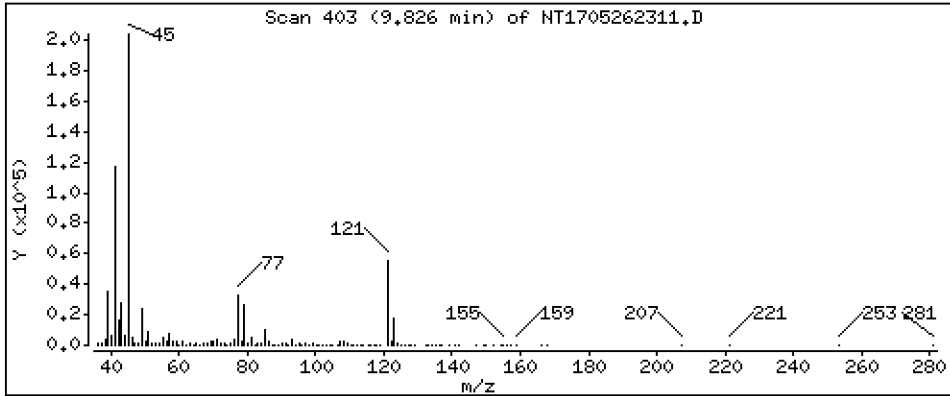
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 3,122 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

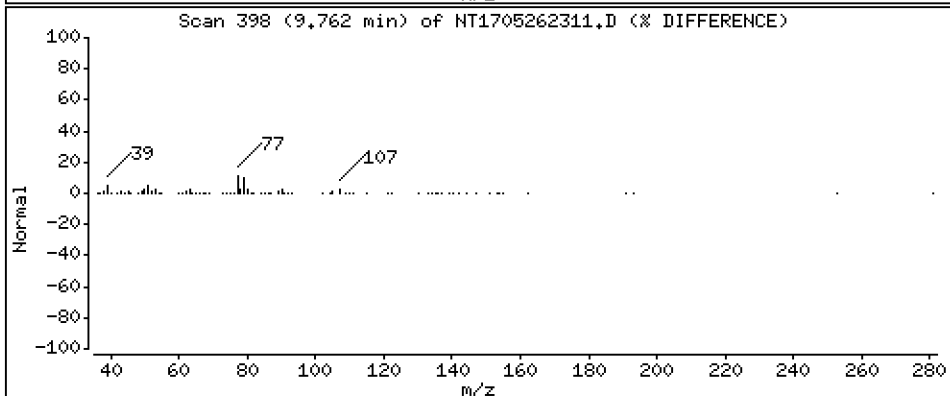
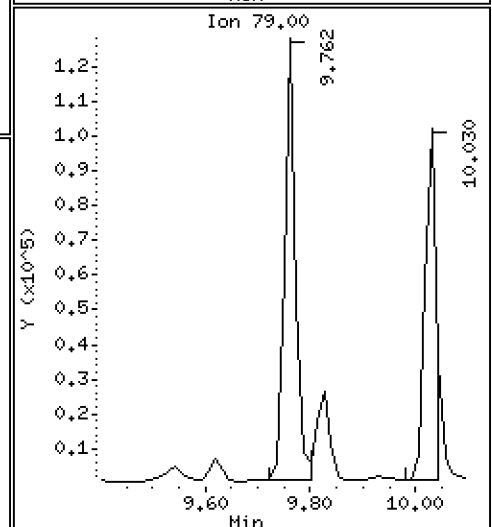
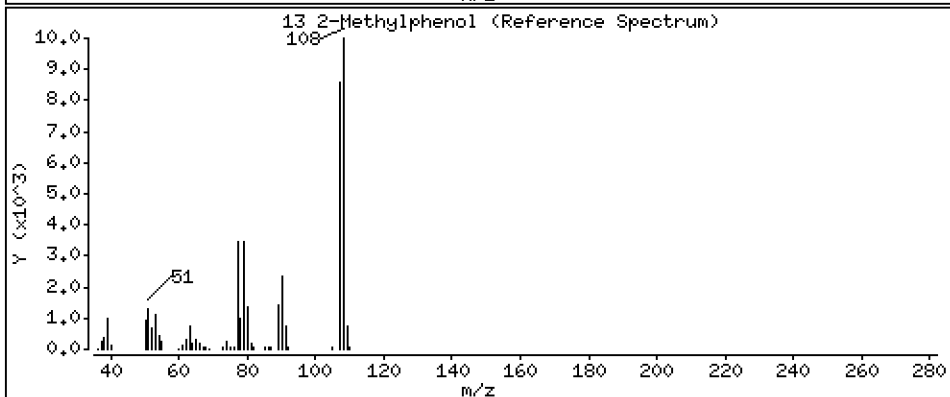
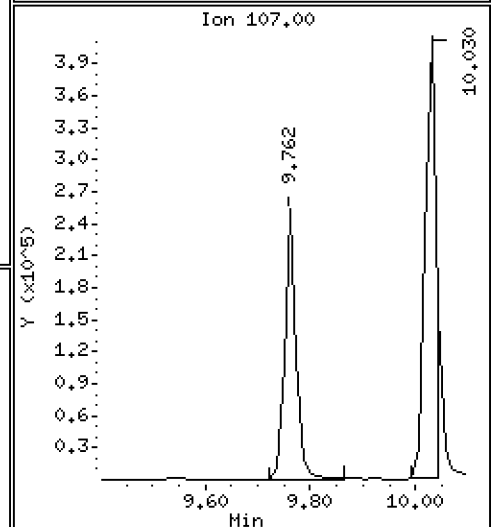
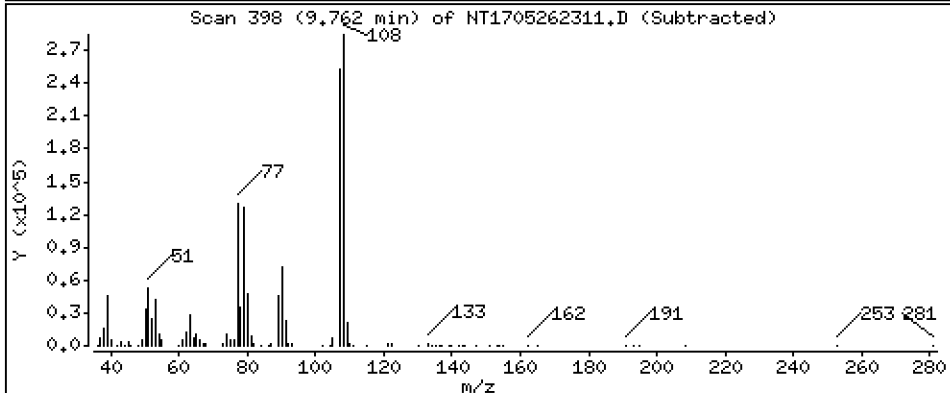
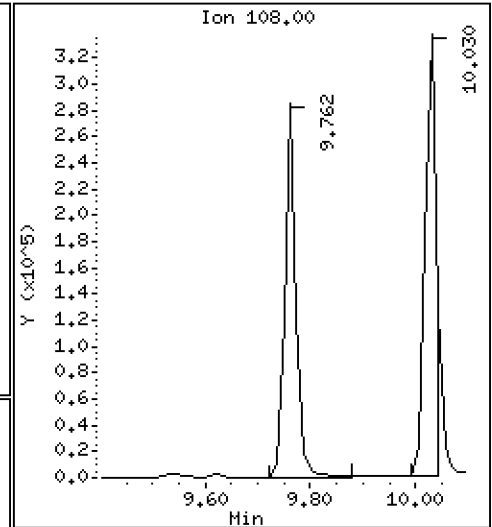
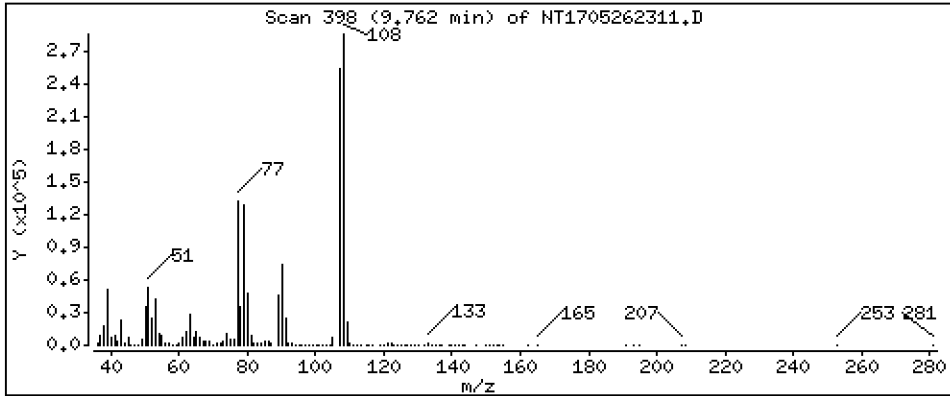
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.241 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

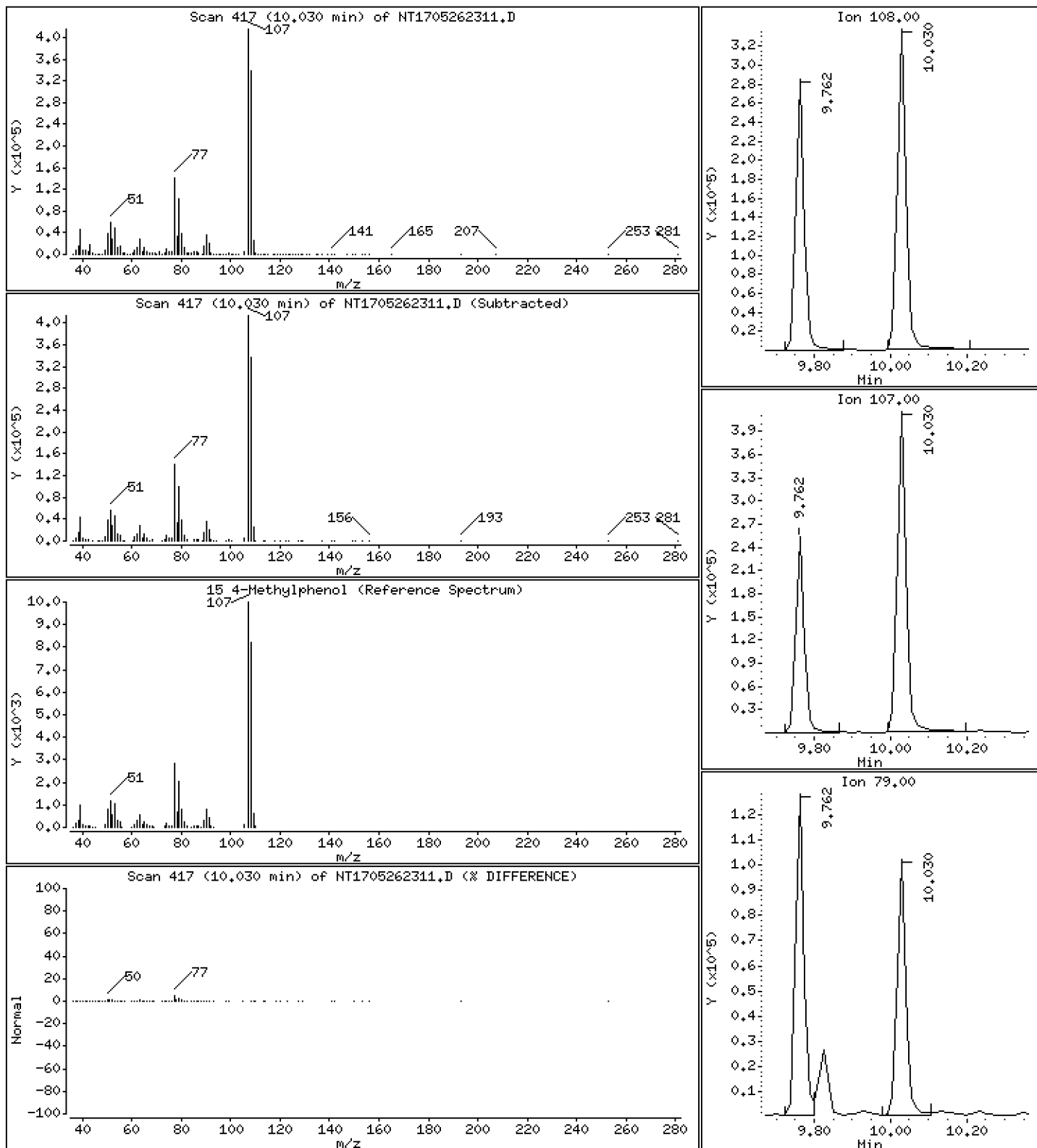
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 5,221 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

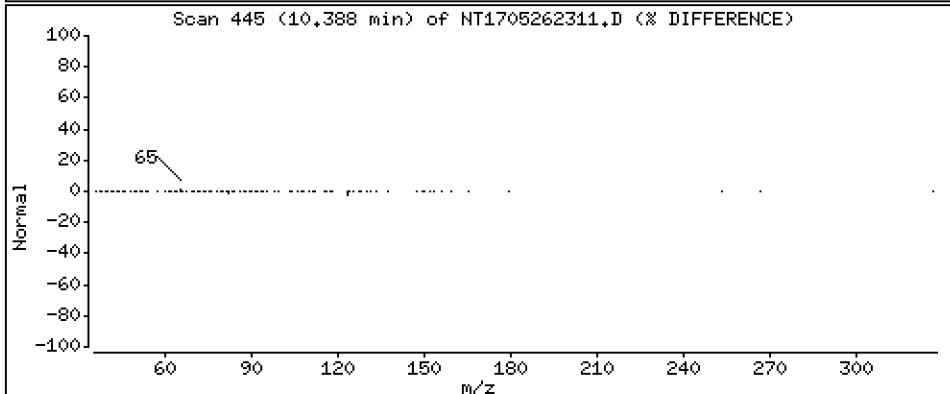
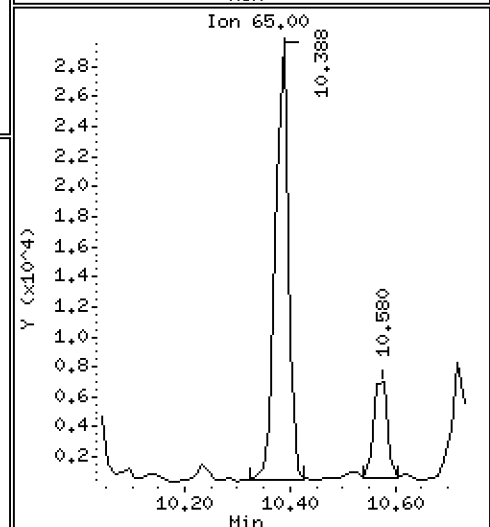
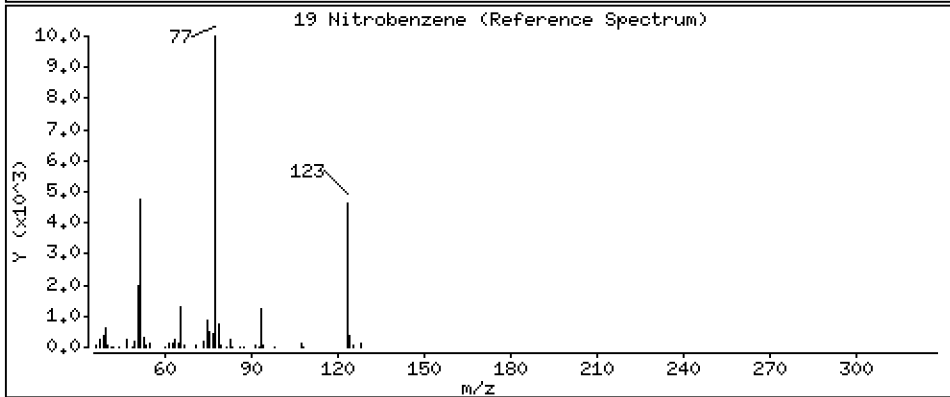
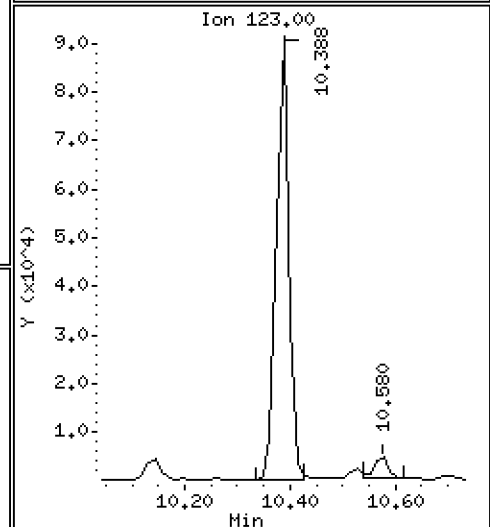
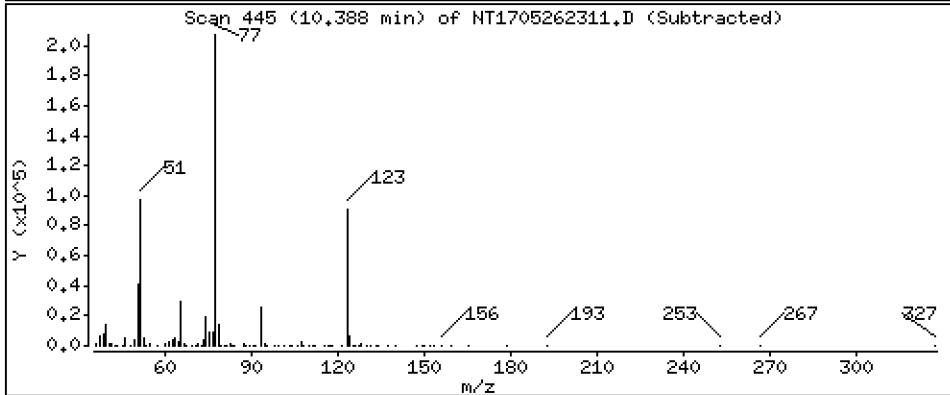
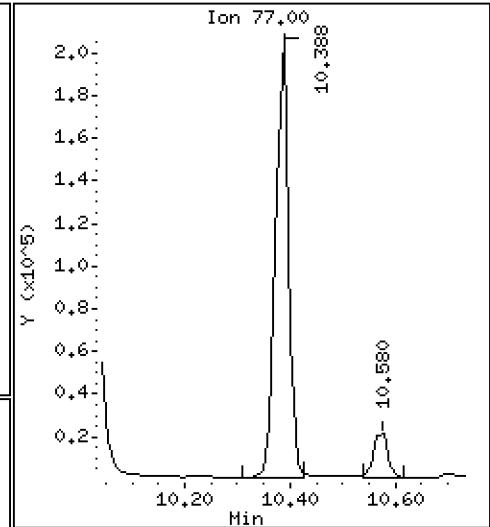
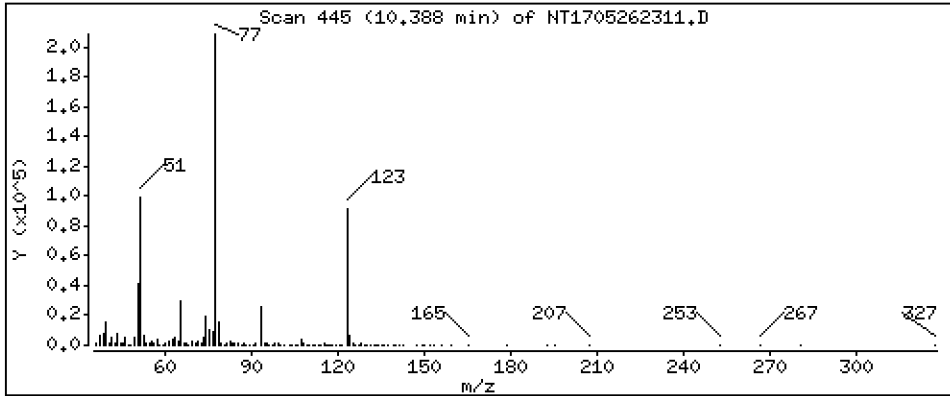
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,021 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

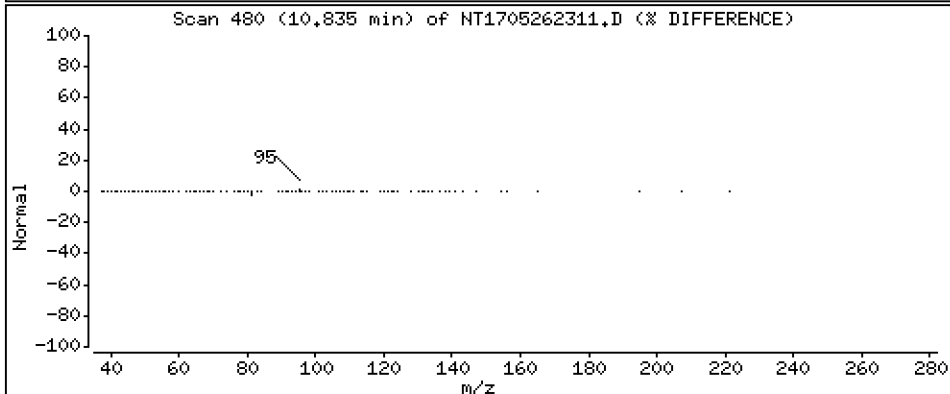
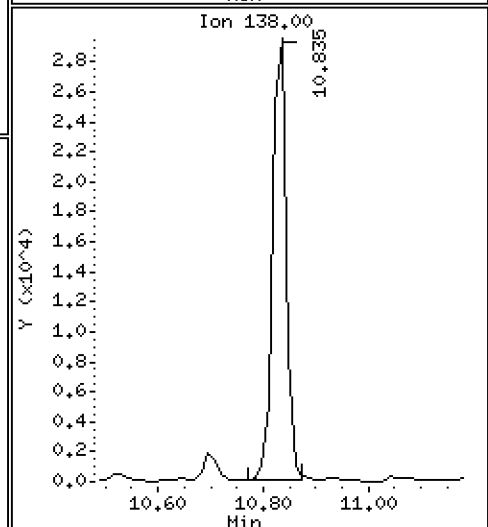
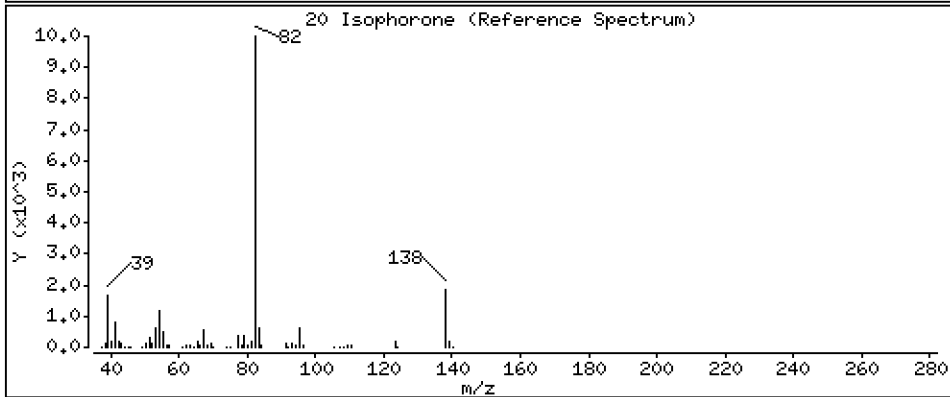
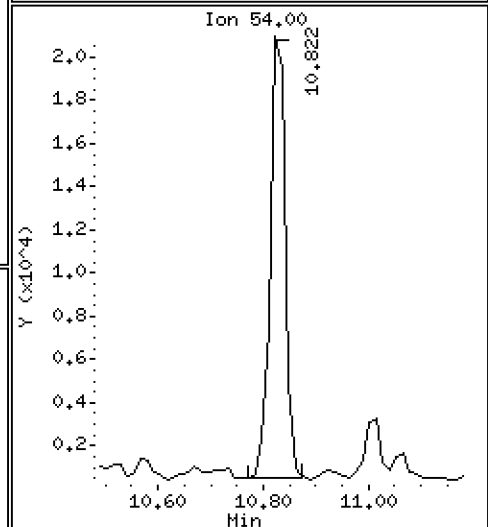
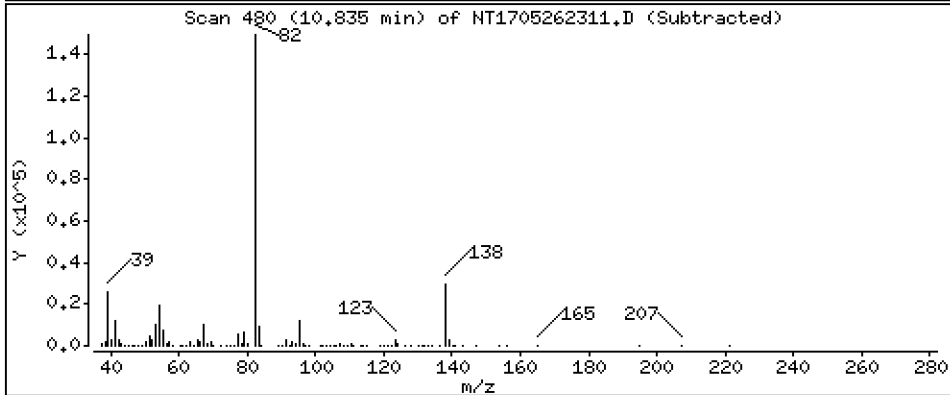
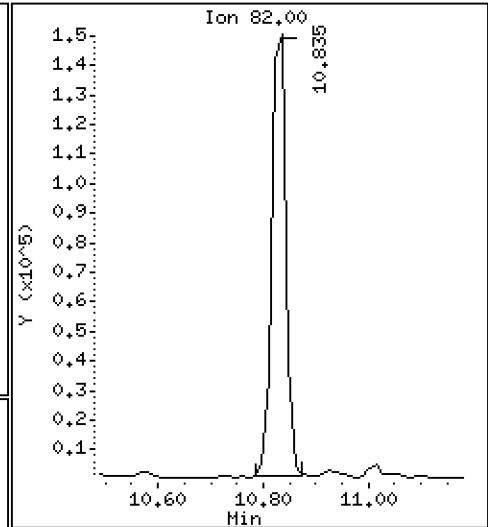
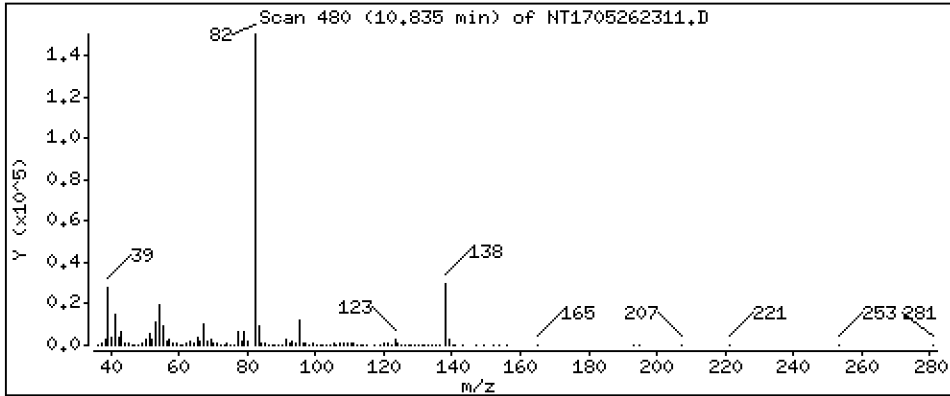
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 1,826 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

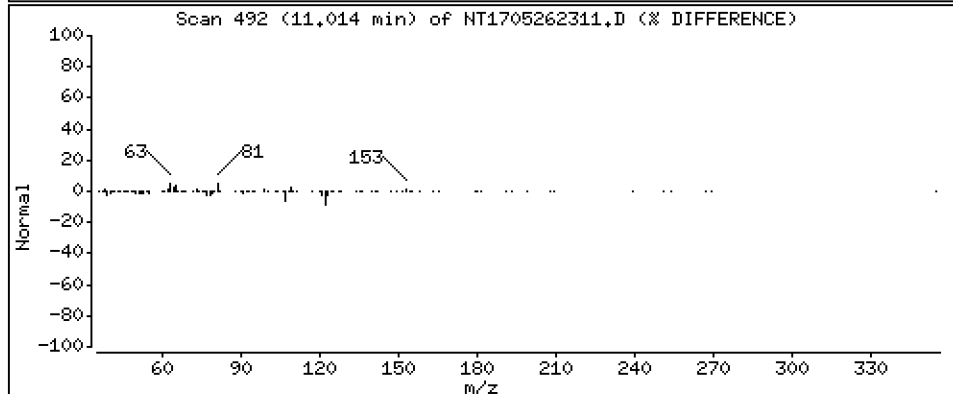
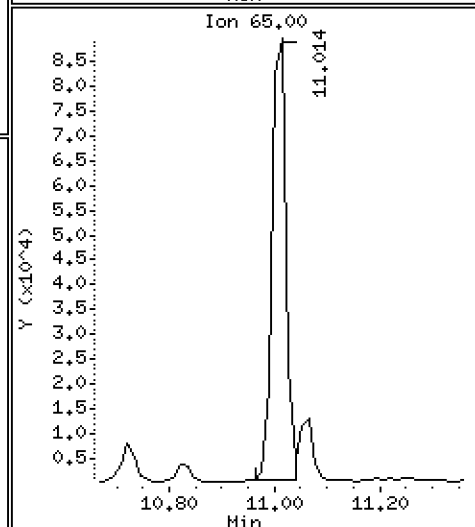
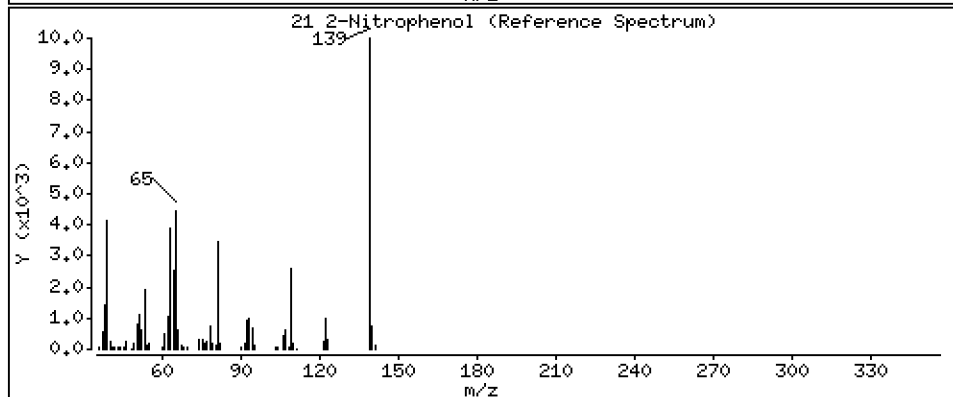
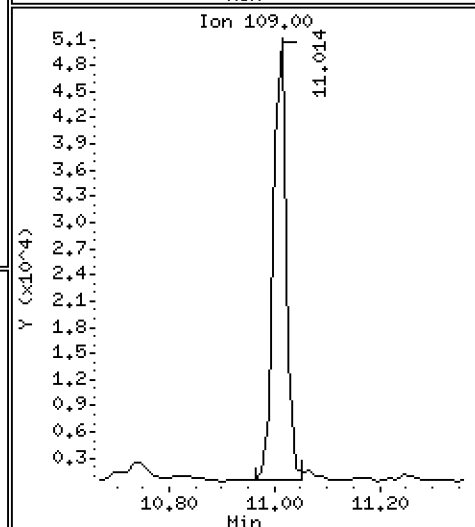
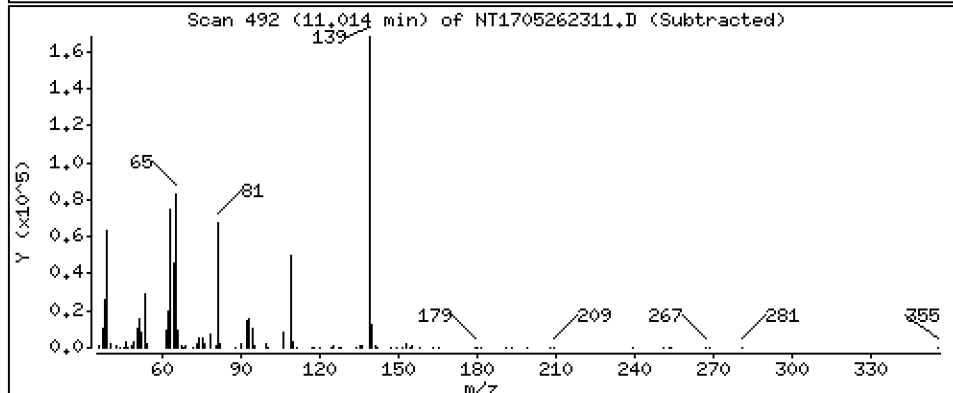
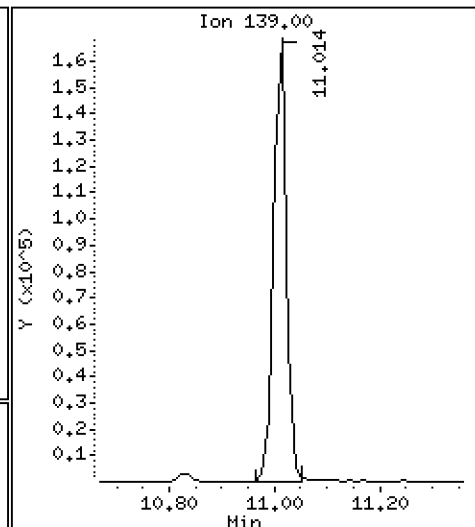
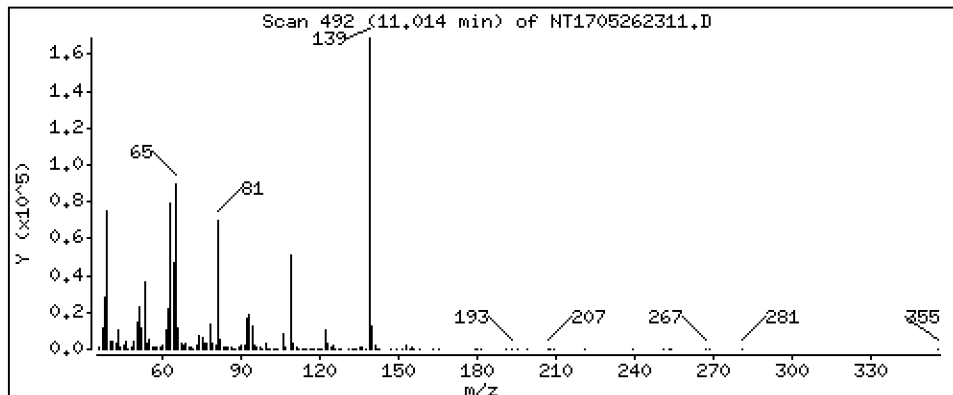
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 5,246 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

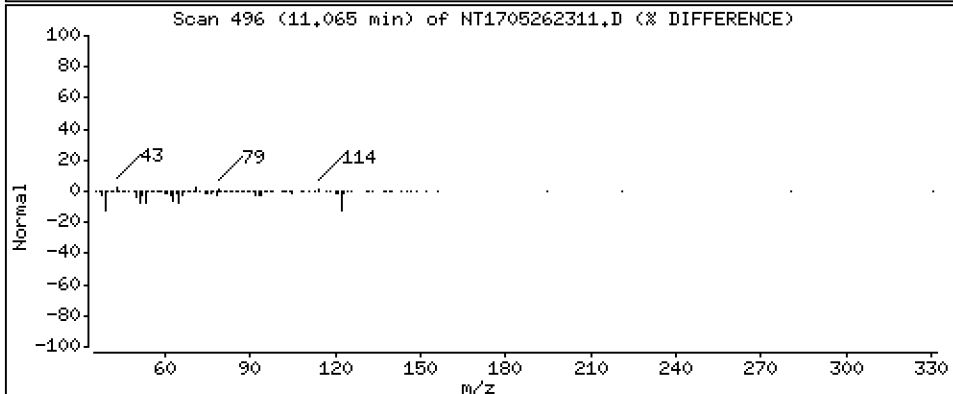
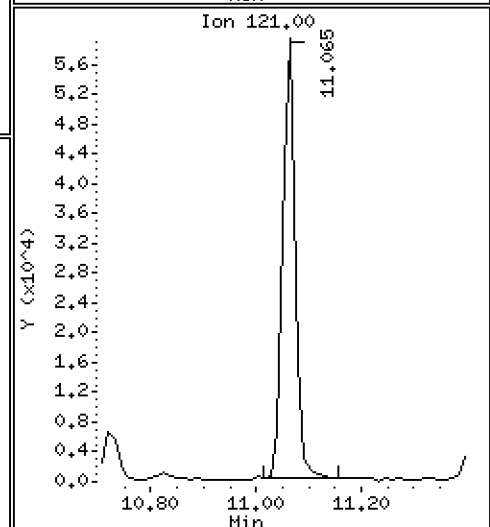
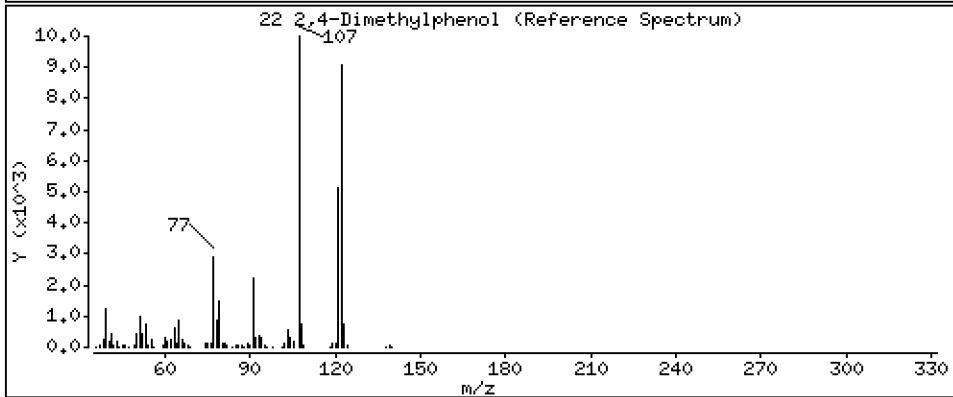
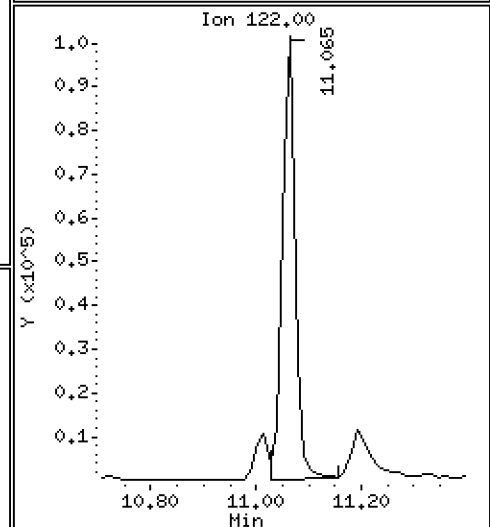
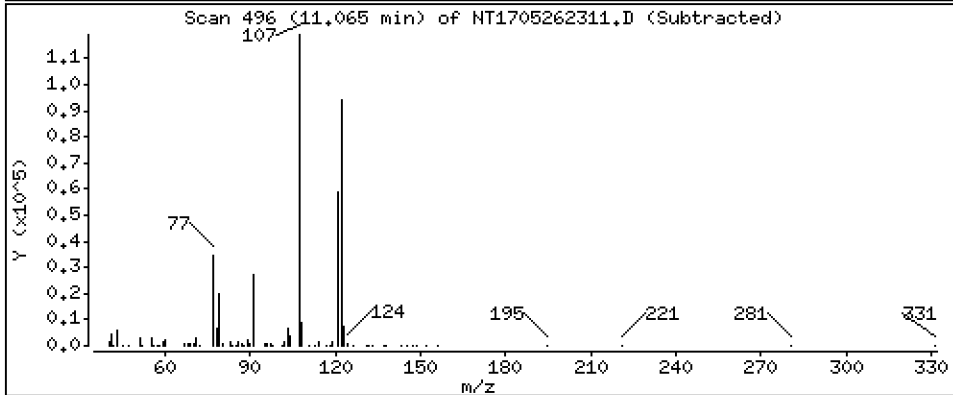
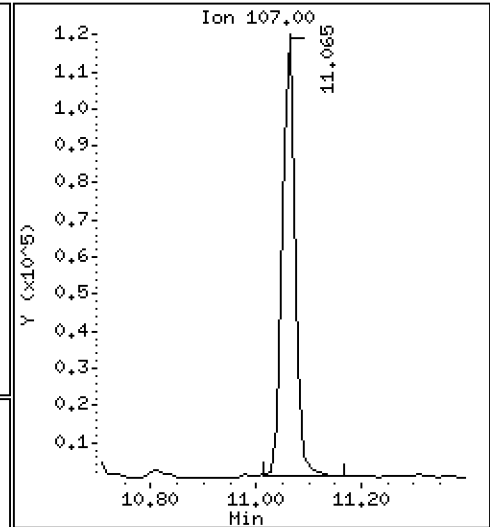
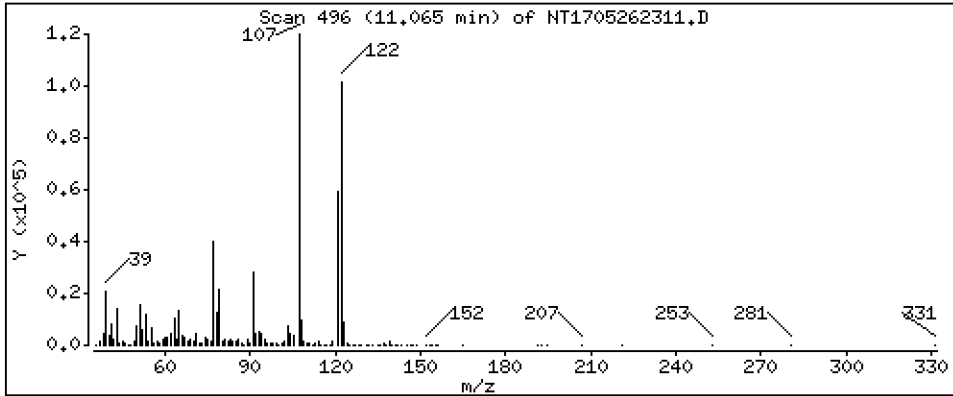
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,930 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

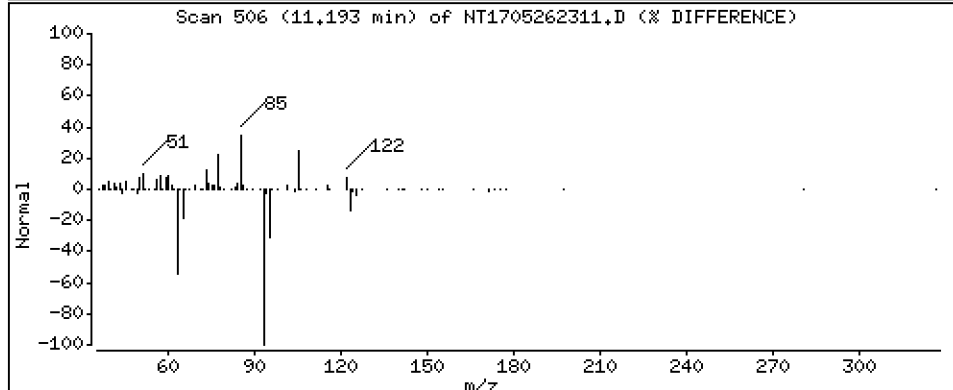
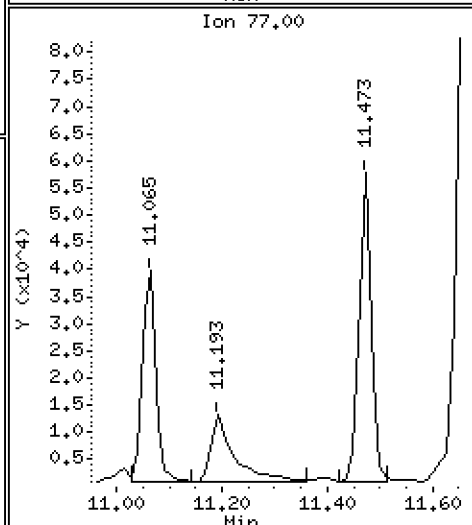
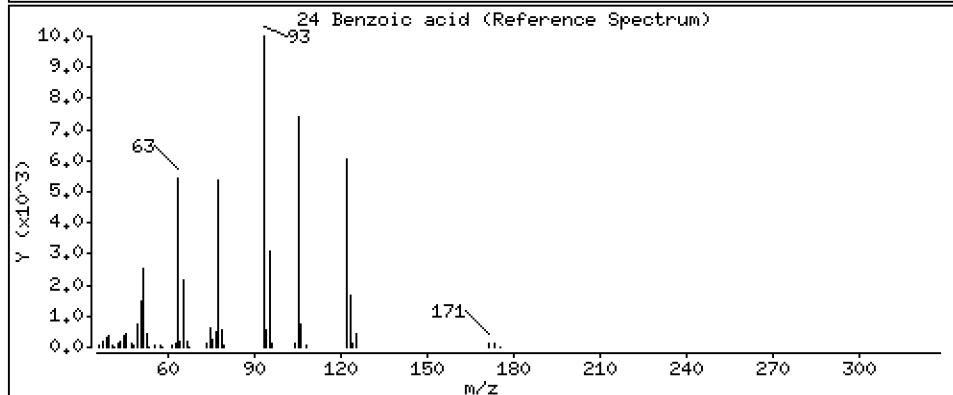
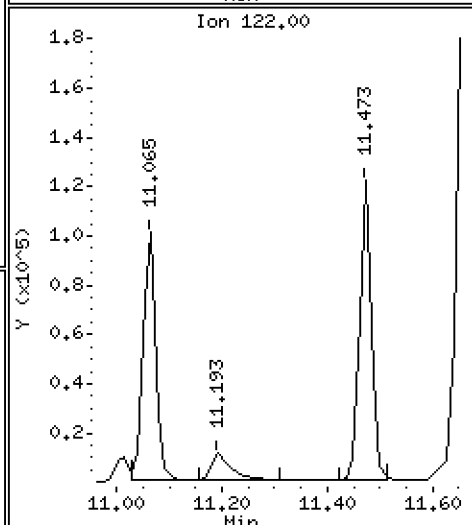
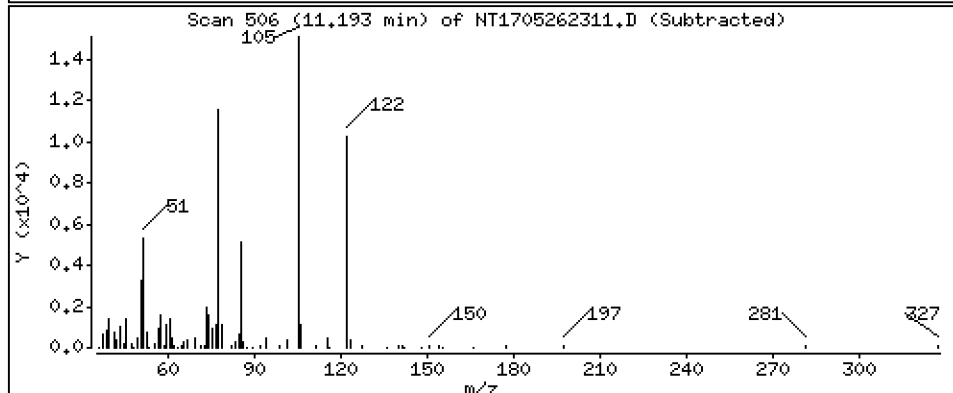
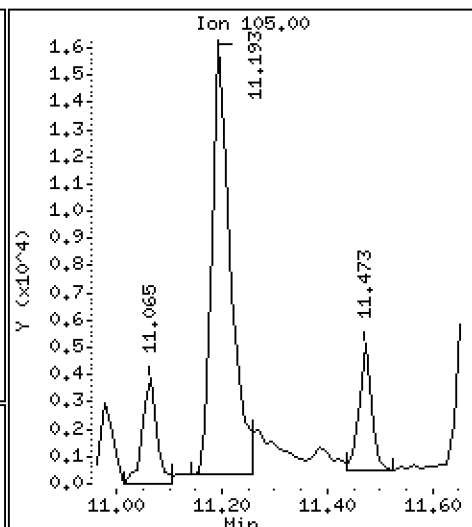
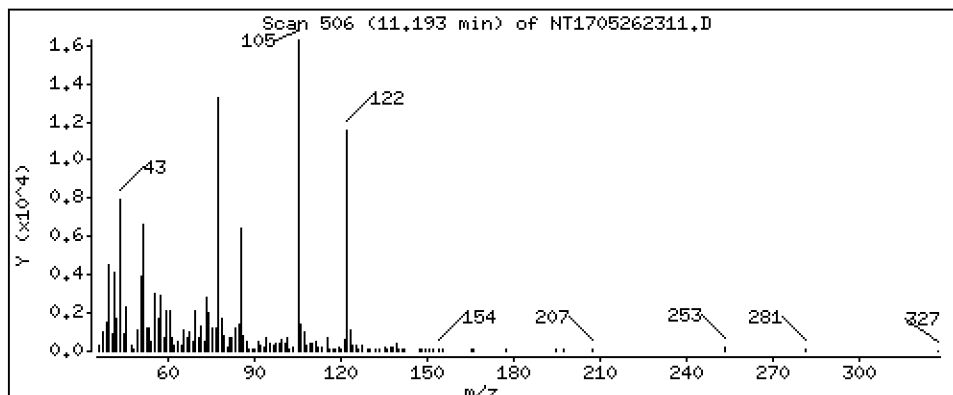
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.5509 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

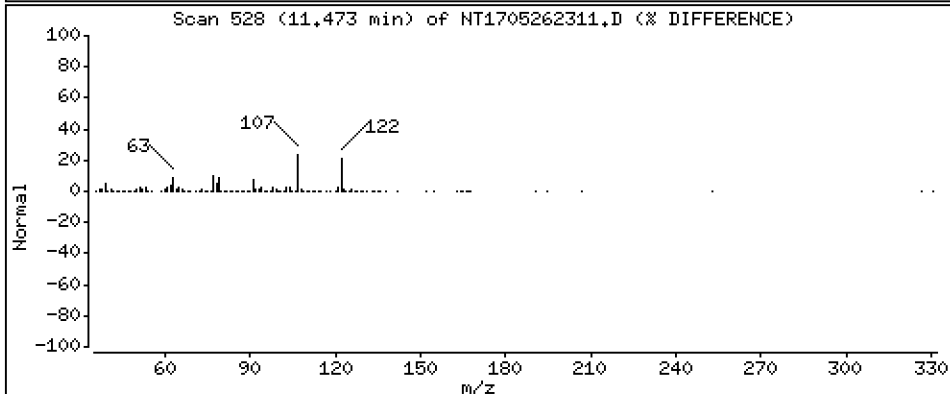
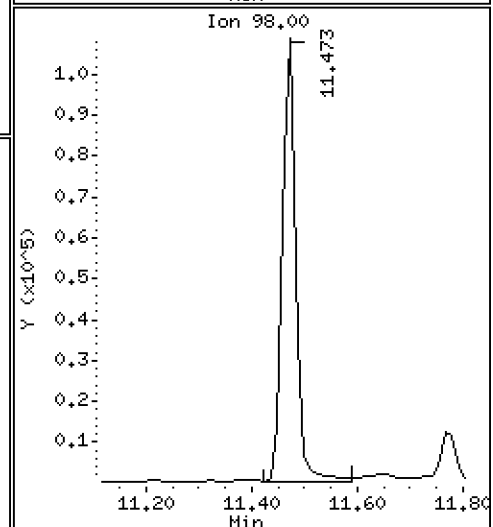
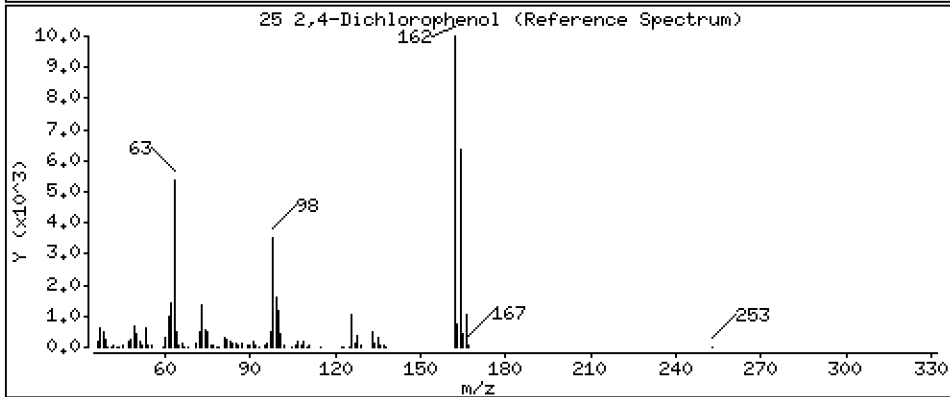
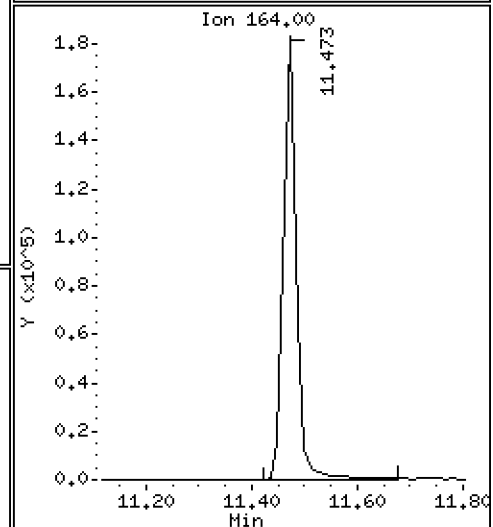
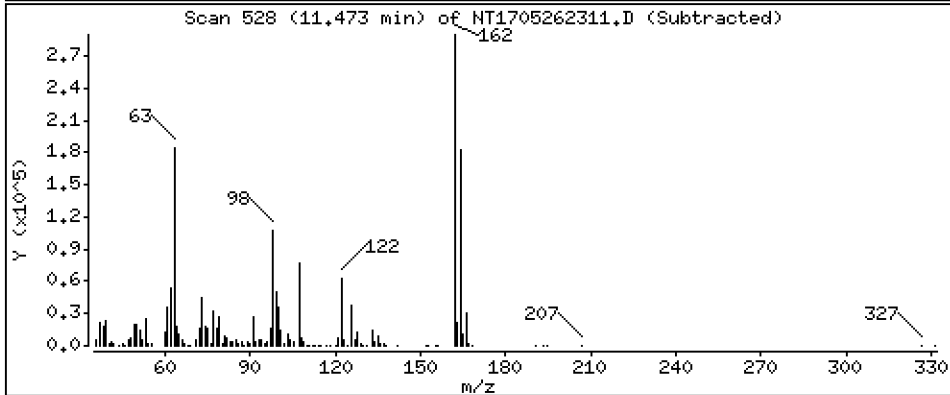
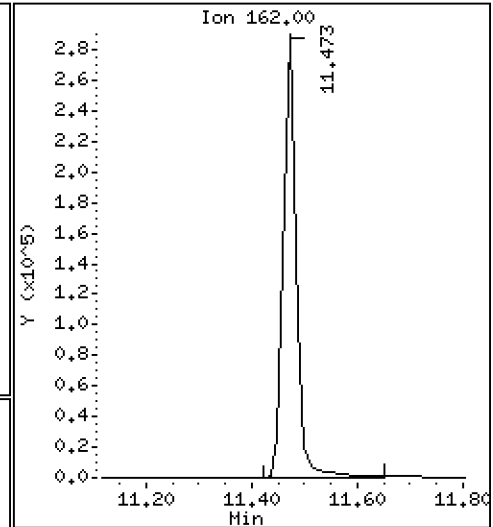
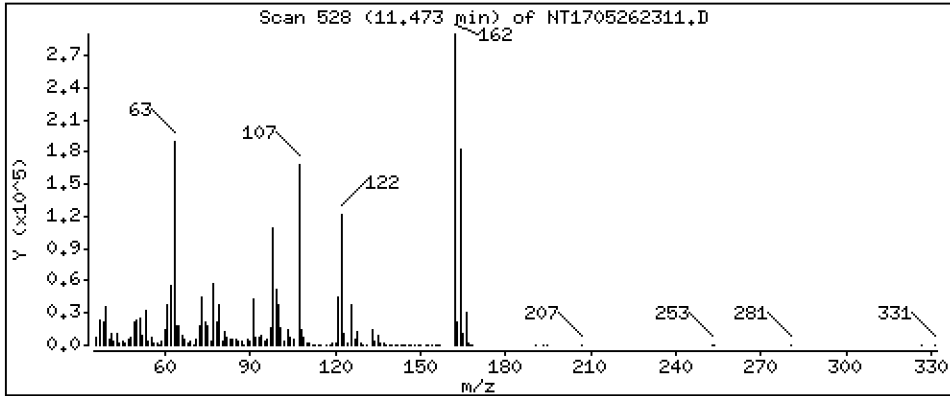
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 6,588 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

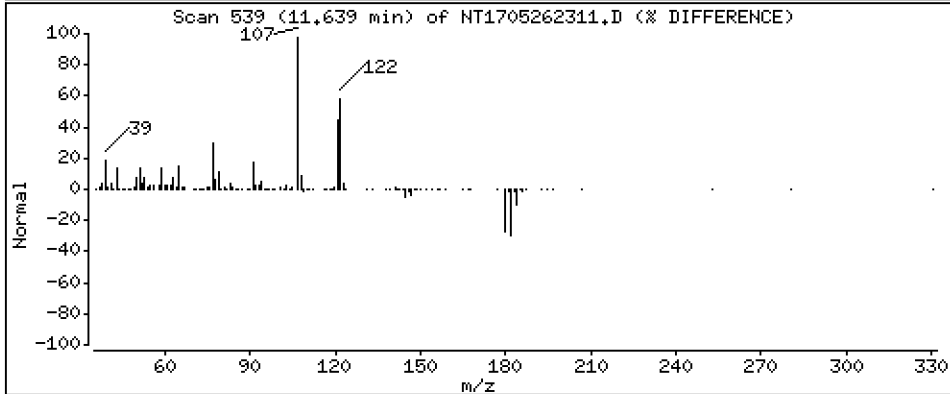
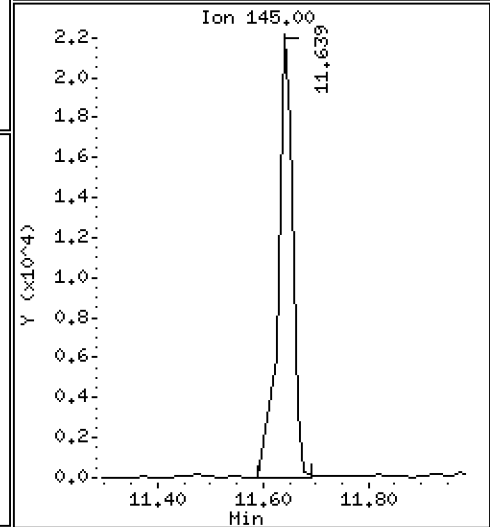
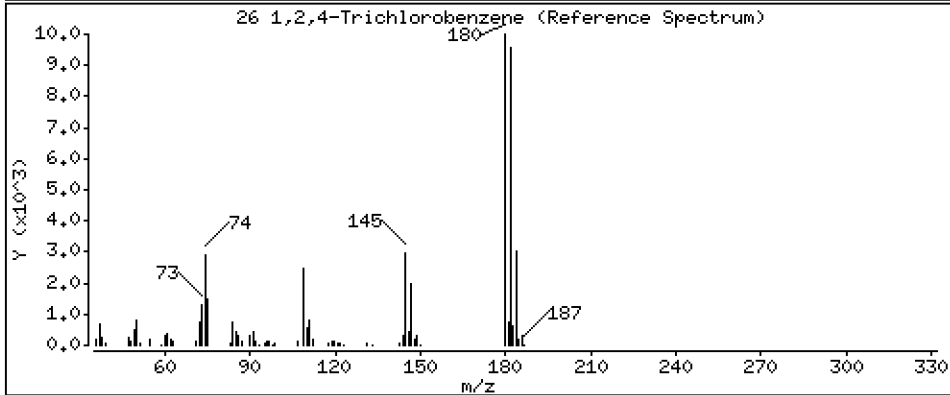
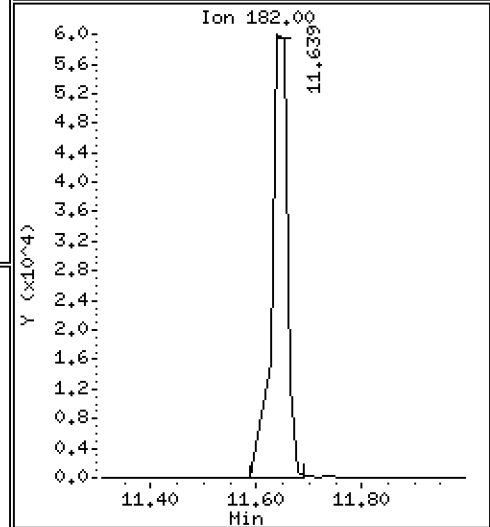
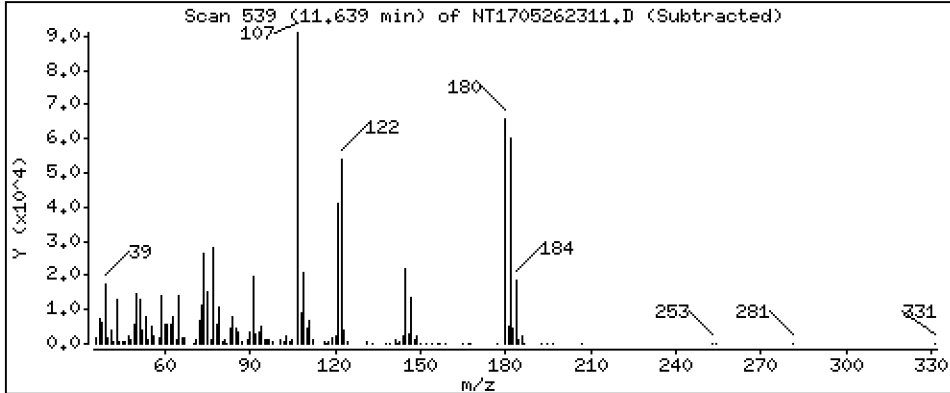
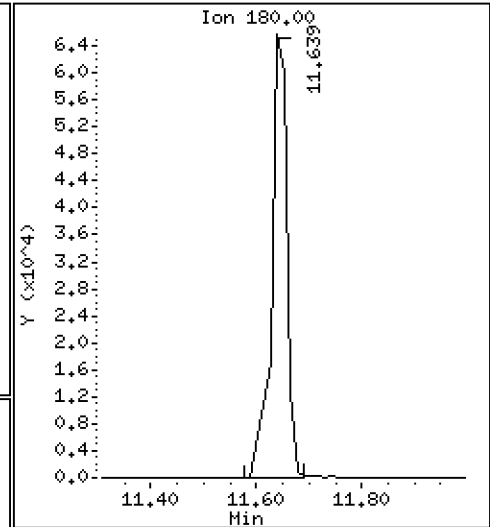
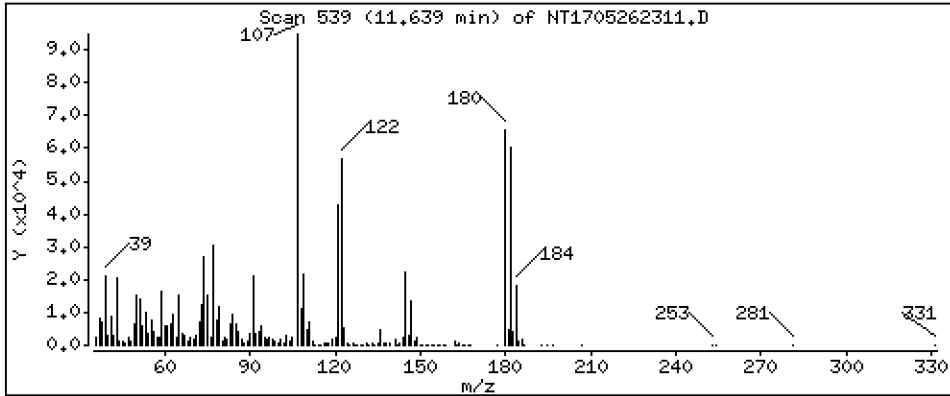
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 1,674 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

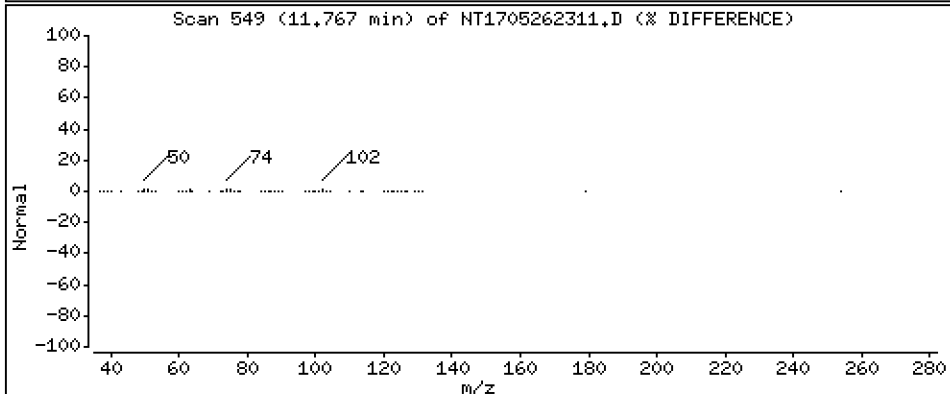
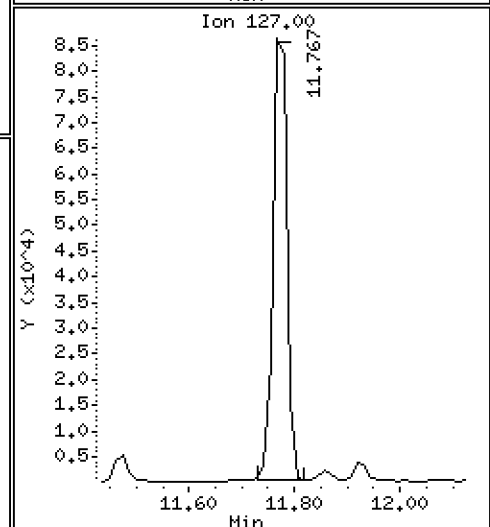
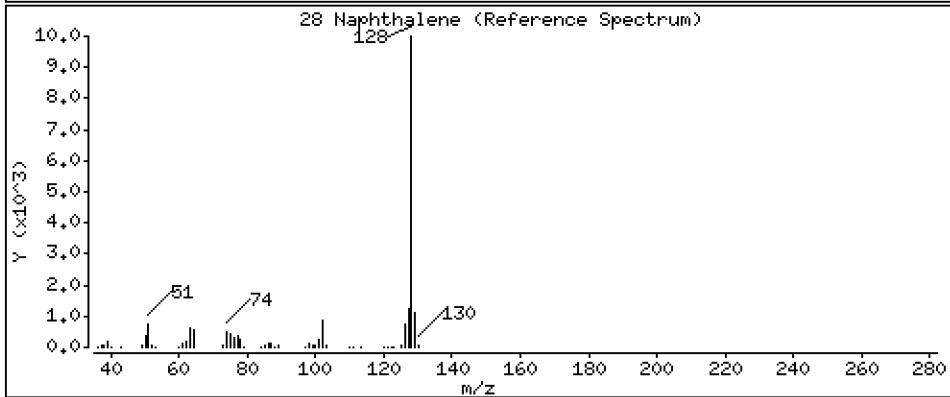
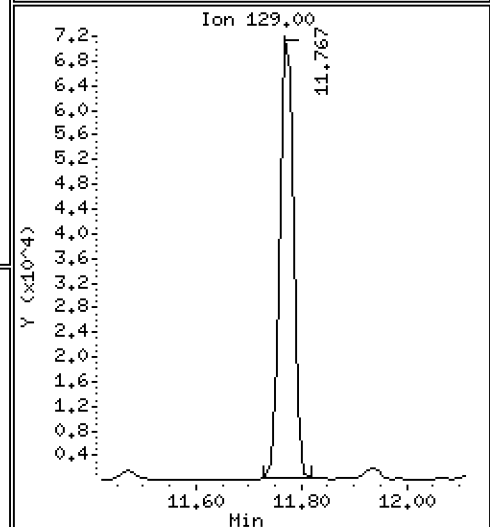
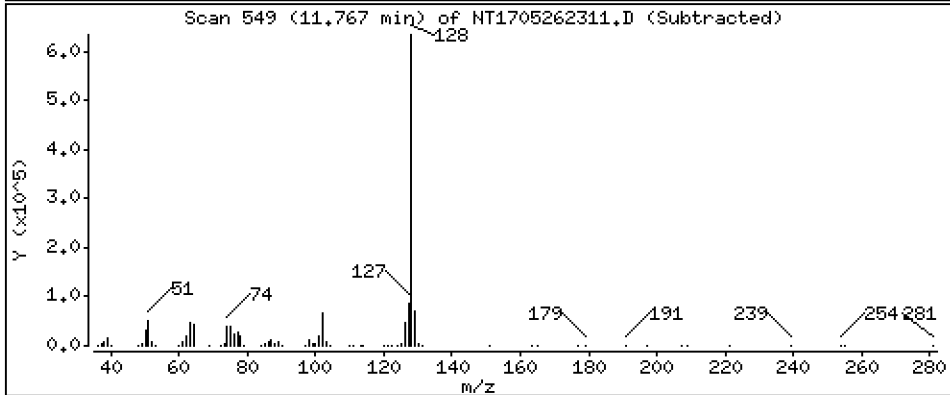
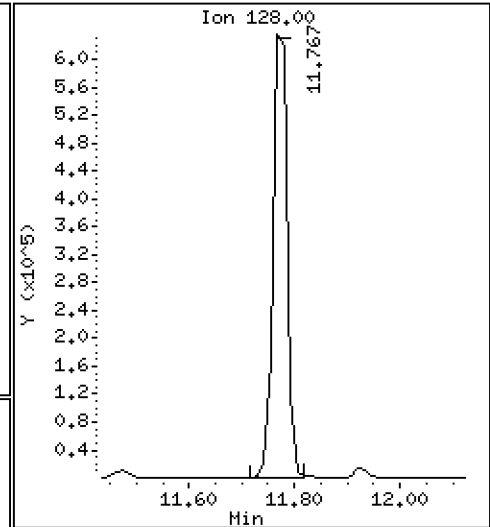
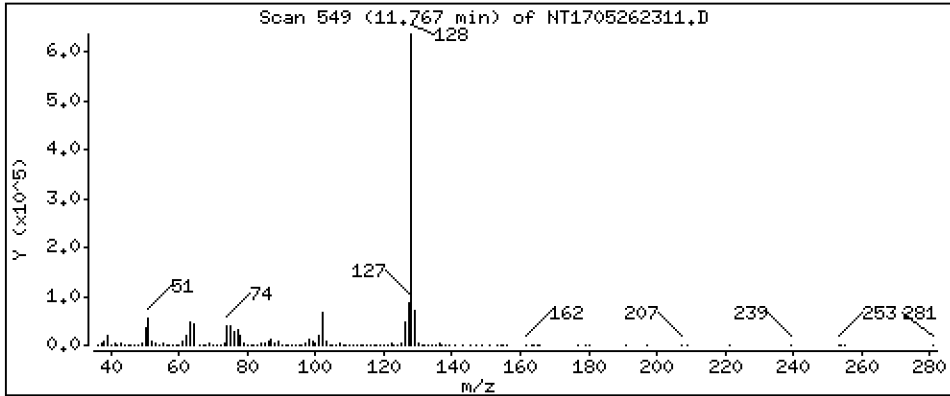
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,205 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

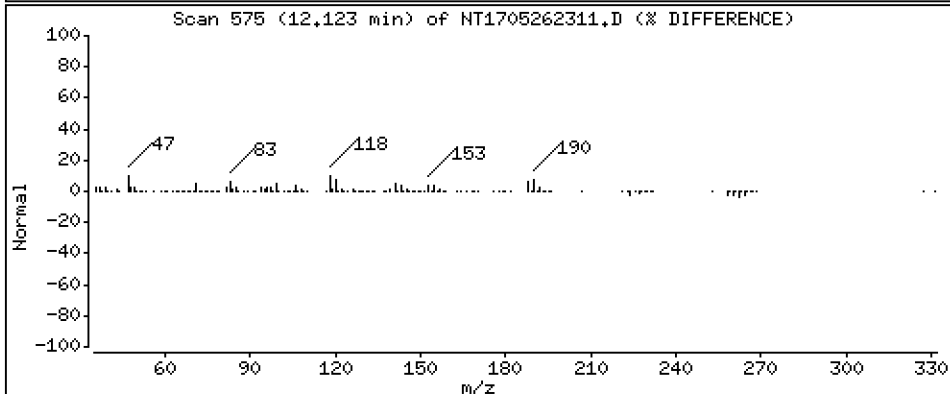
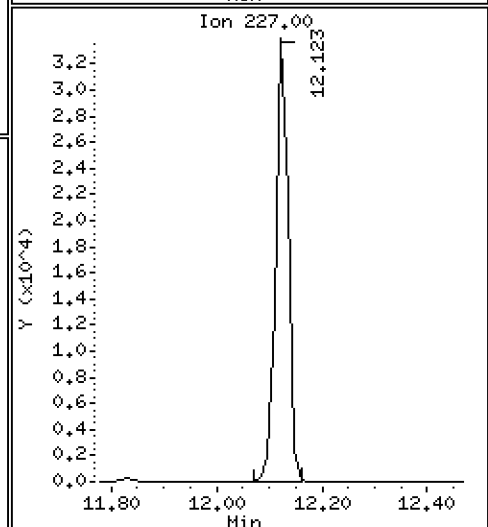
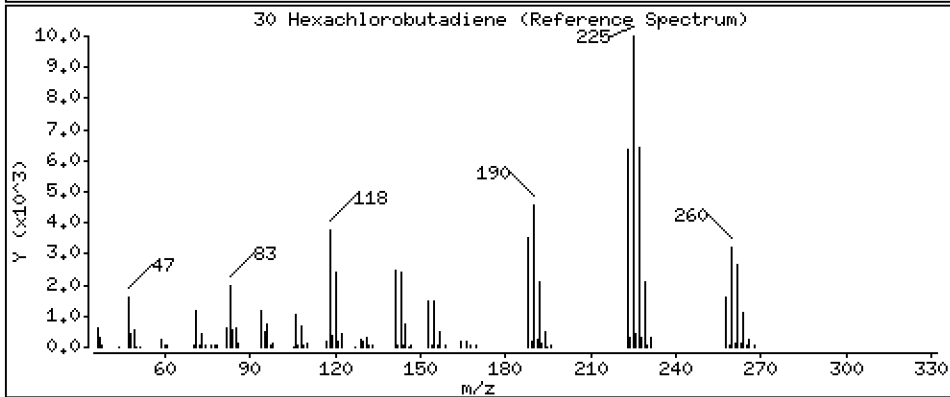
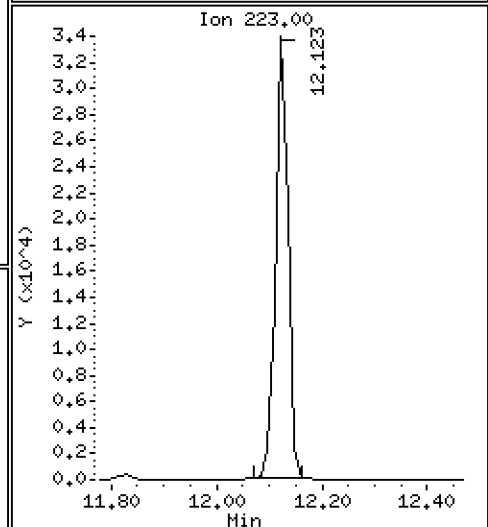
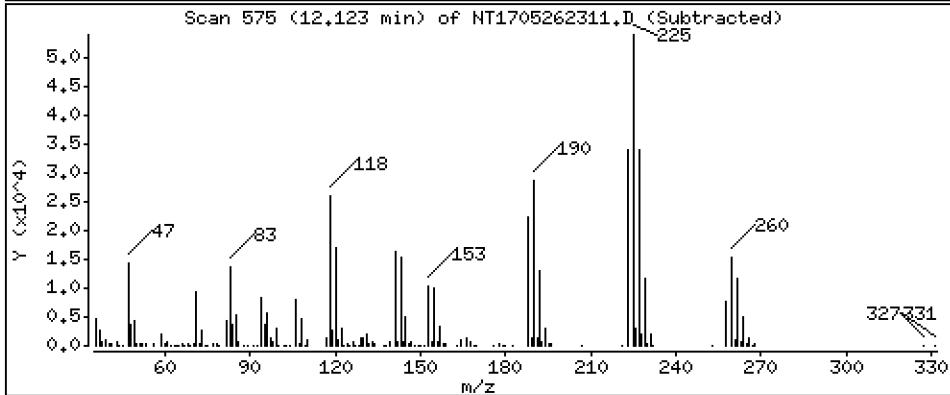
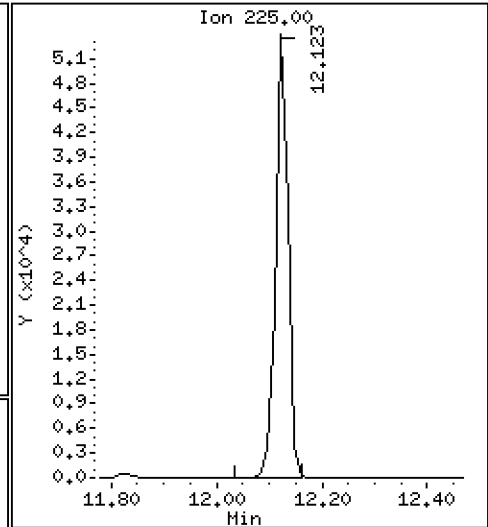
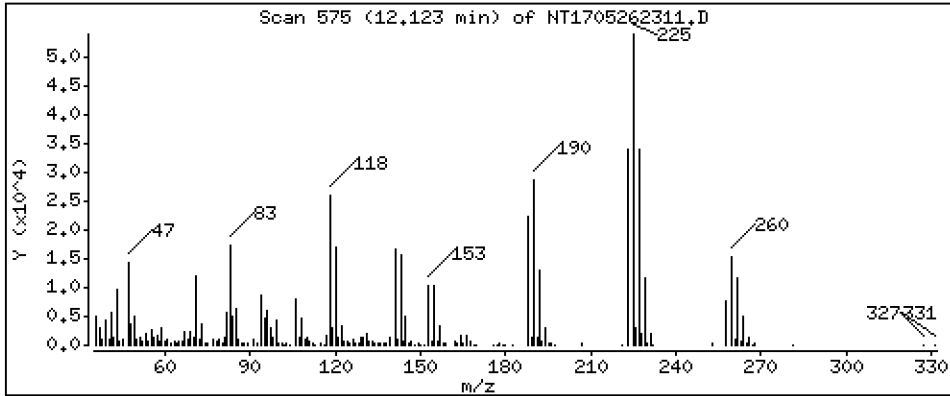
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 2,415 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

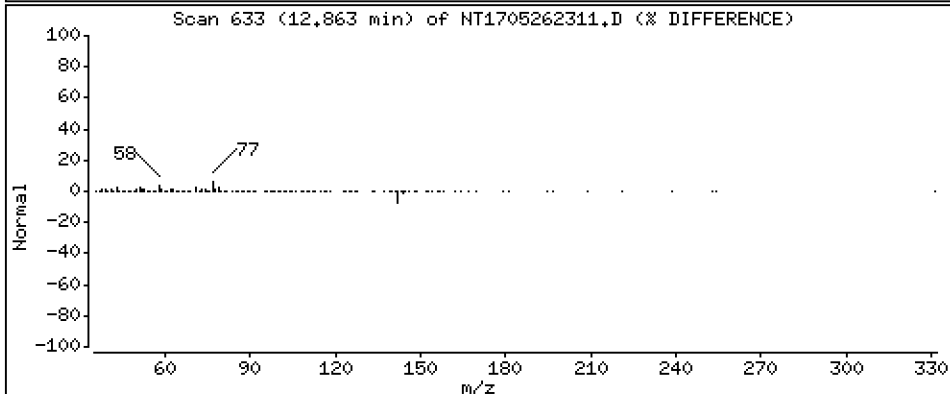
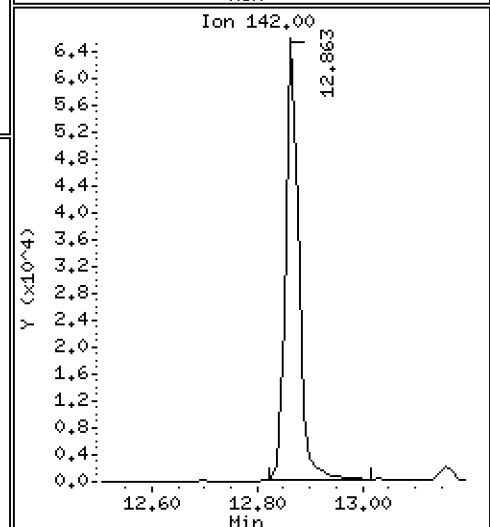
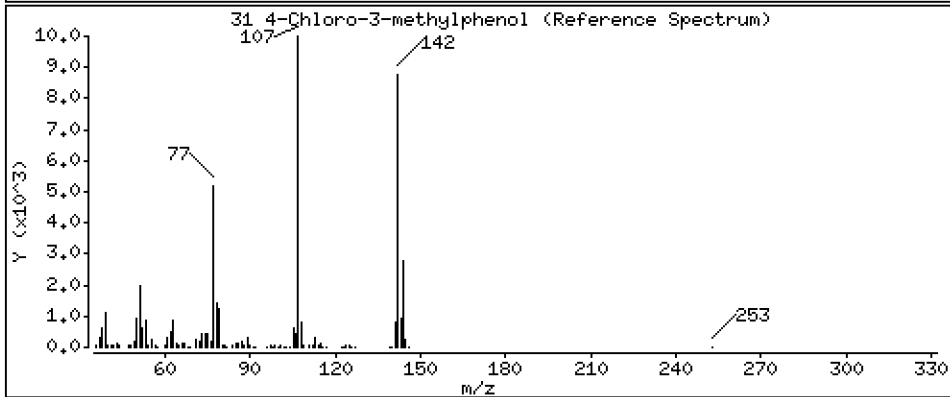
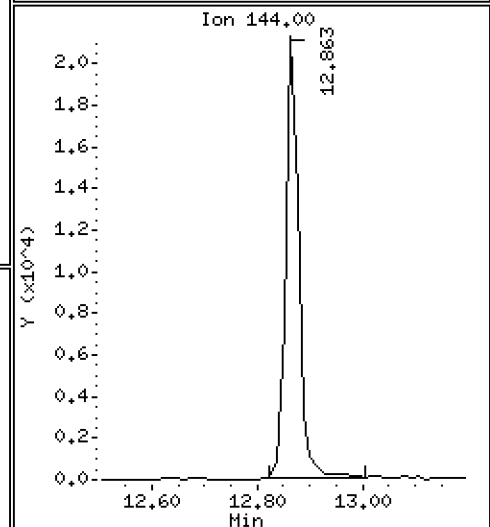
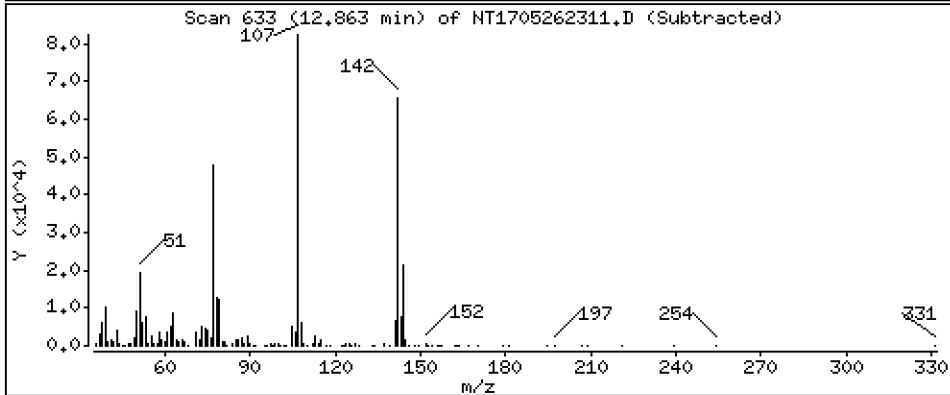
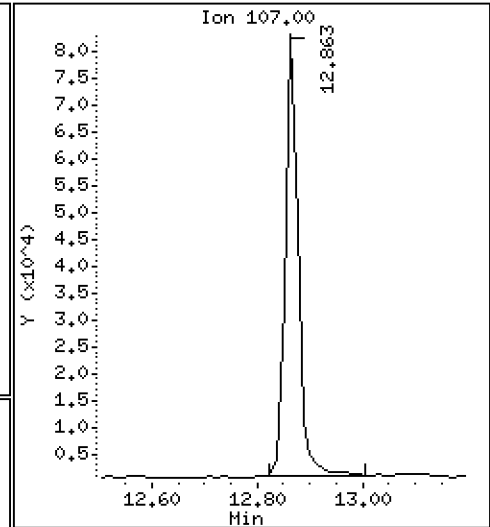
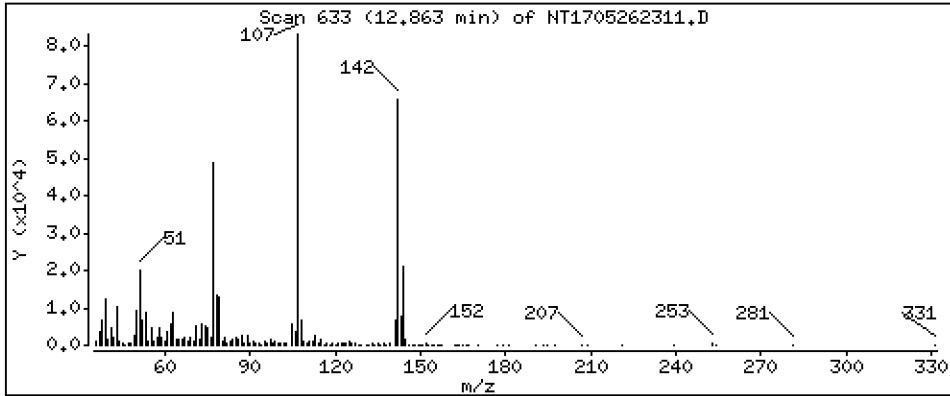
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 1,546 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

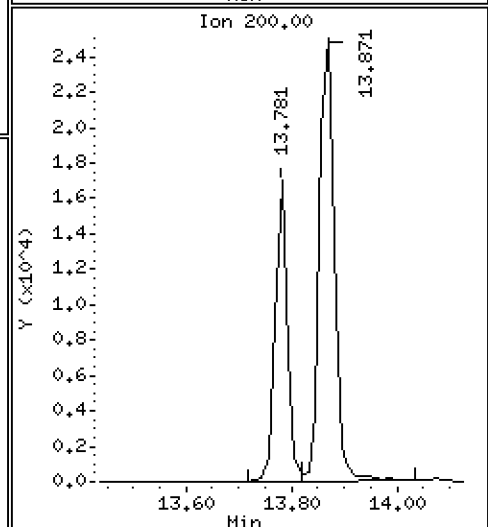
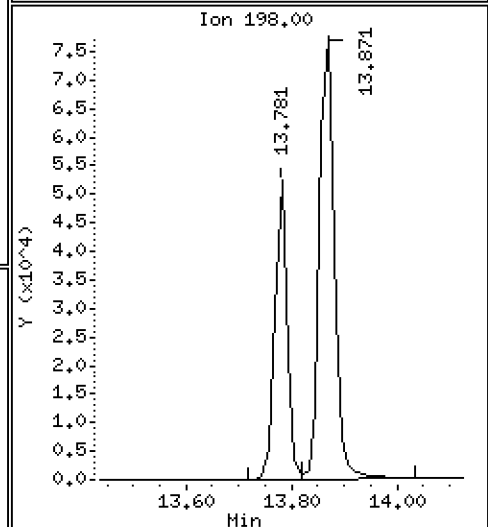
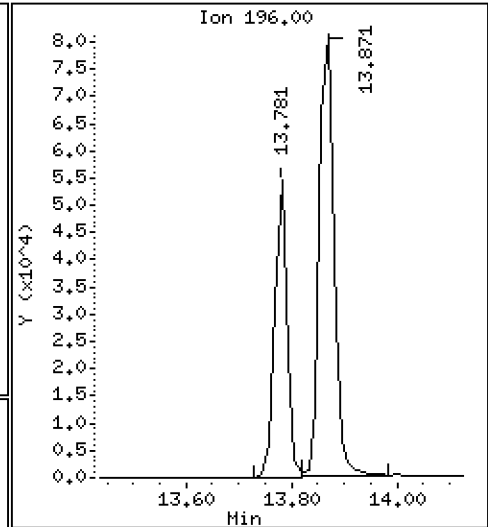
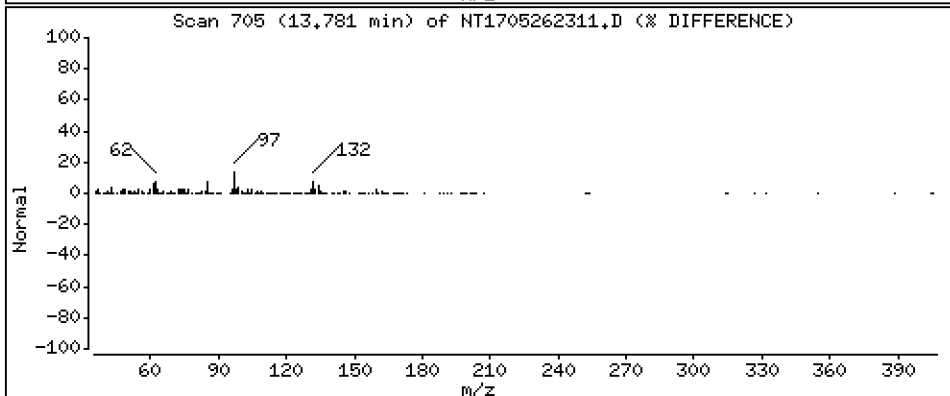
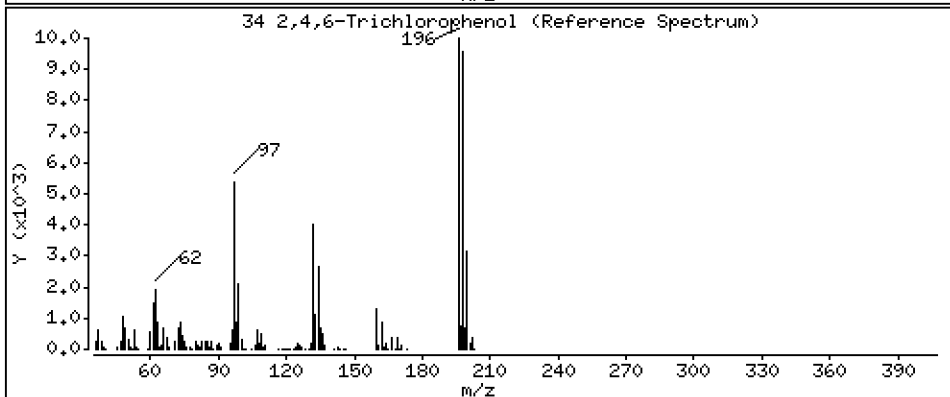
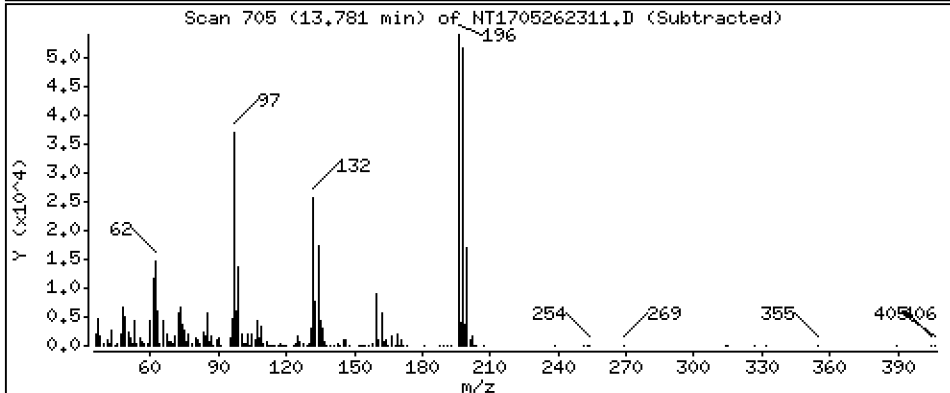
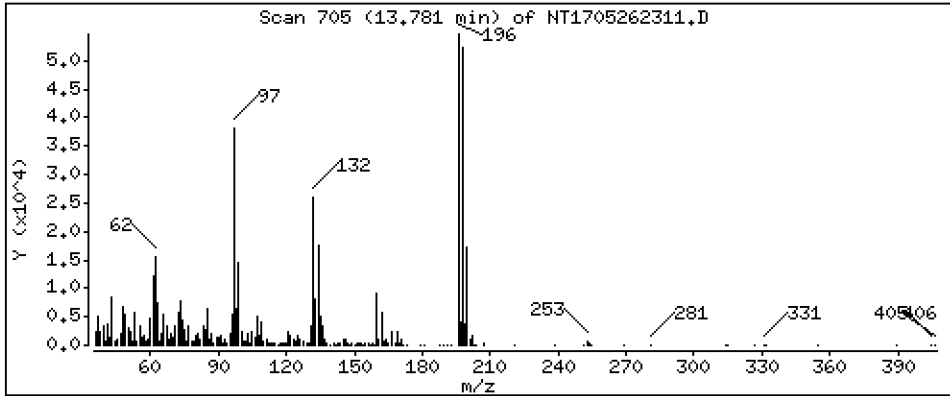
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 1,751 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

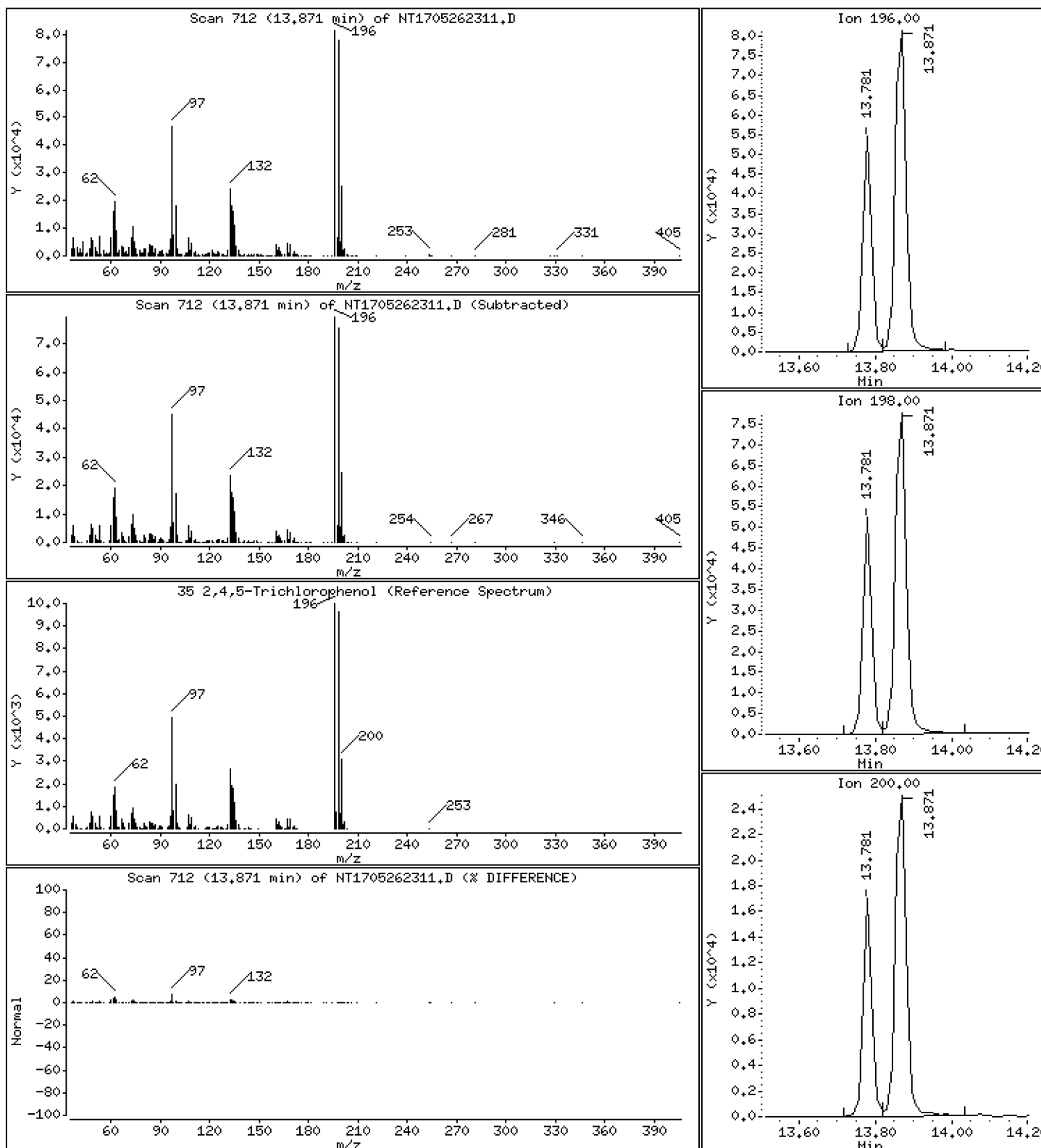
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 2,808 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

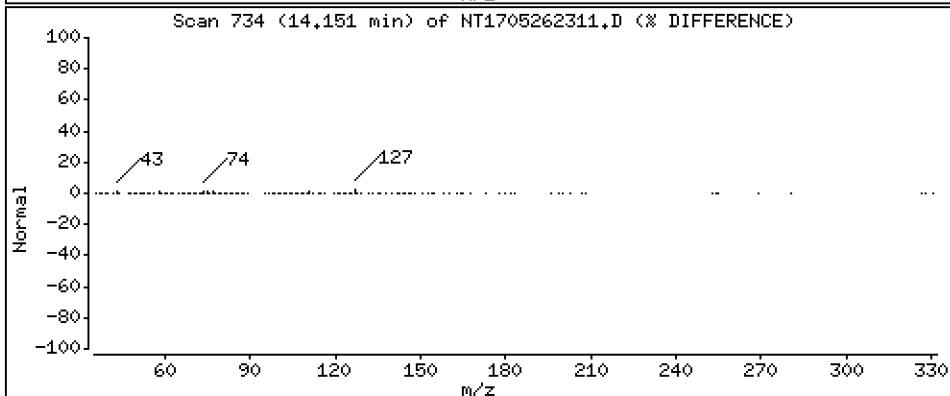
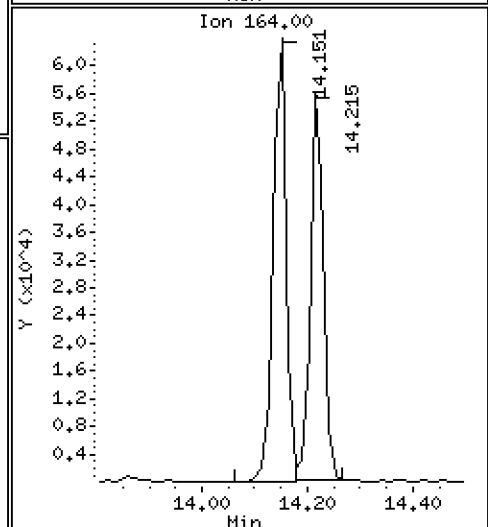
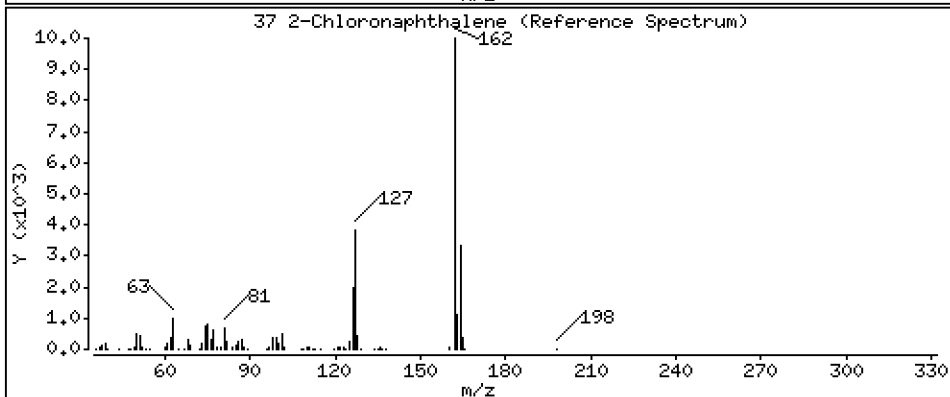
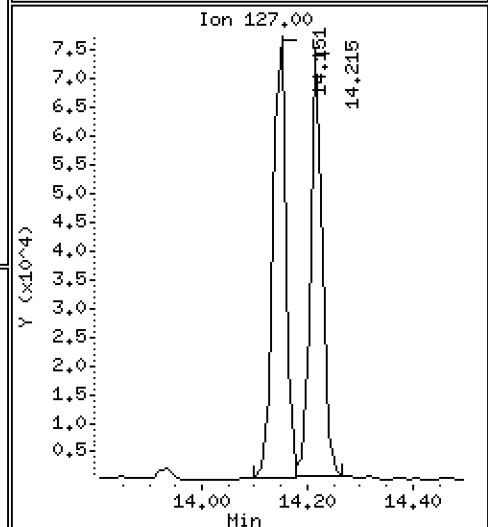
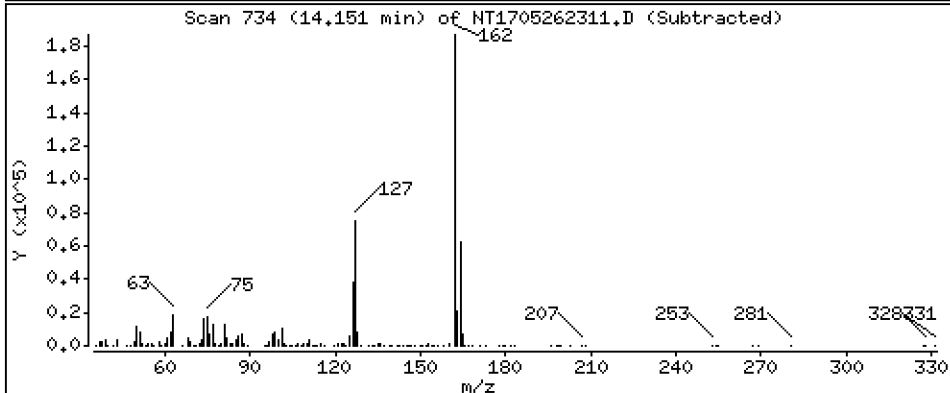
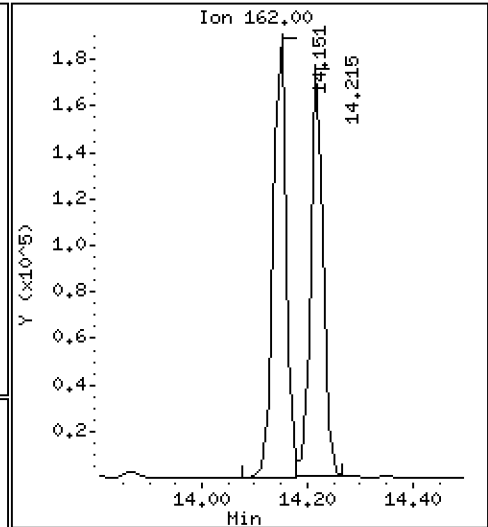
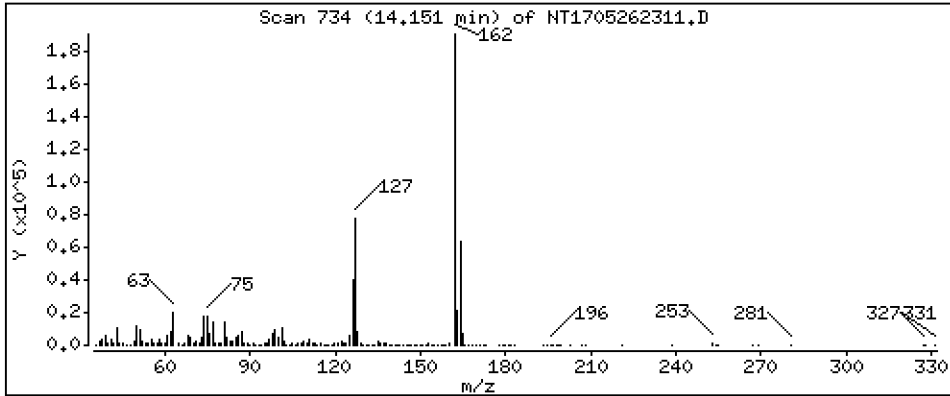
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 2.088 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

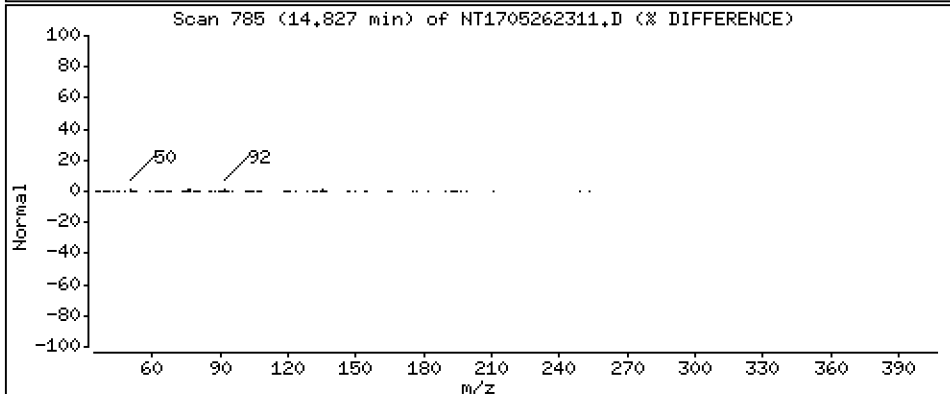
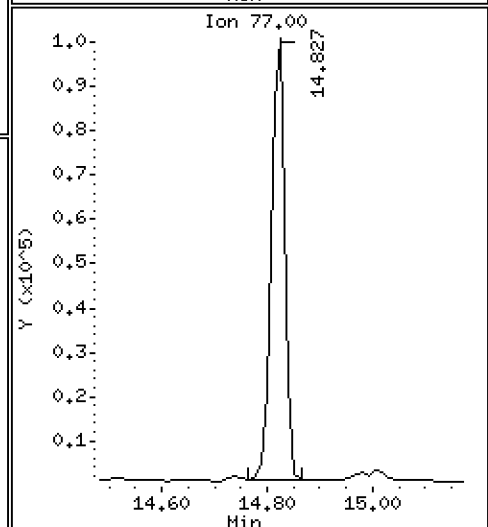
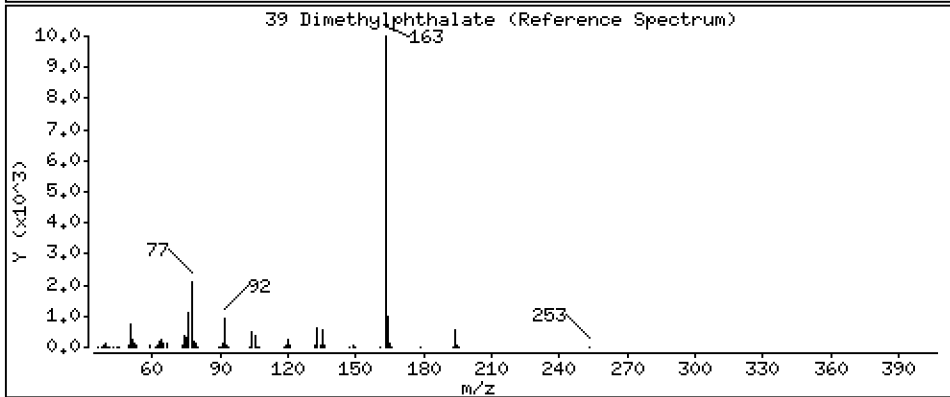
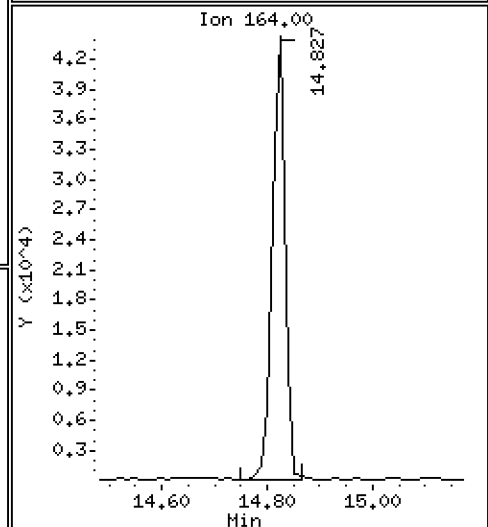
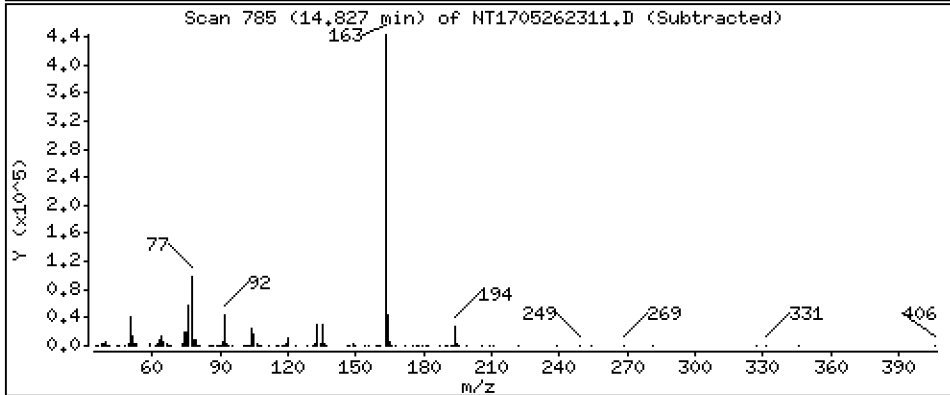
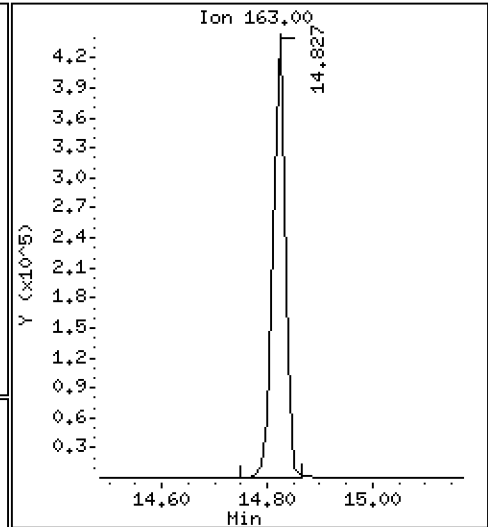
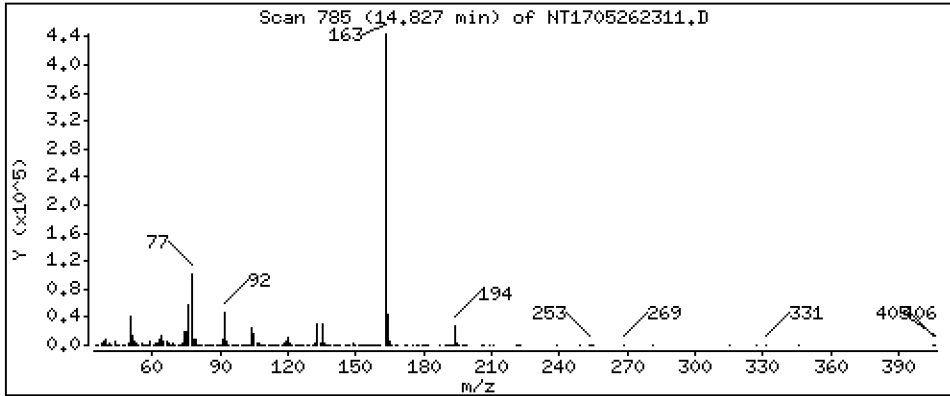
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,216 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

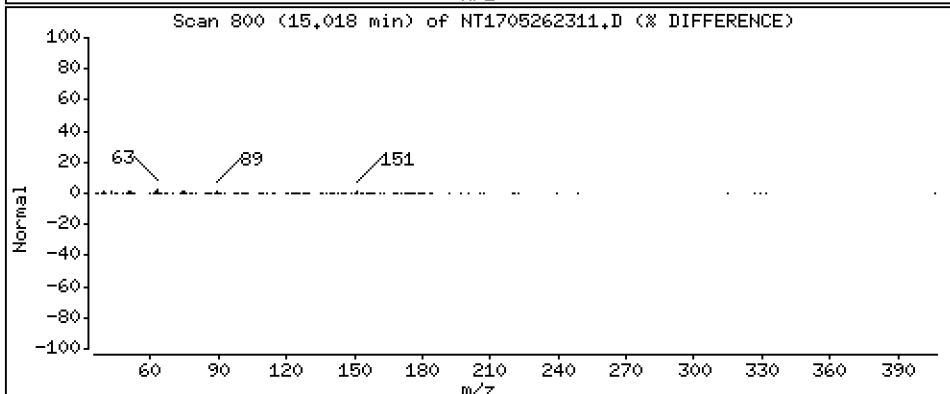
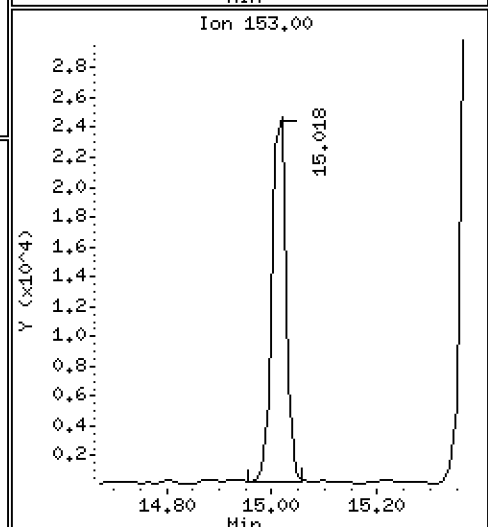
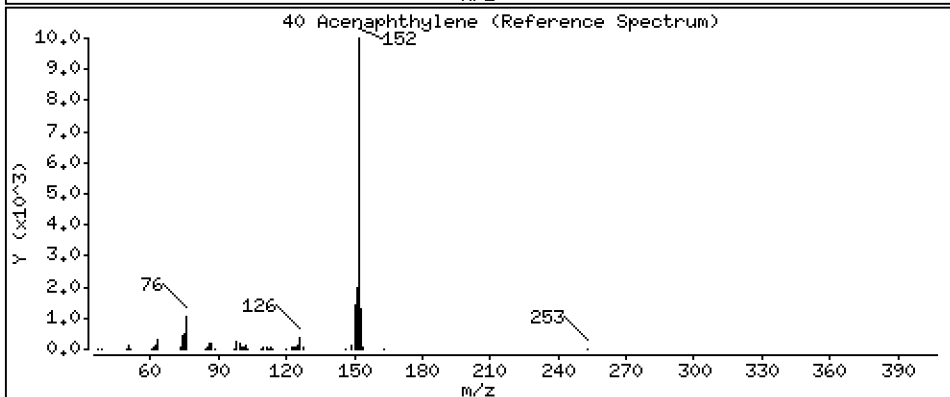
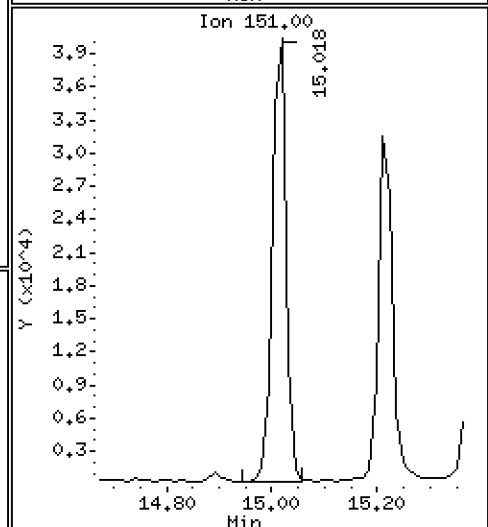
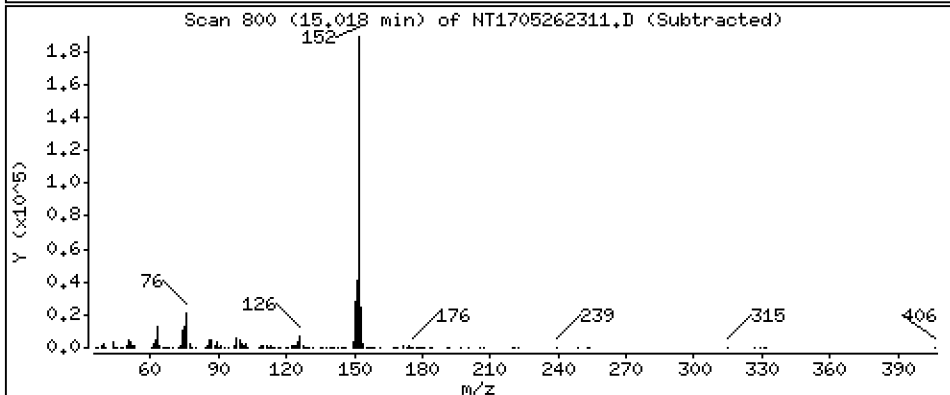
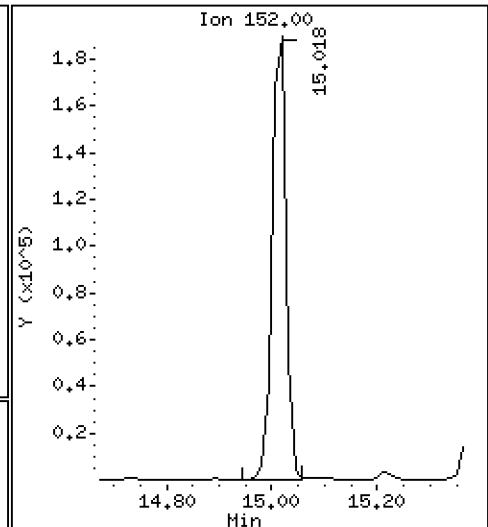
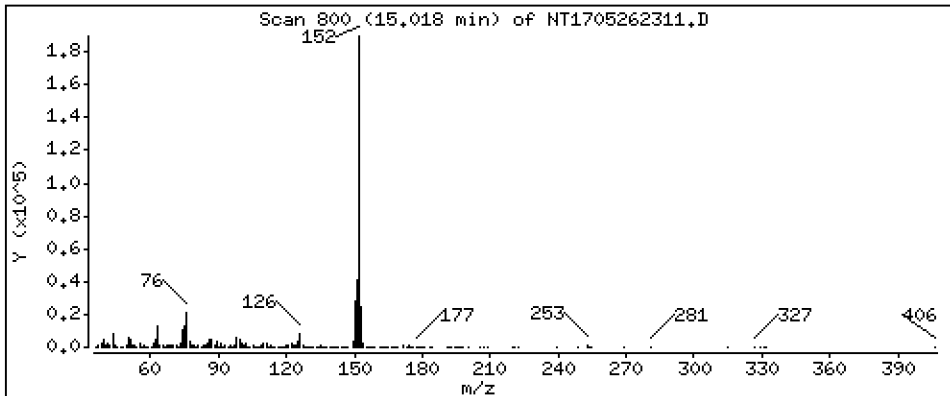
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 1.397 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

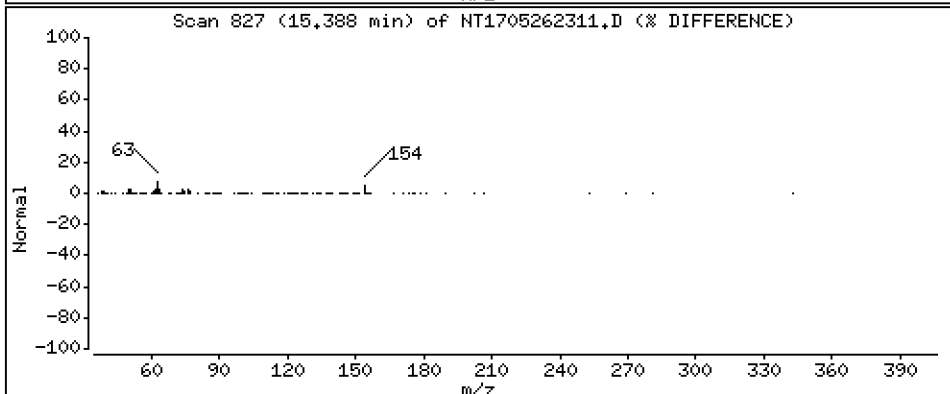
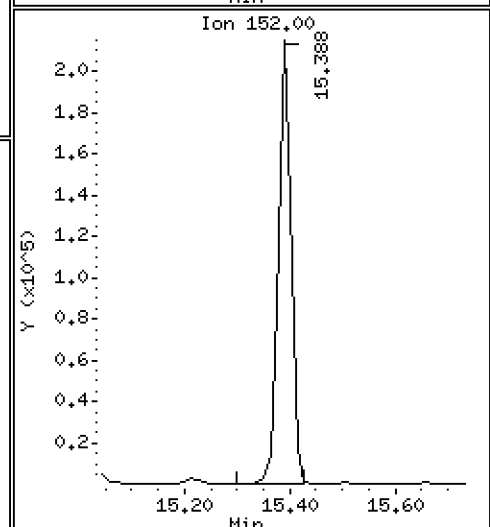
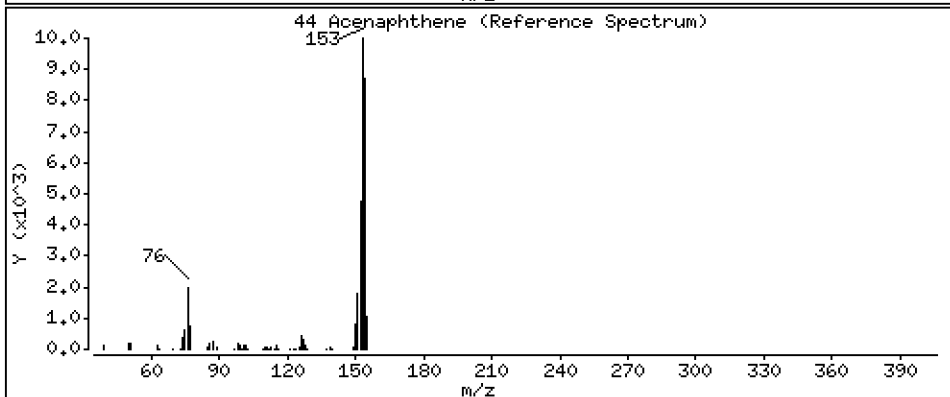
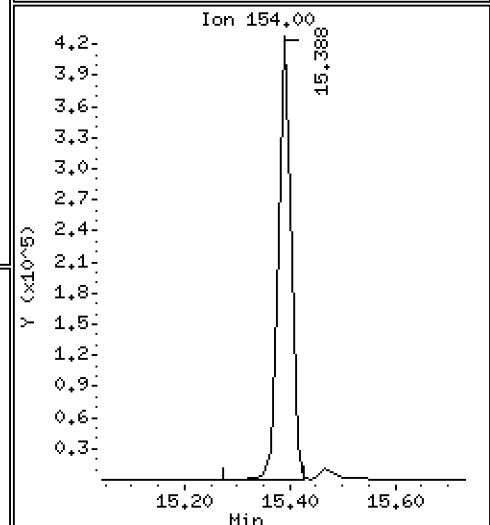
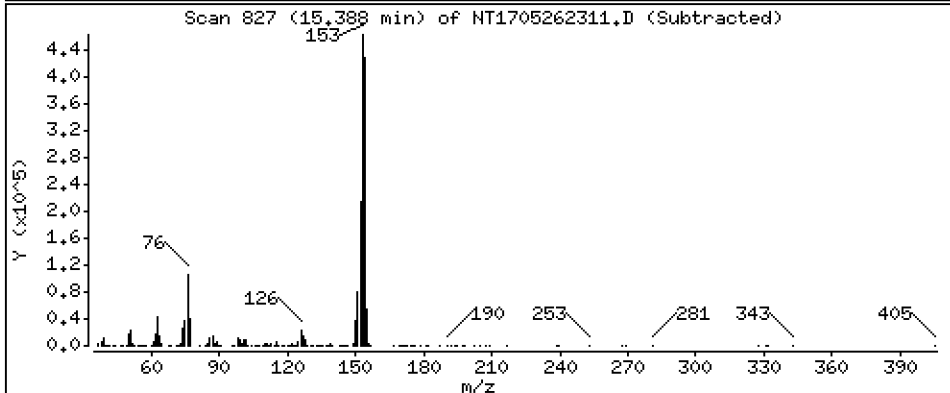
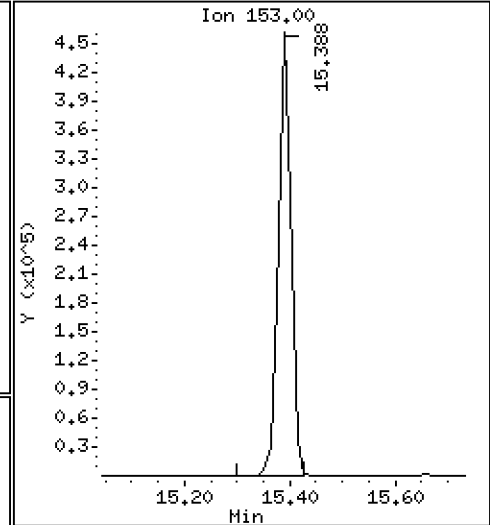
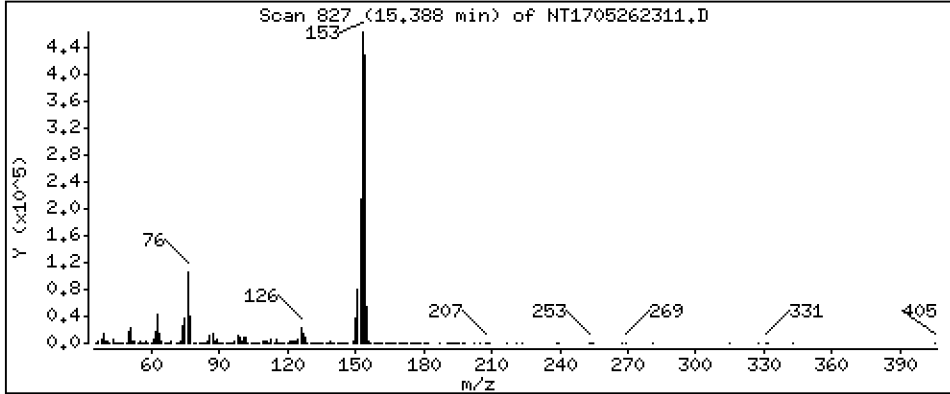
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,869 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

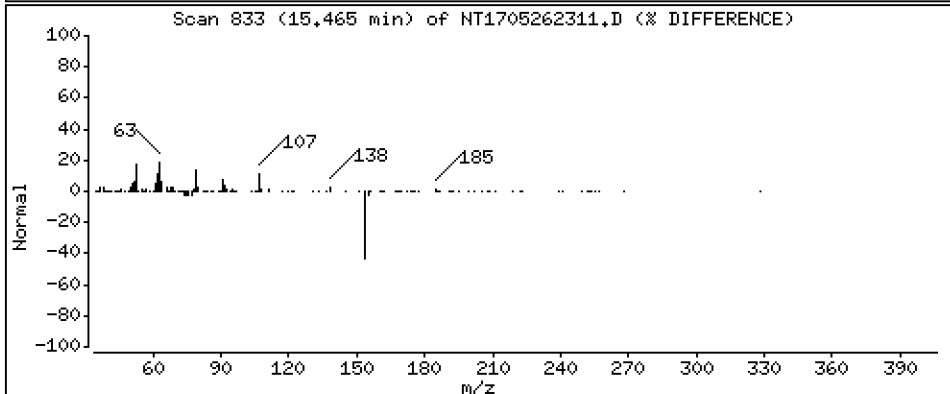
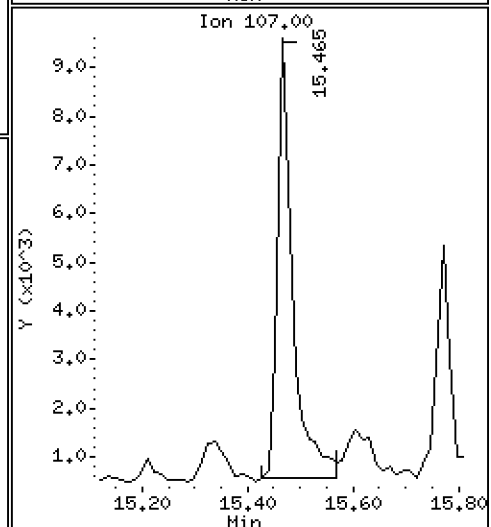
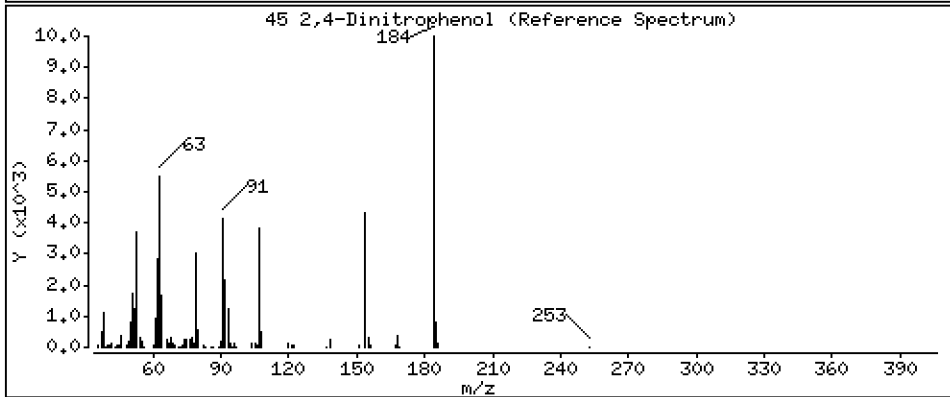
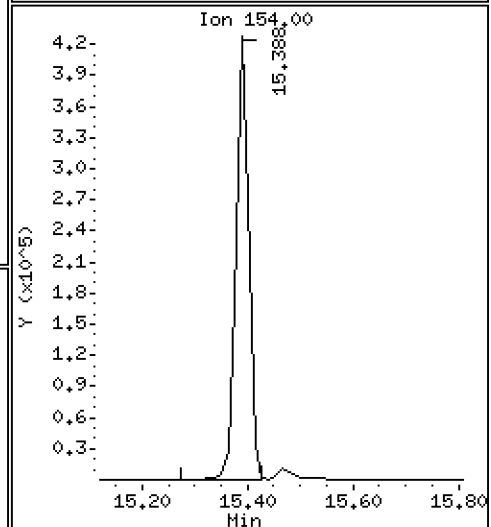
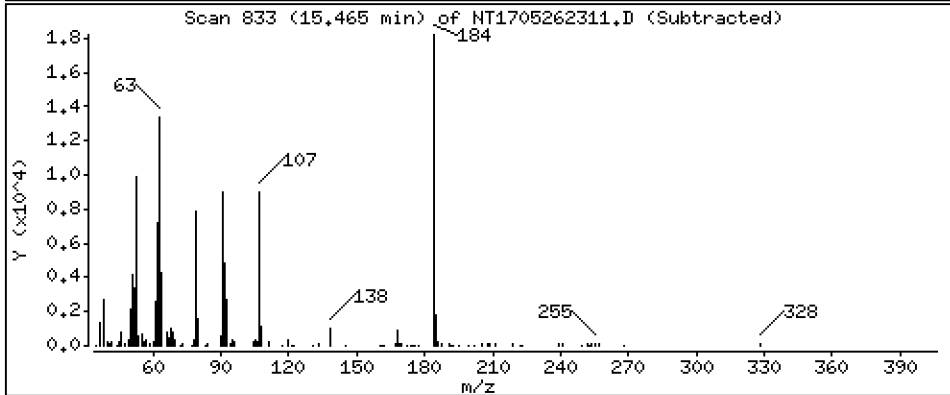
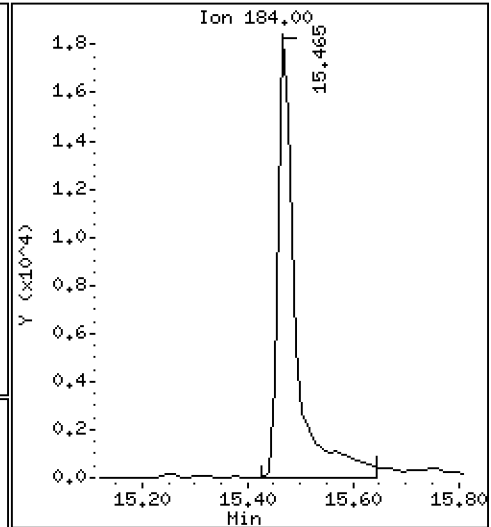
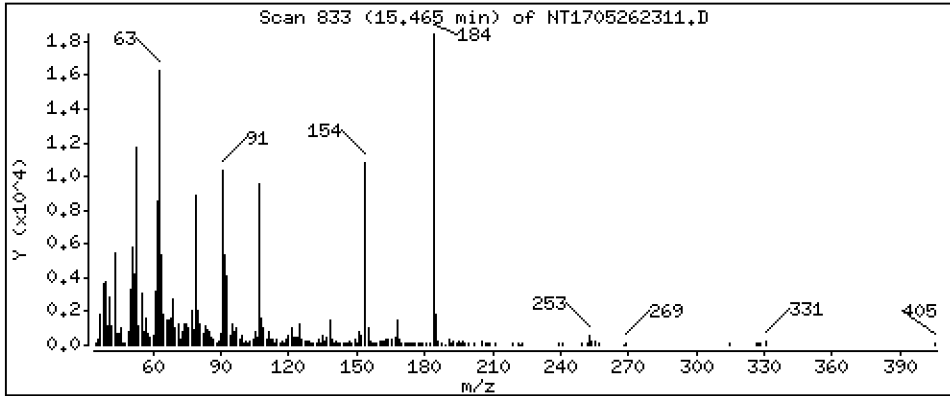
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,786 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

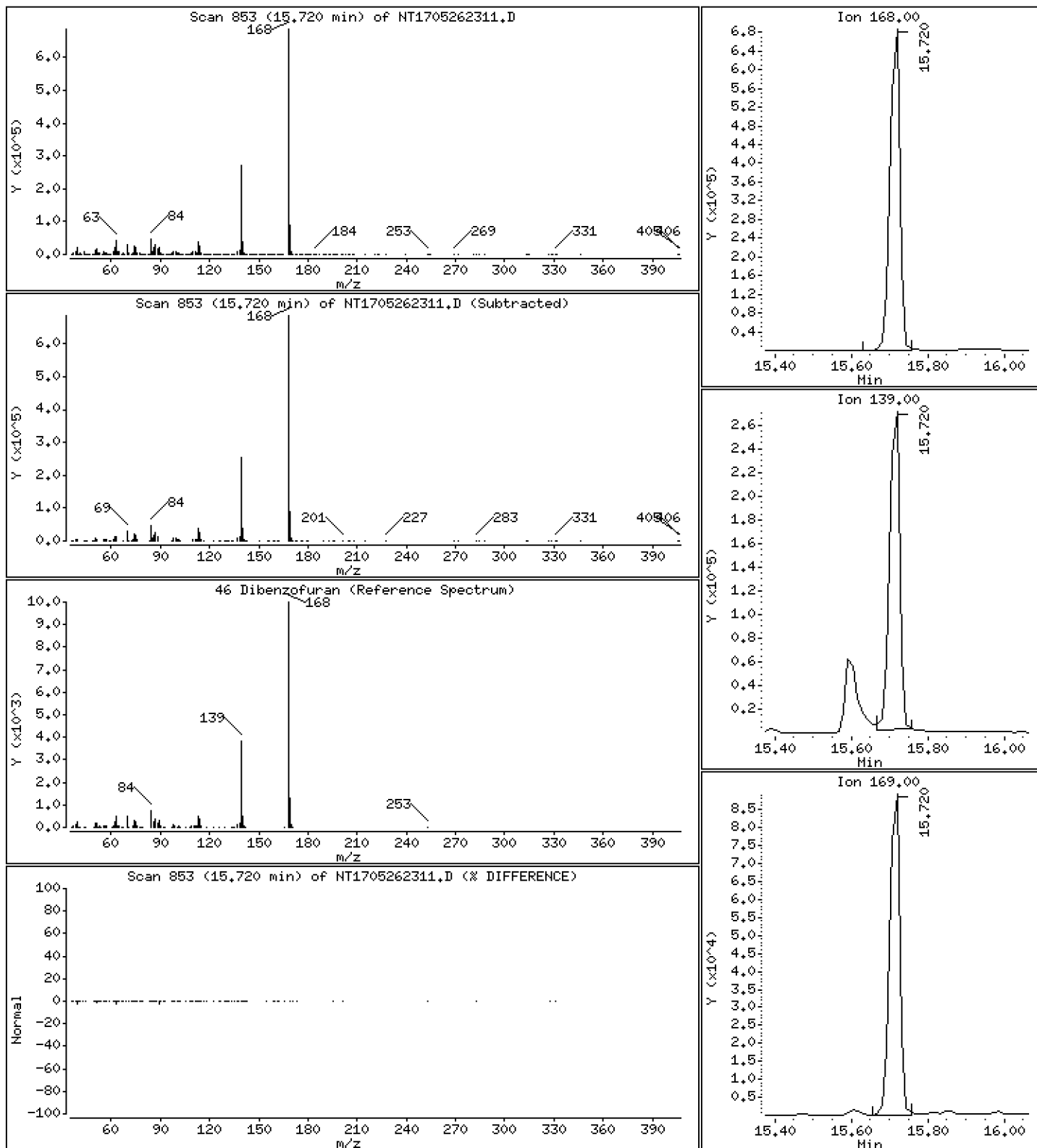
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,490 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

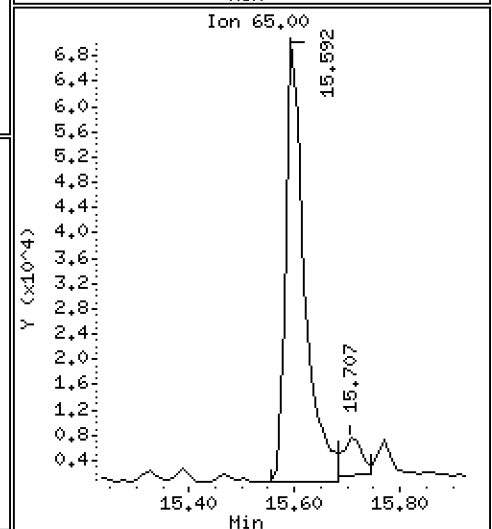
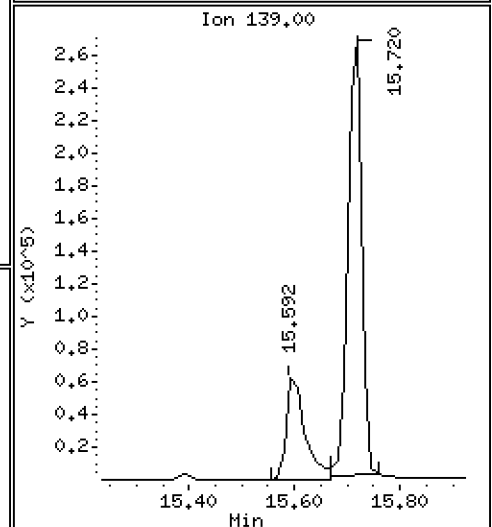
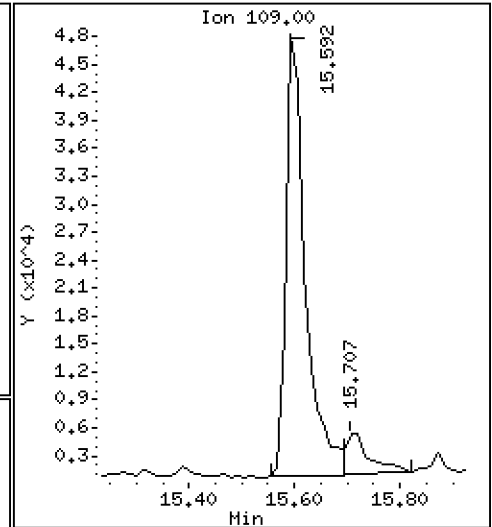
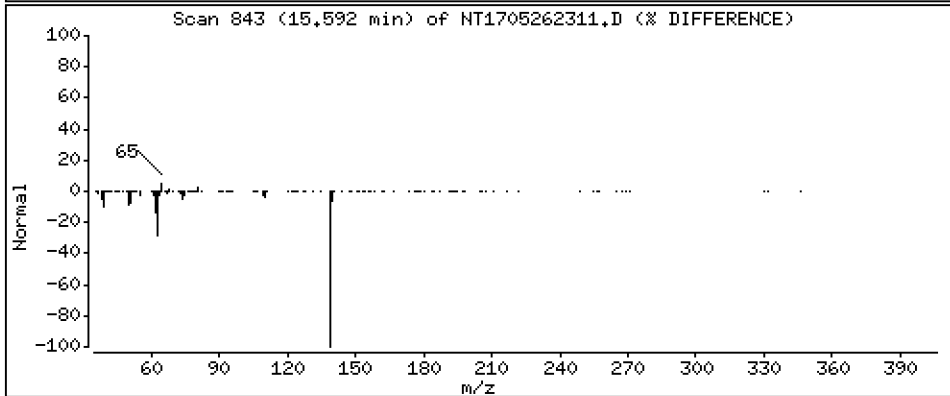
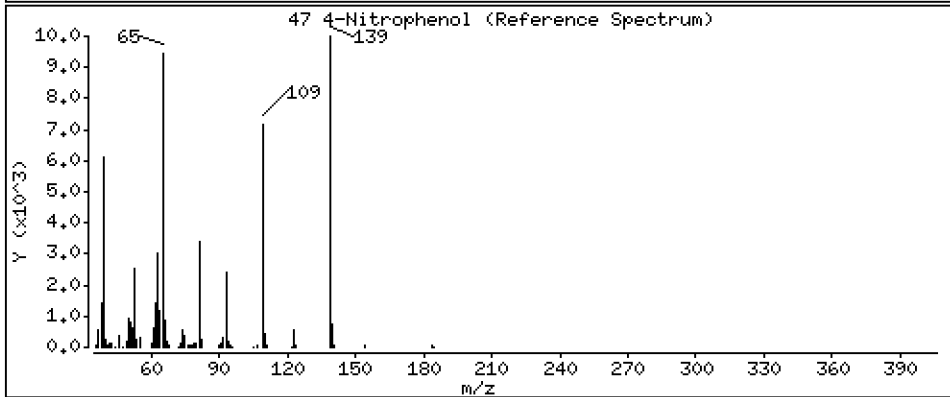
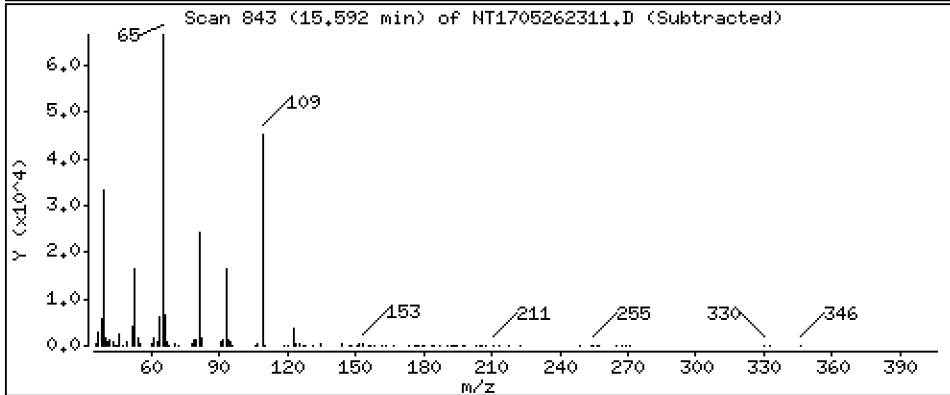
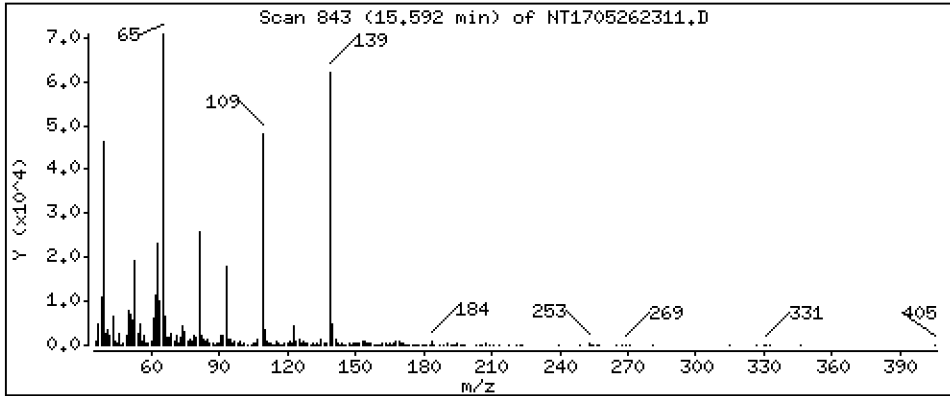
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,996 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

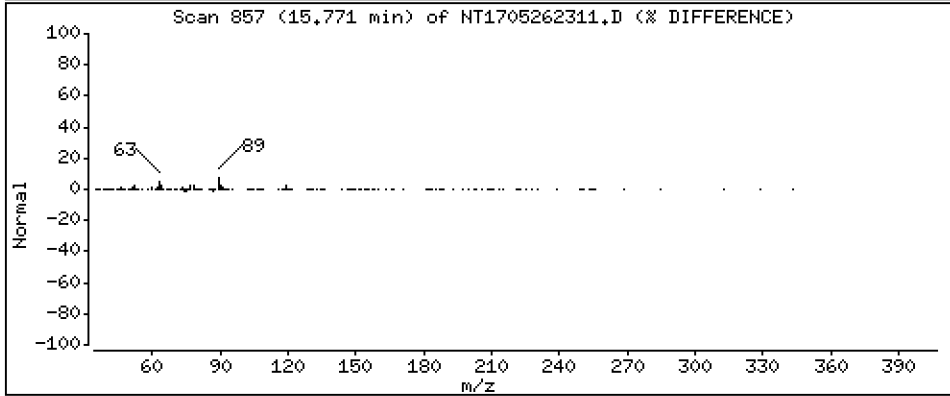
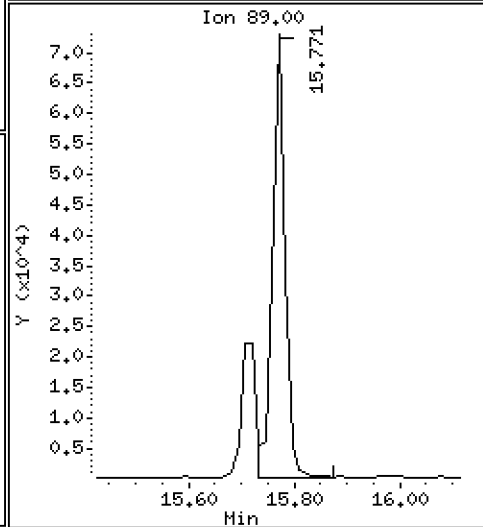
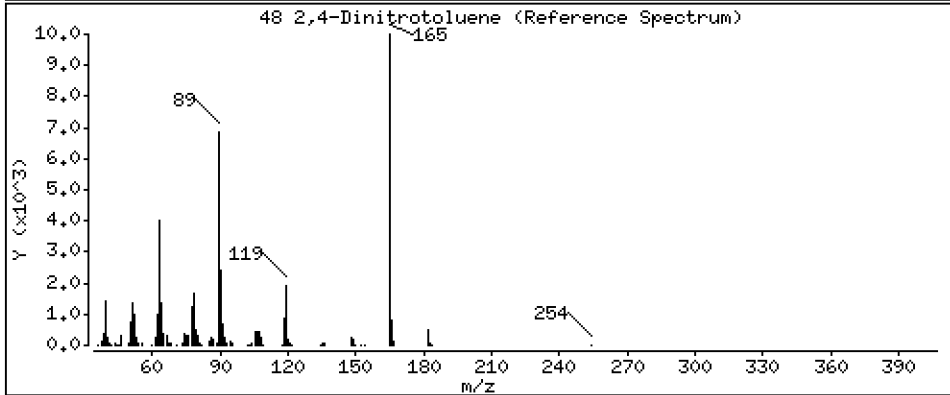
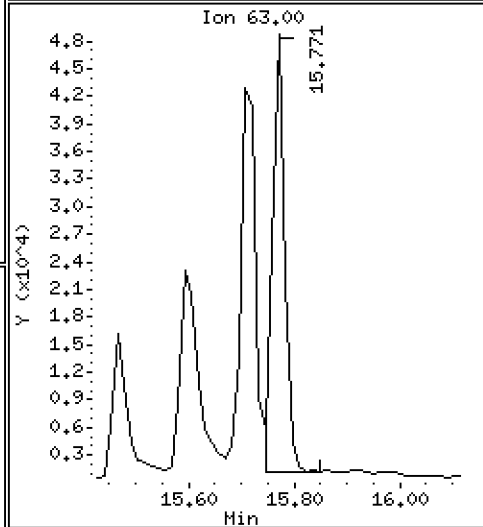
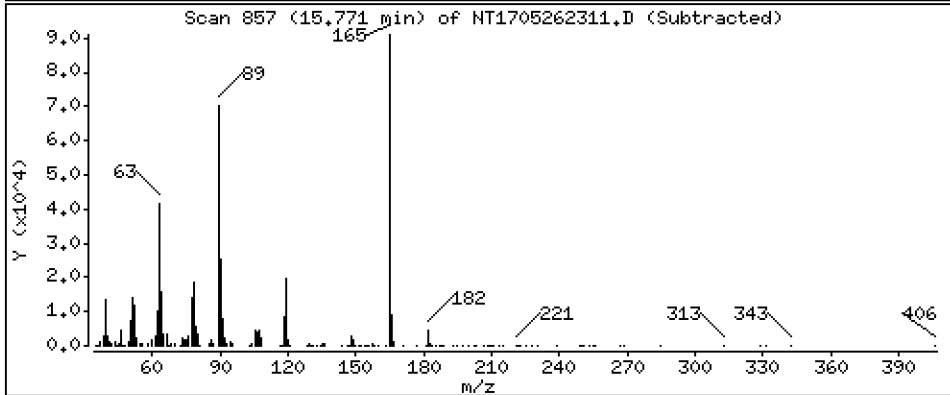
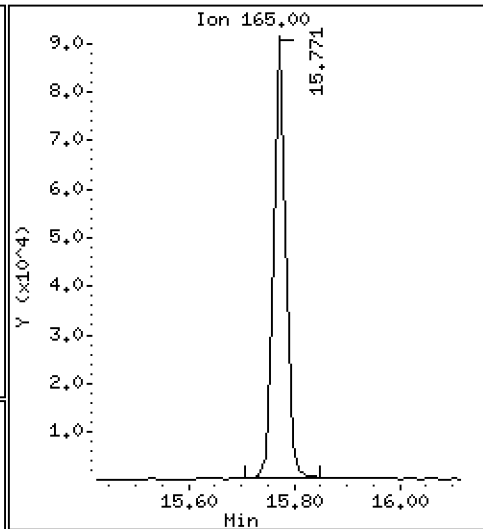
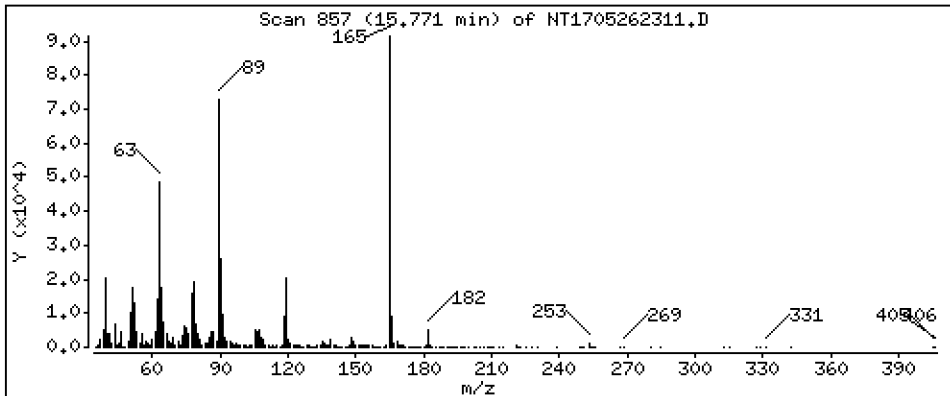
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 2,796 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

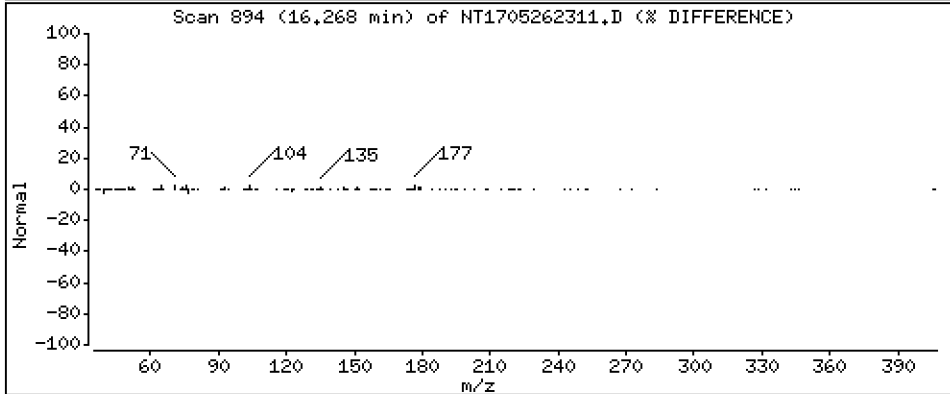
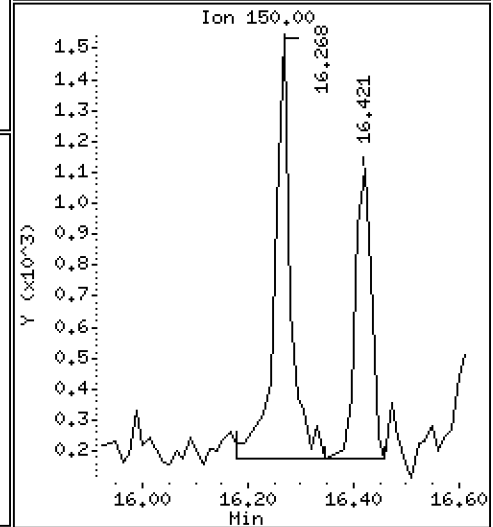
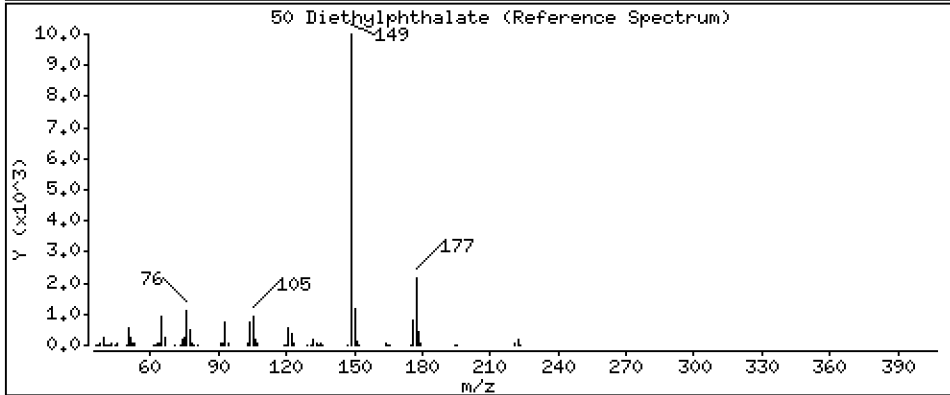
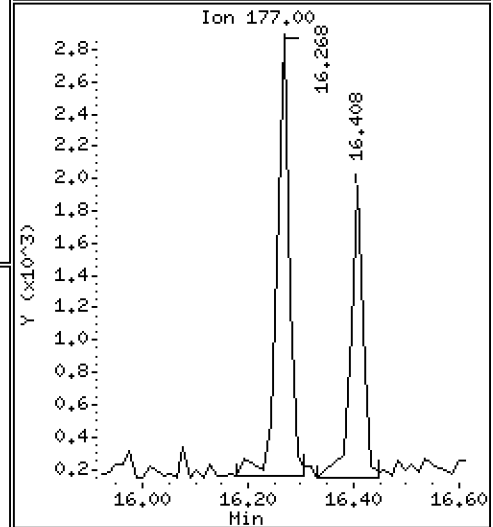
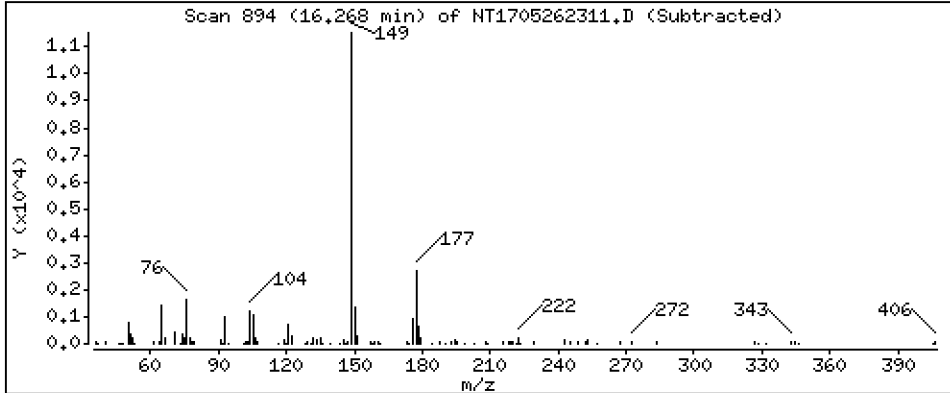
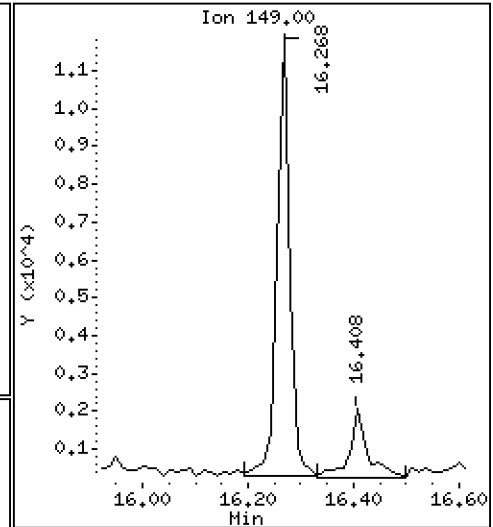
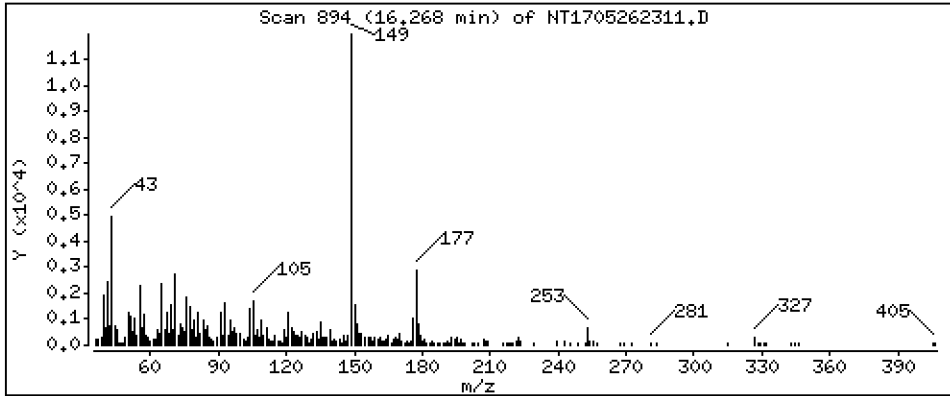
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1404 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

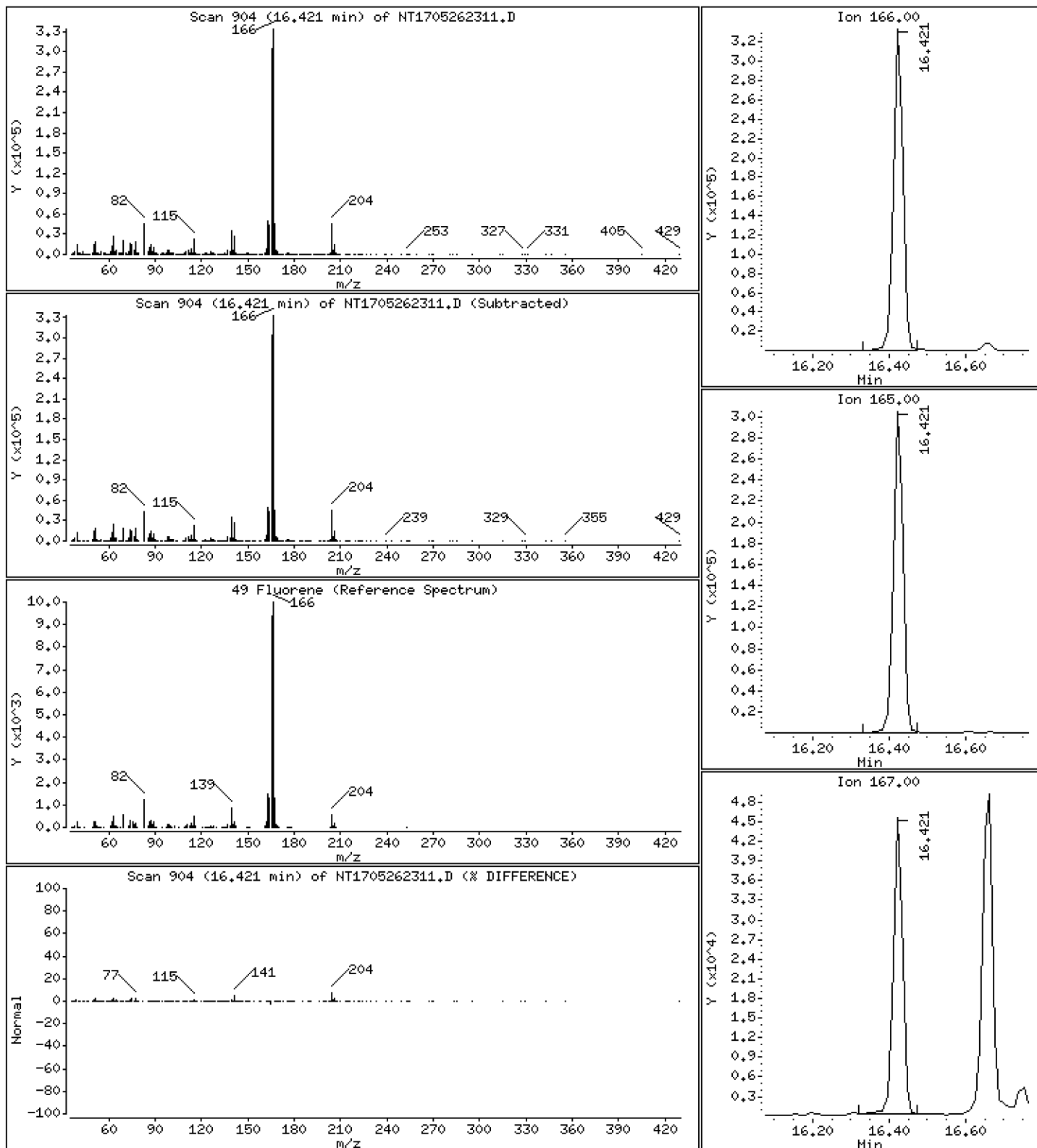
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,328 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

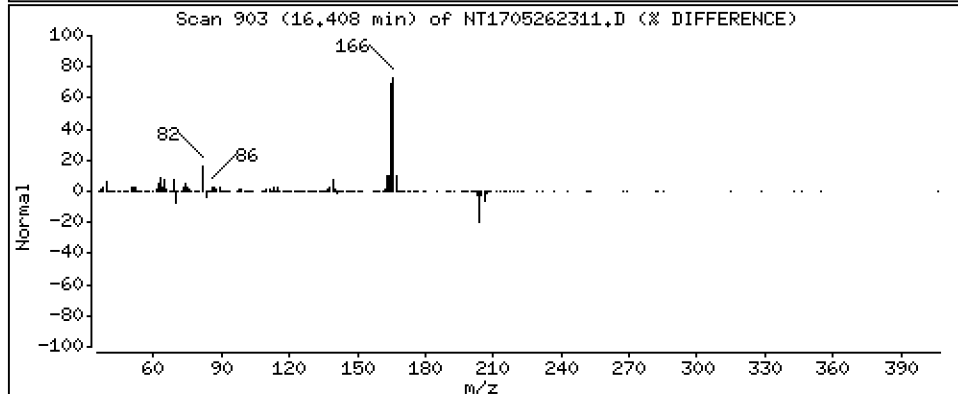
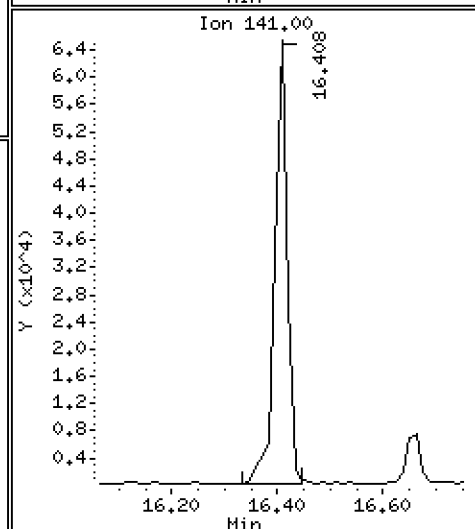
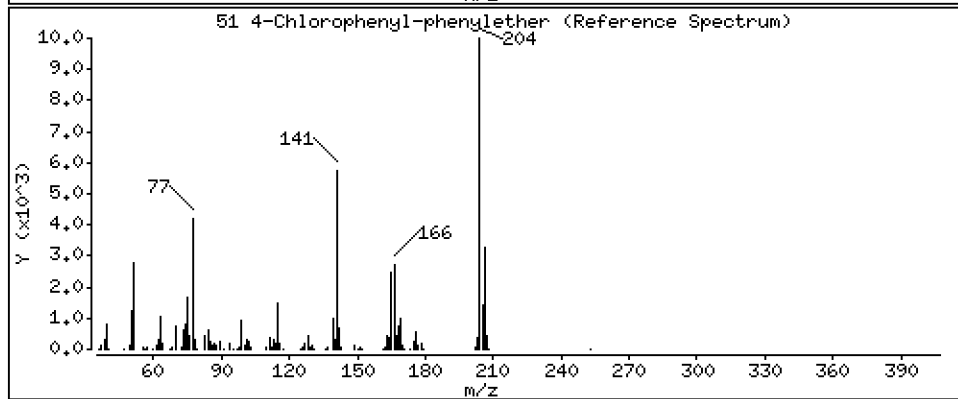
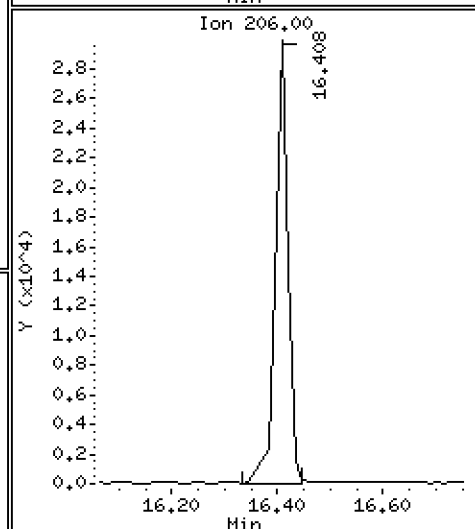
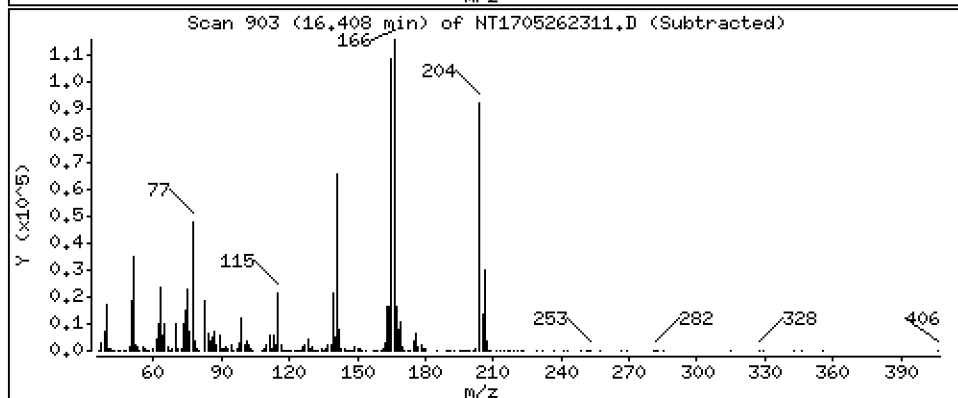
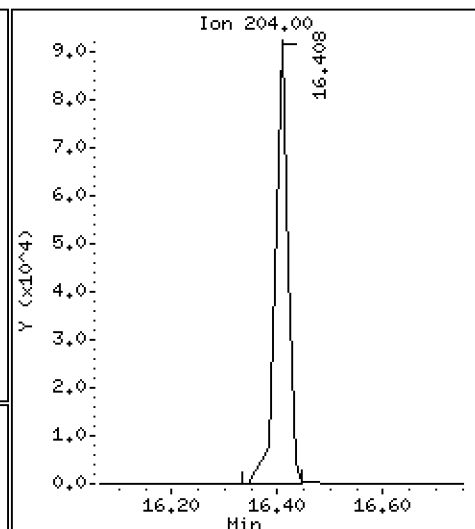
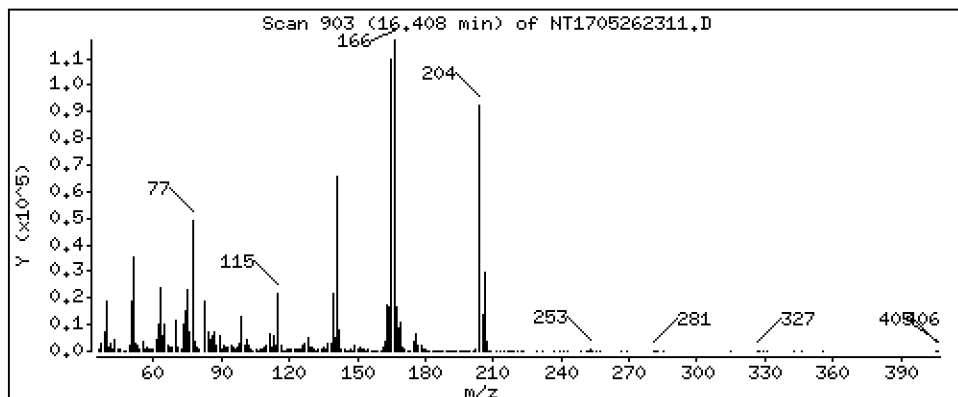
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 1,964 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

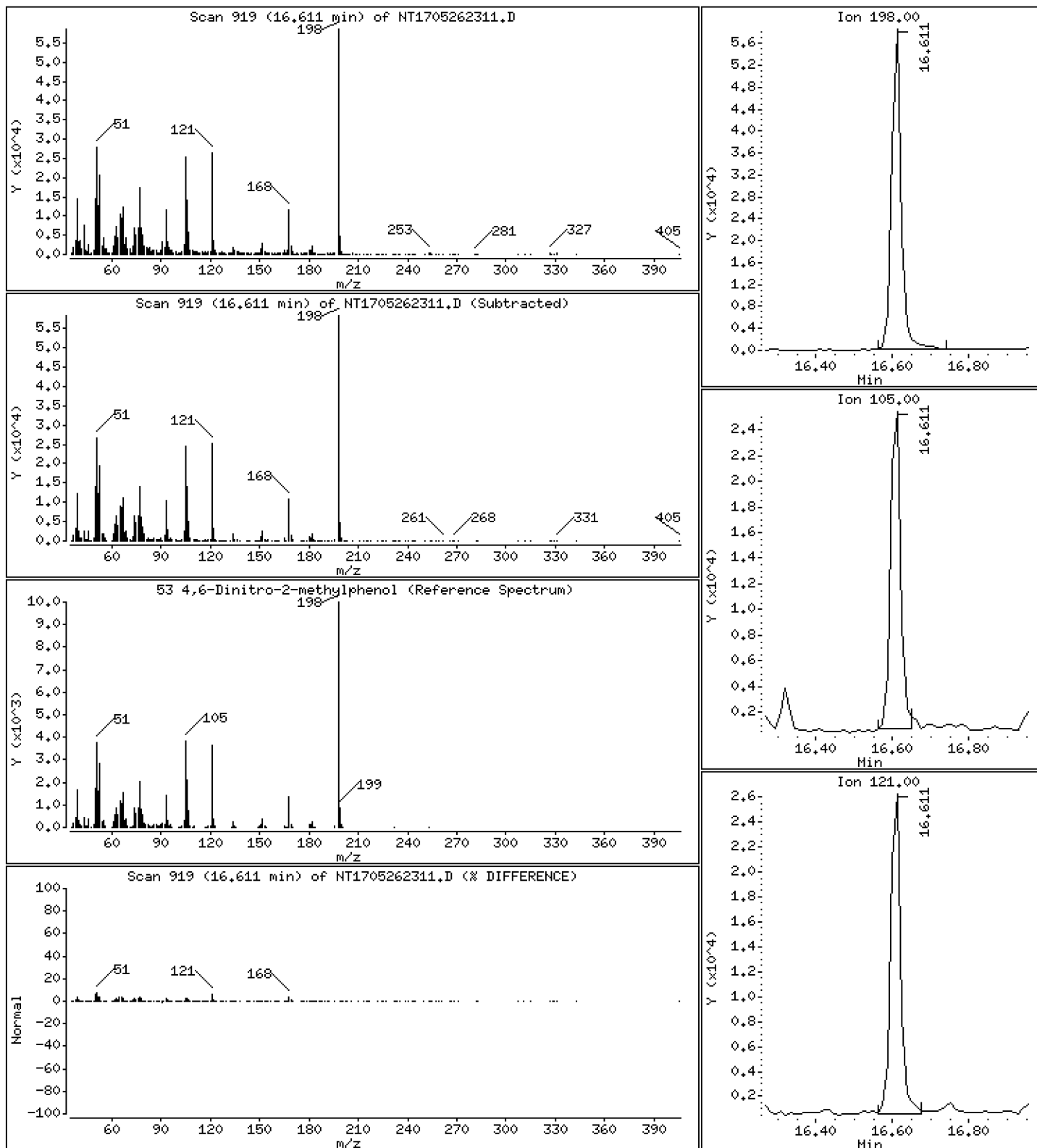
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,349 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

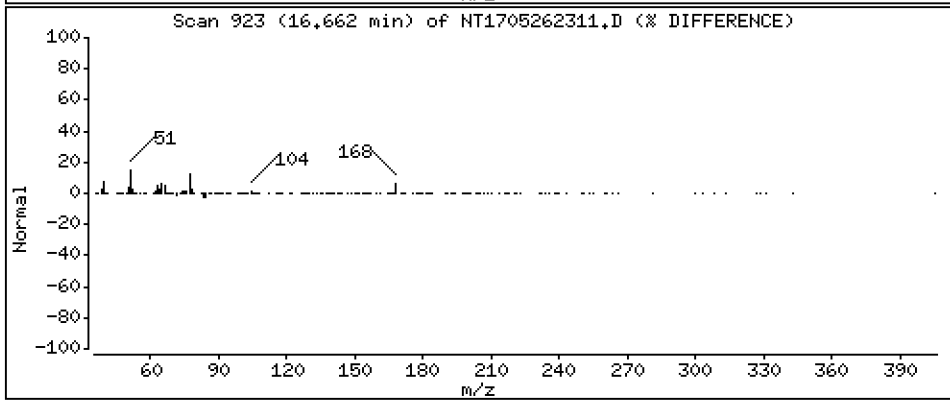
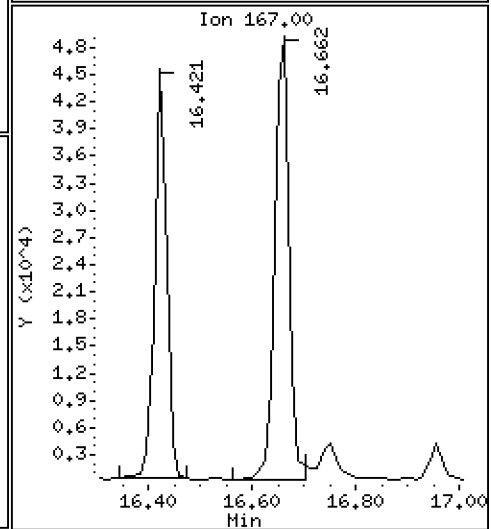
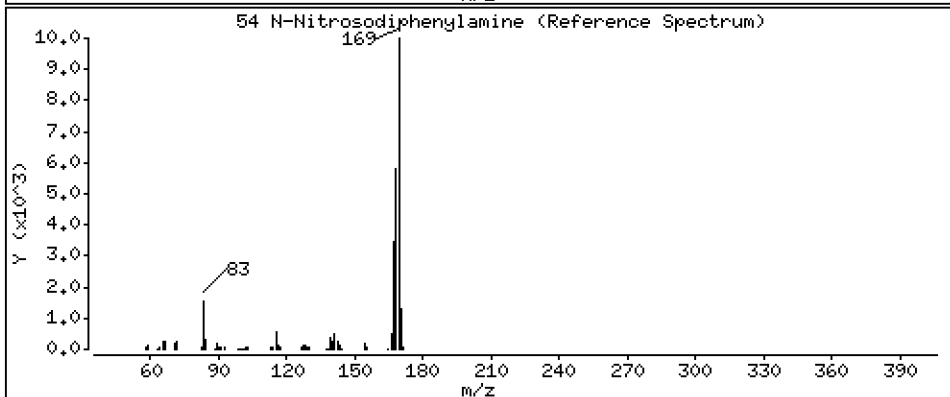
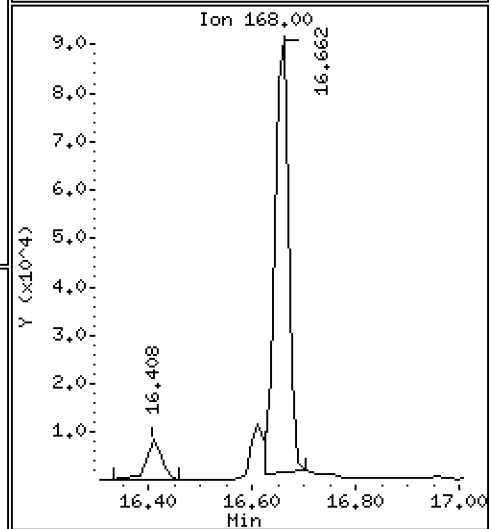
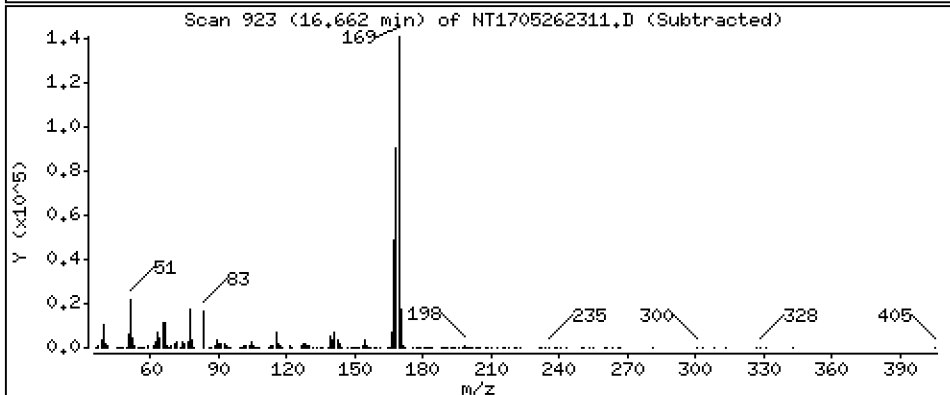
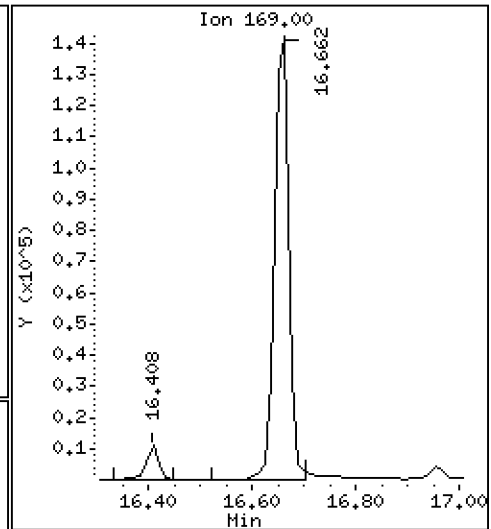
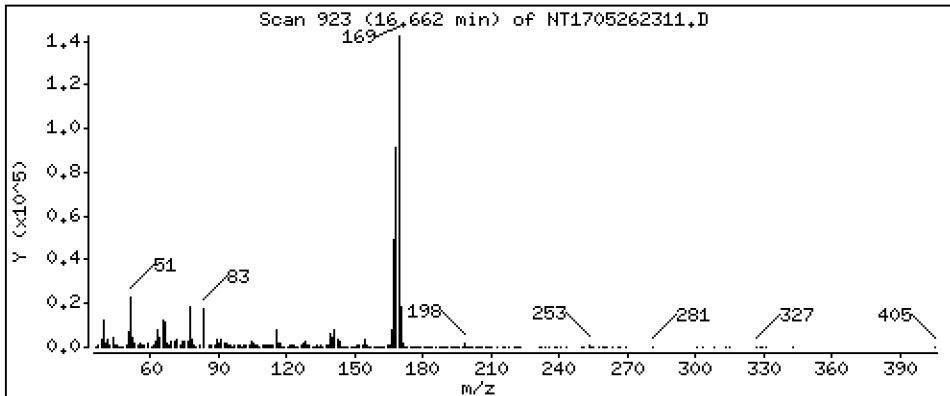
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,518 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

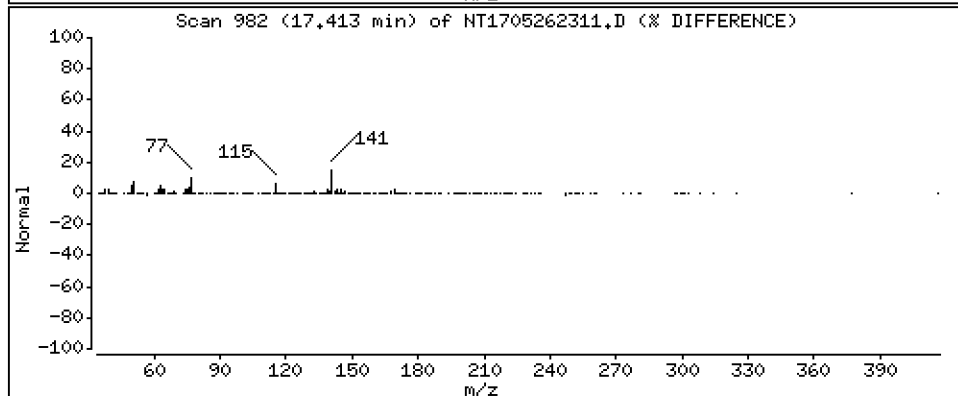
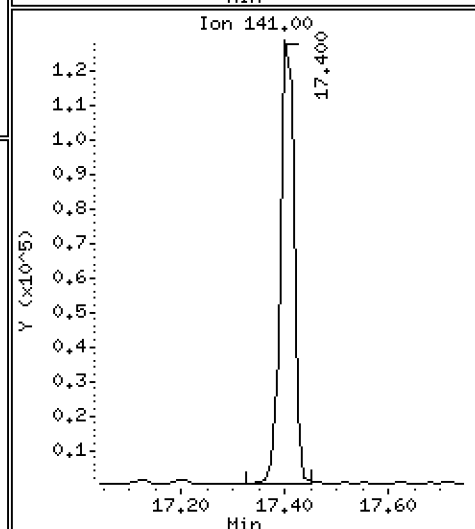
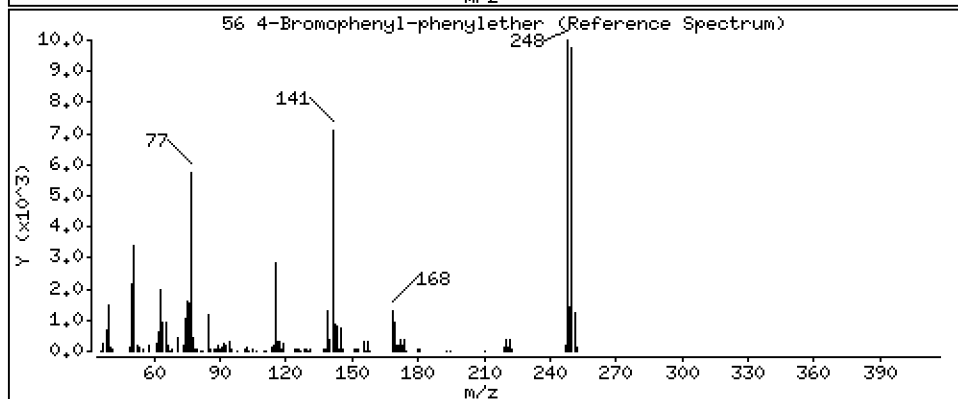
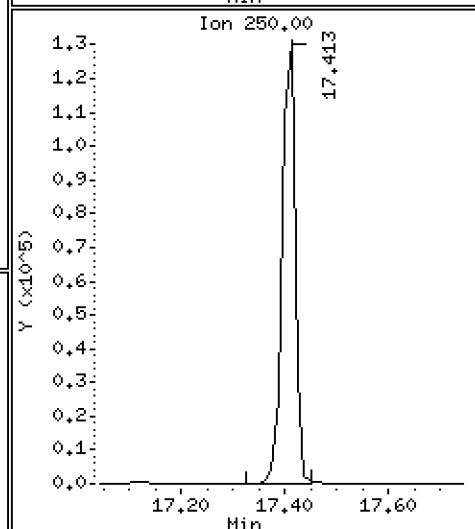
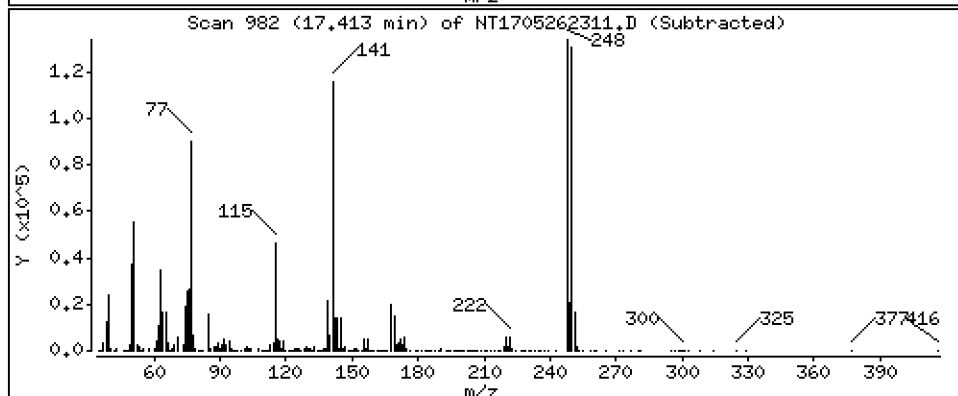
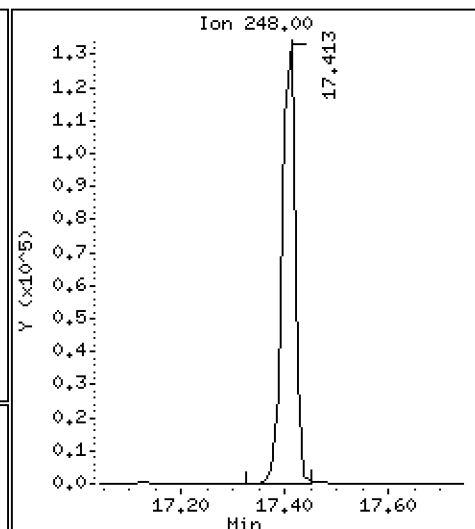
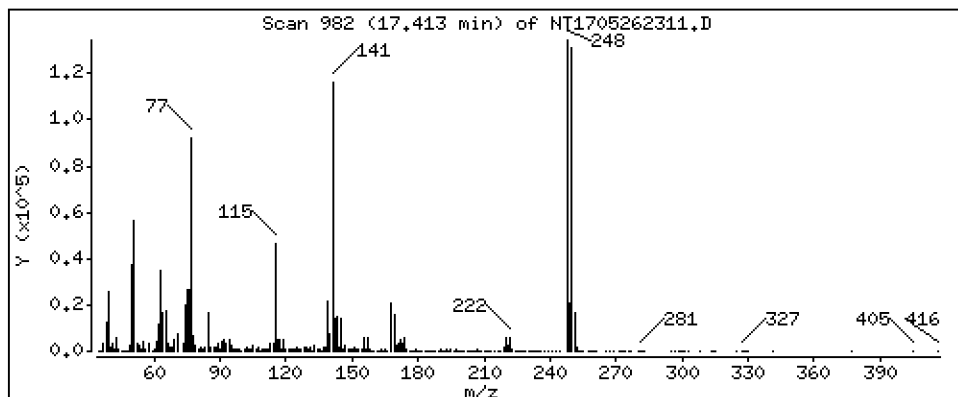
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 6,359 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

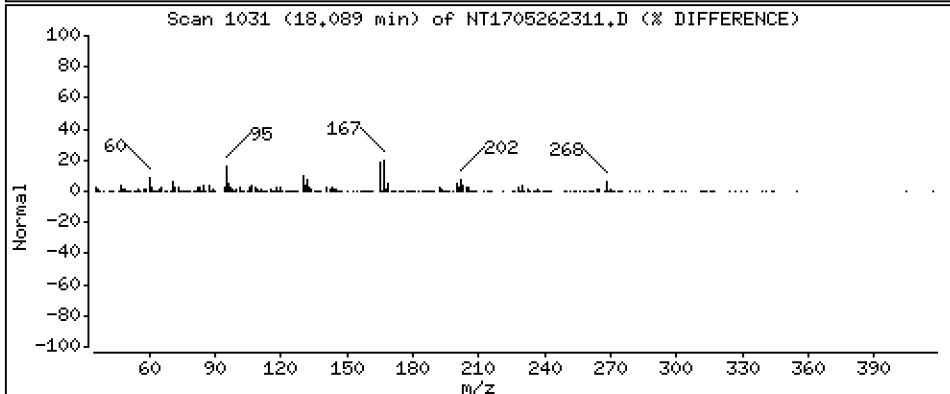
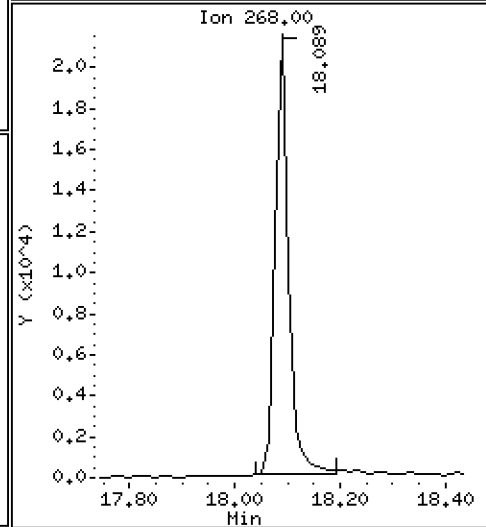
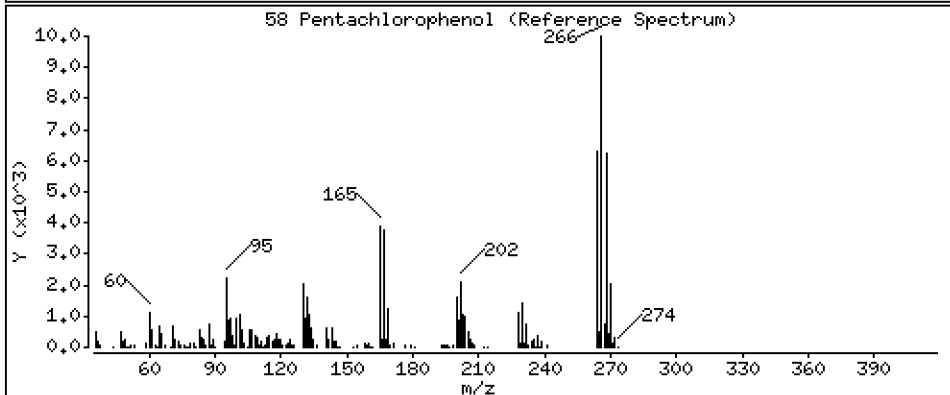
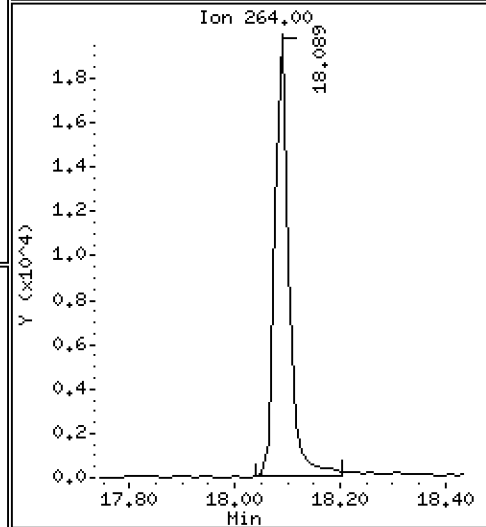
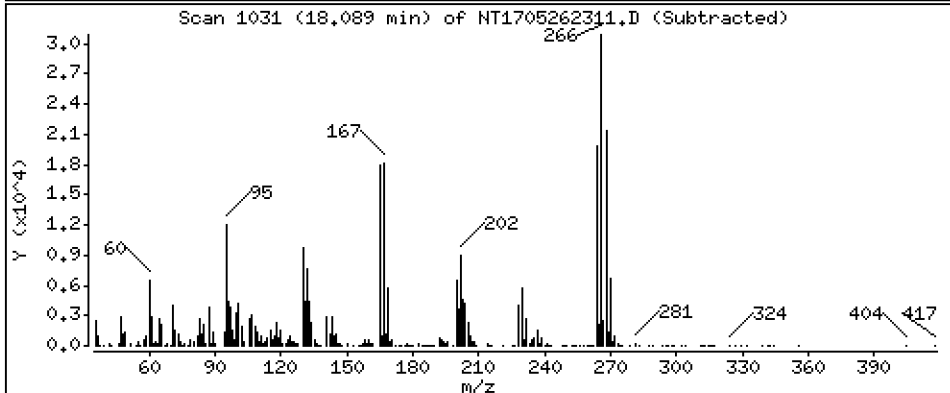
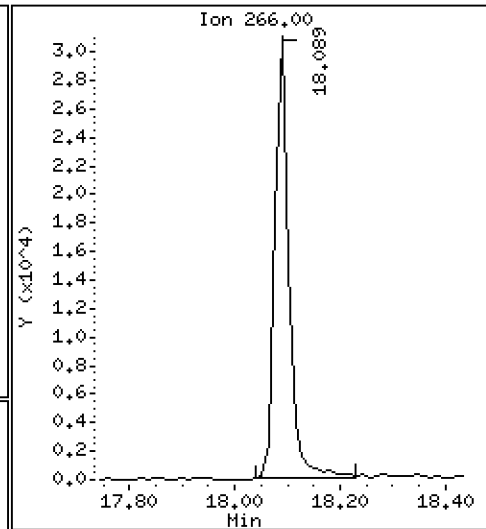
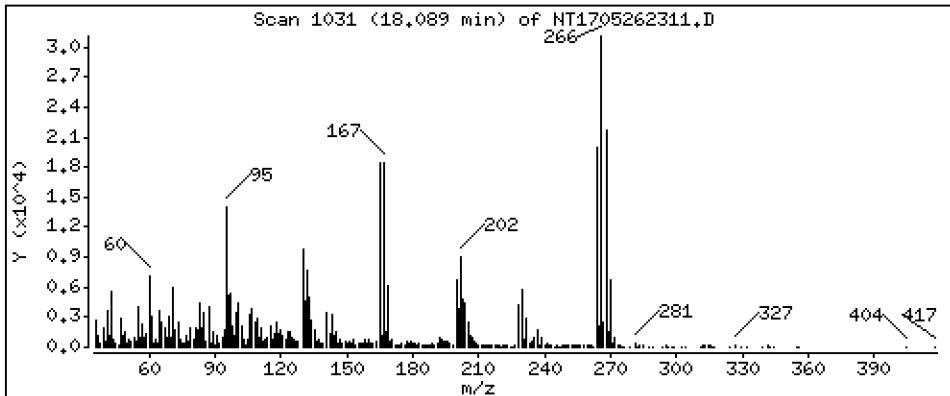
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 2,592 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

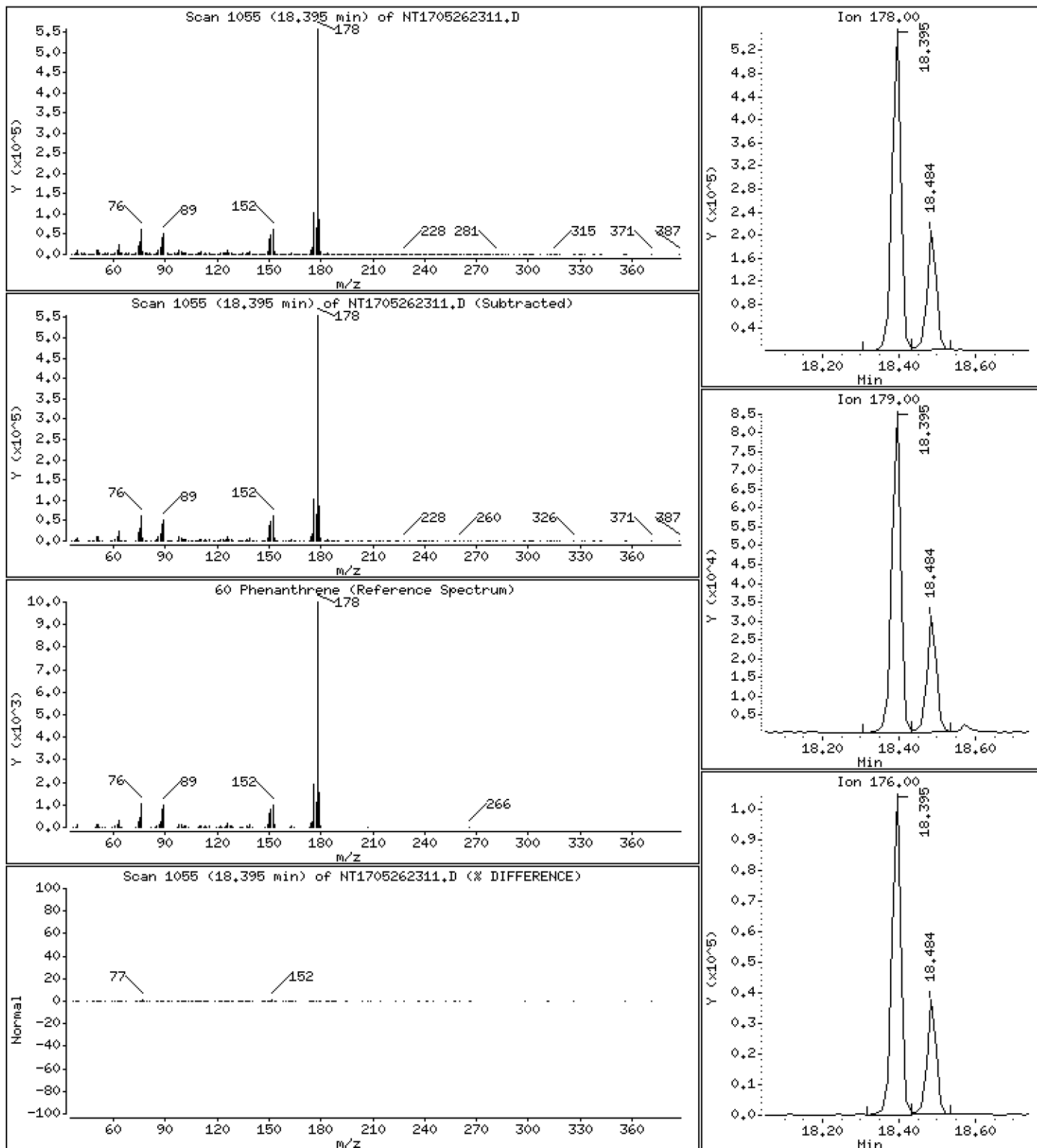
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,157 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

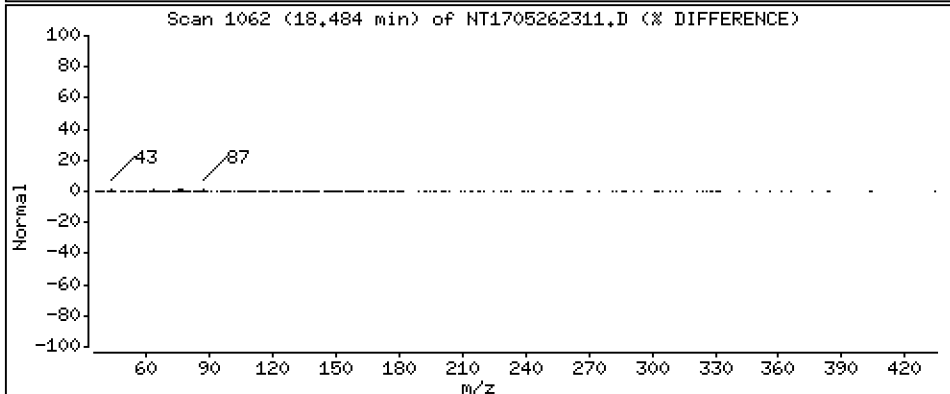
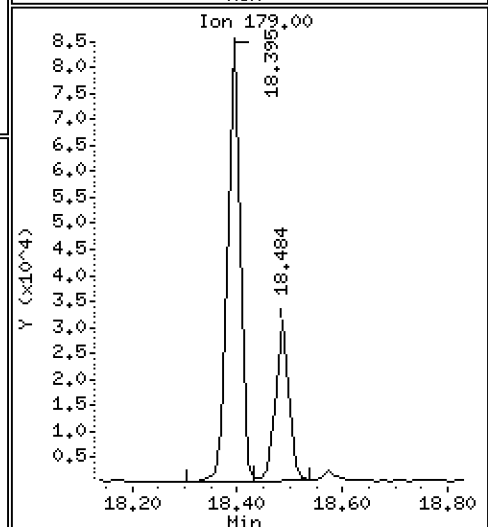
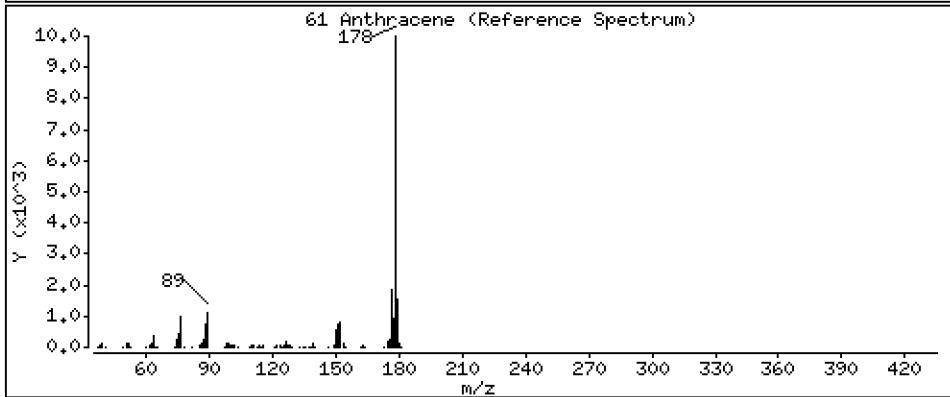
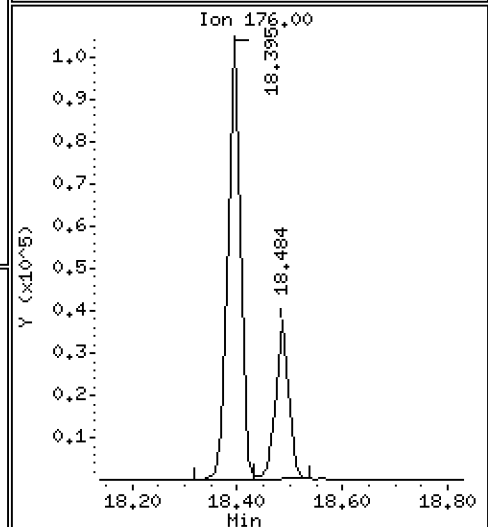
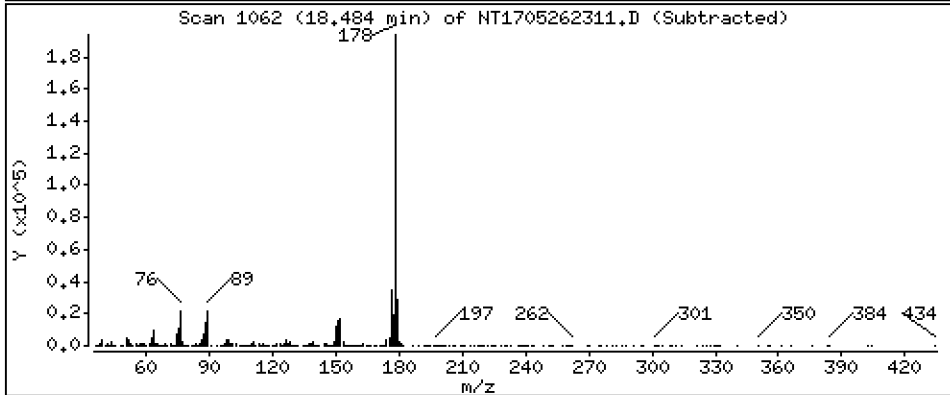
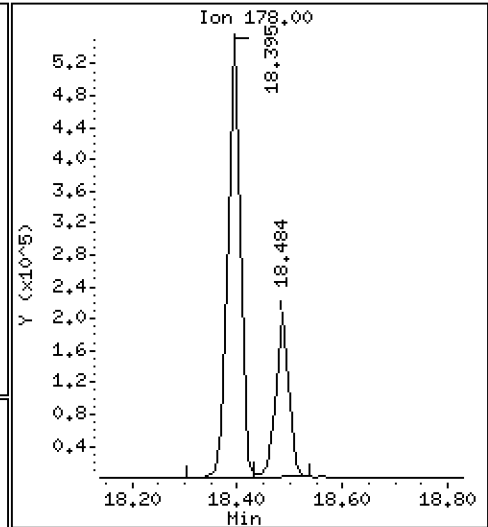
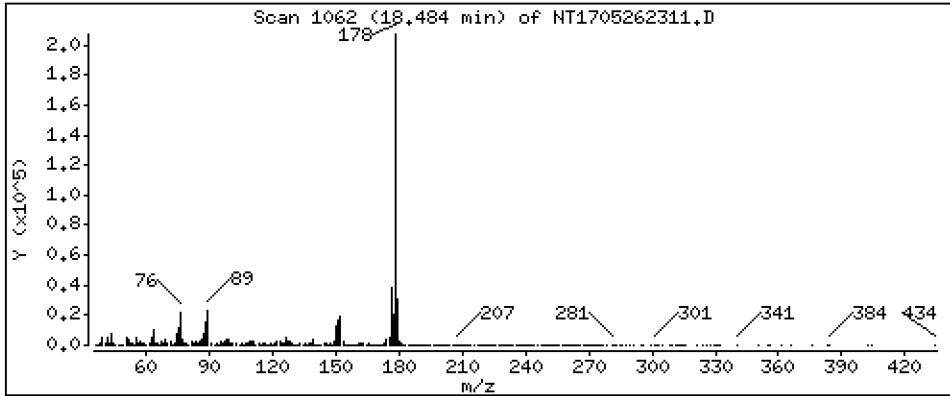
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 1,650 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

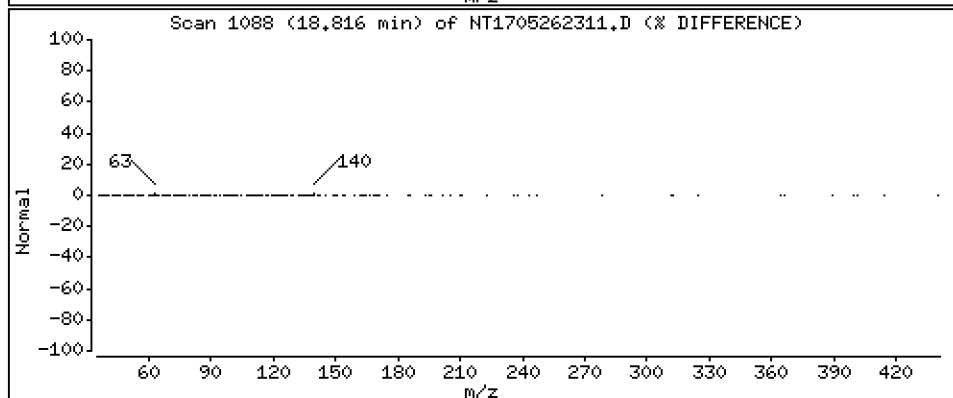
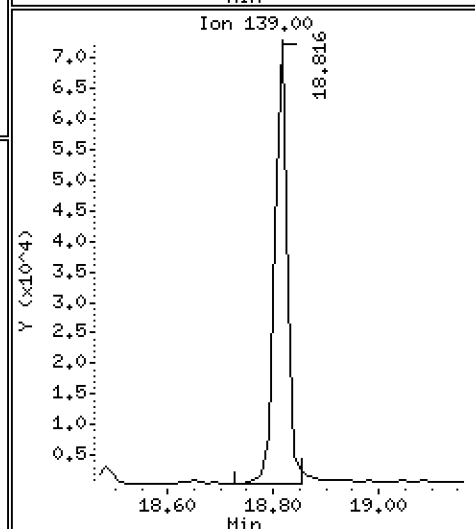
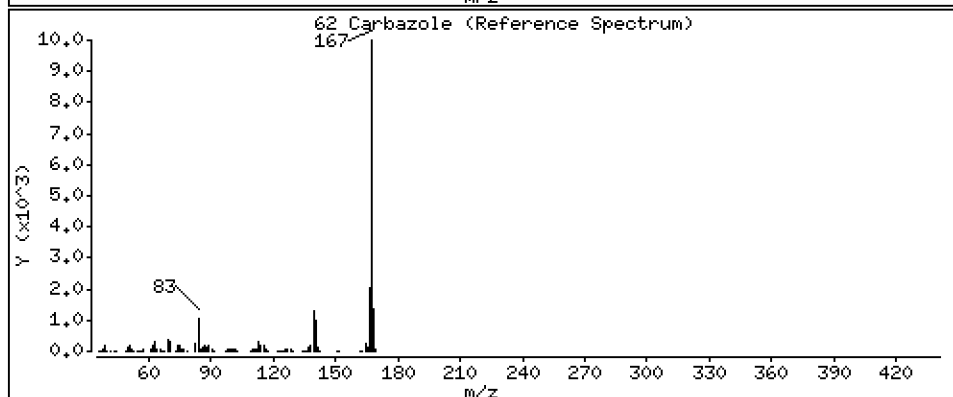
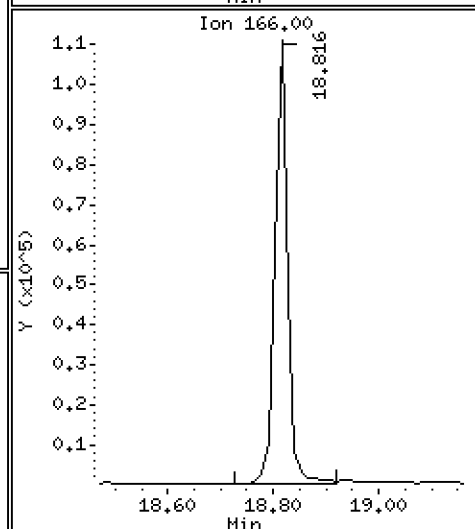
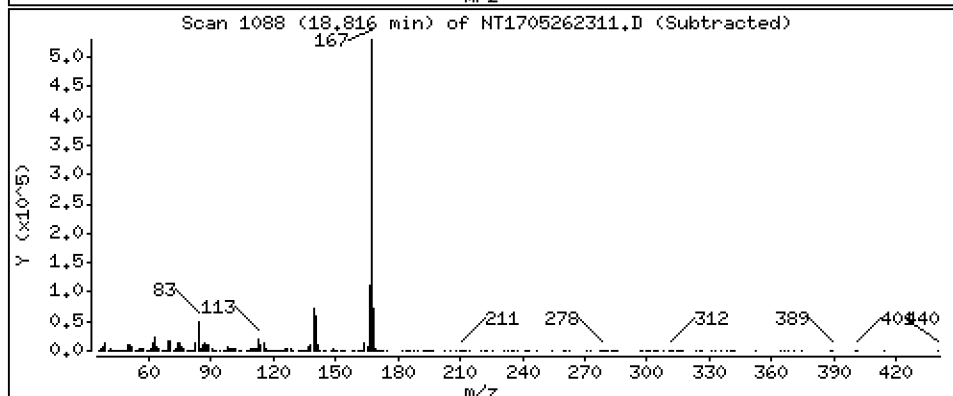
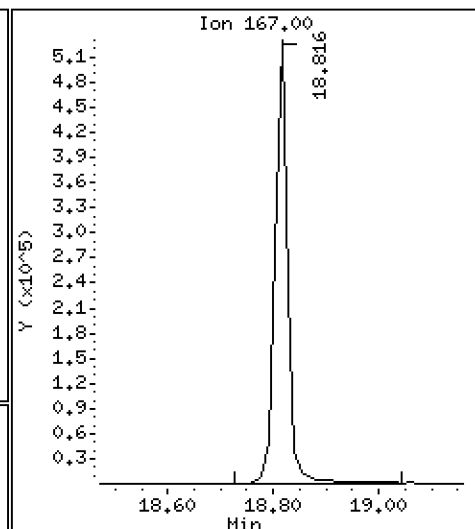
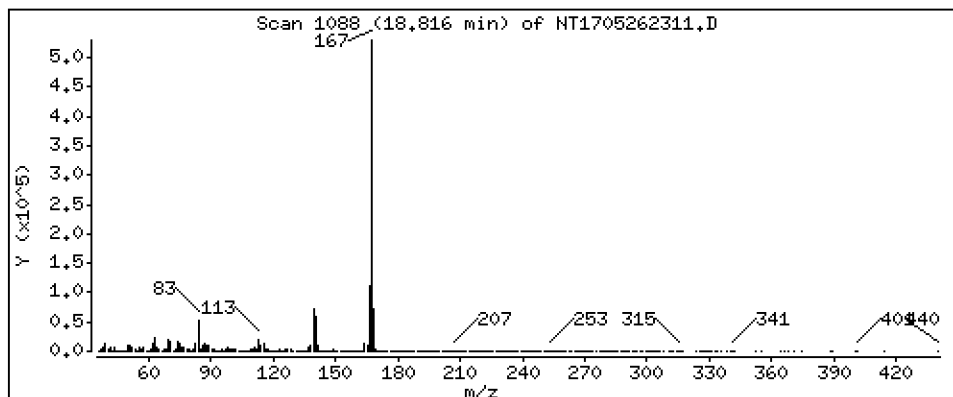
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 6.719 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

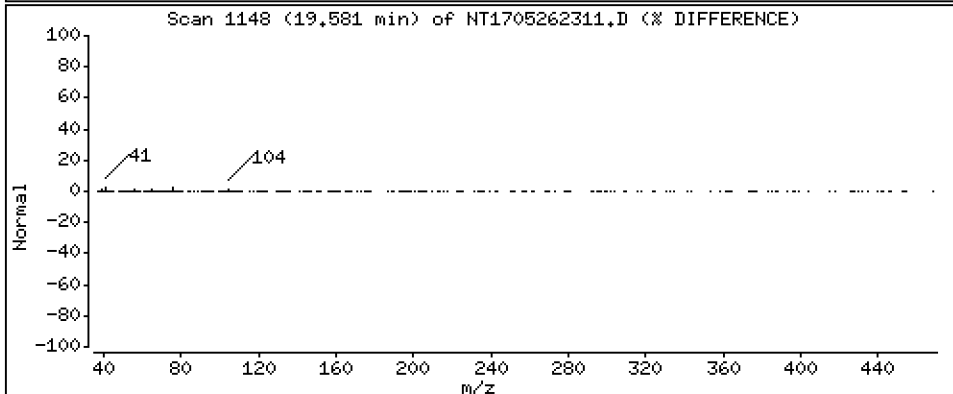
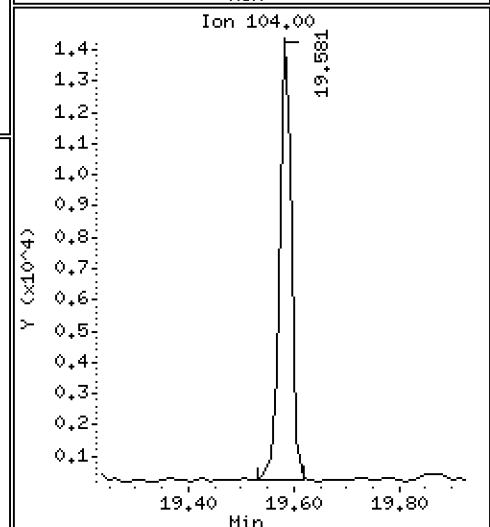
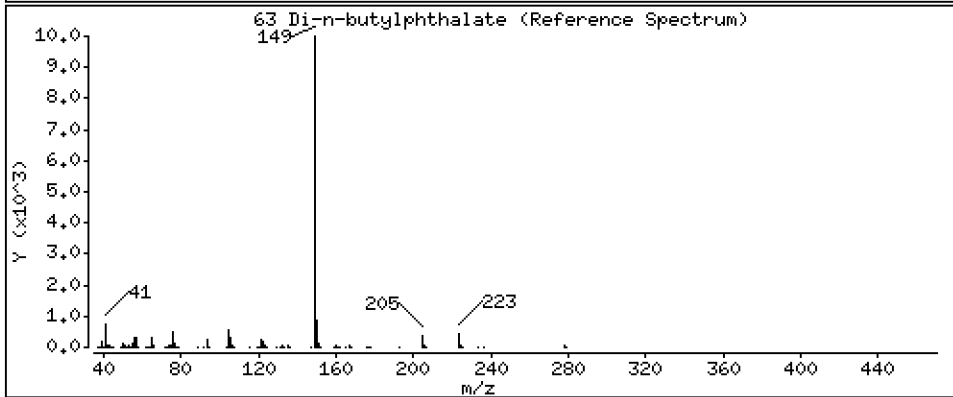
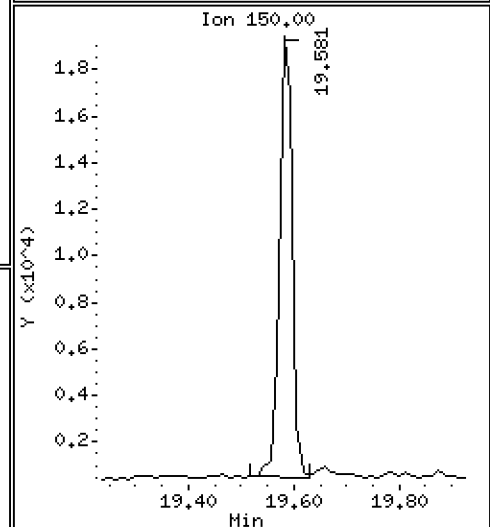
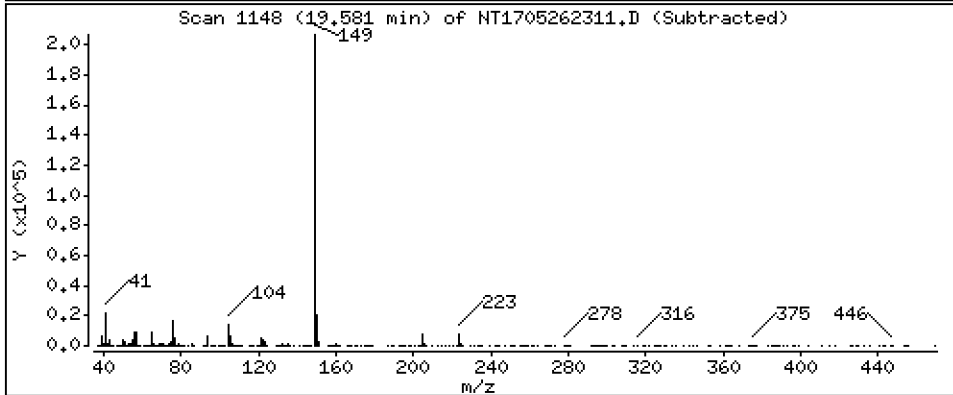
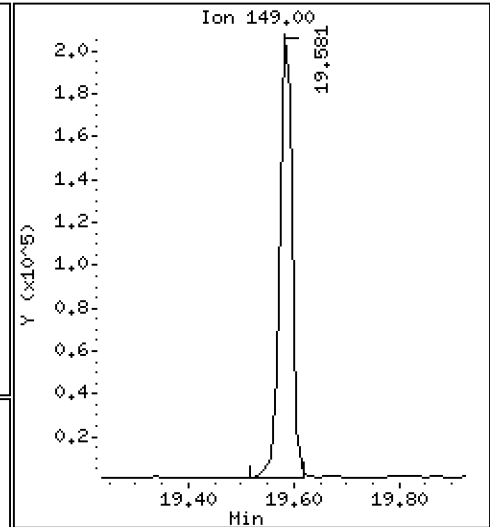
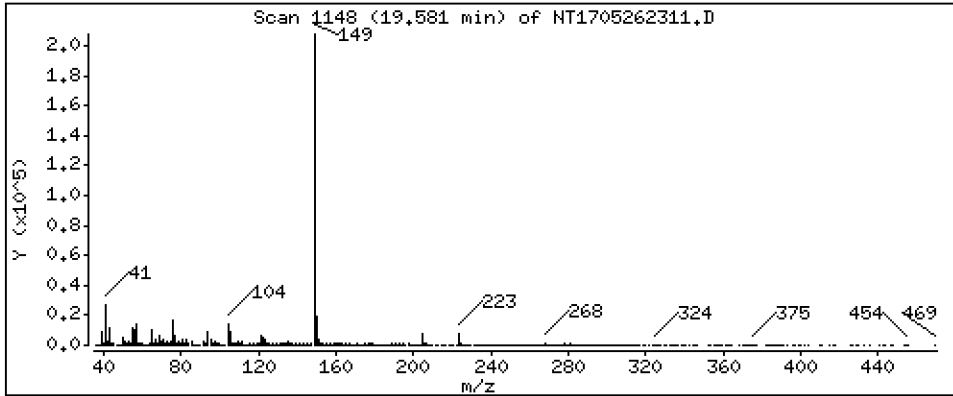
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 1,433 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

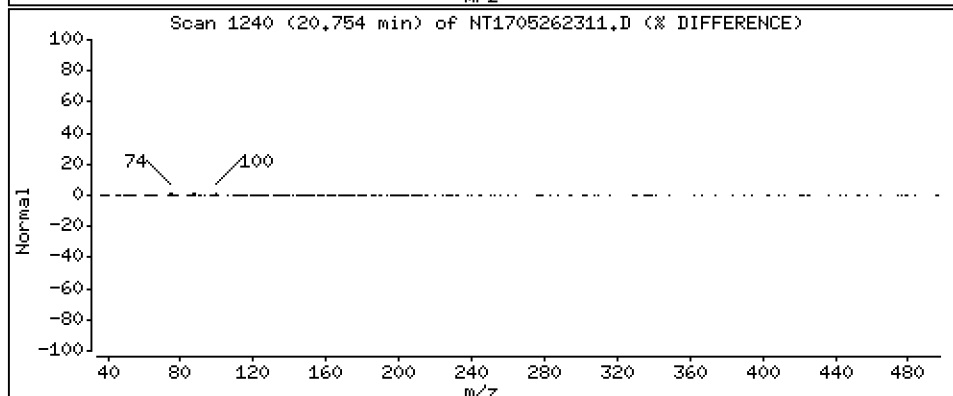
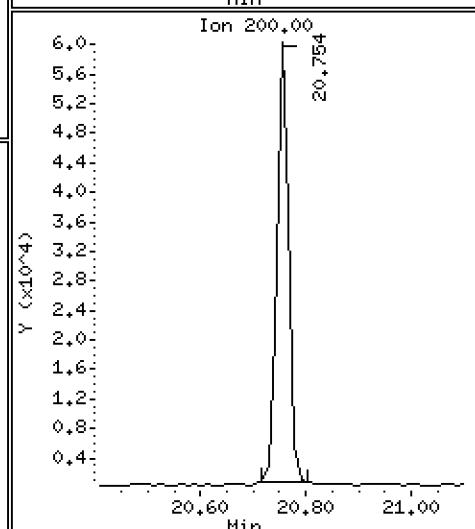
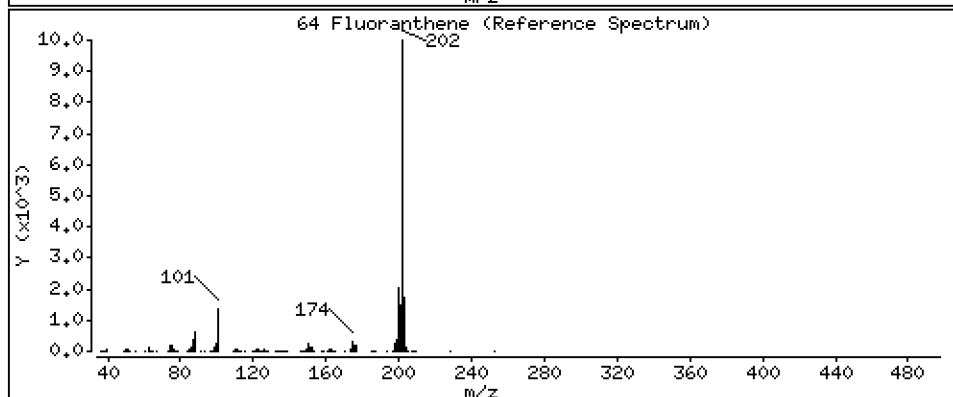
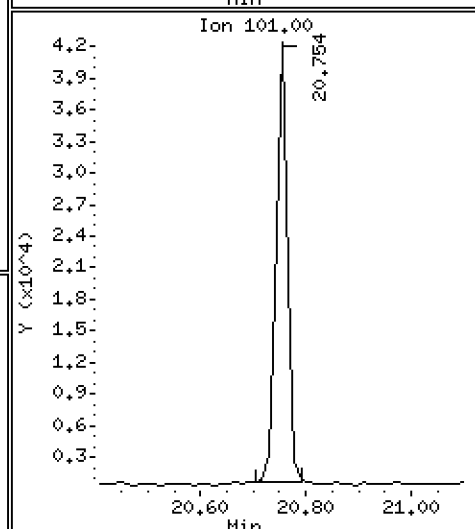
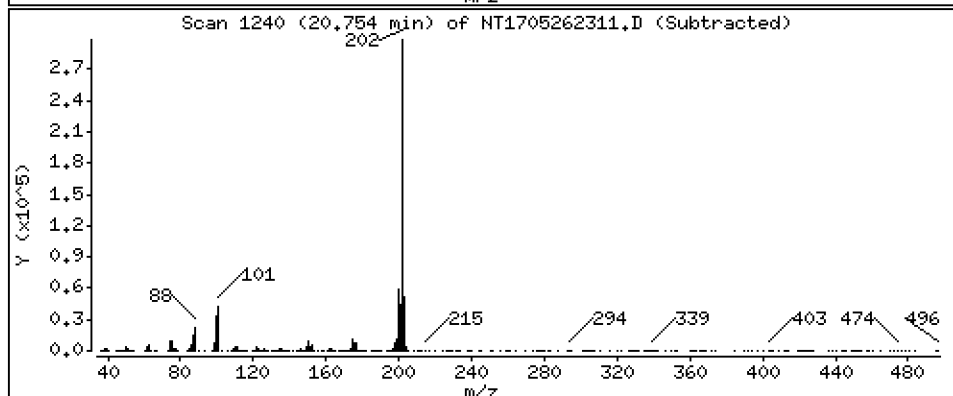
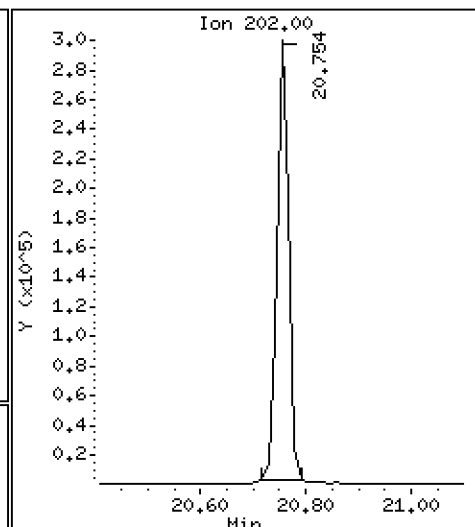
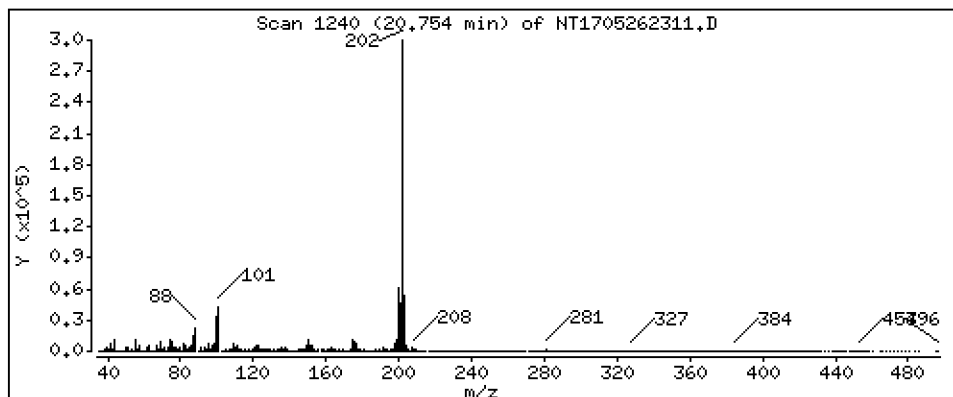
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 1,592 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

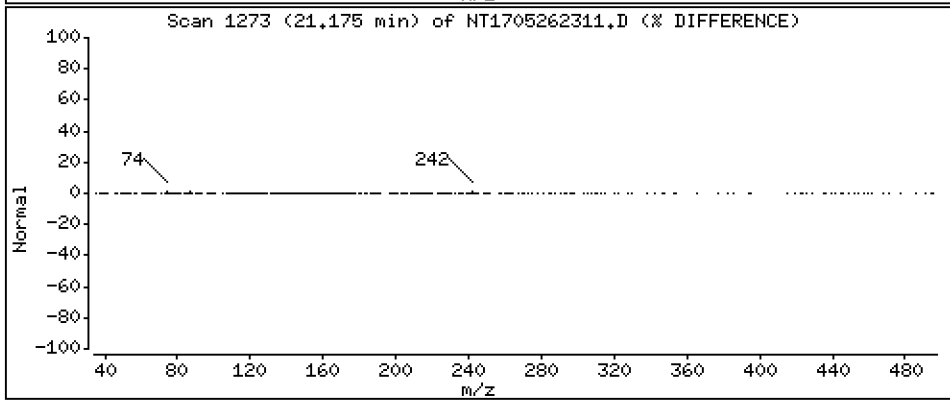
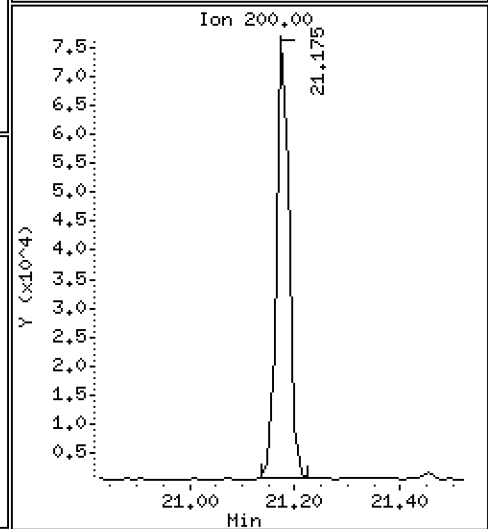
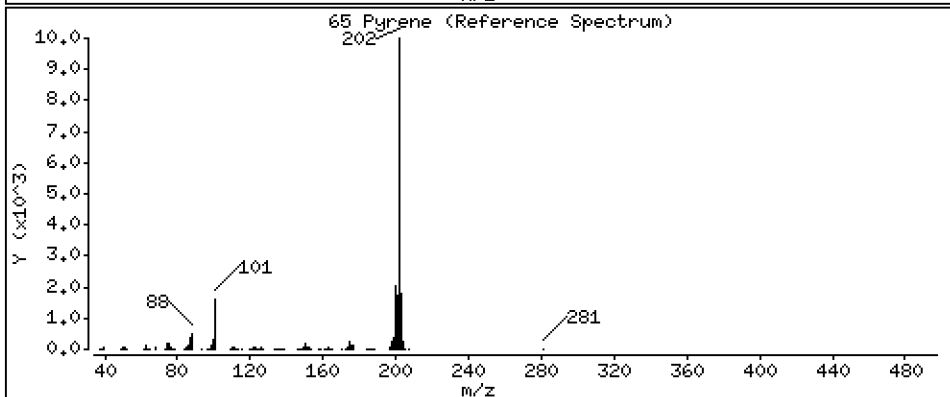
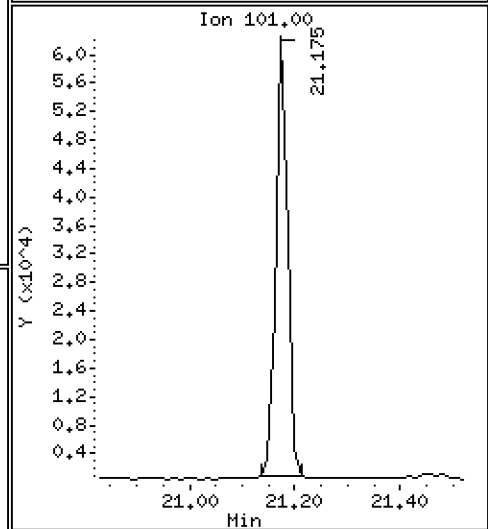
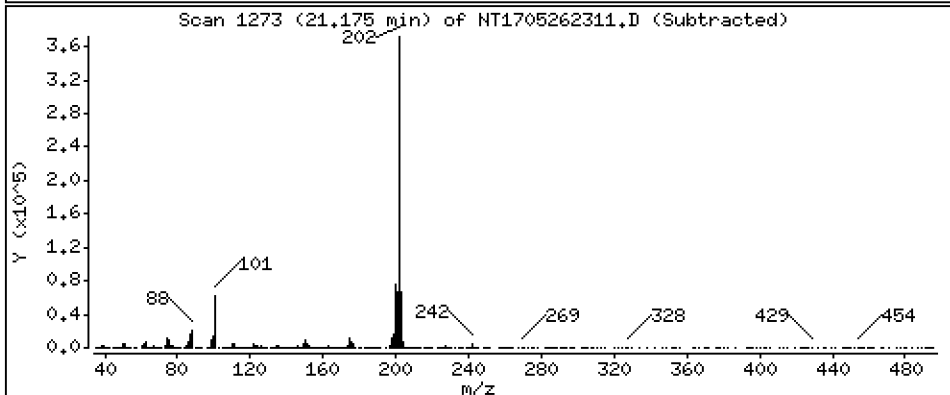
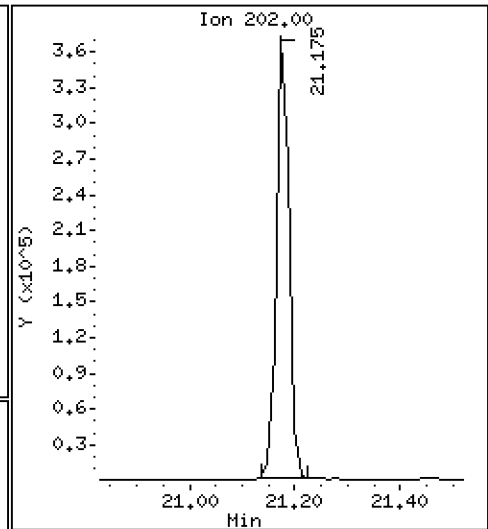
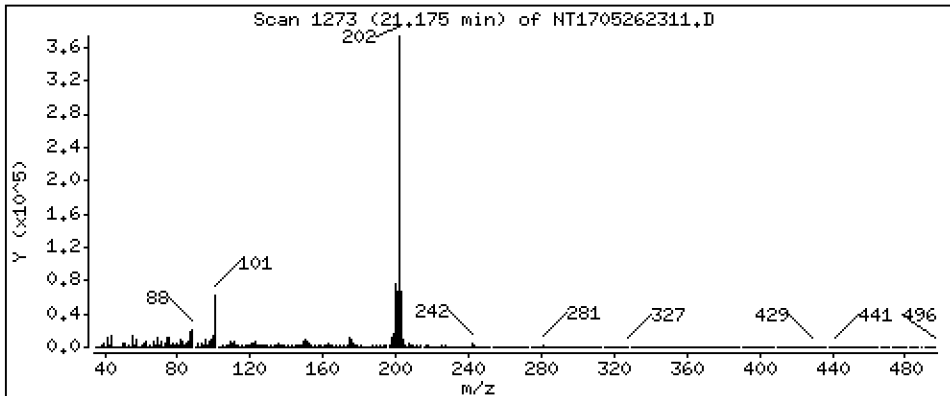
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,036 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

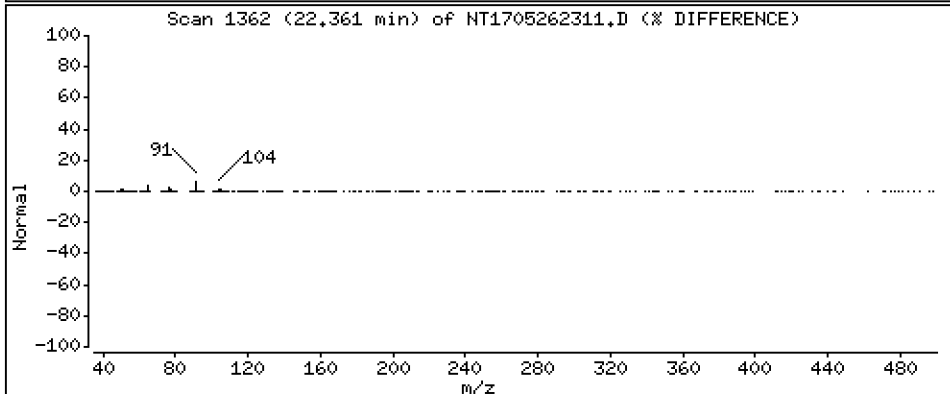
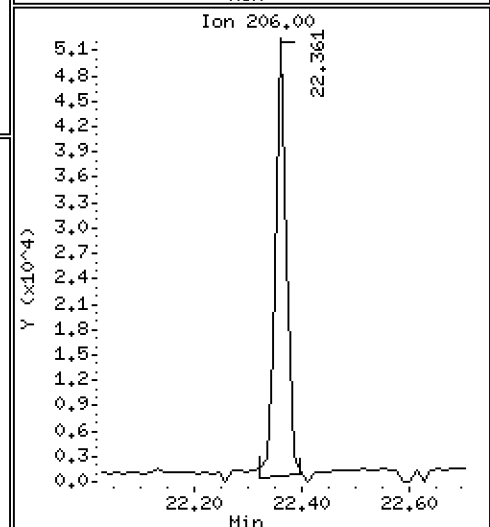
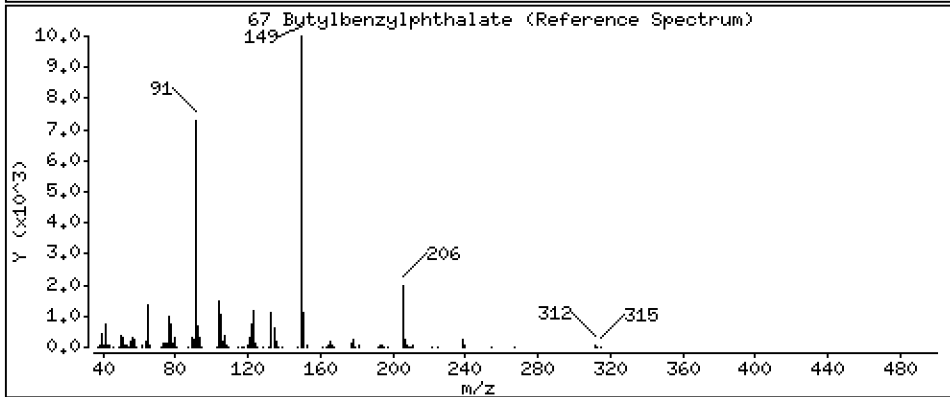
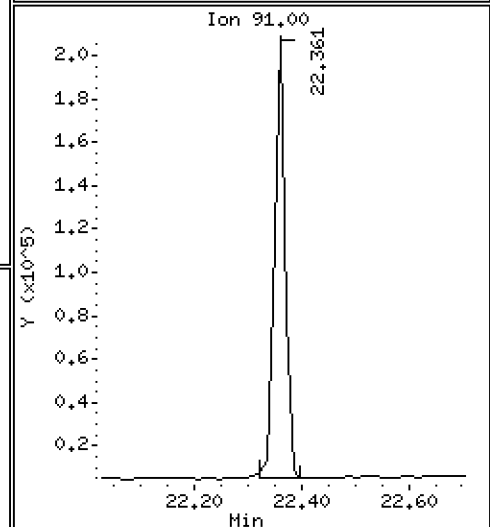
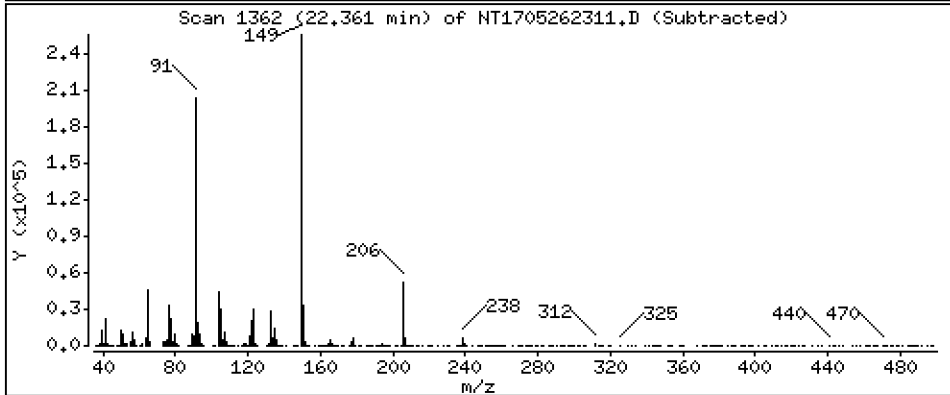
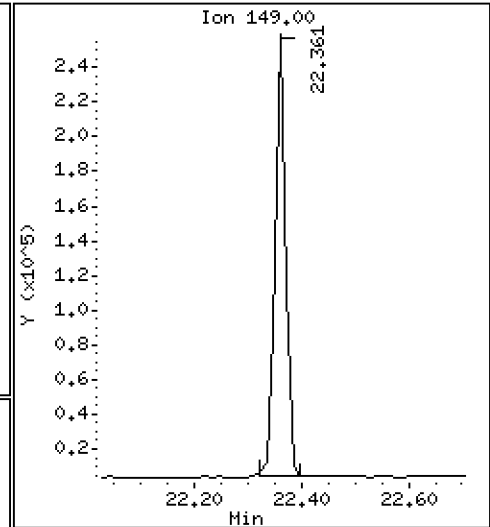
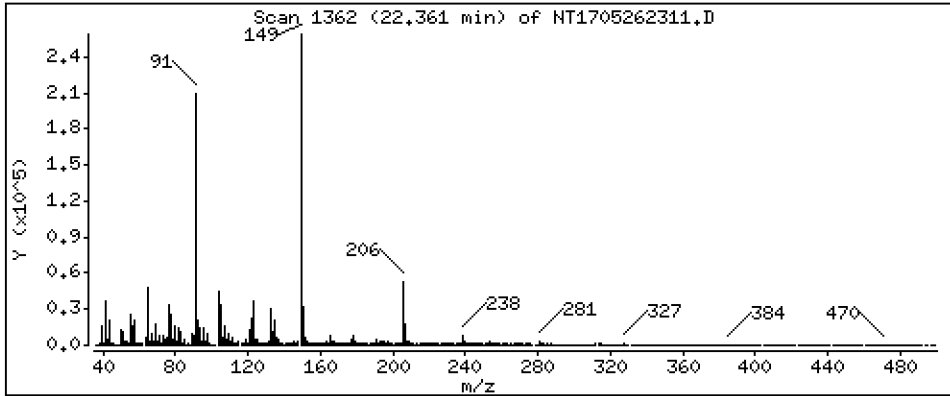
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 2,631 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

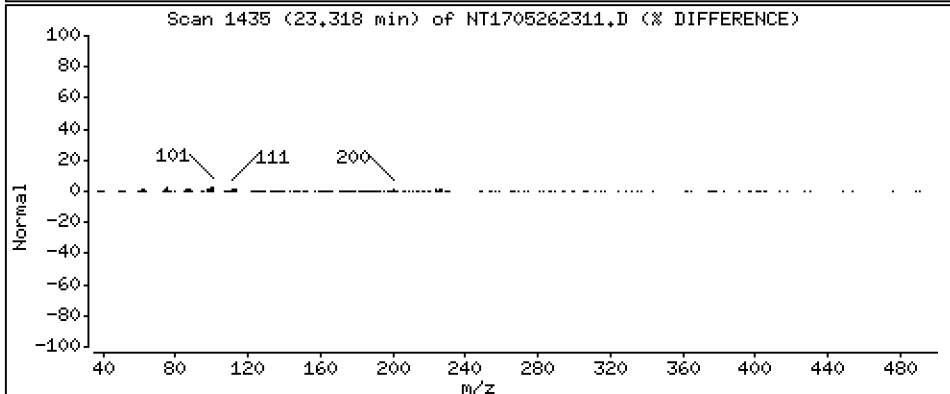
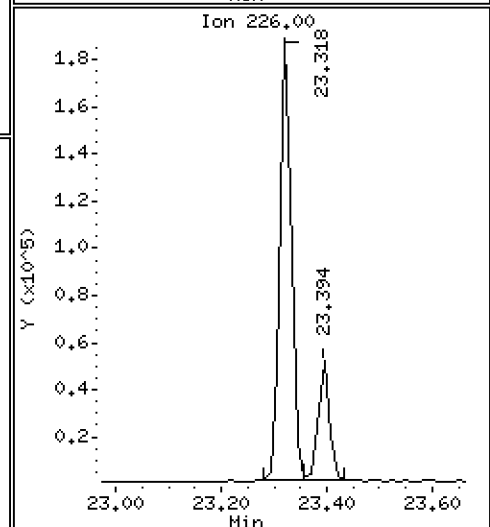
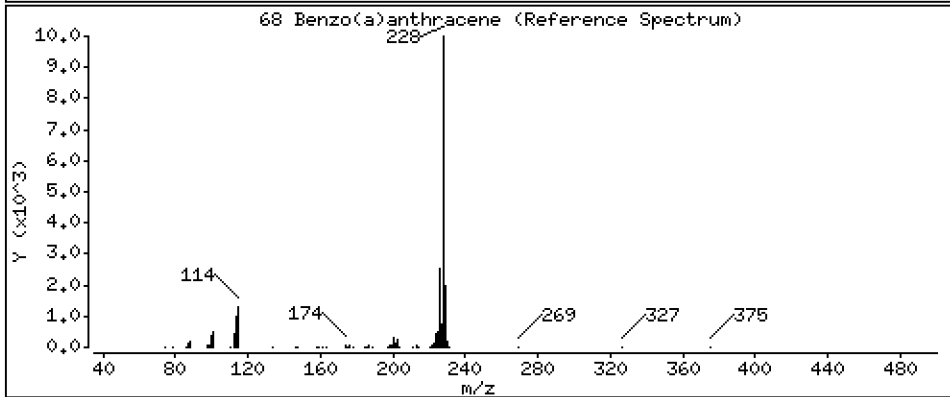
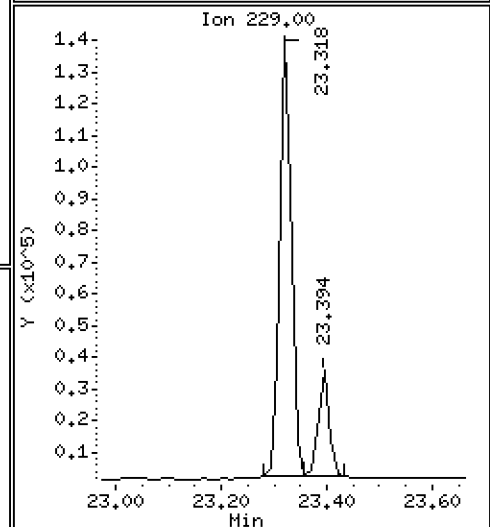
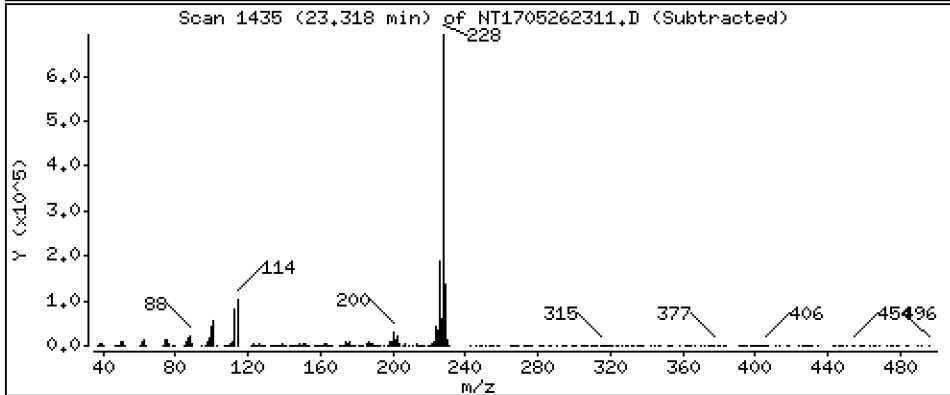
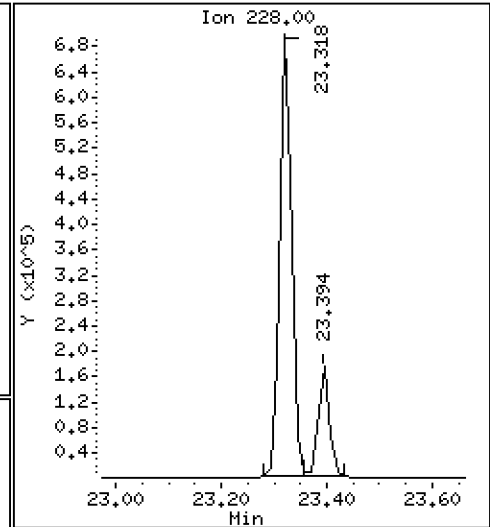
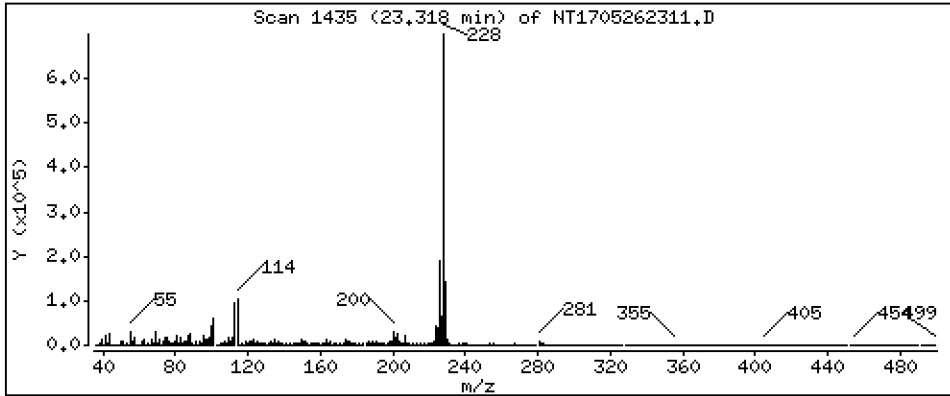
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,666 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

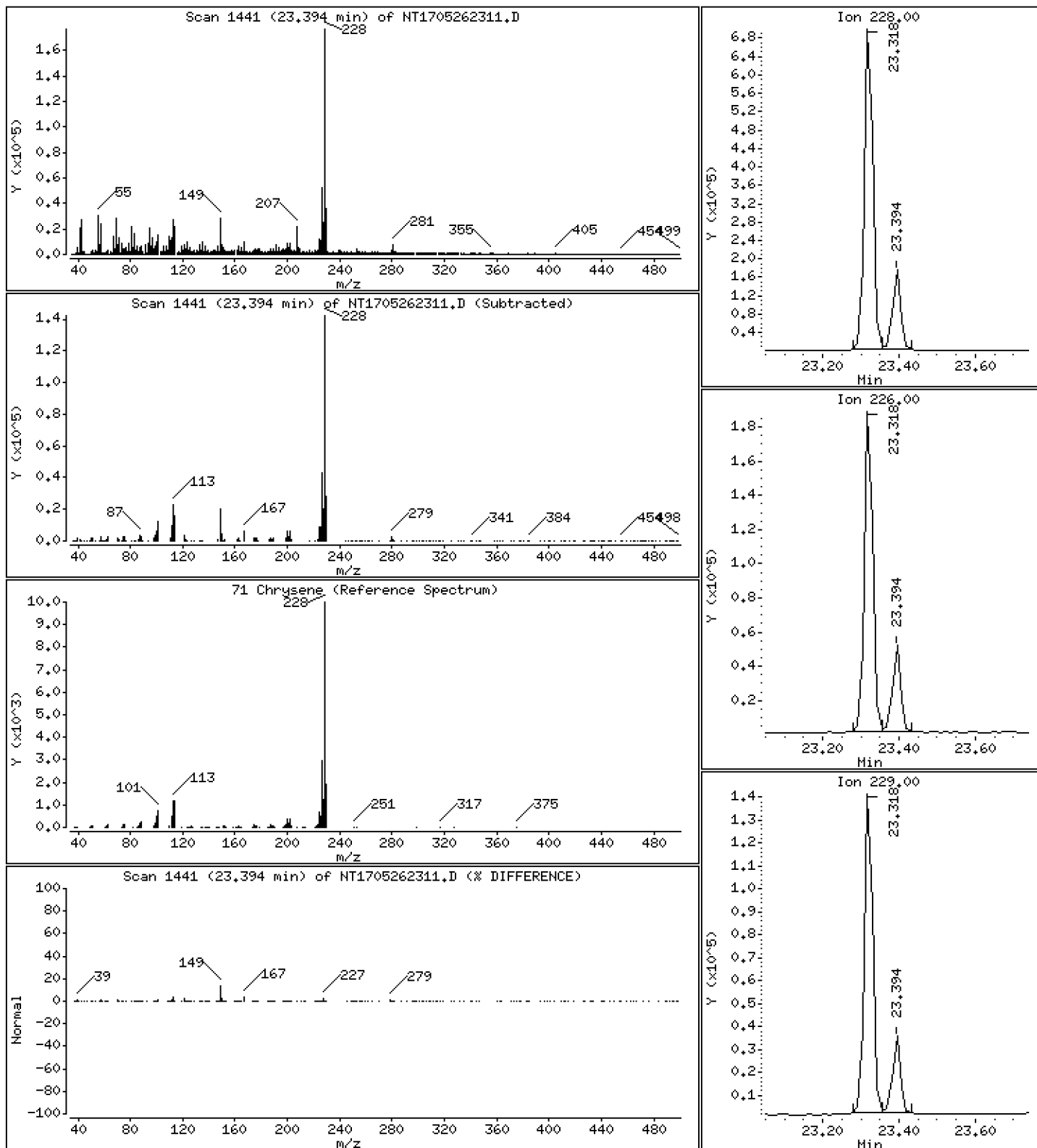
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 1,169 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

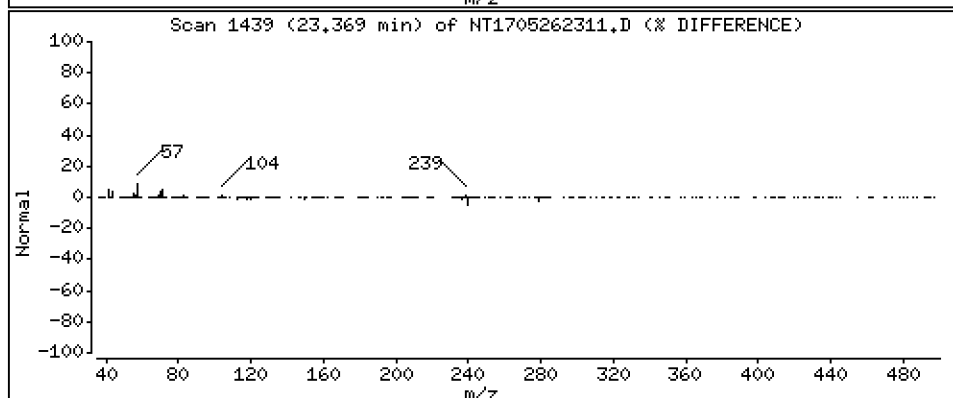
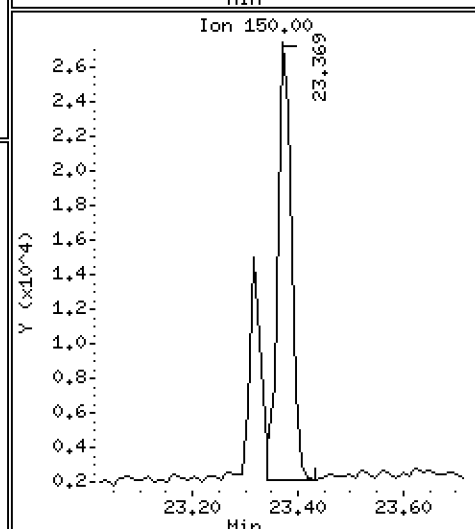
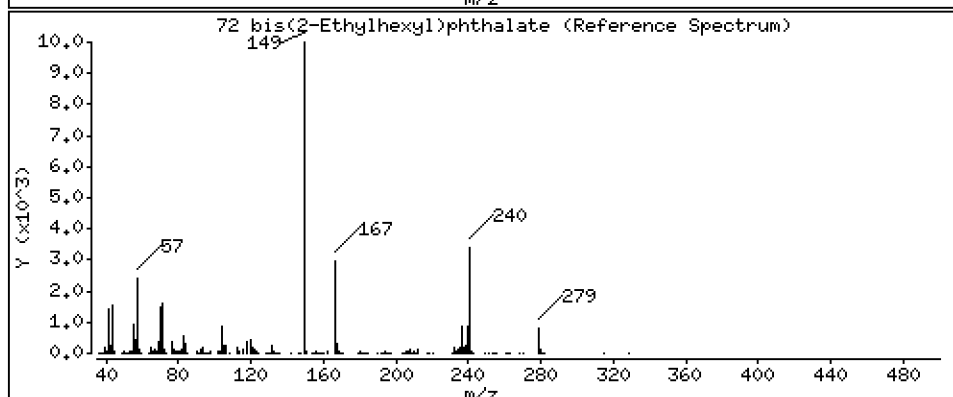
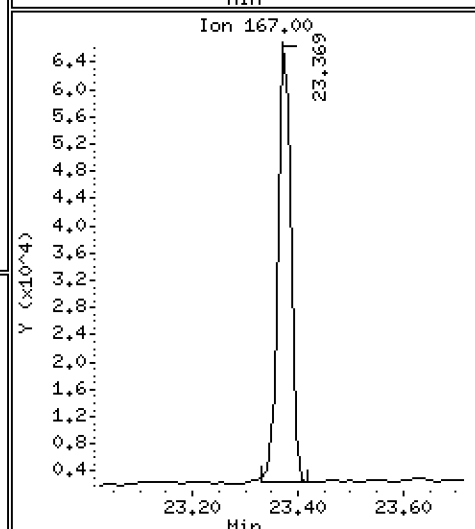
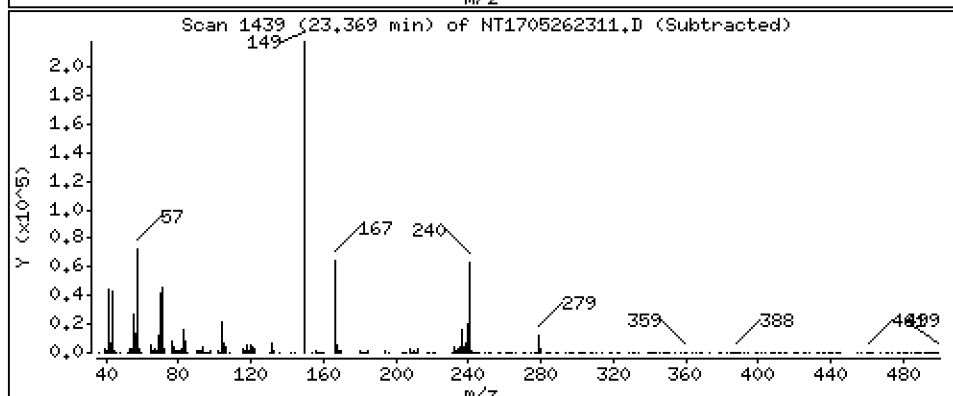
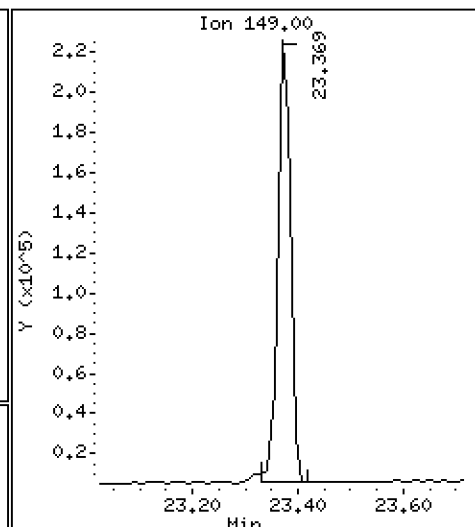
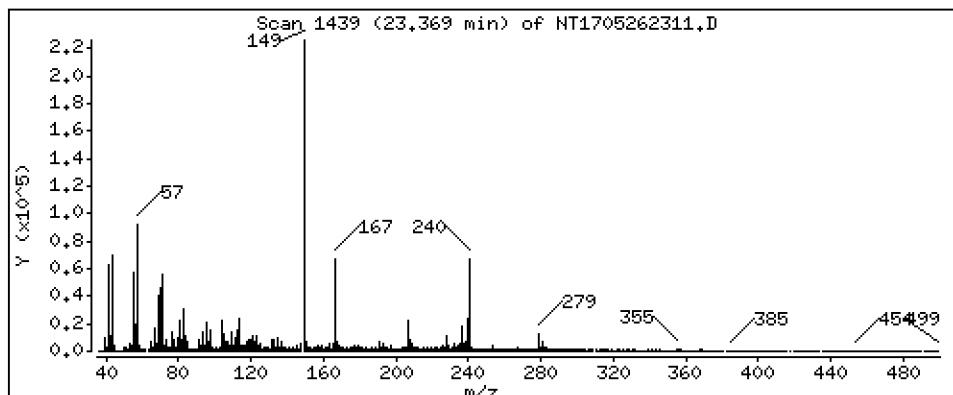
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,837 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

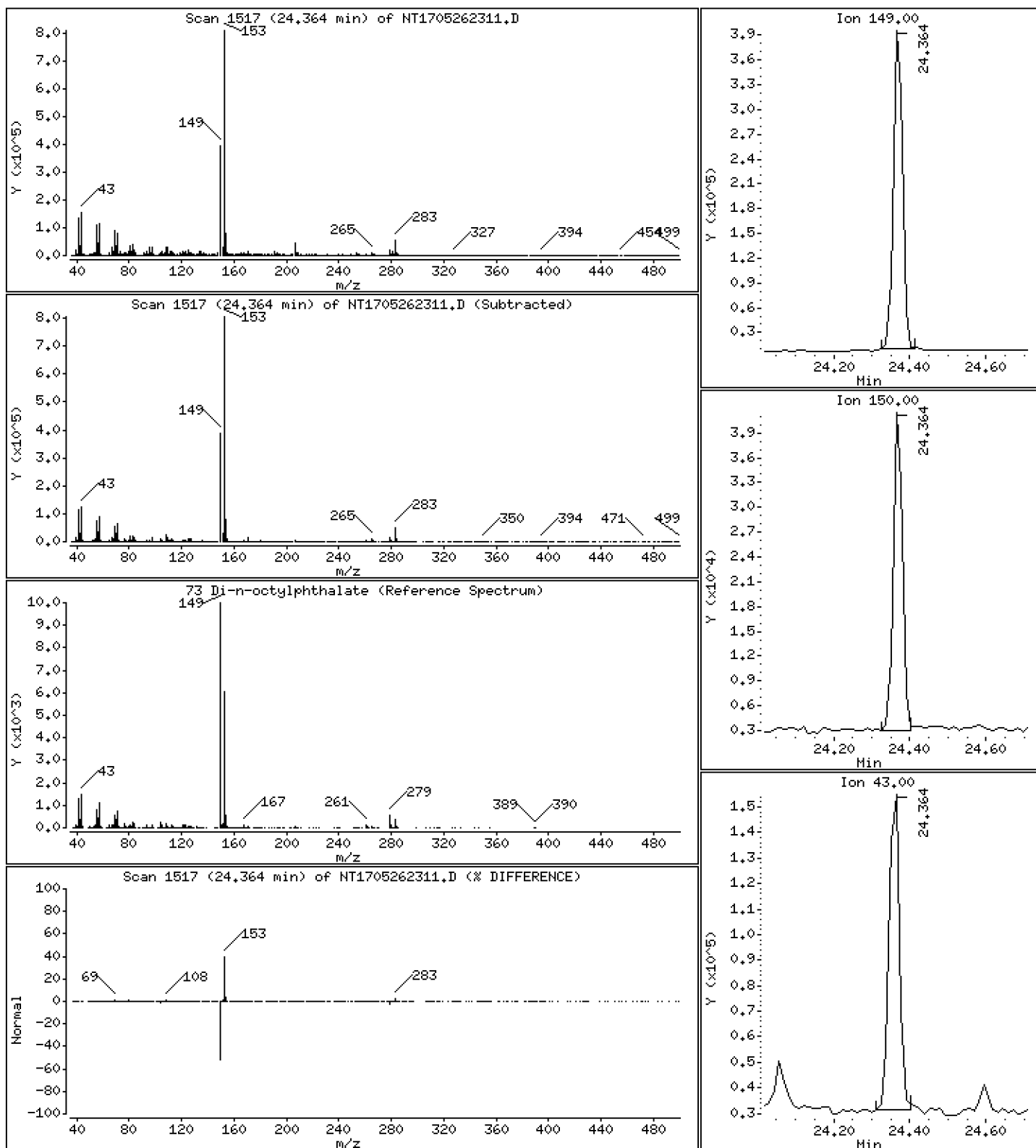
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 1,811 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

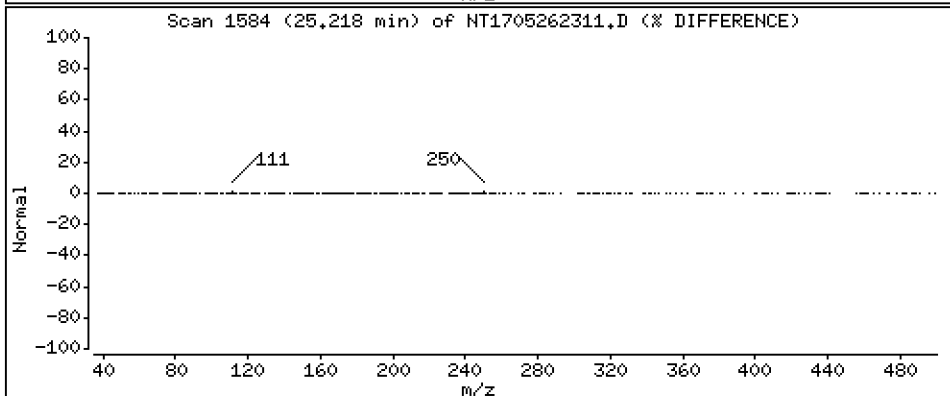
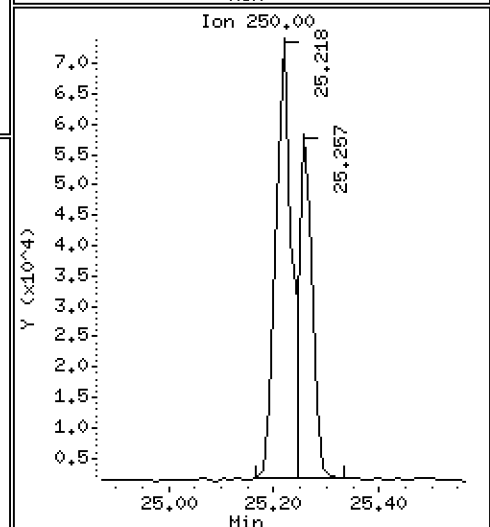
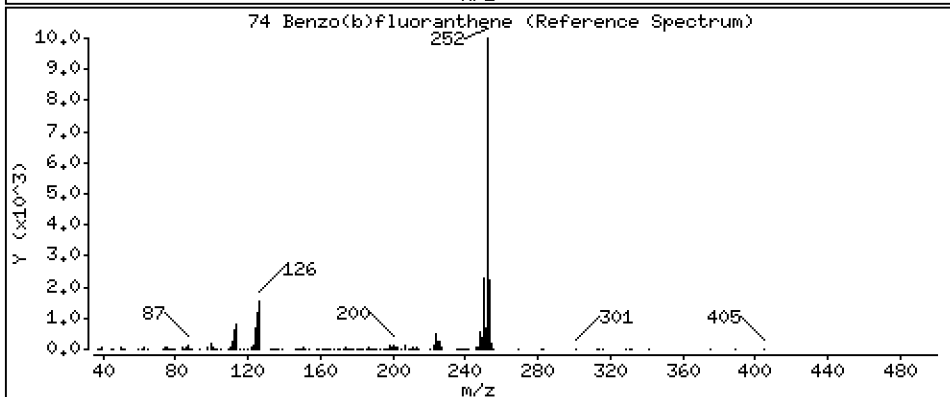
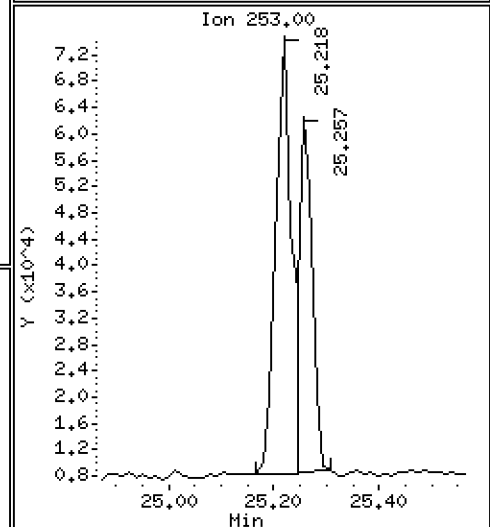
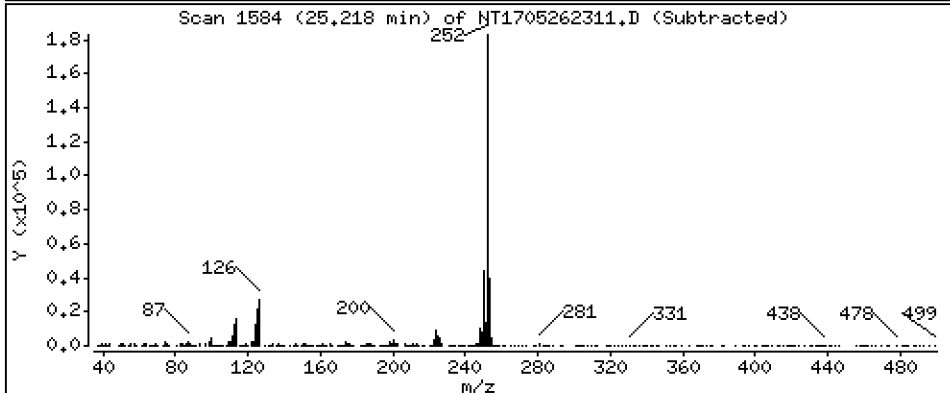
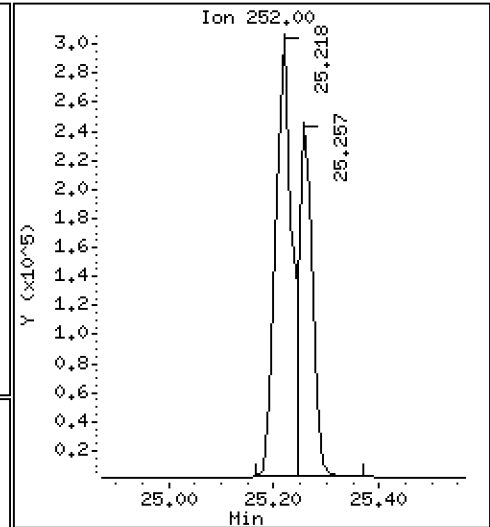
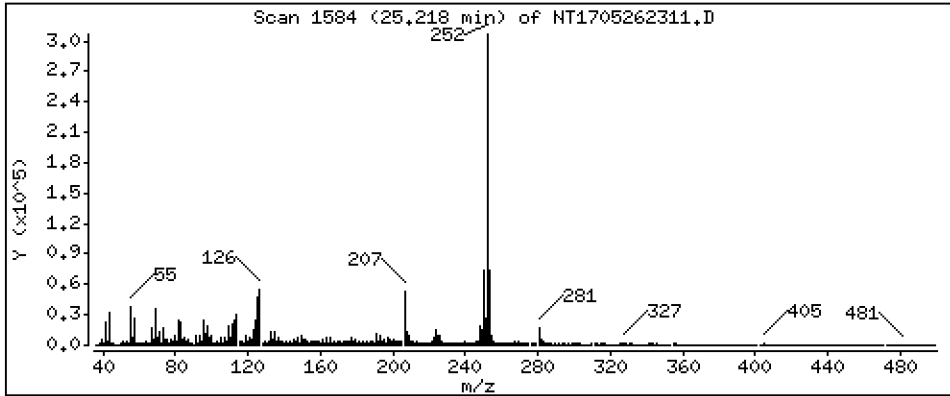
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 2,620 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

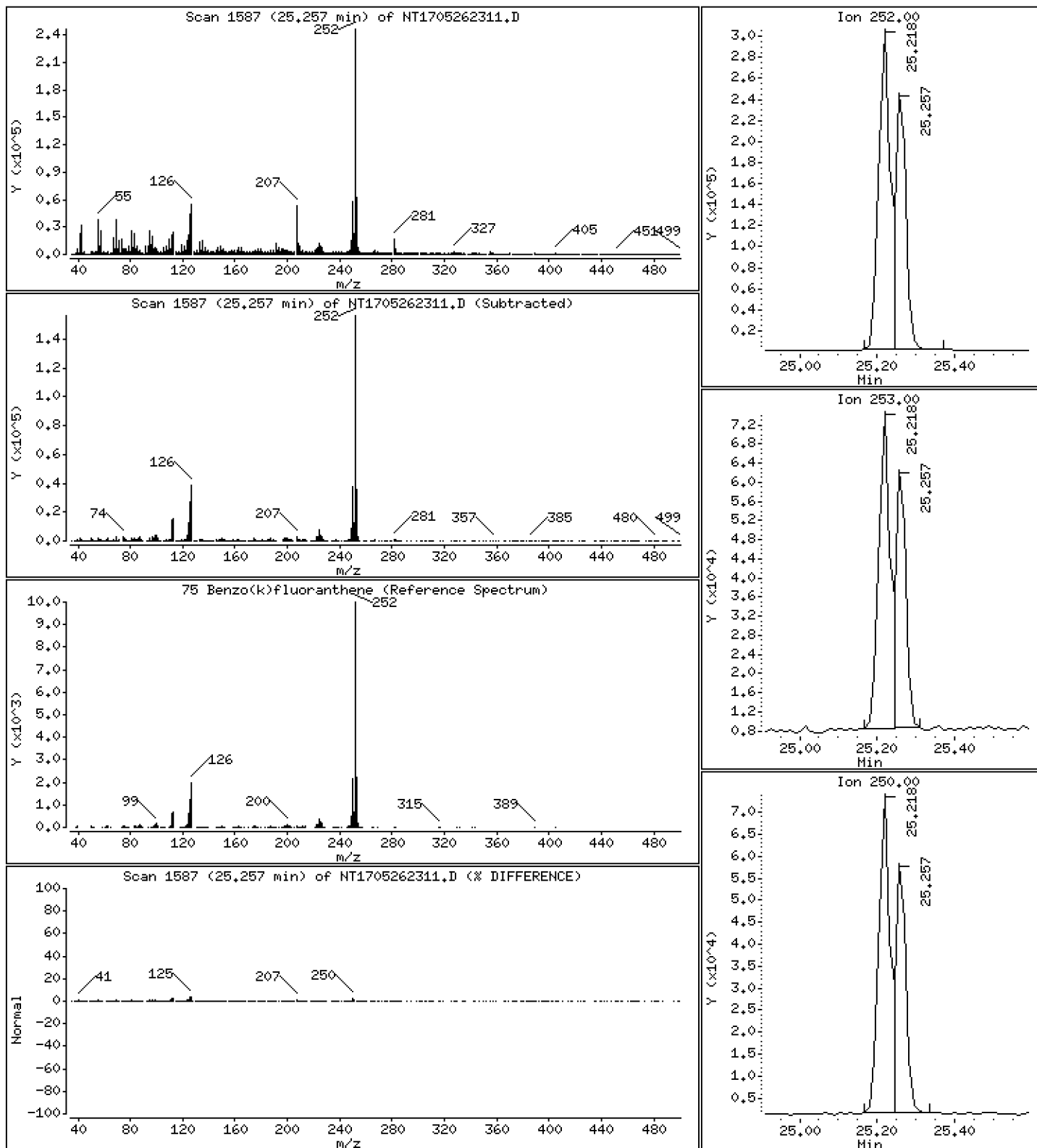
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

75 Benzo(k)fluoranthene

Concentration: 2.039 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

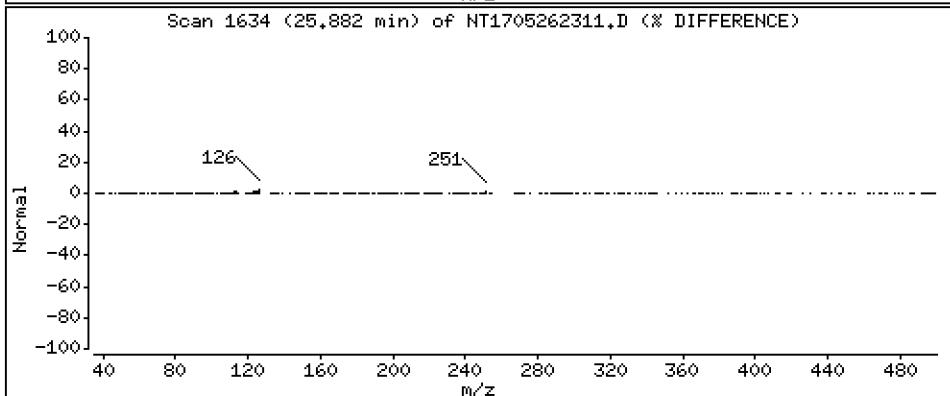
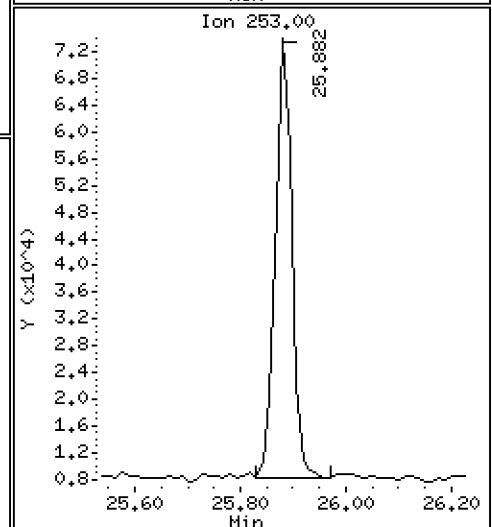
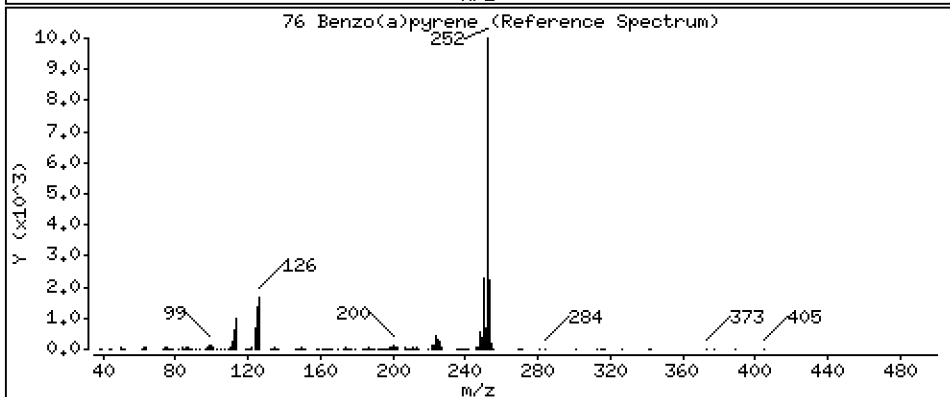
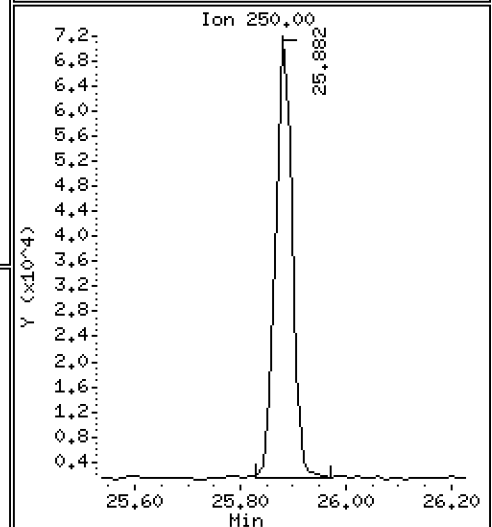
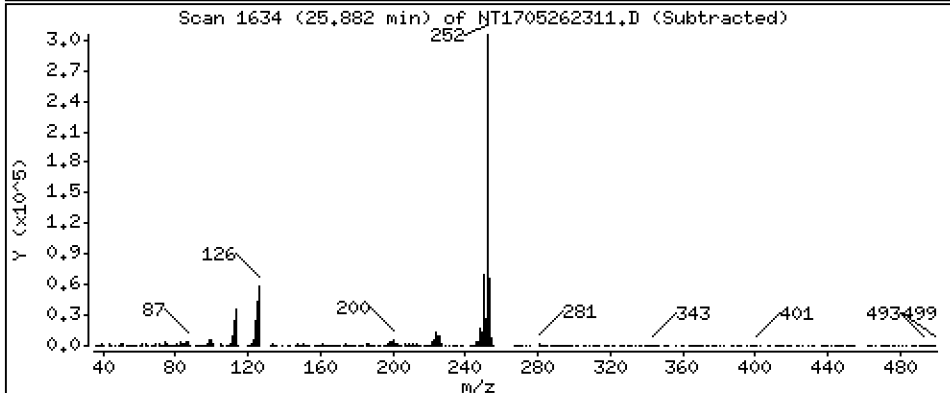
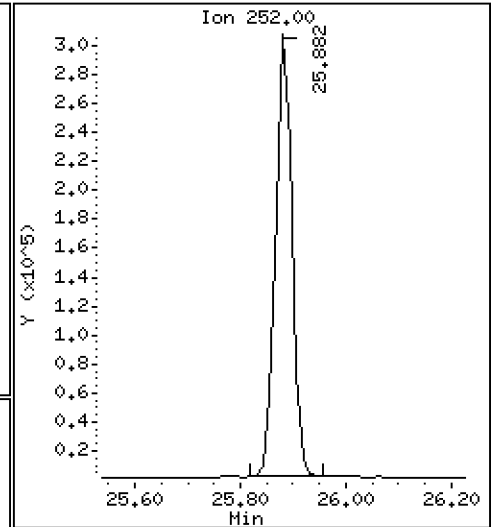
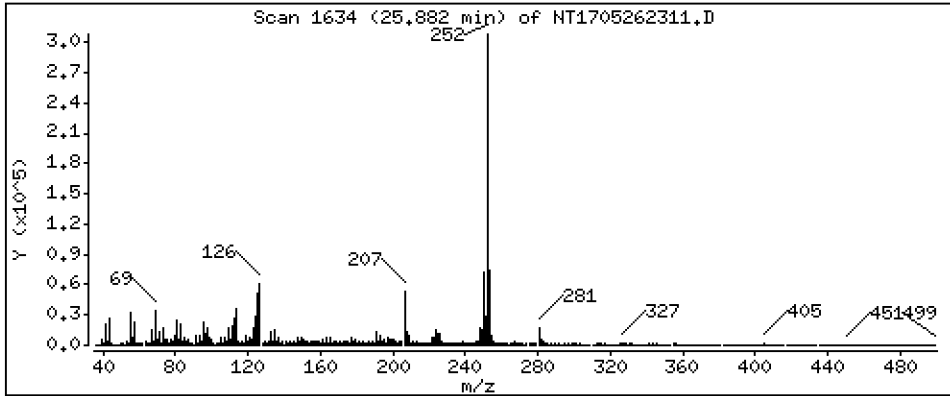
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 3,363 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

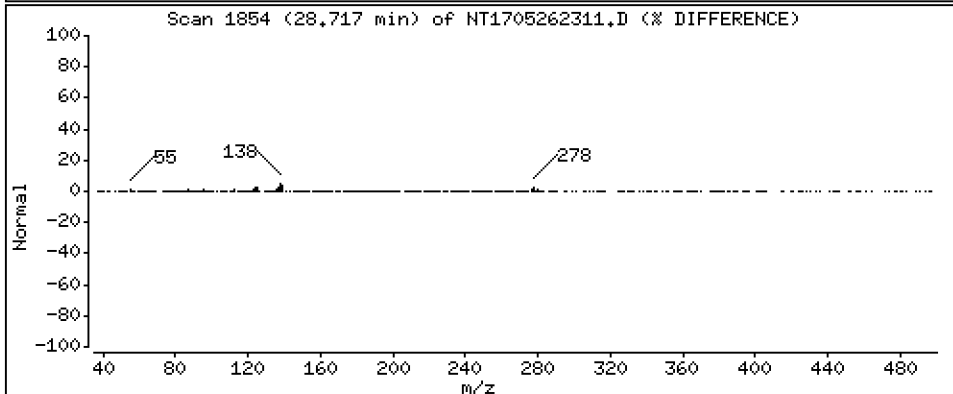
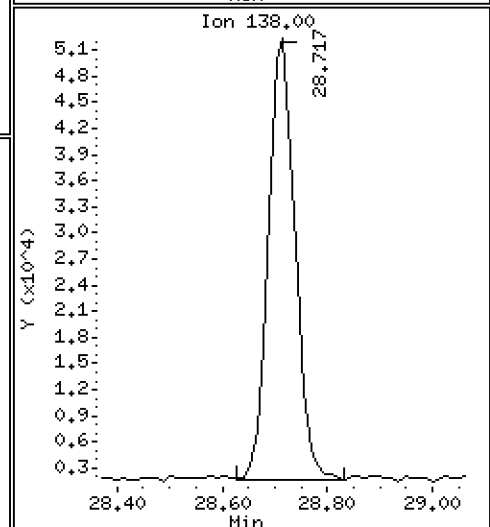
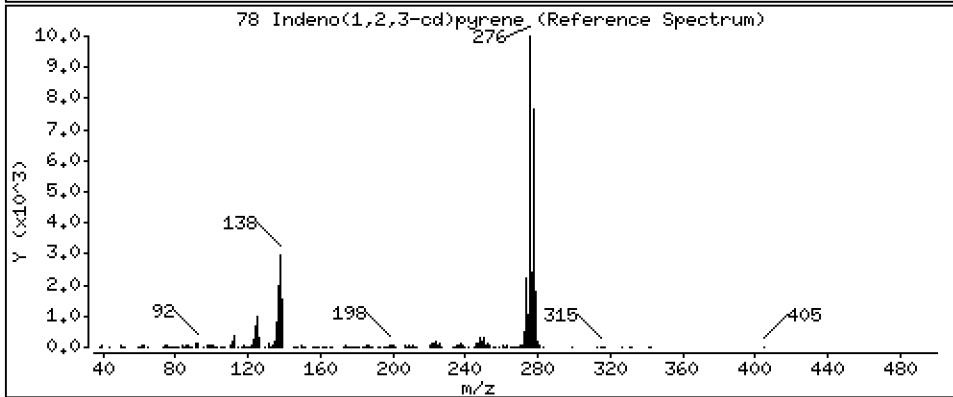
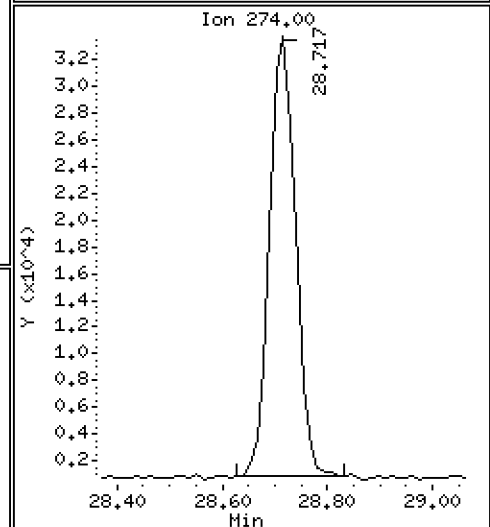
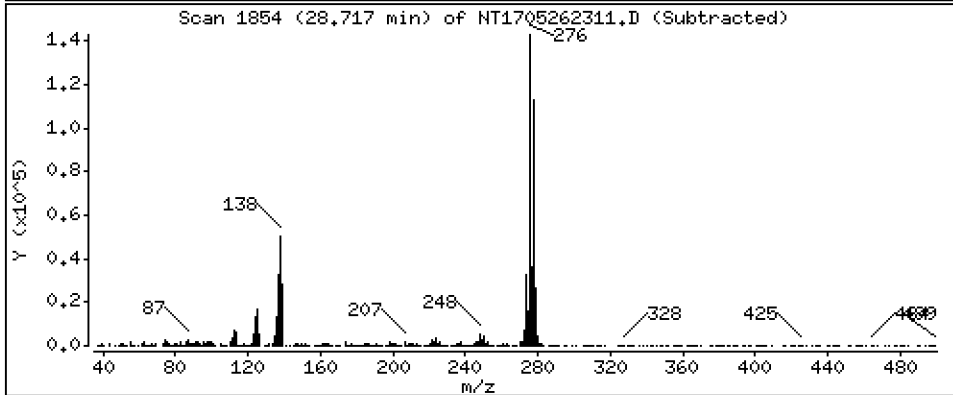
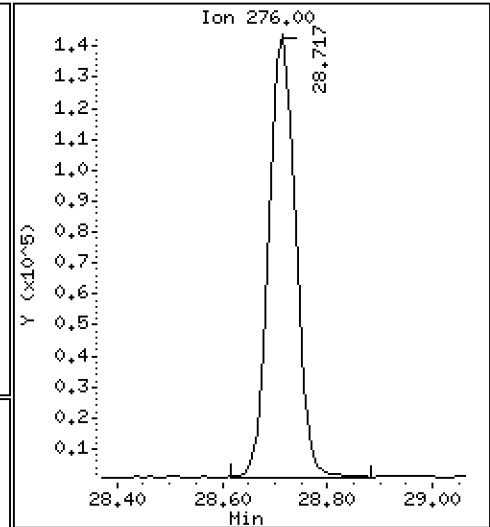
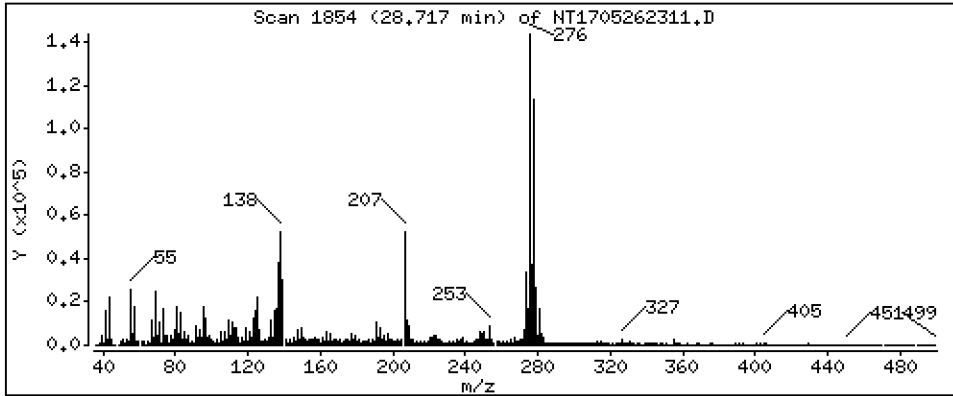
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 2,166 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

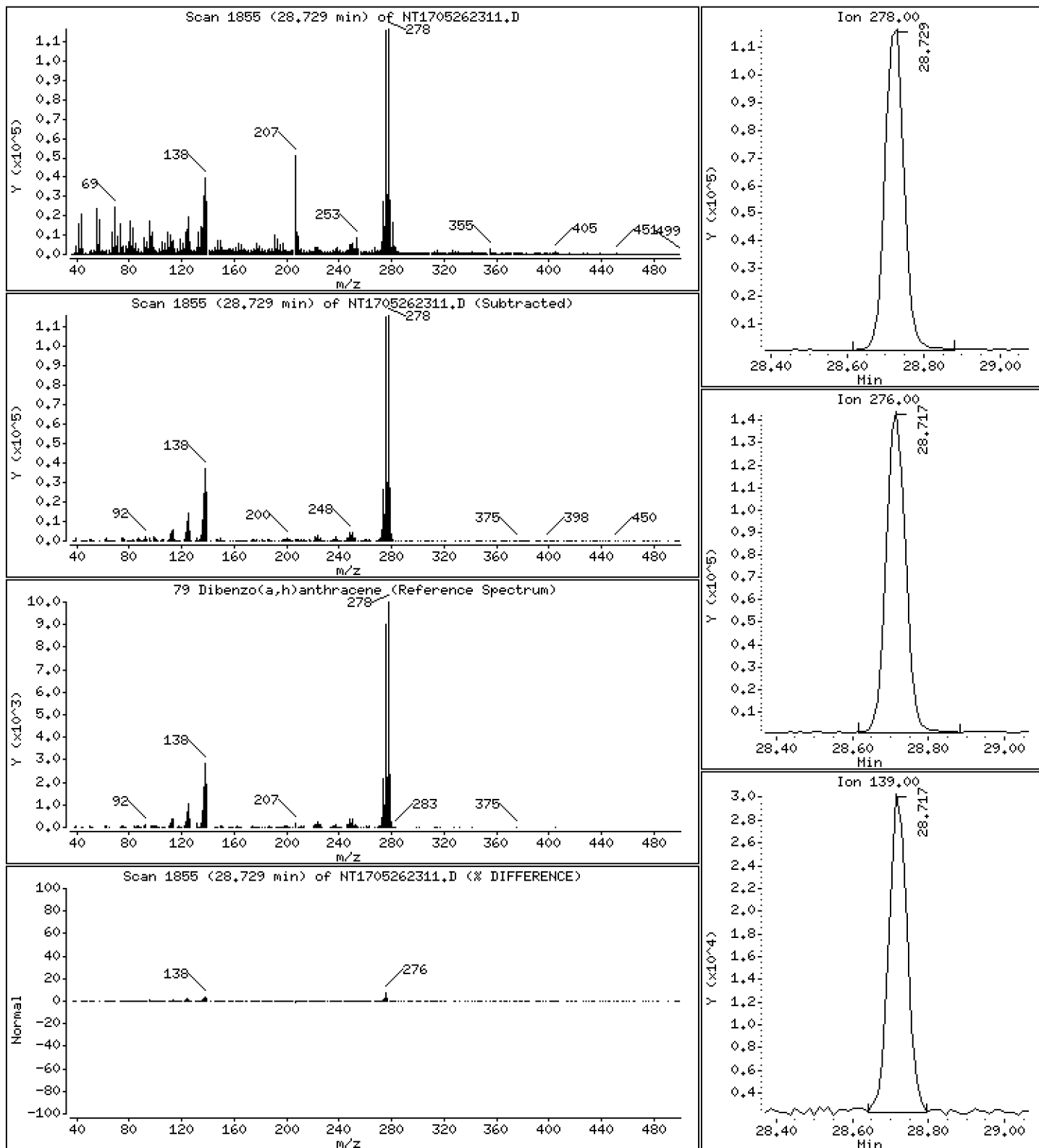
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 2,072 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

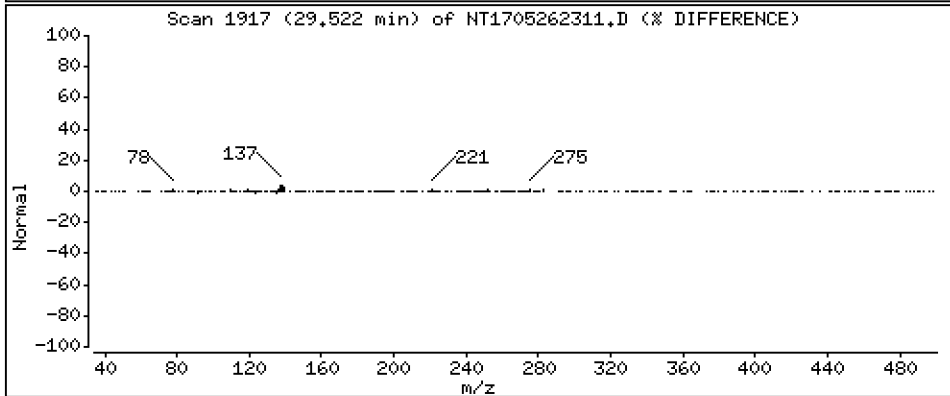
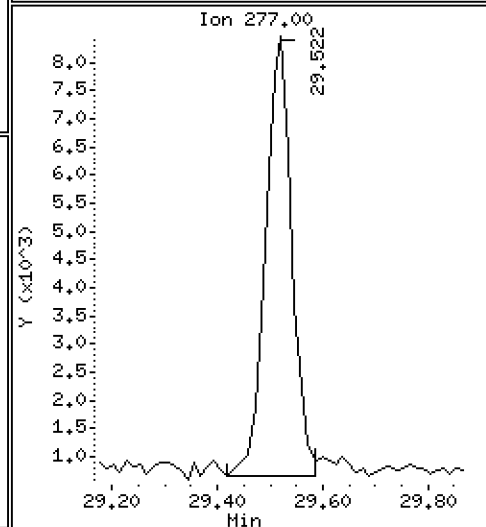
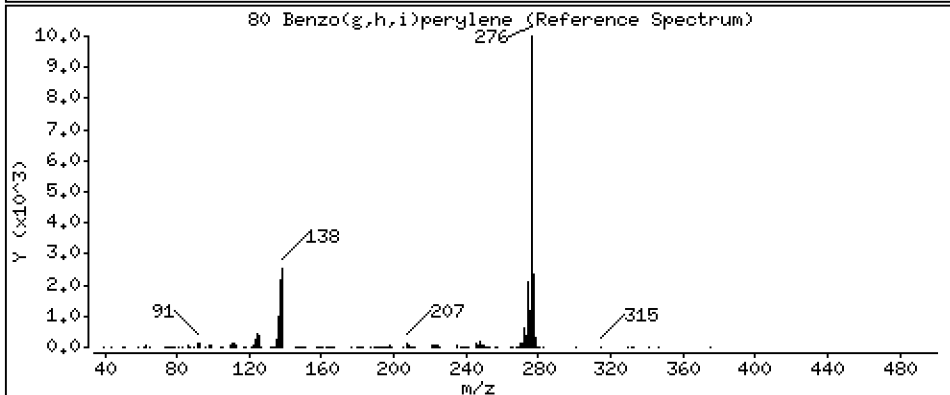
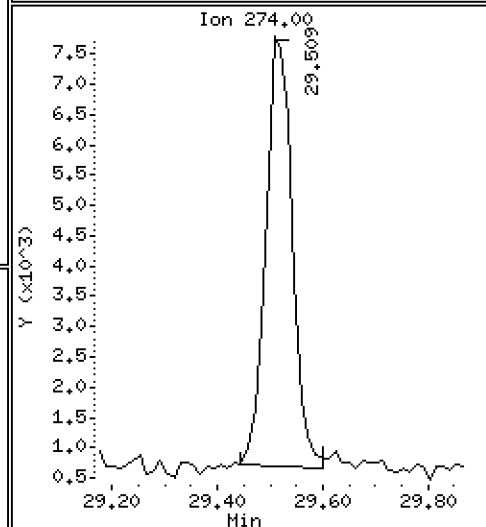
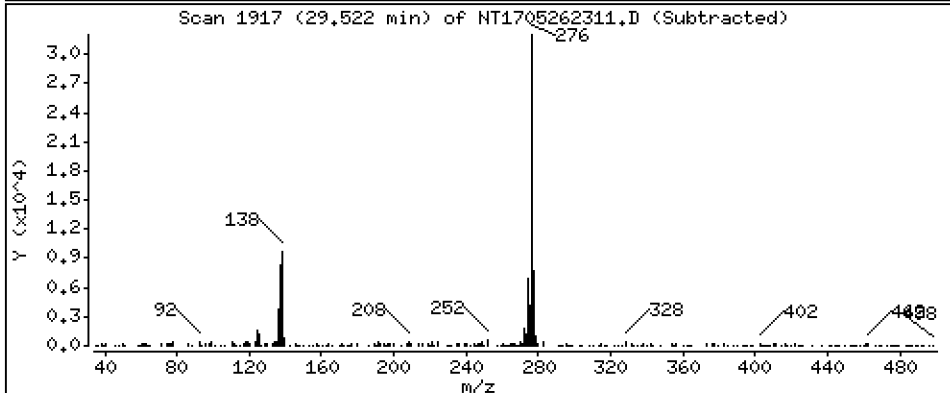
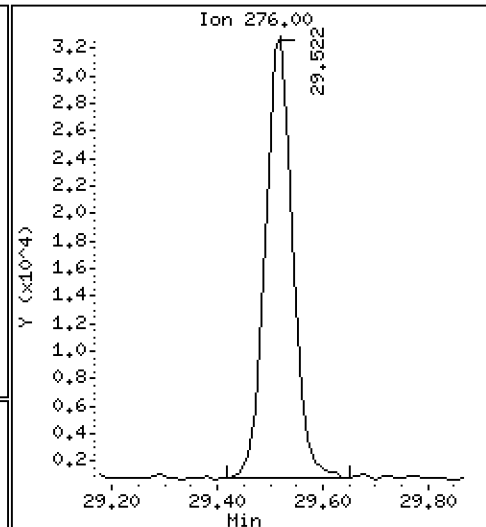
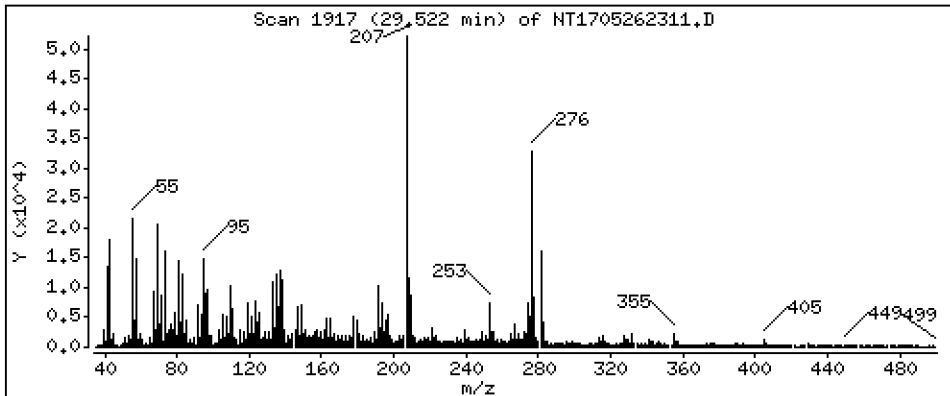
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,6298 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

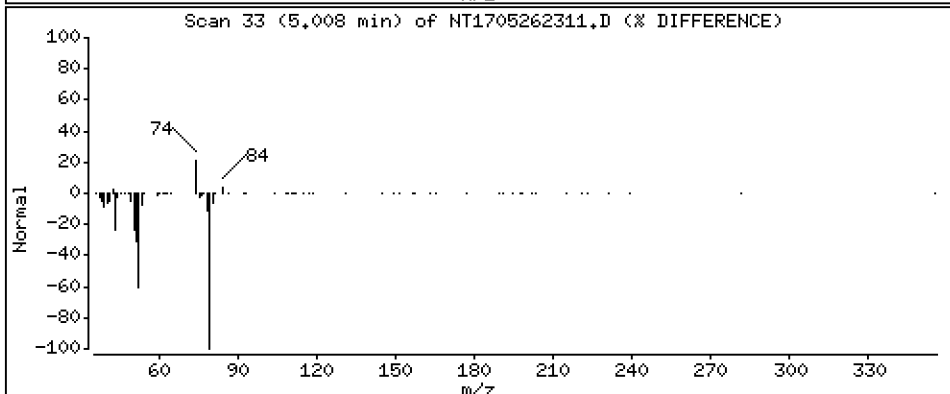
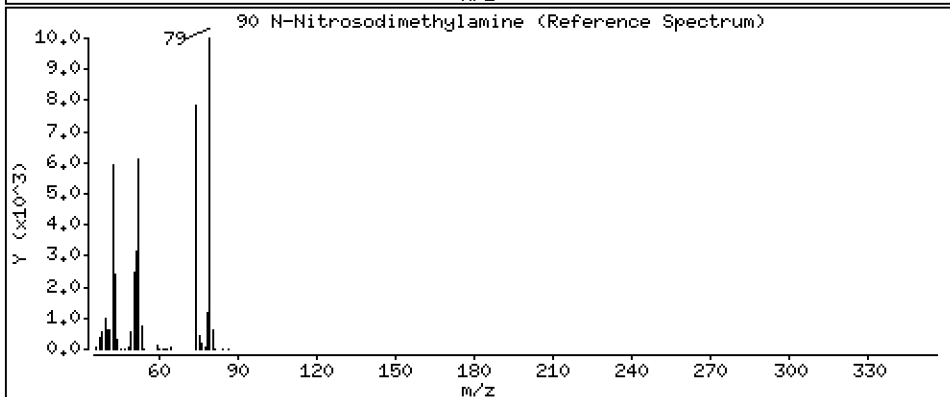
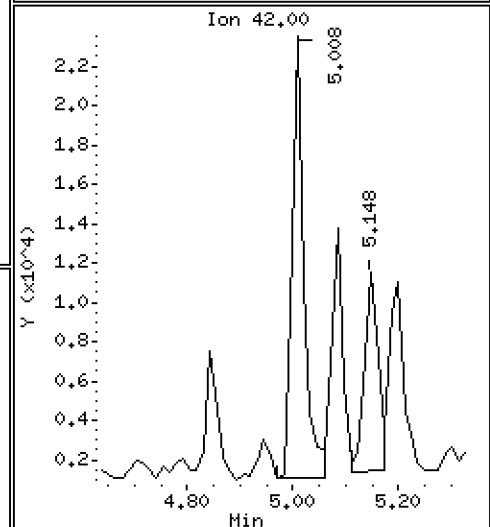
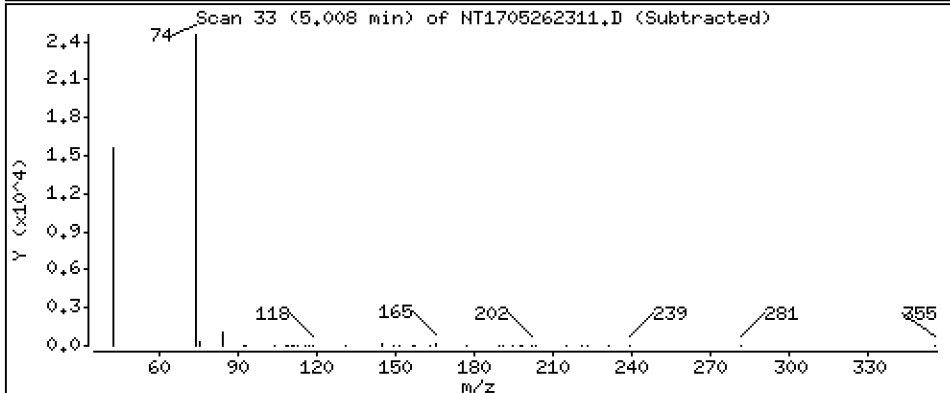
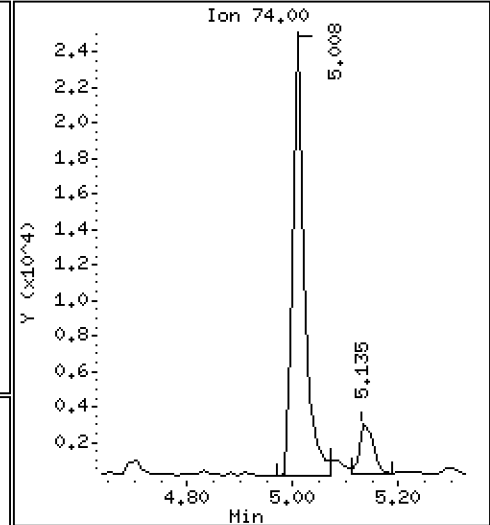
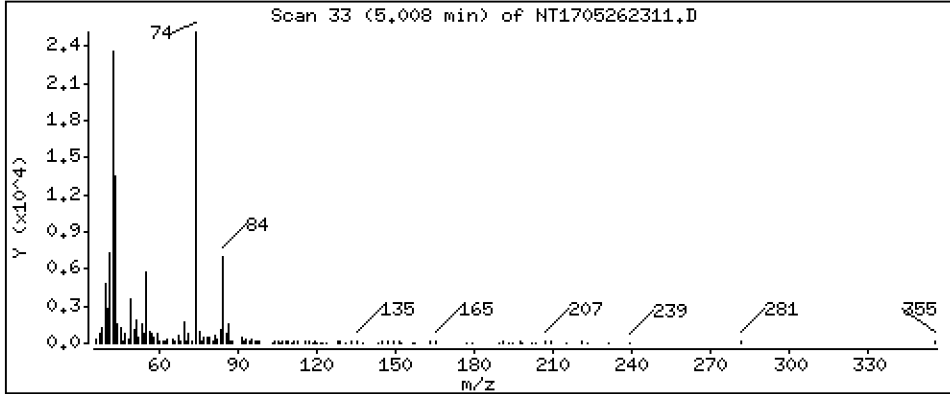
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,5989 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

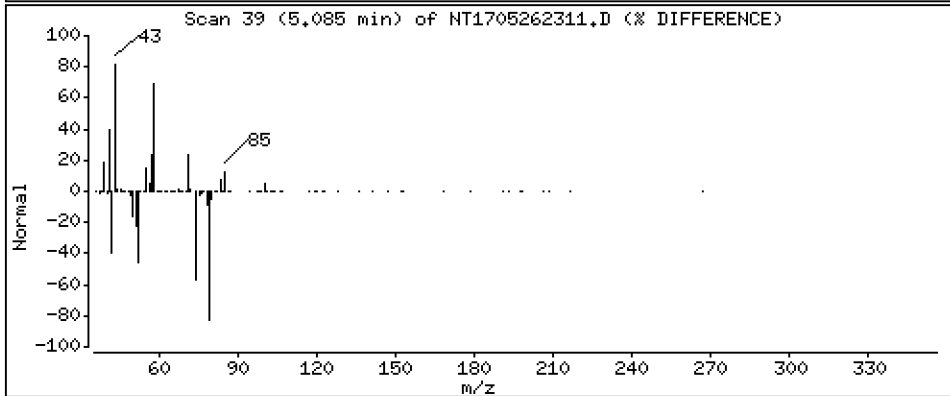
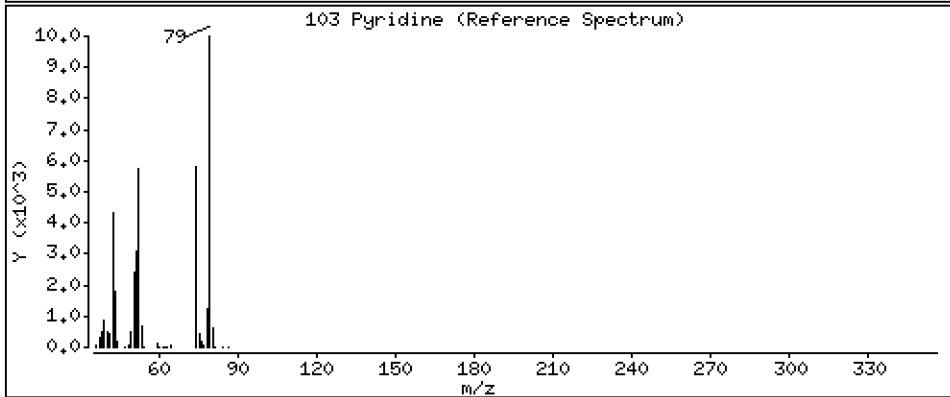
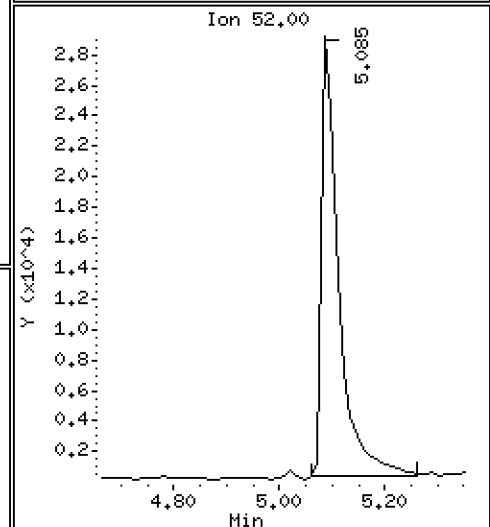
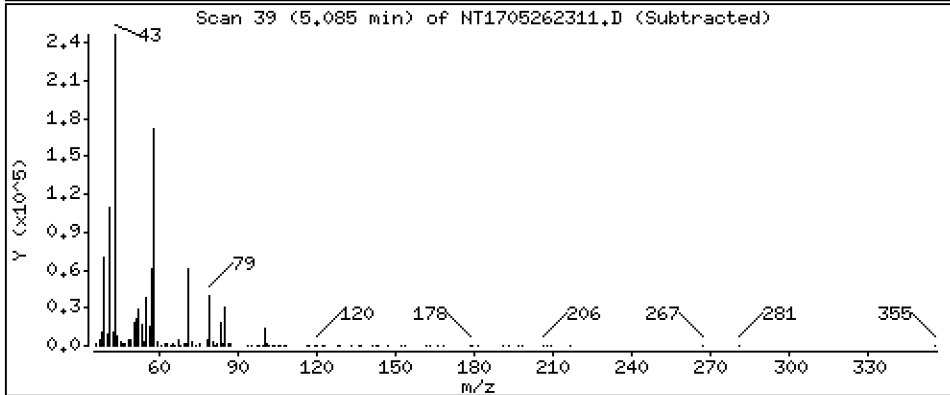
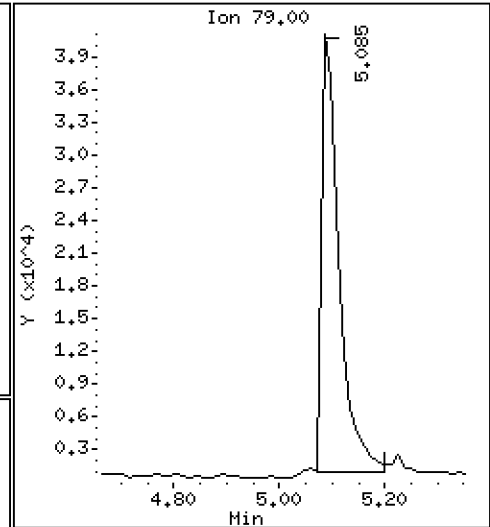
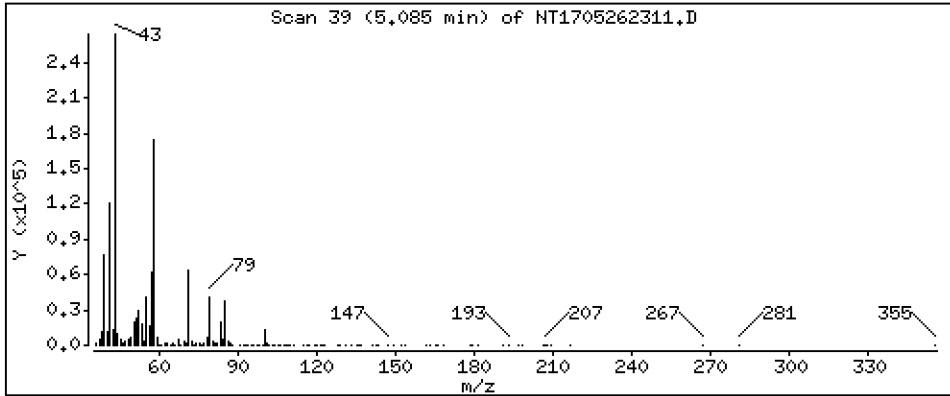
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,8818 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

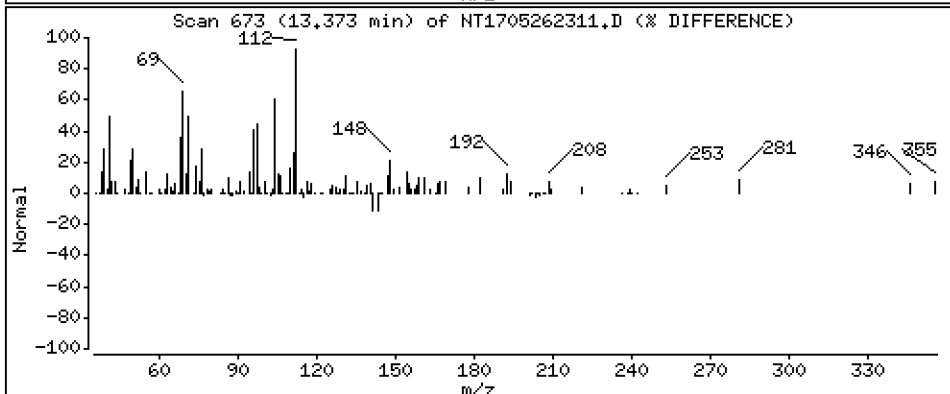
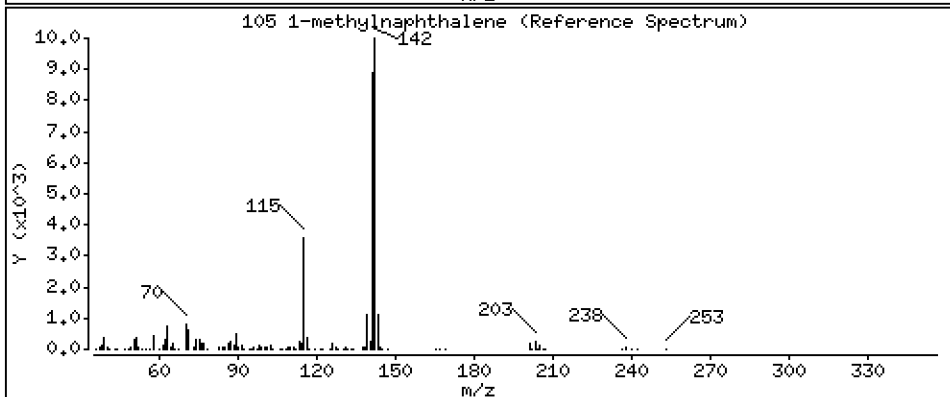
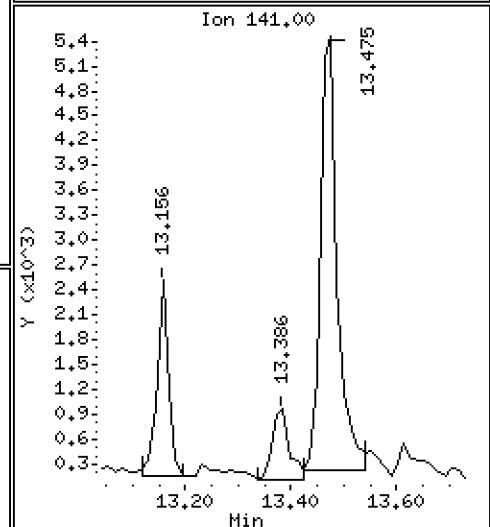
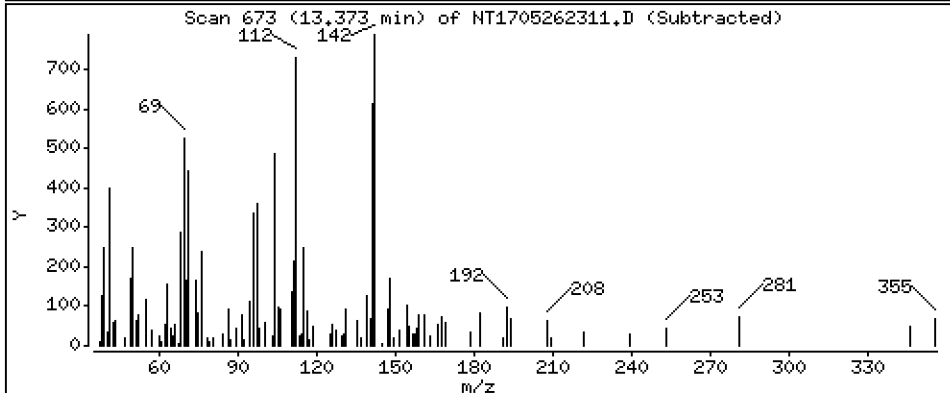
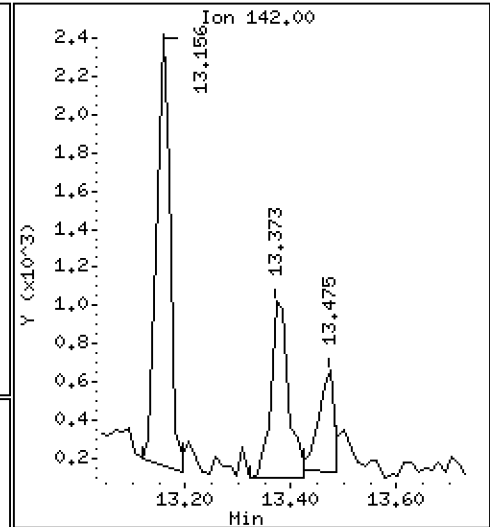
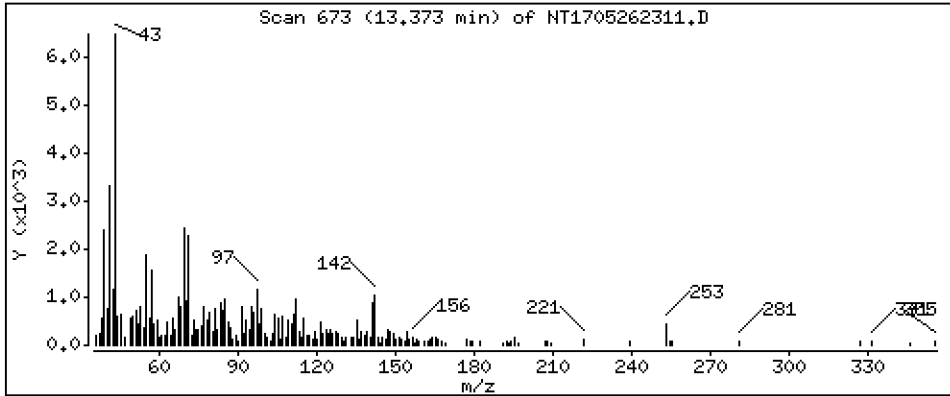
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

105 1-methylnaphthalene

Concentration: 0.01140 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

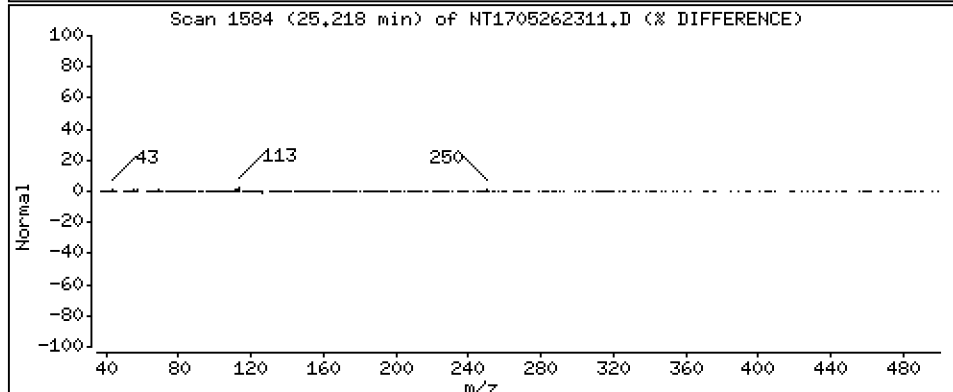
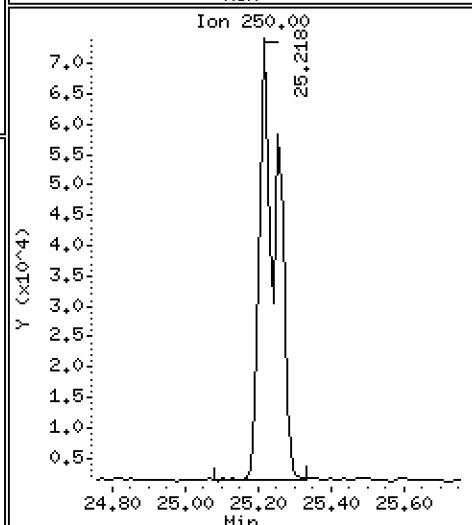
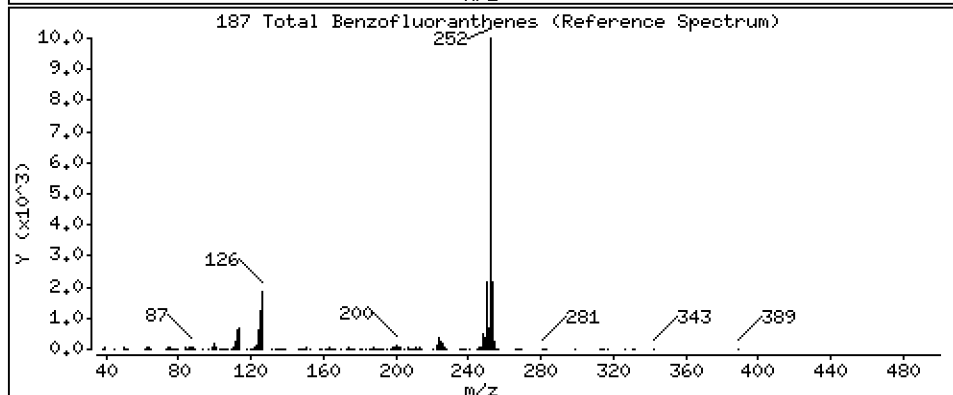
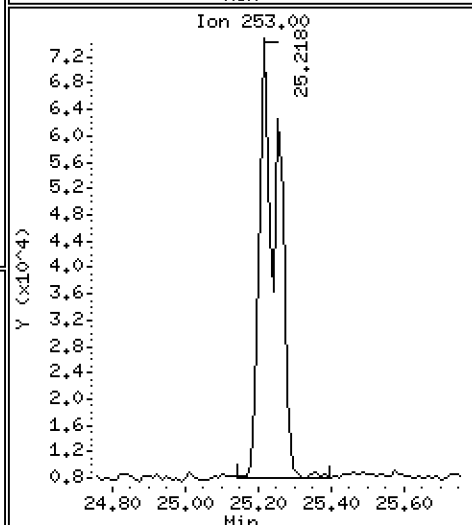
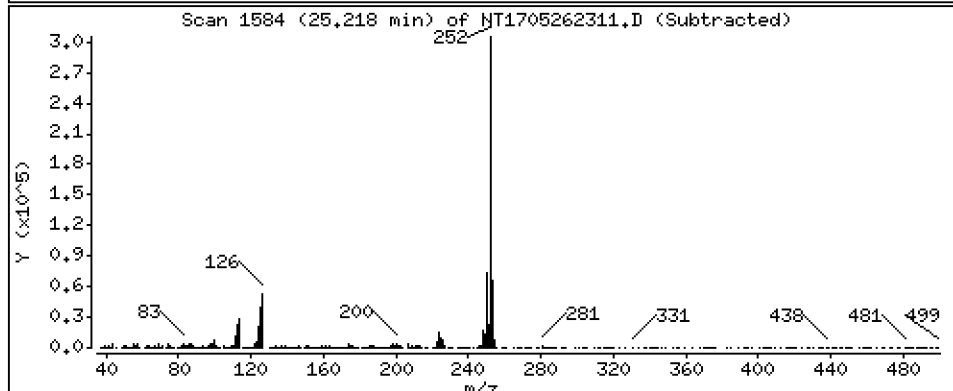
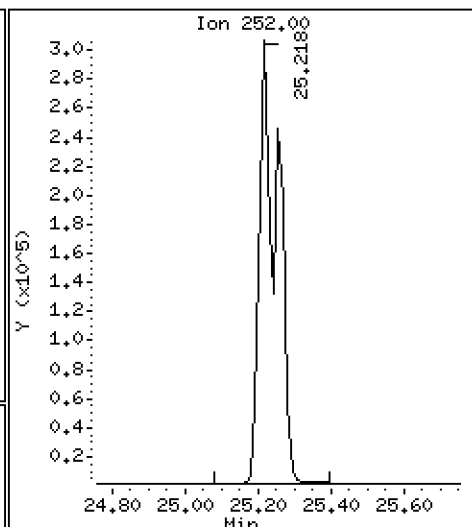
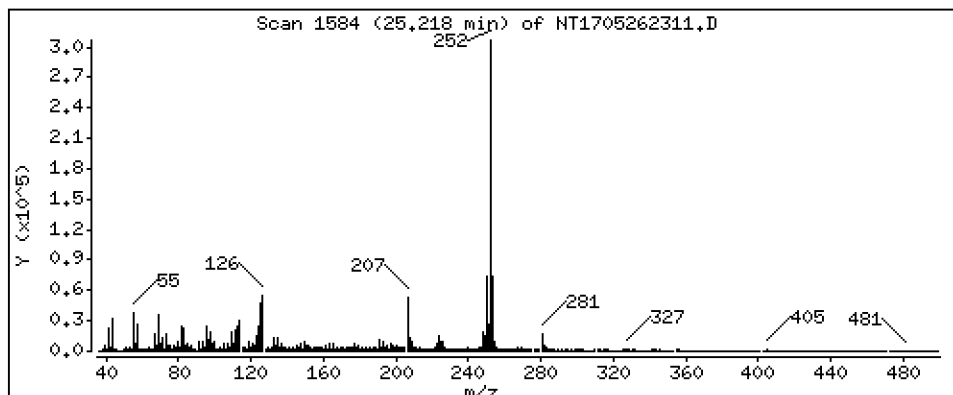
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 4,665 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM1

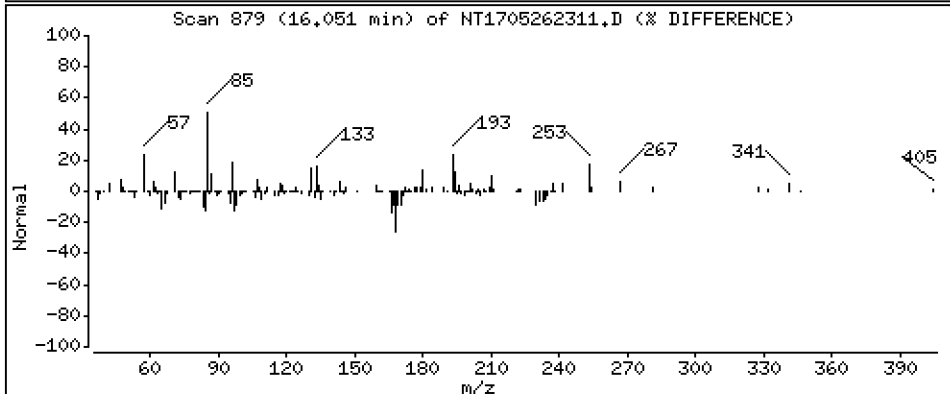
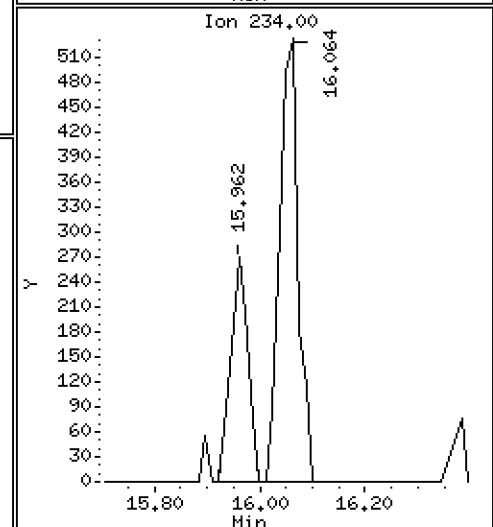
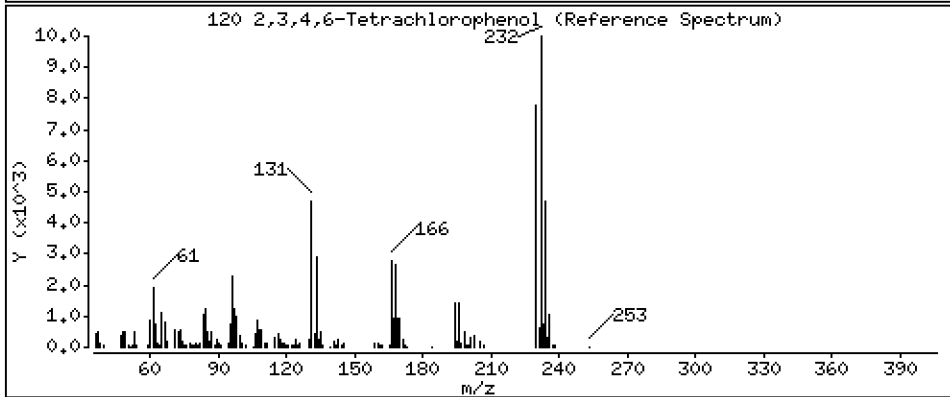
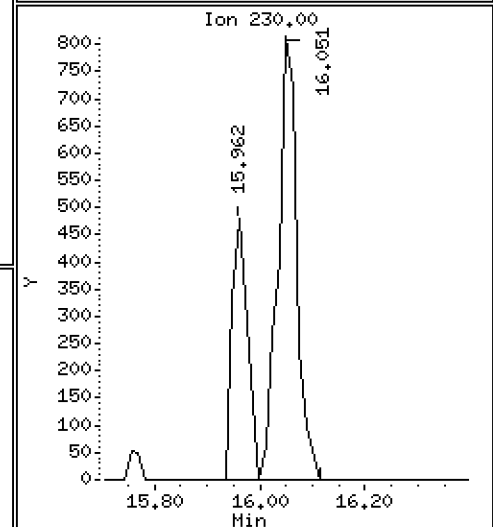
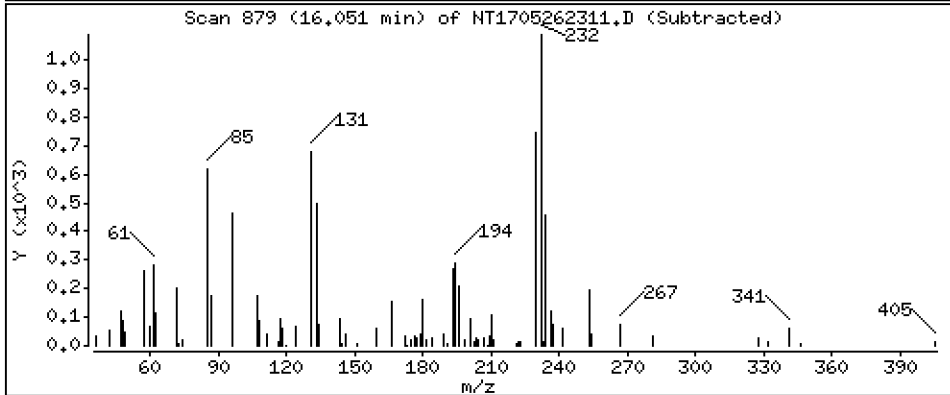
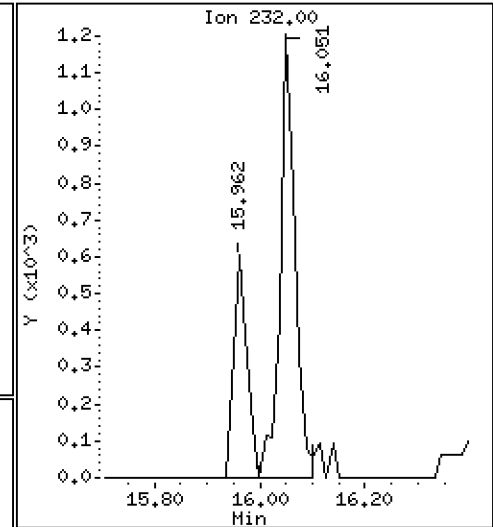
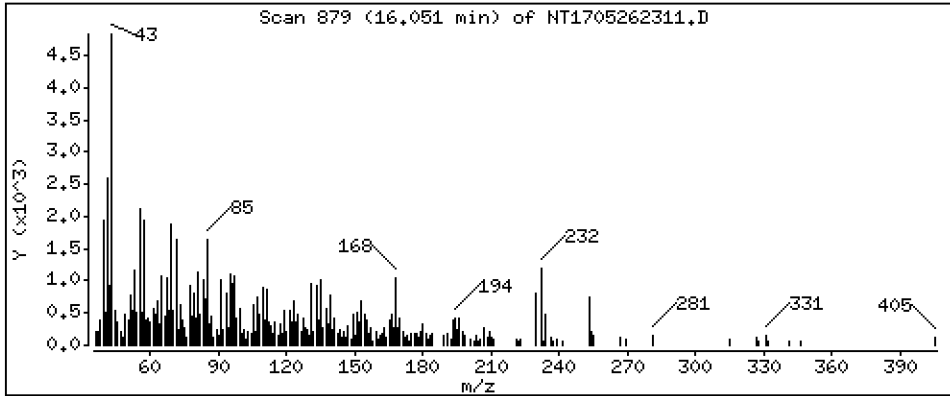
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,03821 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262311.D
 Lab Smp Id: BLD0607-SRM1
 Inj Date : 26-MAY-2023 18:56
 Operator : VTS
 Smp Info : BLD0607-SRM1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.097	7.071	(0.766)	619053	6.23696	6.237
\$ 2 Phenol-d5	99		8.639	8.638	(0.933)	784513	5.97259	5.973
3 Phenol	94		8.664	8.651	(0.935)	303086	2.17848	2.178
\$ 5 2-Chlorophenol-d4	132		8.919	8.906	(0.963)	670081	6.36879	6.369
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		8.944	8.931	(0.966)	135488	1.16616	1.166
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	137702	1.17109	1.171
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	303211	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	294613	3.98385	3.984
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.544	9.531	(1.030)	5713	0.08820	0.08820 (M)
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	96997	3.12158	3.122
13 2-Methylphenol	108		9.761	9.748	(1.054)	433628	4.24087	4.241
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.030	10.017	(1.083)	543591	5.22128	5.221
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	516950	4.36951	4.370
19 Nitrobenzene	77		10.387	10.387	(0.886)	340978	3.02085	3.021
20 Isophorone	82		10.835	10.834	(0.924)	282086	1.82565	1.826
21 2-Nitrophenol	139		11.013	11.013	(0.939)	285332	5.24595	5.246
22 2,4-Dimethylphenol	107		11.064	11.051	(0.943)	203772	1.92958	1.930
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.192	11.307	(0.954)	39132	0.55086	0.5509
25 2,4-Dichlorophenol	162		11.473	11.460	(0.978)	559031	6.58770	6.588
26 1,2,4-Trichlorobenzene	180		11.639	11.651	(0.992)	154281	1.67398	1.674
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1039513	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	1201934	4.20456	4.205
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	110243	2.41474	2.415
31 4-Chloro-3-methylphenol	107		12.863	12.850	(1.097)	141237	1.54572	1.546
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.781	13.781	(0.899)	91129	1.75068	1.751	
35 2,4,5-Trichlorophenol	196		13.870	13.857	(0.905)	154729	2.80791	2.808	
§ 36 2-Fluorobiphenyl	172		13.934	13.934	(0.909)	908573	4.63564	4.636	
37 2-Chloronaphthalene	162		14.151	14.151	(0.923)	332074	2.08847	2.088	
38 2-Nitroaniline	65		Compound Not Detected.						
39 Dimethylphthalate	163		14.827	14.826	(0.968)	721780	4.21644	4.216	
40 Acenaphthylene	152		15.018	15.018	(0.980)	352830	1.39734	1.397	
41 2,6-Dinitrotoluene	165		Compound Not Detected.						
* 42 Acenaphthene-d10	164		15.324	15.324	(1.000)	497514	4.00000		
43 3-Nitroaniline	138		Compound Not Detected.						
44 Acenaphthene	153		15.388	15.388	(1.004)	768487	4.86882	4.869	
45 2,4-Dinitrophenol	184		15.464	15.464	(1.009)	43281	1.78631	1.786	
46 Dibenzofuran	168		15.719	15.719	(1.026)	1209446	5.49004	5.490	
47 4-Nitrophenol	109		15.592	15.579	(1.017)	123192	4.99647	4.996	
48 2,4-Dinitrotoluene	165		15.770	15.770	(1.029)	146711	2.79645	2.796	
50 Diethylphthalate	149		16.267	16.267	(1.062)	23432	0.14036	0.1404	
49 Fluorene	166		16.420	16.420	(1.072)	697027	3.32803	3.328	
51 4-Chlorophenyl-phenylether	204		16.407	16.407	(1.071)	189122	1.96411	1.964	
52 4-Nitroaniline	138		Compound Not Detected.						
53 4,6-Dinitro-2-methylphenol	198		16.611	16.611	(0.906)	101782	3.34912	3.349	
54 N-Nitrosodiphenylamine	169		16.662	16.662	(0.908)	268630	2.51820	2.518	
§ 55 2,4,6-Tribromophenol	330		16.954	16.954	(1.106)	129023	5.94539	5.945	
56 4-Bromophenyl-phenylether	248		17.413	17.400	(0.949)	237679	6.35905	6.359	
57 Hexachlorobenzene	284		Compound Not Detected.						
58 Pentachlorophenol	266		18.088	18.088	(0.986)	57870	2.59250	2.592	
* 59 Phenanthrene-d10	188		18.343	18.343	(1.000)	761526	4.00000		
60 Phenanthrene	178		18.394	18.394	(1.003)	923643	4.15677	4.157	
61 Anthracene	178		18.484	18.483	(1.008)	344169	1.64980	1.650	
62 Carbazole	167		18.815	18.815	(1.026)	918296	6.71895	6.719	
63 Di-n-butylphthalate	149		19.580	19.580	(1.067)	360959	1.43294	1.433	
64 Fluoranthene	202		20.753	20.753	(0.889)	471093	1.59246	1.592	
65 Pyrene	202		21.174	21.174	(0.907)	610583	2.03603	2.036	
§ 66 Terphenyl-d14	244		21.455	21.455	(0.919)	805794	3.77979	3.780	
67 Butylbenzylphthalate	149		22.360	22.360	(0.957)	353128	2.63096	2.631	
68 Benzo(a)anthracene	228		23.317	23.317	(0.998)	1086682	4.66637	4.666	
* 69 Chrysene-d12	240		23.356	23.355	(1.000)	632418	4.00000		
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.						
71 Chrysene	228		23.394	23.394	(1.002)	256248	1.16938	1.169	
72 bis(2-Ethylhexyl)phthalate	149		23.368	23.368	(0.959)	366625	1.83715	1.837	
* 134 Di-n-octylphthalate-d4	153		24.363	24.363	(1.000)	1379317	4.00000		
73 Di-n-octylphthalate	149		24.363	24.363	(1.000)	633265	1.81126	1.811	
74 Benzo(b)fluoranthene	252		25.218	25.218	(0.970)	658690	2.61985	2.620	
75 Benzo(k)fluoranthene	252		25.256	25.256	(0.972)	484454	2.03947	2.039	
76 Benzo(a)pyrene	252		25.881	25.881	(0.996)	666110	3.36325	3.363	
* 77 Perylene-d12	264		25.996	25.996	(1.000)	634142	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.716	28.716	(1.105)	497656	2.16627	2.166	
79 Dibenzo(a,h)anthracene	278		28.729	28.729	(1.105)	399456	2.07180	2.072	
80 Benzo(g,h,i)perylene	276		29.521	29.521	(1.136)	119418	0.62979	0.6298	
90 N-Nitrosodimethylamine	74		5.008	4.982	(0.541)	39655	0.59895	0.5989	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		Compound Not Detected.						
103 Pyridine	79		5.084	5.007	(0.549)	92600	0.88178	0.8818	
105 1-methylnaphthalene	142		13.373	13.385	(1.140)	2164	0.01140	0.01140	
111 Azobenzene (1,2-DP-Hydrazine)	77		Compound Not Detected.						

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.218	25.256	(0.970)	1052858	4.66499	4.665
120 2,3,4,6-Tetrachlorophenol	232	16.050	16.050	(1.047)	2380	0.03821	0.03821

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262311.D Calibration Time: 13:16
 Lab Smp Id: BLD0607-SRM1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	303211	-0.10
27 Naphthalene-d8	1140476	570238	2280952	1039513	-8.85
42 Acenaphthene-d10	622461	311231	1244922	497514	-20.07
59 Phenanthrene-d10	1074054	537027	2148108	761526	-29.10
69 Chrysene-d12	723807	361904	1447614	632418	-12.63
134 Di-n-octylphthala	1524055	762028	3048110	1379317	-9.50
77 Perylene-d12	666992	333496	1333984	634142	-4.93

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.36	0.00
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262311.D

Lab ID: BLD0607-SRM1
nt17.i, ABN.m, 26-MAY-2023 18:56

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.964	-0.0098	Benzoic acid
0.549	0.541	0.0083	Pyridine

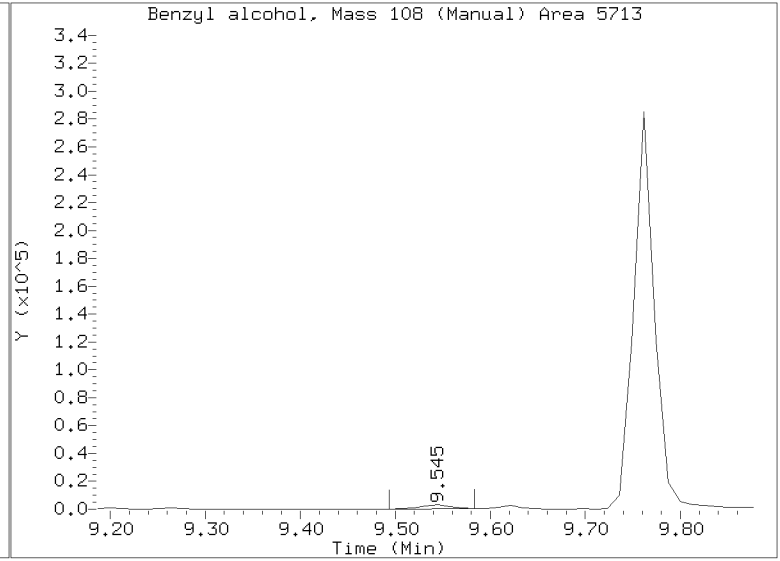
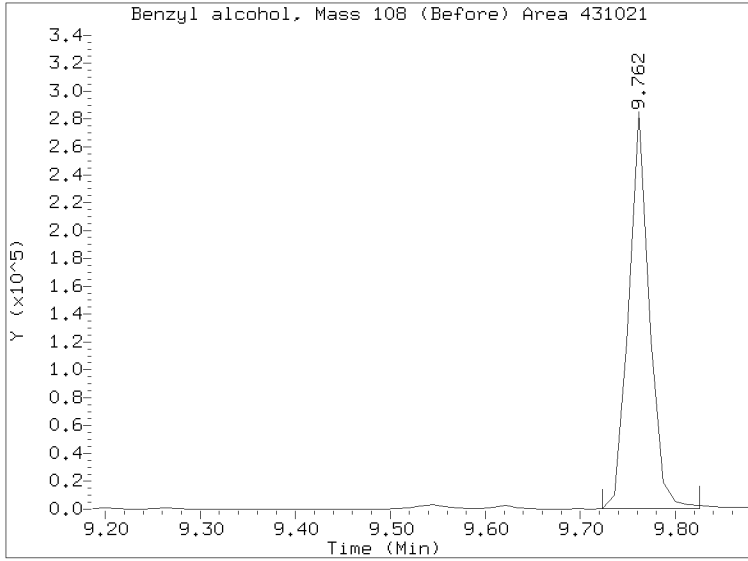
RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262311.D
Injection Date: 26-MAY-2023 18:56
Lab ID:BLD0607-SRM1 Client ID:
Report Date: 05/27/2023 12:21





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

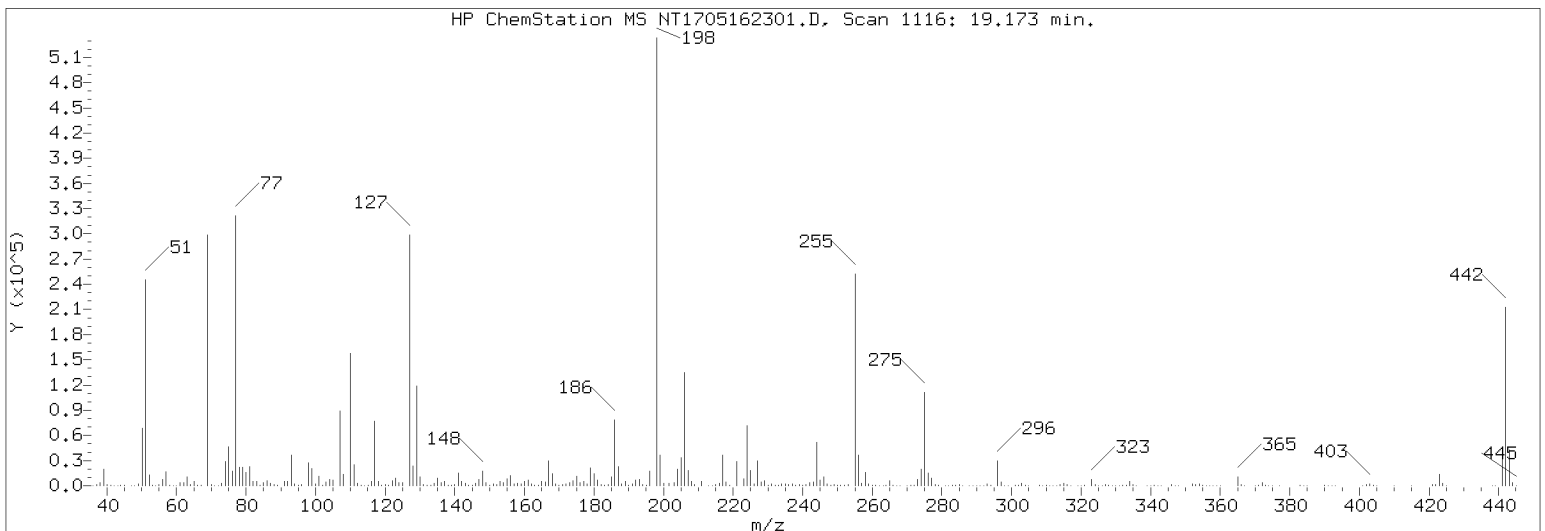
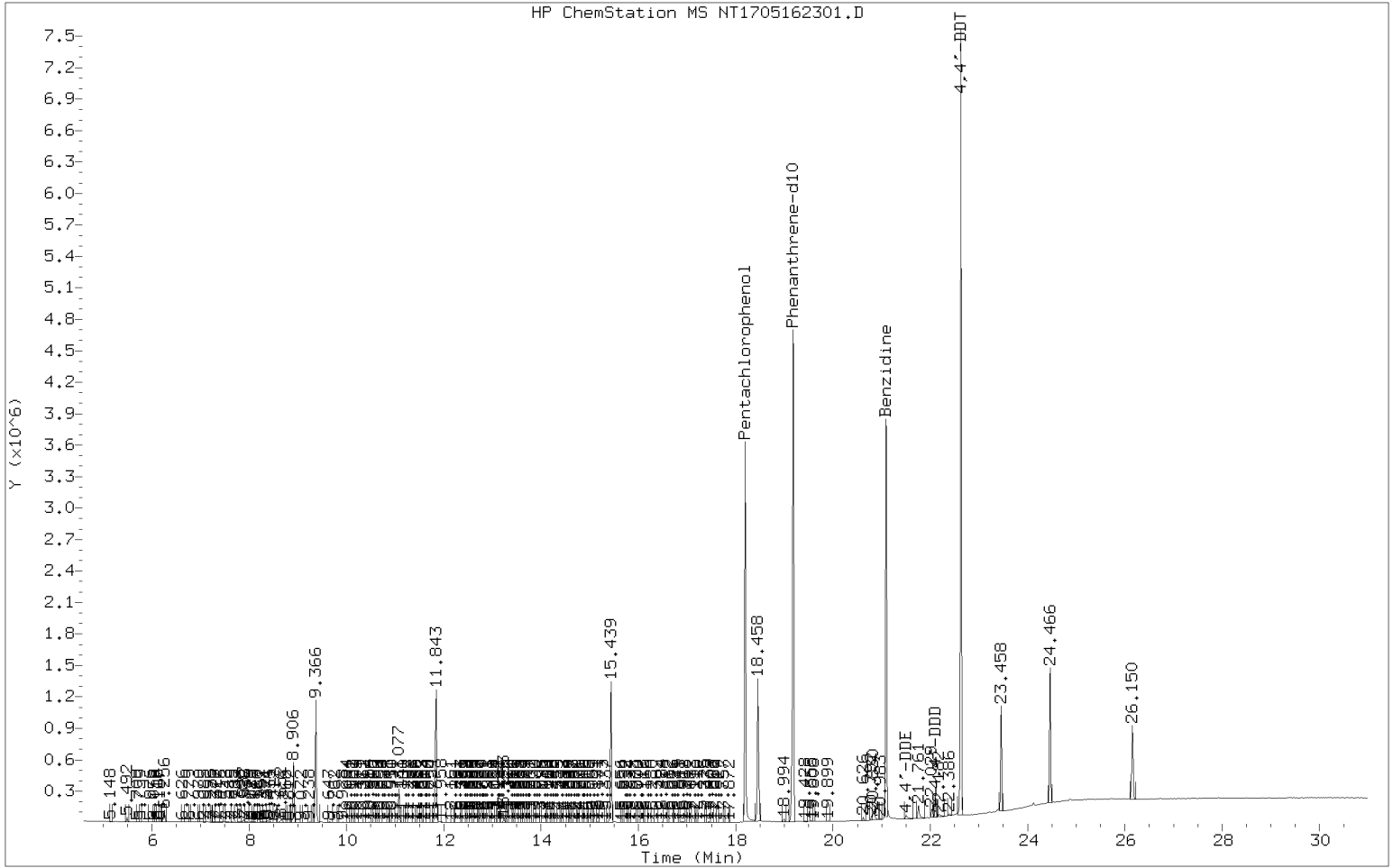
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1705162301.D</u>	Injection Date:	<u>05/16/23</u>
Instrument ID:	<u>NT17</u>	Injection Time:	<u>18:14</u>
Sequence:	<u>SLE0338</u>	Lab Sample ID:	<u>SLE0338-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	55.7	PASS
70	Less than 2% of 69	0.497	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
365	1 - 100% of 198	2.01	PASS
441	Less than 150% of 443	80.7	PASS
442	1 - 200% of 198	39.8	PASS
443	15 - 24% of 442	20.1	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

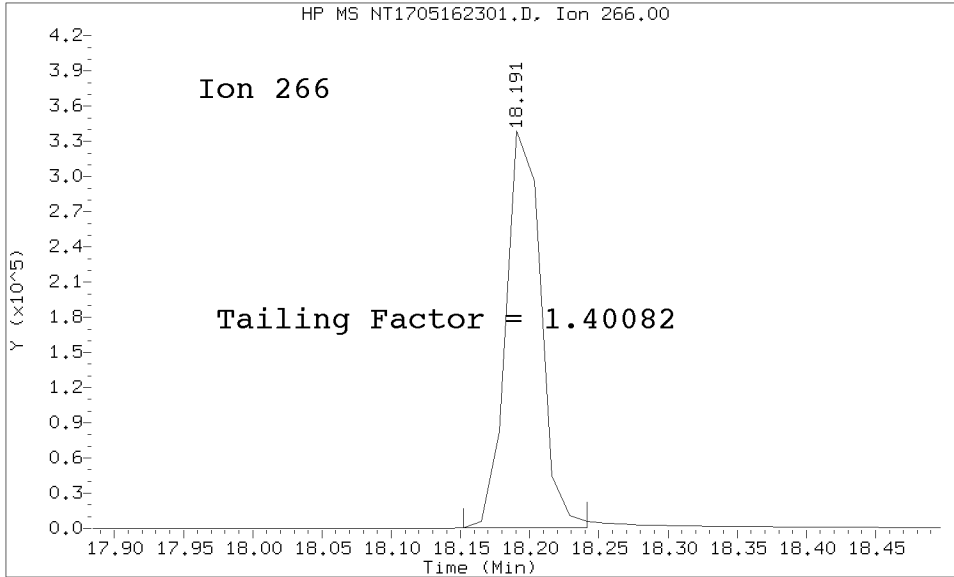
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLE0338-TUN1	NT1705162301.D	05/16/2023	18:14
Cal Standard	SLE0338-CAL7	NT1705162302.D	05/16/2023	18:52
Cal Standard	SLE0338-CAL6	NT1705162303.D	05/16/2023	19:29
Cal Standard	SLE0338-CAL5	NT1705162304.D	05/16/2023	20:07
Cal Standard	SLE0338-CAL4	NT1705162305.D	05/16/2023	20:44
Cal Standard	SLE0338-CAL3	NT1705162306.D	05/16/2023	21:22
Cal Standard	SLE0338-CAL2	NT1705162307.D	05/16/2023	21:59
Cal Standard	SLE0338-CAL1	NT1705162308.D	05/16/2023	22:37
Secondary Cal Check	SLE0338-SCV1	NT1705162311.D	05/17/2023	0:29
Initial Cal Blank	SLE0338-ICB1	NT1705162312.D	05/17/2023	1:07

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230516.b/NT1705162301.D/NT1705162301.D
Method Used: \20230516.b\DFTPP8270E.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: VTS
Sample Info: SLE0338-TUN1 SLE0338-TUN1
Report Date: 05/20/2023 13:10



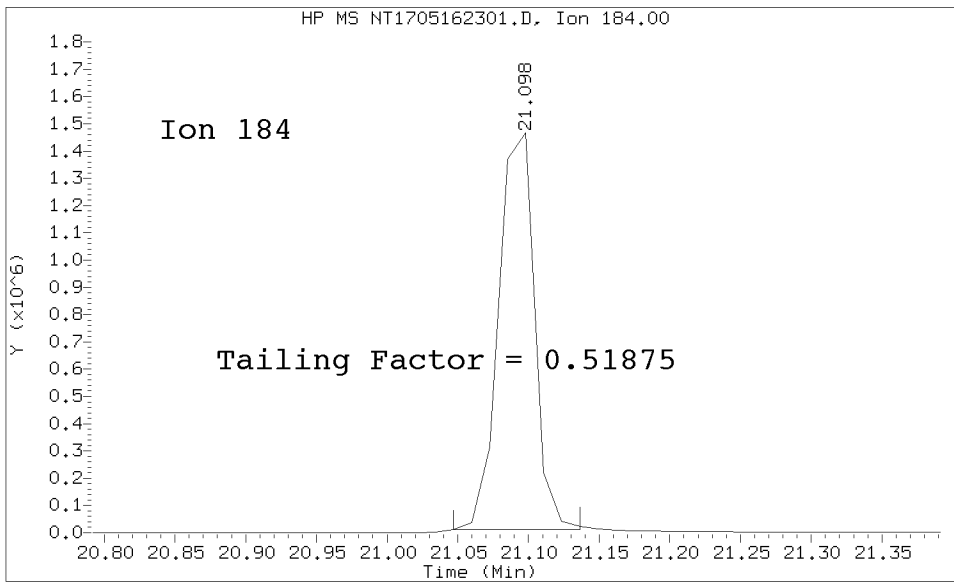
Datafile Analyzed: /20230516.b/NT1705162301.D/NT1705162301.D
Method Used: \20230516.b\DFTPP8270E.m\sw846ddt.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: JGR
Sample Info: NT1705162301
Report Date: 05/20/2023 13:10



Pentachlorophenol

=====
Exp. RT = 18.191
Found RT = 18.191

Tail Factor = 1.401 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 21.098
Found RT = 21.098

Tail Factor = 0.519 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4008163	2.000	PASS
Benzidine	0.5187468	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1797024			N/A
4,4-DDE	5899	0.3	20.0	PASS
4,4-DDD	55596	3.0	20.0	PASS
4,4-DDD + DDE	61495	3.3	20.0	PASS

Tuning Sample, nt17.i/20230516.b/NT1705162301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	55.71
70	Less than 2.00% of mass 69	0.28 (0.50)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
365	1.00 - 100.00% of mass 198	2.01
441	Less than 150.00% of mass 443	6.45 (80.67)
442	Less than 200.00% of mass 198	39.79
443	15.00 - 24.00% of mass 442	8.00 (20.10)

Data File: NT1705162301.D

Spectrum: HP ChemStation MS NT1705162301.D, Scan 1116: 19.173 min.

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	373	125.00	3764	212.90	378	304.10	870
37.10	1236	127.00	299008	214.00	187	304.90	93
38.10	3574	128.00	23768	215.00	1418	308.00	456
39.10	19776	129.00	119136	216.10	3082	309.00	262
40.10	1147	130.00	10361	217.00	36592	310.00	402
41.10	878	131.00	1814	218.00	4762	311.00	86
42.00	117	132.00	965	219.00	396	312.00	116
43.10	290	133.10	535	221.00	29232	313.00	219
44.00	563	134.00	3393	223.00	8299	314.00	1504
45.00	582	135.00	9407	224.00	71792	315.00	3072
47.00	97	136.00	3952	225.00	17928	316.00	1521
48.00	170	137.00	4988	226.10	2276	317.00	314
49.10	2254	138.00	1078	227.00	30000	319.10	73
50.10	68392	139.00	652	228.00	4583	320.10	106
51.10	245312	140.00	1657	229.00	6282	321.00	853
52.10	13090	141.00	15600	230.00	812	323.00	7992
53.10	590	142.00	5275	231.00	2667	324.10	1422
54.10	108	143.00	3193	232.00	430	325.00	180
55.00	1424	144.00	947	233.00	547	326.10	206
56.00	7762	145.00	844	234.00	1964	327.00	1582
57.00	17056	146.00	3027	235.00	2156	328.00	897
58.00	866	147.00	7959	236.00	1308	329.00	186
59.10	293	148.00	17552	237.00	2222	329.90	82
60.00	267	149.00	3605	237.90	416	331.10	85
61.00	3445	150.00	847	239.00	1164	332.00	681
62.10	3924	151.10	1978	240.00	951	333.00	829
63.10	10682	152.00	1250	241.00	1482	334.00	5269
64.00	1343	153.00	5043	242.00	3506	335.00	1251
65.10	5380	154.00	3616	243.10	4237	335.90	192
66.00	439	155.00	8310	244.00	51672	339.00	128
67.10	548	156.00	12288	245.00	7098	340.10	147
69.00	297216	157.00	2390	246.00	10908	341.00	859
70.00	1476	158.00	3197	247.00	2147	342.00	240
70.90	268	159.00	2124	248.10	405	343.10	69
72.10	180	160.00	4998	249.00	1791	346.00	1668
73.00	2846	161.00	6841	250.00	400	347.00	375
74.10	28912	162.00	1948	250.90	471	348.00	75
75.00	46408	163.00	565	252.00	547	352.00	2294
76.10	17424	164.00	677	253.00	1432	353.00	1625
77.10	321920	165.00	5602	255.00	252288	354.10	2225
78.10	22048	166.00	4612	256.00	36264	355.00	516
79.00	22016	167.00	29864	257.00	3077	356.00	63
80.00	16324	168.00	14362	258.00	15639	356.90	53
81.00	22800	169.00	2523	259.00	2592	358.00	71
82.00	5387	170.00	957	260.10	431	359.00	210
83.00	5076	171.00	1311	261.00	461	360.10	57
84.00	563	172.00	2519	262.00	108	365.00	10733
85.00	4136	173.00	3591	263.10	161	366.00	1640
86.00	6323	174.00	6157	264.00	692	366.90	121

87.00	3104	175.00	11592	265.00	6219	370.00	199
88.00	1154	176.00	3445	266.00	980	371.00	691
89.00	552	177.00	5417	267.00	143	372.00	3968
91.00	5210	178.00	1917	267.90	329	373.00	1018
92.00	5631	179.00	21584	270.00	364	374.00	88
93.00	36336	180.00	14393	271.00	614	375.00	64
94.00	2258	181.00	6949	272.00	778	377.00	178
95.10	602	182.00	1161	273.00	7503	382.90	939
96.00	1677	183.00	749	274.00	19672	384.00	273
98.00	27664	184.00	1652	275.00	111592	385.00	126
99.00	20856	185.00	10677	276.00	15342	390.00	425
100.00	1939	186.00	78320	277.00	9319	391.00	350
101.00	11566	187.00	22896	278.00	1573	392.10	253
102.00	831	188.00	2244	279.00	451	393.00	72
103.00	4398	189.00	5077	281.00	219	401.00	268
104.00	7600	190.00	951	282.00	285	402.00	1410
105.00	7080	191.00	2327	283.00	1010	403.00	2061
107.00	89200	192.00	6979	284.00	690	404.00	774
108.00	13702	193.00	7409	285.00	1524	405.00	123
110.00	158144	194.00	1633	286.00	314	410.00	81
111.00	25024	195.10	1054	287.90	160	414.90	77
112.00	3002	196.00	17264	289.00	314	421.00	1760
113.00	864	198.00	533504	290.00	311	422.00	1730
114.00	302	199.00	36760	291.00	191	423.00	13610
115.10	463	200.00	2858	292.00	365	424.00	2795
116.00	5300	201.50	3067	293.00	1946	425.00	303
117.00	76832	203.00	3883	294.00	397	438.30	74
118.00	5637	204.00	19736	296.00	30016	439.10	152
119.00	739	205.00	33208	297.00	4246	441.10	34424
120.00	1147	206.00	134656	297.90	294	442.00	212288
121.00	584	207.00	18008	299.00	90	443.00	42672
122.00	6244	208.00	5001	301.10	394	444.00	3817
123.00	9329	209.00	1511	302.00	506	445.10	229
124.00	4061	211.00	5429	303.00	3269		



INITIAL CALIBRATION DATA EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	0.2	1.515327	0.5	1.64205	1	1.951215	2.5	1.946316	5	1.925094	10	1.955636
bis(2-chloroethyl) ether	0.2	1.304717	0.5	1.295399	1	1.478041	2.5	1.369821	5	1.331908	10	1.311267
2-Chlorophenol	0.2	1.499455	0.5	1.50802	1	1.717396	2.5	1.490307	5	1.498177	10	1.510733
1,3-Dichlorobenzene	0.2	1.503555	0.5	1.466725	1	1.638838	2.5	1.565023	5	1.556608	10	1.567334
1,4-Dichlorobenzene	0.2	1.412365	0.5	1.630819	1	1.798907	2.5	1.49308	5	1.488694	10	1.498669
1,2-Dichlorobenzene	0.2	1.339741	0.5	1.338052	1	1.531626	2.5	1.47113	5	1.476145	10	1.514948
Benzyl Alcohol	0.2	0.7011163	0.5	0.7351646	1	0.8941789	2.5	0.9302211	5	0.895946	10	0.9159356
2,2'-Oxybis(1-chloropropane)	0.2	0.3827998	0.5	0.3687671	1	0.4359081	2.5	0.415285	5	0.426351	10	0.4209867
2-Methylphenol	0.2	1.154959	0.5	1.212785	1	1.39403	2.5	1.552001	5	1.358761	10	1.386669
Hexachloroethane	0.2	0.5532909	0.5	0.5679359	1	0.6395764	2.5	0.6327795	5	0.6378225	10	0.6455227
N-Nitroso-di-n-Propylamine	0.2	0.9225615	0.5	0.9325315	1	1.056034	2.5	1.093845	5	1.077681	10	1.08524
4-Methylphenol	0.2	1.167844	0.5	1.182646	1	1.409867	2.5	1.472511	5	1.451305	10	1.475234
Nitrobenzene	0.2	0.4060282	0.5	0.4412374	1	0.4422102	2.5	0.4416006	5	0.4395413	10	0.4396436
Isophorone	0.2	0.5271224	0.5	0.6360812	1	0.5537528	2.5	0.5650856	5	0.5711294	10	0.6730137
2-Nitrophenol	0.2	0.1598392	0.5	0.1864089	1	0.2418321	2.5	0.2103456	5	0.2148844	10	0.2208109
2,4-Dimethylphenol			1	0.4110101	2	0.4149893	5	0.4052563	10	0.4080673	20	0.4041597
Bis(2-Chloroethoxy)methane	0.2	0.3647075	0.5	0.3509254	1	0.3707641	2.5	0.3622648	5	0.3686203	10	0.3664199
2,4-Dichlorophenol			1	0.3423595	2	0.3461516	5	0.3130138	10	0.3135113	20	0.3246616
1,2,4-Trichlorobenzene	0.2	0.3603233	0.5	0.355971	1	0.344624	2.5	0.3402865	5	0.3396736	10	0.3383516
Naphthalene	0.2	1.111221	0.5	1.119409	1	1.102741	2.5	1.101742	5	1.095938	10	1.091171
Benzoic acid			2	7.946971E-02	4	0.1496777	10	0.2227278	20	0.2520231	40	0.2699127
4-Chloroaniline			1	0.4258349	2	0.4317672	5	0.4590405	10	0.458243	20	0.4152621
Hexachlorobutadiene	0.2	0.1706535	0.5	0.1726665	1	0.1716239	2.5	0.1748862	5	0.1756936	10	0.1783674
4-Chloro-3-Methylphenol			1	0.316369	2	0.3397437	5	0.3563181	10	0.3608724	20	0.3677406
2-Methylnaphthalene	0.2	0.7697858	0.5	0.7505503	1	0.7790407	2.5	0.7993737	5	0.8052455	10	0.8055023
Hexachlorocyclopentadiene	0.4	0.1706078	1	0.2143461	2	0.248999	5	0.308174	10	0.3174482	20	0.3571023
2,4,6-Trichlorophenol			1	0.374323	2	0.3891811	5	0.418747	10	0.417309	20	0.4480786
2,4,5-Trichlorophenol			1	0.3966077	2	0.4279123	5	0.4346061	10	0.4415632	20	0.4677754



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Instrument: NT17

Calibration Date: 05/20/2023

Column (1): ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2-Chloronaphthalene	0.2	1.292225	0.5	1.268009	1	1.271172	2.5	1.28054	5	1.263294	10	1.297566
2-Nitroaniline			1	0.3983443	2	0.4272776	5	0.4451883	10	0.4393913	20	0.4497003
Acenaphthylene	0.2	2.036084	0.5	2.059006	1	2.070821	2.5	2.030202	5	2.003144	10	2.01163
Dimethylphthalate	0.2	1.381073	0.5	1.405351	1	1.419896	2.5	1.404543	5	1.356323	10	1.344048
2,6-Dinitrotoluene			1	0.2981727	2	0.3056219	5	0.3261255	10	0.3250702	20	0.3366974
Acenaphthene	0.2	1.245076	0.5	1.263675	1	1.27027	2.5	1.273983	5	1.257471	10	1.294951
3-Nitroaniline			1	0.2787192	2	0.26979	5	0.2540363	10	0.3089221	20	0.3301823
2,4-Dinitrophenol	0.8		2	2.818422E-02	4	9.024559E-02	10	0.1620519	20	0.1892771	40	0.2197305
Dibenzofuran	0.2	1.77706	0.5	1.756784	1	1.75382	2.5	1.749859	5	1.75933	10	1.796287
4-Nitrophenol	0.4	8.703705E-02	1	0.1305194	2	0.1641116	5	0.1933669	10	0.1918027	20	0.2002034
2,4-Dinitrotoluene			1	0.3600138	2	0.4106691	5	0.4292884	10	0.4342633	20	0.4448729
Fluorene	0.2	1.396283	0.5	1.78943	1	1.799349	2.5	1.489574	5	1.781784	10	1.757136
4-Chlorophenylphenyl ether	0.2	0.7876275	0.5	0.7844299	1	0.7827804	2.5	0.6286909	5	0.7797913	10	0.8146494
Diethyl phthalate	0.2	1.302779	0.5	1.301983	1	1.347032	2.5	1.344656	5	1.303862	10	1.302658
4-Nitroaniline			1	0.236244	2	0.2745343	5	0.2753014	10	0.2844043	20	0.3076564
4,6-Dinitro-2-methylphenol	0.8	4.197058E-02	2	6.895356E-02	4	9.431631E-02	10	0.1230775	20	0.1382111	40	0.1546454
N-Nitrosodiphenylamine	0.2	0.5626007	0.5	0.5776893	1	0.5799067	2.5	0.5397361	5	0.5250946	10	0.5644336
4-Bromophenyl phenyl ether	0.2	0.1841331	0.5	0.1895423	1	0.1861595	2.5	0.1884463	5	0.1978305	10	0.2089616
Hexachlorobenzene	0.2	0.1991402	0.5	0.1974876	1	0.1898174	2.5	0.1921283	5	0.1983506	10	0.2070359
Pentachlorophenol	0.4	3.402963E-02	1	5.405844E-02	2	6.899246E-02	5	0.0973416	10	0.1172324	20	0.132916
Phenanthrene	0.2	1.145162	0.5	1.16863	1	1.150035	2.5	1.129793	5	1.172838	10	1.208755
Anthracene	0.2	1.004975	0.5	1.044685	1	1.06765	2.5	1.107929	5	1.129767	10	1.161012
Carbazole	0.2	0.9664878	0.5	0.9864561	1	0.9266959	2.5	0.6924964	5	0.6245934	10	0.769363
Di-n-Butylphthalate	0.2	1.182153	0.5	1.239651	1	1.303818	2.5	1.366907	5	1.407721	10	1.39066
Fluoranthene	0.2	1.756504	0.5	1.854365	1	1.873671	2.5	1.893399	5	1.949547	10	1.937891
Pyrene	0.2	1.861727	0.5	1.919689	1	1.923173	2.5	1.90314	5	1.926956	10	1.929794
Butylbenzylphthalate	0.2	0.7911624	0.5	0.8403236	1	0.8780115	2.5	0.8721963	5	0.8779673	10	0.8615676
Benzo(a)anthracene	0.2	1.503088	0.5	1.501633	1	1.477556	2.5	1.461652	5	1.459356	10	1.465531



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	20	1.912059										
bis(2-chloroethyl) ether	20	1.274754										
2-Chlorophenol	20	1.504806										
1,3-Dichlorobenzene	20	1.560279										
1,4-Dichlorobenzene	20	1.506931										
1,2-Dichlorobenzene	20	1.508603										
Benzyl Alcohol	20	0.9090791										
2,2'-Oxybis(1-chloropropane)	20	0.4193386										
2-Methylphenol	20	1.383045										
Hexachloroethane	20	0.6550718										
N-Nitroso-di-n-Propylamine	20	1.056236										
4-Methylphenol	20	1.454682										
Nitrobenzene	20	0.4300984										
Isophorone	20	0.6357134										
2-Nitrophenol	20	0.230936										
2,4-Dimethylphenol	40	0.3946827										
Bis(2-Chloroethoxy)methane	20	0.3670318										
2,4-Dichlorophenol	40	0.3195233										
1,2,4-Trichlorobenzene	20	0.4032811										
Naphthalene	20	1.077739										
Benzoic acid	80	0.276247										
4-Chloroaniline	40	0.4114227										
Hexachlorobutadiene	20	0.1858351										
4-Chloro-3-Methylphenol	40	0.3685457										
2-Methylnaphthalene	20	0.8036622										
Hexachlorocyclopentadiene	40	0.3793577										
2,4,6-Trichlorophenol	40	0.4634198										
2,4,5-Trichlorophenol	40	0.4897727										



INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2-Chloronaphthalene	20	1.275899										
2-Nitroaniline	40	0.4378235										
Acenaphthylene	20	1.999852										
Dimethylphthalate	20	1.322869										
2,6-Dinitrotoluene	40	0.3416608										
Acenaphthene	20	1.277702										
3-Nitroaniline	40	0.3490092										
2,4-Dinitrophenol	80	0.2351858										
Dibenzofuran	20	1.805194										
4-Nitrophenol	40	0.198296										
2,4-Dinitrotoluene	40	0.4517129										
Fluorene	20	1.773748										
4-Chlorophenylphenyl ether	20	0.8411589										
Diethyl phthalate	20	1.492502										
4-Nitroaniline	40	0.3167772										
4,6-Dinitro-2-methylphenol	80	0.1625065										
N-Nitrosodiphenylamine	20	0.5728148										
4-Bromophenyl phenyl ether	20	0.2191967										
Hexachlorobenzene	20	0.2163736										
Pentachlorophenol	40	0.1510293										
Phenanthrene	20	1.194775										
Anthracene	20	1.154318										
Carbazole	20	0.9554842										
Di-n-Butylphthalate	20	1.371066										
Fluoranthene	20	1.832218										
Pyrene	20	1.812931										
Butylbenzylphthalate	20	0.8213087										
Benzo(a)anthracene	20	1.441631										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
3,3'-Dichlorobenzidine	60	0.4699082										
Chrysene	20	1.359461										
bis(2-Ethylhexyl)phthalate	20	0.5674596										
Di-n-Octylphthalate	20	0.9490266										
Benzo(a)fluoranthenes, Total	40	1.513527										
Benzo(a)pyrene	20	1.321834										
Indeno(1,2,3-cd)pyrene	20	1.601363										
Dibenzo(a,h)anthracene	20	1.361357										
Benzo(g,h,i)perylene	20	1.322862										
1-Methylnaphthalene	20	0.7429514										
2-Fluorophenol	30	1.357037										
Phenol-d5	30	1.804164										
2-Chlorophenol-d4	30	1.454858										
1,2-Dichlorobenzene-d4	20	1.028424										
Nitrobenzene-d5	20	0.4602463										
2-Fluorobiphenyl	20	1.592623										
2,4,6-Tribromophenol	30	0.1798038										
p-Terphenyl-d14	20	1.301713										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	1.835385	9.8			RSD (15)	
bis(2-chloroethyl) ether	1.337987	5.1			RSD (15)	
2-Chlorophenol	1.532699	5.3			RSD (15)	
1,3-Dichlorobenzene	1.551195	3.5			RSD (15)	
1,4-Dichlorobenzene	1.547066	8.3			RSD (15)	
1,2-Dichlorobenzene	1.454321	5.6			RSD (15)	
Benzyl Alcohol	0.8545202	11.1			RSD (15)	
2,2'-Oxybis(1-chloropropane)	0.4099195	6.0			RSD (15)	
2-Methylphenol	1.348893	9.7			RSD (15)	
Hexachloroethane	0.6188571	6.6			RSD (15)	
N-Nitroso-di-n-Propylamine	1.032018	7.1			RSD (15)	
4-Methylphenol	1.373441	10.0			RSD (15)	
Nitrobenzene	0.4343371	3.0			RSD (15)	
Isophorone	0.5945569	9.0			RSD (15)	
2-Nitrophenol	0.2092939	13.3			RSD (15)	
2,4-Dimethylphenol	0.4063609	1.7			RSD (15)	
Bis(2-Chloroethoxy)methane	0.3643905	1.8			RSD (15)	
2,4-Dichlorophenol	0.3265369	4.4			RSD (15)	
1,2,4-Trichlorobenzene	0.3546444	6.5			RSD (15)	
Naphthalene	1.099994	1.2			RSD (15)	
Benzoic acid	0.208343	37.5	0.9973		LCOD (0.99)	
4-Chloroaniline	0.4335951	4.8			RSD (15)	
Hexachlorobutadiene	0.1756752	3.0			RSD (15)	
4-Chloro-3-Methylphenol	0.3515982	5.7			RSD (15)	
2-Methylnaphthalene	0.7875944	2.7			RSD (15)	
Hexachlorocyclopentadiene	0.2851479	26.8	0.9962		LCOD (0.99)	
2,4,6-Trichlorophenol	0.4185098	8.1			RSD (15)	
2,4,5-Trichlorophenol	0.4430396	7.3			RSD (15)	
2-Chloronaphthalene	1.278386	1.0			RSD (15)	
2-Nitroaniline	0.4329542	4.3			RSD (15)	
Acenaphthylene	2.030106	1.4			RSD (15)	



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Dimethylphthalate	1.3763	2.6			RSD (15)	
2,6-Dinitrotoluene	0.3222248	5.3			RSD (15)	
Acenaphthene	1.269018	1.2			RSD (15)	
3-Nitroaniline	0.2984432	12.4			RSD (15)	
2,4-Dinitrophenol	0.1541125	52.0		0.9967	QCOD (0.99)	
Dibenzofuran	1.771191	1.2			RSD (15)	
4-Nitrophenol	0.1664767	25.9	0.9996		LCOD (0.99)	
2,4-Dinitrotoluene	0.4218034	7.9			RSD (15)	
Fluorene	1.683901	9.9			RSD (15)	
4-Chlorophenylphenyl ether	0.7741612	8.8			RSD (15)	
Diethyl phthalate	1.34221	5.2			RSD (15)	
4-Nitroaniline	0.2824863	10.1			RSD (15)	
4,6-Dinitro-2-methylphenol	0.1119544	40.4	0.9959		LCOD (0.99)	
N-Nitrosodiphenylamine	0.5603251	3.7			RSD (15)	
4-Bromophenyl phenyl ether	0.1963243	6.7			RSD (15)	
Hexachlorobenzene	0.2000477	4.5			RSD (15)	
Pentachlorophenol	9.365712E-02	46.0		0.9982	QCOD (0.99)	
Phenanthrene	1.167141	2.4			RSD (15)	
Anthracene	1.095762	5.4			RSD (15)	
Carbazole	0.8459395	17.5		0.9984	QCOD (0.99)	
Di-n-Butylphthalate	1.323139	6.4			RSD (15)	
Fluoranthene	1.871085	3.5			RSD (15)	
Pyrene	1.896773	2.3			RSD (15)	
Butylbenzylphthalate	0.8489339	3.9			RSD (15)	
Benzo(a)anthracene	1.472921	1.5			RSD (15)	
3,3'-Dichlorobenzidine	0.3736402	20.5		0.9987	QCOD (0.99)	
Chrysene	1.385997	1.6			RSD (15)	
bis(2-Ethylhexyl)phthalate	0.5787277	2.9			RSD (15)	
Di-n-Octylphthalate	1.013912	4.0			RSD (15)	
Benzo(a)fluoranthene, Total	1.423615	3.4			RSD (15)	
Benzo(a)pyrene	1.249283	3.9			RSD (15)	



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00065	Instrument:	NT17
Calibration Date:	05/20/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Indeno(1,2,3-cd)pyrene	1.449069	5.0			RSD (15)	
Dibenzo(a,h)anthracene	1.216171	5.7			RSD (15)	
Benzo(g,h,i)perylene	1.196051	5.2			RSD (15)	
1-Methylnaphthalene	0.7306547	1.5			RSD (15)	
2-Fluorophenol	1.309393	11.1			RSD (15)	
Phenol-d5	1.732816	8.6			RSD (15)	
2-Chlorophenol-d4	1.387987	6.6			RSD (15)	
1,2-Dichlorobenzene-d4	0.9755818	7.0			RSD (15)	
Nitrobenzene-d5	0.4552457	3.0			RSD (15)	
2-Fluorobiphenyl	1.575813	0.7			RSD (15)	
2,4,6-Tribromophenol	0.1414414	17.0	0.9934		LCOD (0.99)	
p-Terphenyl-d14	1.348381	1.8			RSD (15)	



ANALYSIS SEQUENCE

SLE0338

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00065 GCMS Column ID: L004289
MS EM Level: 1450 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0338-TUN1	MS Tune	QC		1	L005045		05/16/2023 18:14	NT1705162301.D	VTS	
SLE0338-CAL7	ABN 20	QC		2	K011111	K010831	05/16/2023 18:52	NT1705162302.D	JGR	
SLE0338-CAL6	ABN 10	QC		3	K011110	K010831	05/16/2023 19:29	NT1705162303.D	JGR	
SLE0338-CAL5	ABN 5	QC		4	K011109	K010831	05/16/2023 20:07	NT1705162304.D	JGR	
SLE0338-CAL4	ABN 2.5	QC		5	K011108	K010831	05/16/2023 20:44	NT1705162305.D	JGR	
SLE0338-CAL3	ABN 1.0	QC		6	K011107	K010831	05/16/2023 21:22	NT1705162306.D	JGR	
SLE0338-CAL2	ABN 0.5	QC		7	K011106	K010831	05/16/2023 21:59	NT1705162307.D	JGR	
SLE0338-CAL1	ABN 0.2	QC		8	K011105	K010831	05/16/2023 22:37	NT1705162308.D	JGR	
SLE0338-SCV1	SCV 5.0	QC		9	K010066	K010831	05/17/2023 00:29	NT1705162311.D	JGR	
SLE0338-ICB1	Initial Cal Blank	QC		10	K005156	K010831	05/17/2023 01:07	NT1705162312.D	JGR	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b

Time	Filename	LabID	ClientId	DF																						
1	1814	NT1705162301.D	SLE0338-TUN1		1	|	NO	ISTDS	FOUND	|	|															
2	1852	NT1705162302.D	SLE0338-CAL7		1	|	9.38	262646	|	11.84	972245	|	15.44	531394	|	18.47	858760	|	23.47	584767	|	26.16	454990	|	24.47	1150423
3	1929	NT1705162303.D	SLE0338-CAL6		1	|	9.37	285800	|	11.84	1067038	|	15.44	581019	|	18.47	929294	|	23.46	582943	|	26.16	481255	|	24.47	1171304
4	2007	NT1705162304.D	SLE0338-CAL5		1	|	9.37	287078	|	11.84	1056758	|	15.44	587510	|	18.46	933575	|	23.46	576570	|	26.15	491359	|	24.47	1181651
5	2044	NT1705162305.D	SLE0338-CAL4		1	|	9.37	294275	|	11.84	1079321	|	15.44	588382	|	18.46	983826	|	23.46	618048	|	26.15	536896	|	24.47	1230644
6	2122	NT1705162306.D	SLE0338-CAL3		1	|	9.37	291199	|	11.84	1069618	|	15.44	576693	|	18.46	946973	|	23.46	570480	|	26.15	514255	|	24.47	1138779
7	2159	NT1705162307.D	SLE0338-CAL2		1	|	9.37	324107	|	11.84	1038534	|	15.44	548179	|	18.46	888076	|	23.45	524160	|	26.15	482063	|	24.45	1033662
8	2237	NT1705162308.D	SLE0338-CAL1		1	|	9.37	341484	|	11.83	1094850	|	15.43	579868	|	18.46	948879	|	23.45	564132	|	26.15	504570	|	24.47	1101082
9	2314	NT1705162309.D	SIM0.1		1	|	9.37	321301	|	11.83	1156521	|	15.44	625574	|	18.46	1065678	|	23.45	676035	|	26.15	620220	|	24.45	1323254
10	2351	NT1705162310.D	SIM 0.5		1	|	9.37	332506	|	11.83	1064302	|	15.43	556553	|	18.46	907034	|	23.45	531815	|	26.15	492679	|	24.45	1051214
11	0029	NT1705162311.D	SLE0338-SCV1		1	|	9.37	265705	|	11.84	965231	|	15.44	512787	|	18.46	850147	|	23.46	511511	|	26.15	456008	|	24.47	1044471
12	0107	NT1705162312.D	SLE0338-ICB1		1	|	9.37	287620	|	11.83	1041050	|	15.44	539097	|	18.46	886060	|	23.45	518615	|	26.15	487385	|	24.45	1011857

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b

Instrument: nt17.i Date: 16-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1814	NT1705162301.D	SLE0338-TUN1	1	NO MANUAL INTEGRATION
1852	NT1705162302.D	SLE0338-CAL7	1	Benzoic acid, 2-Fluorophenol,
1929	NT1705162303.D	SLE0338-CAL6	1	Benzoic acid,
2007	NT1705162304.D	SLE0338-CAL5	1	NO MANUAL INTEGRATION
2044	NT1705162305.D	SLE0338-CAL4	1	Benzoic acid,
2122	NT1705162306.D	SLE0338-CAL3	1	NO MANUAL INTEGRATION
2159	NT1705162307.D	SLE0338-CAL2	1	NO MANUAL INTEGRATION
2237	NT1705162308.D	SLE0338-CAL1	1	Benzoic acid,
2314	NT1705162309.D	SIM0.1	1	Benzo(k)fluoranthene,
2351	NT1705162310.D	SIM 0.5	1	NO MANUAL INTEGRATION
0029	NT1705162311.D	SLE0338-SCV1	1	NO MANUAL INTEGRATION
0107	NT1705162312.D	SLE0338-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 20-May-2023 13:32

NT1705162301.D	Data Locked	van, 20-May-2023 13:32
NT1705162302.D	Data Locked	van, 20-May-2023 13:32
NT1705162303.D	Data Locked	van, 20-May-2023 13:32
NT1705162304.D	Data Locked	van, 20-May-2023 13:32
NT1705162305.D	Data Locked	van, 20-May-2023 13:32
NT1705162306.D	Data Locked	van, 20-May-2023 13:32
NT1705162307.D	Data Locked	van, 20-May-2023 13:32
NT1705162308.D	Data Locked	van, 20-May-2023 13:32
NT1705162309.D	Data Locked	van, 20-May-2023 13:32
NT1705162310.D	Data Locked	van, 20-May-2023 13:32
NT1705162311.D	Data Locked	van, 20-May-2023 13:32
NT1705162312.D	Data Locked	van, 20-May-2023 13:32

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

Calibration File Names:

Level 1: \\target\share\chem3\nt17.i\20230516.b\NT1705162308.D
 Level 2: \\target\share\chem3\nt17.i\20230516.b\NT1705162307.D
 Level 3: \\target\share\chem3\nt17.i\20230516.b\NT1705162306.D
 Level 4: \\target\share\chem3\nt17.i\20230516.b\NT1705162305.D
 Level 5: \\target\share\chem3\nt17.i\20230516.b\NT1705162304.D
 Level 6: \\target\share\chem3\nt17.i\20230516.b\NT1705162303.D
 Level 7: \\target\share\chem3\nt17.i\20230516.b\NT1705162302.D

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

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

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 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
143 1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
121 Quinoline	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
120 2,3,4,6-Tetrachlorophenol	8430	21645	51169	146074	319360	688855					
	1360268						LINR	0.000e+000	0.50074		0.99583
178 2-Benzyl-4-Chlorophenol	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
119 7,12-Dimethylbenz(a)anthracen	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
118 Triphenyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
117 Butyl Diphenyl Phosphate	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
111 Azobenzene (1,2-DP-Hydrazine)	1.48237|	1.56765|	1.61750|	1.64942|	1.55052|	1.56844|					
	1.53148						AVRG		1.56677		3.49977
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
105 1-methylnaphthalene	0.71502|	0.72119|	0.72176|	0.73500|	0.73848|	0.74019|					
	0.74295|						|AVRG|		|0.73065|		|1.51528|
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
163 1,2,3,5,8-Pentachloronaphthal	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
164 1,2,3,4,6,7-Hexachloronaphtha	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
165 1,2,3,4,5,6,7-Heptachloronaph	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
166 Octachloronaphthalene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
167 2,2',4,4',5-Pentabromobipheny	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
3 Phenol	1.51533|	1.64205|	1.95122|	1.94632|	1.92509|	1.95564|					
	1.91206|						|AVRG|		1.83539|		9.79520|
4 Bis(2-Chloroethyl)ether	1.30472	1.29540	1.47804	1.36982	1.33191	1.31127					
	1.27475						AVRG		1.33799		5.13279

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
6 2-Chlorophenol	1.49946 1.50481	1.50802	1.71740	1.49031	1.49818	1.51073					
							AVRG		1.53270		5.33228
7 1,3-Dichlorobenzene	1.50356 1.56028	1.46673	1.63884	1.56502	1.55661	1.56733					
							AVRG		1.55119		3.49642
9 1,4-Dichlorobenzene	1.41236 1.50693	1.63082	1.79891	1.49308	1.48869	1.49867					
							AVRG		1.54707		8.29701
11 Benzyl alcohol	0.70112 0.90908	0.73516	0.89418	0.93022	0.89595	0.91594					
							AVRG		0.85452		11.05523
12 1,2-Dichlorobenzene	1.33974 1.50860	1.33805	1.53163	1.47113	1.47615	1.51495					
							AVRG		1.45432		5.61458
13 2-Methylphenol	1.15496 1.38304	1.21278	1.39403	1.55200	1.35876	1.38667					
							AVRG		1.34889		9.67155
14 2,2'-oxybis(1-Chloropropane)	0.38280 0.41934	0.36877	0.43591	0.41529	0.42635	0.42099					
							AVRG		0.40992		5.98747

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
15 4-Methylphenol	1.16784 1.45468	1.18265	1.40987	1.47251	1.45130	1.47523					
							AVRG		1.37344		9.98491
16 N-Nitroso-di-n-propylamine	0.92256 1.05624	0.93253	1.05603	1.09384	1.07768	1.08524					
							AVRG		1.03202		7.05222
17 Hexachloroethane	0.55329 0.65507	0.56794	0.63958	0.63278	0.63782	0.64552					
							AVRG		0.61886		6.56284
19 Nitrobenzene	0.40603 0.43010	0.44124	0.44221	0.44160	0.43954	0.43964					
							AVRG		0.43434		3.02676
20 Isophorone	0.52712 0.63571	0.63608	0.55375	0.56509	0.57113	0.67301					
							AVRG		0.59456		9.00612
21 2-Nitrophenol	0.15984 0.23094	0.18641	0.24183	0.21035	0.21488	0.22081					
							AVRG		0.20929		13.31789
22 2,4-Dimethylphenol	++++ 0.39468	0.41101	0.41499	0.40526	0.40807	0.40416					
							AVRG		0.40636		1.70998

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
23 Bis(2-Chloroethoxy)methane	0.36471 0.36703	0.35093	0.37076	0.36226	0.36862	0.36642					
							AVRG		0.36439		1.79095
24 Benzoic acid	++++ 5371595	41266	160098	600987	1331637	2880071					
							LINR	0.000e+000	0.27335		0.99728
25 2,4-Dichlorophenol	++++ 0.31952	0.34236	0.34615	0.31301	0.31351	0.32466					
							AVRG		0.32654		4.41744
26 1,2,4-Trichlorobenzene	0.36032 0.40328	0.35597	0.34462	0.34029	0.33967	0.33835					
							AVRG		0.35464		6.50747
28 Naphthalene	1.11122 1.07774	1.11941	1.10274	1.10174	1.09594	1.09117					
							AVRG		1.09999		1.23270
29 4-Chloroaniline	++++ 0.41142	0.42583	0.43177	0.45904	0.45824	0.41526					
							AVRG		0.43360		4.77829
30 Hexachlorobutadiene	0.17065 0.18584	0.17267	0.17162	0.17489	0.17569	0.17837					
							AVRG		0.17568		2.95578

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
31 4-Chloro-3-methylphenol	+++++ 0.36855	0.31637	0.33974	0.35632	0.36087	0.36774					
							AVRG		0.35160		5.74168
32 2-Methylnaphthalene	0.76979 0.80366	0.75055	0.77904	0.79937	0.80525	0.80550					
							AVRG		0.78759		2.73880
33 Hexachlorocyclopentadiene	+++++ 2015884	29375	71798	226655	466260	1037416					
							LINR	0.000e+000	0.37195		0.99573
34 2,4,6-Trichlorophenol	+++++ 0.46342	0.37432	0.38918	0.41875	0.41731	0.44808					
							AVRG		0.41851		8.07145
35 2,4,5-Trichlorophenol	+++++ 0.48977	0.39661	0.42791	0.43461	0.44156	0.46778					
							AVRG		0.44304		7.31668
37 2-Chloronaphthalene	1.29223 1.27590	1.26801	1.27117	1.28054	1.26329	1.29757					
							AVRG		1.27839		0.98828
38 2-Nitroaniline	+++++ 0.43782	0.39834	0.42728	0.44519	0.43939	0.44970					
							AVRG		0.43295		4.29050

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
39 Dimethylphthalate	1.38107| 1.32287|	1.40535|	1.41990|	1.40454|	1.35632|	1.34405|	|	|	|	|	|
							|AVRG|	|	|1.37630|	|	|2.62967|
40 Acenaphthylene	2.03608| 1.99985|	2.05901|	2.07082|	2.03020|	2.00314|	2.01163|	|	|	|	|	|
							|AVRG|	|	|2.03011|	|	|1.35084|
41 2,6-Dinitrotoluene	++++| 0.34166|	0.29817|	0.30562|	0.32613|	0.32507|	0.33670|	|	|	|	|	|
							|AVRG|	|	|0.32222|	|	|5.31164|
43 3-Nitroaniline	++++| 0.34901|	0.27872|	0.26979|	0.25404|	0.30892|	0.33018|	|	|	|	|	|
							|AVRG|	|	|0.29844|	|	|12.40773|
44 Acenaphthene	1.24508| 1.27770|	1.26367|	1.27027|	1.27398|	1.25747|	1.29495|	|	|	|	|	|
							|AVRG|	|	|1.26902|	|	|1.24978|
45 2,4-Dinitrophenol	++++| 2499526|	7725|	52044|	238371|	556011|	1276676|	|	|	|	|	|
							|QUAD|	|0.000e+000|	|5.15029|	|-0.19402|	|0.99884|<-
46 Dibenzofuran	1.77706 1.80519	1.75678	1.75382	1.74986	1.75933	1.79629					
							AVRG		1.77119		1.24669

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
47 4-Nitrophenol	++++ 1053733	17887	47321	142217	281715	581610	LINR	0.000e+000	0.19823		0.99965
48 2,4-Dinitrotoluene	++++ 0.45171	0.36001	0.41067	0.42929	0.43426	0.44487	AVRG		0.42180		7.91993
49 Fluorene	1.39628 1.77375	1.78943	1.79935	1.48957	1.78178	1.75714	AVRG		1.68390		9.93624
50 Diethylphthalate	1.30278 1.49250	1.30198	1.34703	1.34466	1.30386	1.30266	AVRG		1.34221		5.16401
51 4-Chlorophenyl-phenylether	0.78763 0.84116	0.78443	0.78278	0.62869	0.77979	0.81465	AVRG		0.77416		8.77394
52 4-Nitroaniline	++++ 0.31678	0.23624	0.27453	0.27530	0.28440	0.30766	AVRG		0.28249		10.09524
53 4,6-Dinitro-2-methylphenol	++++ 2791081	30618	89315	302717	645152	1437110	LINR	0.000e+000	0.15963		0.99551

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
54 N-Nitrosodiphenylamine	0.56260	0.57769	0.57991	0.53974	0.52509	0.56443					
	0.57281						AVRG		0.56033		3.66338
56 4-Bromophenyl-phenylether	0.18413	0.18954	0.18616	0.18845	0.19783	0.20896					
	0.21920						AVRG		0.19632		6.72256
57 Hexachlorobenzene	0.19914	0.19749	0.18982	0.19213	0.19835	0.20704					
	0.21637						AVRG		0.20005		4.53122
58 Pentachlorophenol	+++++	12002	32667	119709	273613	617590					
	1296979						QUAD	0.000e+000	8.63071	-1.34063	0.99924
60 Phenanthrene	1.14516	1.16863	1.15003	1.12979	1.17284	1.20875					
	1.19477						AVRG		1.16714		2.39814
61 Anthracene	1.00498	1.04469	1.06765	1.10793	1.12977	1.16101					
	1.15432						AVRG		1.09576		5.35155
62 Carbazole	45854	109506	219389	425810	728881	1787411					
	4102658						QUAD	0.000e+000	1.51022	-0.09723	0.99848

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
 End Cal Date : 16-MAY-2023 22:37
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
63 Di-n-butylphthalate	1.18215|	1.23965|	1.30382|	1.36691|	1.40772|	1.39066|					
	1.37107|						AVRG		1.32314|		6.40902|
64 Fluoranthene	1.75650|	1.85437|	1.87367|	1.89340|	1.94955|	1.93789|					
	1.83222|						AVRG		1.87108|		3.52109|
65 Pyrene	1.86173|	1.91969|	1.92317|	1.90314|	1.92696|	1.92979|					
	1.81293|						AVRG		1.89677|		2.31029|
67 Butylbenzylphthalate	0.79116|	0.84032|	0.87801|	0.87220|	0.87797|	0.86157|					
	0.82131|						AVRG		0.84893|		3.89615|
68 Benzo(a)anthracene	1.50309|	1.50163|	1.47756|	1.46165|	1.45936|	1.46553|					
	1.44163|						AVRG		1.47292|		1.54337|
70 3,3'-Dichlorobenzidine	37419|	85571|	154282|	346015|	587270|	1474421|					
	4121802|						QUAD	0.000e+000|	3.51872|	-0.19750|	0.99874|
71 Chrysene	1.39248	1.42654	1.38577	1.37608	1.36895	1.39270					
	1.35946						AVRG		1.38600		1.56529

ARI Labs, Inc.

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 Last Edit : 18-May-2023 07:42 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
72 bis(2-Ethylhexyl)phthalate	0.54515| 0.56746|	0.58631|	0.58750|	0.59011|	0.59331|	0.58126|	|	|	|	|	|
							|AVRG|	|	0.57873|	|	2.93997|
73 Di-n-octylphthalate	1.07156| 0.94903|	1.04461|	1.03043|	1.01328|	1.00208|	0.98640|	|	|	|	|	|
							|AVRG|	|	1.01391|	|	3.95471|
74 Benzo(b)fluoranthene	1.67806| 1.55191|	1.58426|	1.59279|	1.55259|	1.48360|	1.65816|	|	|	|	|	|
							|AVRG|	|	1.58591|	|	4.19018|
75 Benzo(k)fluoranthene	1.44075| 1.74349|	1.37079|	1.41319|	1.48869|	1.57004|	1.46139|	|	|	|	|	|
							|AVRG|	|	1.49834|	|	8.33302|
187 Total Benzofluoranthenes	1.38883| 1.51353|	1.37916|	1.37816|	1.42535|	1.42864|	1.45164|	|	|	|	|	|
							|AVRG|	|	1.42361|	|	3.41126|
76 Benzo(a)pyrene	1.28906| 1.32183|	1.22301|	1.17691|	1.21662|	1.24453|	1.27301|	|	|	|	|	|
							|AVRG|	|	1.24928|	|	3.92500|
78 Indeno(1,2,3-cd)pyrene	1.41071 1.60136	1.40811	1.38791	1.41410	1.45611	1.46518					
							AVRG		1.44907		5.00930

ARI Labs, Inc.

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 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
79 Dibenzo(a,h)anthracene	1.16138 1.36136	1.17834	1.17298	1.18819	1.21727	1.23368					
							AVRG		1.21617		5.66377
80 Benzo(g,h,i)perylene	1.16004 1.32286	1.18039	1.14771	1.14247	1.20750	1.21139					
							AVRG		1.19605		5.19871
90 N-Nitrosodimethylamine	0.75734 0.85362	0.78089	0.93590	0.94678	0.91987	0.91954					
							AVRG		0.87342		8.86830
91 Aniline	++++ 1.59466	1.32671	1.49931	1.55787	1.60682	1.64294					
							AVRG		1.53805		7.44122
92 1,2-Diphenylhydrazine	++++ ++++	++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000<-
93 Benzidine	++++ 3987621	73568	119355	332205	535492	1662132					
							QUAD	0.000e+000	2.15780	-0.10234	0.99414
96 p-Cymene	++++ ++++	++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000<-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
103 Pyridine	1.28770	1.32196	1.47087	1.48489	1.44527	1.39185					
	1.29504						AVRG	1.38537			6.07970

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
188 2,6-Dichlorophenol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
189 N-Nitrosomethylethylamine	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
\$ 1 2-Fluorophenol	1.05532|	1.15001|	1.37936|	1.40233|	1.42270|	1.39900|					
	1.35704|						|AVRG|	|1.30939|		|11.09490|	
\$ 137 d8-1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
\$ 2 Phenol-d5	1.47712|	1.56294|	1.81163|	1.79885|	1.82574|	1.84926|					
	1.80416|						|AVRG|	|1.73282|		|8.56278|	
\$ 5 2-Chlorophenol-d4	1.24480|	1.26622|	1.43093|	1.43427|	1.43691|	1.44793|					
	1.45486|						|AVRG|	|1.38799|		|6.56208|	
\$ 10 1,2-Dichlorobenzene-d4	0.88033	0.87208	1.02627	1.00023	1.00558	1.01615					
	1.02842						AVRG	0.97558		7.03958	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 18 Nitrobenzene-d5	0.42630	0.45294	0.45444	0.45996	0.46746	0.46537					
	0.46025						AVRG		0.45525		3.03112
\$ 36 2-Fluorobiphenyl	1.57529	1.58119	1.57183	1.56691	1.55835	1.58449					
	1.59262						AVRG		1.57581		0.72674
\$ 55 2,4,6-Tribromophenol	4749	12283	28123	80536	161510	346267					
	716600						LINR	0.000e+000	0.17448		0.99340
\$ 66 Terphenyl-d14	1.37092	1.33939	1.37009	1.33981	1.35253	1.36422					
	1.30171						AVRG		1.34838		1.81140
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000<-
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000<-
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000<-

ARI Labs, Inc.

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Start Cal Date : 09-MAY-2023 11:13
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 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Last Edit : 18-May-2023 07:42 j rains

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2023 11:13
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Quant Method : ISTD
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Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt17.i\20230516.b\ABN.m
Last Edit : 18-May-2023 07:42 jrains

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: NT1705162302 NT1705162303 NT1705162304 NT1705162305 NT1705162306 NT1705162307 NT1705162308
INJ. DATE: 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023
INJ. TIME: 18:52 19:29 20:07 20:44 21:22 21:59 22:37

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
| 148 Dieldrin	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 47.281|	| 44.281-50.281 |	| +++++|	| +++++|
| 149 TCMX	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 43.387|	| 40.387-46.387 |	| +++++|	| +++++|
| 150 DCBP	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 50.989|	| 47.989-53.989 |	| +++++|	| +++++|
| 138 Chlorobenzilate	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 67.733|	| 64.733-70.733 |	| +++++|	| +++++|
| 139 Isodrin	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.067|	| 62.067-68.067 |	| +++++|	| +++++|
| 140 Diallate A	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.487|	| 62.487-68.487 |	| +++++|	| +++++|
| 141 Diallate B	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.487|	| 62.487-68.487 |	| +++++|	| +++++|
| 142 1,2-Dibromo-3-Chloropr	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 49.917|	| 46.917-52.917 |	| +++++|	| +++++|
| 135 2,3,5,6-Tetrachlorophe	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 16.672|	| 13.672-19.672 |	| +++++|	| +++++|
| 136 2,3,4,5-tetrachlorophe	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 39.317|	| 36.317-42.317 |	| +++++|	| +++++|
| \$ 137 d8-1,4-Dioxane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 2.445|	| 0.000-5.445 |	| +++++|	| +++++|
| * 134 Di-n-octylphthalate-d4	| 24.466|	| 24.466|	| 24.466|	| 24.466|	| 24.466|	| 24.453|	| 24.466|	| 24.466|	| 21.466-27.466 |	| 24.464|	| 0.005|
| 133 Butylatedhydroxytoluen	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 16.539|	| 13.539-19.539 |	| +++++|	| +++++|
| 132 3,6-Dimethylphenanthre	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.450|	| 62.450-68.450 |	| +++++|	| +++++|
| 131 1-Methylphenanthrene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 64.400|	| 61.400-67.400 |	| +++++|	| +++++|
| 130 Dibenzothiophene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 62.100|	| 59.100-65.100 |	| +++++|	| +++++|
| 129 1-Methylfluorene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 54.912|	| 51.912-57.912 |	| +++++|	| +++++|
| 128 N-Hexadecane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 54.212|	| 51.212-57.212 |	| +++++|	| +++++|
| 127 2-Isopropylaphthalene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 57.650|	| 54.650-60.650 |	| +++++|	| +++++|
| 126 N-Tetradecane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 56.750|	| 53.750-59.750 |	| +++++|	| +++++|
| 144 alpha-Terpineol	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 12.260|	| 9.260-15.260 |	| +++++|	| +++++|
| 125 Safrole	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 52.166|	| 49.166-55.166 |	| +++++|	| +++++|

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.381	8.381-14.381	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.166	16.166	16.166	16.153	16.153	16.153	16.153	16.153	13.153-19.153	16.158	0.007
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.541	14.541-20.541	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.049	14.049-20.049	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.526	12.526-18.526	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.853	16.853	16.841	16.841	16.841	16.841	16.841	16.841	13.841-19.841	16.844	0.006
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.874	14.874-20.874	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.739	10.739-16.739	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.160	11.160-17.160	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.160	11.160-17.160	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.737	8.737-14.737	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	6.750-12.750	+++++	+++++
105 1-methylnaphthalene	13.501	13.488	13.488	13.488	13.488	13.488	13.488	13.488	10.488-16.488	13.490	0.005
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.456	25.456-31.456	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.930	23.930-29.930	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.054	26.054-32.054	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.586	23.586-29.586	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.276	24.276-30.276	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.808	21.808-27.808	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.109	23.109-29.109	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.115	18.115-24.115	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
\$ 2 Phenol-d5	8.741	8.728	8.716	8.715	8.715	8.716	8.715	8.715	5.715-11.715	8.721	0.010
3 Phenol	8.766	8.754	8.741	8.741	8.741	8.741	8.741	8.741	5.741-11.741	8.746	0.010
4 Bis(2-Chloroethyl)ethe	8.919	8.919	8.907	8.907	8.906	8.907	8.906	8.906	5.906-11.906	8.910	0.006
\$ 5 2-Chlorophenol-d4	9.021	9.008	9.008	9.008	9.008	9.008	9.008	9.008	6.008-12.008	9.010	0.005

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6 2-Chlorophenol	9.047	9.047	9.034	9.034	9.034	9.034	9.034	9.034	6.034-12.034	9.038	0.006
7 1,3-Dichlorobenzene	9.314	9.302	9.302	9.302	9.302	9.302	9.302	9.302	6.302-12.302	9.304	0.005
* 8 1,4-Dichlorobenzene-d4	9.378	9.366	9.366	9.366	9.366	9.366	9.366	9.366	6.366-12.366	9.367	0.005
9 1,4-Dichlorobenzene	9.404	9.404	9.404	9.391	9.391	9.391	9.391	9.391	6.391-12.391	9.397	0.007
\$ 10 1,2-Dichlorobenzene-d4	9.736	9.736	9.723	9.723	9.723	9.723	9.723	9.723	6.723-12.723	9.727	0.006
11 Benzyl alcohol	9.647	9.634	9.634	9.634	9.634	9.634	9.634	9.634	6.634-12.634	9.636	0.005
12 1,2-Dichlorobenzene	9.762	9.762	9.749	9.749	9.749	9.749	9.749	9.749	6.749-12.749	9.753	0.006
13 2-Methylphenol	9.864	9.851	9.851	9.851	9.851	9.851	9.851	9.851	6.851-12.851	9.853	0.005
14 2,2'-oxybis(1-Chloropr	9.928	9.928	9.928	9.928	9.928	9.915	9.915	9.915	6.915-12.915	9.924	0.006
15 4-Methylphenol	10.132	10.119	10.119	10.107	10.107	10.107	10.119	10.119	7.119-13.119	10.116	0.010
16 N-Nitroso-di-n-propyla	10.209	10.196	10.183	10.183	10.183	10.171	10.170	10.170	7.170-13.170	10.185	0.014
17 Hexachloroethane	10.349	10.337	10.337	10.337	10.337	10.337	10.337	10.337	7.337-13.337	10.338	0.005
\$ 18 Nitrobenzene-d5	10.464	10.464	10.452	10.452	10.451	10.452	10.452	10.452	7.452-13.452	10.455	0.006
19 Nitrobenzene	10.503	10.490	10.490	10.490	10.490	10.490	10.490	10.490	7.490-13.490	10.492	0.005
20 Isophorone	10.975	10.950	10.937	10.924	10.924	10.924	10.924	10.924	7.924-13.924	10.937	0.020
21 2-Nitrophenol	11.129	11.116	11.116	11.116	11.116	11.116	11.116	11.116	8.116-14.116	11.118	0.005
22 2,4-Dimethylphenol	11.167	11.167	11.154	11.154	11.154	11.154	11.154	11.154	8.154-14.154	11.158	0.006
23 Bis(2-Chloroethoxy)met	11.358	11.358	11.346	11.346	11.346	11.346	11.346	11.346	8.346-14.346	11.349	0.006
24 Benzoic acid	11.550	11.473	11.397	11.346	11.294	11.269	11.333	11.333	8.333-14.333	11.380	0.101
25 2,4-Dichlorophenol	11.575	11.575	11.563	11.563	11.563	11.563	11.563	11.563	8.563-14.563	11.566	0.006
26 1,2,4-Trichlorobenzene	11.754	11.754	11.754	11.754	11.754	11.754	11.754	11.754	8.754-14.754	11.754	0.000
* 27 Naphthalene-d8	11.843	11.843	11.843	11.843	11.843	11.843	11.830	11.830	8.830-14.830	11.841	0.005
28 Naphthalene	11.894	11.881	11.881	11.881	11.881	11.881	11.881	11.881	8.881-14.881	11.883	0.005
29 4-Chloroaniline	12.021	12.009	12.009	11.996	11.996	11.996	11.996	11.996	8.996-14.996	12.003	0.010

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	12.238	12.238	12.238	12.225	12.225	12.225	12.225	12.225	9.225-15.225	12.231	0.007
31 4-Chloro-3-methylpheno	12.965	12.952	12.952	12.952	12.952	12.952	12.952	12.952	9.952-15.952	12.954	0.005
32 2-Methylnaphthalene	13.271	13.271	13.271	13.258	13.258	13.258	13.258	13.258	10.258-16.258	13.264	0.007
33 Hexachlorocyclopentadi	13.730	13.730	13.730	13.730	13.730	13.730	13.730	13.730	10.730-16.730	13.730	0.000
34 2,4,6-Trichlorophenol	13.896	13.883	13.883	13.883	13.883	13.883	13.883	13.883	10.883-16.883	13.885	0.005
35 2,4,5-Trichlorophenol	13.972	13.960	13.960	13.960	13.960	13.960	13.960	13.960	10.960-16.960	13.962	0.005
36 2-Fluorobiphenyl	14.049	14.036	14.036	14.036	14.036	14.036	14.036	14.036	11.036-17.036	14.038	0.005
37 2-Chloronaphthalene	14.266	14.266	14.253	14.253	14.253	14.253	14.253	14.253	11.253-17.253	14.257	0.006
38 2-Nitroaniline	14.534	14.521	14.508	14.508	14.508	14.508	14.508	14.508	11.508-17.508	14.514	0.010
39 Dimethylphthalate	14.955	14.942	14.929	14.929	14.929	14.929	14.929	14.929	11.929-17.929	14.935	0.010
40 Acenaphthylene	15.133	15.133	15.120	15.120	15.120	15.120	15.120	15.120	12.120-18.120	15.124	0.006
41 2,6-Dinitrotoluene	15.095	15.082	15.082	15.069	15.069	15.069	15.069	15.069	12.069-18.069	15.077	0.010
42 Acenaphthene-d10	15.439	15.439	15.439	15.439	15.439	15.439	15.426	15.426	12.426-18.426	15.437	0.005
43 3-Nitroaniline	15.388	15.375	15.363	15.363	15.350	15.350	15.350	15.350	12.350-18.350	15.363	0.015
44 Acenaphthene	15.516	15.503	15.503	15.503	15.503	15.503	15.503	15.503	12.503-18.503	15.505	0.005
45 2,4-Dinitrophenol	15.605	15.592	15.579	15.567	15.567	15.567	+++++	15.567	12.567-18.567	15.579	0.016
46 Dibenzofuran	15.847	15.834	15.834	15.822	15.821	15.822	15.821	15.821	12.821-18.821	15.829	0.010
47 4-Nitrophenol	15.707	15.681	15.681	15.669	15.668	15.669	15.681	15.681	12.681-18.681	15.679	0.014
48 2,4-Dinitrotoluene	15.911	15.898	15.885	15.872	15.872	15.873	15.872	15.872	12.872-18.872	15.883	0.015
49 Fluorene	16.548	16.548	16.535	16.535	16.535	16.535	16.535	16.535	13.535-19.535	16.539	0.006
50 Diethylphthalate	16.395	16.395	16.382	16.370	16.370	16.370	16.370	16.370	13.370-19.370	16.379	0.012
51 4-Chlorophenyl-phenyle	16.522	16.523	16.523	16.523	16.510	16.510	16.510	16.510	13.510-19.510	16.517	0.007
52 4-Nitroaniline	16.675	16.650	16.637	16.624	16.611	16.612	16.612	16.612	13.612-19.612	16.632	0.024
53 4,6-Dinitro-2-methylph	16.752	16.739	16.726	16.713	16.713	16.713	16.713	16.713	13.713-19.713	16.724	0.015

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.790	16.777	16.764	16.764	16.764	16.764	16.764	16.764	13.764-19.764	16.770	0.010
55 2,4,6-Tribromophenol	17.082	17.082	17.070	17.070	17.070	17.070	17.070	17.070	14.070-20.070	17.073	0.006
56 4-Bromophenyl-phenylet	17.528	17.528	17.515	17.515	17.515	17.515	17.515	17.515	14.515-20.515	17.519	0.006
57 Hexachlorobenzene	17.846	17.846	17.846	17.834	17.833	17.834	17.834	17.834	14.834-20.834	17.839	0.007
58 Pentachlorophenol	18.203	18.203	18.191	18.191	18.191	18.191	18.203	18.203	15.203-21.203	18.196	0.007
59 Phenanthrene-d10	18.471	18.471	18.459	18.459	18.458	18.459	18.458	18.458	15.458-21.458	18.462	0.006
60 Phenanthrene	18.522	18.510	18.510	18.510	18.509	18.510	18.497	18.497	15.497-21.497	18.510	0.007
61 Anthracene	18.611	18.612	18.599	18.599	18.599	18.599	18.599	18.599	15.599-21.599	18.602	0.006
62 Carbazole	18.930	18.930	18.918	18.918	18.917	18.918	18.918	18.918	15.918-21.918	18.921	0.006
63 Di-n-butylphthalate	19.695	19.695	19.695	19.683	19.683	19.683	19.683	19.683	16.683-22.683	19.688	0.007
64 Fluoranthene	20.869	20.869	20.869	20.869	20.856	20.856	20.856	20.856	17.856-23.856	20.863	0.007
65 Pyrene	21.302	21.289	21.289	21.289	21.289	21.277	21.277	21.277	18.277-24.277	21.288	0.009
66 Terphenyl-d14	21.557	21.557	21.557	21.557	21.557	21.557	21.557	21.557	18.557-24.557	21.557	0.000
67 Butylbenzylphthalate	22.463	22.463	22.463	22.463	22.463	22.463	22.463	22.463	19.463-25.463	22.463	0.000
68 Benzo(a)anthracene	23.432	23.433	23.420	23.420	23.420	23.420	23.420	23.420	20.420-26.420	23.423	0.006
69 Chrysene-d12	23.471	23.458	23.458	23.458	23.458	23.445	23.445	23.445	20.445-26.445	23.456	0.009
70 3,3'-Dichlorobenzidine	23.394	23.381	23.369	23.369	23.369	23.369	23.369	23.369	20.369-26.369	23.374	0.010
71 Chrysene	23.509	23.509	23.496	23.496	23.496	23.496	23.496	23.496	20.496-26.496	23.500	0.006
72 bis(2-Ethylhexyl)phtha	23.471	23.471	23.471	23.471	23.471	23.471	23.471	23.471	20.471-26.471	23.471	0.000
73 Di-n-octylphthalate	24.478	24.479	24.479	24.466	24.466	24.466	24.466	24.466	21.466-27.466	24.471	0.007
74 Benzo(b)fluoranthene	25.371	25.359	25.346	25.346	25.346	25.346	25.346	25.346	22.346-28.346	25.351	0.010
75 Benzo(k)fluoranthene	25.410	25.410	25.397	25.397	25.384	25.384	25.384	25.384	22.384-28.384	25.395	0.011
187 Total Benzofluoranthen	25.410	25.359	25.397	25.346	25.346	25.346	25.384	25.384	22.384-28.384	25.370	0.027
76 Benzo(a)pyrene	26.048	26.035	26.035	26.035	26.022	26.022	26.022	26.022	23.022-29.022	26.031	0.010

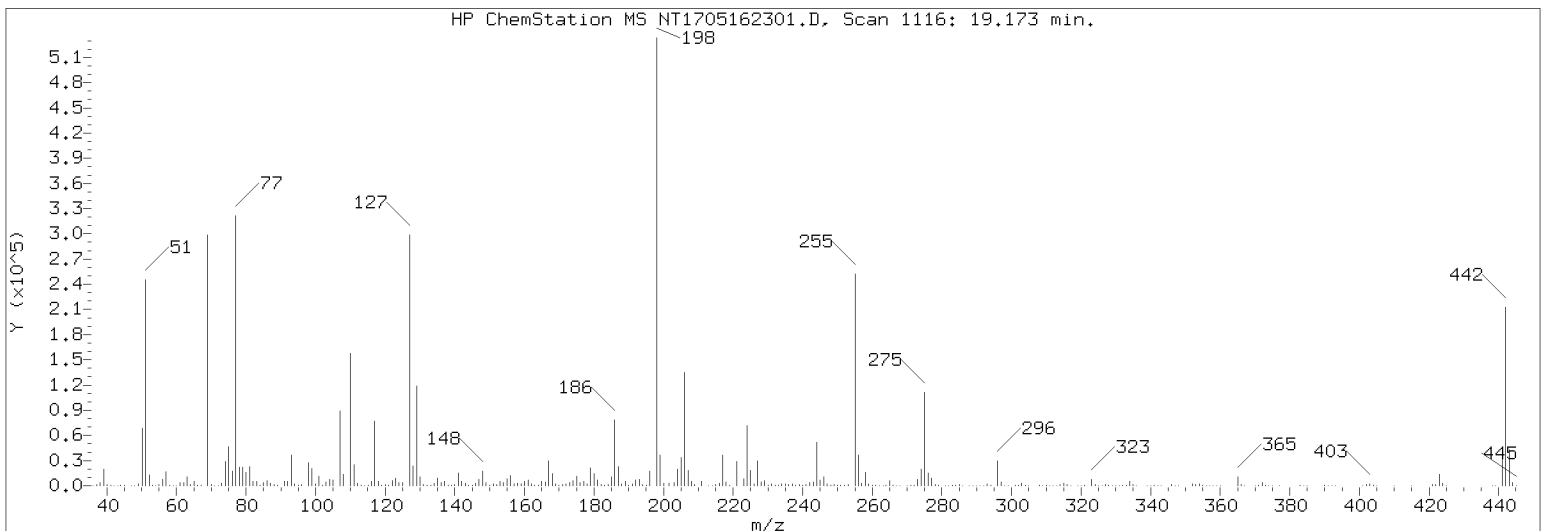
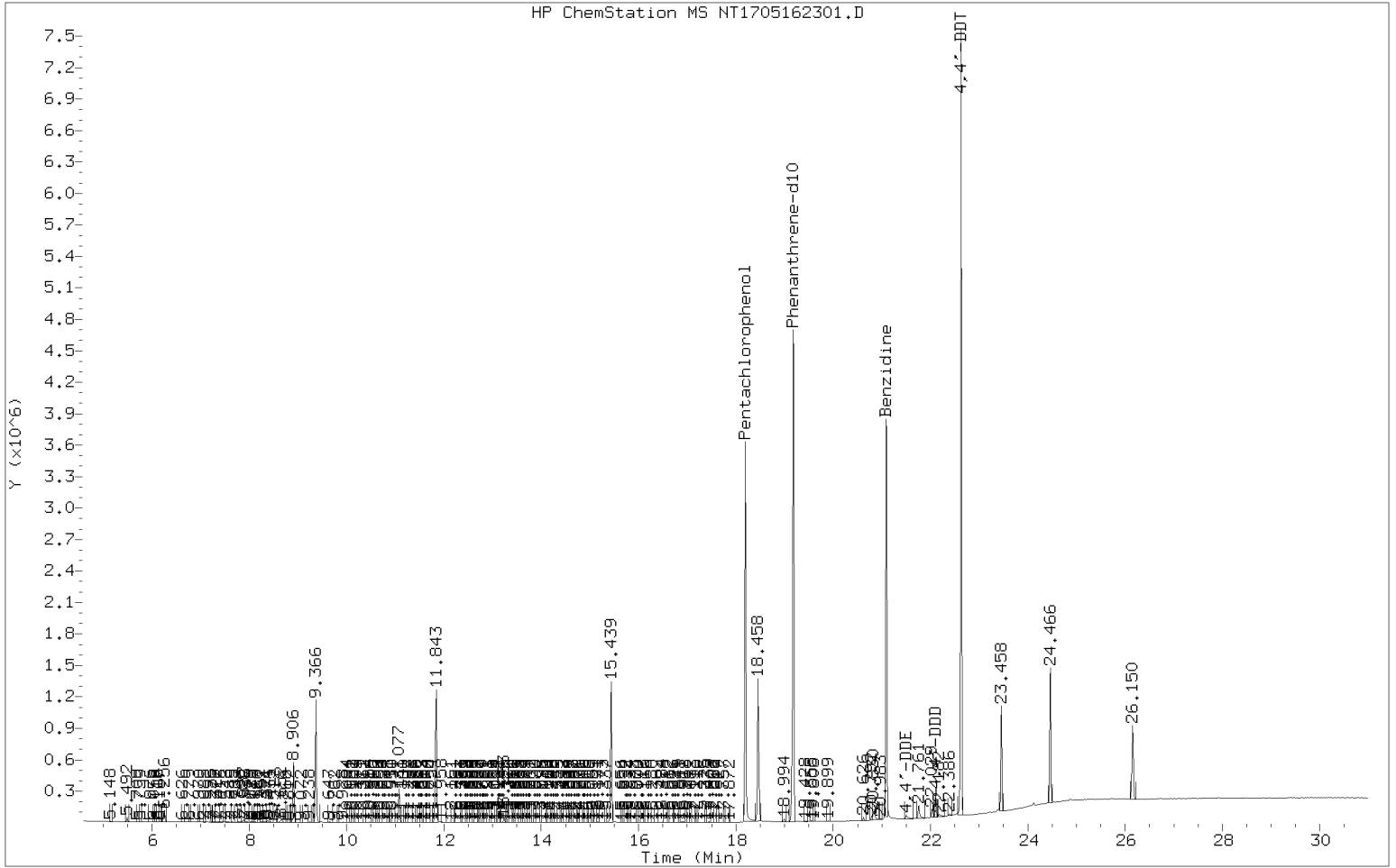
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
Batch File: \\target\share\chem3\nt17.i\20230516.b
Inst ID: nt17.i

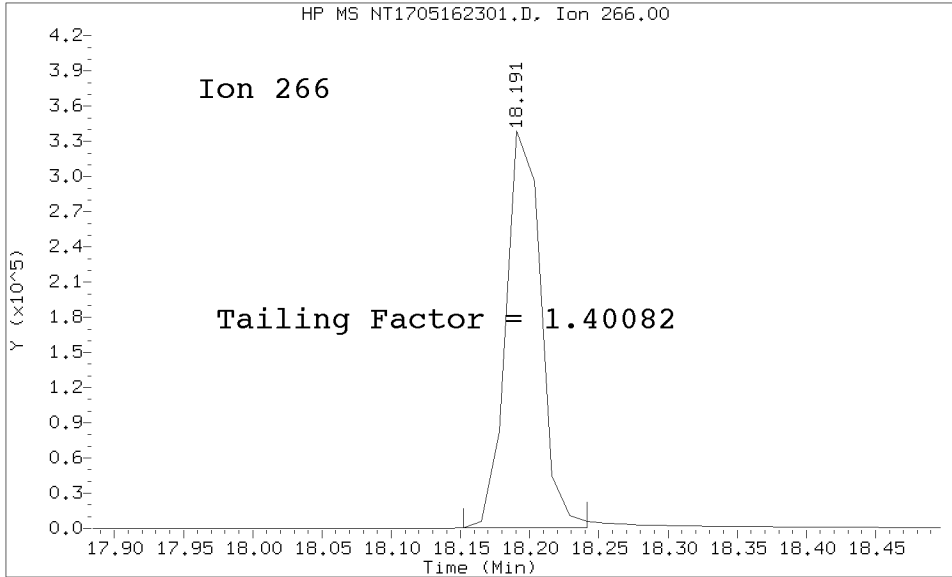
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	26.162	26.162	26.150	26.150	26.150	26.150	26.150	26.150	23.150-29.150	26.153	0.006
78 Indeno(1,2,3-cd)pyrene	28.998	28.959	28.947	28.934	28.934	28.934	28.934	28.934	25.934-31.934	28.948	0.024
79 Dibenzo(a,h)anthracene	28.998	28.972	28.959	28.947	28.934	28.934	28.947	28.947	25.947-31.947	28.956	0.023
80 Benzo(g,h,i)perylene	29.828	29.790	29.777	29.765	29.765	29.752	29.752	29.752	26.752-32.752	29.776	0.027
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
\$ 88 Dibenzo(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
90 N-Nitrosodimethylamine	5.097	5.084	5.072	5.072	5.072	5.072	5.072	5.072	2.072-8.072	5.077	0.010
91 Aniline	8.843	8.830	8.830	8.830	8.830	8.830	8.830	8.830	5.830-11.830	8.832	0.005
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
93 Benzidine	21.098	21.098	21.085	21.085	21.085	21.085	21.085	21.085	18.085-24.085	21.089	0.006
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.248	15.248-21.248	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.094	23.094-29.094	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
103 Pyridine	5.097	5.110	5.097	5.097	5.110	5.110	5.123	5.123	2.123-8.123	5.106	0.010
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230516.b/NT1705162301.D/NT1705162301.D
Method Used: \20230516.b\DFTPP8270E.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: VTS
Sample Info: SLE0338-TUN1 SLE0338-TUN1
Report Date: 05/20/2023 13:10



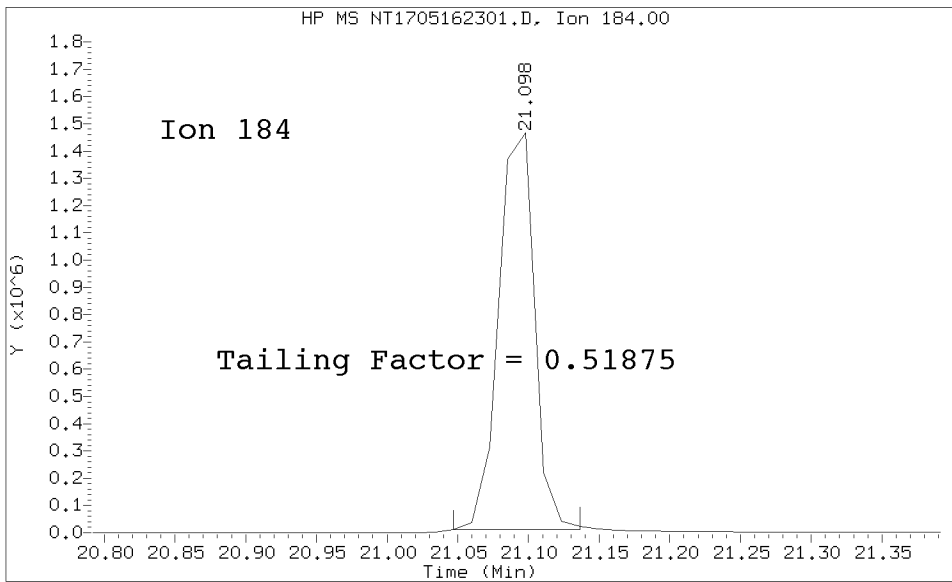
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Method Used: \20230516.b\DFTPP8270E.m\sw846ddt.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: JGR
Sample Info: NT1705162301
Report Date: 05/20/2023 13:10



Pentachlorophenol

=====
Exp. RT = 18.191
Found RT = 18.191

Tail Factor = 1.401 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 21.098
Found RT = 21.098

Tail Factor = 0.519 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4008163	2.000	PASS
Benzidine	0.5187468	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1797024			N/A
4,4-DDE	5899	0.3	20.0	PASS
4,4-DDD	55596	3.0	20.0	PASS
4,4-DDD + DDE	61495	3.3	20.0	PASS

Tuning Sample, nt17.i/20230516.b/NT1705162301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	55.71
70	Less than 2.00% of mass 69	0.28 (0.50)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
365	1.00 - 100.00% of mass 198	2.01
441	Less than 150.00% of mass 443	6.45 (80.67)
442	Less than 200.00% of mass 198	39.79
443	15.00 - 24.00% of mass 442	8.00 (20.10)

Data File: NT1705162301.D

Spectrum: HP ChemStation MS NT1705162301.D, Scan 1116: 19.173 min.

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	373	125.00	3764	212.90	378	304.10	870
37.10	1236	127.00	299008	214.00	187	304.90	93
38.10	3574	128.00	23768	215.00	1418	308.00	456
39.10	19776	129.00	119136	216.10	3082	309.00	262
40.10	1147	130.00	10361	217.00	36592	310.00	402
41.10	878	131.00	1814	218.00	4762	311.00	86
42.00	117	132.00	965	219.00	396	312.00	116
43.10	290	133.10	535	221.00	29232	313.00	219
44.00	563	134.00	3393	223.00	8299	314.00	1504
45.00	582	135.00	9407	224.00	71792	315.00	3072
47.00	97	136.00	3952	225.00	17928	316.00	1521
48.00	170	137.00	4988	226.10	2276	317.00	314
49.10	2254	138.00	1078	227.00	30000	319.10	73
50.10	68392	139.00	652	228.00	4583	320.10	106
51.10	245312	140.00	1657	229.00	6282	321.00	853
52.10	13090	141.00	15600	230.00	812	323.00	7992
53.10	590	142.00	5275	231.00	2667	324.10	1422
54.10	108	143.00	3193	232.00	430	325.00	180
55.00	1424	144.00	947	233.00	547	326.10	206
56.00	7762	145.00	844	234.00	1964	327.00	1582
57.00	17056	146.00	3027	235.00	2156	328.00	897
58.00	866	147.00	7959	236.00	1308	329.00	186
59.10	293	148.00	17552	237.00	2222	329.90	82
60.00	267	149.00	3605	237.90	416	331.10	85
61.00	3445	150.00	847	239.00	1164	332.00	681
62.10	3924	151.10	1978	240.00	951	333.00	829
63.10	10682	152.00	1250	241.00	1482	334.00	5269
64.00	1343	153.00	5043	242.00	3506	335.00	1251
65.10	5380	154.00	3616	243.10	4237	335.90	192
66.00	439	155.00	8310	244.00	51672	339.00	128
67.10	548	156.00	12288	245.00	7098	340.10	147
69.00	297216	157.00	2390	246.00	10908	341.00	859
70.00	1476	158.00	3197	247.00	2147	342.00	240
70.90	268	159.00	2124	248.10	405	343.10	69
72.10	180	160.00	4998	249.00	1791	346.00	1668
73.00	2846	161.00	6841	250.00	400	347.00	375
74.10	28912	162.00	1948	250.90	471	348.00	75
75.00	46408	163.00	565	252.00	547	352.00	2294
76.10	17424	164.00	677	253.00	1432	353.00	1625
77.10	321920	165.00	5602	255.00	252288	354.10	2225
78.10	22048	166.00	4612	256.00	36264	355.00	516
79.00	22016	167.00	29864	257.00	3077	356.00	63
80.00	16324	168.00	14362	258.00	15639	356.90	53
81.00	22800	169.00	2523	259.00	2592	358.00	71
82.00	5387	170.00	957	260.10	431	359.00	210
83.00	5076	171.00	1311	261.00	461	360.10	57
84.00	563	172.00	2519	262.00	108	365.00	10733
85.00	4136	173.00	3591	263.10	161	366.00	1640
86.00	6323	174.00	6157	264.00	692	366.90	121

87.00	3104	175.00	11592	265.00	6219	370.00	199
88.00	1154	176.00	3445	266.00	980	371.00	691
89.00	552	177.00	5417	267.00	143	372.00	3968
91.00	5210	178.00	1917	267.90	329	373.00	1018
92.00	5631	179.00	21584	270.00	364	374.00	88
93.00	36336	180.00	14393	271.00	614	375.00	64
94.00	2258	181.00	6949	272.00	778	377.00	178
95.10	602	182.00	1161	273.00	7503	382.90	939
96.00	1677	183.00	749	274.00	19672	384.00	273
98.00	27664	184.00	1652	275.00	111592	385.00	126
99.00	20856	185.00	10677	276.00	15342	390.00	425
100.00	1939	186.00	78320	277.00	9319	391.00	350
101.00	11566	187.00	22896	278.00	1573	392.10	253
102.00	831	188.00	2244	279.00	451	393.00	72
103.00	4398	189.00	5077	281.00	219	401.00	268
104.00	7600	190.00	951	282.00	285	402.00	1410
105.00	7080	191.00	2327	283.00	1010	403.00	2061
107.00	89200	192.00	6979	284.00	690	404.00	774
108.00	13702	193.00	7409	285.00	1524	405.00	123
110.00	158144	194.00	1633	286.00	314	410.00	81
111.00	25024	195.10	1054	287.90	160	414.90	77
112.00	3002	196.00	17264	289.00	314	421.00	1760
113.00	864	198.00	533504	290.00	311	422.00	1730
114.00	302	199.00	36760	291.00	191	423.00	13610
115.10	463	200.00	2858	292.00	365	424.00	2795
116.00	5300	201.50	3067	293.00	1946	425.00	303
117.00	76832	203.00	3883	294.00	397	438.30	74
118.00	5637	204.00	19736	296.00	30016	439.10	152
119.00	739	205.00	33208	297.00	4246	441.10	34424
120.00	1147	206.00	134656	297.90	294	442.00	212288
121.00	584	207.00	18008	299.00	90	443.00	42672
122.00	6244	208.00	5001	301.10	394	444.00	3817
123.00	9329	209.00	1511	302.00	506	445.10	229
124.00	4061	211.00	5429	303.00	3269		

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Date: 16-May-2023 18:52

Client ID:

Sample Info: SLE0338-CAL7

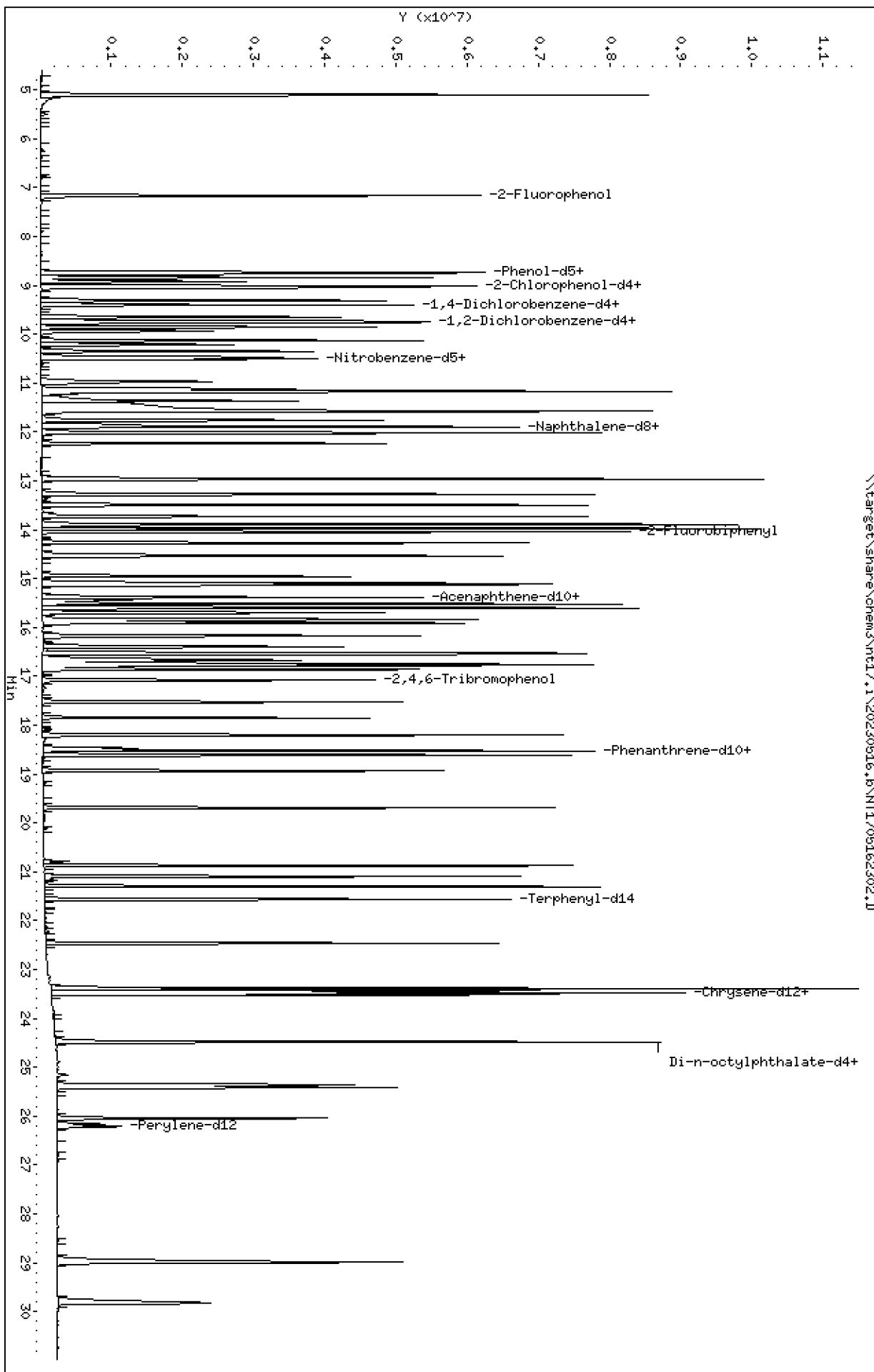
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162302.D
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 Inj Date : 16-MAY-2023 18:52
 Operator : JGR
 Smp Info : SLE0338-CAL7
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 7
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.161	7.161	(0.764)	2673153	30.0000	31.09 (M)
\$ 2 Phenol-d5	99		8.740	8.715	(0.932)	3553924	30.0000	31.24
3 Phenol	94		8.766	8.740	(0.935)	2510973	20.0000	20.84
\$ 5 2-Chlorophenol-d4	132		9.021	9.008	(0.962)	2865845	30.0000	31.45
4 Bis(2-Chloroethyl)ether	93		8.919	8.906	(0.951)	1674045	20.0000	19.05
6 2-Chlorophenol	128		9.046	9.033	(0.965)	1976156	20.0000	19.64
7 1,3-Dichlorobenzene	146		9.314	9.301	(0.993)	2049005	20.0000	20.12
* 8 1,4-Dichlorobenzene-d4	152		9.378	9.365	(1.000)	262646	4.00000	
9 1,4-Dichlorobenzene	146		9.403	9.391	(1.003)	1978947	20.0000	19.48
\$ 10 1,2-Dichlorobenzene-d4	152		9.736	9.723	(1.038)	1350557	20.0000	21.08
12 1,2-Dichlorobenzene	146		9.761	9.748	(1.041)	1981143	20.0000	20.75
11 Benzyl alcohol	108		9.646	9.633	(1.029)	1193830	20.0000	21.28
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.059)	550688	20.0000	20.46
13 2-Methylphenol	108		9.863	9.851	(1.052)	1816256	20.0000	20.51
17 Hexachloroethane	117		10.349	10.336	(1.104)	860260	20.0000	21.17
16 N-Nitroso-di-n-propylamine	70		10.208	10.170	(1.089)	1387081	20.0000	20.47
15 4-Methylphenol	108		10.132	10.119	(1.080)	1910332	20.0000	21.18
\$ 18 Nitrobenzene-d5	82		10.464	10.451	(0.884)	2237361	20.0000	20.22
19 Nitrobenzene	77		10.502	10.489	(0.887)	2090805	20.0000	19.80
20 Isophorone	82		10.975	10.924	(0.927)	3090346	20.0000	21.38
21 2-Nitrophenol	139		11.128	11.115	(0.940)	1122632	20.0000	22.07
22 2,4-Dimethylphenol	107		11.166	11.154	(0.943)	3837283	40.0000	38.85
23 Bis(2-Chloroethoxy)methane	93		11.358	11.345	(0.959)	1784224	20.0000	20.14
24 Benzoic acid	105		11.549	11.333	(0.975)	5371595	80.0000	80.85 (M)
25 2,4-Dichlorophenol	162		11.575	11.562	(0.977)	3106549	40.0000	39.14
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	1960440	20.0000	22.74
* 27 Naphthalene-d8	136		11.843	11.830	(1.000)	972245	4.00000	
28 Naphthalene	128		11.893	11.881	(1.004)	5239130	20.0000	19.60
29 4-Chloroaniline	127		12.021	11.995	(1.015)	4000037	40.0000	37.95
30 Hexachlorobutadiene	225		12.237	12.225	(1.033)	903386	20.0000	21.16
31 4-Chloro-3-methylphenol	107		12.964	12.952	(1.095)	3583167	40.0000	41.93
32 2-Methylnaphthalene	142		13.271	13.258	(1.121)	3906783	20.0000	20.41
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	2015884	40.0000	40.80

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.895	13.883	(0.900)	2462585	40.0000	44.29
35 2,4,5-Trichlorophenol	196	13.972	13.959	(0.905)	2602623	40.0000	44.22
§ 36 2-Fluorobiphenyl	172	14.048	14.036	(0.910)	4231551	20.0000	20.21
37 2-Chloronaphthalene	162	14.265	14.253	(0.924)	3390026	20.0000	19.96
38 2-Nitroaniline	65	14.533	14.508	(0.941)	2326568	40.0000	40.45
39 Dimethylphthalate	163	14.954	14.929	(0.969)	3514822	20.0000	19.22
40 Acenaphthylene	152	15.133	15.120	(0.980)	5313547	20.0000	19.70
41 2,6-Dinitrotoluene	165	15.094	15.069	(0.978)	1815565	40.0000	42.41
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	531394	4.00000	
43 3-Nitroaniline	138	15.388	15.349	(0.997)	1854614	40.0000	46.78
44 Acenaphthene	153	15.515	15.502	(1.005)	3394815	20.0000	20.14
45 2,4-Dinitrophenol	184	15.604	15.567	(1.011)	2499526	80.0000	79.73
46 Dibenzofuran	168	15.846	15.821	(1.026)	4796346	20.0000	20.38
47 4-Nitrophenol	109	15.706	15.681	(1.017)	1053733	40.0000	40.01
48 2,4-Dinitrotoluene	165	15.910	15.872	(1.031)	2400375	40.0000	42.84
50 Diethylphthalate	149	16.395	16.369	(1.062)	3965533	20.0000	22.24
49 Fluorene	166	16.547	16.535	(1.072)	4712796	20.0000	21.07
51 4-Chlorophenyl-phenylether	204	16.522	16.509	(1.070)	2234934	20.0000	21.73
52 4-Nitroaniline	138	16.675	16.611	(1.080)	1683335	40.0000	44.86
53 4,6-Dinitro-2-methylphenol	198	16.751	16.713	(0.907)	2791081	80.0000	81.44
54 N-Nitrosodiphenylamine	169	16.789	16.764	(0.909)	2459552	20.0000	20.45
§ 55 2,4,6-Tribromophenol	330	17.082	17.070	(1.106)	716600	30.0000	30.92
56 4-Bromophenyl-phenylether	248	17.527	17.515	(0.949)	941187	20.0000	22.33
57 Hexachlorobenzene	284	17.846	17.833	(0.966)	929065	20.0000	21.63
58 Pentachlorophenol	266	18.203	18.203	(0.986)	1296979	40.0000	39.91
* 59 Phenanthrene-d10	188	18.471	18.458	(1.000)	858760	4.00000	
60 Phenanthrene	178	18.522	18.496	(1.003)	5130124	20.0000	20.47
61 Anthracene	178	18.611	18.598	(1.008)	4956412	20.0000	21.07
62 Carbazole	167	18.930	18.918	(1.025)	4102658	20.0000	19.98
63 Di-n-butylphthalate	149	19.695	19.682	(1.066)	5887085	20.0000	20.72
64 Fluoranthene	202	20.868	20.855	(0.889)	5357102	20.0000	19.58
65 Pyrene	202	21.302	21.276	(0.908)	5300712	20.0000	19.12
§ 66 Terphenyl-d14	244	21.557	21.557	(0.918)	3805993	20.0000	19.31
67 Butylbenzylphthalate	149	22.462	22.462	(0.957)	2401371	20.0000	19.35
68 Benzo(a)anthracene	228	23.432	23.419	(0.998)	4215090	20.0000	19.58
* 69 Chrysene-d12	240	23.470	23.445	(1.000)	584767	4.00000	
70 3,3'-Dichlorobenzidine	252	23.394	23.369	(0.997)	4121802	60.0000	59.96
71 Chrysene	228	23.508	23.496	(1.002)	3974840	20.0000	19.62
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	3264093	20.0000	19.61
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1150423	4.00000	
73 Di-n-octylphthalate	149	24.478	24.465	(1.001)	5458910	20.0000	18.72
74 Benzo(b)fluoranthene	252	25.371	25.345	(0.970)	3530511	20.0000	19.57
75 Benzo(k)fluoranthene	252	25.409	25.384	(0.971)	3966360	20.0000	23.27 (H)
76 Benzo(a)pyrene	252	26.047	26.022	(0.996)	3007107	20.0000	21.16
* 77 Perylene-d12	264	26.162	26.149	(1.000)	454990	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.997	28.933	(1.108)	3643021	20.0000	22.10
79 Dibenzo(a,h)anthracene	278	28.997	28.946	(1.108)	3097019	20.0000	22.39
80 Benzo(g,h,i)perylene	276	29.828	29.751	(1.140)	3009444	20.0000	22.12
90 N-Nitrosodimethylamine	74	5.097	5.071	(0.543)	2242002	40.0000	39.09
91 Aniline	93	8.842	8.830	(0.943)	4188310	40.0000	41.47
93 Benzidine	184	21.098	21.085	(0.899)	3987621	40.0000	39.82
103 Pyridine	79	5.097	5.122	(0.543)	3401382	40.0000	37.39
105 1-methylnaphthalene	142	13.500	13.487	(1.140)	3611654	20.0000	20.34
111 Azobenzene (1,2-DP-Hydrazine)	77	16.853	16.840	(1.092)	4069093	20.0000	19.55

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.409	25.384	(0.971)	6886398	40.0000	42.53
120 2,3,4,6-Tetrachlorophenol	232		16.165	16.152	(1.047)	1360268	20.0000	20.45

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162302.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL7
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	262646	-8.51
27 Naphthalene-d8	1056758	528379	2113516	972245	-8.00
42 Acenaphthene-d10	587510	293755	1175020	531394	-9.55
59 Phenanthrene-d10	933575	466788	1867150	858760	-8.01
69 Chrysene-d12	576570	288285	1153140	584767	1.42
134 Di-n-octylphthala	1181651	590826	2363302	1150423	-2.64
77 Perylene-d12	491359	245680	982718	454990	-7.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.38	0.14
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.47	0.07
69 Chrysene-d12	23.46	22.96	23.96	23.47	0.05
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.16	0.05

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

REVIEW SUMMARY FOR FILE - NT1705162302.D

Lab ID: SLE0338-CAL7
nt17.i, ABN.m, 16-MAY-2023 18:52

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

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.975	0.958	0.0173	Benzoic acid
1.011	0.000	1.0107	2,4-Dinitrophenol

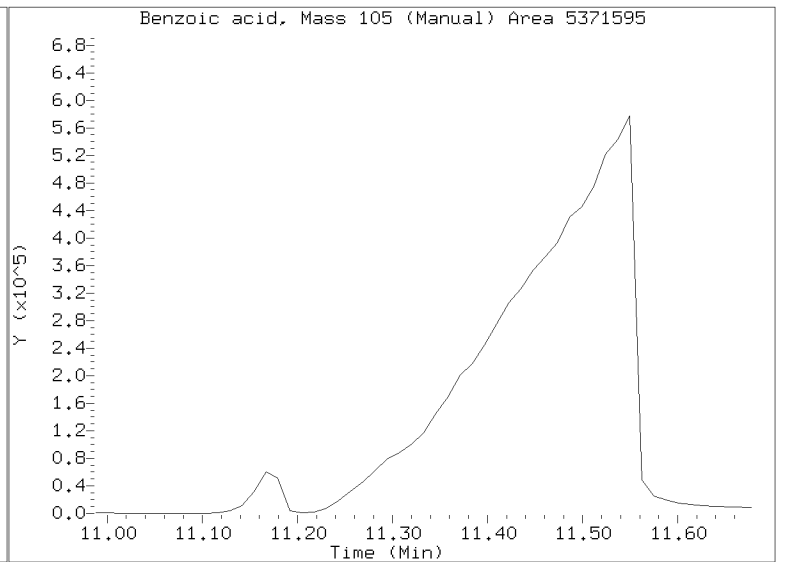
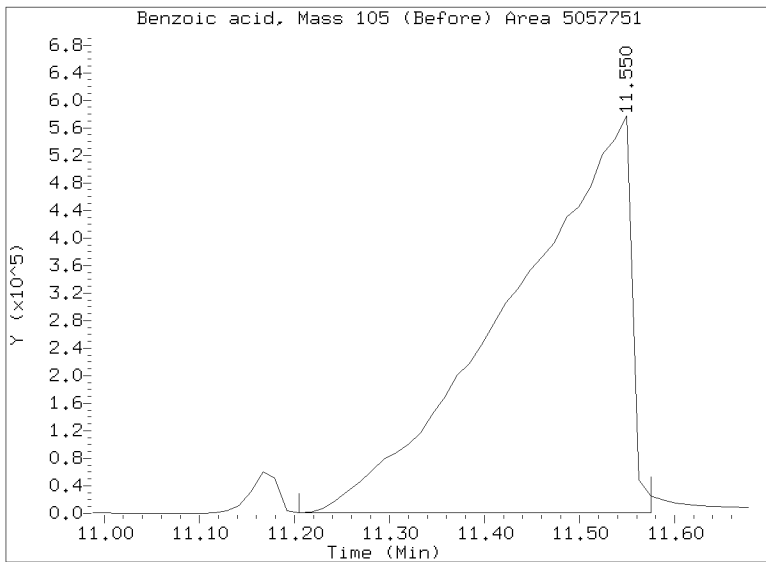
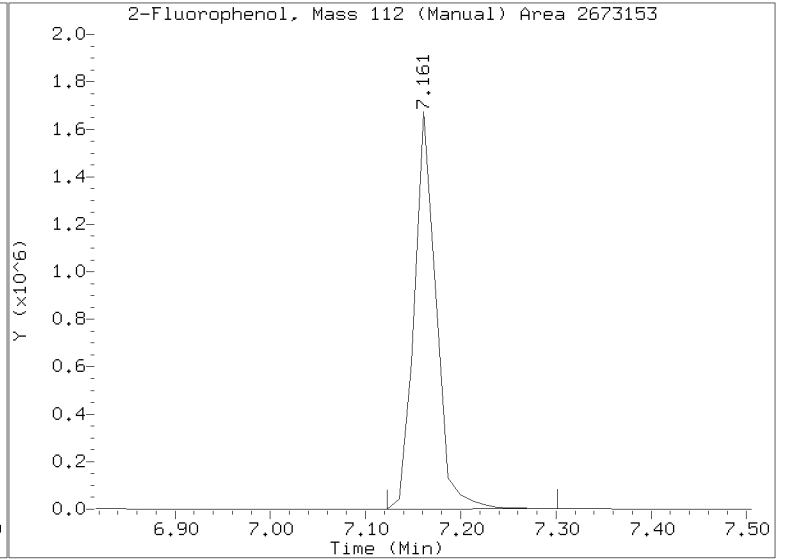
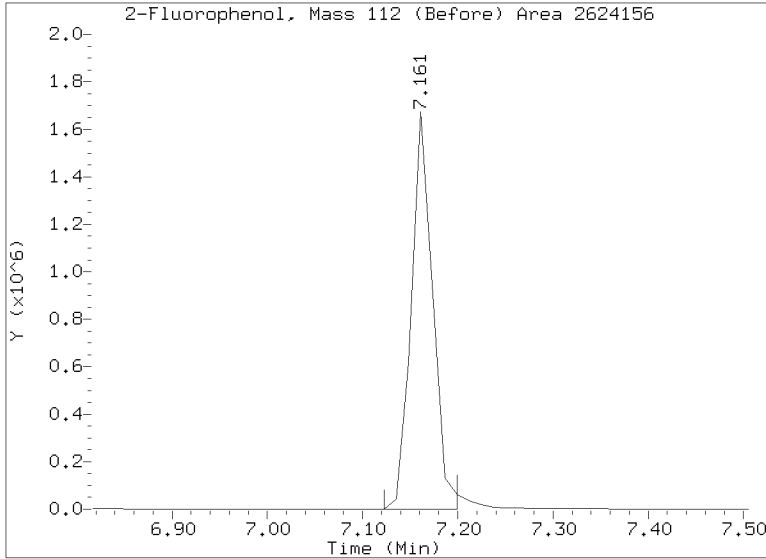
RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

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Injection Date: 16-MAY-2023 18:52
Lab ID: SLE0338-CAL7 Client ID:
Report Date: 05/20/2023 12:55



Data File: \\target\share\chem3\nt17.1\20230516.1\NT1705162303.D

Date: 16-May-2023 19:29

Client ID:

Sample Info: SLE0338-CAL6

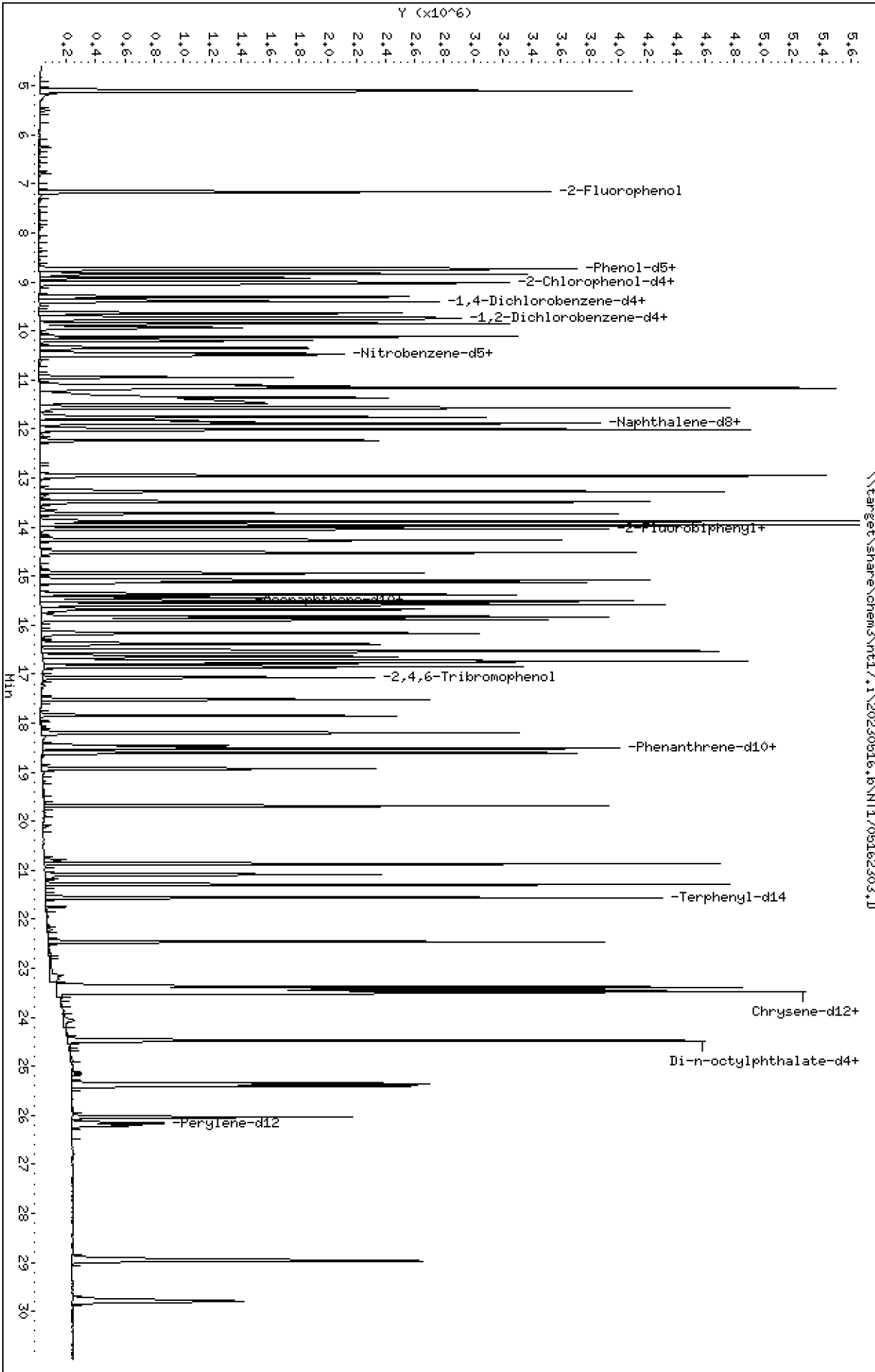
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162303.D
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 Inj Date : 16-MAY-2023 19:29
 Operator : JGR
 Smp Info : SLE0338-CAL6
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 6
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.161	7.161	(0.765)	1499375	15.0000	16.03
\$ 2 Phenol-d5	99		8.728	8.715	(0.932)	1981943	15.0000	16.01
3 Phenol	94		8.753	8.740	(0.935)	1397302	10.0000	10.66
\$ 5 2-Chlorophenol-d4	132		9.008	9.008	(0.962)	1551820	15.0000	15.65
4 Bis(2-Chloroethyl)ether	93		8.919	8.906	(0.952)	936900	10.0000	9.800
6 2-Chlorophenol	128		9.046	9.033	(0.966)	1079419	10.0000	9.857
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	1119860	10.0000	10.10
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	285800	4.00000	
9 1,4-Dichlorobenzene	146		9.403	9.391	(1.004)	1070799	10.0000	9.687
\$ 10 1,2-Dichlorobenzene-d4	152		9.736	9.723	(1.040)	726040	10.0000	10.42
12 1,2-Dichlorobenzene	146		9.761	9.748	(1.042)	1082430	10.0000	10.42
11 Benzyl alcohol	108		9.633	9.633	(1.029)	654436	10.0000	10.72
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	300795	10.0000	10.27
13 2-Methylphenol	108		9.851	9.851	(1.052)	990775	10.0000	10.28
17 Hexachloroethane	117		10.336	10.336	(1.104)	461226	10.0000	10.43
16 N-Nitroso-di-n-propylamine	70		10.196	10.170	(1.089)	775404	10.0000	10.52
15 4-Methylphenol	108		10.119	10.119	(1.080)	1054055	10.0000	10.74
\$ 18 Nitrobenzene-d5	82		10.464	10.451	(0.884)	1241412	10.0000	10.22
19 Nitrobenzene	77		10.489	10.489	(0.886)	1172791	10.0000	10.12
20 Isophorone	82		10.949	10.924	(0.925)	1795328	10.0000	11.32
21 2-Nitrophenol	139		11.115	11.115	(0.939)	589034	10.0000	10.55
22 2,4-Dimethylphenol	107		11.166	11.154	(0.943)	2156269	20.0000	19.89
23 Bis(2-Chloroethoxy)methane	93		11.358	11.345	(0.959)	977460	10.0000	10.06
24 Benzoic acid	105		11.473	11.333	(0.969)	2880071	40.0000	39.50 (M)
25 2,4-Dichlorophenol	162		11.575	11.562	(0.977)	1732131	20.0000	19.89
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	902585	10.0000	9.541
* 27 Naphthalene-d8	136		11.843	11.830	(1.000)	1067038	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	2910801	10.0000	9.920
29 4-Chloroaniline	127		12.008	11.995	(1.014)	2215502	20.0000	19.15
30 Hexachlorobutadiene	225		12.238	12.225	(1.033)	475812	10.0000	10.15
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	1961966	20.0000	20.92
32 2-Methylnaphthalene	142		13.271	13.258	(1.121)	2148754	10.0000	10.23
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	1037416	20.0000	19.20

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.899)	1301711	20.0000	21.41
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.904)	1358932	20.0000	21.12
\$ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.909)	2301542	10.0000	10.06
37 2-Chloronaphthalene	162	14.265	14.253	(0.924)	1884776	10.0000	10.15
38 2-Nitroaniline	65	14.520	14.508	(0.941)	1306422	20.0000	20.77
39 Dimethylphthalate	163	14.941	14.929	(0.968)	1952293	10.0000	9.766
40 Acenaphthylene	152	15.133	15.120	(0.980)	2921988	10.0000	9.909
41 2,6-Dinitrotoluene	165	15.082	15.069	(0.977)	978138	20.0000	20.90
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	581019	4.00000	
43 3-Nitroaniline	138	15.375	15.349	(0.996)	959211	20.0000	22.13
44 Acenaphthene	153	15.502	15.502	(1.004)	1880978	10.0000	10.20
45 2,4-Dinitrophenol	184	15.592	15.567	(1.010)	1276676	40.0000	41.52
46 Dibenzofuran	168	15.834	15.821	(1.026)	2609192	10.0000	10.14
47 4-Nitrophenol	109	15.681	15.681	(1.016)	581610	20.0000	20.20
48 2,4-Dinitrotoluene	165	15.897	15.872	(1.030)	1292398	20.0000	21.09
50 Diethylphthalate	149	16.395	16.369	(1.062)	1892172	10.0000	9.705
49 Fluorene	166	16.547	16.535	(1.072)	2552323	10.0000	10.43
51 4-Chlorophenyl-phenylether	204	16.522	16.509	(1.070)	1183317	10.0000	10.52
52 4-Nitroaniline	138	16.649	16.611	(1.078)	893771	20.0000	21.78
53 4,6-Dinitro-2-methylphenol	198	16.738	16.713	(0.906)	1437110	40.0000	38.75
54 N-Nitrosodiphenylamine	169	16.777	16.764	(0.908)	1311312	10.0000	10.07
\$ 55 2,4,6-Tribromophenol	330	17.082	17.070	(1.106)	346267	15.0000	13.66
56 4-Bromophenyl-phenylether	248	17.527	17.515	(0.949)	485467	10.0000	10.64
57 Hexachlorobenzene	284	17.846	17.833	(0.966)	480993	10.0000	10.35
58 Pentachlorophenol	266	18.203	18.203	(0.986)	617590	20.0000	20.57
* 59 Phenanthrene-d10	188	18.471	18.458	(1.000)	929294	4.00000	
60 Phenanthrene	178	18.509	18.496	(1.002)	2808221	10.0000	10.36
61 Anthracene	178	18.611	18.598	(1.008)	2697304	10.0000	10.60
62 Carbazole	167	18.930	18.918	(1.025)	1787411	10.0000	10.18
63 Di-n-butylphthalate	149	19.695	19.682	(1.066)	3230829	10.0000	10.51
64 Fluoranthene	202	20.868	20.855	(0.890)	2824200	10.0000	10.36
65 Pyrene	202	21.289	21.276	(0.908)	2812400	10.0000	10.17
\$ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	1988149	10.0000	10.12
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	1255612	10.0000	10.15
68 Benzo(a)anthracene	228	23.432	23.419	(0.999)	2135802	10.0000	9.950
* 69 Chrysene-d12	240	23.458	23.445	(1.000)	582943	4.00000	
70 3,3'-Dichlorobenzidine	252	23.381	23.369	(0.997)	1474421	30.0000	30.55
71 Chrysene	228	23.509	23.496	(1.002)	2029668	10.0000	10.05
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	1702076	10.0000	10.04
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1171304	4.00000	
73 Di-n-octylphthalate	149	24.478	24.465	(1.001)	2888436	10.0000	9.729
74 Benzo(b)fluoranthene	252	25.358	25.345	(0.969)	1994991	10.0000	10.46
75 Benzo(k)fluoranthene	252	25.409	25.384	(0.971)	1758254	10.0000	9.753 (H)
76 Benzo(a)pyrene	252	26.034	26.022	(0.995)	1531611	10.0000	10.19
* 77 Perylene-d12	264	26.162	26.149	(1.000)	481255	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.959	28.933	(1.107)	1762811	10.0000	10.11
79 Dibenzo(a,h)anthracene	278	28.972	28.946	(1.107)	1484281	10.0000	10.14
80 Benzo(g,h,i)perylene	276	29.790	29.751	(1.139)	1457471	10.0000	10.13
90 N-Nitrosodimethylamine	74	5.084	5.071	(0.543)	1314020	20.0000	21.06
91 Aniline	93	8.830	8.830	(0.943)	2347756	20.0000	21.36
93 Benzidine	184	21.098	21.085	(0.899)	1662132	20.0000	21.28
103 Pyridine	79	5.109	5.122	(0.546)	1988954	20.0000	20.09
105 1-methylnaphthalene	142	13.487	13.487	(1.139)	1974523	10.0000	10.13
111 Azobenzene (1,2-DP-Hydrazine)	77	16.853	16.840	(1.092)	2278228	10.0000	10.01

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.358	25.384	(0.969)	3493039	20.0000	20.39
120 2,3,4,6-Tetrachlorophenol	232		16.165	16.152	(1.047)	688855	10.0000	9.471

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162303.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	285800	-0.45
27 Naphthalene-d8	1056758	528379	2113516	1067038	0.97
42 Acenaphthene-d10	587510	293755	1175020	581019	-1.10
59 Phenanthrene-d10	933575	466788	1867150	929294	-0.46
69 Chrysene-d12	576570	288285	1153140	582943	1.11
134 Di-n-octylphthala	1181651	590826	2363302	1171304	-0.88
77 Perylene-d12	491359	245680	982718	481255	-2.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.47	0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.16	0.05

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

REVIEW SUMMARY FOR FILE - NT1705162303.D

Lab ID: SLE0338-CAL6
nt17.i, ABN.m, 16-MAY-2023 19:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.969	0.958	0.0108	Benzoic acid
1.010	0.000	1.0099	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

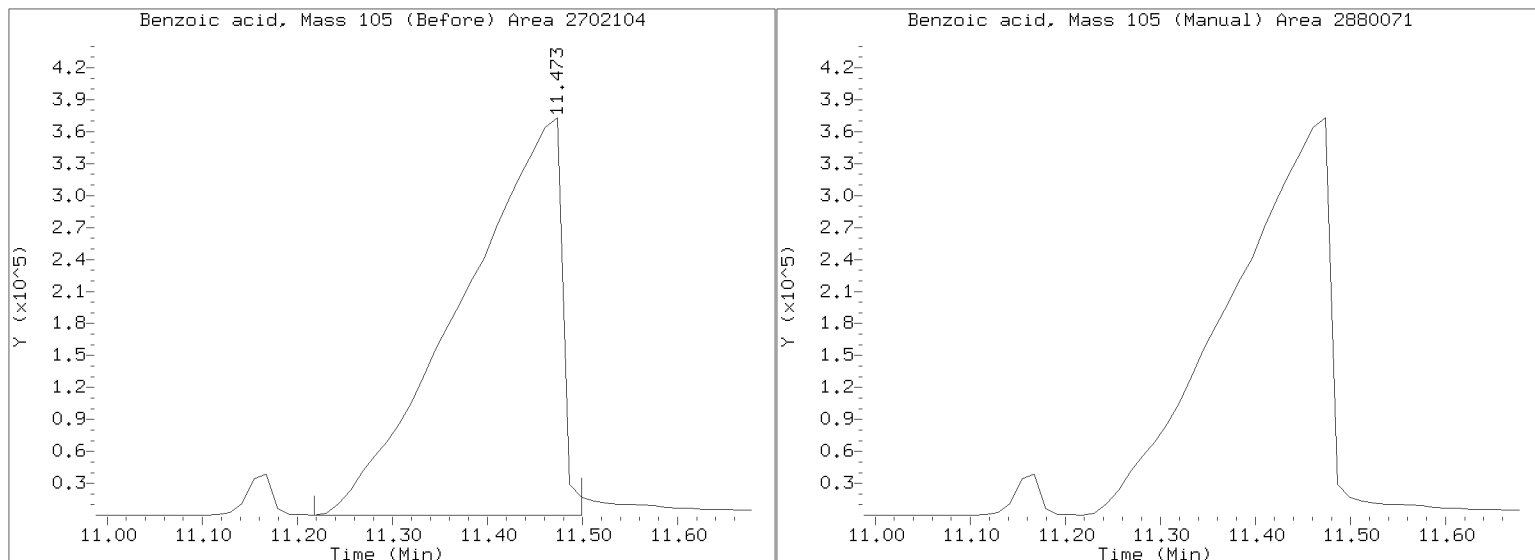
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/NT1705162303.D

Injection Date: 16-MAY-2023 19:29

Lab ID: SLE0338-CAL6 Client ID:

Report Date: 05/20/2023 12:55



Data File: \\target\share\chem3\nt17.1\20230516.1\NT1705162304.D

Date: 16-May-2023 20:07

Client ID:

Sample Info: SLE0338-CALS

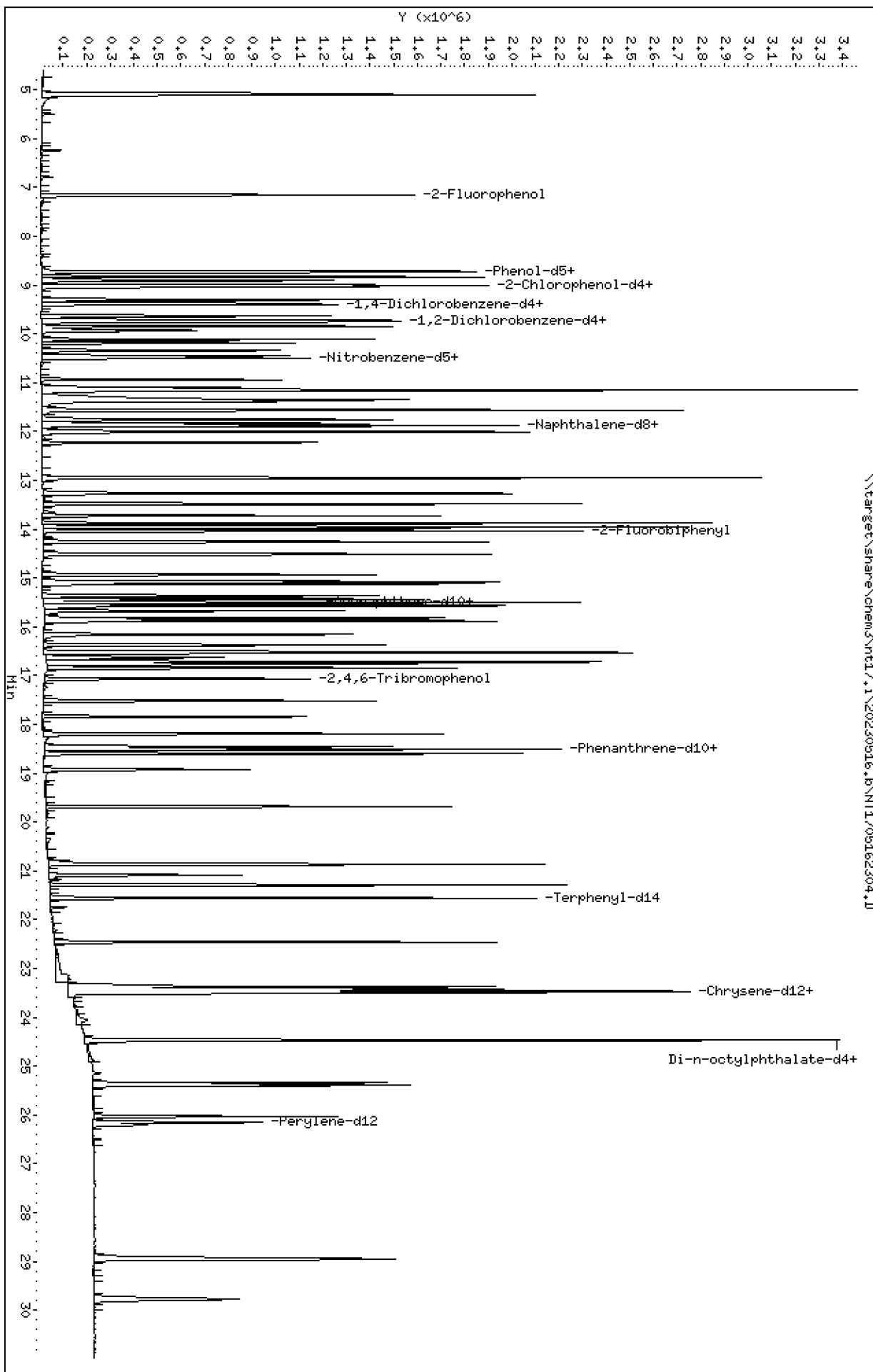
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162304.D
 Lab Smp Id: SLE0338-CAL5
 Inj Date : 16-MAY-2023 20:07
 Operator : JGR
 Smp Info : SLE0338-CAL5
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 5
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.148	7.161	(0.763)	765798	7.50000	8.149
\$ 2 Phenol-d5	99		8.715	8.715	(0.931)	982746	7.50000	7.902
3 Phenol	94		8.740	8.740	(0.933)	690815	5.00000	5.244
\$ 5 2-Chlorophenol-d4	132		9.008	9.008	(0.962)	773445	7.50000	7.764
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	477952	5.00000	4.977
6 2-Chlorophenol	128		9.033	9.033	(0.965)	537617	5.00000	4.887
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	558585	5.00000	5.017
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	287078	4.00000	
9 1,4-Dichlorobenzene	146		9.403	9.391	(1.004)	534214	5.00000	4.811
\$ 10 1,2-Dichlorobenzene-d4	152		9.723	9.723	(1.038)	360850	5.00000	5.154
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	529711	5.00000	5.075
11 Benzyl alcohol	108		9.633	9.633	(1.029)	321508	5.00000	5.242
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	152995	5.00000	5.200
13 2-Methylphenol	108		9.851	9.851	(1.052)	487588	5.00000	5.037
17 Hexachloroethane	117		10.336	10.336	(1.104)	228881	5.00000	5.153
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	386723	5.00000	5.221
15 4-Methylphenol	108		10.119	10.119	(1.080)	520797	5.00000	5.283
\$ 18 Nitrobenzene-d5	82		10.451	10.451	(0.883)	617493	5.00000	5.134
19 Nitrobenzene	77		10.489	10.489	(0.886)	580611	5.00000	5.060
20 Isophorone	82		10.937	10.924	(0.923)	754432	5.00000	4.803
21 2-Nitrophenol	139		11.115	11.115	(0.939)	283851	5.00000	5.134
22 2,4-Dimethylphenol	107		11.154	11.154	(0.942)	1078071	10.0000	10.04
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	486928	5.00000	5.058
24 Benzoic acid	105		11.396	11.333	(0.962)	1331637	20.0000	18.44
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	828264	10.0000	9.601
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	448691	5.00000	4.789
* 27 Naphthalene-d8	136		11.843	11.830	(1.000)	1056758	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	1447676	5.00000	4.982
29 4-Chloroaniline	127		12.008	11.995	(1.014)	1210630	10.0000	10.57
30 Hexachlorobutadiene	225		12.238	12.225	(1.033)	232082	5.00000	5.001
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	953387	10.0000	10.26
32 2-Methylnaphthalene	142		13.271	13.258	(1.121)	1063687	5.00000	5.112
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	466260	10.0000	8.535

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.899)	612933	10.0000	9.971
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.904)	648557	10.0000	9.967
§ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.909)	1144436	5.00000	4.945
37 2-Chloronaphthalene	162	14.253	14.253	(0.923)	927747	5.00000	4.941
38 2-Nitroaniline	65	14.508	14.508	(0.940)	645367	10.0000	10.15
39 Dimethylphthalate	163	14.929	14.929	(0.967)	996067	5.00000	4.927
40 Acenaphthylene	152	15.120	15.120	(0.979)	1471084	5.00000	4.934
41 2,6-Dinitrotoluene	165	15.082	15.069	(0.977)	477455	10.0000	10.09
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	587510	4.00000	
43 3-Nitroaniline	138	15.362	15.349	(0.995)	453737	10.0000	10.35
44 Acenaphthene	153	15.502	15.502	(1.004)	923471	5.00000	4.955
45 2,4-Dinitrophenol	184	15.579	15.567	(1.009)	556011	20.0000	18.80
46 Dibenzofuran	168	15.834	15.821	(1.026)	1292030	5.00000	4.967
47 4-Nitrophenol	109	15.681	15.681	(1.016)	281715	10.0000	9.676
48 2,4-Dinitrotoluene	165	15.885	15.872	(1.029)	637835	10.0000	10.30
50 Diethylphthalate	149	16.382	16.369	(1.061)	957540	5.00000	4.857
49 Fluorene	166	16.535	16.535	(1.071)	1308520	5.00000	5.291
51 4-Chlorophenyl-phenylether	204	16.522	16.509	(1.070)	572669	5.00000	5.036
52 4-Nitroaniline	138	16.637	16.611	(1.078)	417726	10.0000	10.07
53 4,6-Dinitro-2-methylphenol	198	16.726	16.713	(0.906)	645152	20.0000	17.32
54 N-Nitrosodiphenylamine	169	16.764	16.764	(0.908)	612769	5.00000	4.686
§ 55 2,4,6-Tribromophenol	330	17.069	17.070	(1.106)	161510	7.50000	6.302
56 4-Bromophenyl-phenylether	248	17.515	17.515	(0.949)	230862	5.00000	5.038
57 Hexachlorobenzene	284	17.846	17.833	(0.967)	231469	5.00000	4.958
58 Pentachlorophenol	266	18.190	18.203	(0.985)	273613	10.0000	9.657
* 59 Phenanthrene-d10	188	18.458	18.458	(1.000)	933575	4.00000	
60 Phenanthrene	178	18.509	18.496	(1.003)	1368665	5.00000	5.024
61 Anthracene	178	18.598	18.598	(1.008)	1318403	5.00000	5.155
62 Carbazole	167	18.917	18.918	(1.025)	728881	5.00000	4.479
63 Di-n-butylphthalate	149	19.695	19.682	(1.067)	1642766	5.00000	5.320
64 Fluoranthene	202	20.868	20.855	(0.890)	1405063	5.00000	5.210
65 Pyrene	202	21.289	21.276	(0.908)	1388781	5.00000	5.080
§ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	974784	5.00000	5.015
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	632762	5.00000	5.171
68 Benzo(a)anthracene	228	23.419	23.419	(0.998)	1051776	5.00000	4.954
* 69 Chrysene-d12	240	23.458	23.445	(1.000)	576570	4.00000	
70 3,3'-Dichlorobenzidine	252	23.368	23.369	(0.996)	587270	15.0000	13.52
71 Chrysene	228	23.496	23.496	(1.002)	986619	5.00000	4.939
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	876350	5.00000	5.126
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1181651	4.00000	
73 Di-n-octylphthalate	149	24.478	24.465	(1.001)	1480129	5.00000	4.942
74 Benzo(b)fluoranthene	252	25.345	25.345	(0.969)	911226	5.00000	4.677
75 Benzo(k)fluoranthene	252	25.397	25.384	(0.971)	964317	5.00000	5.239 (H)
76 Benzo(a)pyrene	252	26.034	26.022	(0.996)	764390	5.00000	4.981
* 77 Perylene-d12	264	26.149	26.149	(1.000)	491359	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.946	28.933	(1.107)	894339	5.00000	5.024
79 Dibenzo(a,h)anthracene	278	28.959	28.946	(1.107)	747647	5.00000	5.005
80 Benzo(g,h,i)perylene	276	29.777	29.751	(1.139)	741643	5.00000	5.048
90 N-Nitrosodimethylamine	74	5.071	5.071	(0.542)	660188	10.0000	10.53
91 Aniline	93	8.830	8.830	(0.943)	1153210	10.0000	10.45
93 Benzidine	184	21.085	21.085	(0.899)	535492	10.0000	7.663
103 Pyridine	79	5.097	5.122	(0.544)	1037266	10.0000	10.43
105 1-methylnaphthalene	142	13.487	13.487	(1.139)	975488	5.00000	5.054
111 Azobenzene (1,2-DP-Hydrazine)	77	16.840	16.840	(1.091)	1138685	5.00000	4.948

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.397	25.384	(0.971)	1754937	10.0000	10.04
120 2,3,4,6-Tetrachlorophenol	232		16.165	16.152	(1.047)	319360	5.00000	4.342

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162304.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	287078	0.00
27 Naphthalene-d8	1056758	528379	2113516	1056758	0.00
42 Acenaphthene-d10	587510	293755	1175020	587510	0.00
59 Phenanthrene-d10	933575	466788	1867150	933575	0.00
69 Chrysene-d12	576570	288285	1153140	576570	0.00
134 Di-n-octylphthala	1181651	590826	2363302	1181651	0.00
77 Perylene-d12	491359	245680	982718	491359	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162304.D

Lab ID: SLE0338-CAL5
nt17.i, ABN.m, 16-MAY-2023 20:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
1.009	0.000	1.0091		2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt17.1\20230516.1\NT1705162305.D

Date: 16-May-2023 20:44

Client ID:

Sample Info: SLE0338-CAL4

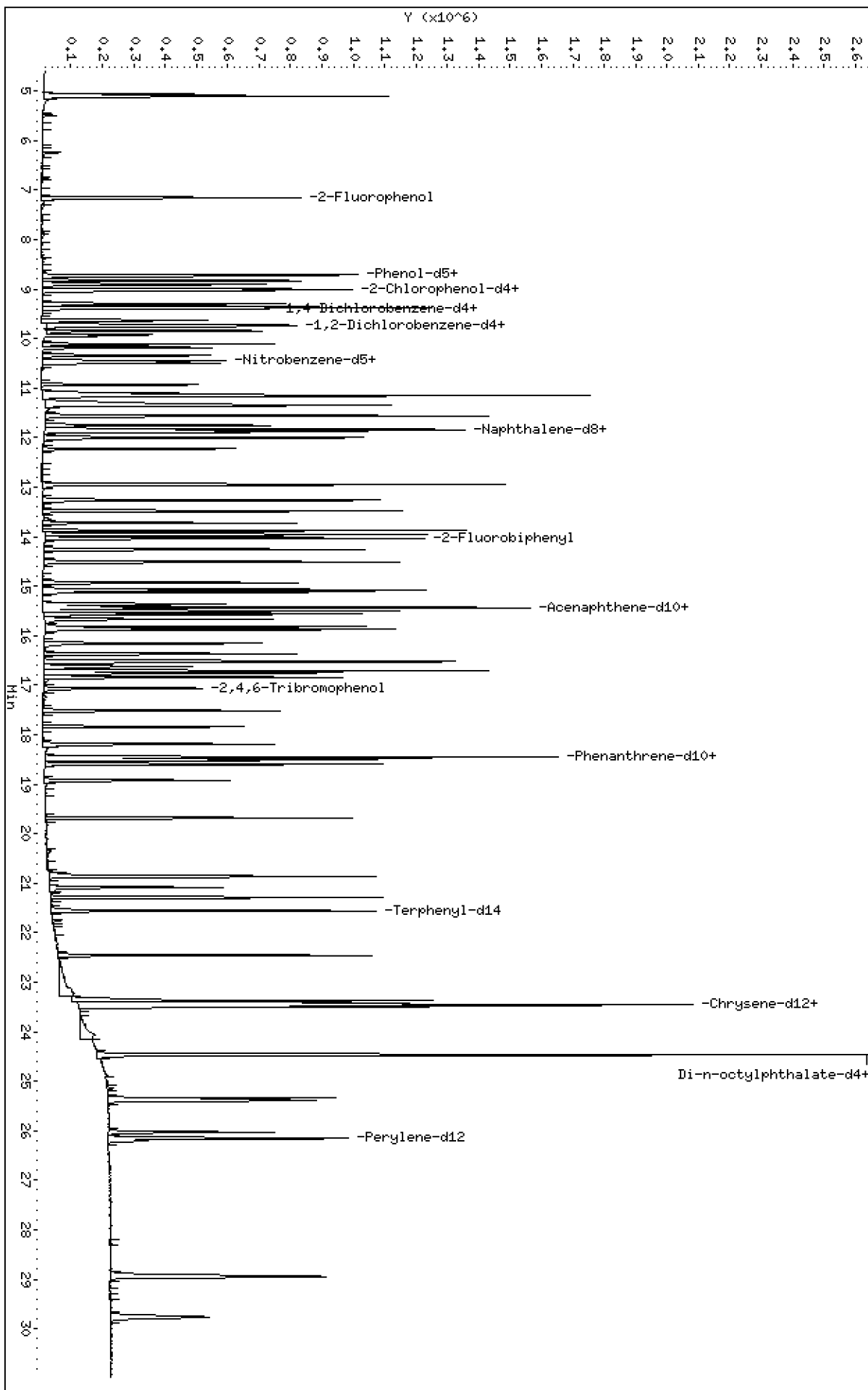
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230516.1\NT1705162305.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162305.D
 Lab Smp Id: SLE0338-CAL4
 Inj Date : 16-MAY-2023 20:44
 Operator : JGR
 Smp Info : SLE0338-CAL4
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 4
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.148	7.161	(0.763)	386880	3.75000	4.016
\$ 2 Phenol-d5	99		8.715	8.715	(0.931)	496273	3.75000	3.893
3 Phenol	94		8.740	8.740	(0.933)	357970	2.50000	2.651
\$ 5 2-Chlorophenol-d4	132		9.008	9.008	(0.962)	395690	3.75000	3.875
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	251940	2.50000	2.559
6 2-Chlorophenol	128		9.033	9.033	(0.965)	274100	2.50000	2.431
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	287842	2.50000	2.522
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	294275	4.00000	
9 1,4-Dichlorobenzene	146		9.391	9.391	(1.003)	274610	2.50000	2.413
\$ 10 1,2-Dichlorobenzene-d4	152		9.723	9.723	(1.038)	183965	2.50000	2.563
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	270573	2.50000	2.529
11 Benzyl alcohol	108		9.633	9.633	(1.029)	171088	2.50000	2.721
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	76380	2.50000	2.533
13 2-Methylphenol	108		9.851	9.851	(1.052)	285447	2.50000	2.876
17 Hexachloroethane	117		10.336	10.336	(1.104)	116382	2.50000	2.556
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	201182	2.50000	2.650
15 4-Methylphenol	108		10.106	10.119	(1.079)	270827	2.50000	2.680
\$ 18 Nitrobenzene-d5	82		10.451	10.451	(0.883)	310279	2.50000	2.526
19 Nitrobenzene	77		10.489	10.489	(0.886)	297893	2.50000	2.542
20 Isophorone	82		10.924	10.924	(0.922)	381193	2.50000	2.376
21 2-Nitrophenol	139		11.115	11.115	(0.939)	141894	2.50000	2.513
22 2,4-Dimethylphenol	107		11.154	11.154	(0.942)	546752	5.00000	4.986
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	244375	2.50000	2.485
24 Benzoic acid	105		11.345	11.333	(0.958)	600987	10.0000	8.148 (M)
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	422303	5.00000	4.793
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	229549	2.50000	2.399
* 27 Naphthalene-d8	136		11.843	11.830	(1.000)	1079321	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	743208	2.50000	2.504
29 4-Chloroaniline	127		11.995	11.995	(1.013)	619315	5.00000	5.293
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	117974	2.50000	2.489
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	480727	5.00000	5.067
32 2-Methylnaphthalene	142		13.258	13.258	(1.119)	539238	2.50000	2.537
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	226655	5.00000	4.143

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.899)	307979	5.00000	5.003
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.904)	319643	5.00000	4.905
§ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.909)	576214	2.50000	2.486
37 2-Chloronaphthalene	162	14.253	14.253	(0.923)	470904	2.50000	2.504
38 2-Nitroaniline	65	14.508	14.508	(0.940)	327426	5.00000	5.141
39 Dimethylphthalate	163	14.929	14.929	(0.967)	516505	2.50000	2.551
40 Acenaphthylene	152	15.120	15.120	(0.979)	746584	2.50000	2.500
41 2,6-Dinitrotoluene	165	15.069	15.069	(0.976)	239858	5.00000	5.061
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	588382	4.00000	
43 3-Nitroaniline	138	15.362	15.349	(0.995)	186838	5.00000	4.256
44 Acenaphthene	153	15.502	15.502	(1.004)	468493	2.50000	2.510
45 2,4-Dinitrophenol	184	15.566	15.567	(1.008)	238371	10.0000	8.219
46 Dibenzofuran	168	15.821	15.821	(1.025)	643491	2.50000	2.470
47 4-Nitrophenol	109	15.668	15.681	(1.015)	142217	5.00000	4.877
48 2,4-Dinitrotoluene	165	15.872	15.872	(1.028)	315732	5.00000	5.089
50 Diethylphthalate	149	16.369	16.369	(1.060)	494482	2.50000	2.505
49 Fluorene	166	16.535	16.535	(1.071)	547774	2.50000	2.211
51 4-Chlorophenyl-phenylether	204	16.522	16.509	(1.070)	231194	2.50000	2.030
52 4-Nitroaniline	138	16.624	16.611	(1.077)	202478	5.00000	4.873
53 4,6-Dinitro-2-methylphenol	198	16.713	16.713	(0.905)	302717	10.0000	7.710
54 N-Nitrosodiphenylamine	169	16.764	16.764	(0.908)	331879	2.50000	2.408
§ 55 2,4,6-Tribromophenol	330	17.069	17.070	(1.106)	80536	3.75000	3.138
56 4-Bromophenyl-phenylether	248	17.515	17.515	(0.949)	115874	2.50000	2.400
57 Hexachlorobenzene	284	17.833	17.833	(0.966)	118138	2.50000	2.401
58 Pentachlorophenol	266	18.190	18.203	(0.985)	119709	5.00000	4.121
* 59 Phenanthrene-d10	188	18.458	18.458	(1.000)	983826	4.00000	
60 Phenanthrene	178	18.509	18.496	(1.003)	694700	2.50000	2.420
61 Anthracene	178	18.598	18.598	(1.008)	681256	2.50000	2.528
62 Carbazole	167	18.917	18.918	(1.025)	425810	2.50000	2.542
63 Di-n-butylphthalate	149	19.682	19.682	(1.066)	840499	2.50000	2.583
64 Fluoranthene	202	20.868	20.855	(0.890)	731382	2.50000	2.530
65 Pyrene	202	21.289	21.276	(0.908)	735145	2.50000	2.508
§ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	517541	2.50000	2.484
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	336912	2.50000	2.569
68 Benzo(a)anthracene	228	23.419	23.419	(0.998)	564607	2.50000	2.481
* 69 Chrysene-d12	240	23.458	23.445	(1.000)	618048	4.00000	
70 3,3'-Dichlorobenzidine	252	23.368	23.369	(0.996)	346015	7.50000	7.632
71 Chrysene	228	23.496	23.496	(1.002)	531552	2.50000	2.482
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	453883	2.50000	2.549
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1230644	4.00000	
73 Di-n-octylphthalate	149	24.465	24.465	(1.000)	779363	2.50000	2.498
74 Benzo(b)fluoranthene	252	25.345	25.345	(0.969)	520986	2.50000	2.447
75 Benzo(k)fluoranthene	252	25.396	25.384	(0.971)	499544	2.50000	2.484 (H)
76 Benzo(a)pyrene	252	26.034	26.022	(0.996)	408250	2.50000	2.435
* 77 Perylene-d12	264	26.149	26.149	(1.000)	536896	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.933	28.933	(1.106)	474517	2.50000	2.440
79 Dibenzo(a,h)anthracene	278	28.946	28.946	(1.107)	398710	2.50000	2.442
80 Benzo(g,h,i)perylene	276	29.764	29.751	(1.138)	383366	2.50000	2.388
90 N-Nitrosodimethylamine	74	5.071	5.071	(0.542)	348268	5.00000	5.420
91 Aniline	93	8.830	8.830	(0.943)	573053	5.00000	5.064
93 Benzidine	184	21.085	21.085	(0.899)	332205	5.00000	4.521
103 Pyridine	79	5.097	5.122	(0.544)	546209	5.00000	5.359
105 1-methylnaphthalene	142	13.487	13.487	(1.139)	495816	2.50000	2.515
111 Azobenzene (1,2-DP-Hydrazine)	77	16.840	16.840	(1.091)	606555	2.50000	2.632

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
187 Total Benzofluoranthenes	252	25.345	25.384	(0.969)	956582	5.00000	5.006	
120 2,3,4,6-Tetrachlorophenol	232	16.152	16.152	(1.046)	146074	2.50000	1.983	

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162305.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	294275	2.51
27 Naphthalene-d8	1056758	528379	2113516	1079321	2.14
42 Acenaphthene-d10	587510	293755	1175020	588382	0.15
59 Phenanthrene-d10	933575	466788	1867150	983826	5.38
69 Chrysene-d12	576570	288285	1153140	618048	7.19
134 Di-n-octylphthala	1181651	590826	2363302	1230644	4.15
77 Perylene-d12	491359	245680	982718	536896	9.27

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162305.D

Lab ID: SLE0338-CAL4
nt17.i, ABN.m, 16-MAY-2023 20:44

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

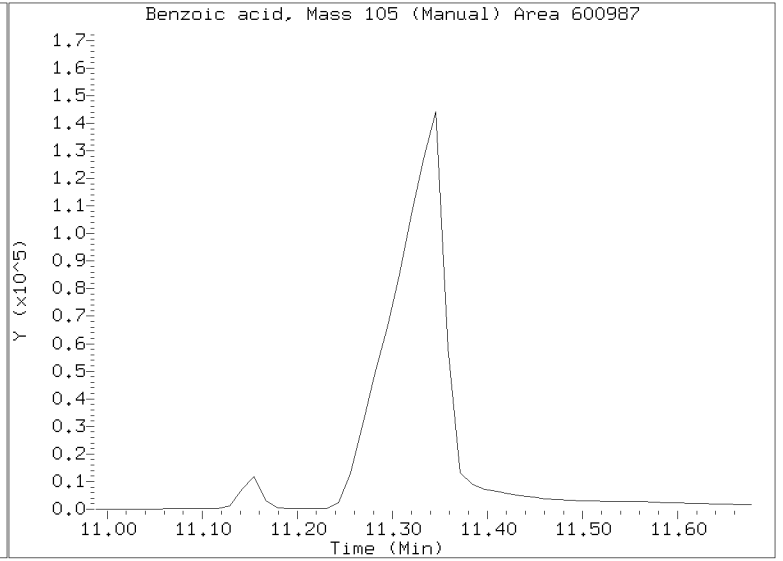
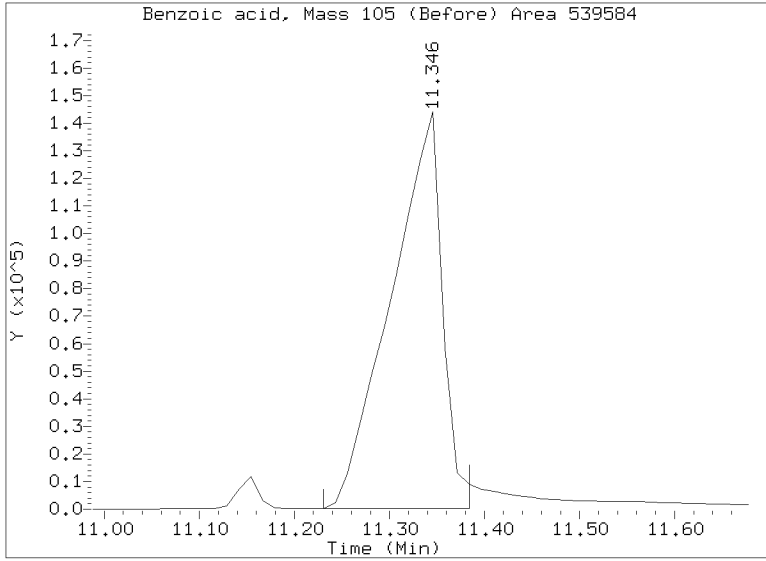
RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/NT1705162305.D
Injection Date: 16-MAY-2023 20:44
Lab ID: SLE0338-CAL4 Client ID:
Report Date: 05/20/2023 12:55



Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162306.D

Date: 16-May-2023 21:22

Client ID:

Sample Info: SLE0338-CAL3

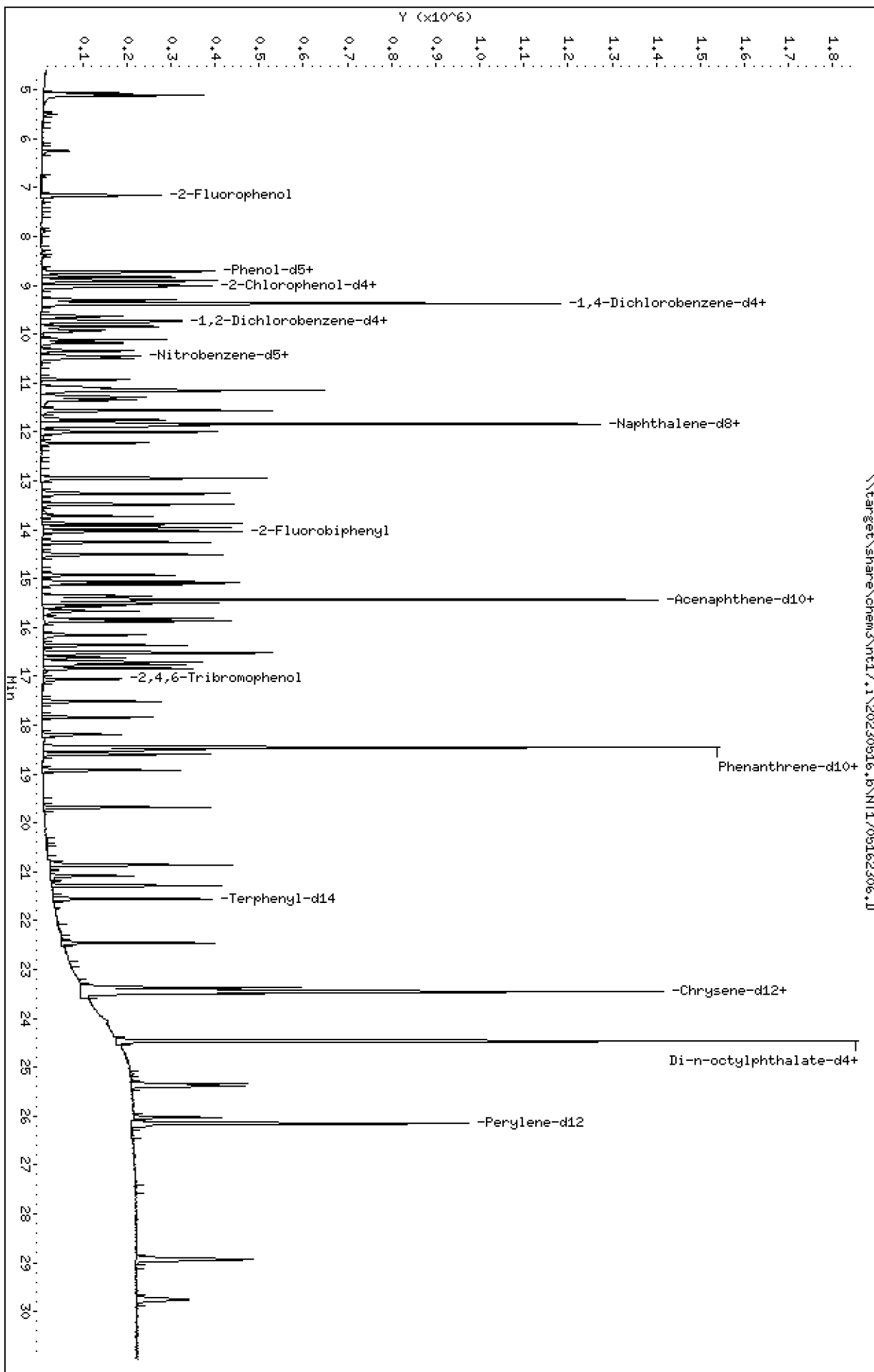
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162306.D
 Lab Smp Id: SLE0338-CAL3
 Inj Date : 16-MAY-2023 21:22
 Operator : JGR
 Smp Info : SLE0338-CAL3
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 3
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.160	7.161	(0.765)	150626	1.50000	1.580
\$ 2 Phenol-d5	99		8.715	8.715	(0.931)	197829	1.50000	1.568
3 Phenol	94		8.740	8.740	(0.933)	142048	1.00000	1.063
\$ 5 2-Chlorophenol-d4	132		9.008	9.008	(0.962)	156257	1.50000	1.546
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	107601	1.00000	1.105
6 2-Chlorophenol	128		9.033	9.033	(0.965)	125026	1.00000	1.121
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	119307	1.00000	1.057
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	291199	4.00000	
9 1,4-Dichlorobenzene	146		9.391	9.391	(1.003)	130960	1.00000	1.163
\$ 10 1,2-Dichlorobenzene-d4	152		9.723	9.723	(1.038)	74712	1.00000	1.052
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	111502	1.00000	1.053
11 Benzyl alcohol	108		9.633	9.633	(1.029)	65096	1.00000	1.046
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	31734	1.00000	1.063
13 2-Methylphenol	108		9.851	9.851	(1.052)	101485	1.00000	1.033
17 Hexachloroethane	117		10.336	10.336	(1.104)	46561	1.00000	1.033
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	76879	1.00000	1.023
15 4-Methylphenol	108		10.106	10.119	(1.079)	102638	1.00000	1.027
\$ 18 Nitrobenzene-d5	82		10.451	10.451	(0.883)	121519	1.00000	0.9982
19 Nitrobenzene	77		10.489	10.489	(0.886)	118249	1.00000	1.018
20 Isophorone	82		10.924	10.924	(0.922)	148076	1.00000	0.9314
21 2-Nitrophenol	139		11.115	11.115	(0.939)	64667	1.00000	1.155
22 2,4-Dimethylphenol	107		11.154	11.154	(0.942)	221940	2.00000	2.042
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	99144	1.00000	1.017
24 Benzoic acid	105		11.294	11.333	(0.954)	160098	4.00000	2.190
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	185125	2.00000	2.120
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	92154	1.00000	0.9717
* 27 Naphthalene-d8	136		11.842	11.830	(1.000)	1069618	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	294878	1.00000	1.002
29 4-Chloroaniline	127		11.995	11.995	(1.013)	230913	2.00000	1.992
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	45893	1.00000	0.9769
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	181698	2.00000	1.933
32 2-Methylnaphthalene	142		13.258	13.258	(1.119)	208319	1.00000	0.9891
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	71798	2.00000	1.339

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.899)	112219	2.00000	1.860
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.904)	123387	2.00000	1.932
§ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.909)	226616	1.00000	0.9975
37 2-Chloronaphthalene	162	14.252	14.253	(0.923)	183269	1.00000	0.9944
38 2-Nitroaniline	65	14.508	14.508	(0.940)	123204	2.00000	1.974
39 Dimethylphthalate	163	14.928	14.929	(0.967)	204711	1.00000	1.032
40 Acenaphthylene	152	15.120	15.120	(0.979)	298557	1.00000	1.020
41 2,6-Dinitrotoluene	165	15.069	15.069	(0.976)	88125	2.00000	1.897
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	576693	4.00000	
43 3-Nitroaniline	138	15.349	15.349	(0.994)	77793	2.00000	1.808
44 Acenaphthene	153	15.502	15.502	(1.004)	183139	1.00000	1.001
45 2,4-Dinitrophenol	184	15.566	15.567	(1.008)	52044	4.00000	1.853
46 Dibenzofuran	168	15.821	15.821	(1.025)	252854	1.00000	0.9902
47 4-Nitrophenol	109	15.668	15.681	(1.015)	47321	2.00000	1.656
48 2,4-Dinitrotoluene	165	15.872	15.872	(1.028)	118415	2.00000	1.947
50 Diethylphthalate	149	16.369	16.369	(1.060)	194206	1.00000	1.004
49 Fluorene	166	16.535	16.535	(1.071)	259418	1.00000	1.069
51 4-Chlorophenyl-phenylether	204	16.509	16.509	(1.069)	112856	1.00000	1.011
52 4-Nitroaniline	138	16.611	16.611	(1.076)	79161	2.00000	1.944
53 4,6-Dinitro-2-methylphenol	198	16.713	16.713	(0.905)	89315	4.00000	2.363
54 N-Nitrosodiphenylamine	169	16.764	16.764	(0.908)	137289	1.00000	1.035
§ 55 2,4,6-Tribromophenol	330	17.069	17.070	(1.106)	28123	1.50000	1.118
56 4-Bromophenyl-phenylether	248	17.514	17.515	(0.949)	44072	1.00000	0.9482
57 Hexachlorobenzene	284	17.833	17.833	(0.966)	44938	1.00000	0.9489
58 Pentachlorophenol	266	18.190	18.203	(0.985)	32667	2.00000	1.185
* 59 Phenanthrene-d10	188	18.458	18.458	(1.000)	946973	4.00000	
60 Phenanthrene	178	18.509	18.496	(1.003)	272263	1.00000	0.9853
61 Anthracene	178	18.598	18.598	(1.008)	252759	1.00000	0.9743
62 Carbazole	167	18.917	18.918	(1.025)	219389	1.00000	1.379
63 Di-n-butylphthalate	149	19.682	19.682	(1.066)	308670	1.00000	0.9854
64 Fluoranthene	202	20.855	20.855	(0.889)	267223	1.00000	1.001
65 Pyrene	202	21.289	21.276	(0.908)	274283	1.00000	1.014
§ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	195402	1.00000	1.016
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	125222	1.00000	1.034
68 Benzo(a)anthracene	228	23.419	23.419	(0.998)	210729	1.00000	1.003
* 69 Chrysene-d12	240	23.457	23.445	(1.000)	570480	4.00000	
70 3,3'-Dichlorobenzidine	252	23.368	23.369	(0.996)	154282	3.00000	3.749
71 Chrysene	228	23.496	23.496	(1.002)	197638	1.00000	0.9998
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	167257	1.00000	1.015
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1138779	4.00000	
73 Di-n-octylphthalate	149	24.465	24.465	(1.000)	293359	1.00000	1.016
74 Benzo(b)fluoranthene	252	25.345	25.345	(0.969)	204775	1.00000	1.004
75 Benzo(k)fluoranthene	252	25.384	25.384	(0.971)	181685	1.00000	0.9432 (H)
76 Benzo(a)pyrene	252	26.022	26.022	(0.995)	151308	1.00000	0.9421
* 77 Perylene-d12	264	26.149	26.149	(1.000)	514255	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.933	28.933	(1.106)	178435	1.00000	0.9578
79 Dibenzo(a,h)anthracene	278	28.933	28.946	(1.106)	150803	1.00000	0.9645
80 Benzo(g,h,i)perylene	276	29.764	29.751	(1.138)	147554	1.00000	0.9596
90 N-Nitrosodimethylamine	74	5.071	5.071	(0.542)	136266	2.00000	2.143
91 Aniline	93	8.830	8.830	(0.943)	218299	2.00000	1.950
93 Benzidine	184	21.085	21.085	(0.899)	119355	2.00000	1.788
103 Pyridine	79	5.109	5.122	(0.546)	214158	2.00000	2.123
105 1-methylnaphthalene	142	13.487	13.487	(1.139)	193001	1.00000	0.9878
111 Azobenzene (1,2-DP-Hydrazine)	77	16.840	16.840	(1.091)	233200	1.00000	1.032

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	354362	2.00000	1.936
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	51169	1.00000	0.7088

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162306.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	291199	1.44
27 Naphthalene-d8	1056758	528379	2113516	1069618	1.22
42 Acenaphthene-d10	587510	293755	1175020	576693	-1.84
59 Phenanthrene-d10	933575	466788	1867150	946973	1.44
69 Chrysene-d12	576570	288285	1153140	570480	-1.06
134 Di-n-octylphthala	1181651	590826	2363302	1138779	-3.63
77 Perylene-d12	491359	245680	982718	514255	4.66

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162306.D

Lab ID: SLE0338-CAL3
nt17.i, ABN.m, 16-MAY-2023 21:22

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

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162307.D

Date: 16-May-2023 21:59

Client ID:

Sample Info: SLE0338-CAL2

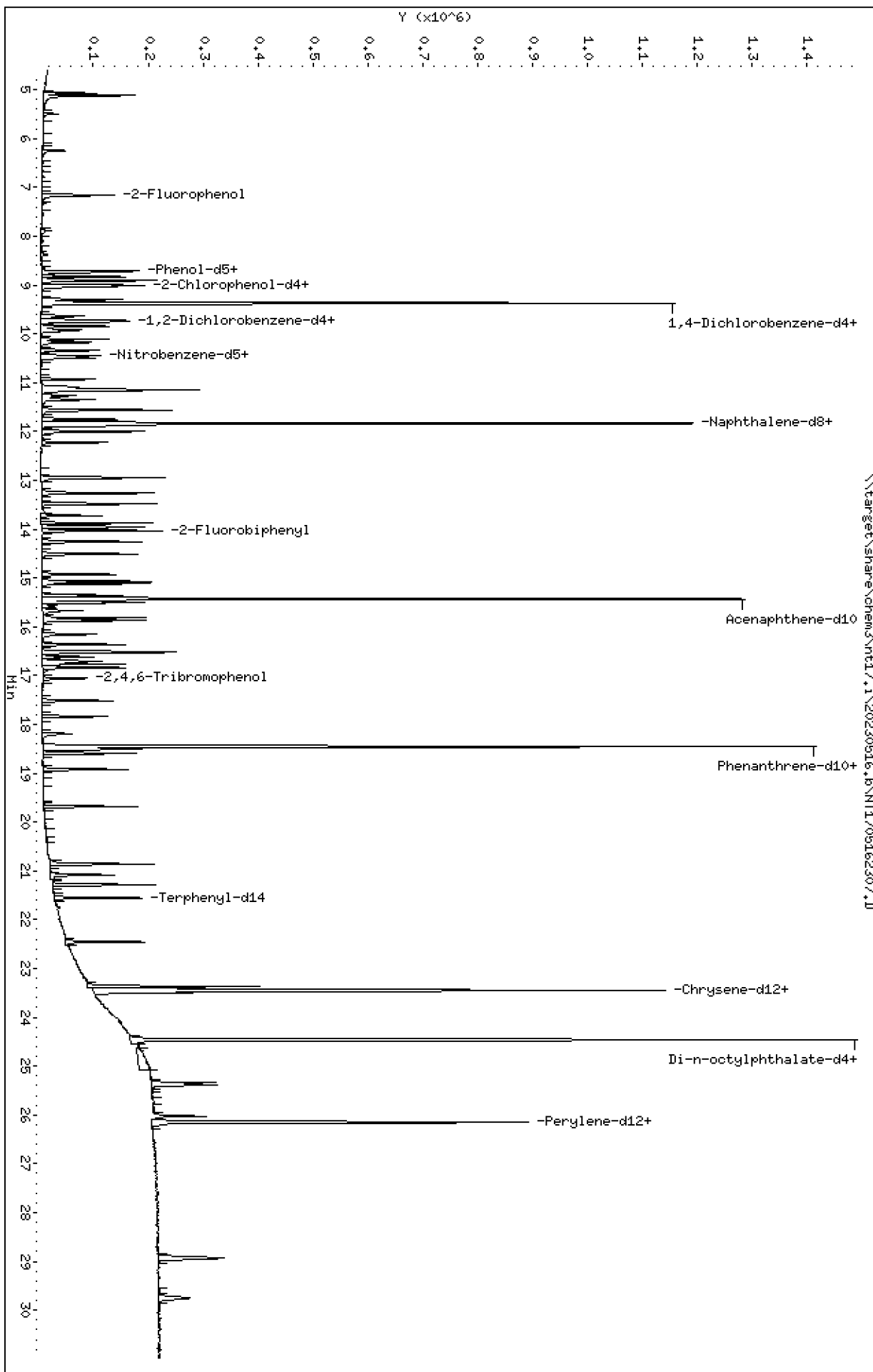
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162307.D
 Lab Smp Id: SLE0338-CAL2
 Inj Date : 16-MAY-2023 21:59
 Operator : JGR
 Smp Info : SLE0338-CAL2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 2
 Compound Sublist: ICAL.sub

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 2-Fluorophenol	112	7.161	7.161	(0.765)	69886	0.75000	0.6587
2 Phenol-d5	99	8.715	8.715	(0.931)	94980	0.75000	0.6765
3 Phenol	94	8.740	8.740	(0.933)	66525	0.50000	0.4473
5 2-Chlorophenol-d4	132	9.008	9.008	(0.962)	76948	0.75000	0.6842
4 Bis(2-Chloroethyl)ether	93	8.906	8.906	(0.951)	52481	0.50000	0.4841
6 2-Chlorophenol	128	9.033	9.033	(0.965)	61095	0.50000	0.4919
7 1,3-Dichlorobenzene	146	9.301	9.301	(0.993)	59422	0.50000	0.4728
* 8 1,4-Dichlorobenzene-d4	152	9.365	9.365	(1.000)	324107	4.00000	
9 1,4-Dichlorobenzene	146	9.391	9.391	(1.003)	66070	0.50000	0.5271
\$ 10 1,2-Dichlorobenzene-d4	152	9.723	9.723	(1.038)	35331	0.50000	0.4470
12 1,2-Dichlorobenzene	146	9.748	9.748	(1.041)	54209	0.50000	0.4600
11 Benzyl alcohol	108	9.633	9.633	(1.029)	29784	0.50000	0.4302
14 2,2'-oxybis(1-Chloropropane)	121	9.915	9.914	(1.059)	14940	0.50000	0.4498
13 2-Methylphenol	108	9.851	9.851	(1.052)	49134	0.50000	0.4495
17 Hexachloroethane	117	10.336	10.336	(1.104)	23009	0.50000	0.4589
16 N-Nitroso-di-n-propylamine	70	10.170	10.170	(1.086)	37780	0.50000	0.4518
15 4-Methylphenol	108	10.106	10.119	(1.079)	47913	0.50000	0.4305
\$ 18 Nitrobenzene-d5	82	10.451	10.451	(0.883)	58799	0.50000	0.4975
19 Nitrobenzene	77	10.489	10.489	(0.886)	57280	0.50000	0.5079
20 Isophorone	82	10.924	10.924	(0.922)	82574	0.50000	0.5349
21 2-Nitrophenol	139	11.115	11.115	(0.939)	24199	0.50000	0.4453
22 2,4-Dimethylphenol	107	11.154	11.154	(0.942)	106712	1.00000	1.011
23 Bis(2-Chloroethoxy)methane	93	11.345	11.345	(0.958)	45556	0.50000	0.4815
24 Benzoic acid	105	11.269	11.333	(0.952)	41266	2.00000	0.5814
25 2,4-Dichlorophenol	162	11.562	11.562	(0.976)	88888	1.00000	1.048
26 1,2,4-Trichlorobenzene	180	11.753	11.753	(0.992)	46211	0.50000	0.5019
* 27 Naphthalene-d8	136	11.843	11.830	(1.000)	1038534	4.00000	
28 Naphthalene	128	11.881	11.881	(1.003)	145318	0.50000	0.5088
29 4-Chloroaniline	127	11.995	11.995	(1.013)	110561	1.00000	0.9821
30 Hexachlorobutadiene	225	12.225	12.225	(1.032)	22415	0.50000	0.4914
31 4-Chloro-3-methylphenol	107	12.952	12.952	(1.094)	82140	1.00000	0.8998
32 2-Methylnaphthalene	142	13.258	13.258	(1.119)	97434	0.50000	0.4765
33 Hexachlorocyclopentadiene	237	13.730	13.730	(0.889)	29375	1.00000	0.5763

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.899)	51299	1.00000	0.8944
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.904)	54353	1.00000	0.8952
§ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.909)	108347	0.50000	0.5017
37 2-Chloronaphthalene	162	14.253	14.253	(0.923)	86887	0.50000	0.4959
38 2-Nitroaniline	65	14.508	14.508	(0.940)	54591	1.00000	0.9201
39 Dimethylphthalate	163	14.929	14.929	(0.967)	96298	0.50000	0.5106
40 Acenaphthylene	152	15.120	15.120	(0.979)	141088	0.50000	0.5071
41 2,6-Dinitrotoluene	165	15.069	15.069	(0.976)	40863	1.00000	0.9254
* 42 Acenaphthene-d10	164	15.439	15.426	(1.000)	548179	4.00000	
43 3-Nitroaniline	138	15.349	15.349	(0.994)	38197	1.00000	0.9339
44 Acenaphthene	153	15.502	15.502	(1.004)	86590	0.50000	0.4979
45 2,4-Dinitrophenol	184	15.566	15.567	(1.008)	7725	2.00000	0.2902
46 Dibenzofuran	168	15.821	15.821	(1.025)	120379	0.50000	0.4959
47 4-Nitrophenol	109	15.668	15.681	(1.015)	17887	1.00000	0.6584
48 2,4-Dinitrotoluene	165	15.872	15.872	(1.028)	49338	1.00000	0.8535
50 Diethylphthalate	149	16.369	16.369	(1.060)	89215	0.50000	0.4850
49 Fluorene	166	16.535	16.535	(1.071)	122616	0.50000	0.5313
51 4-Chlorophenyl-phenylether	204	16.509	16.509	(1.069)	53751	0.50000	0.5066
52 4-Nitroaniline	138	16.611	16.611	(1.076)	32376	1.00000	0.8363
53 4,6-Dinitro-2-methylphenol	198	16.713	16.713	(0.905)	30618	2.00000	0.8639
54 N-Nitrosodiphenylamine	169	16.764	16.764	(0.908)	64129	0.50000	0.5155
§ 55 2,4,6-Tribromophenol	330	17.069	17.070	(1.106)	12283	0.75000	0.5137
56 4-Bromophenyl-phenylether	248	17.515	17.515	(0.949)	21041	0.50000	0.4827
57 Hexachlorobenzene	284	17.833	17.833	(0.966)	21923	0.50000	0.4936
58 Pentachlorophenol	266	18.190	18.203	(0.985)	12002	1.00000	0.4656
* 59 Phenanthrene-d10	188	18.458	18.458	(1.000)	888076	4.00000	
60 Phenanthrene	178	18.509	18.496	(1.003)	129729	0.50000	0.5006
61 Anthracene	178	18.598	18.598	(1.008)	115970	0.50000	0.4767
62 Carbazole	167	18.917	18.918	(1.025)	109506	0.50000	0.7390
63 Di-n-butylphthalate	149	19.682	19.682	(1.066)	137613	0.50000	0.4685
64 Fluoranthene	202	20.855	20.855	(0.890)	121498	0.50000	0.4955
65 Pyrene	202	21.276	21.276	(0.908)	125778	0.50000	0.5060
§ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	87757	0.50000	0.4967
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	55058	0.50000	0.4949
68 Benzo(a)anthracene	228	23.419	23.419	(0.999)	98387	0.50000	0.5097
* 69 Chrysene-d12	240	23.445	23.445	(1.000)	524160	4.00000	
70 3,3'-Dichlorobenzidine	252	23.368	23.369	(0.997)	85571	1.50000	2.277
71 Chrysene	228	23.496	23.496	(1.002)	93467	0.50000	0.5146
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.960)	75756	0.50000	0.5066
* 134 Di-n-octylphthalate-d4	153	24.453	24.465	(1.000)	1033662	4.00000	
73 Di-n-octylphthalate	149	24.465	24.465	(1.001)	134972	0.50000	0.5151
74 Benzo(b)fluoranthene	252	25.345	25.345	(0.969)	95464	0.50000	0.4995
75 Benzo(k)fluoranthene	252	25.384	25.384	(0.971)	82601	0.50000	0.4574 (H)
76 Benzo(a)pyrene	252	26.022	26.022	(0.995)	73696	0.50000	0.4895
* 77 Perylene-d12	264	26.149	26.149	(1.000)	482063	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.933	28.933	(1.106)	84850	0.50000	0.4859
79 Dibenzo(a,h)anthracene	278	28.933	28.946	(1.106)	71004	0.50000	0.4844
80 Benzo(g,h,i)perylene	276	29.751	29.751	(1.138)	71128	0.50000	0.4935
90 N-Nitrosodimethylamine	74	5.071	5.071	(0.542)	63273	1.00000	0.8941
91 Aniline	93	8.830	8.830	(0.943)	107499	1.00000	0.8626
93 Benzidine	184	21.085	21.085	(0.899)	73568	1.00000	1.203
103 Pyridine	79	5.110	5.122	(0.546)	107114	1.00000	0.9542
105 1-methylnaphthalene	142	13.487	13.487	(1.139)	93622	0.50000	0.4935
111 Azobenzene (1,2-DP-Hydrazine)	77	16.840	16.840	(1.091)	107419	0.50000	0.5003

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	166211	1.00000	0.9688
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	21645	0.50000	0.3154

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162307.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	324107	12.90
27 Naphthalene-d8	1056758	528379	2113516	1038534	-1.72
42 Acenaphthene-d10	587510	293755	1175020	548179	-6.69
59 Phenanthrene-d10	933575	466788	1867150	888076	-4.87
69 Chrysene-d12	576570	288285	1153140	524160	-9.09
134 Di-n-octylphthala	1181651	590826	2363302	1033662	-12.52
77 Perylene-d12	491359	245680	982718	482063	-1.89

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.45	-0.05
134 Di-n-octylphthala	24.47	23.97	24.97	24.45	-0.05
77 Perylene-d12	26.15	25.65	26.65	26.15	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162307.D

Lab ID: SLE0338-CAL2
nt17.i, ABN.m, 16-MAY-2023 21:59

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

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.952	0.958	-0.0064	Benzoic acid
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt17.1\20230516.16\NT1705162308.D

Date: 16-May-2023 22:37

Client ID:

Sample Info: SLE0338-CAL1

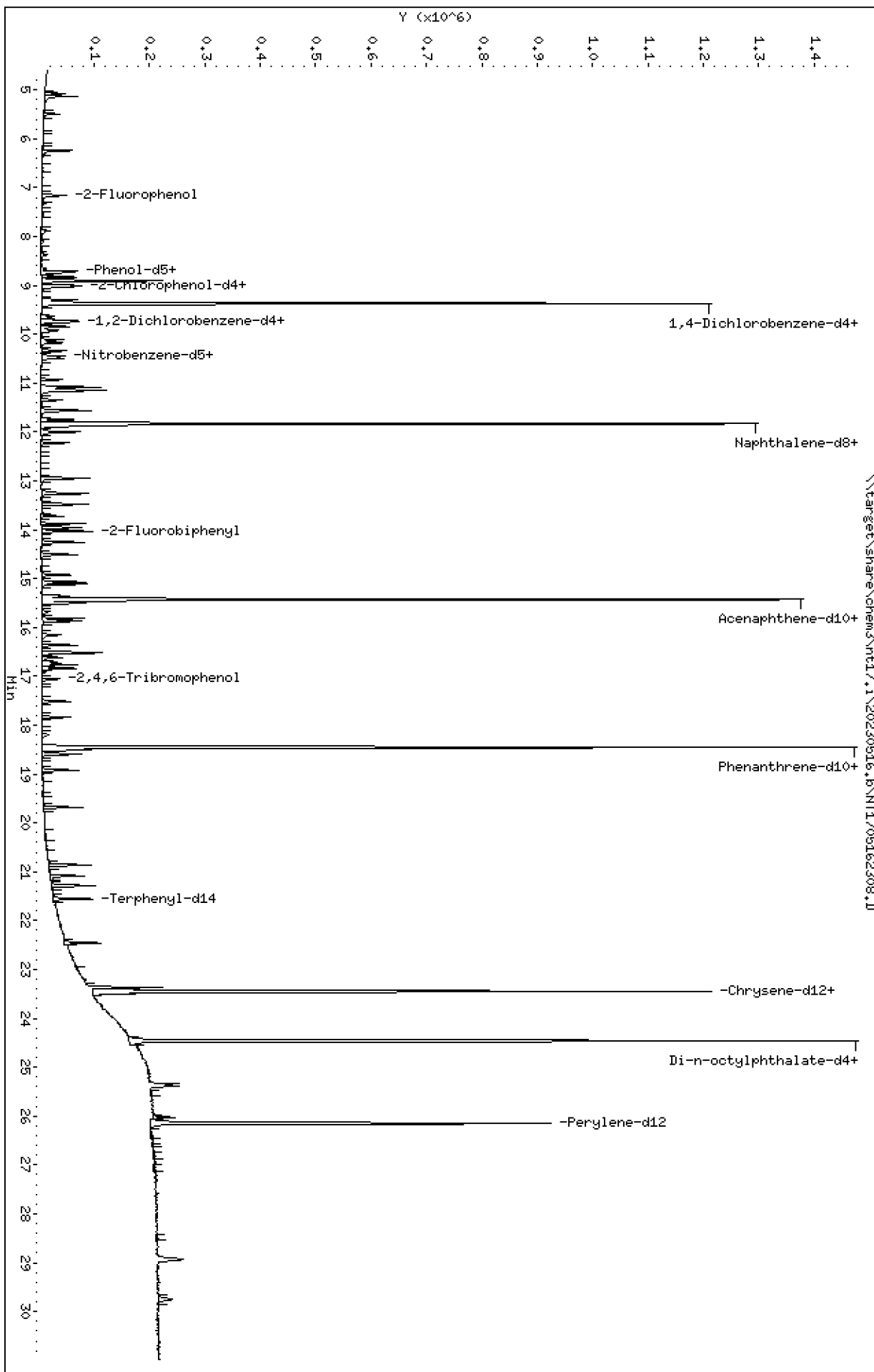
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162308.D
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 Inj Date : 16-MAY-2023 22:37
 Operator : JGR
 Smp Info : SLE0338-CAL1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Calibration Sample, Level: 1
 Compound Sublist: ICAL.sub

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112	7.161	7.161	(0.765)	27028	0.30000	0.2418
\$ 2 Phenol-d5	99	8.715	8.715	(0.931)	37831	0.30000	0.2557
3 Phenol	94	8.740	8.740	(0.933)	25873	0.20000	0.1651
\$ 5 2-Chlorophenol-d4	132	9.008	9.008	(0.962)	31881	0.30000	0.2691
4 Bis(2-Chloroethyl)ether	93	8.906	8.906	(0.951)	22277	0.20000	0.1950
6 2-Chlorophenol	128	9.033	9.033	(0.965)	25602	0.20000	0.1957
7 1,3-Dichlorobenzene	146	9.301	9.301	(0.993)	25672	0.20000	0.1939
* 8 1,4-Dichlorobenzene-d4	152	9.365	9.365	(1.000)	341484	4.00000	
9 1,4-Dichlorobenzene	146	9.391	9.391	(1.003)	24115	0.20000	0.1826
\$ 10 1,2-Dichlorobenzene-d4	152	9.723	9.723	(1.038)	15031	0.20000	0.1805
12 1,2-Dichlorobenzene	146	9.748	9.748	(1.041)	22875	0.20000	0.1842
11 Benzyl alcohol	108	9.633	9.633	(1.029)	11971	0.20000	0.1641
14 2,2'-oxybis(1-Chloropropane)	121	9.914	9.914	(1.059)	6536	0.20000	0.1868
13 2-Methylphenol	108	9.851	9.851	(1.052)	19720	0.20000	0.1712
17 Hexachloroethane	117	10.336	10.336	(1.104)	9447	0.20000	0.1788
16 N-Nitroso-di-n-propylamine	70	10.170	10.170	(1.086)	15752	0.20000	0.1788
15 4-Methylphenol	108	10.119	10.119	(1.080)	19940	0.20000	0.1701
\$ 18 Nitrobenzene-d5	82	10.451	10.451	(0.883)	23337	0.20000	0.1873
19 Nitrobenzene	77	10.489	10.489	(0.887)	22227	0.20000	0.1870
20 Isophorone	82	10.924	10.924	(0.923)	28856	0.20000	0.1773
21 2-Nitrophenol	139	11.115	11.115	(0.940)	8750	0.20000	0.1527
22 2,4-Dimethylphenol	107	11.154	11.154	(0.943)	42572	0.40000	0.3828
23 Bis(2-Chloroethoxy)methane	93	11.345	11.345	(0.959)	19965	0.20000	0.2002
24 Benzoic acid	105	11.332	11.333	(0.958)	10264	0.80000	0.1372 (M)
25 2,4-Dichlorophenol	162	11.562	11.562	(0.977)	35162	0.40000	0.3934
26 1,2,4-Trichlorobenzene	180	11.753	11.753	(0.994)	19725	0.20000	0.2032
* 27 Naphthalene-d8	136	11.830	11.830	(1.000)	1094850	4.00000	
28 Naphthalene	128	11.881	11.881	(1.004)	60831	0.20000	0.2020
29 4-Chloroaniline	127	11.995	11.995	(1.014)	44419	0.40000	0.3743
30 Hexachlorobutadiene	225	12.225	12.225	(1.033)	9342	0.20000	0.1943
31 4-Chloro-3-methylphenol	107	12.952	12.952	(1.095)	32908	0.40000	0.3419
32 2-Methylnaphthalene	142	13.258	13.258	(1.121)	42140	0.20000	0.1955
33 Hexachlorocyclopentadiene	237	13.730	13.730	(0.890)	9893	0.40000	0.1835

Compounds	QUANT SIG					AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.883	13.883	(0.900)	19996	0.40000	0.3296	
35 2,4,5-Trichlorophenol	196	13.959	13.959	(0.905)	20986	0.40000	0.3268	
§ 36 2-Fluorobiphenyl	172	14.036	14.036	(0.910)	45673	0.20000	0.1999	
37 2-Chloronaphthalene	162	14.253	14.253	(0.924)	37466	0.20000	0.2022	
38 2-Nitroaniline	65	14.508	14.508	(0.940)	19399	0.40000	0.3091	
39 Dimethylphthalate	163	14.929	14.929	(0.968)	40042	0.20000	0.2007	
40 Acenaphthylene	152	15.120	15.120	(0.980)	59033	0.20000	0.2006	
41 2,6-Dinitrotoluene	165	15.069	15.069	(0.977)	16463	0.40000	0.3524	
* 42 Acenaphthene-d10	164	15.426	15.426	(1.000)	579868	4.00000		
43 3-Nitroaniline	138	15.349	15.349	(0.995)	14982	0.40000	0.3463	
44 Acenaphthene	153	15.502	15.502	(1.005)	36099	0.20000	0.1962	
45 2,4-Dinitrophenol	184	Compound Not Detected.						
46 Dibenzofuran	168	15.821	15.821	(1.026)	51523	0.20000	0.2007	
47 4-Nitrophenol	109	15.681	15.681	(1.017)	5047	0.40000	0.1756	
48 2,4-Dinitrotoluene	165	15.872	15.872	(1.029)	19047	0.40000	0.3115	
50 Diethylphthalate	149	16.369	16.369	(1.061)	37772	0.20000	0.1941	
49 Fluorene	166	16.535	16.535	(1.072)	40483	0.20000	0.1658	
51 4-Chlorophenyl-phenylether	204	16.509	16.509	(1.070)	22836	0.20000	0.2035	
52 4-Nitroaniline	138	16.611	16.611	(1.077)	13985	0.40000	0.3415	
53 4,6-Dinitro-2-methylphenol	198	16.713	16.713	(0.905)	7965	0.80000	0.2103	
54 N-Nitrosodiphenylamine	169	16.764	16.764	(0.908)	26692	0.20000	0.2008	
§ 55 2,4,6-Tribromophenol	330	17.069	17.070	(1.107)	4749	0.30000	0.1878	
56 4-Bromophenyl-phenylether	248	17.515	17.515	(0.949)	8736	0.20000	0.1876	
57 Hexachlorobenzene	284	17.833	17.833	(0.966)	9448	0.20000	0.1991	
58 Pentachlorophenol	266	18.203	18.203	(0.986)	3229	0.40000	0.1174	
* 59 Phenanthrene-d10	188	18.458	18.458	(1.000)	948879	4.00000		
60 Phenanthrene	178	18.496	18.496	(1.002)	54331	0.20000	0.1962	
61 Anthracene	178	18.598	18.598	(1.008)	47680	0.20000	0.1834	
62 Carbazole	167	18.917	18.918	(1.025)	45854	0.20000	0.2910	
63 Di-n-butylphthalate	149	19.682	19.682	(1.066)	56086	0.20000	0.1787	
64 Fluoranthene	202	20.855	20.855	(0.890)	49545	0.20000	0.1878	
65 Pyrene	202	21.276	21.276	(0.908)	52513	0.20000	0.1963	
§ 66 Terphenyl-d14	244	21.557	21.557	(0.919)	38669	0.20000	0.2033	
67 Butylbenzylphthalate	149	22.462	22.462	(0.958)	22316	0.20000	0.1864	
68 Benzo(a)anthracene	228	23.419	23.419	(0.999)	42397	0.20000	0.2041	
* 69 Chrysene-d12	240	23.445	23.445	(1.000)	564132	4.00000		
70 3,3'-Dichlorobenzidine	252	23.368	23.369	(0.997)	37419	0.60000	0.9301	
71 Chrysene	228	23.496	23.496	(1.002)	39277	0.20000	0.2009	
72 bis(2-Ethylhexyl)phthalate	149	23.470	23.470	(0.959)	30013	0.20000	0.1884	
* 134 Di-n-octylphthalate-d4	153	24.465	24.465	(1.000)	1101082	4.00000		
73 Di-n-octylphthalate	149	24.465	24.465	(1.000)	58994	0.20000	0.2114	
74 Benzo(b)fluoranthene	252	25.345	25.345	(0.969)	42335	0.20000	0.2116	
75 Benzo(k)fluoranthene	252	25.384	25.384	(0.971)	36348	0.20000	0.1923 (H)	
76 Benzo(a)pyrene	252	26.022	26.022	(0.995)	32521	0.20000	0.2064	
* 77 Perylene-d12	264	26.149	26.149	(1.000)	504570	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	28.933	28.933	(1.106)	35590	0.20000	0.1947	
79 Dibenzo(a,h)anthracene	278	28.946	28.946	(1.107)	29300	0.20000	0.1910	
80 Benzo(g,h,i)perylene	276	29.751	29.751	(1.138)	29266	0.20000	0.1940	
90 N-Nitrosodimethylamine	74	5.071	5.071	(0.542)	25862	0.40000	0.3468	
91 Aniline	93	8.830	8.830	(0.943)	44414	0.40000	0.3383	
93 Benzidine	184	21.085	21.085	(0.899)	38219	0.40000	0.5829	
103 Pyridine	79	5.122	5.122	(0.547)	43973	0.40000	0.3718	
105 1-methylnaphthalene	142	13.487	13.487	(1.140)	39142	0.20000	0.1957	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.840	16.840	(1.092)	42979	0.20000	0.1892	

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.384	25.384	(0.971)	70076	0.40000	0.3902
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.047)	8430	0.20000	0.1161

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162308.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	341484	18.95
27 Naphthalene-d8	1056758	528379	2113516	1094850	3.60
42 Acenaphthene-d10	587510	293755	1175020	579868	-1.30
59 Phenanthrene-d10	933575	466788	1867150	948879	1.64
69 Chrysene-d12	576570	288285	1153140	564132	-2.16
134 Di-n-octylphthala	1181651	590826	2363302	1101082	-6.82
77 Perylene-d12	491359	245680	982718	504570	2.69

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.83	-0.11
42 Acenaphthene-d10	15.44	14.94	15.94	15.43	-0.08
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.45	-0.05
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162308.D

Lab ID: SLE0338-CAL1
nt17.i, ABN.m, 16-MAY-2023 22:37

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

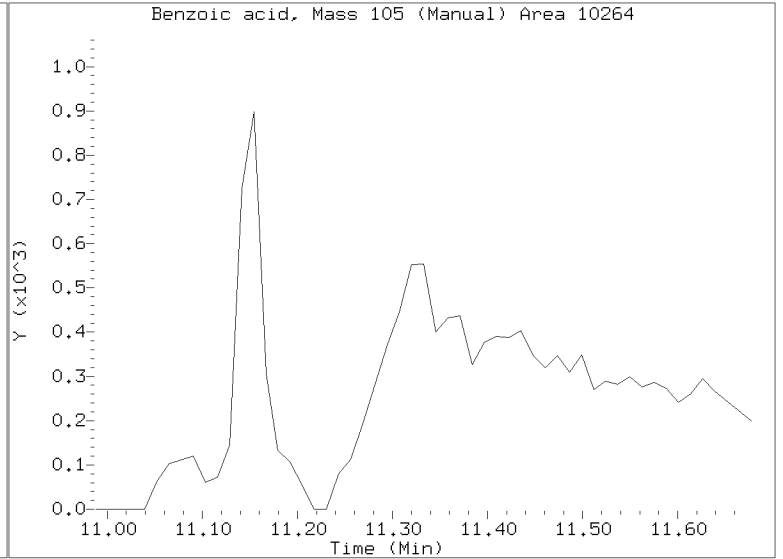
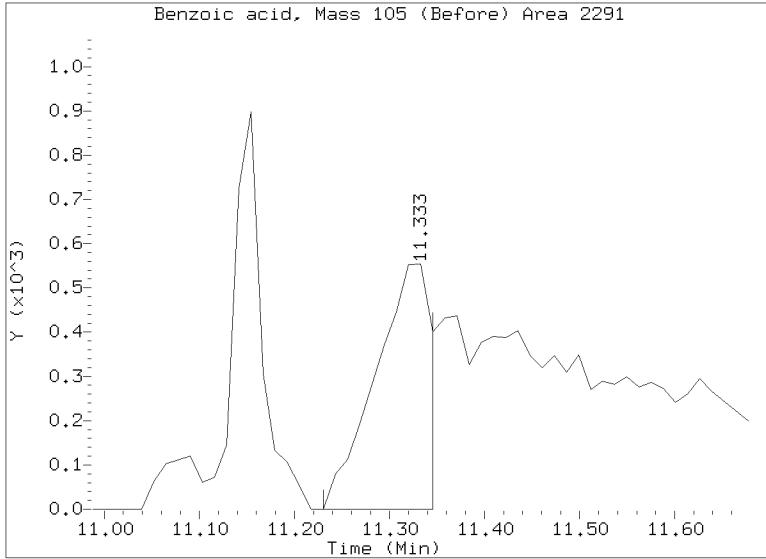
RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Quant Ion Manual Peak Adjustment Report

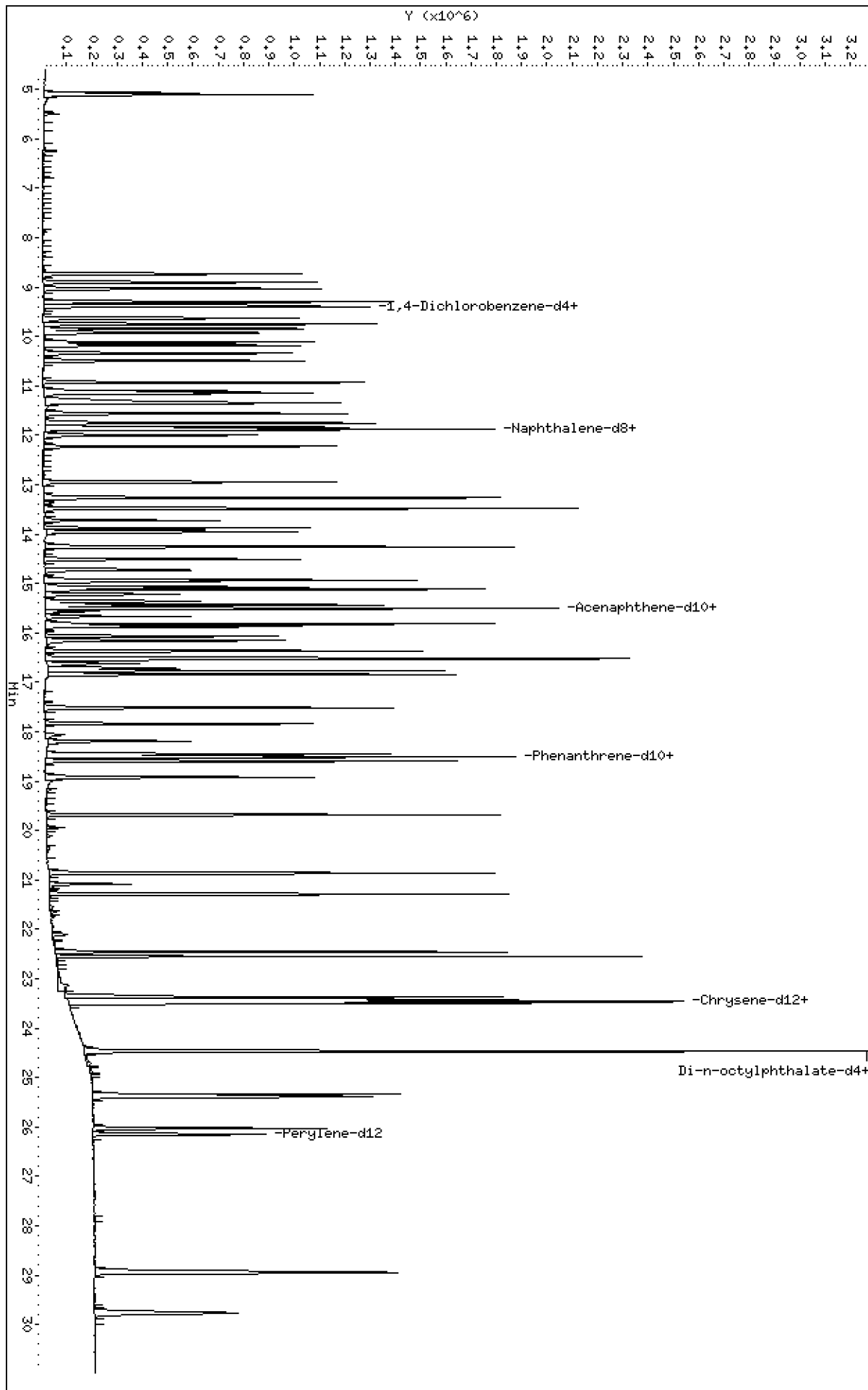
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Lab ID: SLE0338-CAL1 Client ID:
Report Date: 05/20/2023 12:56



Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162311.D
Date: 17-May-2023 00:29
Client ID:
Sample Info: SLE0338-SCW1
Column phase: ZB-5msi

Instrument: nt17.1
Operator: JGR
Column diameter: 0.25

\\target\share\chem3\nt17.1\20230516.6\NT1705162311.D



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

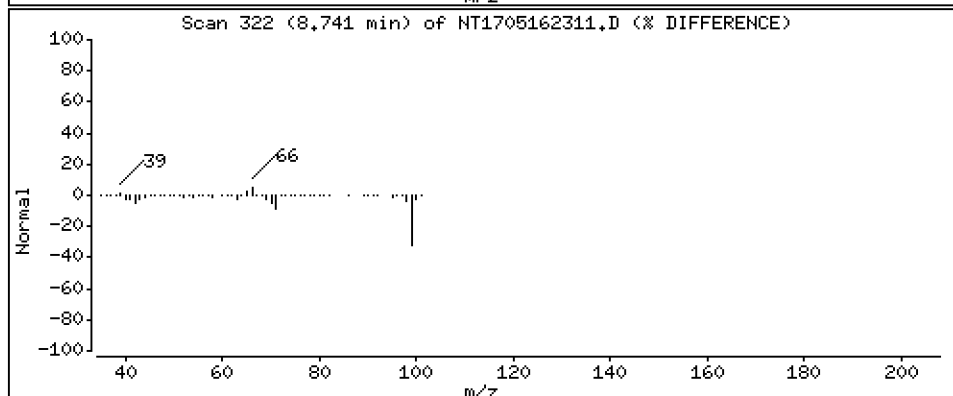
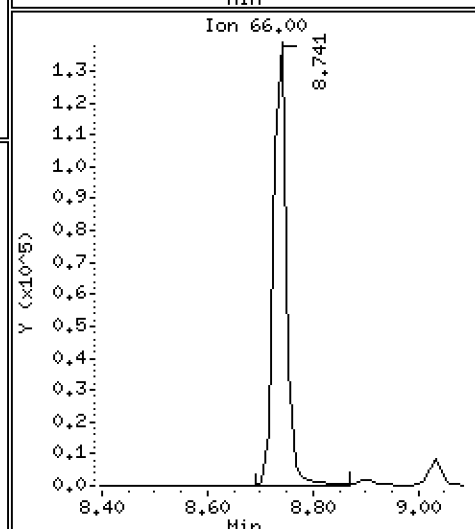
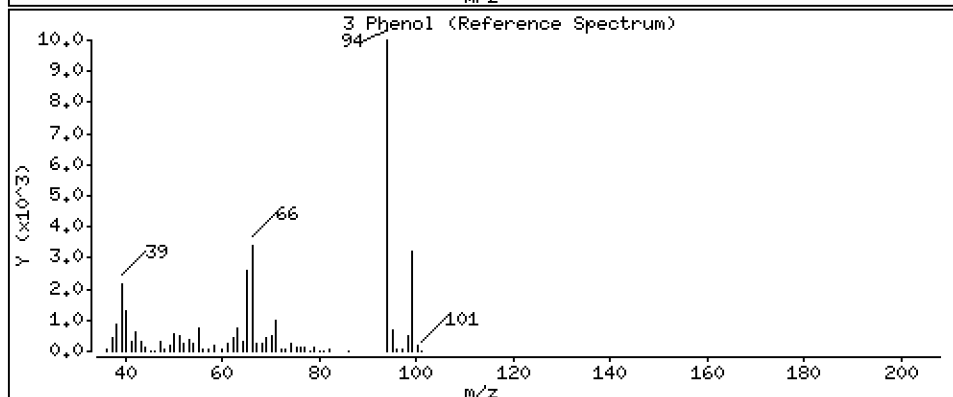
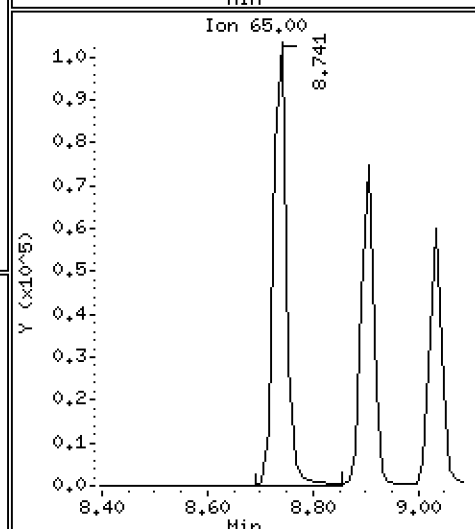
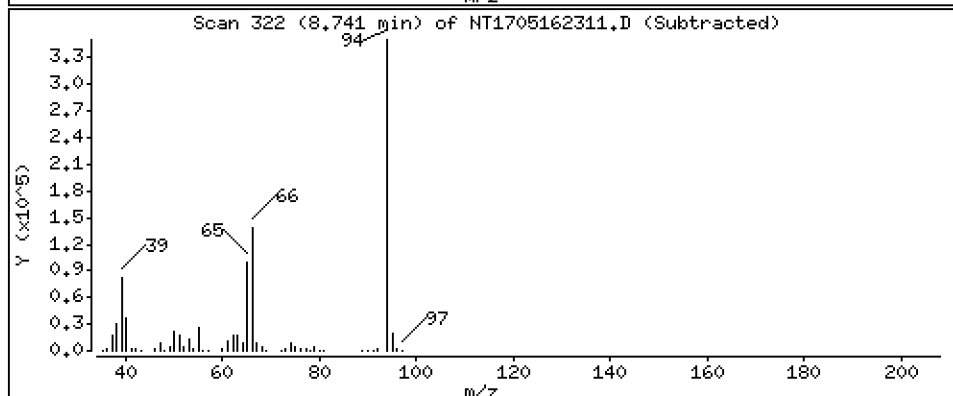
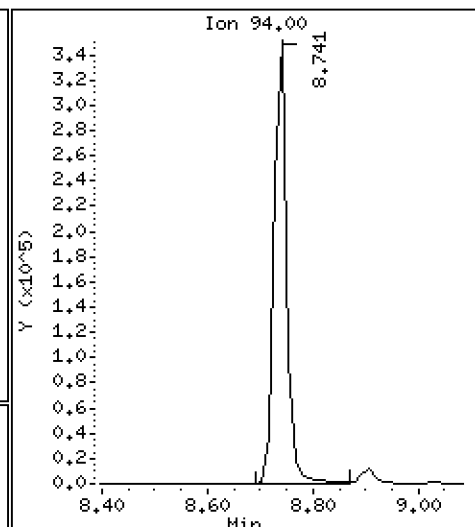
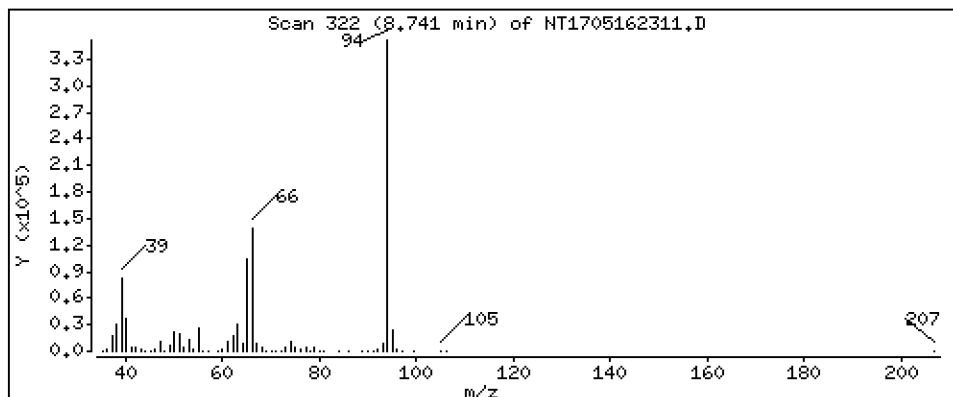
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.823 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

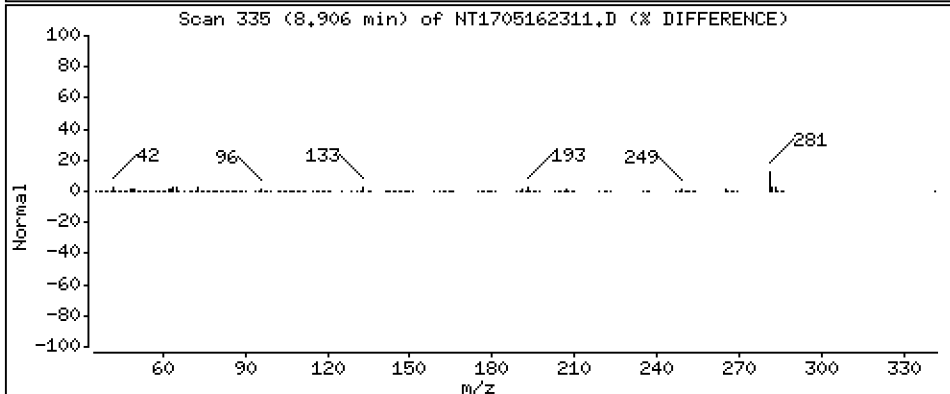
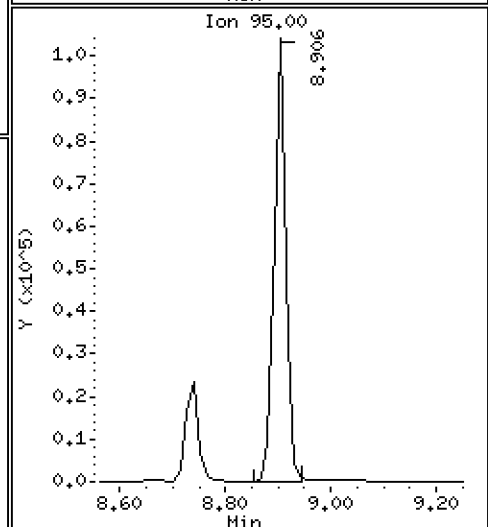
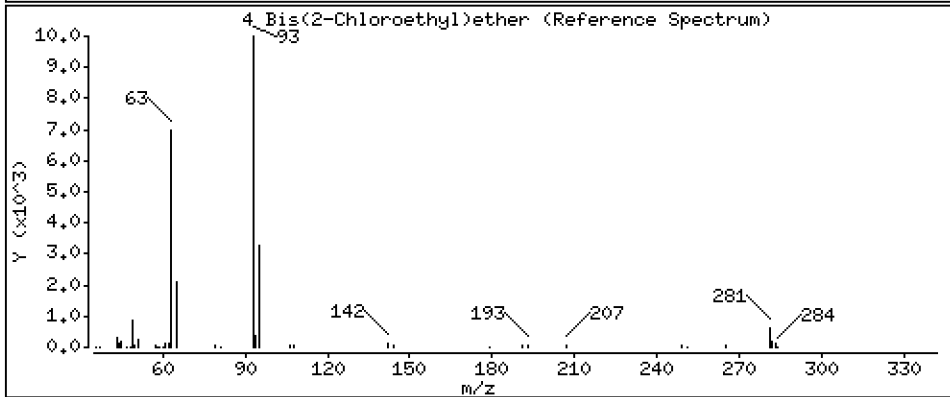
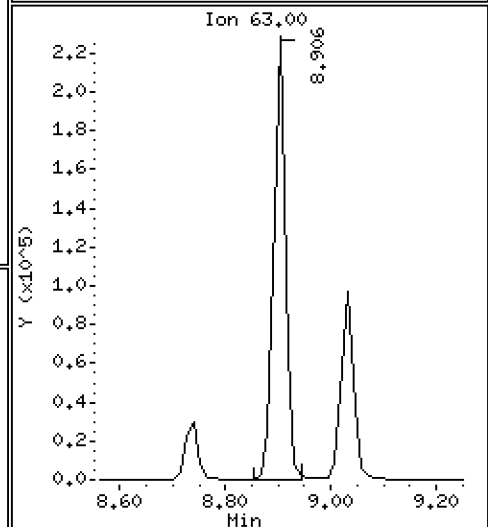
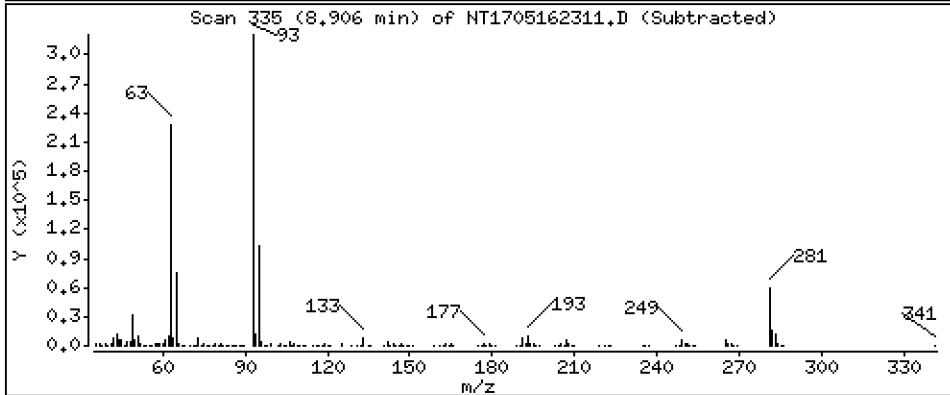
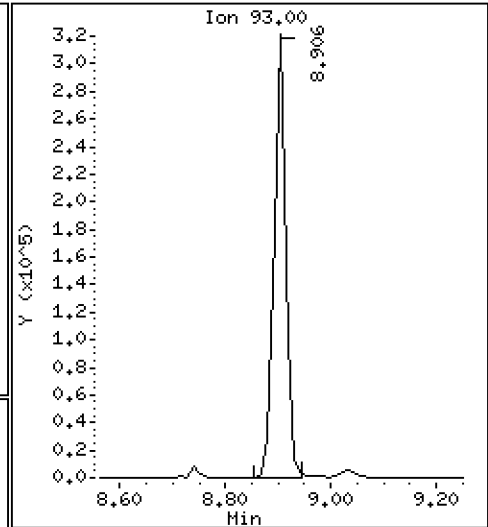
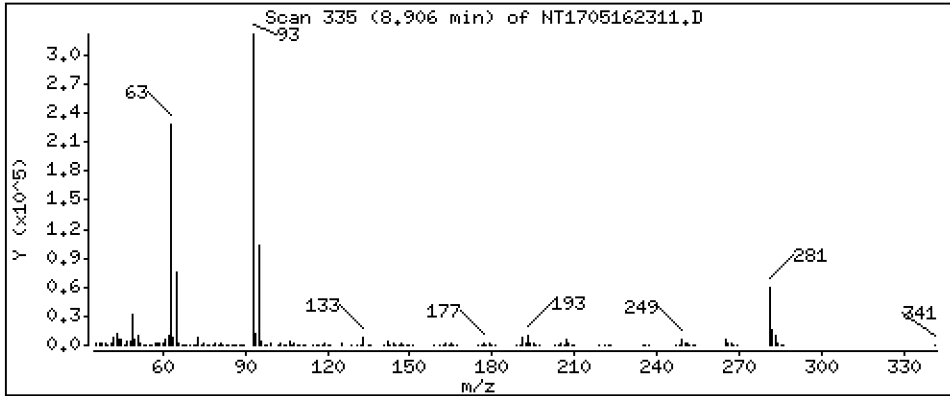
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,566 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

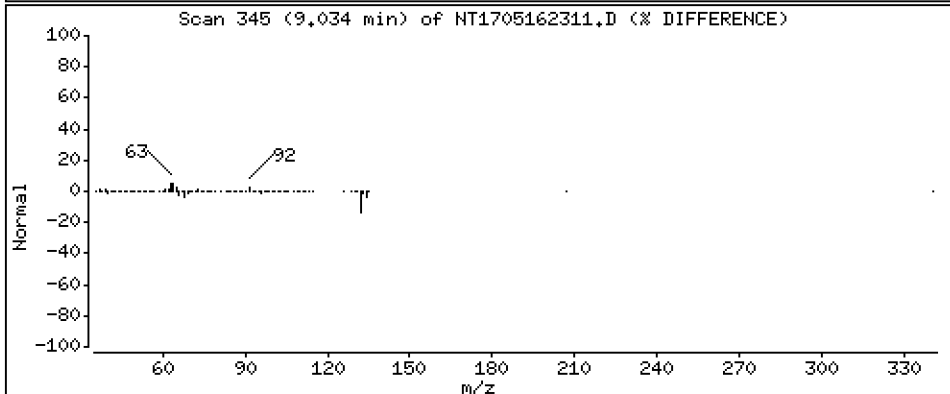
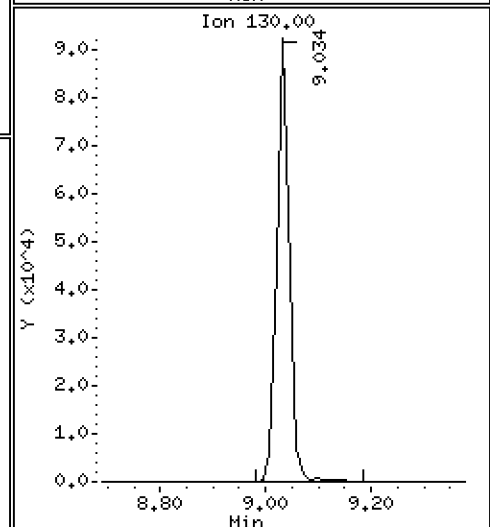
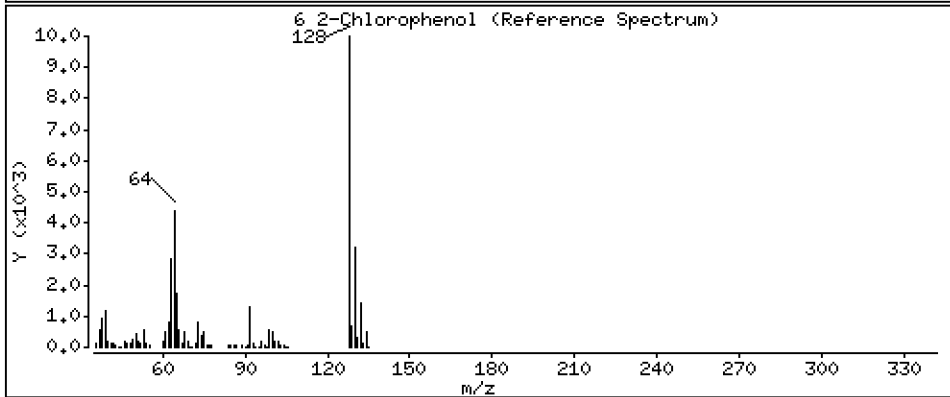
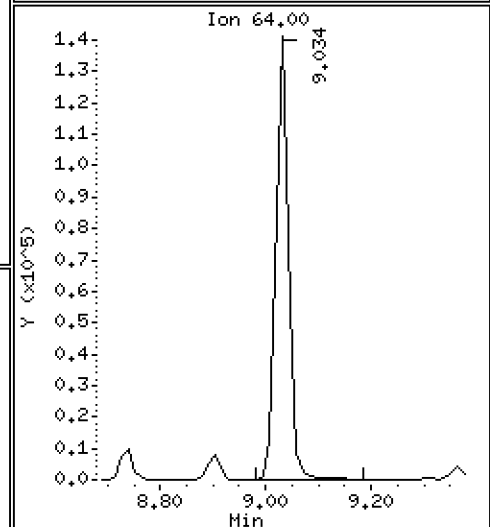
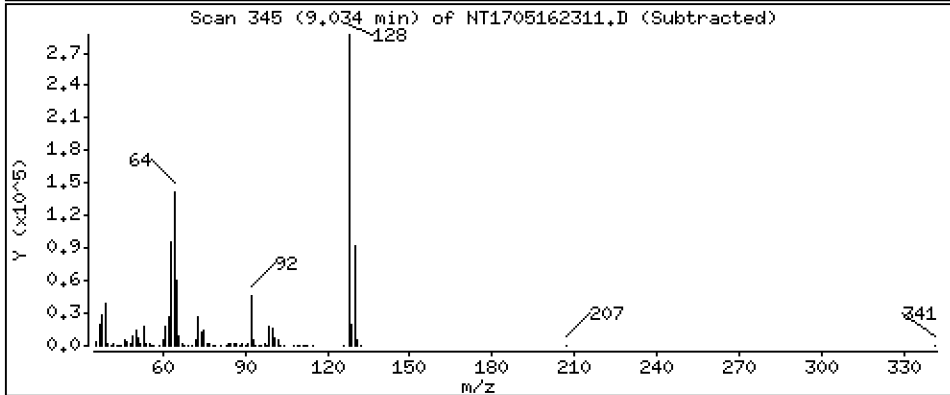
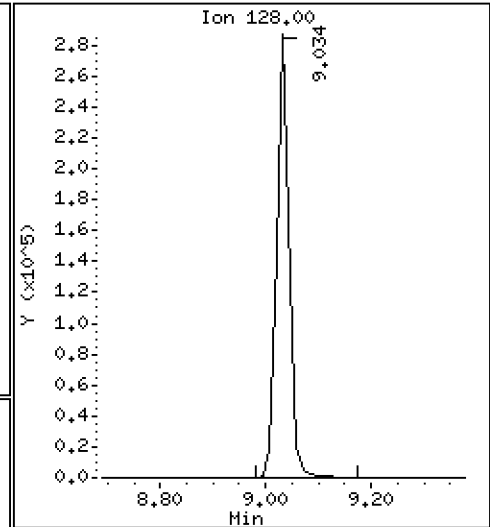
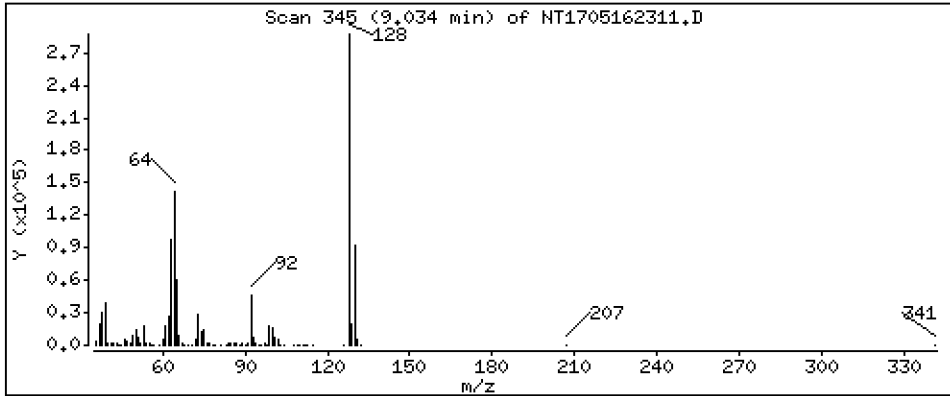
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 5.294 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

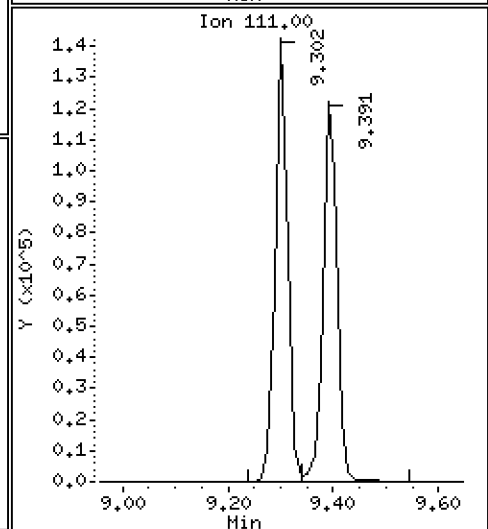
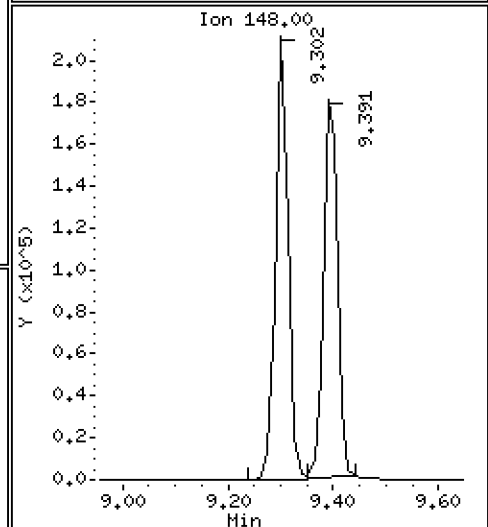
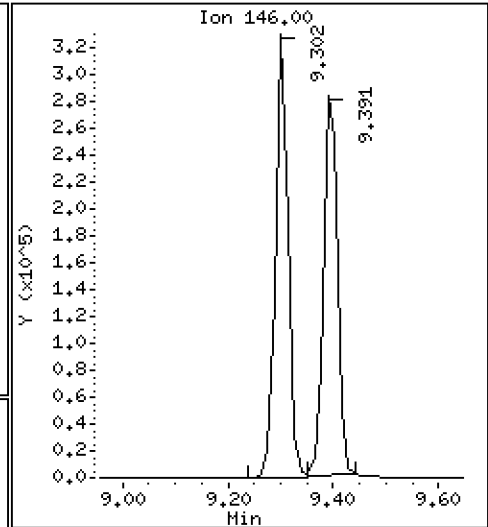
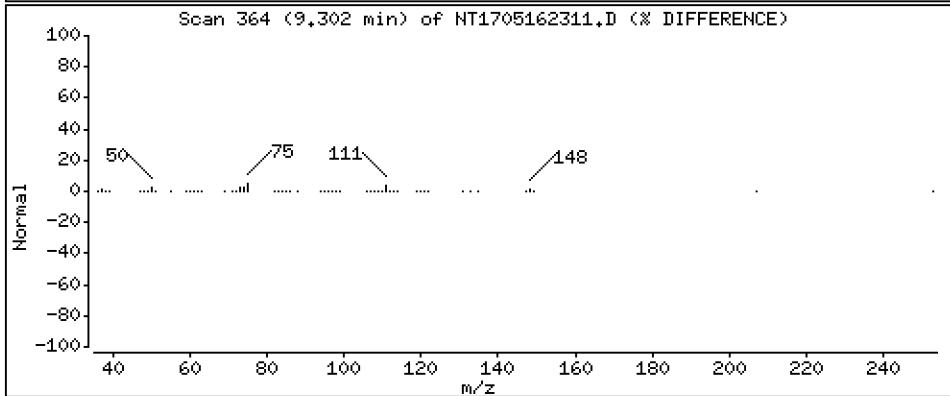
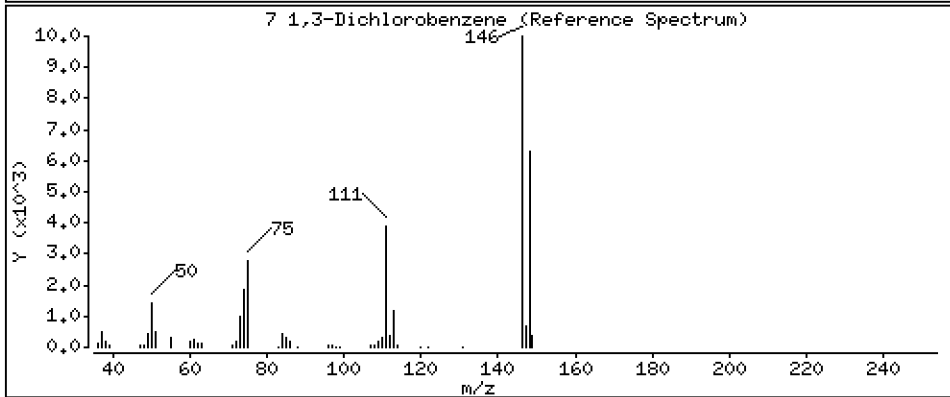
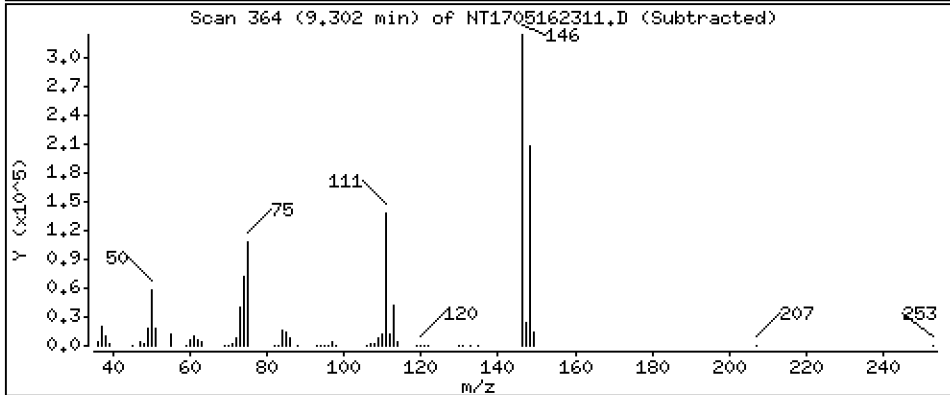
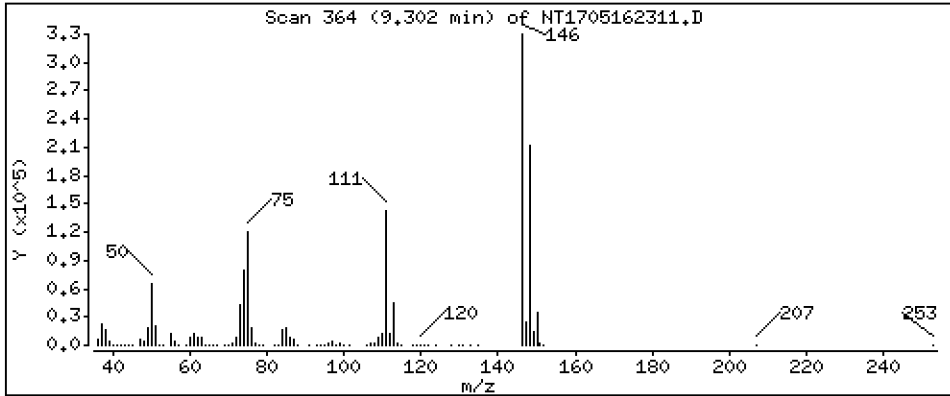
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.319 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

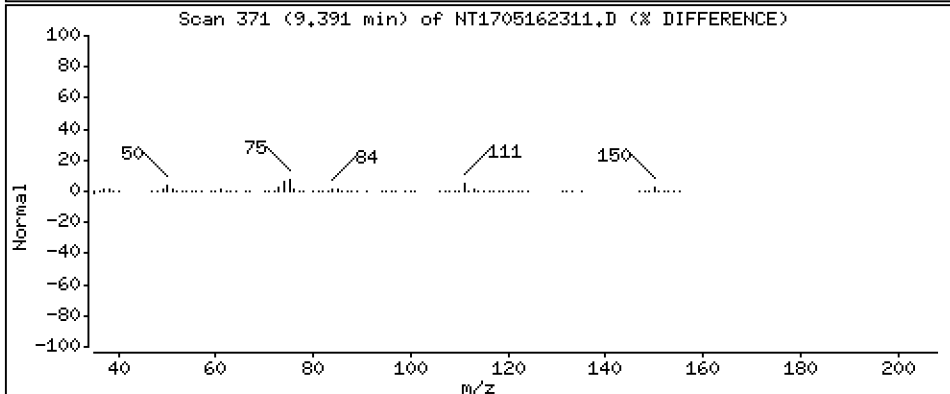
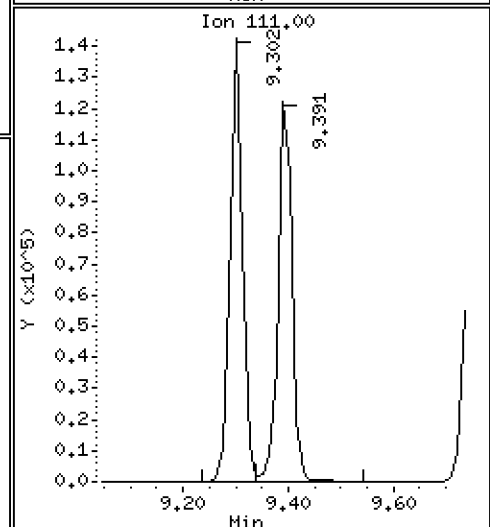
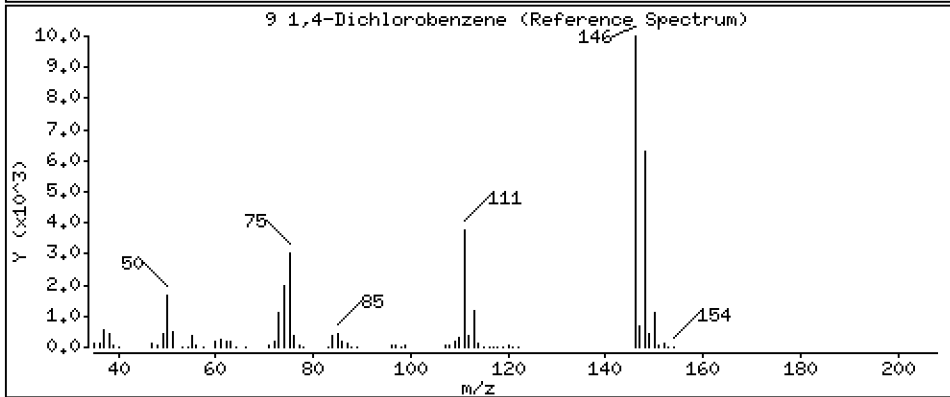
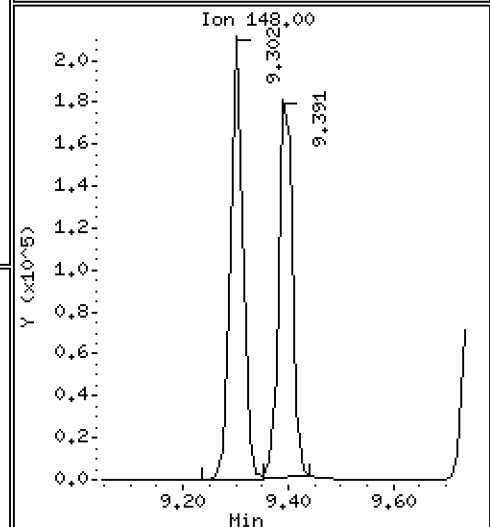
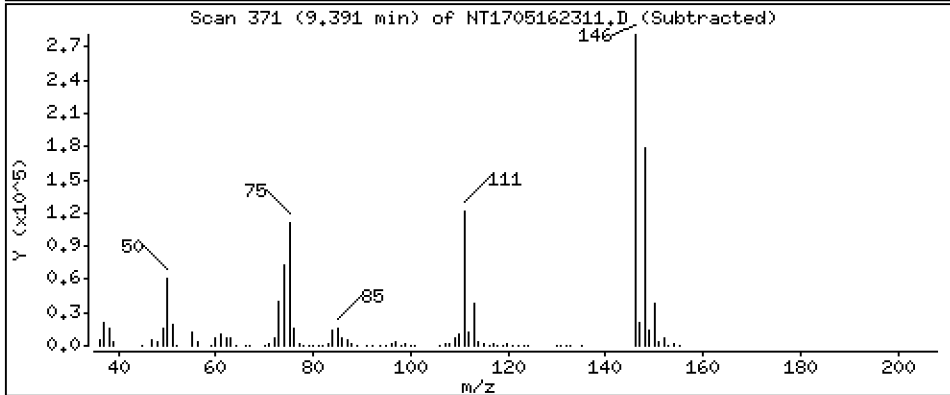
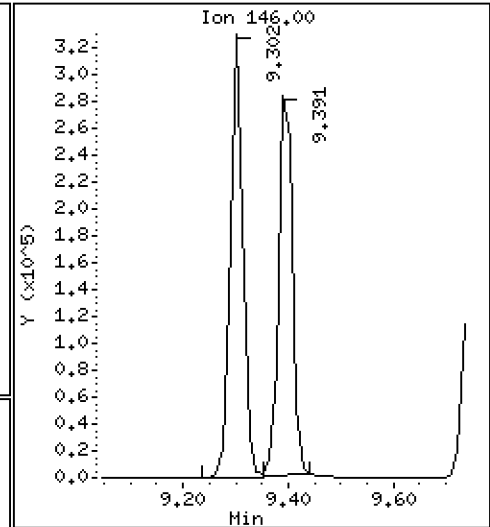
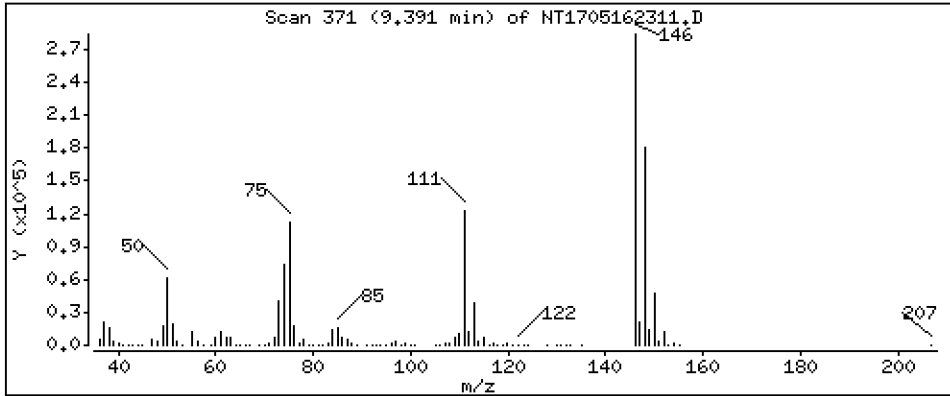
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.071 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

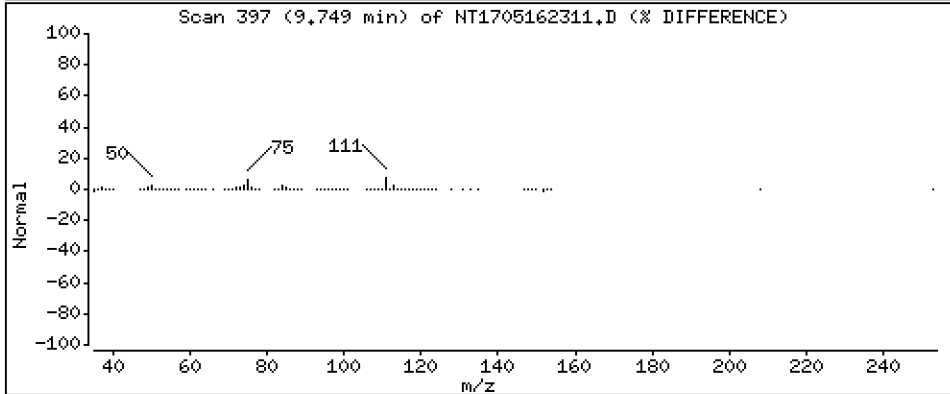
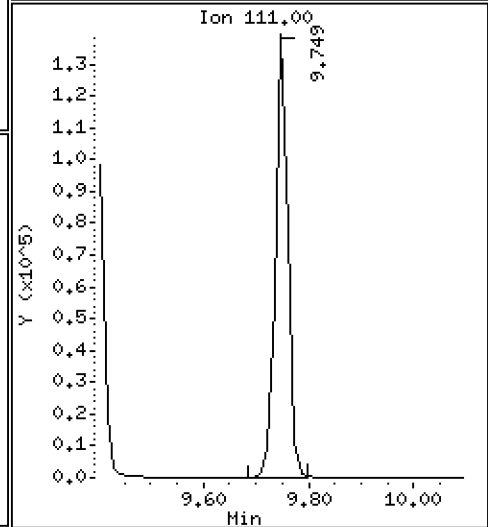
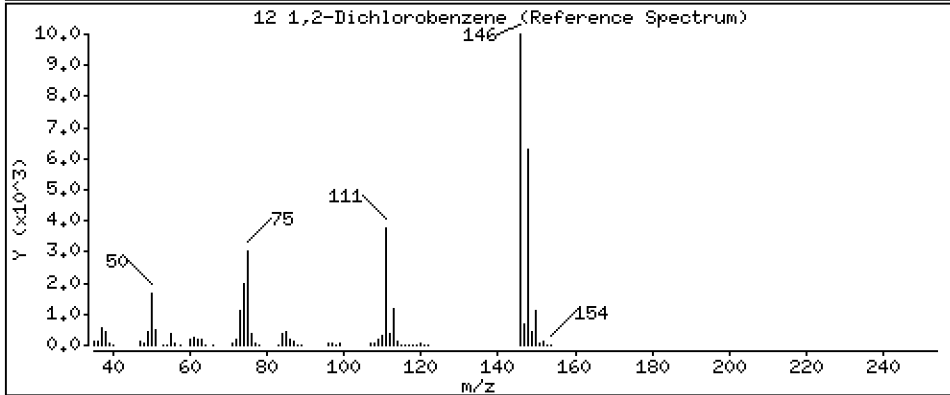
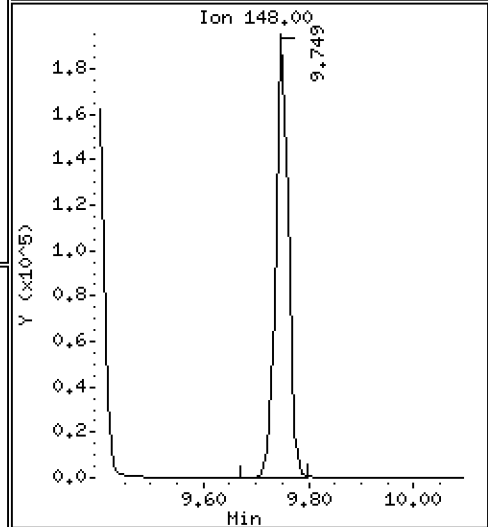
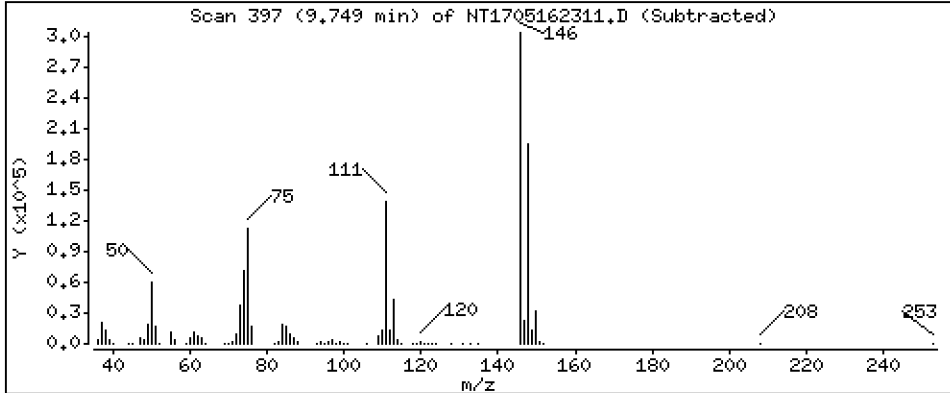
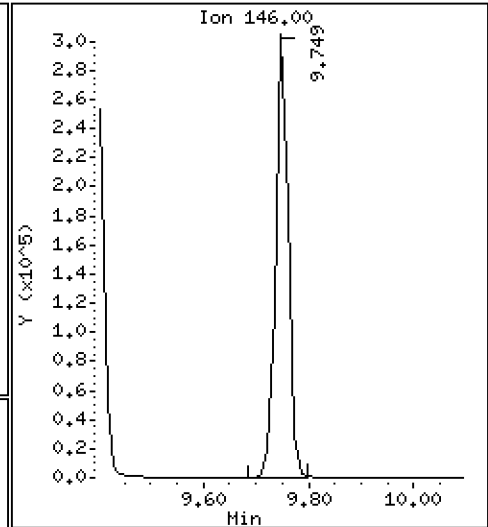
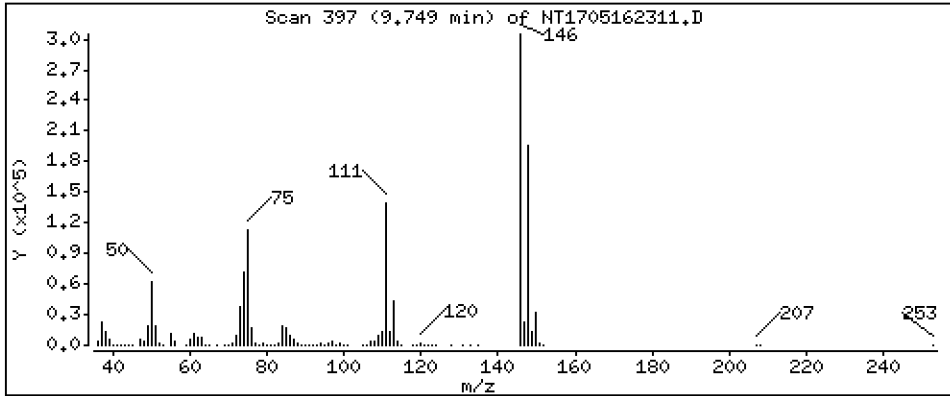
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.258 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

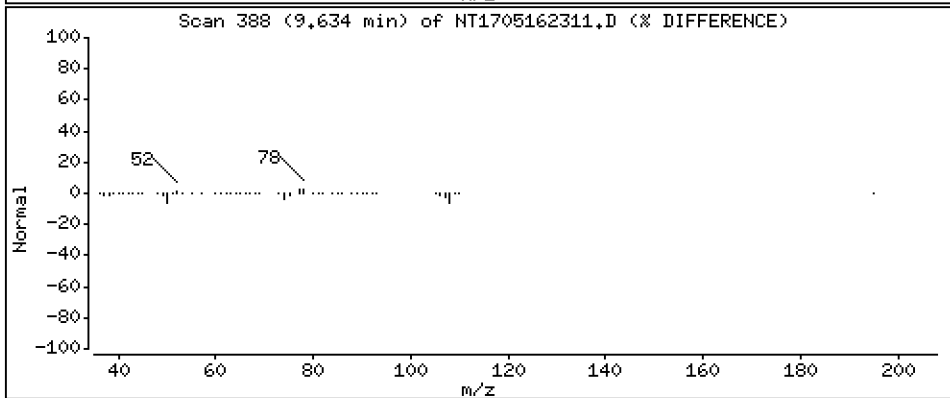
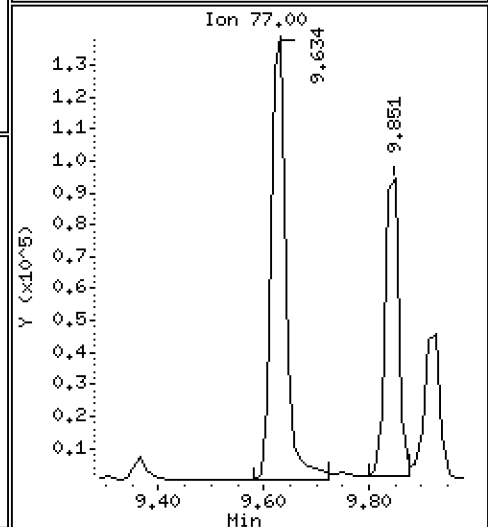
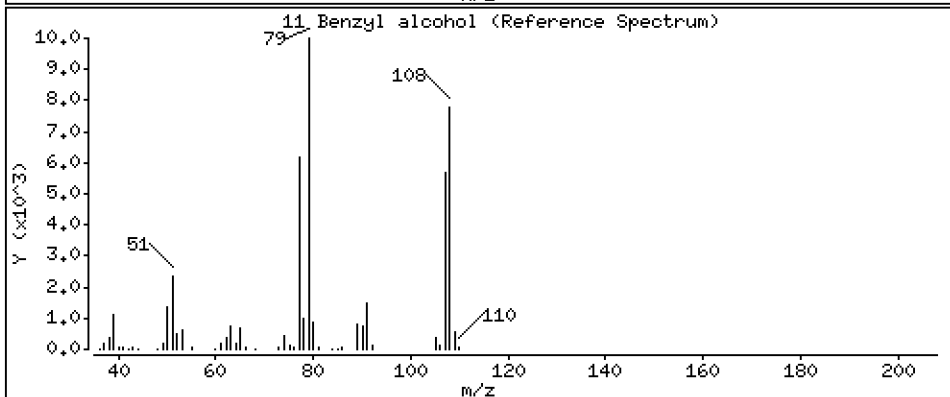
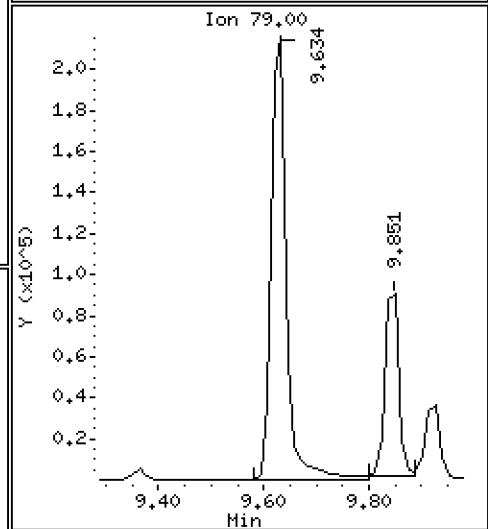
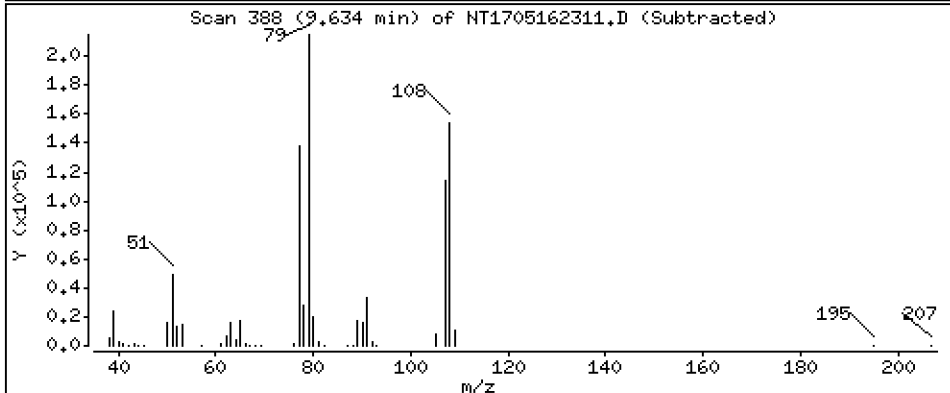
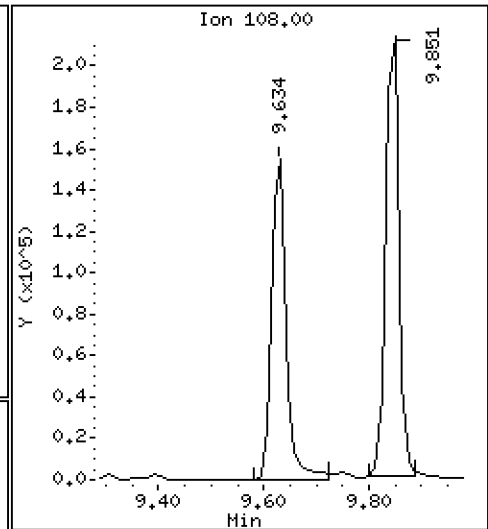
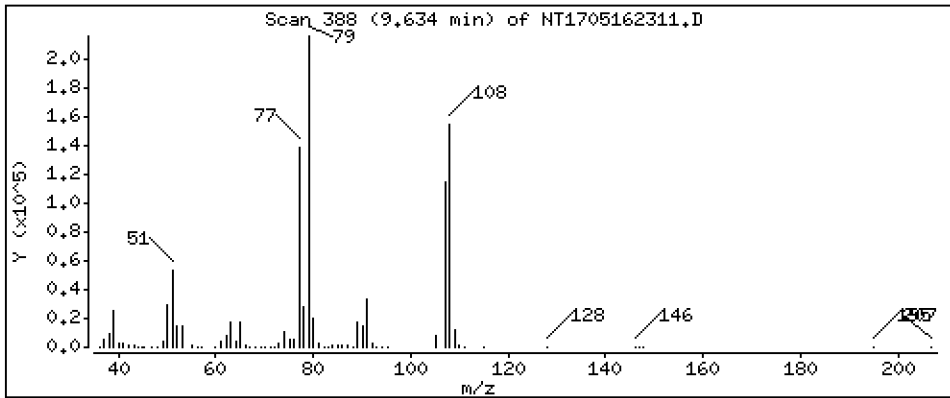
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.274 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

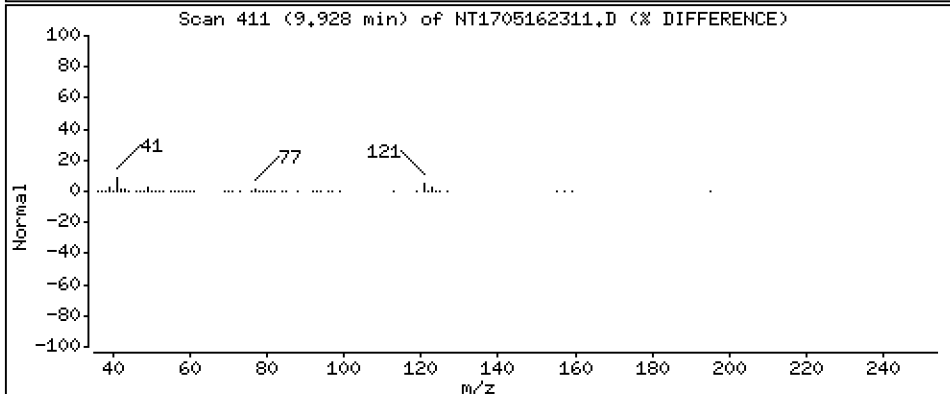
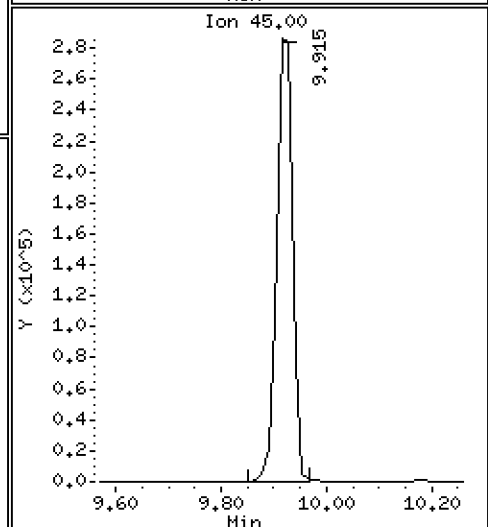
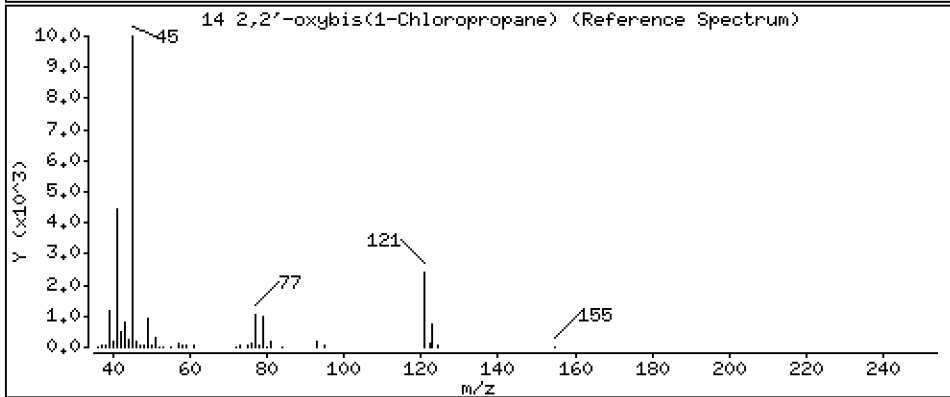
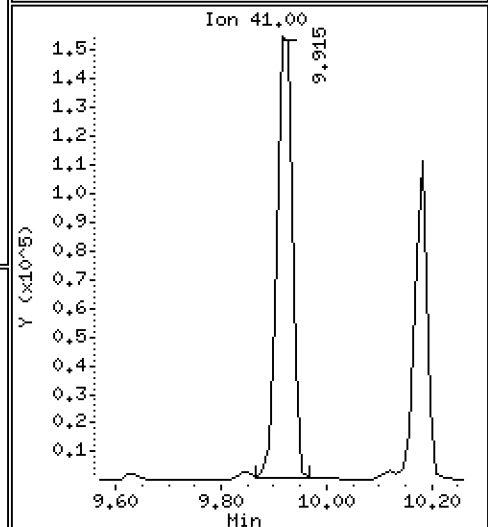
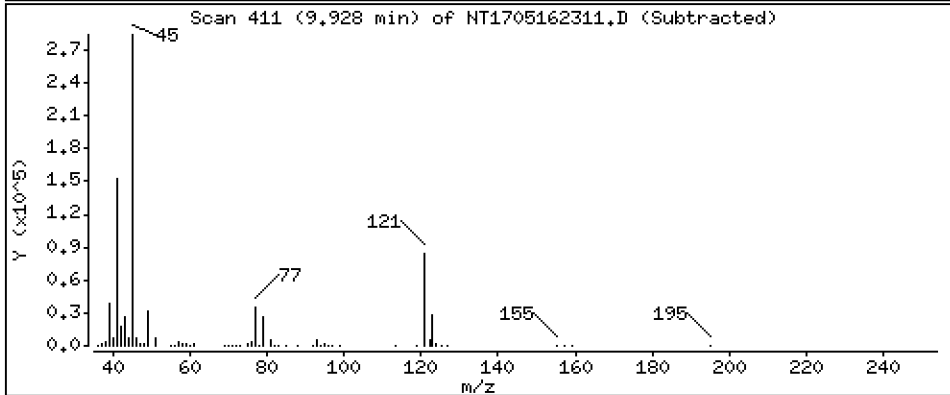
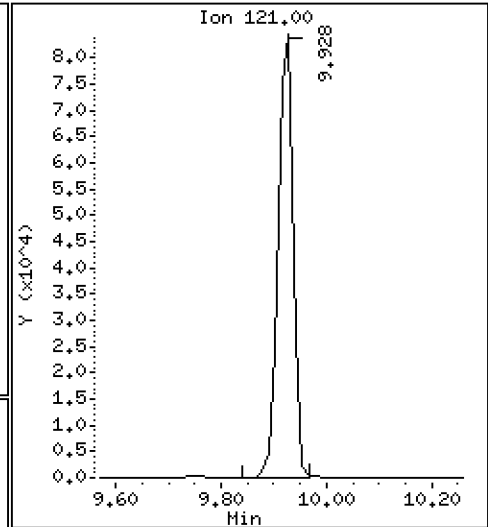
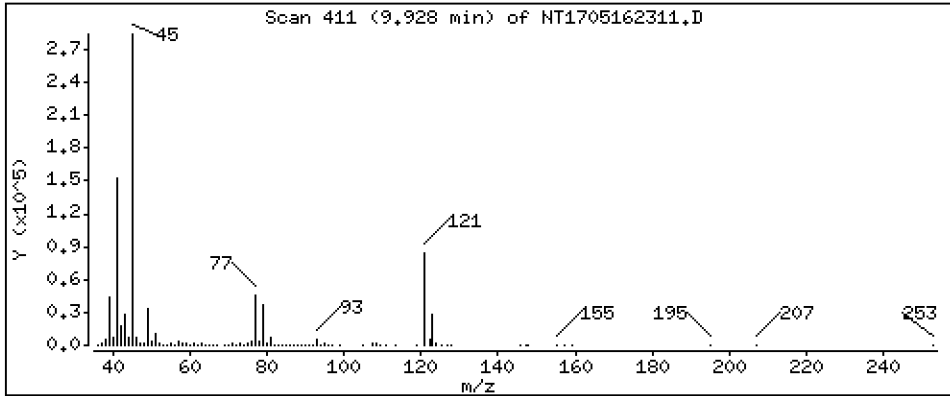
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 6,179 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

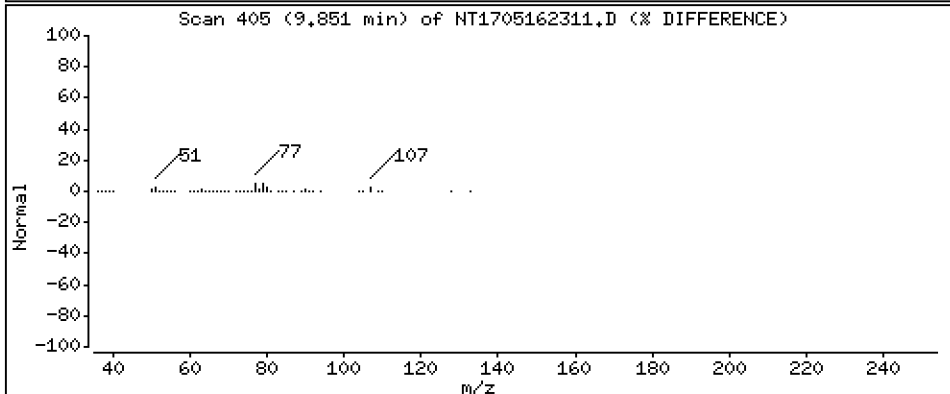
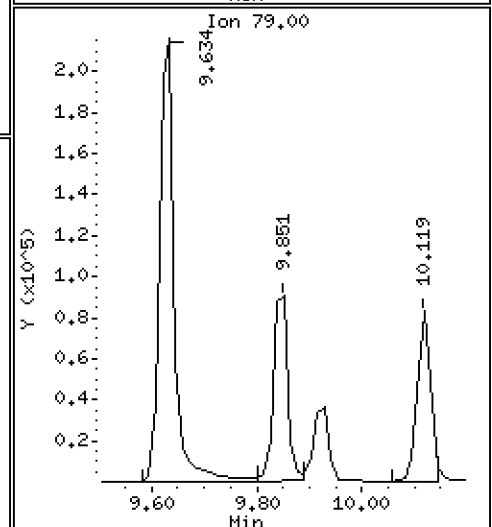
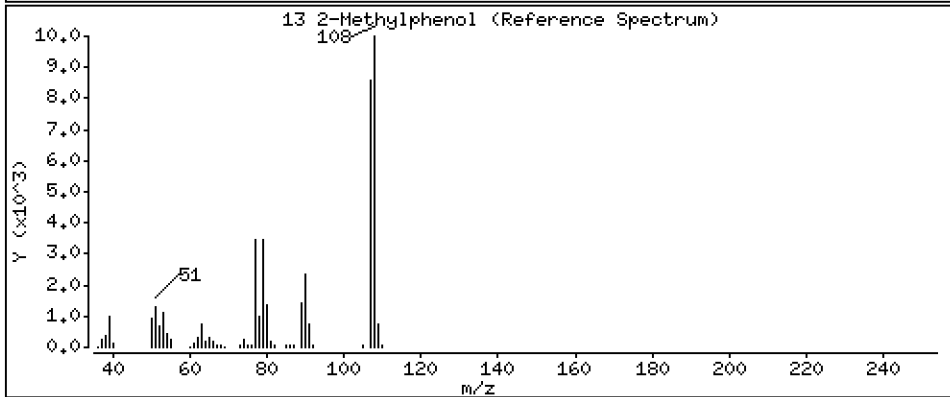
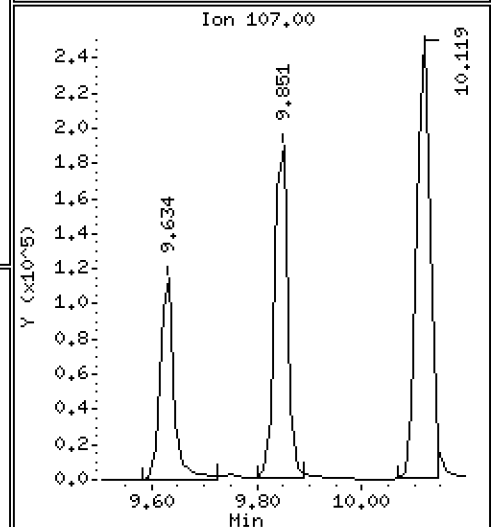
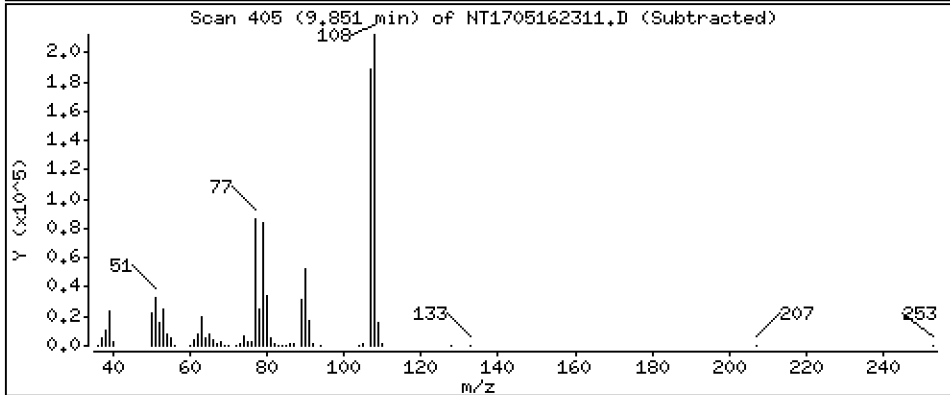
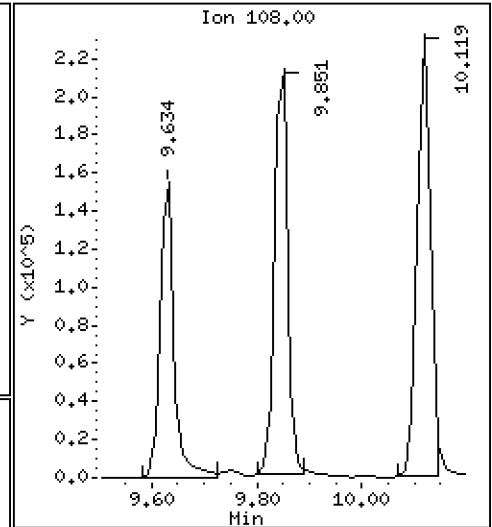
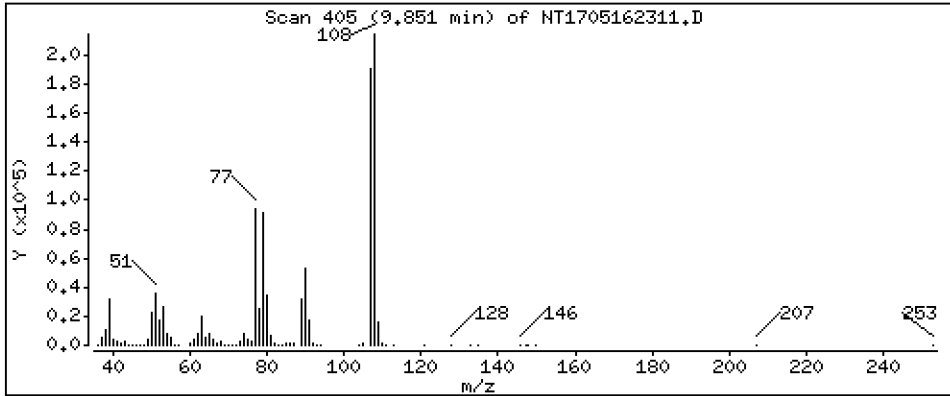
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,229 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

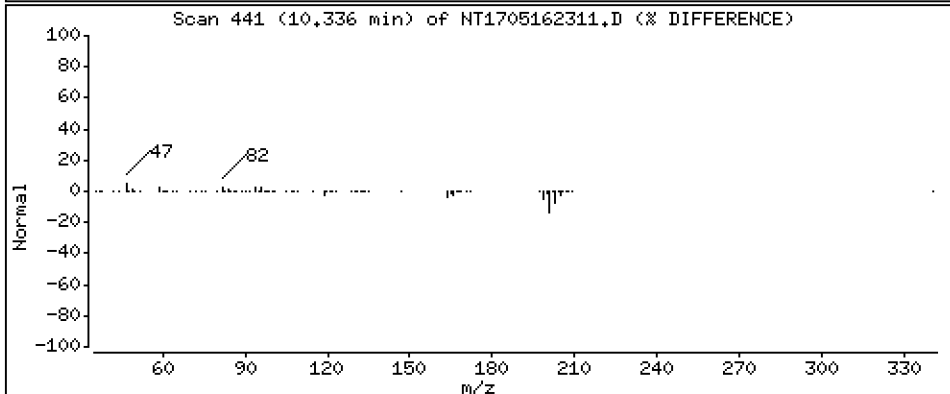
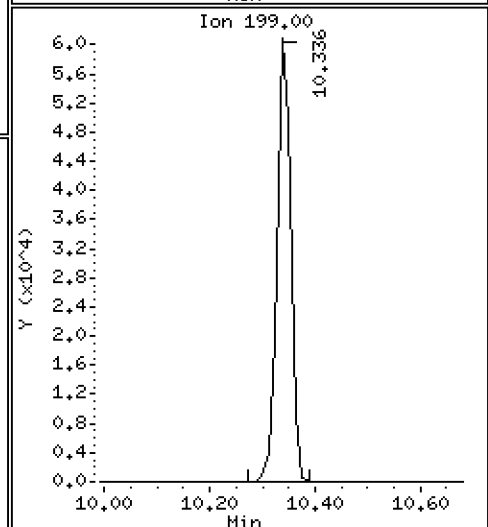
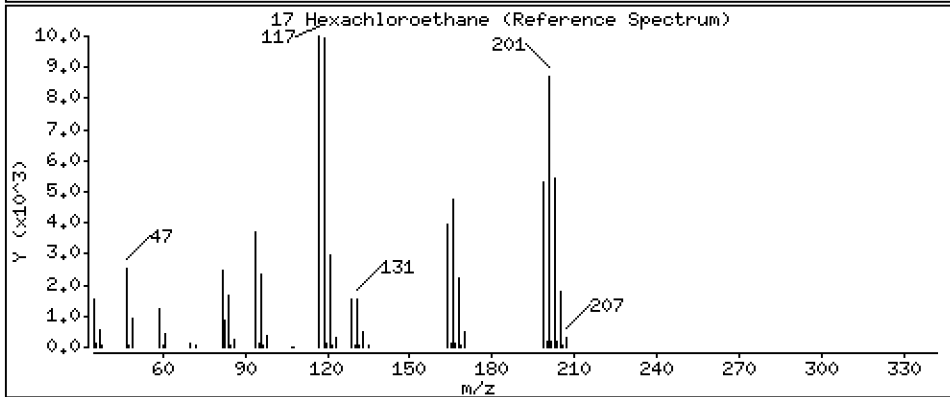
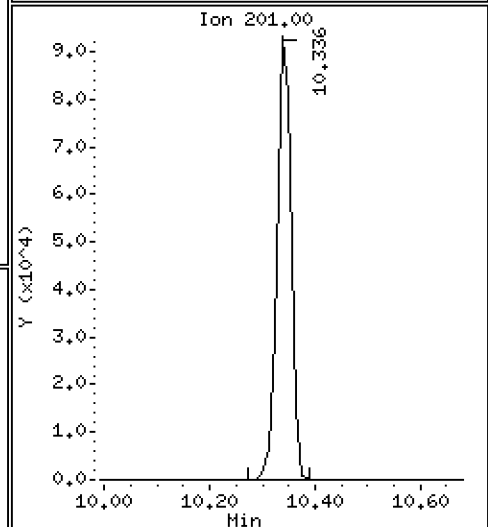
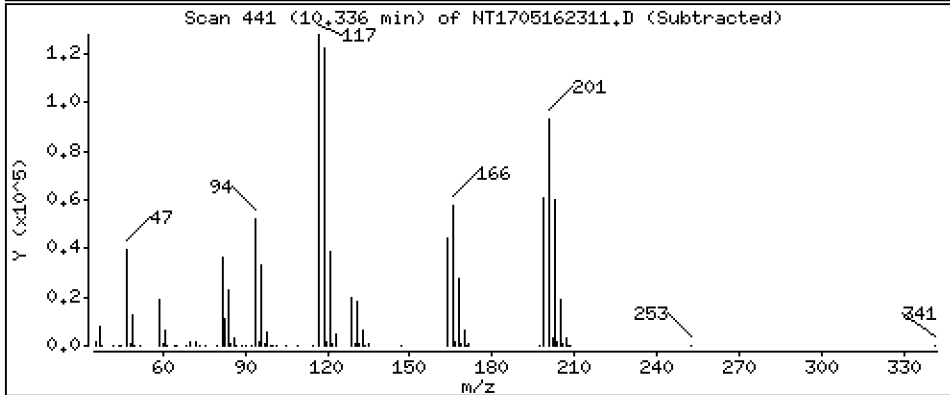
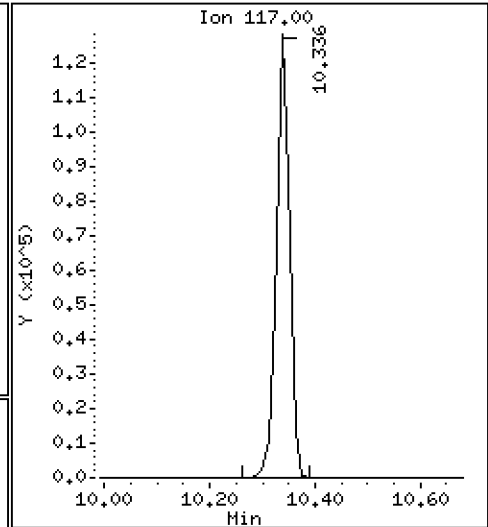
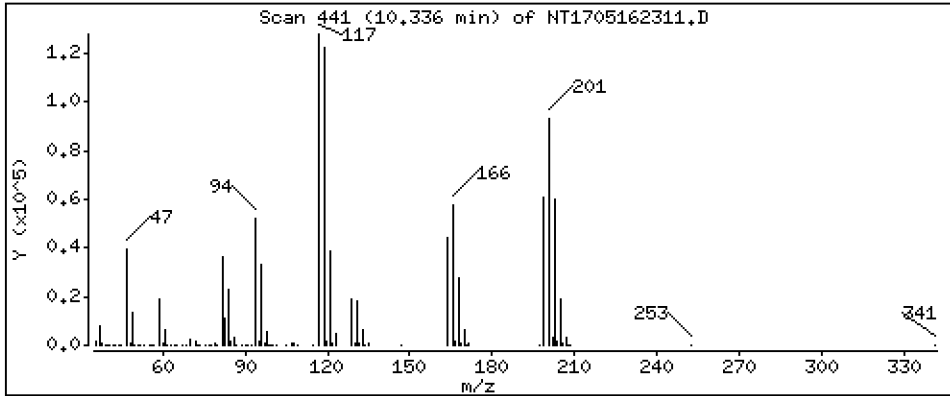
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 5,419 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

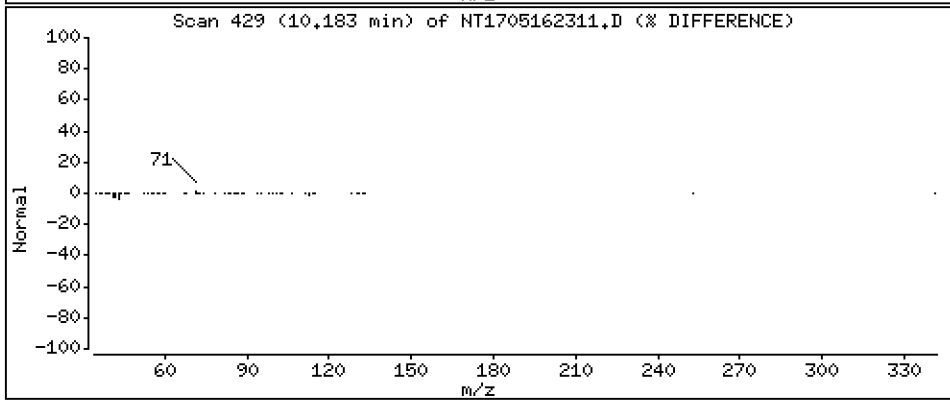
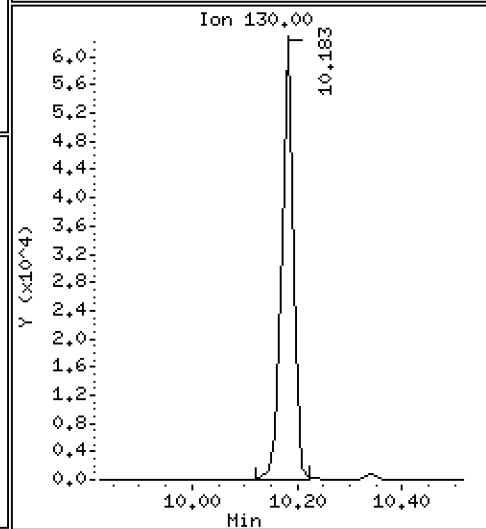
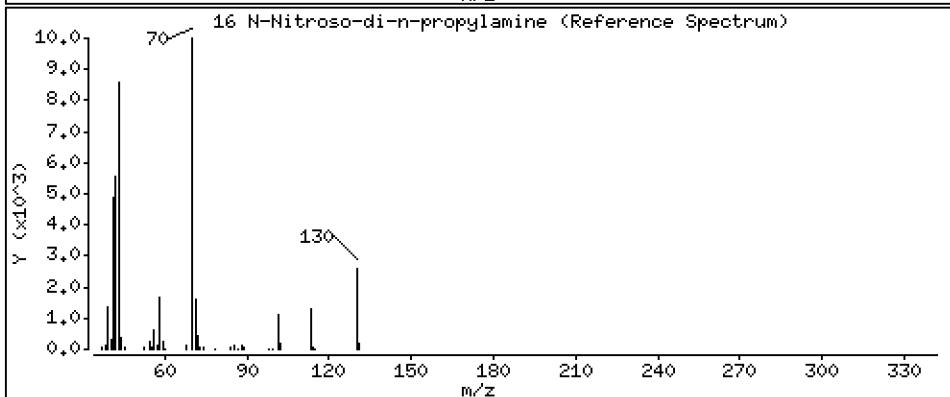
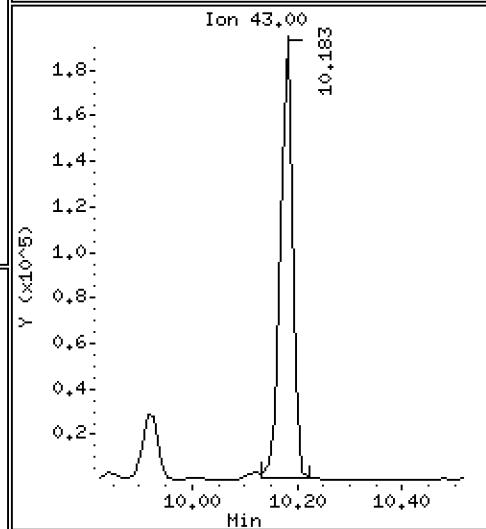
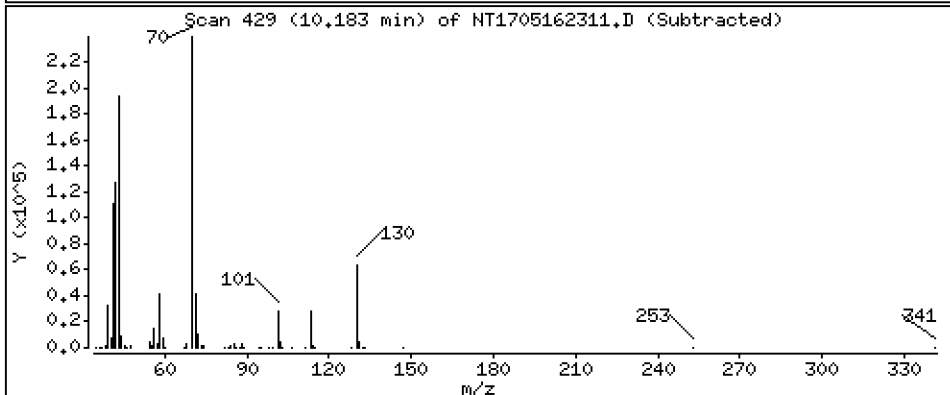
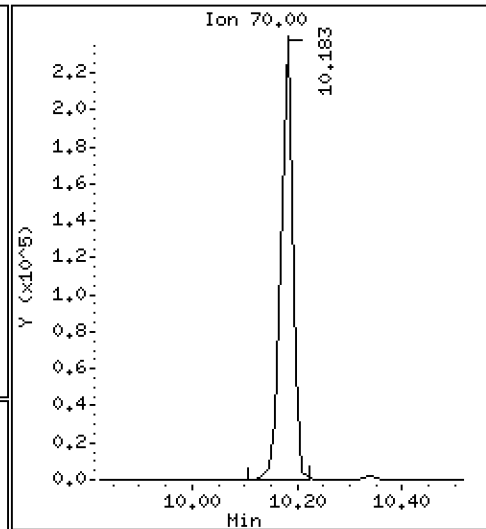
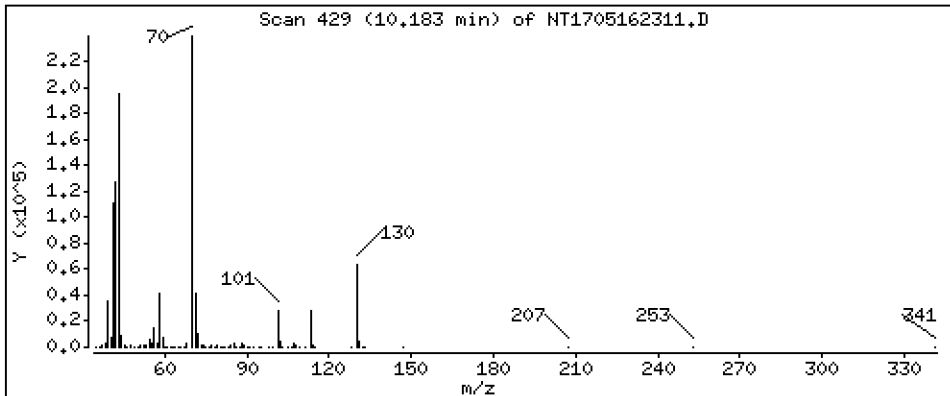
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,517 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

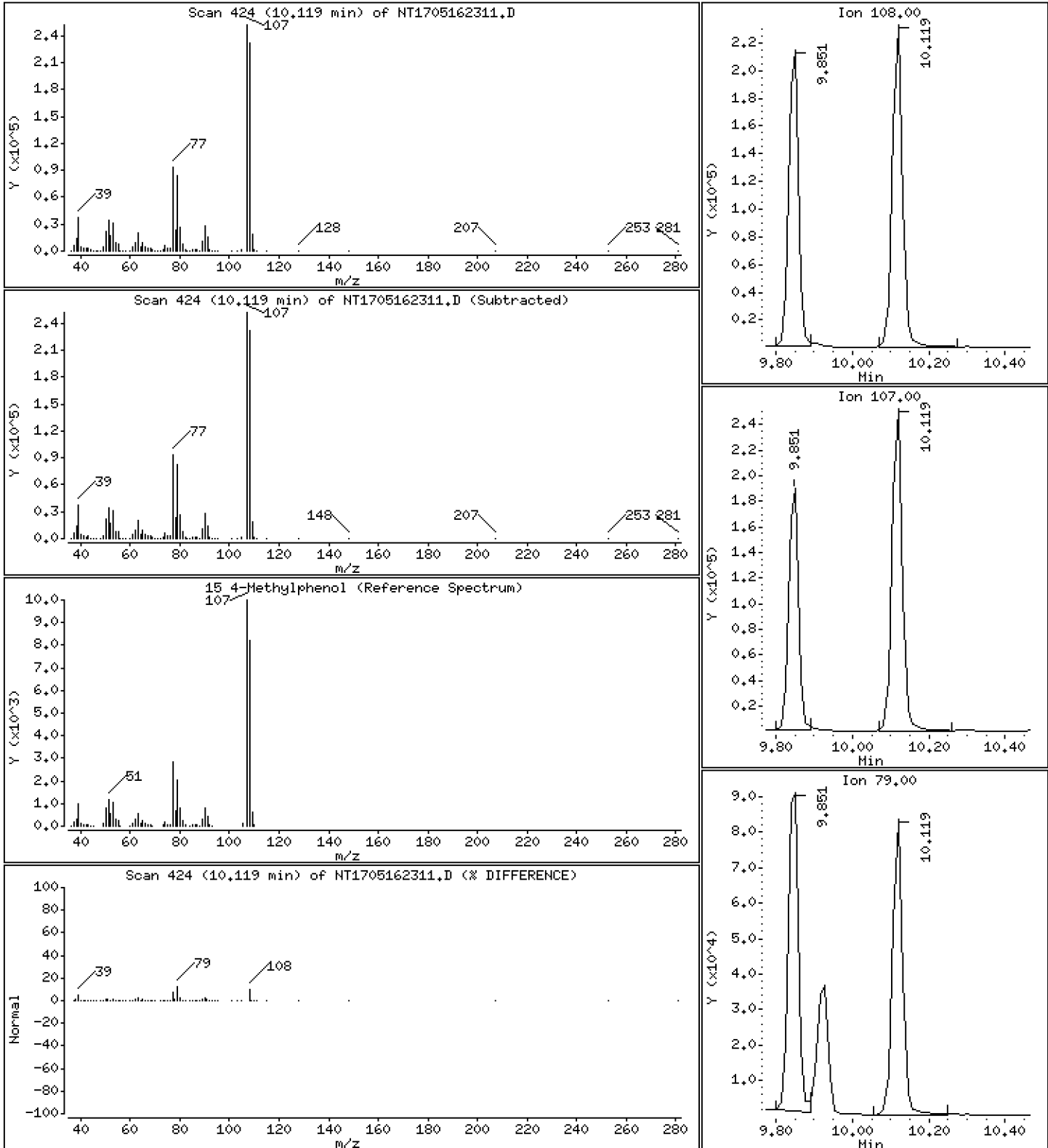
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.661 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

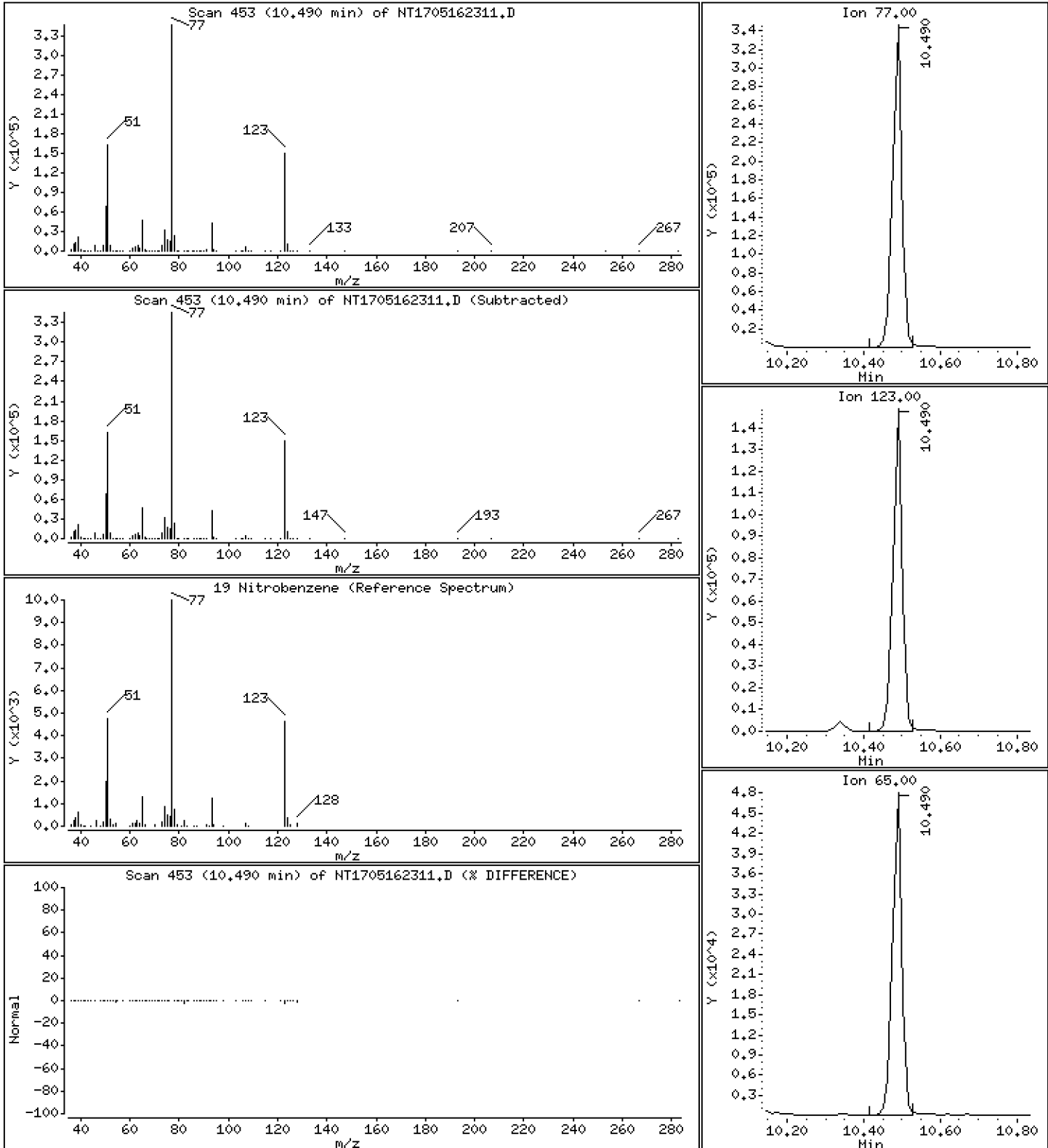
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 5,329 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

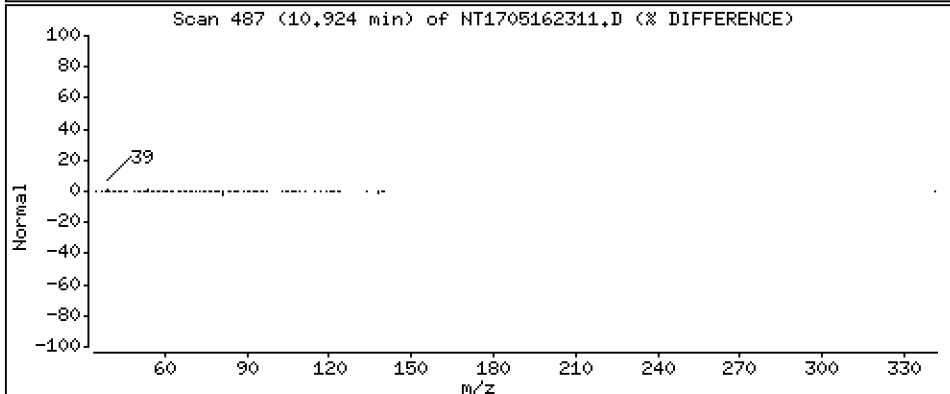
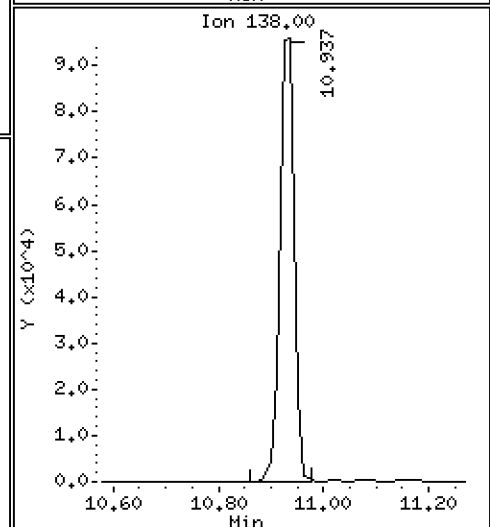
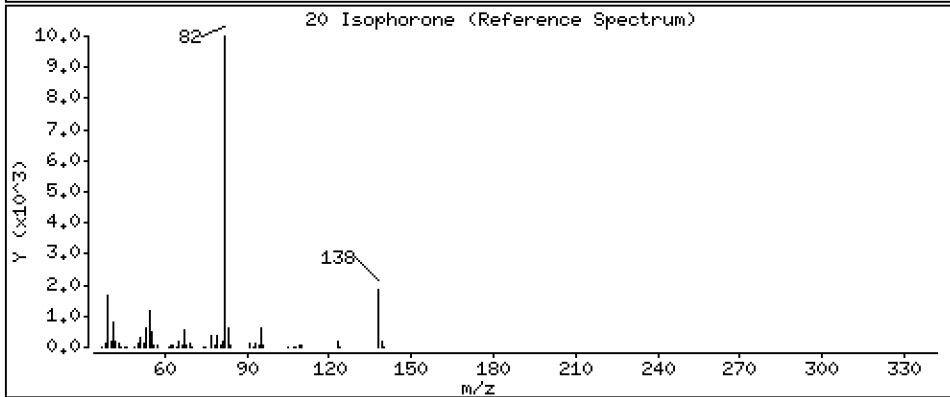
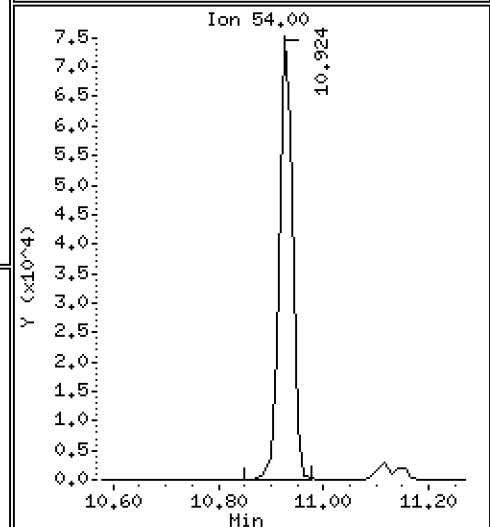
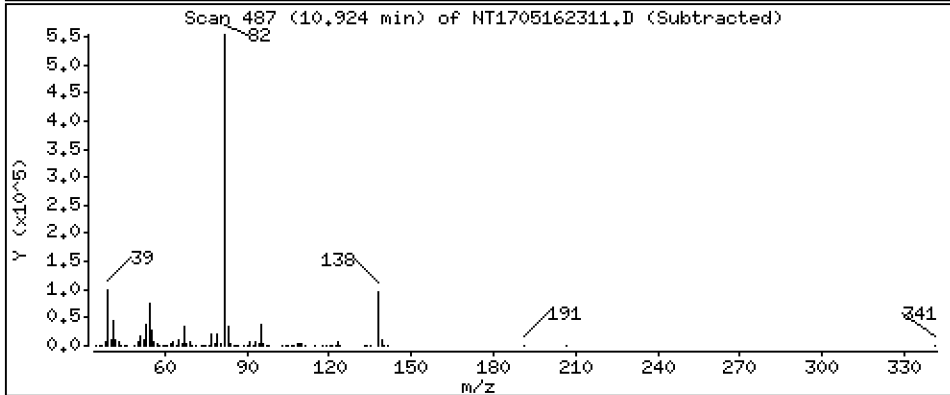
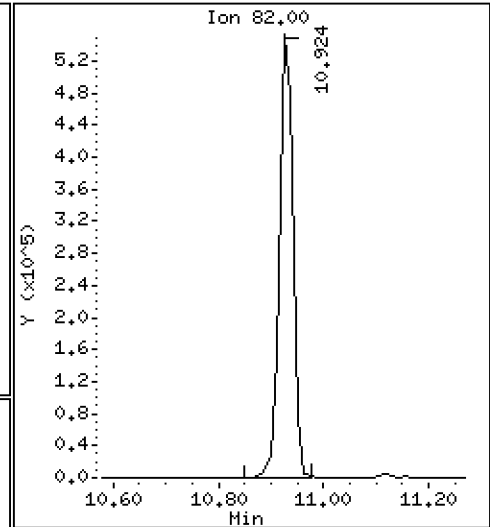
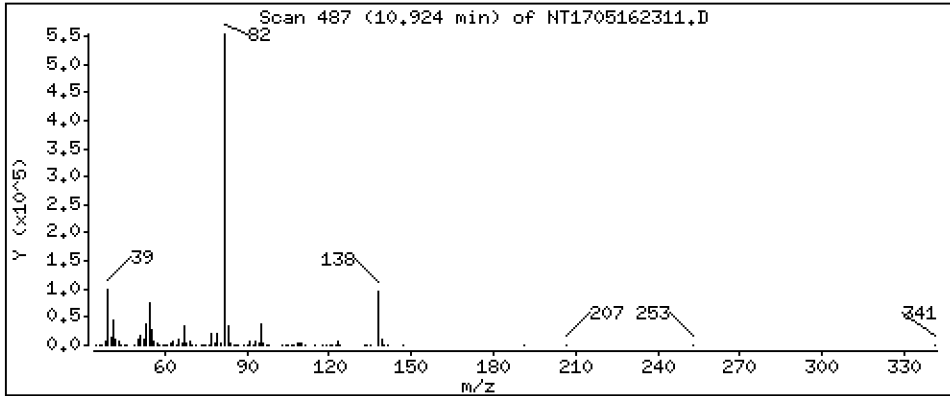
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 6,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

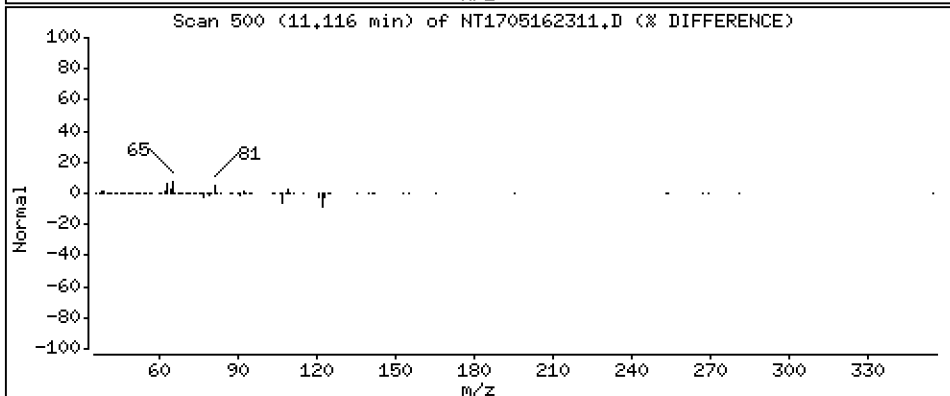
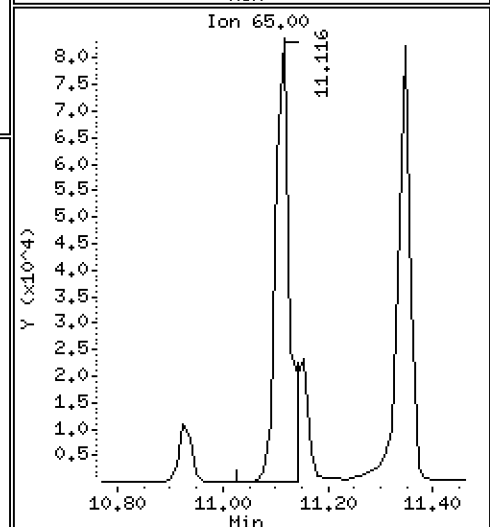
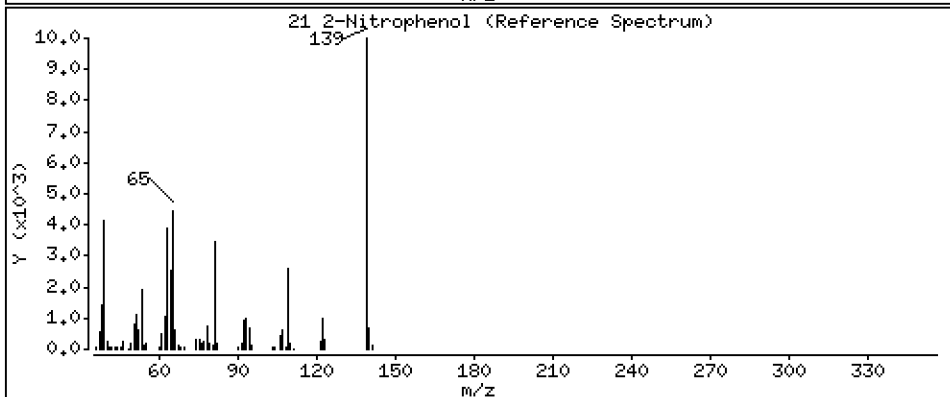
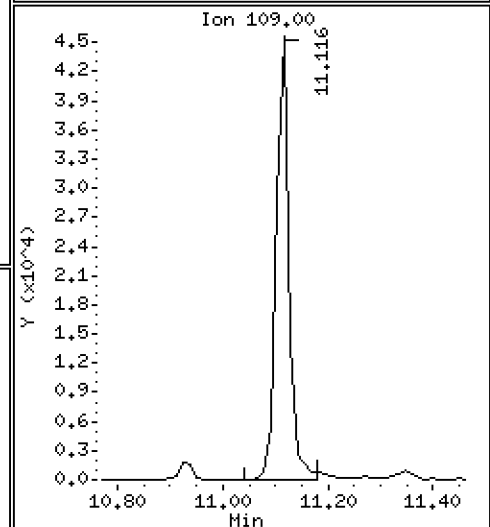
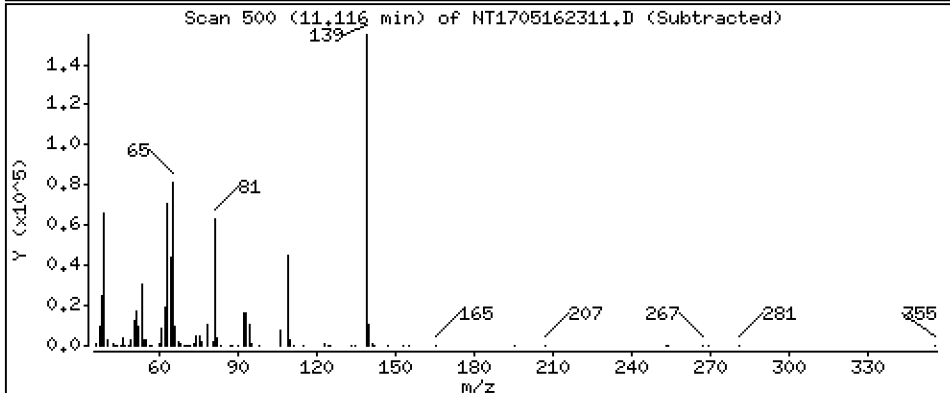
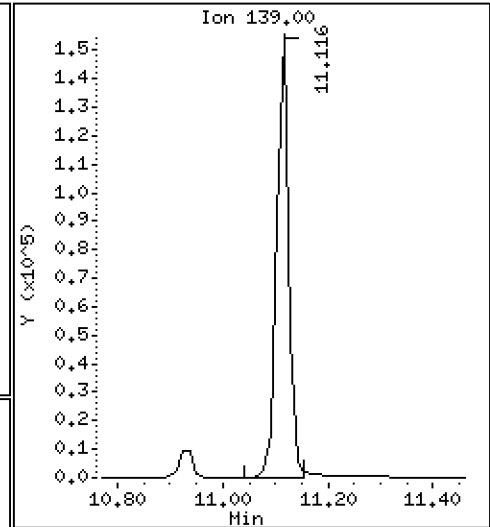
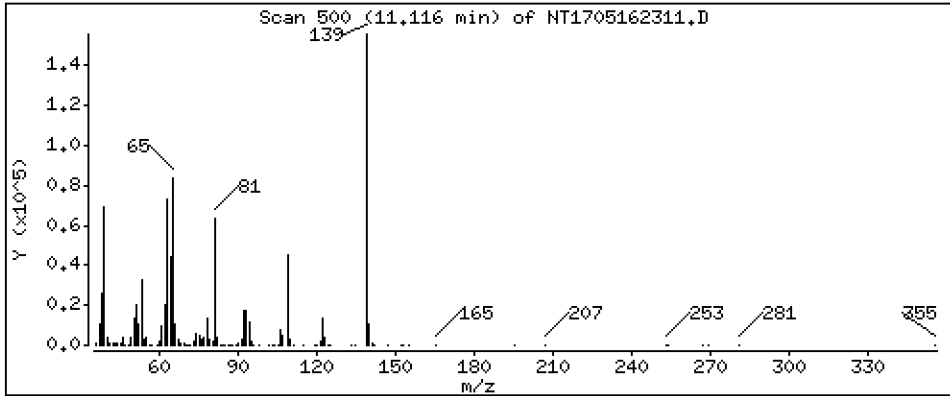
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,899 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

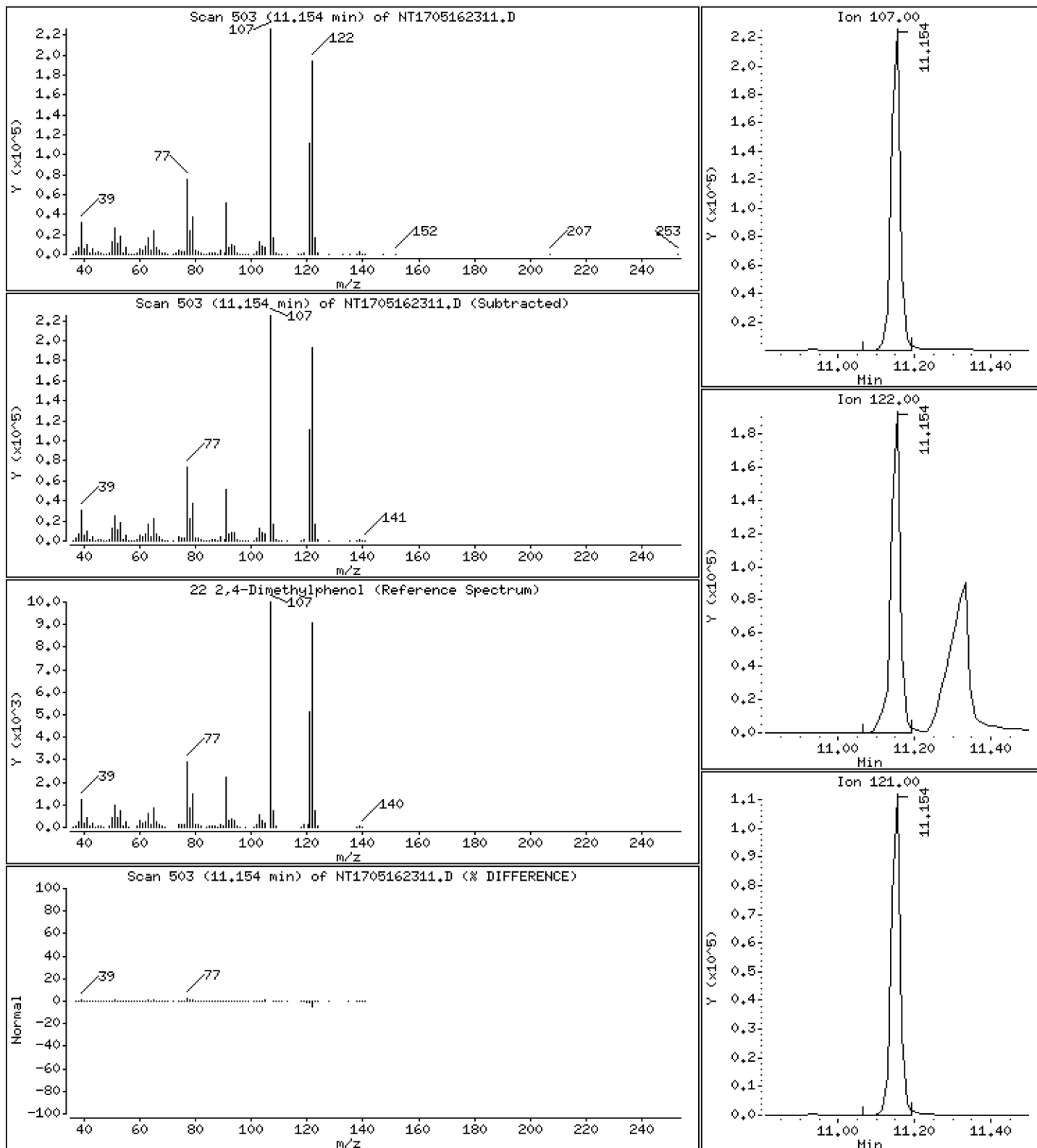
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

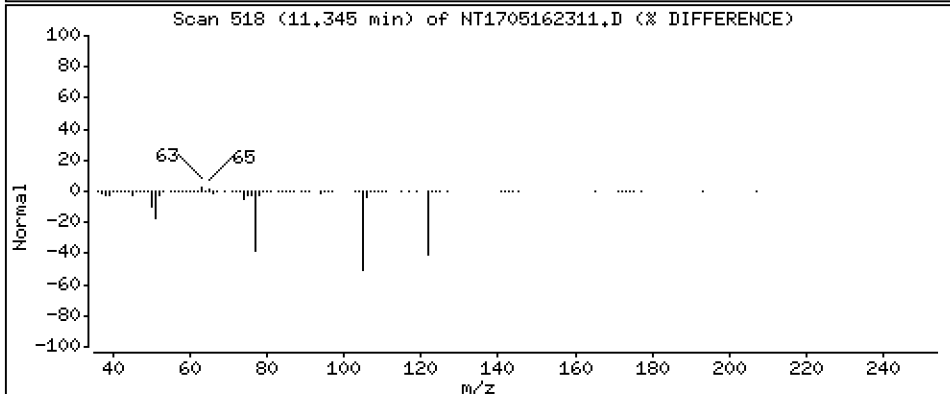
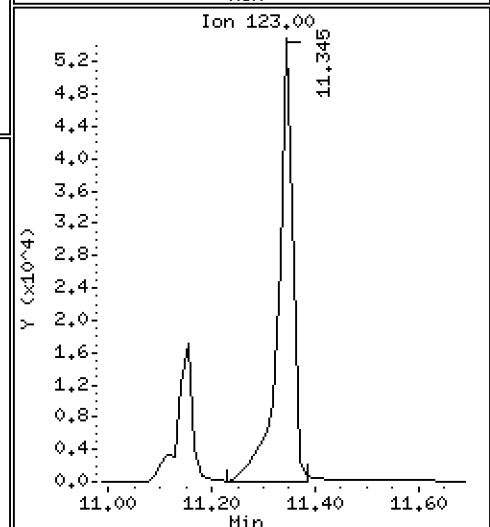
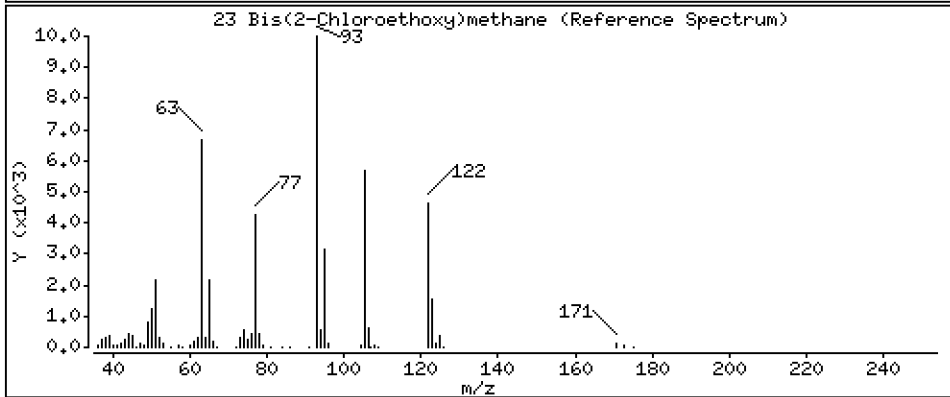
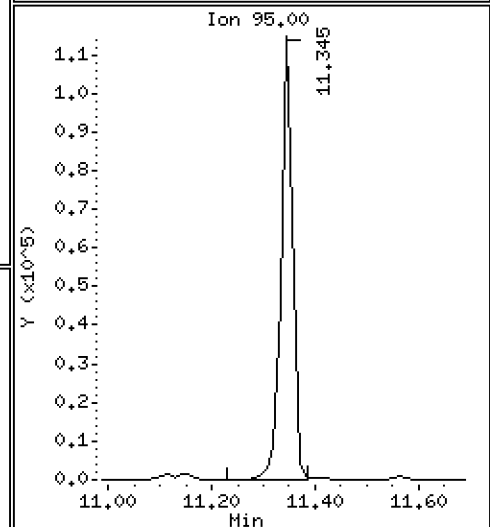
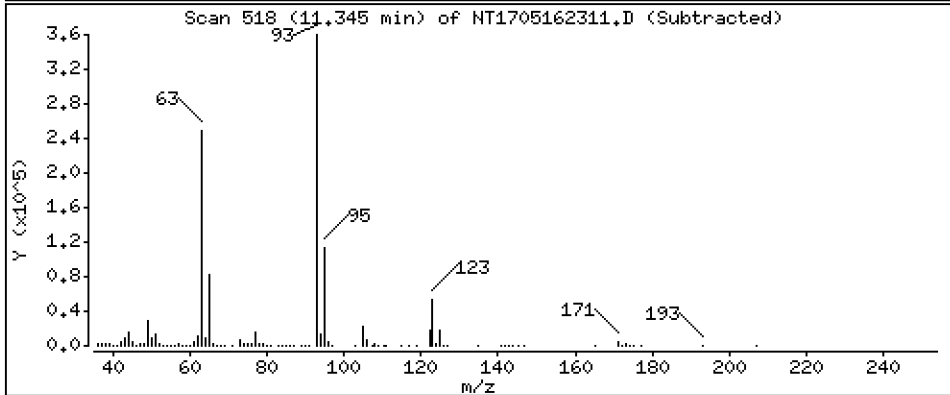
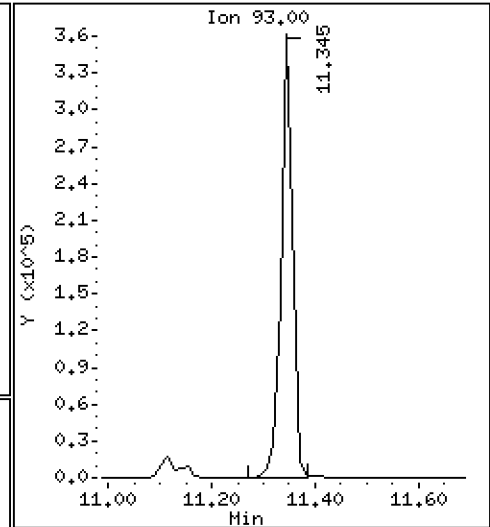
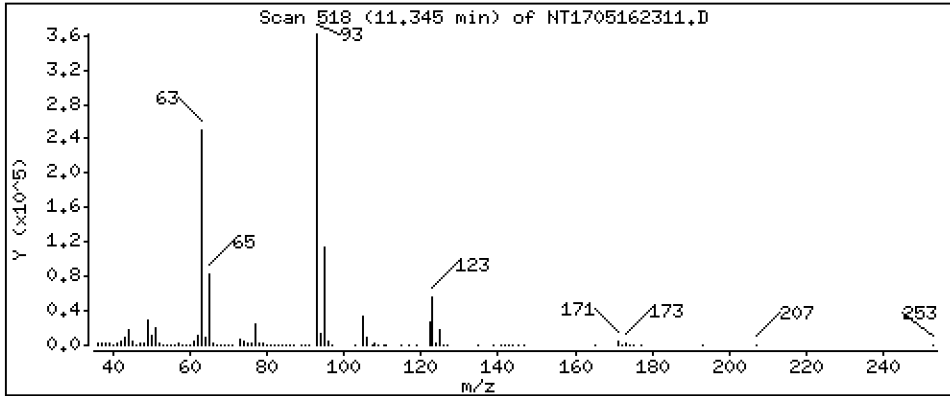
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 6,232 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

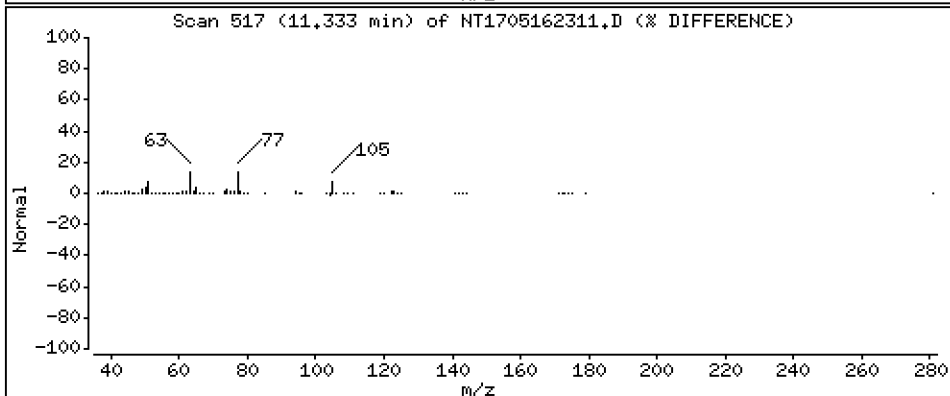
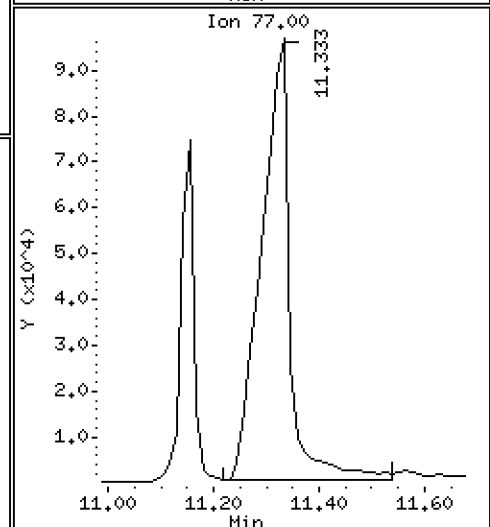
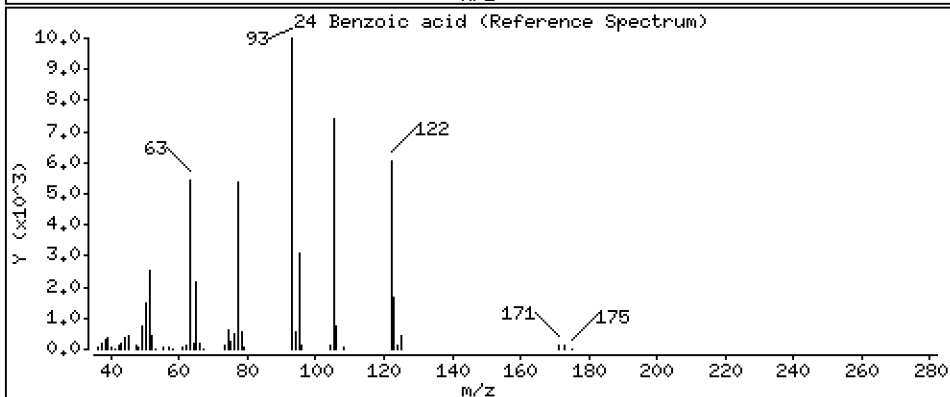
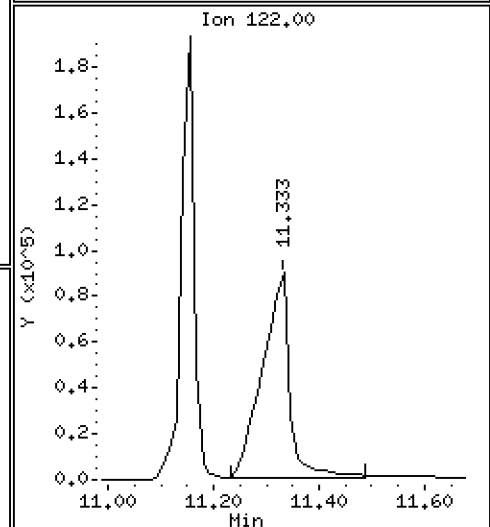
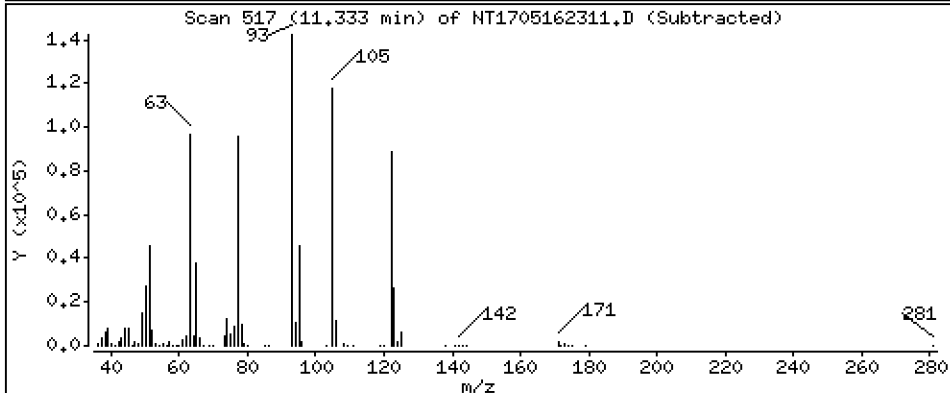
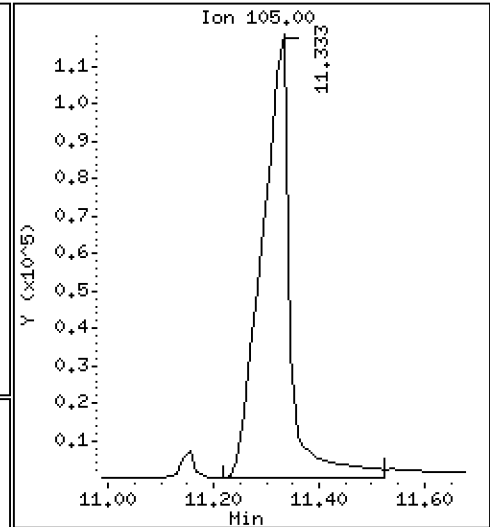
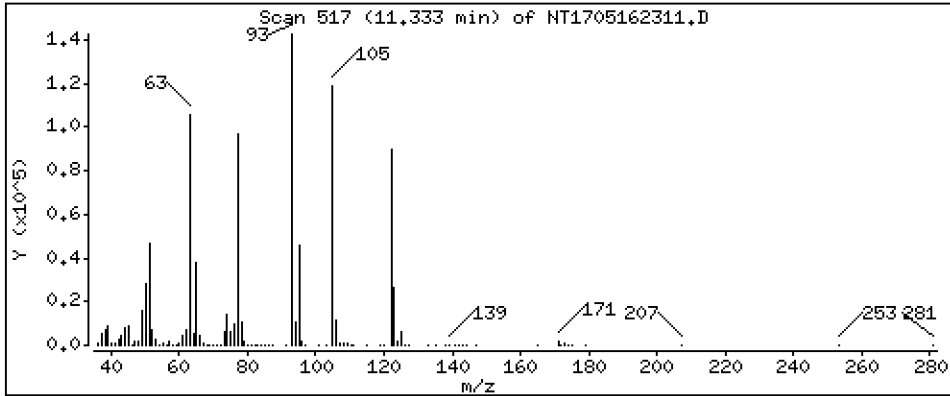
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 6.761 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

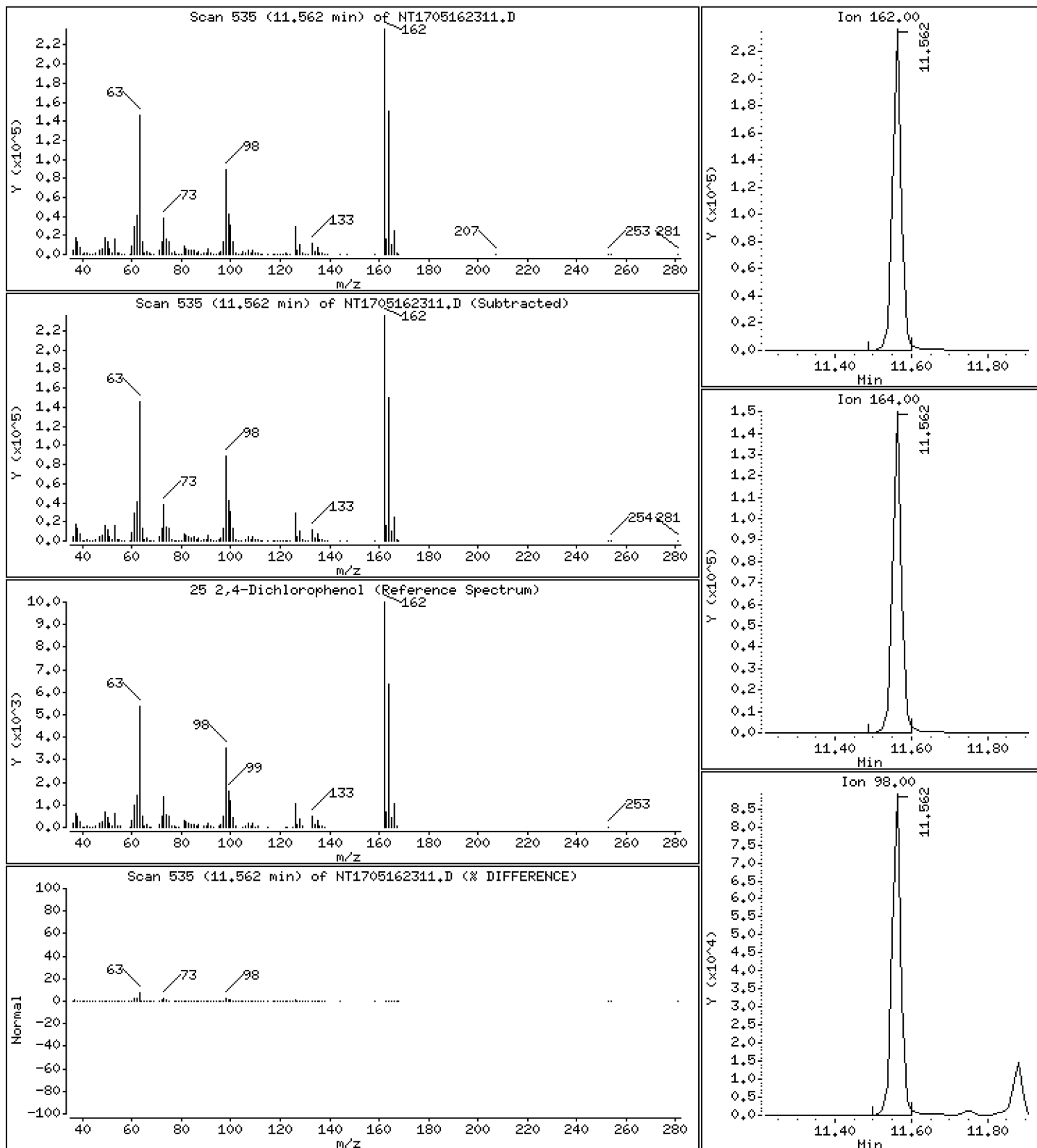
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,707 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

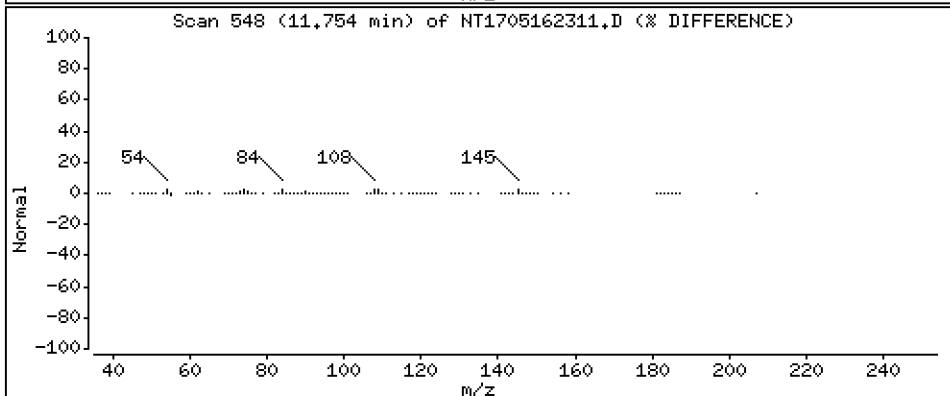
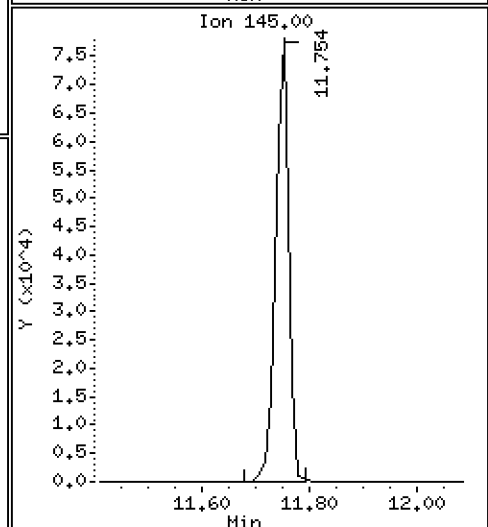
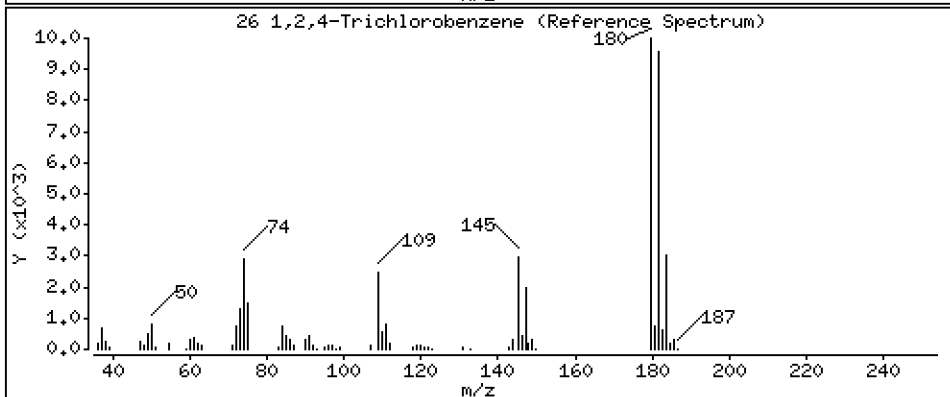
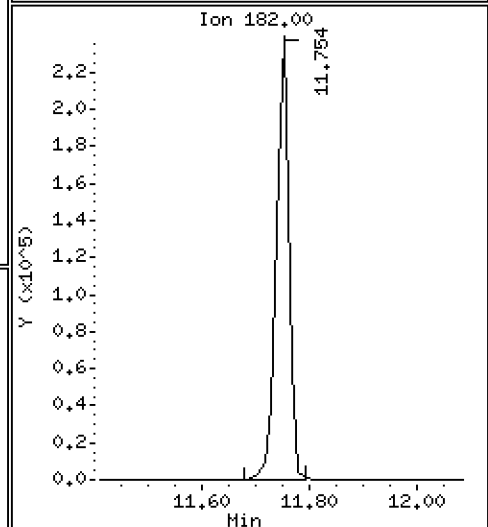
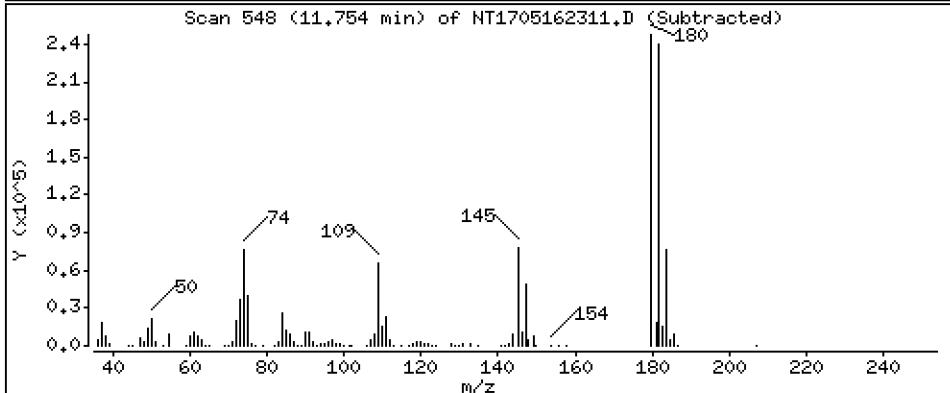
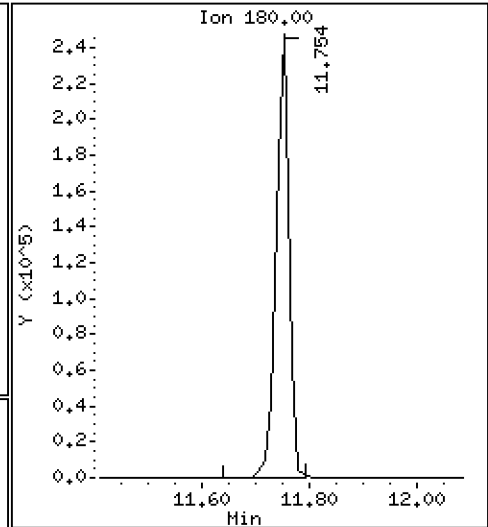
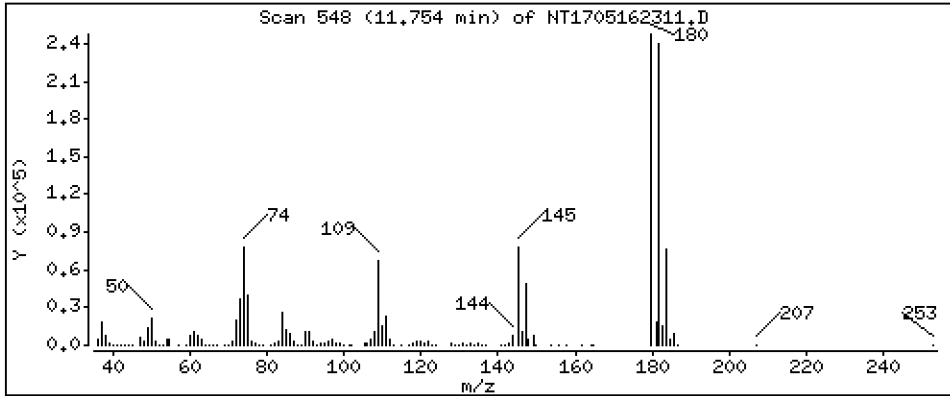
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 5,879 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

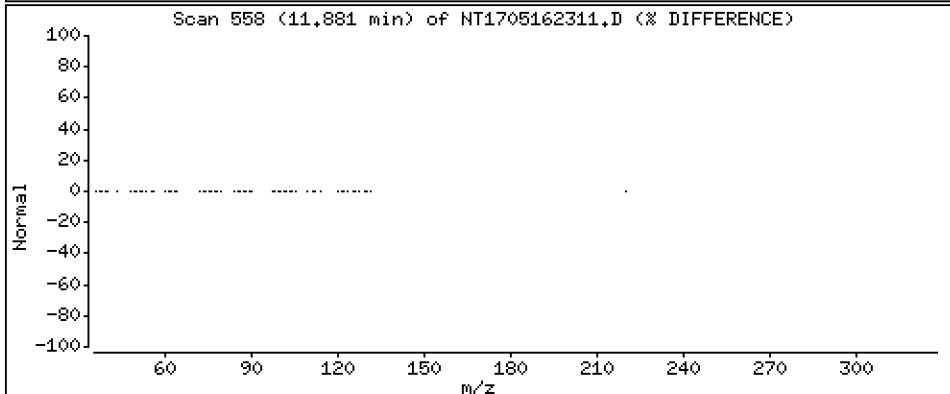
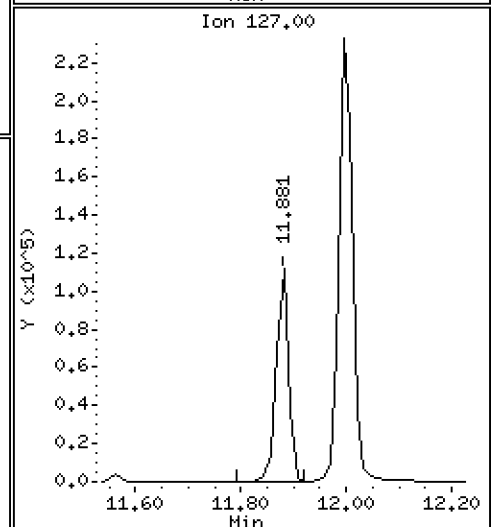
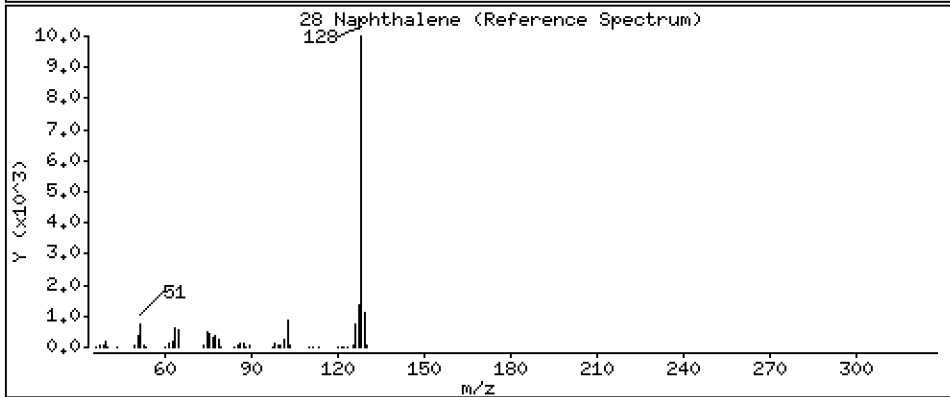
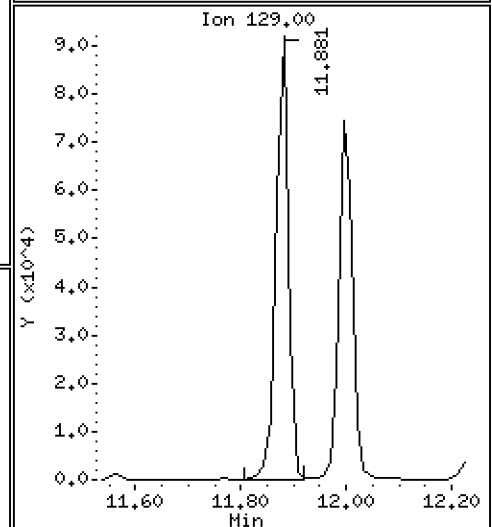
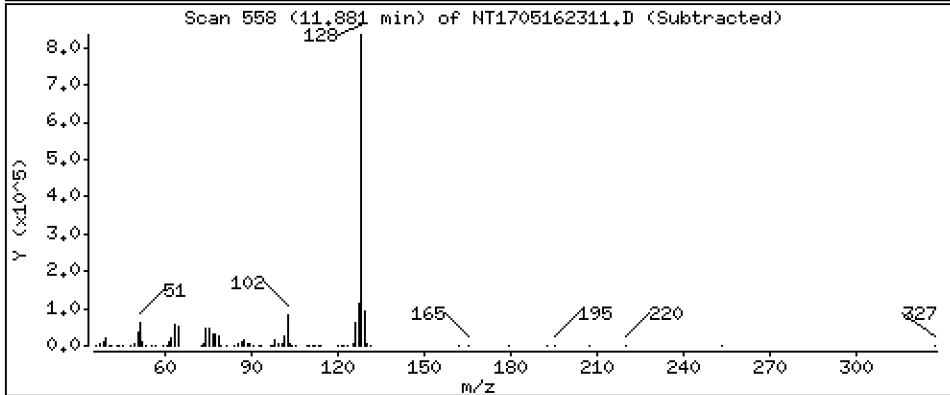
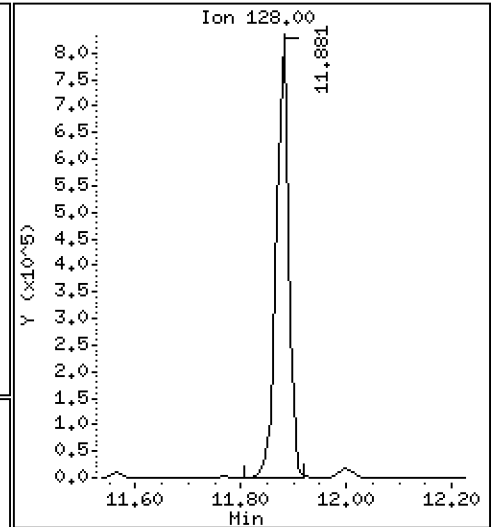
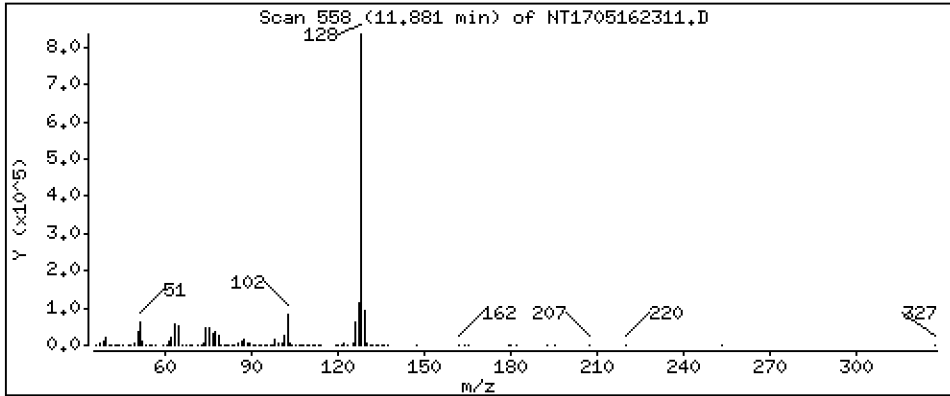
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 5,129 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

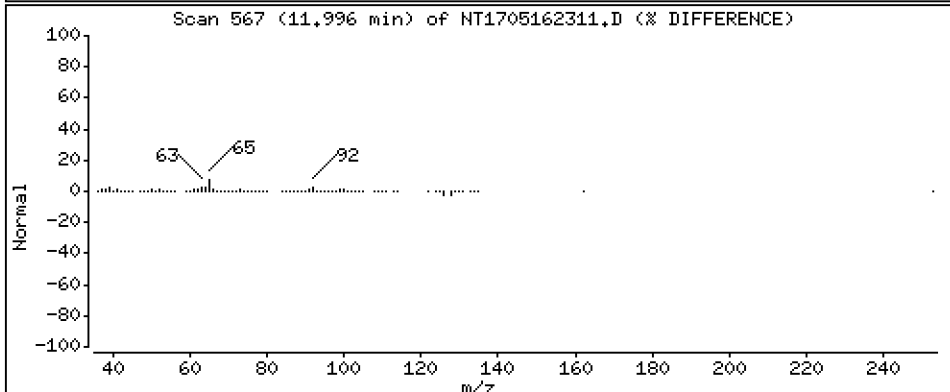
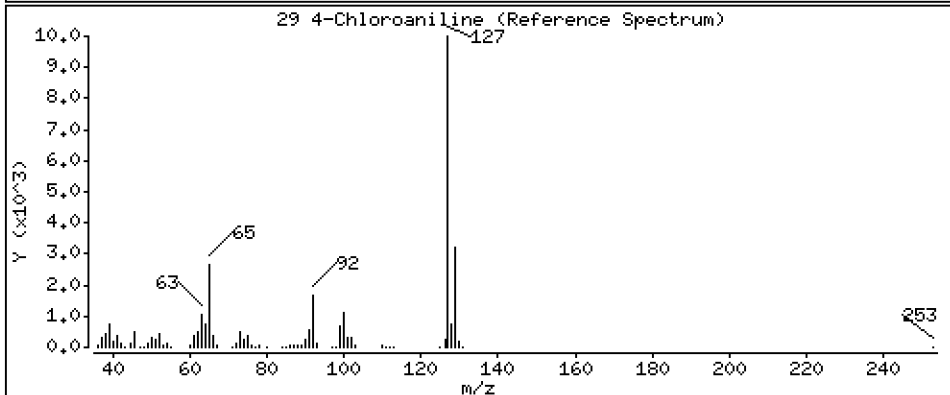
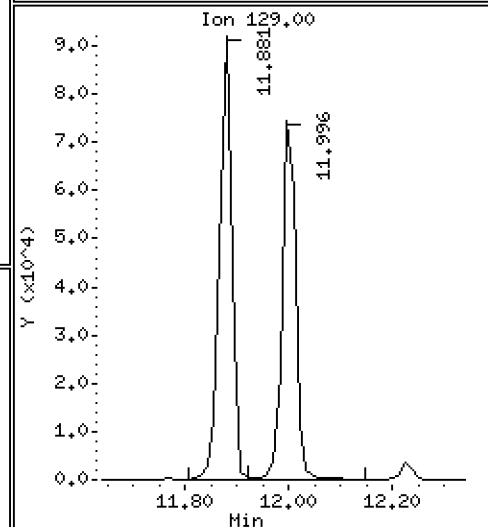
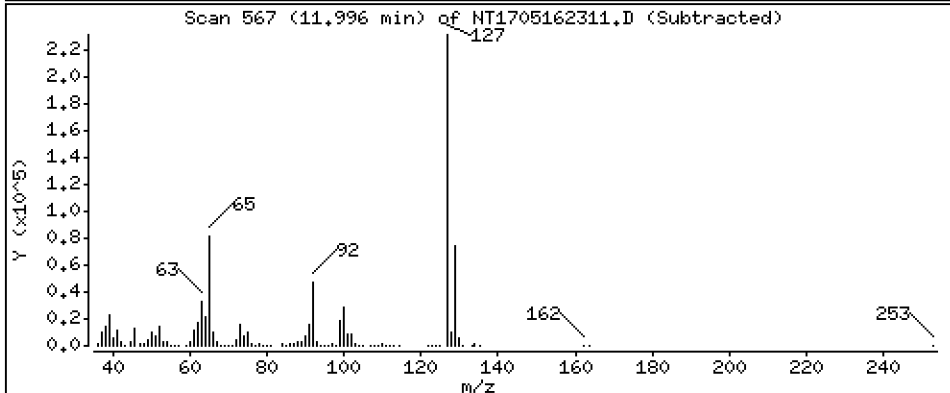
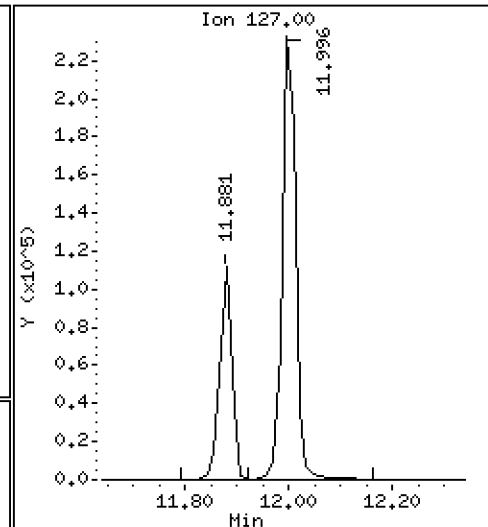
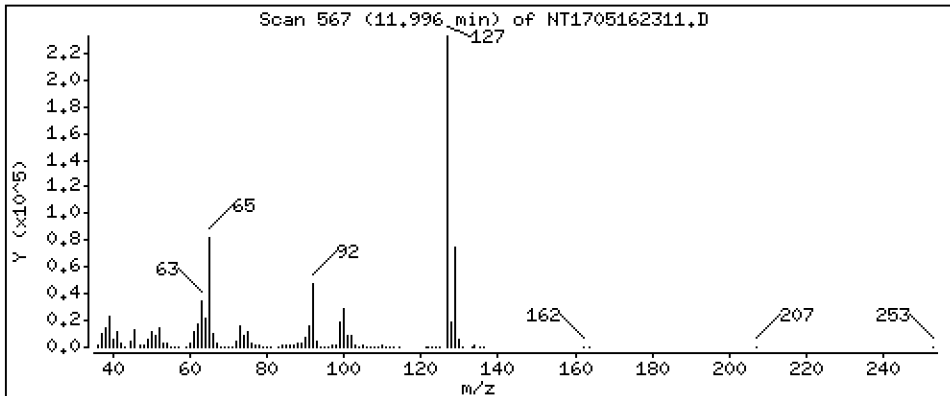
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 4,488 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

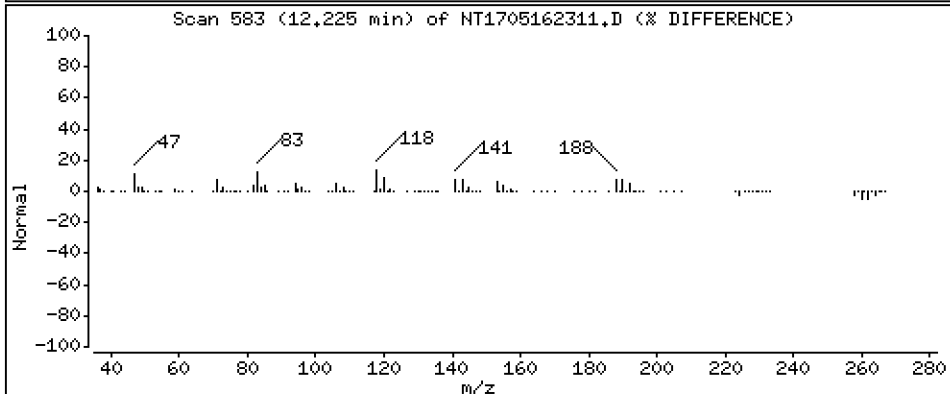
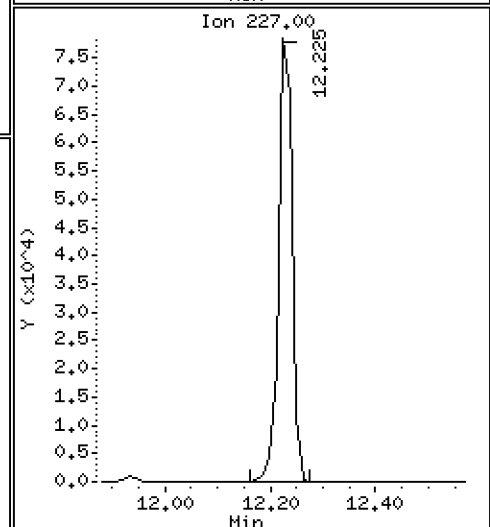
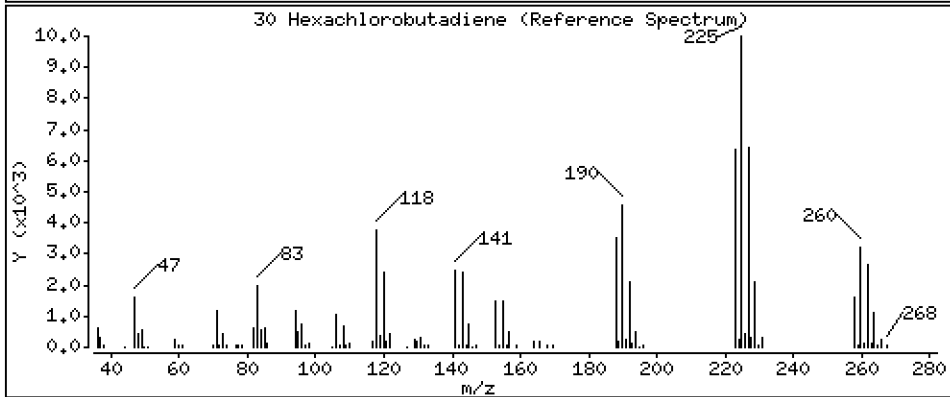
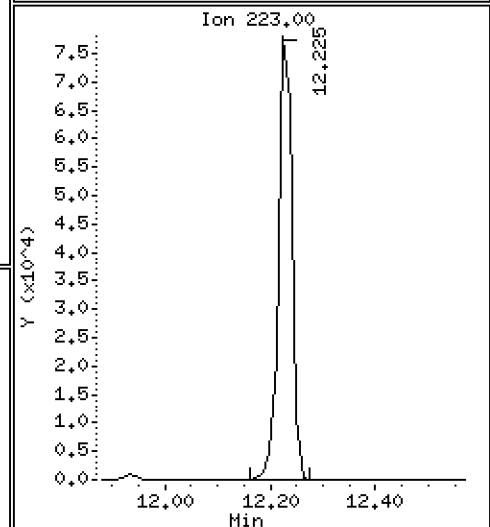
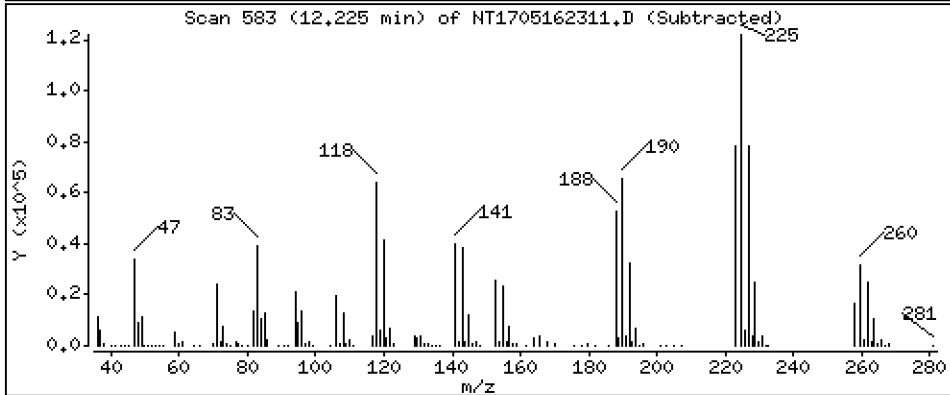
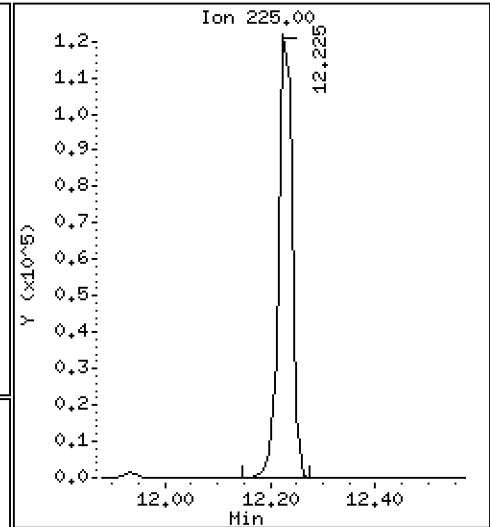
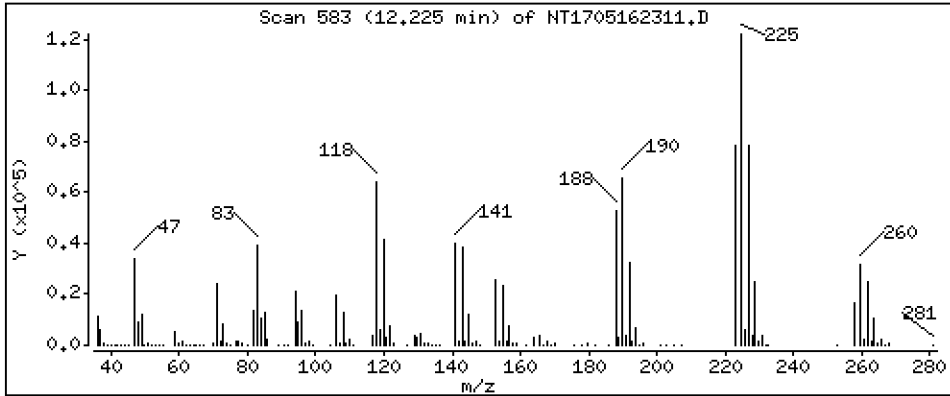
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,241 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

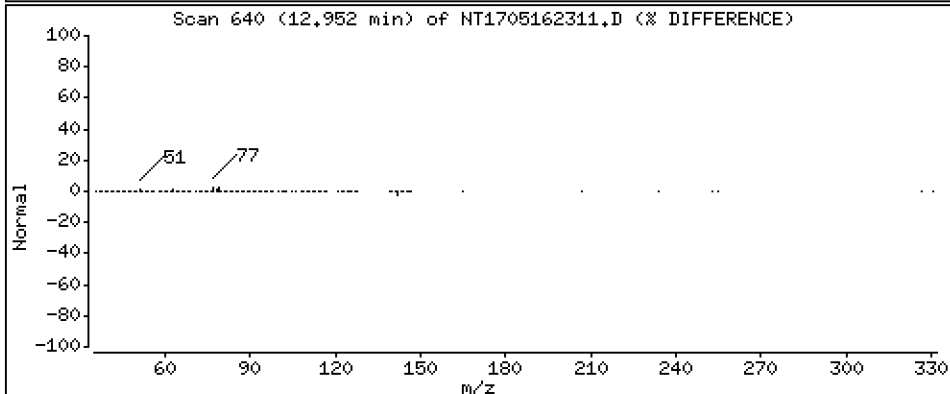
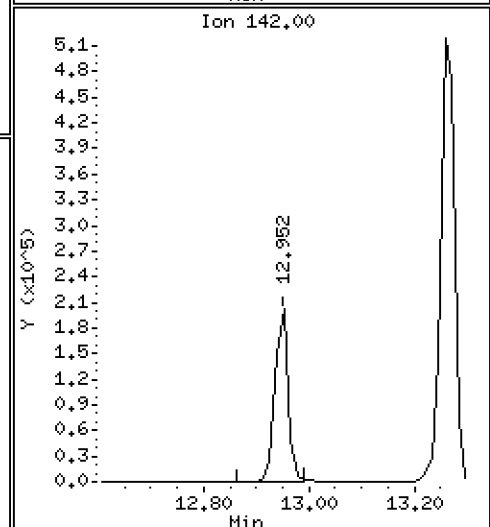
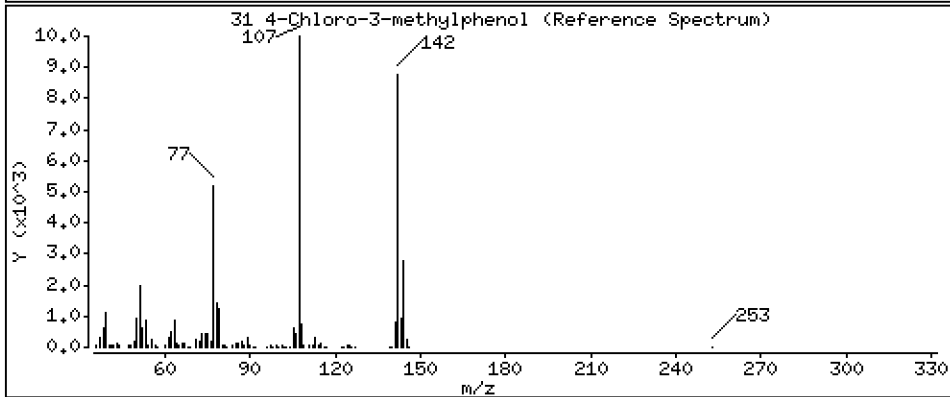
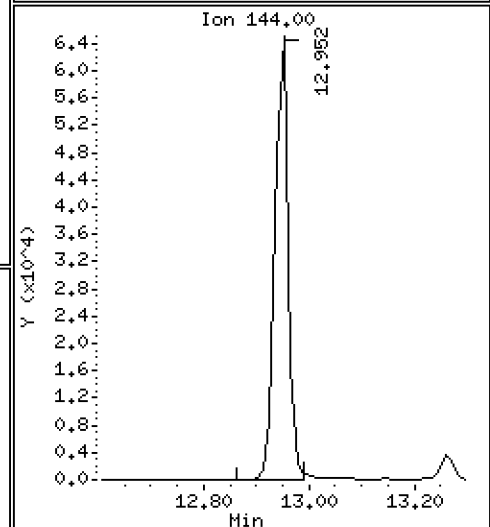
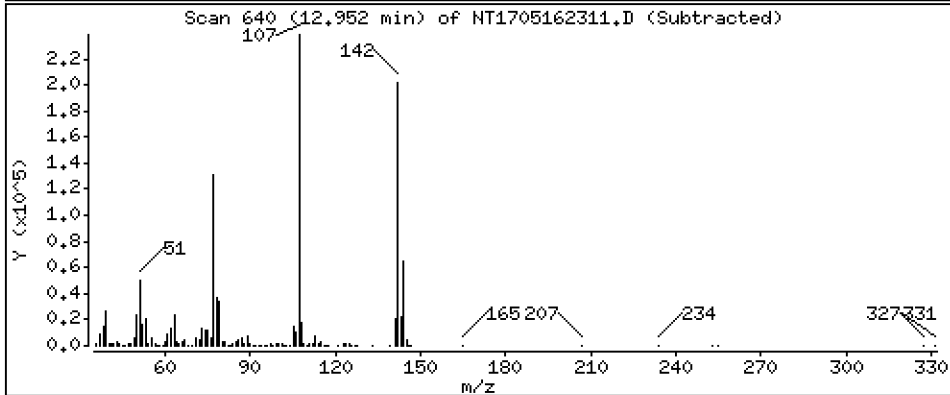
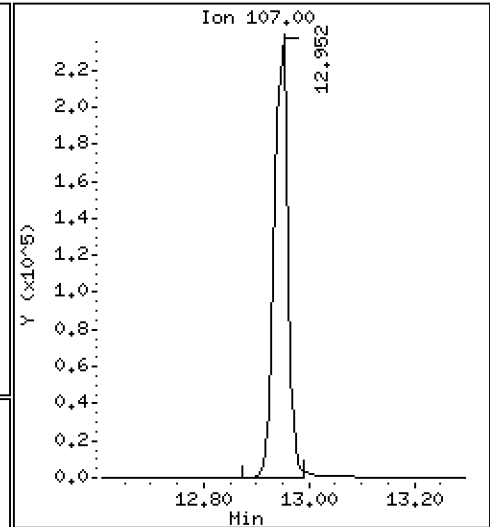
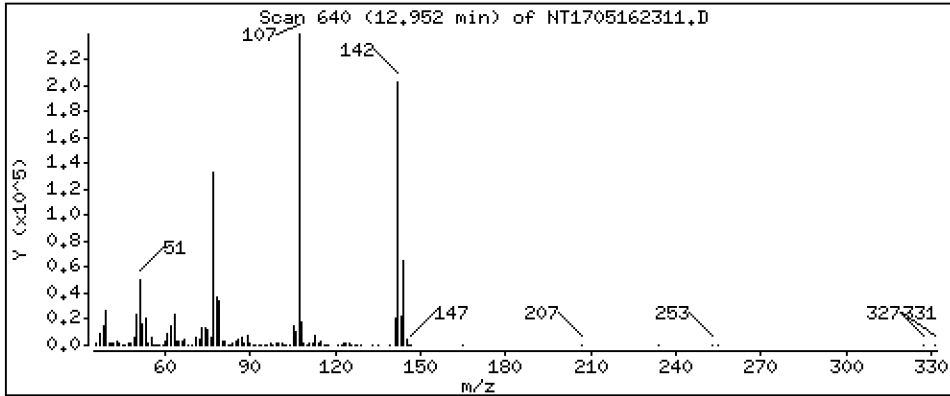
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,878 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

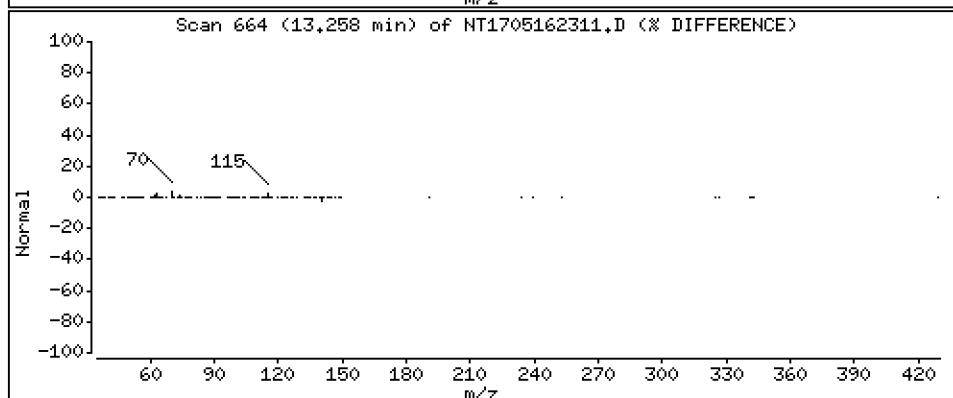
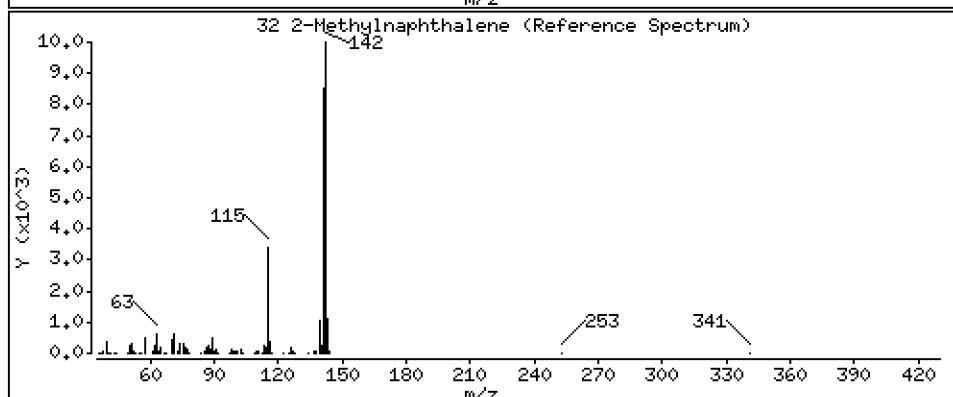
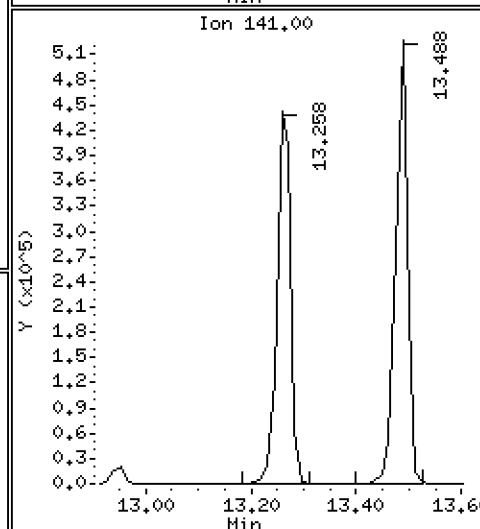
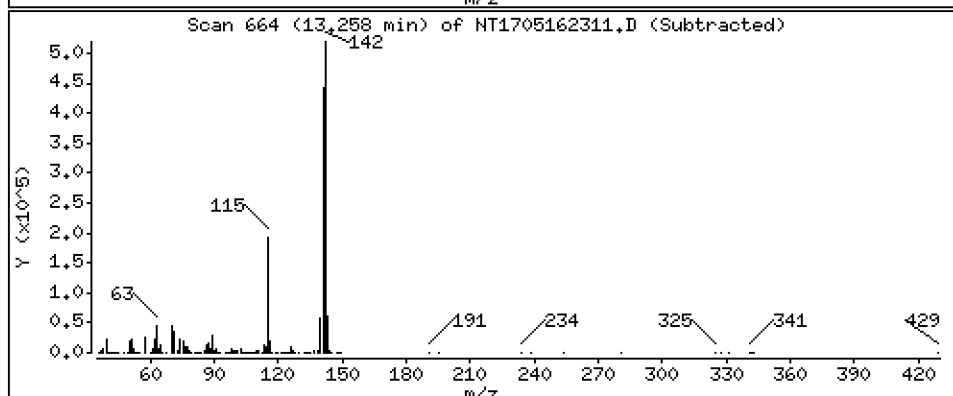
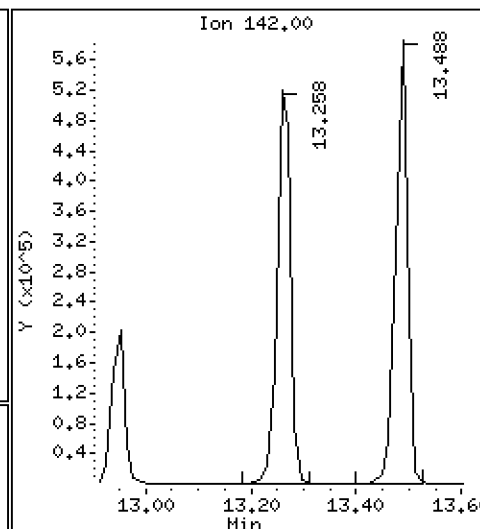
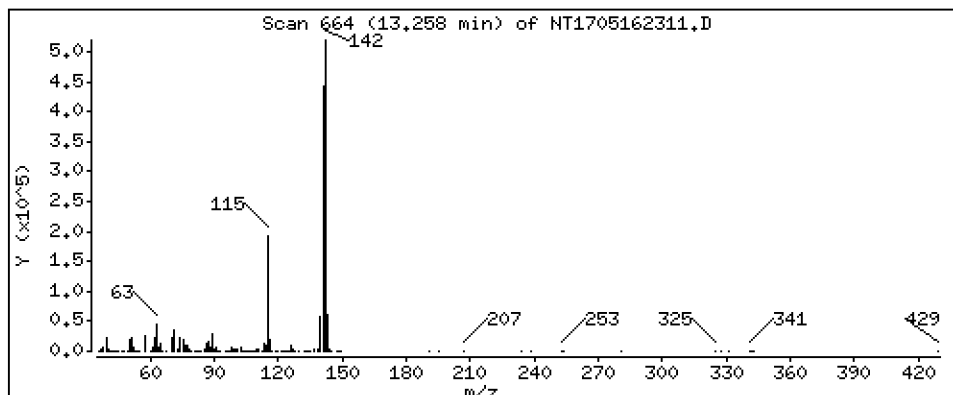
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 5,028 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

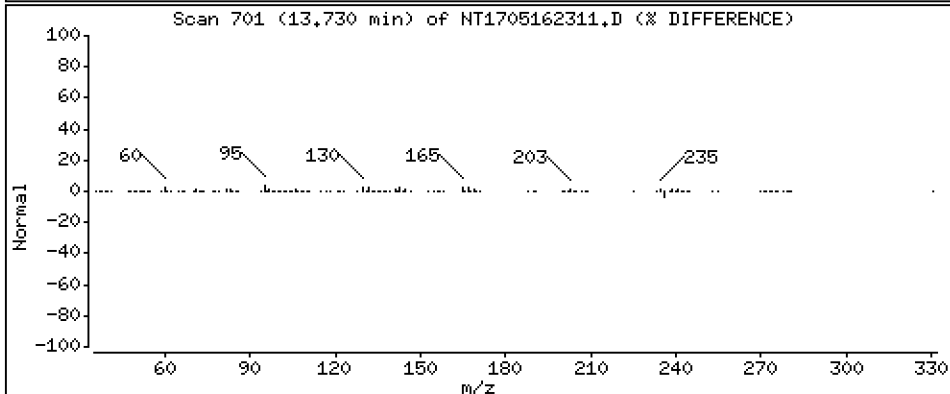
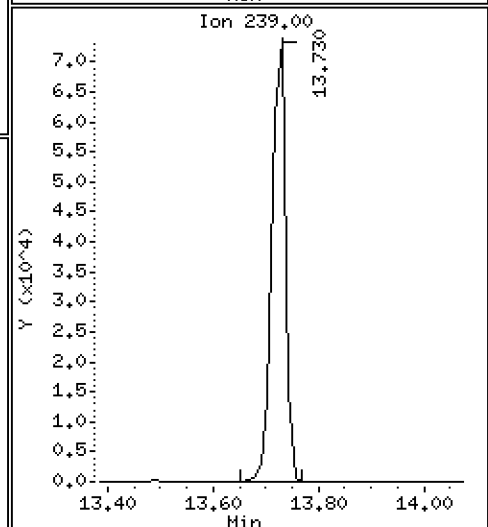
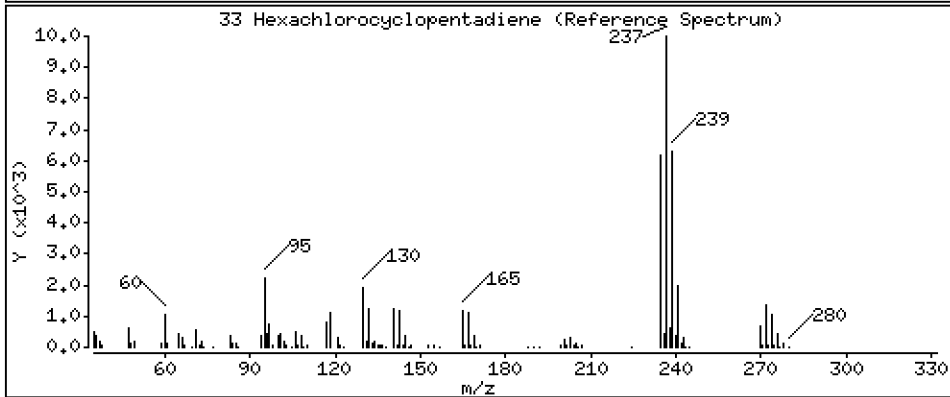
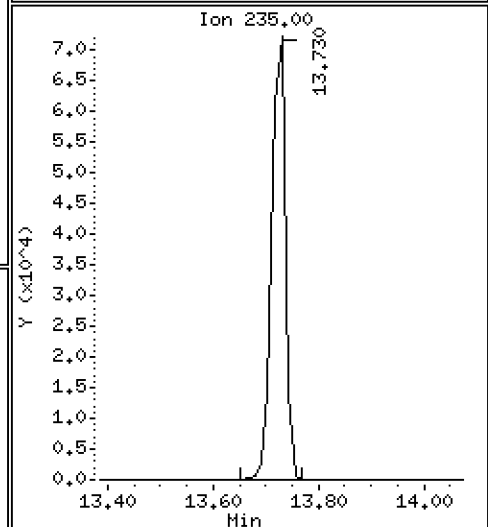
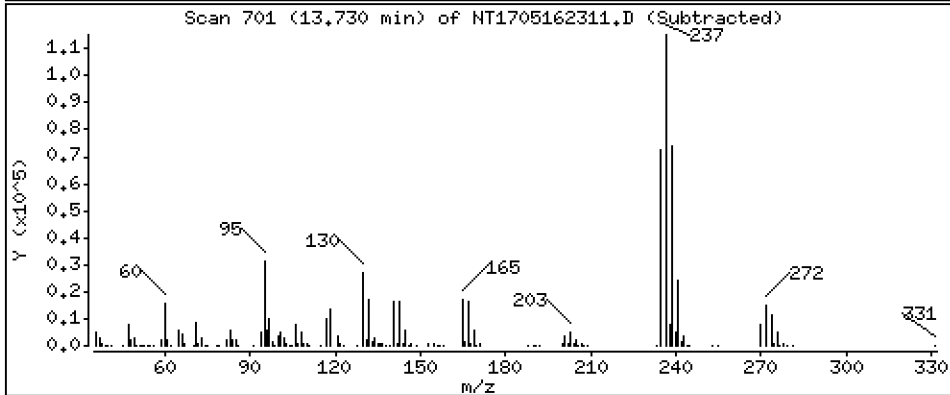
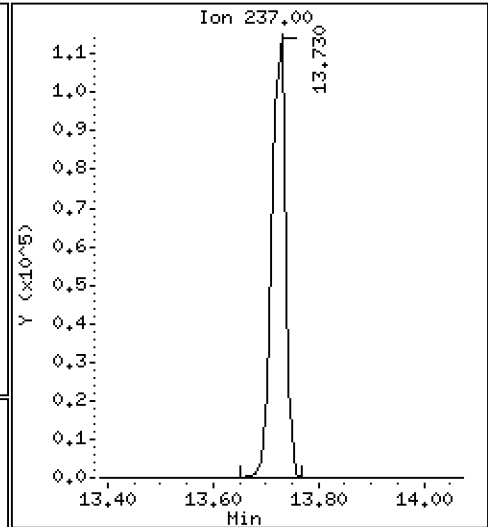
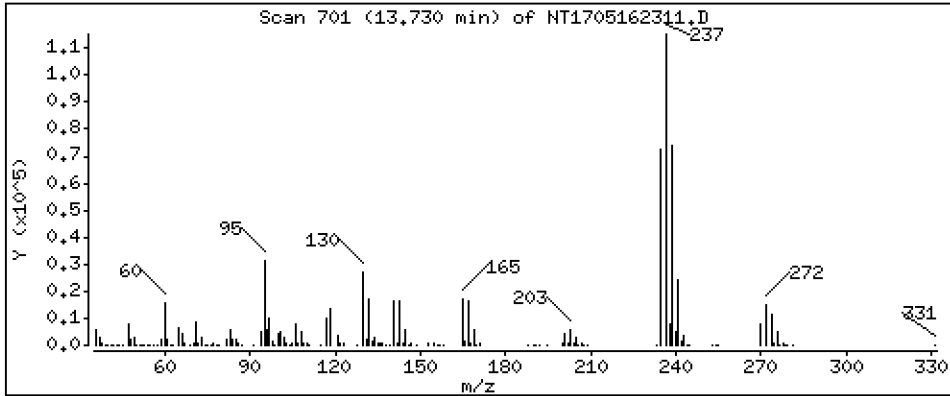
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,219 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

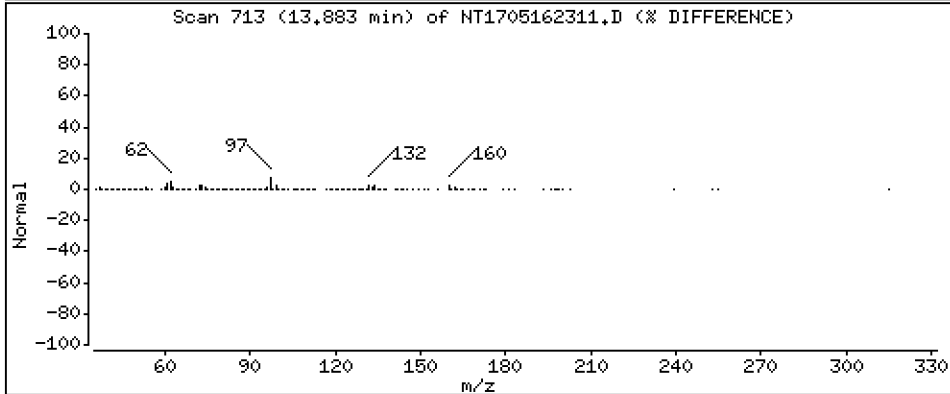
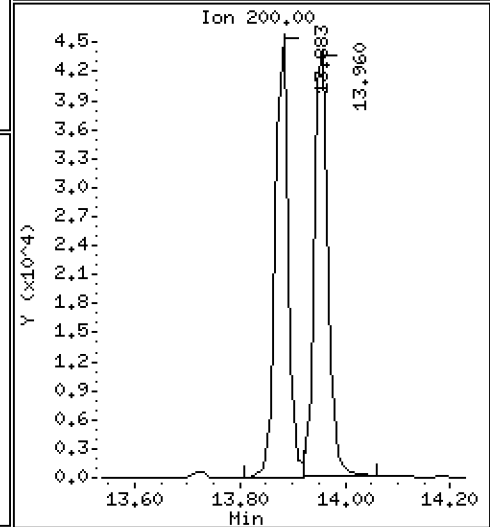
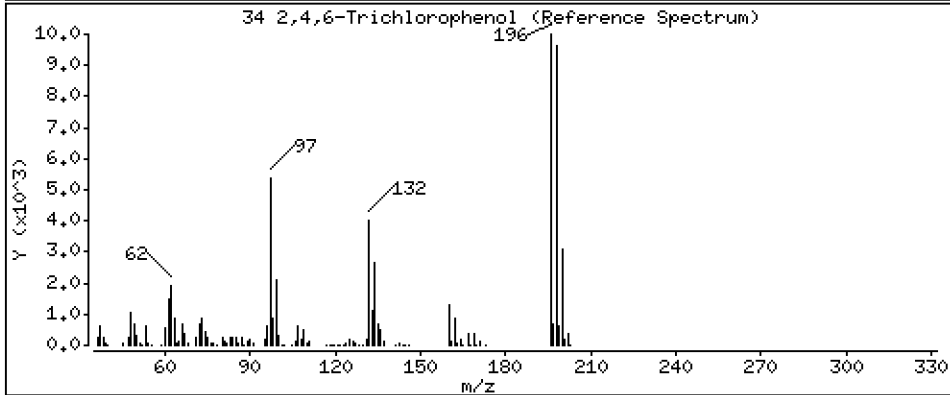
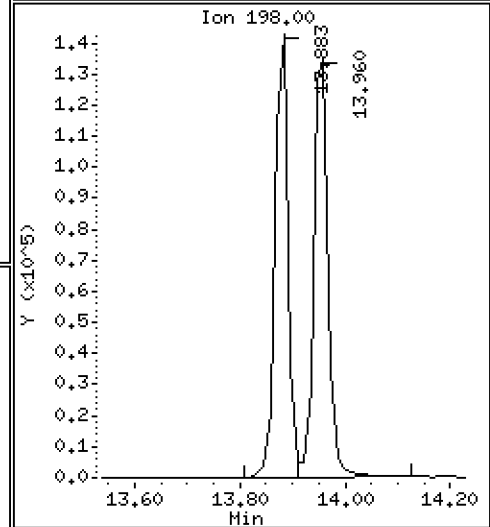
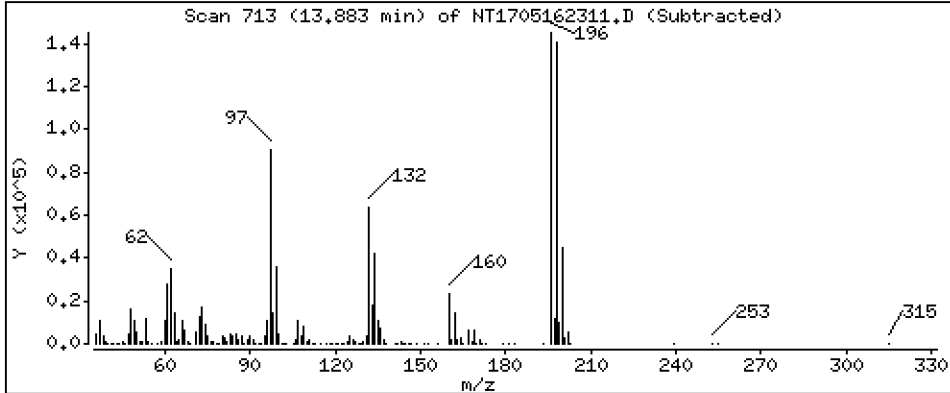
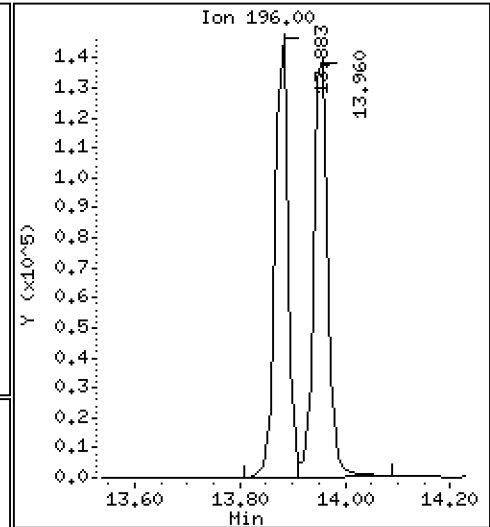
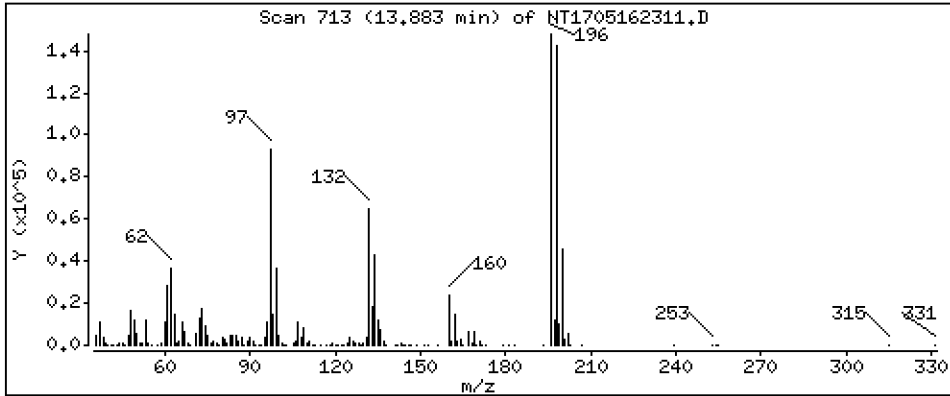
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,794 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

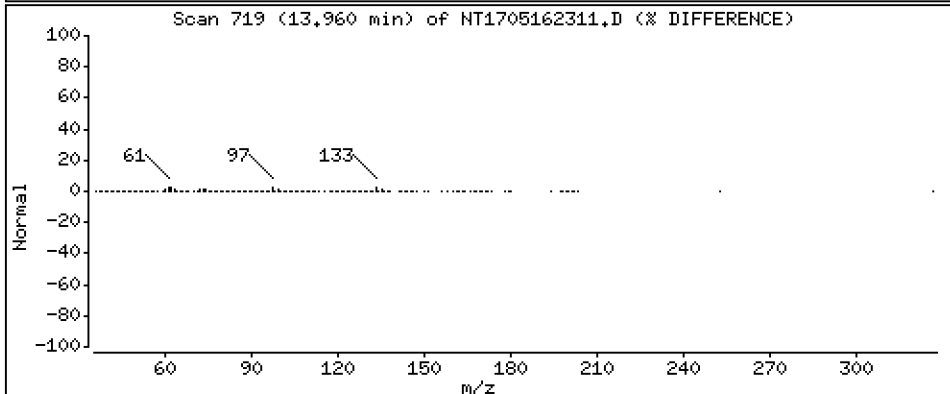
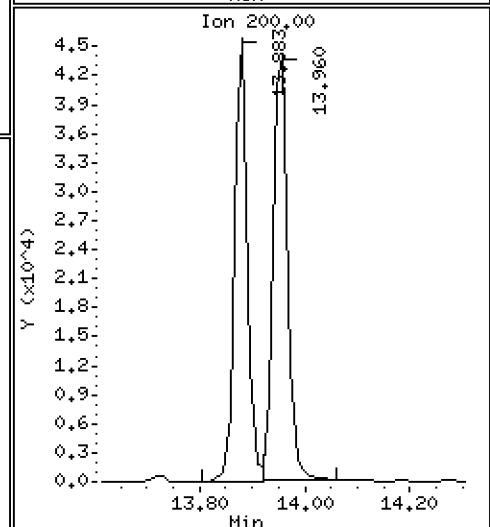
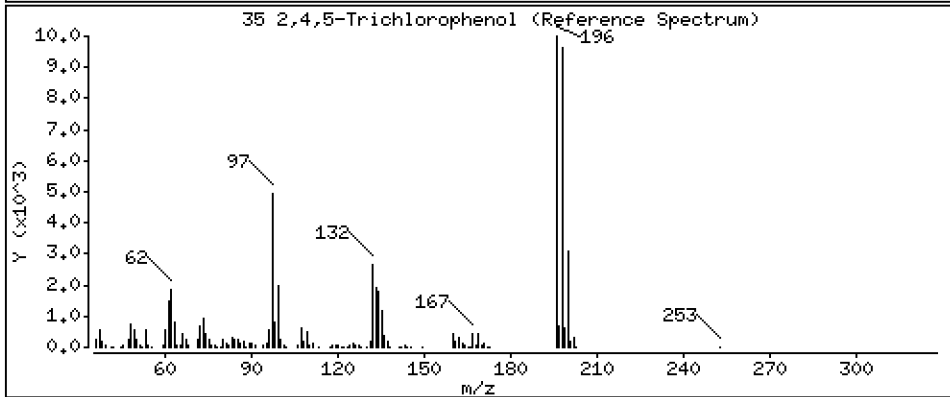
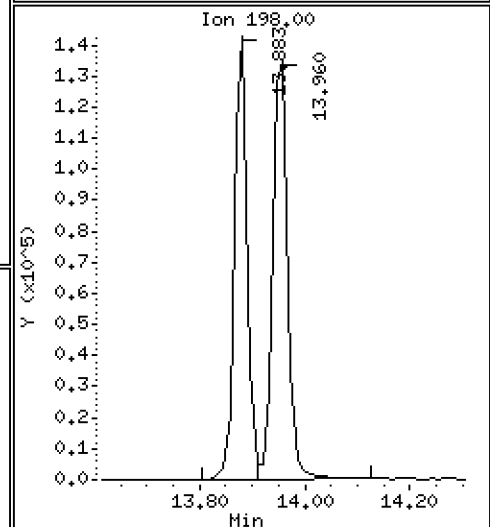
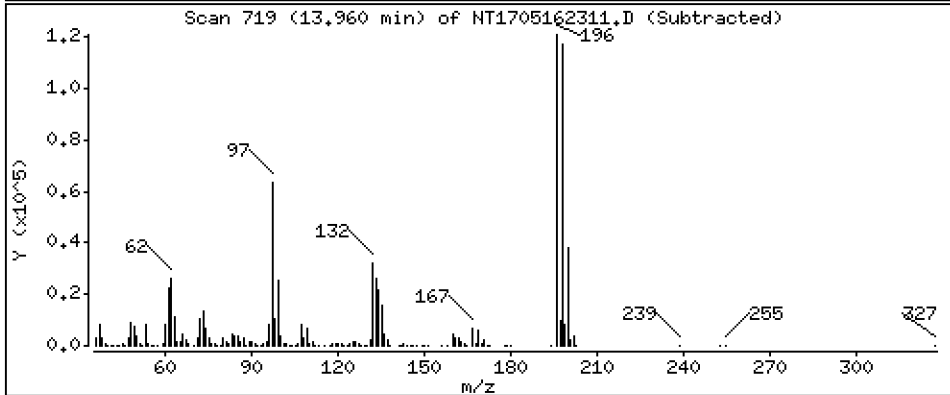
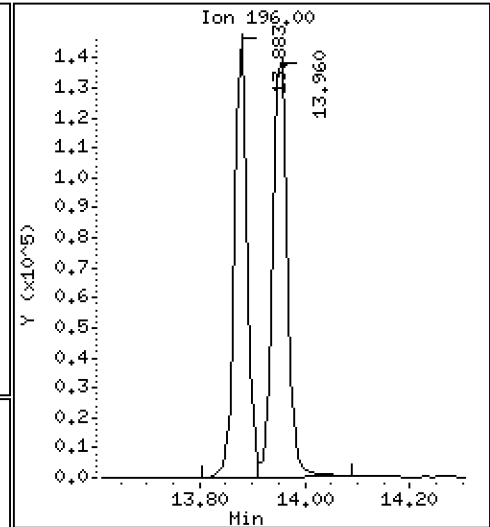
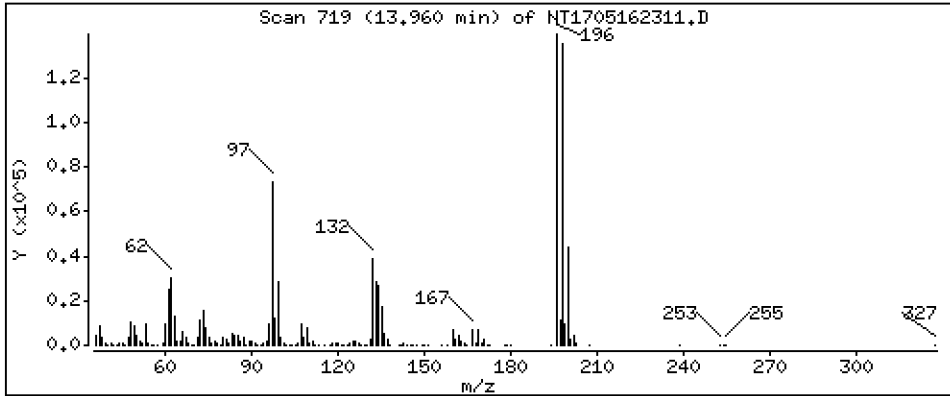
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,837 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

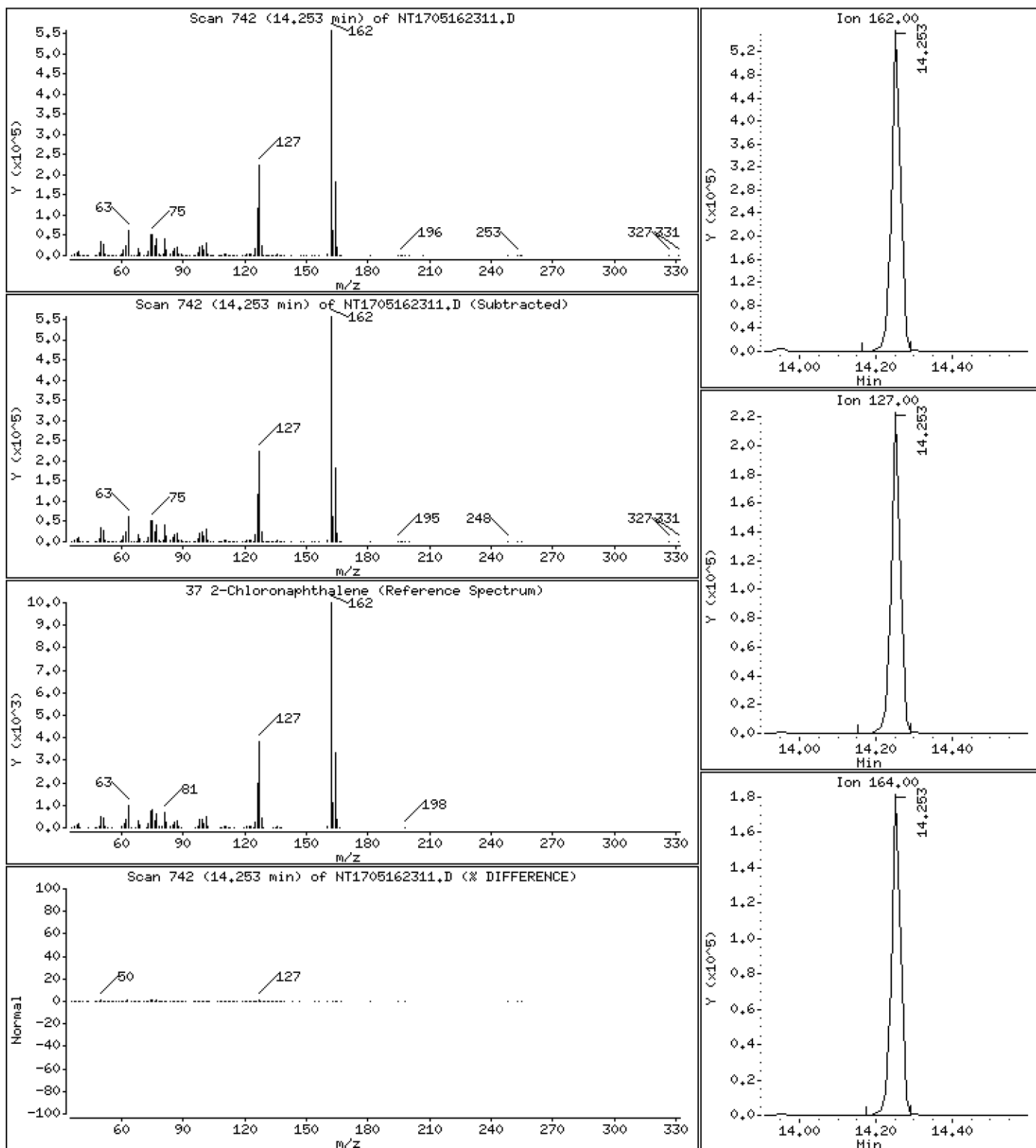
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 5.401 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

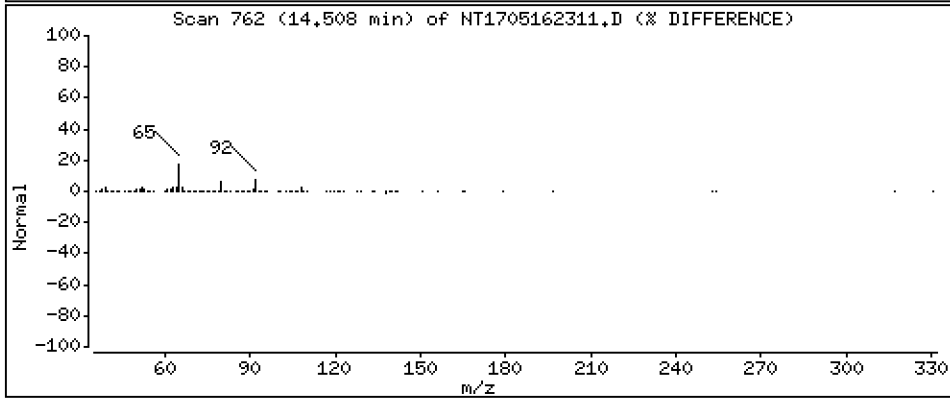
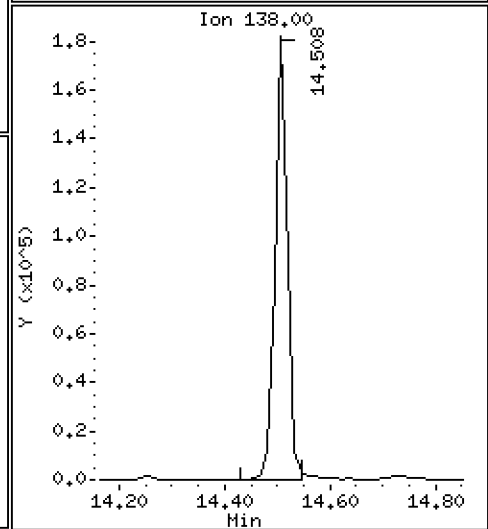
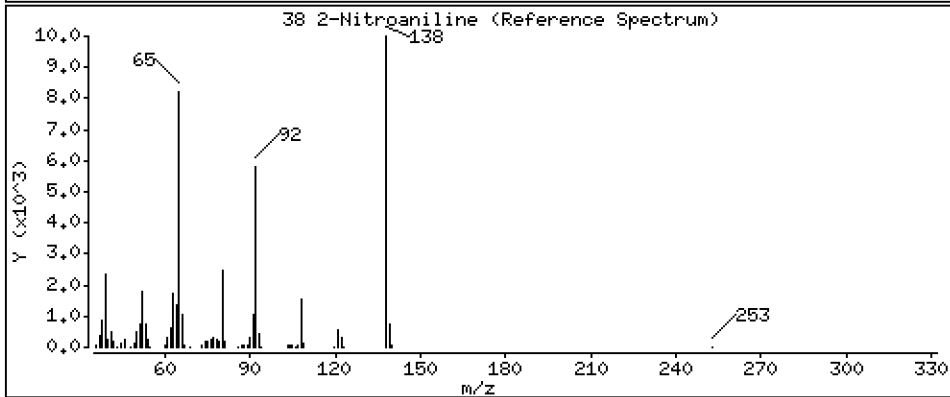
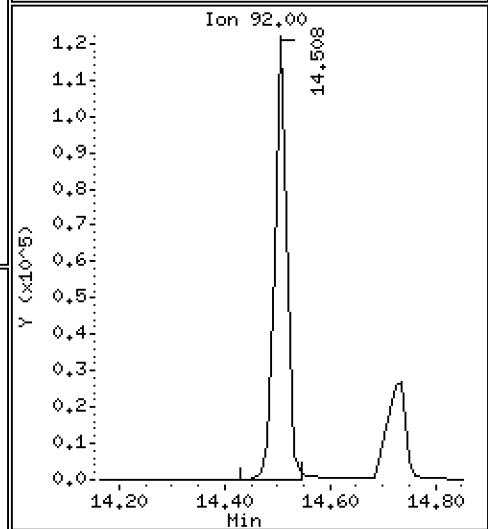
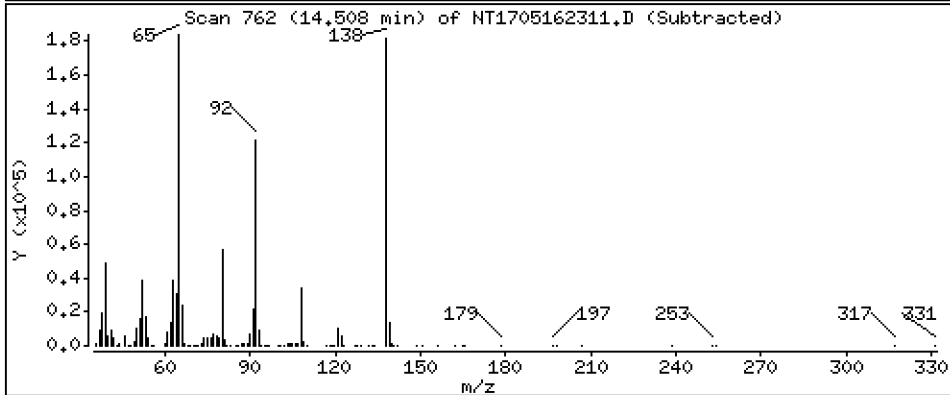
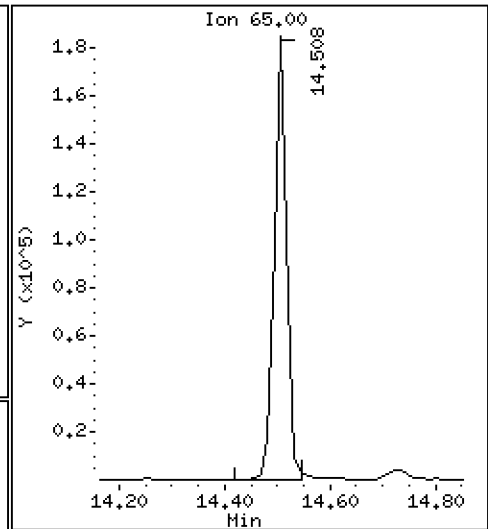
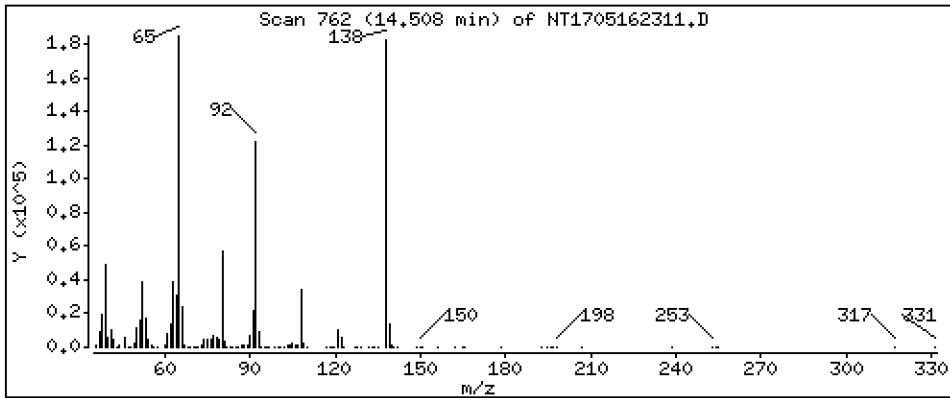
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,356 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

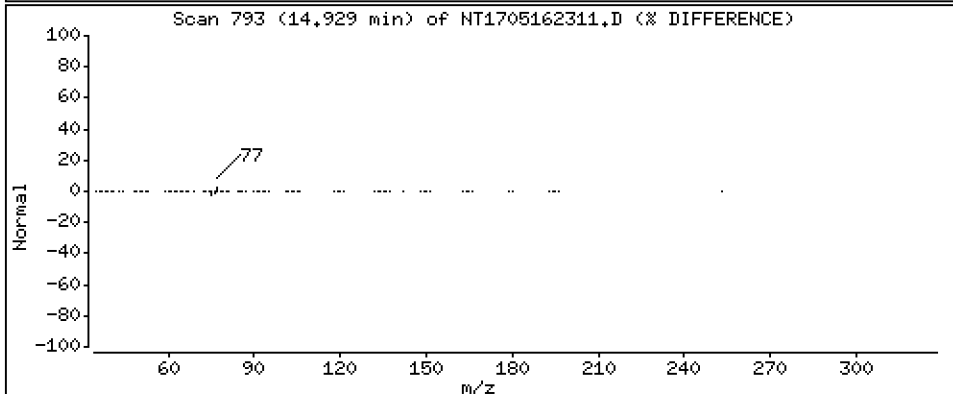
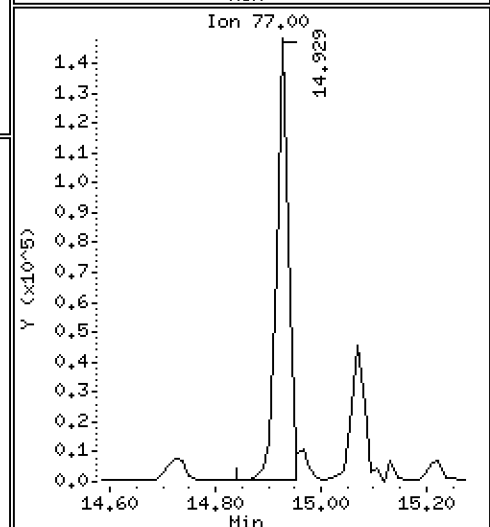
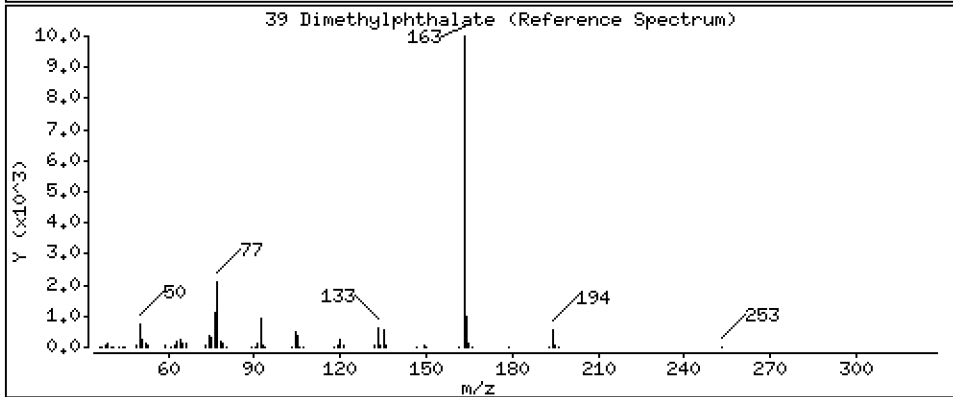
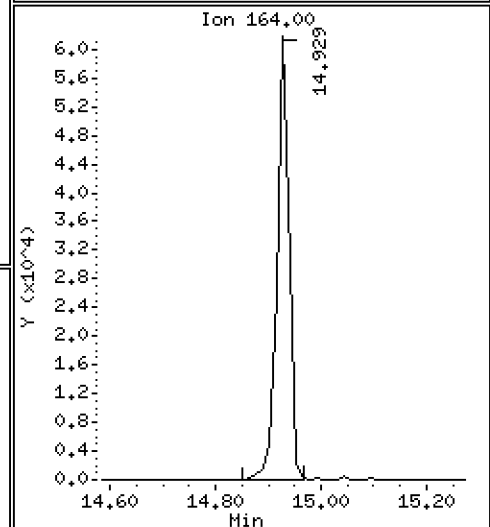
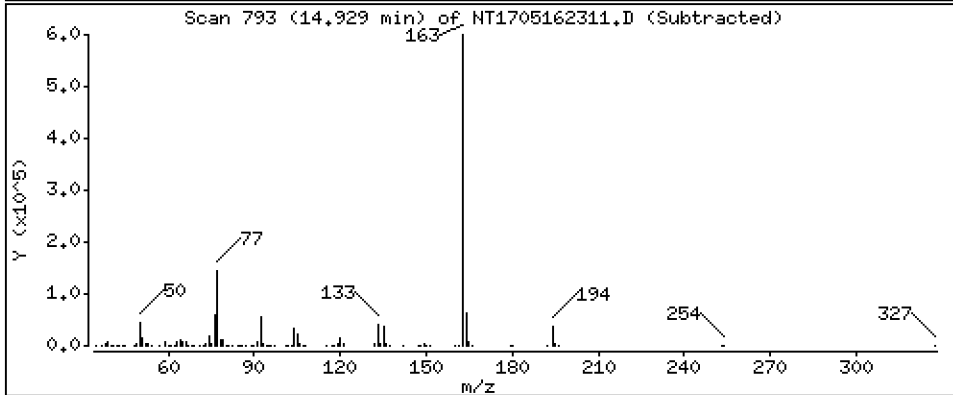
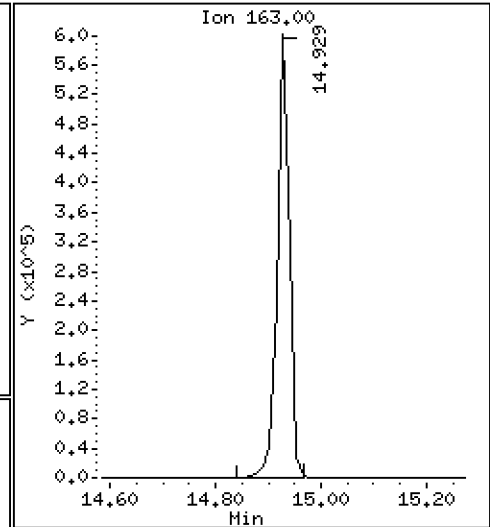
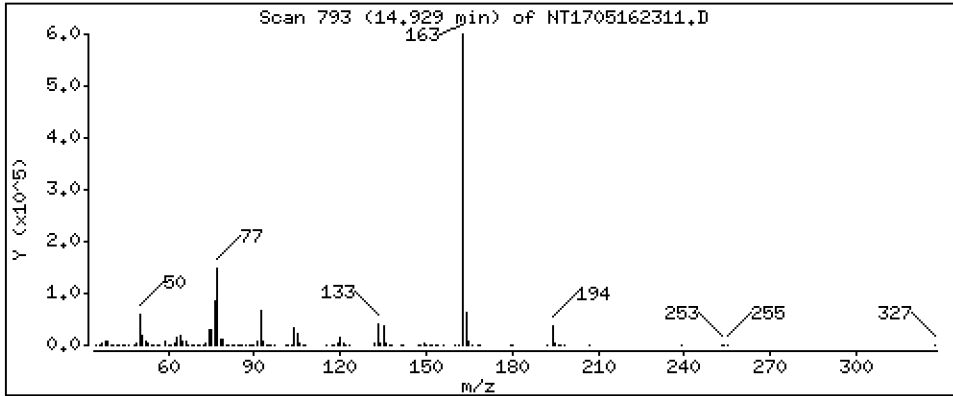
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 5,418 ug/mL

39 Dimethylphthalate



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

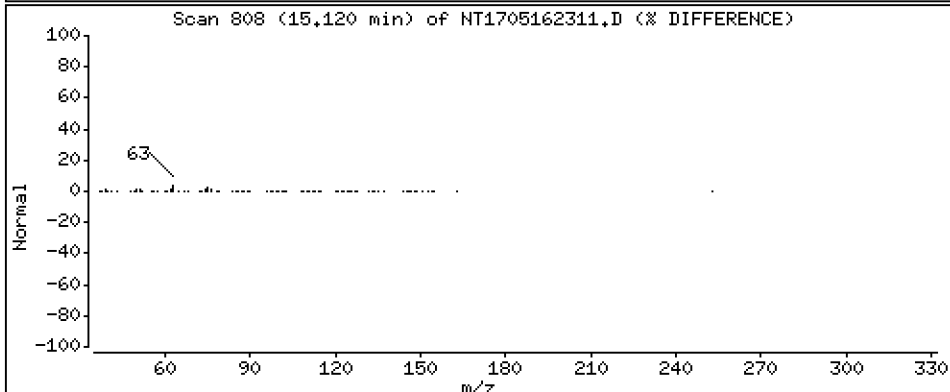
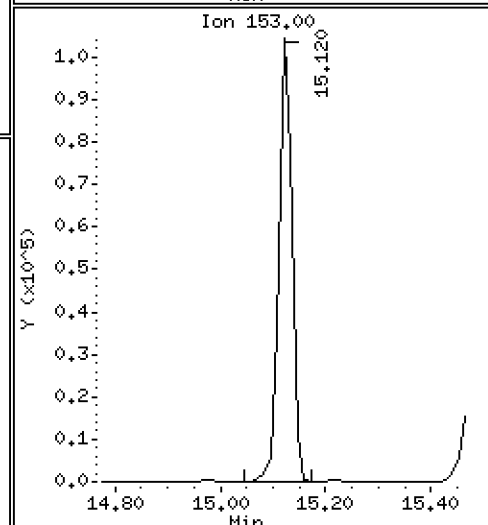
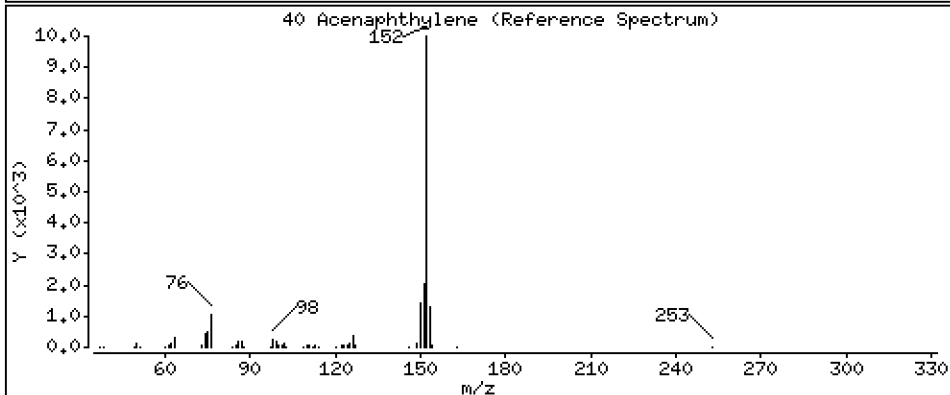
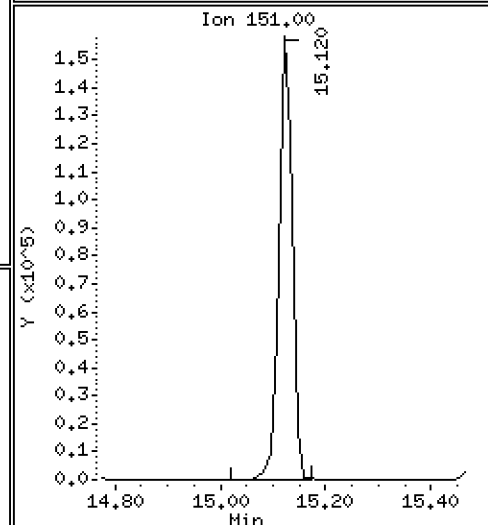
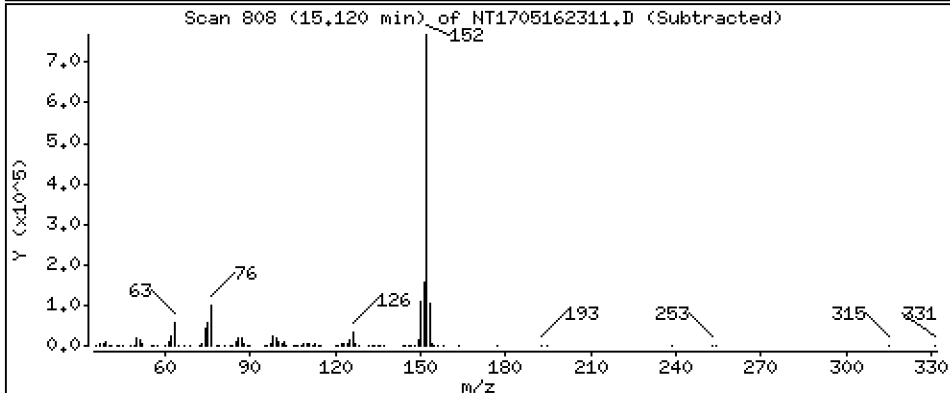
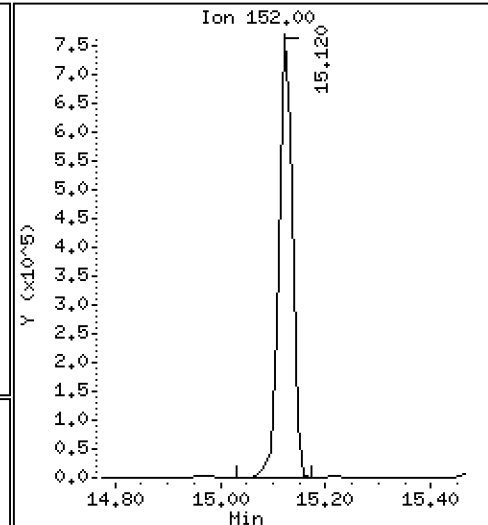
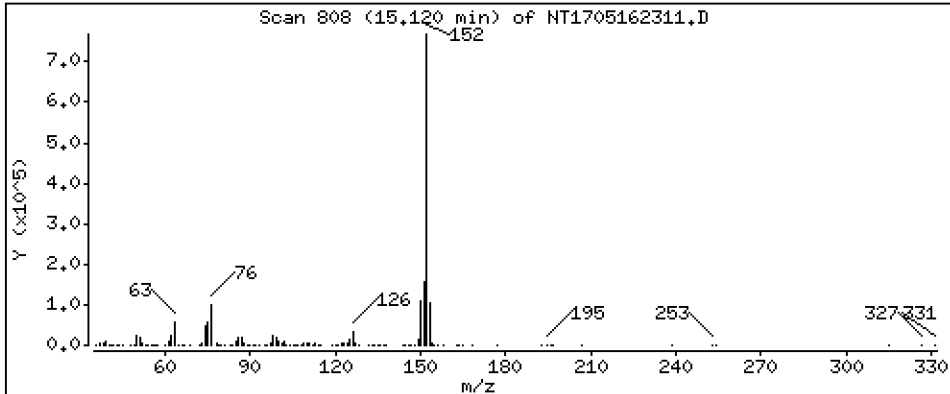
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 5,282 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

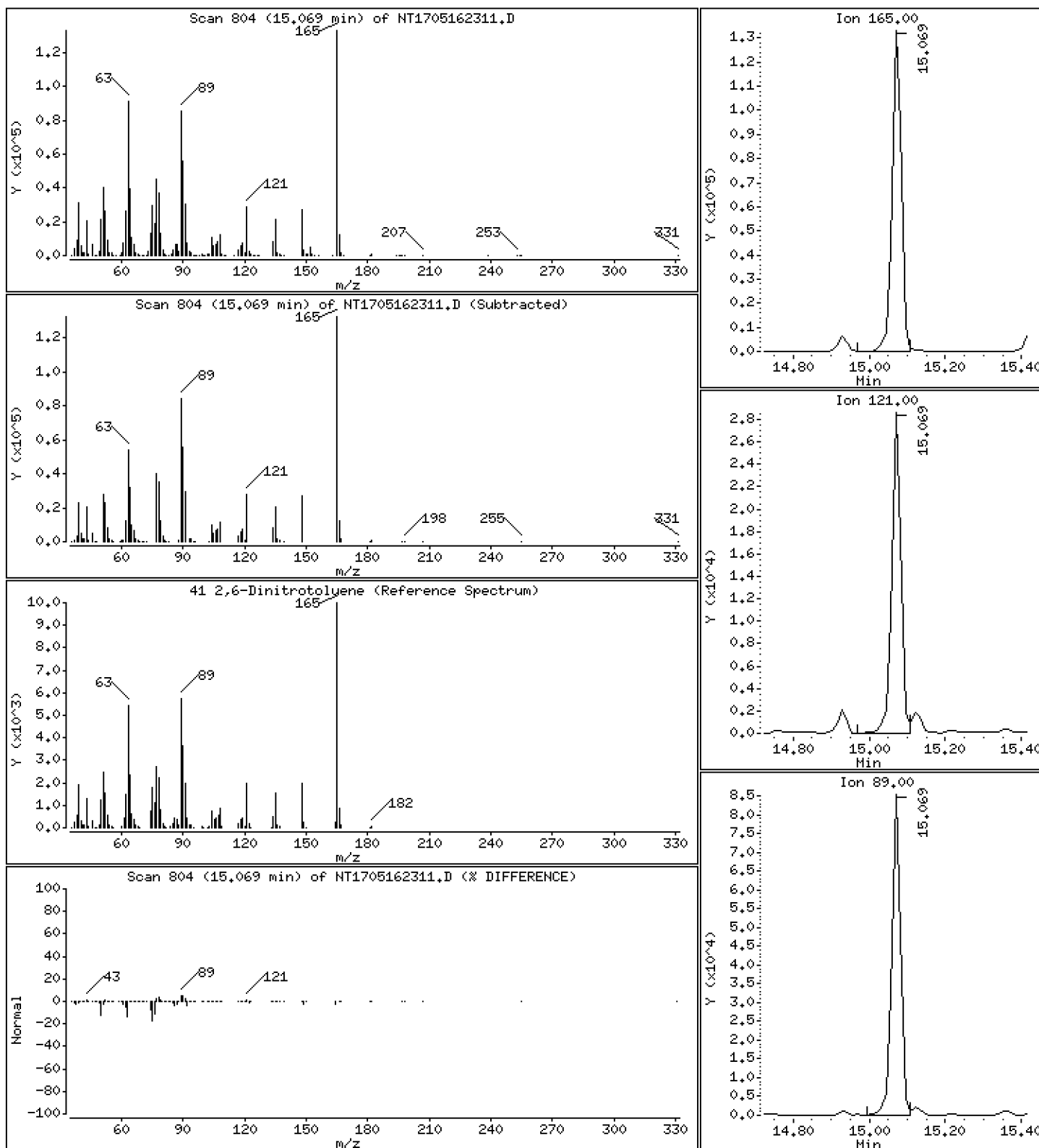
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 5.404 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

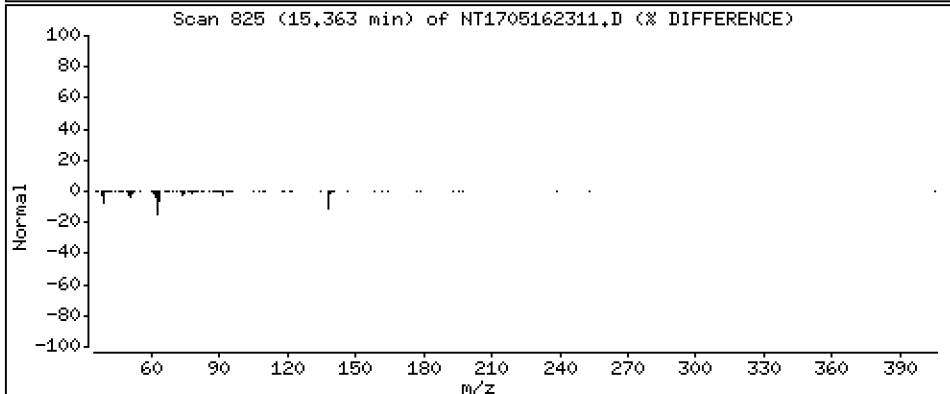
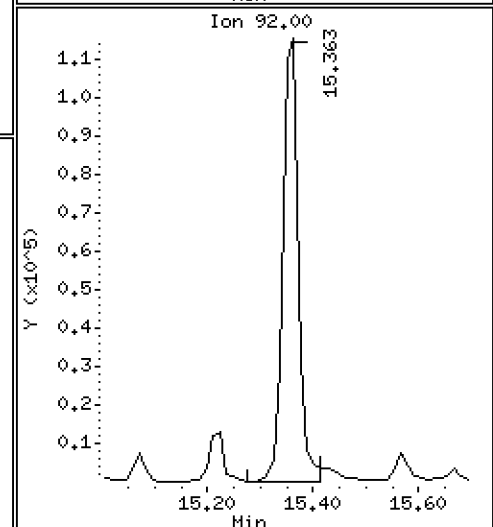
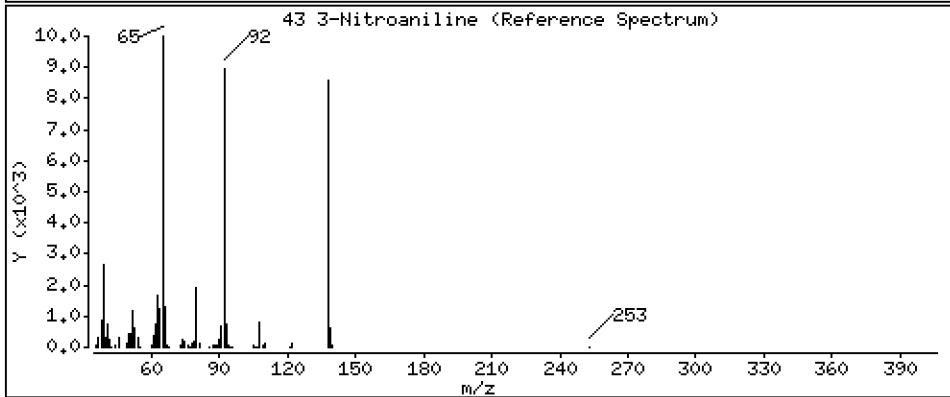
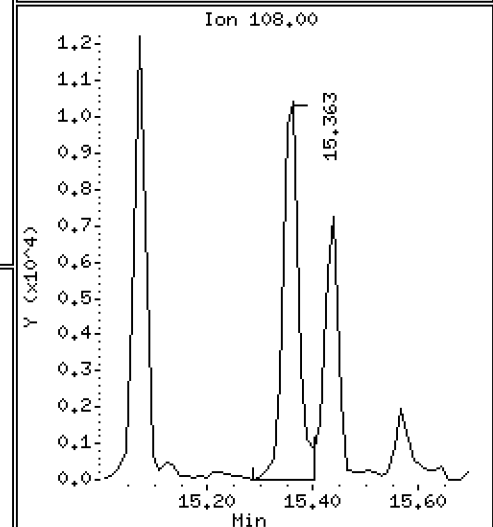
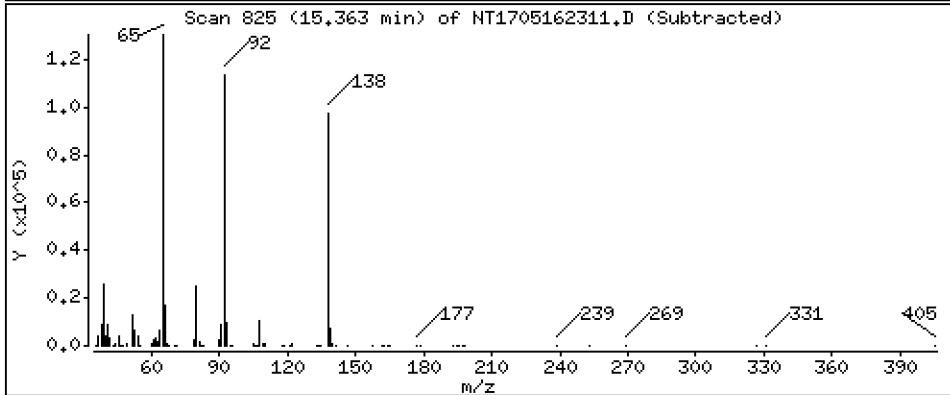
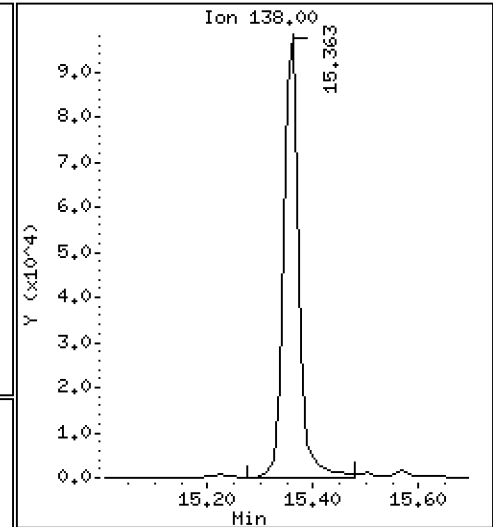
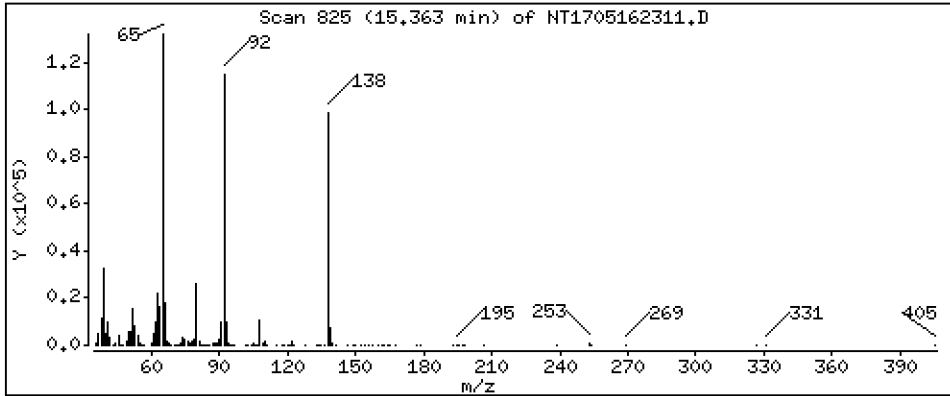
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 5,169 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

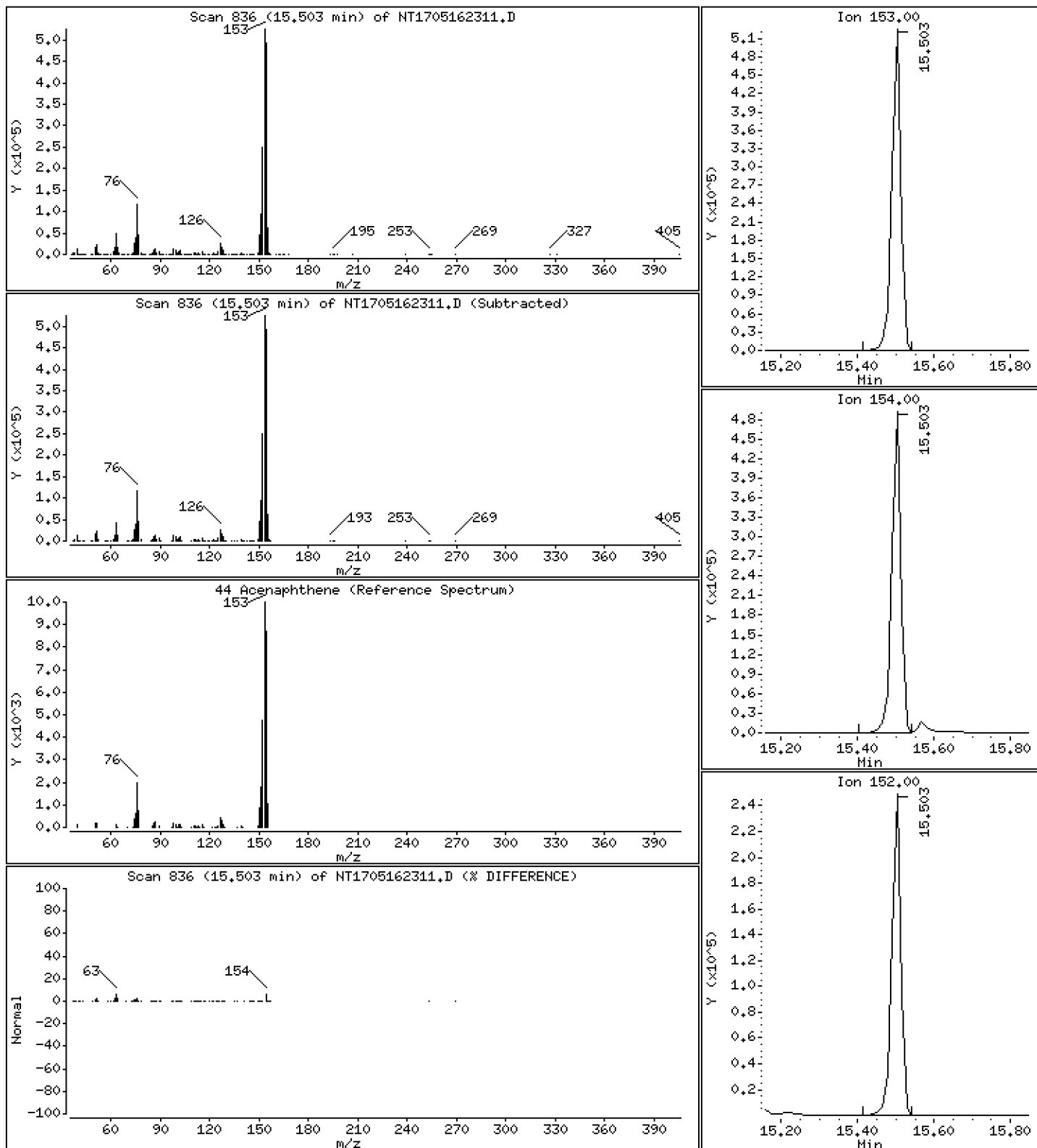
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 5,283 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

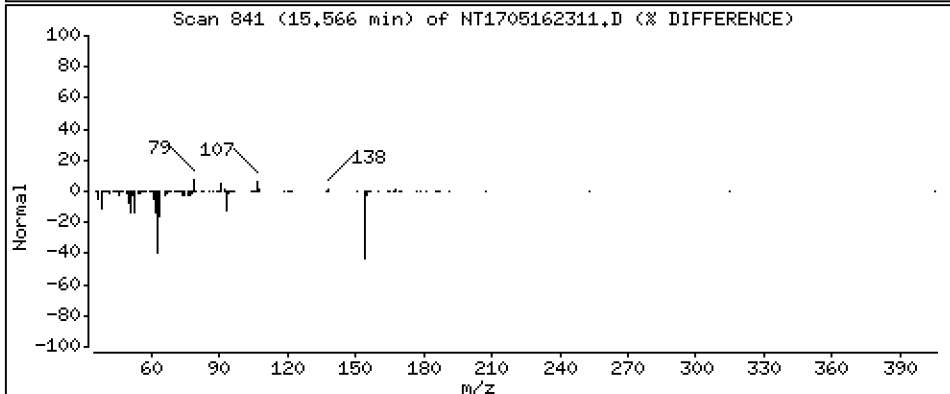
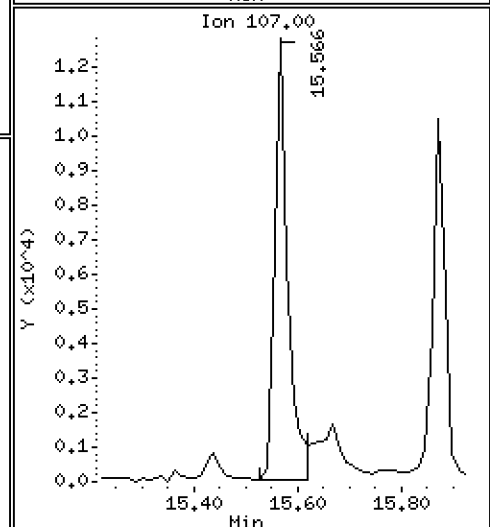
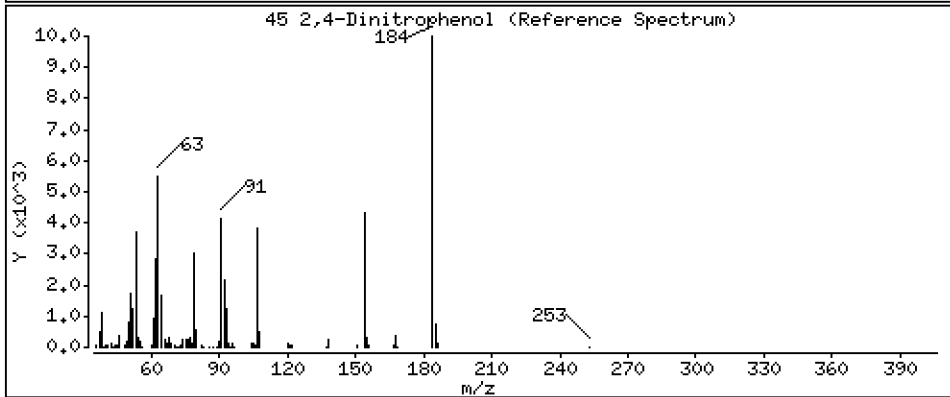
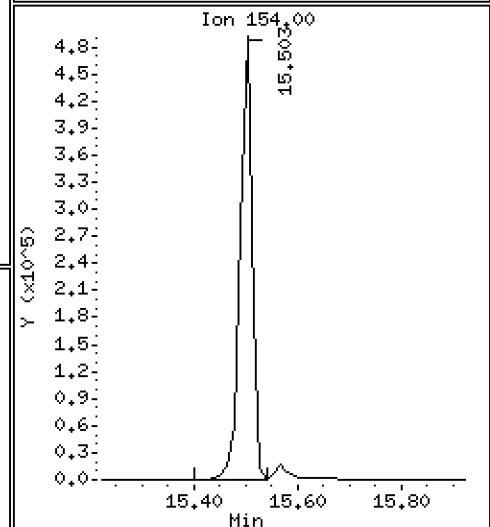
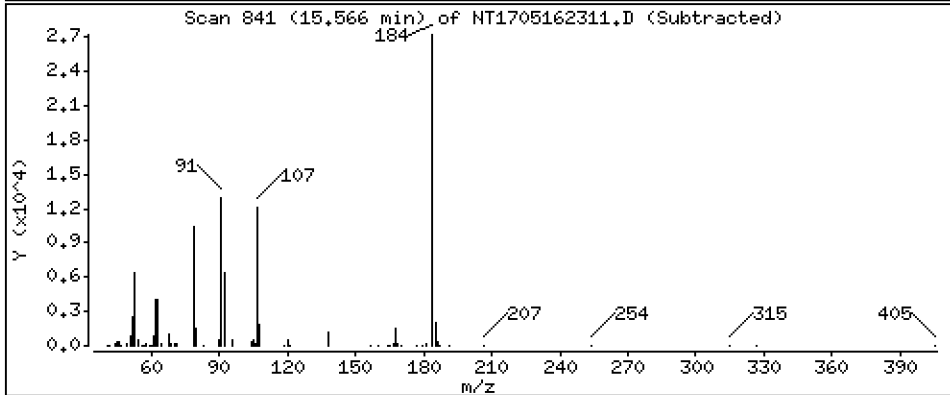
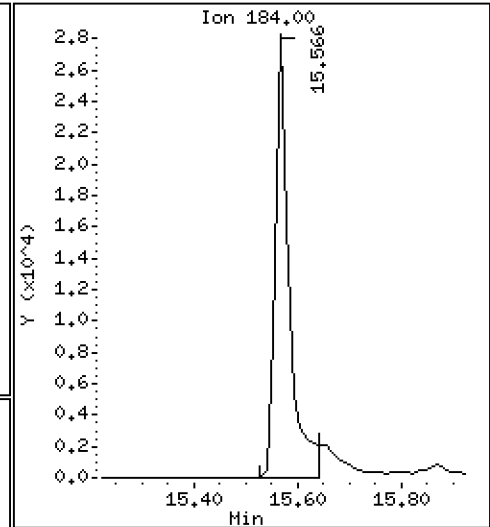
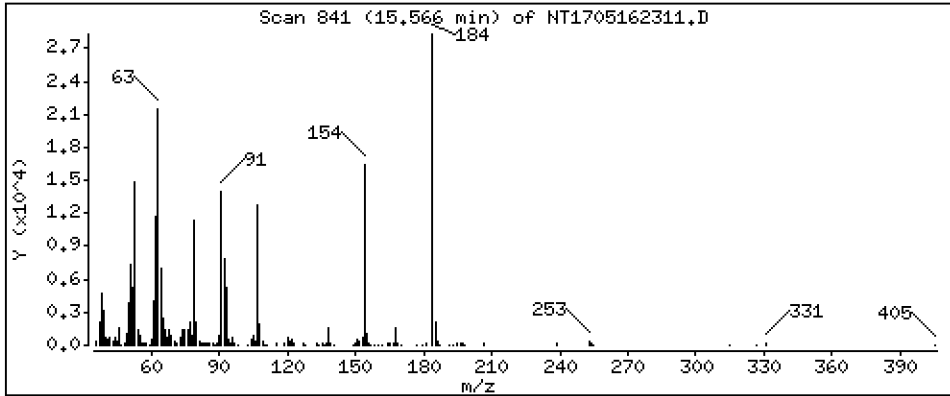
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,119 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

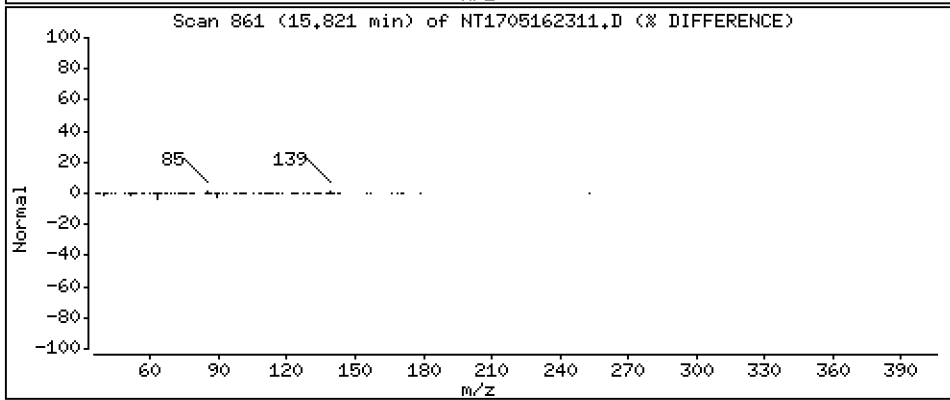
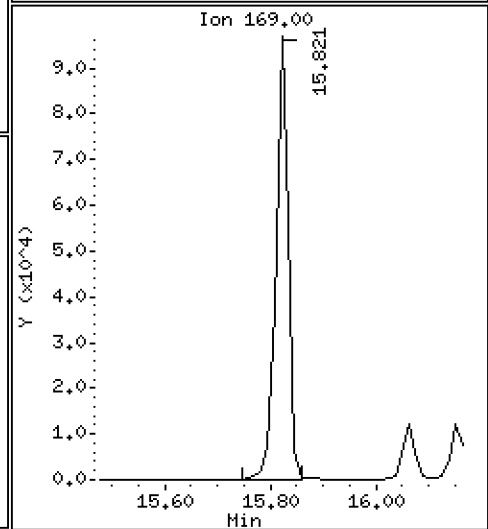
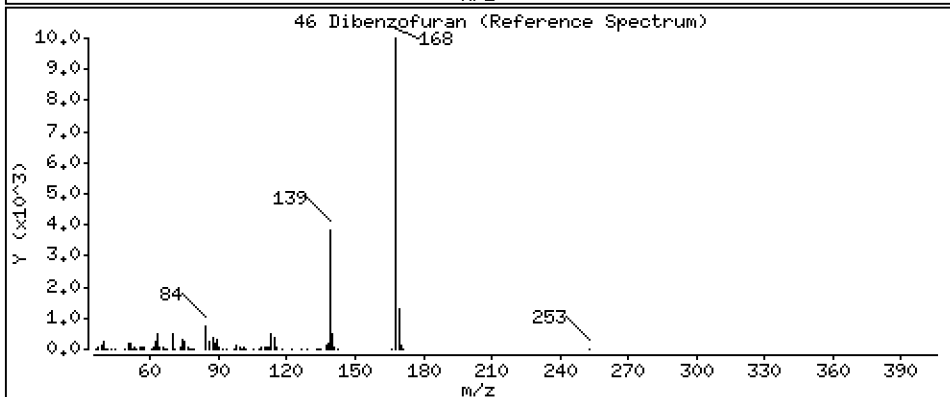
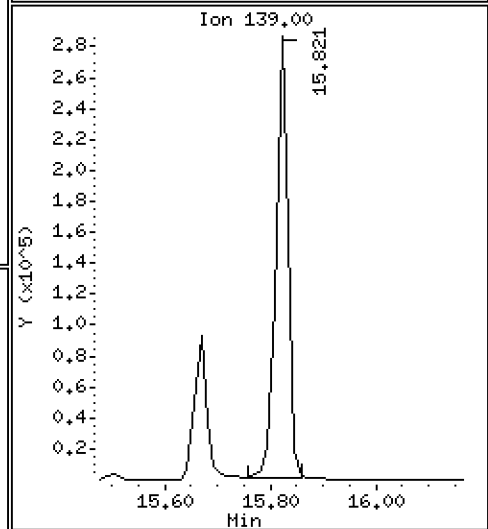
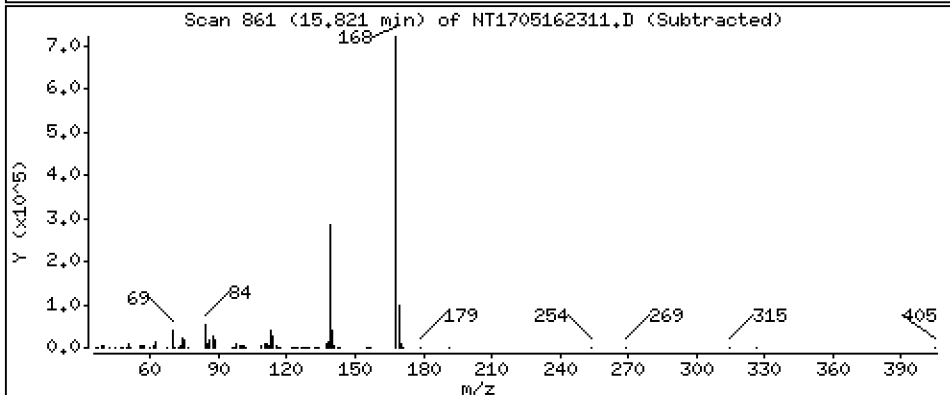
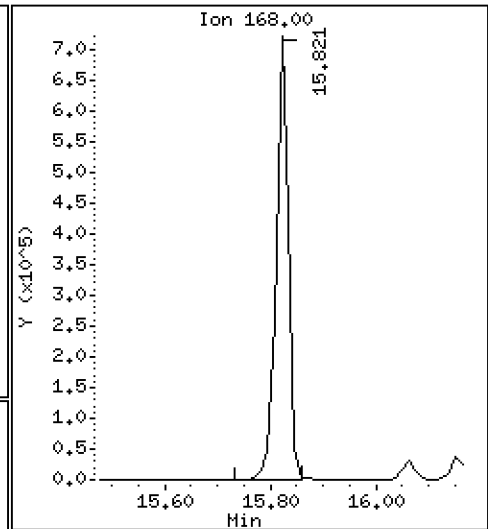
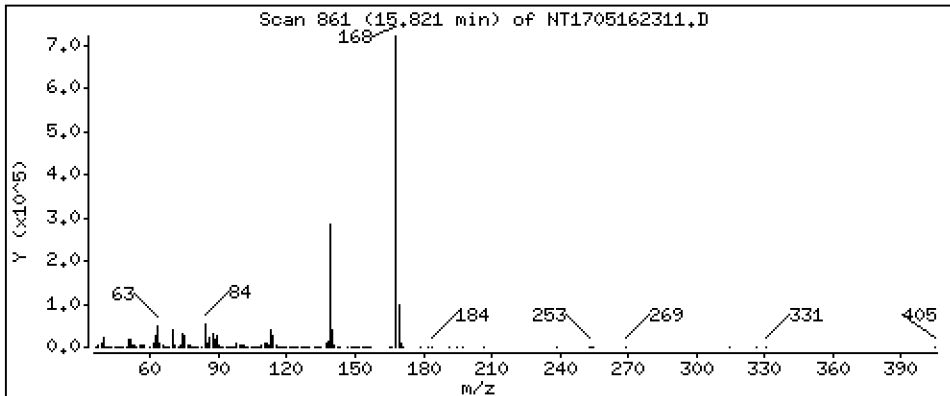
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,163 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

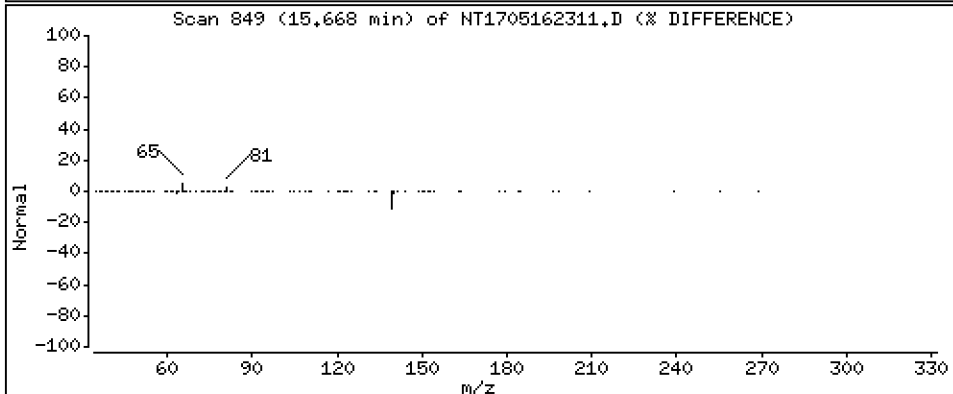
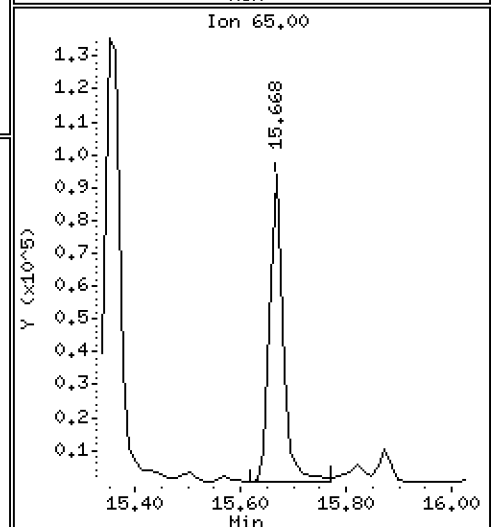
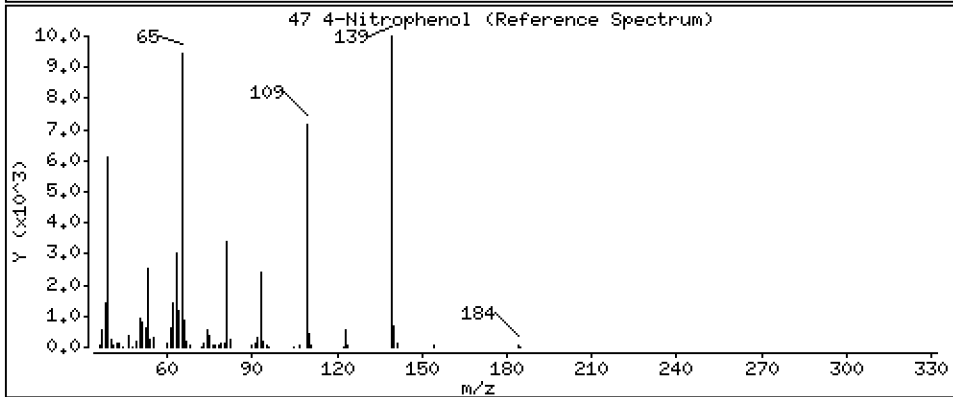
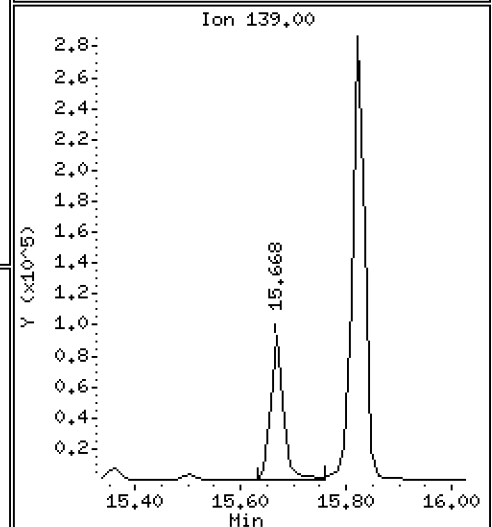
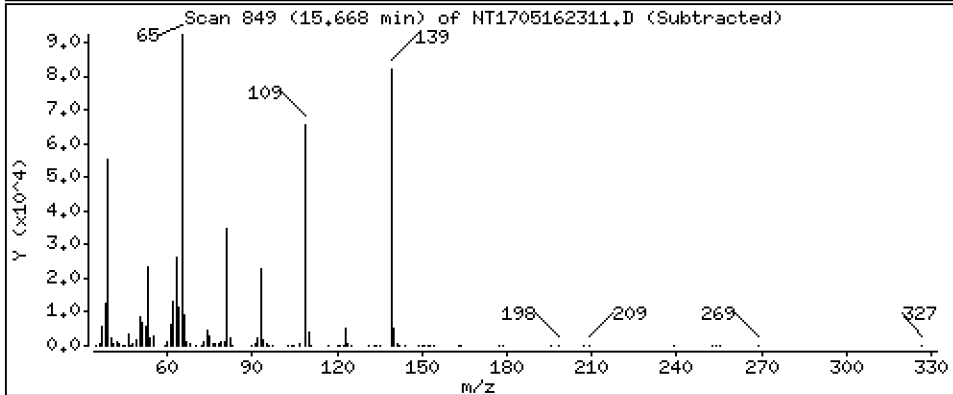
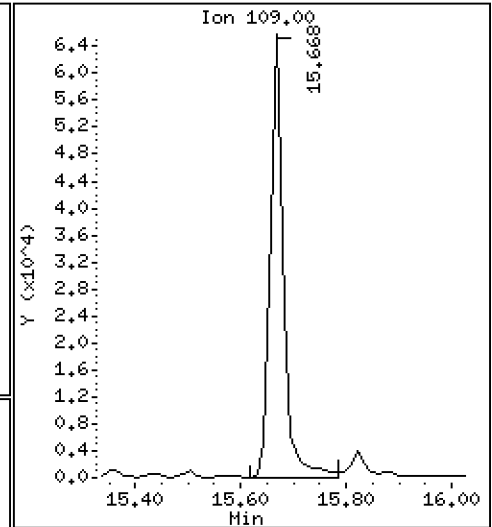
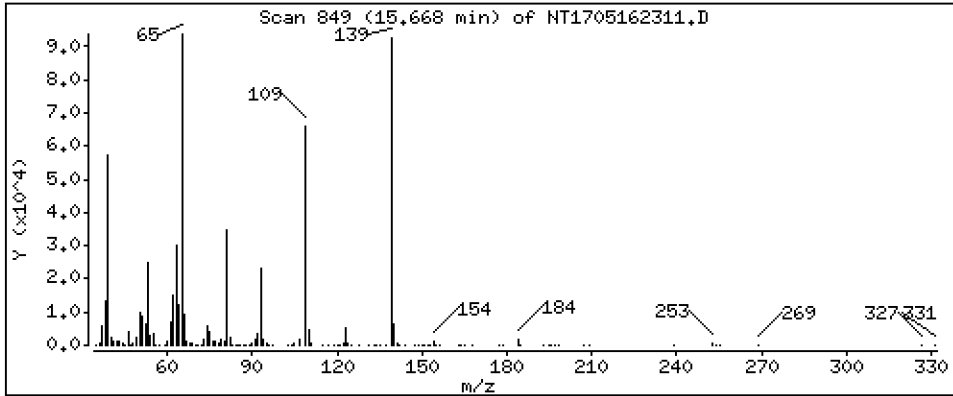
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,504 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

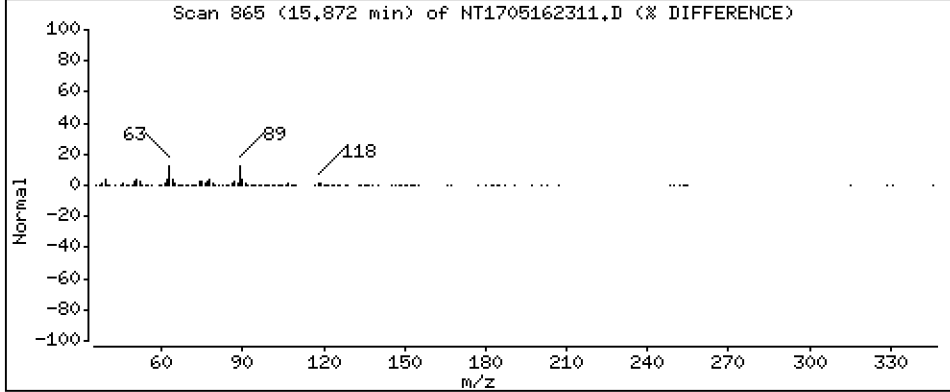
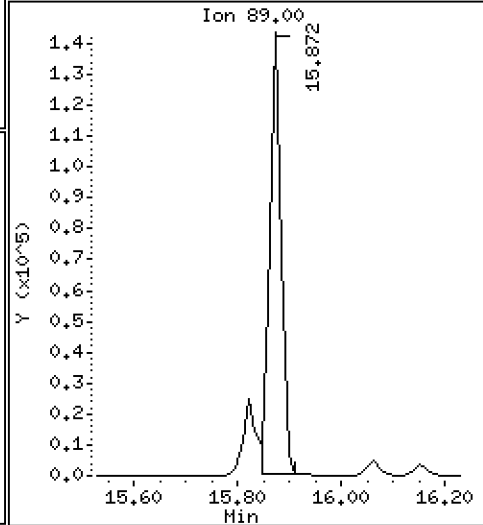
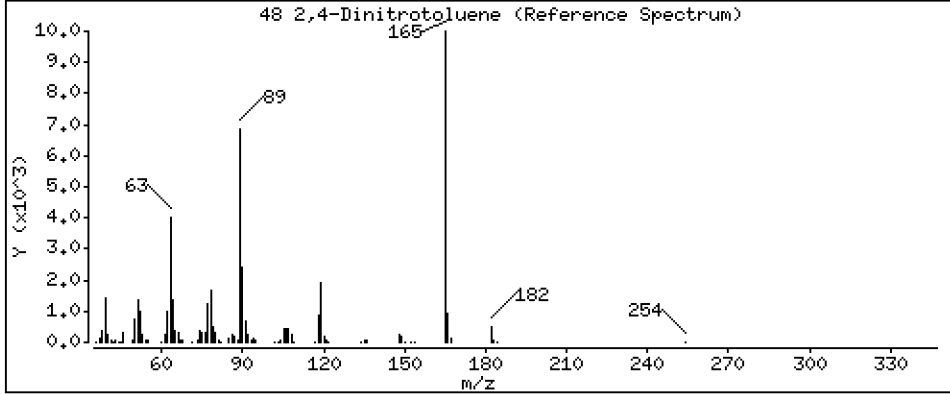
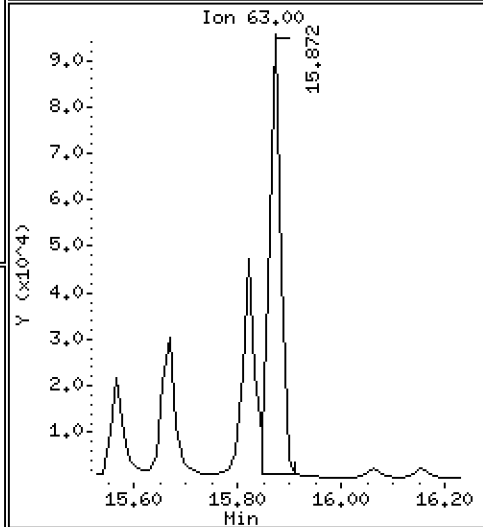
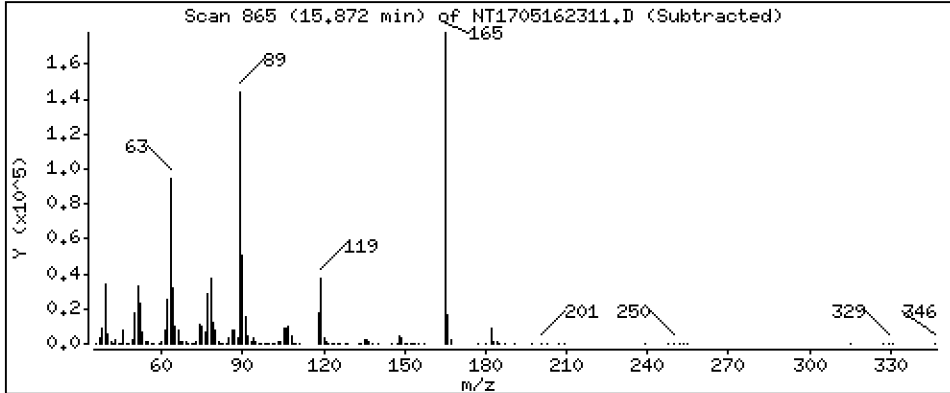
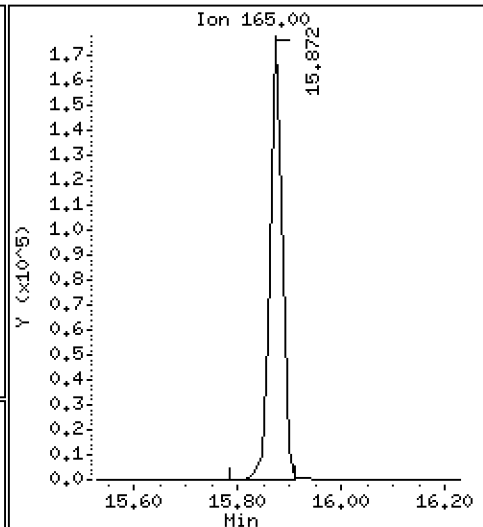
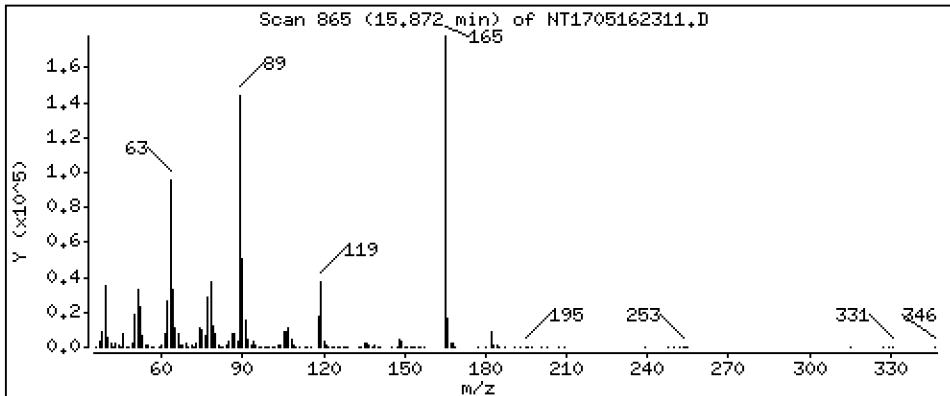
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 5,269 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

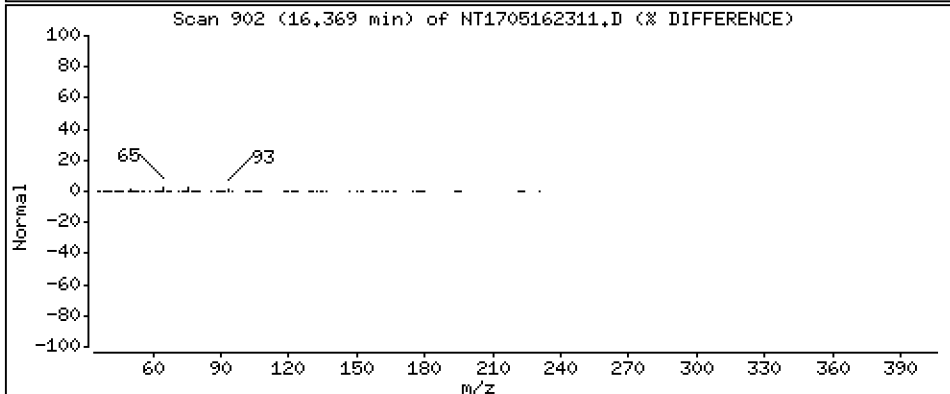
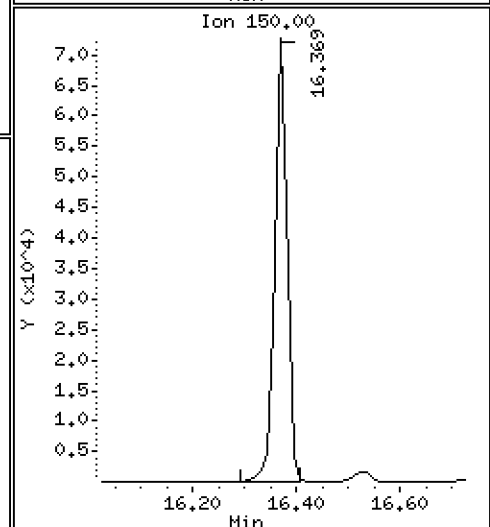
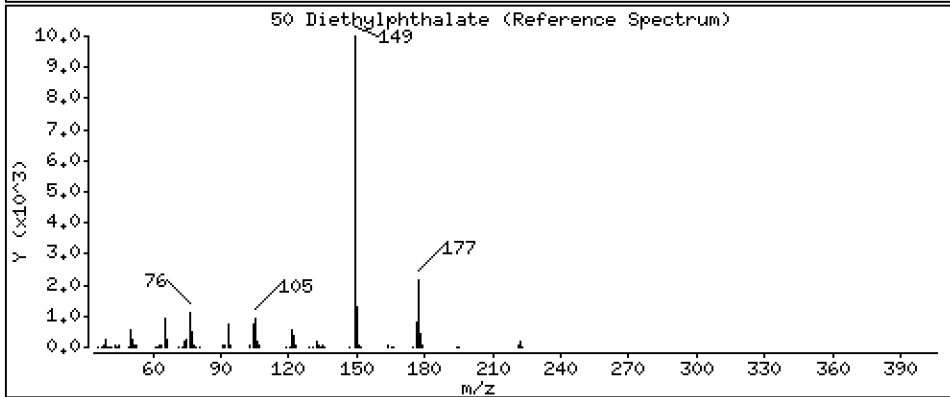
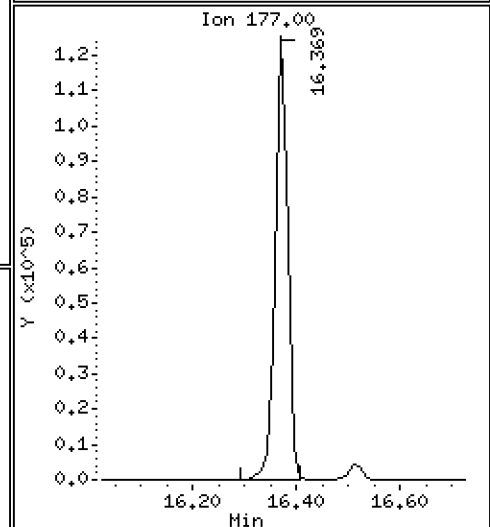
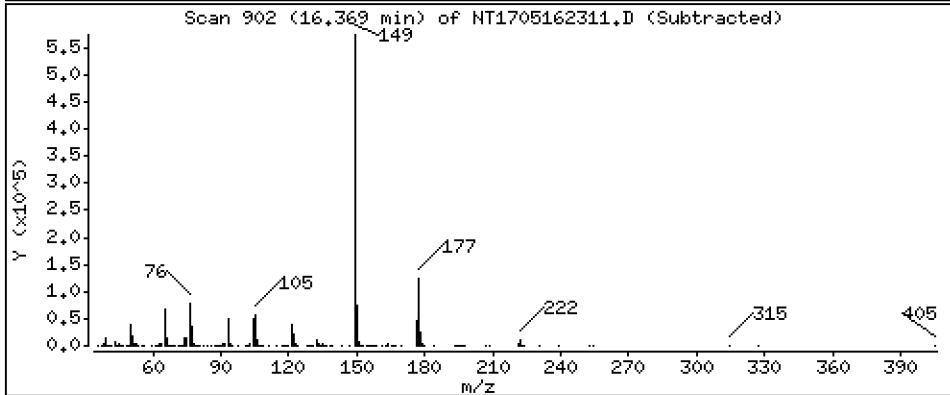
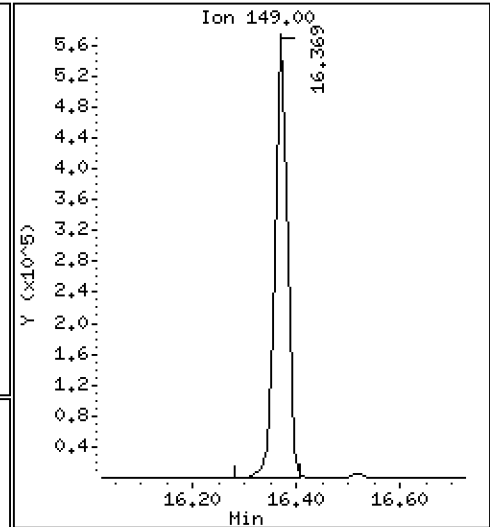
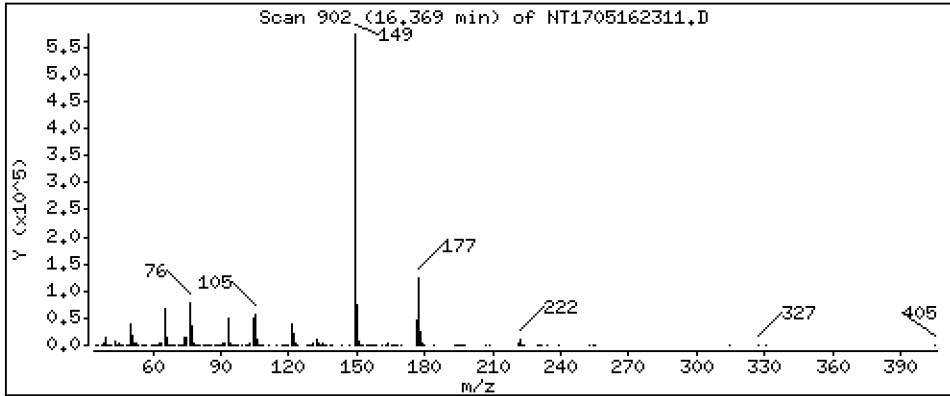
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,494 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

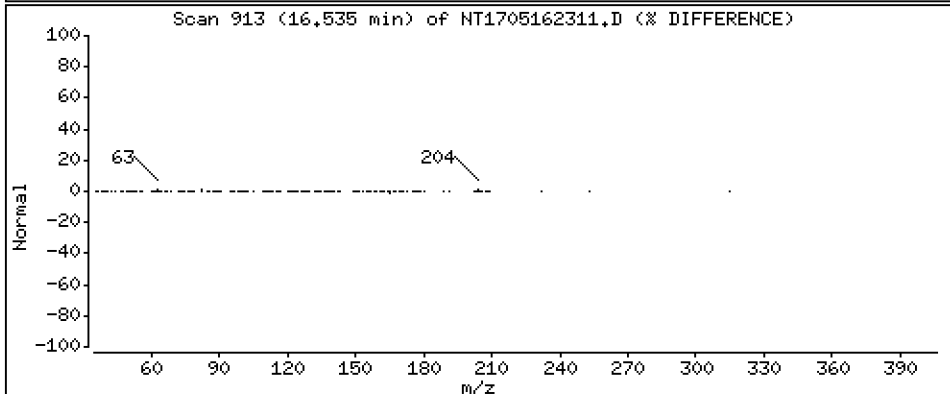
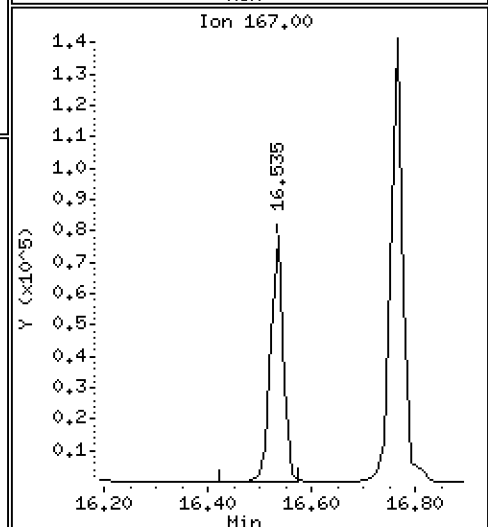
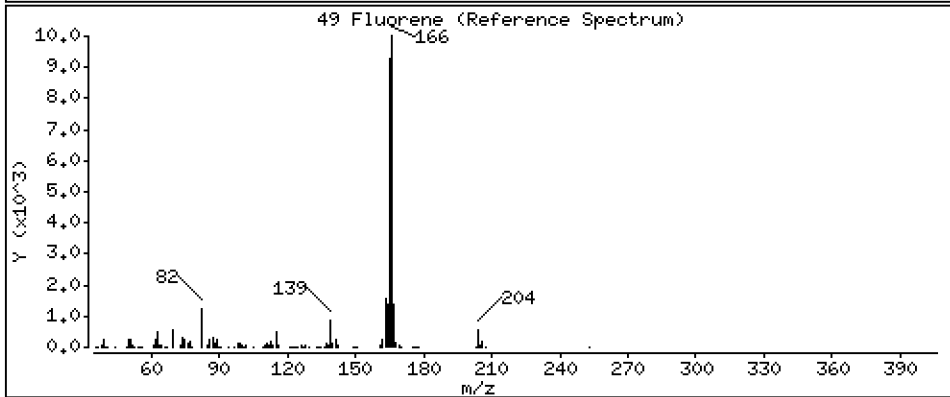
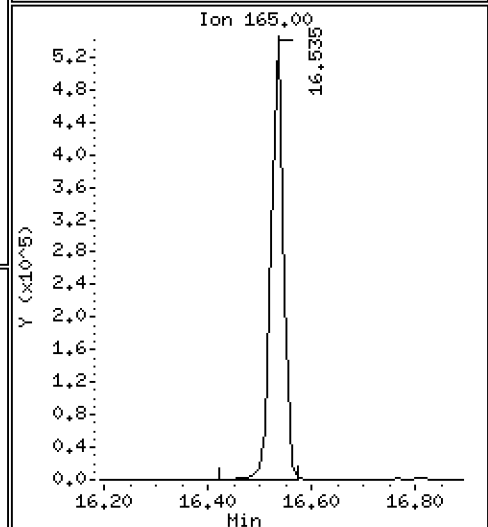
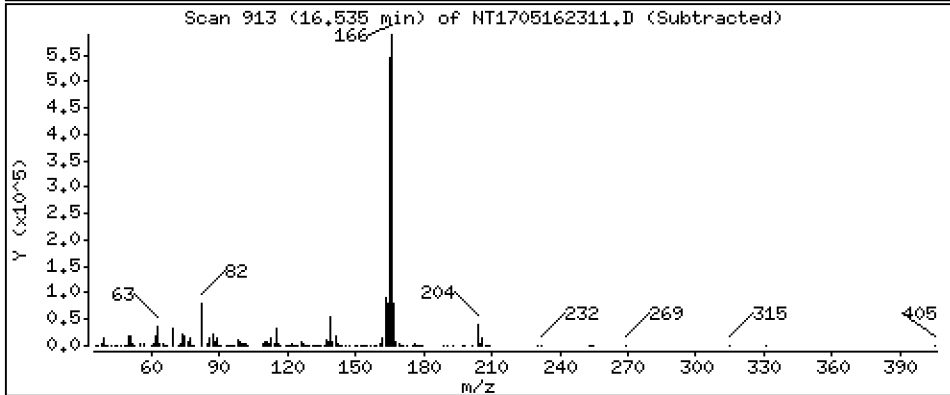
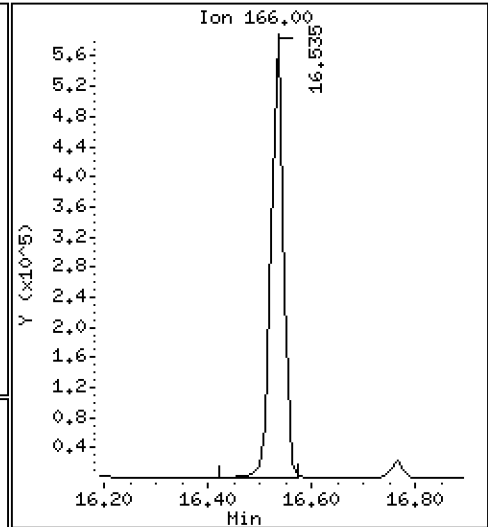
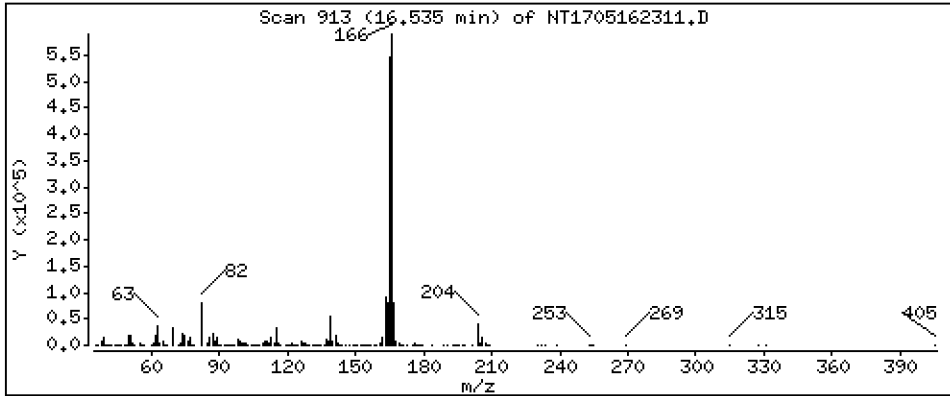
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 5,398 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

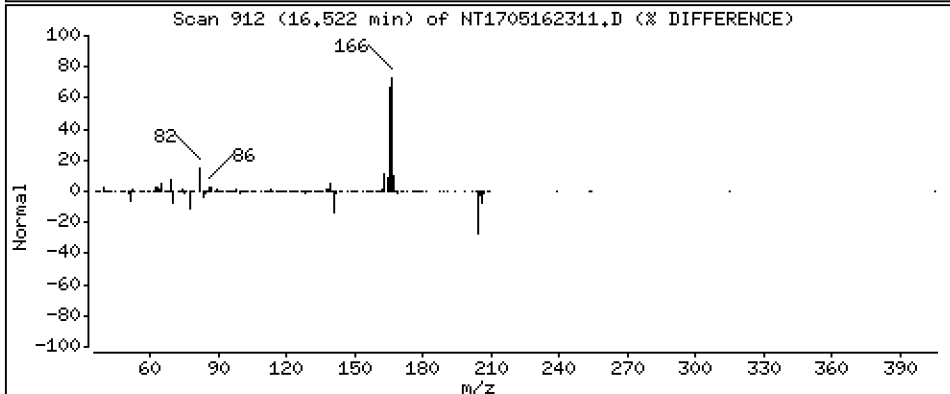
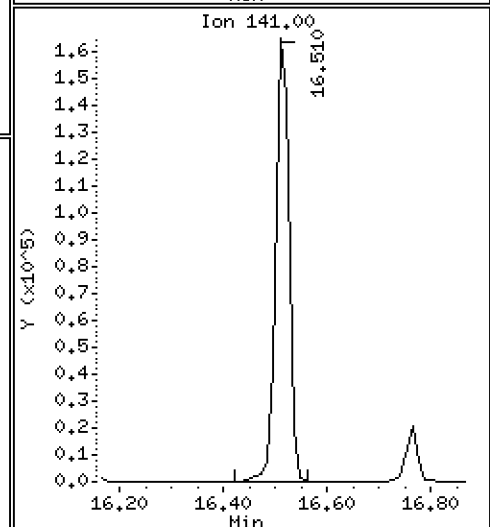
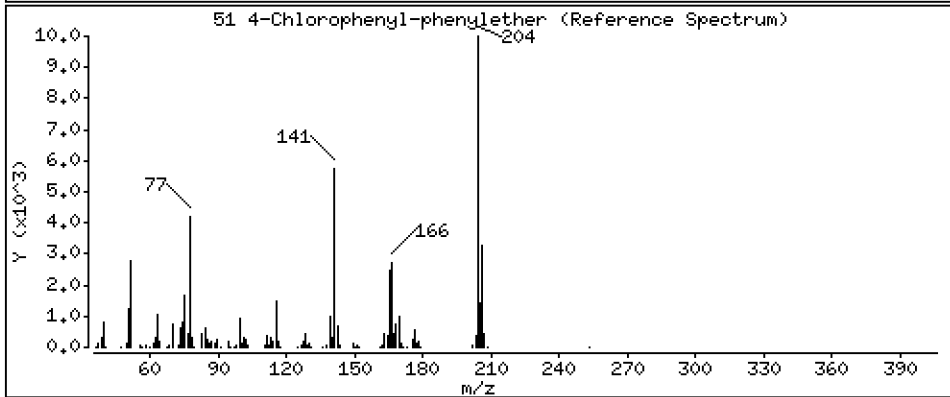
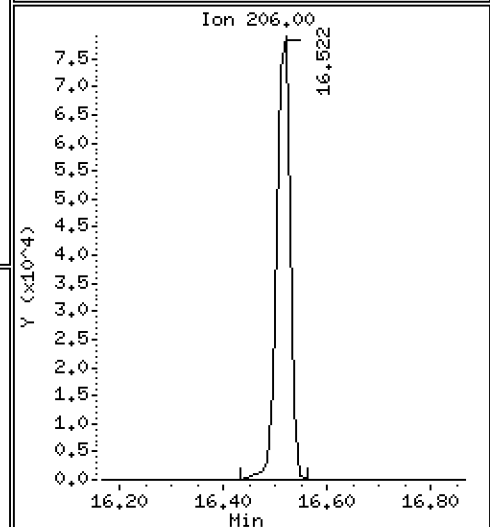
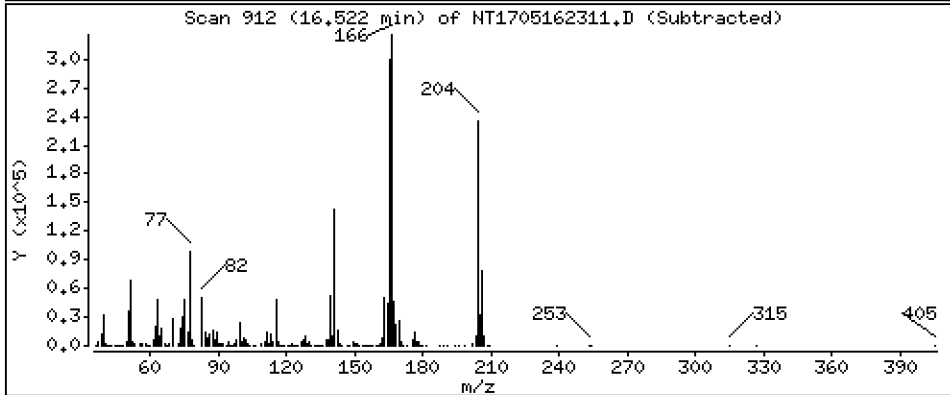
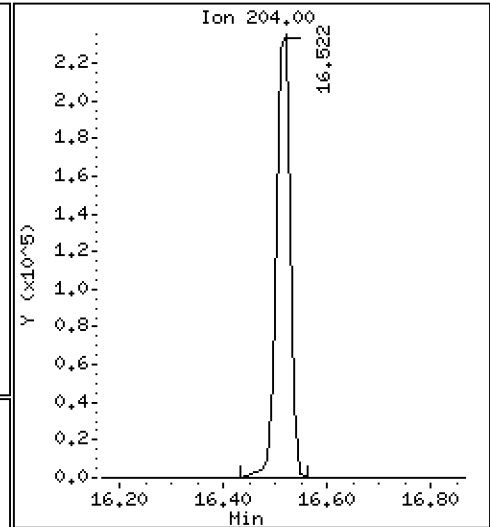
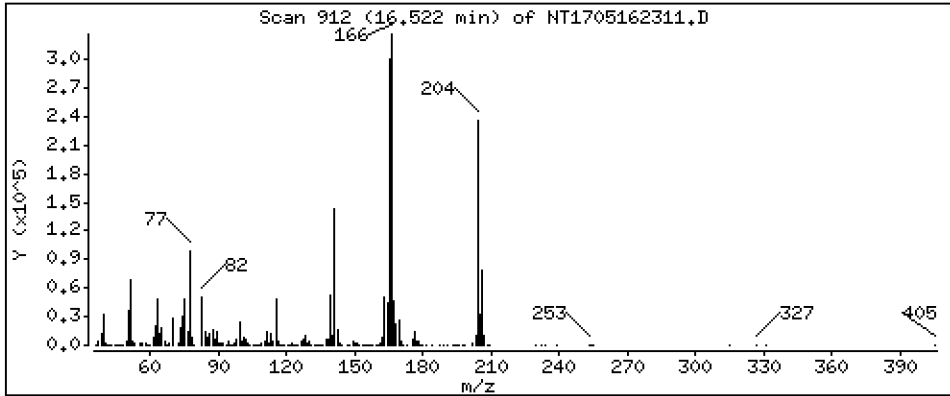
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 5,462 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

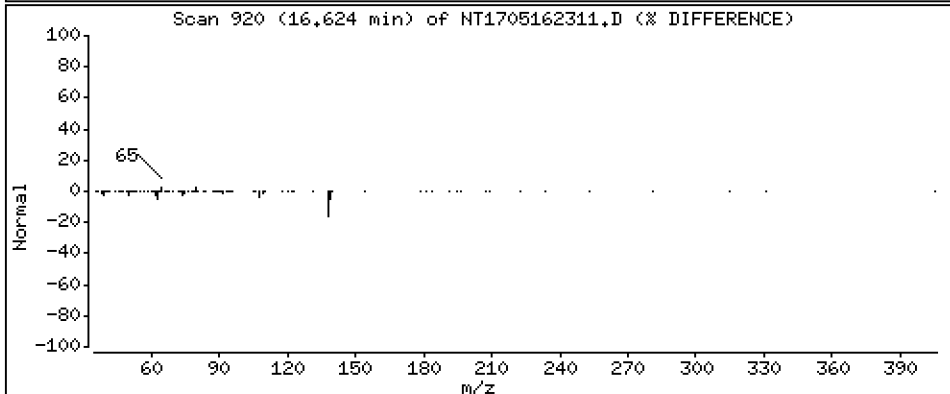
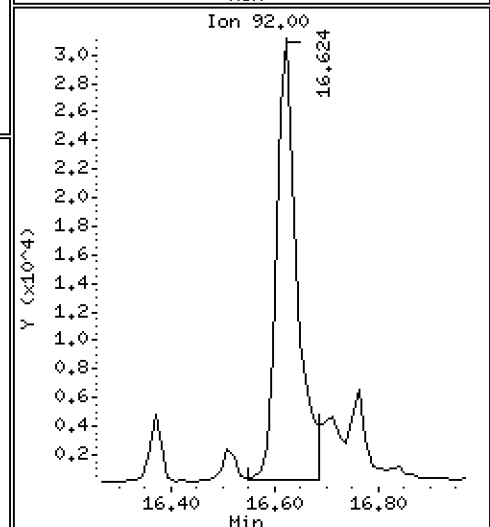
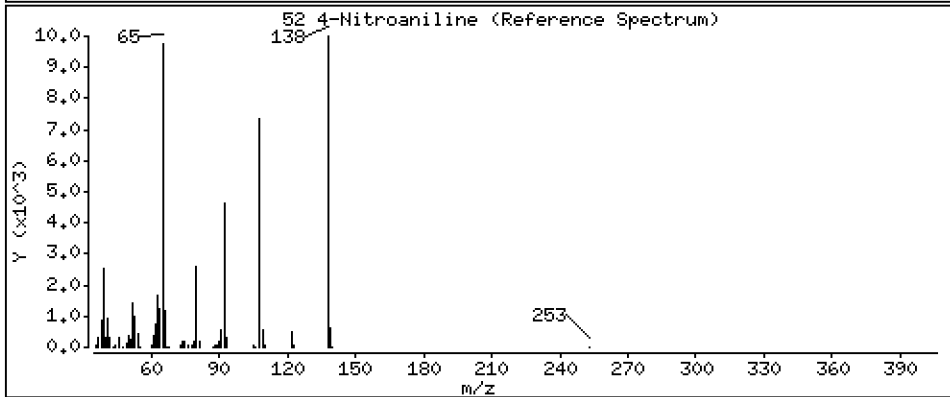
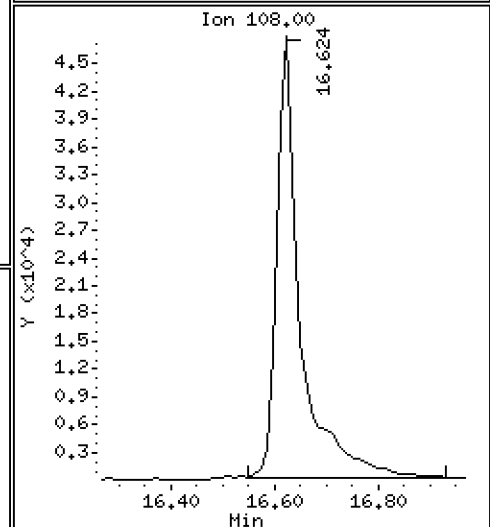
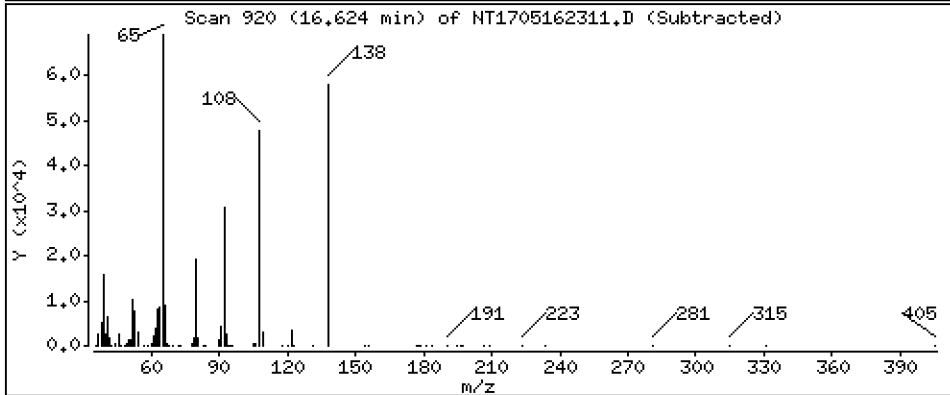
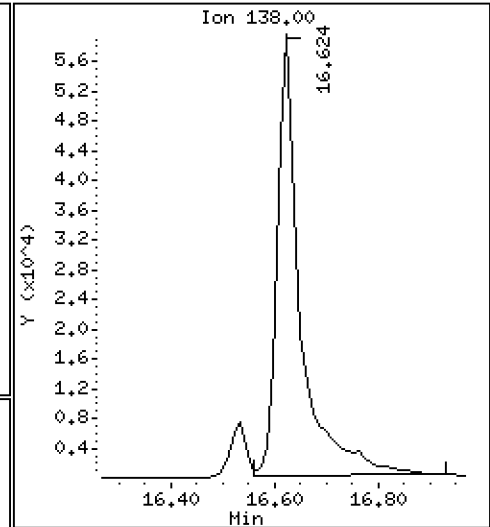
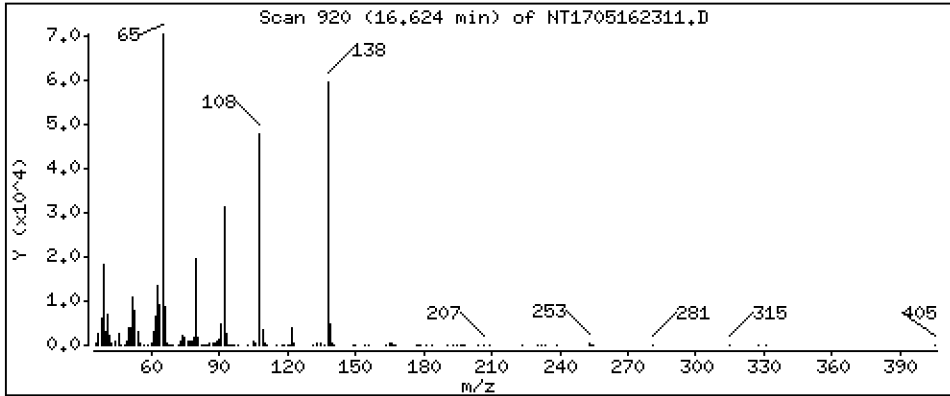
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,108 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

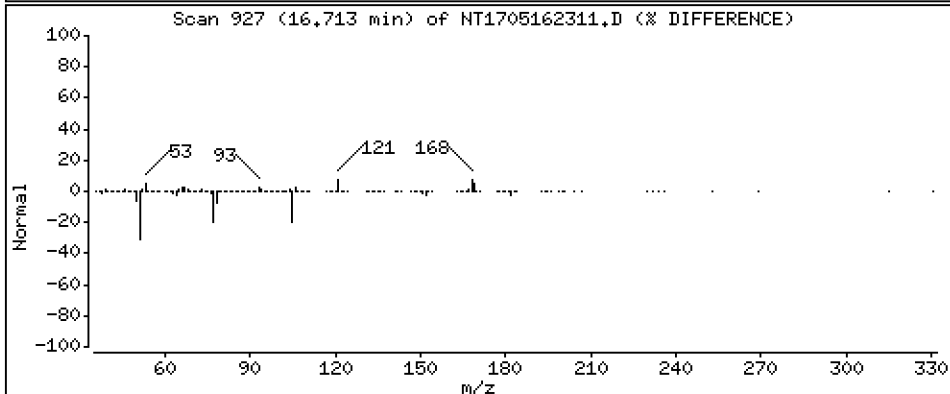
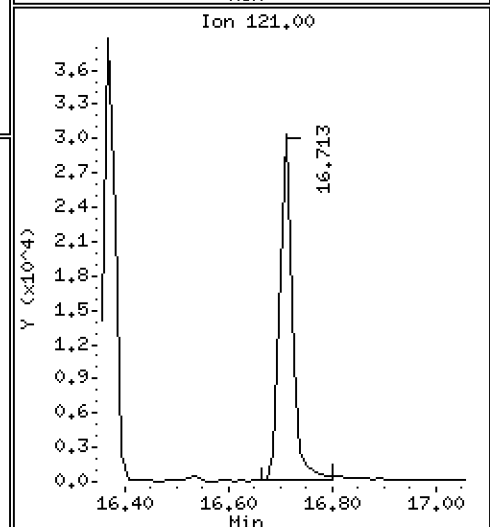
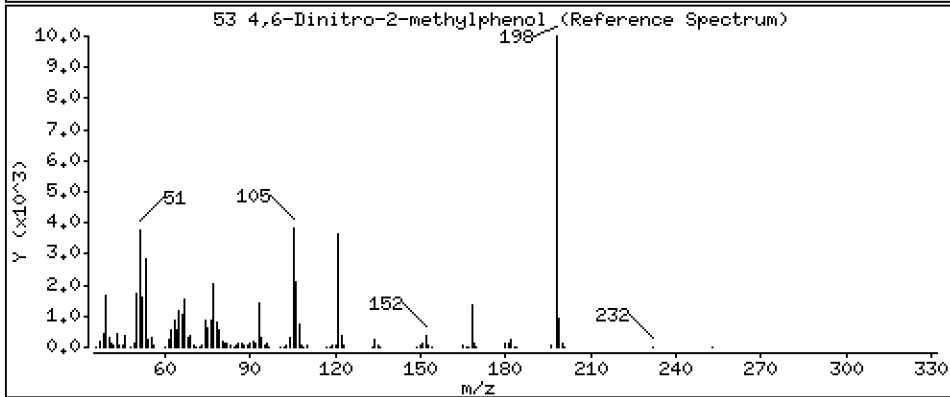
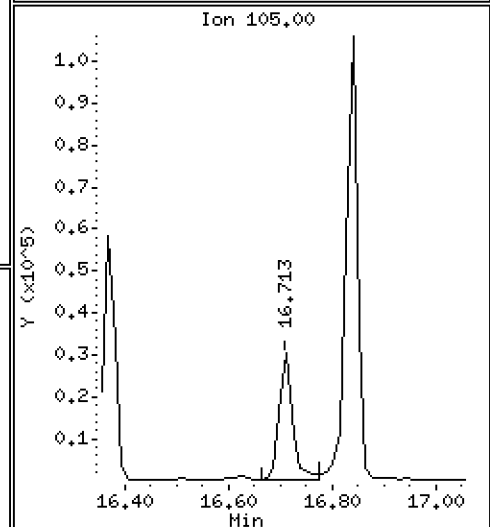
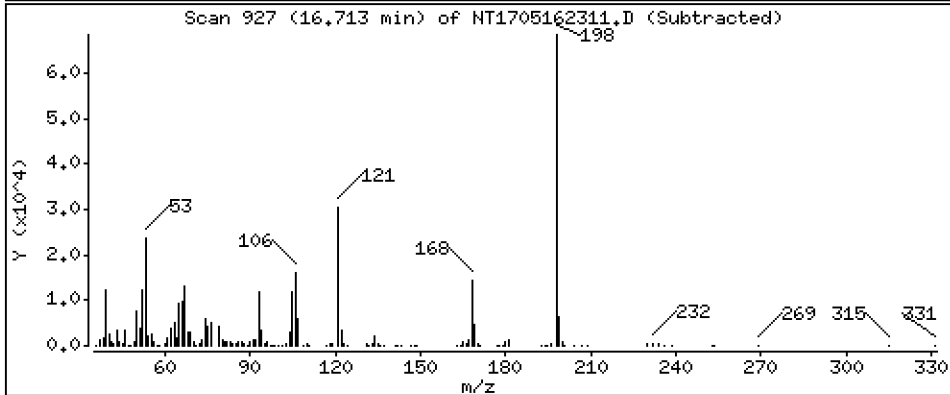
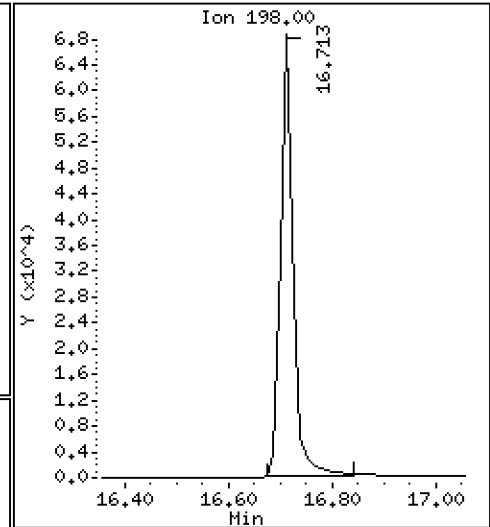
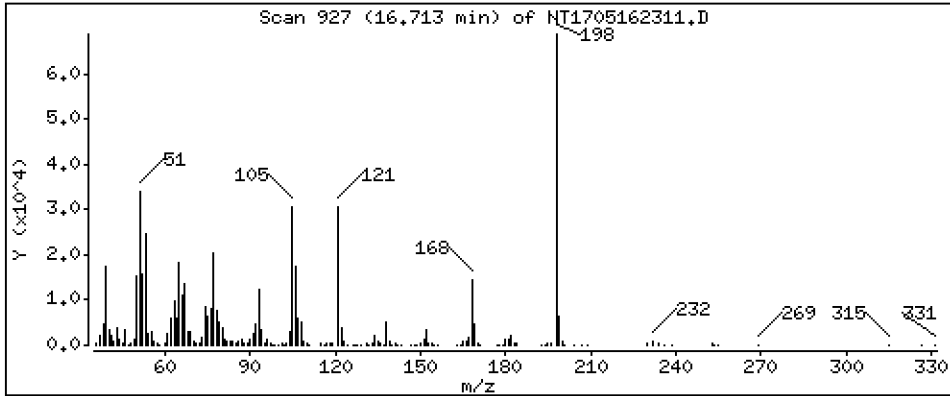
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,355 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

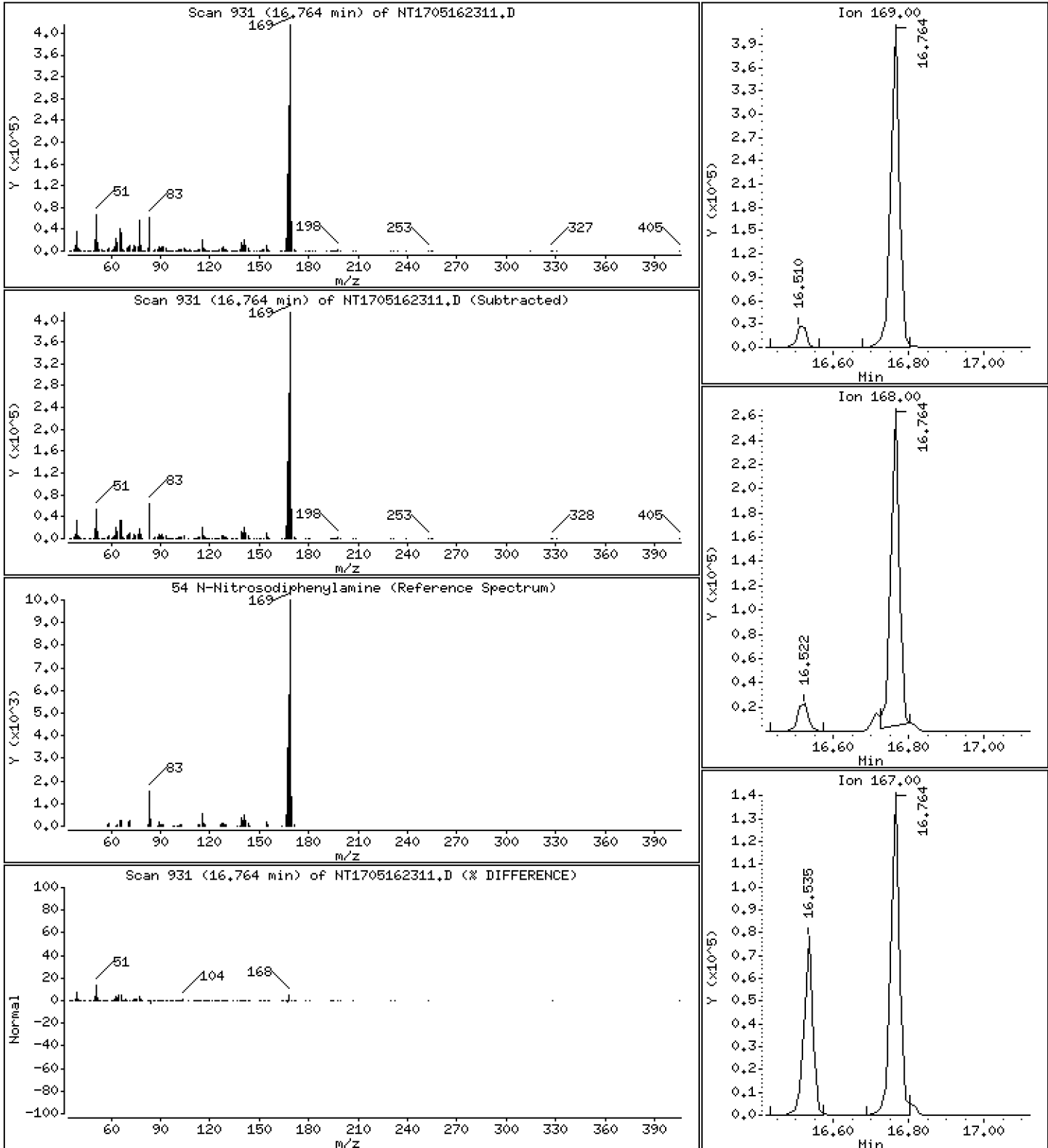
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,470 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

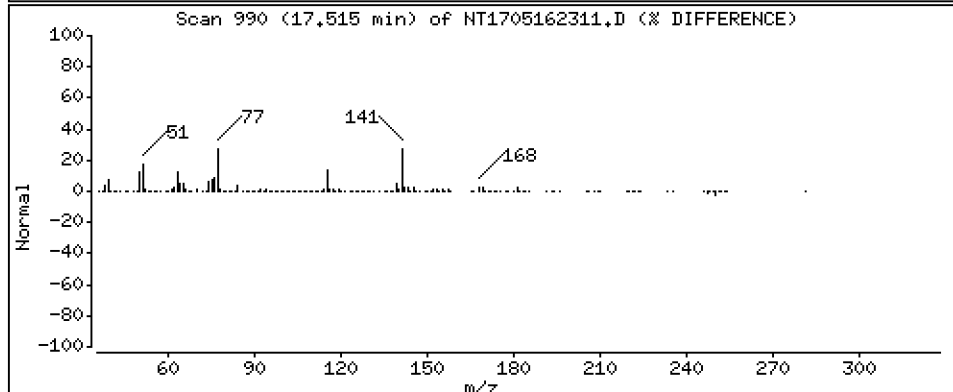
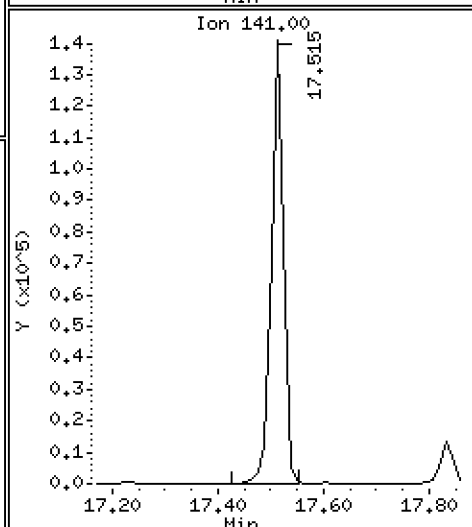
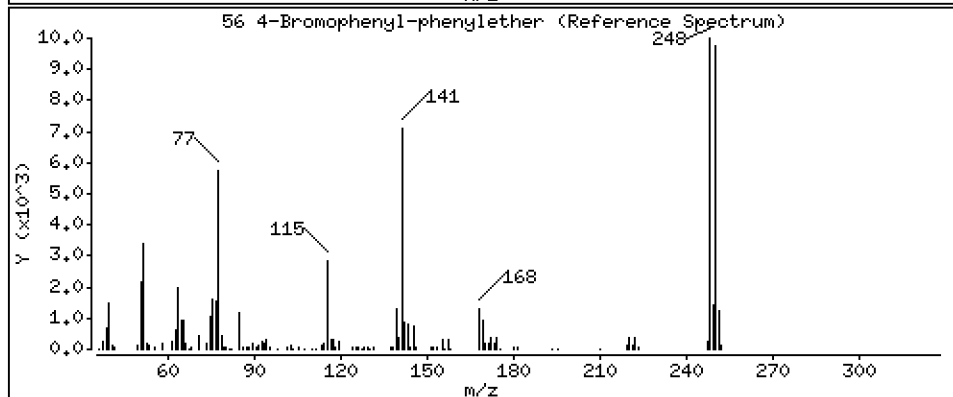
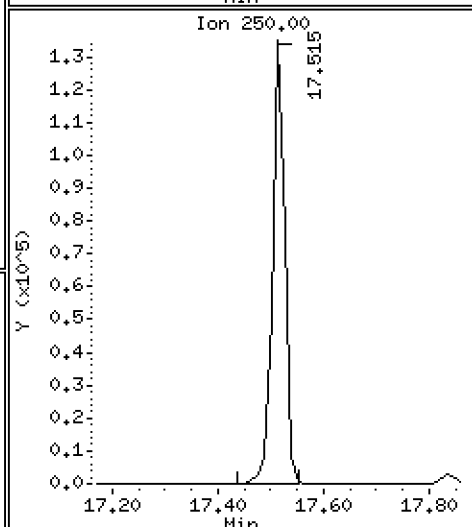
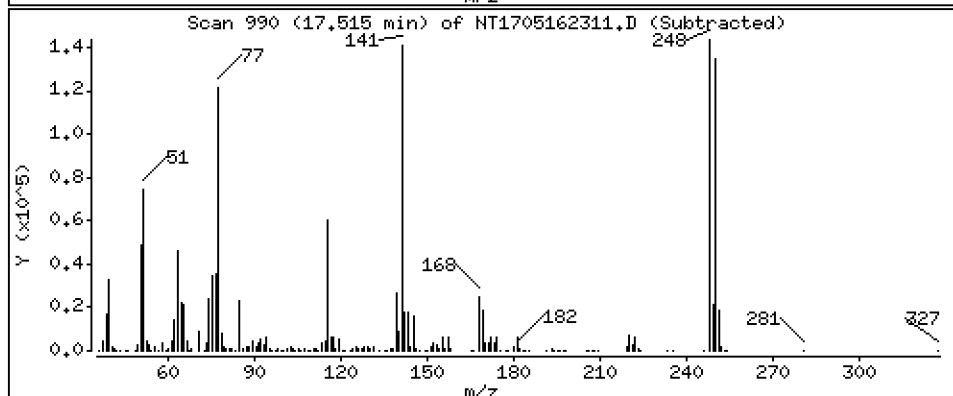
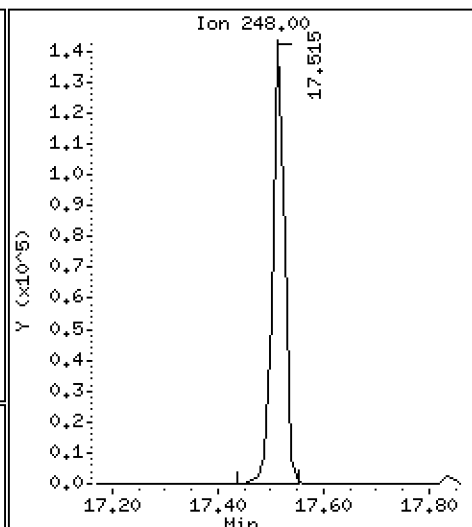
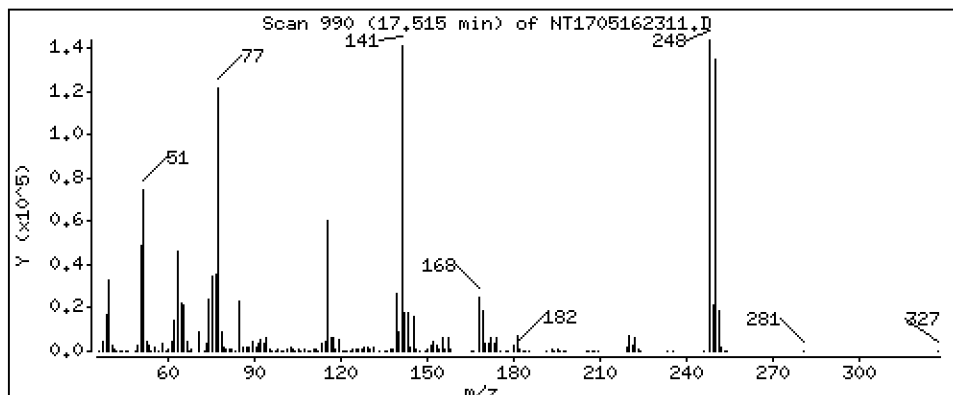
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 5,420 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

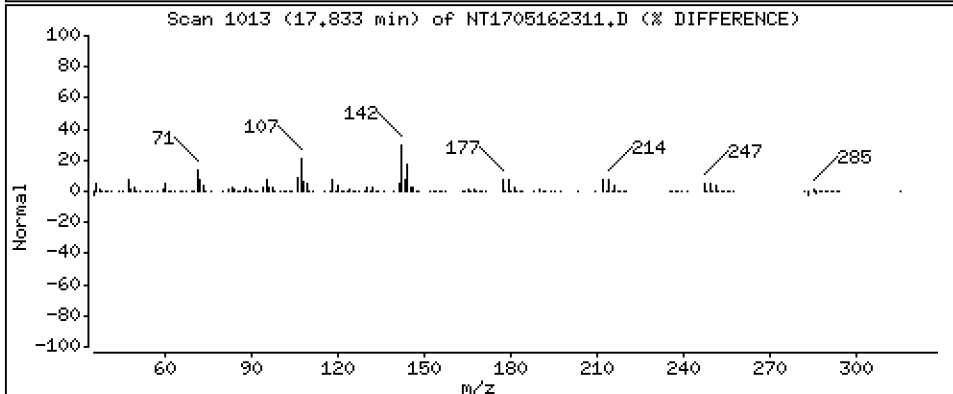
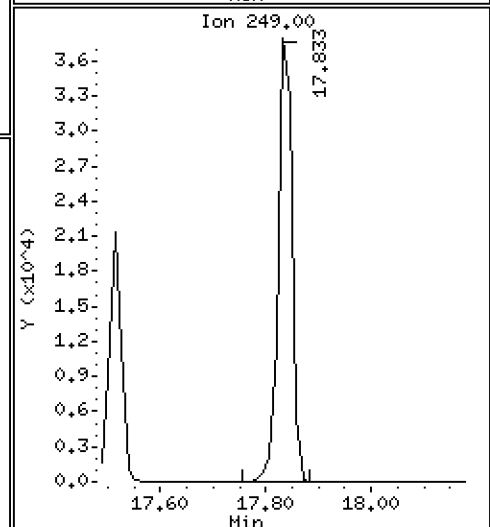
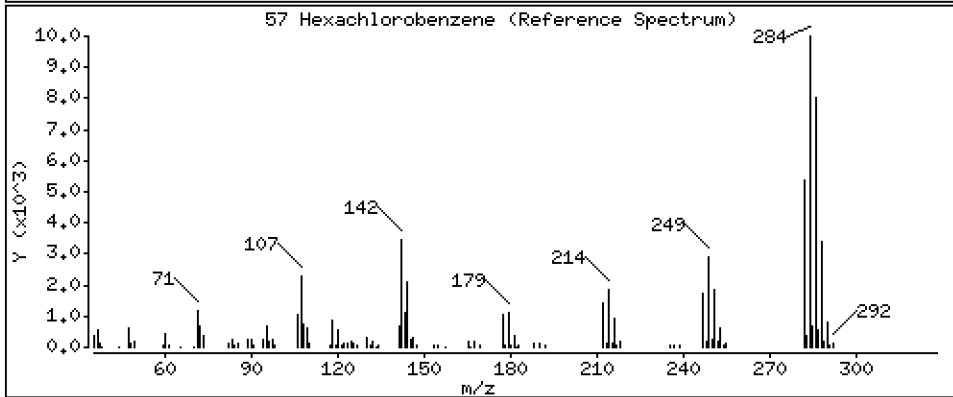
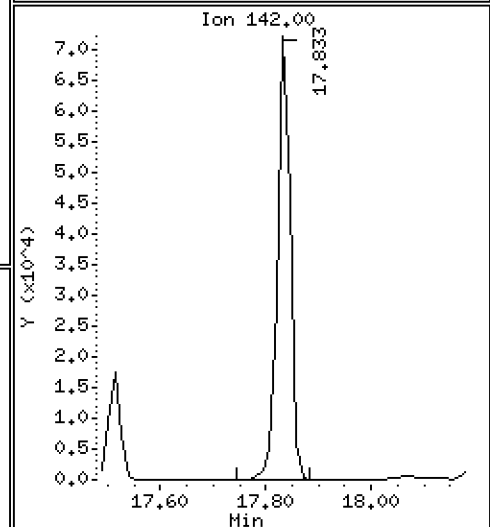
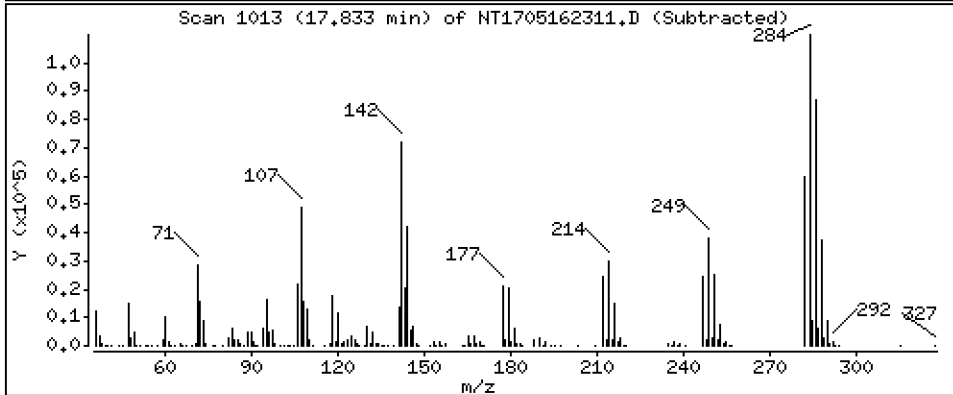
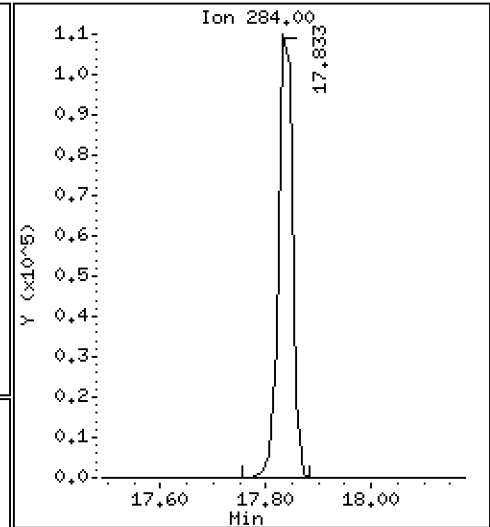
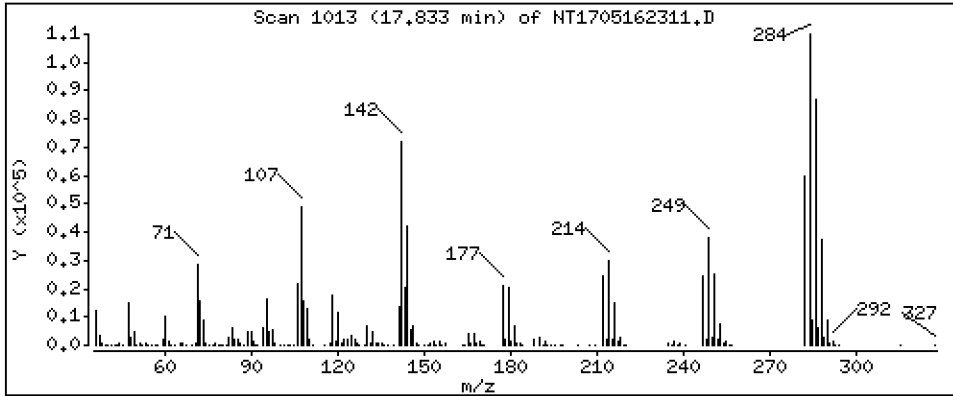
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,913 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

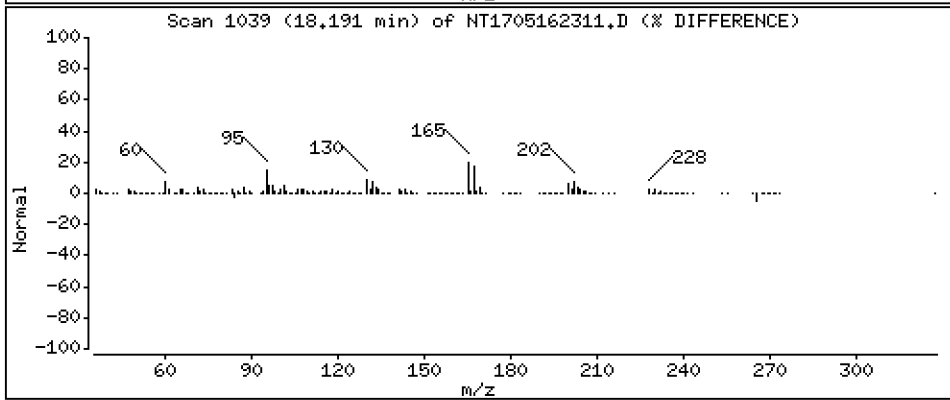
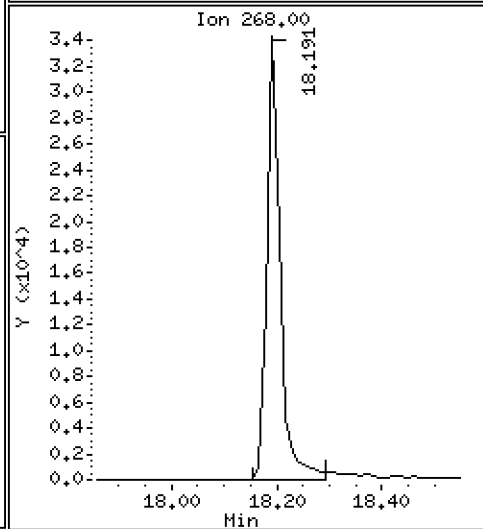
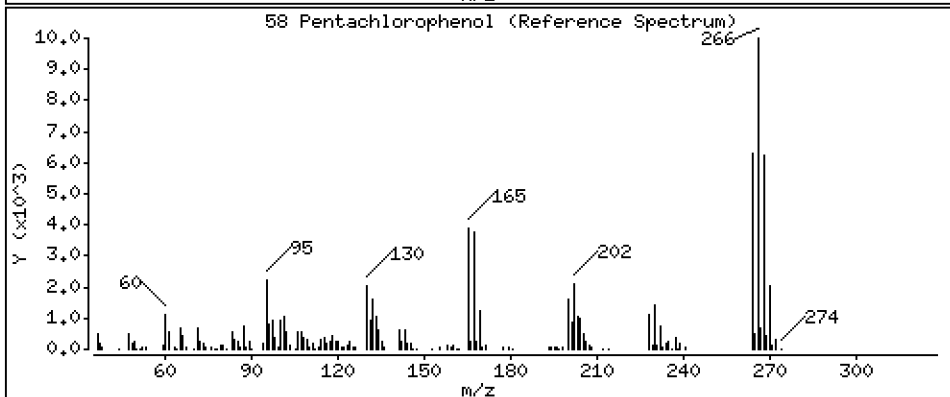
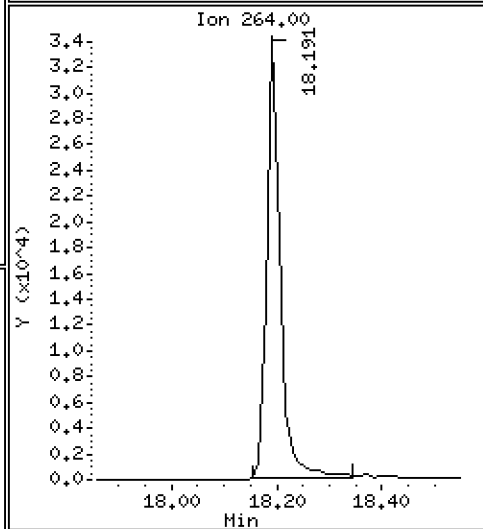
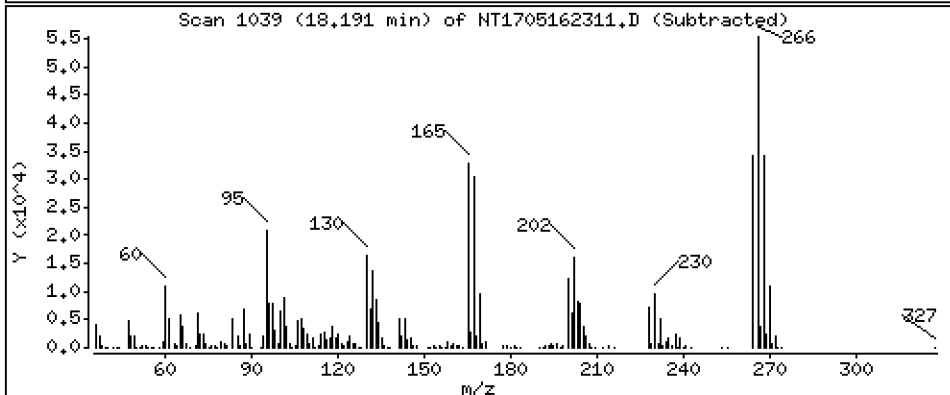
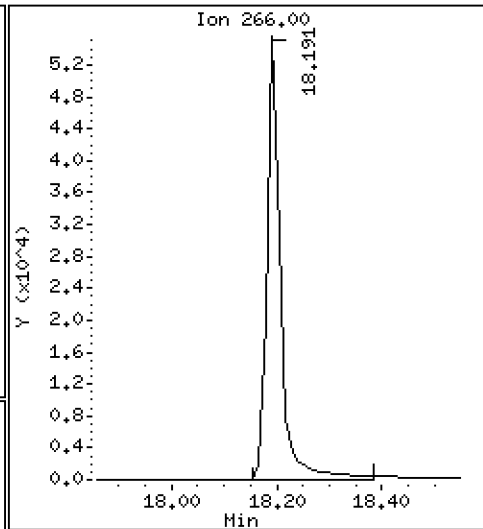
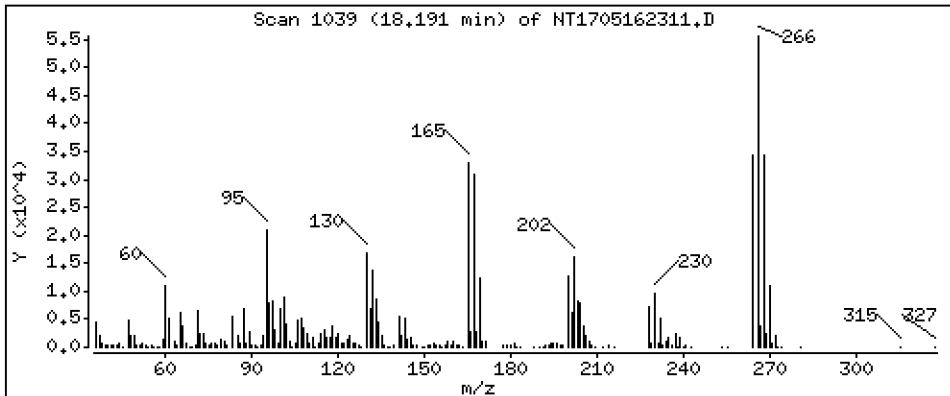
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

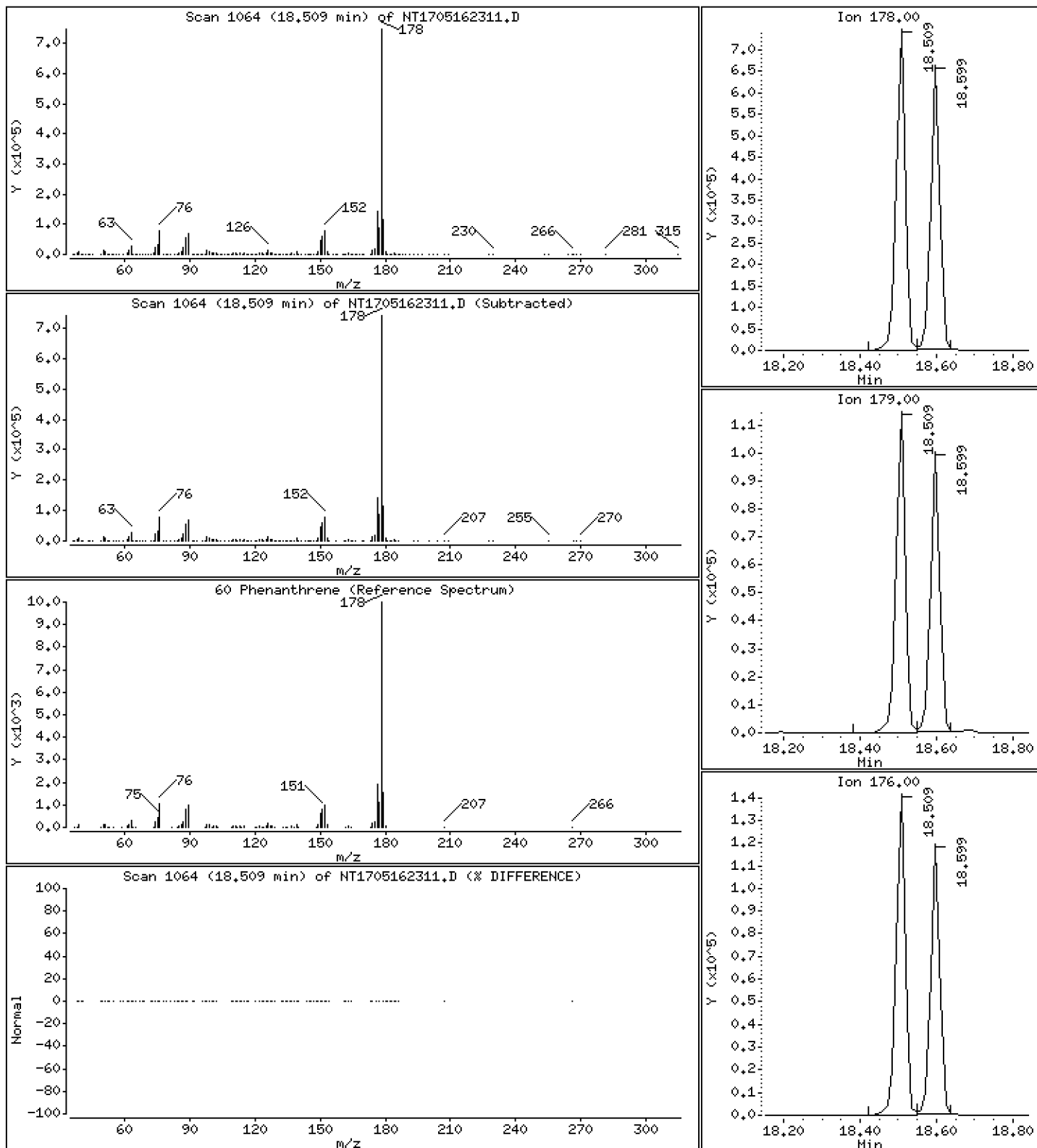
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,039 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

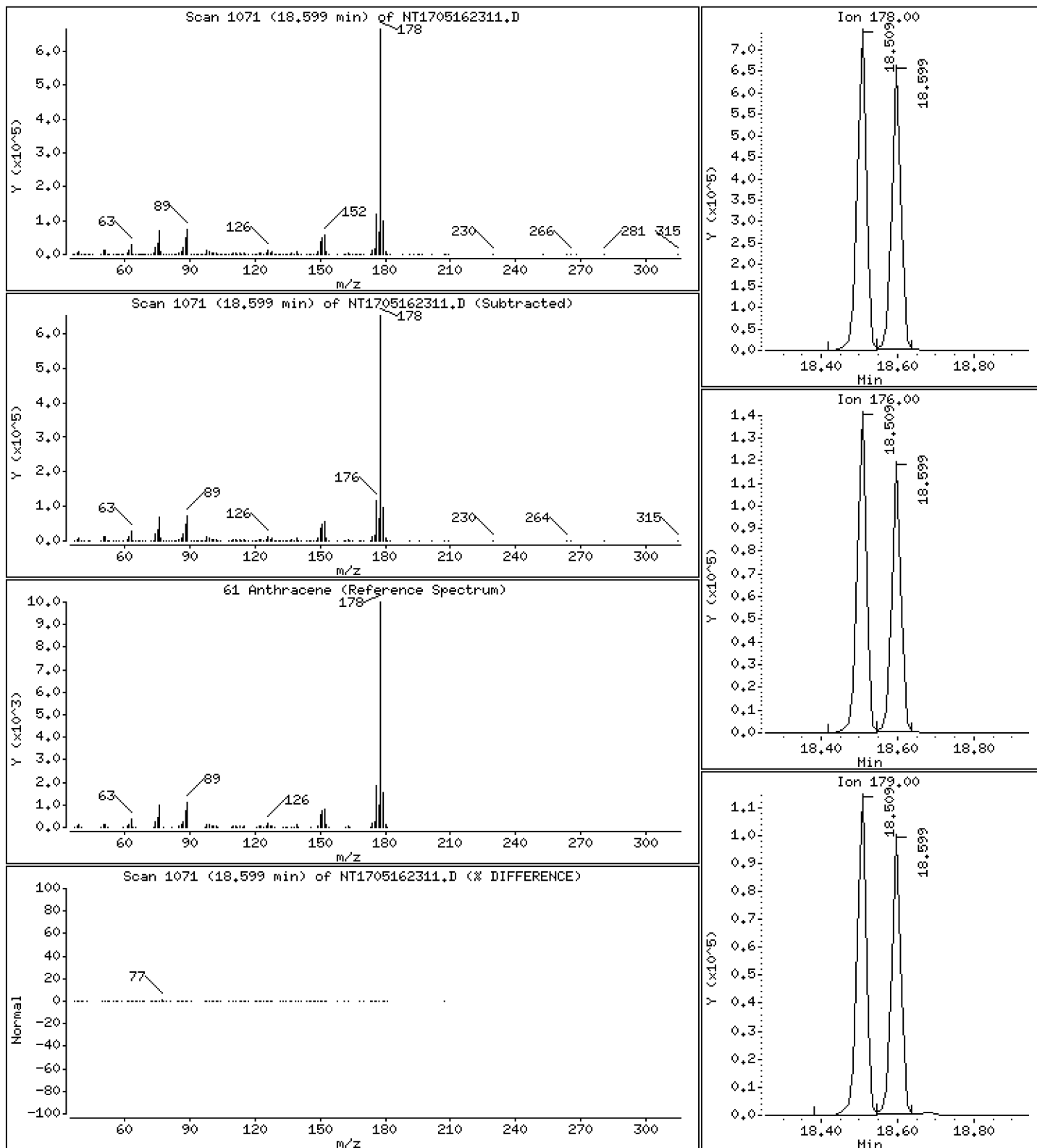
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,530 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

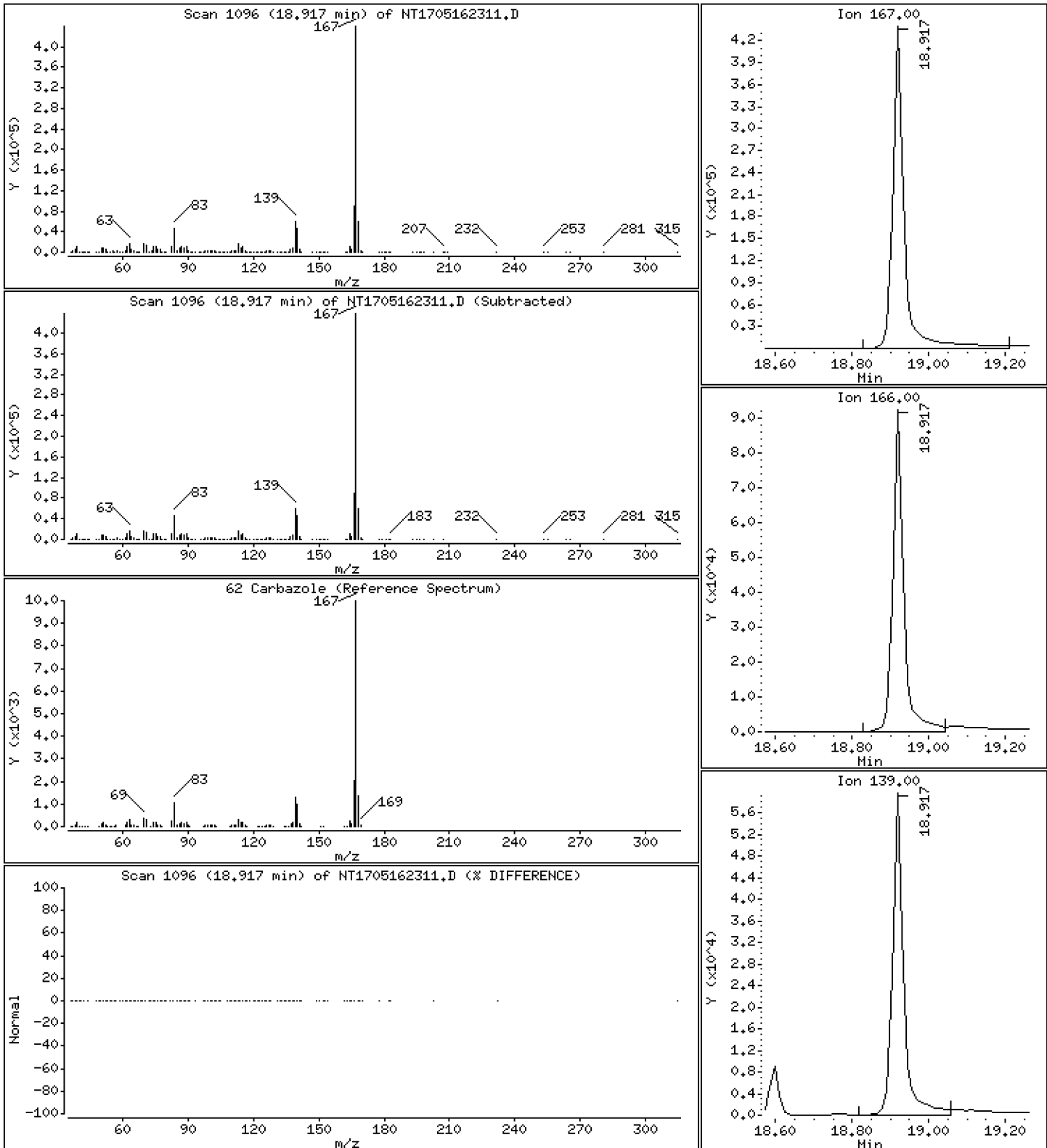
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,938 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

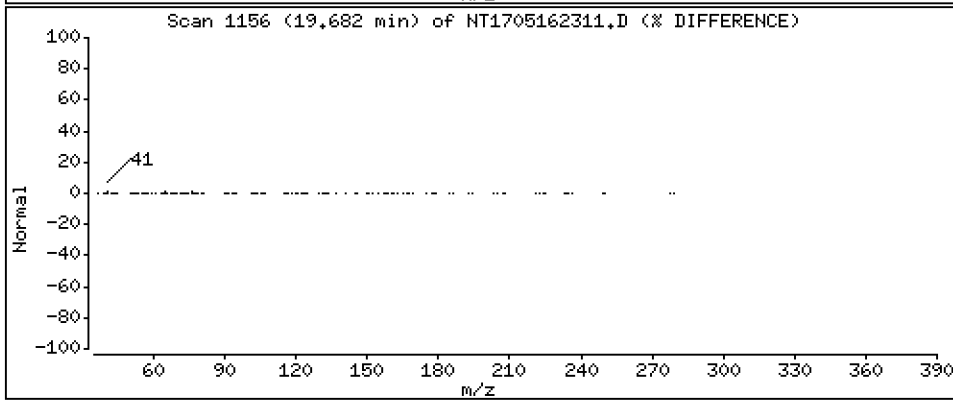
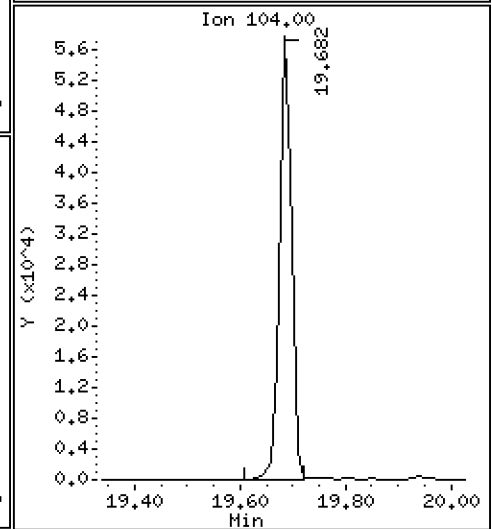
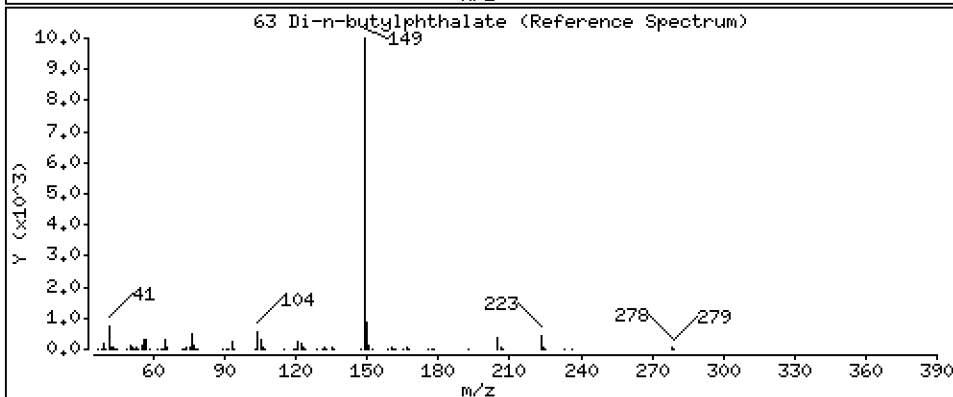
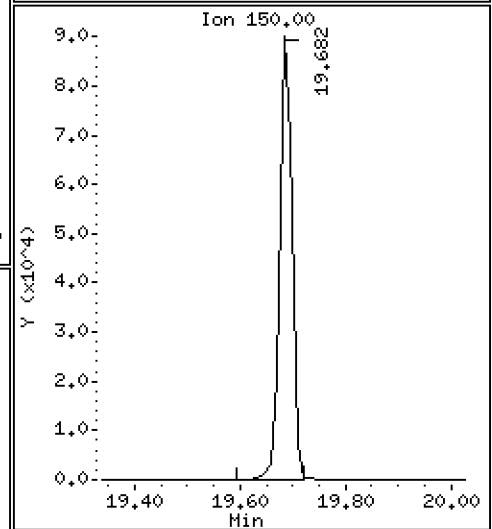
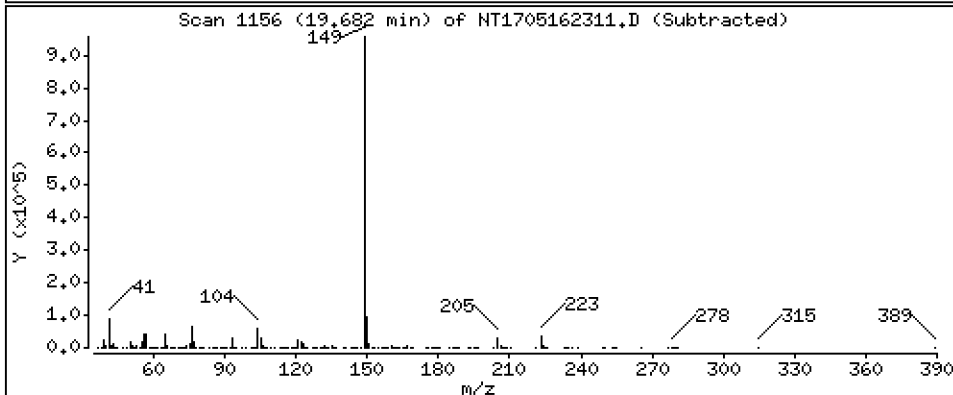
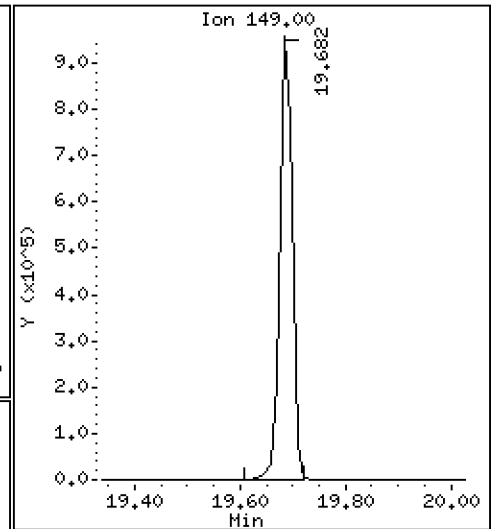
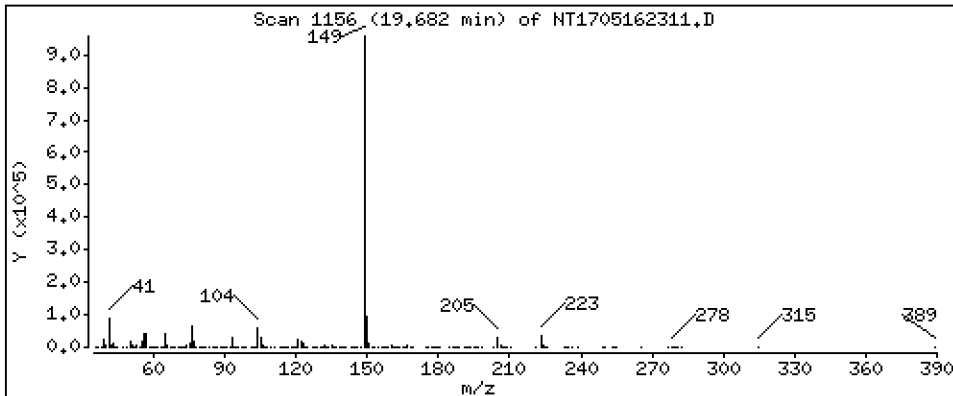
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 5,642 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

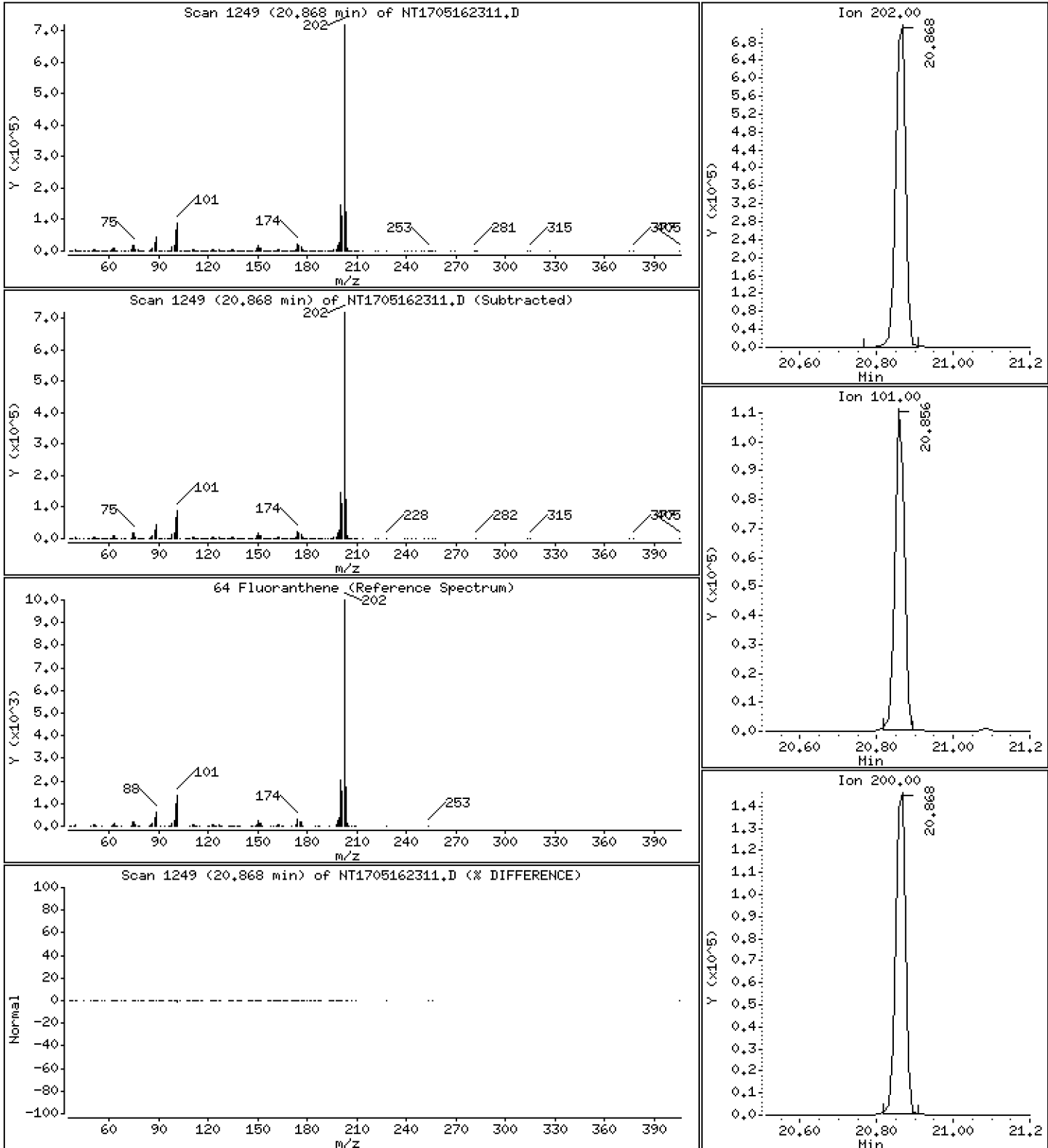
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,467 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

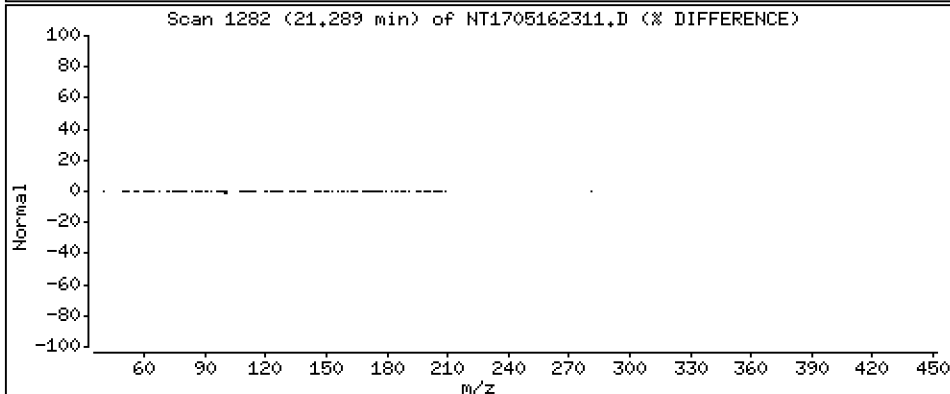
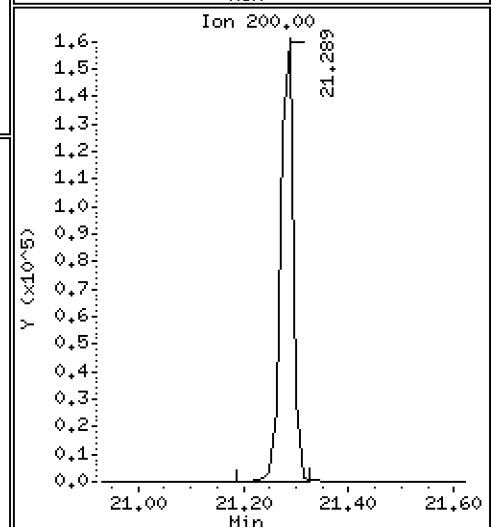
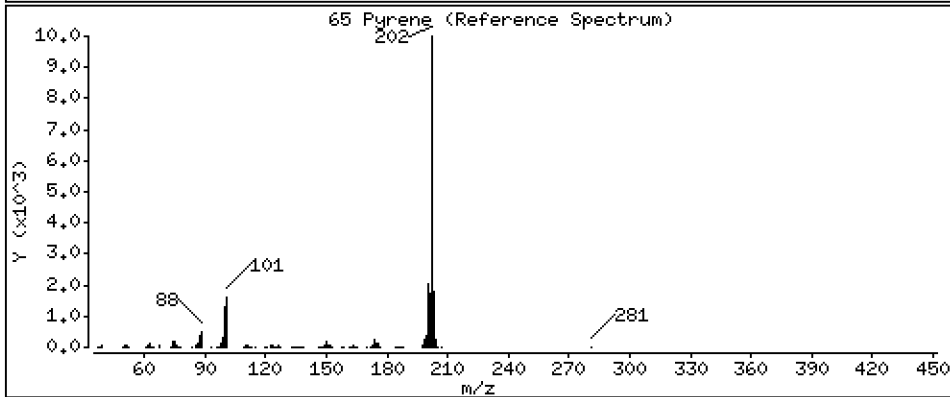
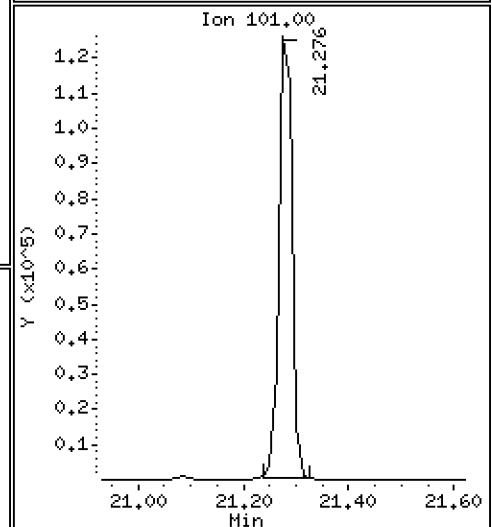
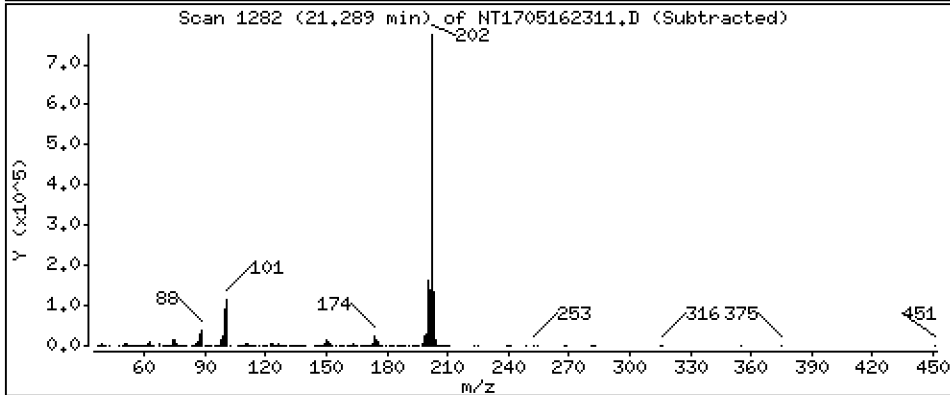
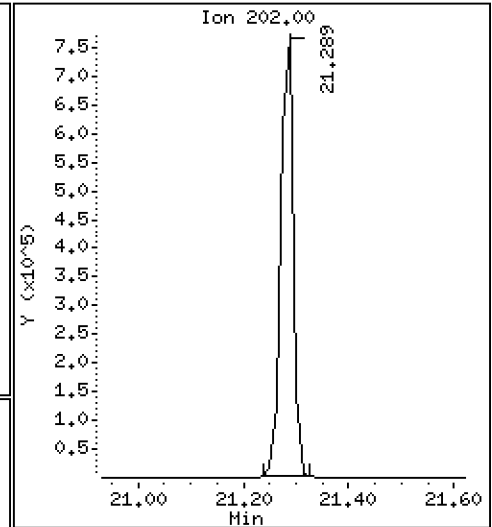
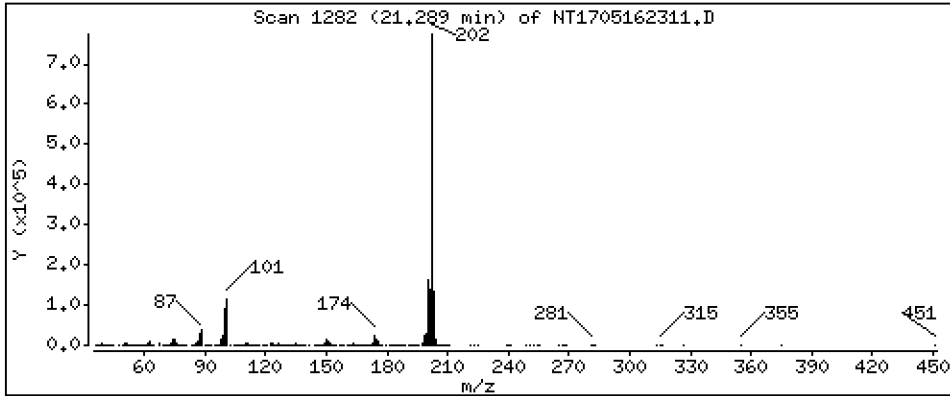
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,265 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

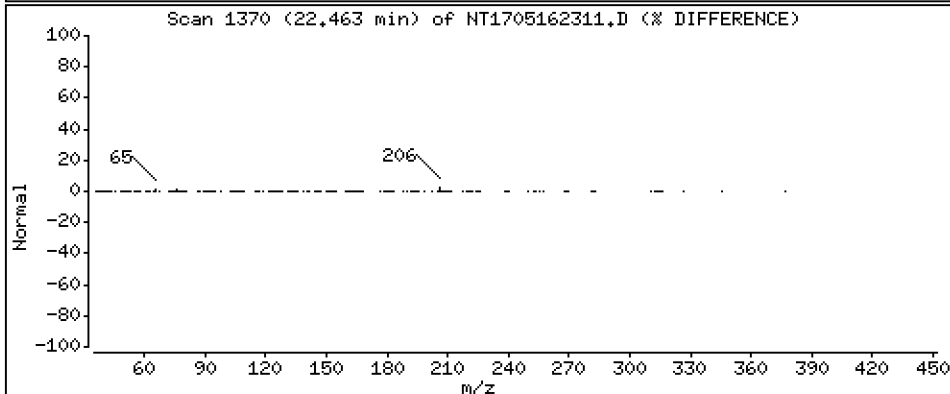
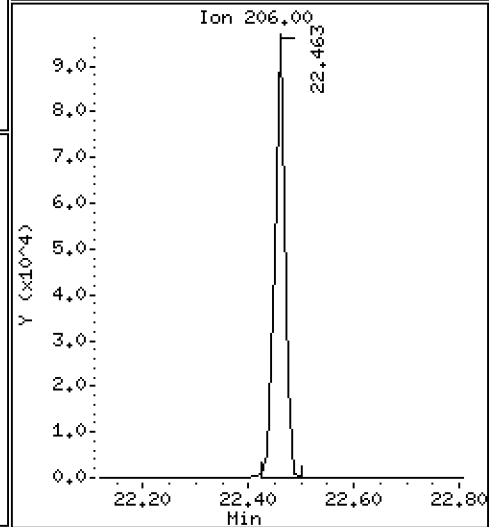
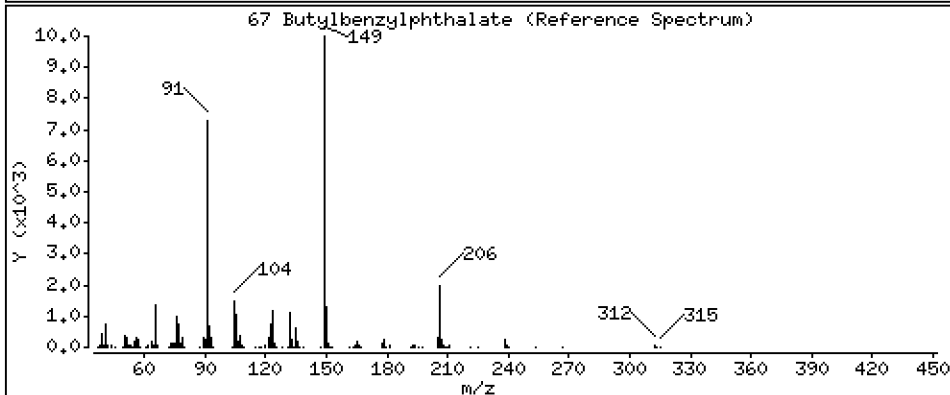
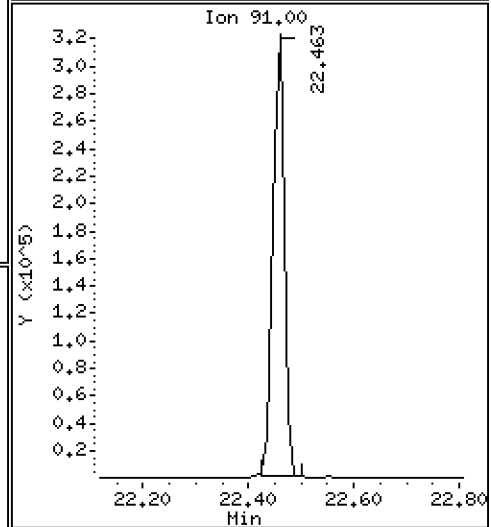
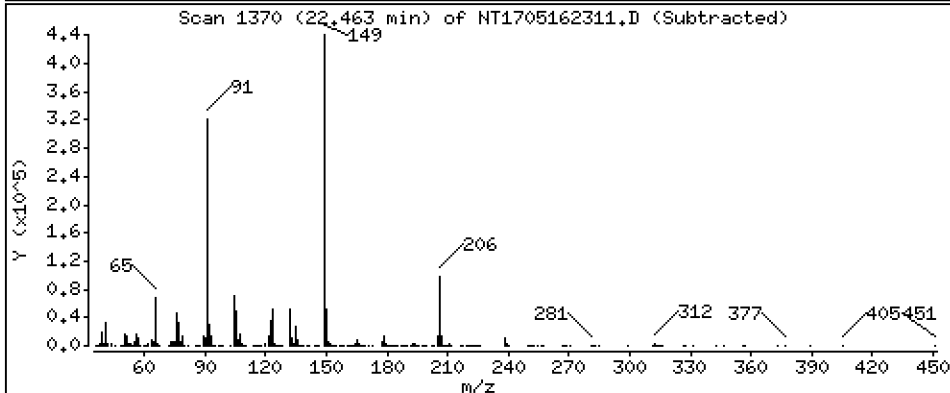
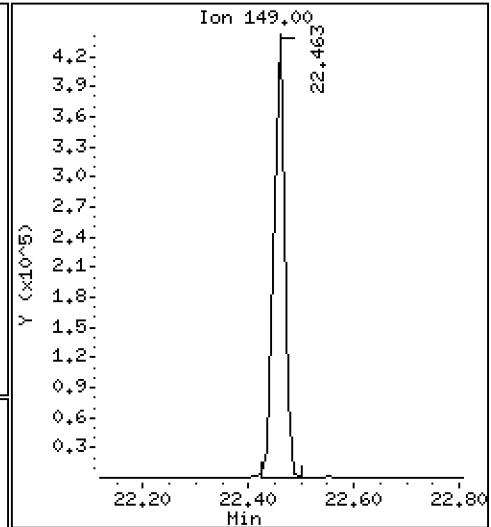
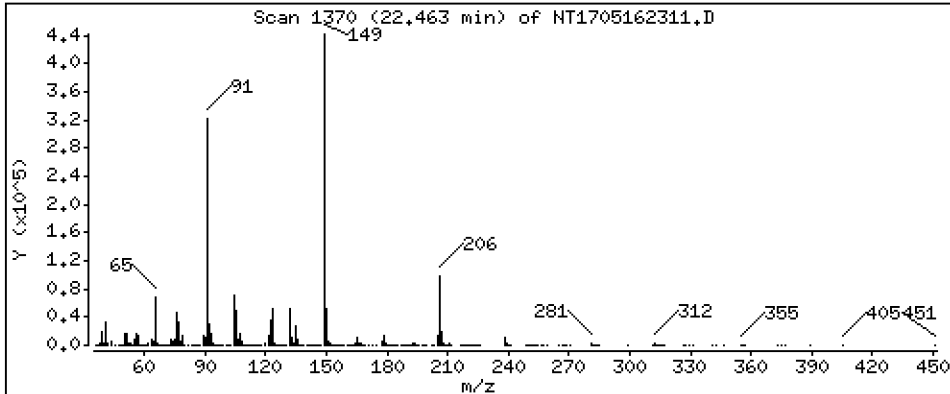
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,825 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

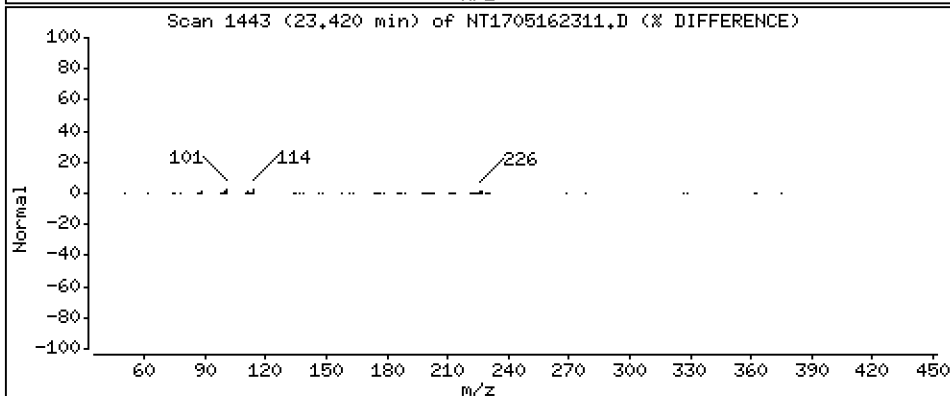
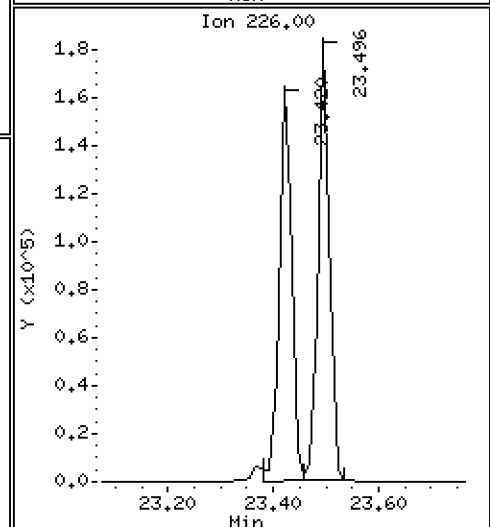
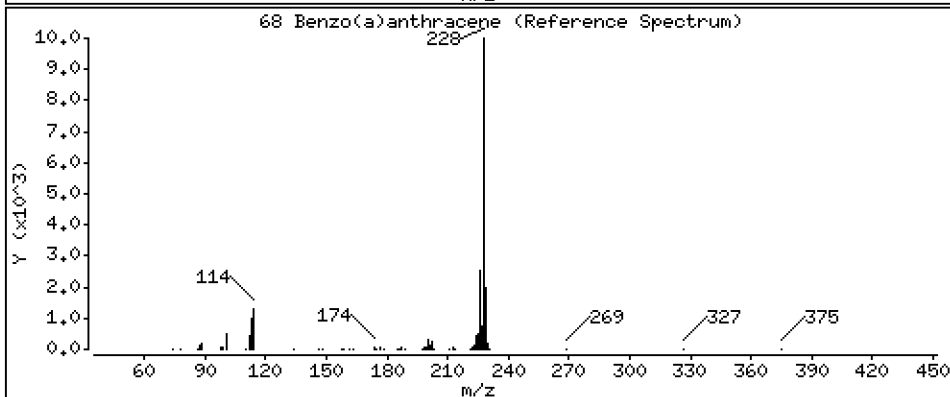
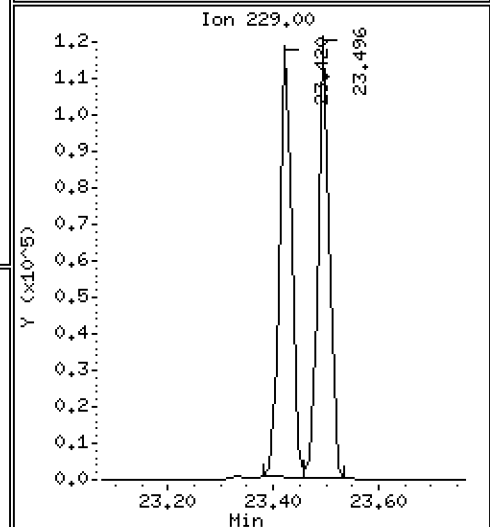
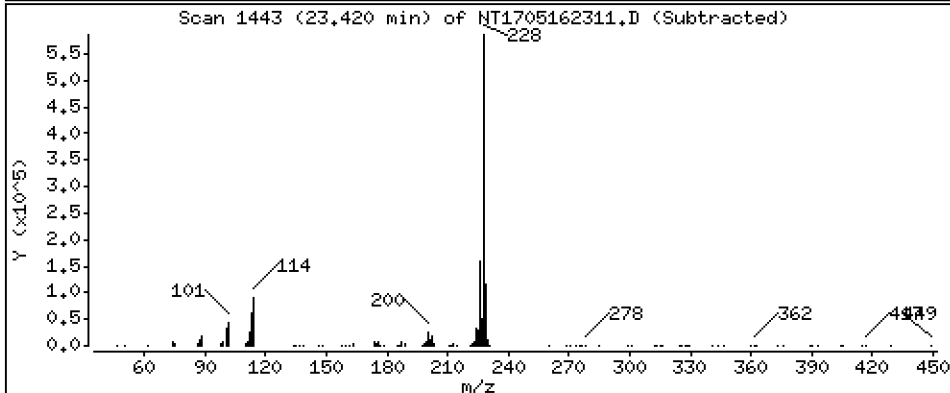
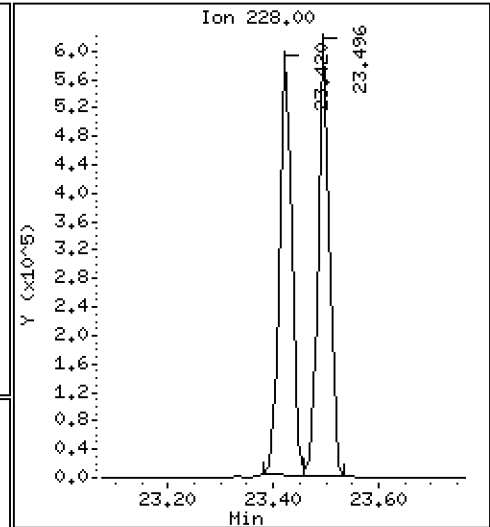
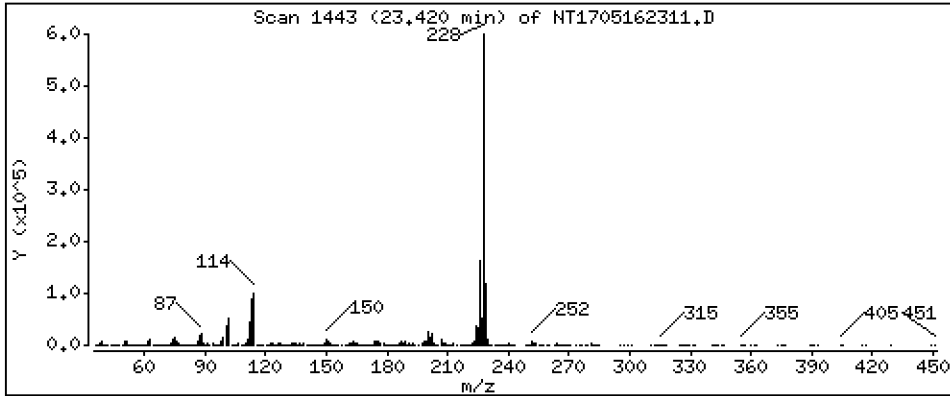
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 5,064 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

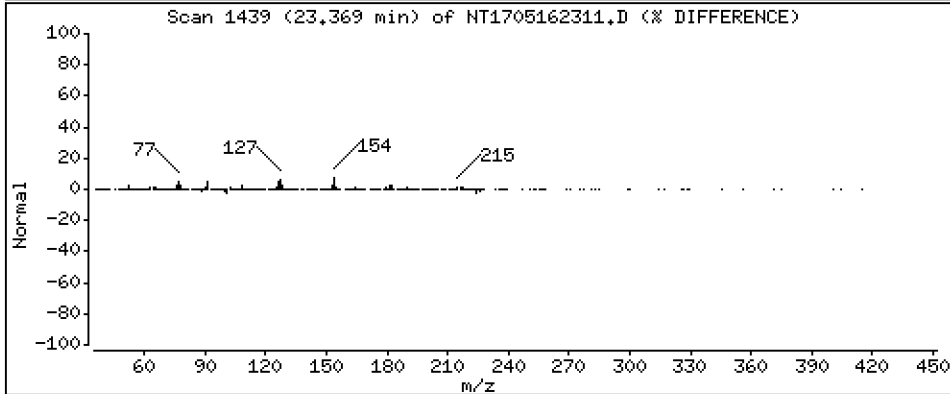
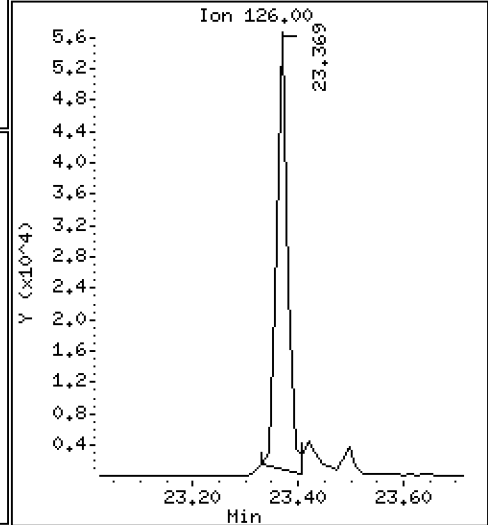
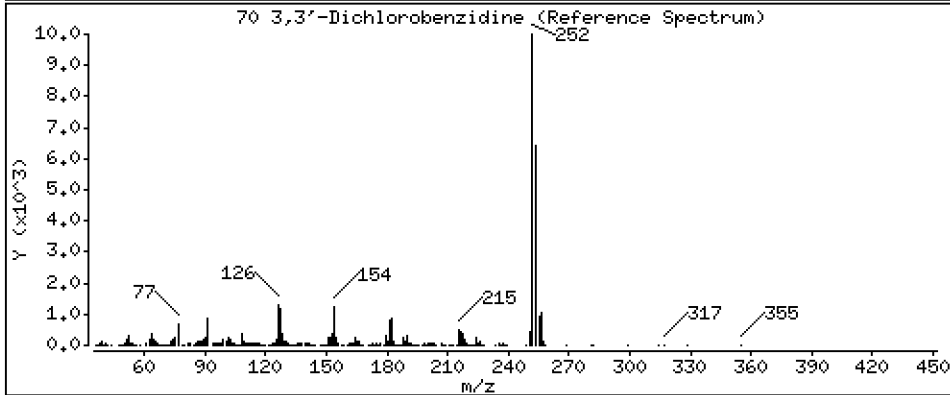
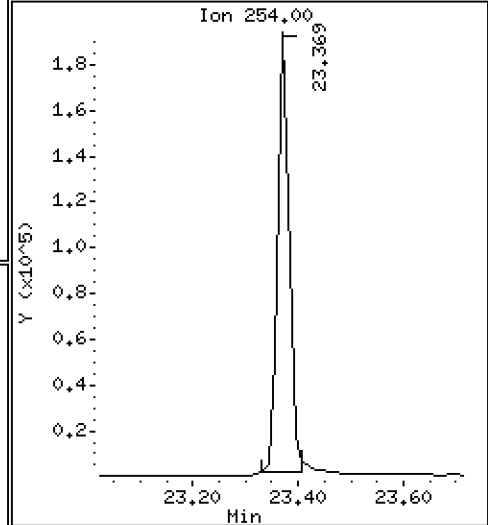
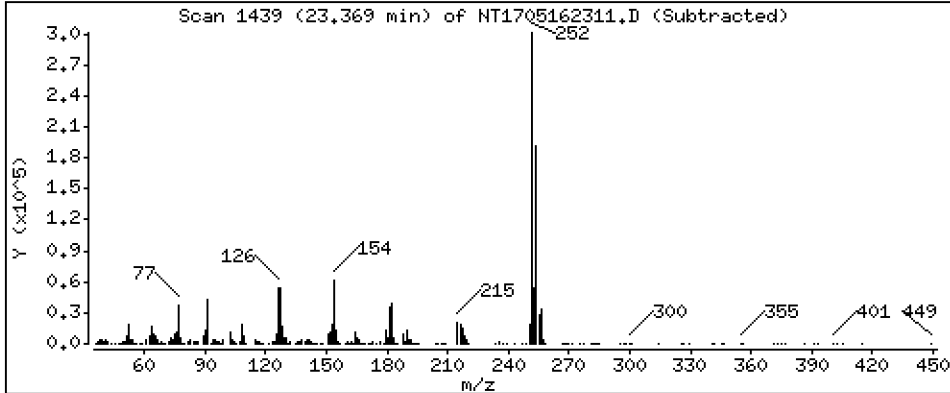
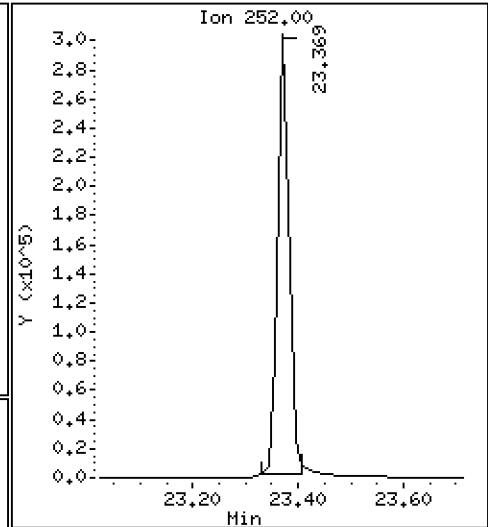
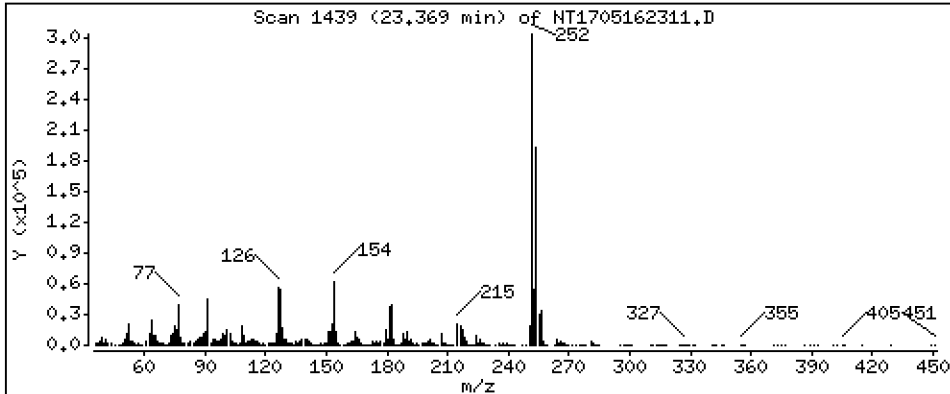
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 11,99 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

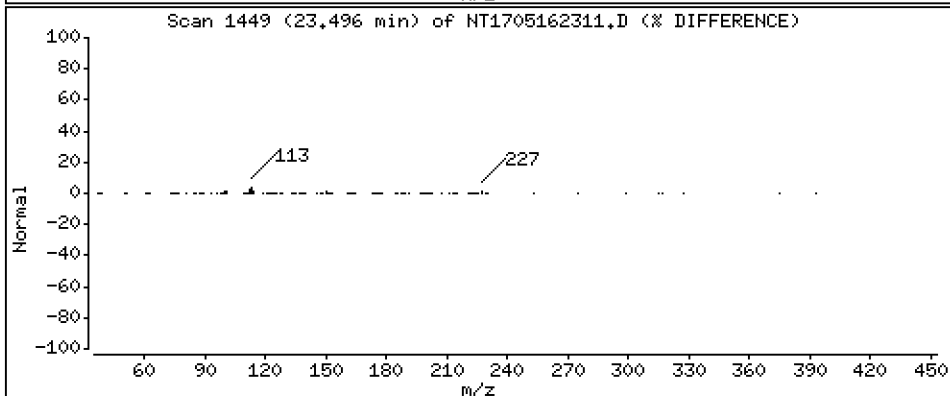
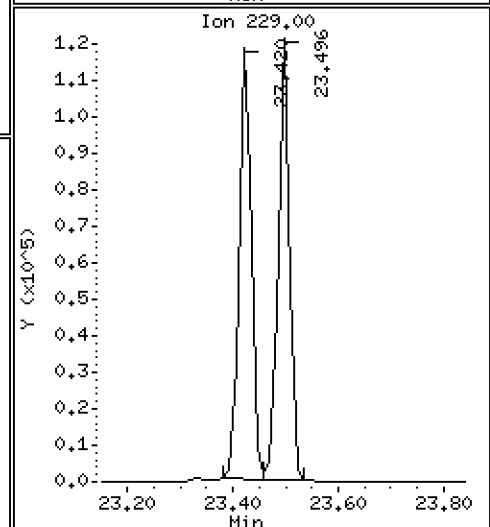
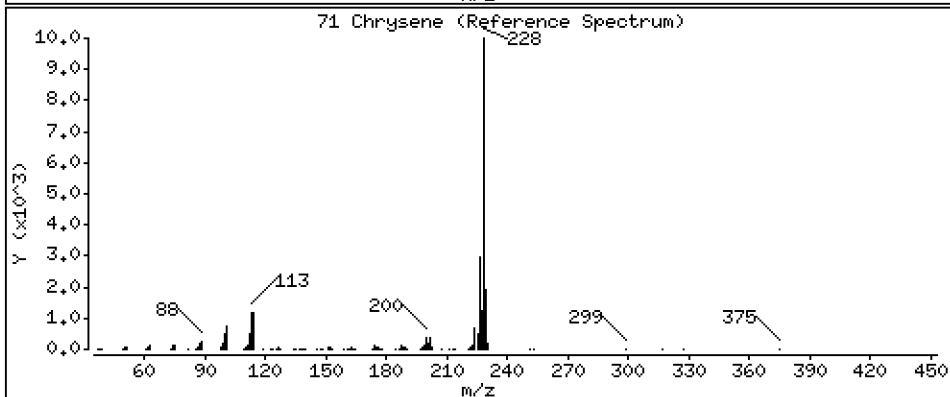
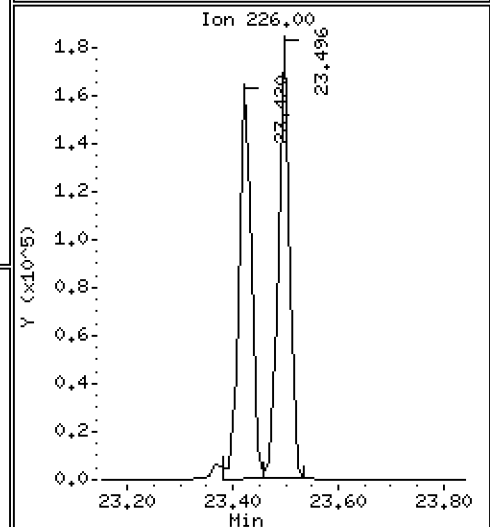
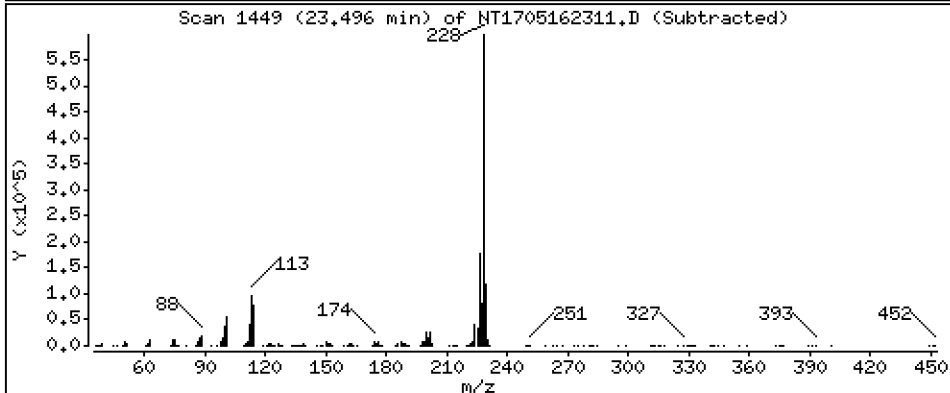
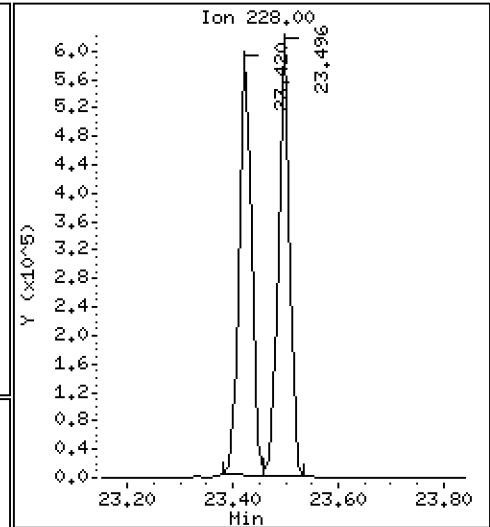
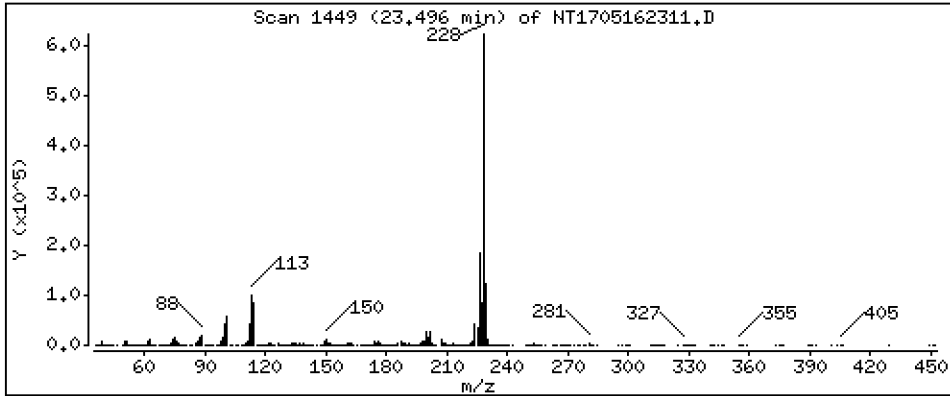
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,018 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

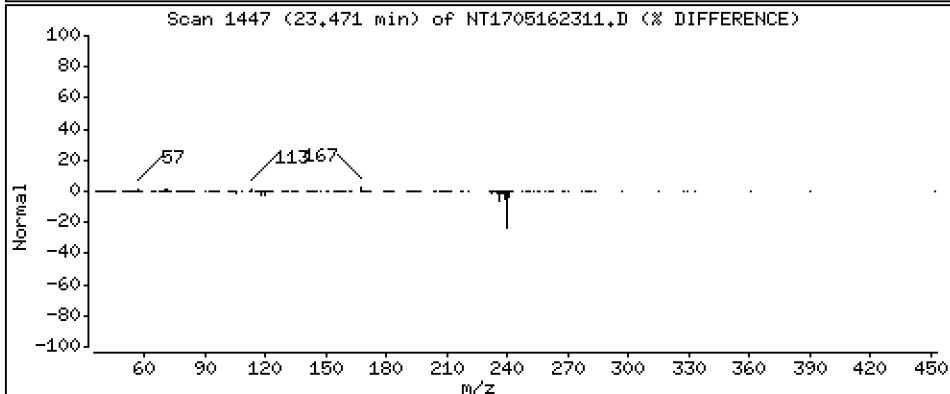
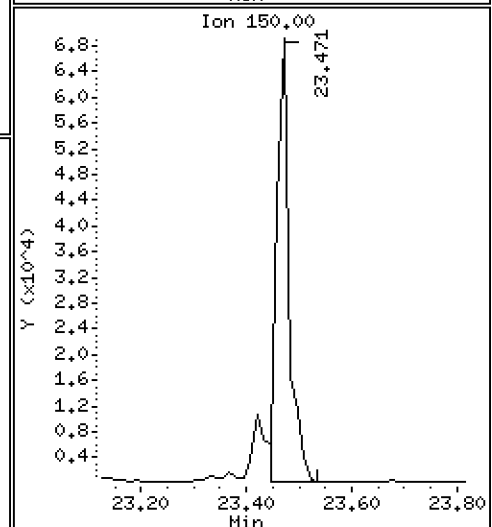
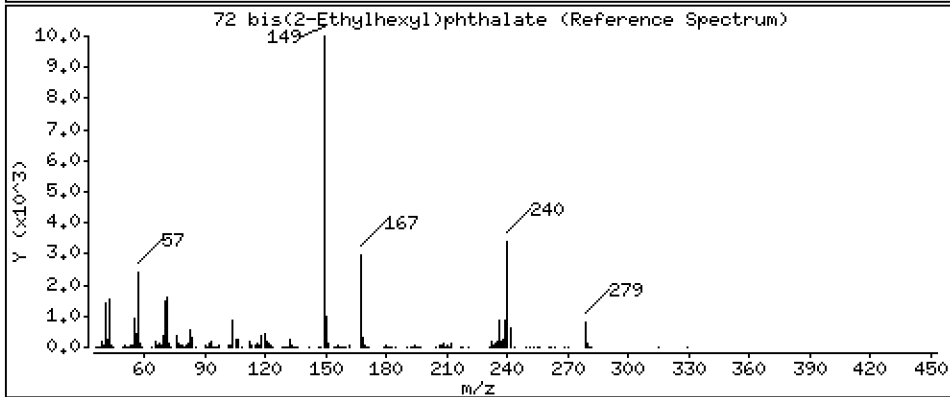
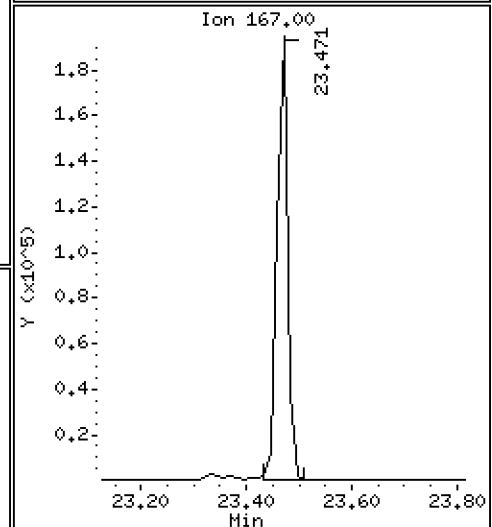
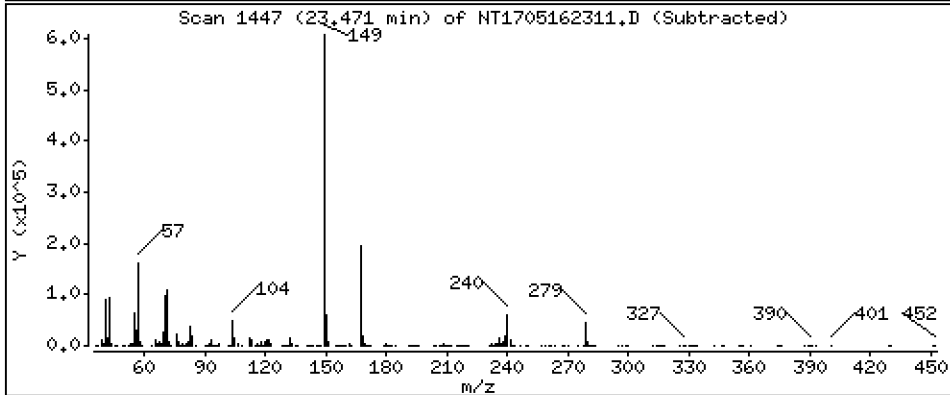
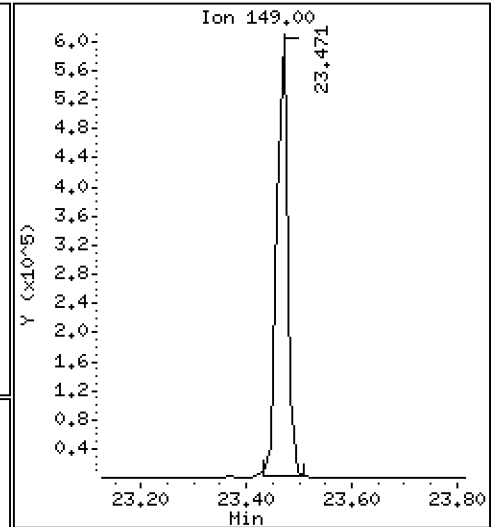
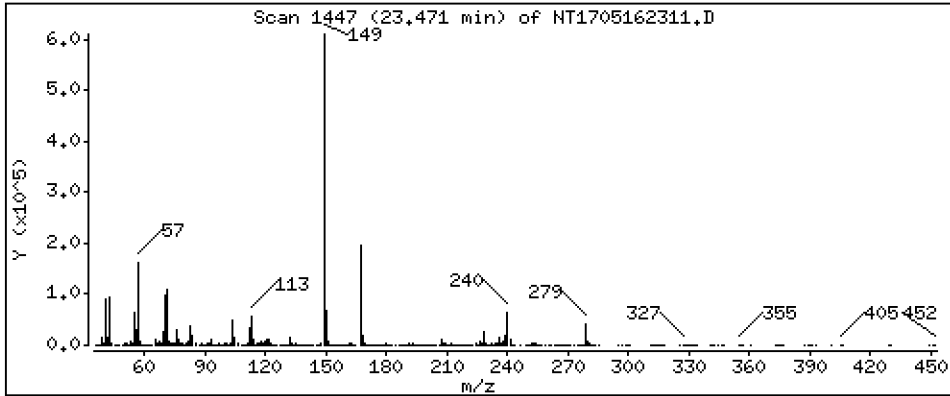
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,792 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

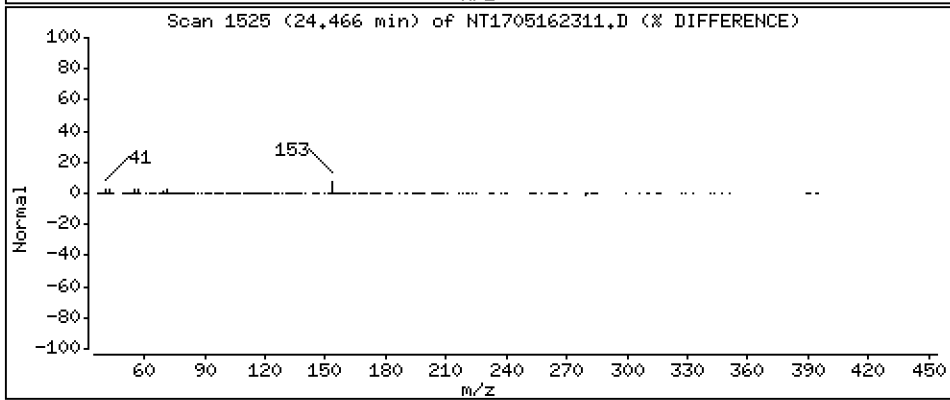
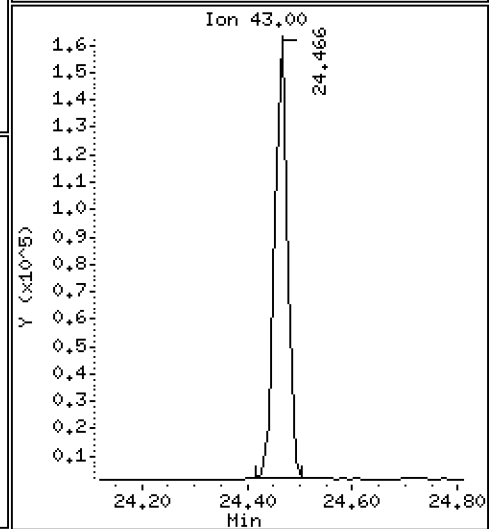
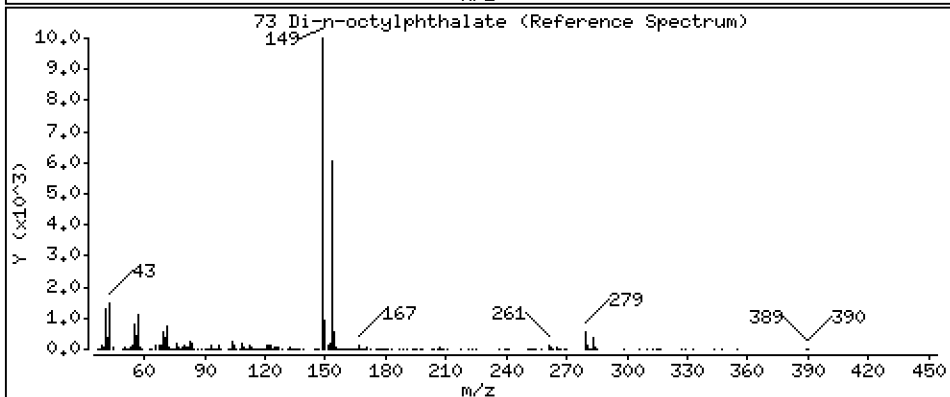
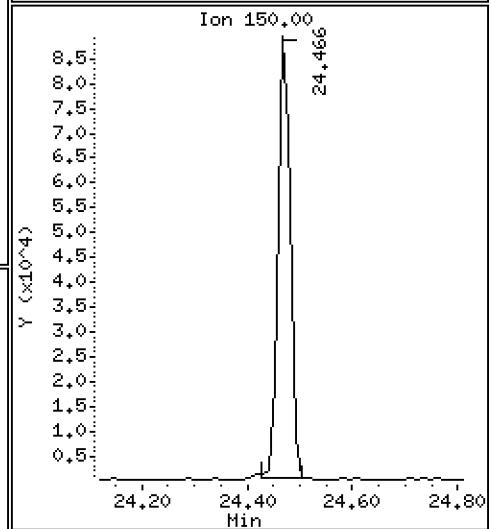
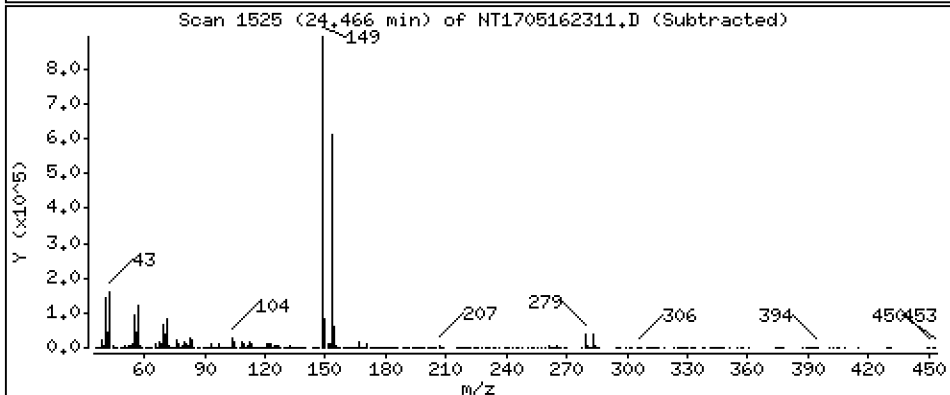
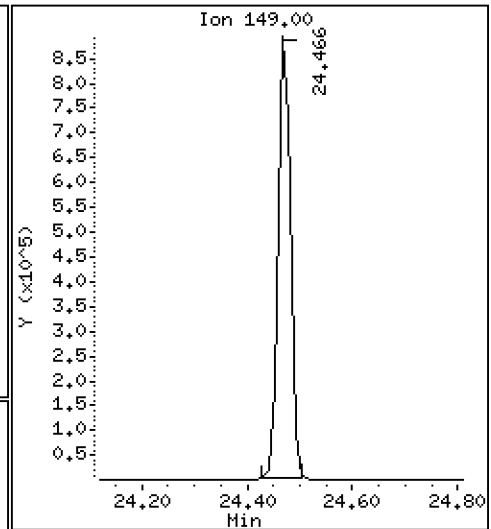
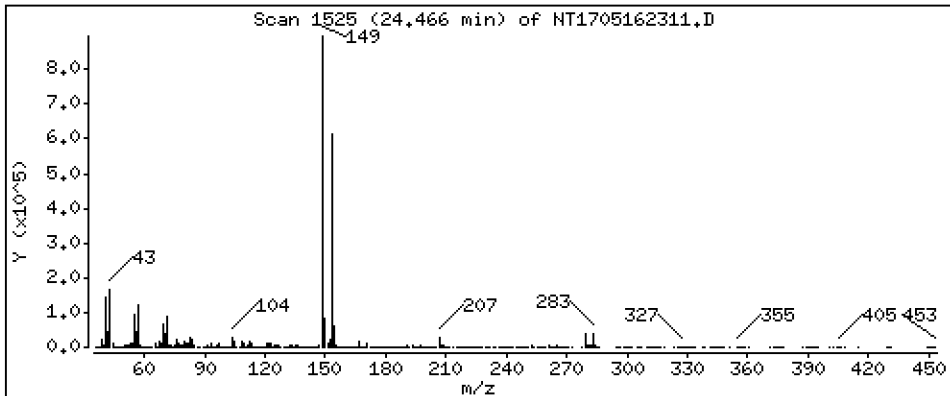
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,482 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

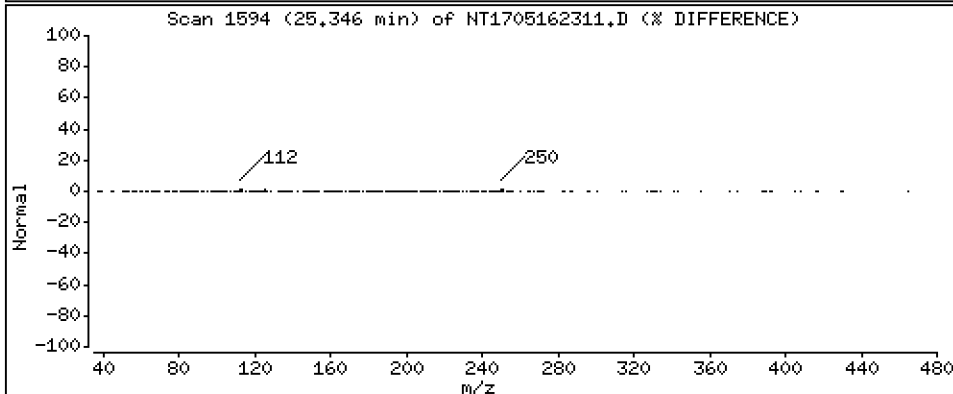
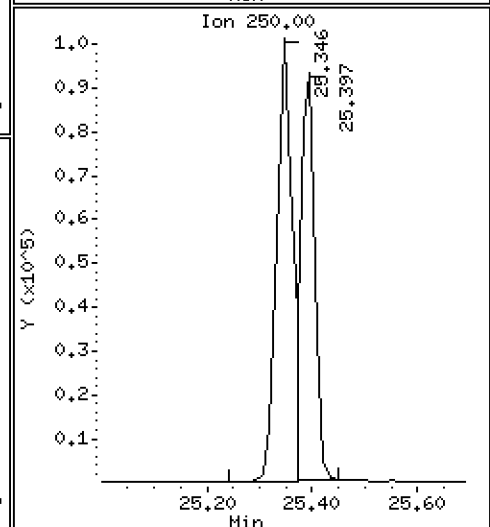
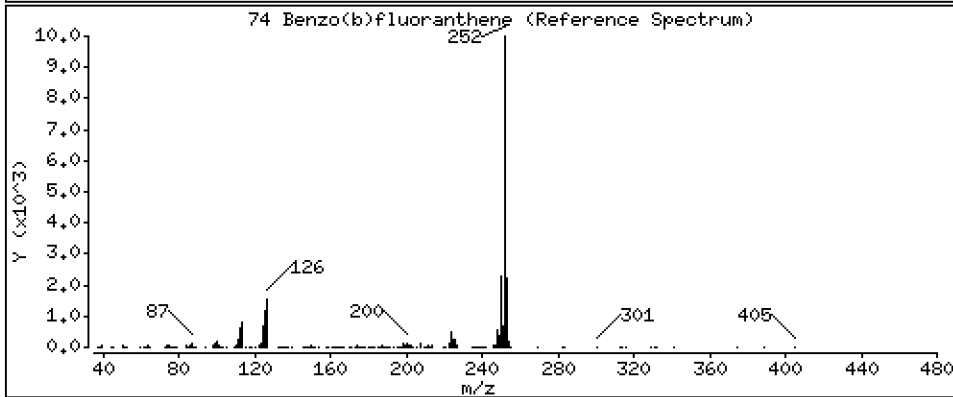
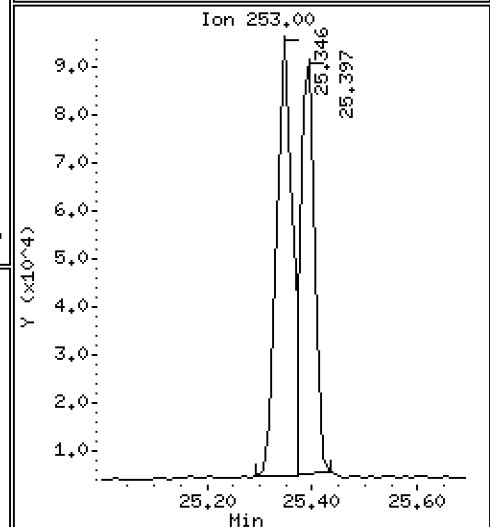
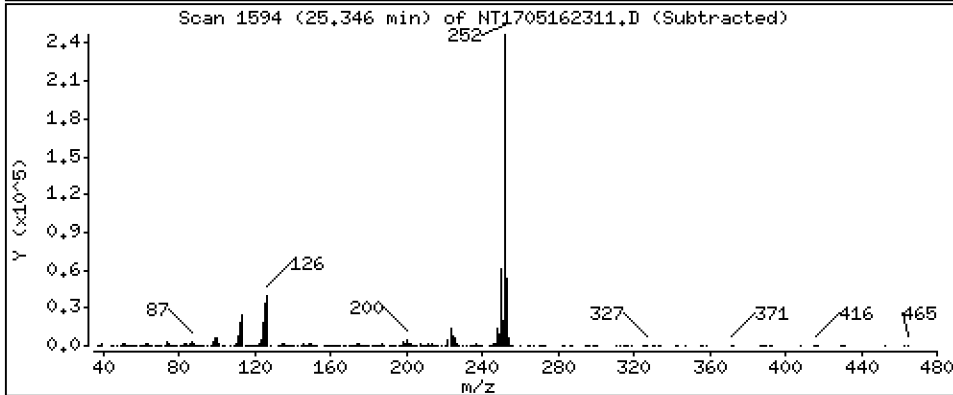
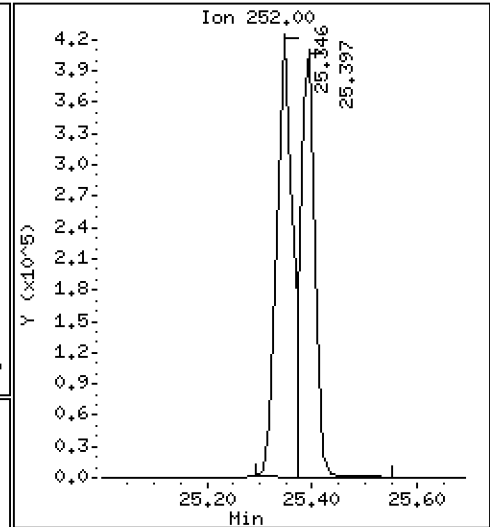
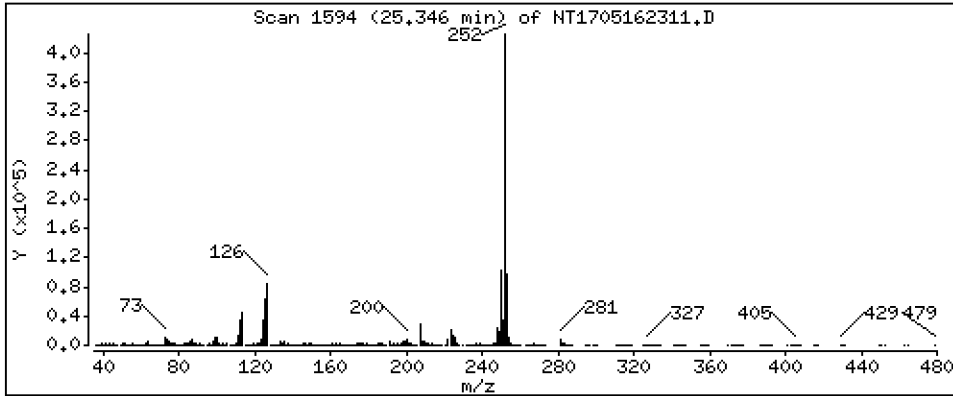
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,912 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

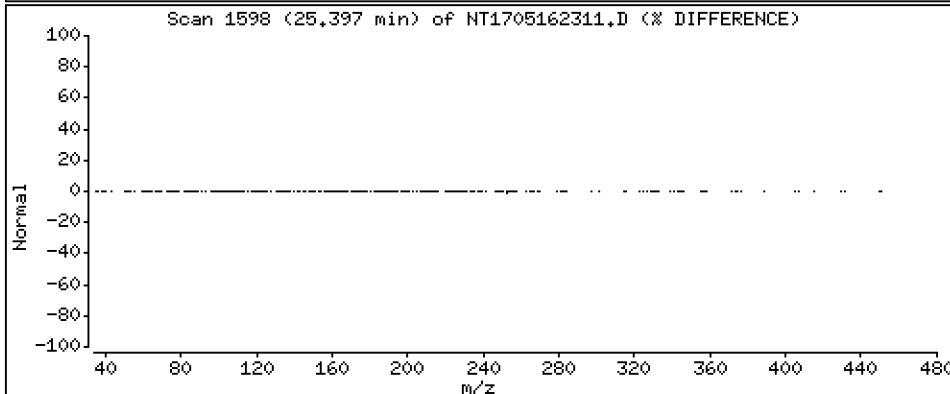
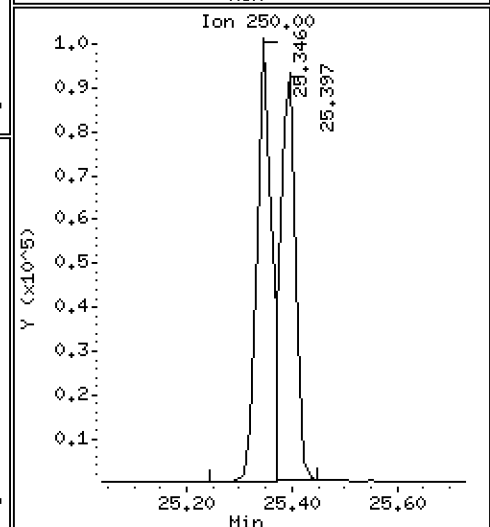
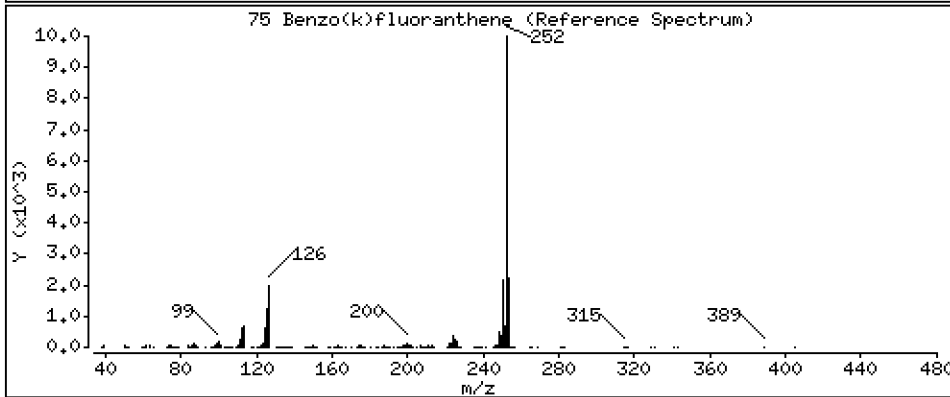
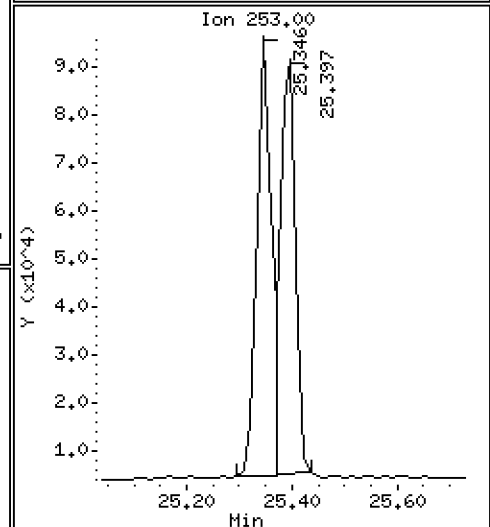
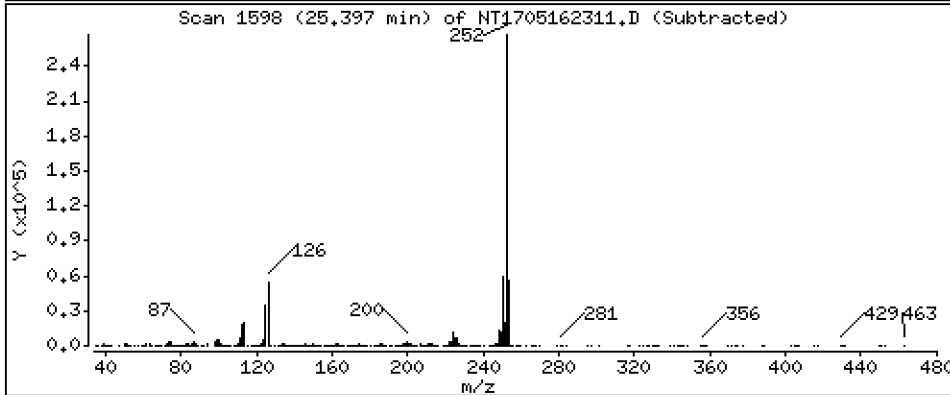
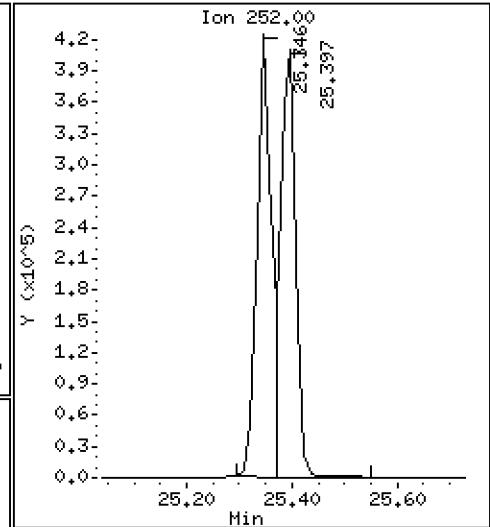
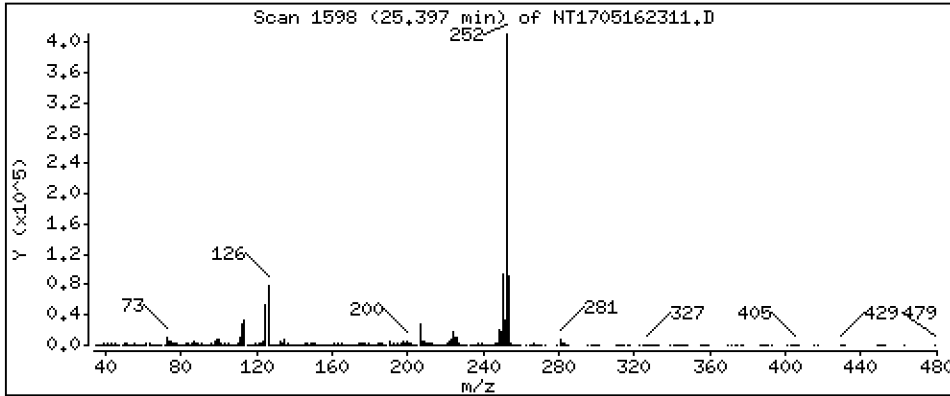
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,965 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

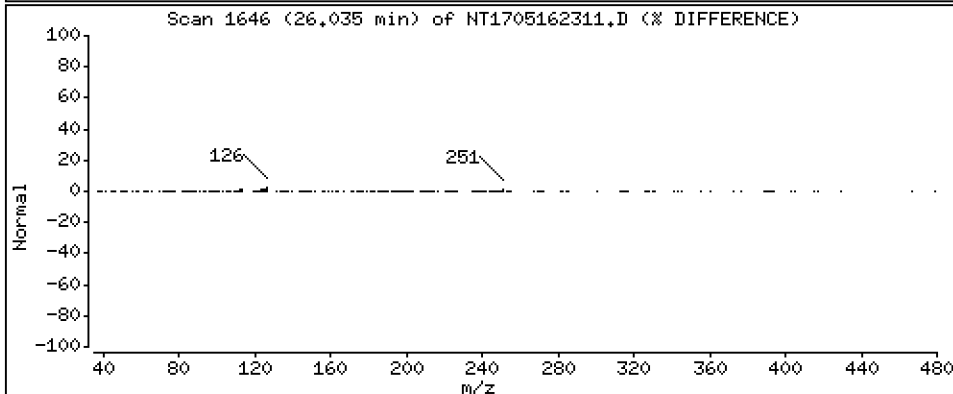
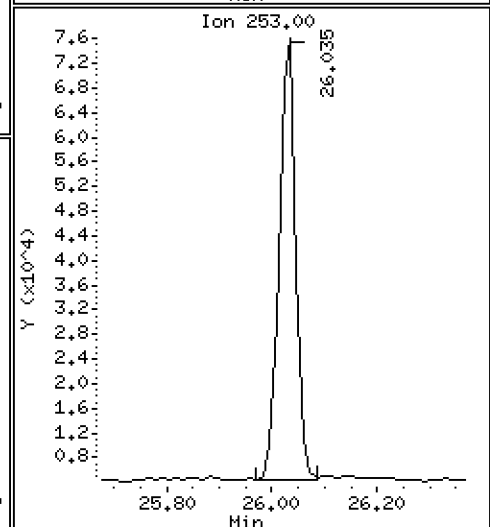
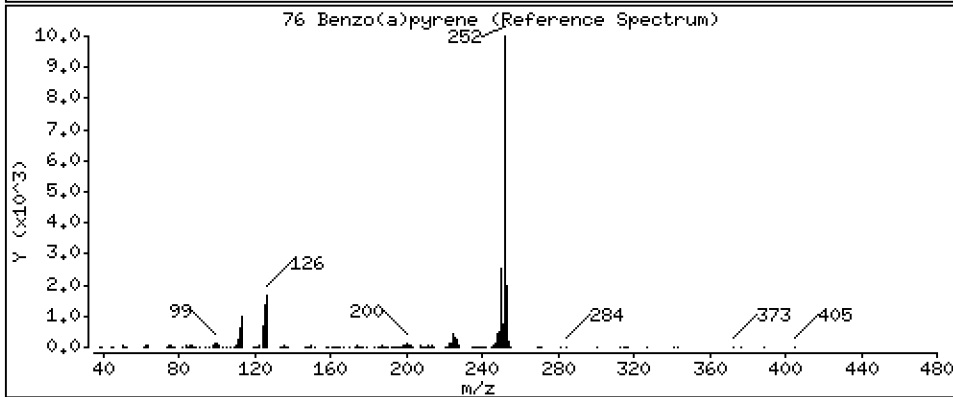
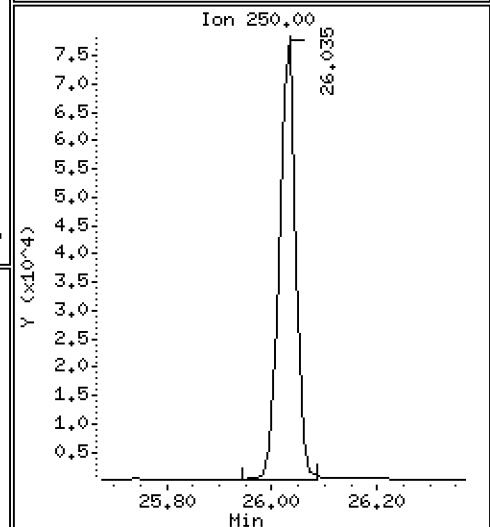
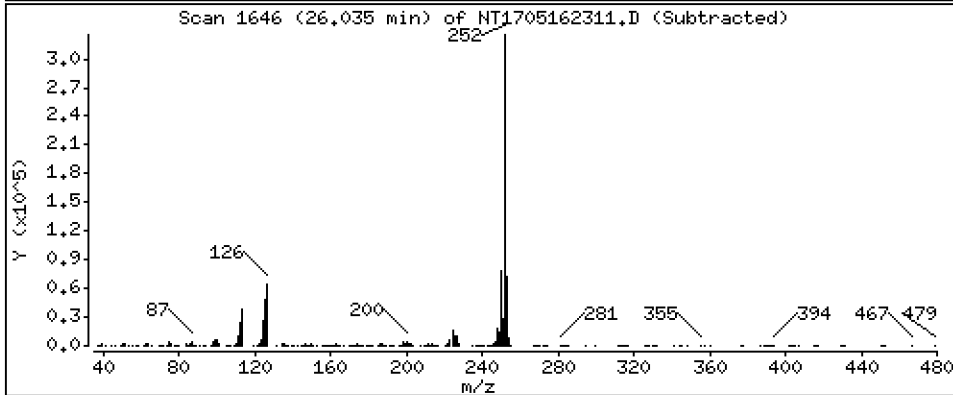
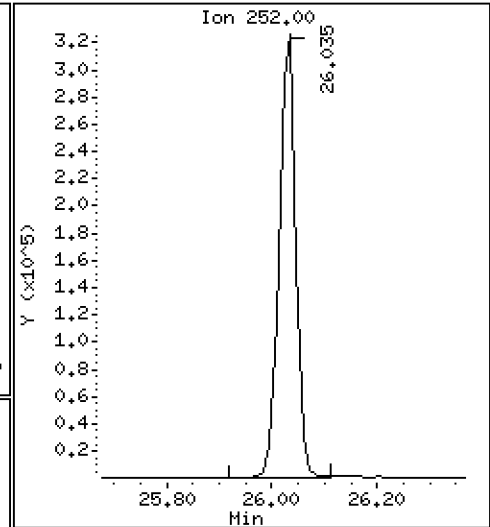
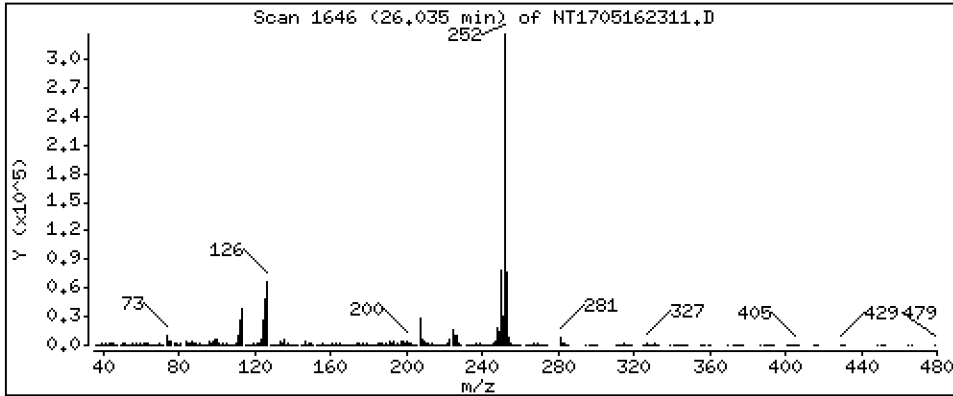
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 5,172 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

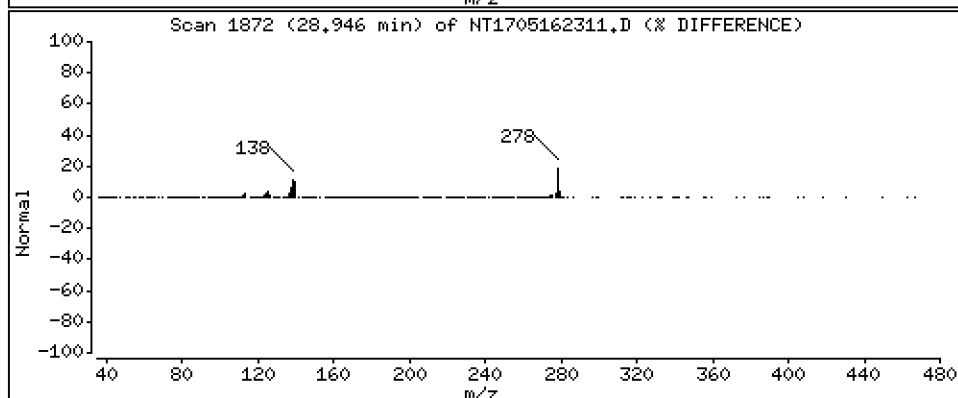
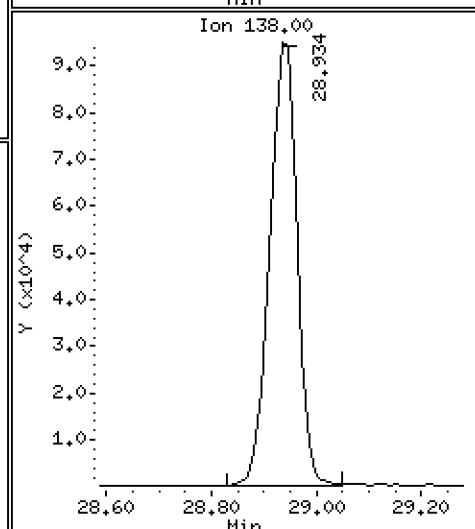
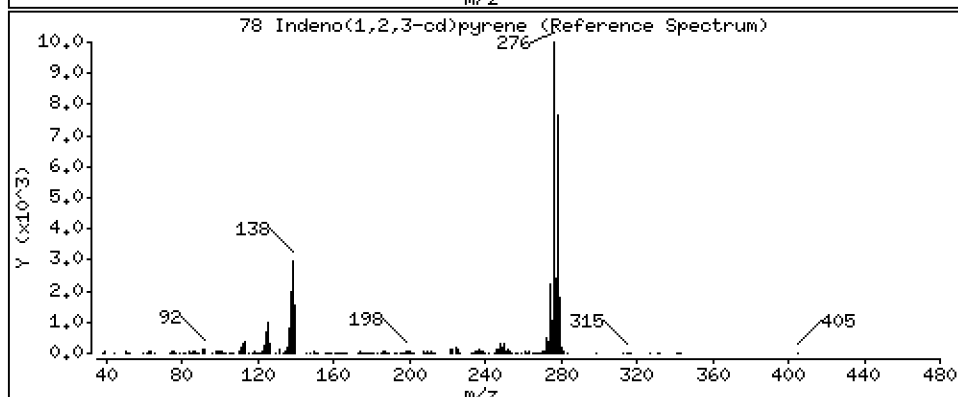
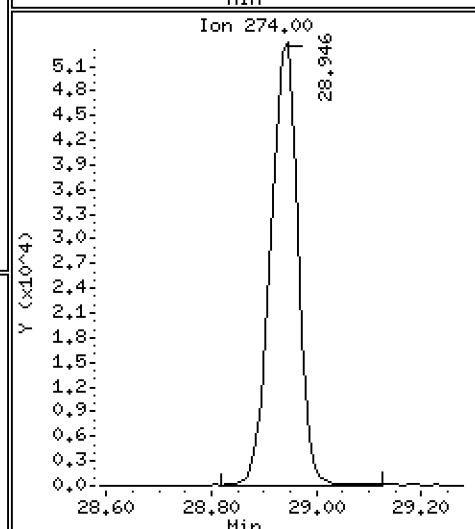
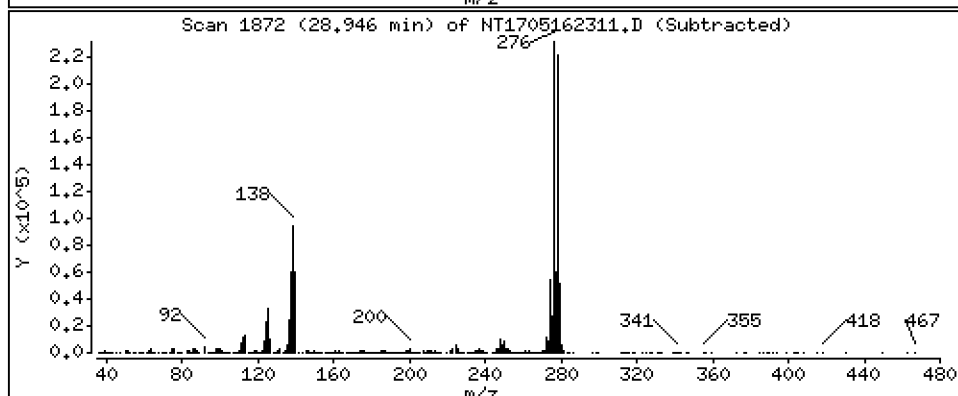
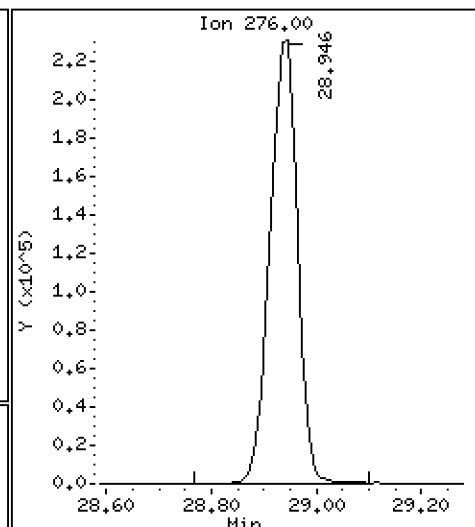
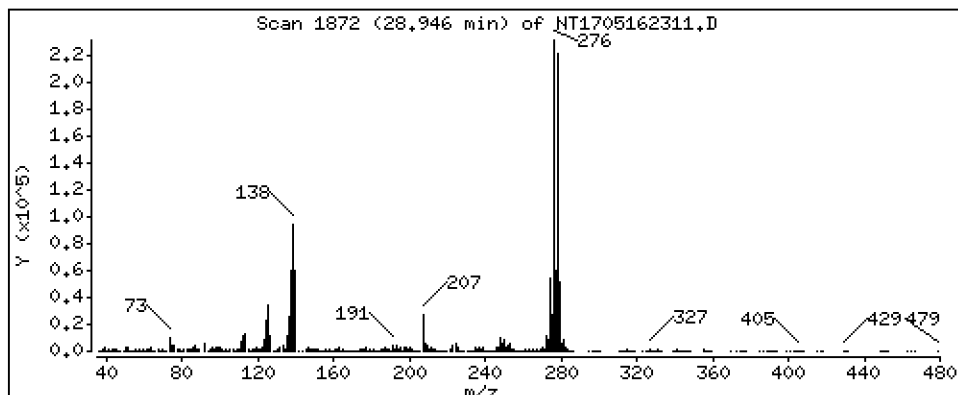
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,029 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

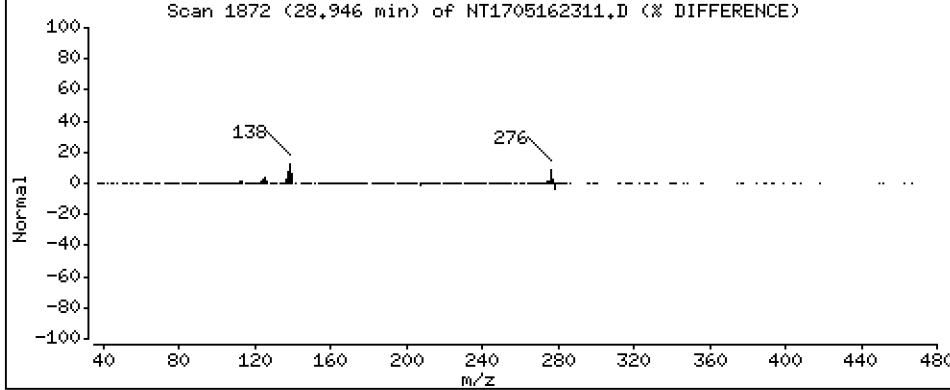
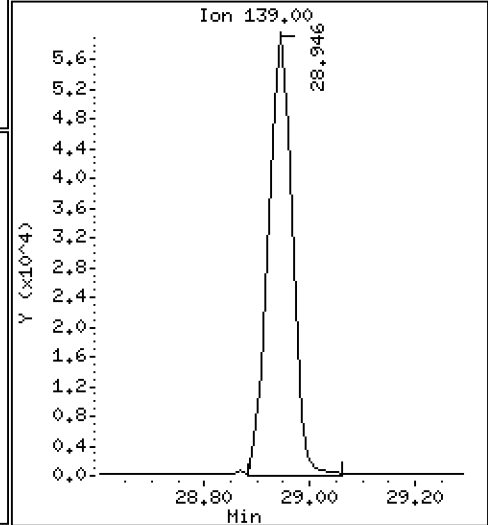
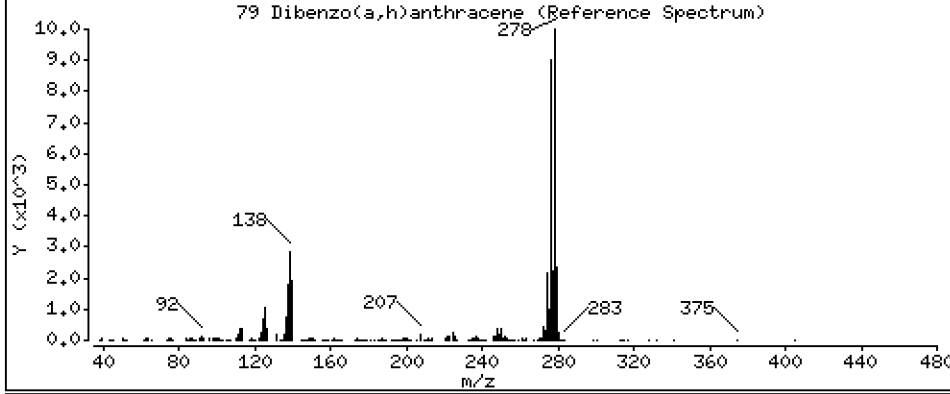
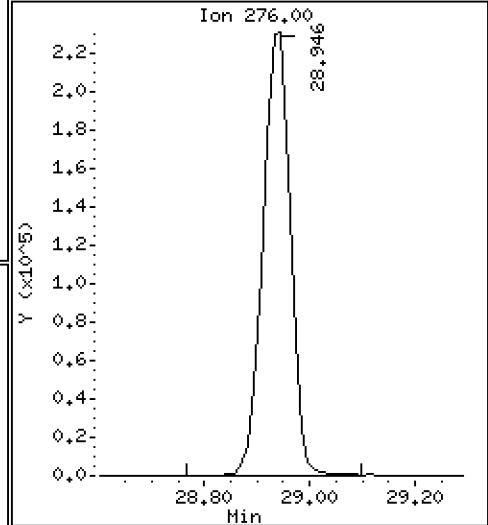
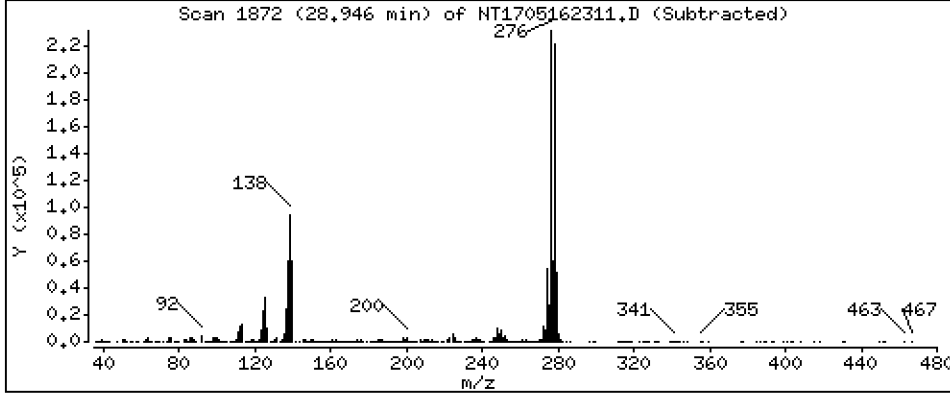
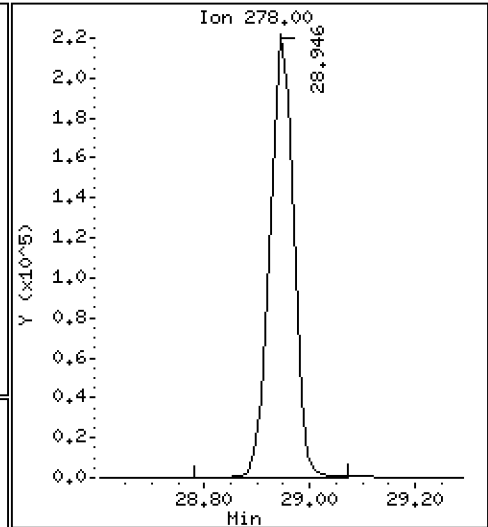
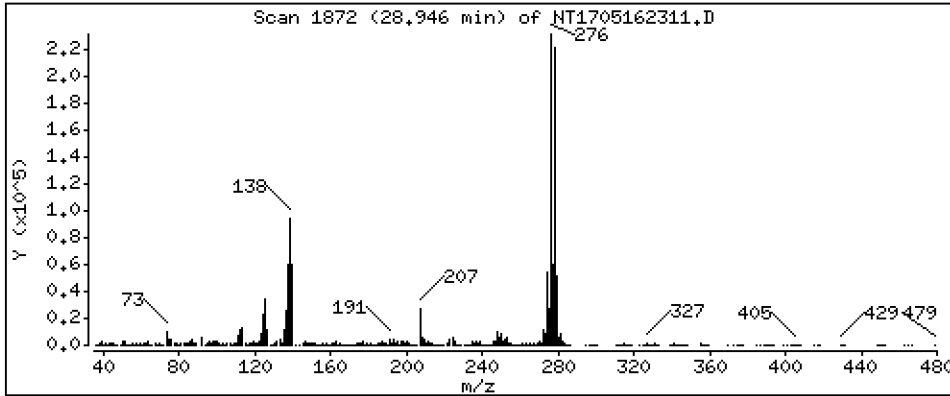
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,970 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

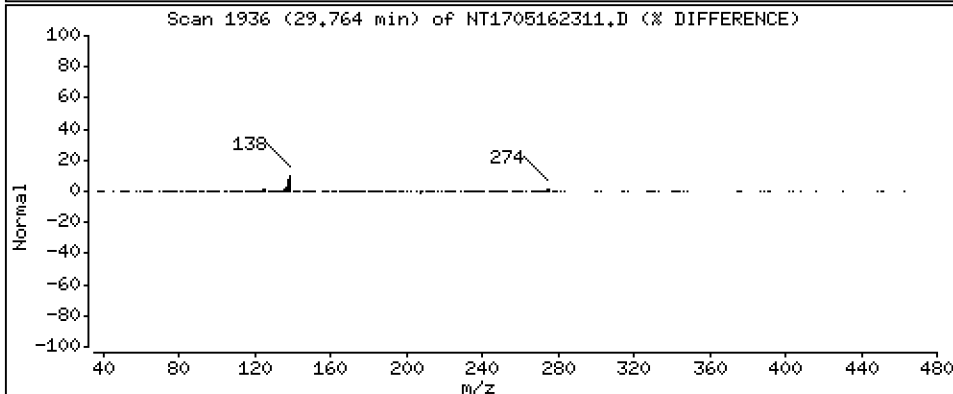
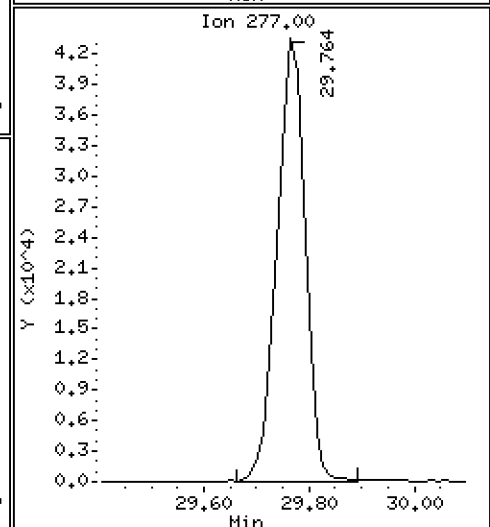
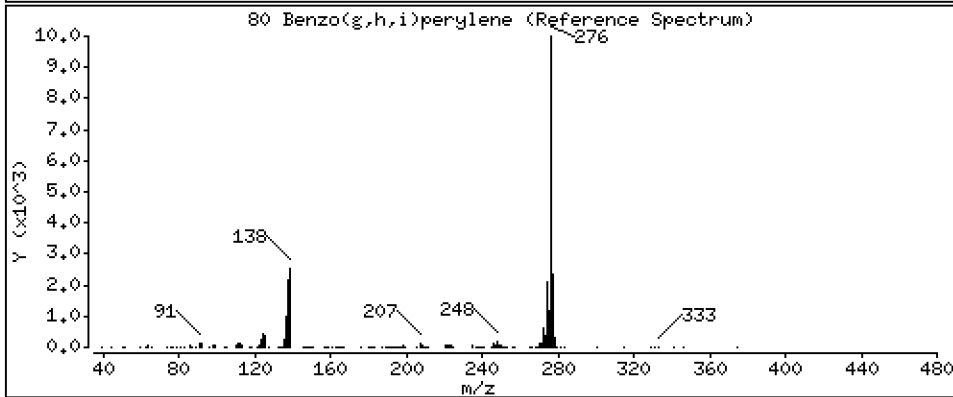
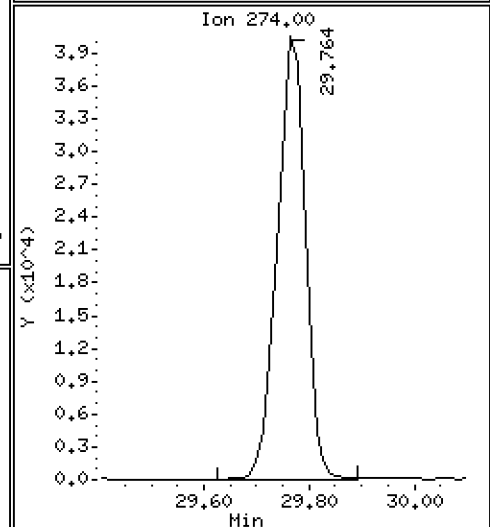
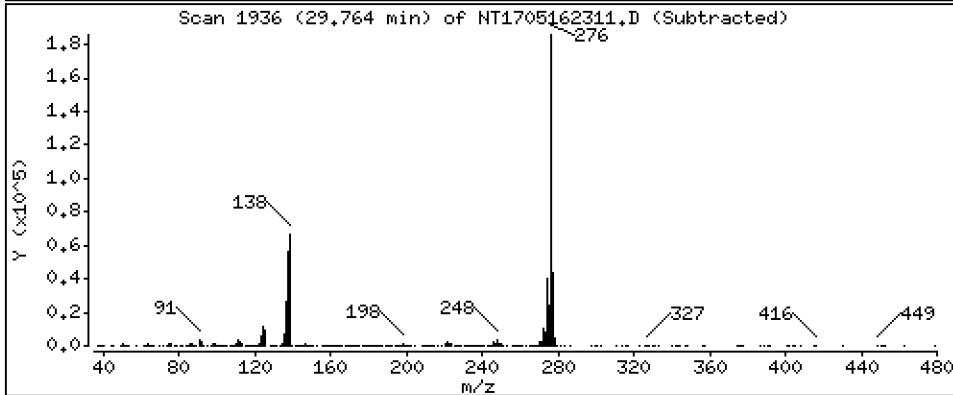
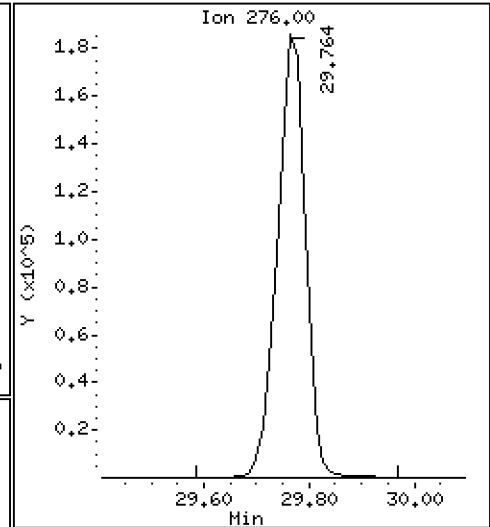
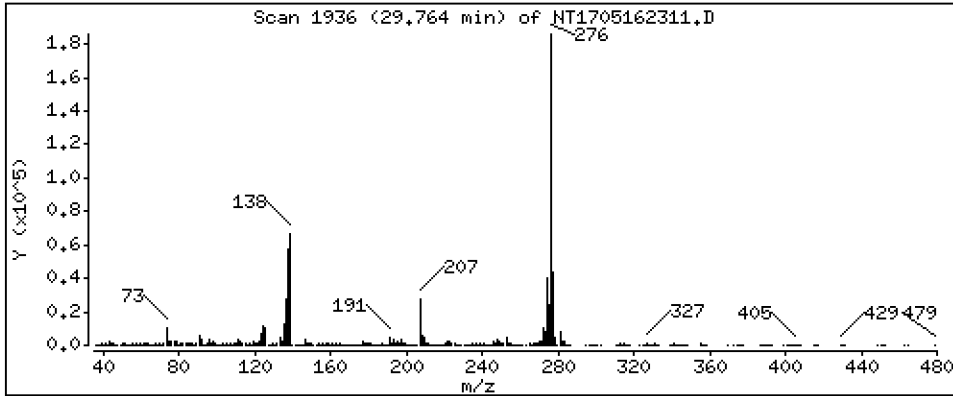
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 5,054 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

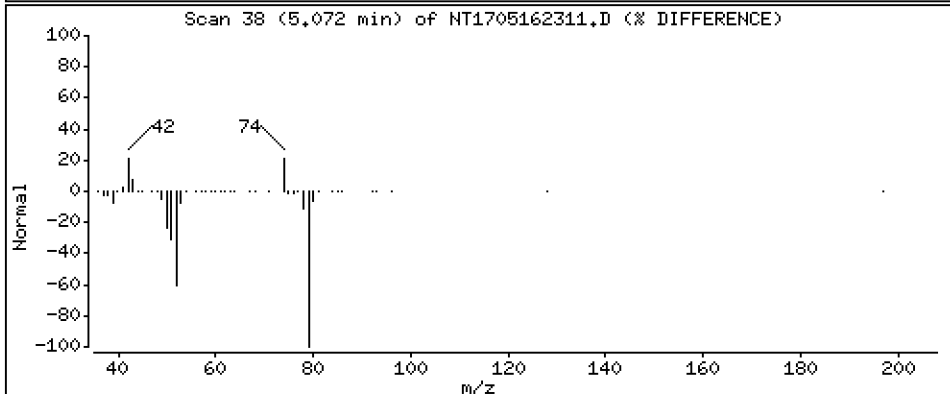
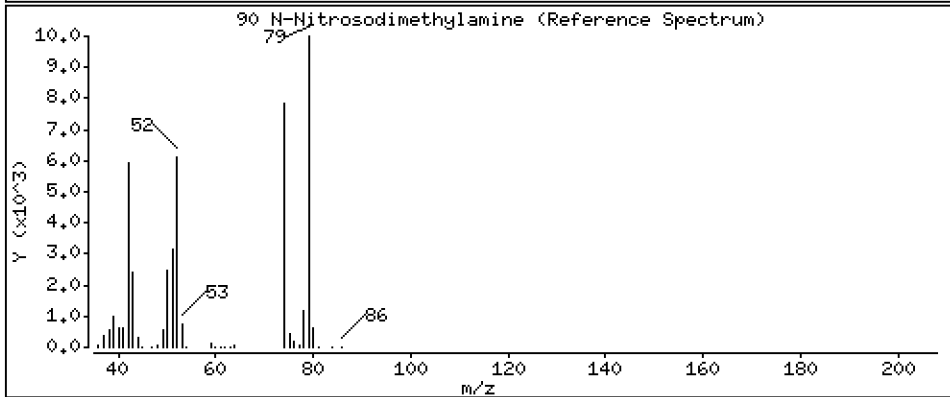
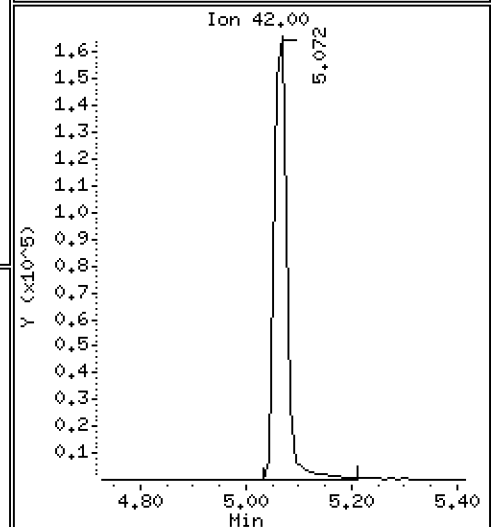
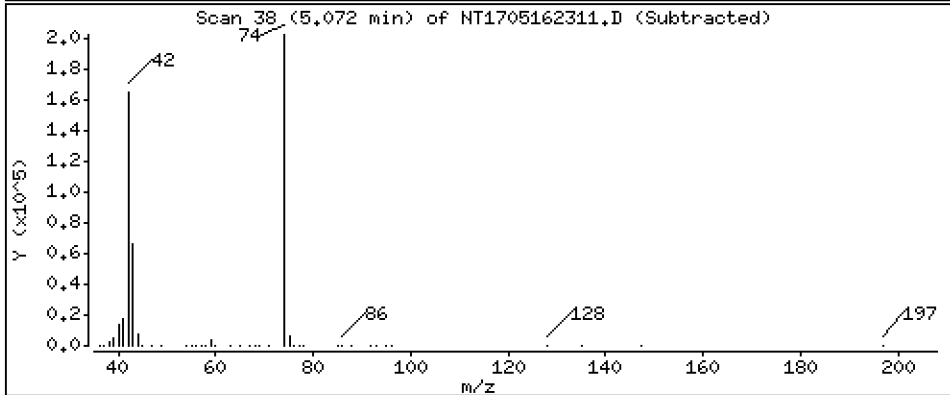
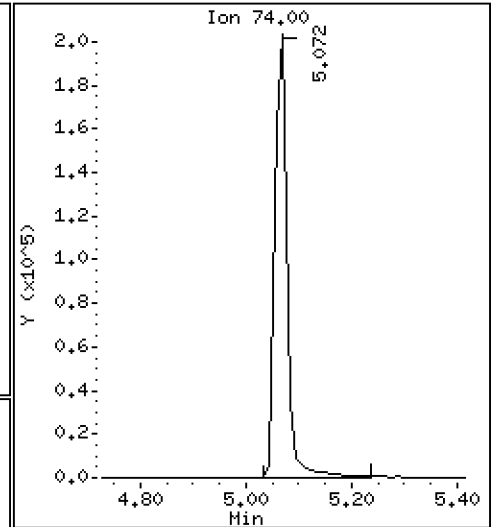
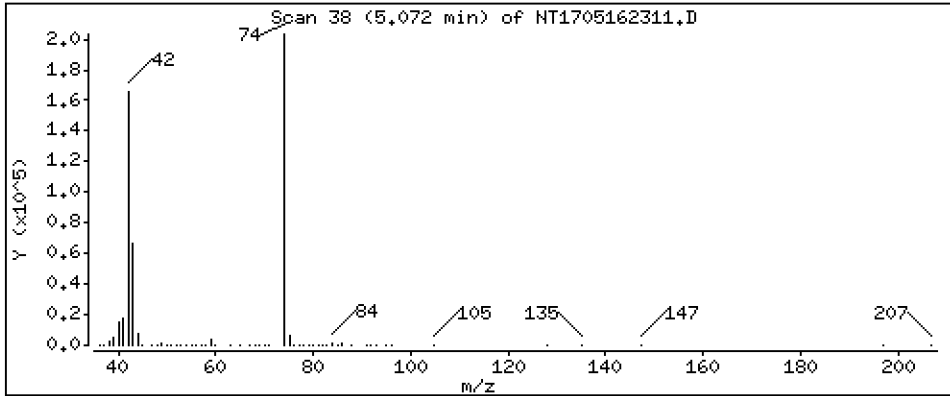
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,767 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

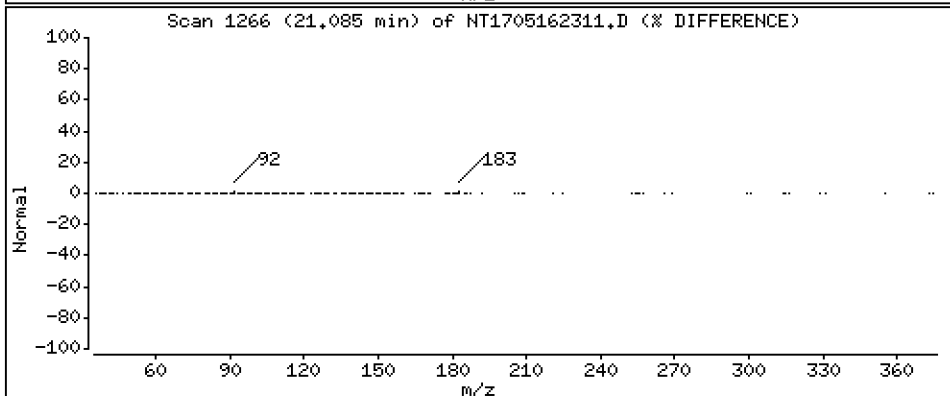
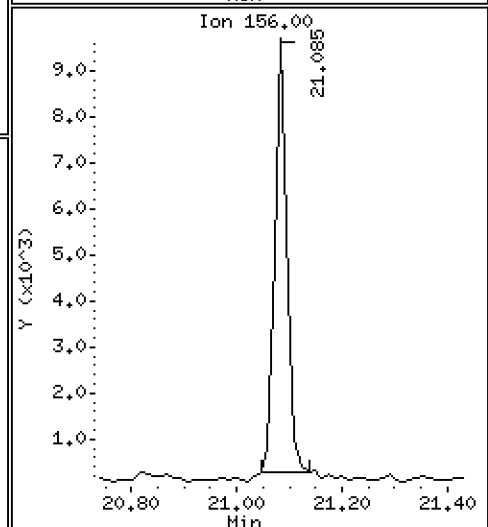
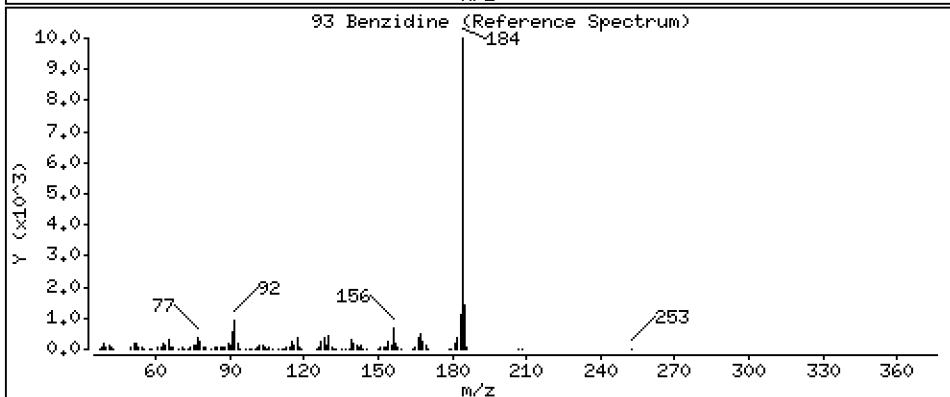
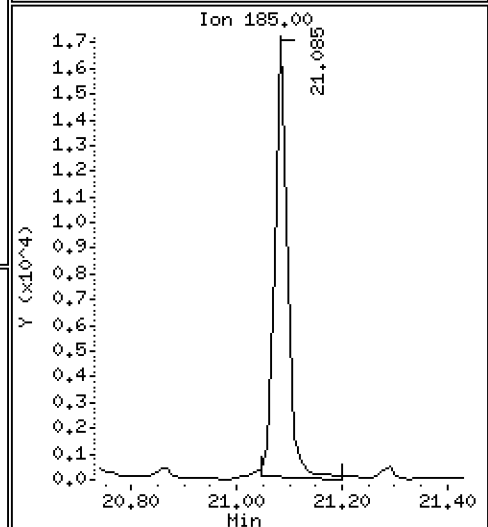
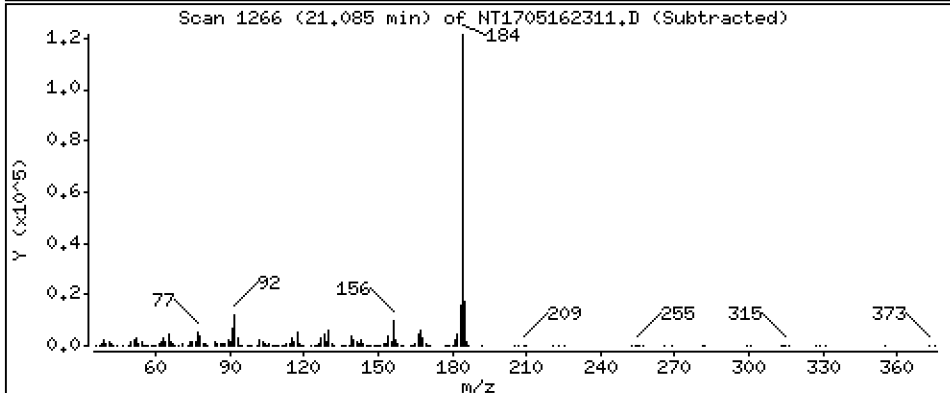
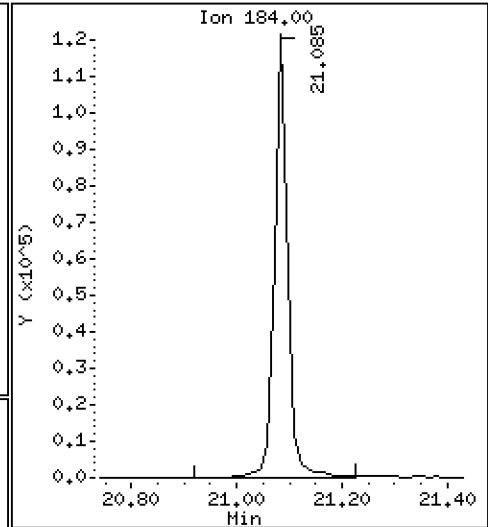
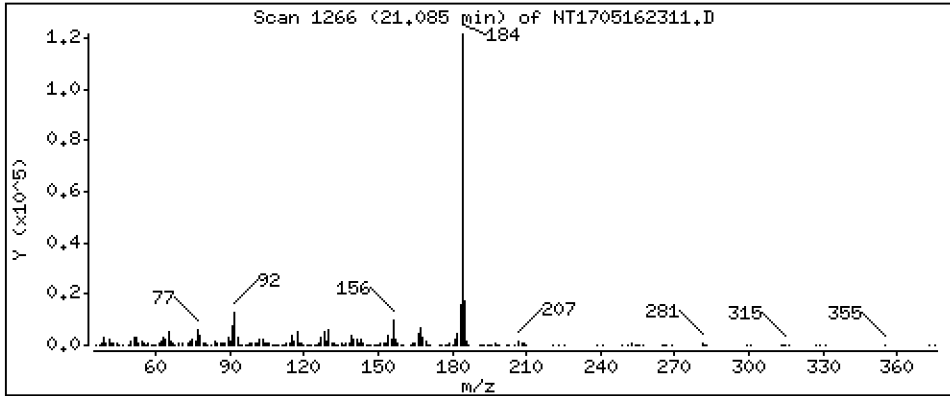
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 3,457 ug/mL

93 Benzidine



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

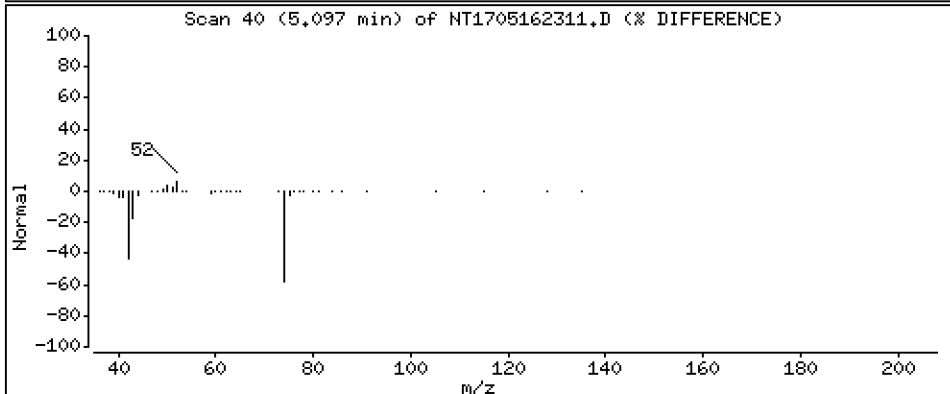
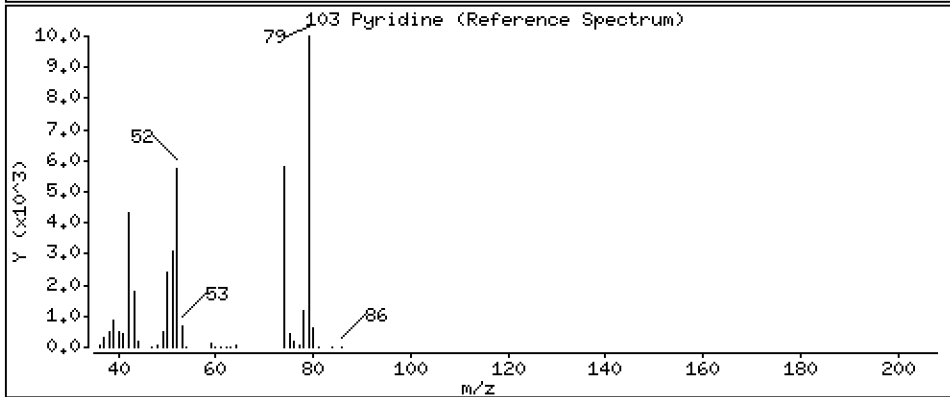
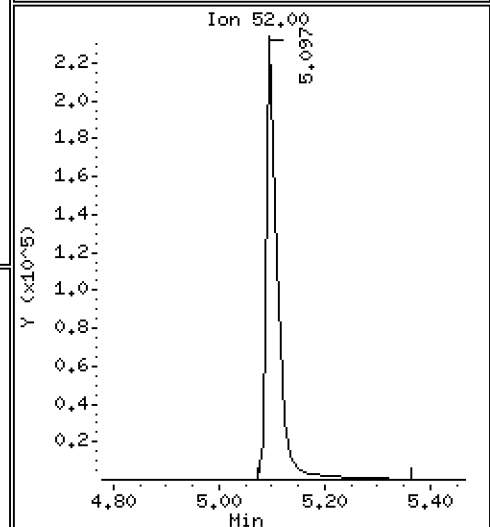
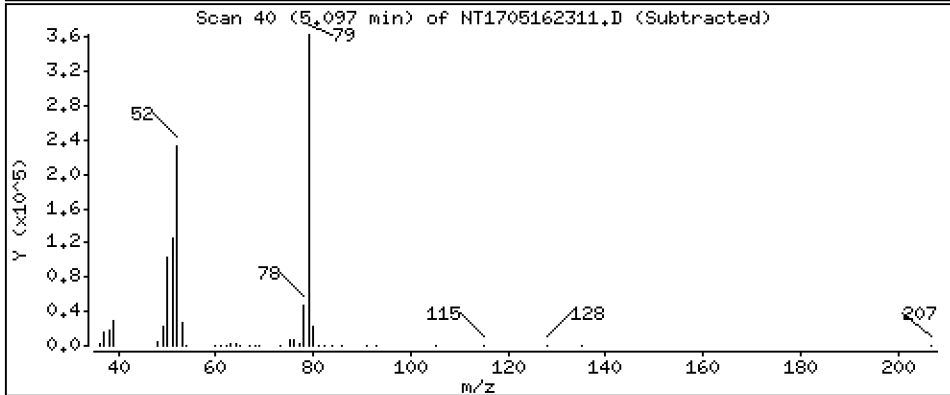
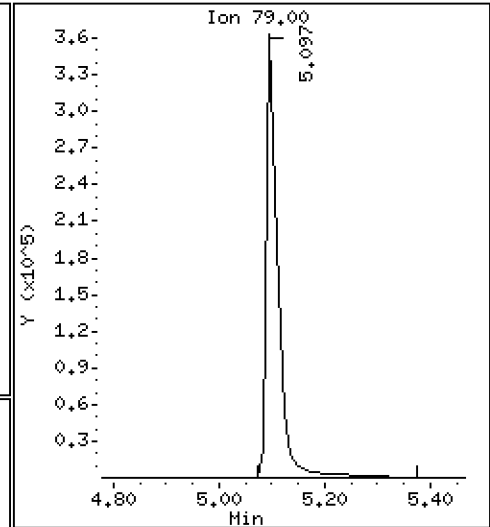
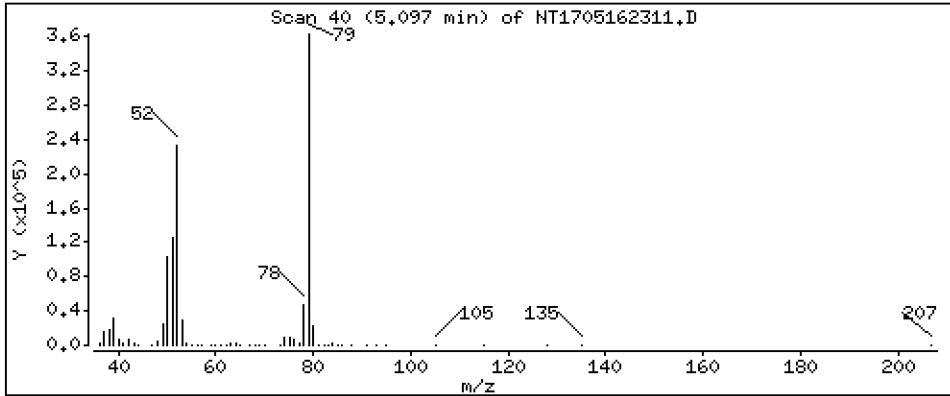
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,811 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

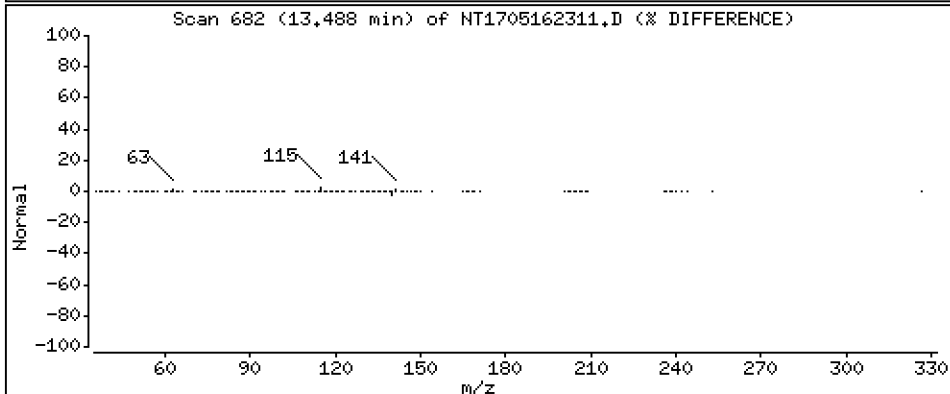
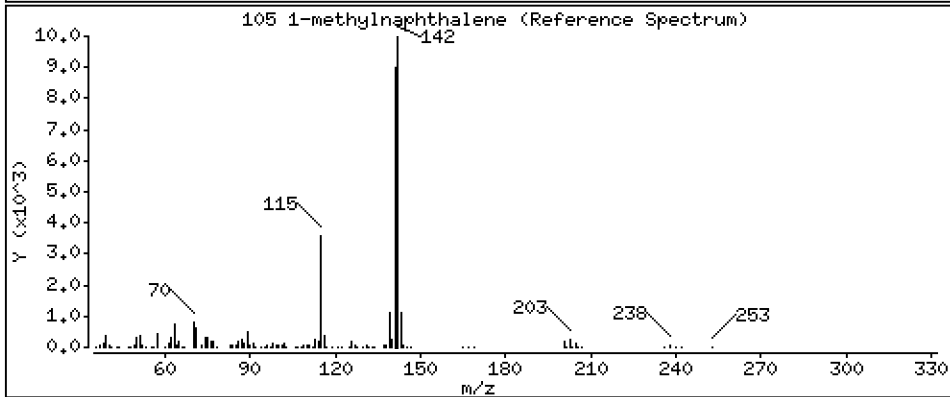
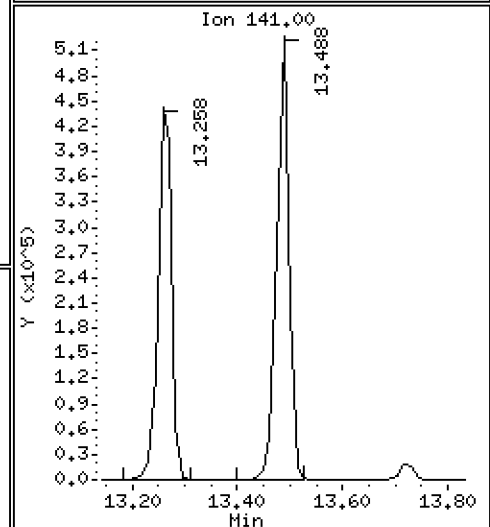
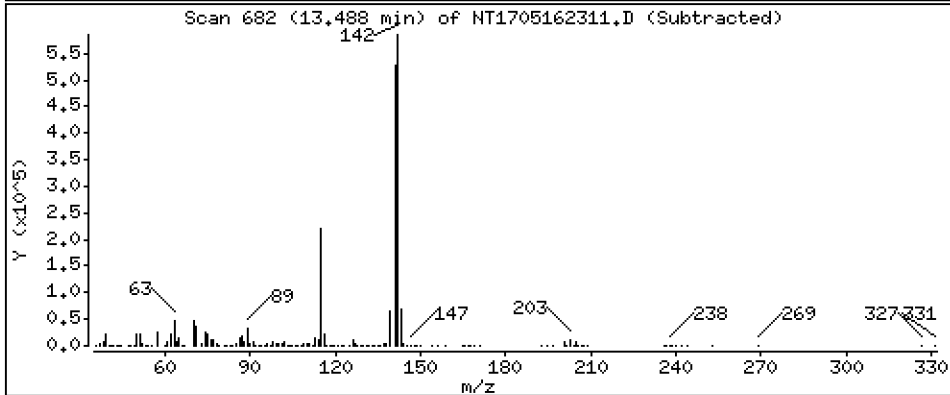
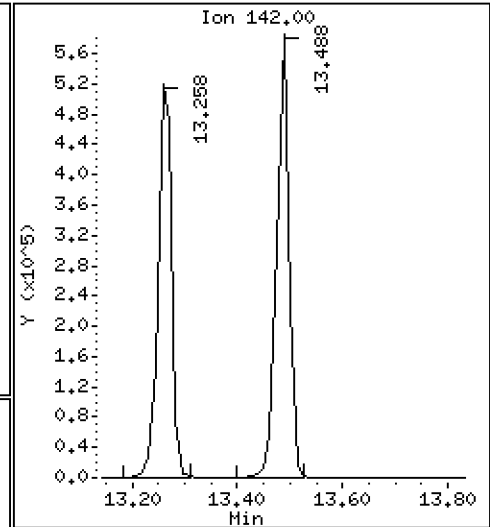
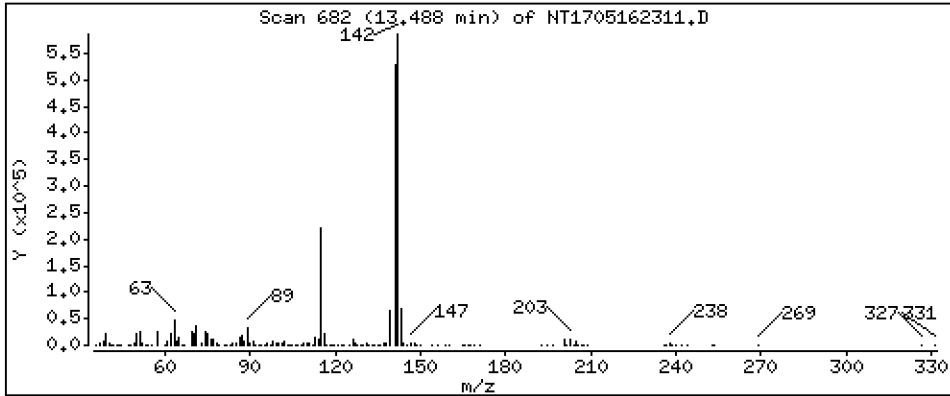
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 5,250 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

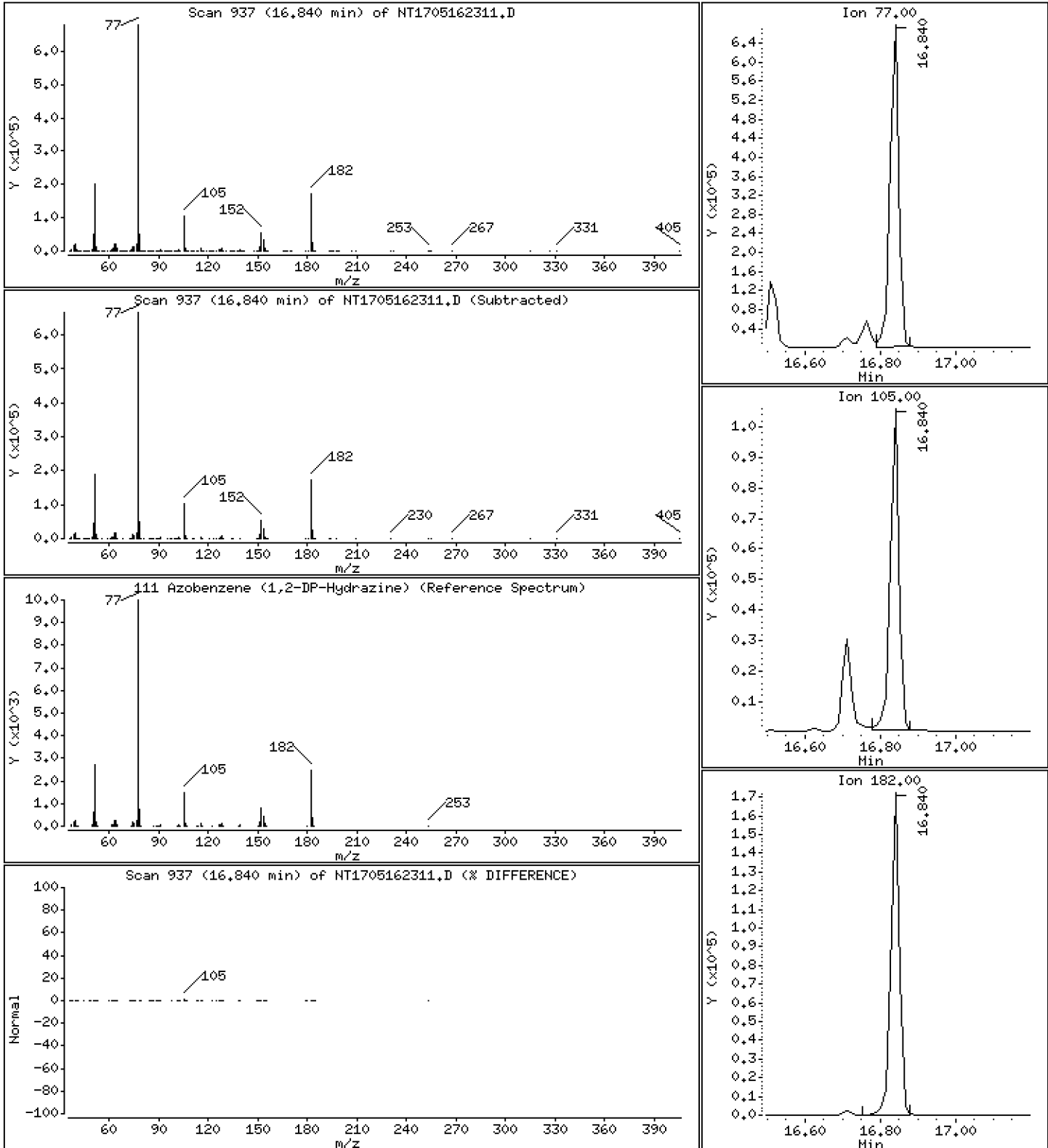
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5.338 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

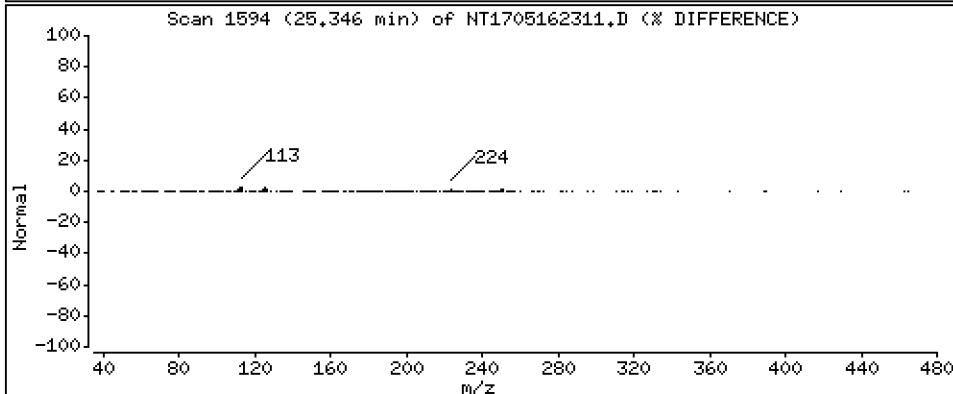
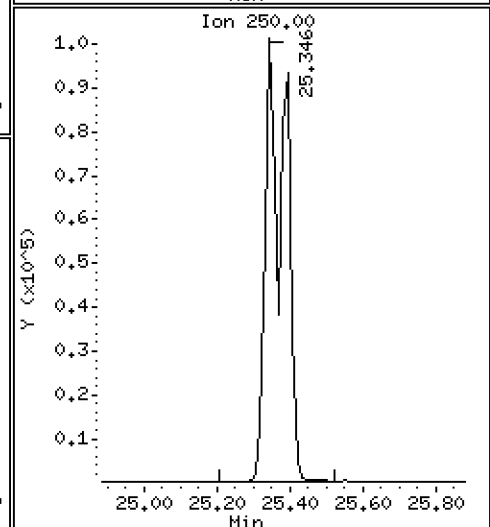
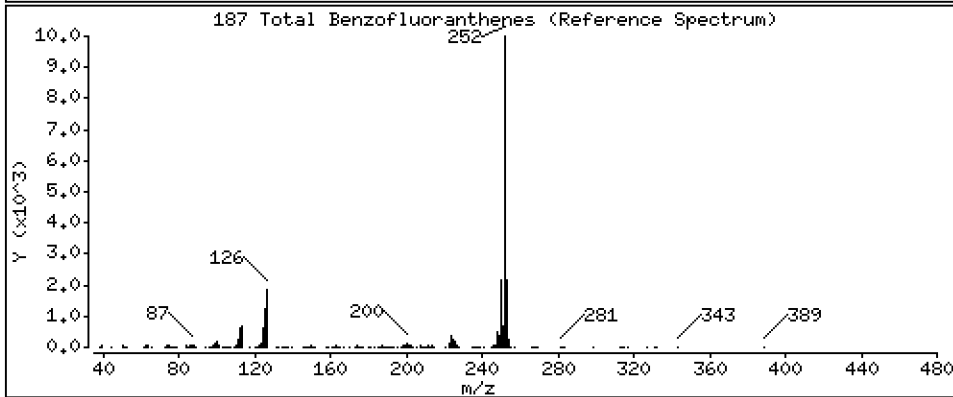
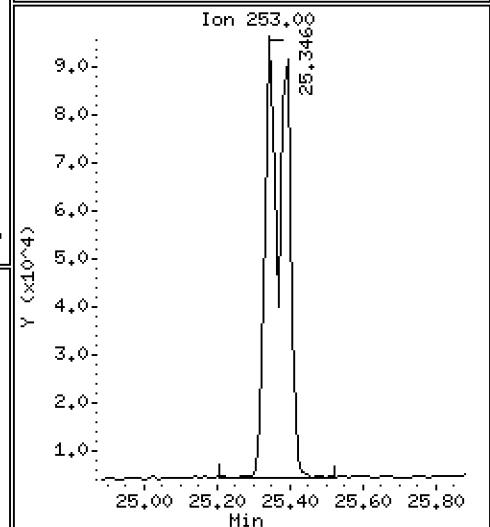
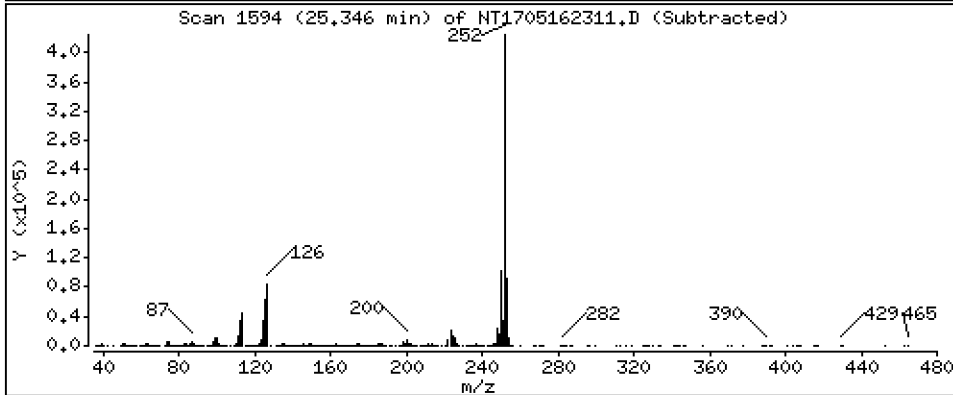
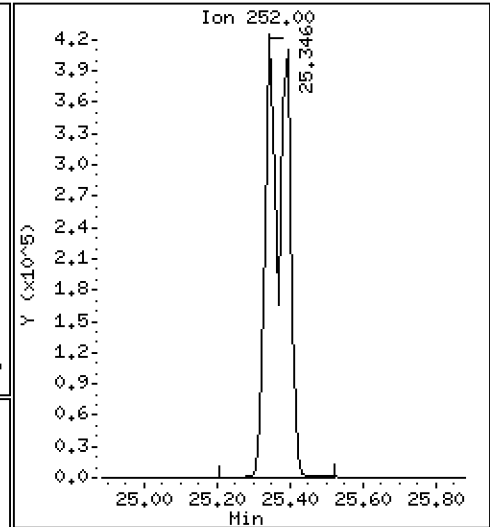
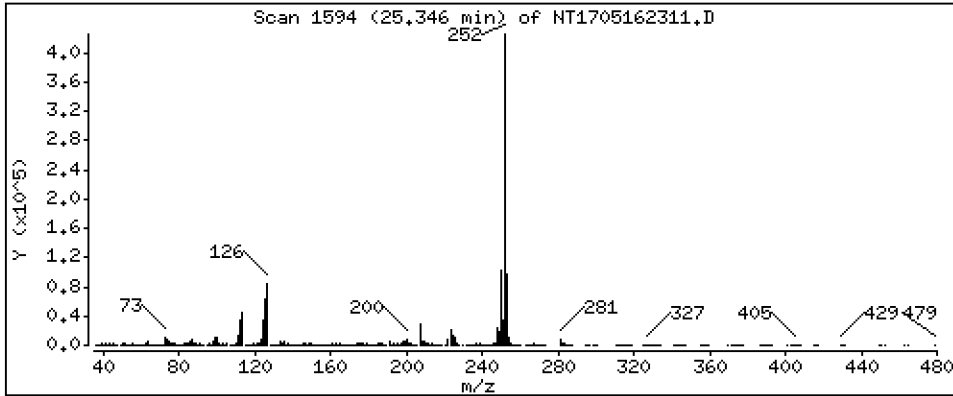
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,02 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

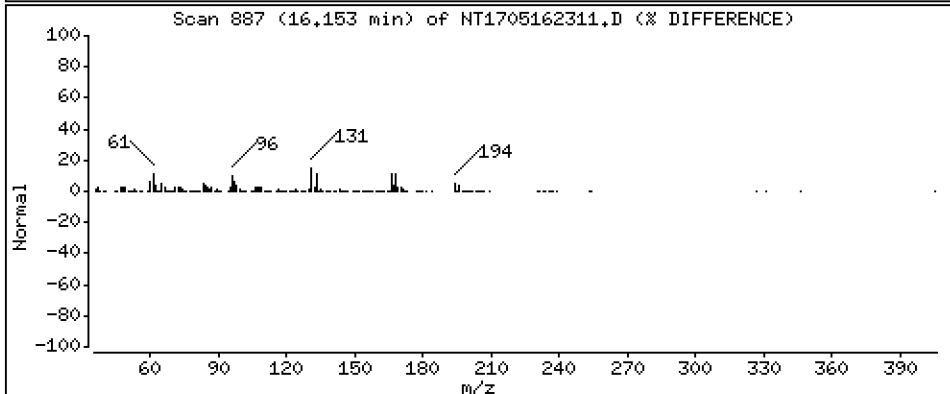
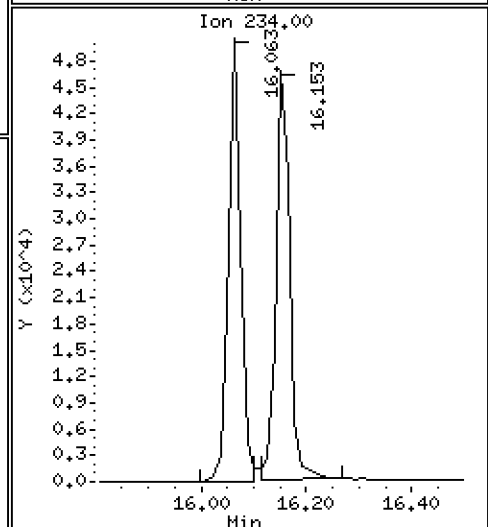
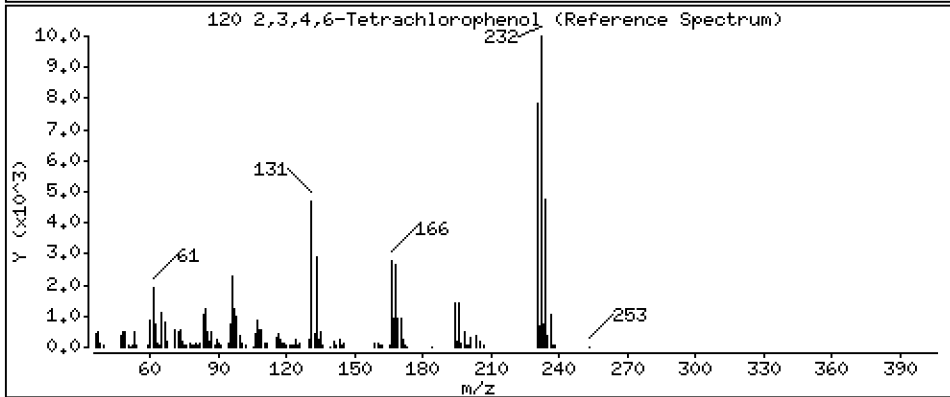
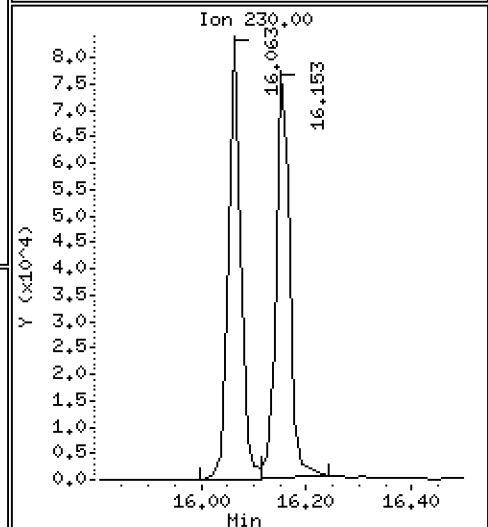
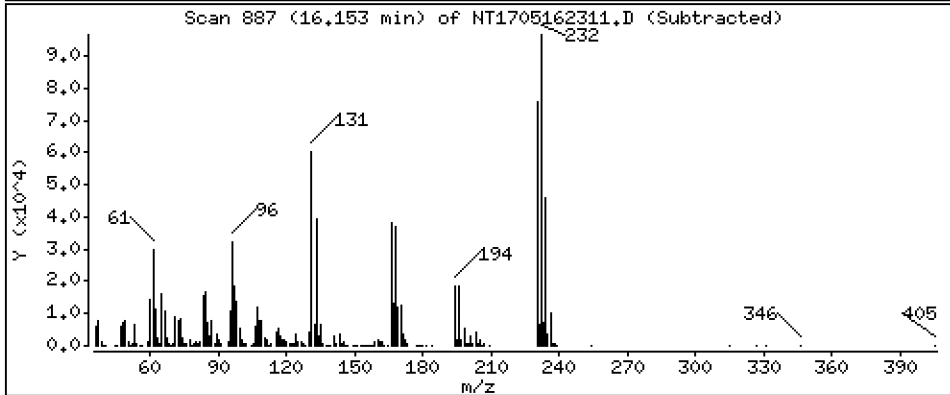
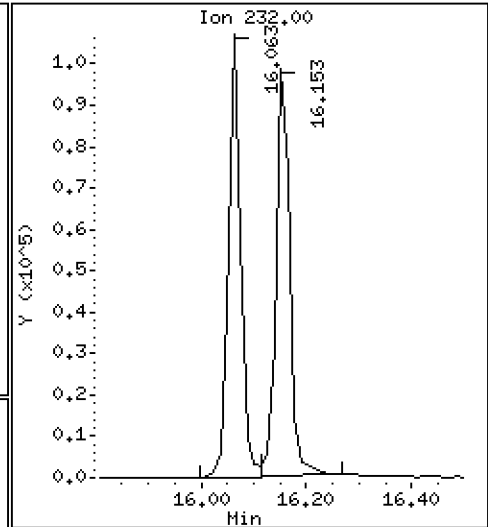
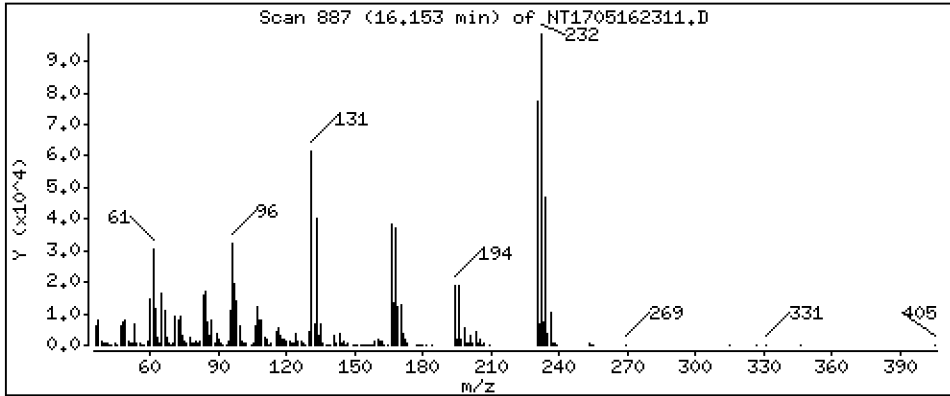
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,283 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162311.D
 Lab Smp Id: SLE0338-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0338-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
\$ 2 Phenol-d5	99		Compound Not Detected.					
3 Phenol	94		8.740	8.740	(0.933)	588001	4.82293	4.823
\$ 5 2-Chlorophenol-d4	132		Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	494651	5.56554	5.566
6 2-Chlorophenol	128		9.033	9.033	(0.965)	539006	5.29416	5.294
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	548081	5.31911	5.319
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	265705	4.00000	
9 1,4-Dichlorobenzene	146		9.390	9.391	(1.003)	521173	5.07146	5.071
\$ 10 1,2-Dichlorobenzene-d4	152		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	507921	5.25771	5.258
11 Benzyl alcohol	108		9.633	9.633	(1.029)	299374	5.27414	5.274
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	168255	6.17916	6.179
13 2-Methylphenol	108		9.850	9.851	(1.052)	378927	4.22901	4.229
17 Hexachloroethane	117		10.336	10.336	(1.104)	222748	5.41856	5.419
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	378231	5.51734	5.517
15 4-Methylphenol	108		10.119	10.119	(1.080)	425231	4.66096	4.661
\$ 18 Nitrobenzene-d5	82		Compound Not Detected.					
19 Nitrobenzene	77		10.489	10.489	(0.886)	558517	5.32891	5.329
20 Isophorone	82		10.924	10.924	(0.922)	996054	6.94254	6.943
21 2-Nitrophenol	139		11.115	11.115	(0.939)	247403	4.89866	4.899
22 2,4-Dimethylphenol	107		11.153	11.154	(0.942)	371455	3.78811	3.788
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	547968	6.23185	6.232
24 Benzoic acid	105		11.332	11.333	(0.957)	445958	6.76086	6.761
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	370930	4.70748	4.707
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	503147	5.87937	5.879
* 27 Naphthalene-d8	136		11.842	11.830	(1.000)	965231	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	1361438	5.12904	5.129
29 4-Chloroaniline	127		11.995	11.995	(1.013)	469527	4.48751	4.488
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	222159	5.24062	5.241
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	413906	4.87847	4.878
32 2-Methylnaphthalene	142		13.258	13.258	(1.120)	955574	5.02794	5.028
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	201170	4.21896	4.219

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.883	13.883	(0.899)	257193	4.79376	4.794	
35 2,4,5-Trichlorophenol	196		13.959	13.959	(0.904)	274739	4.83728	4.837	
§ 36 2-Fluorobiphenyl	172		Compound Not Detected.						
37 2-Chloronaphthalene	162		14.252	14.253	(0.923)	885085	5.40065	5.401	
38 2-Nitroaniline	65		14.507	14.508	(0.940)	297267	5.35584	5.356	
39 Dimethylphthalate	163		14.928	14.929	(0.967)	955980	5.41824	5.418	
40 Acenaphthylene	152		15.120	15.120	(0.979)	1374665	5.28203	5.282	
41 2,6-Dinitrotoluene	165		15.069	15.069	(0.976)	223225	5.40390	5.404	
* 42 Acenaphthene-d10	164		15.438	15.426	(1.000)	512787	4.00000		
43 3-Nitroaniline	138		15.362	15.349	(0.995)	197758	5.16887	5.169	
44 Acenaphthene	153		15.502	15.502	(1.004)	859485	5.28316	5.283	
45 2,4-Dinitrophenol	184		15.566	15.567	(1.008)	52944	2.11874	2.119	
46 Dibenzofuran	168		15.821	15.821	(1.025)	1172327	5.16305	5.163	
47 4-Nitrophenol	109		15.668	15.681	(1.015)	114450	4.50365	4.504	
48 2,4-Dinitrotoluene	165		15.872	15.872	(1.028)	284935	5.26937	5.269	
50 Diethylphthalate	149		16.369	16.369	(1.060)	945291	5.49374	5.494	
49 Fluorene	166		16.535	16.535	(1.071)	1165179	5.39758	5.398	
51 4-Chlorophenyl-phenylether	204		16.522	16.509	(1.070)	542088	5.46212	5.462	
52 4-Nitroaniline	138		16.624	16.611	(1.077)	184970	5.10772	5.108	
53 4,6-Dinitro-2-methylphenol	198		16.713	16.713	(0.905)	113822	3.35487	3.355	
54 N-Nitrosodiphenylamine	169		16.764	16.764	(0.908)	651392	5.46976	5.470	
§ 55 2,4,6-Tribromophenol	330		Compound Not Detected.						
56 4-Bromophenyl-phenylether	248		17.514	17.515	(0.949)	226164	5.42020	5.420	
57 Hexachlorobenzene	284		17.833	17.833	(0.966)	208878	4.91276	4.913	
58 Pentachlorophenol	266		18.190	18.203	(0.985)	98895	3.94337	3.943	
* 59 Phenanthrene-d10	188		18.458	18.458	(1.000)	850147	4.00000		
60 Phenanthrene	178		18.509	18.496	(1.003)	1250084	5.03943	5.039	
61 Anthracene	178		18.598	18.598	(1.008)	1054910	4.52965	4.530	
62 Carbazole	167		18.917	18.918	(1.025)	896606	5.93842	5.938	
63 Di-n-butylphthalate	149		19.682	19.682	(1.066)	1586517	5.64164	5.642	
64 Fluoranthene	202		20.868	20.855	(0.890)	1308113	5.46710	5.467	
65 Pyrene	202		21.289	21.276	(0.908)	1277121	5.26528	5.265	
§ 66 Terphenyl-d14	244		Compound Not Detected.						
67 Butylbenzylphthalate	149		22.462	22.462	(0.958)	632335	5.82476	5.825	
68 Benzo(a)anthracene	228		23.419	23.419	(0.998)	953848	5.06413	5.064	
* 69 Chrysene-d12	240		23.457	23.445	(1.000)	511511	4.00000		
70 3,3'-Dichlorobenzidine	252		23.368	23.369	(0.996)	459041	11.9948	11.99	
71 Chrysene	228		23.496	23.496	(1.002)	889381	5.01800	5.018	
72 bis(2-Ethylhexyl)phthalate	149		23.470	23.470	(0.959)	875291	5.79218	5.792	
* 134 Di-n-octylphthalate-d4	153		24.465	24.465	(1.000)	1044471	4.00000		
73 Di-n-octylphthalate	149		24.465	24.465	(1.000)	1451463	5.48238	5.482	
74 Benzo(b)fluoranthene	252		25.345	25.345	(0.969)	887996	4.91157	4.912	
75 Benzo(k)fluoranthene	252		25.396	25.384	(0.971)	848094	4.96504	4.965 (H)	
76 Benzo(a)pyrene	252		26.034	26.022	(0.996)	736579	5.17185	5.172	
* 77 Perylene-d12	264		26.149	26.149	(1.000)	456008	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.946	28.933	(1.107)	830811	5.02922	5.029	
79 Dibenzo(a,h)anthracene	278		28.946	28.946	(1.107)	689006	4.96953	4.970	
80 Benzo(g,h,i)perylene	276		29.764	29.751	(1.138)	689189	5.05448	5.054	
90 N-Nitrosodimethylamine	74		5.071	5.071	(0.542)	334608	5.76731	5.767	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		21.085	21.085	(0.899)	208933	3.45722	3.457	
103 Pyridine	79		5.097	5.122	(0.544)	534742	5.81084	5.811	
105 1-methylnaphthalene	142		13.487	13.487	(1.139)	925646	5.25003	5.250	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.840	16.840	(1.091)	1072104	5.33771	5.338	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	1625913	10.0183	10.02
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	210743	3.28296	3.283

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162311.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	265705	-7.45
27 Naphthalene-d8	1056758	528379	2113516	965231	-8.66
42 Acenaphthene-d10	587510	293755	1175020	512787	-12.72
59 Phenanthrene-d10	933575	466788	1867150	850147	-8.94
69 Chrysene-d12	576570	288285	1153140	511511	-11.28
134 Di-n-octylphthala	1181651	590826	2363302	1044471	-11.61
77 Perylene-d12	491359	245680	982718	456008	-7.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311.D

Lab ID: SLE0338-SCV1
nt17.i, ABN.m, 17-MAY-2023 00:29

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

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Data File: \\target\share\chem3\nt17.1\20230516.1\NT1705162312.D

Date: 17-May-2023 01:07

Client ID:

Sample Info: SLE0338-ICB1

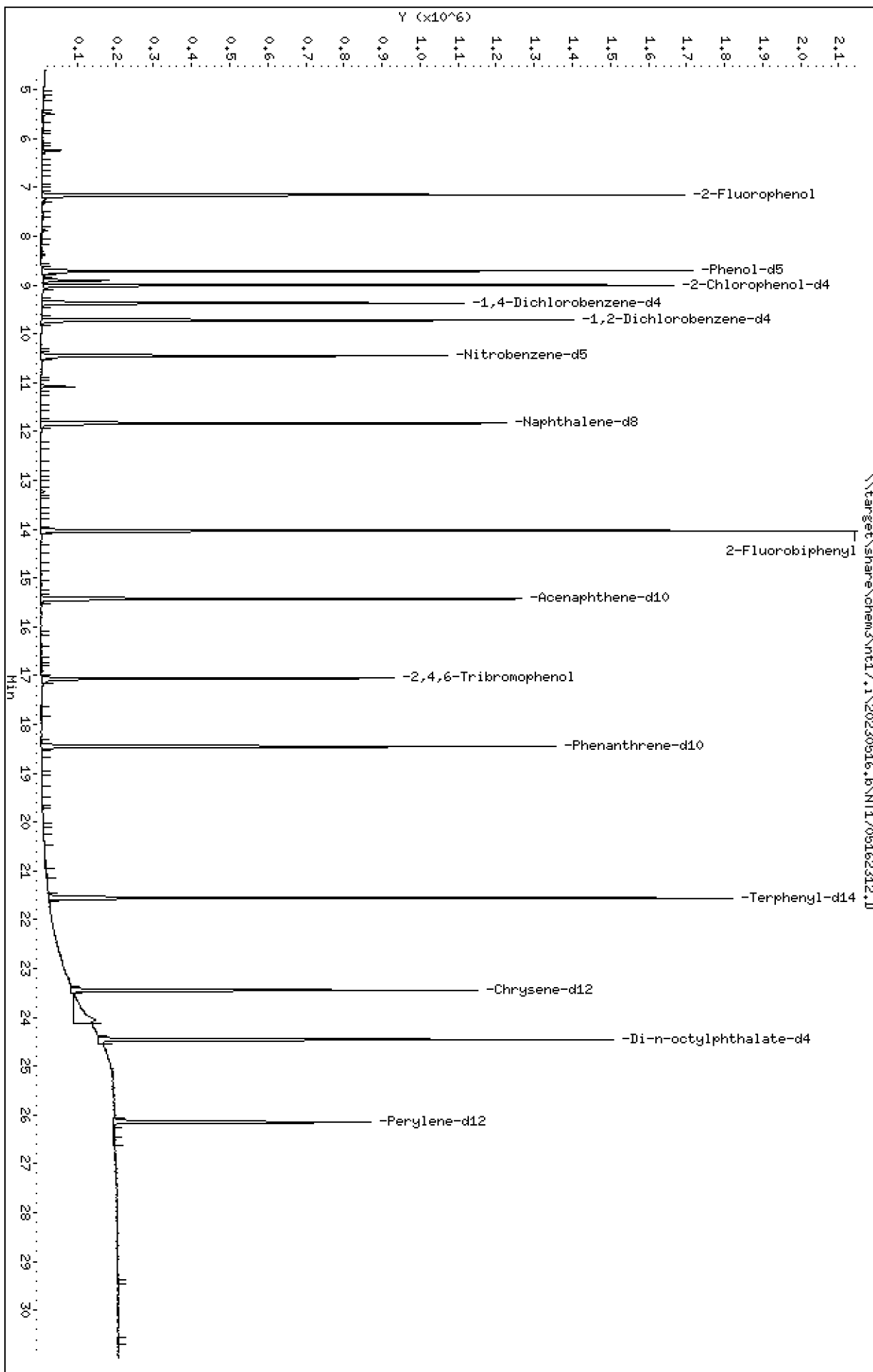
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 17-MAY-2023 01:07

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-ICB1

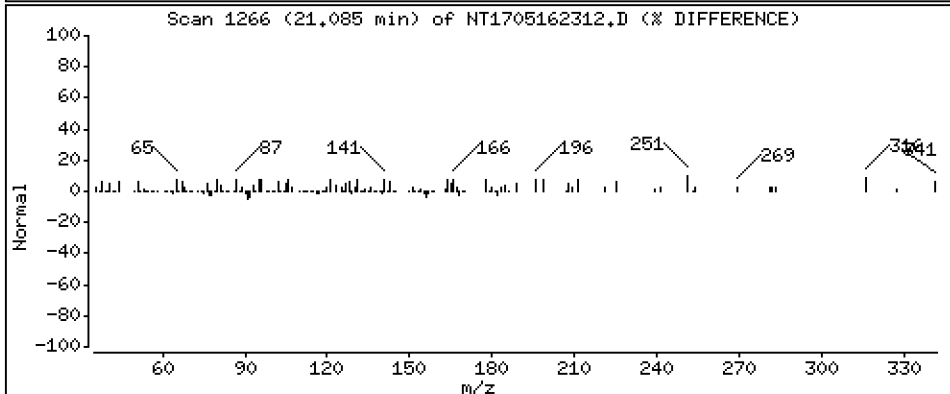
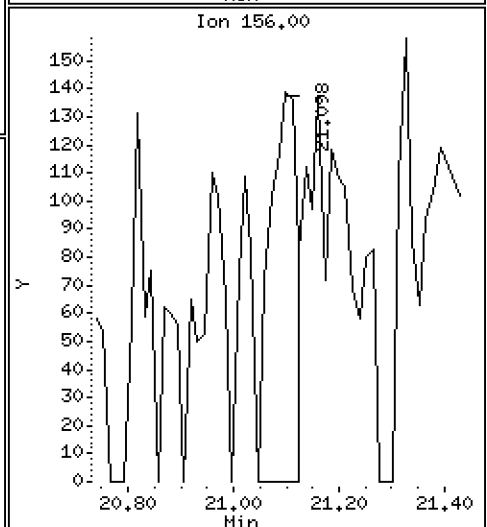
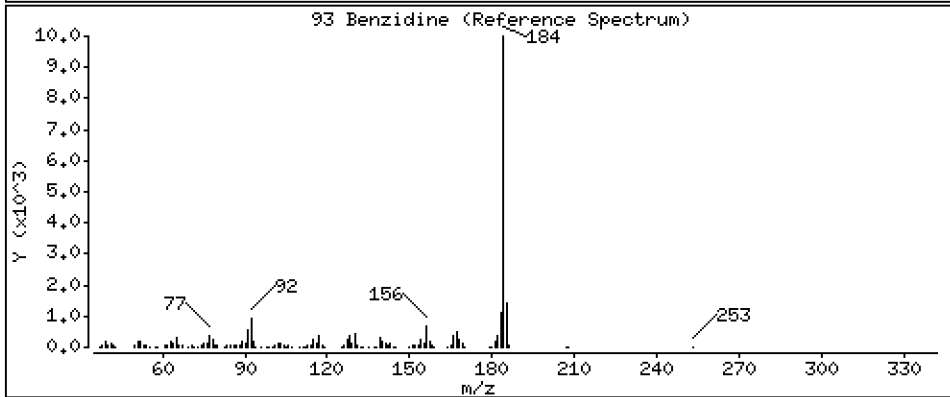
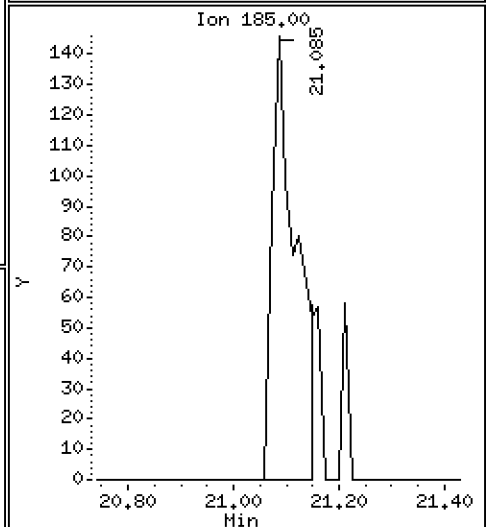
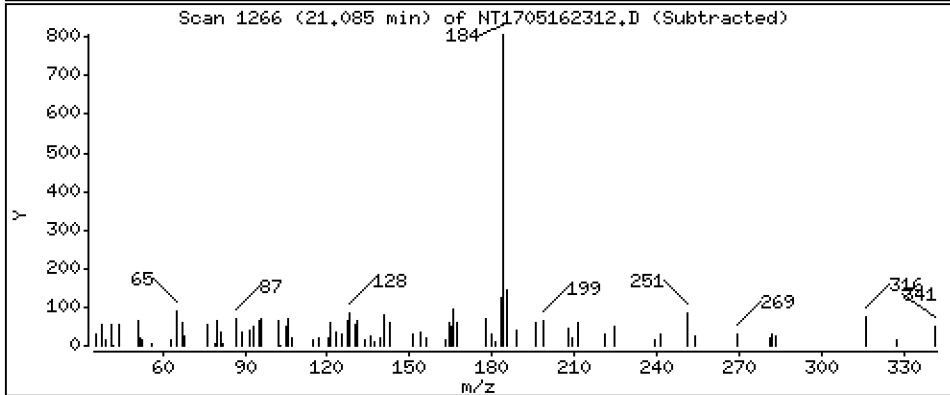
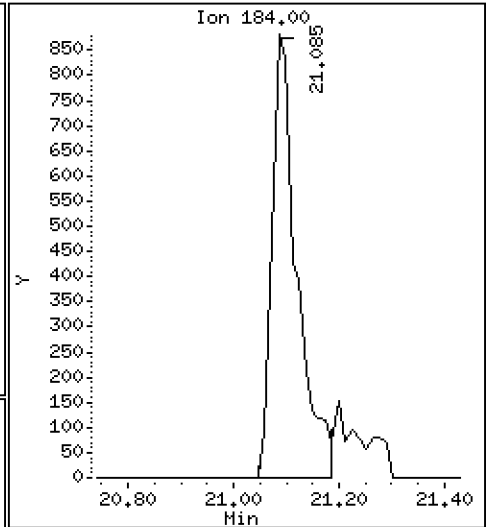
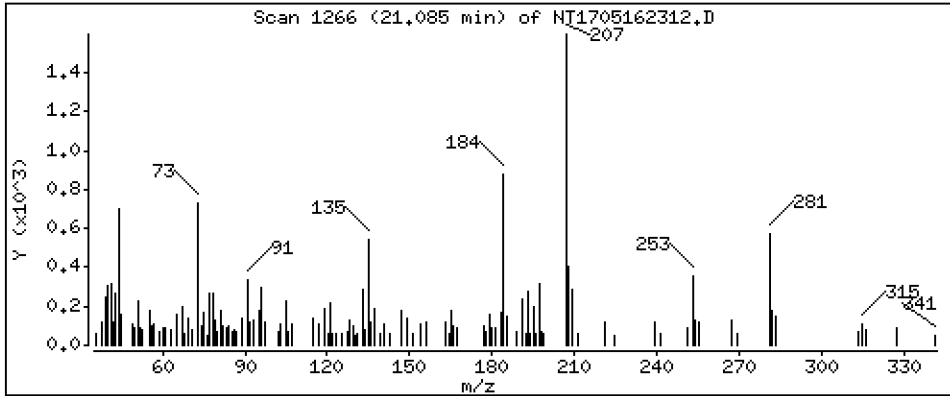
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,04787 ug/mL

93 Benzidine



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162312.D
 Lab Smp Id: SLE0338-ICB1
 Inj Date : 17-MAY-2023 01:07
 Operator : JGR
 Smp Info : SLE0338-ICB1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.148	7.161	(0.763)	733528	7.79090	7.791
\$ 2 Phenol-d5	99		8.715	8.715	(0.931)	897476	7.20297	7.203
3 Phenol	94		Compound Not Detected.					
\$ 5 2-Chlorophenol-d4	132		9.008	9.008	(0.962)	759790	7.61288	7.613
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	287620	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.723	9.723	(1.038)	351911	5.01661	5.017
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.451	10.451	(0.883)	585251	4.93952	4.940
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.830	11.830	(1.000)	1041050	4.00000	
28 Naphthalene	128		Compound Not Detected.					
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.036	14.036	(0.909)	1089823	5.13150	5.132
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152							
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.439	15.426	(1.000)	539097	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153							
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168							
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149							
49 Fluorene	166							
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.069	17.070	(1.106)	137823	5.86102	5.861
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.458	18.458	(1.000)	886060	4.00000	
60 Phenanthrene	178							
61 Anthracene	178							
62 Carbazole	167							
63 Di-n-butylphthalate	149							
64 Fluoranthene	202							
65 Pyrene	202							
\$ 66 Terphenyl-d14	244		21.557	21.557	(0.919)	956952	5.47385	5.474
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228							
* 69 Chrysene-d12	240		23.445	23.445	(1.000)	518615	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228							
72 bis(2-Ethylhexyl)phthalate	149							
* 134 Di-n-octylphthalate-d4	153		24.452	24.465	(1.000)	1011857	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252							
75 Benzo(k)fluoranthene	252							
76 Benzo(a)pyrene	252							
* 77 Perylene-d12	264		26.149	26.149	(1.000)	487385	4.00000	
78 Indeno(1,2,3-cd)pyrene	276							
79 Dibenzo(a,h)anthracene	278							
80 Benzo(g,h,i)perylene	276							
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184		21.085	21.085	(0.899)	2877	0.04787	0.04787
103 Pyridine	79							
105 1-methylnaphthalene	142							
111 Azobenzene (1,2-DP-Hydrazine)	77							

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162312.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	287620	0.19
27 Naphthalene-d8	1056758	528379	2113516	1041050	-1.49
42 Acenaphthene-d10	587510	293755	1175020	539097	-8.24
59 Phenanthrene-d10	933575	466788	1867150	886060	-5.09
69 Chrysene-d12	576570	288285	1153140	518615	-10.05
134 Di-n-octylphthala	1181651	590826	2363302	1011857	-14.37
77 Perylene-d12	491359	245680	982718	487385	-0.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.83	-0.11
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.45	-0.06
134 Di-n-octylphthala	24.47	23.97	24.97	24.45	-0.05
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162312.D

Lab ID: SLE0338-ICB1
nt17.i, ABN.m, 17-MAY-2023 01:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0338-SCV1

Sequence: SLE0338

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.8	-3.5	20.00
bis(2-chloroethyl) ether	5.0000	5.6	11.3	20.00
2-Chlorophenol	5.0000	5.3	5.9	20.00
1,3-Dichlorobenzene	5.0000	5.3	6.4	20.00
1,4-Dichlorobenzene	5.0000	5.1	1.4	20.00
1,2-Dichlorobenzene	5.0000	5.3	5.2	20.00
Benzyl Alcohol	5.0000	5.3	5.5	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	6.2	23.6	20.00
2-Methylphenol	5.0000	4.2	-15.4	20.00
Hexachloroethane	5.0000	5.4	8.4	20.00
N-Nitroso-di-n-Propylamine	5.0000	5.5	10.3	20.00
4-Methylphenol	5.0000	4.7	-6.8	20.00
Nitrobenzene	5.0000	5.3	6.6	20.00
Isophorone	5.0000	6.9	38.9	20.00
2-Nitrophenol	5.0000	4.9	-2.0	20.00
2,4-Dimethylphenol	5.0000	3.8	-24.2	20.00
Bis(2-Chloroethoxy)methane	5.0000	6.2	24.6	20.00
2,4-Dichlorophenol	5.0000	4.7	-5.9	20.00
1,2,4-Trichlorobenzene	5.0000	5.9	17.6	20.00
Naphthalene	5.0000	5.1	2.6	20.00
Benzoic acid	10.0000	6.8	-32.4	20.00
4-Chloroaniline	5.0000	4.5	-10.2	20.00
Hexachlorobutadiene	5.0000	5.2	4.8	20.00
4-Chloro-3-Methylphenol	5.0000	4.9	-2.4	20.00
2-Methylnaphthalene	5.0000	5.0	0.6	20.00
Hexachlorocyclopentadiene	5.0000	4.2	-15.6	20.00
2,4,6-Trichlorophenol	5.0000	4.8	-4.1	20.00
2,4,5-Trichlorophenol	5.0000	4.8	-3.3	20.00
2-Chloronaphthalene	5.0000	5.4	8.0	20.00
2-Nitroaniline	5.0000	5.4	7.1	20.00
Acenaphthylene	5.0000	5.3	5.6	20.00
Dimethylphthalate	5.0000	5.4	8.4	20.00
2,6-Dinitrotoluene	5.0000	5.4	8.1	20.00
Acenaphthene	5.0000	5.3	5.7	20.00



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0338-SCV1

Sequence: SLE0338

Sequence Name: SCV 5.0

Standard ID: K010066

3-Nitroaniline	5.0000	5.2	3.4	20.00
2,4-Dinitrophenol	5.0000	2.1	-57.6	20.00
Dibenzofuran	5.0000	5.2	3.3	20.00
4-Nitrophenol	5.0000	4.5	-9.9	20.00
2,4-Dinitrotoluene	5.0000	5.3	5.4	20.00
Fluorene	5.0000	5.4	8.0	20.00
4-Chlorophenylphenyl ether	5.0000	5.5	9.2	20.00
Diethyl phthalate	5.0000	5.5	9.9	20.00
4-Nitroaniline	5.0000	5.1	2.2	20.00
4,6-Dinitro-2-methylphenol	5.0000	3.4	-32.9	20.00
N-Nitrosodiphenylamine	5.0000	5.5	9.4	20.00
4-Bromophenyl phenyl ether	5.0000	5.4	8.4	20.00
Hexachlorobenzene	5.0000	4.9	-1.7	20.00
Pentachlorophenol	5.0000	3.9	-21.1	20.00
Phenanthrene	5.0000	5.0	0.8	20.00
Anthracene	5.0000	4.5	-9.4	20.00
Carbazole	5.0000	5.9	18.8	20.00
Di-n-Butylphthalate	5.0000	5.6	12.8	20.00
Fluoranthene	5.0000	5.5	9.3	20.00
Pyrene	5.0000	5.3	5.3	20.00
Butylbenzylphthalate	5.0000	5.8	16.5	20.00
Benzo(a)anthracene	5.0000	5.1	1.3	20.00
3,3'-Dichlorobenzidine	10.000	12.0	19.9	20.00
Chrysene	5.0000	5.0	0.4	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.8	15.8	20.00
Di-n-Octylphthalate	5.0000	5.5	9.6	20.00
Benzo(a)fluoranthene, Total	10.000	10.0	0.2	20.00
Benzo(a)pyrene	5.0000	5.2	3.4	20.00
Indeno(1,2,3-cd)pyrene	5.0000	5.0	0.6	20.00
Dibenzo(a,h)anthracene	5.0000	5.0	-0.6	20.00
Benzo(g,h,i)perylene	5.0000	5.1	1.1	20.00
1-Methylnaphthalene	5.0000	5.3	5.0	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162311.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0338-SCW1

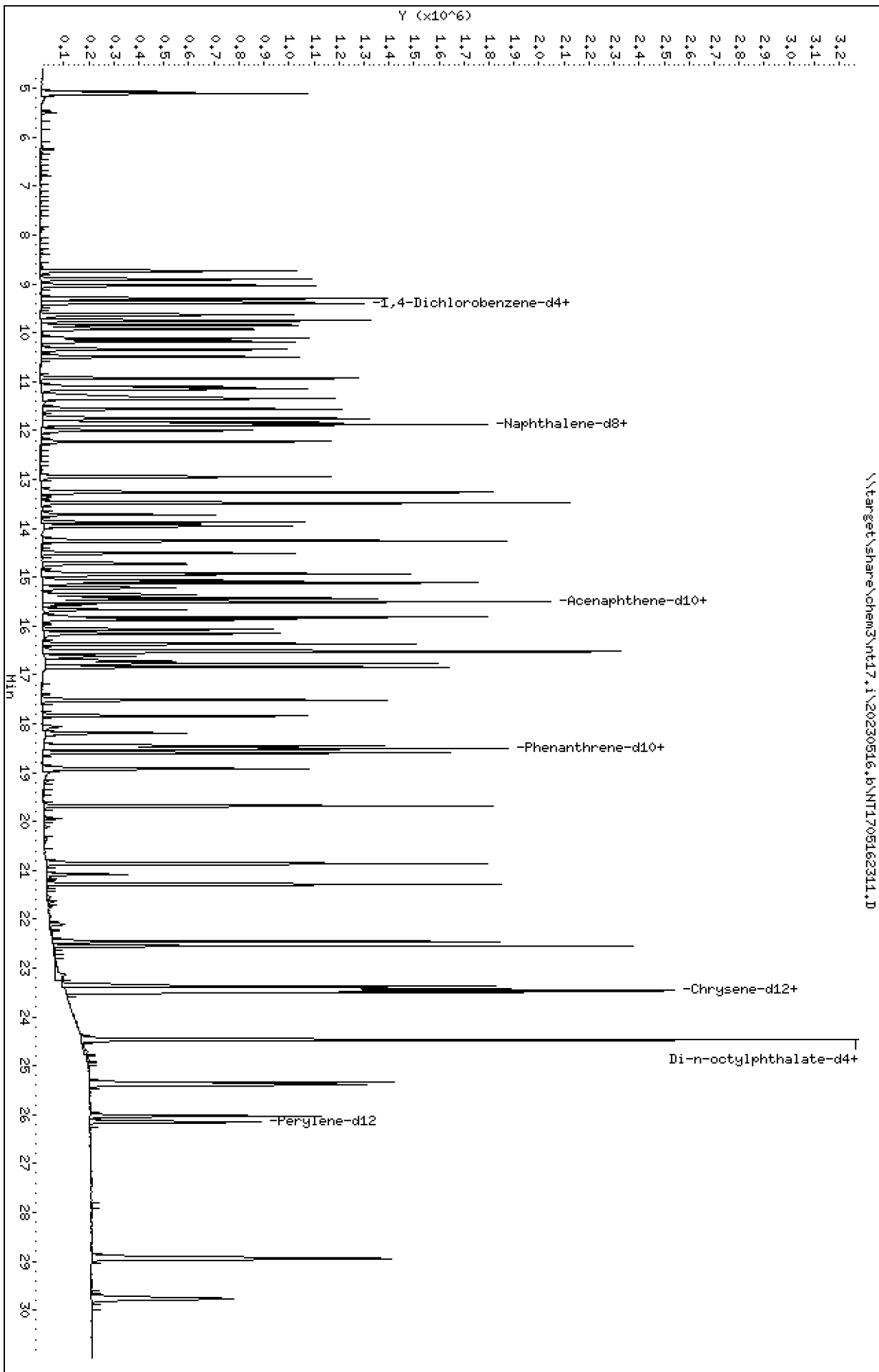
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

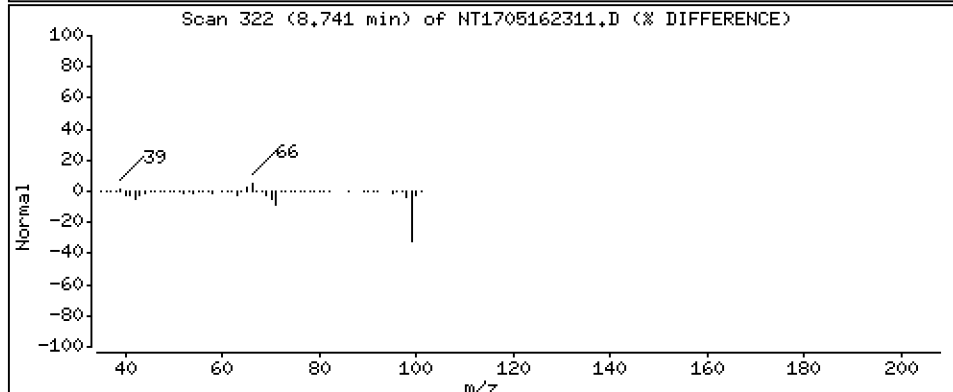
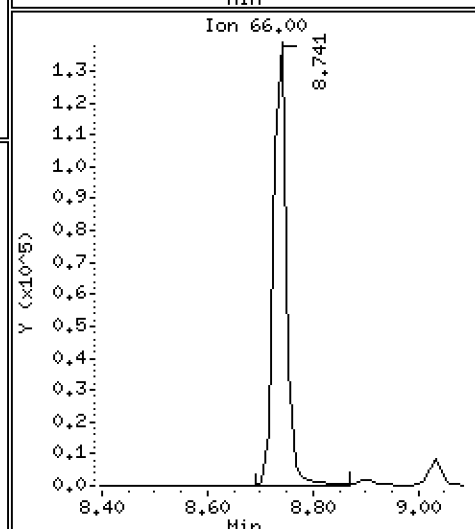
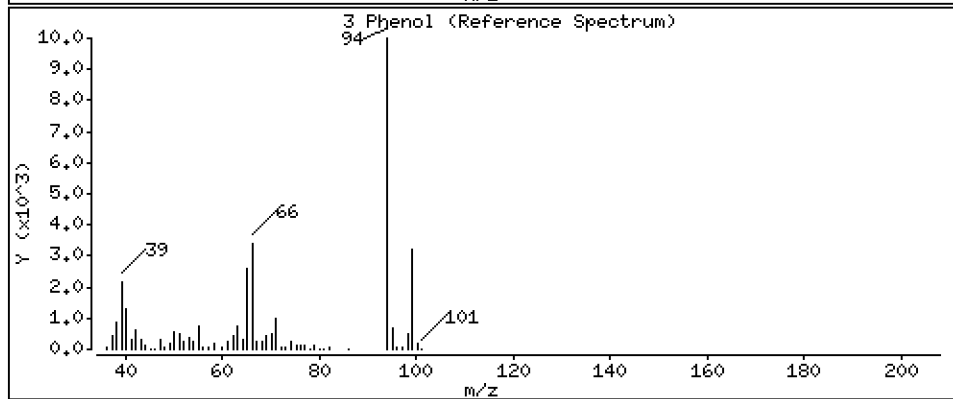
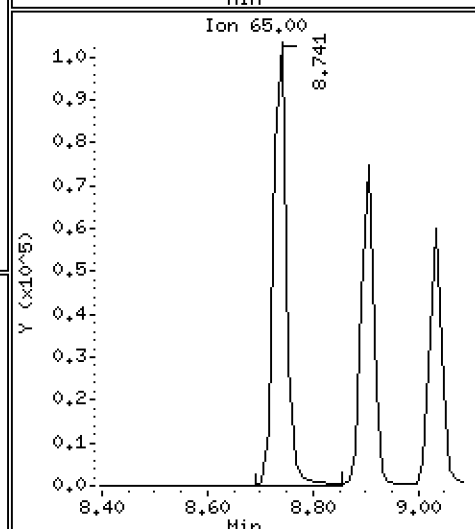
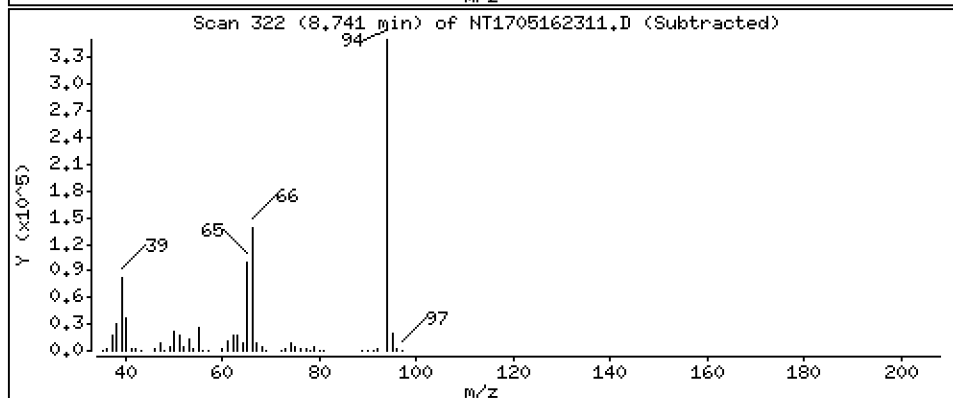
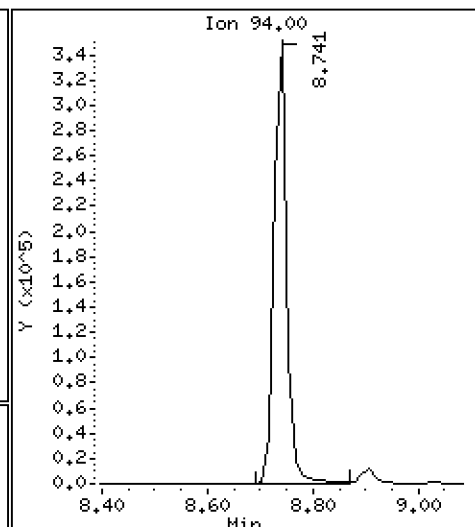
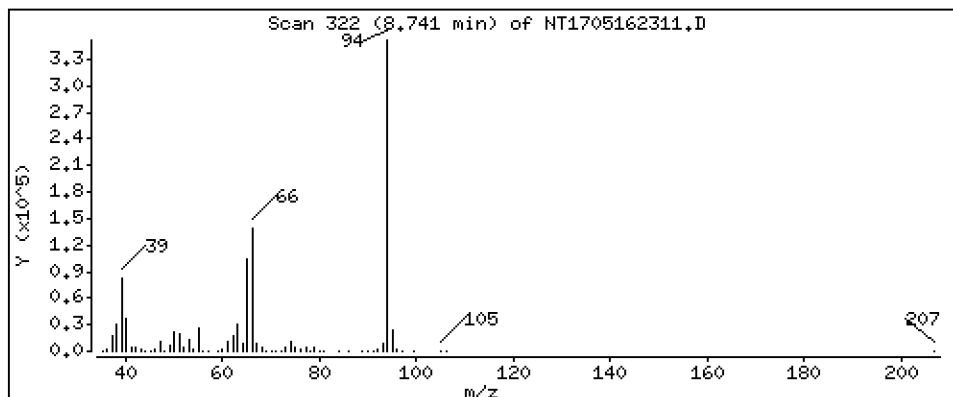
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,823 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

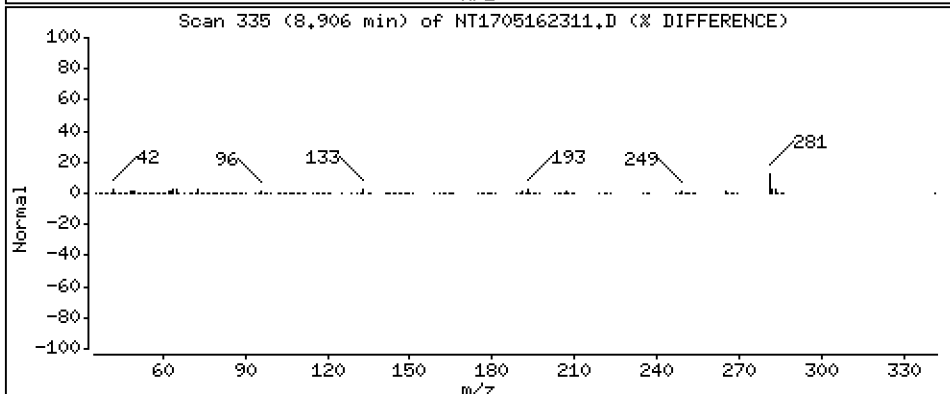
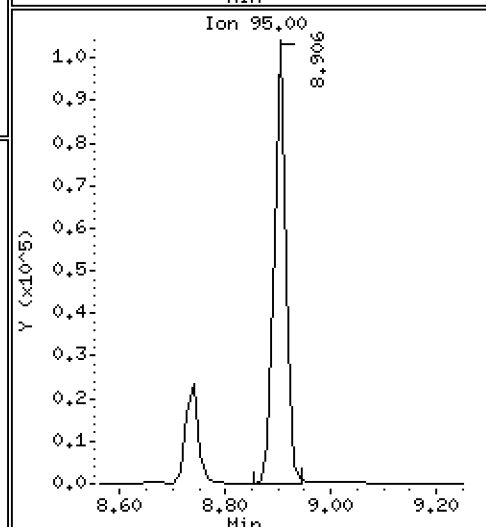
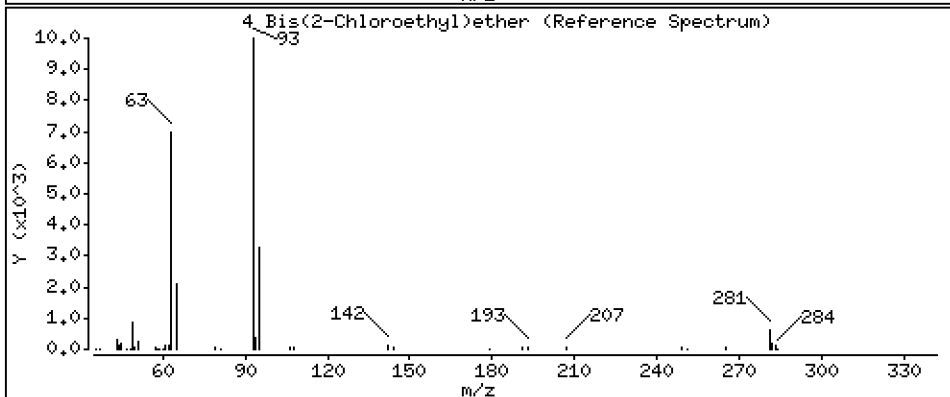
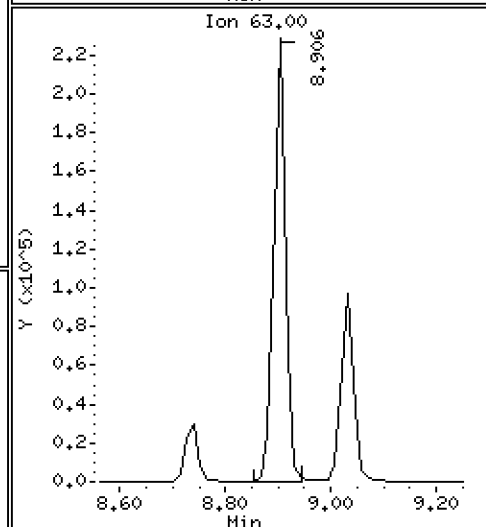
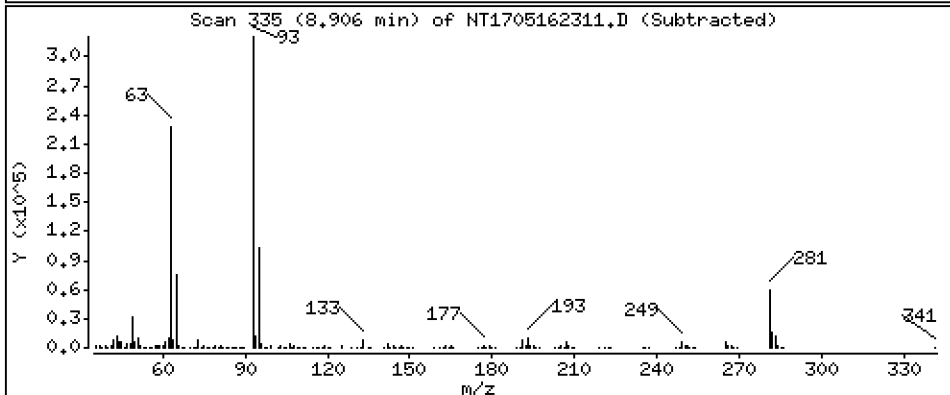
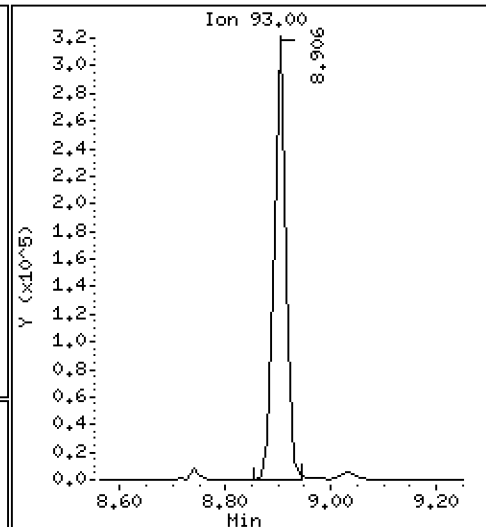
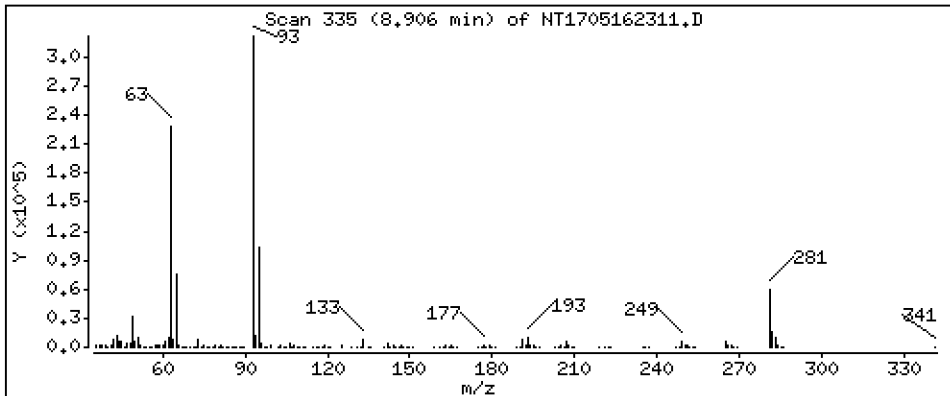
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,566 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

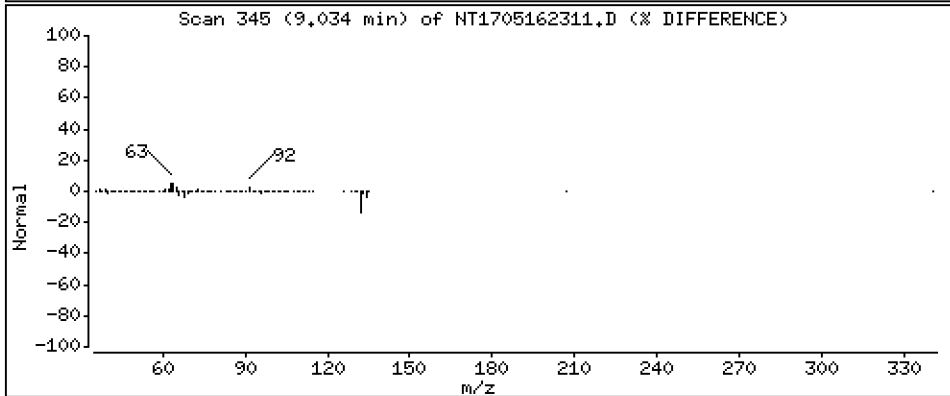
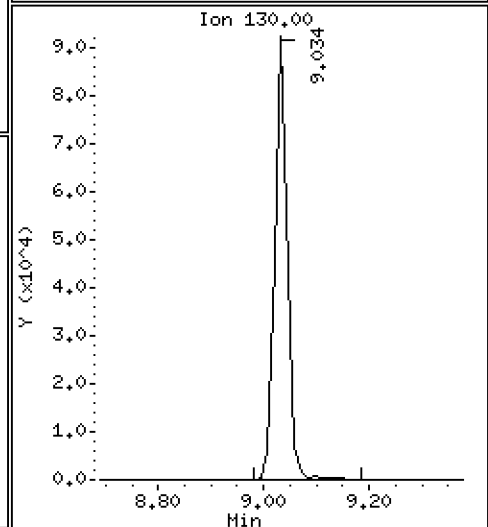
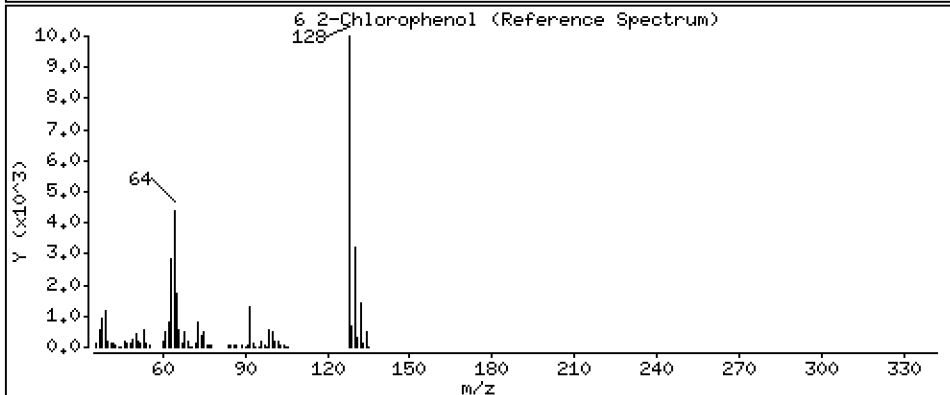
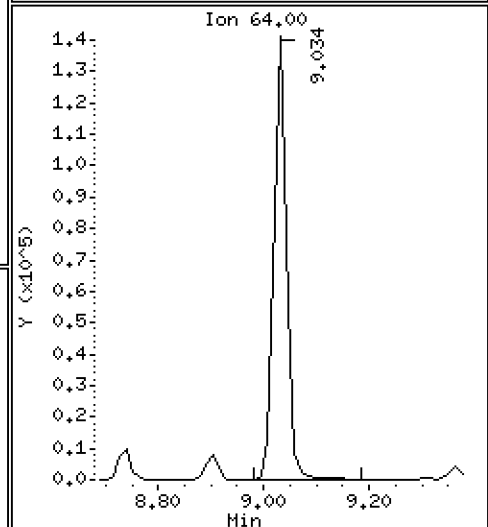
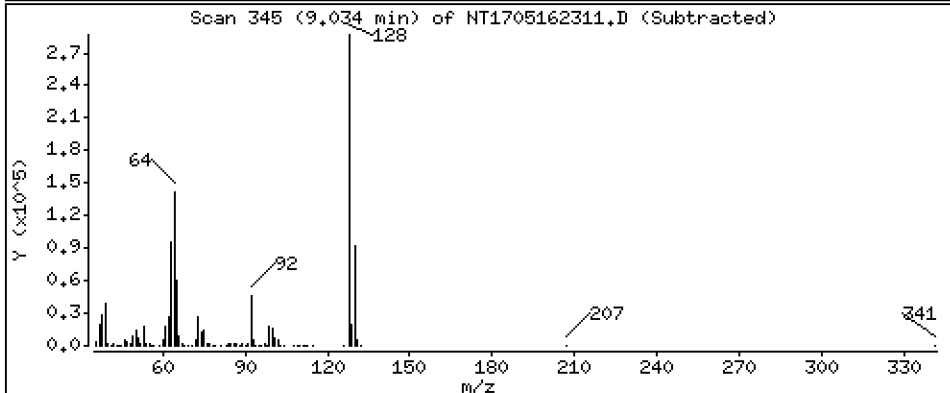
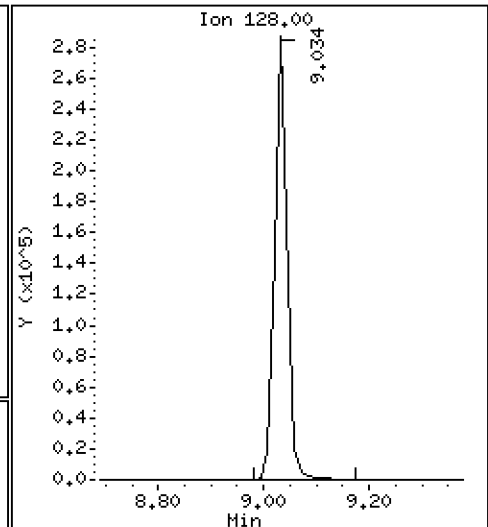
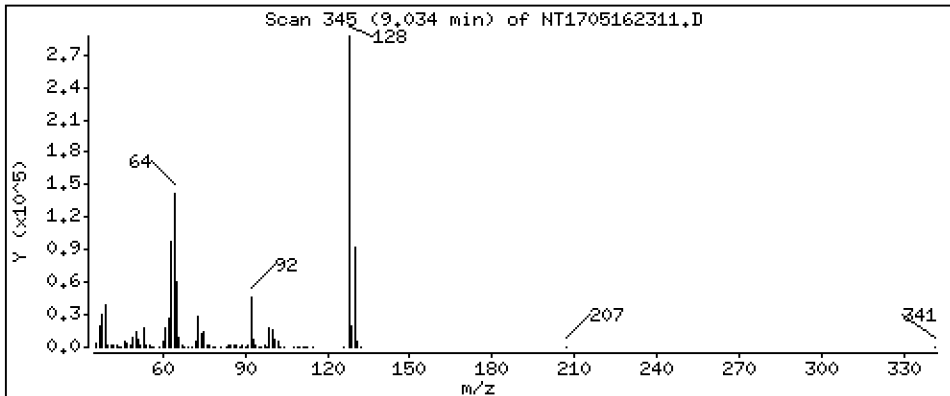
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 5,294 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

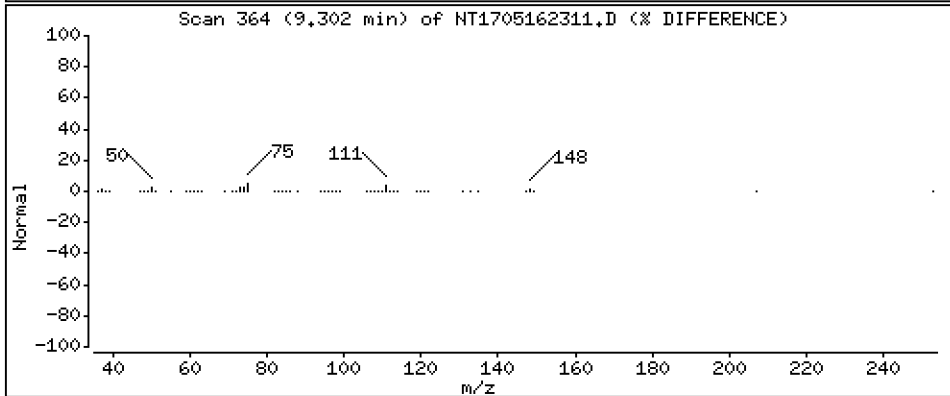
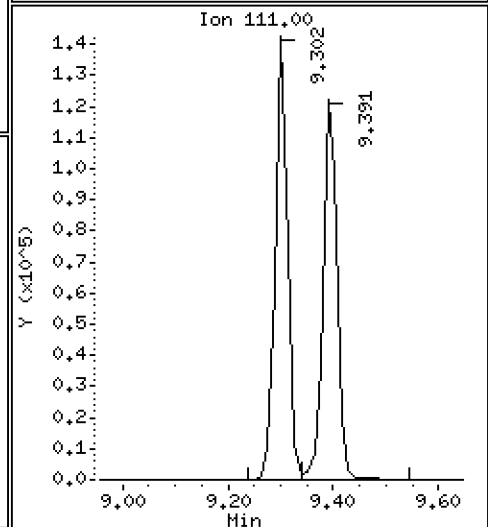
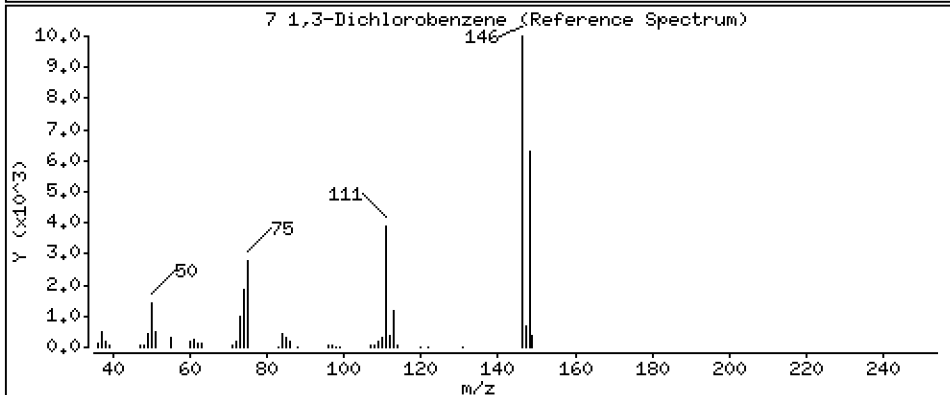
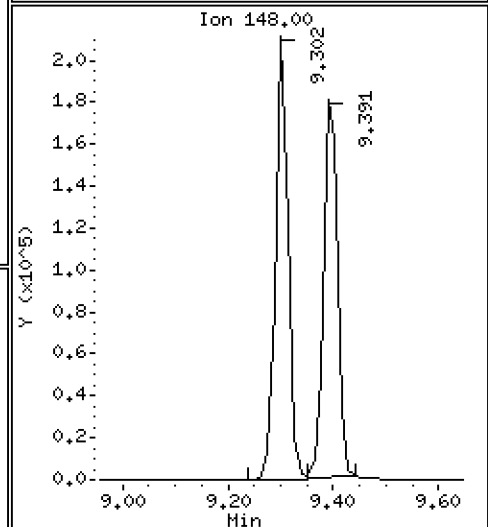
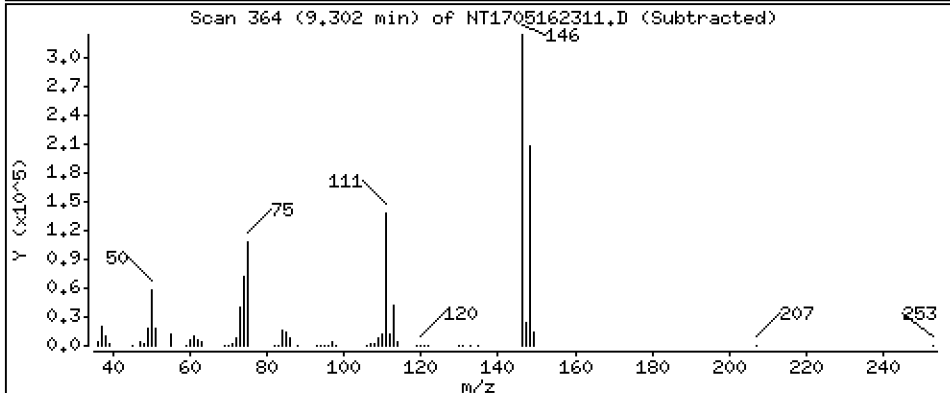
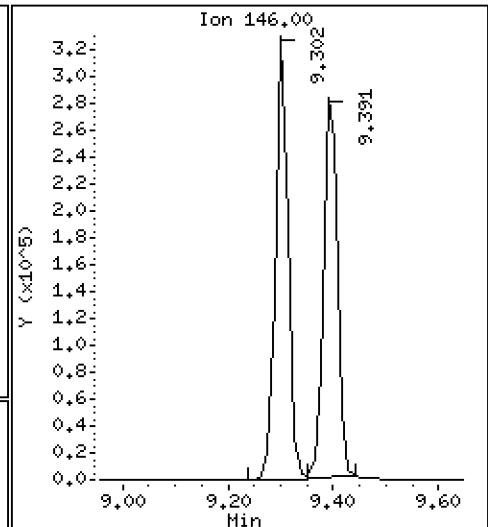
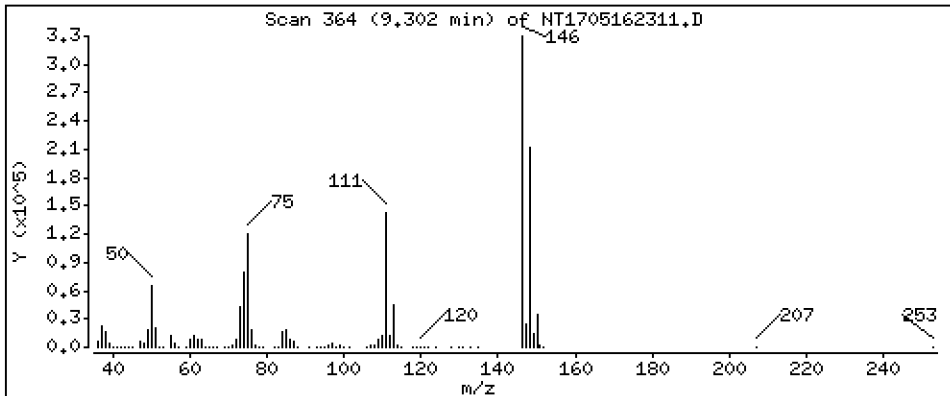
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.319 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

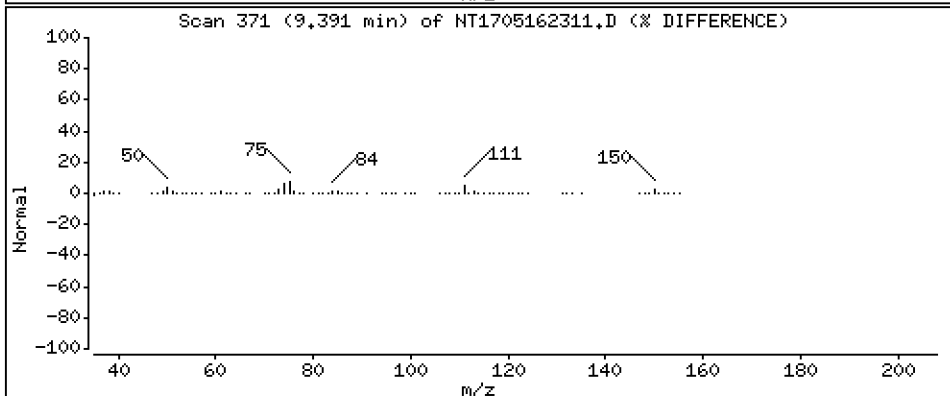
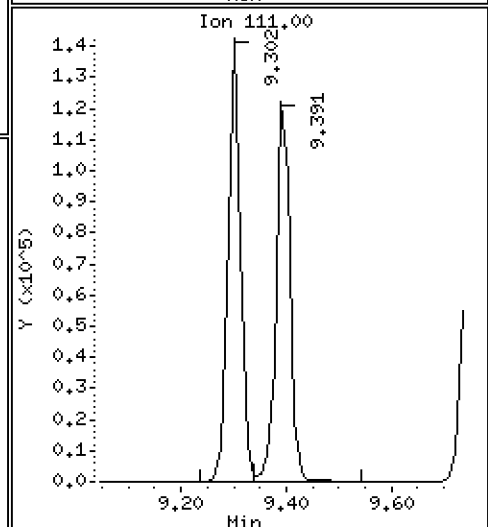
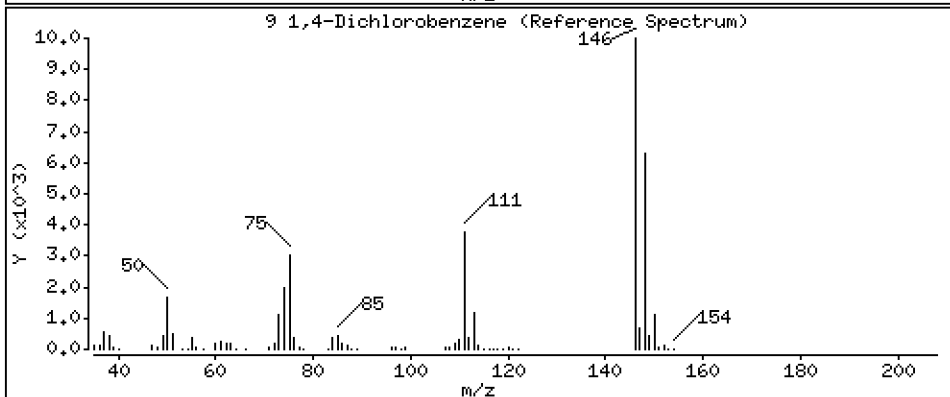
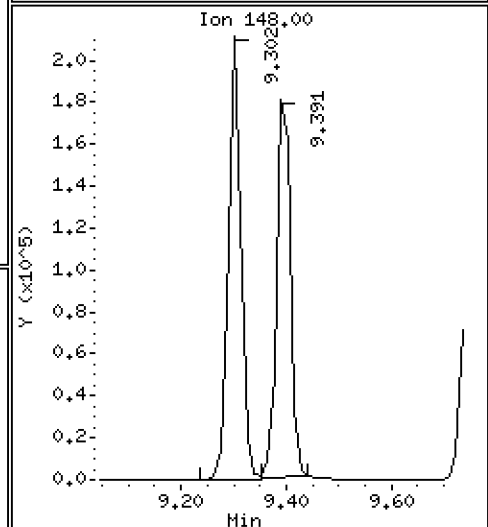
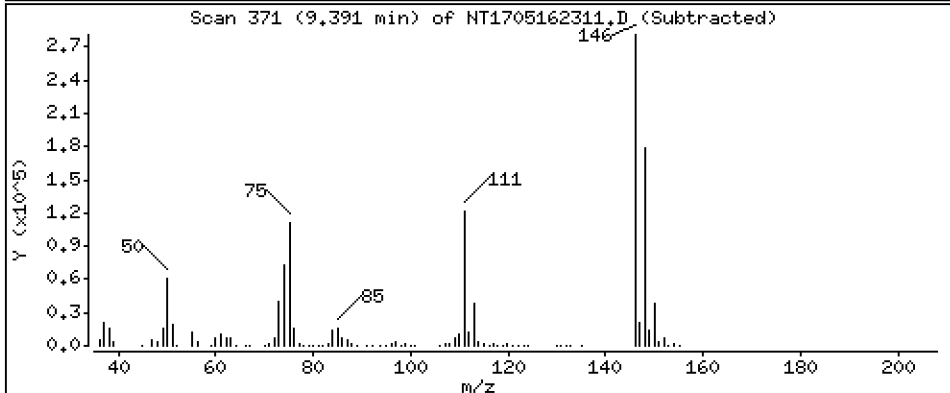
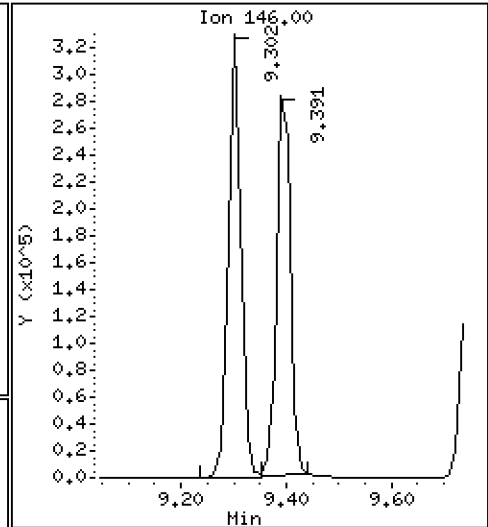
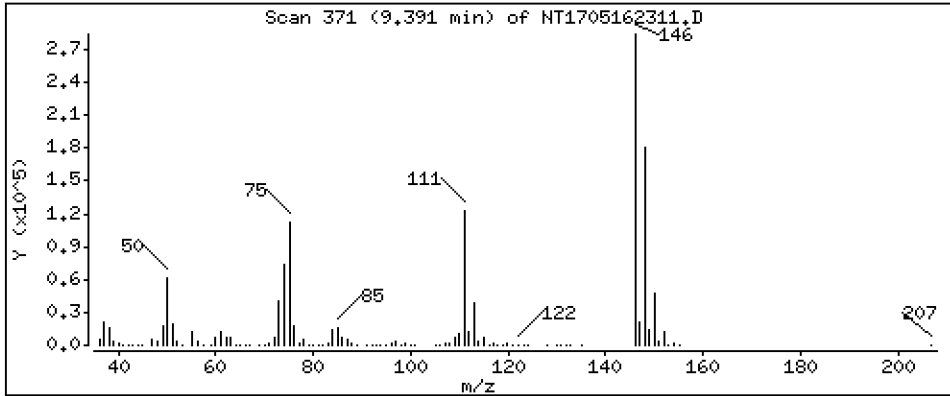
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.071 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

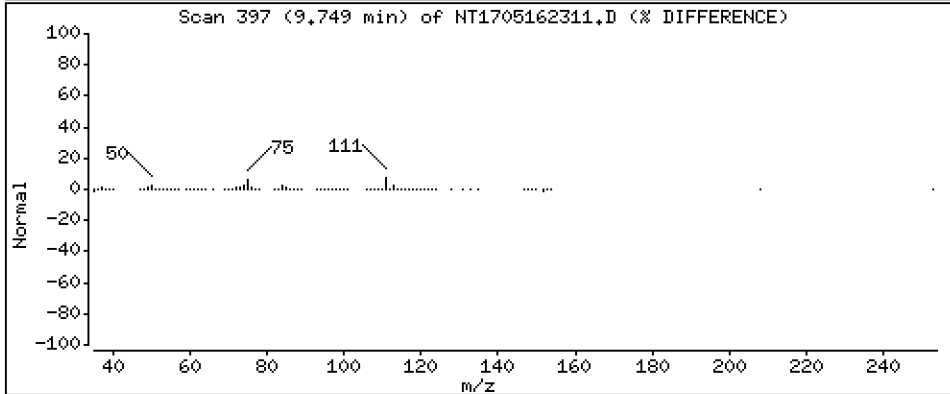
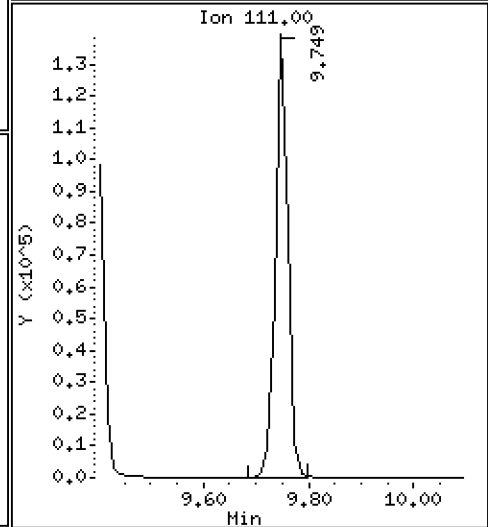
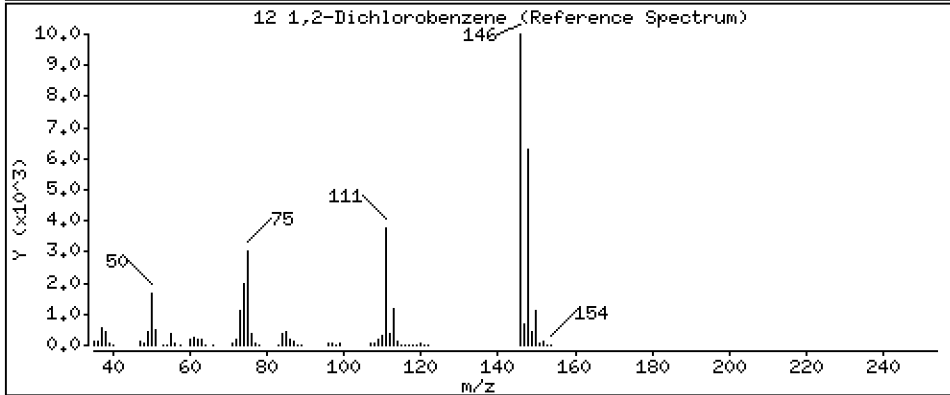
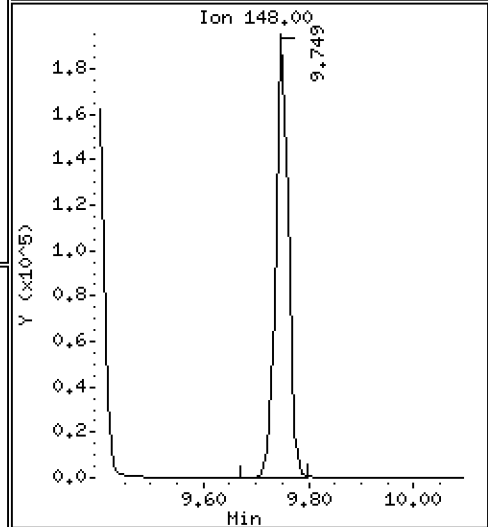
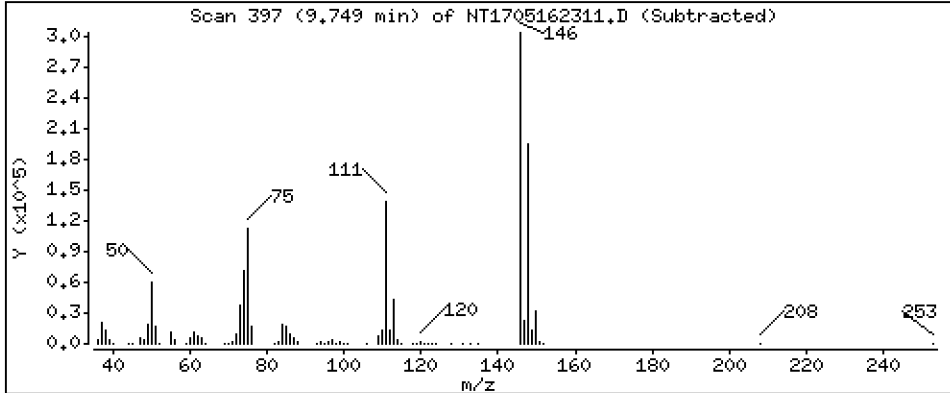
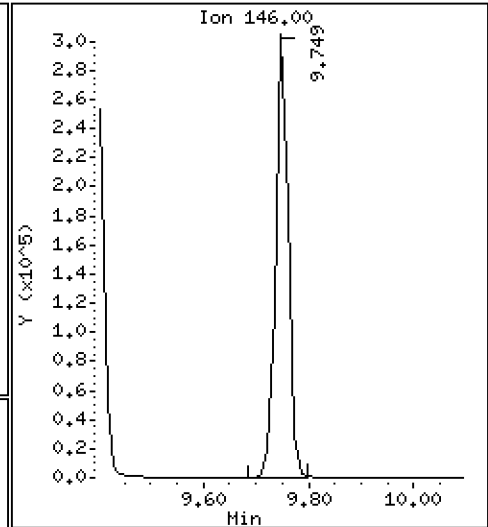
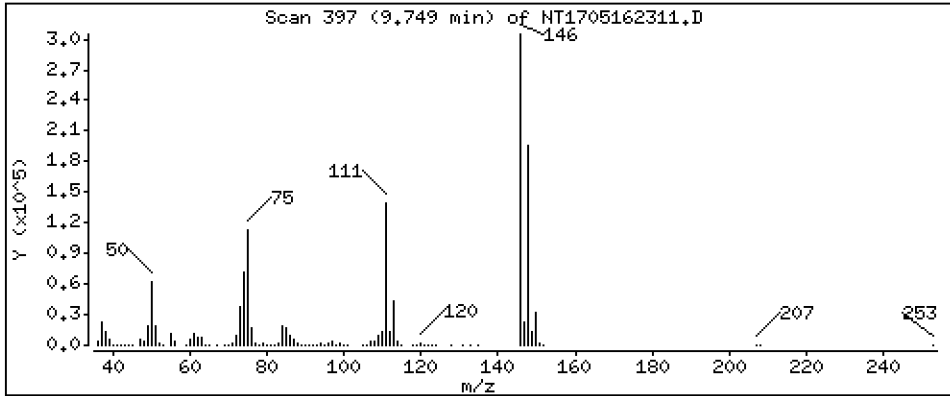
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.258 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

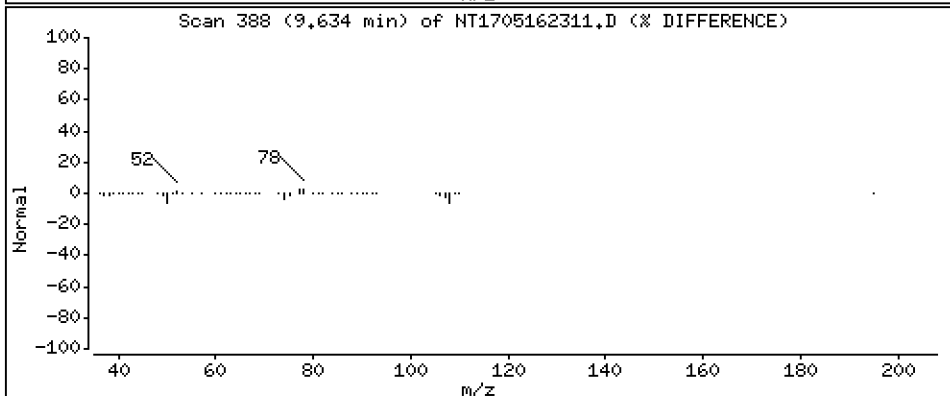
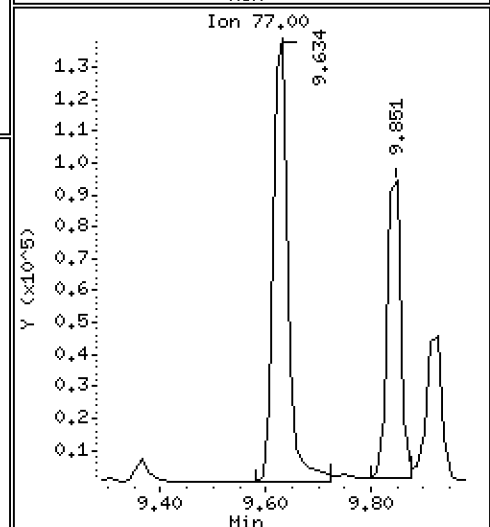
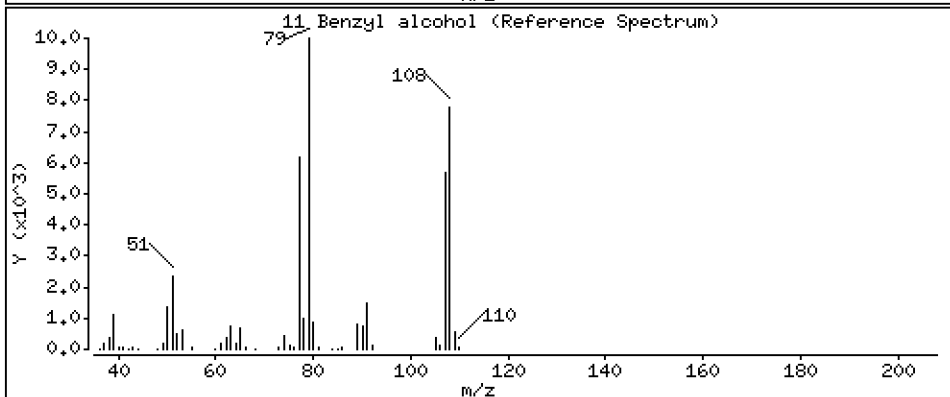
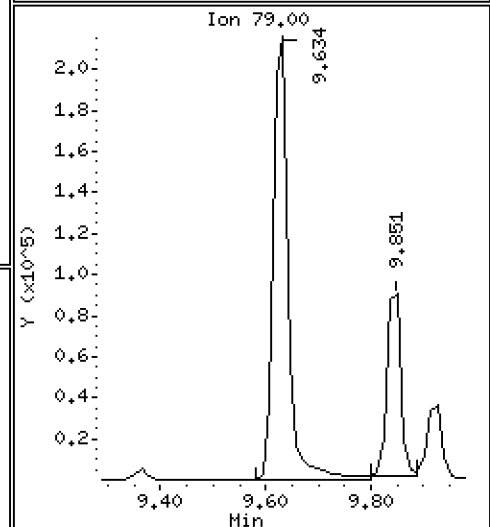
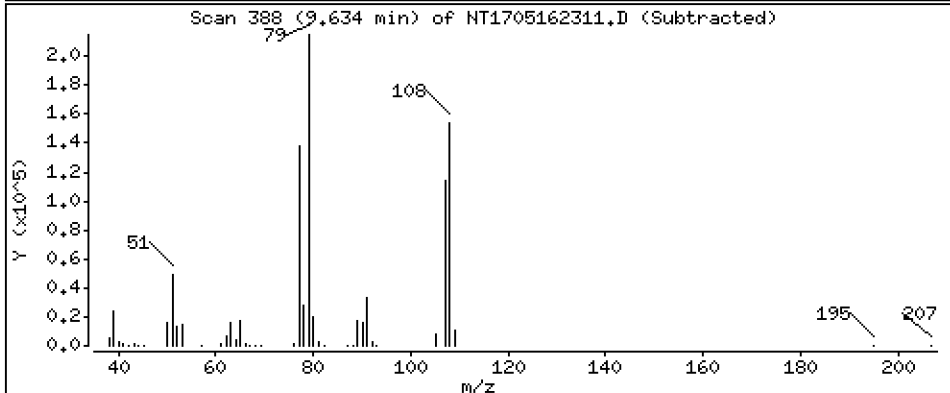
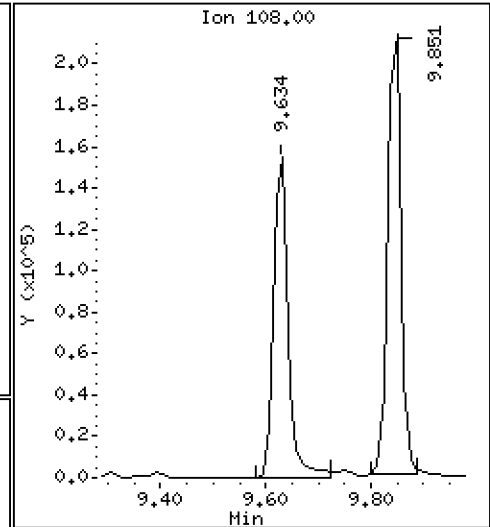
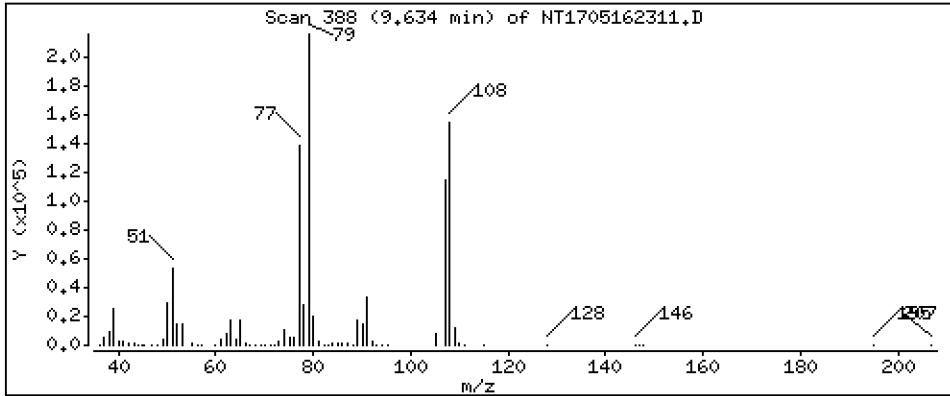
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.274 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

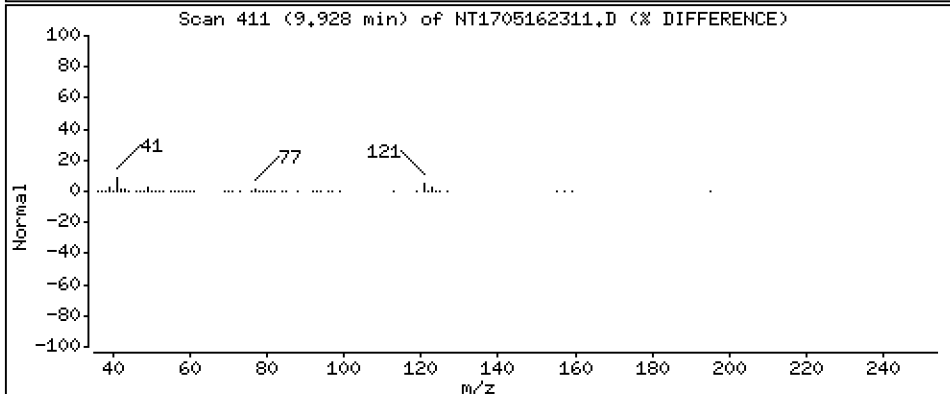
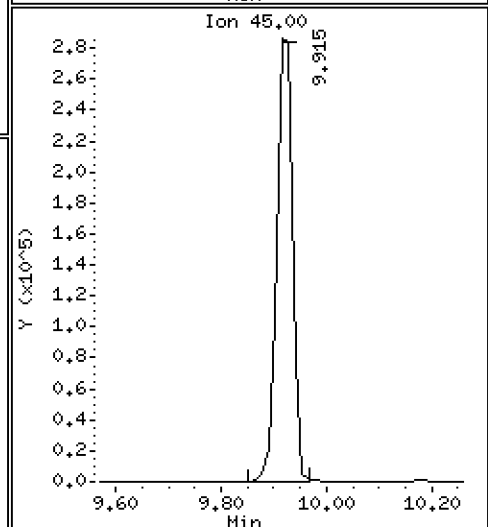
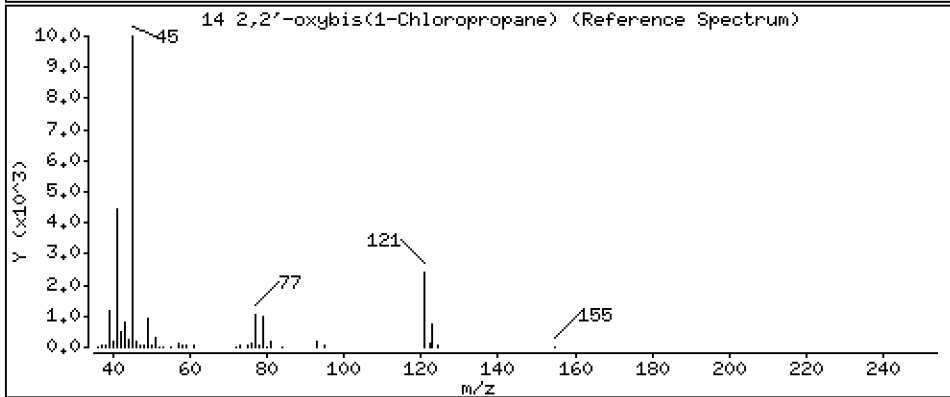
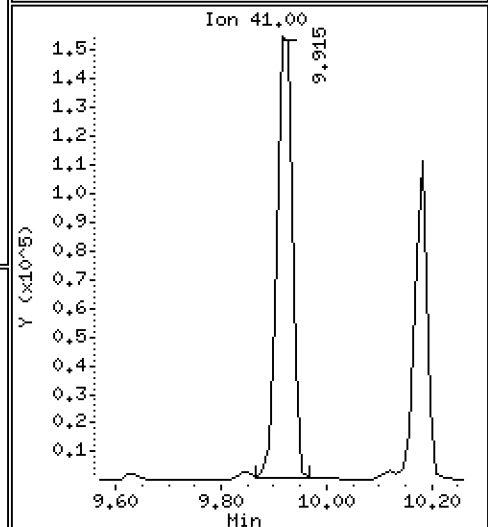
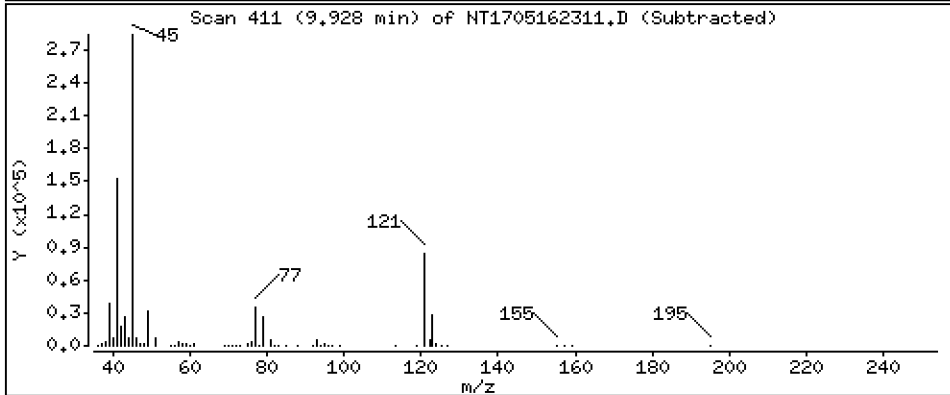
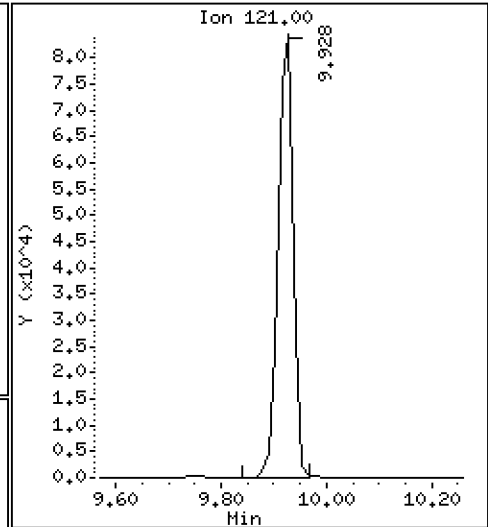
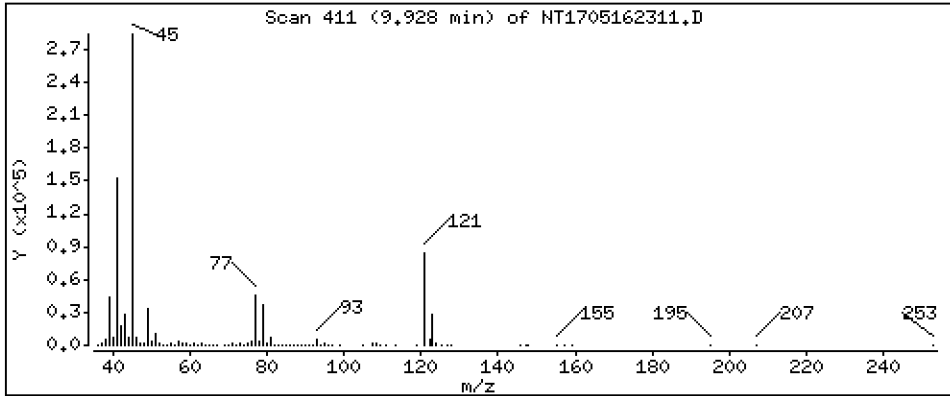
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 6,179 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

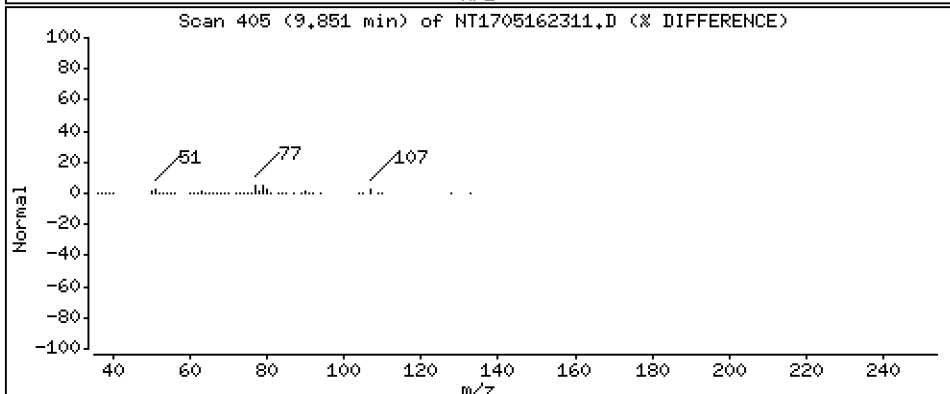
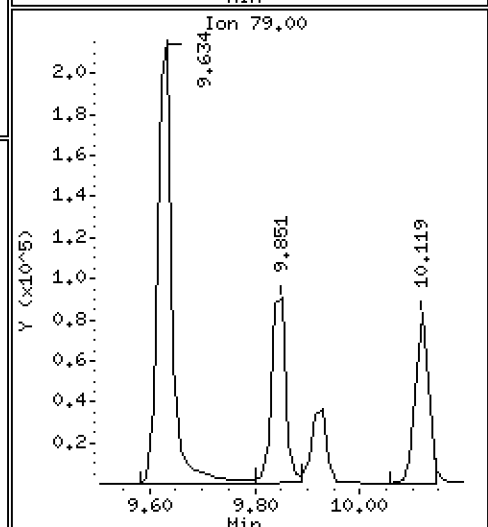
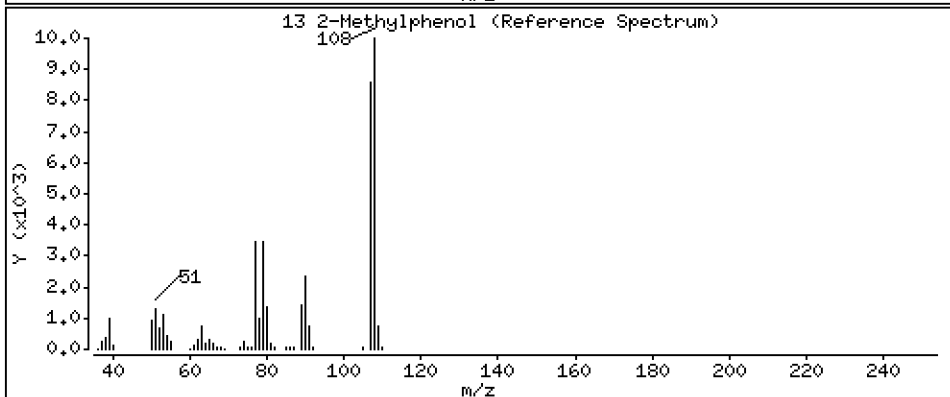
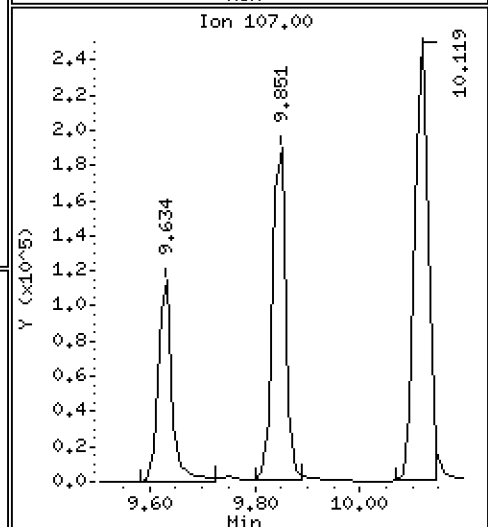
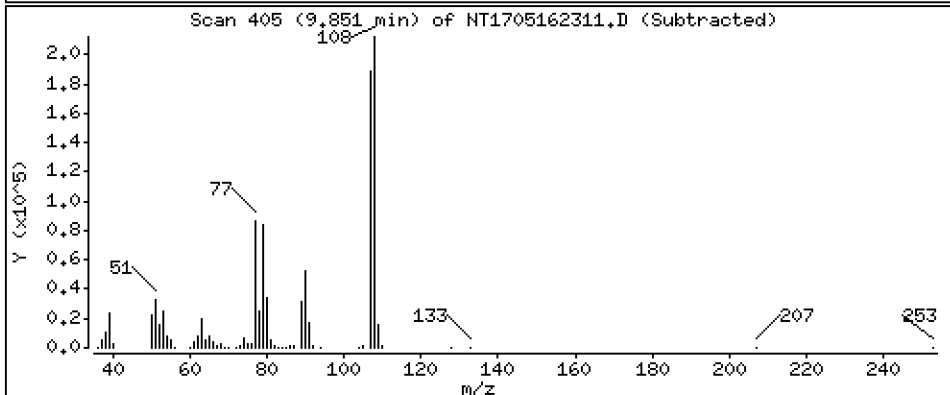
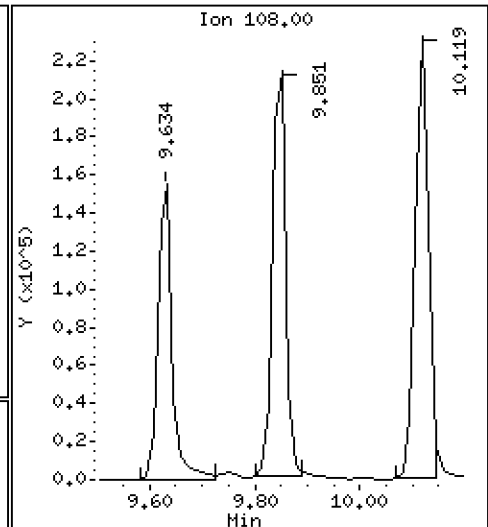
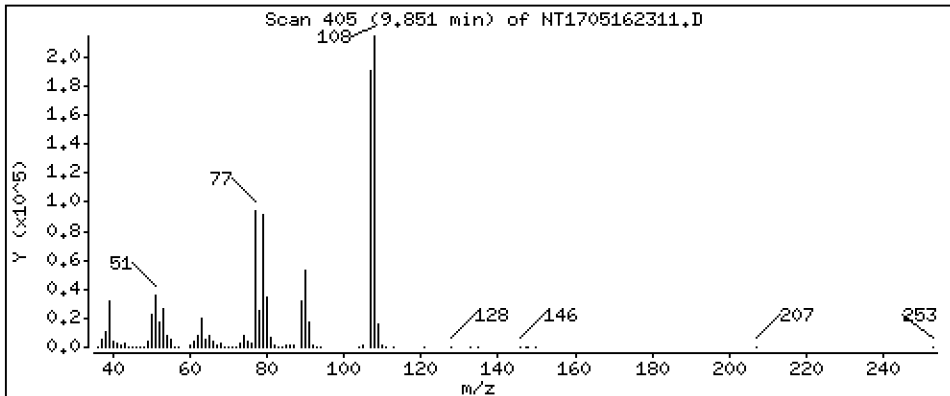
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,229 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

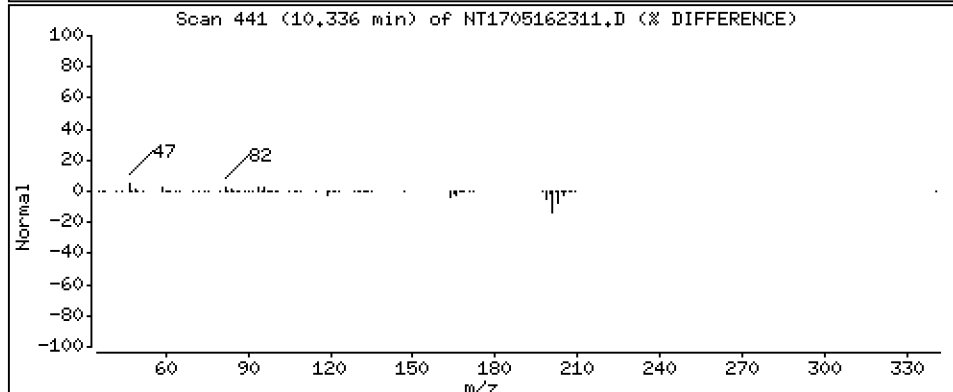
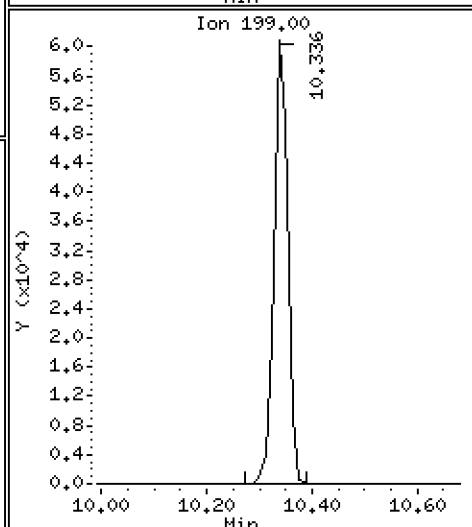
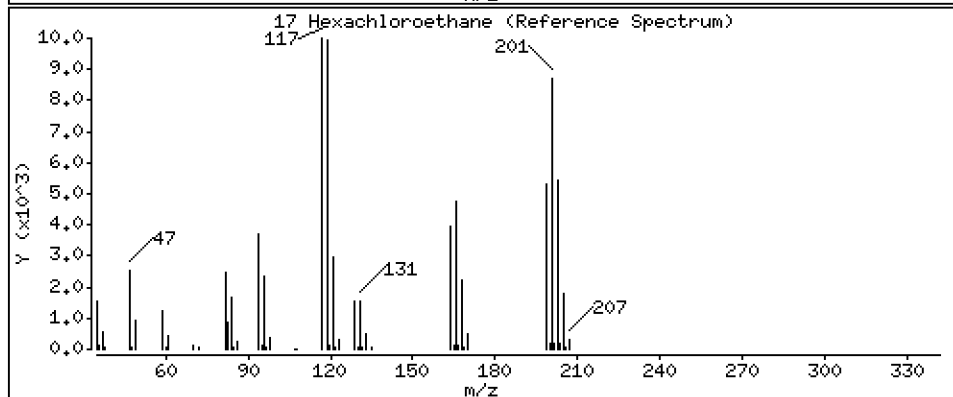
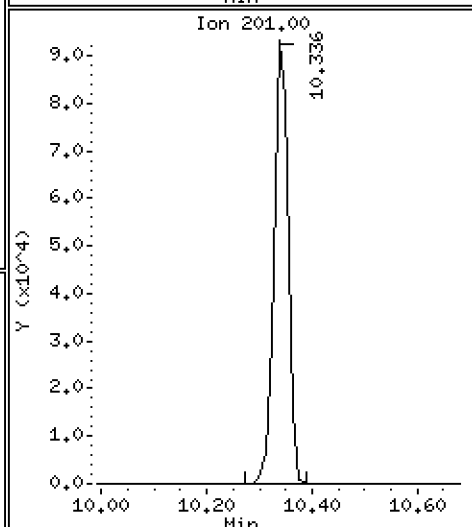
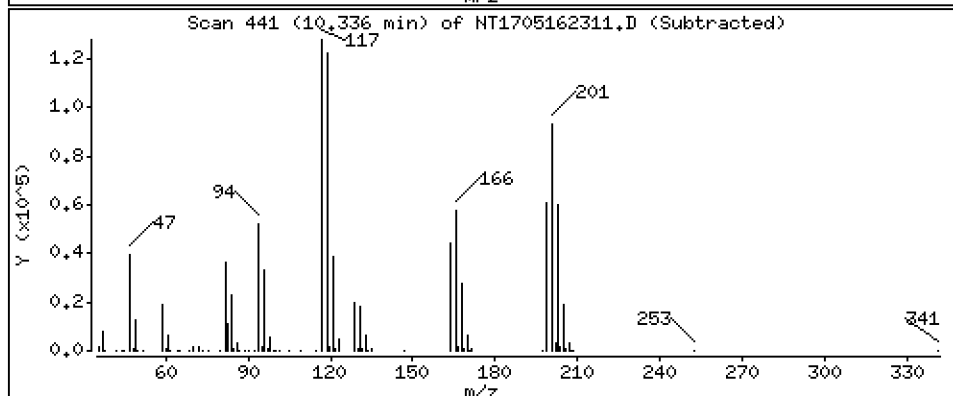
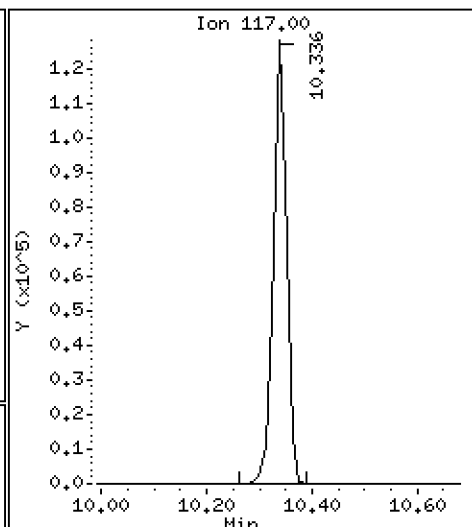
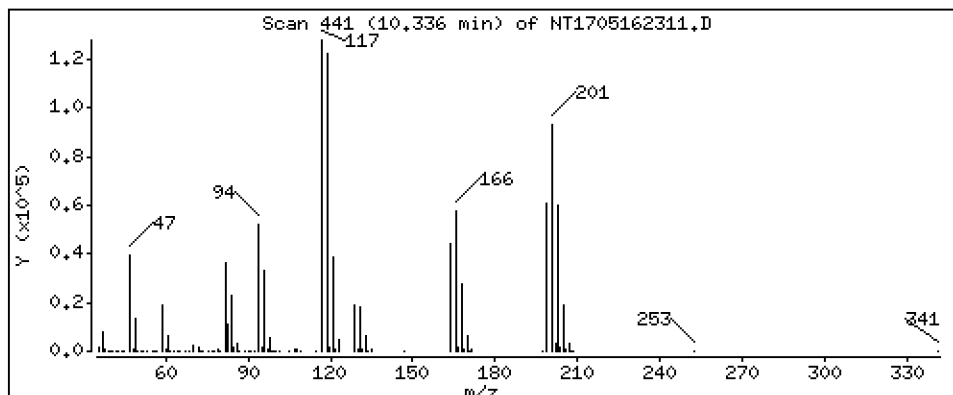
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 5,419 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

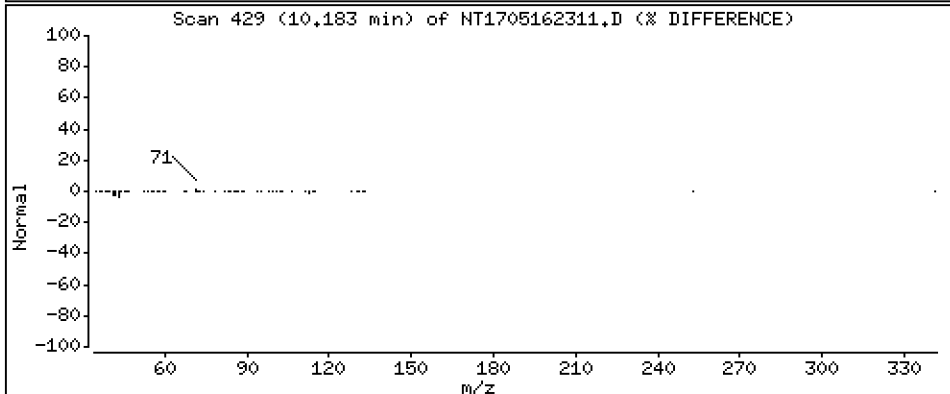
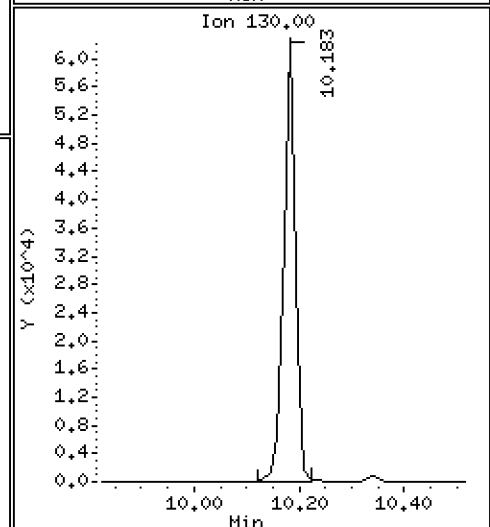
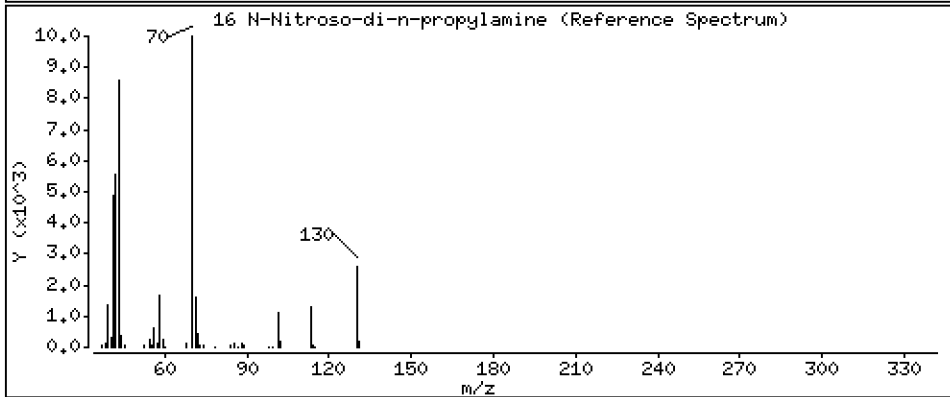
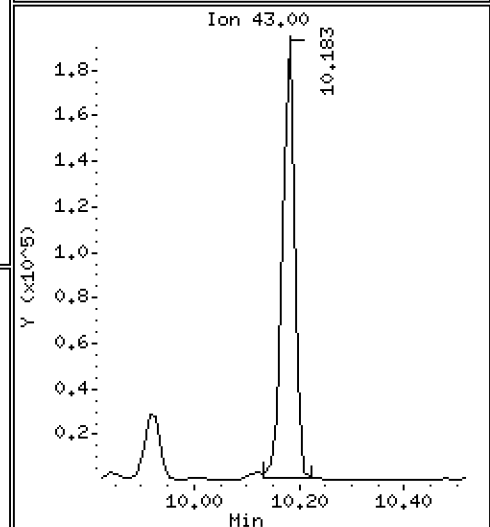
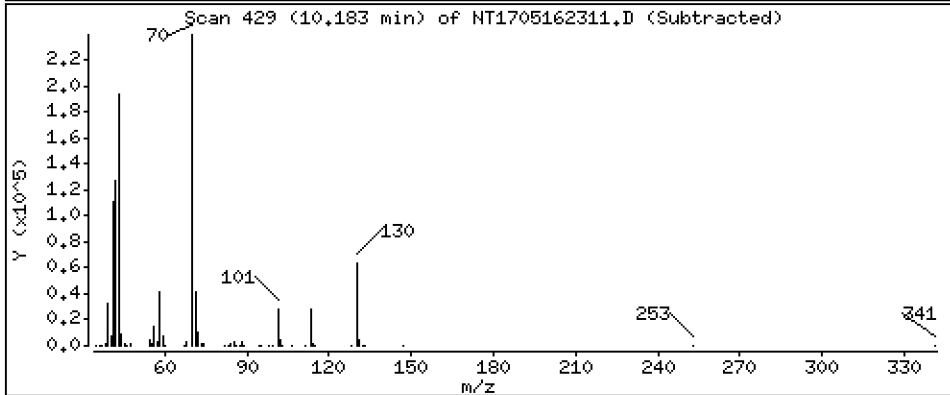
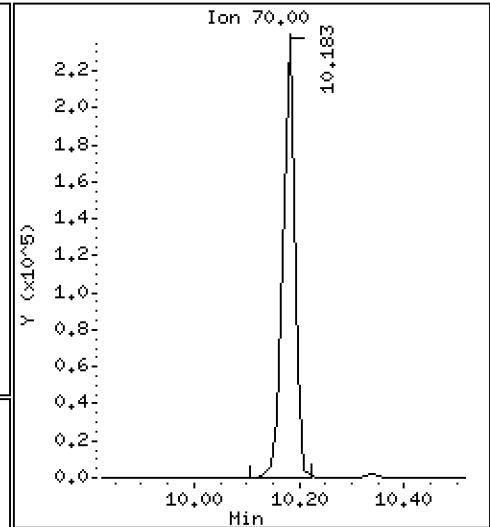
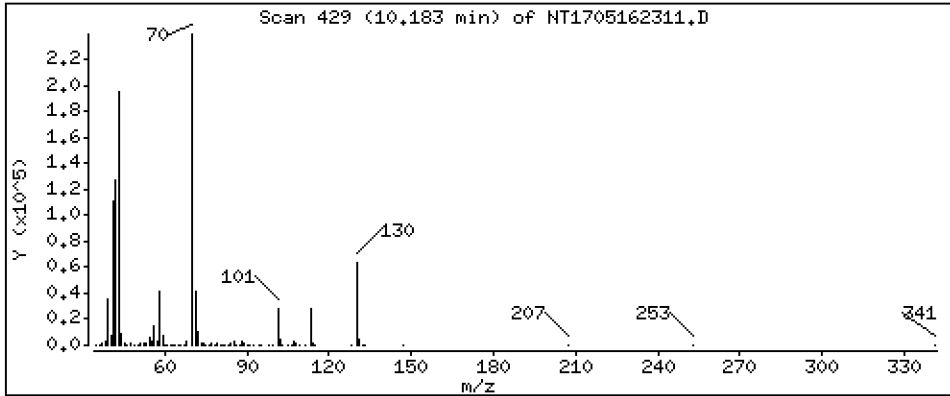
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,517 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

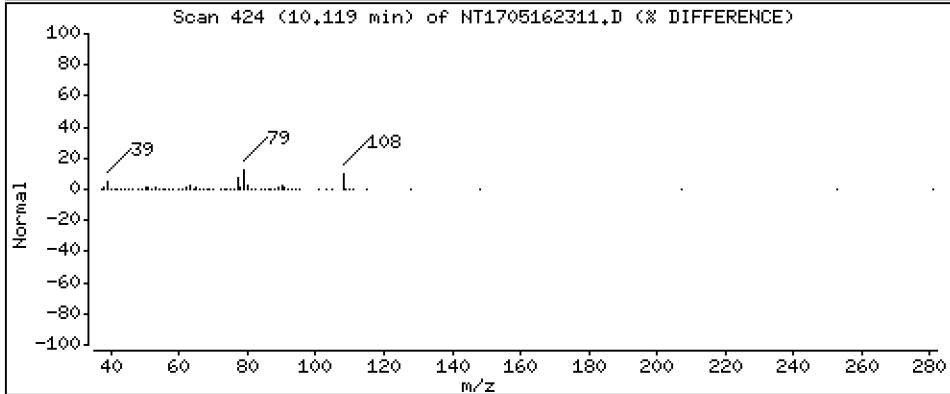
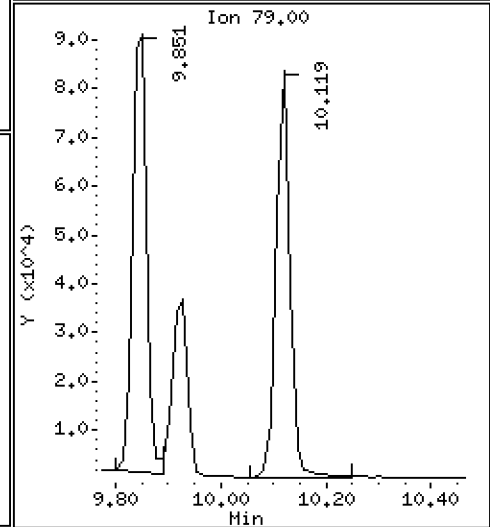
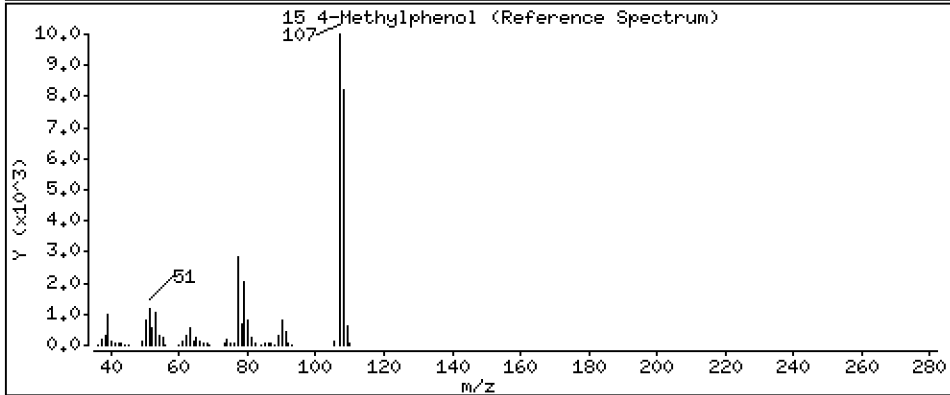
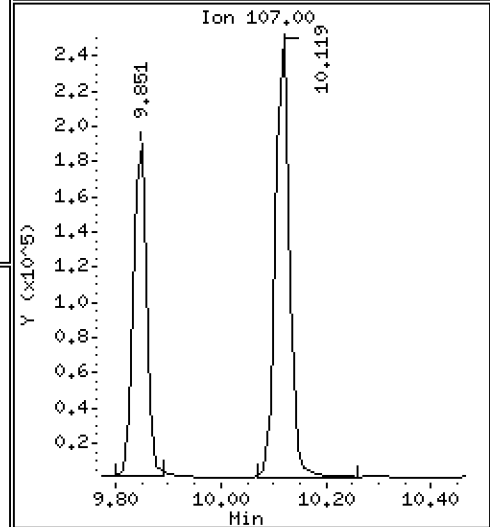
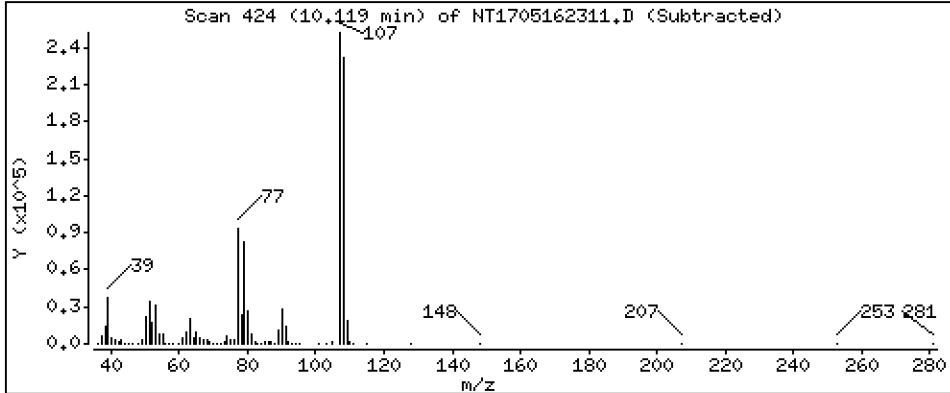
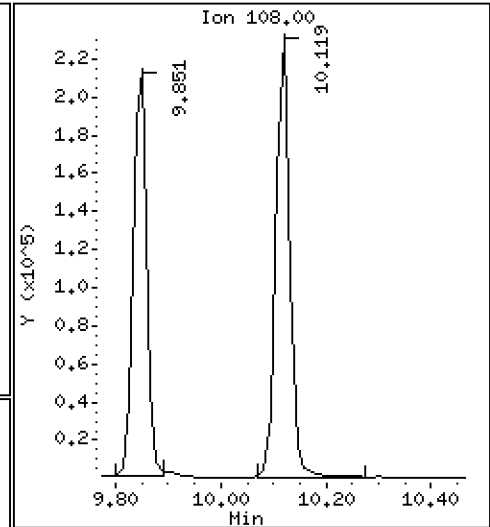
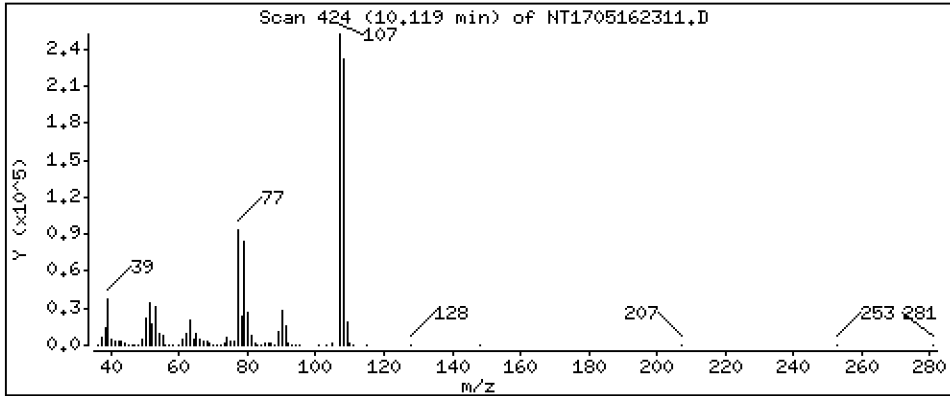
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.661 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

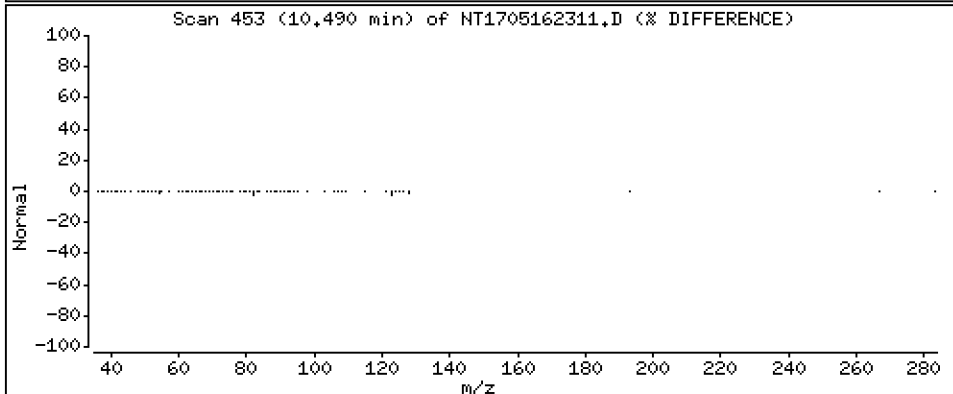
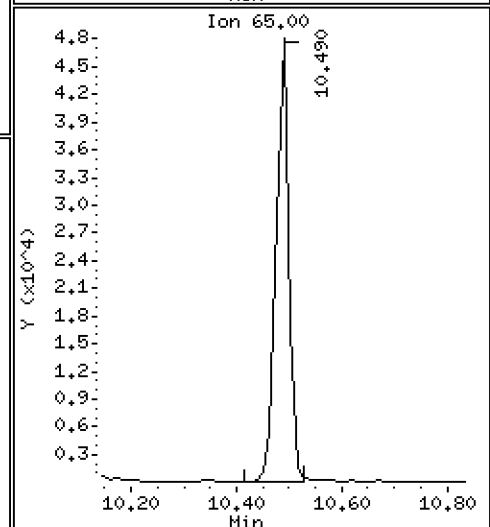
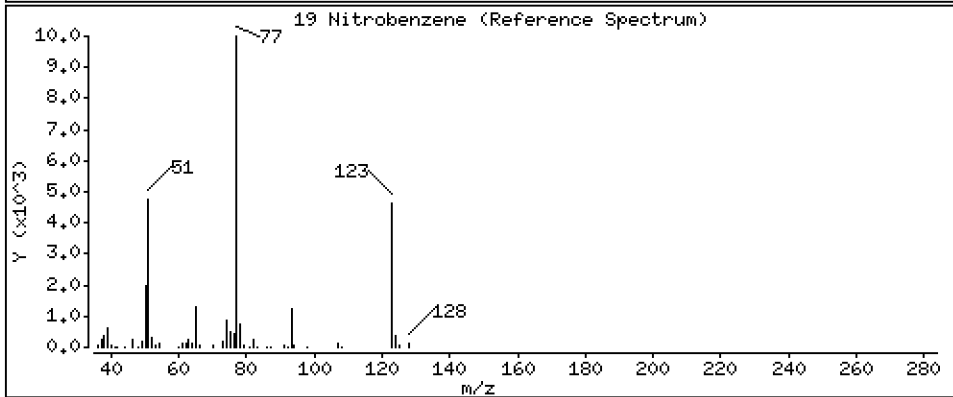
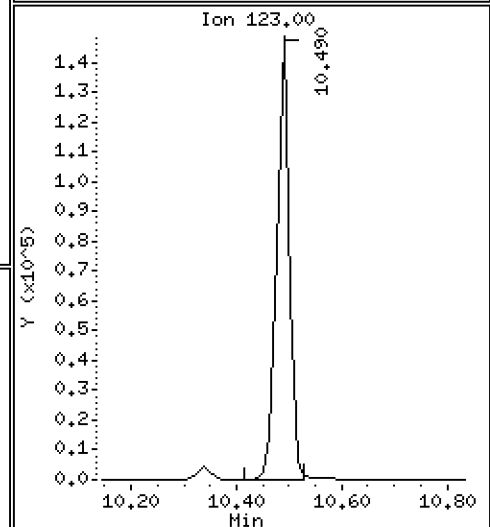
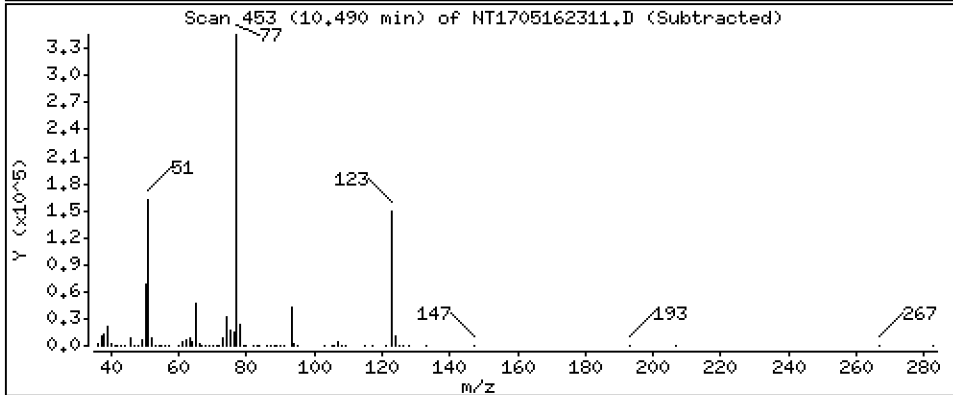
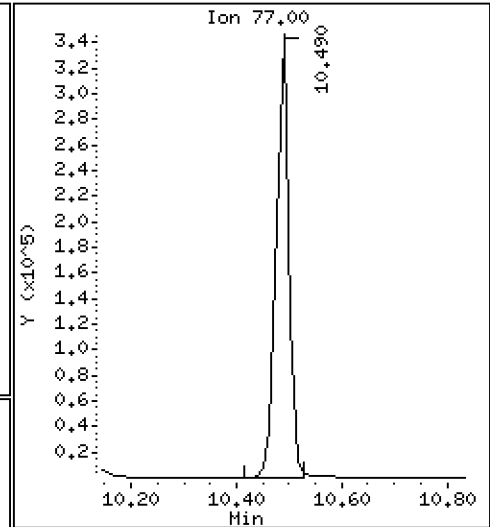
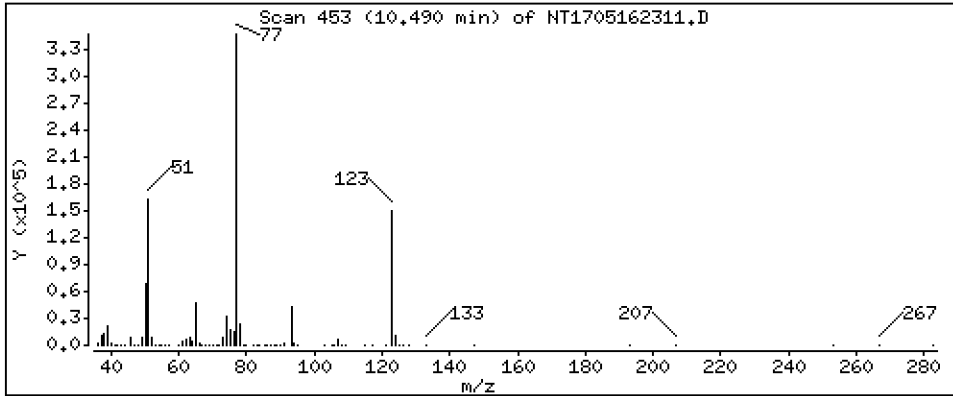
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 5,329 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

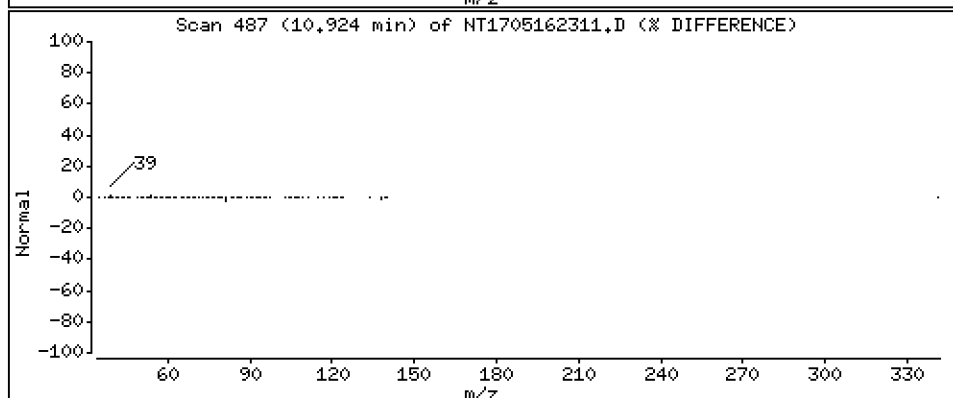
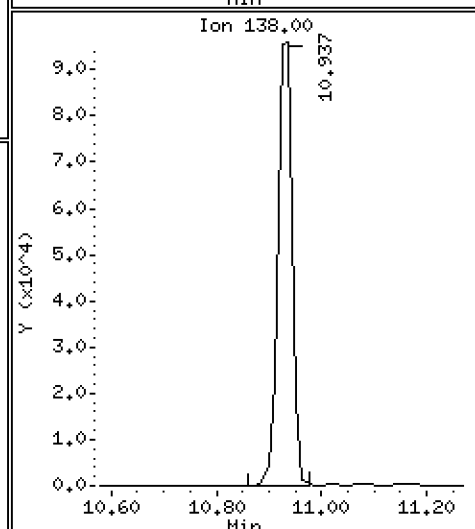
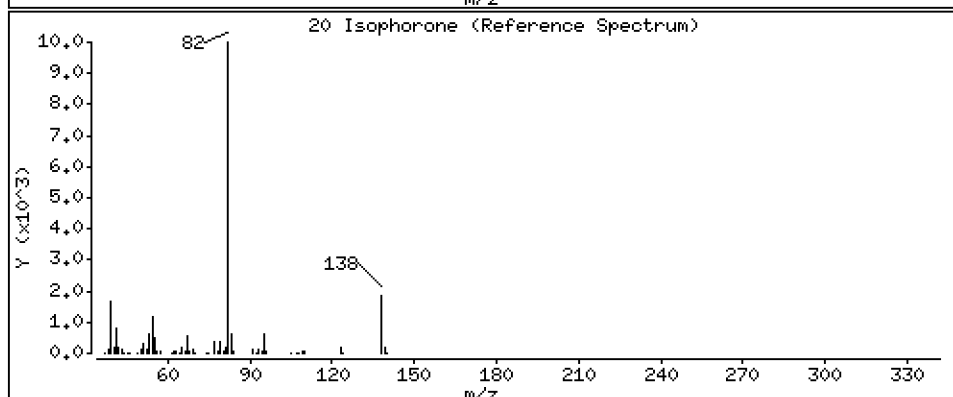
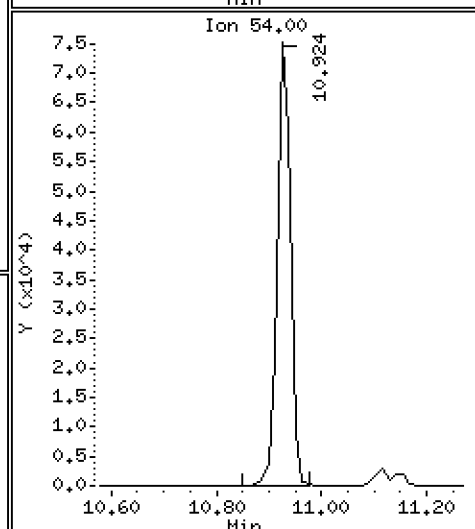
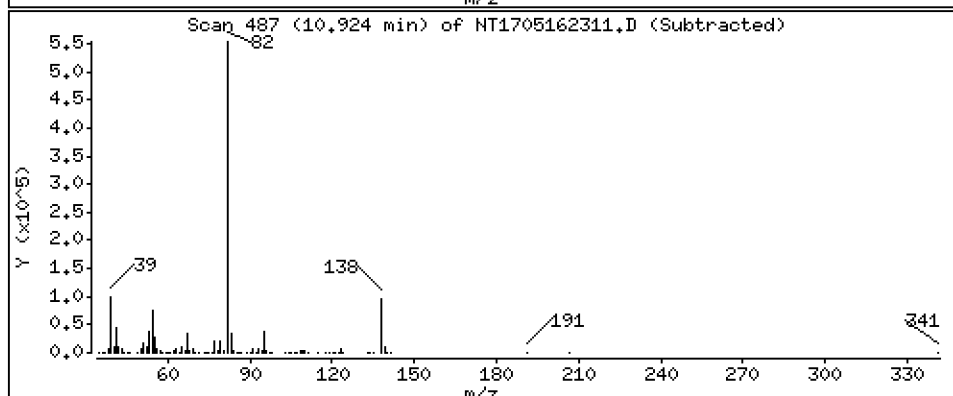
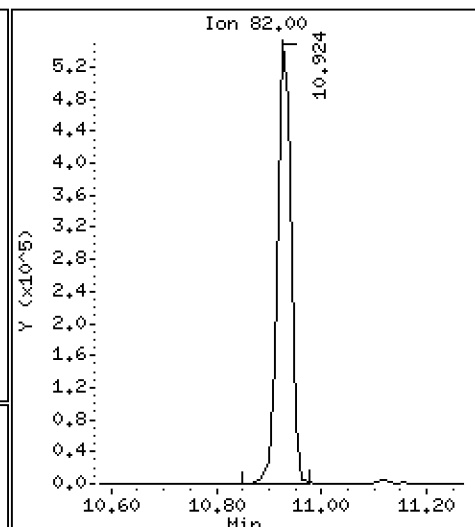
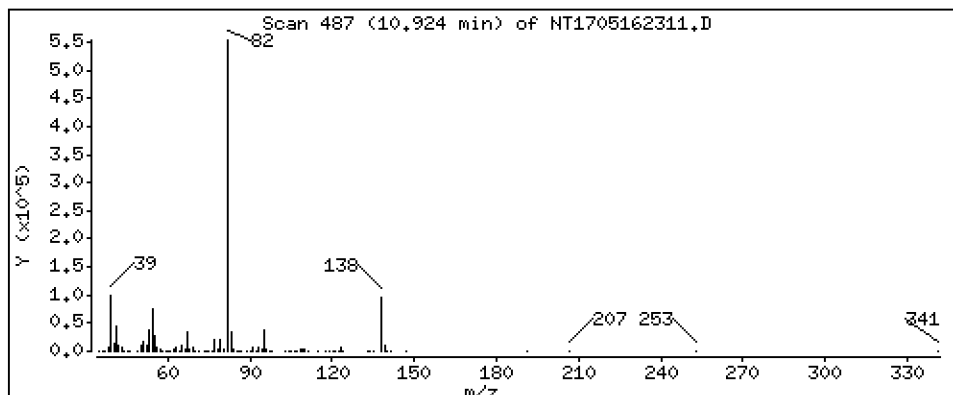
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 6,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

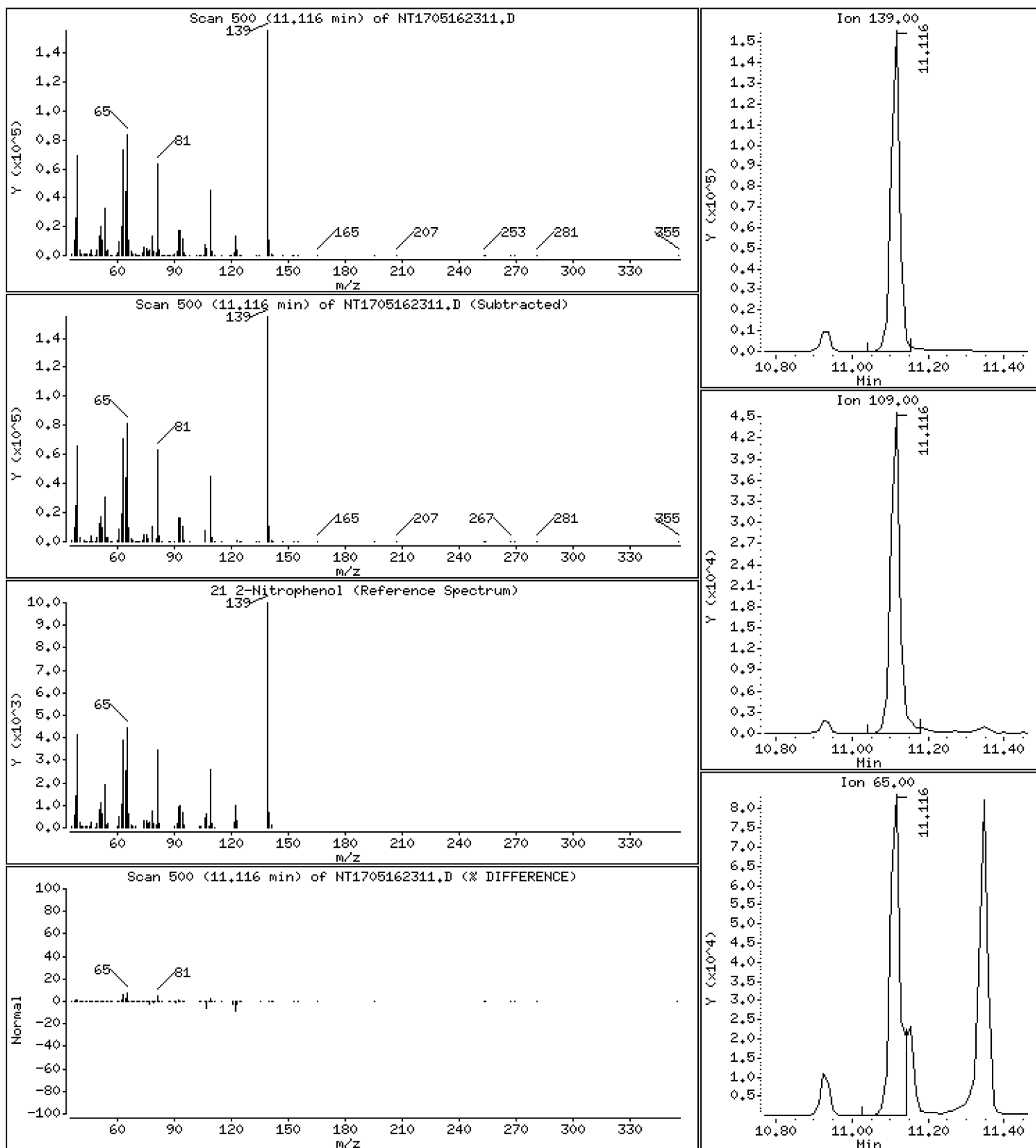
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,899 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

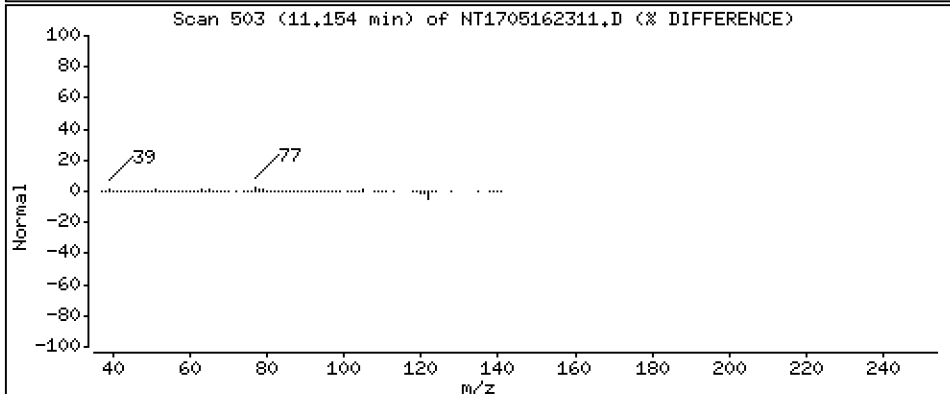
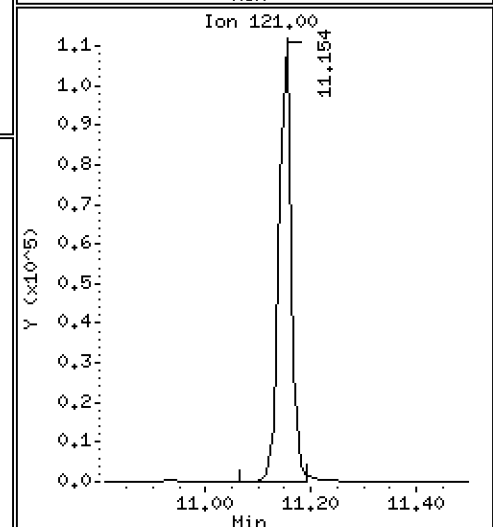
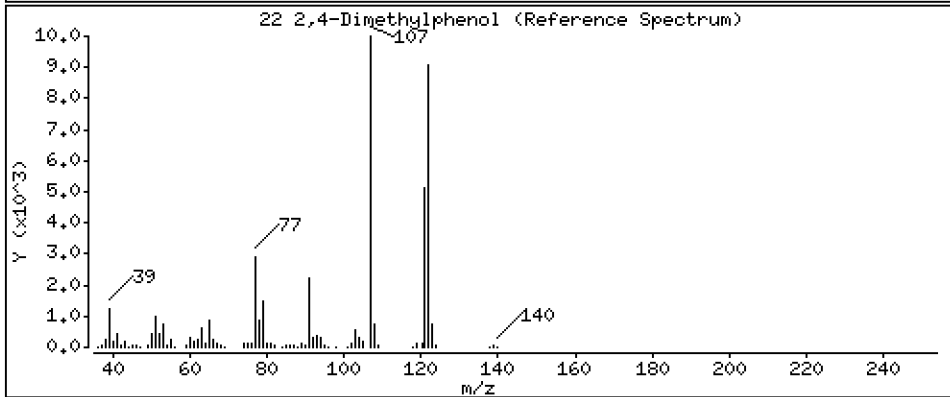
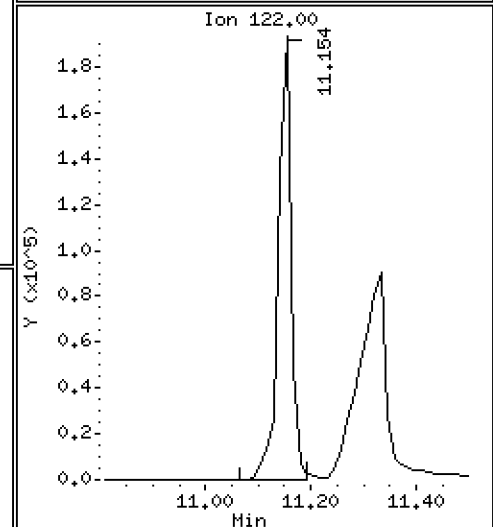
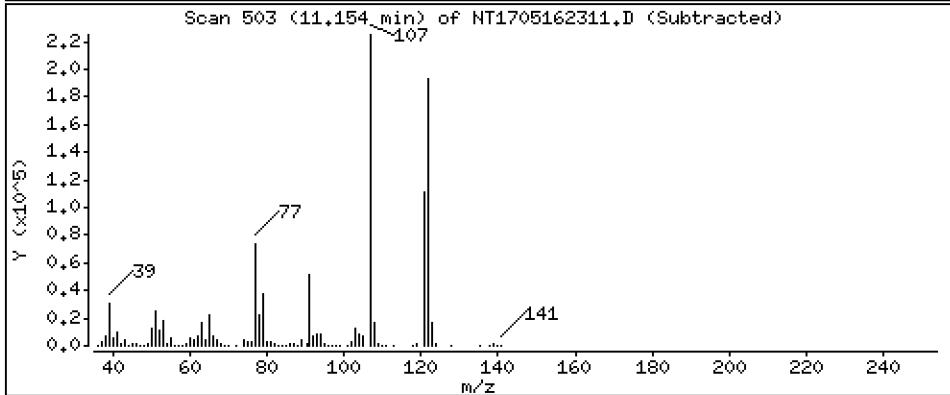
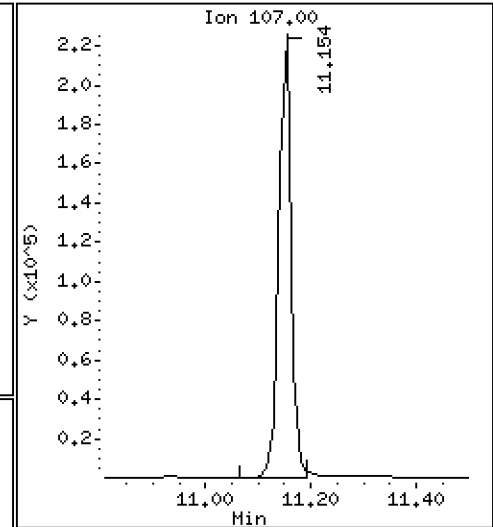
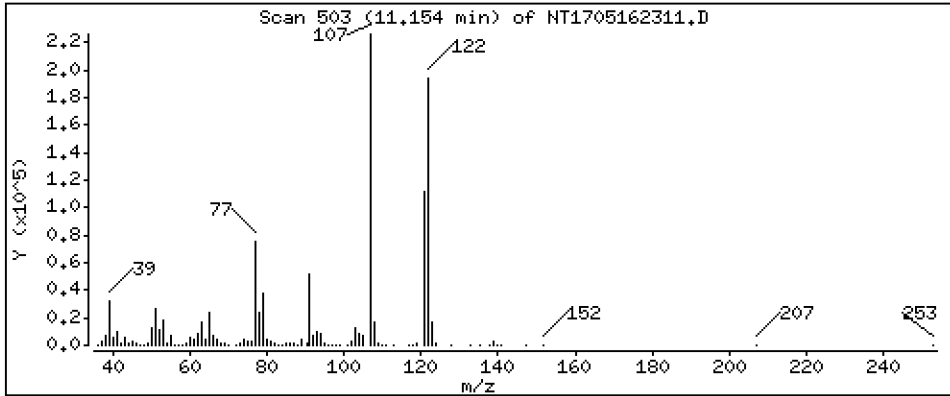
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

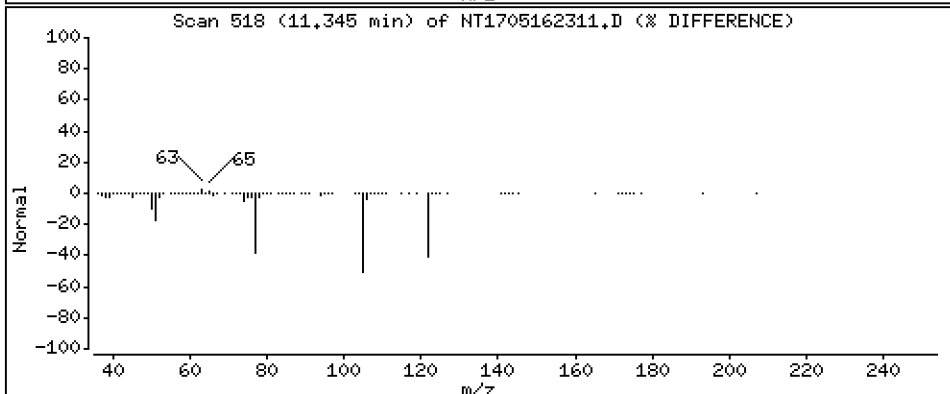
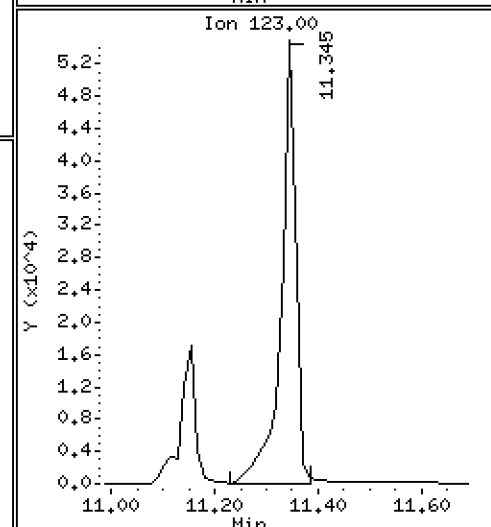
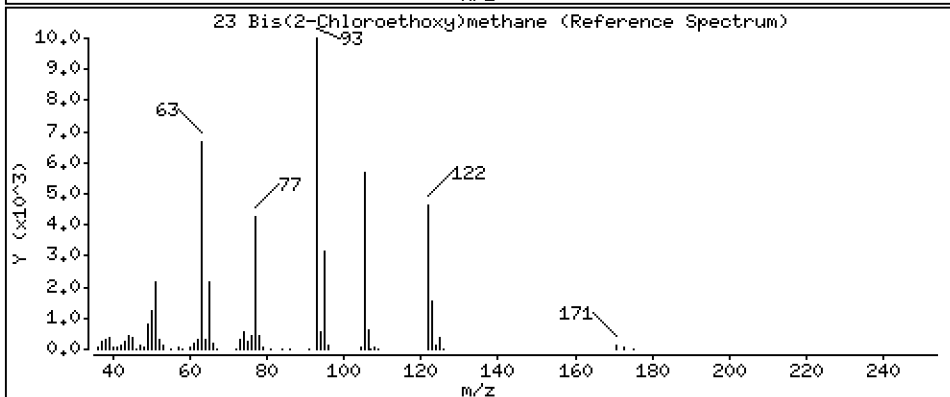
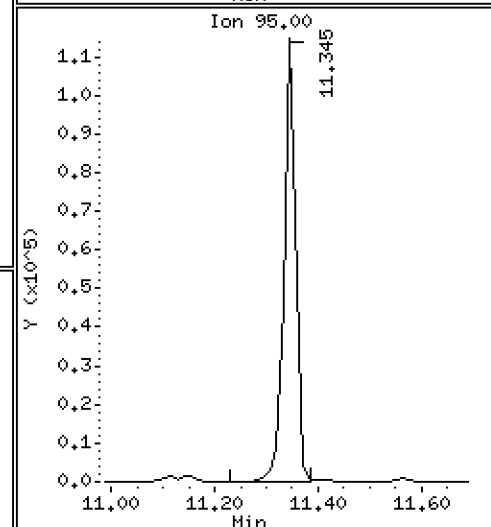
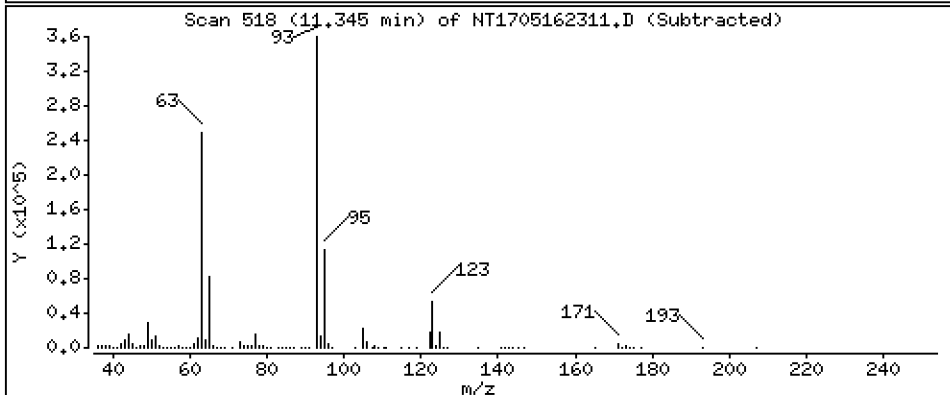
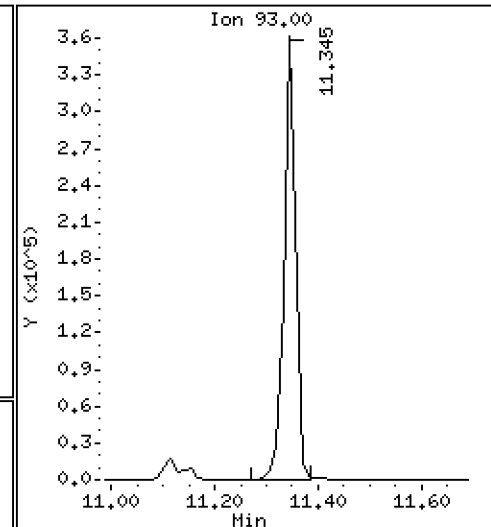
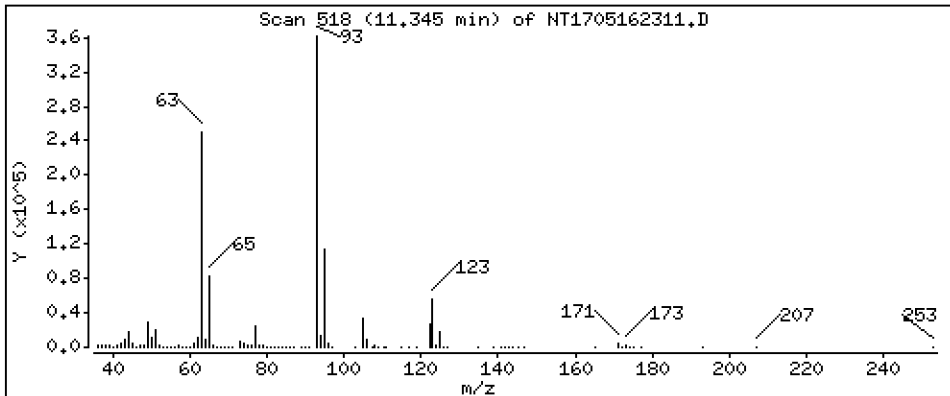
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 6,232 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

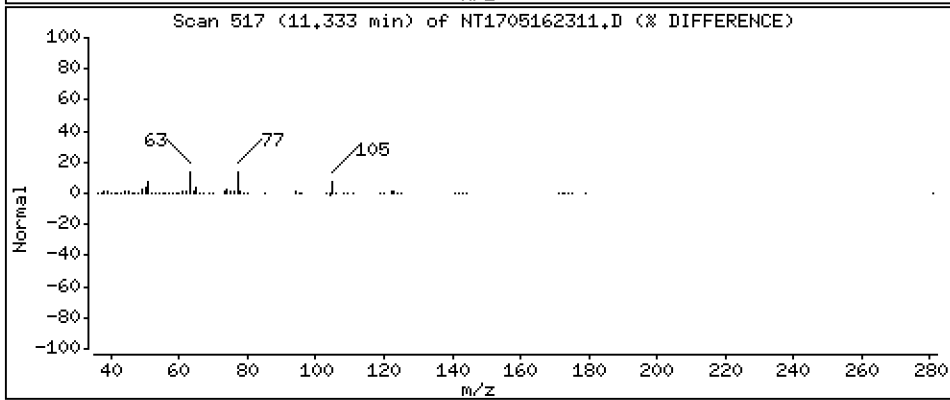
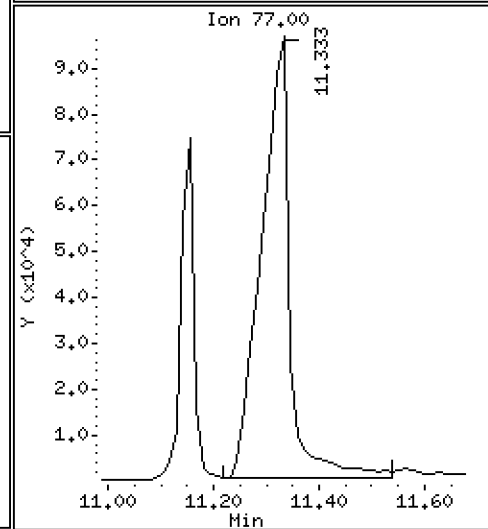
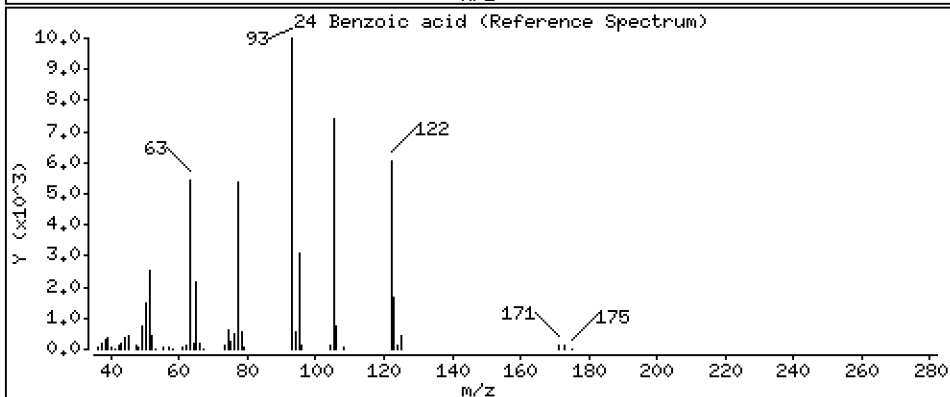
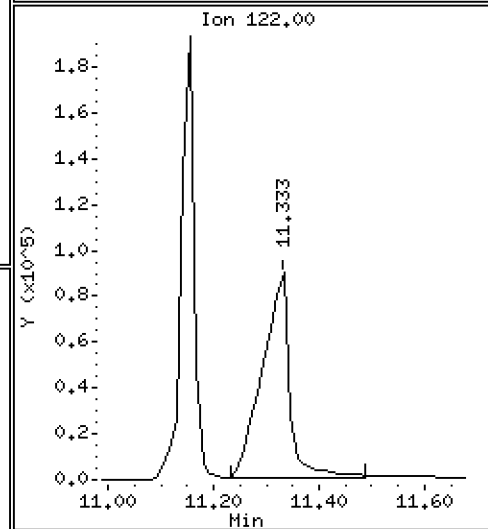
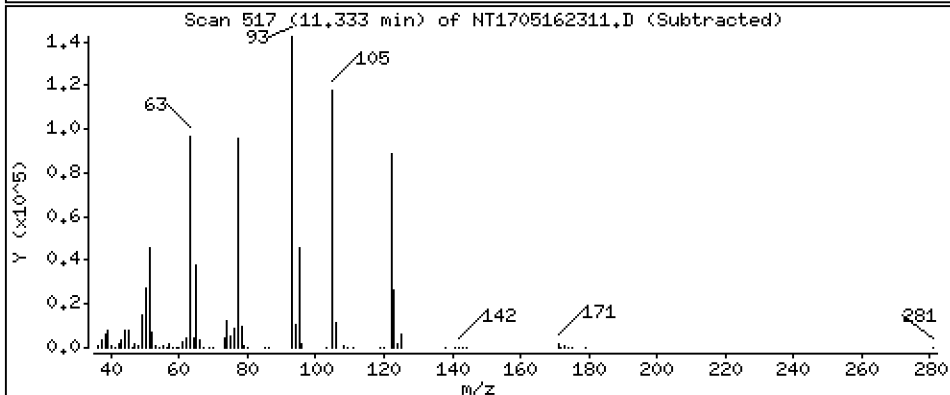
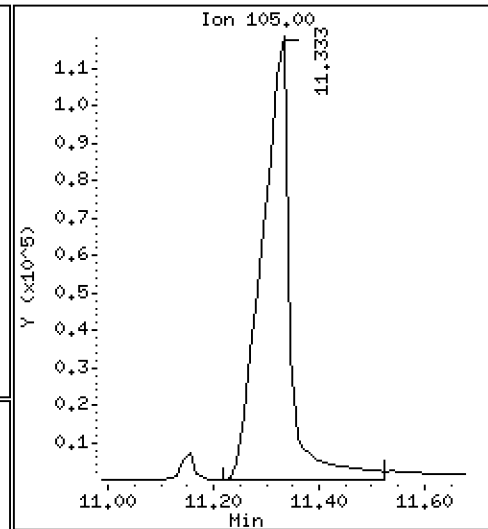
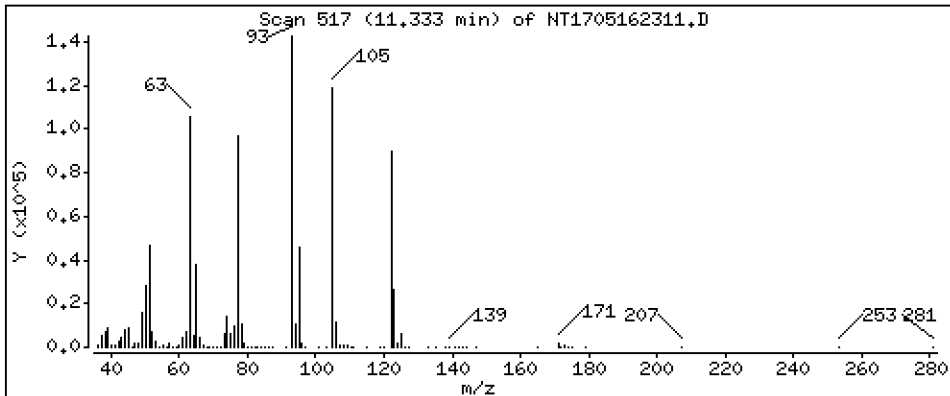
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 6.761 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

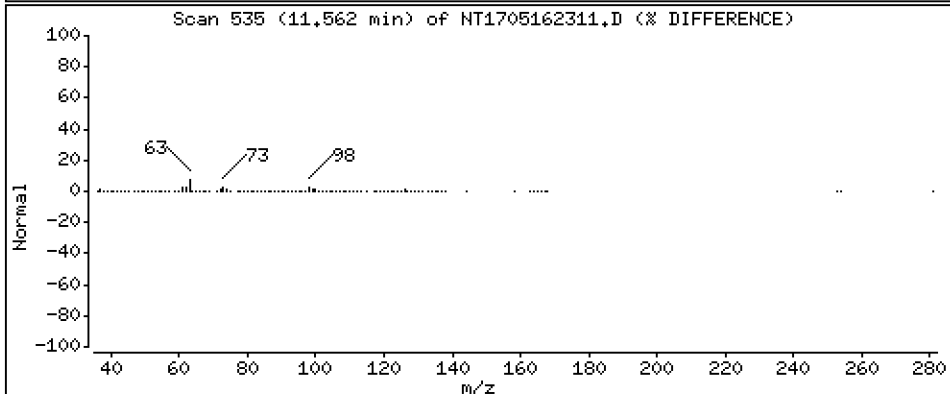
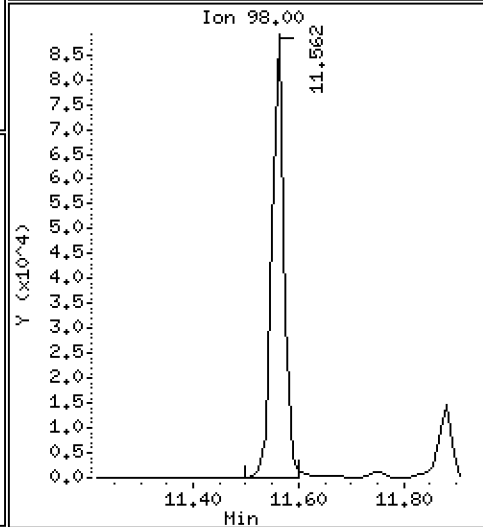
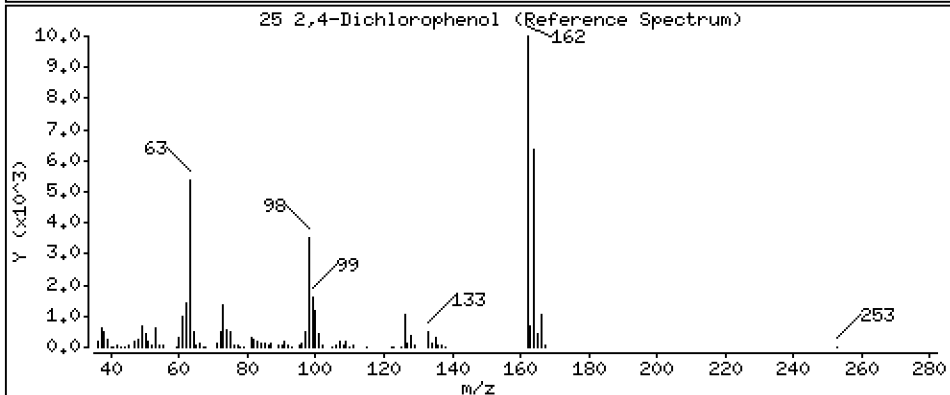
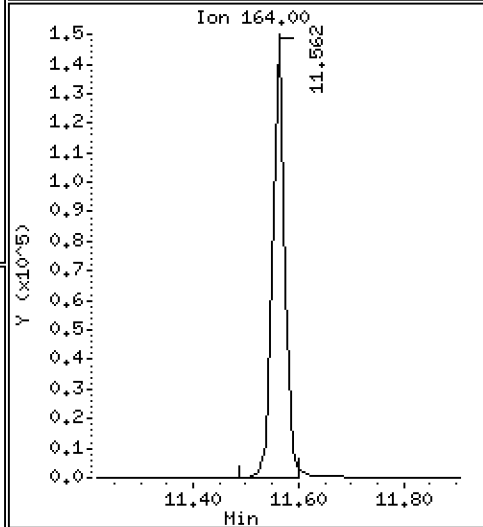
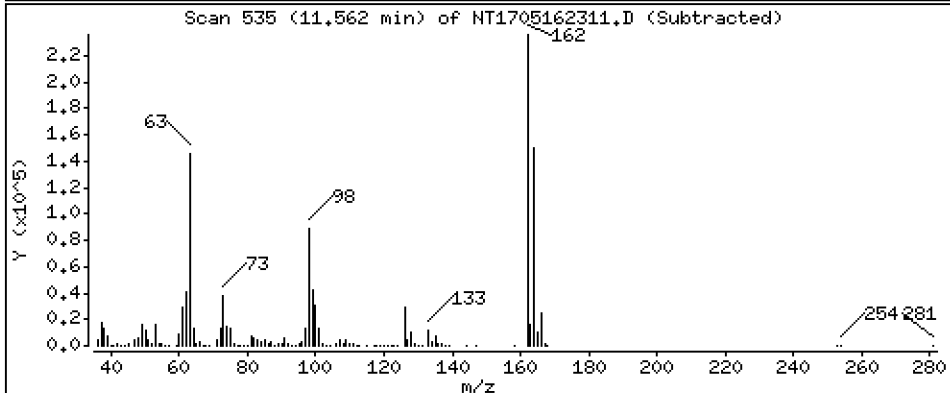
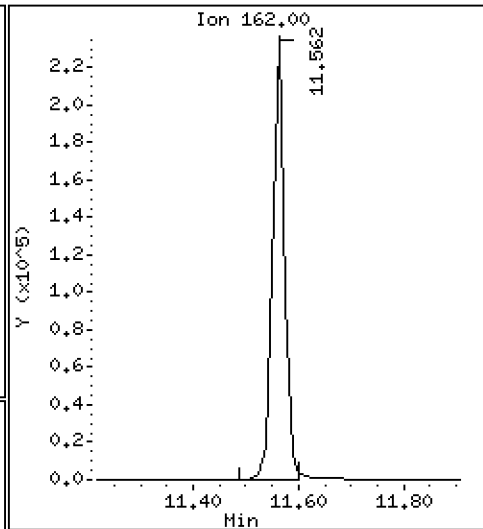
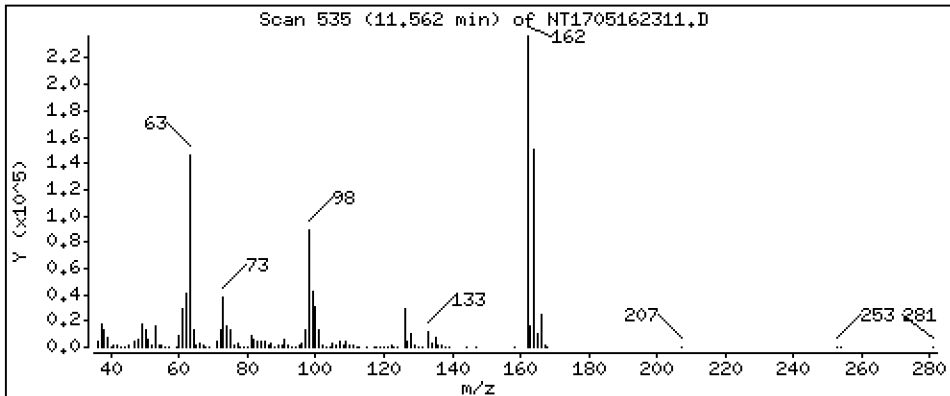
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,707 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

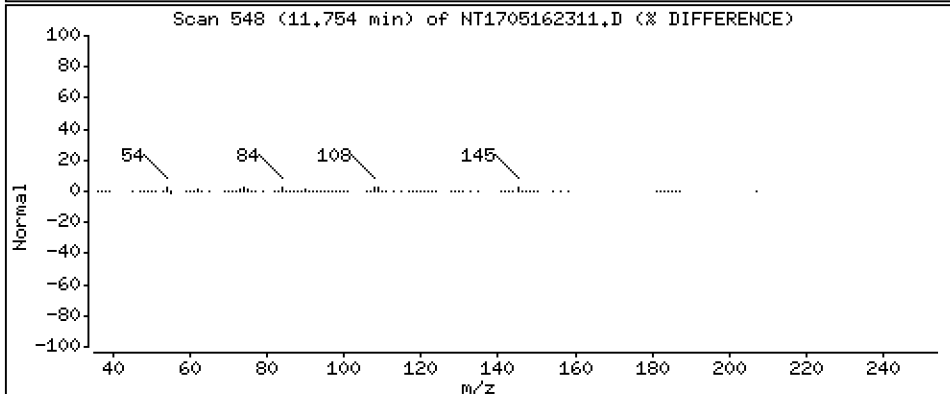
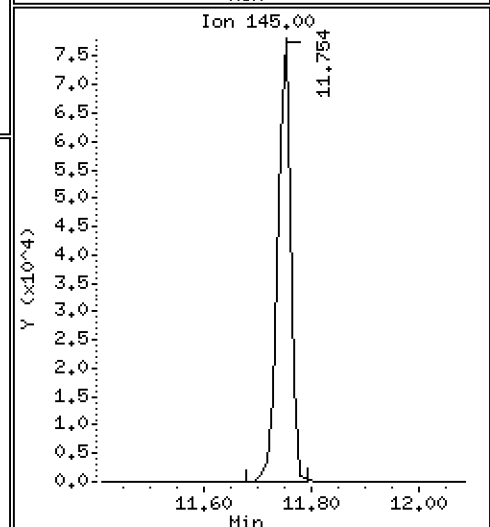
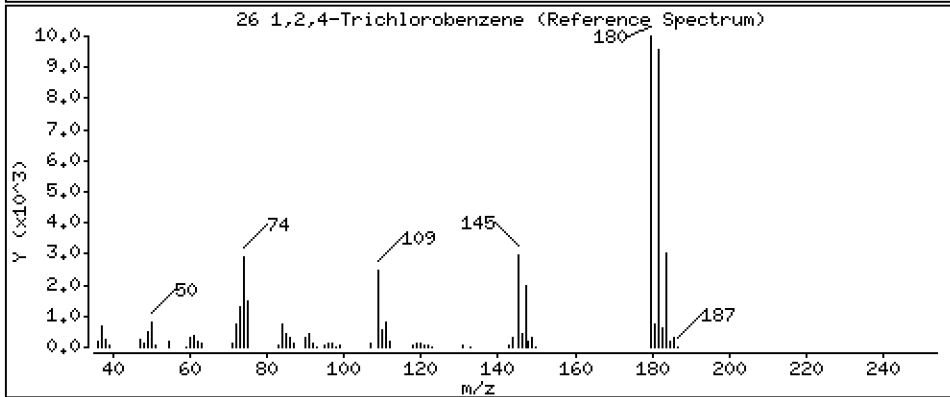
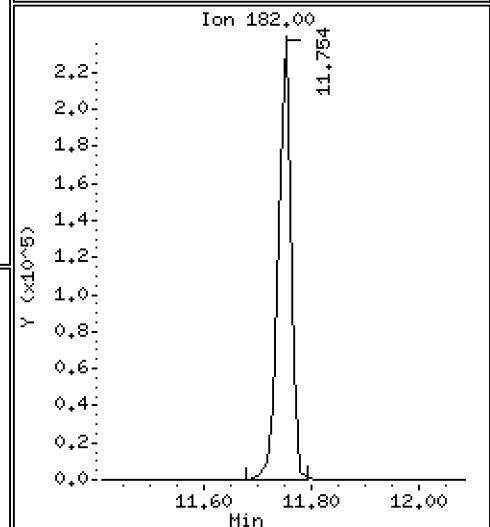
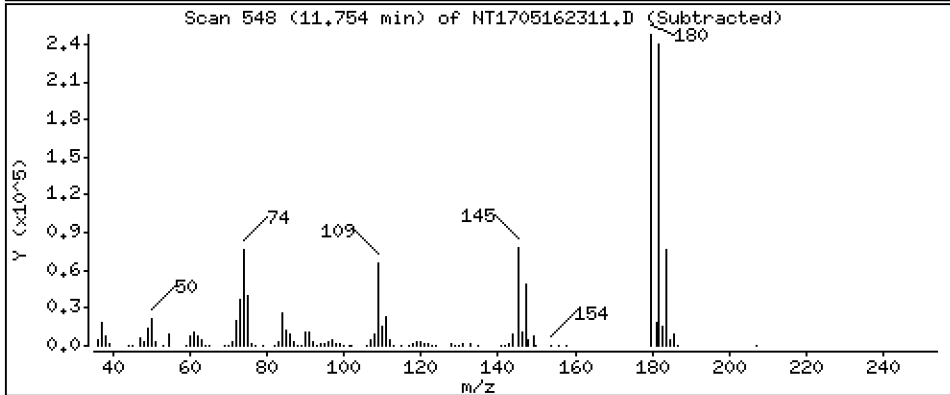
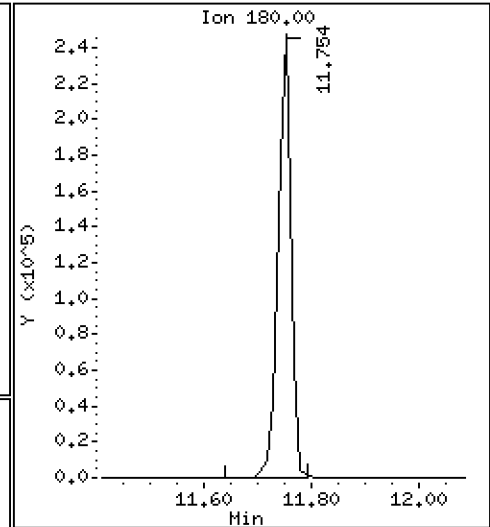
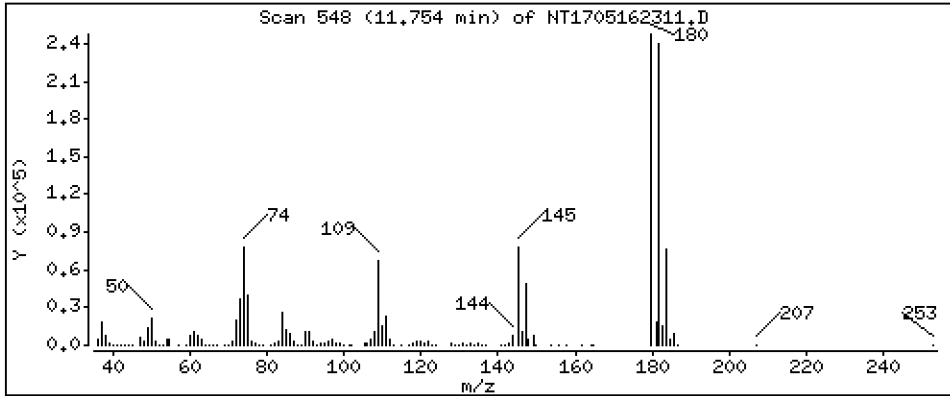
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 5.879 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

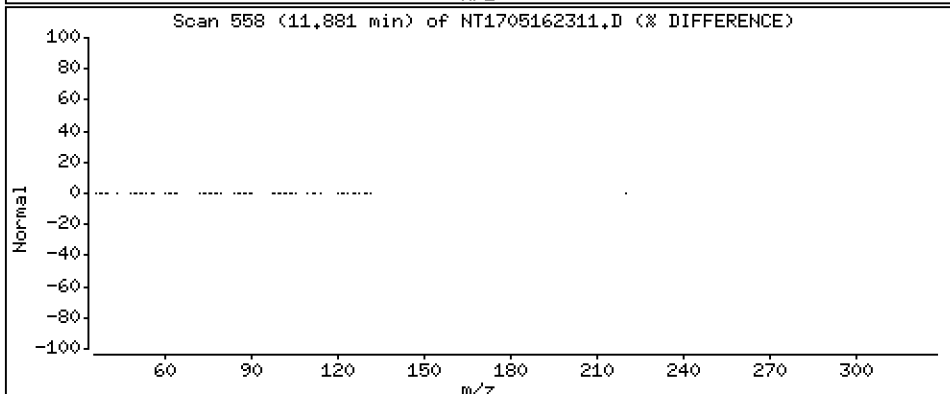
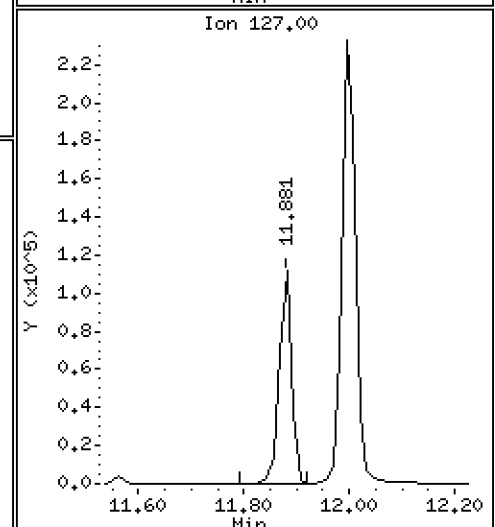
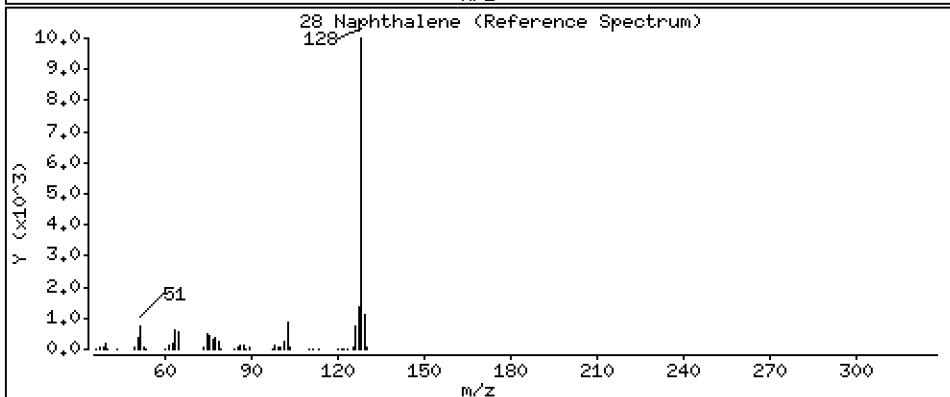
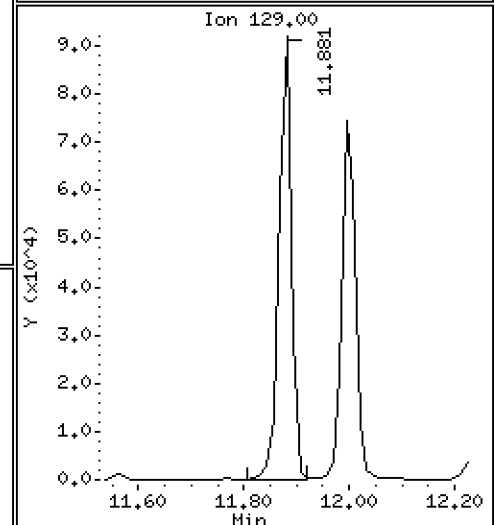
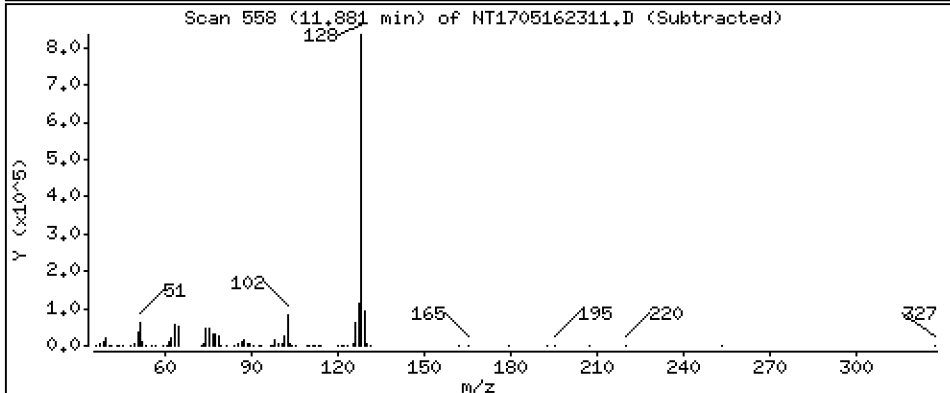
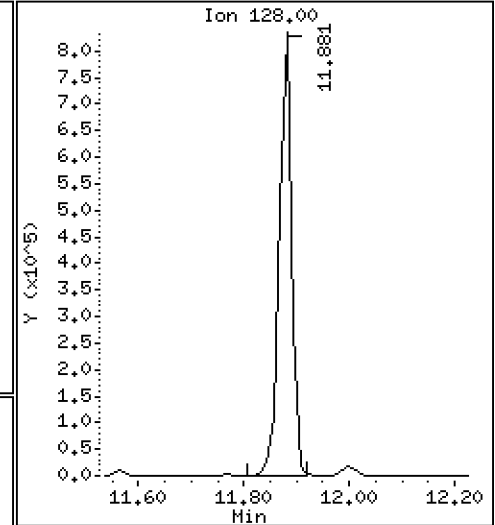
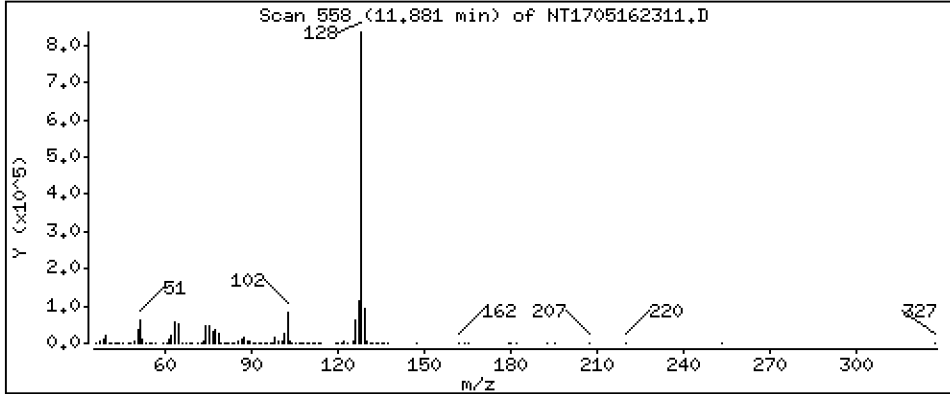
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 5,129 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

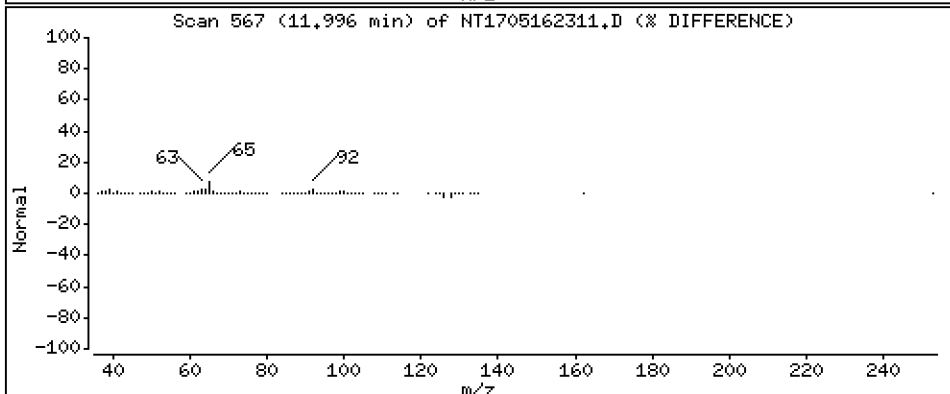
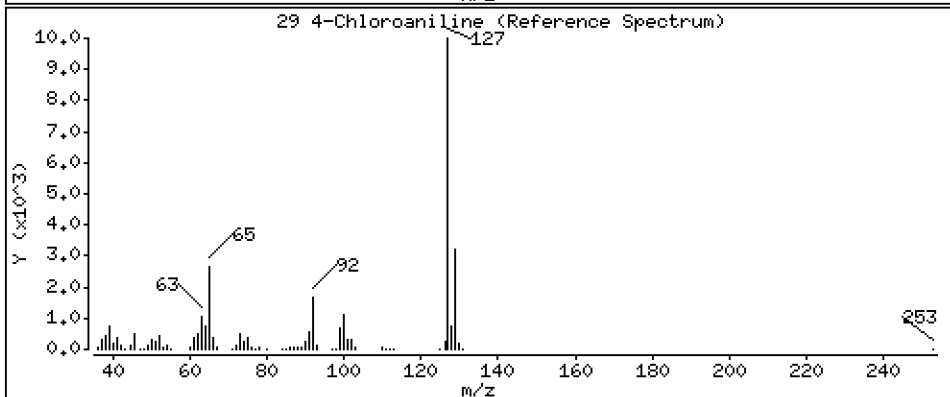
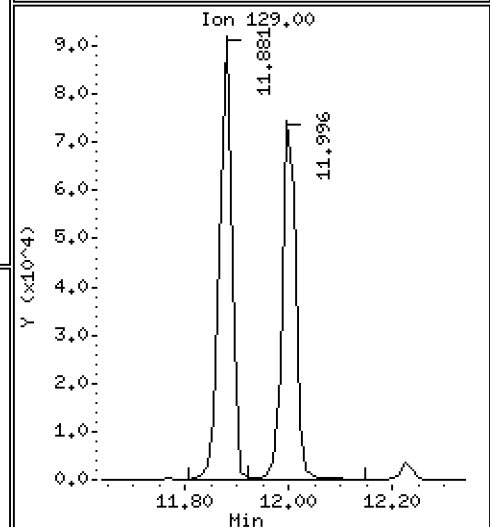
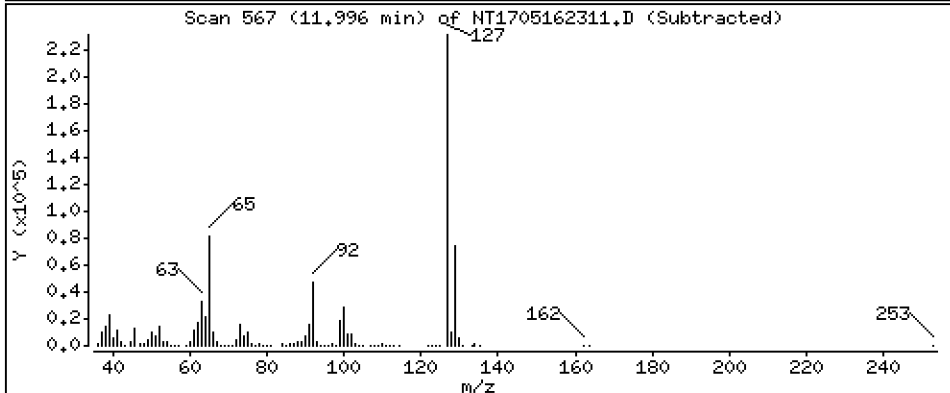
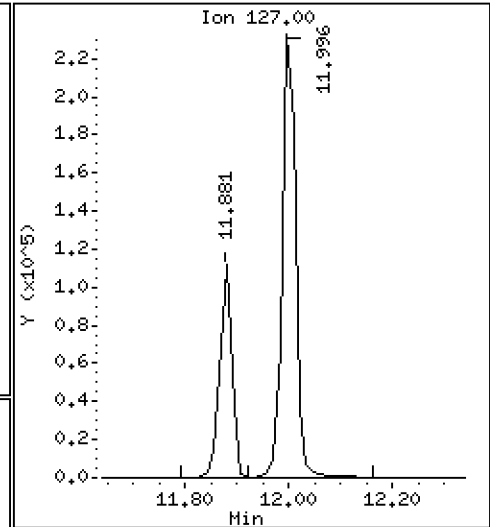
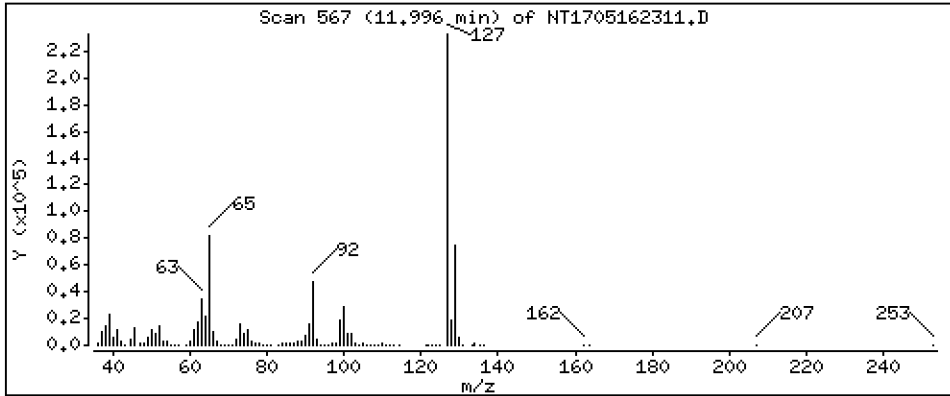
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 4,488 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

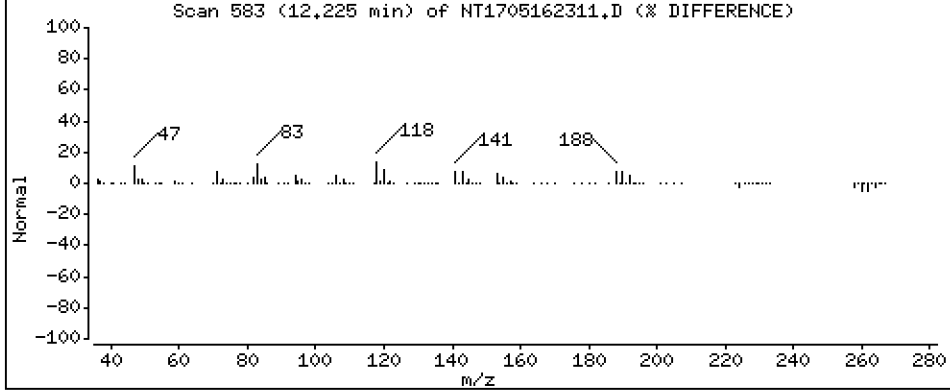
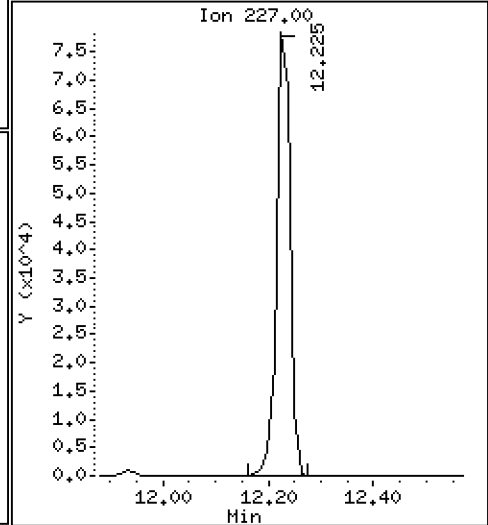
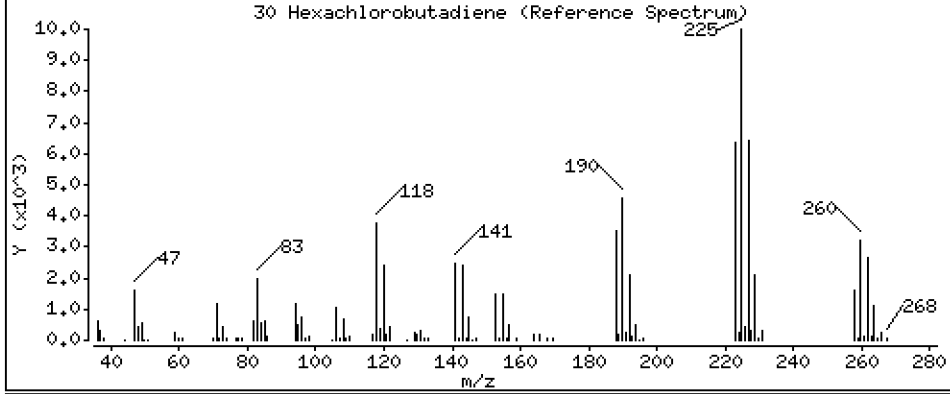
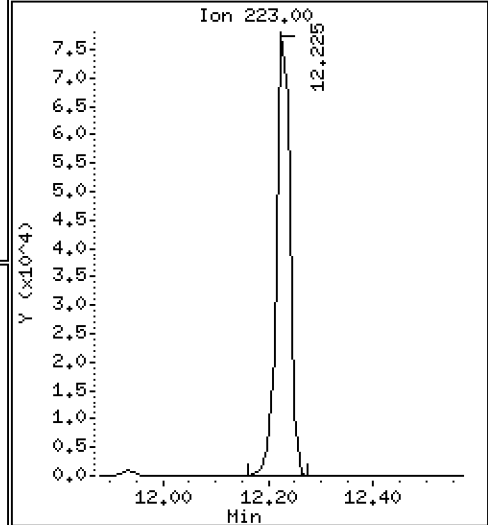
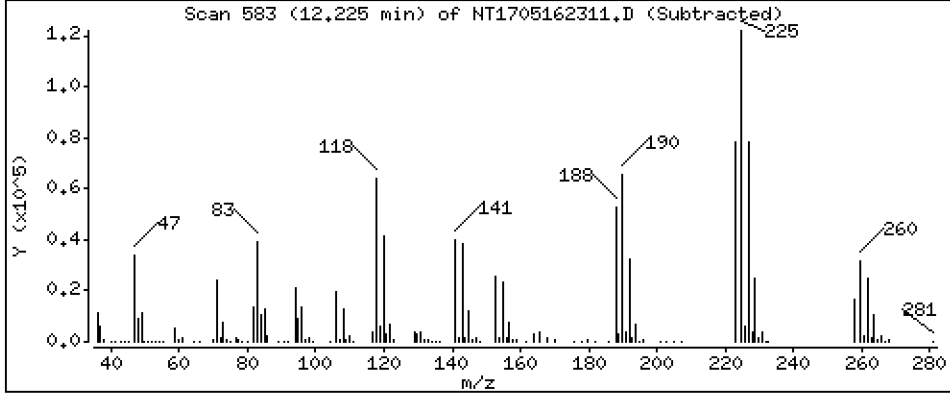
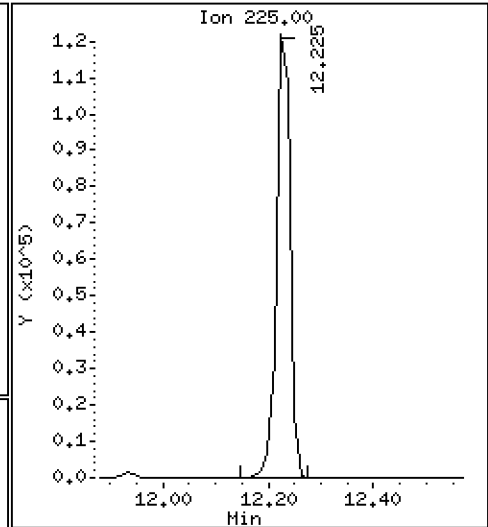
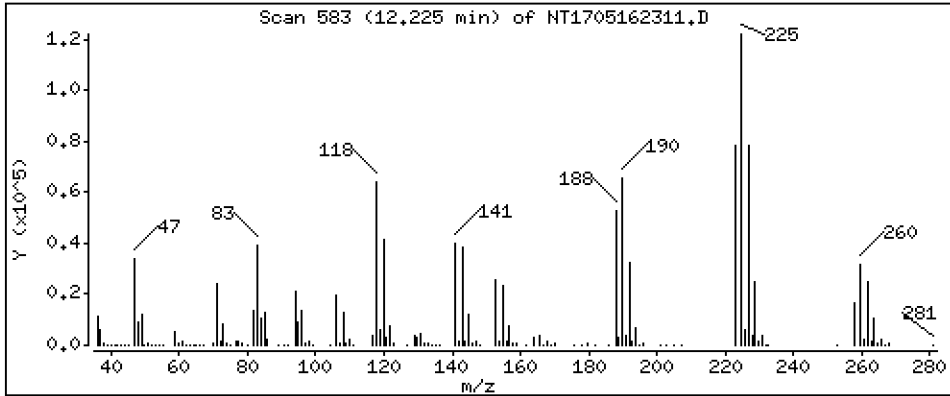
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,241 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

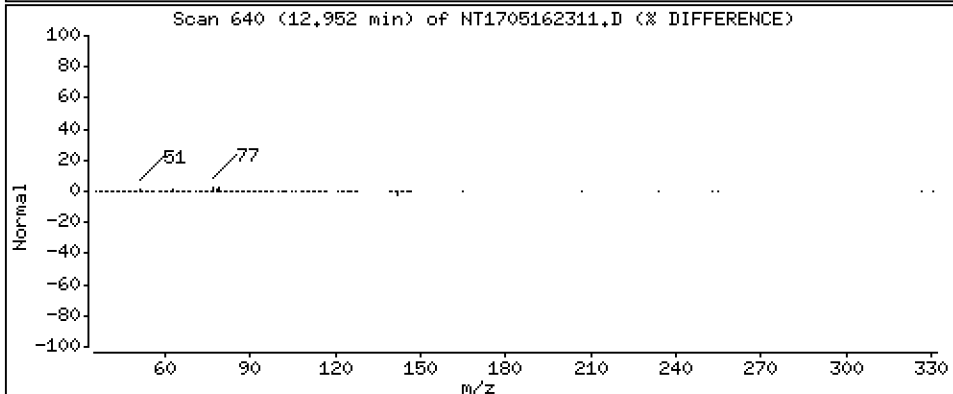
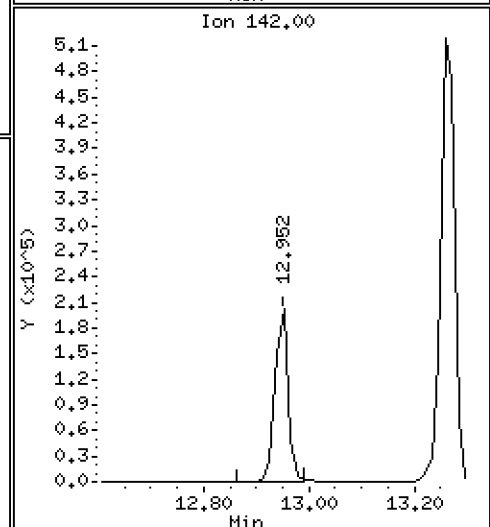
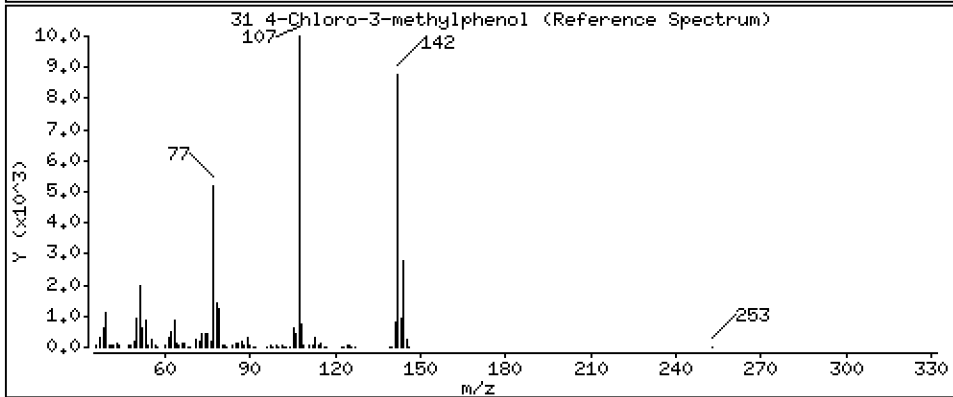
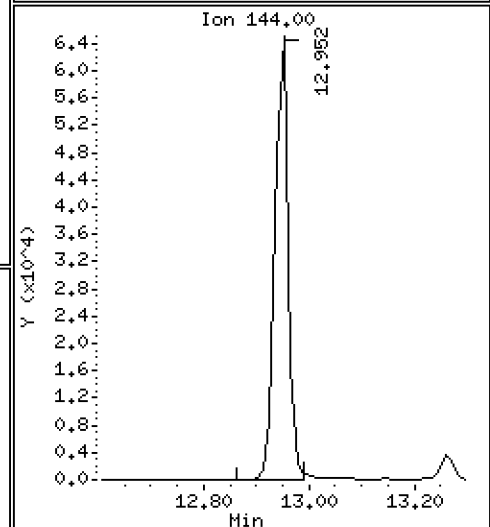
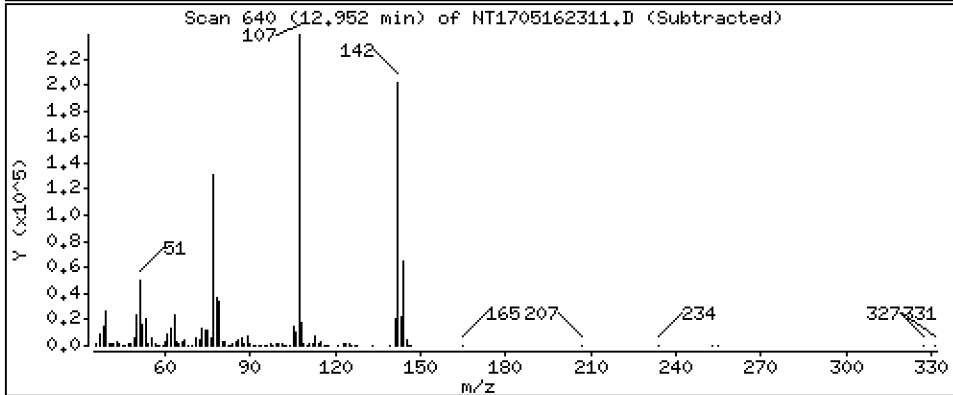
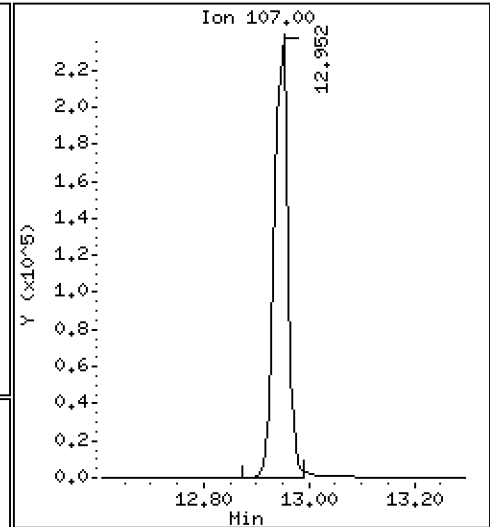
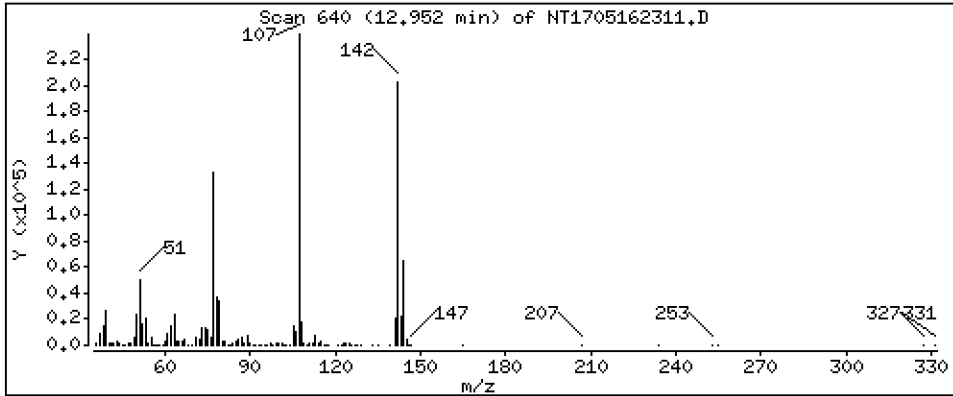
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 4.878 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

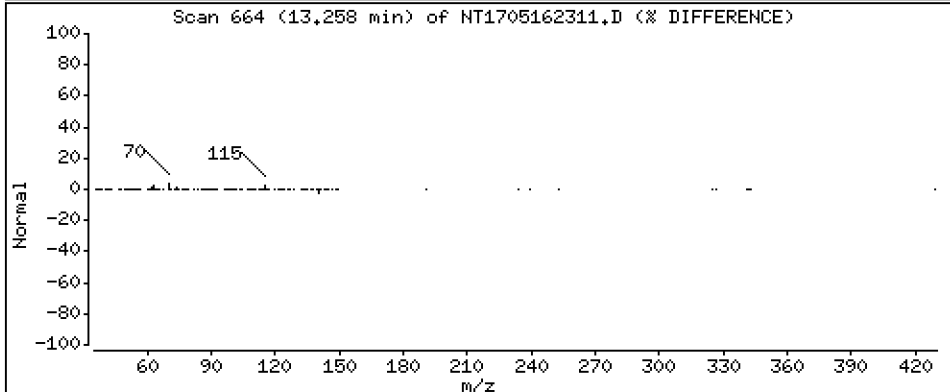
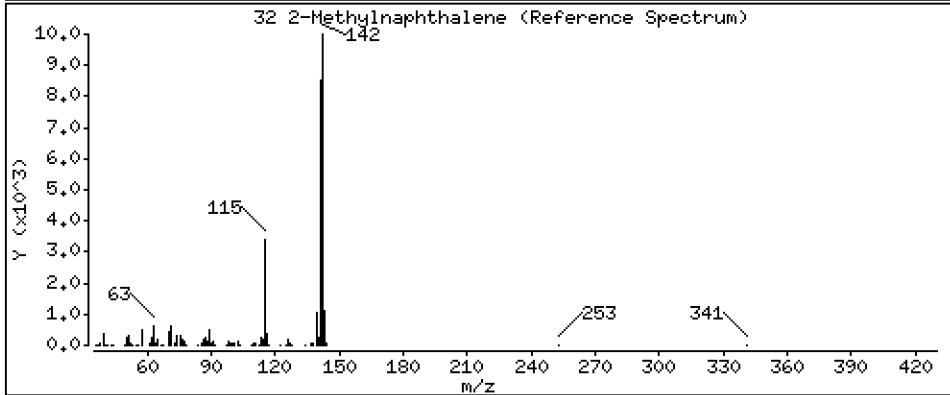
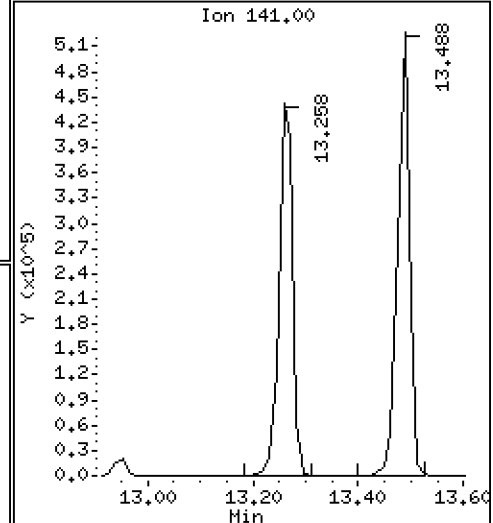
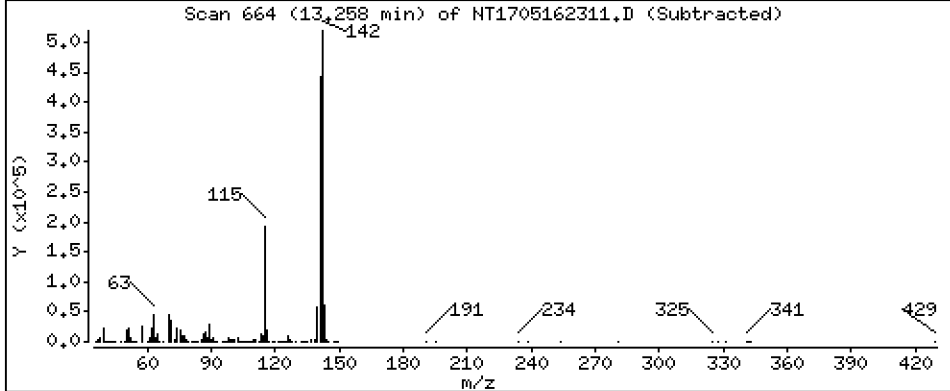
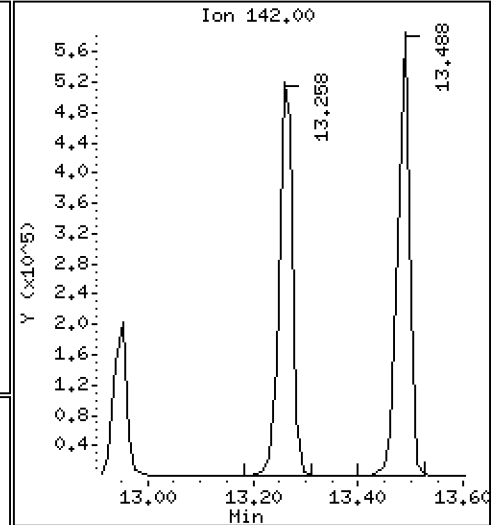
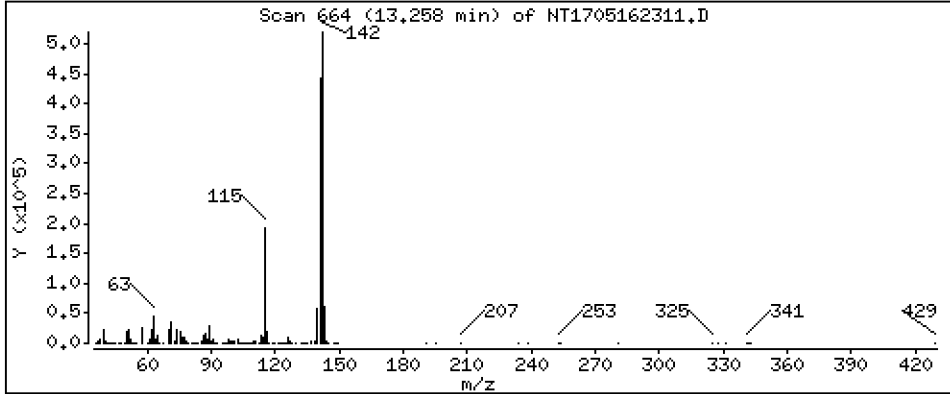
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 5,028 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

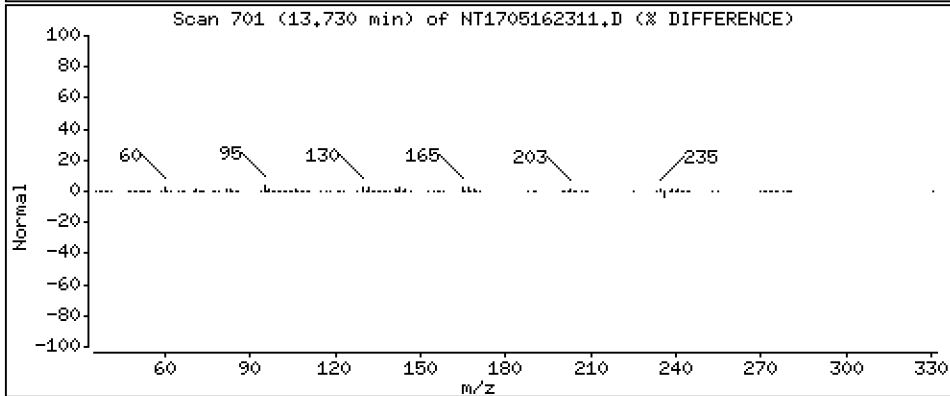
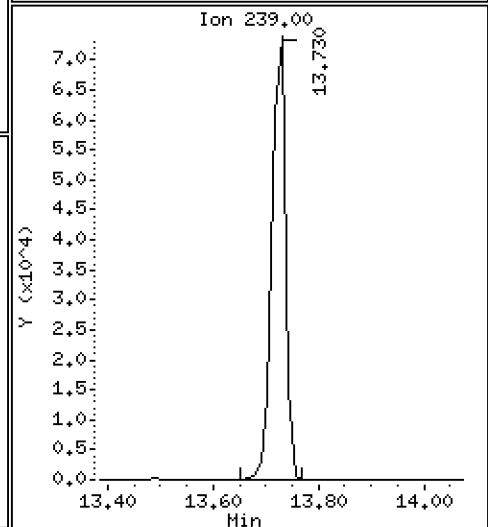
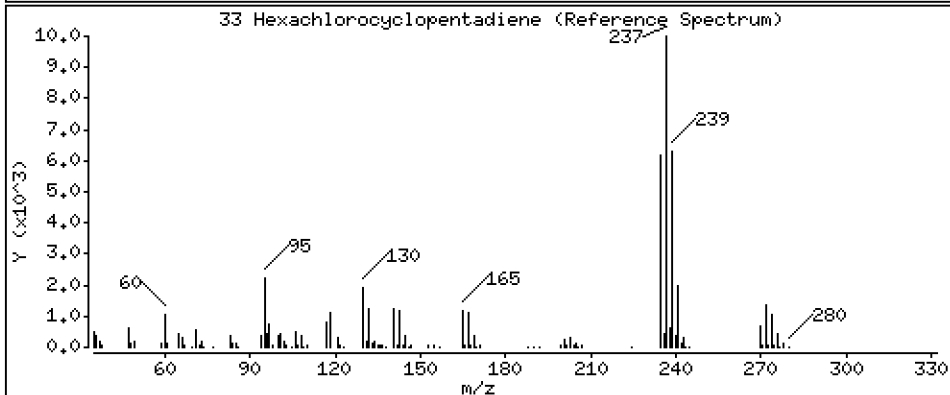
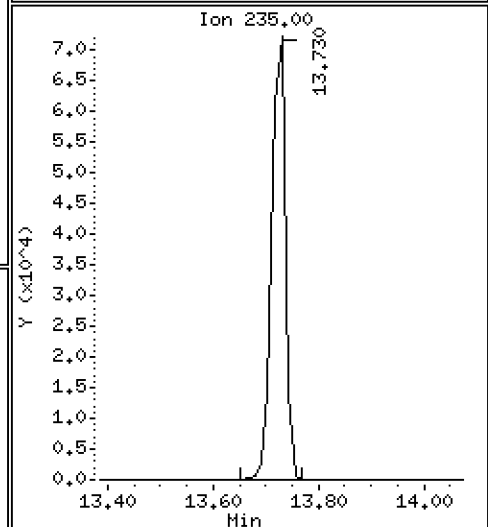
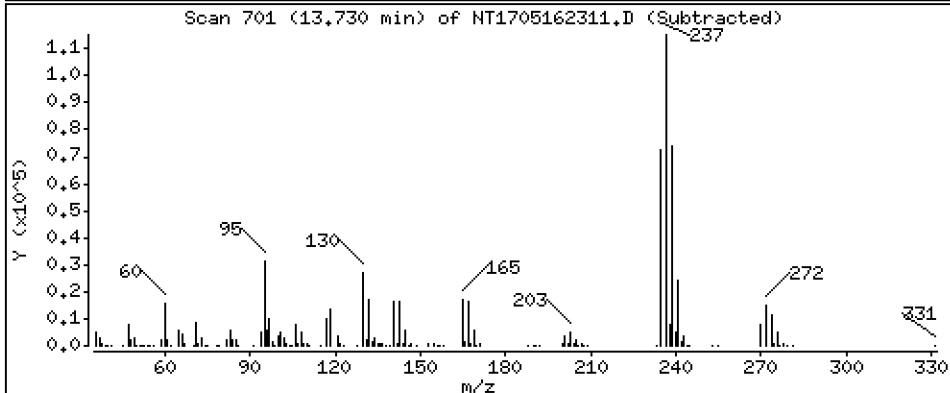
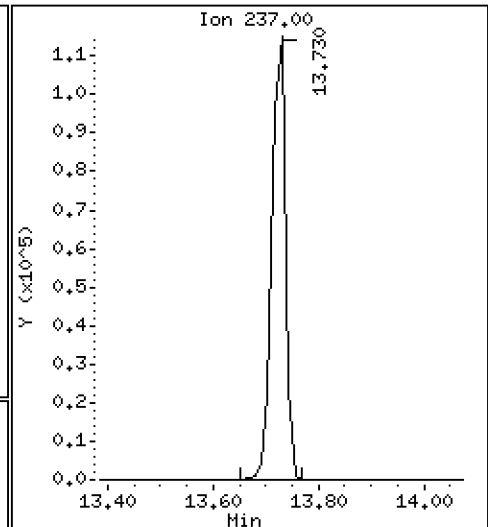
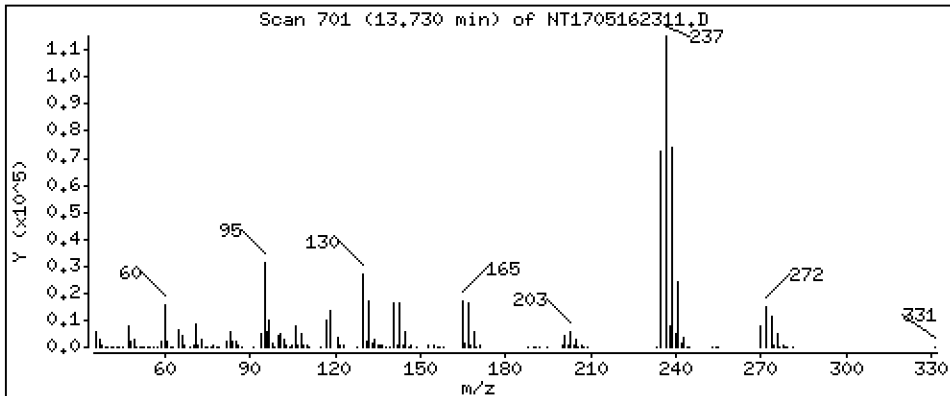
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,219 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

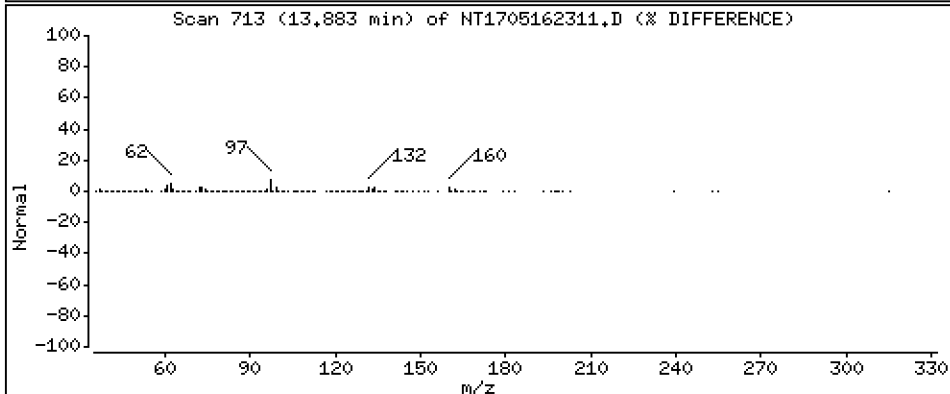
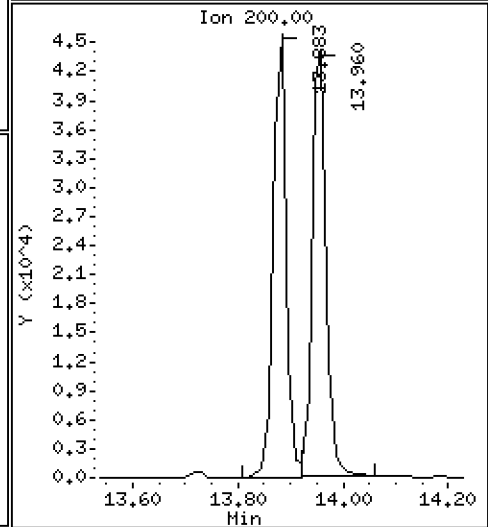
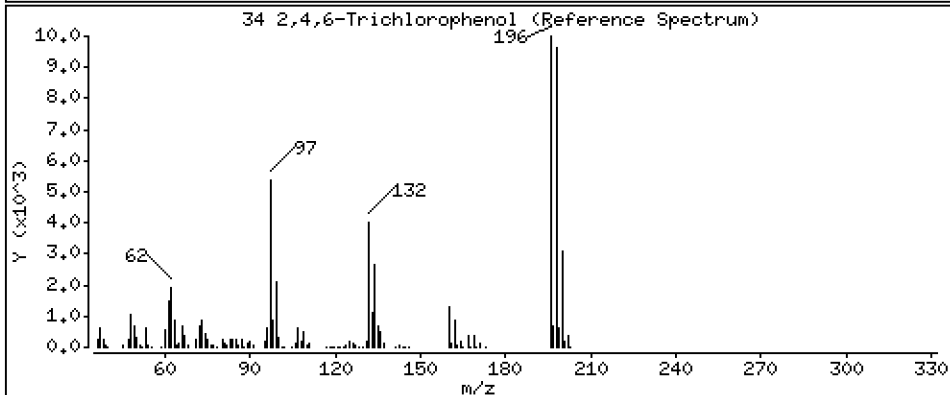
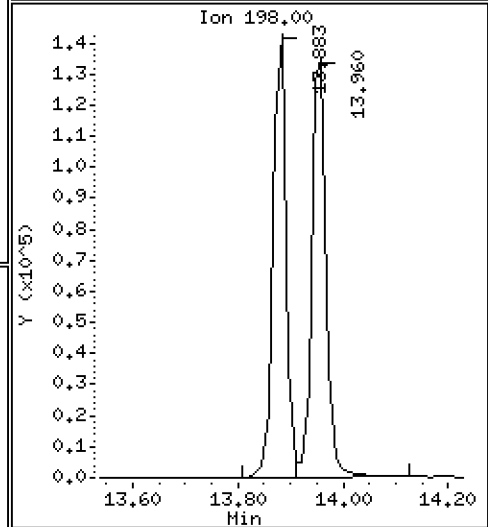
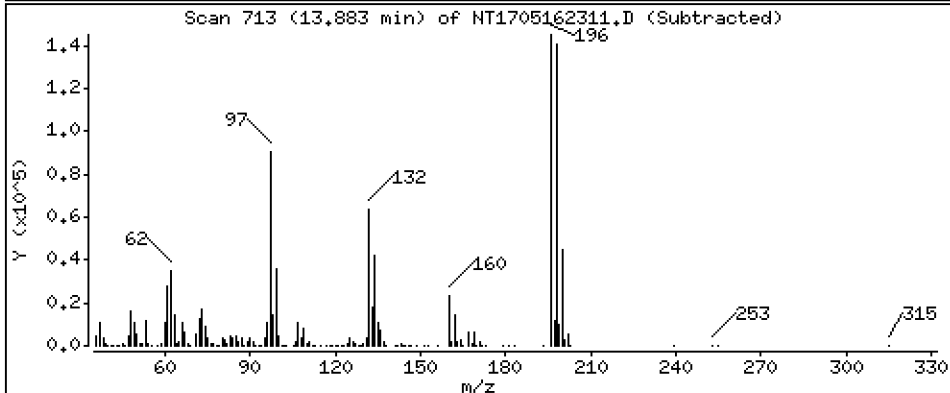
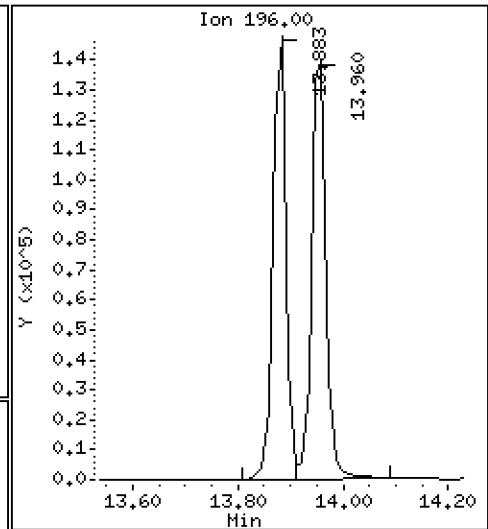
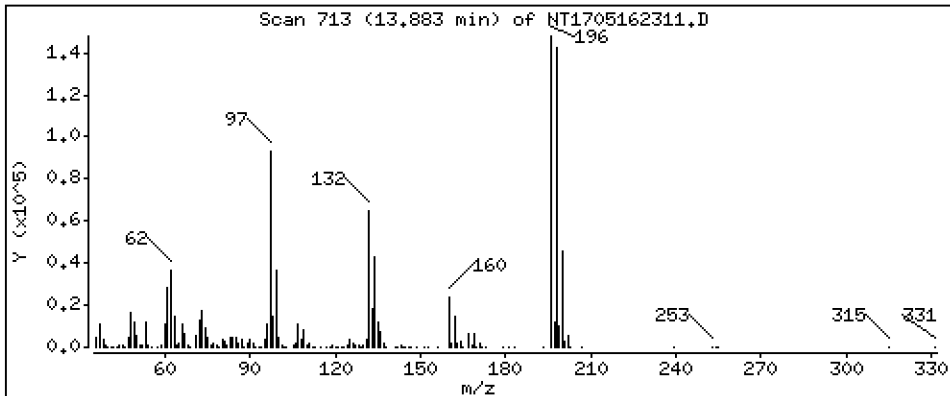
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 4.794 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

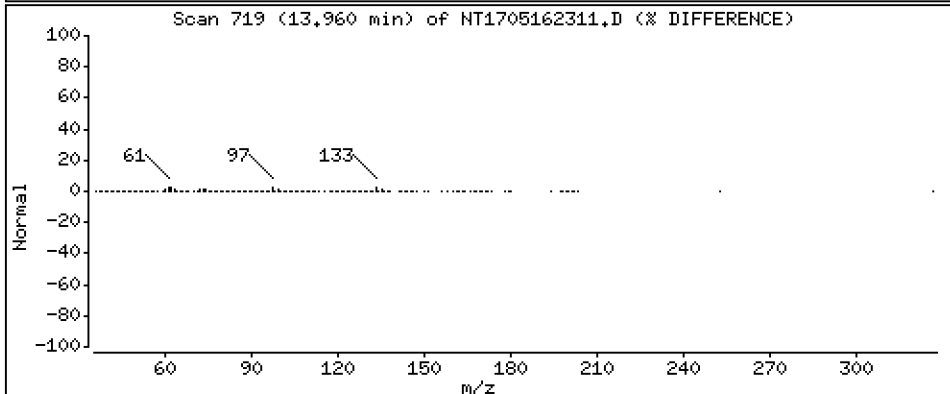
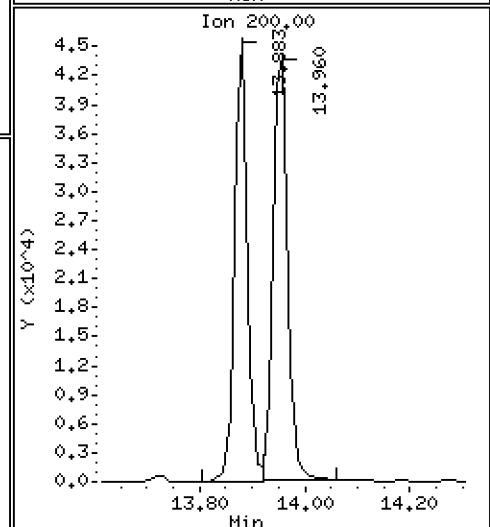
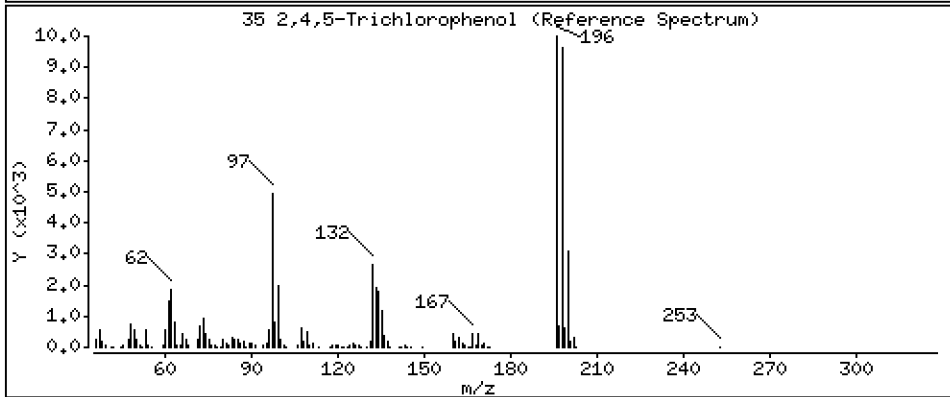
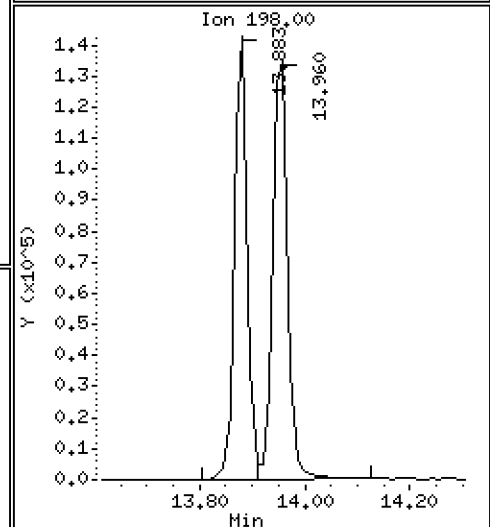
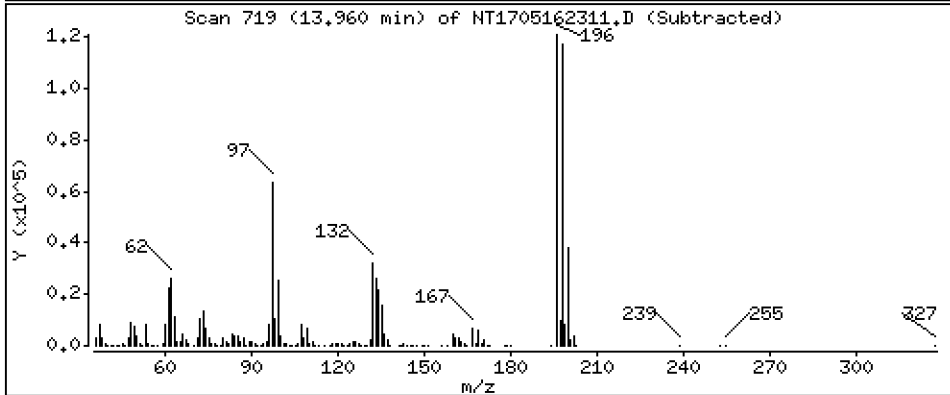
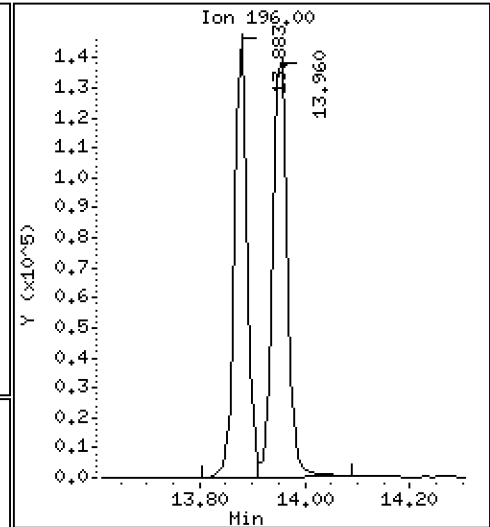
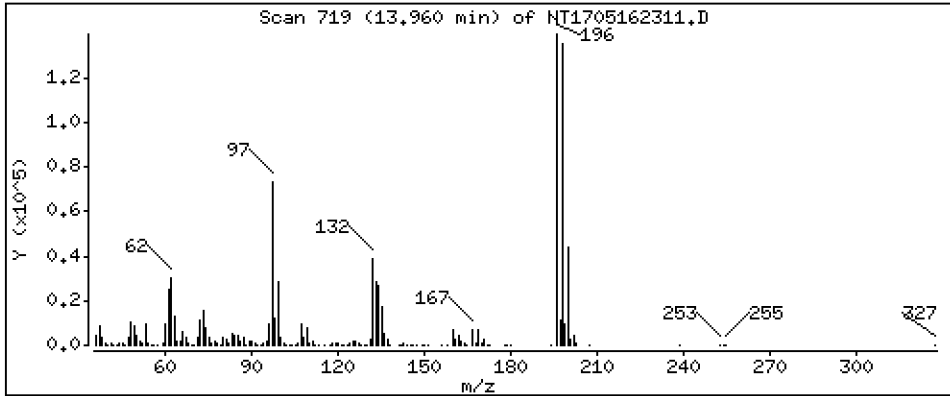
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,837 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

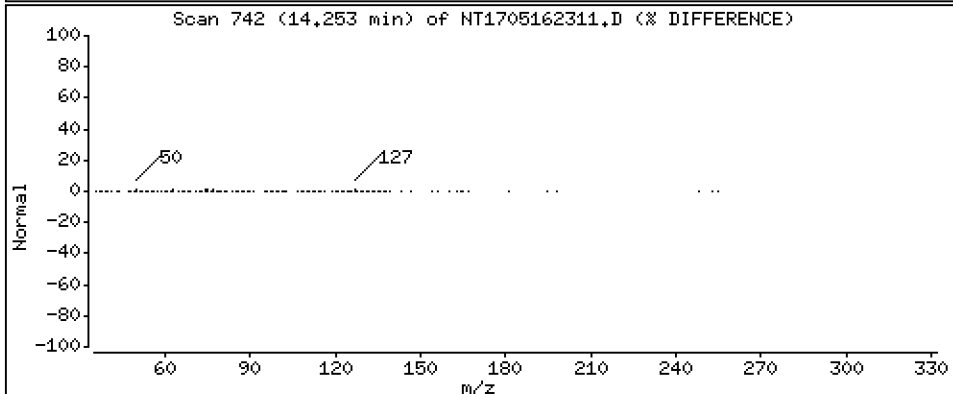
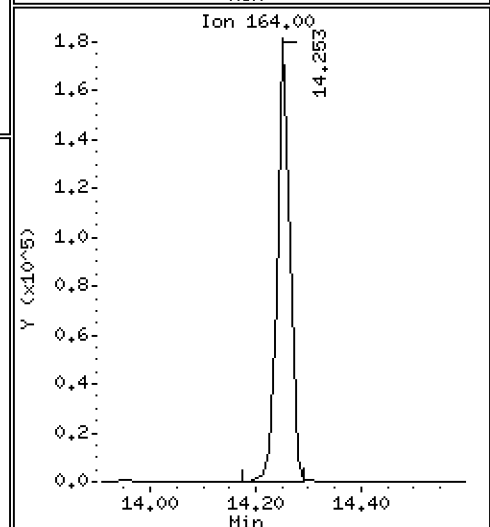
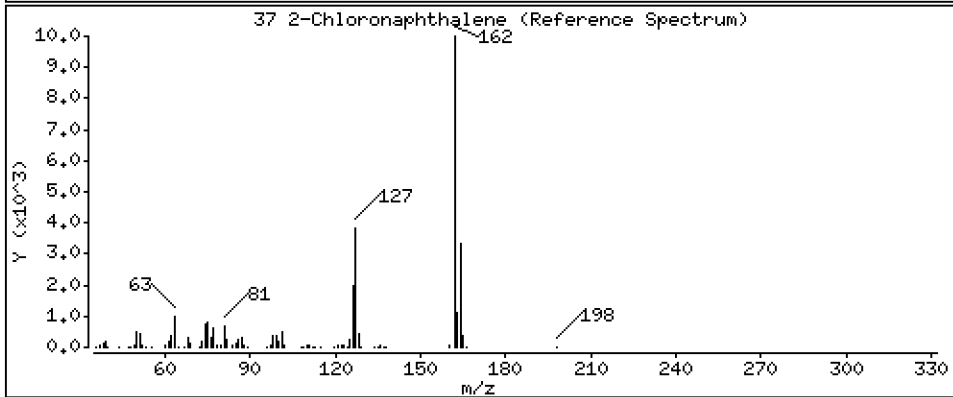
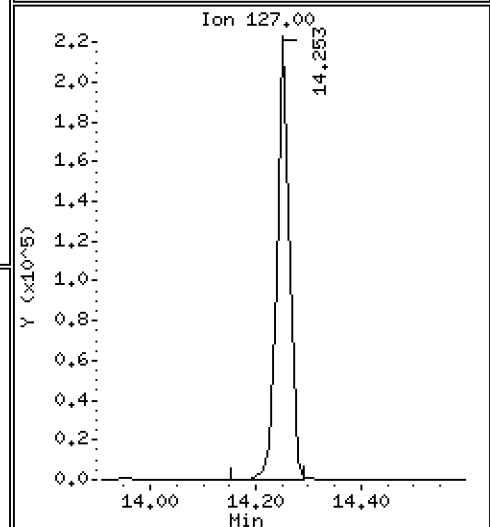
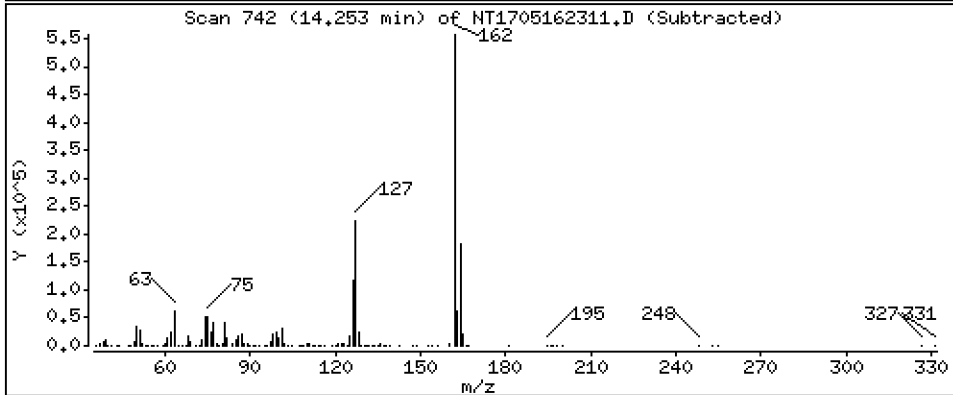
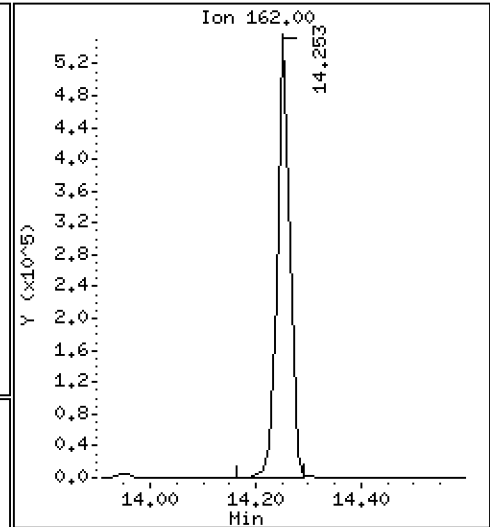
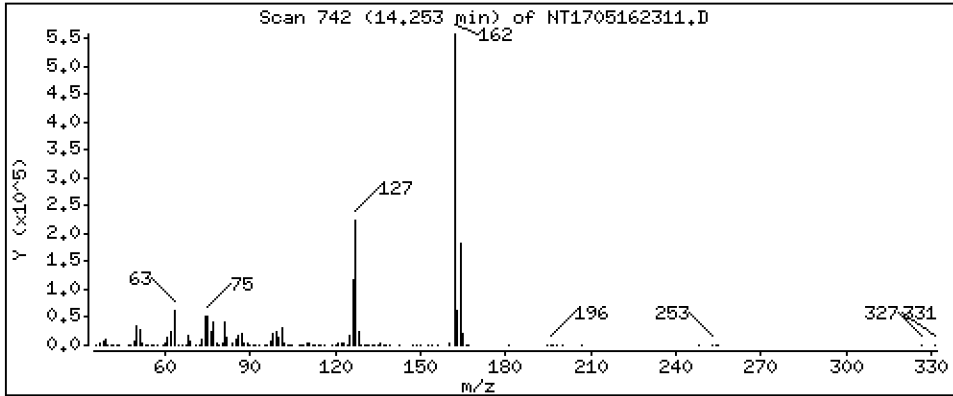
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 5.401 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

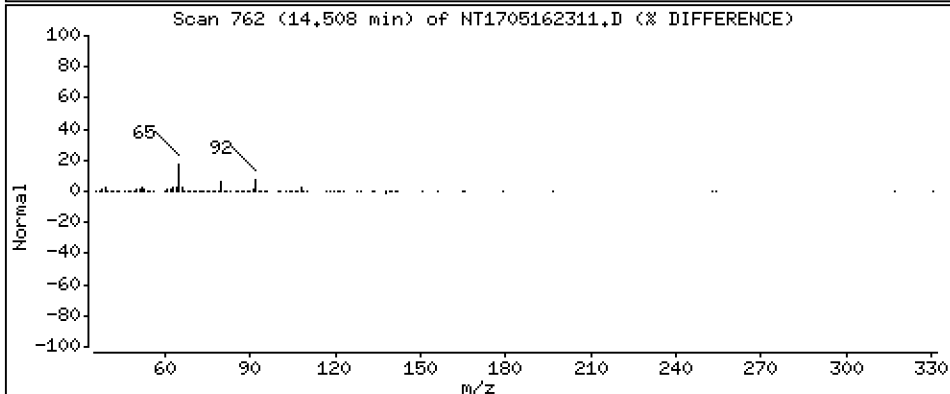
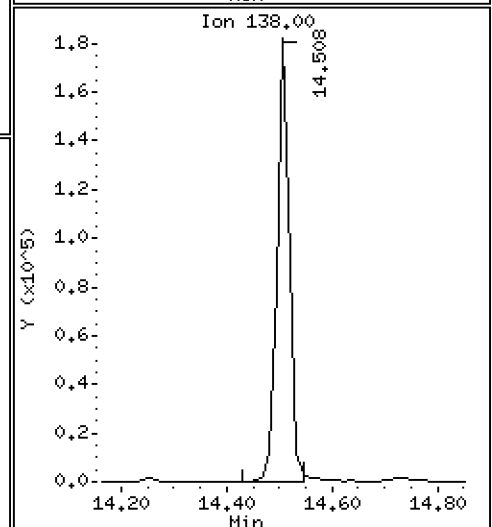
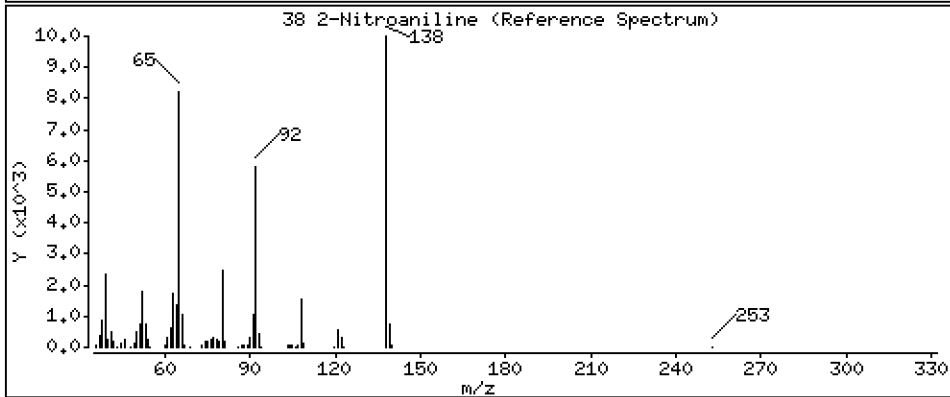
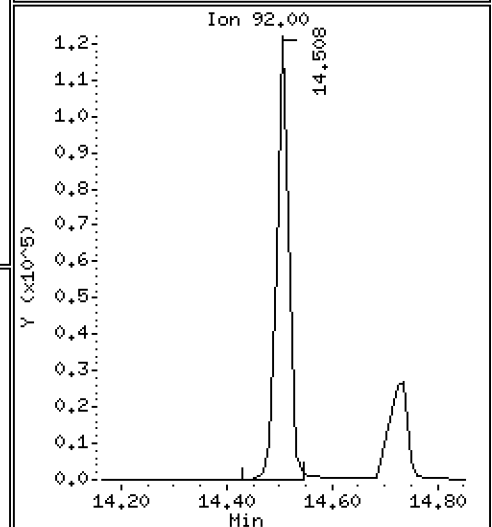
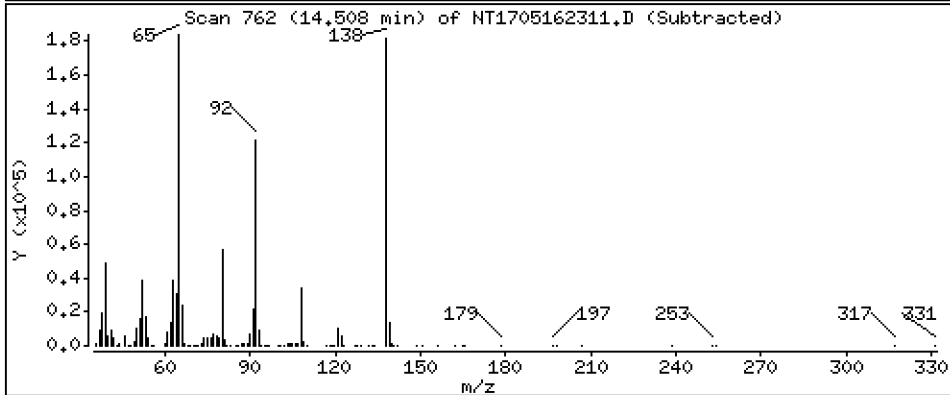
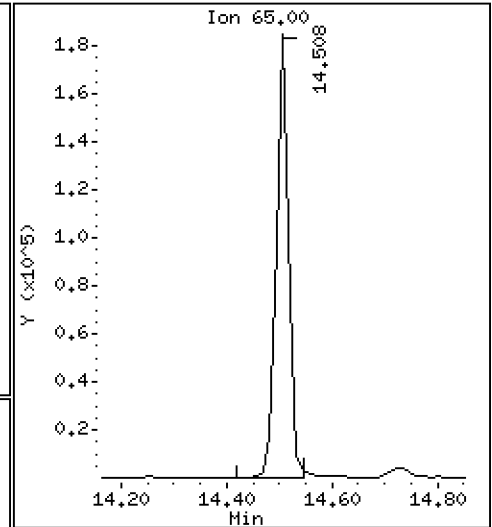
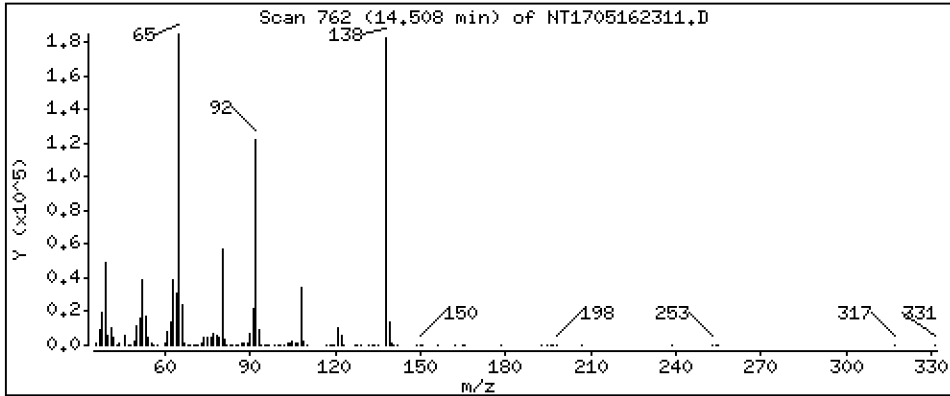
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,356 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

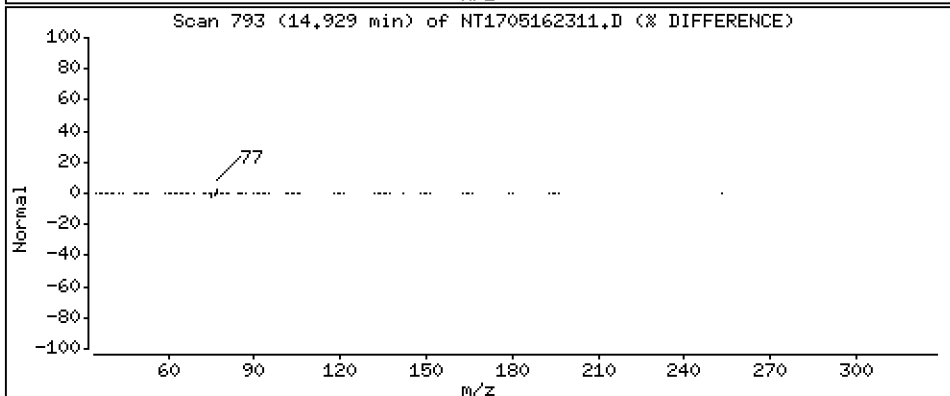
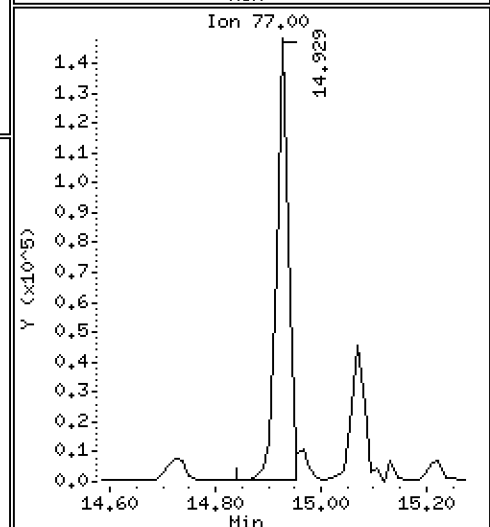
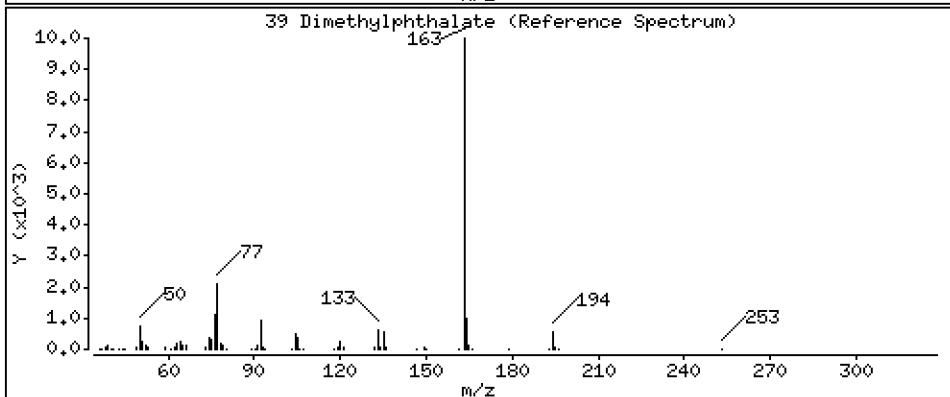
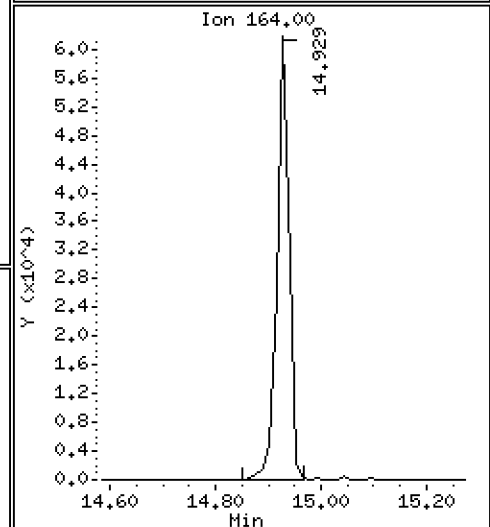
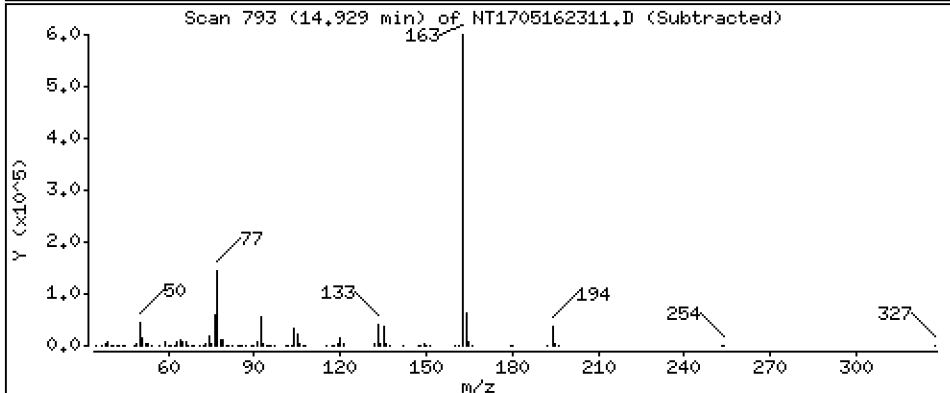
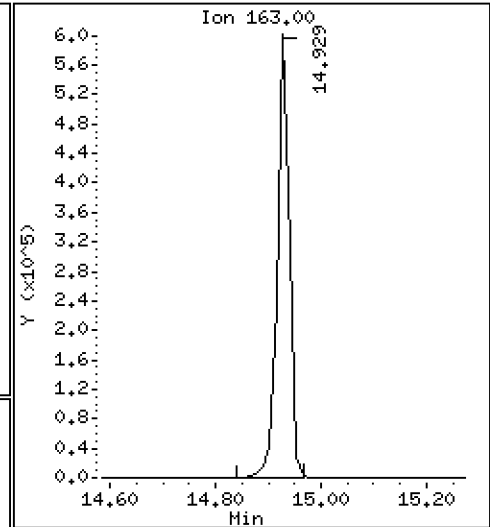
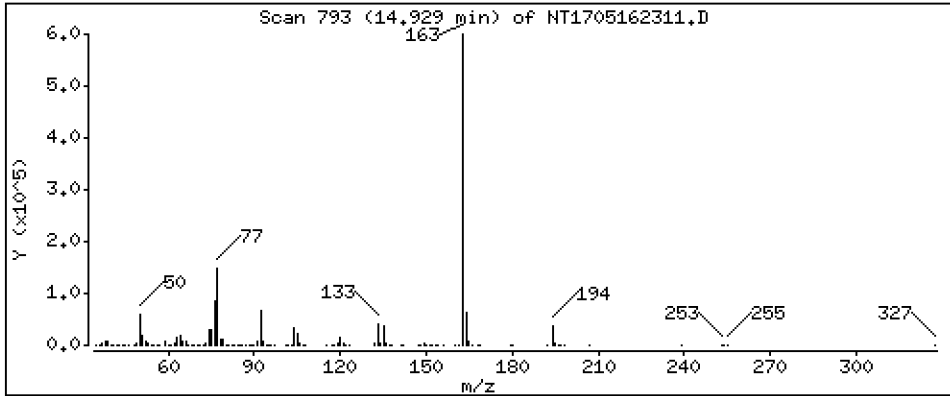
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,418 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

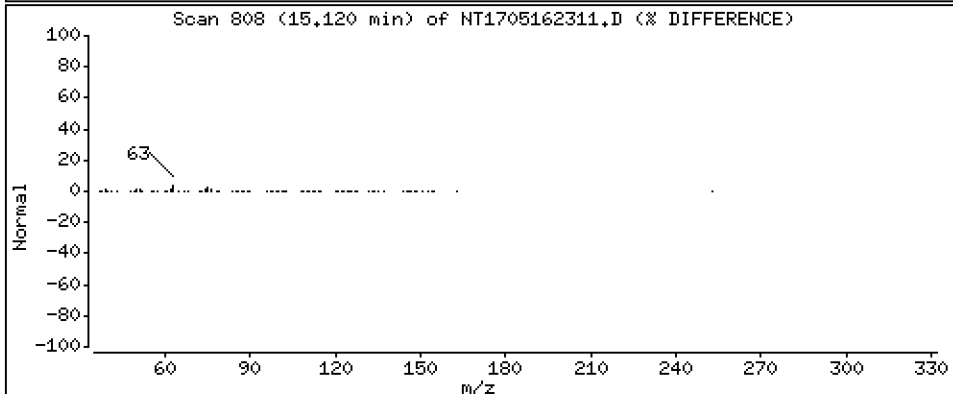
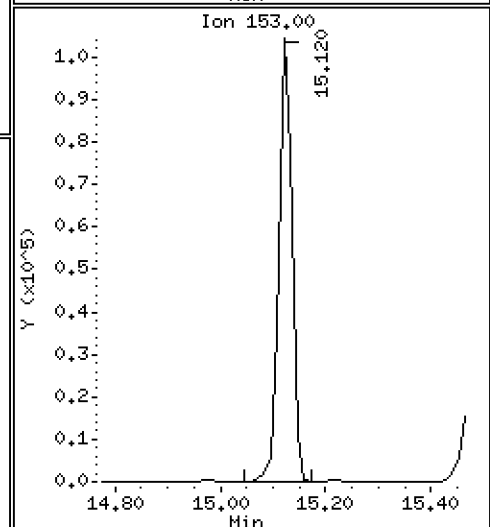
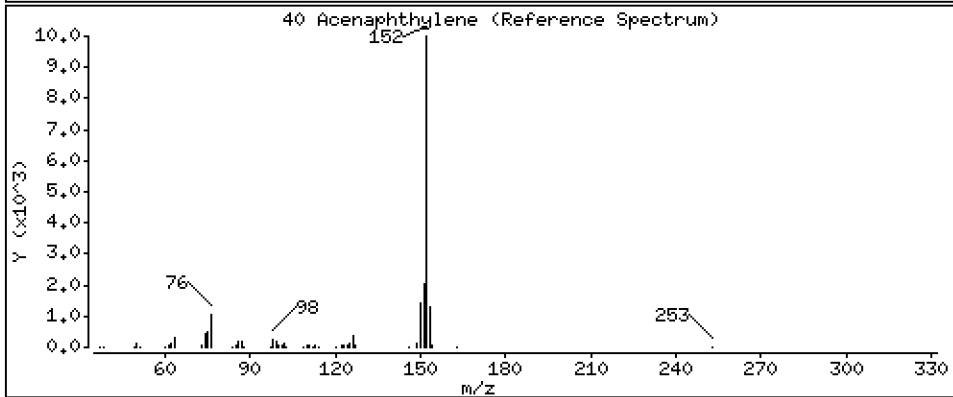
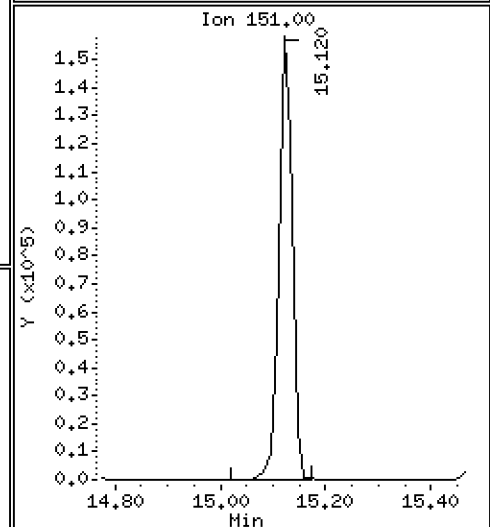
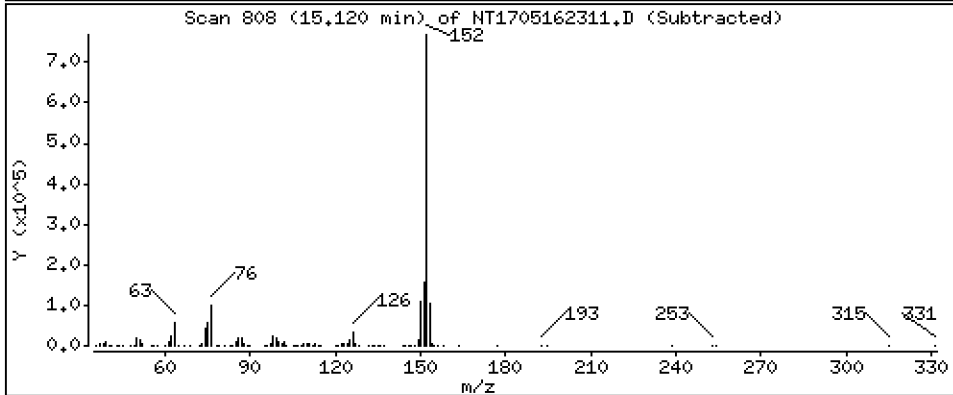
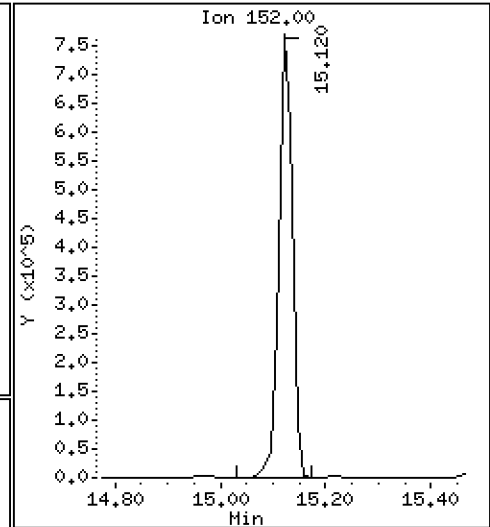
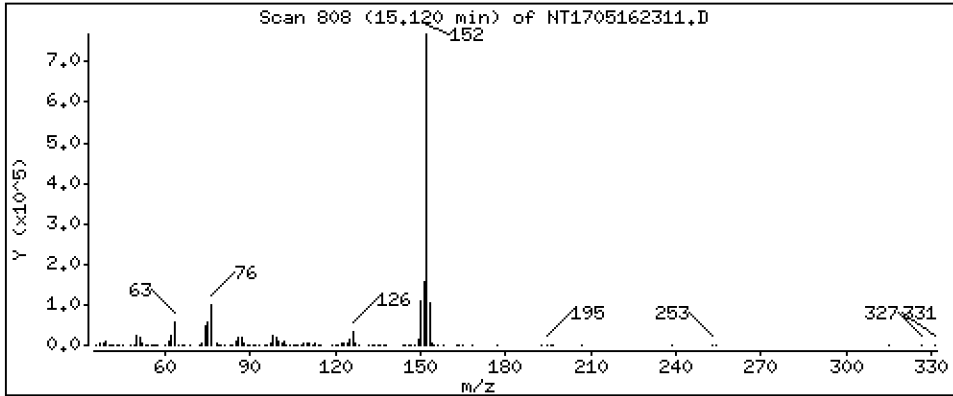
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 5,282 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

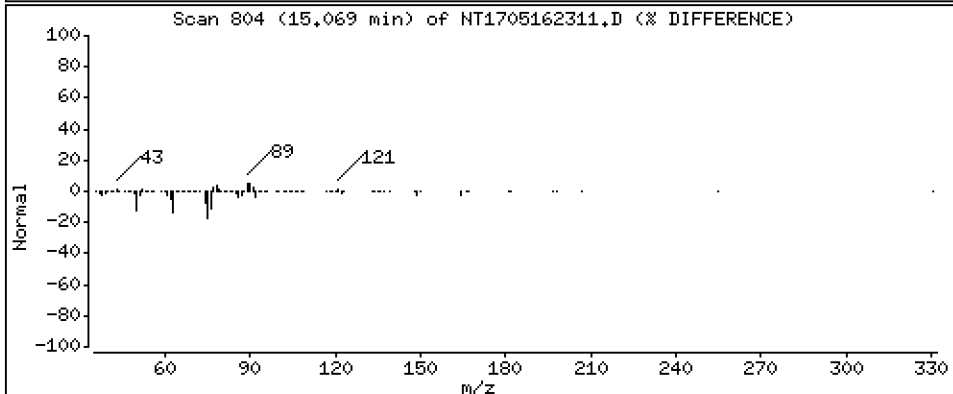
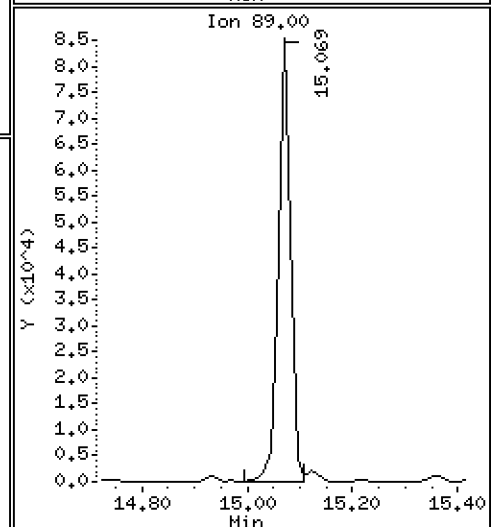
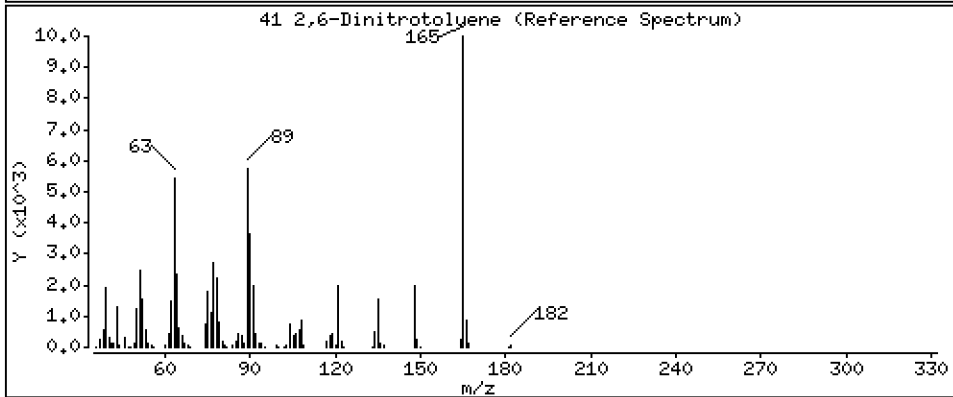
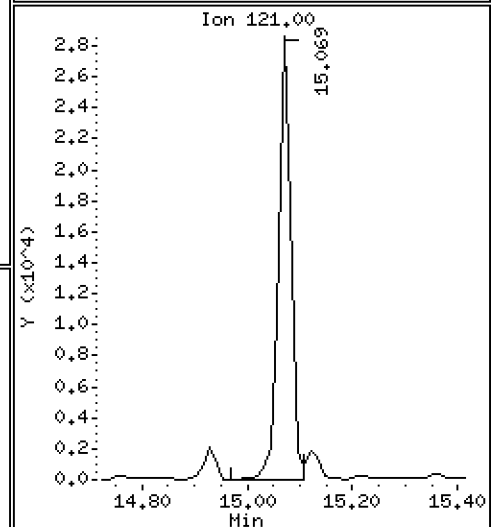
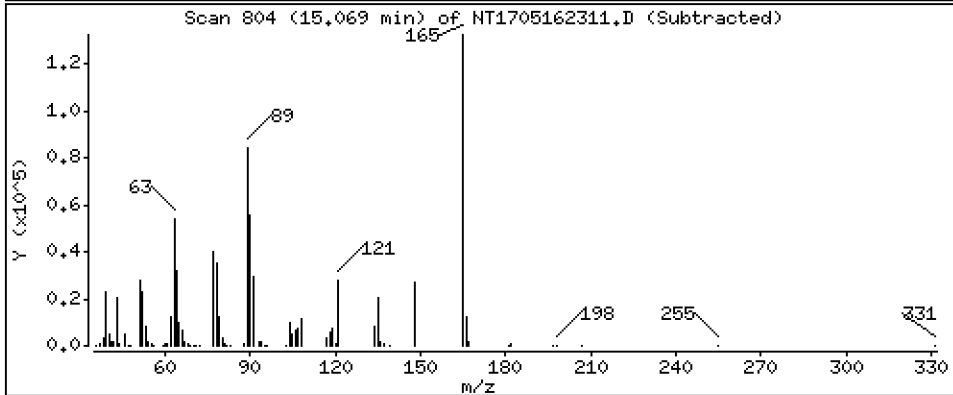
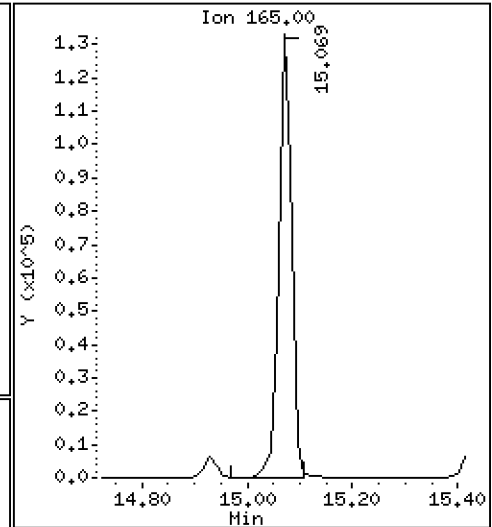
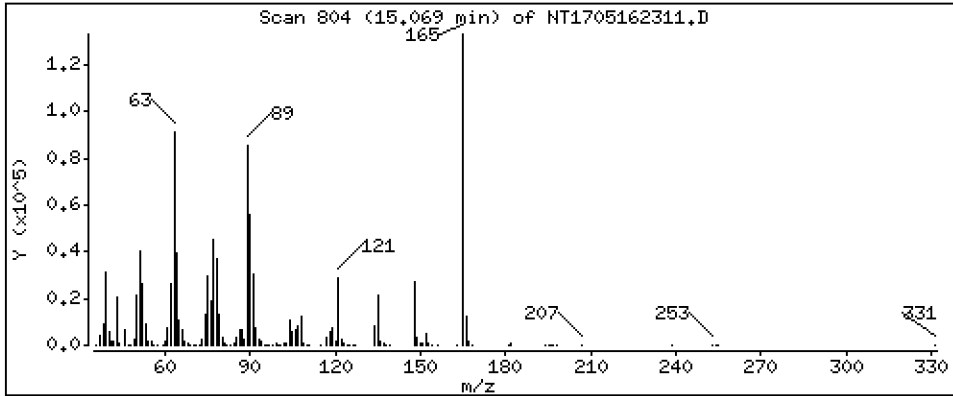
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 5,404 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

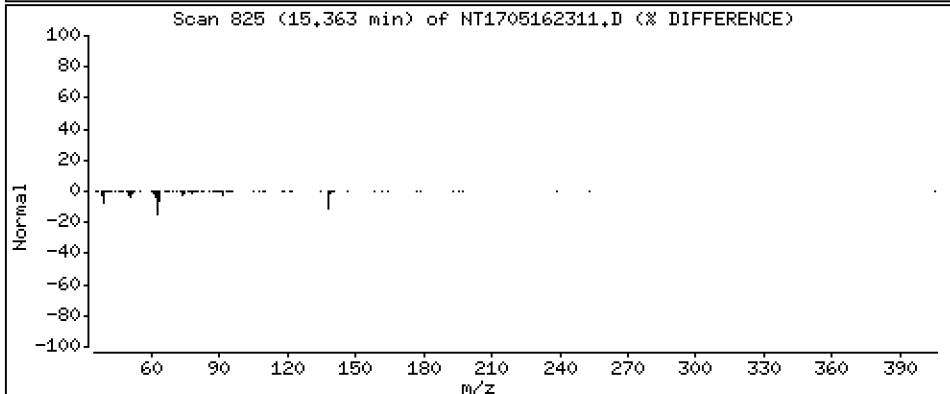
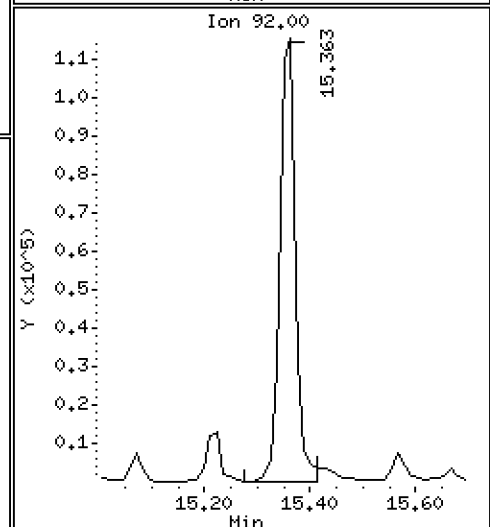
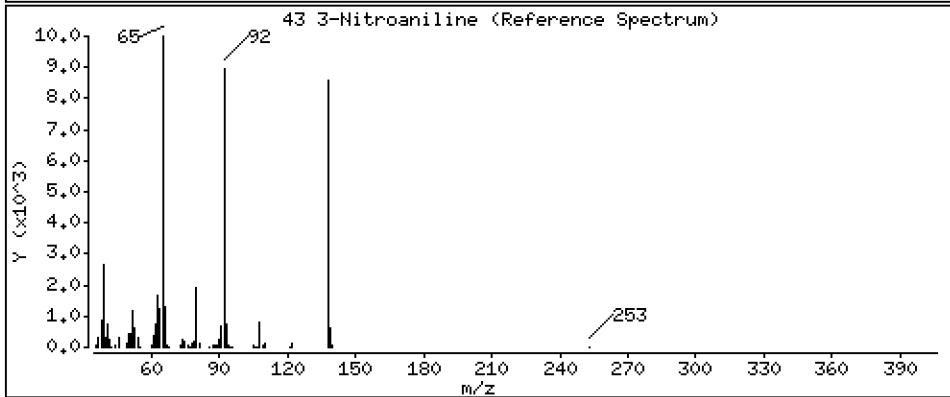
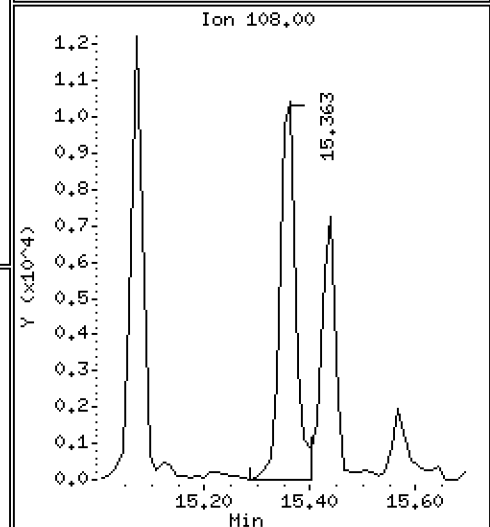
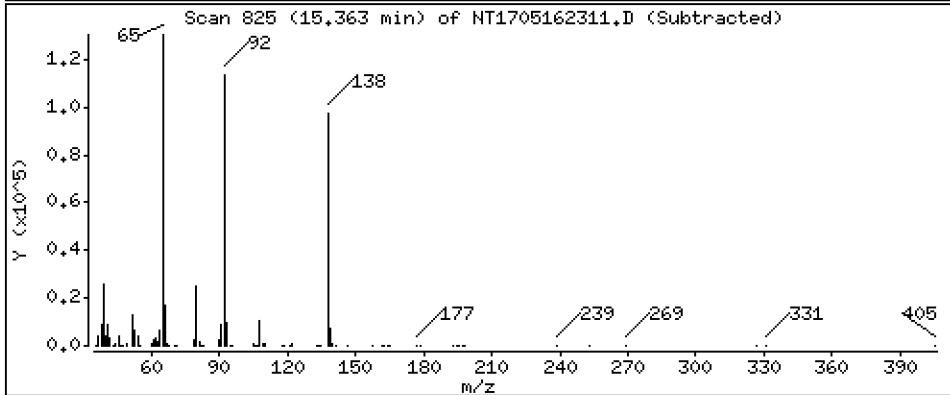
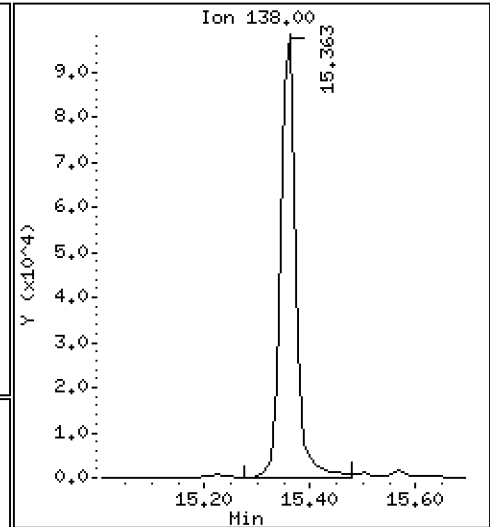
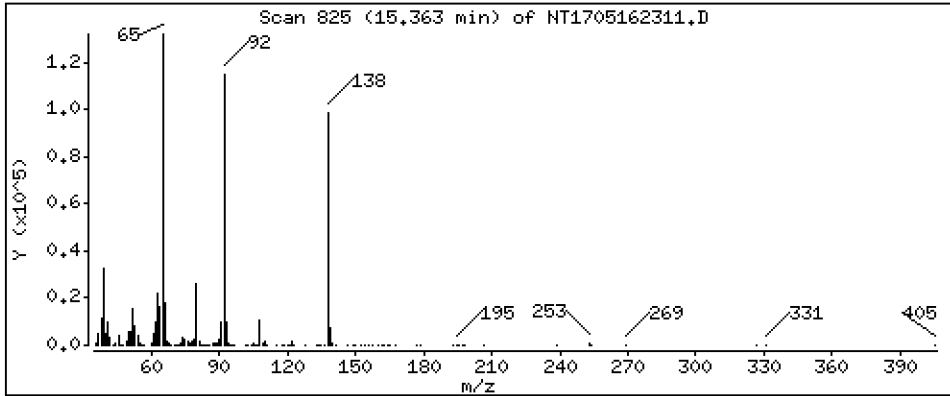
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 5,169 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

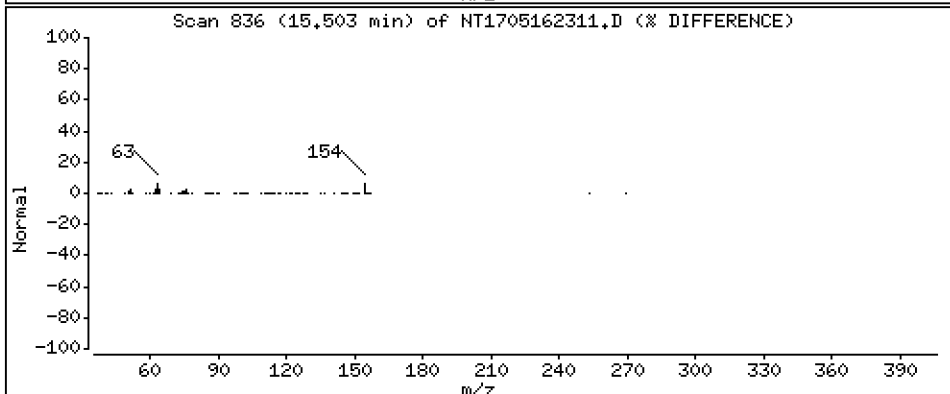
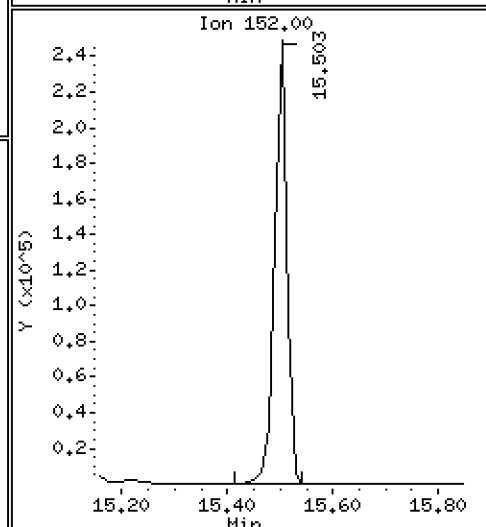
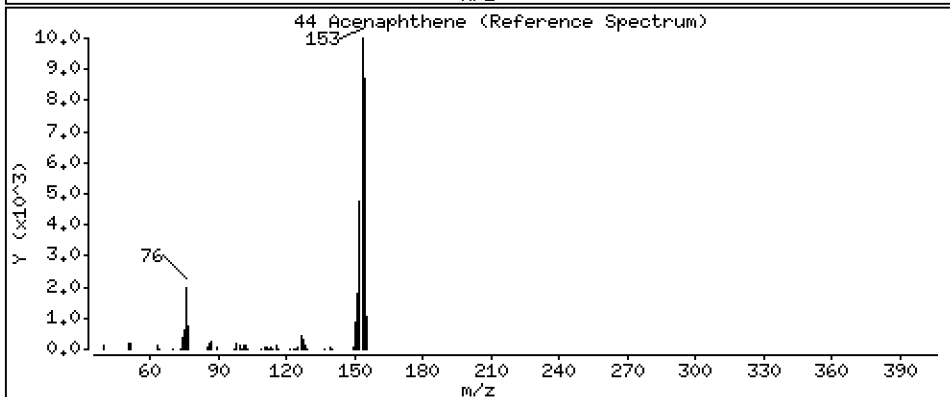
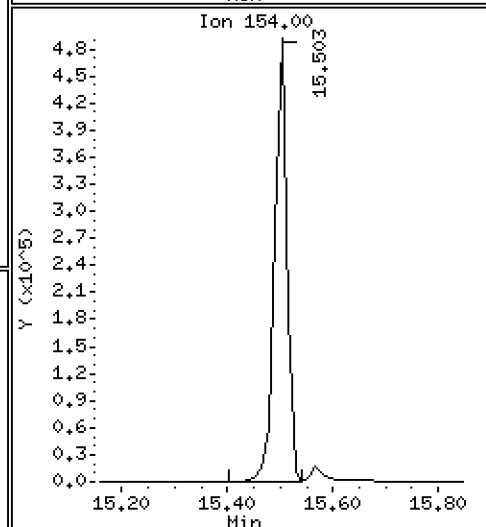
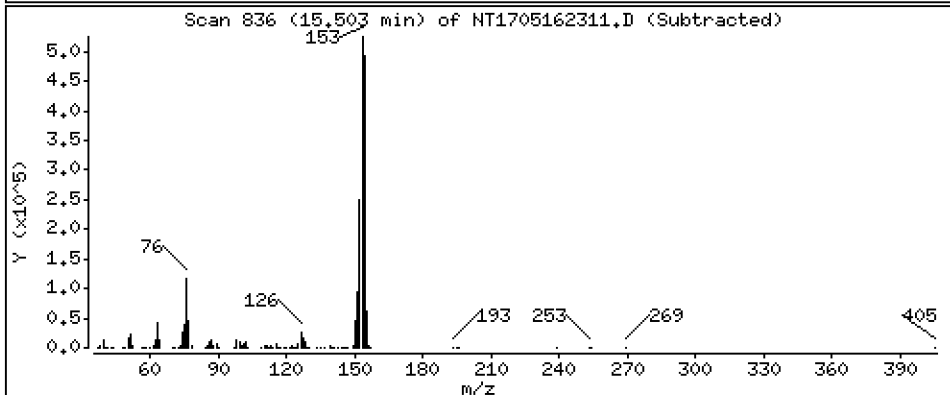
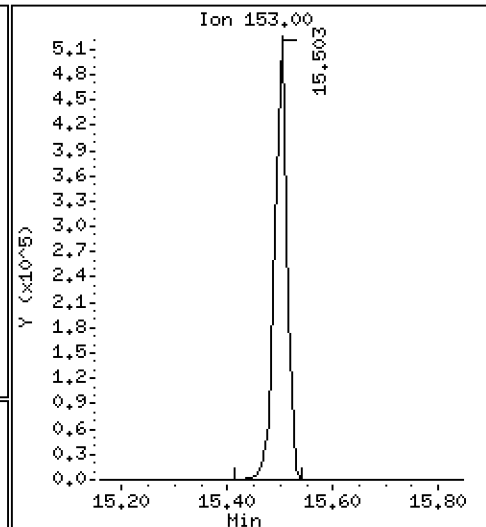
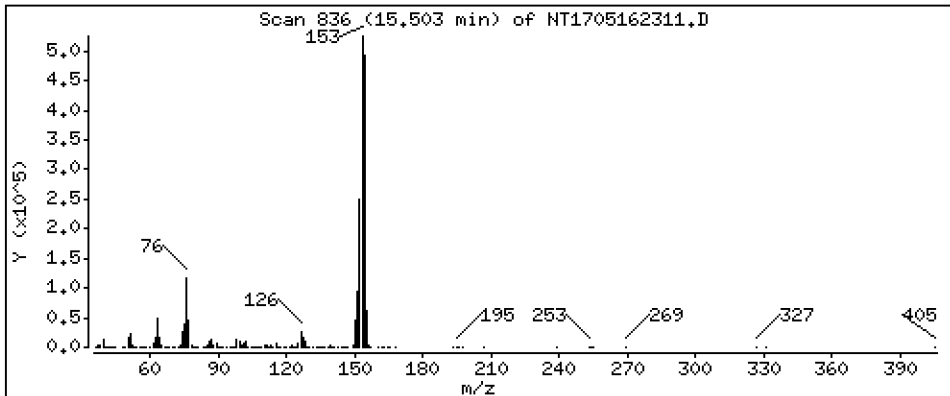
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 5,283 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

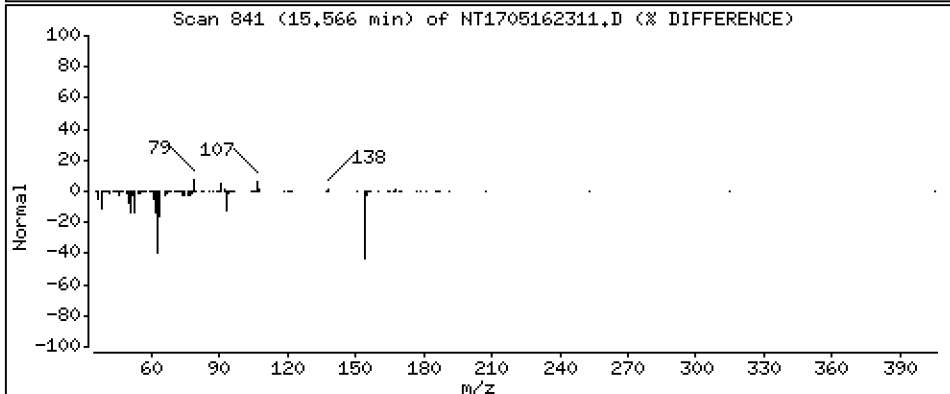
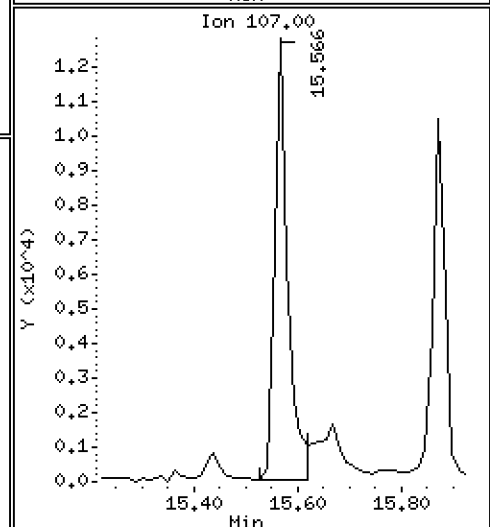
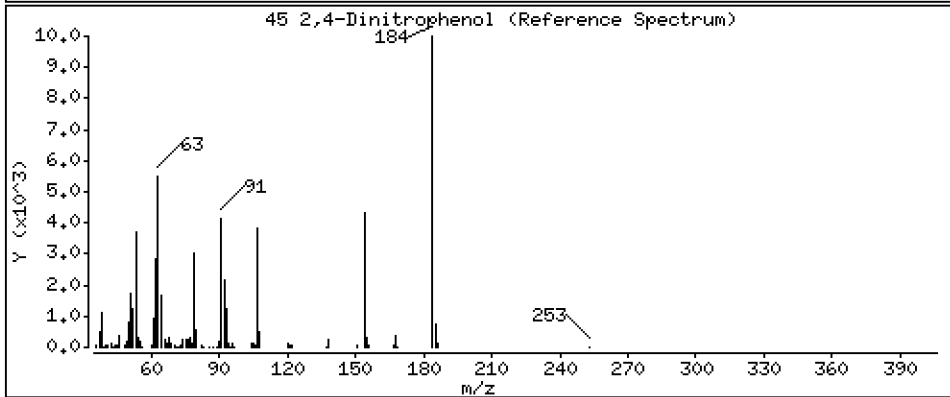
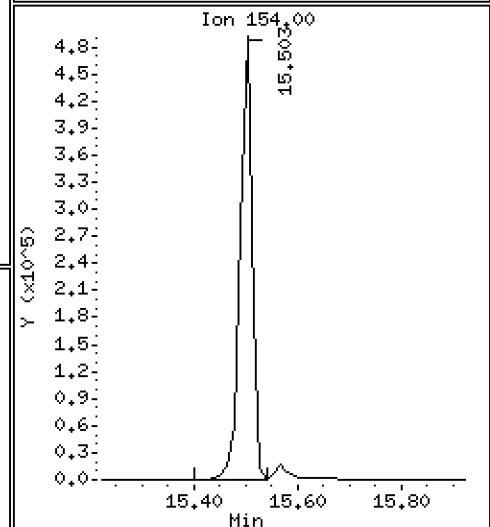
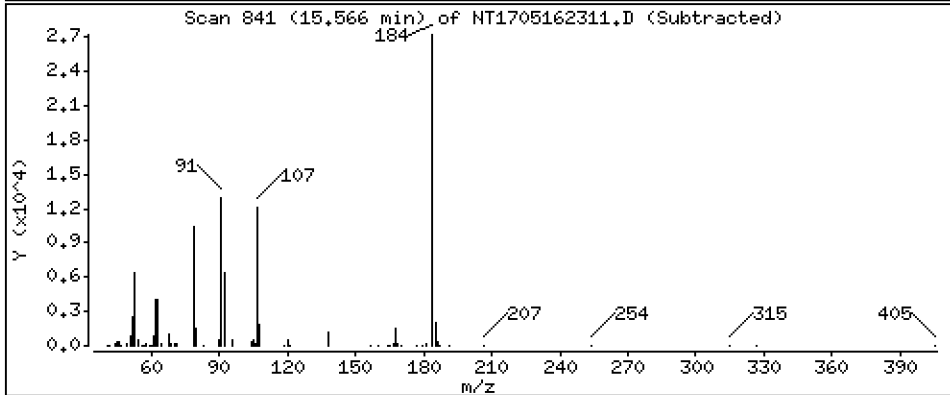
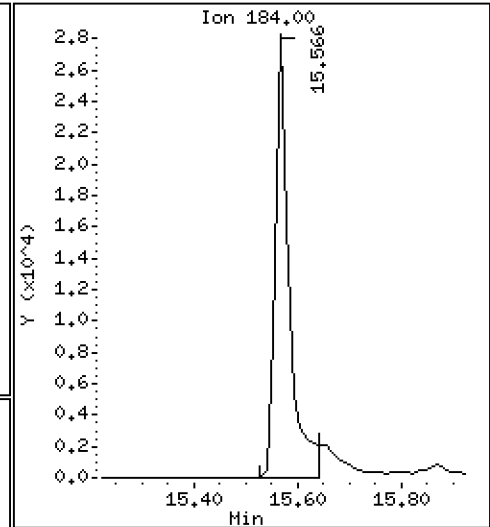
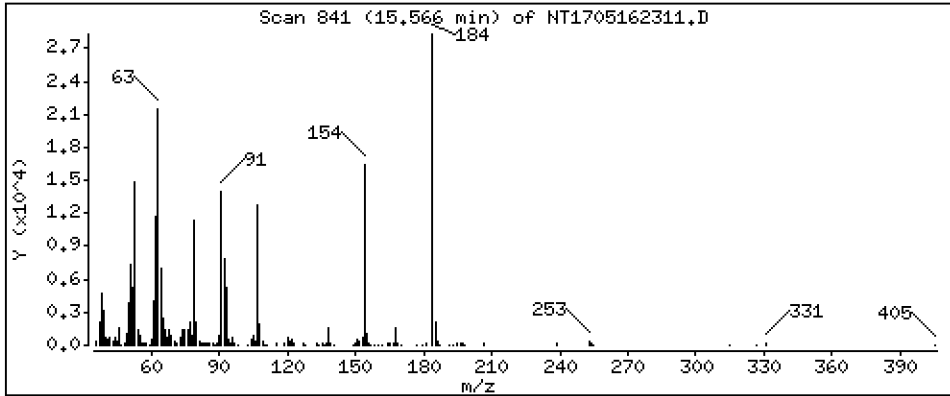
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,119 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

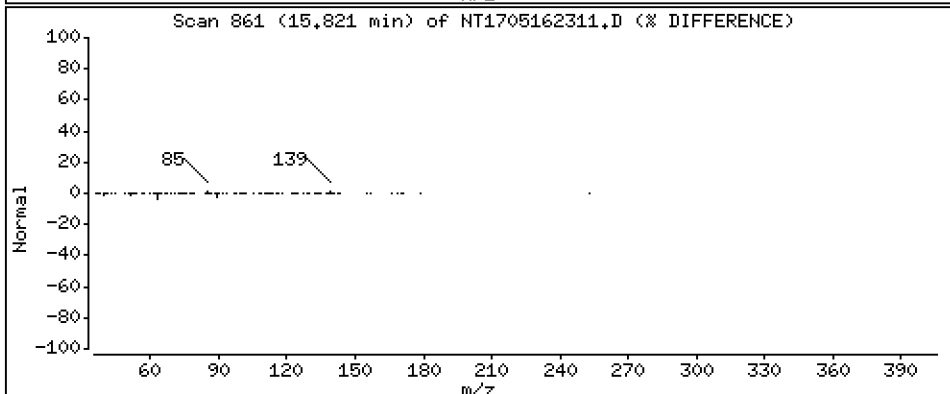
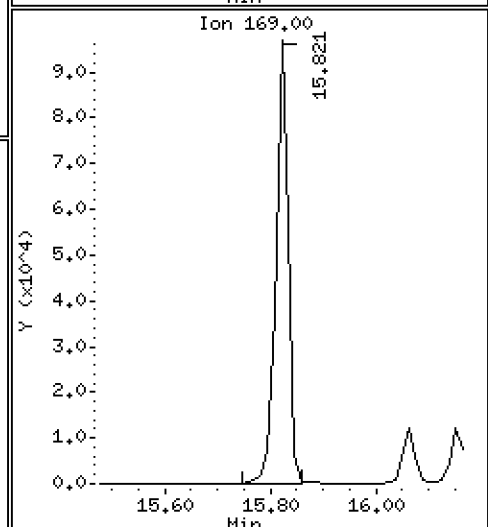
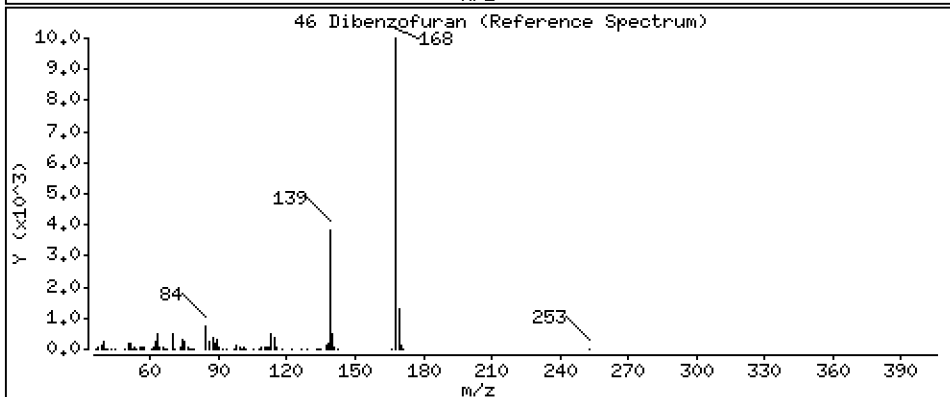
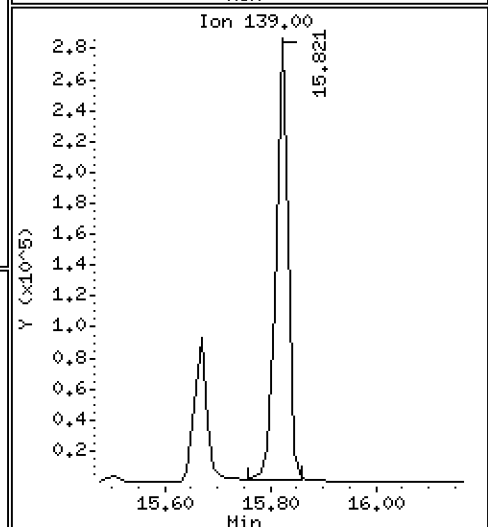
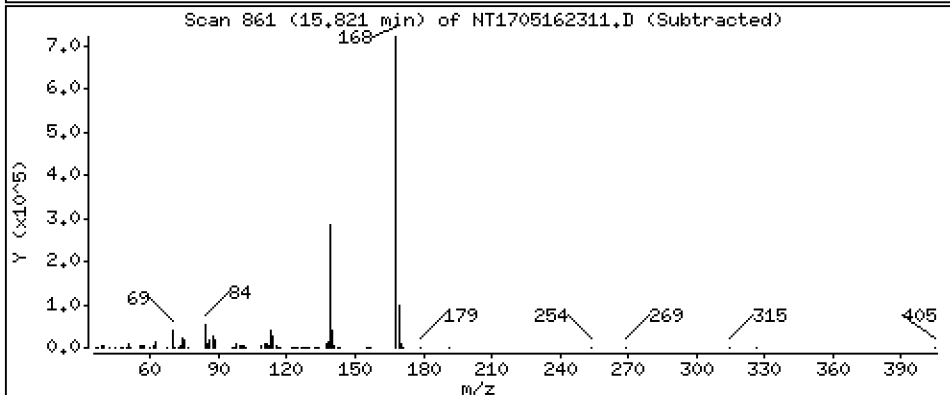
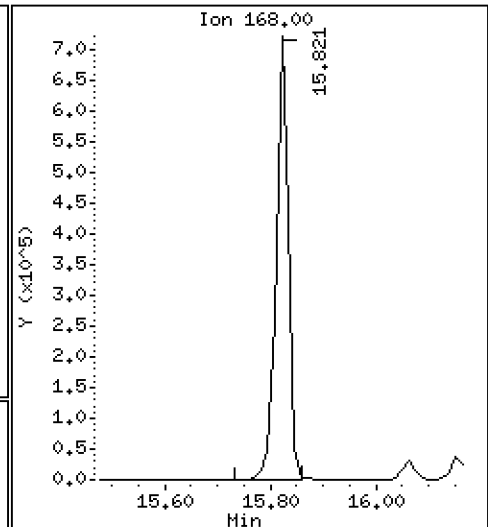
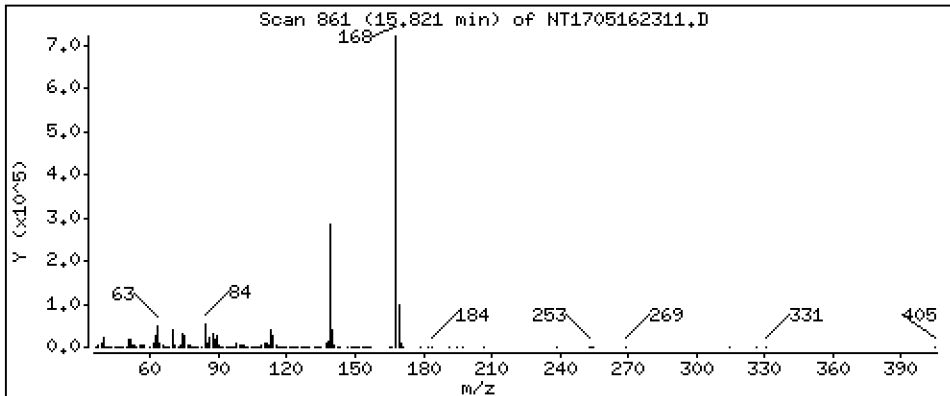
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,163 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

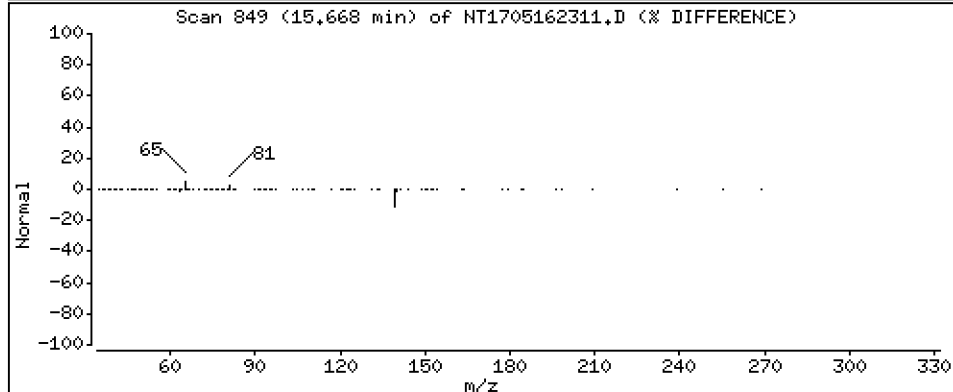
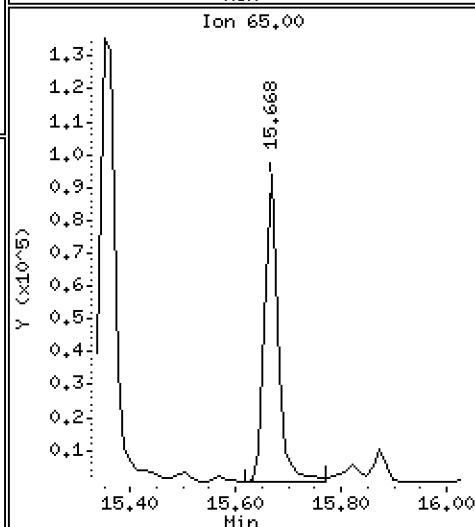
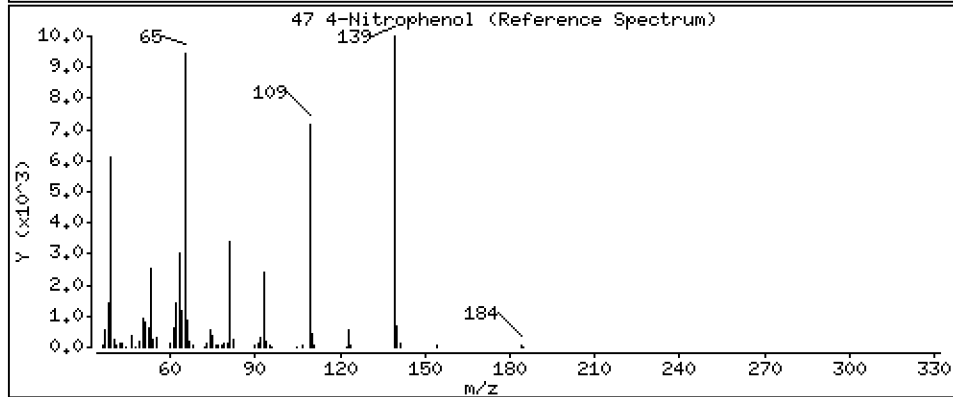
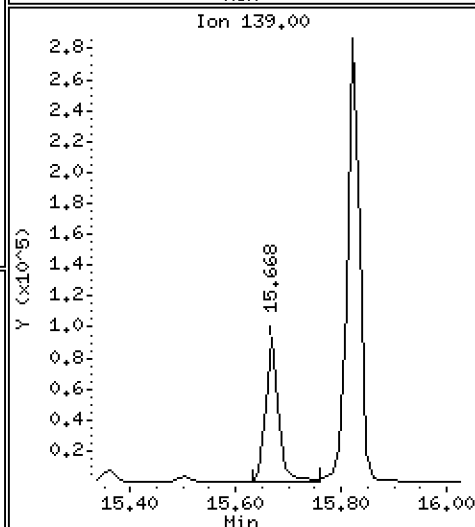
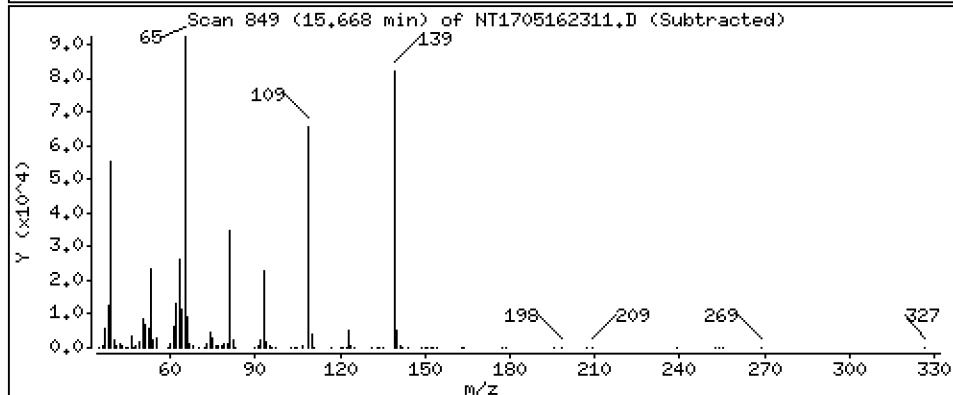
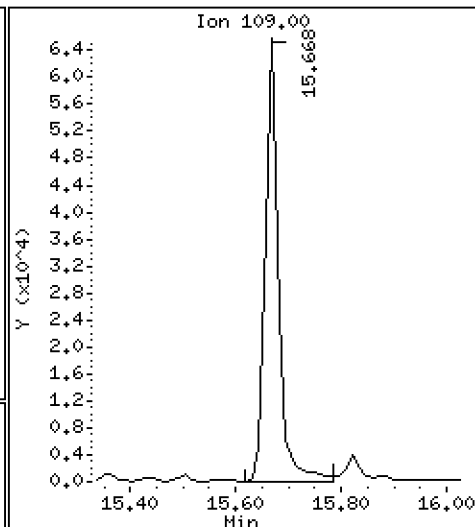
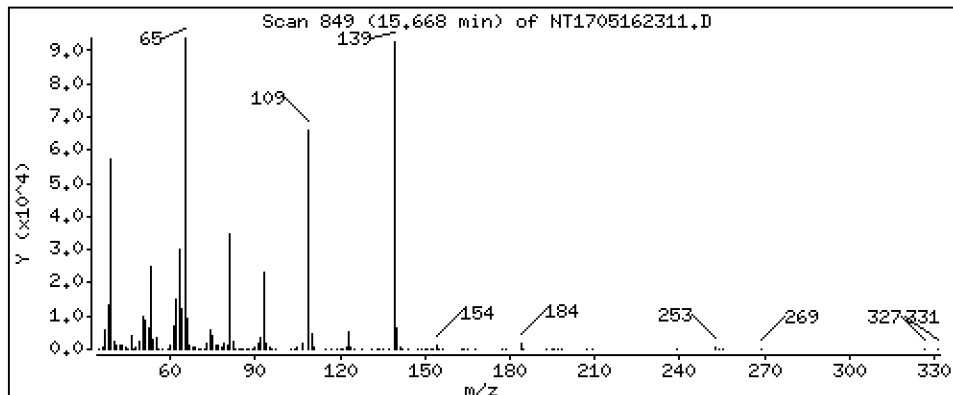
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,504 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

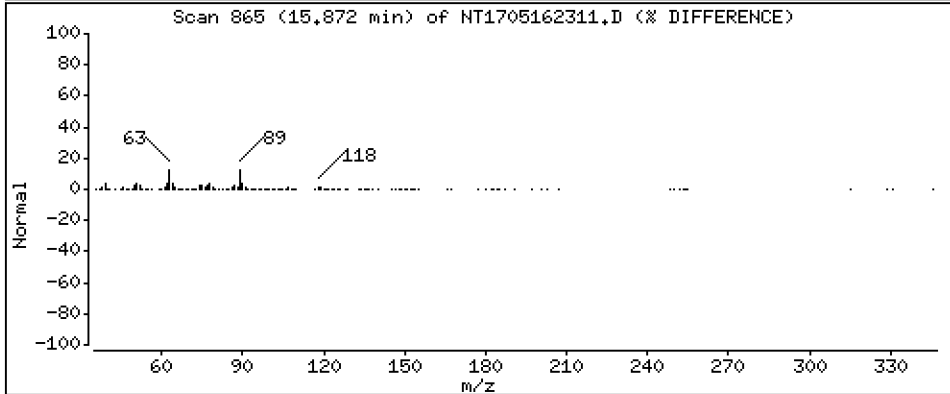
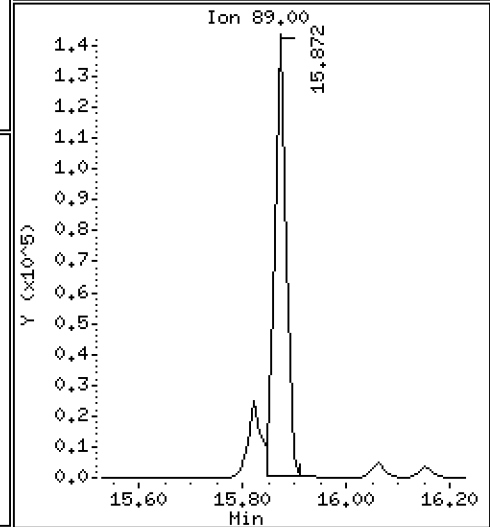
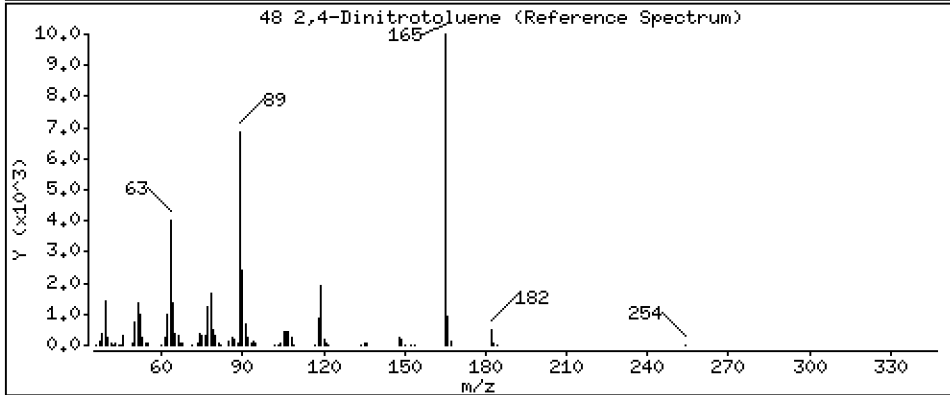
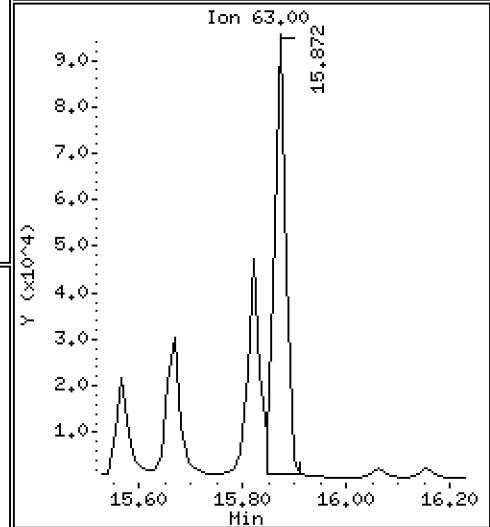
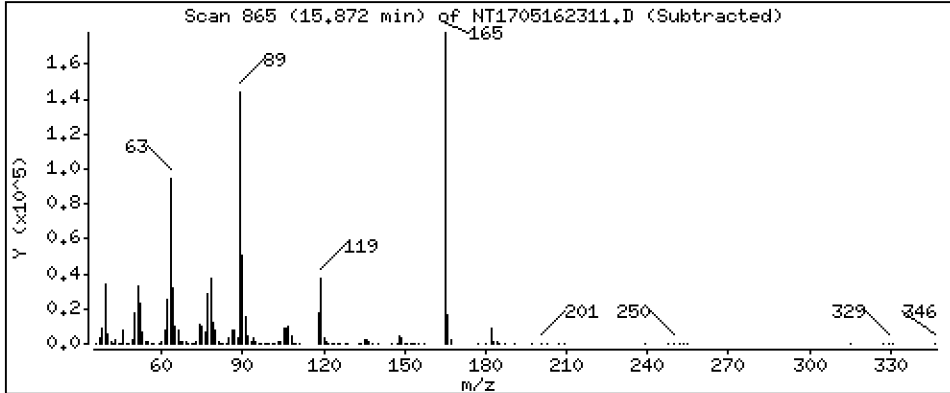
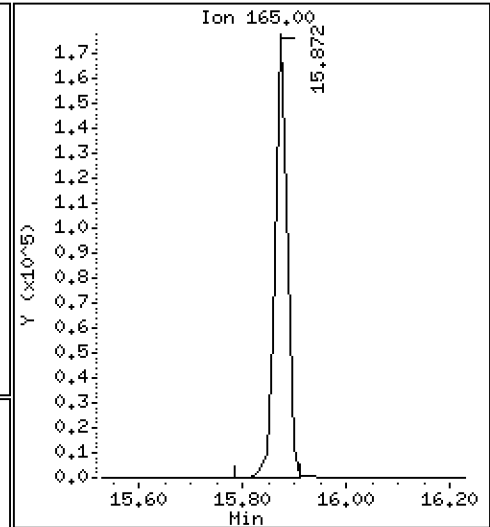
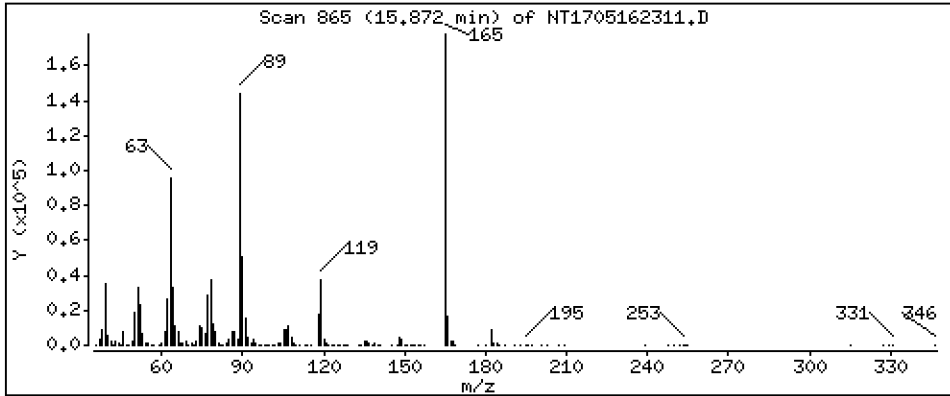
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 5.269 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

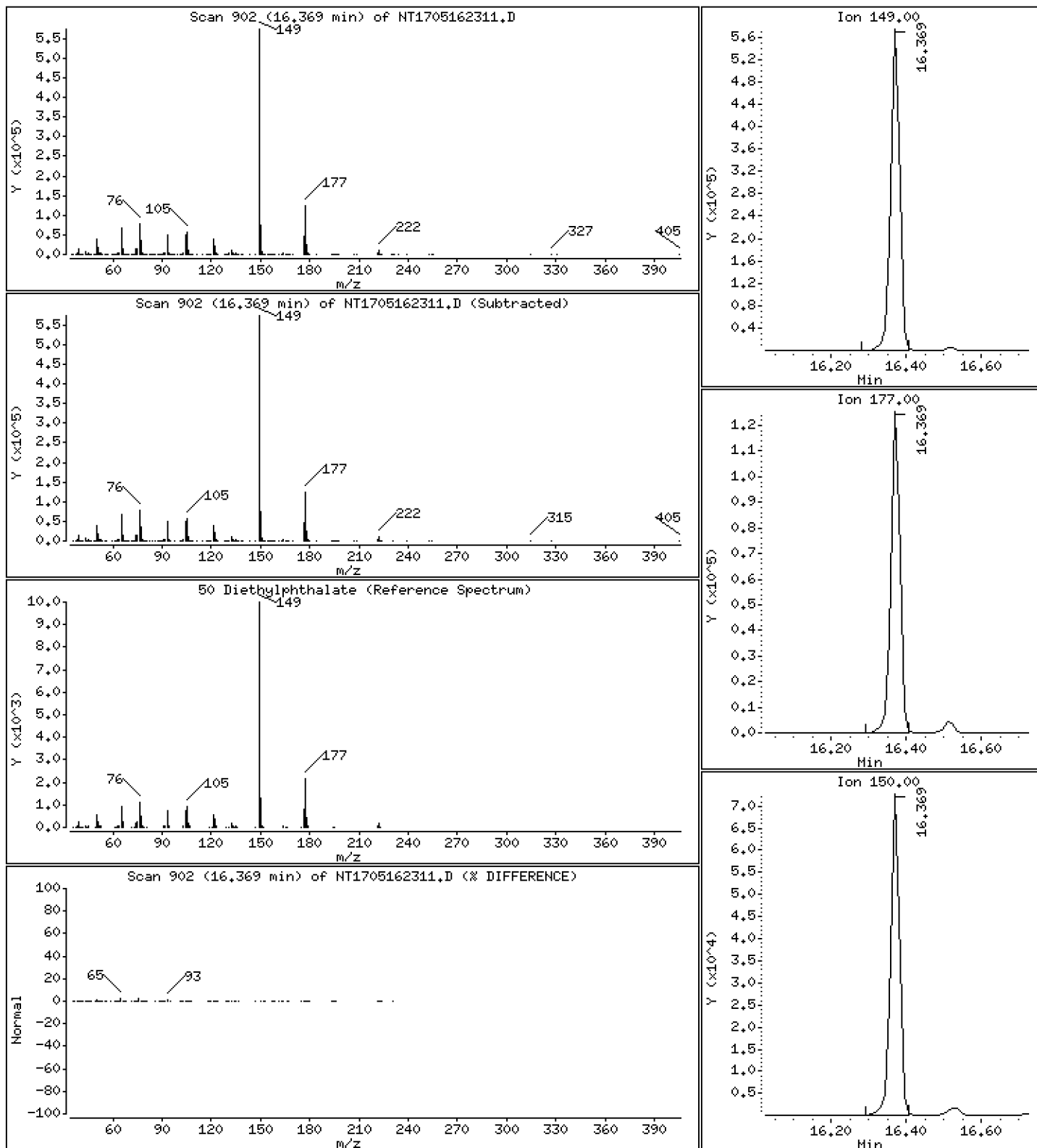
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,494 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

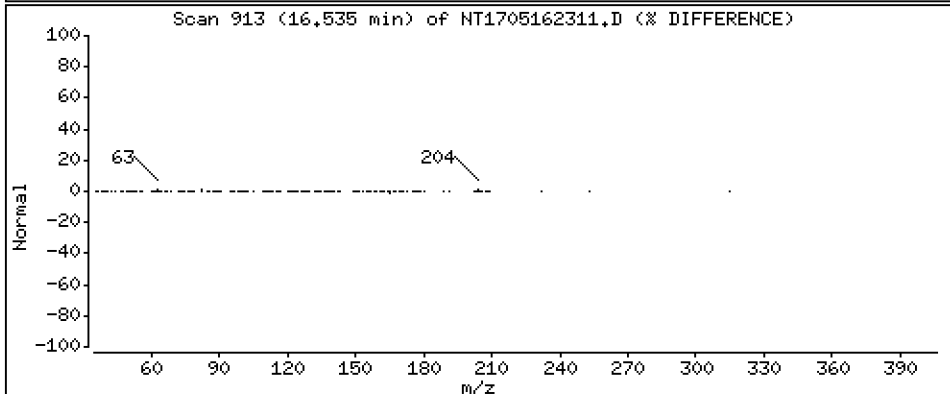
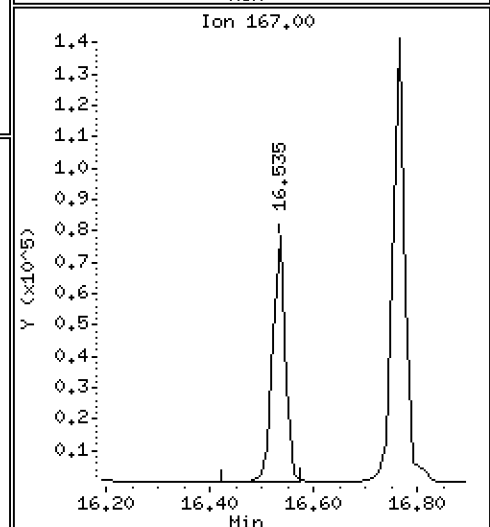
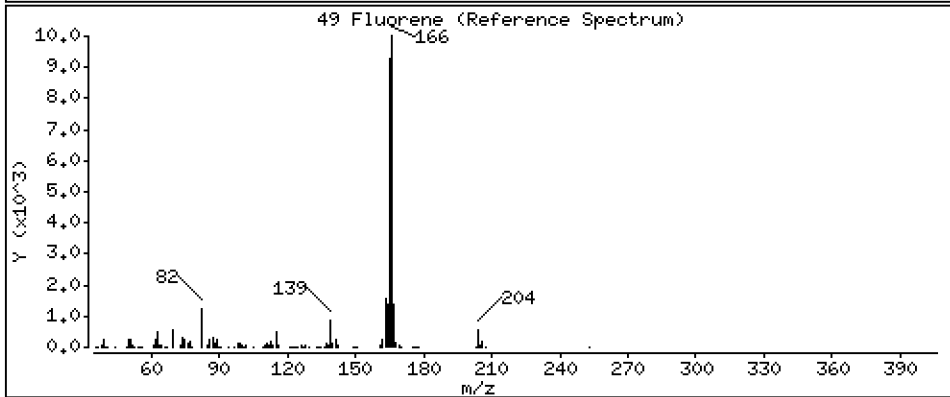
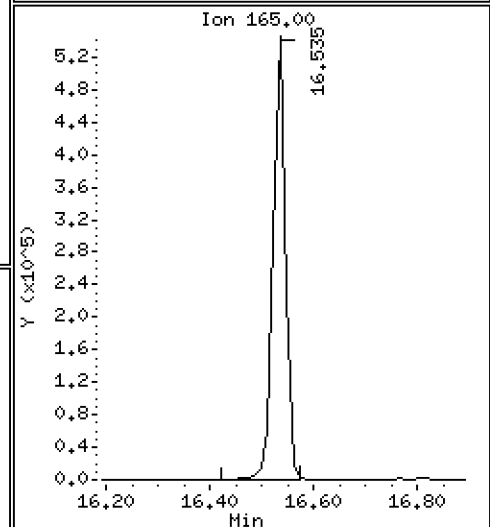
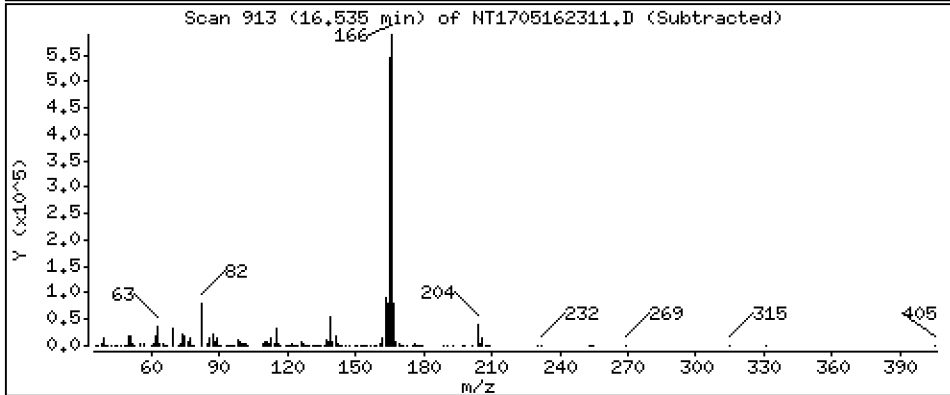
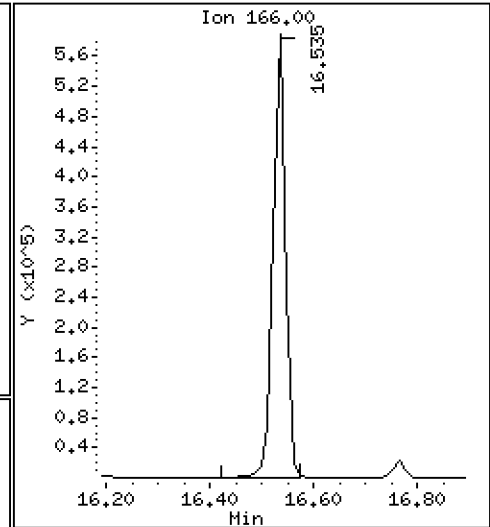
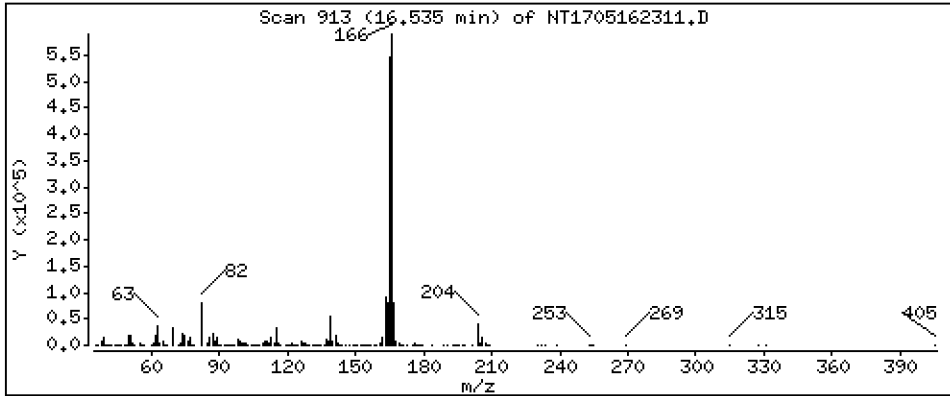
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 5,398 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

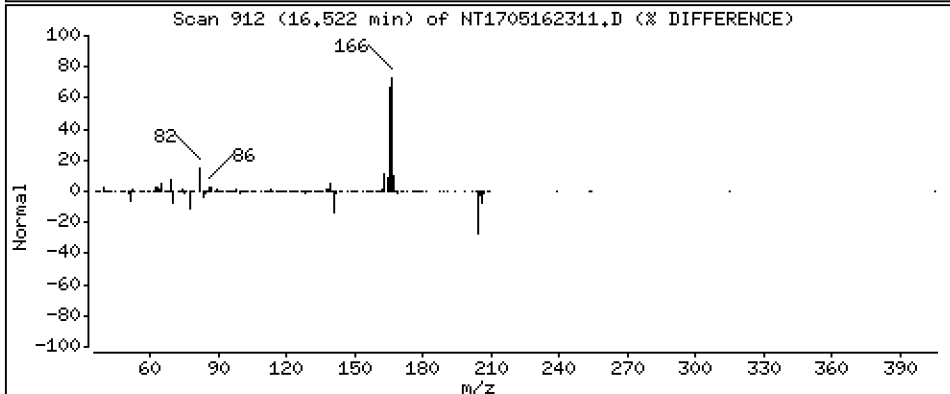
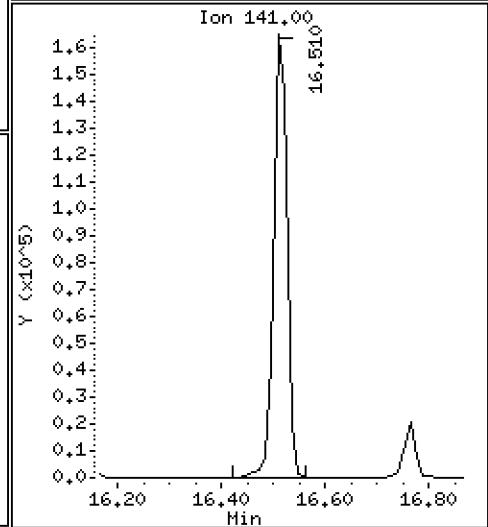
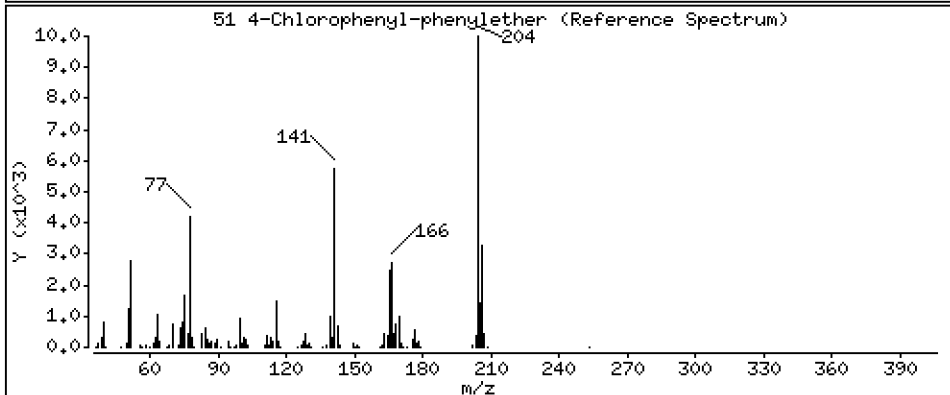
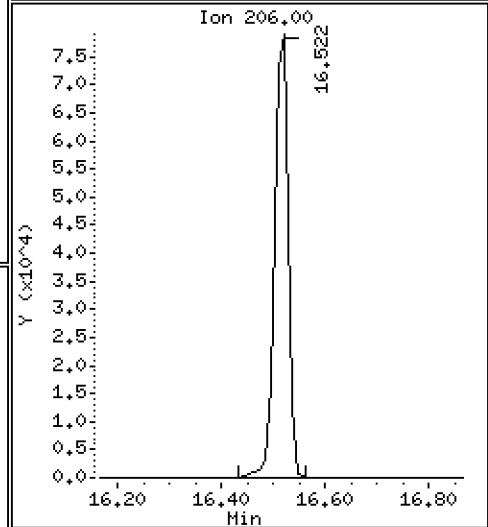
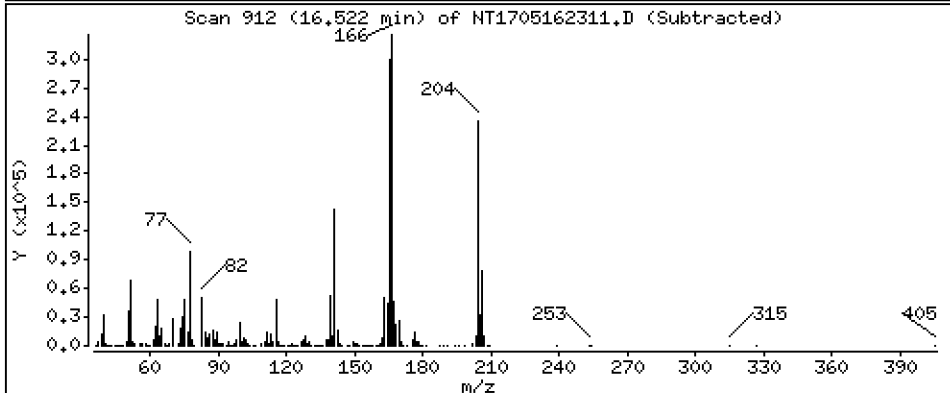
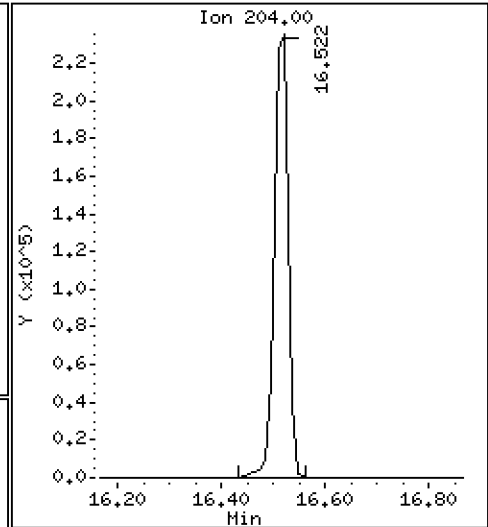
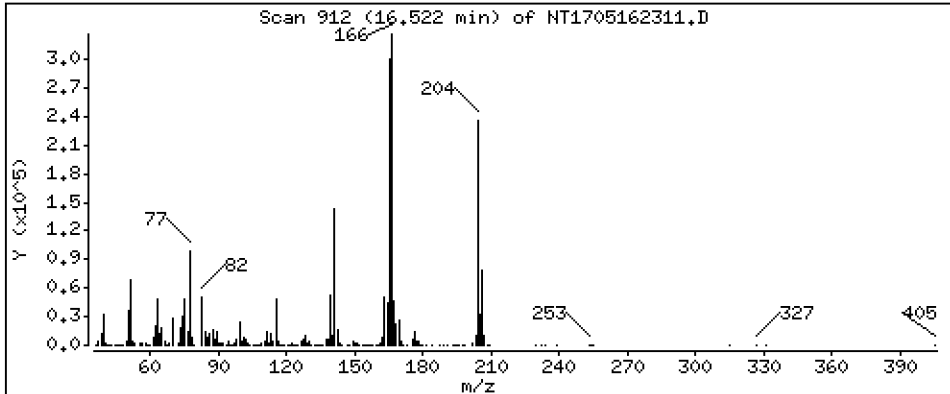
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 5,462 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

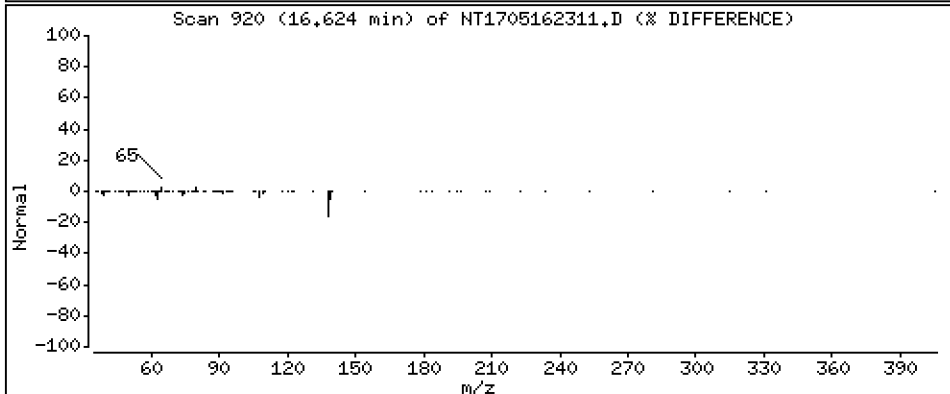
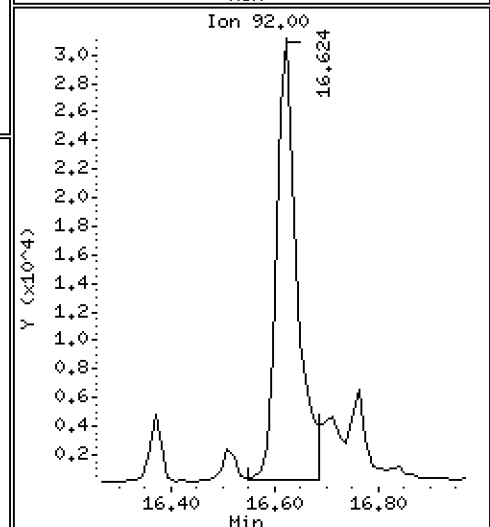
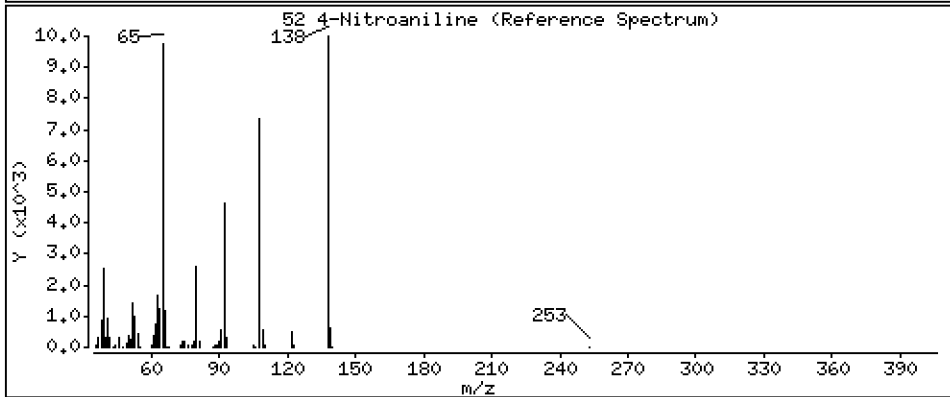
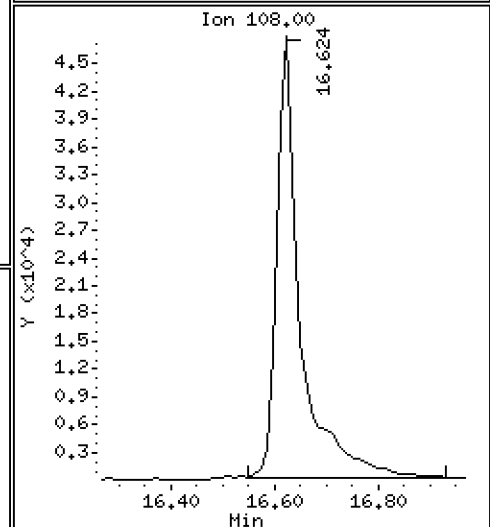
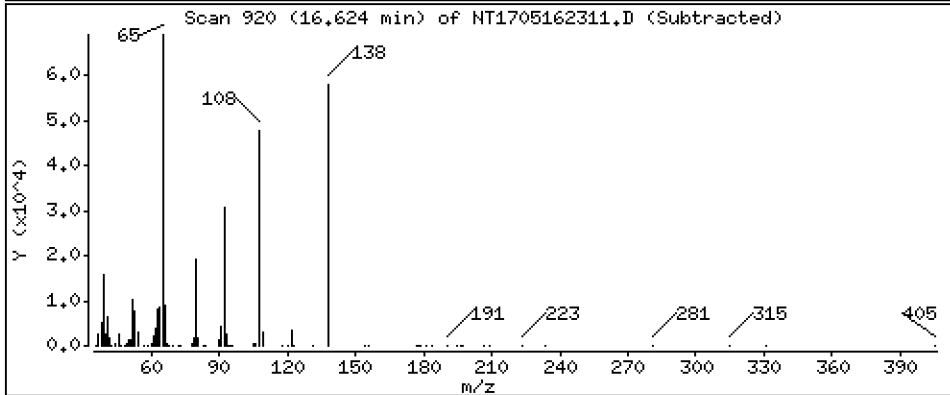
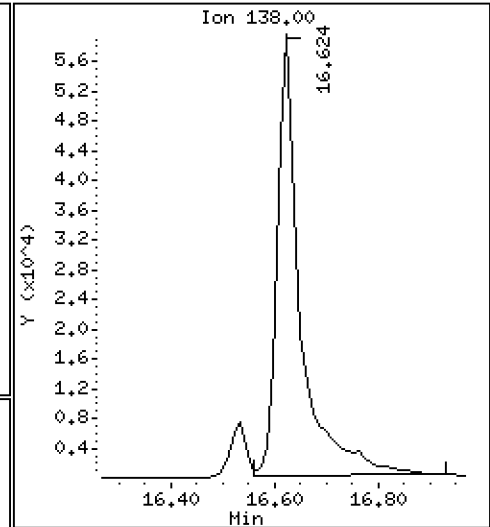
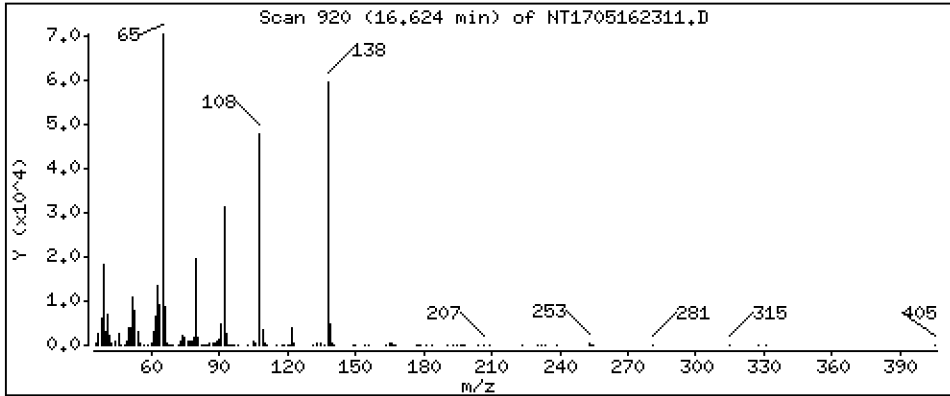
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,108 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

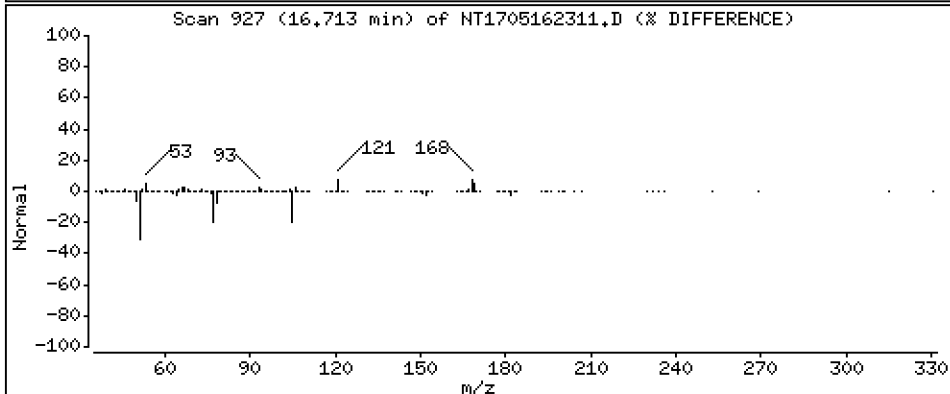
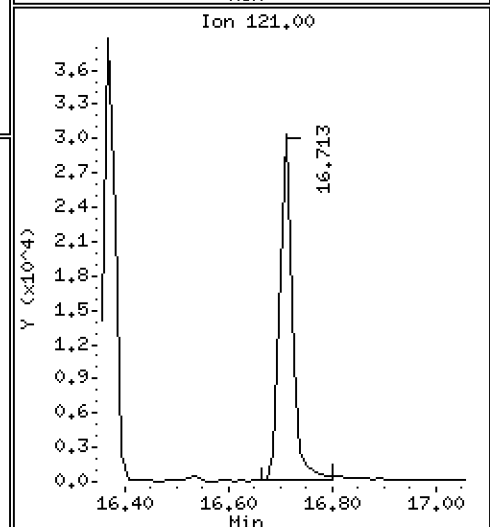
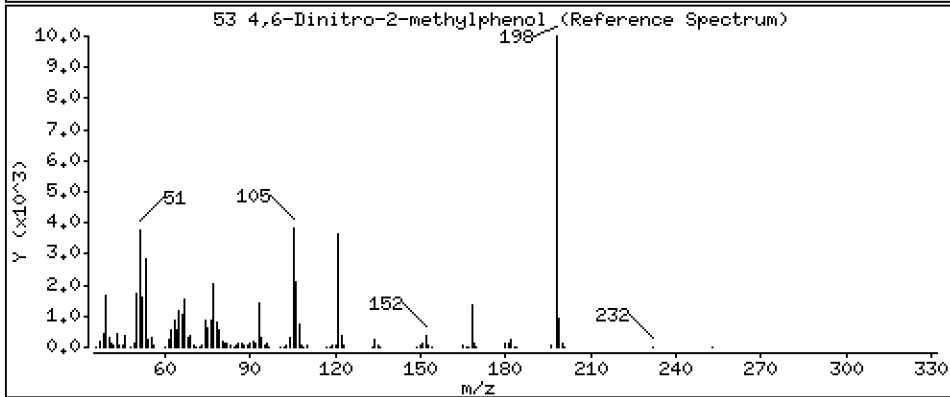
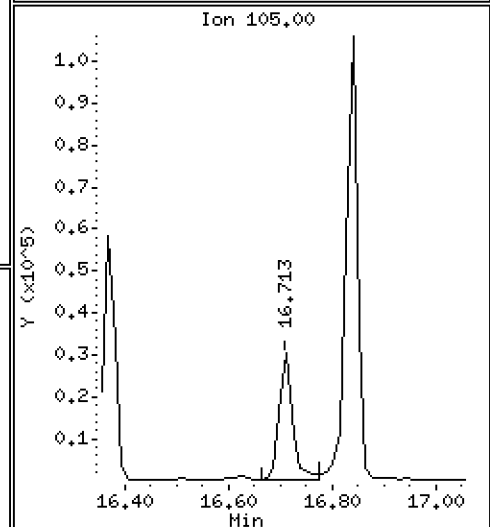
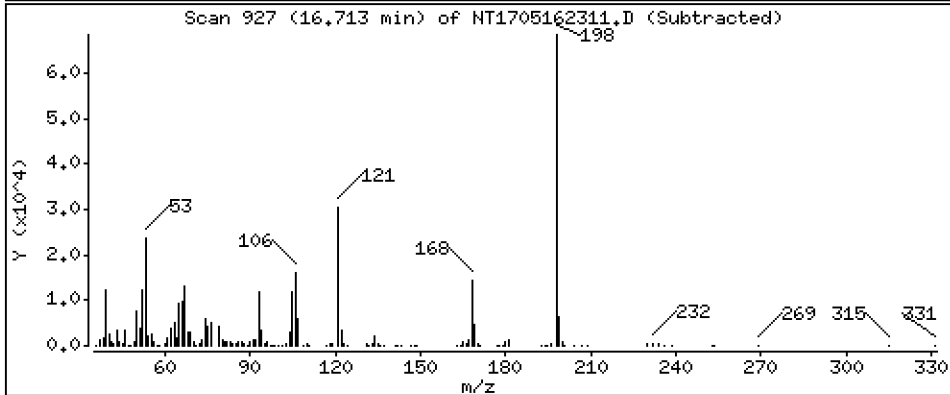
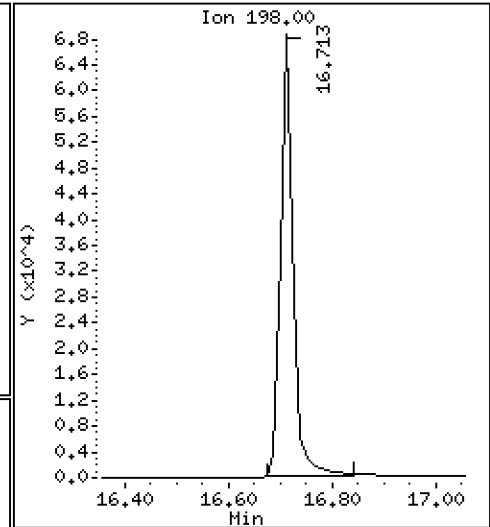
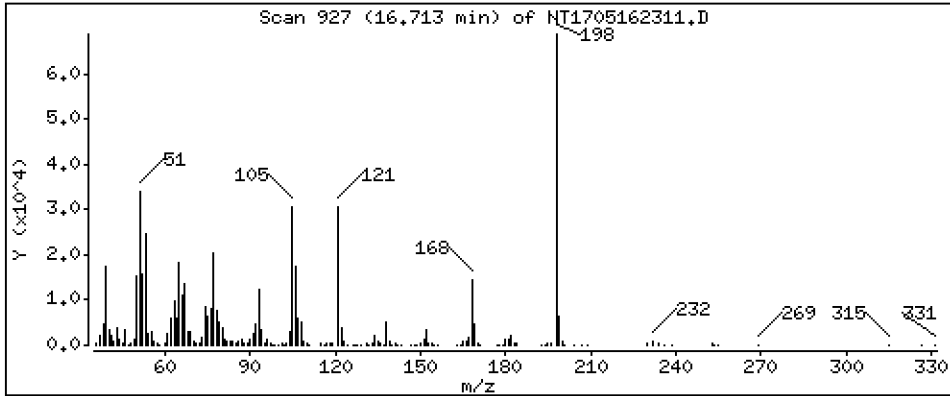
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,355 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

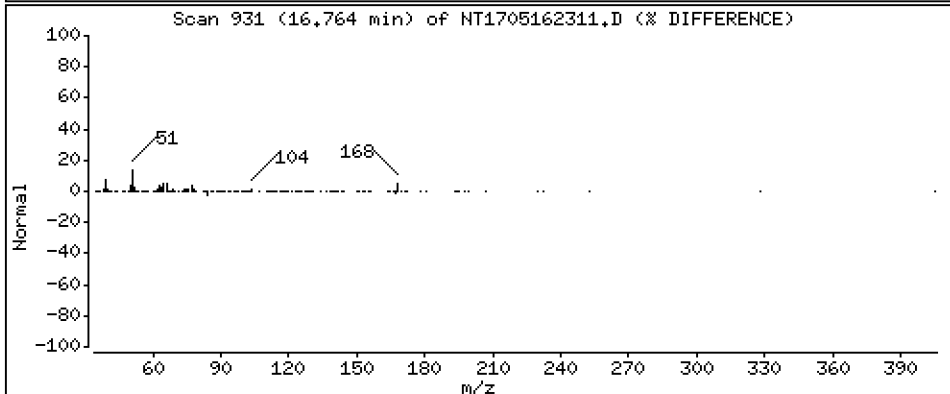
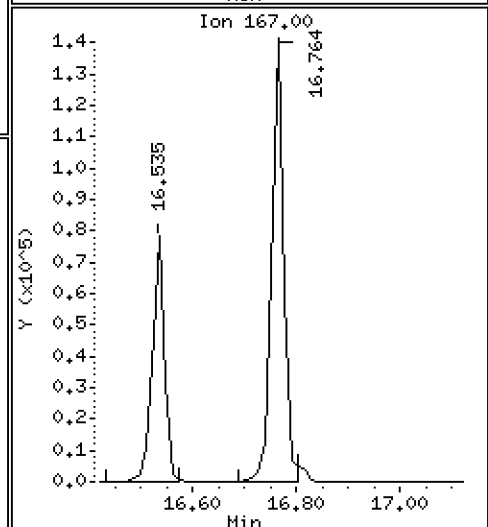
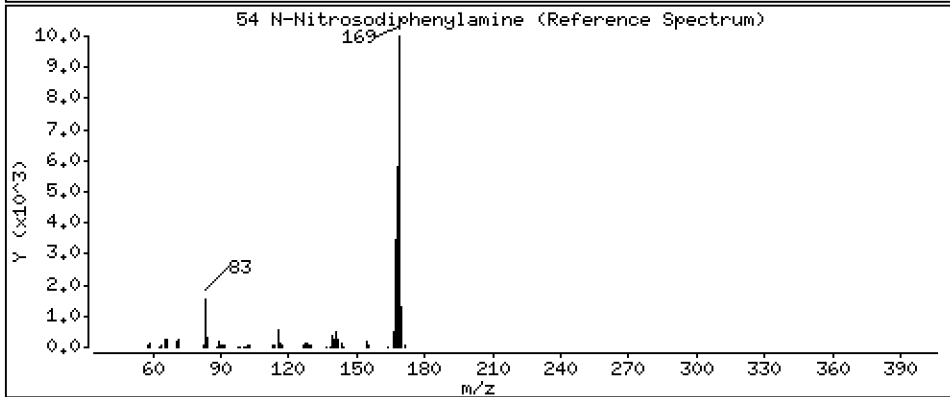
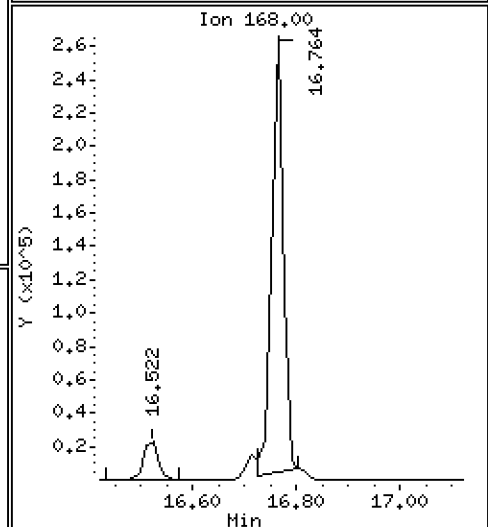
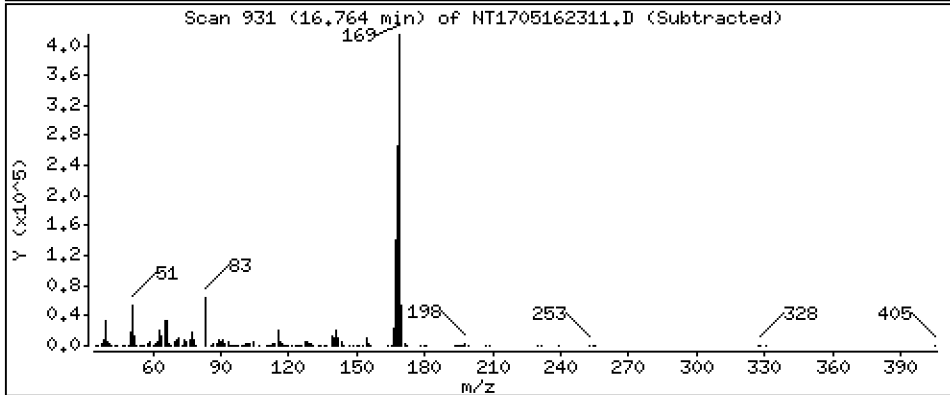
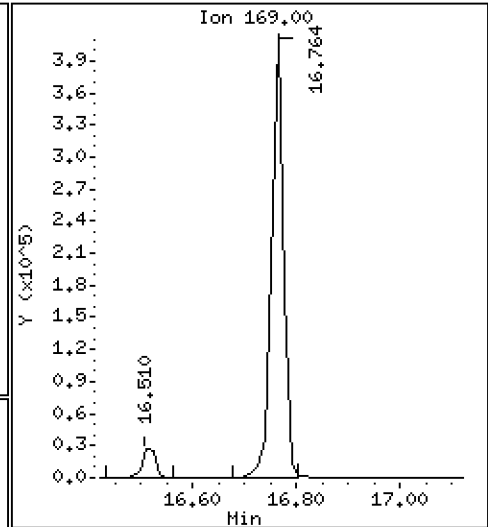
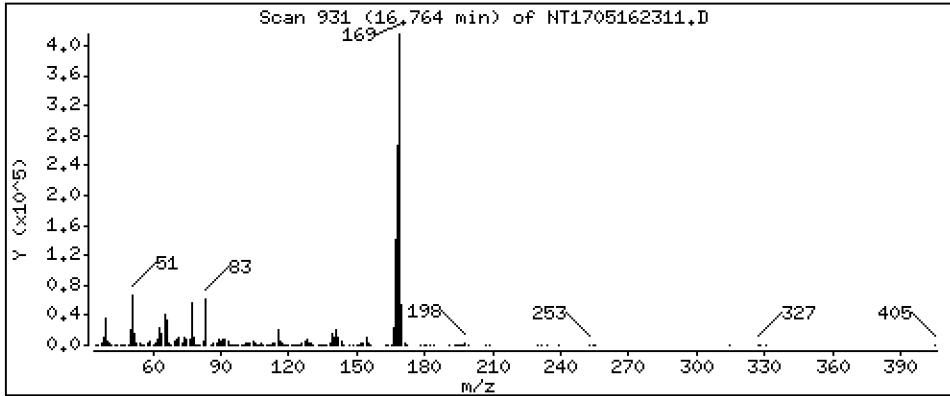
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,470 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

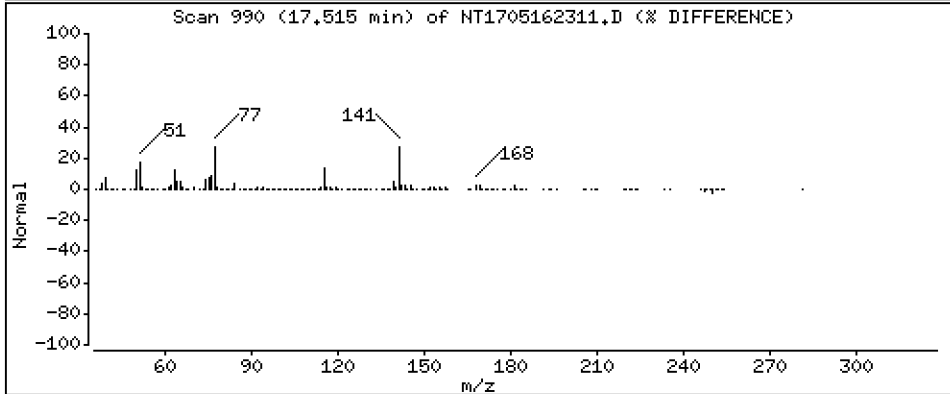
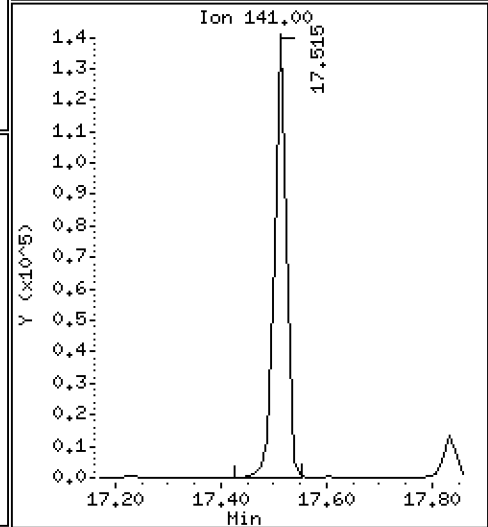
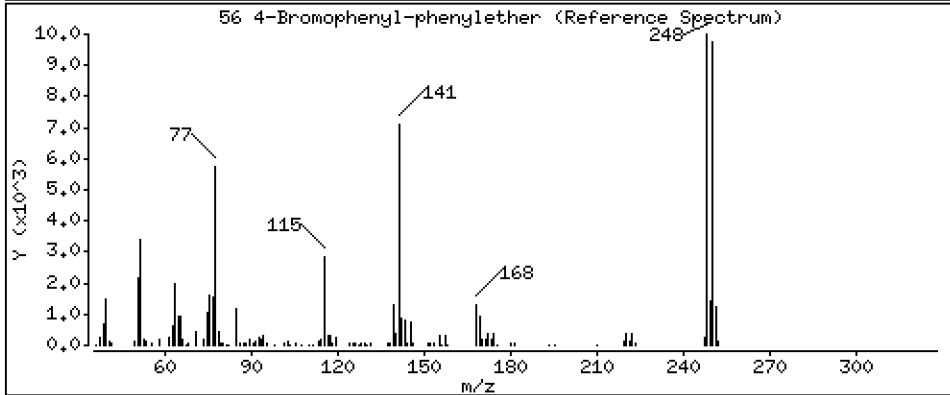
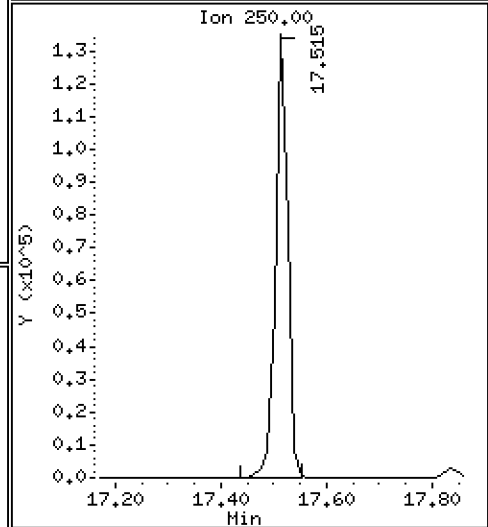
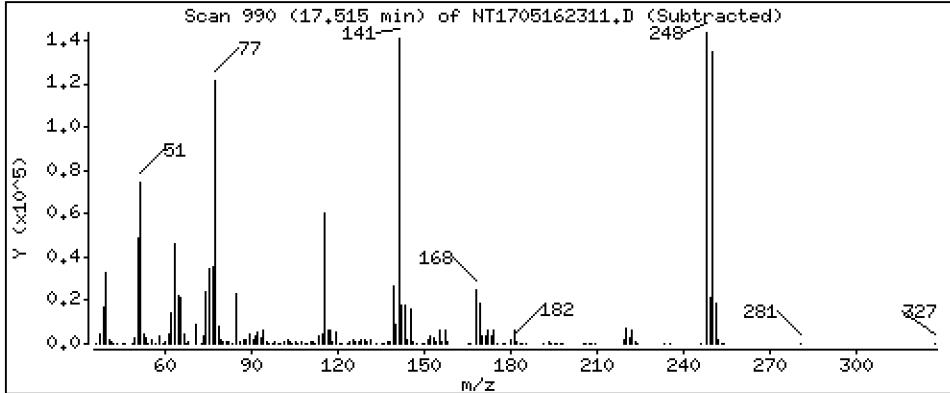
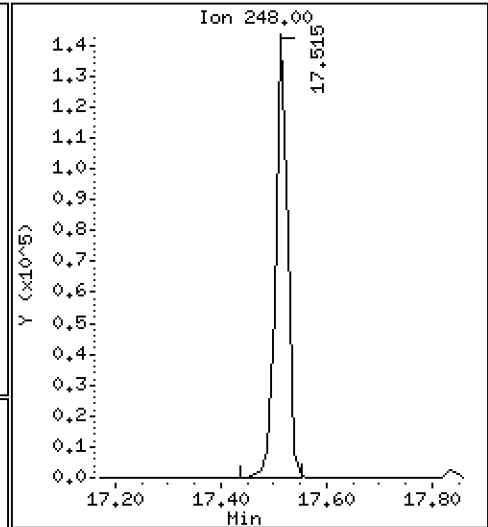
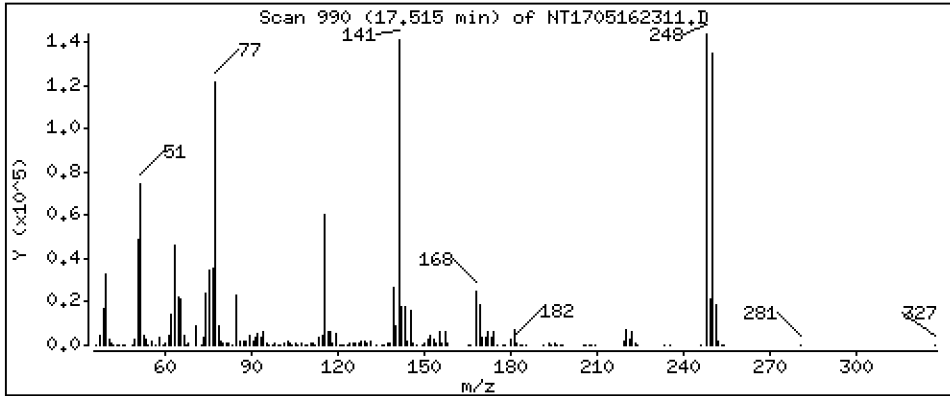
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 5,420 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

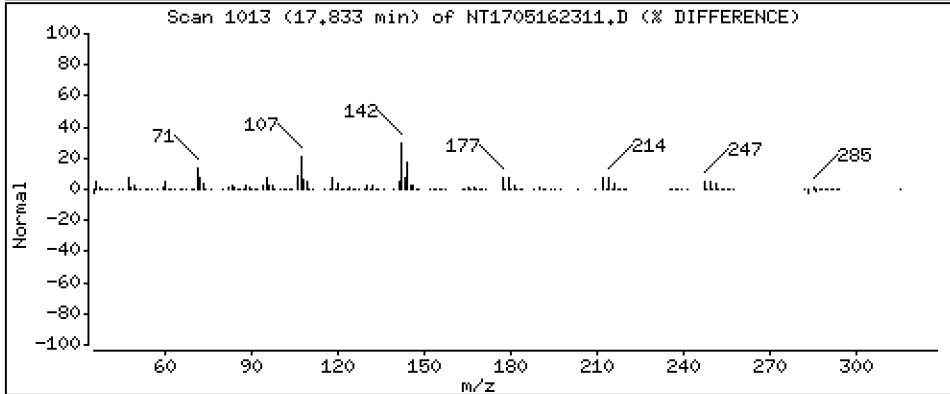
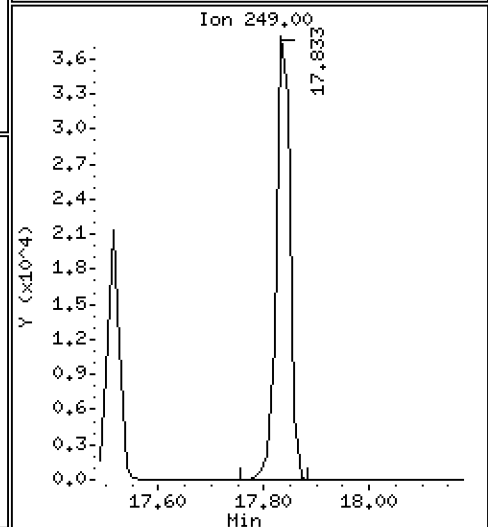
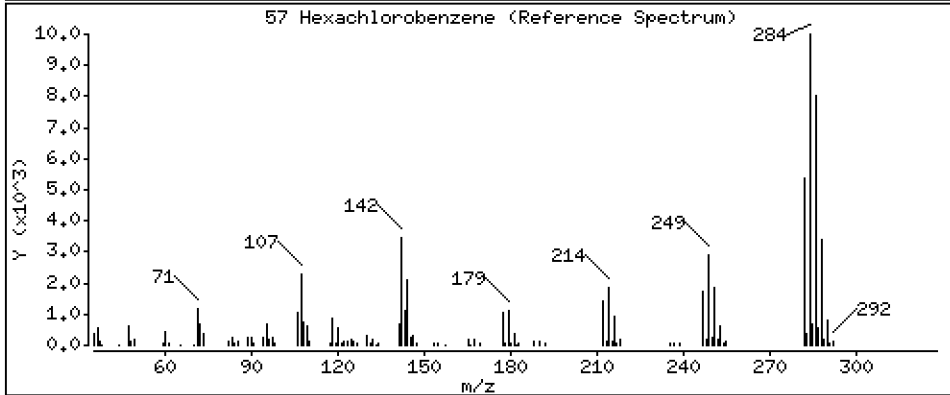
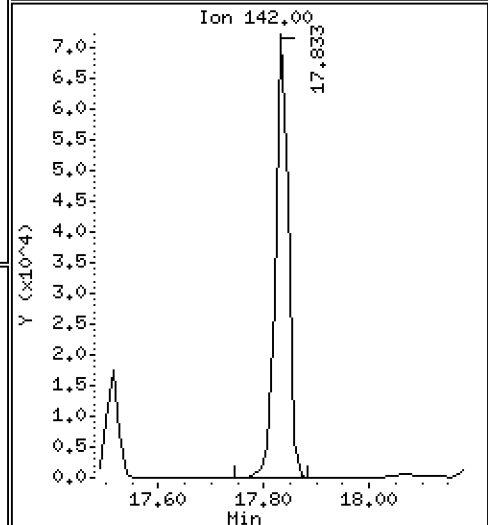
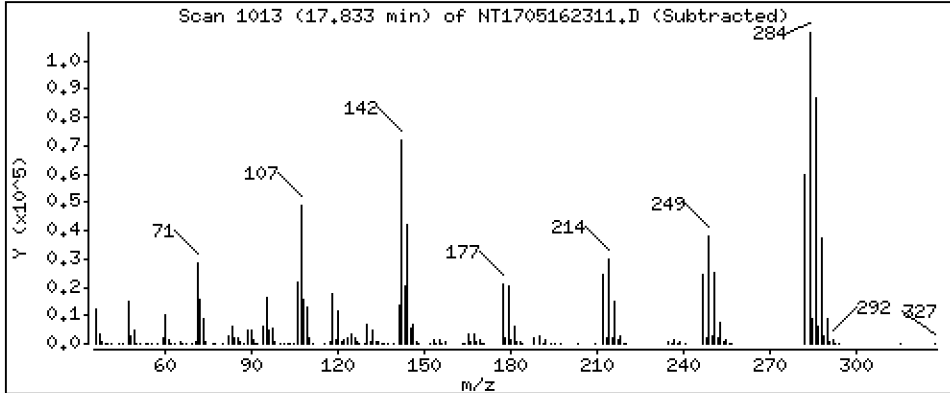
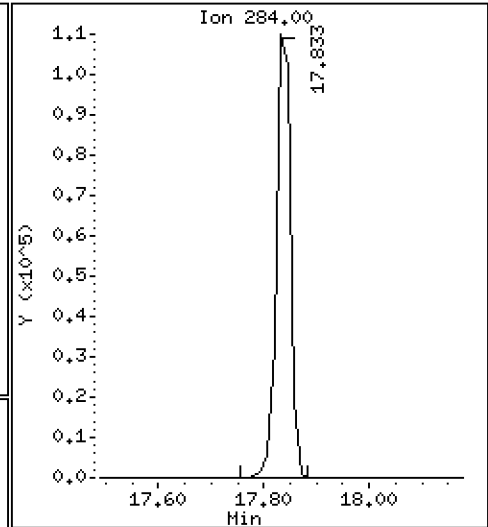
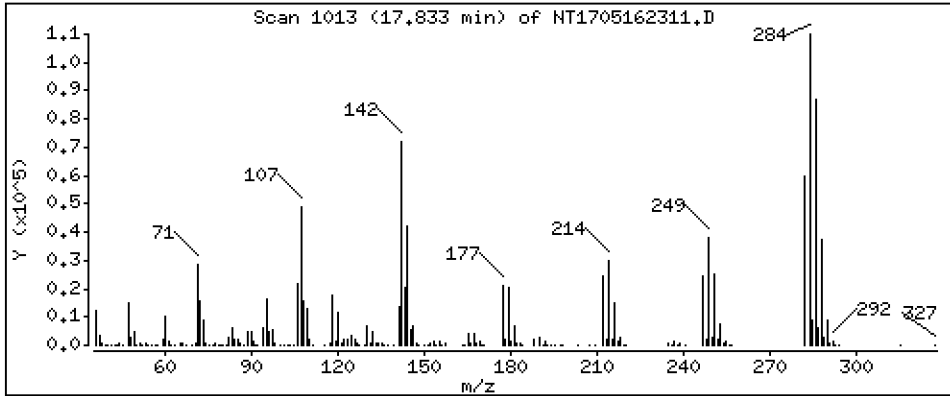
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,913 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

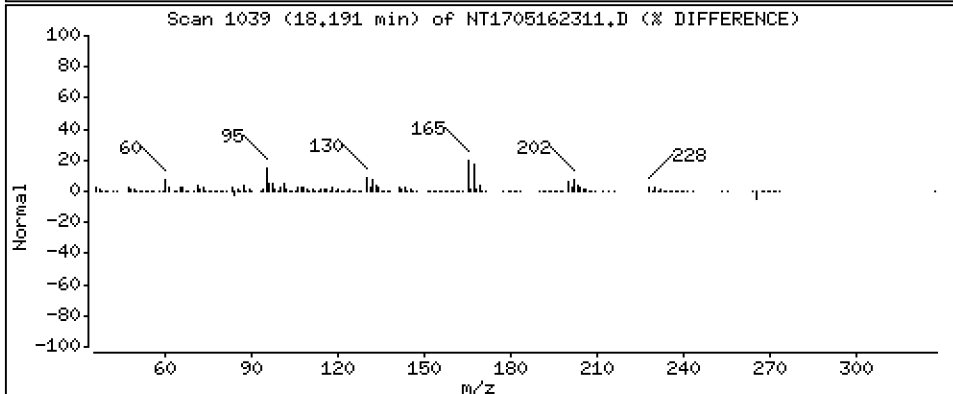
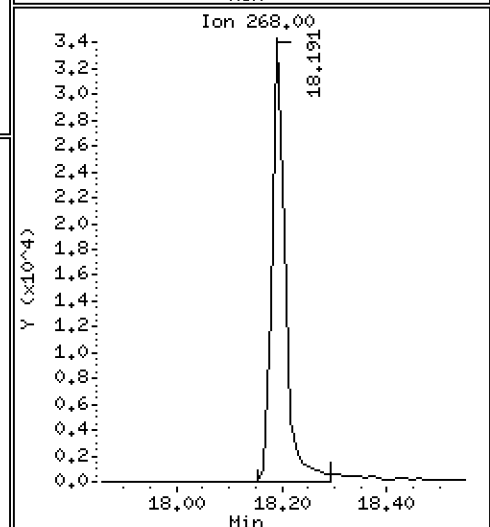
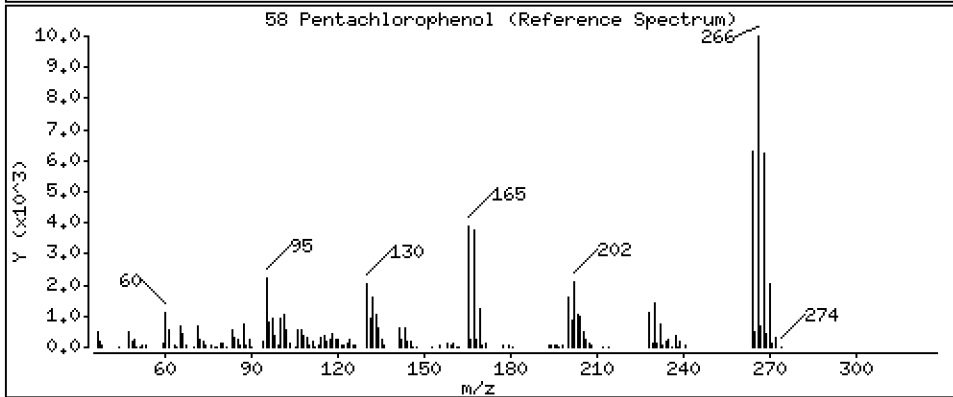
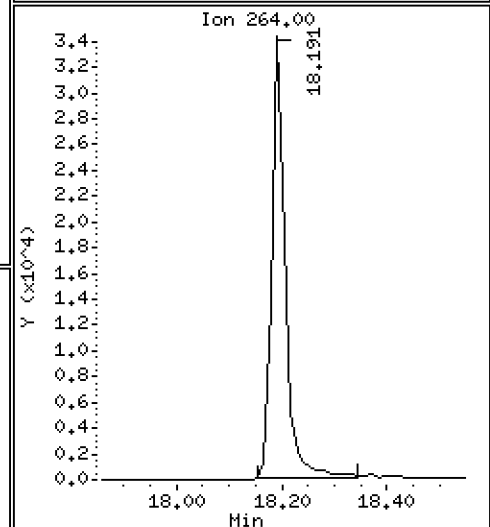
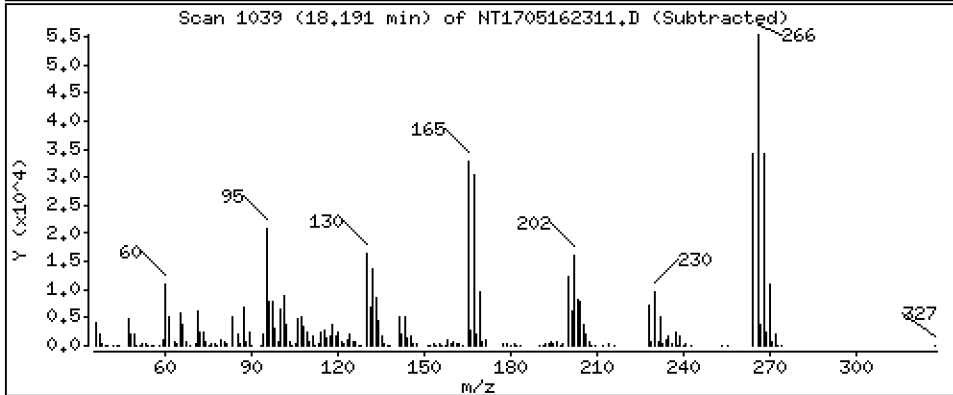
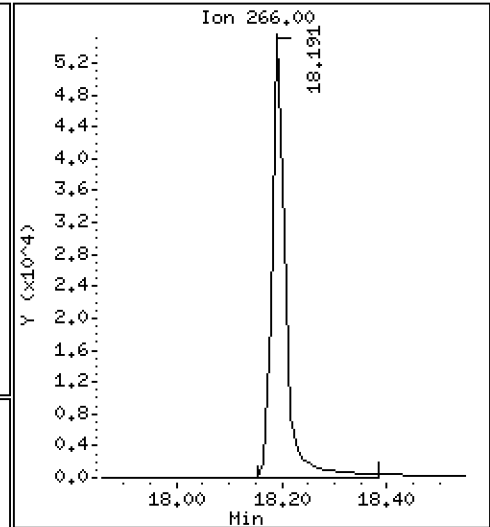
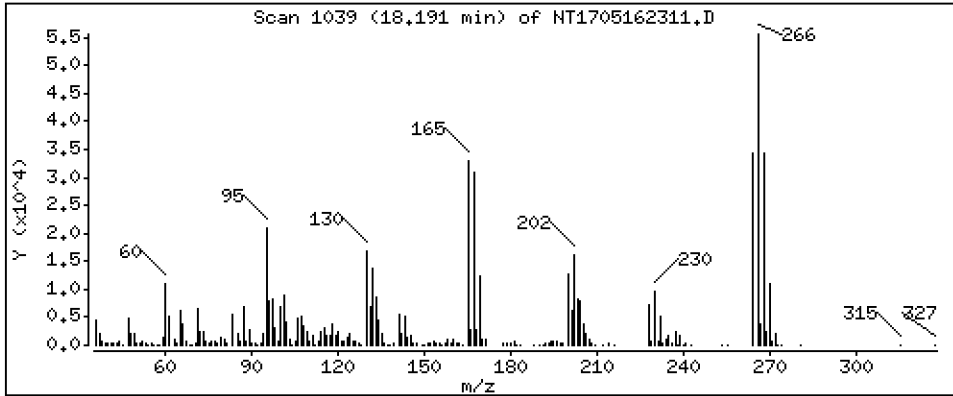
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

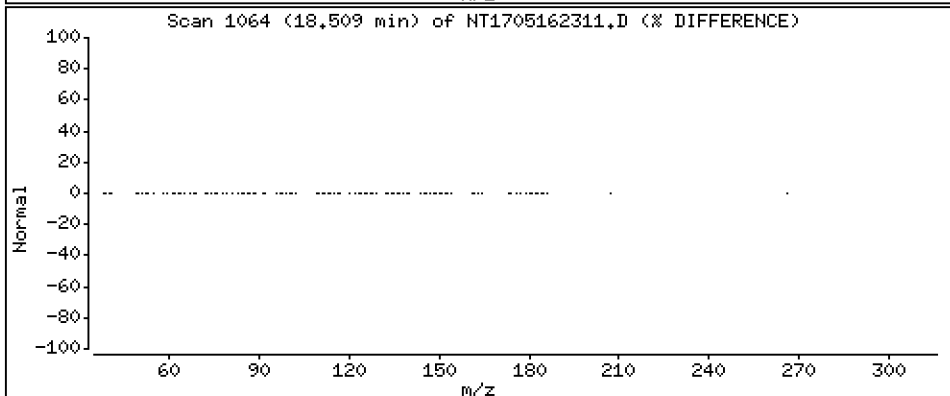
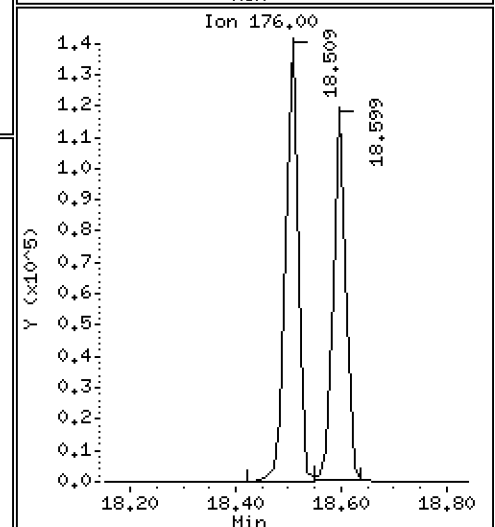
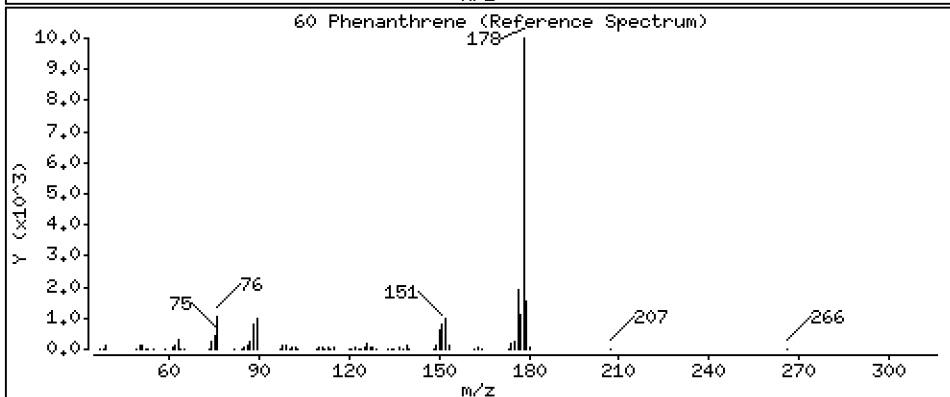
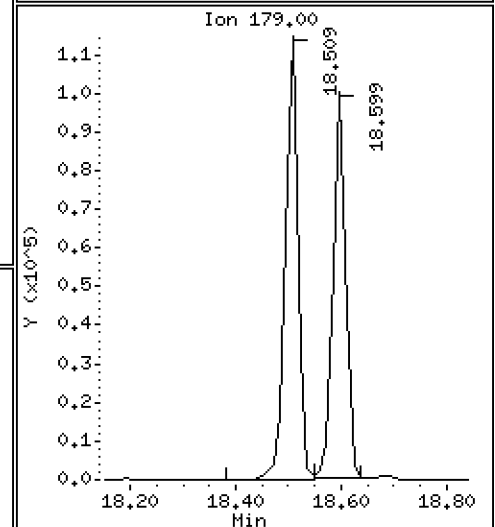
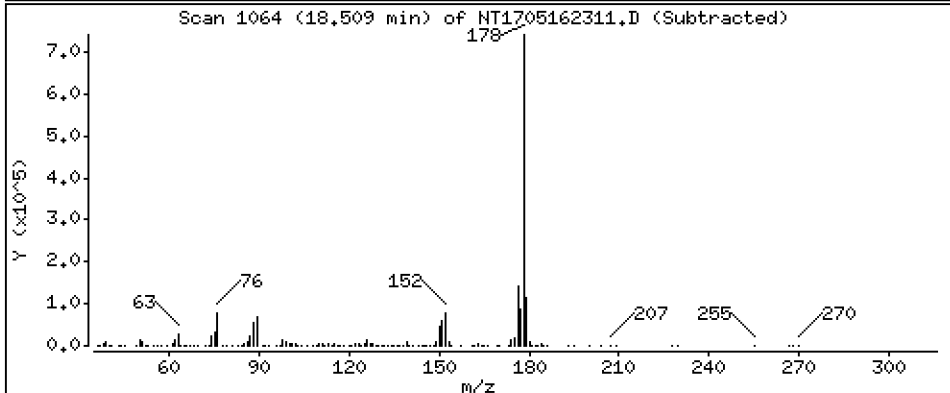
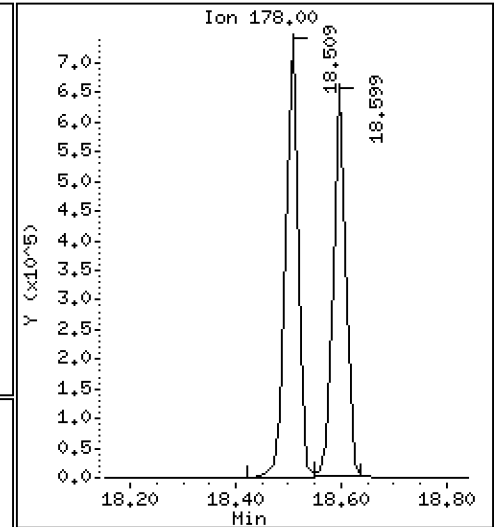
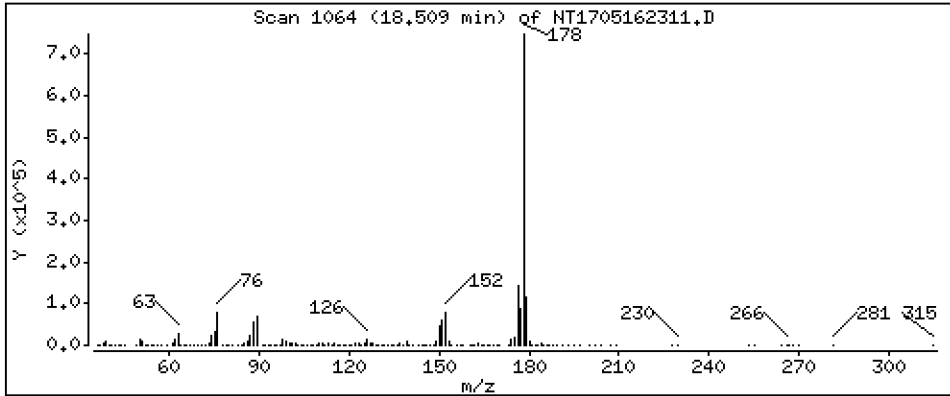
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,039 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

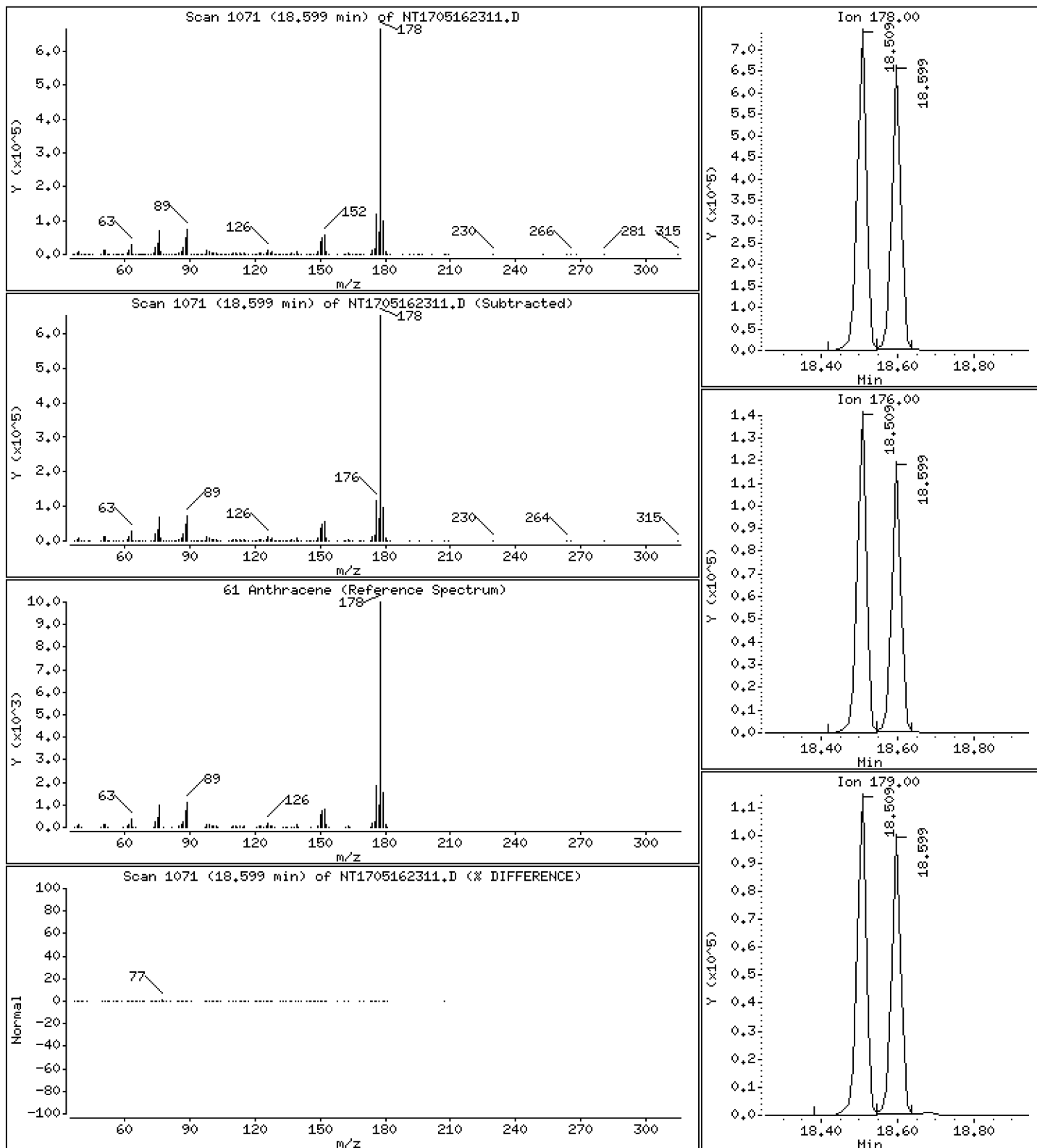
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,530 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

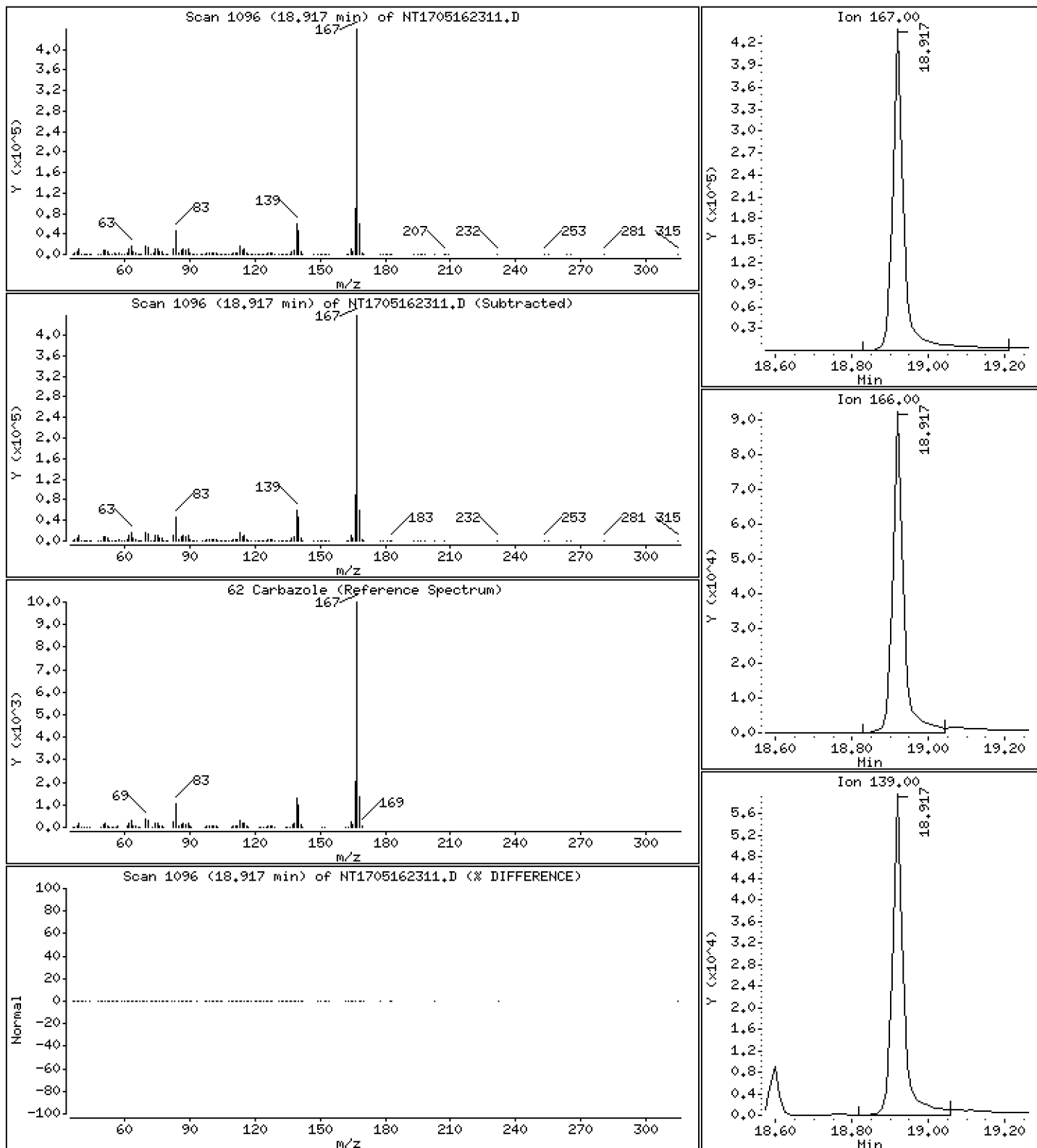
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,938 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

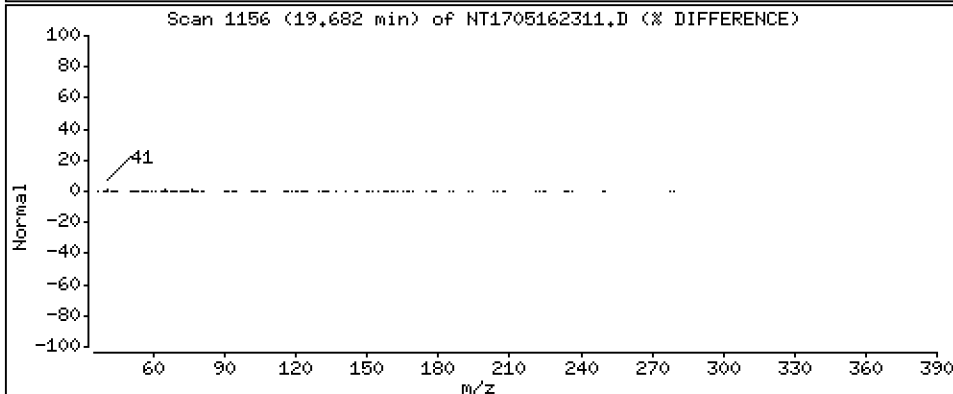
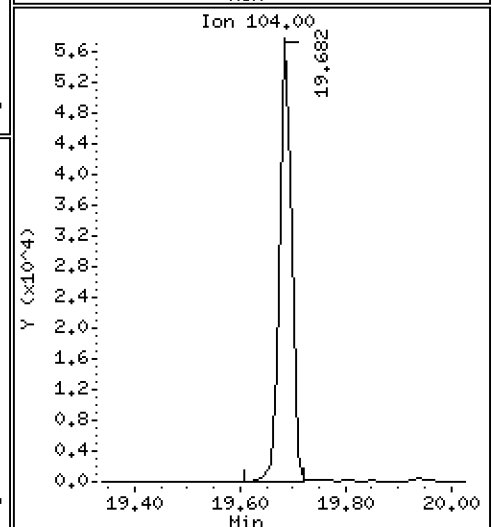
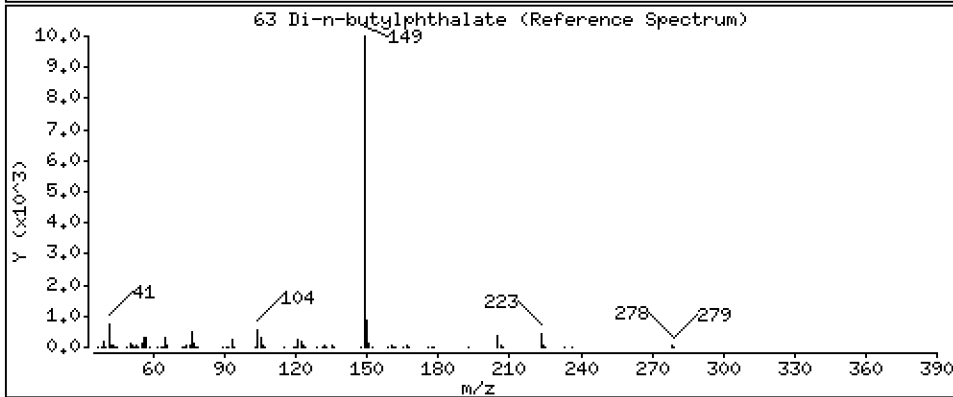
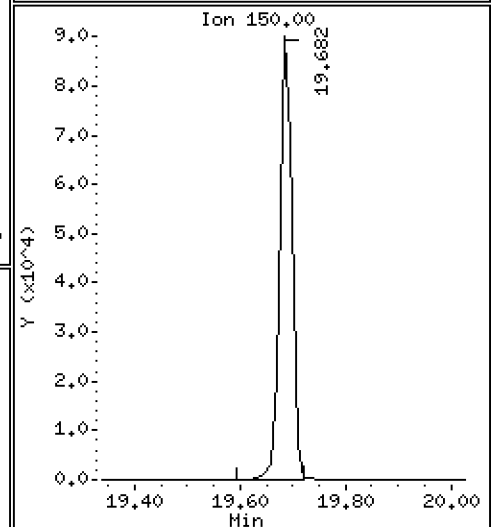
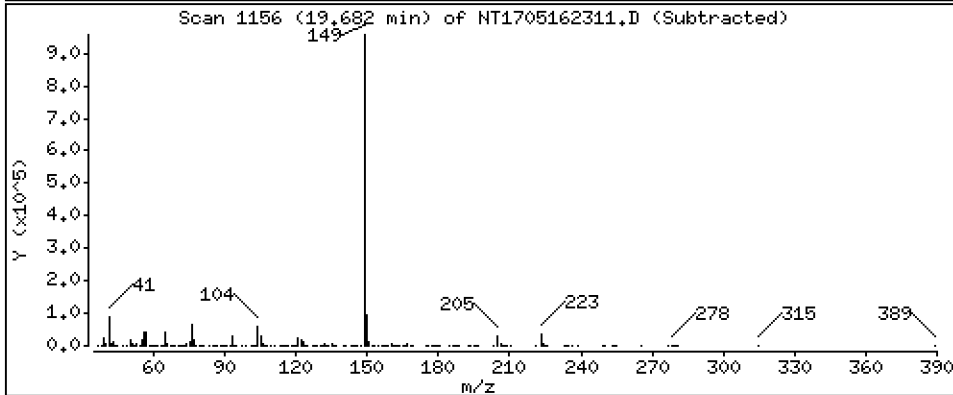
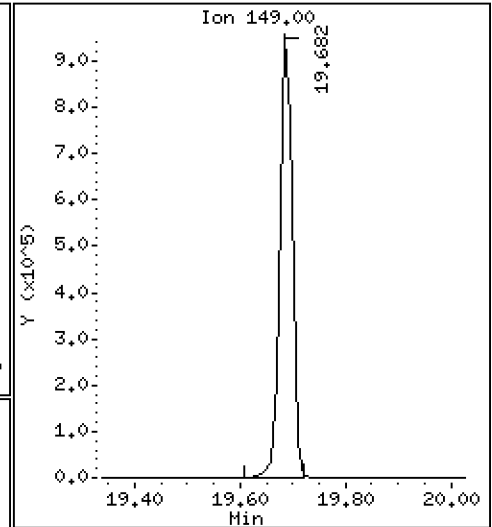
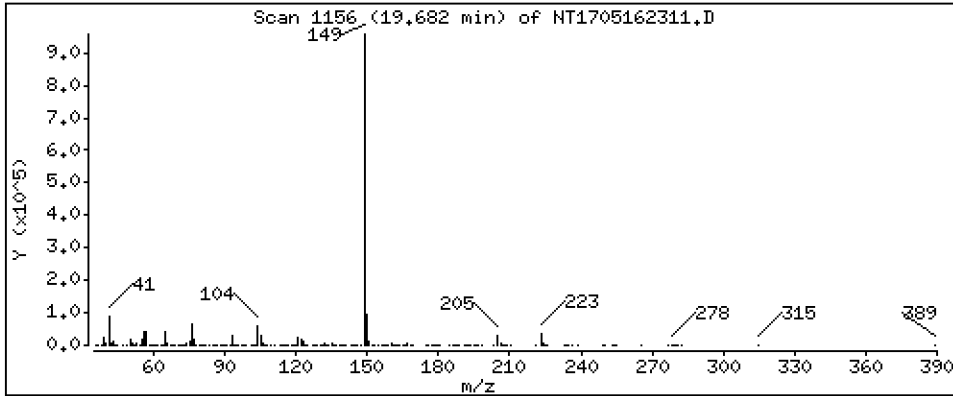
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 5,642 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

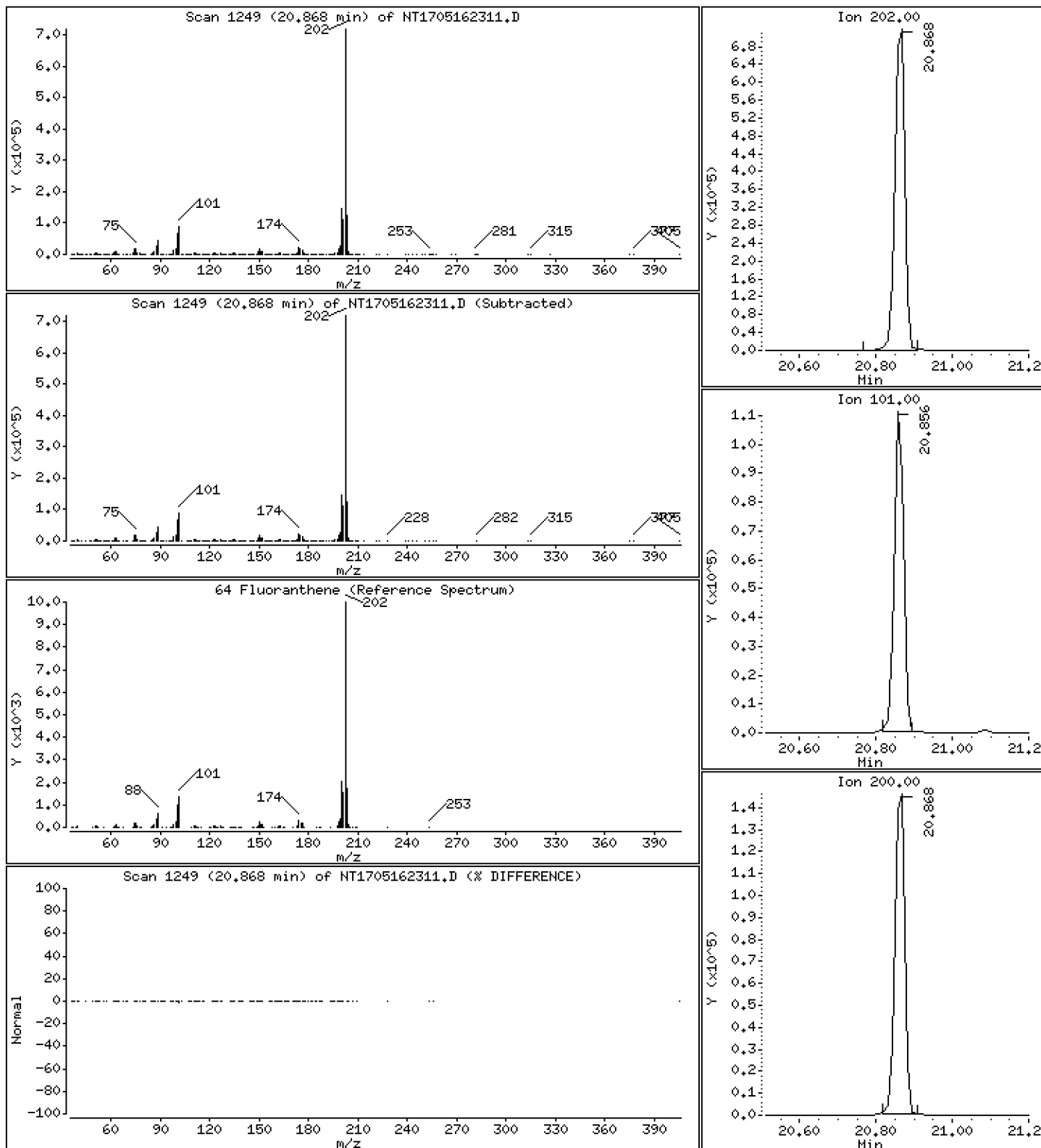
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,467 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

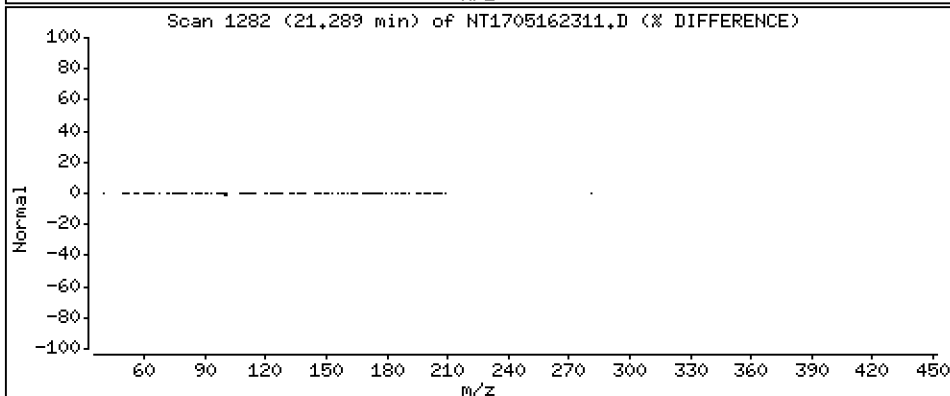
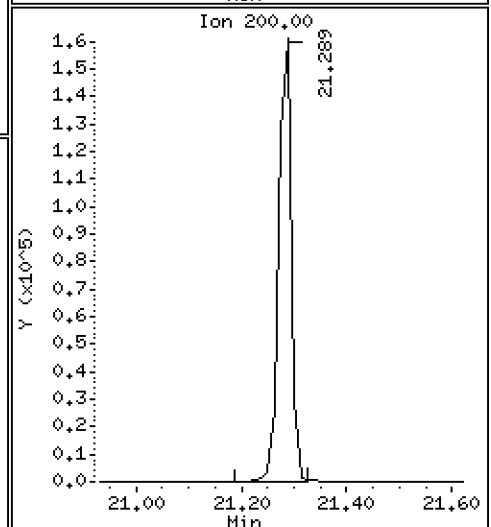
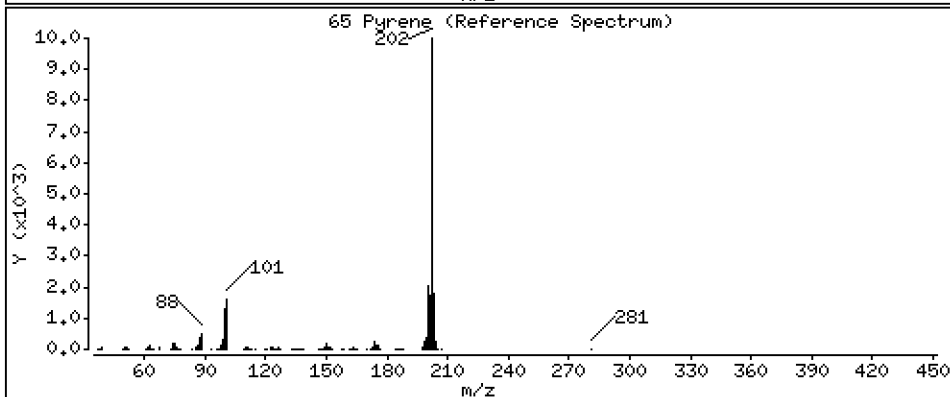
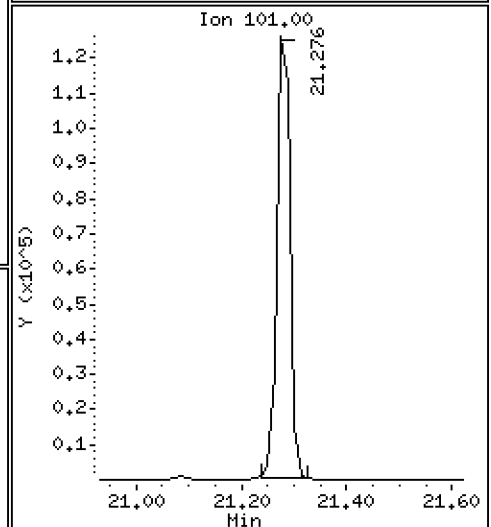
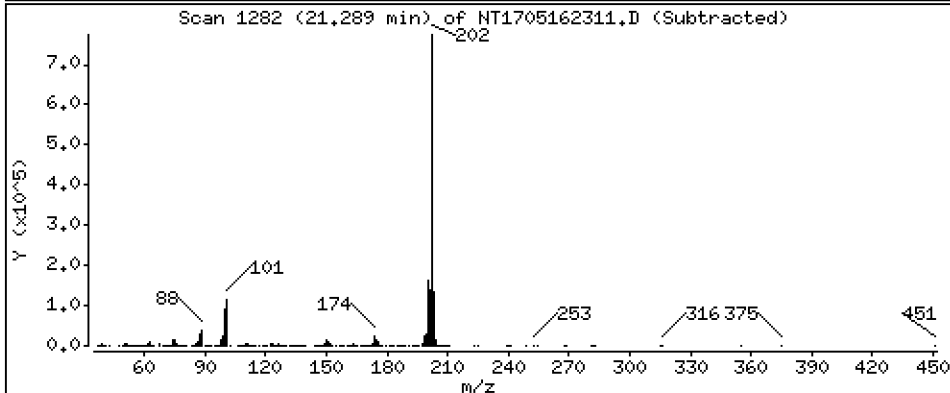
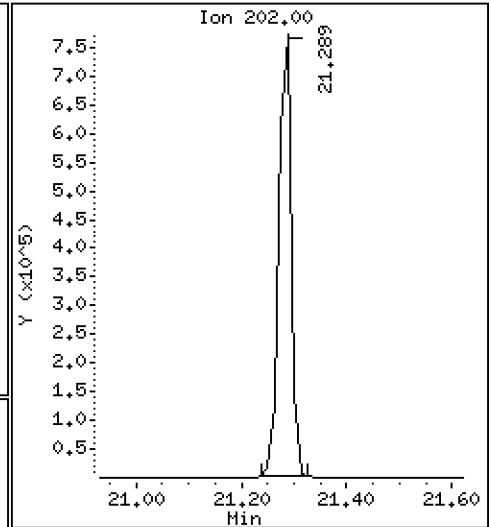
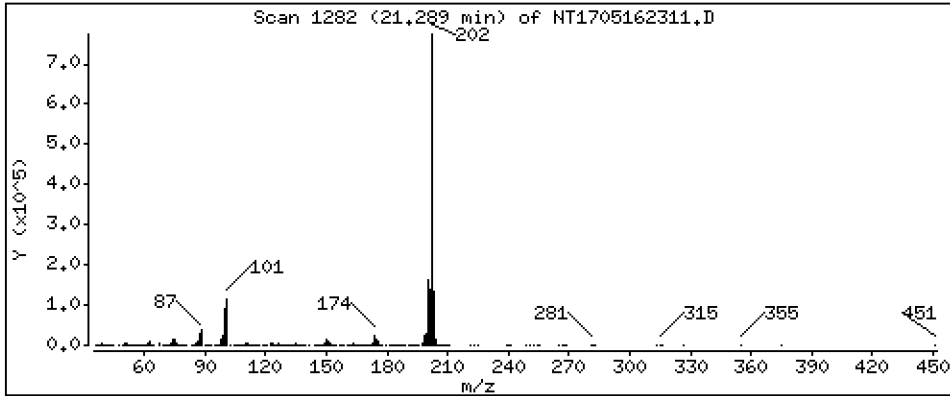
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,265 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

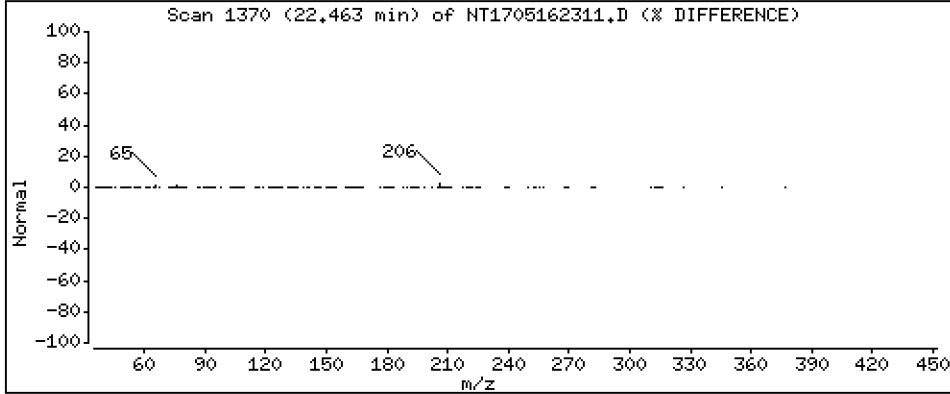
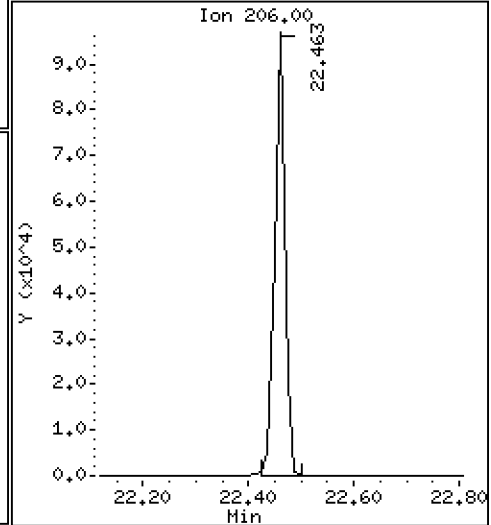
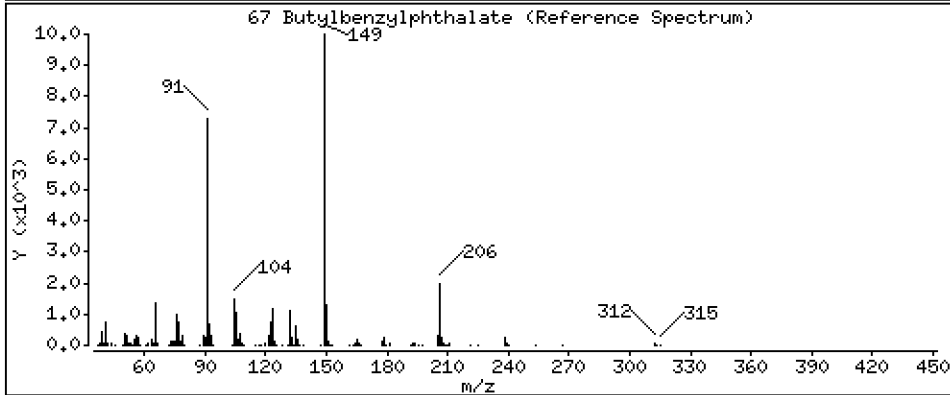
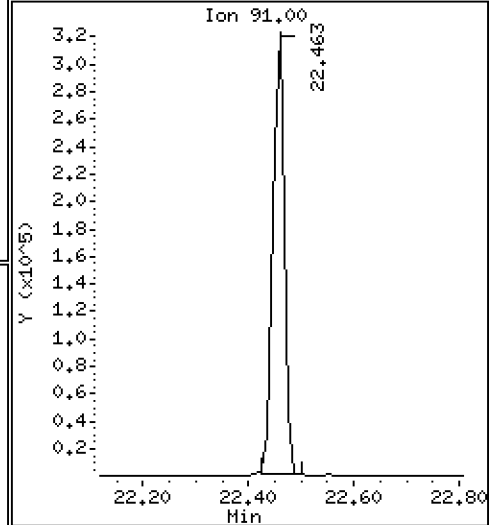
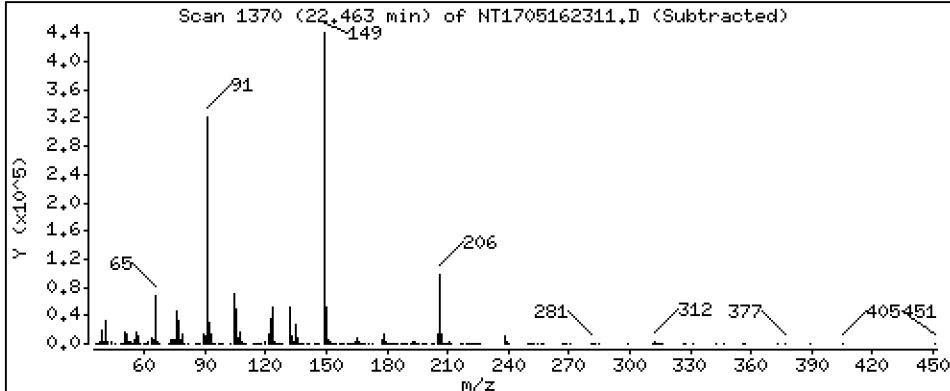
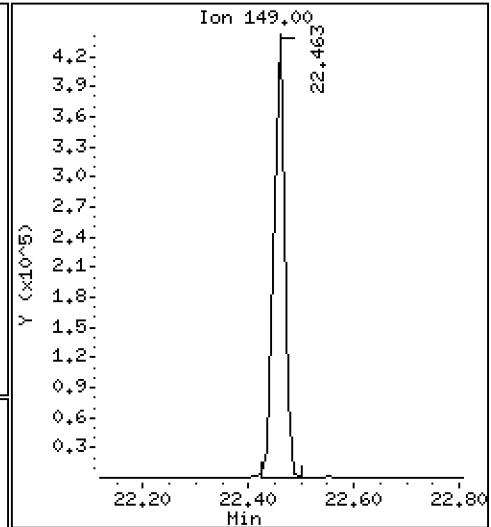
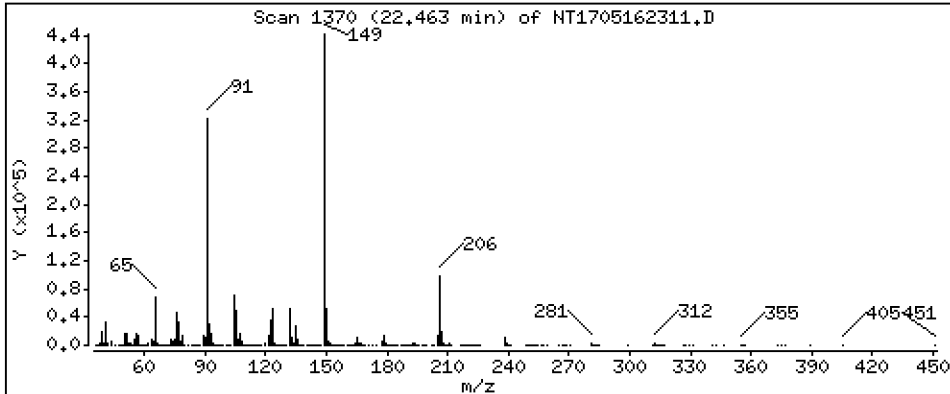
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,825 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

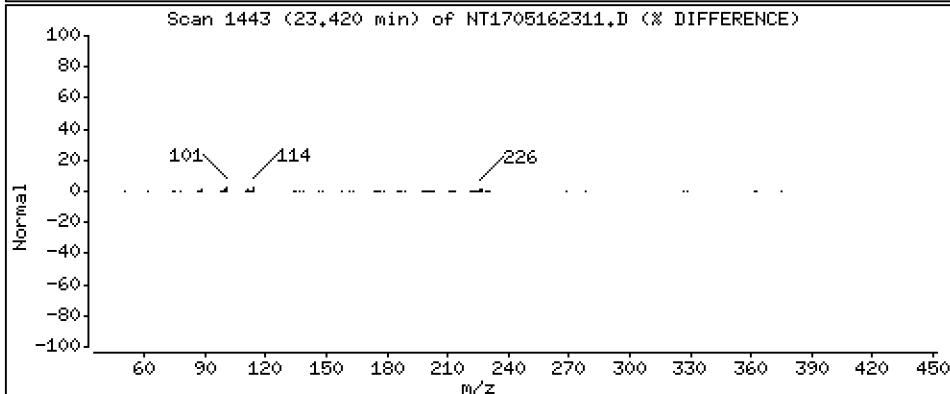
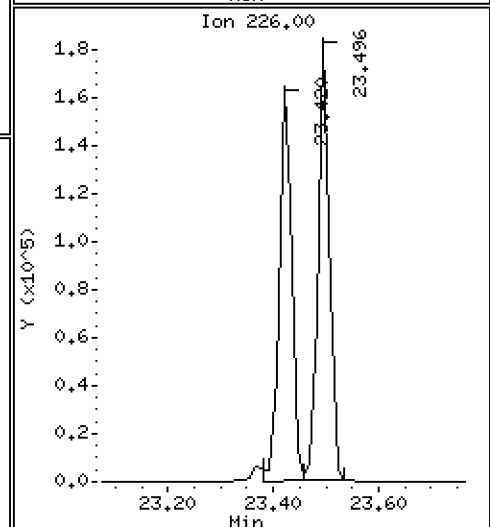
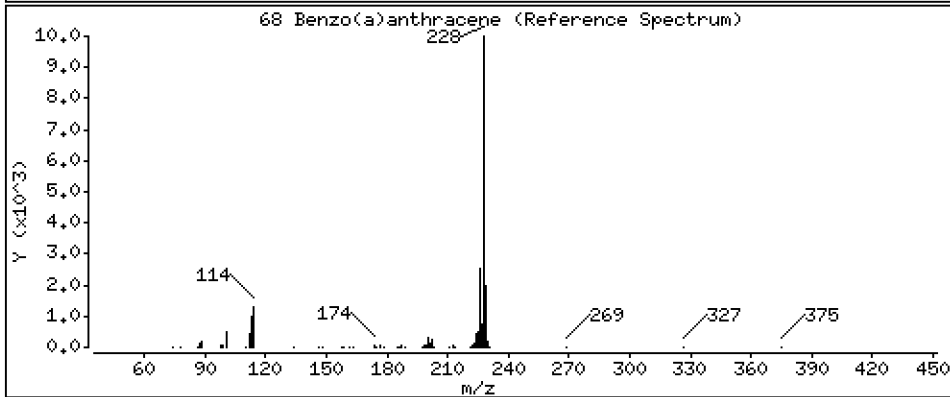
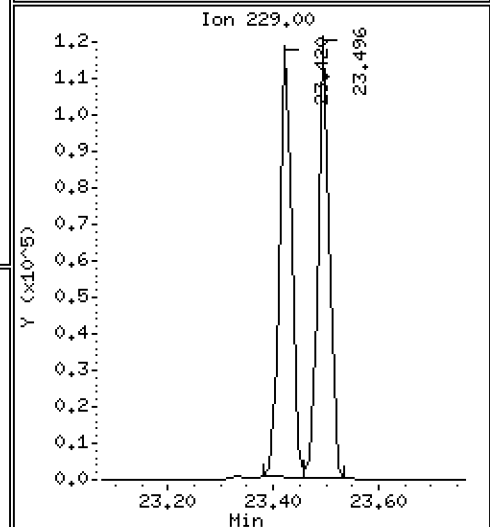
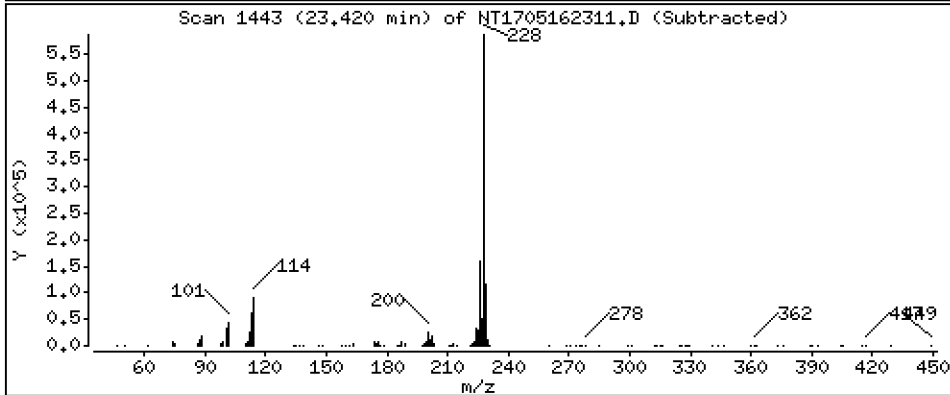
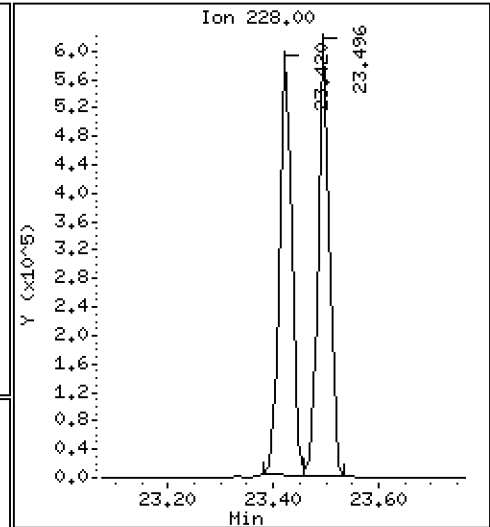
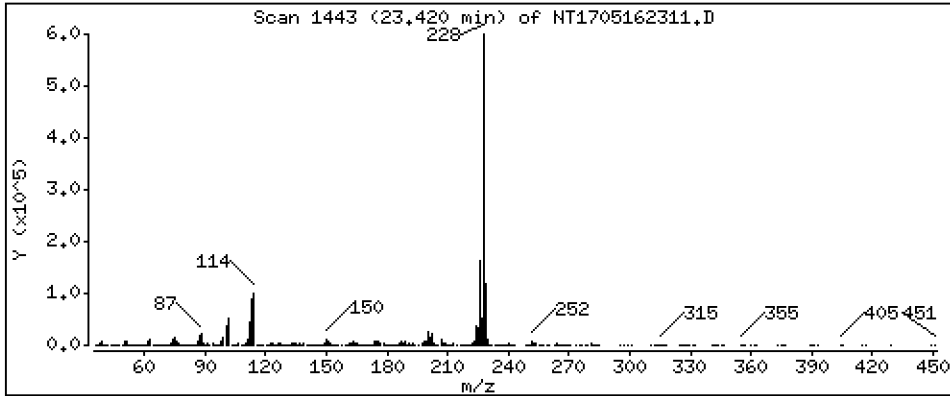
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 5,064 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

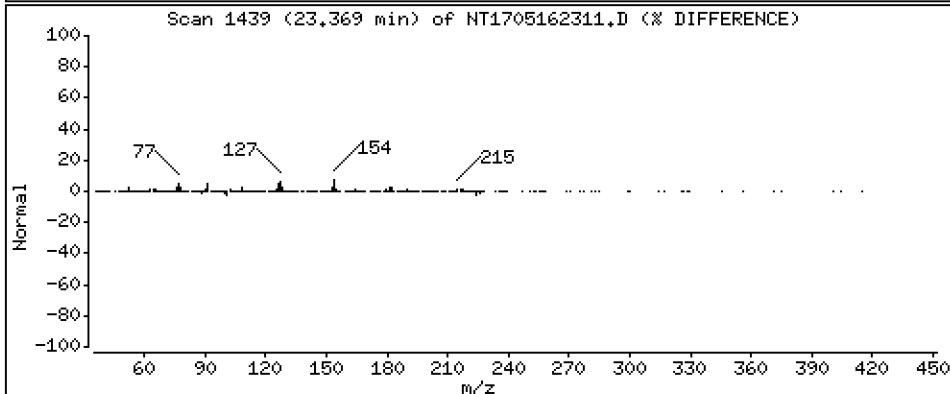
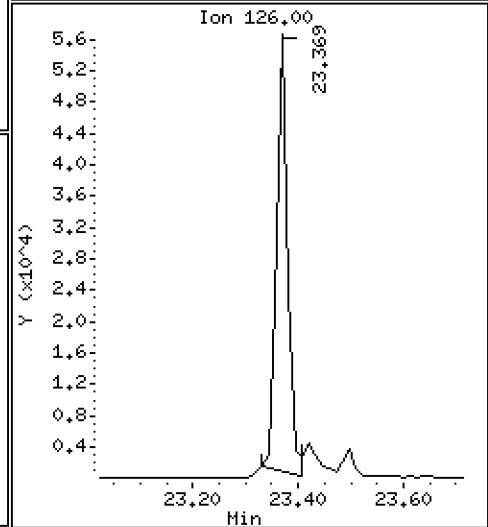
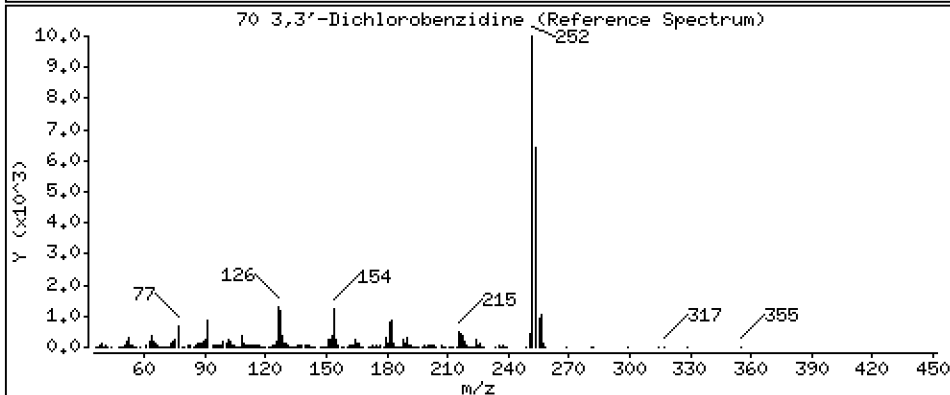
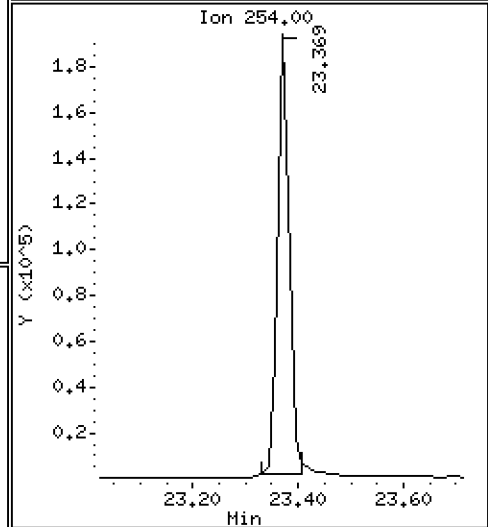
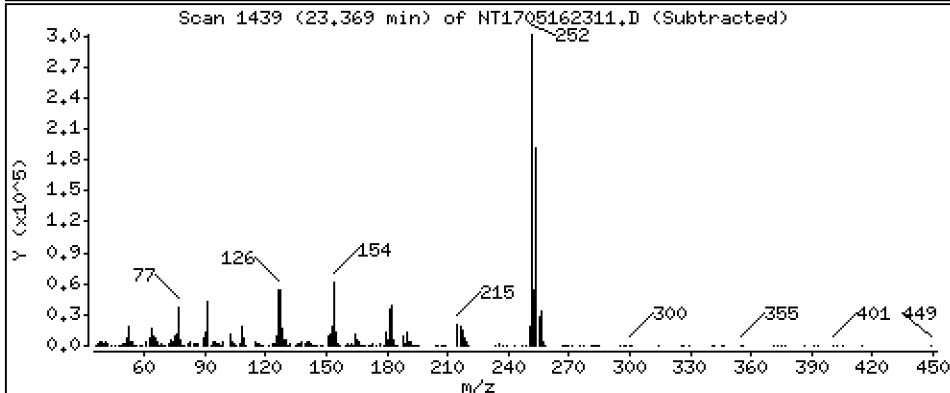
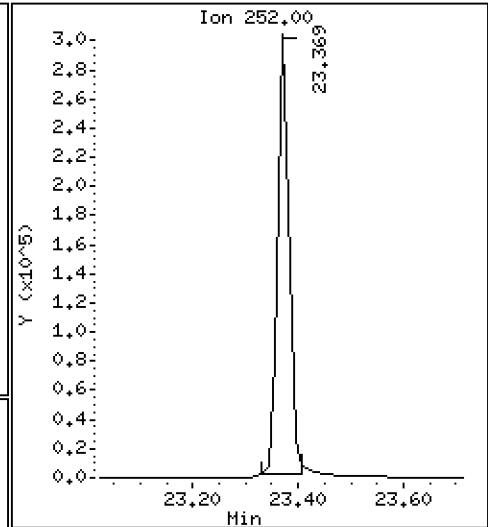
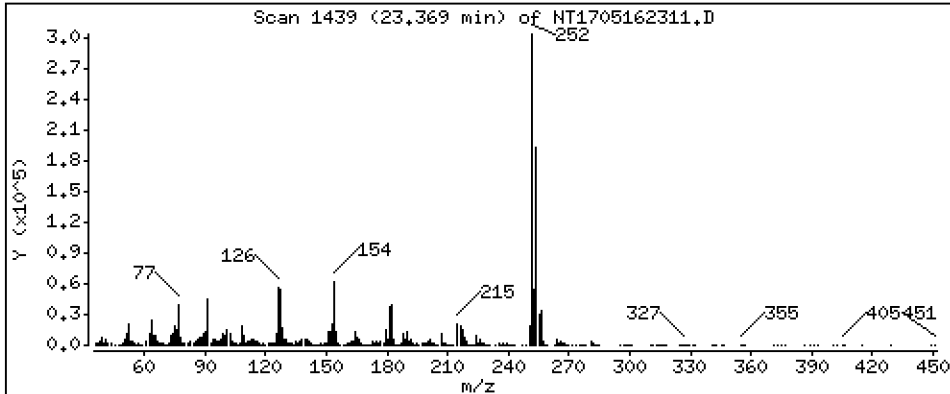
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 11,99 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

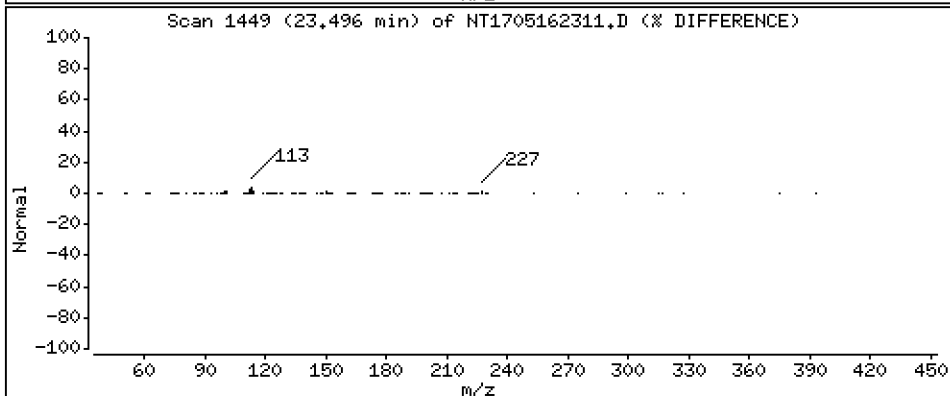
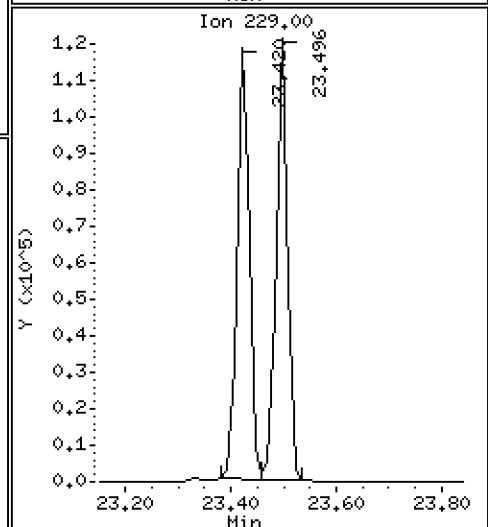
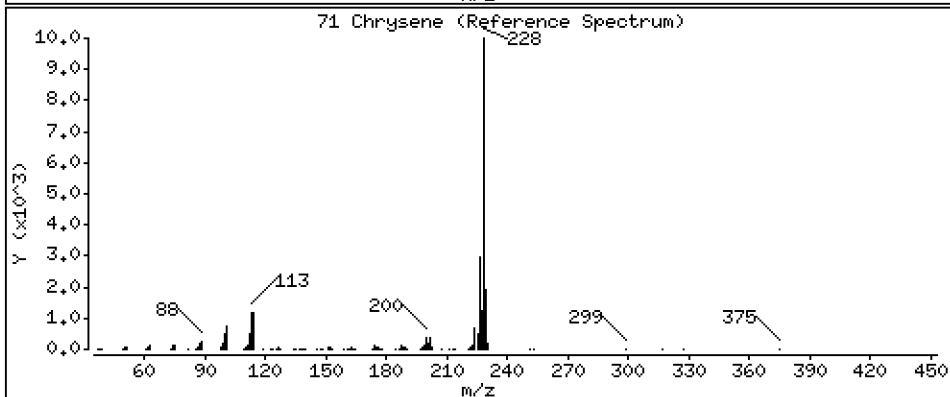
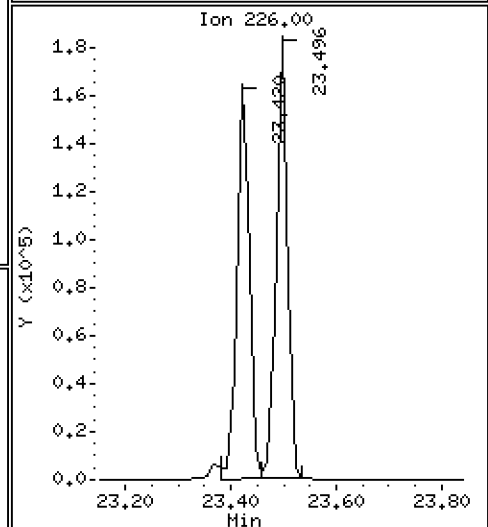
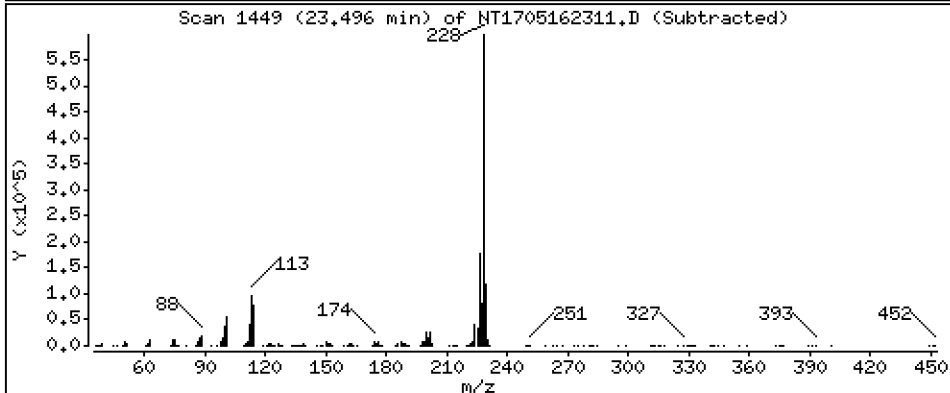
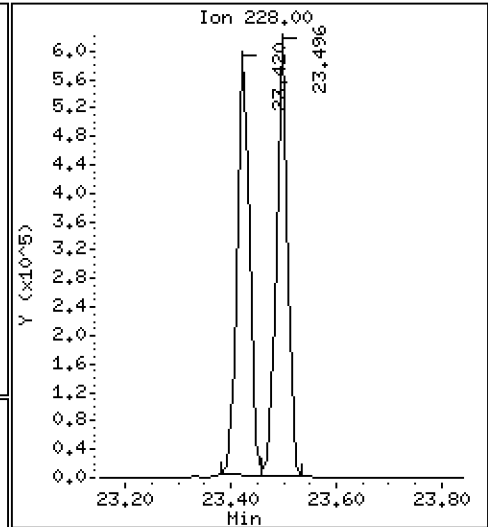
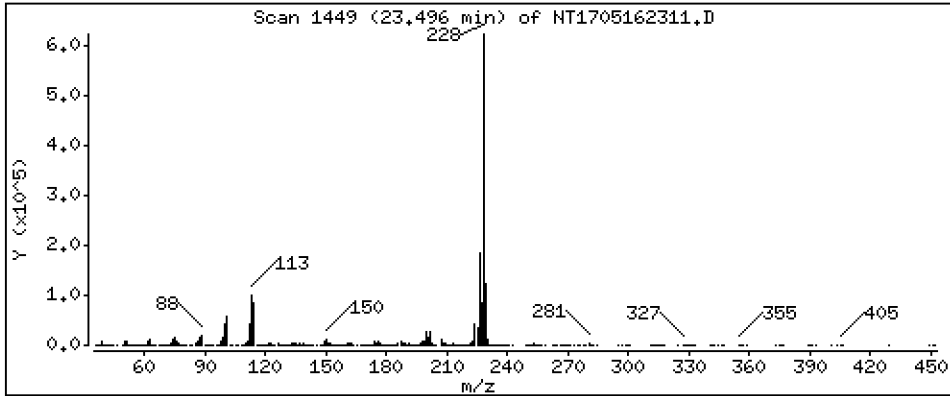
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,018 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

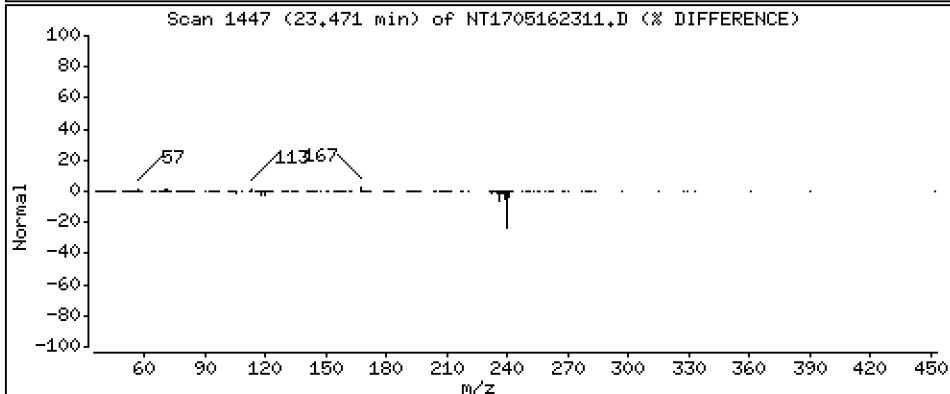
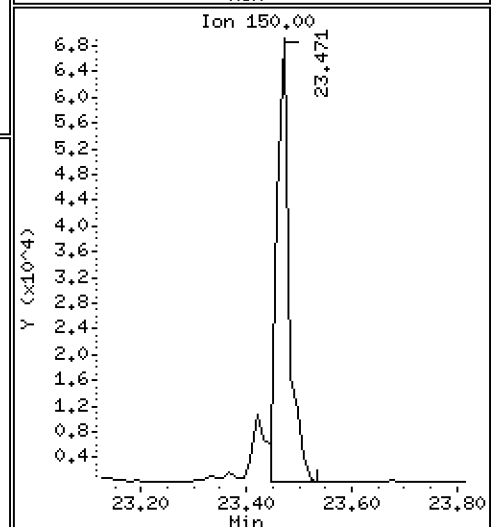
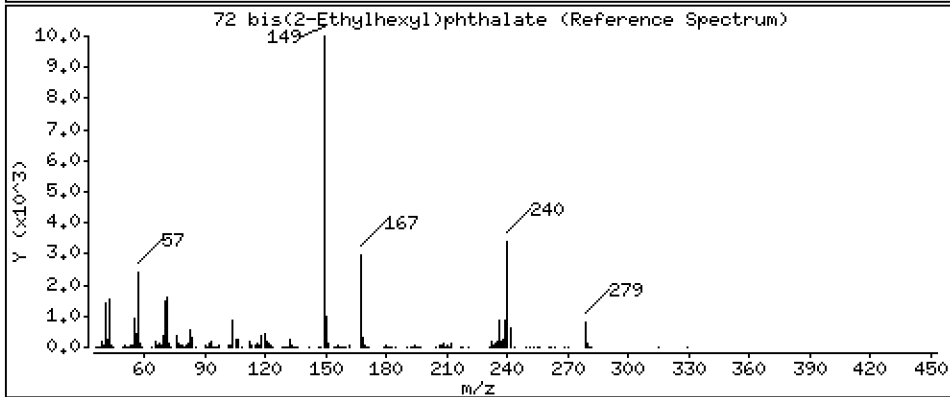
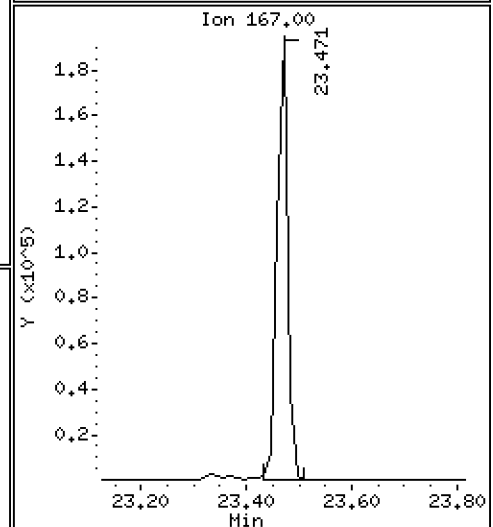
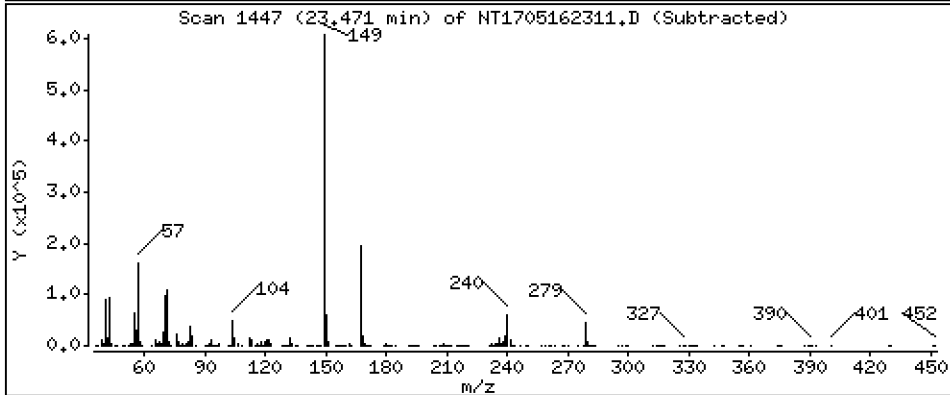
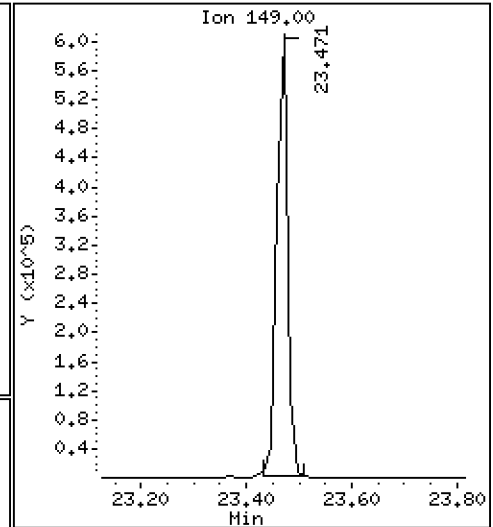
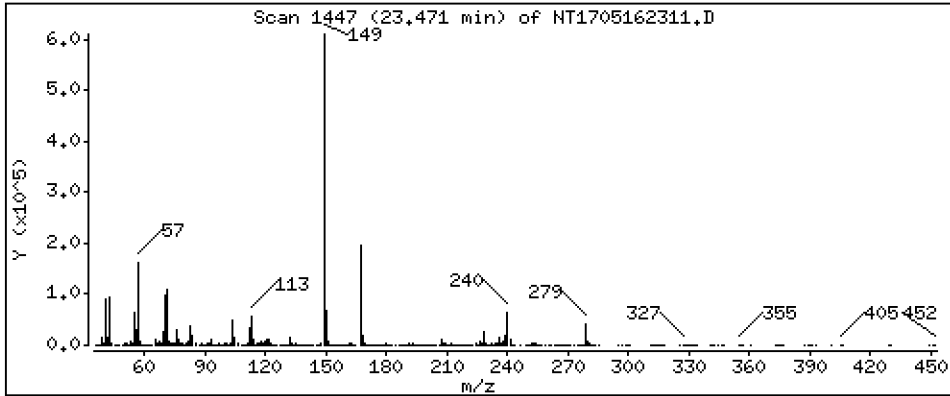
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,792 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

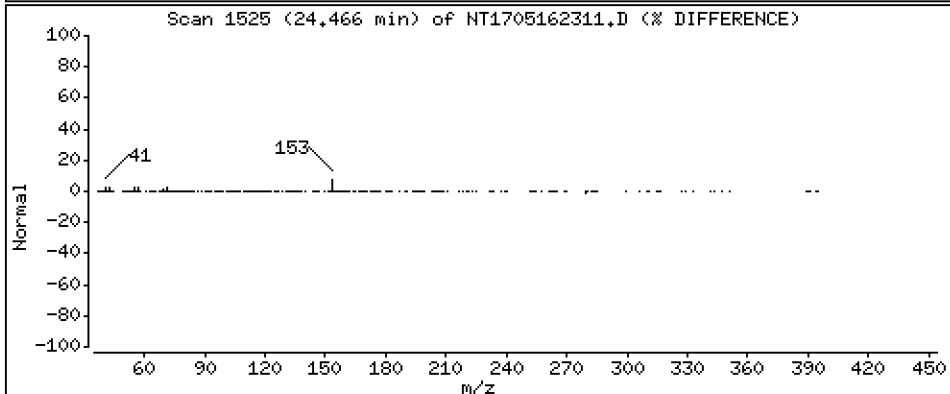
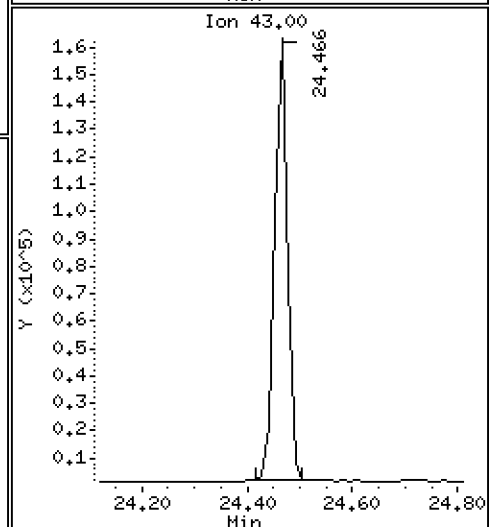
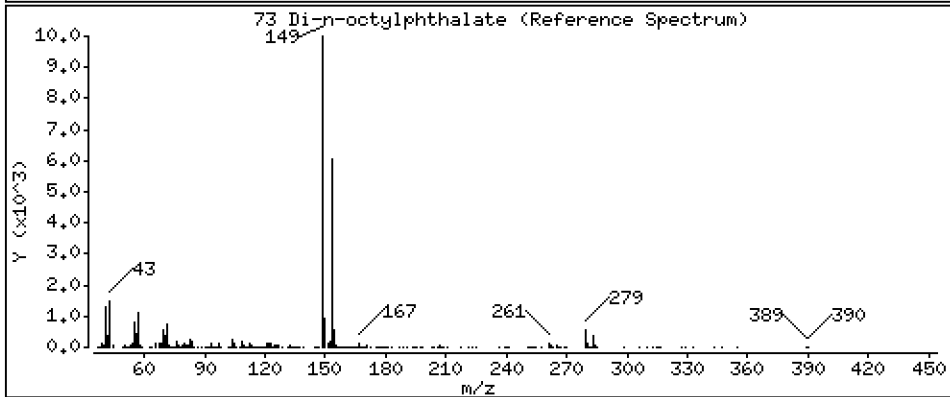
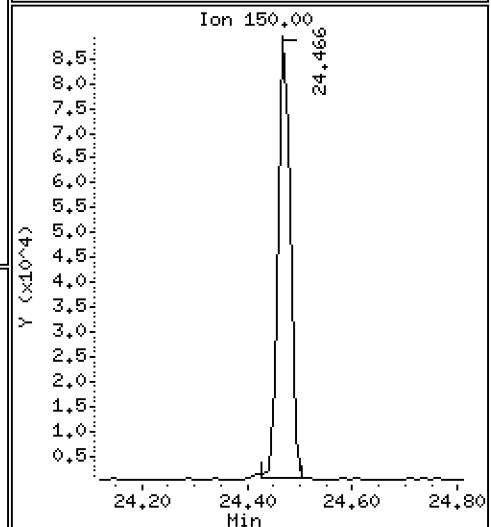
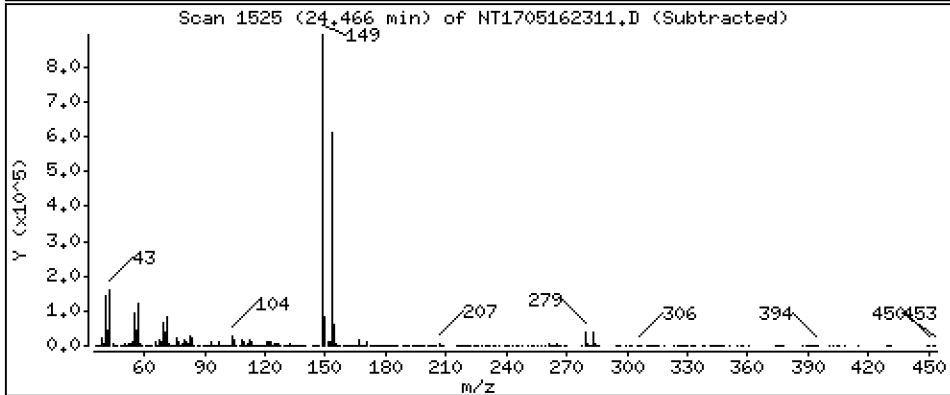
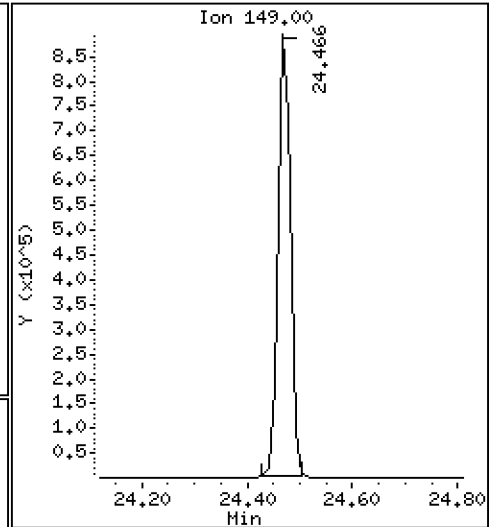
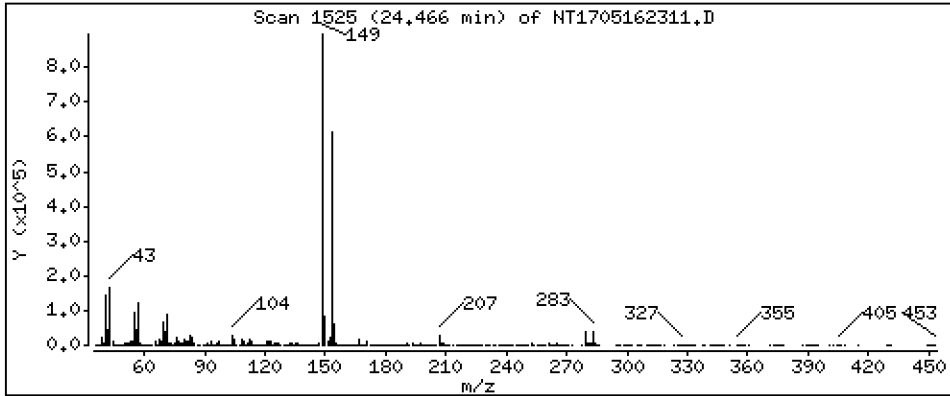
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,482 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

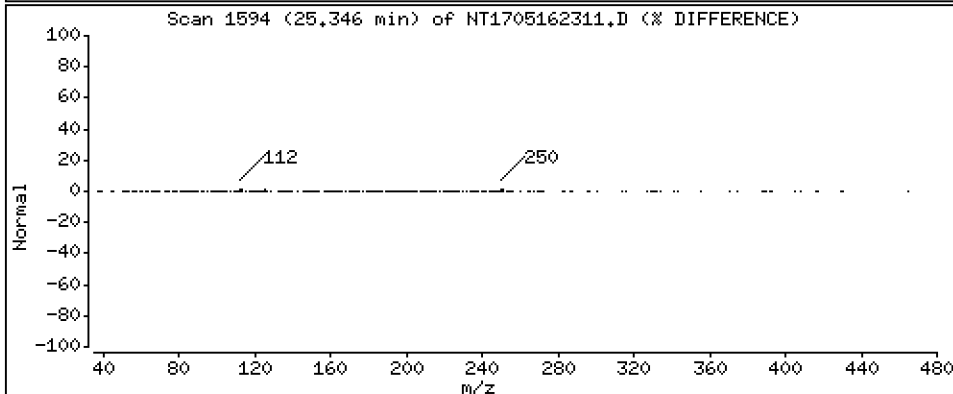
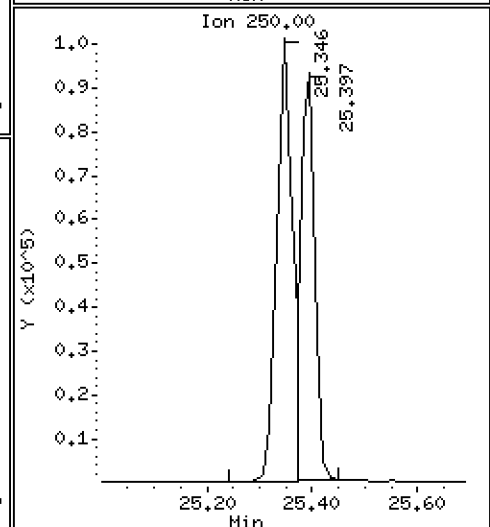
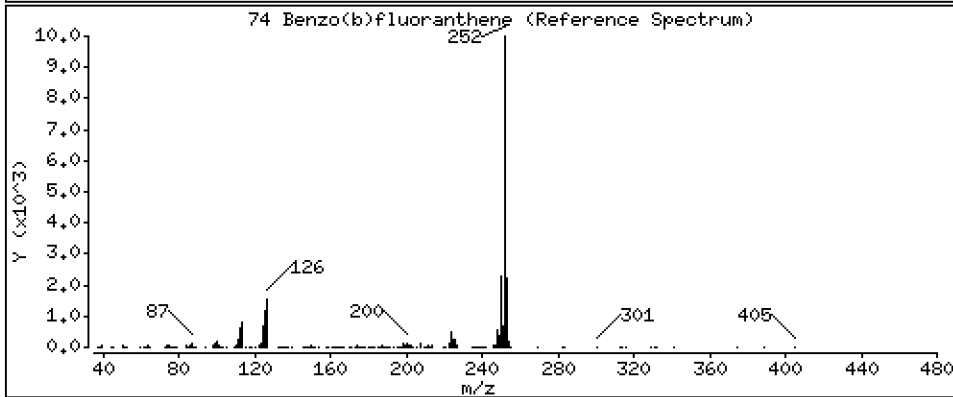
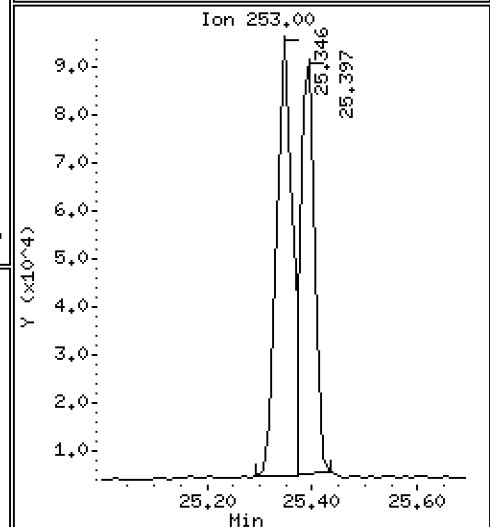
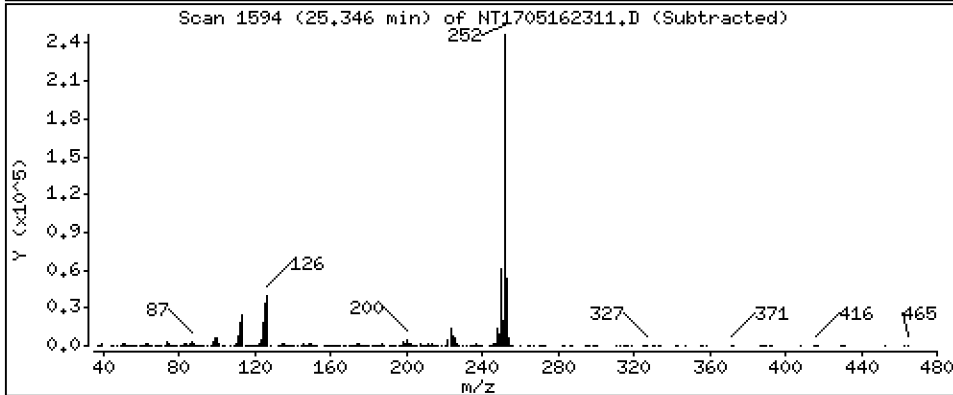
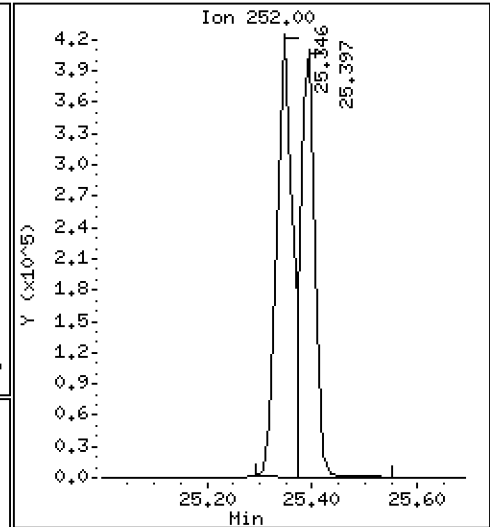
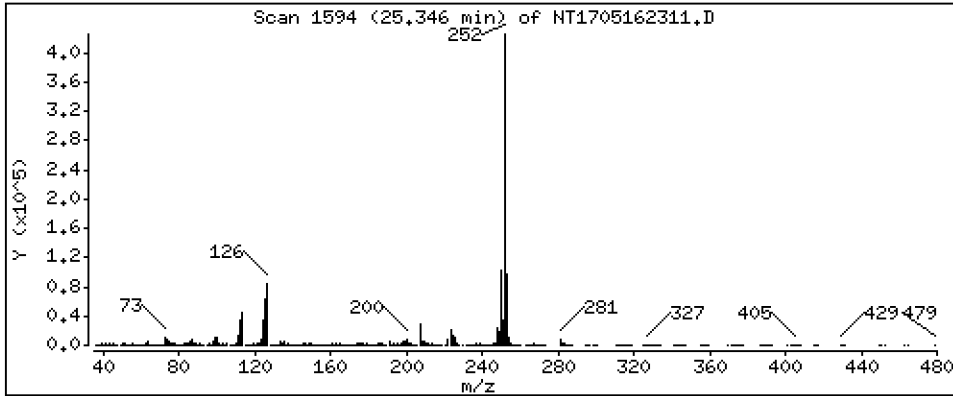
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,912 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

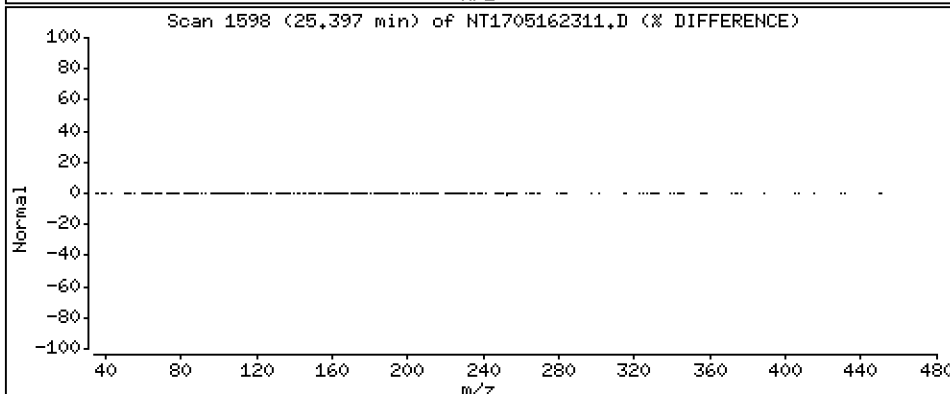
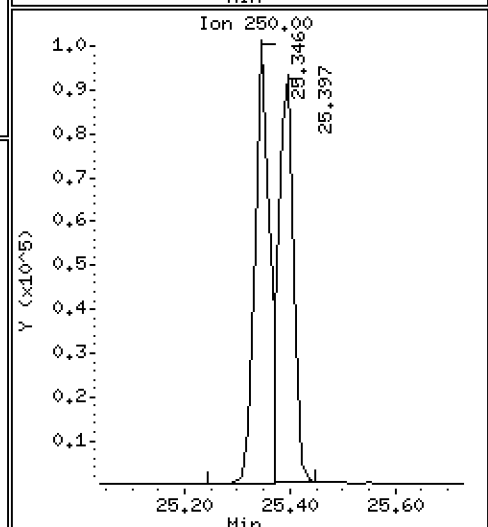
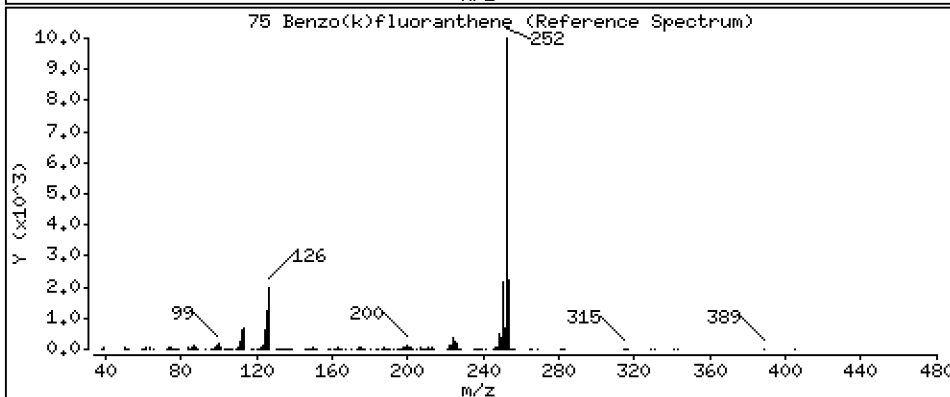
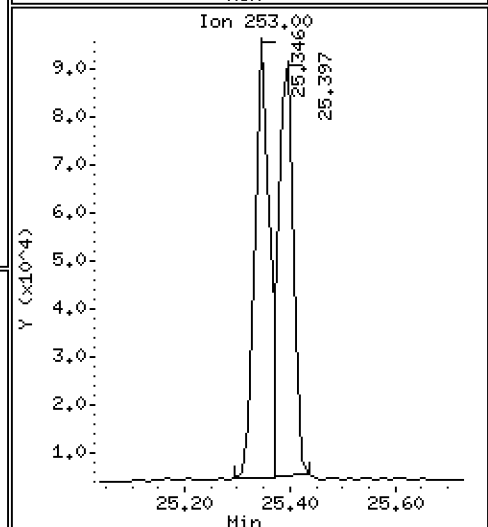
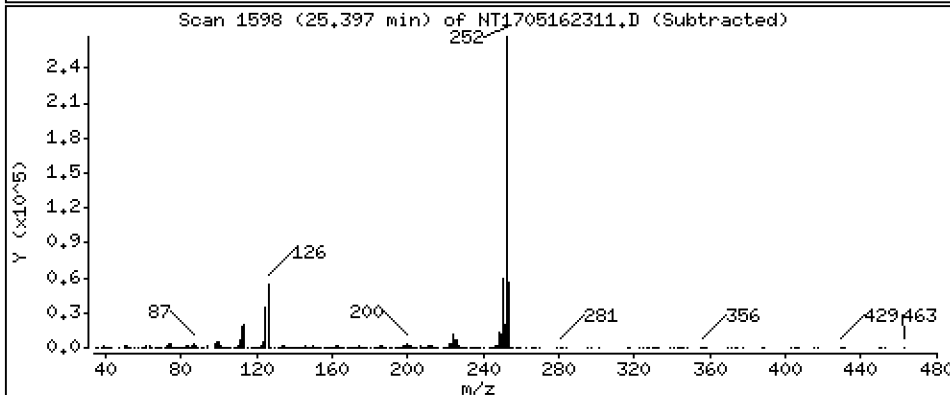
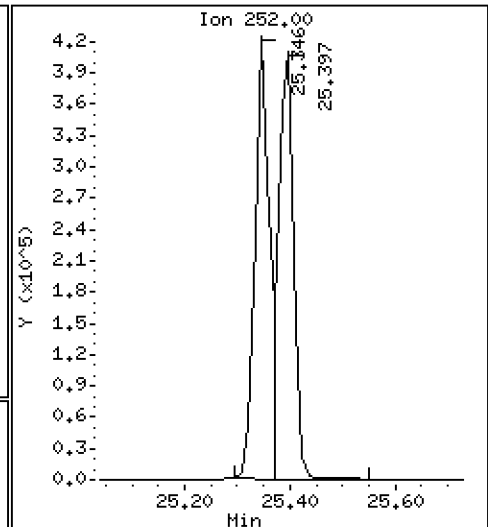
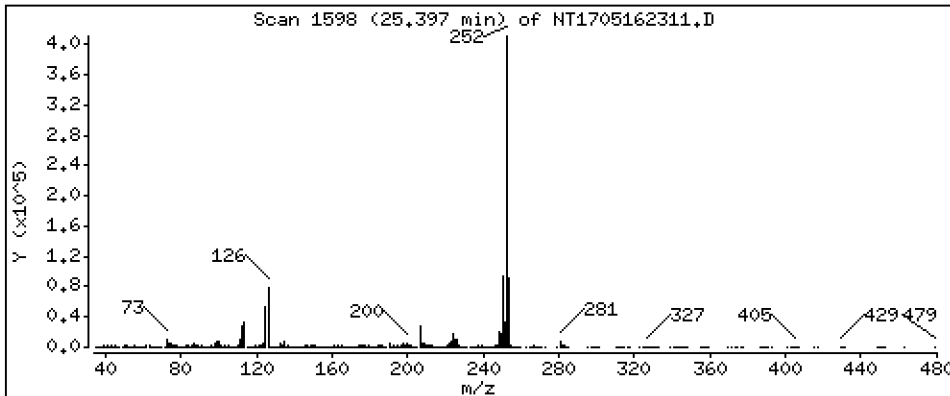
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,965 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

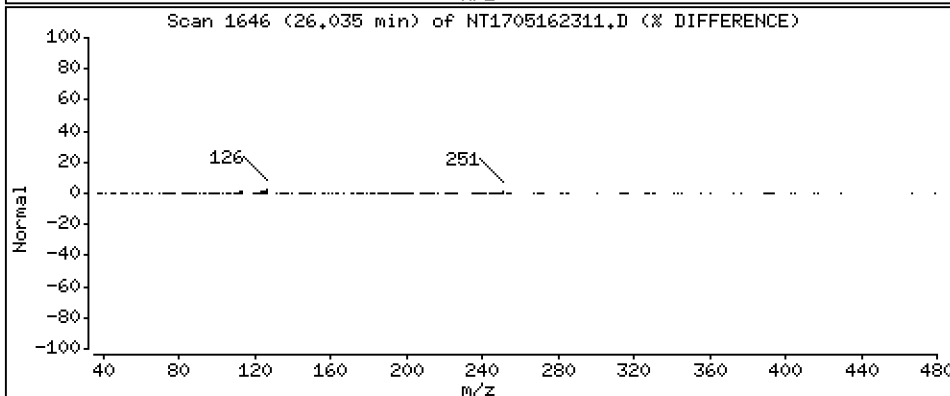
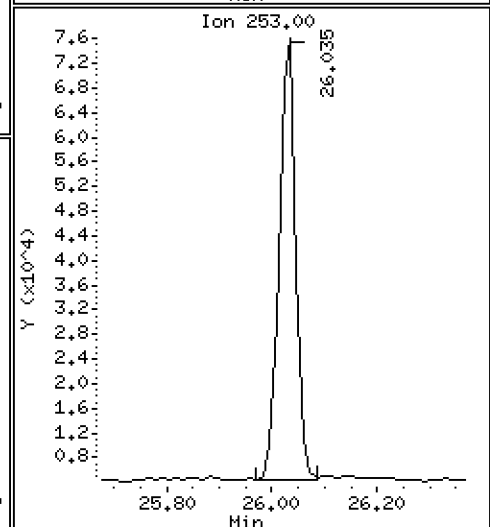
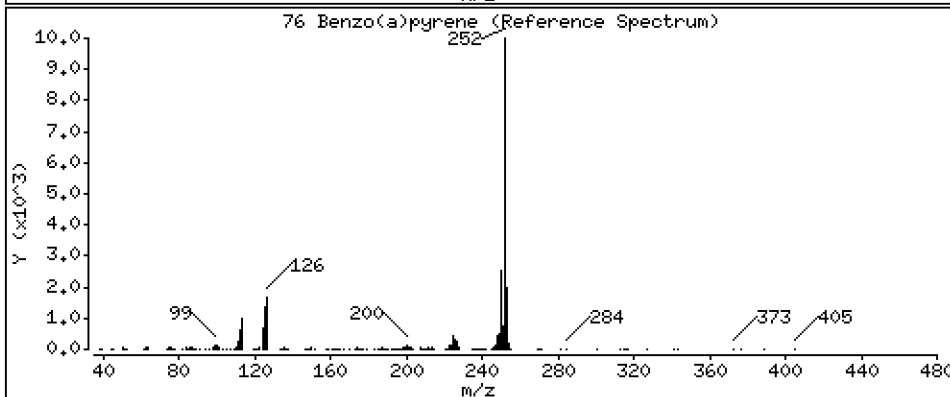
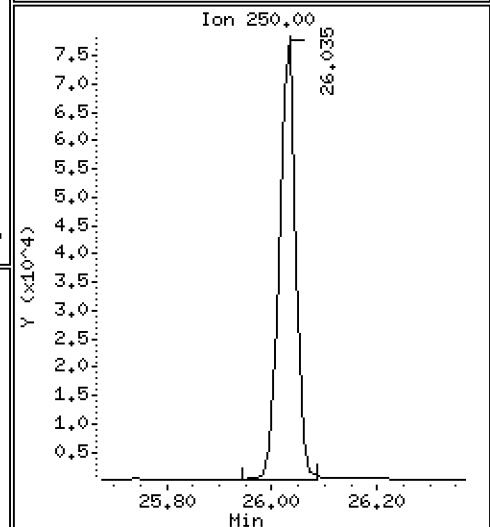
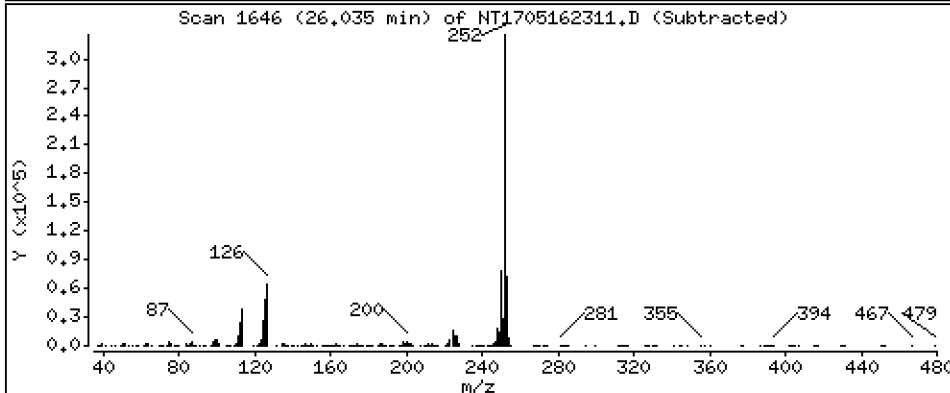
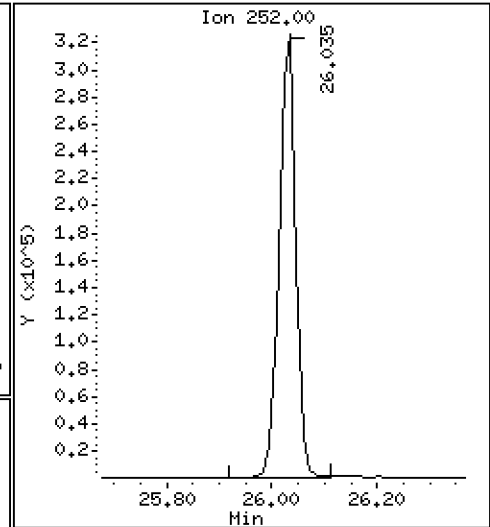
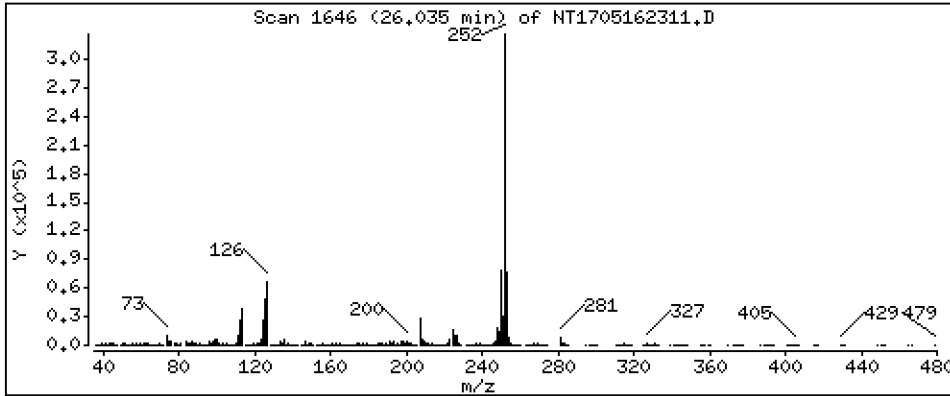
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 5,172 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

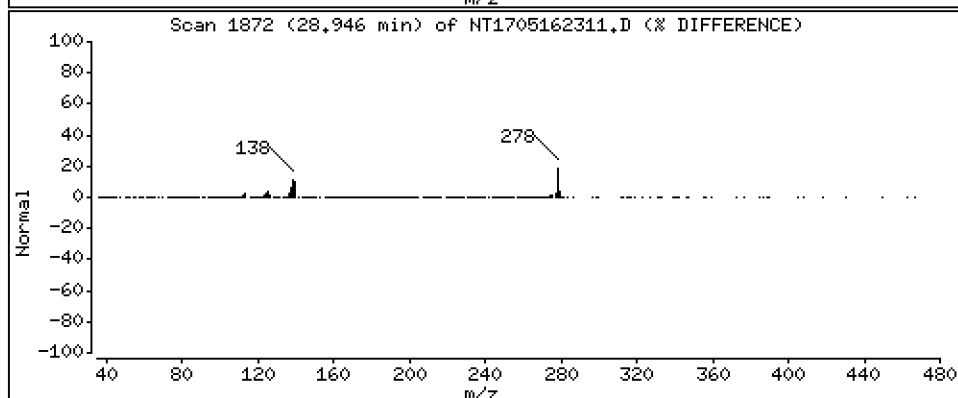
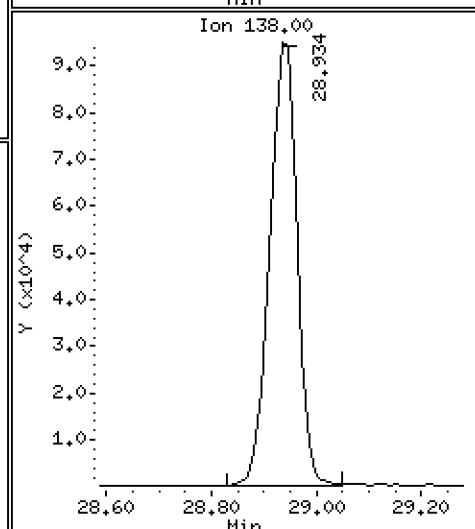
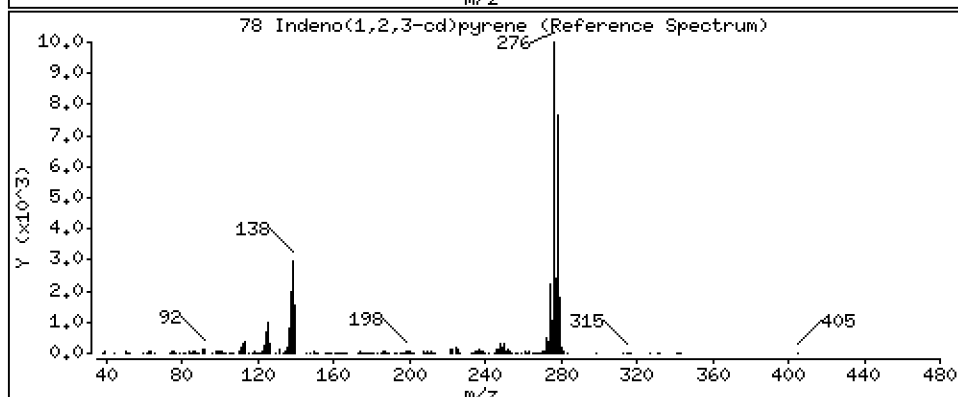
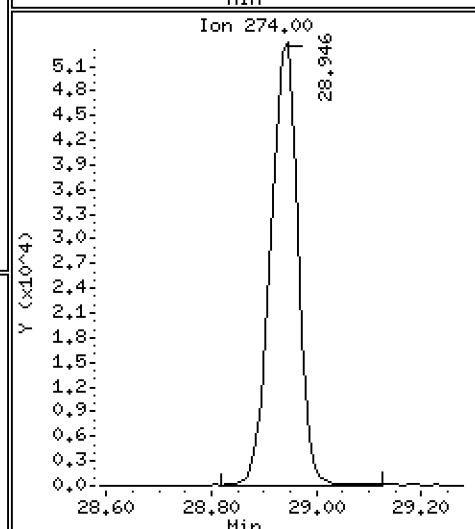
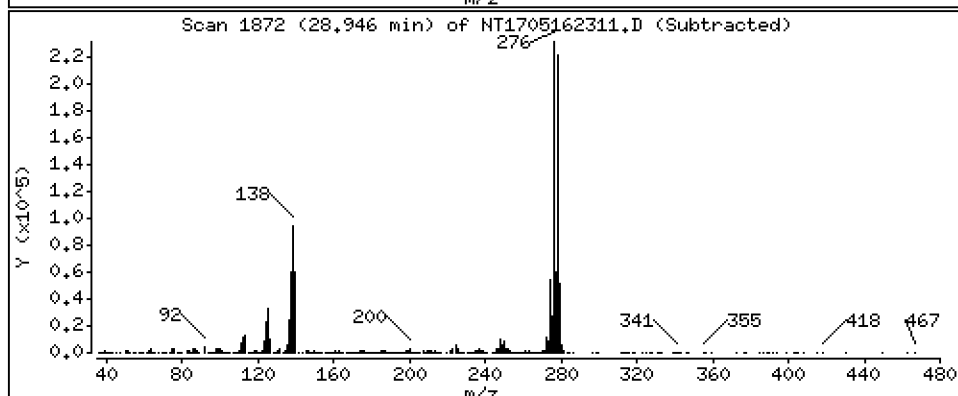
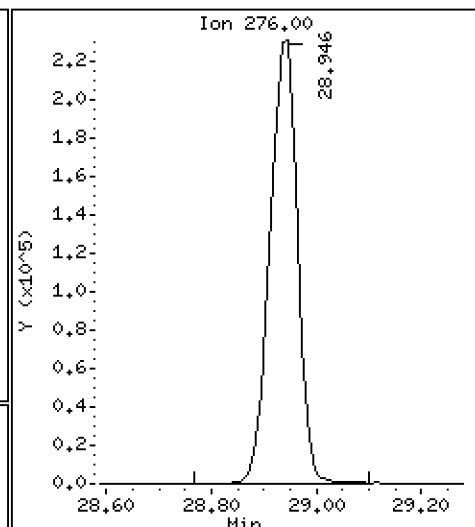
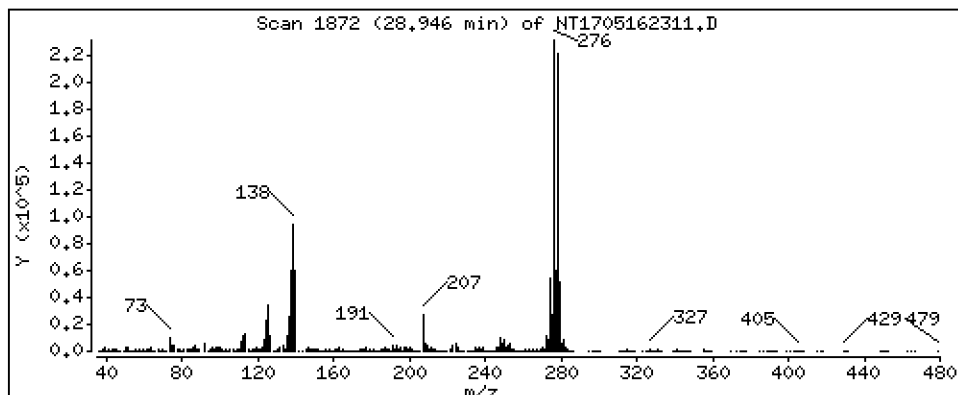
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,029 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

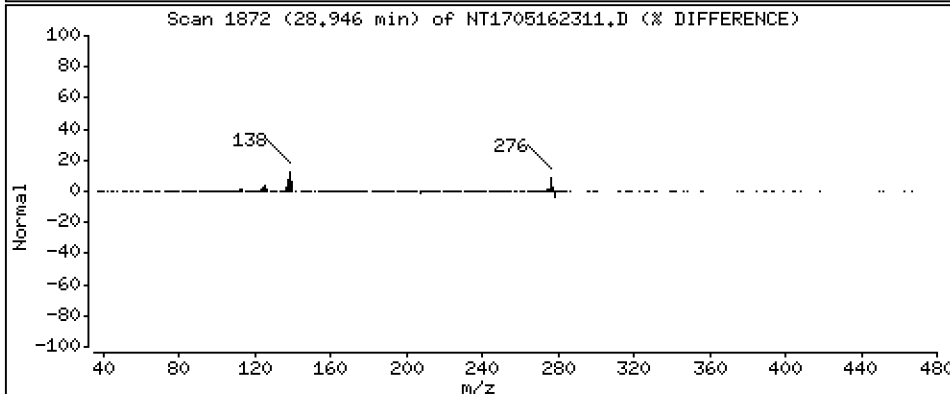
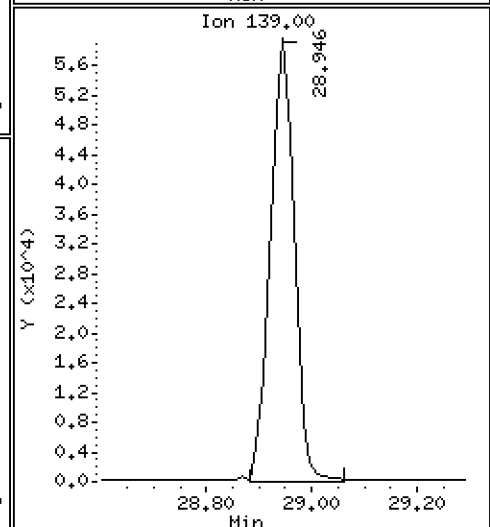
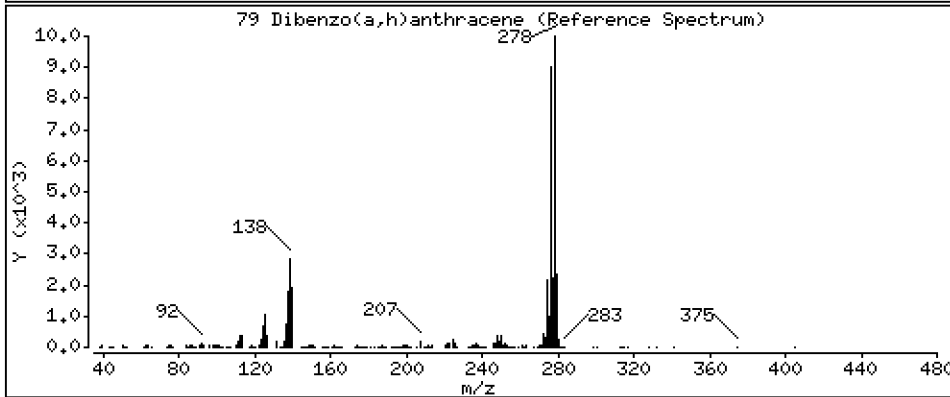
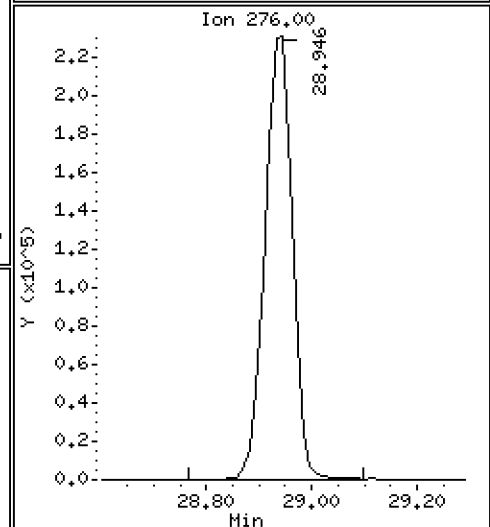
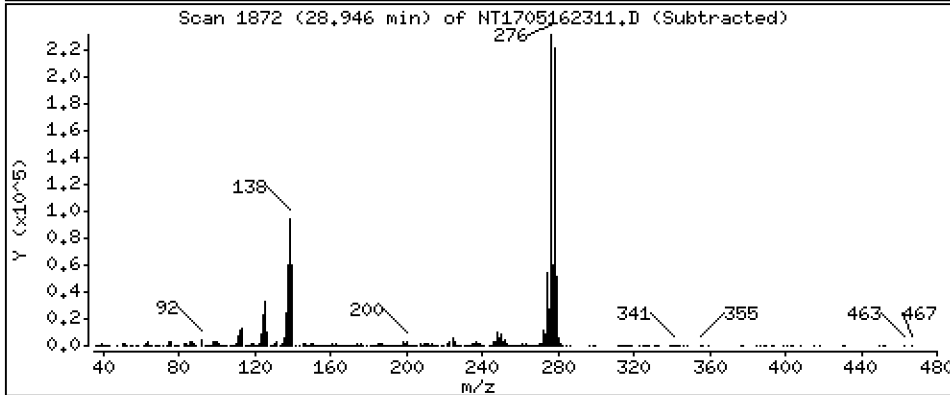
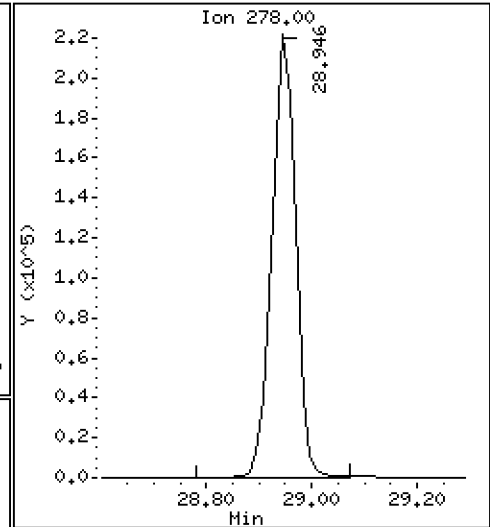
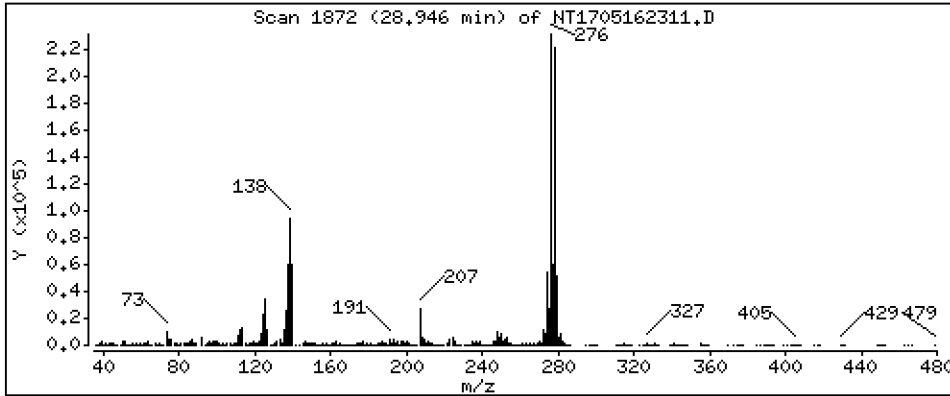
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,970 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

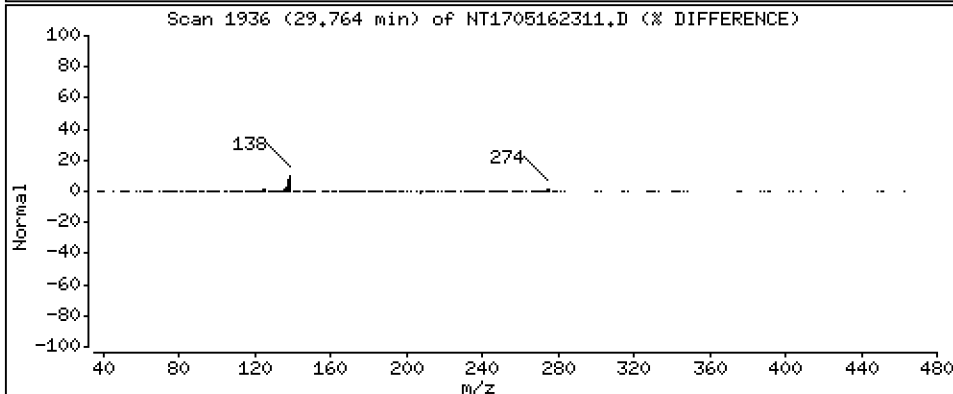
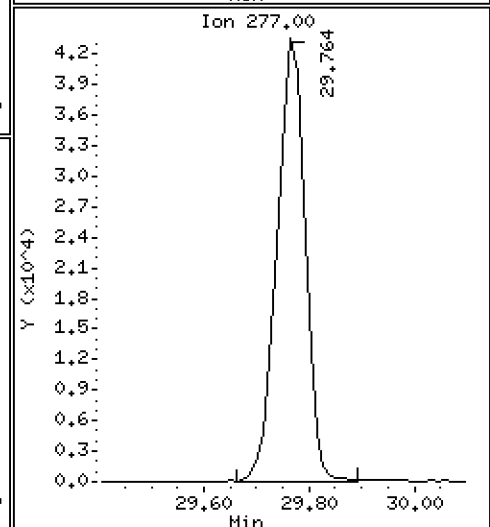
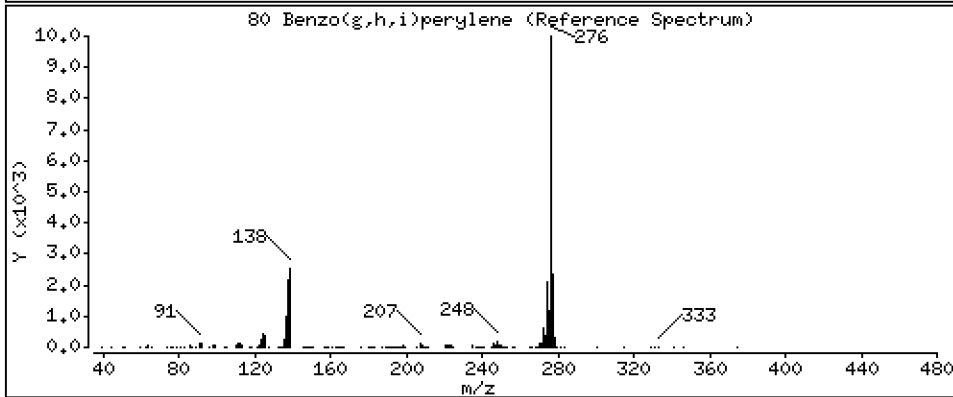
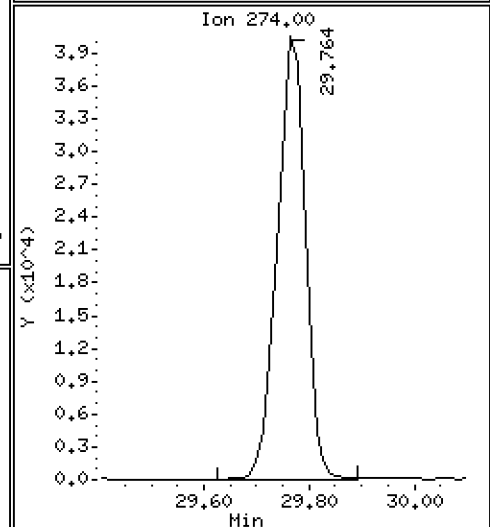
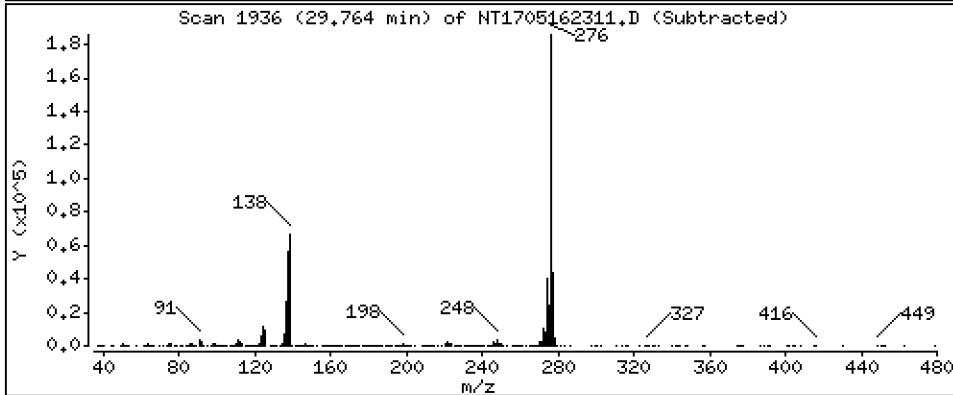
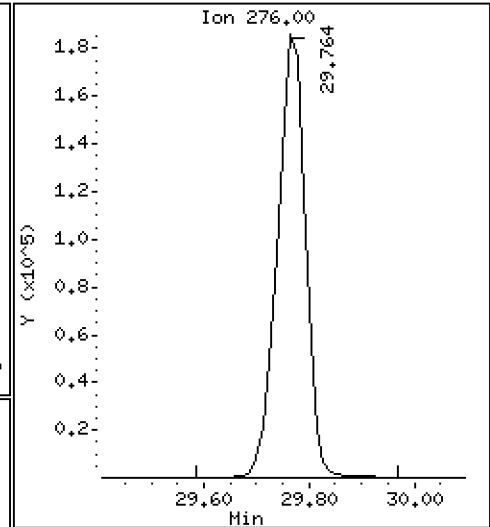
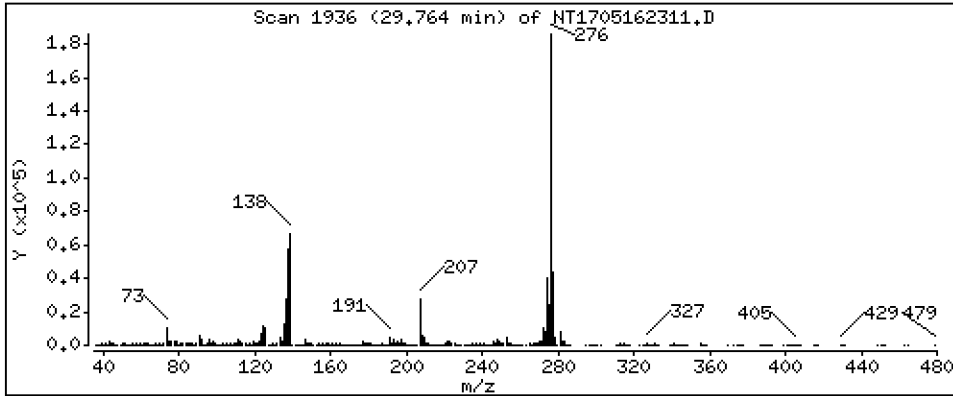
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 5,054 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

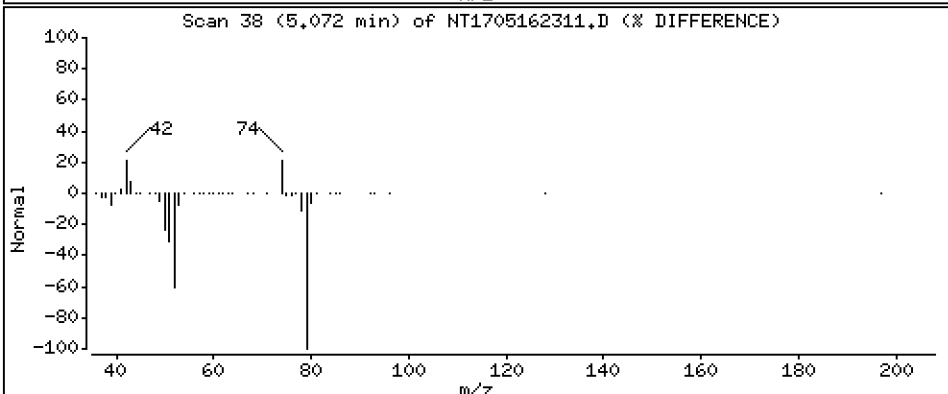
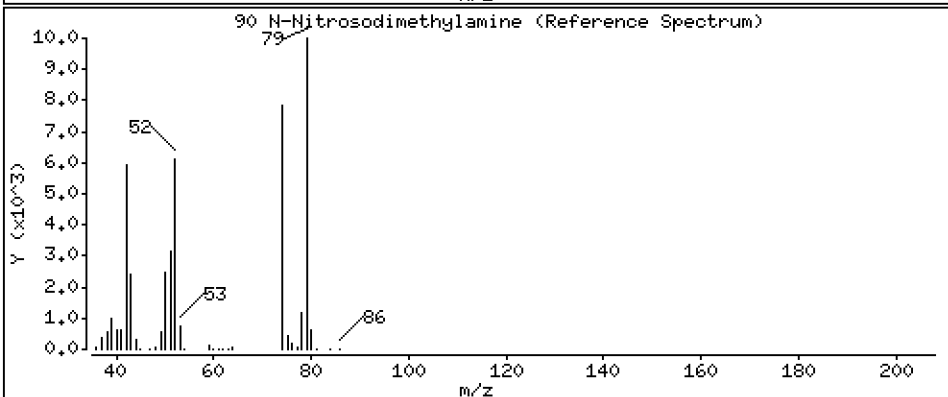
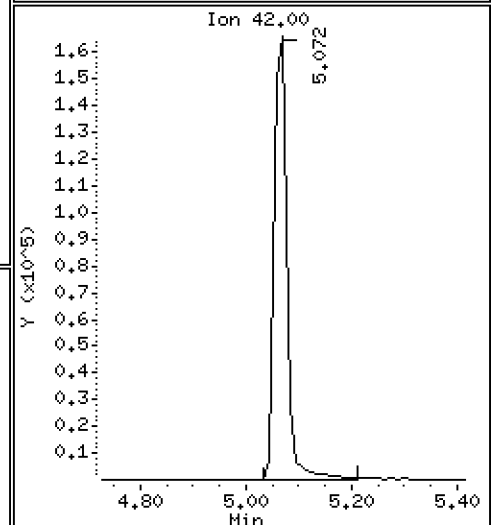
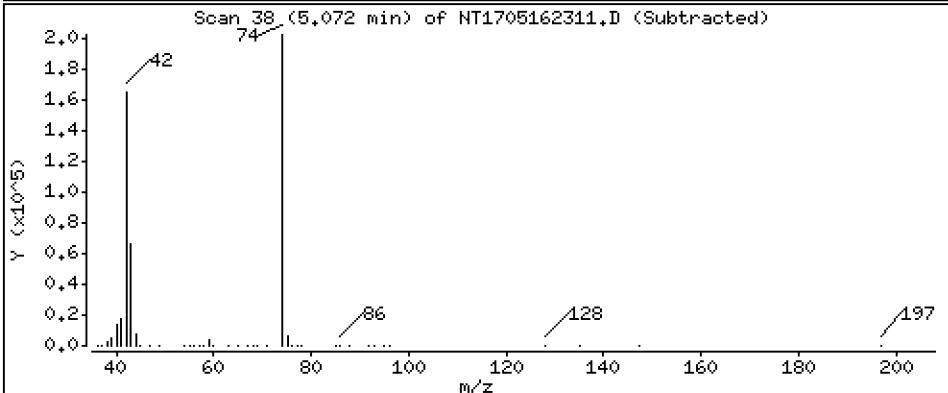
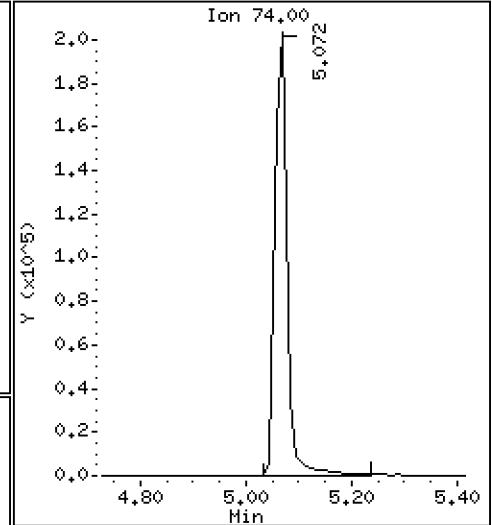
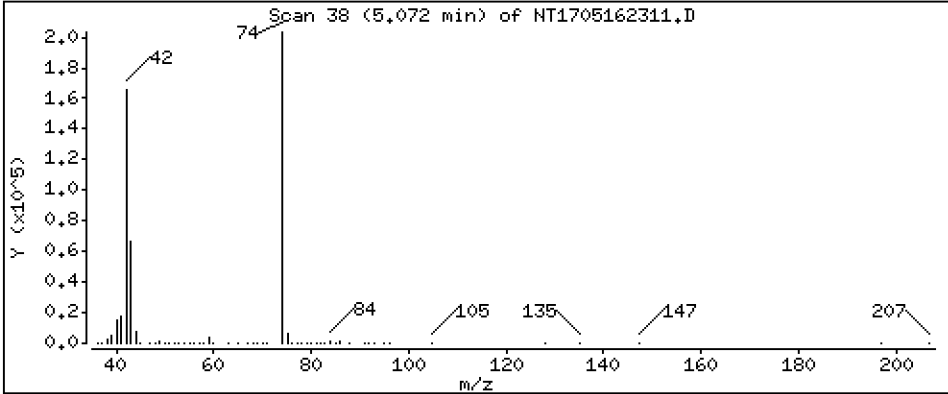
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,767 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

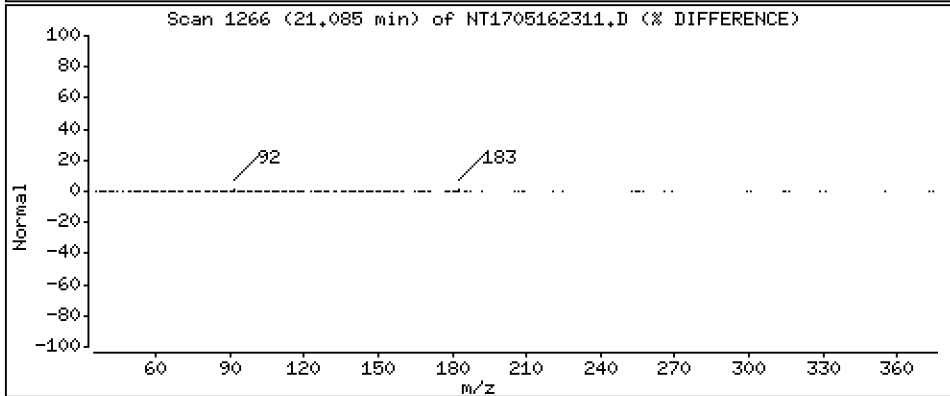
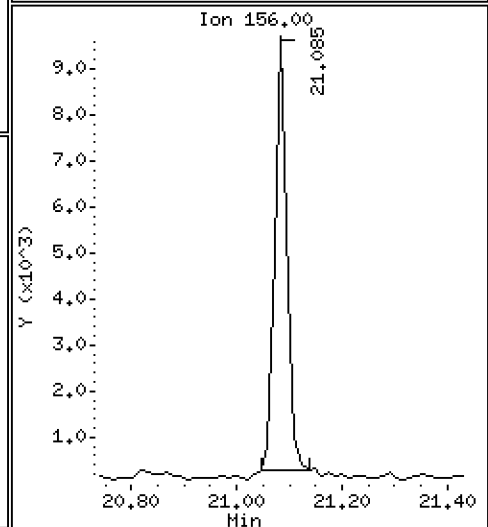
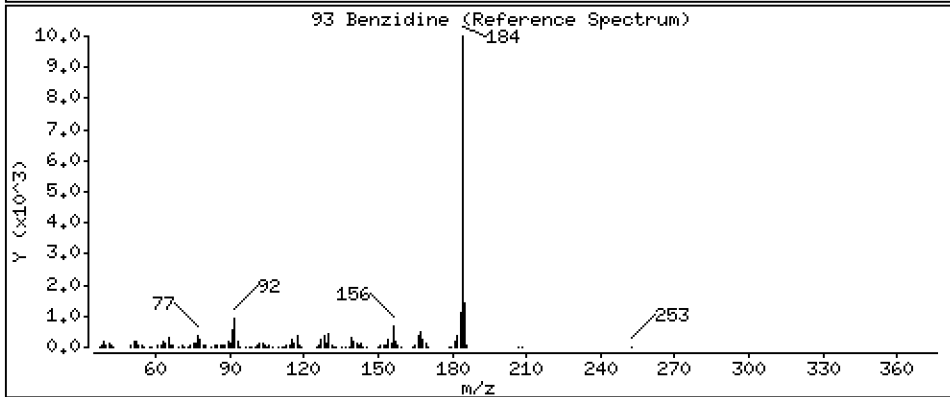
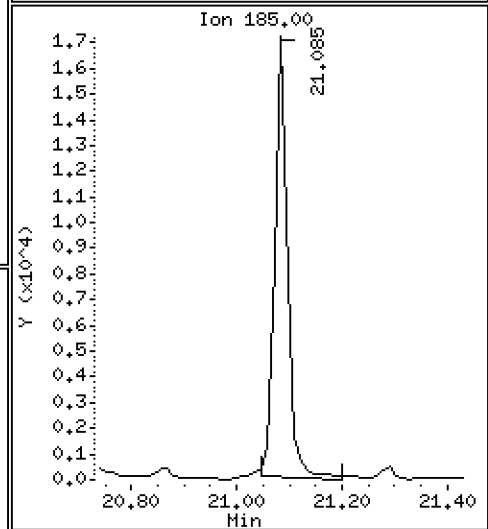
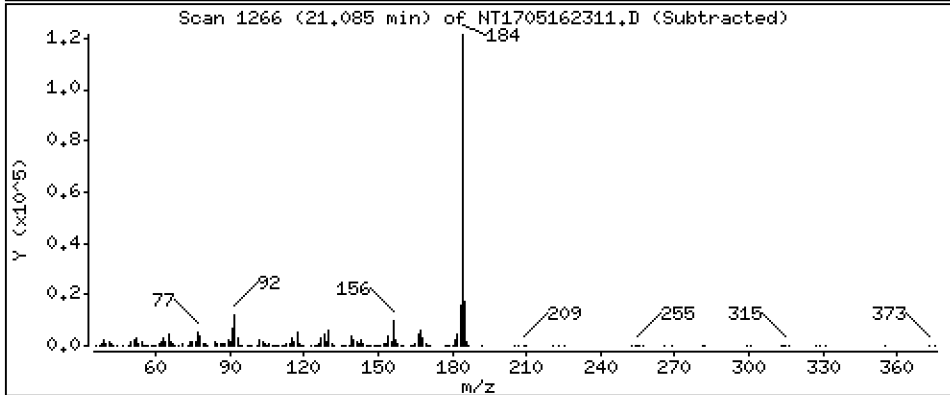
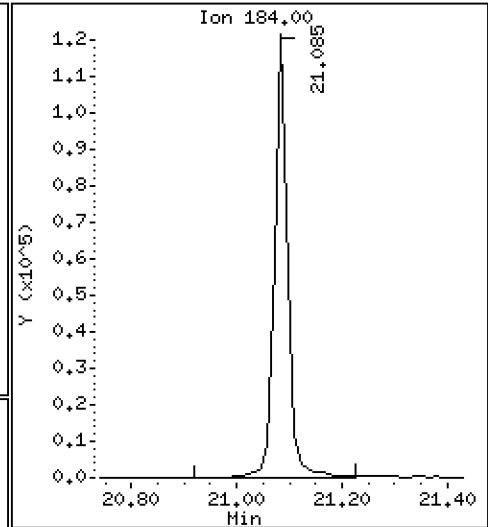
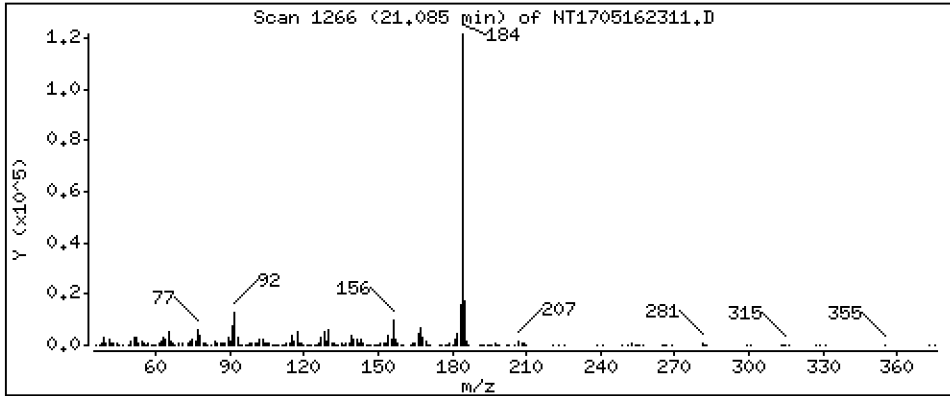
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 3,457 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

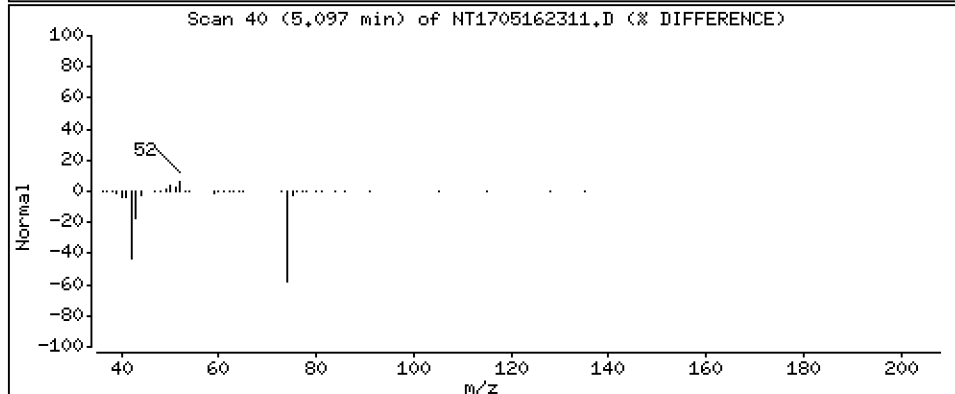
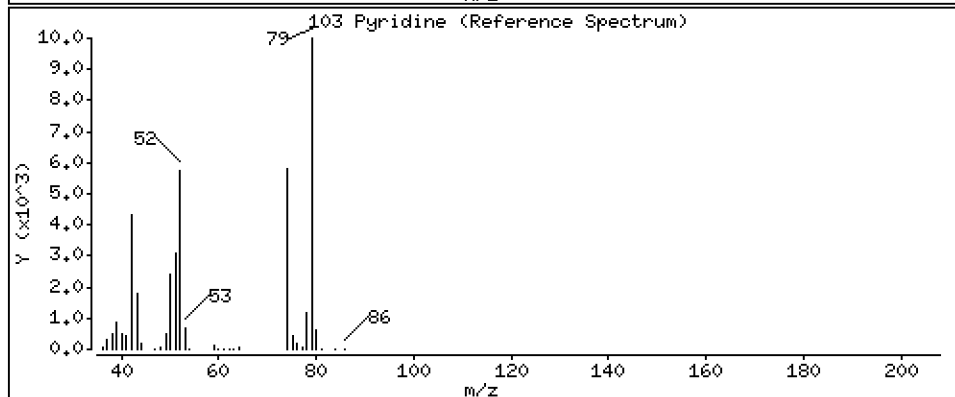
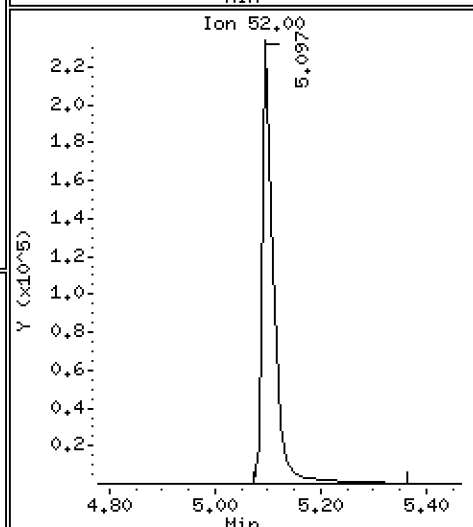
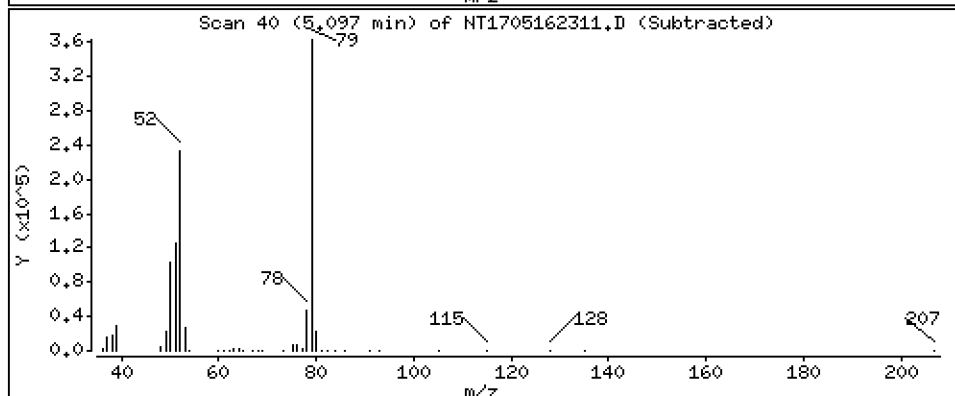
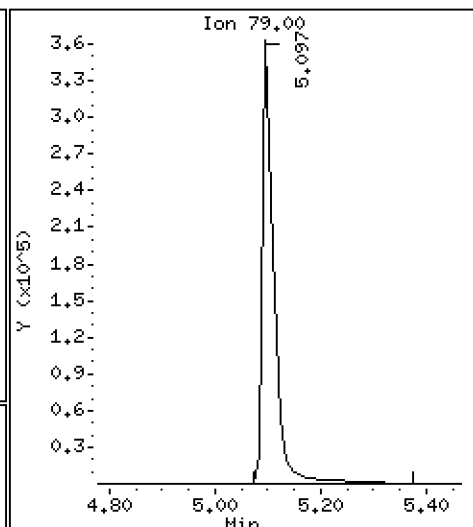
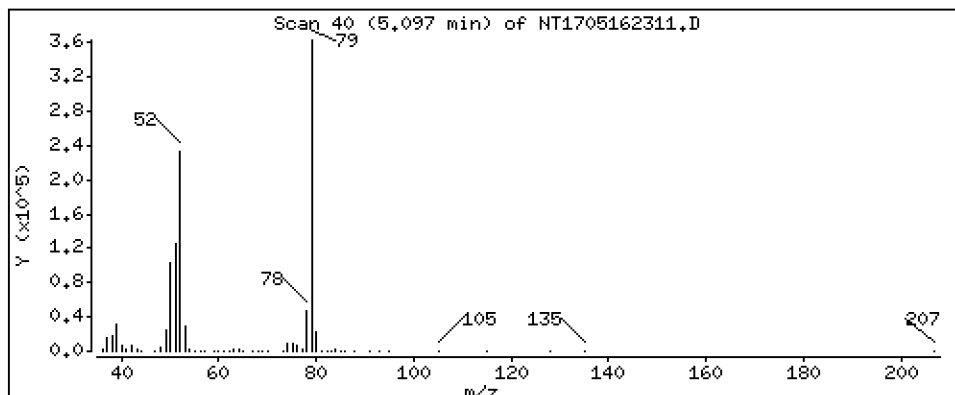
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,811 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

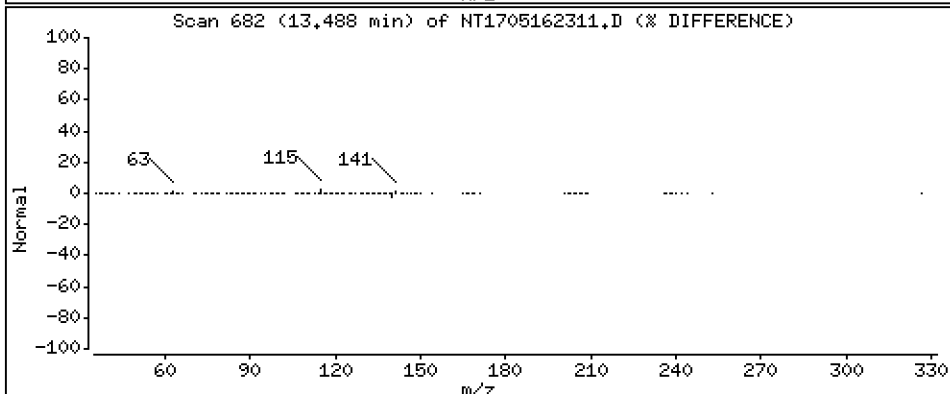
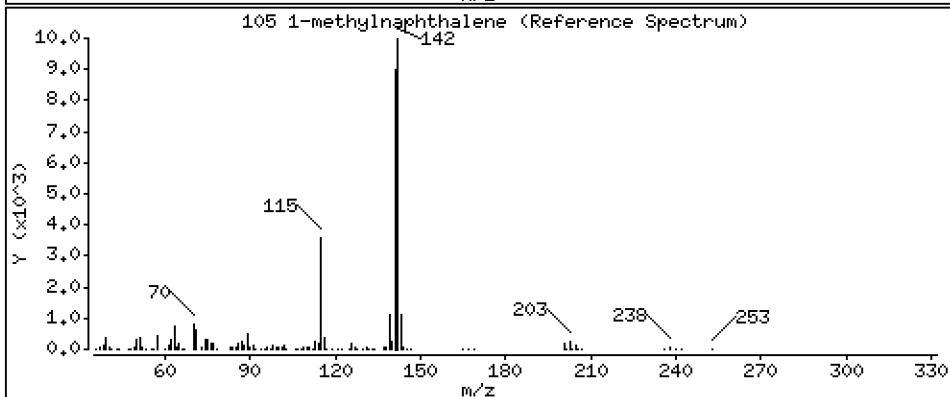
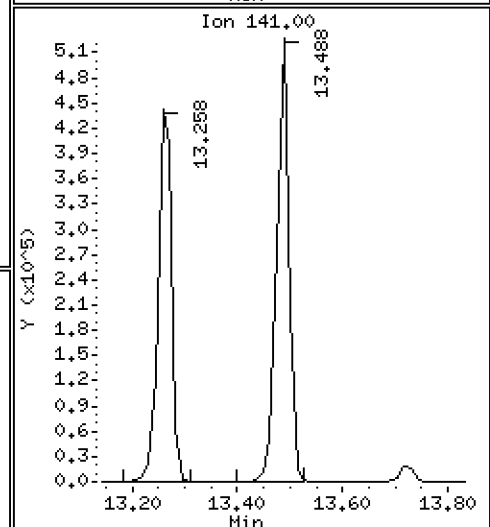
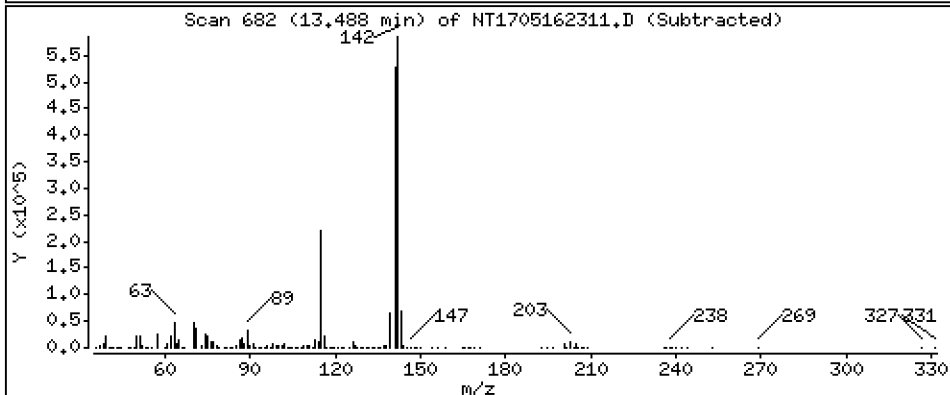
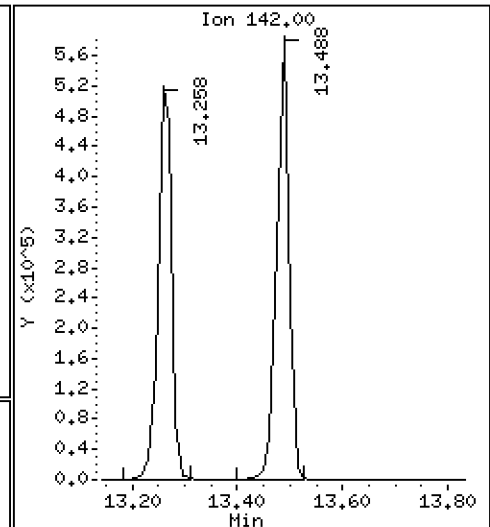
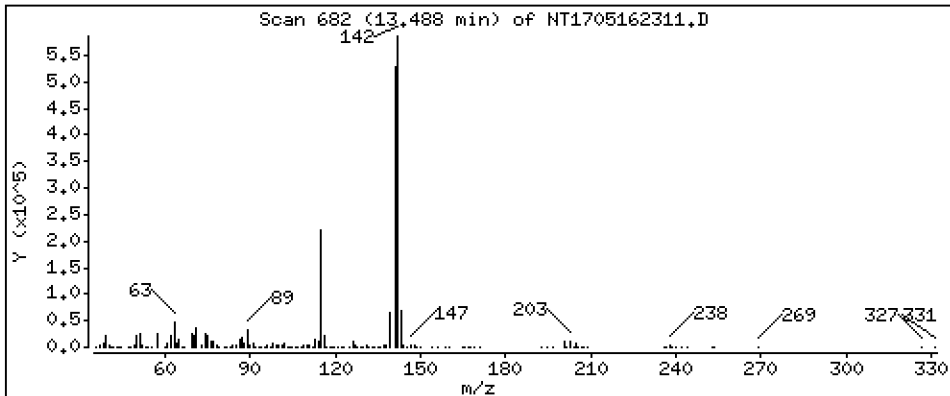
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 5,250 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

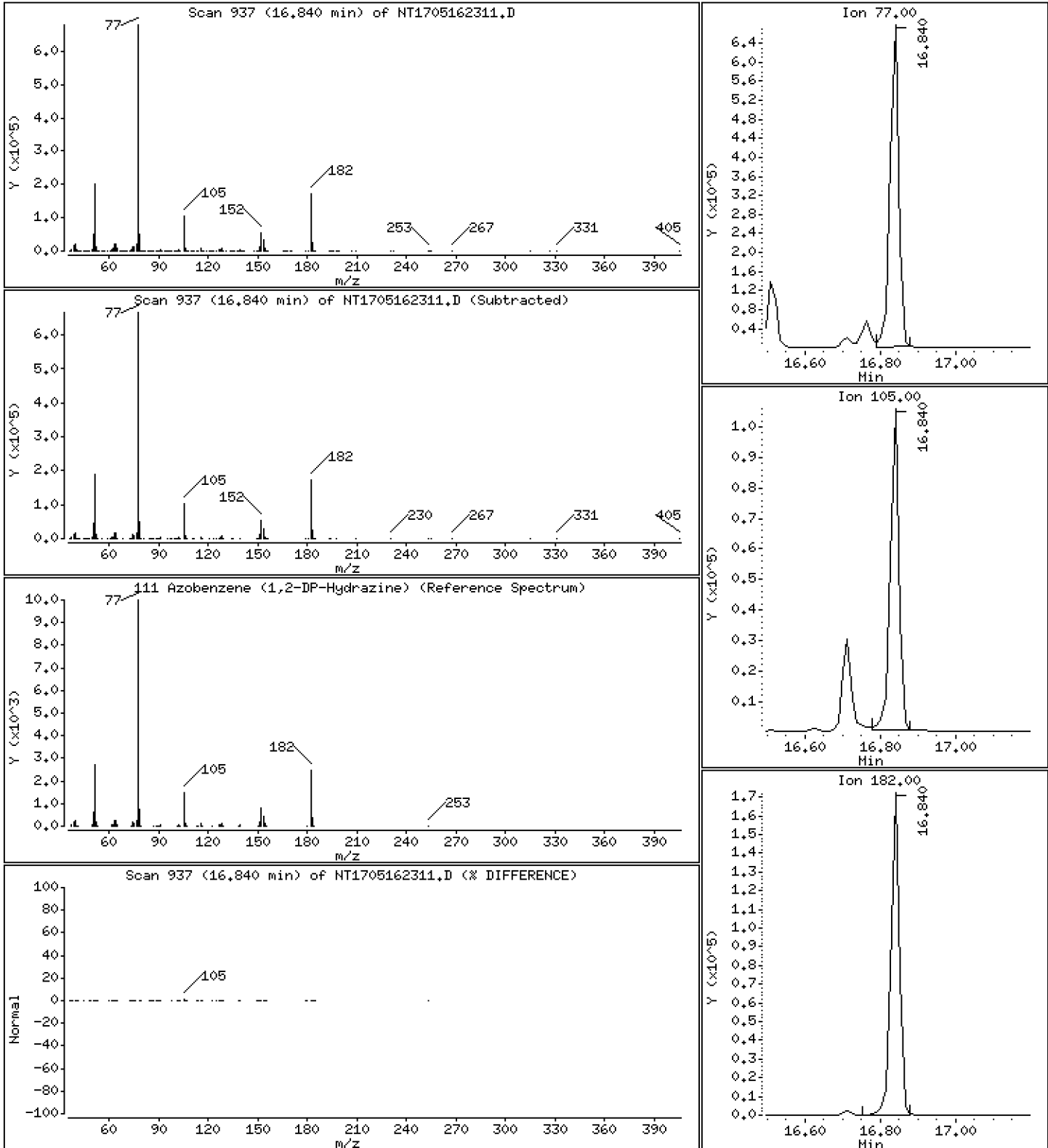
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,338 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

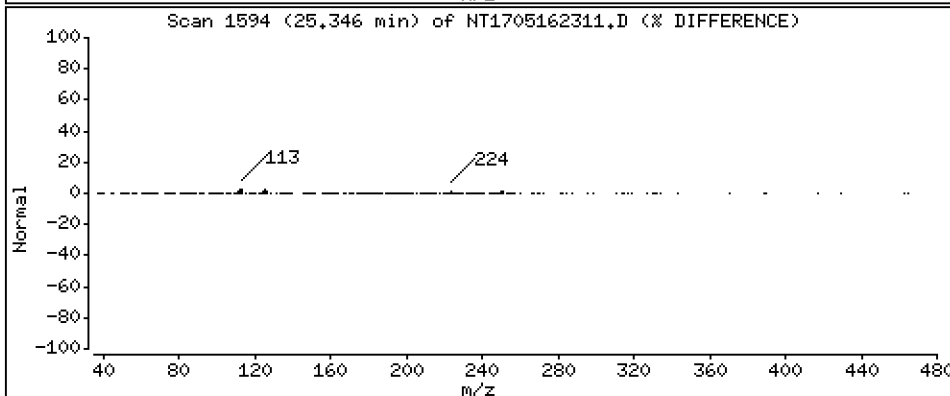
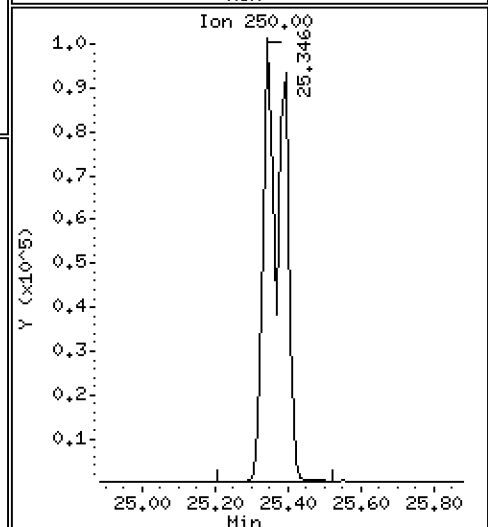
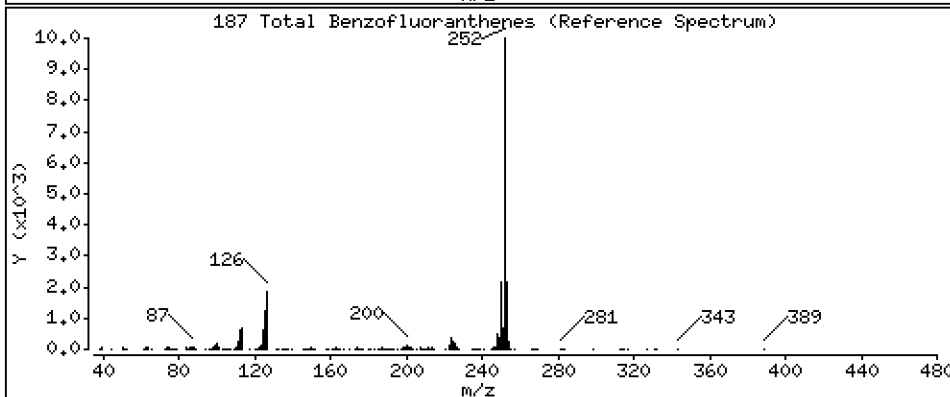
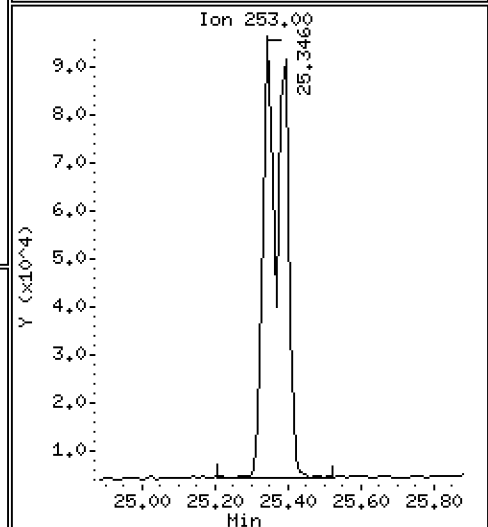
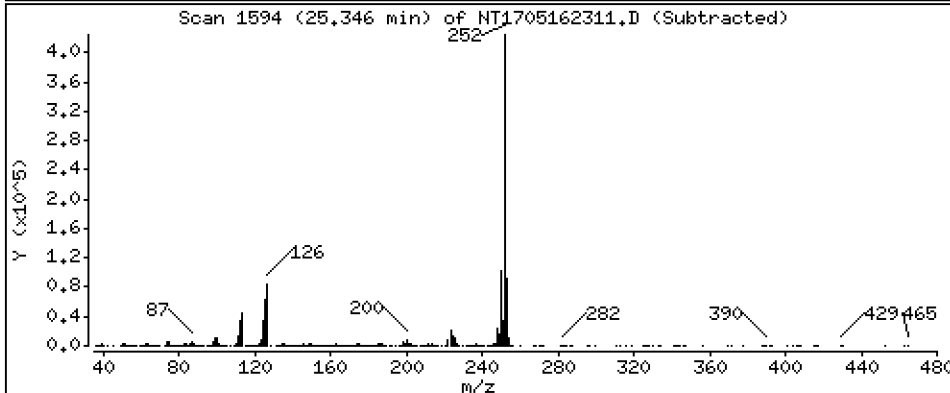
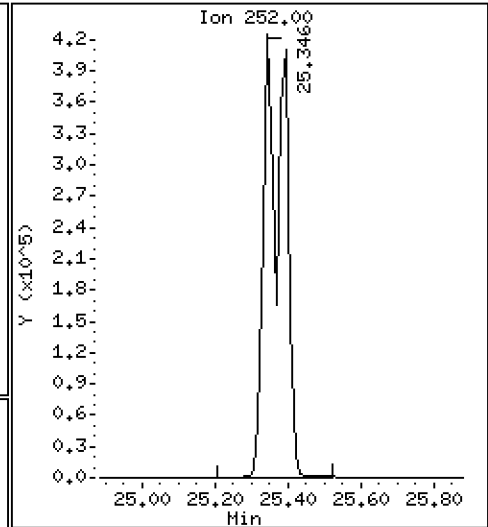
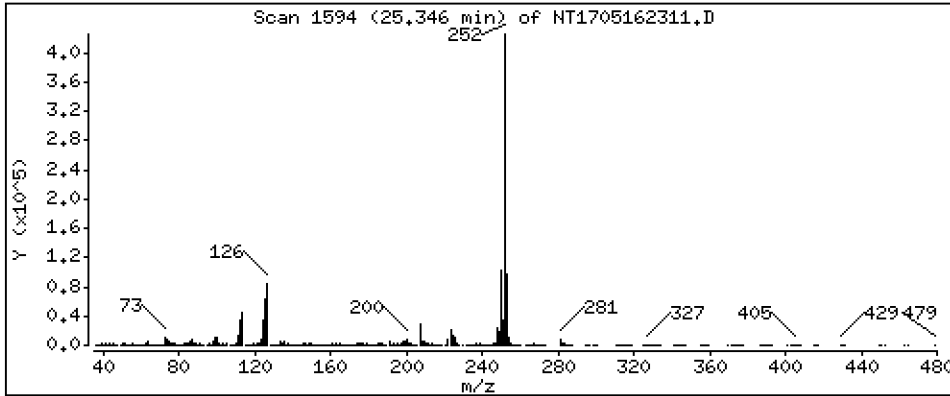
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,02 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

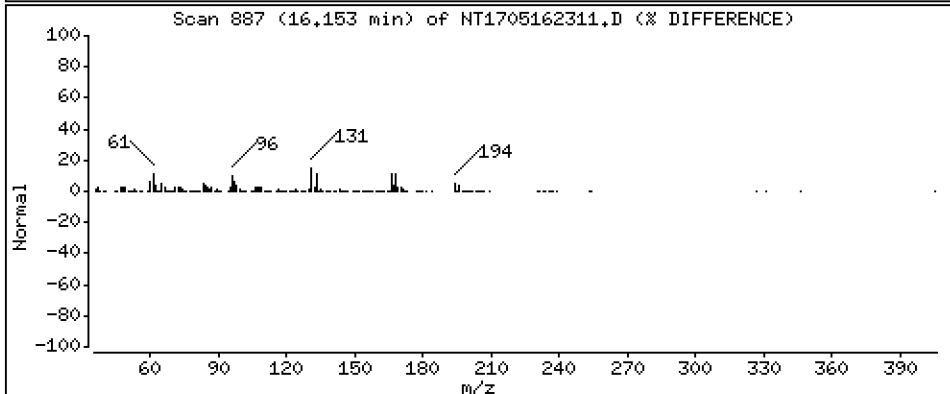
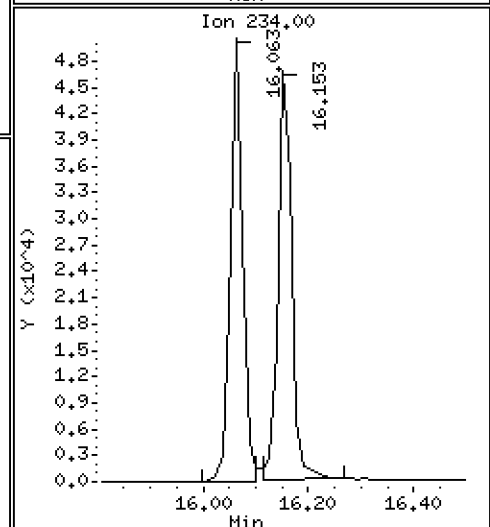
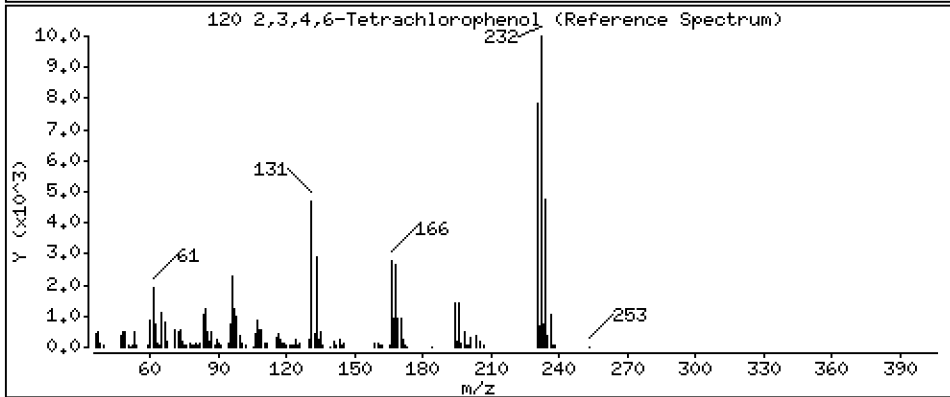
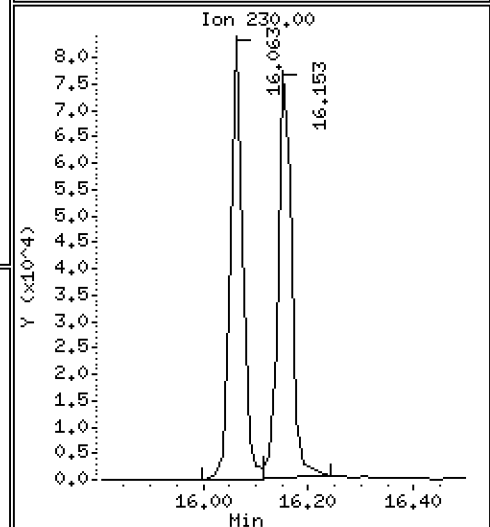
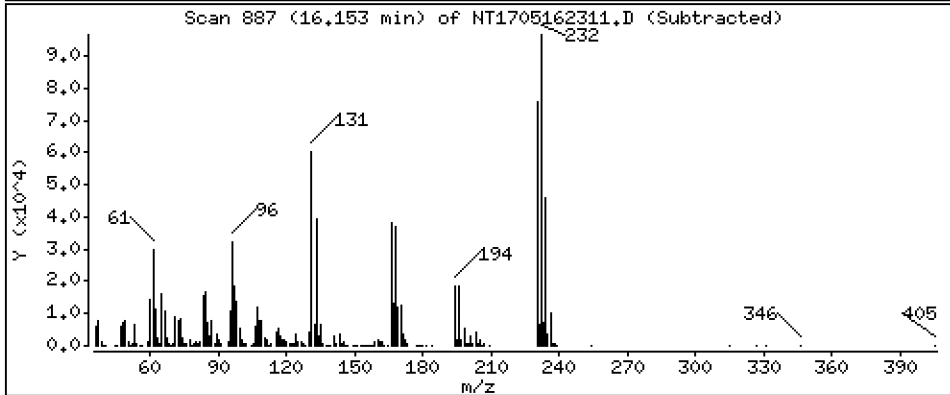
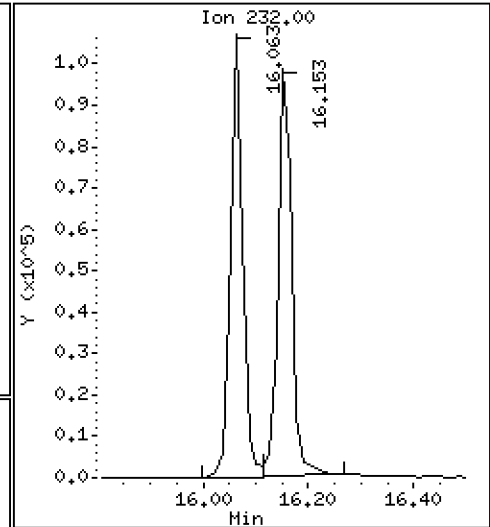
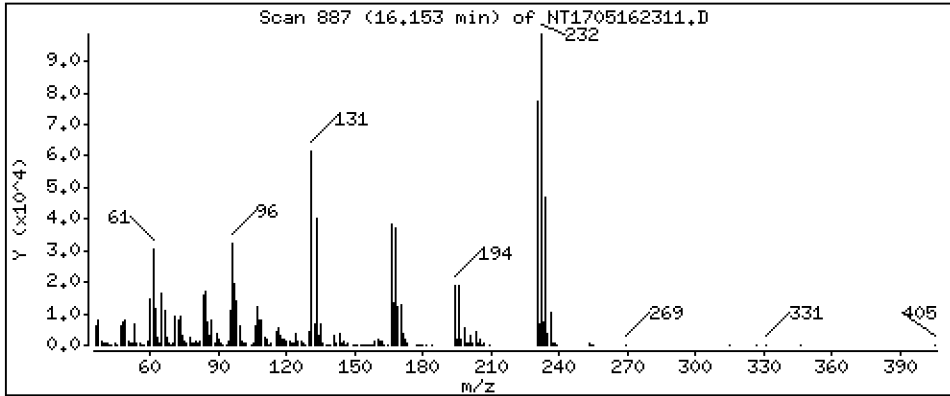
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,283 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162311.D
 Lab Smp Id: SLE0338-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0338-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112					Compound Not Detected.		
\$ 2 Phenol-d5	99					Compound Not Detected.		
3 Phenol	94		8.740	8.740	(0.933)	588001	4.82293	4.823
\$ 5 2-Chlorophenol-d4	132					Compound Not Detected.		
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	494651	5.56554	5.566
6 2-Chlorophenol	128		9.033	9.033	(0.965)	539006	5.29416	5.294
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	548081	5.31911	5.319
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	265705	4.00000	
9 1,4-Dichlorobenzene	146		9.390	9.391	(1.003)	521173	5.07146	5.071
\$ 10 1,2-Dichlorobenzene-d4	152					Compound Not Detected.		
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	507921	5.25771	5.258
11 Benzyl alcohol	108		9.633	9.633	(1.029)	299374	5.27414	5.274
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	168255	6.17916	6.179
13 2-Methylphenol	108		9.850	9.851	(1.052)	378927	4.22901	4.229
17 Hexachloroethane	117		10.336	10.336	(1.104)	222748	5.41856	5.419
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	378231	5.51734	5.517
15 4-Methylphenol	108		10.119	10.119	(1.080)	425231	4.66096	4.661
\$ 18 Nitrobenzene-d5	82					Compound Not Detected.		
19 Nitrobenzene	77		10.489	10.489	(0.886)	558517	5.32891	5.329
20 Isophorone	82		10.924	10.924	(0.922)	996054	6.94254	6.943
21 2-Nitrophenol	139		11.115	11.115	(0.939)	247403	4.89866	4.899
22 2,4-Dimethylphenol	107		11.153	11.154	(0.942)	371455	3.78811	3.788
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	547968	6.23185	6.232
24 Benzoic acid	105		11.332	11.333	(0.957)	445958	6.76086	6.761
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	370930	4.70748	4.707
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	503147	5.87937	5.879
* 27 Naphthalene-d8	136		11.842	11.830	(1.000)	965231	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	1361438	5.12904	5.129
29 4-Chloroaniline	127		11.995	11.995	(1.013)	469527	4.48751	4.488
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	222159	5.24062	5.241
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	413906	4.87847	4.878
32 2-Methylnaphthalene	142		13.258	13.258	(1.120)	955574	5.02794	5.028
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	201170	4.21896	4.219

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.883	13.883	(0.899)	257193	4.79376	4.794	
35 2,4,5-Trichlorophenol	196		13.959	13.959	(0.904)	274739	4.83728	4.837	
§ 36 2-Fluorobiphenyl	172		Compound Not Detected.						
37 2-Chloronaphthalene	162		14.252	14.253	(0.923)	885085	5.40065	5.401	
38 2-Nitroaniline	65		14.507	14.508	(0.940)	297267	5.35584	5.356	
39 Dimethylphthalate	163		14.928	14.929	(0.967)	955980	5.41824	5.418	
40 Acenaphthylene	152		15.120	15.120	(0.979)	1374665	5.28203	5.282	
41 2,6-Dinitrotoluene	165		15.069	15.069	(0.976)	223225	5.40390	5.404	
* 42 Acenaphthene-d10	164		15.438	15.426	(1.000)	512787	4.00000		
43 3-Nitroaniline	138		15.362	15.349	(0.995)	197758	5.16887	5.169	
44 Acenaphthene	153		15.502	15.502	(1.004)	859485	5.28316	5.283	
45 2,4-Dinitrophenol	184		15.566	15.567	(1.008)	52944	2.11874	2.119	
46 Dibenzofuran	168		15.821	15.821	(1.025)	1172327	5.16305	5.163	
47 4-Nitrophenol	109		15.668	15.681	(1.015)	114450	4.50365	4.504	
48 2,4-Dinitrotoluene	165		15.872	15.872	(1.028)	284935	5.26937	5.269	
50 Diethylphthalate	149		16.369	16.369	(1.060)	945291	5.49374	5.494	
49 Fluorene	166		16.535	16.535	(1.071)	1165179	5.39758	5.398	
51 4-Chlorophenyl-phenylether	204		16.522	16.509	(1.070)	542088	5.46212	5.462	
52 4-Nitroaniline	138		16.624	16.611	(1.077)	184970	5.10772	5.108	
53 4,6-Dinitro-2-methylphenol	198		16.713	16.713	(0.905)	113822	3.35487	3.355	
54 N-Nitrosodiphenylamine	169		16.764	16.764	(0.908)	651392	5.46976	5.470	
§ 55 2,4,6-Tribromophenol	330		Compound Not Detected.						
56 4-Bromophenyl-phenylether	248		17.514	17.515	(0.949)	226164	5.42020	5.420	
57 Hexachlorobenzene	284		17.833	17.833	(0.966)	208878	4.91276	4.913	
58 Pentachlorophenol	266		18.190	18.203	(0.985)	98895	3.94337	3.943	
* 59 Phenanthrene-d10	188		18.458	18.458	(1.000)	850147	4.00000		
60 Phenanthrene	178		18.509	18.496	(1.003)	1250084	5.03943	5.039	
61 Anthracene	178		18.598	18.598	(1.008)	1054910	4.52965	4.530	
62 Carbazole	167		18.917	18.918	(1.025)	896606	5.93842	5.938	
63 Di-n-butylphthalate	149		19.682	19.682	(1.066)	1586517	5.64164	5.642	
64 Fluoranthene	202		20.868	20.855	(0.890)	1308113	5.46710	5.467	
65 Pyrene	202		21.289	21.276	(0.908)	1277121	5.26528	5.265	
§ 66 Terphenyl-d14	244		Compound Not Detected.						
67 Butylbenzylphthalate	149		22.462	22.462	(0.958)	632335	5.82476	5.825	
68 Benzo(a)anthracene	228		23.419	23.419	(0.998)	953848	5.06413	5.064	
* 69 Chrysene-d12	240		23.457	23.445	(1.000)	511511	4.00000		
70 3,3'-Dichlorobenzidine	252		23.368	23.369	(0.996)	459041	11.9948	11.99	
71 Chrysene	228		23.496	23.496	(1.002)	889381	5.01800	5.018	
72 bis(2-Ethylhexyl)phthalate	149		23.470	23.470	(0.959)	875291	5.79218	5.792	
* 134 Di-n-octylphthalate-d4	153		24.465	24.465	(1.000)	1044471	4.00000		
73 Di-n-octylphthalate	149		24.465	24.465	(1.000)	1451463	5.48238	5.482	
74 Benzo(b)fluoranthene	252		25.345	25.345	(0.969)	887996	4.91157	4.912	
75 Benzo(k)fluoranthene	252		25.396	25.384	(0.971)	848094	4.96504	4.965 (H)	
76 Benzo(a)pyrene	252		26.034	26.022	(0.996)	736579	5.17185	5.172	
* 77 Perylene-d12	264		26.149	26.149	(1.000)	456008	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.946	28.933	(1.107)	830811	5.02922	5.029	
79 Dibenzo(a,h)anthracene	278		28.946	28.946	(1.107)	689006	4.96953	4.970	
80 Benzo(g,h,i)perylene	276		29.764	29.751	(1.138)	689189	5.05448	5.054	
90 N-Nitrosodimethylamine	74		5.071	5.071	(0.542)	334608	5.76731	5.767	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		21.085	21.085	(0.899)	208933	3.45722	3.457	
103 Pyridine	79		5.097	5.122	(0.544)	534742	5.81084	5.811	
105 1-methylnaphthalene	142		13.487	13.487	(1.139)	925646	5.25003	5.250	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.840	16.840	(1.091)	1072104	5.33771	5.338	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	1625913	10.0183	10.02
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	210743	3.28296	3.283

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162311.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	265705	-7.45
27 Naphthalene-d8	1056758	528379	2113516	965231	-8.66
42 Acenaphthene-d10	587510	293755	1175020	512787	-12.72
59 Phenanthrene-d10	933575	466788	1867150	850147	-8.94
69 Chrysene-d12	576570	288285	1153140	511511	-11.28
134 Di-n-octylphthala	1181651	590826	2363302	1044471	-11.61
77 Perylene-d12	491359	245680	982718	456008	-7.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311.D

Lab ID: SLE0338-SCV1
nt17.i, ABN.m, 17-MAY-2023 00:29

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

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0338-SCV1

Sequence: SLE0338

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.8	-3.5	20.00
bis(2-chloroethyl) ether	5.0000	5.6	11.3	20.00
2-Chlorophenol	5.0000	5.3	5.9	20.00
1,3-Dichlorobenzene	5.0000	5.3	6.4	20.00
1,4-Dichlorobenzene	5.0000	5.1	1.4	20.00
1,2-Dichlorobenzene	5.0000	5.3	5.2	20.00
Benzyl Alcohol	5.0000	5.3	5.5	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	6.2	23.6	20.00
2-Methylphenol	5.0000	4.2	-15.4	20.00
Hexachloroethane	5.0000	5.4	8.4	20.00
N-Nitroso-di-n-Propylamine	5.0000	5.5	10.3	20.00
4-Methylphenol	5.0000	4.7	-6.8	20.00
Nitrobenzene	5.0000	5.3	6.6	20.00
Isophorone	5.0000	6.9	38.9	20.00
2-Nitrophenol	5.0000	4.9	-2.0	20.00
2,4-Dimethylphenol	5.0000	3.8	-24.2	20.00
Bis(2-Chloroethoxy)methane	5.0000	6.2	24.6	20.00
2,4-Dichlorophenol	5.0000	4.7	-5.9	20.00
1,2,4-Trichlorobenzene	5.0000	5.9	17.6	20.00
Naphthalene	5.0000	5.1	2.6	20.00
Benzoic acid	10.0000	6.8	-32.4	20.00
4-Chloroaniline	5.0000	4.5	-10.2	20.00
Hexachlorobutadiene	5.0000	5.2	4.8	20.00
4-Chloro-3-Methylphenol	5.0000	4.9	-2.4	20.00
2-Methylnaphthalene	5.0000	5.0	0.6	20.00
Hexachlorocyclopentadiene	5.0000	4.2	-15.6	20.00
2,4,6-Trichlorophenol	5.0000	4.8	-4.1	20.00
2,4,5-Trichlorophenol	5.0000	4.8	-3.3	20.00
2-Chloronaphthalene	5.0000	5.4	8.0	20.00
2-Nitroaniline	5.0000	5.4	7.1	20.00
Acenaphthylene	5.0000	5.3	5.6	20.00
Dimethylphthalate	5.0000	5.4	8.4	20.00



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0338-SCV1

Sequence: SLE0338

Standard ID: K010066

2,6-Dinitrotoluene	5.0000	5.4	8.1	20.00
Acenaphthene	5.0000	5.3	5.7	20.00
3-Nitroaniline	5.0000	5.2	3.4	20.00
2,4-Dinitrophenol	5.0000	2.1	-57.6	20.00
Dibenzofuran	5.0000	5.2	3.3	20.00
4-Nitrophenol	5.0000	4.5	-9.9	20.00
2,4-Dinitrotoluene	5.0000	5.3	5.4	20.00
Fluorene	5.0000	5.4	8.0	20.00
4-Chlorophenylphenyl ether	5.0000	5.5	9.2	20.00
Diethyl phthalate	5.0000	5.5	9.9	20.00
4-Nitroaniline	5.0000	5.1	2.2	20.00
4,6-Dinitro-2-methylphenol	5.0000	3.4	-32.9	20.00
N-Nitrosodiphenylamine	5.0000	5.5	9.4	20.00
4-Bromophenyl phenyl ether	5.0000	5.4	8.4	20.00
Hexachlorobenzene	5.0000	4.9	-1.7	20.00
Pentachlorophenol	5.0000	3.9	-21.1	20.00
Phenanthrene	5.0000	5.0	0.8	20.00
Anthracene	5.0000	4.5	-9.4	20.00
Carbazole	5.0000	5.9	18.8	20.00
Di-n-Butylphthalate	5.0000	5.6	12.8	20.00
Fluoranthene	5.0000	5.5	9.3	20.00
Pyrene	5.0000	5.3	5.3	20.00
Butylbenzylphthalate	5.0000	5.8	16.5	20.00
Benzo(a)anthracene	5.0000	5.1	1.3	20.00
3,3'-Dichlorobenzidine	10.0000	12.0	19.9	20.00
Chrysene	5.0000	5.0	0.4	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.8	15.8	20.00
Di-n-Octylphthalate	5.0000	5.5	9.6	20.00
Benzo(a)fluoranthene, Total	10.0000	10.0	0.2	20.00
Benzo(a)pyrene	5.0000	5.2	3.4	20.00
Indeno(1,2,3-cd)pyrene	5.0000	5.0	0.6	20.00
Dibenzo(a,h)anthracene	5.0000	5.0	-0.6	20.00
Benzo(g,h,i)perylene	5.0000	5.1	1.1	20.00
1-Methylnaphthalene	5.0000	5.3	5.0	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162311.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0338-SCW1

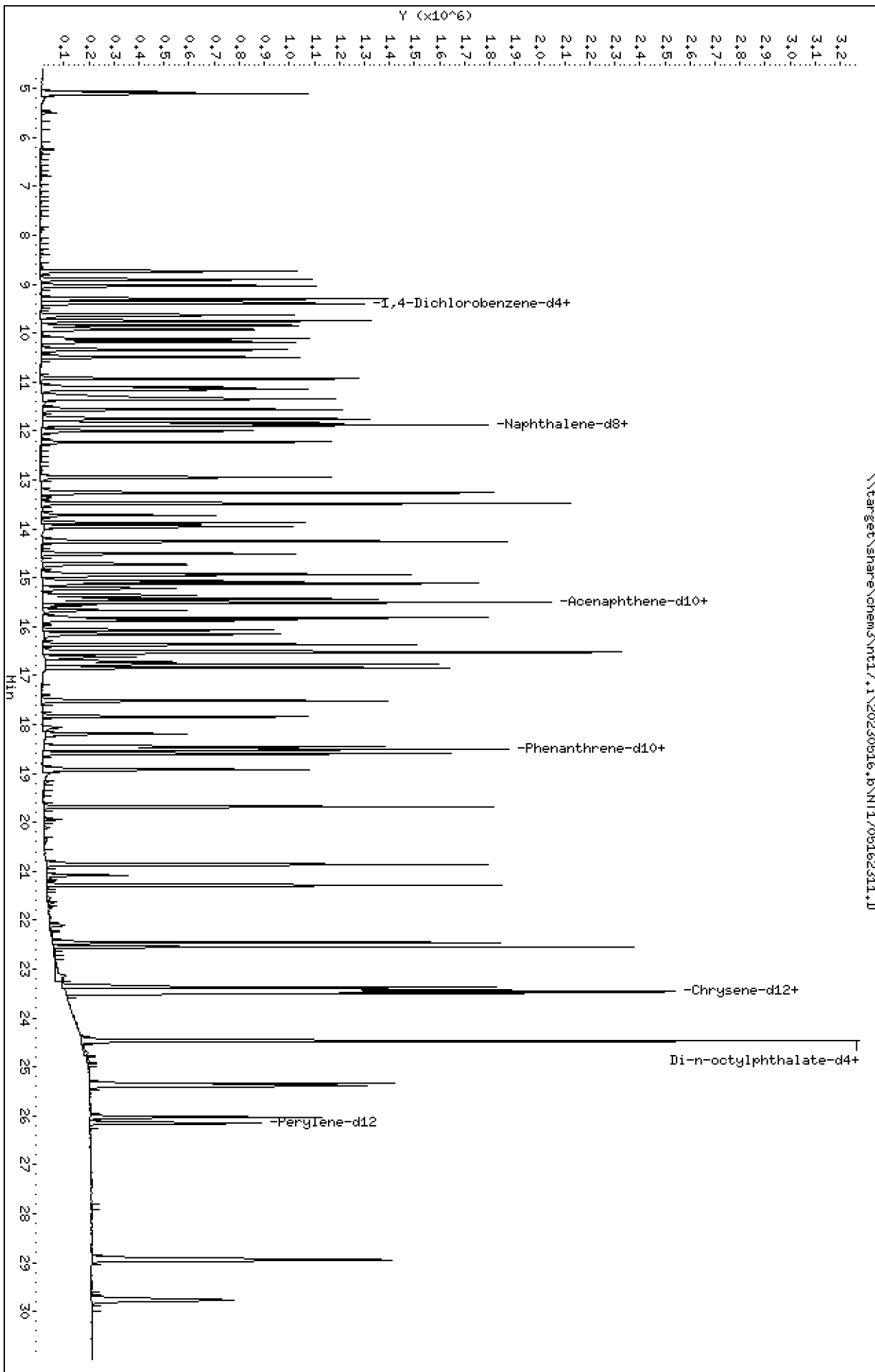
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230516.6\NT1705162311.D



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

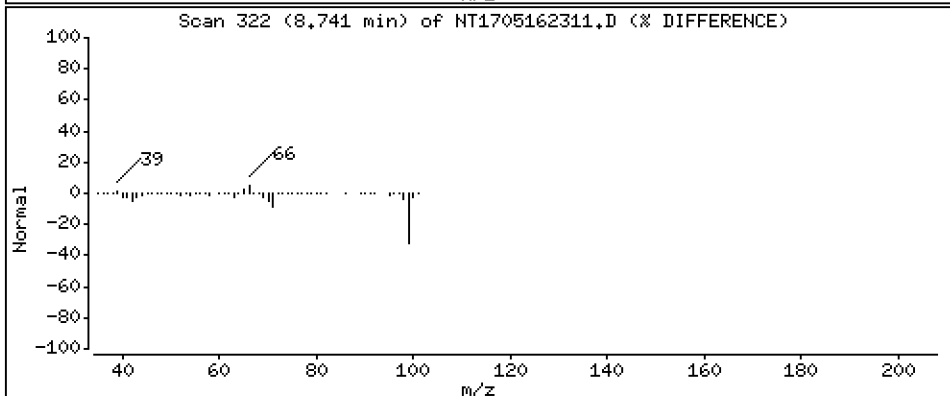
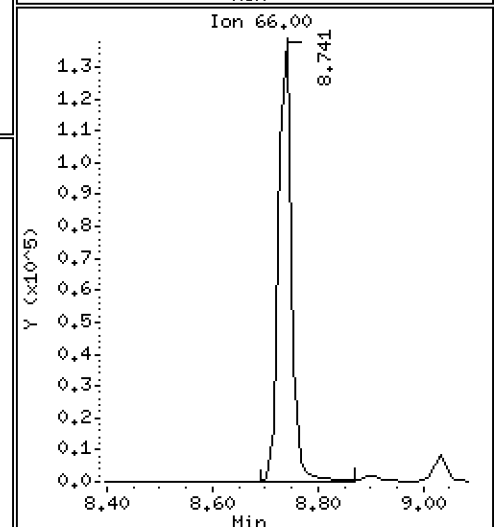
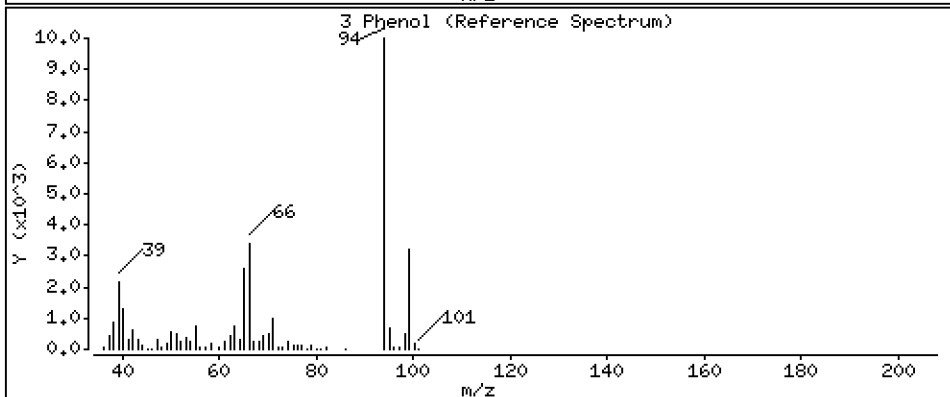
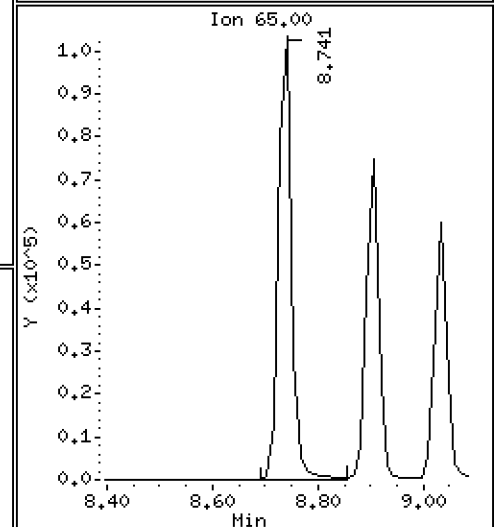
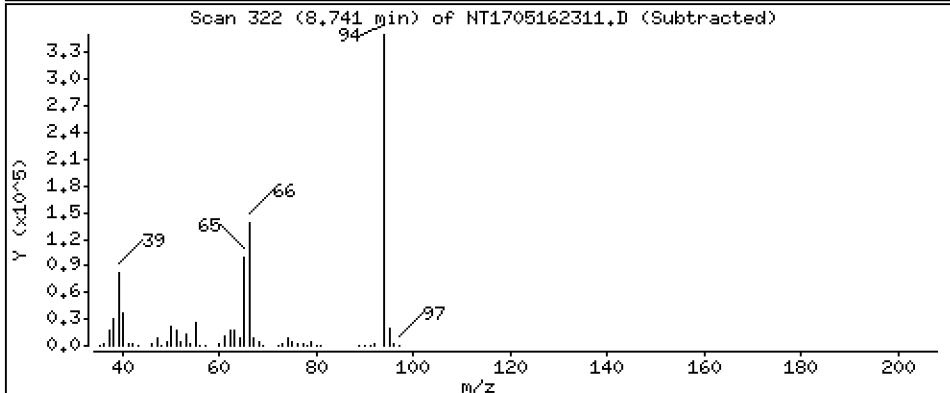
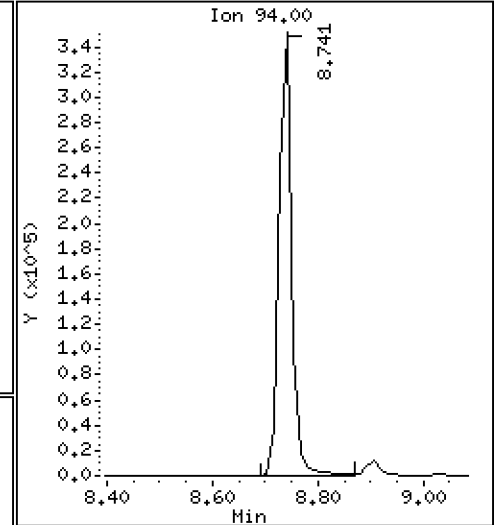
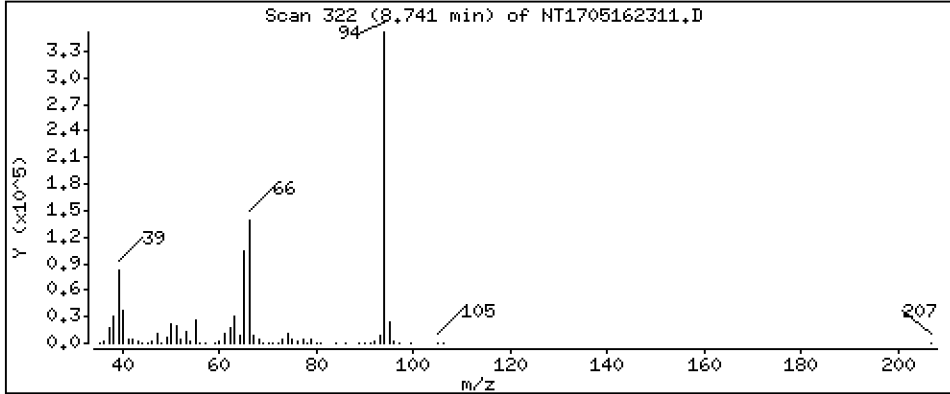
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.823 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

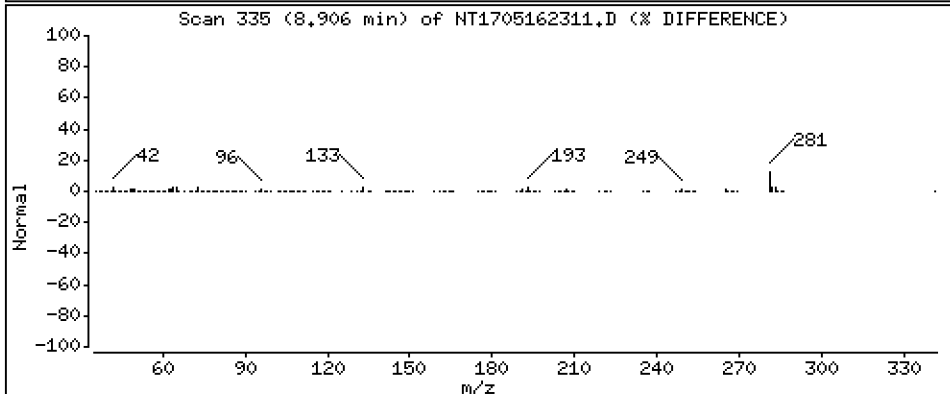
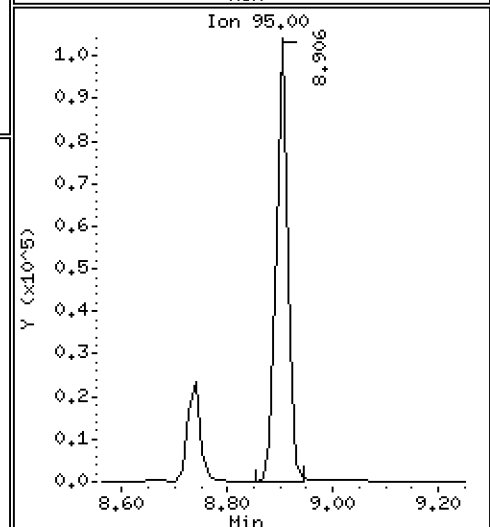
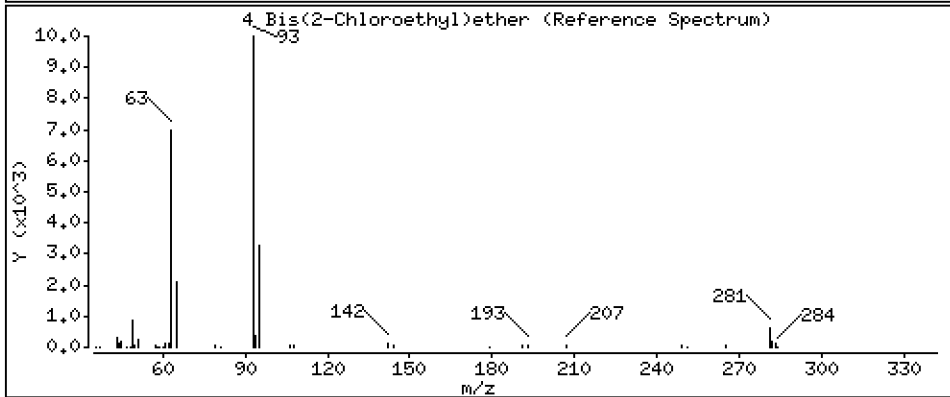
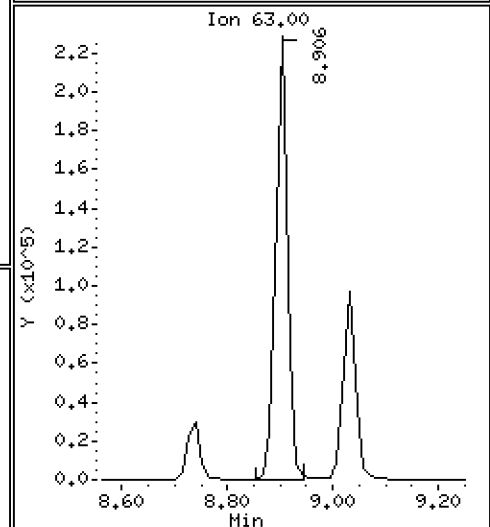
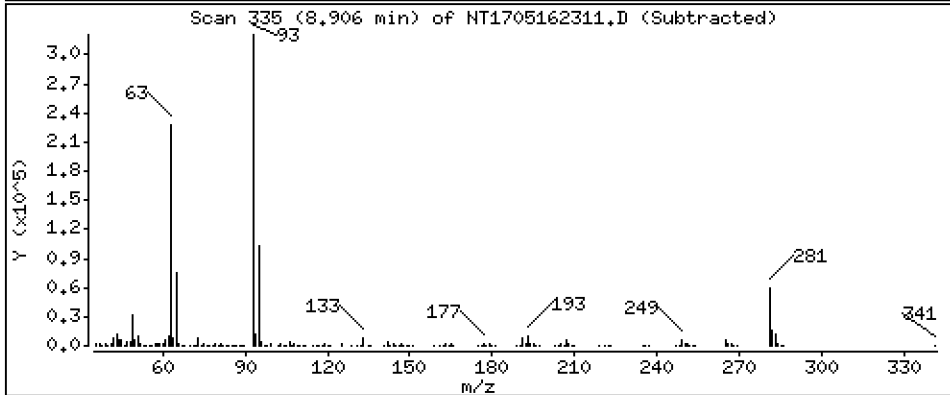
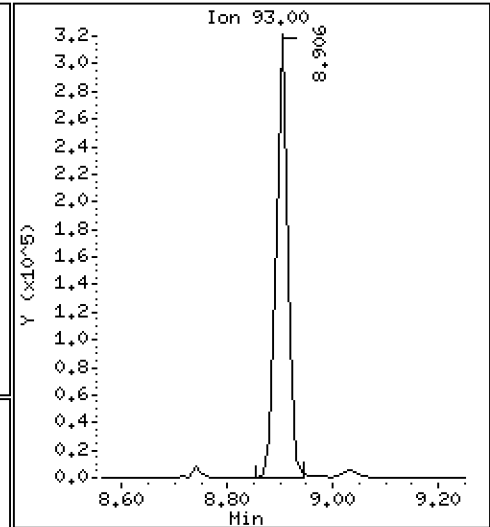
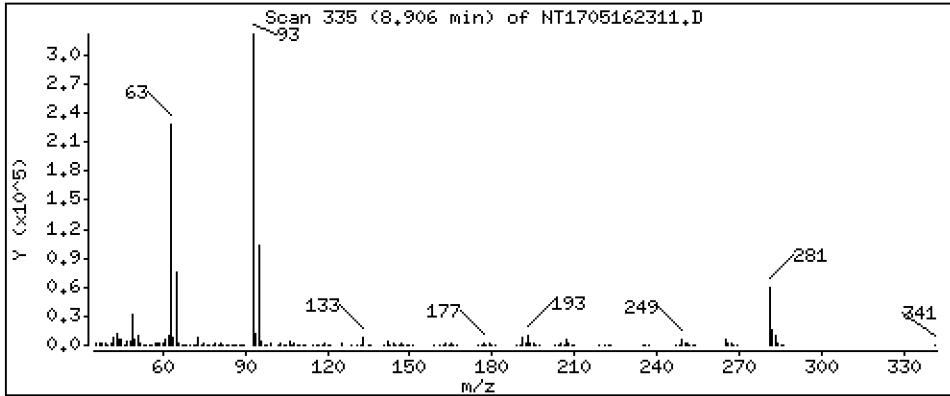
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,566 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

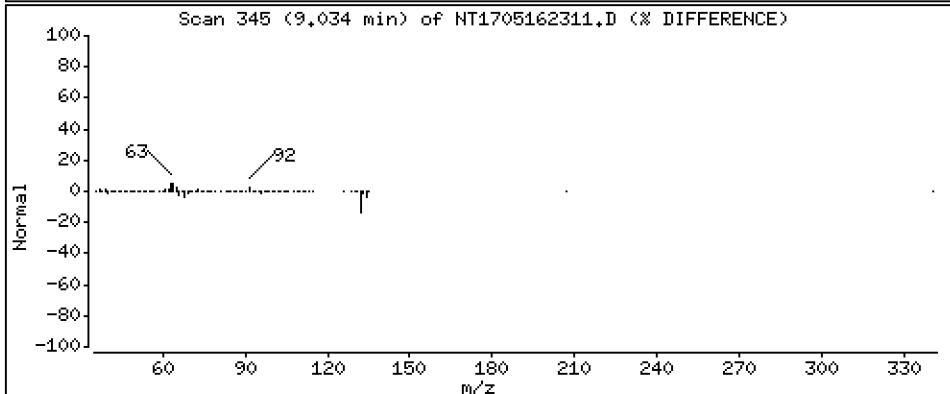
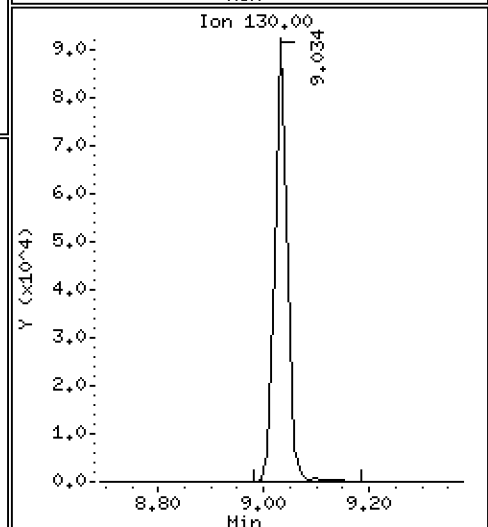
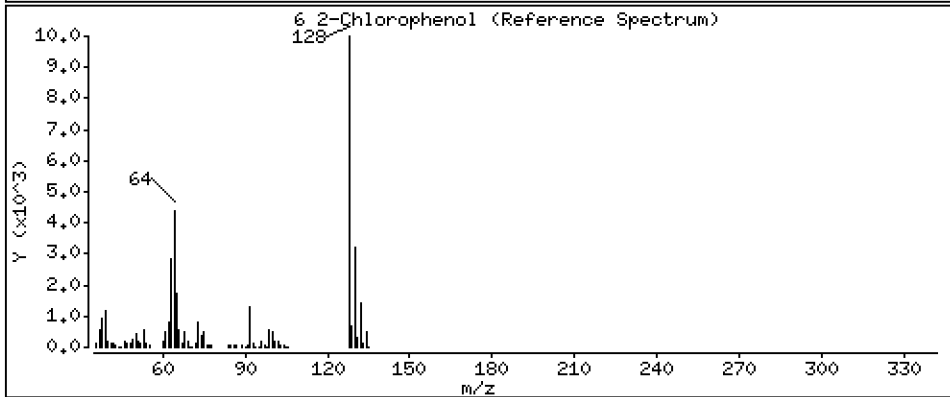
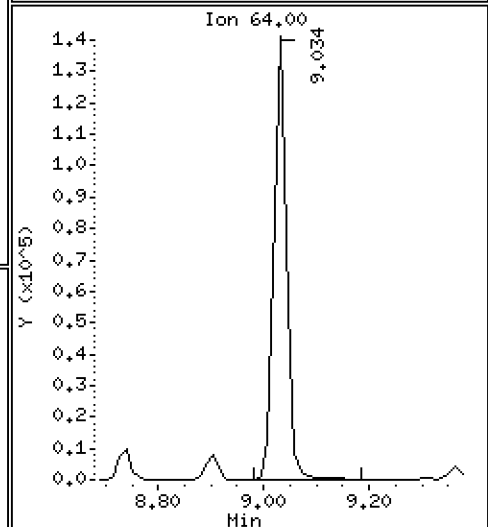
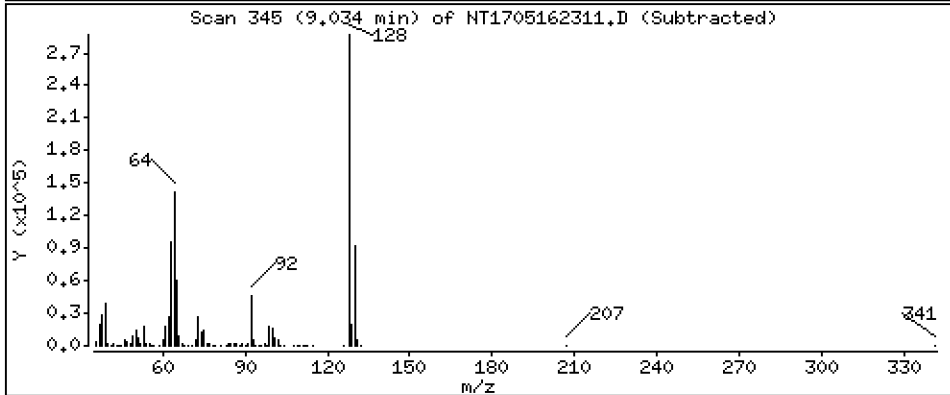
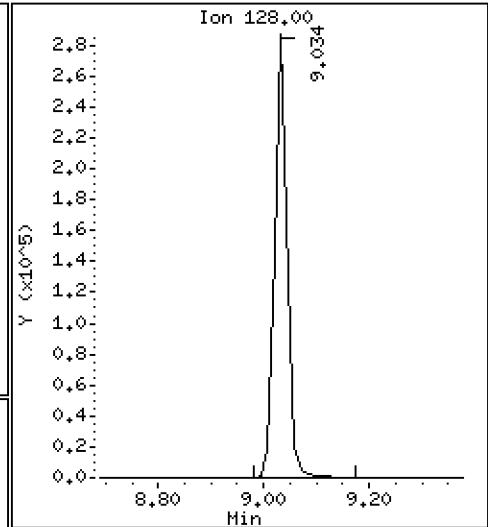
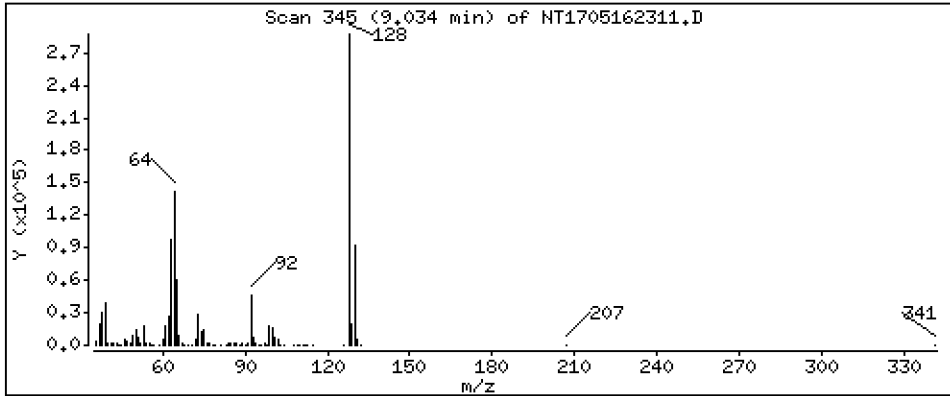
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 5,294 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

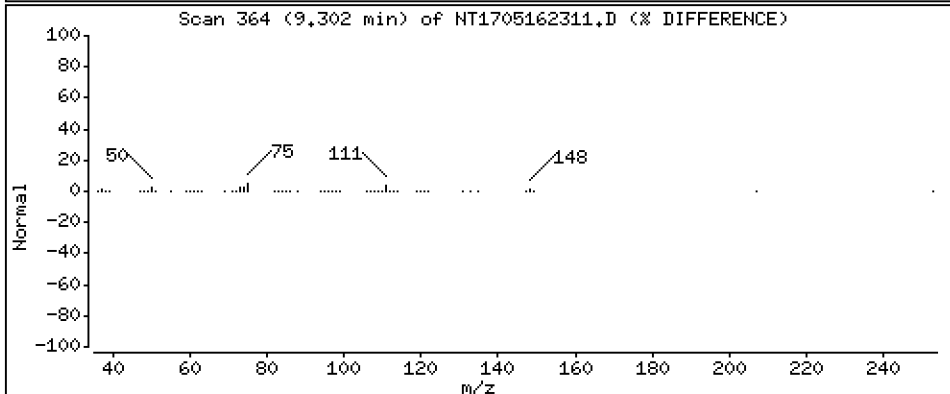
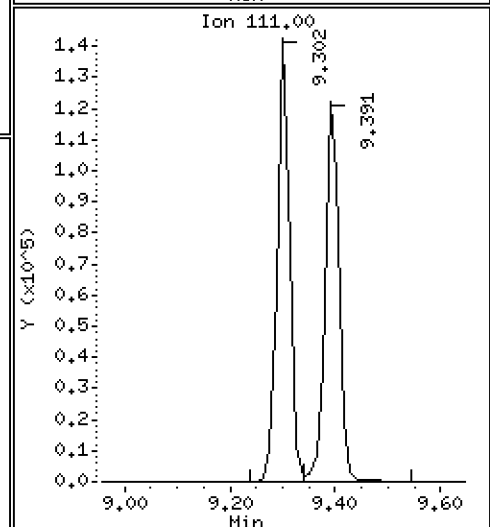
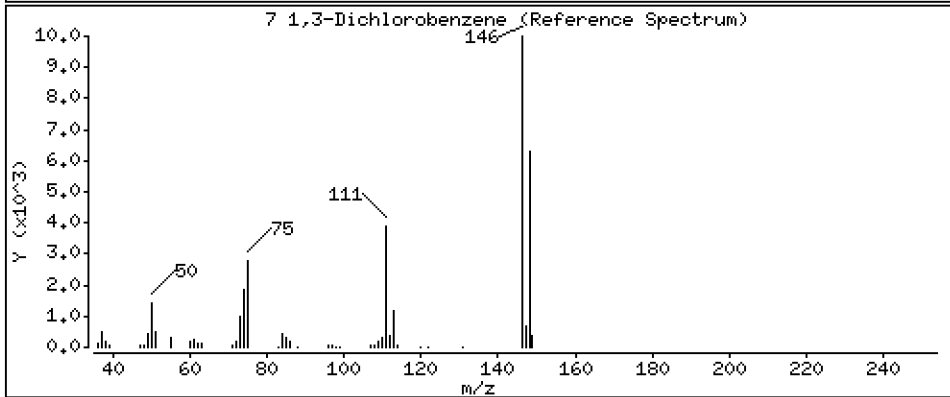
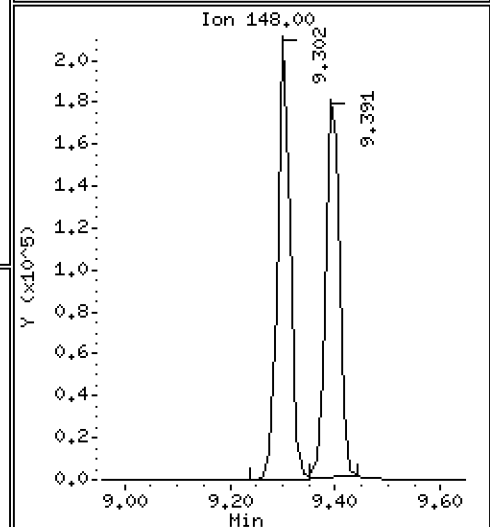
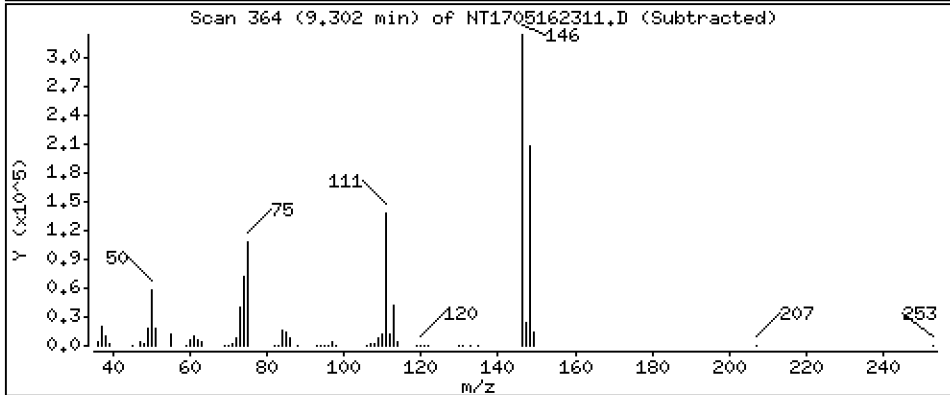
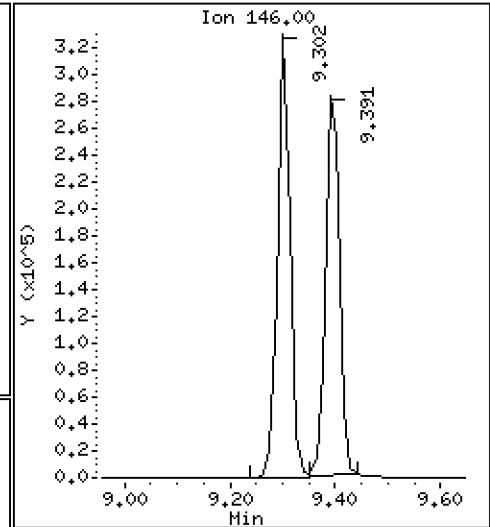
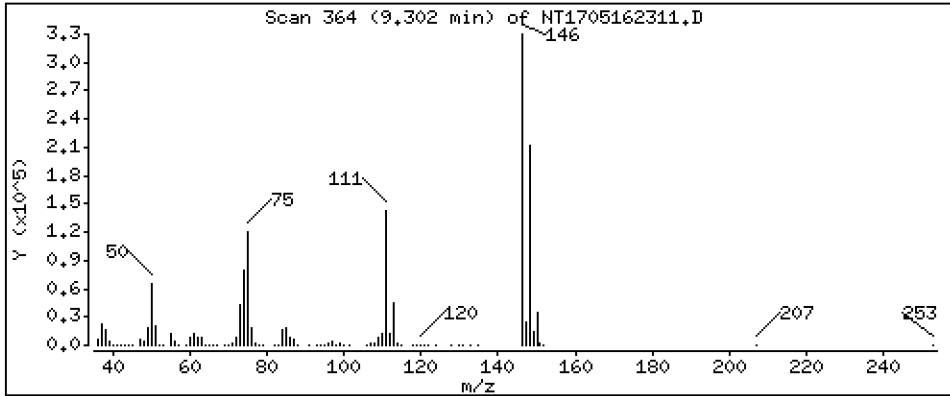
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.319 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

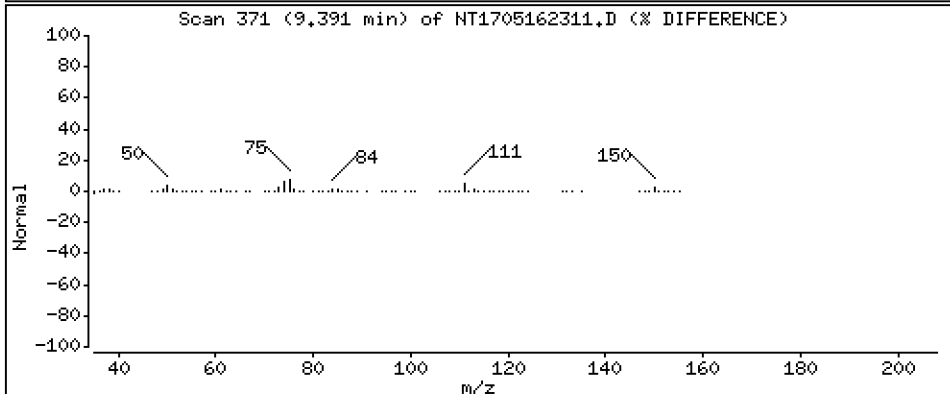
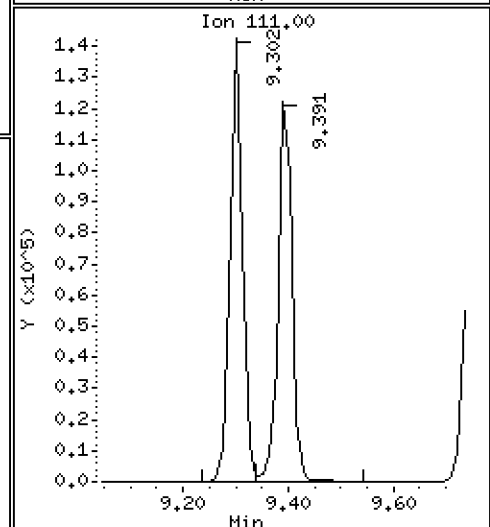
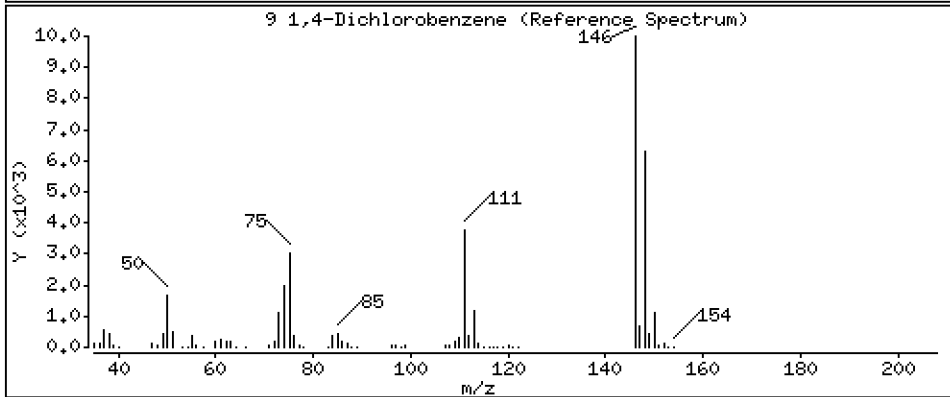
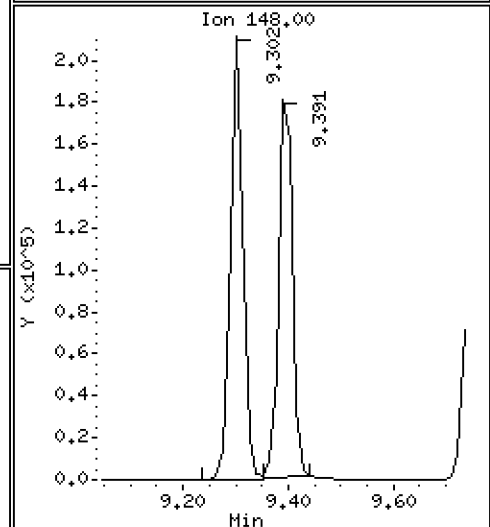
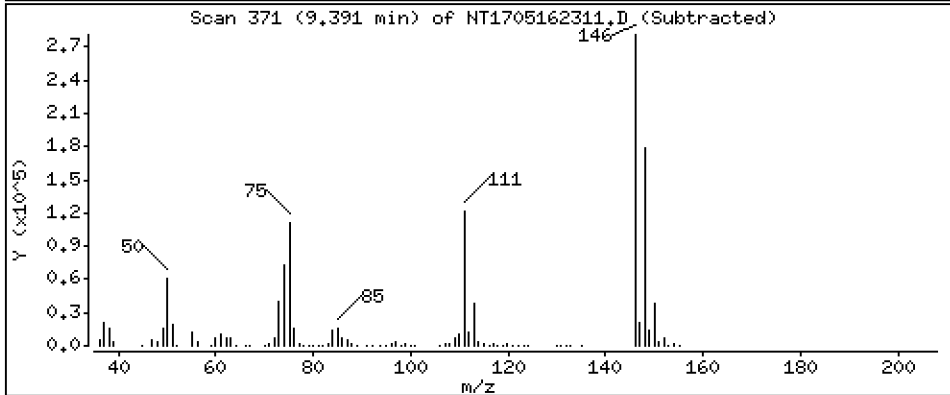
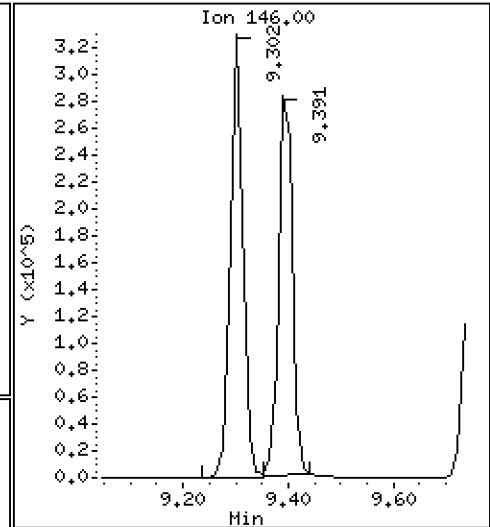
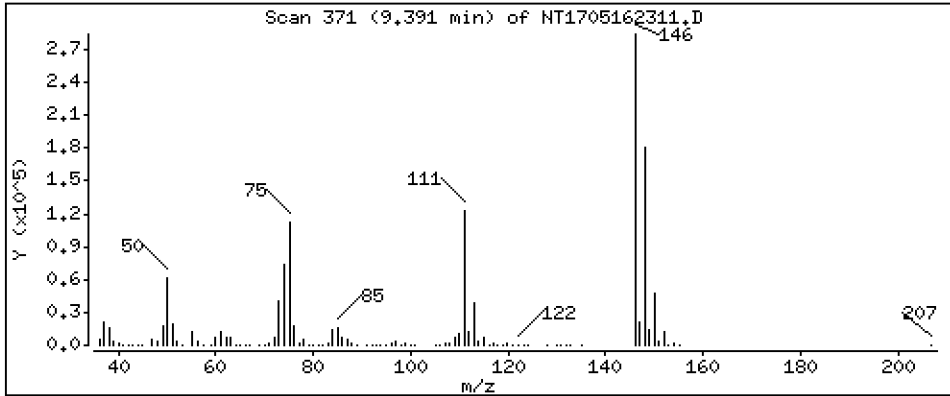
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.071 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

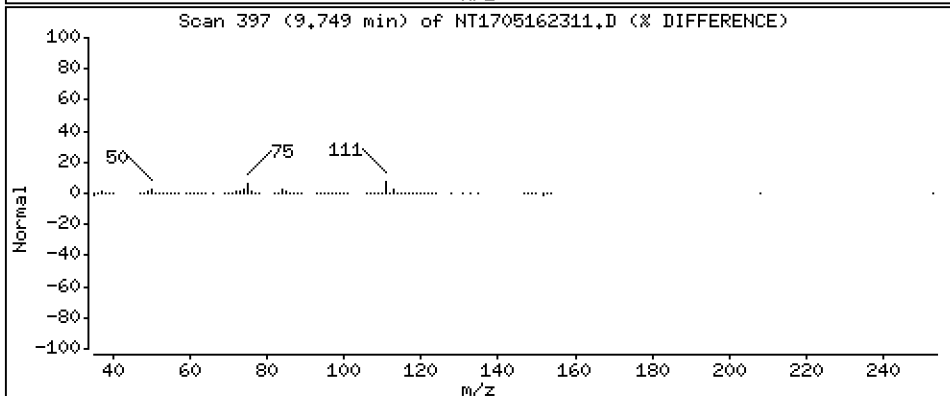
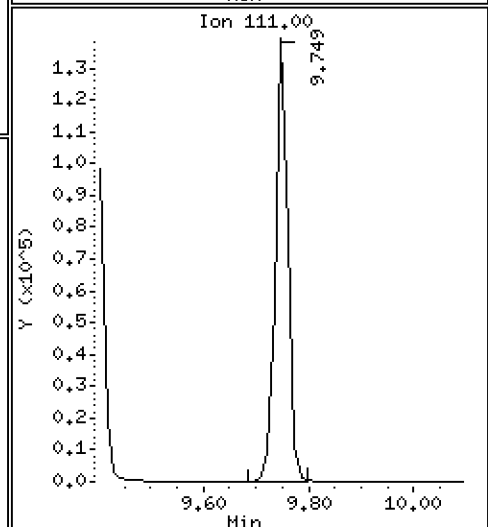
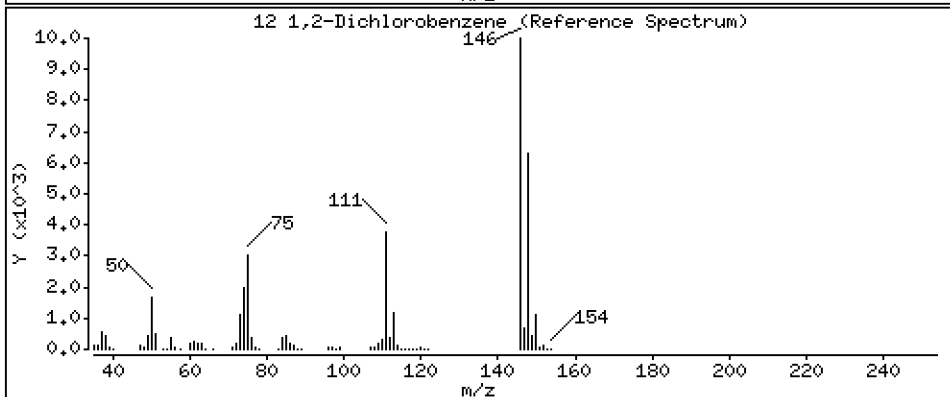
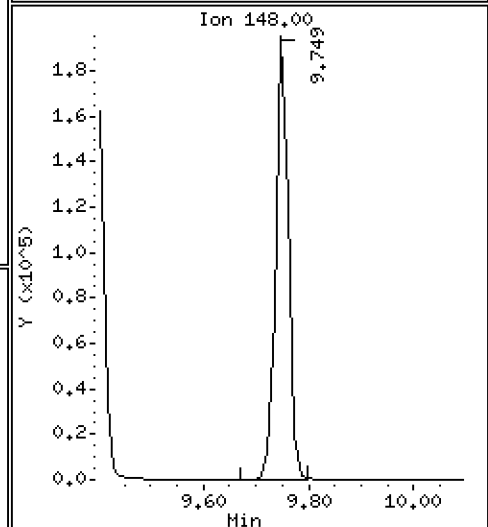
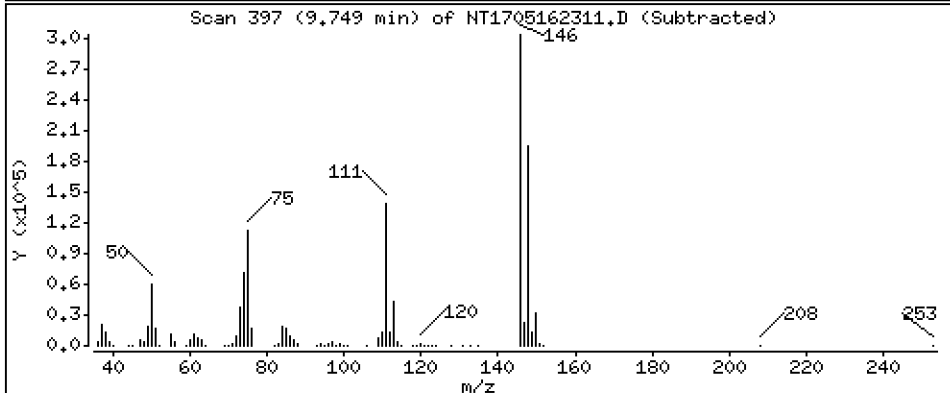
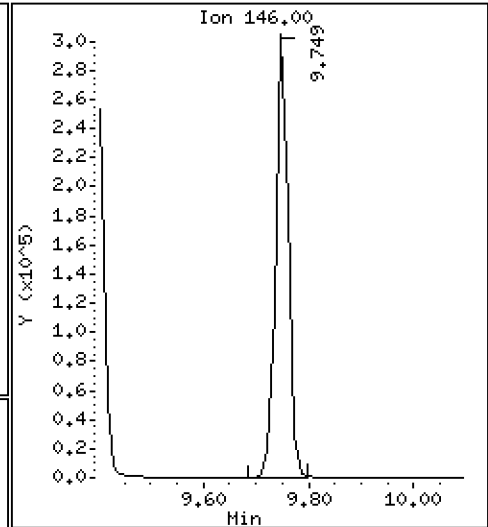
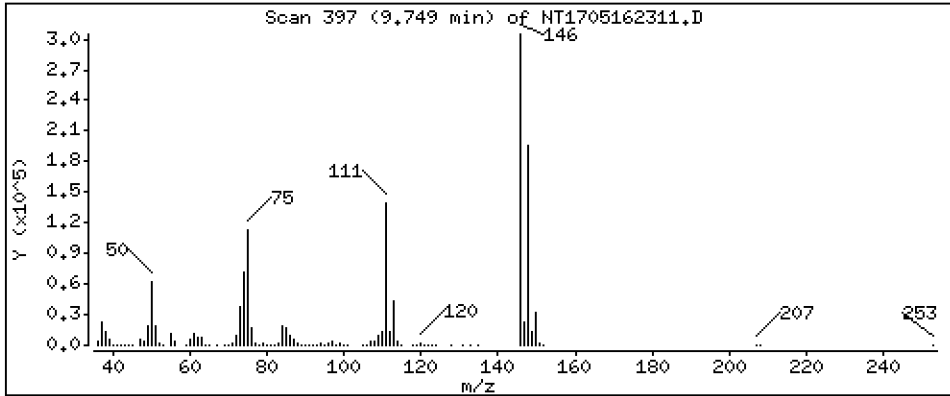
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.258 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

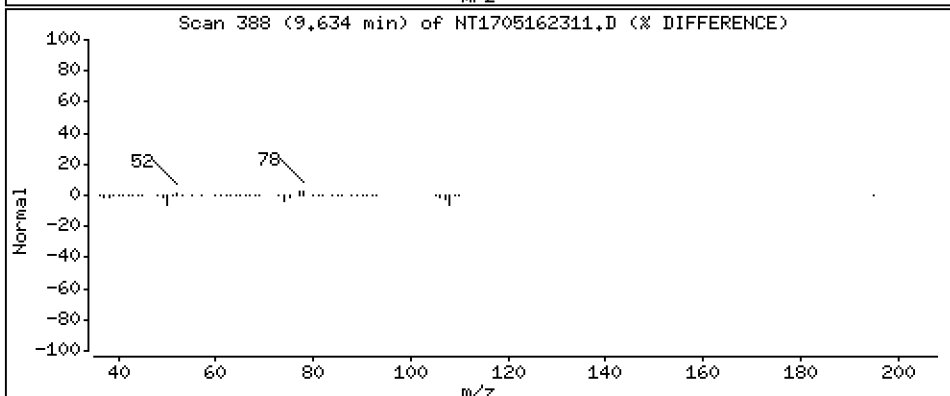
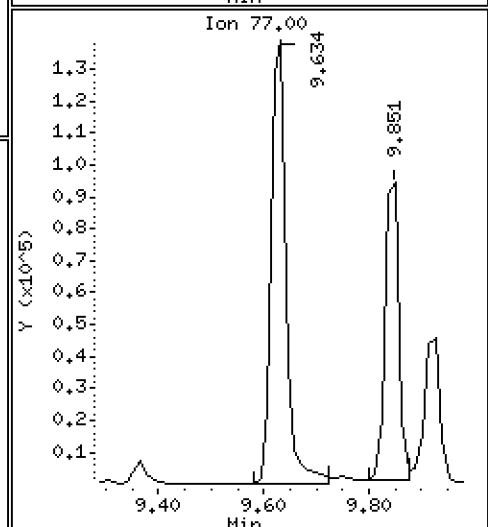
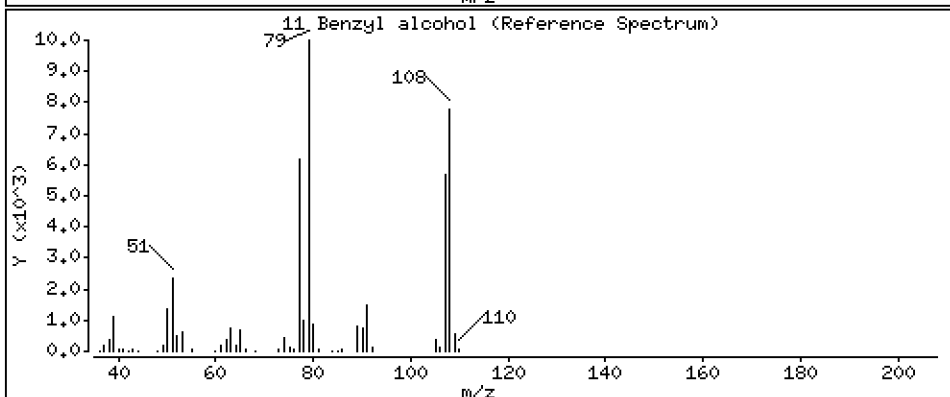
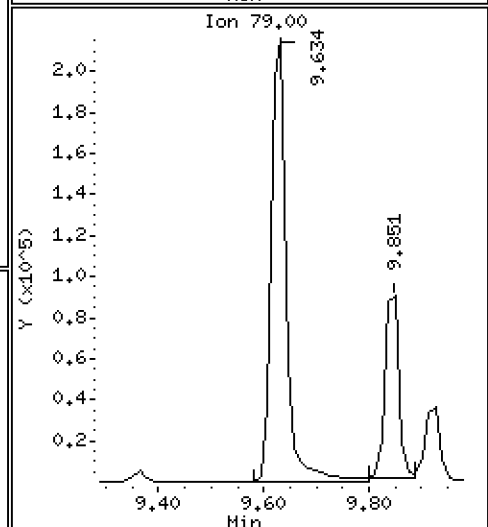
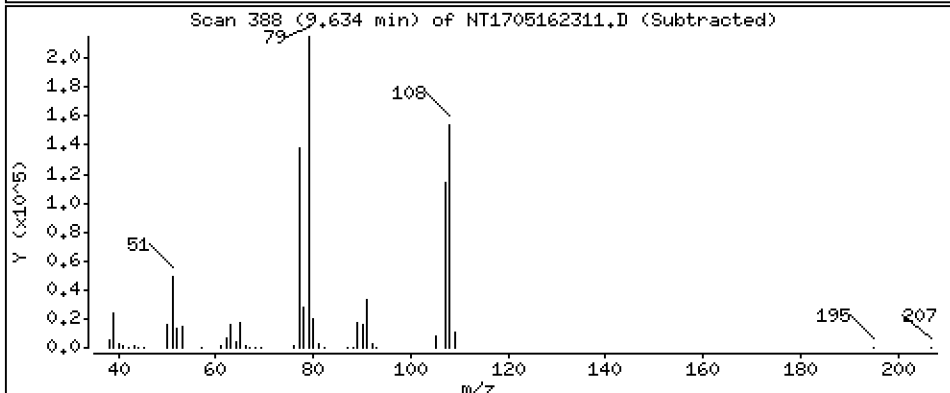
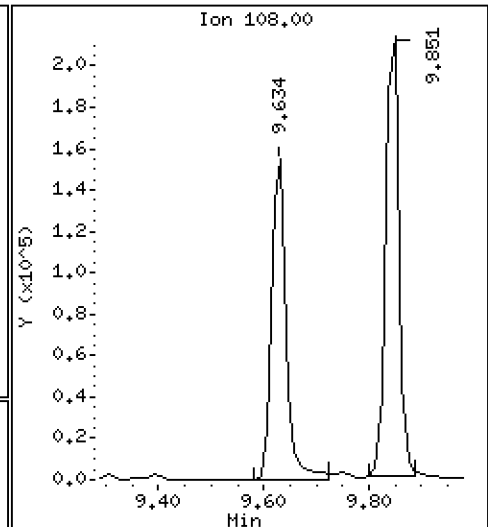
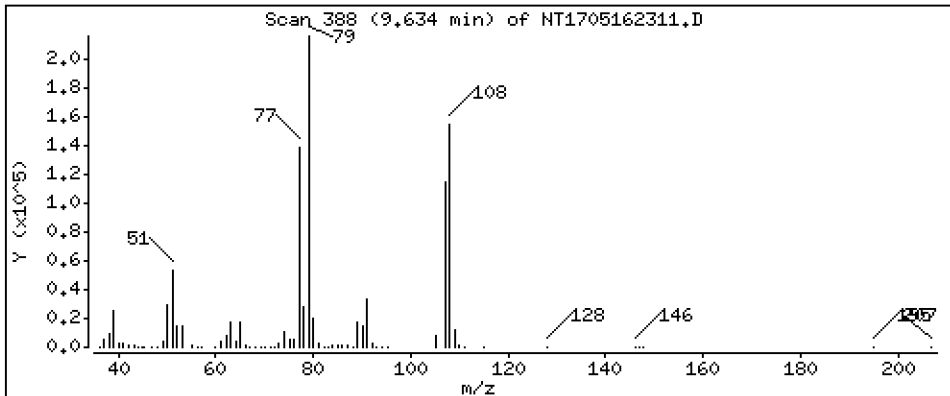
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.274 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

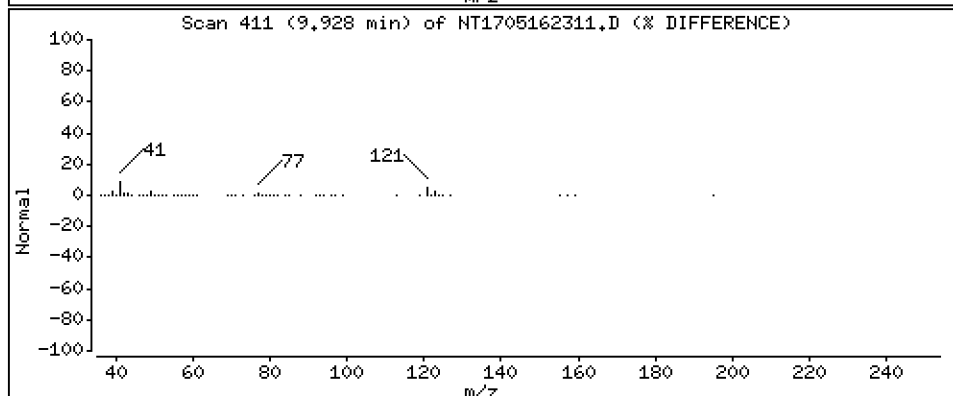
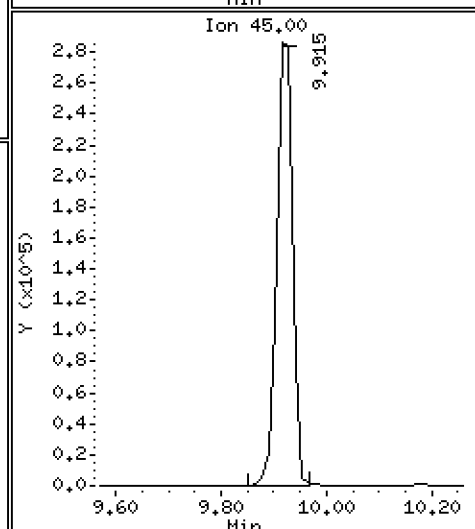
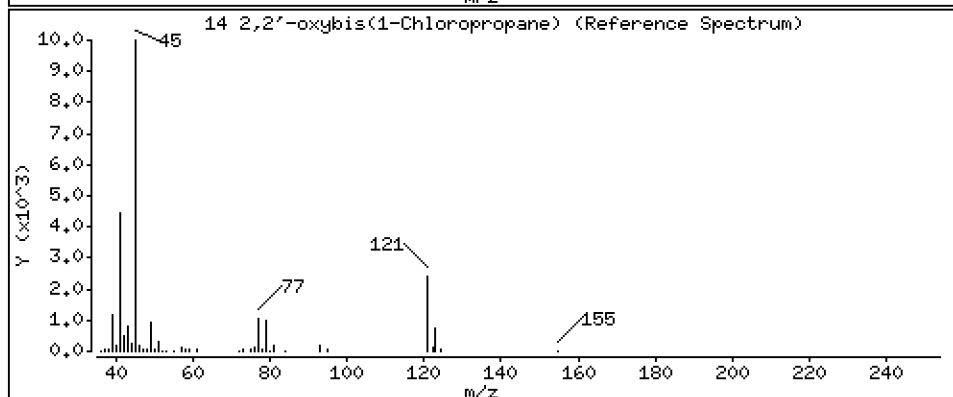
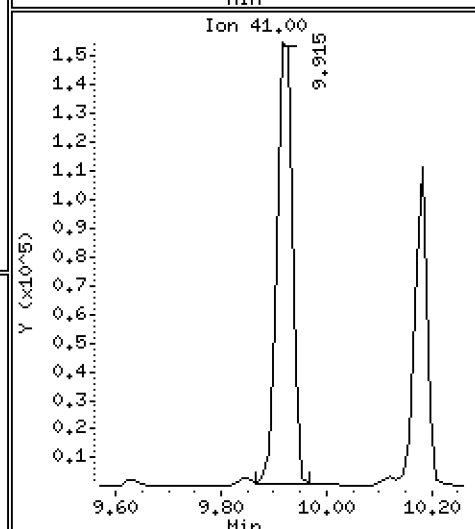
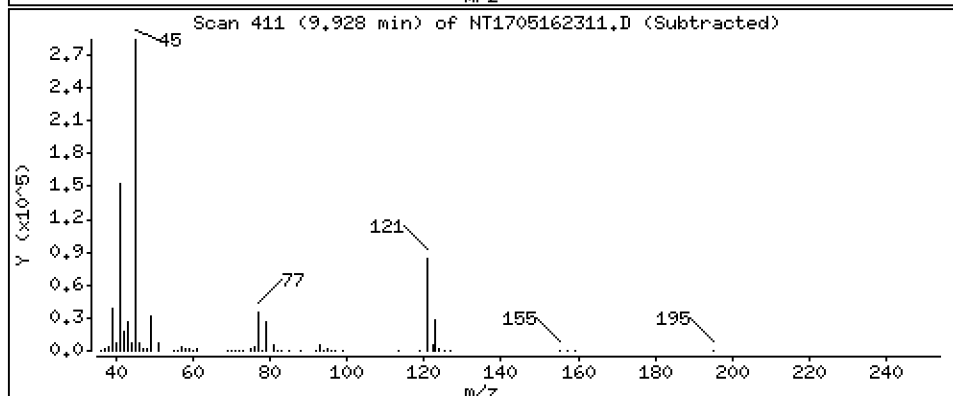
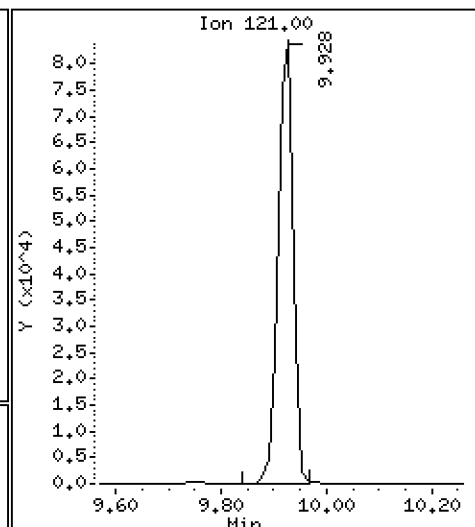
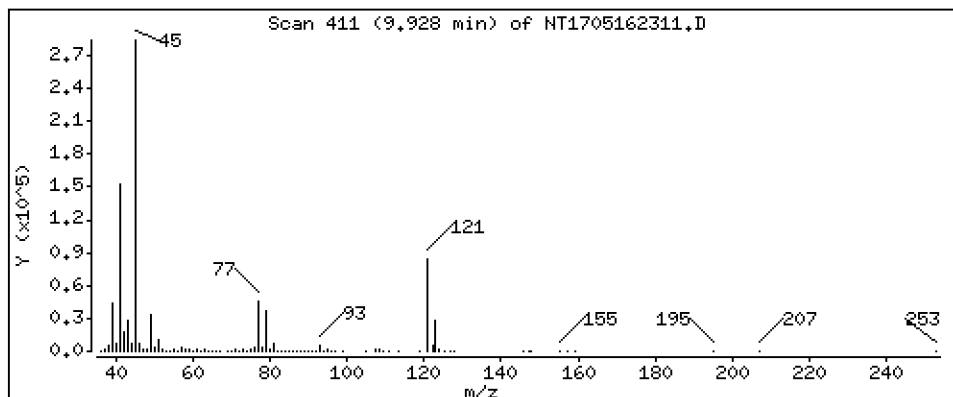
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 6.179 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

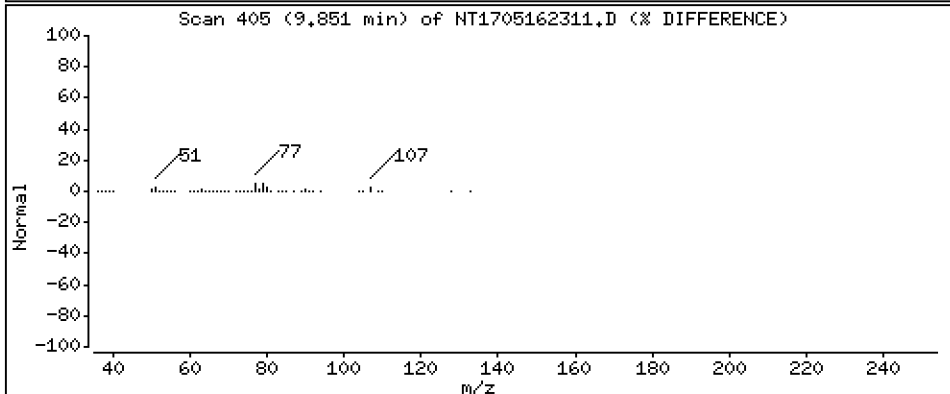
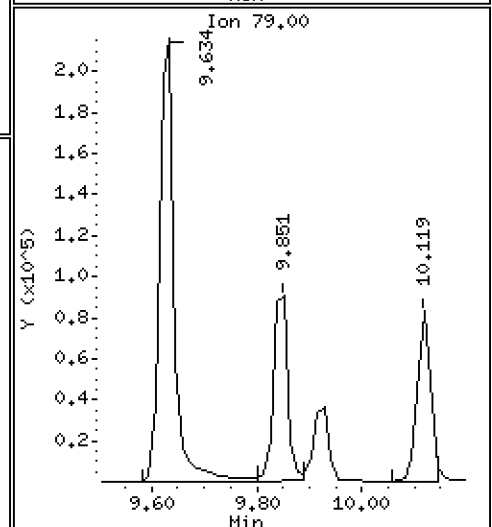
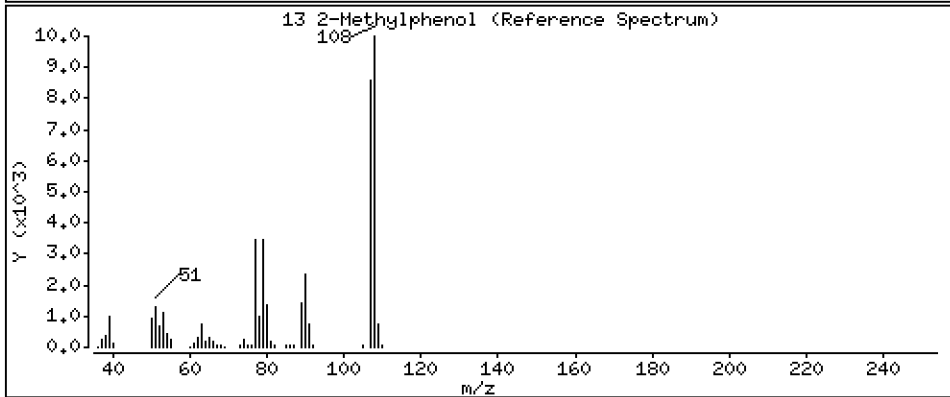
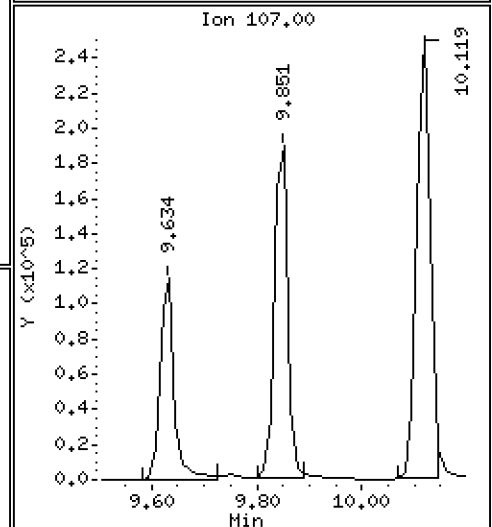
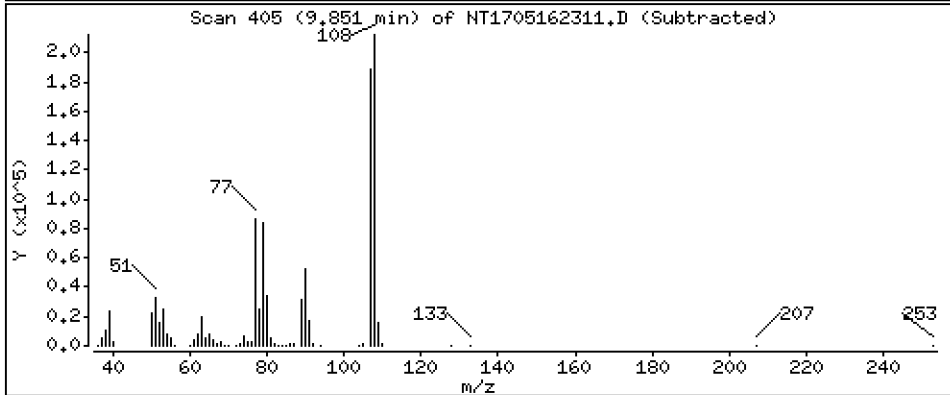
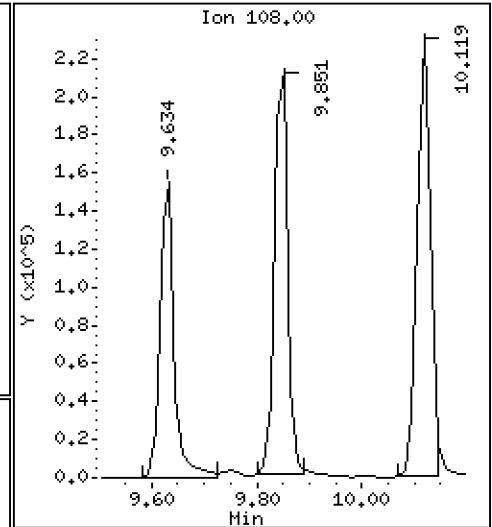
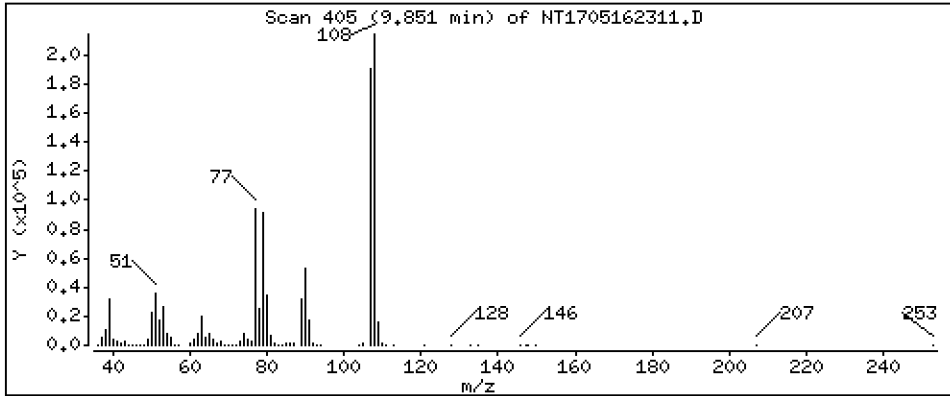
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,229 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

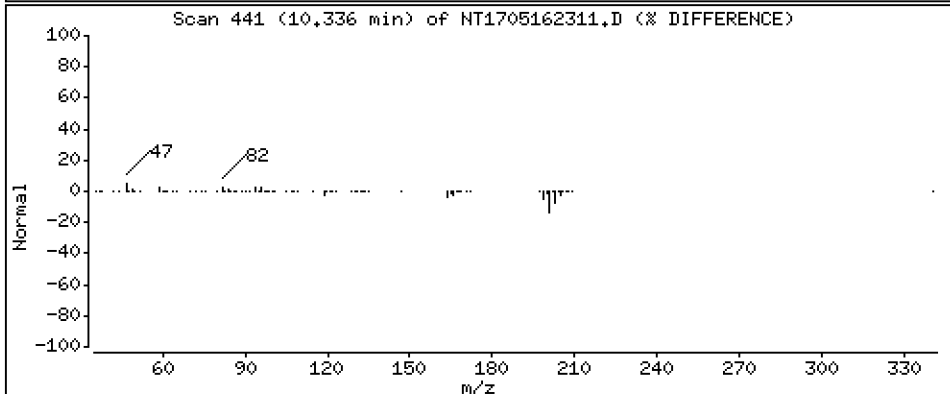
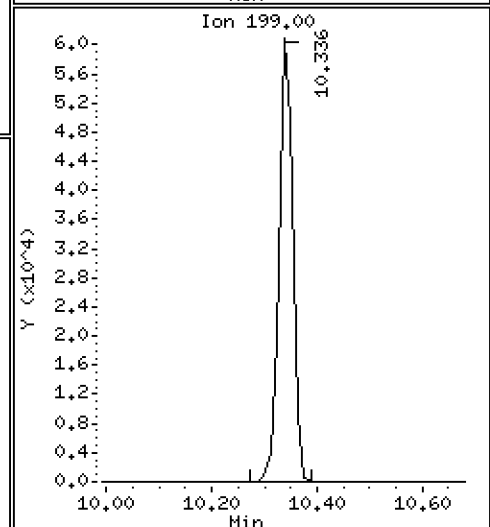
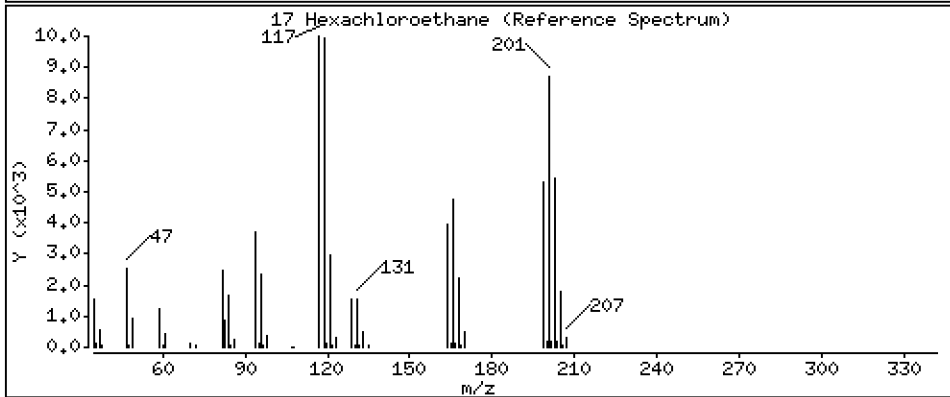
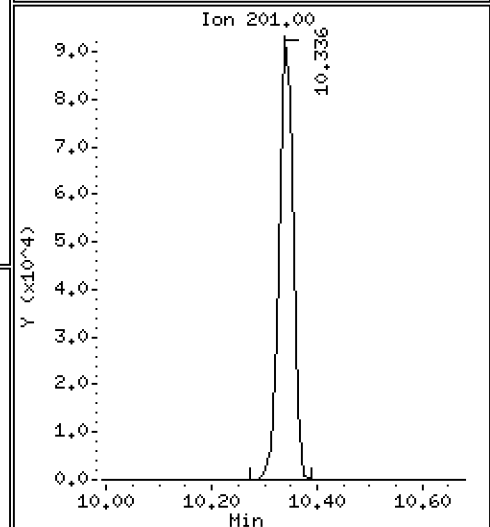
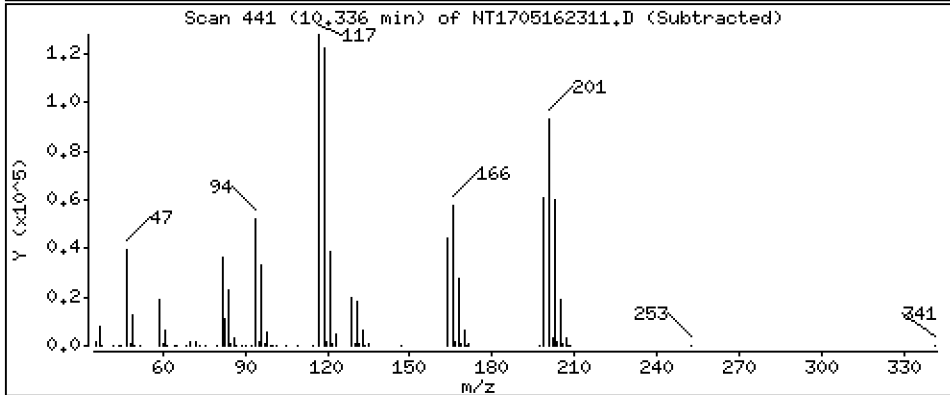
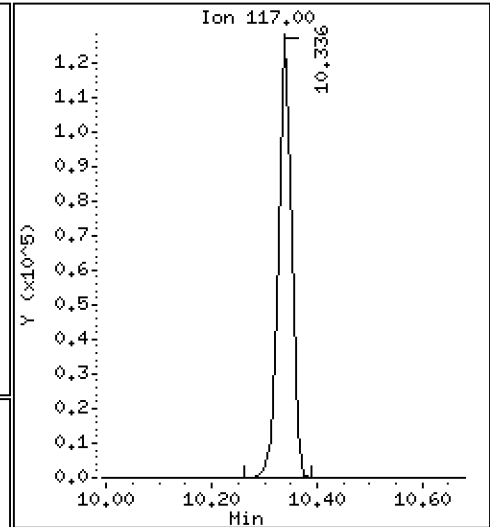
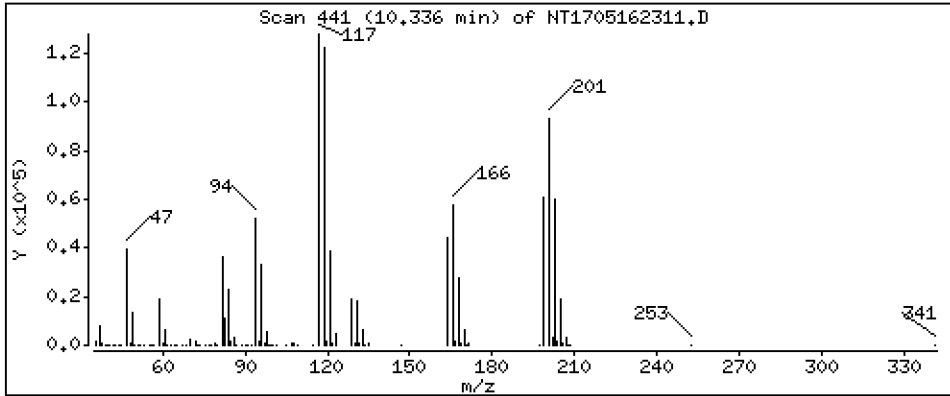
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 5,419 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

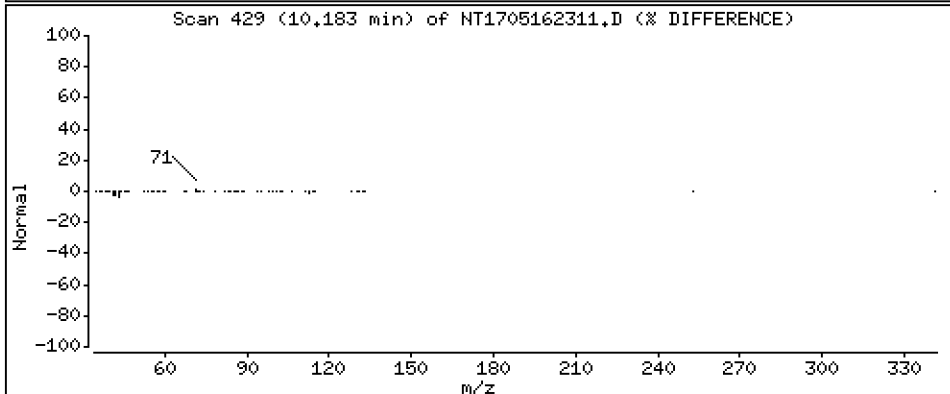
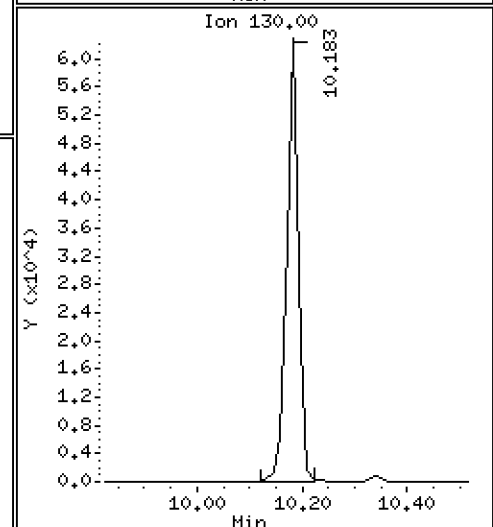
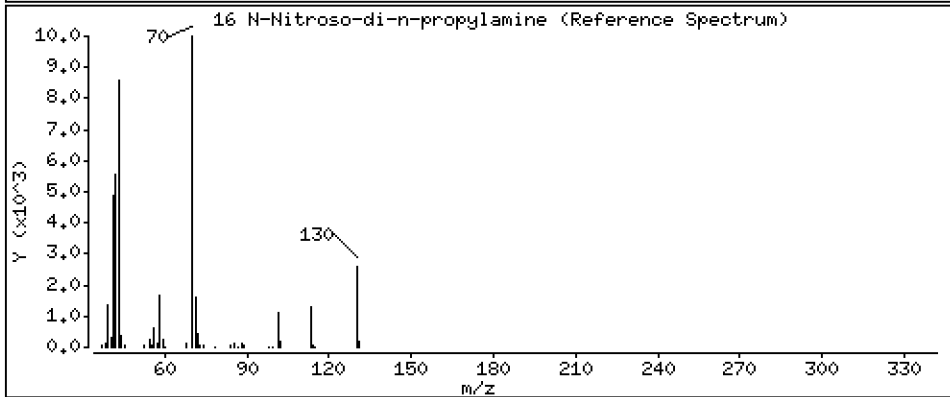
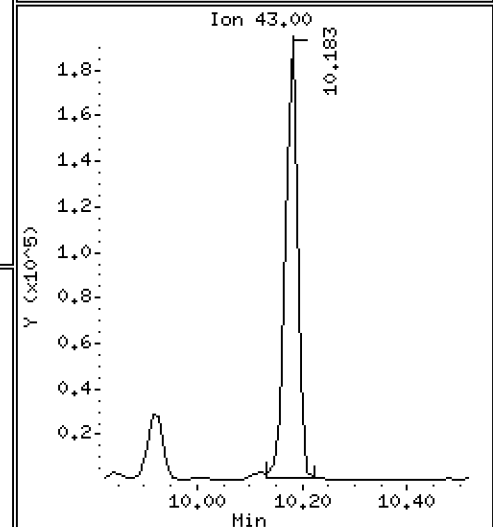
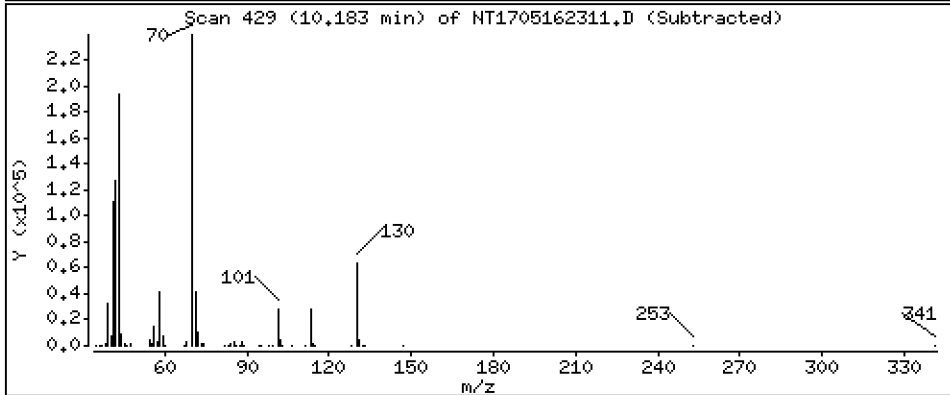
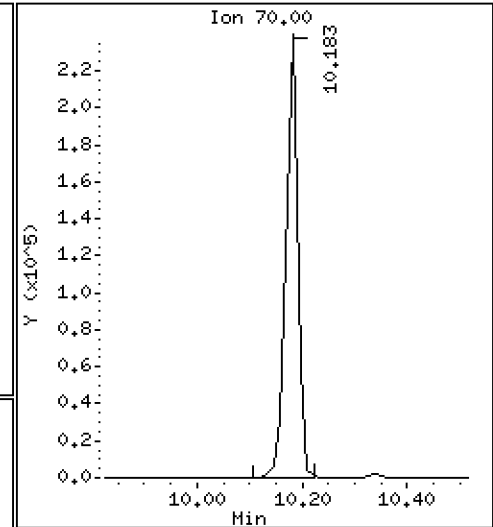
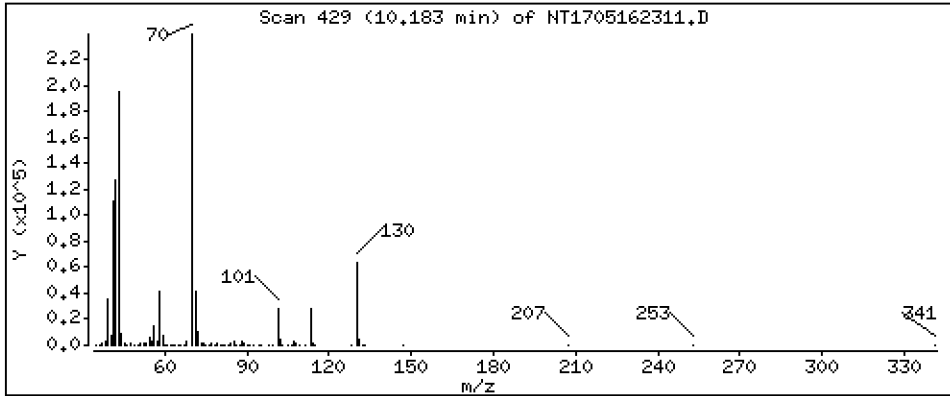
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,517 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

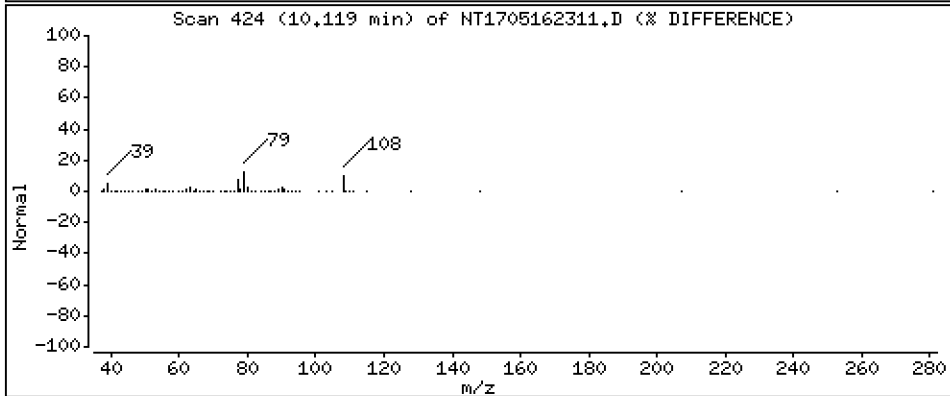
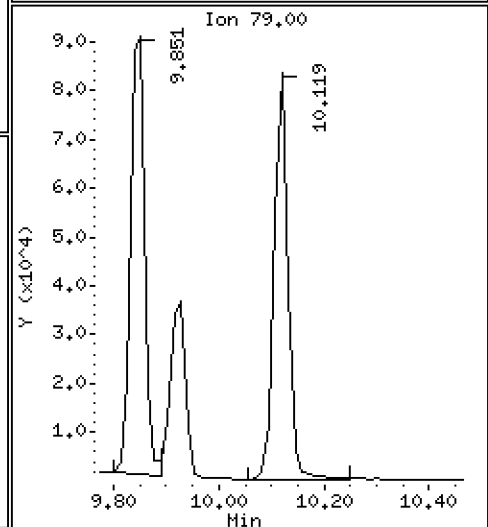
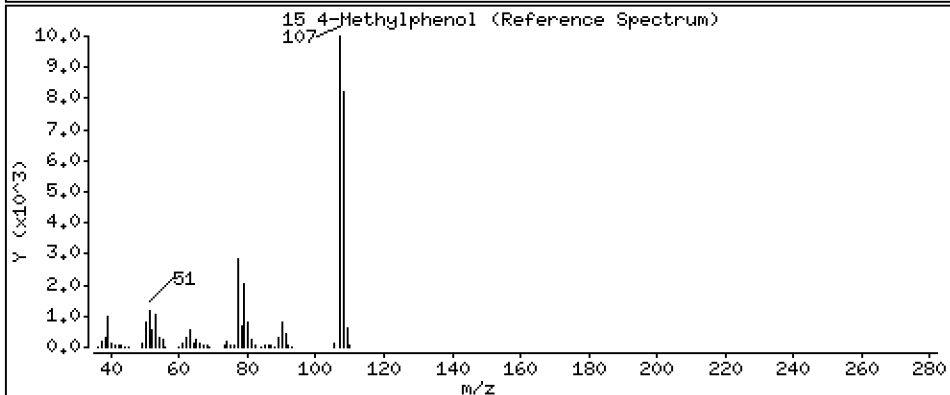
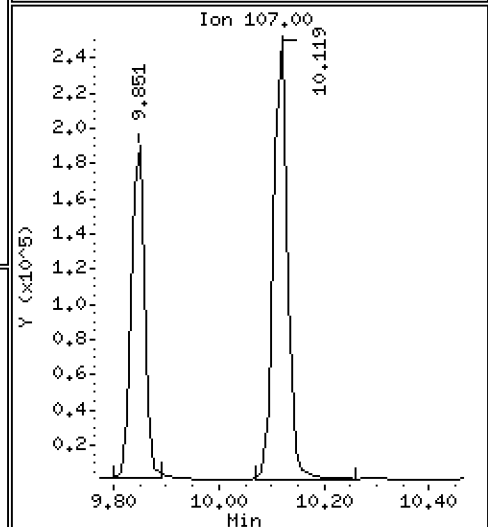
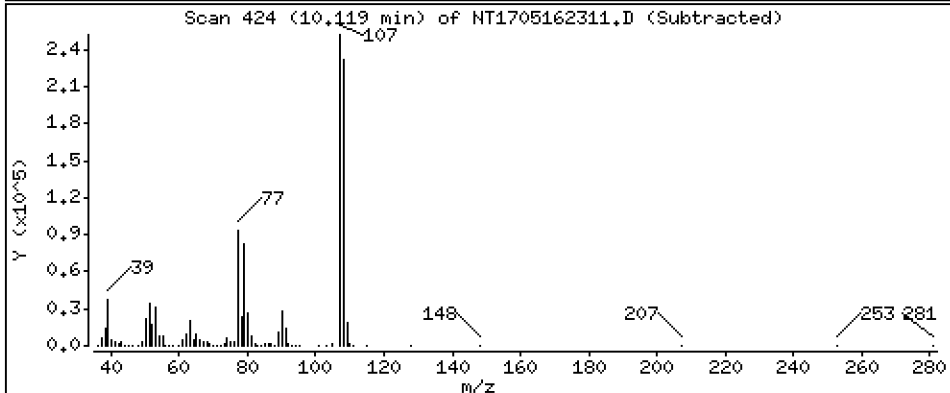
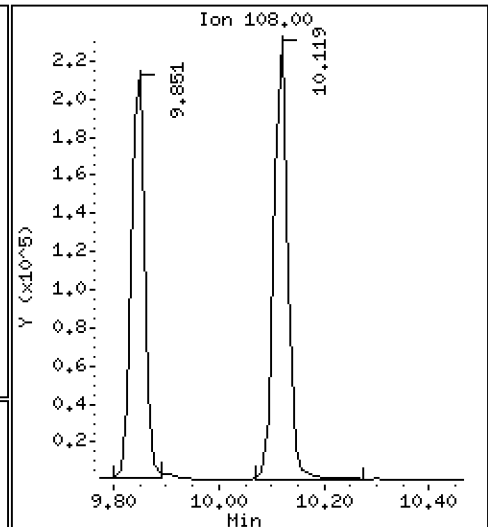
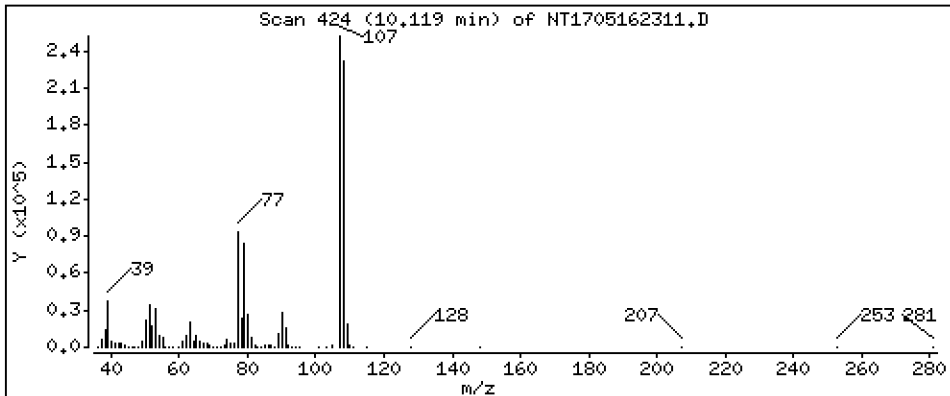
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,661 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

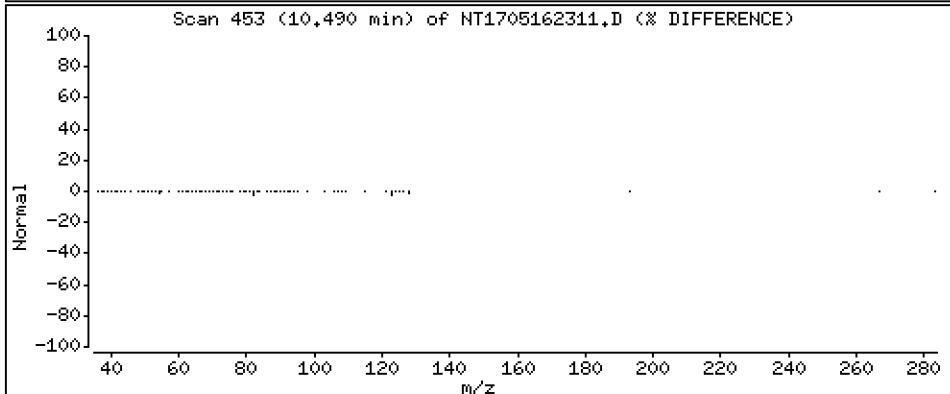
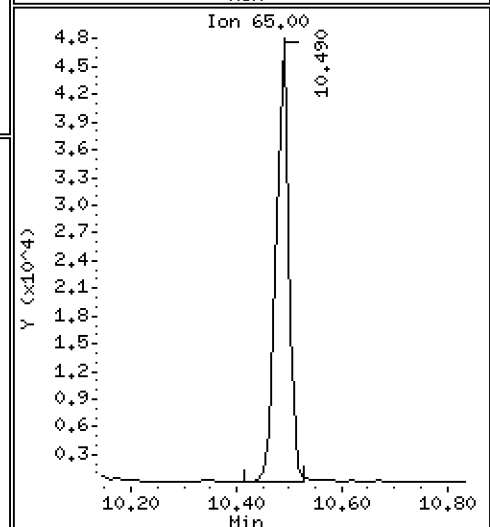
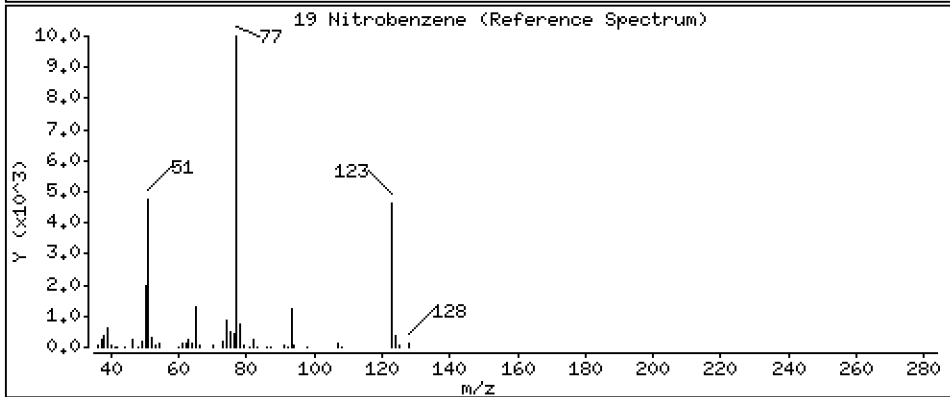
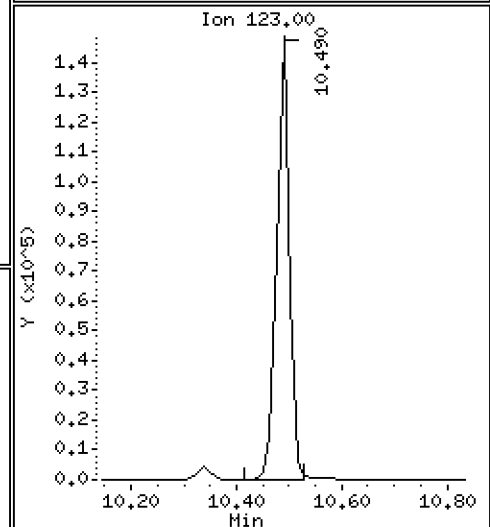
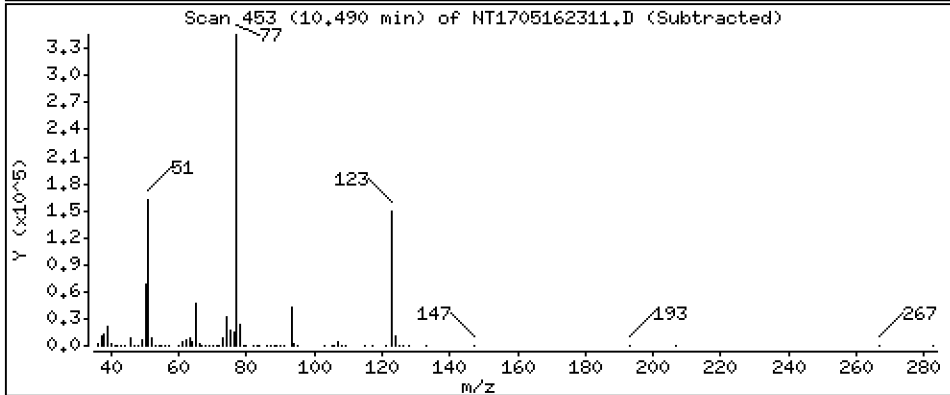
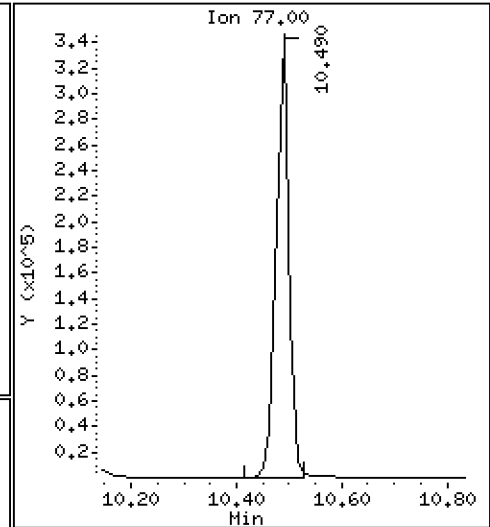
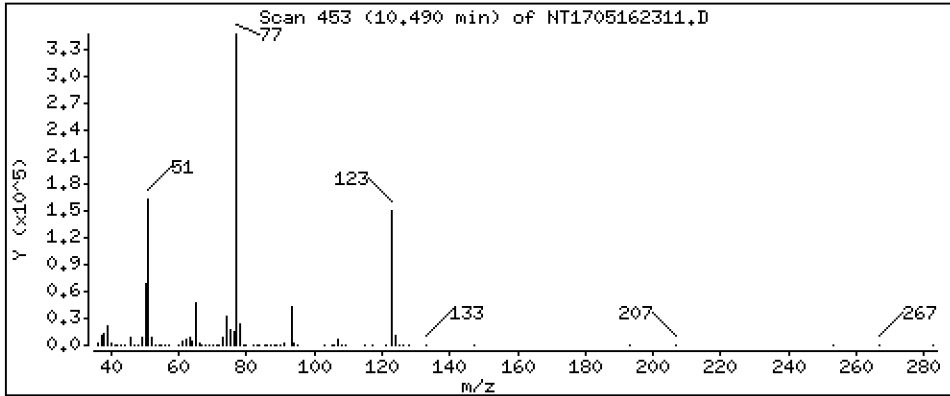
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 5,329 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

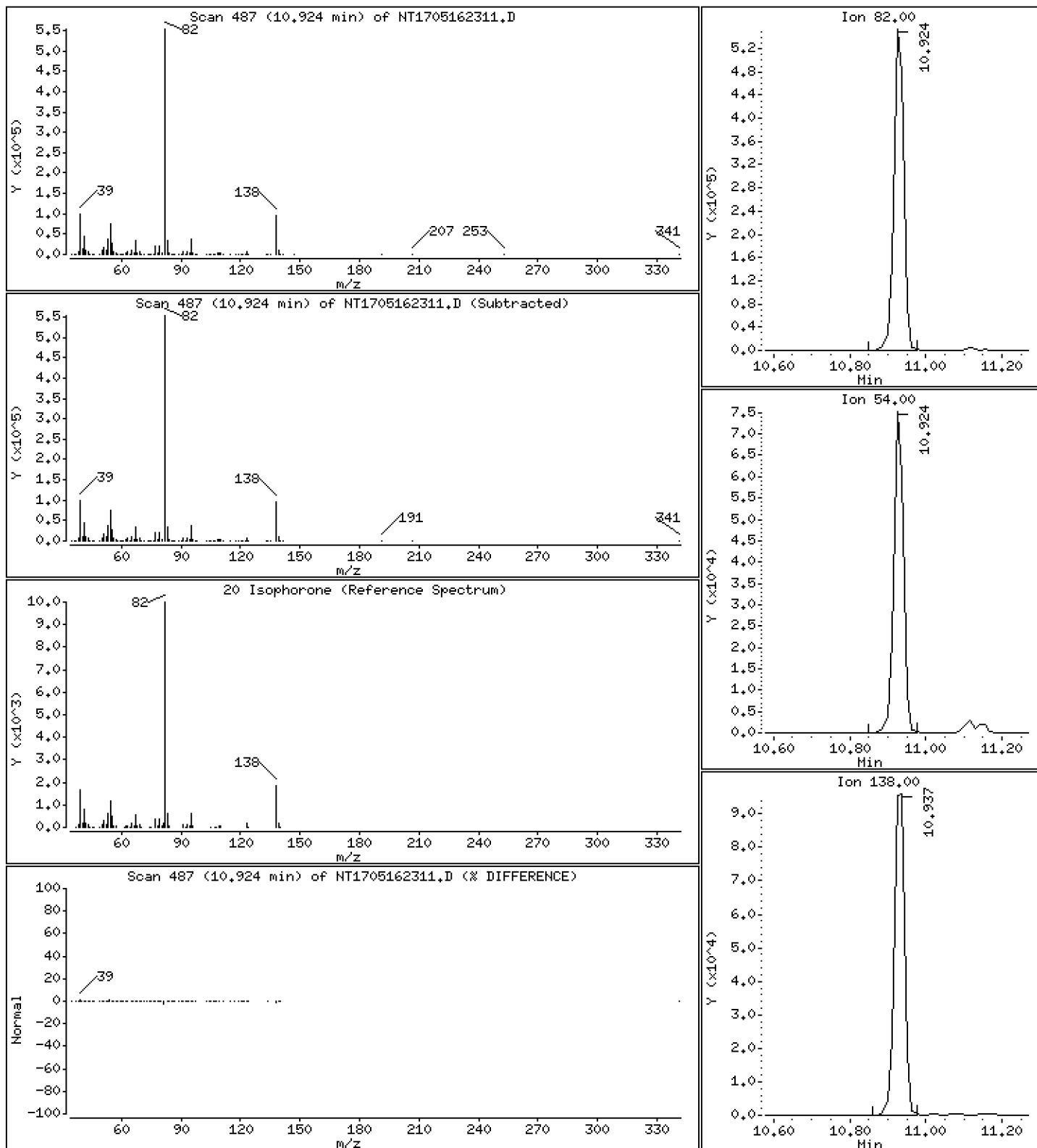
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 6,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

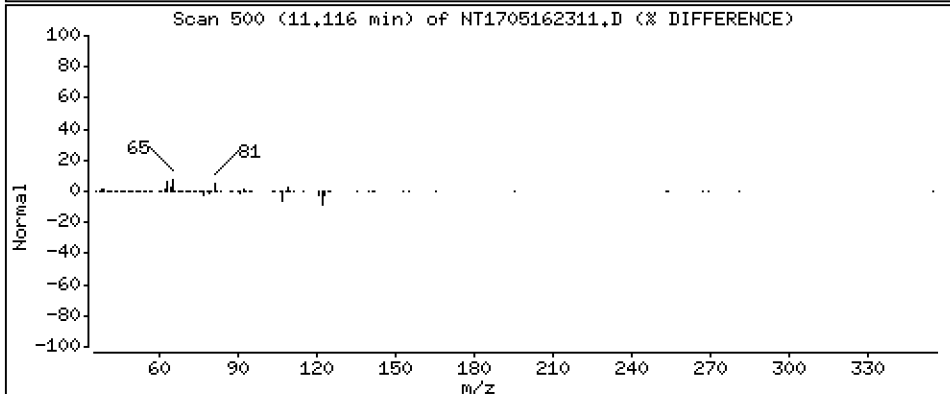
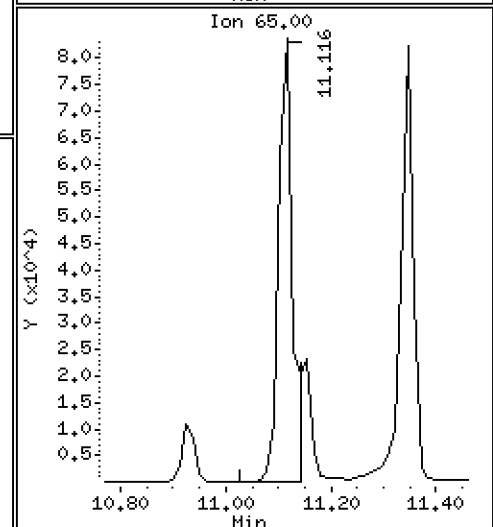
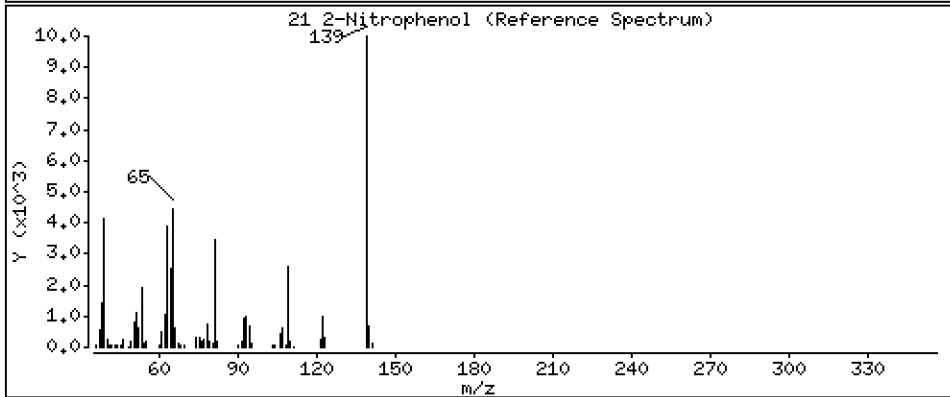
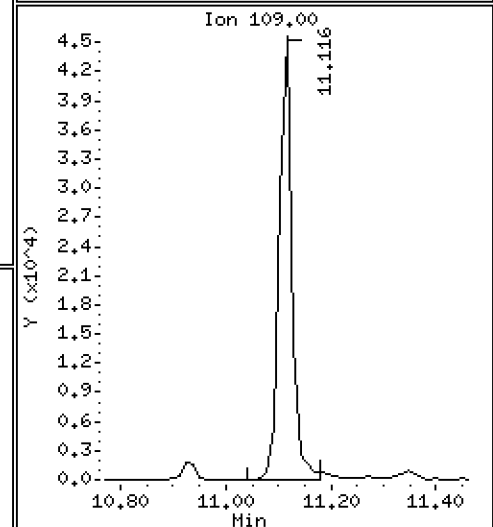
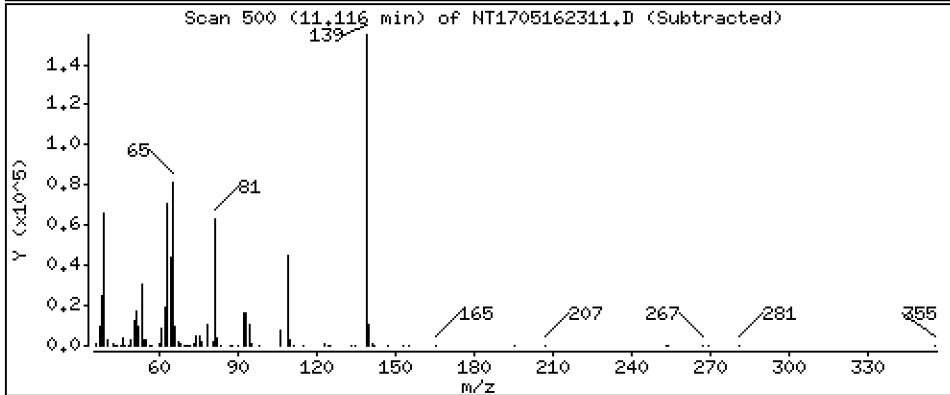
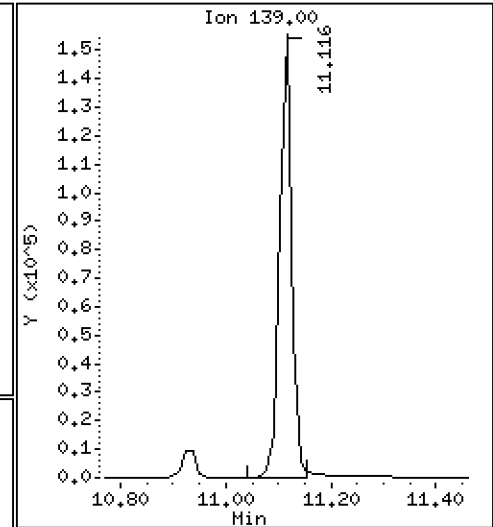
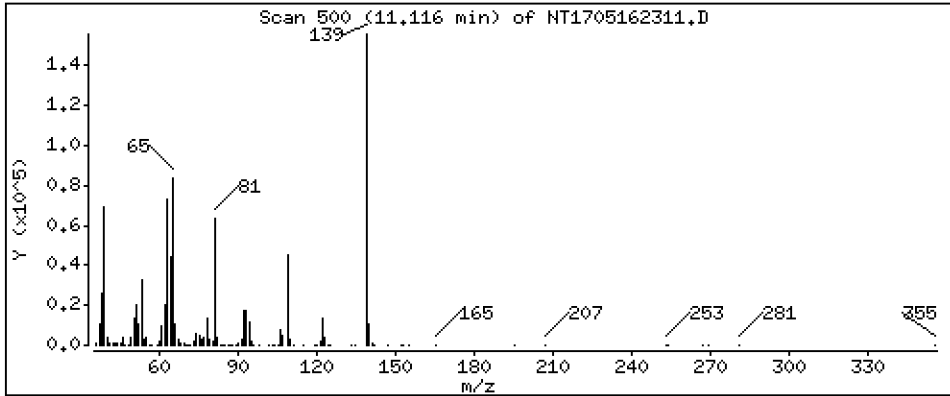
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,899 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

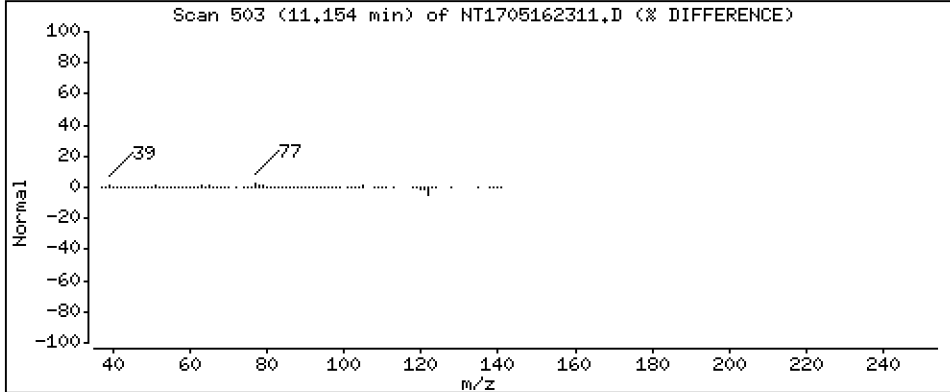
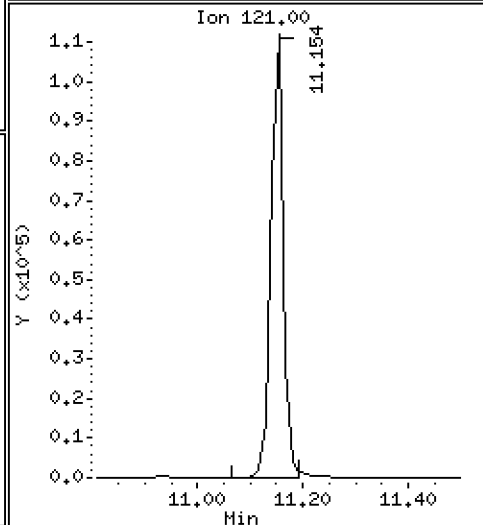
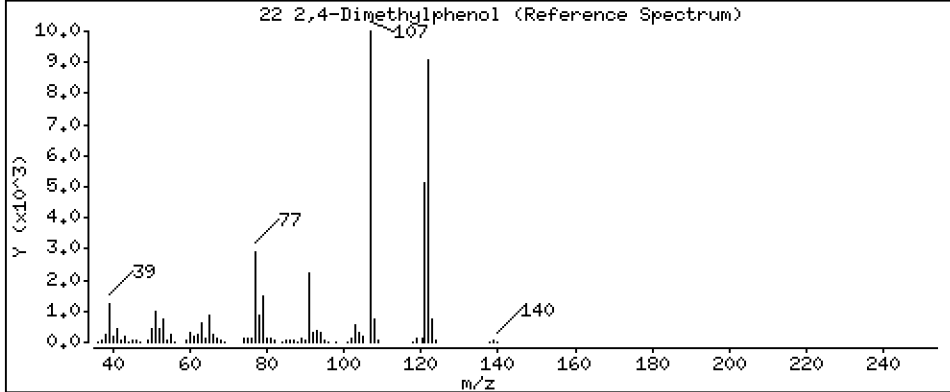
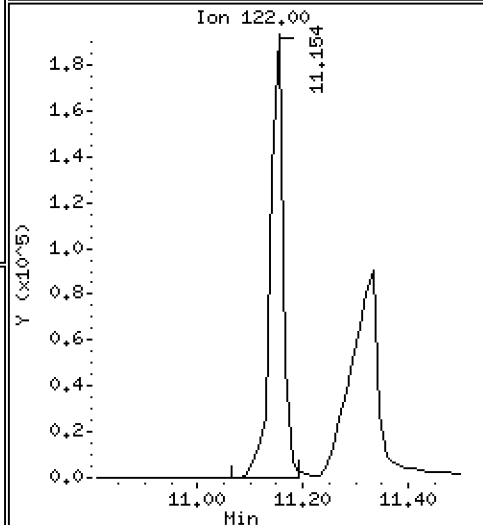
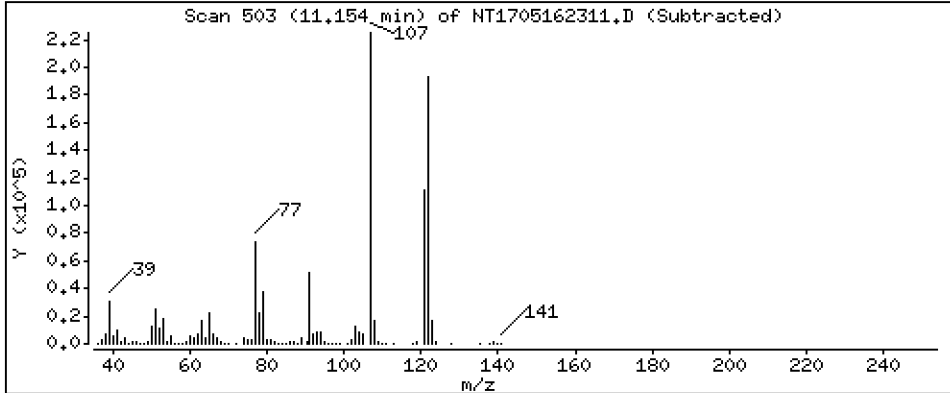
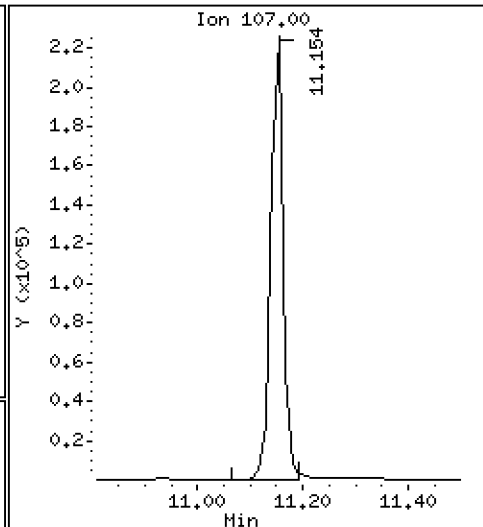
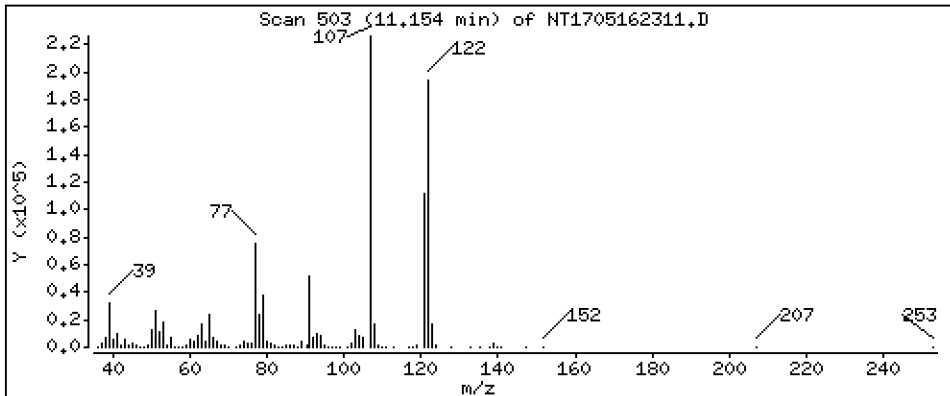
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

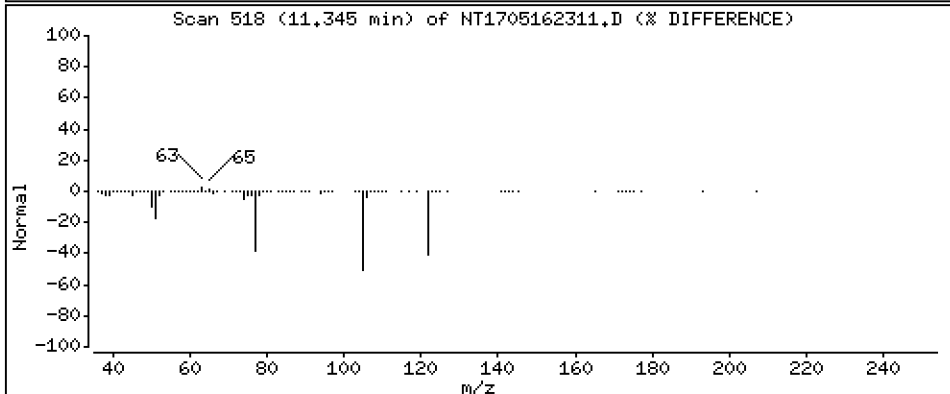
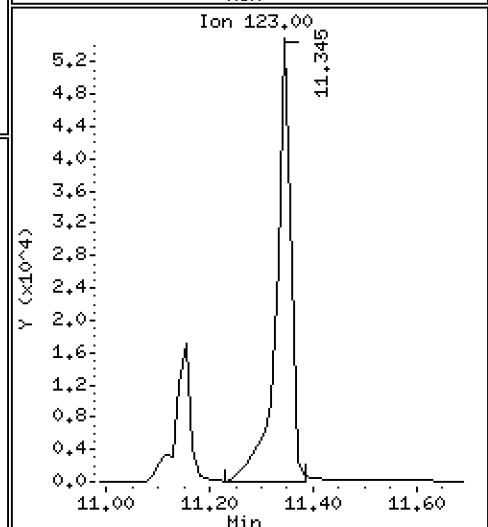
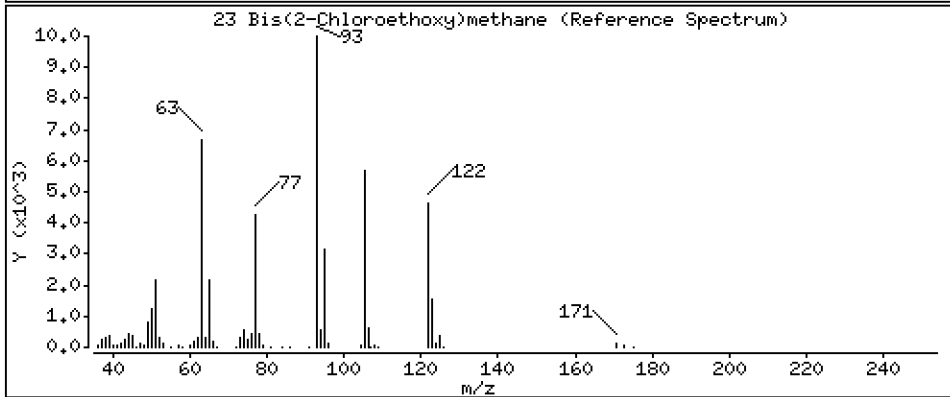
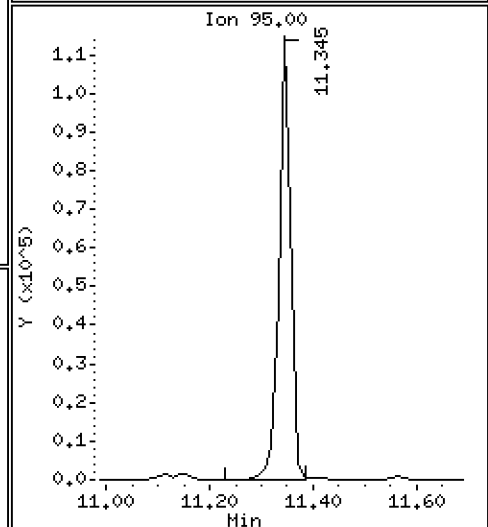
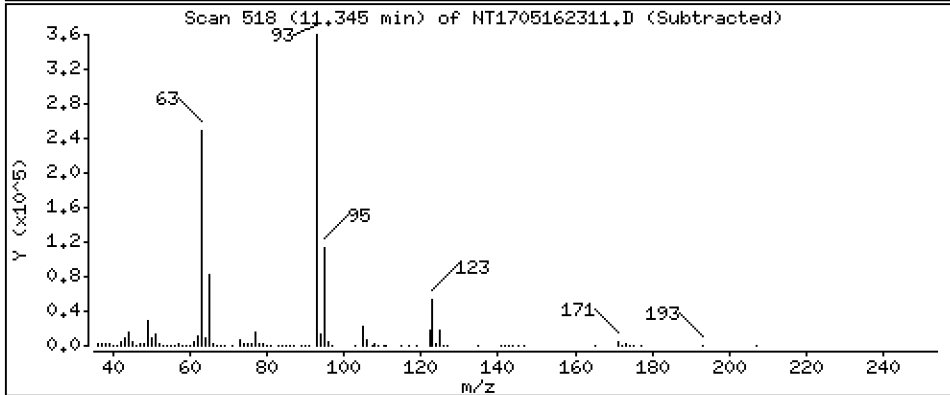
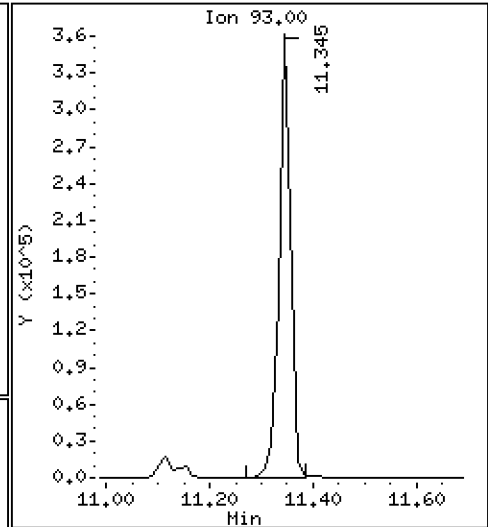
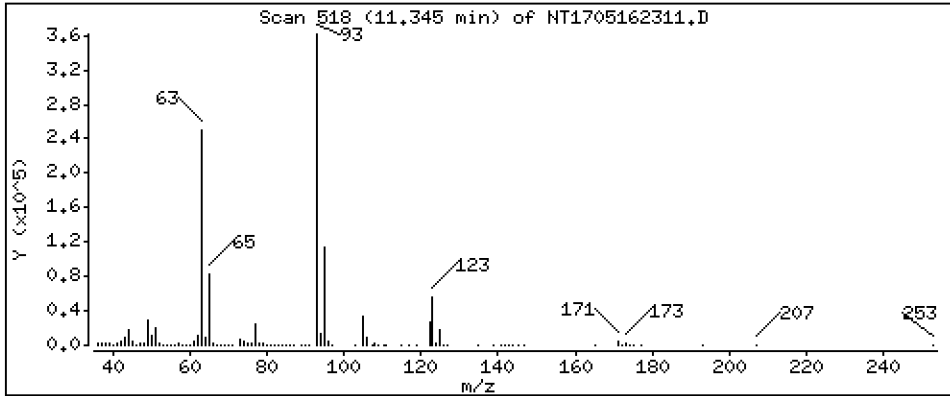
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 6,232 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

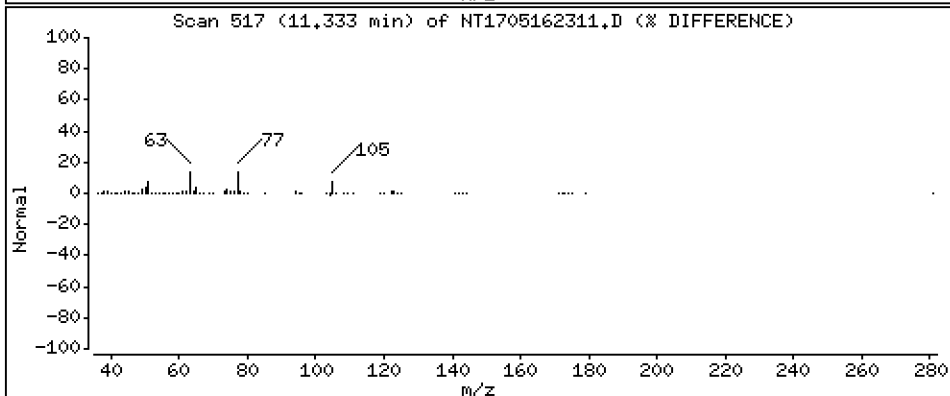
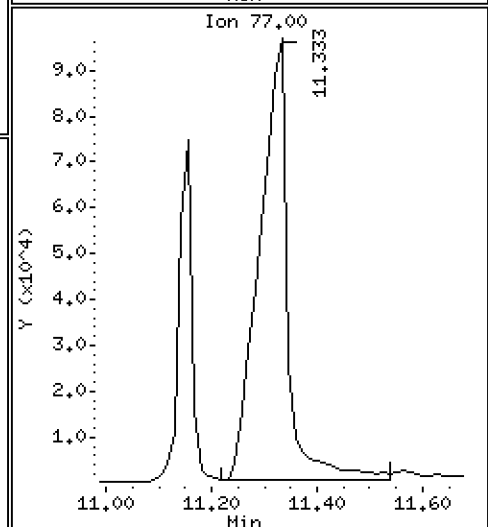
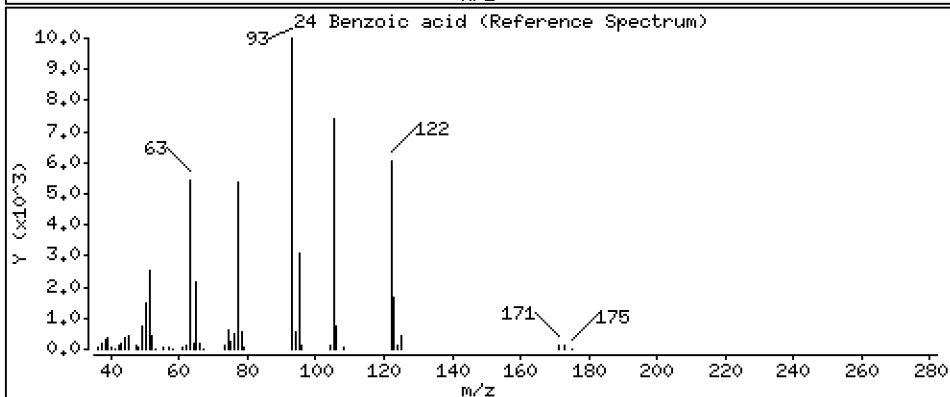
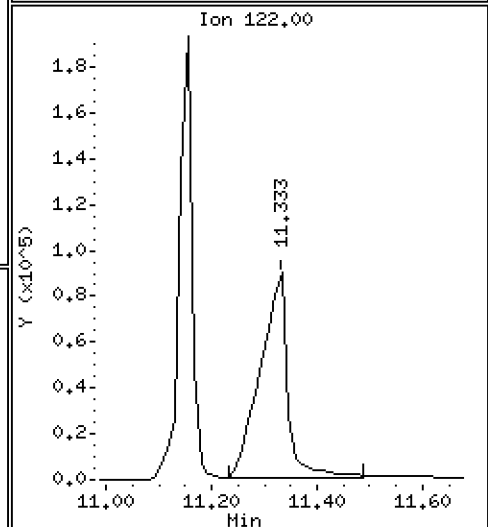
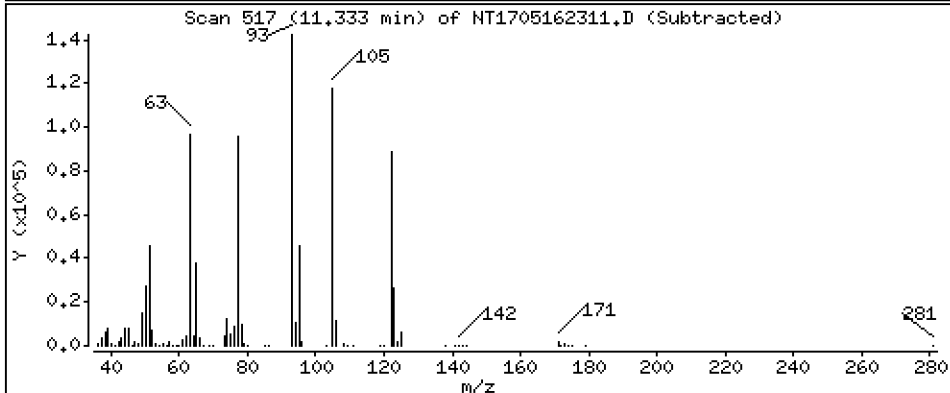
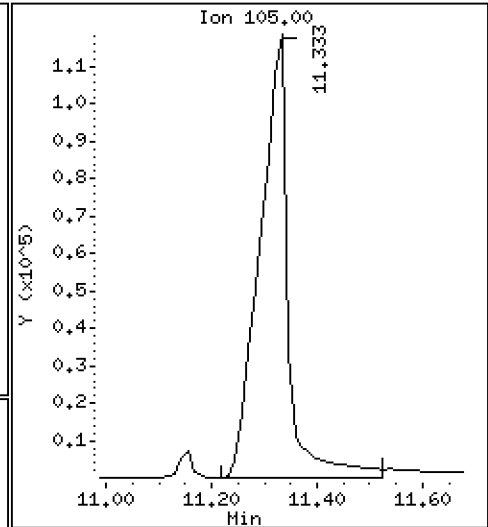
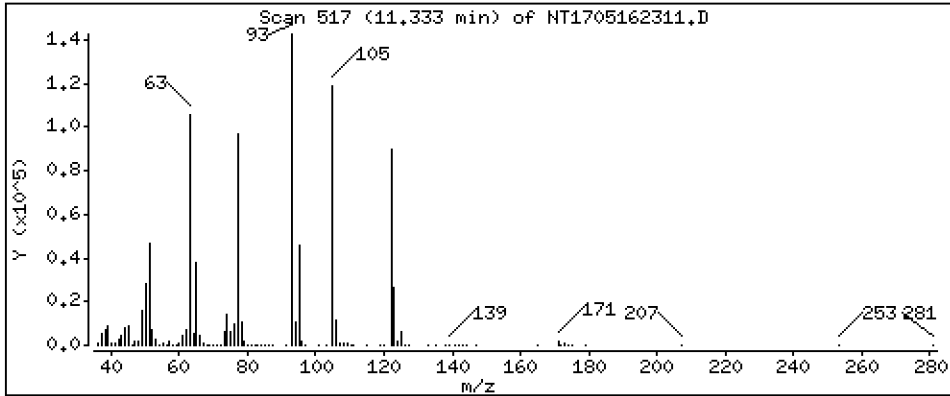
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 6.761 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

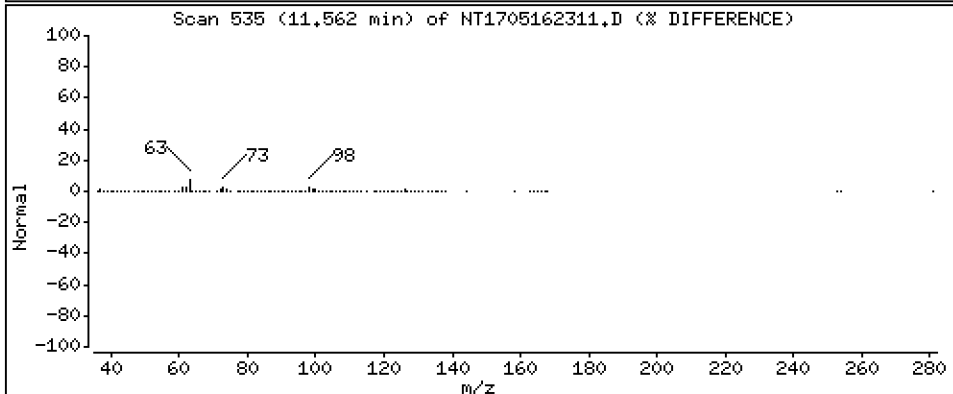
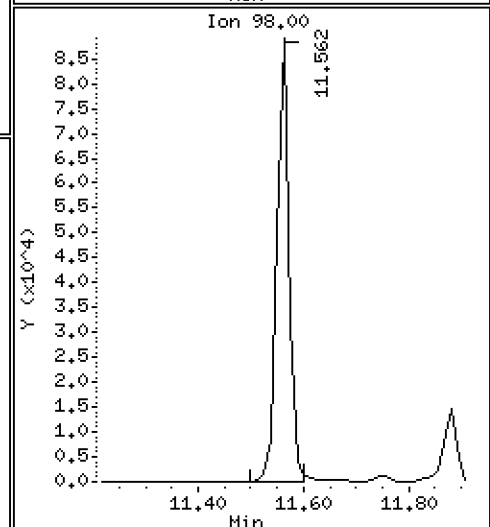
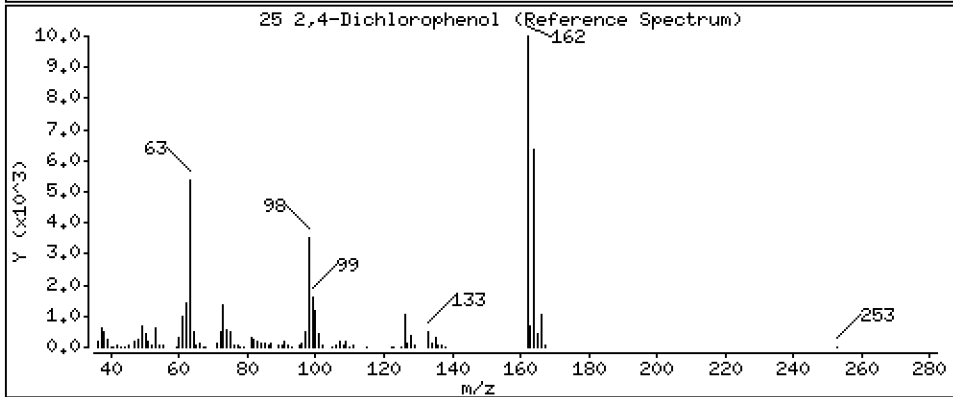
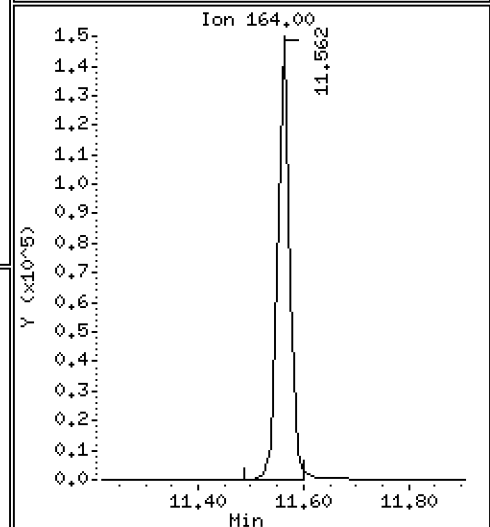
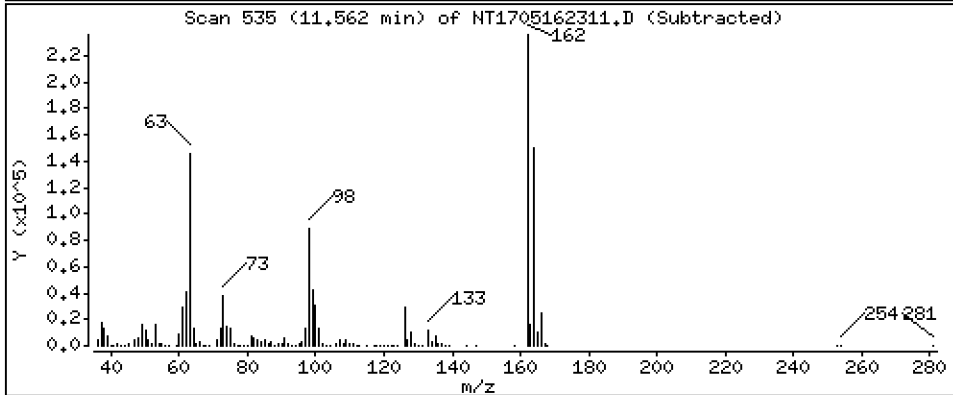
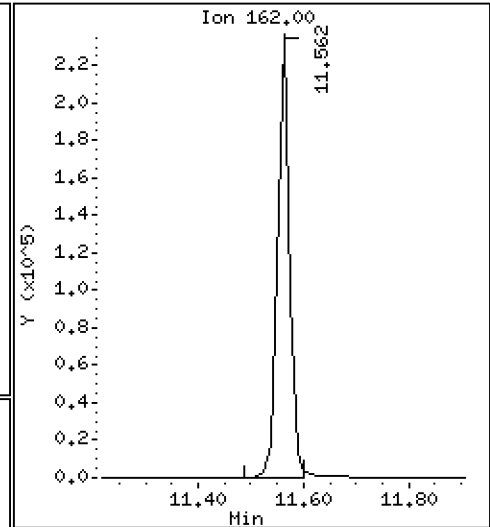
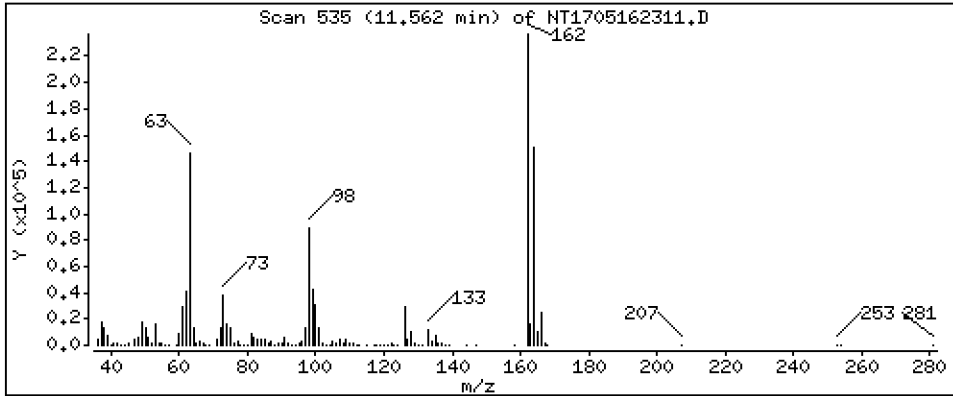
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,707 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

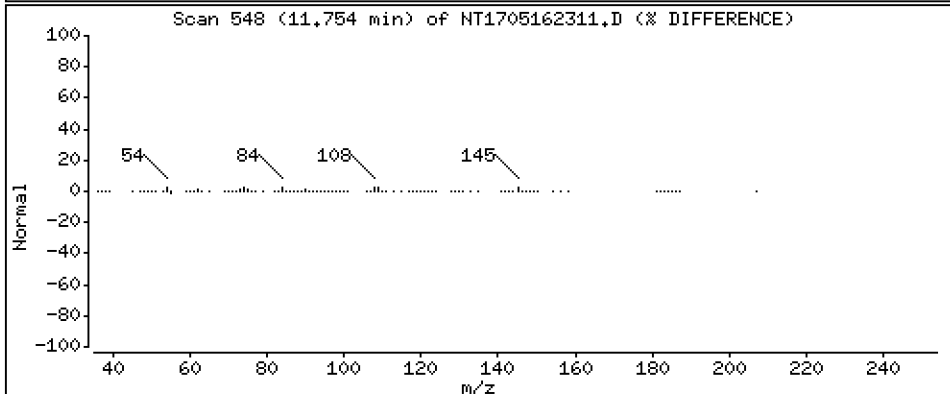
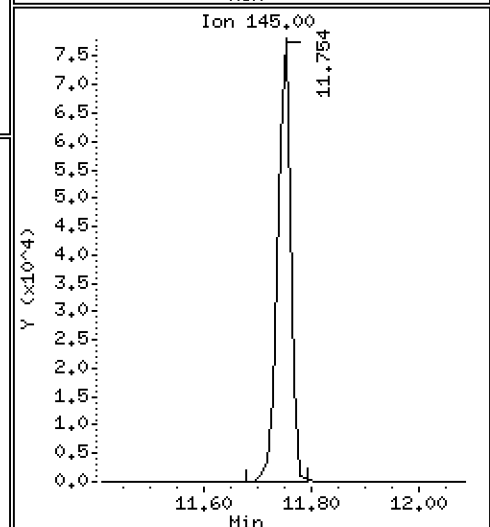
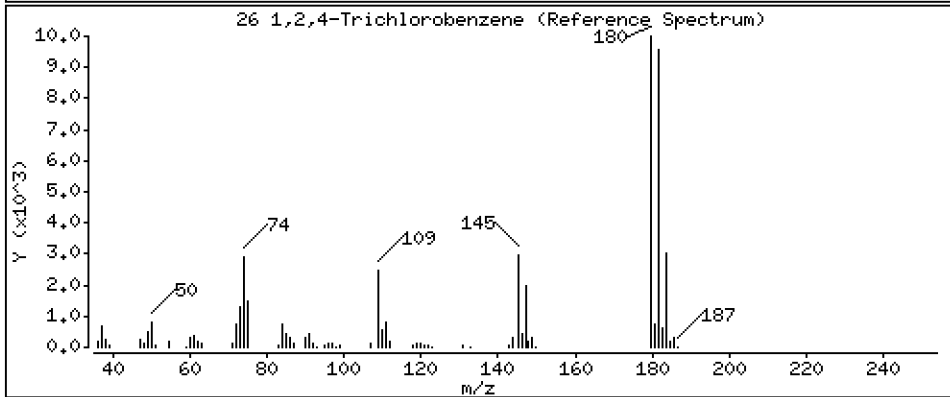
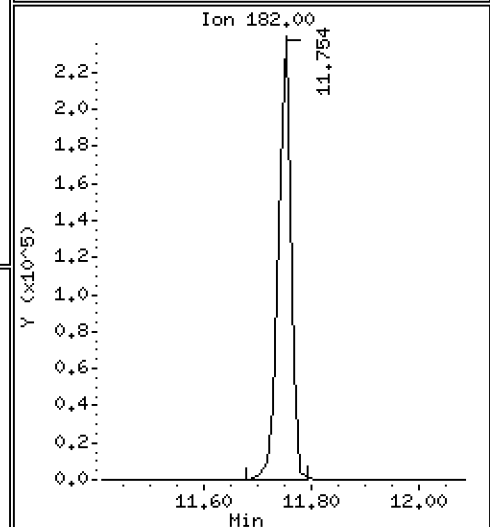
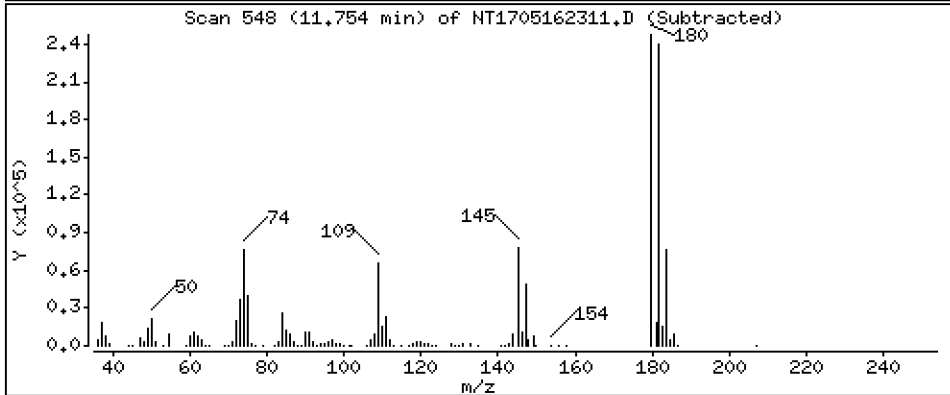
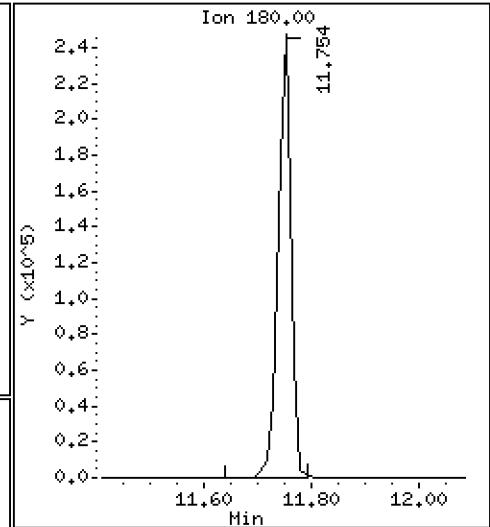
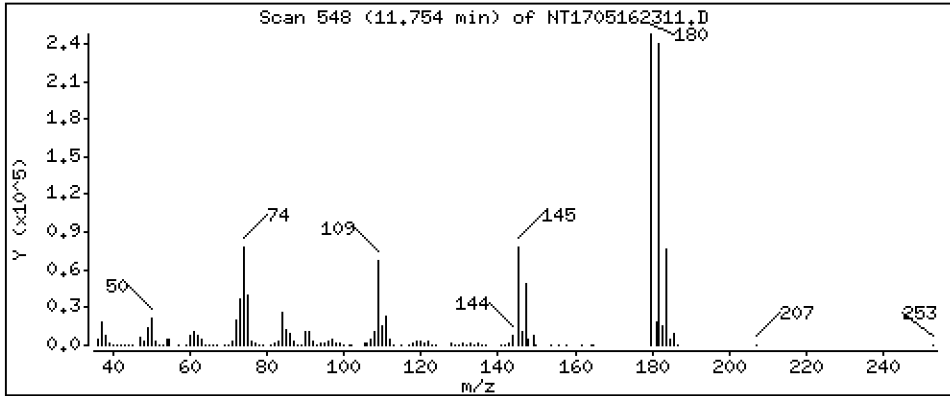
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 5,879 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

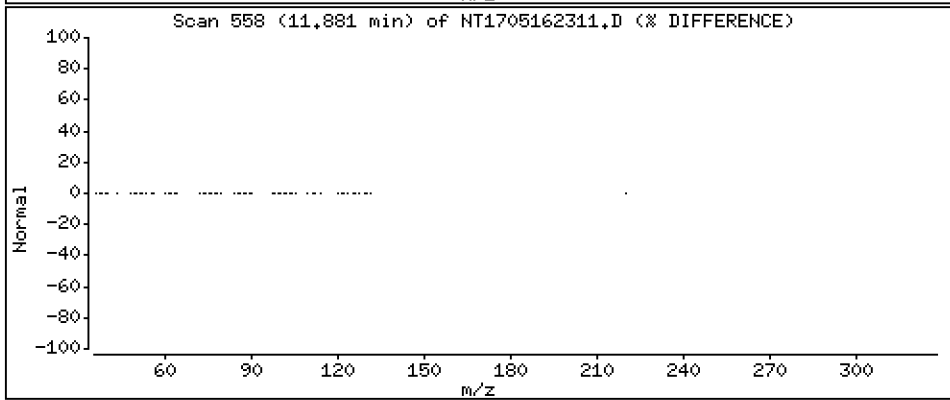
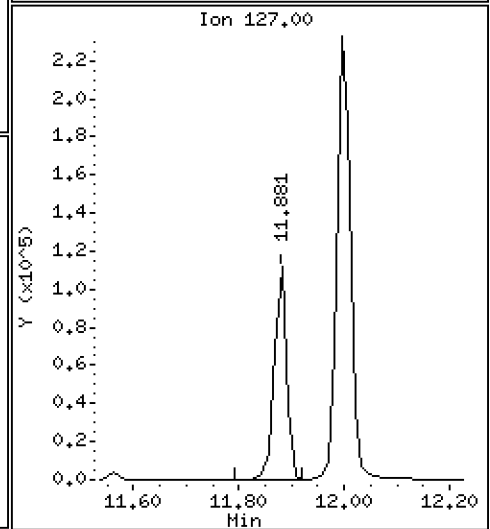
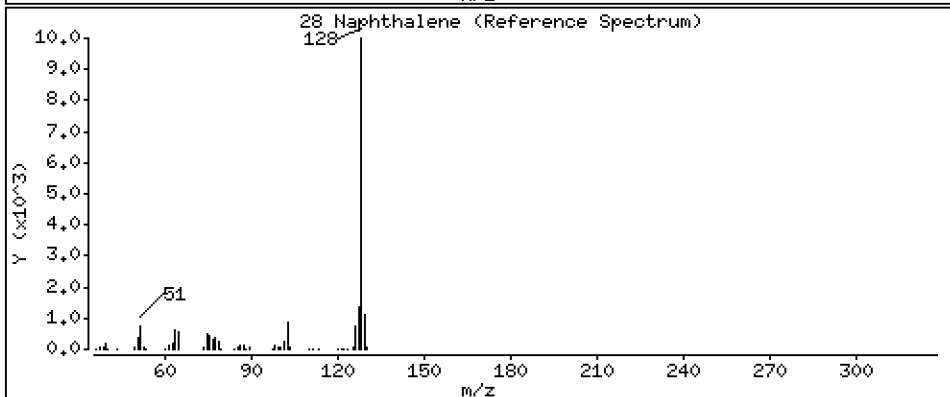
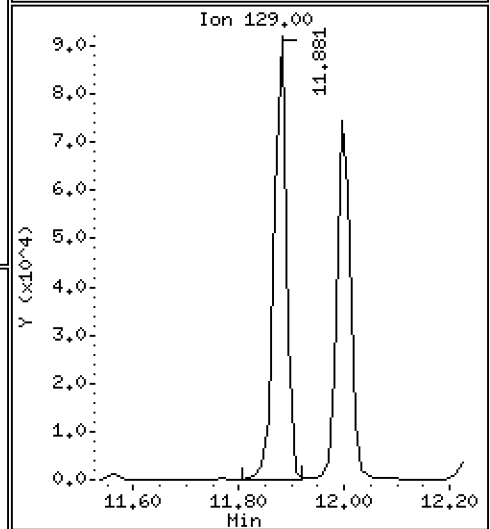
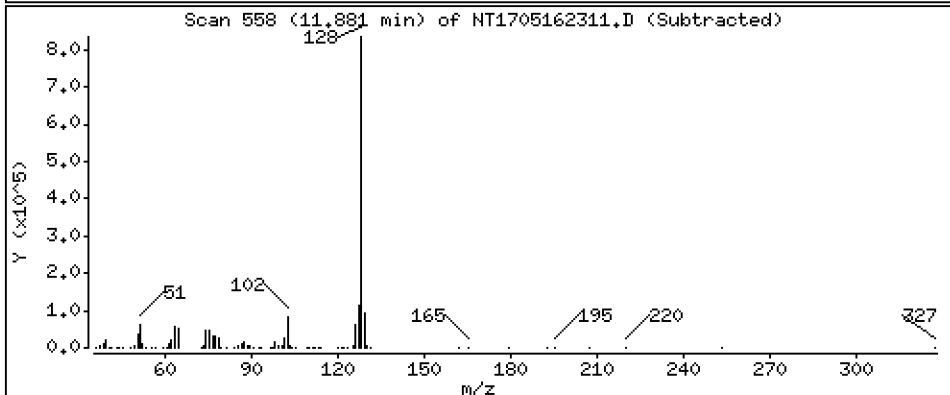
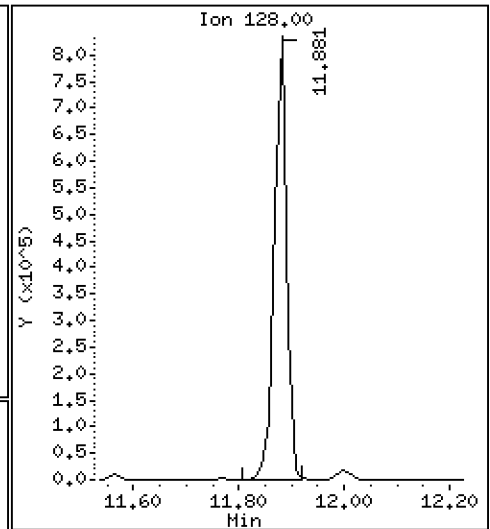
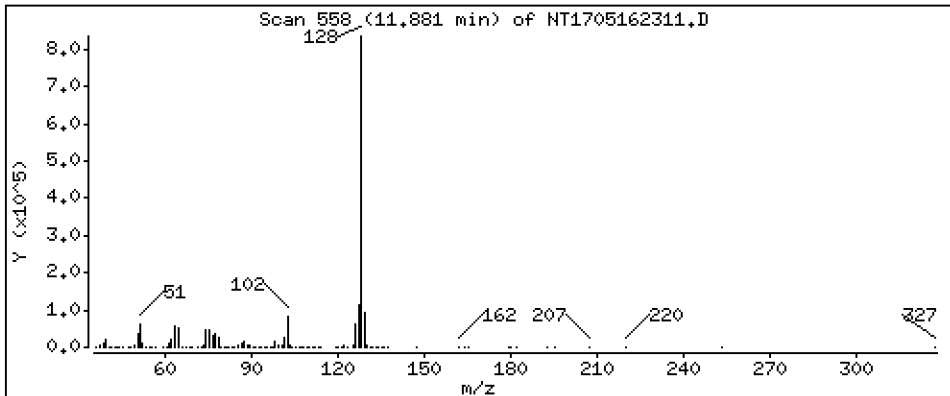
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 5,129 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

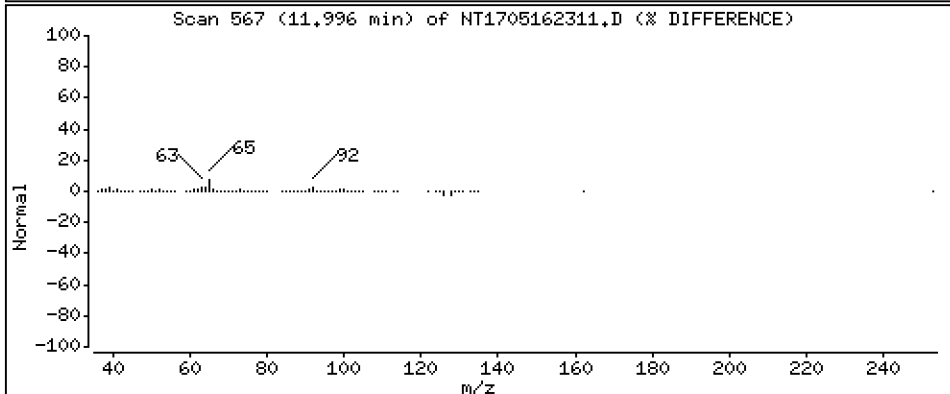
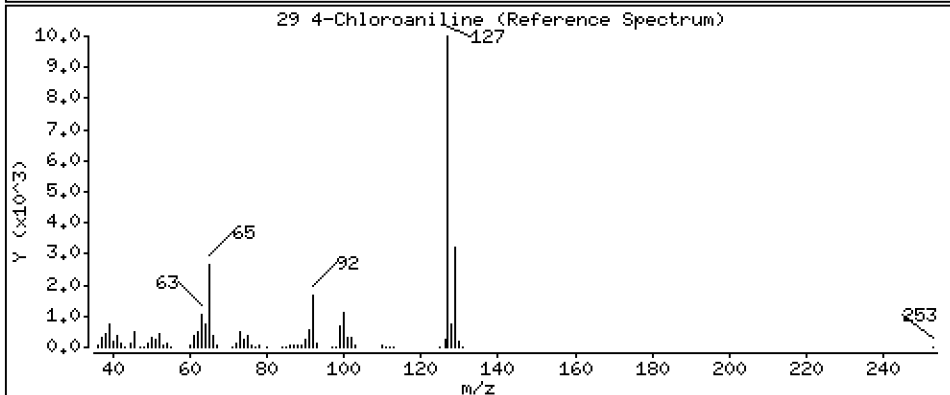
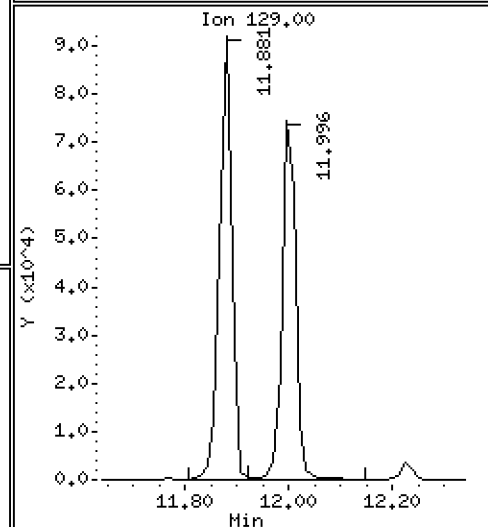
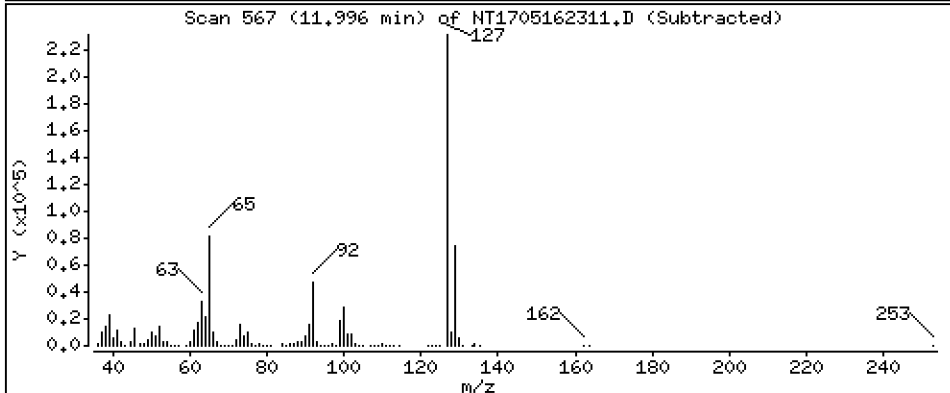
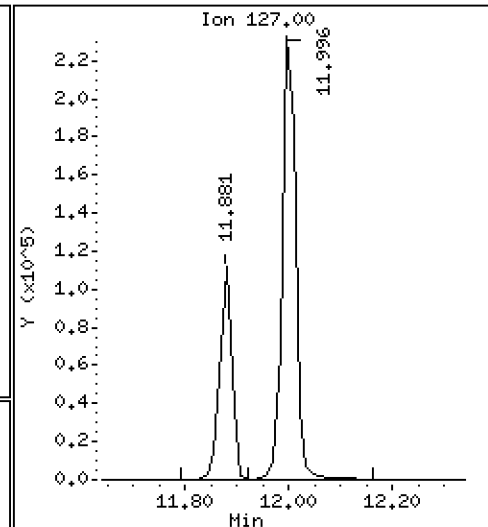
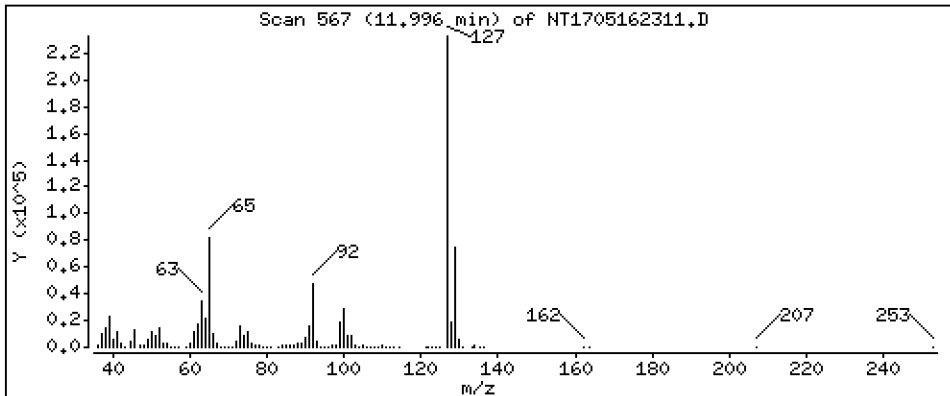
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 4,488 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

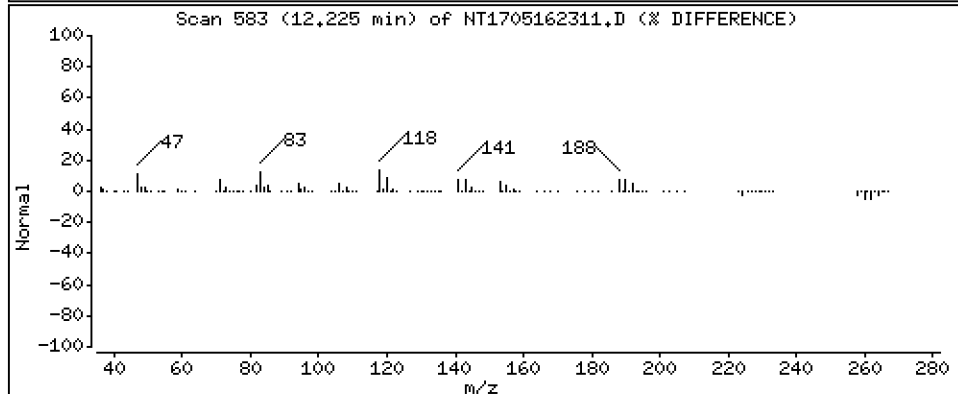
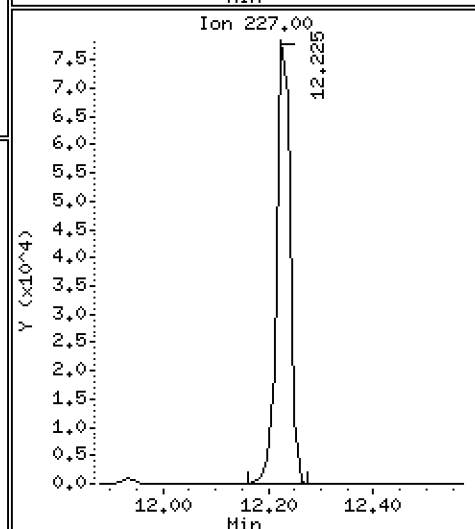
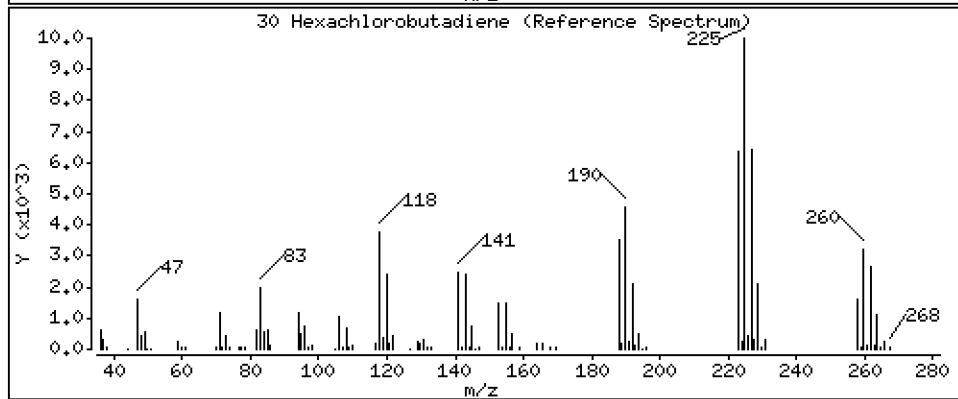
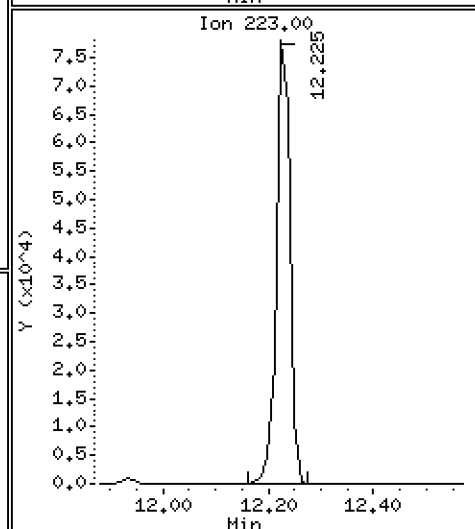
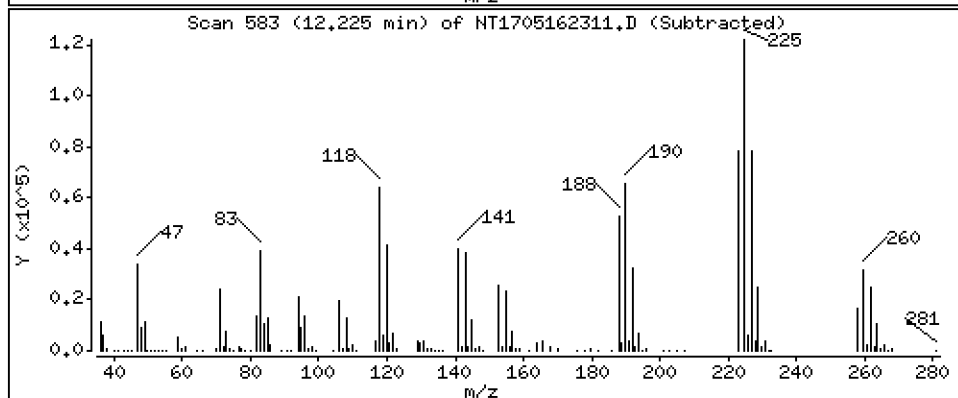
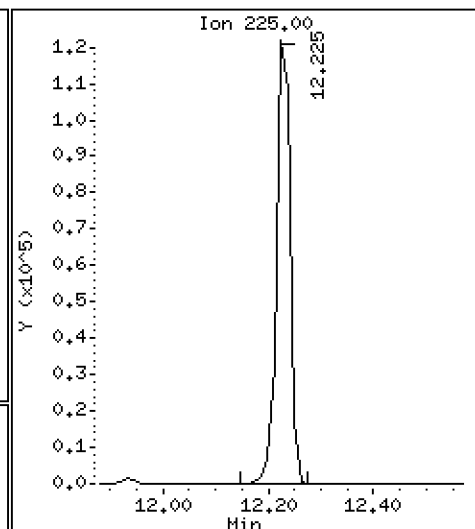
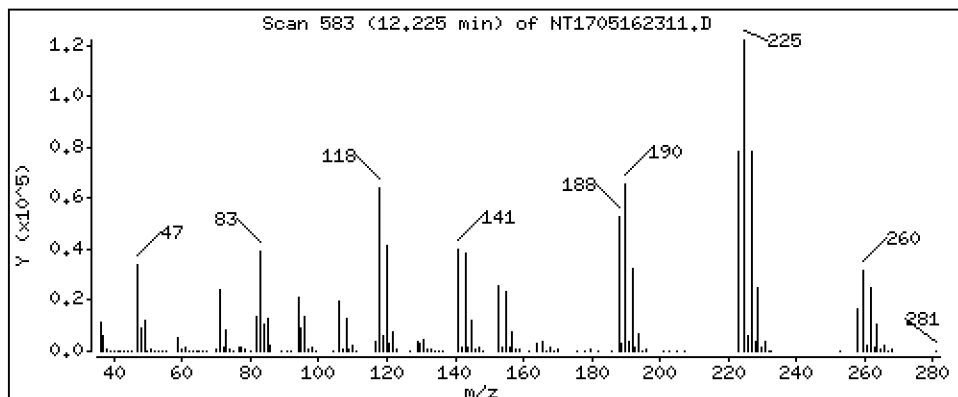
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,241 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

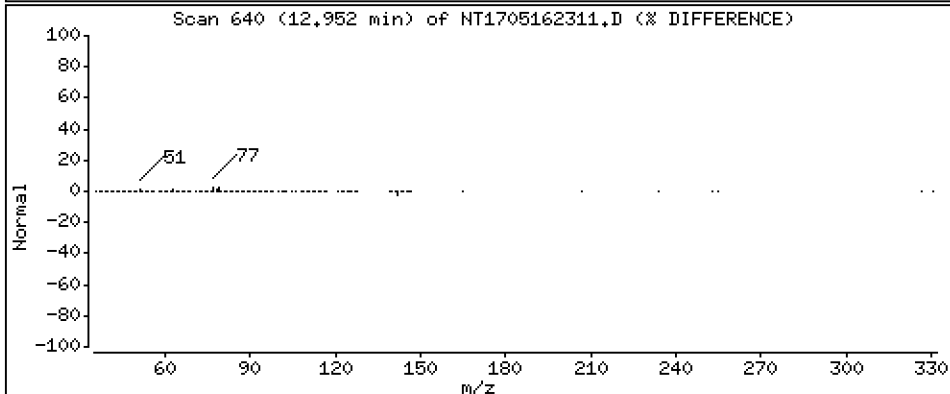
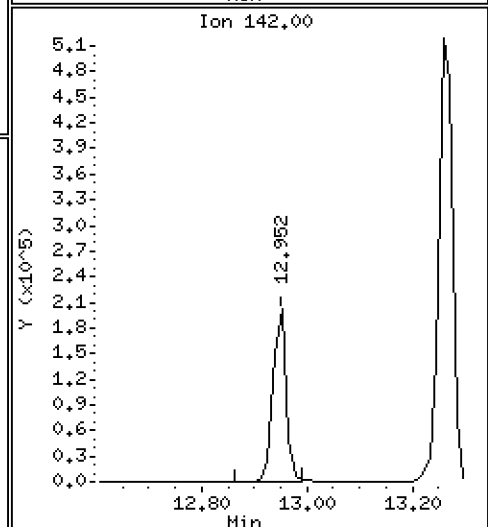
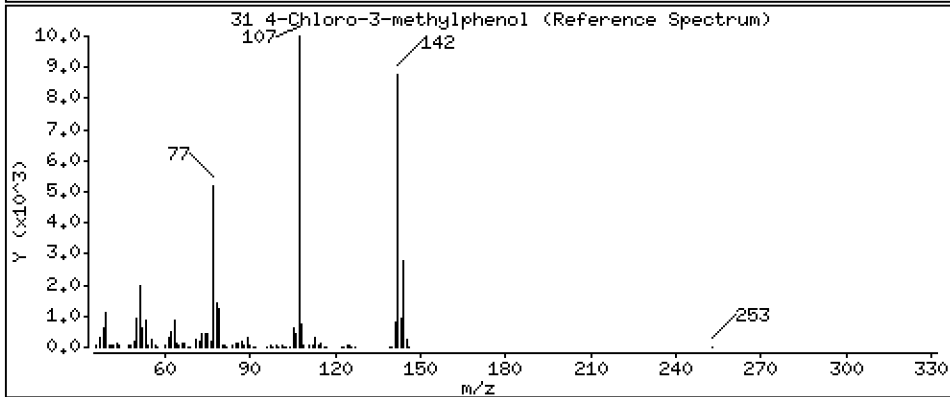
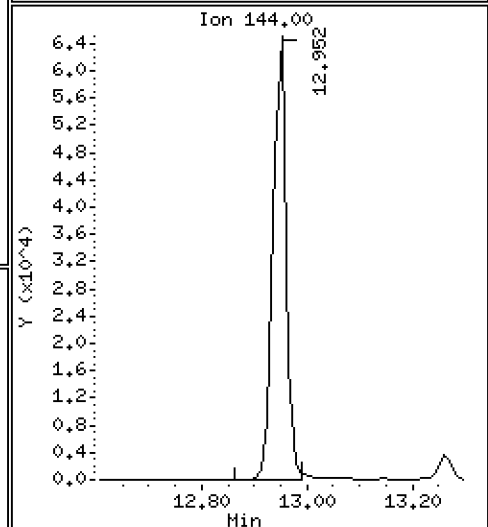
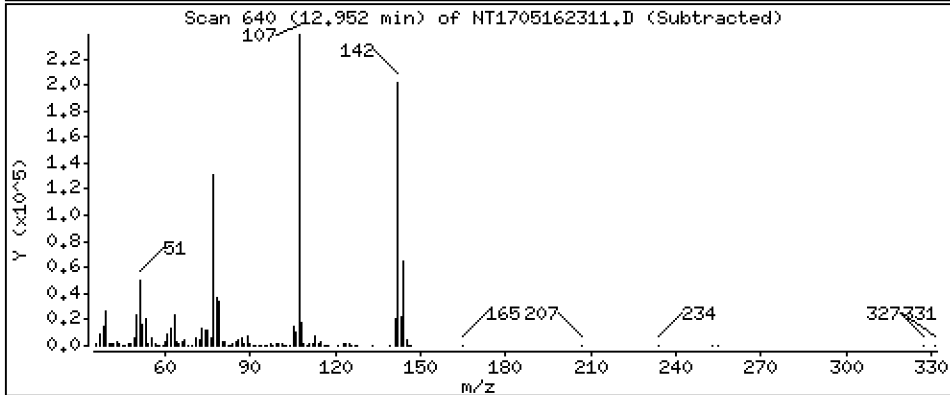
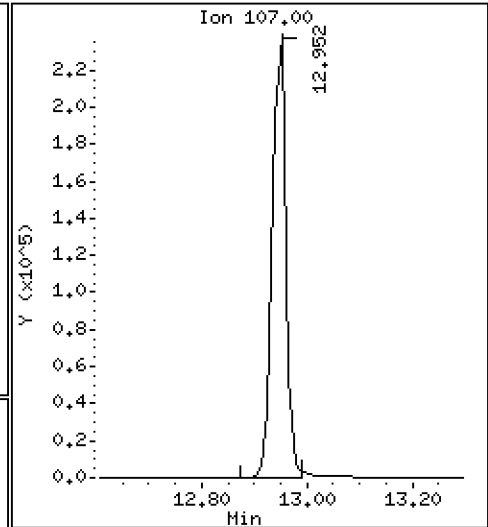
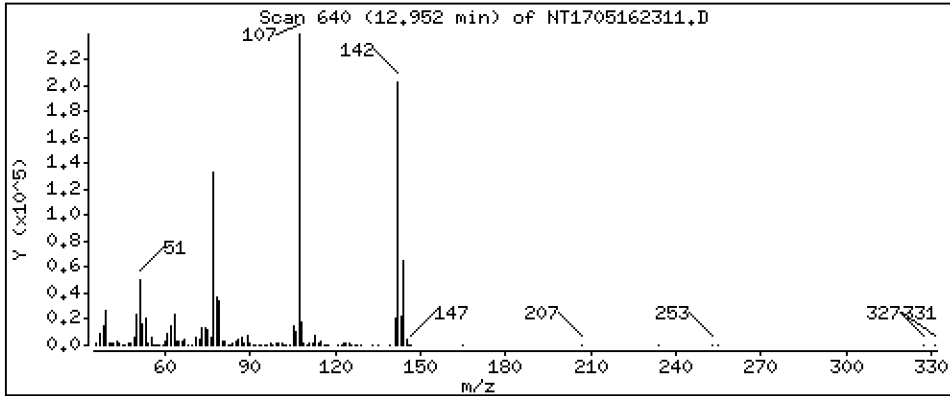
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,878 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

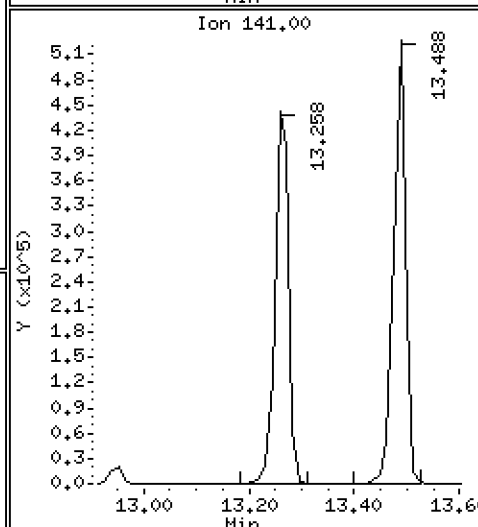
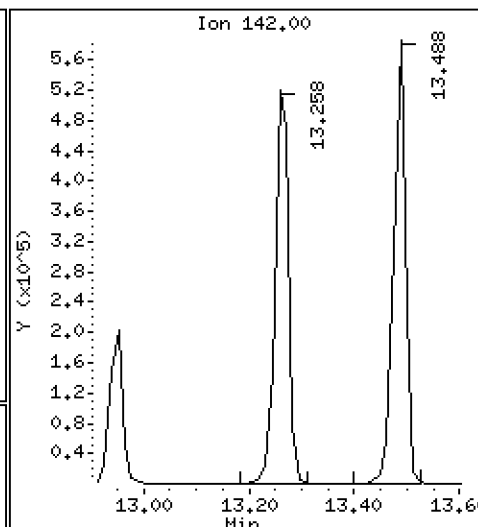
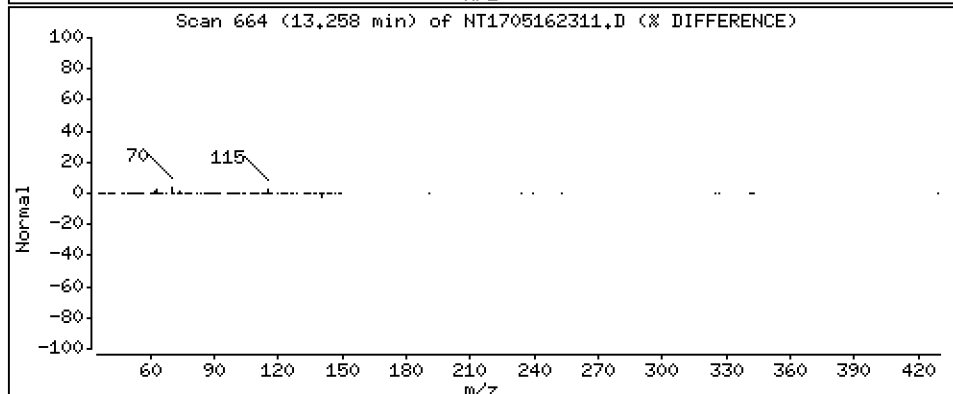
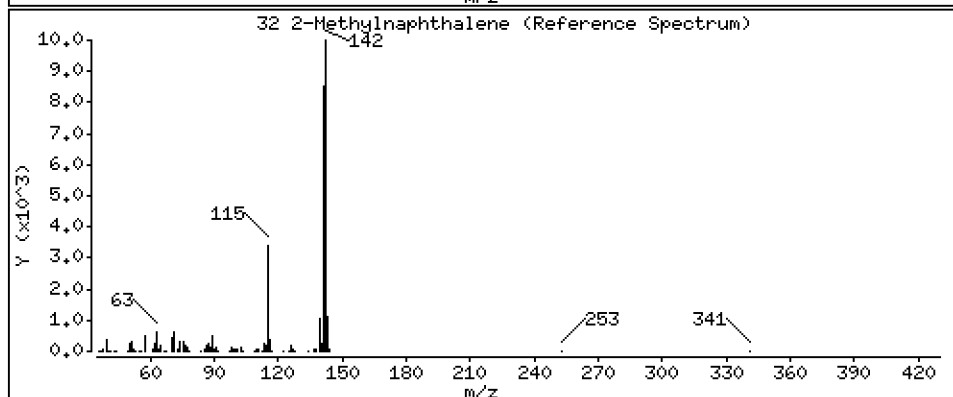
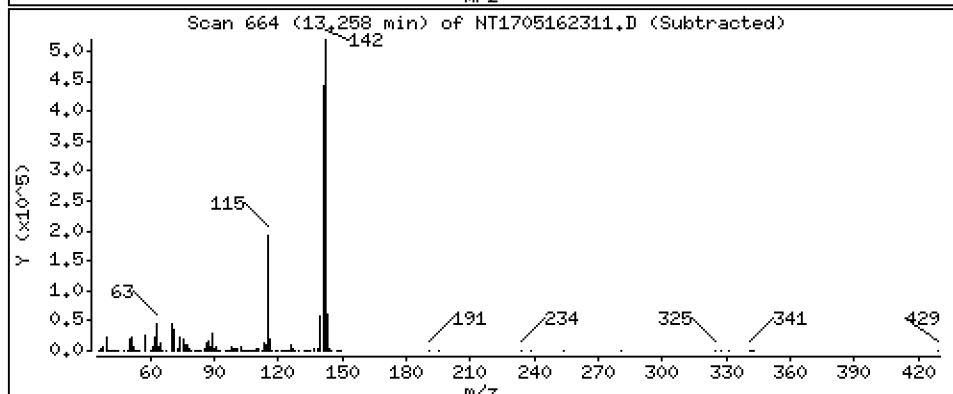
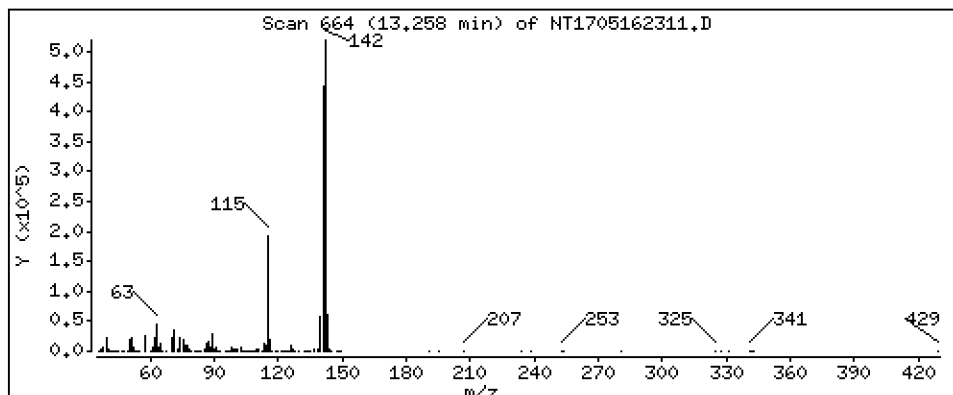
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 5,028 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

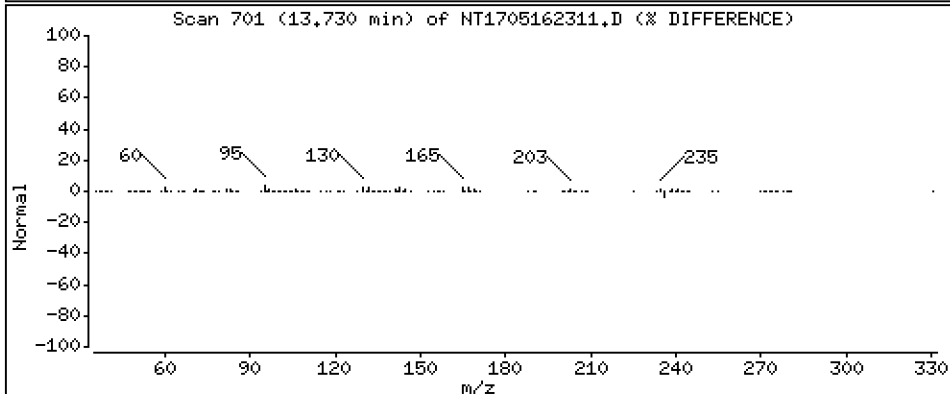
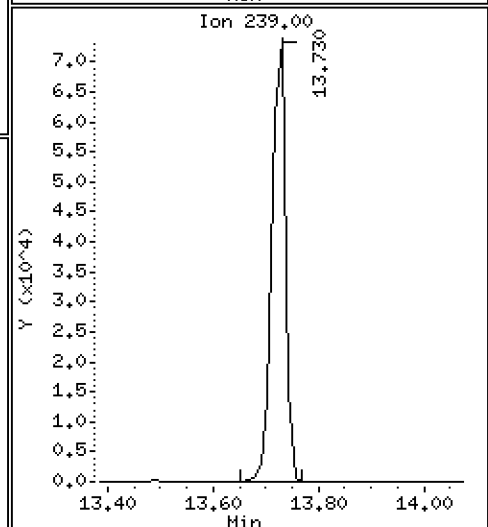
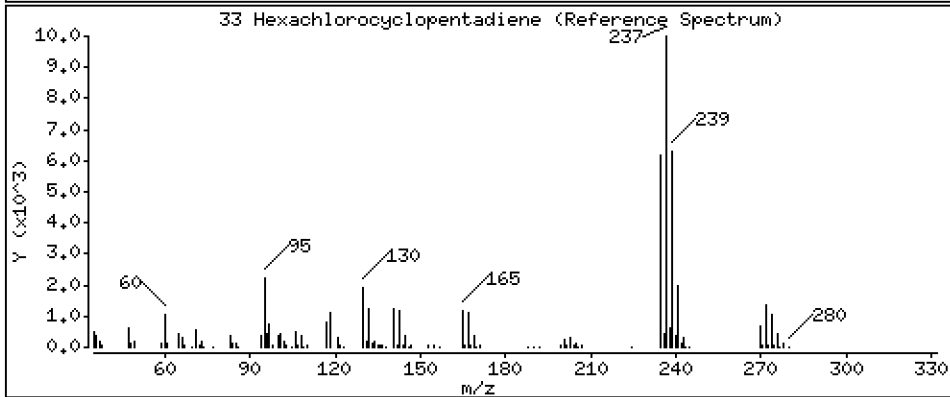
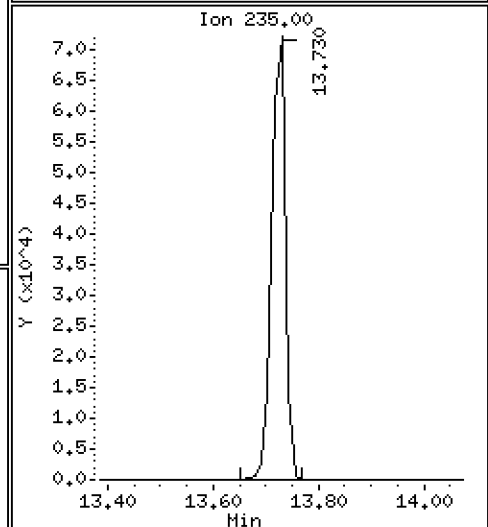
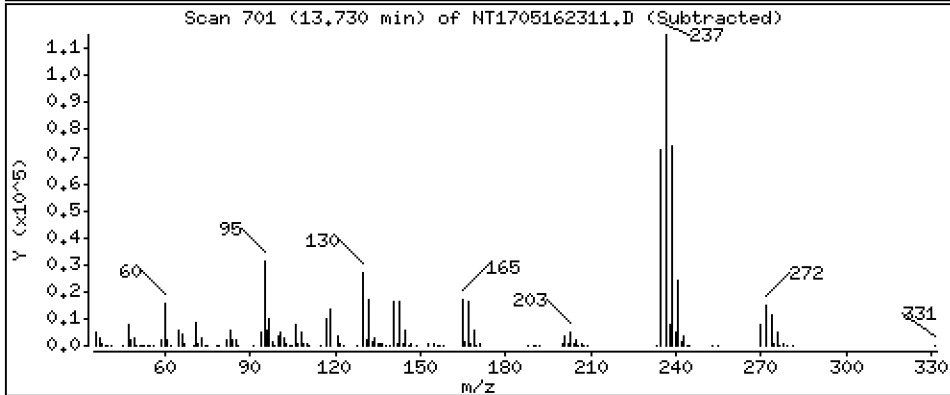
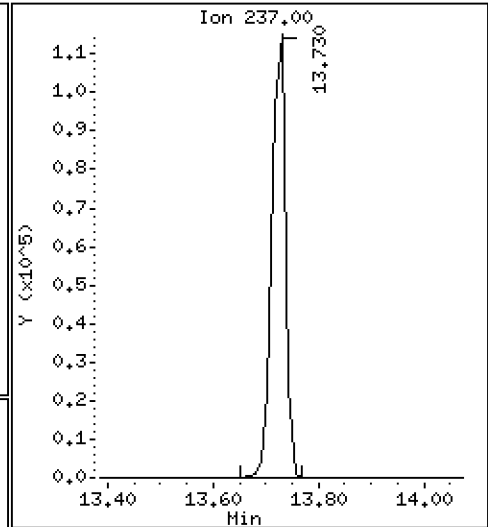
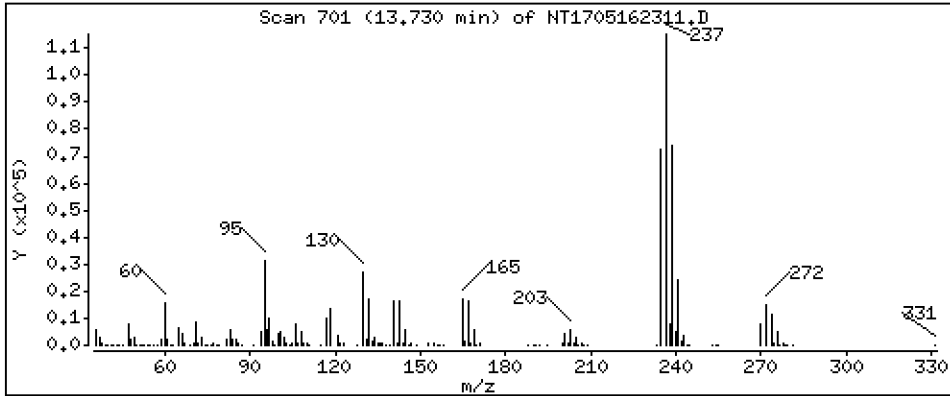
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,219 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

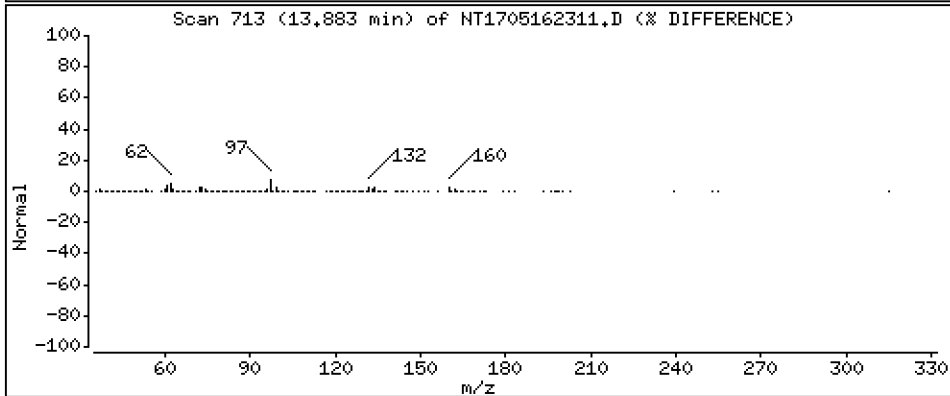
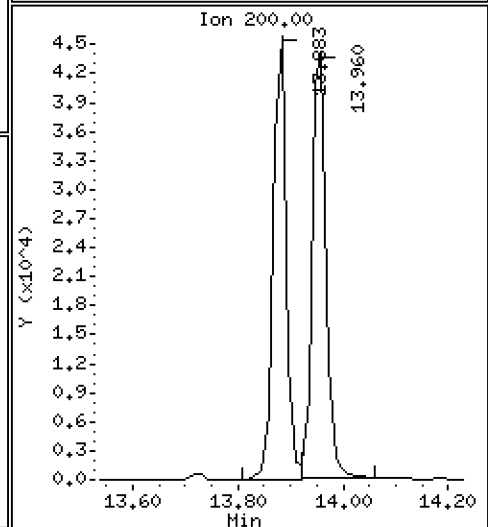
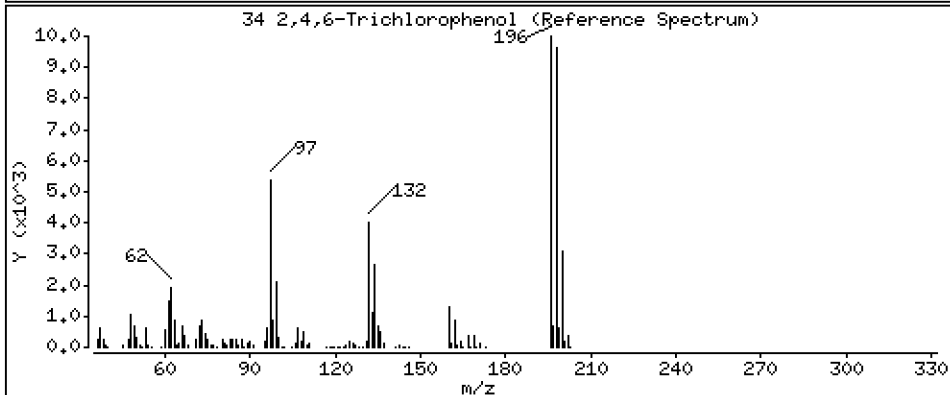
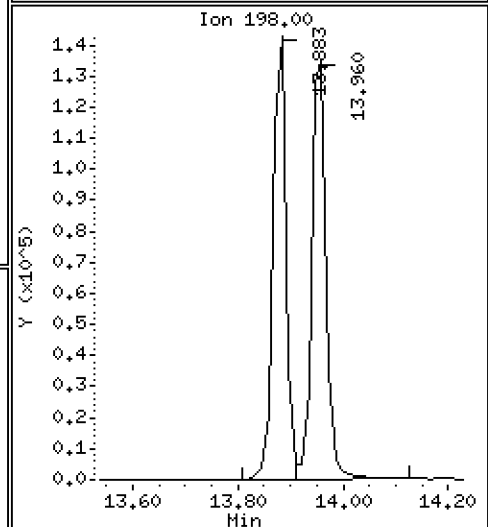
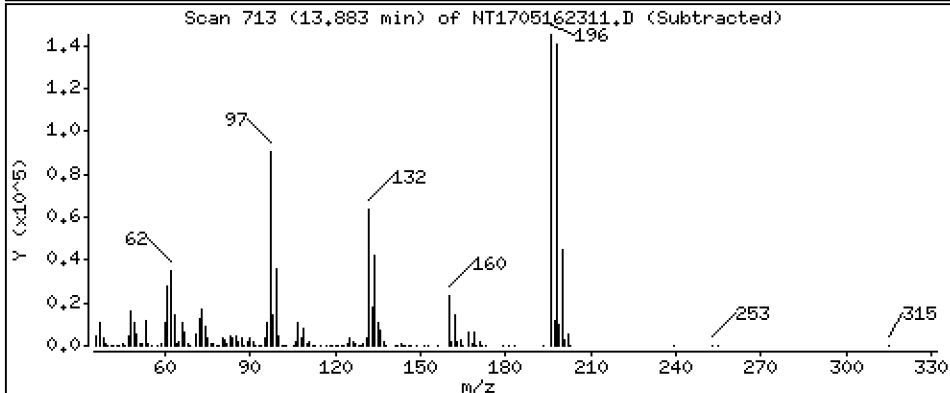
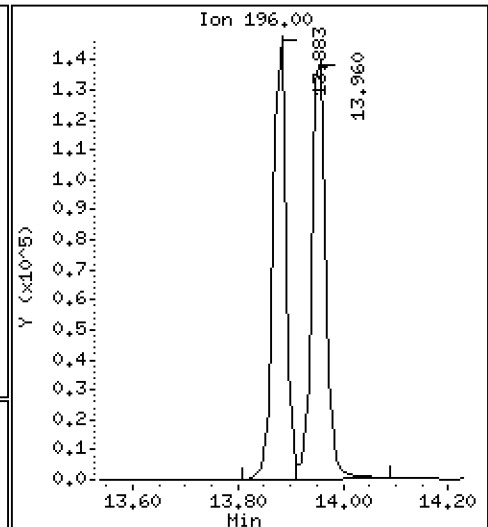
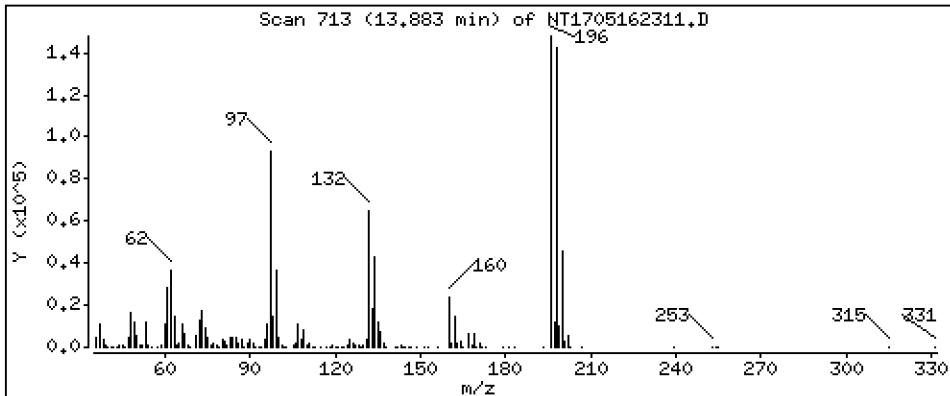
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,794 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

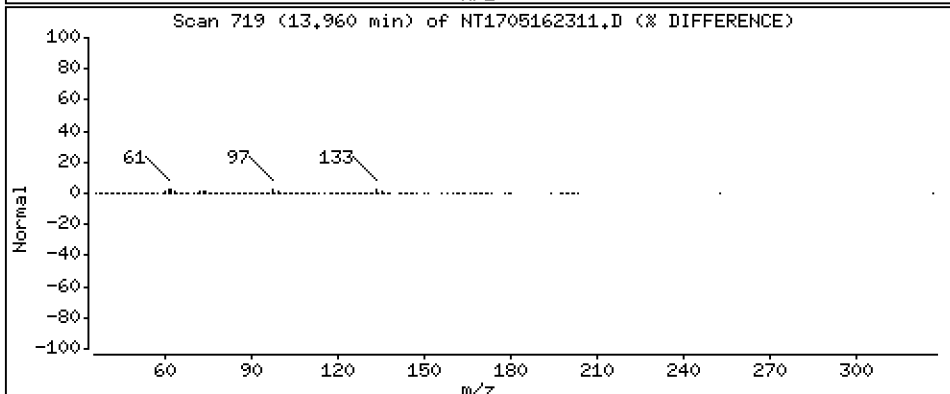
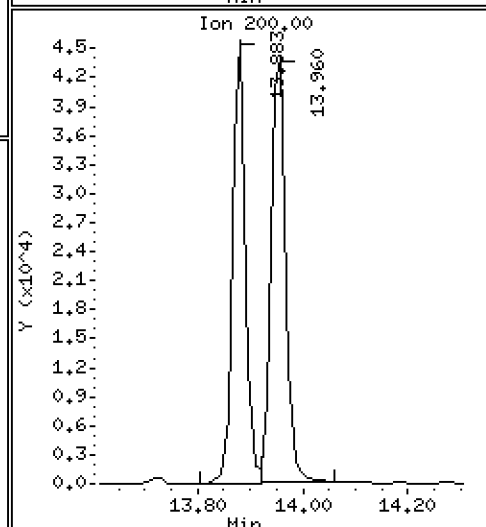
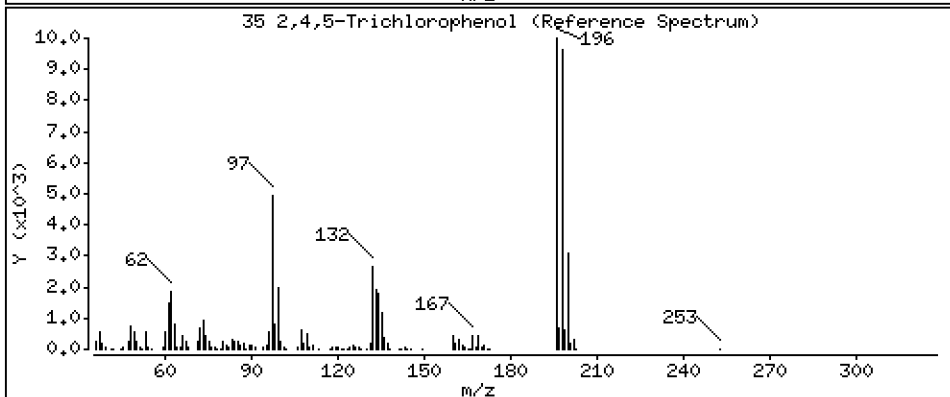
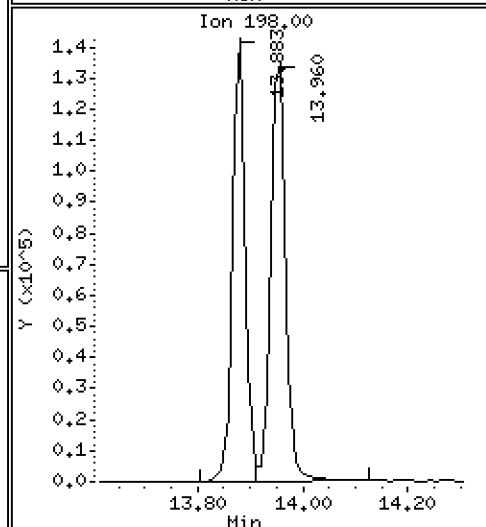
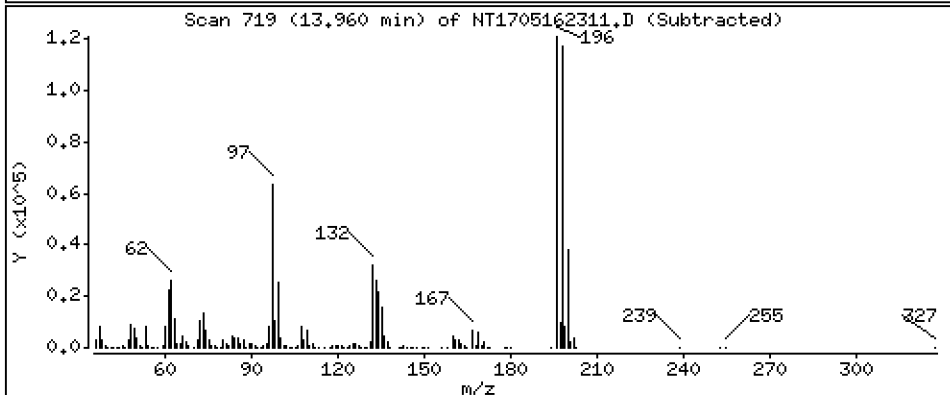
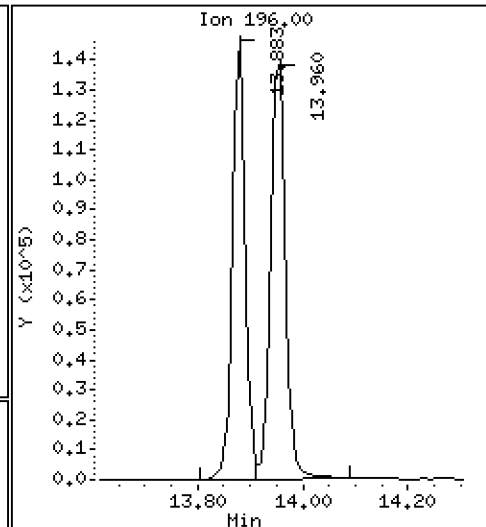
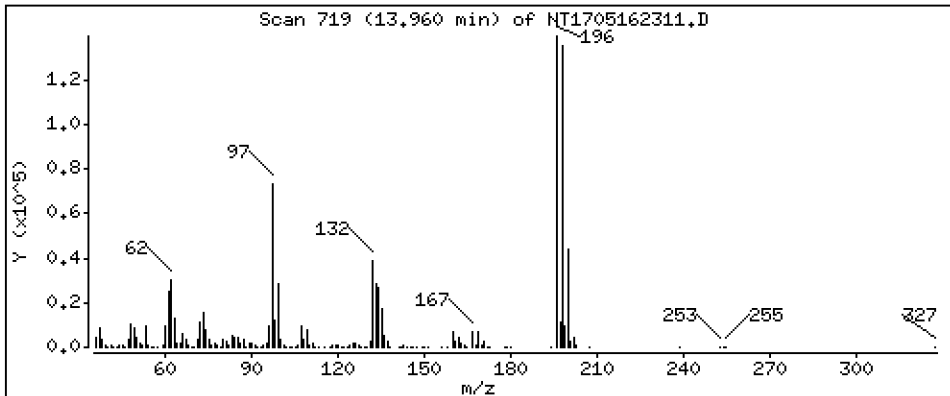
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,837 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

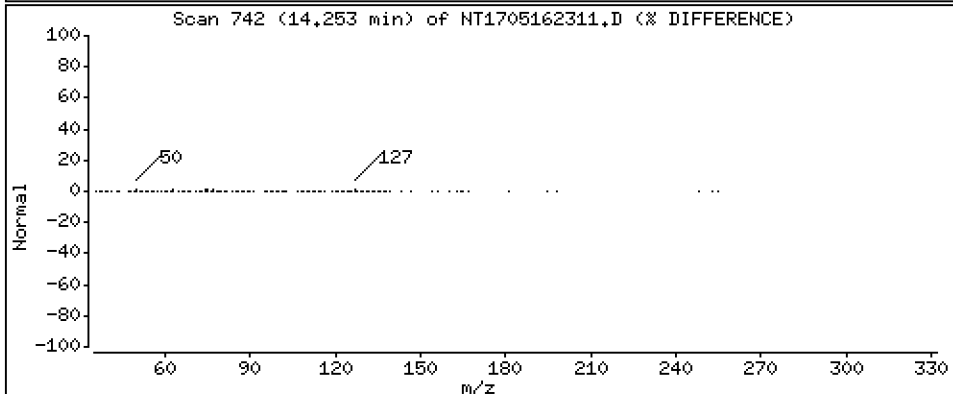
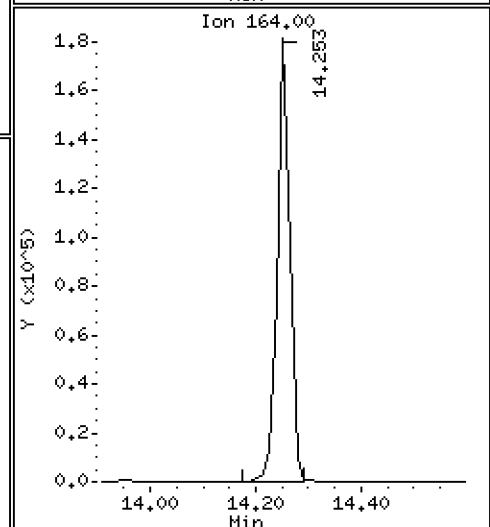
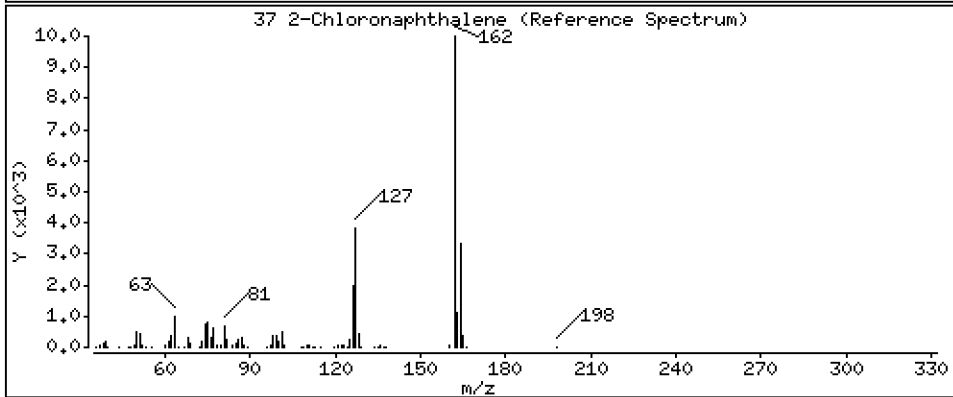
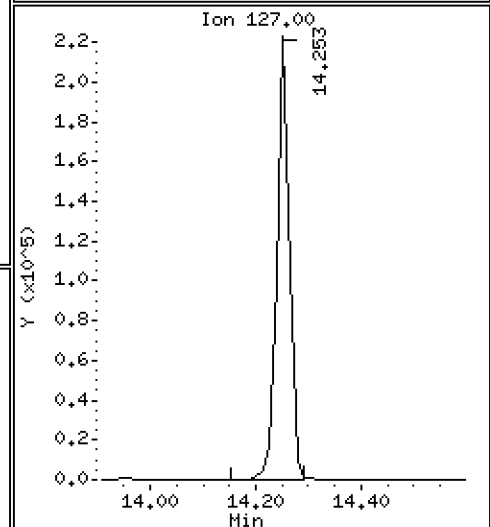
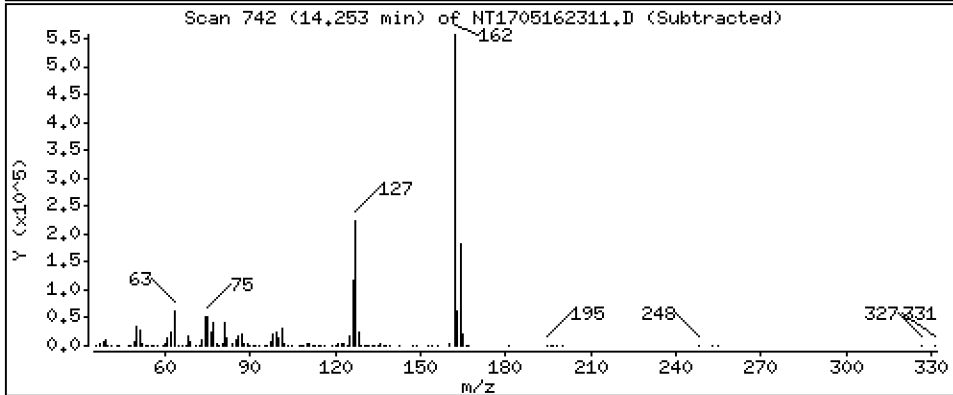
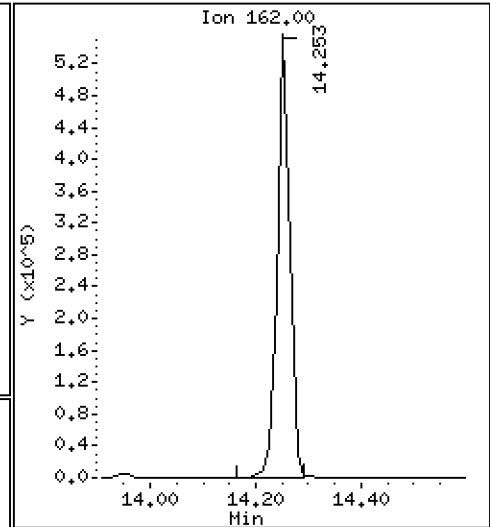
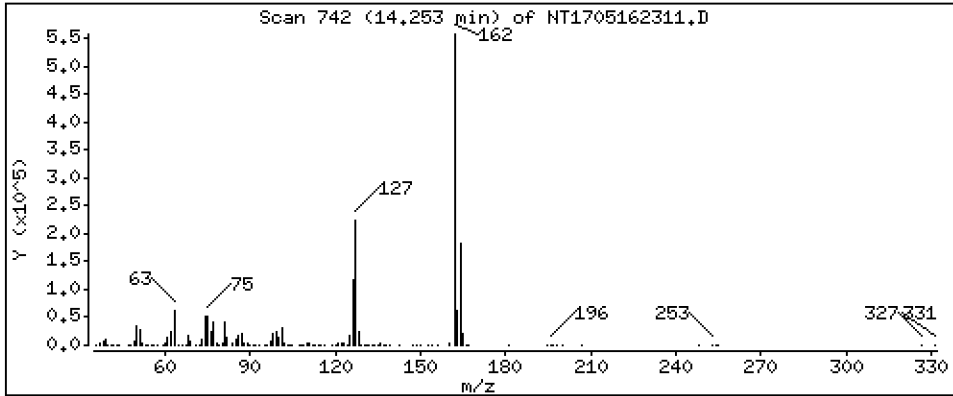
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 5.401 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

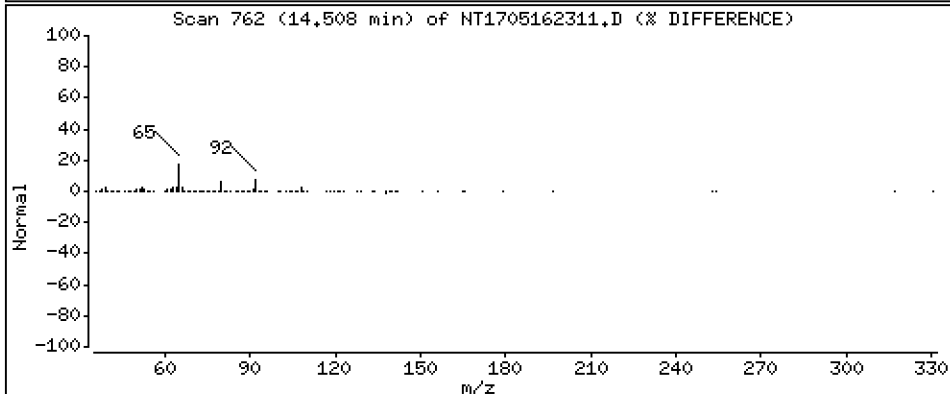
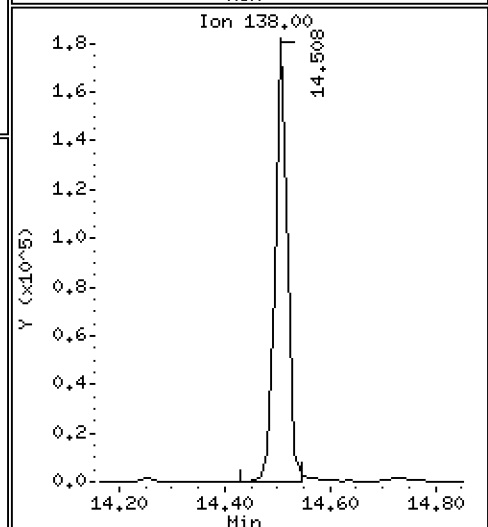
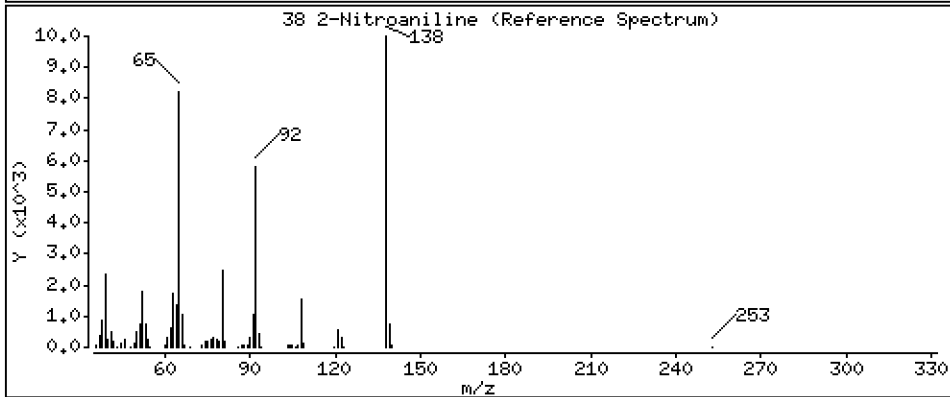
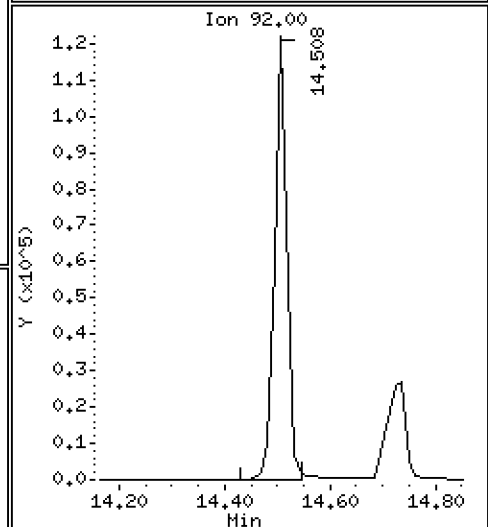
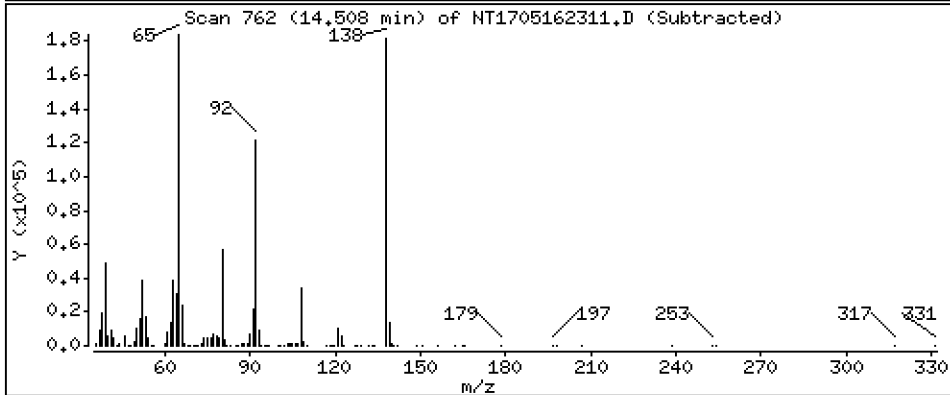
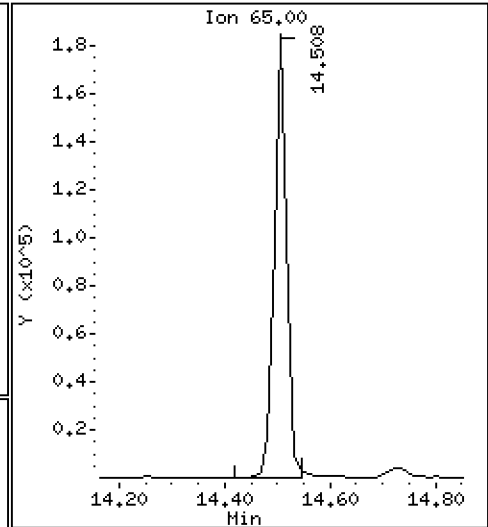
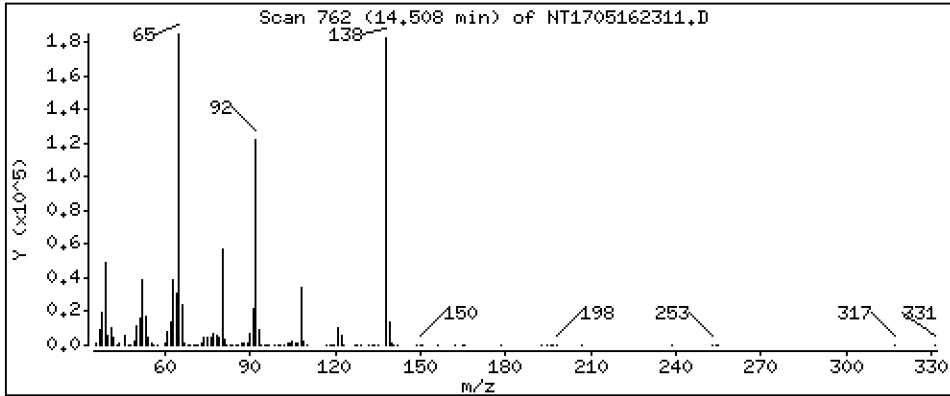
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,356 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

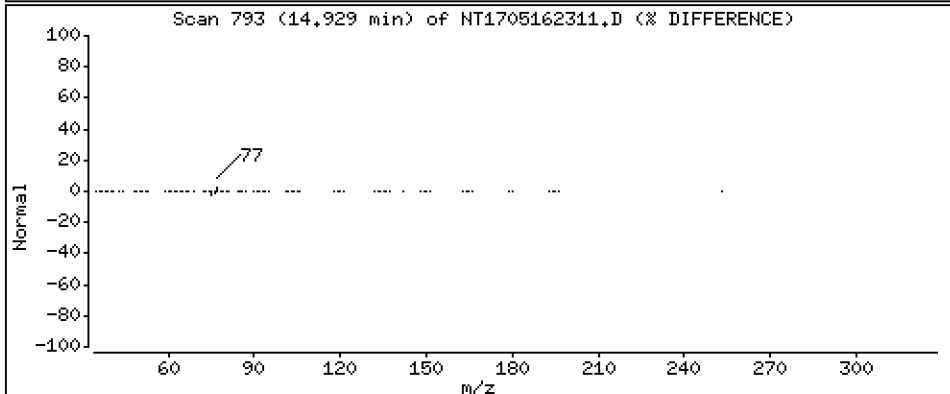
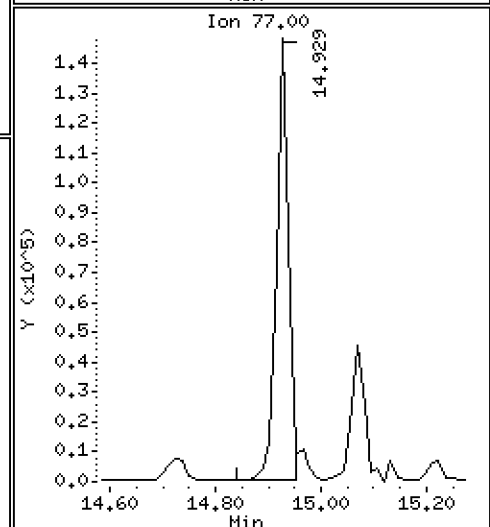
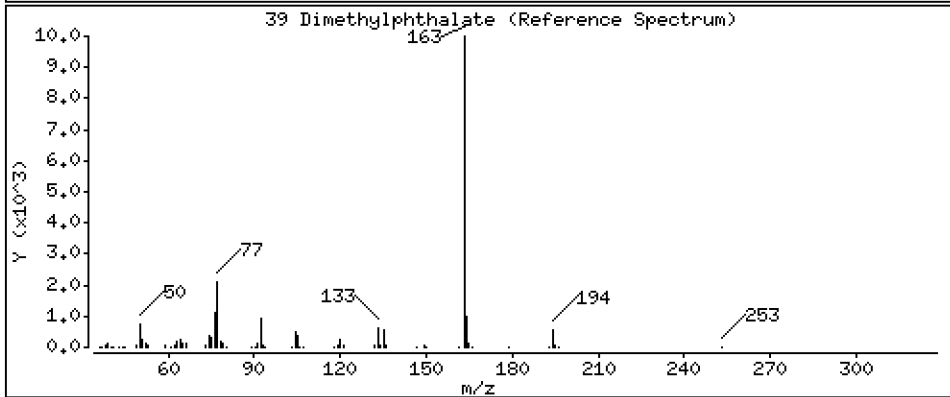
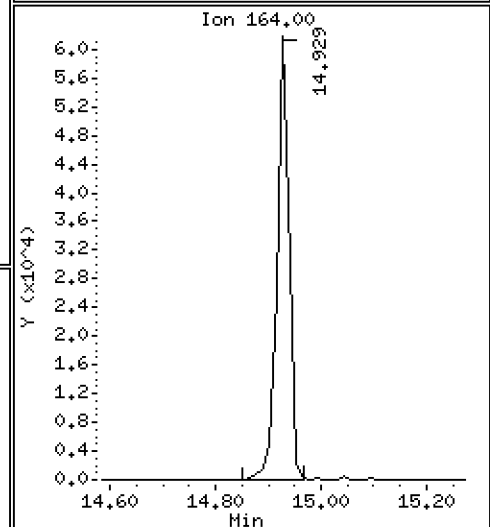
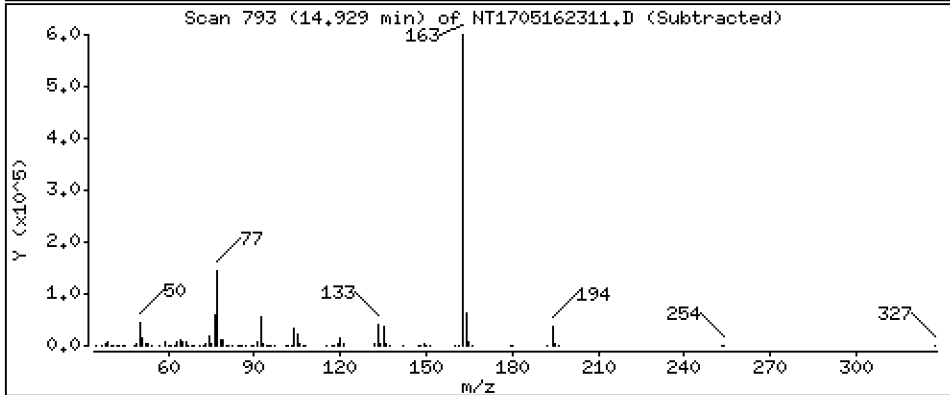
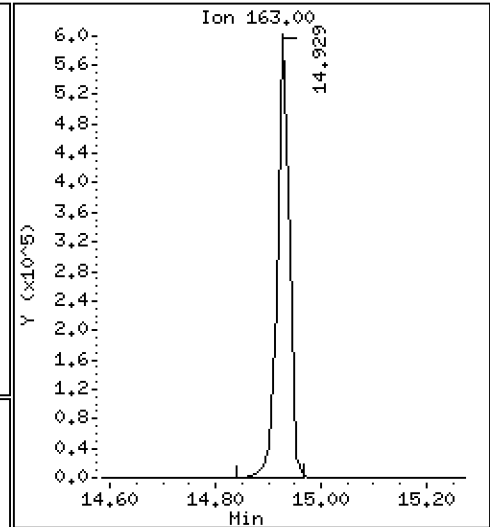
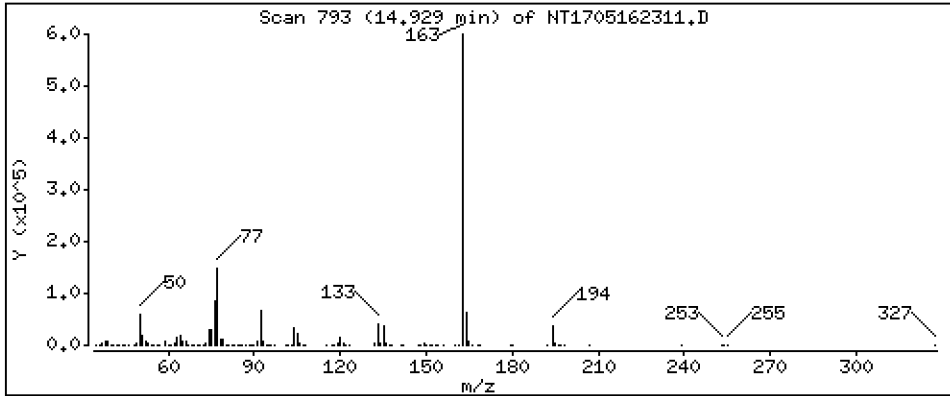
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,418 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

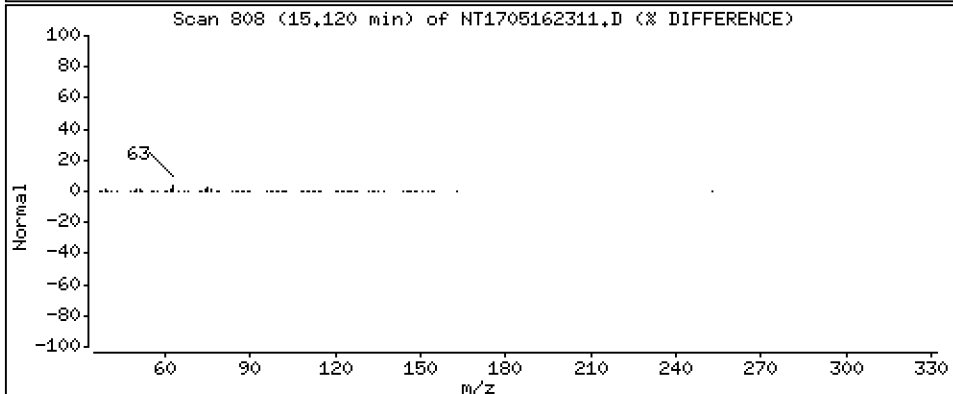
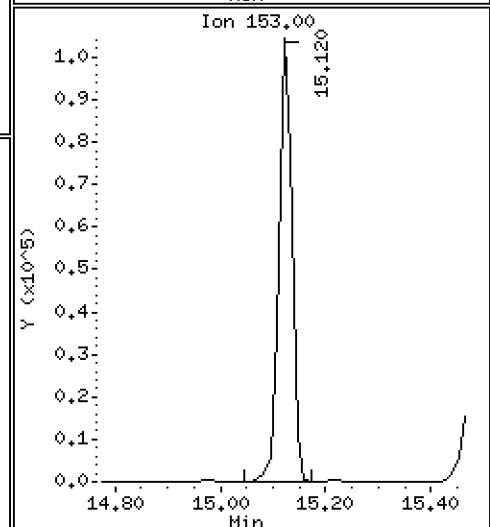
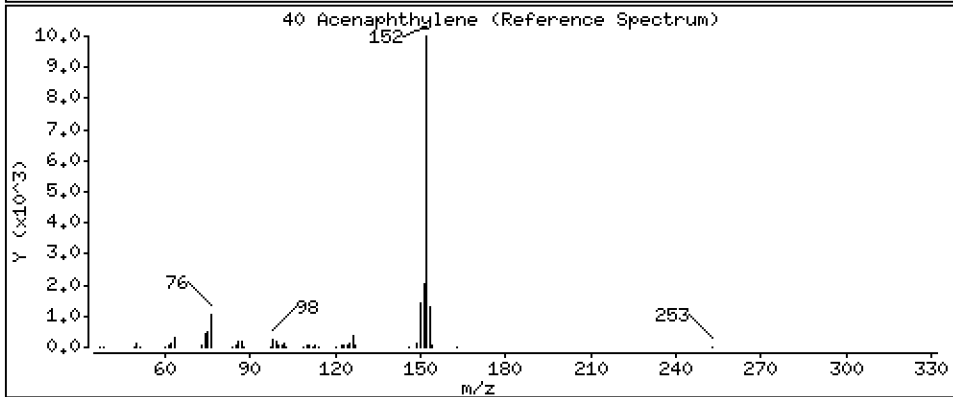
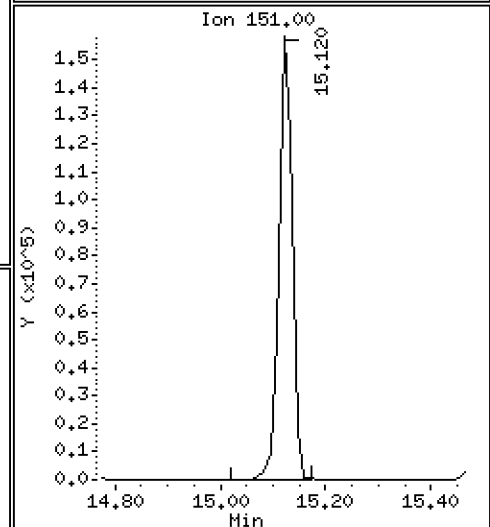
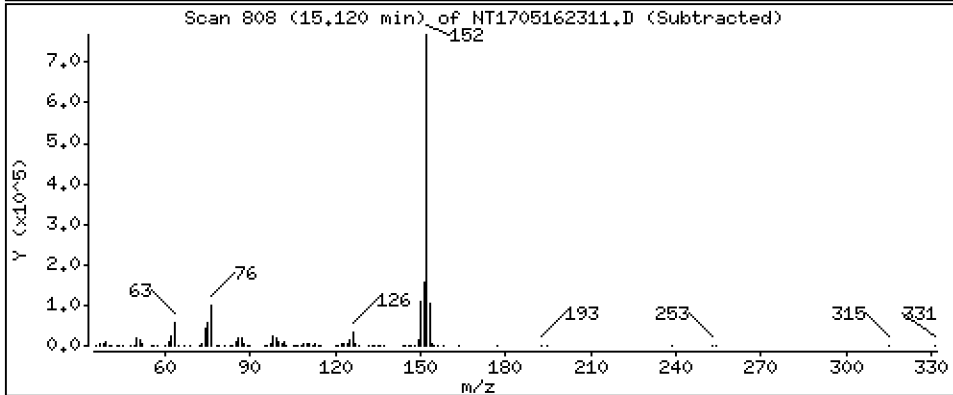
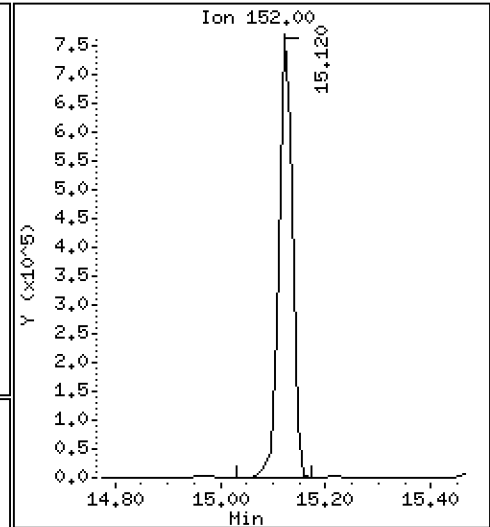
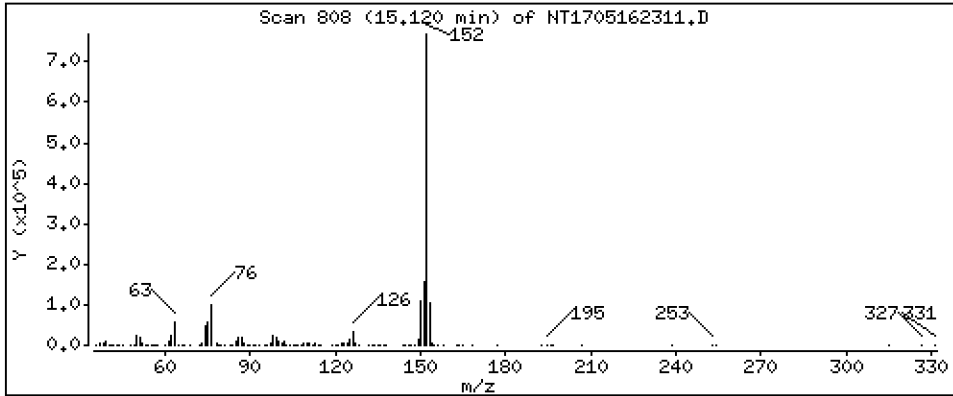
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 5,282 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

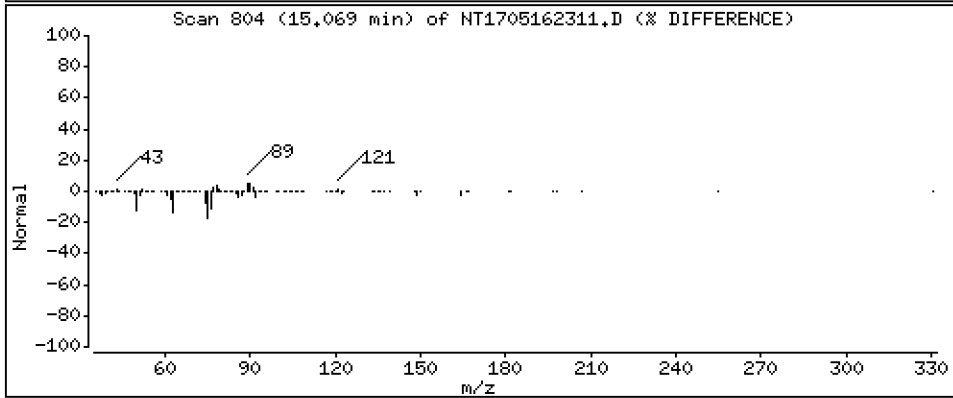
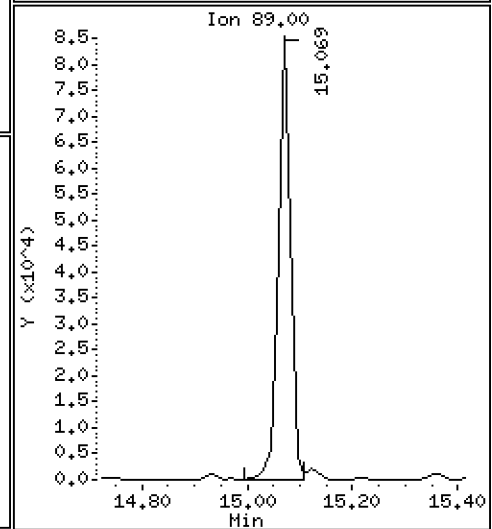
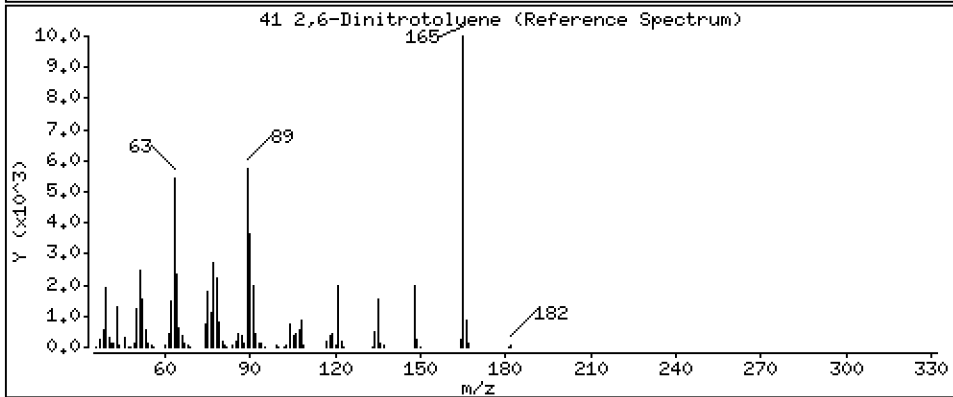
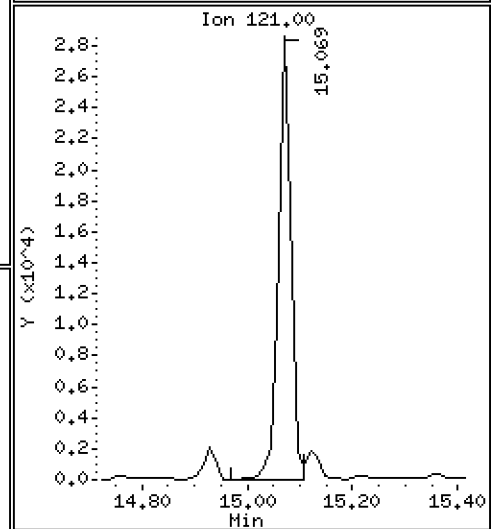
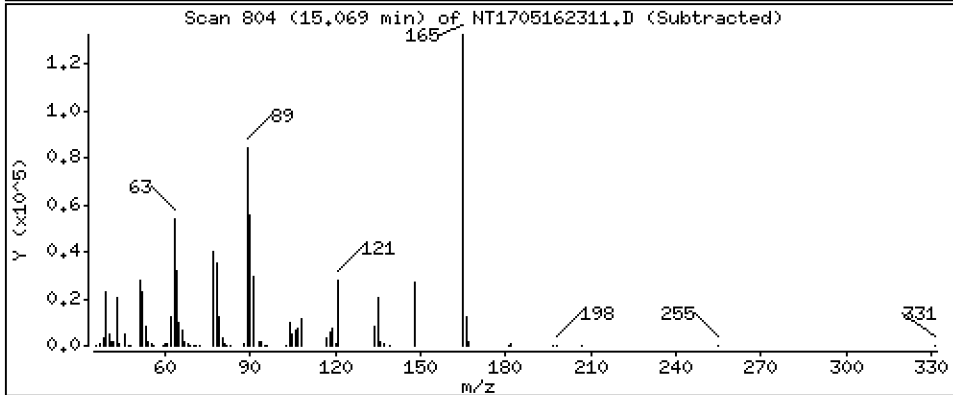
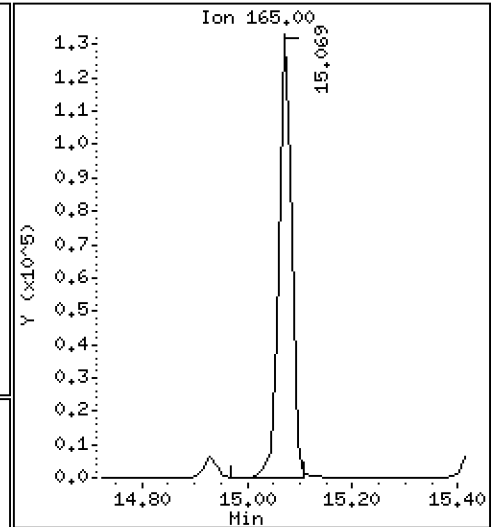
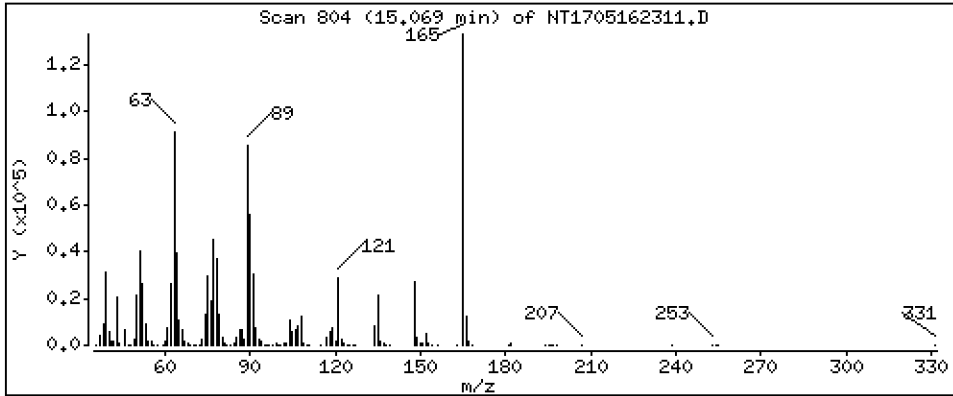
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 5.404 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

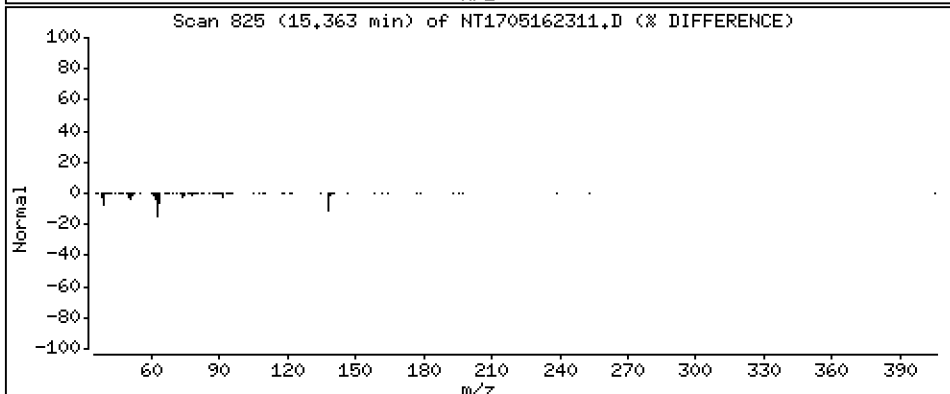
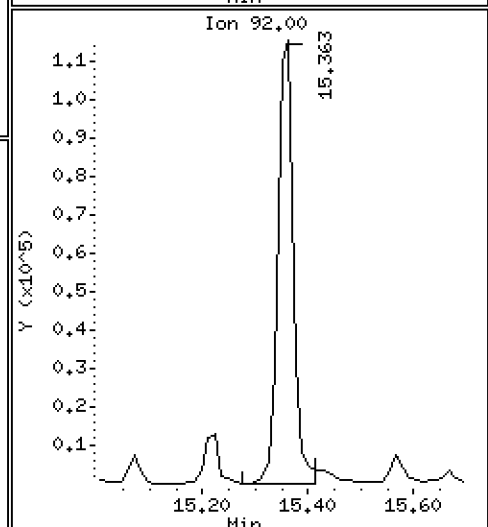
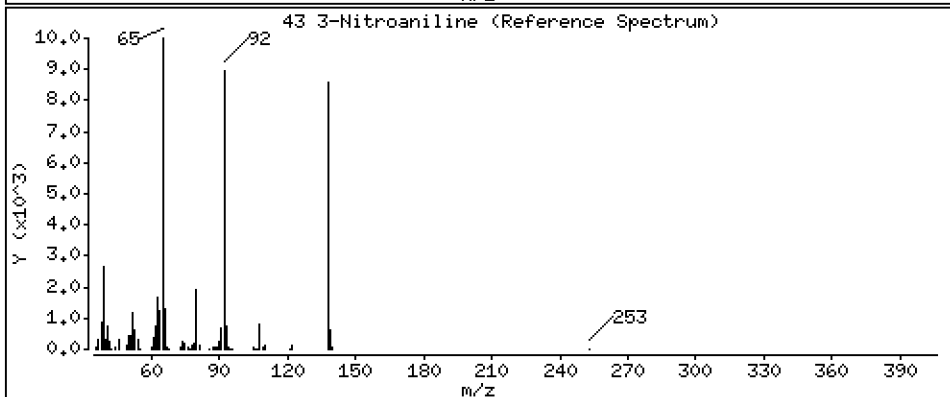
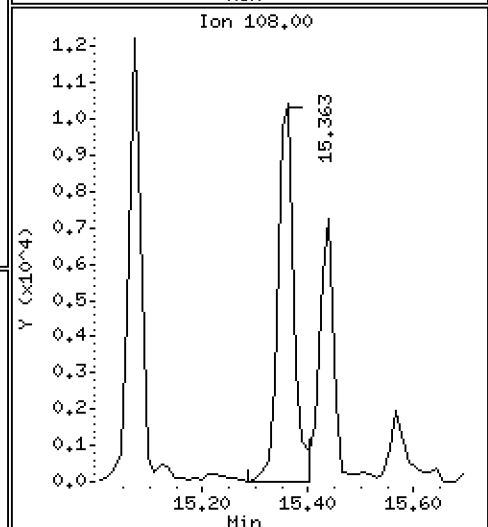
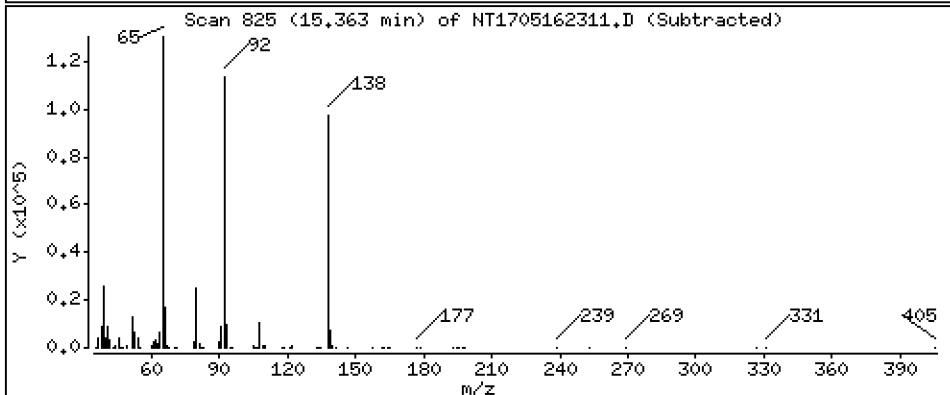
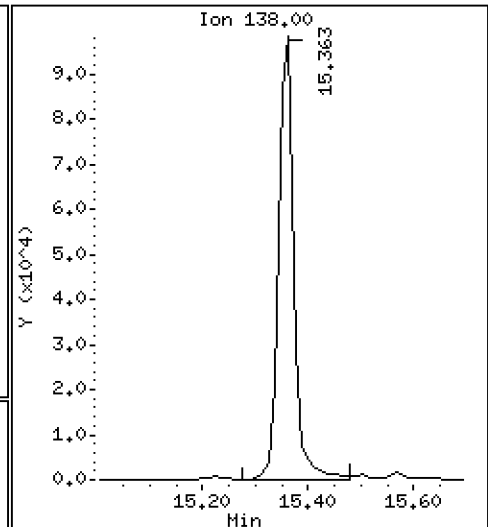
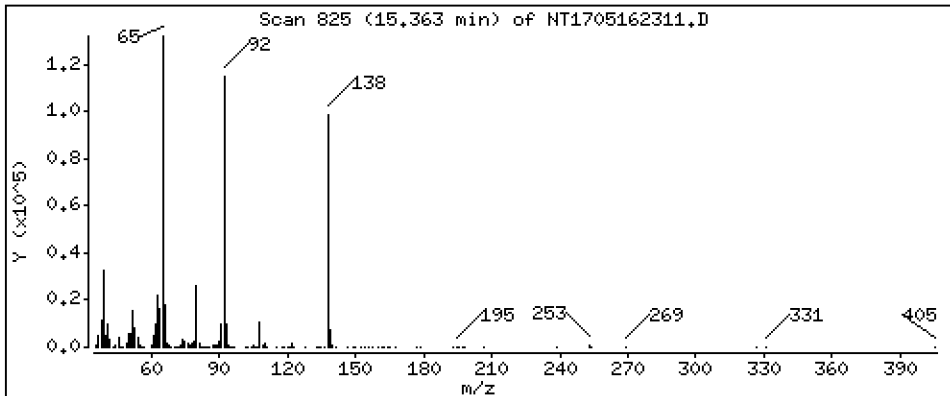
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 5,169 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

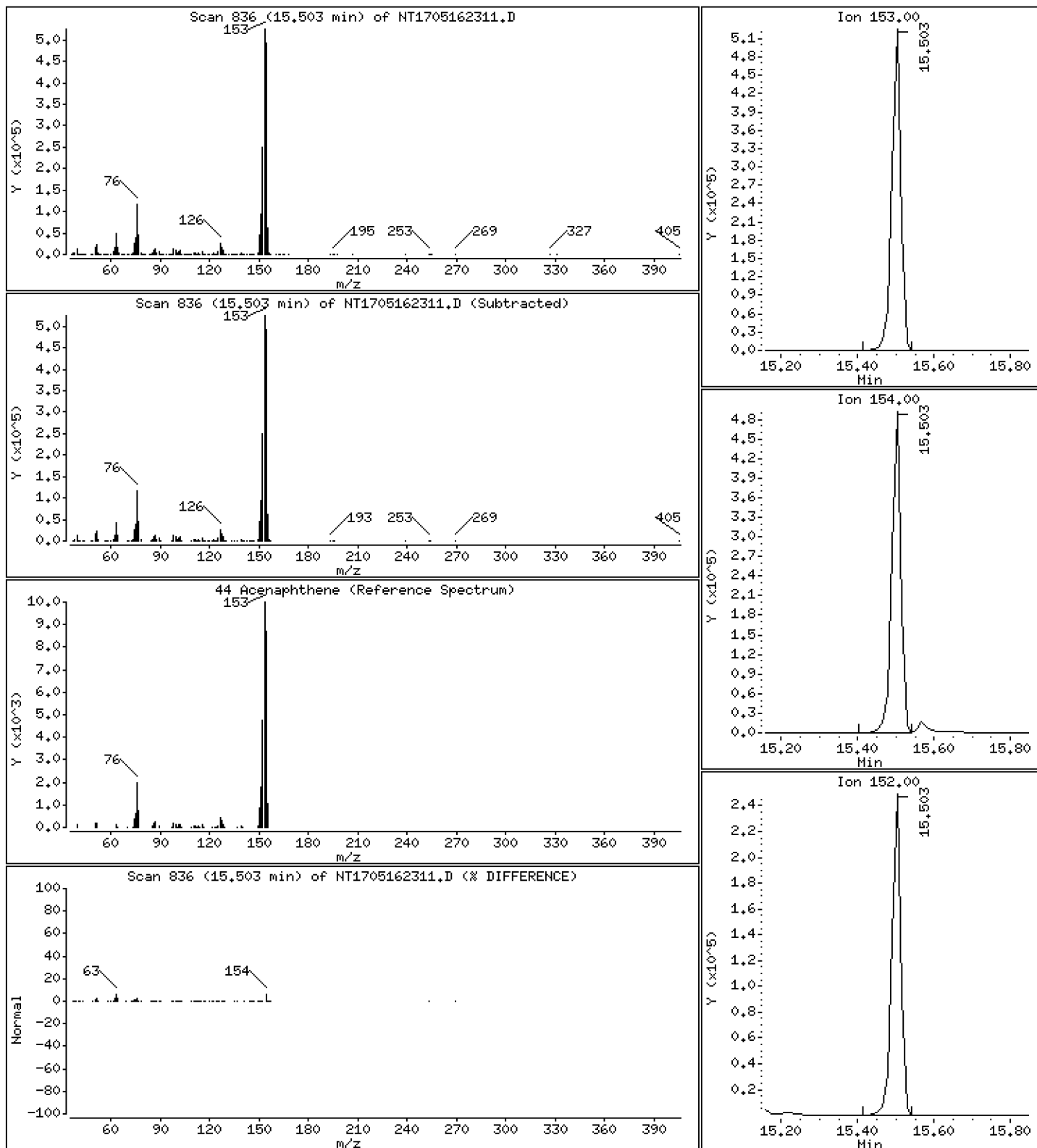
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 5,283 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

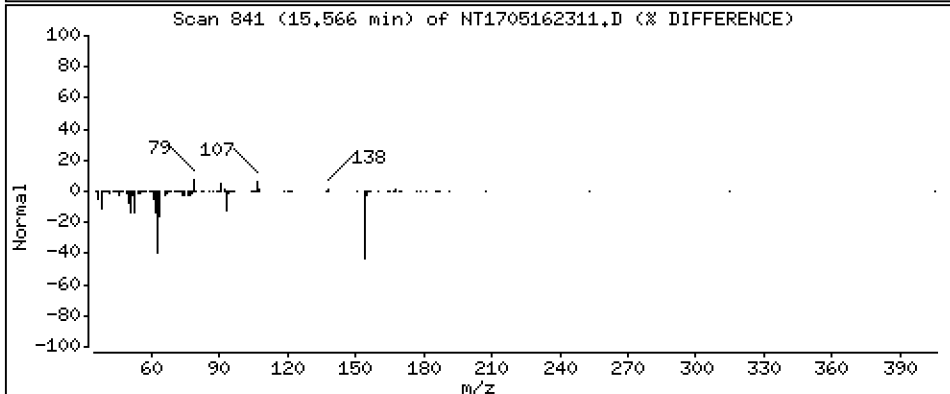
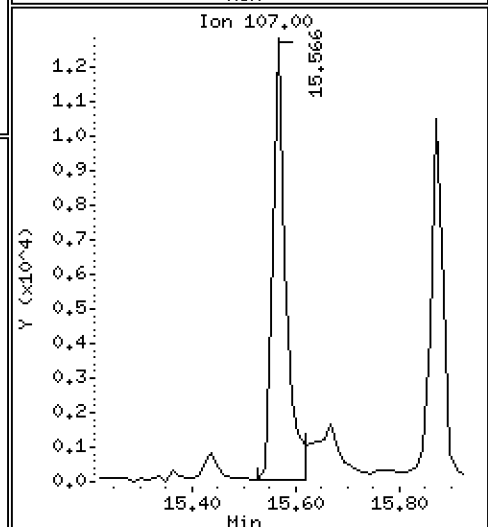
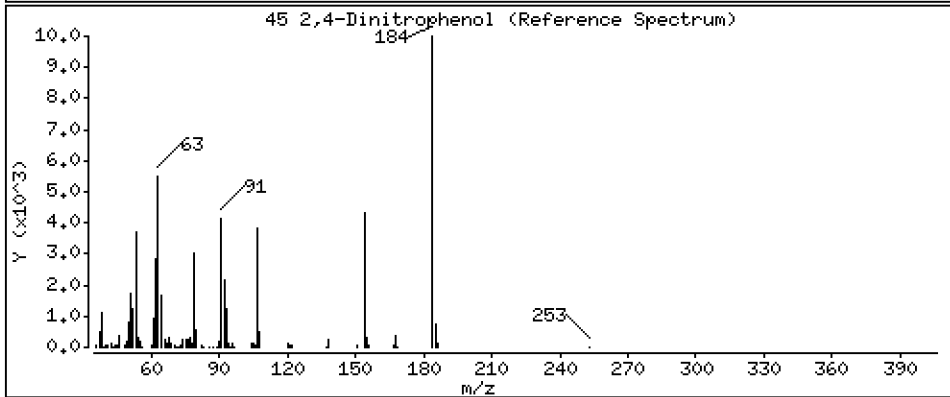
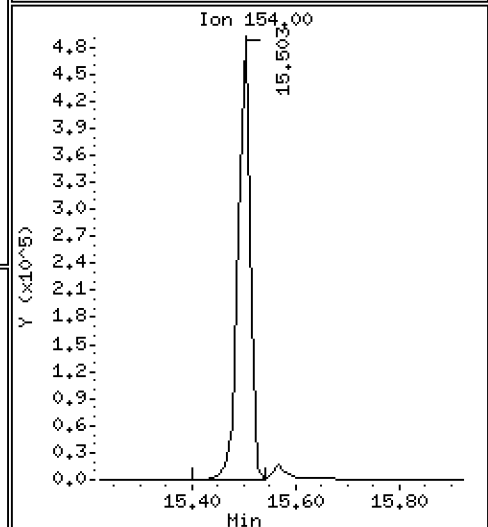
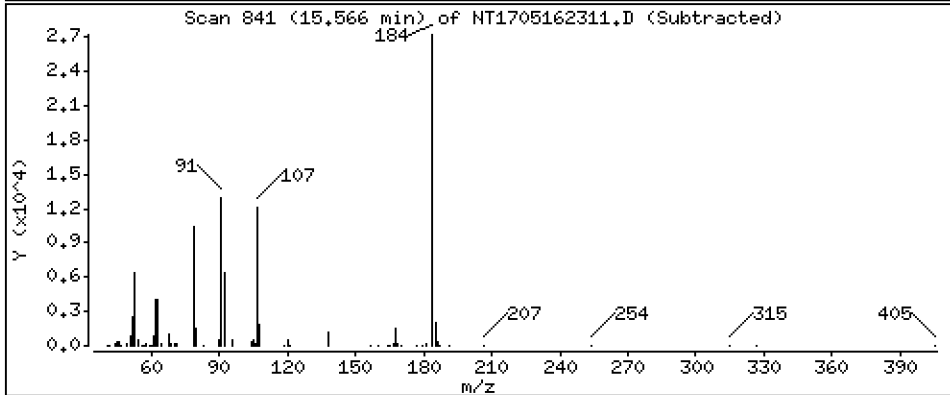
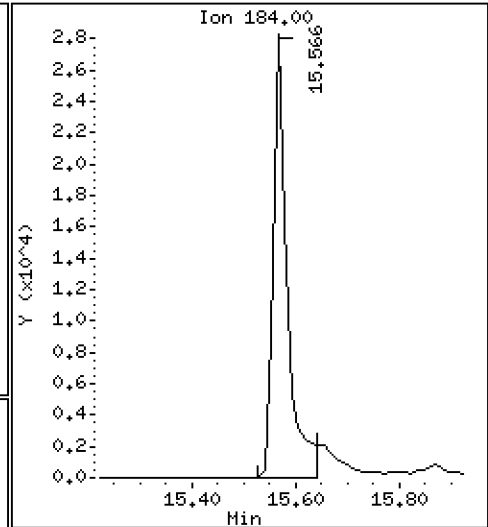
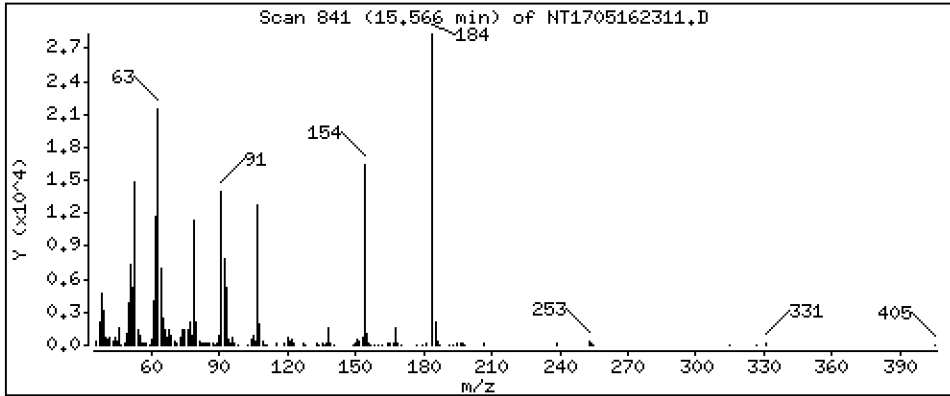
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,119 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

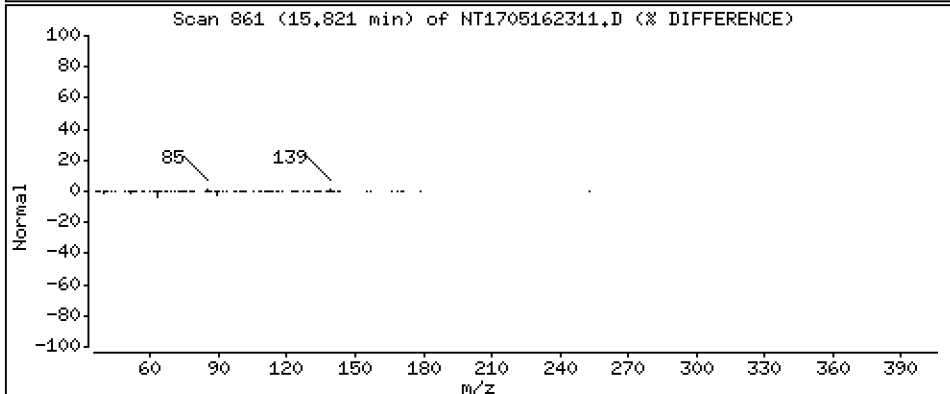
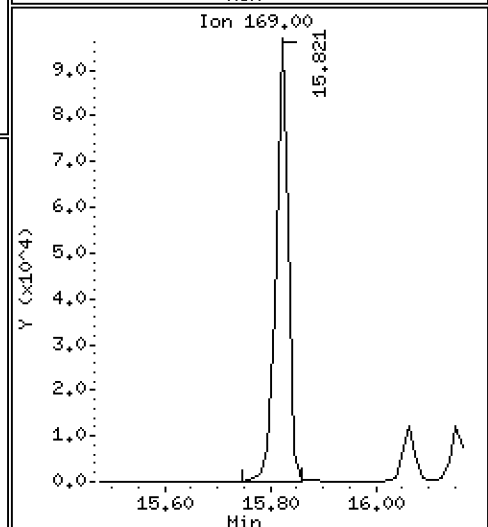
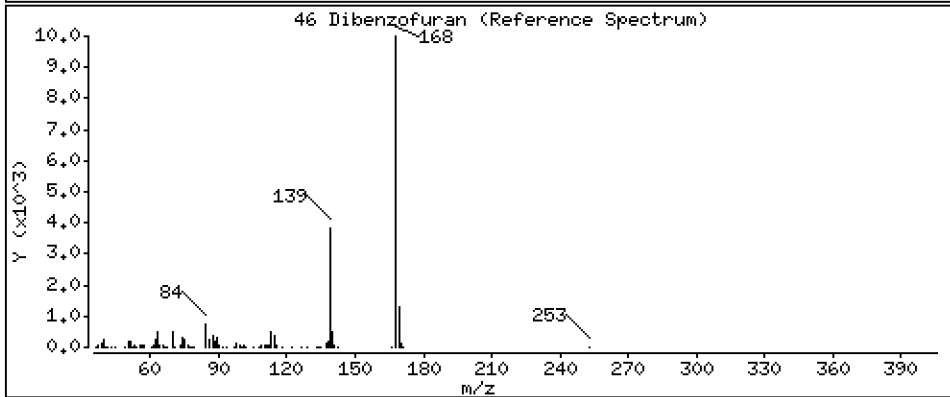
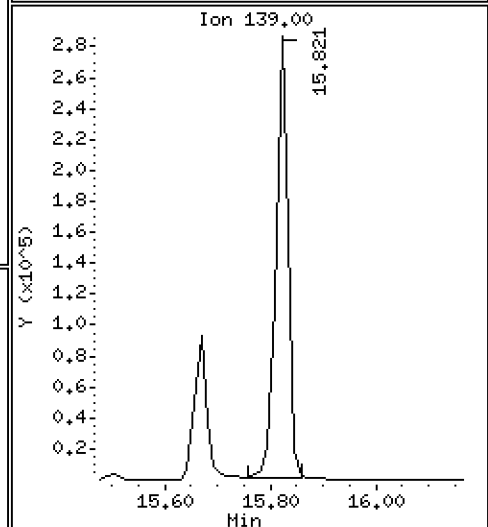
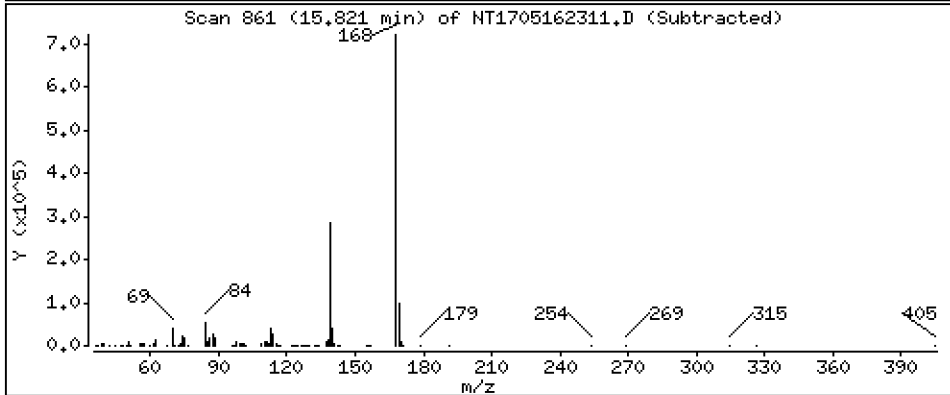
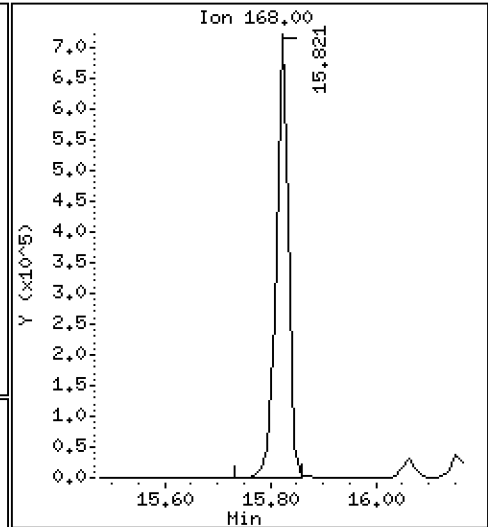
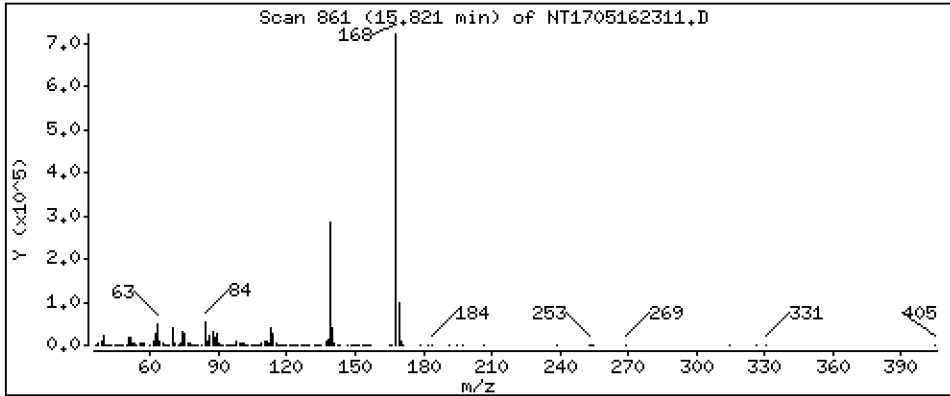
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,163 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

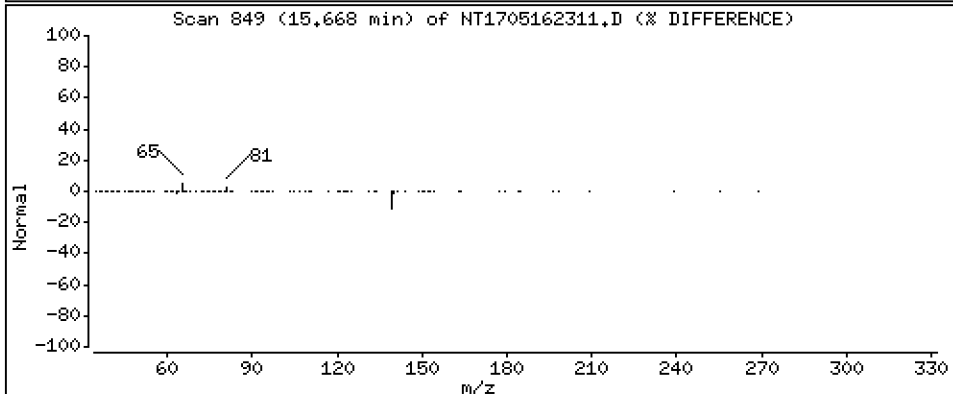
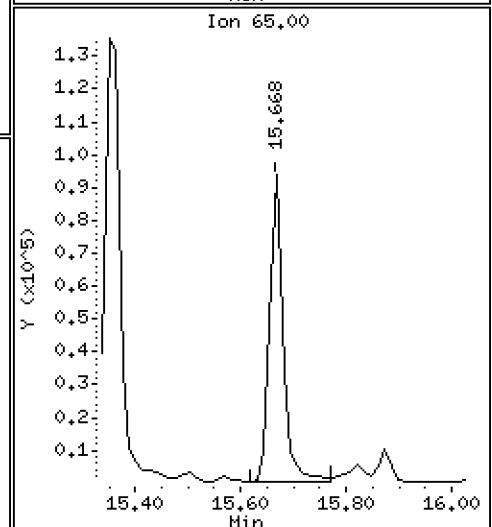
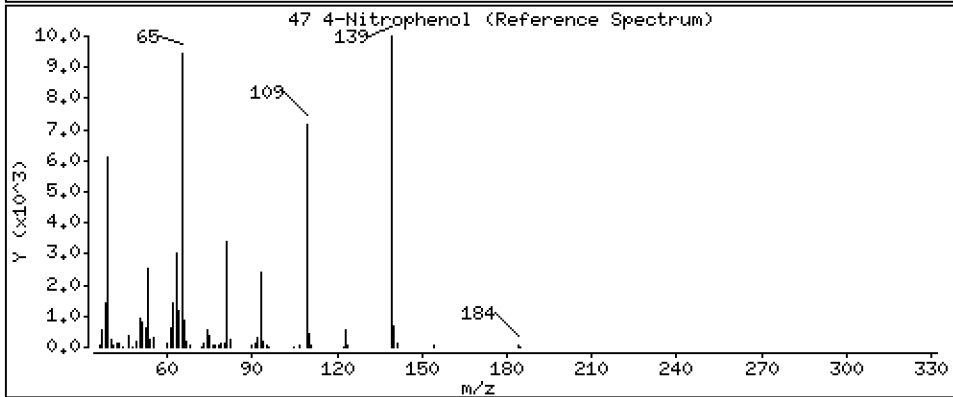
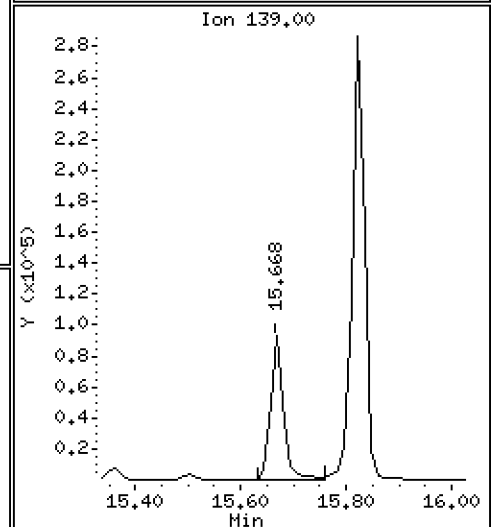
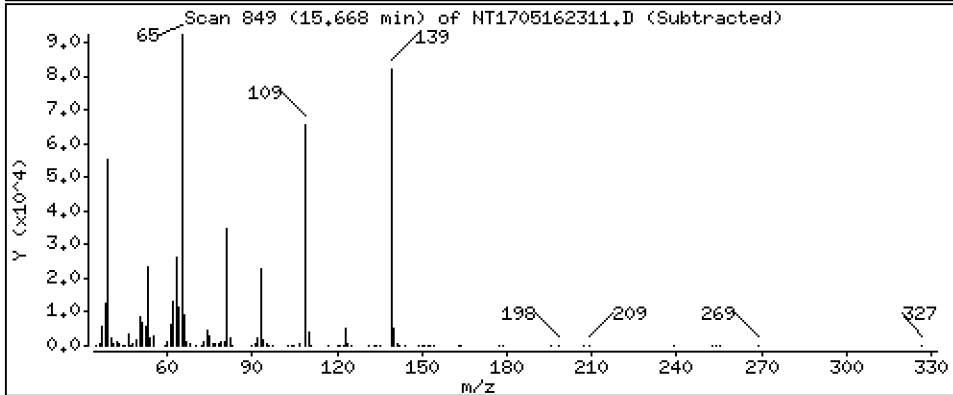
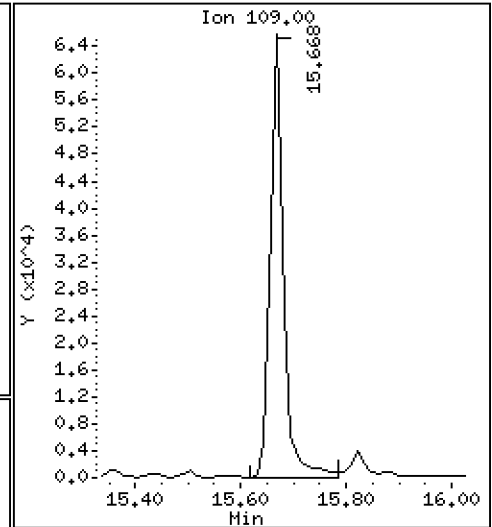
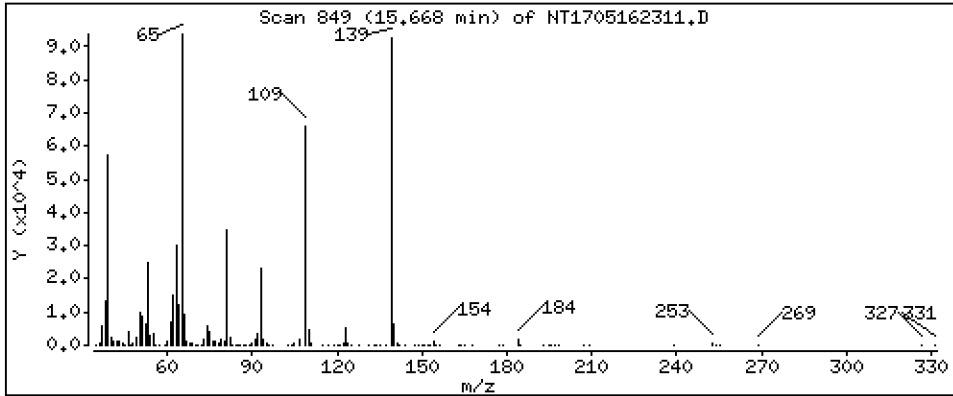
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,504 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

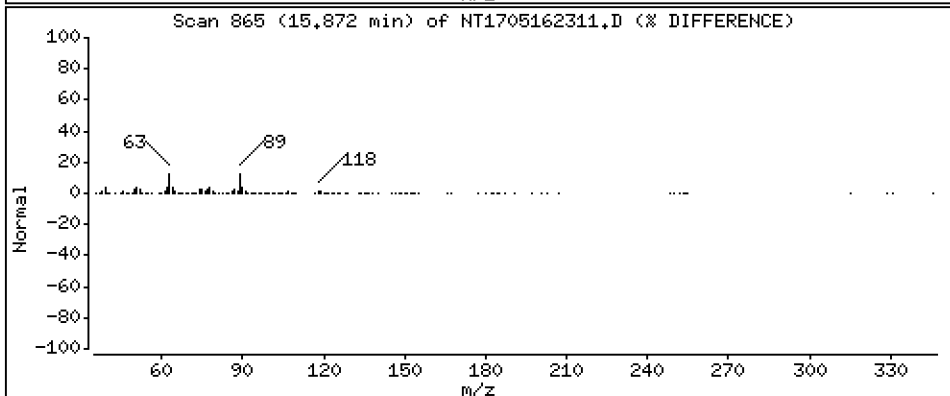
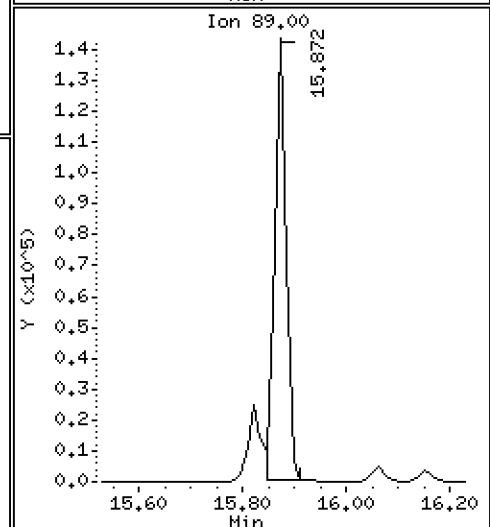
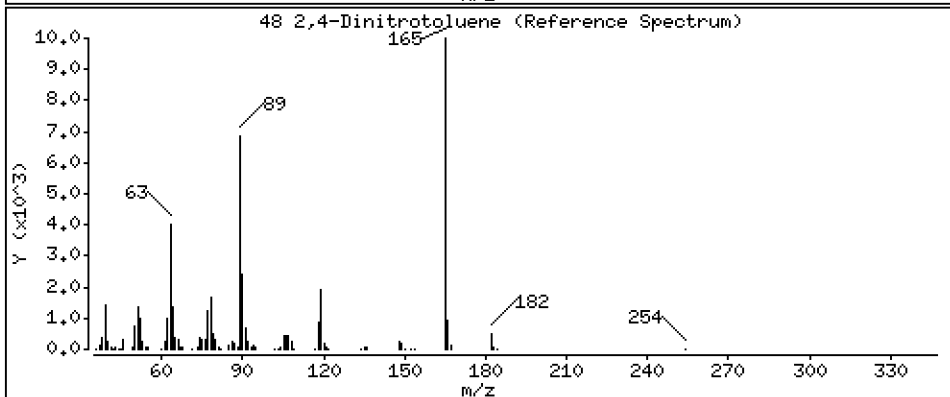
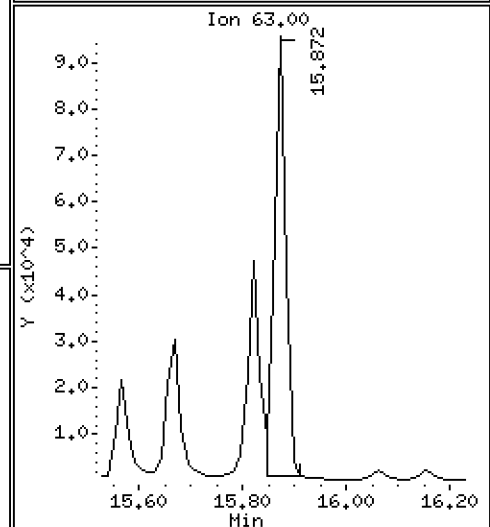
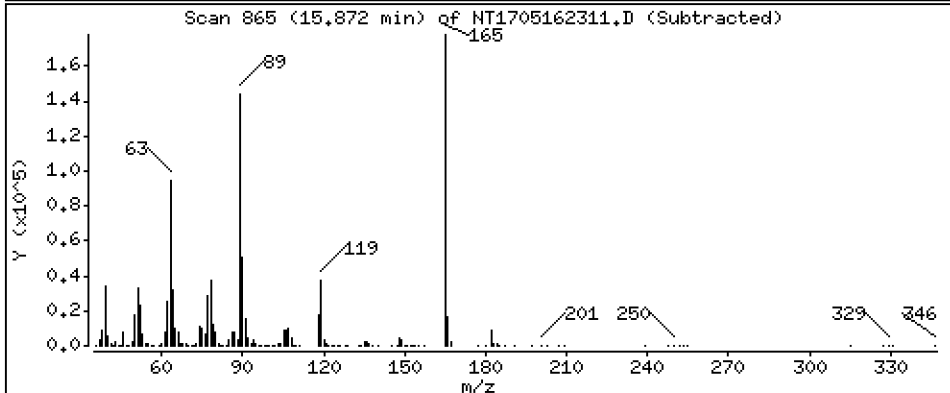
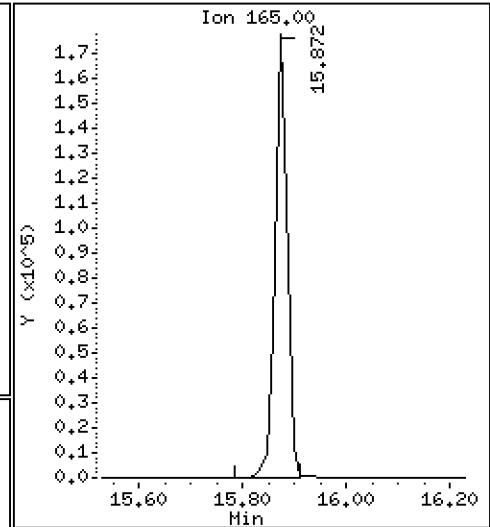
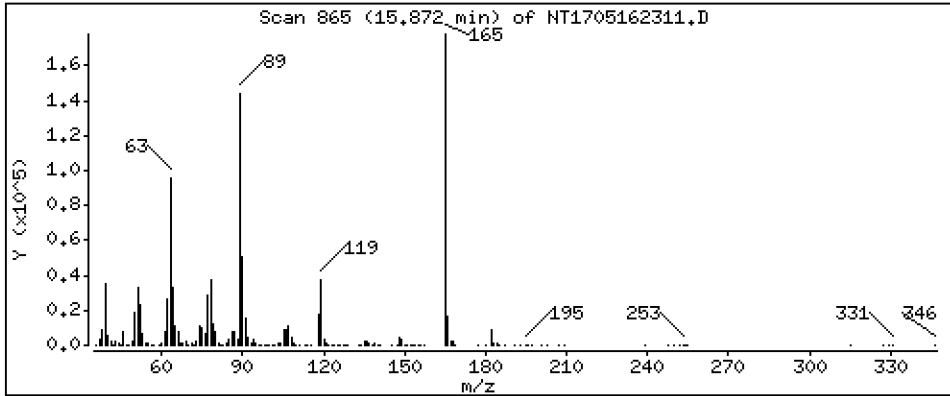
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 5,269 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

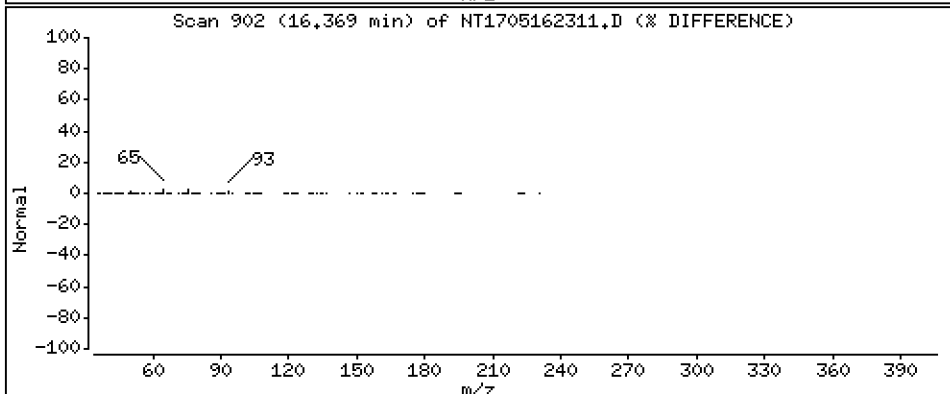
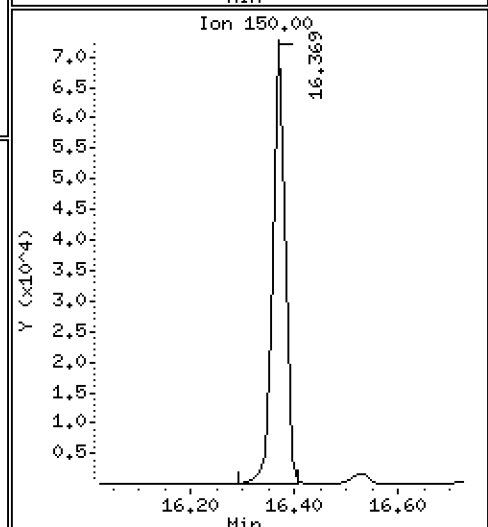
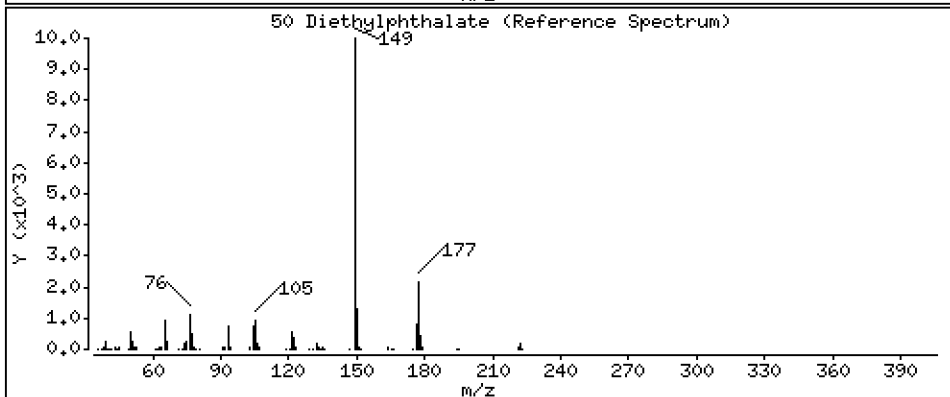
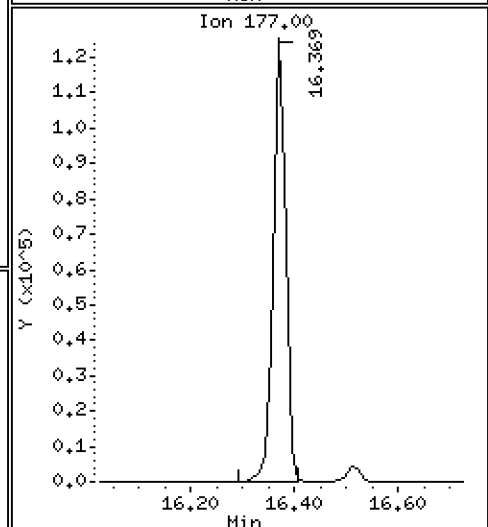
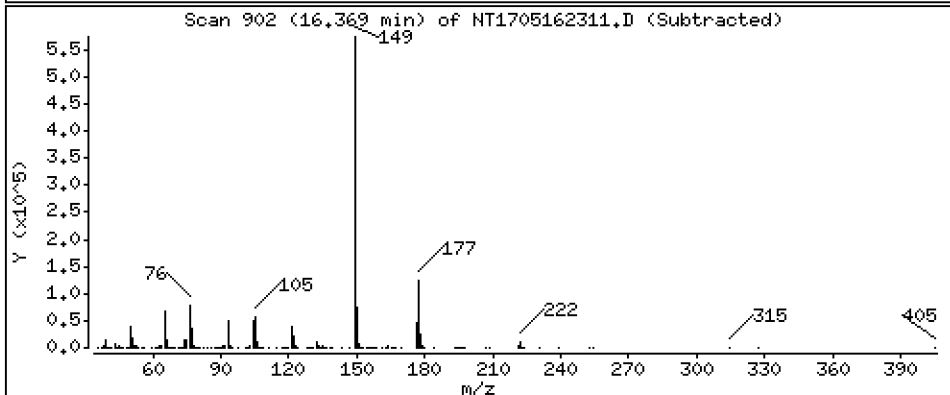
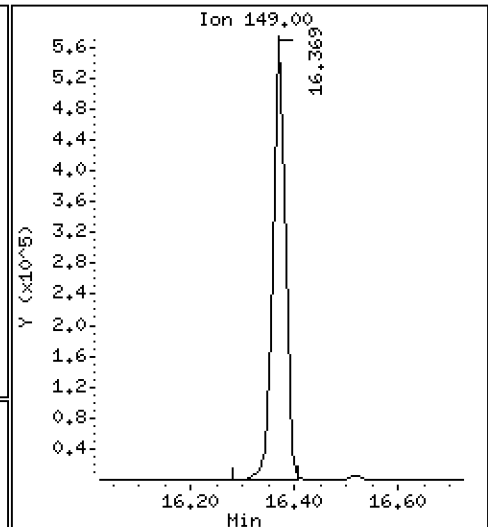
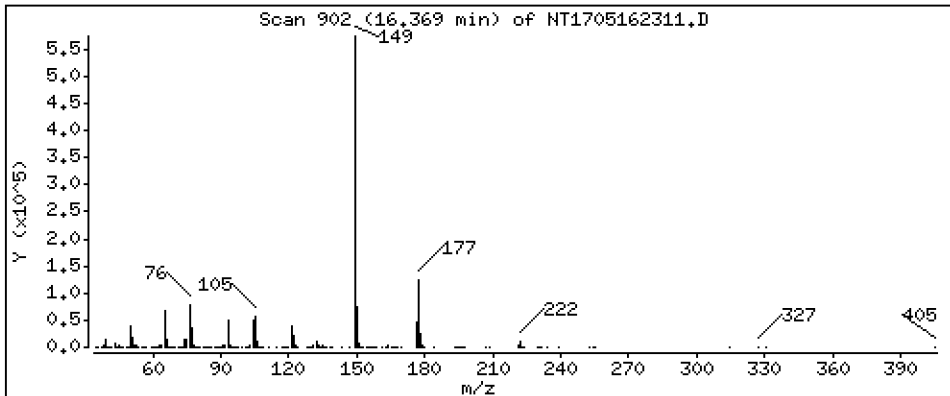
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,494 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

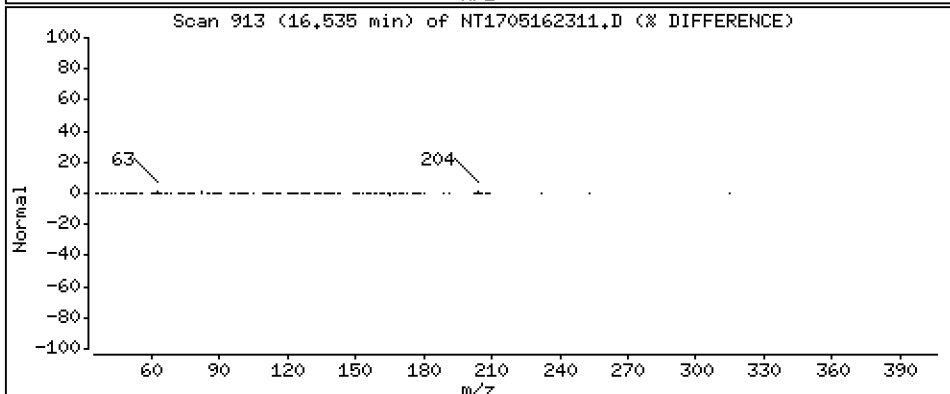
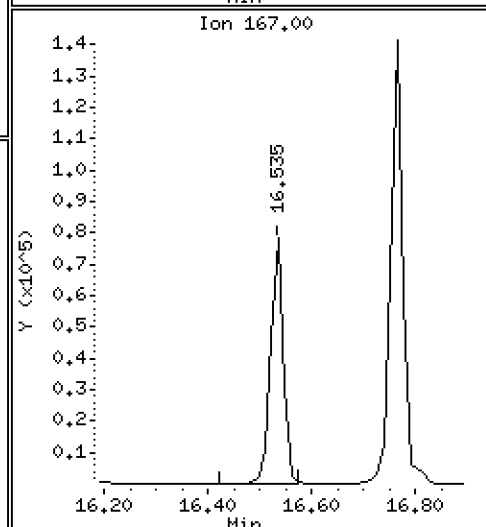
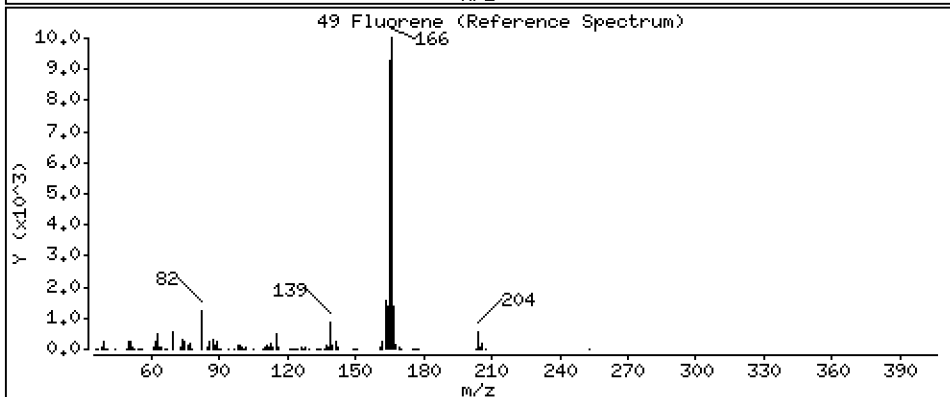
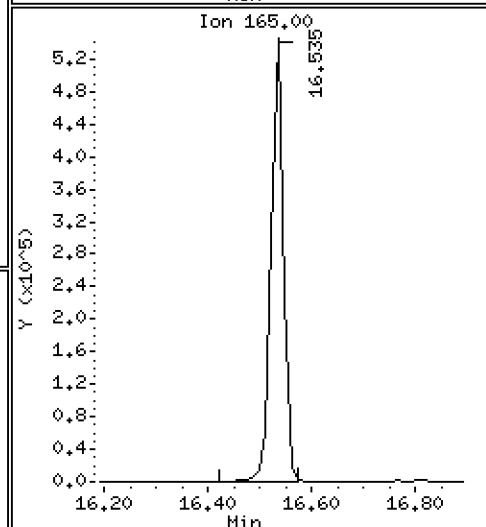
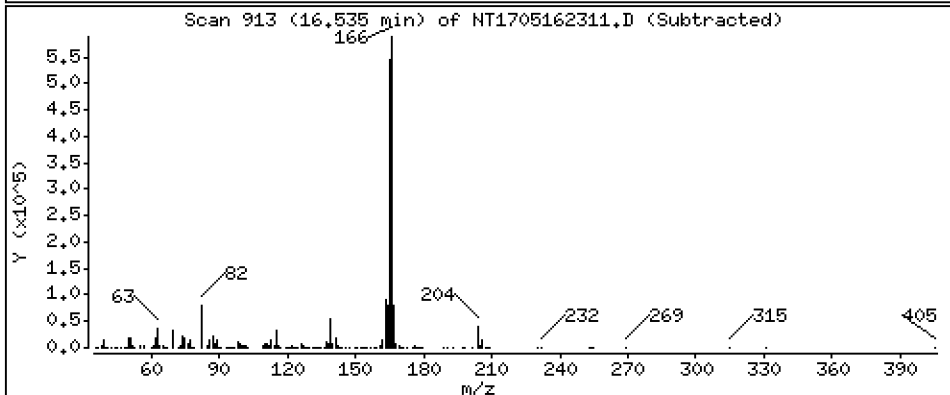
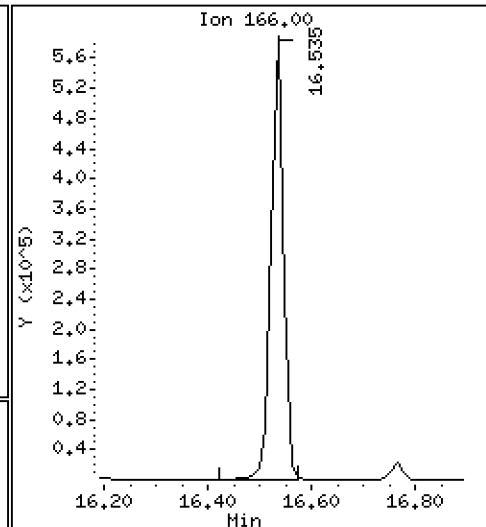
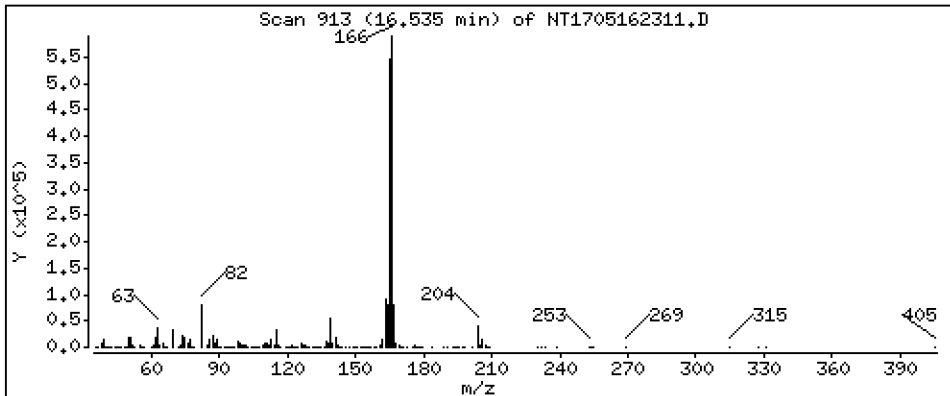
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 5,398 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

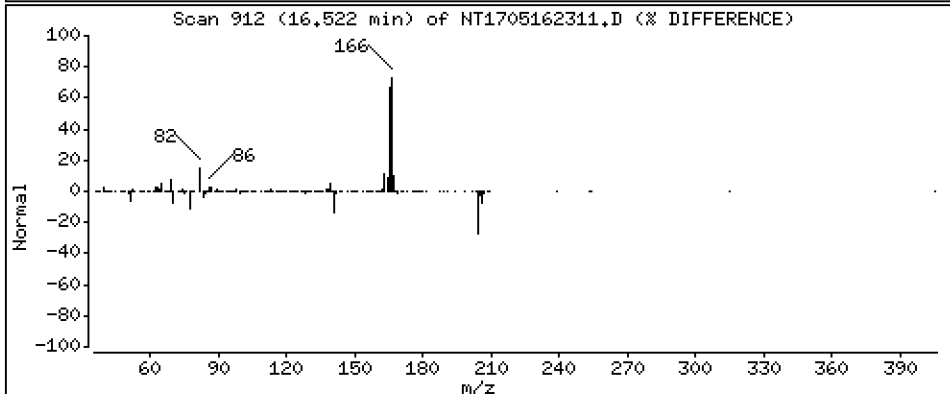
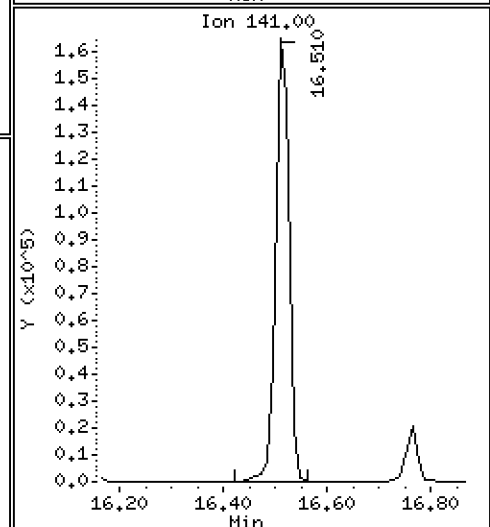
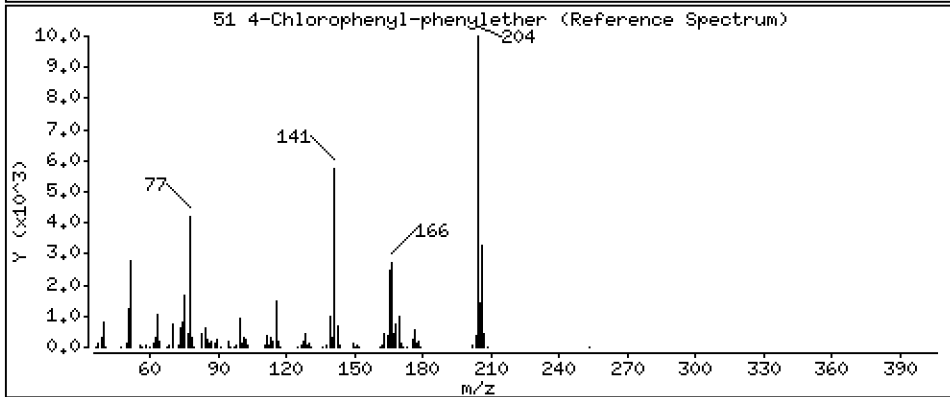
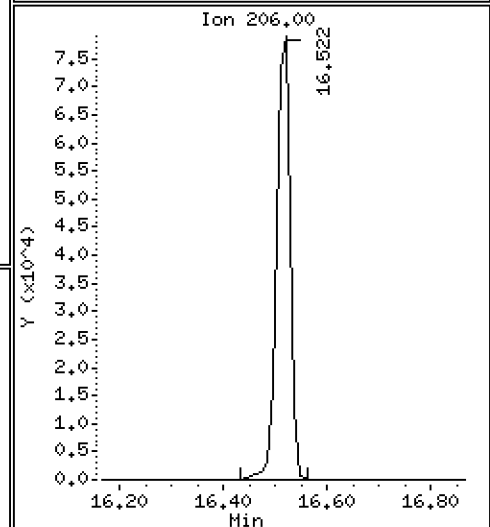
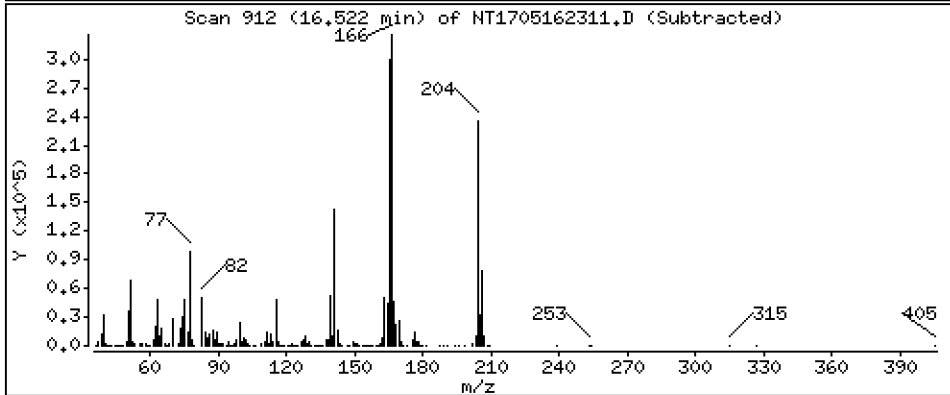
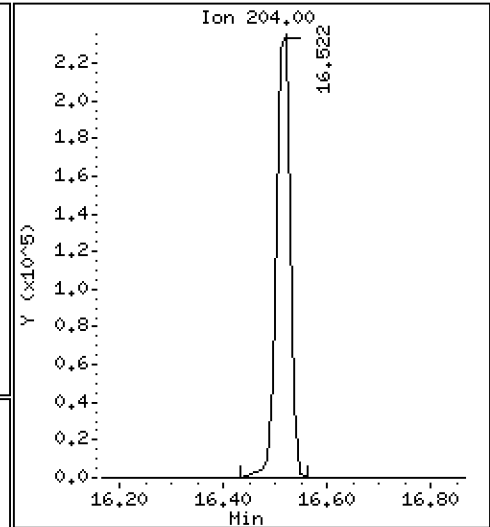
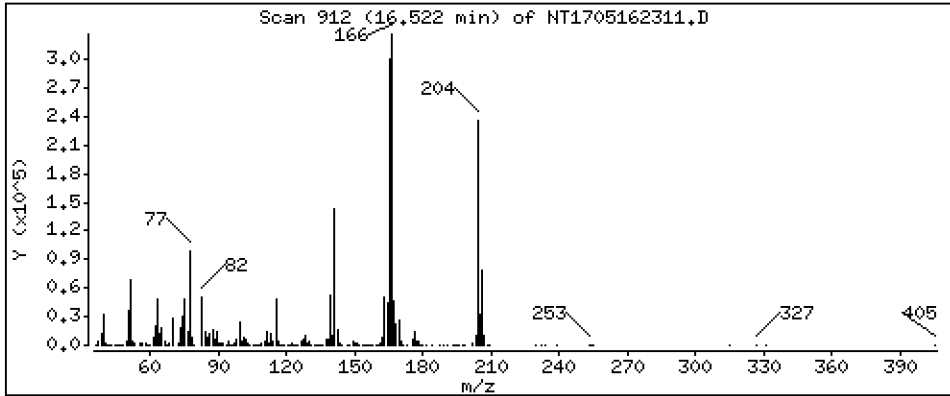
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 5,462 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

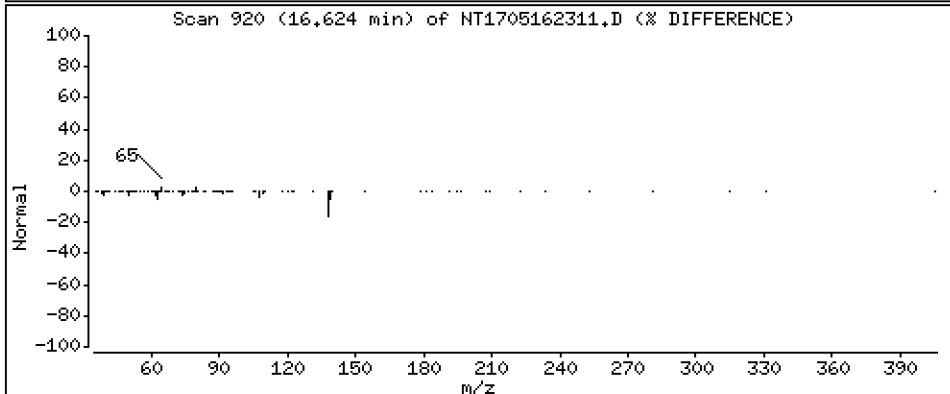
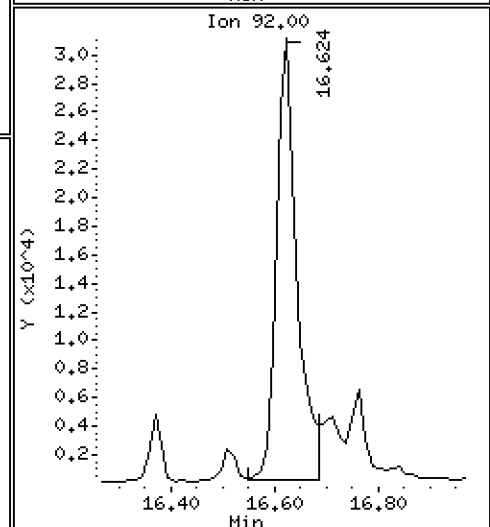
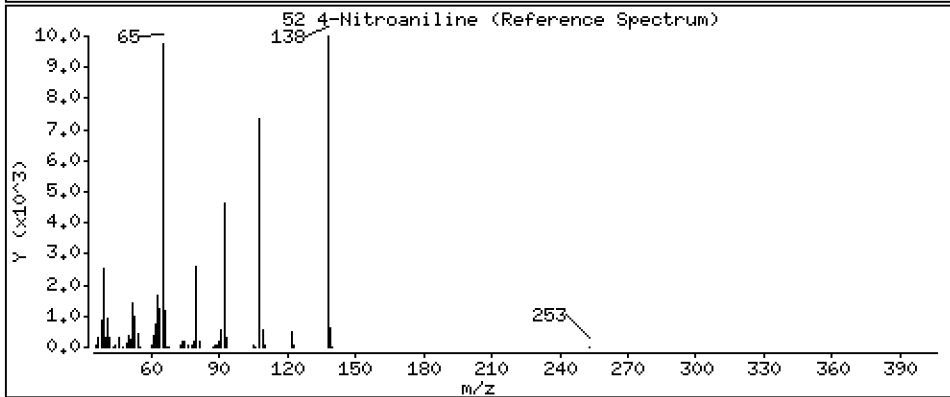
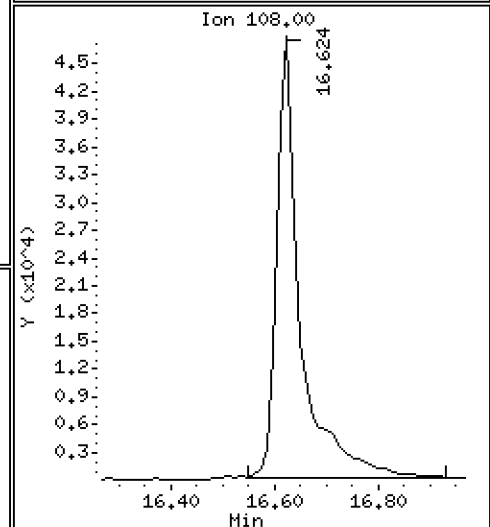
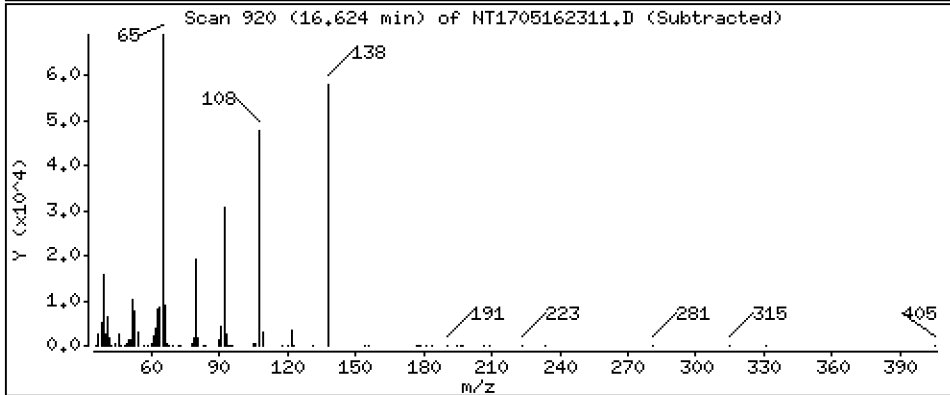
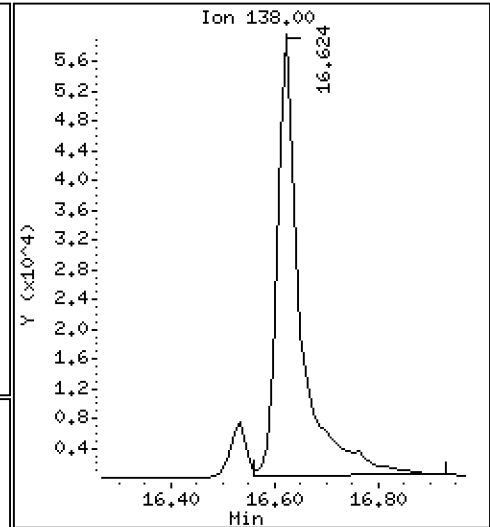
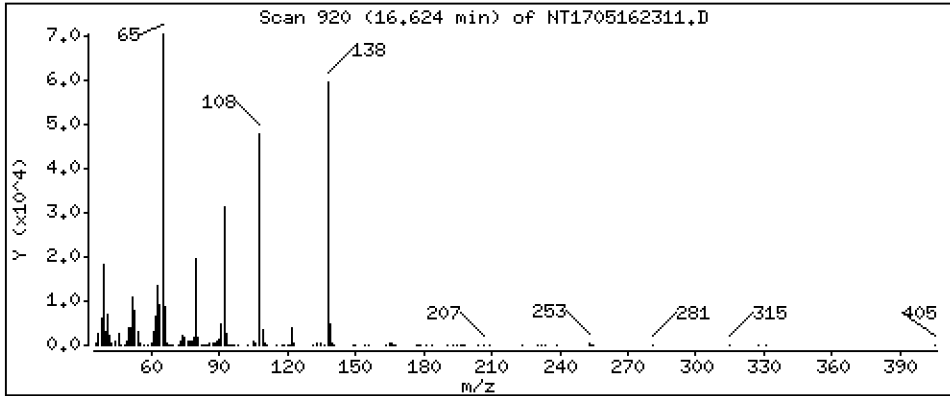
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,108 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

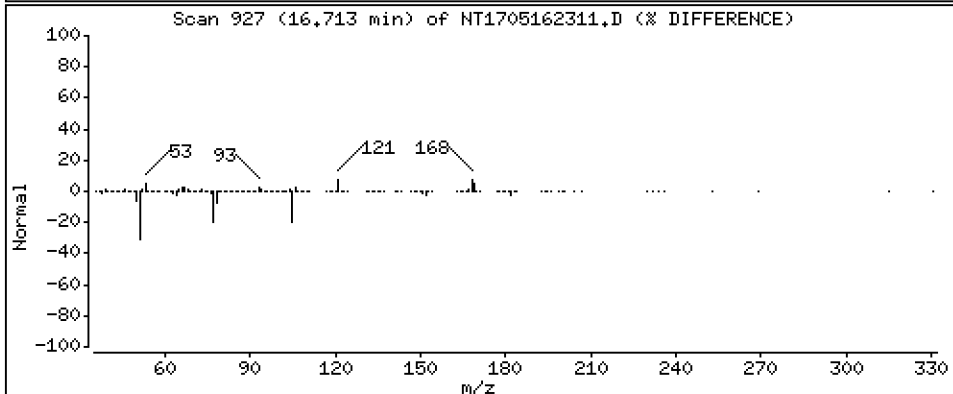
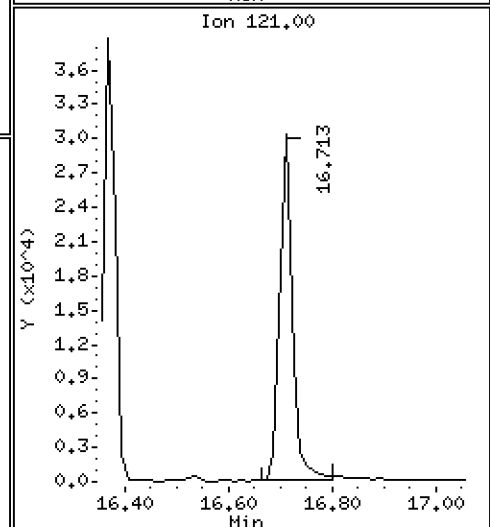
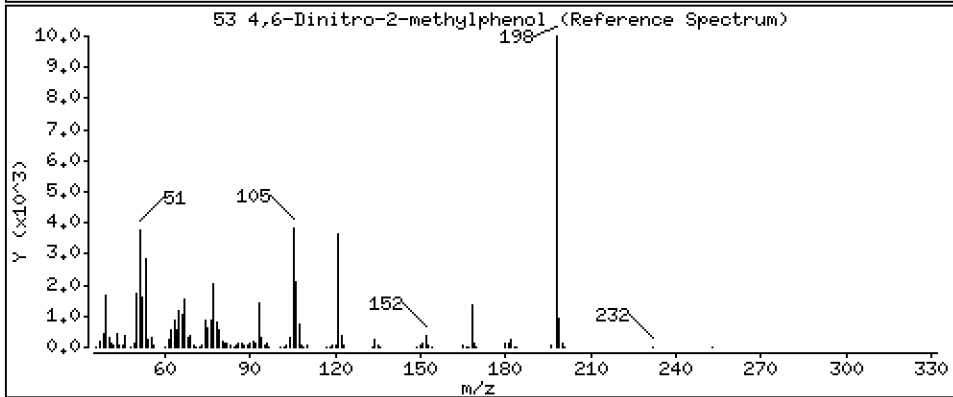
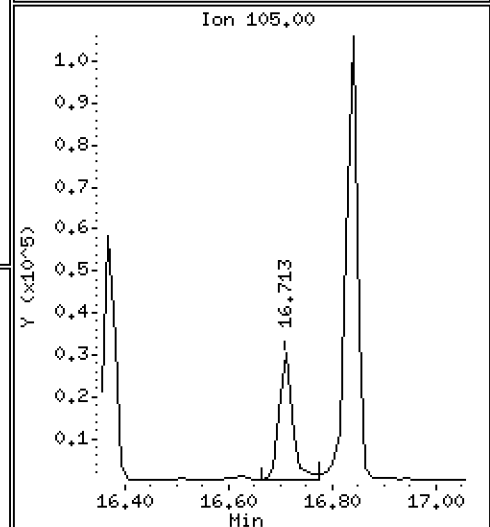
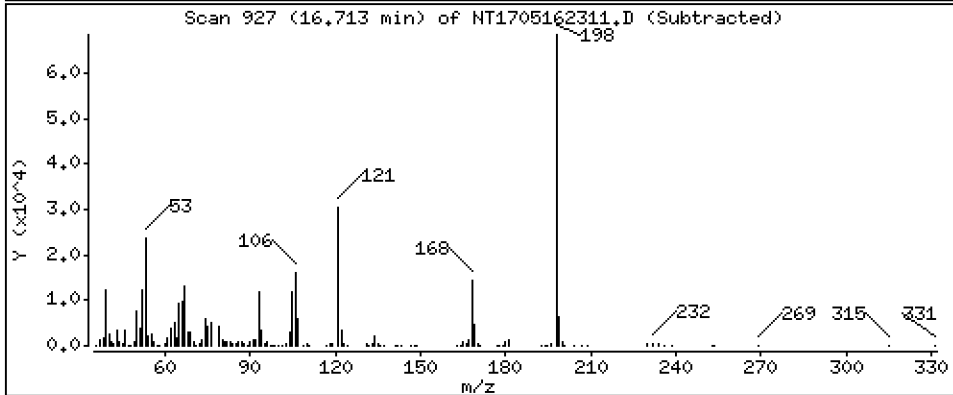
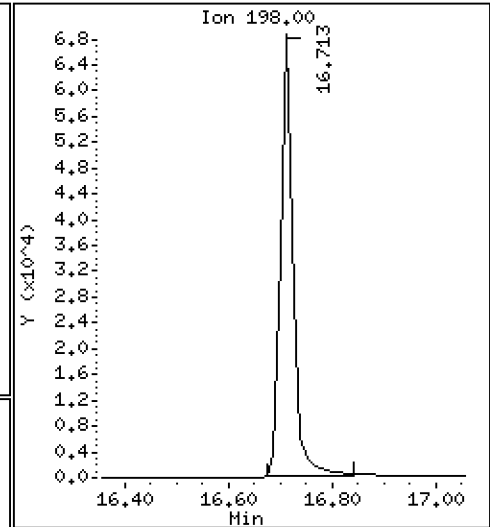
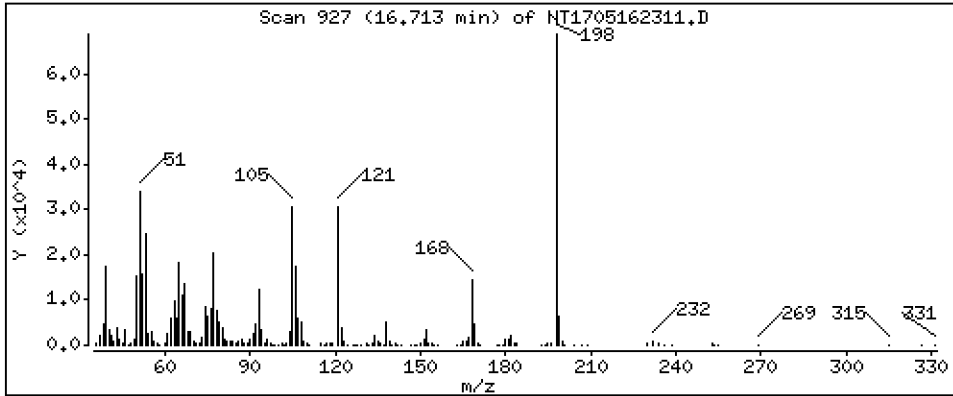
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,355 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

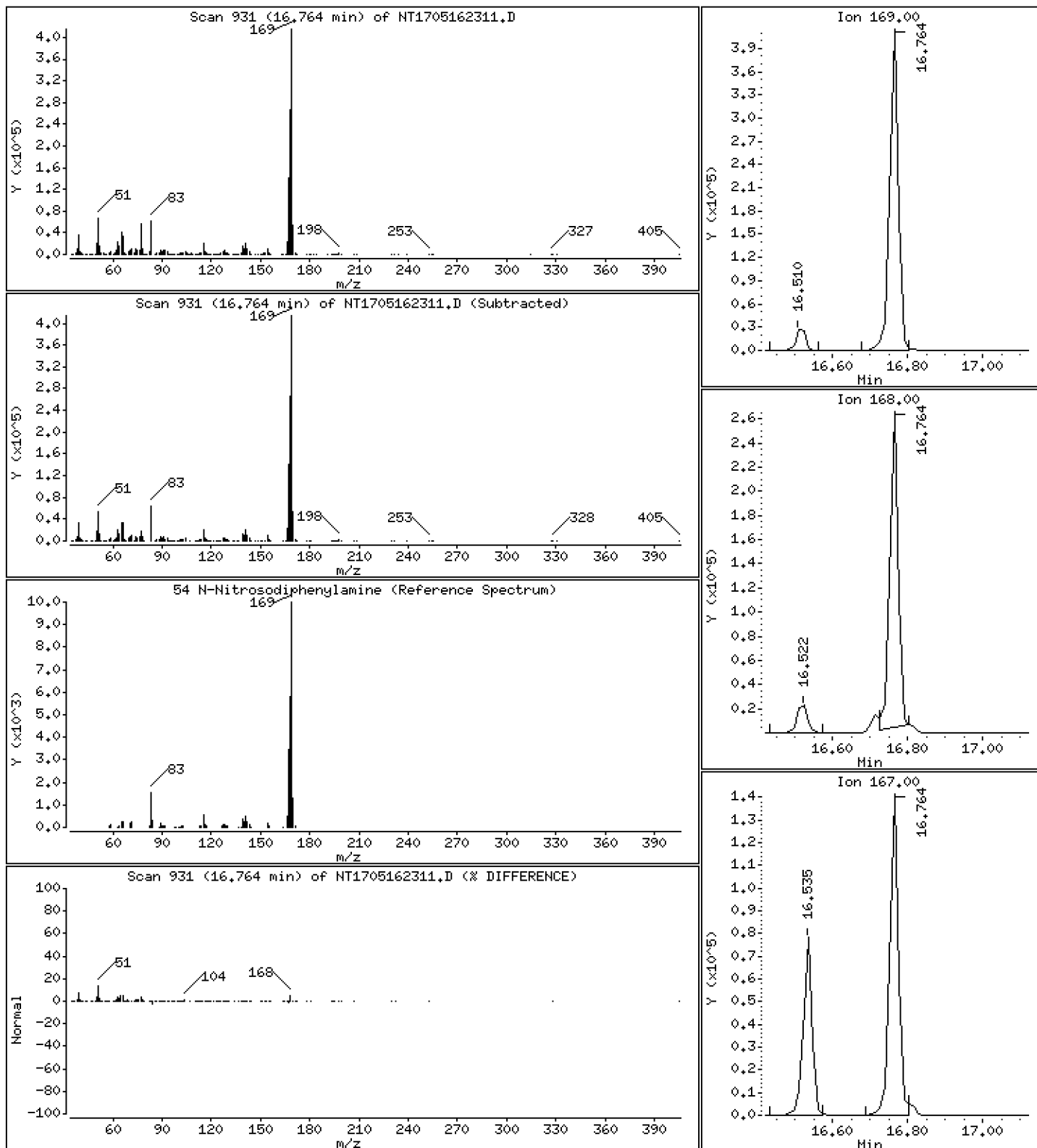
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,470 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

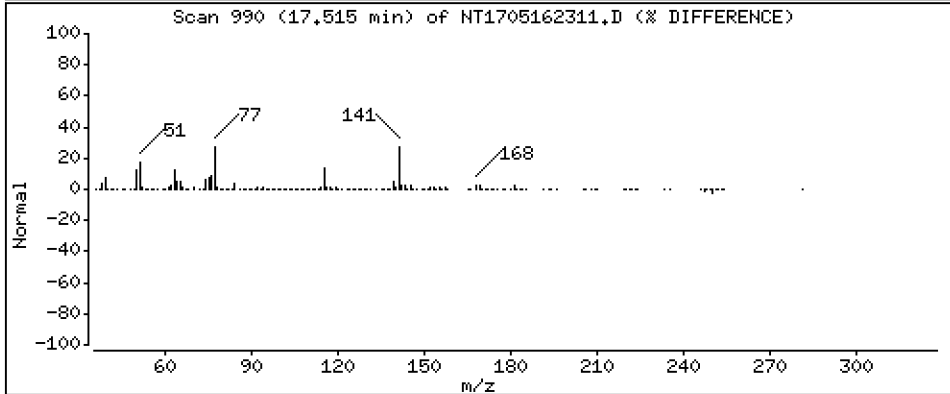
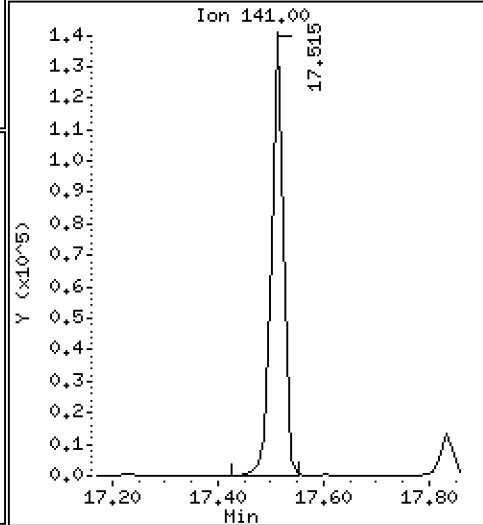
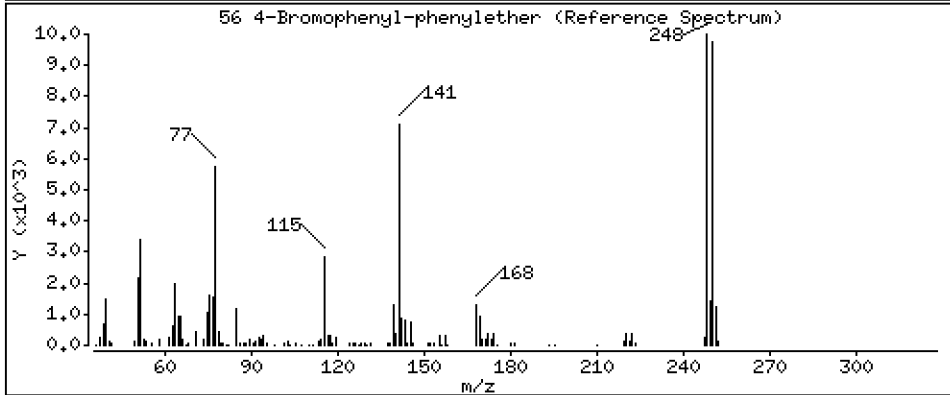
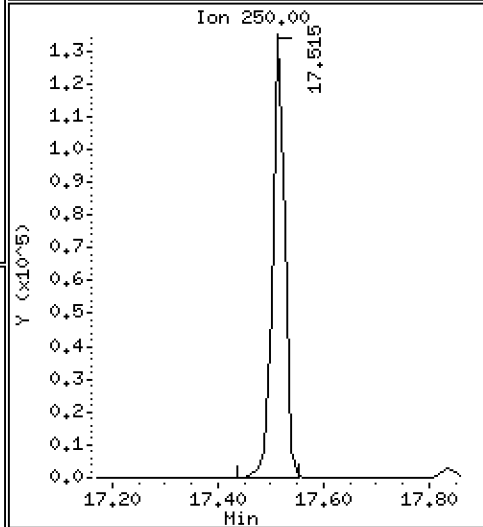
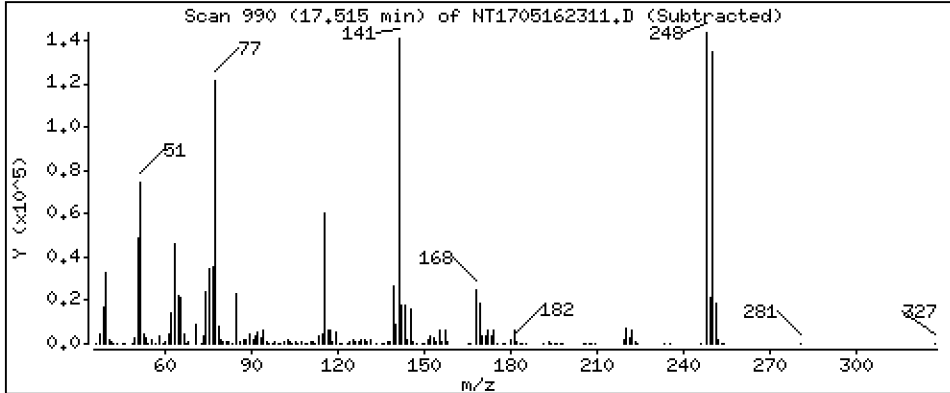
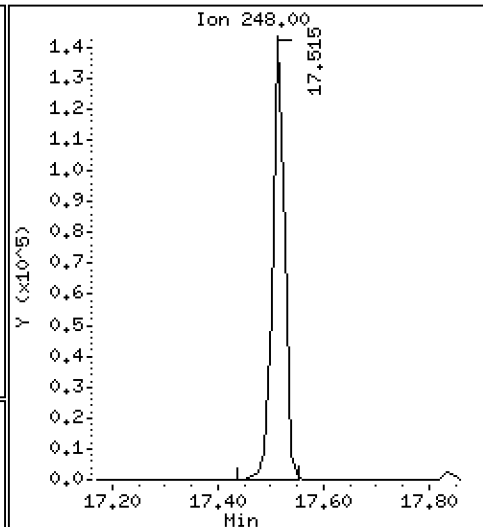
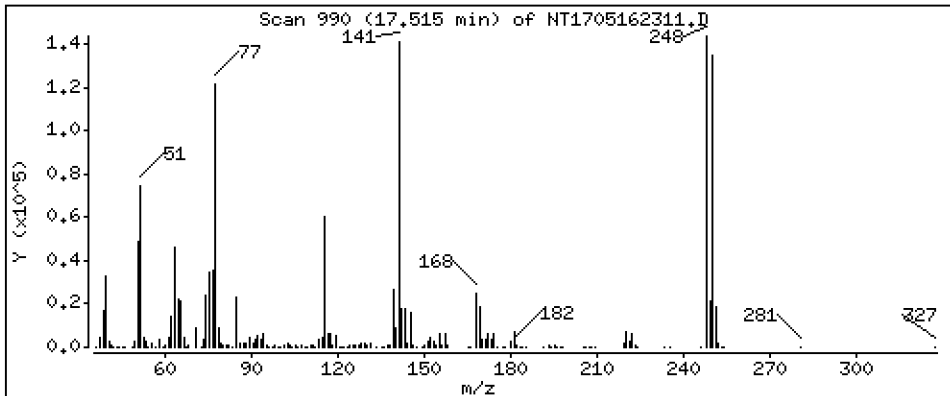
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 5,420 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

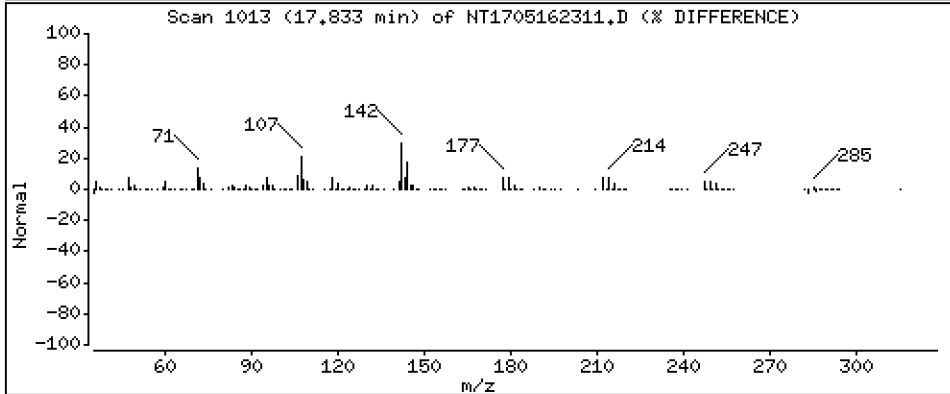
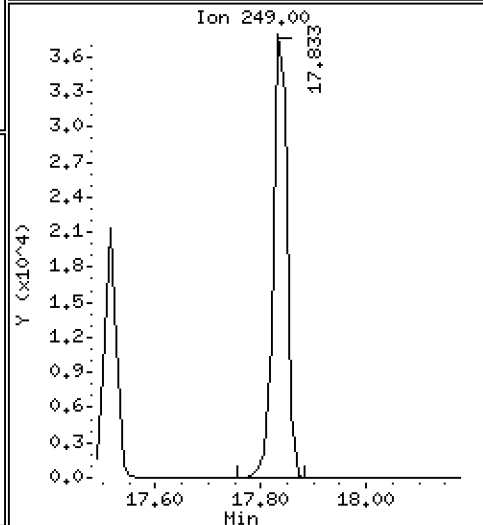
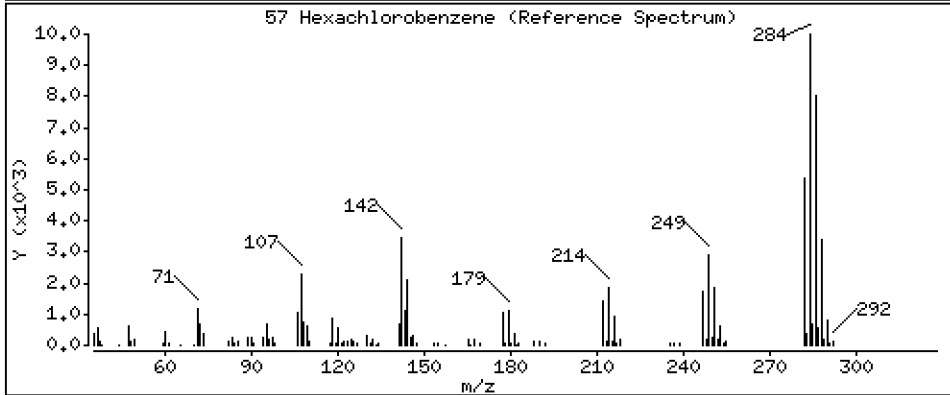
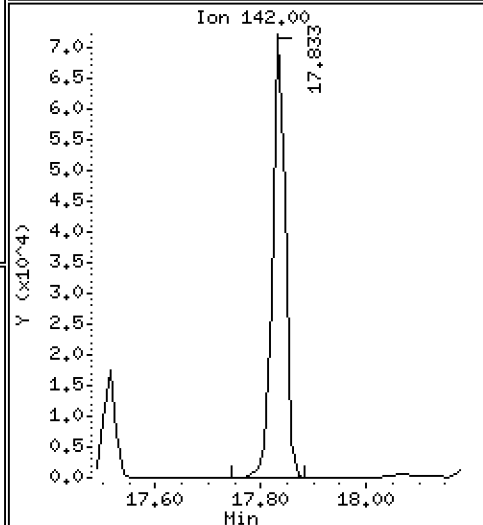
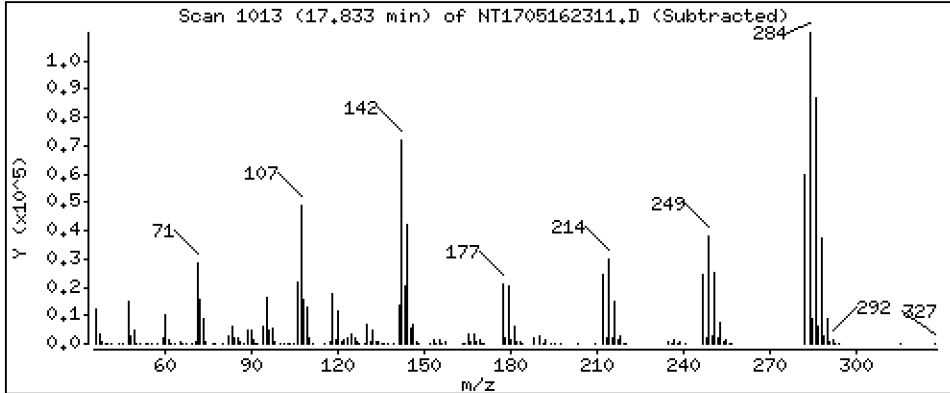
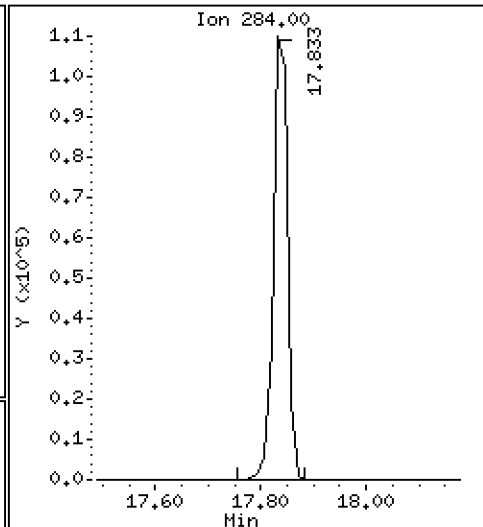
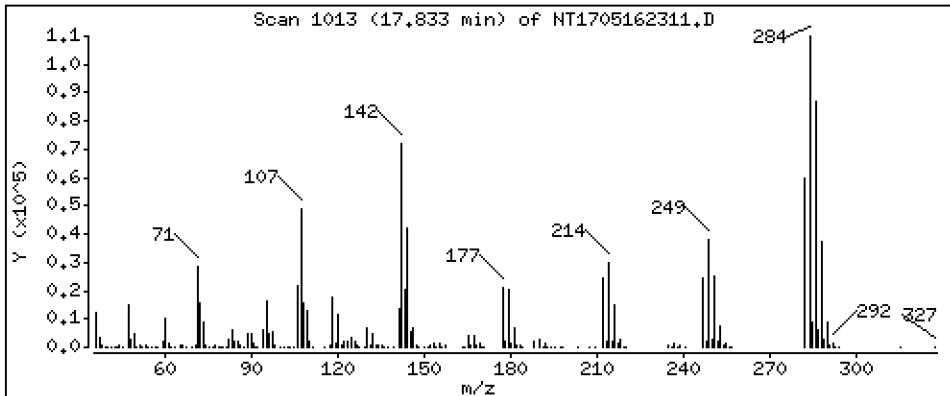
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,913 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

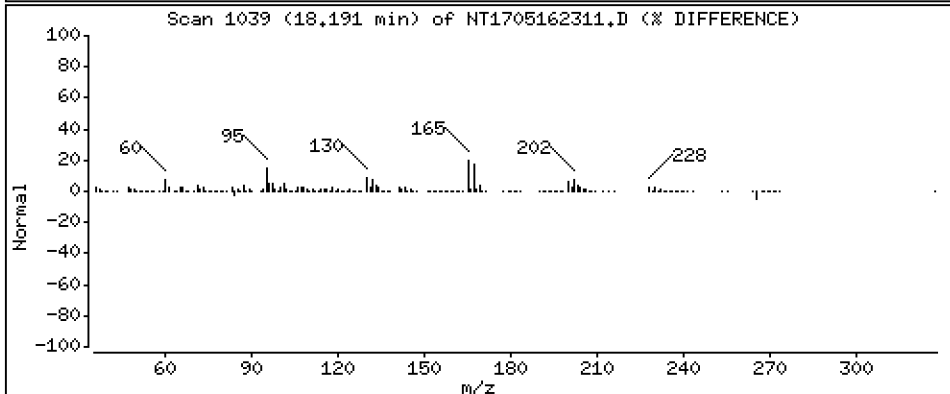
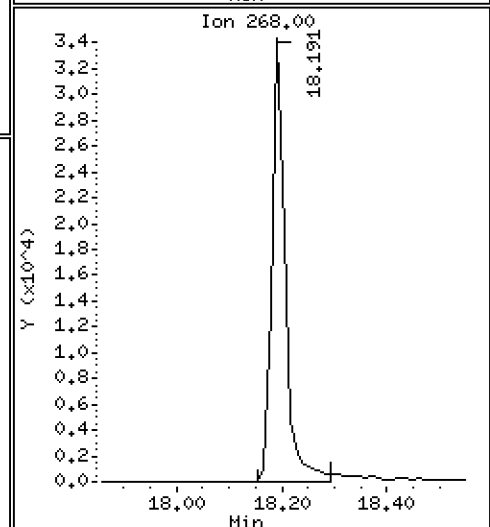
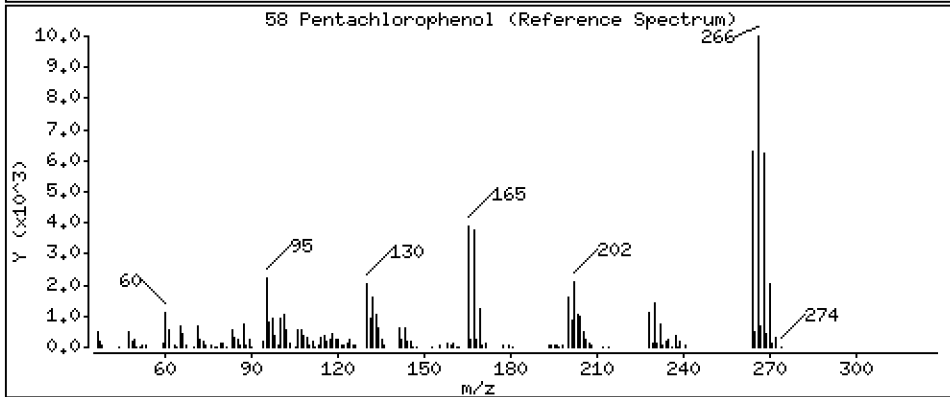
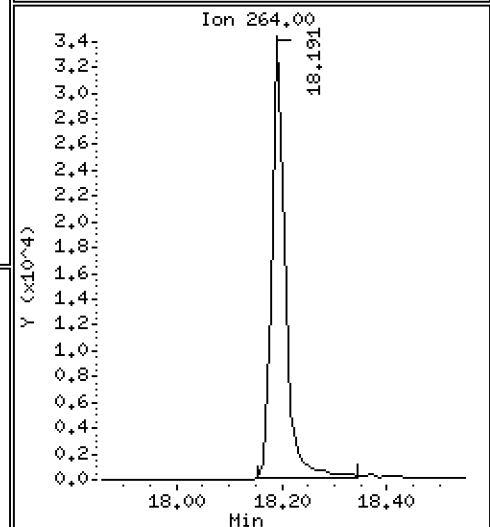
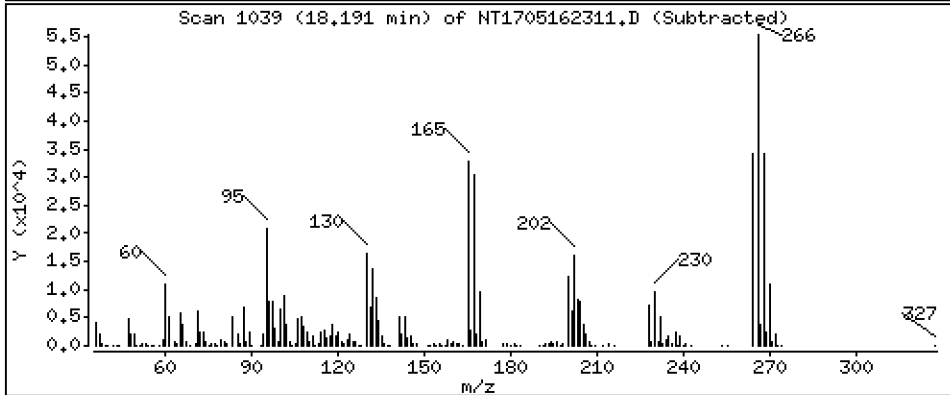
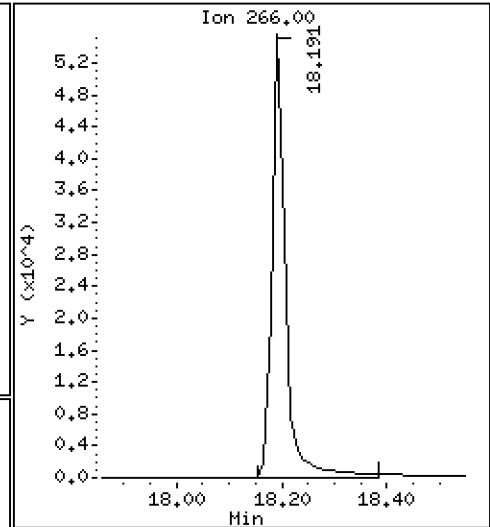
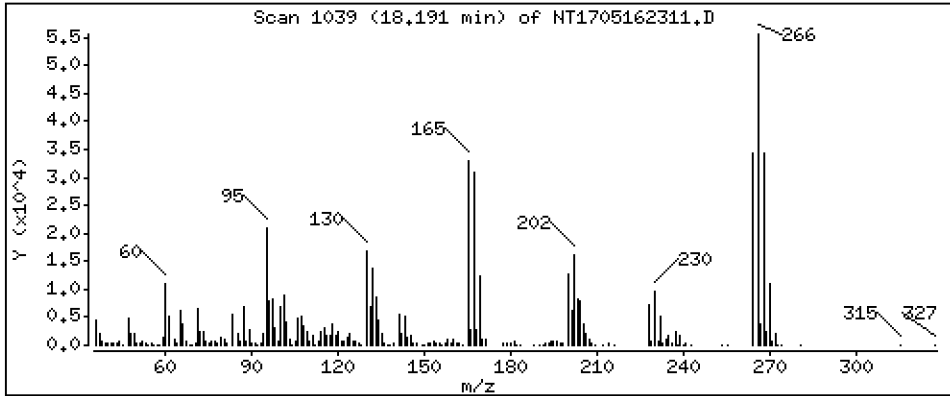
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

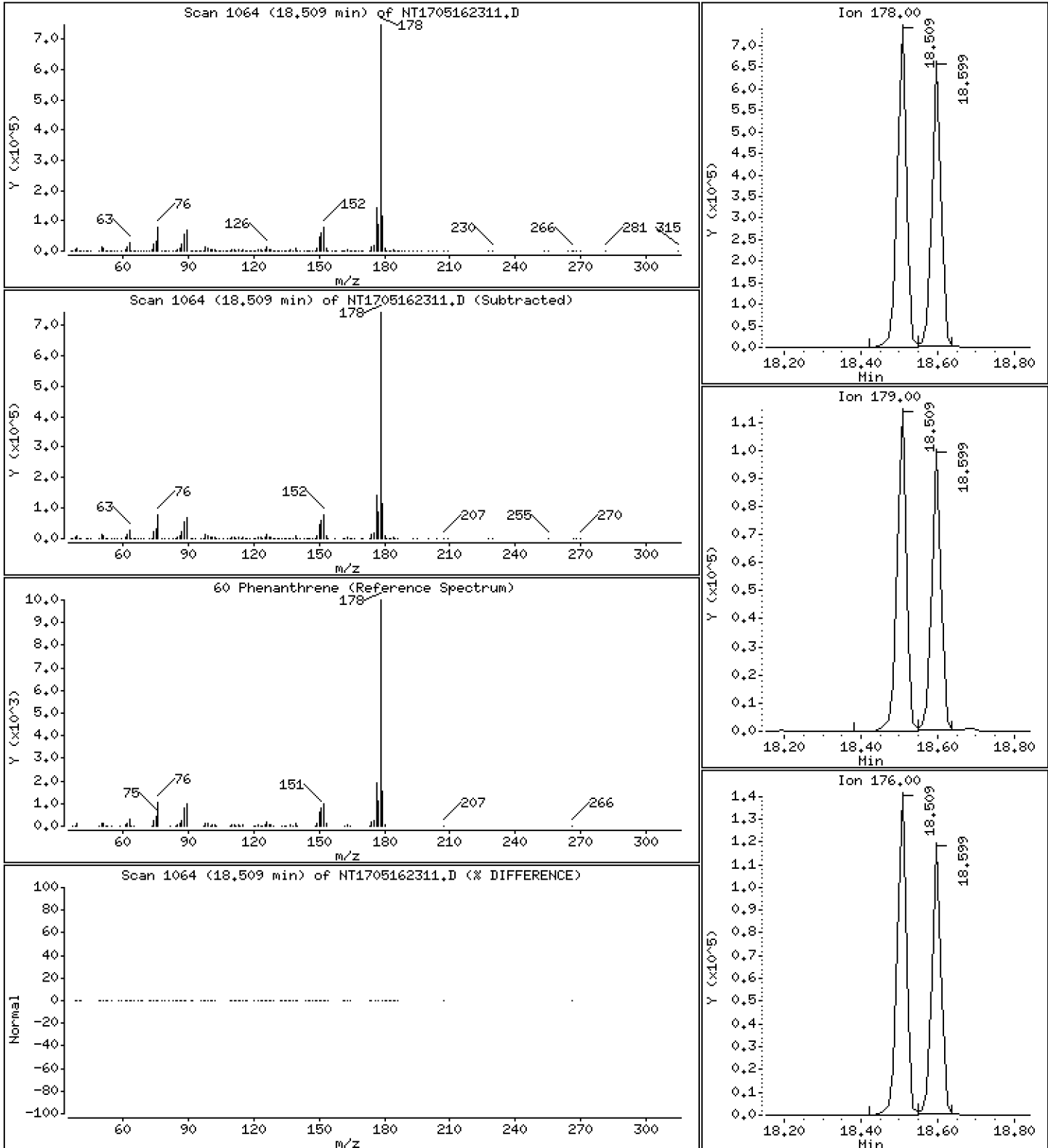
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,039 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

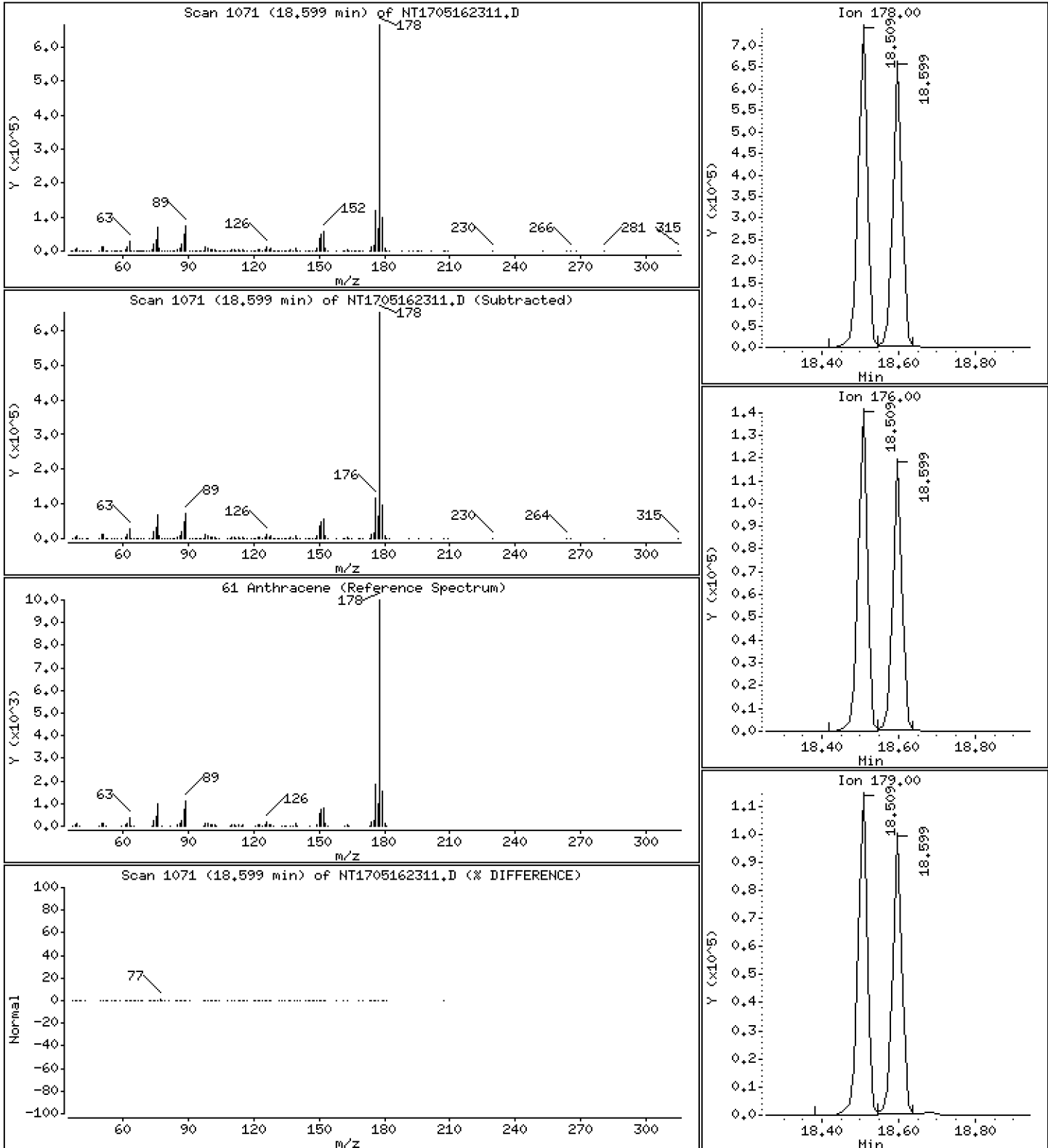
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,530 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

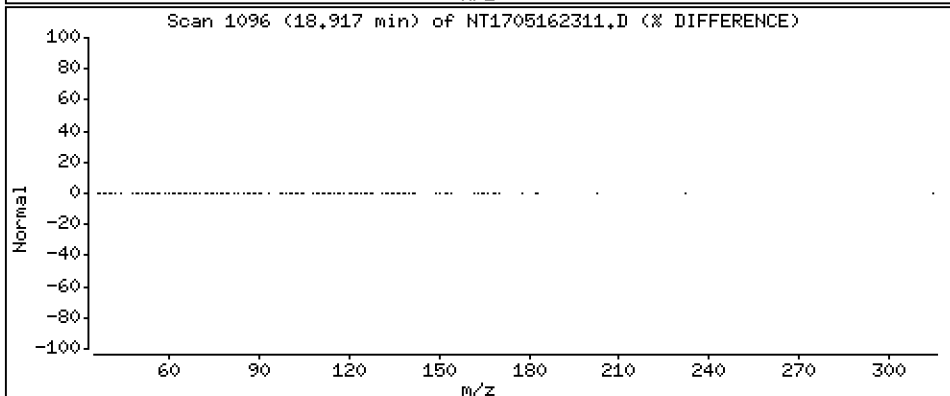
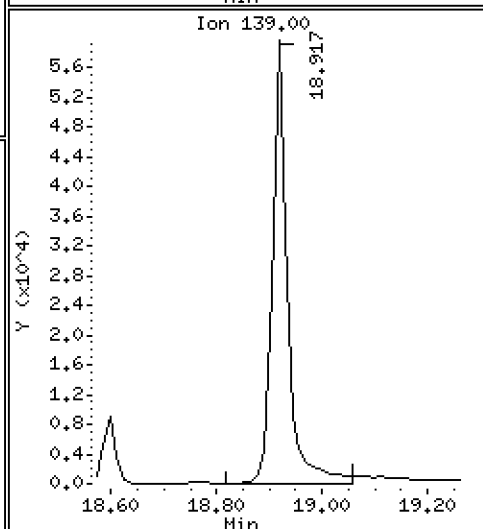
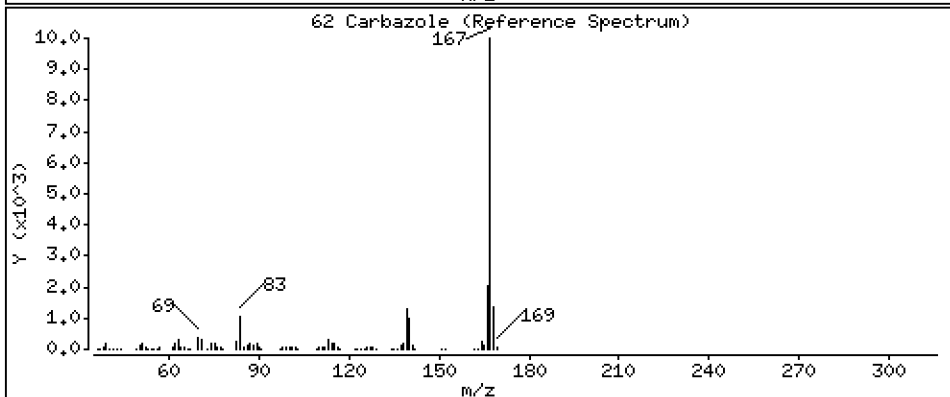
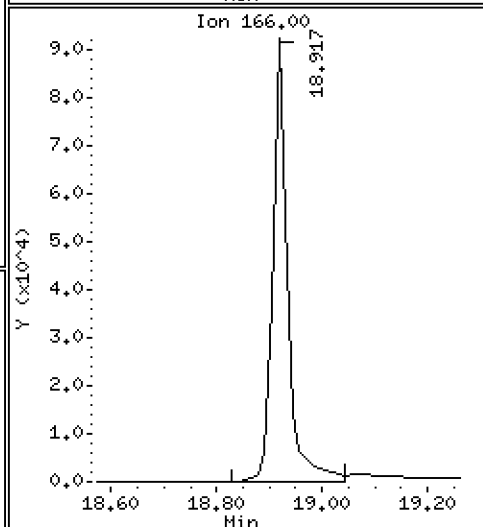
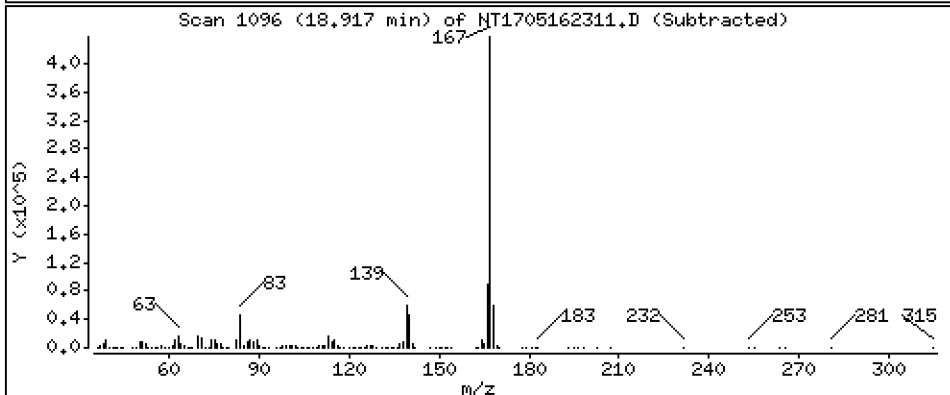
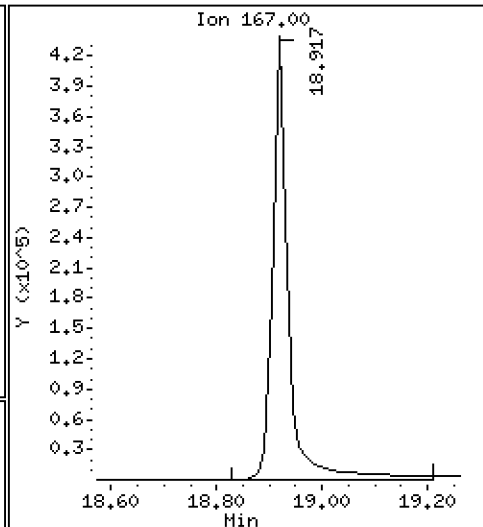
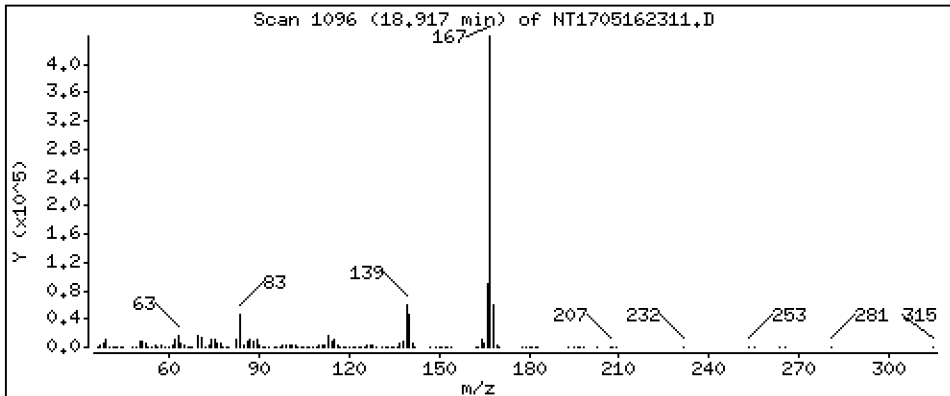
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,938 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

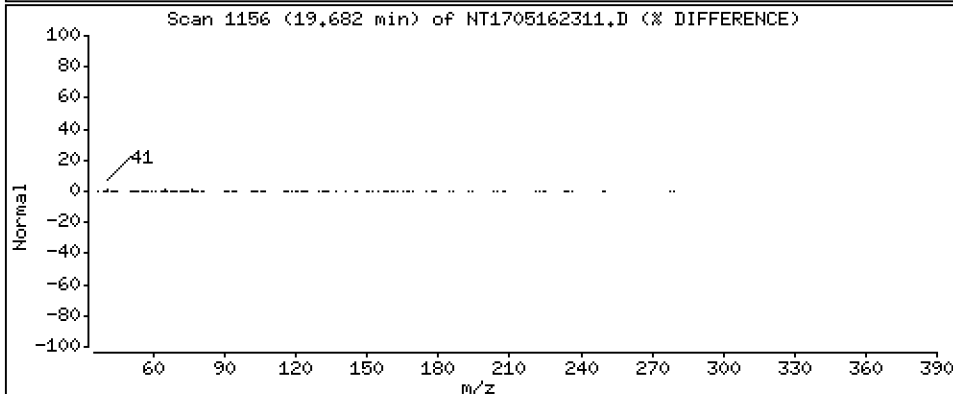
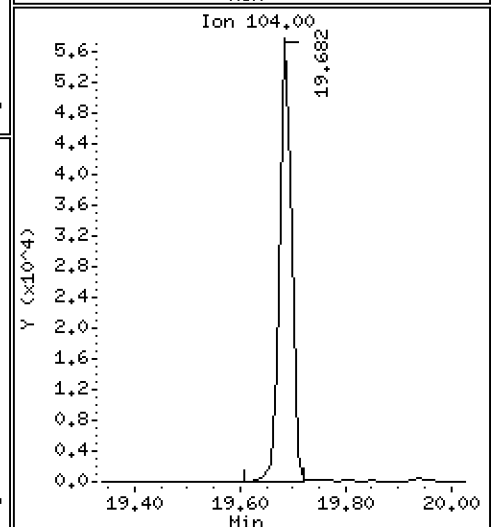
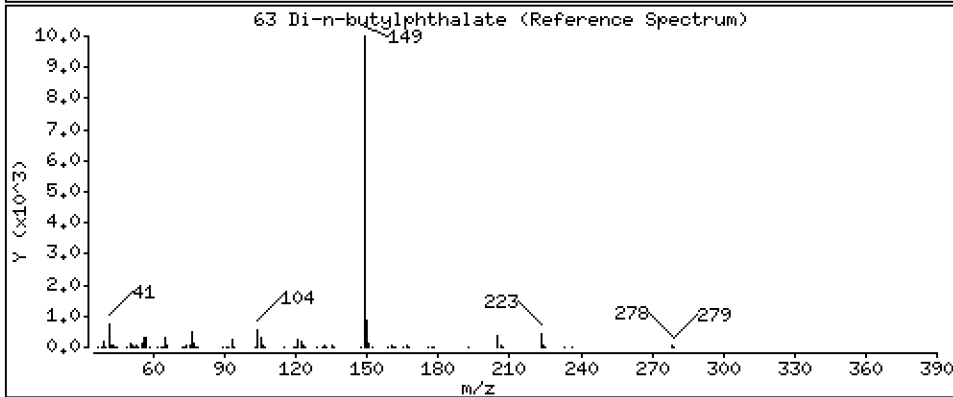
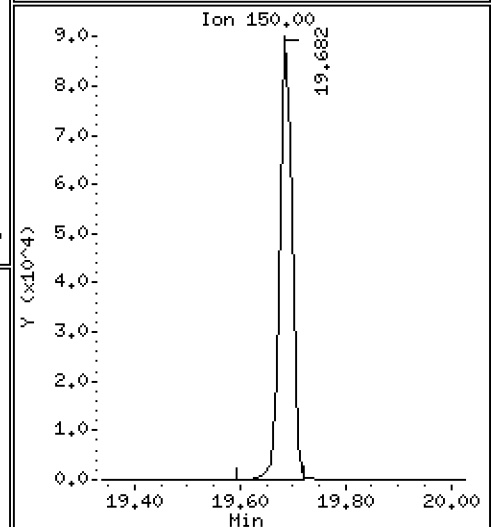
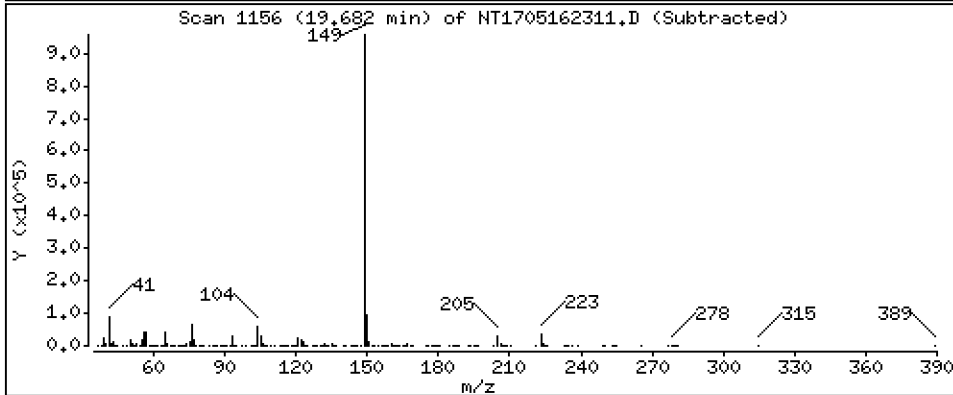
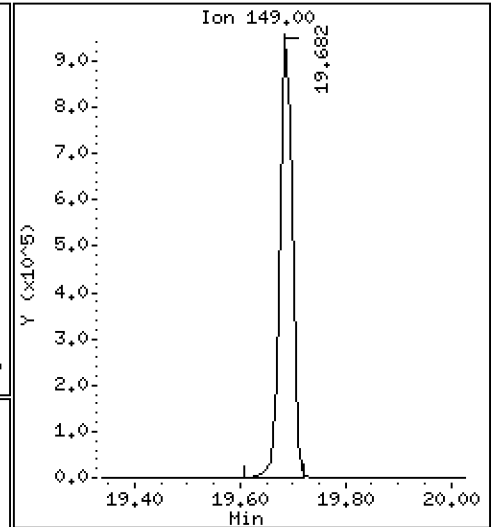
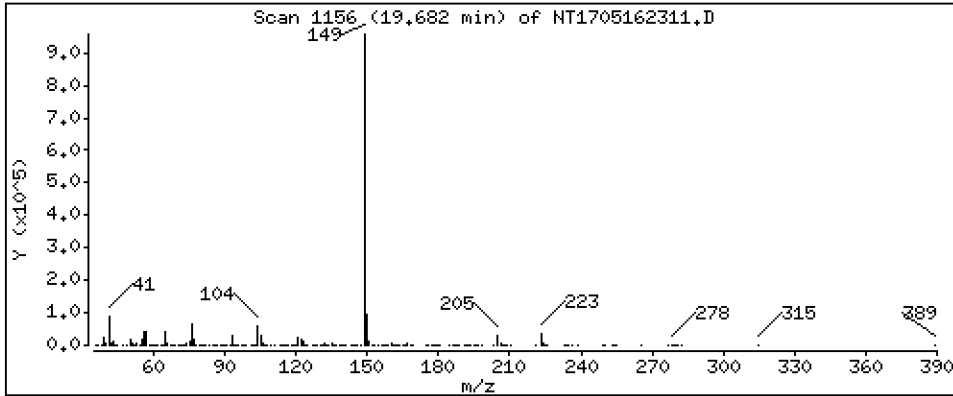
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 5,642 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

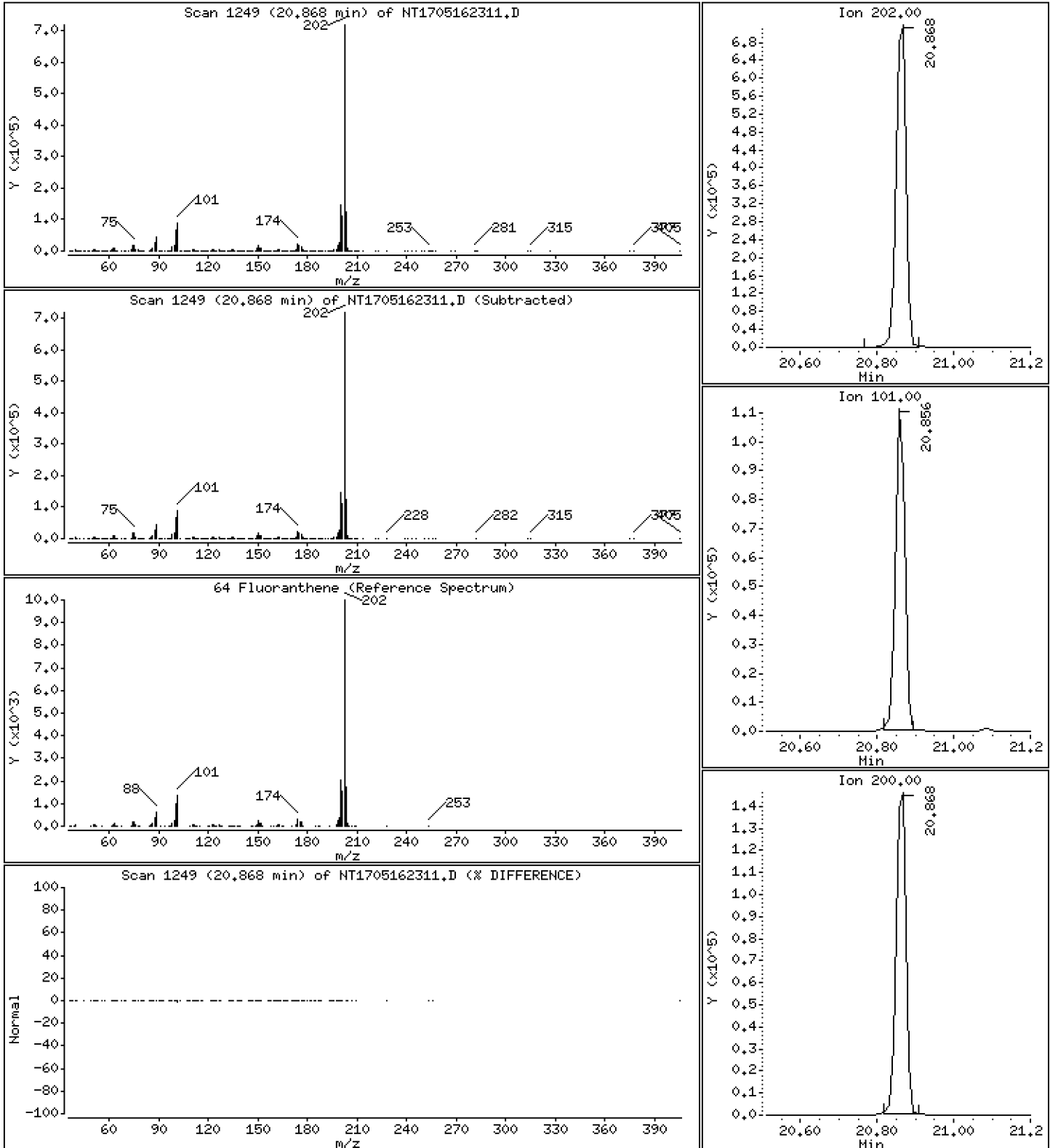
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,467 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

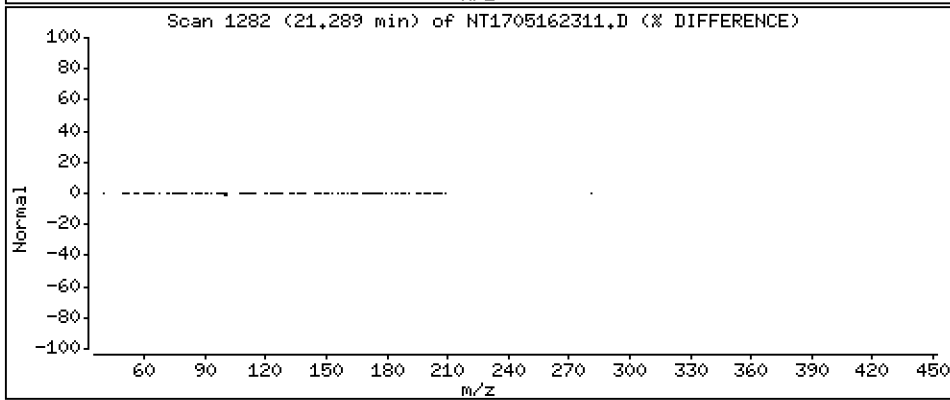
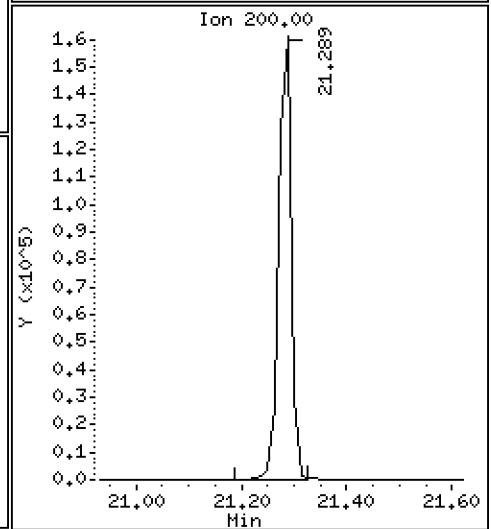
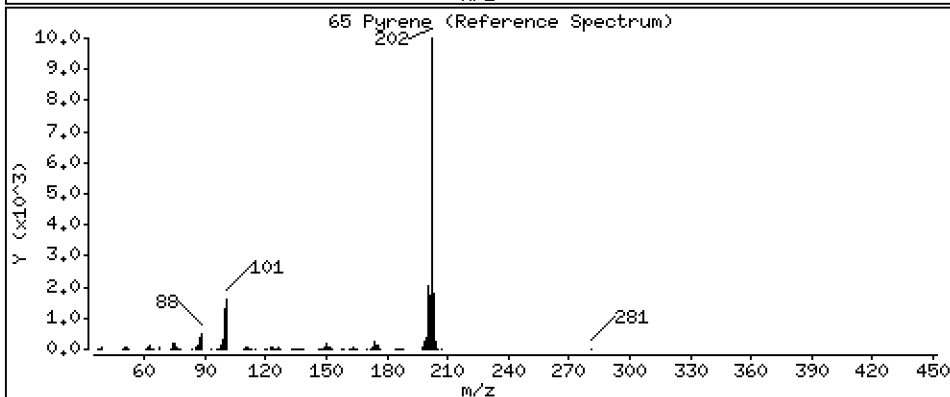
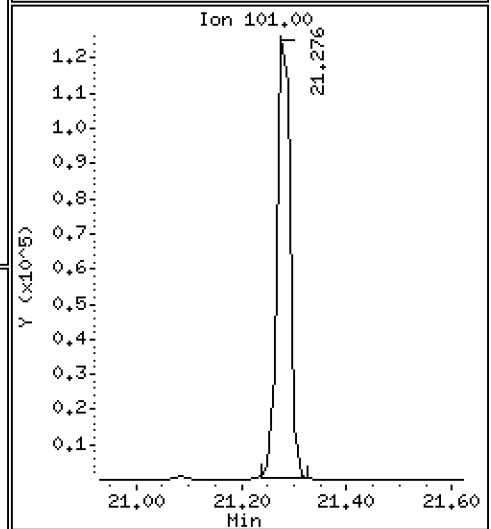
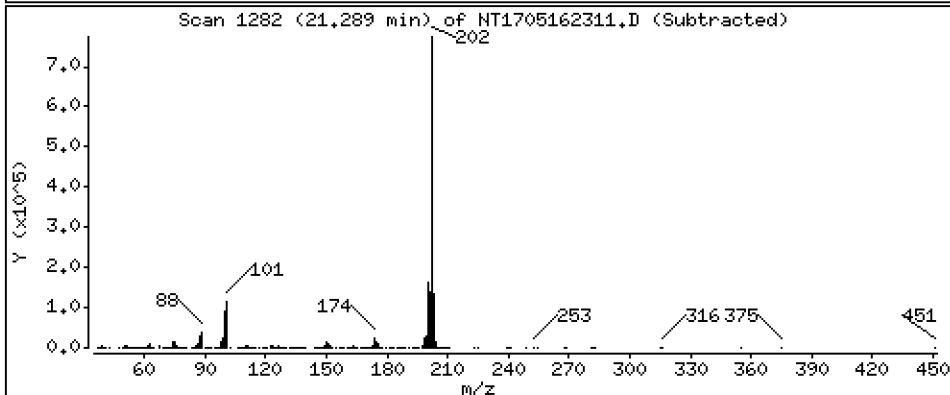
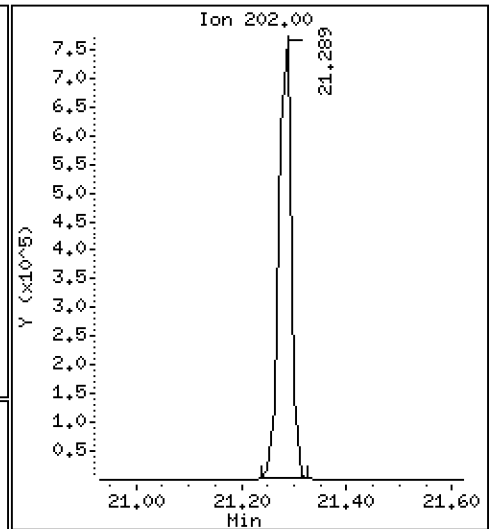
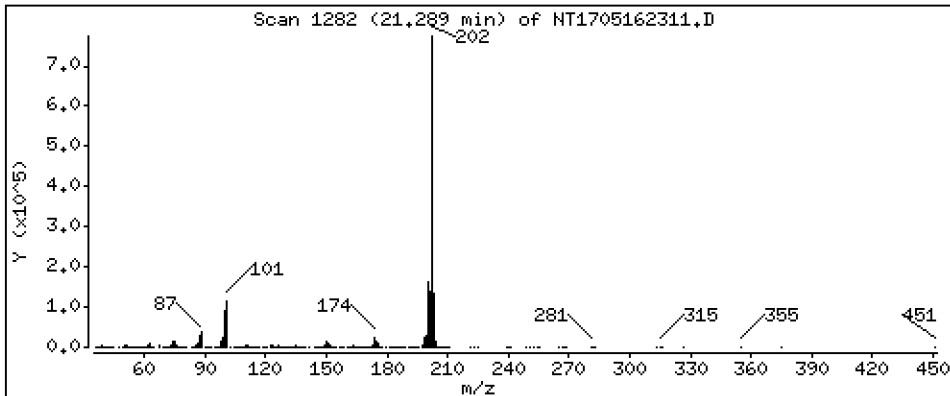
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,265 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

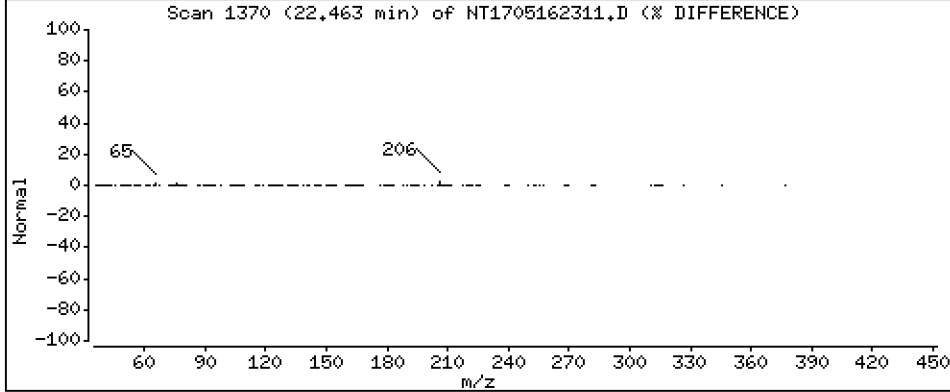
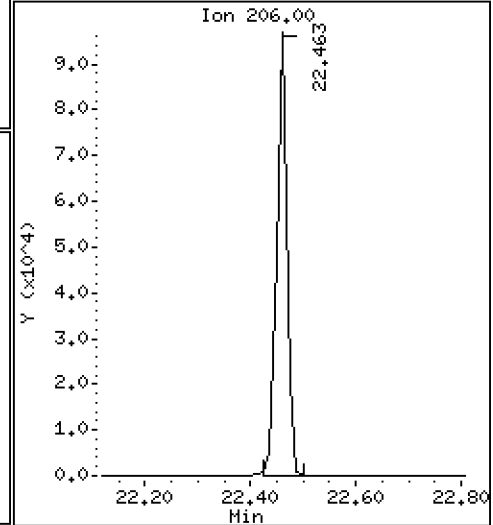
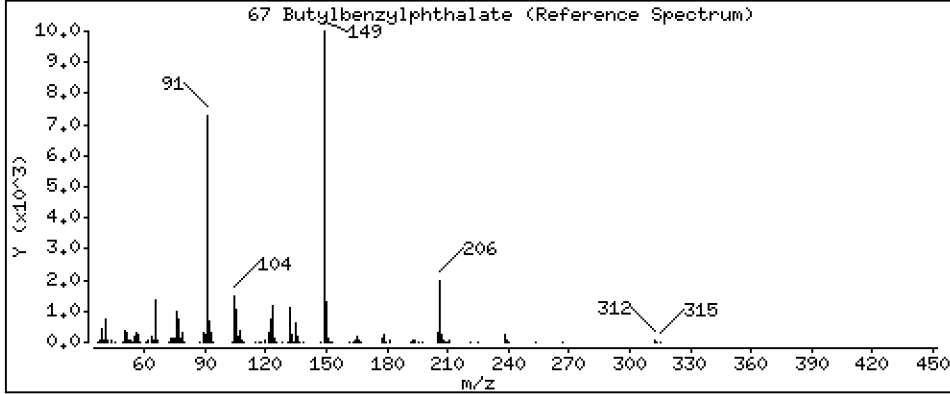
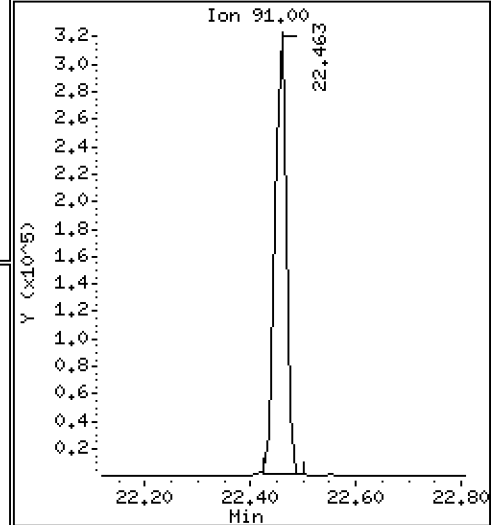
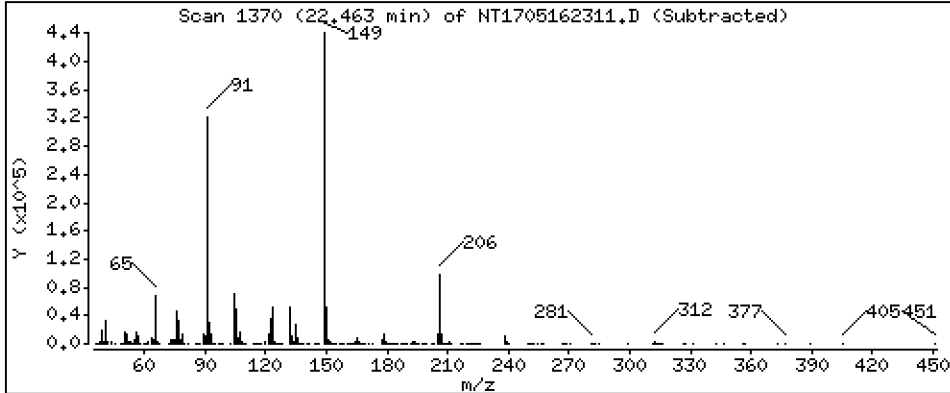
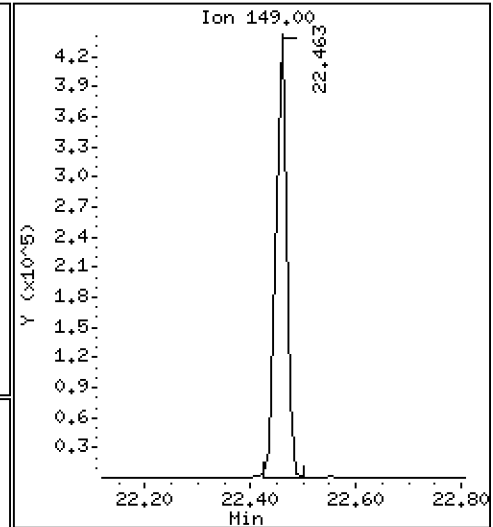
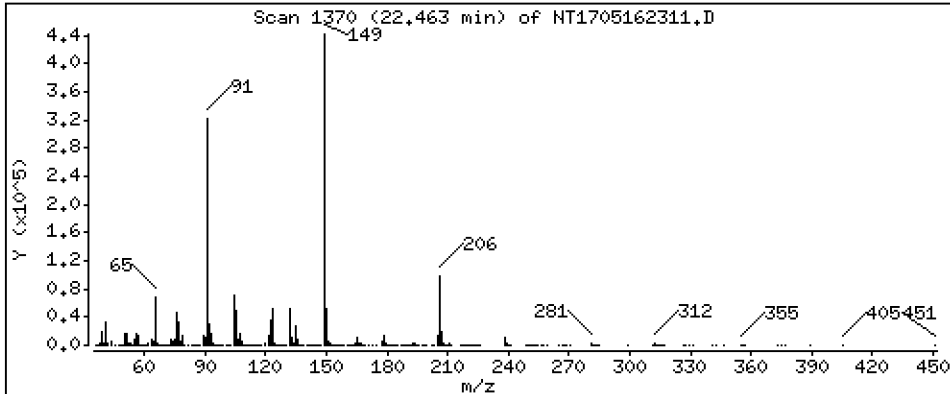
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,825 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

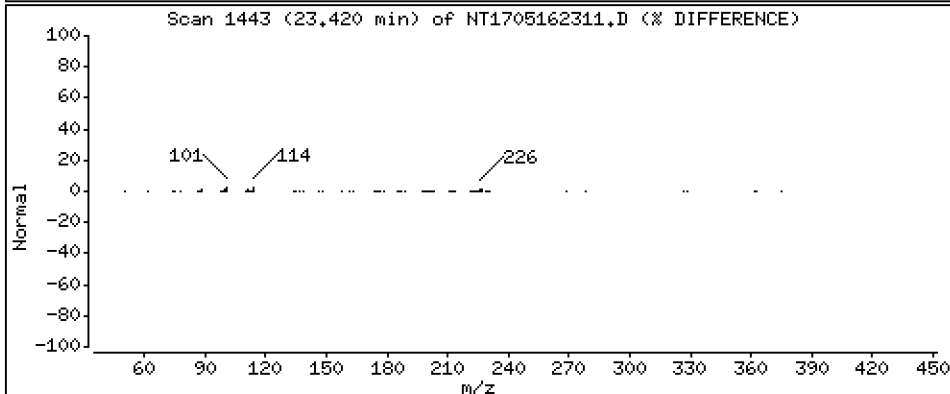
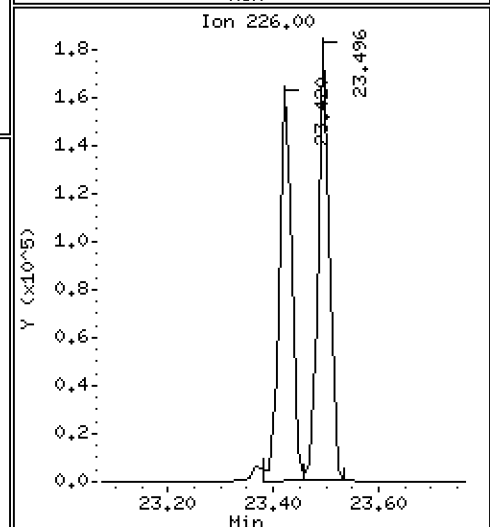
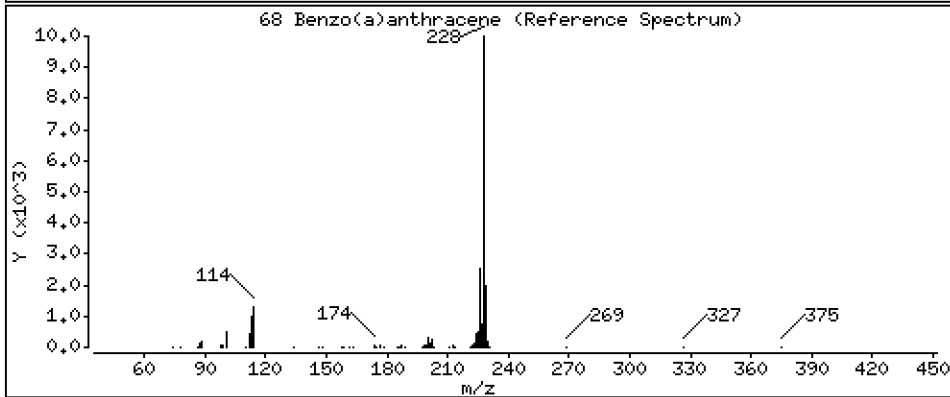
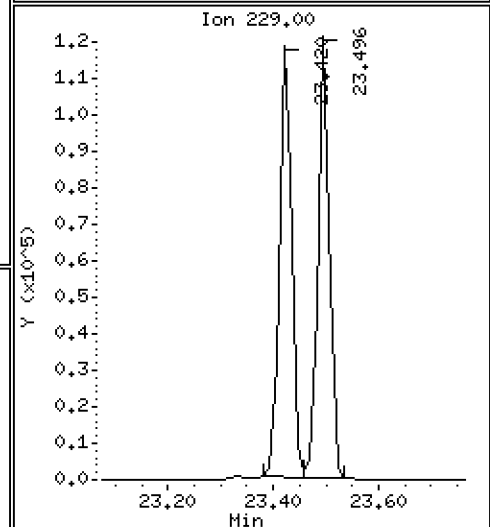
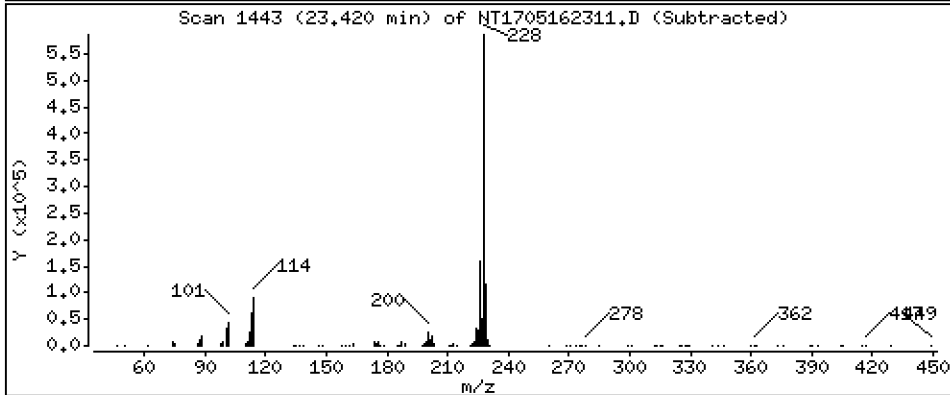
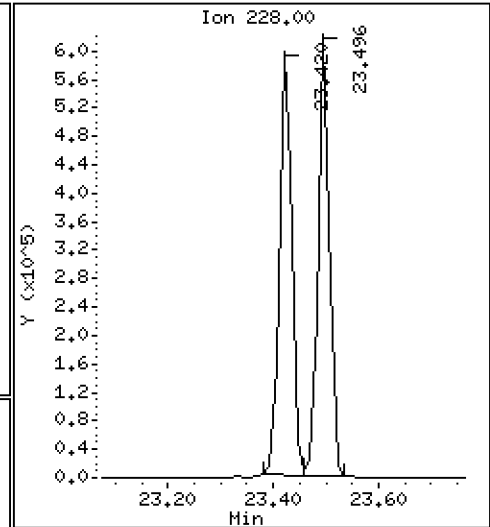
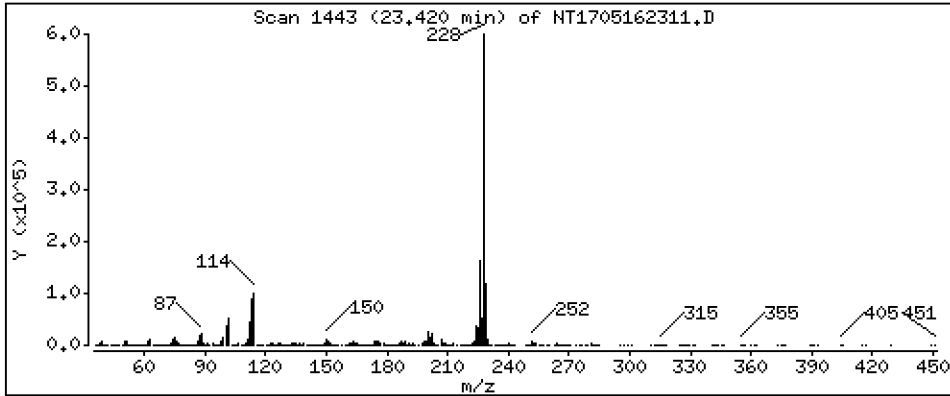
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 5,064 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

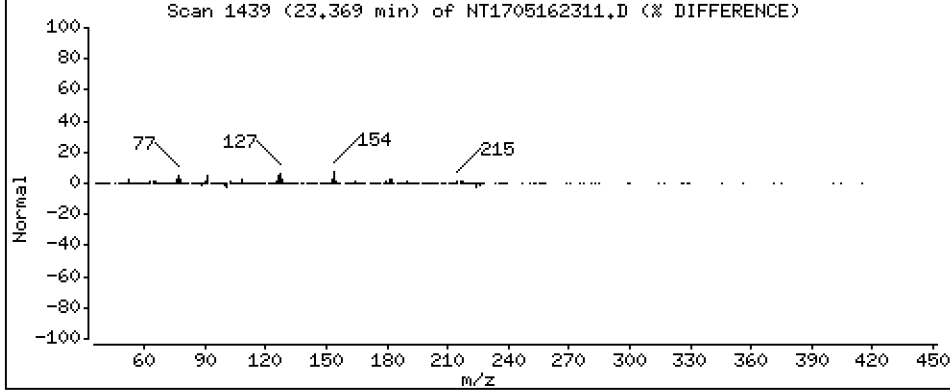
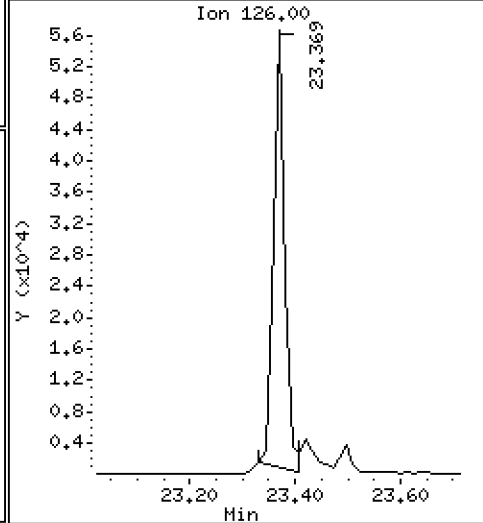
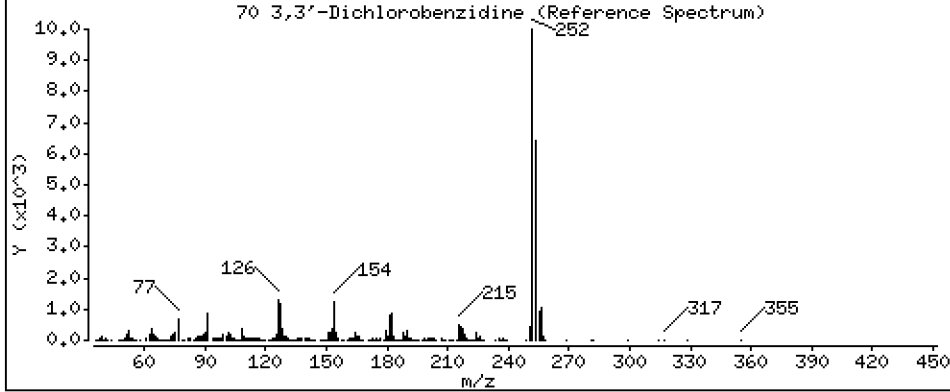
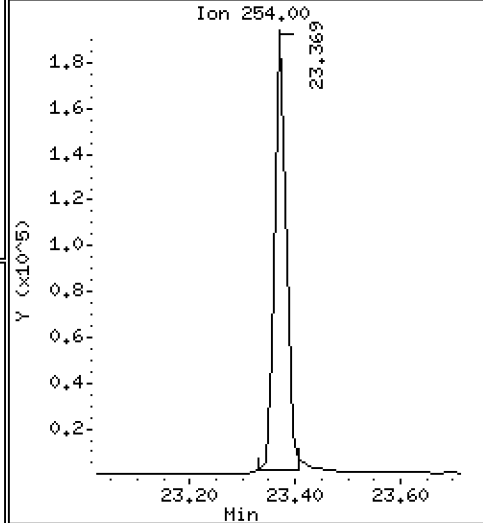
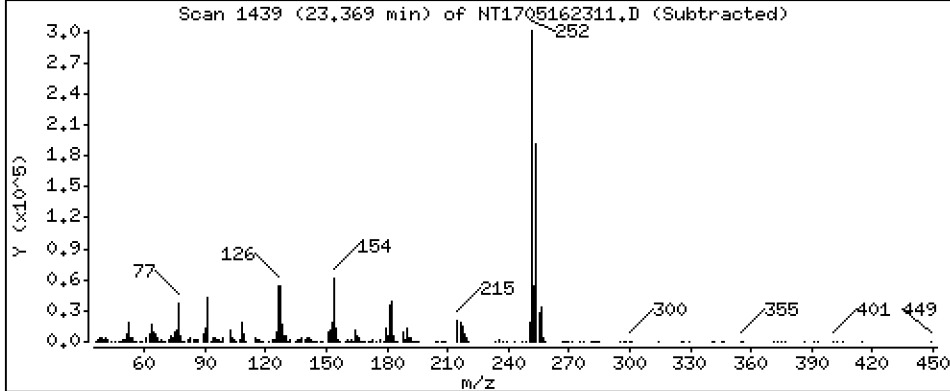
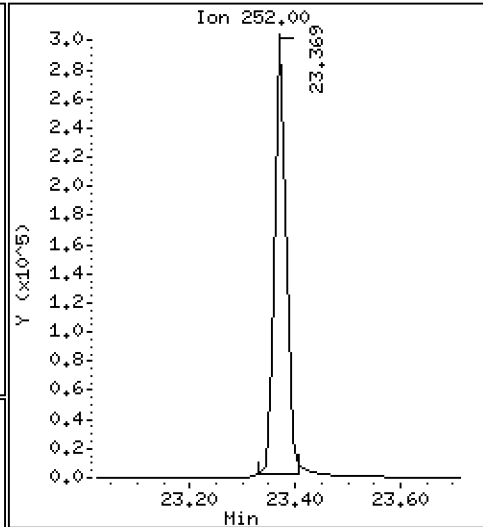
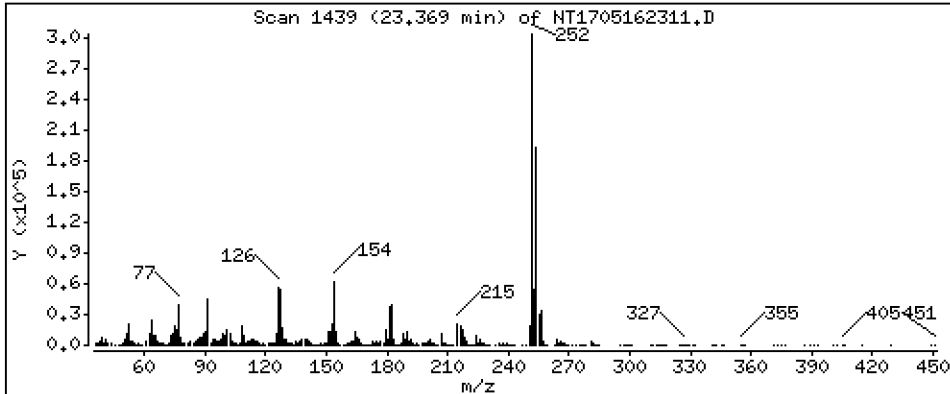
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 11,99 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

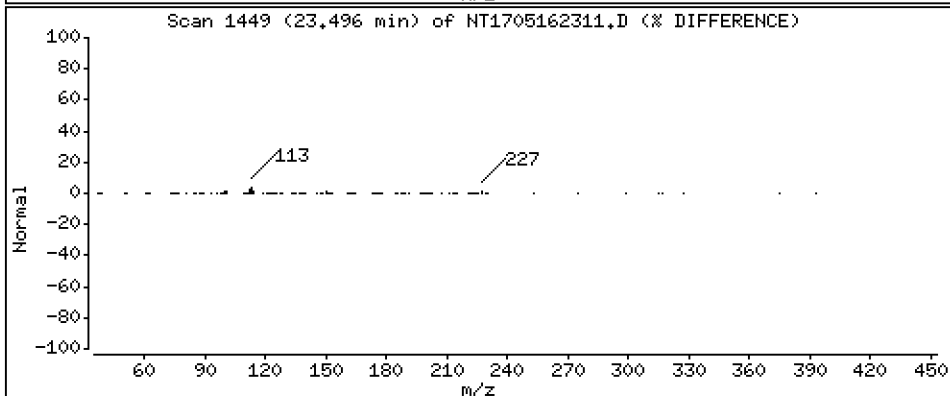
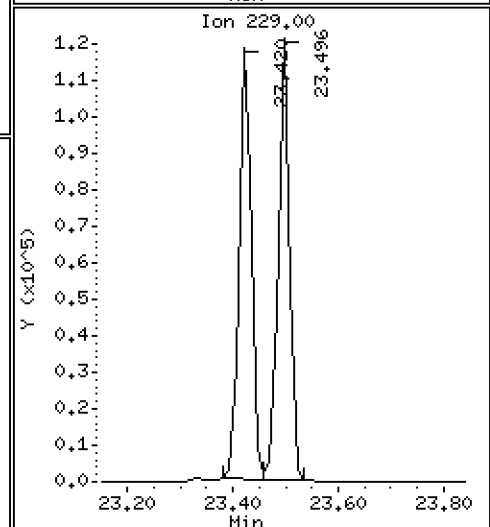
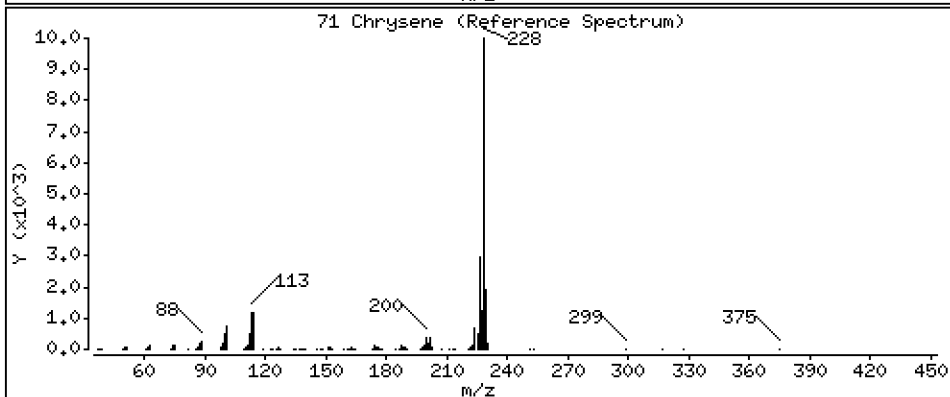
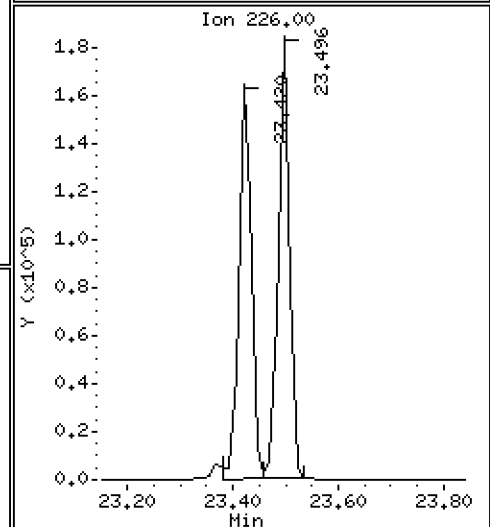
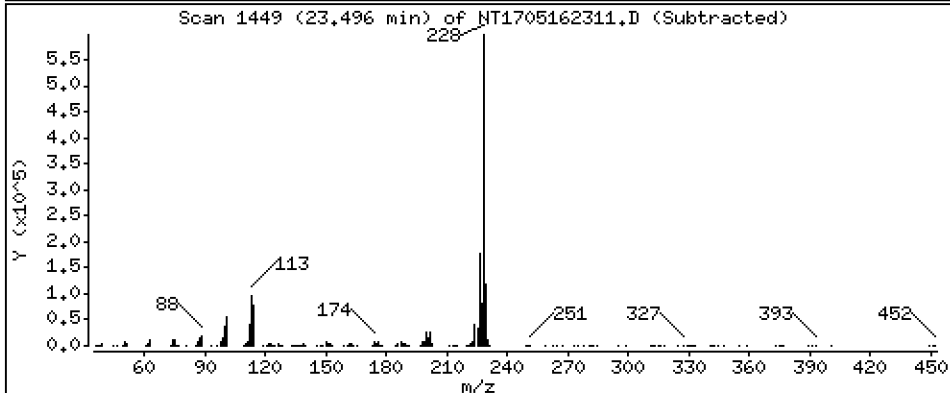
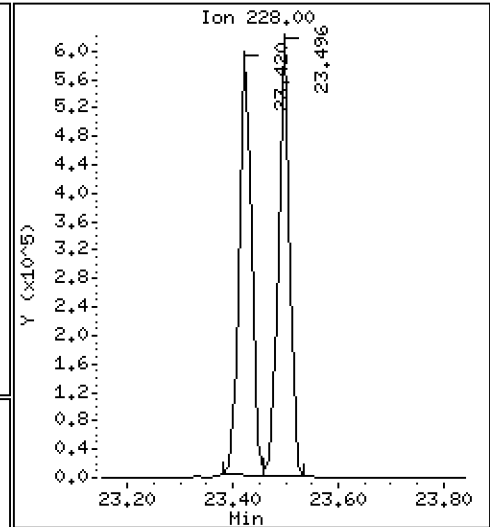
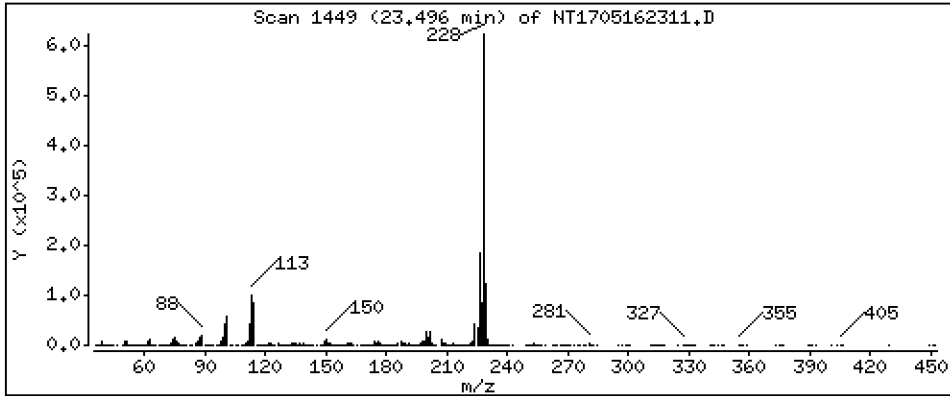
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,018 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

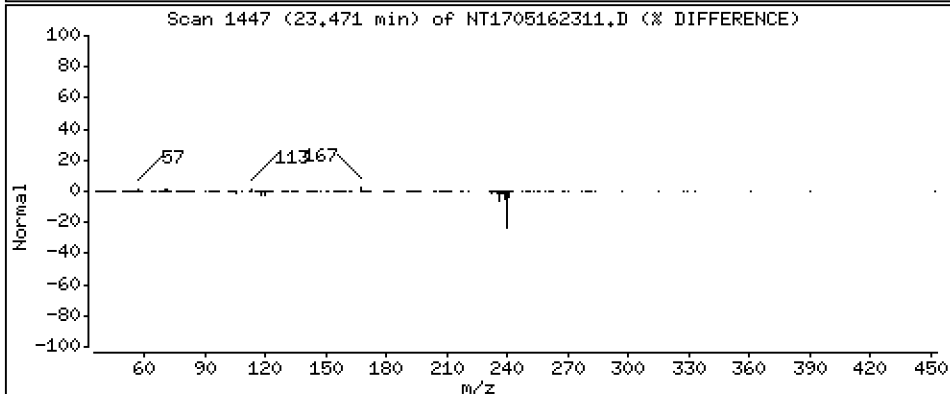
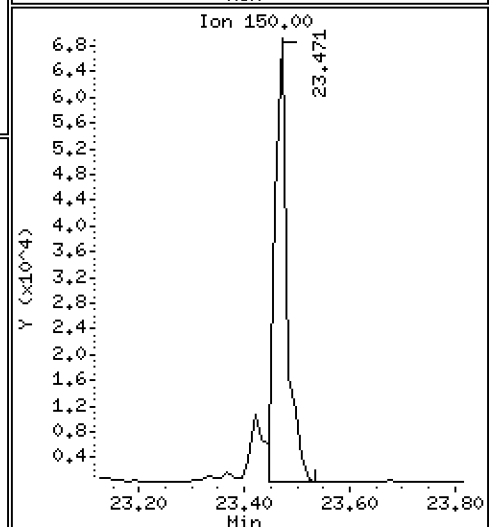
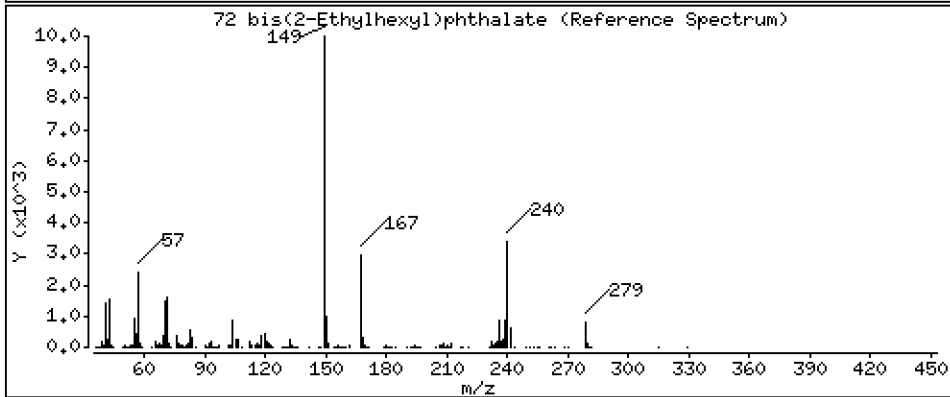
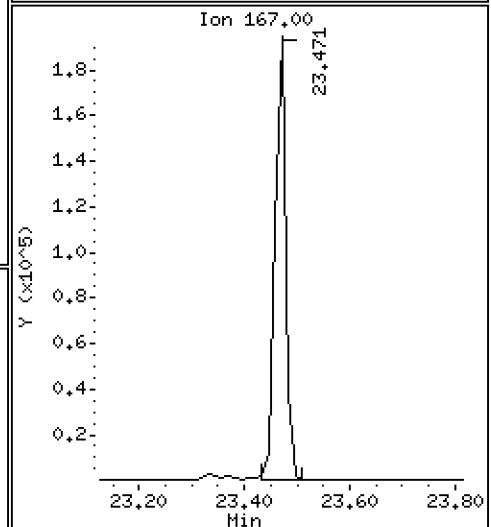
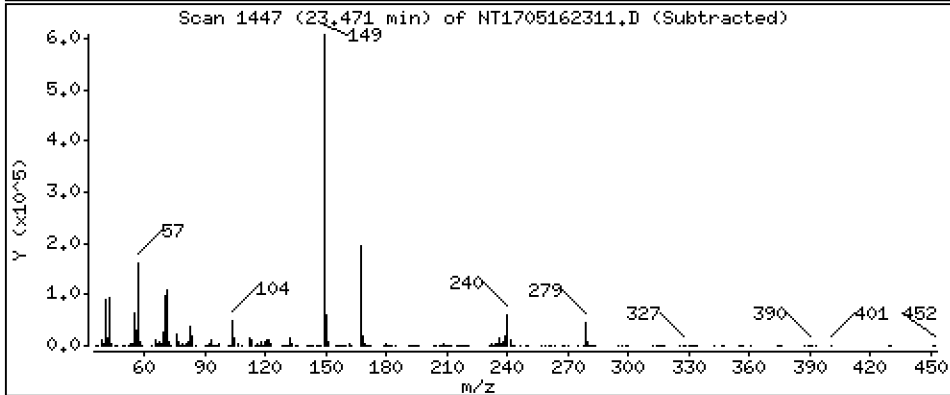
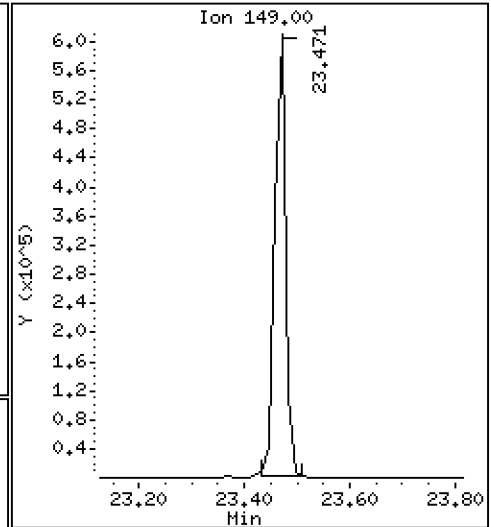
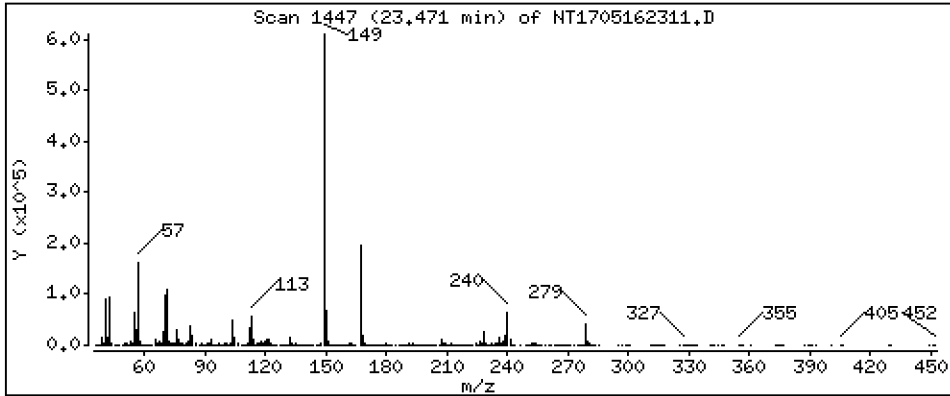
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,792 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

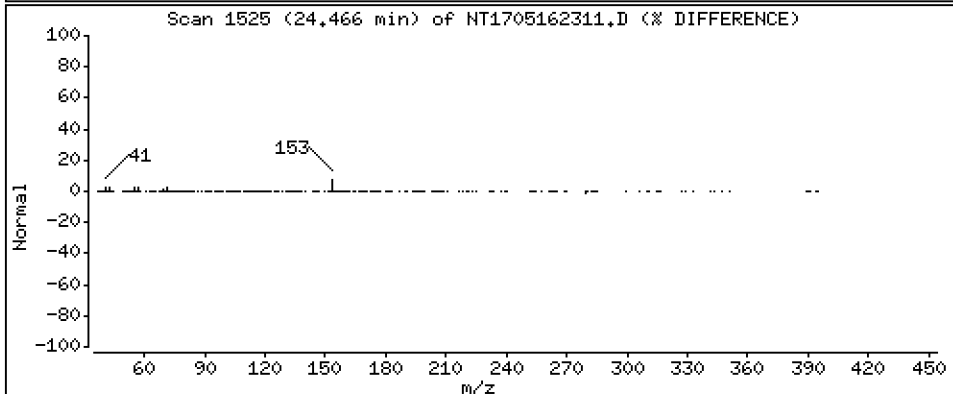
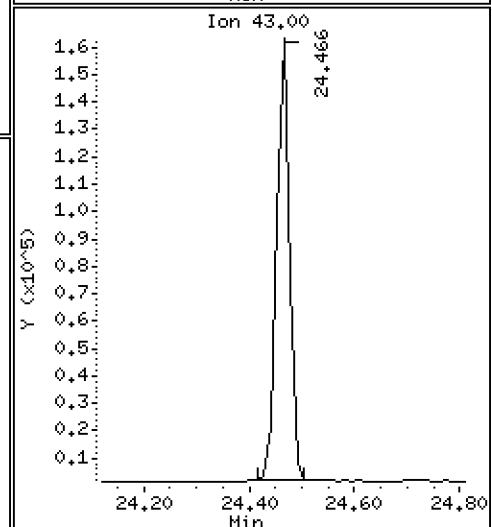
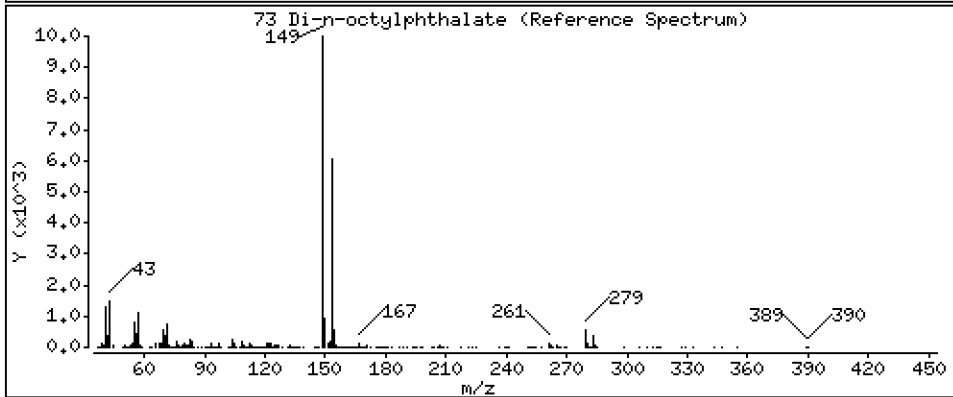
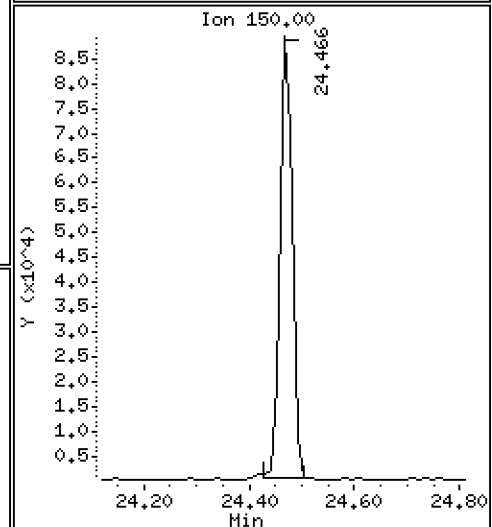
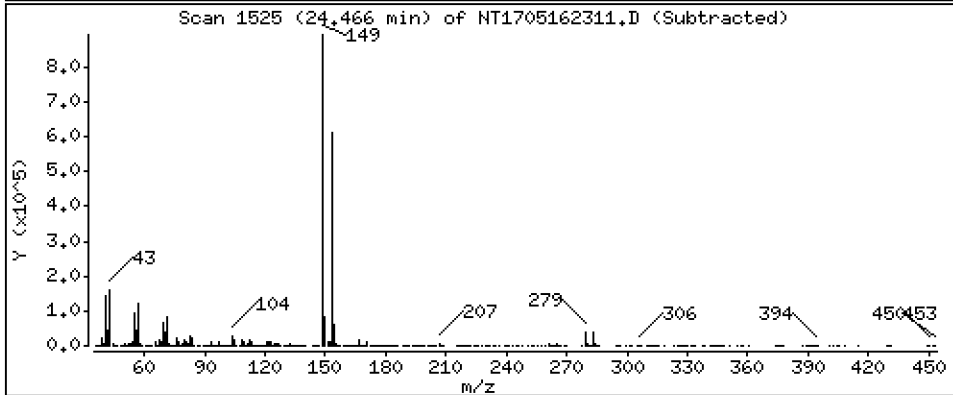
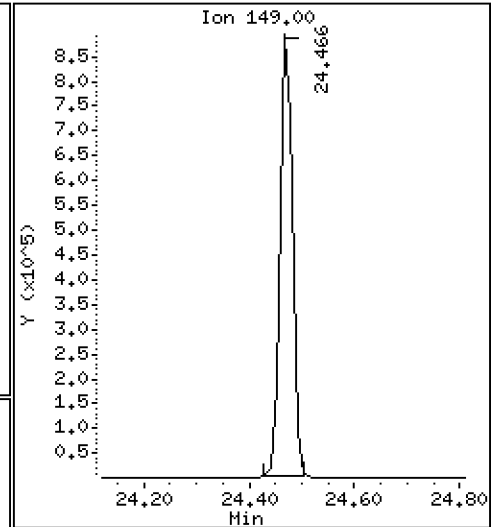
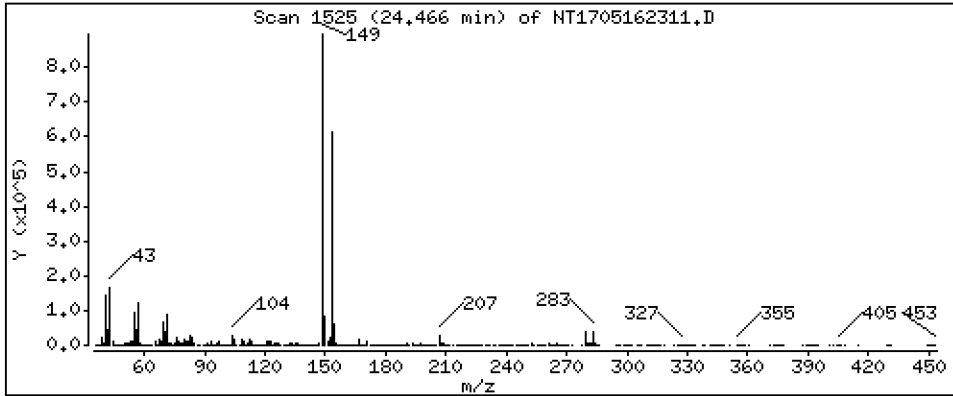
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,482 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

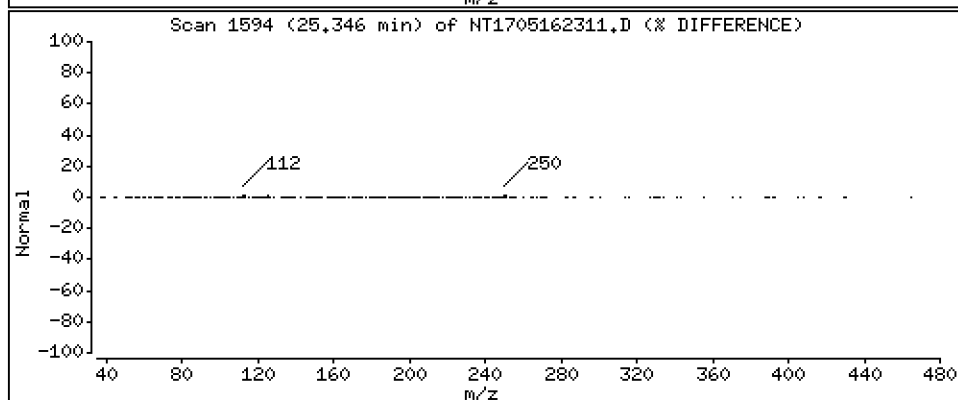
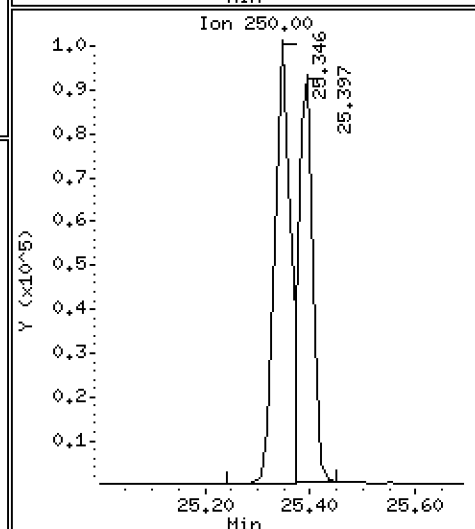
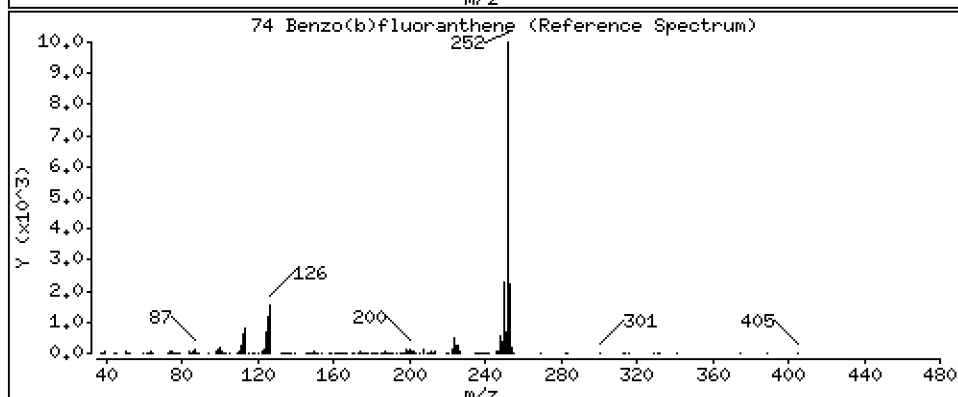
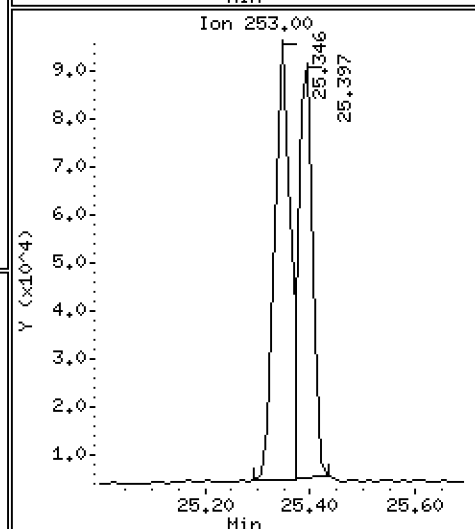
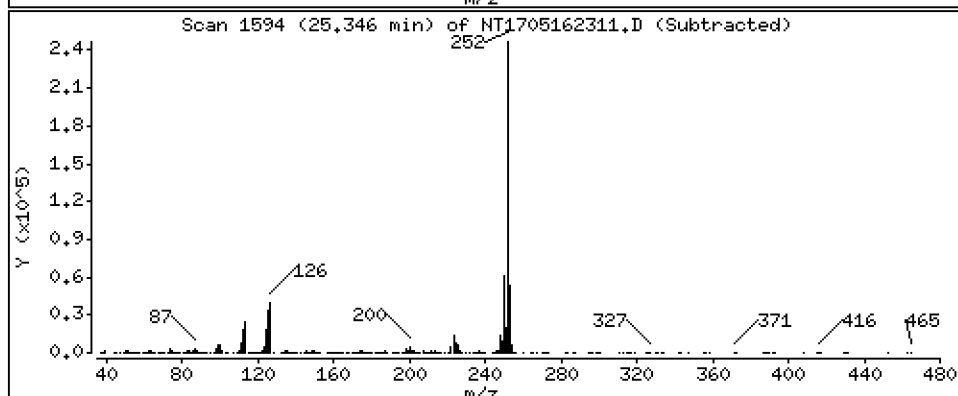
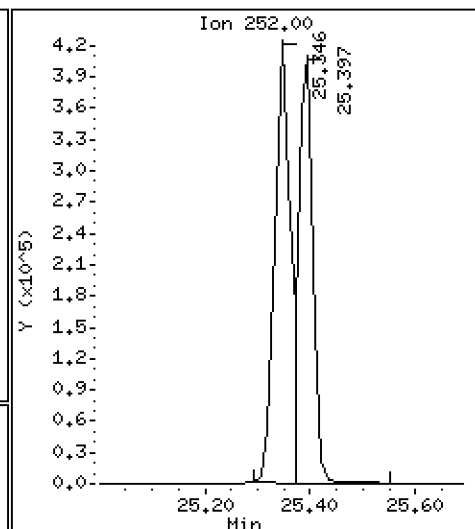
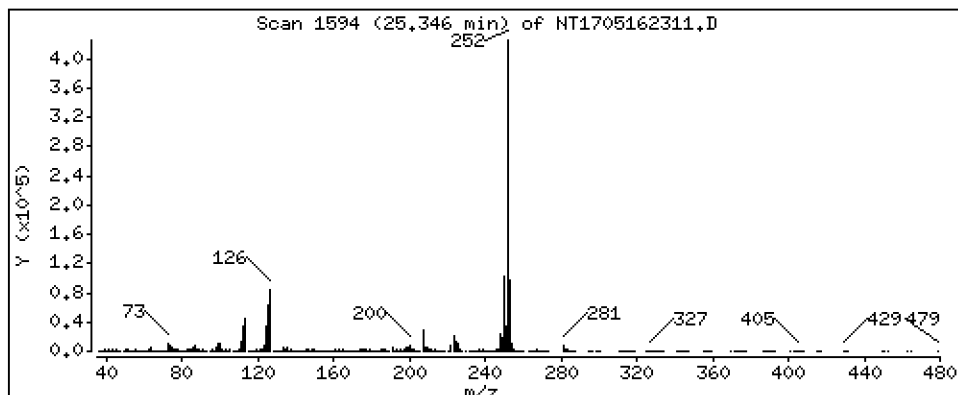
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,912 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

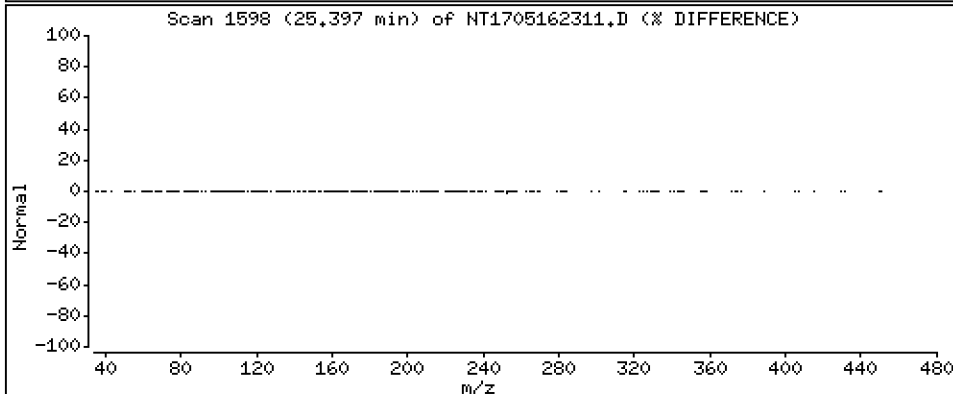
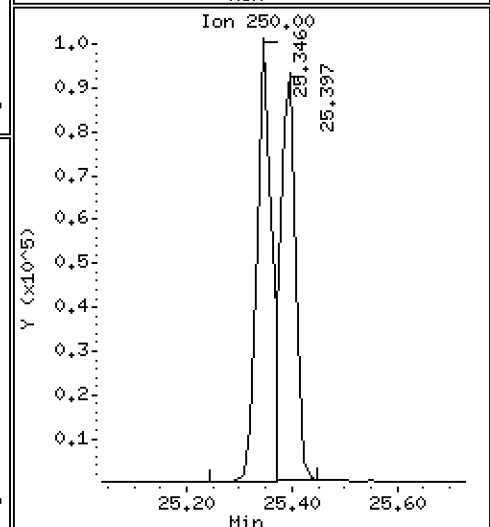
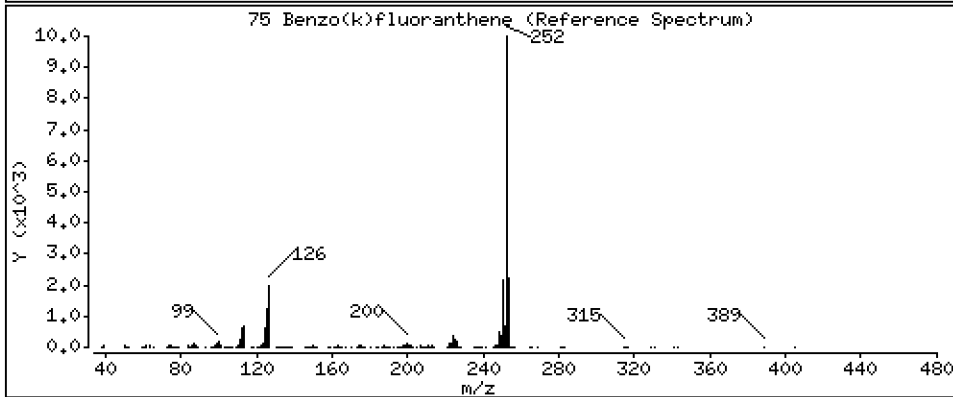
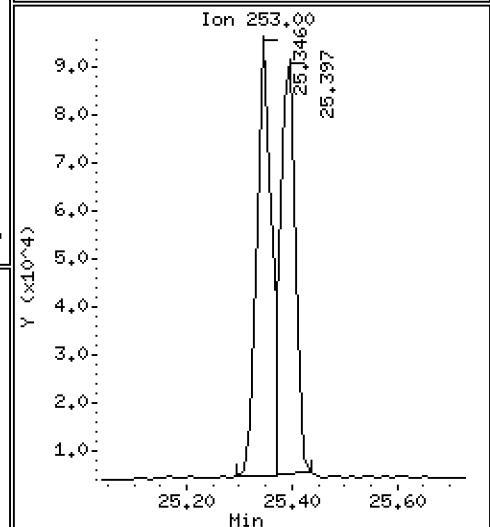
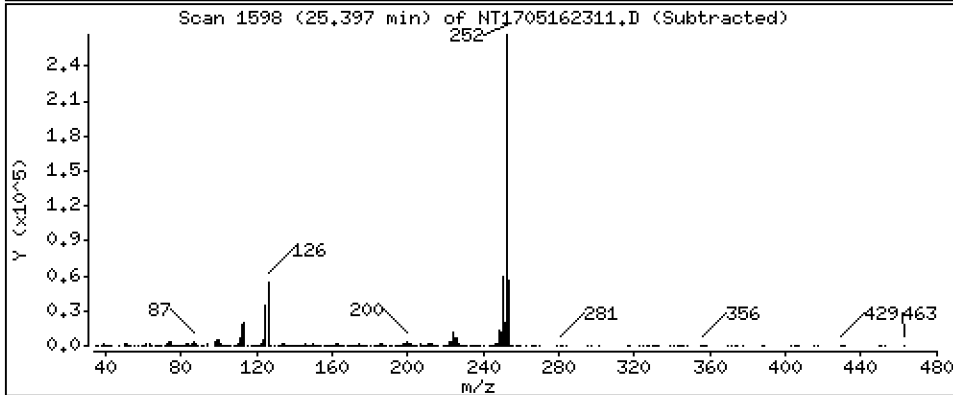
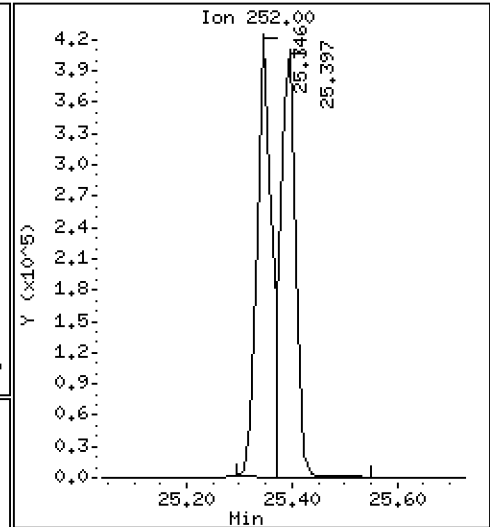
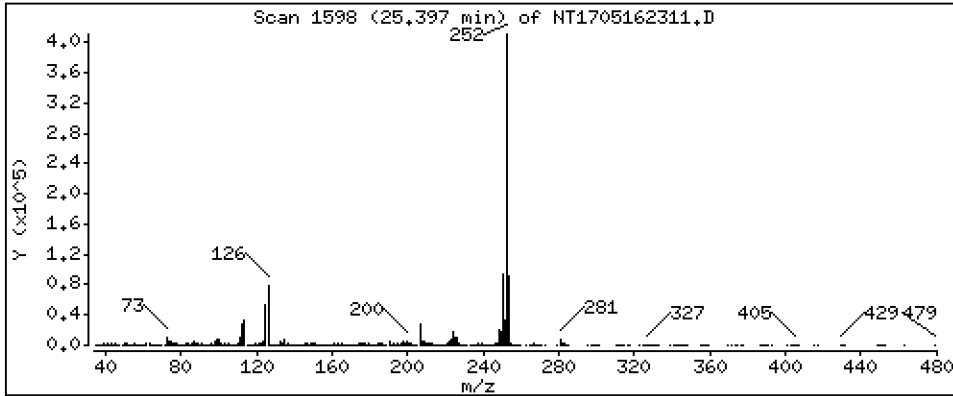
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,965 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

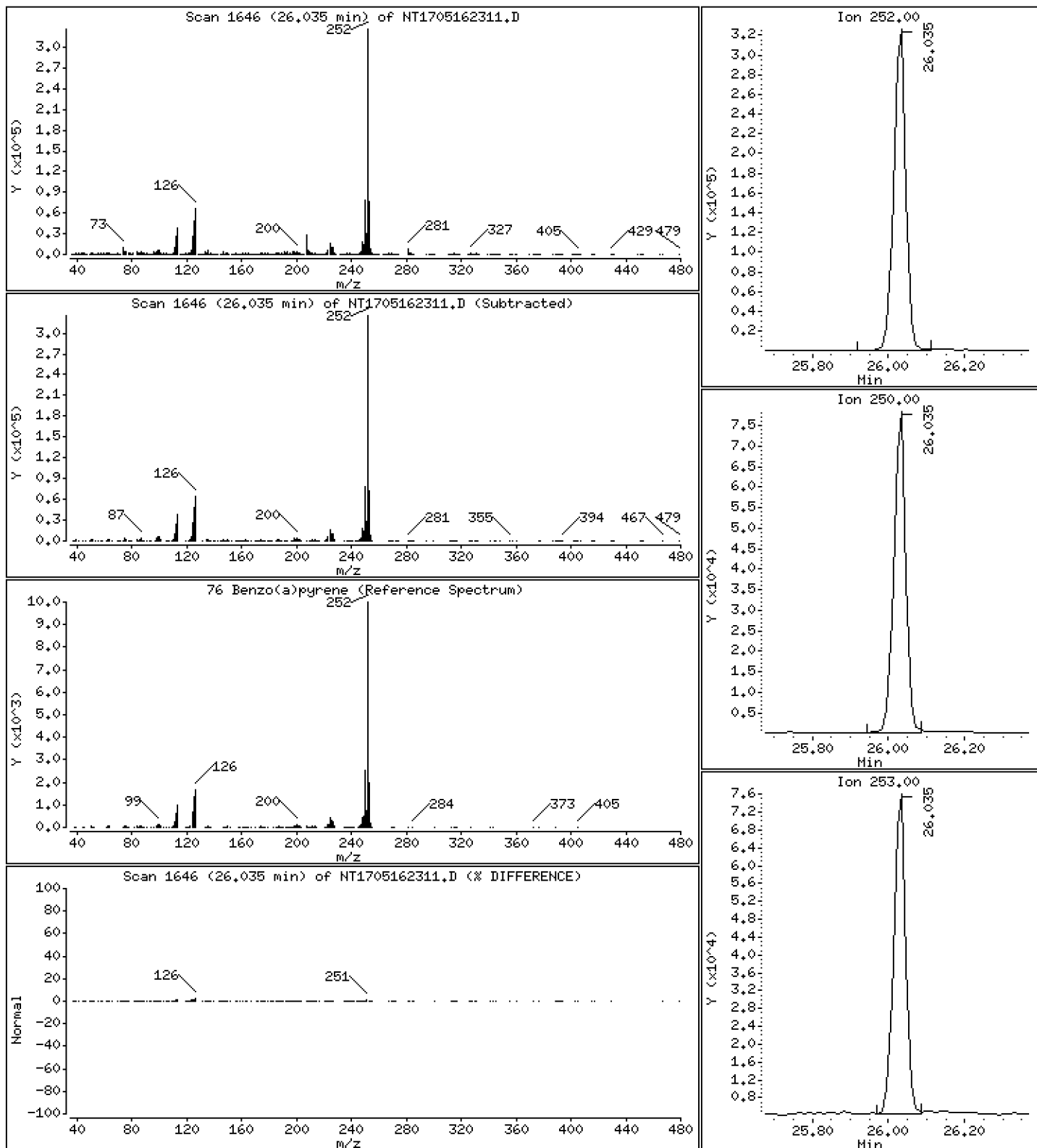
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 5,172 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

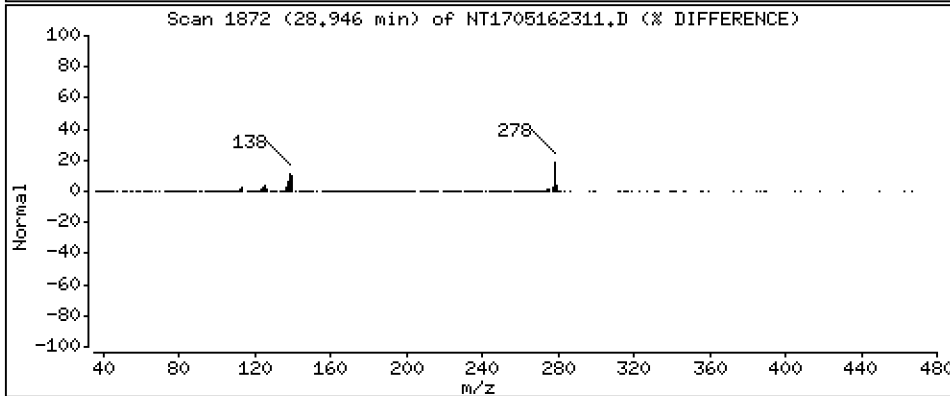
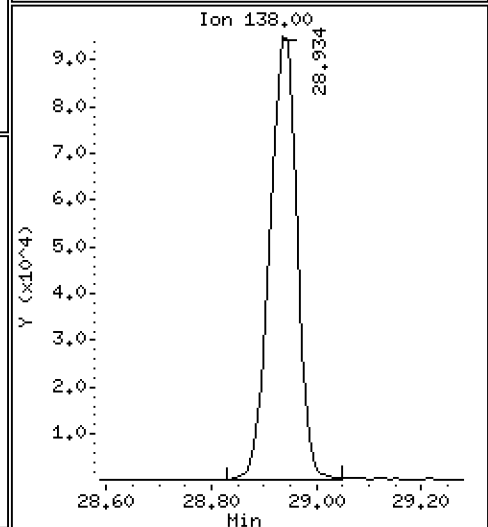
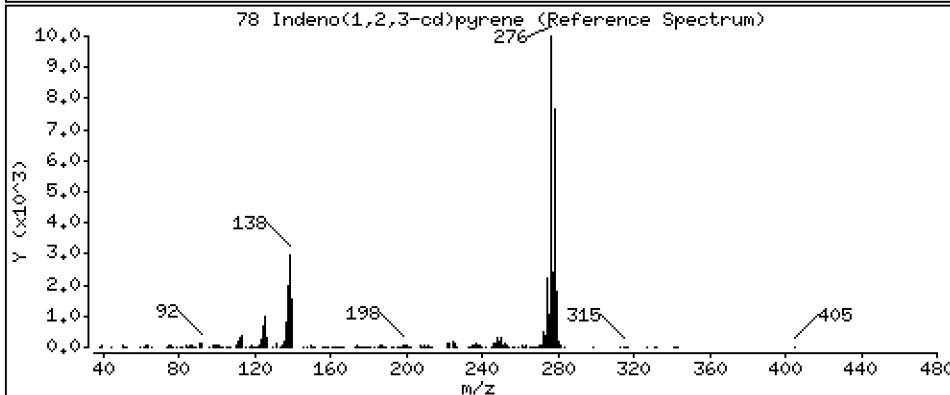
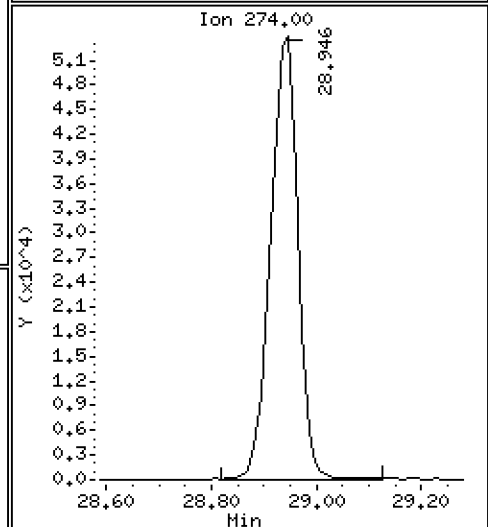
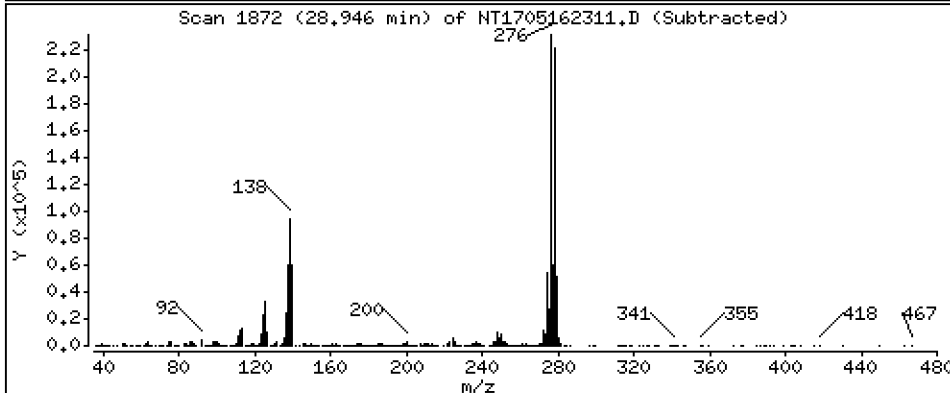
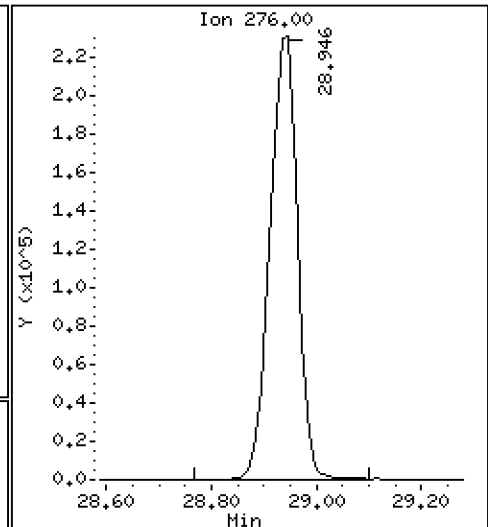
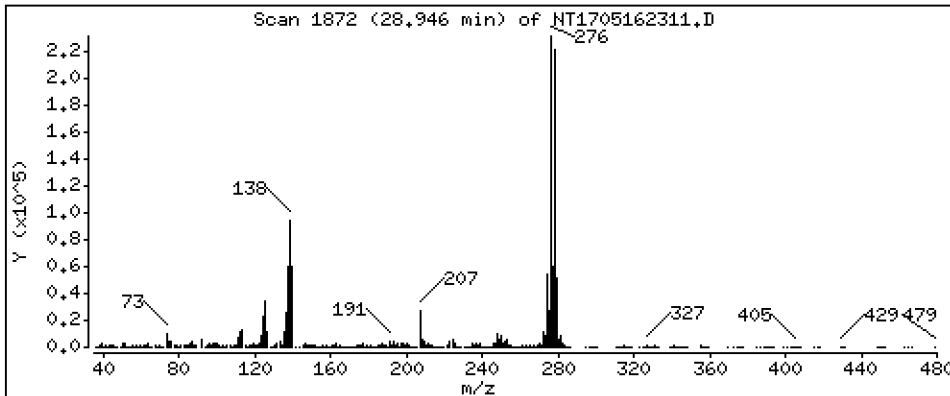
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,029 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

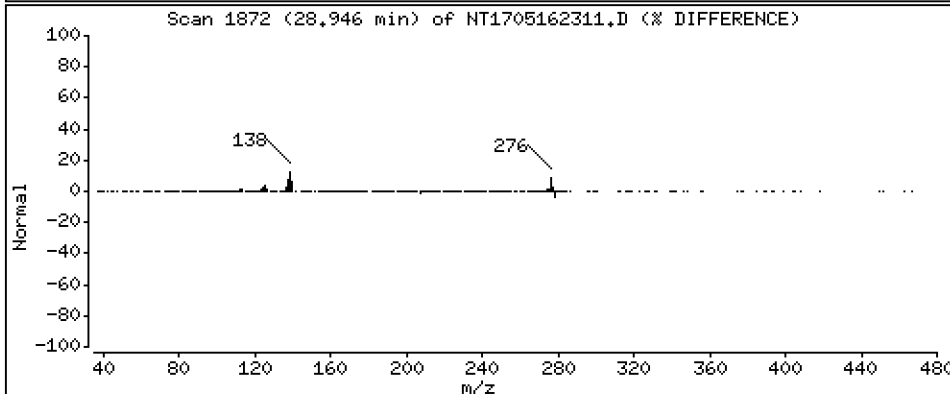
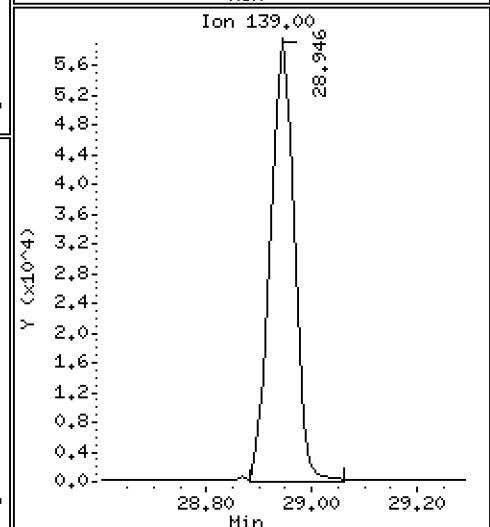
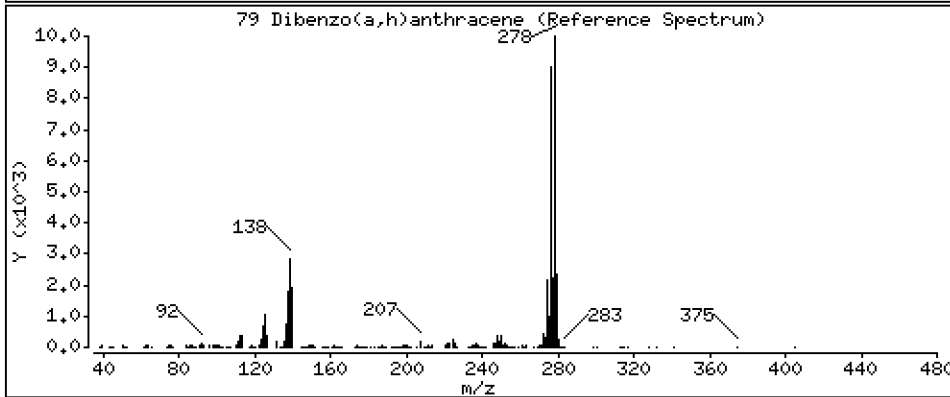
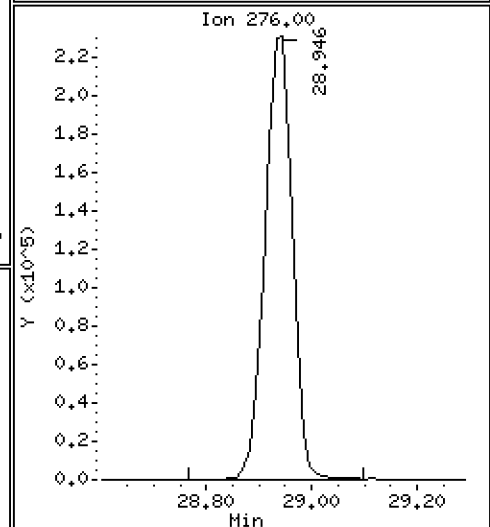
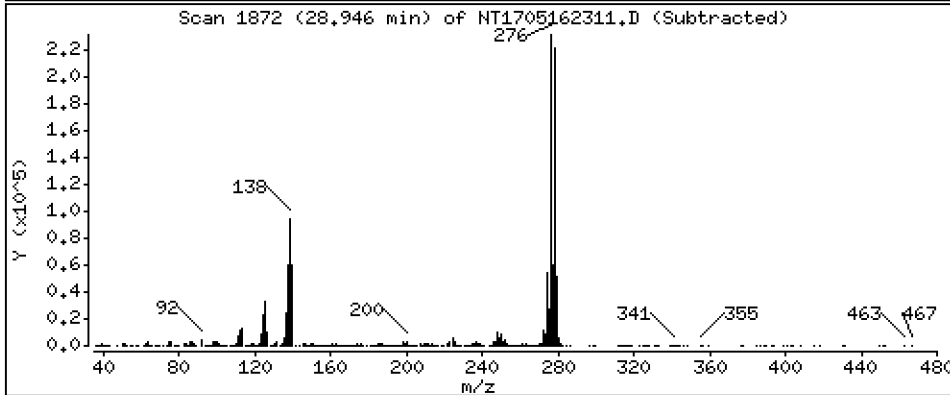
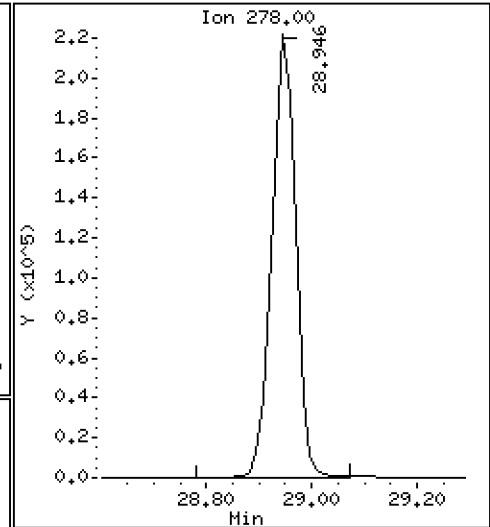
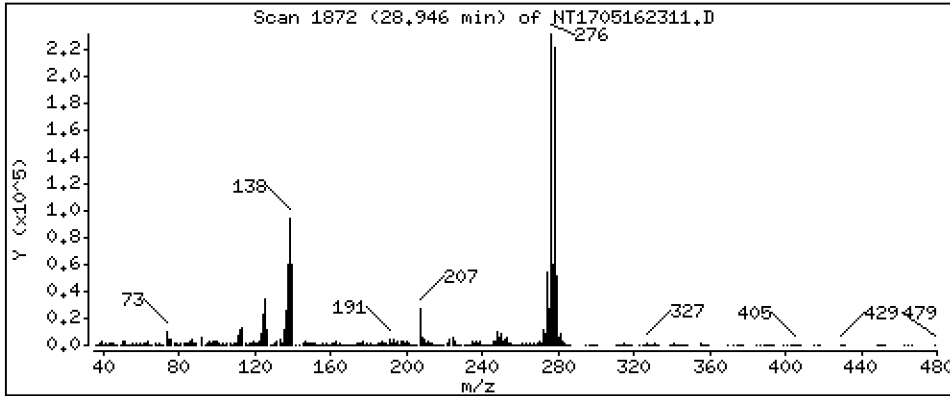
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,970 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

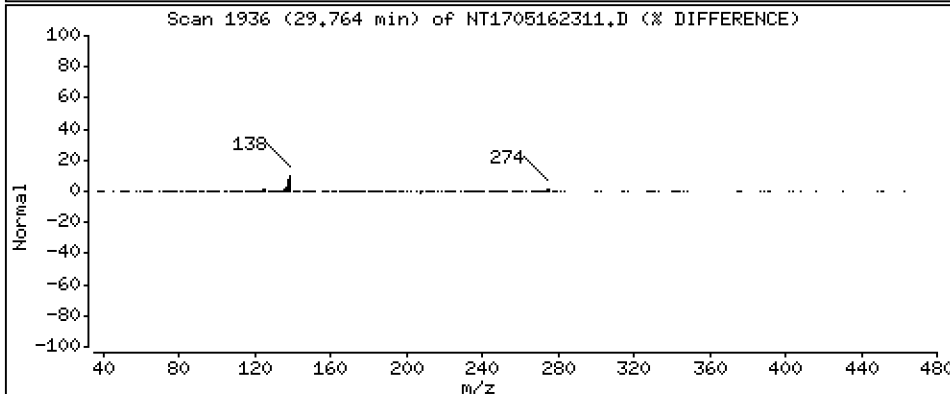
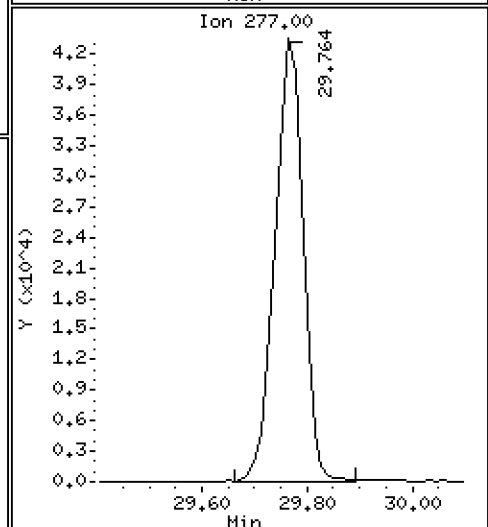
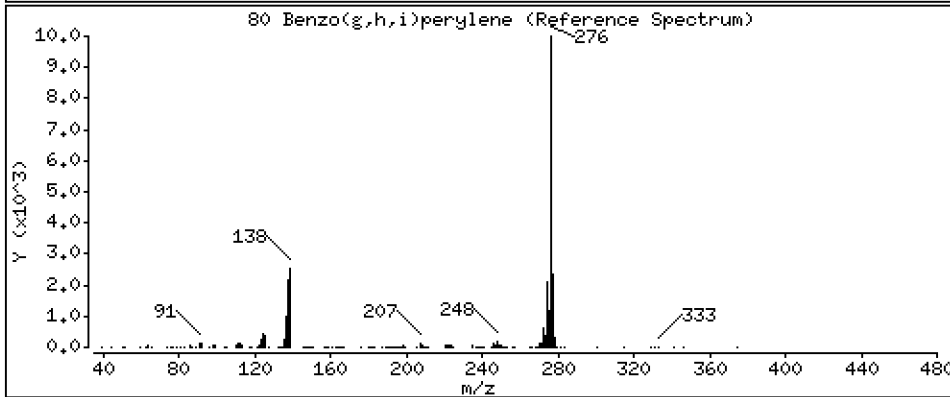
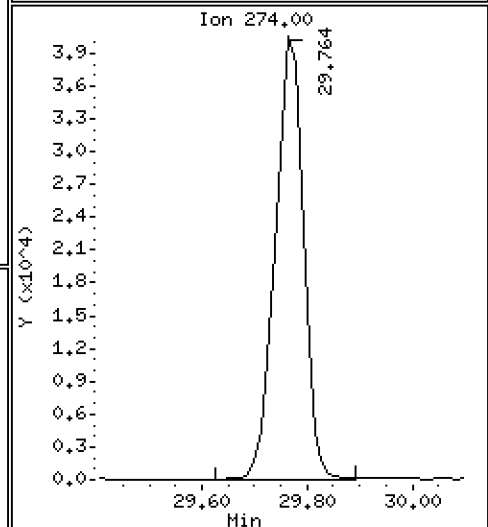
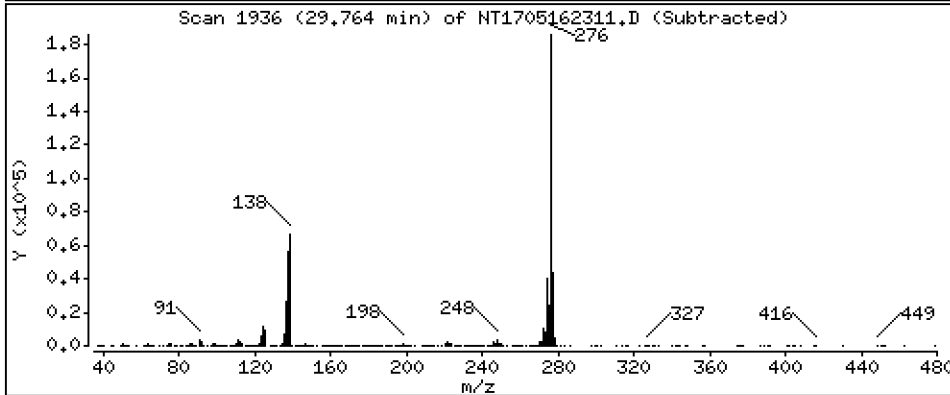
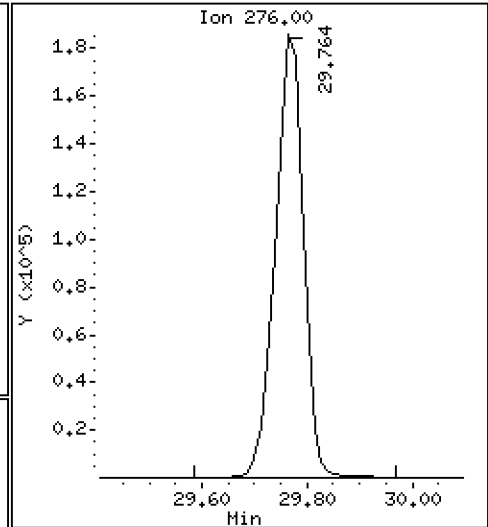
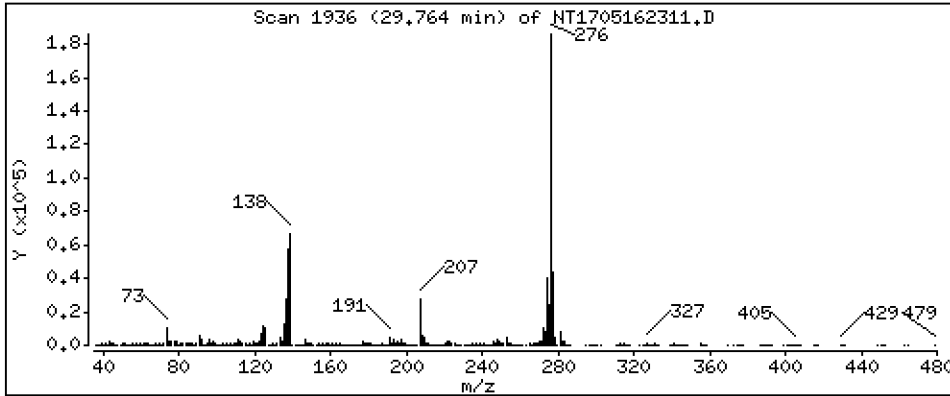
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 5,054 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

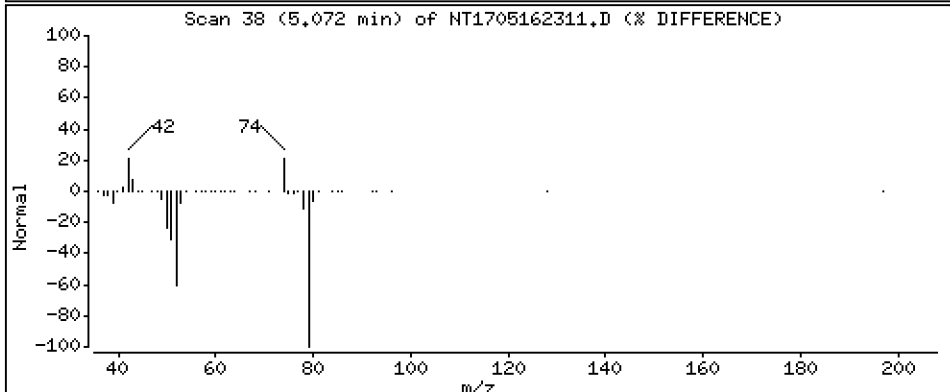
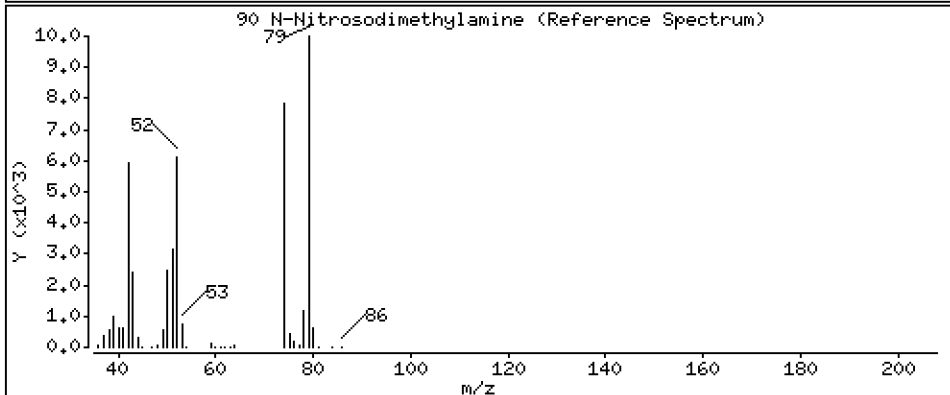
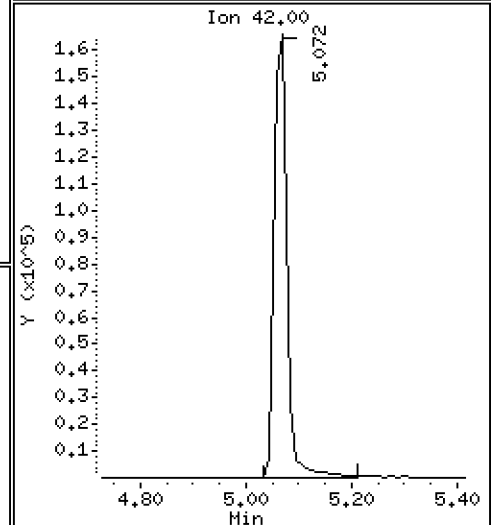
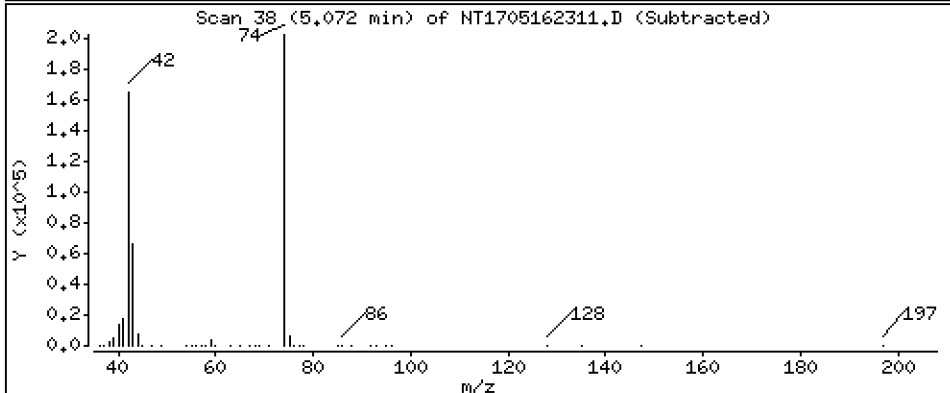
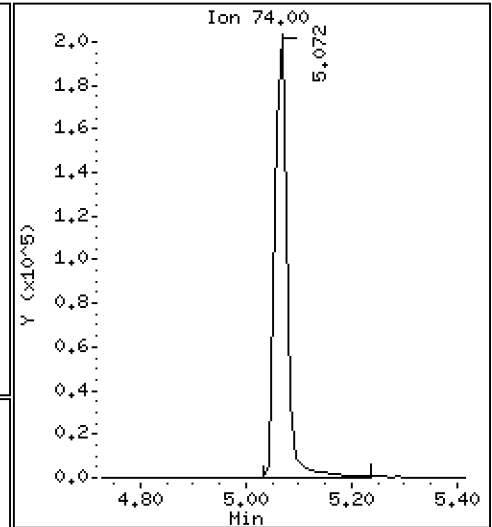
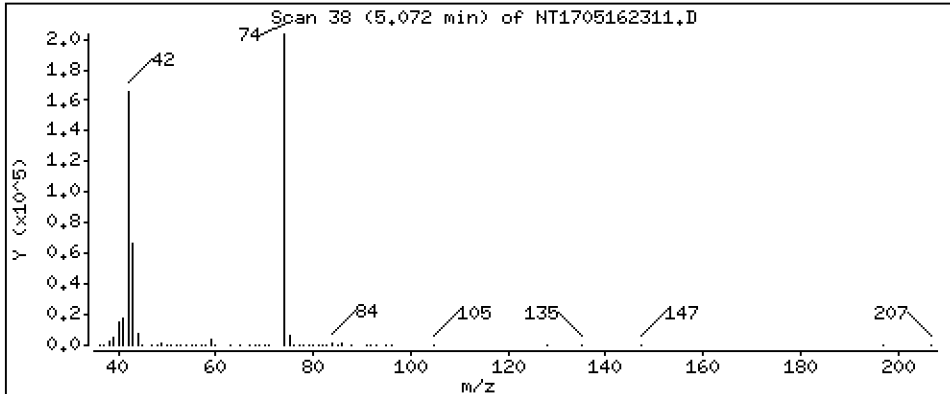
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,767 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

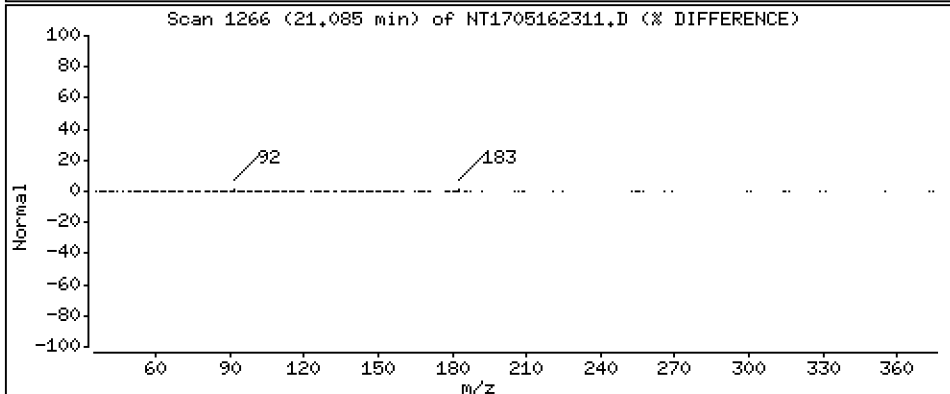
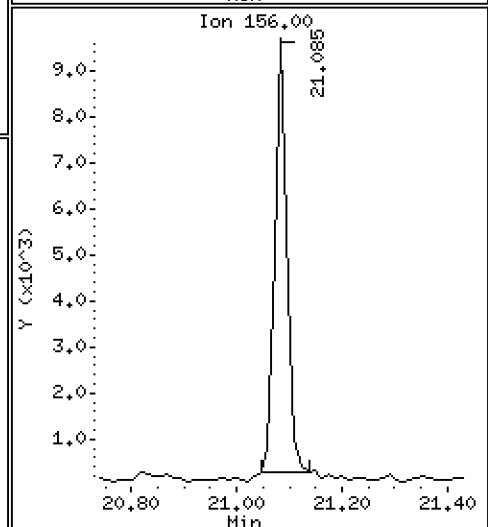
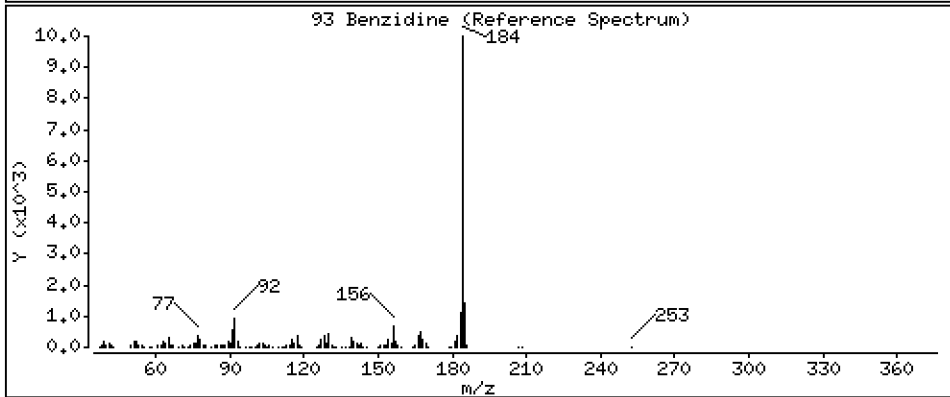
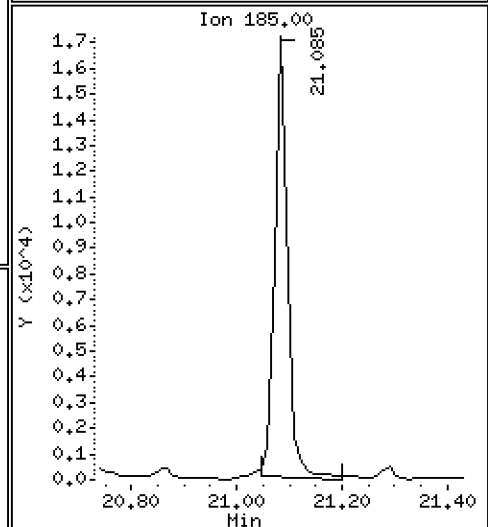
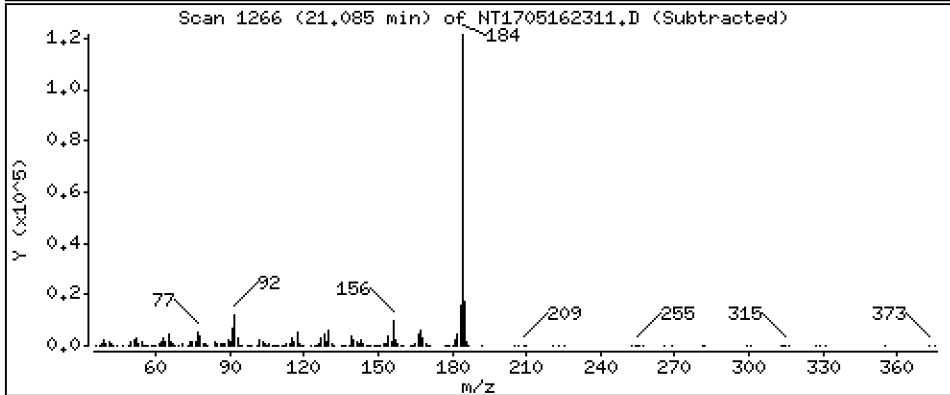
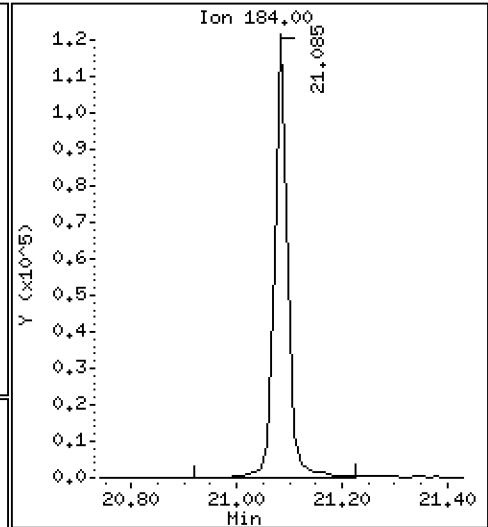
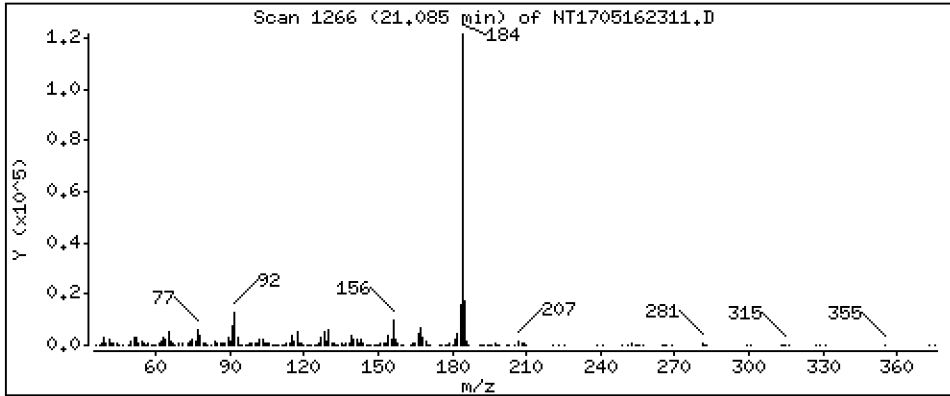
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 3,457 ug/mL

93 Benzidine



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

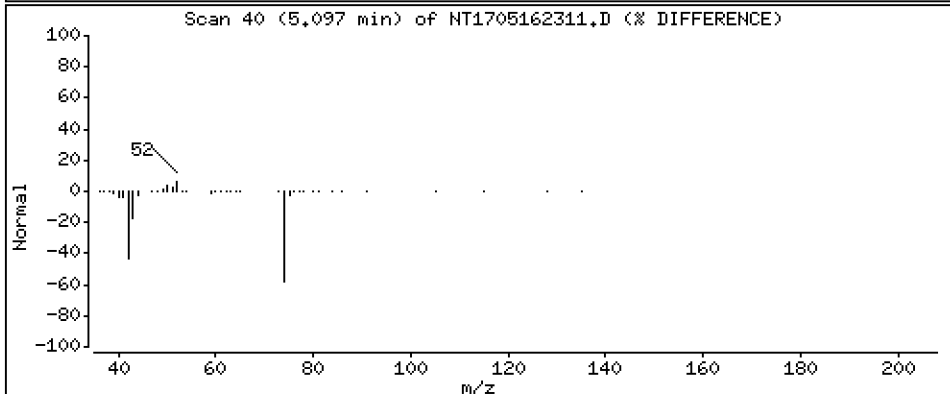
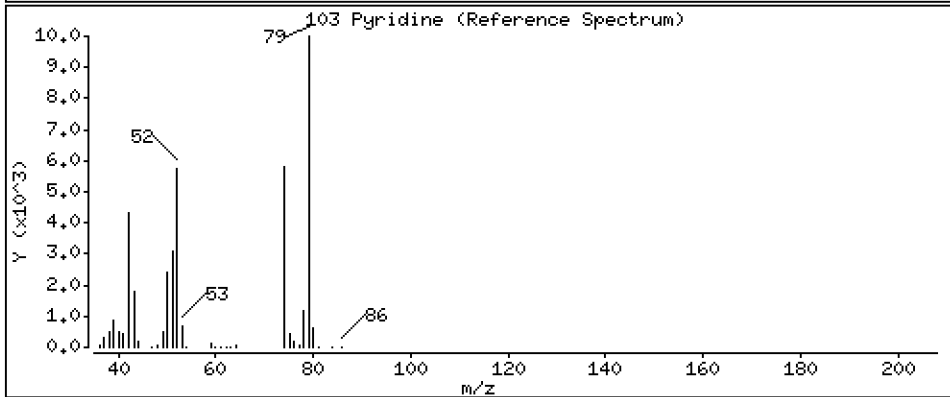
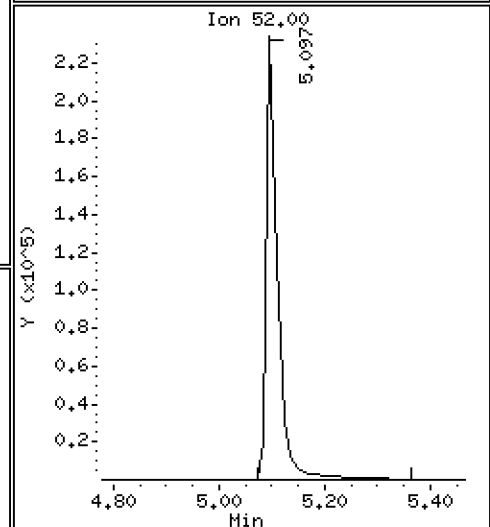
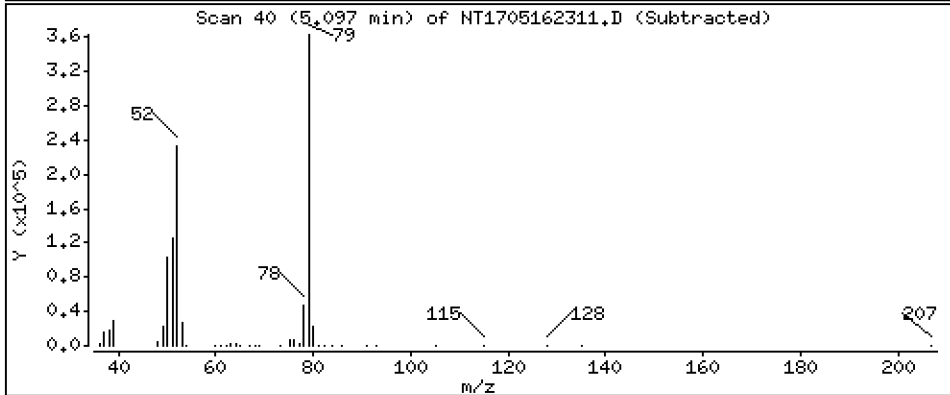
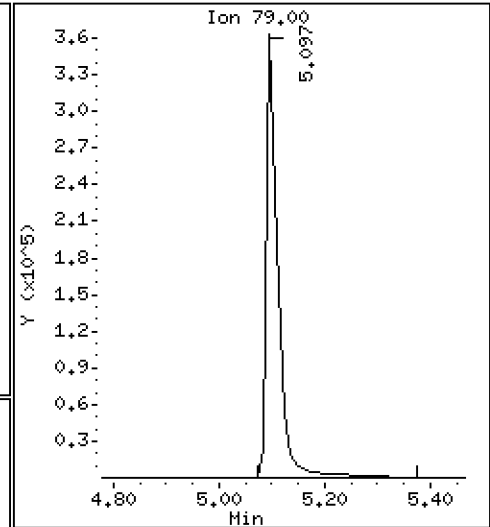
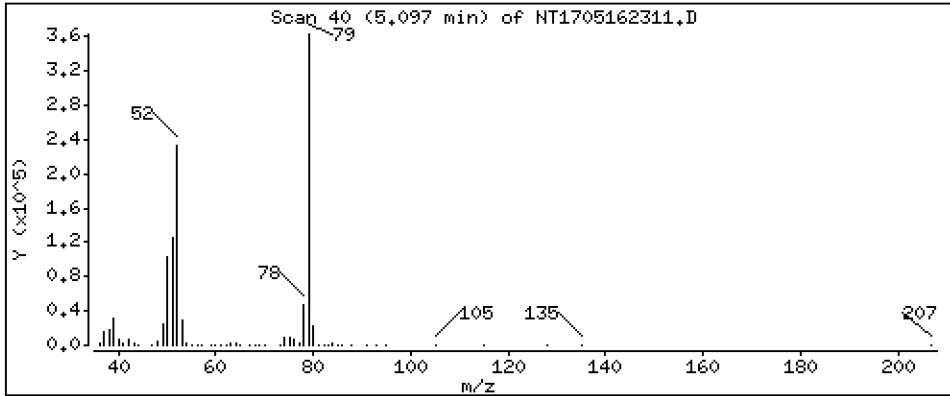
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,811 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

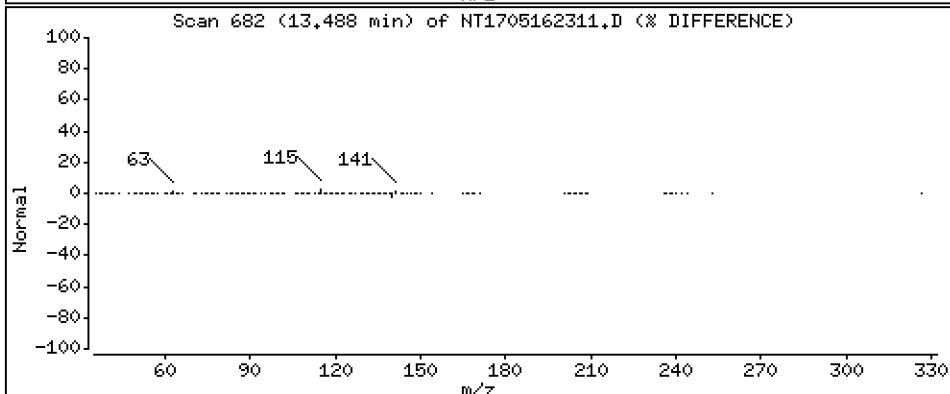
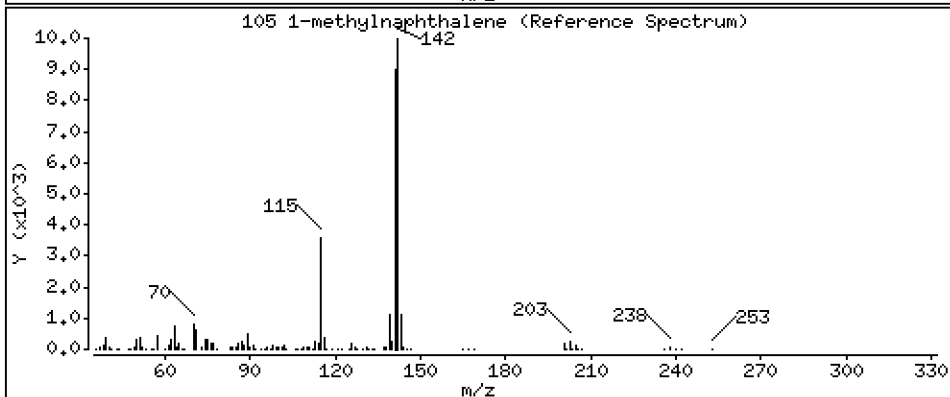
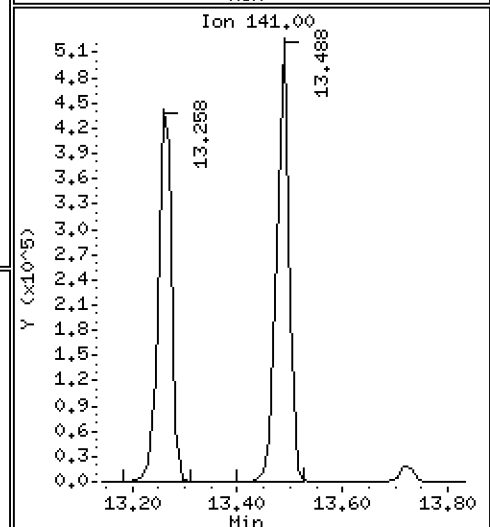
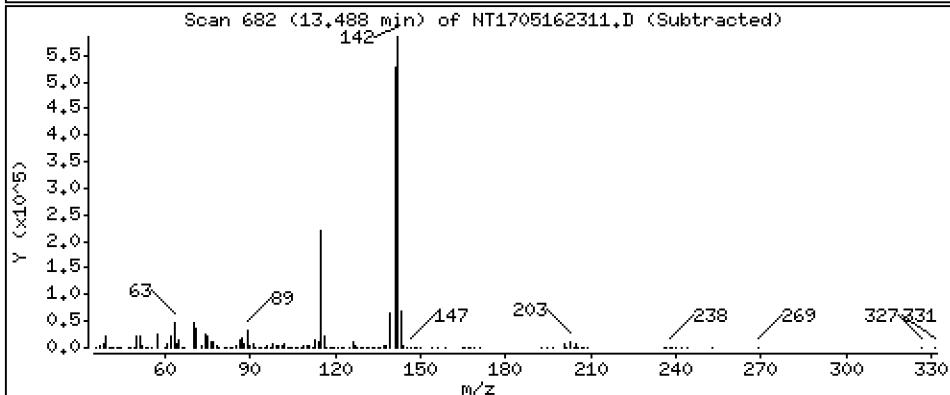
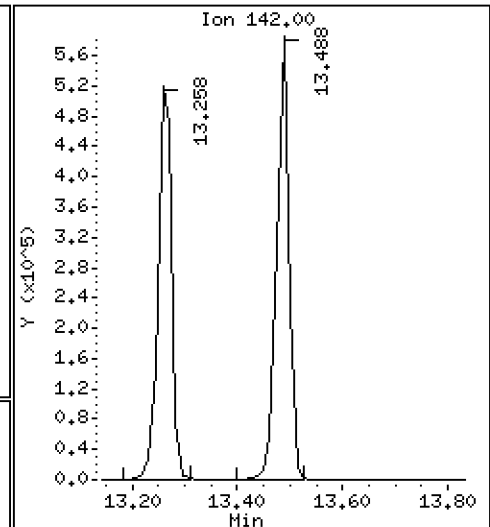
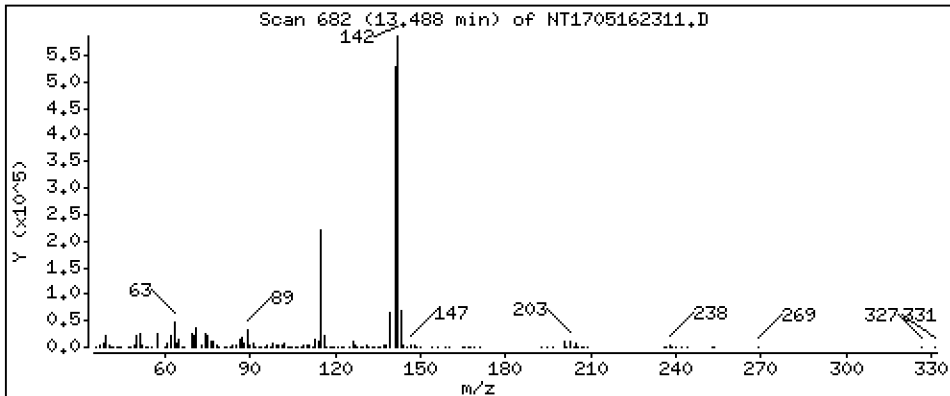
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 5,250 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

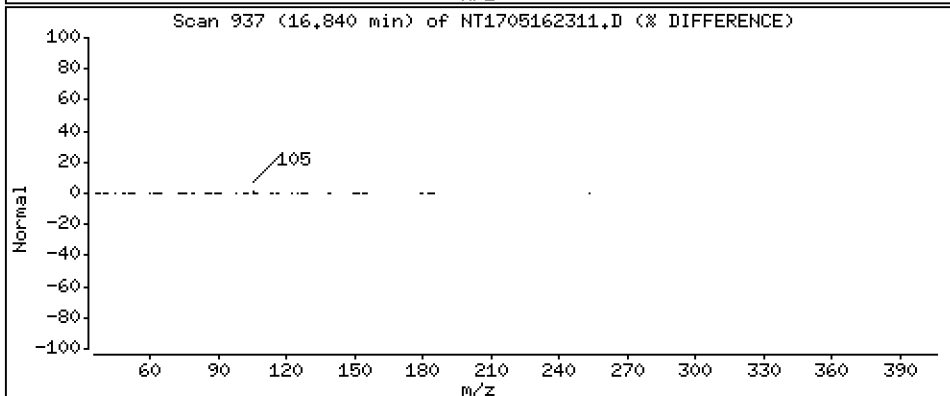
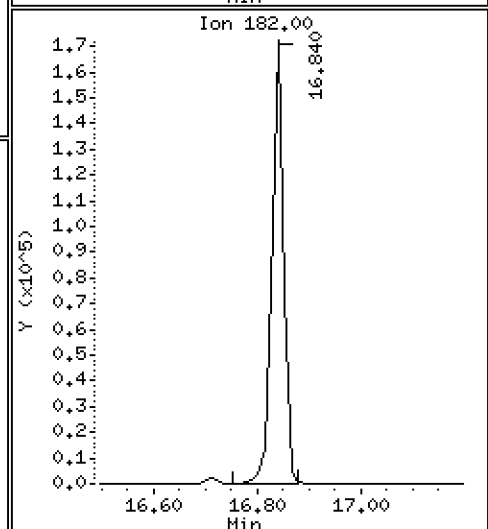
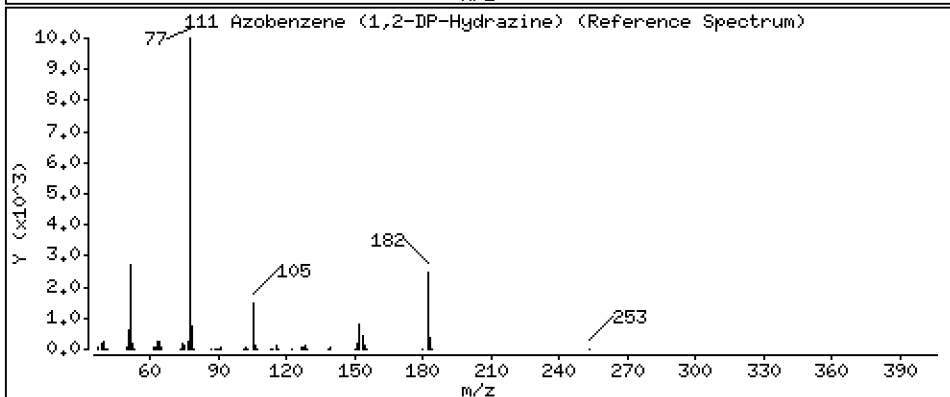
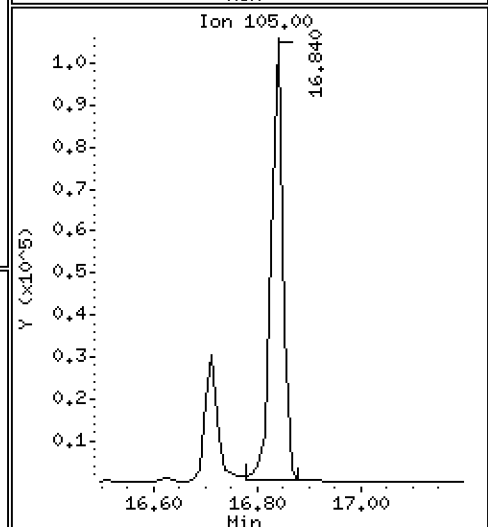
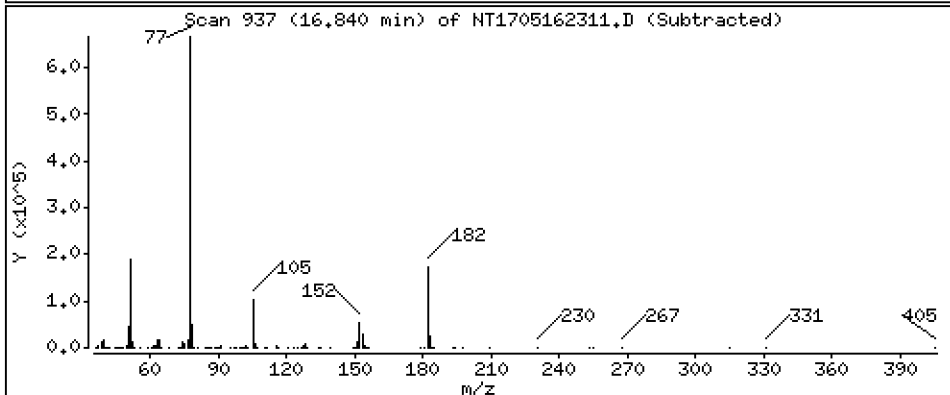
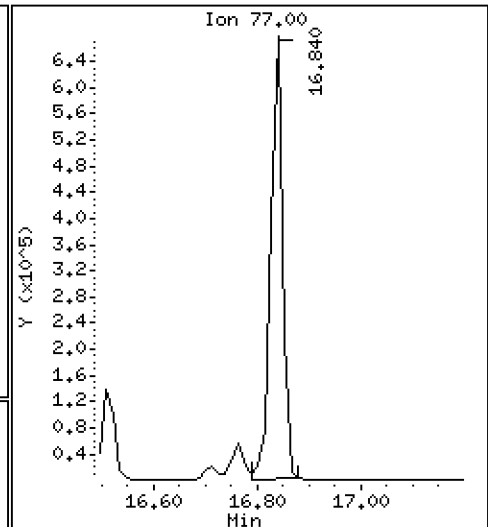
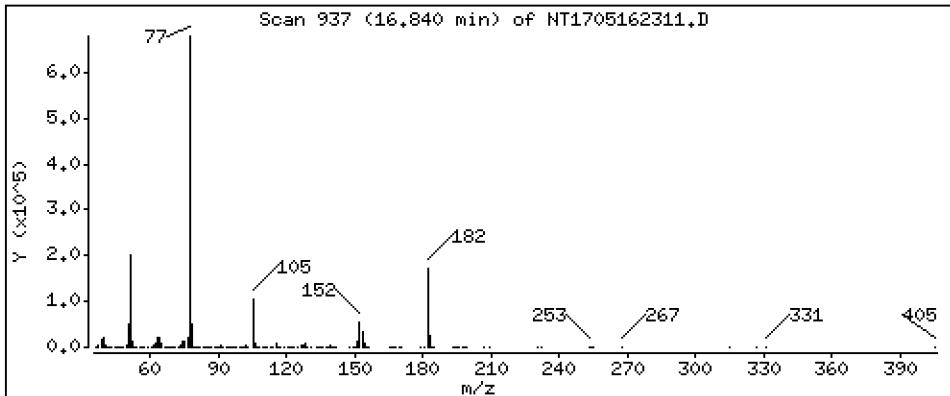
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5.338 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

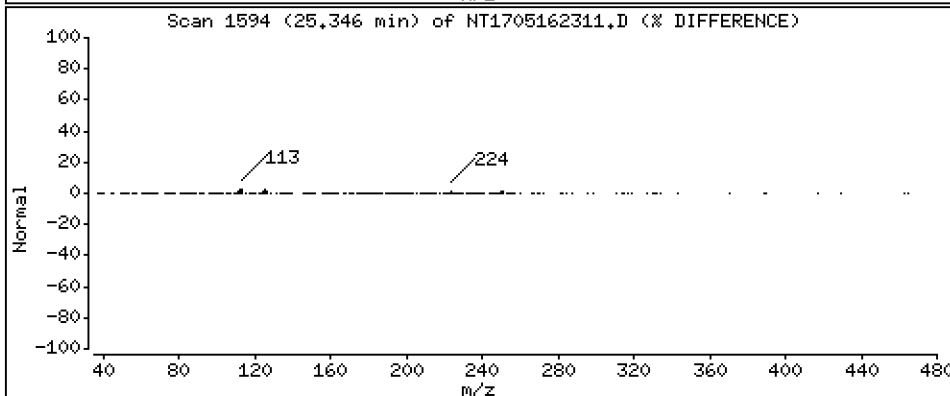
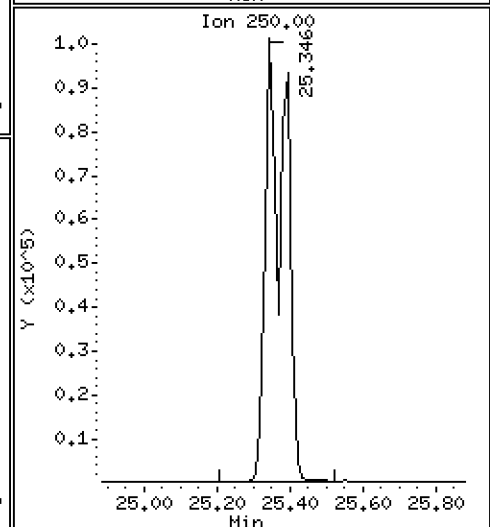
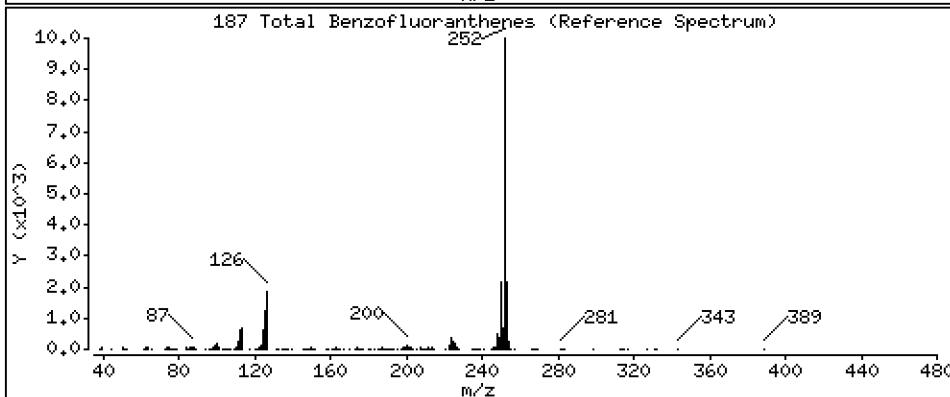
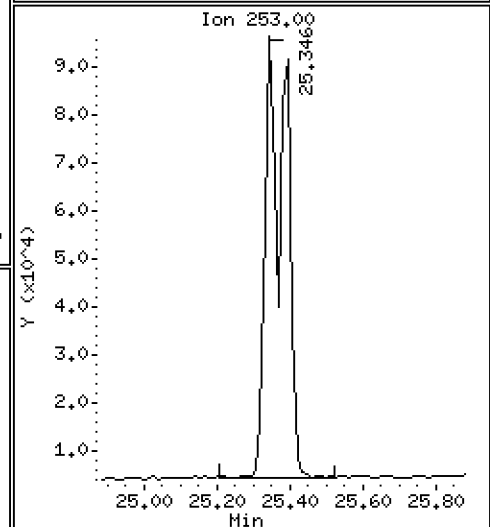
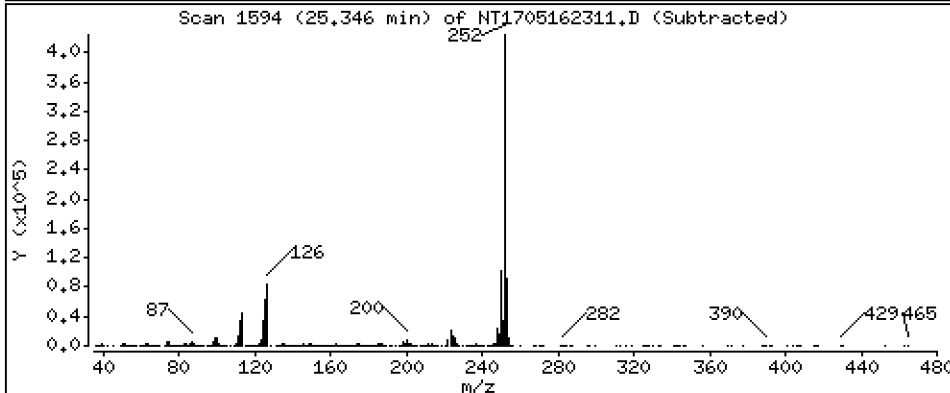
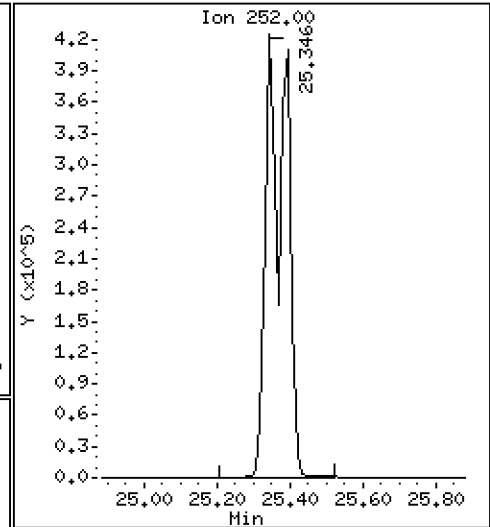
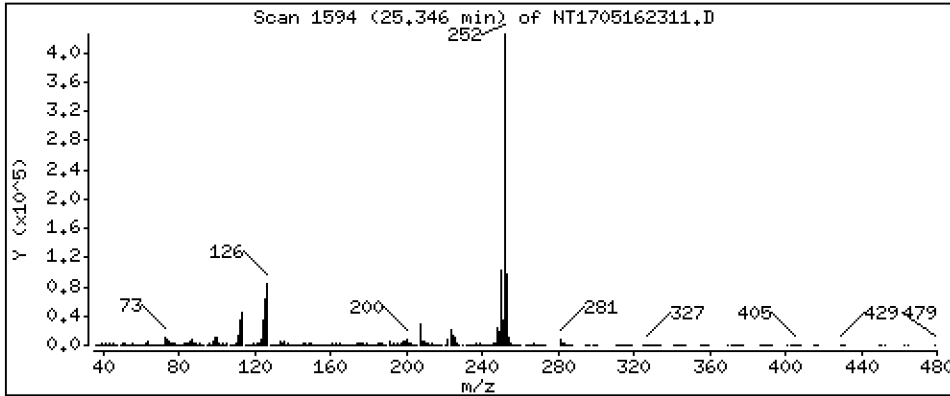
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,02 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

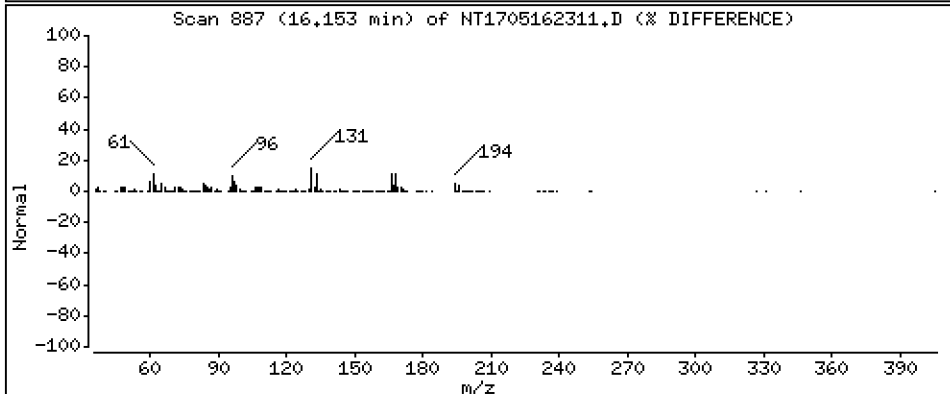
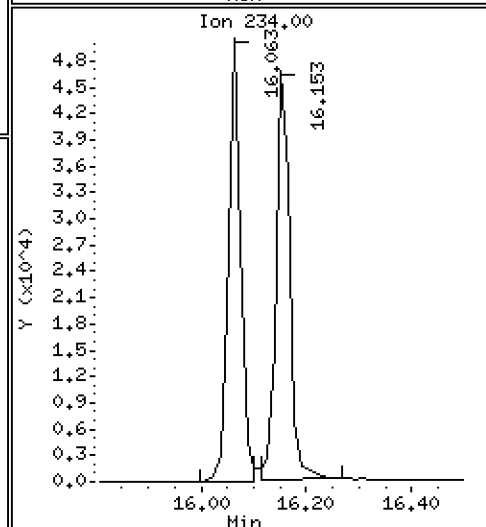
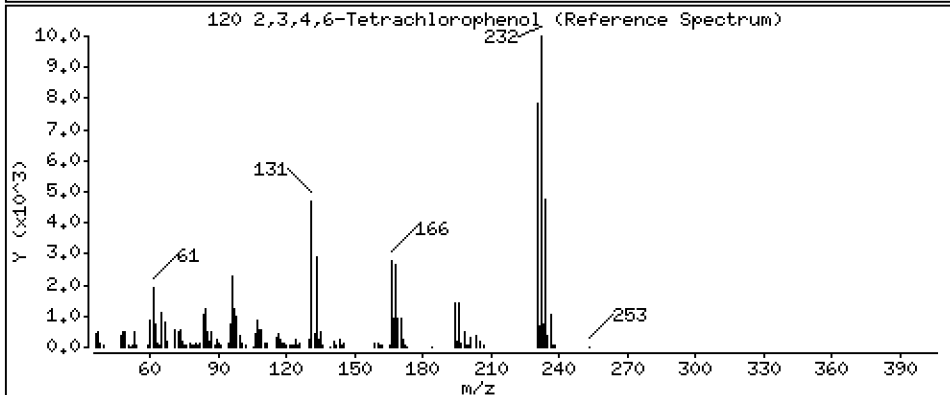
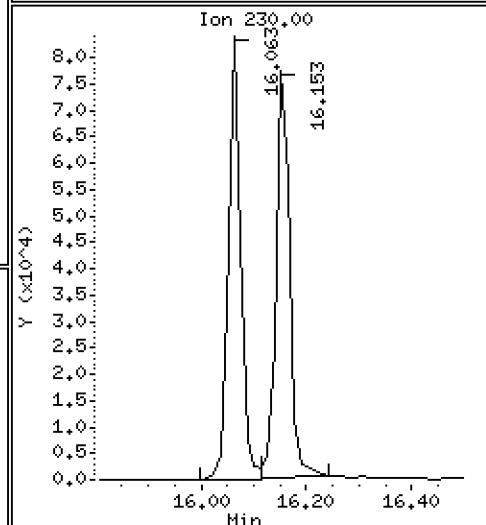
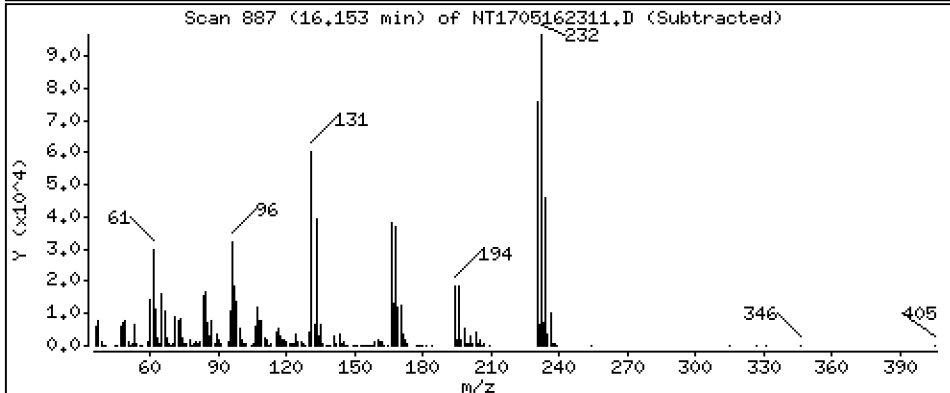
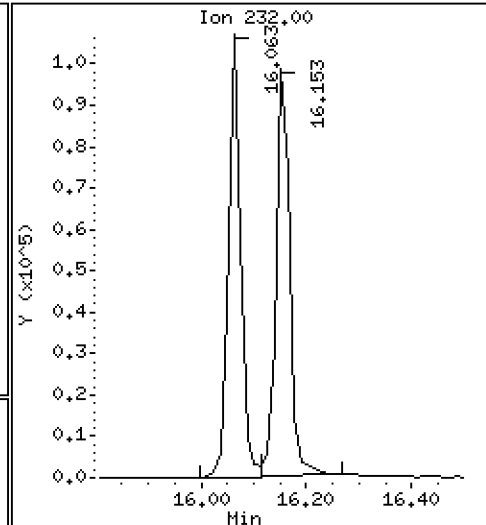
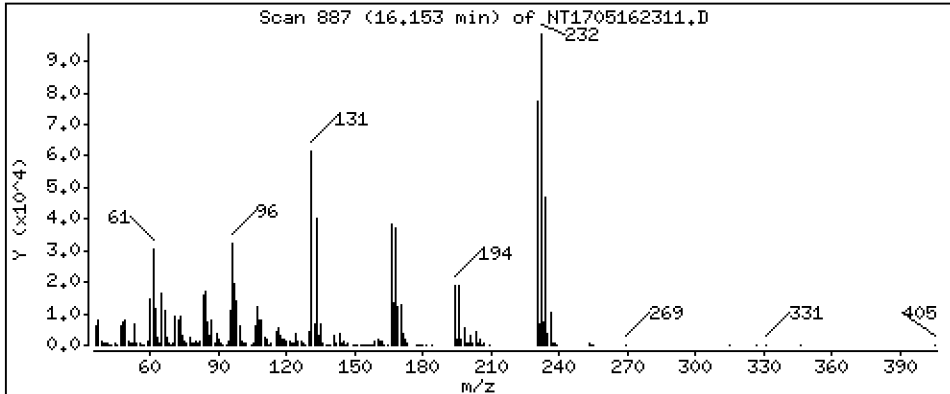
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,283 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162311.D
 Lab Smp Id: SLE0338-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0338-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112					Compound Not Detected.		
\$ 2 Phenol-d5	99					Compound Not Detected.		
3 Phenol	94		8.740	8.740	(0.933)	588001	4.82293	4.823
\$ 5 2-Chlorophenol-d4	132					Compound Not Detected.		
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	494651	5.56554	5.566
6 2-Chlorophenol	128		9.033	9.033	(0.965)	539006	5.29416	5.294
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	548081	5.31911	5.319
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	265705	4.00000	
9 1,4-Dichlorobenzene	146		9.390	9.391	(1.003)	521173	5.07146	5.071
\$ 10 1,2-Dichlorobenzene-d4	152					Compound Not Detected.		
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	507921	5.25771	5.258
11 Benzyl alcohol	108		9.633	9.633	(1.029)	299374	5.27414	5.274
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	168255	6.17916	6.179
13 2-Methylphenol	108		9.850	9.851	(1.052)	378927	4.22901	4.229
17 Hexachloroethane	117		10.336	10.336	(1.104)	222748	5.41856	5.419
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	378231	5.51734	5.517
15 4-Methylphenol	108		10.119	10.119	(1.080)	425231	4.66096	4.661
\$ 18 Nitrobenzene-d5	82					Compound Not Detected.		
19 Nitrobenzene	77		10.489	10.489	(0.886)	558517	5.32891	5.329
20 Isophorone	82		10.924	10.924	(0.922)	996054	6.94254	6.943
21 2-Nitrophenol	139		11.115	11.115	(0.939)	247403	4.89866	4.899
22 2,4-Dimethylphenol	107		11.153	11.154	(0.942)	371455	3.78811	3.788
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	547968	6.23185	6.232
24 Benzoic acid	105		11.332	11.333	(0.957)	445958	6.76086	6.761
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	370930	4.70748	4.707
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	503147	5.87937	5.879
* 27 Naphthalene-d8	136		11.842	11.830	(1.000)	965231	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	1361438	5.12904	5.129
29 4-Chloroaniline	127		11.995	11.995	(1.013)	469527	4.48751	4.488
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	222159	5.24062	5.241
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	413906	4.87847	4.878
32 2-Methylnaphthalene	142		13.258	13.258	(1.120)	955574	5.02794	5.028
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	201170	4.21896	4.219

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.883	13.883	(0.899)	257193	4.79376	4.794	
35 2,4,5-Trichlorophenol	196		13.959	13.959	(0.904)	274739	4.83728	4.837	
§ 36 2-Fluorobiphenyl	172		Compound Not Detected.						
37 2-Chloronaphthalene	162		14.252	14.253	(0.923)	885085	5.40065	5.401	
38 2-Nitroaniline	65		14.507	14.508	(0.940)	297267	5.35584	5.356	
39 Dimethylphthalate	163		14.928	14.929	(0.967)	955980	5.41824	5.418	
40 Acenaphthylene	152		15.120	15.120	(0.979)	1374665	5.28203	5.282	
41 2,6-Dinitrotoluene	165		15.069	15.069	(0.976)	223225	5.40390	5.404	
* 42 Acenaphthene-d10	164		15.438	15.426	(1.000)	512787	4.00000		
43 3-Nitroaniline	138		15.362	15.349	(0.995)	197758	5.16887	5.169	
44 Acenaphthene	153		15.502	15.502	(1.004)	859485	5.28316	5.283	
45 2,4-Dinitrophenol	184		15.566	15.567	(1.008)	52944	2.11874	2.119	
46 Dibenzofuran	168		15.821	15.821	(1.025)	1172327	5.16305	5.163	
47 4-Nitrophenol	109		15.668	15.681	(1.015)	114450	4.50365	4.504	
48 2,4-Dinitrotoluene	165		15.872	15.872	(1.028)	284935	5.26937	5.269	
50 Diethylphthalate	149		16.369	16.369	(1.060)	945291	5.49374	5.494	
49 Fluorene	166		16.535	16.535	(1.071)	1165179	5.39758	5.398	
51 4-Chlorophenyl-phenylether	204		16.522	16.509	(1.070)	542088	5.46212	5.462	
52 4-Nitroaniline	138		16.624	16.611	(1.077)	184970	5.10772	5.108	
53 4,6-Dinitro-2-methylphenol	198		16.713	16.713	(0.905)	113822	3.35487	3.355	
54 N-Nitrosodiphenylamine	169		16.764	16.764	(0.908)	651392	5.46976	5.470	
§ 55 2,4,6-Tribromophenol	330		Compound Not Detected.						
56 4-Bromophenyl-phenylether	248		17.514	17.515	(0.949)	226164	5.42020	5.420	
57 Hexachlorobenzene	284		17.833	17.833	(0.966)	208878	4.91276	4.913	
58 Pentachlorophenol	266		18.190	18.203	(0.985)	98895	3.94337	3.943	
* 59 Phenanthrene-d10	188		18.458	18.458	(1.000)	850147	4.00000		
60 Phenanthrene	178		18.509	18.496	(1.003)	1250084	5.03943	5.039	
61 Anthracene	178		18.598	18.598	(1.008)	1054910	4.52965	4.530	
62 Carbazole	167		18.917	18.918	(1.025)	896606	5.93842	5.938	
63 Di-n-butylphthalate	149		19.682	19.682	(1.066)	1586517	5.64164	5.642	
64 Fluoranthene	202		20.868	20.855	(0.890)	1308113	5.46710	5.467	
65 Pyrene	202		21.289	21.276	(0.908)	1277121	5.26528	5.265	
§ 66 Terphenyl-d14	244		Compound Not Detected.						
67 Butylbenzylphthalate	149		22.462	22.462	(0.958)	632335	5.82476	5.825	
68 Benzo(a)anthracene	228		23.419	23.419	(0.998)	953848	5.06413	5.064	
* 69 Chrysene-d12	240		23.457	23.445	(1.000)	511511	4.00000		
70 3,3'-Dichlorobenzidine	252		23.368	23.369	(0.996)	459041	11.9948	11.99	
71 Chrysene	228		23.496	23.496	(1.002)	889381	5.01800	5.018	
72 bis(2-Ethylhexyl)phthalate	149		23.470	23.470	(0.959)	875291	5.79218	5.792	
* 134 Di-n-octylphthalate-d4	153		24.465	24.465	(1.000)	1044471	4.00000		
73 Di-n-octylphthalate	149		24.465	24.465	(1.000)	1451463	5.48238	5.482	
74 Benzo(b)fluoranthene	252		25.345	25.345	(0.969)	887996	4.91157	4.912	
75 Benzo(k)fluoranthene	252		25.396	25.384	(0.971)	848094	4.96504	4.965 (H)	
76 Benzo(a)pyrene	252		26.034	26.022	(0.996)	736579	5.17185	5.172	
* 77 Perylene-d12	264		26.149	26.149	(1.000)	456008	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.946	28.933	(1.107)	830811	5.02922	5.029	
79 Dibenzo(a,h)anthracene	278		28.946	28.946	(1.107)	689006	4.96953	4.970	
80 Benzo(g,h,i)perylene	276		29.764	29.751	(1.138)	689189	5.05448	5.054	
90 N-Nitrosodimethylamine	74		5.071	5.071	(0.542)	334608	5.76731	5.767	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		21.085	21.085	(0.899)	208933	3.45722	3.457	
103 Pyridine	79		5.097	5.122	(0.544)	534742	5.81084	5.811	
105 1-methylnaphthalene	142		13.487	13.487	(1.139)	925646	5.25003	5.250	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.840	16.840	(1.091)	1072104	5.33771	5.338	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	1625913	10.0183	10.02
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	210743	3.28296	3.283

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162311.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	265705	-7.45
27 Naphthalene-d8	1056758	528379	2113516	965231	-8.66
42 Acenaphthene-d10	587510	293755	1175020	512787	-12.72
59 Phenanthrene-d10	933575	466788	1867150	850147	-8.94
69 Chrysene-d12	576570	288285	1153140	511511	-11.28
134 Di-n-octylphthala	1181651	590826	2363302	1044471	-11.61
77 Perylene-d12	491359	245680	982718	456008	-7.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311.D

Lab ID: SLE0338-SCV1
nt17.i, ABN.m, 17-MAY-2023 00:29

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

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0434-LCV1

Sequence: SLE0434

Standard ID: L005946

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.20000	0.2	-0.8	50.00
Benzyl Alcohol	0.20000	0.2	-20.7	50.00
4-Methylphenol	0.20000	0.2	-6.6	50.00
Naphthalene	0.20000	0.2	-1.2	50.00
2-Methylnaphthalene	0.20000	0.2	-6.3	50.00
Acenaphthylene	0.20000	0.2	3.6	50.00
Dibenzofuran	0.20000	0.2	-1.0	50.00
Fluorene	0.20000	0.2	12.0	50.00
Phenanthrene	0.20000	0.2	1.7	50.00
Anthracene	0.20000	0.2	-7.5	50.00
Fluoranthene	0.20000	0.2	-2.6	50.00
Pyrene	0.20000	0.2	1.8	50.00
Butylbenzylphthalate	0.20000	0.2	-2.8	50.00
Benzo(a)anthracene	0.20000	0.2	8.3	50.00
Chrysene	0.20000	0.2	4.8	50.00
bis(2-Ethylhexyl)phthalate	0.20000	0.2	-6.1	50.00
Benzo(a)fluoranthene, Total	0.40000	0.4	-0.9	50.00
Benzo(a)pyrene	0.20000	0.2	2.0	50.00
Indeno(1,2,3-cd)pyrene	0.20000	0.2	-1.1	50.00
Dibenzo(a,h)anthracene	0.20000	0.2	-2.2	50.00
Benzo(g,h,i)perylene	0.20000	0.2	-2.1	50.00
2-Fluorophenol	0.30000	0.276	-8.1	50.00
Phenol-d5	0.30000	0.282	-6.1	50.00
2-Chlorophenol-d4	0.30000	0.296	-1.3	50.00
1,2-Dichlorobenzene-d4	0.20000	0.218	8.8	50.00
Nitrobenzene-d5	0.20000	0.186	-7.1	50.00
2-Fluorobiphenyl	0.20000	0.204	2.1	50.00
2,4,6-Tribromophenol	0.30000	0.243	-19.2	50.00
p-Terphenyl-d14	0.20000	0.208	3.8	50.00



Analytical Resources, LLC
Analytical Chemists and Consultants

**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Calibration: GE00065

Sequence: SLE0434

SDG: 23D0396

Project: AOC5 MR Phase 1

Laboratory ID: SLE0434-LCV1

Standard ID: L005946

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262304.D

Date: 26-May-2023 14:31

Client ID:

Sample Info: SLE0434-LCW1

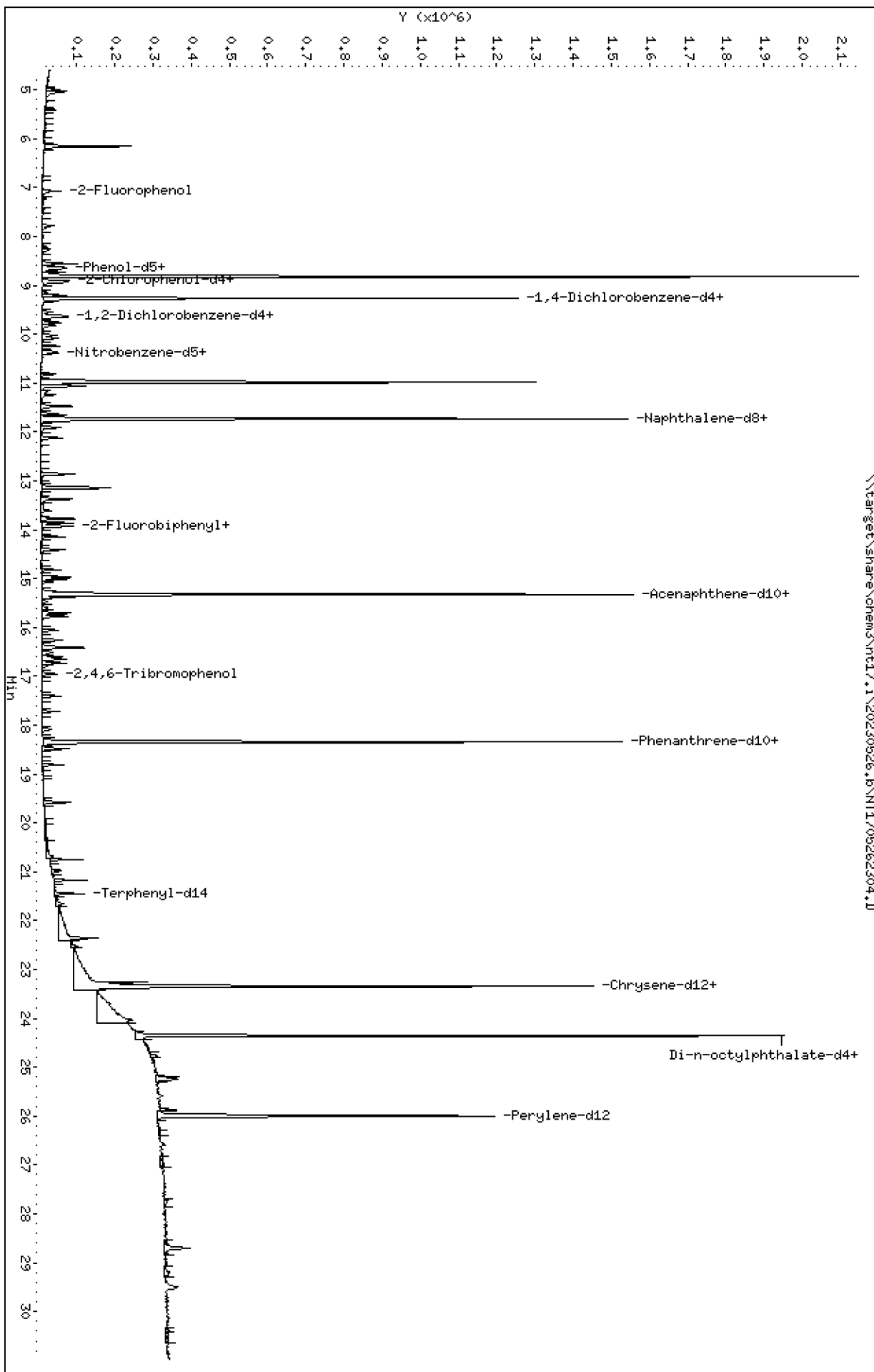
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

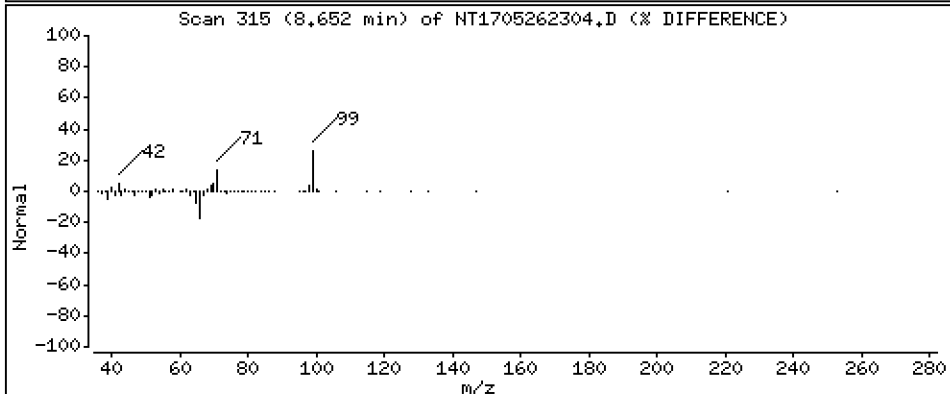
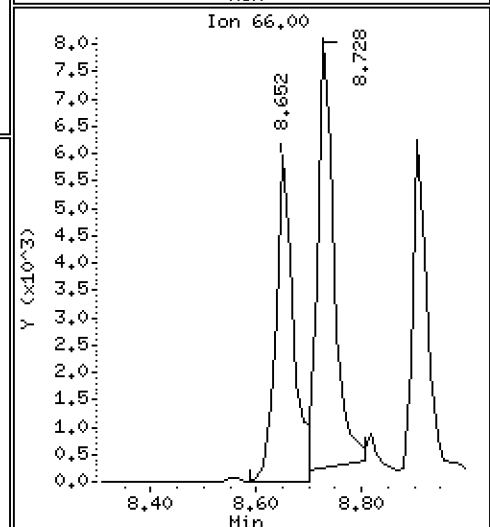
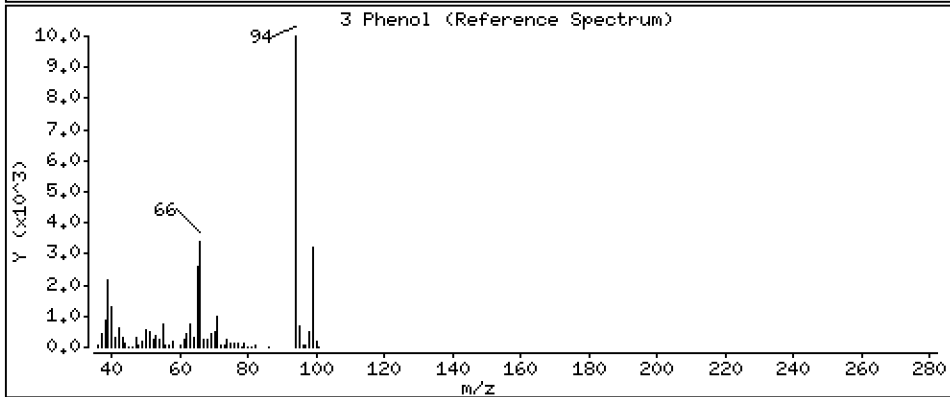
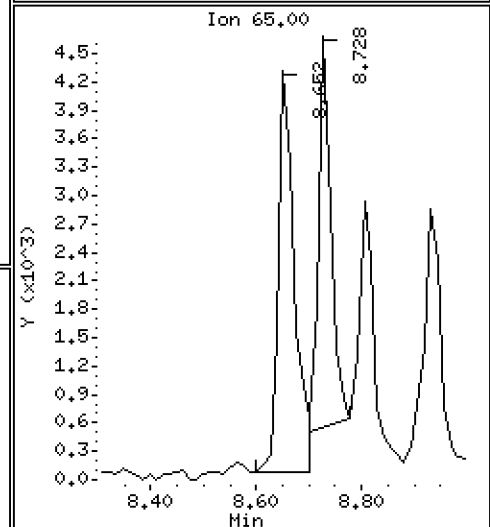
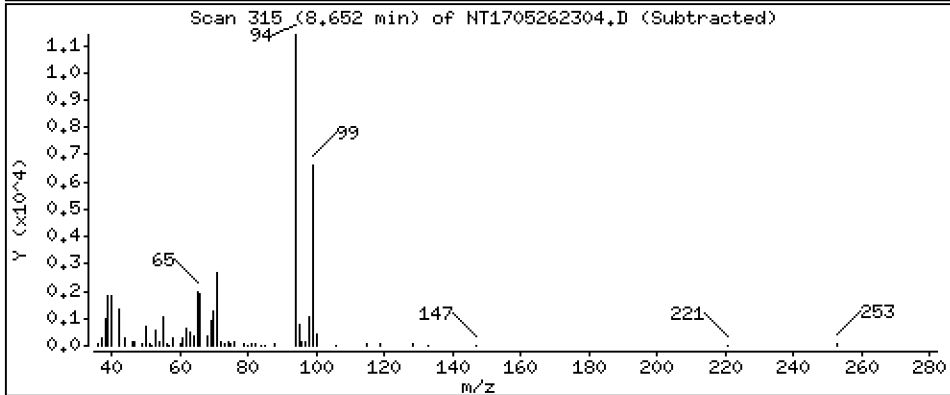
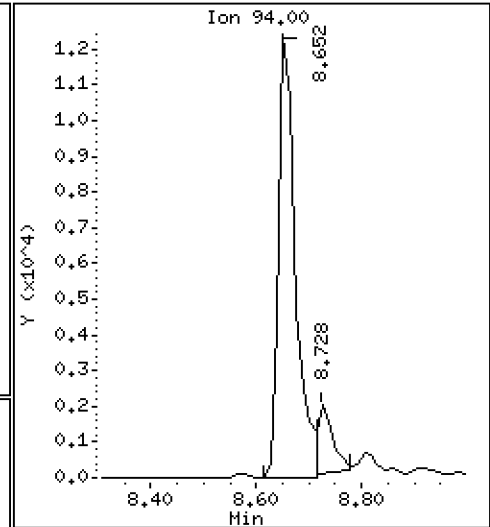
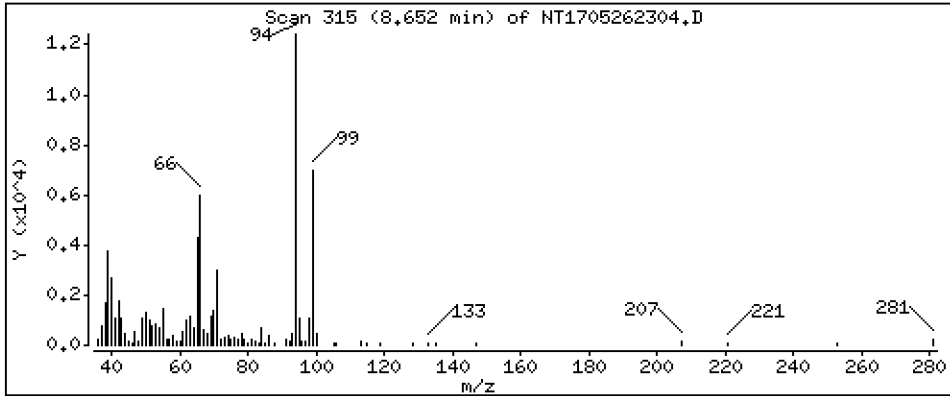
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1983 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

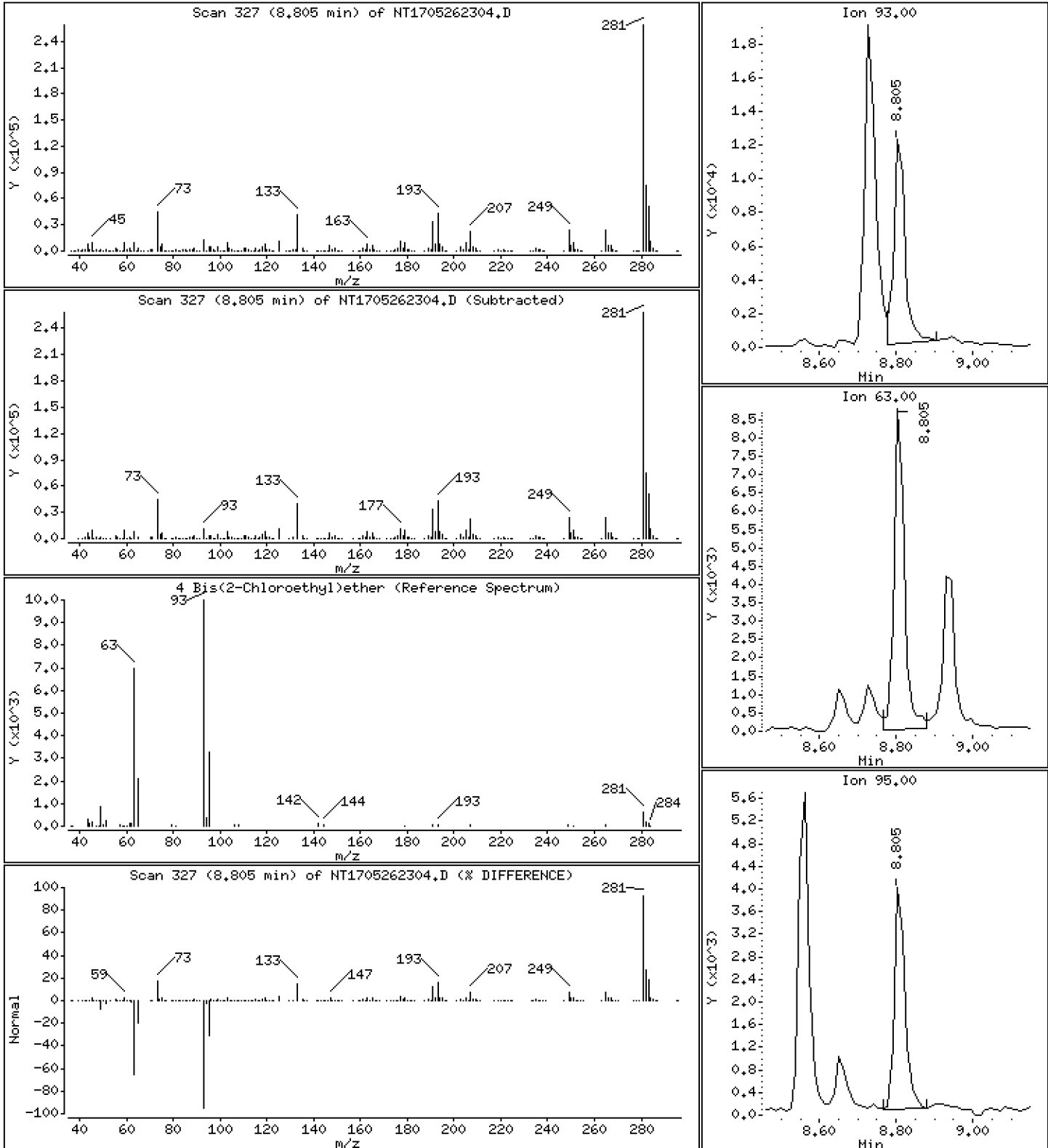
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,2369 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

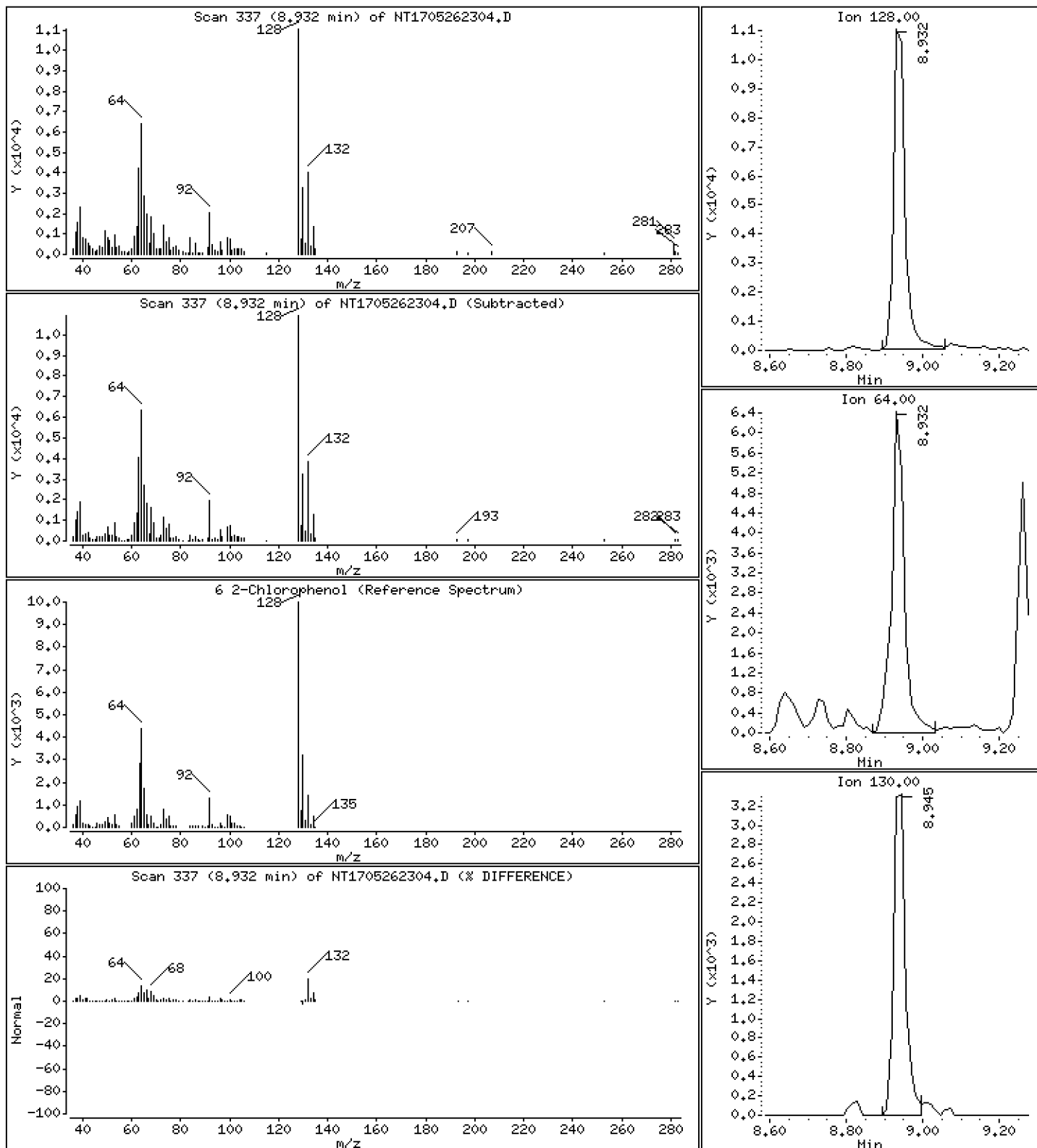
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,1888 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

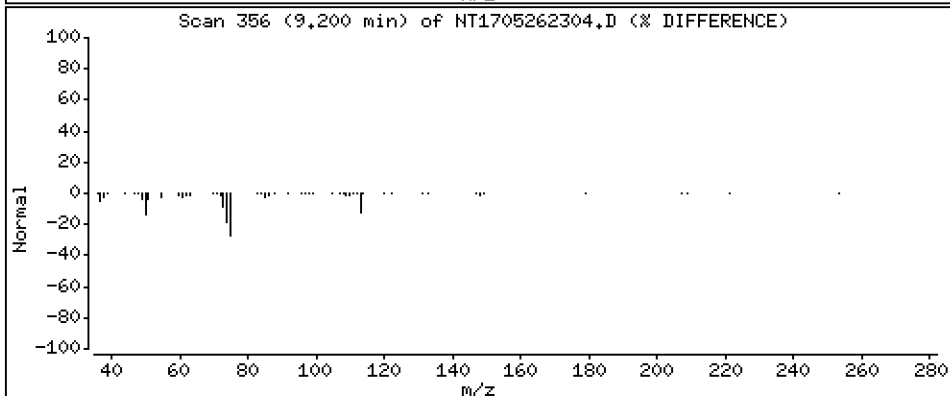
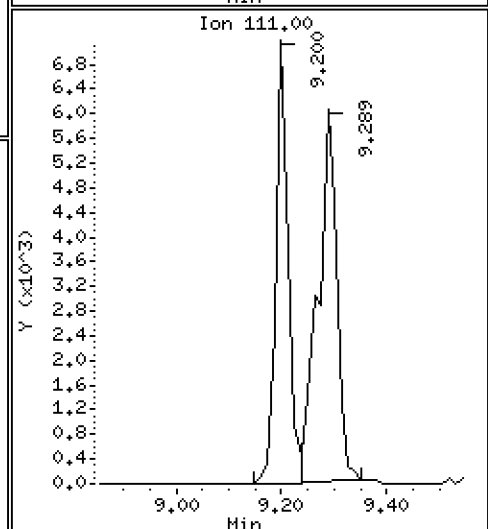
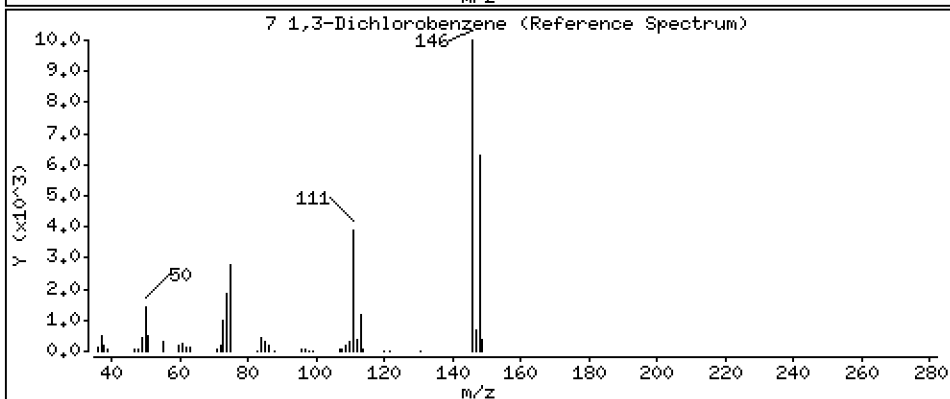
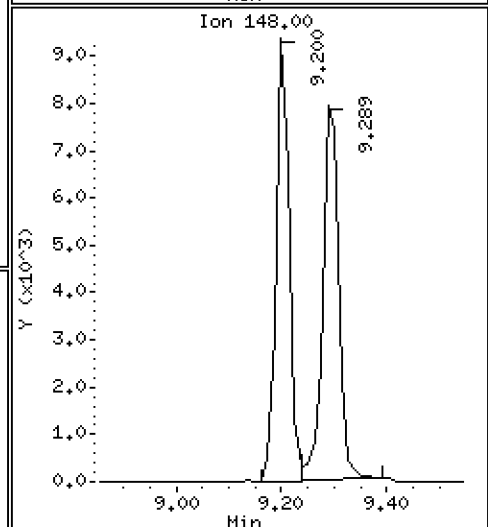
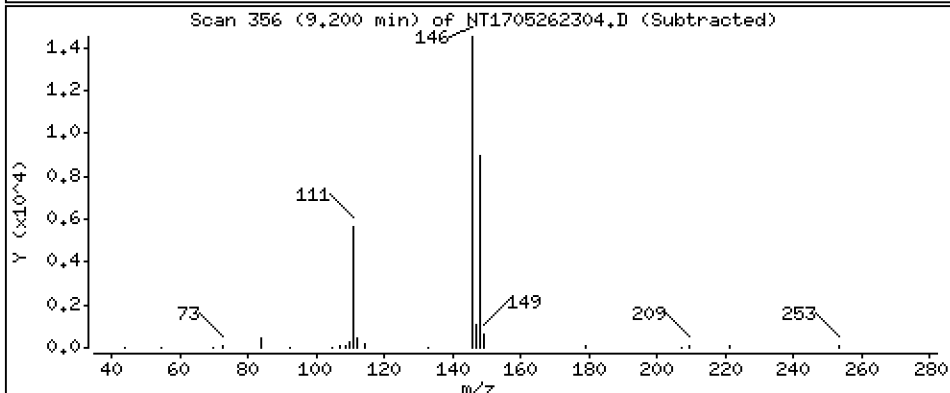
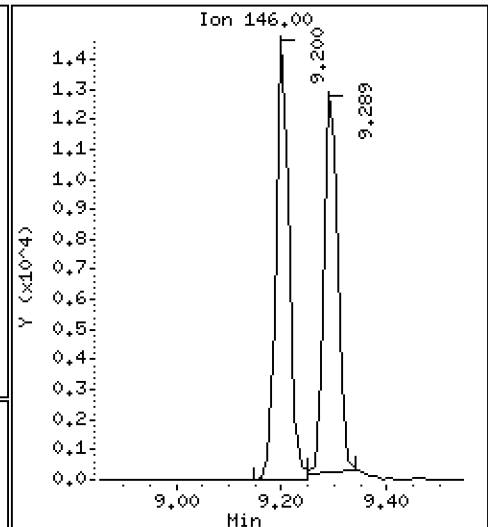
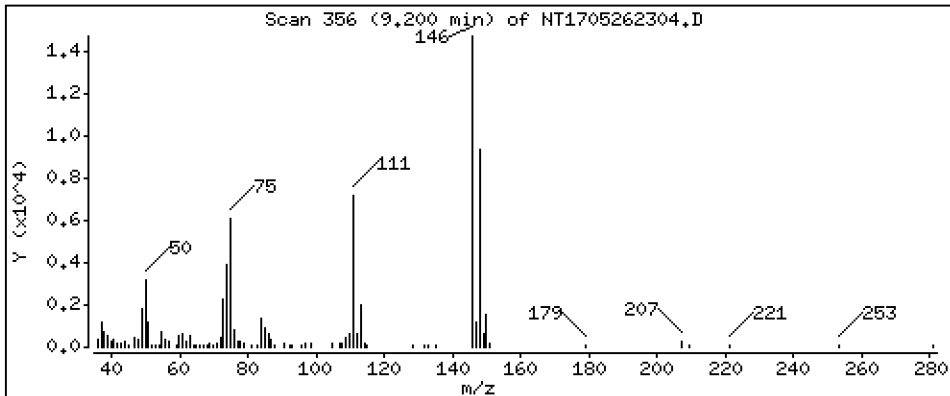
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,2088 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

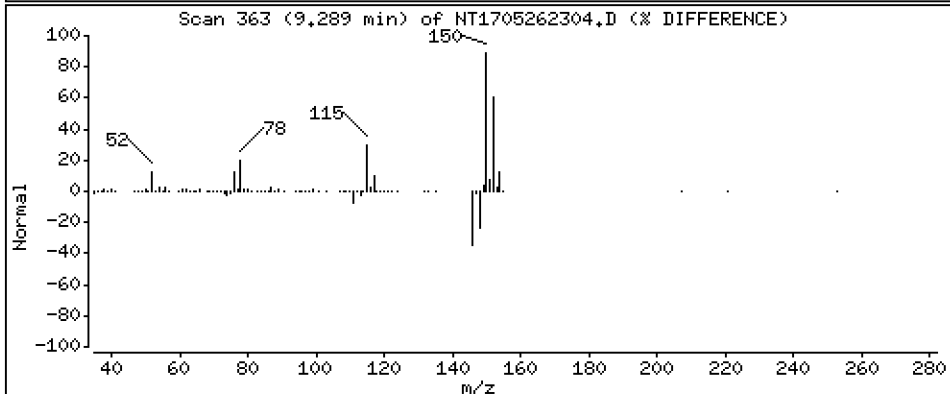
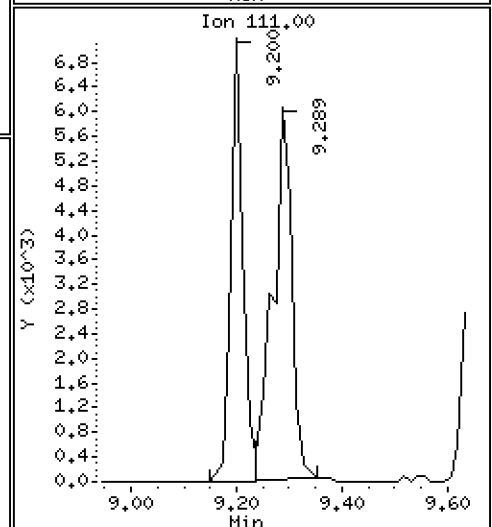
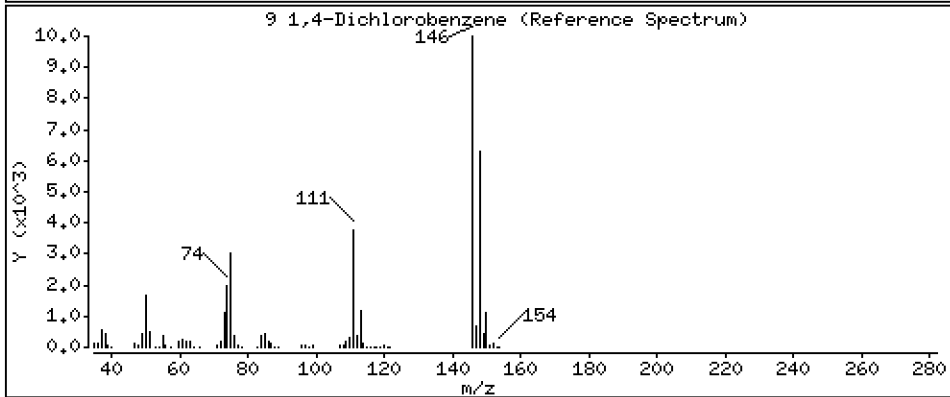
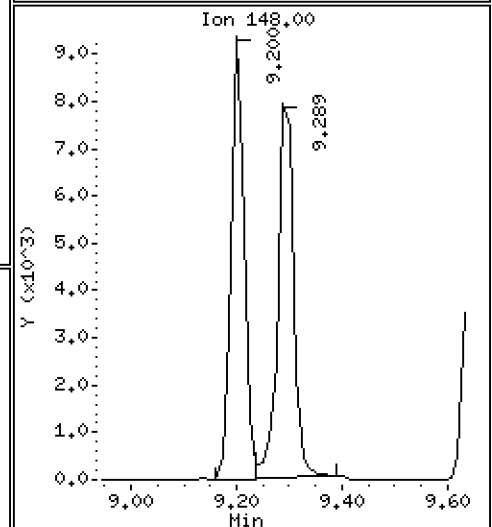
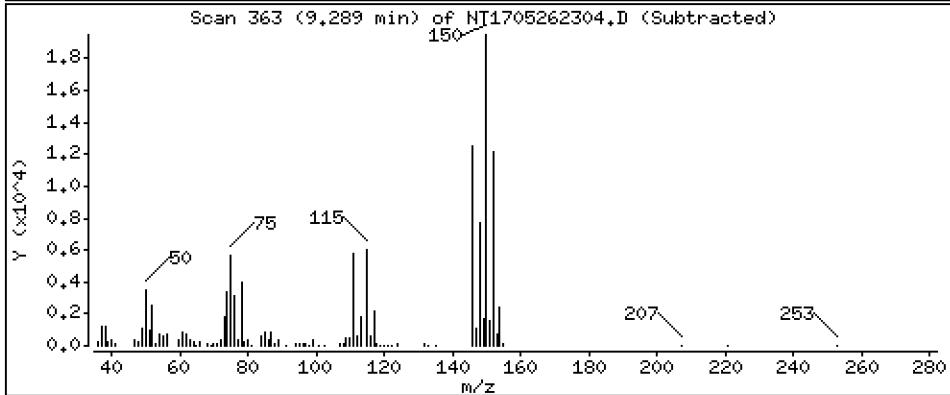
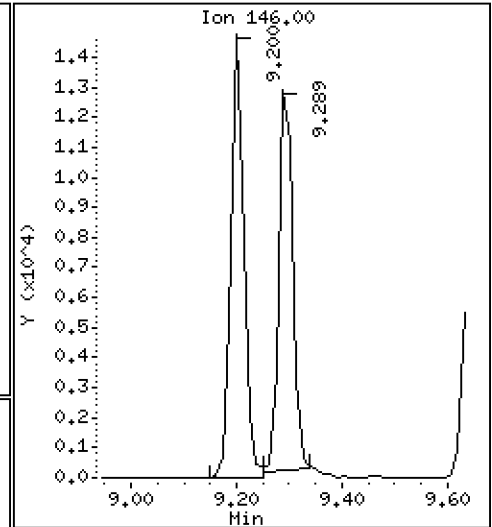
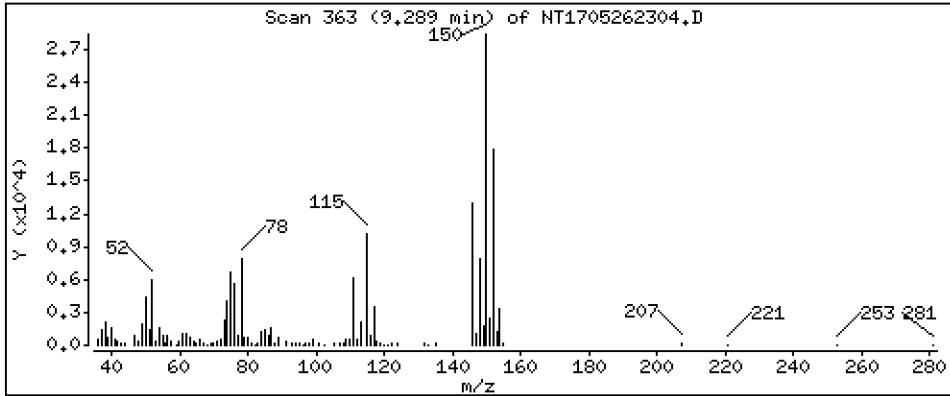
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.1906 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

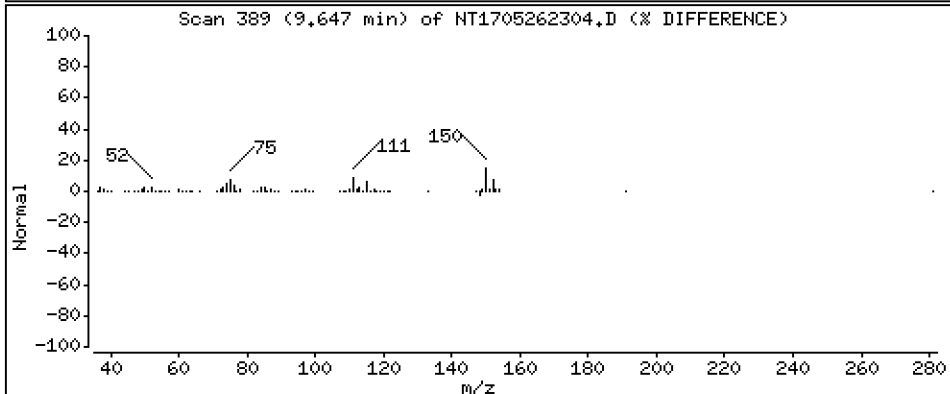
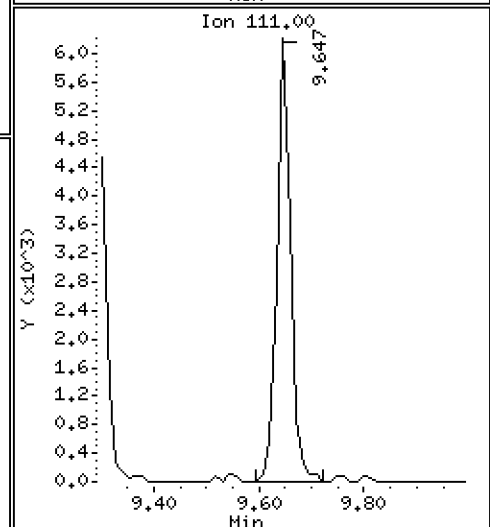
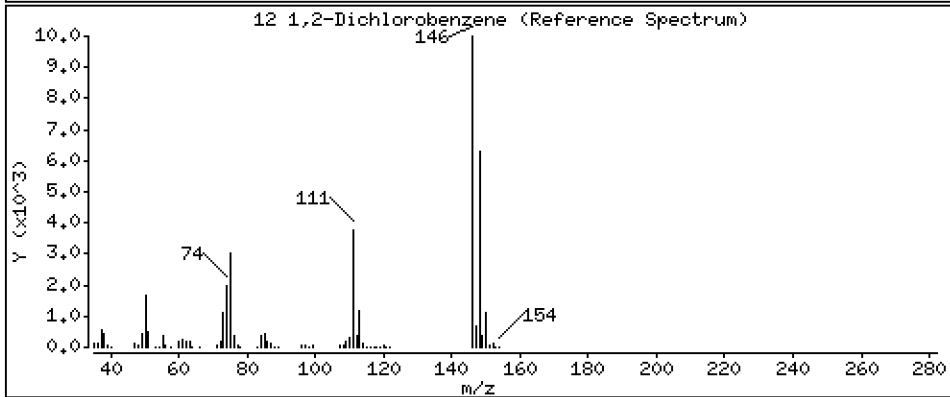
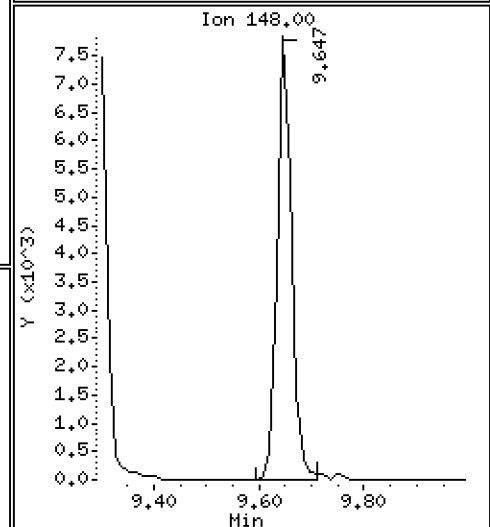
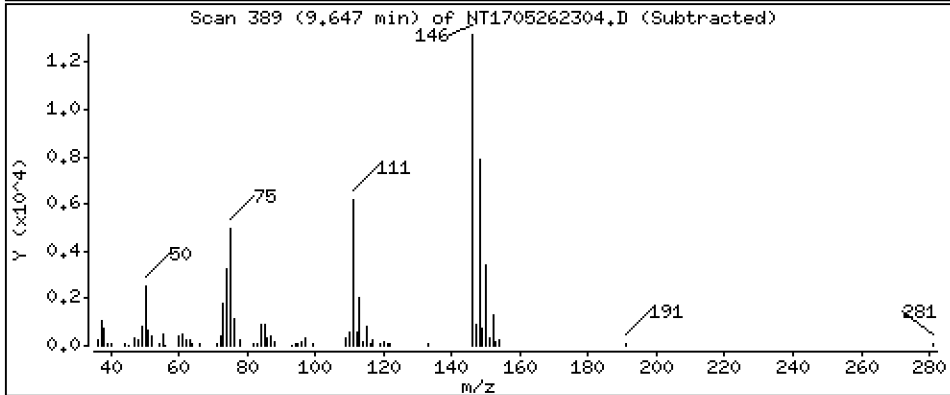
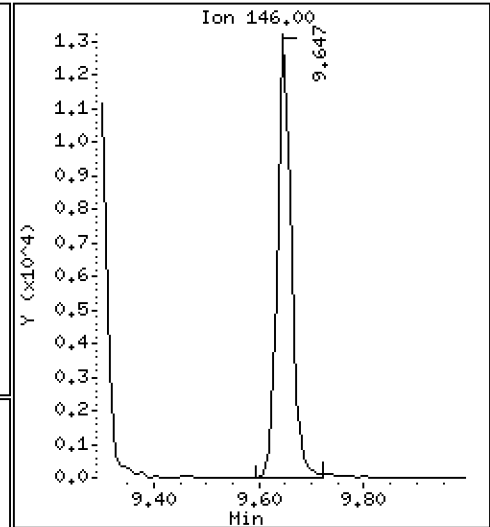
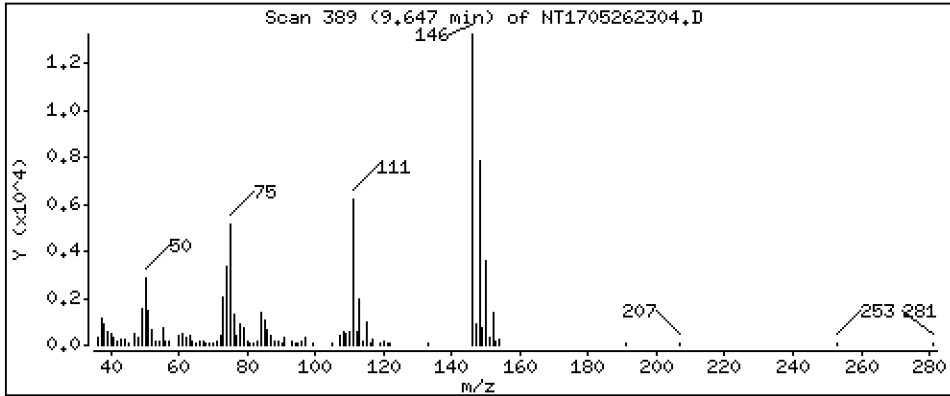
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,2120 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

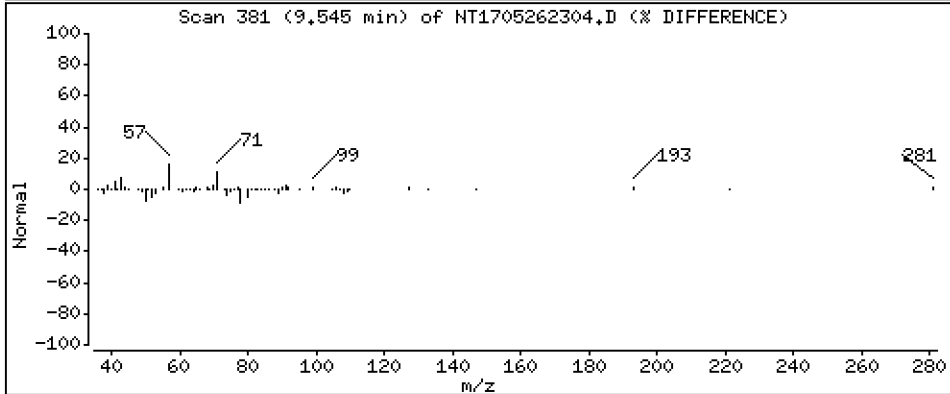
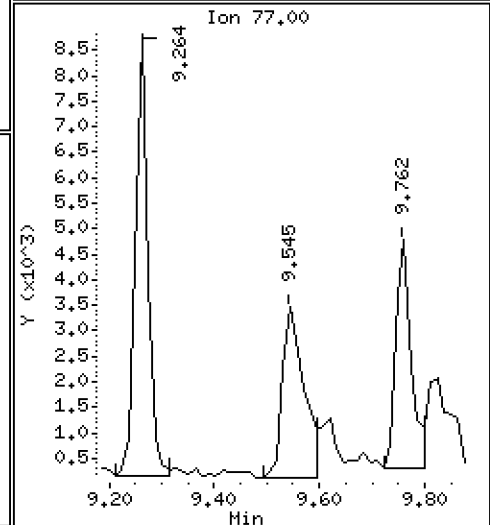
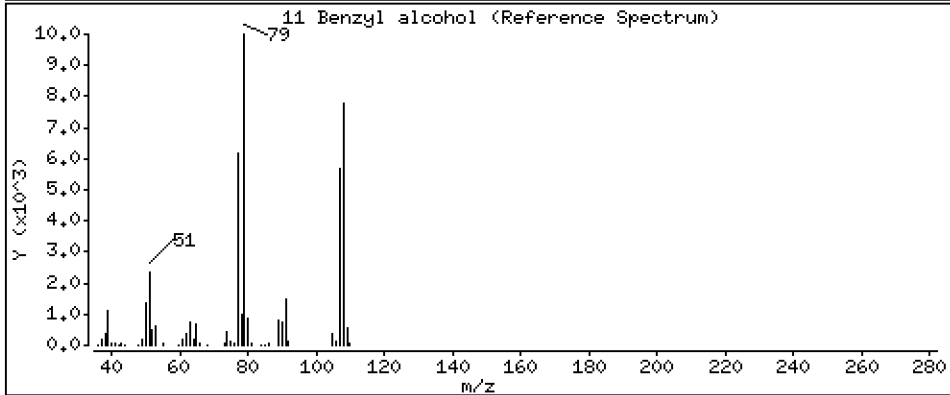
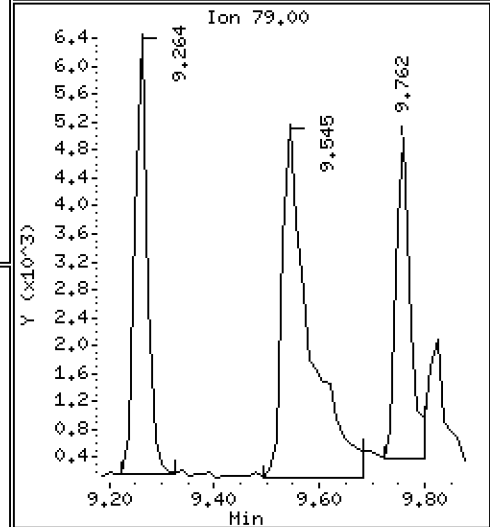
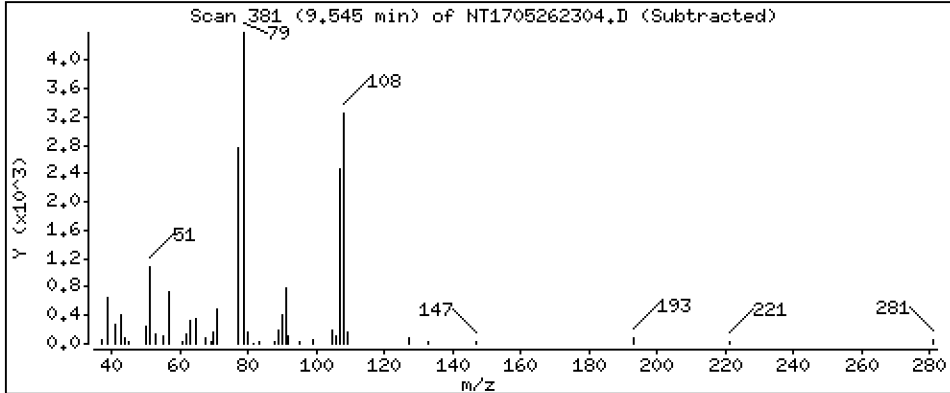
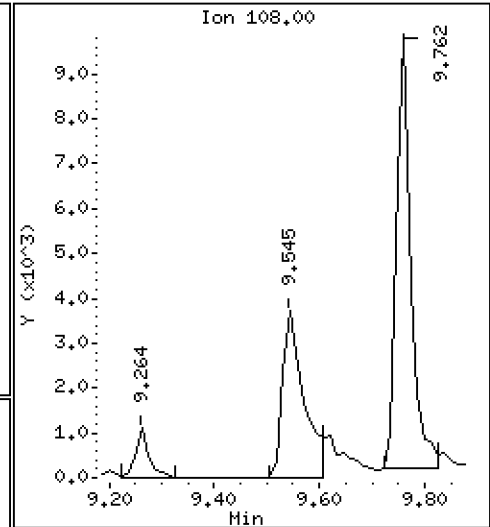
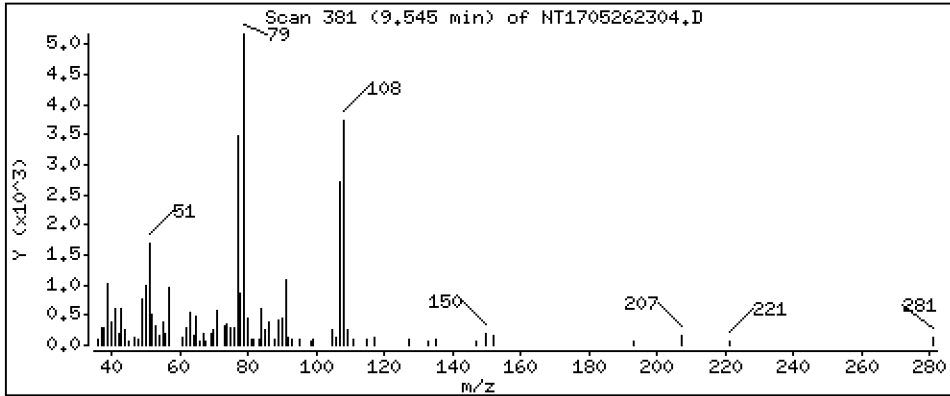
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,1586 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

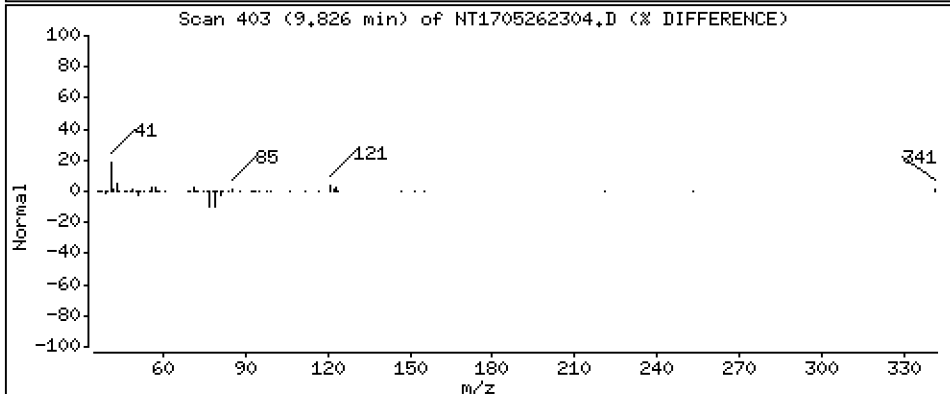
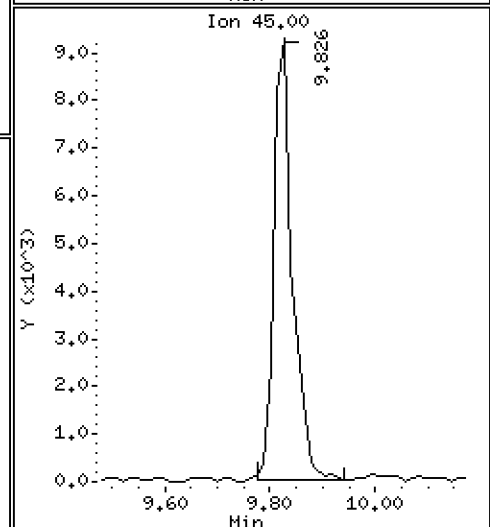
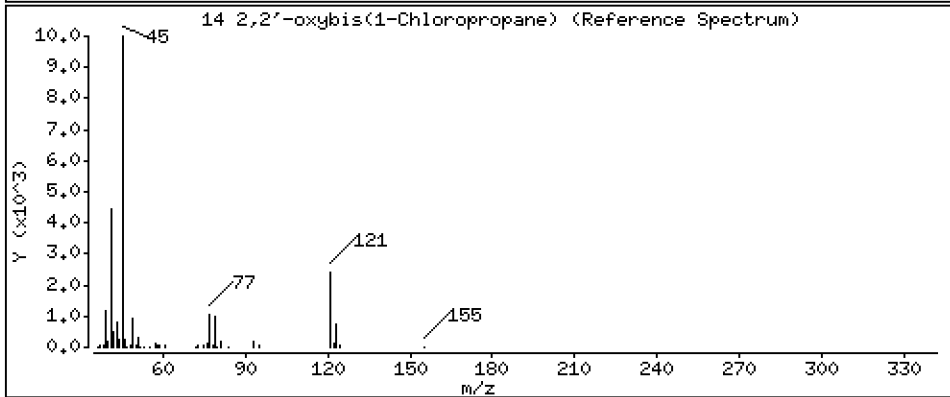
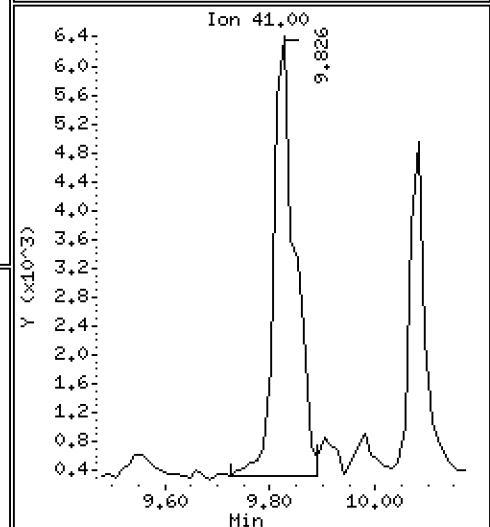
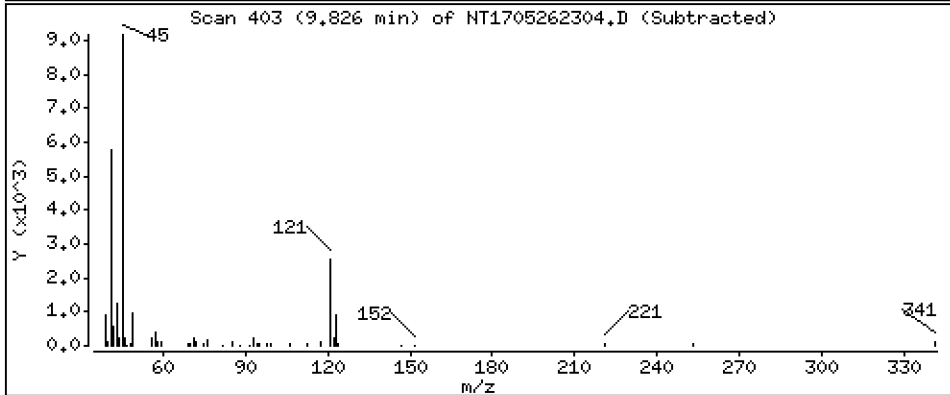
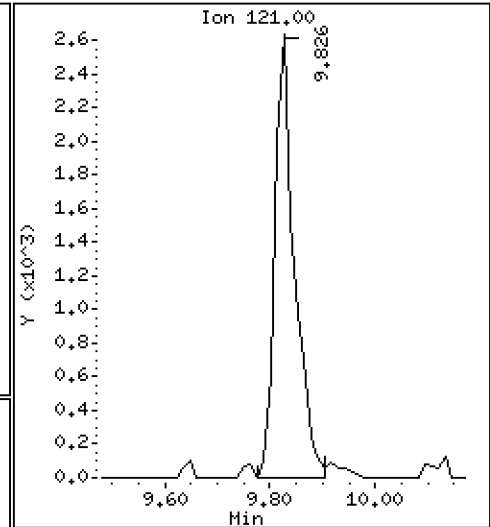
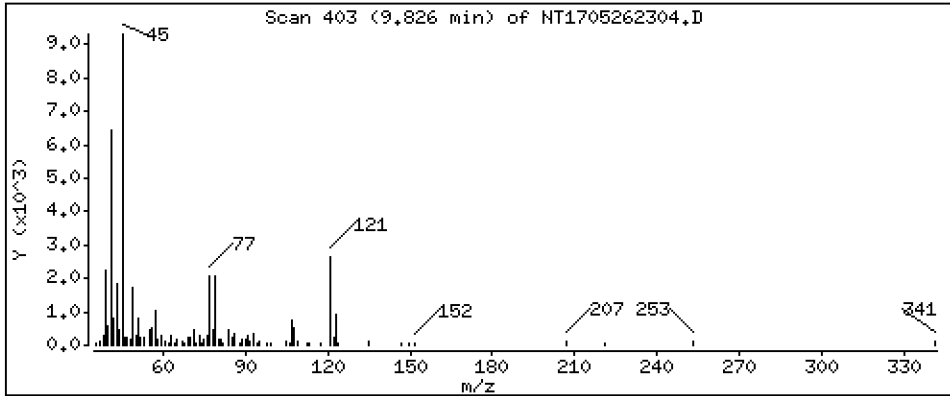
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.2123 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

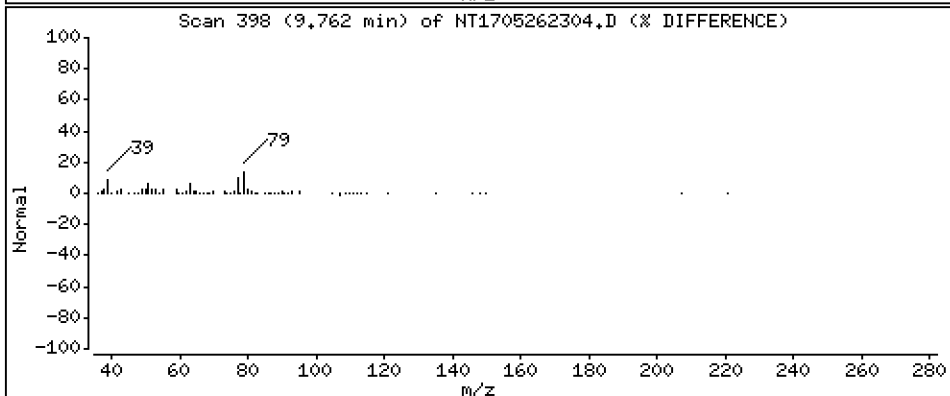
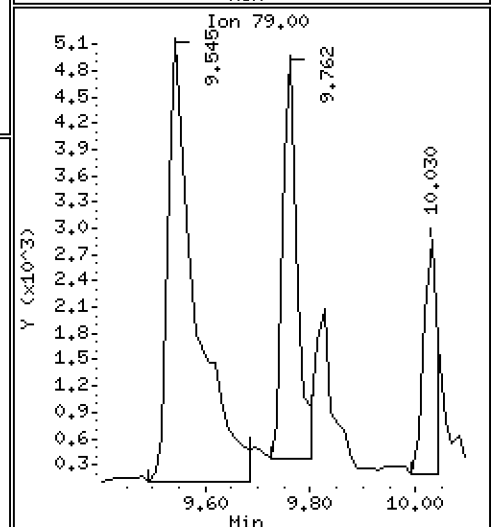
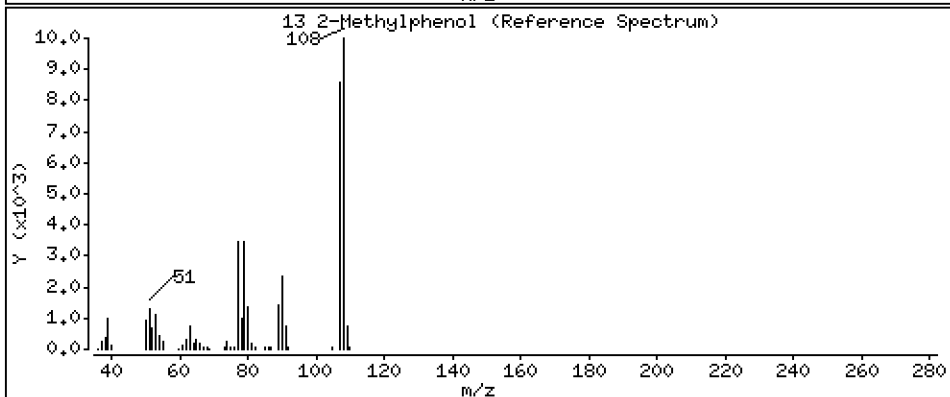
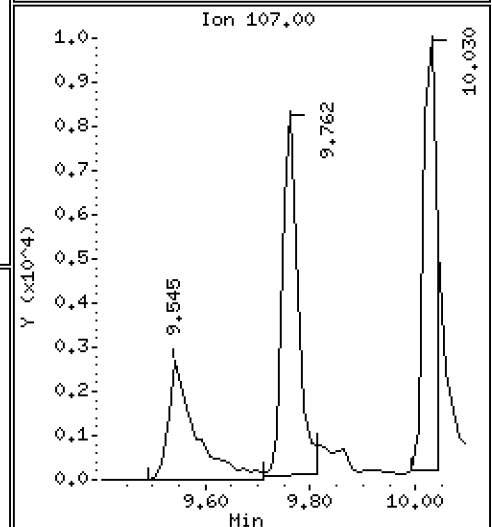
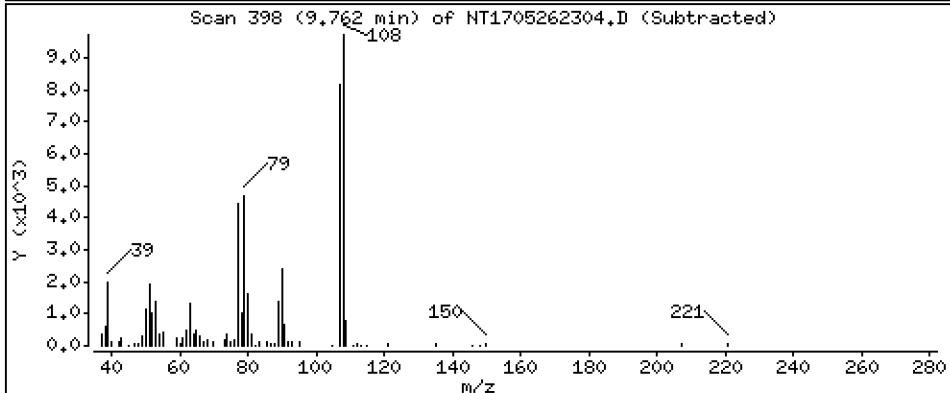
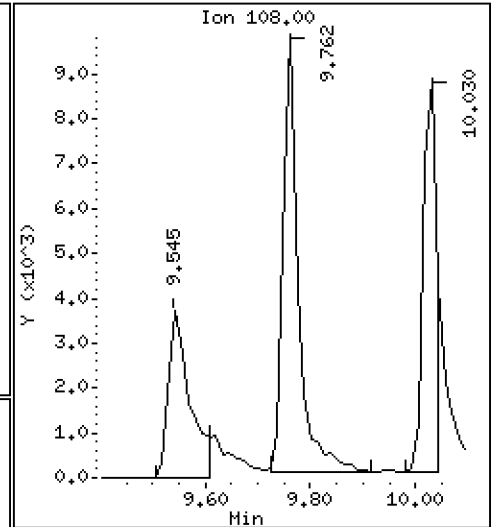
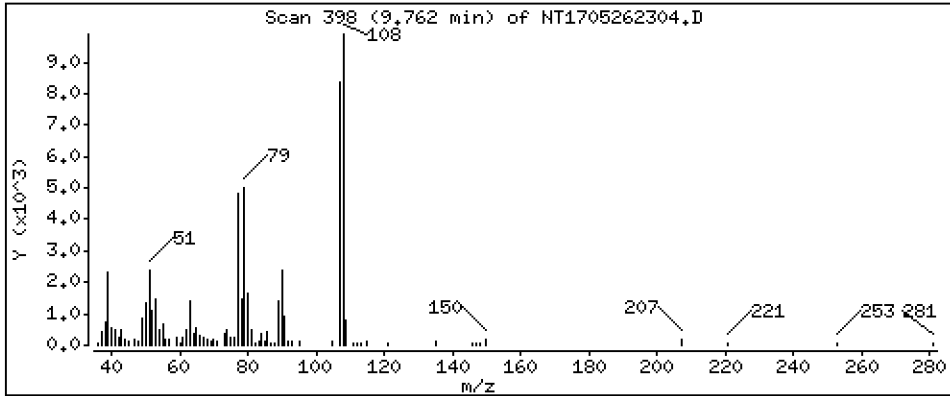
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,1868 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

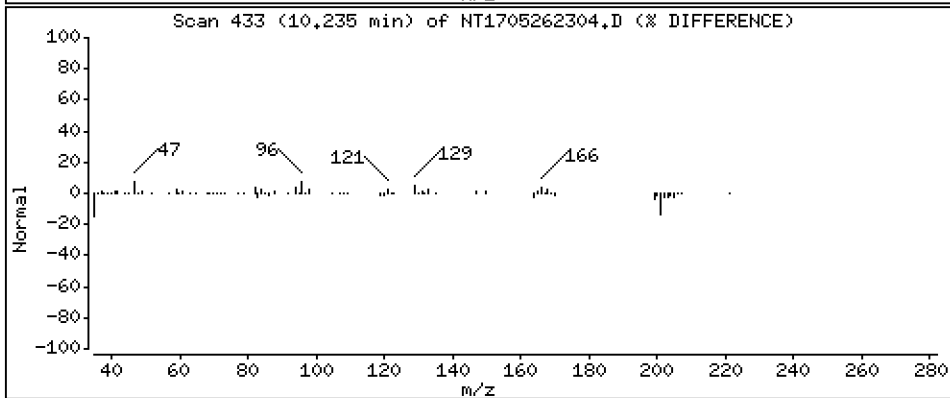
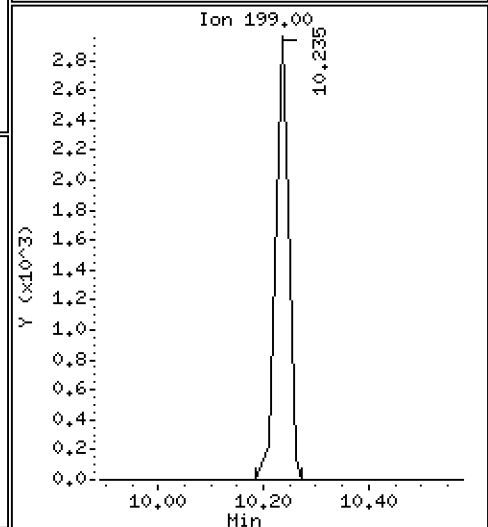
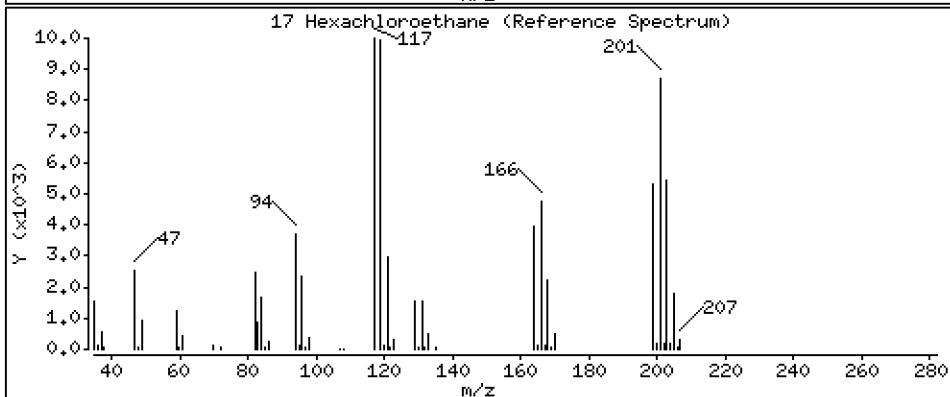
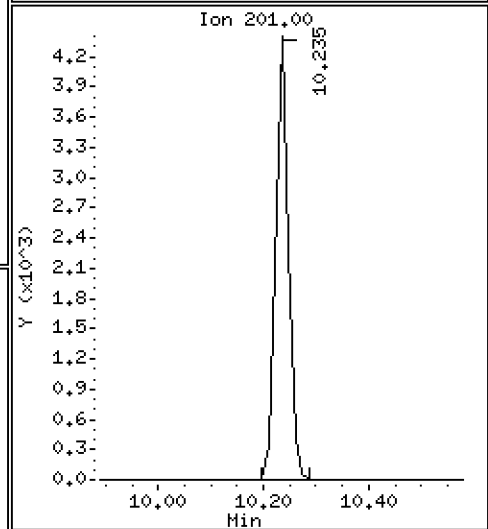
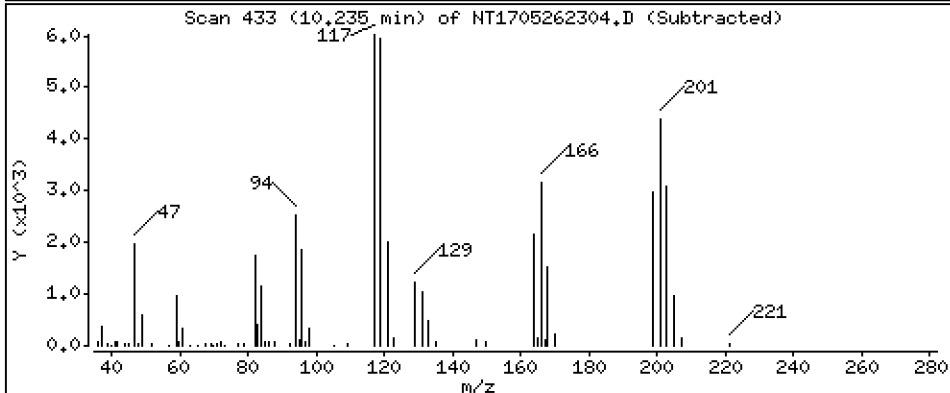
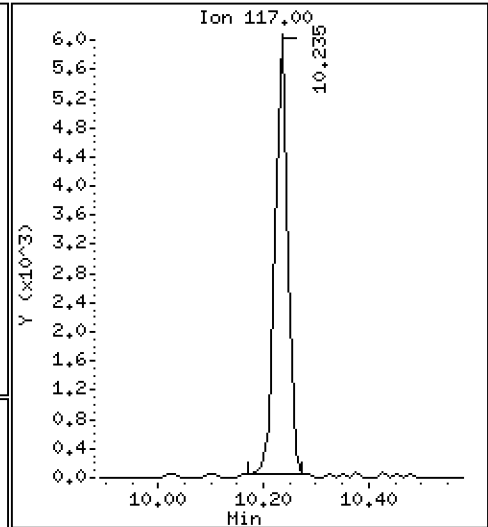
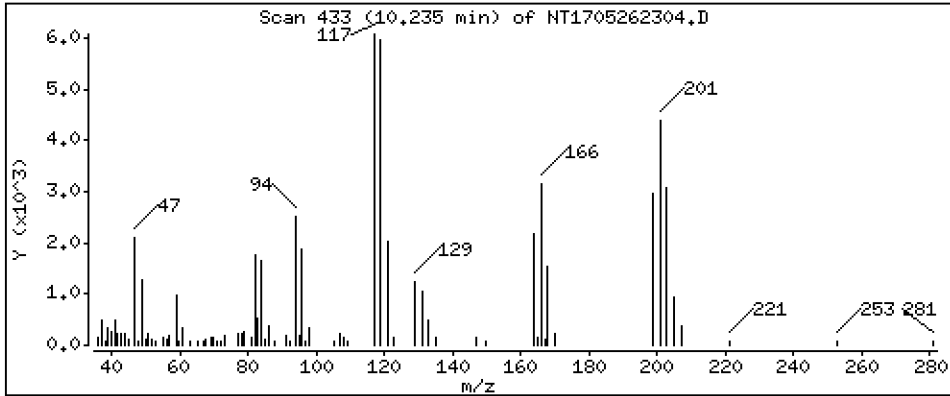
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,2061 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

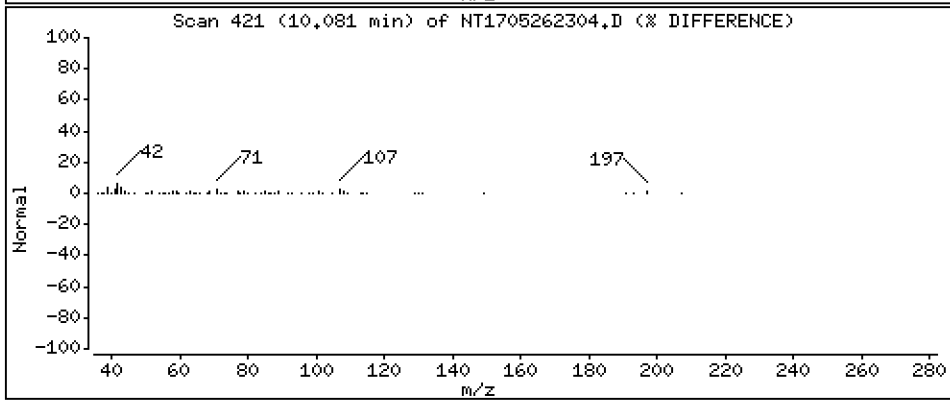
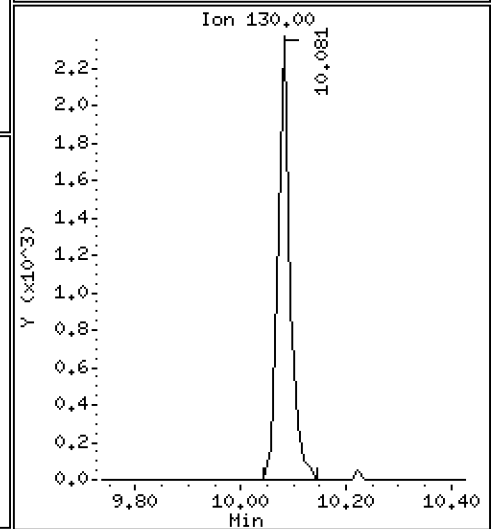
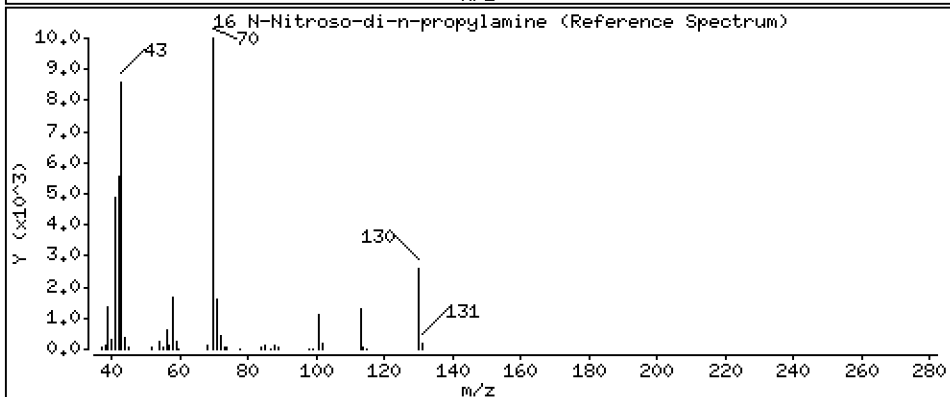
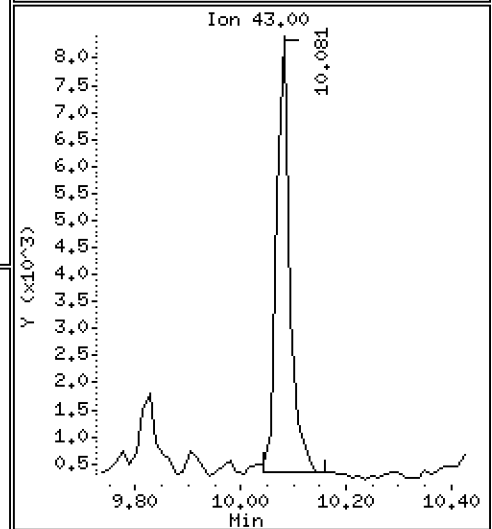
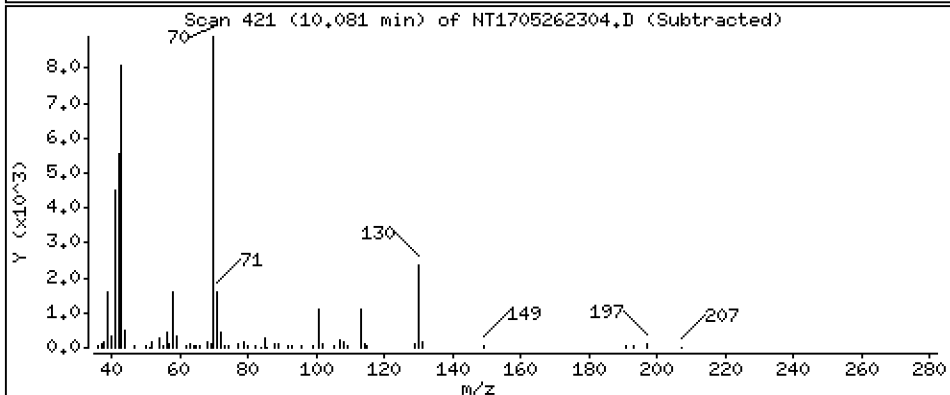
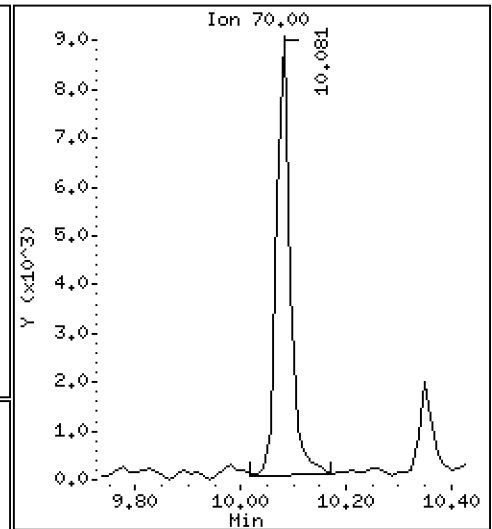
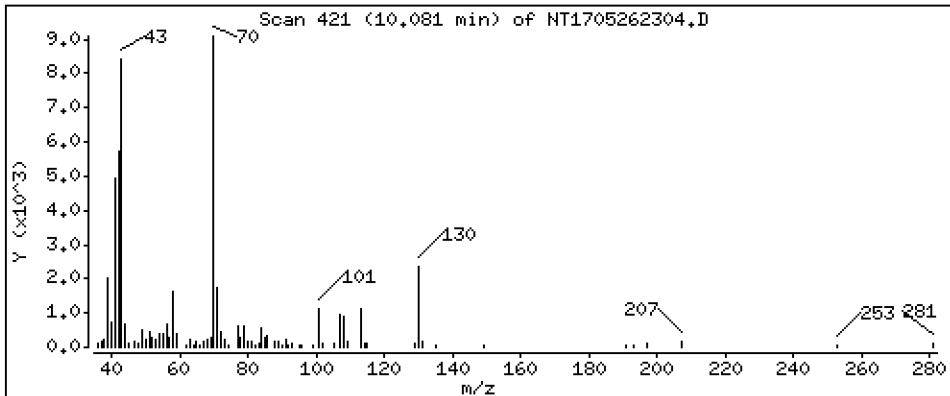
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,2032 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

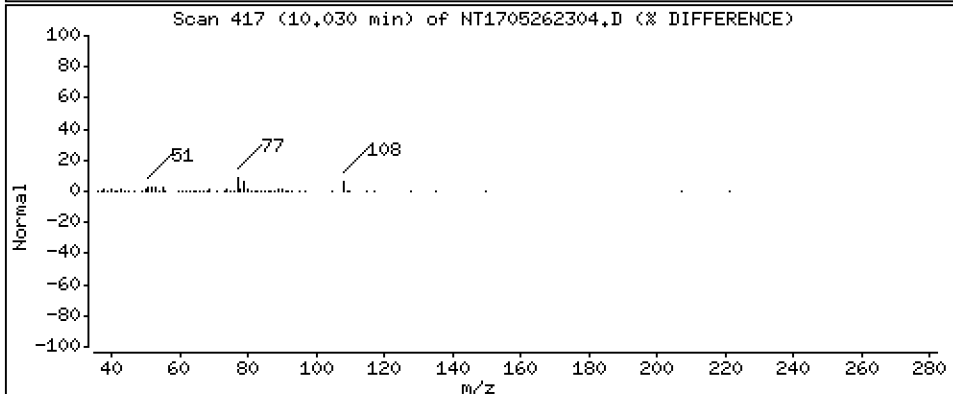
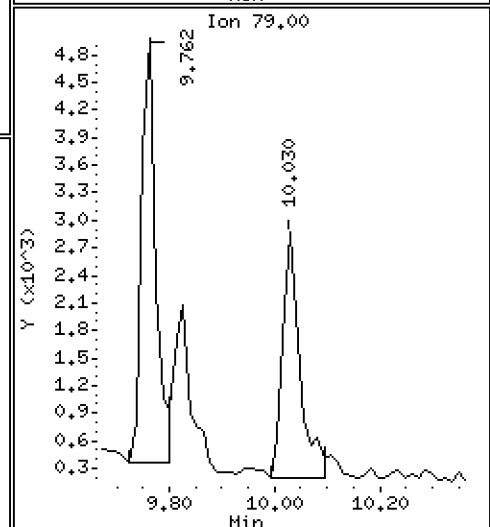
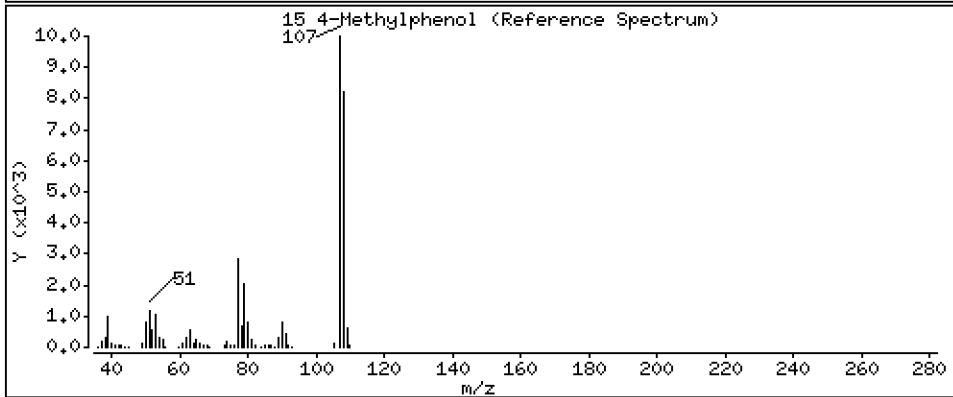
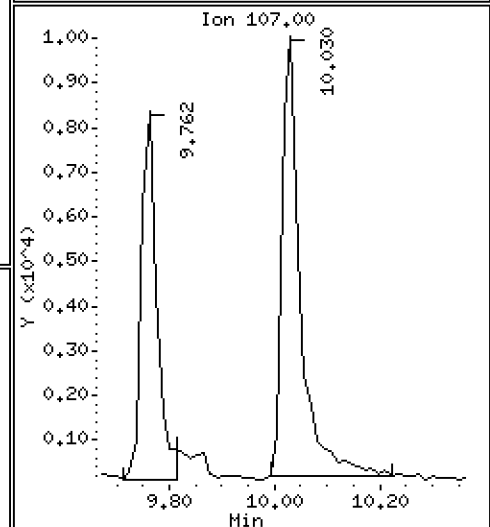
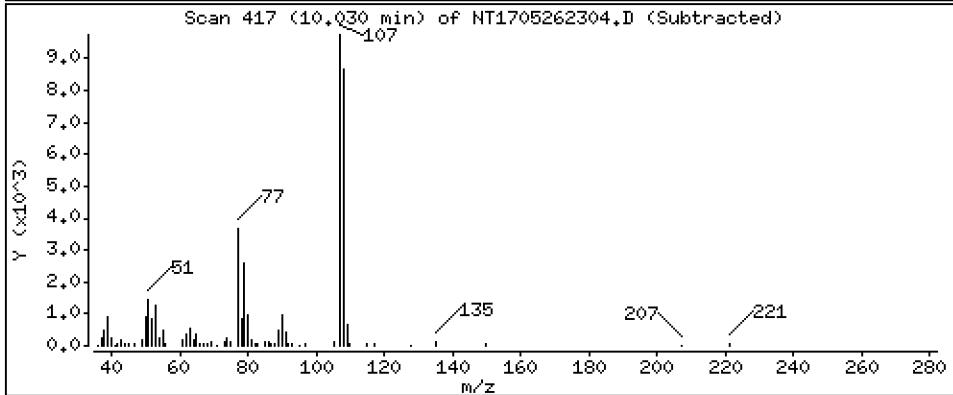
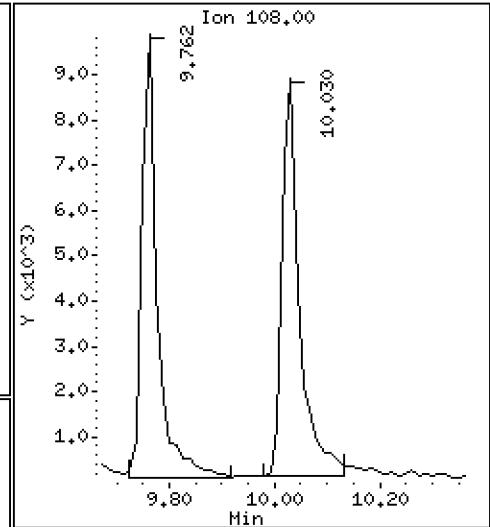
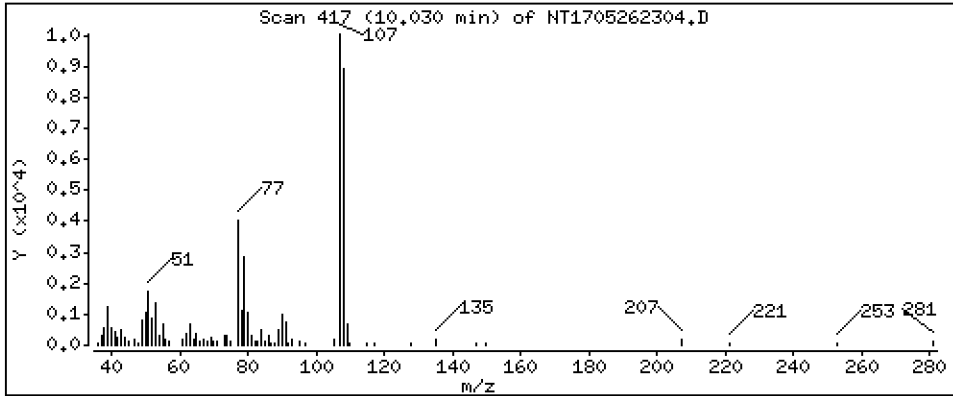
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1869 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

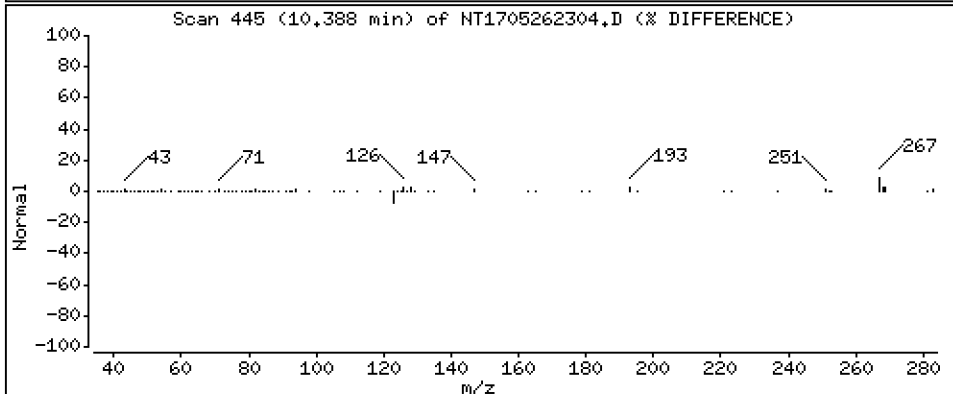
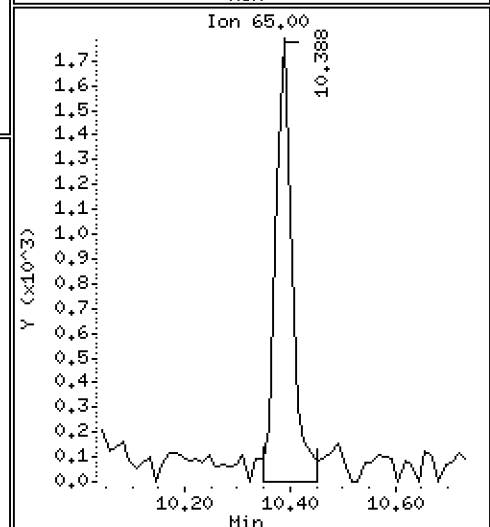
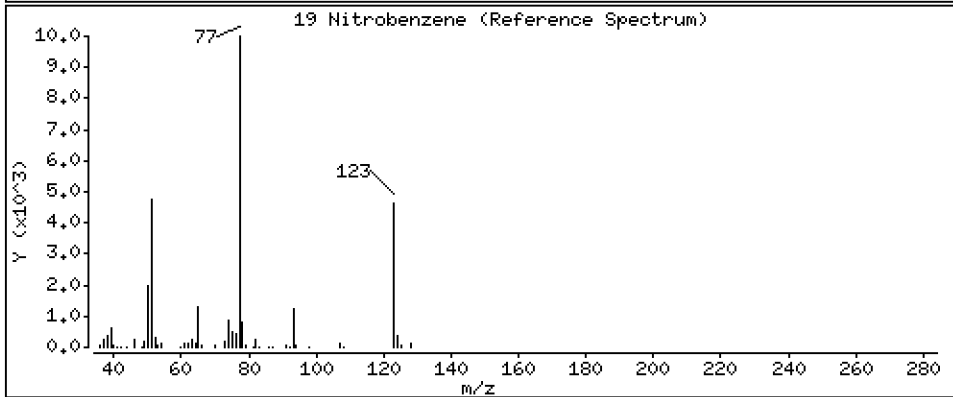
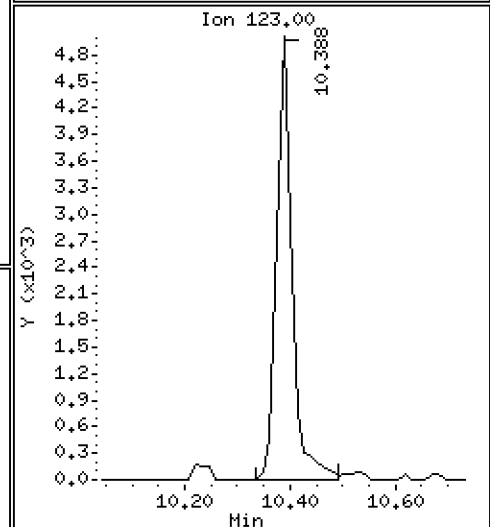
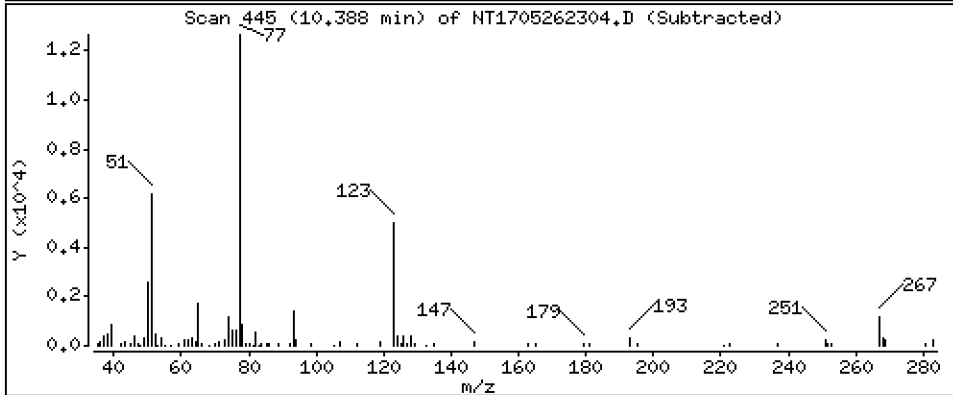
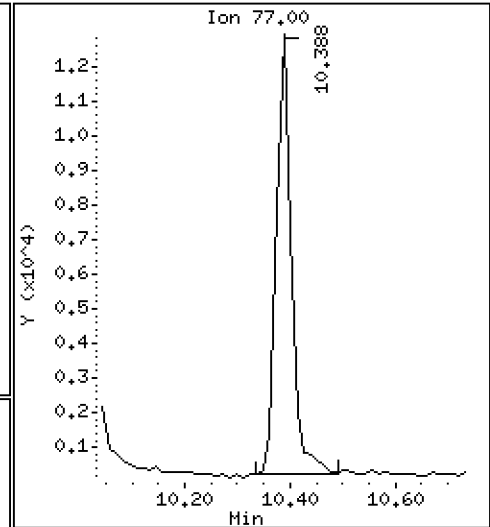
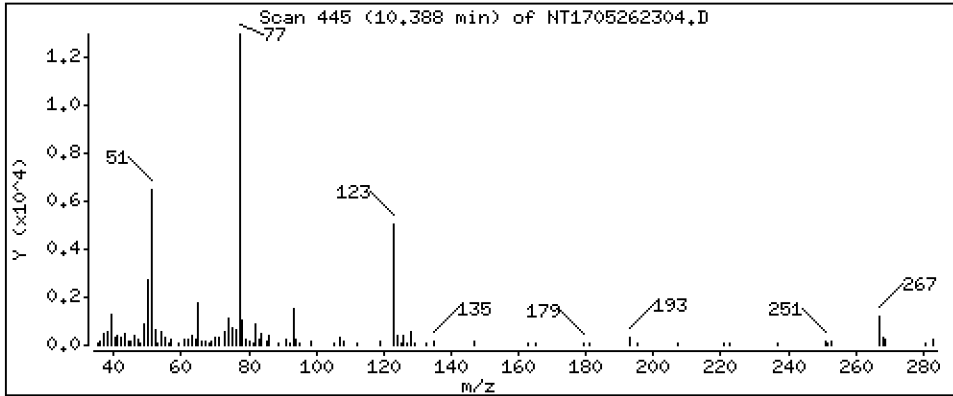
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,1974 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

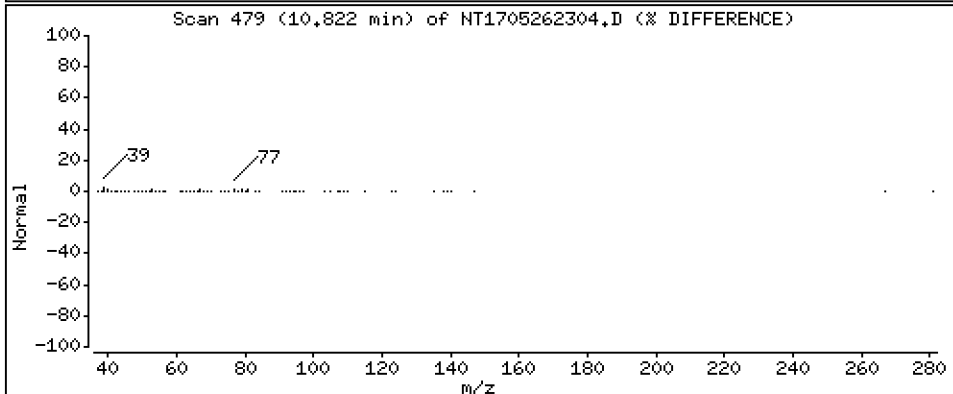
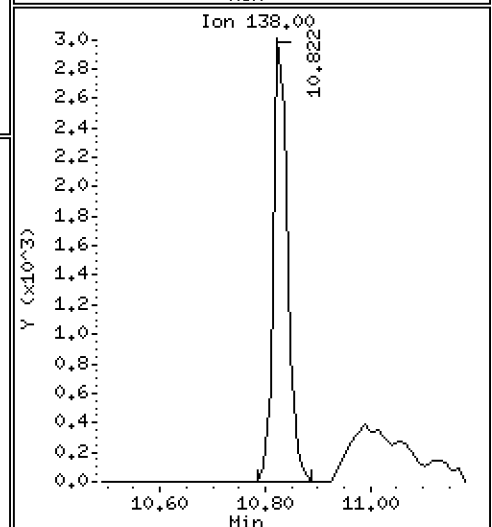
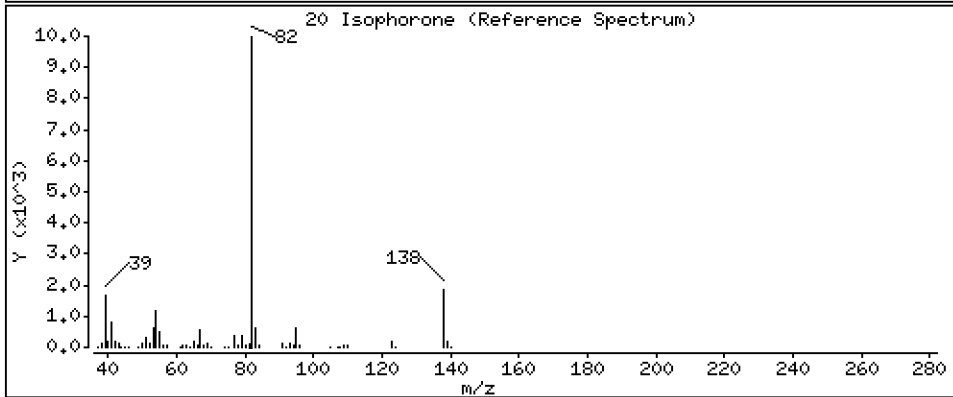
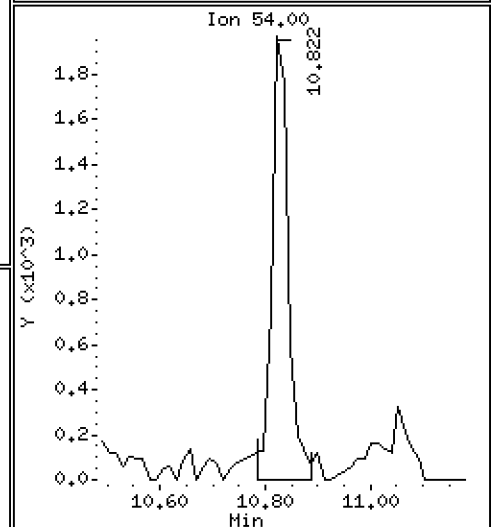
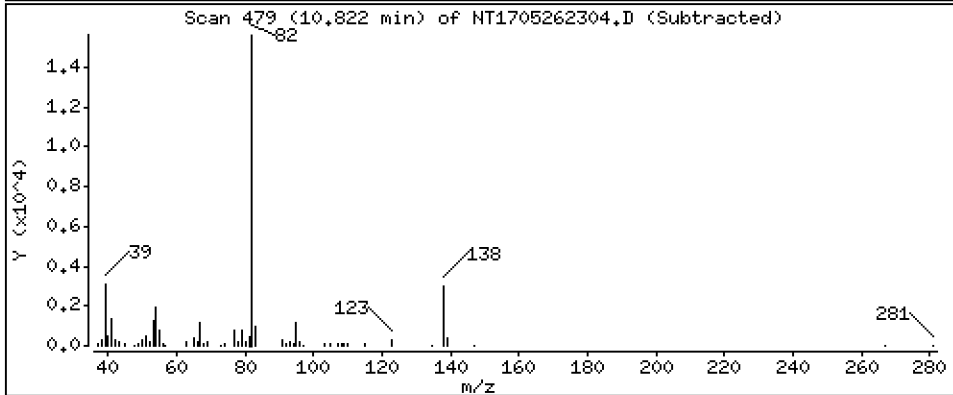
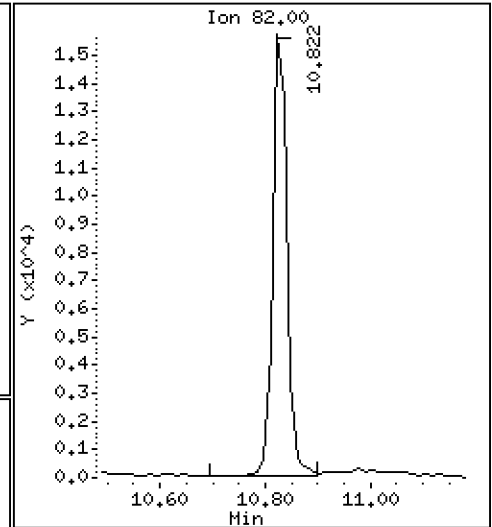
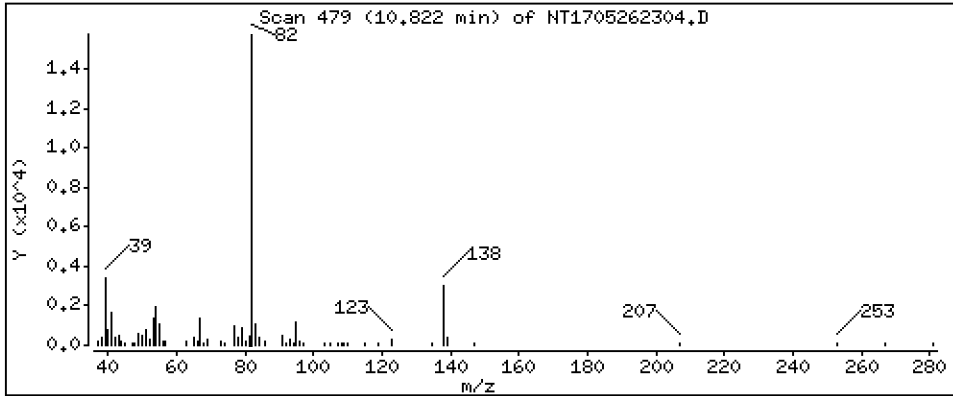
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,1762 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

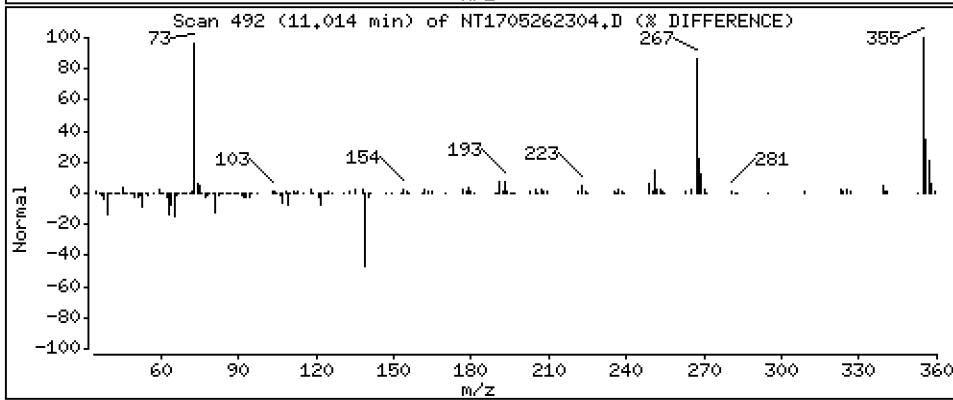
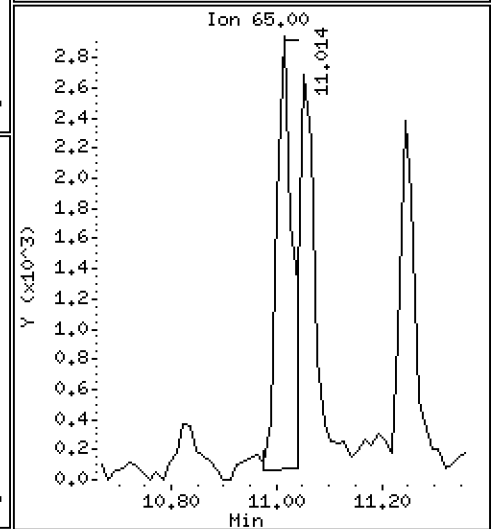
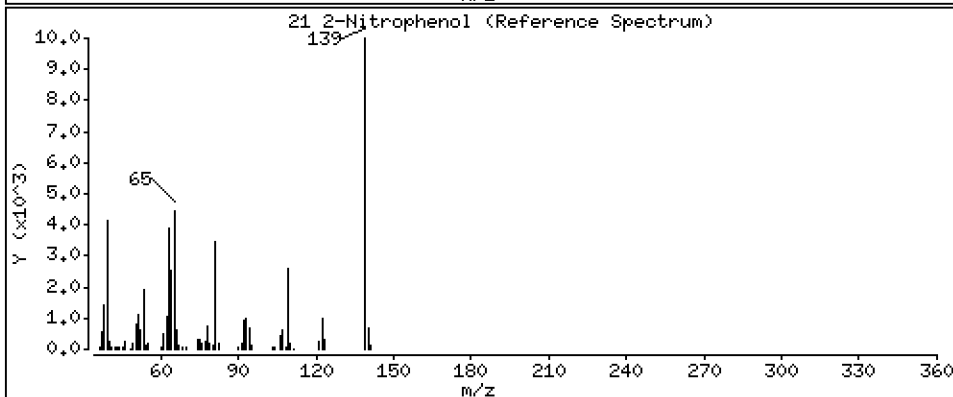
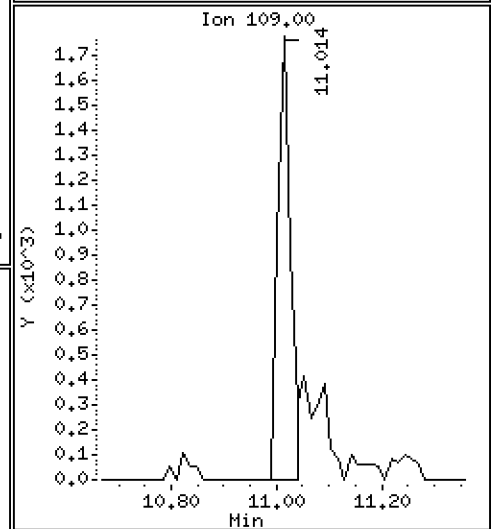
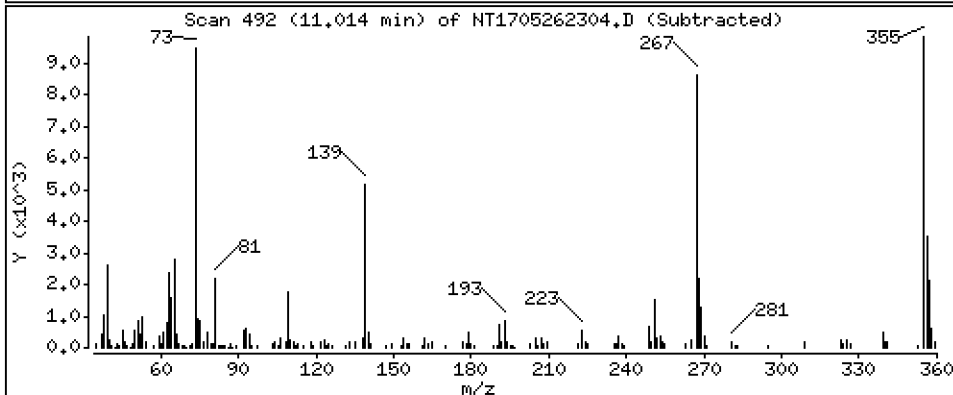
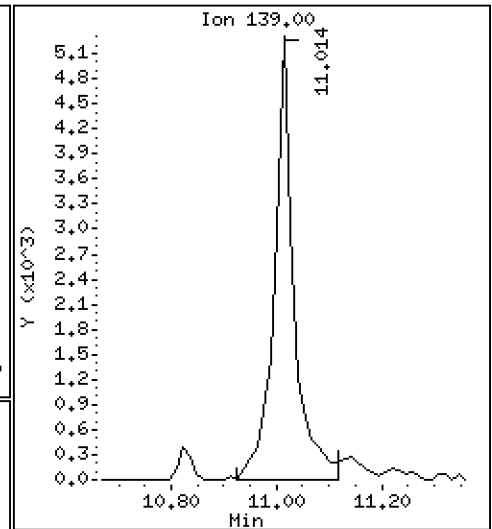
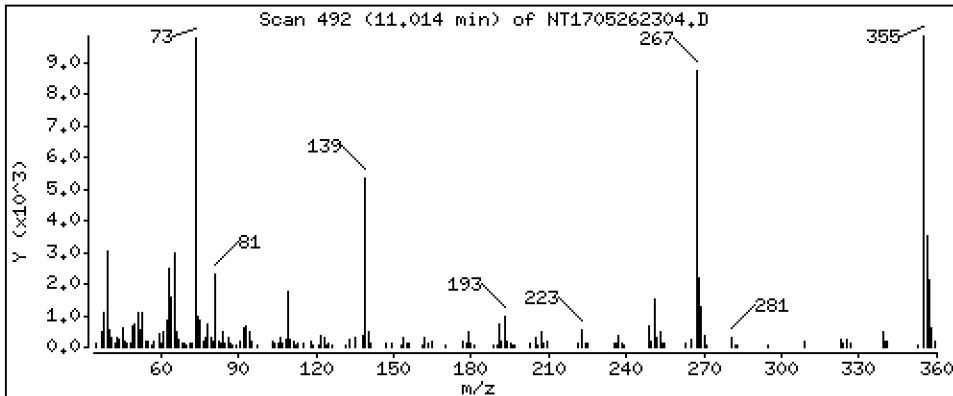
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,2610 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

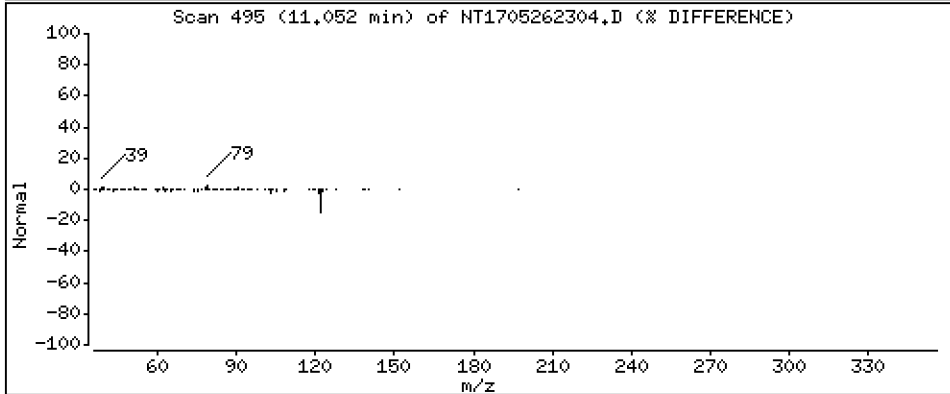
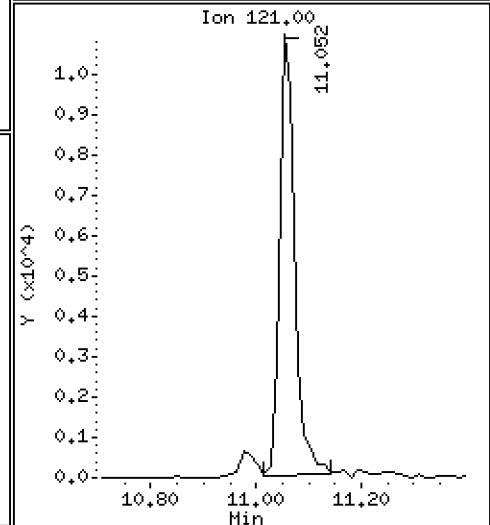
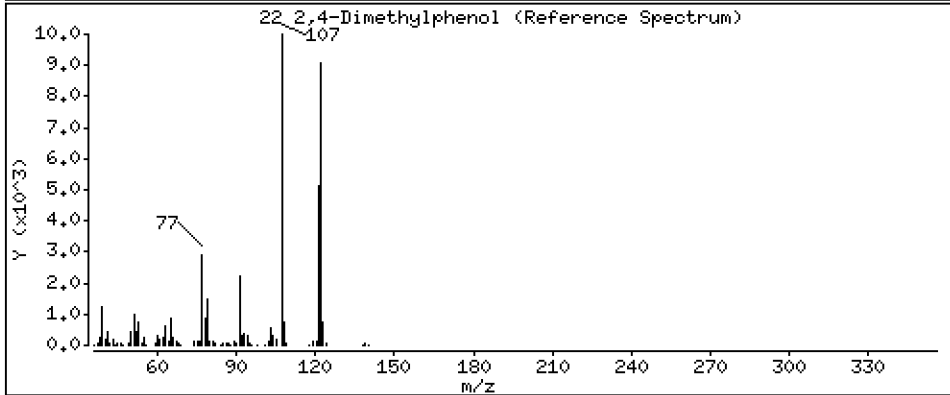
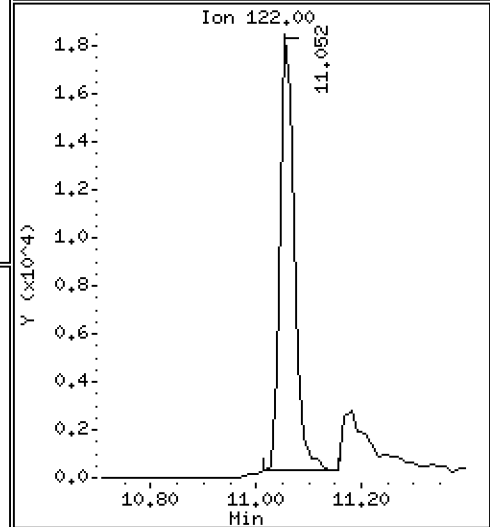
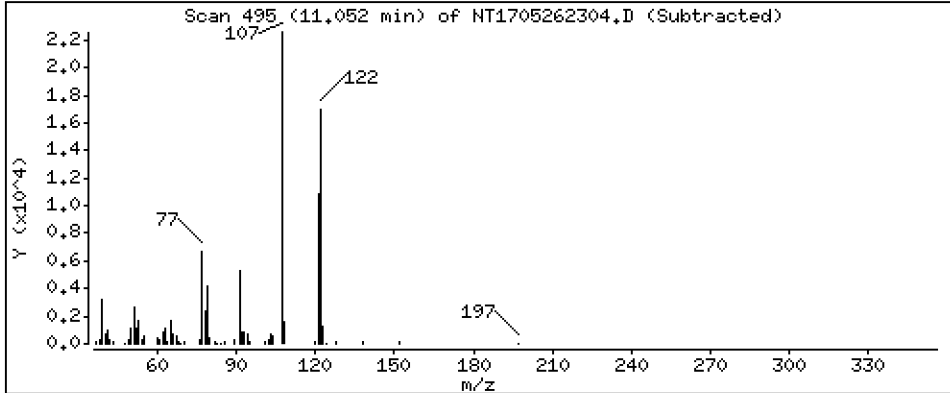
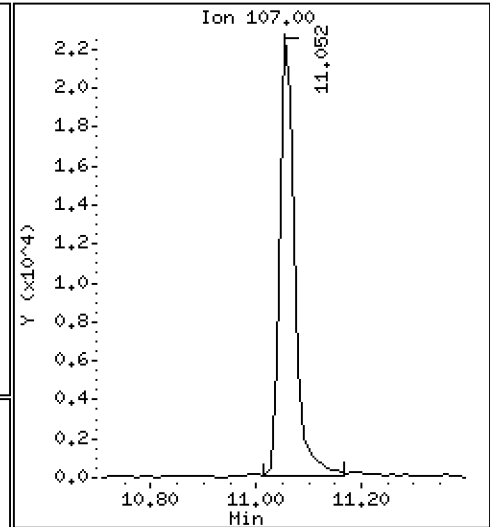
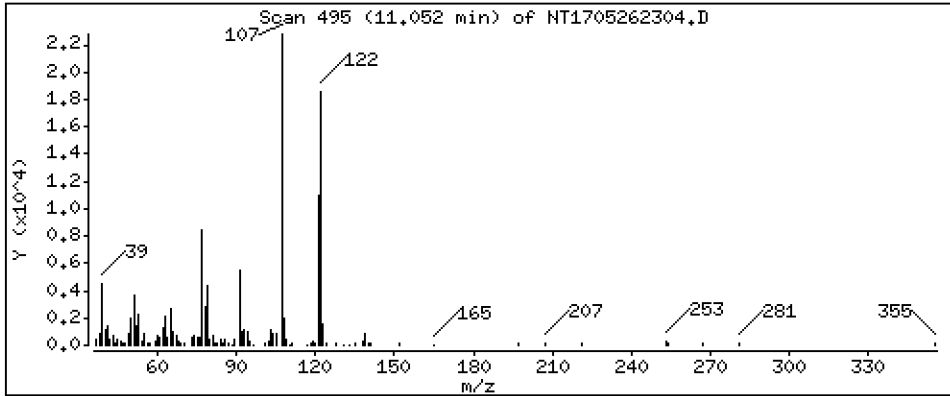
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,3870 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

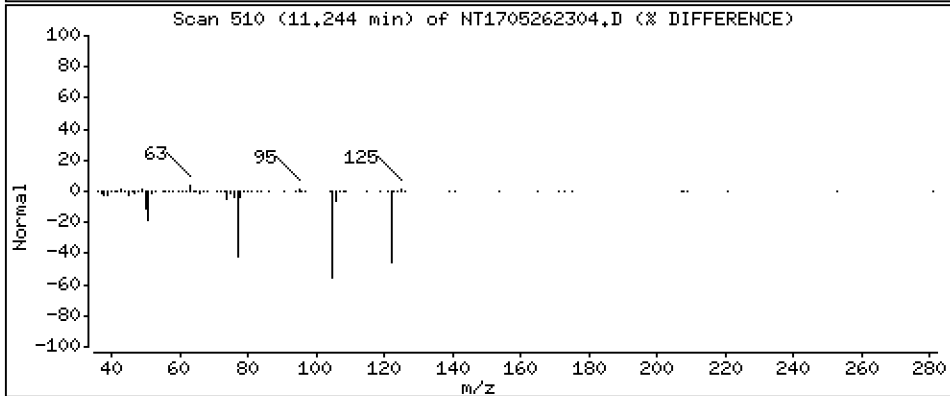
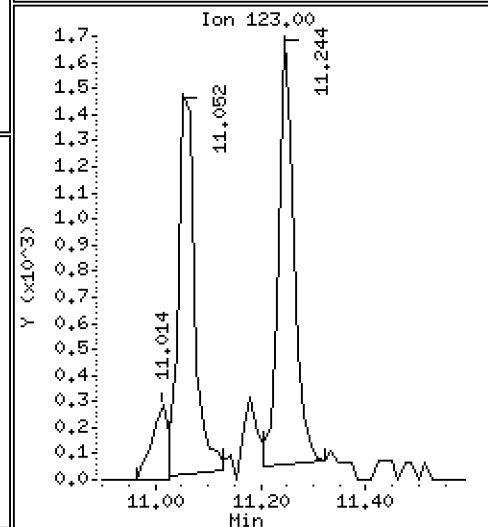
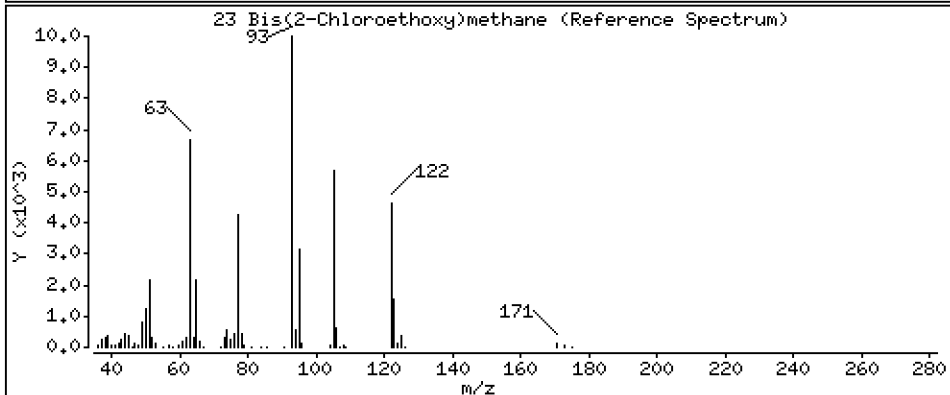
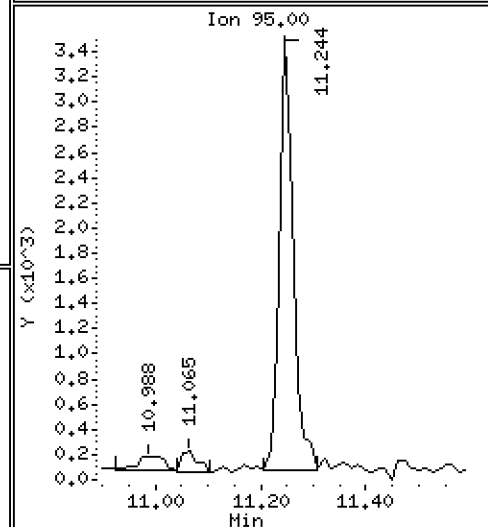
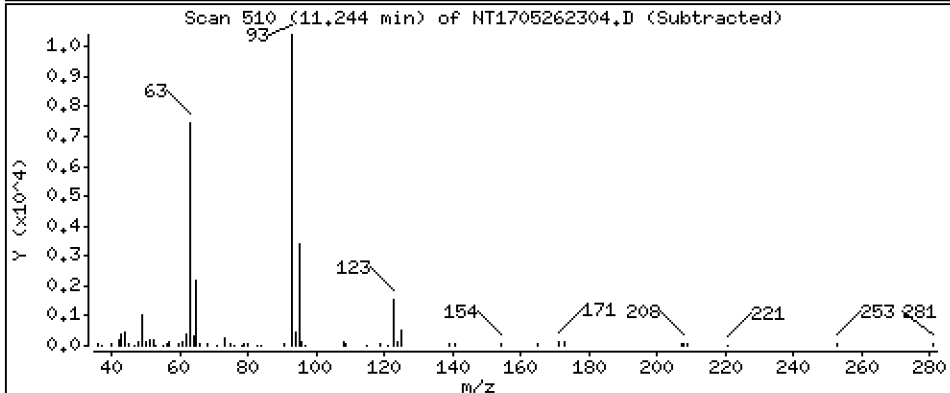
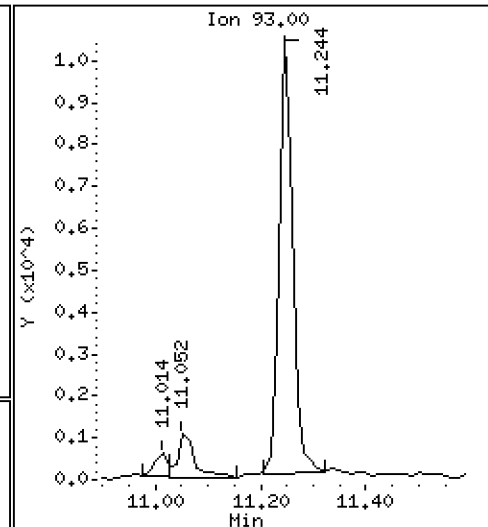
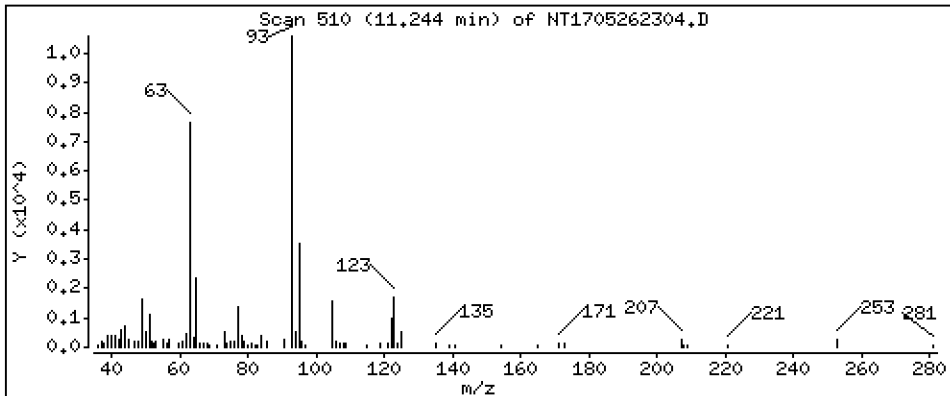
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,1790 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

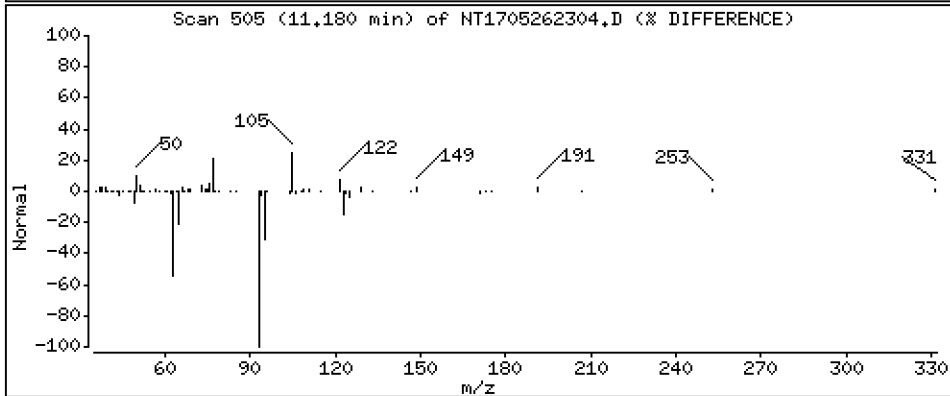
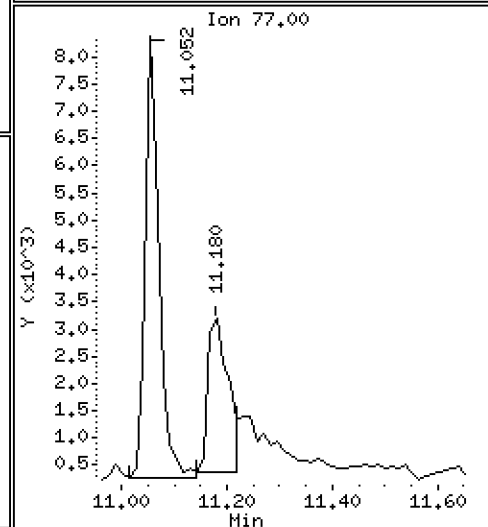
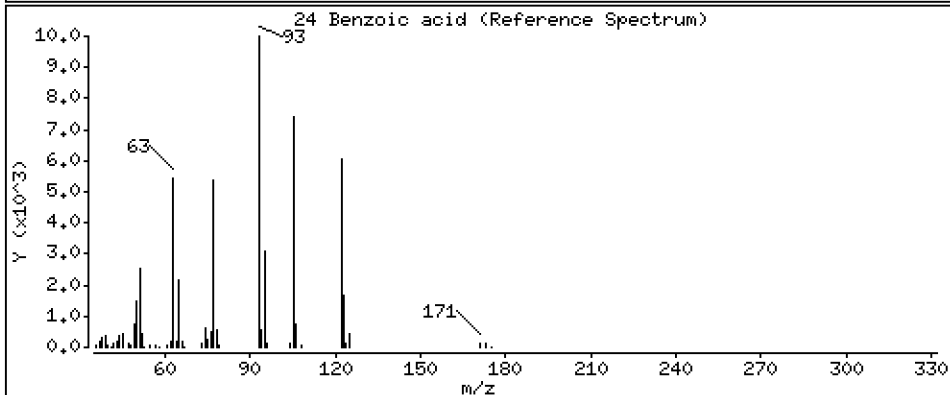
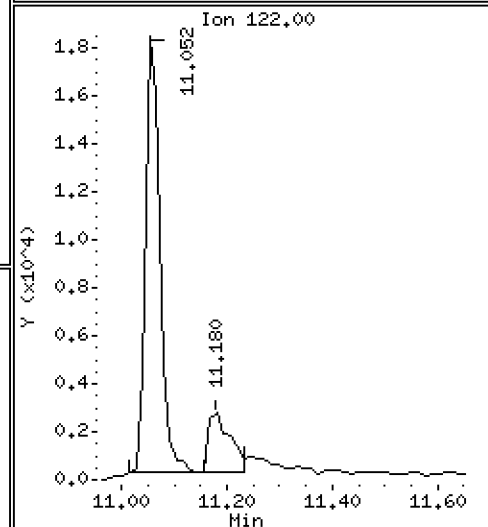
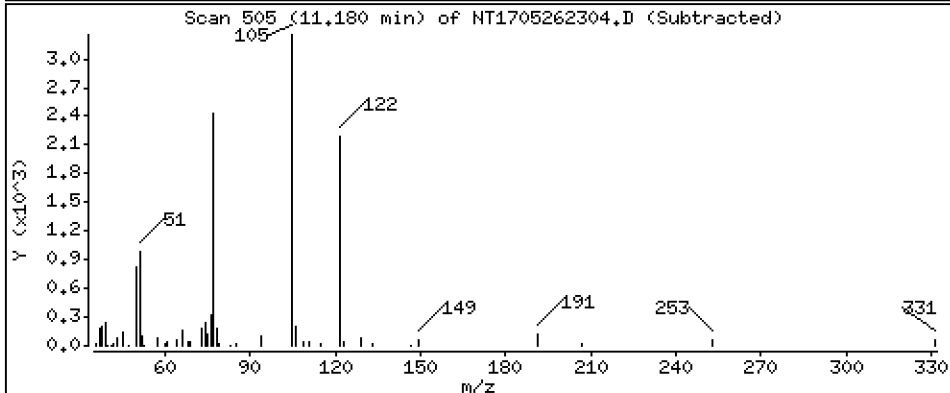
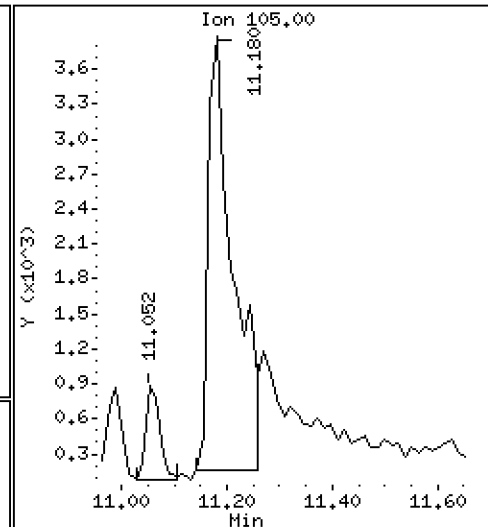
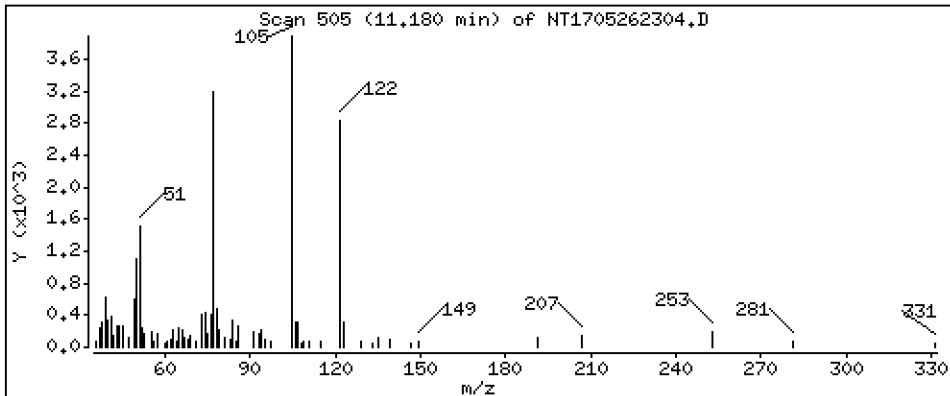
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.1600 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

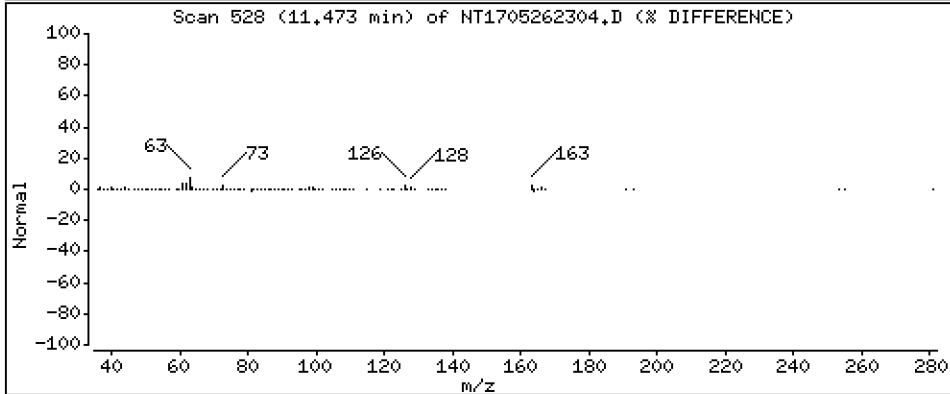
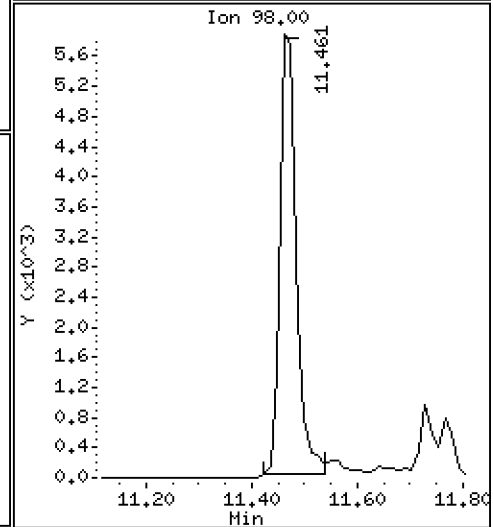
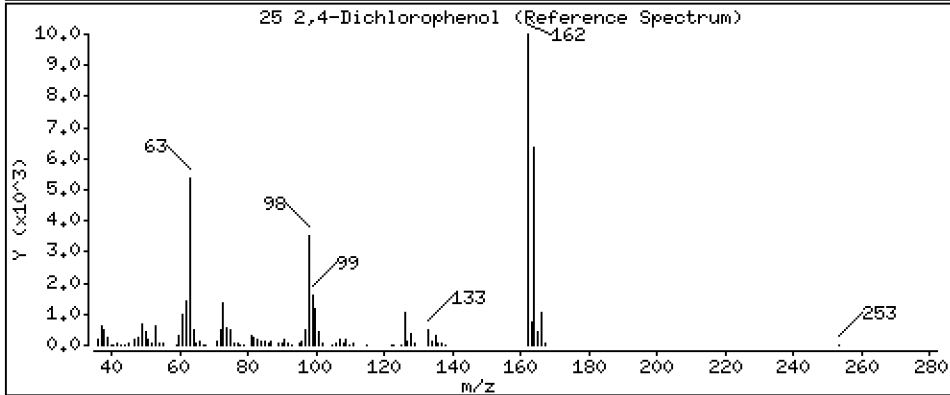
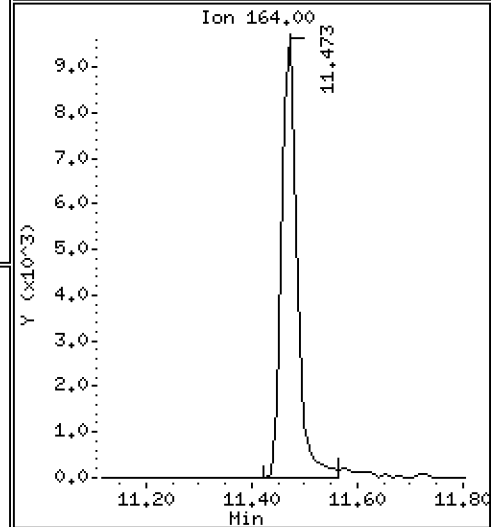
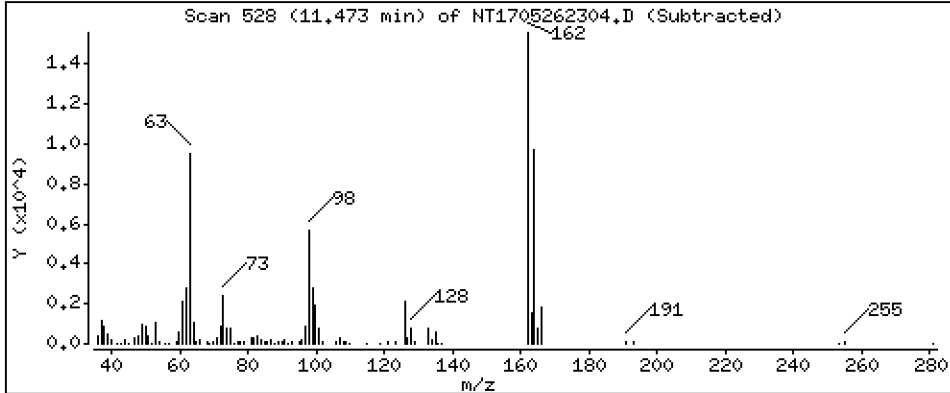
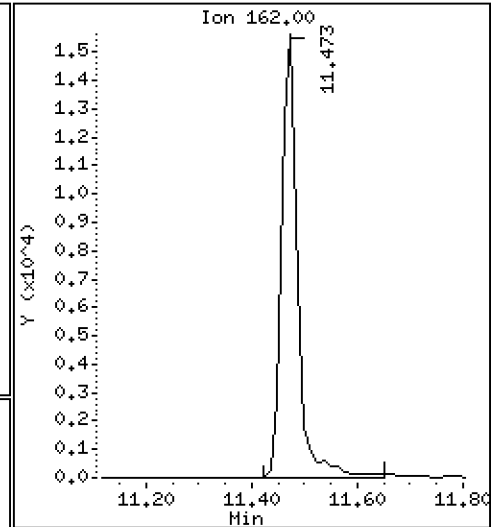
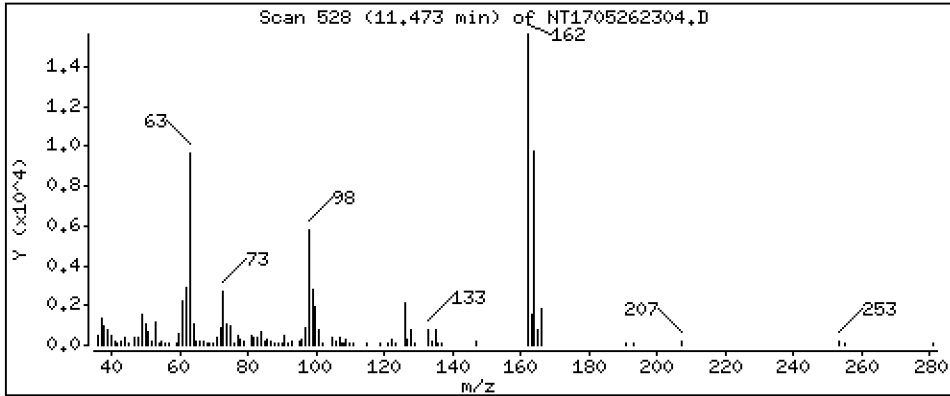
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,4023 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

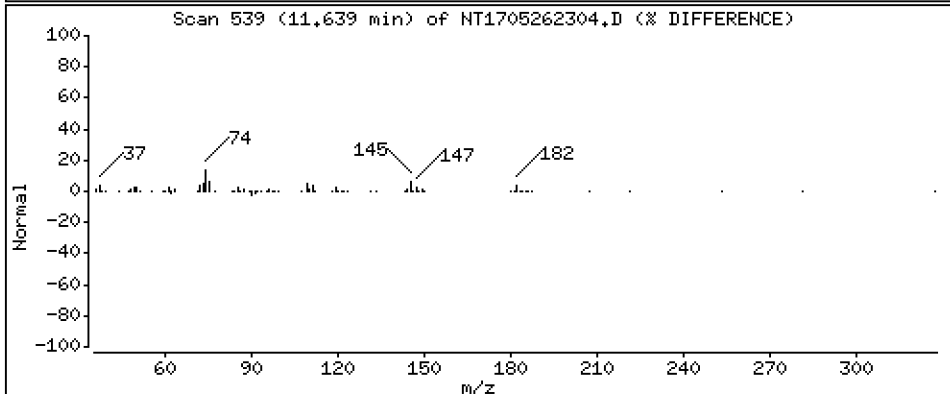
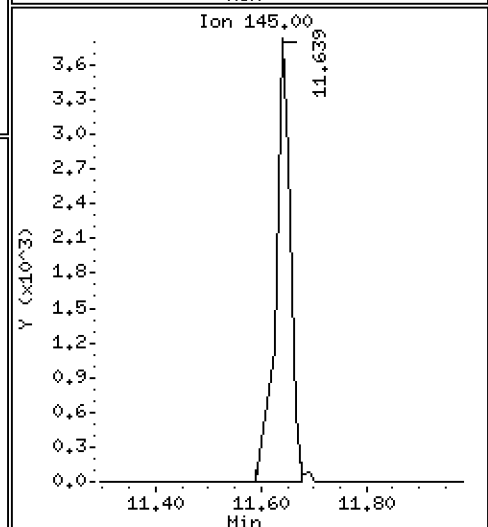
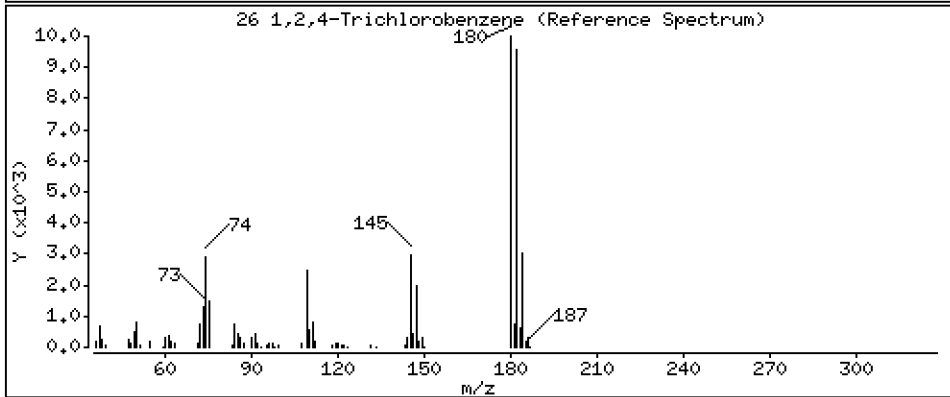
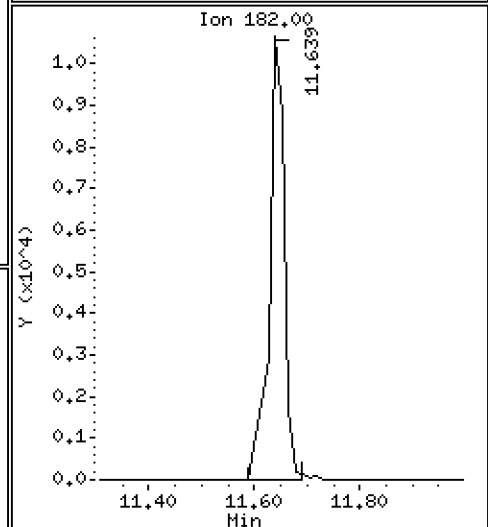
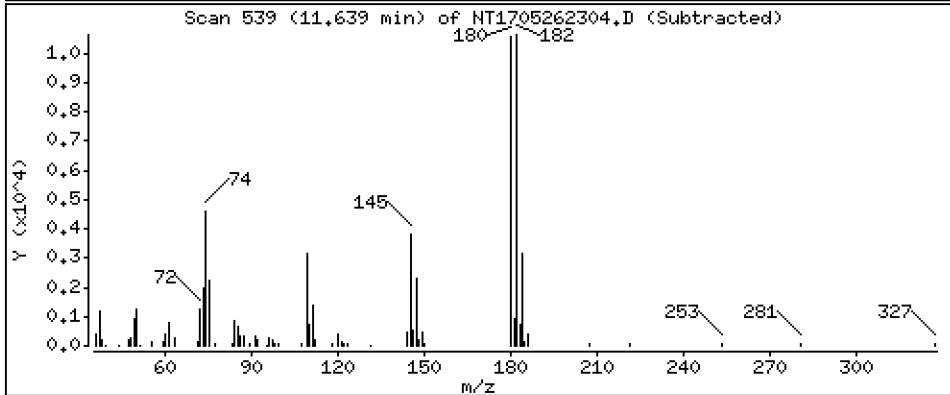
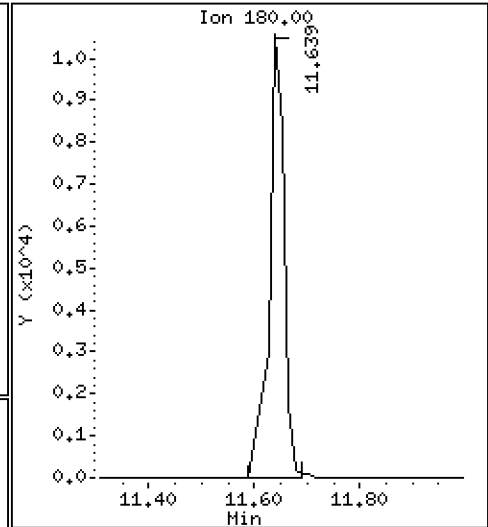
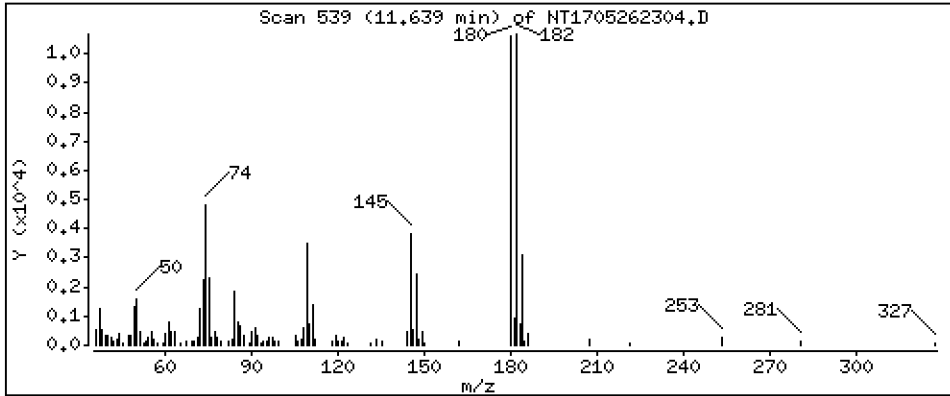
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.2404 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

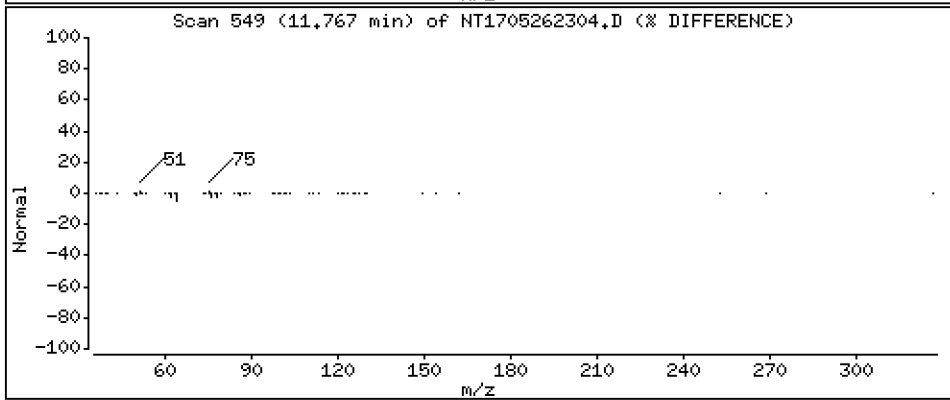
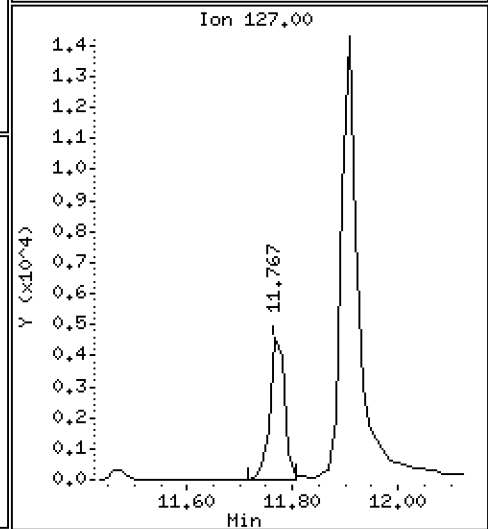
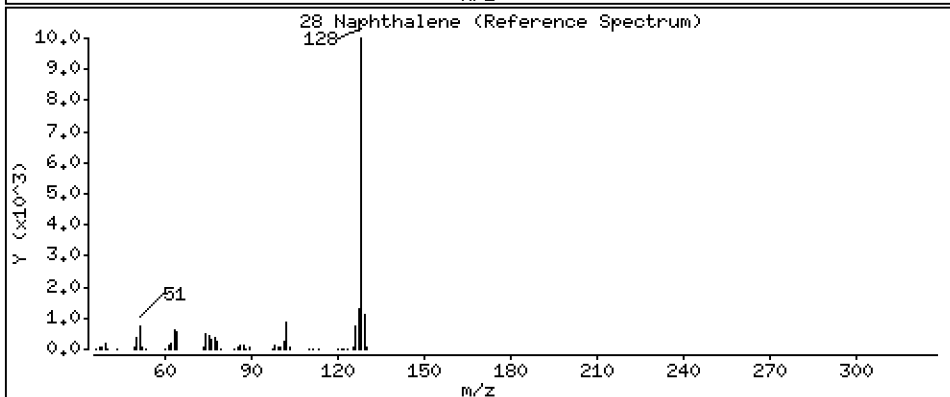
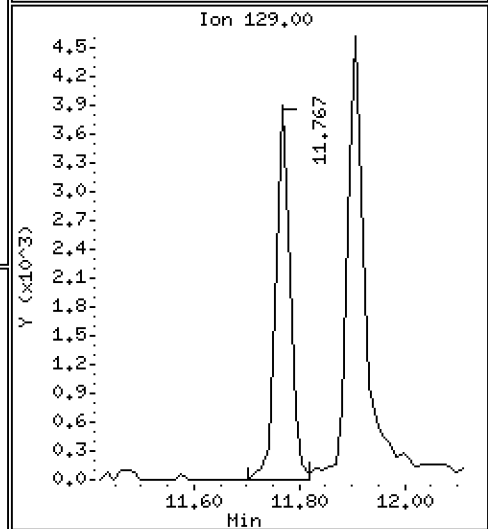
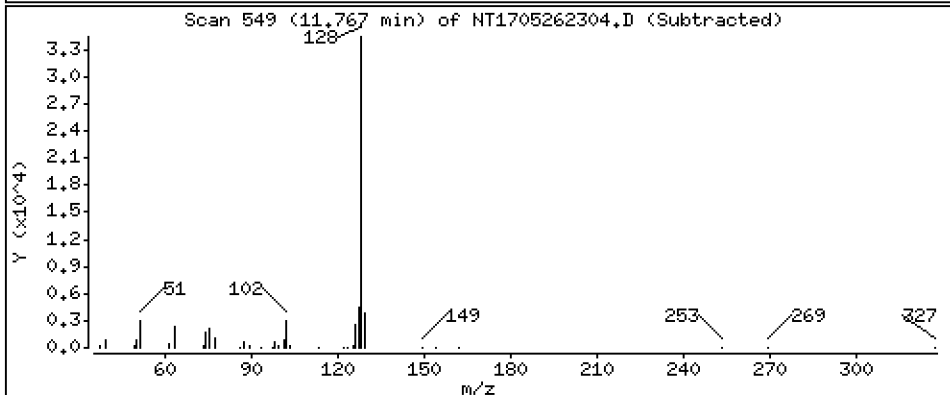
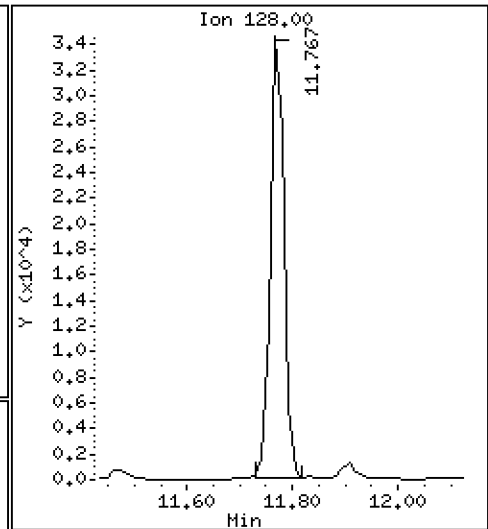
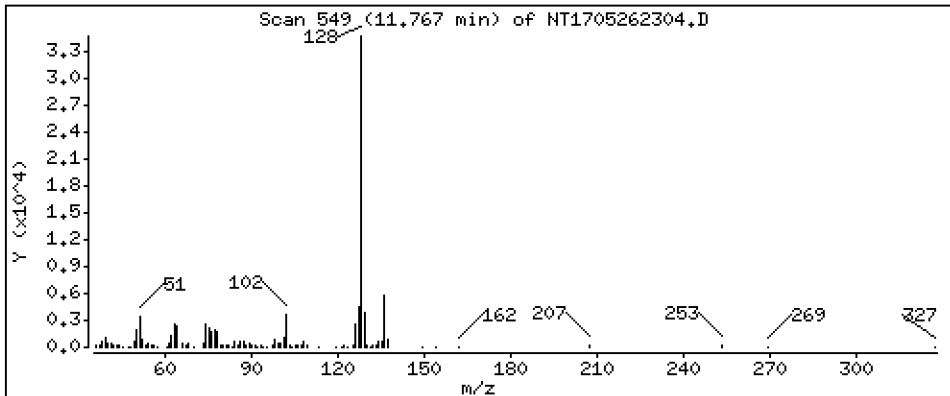
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,1976 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

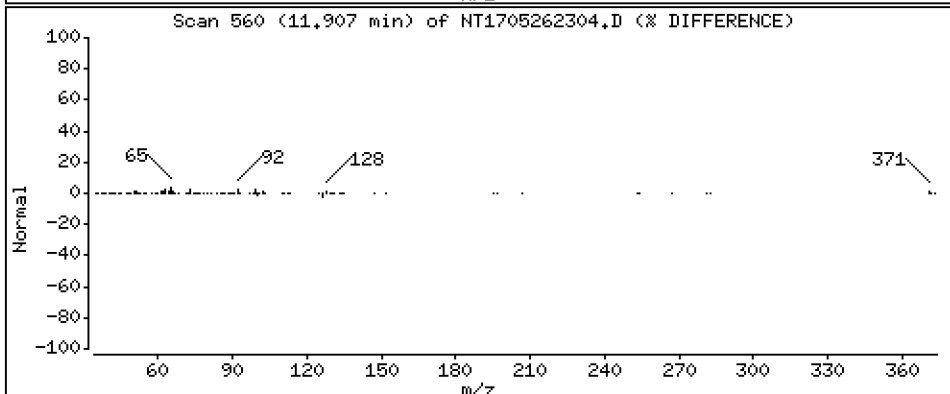
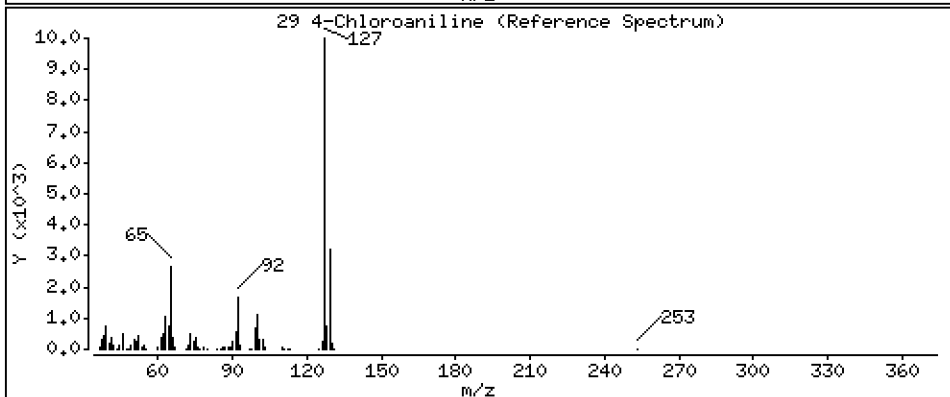
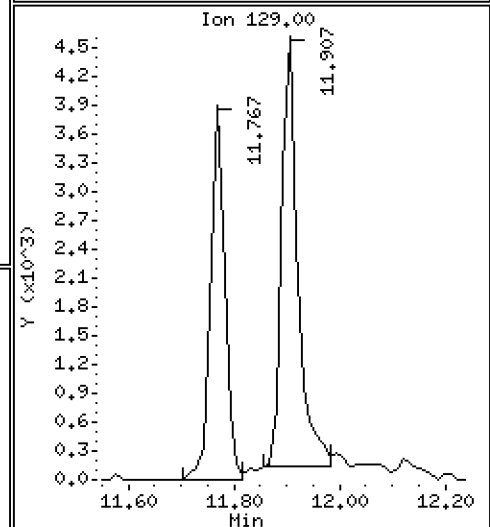
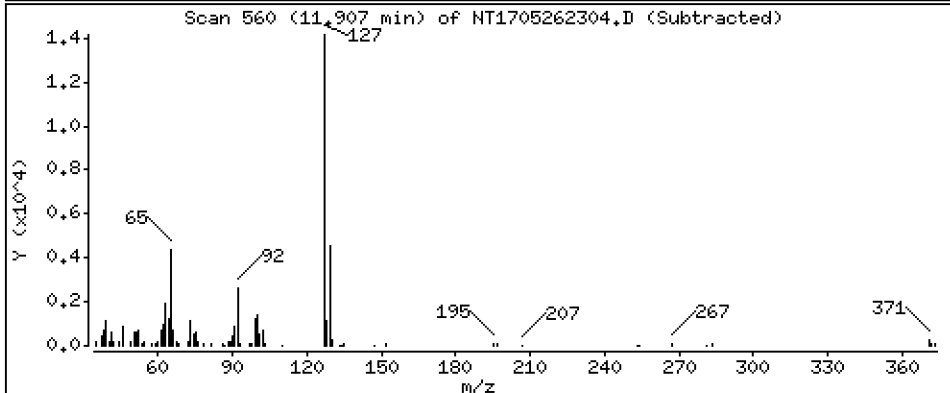
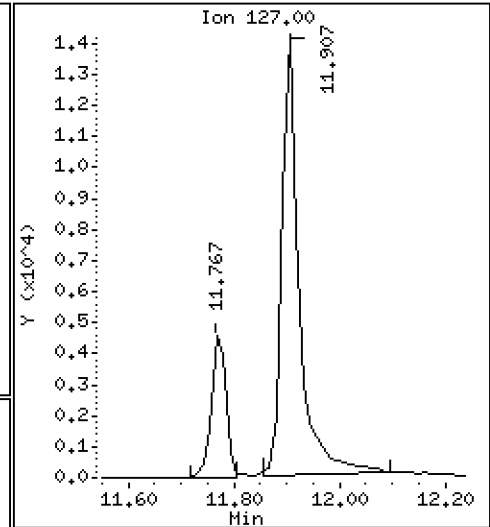
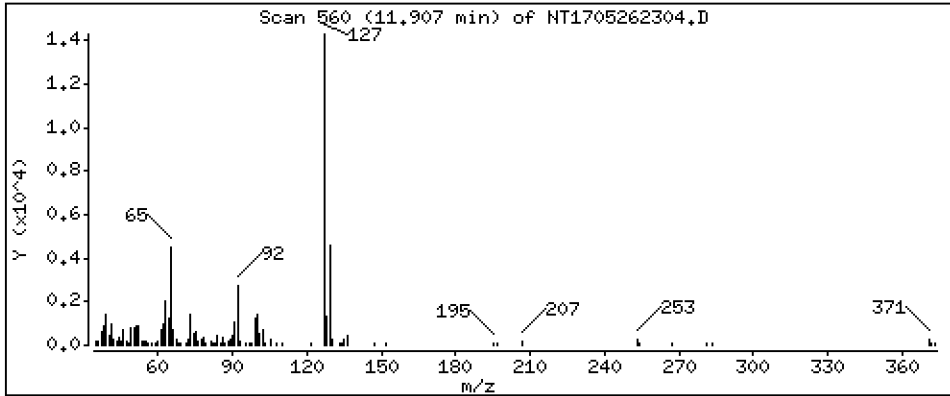
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,2918 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

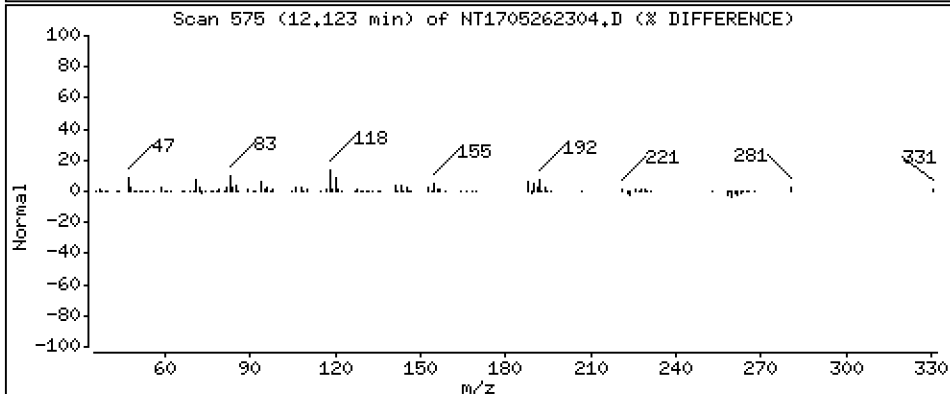
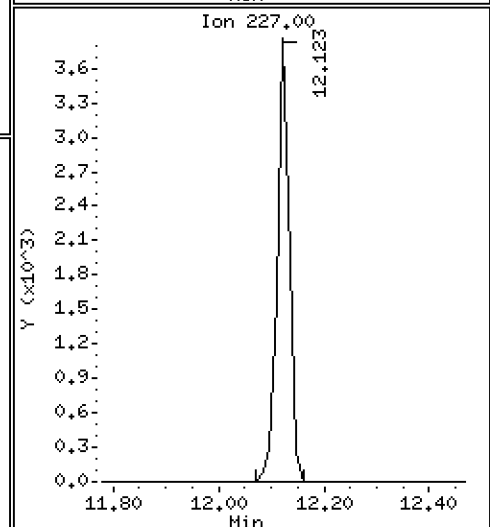
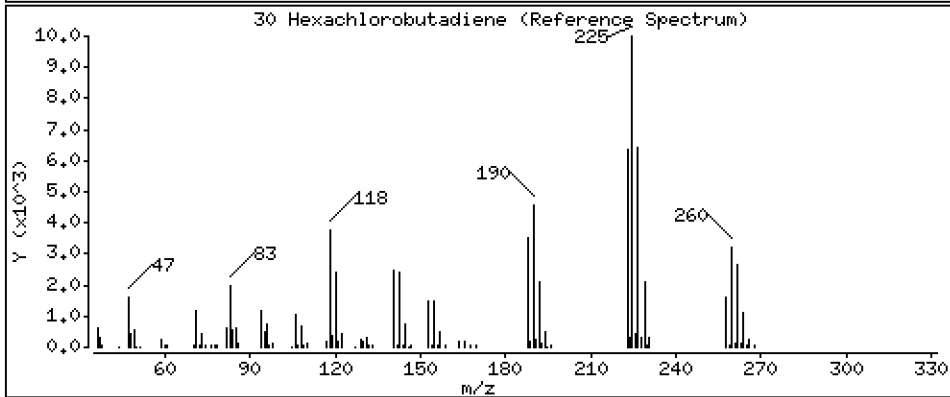
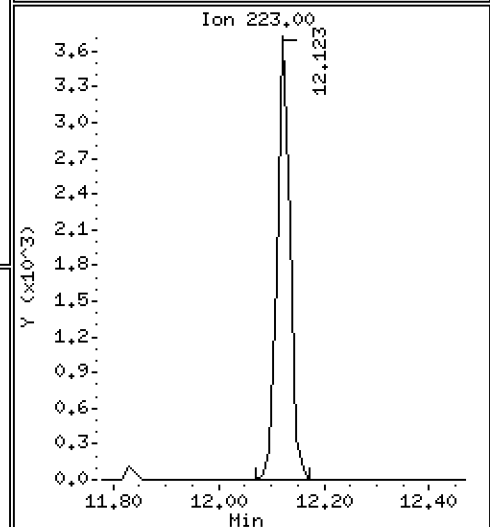
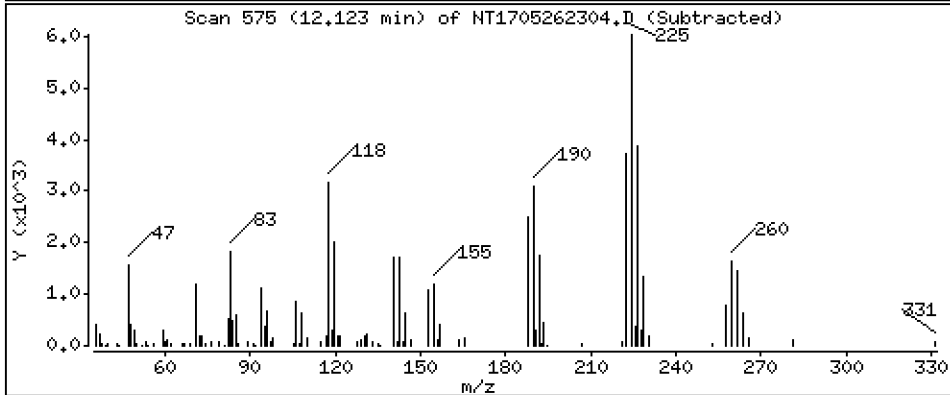
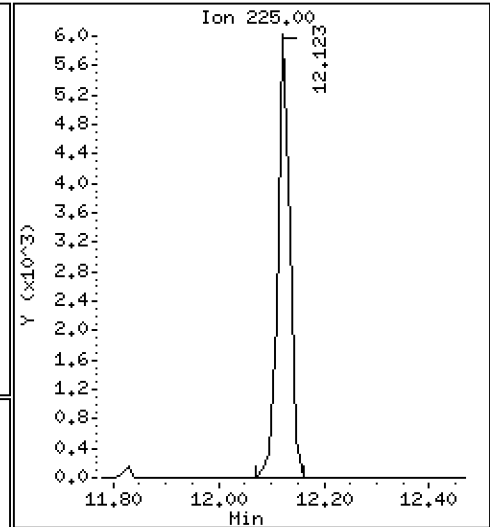
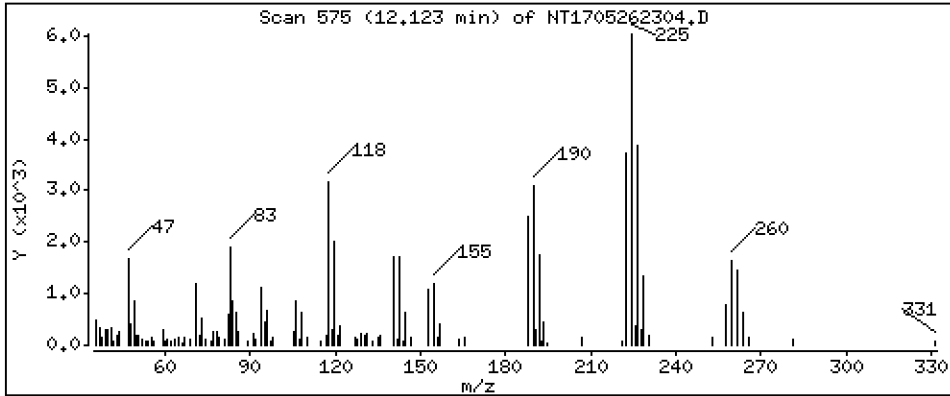
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,1913 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

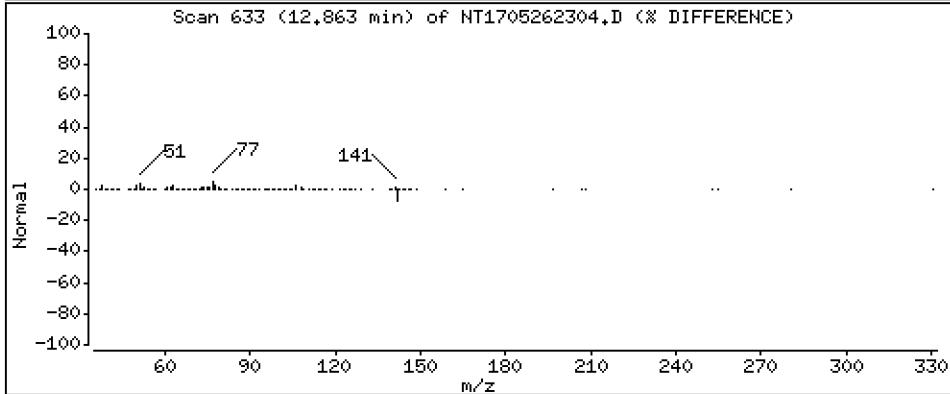
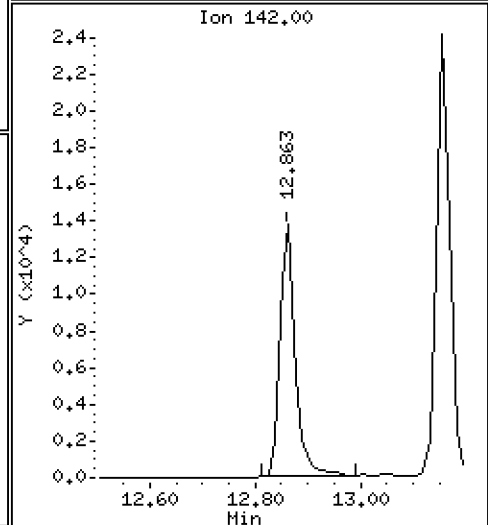
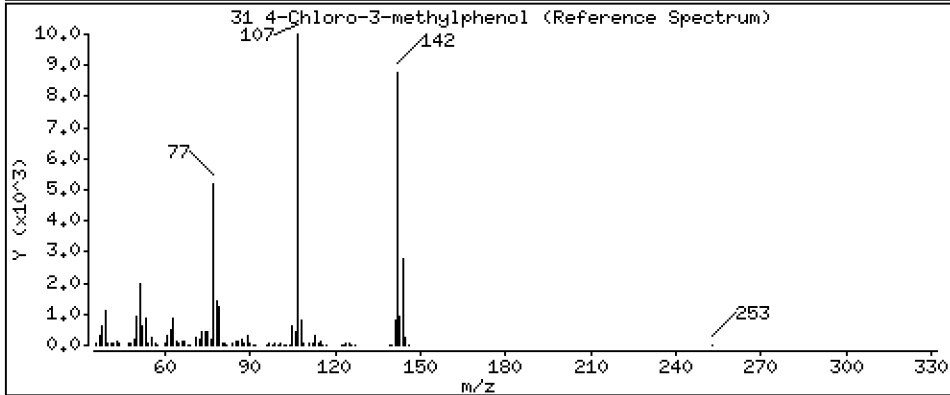
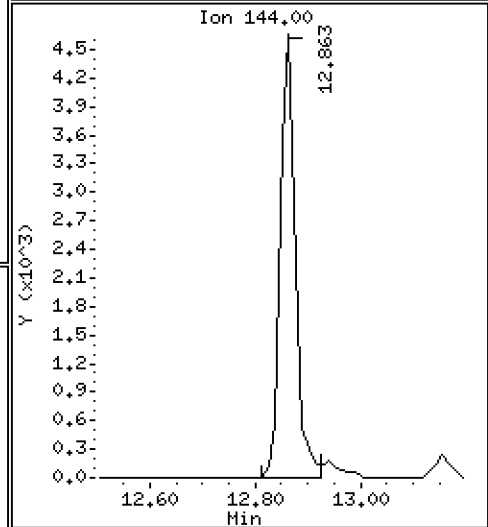
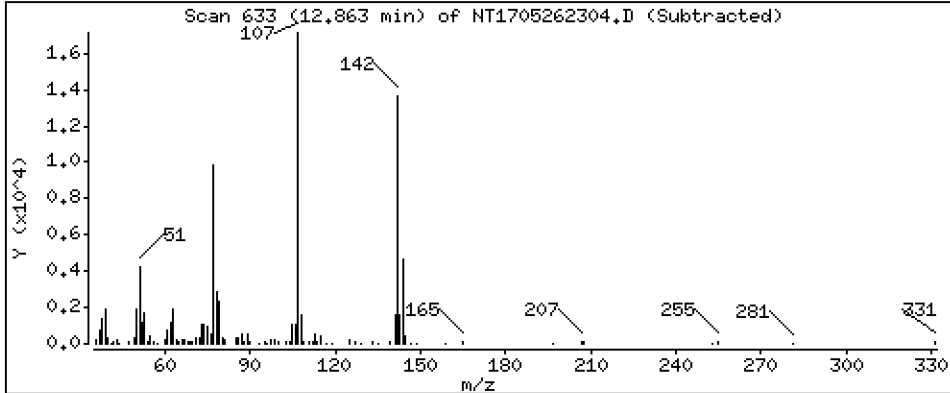
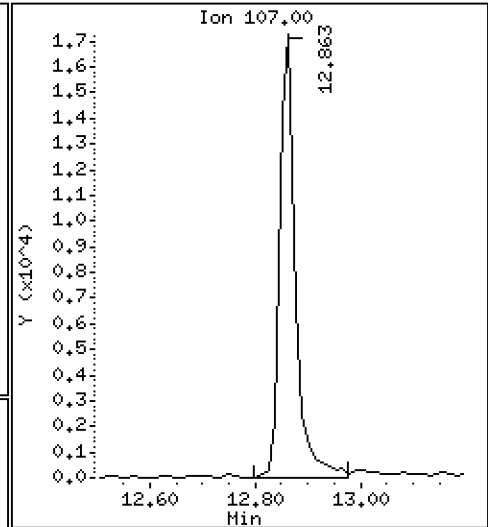
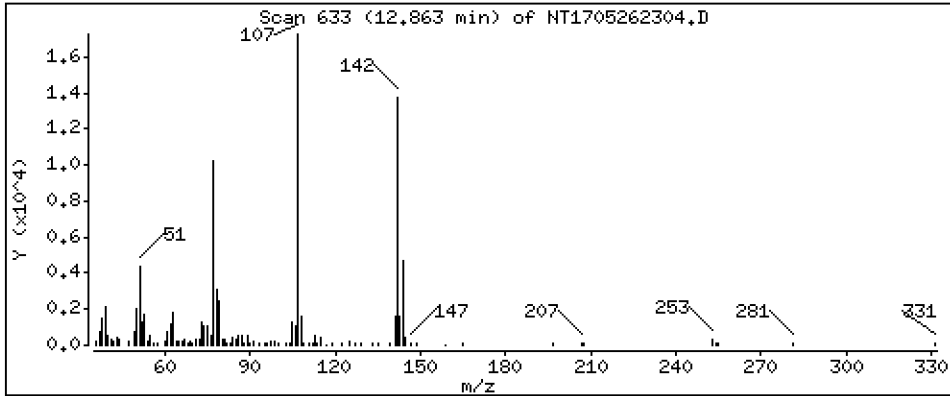
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,3609 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

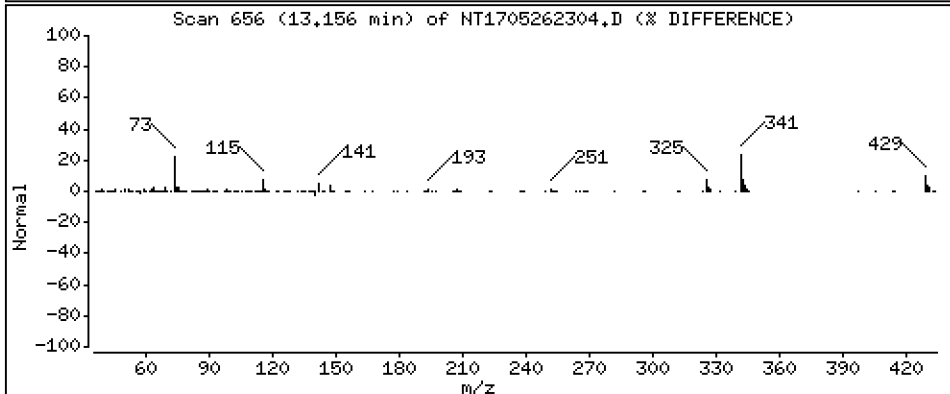
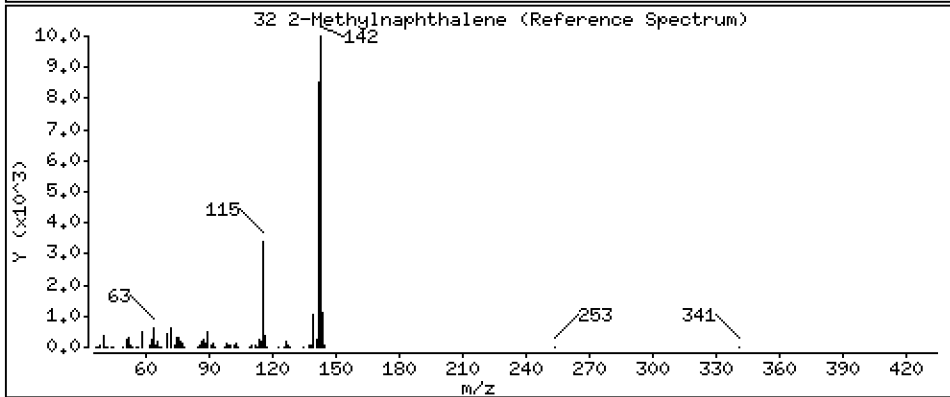
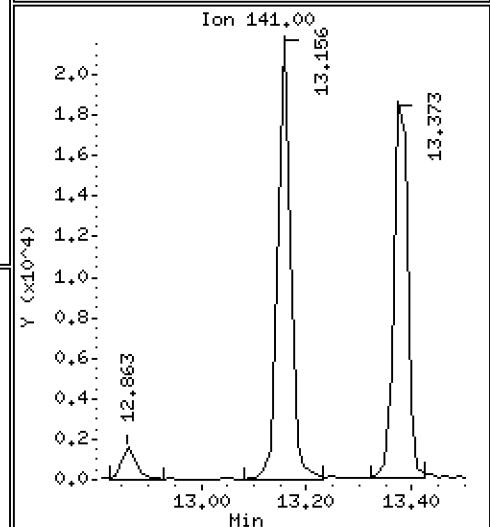
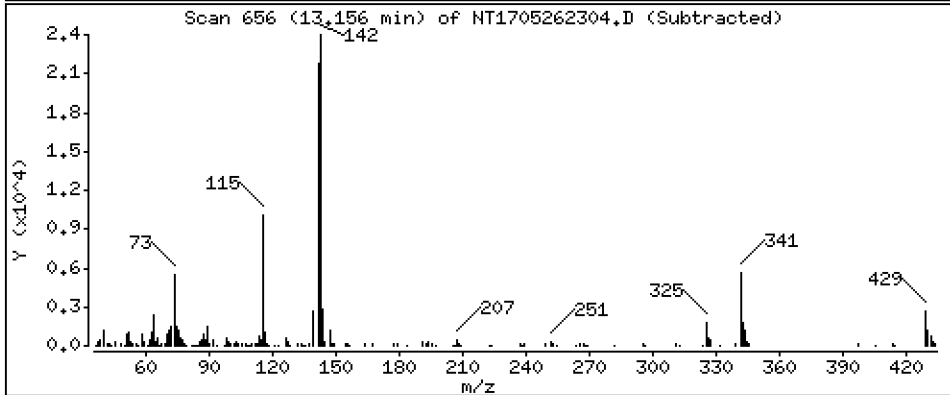
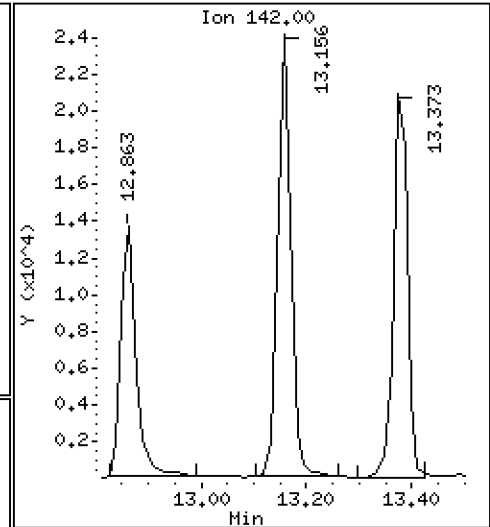
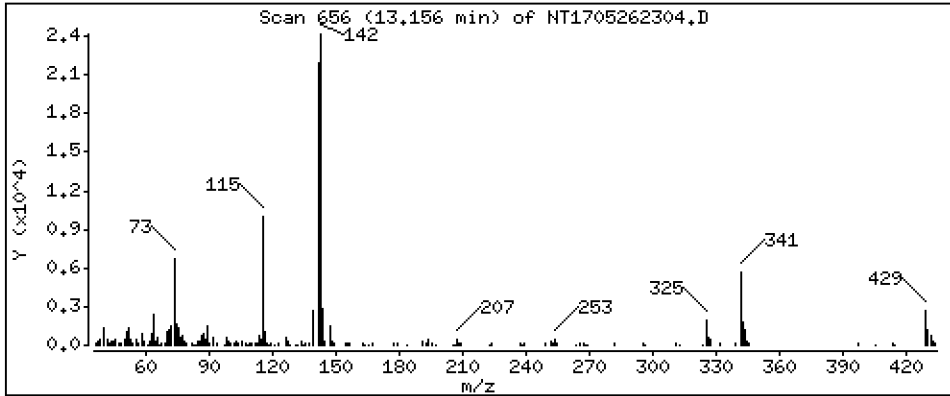
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,1874 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

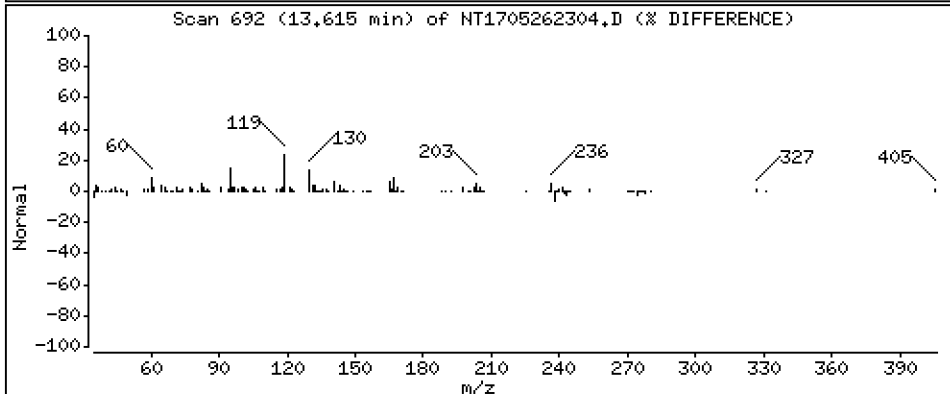
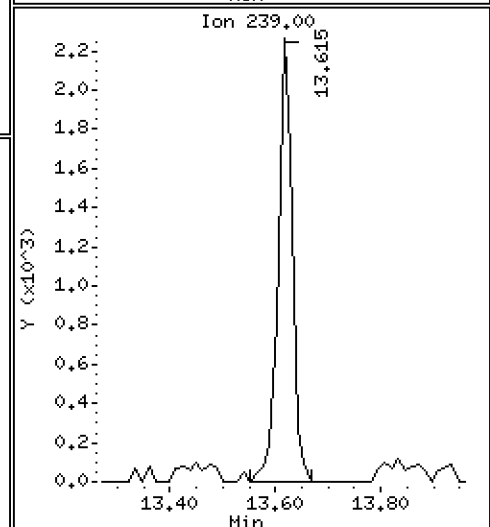
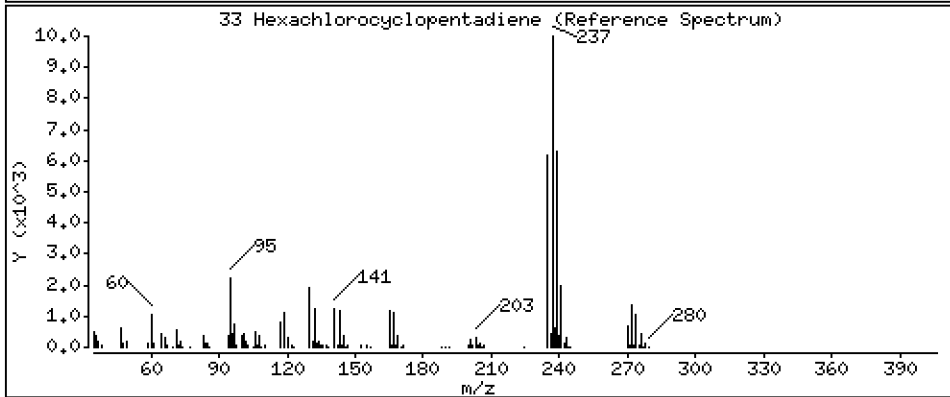
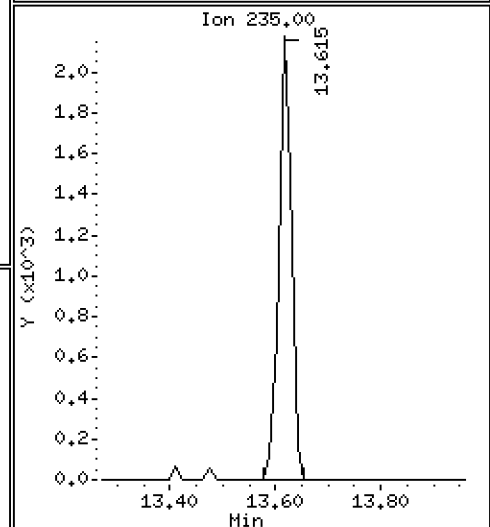
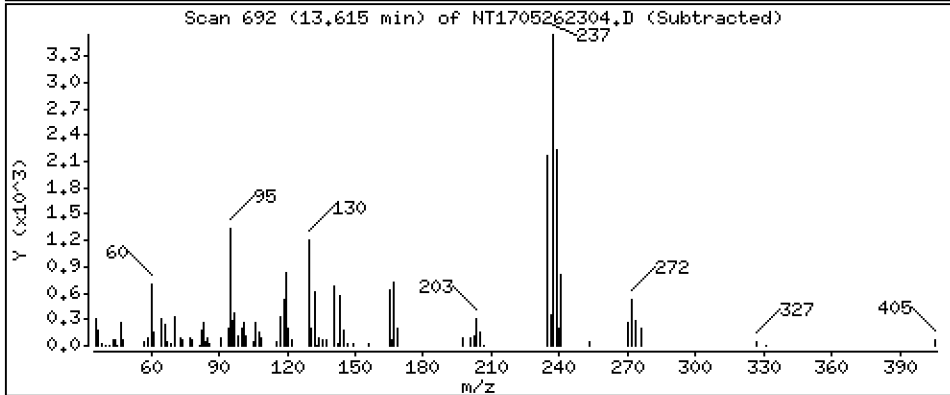
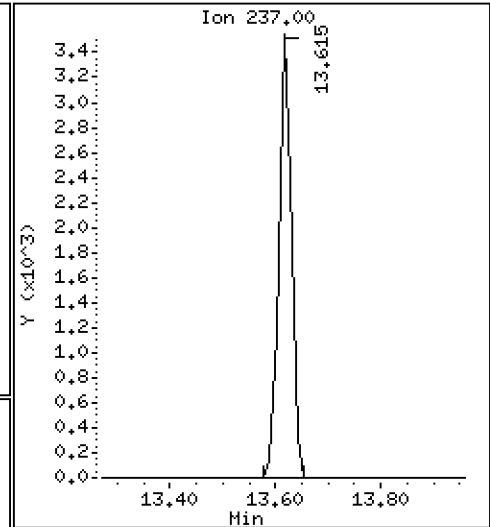
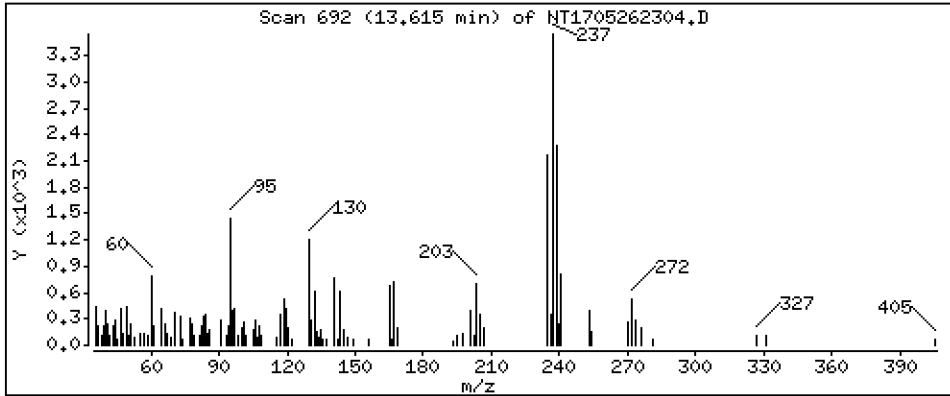
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.1077 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

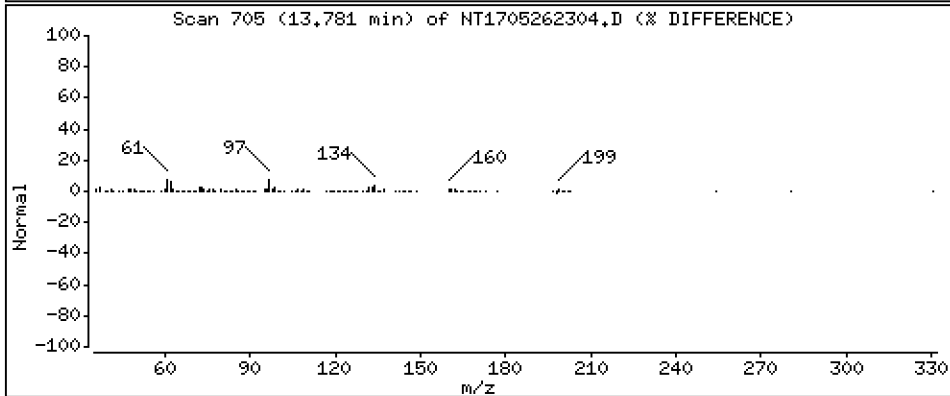
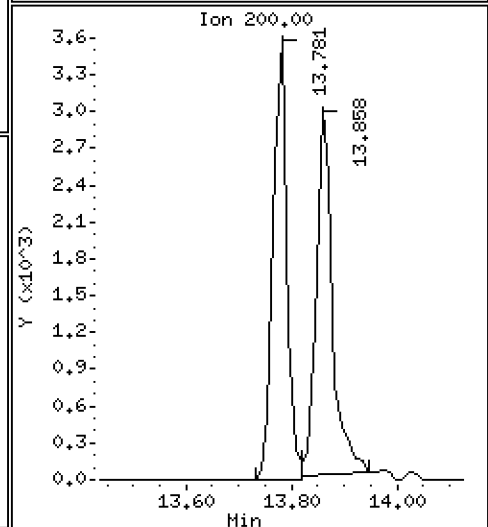
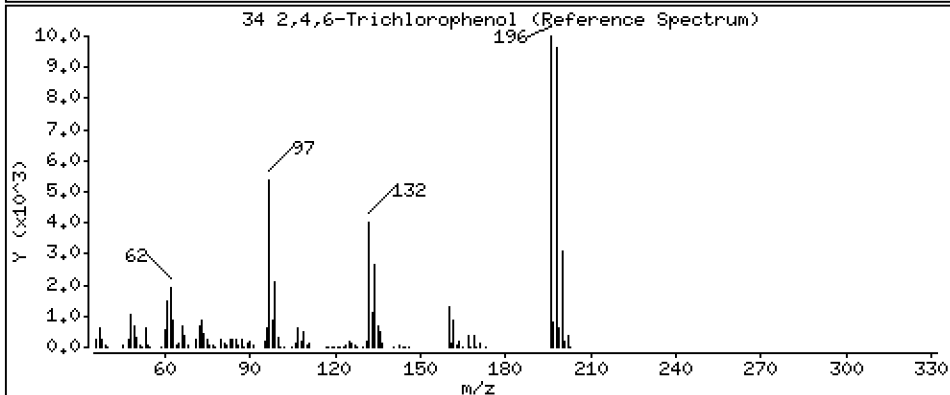
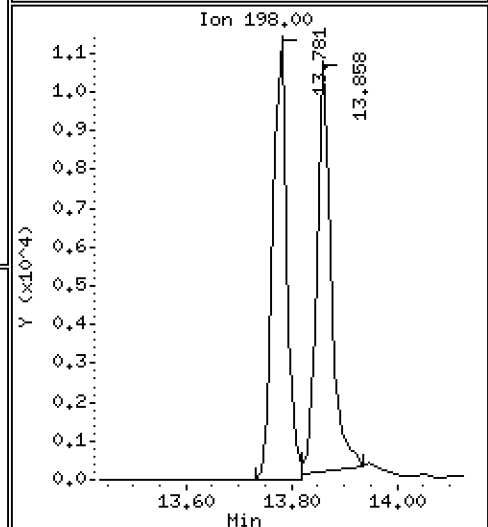
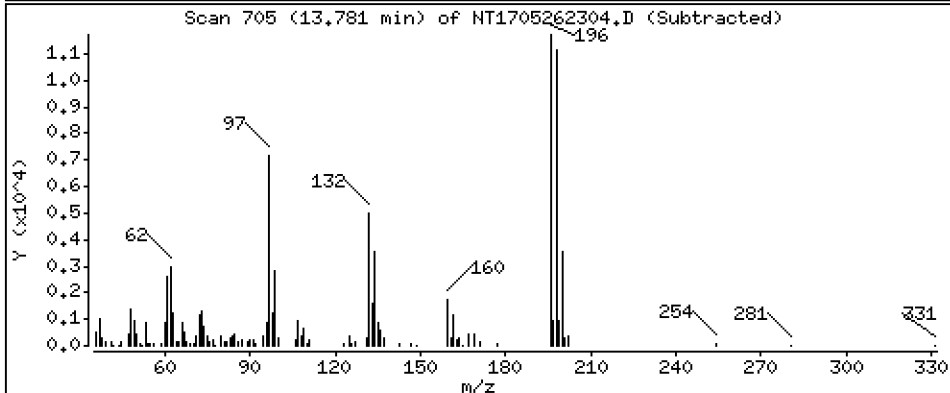
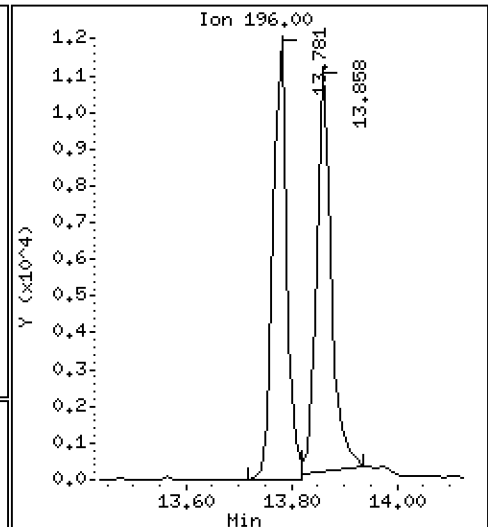
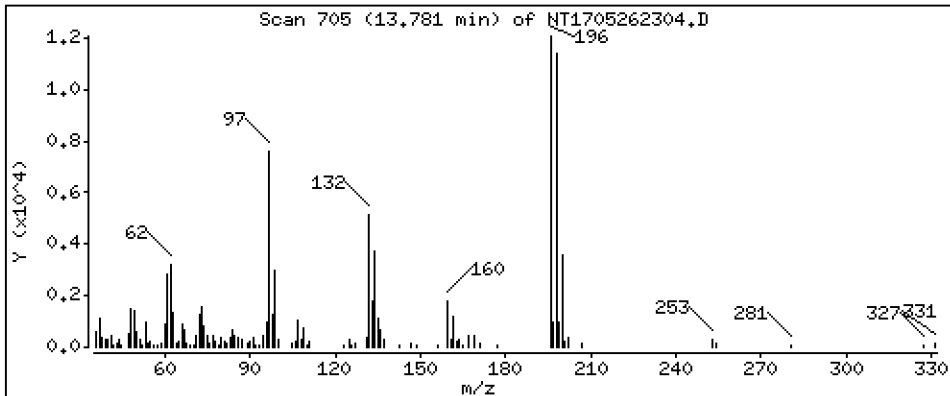
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.3562 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

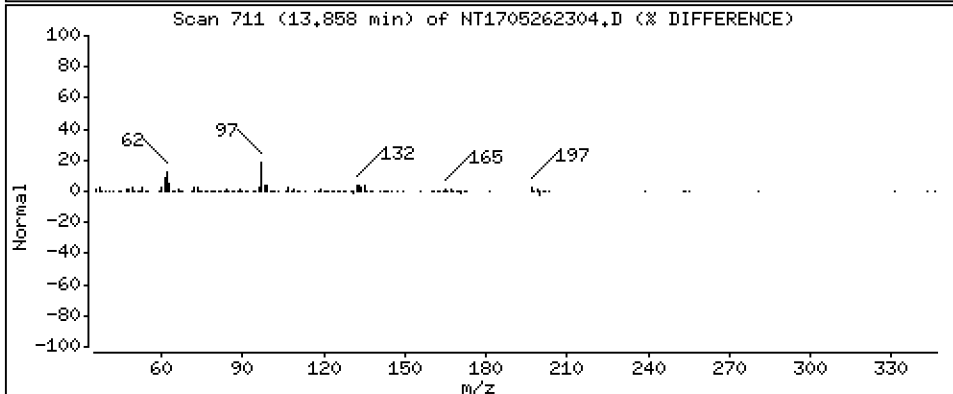
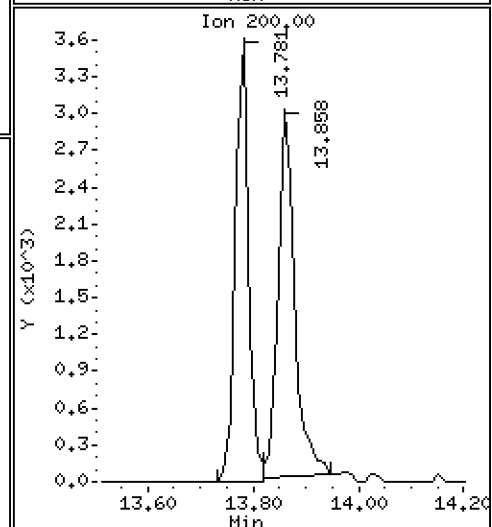
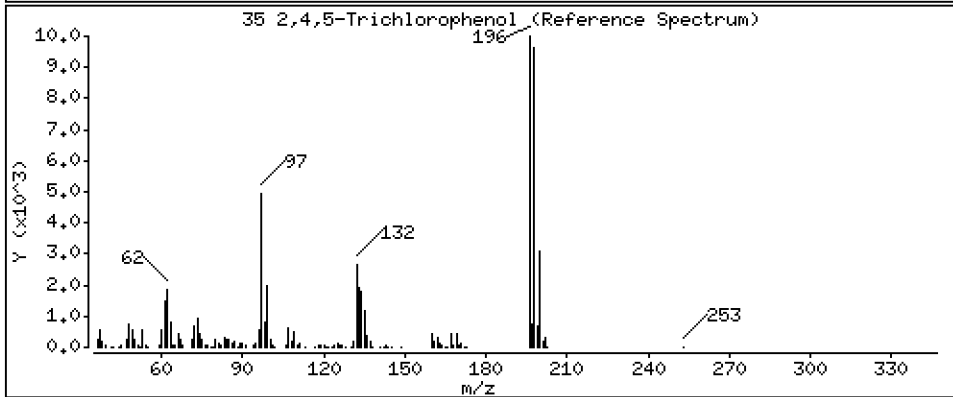
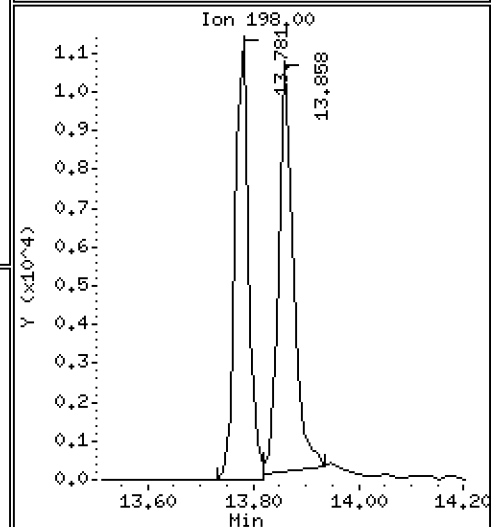
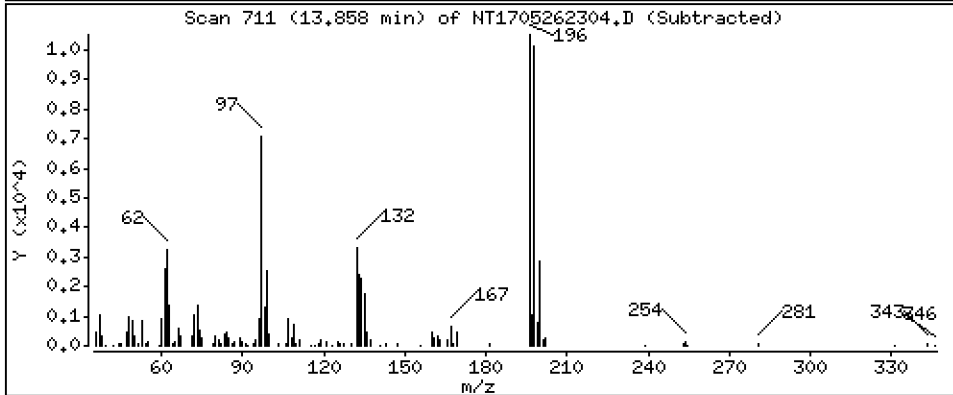
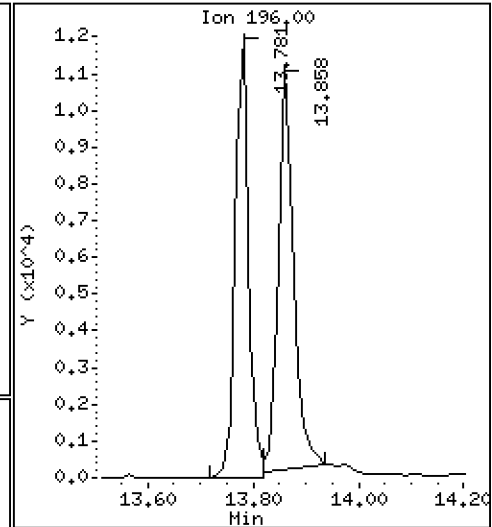
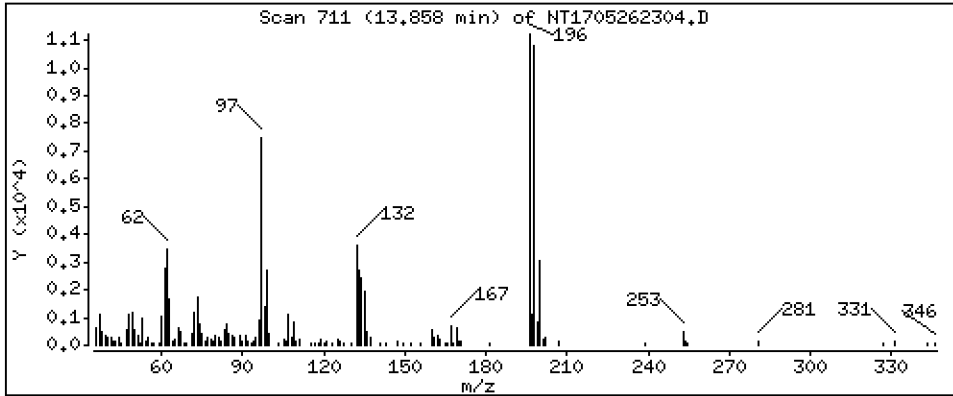
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,3389 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

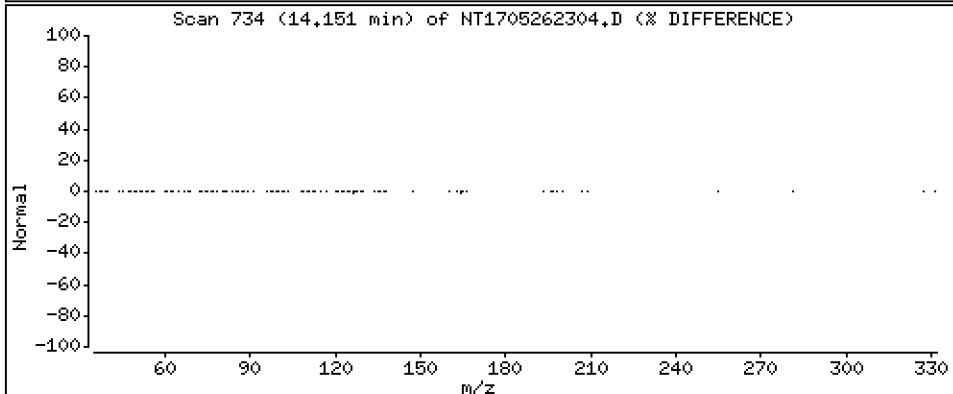
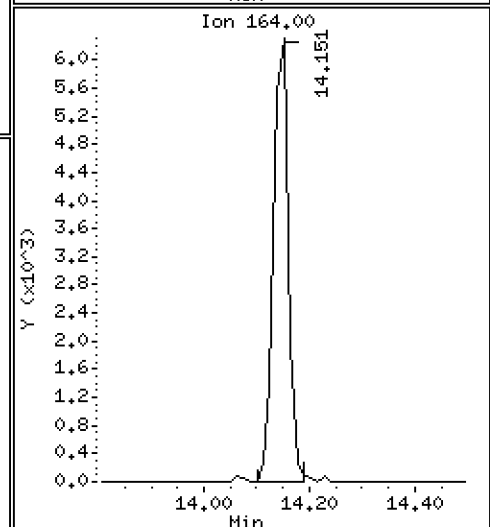
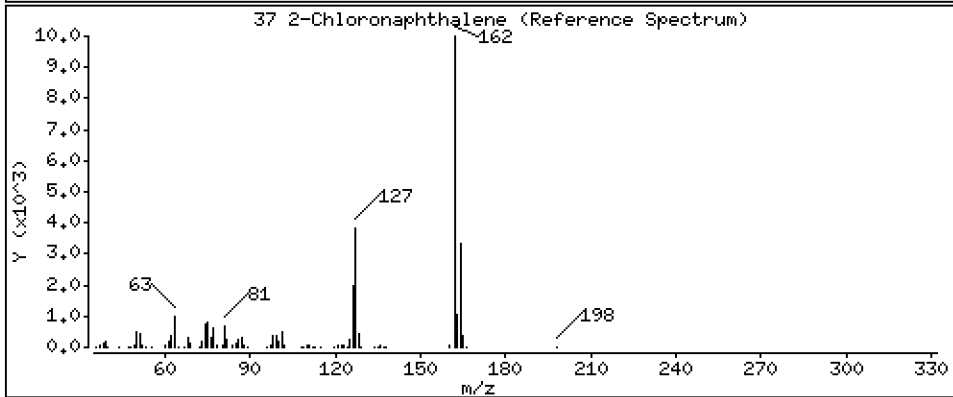
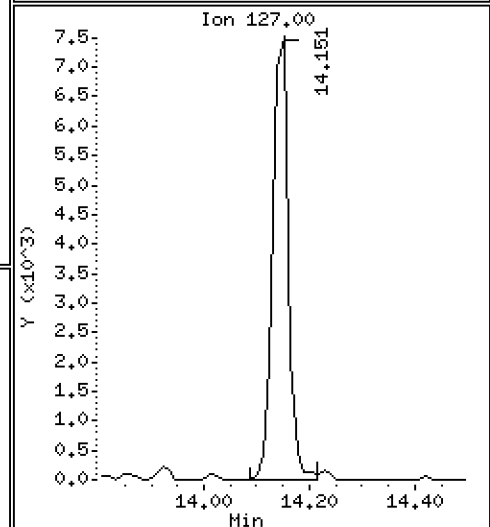
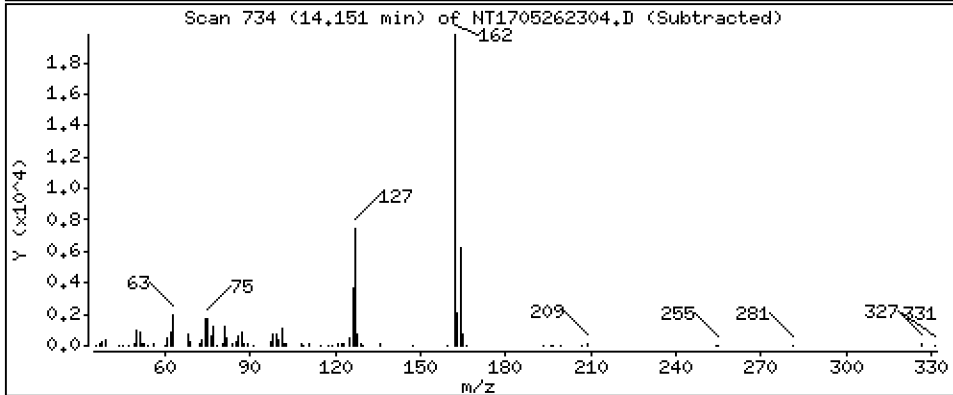
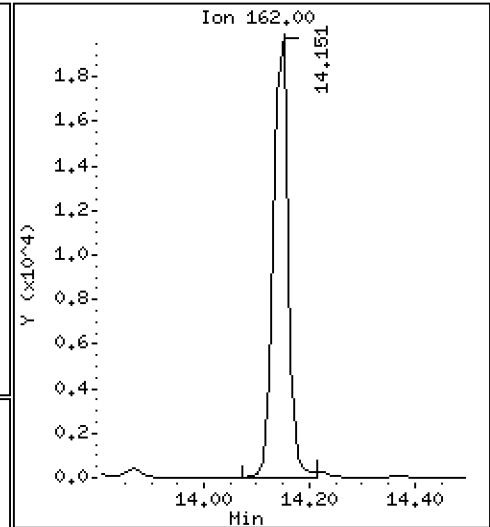
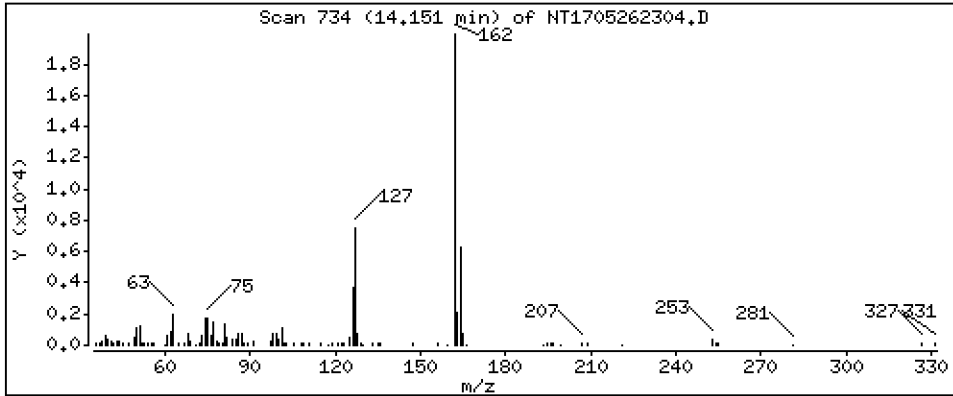
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 0.2059 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

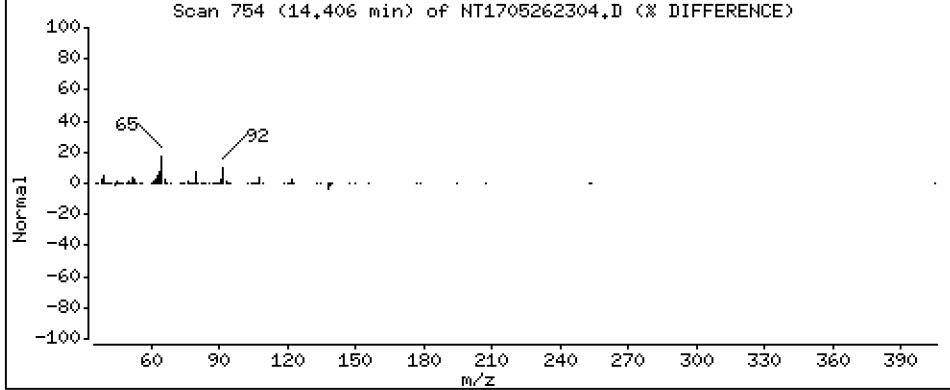
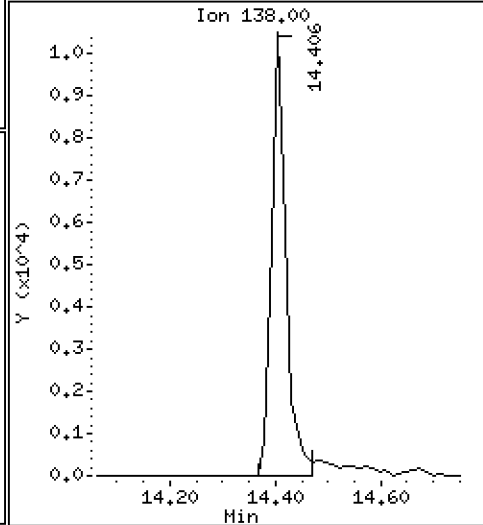
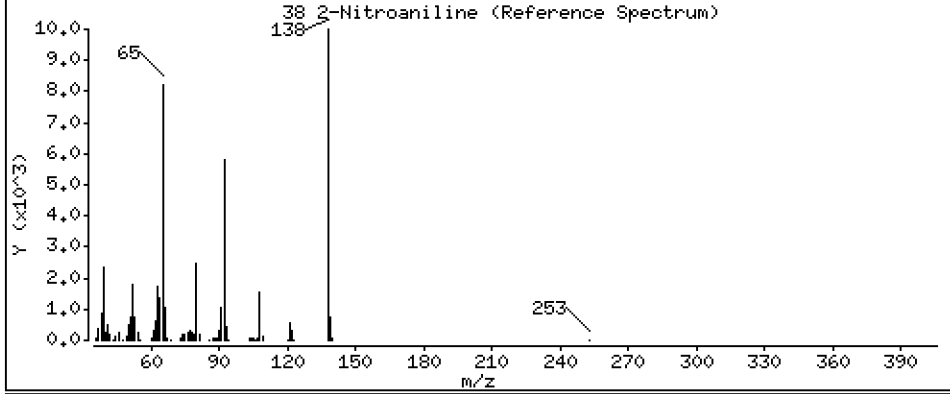
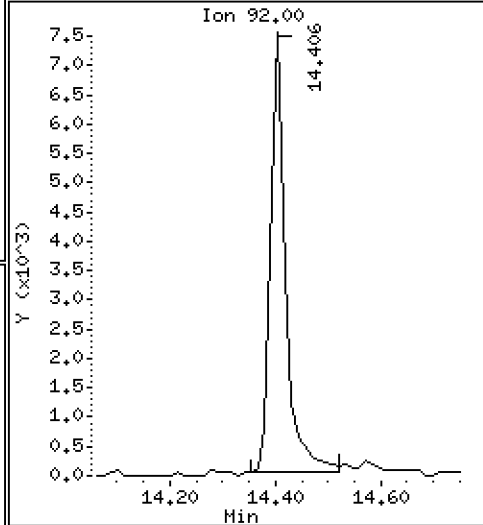
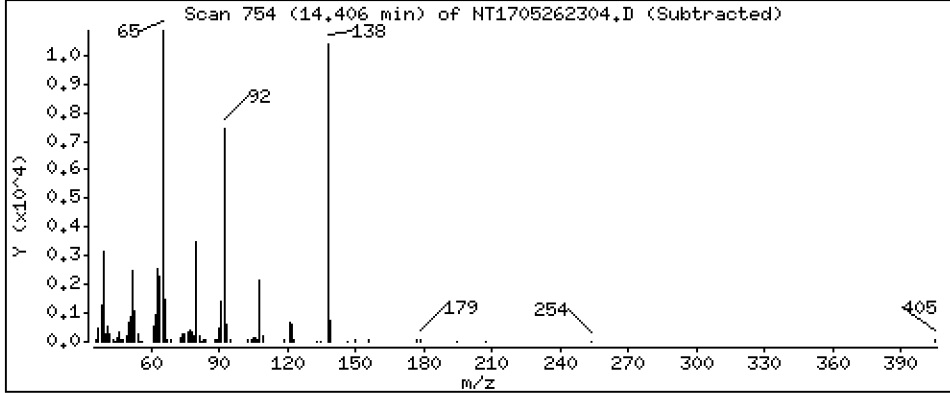
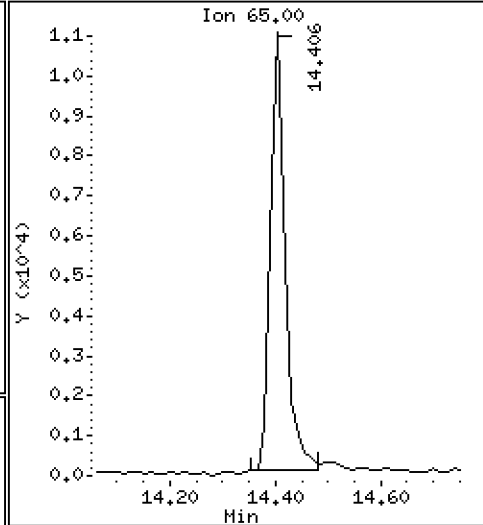
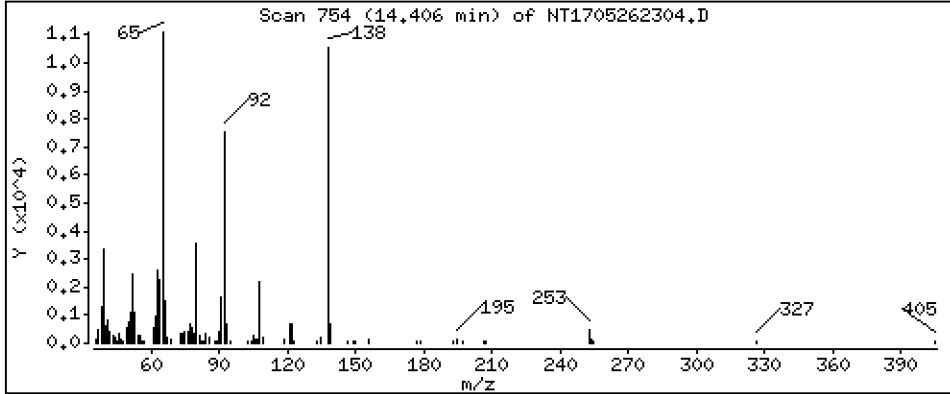
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,3449 ug/mL

38 2-Nitroaniline



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

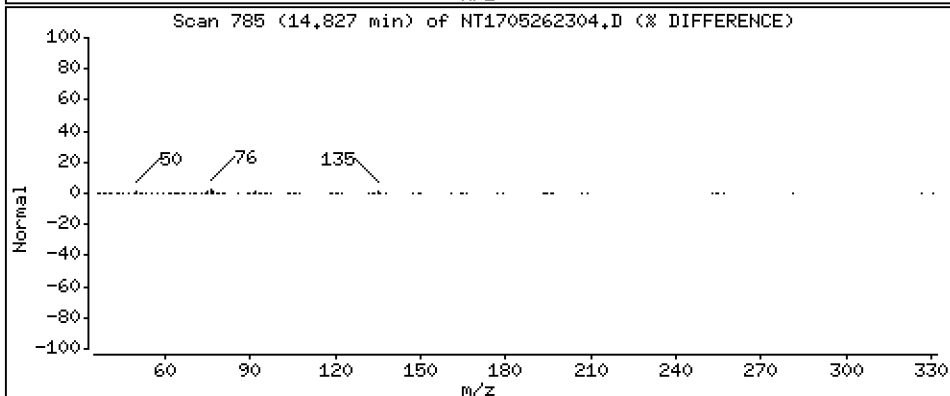
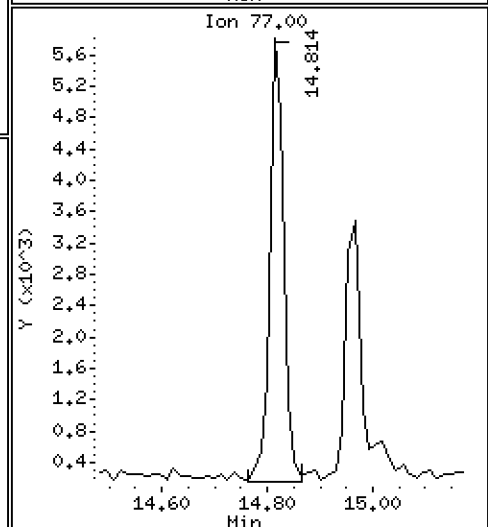
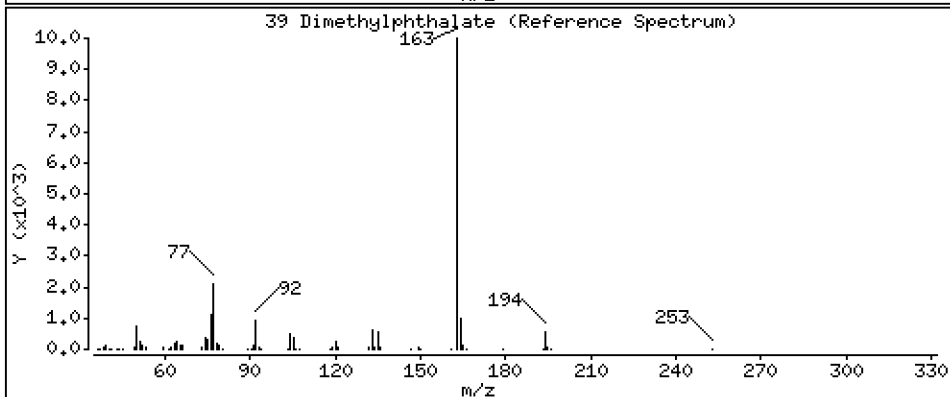
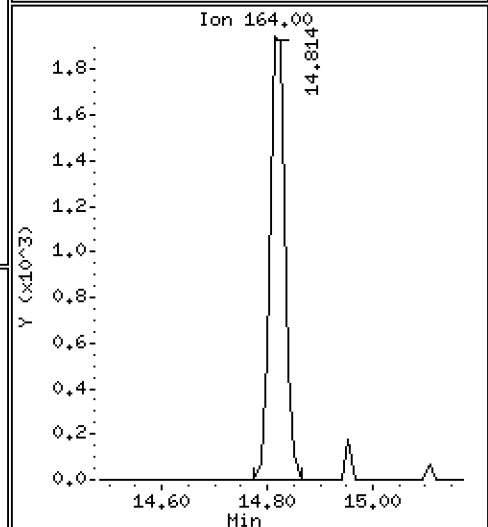
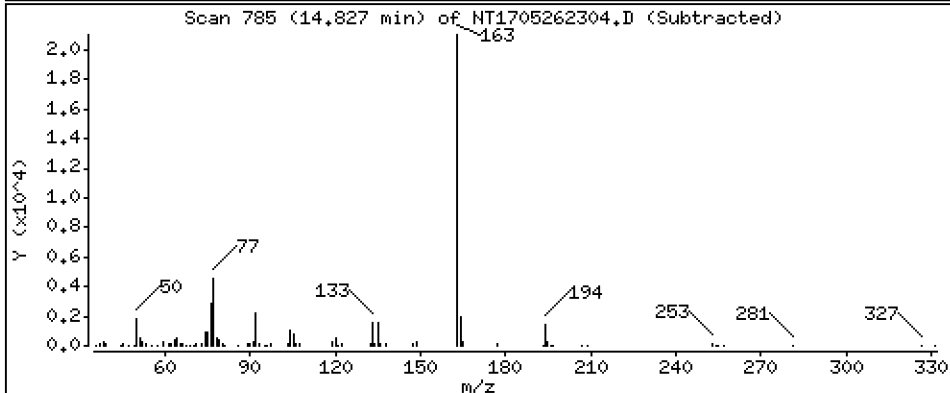
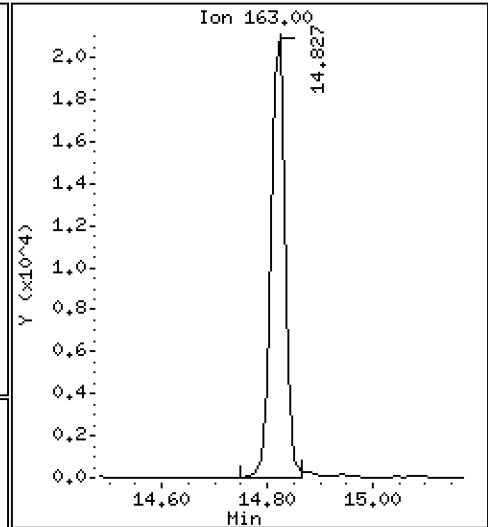
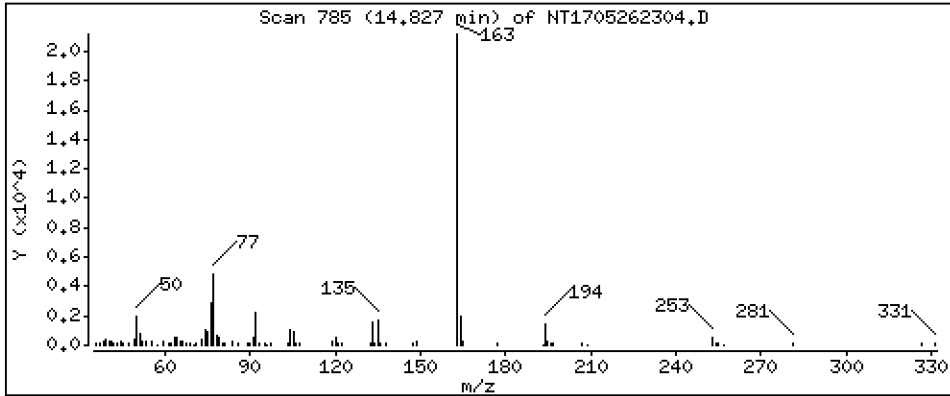
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,1997 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

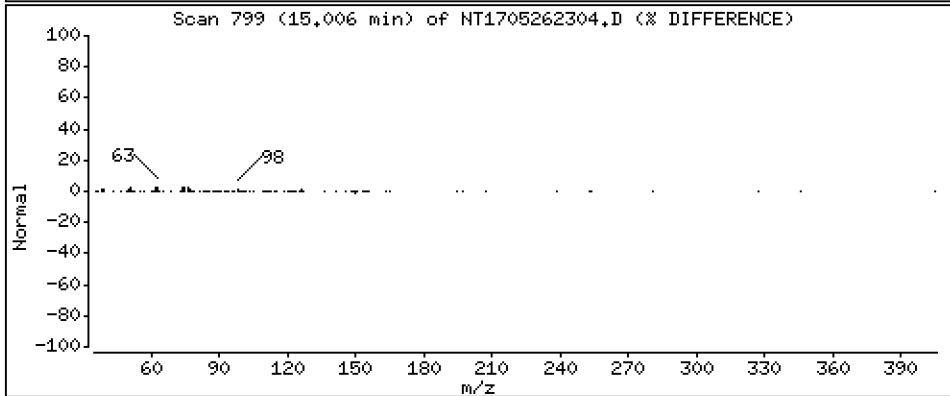
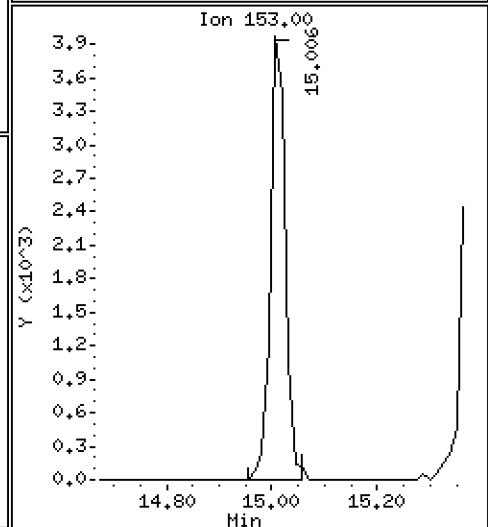
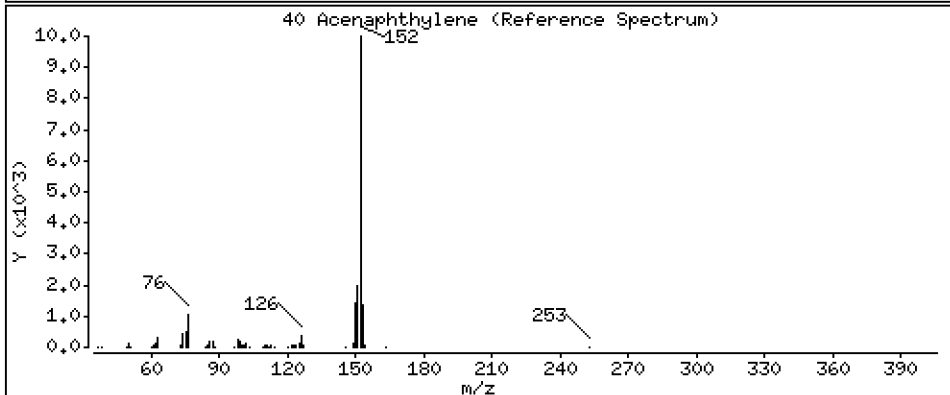
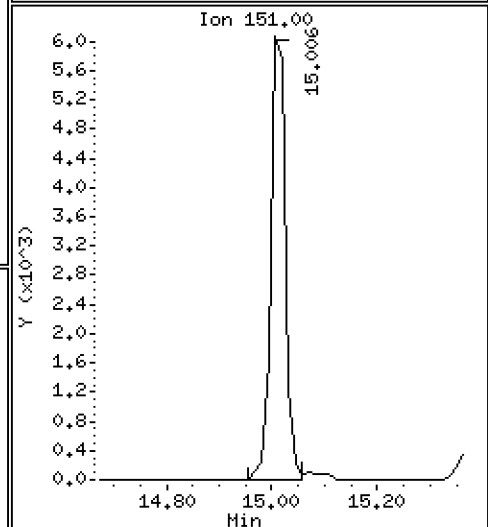
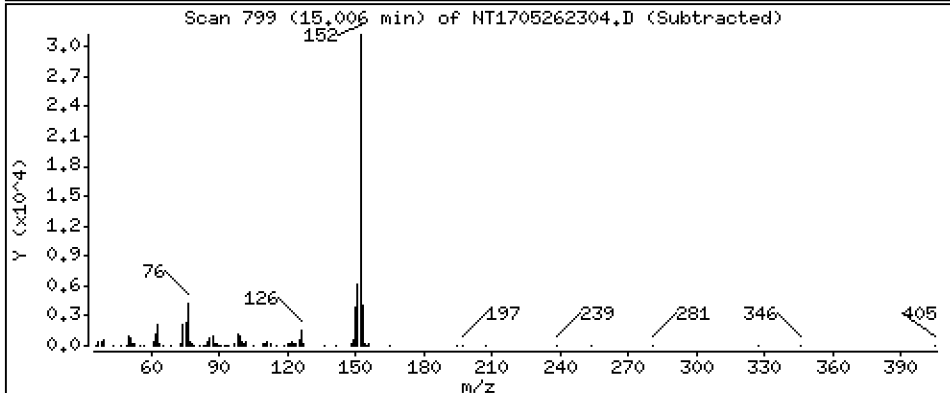
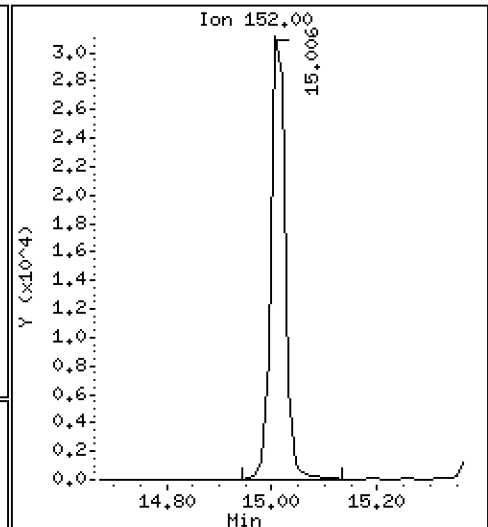
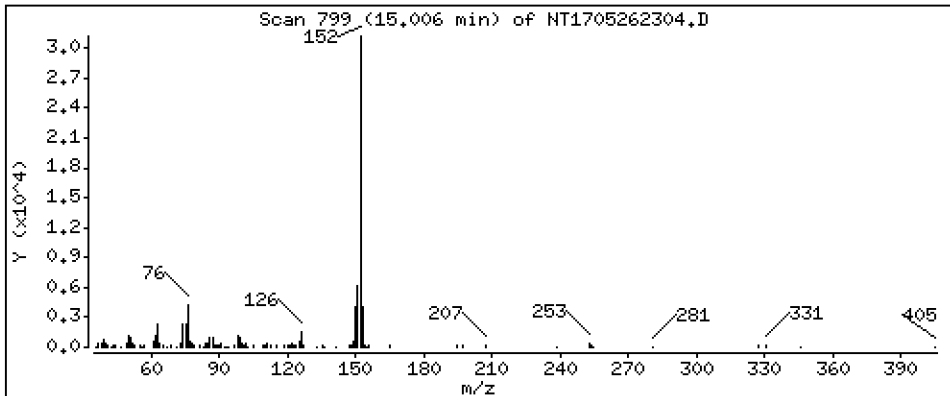
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,2072 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

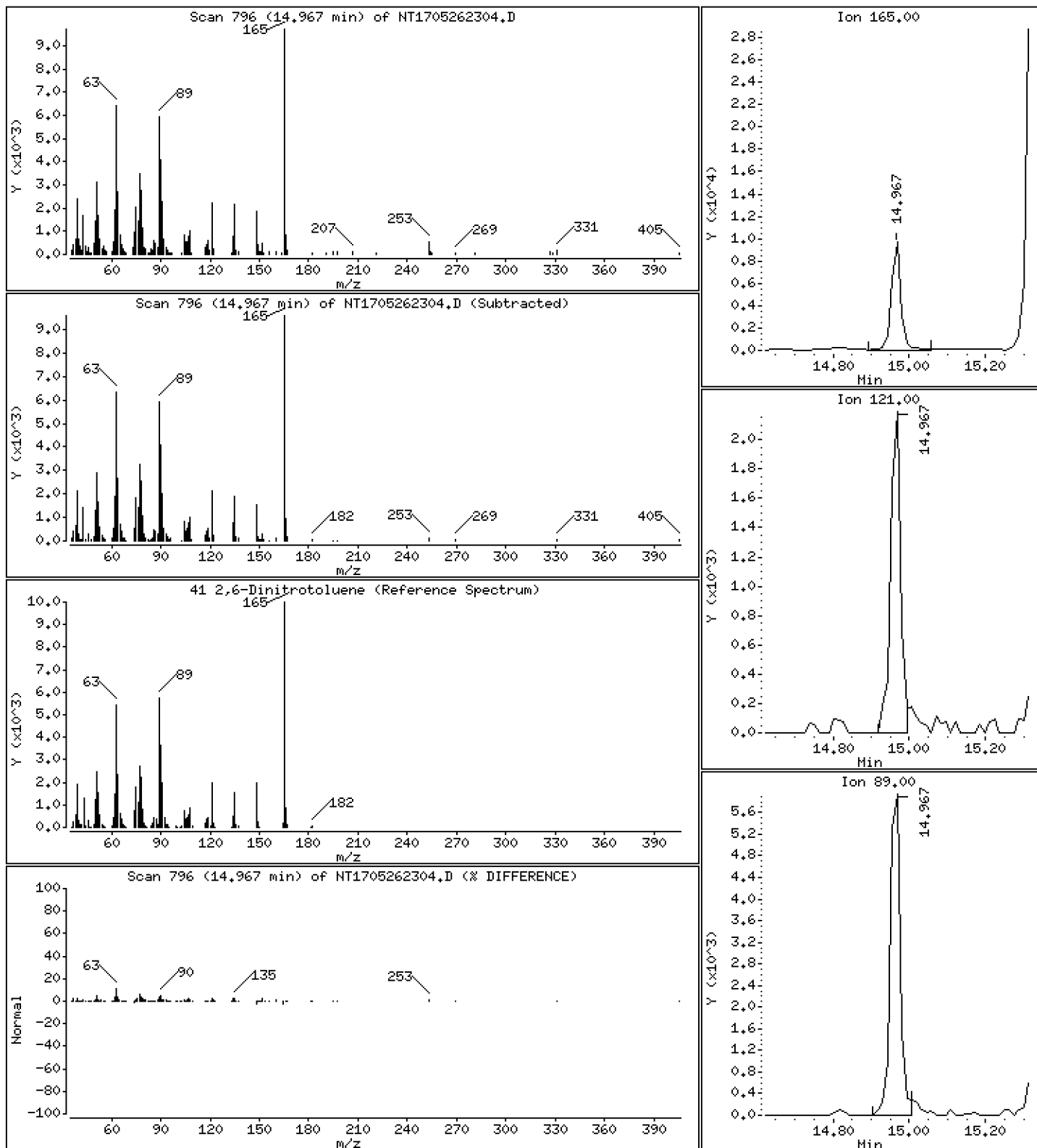
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,3679 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

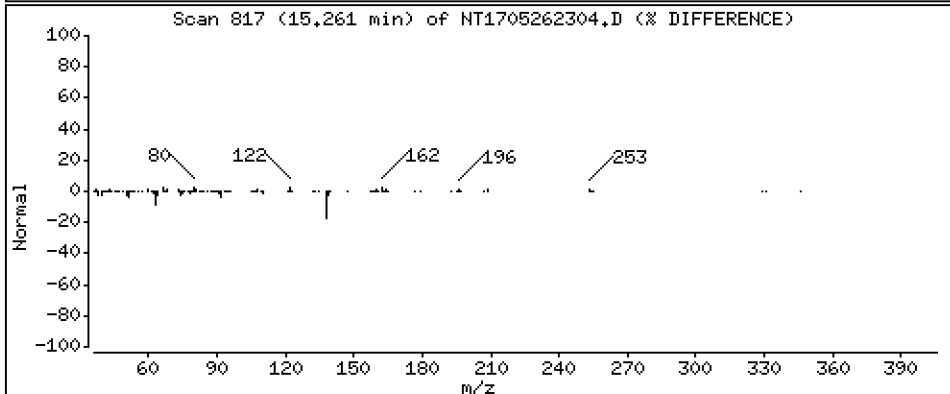
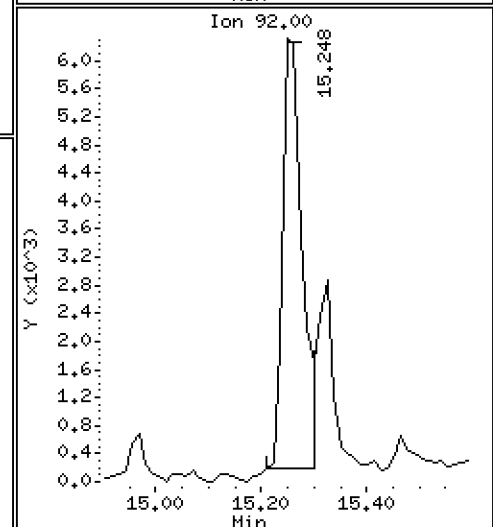
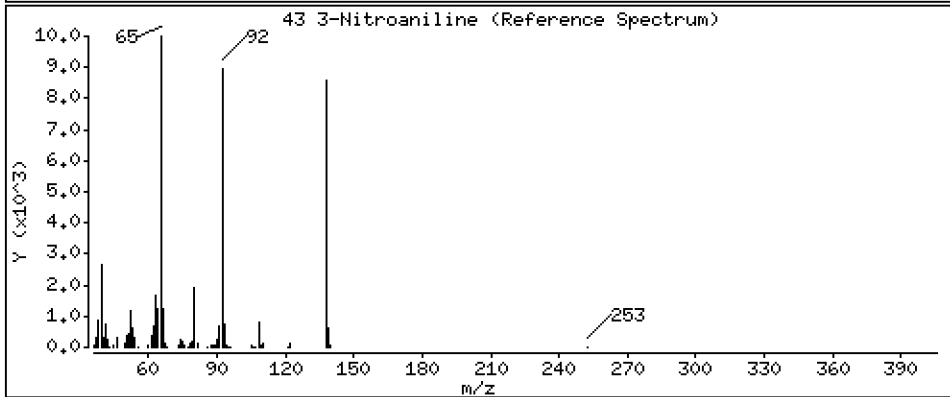
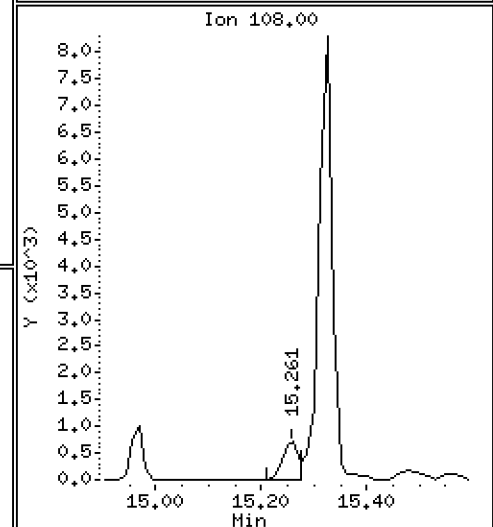
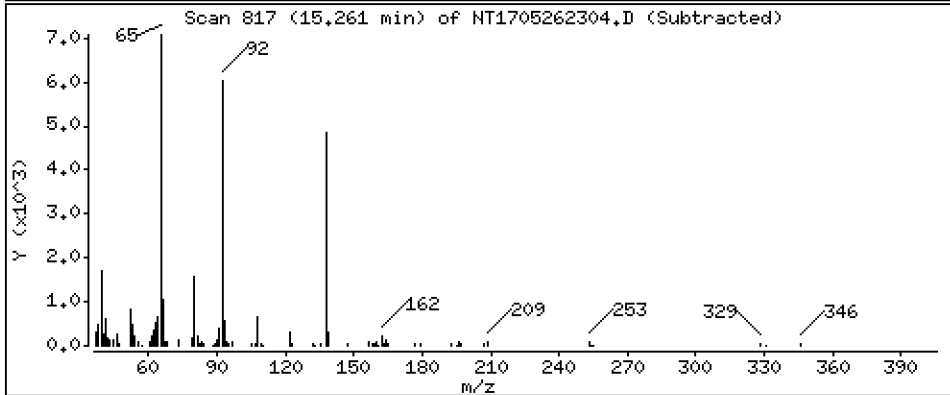
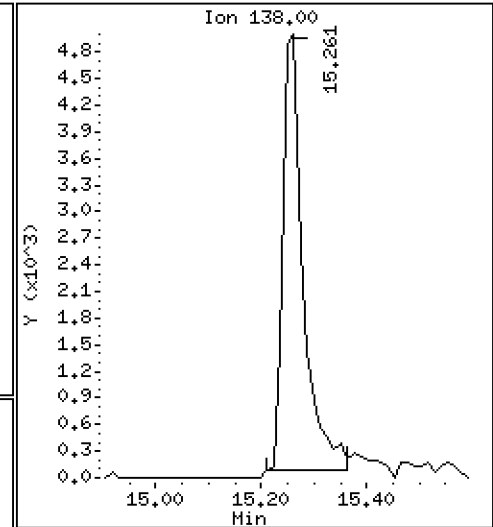
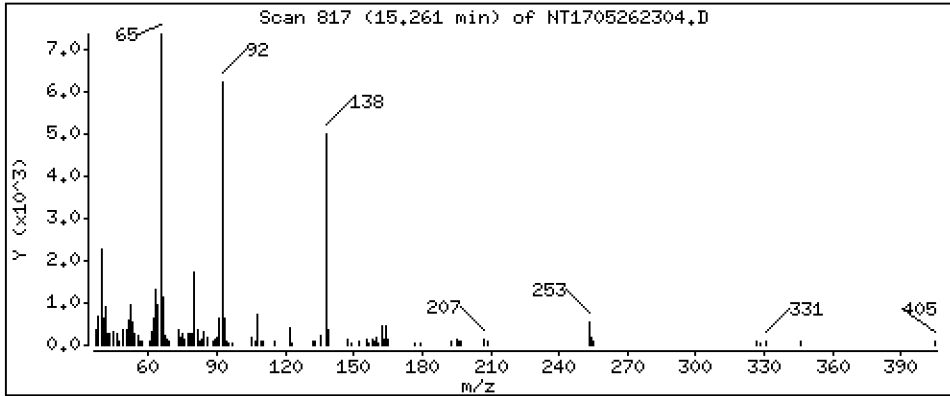
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,3056 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

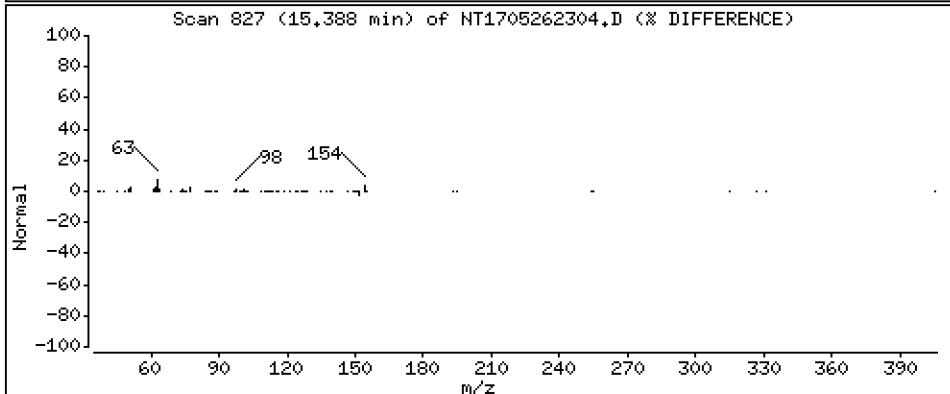
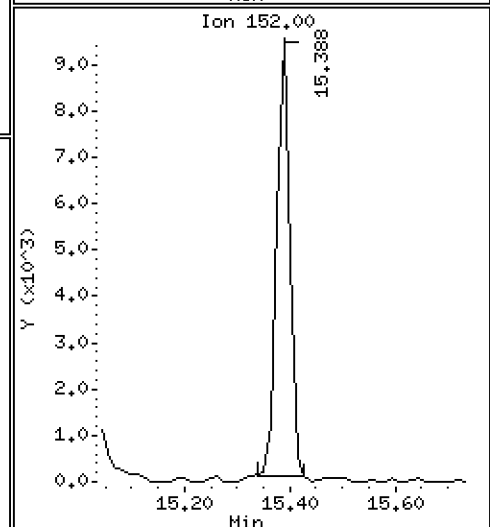
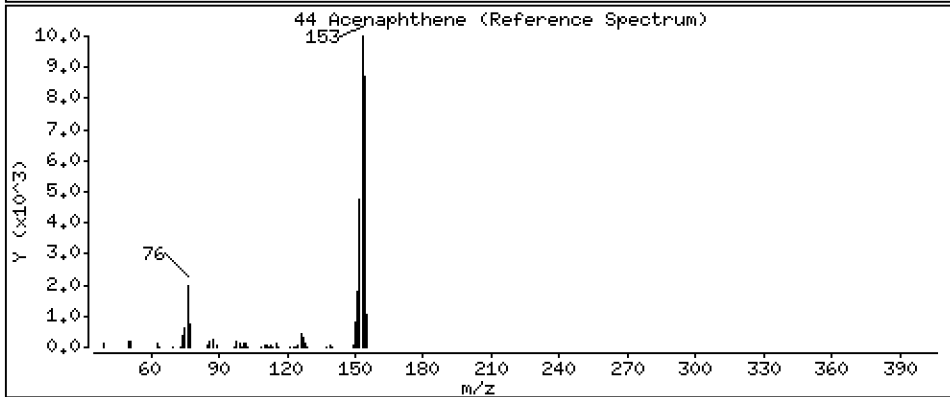
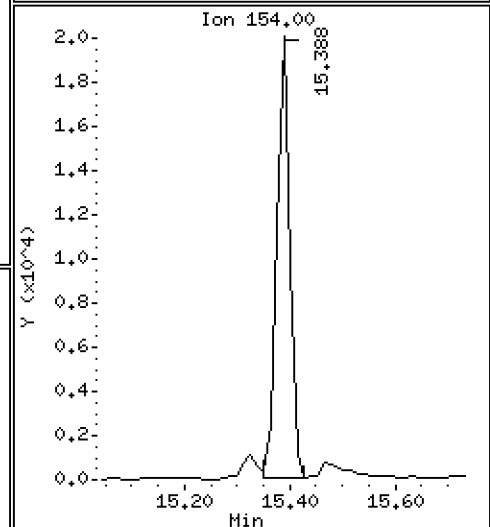
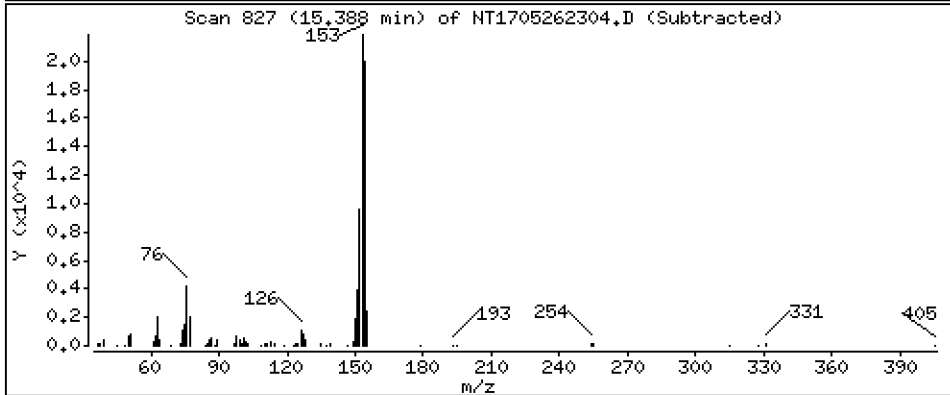
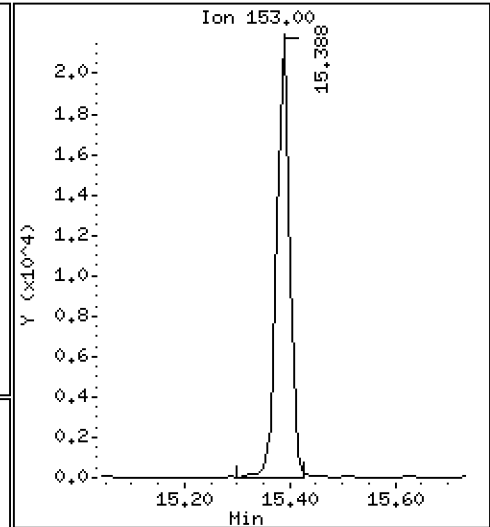
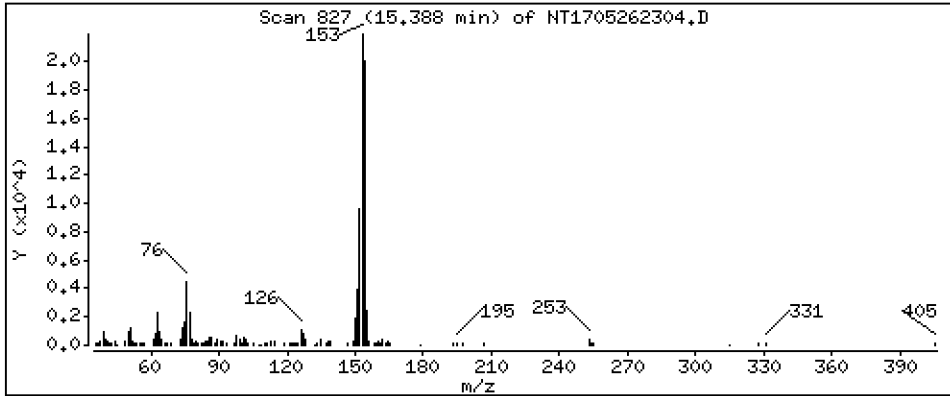
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,2060 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

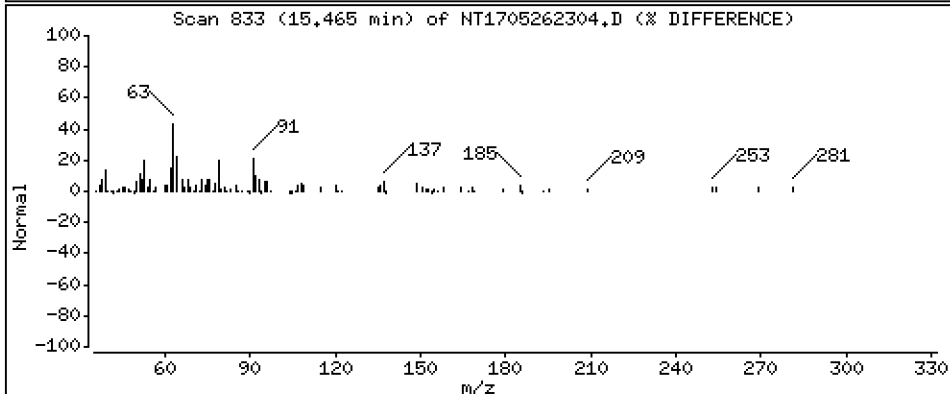
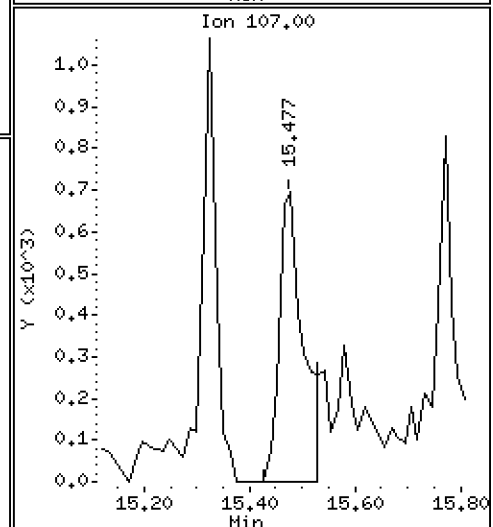
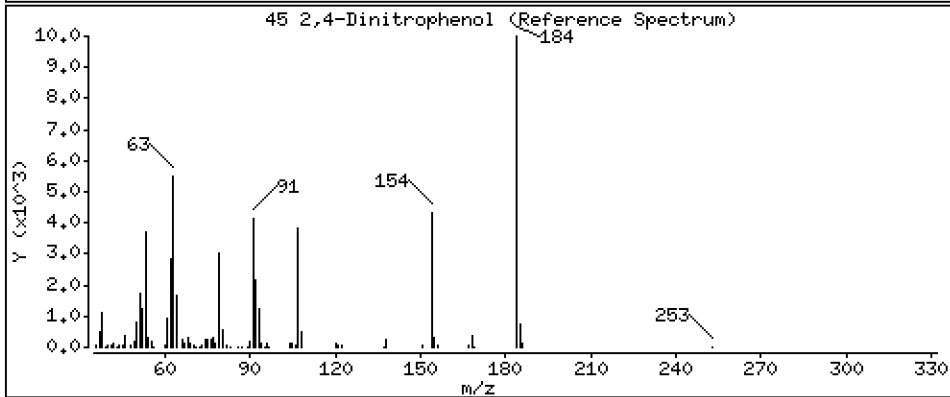
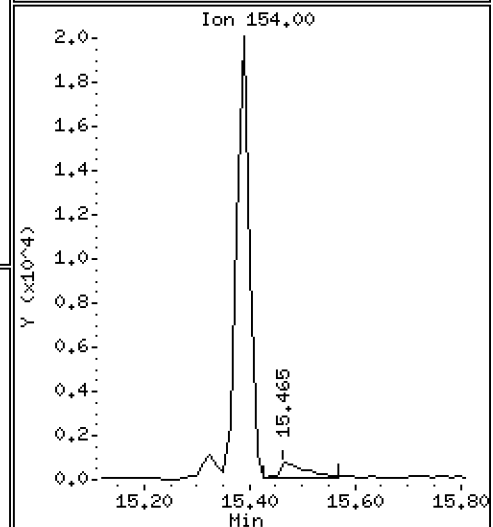
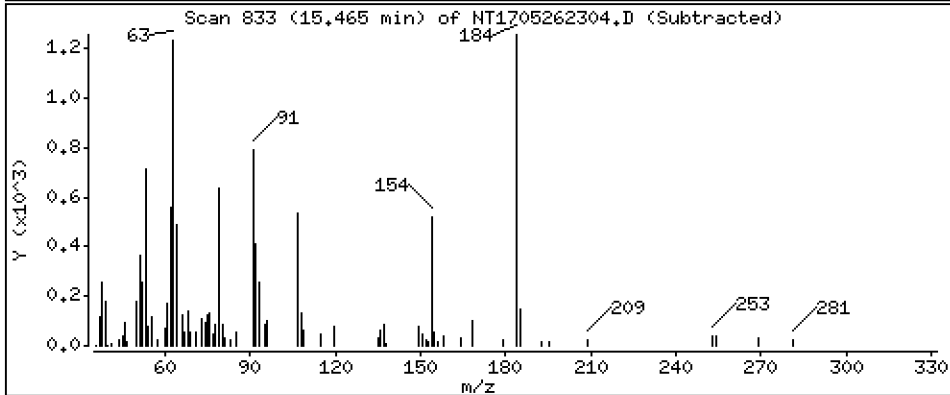
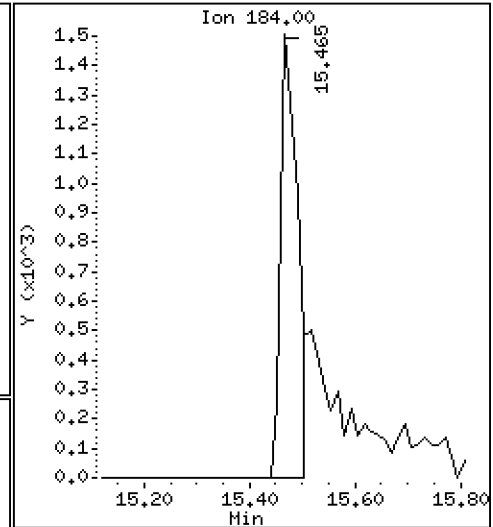
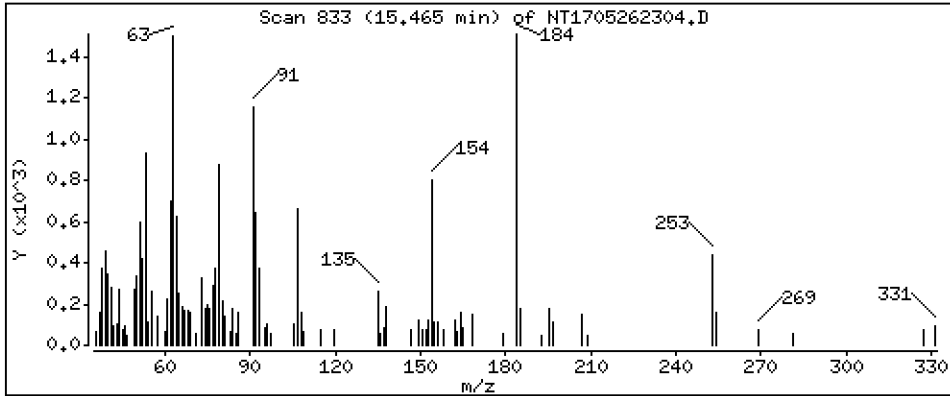
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,1227 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

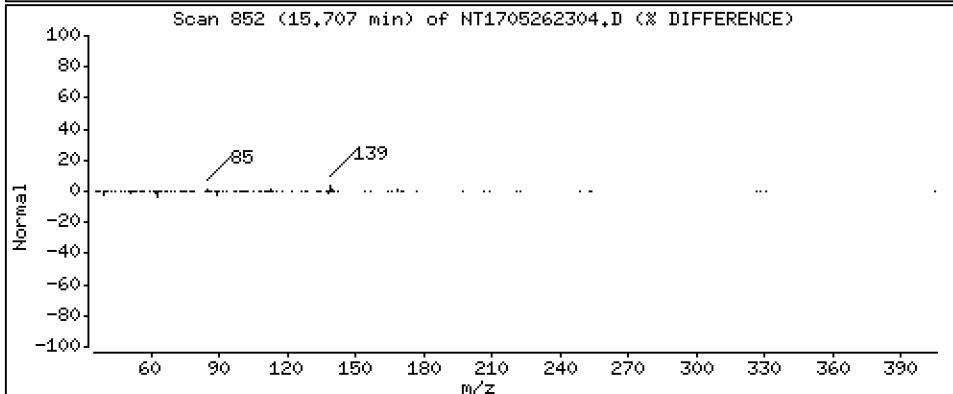
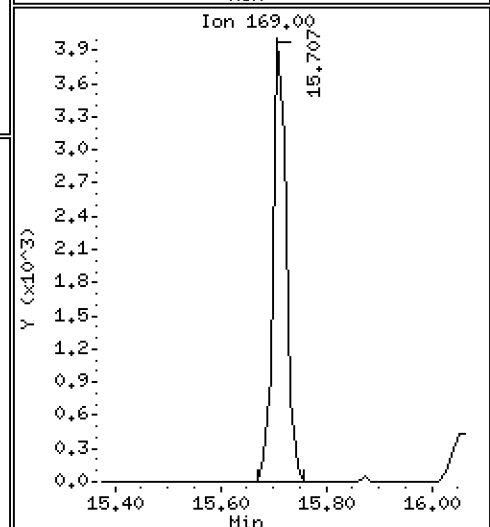
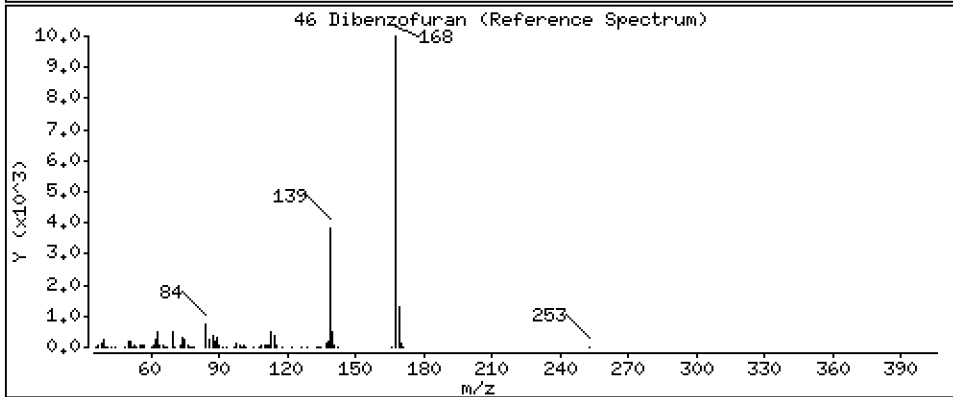
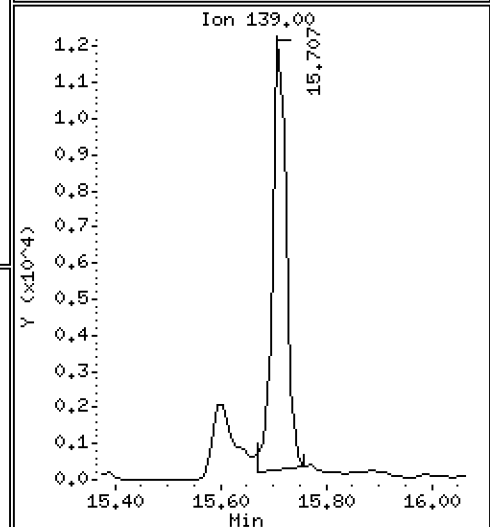
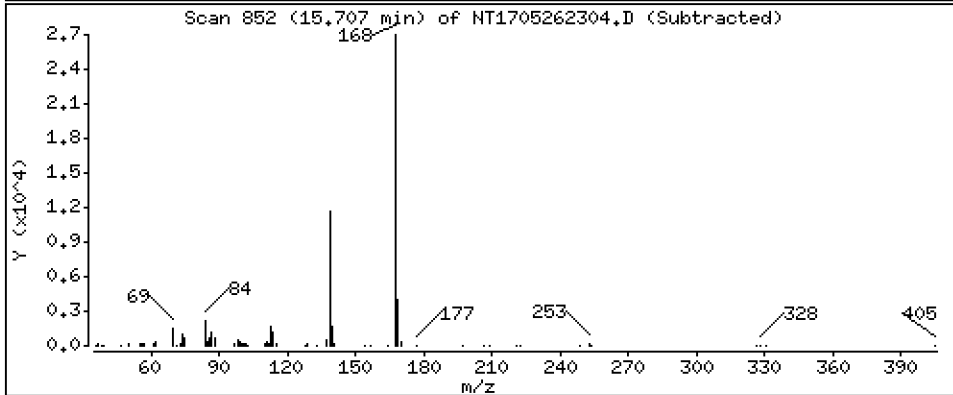
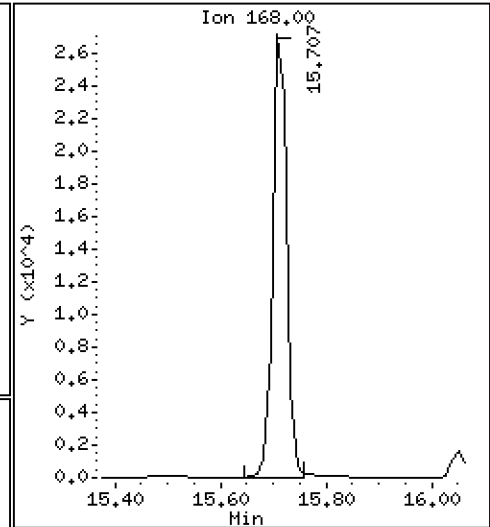
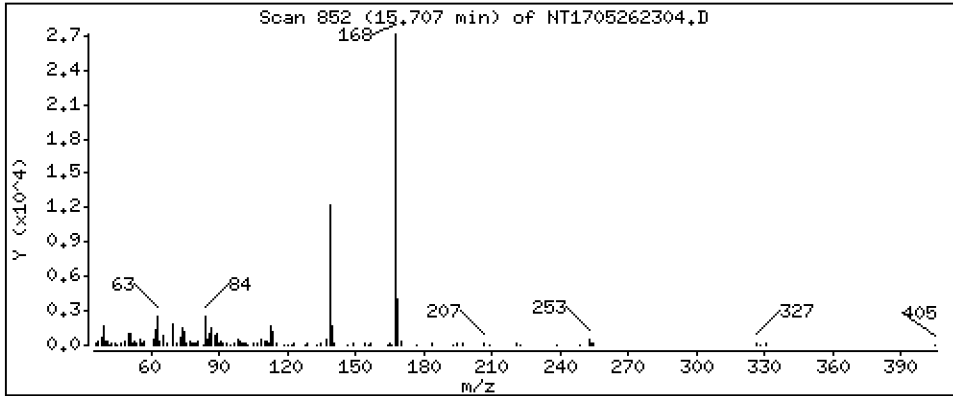
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1979 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

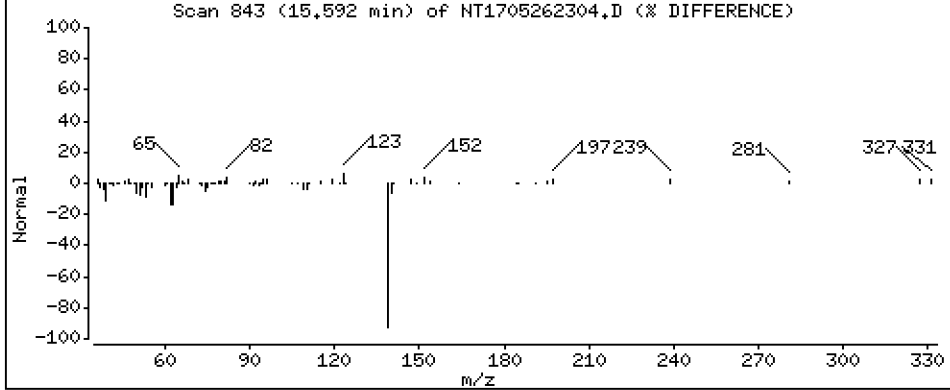
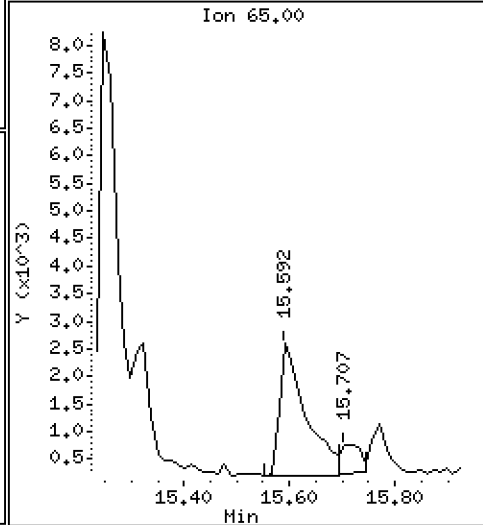
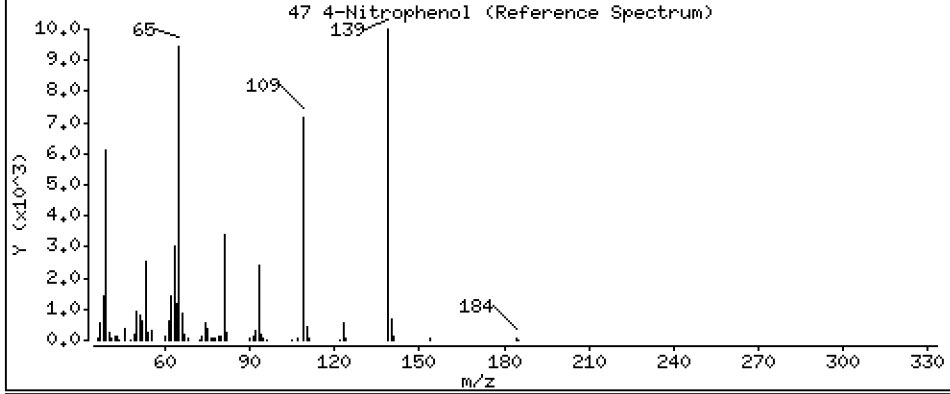
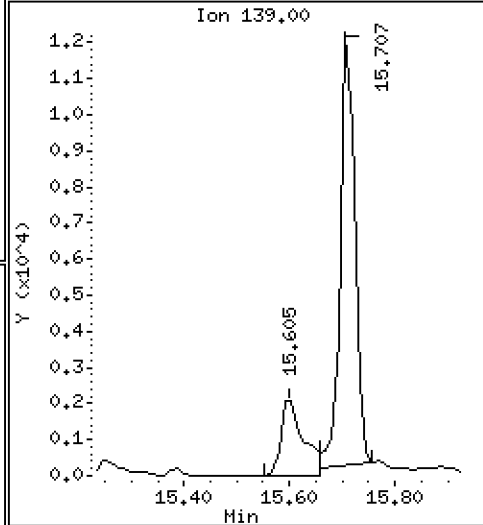
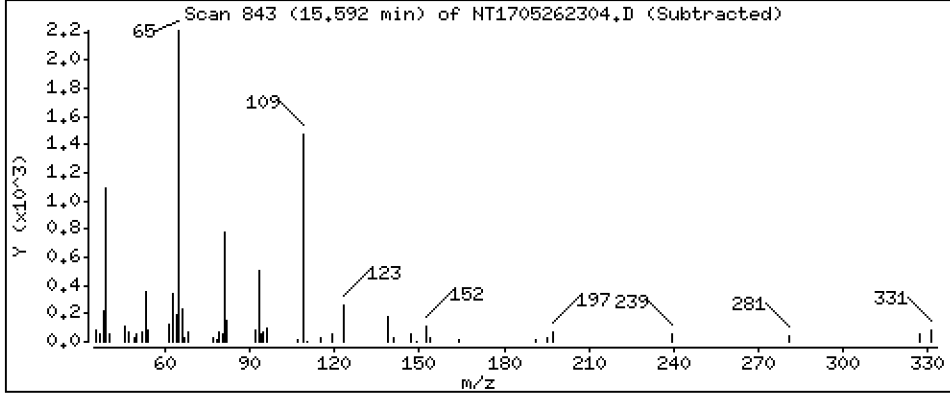
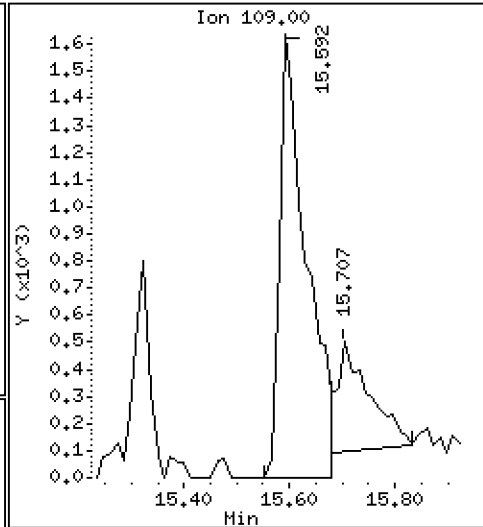
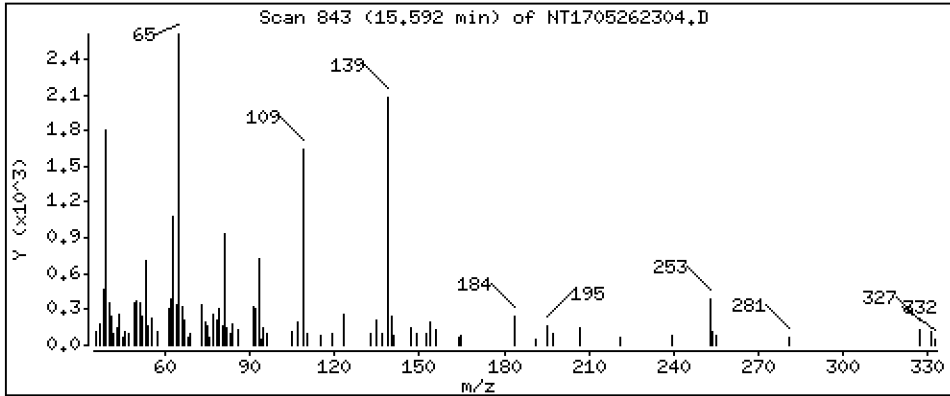
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

47 4-Nitrophenol

Concentration: 0.2097 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

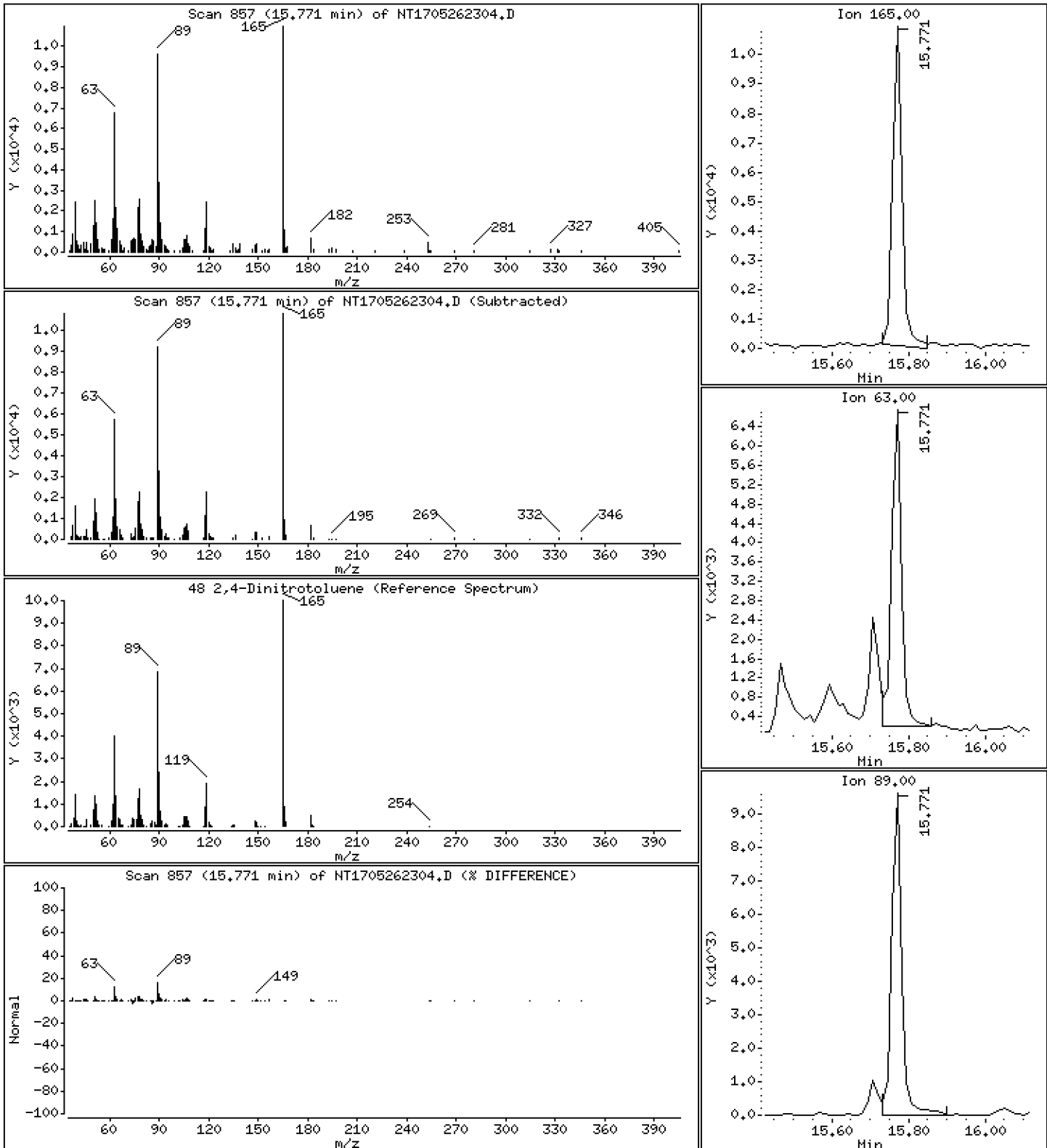
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,3191 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

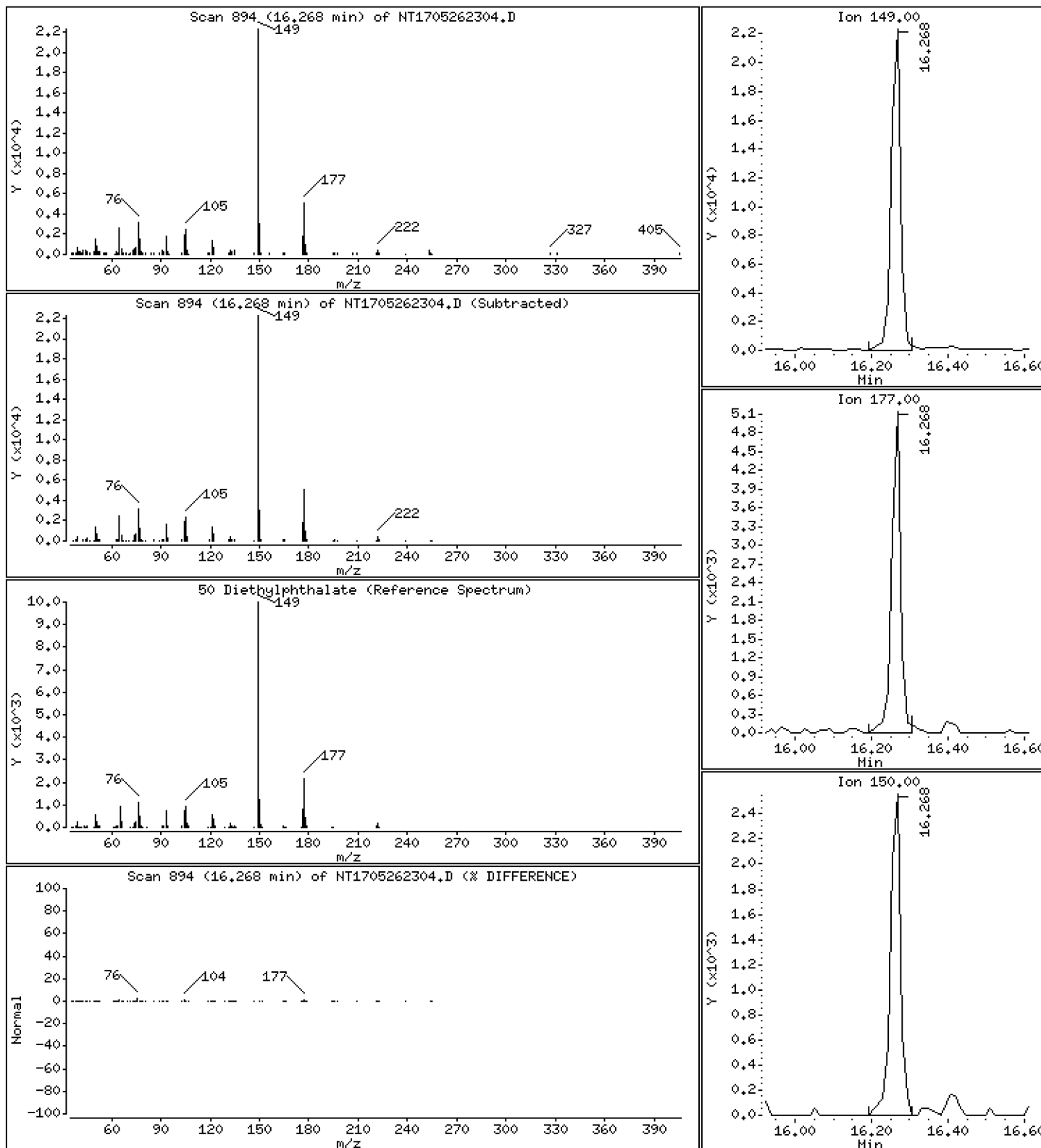
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,2517 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

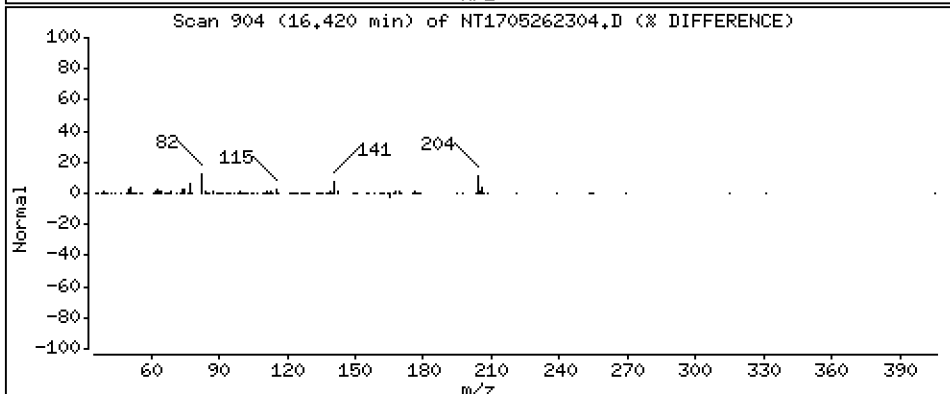
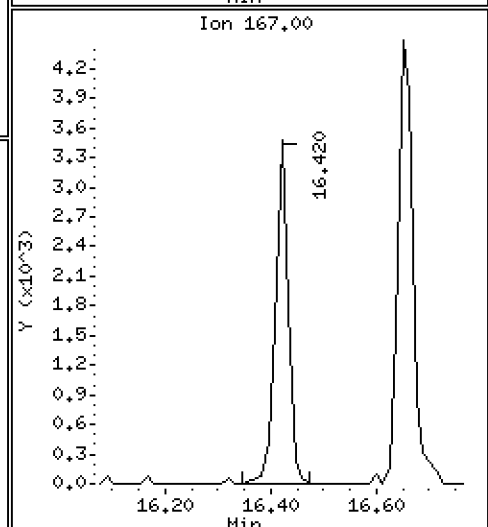
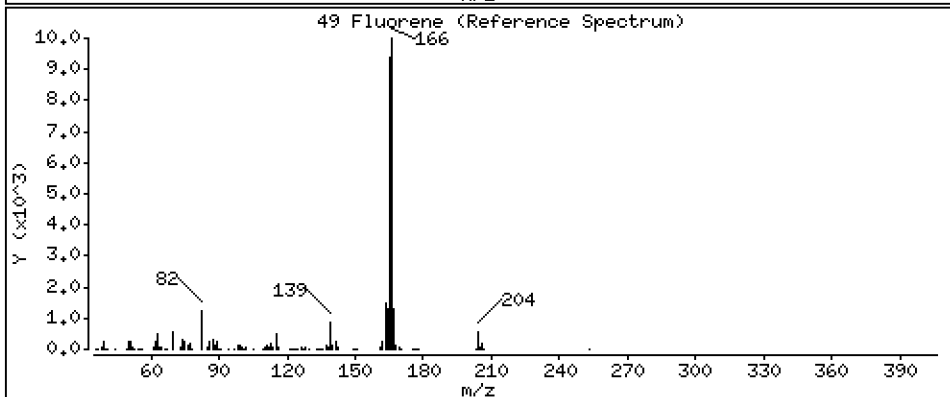
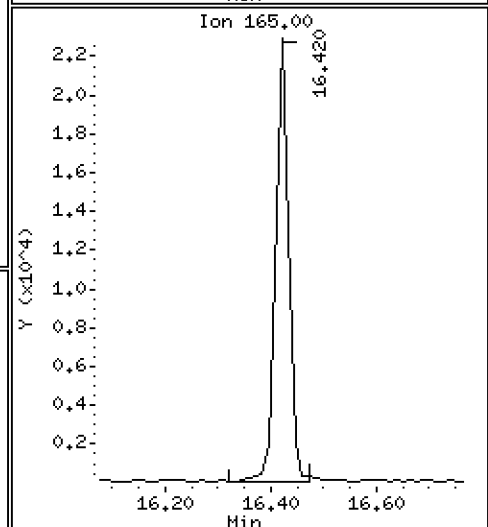
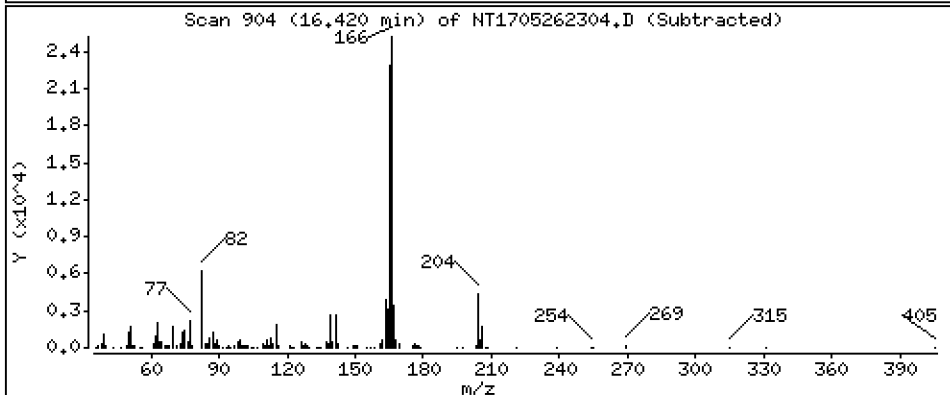
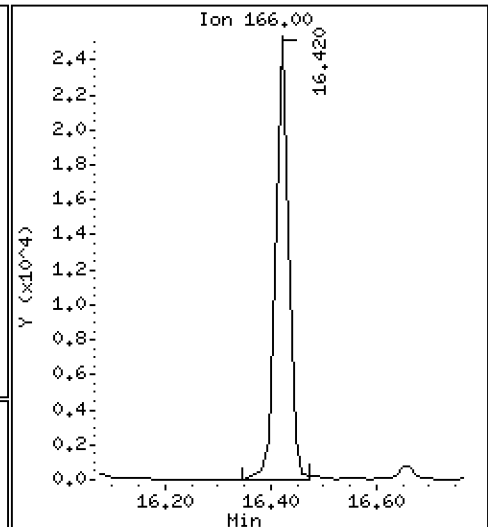
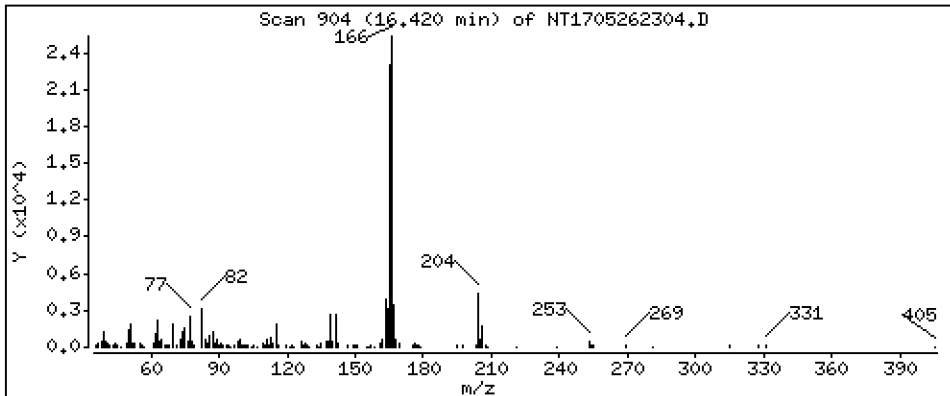
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,2240 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

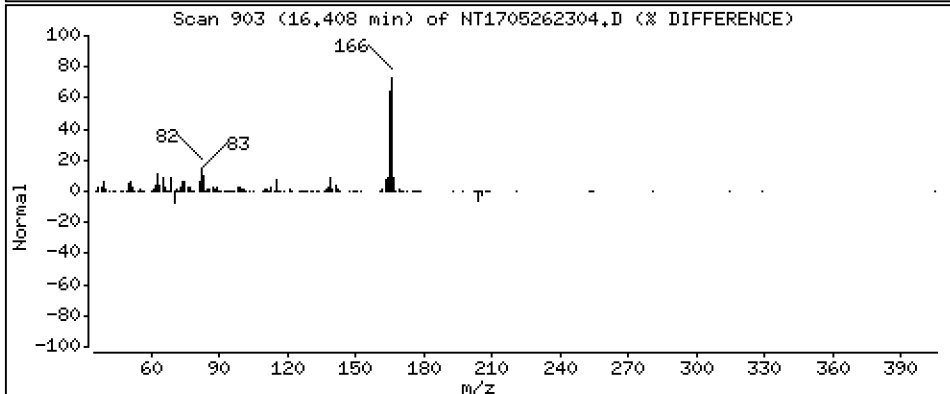
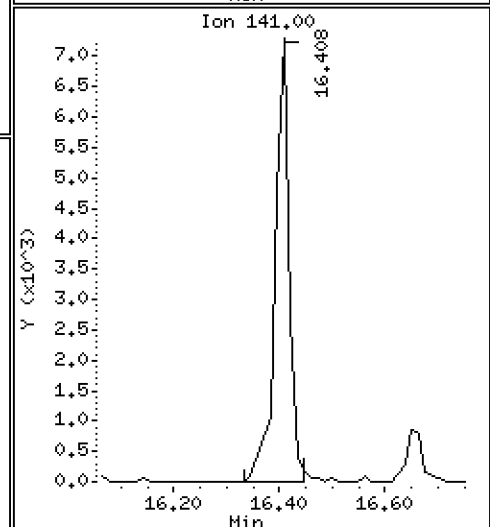
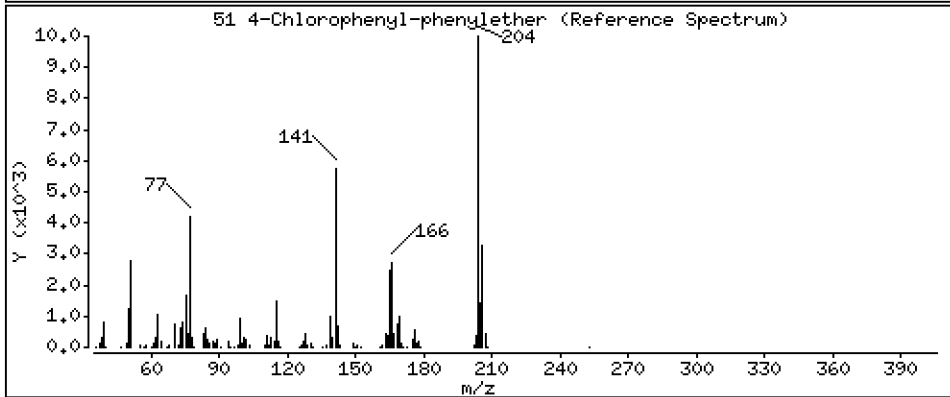
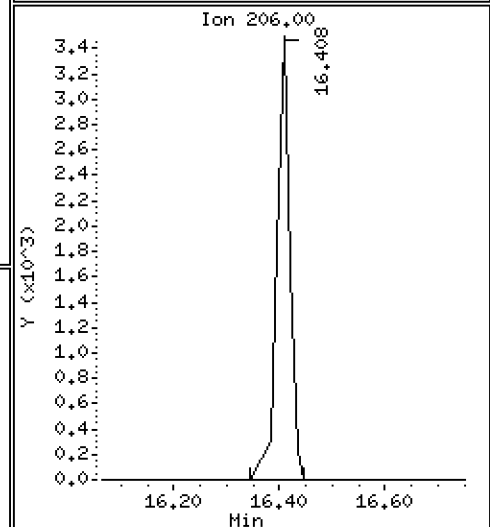
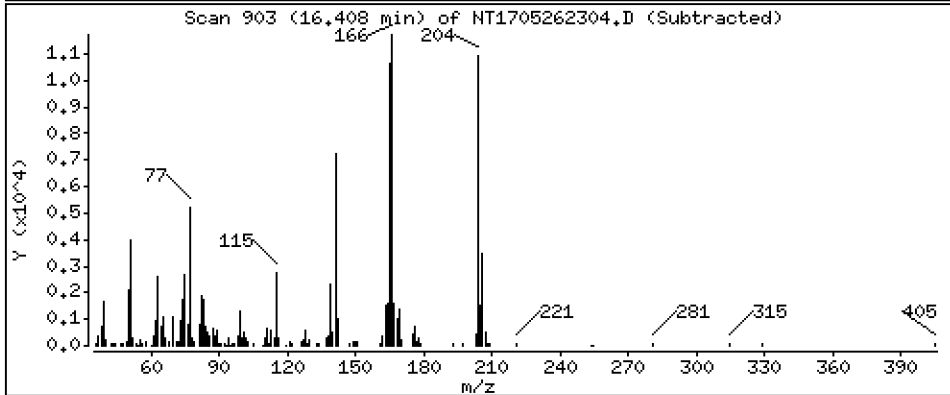
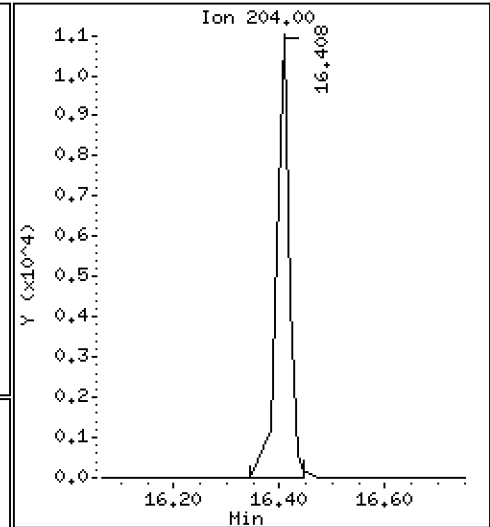
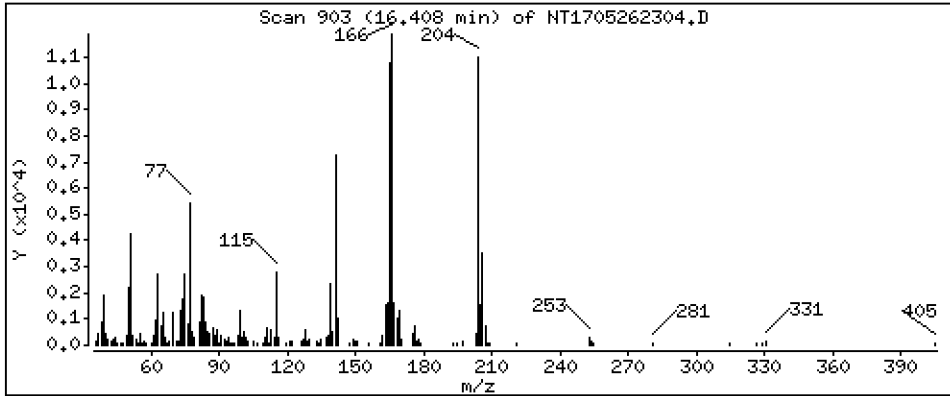
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,2107 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

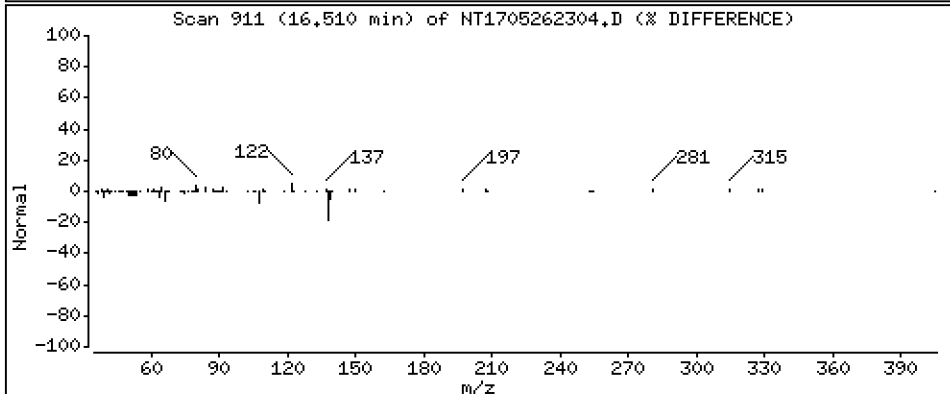
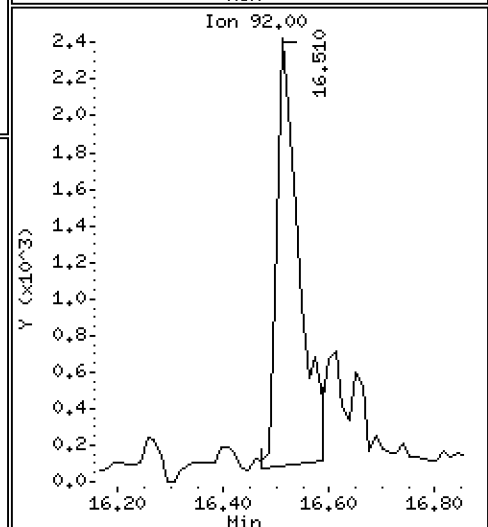
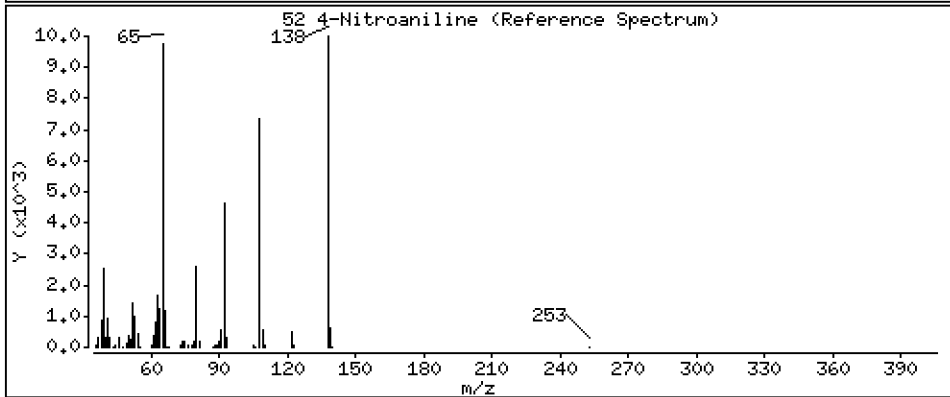
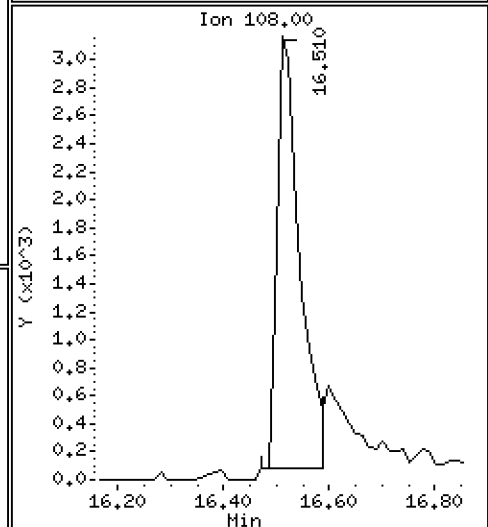
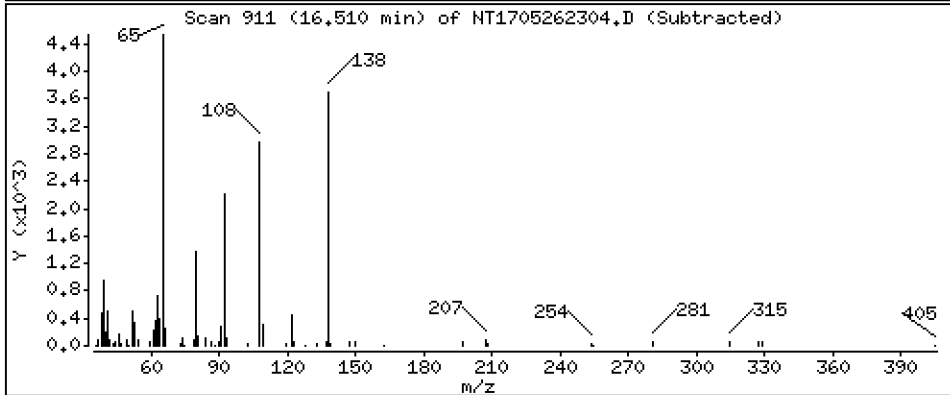
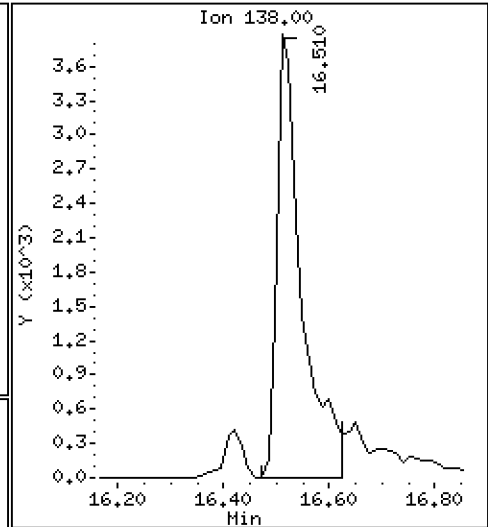
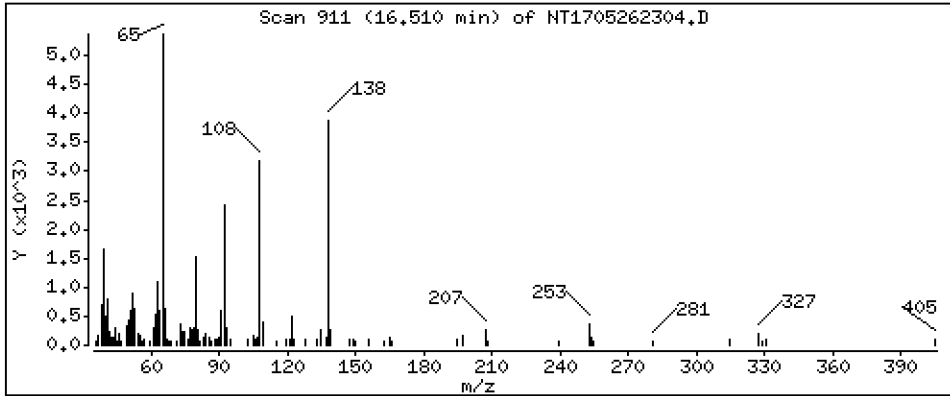
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,3136 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

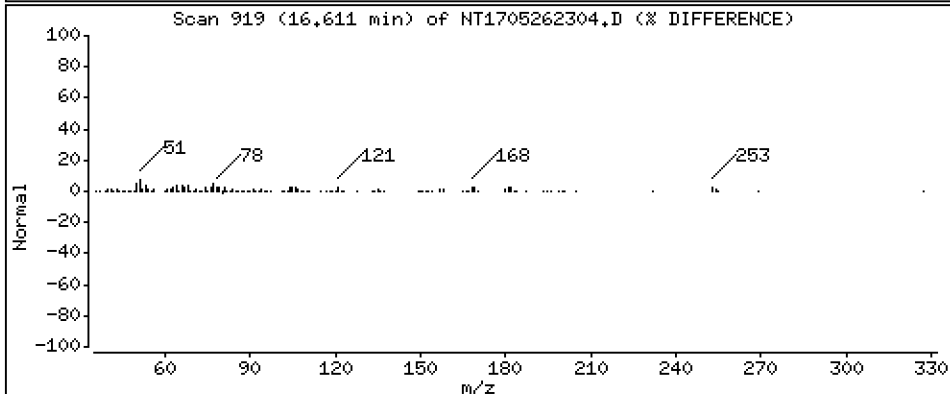
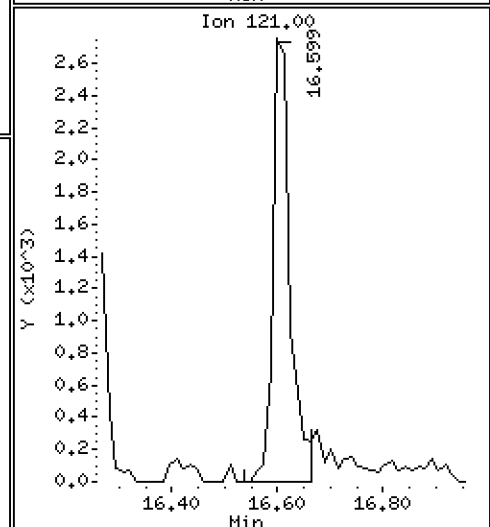
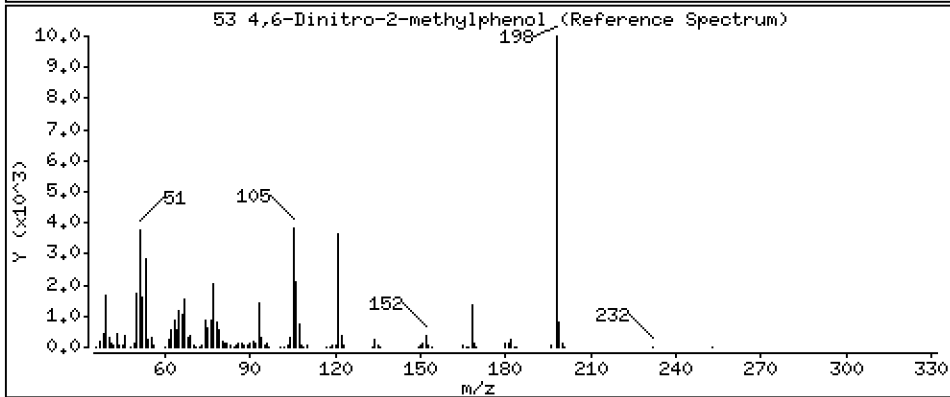
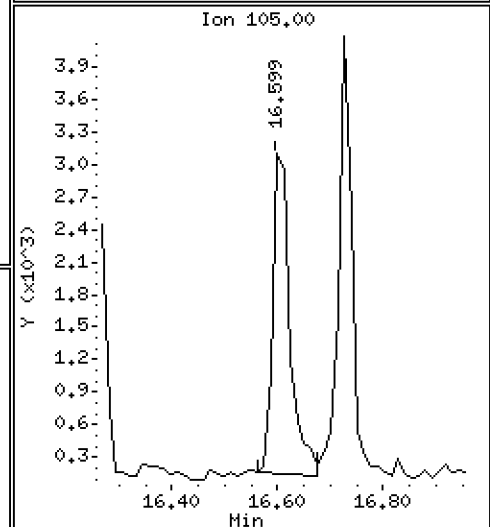
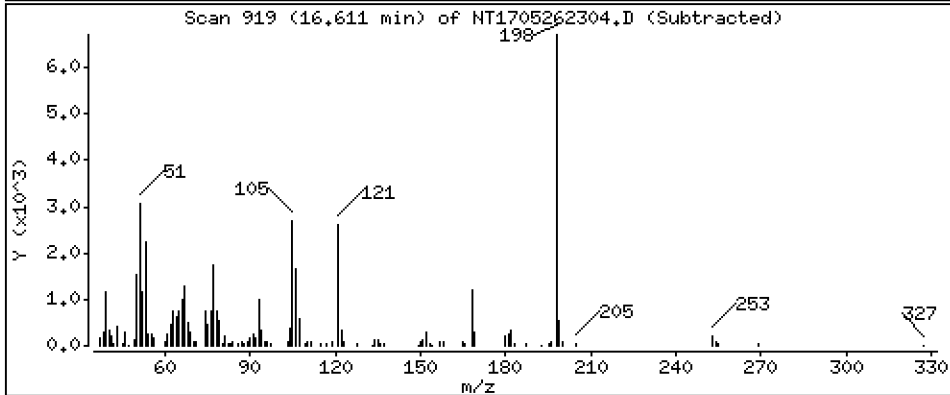
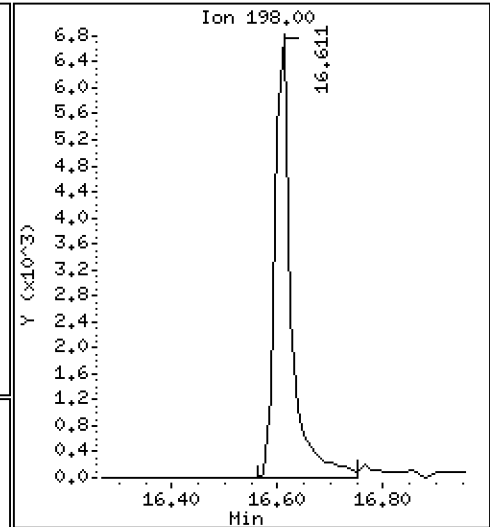
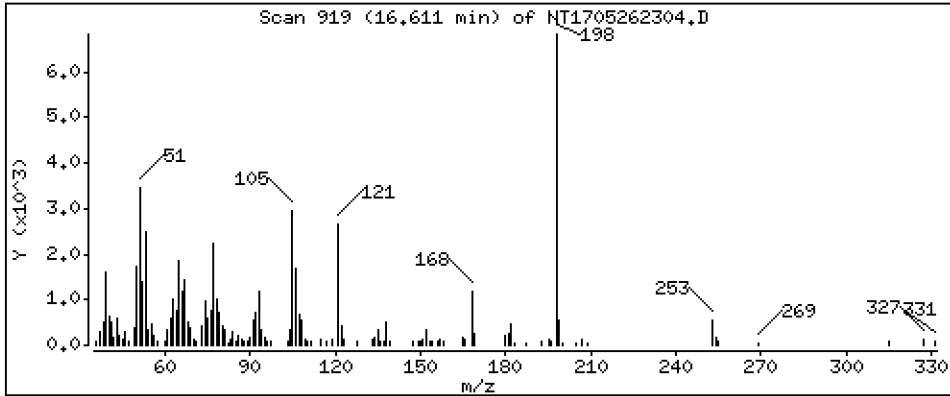
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,3902 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

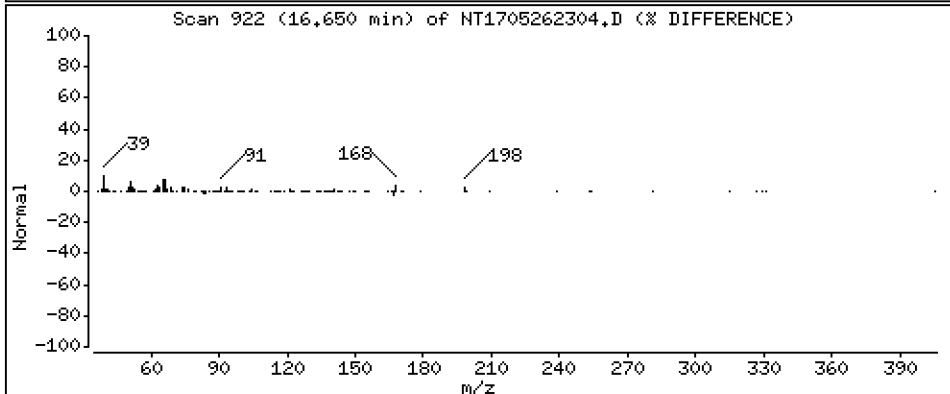
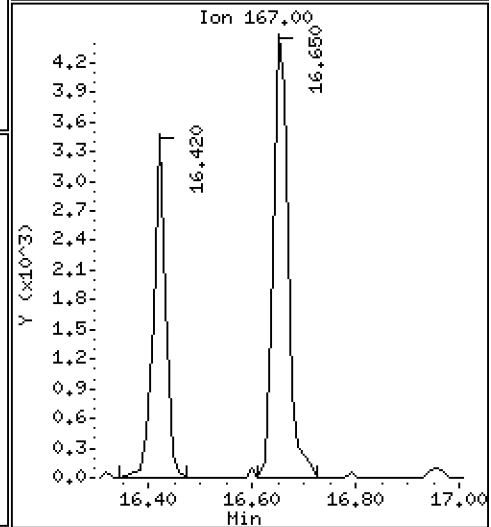
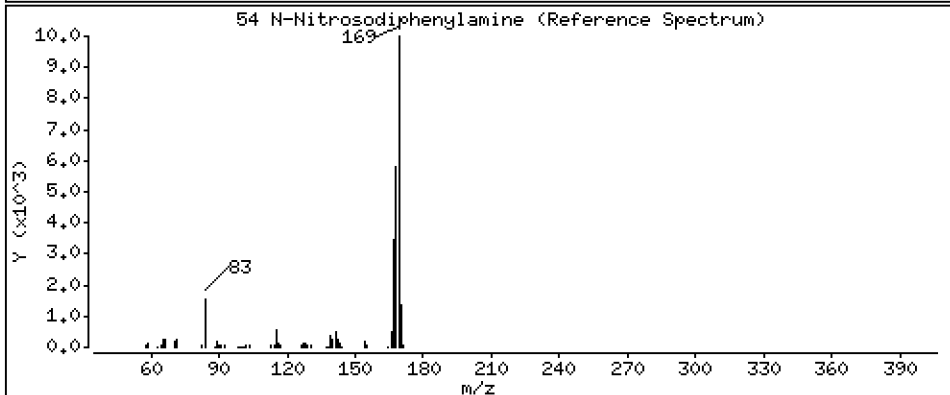
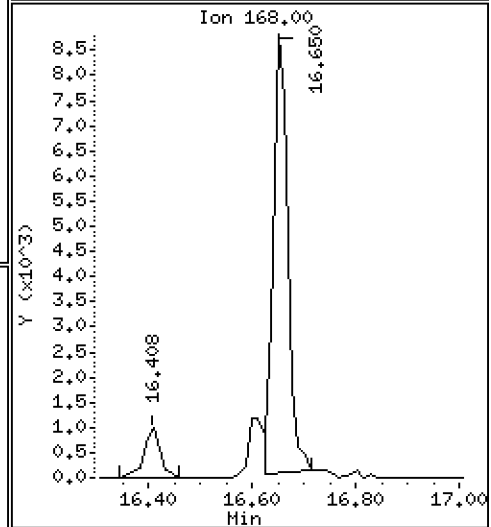
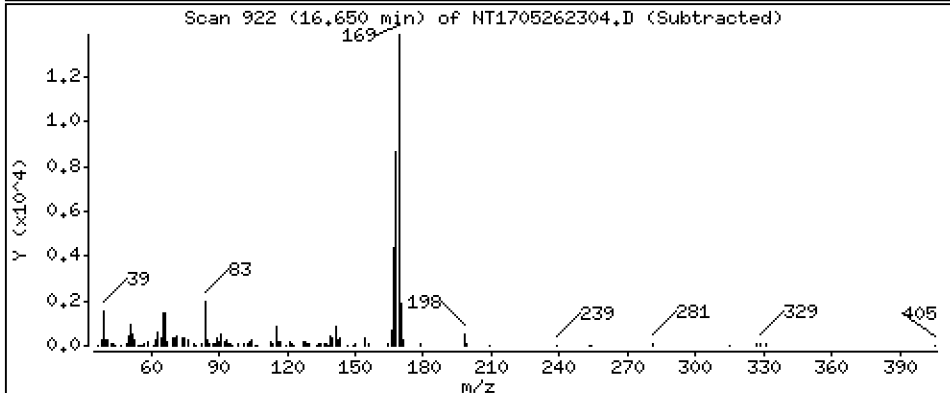
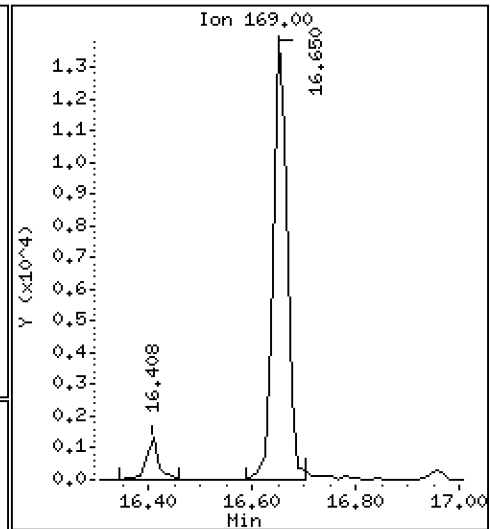
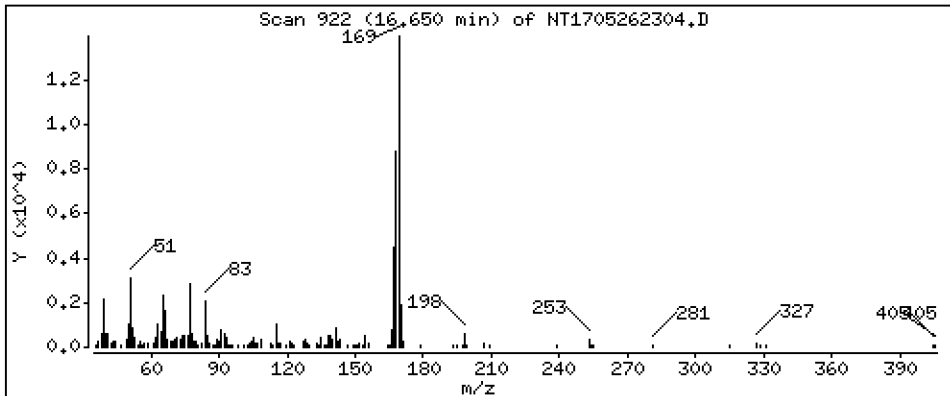
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,1929 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

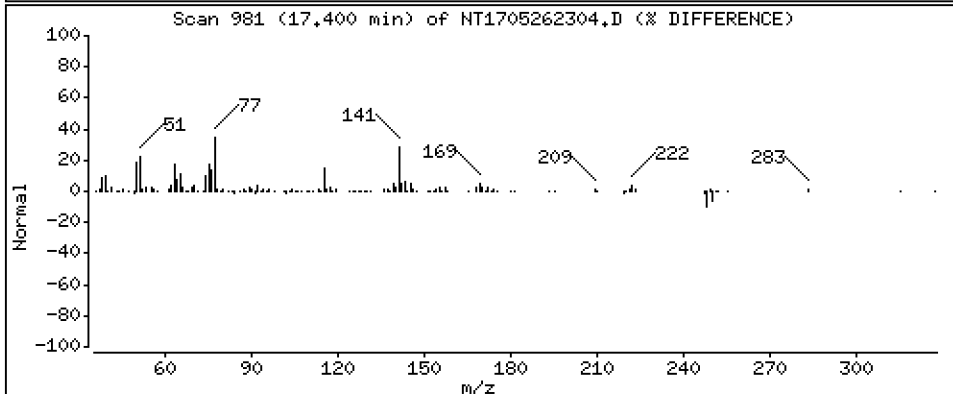
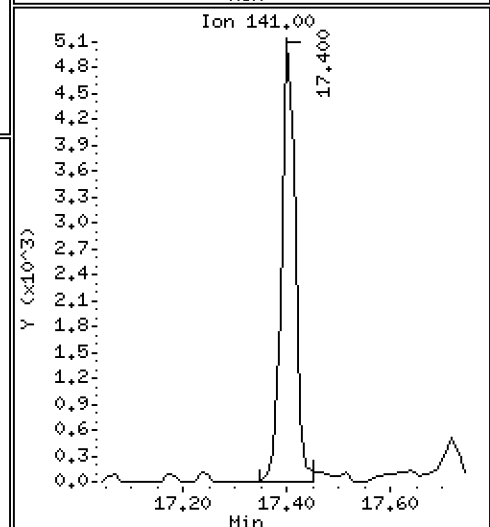
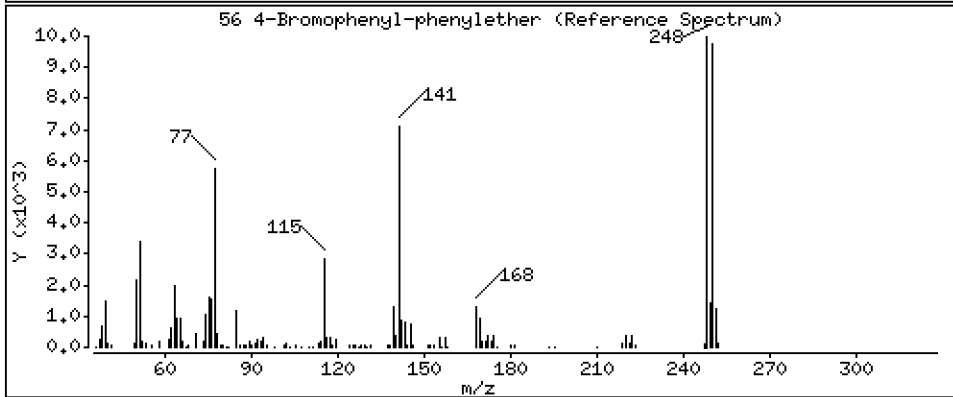
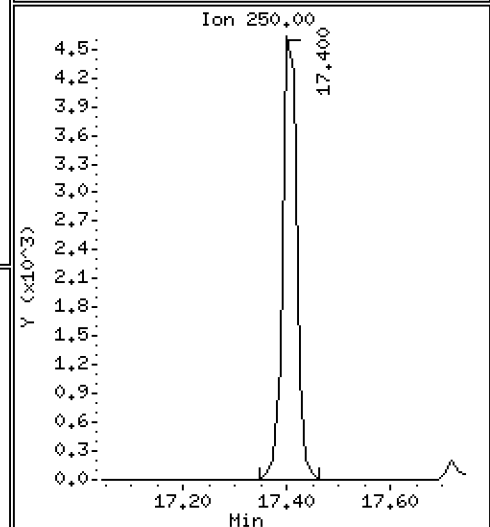
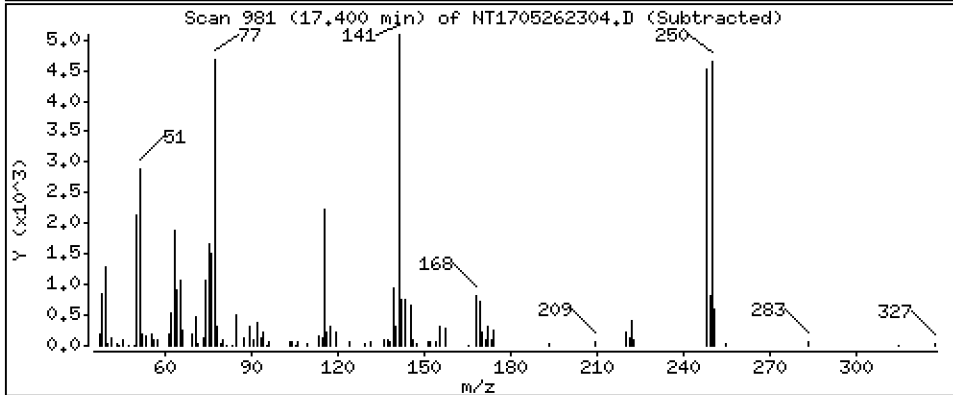
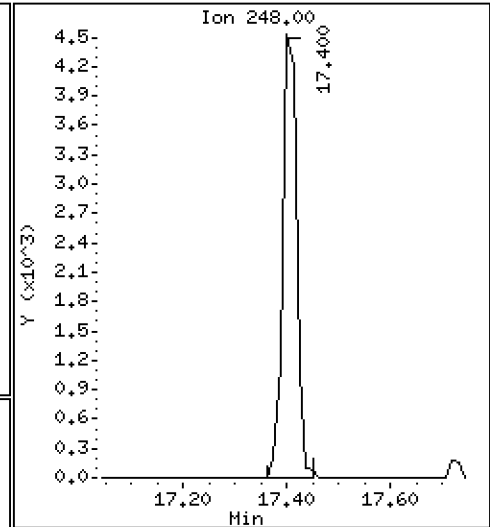
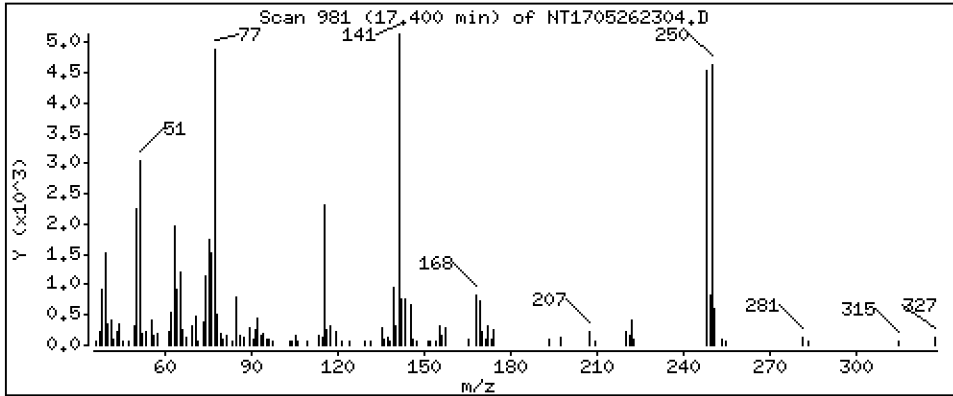
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,1845 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

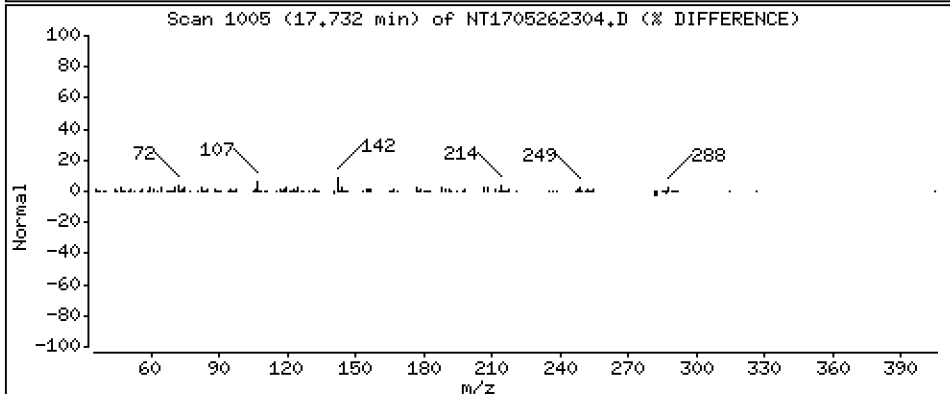
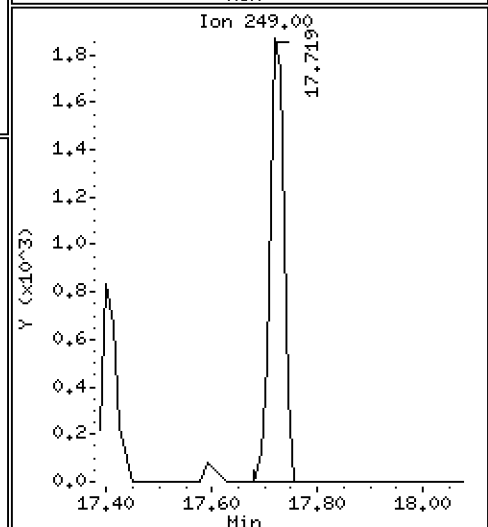
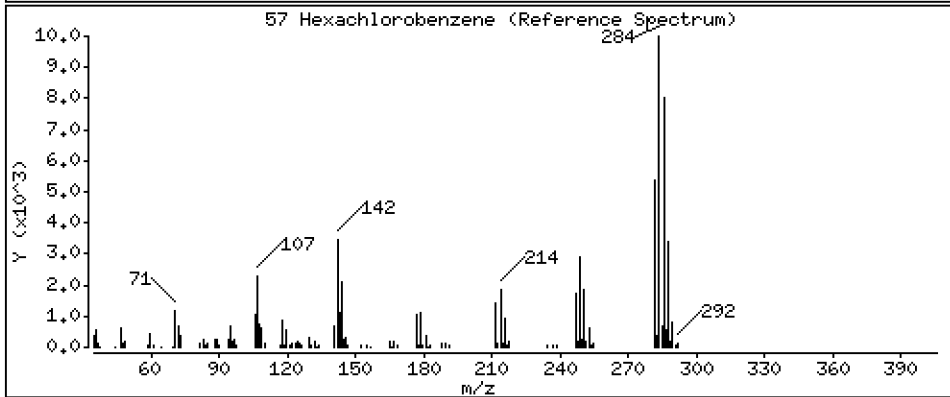
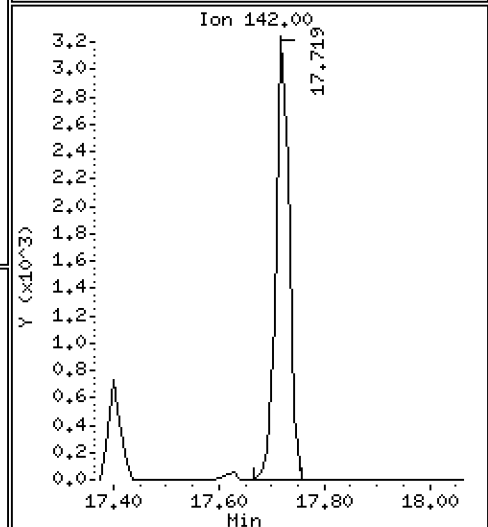
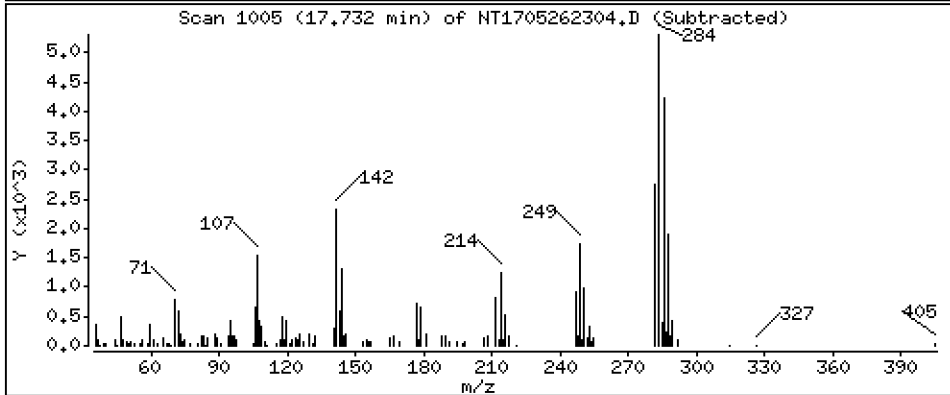
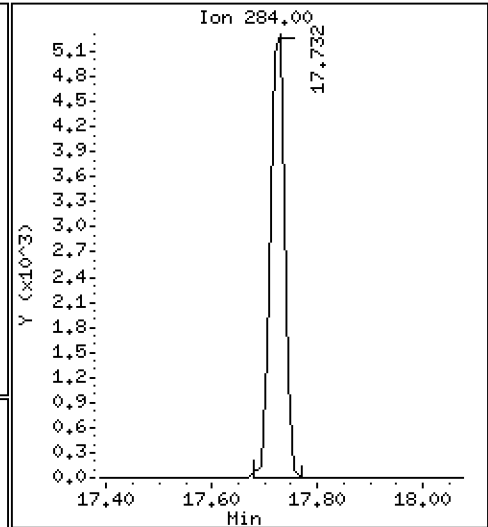
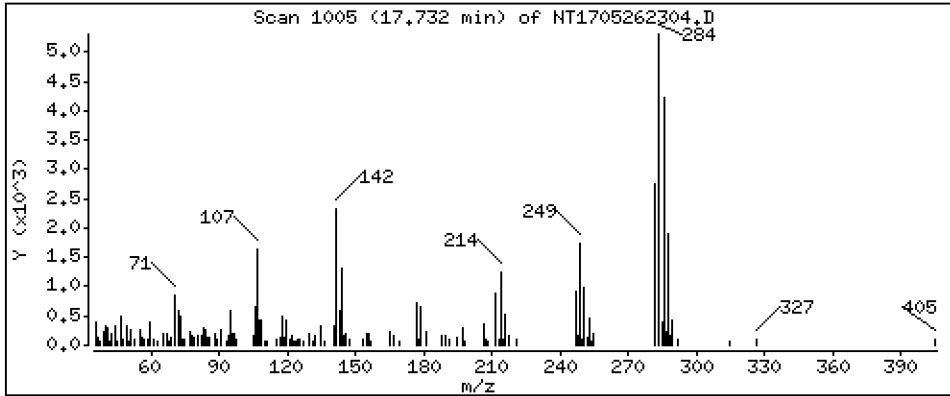
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.2131 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

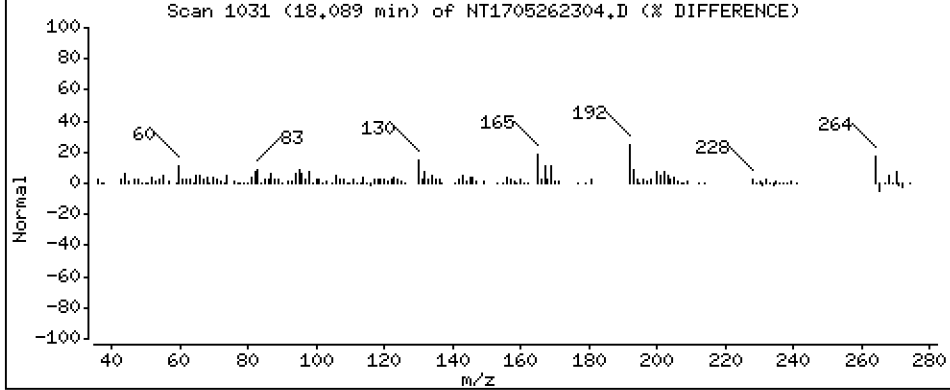
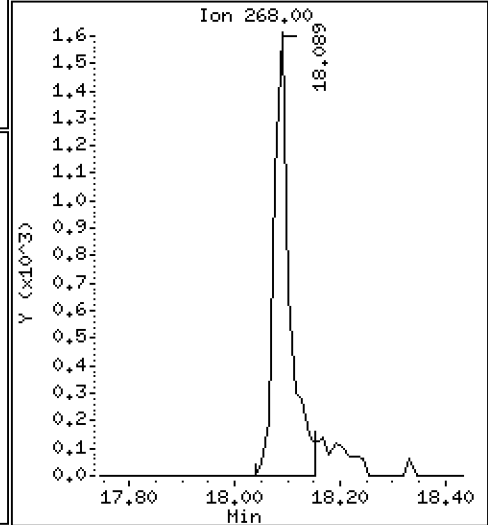
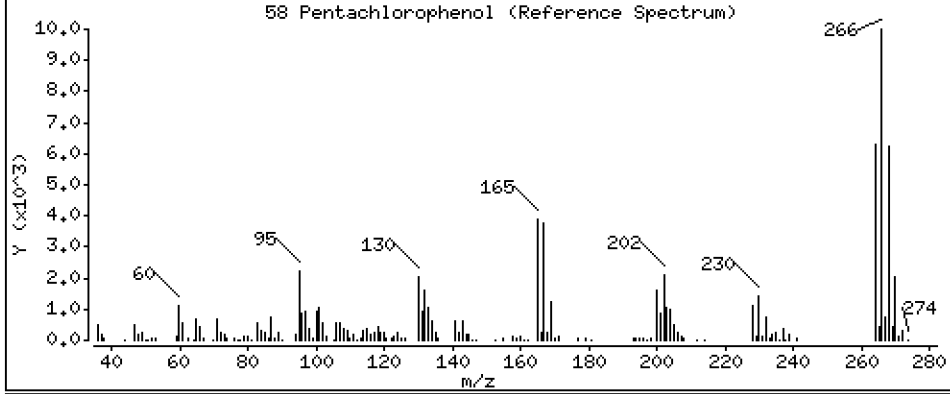
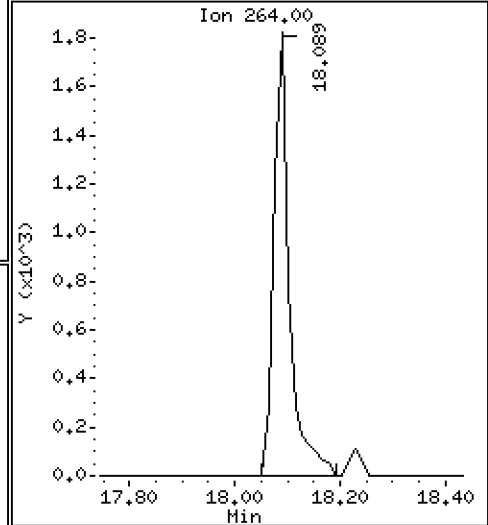
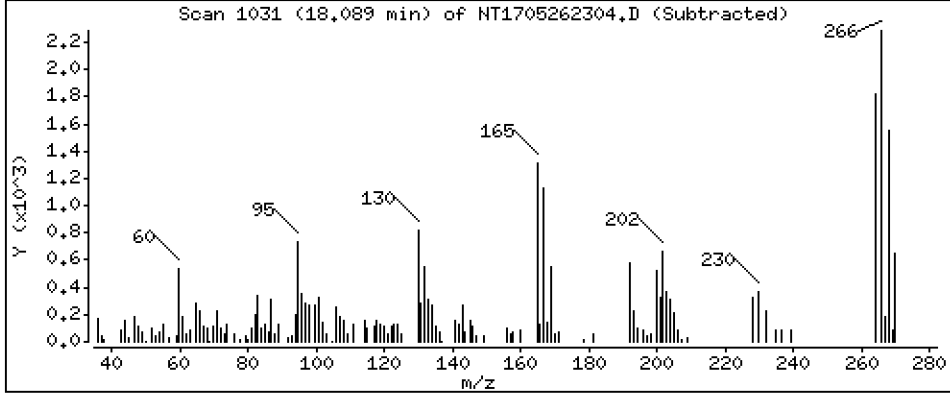
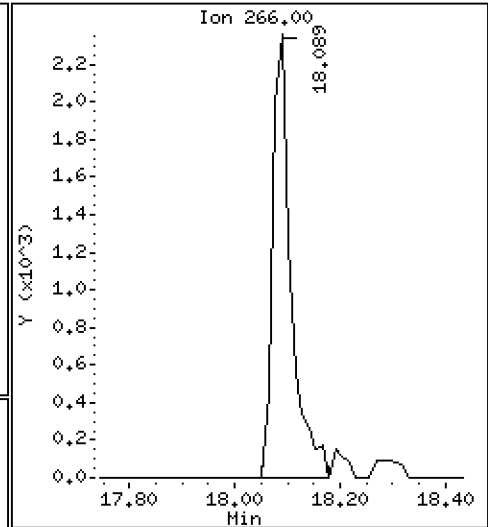
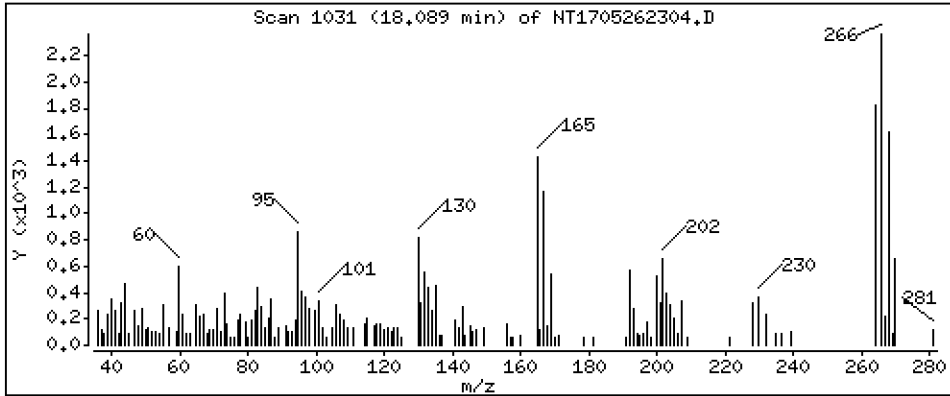
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,2079 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

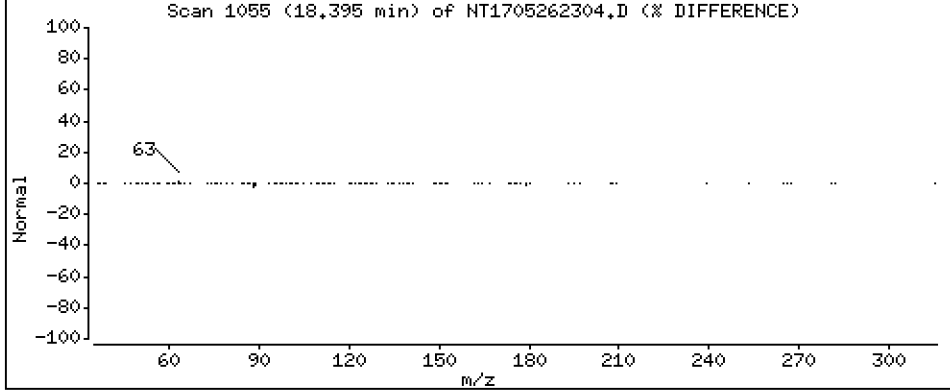
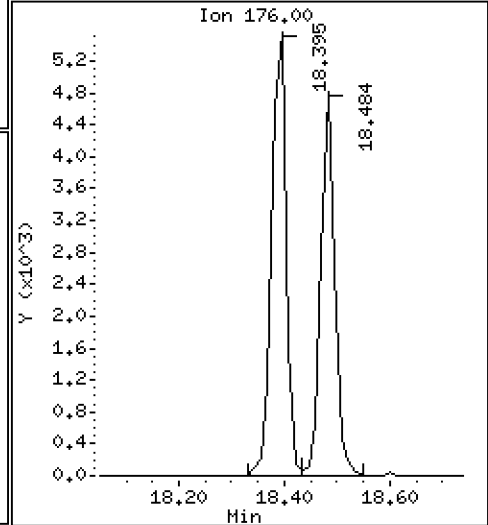
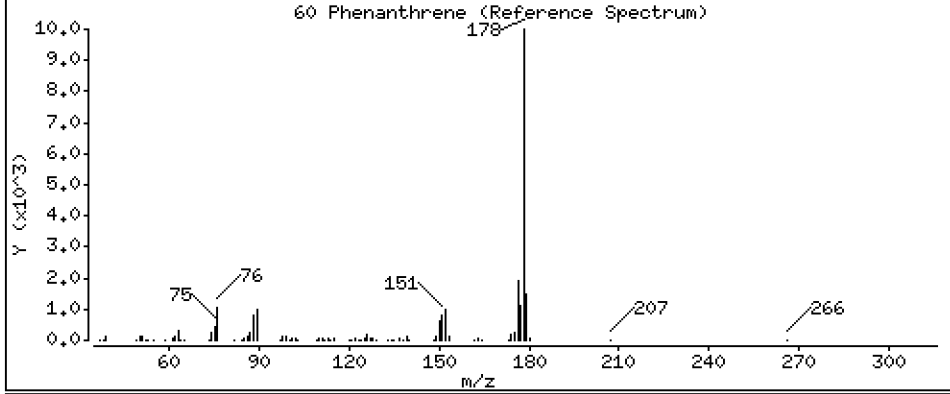
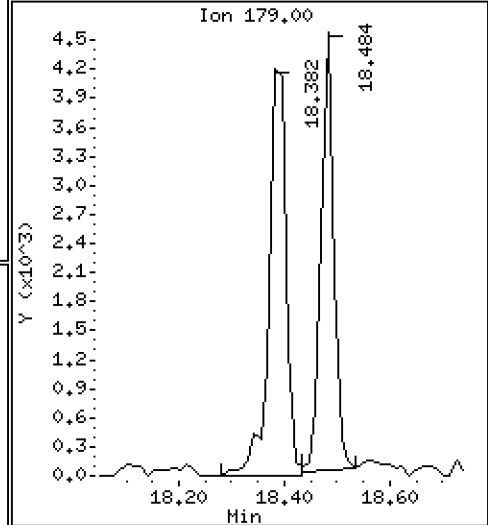
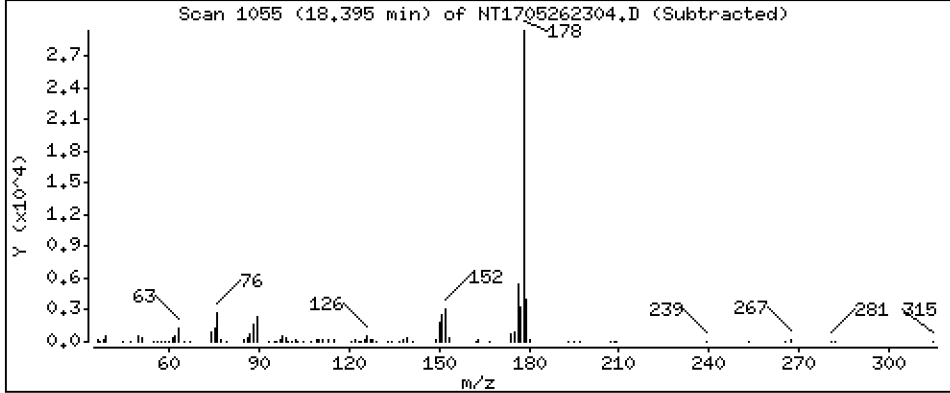
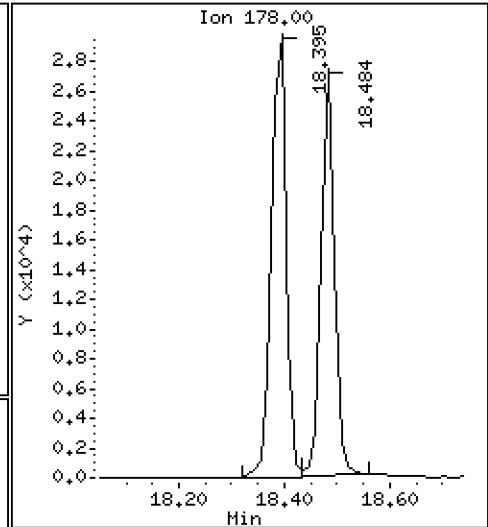
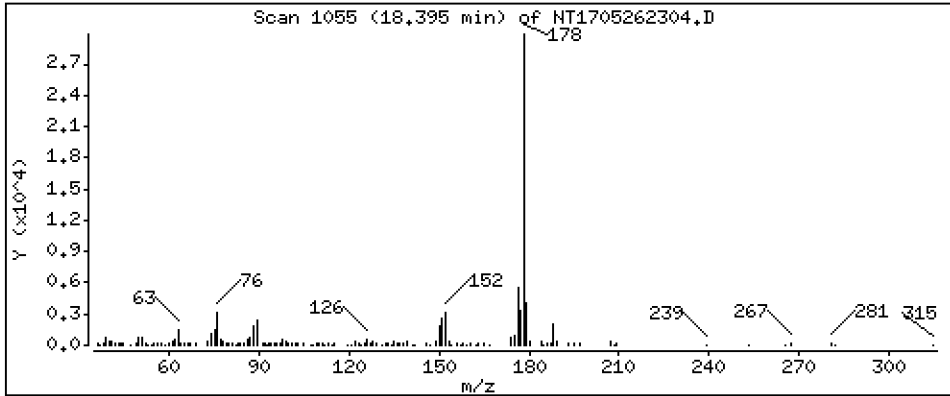
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,2034 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

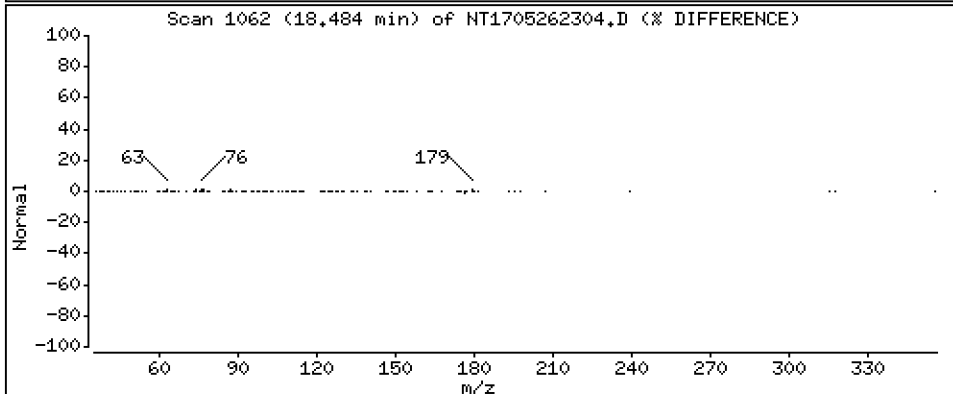
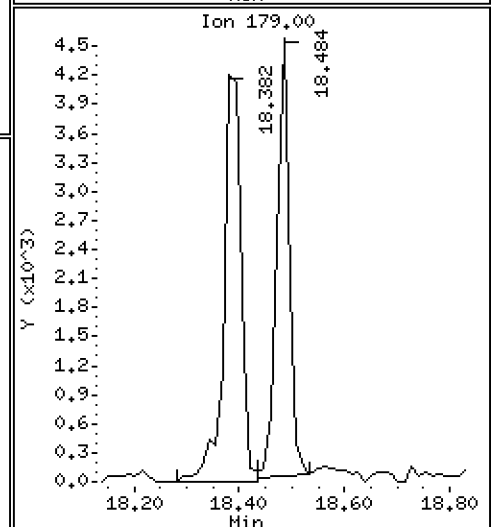
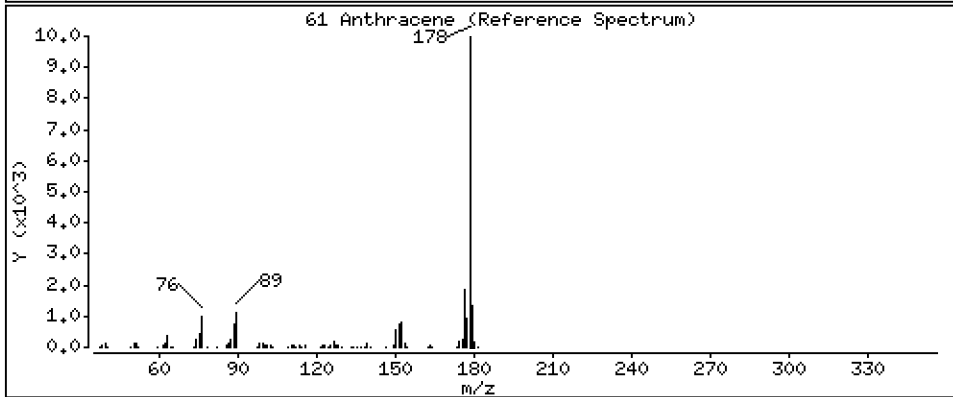
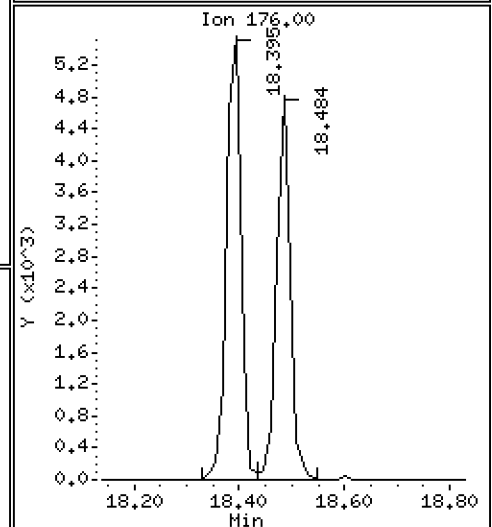
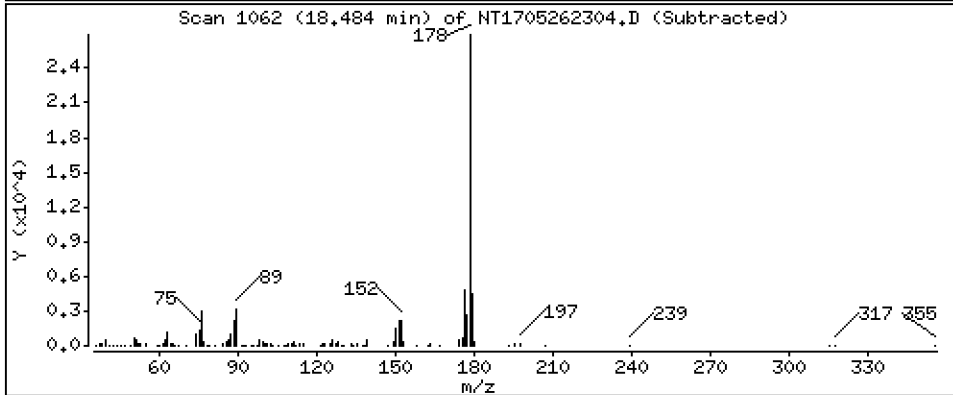
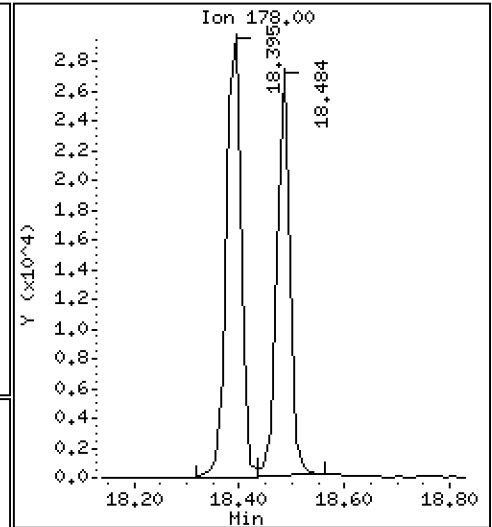
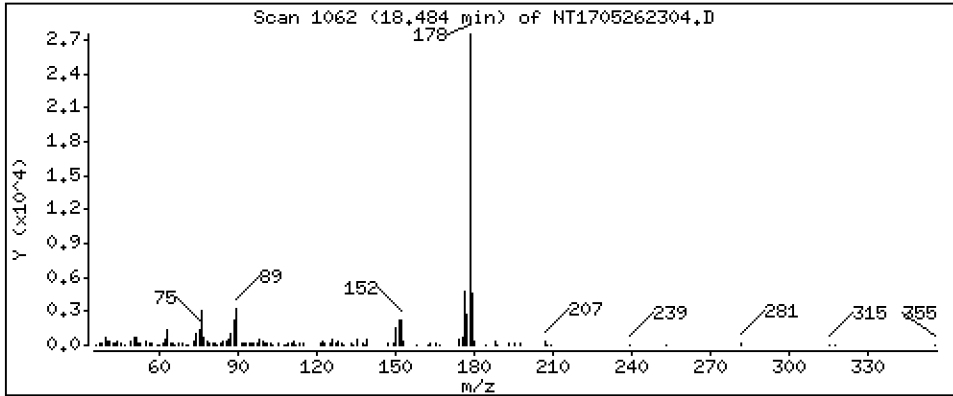
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,1850 ug/mL

61 Anthracene



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

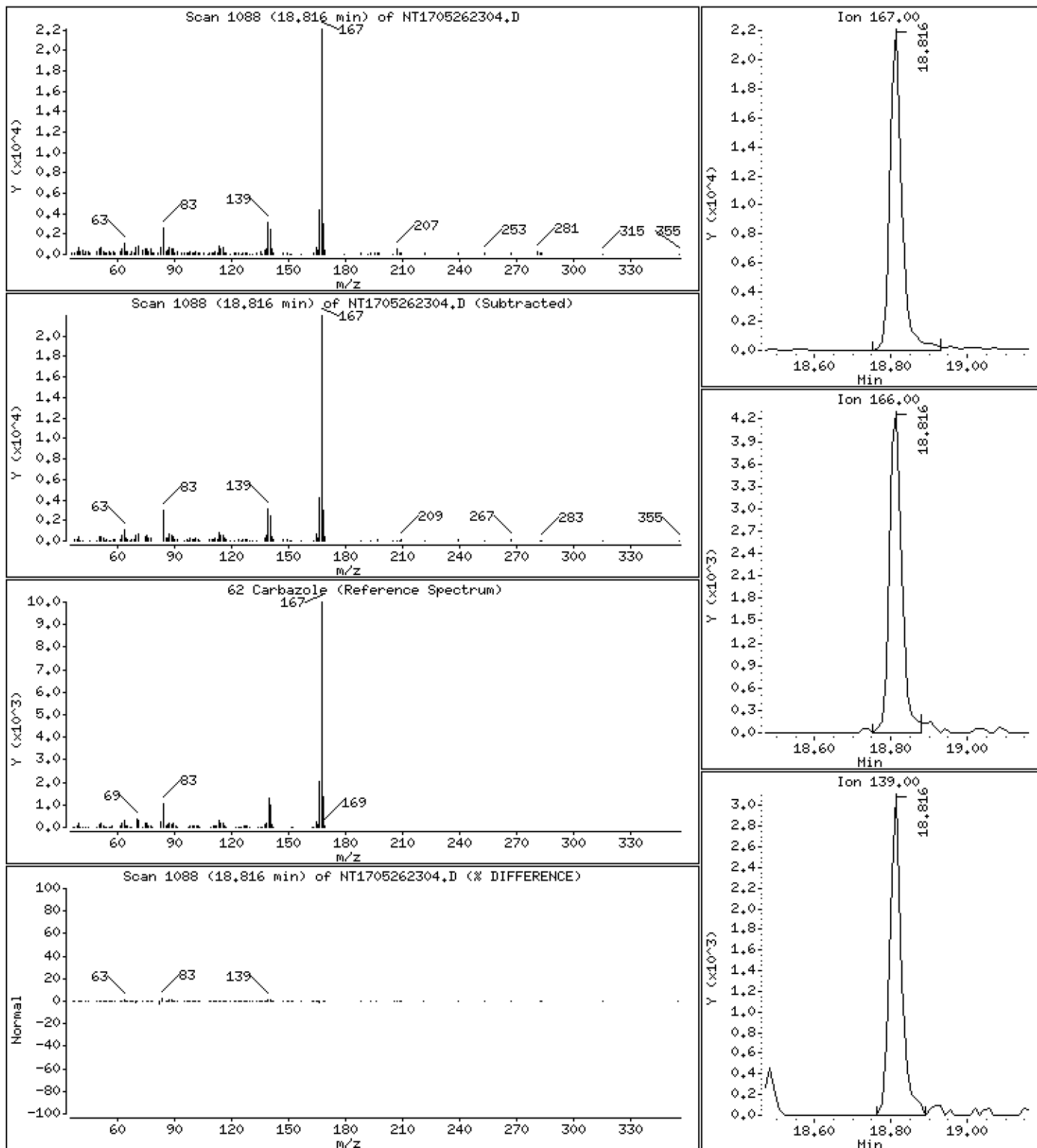
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,2944 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

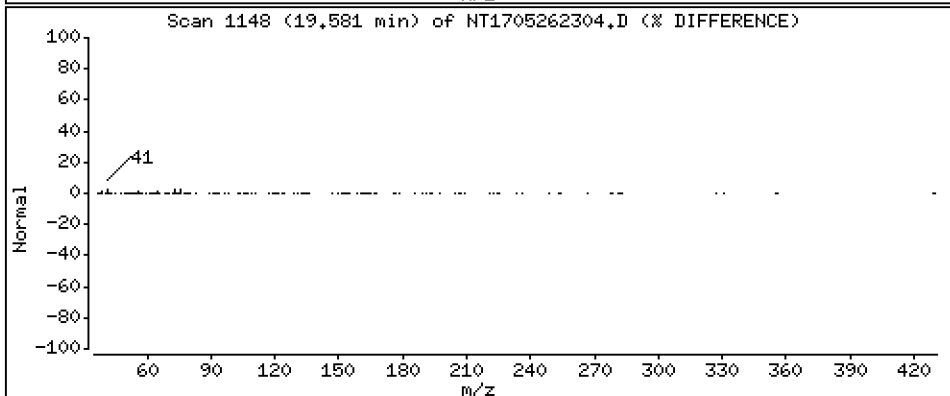
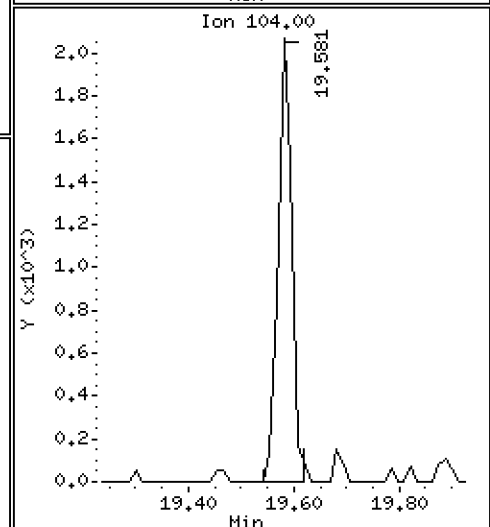
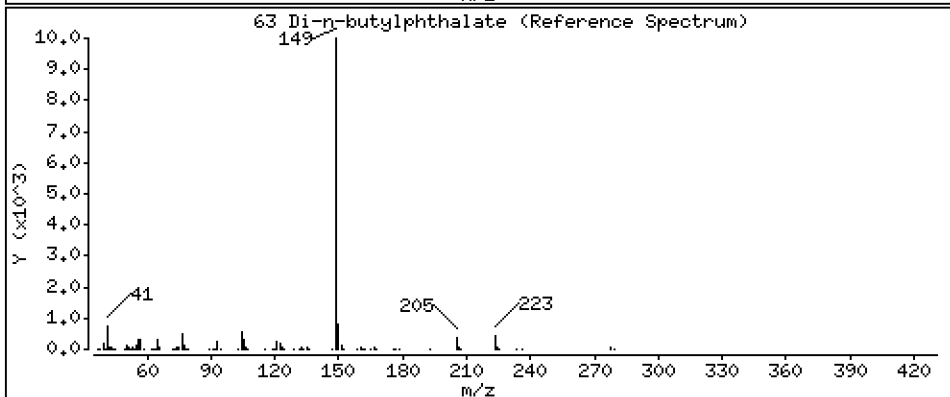
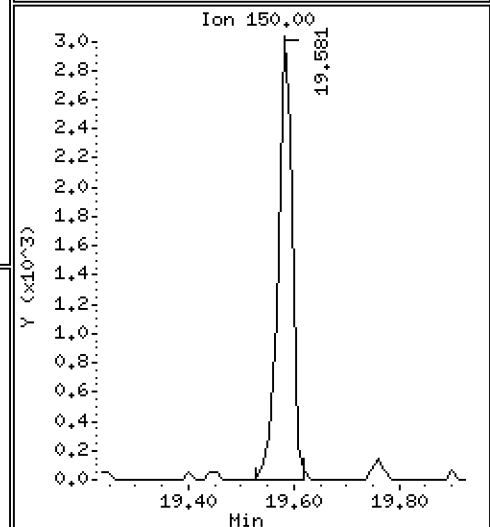
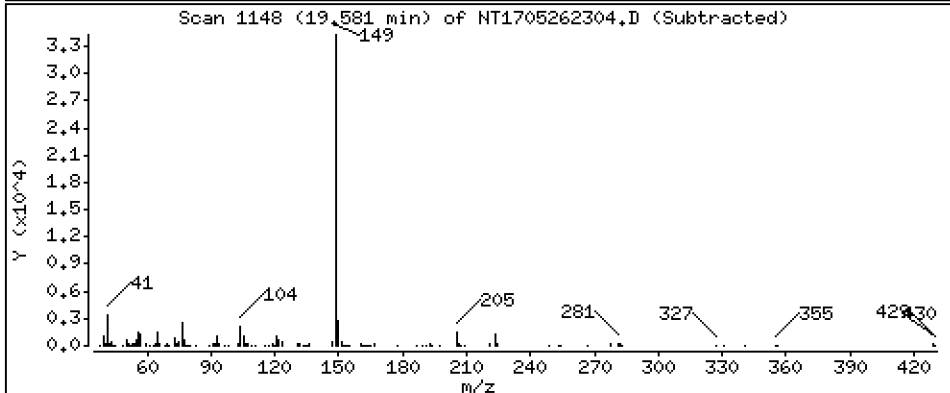
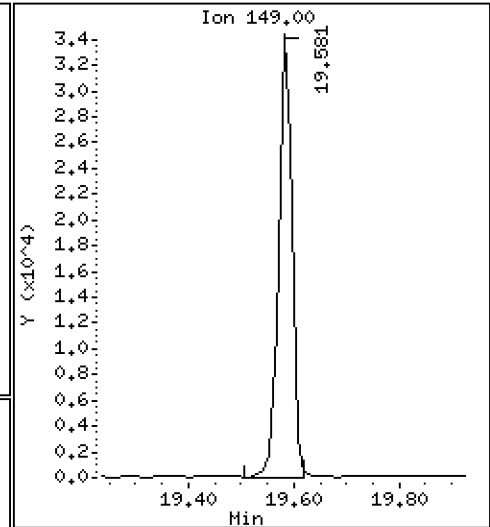
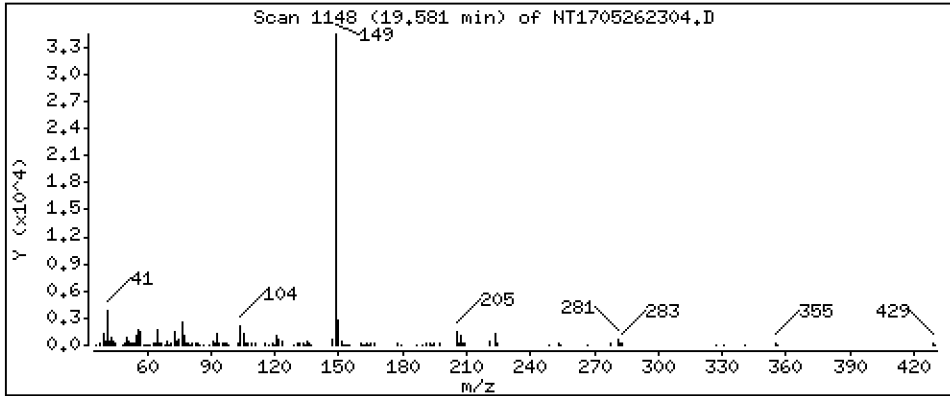
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,1889 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

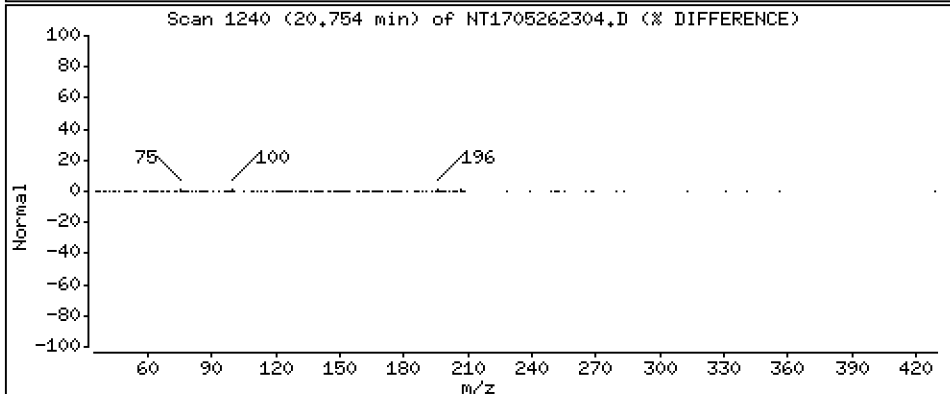
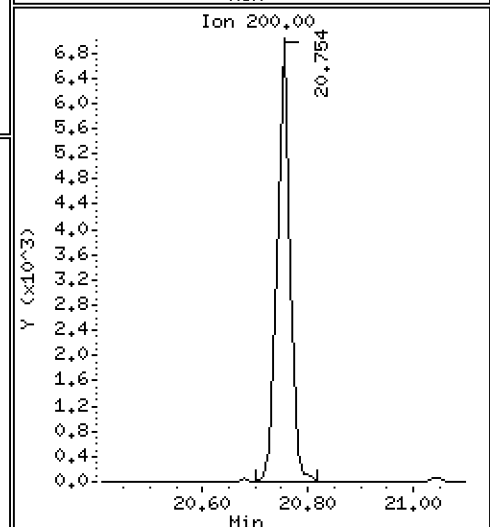
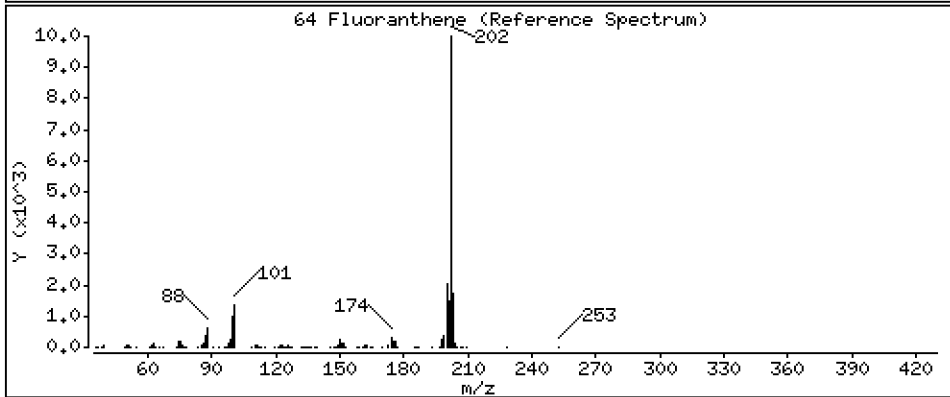
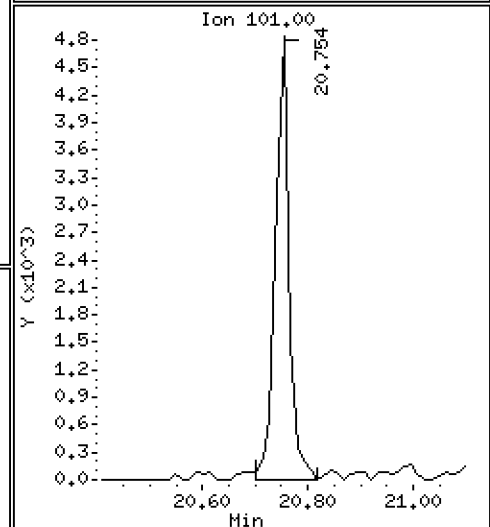
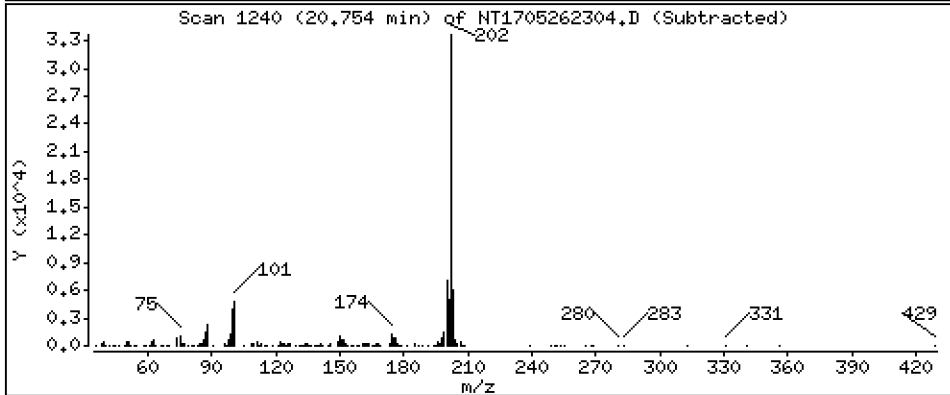
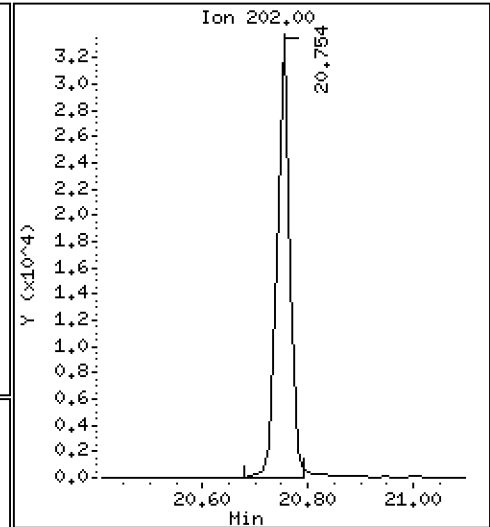
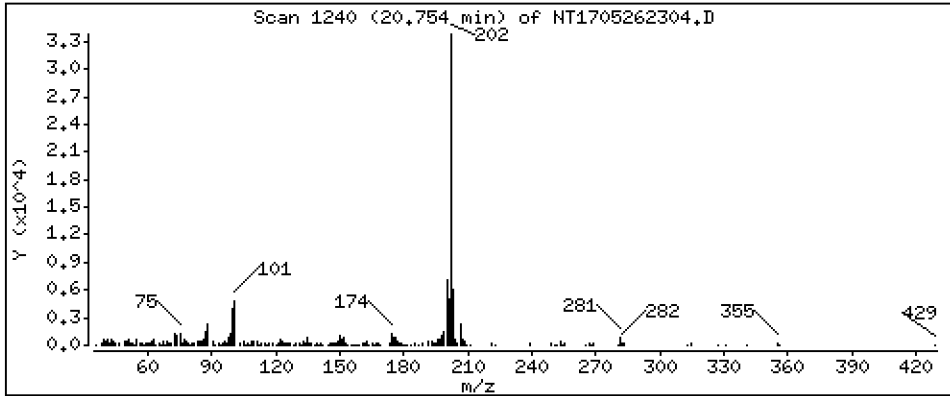
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,1948 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

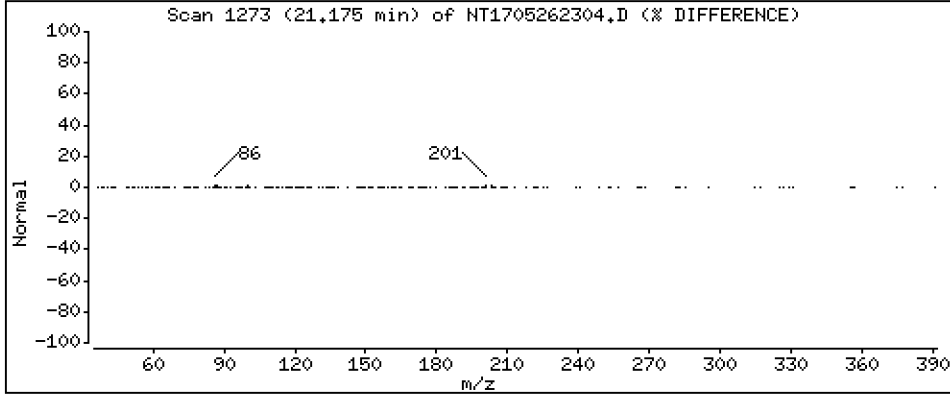
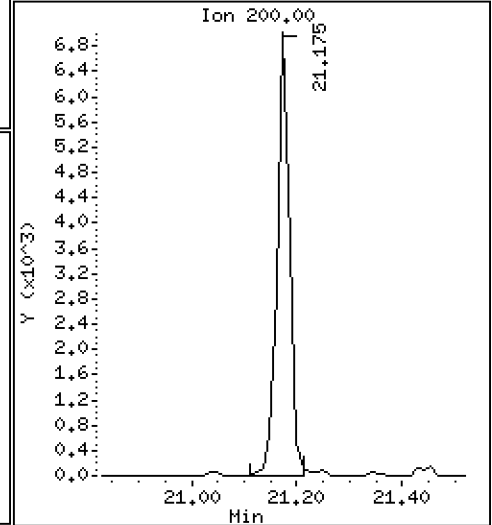
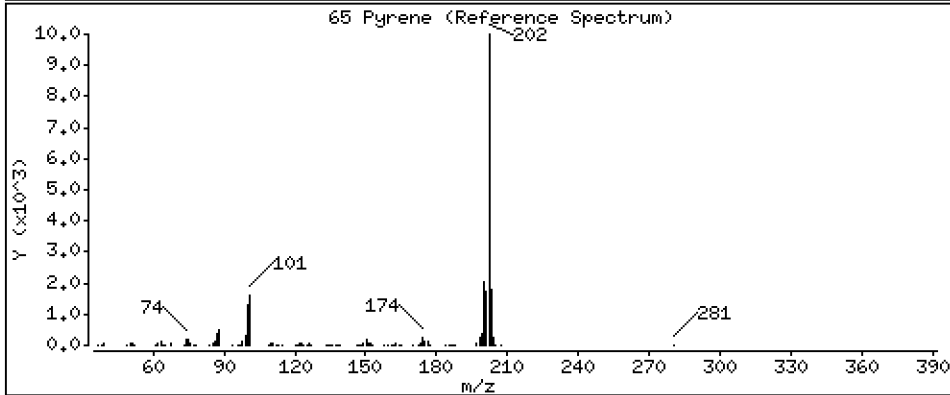
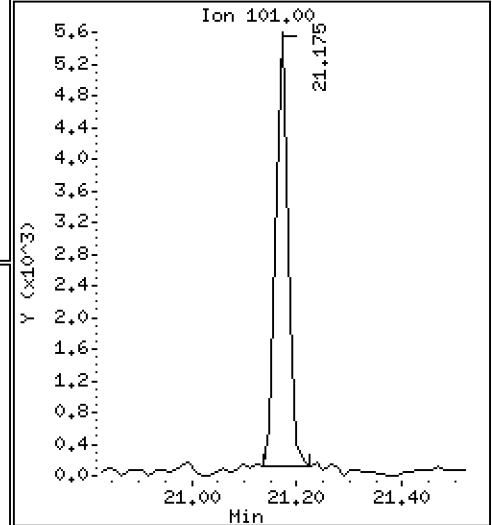
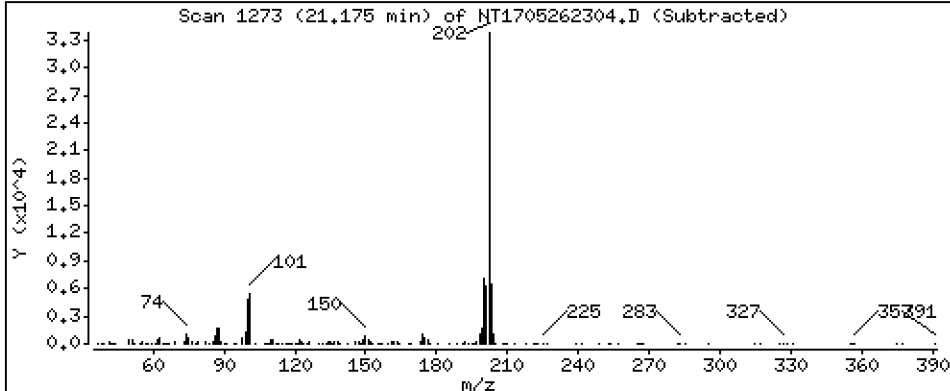
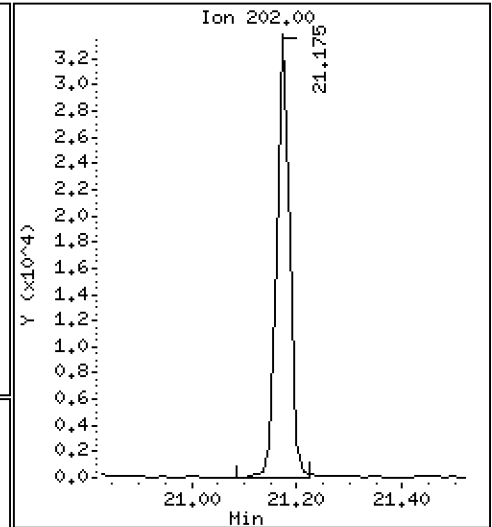
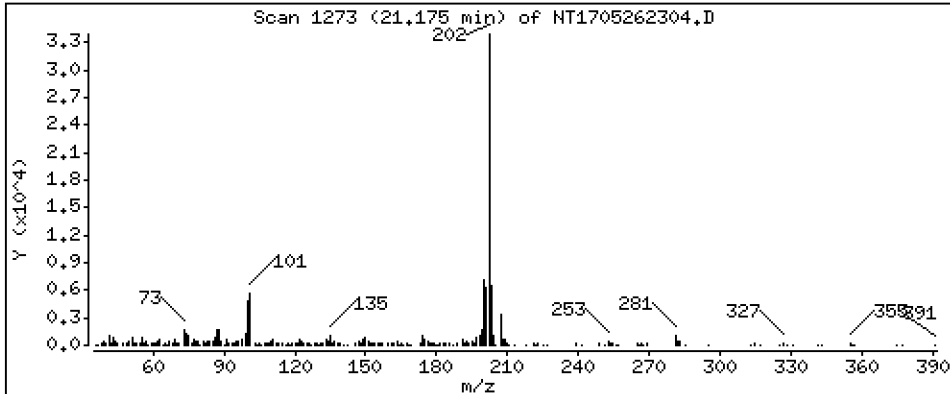
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,2036 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

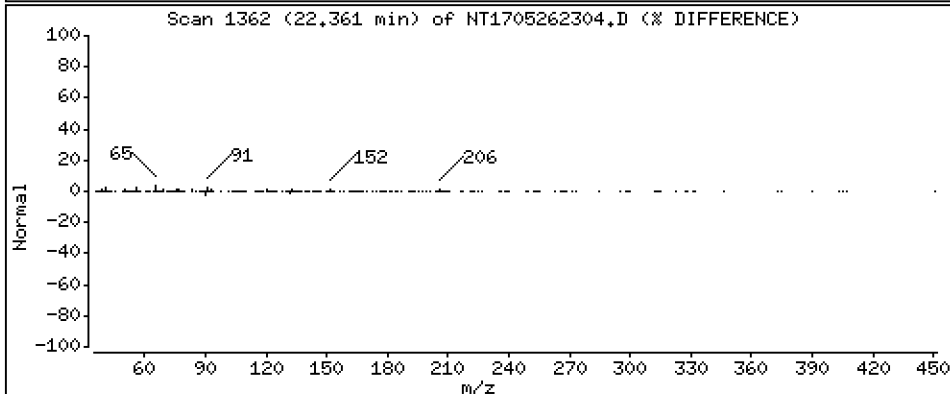
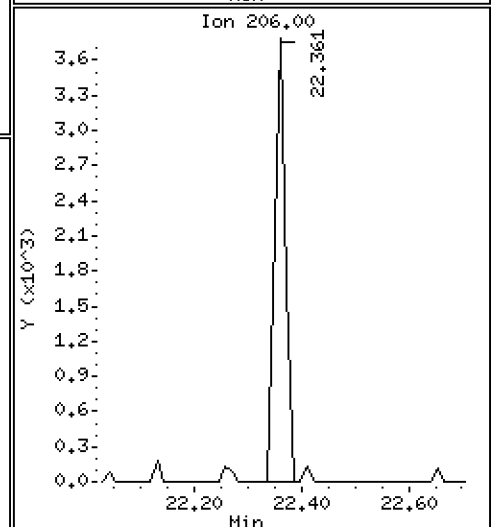
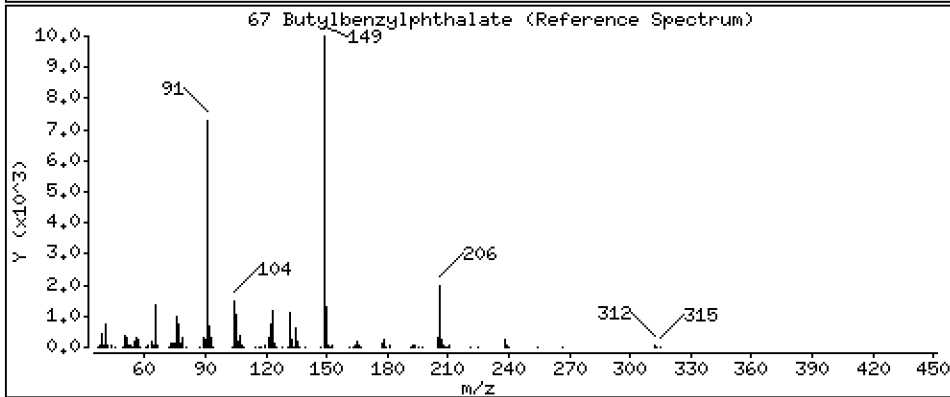
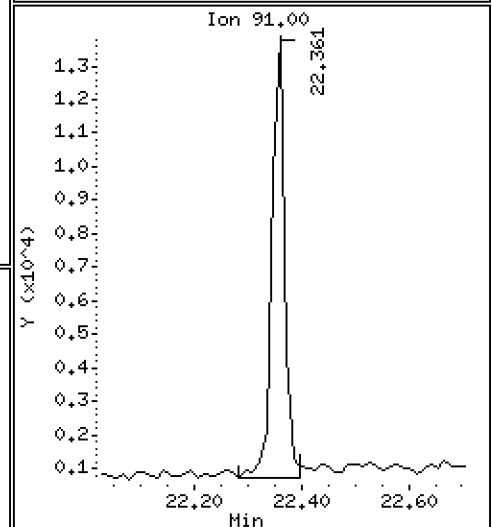
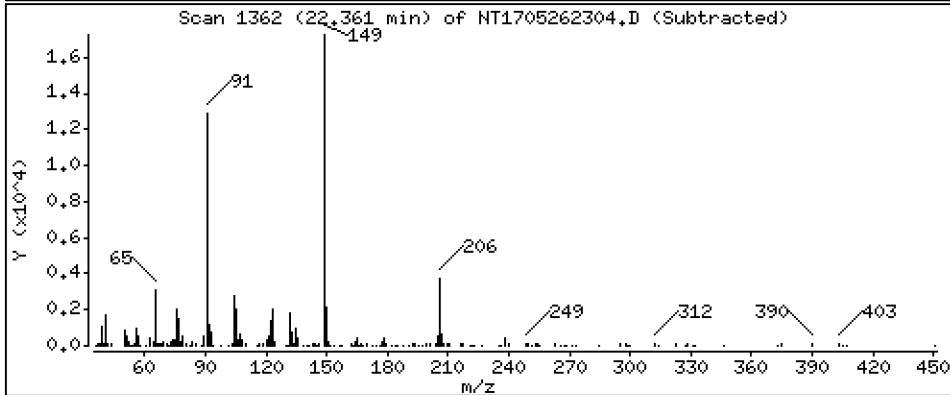
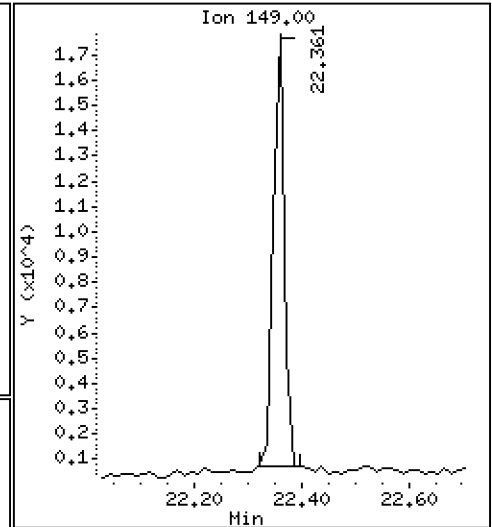
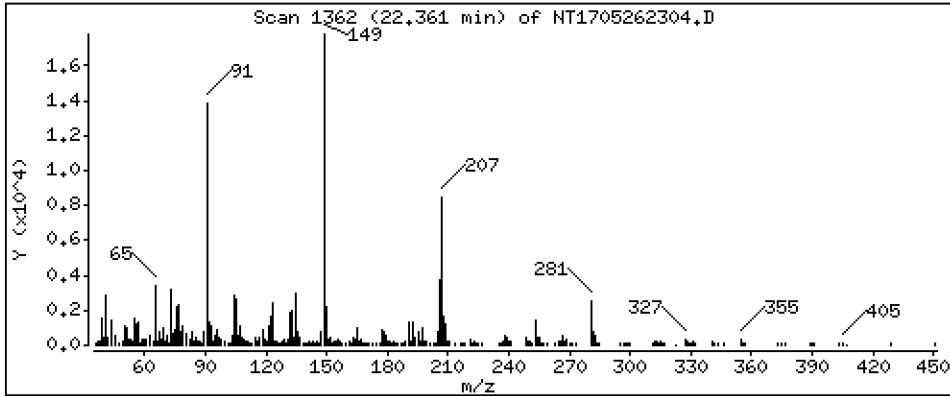
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1944 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

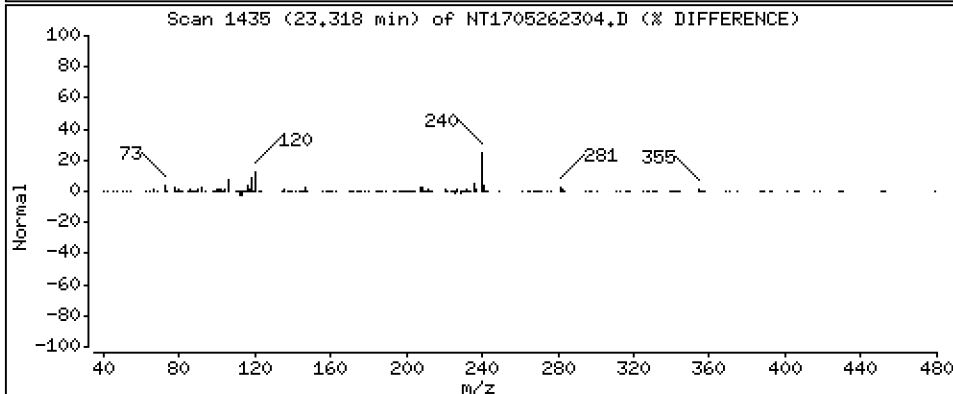
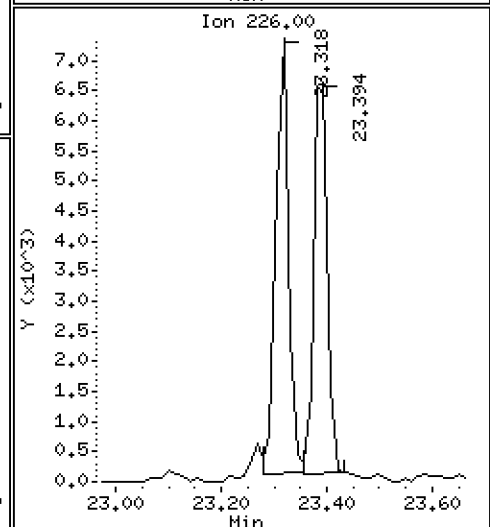
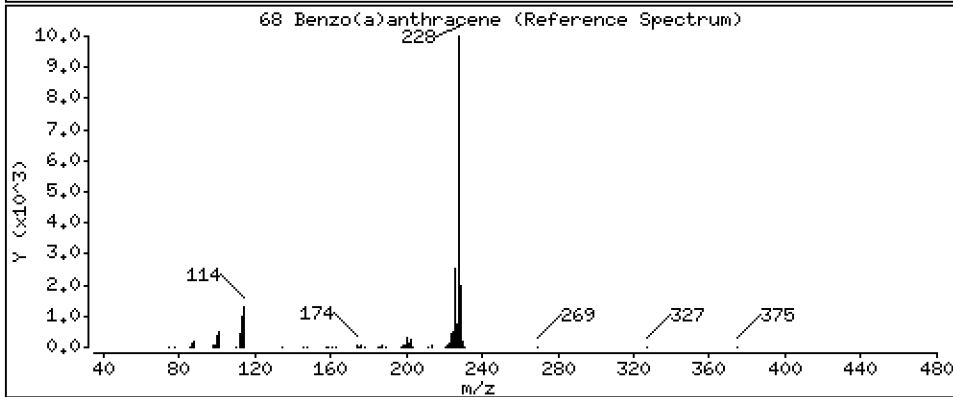
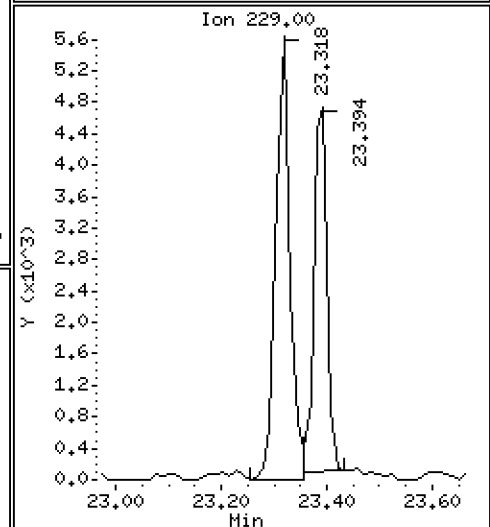
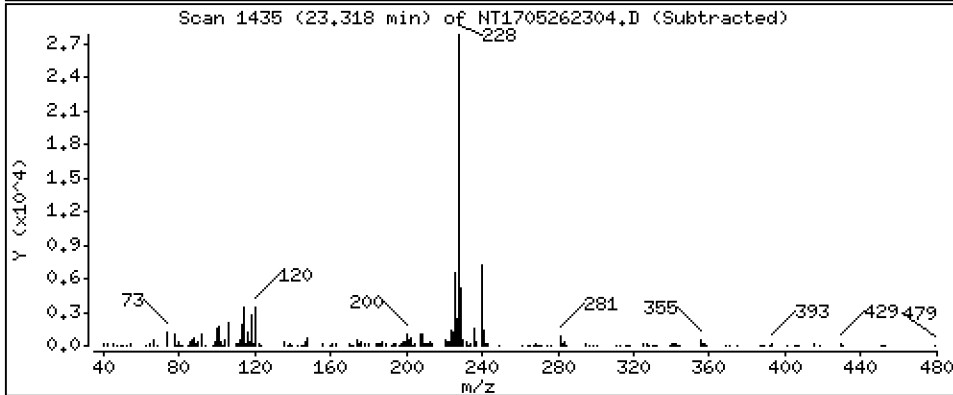
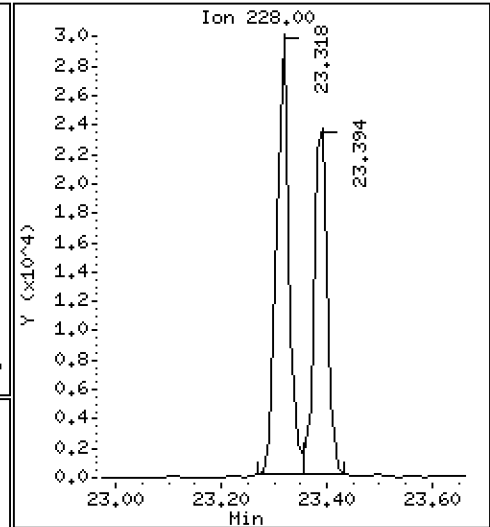
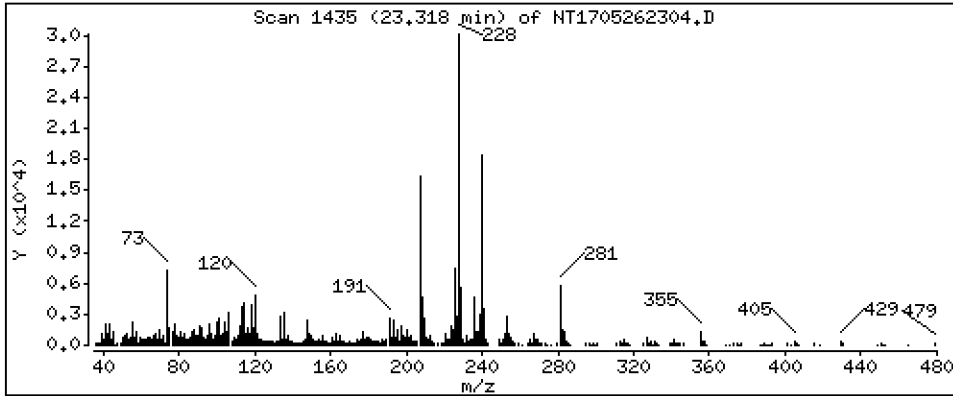
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,2165 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

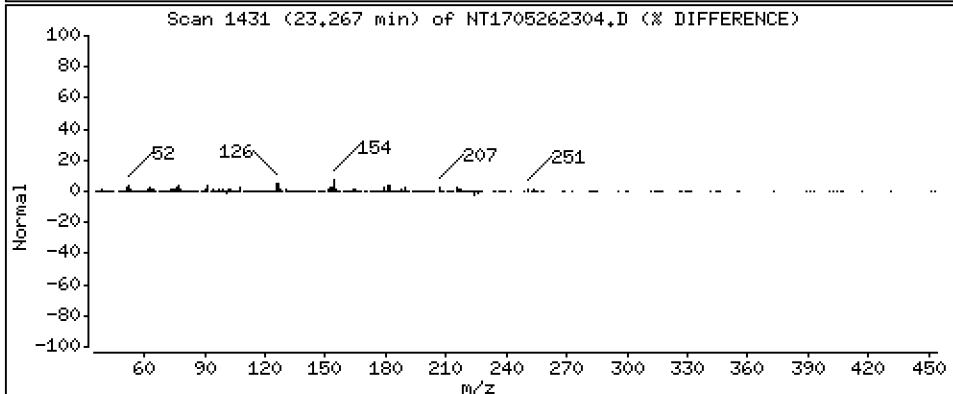
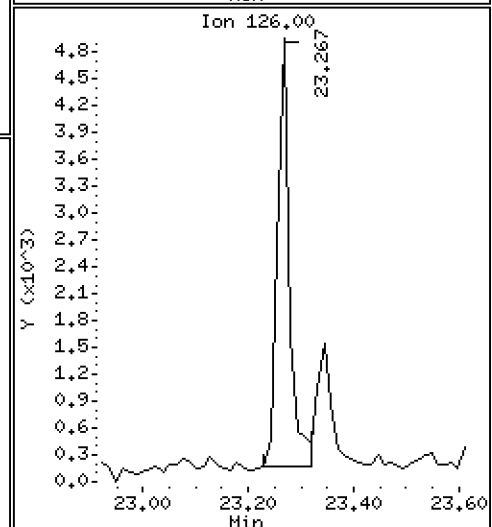
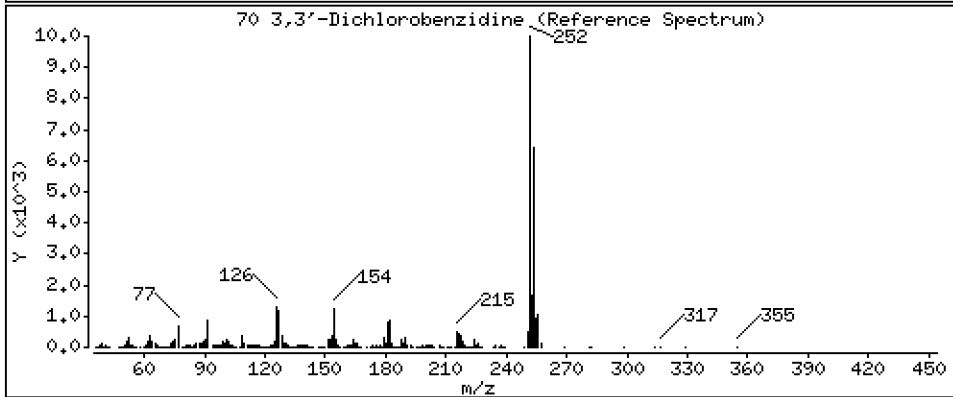
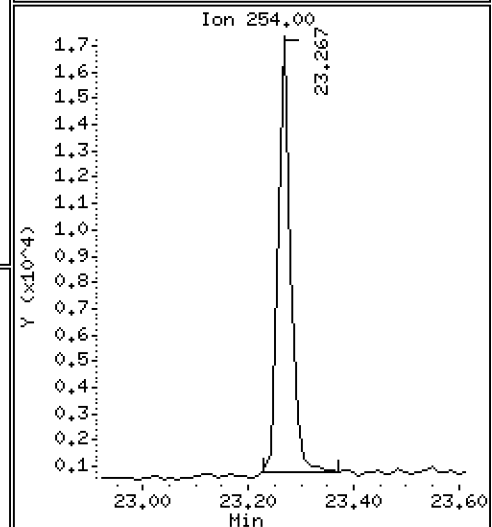
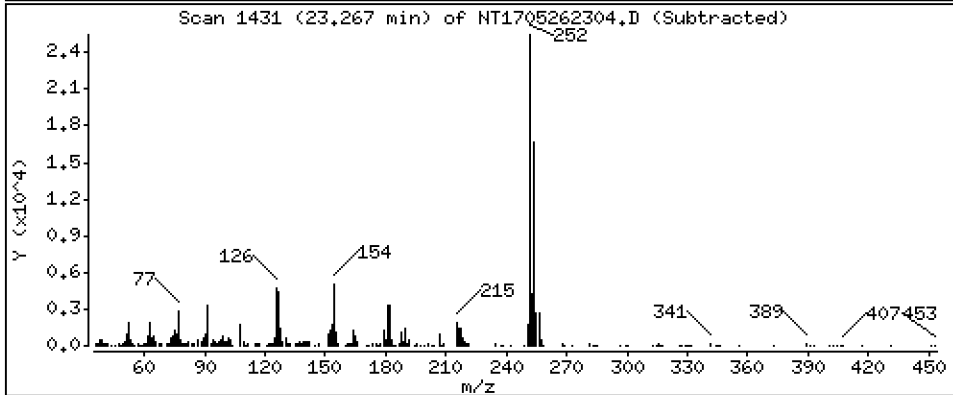
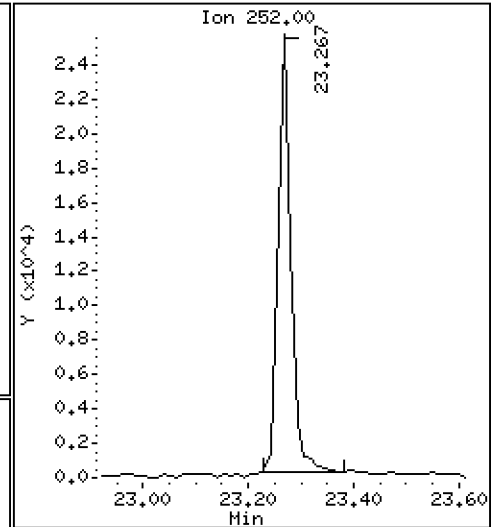
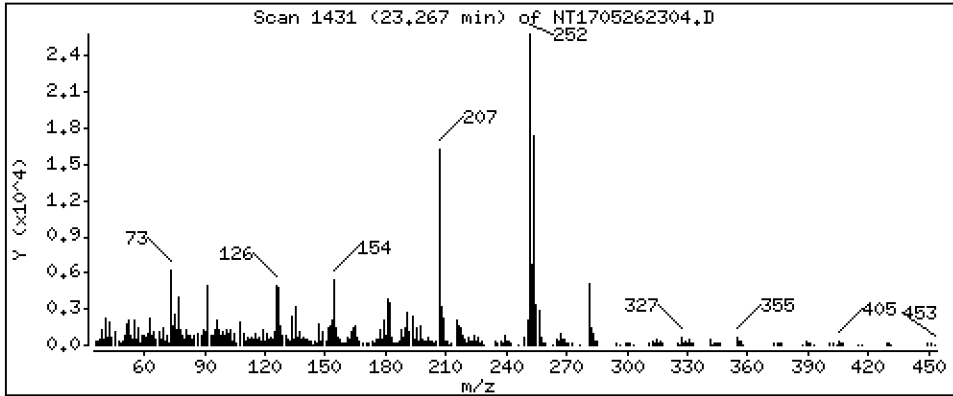
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,001 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

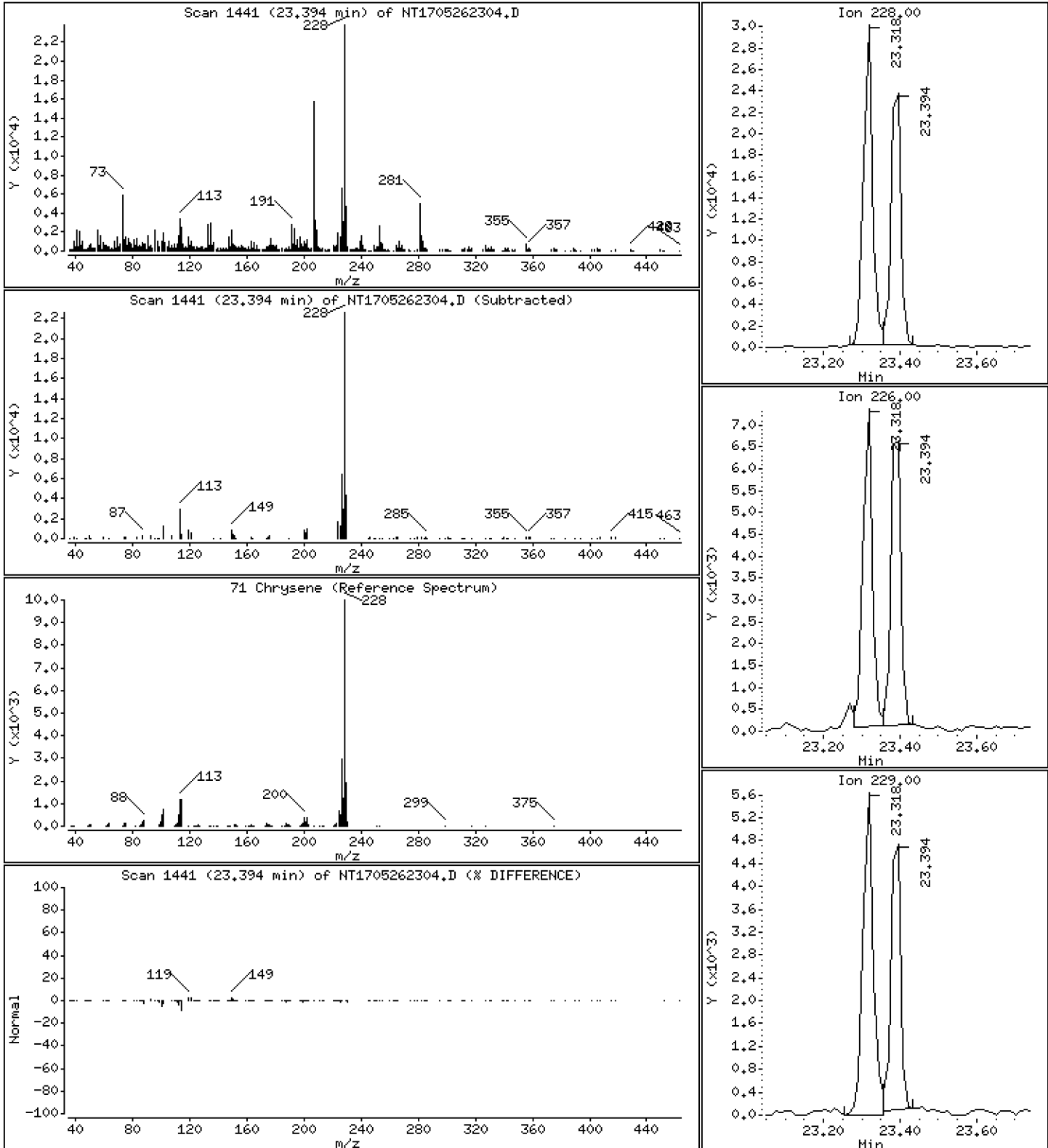
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,2097 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

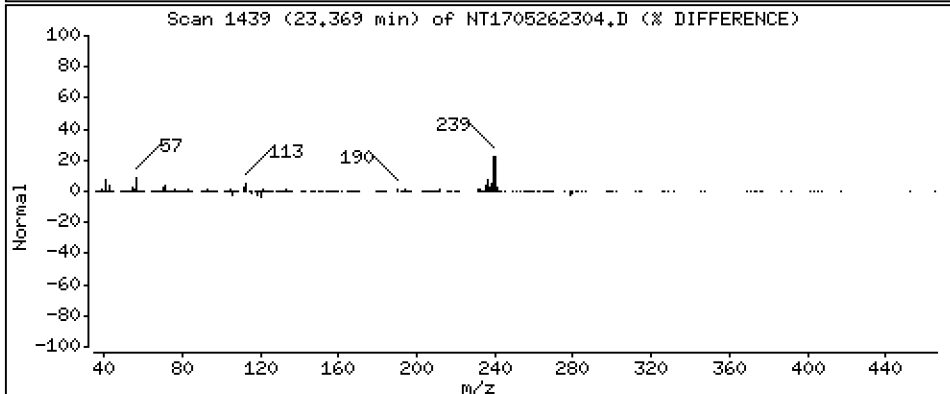
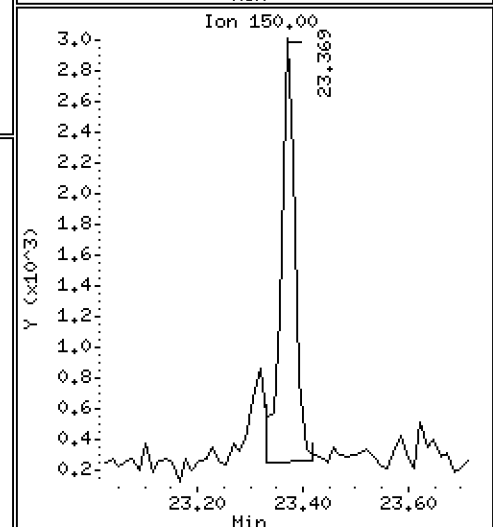
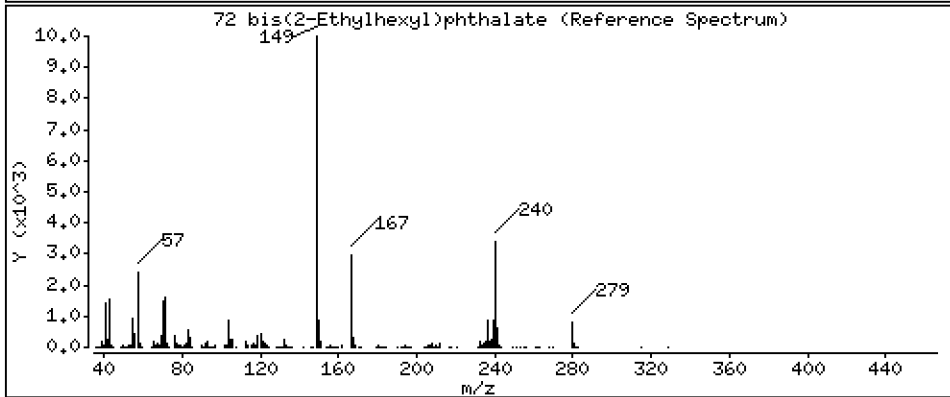
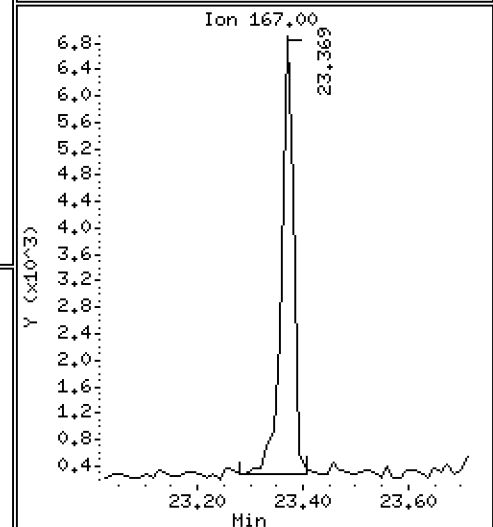
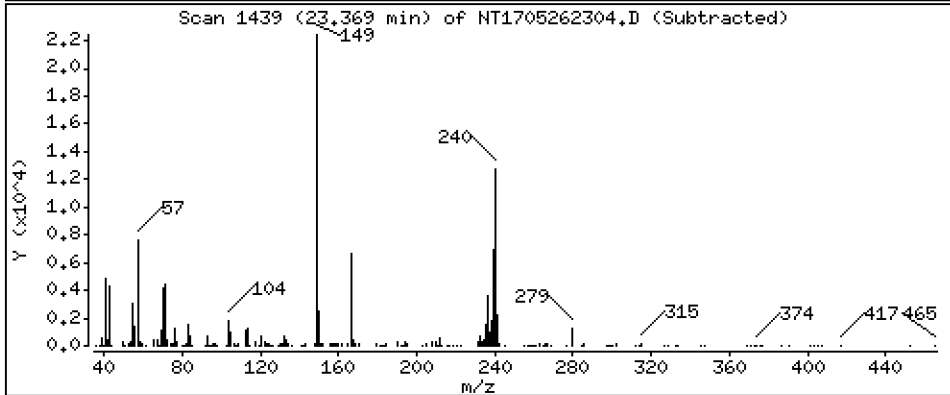
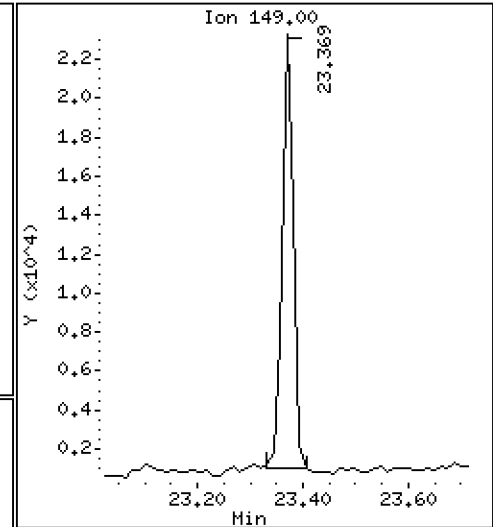
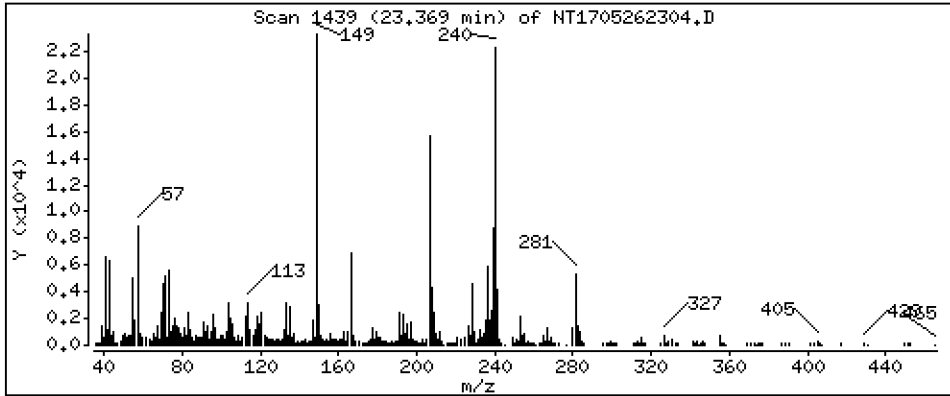
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,1878 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

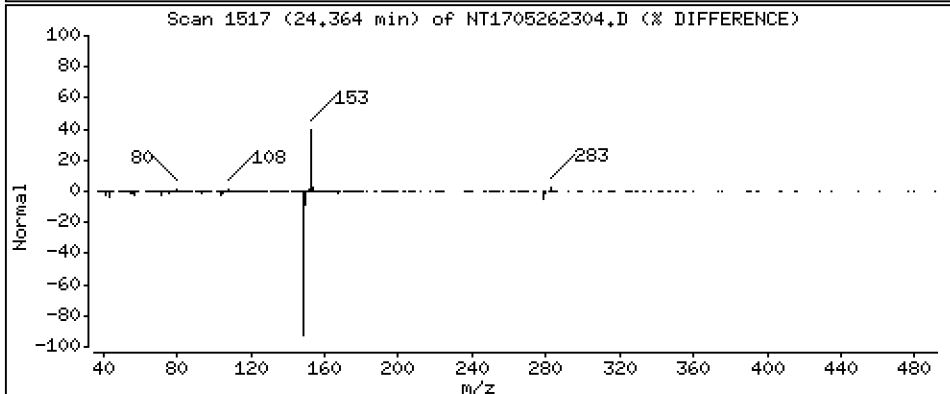
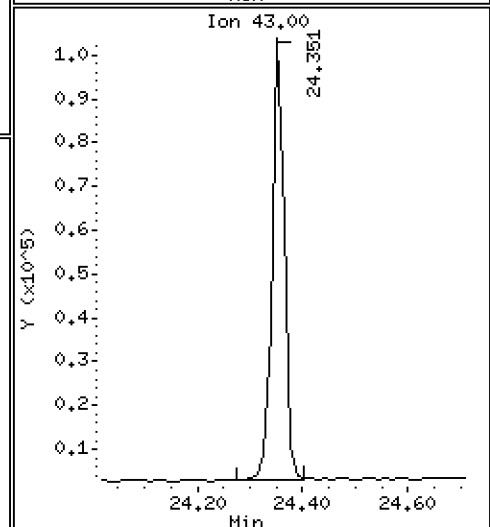
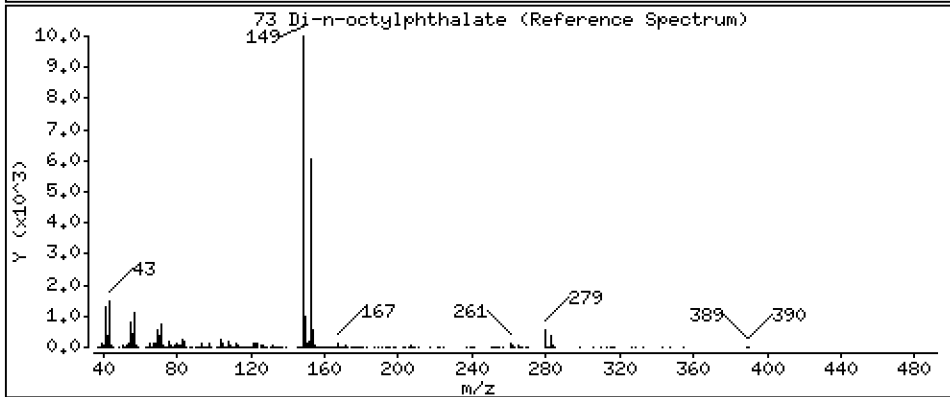
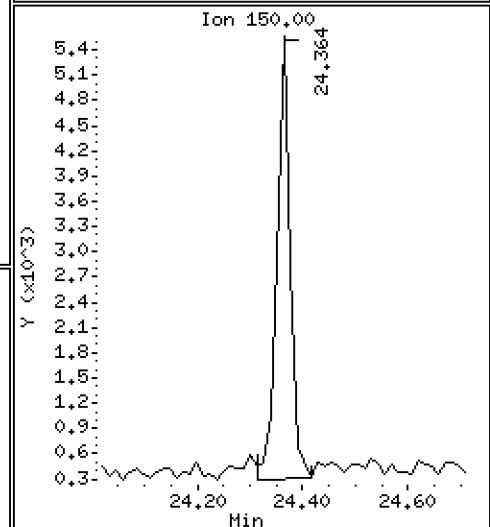
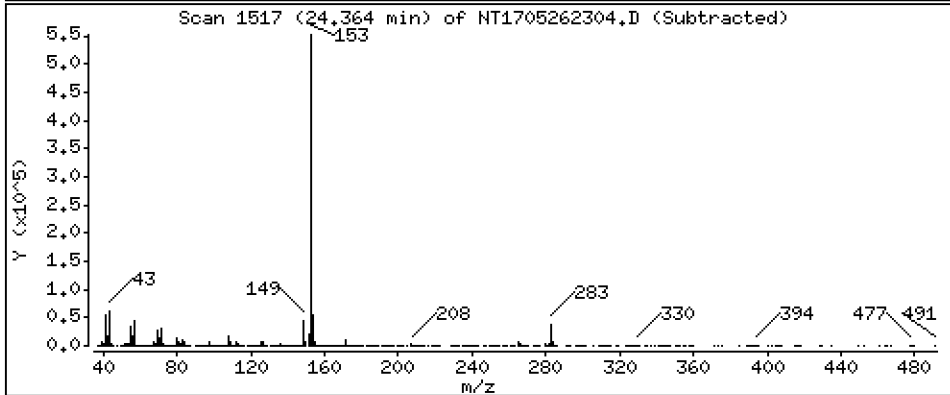
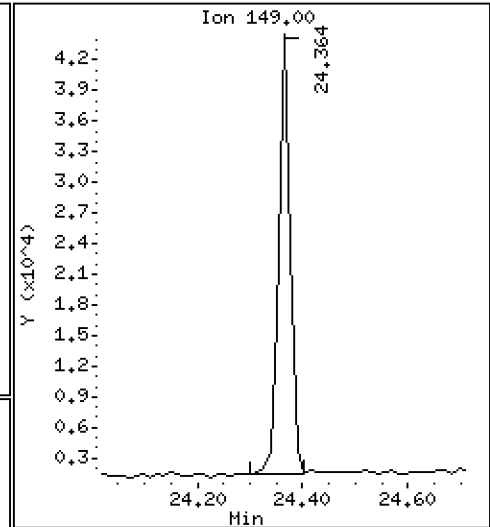
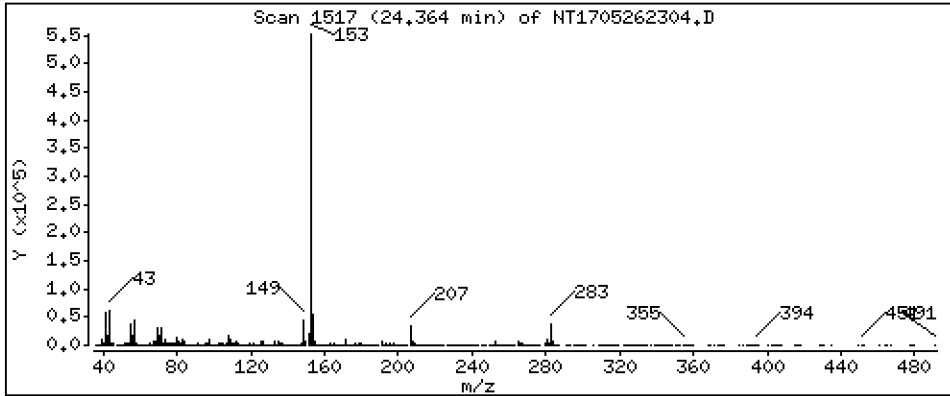
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,2110 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

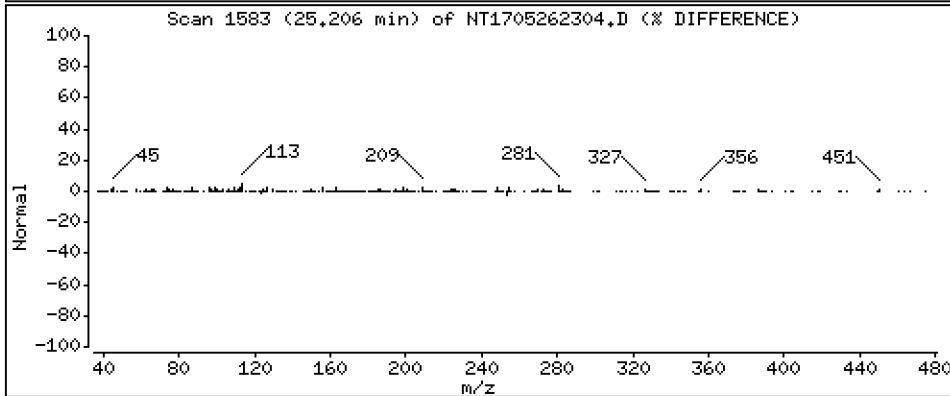
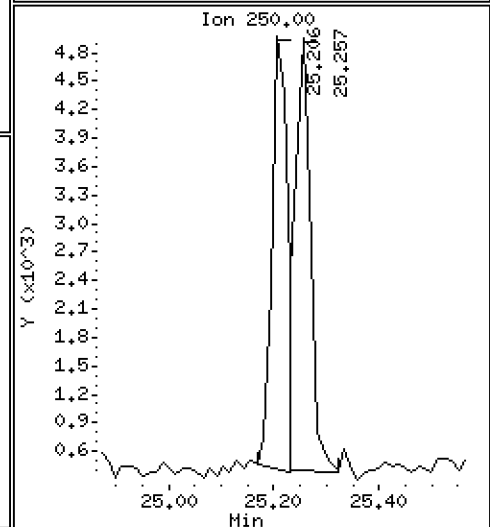
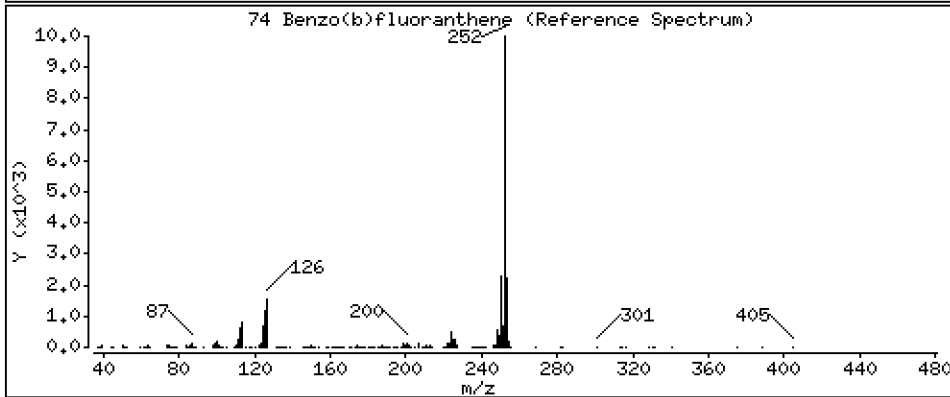
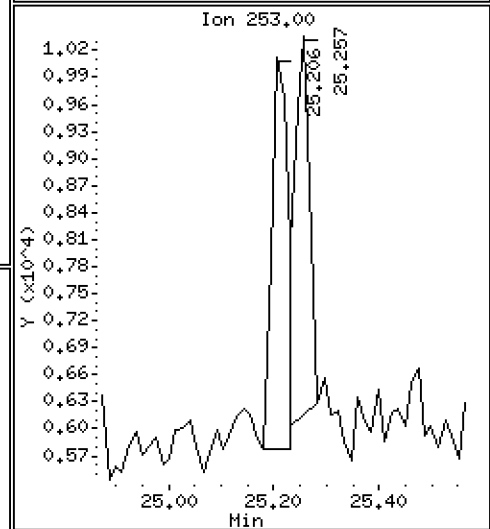
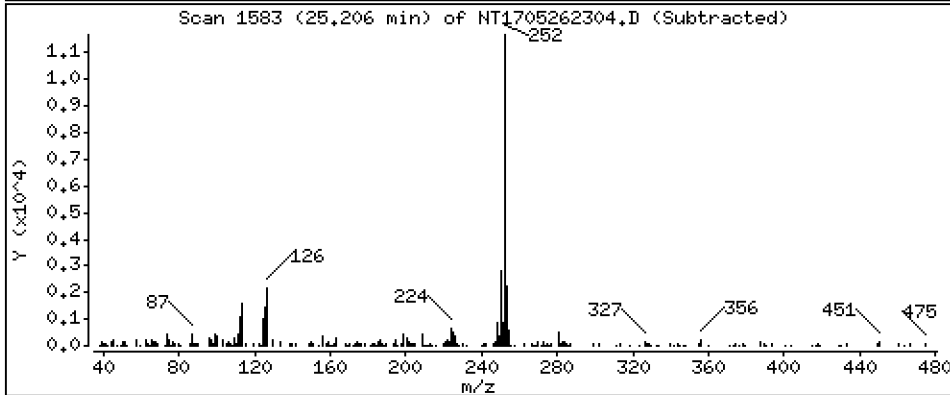
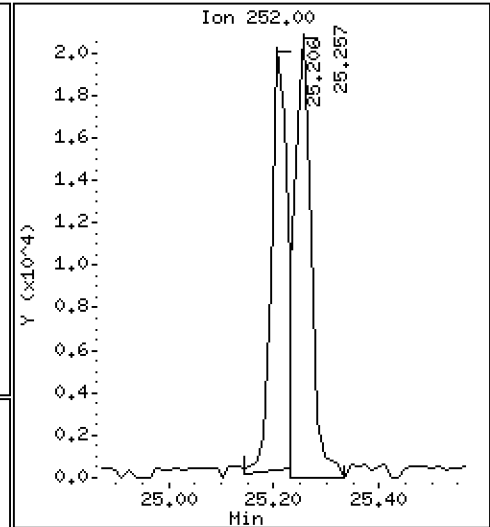
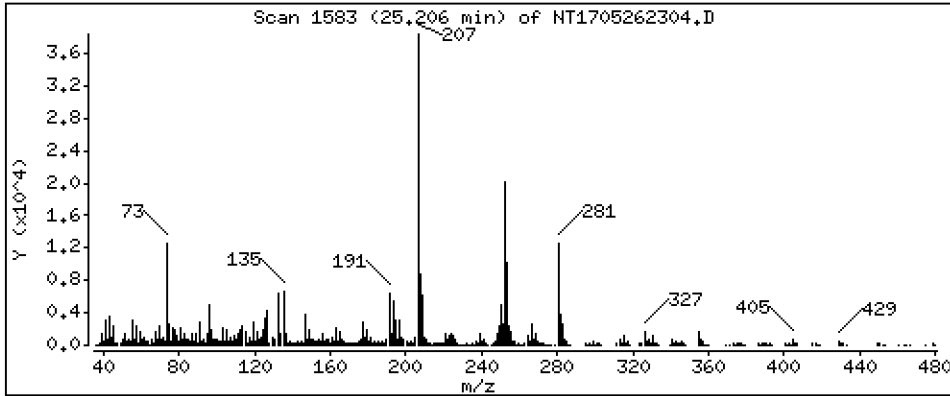
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,1795 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

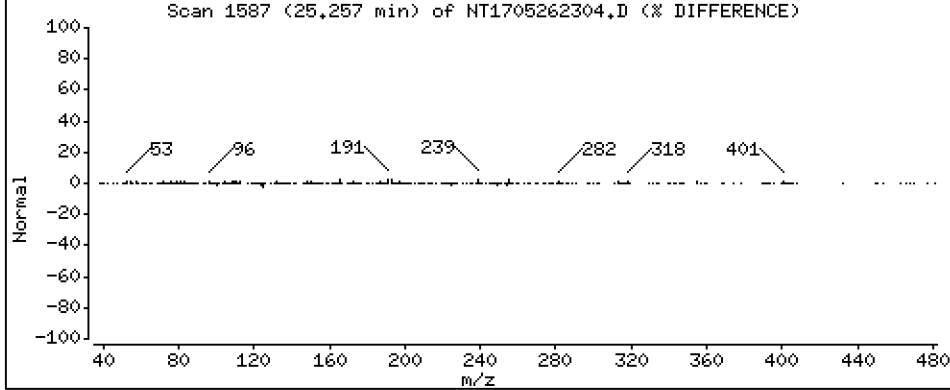
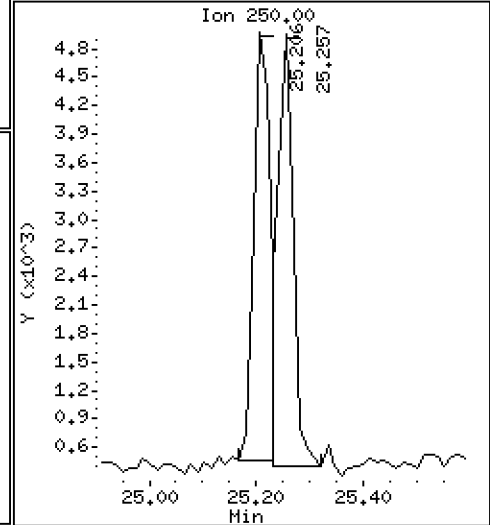
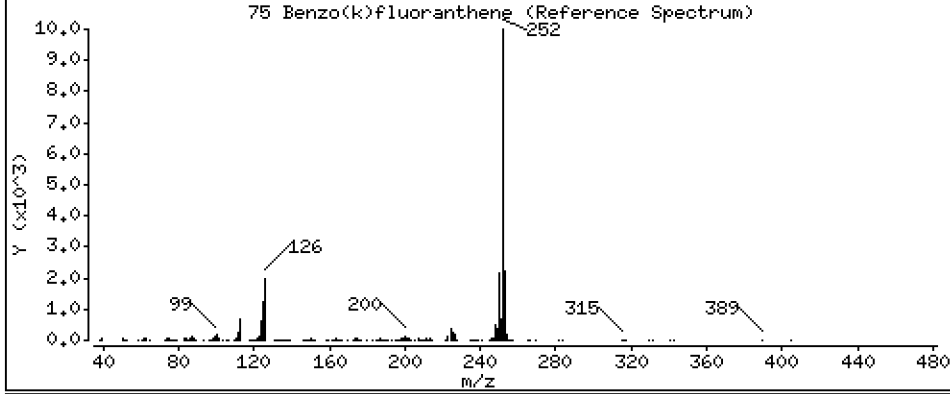
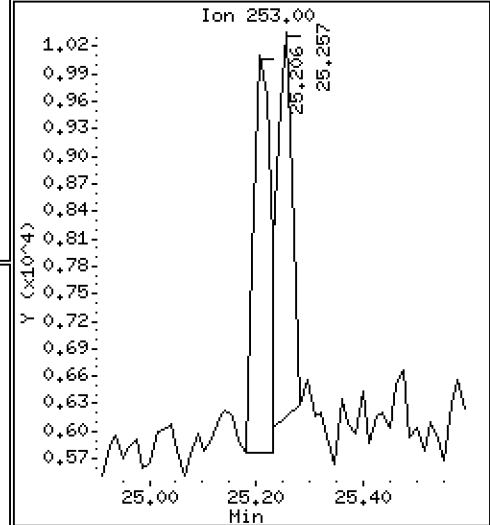
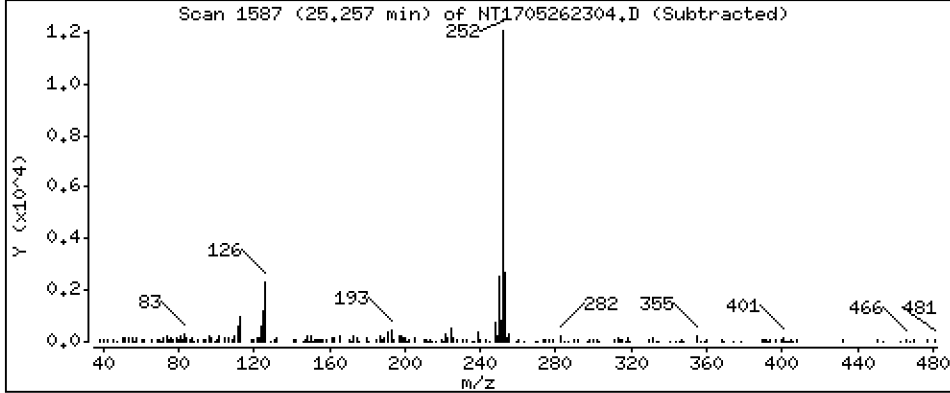
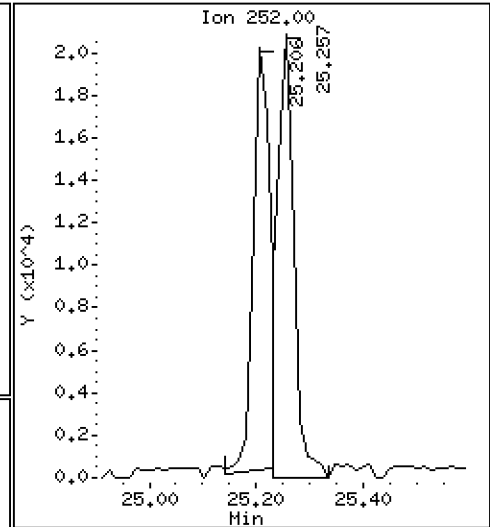
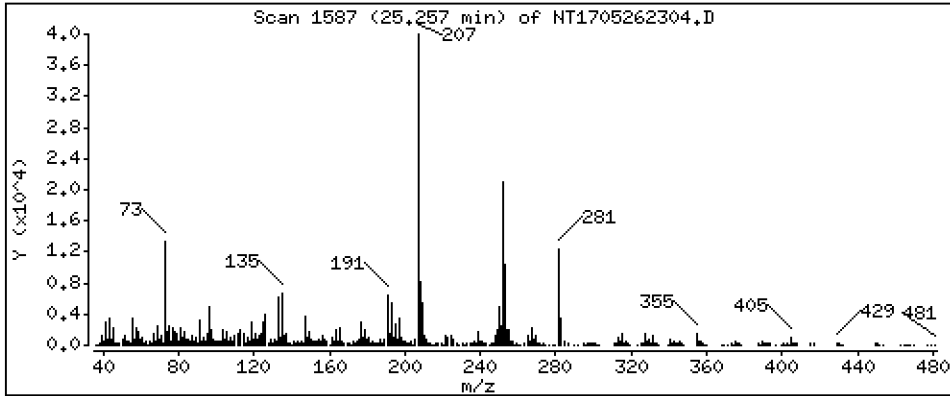
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,2115 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

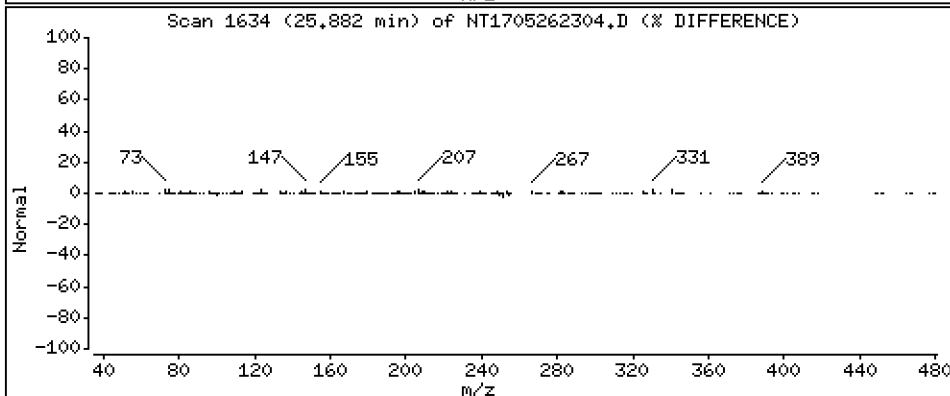
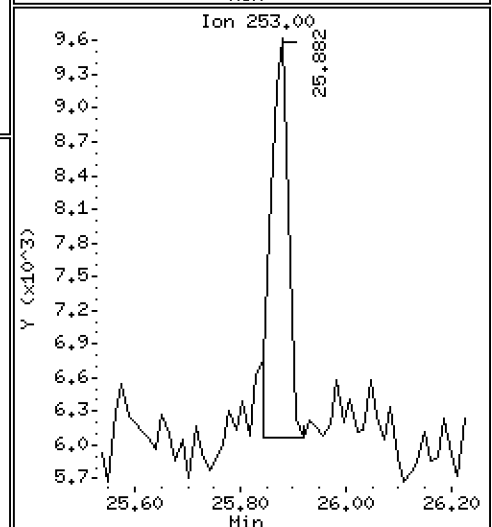
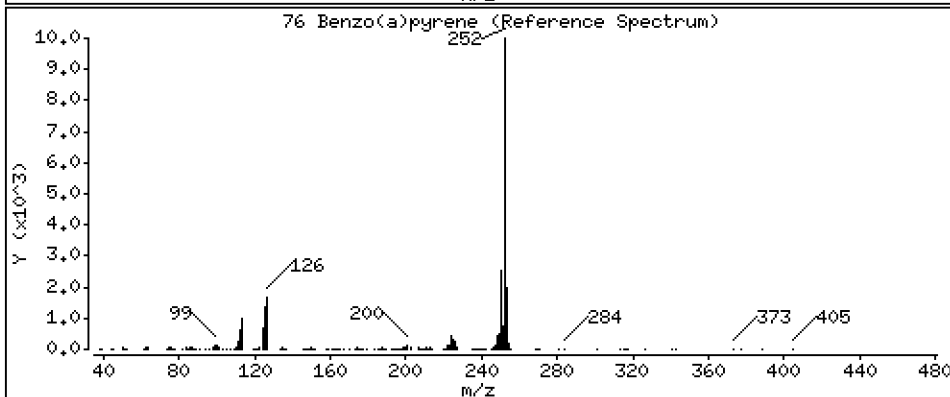
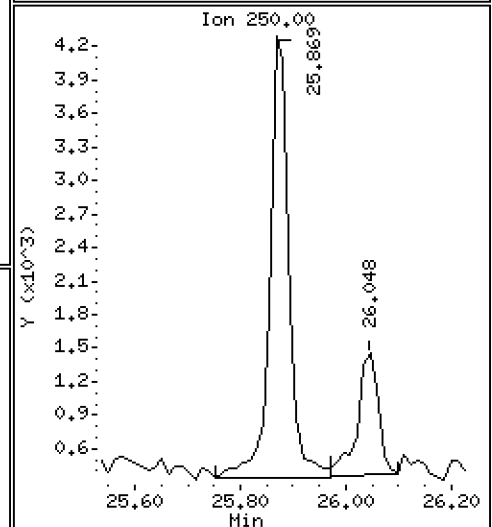
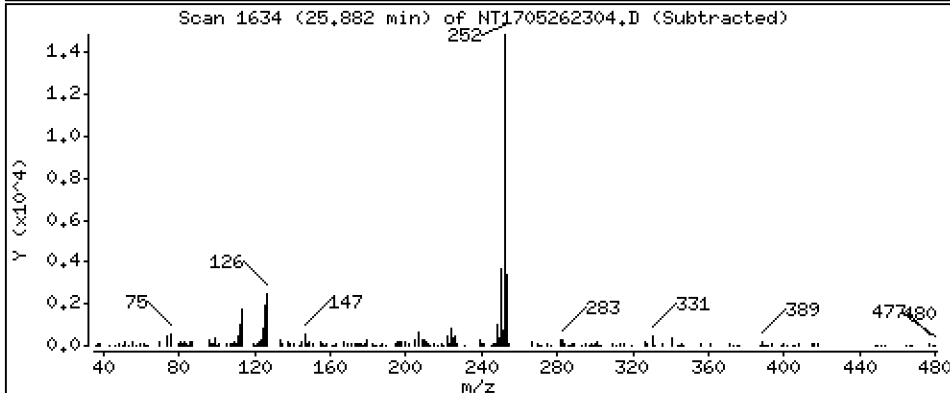
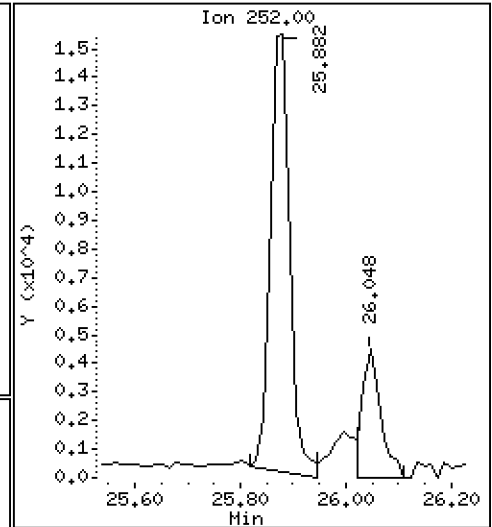
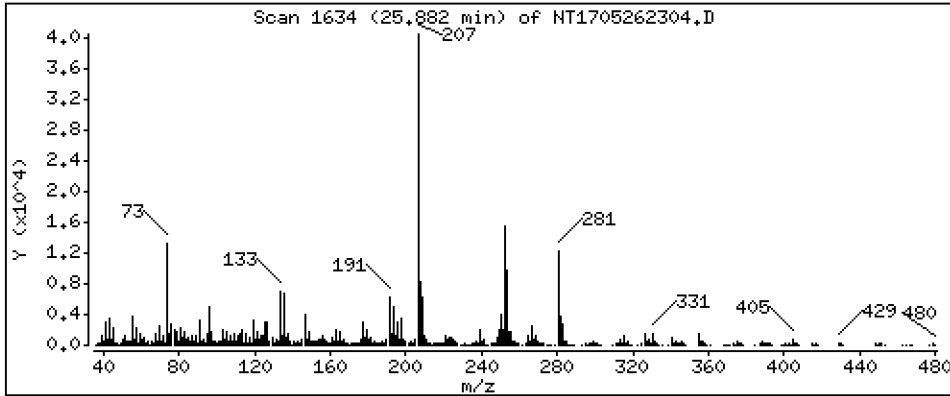
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,2040 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

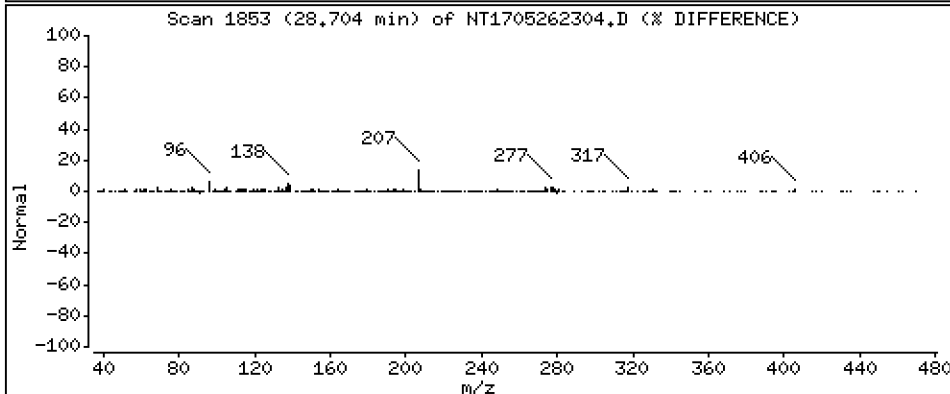
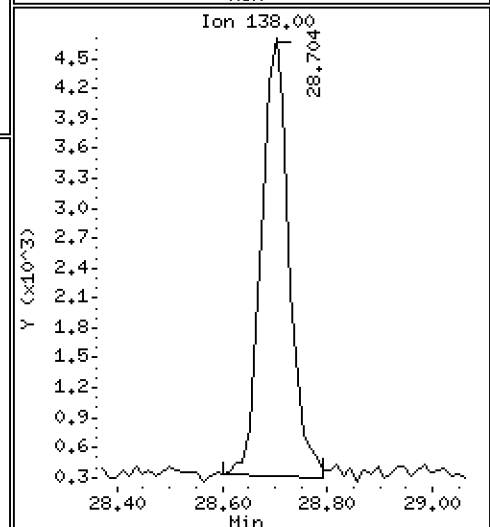
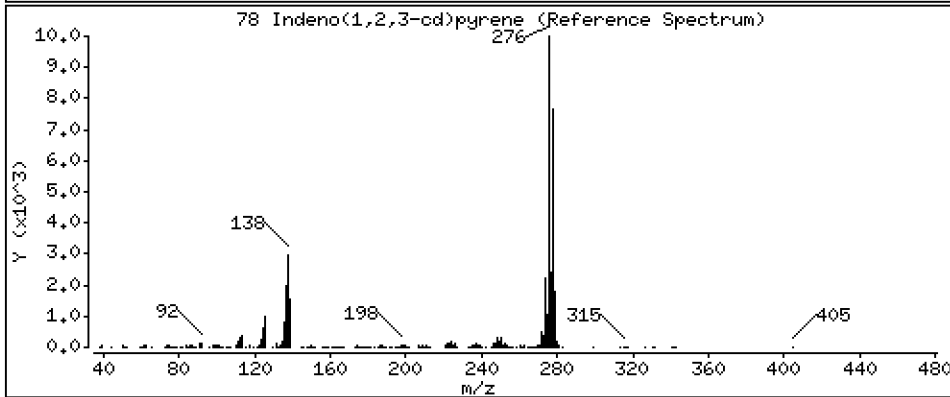
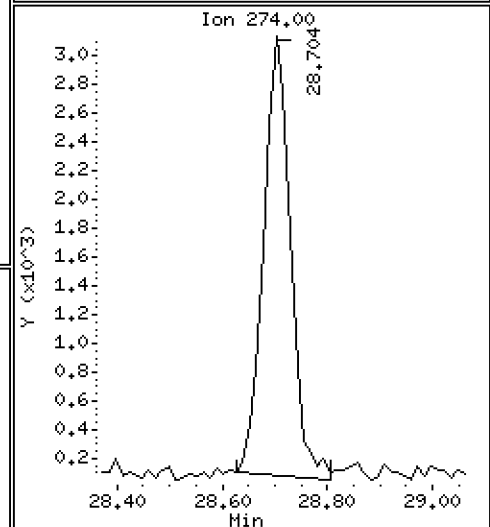
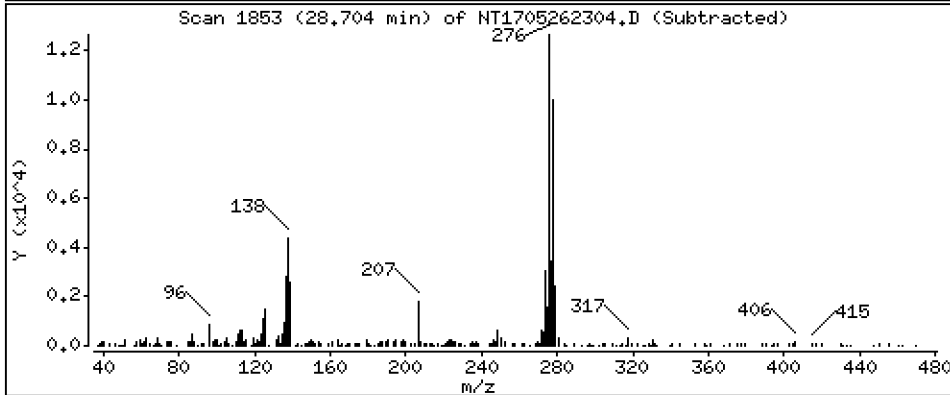
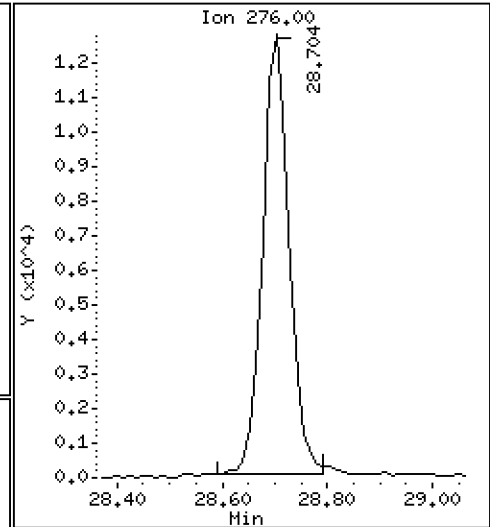
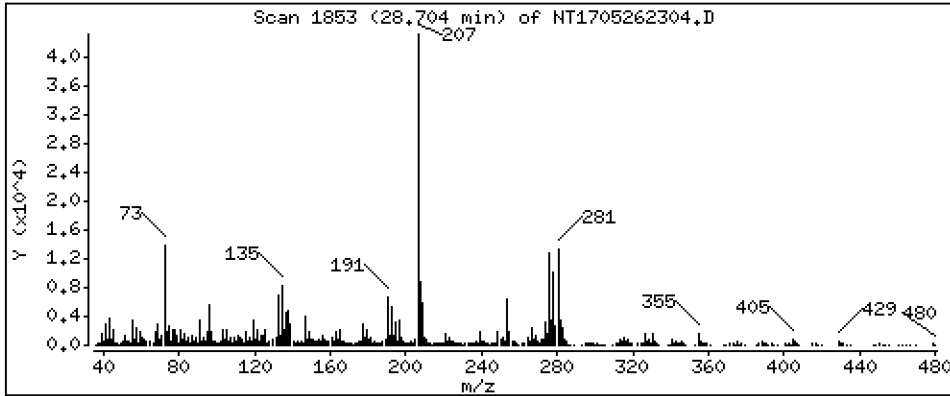
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,1978 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

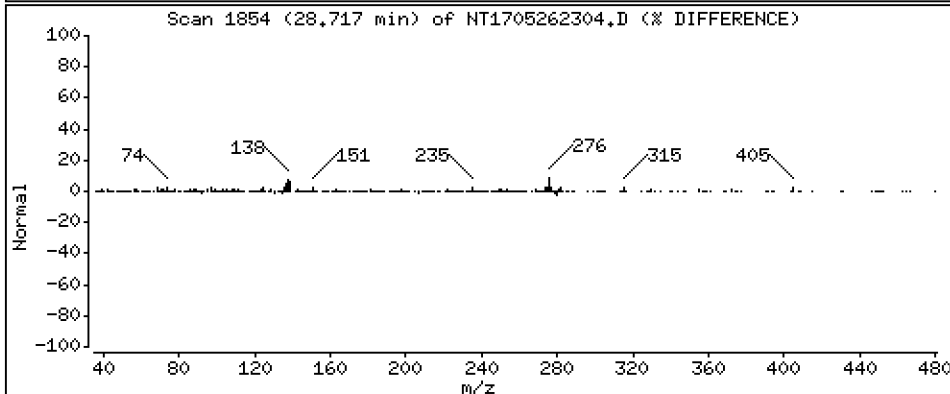
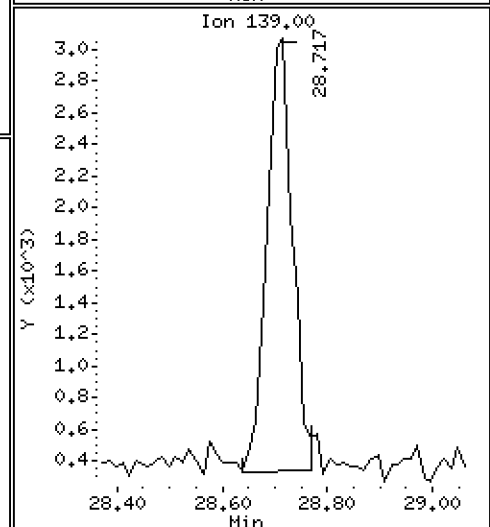
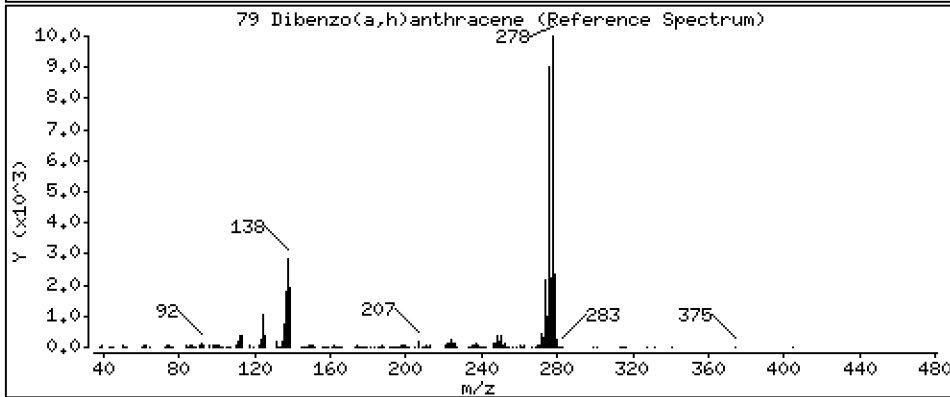
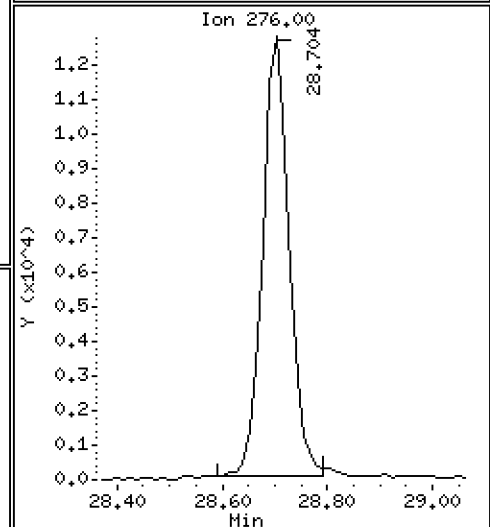
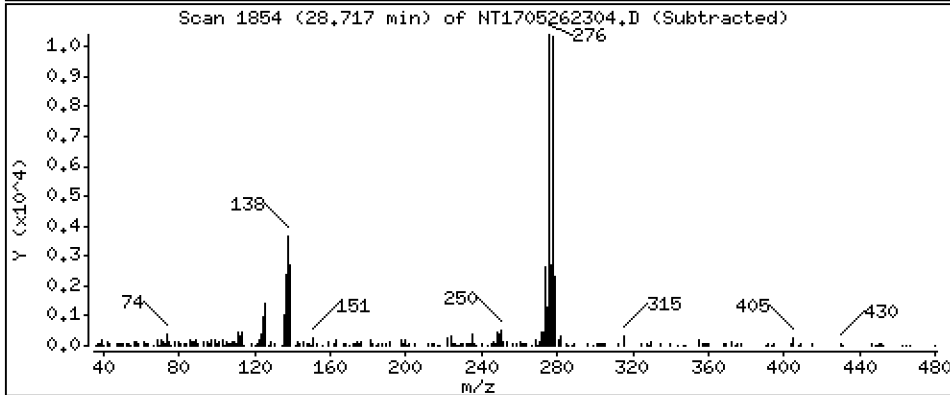
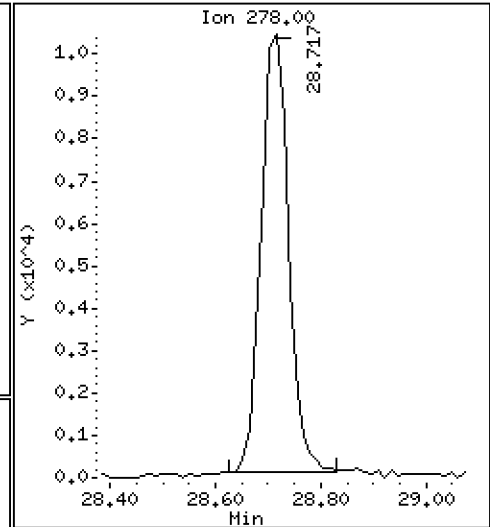
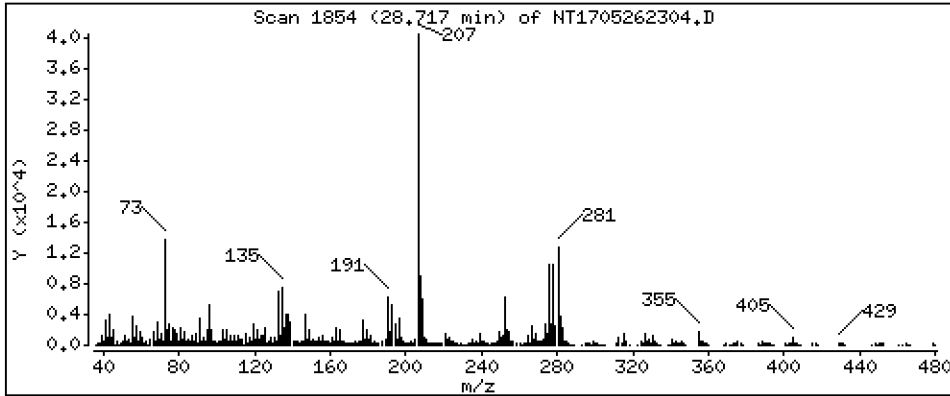
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1955 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

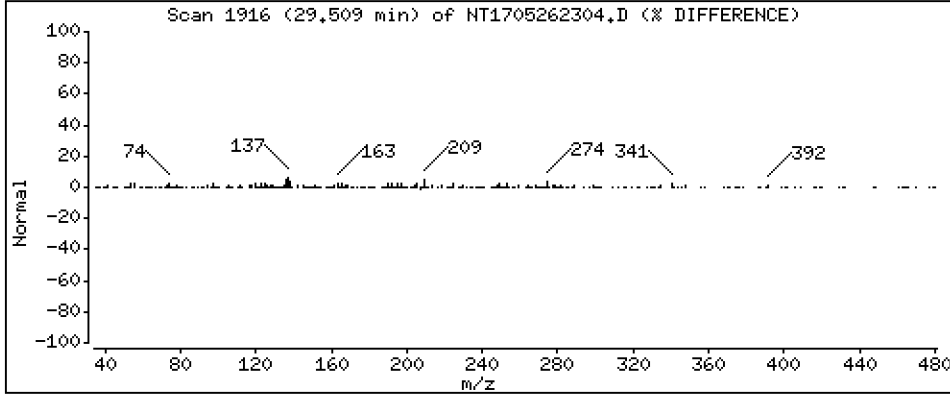
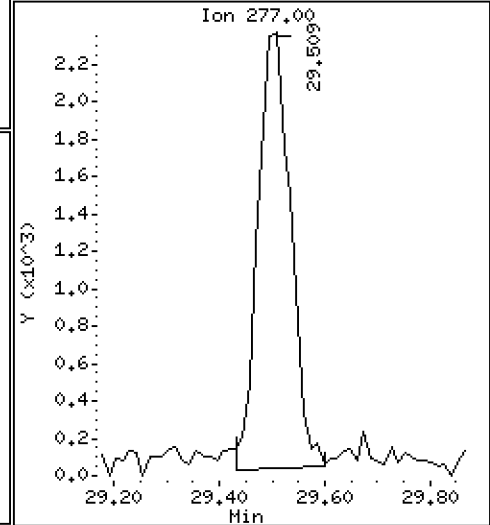
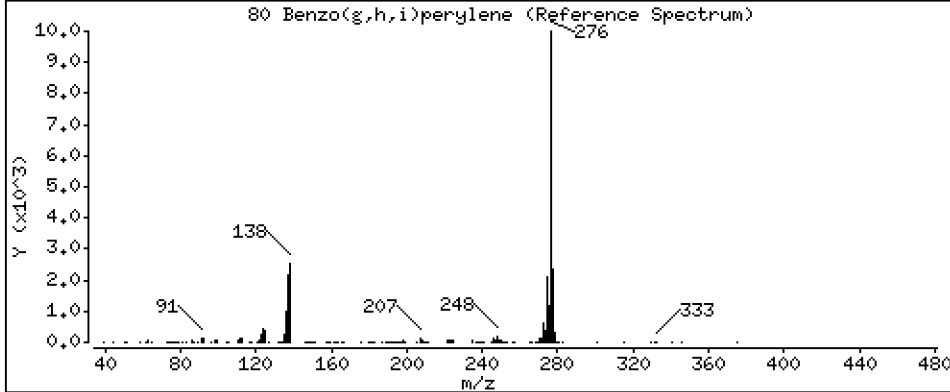
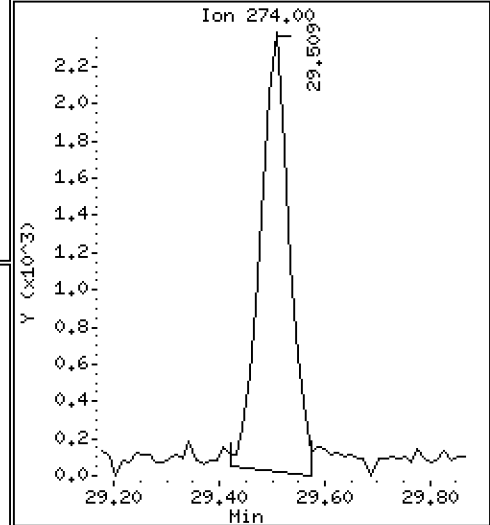
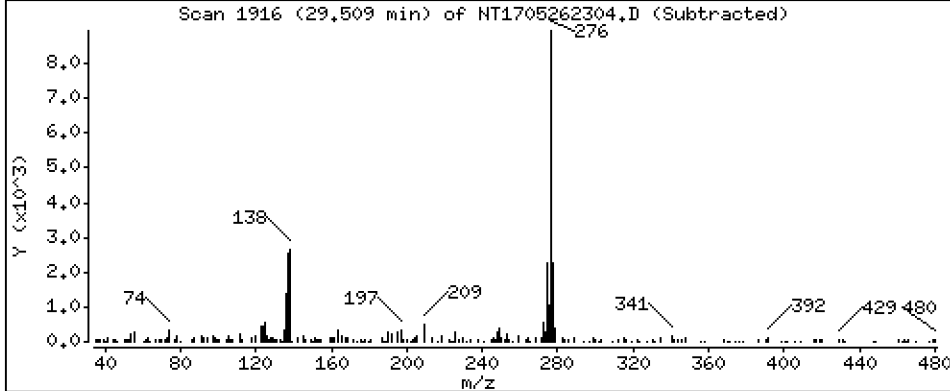
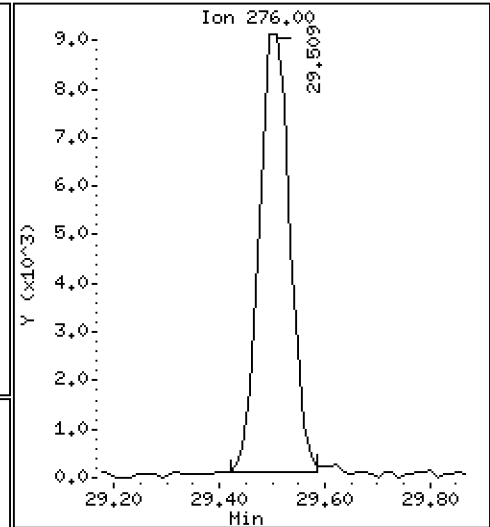
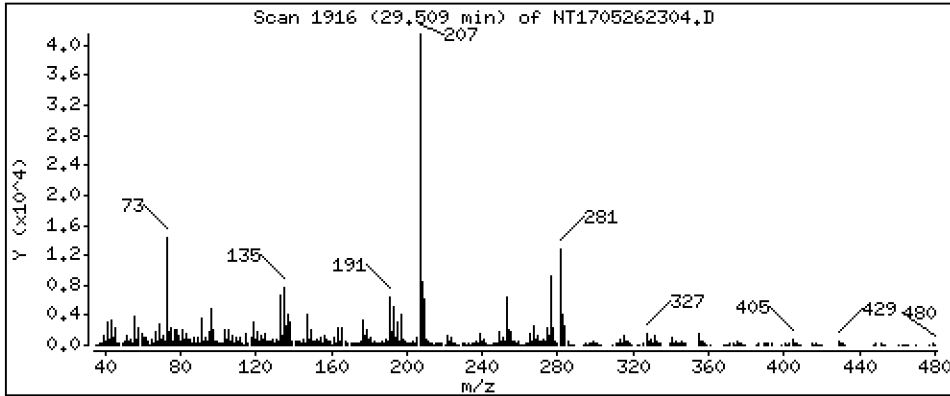
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,1959 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

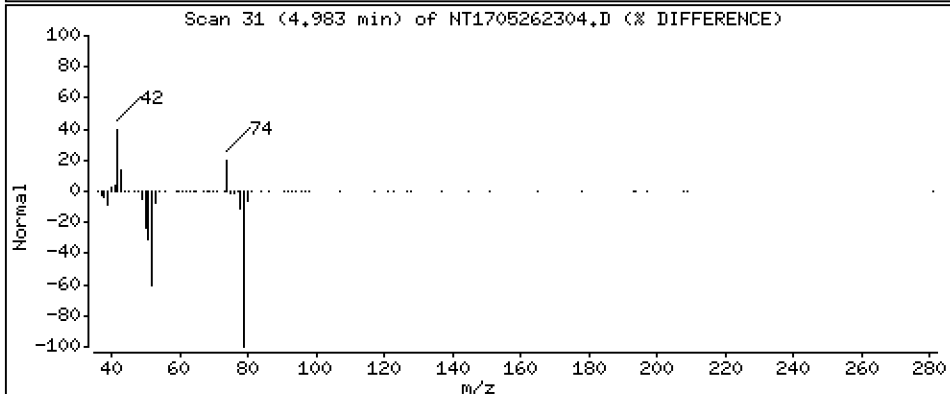
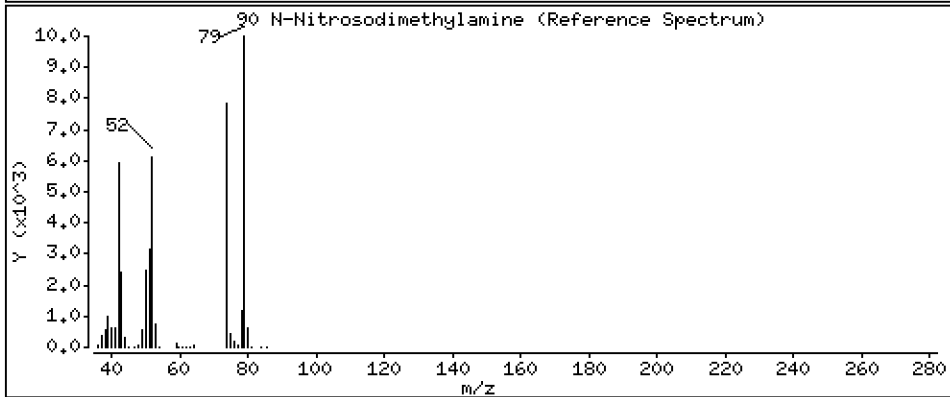
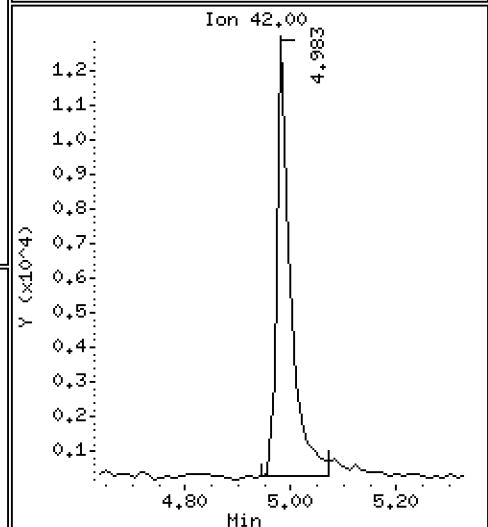
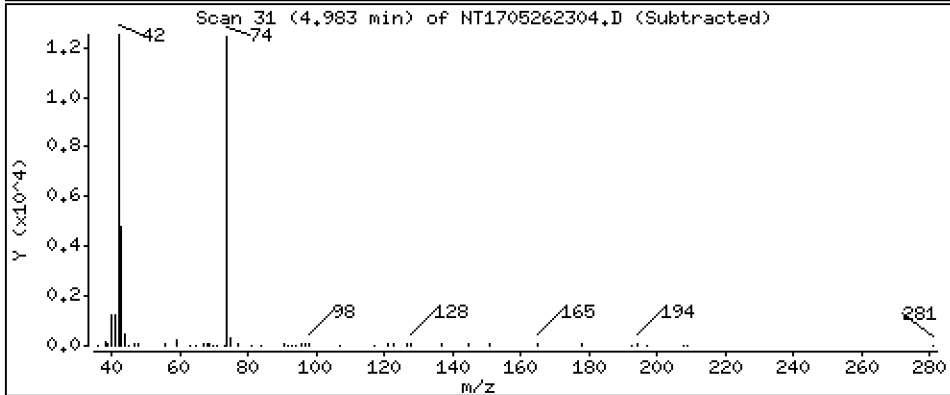
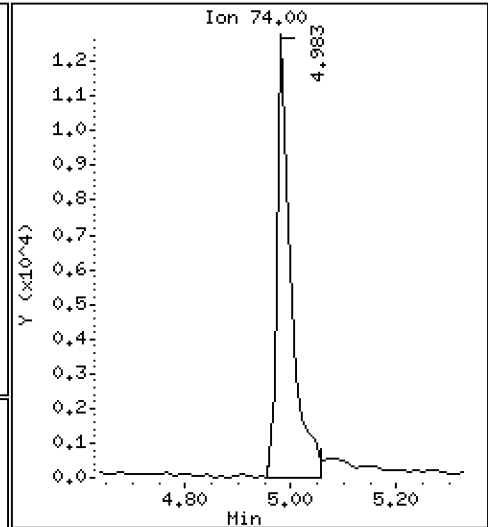
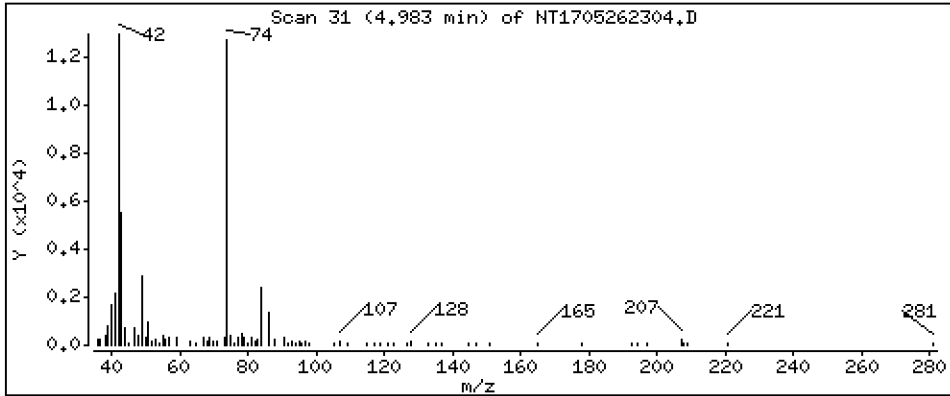
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,3325 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

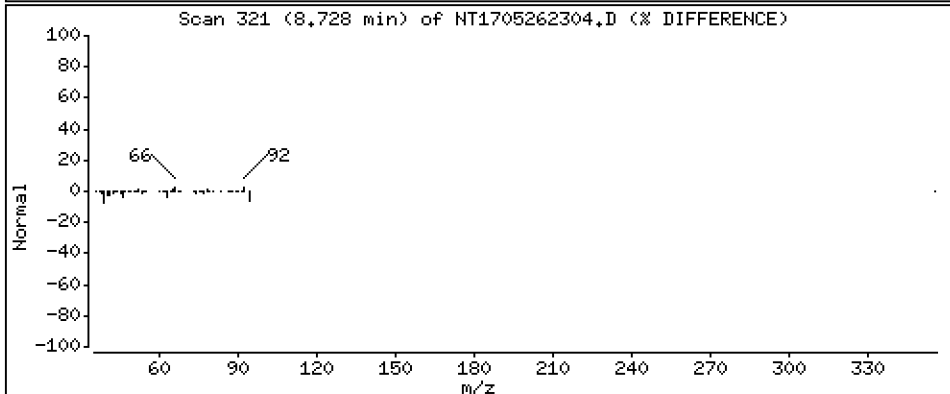
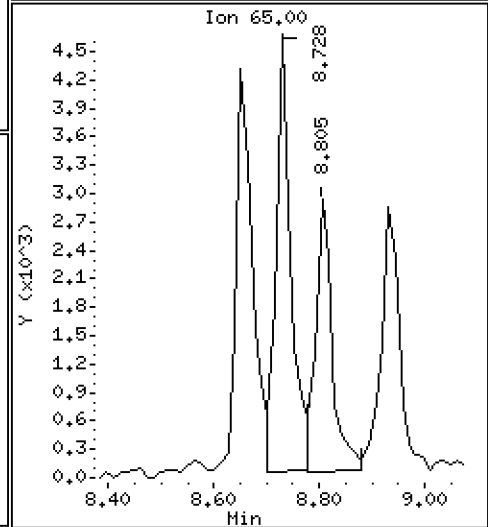
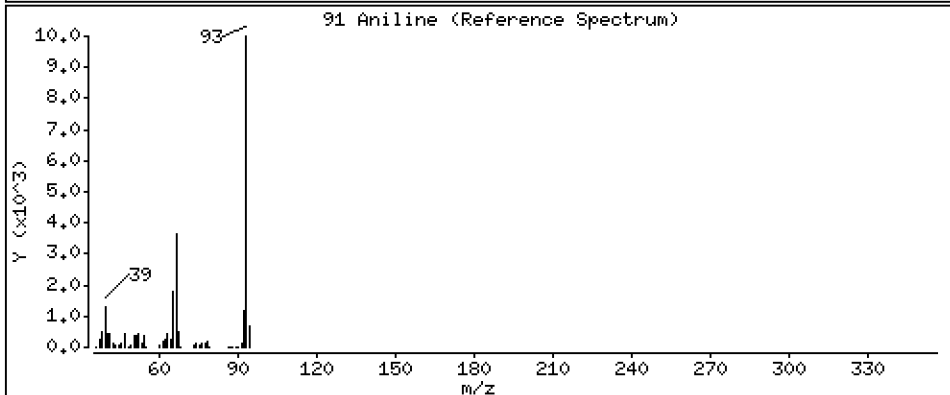
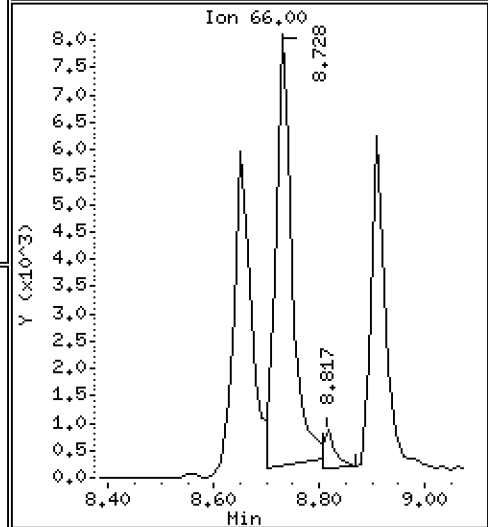
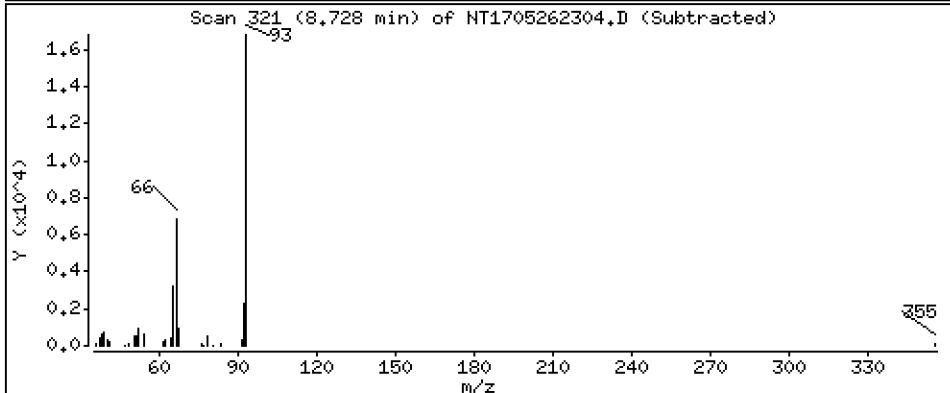
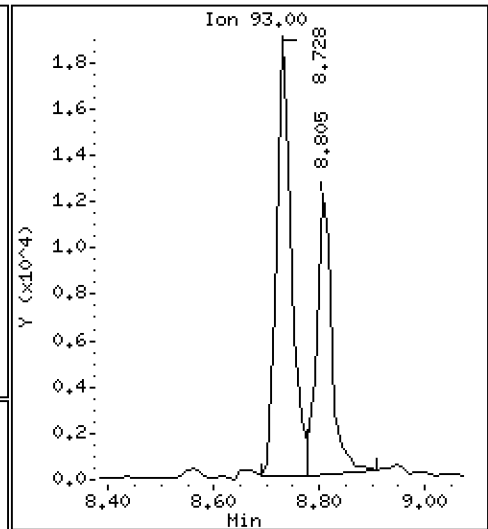
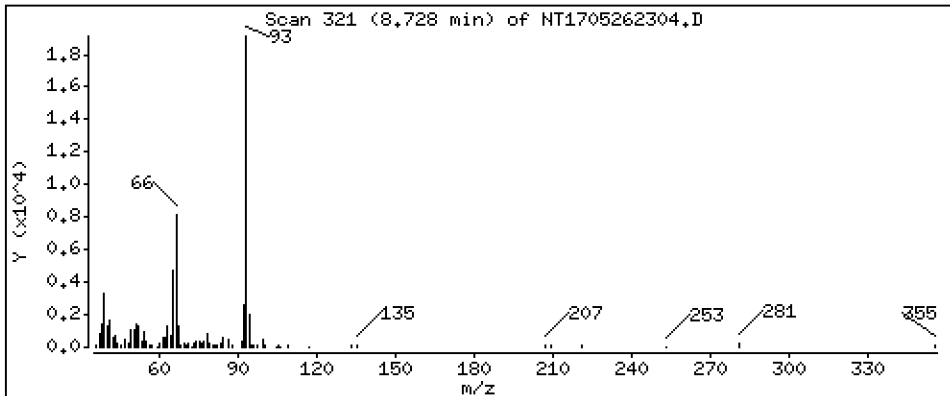
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,3170 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

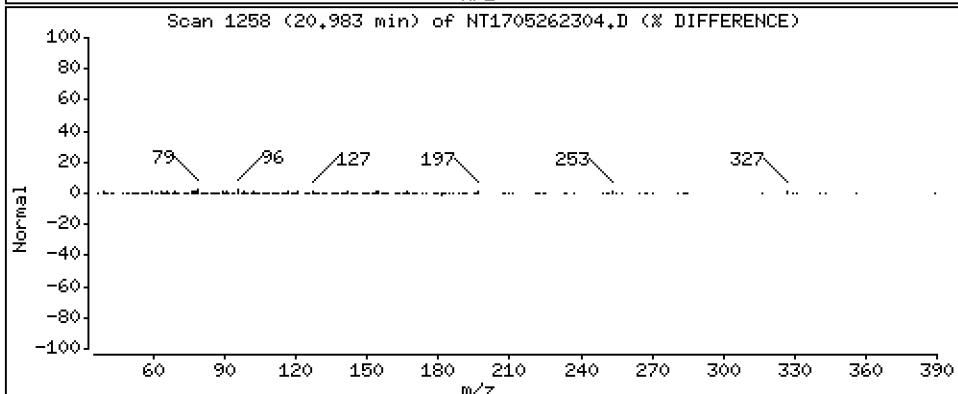
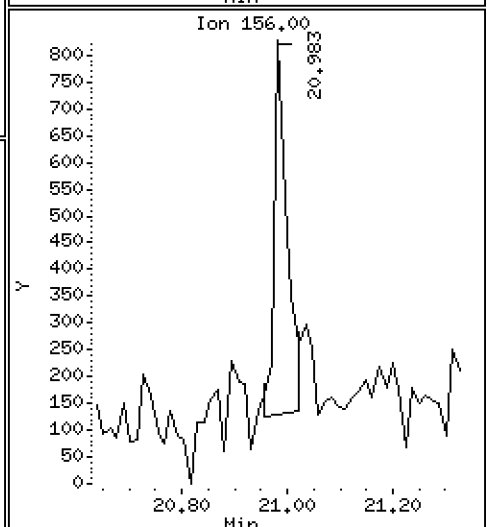
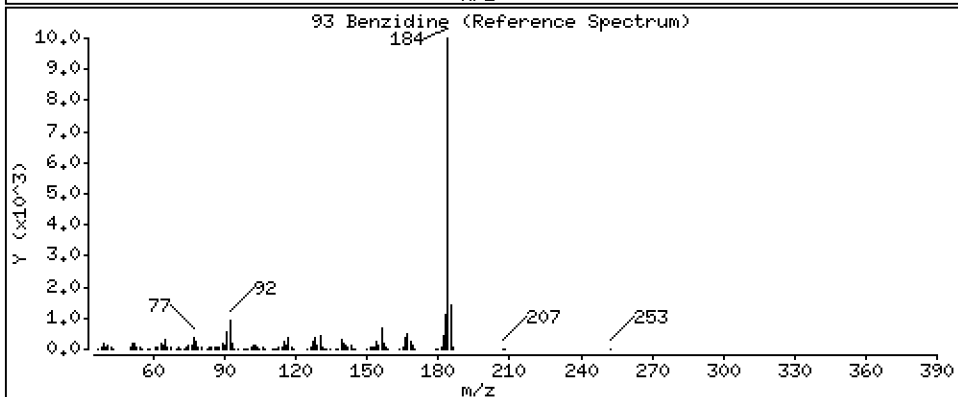
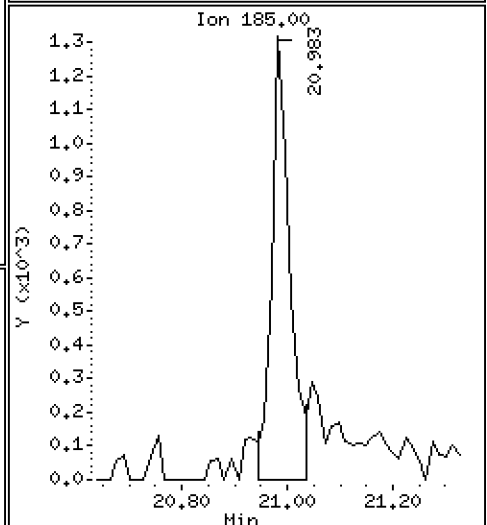
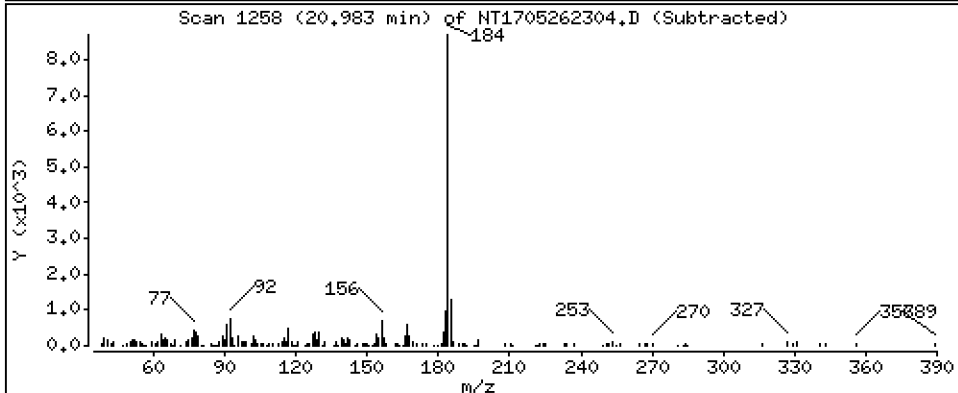
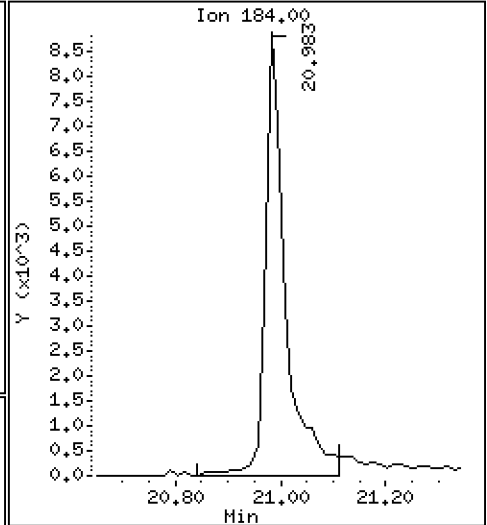
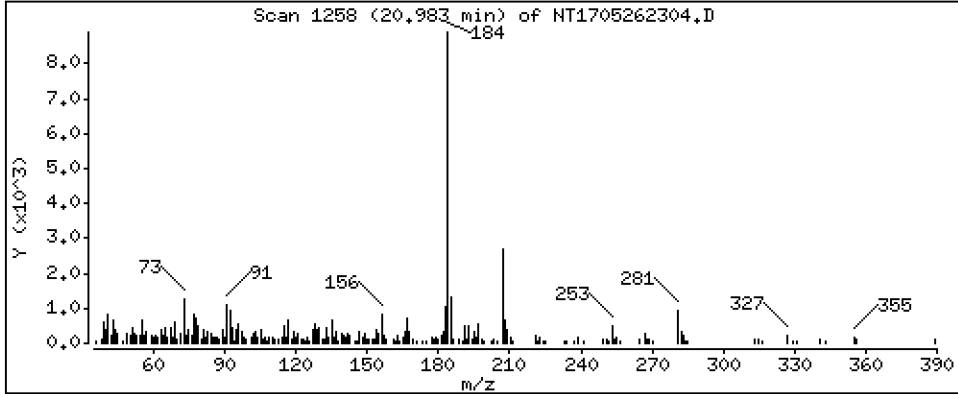
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

93 Benzidine

Concentration: 0.3413 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

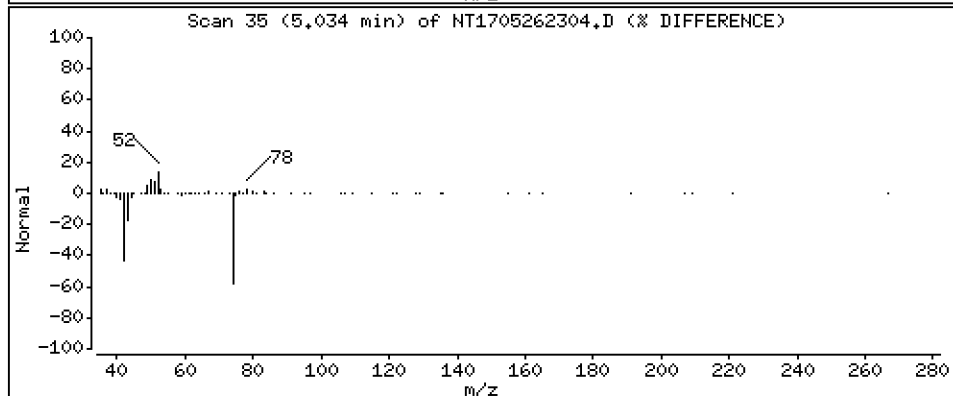
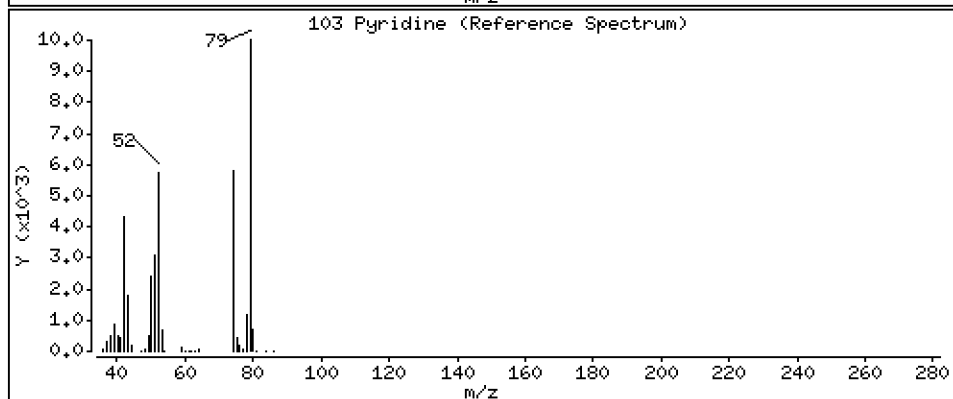
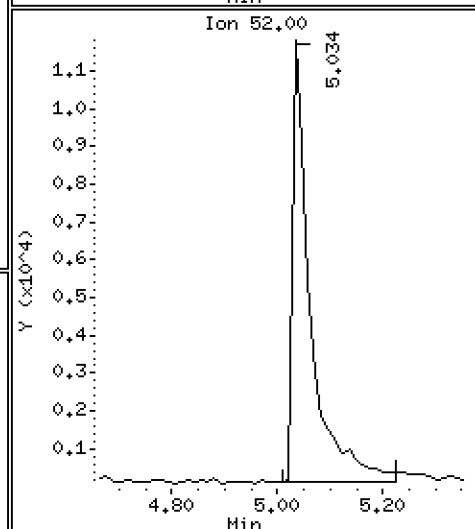
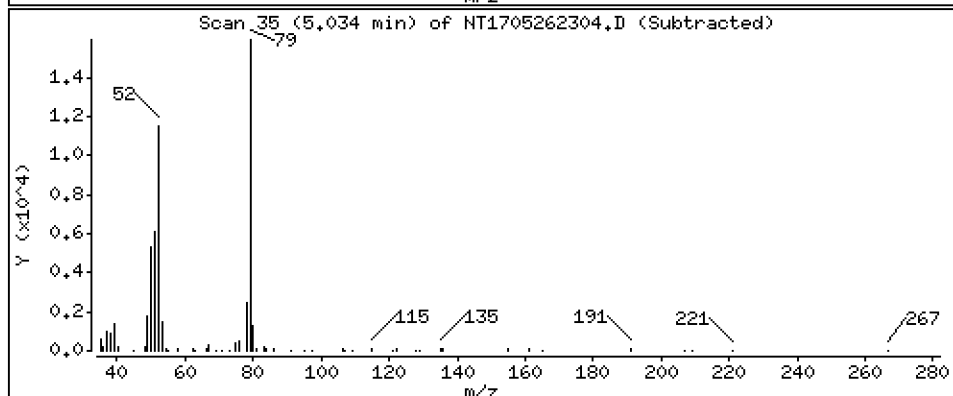
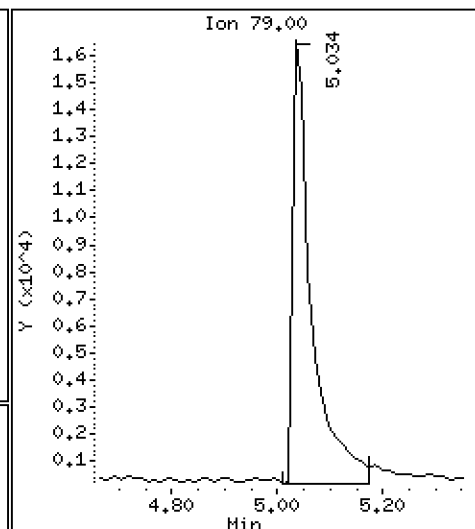
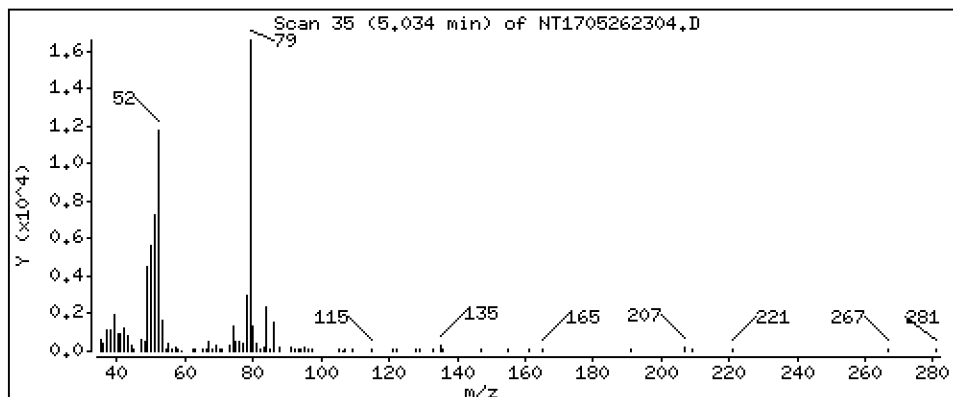
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,3879 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

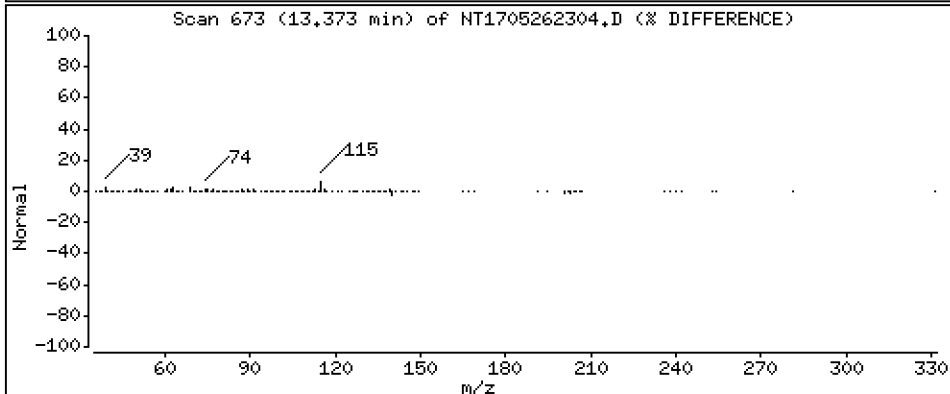
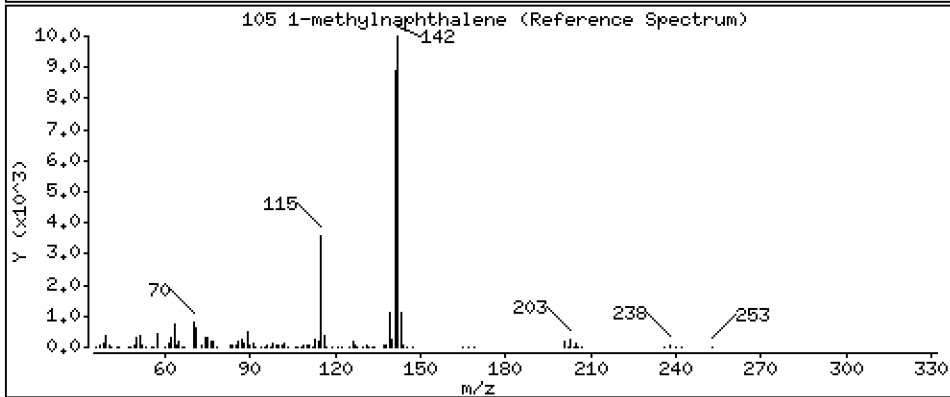
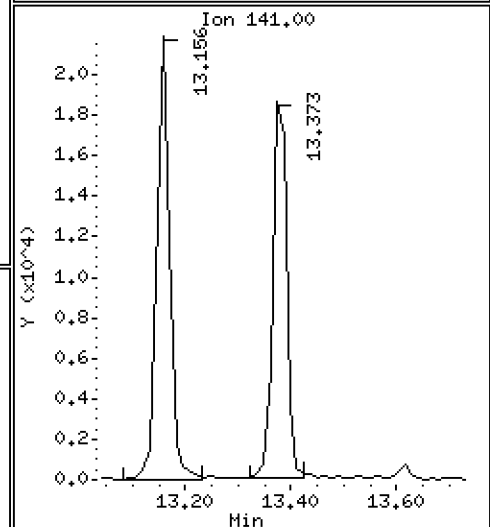
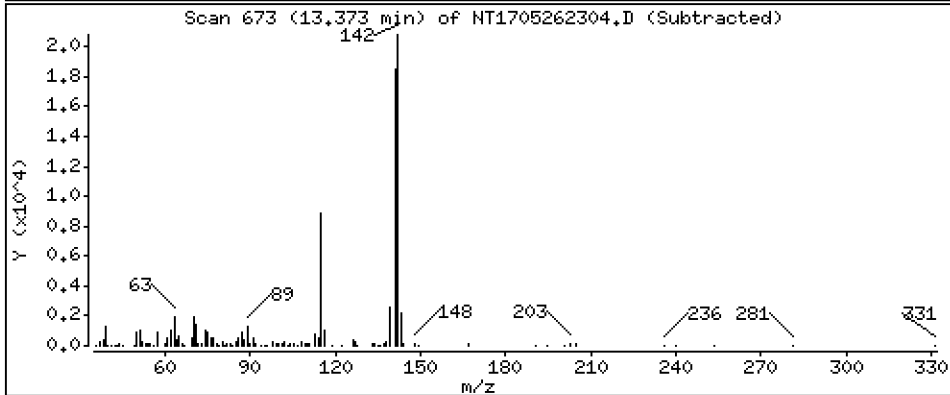
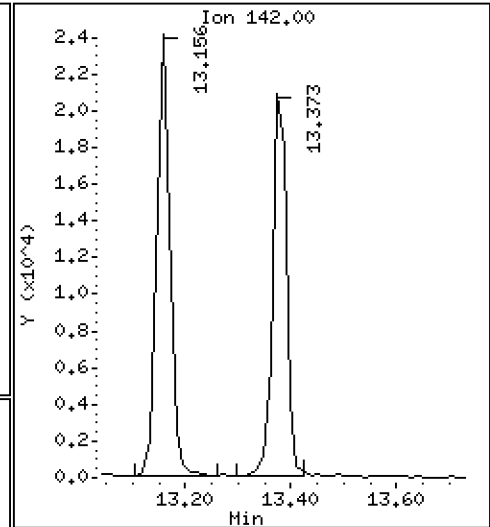
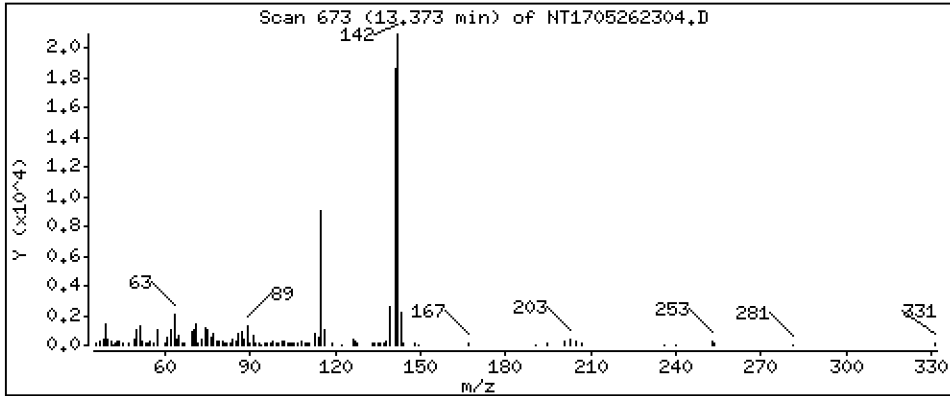
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1882 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

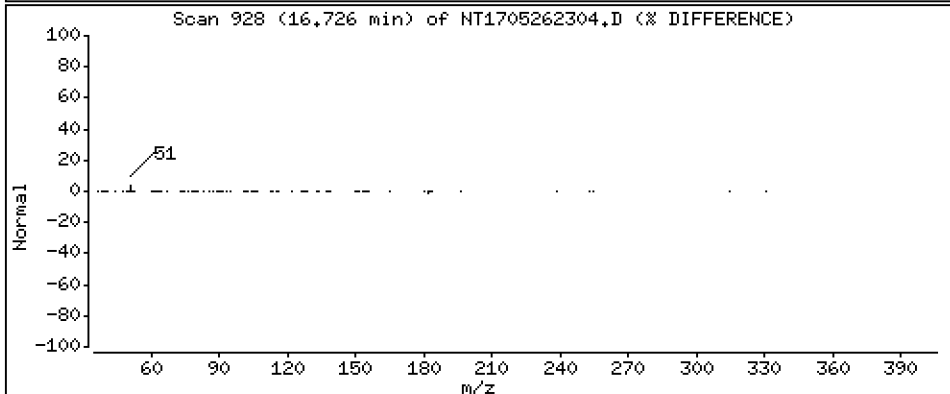
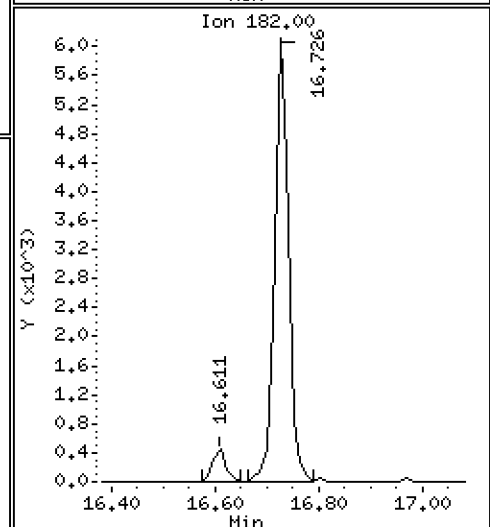
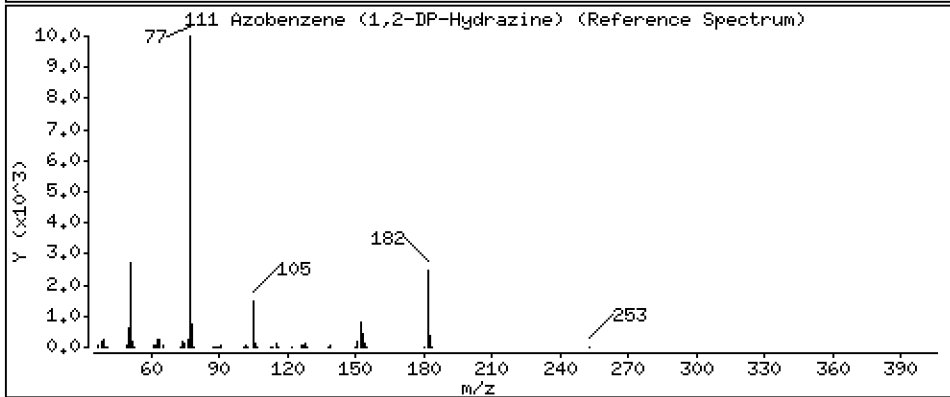
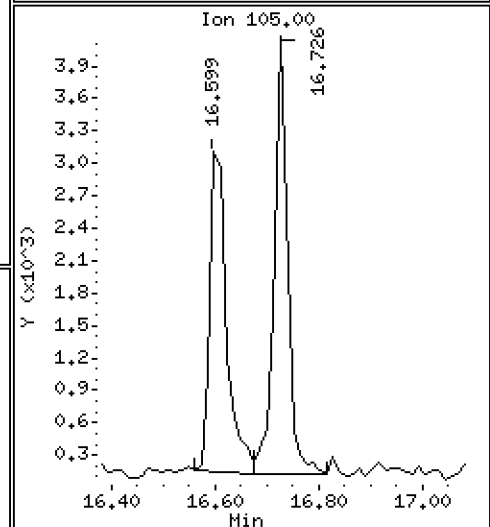
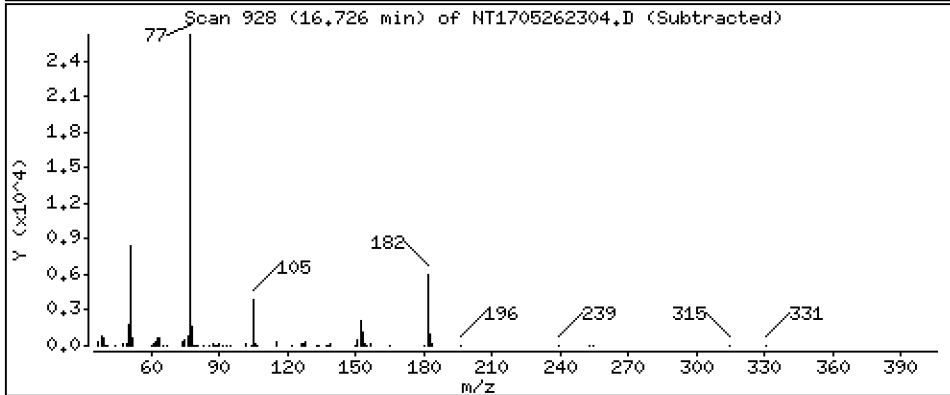
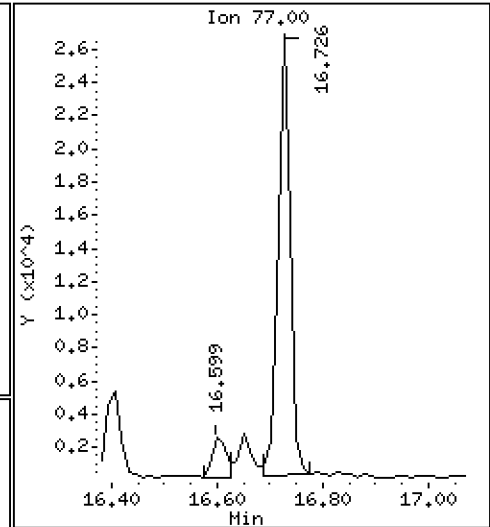
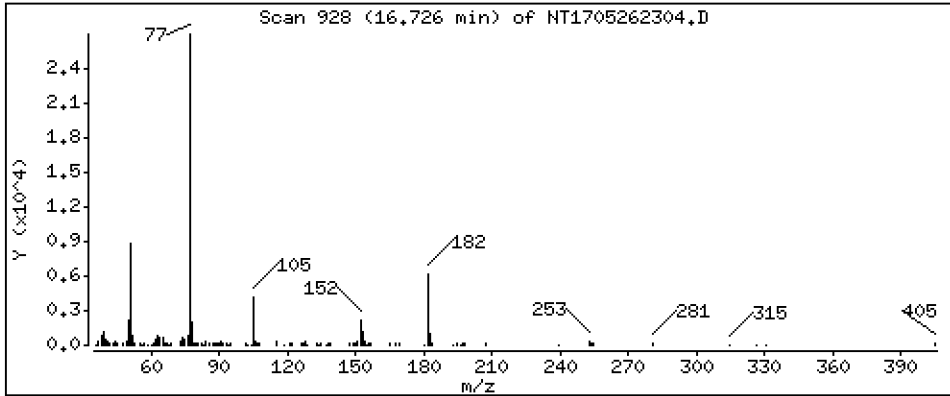
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,1949 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

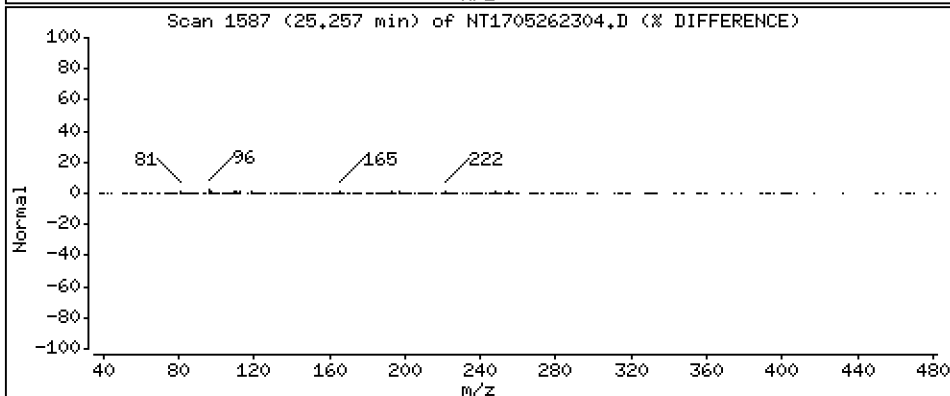
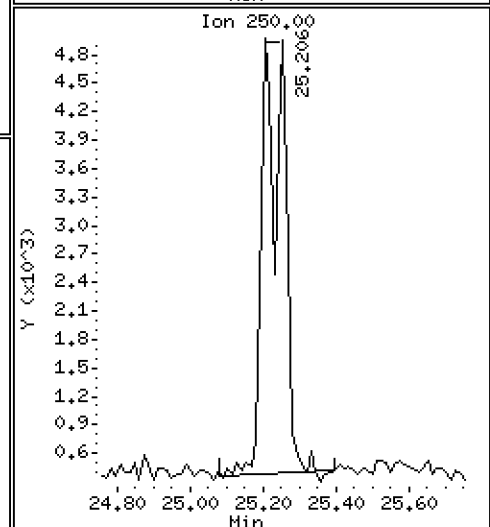
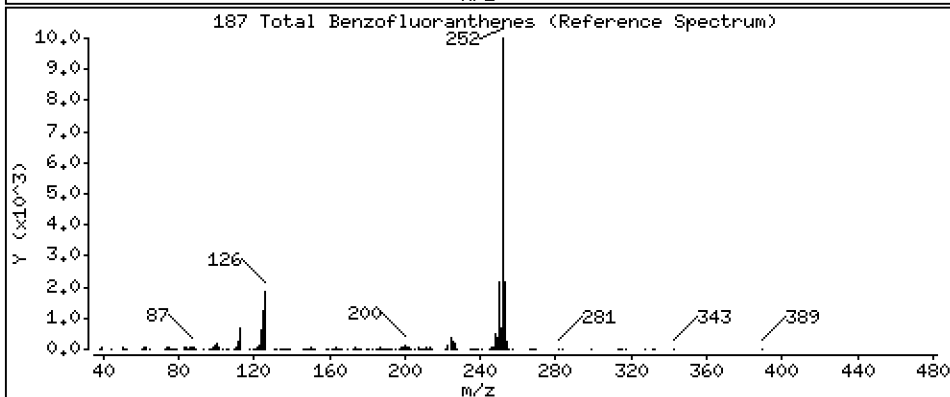
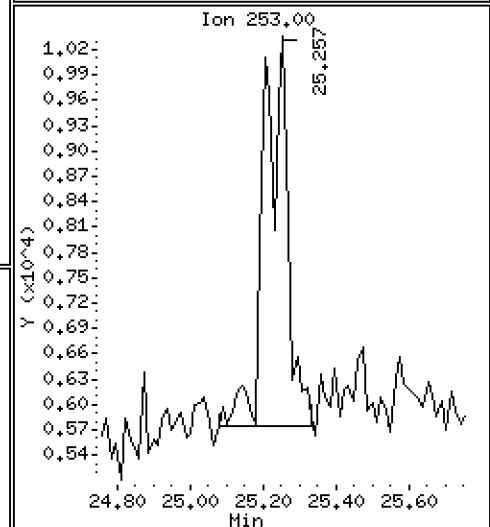
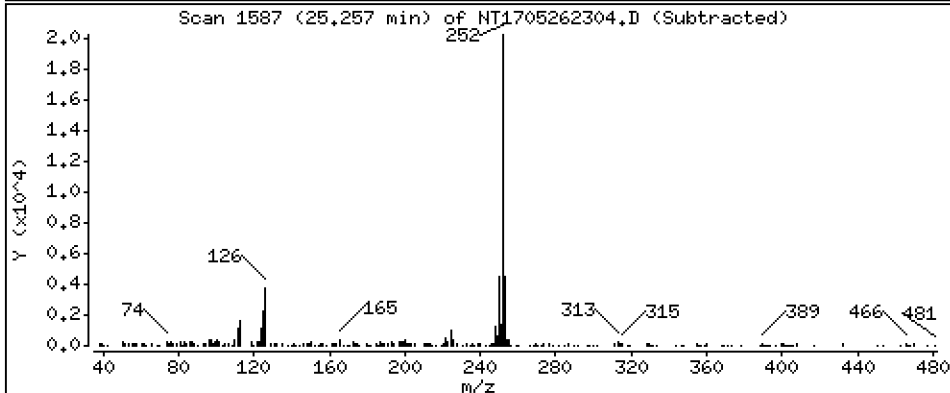
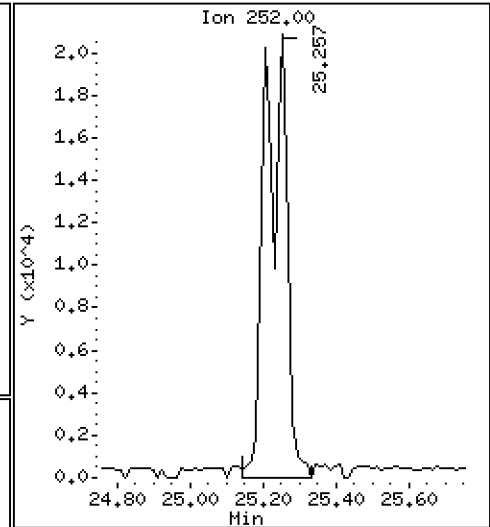
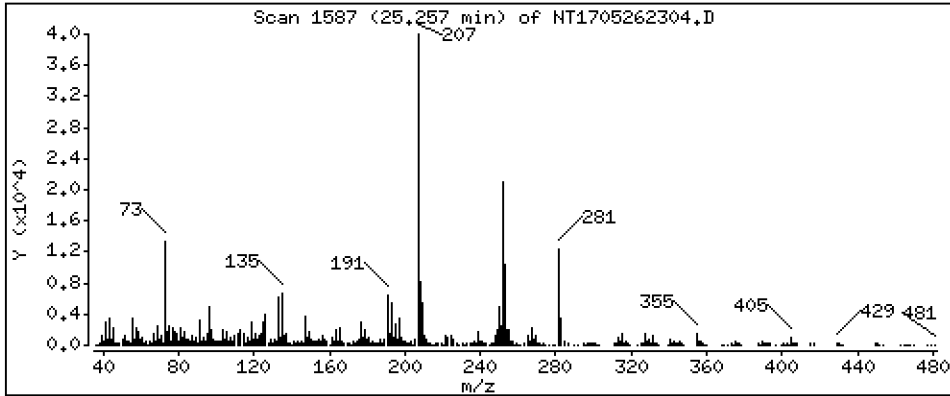
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,3963 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

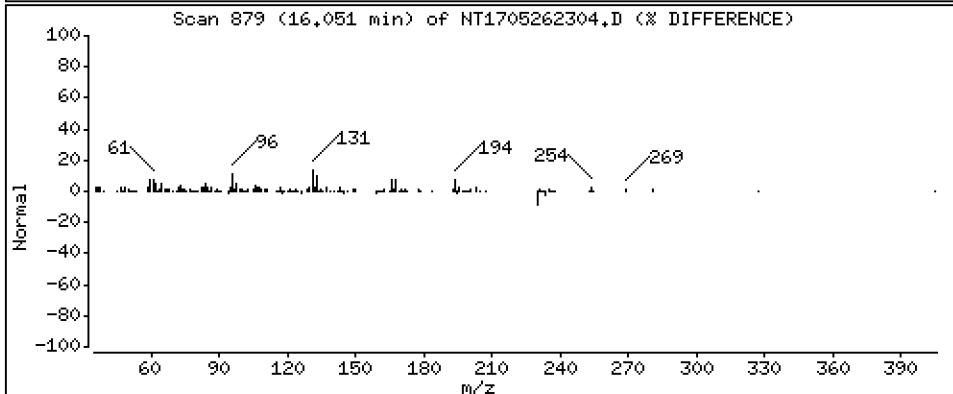
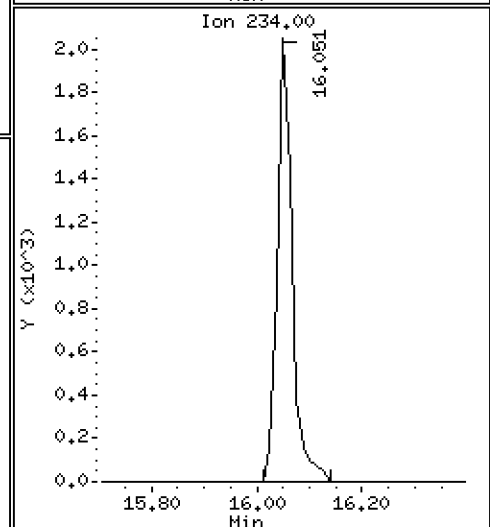
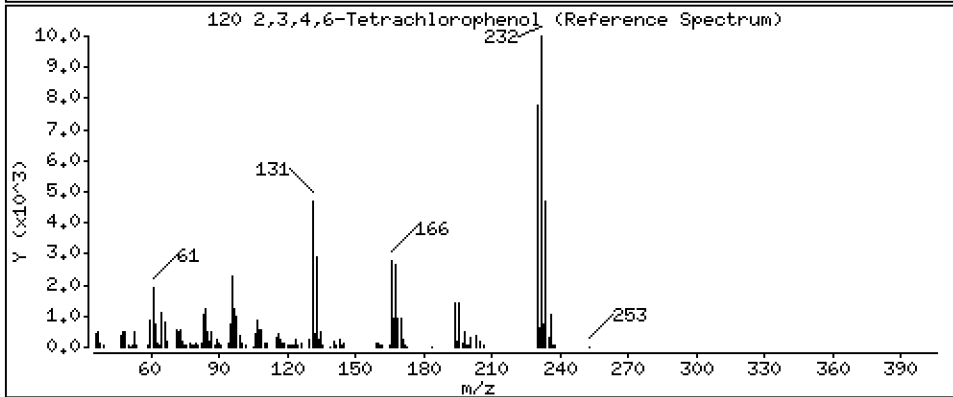
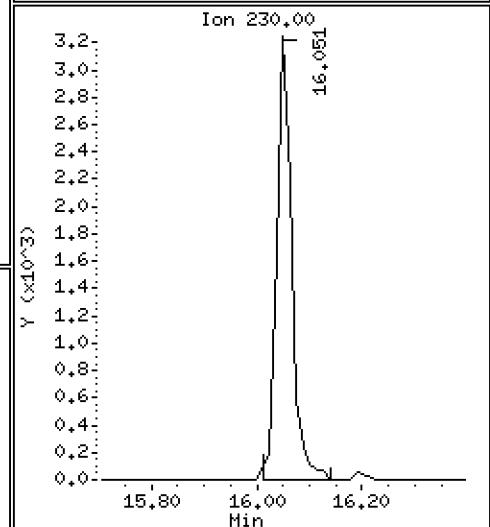
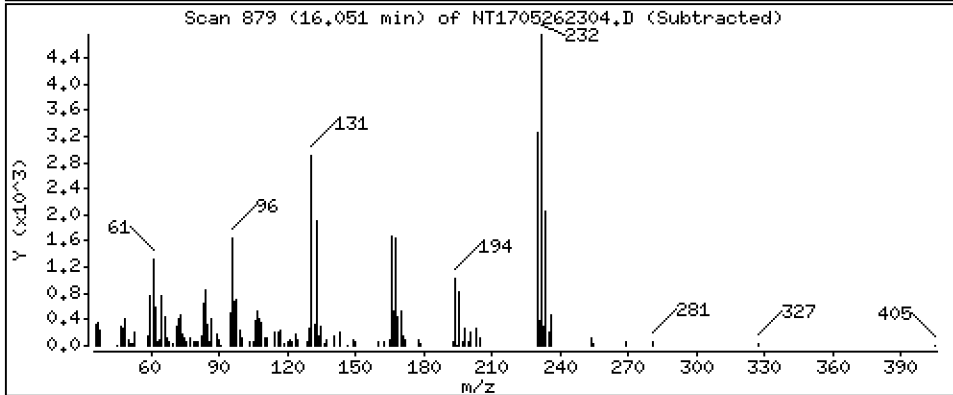
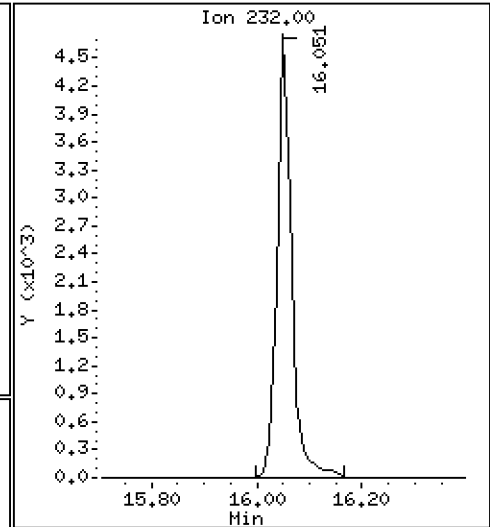
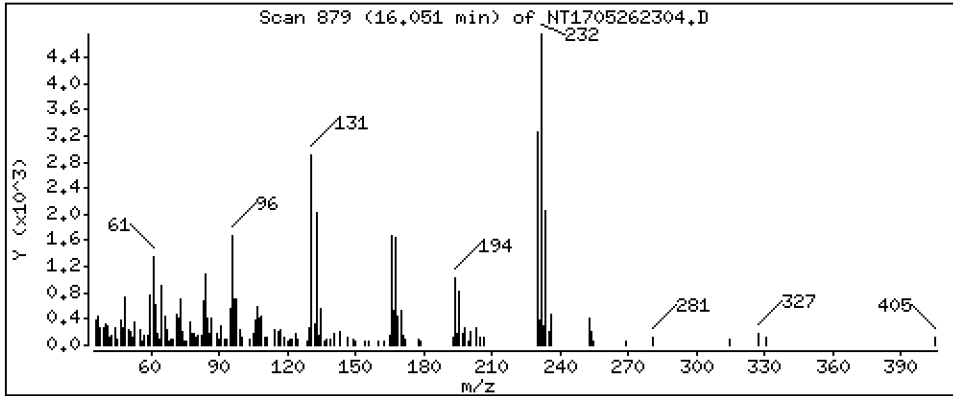
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,1256 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262304.D
 Lab Smp Id: SLE0434-LCV1
 Inj Date : 26-MAY-2023 14:31
 Operator : VTS
 Smp Info : SLE0434-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	28547	0.27558	0.2756
\$ 2 Phenol-d5	99		8.639	8.638	(0.933)	38625	0.28176	0.2818
3 Phenol	94		8.651	8.651	(0.934)	28796	0.19832	0.1983
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	32514	0.29610	0.2961
4 Bis(2-Chloroethyl)ether	93		8.804	8.804	(0.950)	25073	0.23687	0.2369
6 2-Chlorophenol	128		8.932	8.931	(0.964)	22895	0.18882	0.1888
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	25619	0.20876	0.2088
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	316449	4.00000	
9 1,4-Dichlorobenzene	146		9.289	9.289	(1.003)	23333	0.19064	0.1906
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	16789	0.21753	0.2175
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	24388	0.21197	0.2120
11 Benzyl alcohol	108		9.544	9.531	(1.030)	10721	0.15859	0.1586
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	6885	0.21231	0.2123
13 2-Methylphenol	108		9.761	9.748	(1.054)	19936	0.18682	0.1868
17 Hexachloroethane	117		10.234	10.234	(1.105)	10091	0.20611	0.2061
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	16587	0.20316	0.2032
15 4-Methylphenol	108		10.030	10.017	(1.083)	20306	0.18688	0.1869
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	24166	0.18588	0.1859
19 Nitrobenzene	77		10.387	10.387	(0.886)	24485	0.19739	0.1974
20 Isophorone	82		10.822	10.834	(0.923)	29912	0.17616	0.1762
21 2-Nitrophenol	139		11.013	11.013	(0.939)	15602	0.26103	0.2610
22 2,4-Dimethylphenol	107		11.052	11.051	(0.942)	44914	0.38702	0.3870
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	18629	0.17901	0.1790
24 Benzoic acid	105		11.179	11.307	(0.953)	12488	0.15997	0.1600
25 2,4-Dichlorophenol	162		11.473	11.460	(0.978)	37519	0.40233	0.4023
26 1,2,4-Trichlorobenzene	180		11.639	11.651	(0.992)	24345	0.24037	0.2404
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1142345	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	62085	0.19763	0.1976
29 4-Chloroaniline	127		11.906	11.893	(1.015)	36133	0.29180	0.2918
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	9598	0.19131	0.1913
31 4-Chloro-3-methylphenol	107		12.863	12.850	(1.097)	36237	0.36088	0.3609
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	42144	0.18737	0.1874
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	5772	0.10773	0.1077

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	21473	0.35620	0.3562
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	21626	0.33887	0.3389
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	46372	0.20429	0.2043
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	37913	0.20589	0.2059
38 2-Nitroaniline	65	14.406	14.406	(0.940)	21512	0.34494	0.3449
39 Dimethylphthalate	163	14.827	14.826	(0.968)	39581	0.19965	0.1997
40 Acenaphthylene	152	15.005	15.018	(0.979)	60579	0.20716	0.2072
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	17075	0.36788	0.3679
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	576179	4.00000	
43 3-Nitroaniline	138	15.260	15.247	(0.996)	13138	0.30561	0.3056
44 Acenaphthene	153	15.388	15.388	(1.004)	37656	0.20600	0.2060
45 2,4-Dinitrophenol	184	15.464	15.464	(1.009)	3432	0.12268	0.1227
46 Dibenzofuran	168	15.706	15.719	(1.025)	50501	0.19794	0.1979
47 4-Nitrophenol	109	15.592	15.579	(1.017)	5988	0.20971	0.2097
48 2,4-Dinitrotoluene	165	15.770	15.770	(1.029)	19390	0.31913	0.3191
50 Diethylphthalate	149	16.267	16.267	(1.062)	48659	0.25168	0.2517
49 Fluorene	166	16.420	16.420	(1.072)	54335	0.22401	0.2240
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	23499	0.21073	0.2107
52 4-Nitroaniline	138	16.509	16.509	(1.077)	12759	0.31356	0.3136
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	14918	0.39018	0.3902
54 N-Nitrosodiphenylamine	169	16.649	16.662	(0.908)	25891	0.19292	0.1929
§ 55 2,4,6-Tribromophenol	330	16.954	16.954	(1.106)	6096	0.24255	0.2426
56 4-Bromophenyl-phenylether	248	17.400	17.400	(0.949)	8676	0.18451	0.1845
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	10211	0.21311	0.2131
58 Pentachlorophenol	266	18.088	18.088	(0.986)	5774	0.20787	0.2079
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	958053	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	56866	0.20342	0.2034
61 Anthracene	178	18.484	18.483	(1.008)	48566	0.18505	0.1850
62 Carbazole	167	18.815	18.815	(1.026)	46837	0.29440	0.2944
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	59856	0.18887	0.1889
64 Fluoranthene	202	20.753	20.753	(0.889)	54741	0.19478	0.1948
65 Pyrene	202	21.174	21.174	(0.907)	58005	0.20359	0.2036
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	42042	0.20758	0.2076
67 Butylbenzylphthalate	149	22.360	22.360	(0.958)	24792	0.19443	0.1944
68 Benzo(a)anthracene	228	23.317	23.317	(0.999)	47901	0.21651	0.2165
* 69 Chrysene-d12	240	23.343	23.355	(1.000)	600821	4.00000	
70 3,3'-Dichlorobenzidine	252	23.266	23.266	(0.997)	42918	1.00137	1.001
71 Chrysene	228	23.394	23.394	(1.002)	43650	0.20967	0.2097
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	33711	0.18777	0.1878
* 134 Di-n-octylphthalate-d4	153	24.351	24.363	(1.000)	1240881	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	66355	0.21096	0.2110
74 Benzo(b)fluoranthene	252	25.205	25.218	(0.970)	43971	0.17947	0.1795
75 Benzo(k)fluoranthene	252	25.256	25.256	(0.972)	48945	0.21145	0.2115
76 Benzo(a)pyrene	252	25.881	25.881	(0.996)	39375	0.20402	0.2040
* 77 Perylene-d12	264	25.996	25.996	(1.000)	617938	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.703	28.716	(1.104)	44273	0.19777	0.1978
79 Dibenzo(a,h)anthracene	278	28.716	28.729	(1.105)	36738	0.19554	0.1955
80 Benzo(g,h,i)perylene	276	29.509	29.521	(1.135)	36193	0.19588	0.1959
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	22974	0.33248	0.3325
91 Aniline	93	8.728	8.728	(0.942)	38575	0.31702	0.3170
93 Benzidine	184	20.983	20.996	(0.899)	23802	0.34129	0.3413
103 Pyridine	79	5.033	5.007	(0.543)	42515	0.38791	0.3879
105 1-methylnaphthalene	142	13.373	13.385	(1.140)	39278	0.18823	0.1882
111 Azobenzene (1,2-DP-Hydrazine)	77	16.725	16.725	(1.091)	43994	0.19494	0.1949

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.256	25.256	(0.972)	87164	0.39633	0.3963
120 2,3,4,6-Tetrachlorophenol	232	16.050	16.050	(1.047)	9060	0.12561	0.1256

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262304.D Calibration Time: 13:16
 Lab Smp Id: SLE0434-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	316449	4.26
27 Naphthalene-d8	1140476	570238	2280952	1142345	0.16
42 Acenaphthene-d10	622461	311231	1244922	576179	-7.44
59 Phenanthrene-d10	1074054	537027	2148108	958053	-10.80
69 Chrysene-d12	723807	361904	1447614	600821	-16.99
134 Di-n-octylphthala	1524055	762028	3048110	1240881	-18.58
77 Perylene-d12	666992	333496	1333984	617938	-7.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.34	-0.05
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262304.D

Lab ID: SLE0434-LCV1
nt17.i, ABN.m, 26-MAY-2023 14:31

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.964	-0.0109	Benzoic acid

RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00065

Laboratory ID: SLE0434-LCV2

Sequence: SLE0434

Standard ID: L005946

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.20000	0.2	-13.0	50.00
Benzyl Alcohol	0.20000	0.1	-27.7	50.00
4-Methylphenol	0.20000	0.1	-46.1	50.00
Naphthalene	0.20000	0.2	1.0	50.00
2-Methylnaphthalene	0.20000	0.2	-6.9	50.00
Acenaphthylene	0.20000	0.2	2.4	50.00
Dibenzofuran	0.20000	0.2	-2.6	50.00
Fluorene	0.20000	0.2	-12.6	50.00
Phenanthrene	0.20000	0.2	-2.6	50.00
Anthracene	0.20000	0.2	-2.5	50.00
Fluoranthene	0.20000	0.2	-12.8	50.00
Pyrene	0.20000	0.2	-8.6	50.00
Butylbenzylphthalate	0.20000	0.2	-5.1	50.00
Benzo(a)anthracene	0.20000	0.2	4.2	50.00
Chrysene	0.20000	0.2	8.6	50.00
bis(2-Ethylhexyl)phthalate	0.20000	0.2	-9.5	50.00
Benzofluoranthenes, Total	0.40000	0.4	10.1	50.00
Benzo(a)pyrene	0.20000	0.2	6.1	50.00
Indeno(1,2,3-cd)pyrene	0.20000	0.1	-36.2	50.00
Dibenzo(a,h)anthracene	0.20000	0.1	-31.1	50.00
Benzo(g,h,i)perylene	0.20000	0.1	-44.8	50.00
2-Fluorophenol	0.30000	0.247	-17.7	50.00
Phenol-d5	0.30000	0.216	-28.1	50.00
2-Chlorophenol-d4	0.30000	0.249	-17.0	50.00
1,2-Dichlorobenzene-d4	0.20000	0.180	-10.1	50.00
Nitrobenzene-d5	0.20000	0.189	-5.6	50.00
2-Fluorobiphenyl	0.20000	0.202	0.9	50.00
2,4,6-Tribromophenol	0.30000	0.237	-21.2	50.00
p-Terphenyl-d14	0.20000	0.175	-12.5	50.00



Analytical Resources, LLC
Analytical Chemists and Consultants

**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Calibration: GE00065

Sequence: SLE0434

SDG: 23D0396

Project: AOC5 MR Phase 1

Laboratory ID: SLE0434-LCV2

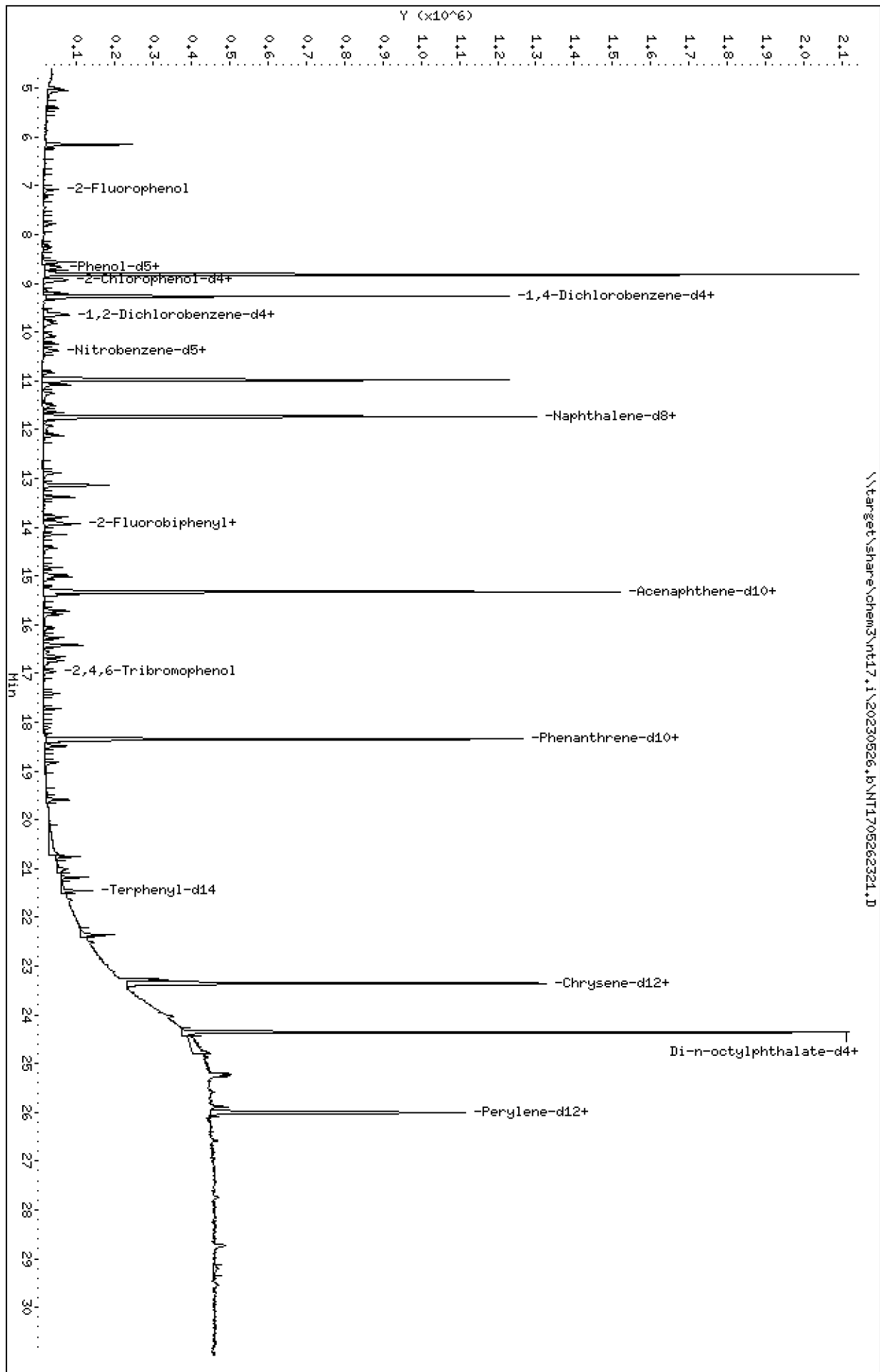
Standard ID: L005946

* Values outside of QC limits

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 Date: 27-May-2023 01:10
 Client ID:
 Sample Info: SLE0434-LCW2
 Column phase: ZB-5msi

Instrument: nt17.1
 Operator: VTS
 Column diameter: 0.25

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Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

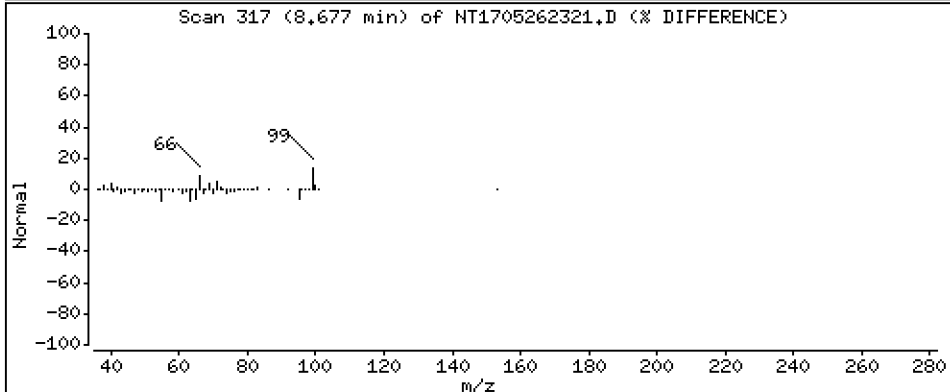
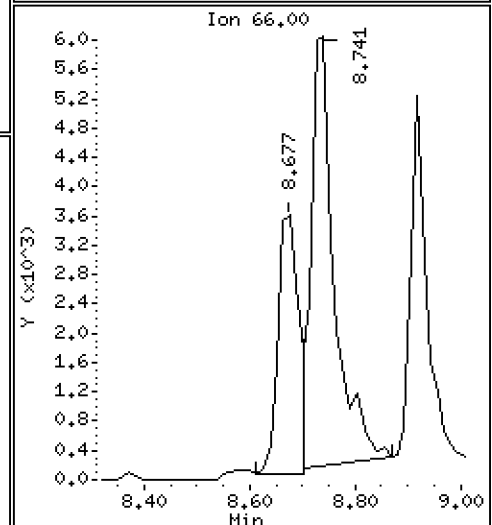
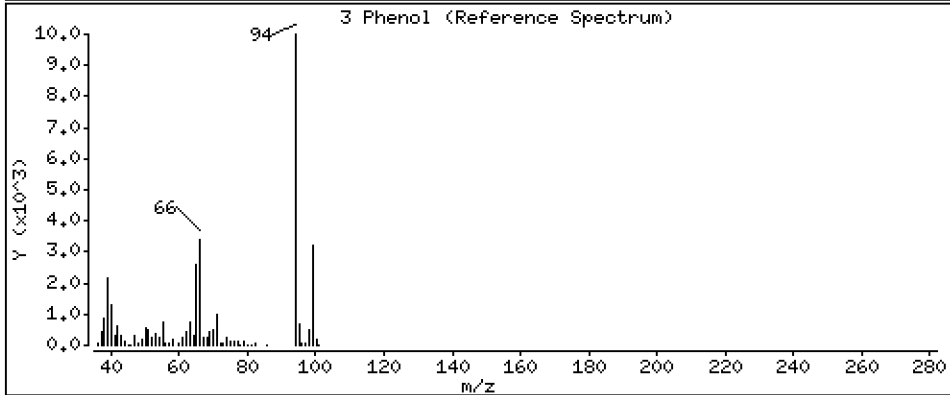
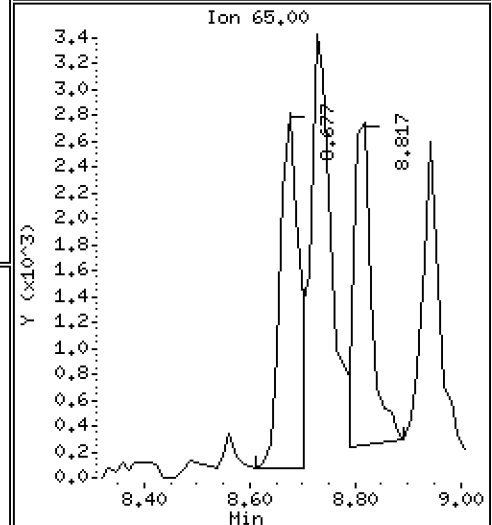
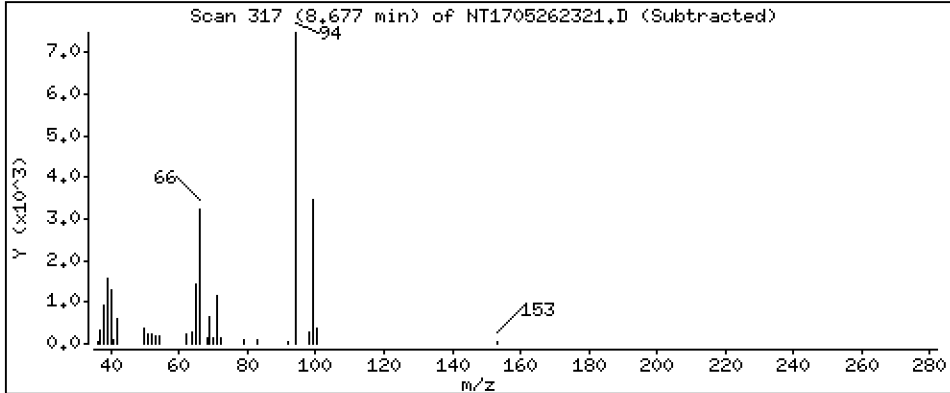
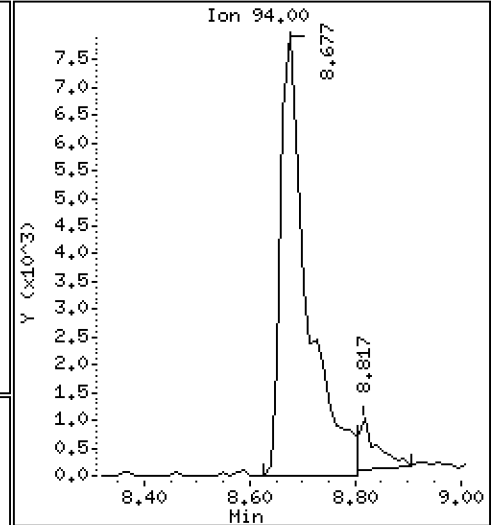
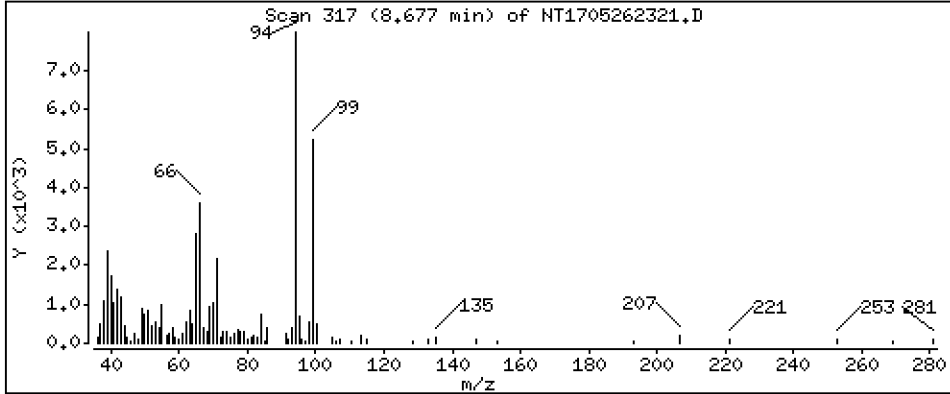
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1741 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

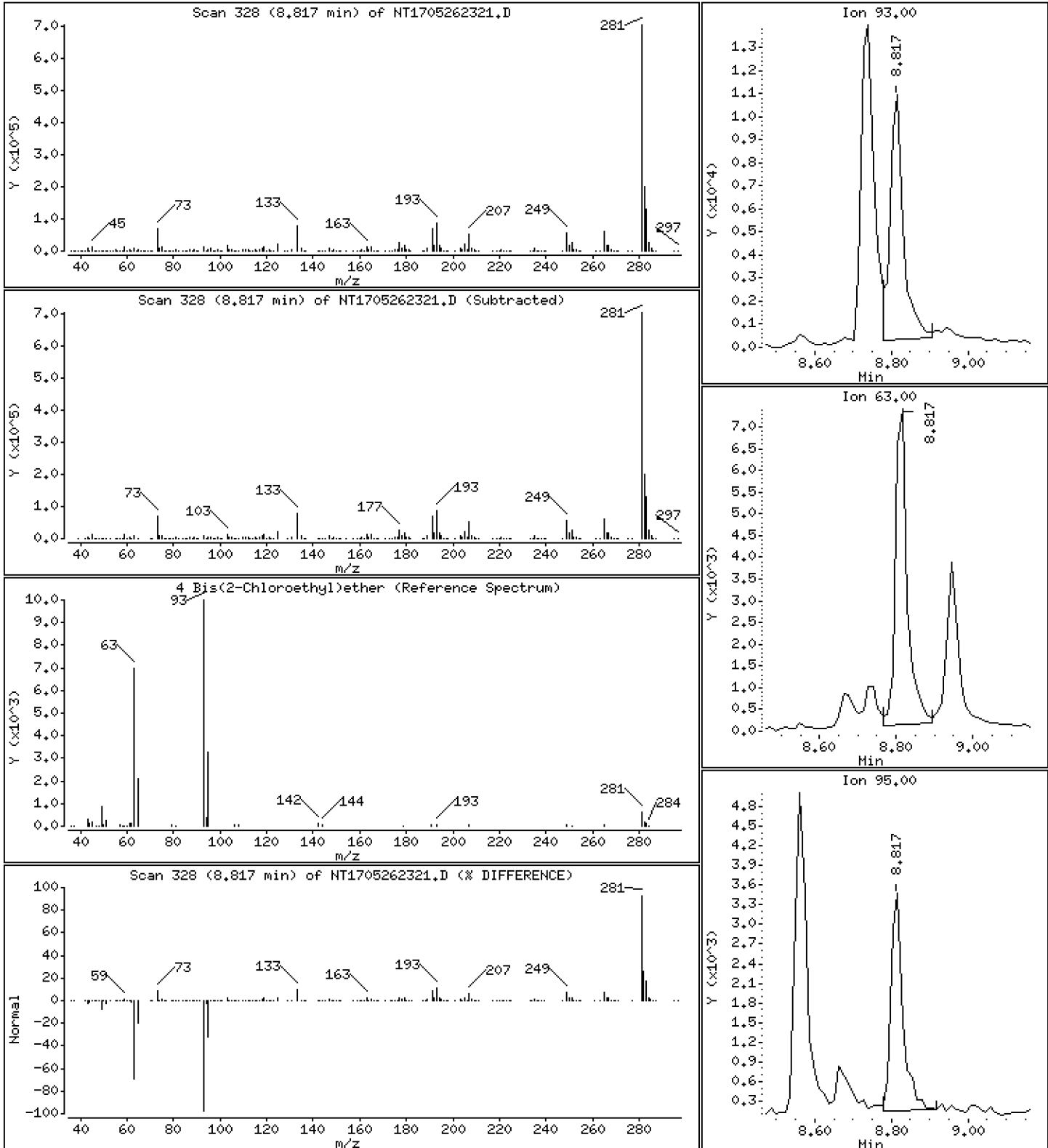
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,2213 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

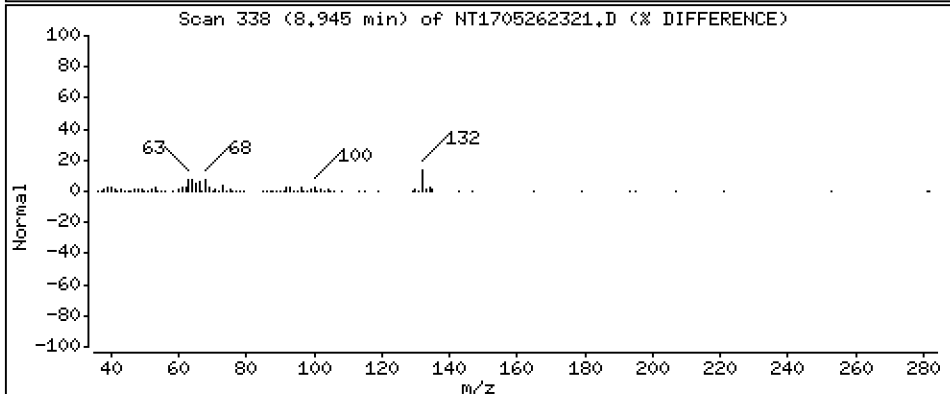
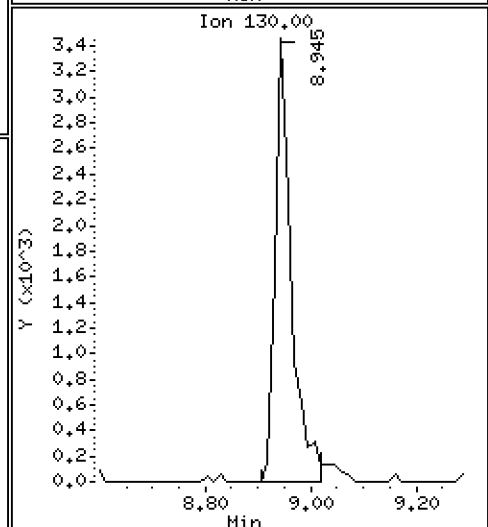
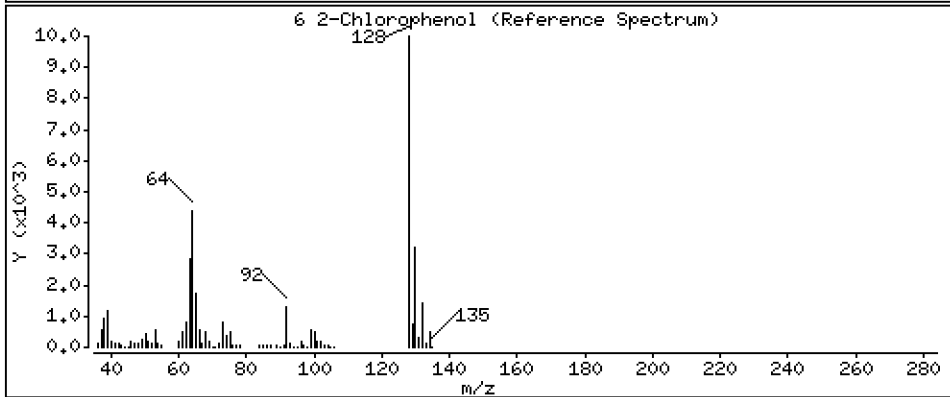
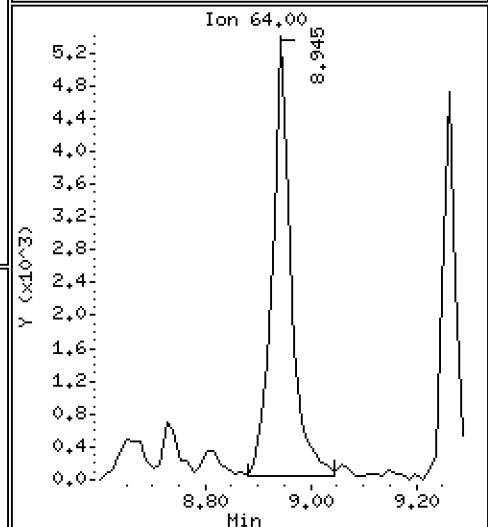
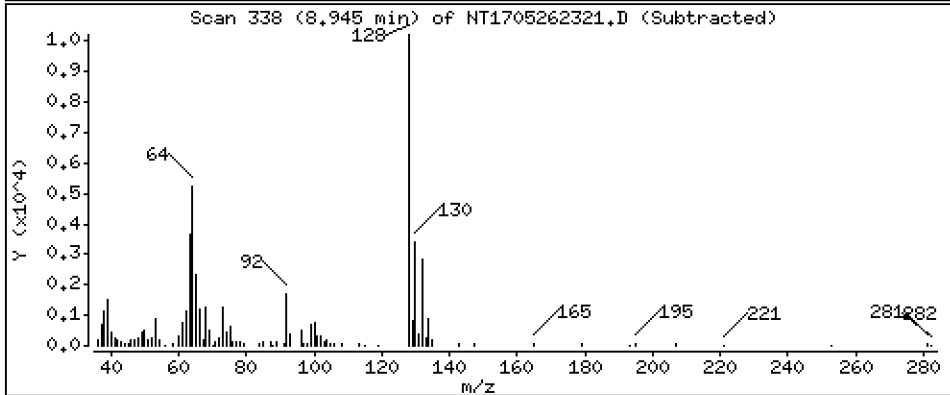
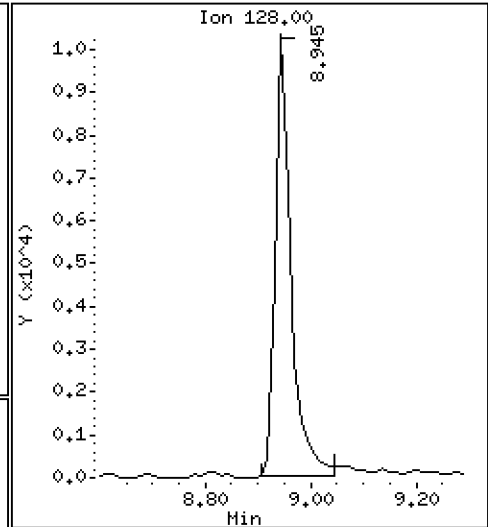
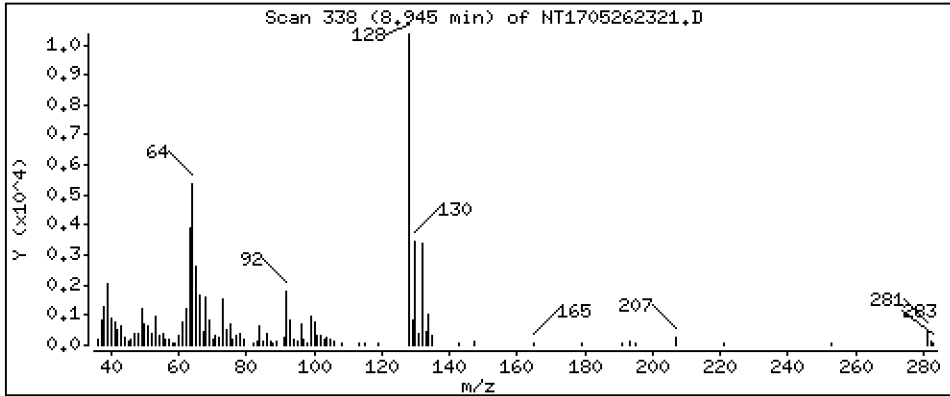
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,1536 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

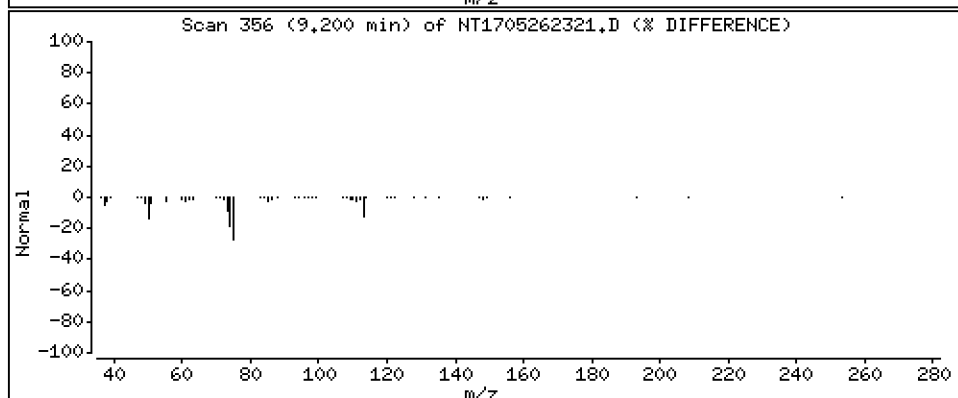
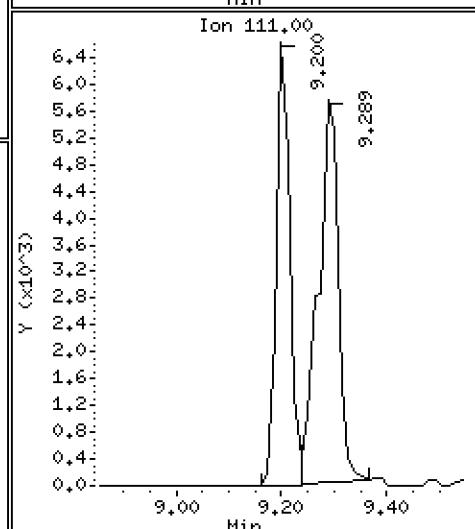
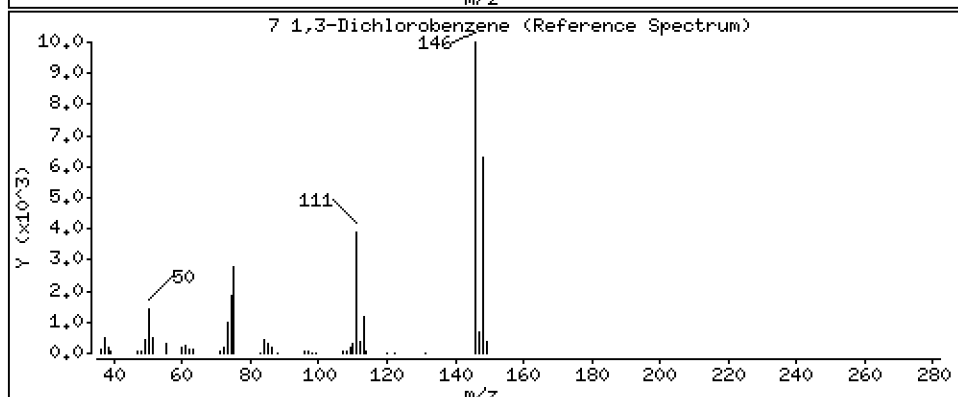
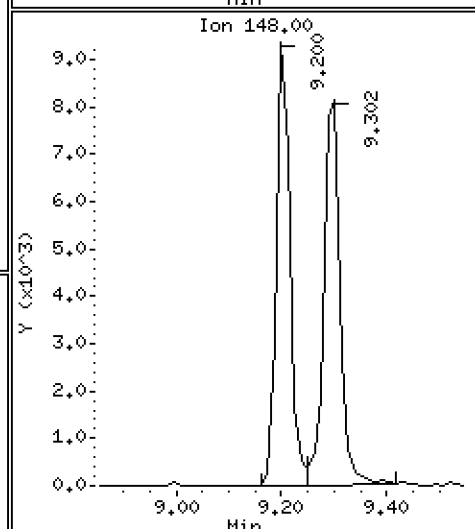
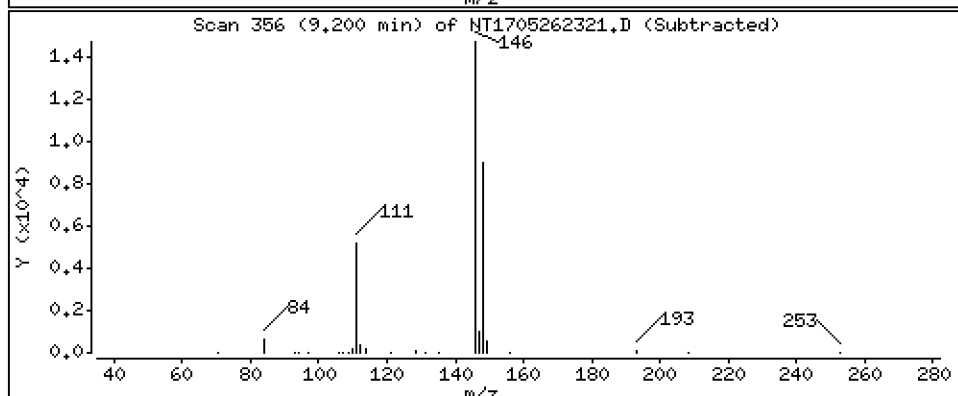
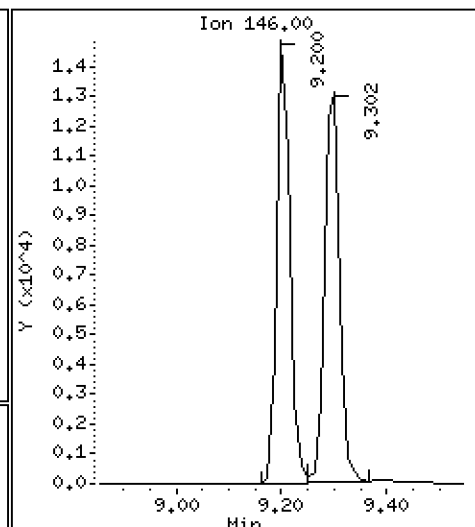
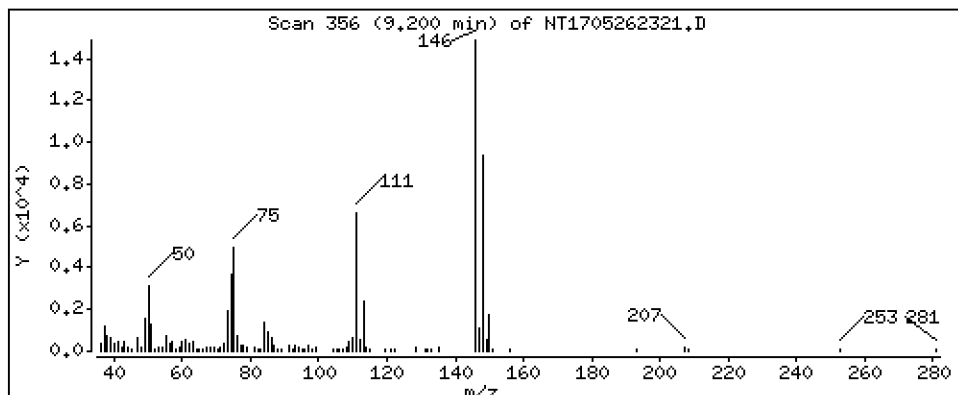
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,1868 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

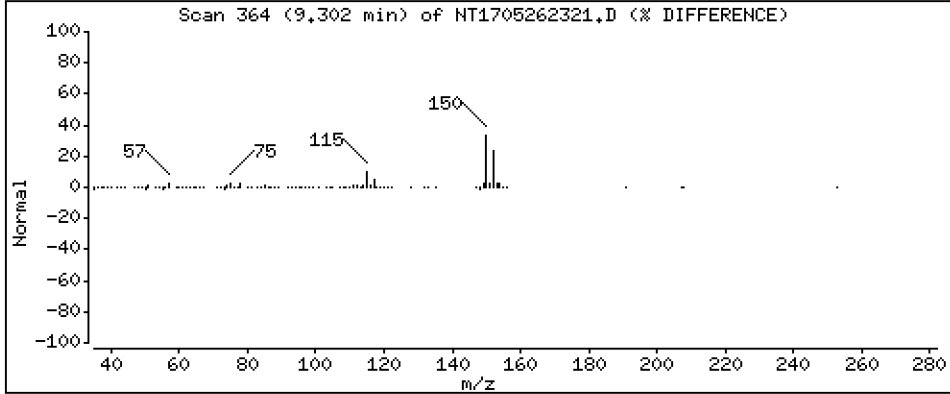
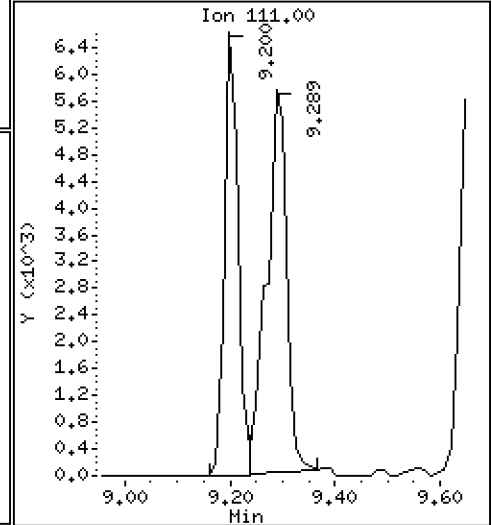
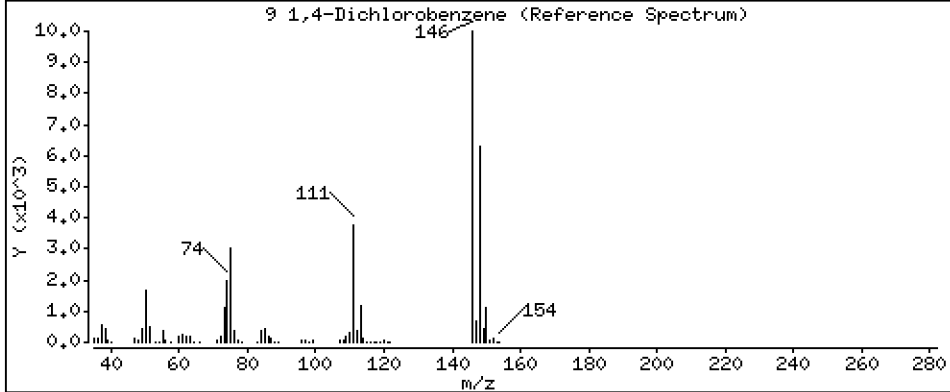
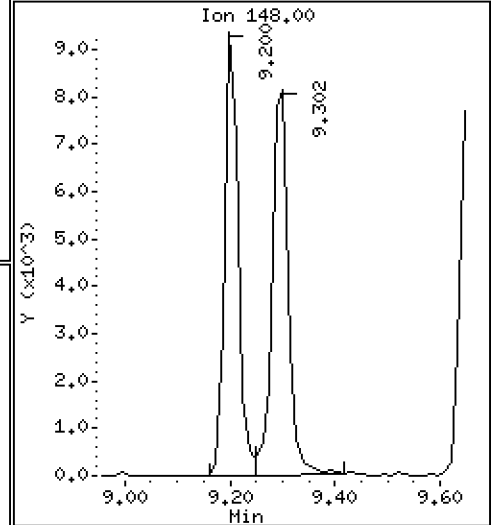
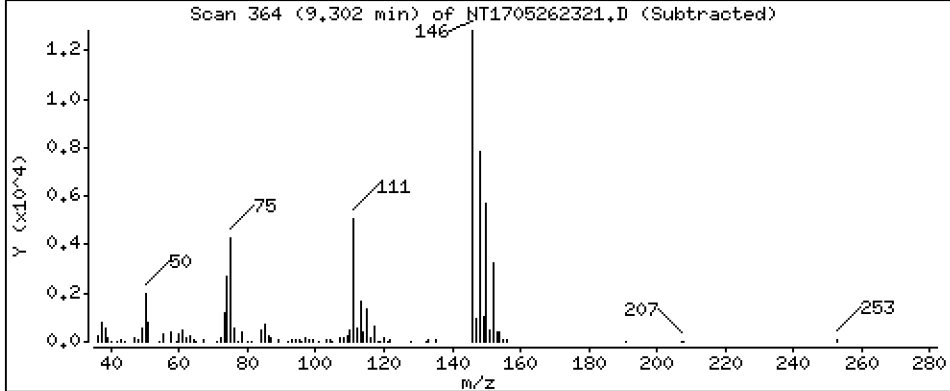
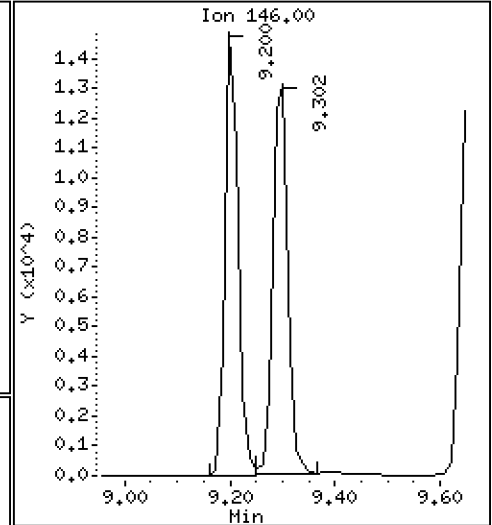
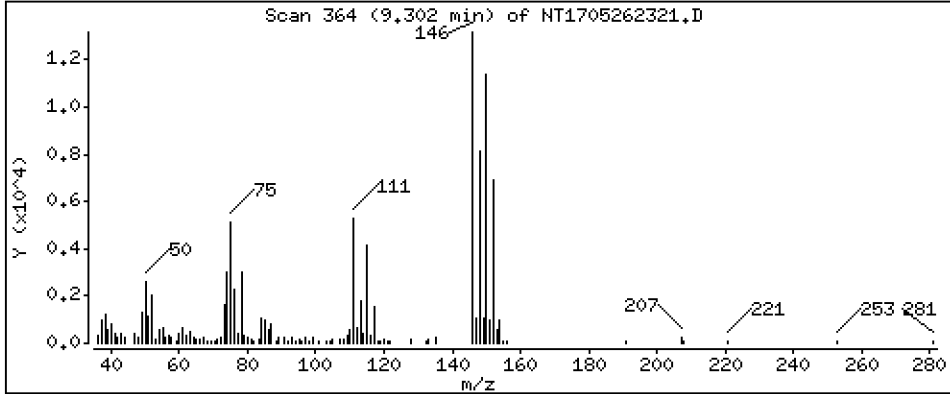
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,1864 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

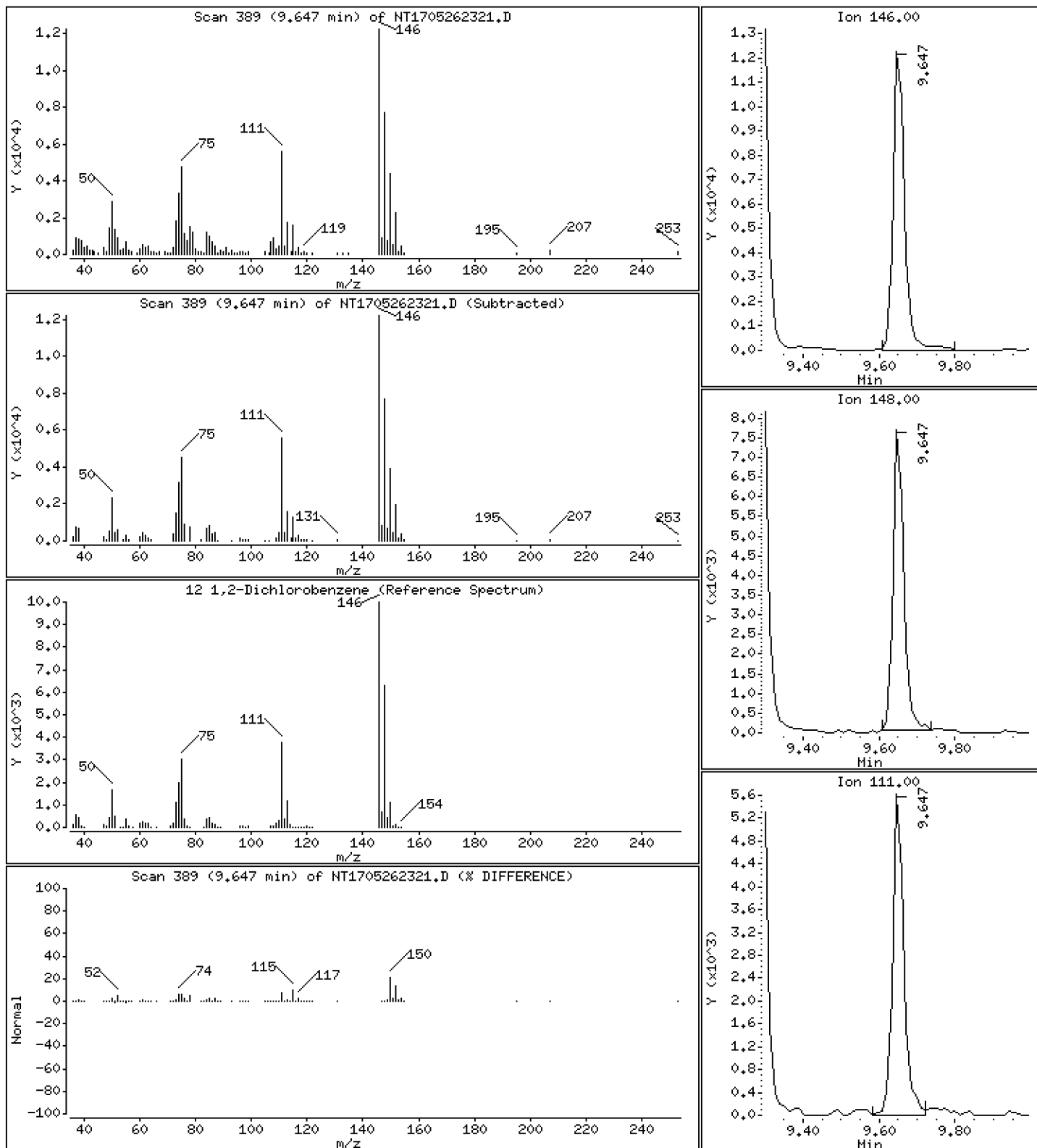
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,1962 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

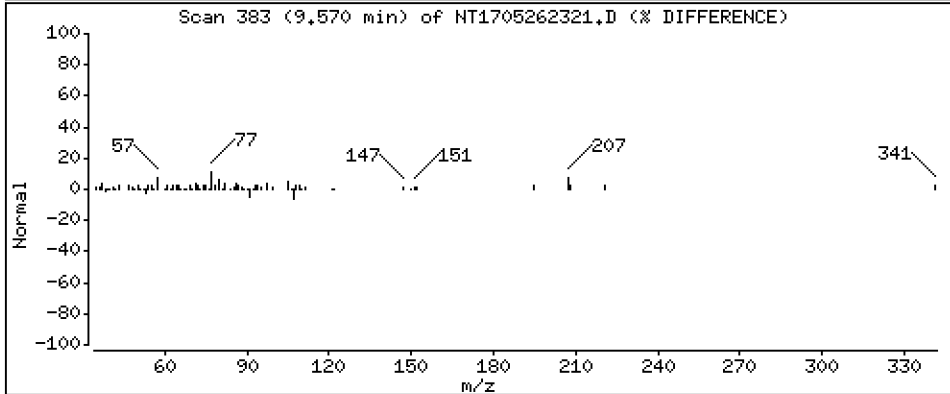
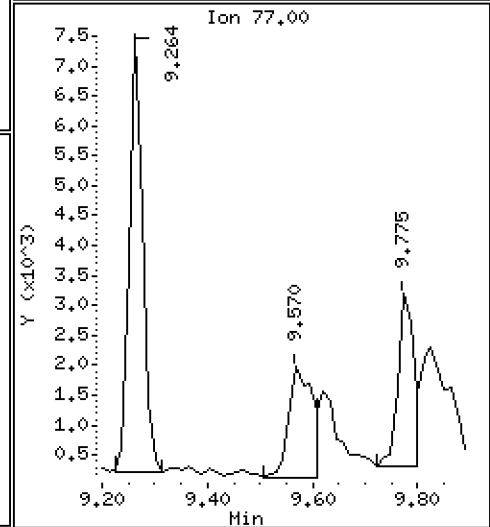
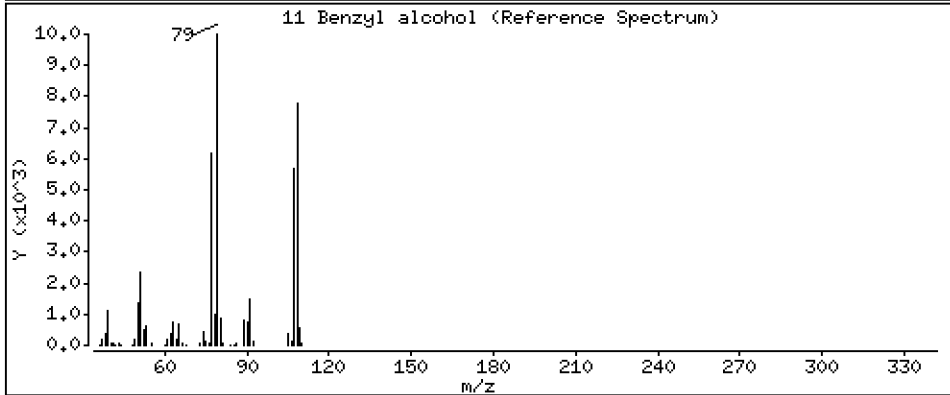
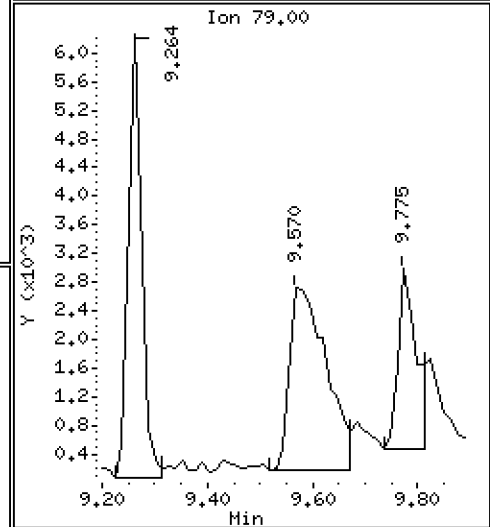
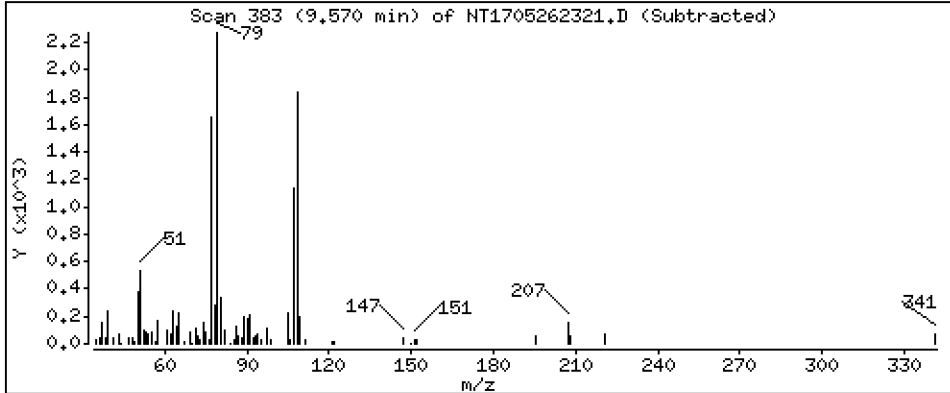
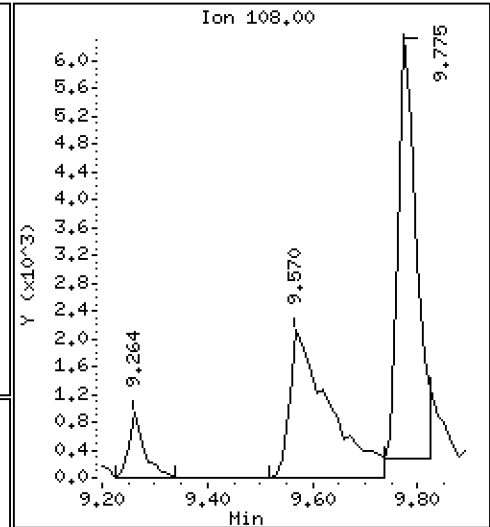
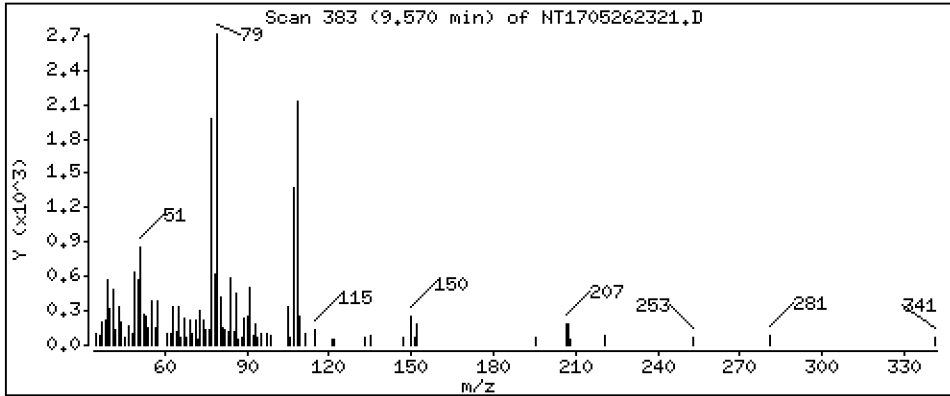
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1447 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

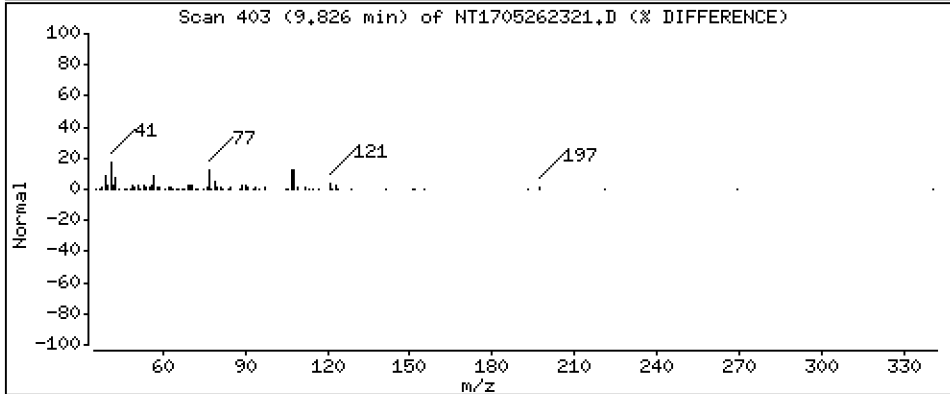
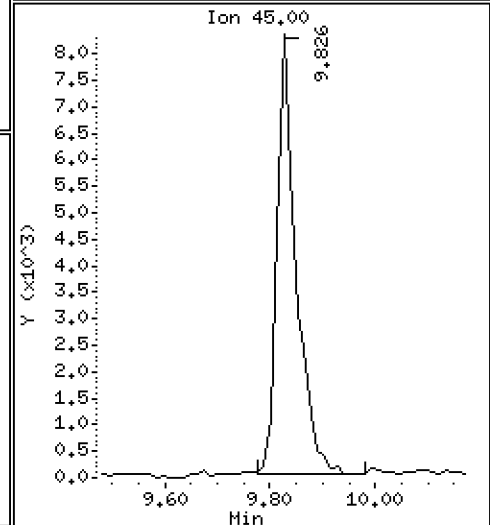
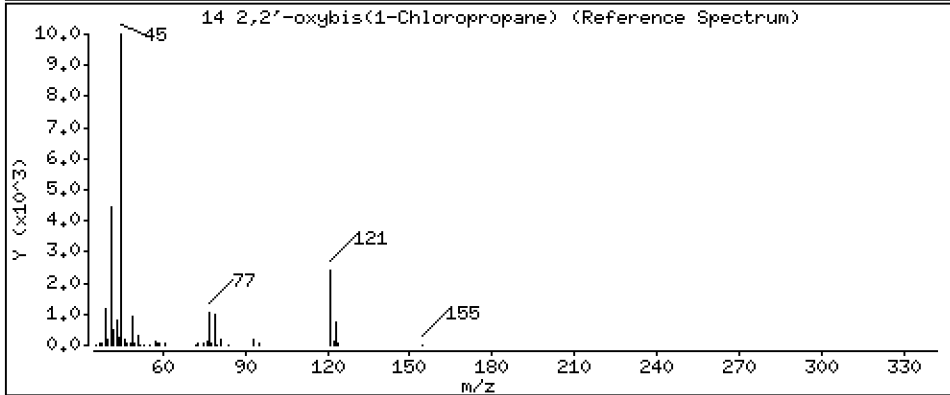
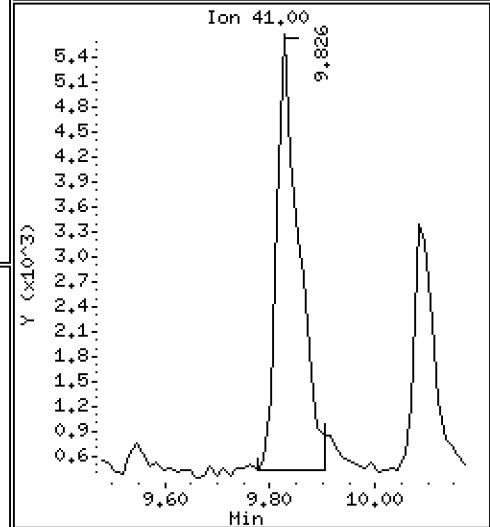
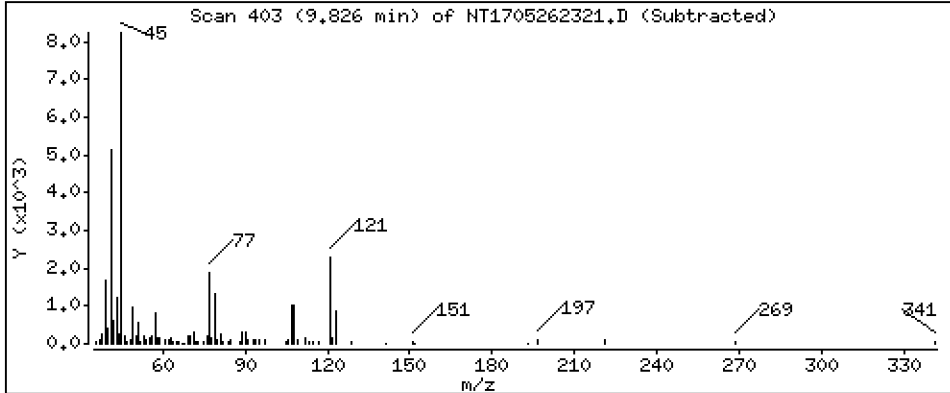
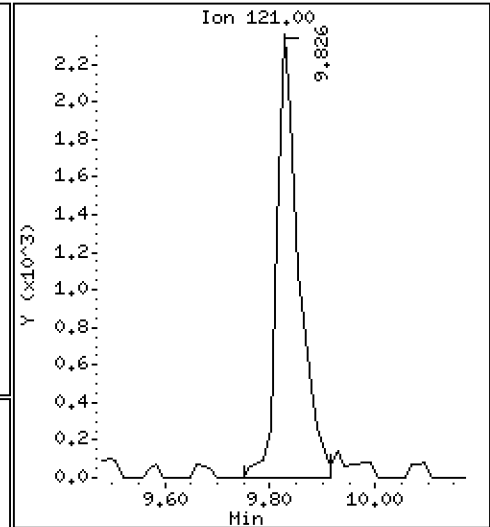
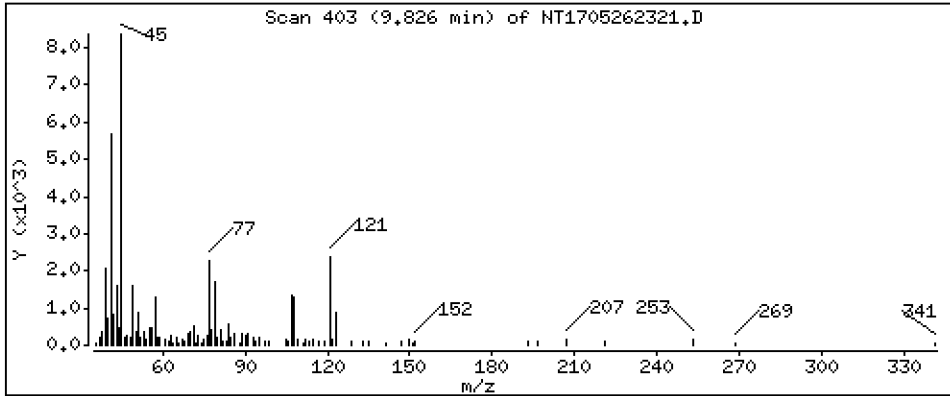
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.1873 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

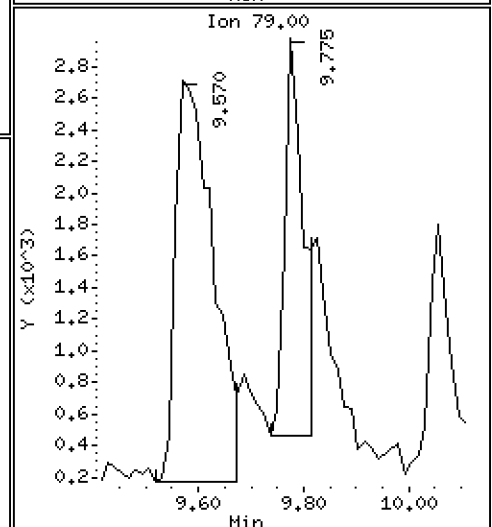
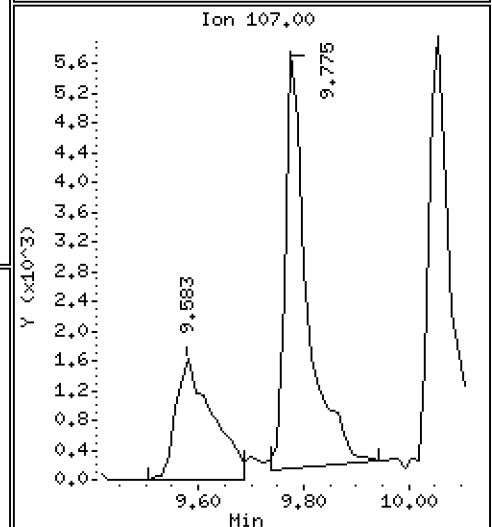
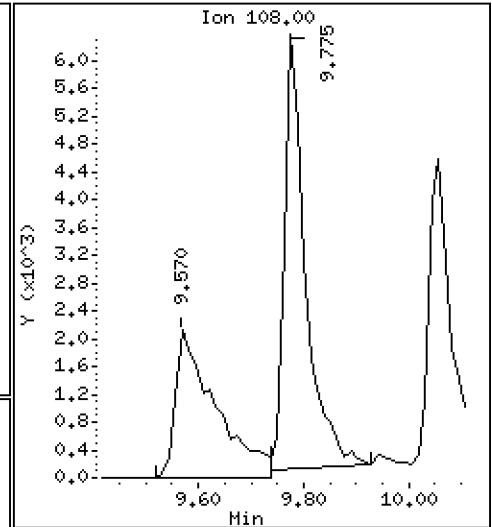
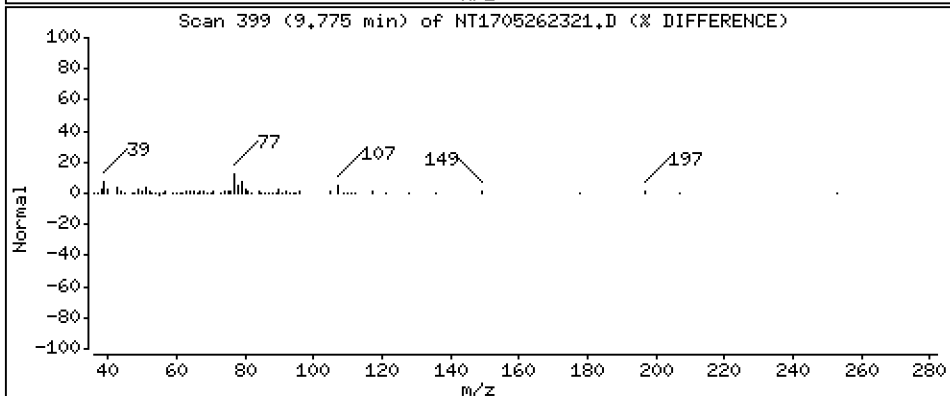
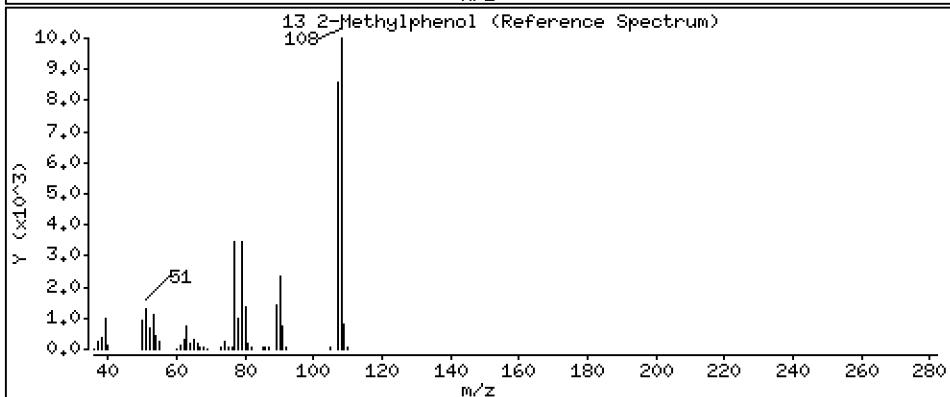
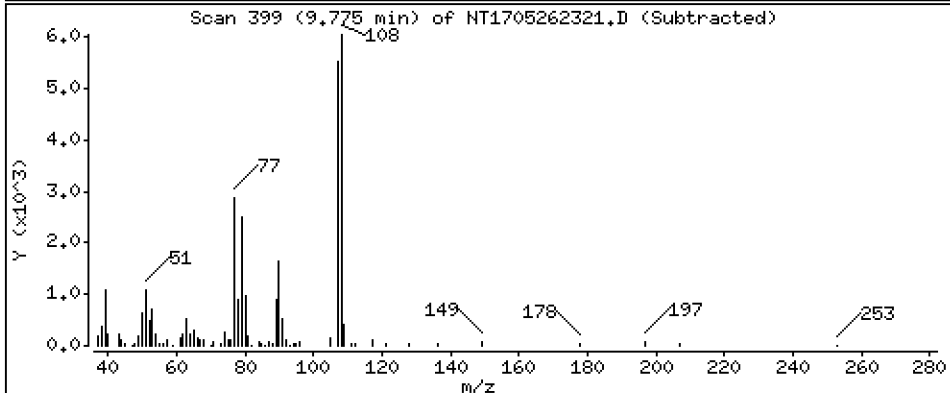
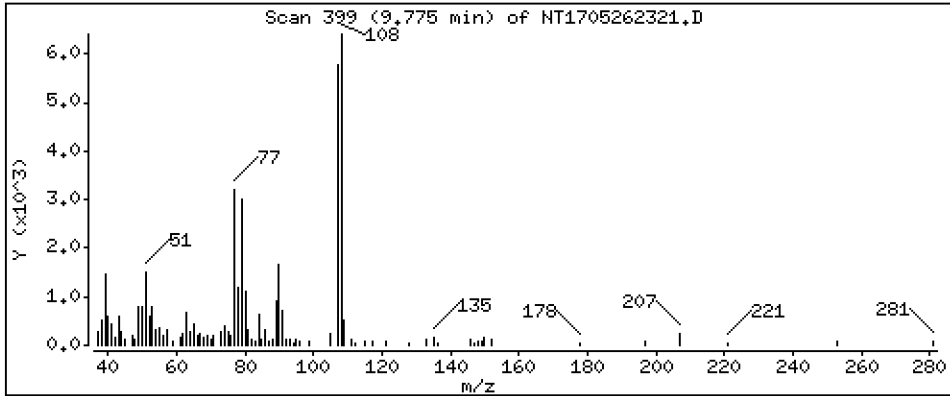
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,1460 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

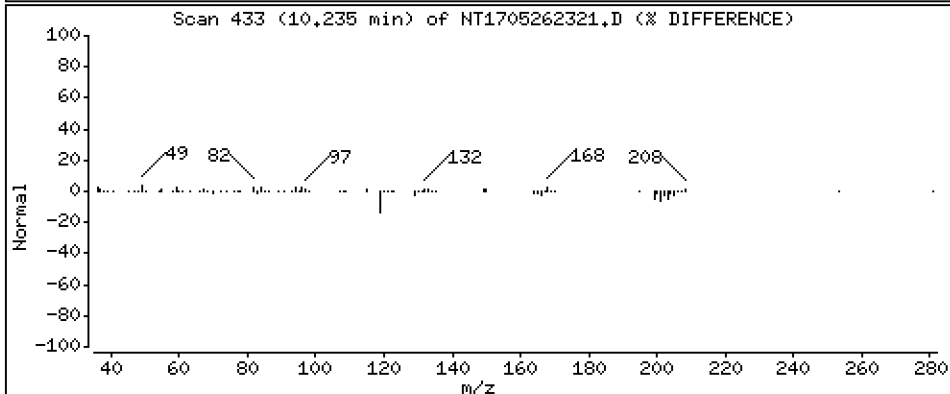
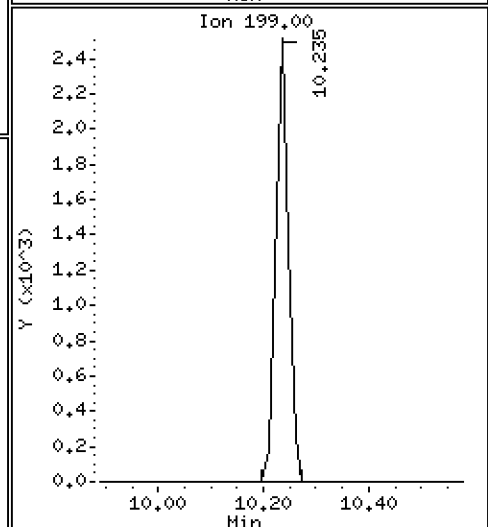
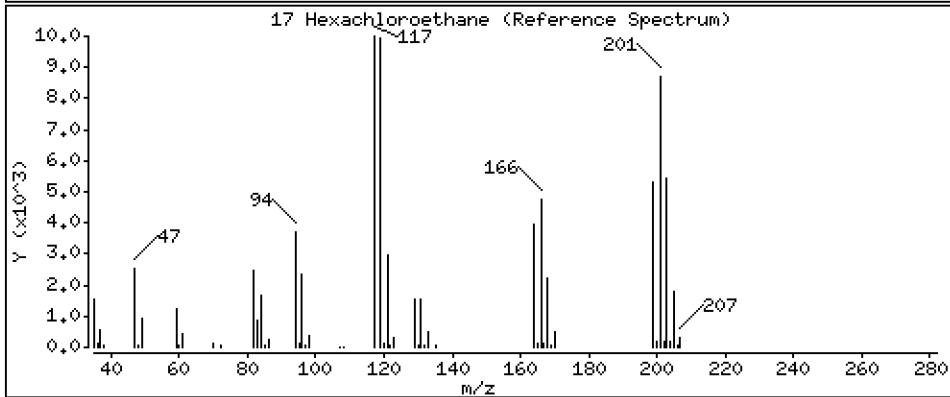
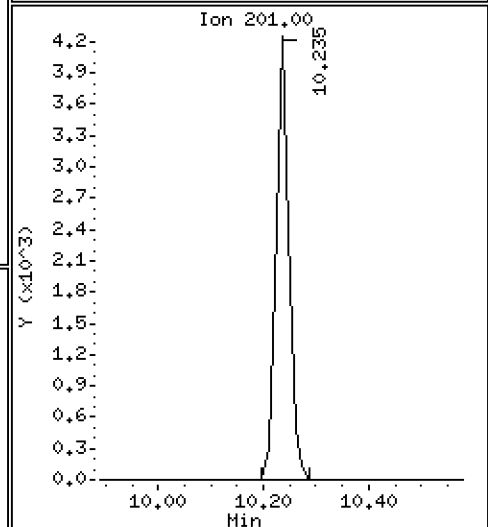
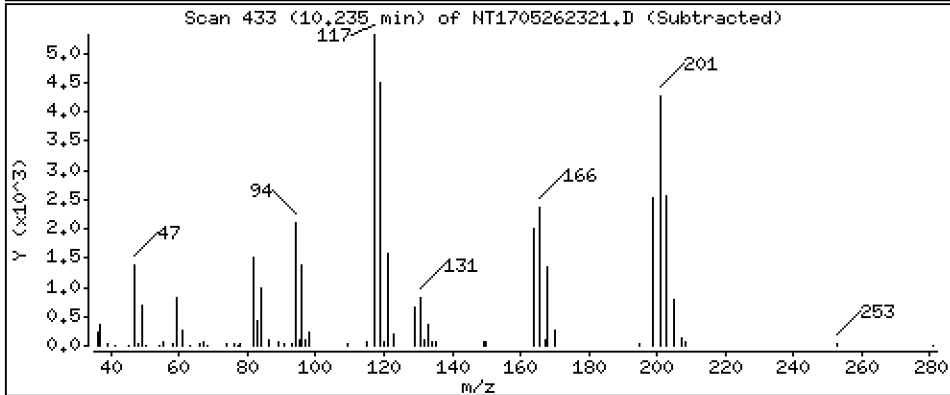
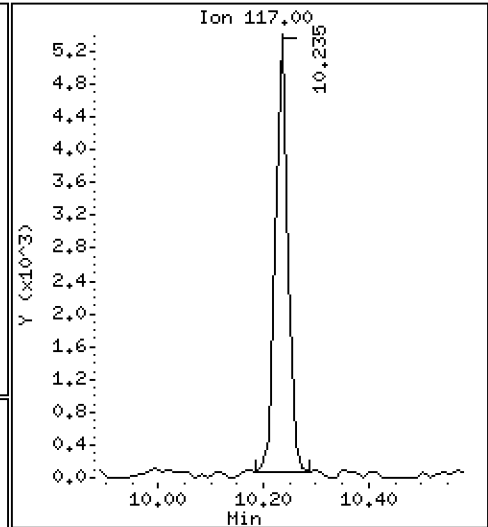
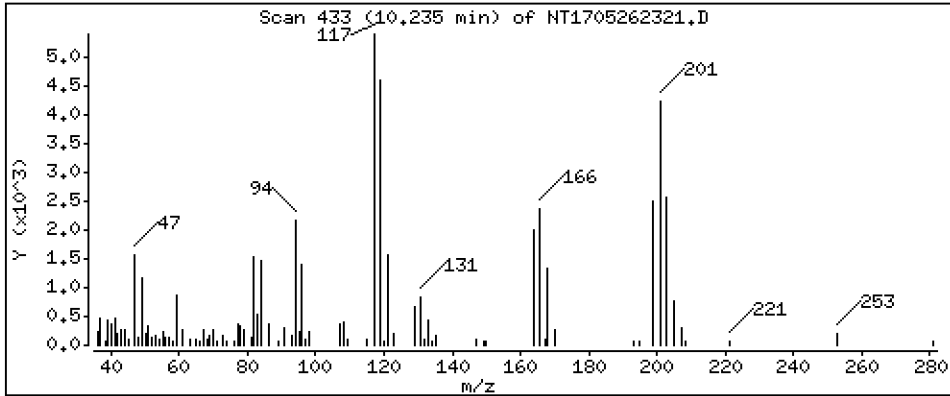
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,1574 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

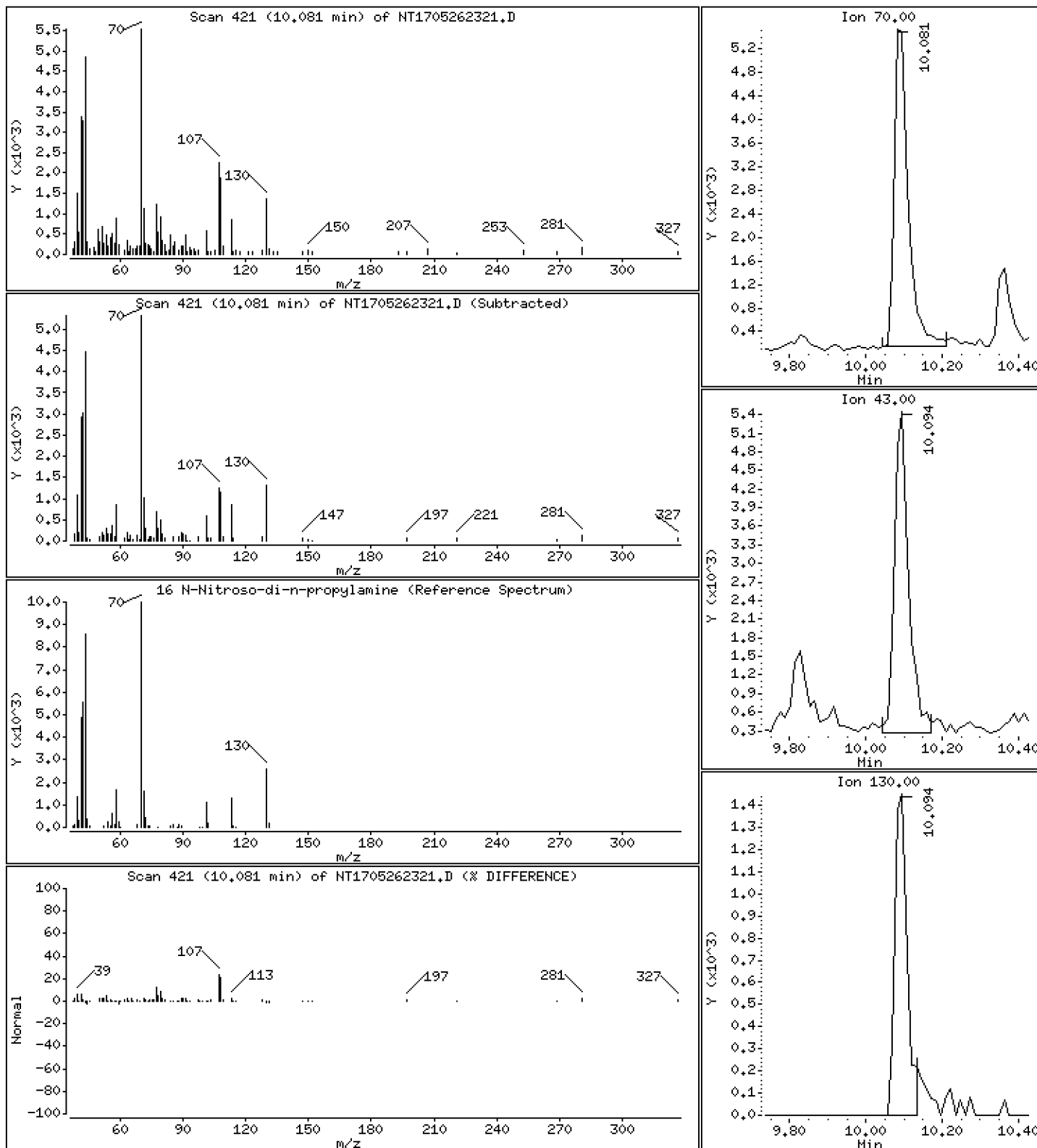
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,1492 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

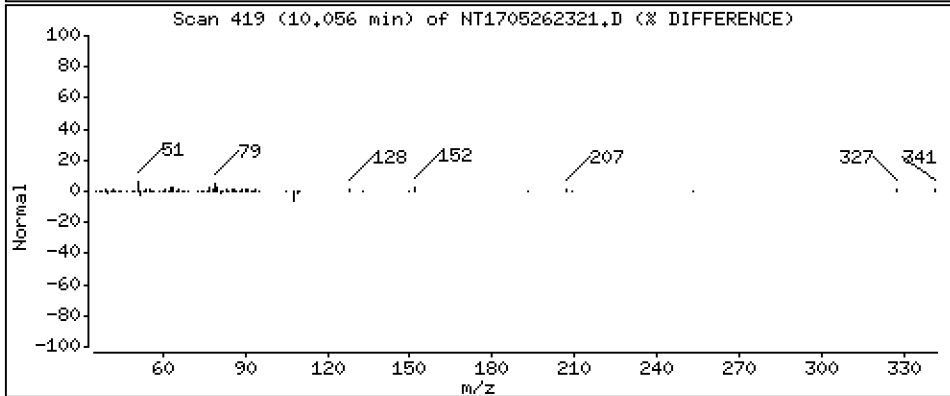
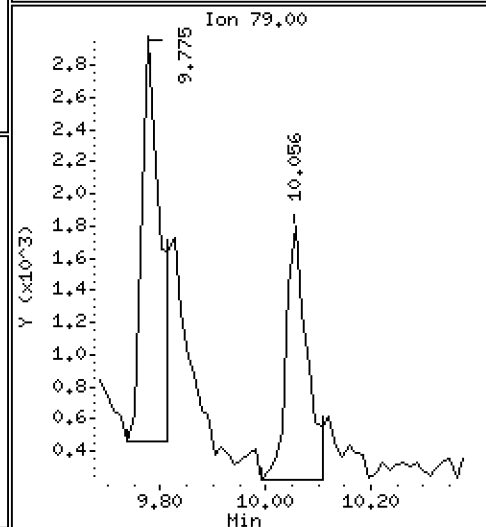
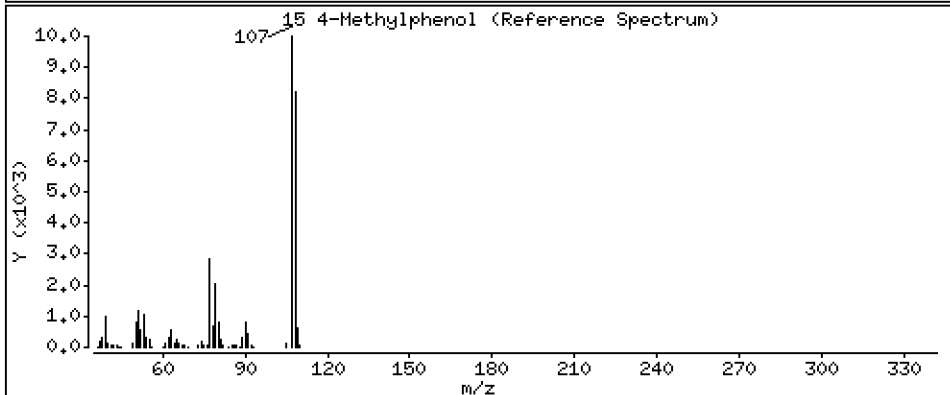
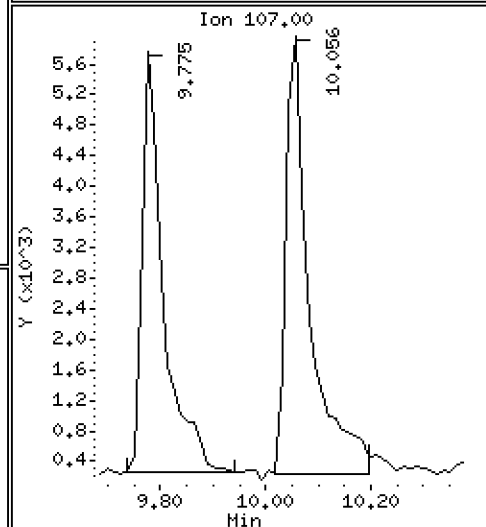
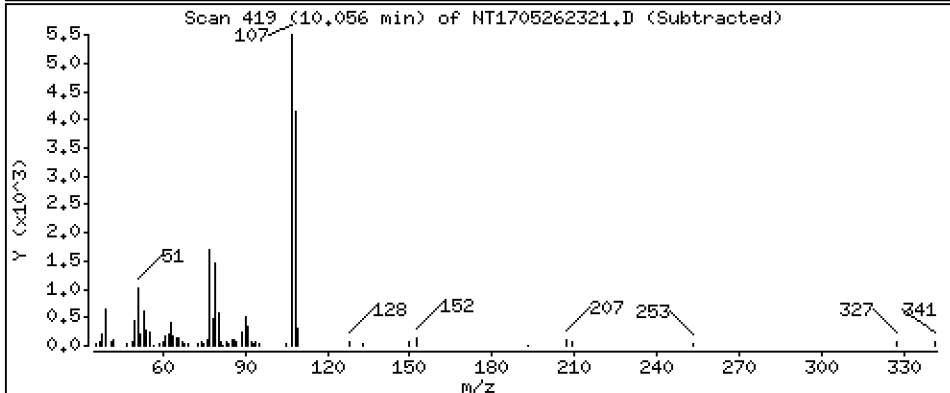
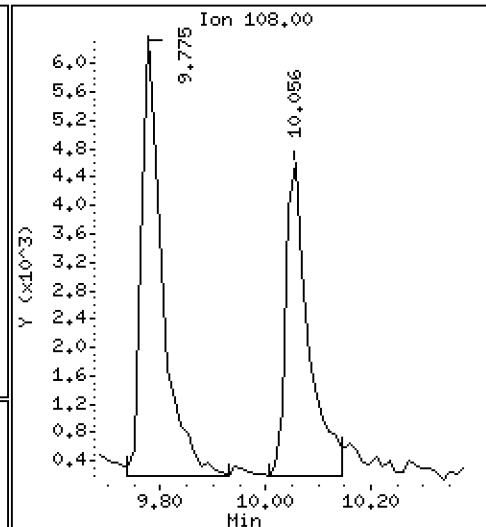
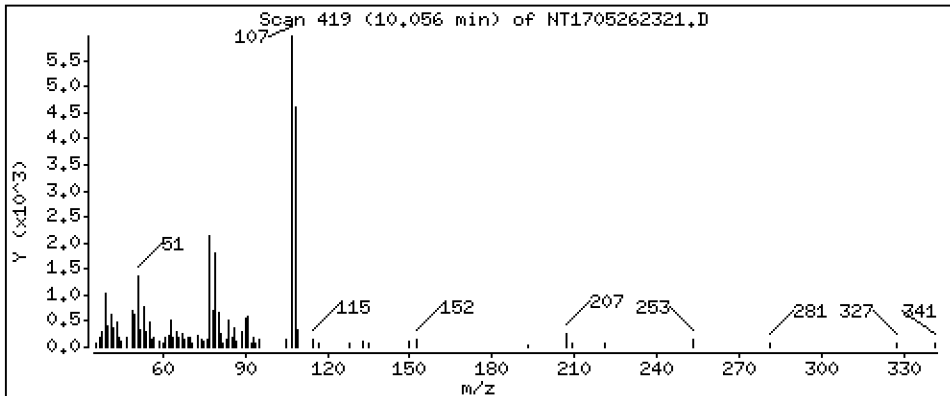
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1077 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

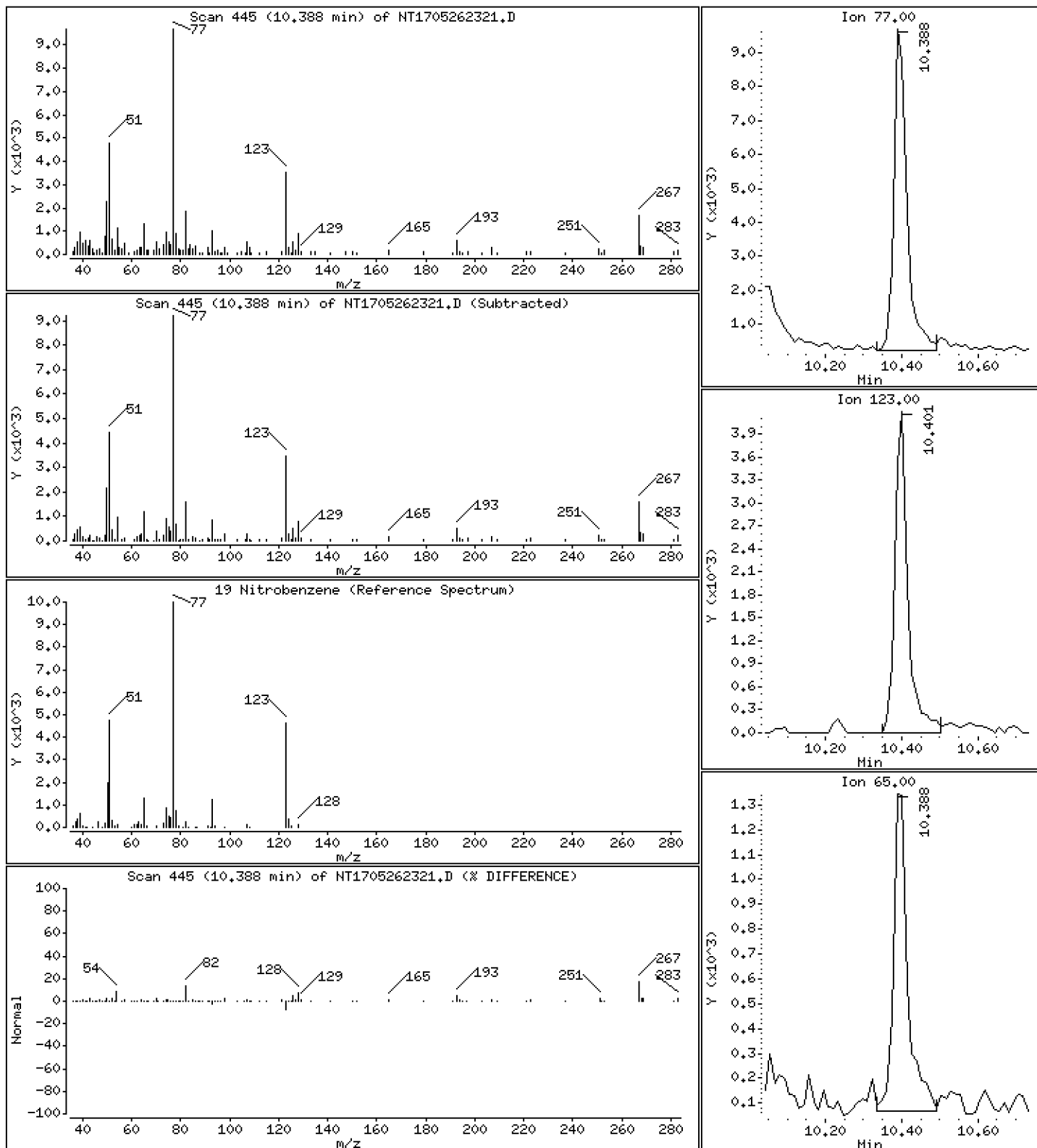
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,1951 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

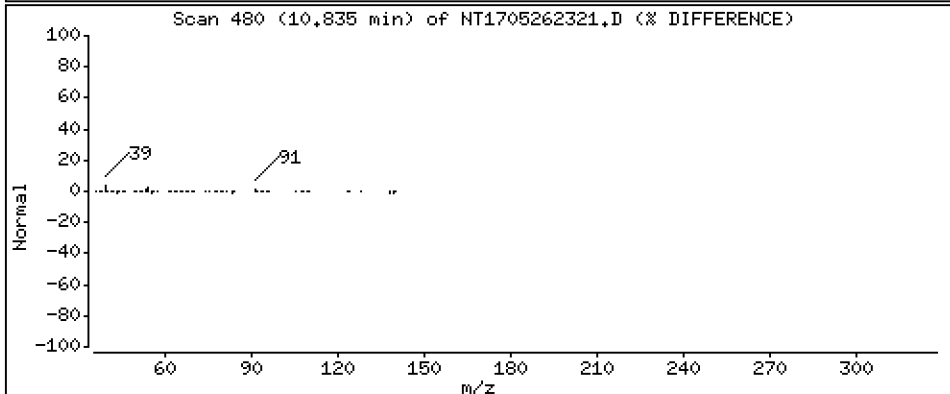
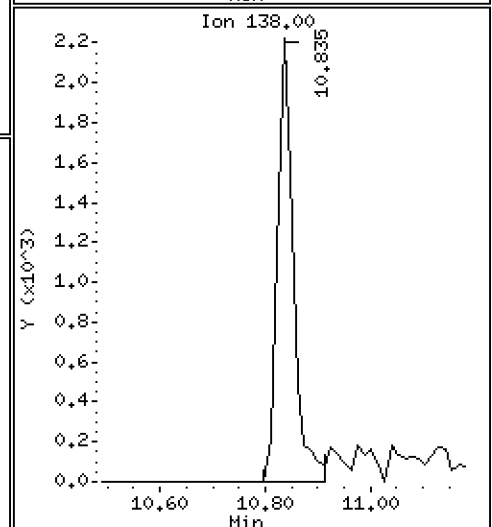
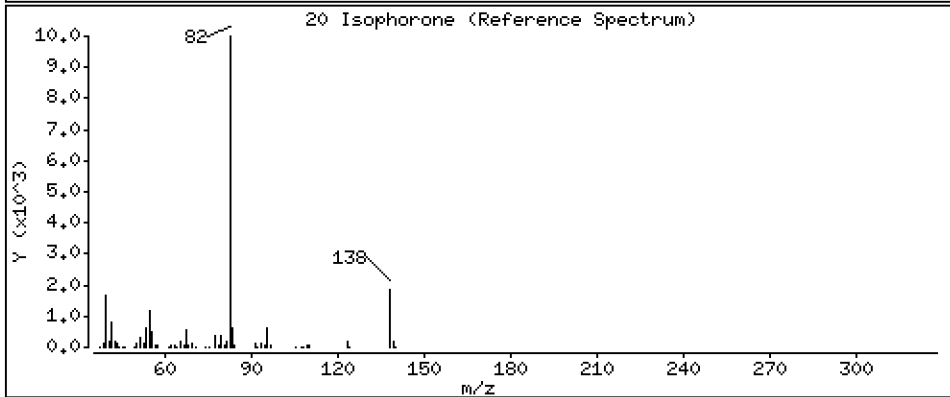
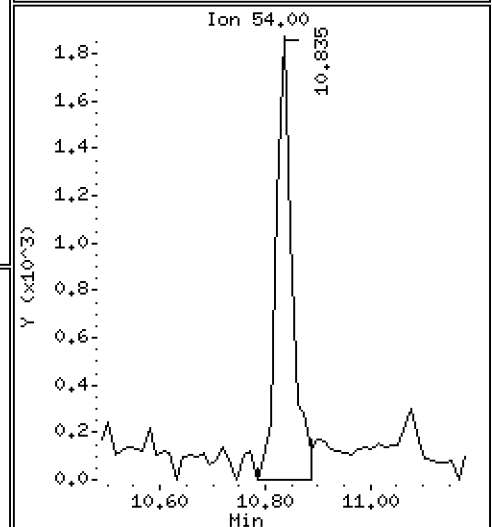
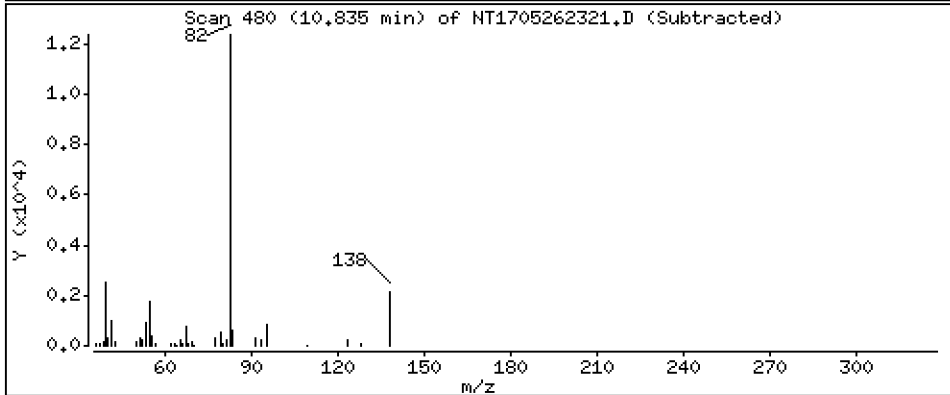
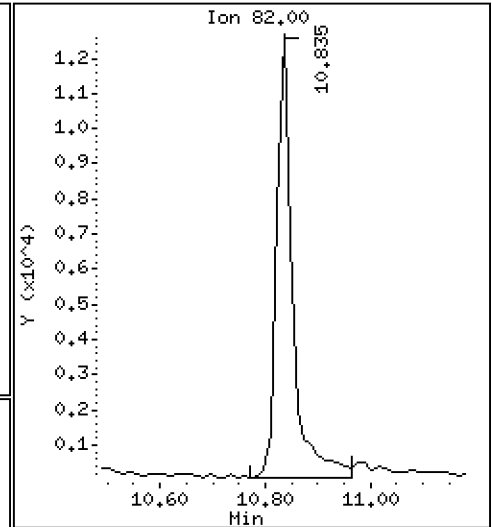
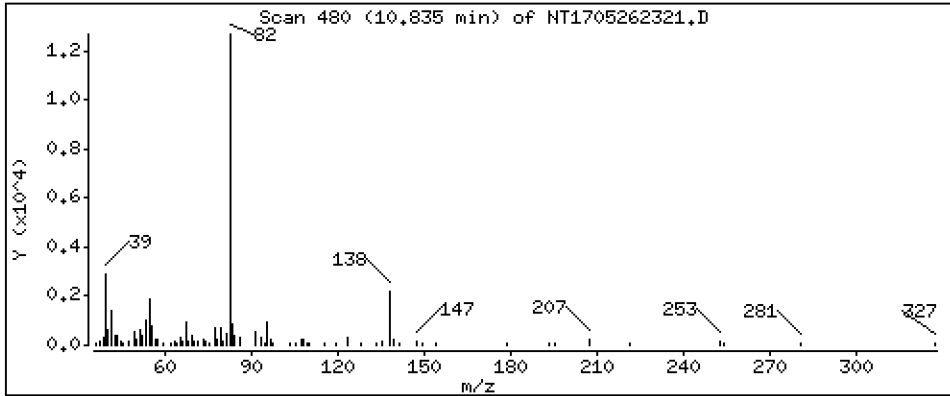
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,1961 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

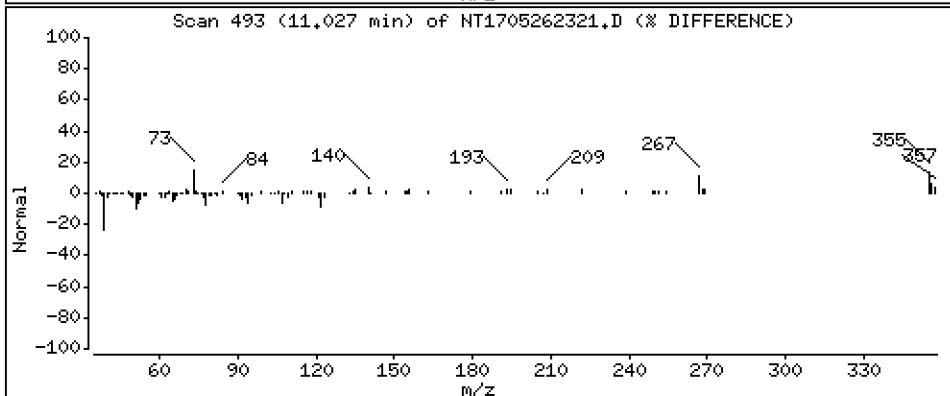
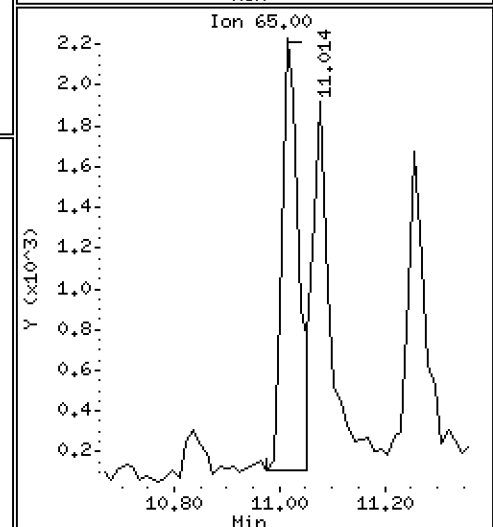
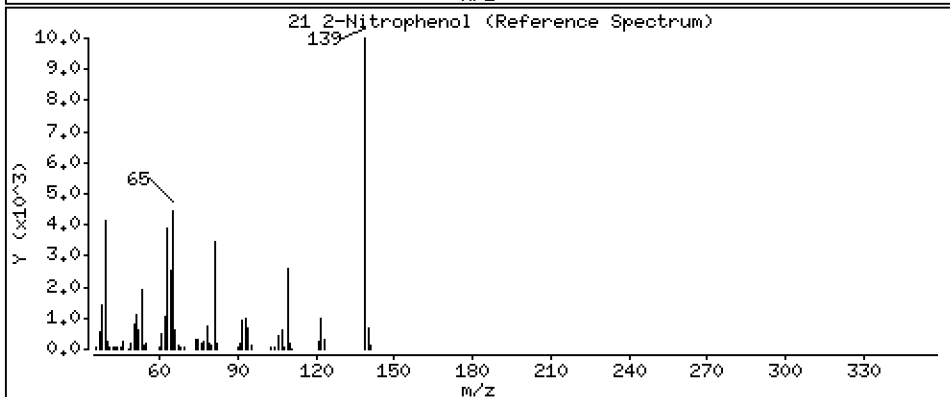
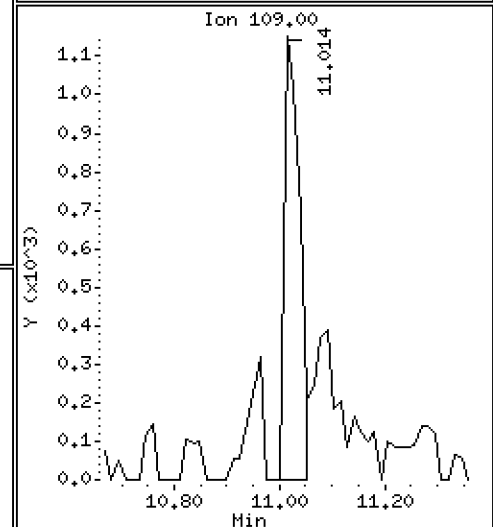
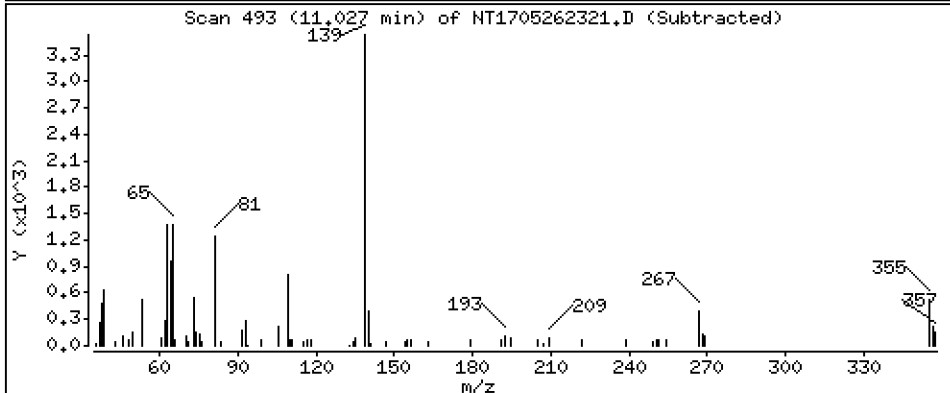
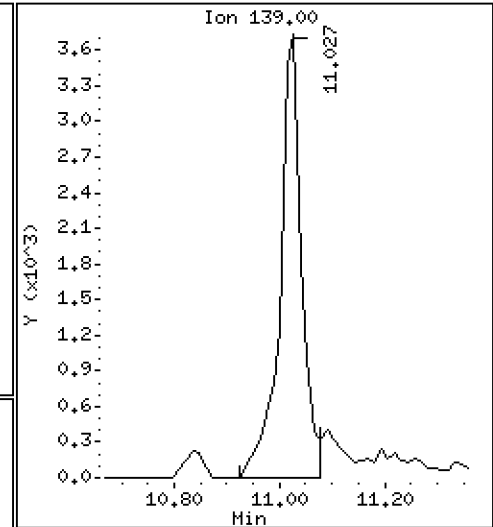
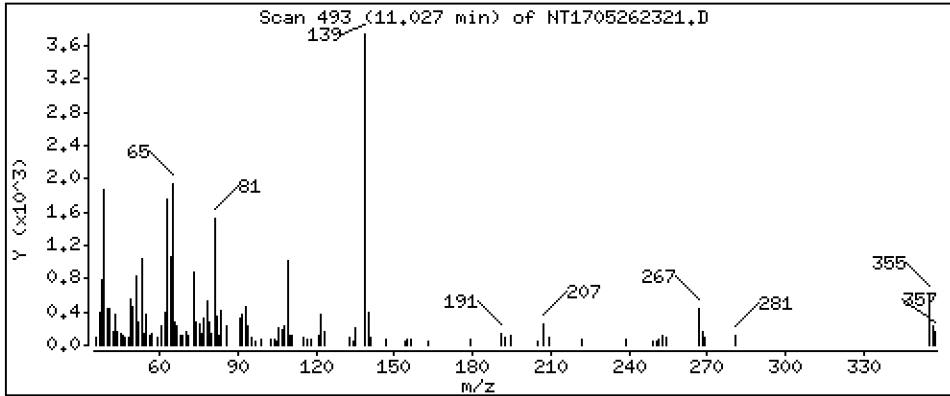
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,2302 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

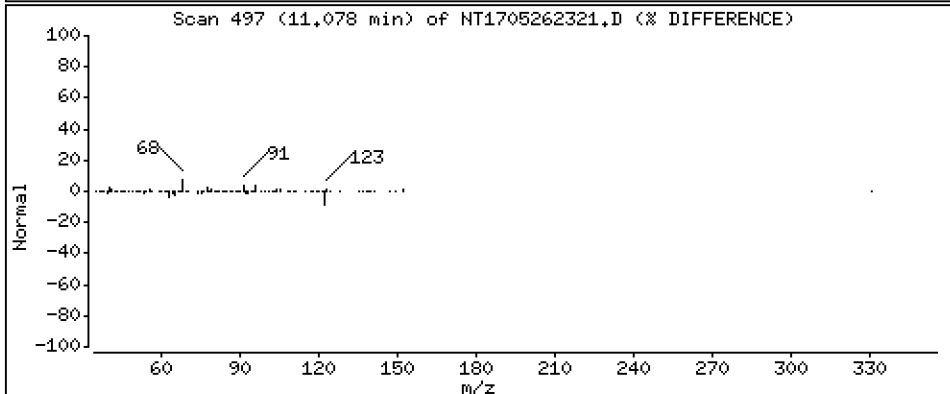
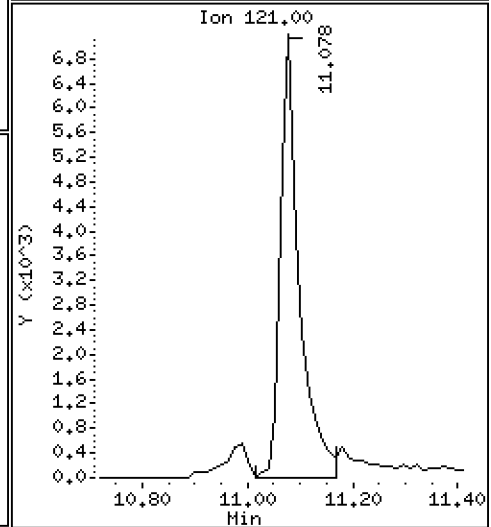
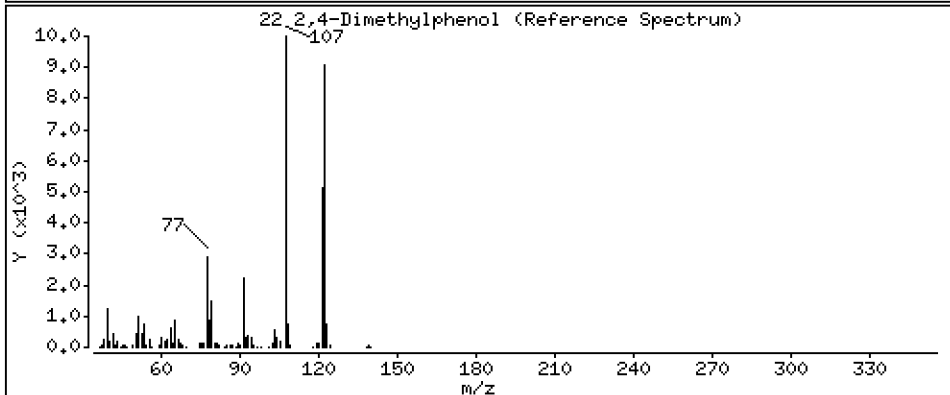
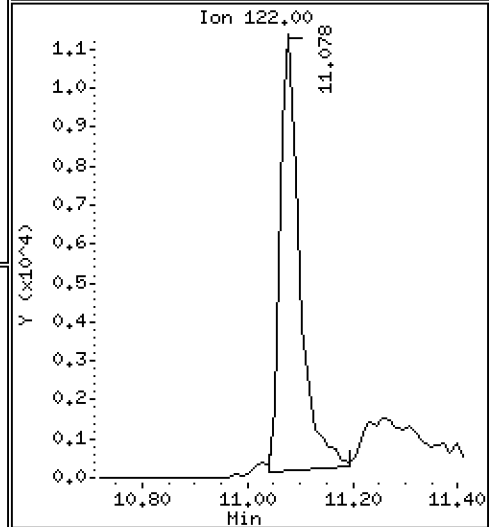
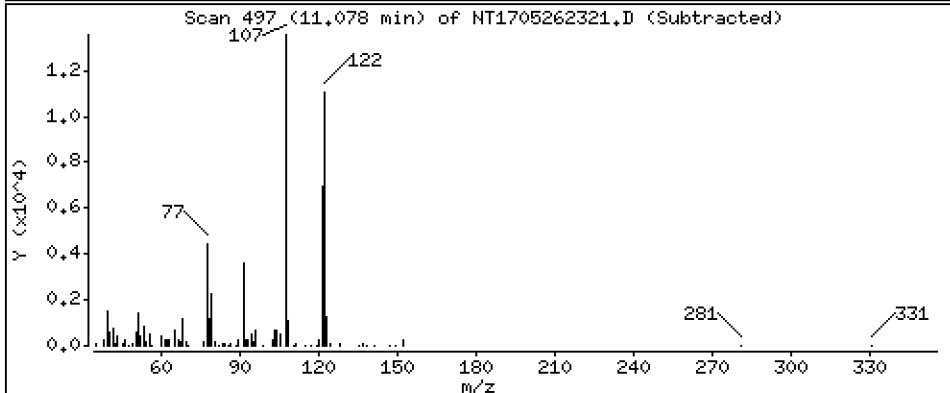
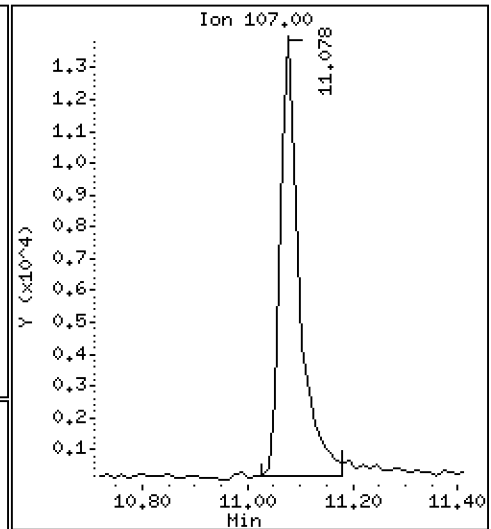
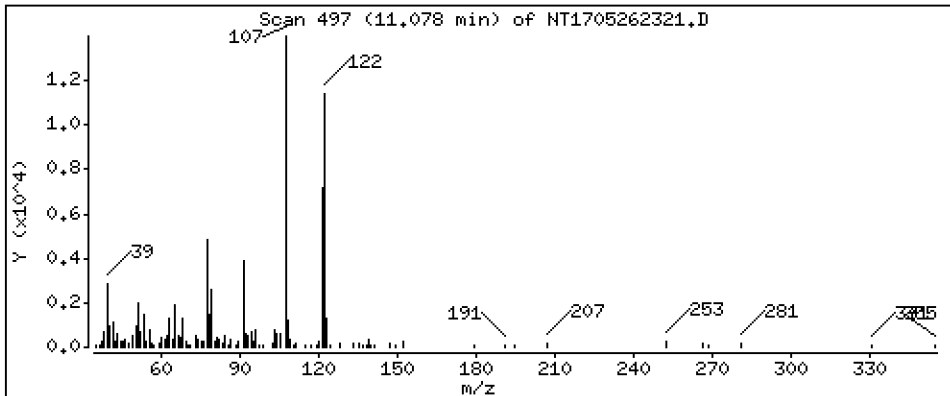
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.3345 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

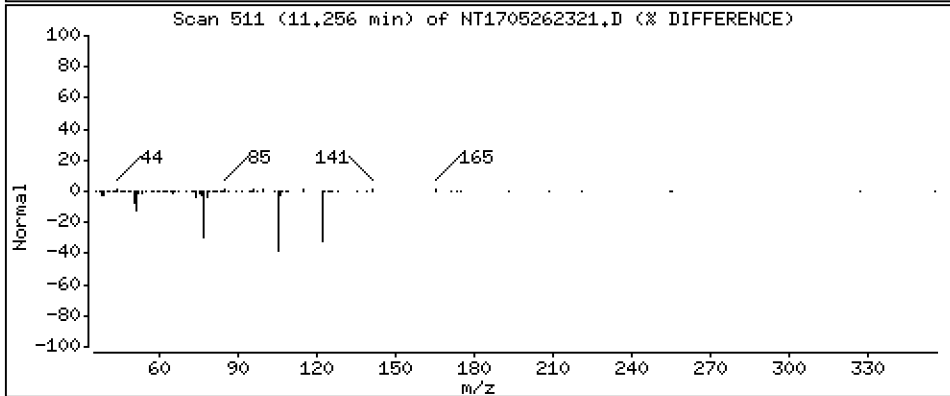
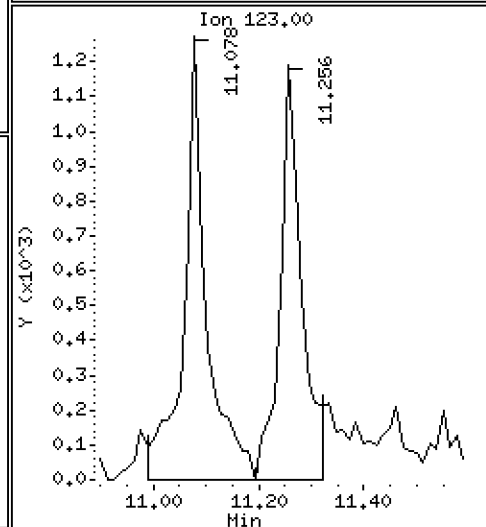
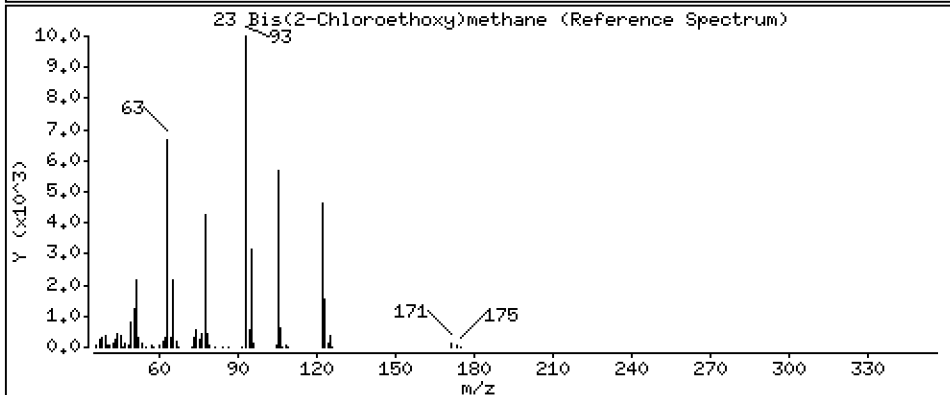
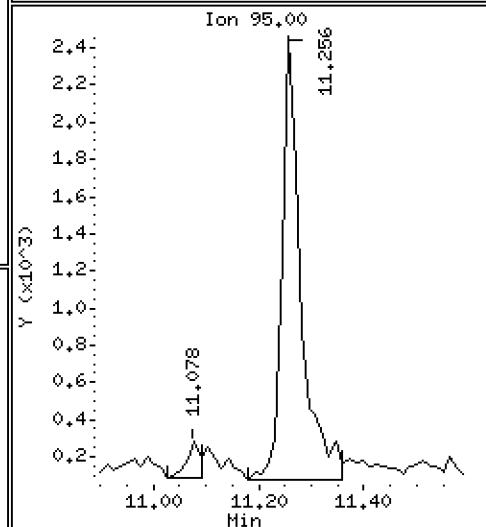
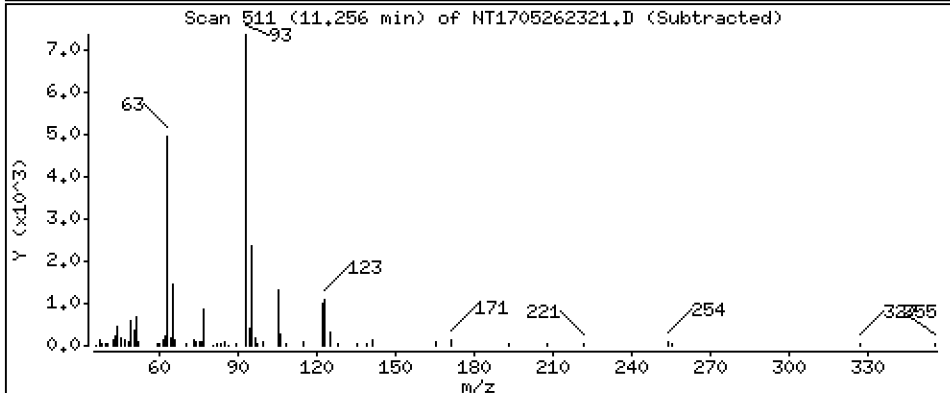
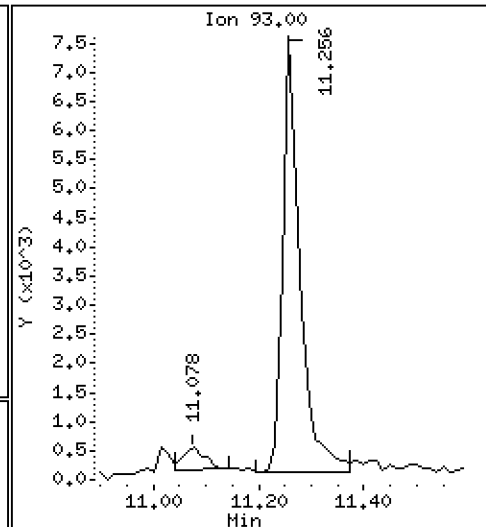
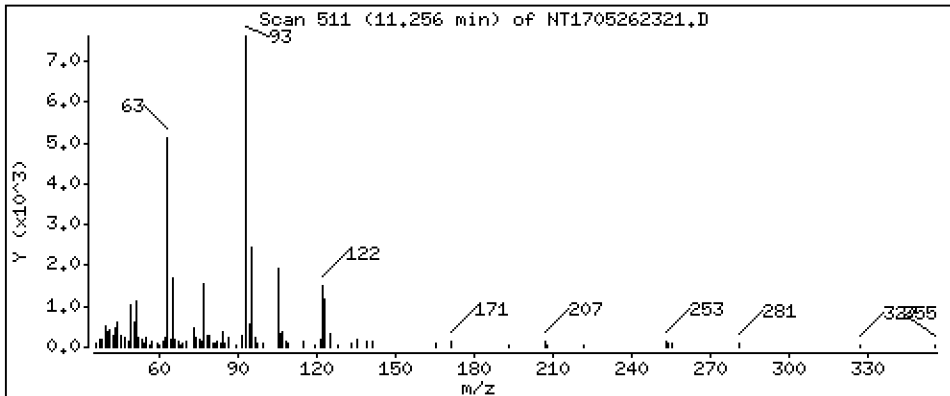
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,1812 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

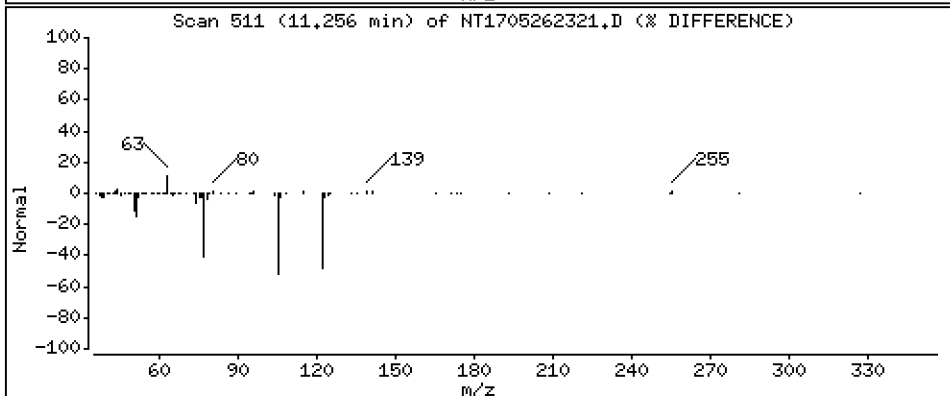
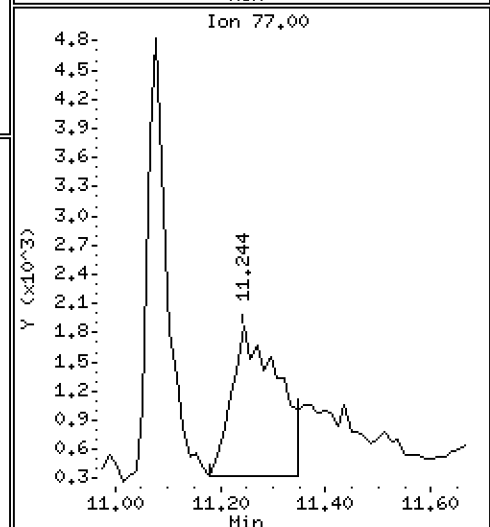
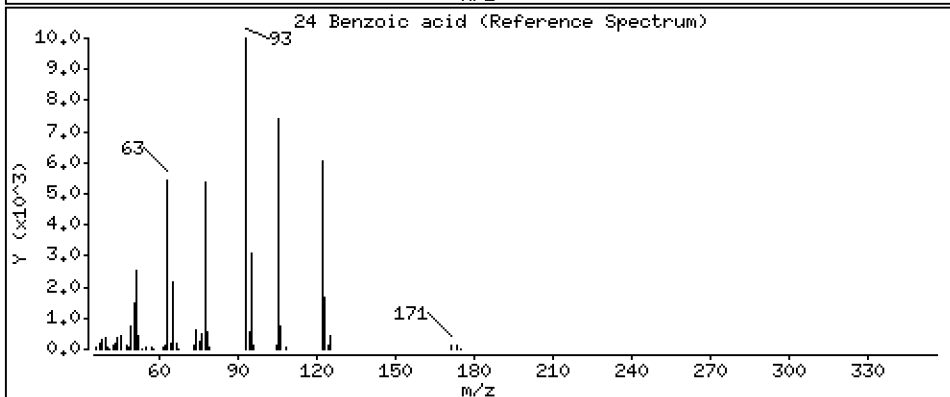
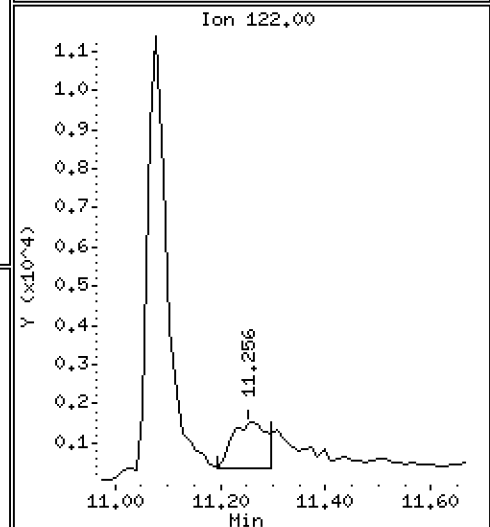
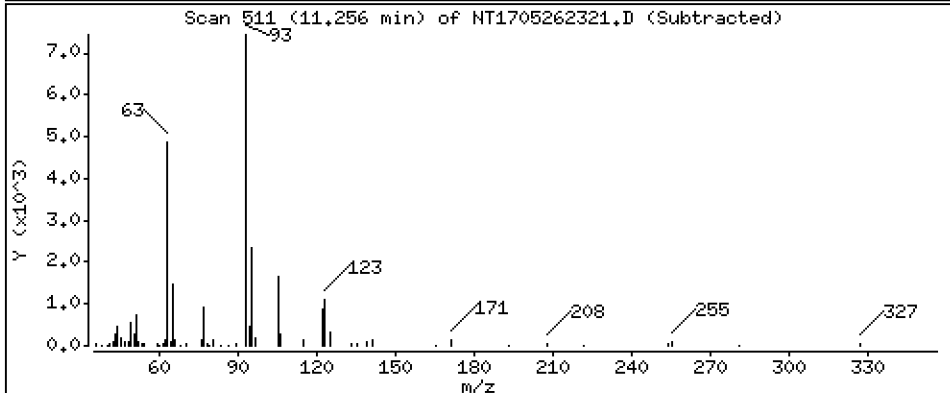
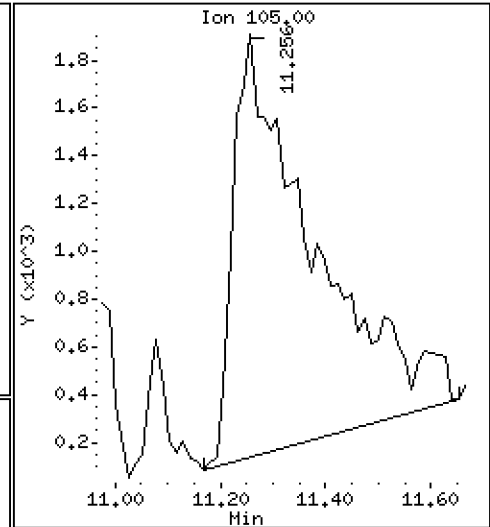
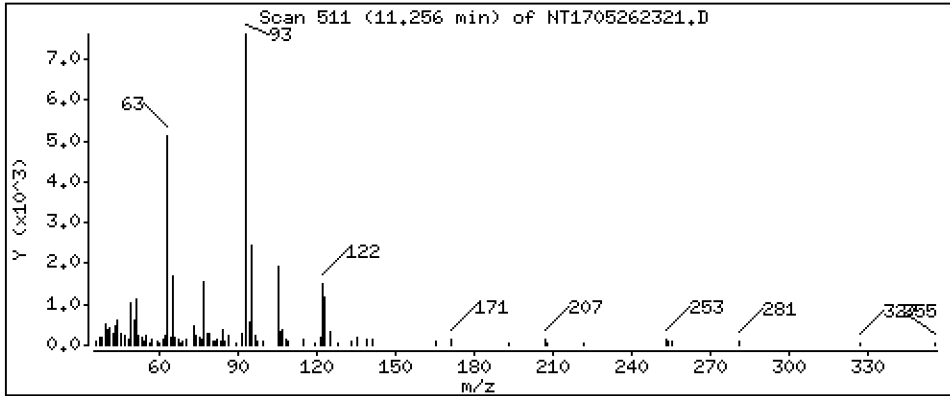
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.2696 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

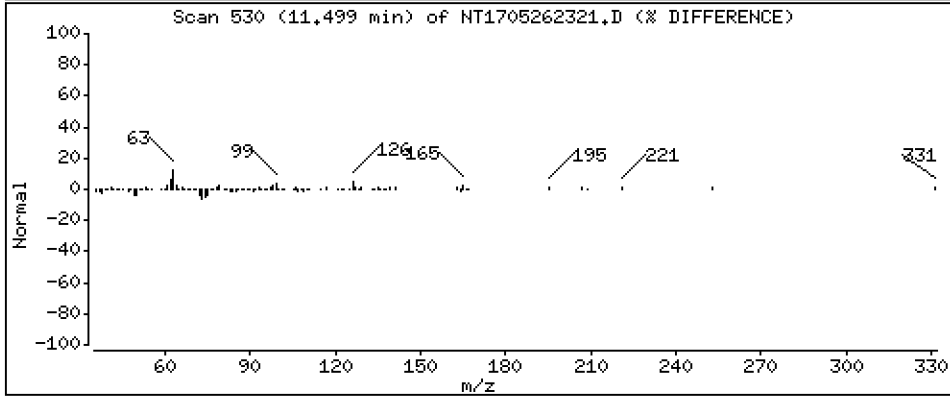
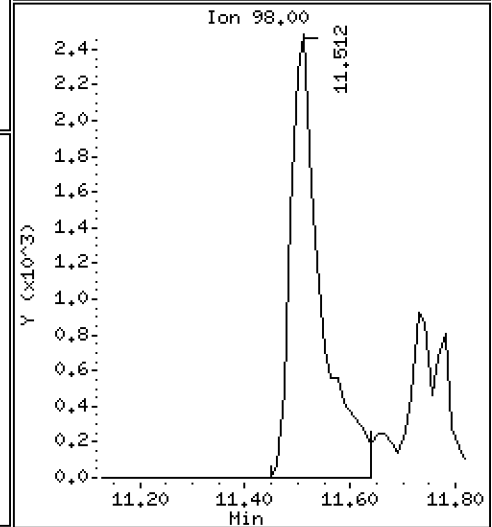
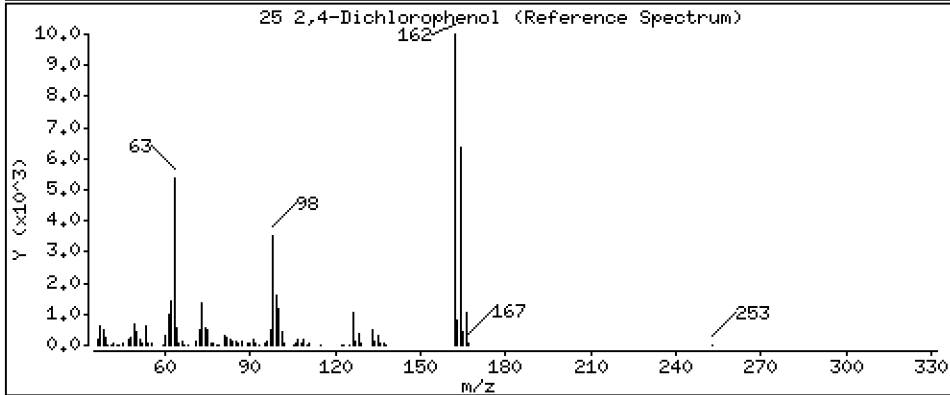
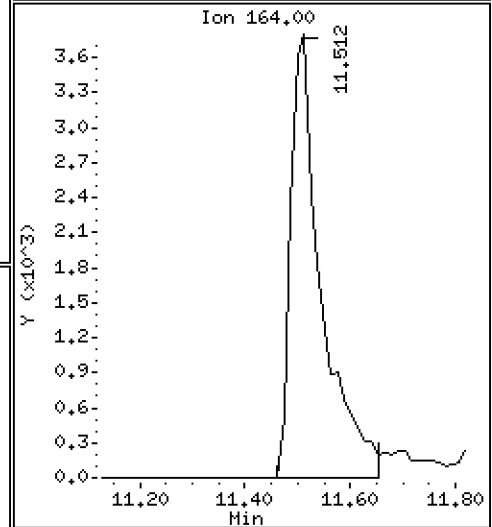
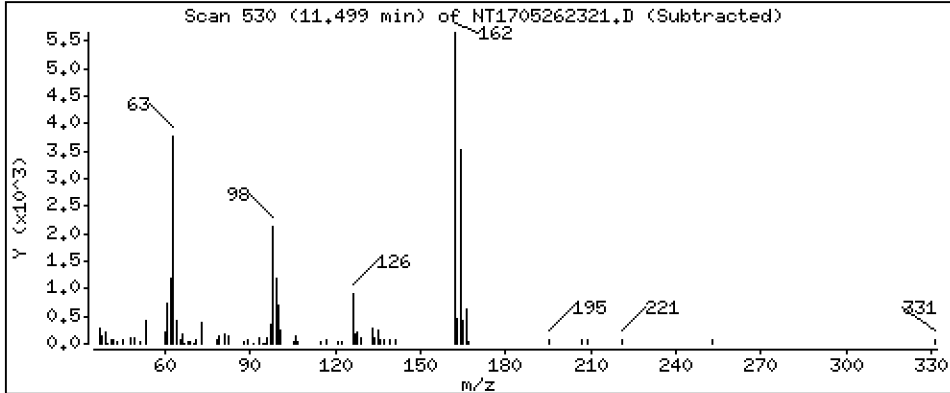
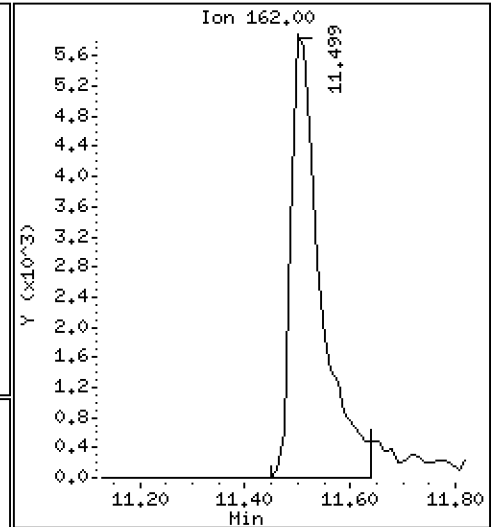
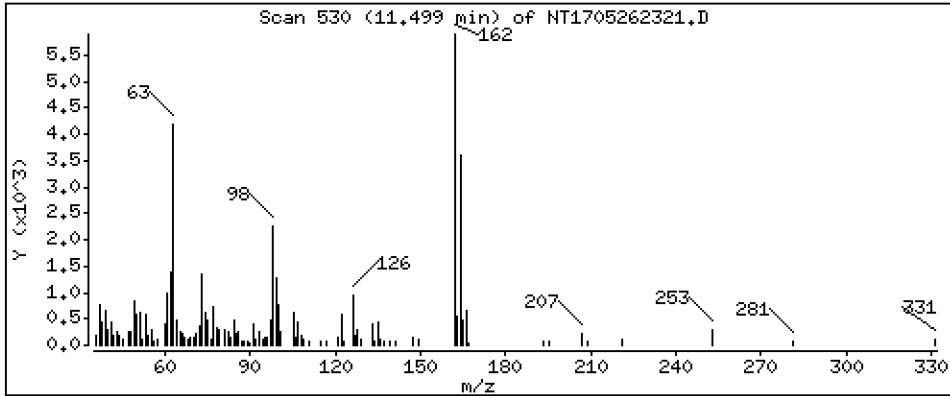
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,3035 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

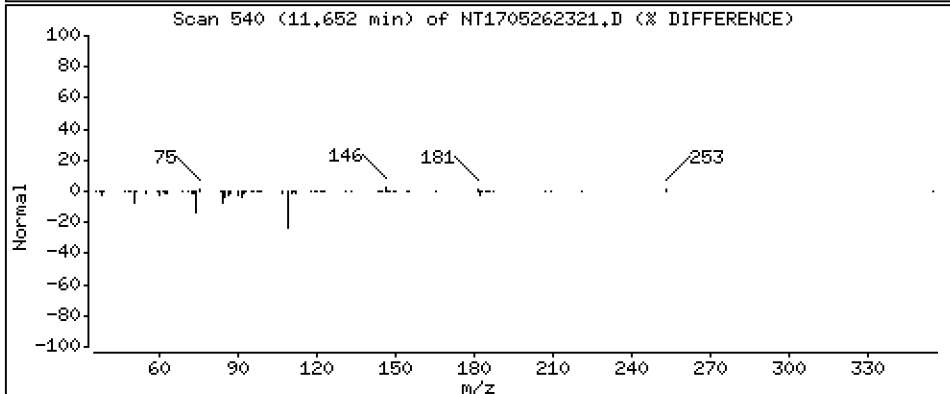
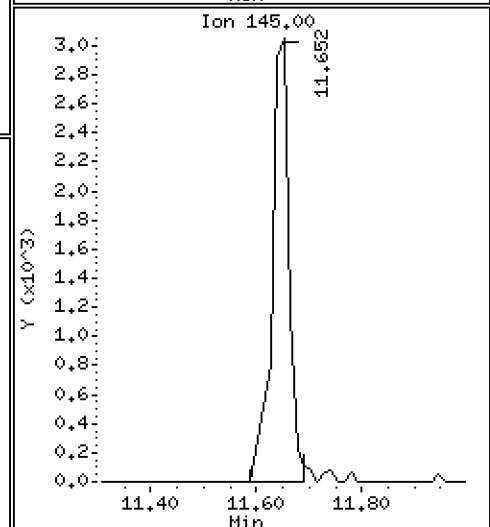
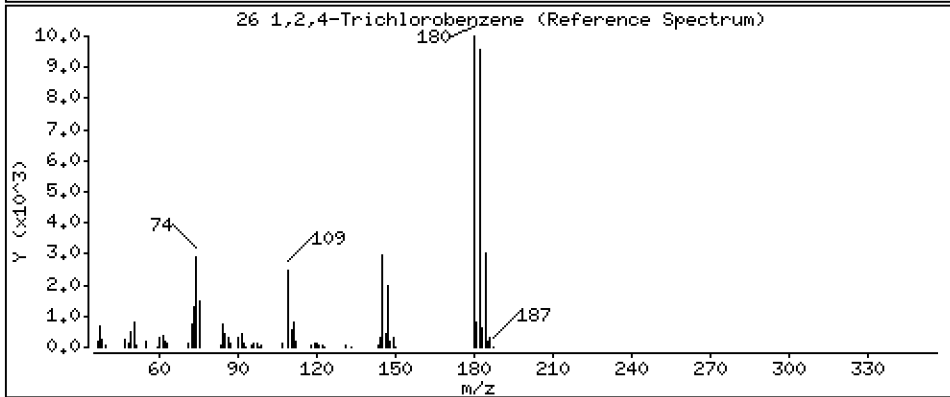
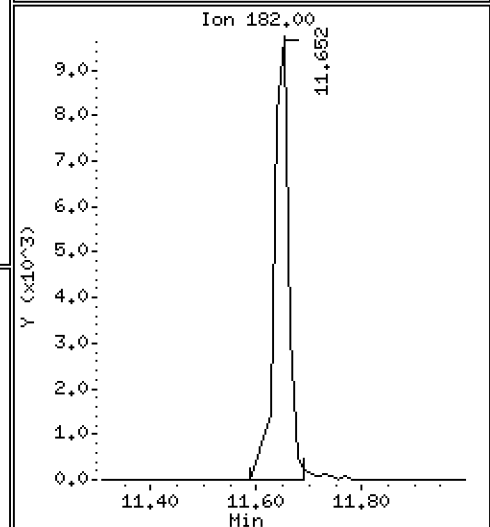
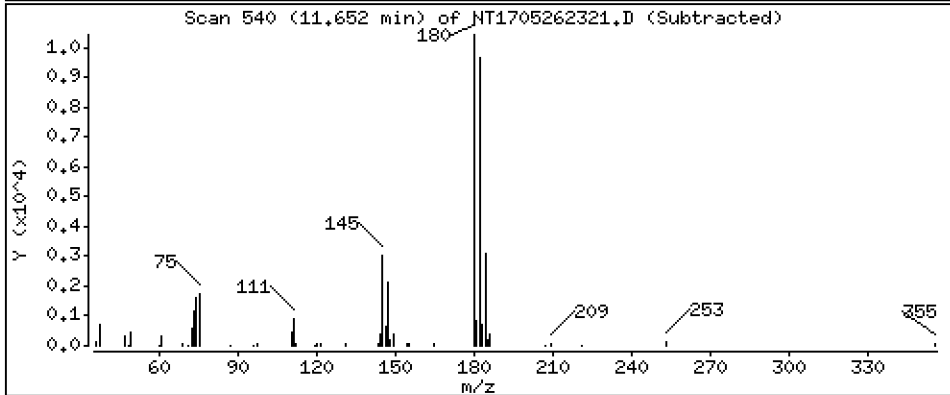
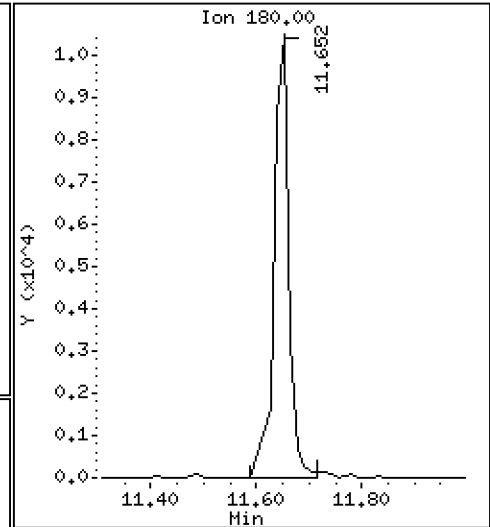
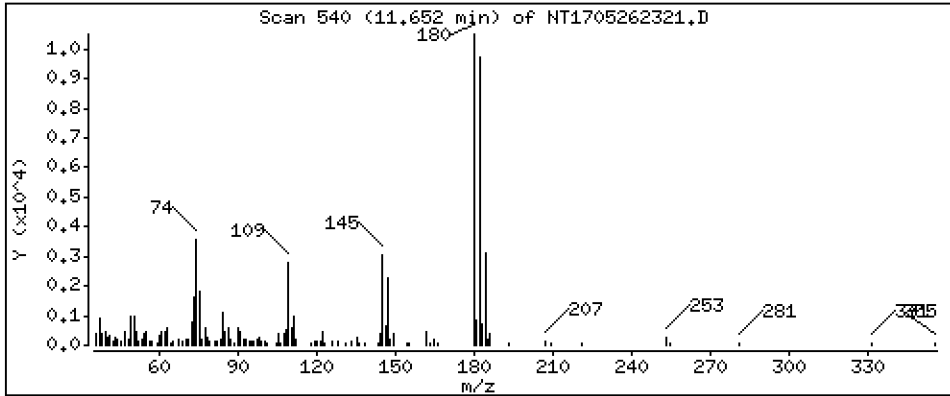
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,2610 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

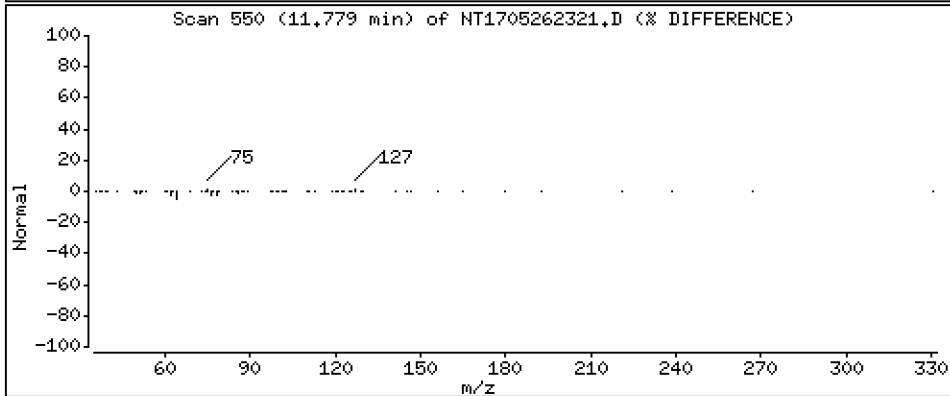
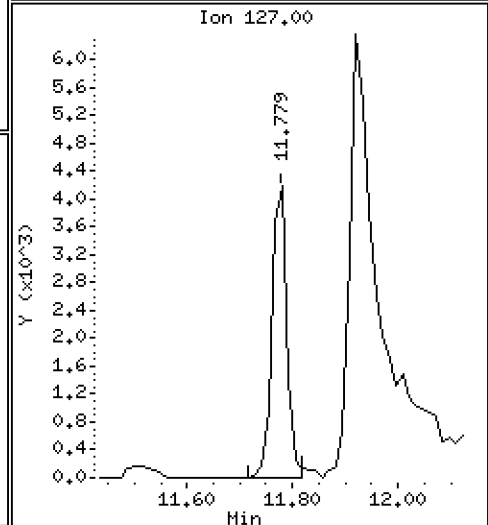
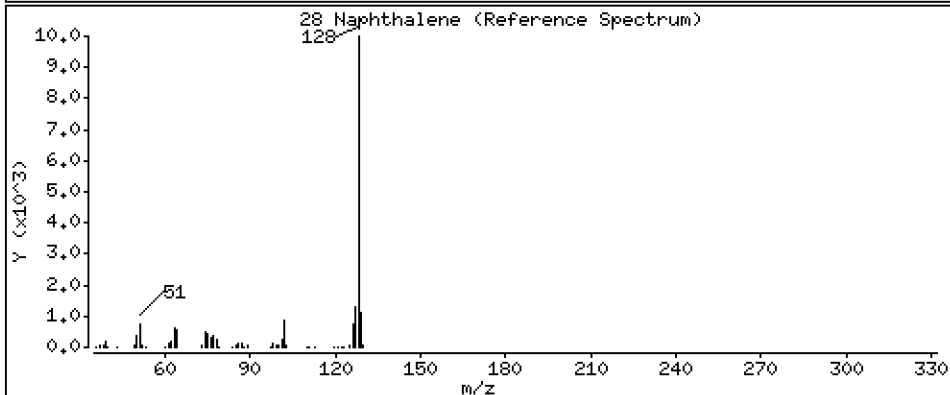
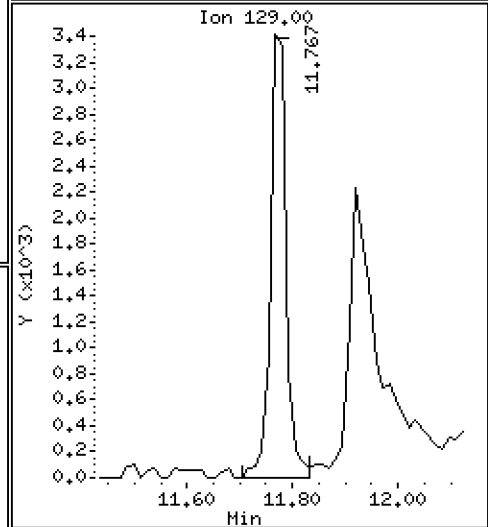
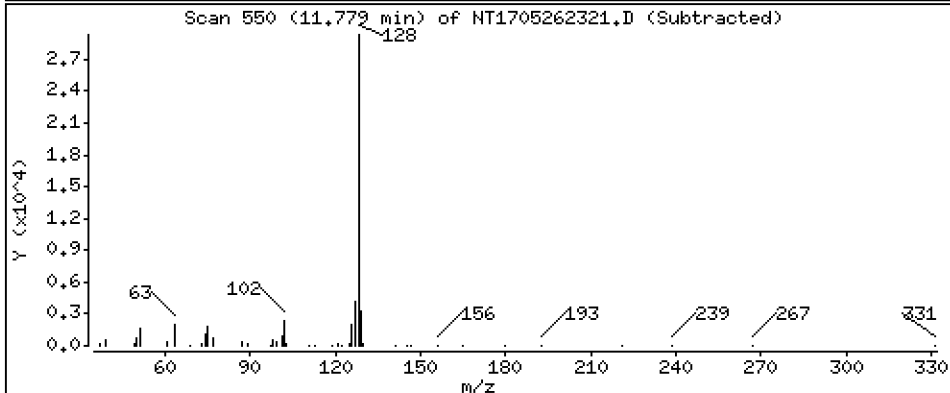
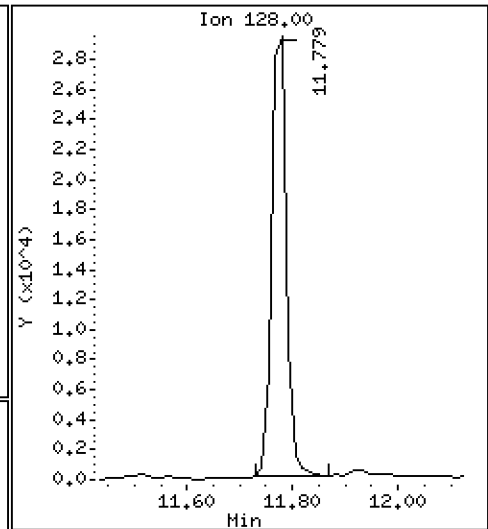
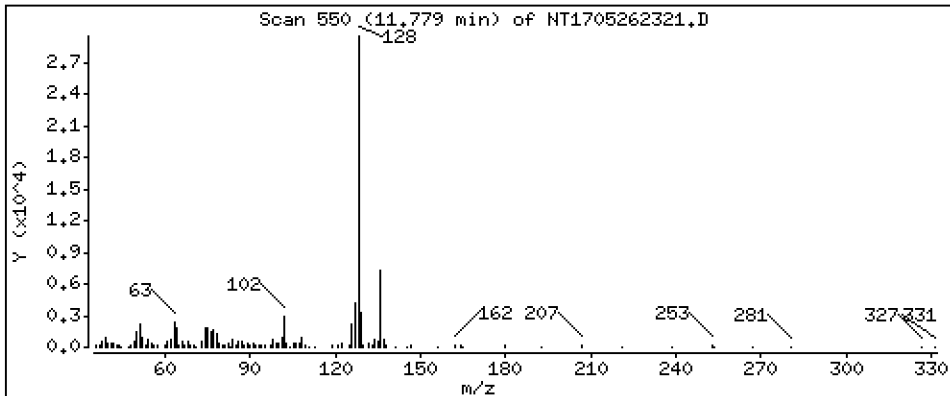
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,2019 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

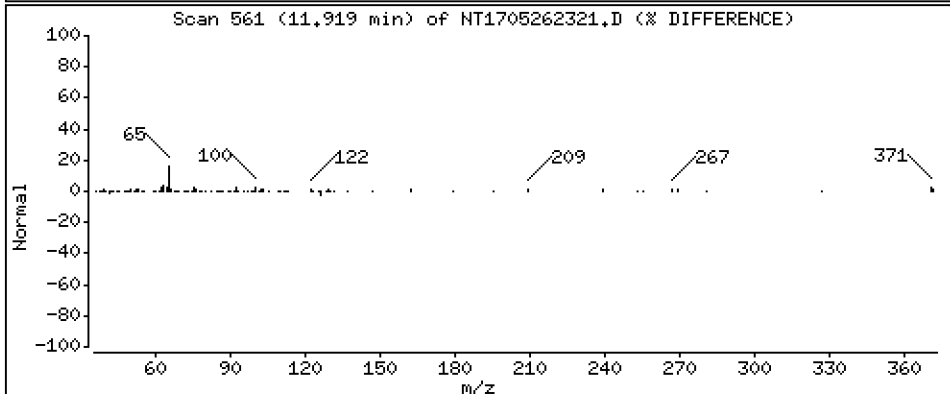
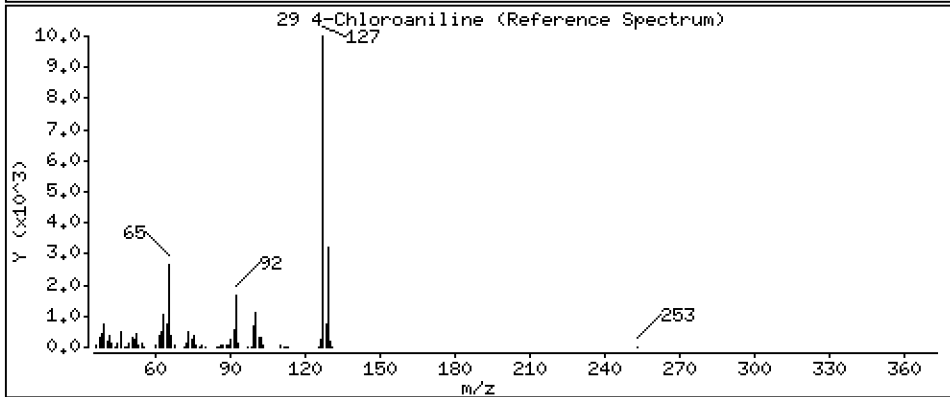
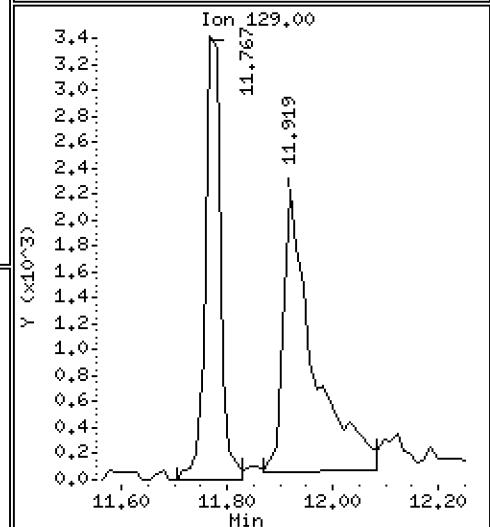
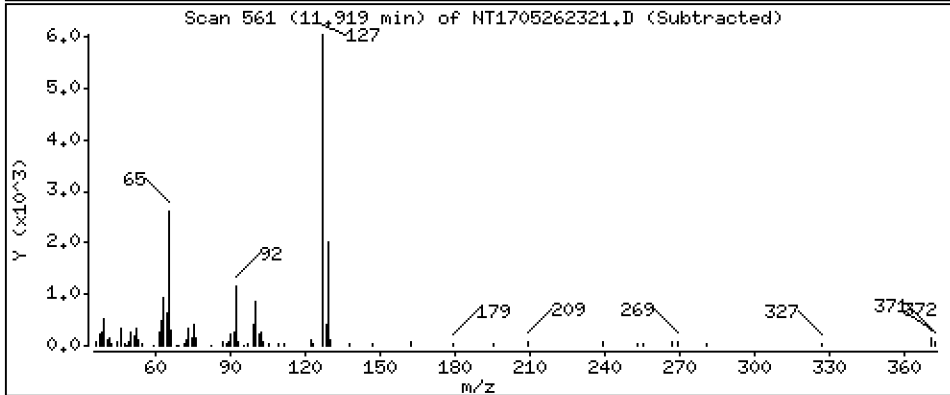
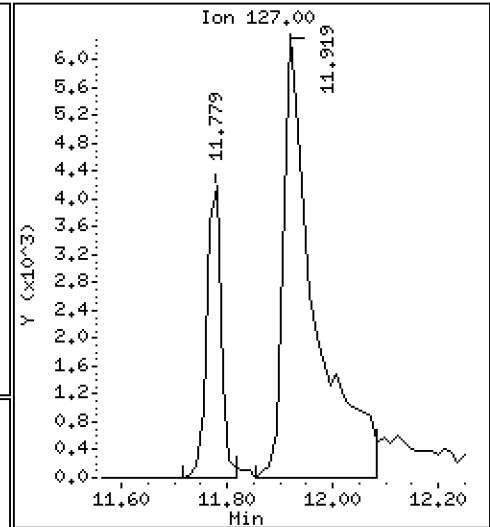
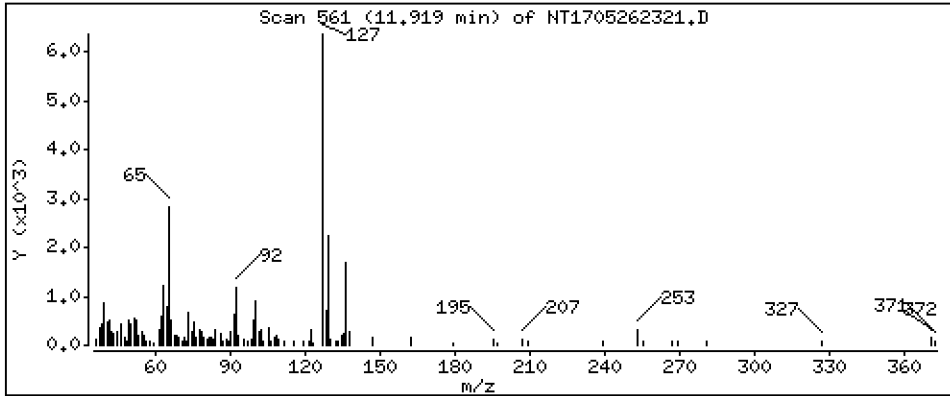
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,2470 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

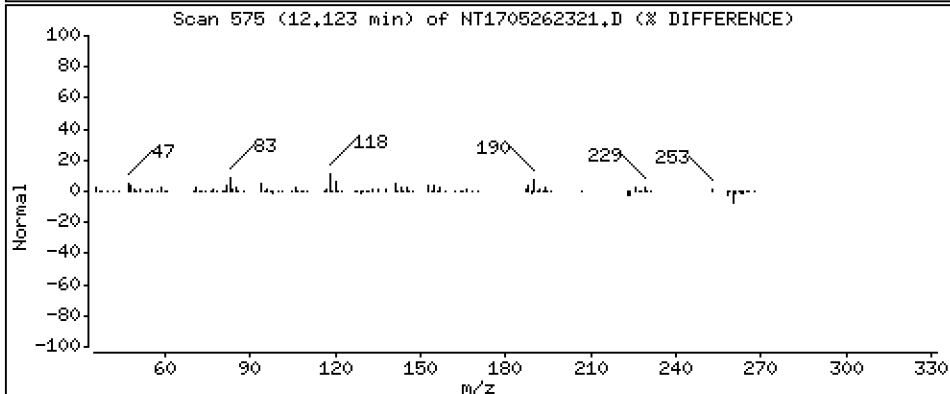
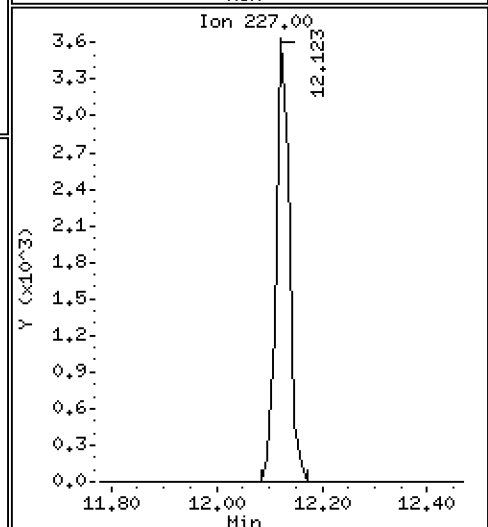
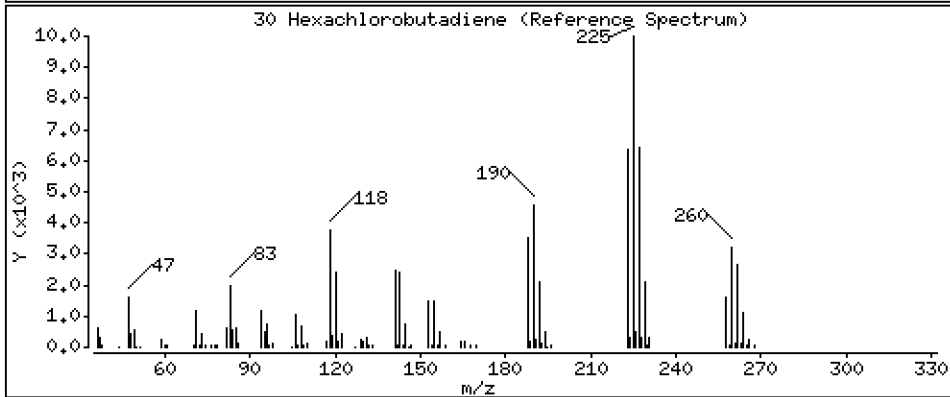
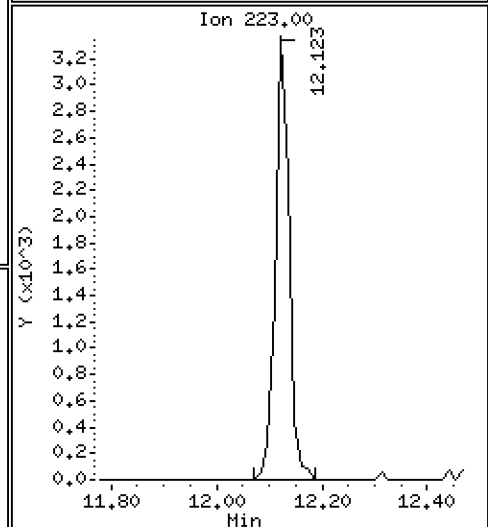
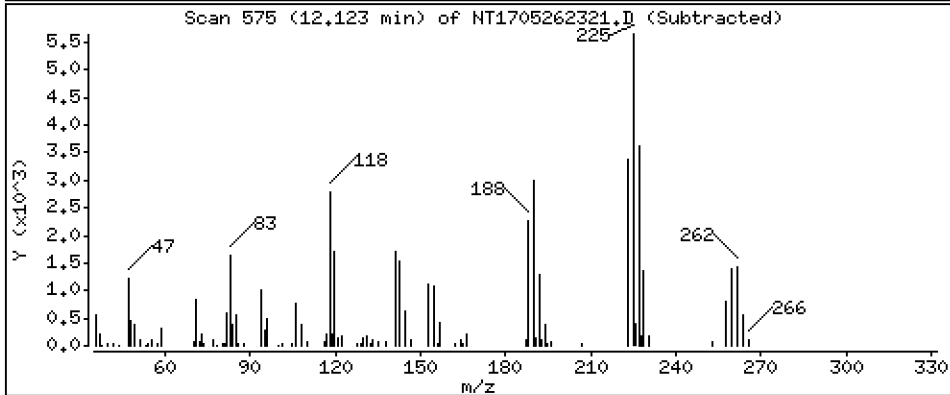
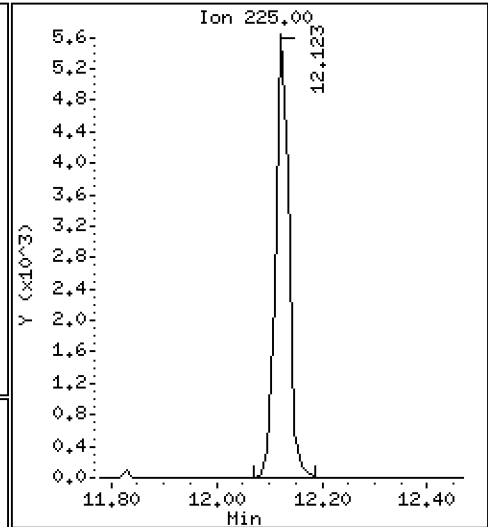
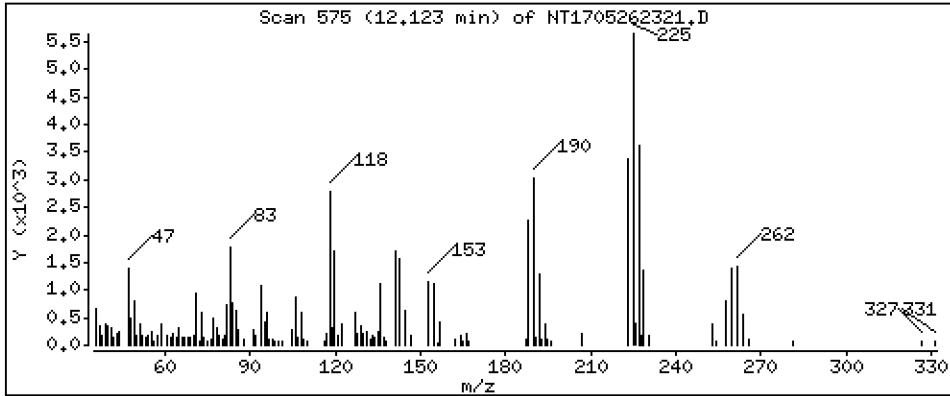
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,2180 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

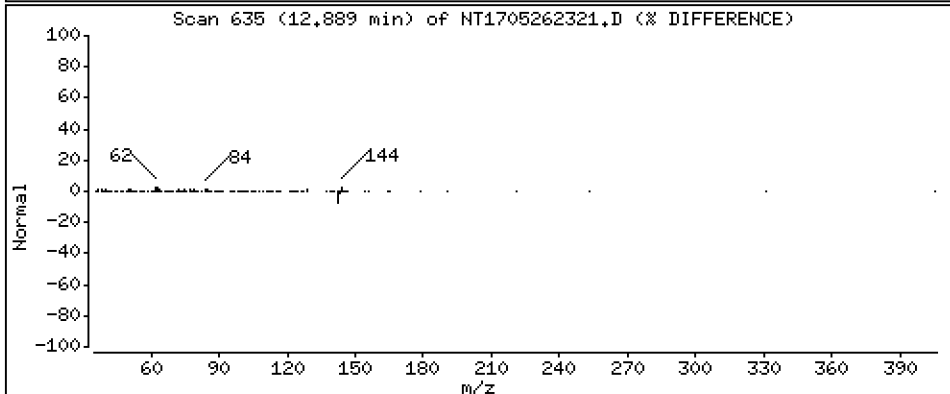
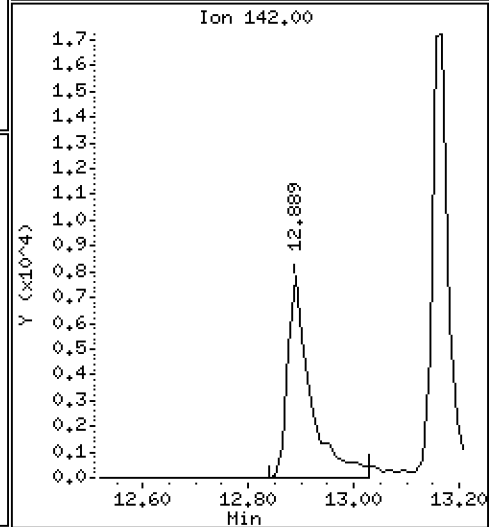
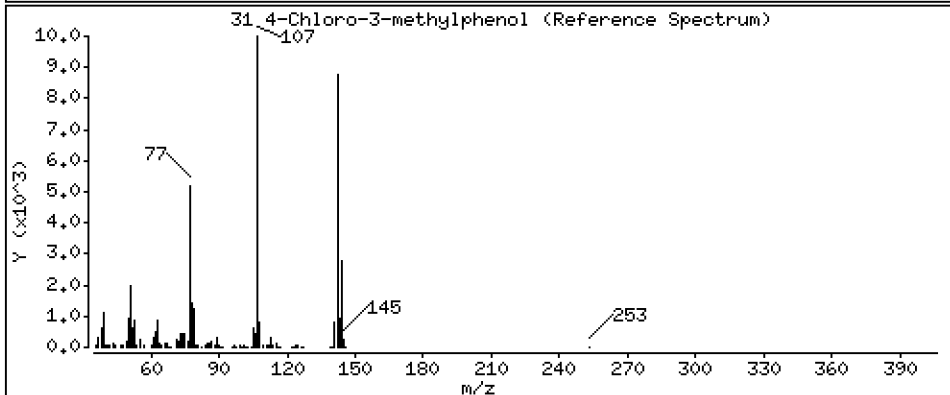
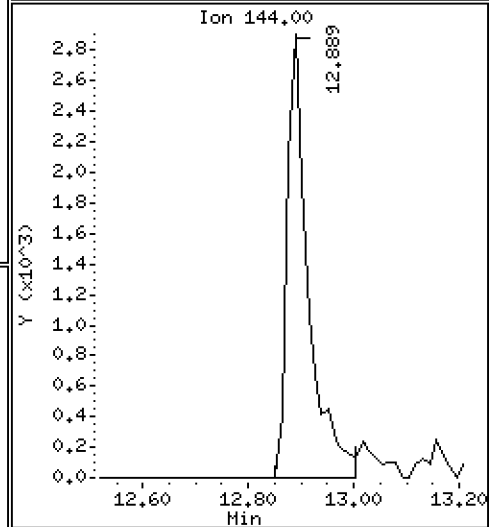
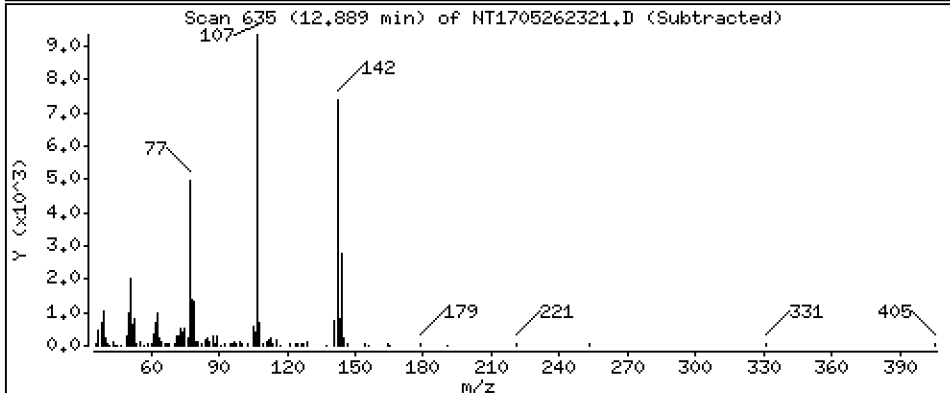
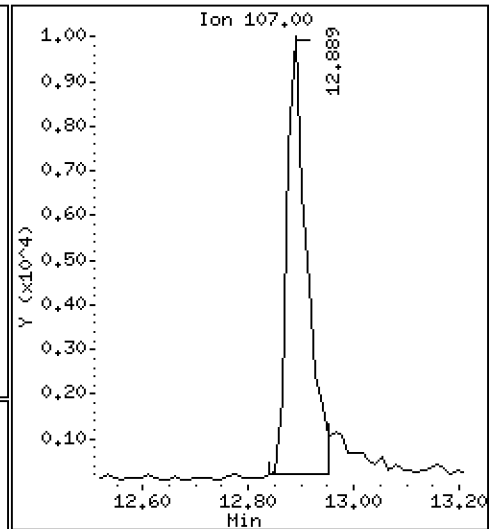
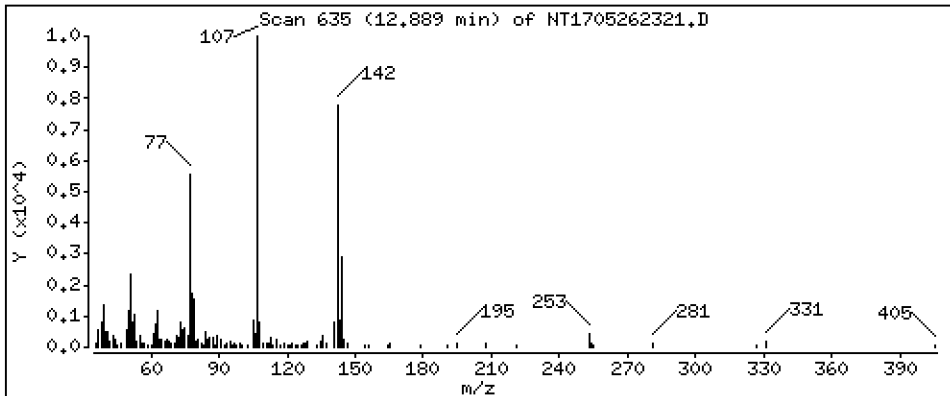
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,2869 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

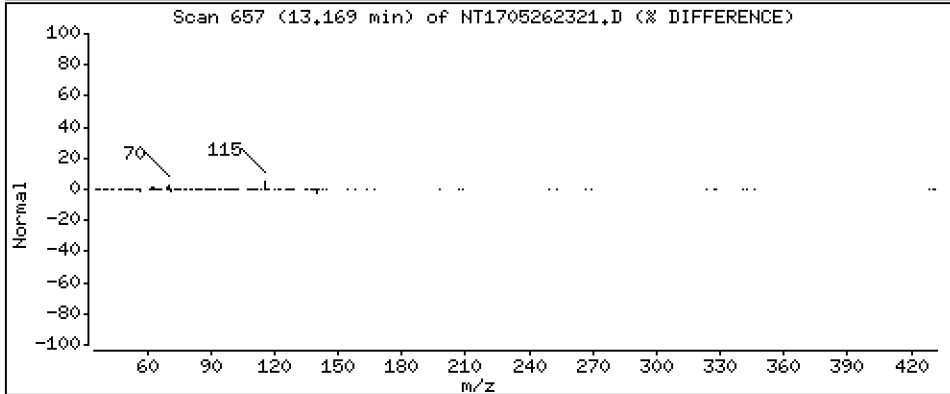
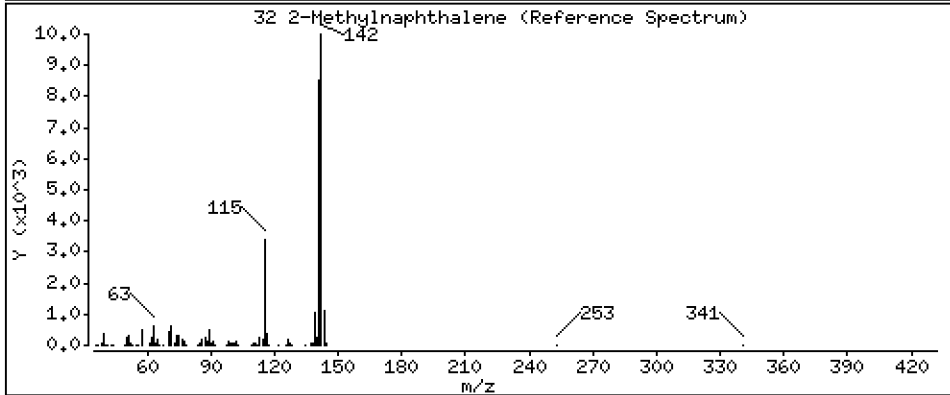
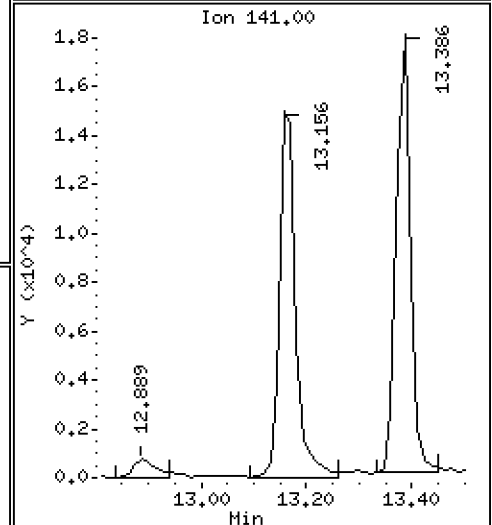
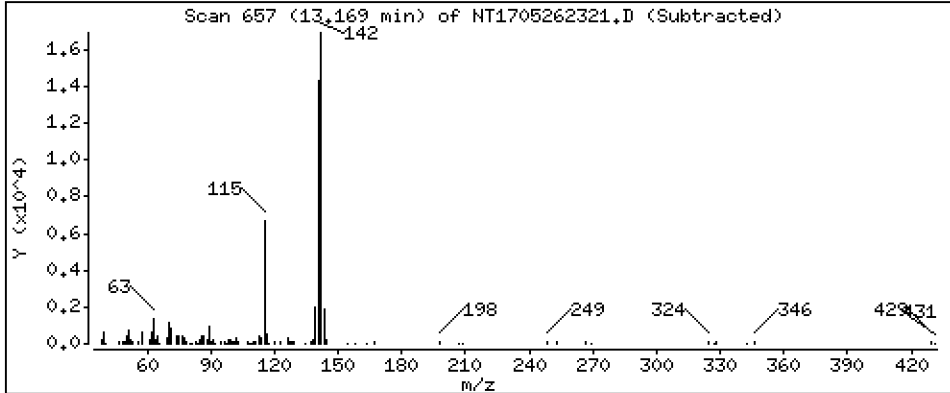
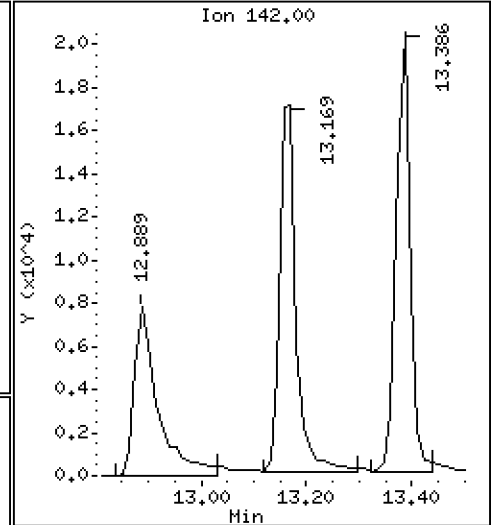
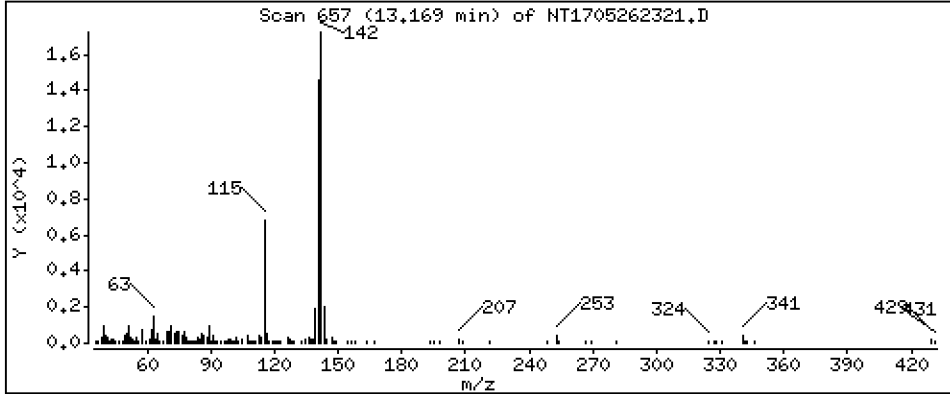
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.1861 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

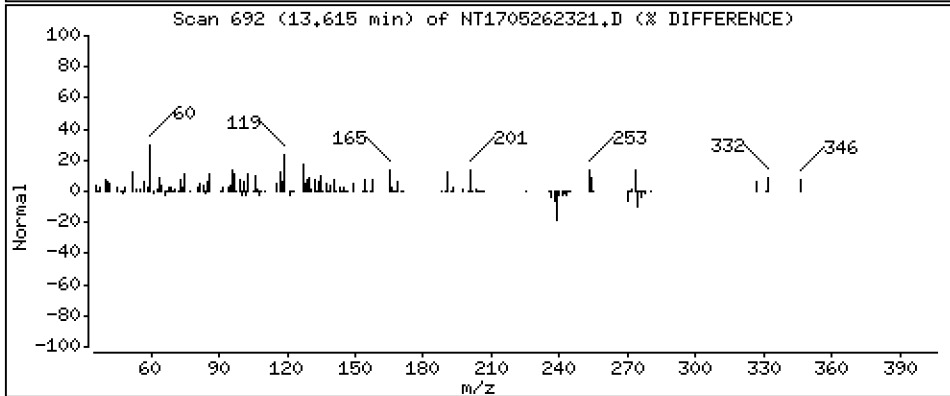
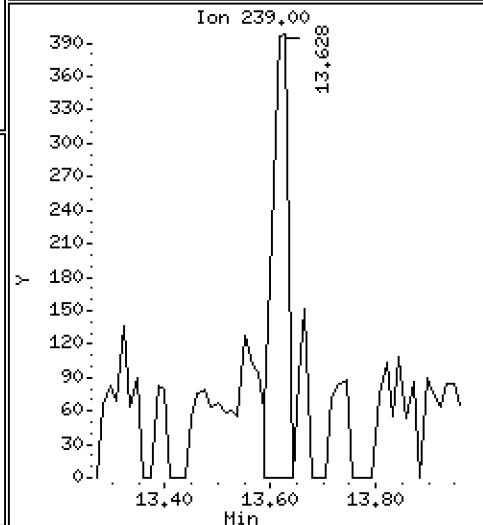
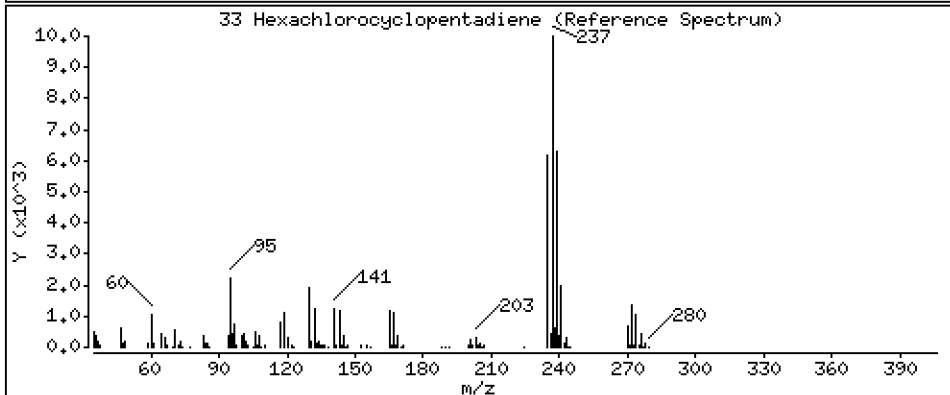
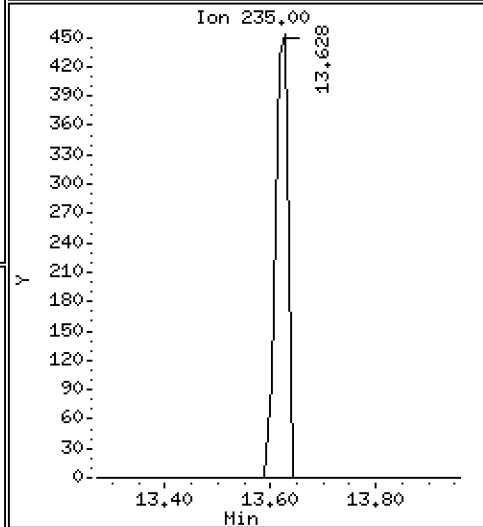
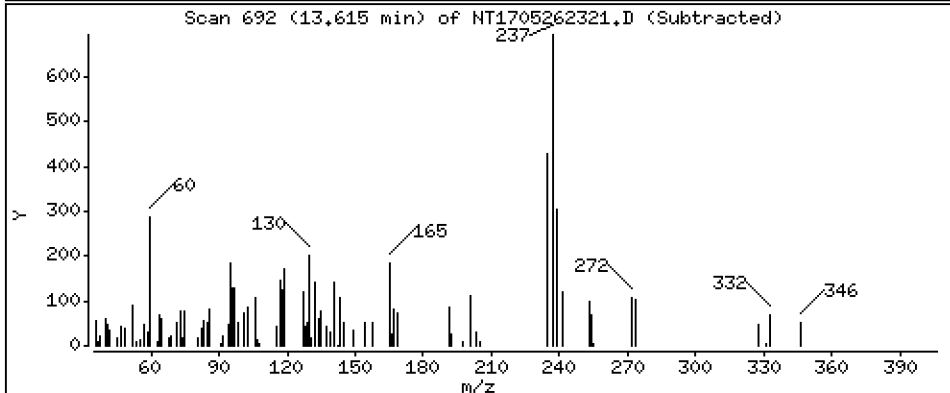
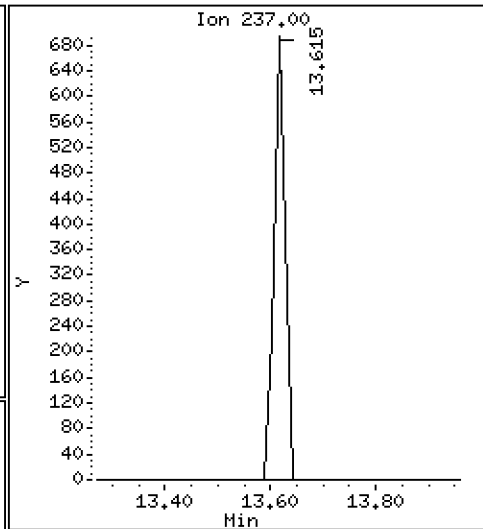
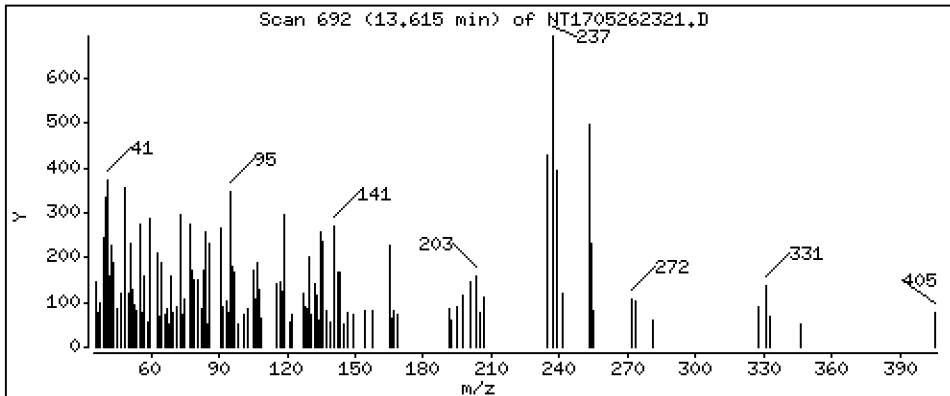
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,01976 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

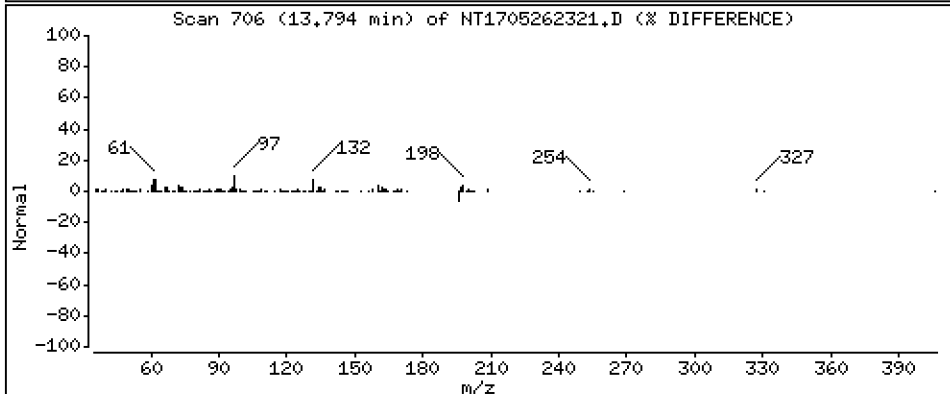
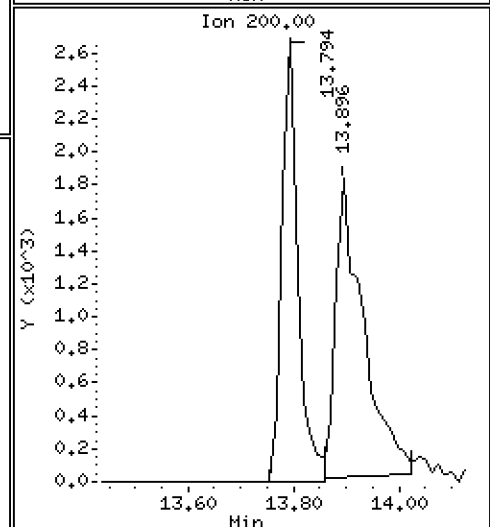
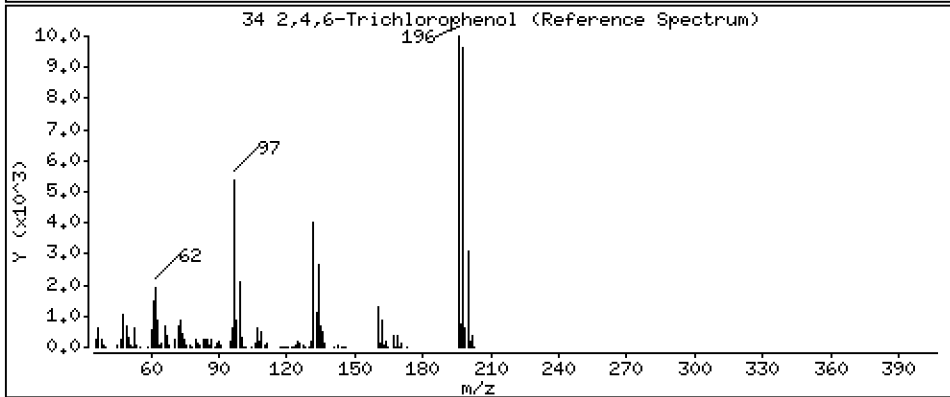
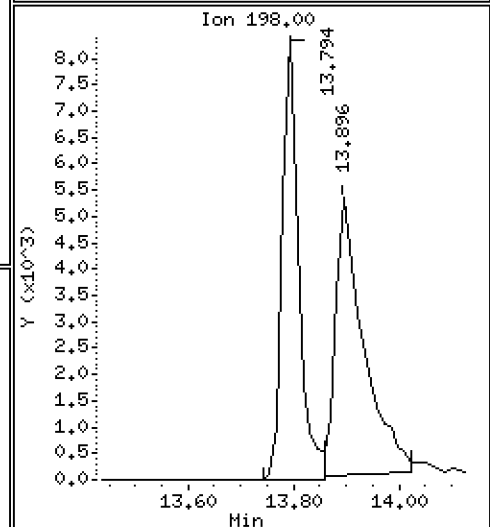
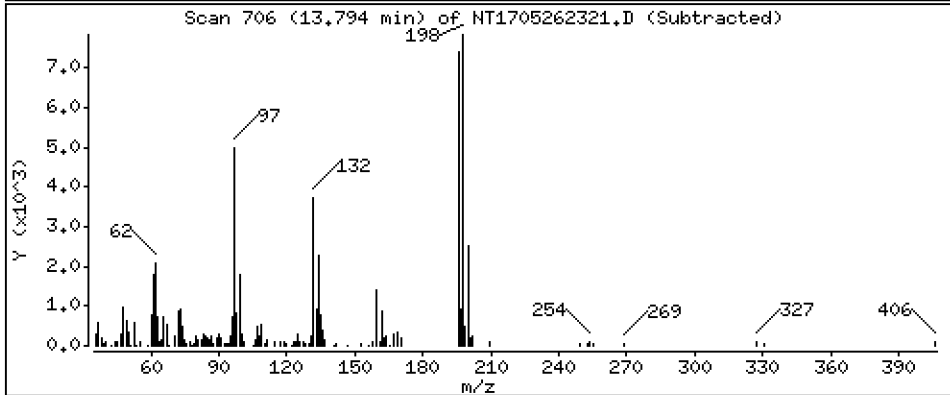
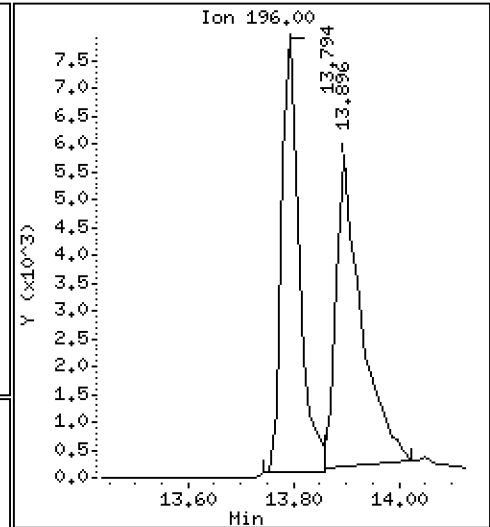
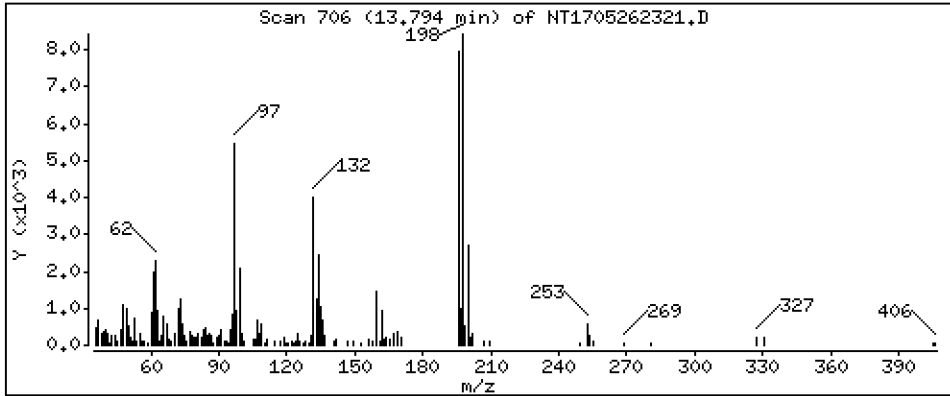
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.3164 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

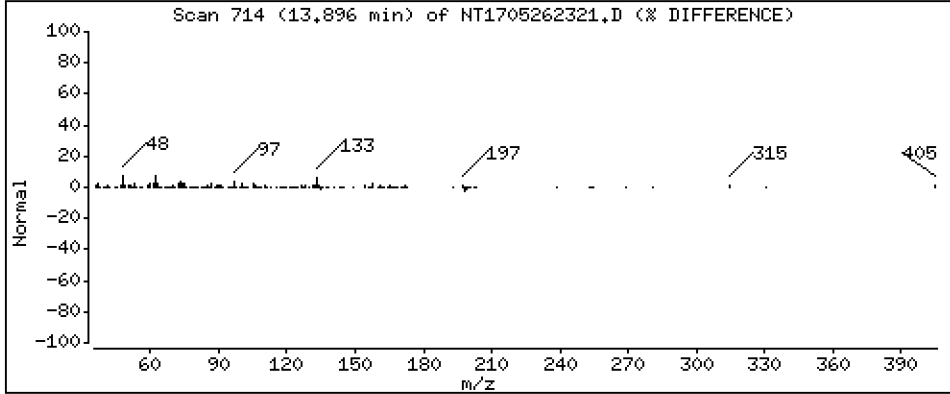
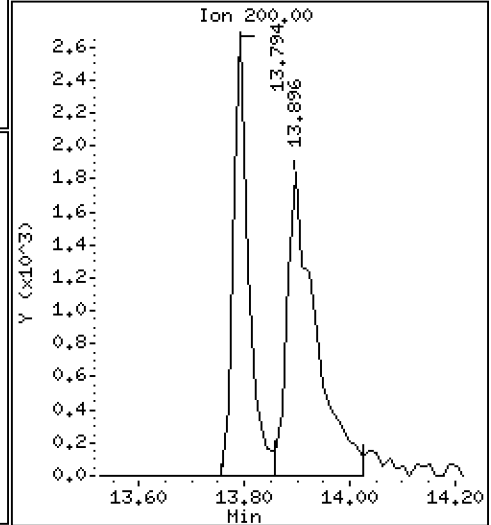
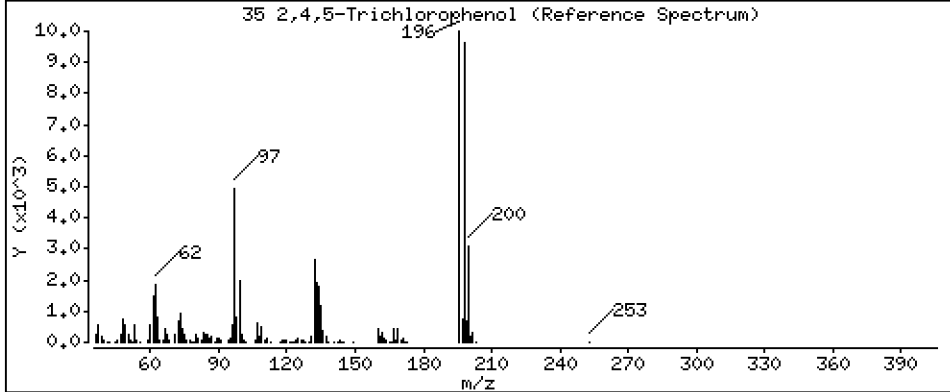
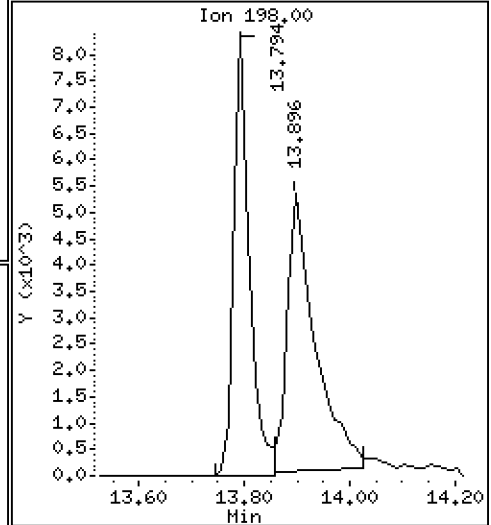
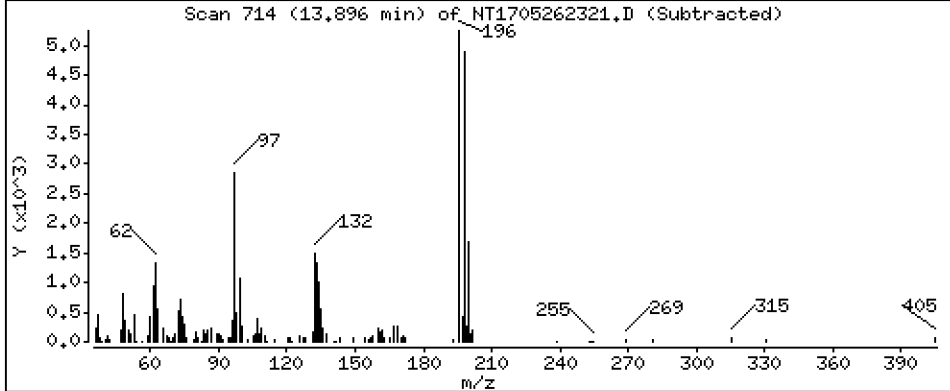
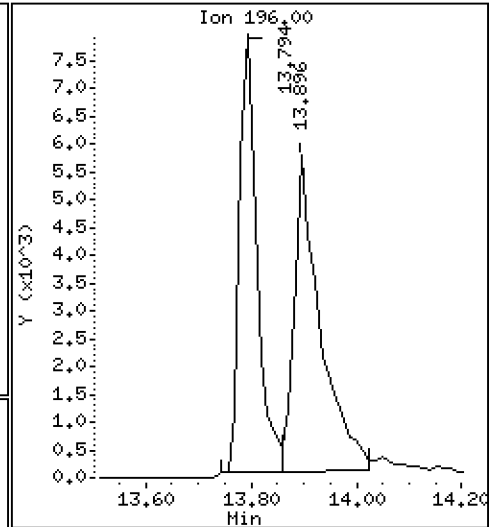
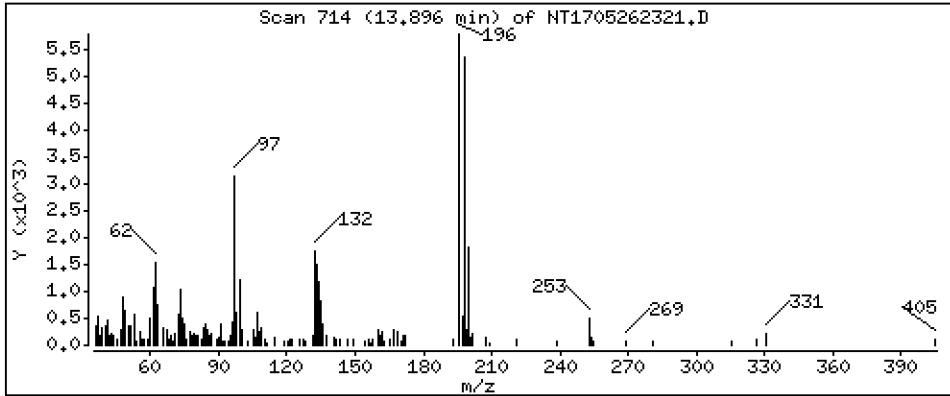
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,3318 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

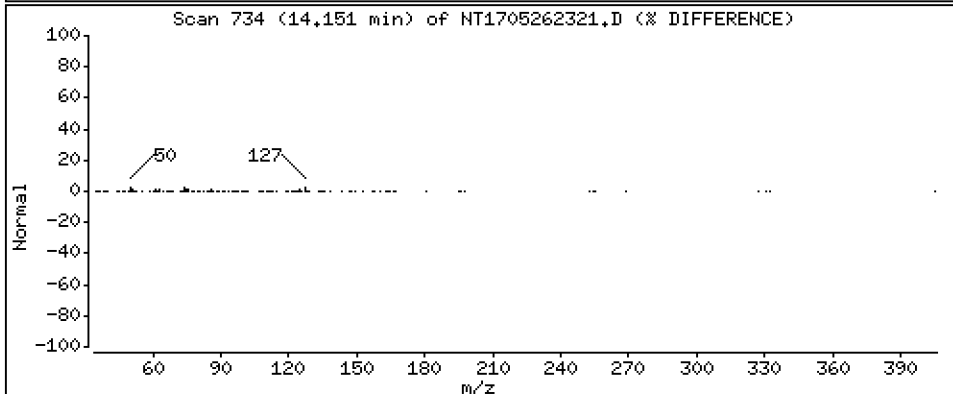
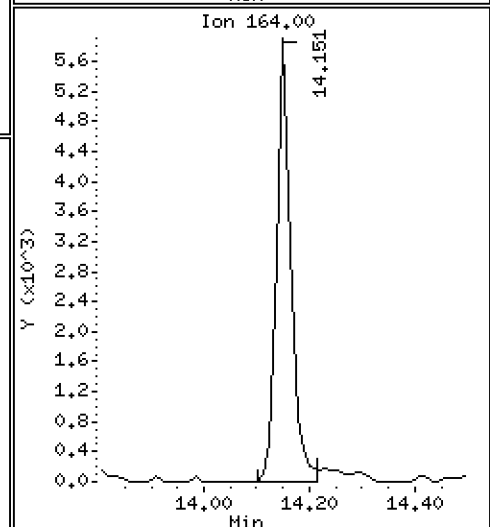
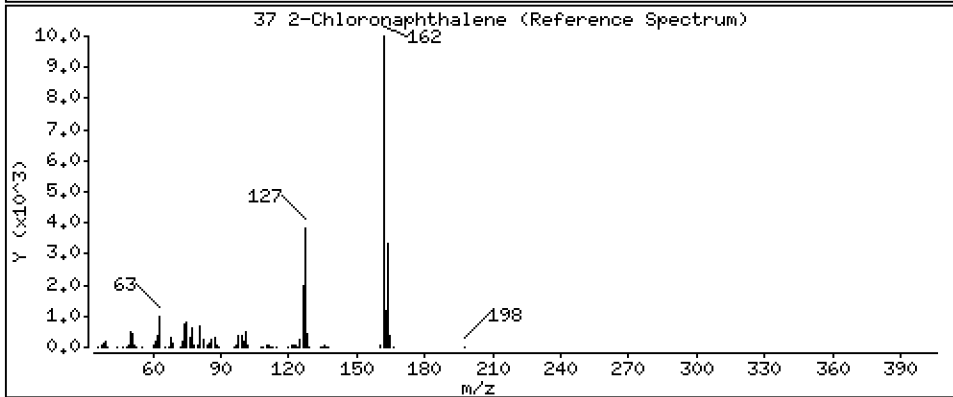
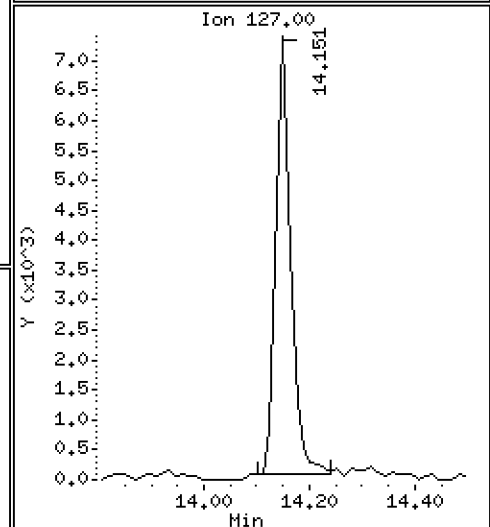
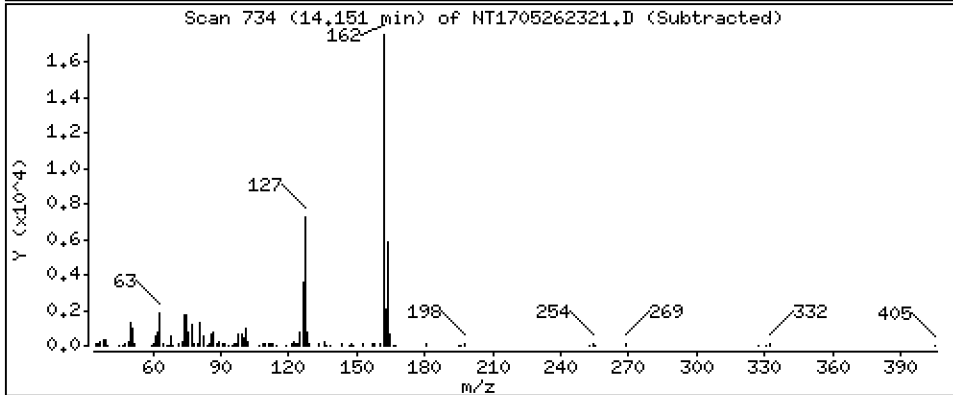
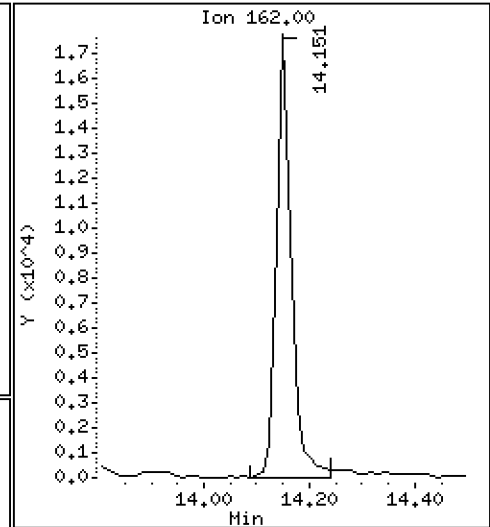
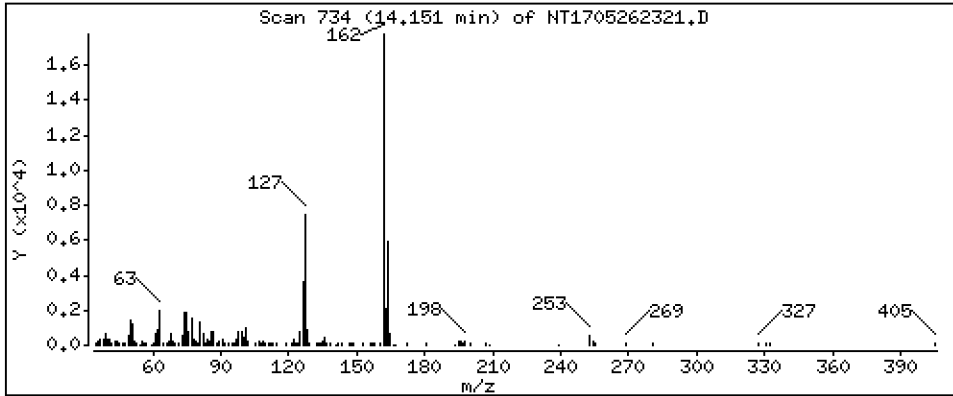
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,1956 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

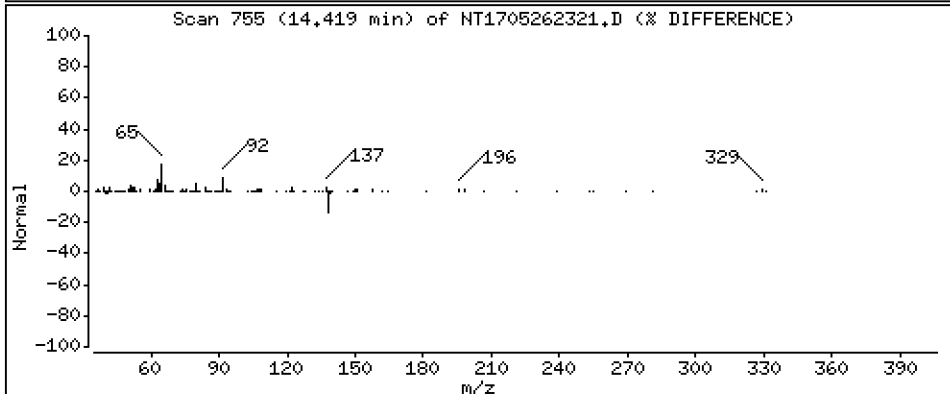
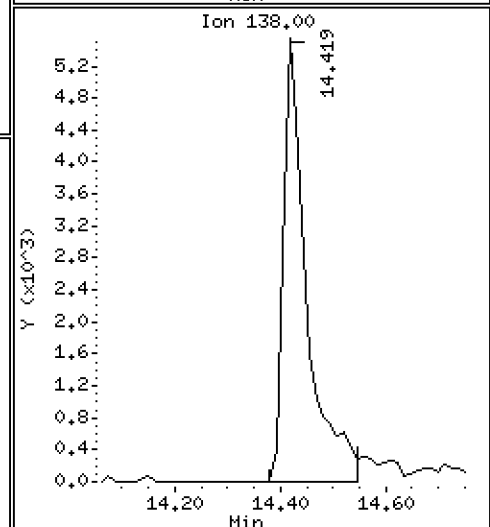
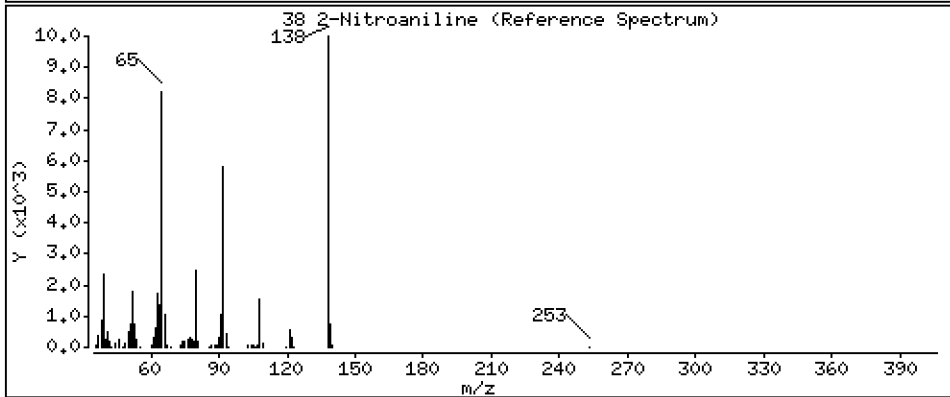
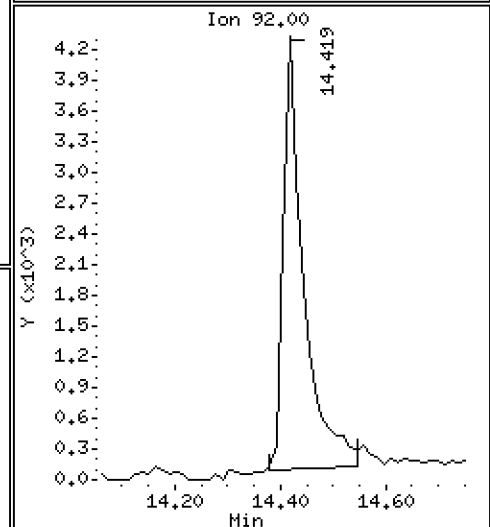
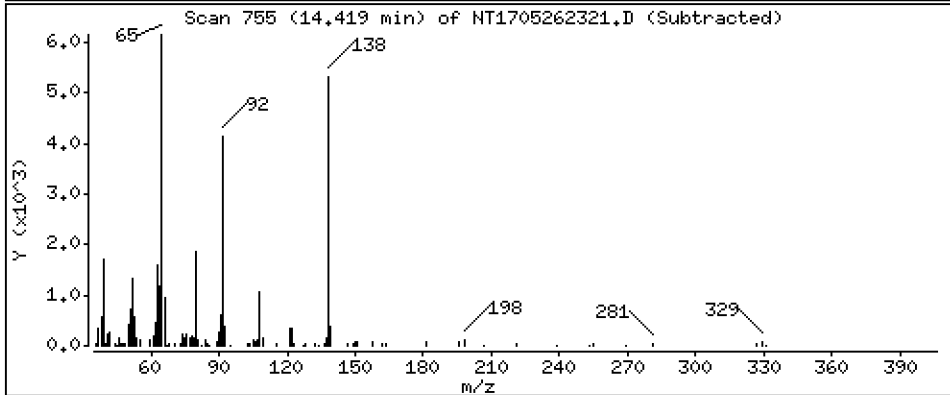
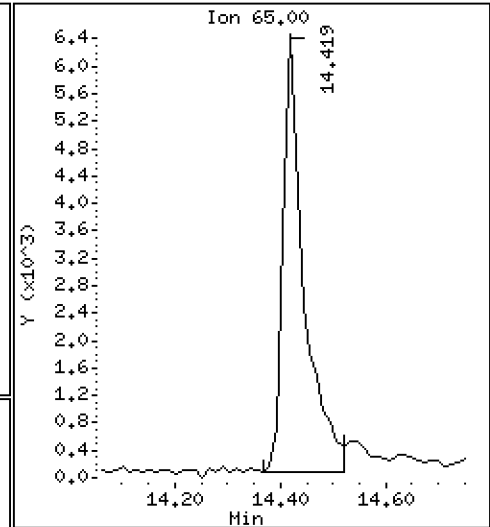
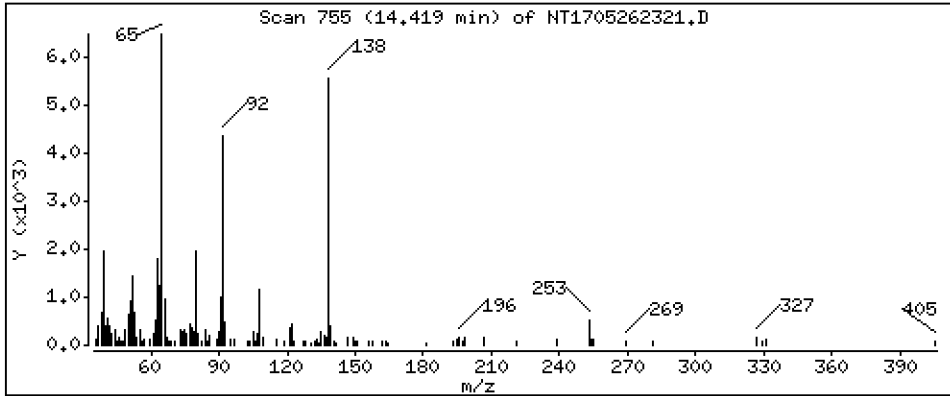
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,3033 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

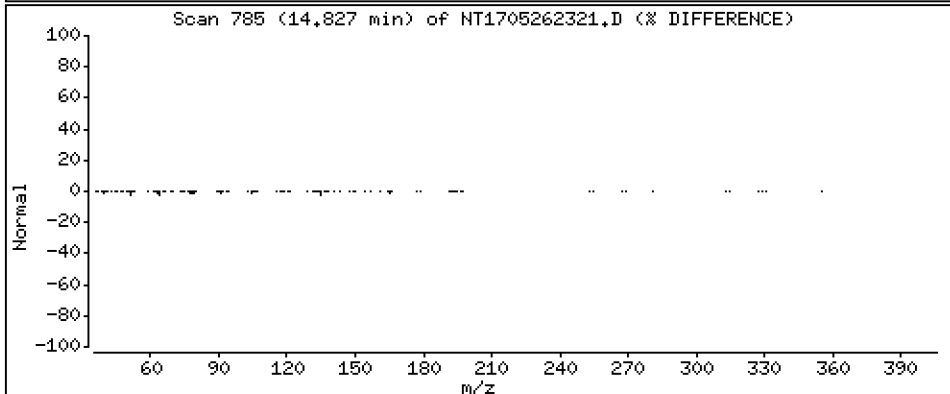
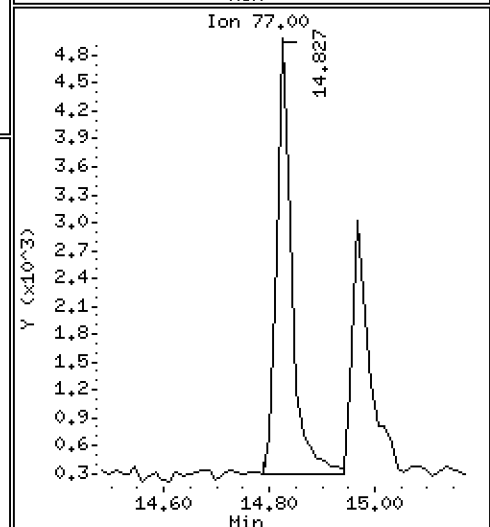
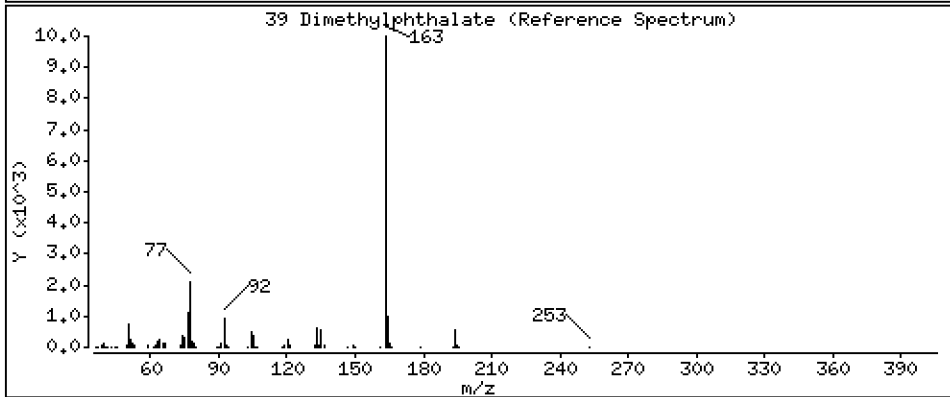
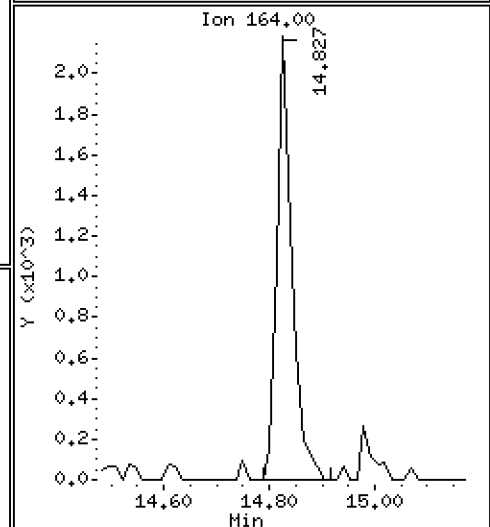
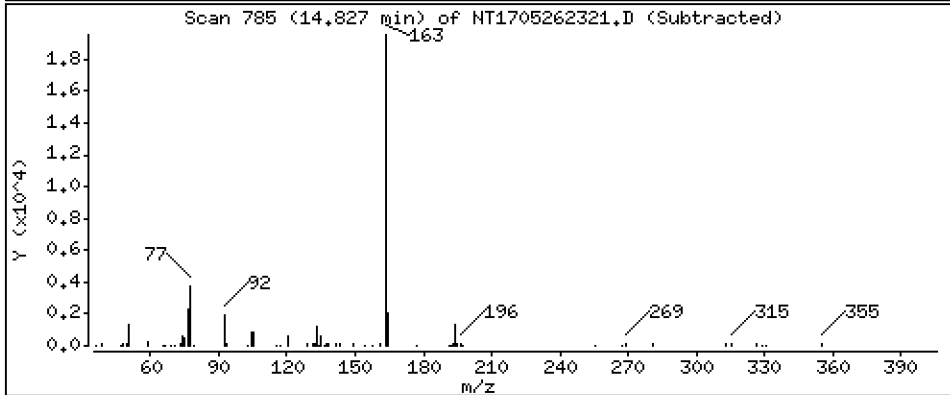
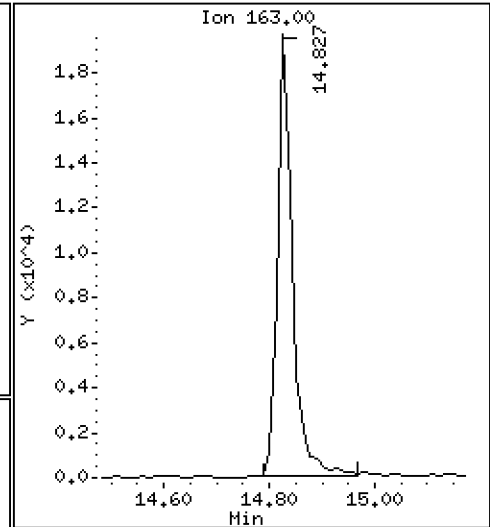
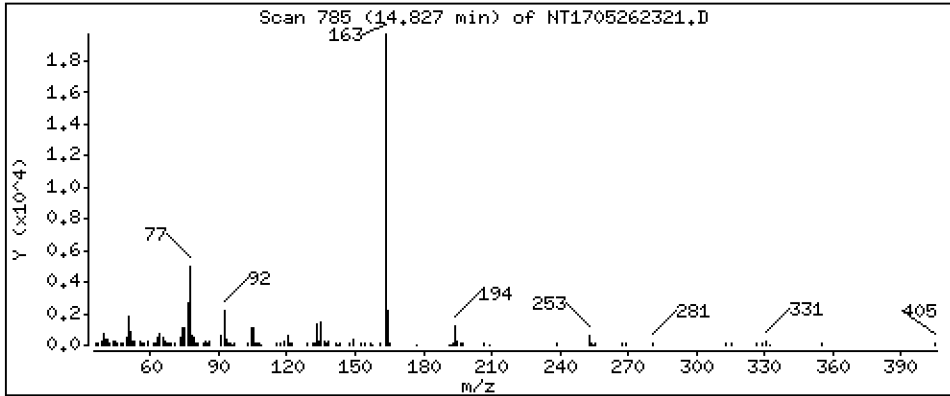
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,2071 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

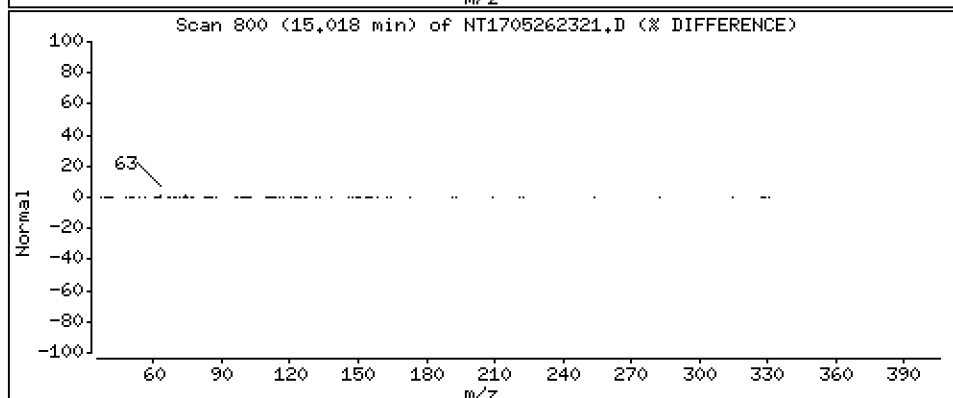
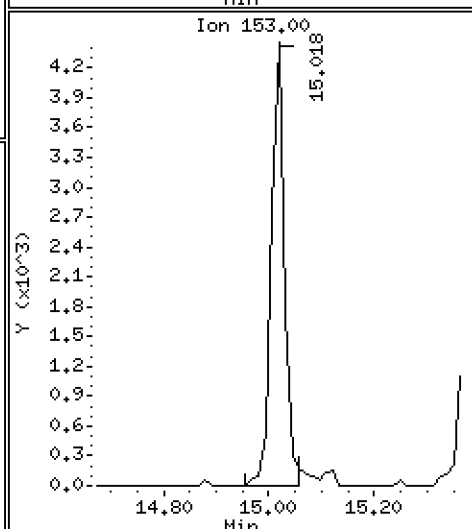
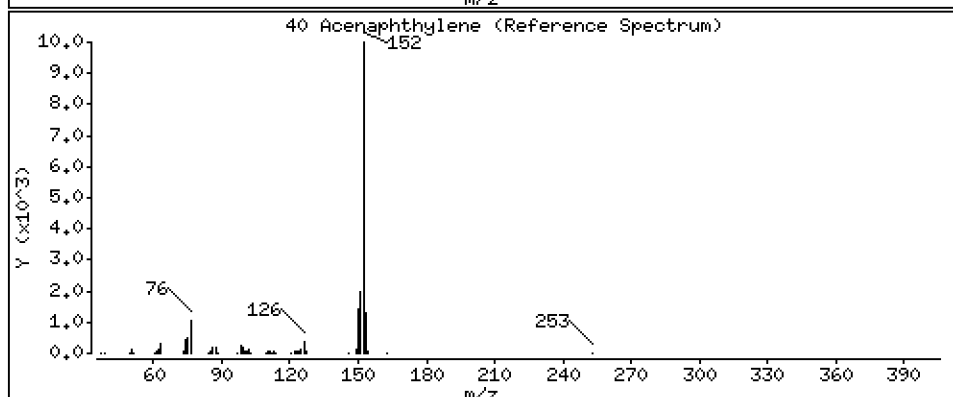
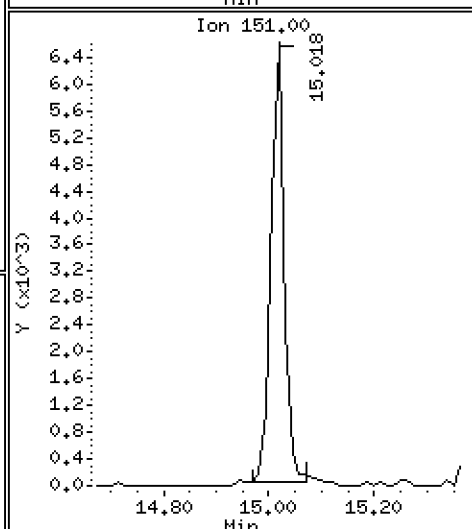
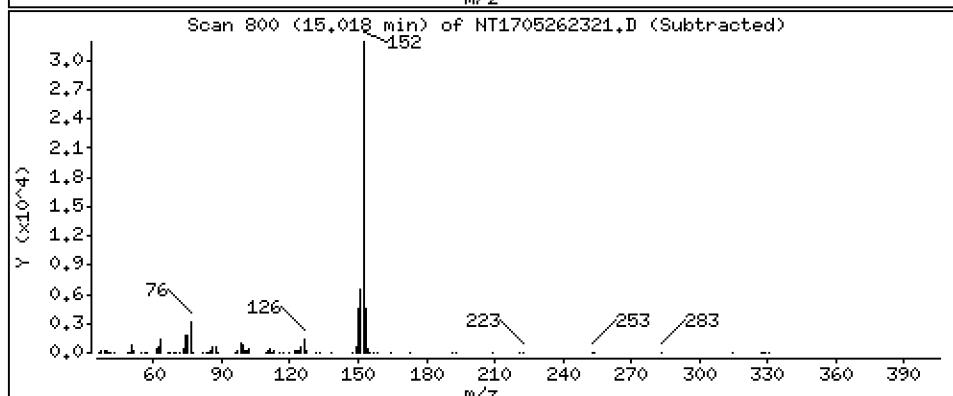
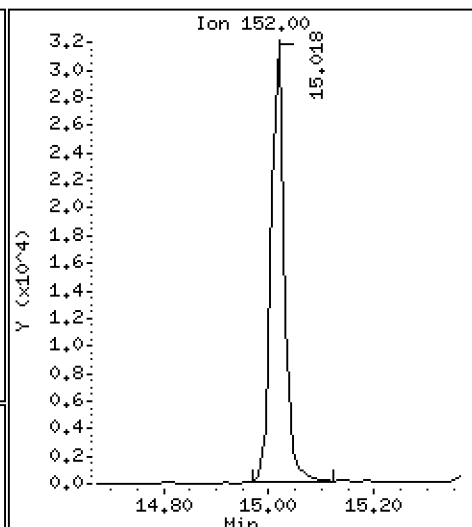
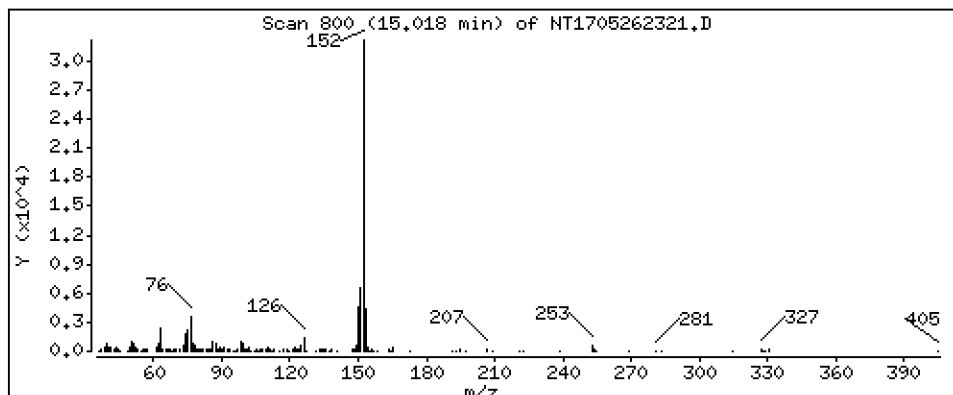
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,2048 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

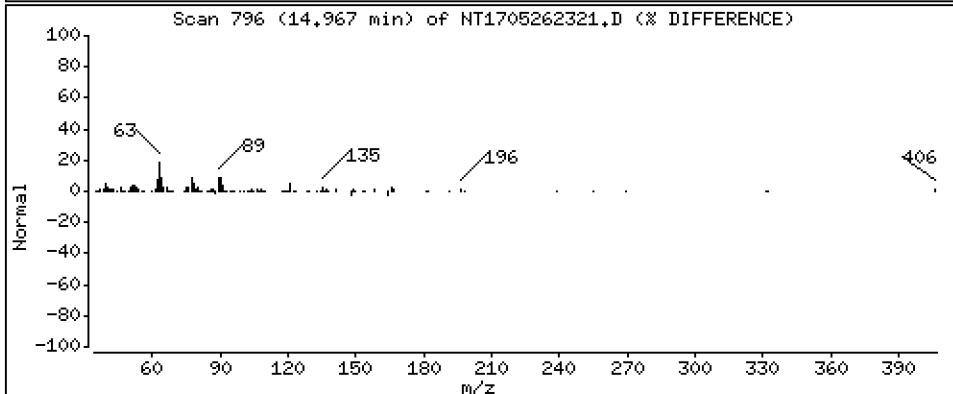
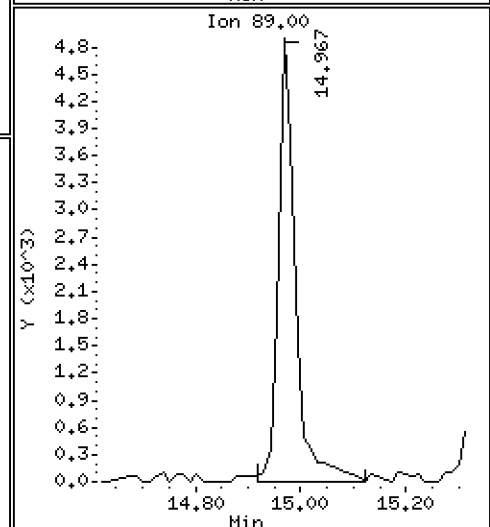
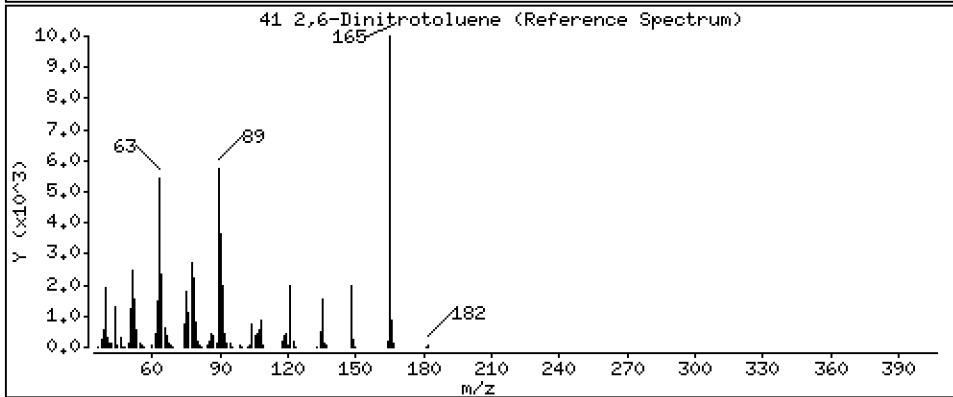
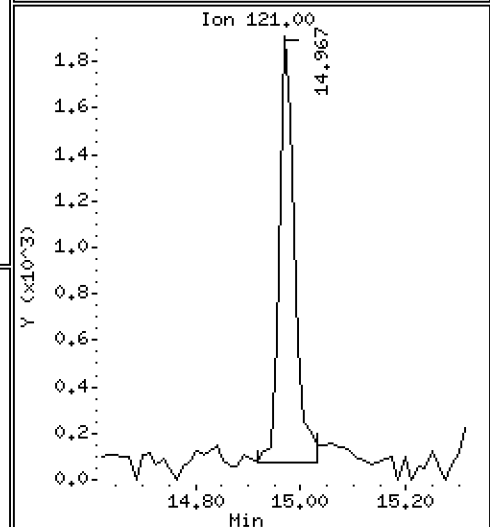
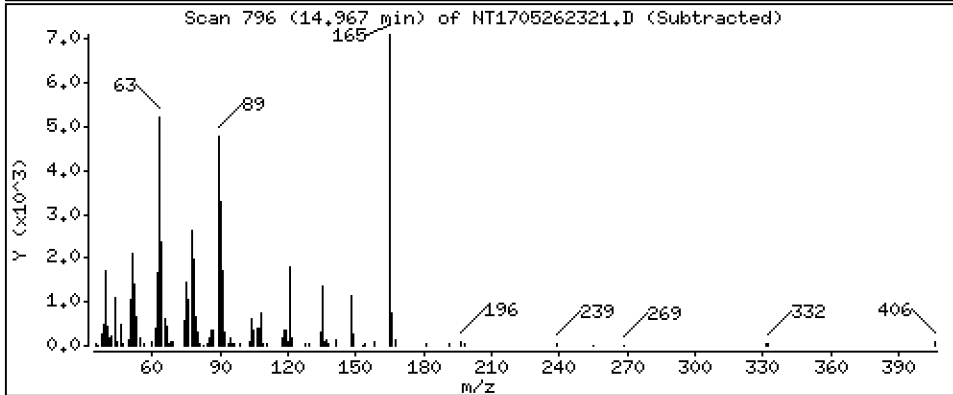
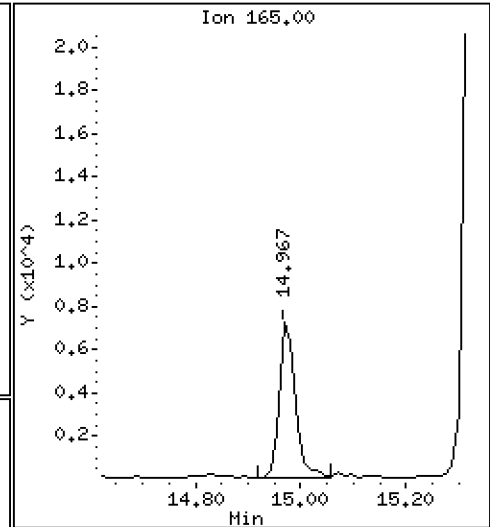
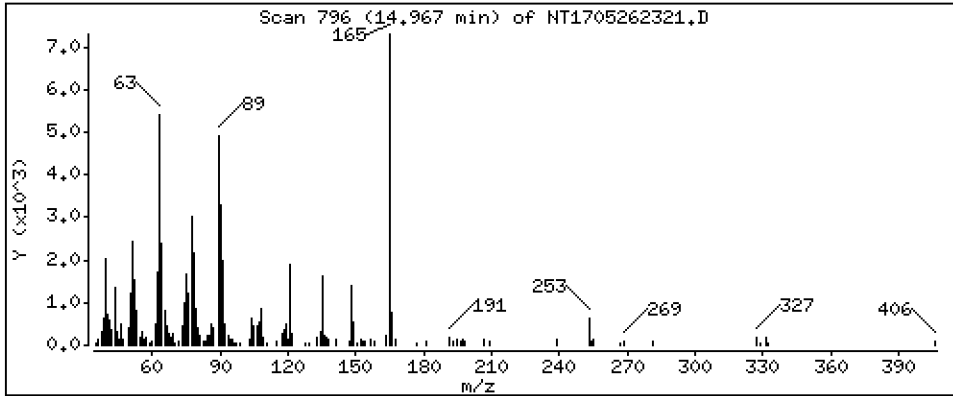
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,3456 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

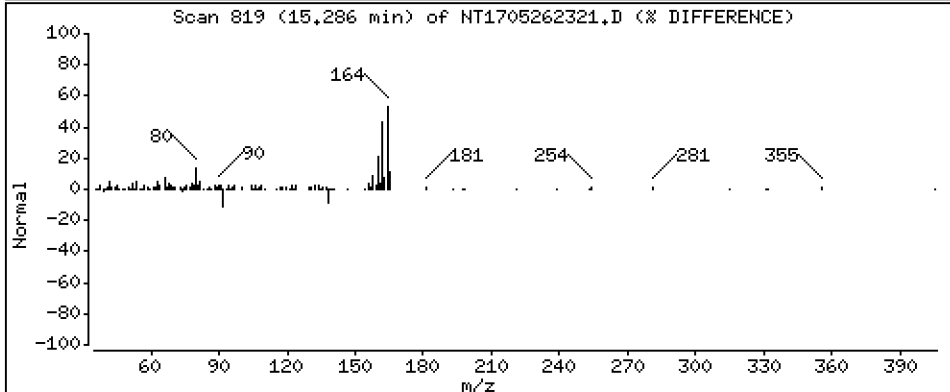
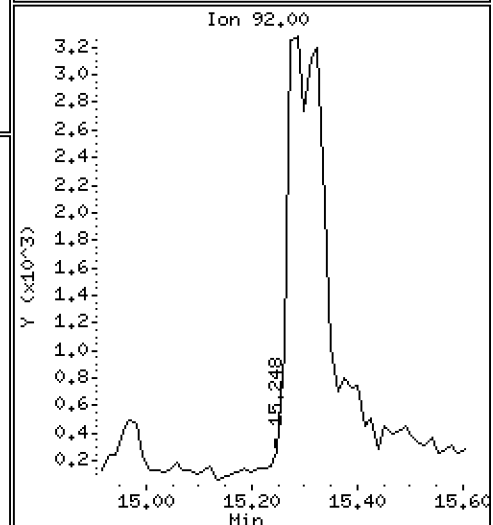
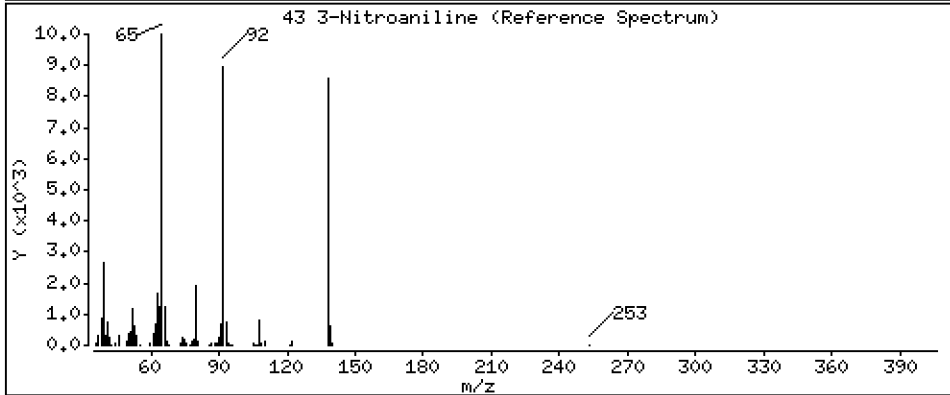
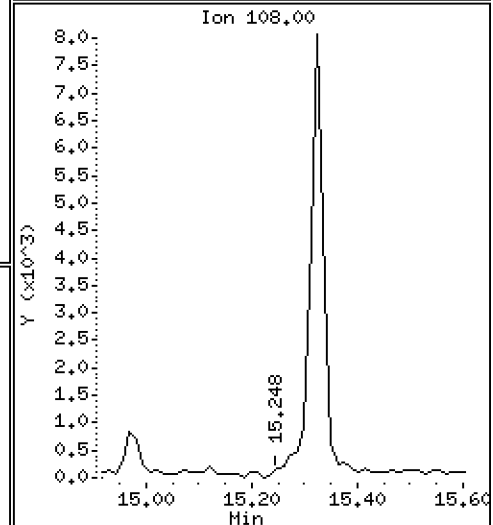
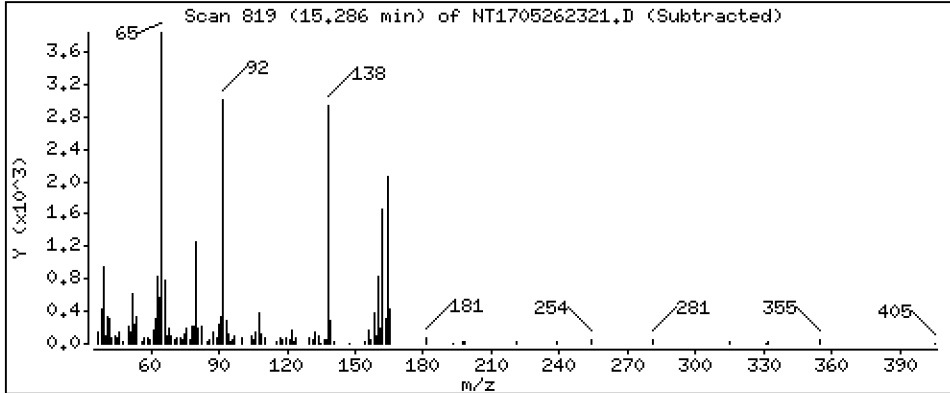
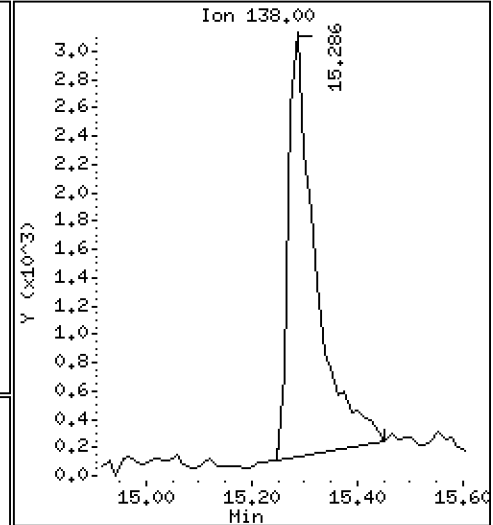
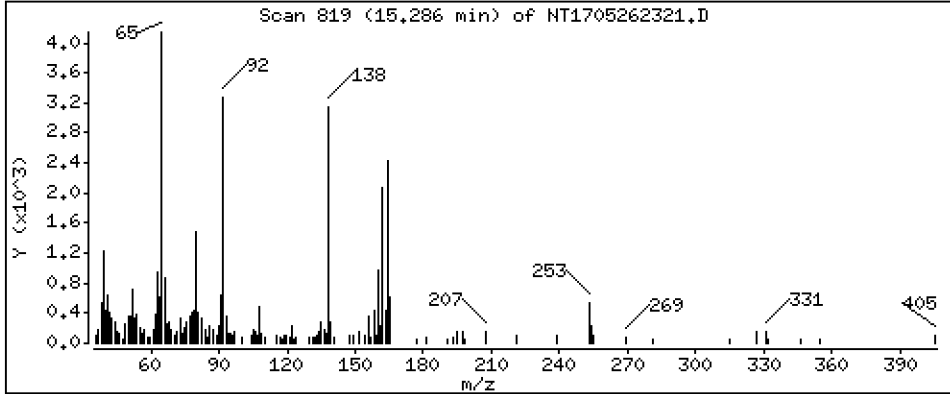
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,2660 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

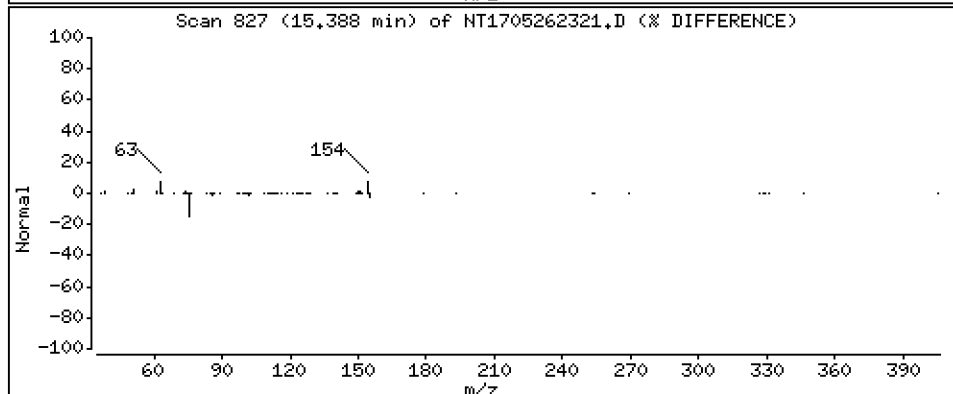
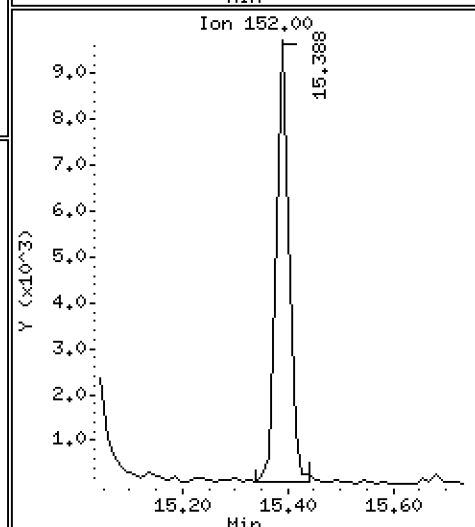
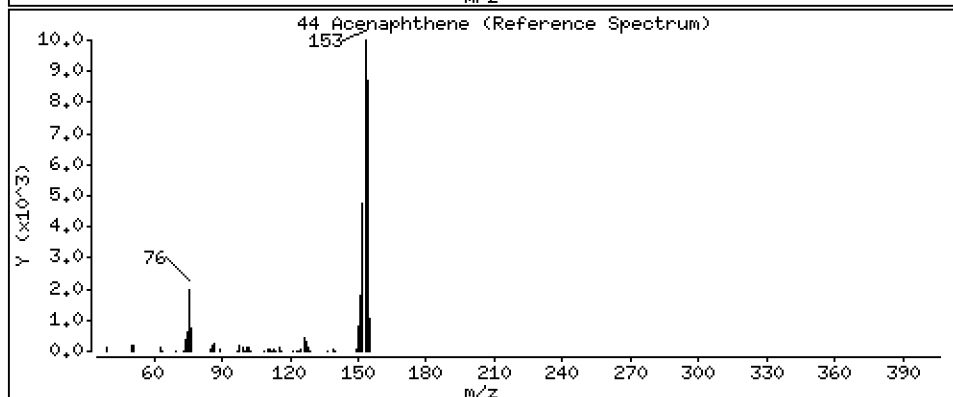
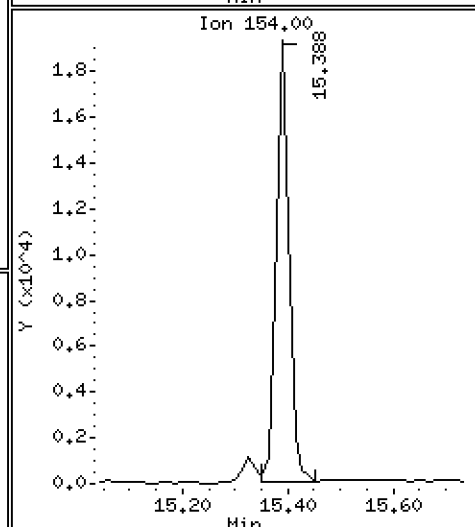
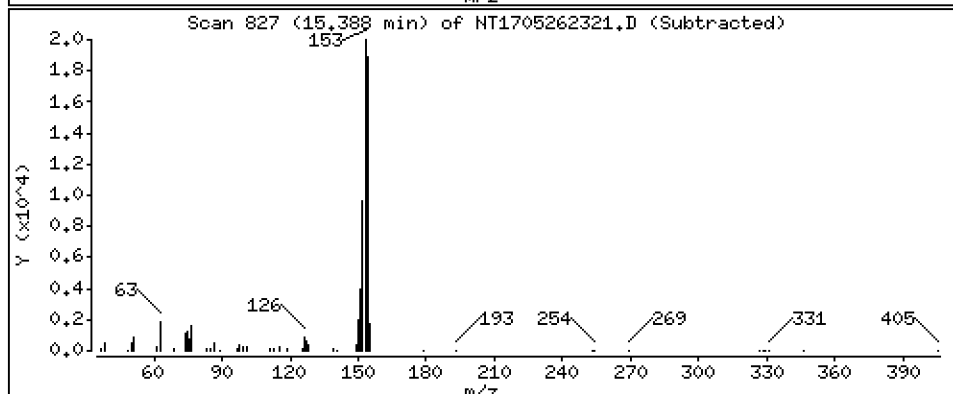
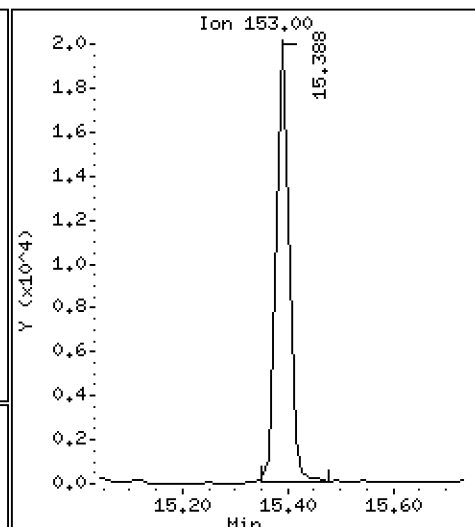
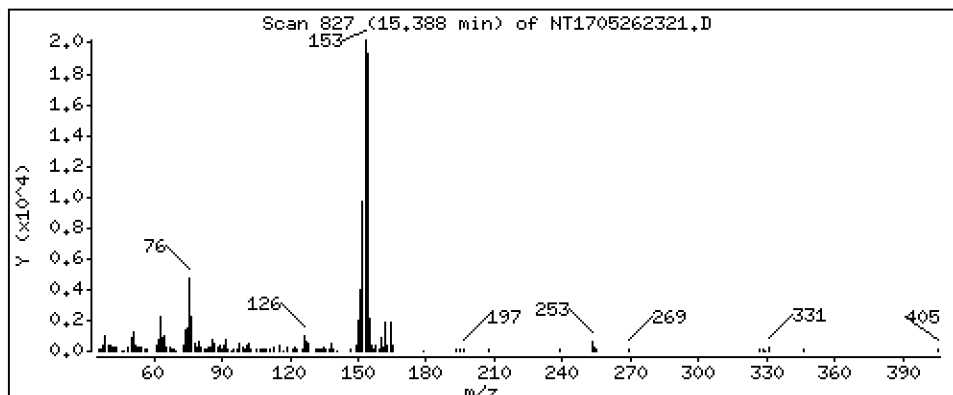
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1994 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

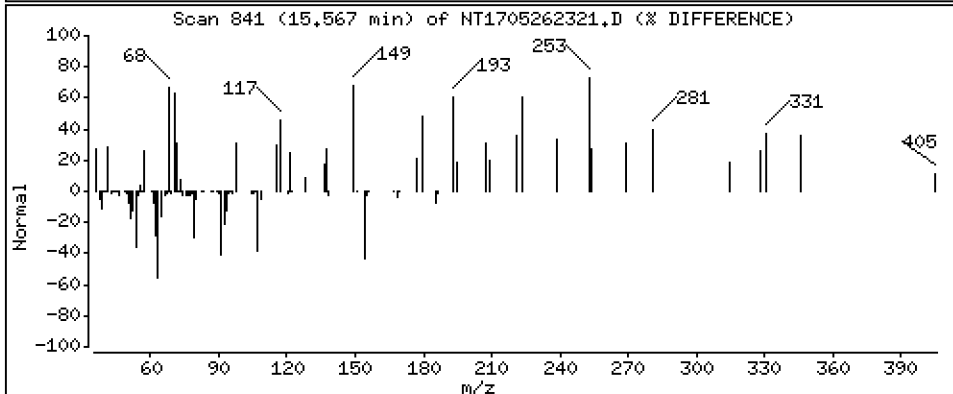
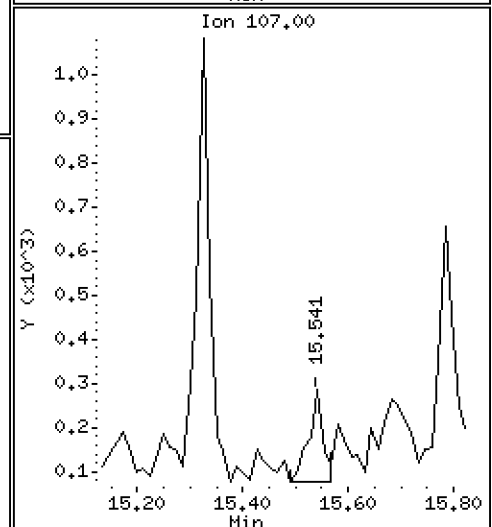
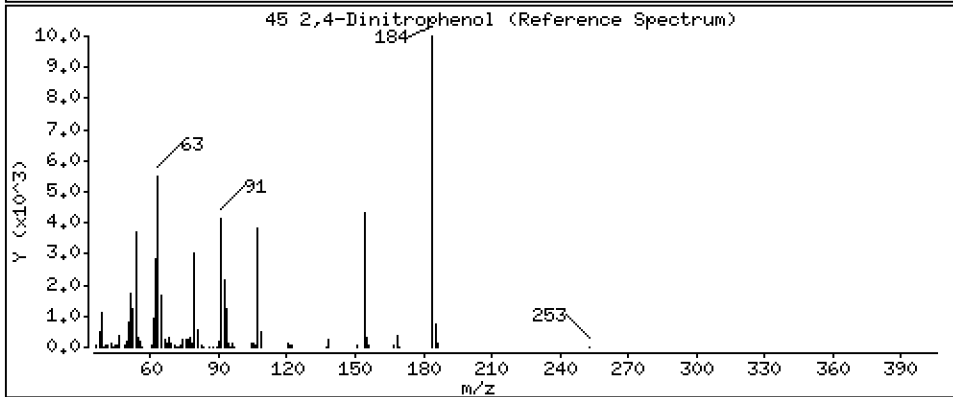
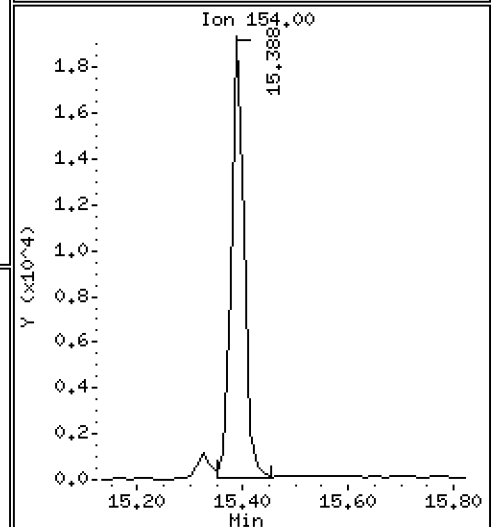
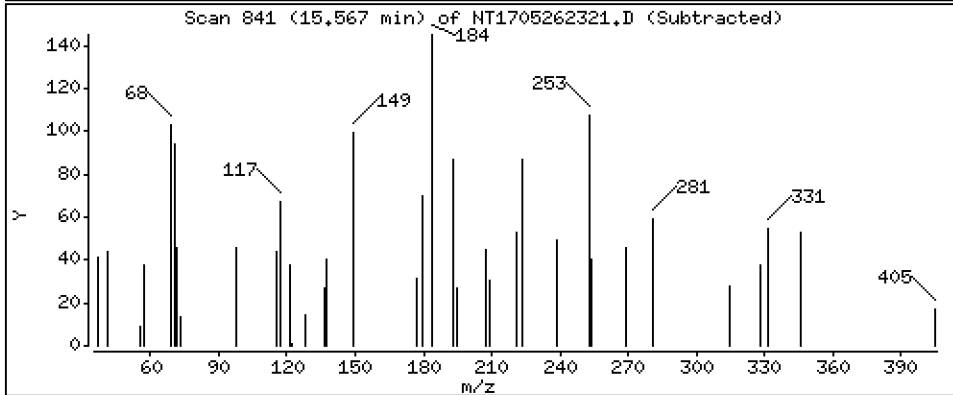
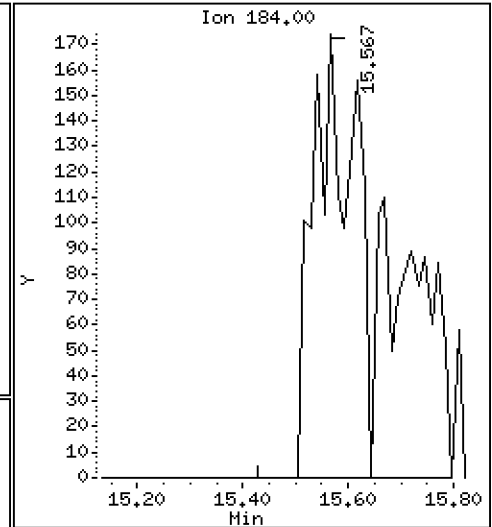
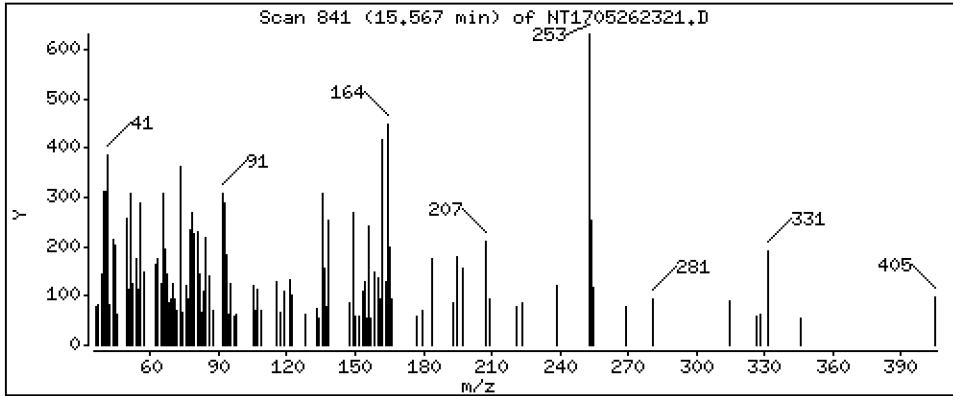
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,06089 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

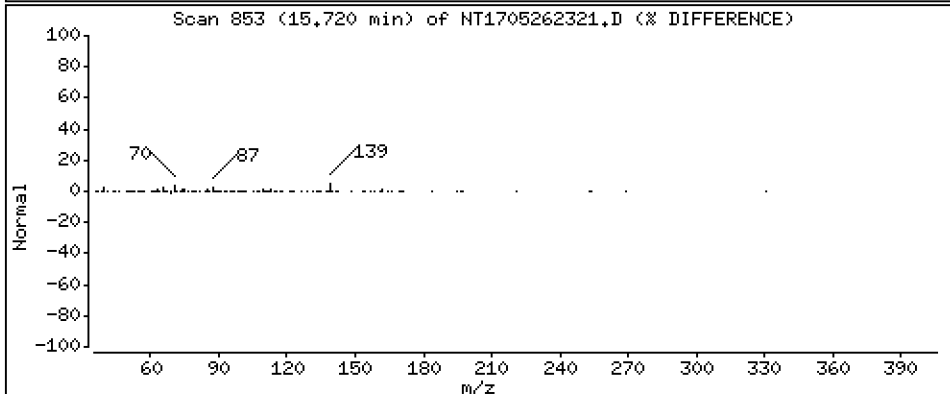
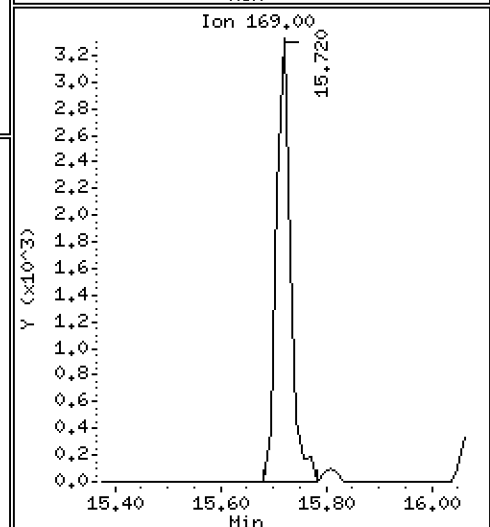
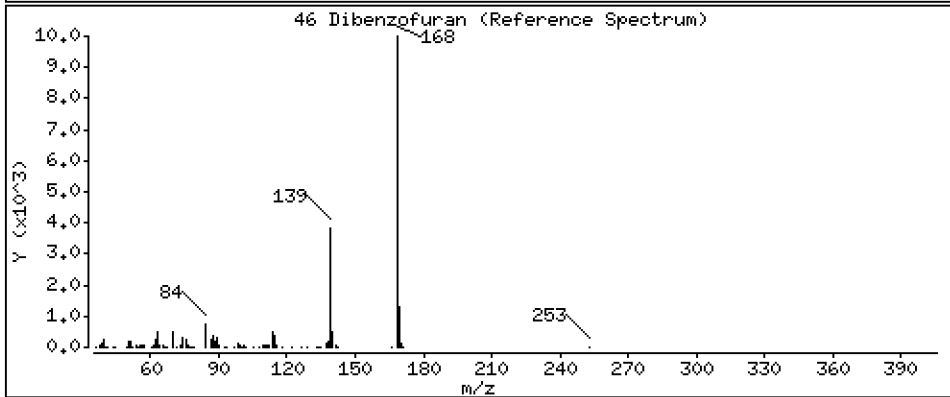
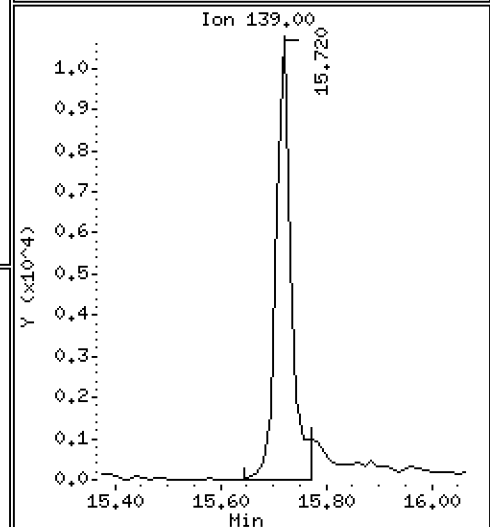
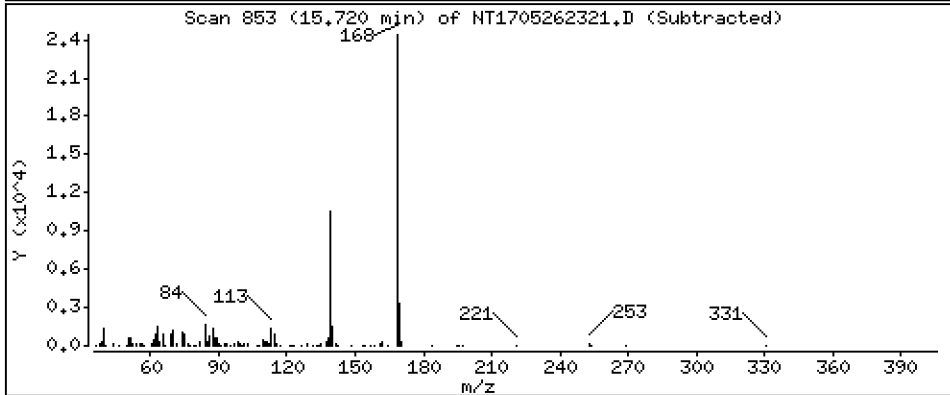
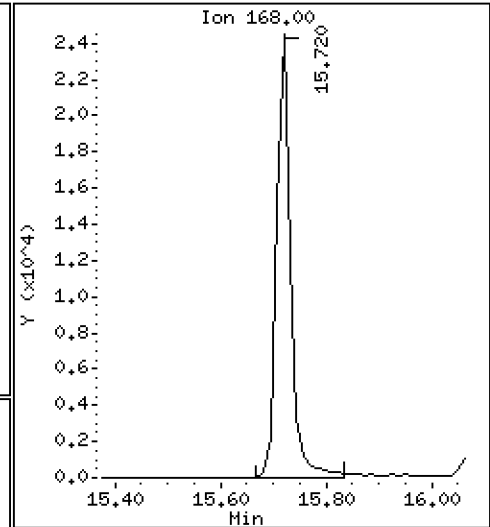
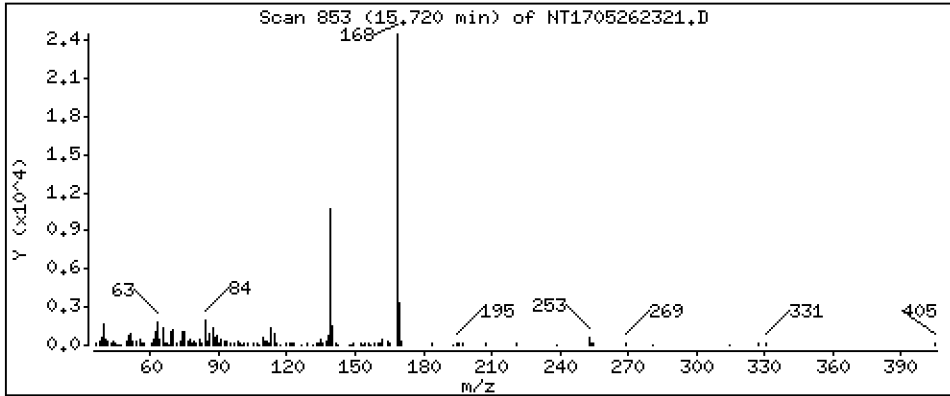
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1948 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

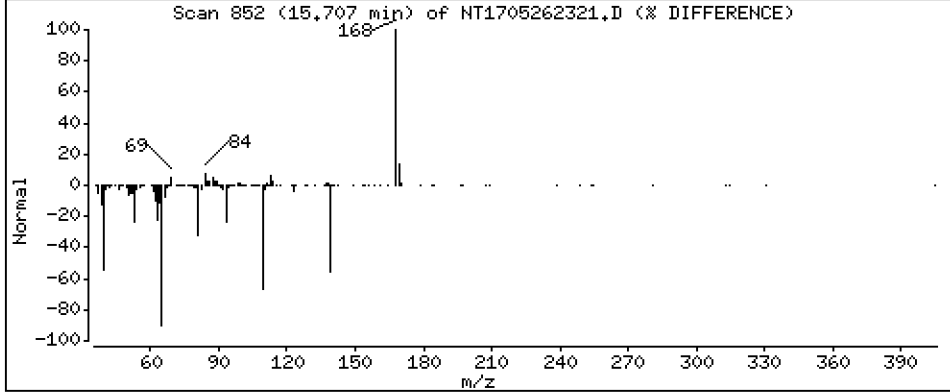
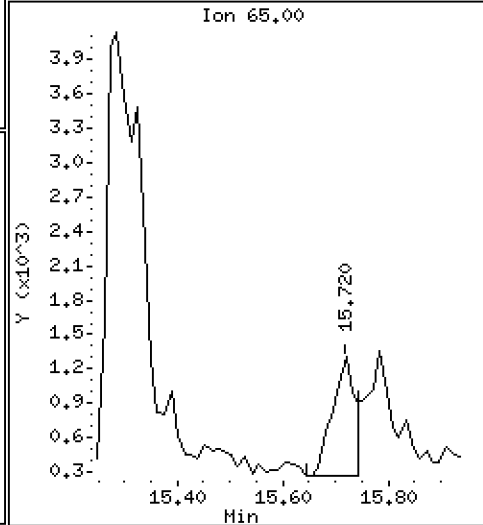
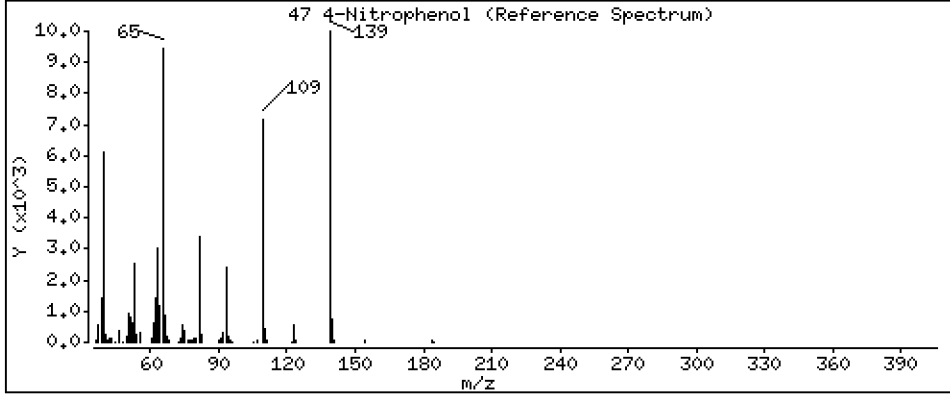
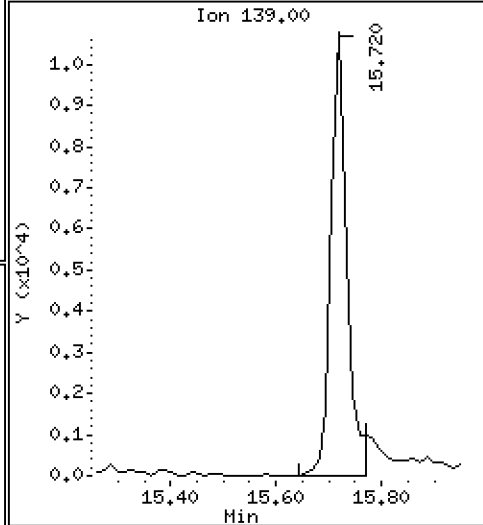
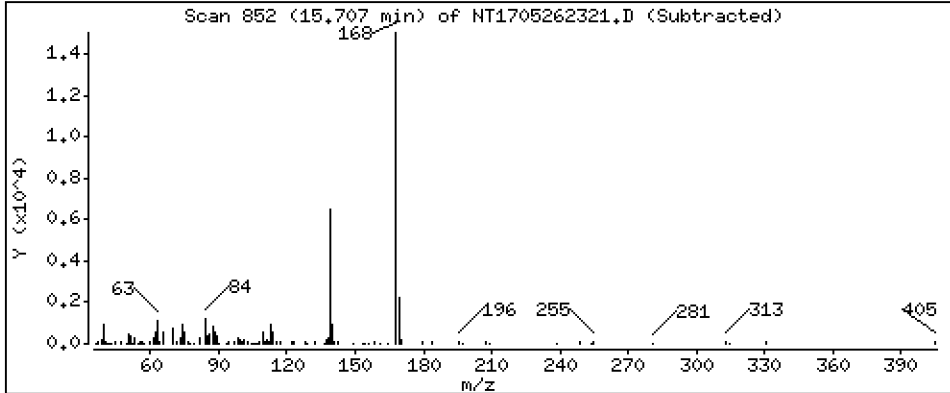
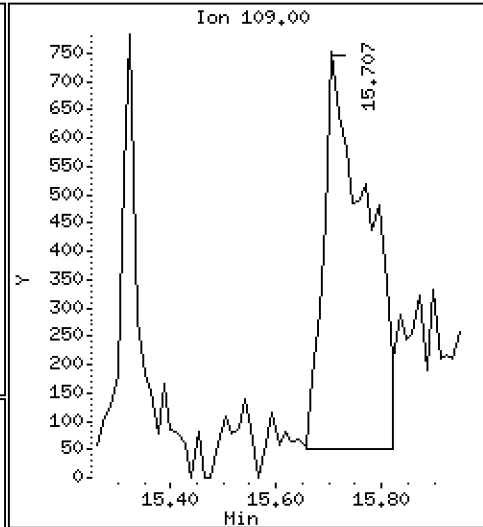
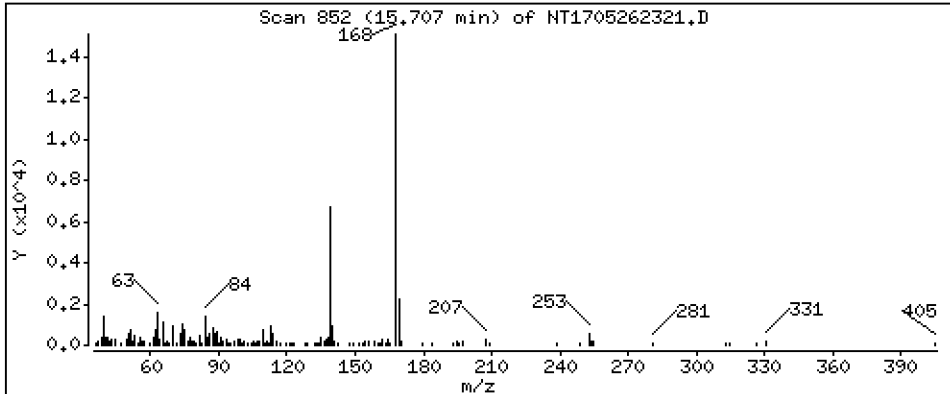
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,1478 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

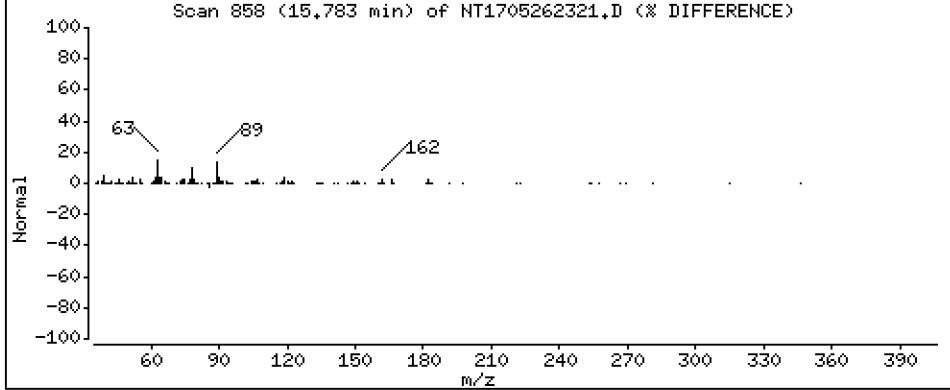
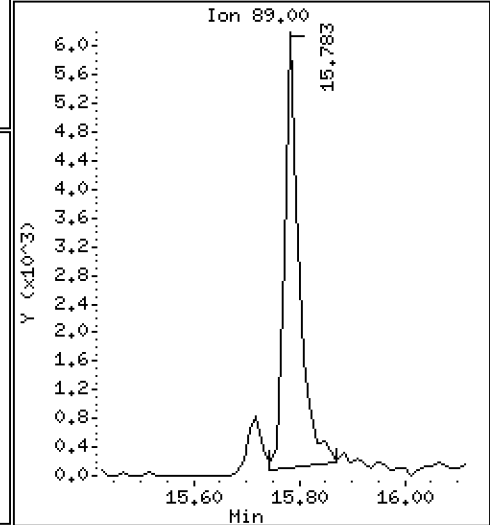
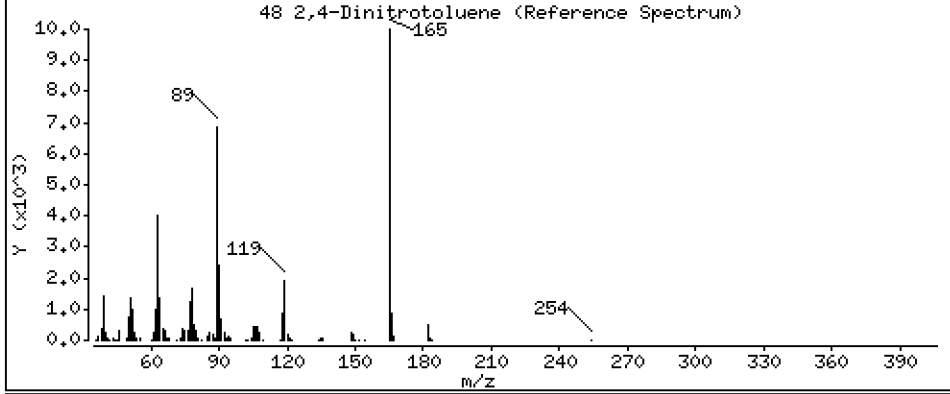
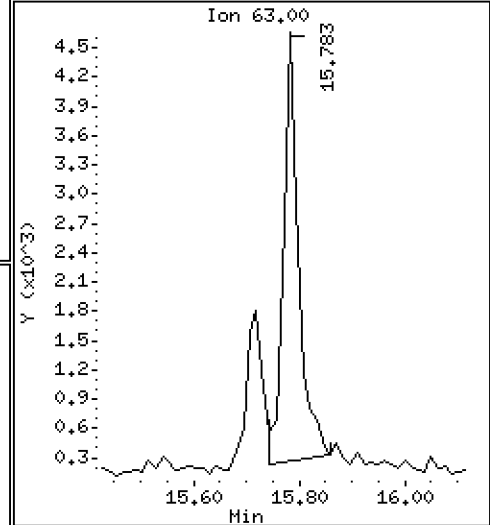
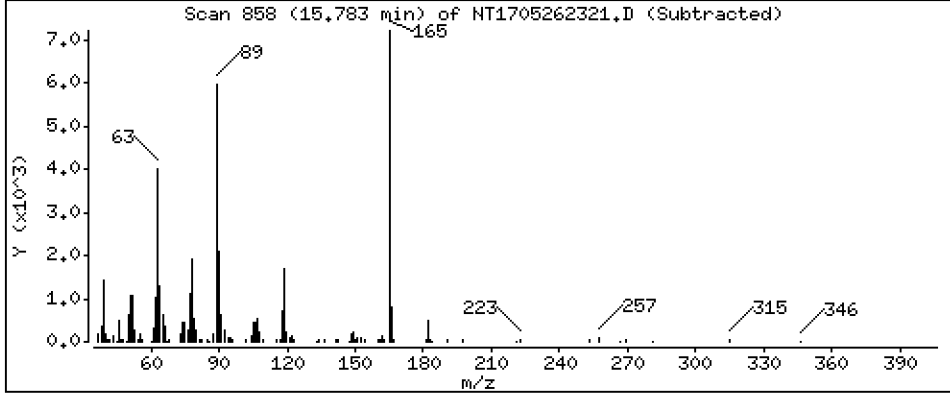
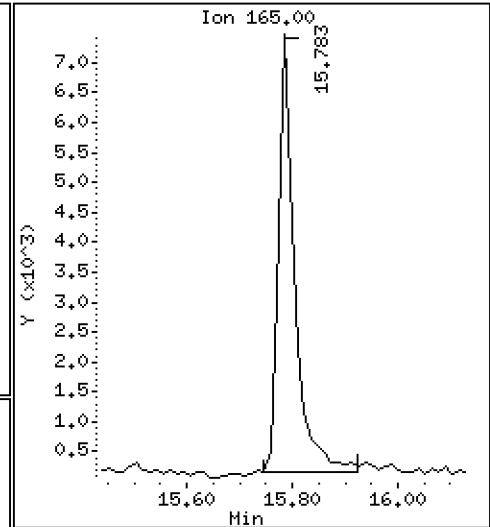
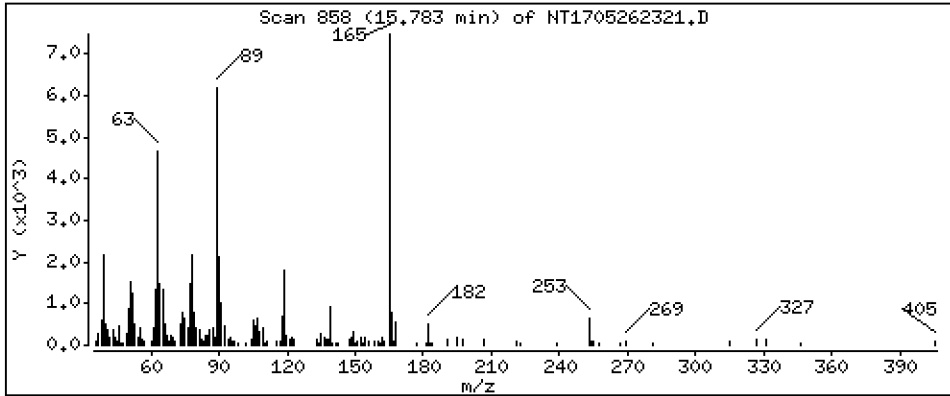
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,2750 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

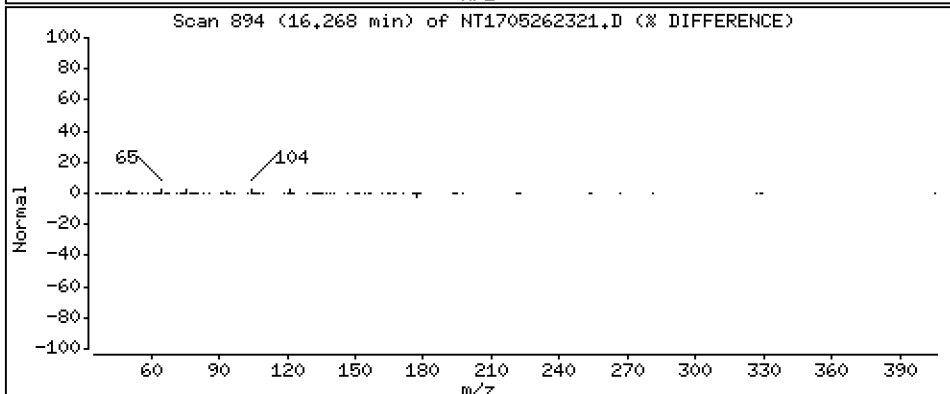
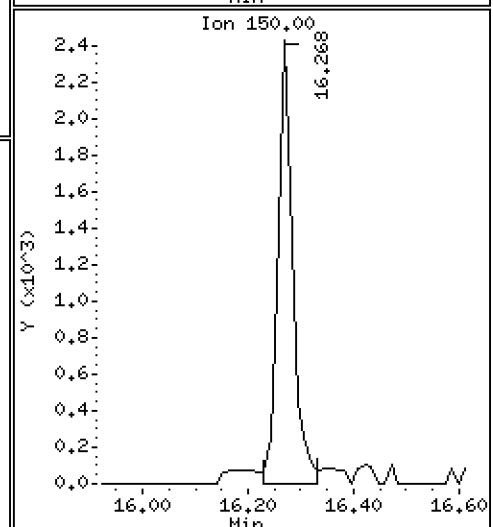
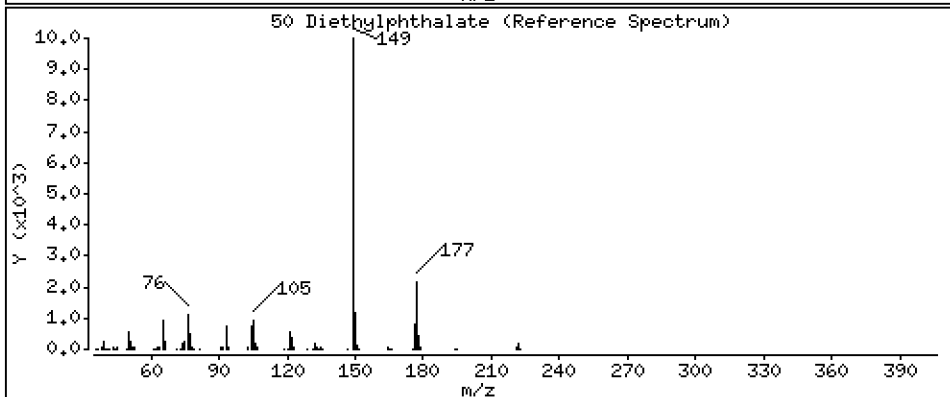
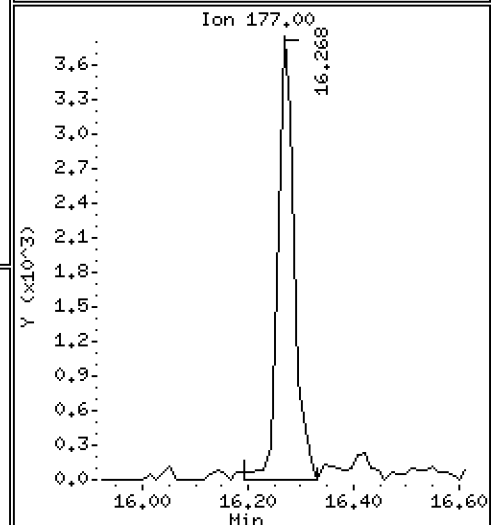
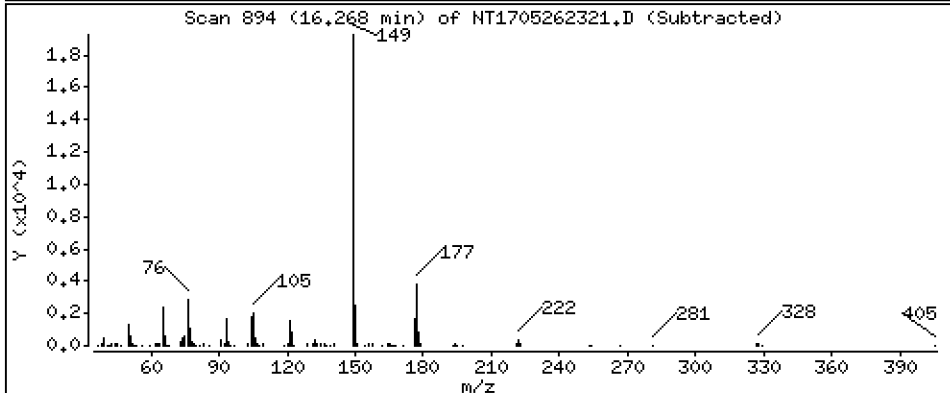
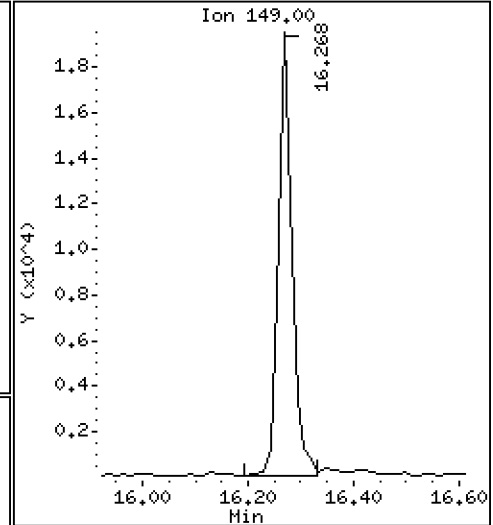
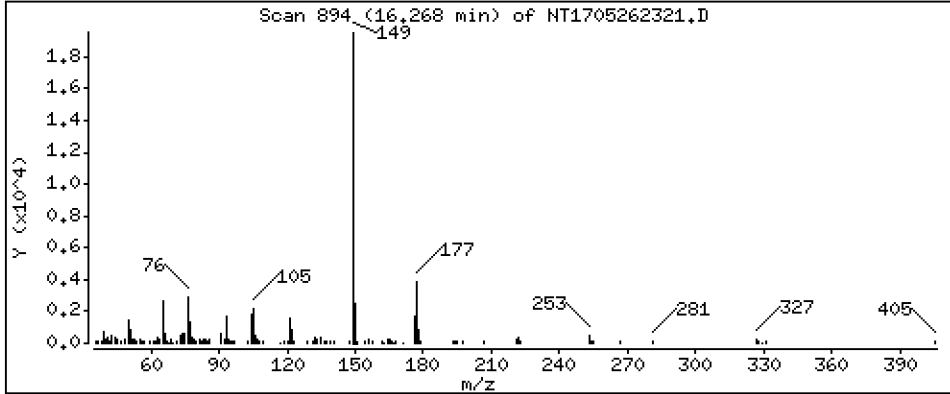
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.2357 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

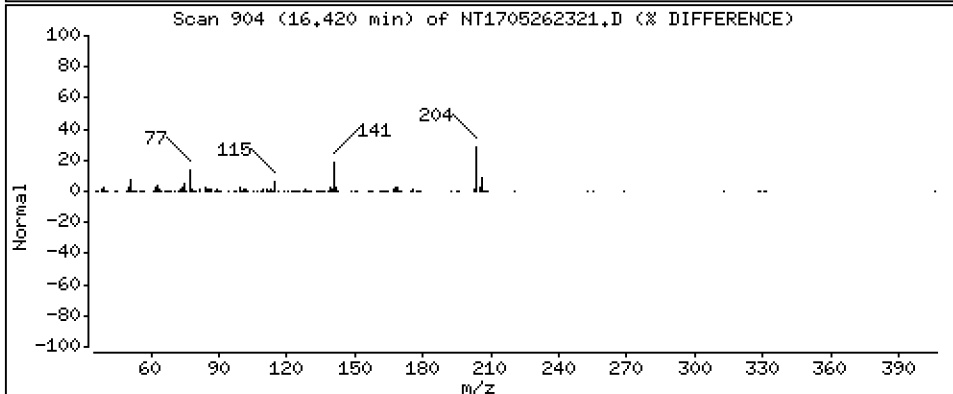
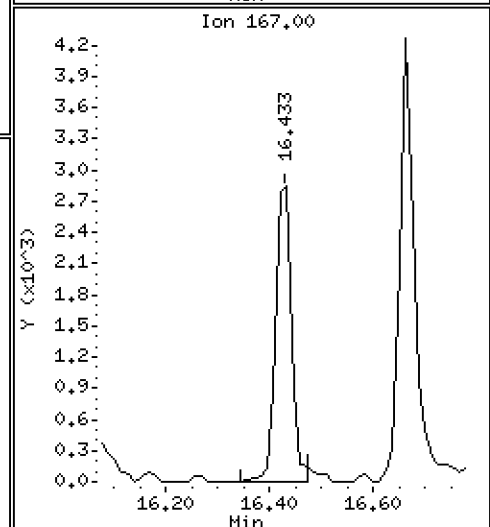
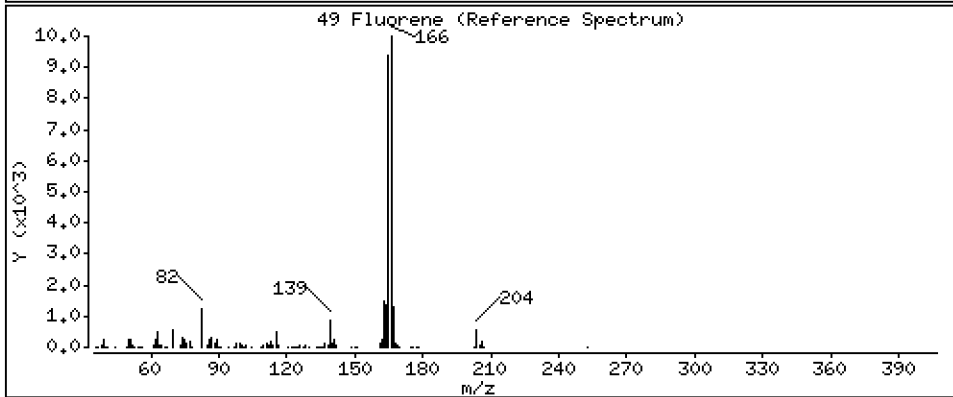
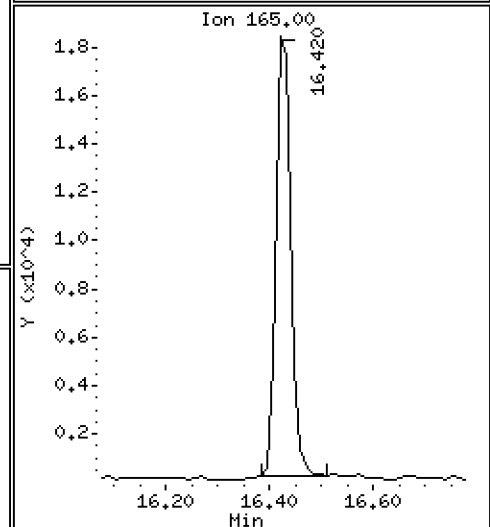
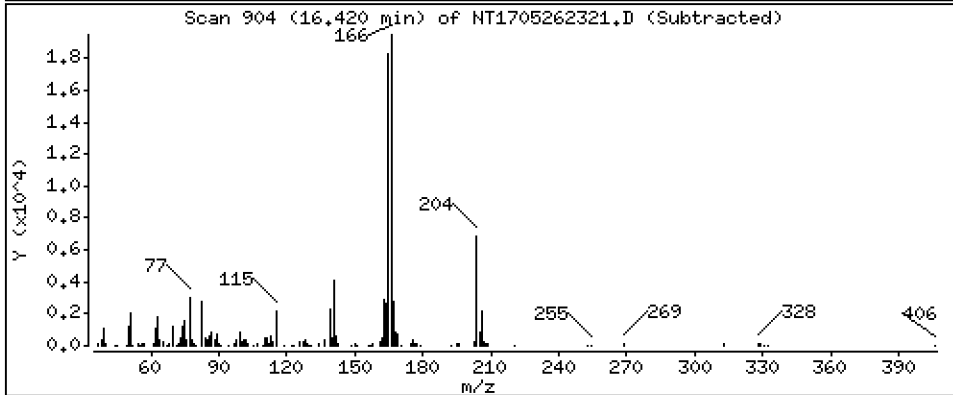
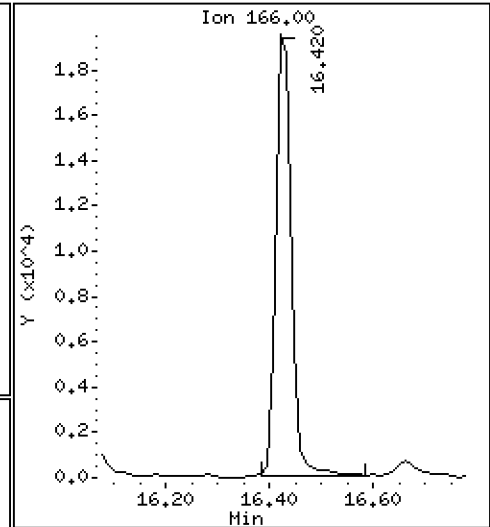
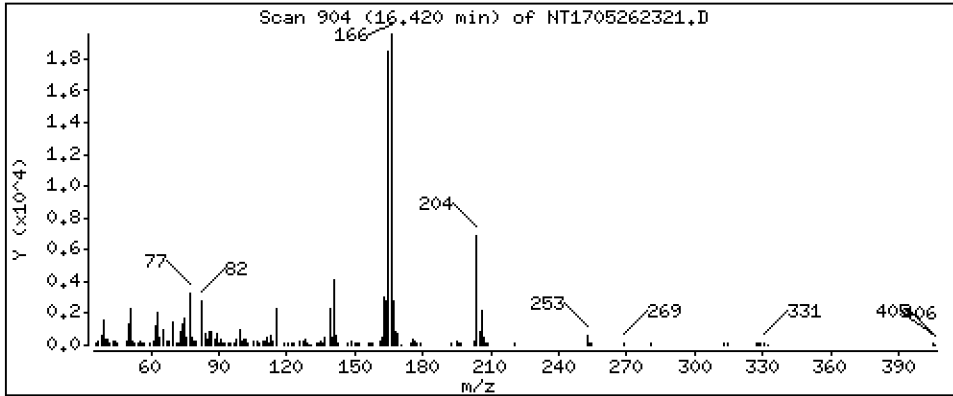
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,1749 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

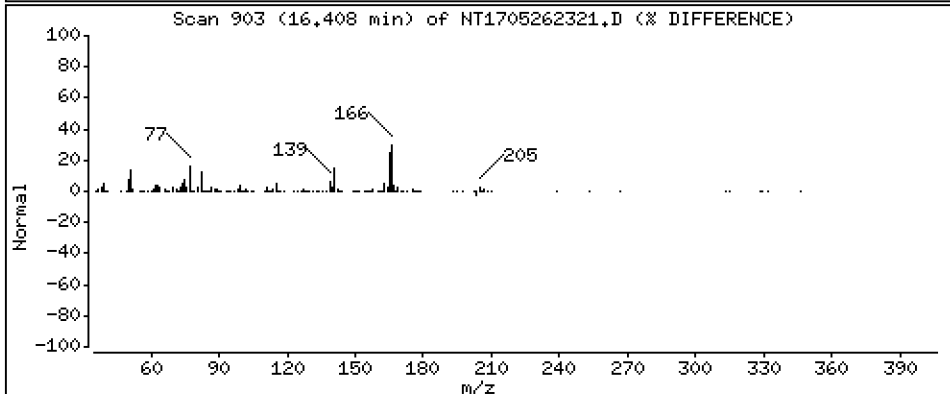
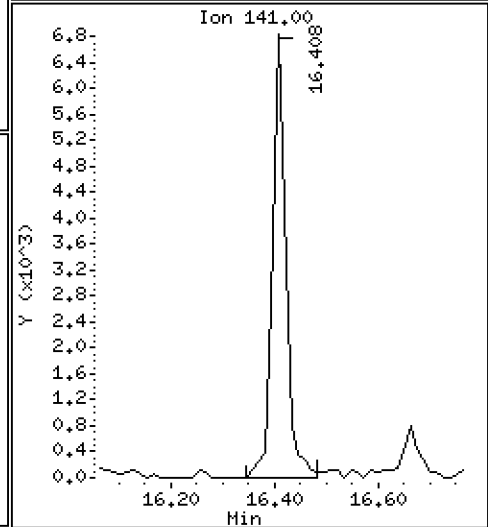
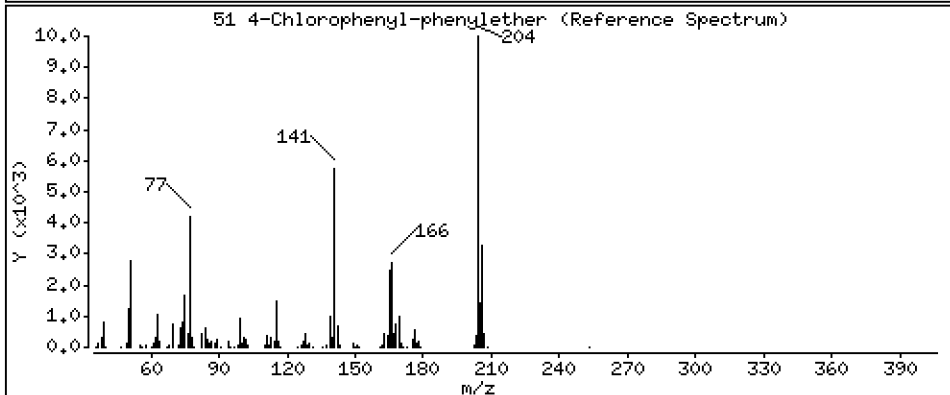
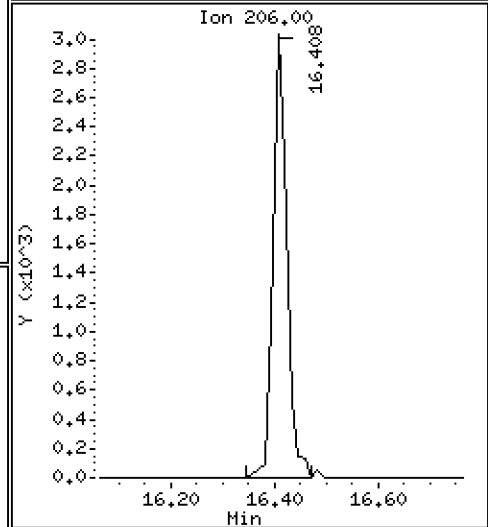
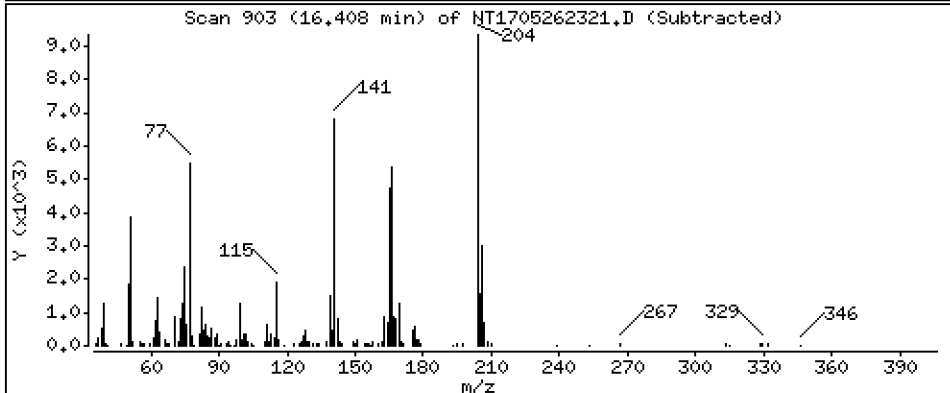
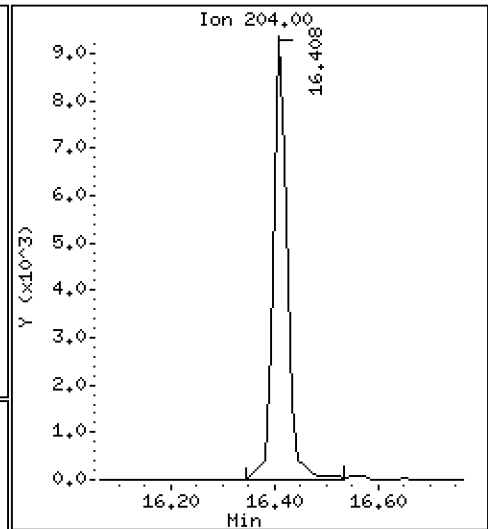
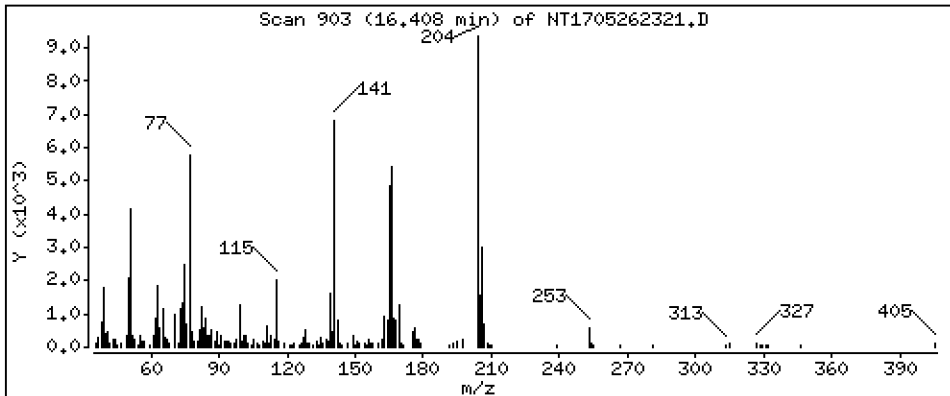
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,1866 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

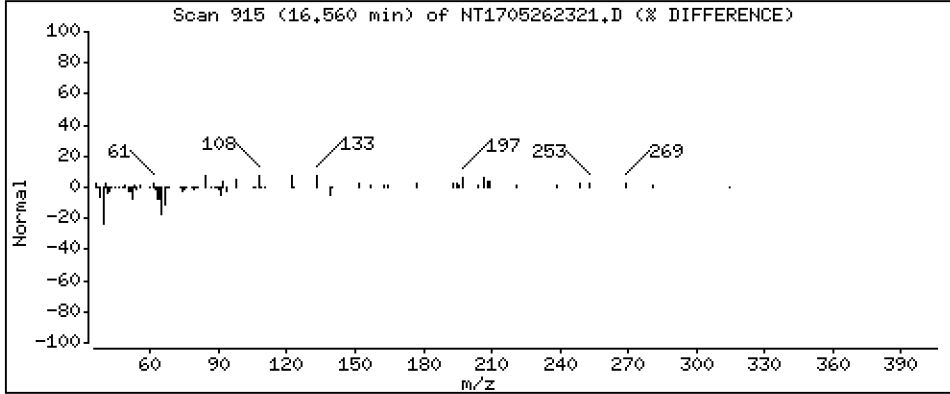
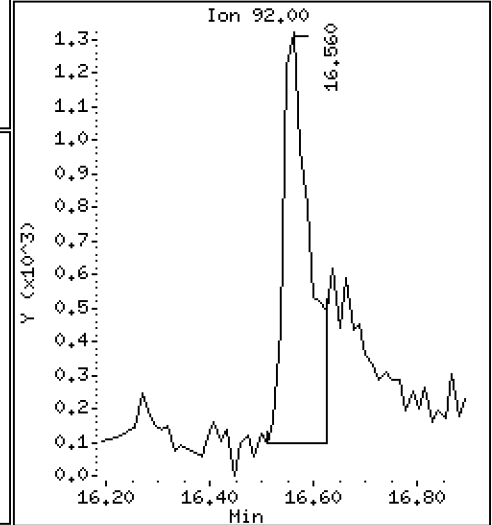
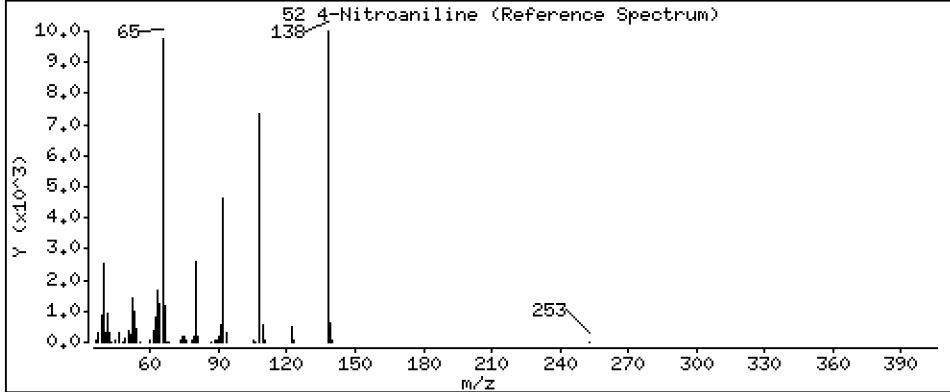
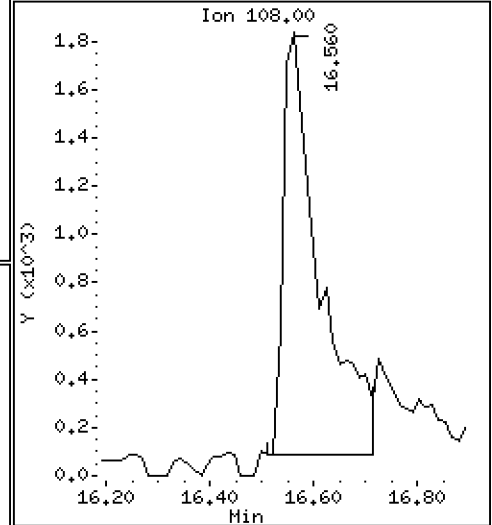
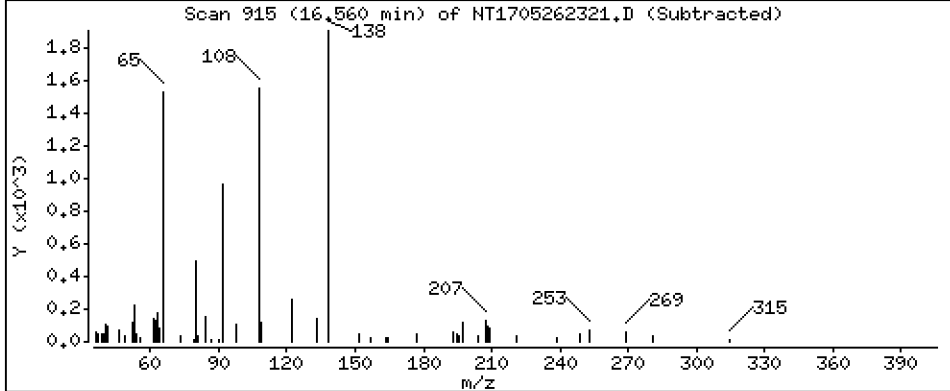
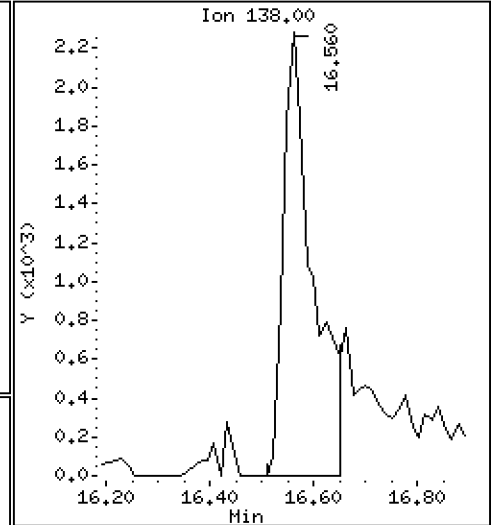
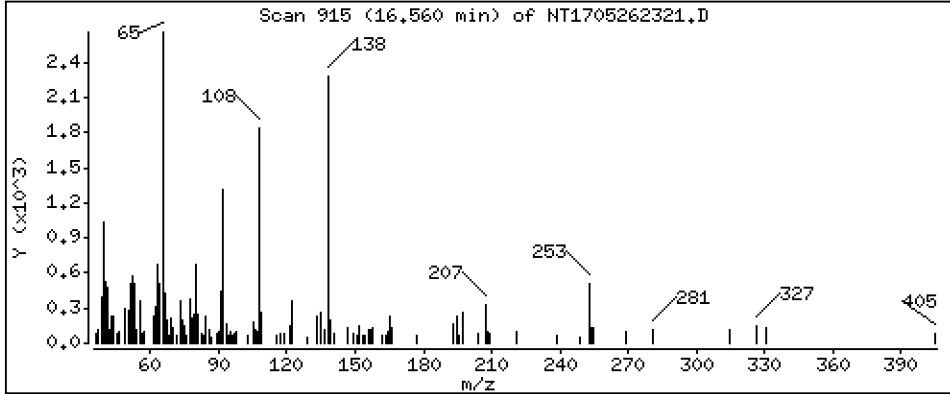
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 0.2364 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

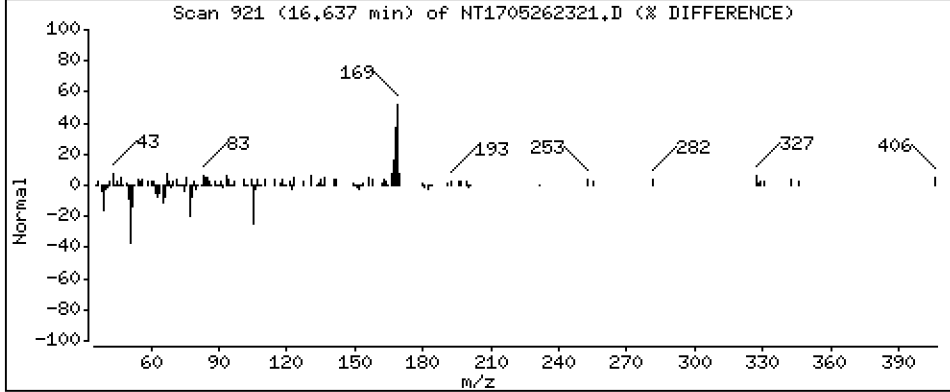
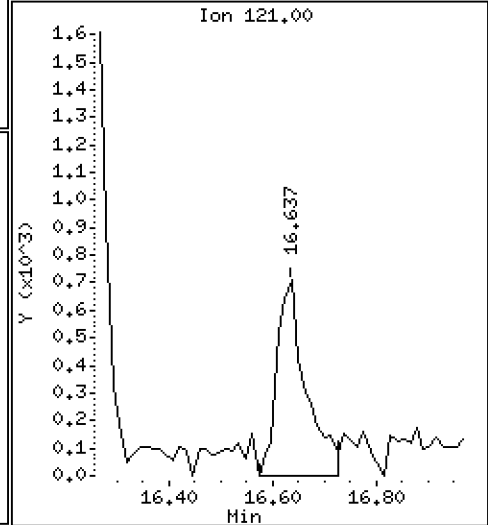
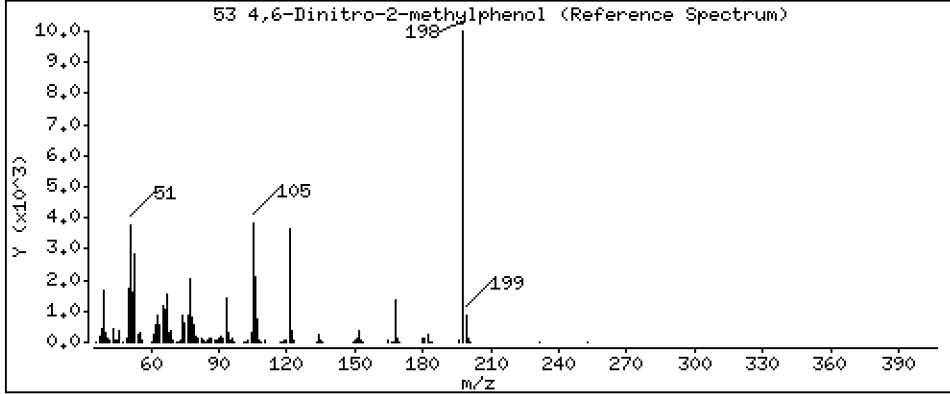
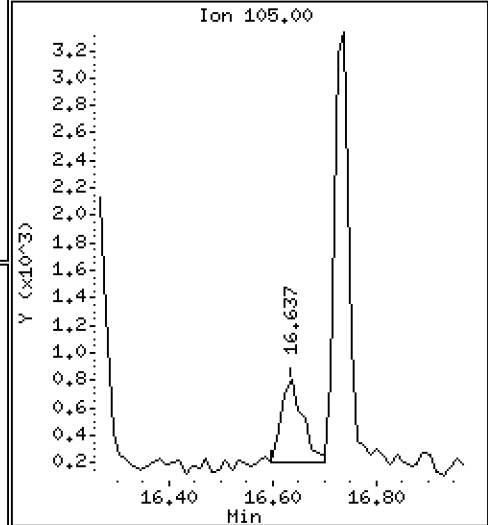
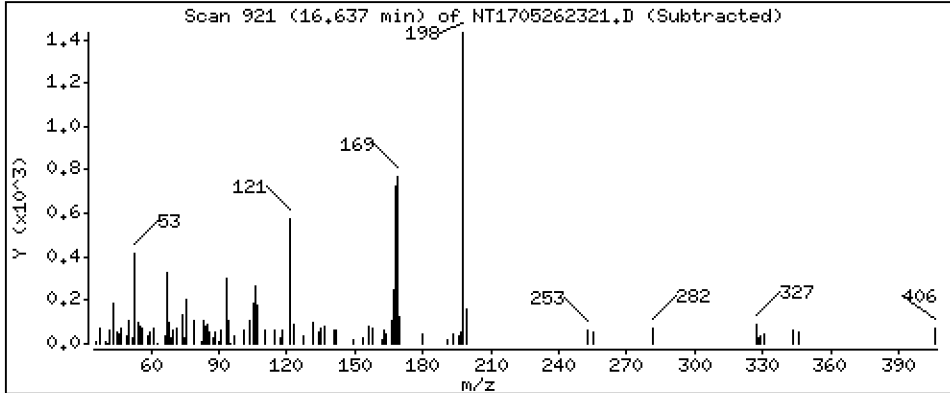
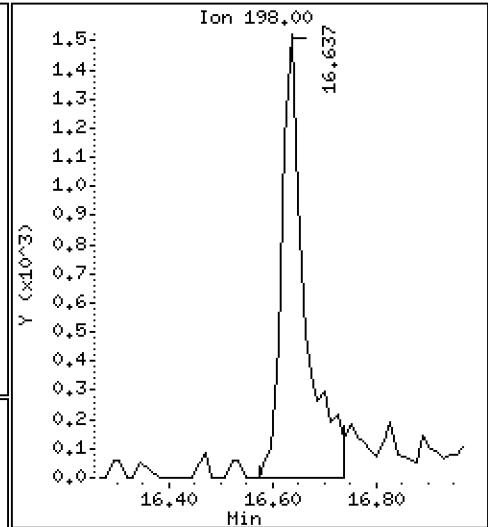
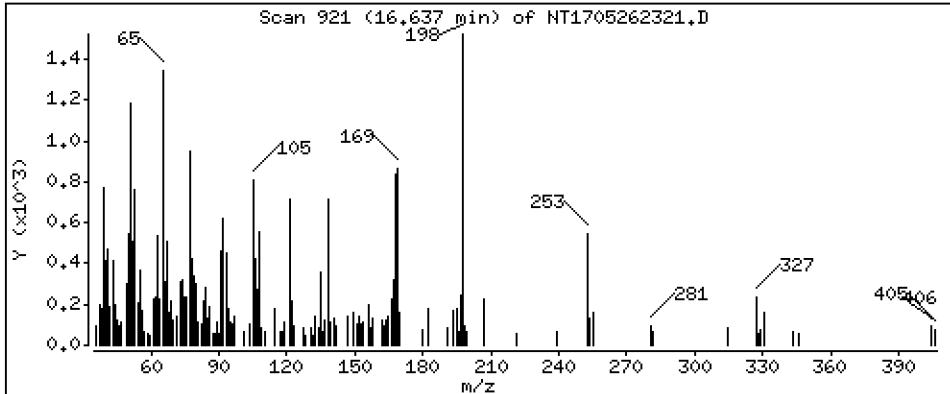
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 0.1349 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

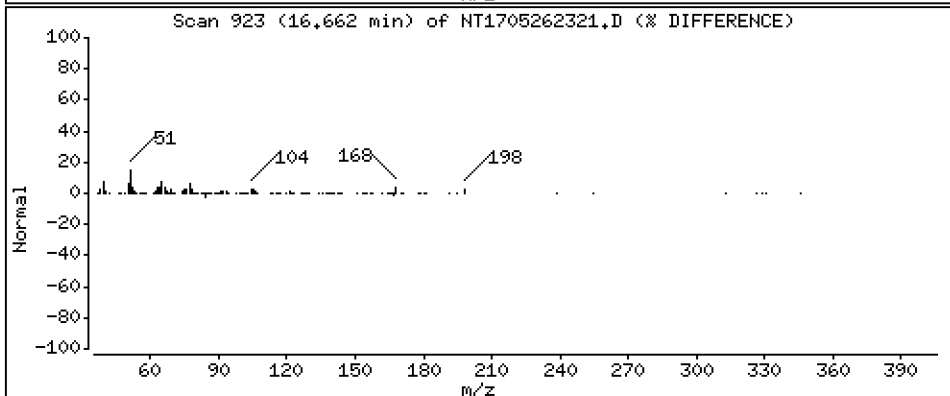
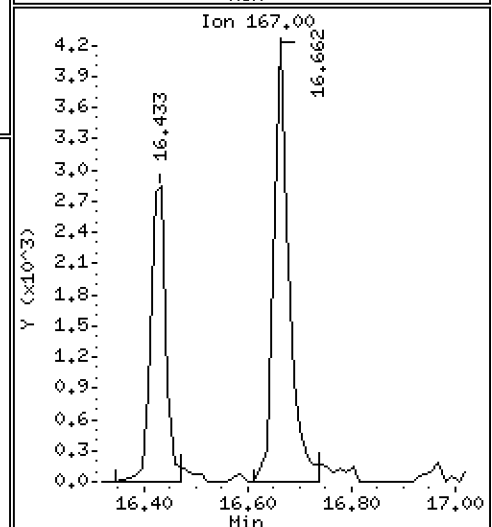
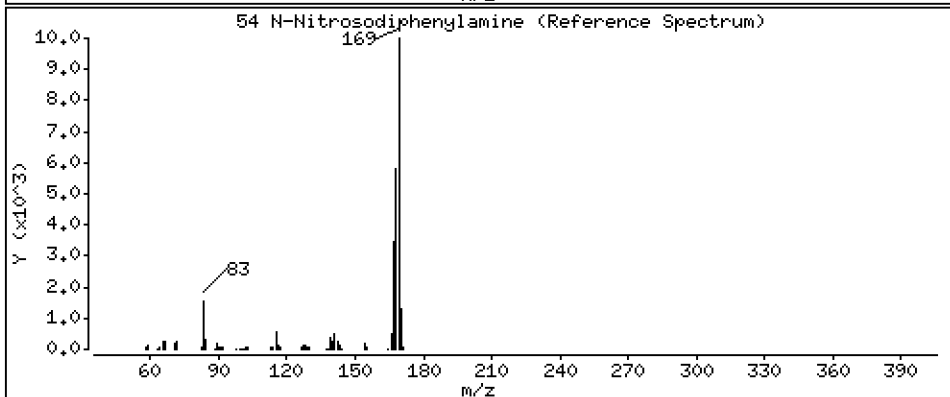
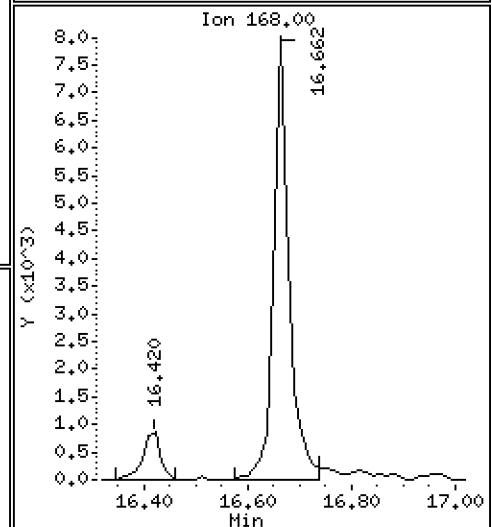
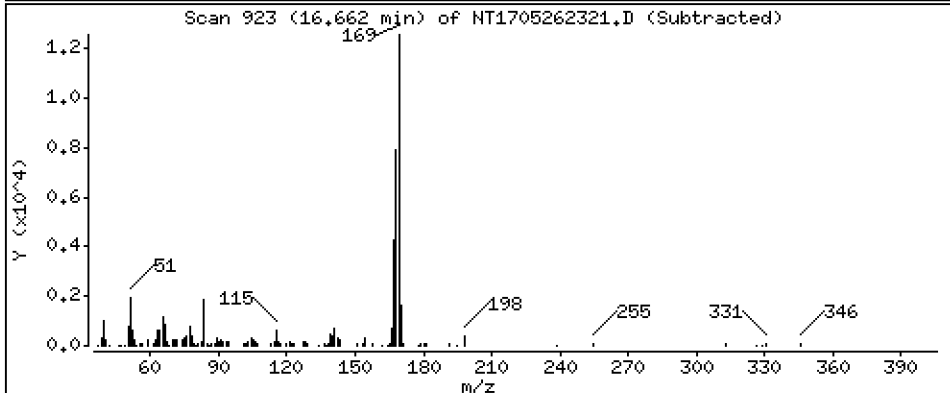
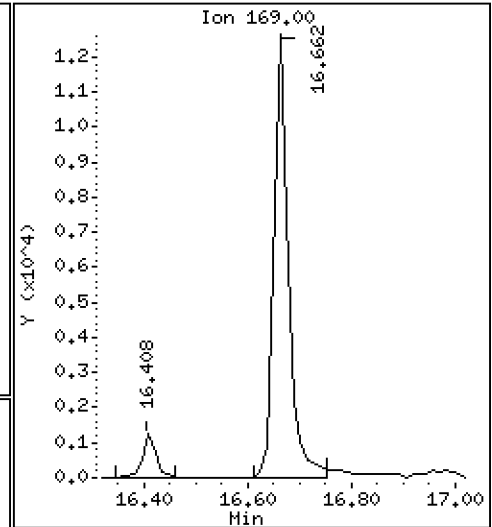
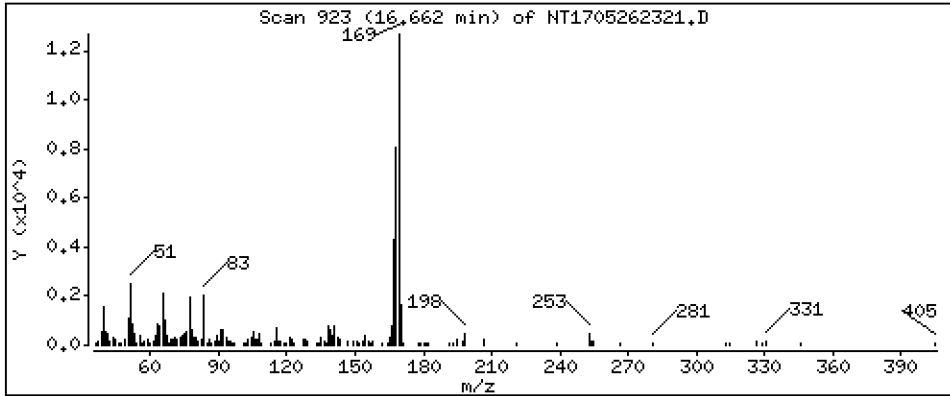
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1967 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

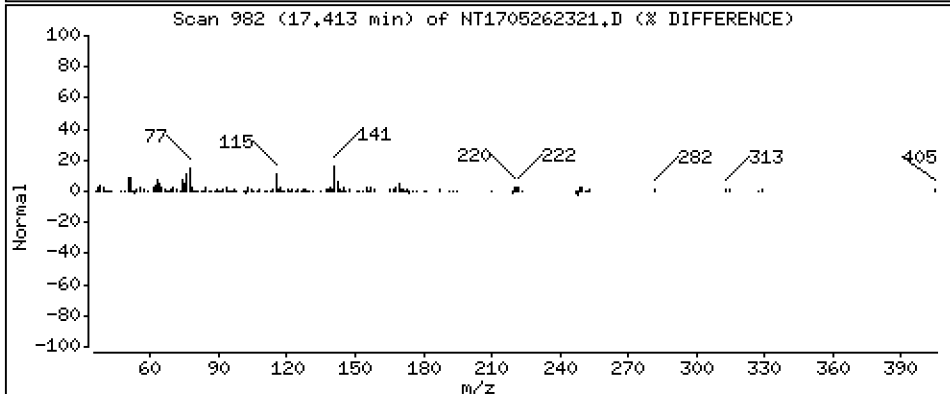
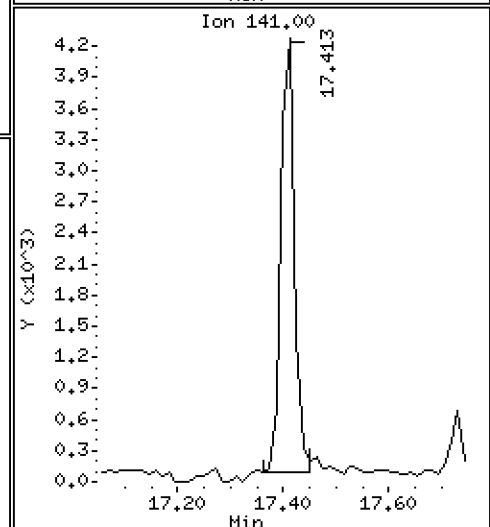
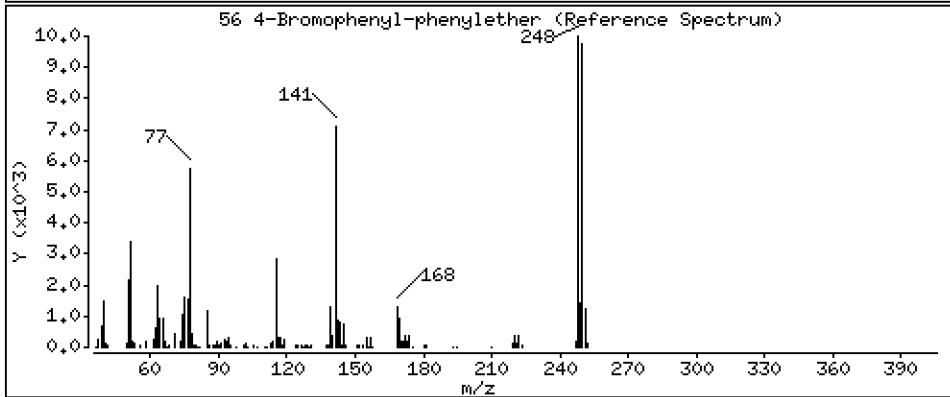
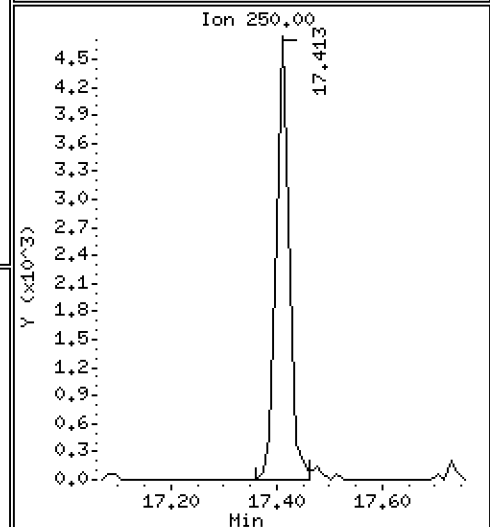
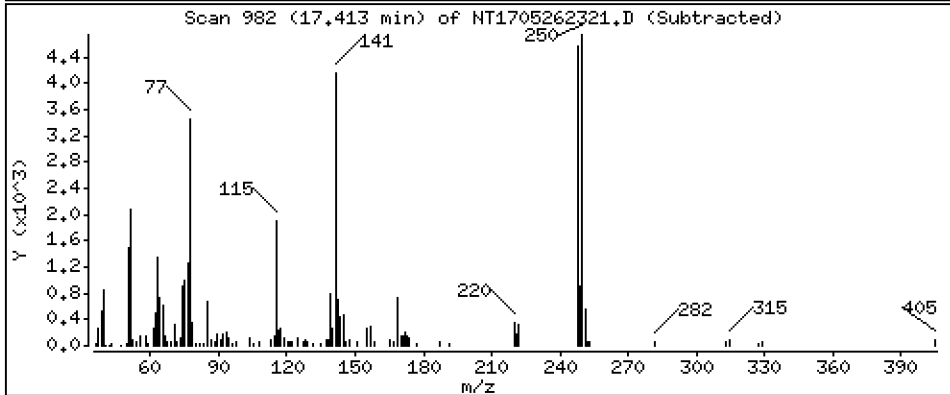
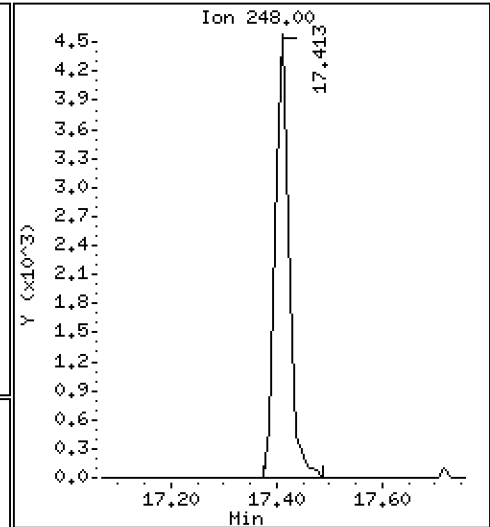
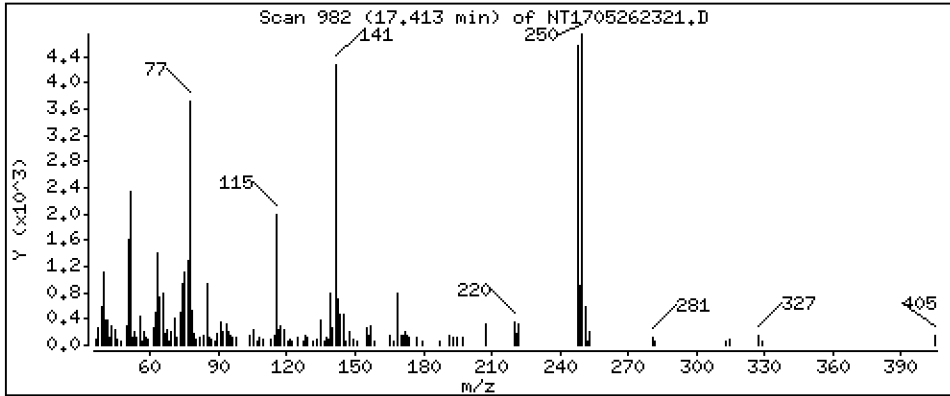
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,1950 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

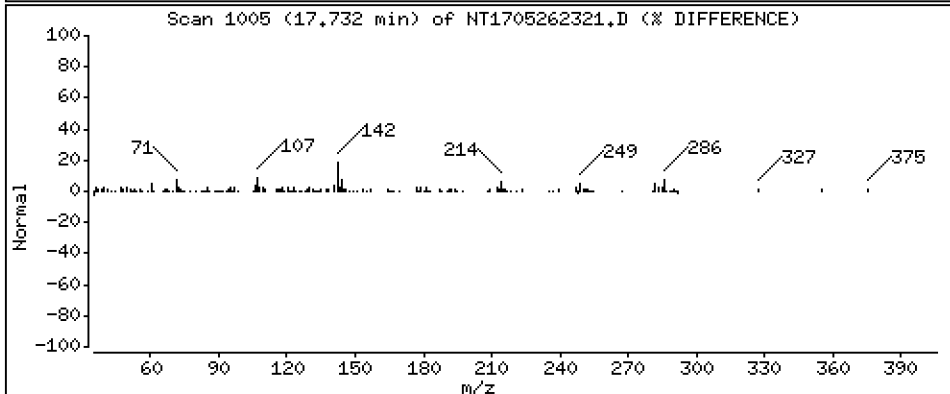
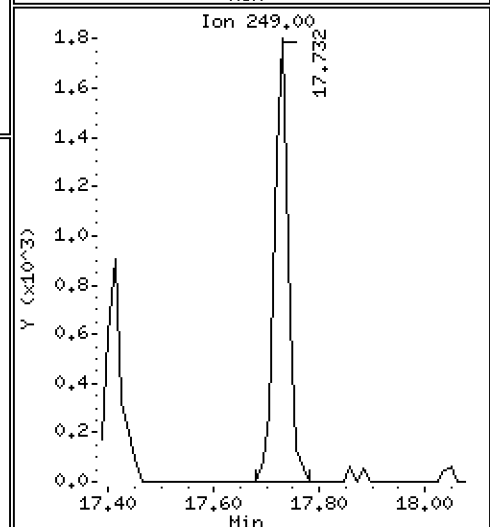
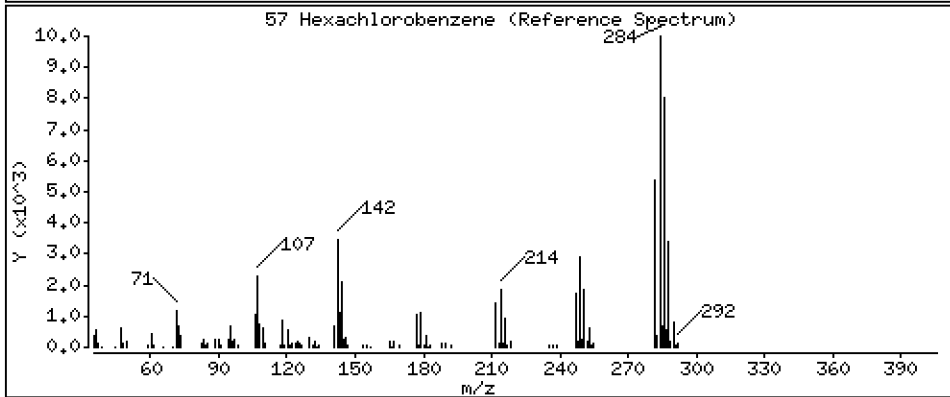
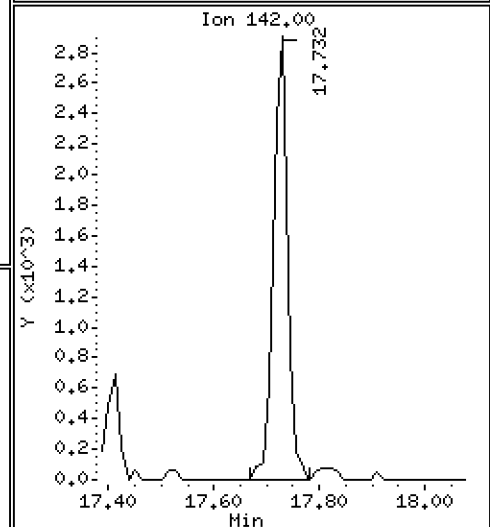
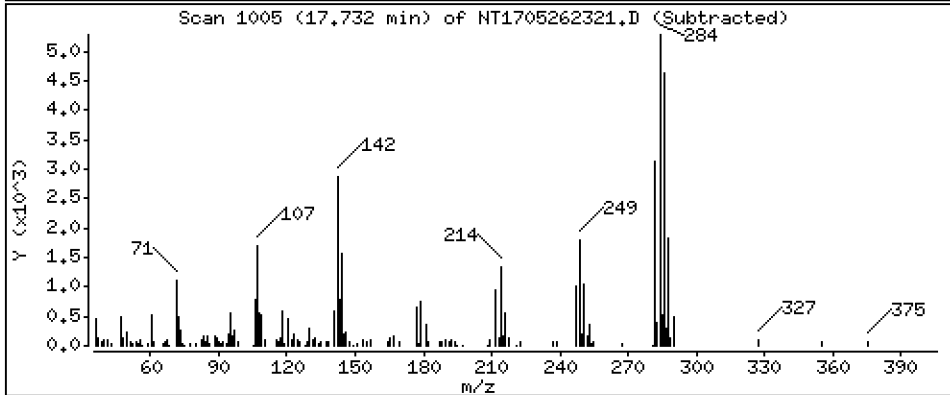
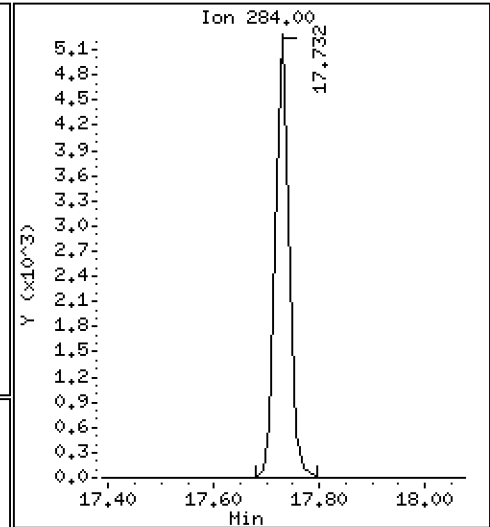
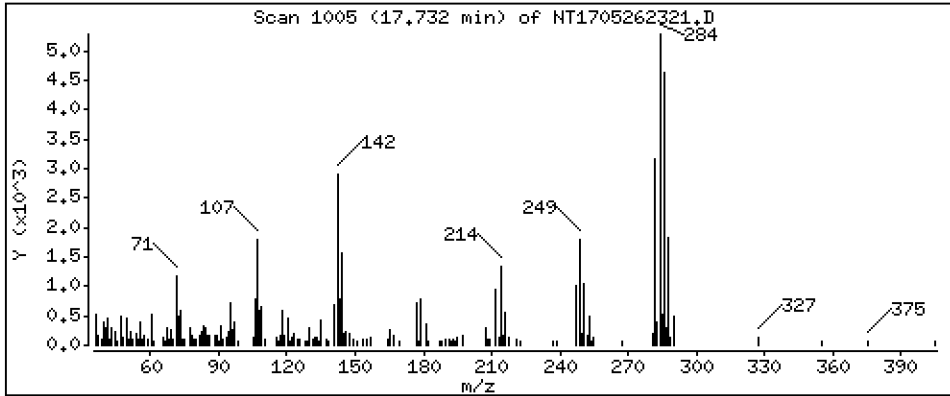
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,2192 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

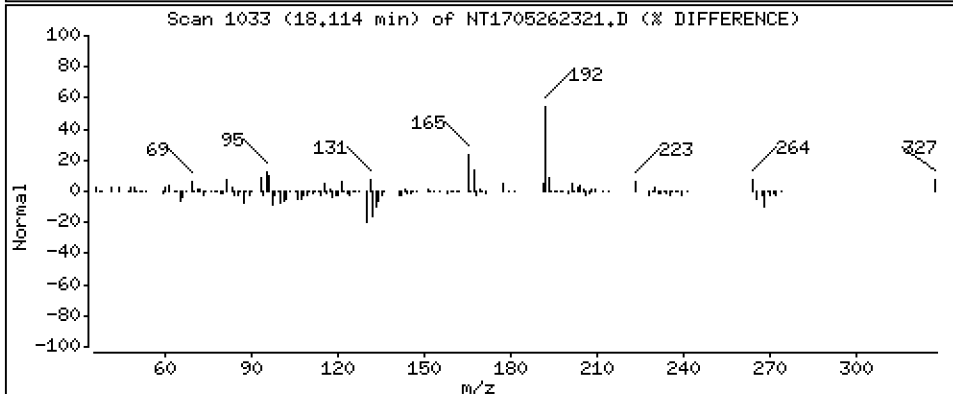
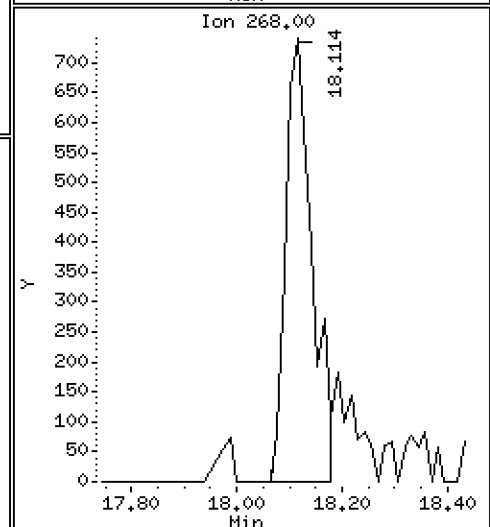
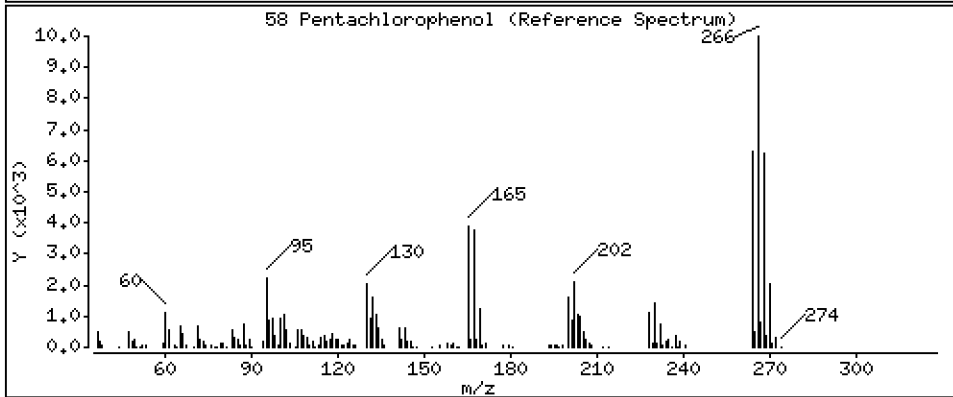
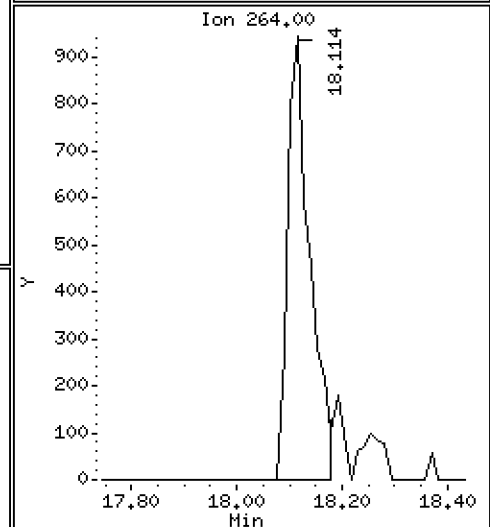
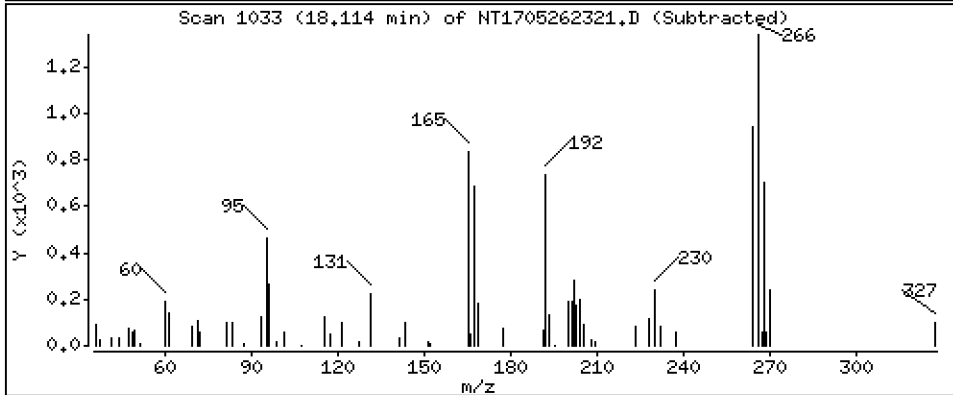
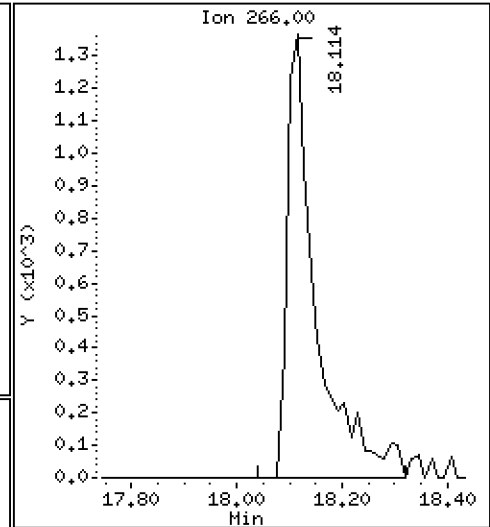
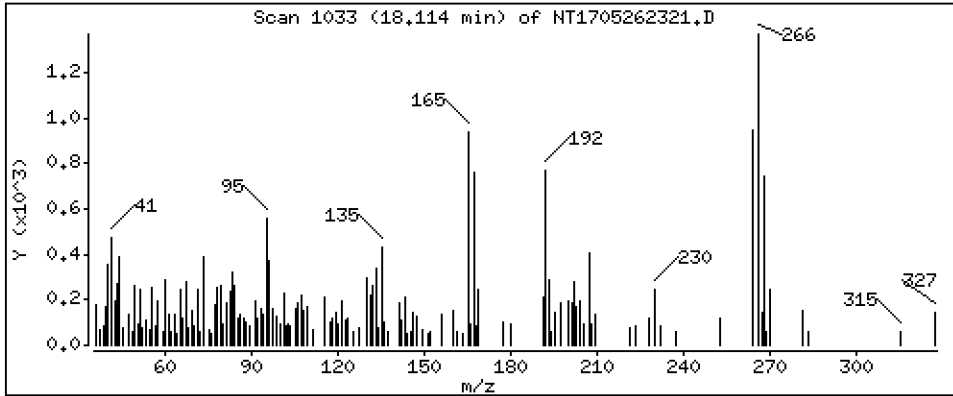
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,2038 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

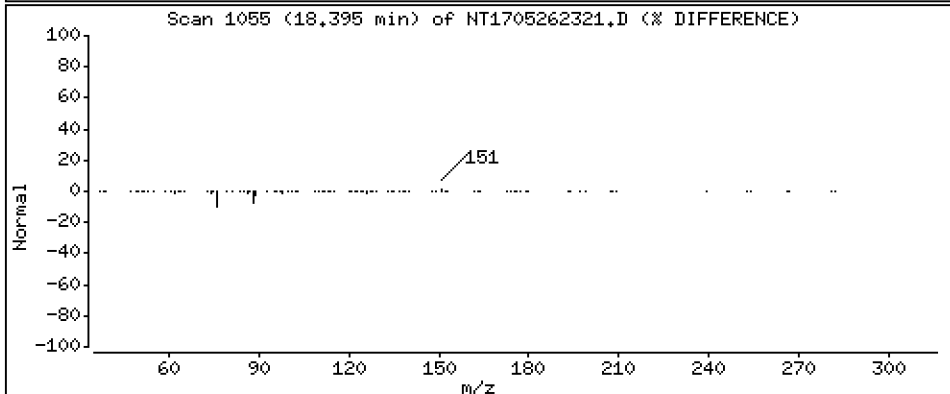
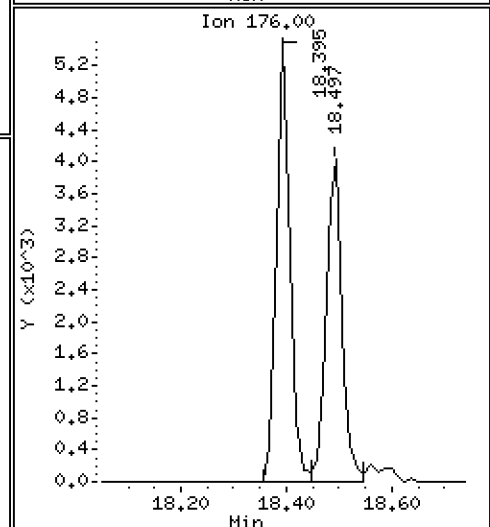
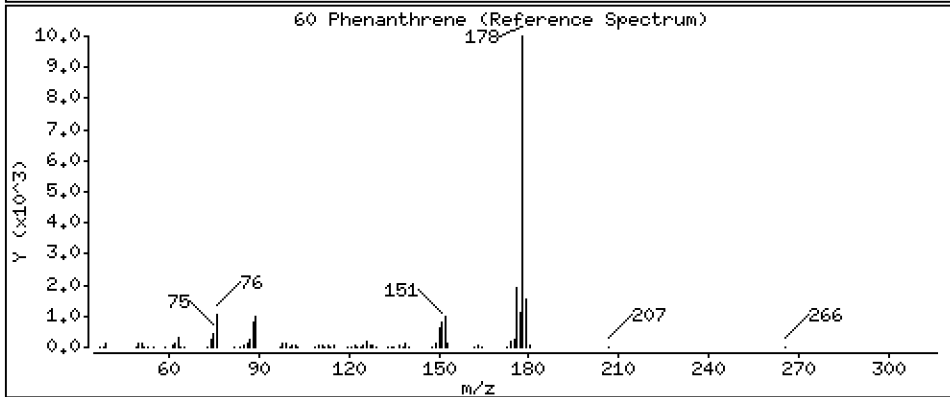
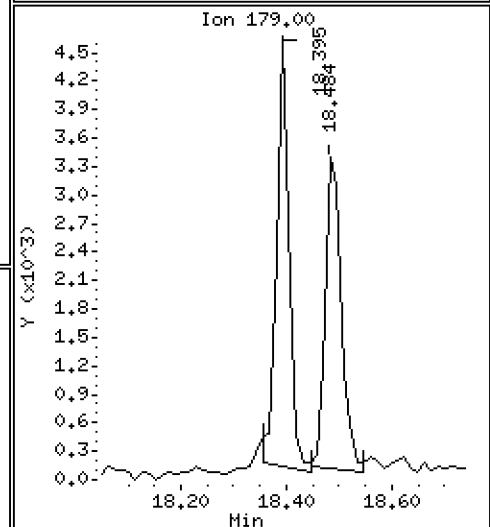
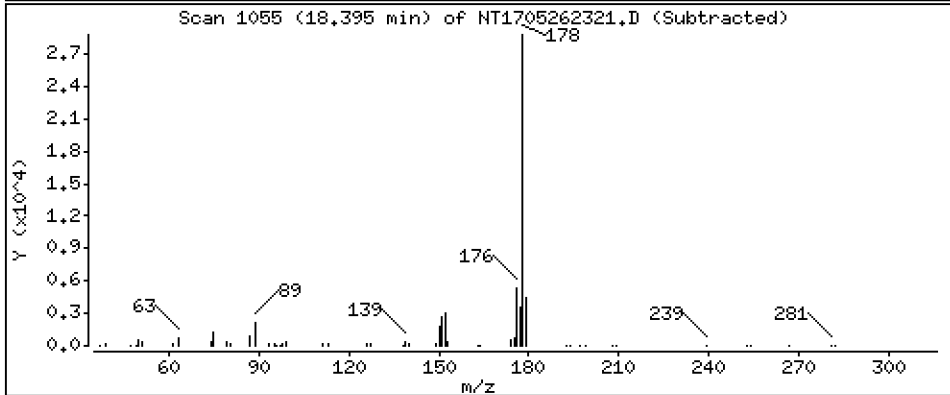
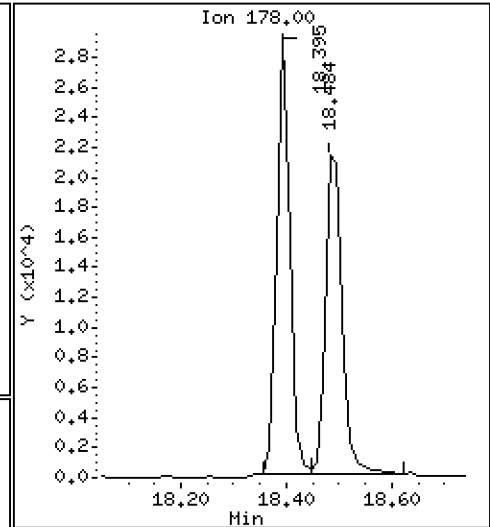
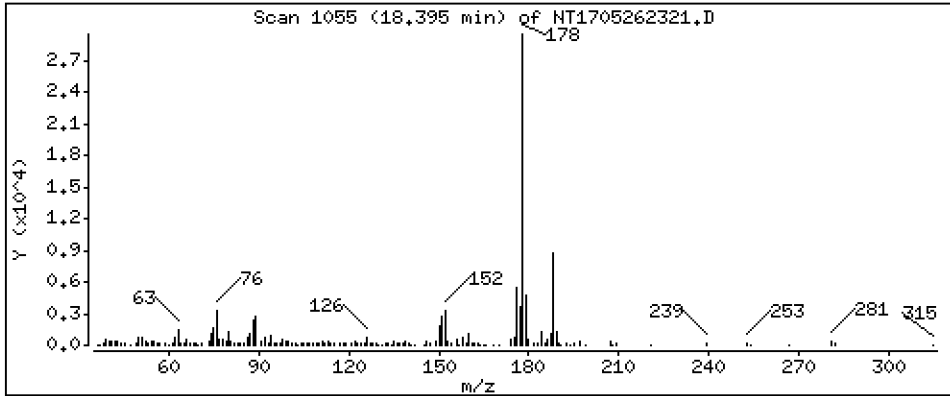
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,1948 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

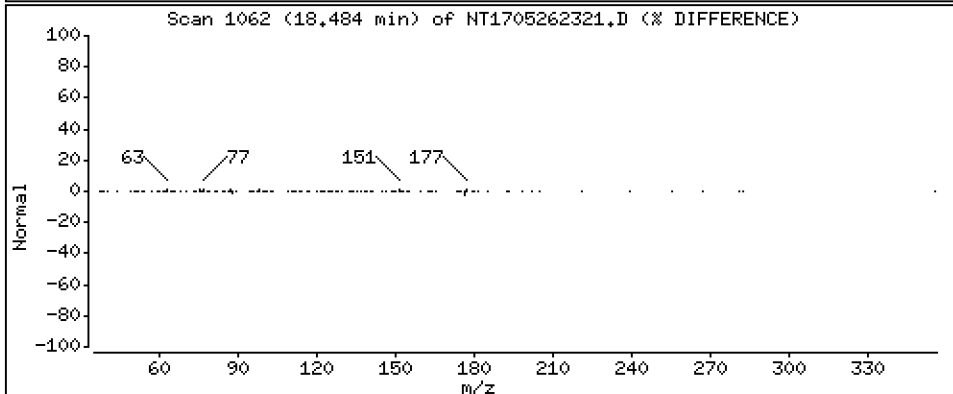
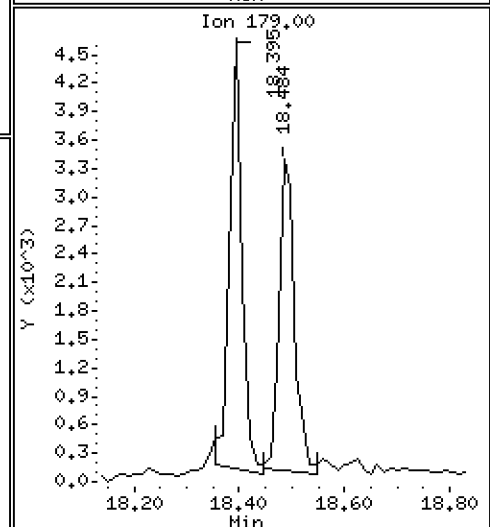
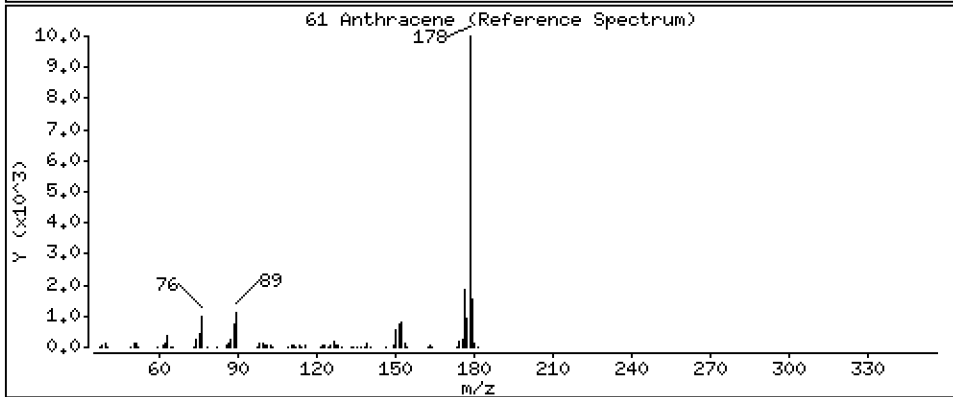
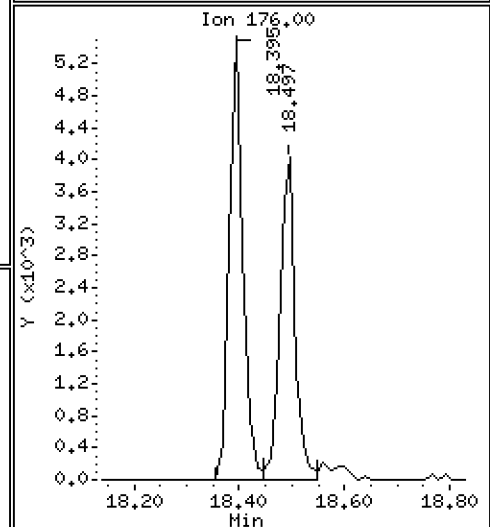
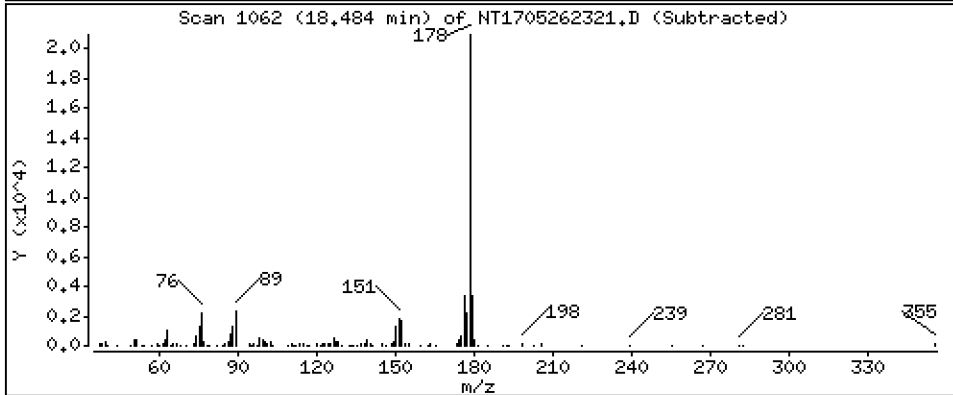
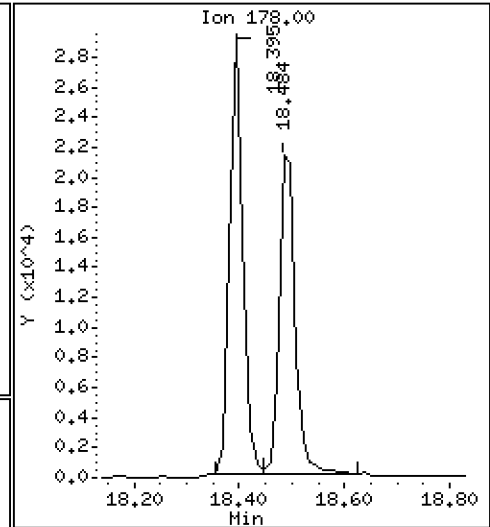
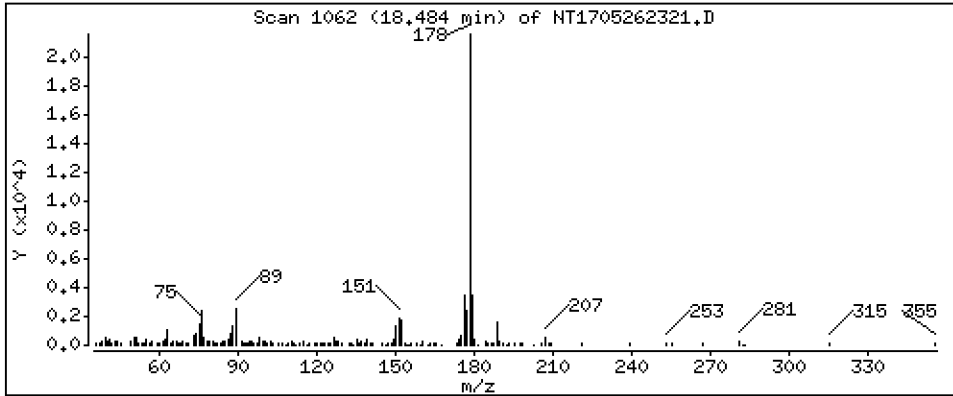
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,1950 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

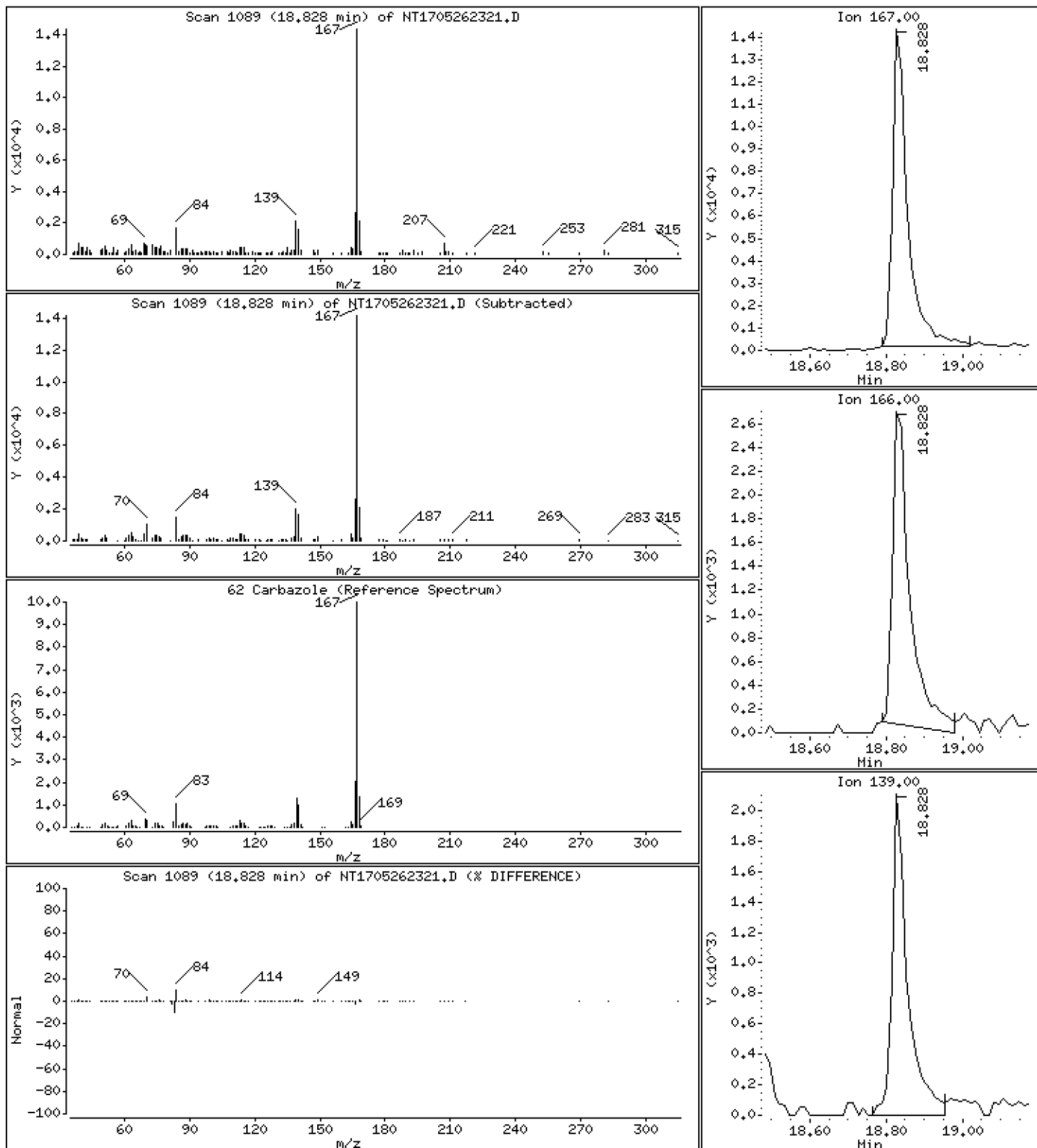
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,2639 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

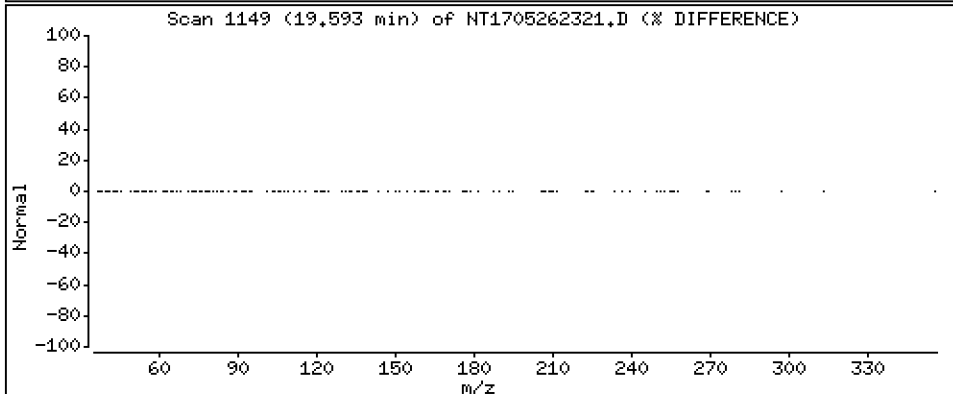
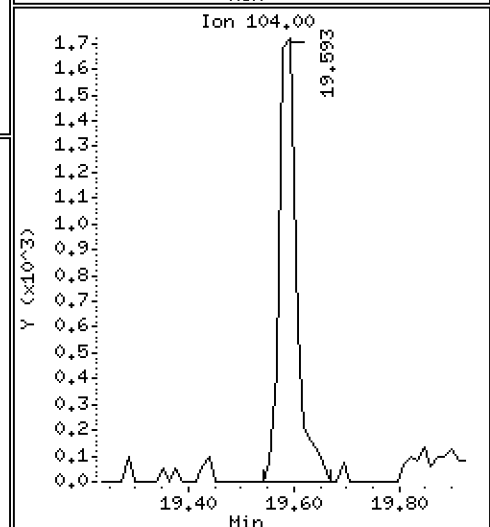
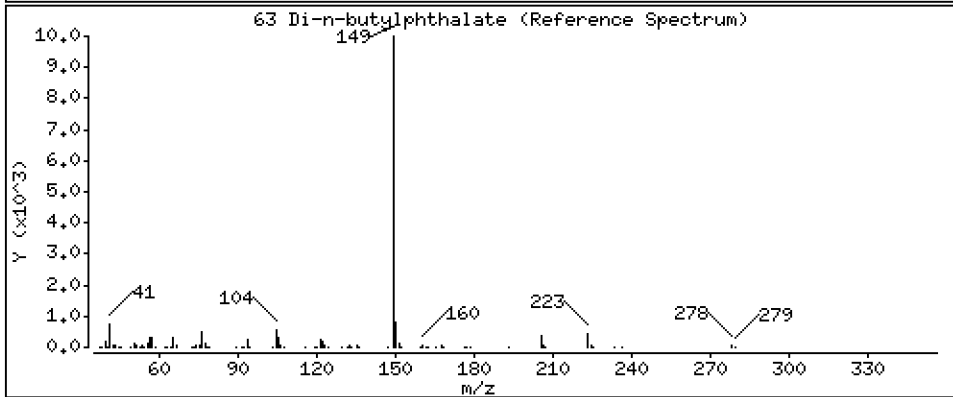
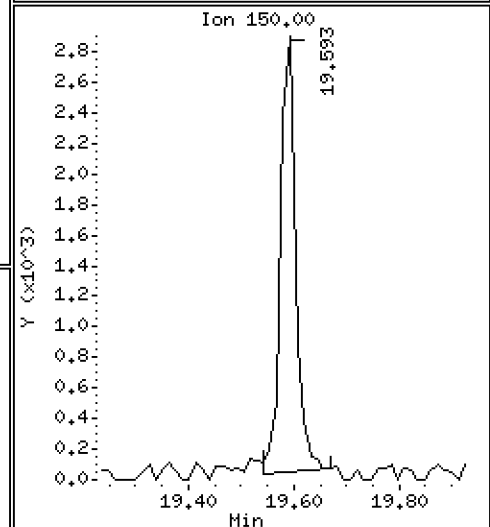
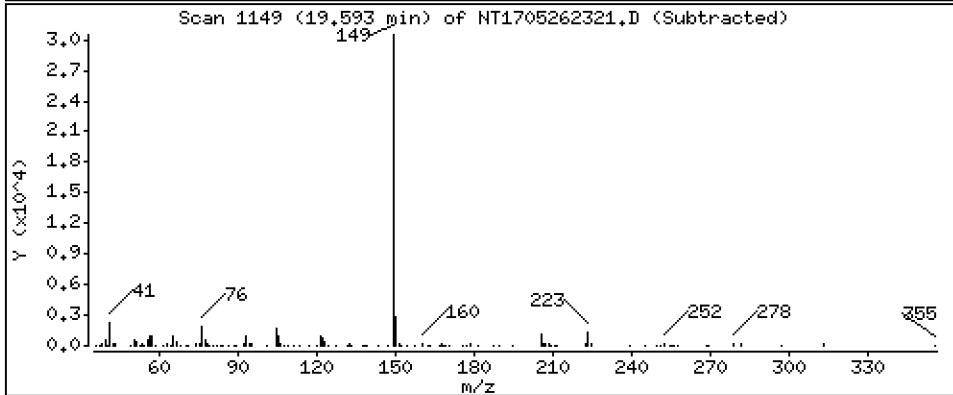
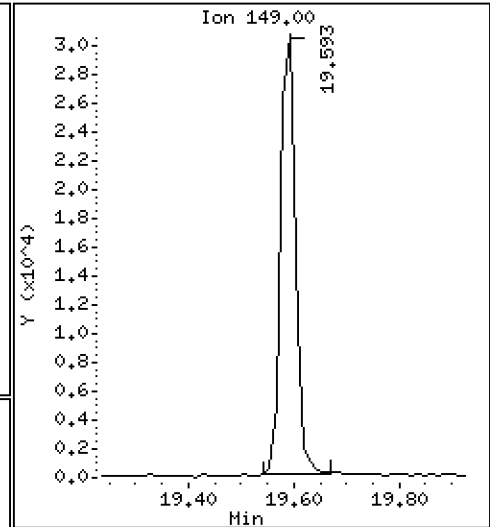
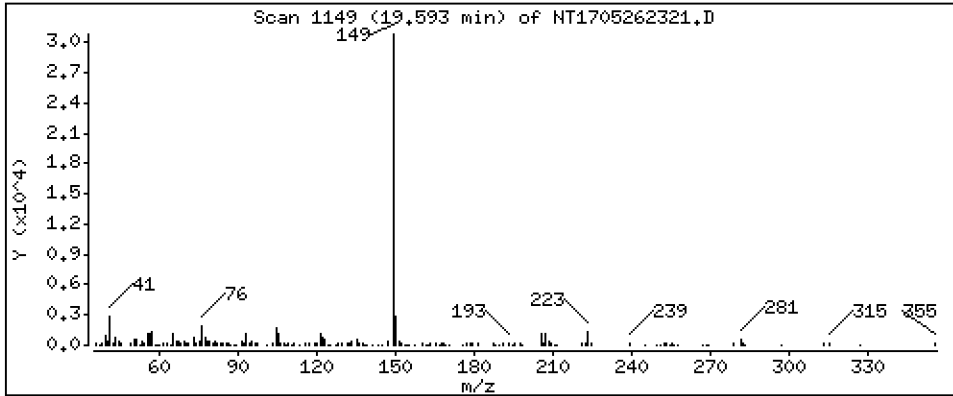
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,1972 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

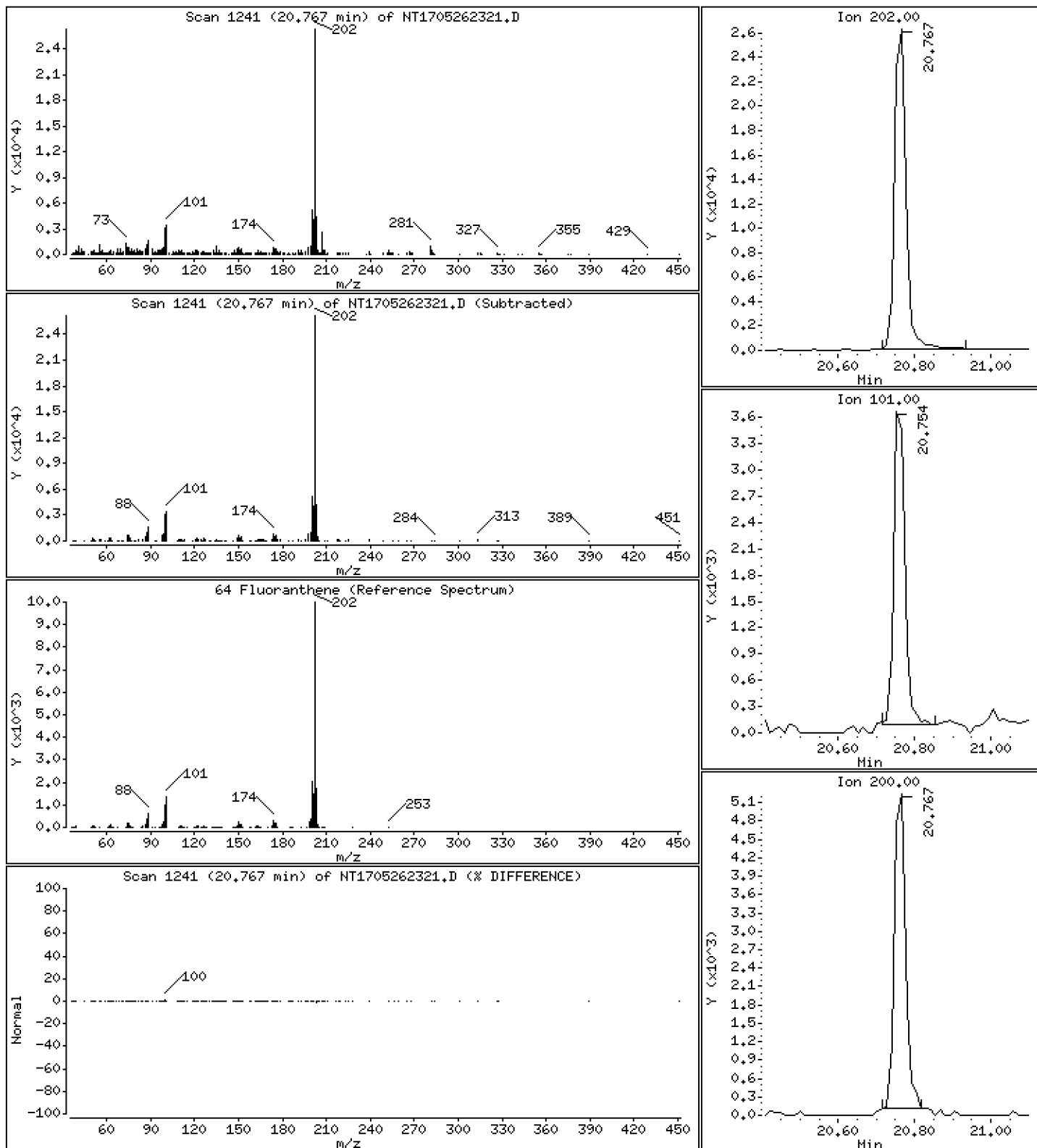
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,1745 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

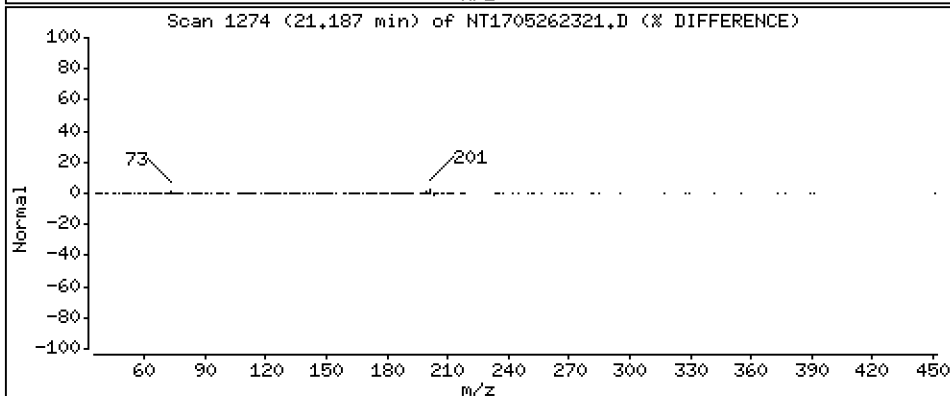
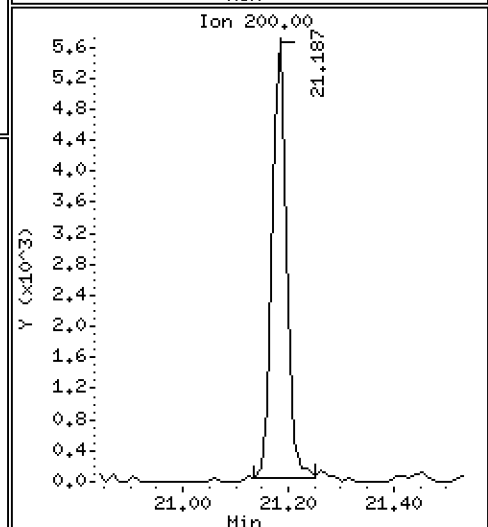
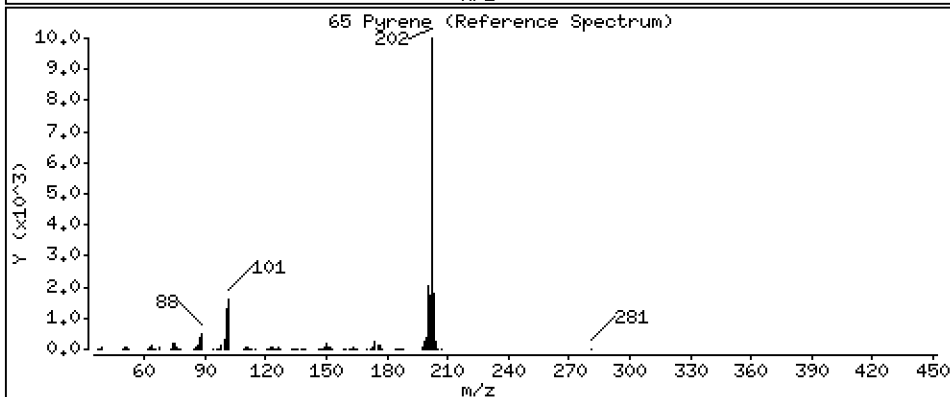
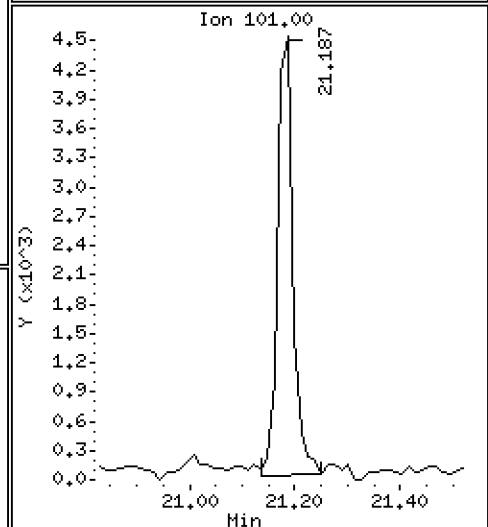
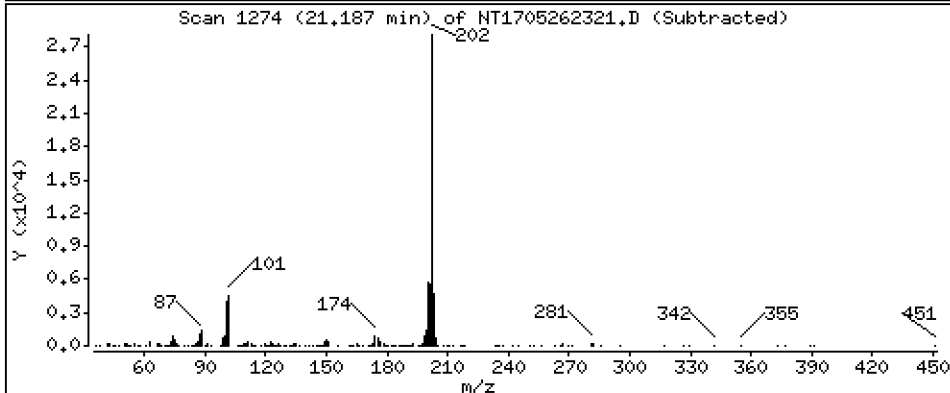
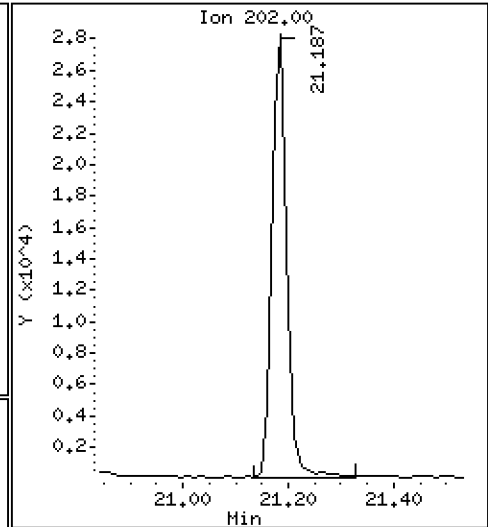
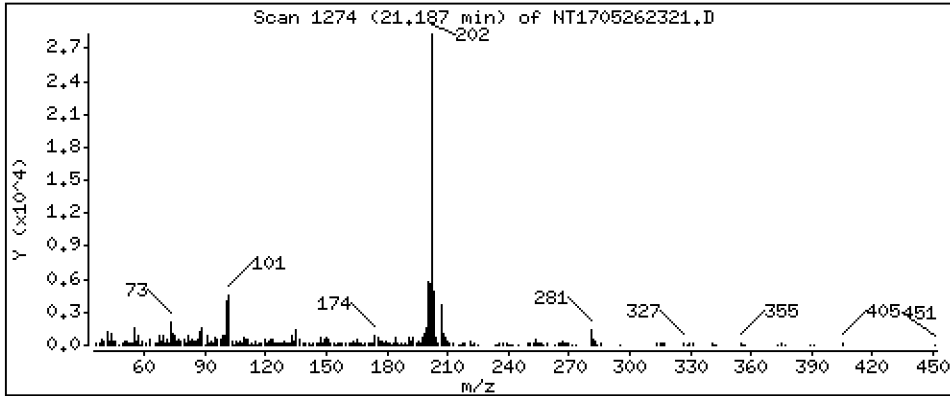
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,1827 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

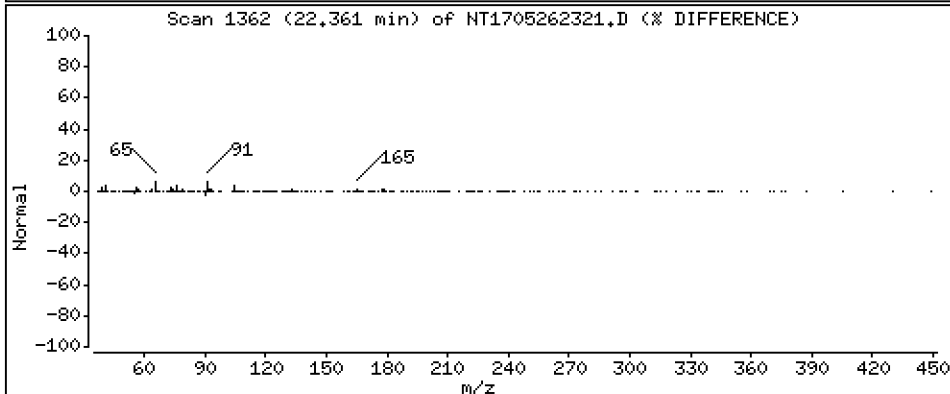
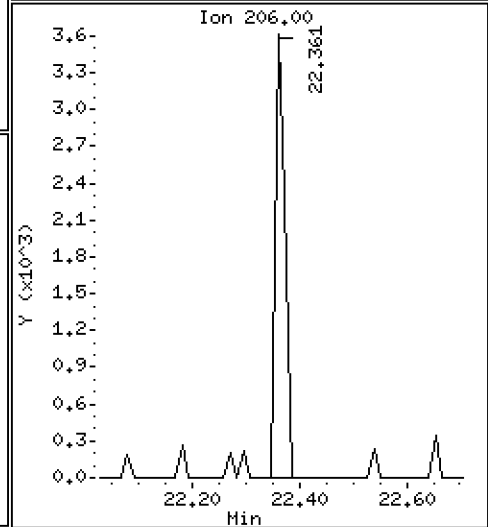
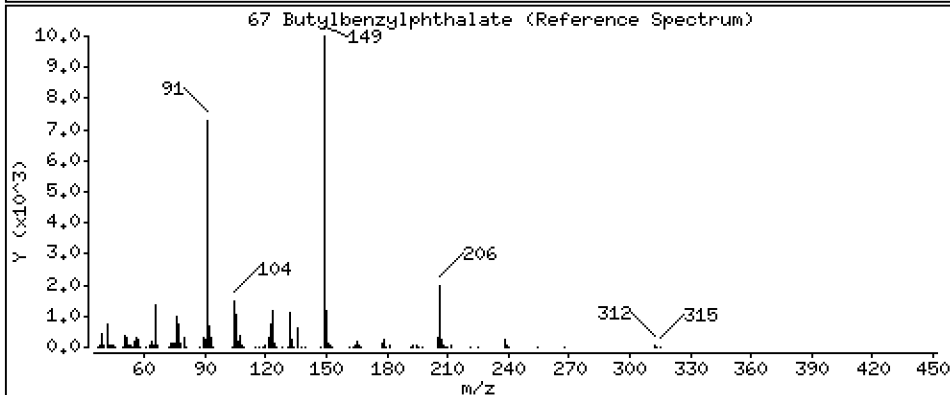
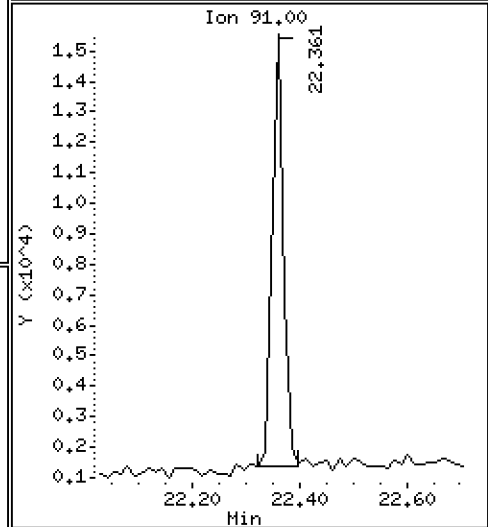
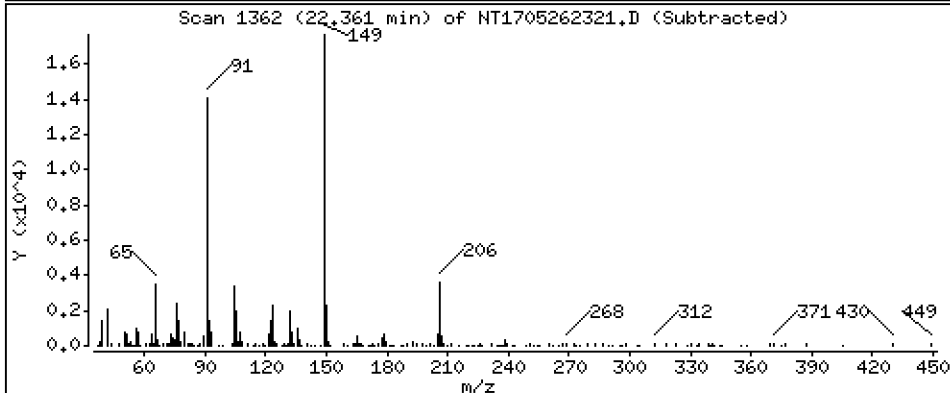
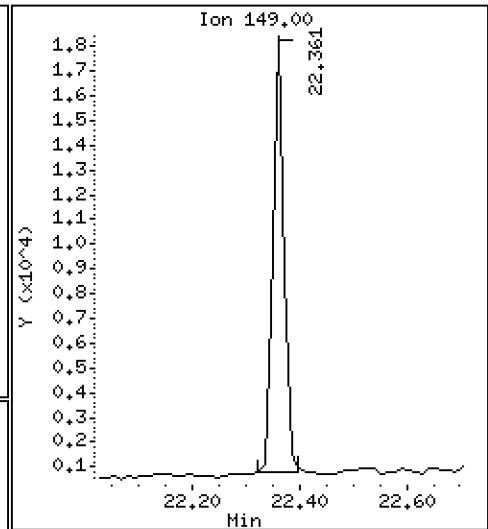
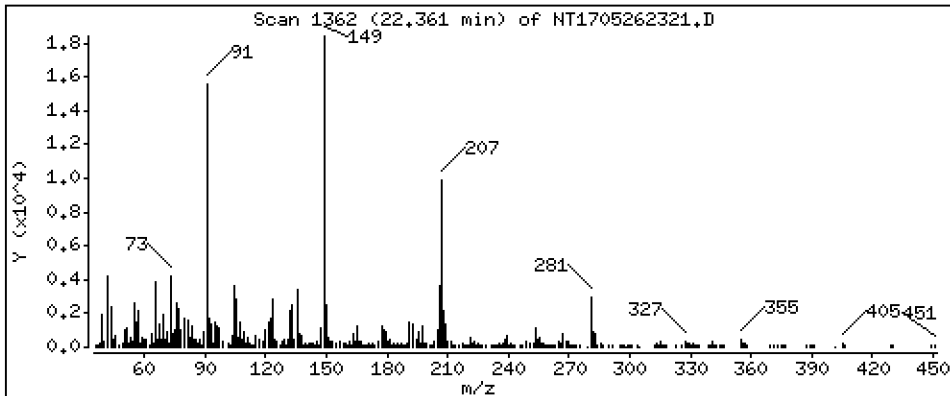
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1899 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

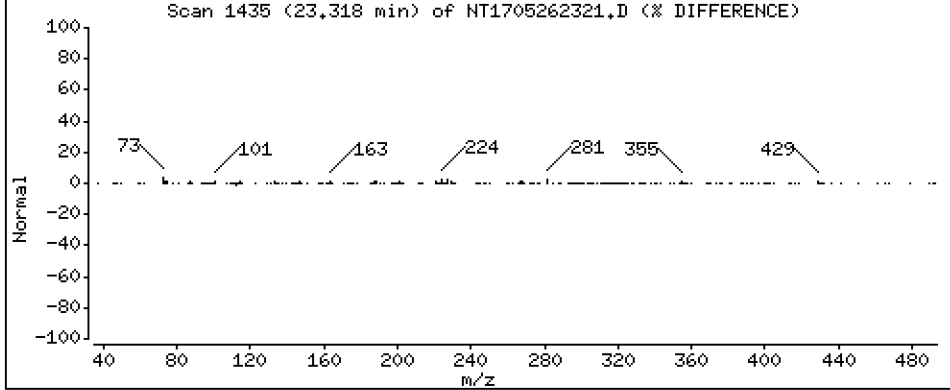
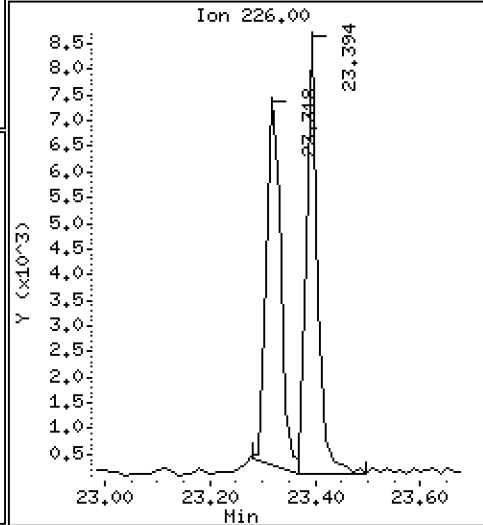
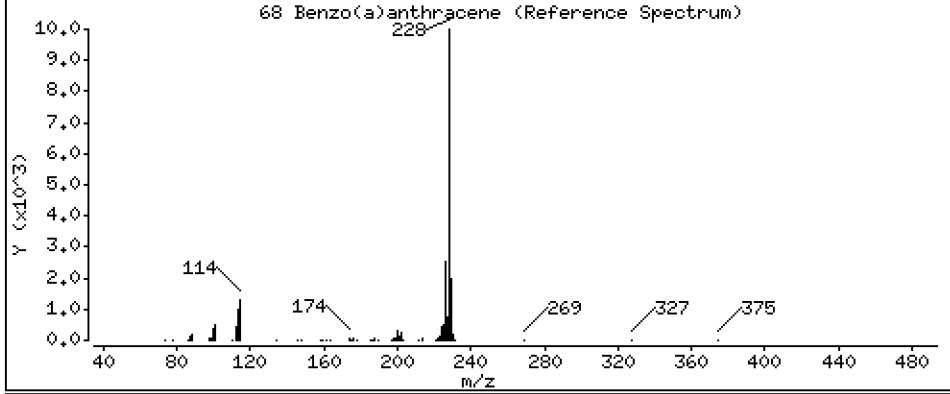
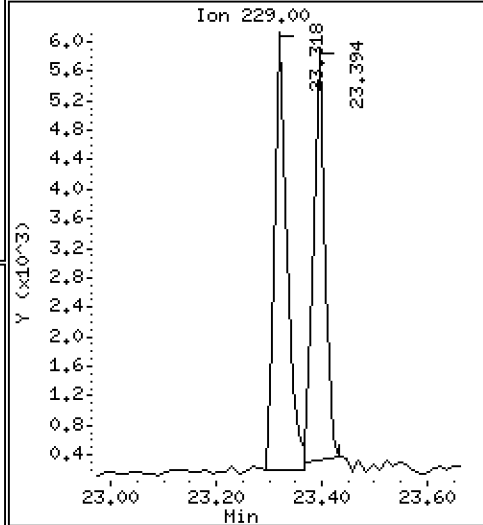
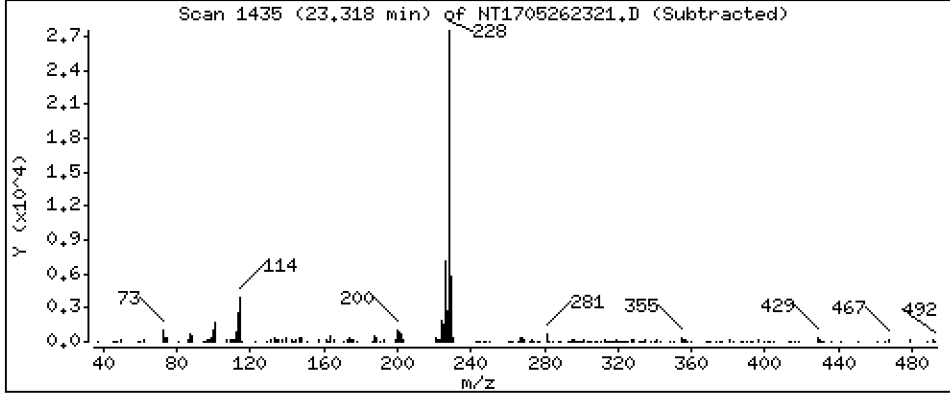
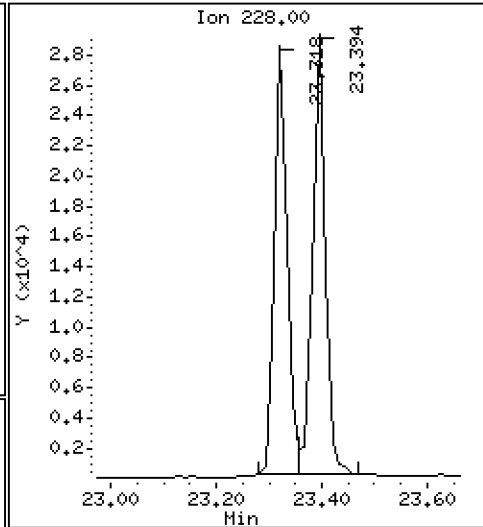
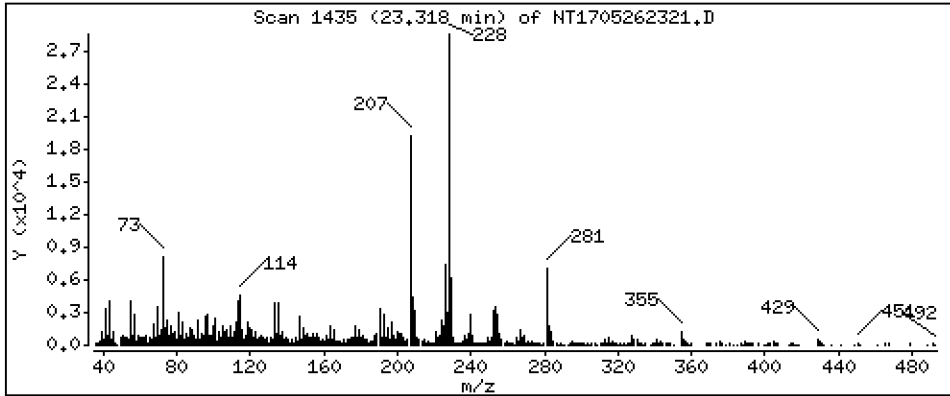
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,2084 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

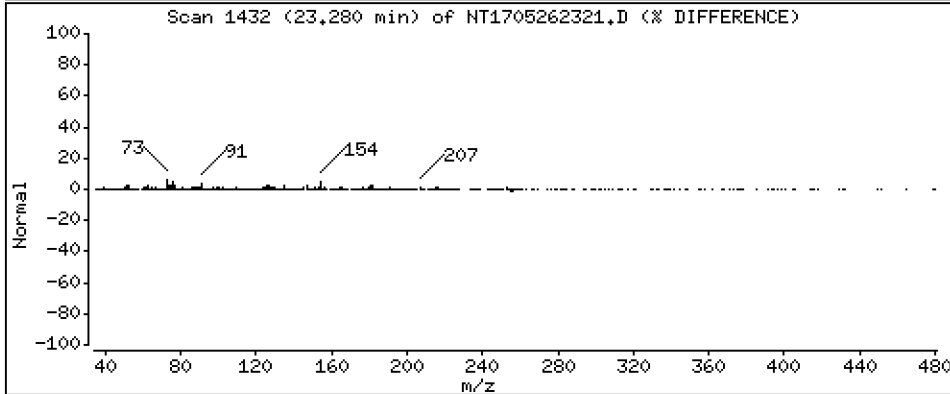
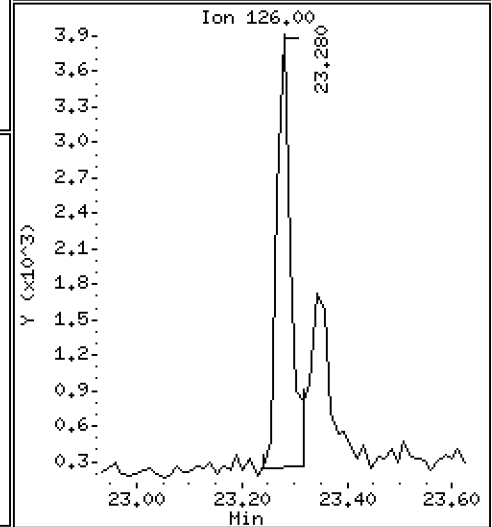
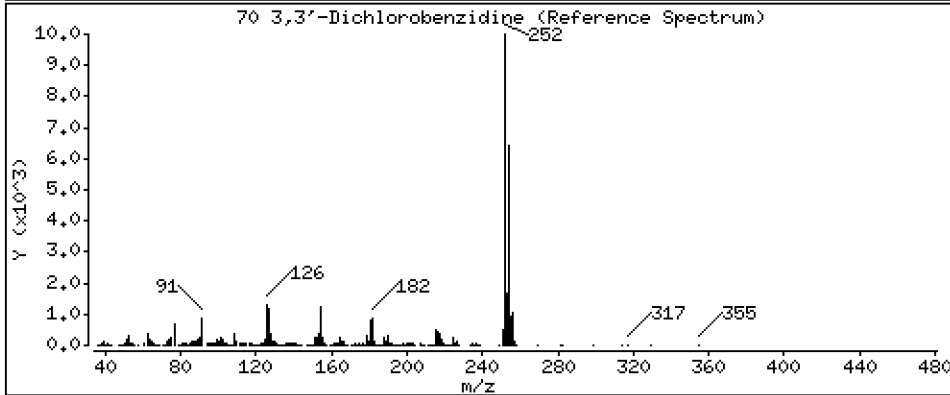
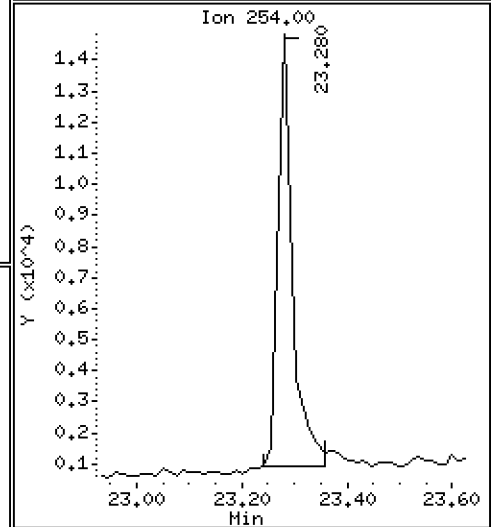
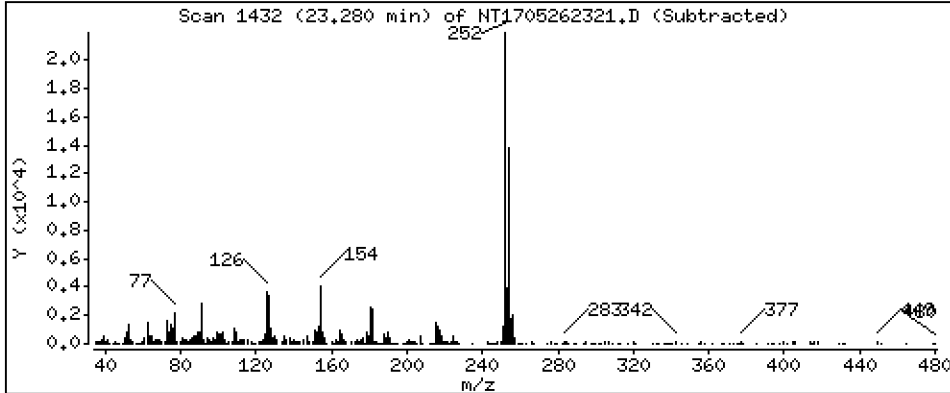
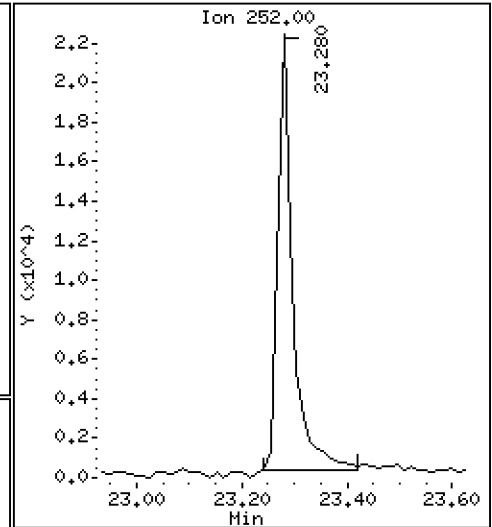
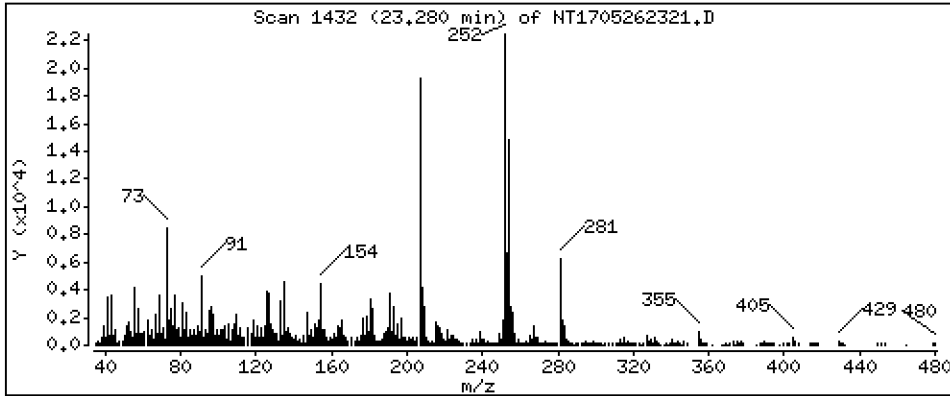
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 0,9960 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

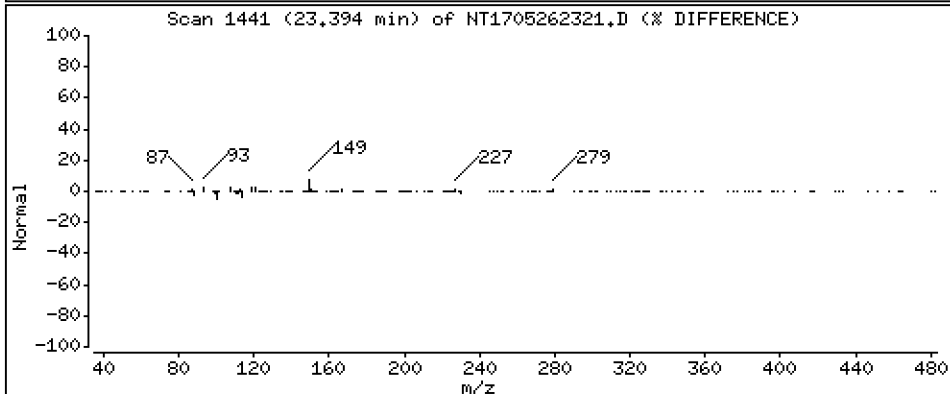
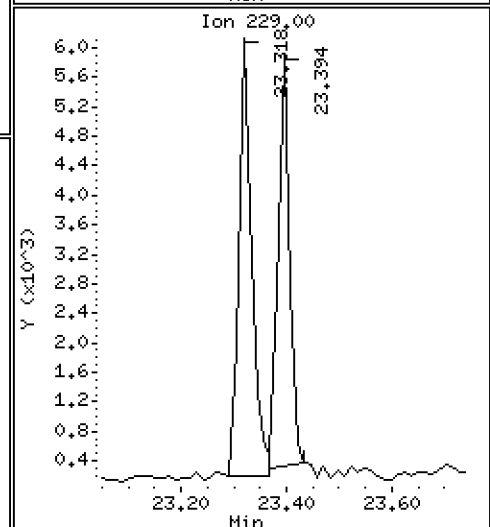
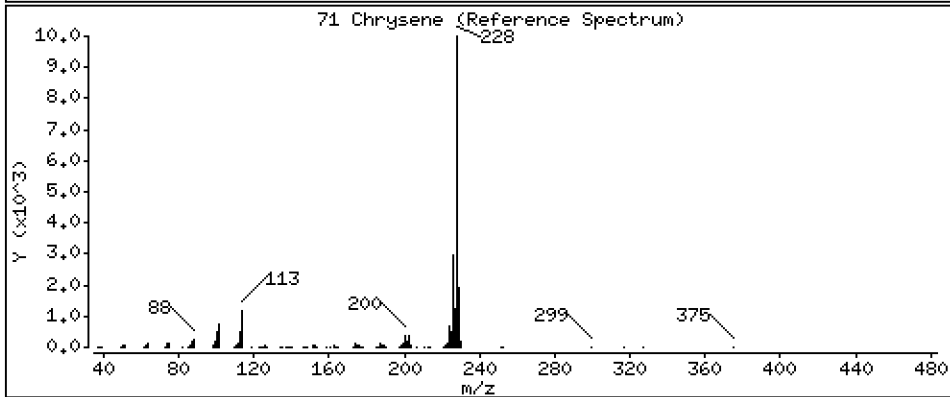
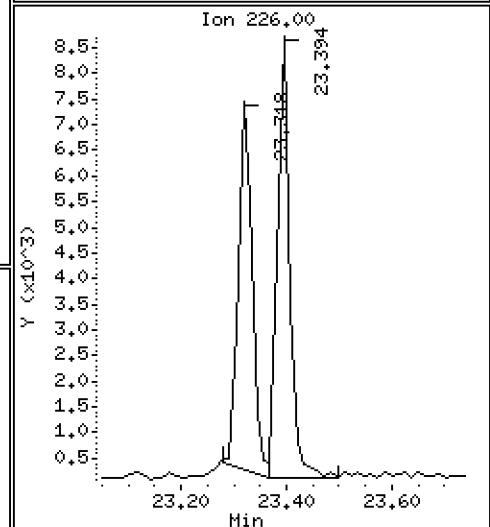
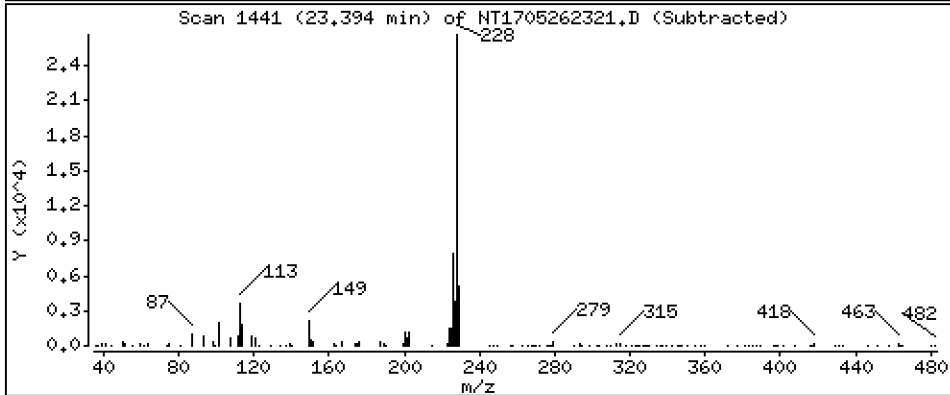
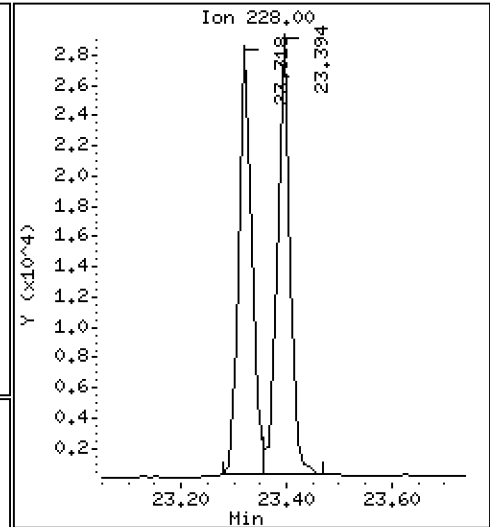
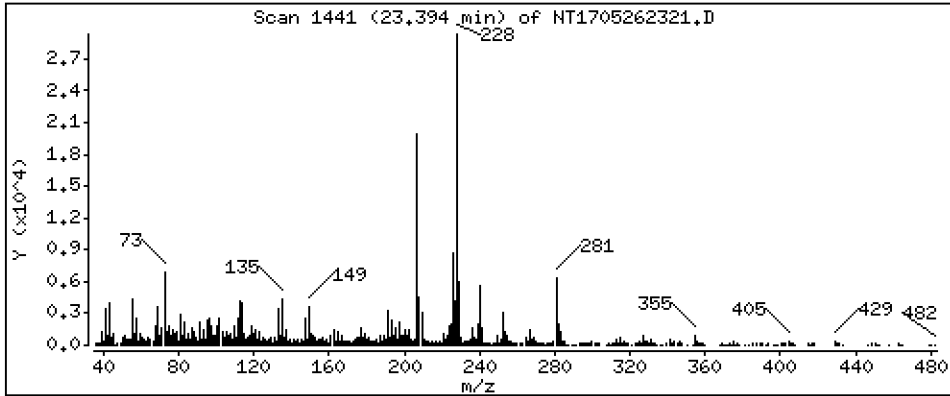
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,2172 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

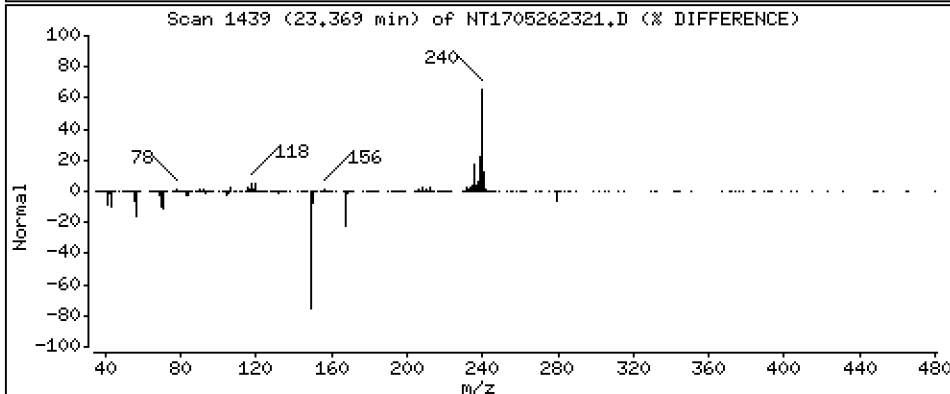
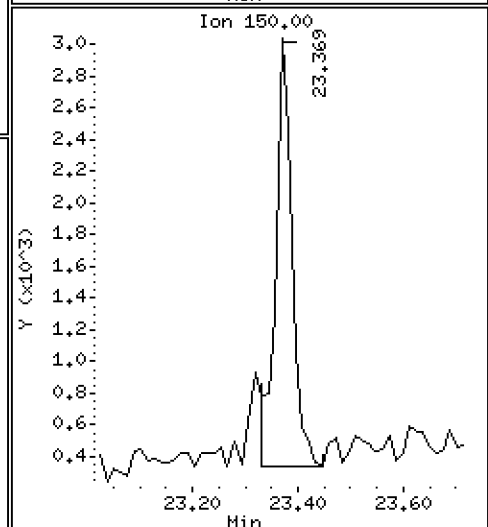
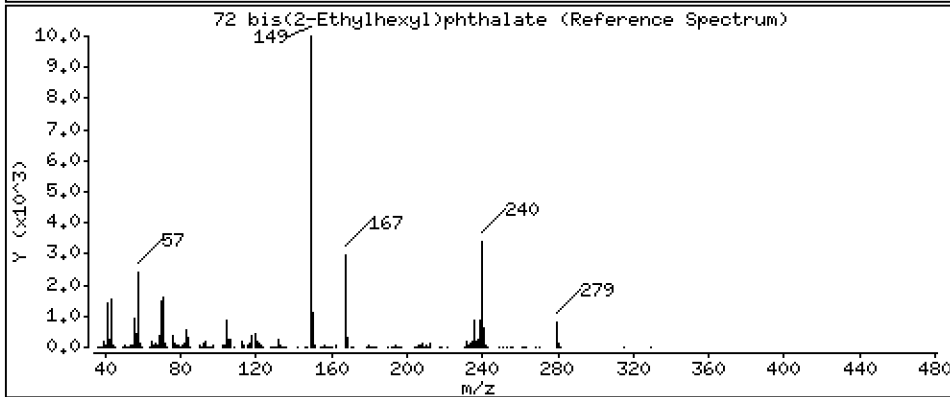
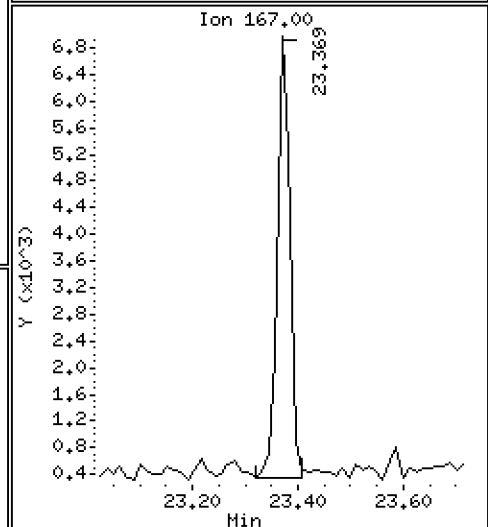
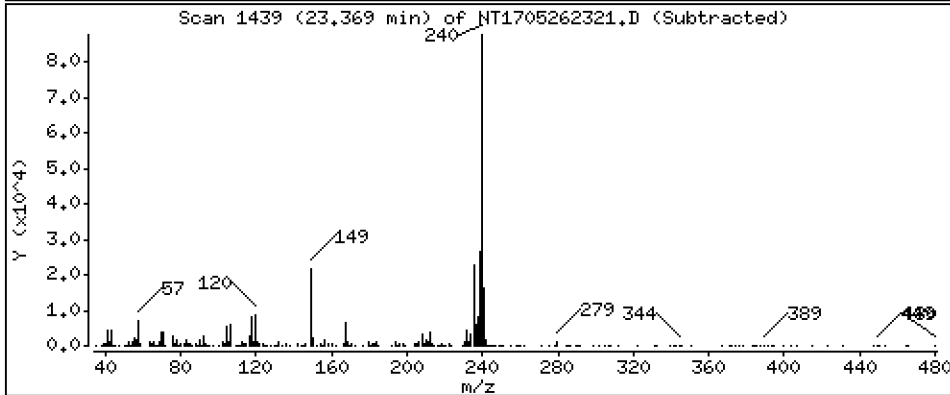
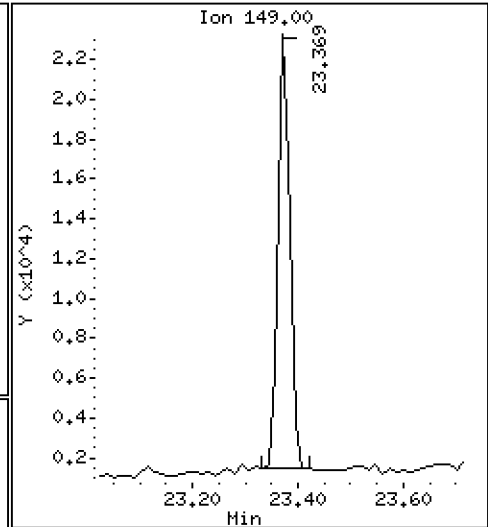
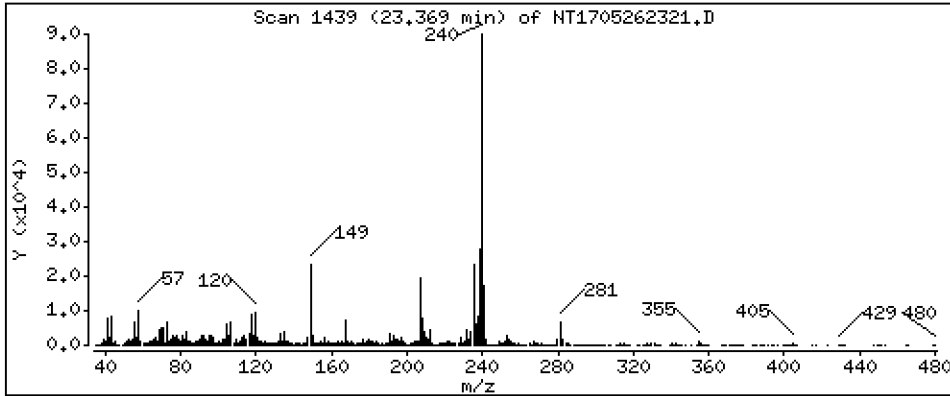
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,1810 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

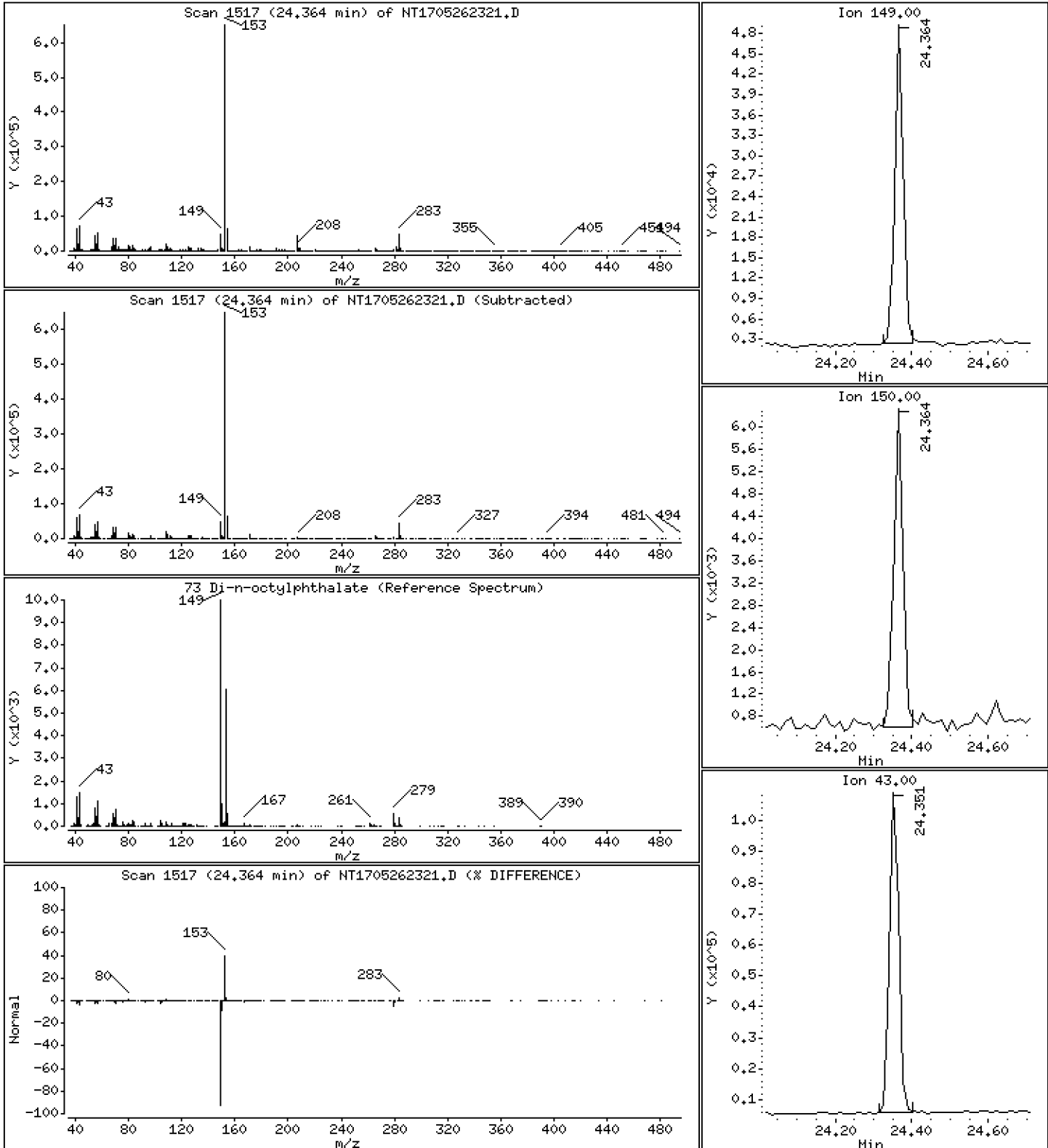
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,2125 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

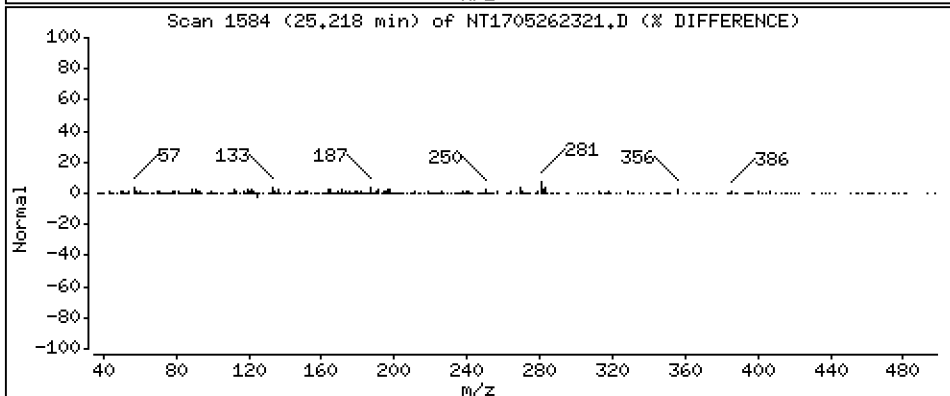
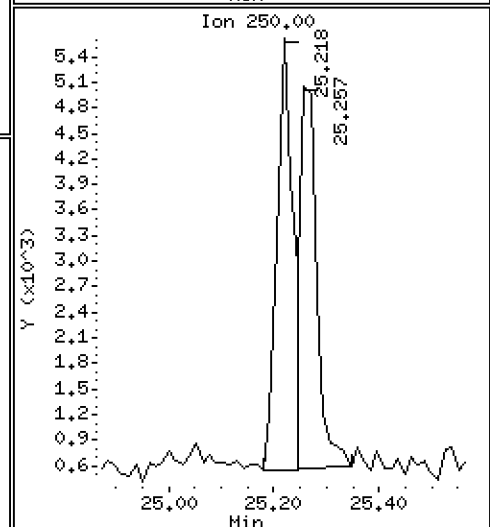
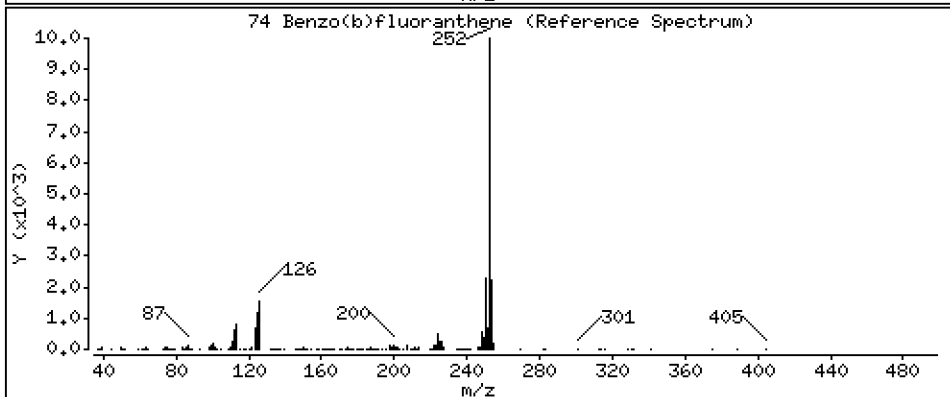
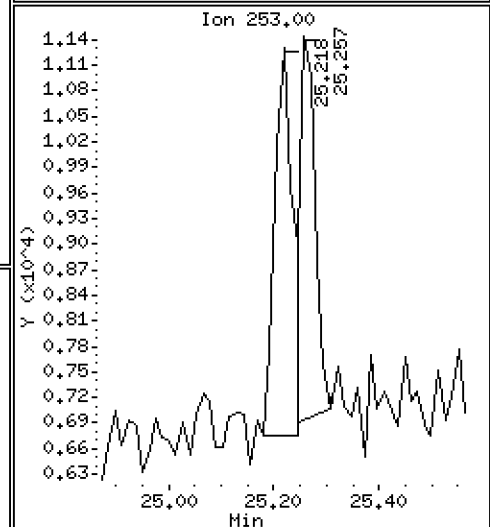
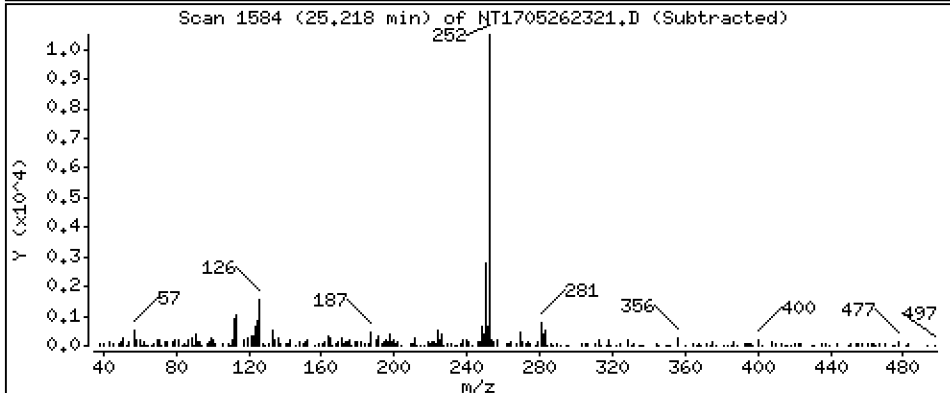
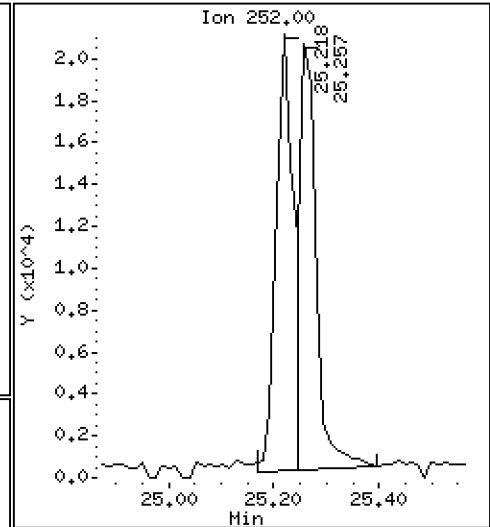
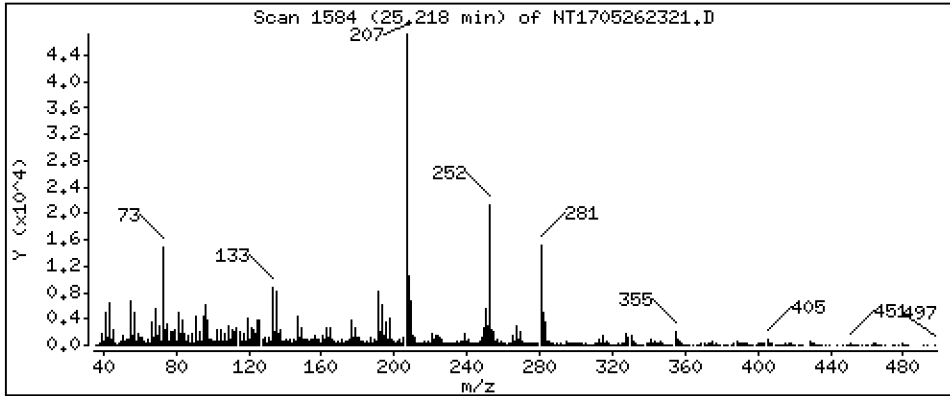
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,2243 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

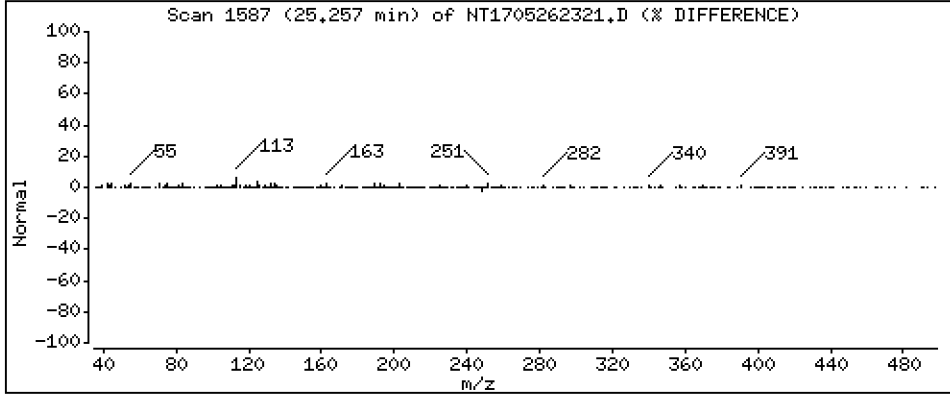
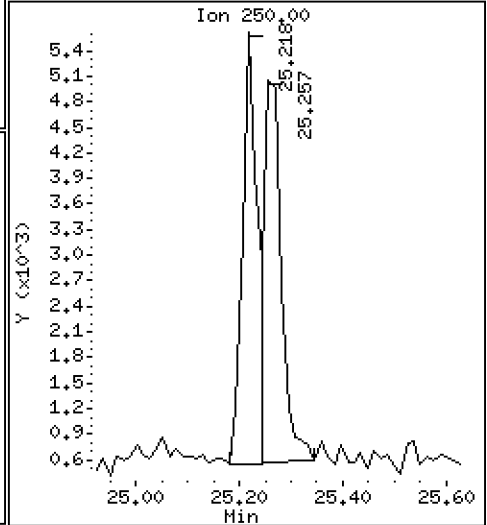
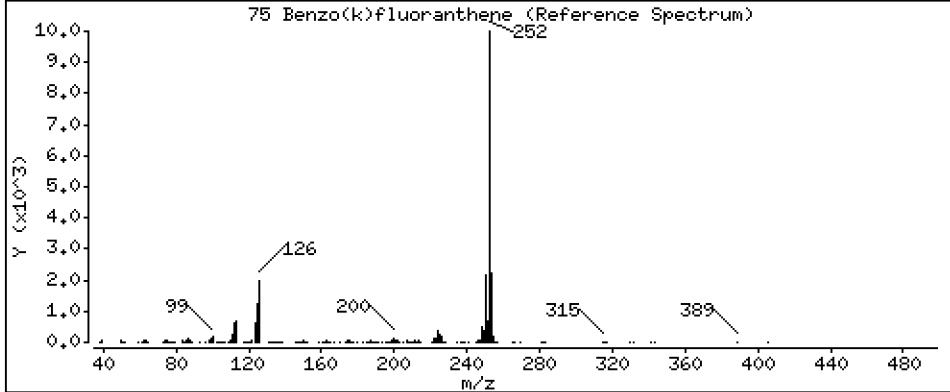
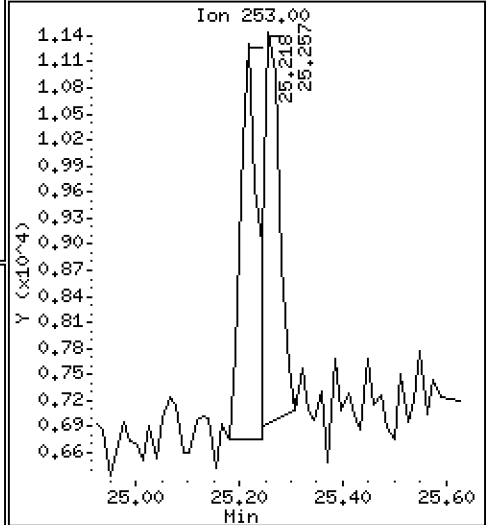
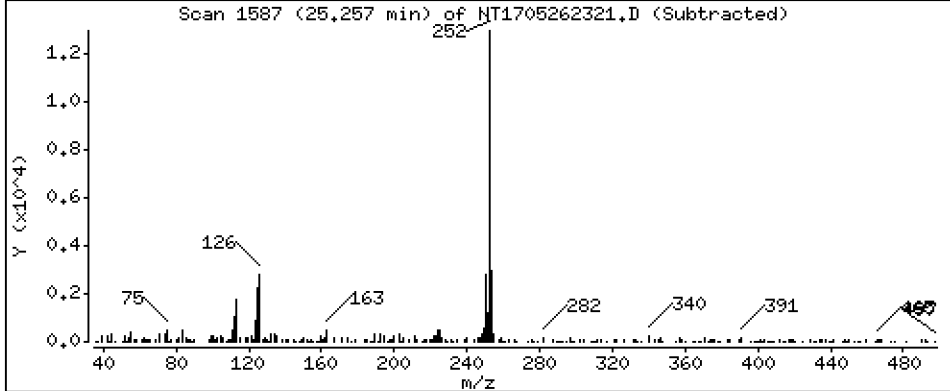
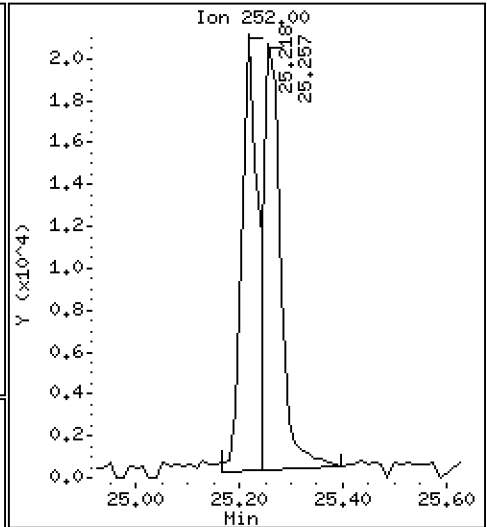
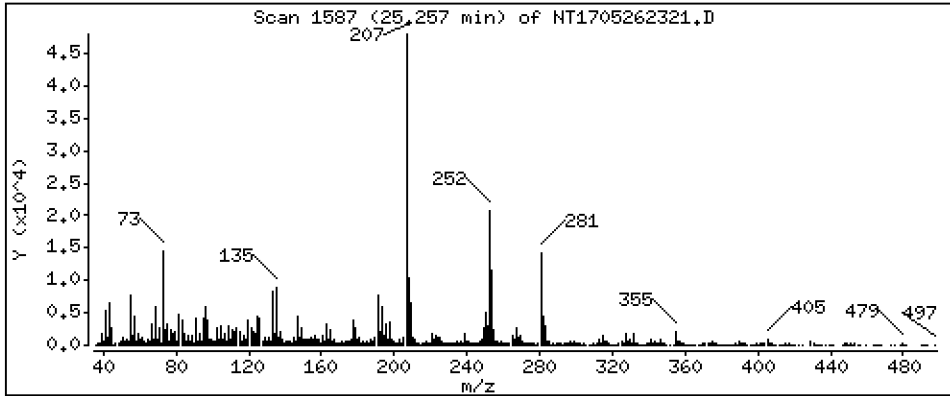
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,2410 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

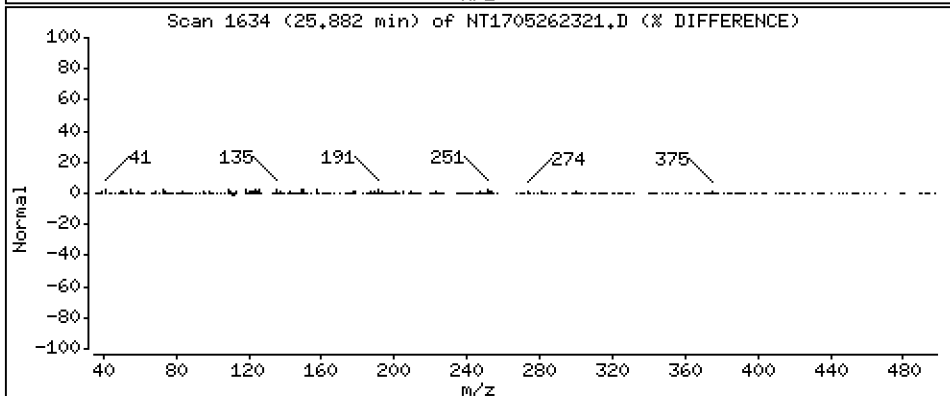
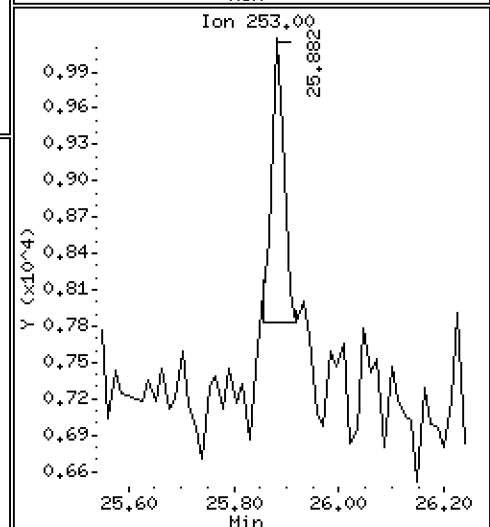
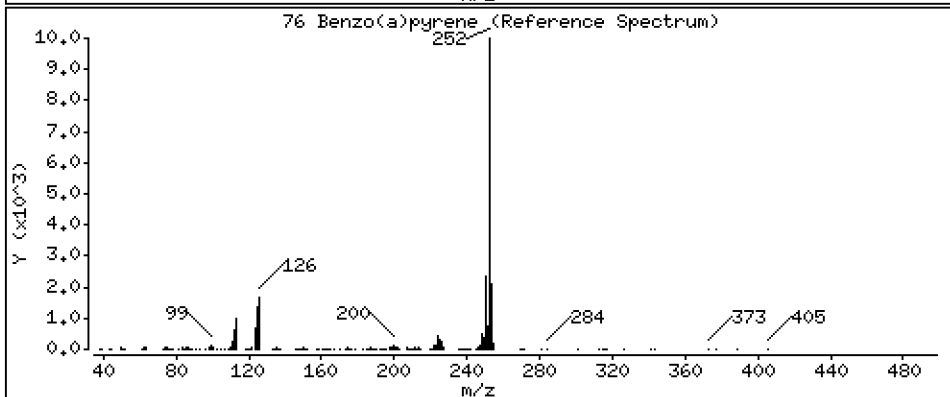
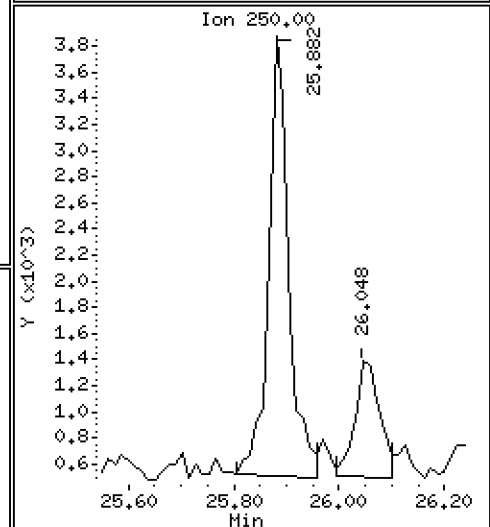
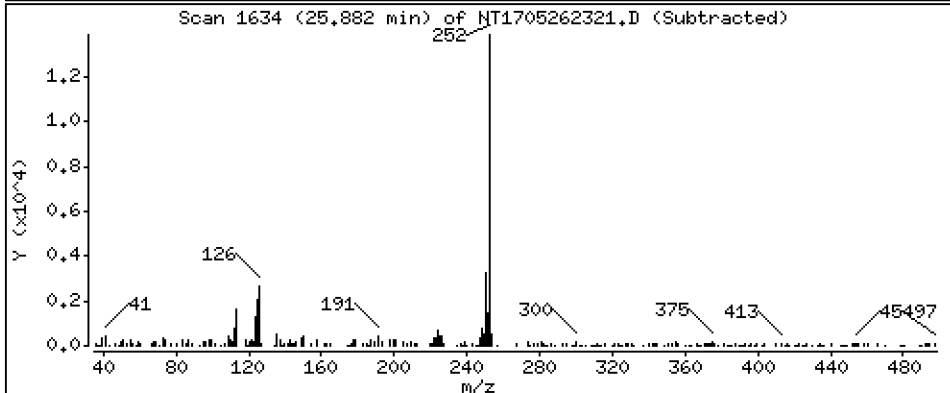
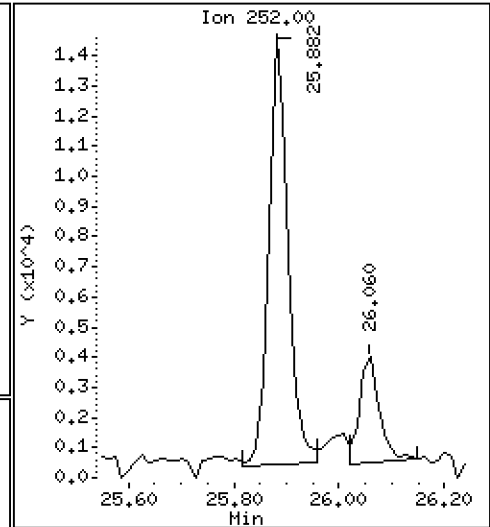
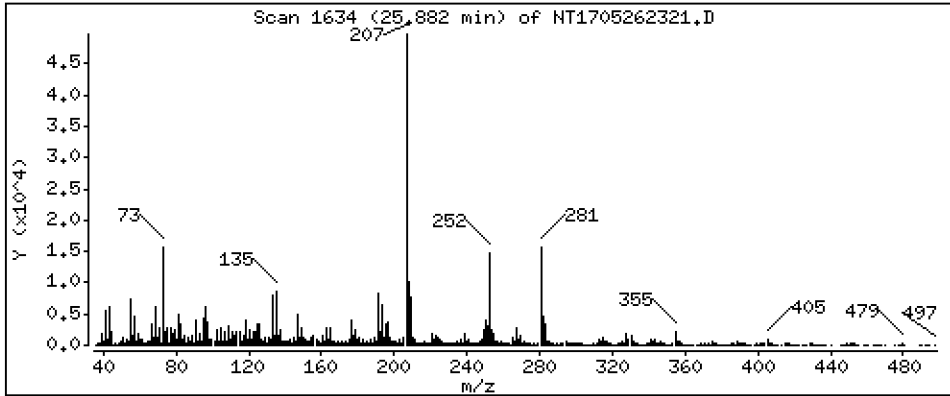
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,2121 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

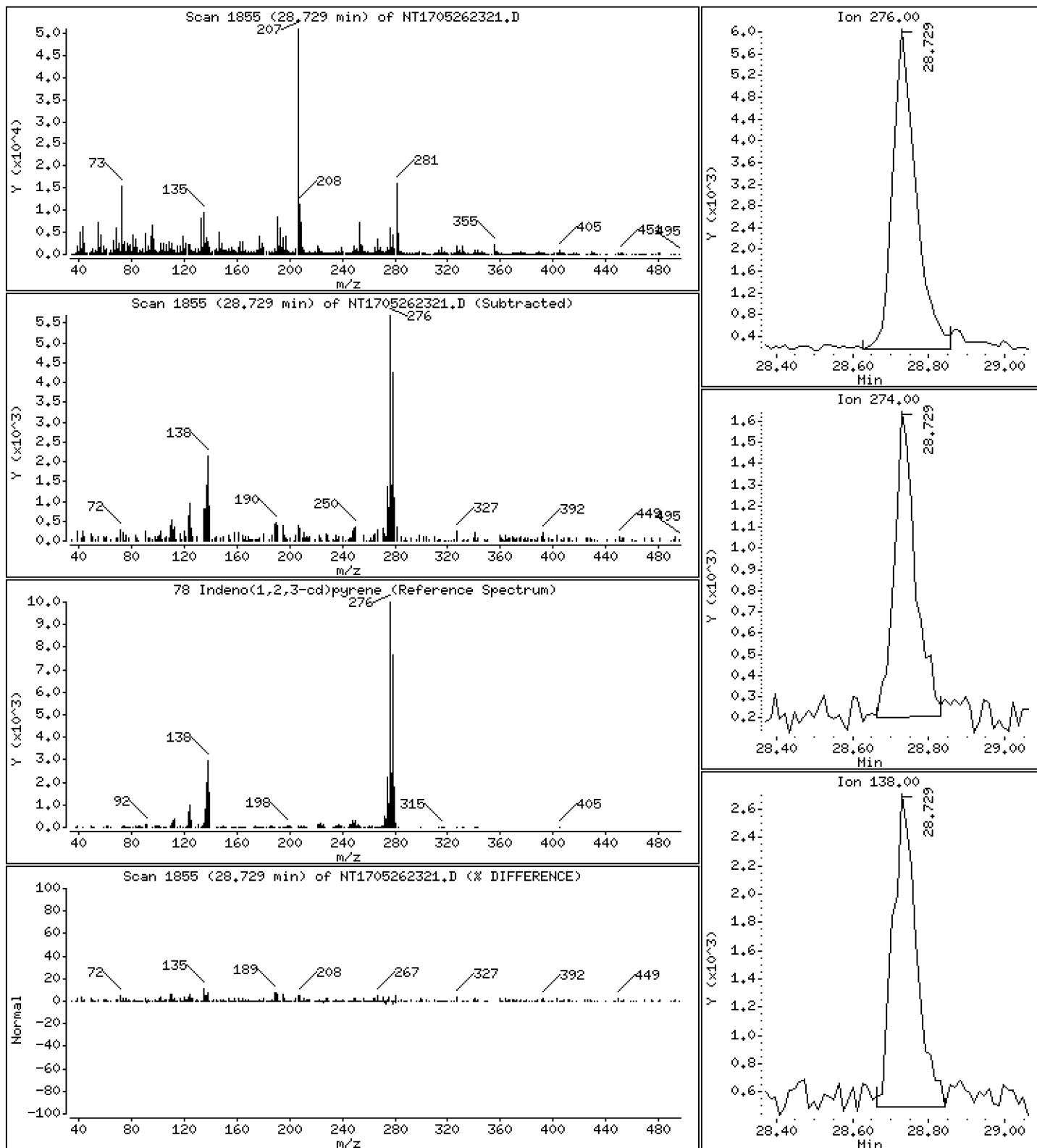
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,1276 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

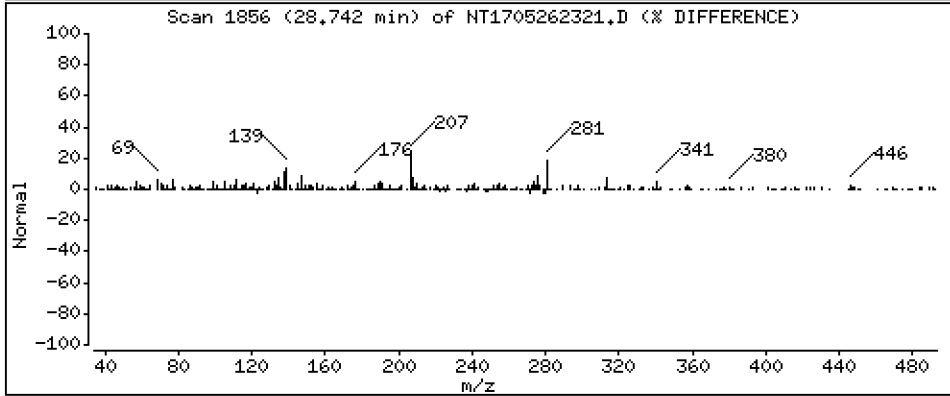
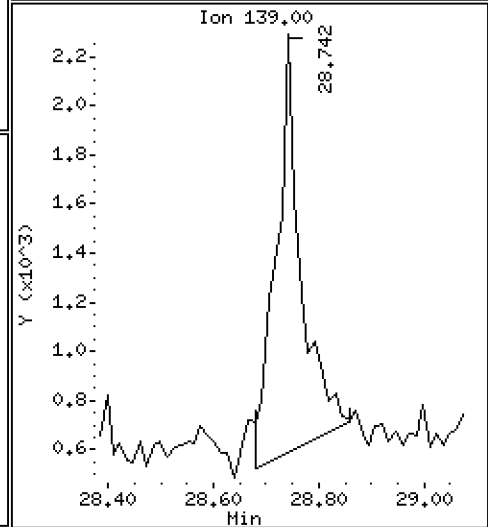
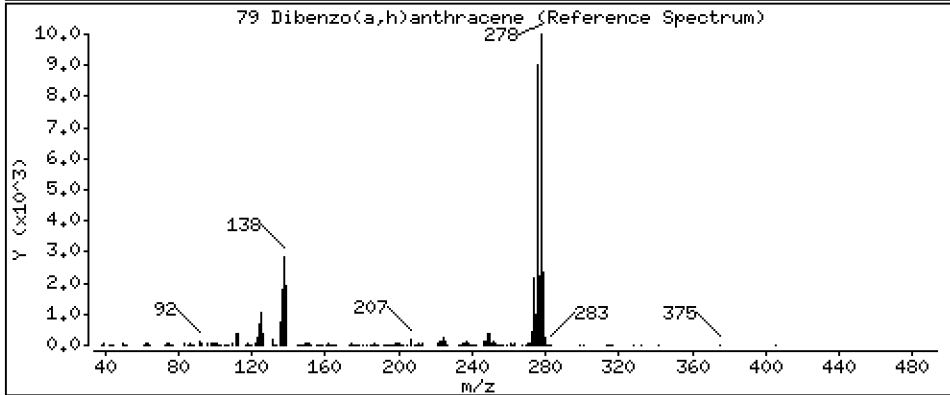
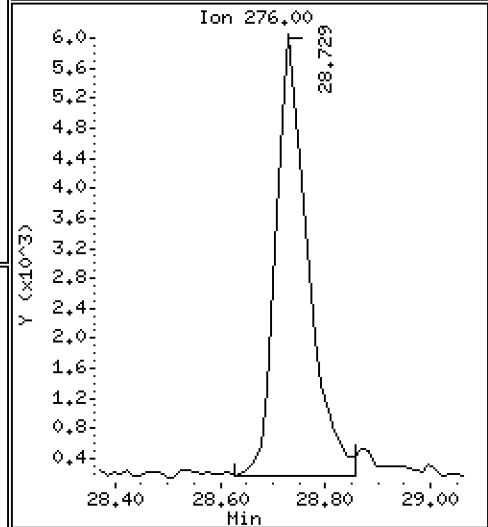
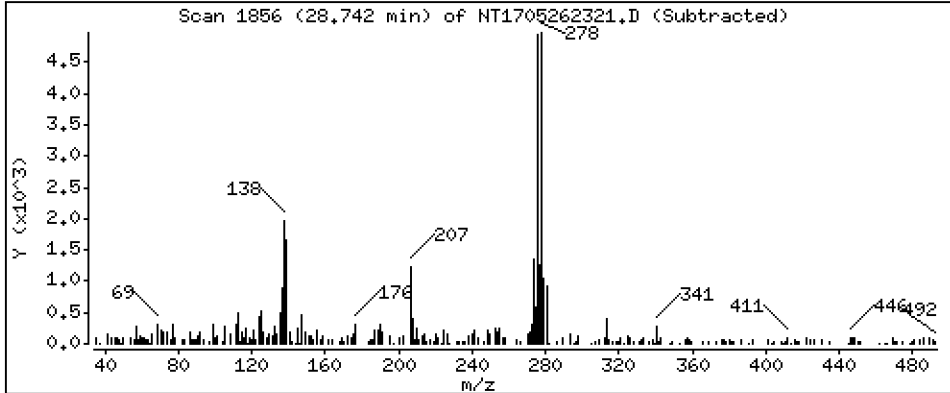
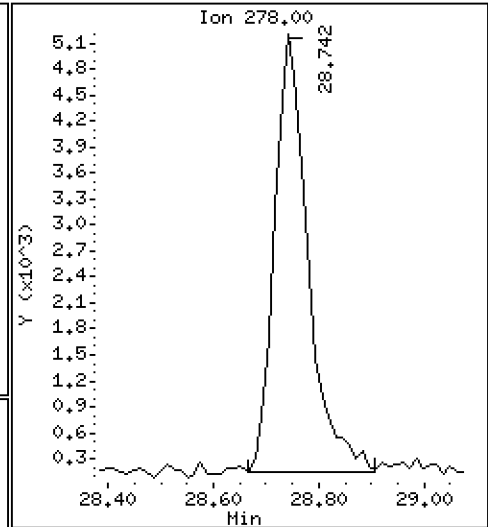
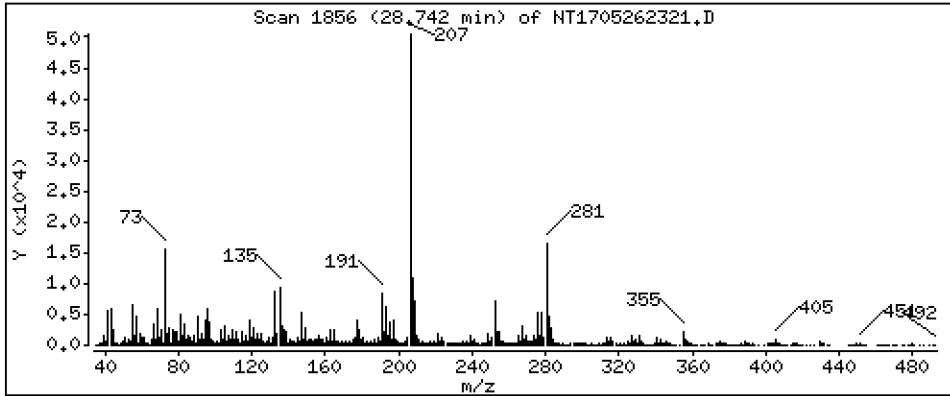
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.1378 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

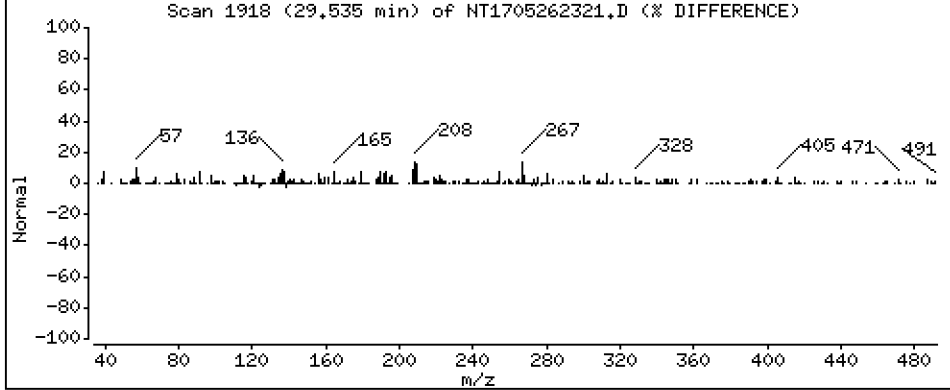
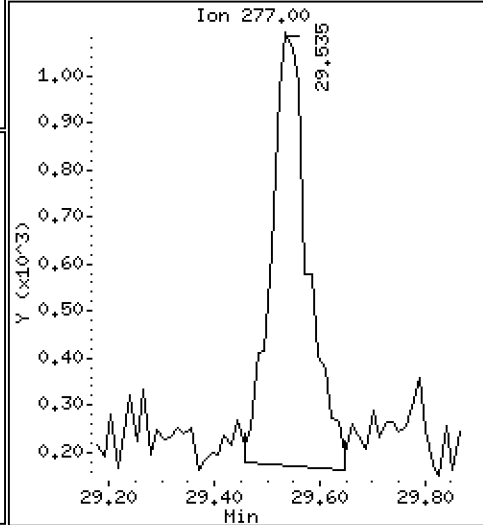
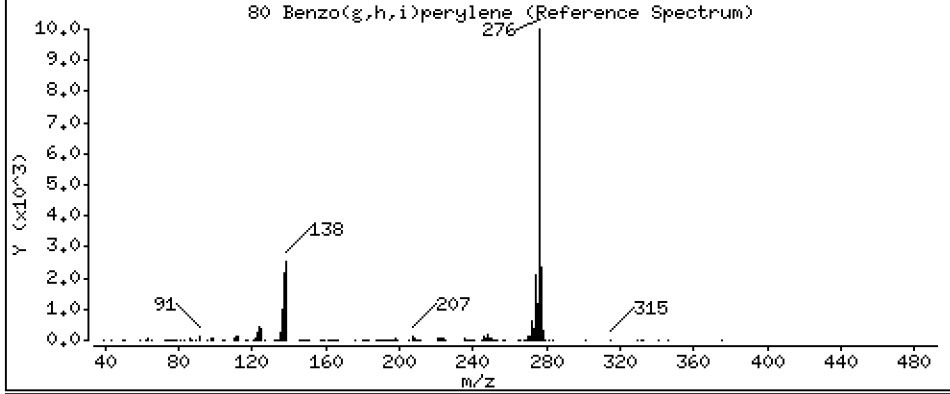
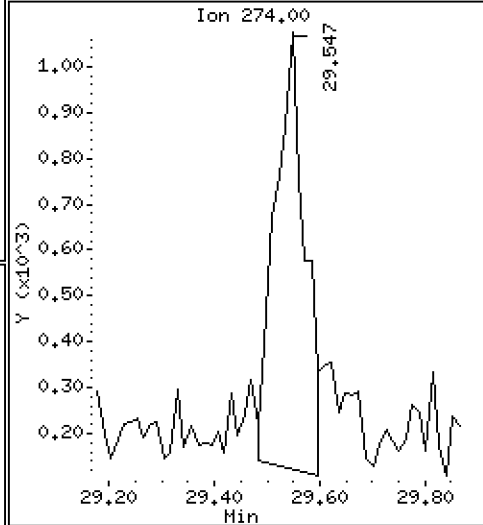
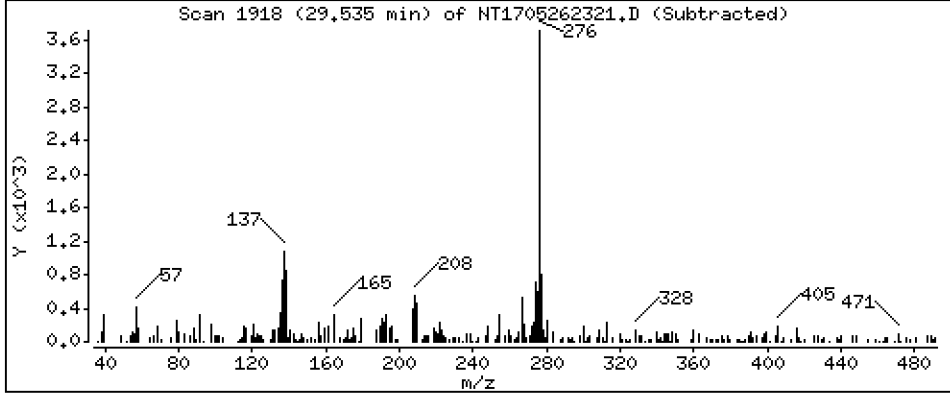
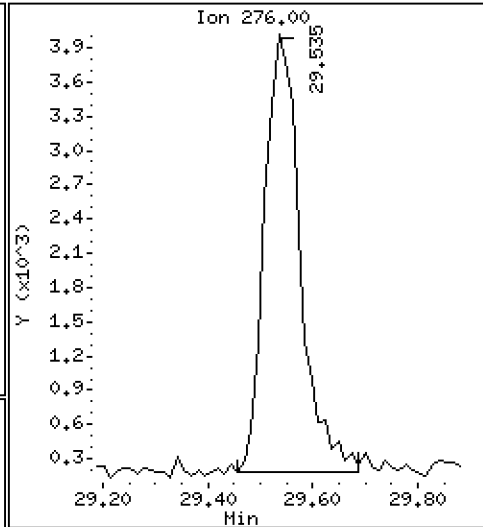
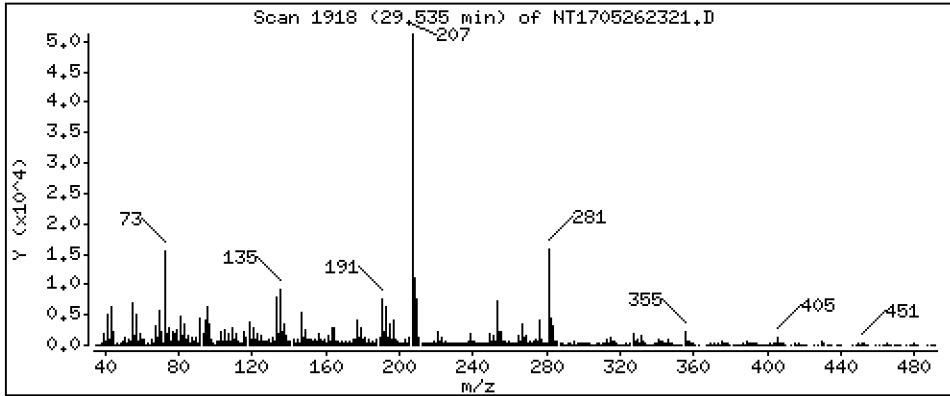
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,1105 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

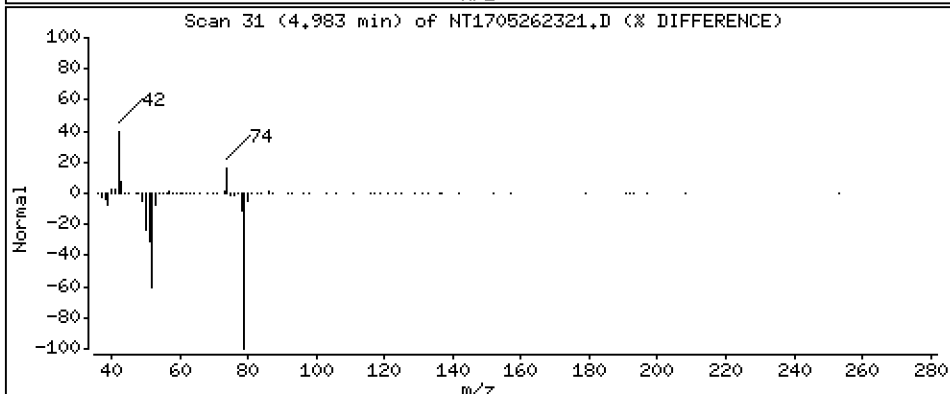
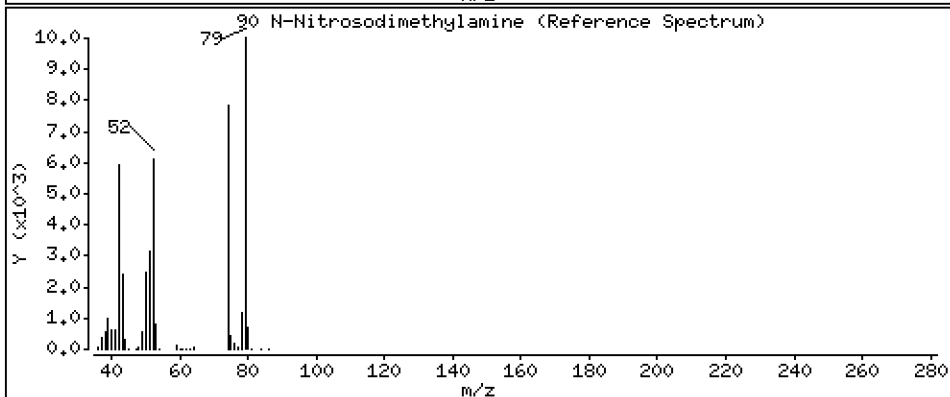
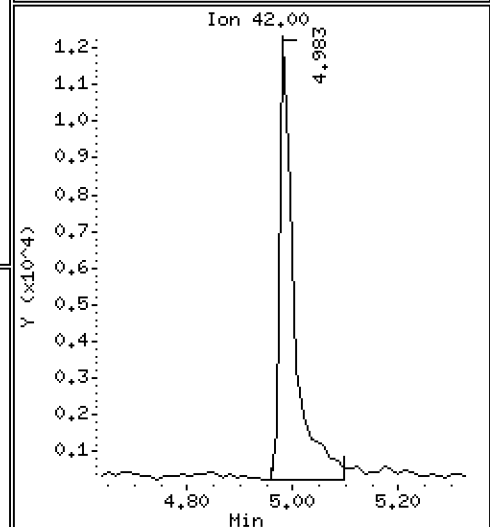
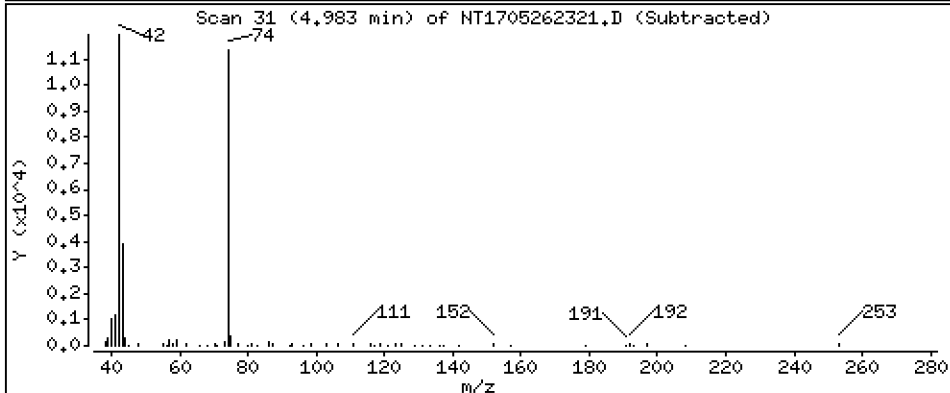
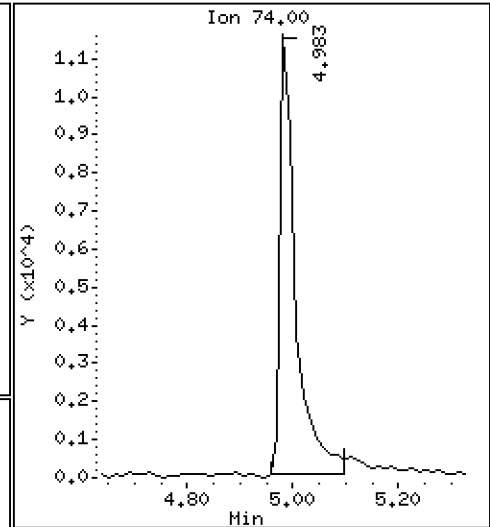
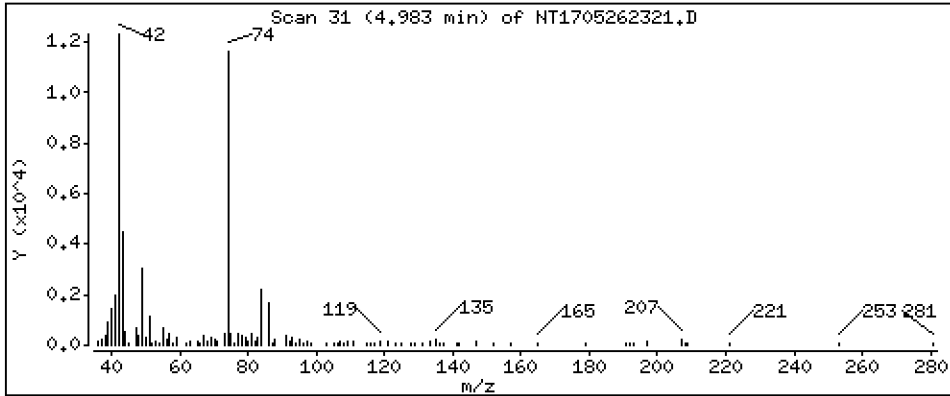
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,3074 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

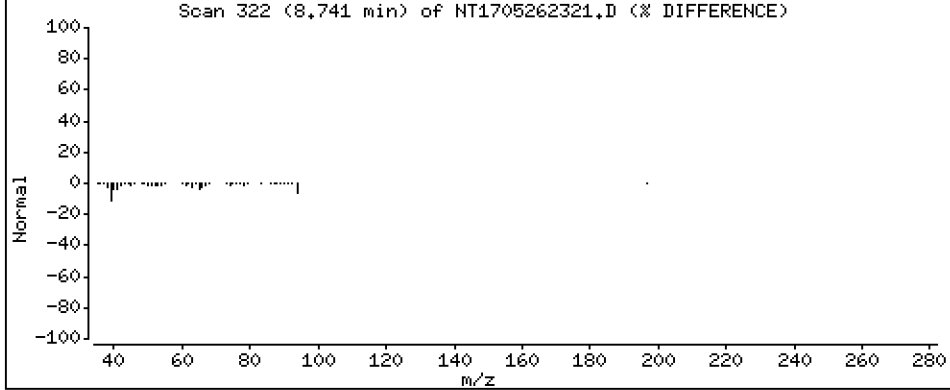
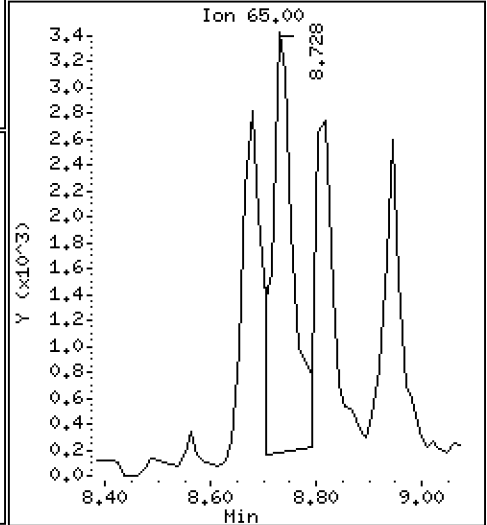
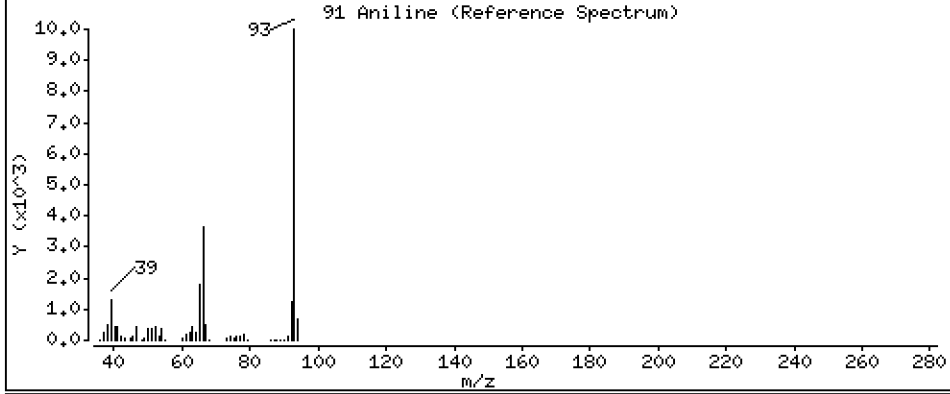
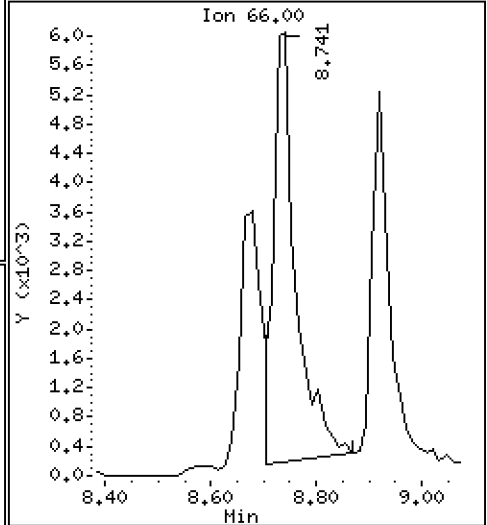
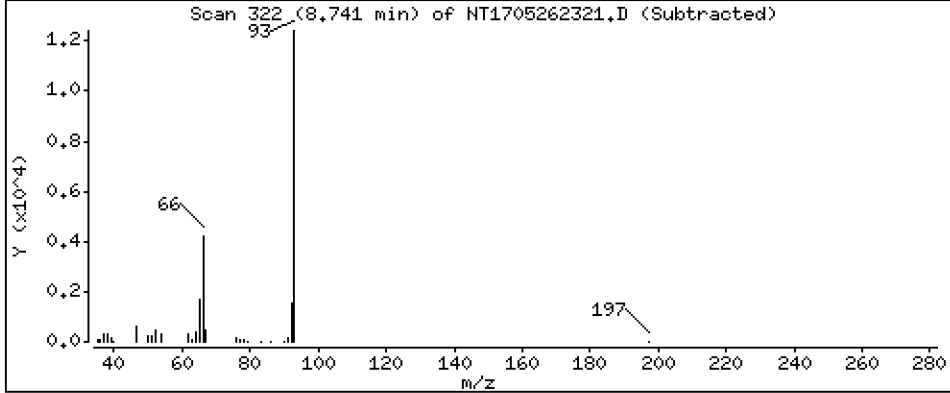
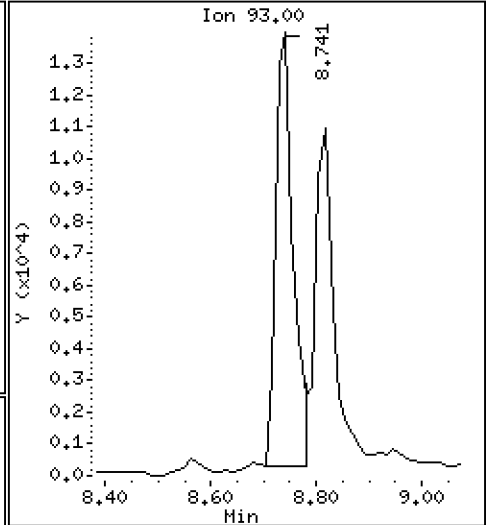
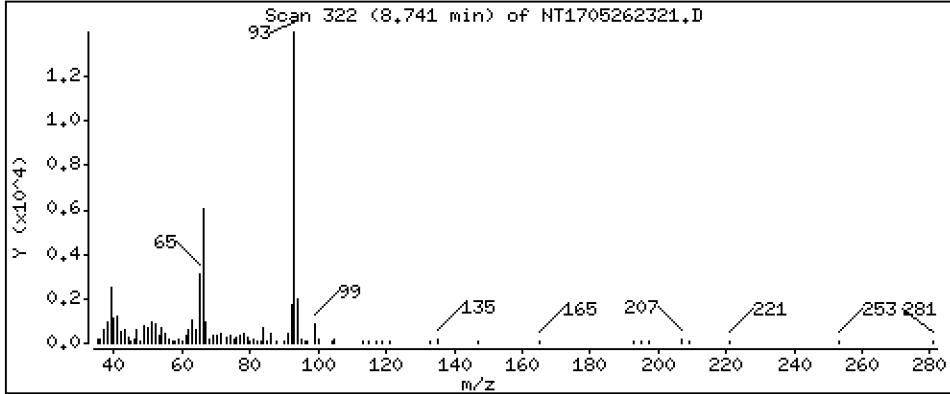
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,2362 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

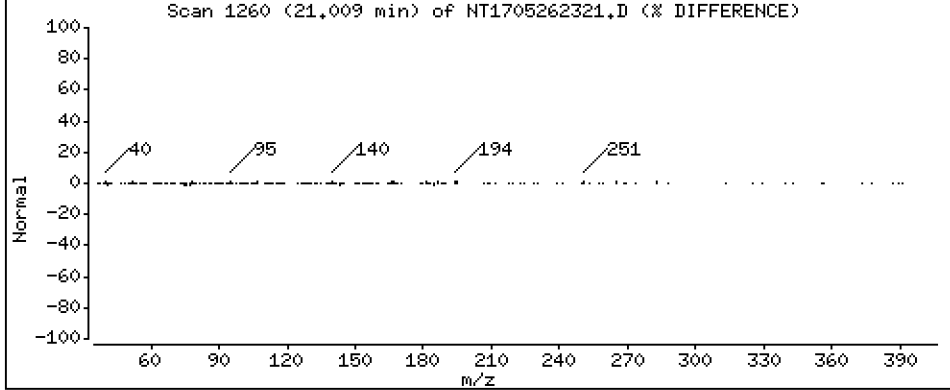
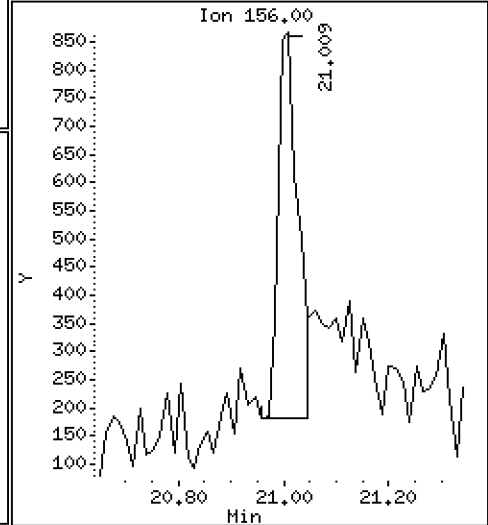
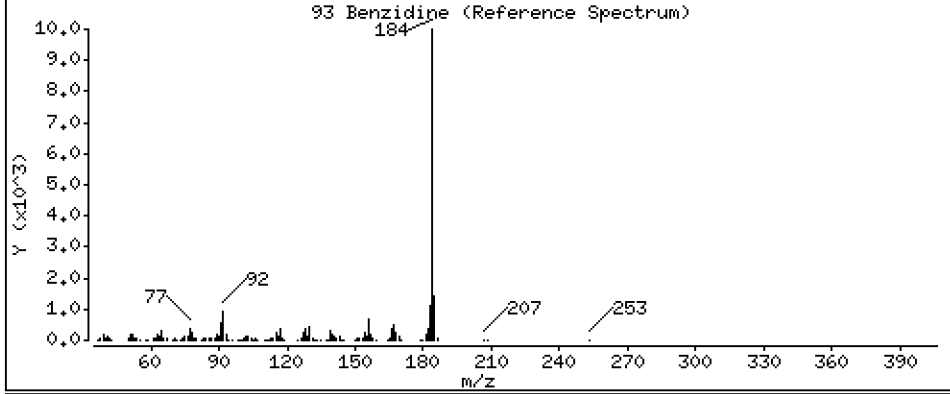
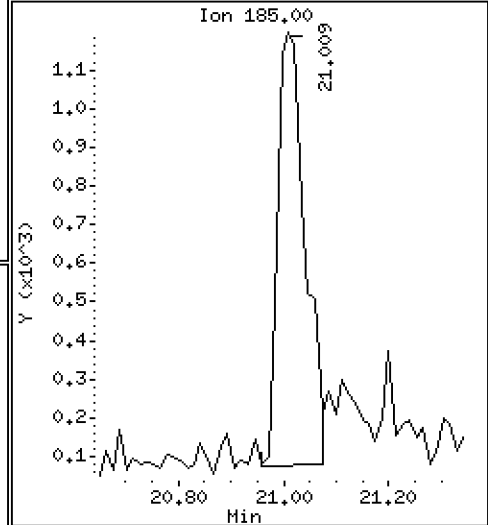
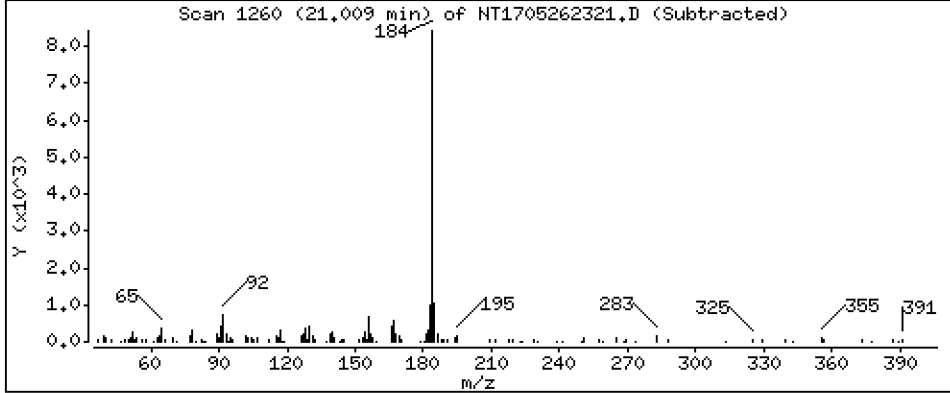
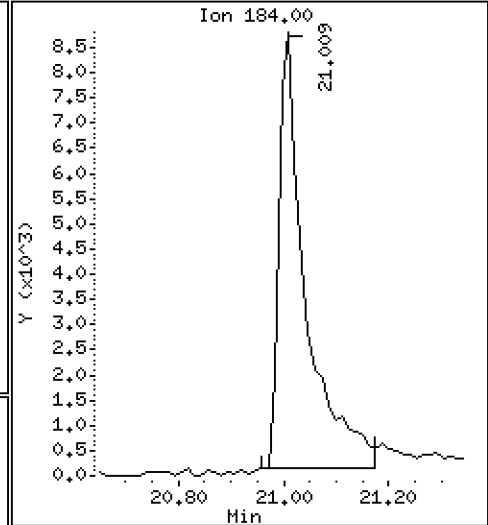
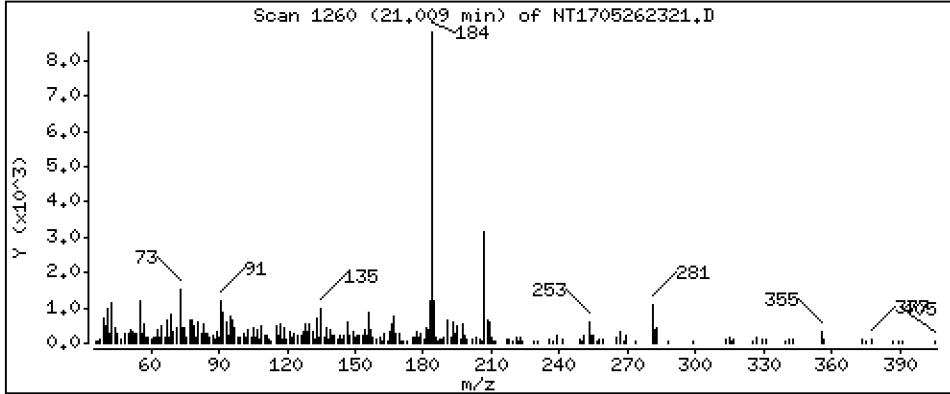
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,4249 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

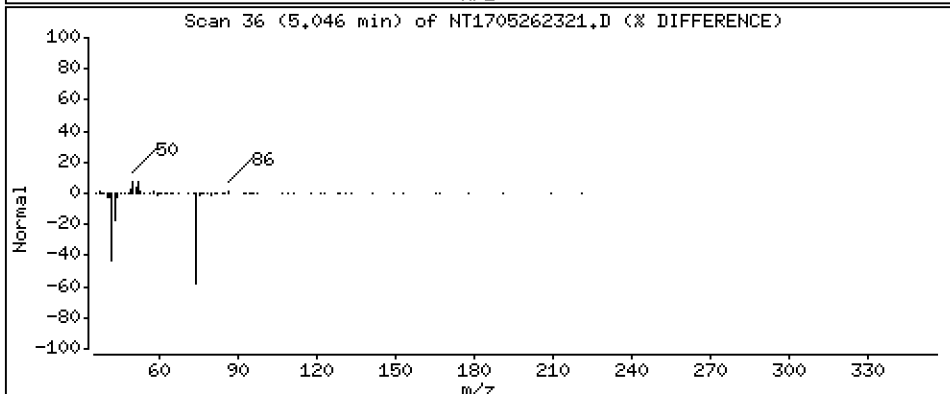
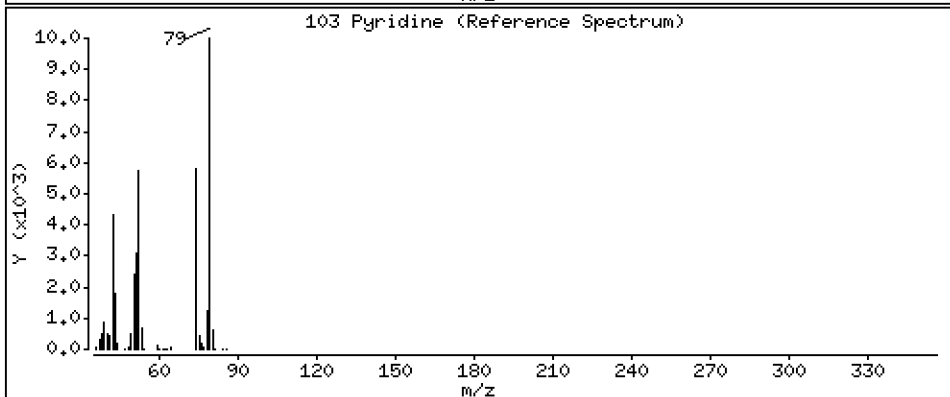
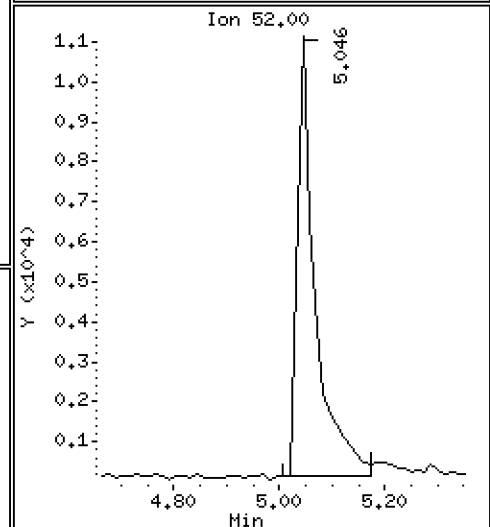
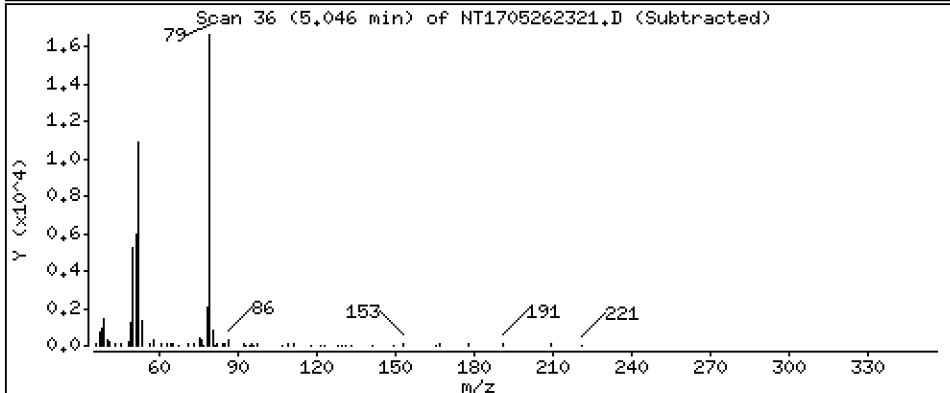
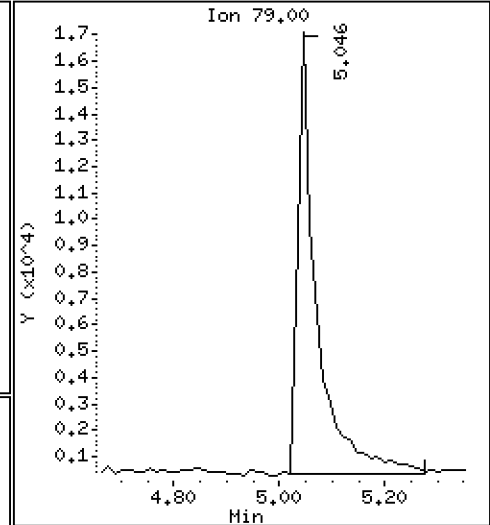
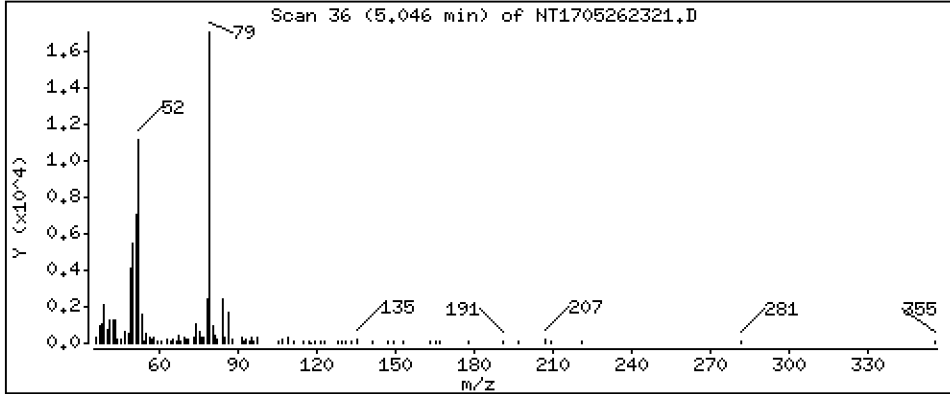
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,3488 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

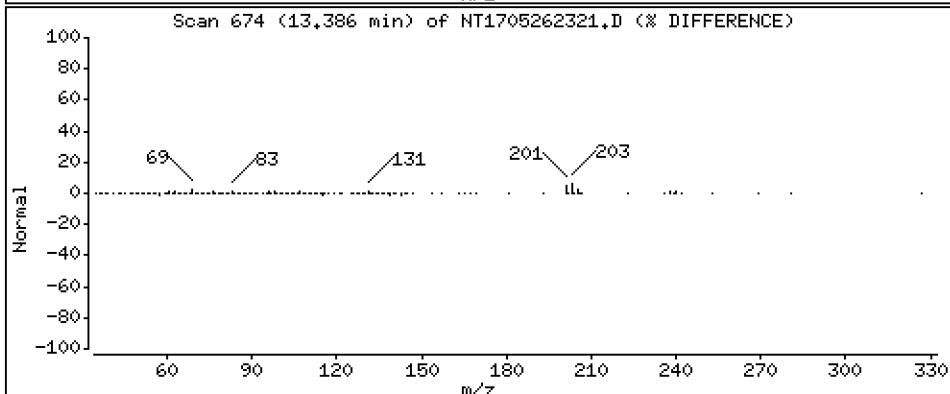
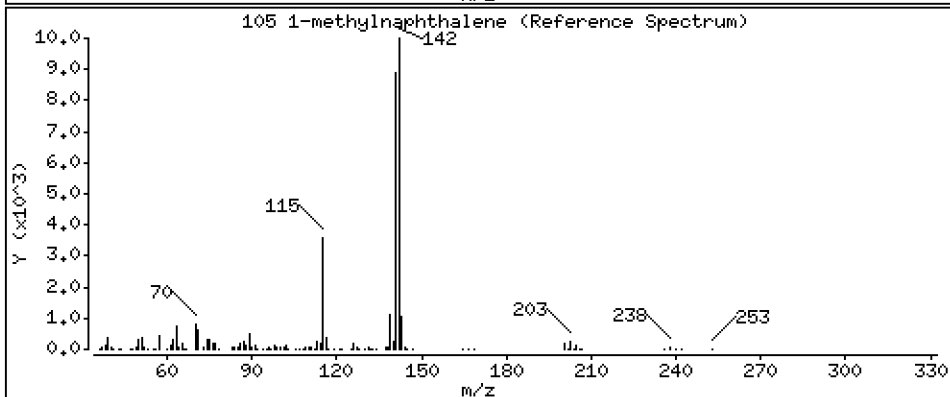
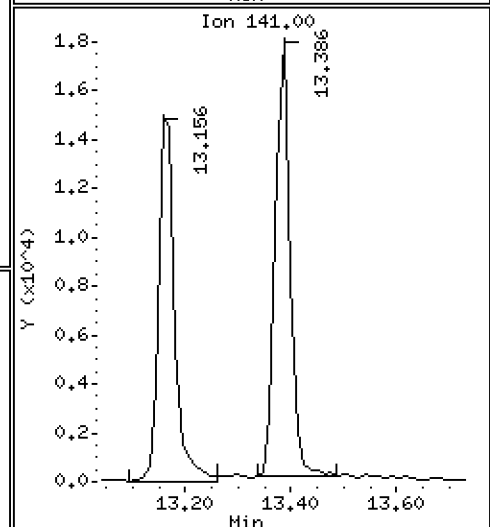
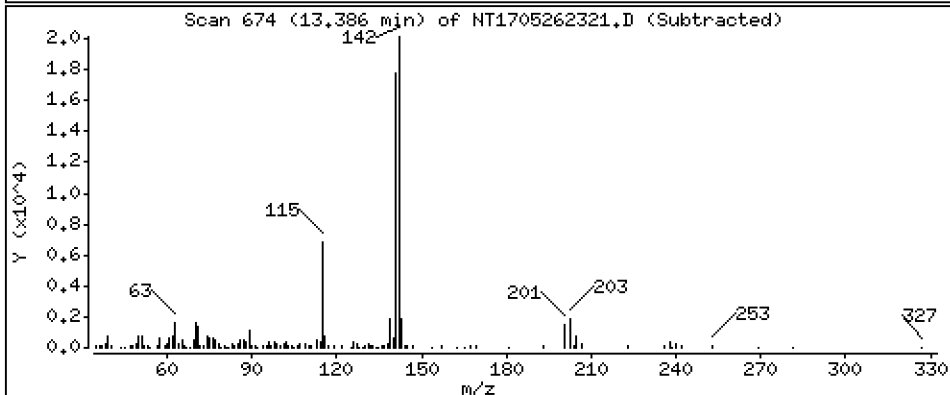
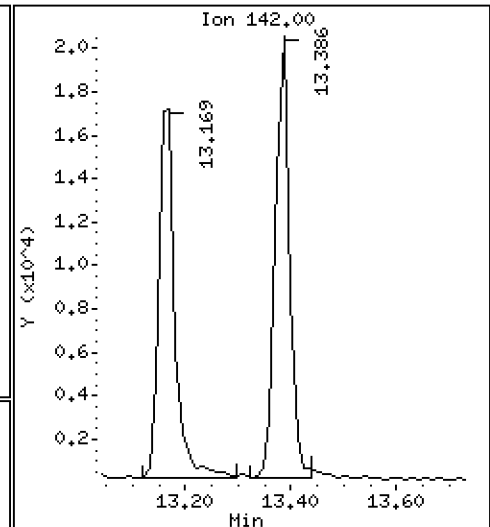
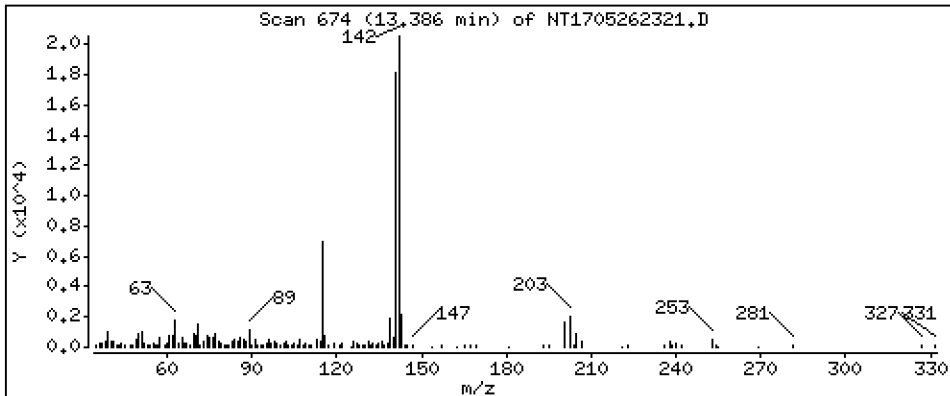
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1960 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

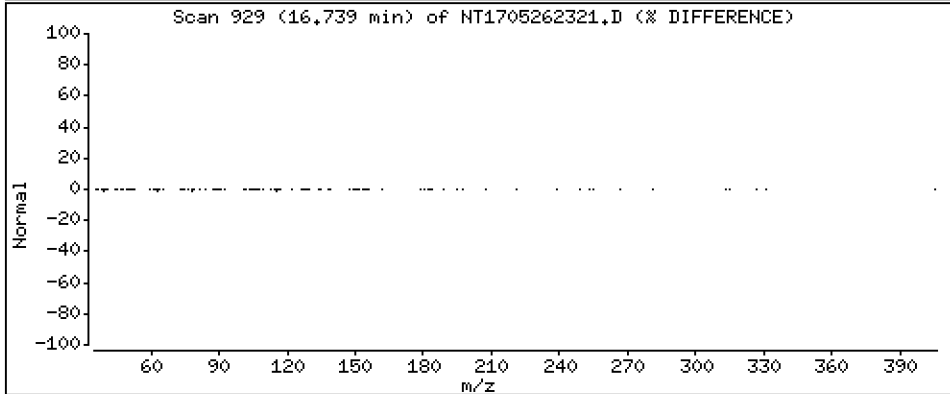
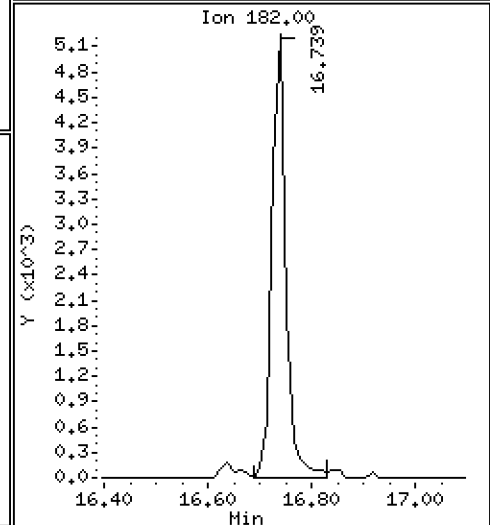
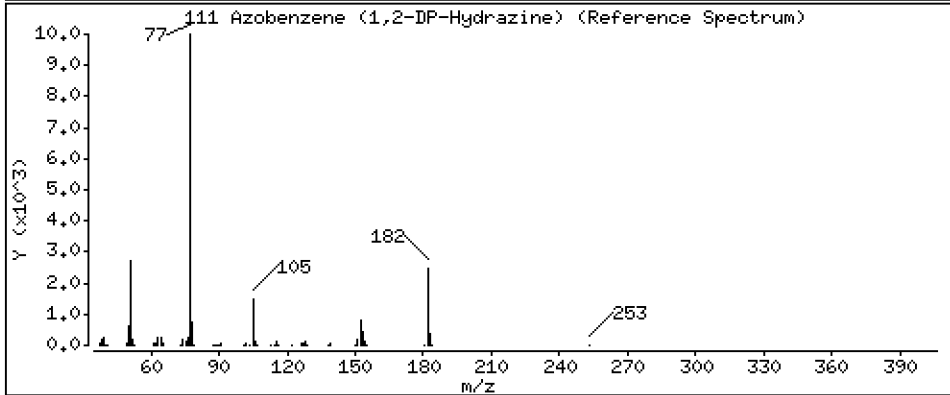
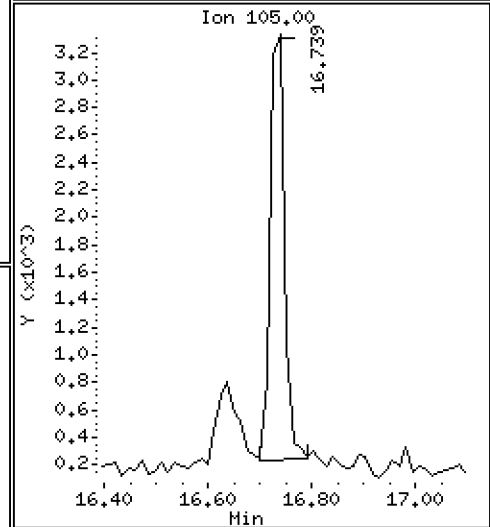
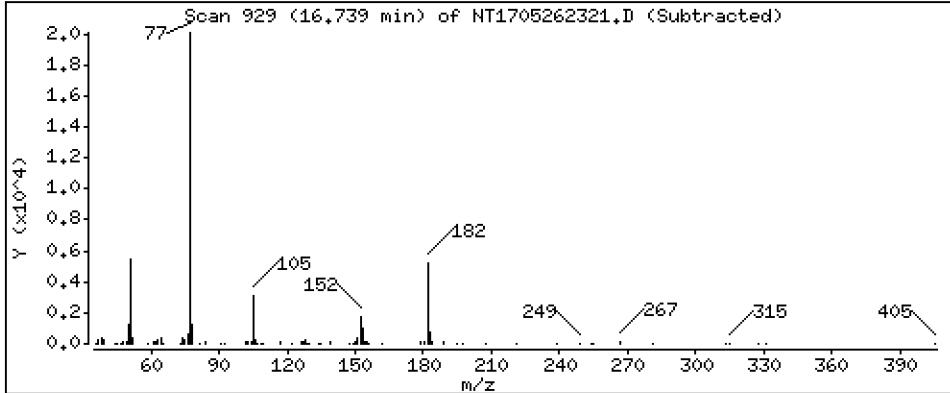
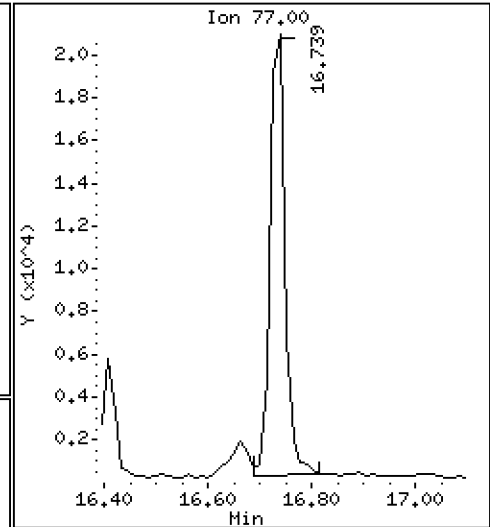
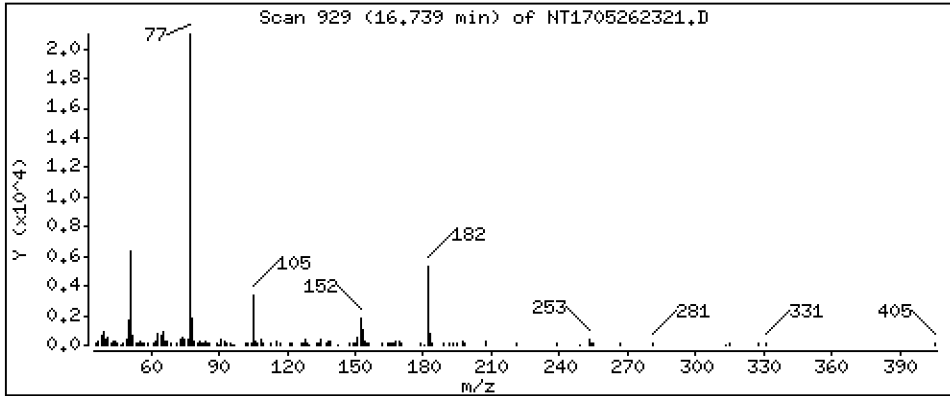
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.1930 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

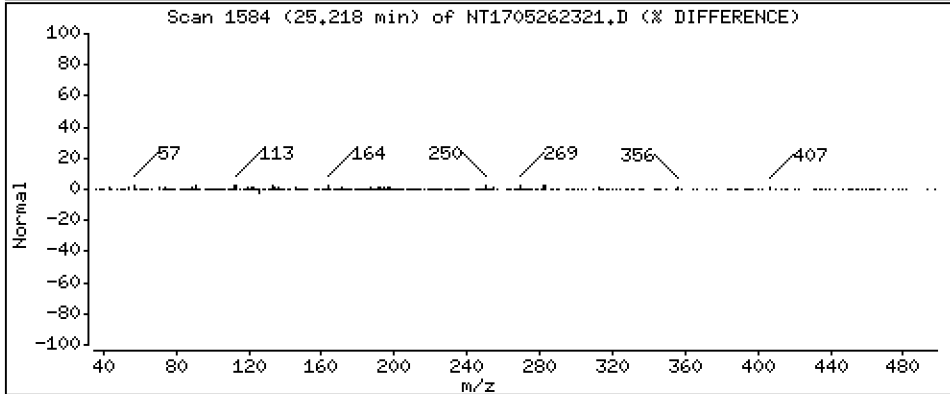
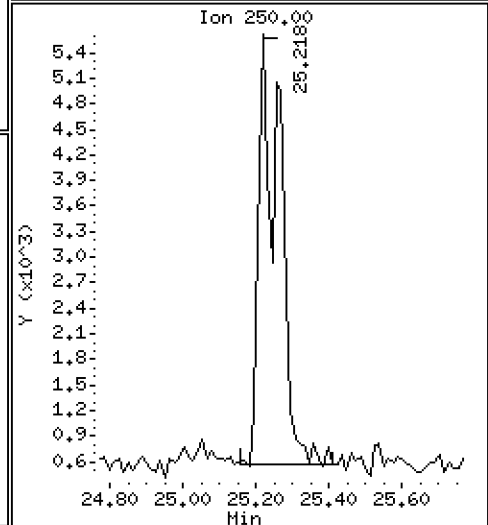
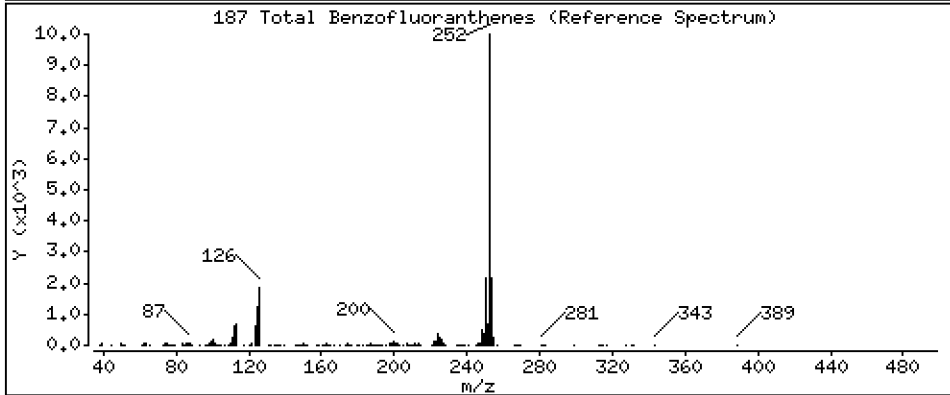
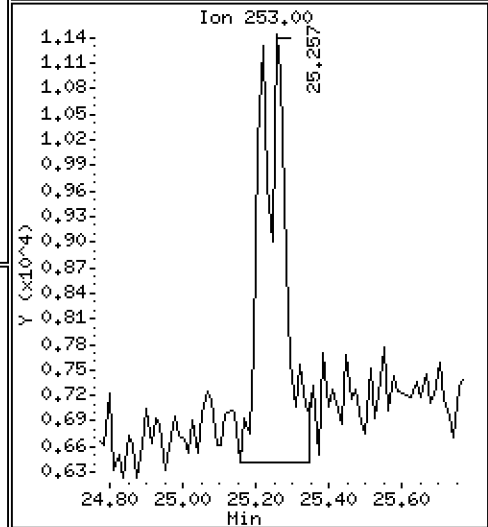
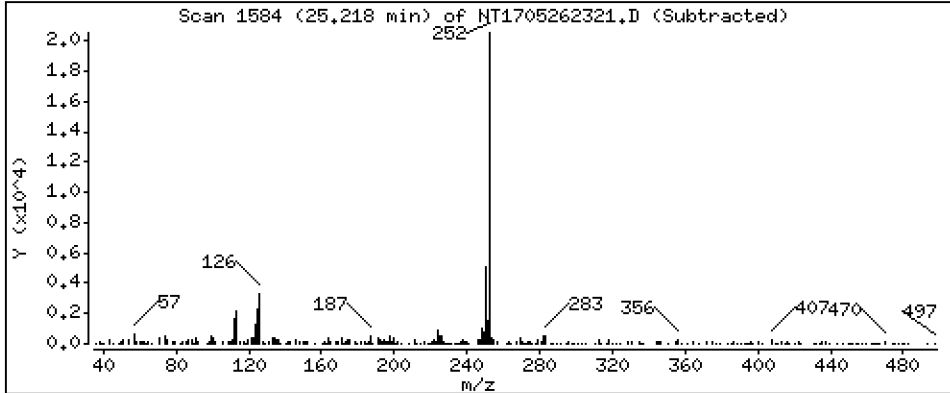
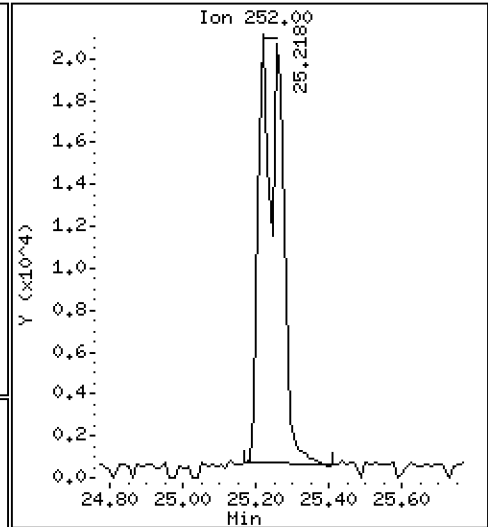
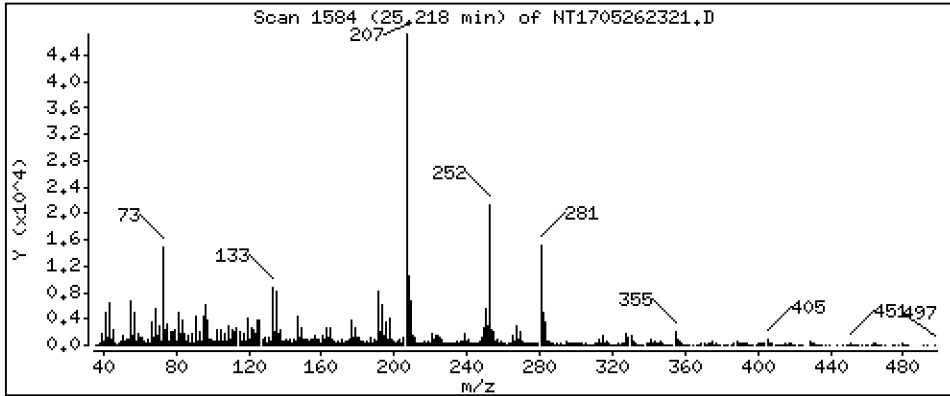
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,4404 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

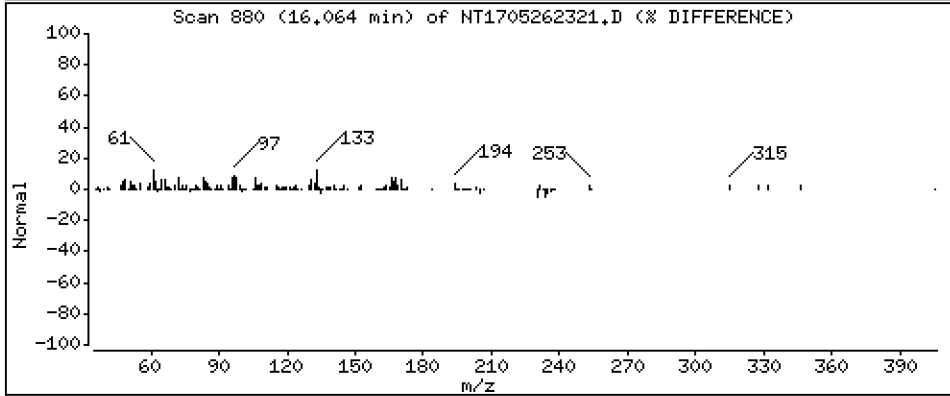
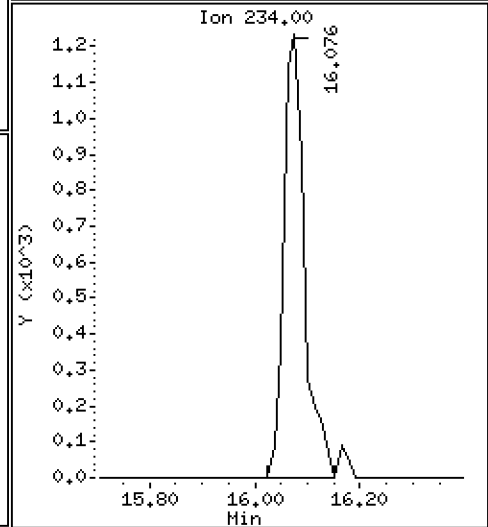
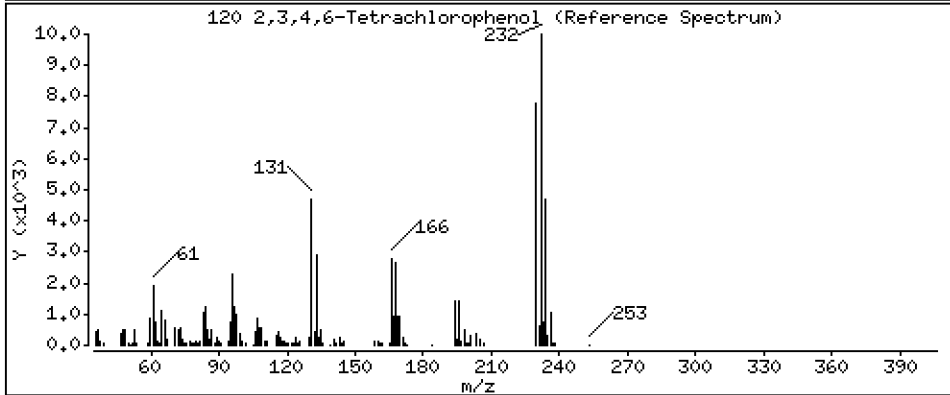
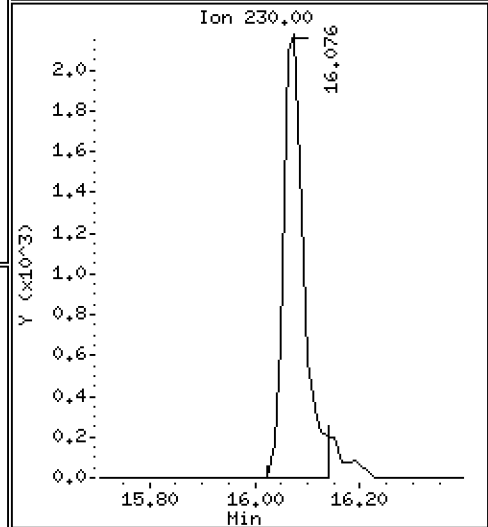
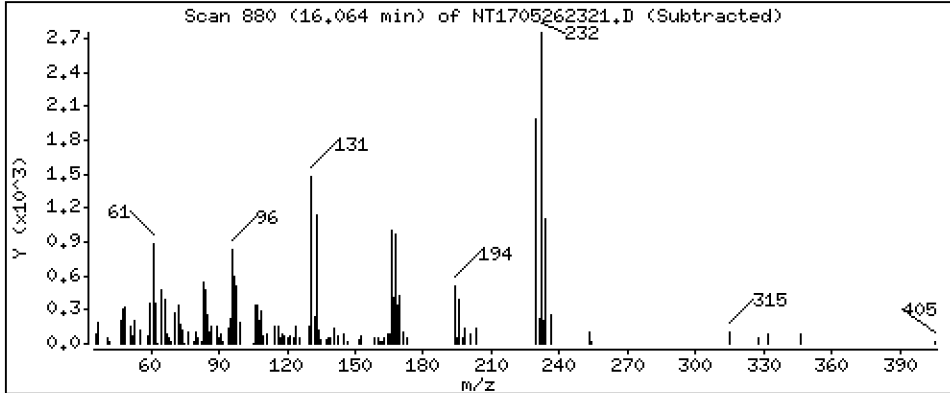
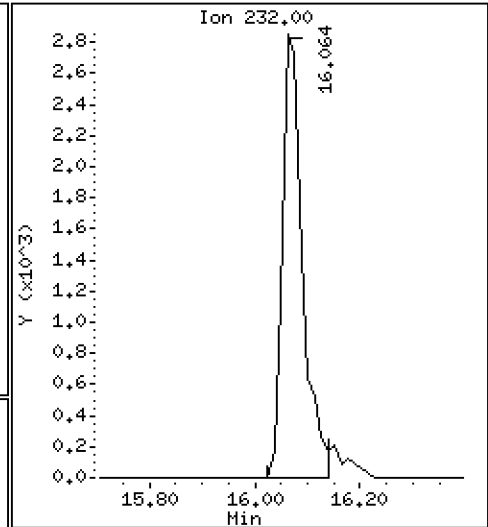
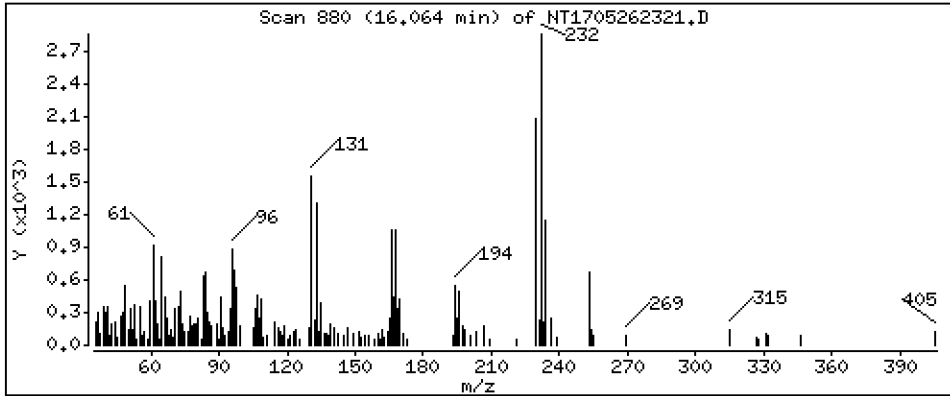
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,1117 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262321.D
 Lab Smp Id: SLE0434-LCV2
 Inj Date : 27-MAY-2023 01:10
 Operator : VTS
 Smp Info : SLE0434-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:34 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	29103	0.24695	0.2470
\$ 2 Phenol-d5	99		8.651	8.639	(0.934)	33652	0.21578	0.2158
3 Phenol	94		8.677	8.664	(0.937)	28758	0.17409	0.1741
\$ 5 2-Chlorophenol-d4	132		8.919	8.919	(0.963)	31099	0.24895	0.2489
4 Bis(2-Chloroethyl)ether	93		8.817	8.817	(0.952)	26653	0.22133	0.2213
6 2-Chlorophenol	128		8.944	8.944	(0.966)	21183	0.15356	0.1536
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	26075	0.18677	0.1868
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	360010	4.00000	
9 1,4-Dichlorobenzene	146		9.301	9.301	(1.004)	25958	0.18643	0.1864
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	15787	0.17980	0.1798
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	25680	0.19619	0.1962
11 Benzyl alcohol	108		9.570	9.544	(1.033)	11128	0.14469	0.1447
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	6910	0.18729	0.1873
13 2-Methylphenol	108		9.774	9.761	(1.055)	17719	0.14595	0.1460
17 Hexachloroethane	117		10.234	10.234	(1.105)	8765	0.15736	0.1574
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	13862	0.14924	0.1492
15 4-Methylphenol	108		10.055	10.030	(1.086)	13315	0.10772	0.1077
\$ 18 Nitrobenzene-d5	82		10.362	10.349	(0.884)	22372	0.18874	0.1887
19 Nitrobenzene	77		10.387	10.387	(0.886)	22066	0.19512	0.1951
20 Isophorone	82		10.834	10.835	(0.924)	30354	0.19608	0.1961
21 2-Nitrophenol	139		11.026	11.013	(0.940)	12543	0.23017	0.2302
22 2,4-Dimethylphenol	107		11.077	11.064	(0.945)	35391	0.33449	0.3345
23 Bis(2-Chloroethoxy)methane	93		11.256	11.243	(0.960)	17192	0.18120	0.1812
24 Benzoic acid	105		11.256	11.320	(0.960)	19189	0.26961	0.2696 (M)
25 2,4-Dichlorophenol	162		11.498	11.473	(0.980)	25801	0.30347	0.3035
26 1,2,4-Trichlorobenzene	180		11.652	11.652	(0.993)	24101	0.26100	0.2610
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1041490	4.00000	
28 Naphthalene	128		11.779	11.779	(1.004)	57833	0.20193	0.2019
29 4-Chloroaniline	127		11.919	11.906	(1.016)	27891	0.24705	0.2470
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	9971	0.21799	0.2180
31 4-Chloro-3-methylphenol	107		12.888	12.863	(1.099)	26265	0.28690	0.2869
32 2-Methylnaphthalene	142		13.169	13.156	(1.123)	38173	0.18615	0.1861
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	999	0.01976	0.01976

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.793	13.781	(0.900)	17995	0.31639	0.3164
35 2,4,5-Trichlorophenol	196	13.896	13.857	(0.907)	19980	0.33184	0.3318
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	43233	0.20187	0.2019
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	33979	0.19558	0.1956
38 2-Nitroaniline	65	14.418	14.406	(0.941)	17844	0.30326	0.3033
39 Dimethylphthalate	163	14.827	14.827	(0.968)	38730	0.20706	0.2071
40 Acenaphthylene	152	15.018	15.018	(0.980)	56506	0.20481	0.2048
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	15133	0.34557	0.3456
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	543612	4.00000	
43 3-Nitroaniline	138	15.286	15.260	(0.998)	10790	0.26603	0.2660 (M)
44 Acenaphthene	153	15.388	15.388	(1.004)	34386	0.19938	0.1994
45 2,4-Dinitrophenol	184	15.566	15.477	(1.016)	1607	0.06089	0.06089 (M)
46 Dibenzofuran	168	15.719	15.719	(1.026)	46893	0.19481	0.1948
47 4-Nitrophenol	109	15.706	15.604	(1.025)	3983	0.14785	0.1478 (M)
48 2,4-Dinitrotoluene	165	15.783	15.783	(1.030)	15766	0.27503	0.2750
50 Diethylphthalate	149	16.267	16.267	(1.062)	42997	0.23572	0.2357
49 Fluorene	166	16.420	16.420	(1.072)	40023	0.17489	0.1749
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	19636	0.18663	0.1866
52 4-Nitroaniline	138	16.560	16.535	(1.081)	9075	0.23639	0.2364
53 4,6-Dinitro-2-methylphenol	198	16.636	16.611	(0.907)	4749	0.13493	0.1349
54 N-Nitrosodiphenylamine	169	16.662	16.662	(0.908)	24301	0.19671	0.1967
§ 55 2,4,6-Tribromophenol	330	16.967	16.967	(1.107)	5608	0.23650	0.2365
56 4-Bromophenyl-phenylether	248	17.413	17.413	(0.949)	8440	0.19499	0.1950
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	9669	0.21922	0.2192
58 Pentachlorophenol	266	18.114	18.088	(0.987)	5211	0.20380	0.2038 (M)
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	881915	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	50134	0.19482	0.1948
61 Anthracene	178	18.484	18.484	(1.008)	47119	0.19504	0.1950
62 Carbazole	167	18.828	18.828	(1.026)	38631	0.26387	0.2639
63 Di-n-butylphthalate	149	19.593	19.580	(1.068)	57536	0.19723	0.1972
64 Fluoranthene	202	20.766	20.753	(0.889)	51598	0.17450	0.1745
65 Pyrene	202	21.187	21.187	(0.907)	54771	0.18272	0.1827
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	37299	0.17504	0.1750
67 Butylbenzylphthalate	149	22.360	22.361	(0.957)	25475	0.18989	0.1899
68 Benzo(a)anthracene	228	23.317	23.317	(0.998)	48510	0.20840	0.2084
* 69 Chrysene-d12	240	23.356	23.356	(1.000)	632133	4.00000	
70 3,3'-Dichlorobenzidine	252	23.279	23.279	(0.997)	44912	0.99601	0.9960
71 Chrysene	228	23.394	23.394	(1.002)	47579	0.21722	0.2172
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	34281	0.18099	0.1810
* 134 Di-n-octylphthalate-d4	153	24.351	24.363	(1.000)	1309126	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	70500	0.21246	0.2125
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	48446	0.22428	0.2243
75 Benzo(k)fluoranthene	252	25.256	25.269	(0.971)	49174	0.24095	0.2410
76 Benzo(a)pyrene	252	25.881	25.894	(0.995)	36092	0.21211	0.2121
* 77 Perylene-d12	264	26.009	26.009	(1.000)	544824	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.729	28.716	(1.105)	25177	0.12756	0.1276
79 Dibenzo(a,h)anthracene	278	28.742	28.729	(1.105)	22820	0.13776	0.1378
80 Benzo(g,h,i)perylene	276	29.534	29.534	(1.136)	17997	0.11047	0.1105
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	24167	0.30743	0.3074
91 Aniline	93	8.740	8.728	(0.944)	32699	0.23622	0.2362
93 Benzidine	184	21.008	20.996	(0.900)	31189	0.42486	0.4249
103 Pyridine	79	5.046	5.008	(0.545)	43486	0.34876	0.3488
105 1-methylnaphthalene	142	13.385	13.385	(1.141)	37286	0.19599	0.1960
111 Azobenzene (1,2-DP-Hydrazine)	77	16.738	16.738	(1.092)	41103	0.19304	0.1930

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.218	25.269	(0.970)	85388	0.44036	0.4404 (M)
120 2,3,4,6-Tetrachlorophenol	232	16.063	16.050	(1.048)	7602	0.11171	0.1117

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262321.D Calibration Time: 23:55
 Lab Smp Id: SLE0434-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	327251	163626	654502	360010	10.01
27 Naphthalene-d8	1151610	575805	2303220	1041490	-9.56
42 Acenaphthene-d10	581592	290796	1163184	543612	-6.53
59 Phenanthrene-d10	918371	459186	1836742	881915	-3.97
69 Chrysene-d12	690072	345036	1380144	632133	-8.40
134 Di-n-octylphthala	1461689	730845	2923378	1309126	-10.44
77 Perylene-d12	568726	284363	1137452	544824	-4.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	-0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	-0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	-0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.01	25.51	26.51	26.01	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262321.D

Lab ID: SLE0434-LCV2
nt17.i, ABN.m, 27-MAY-2023 01:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.960	0.965	-0.0054	Benzoic acid
1.016	1.010	0.0058	2,4-Dinitrophenol
1.025	1.018	0.0066	4-Nitrophenol

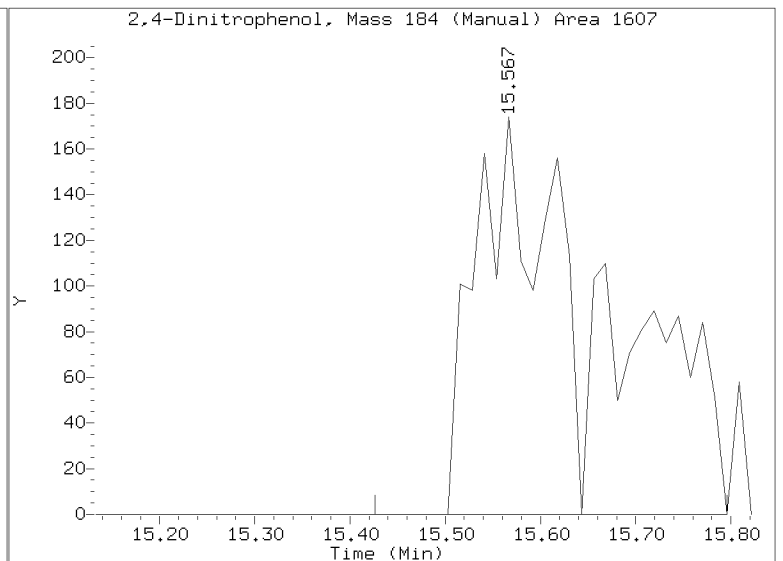
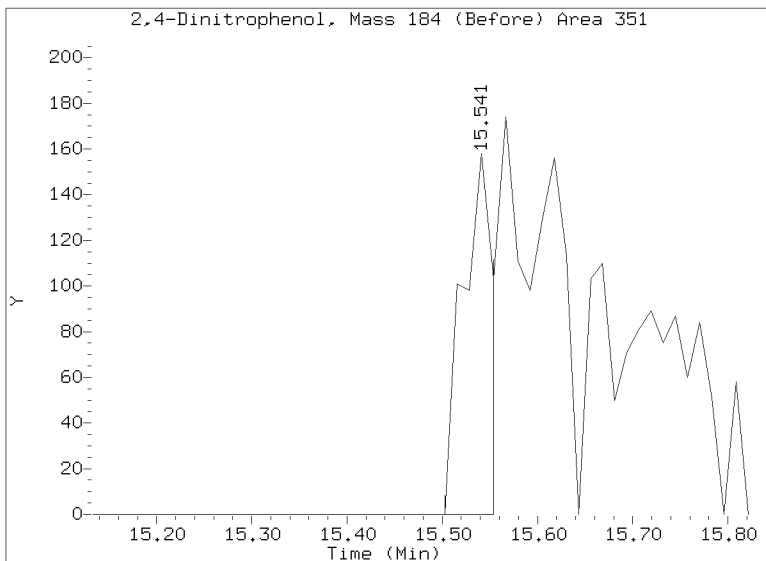
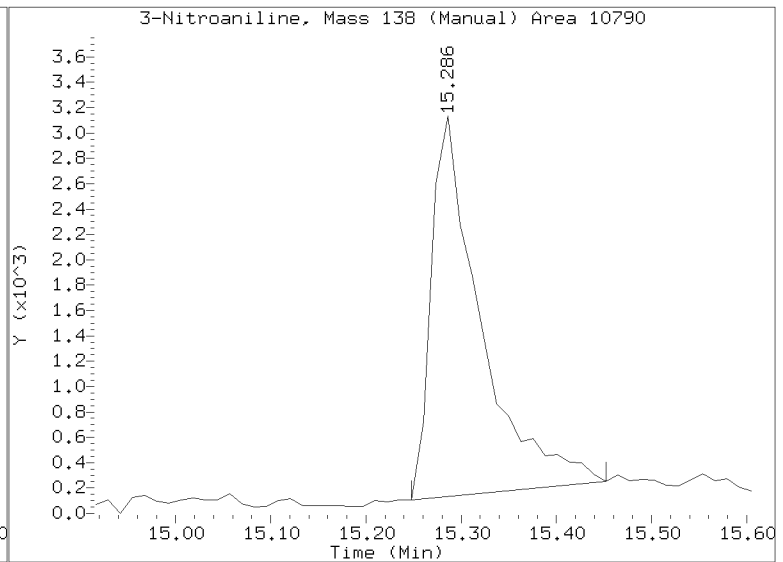
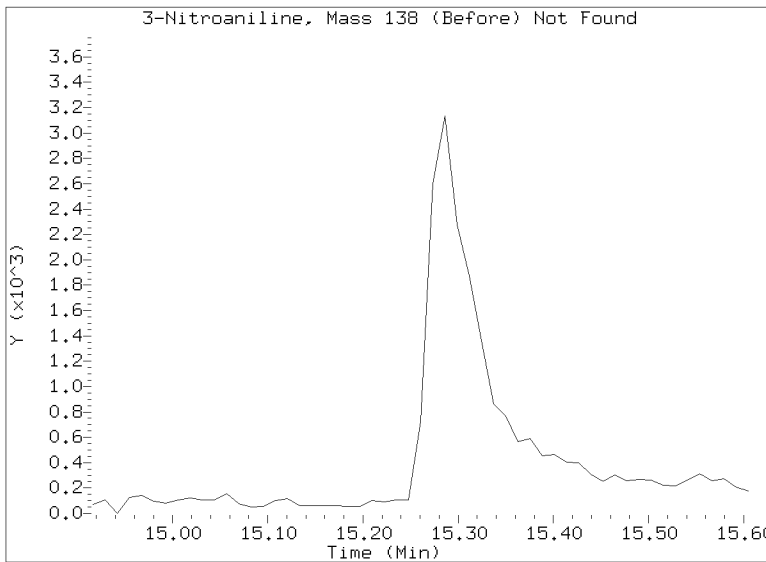
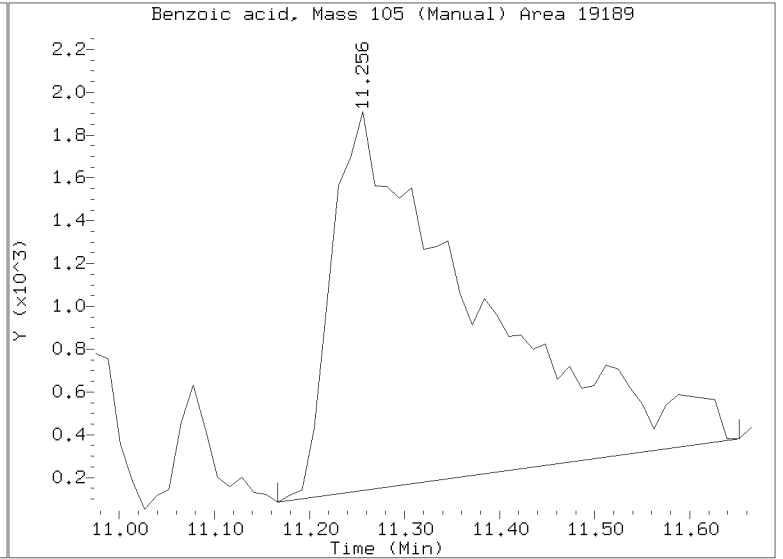
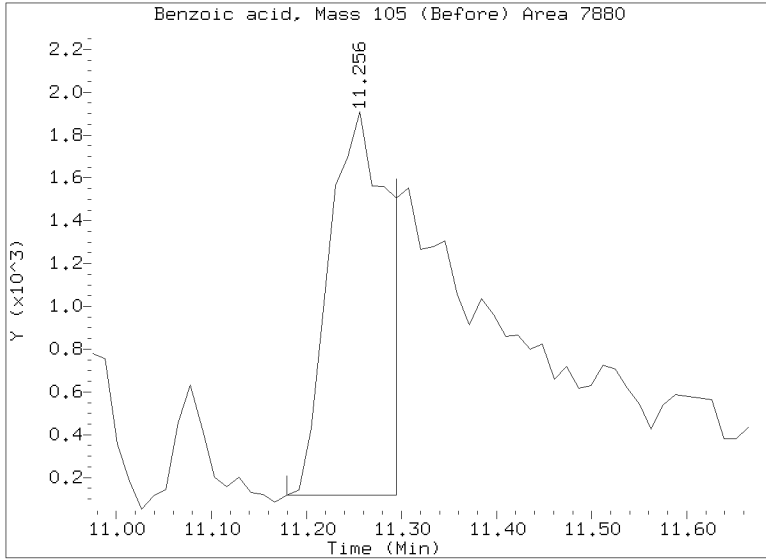
RRT check based on Ccal File: NT1705262319.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

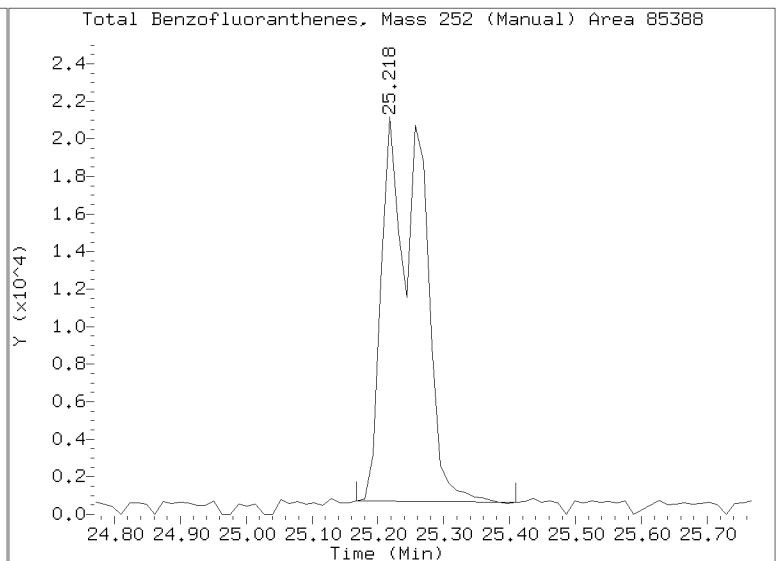
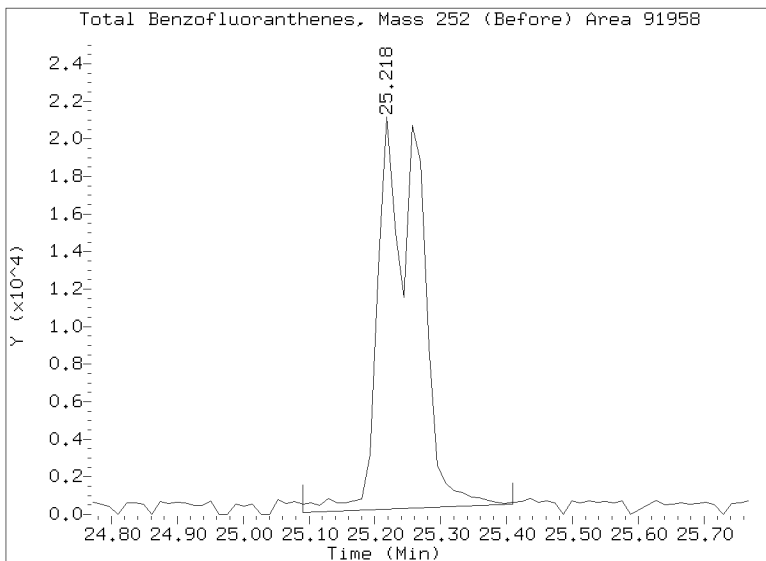
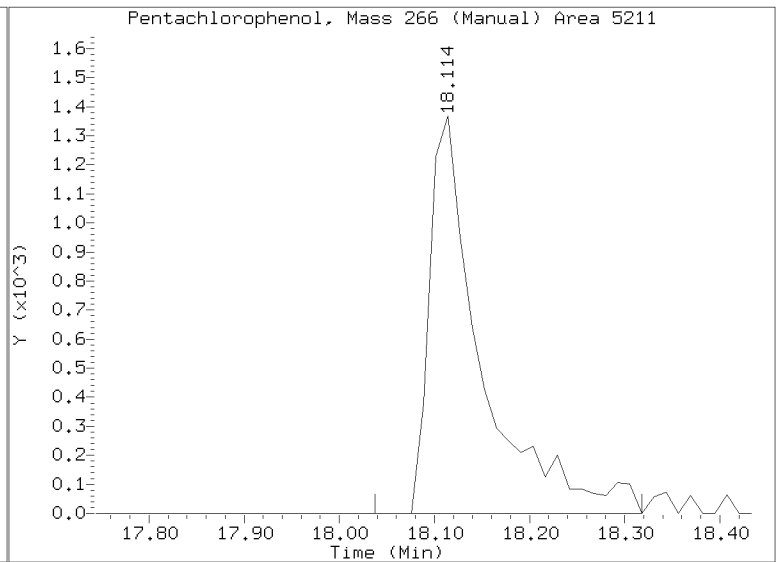
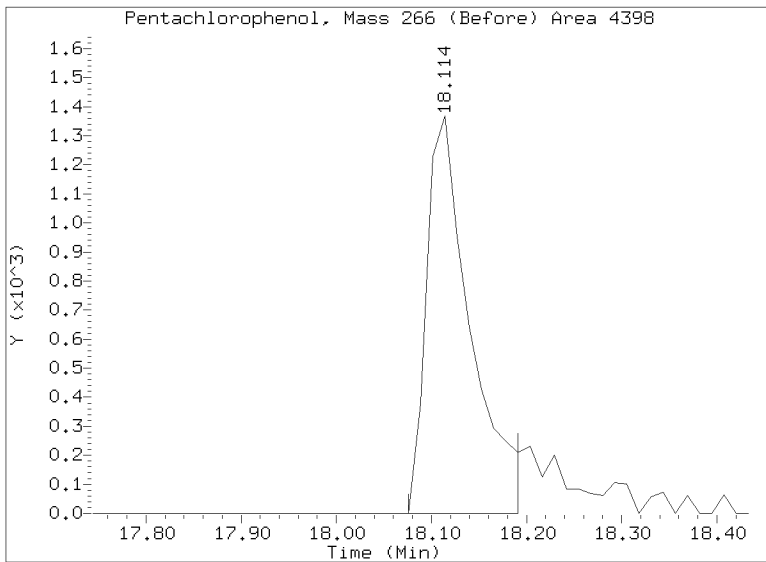
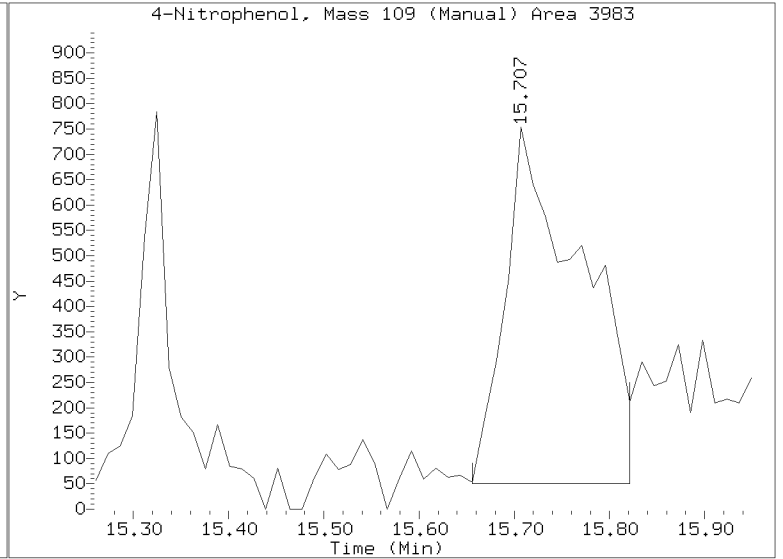
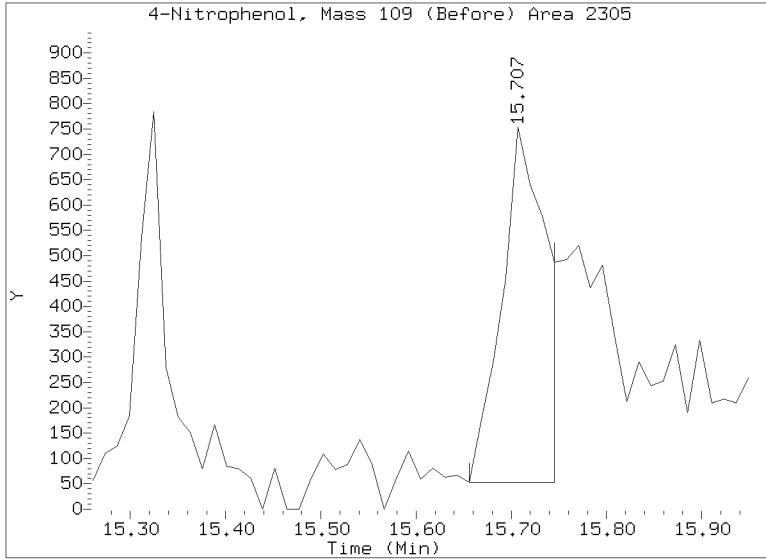
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Injection Date: 27-MAY-2023 01:10
Lab ID: SLE0434-LCV2 Client ID:
Report Date: 05/27/2023 13:34



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262321.D
Injection Date: 27-MAY-2023 01:10
Lab ID: SLE0434-LCV2 Client ID:
Report Date: 05/27/2023 13:34





INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705262302.D

Calibration Date: 05/20/2023

Sequence: SLE0434

Injection Date: 05/26/23

Lab Sample ID: SLE0434-ICV1

Injection Time: 13:16

Sequence Name: ABN 5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	5.5	1.8353850	2.0074660		9.4	+/-20
Benzyl Alcohol	A	5.0000	5.4	0.8545202	0.9145873		7.0	+/-20
4-Methylphenol	A	5.0000	5.4	1.3734410	1.4752330		7.4	+/-20
Naphthalene	A	5.0000	4.9	1.0999940	1.0881620		-1.1	+/-20
2-Methylnaphthalene	A	5.0000	5.1	0.7875944	0.8076824		2.6	+/-20
Acenaphthylene	A	5.0000	4.9	2.0301060	1.9814100		-2.4	+/-20
Dibenzofuran	A	5.0000	5.0	1.7711910	1.7739380		0.2	+/-20
Fluorene	A	5.0000	5.5	1.6839010	1.8551110		10.2	+/-20
Phenanthrene	A	5.0000	4.9	1.1671410	1.1527130		-1.2	+/-20
Anthracene	A	5.0000	5.0	1.0957620	1.1019570		0.6	+/-20
Fluoranthene	A	5.0000	4.9	1.8710850	1.8300410		-2.2	+/-20
Pyrene	A	5.0000	4.9	1.8967730	1.8623980		-1.8	+/-20
Butylbenzylphthalate	A	5.0000	5.0	0.8489339	0.8486947		-0.02	+/-20
Benzo(a)anthracene	A	5.0000	5.0	1.4729210	1.4803420		0.5	+/-20
Chrysene	A	5.0000	5.2	1.3859970	1.4369470		3.7	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.8	0.5787277	213216.6000		-3.3	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	10.2	1.4236150	1.4476020		1.7	+/-20
Benzo(a)pyrene	A	5.0000	5.1	1.2492830	1.2674080		1.5	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.9	1.4490690	1.4257670		-1.6	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.9	1.2161710	1.2016910		-1.2	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.8	1.1960510	1.1424220		-4.5	+/-20
2-Fluorophenol	A	7.5000	8.14	1.3093930	1.4214600		8.6	+/-20
Phenol-d5	A	7.5000	8.11	1.7328160	1.8735960		8.1	+/-20
2-Chlorophenol-d4	A	7.5000	7.89	1.3879870	1.4601370		5.2	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	5.12	0.9755818	0.9998596		2.5	+/-20
Nitrobenzene-d5	A	5.0000	5.26	0.4552457	0.4789958		5.2	+/-20
2-Fluorobiphenyl	A	5.0000	4.92	1.5758130	1.5489160		-1.7	+/-20
2,4,6-Tribromophenol	A	7.5000	7.02	0.1414414	0.1633807		-6.4	+/-20
p-Terphenyl-d14	A	5.0000	5.87	1.3483810	1.5833960		17.4	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	74521.0400	1.0000		0.0	

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT17</u>	Calibration:	<u>GE00065</u>
Lab File ID:	<u>NT1705262302.D</u>	Calibration Date:	<u>05/20/2023</u>
Sequence:	<u>SLE0434</u>	Injection Date:	<u>05/26/23</u>
Lab Sample ID:	<u>SLE0434-ICV1</u>	Injection Time:	<u>13:16</u>
Sequence Name:	<u>ABN 5</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene-d8	A	4.0000	4.0	263513.0000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	142608.8000	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	231763.7000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	143610.7000	1.0000		0.0	
Di-n-Octylphthalate-d4	A		4000	285983.8000				
Perylene-d12	A	4.0000	4.0	123763.9000	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262302.D

Date: 26-May-2023 13:16

Client ID:

Sample Info: SLE0434-ICV1

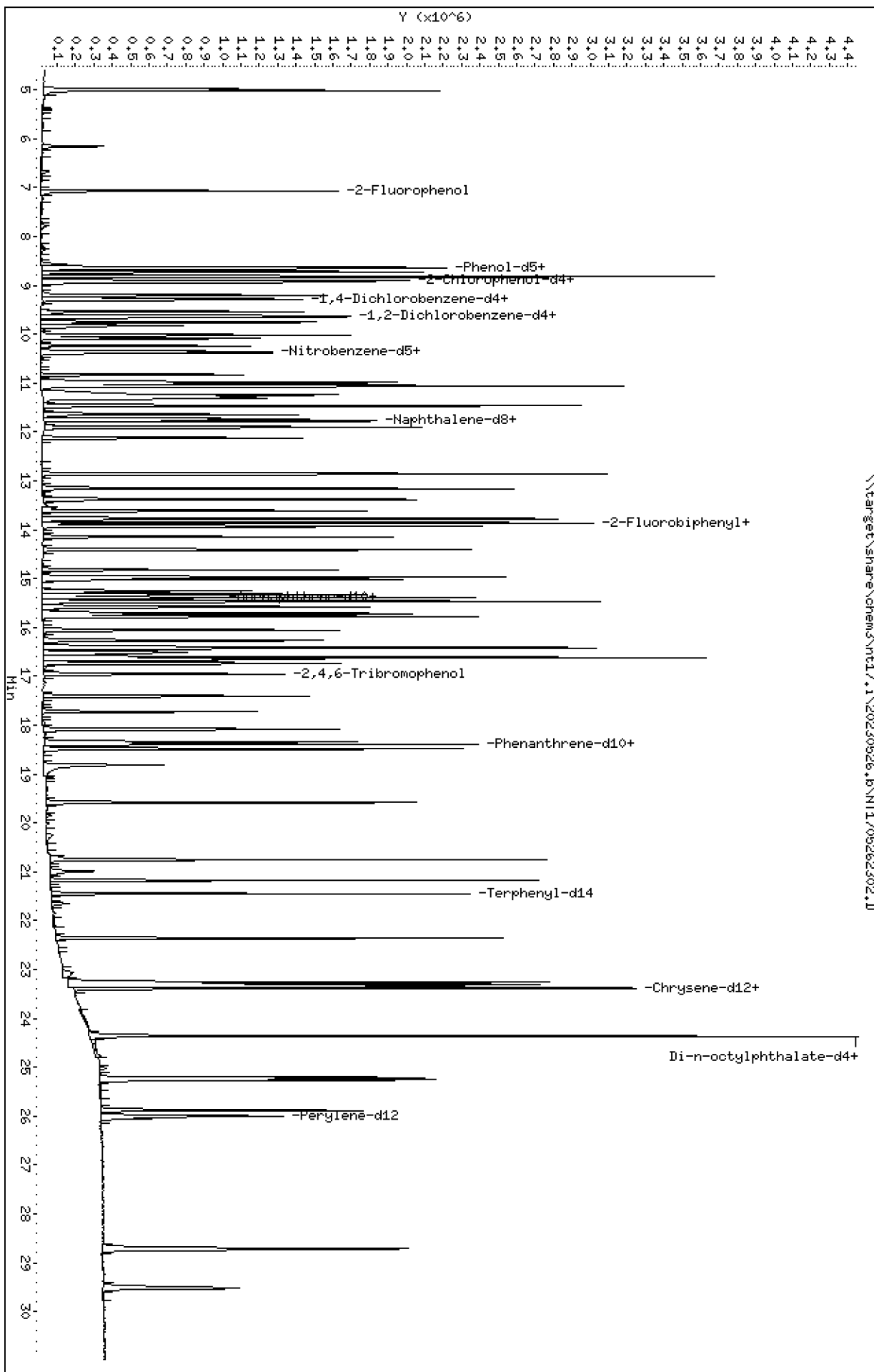
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262302.D
 Lab Smp Id: SLE0434-ICV1
 Inj Date : 26-MAY-2023 13:16
 Operator : VTS
 Smp Info : SLE0434-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112	7.071	7.071	(0.763)	808945	7.50000	8.142
\$ 2 Phenol-d5	99	8.638	8.638	(0.933)	1066253	7.50000	8.109
3 Phenol	94	8.651	8.651	(0.934)	761625	5.00000	5.469
\$ 5 2-Chlorophenol-d4	132	8.906	8.906	(0.961)	830956	7.50000	7.890
4 Bis(2-Chloroethyl)ether	93	8.804	8.804	(0.950)	558404	5.00000	5.500
6 2-Chlorophenol	128	8.931	8.931	(0.964)	574158	5.00000	4.937
7 1,3-Dichlorobenzene	146	9.199	9.199	(0.993)	588069	5.00000	4.996
* 8 1,4-Dichlorobenzene-d4	152	9.263	9.263	(1.000)	303517	4.00000	
9 1,4-Dichlorobenzene	146	9.289	9.289	(1.003)	562715	5.00000	4.794
\$ 10 1,2-Dichlorobenzene-d4	152	9.621	9.621	(1.039)	379343	5.00000	5.124
12 1,2-Dichlorobenzene	146	9.646	9.646	(1.041)	561228	5.00000	5.086
11 Benzyl alcohol	108	9.531	9.531	(1.029)	346991	5.00000	5.351
14 2,2'-oxybis(1-Chloropropane)	121	9.825	9.825	(1.061)	156770	5.00000	5.040
13 2-Methylphenol	108	9.748	9.748	(1.052)	526354	5.00000	5.143
17 Hexachloroethane	117	10.234	10.234	(1.105)	242608	5.00000	5.166
16 N-Nitroso-di-n-propylamine	70	10.081	10.081	(1.088)	429961	5.00000	5.491
15 4-Methylphenol	108	10.017	10.017	(1.081)	559698	5.00000	5.371
\$ 18 Nitrobenzene-d5	82	10.349	10.349	(0.882)	682854	5.00000	5.261
19 Nitrobenzene	77	10.387	10.387	(0.886)	637565	5.00000	5.148
20 Isophorone	82	10.834	10.834	(0.924)	819414	5.00000	4.834
21 2-Nitrophenol	139	11.013	11.013	(0.939)	311906	5.00000	5.227
22 2,4-Dimethylphenol	107	11.051	11.051	(0.942)	1126787	10.0000	9.725
23 Bis(2-Chloroethoxy)methane	93	11.243	11.243	(0.959)	505586	5.00000	4.866
24 Benzoic acid	105	11.307	11.307	(0.964)	1606578	20.0000	20.61
25 2,4-Dichlorophenol	162	11.460	11.460	(0.977)	887234	10.0000	9.530
26 1,2,4-Trichlorobenzene	180	11.651	11.651	(0.993)	586102	5.00000	5.796
* 27 Naphthalene-d8	136	11.728	11.728	(1.000)	1140476	4.00000	
28 Naphthalene	128	11.779	11.779	(1.004)	1551279	5.00000	4.946
29 4-Chloroaniline	127	11.893	11.893	(1.014)	1231187	10.0000	9.959
30 Hexachlorobutadiene	225	12.123	12.123	(1.034)	303323	5.00000	6.056
31 4-Chloro-3-methylphenol	107	12.850	12.850	(1.096)	1075212	10.0000	10.73
32 2-Methylnaphthalene	142	13.156	13.156	(1.122)	1151428	5.00000	5.128
33 Hexachlorocyclopentadiene	237	13.615	13.615	(0.888)	421932	10.0000	7.290

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	660224	10.0000	10.14
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	688452	10.0000	9.986
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	1205175	5.00000	4.915
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	984848	5.00000	4.951
38 2-Nitroaniline	65	14.406	14.406	(0.940)	735202	10.0000	10.91
39 Dimethylphthalate	163	14.826	14.826	(0.968)	1072793	5.00000	5.009
40 Acenaphthylene	152	15.018	15.018	(0.980)	1541688	5.00000	4.880
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	522279	10.0000	10.42
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	622461	4.00000	
43 3-Nitroaniline	138	15.247	15.247	(0.995)	469854	10.0000	10.12
44 Acenaphthene	153	15.388	15.388	(1.004)	998310	5.00000	5.055
45 2,4-Dinitrophenol	184	15.464	15.464	(1.009)	672635	20.0000	21.36
46 Dibenzofuran	168	15.719	15.719	(1.026)	1380259	5.00000	5.008
47 4-Nitrophenol	109	15.579	15.579	(1.017)	344604	10.0000	11.17
48 2,4-Dinitrotoluene	165	15.770	15.770	(1.029)	709857	10.0000	10.81
50 Diethylphthalate	149	16.267	16.267	(1.062)	1287303	5.00000	6.163
49 Fluorene	166	16.420	16.420	(1.072)	1443418	5.00000	5.508
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	624805	5.00000	5.186
52 4-Nitroaniline	138	16.509	16.509	(1.077)	448206	10.0000	10.20
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	803404	20.0000	18.74
54 N-Nitrosodiphenylamine	169	16.662	16.662	(0.908)	676212	5.00000	4.494
§ 55 2,4,6-Tribromophenol	330	16.954	16.954	(1.106)	190684	7.50000	7.023
56 4-Bromophenyl-phenylether	248	17.400	17.400	(0.949)	261878	5.00000	4.968
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	264981	5.00000	4.933
58 Pentachlorophenol	266	18.088	18.088	(0.986)	304824	10.0000	9.366
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	1074054	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	1547595	5.00000	4.938
61 Anthracene	178	18.483	18.483	(1.008)	1479451	5.00000	5.028
62 Carbazole	167	18.815	18.815	(1.026)	947904	5.00000	5.028
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	1838090	5.00000	5.174
64 Fluoranthene	202	20.753	20.753	(0.889)	1655746	5.00000	4.890
65 Pyrene	202	21.174	21.174	(0.907)	1685021	5.00000	4.909
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	1432591	5.00000	5.871
67 Butylbenzylphthalate	149	22.360	22.360	(0.957)	767864	5.00000	4.999
68 Benzo(a)anthracene	228	23.317	23.317	(0.998)	1339352	5.00000	5.025
* 69 Chrysene-d12	240	23.355	23.355	(1.000)	723807	4.00000	
70 3,3'-Dichlorobenzidine	252	23.266	23.266	(0.996)	861474	15.0000	15.63
71 Chrysene	228	23.394	23.394	(1.002)	1300090	5.00000	5.184
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.959)	1066083	5.00000	4.835
* 134 Di-n-octylphthalate-d4	153	24.363	24.363	(1.000)	1524055	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.000)	1884751	5.00000	4.879
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	1417405	5.00000	5.360
75 Benzo(k)fluoranthene	252	25.256	25.256	(0.972)	1210406	5.00000	4.845
76 Benzo(a)pyrene	252	25.881	25.881	(0.996)	1056689	5.00000	5.073
* 77 Perylene-d12	264	25.996	25.996	(1.000)	666992	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.716	28.716	(1.105)	1188719	5.00000	4.920
79 Dibenzo(a,h)anthracene	278	28.729	28.729	(1.105)	1001898	5.00000	4.940
80 Benzo(g,h,i)perylene	276	29.521	29.521	(1.136)	952483	5.00000	4.776
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	690217	10.0000	10.41
91 Aniline	93	8.728	8.728	(0.942)	1220475	10.0000	10.46
93 Benzidine	184	20.996	20.996	(0.899)	245965	10.0000	2.886
103 Pyridine	79	5.007	5.007	(0.541)	1055671	10.0000	10.04
105 1-methylnaphthalene	142	13.385	13.385	(1.141)	1047138	5.00000	5.026
111 Azobenzene (1,2-DP-Hydrazine)	77	16.725	16.725	(1.091)	1283397	5.00000	5.264

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.256	25.256	(0.972)	2413848	10.0000	10.17
120 2,3,4,6-Tetrachlorophenol	232		16.050	16.050	(1.047)	289217	5.00000	3.712

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 27-MAY-2023
 Lab File ID: NT1705262302.D Calibration Time: 05:31
 Lab Smp Id: SLE0434-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	303517	0.00
27 Naphthalene-d8	1140476	570238	2280952	1140476	0.00
42 Acenaphthene-d10	622461	311231	1244922	622461	0.00
59 Phenanthrene-d10	1074054	537027	2148108	1074054	0.00
69 Chrysene-d12	723807	361904	1447614	723807	0.00
134 Di-n-octylphthala	1524055	762028	3048110	1524055	0.00
77 Perylene-d12	666992	333496	1333984	666992	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.36	0.00
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262302.D

Lab ID: SLE0434-ICV1
nt17.i, ABN.m, 26-MAY-2023 13:16

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b

Instrument: nt17.i Date: 26-MAY-2023 Method: ABN.m

INITIAL CAL: 09-MAY-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1705262302.D 26-MAY-2023 13:16

Compound	%D

Hexachlorobutadiene	21.12
Hexachlorocyclopentadiene	-27.1
Diethylphthalate	23.26
Benzidine	-71.1
2,3,4,6-Tetrachlorophenol	-25.8



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705262319.D

Calibration Date: 05/20/2023

Sequence: SLE0434

Injection Date: 05/26/23

Lab Sample ID: SLE0434-ICV2

Injection Time: 23:55

Sequence Name: ABN 5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	5.3	1.8353850	1.9334130		5.3	+/-20
Benzyl Alcohol	A	5.0000	5.3	0.8545202	0.8989821		5.2	+/-20
4-Methylphenol	A	5.0000	5.1	1.3734410	1.3979040		1.8	+/-20
Naphthalene	A	5.0000	5.0	1.0999940	1.1109670		1.0	+/-20
2-Methylnaphthalene	A	5.0000	5.0	0.7875944	0.7923669		0.6	+/-20
Acenaphthylene	A	5.0000	5.1	2.0301060	2.0643150		1.7	+/-20
Dibenzofuran	A	5.0000	5.1	1.7711910	1.7927840		1.2	+/-20
Fluorene	A	5.0000	5.5	1.6839010	1.8652970		10.8	+/-20
Phenanthrene	A	5.0000	4.9	1.1671410	1.1473350		-1.7	+/-20
Anthracene	A	5.0000	5.0	1.0957620	1.1031820		0.7	+/-20
Fluoranthene	A	5.0000	4.2	1.8710850	1.5734230		-15.9	+/-20
Pyrene	A	5.0000	4.3	1.8967730	1.6150520		-14.9	+/-20
Butylbenzylphthalate	A	5.0000	4.6	0.8489339	0.7806223		-8.0	+/-20
Benzo(a)anthracene	A	5.0000	5.1	1.4729210	1.5084410		2.4	+/-20
Chrysene	A	5.0000	5.1	1.3859970	1.4232090		2.7	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.4	0.5787277	187054.8000		-11.5	+/-20
Benzofluoranthenes, Total	A	10.0000	11.3	1.4236150	1.6132720		13.3	+/-20
Benzo(a)pyrene	A	5.0000	5.0	1.2492830	1.2468320		-0.2	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	2.8	1.4490690	0.8174650		-43.6	+/-20 *
Dibenzo(a,h)anthracene	A	5.0000	3.1	1.2161710	0.7467905		-38.6	+/-20 *
Benzo(g,h,i)perylene	A	5.0000	2.2	1.1960510	0.5291392		-55.8	+/-20 *
2-Fluorophenol	A	7.5000	8.16	1.3093930	1.4240990		8.8	+/-20
Phenol-d5	A	7.5000	8.05	1.7328160	1.8592440		7.3	+/-20
2-Chlorophenol-d4	A	7.5000	7.81	1.3879870	1.4444720		4.1	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	5.13	0.9755818	1.0002570		2.5	+/-20
Nitrobenzene-d5	A	5.0000	5.19	0.4552457	0.4728531		3.9	+/-20
2-Fluorobiphenyl	A	5.0000	5.29	1.5758130	1.6659530		5.7	+/-20
2,4,6-Tribromophenol	A	7.5000	6.86	0.1414414	0.1595584		-8.6	+/-20
p-Terphenyl-d14	A	5.0000	4.21	1.3483810	1.1343560		-15.9	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	74521.0400	1.0000		0.0	

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT17</u>	Calibration:	<u>GE00065</u>
Lab File ID:	<u>NT1705262319.D</u>	Calibration Date:	<u>05/20/2023</u>
Sequence:	<u>SLE0434</u>	Injection Date:	<u>05/26/23</u>
Lab Sample ID:	<u>SLE0434-ICV2</u>	Injection Time:	<u>23:55</u>
Sequence Name:	<u>ABN 5</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene-d8	A	4.0000	4.0	263513.0000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	142608.8000	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	231763.7000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	143610.7000	1.0000		0.0	
Di-n-Octylphthalate-d4	A		4000	285983.8000				
Perylene-d12	A	4.0000	4.0	123763.9000	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262319.D

Date: 26-May-2023 23:55

Client ID:

Sample Info: SLE0434-ICW2

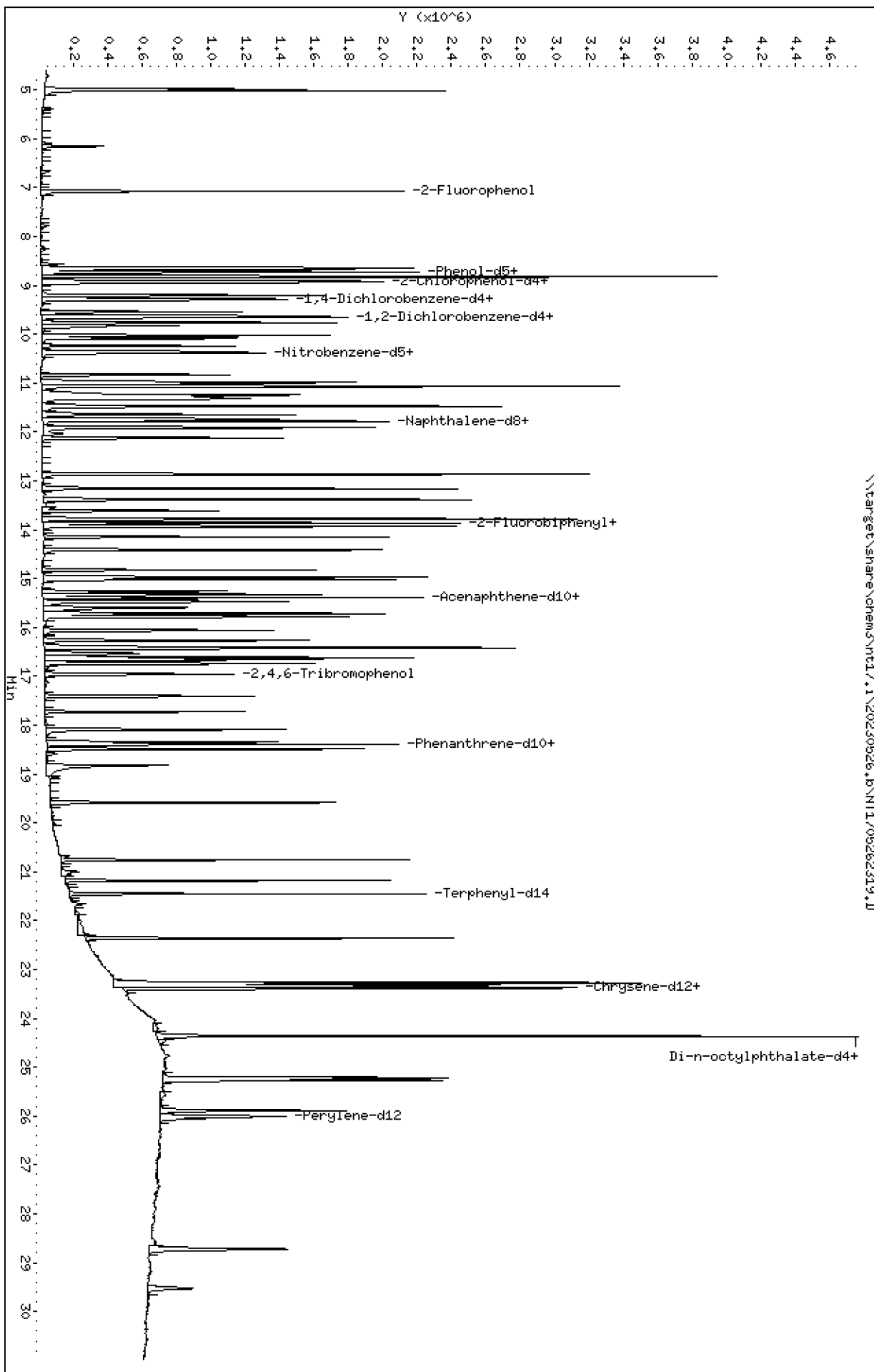
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230526.1\NT1705262319.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262319.D
 Lab Smp Id: SLE0434-ICV2
 Inj Date : 26-MAY-2023 23:55
 Operator : VTS
 Smp Info : SLE0434-ICV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:34 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	873821	7.50000	8.157
\$ 2 Phenol-d5	99		8.639	8.639	(0.933)	1140824	7.50000	8.047
3 Phenol	94		8.664	8.664	(0.935)	790889	5.00000	5.267
\$ 5 2-Chlorophenol-d4	132		8.919	8.919	(0.963)	886322	7.50000	7.805
4 Bis(2-Chloroethyl)ether	93		8.817	8.817	(0.952)	594057	5.00000	5.427
6 2-Chlorophenol	128		8.944	8.944	(0.966)	608198	5.00000	4.850
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	643194	5.00000	5.068
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	327251	4.00000	
9 1,4-Dichlorobenzene	146		9.301	9.301	(1.004)	612672	5.00000	4.841
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	409169	5.00000	5.126
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	601683	5.00000	5.057
11 Benzyl alcohol	108		9.544	9.544	(1.030)	367741	5.00000	5.260
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	163819	5.00000	4.885
13 2-Methylphenol	108		9.761	9.761	(1.054)	541838	5.00000	4.910
17 Hexachloroethane	117		10.234	10.234	(1.105)	230037	5.00000	4.543
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	420410	5.00000	4.979
15 4-Methylphenol	108		10.030	10.030	(1.083)	571832	5.00000	5.089
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	680678	5.00000	5.193
19 Nitrobenzene	77		10.387	10.387	(0.886)	635328	5.00000	5.081
20 Isophorone	82		10.835	10.835	(0.924)	938145	5.00000	5.481
21 2-Nitrophenol	139		11.013	11.013	(0.939)	324590	5.00000	5.387
22 2,4-Dimethylphenol	107		11.064	11.064	(0.943)	1117577	10.0000	9.553
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	533332	5.00000	5.084
24 Benzoic acid	105		11.320	11.320	(0.965)	1555636	20.0000	19.77
25 2,4-Dichlorophenol	162		11.473	11.473	(0.978)	1023814	10.0000	10.89
26 1,2,4-Trichlorobenzene	180		11.652	11.652	(0.993)	620493	5.00000	6.077
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1151610	4.00000	
28 Naphthalene	128		11.779	11.779	(1.004)	1599251	5.00000	5.050
29 4-Chloroaniline	127		11.906	11.906	(1.015)	1229663	10.0000	9.850
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	251568	5.00000	4.974
31 4-Chloro-3-methylphenol	107		12.863	12.863	(1.097)	1035778	10.0000	10.23
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	1140622	5.00000	5.030
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	247471	10.0000	4.576

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	646150	10.0000	10.62
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	689868	10.0000	10.71
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	1211131	5.00000	5.286
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	975094	5.00000	5.246
38 2-Nitroaniline	65	14.406	14.406	(0.940)	693386	10.0000	11.01
39 Dimethylphthalate	163	14.827	14.827	(0.968)	1031519	5.00000	5.155
40 Acenaphthylene	152	15.018	15.018	(0.980)	1500736	5.00000	5.084
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	479140	10.0000	10.23
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	581592	4.00000	
43 3-Nitroaniline	138	15.260	15.260	(0.996)	360394	10.0000	8.305
44 Acenaphthene	153	15.388	15.388	(1.004)	941900	5.00000	5.105
45 2,4-Dinitrophenol	184	15.477	15.477	(1.010)	390468	20.0000	13.48
46 Dibenzofuran	168	15.719	15.719	(1.026)	1303336	5.00000	5.061
47 4-Nitrophenol	109	15.604	15.604	(1.018)	237522	10.0000	8.241
48 2,4-Dinitrotoluene	165	15.783	15.783	(1.030)	619303	10.0000	10.10
50 Diethylphthalate	149	16.267	16.267	(1.062)	1219284	5.00000	6.248
49 Fluorene	166	16.420	16.420	(1.072)	1356052	5.00000	5.539
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	618641	5.00000	5.496
52 4-Nitroaniline	138	16.535	16.535	(1.079)	356691	10.0000	8.684
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	502724	20.0000	13.72
54 N-Nitrosodiphenylamine	169	16.662	16.662	(0.908)	656391	5.00000	5.102
§ 55 2,4,6-Tribromophenol	330	16.967	16.967	(1.107)	173996	7.50000	6.859
56 4-Bromophenyl-phenylether	248	17.413	17.413	(0.949)	239821	5.00000	5.321
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	242792	5.00000	5.286
58 Pentachlorophenol	266	18.088	18.088	(0.986)	252920	10.0000	9.101
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	918371	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	1317099	5.00000	4.915
61 Anthracene	178	18.484	18.484	(1.008)	1266413	5.00000	5.034
62 Carbazole	167	18.828	18.828	(1.026)	1045036	5.00000	6.370
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	1535932	5.00000	5.056
64 Fluoranthene	202	20.753	20.753	(0.889)	1357219	5.00000	4.205
65 Pyrene	202	21.187	21.187	(0.907)	1393128	5.00000	4.257
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	978484	5.00000	4.206
67 Butylbenzylphthalate	149	22.361	22.361	(0.957)	673357	5.00000	4.598
68 Benzo(a)anthracene	228	23.317	23.317	(0.998)	1301166	5.00000	5.121
* 69 Chrysene-d12	240	23.356	23.356	(1.000)	690072	4.00000	
70 3,3'-Dichlorobenzidine	252	23.279	23.279	(0.997)	1107168	15.0000	20.55
71 Chrysene	228	23.394	23.394	(1.002)	1227646	5.00000	5.134
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.959)	935274	5.00000	4.423
* 134 Di-n-octylphthalate-d4	153	24.363	24.363	(1.000)	1461689	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.000)	1826613	5.00000	4.930
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	1229217	5.00000	5.451
75 Benzo(k)fluoranthene	252	25.269	25.269	(0.972)	1224209	5.00000	5.747
76 Benzo(a)pyrene	252	25.894	25.894	(0.996)	886382	5.00000	4.990
* 77 Perylene-d12	264	26.009	26.009	(1.000)	568726	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.716	28.716	(1.104)	581142	5.00000	2.821
79 Dibenzo(a,h)anthracene	278	28.729	28.729	(1.105)	530899	5.00000	3.070
80 Benzo(g,h,i)perylene	276	29.534	29.534	(1.136)	376169	5.00000	2.212
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	737459	10.0000	10.32
91 Aniline	93	8.728	8.728	(0.942)	1315075	10.0000	10.45
93 Benzidine	184	20.996	20.996	(0.899)	100495	10.0000	1.248
103 Pyridine	79	5.008	5.008	(0.541)	1134830	10.0000	10.01
105 1-methylnaphthalene	142	13.385	13.385	(1.141)	1044448	5.00000	4.965
111 Azobenzene (1,2-DP-Hydrazine)	77	16.738	16.738	(1.092)	1155003	5.00000	5.070

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.269	25.269	(0.972)	2293774	10.0000	11.33
120 2,3,4,6-Tetrachlorophenol	232		16.050	16.050	(1.047)	266022	5.00000	3.654

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262319.D Calibration Time: 13:16
 Lab Smp Id: SLE0434-ICV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	327251	7.82
27 Naphthalene-d8	1140476	570238	2280952	1151610	0.98
42 Acenaphthene-d10	622461	311231	1244922	581592	-6.57
59 Phenanthrene-d10	1074054	537027	2148108	918371	-14.49
69 Chrysene-d12	723807	361904	1447614	690072	-4.66
134 Di-n-octylphthala	1524055	762028	3048110	1461689	-4.09
77 Perylene-d12	666992	333496	1333984	568726	-14.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.36	0.00
77 Perylene-d12	26.00	25.50	26.50	26.01	0.05

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

REVIEW SUMMARY FOR FILE - NT1705262319.D

Lab ID: SLE0434-ICV2
nt17.i, ABN.m, 26-MAY-2023 23:55

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Instrument: nt17.i Date: 26-MAY-2023 Method: ABN.m

INITIAL CAL: 09-MAY-2023

Compound	%RSD or R ²
NO Q-FLAGS	

ICV CAL: NT1705262319.D 26-MAY-2023 23:55

Compound	%D
1,2,4-Trichlorobenzene	21.54
Hexachlorocyclopentadiene	-54.2
2,4-Dinitrophenol	-32.6
Diethylphthalate	24.96
4,6-Dinitro-2-methylphenol	-31.4
Carbazole	27.4
3,3'-Dichlorobenzidine	37.0
Indeno(1,2,3-cd)pyrene	-43.59
Dibenzo(a,h)anthracene	-38.59
Benzo(g,h,i)perylene	-55.76
Benzidine	-87.5
2,3,4,6-Tetrachlorophenol	-26.9



SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705162311.D

Calibration Date: 05/20/2023

Sequence: SLE0338

Injection Date: 05/17/23

Lab Sample ID: SLE0338-SCV1

Injection Time: 00:29

Sequence Name: SCV 5.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	4.8	1.8353850	1.7703870		-3.5	+/-20
bis(2-chloroethyl) ether	A	5.0000	5.6	1.3379870	1.4893240		11.3	+/-20
2-Chlorophenol	A	5.0000	5.3	1.5326990	1.6228700		5.9	+/-20
1,3-Dichlorobenzene	A	5.0000	5.3	1.5511950	1.6501940		6.4	+/-20
1,4-Dichlorobenzene	A	5.0000	5.1	1.5470660	1.5691780		1.4	+/-20
1,2-Dichlorobenzene	A	5.0000	5.3	1.4543210	1.5292780		5.2	+/-20
Benzyl Alcohol	A	5.0000	5.3	0.8545202	0.9013726		5.5	+/-20
2,2'-Oxybis(1-chloropropane)	A	5.0000	6.2	0.4099195	0.5065919		23.6	+/-20
2-Methylphenol	A	5.0000	4.2	1.3488930	1.1408950		-15.4	+/-20
Hexachloroethane	A	5.0000	5.4	0.6188571	0.6706626		8.4	+/-20
N-Nitroso-di-n-Propylamine	A	5.0000	5.5	1.0320180	1.1388000		10.3	+/-20
4-Methylphenol	A	5.0000	4.7	1.3734410	1.2803100		-6.8	+/-20
Nitrobenzene	A	5.0000	5.3	0.4343371	0.4629085		6.6	+/-20
Isophorone	A	5.0000	6.9	0.5945569	0.8255466		38.9	+/-20
2-Nitrophenol	A	5.0000	4.9	0.2092939	0.2050518		-2.0	+/-20
2,4-Dimethylphenol	A	5.0000	3.8	0.4063609	0.3078683		-24.2	+/-20
Bis(2-Chloroethoxy)methane	A	5.0000	6.2	0.3643905	0.4541653		24.6	+/-20
2,4-Dichlorophenol	A	5.0000	4.7	0.3265369	0.3074331		-5.9	+/-20
1,2,4-Trichlorobenzene	A	5.0000	5.9	0.3546444	0.4170169		17.6	+/-20
Naphthalene	A	5.0000	5.1	1.0999940	1.1283830		2.6	+/-20
Benzoic acid	A	10.0000	6.8	0.2083430	0.1848088		-32.4	+/-20
4-Chloroaniline	A	5.0000	4.5	0.4335951	0.3891520		-10.2	+/-20
Hexachlorobutadiene	A	5.0000	5.2	0.1756752	0.1841292		4.8	+/-20
4-Chloro-3-Methylphenol	A	5.0000	4.9	0.3515982	0.3430524		-2.4	+/-20
2-Methylnaphthalene	A	5.0000	5.0	0.7875944	0.7919961		0.6	+/-20
Hexachlorocyclopentadiene	A	5.0000	4.2	0.2851479	0.3138457		-15.6	+/-20
2,4,6-Trichlorophenol	A	5.0000	4.8	0.4185098	0.4012473		-4.1	+/-20
2,4,5-Trichlorophenol	A	5.0000	4.8	0.4430396	0.4286209		-3.3	+/-20
2-Chloronaphthalene	A	5.0000	5.4	1.2783860	1.3808230		8.0	+/-20
2-Nitroaniline	A	5.0000	5.4	0.4329542	0.4637668		7.1	+/-20
Acenaphthylene	A	5.0000	5.3	2.0301060	2.1446180		5.6	+/-20
Dimethylphthalate	A	5.0000	5.4	1.3763000	1.4914260		8.4	+/-20
2,6-Dinitrotoluene	A	5.0000	5.4	0.3222248	0.3482538		8.1	+/-20

* Values outside of QC limits



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705162311.D

Calibration Date: 05/20/2023

Sequence: SLE0338

Injection Date: 05/17/23

Lab Sample ID: SLE0338-SCV1

Injection Time: 00:29

Sequence Name: SCV 5.0

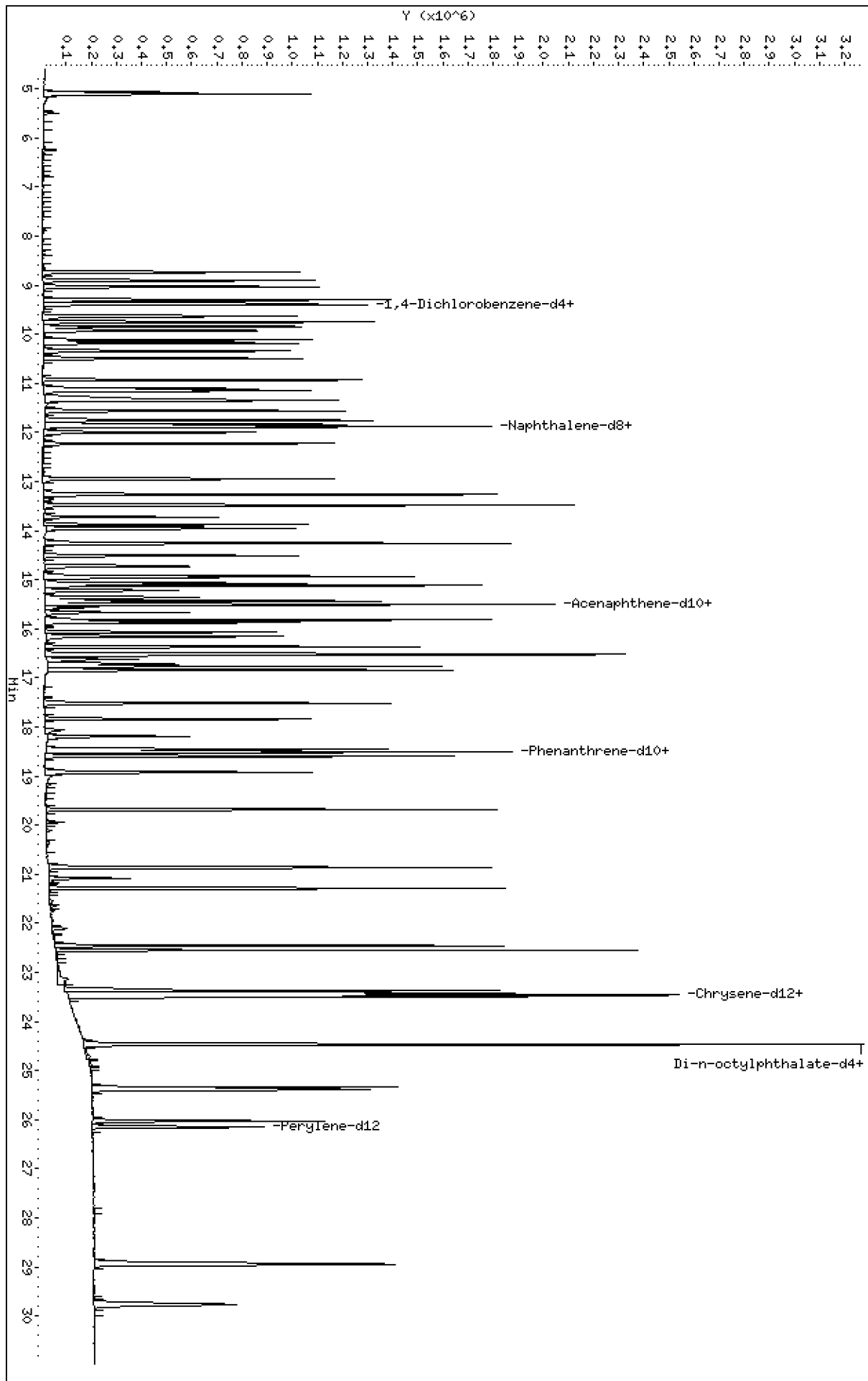
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Acenaphthene	A	5.0000	5.3	1.2690180	1.3408840		5.7	+/-20
3-Nitroaniline	A	5.0000	5.2	0.2984432	0.3085226		3.4	+/-20
2,4-Dinitrophenol	A	5.0000	2.1	0.1541125	0.0825980		-57.6	+/-20
Dibenzofuran	A	5.0000	5.2	1.7711910	1.8289500		3.3	+/-20
4-Nitrophenol	A	5.0000	4.5	0.1664767	0.1785537		-9.9	+/-20
2,4-Dinitrotoluene	A	5.0000	5.3	0.4218034	0.4445276		5.4	+/-20
Fluorene	A	5.0000	5.4	1.6839010	1.8177980		8.0	+/-20
4-Chlorophenylphenyl ether	A	5.0000	5.5	0.7741612	0.8457125		9.2	+/-20
Diethyl phthalate	A	5.0000	5.5	1.3422100	1.4747500		9.9	+/-20
4-Nitroaniline	A	5.0000	5.1	0.2824863	0.2885721		2.2	+/-20
4,6-Dinitro-2-methylphenol	A	5.0000	3.4	0.1119544	0.1071081		-32.9	+/-20
N-Nitrosodiphenylamine	A	5.0000	5.5	0.5603251	0.6129688		9.4	+/-20
4-Bromophenyl phenyl ether	A	5.0000	5.4	0.1963243	0.2128234		8.4	+/-20
Hexachlorobenzene	A	5.0000	4.9	0.2000477	0.1965571		-1.7	+/-20
Pentachlorophenol	A	5.0000	3.9	0.0936571	0.0930616		-21.1	+/-20
Phenanthrene	A	5.0000	5.0	1.1671410	1.1763460		0.8	+/-20
Anthracene	A	5.0000	4.5	1.0957620	0.9926848		-9.4	+/-20
Carbazole	A	5.0000	5.9	0.8459395	0.8437186		18.8	+/-20
Di-n-Butylphthalate	A	5.0000	5.6	1.3231390	1.4929340		12.8	+/-20
Fluoranthene	A	5.0000	5.5	1.8710850	2.0458810		9.3	+/-20
Pyrene	A	5.0000	5.3	1.8967730	1.9974090		5.3	+/-20
Butylbenzylphthalate	A	5.0000	5.8	0.8489339	0.9889680		16.5	+/-20
Benzo(a)anthracene	A	5.0000	5.1	1.4729210	1.4918120		1.3	+/-20
3,3'-Dichlorobenzidine	A	10.000	12.0	0.3736402	0.3589686		19.9	+/-20
Chrysene	A	5.0000	5.0	1.3859970	1.3909860		0.4	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	5.8	0.5787277	0.6704186		15.8	+/-20
Di-n-Octylphthalate	A	5.0000	5.5	1.0139120	1.1117310		9.6	+/-20
Benzo(a)fluoranthene, Total	A	10.000	10.0	1.4236150	1.4262140		0.2	+/-20
Benzo(a)pyrene	A	5.0000	5.2	1.2492830	1.2922210		3.4	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	5.0	1.4490690	1.4575380		0.6	+/-20
Dibenzo(a,h)anthracene	A	5.0000	5.0	1.2161710	1.2087610		-0.6	+/-20
Benzo(g,h,i)perylene	A	5.0000	5.1	1.1960510	1.2090820		1.1	+/-20
1-Methylnaphthalene	A	5.0000	5.3	0.7306547	0.7671913		5.0	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.6\NT1705162311.D
Date: 17-May-2023 00:29
Client ID:
Sample Info: SLE0338-SCW1
Column phase: ZB-5msi

Instrument: nt17.1
Operator: JGR
Column diameter: 0.25

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Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

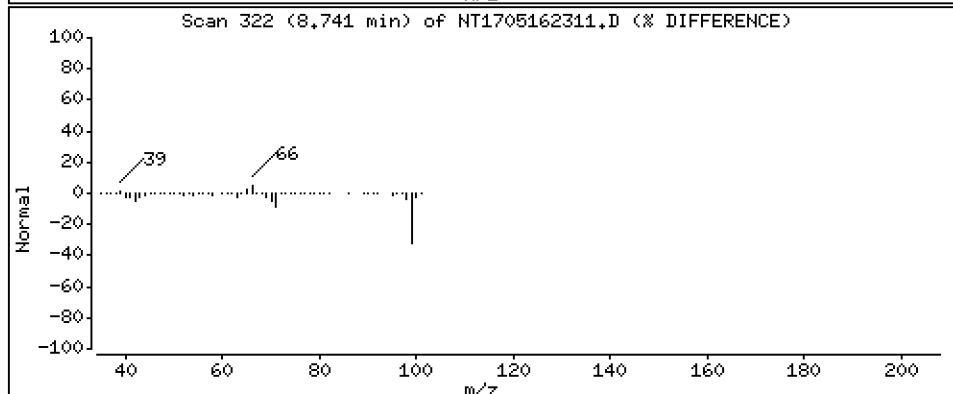
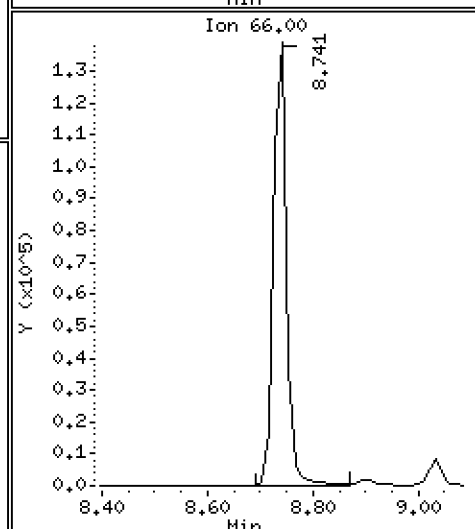
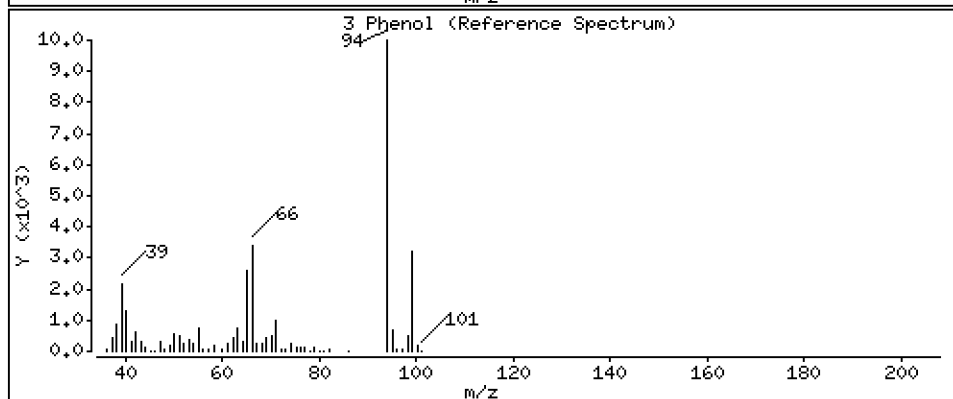
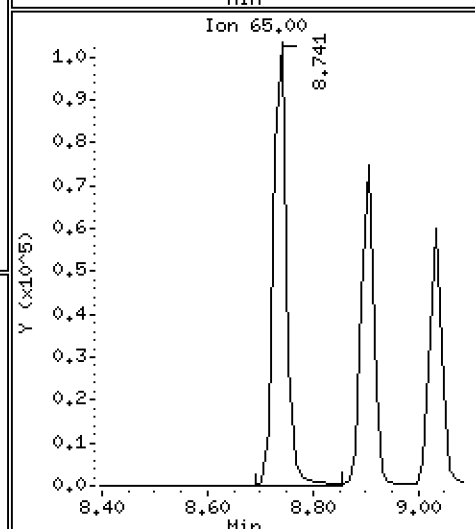
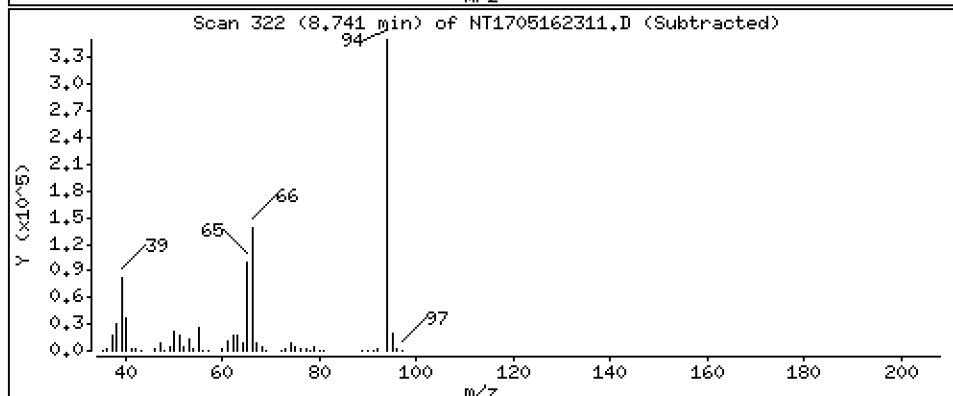
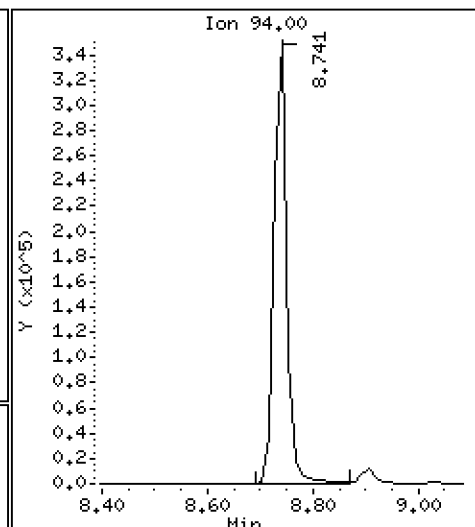
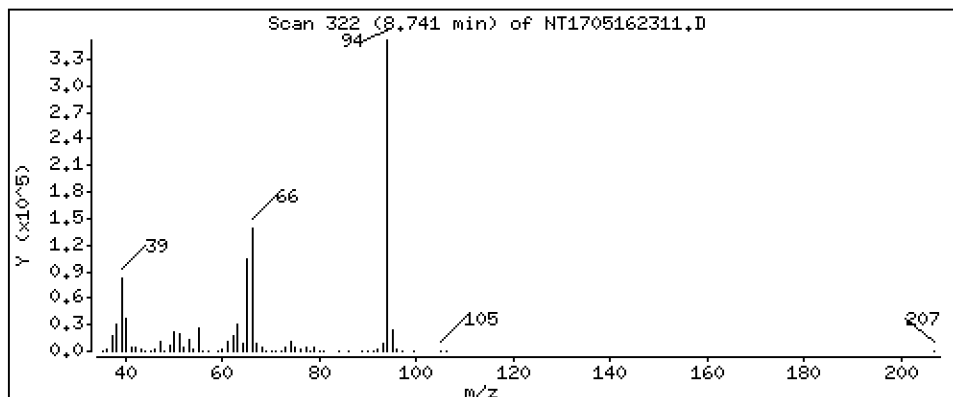
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,823 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

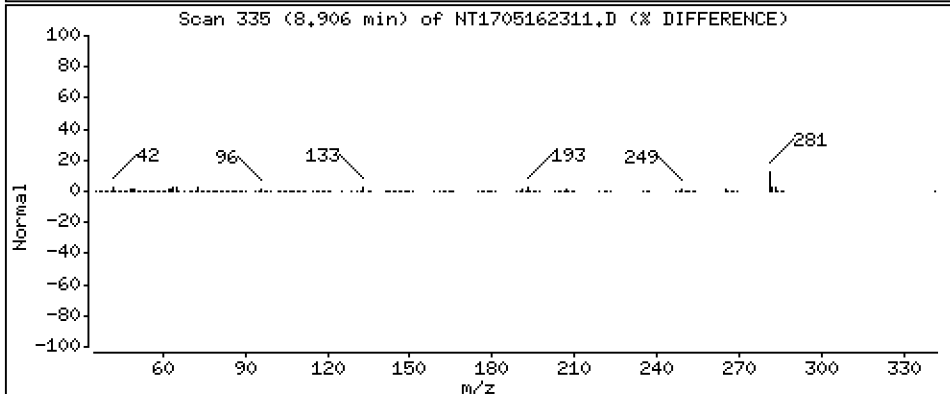
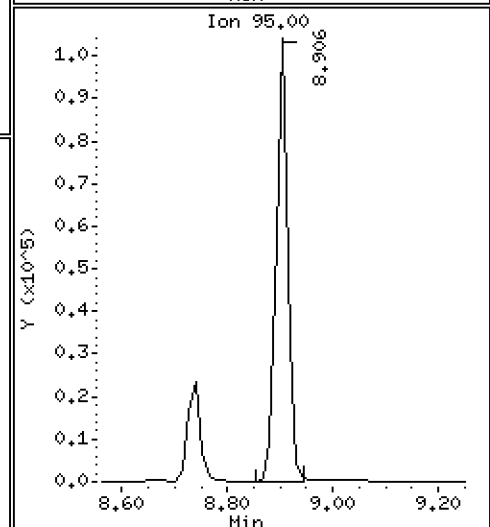
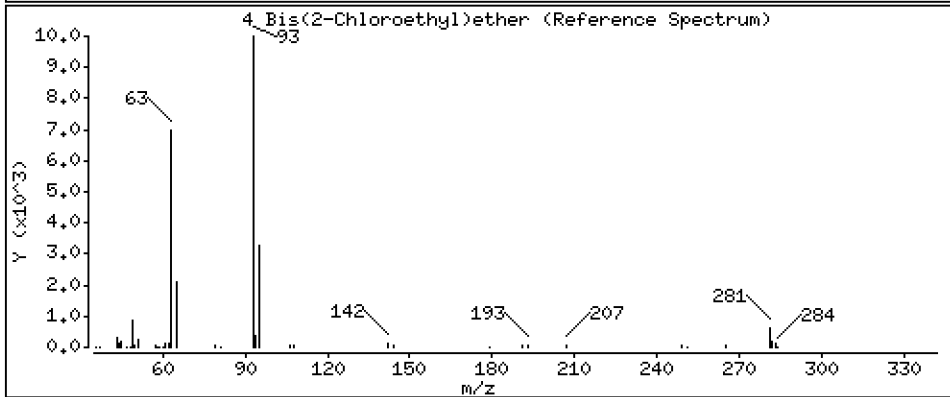
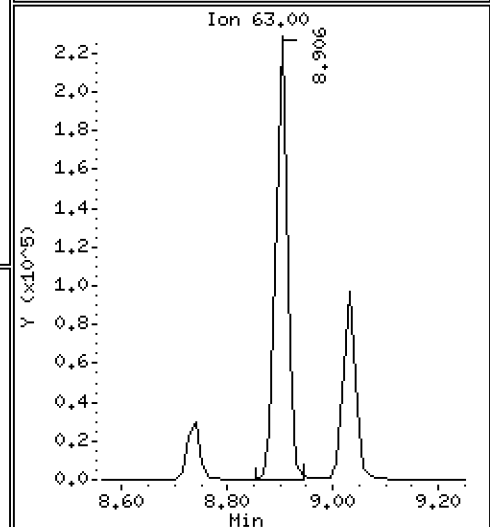
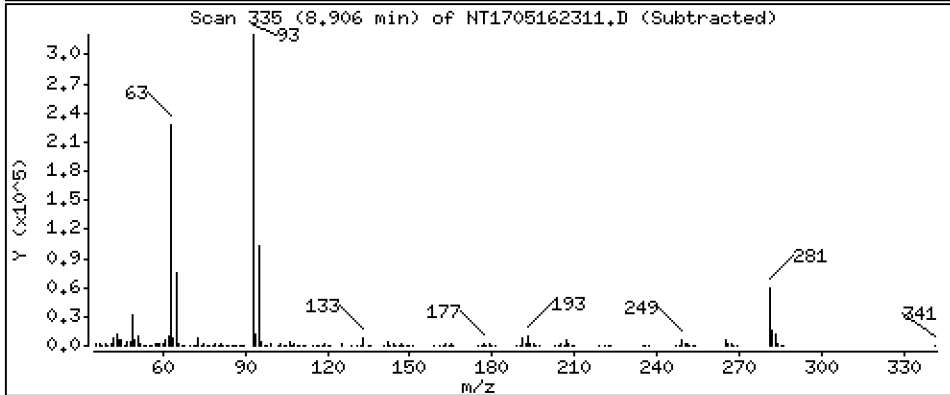
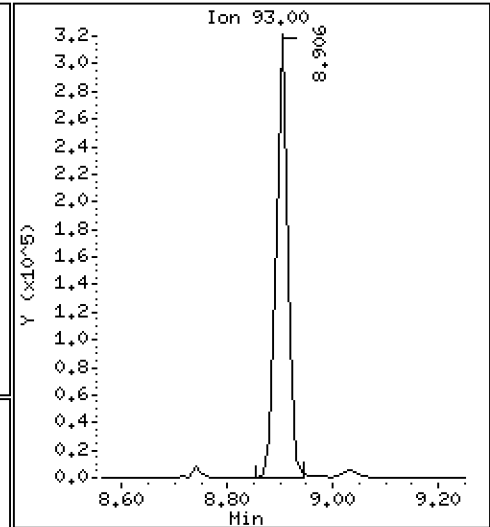
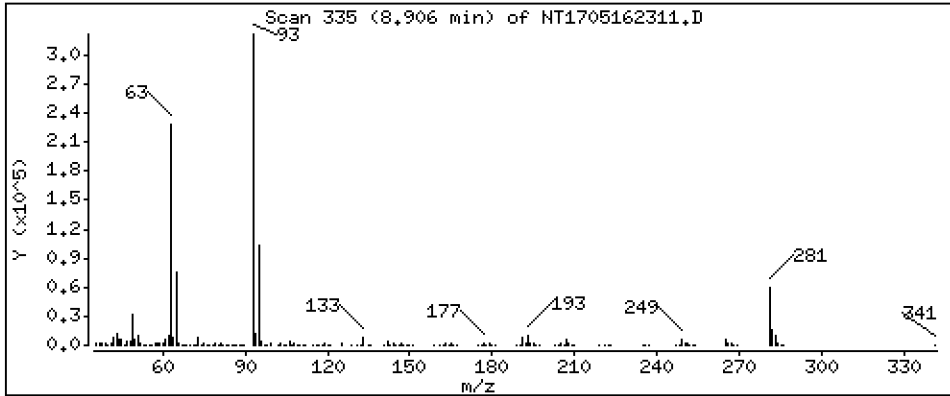
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 5,566 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

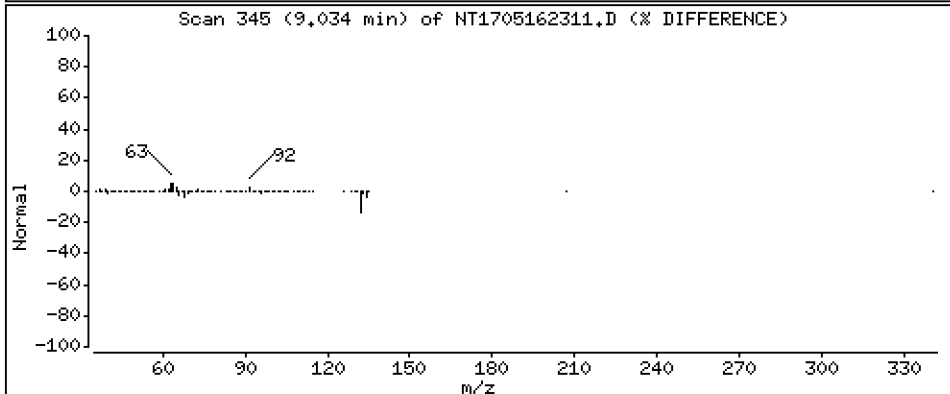
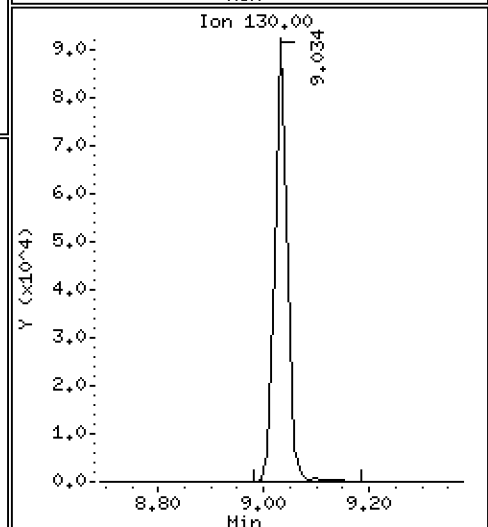
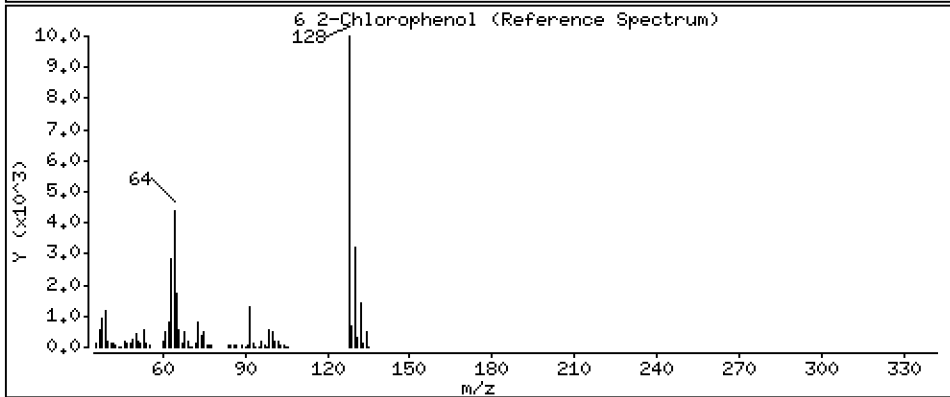
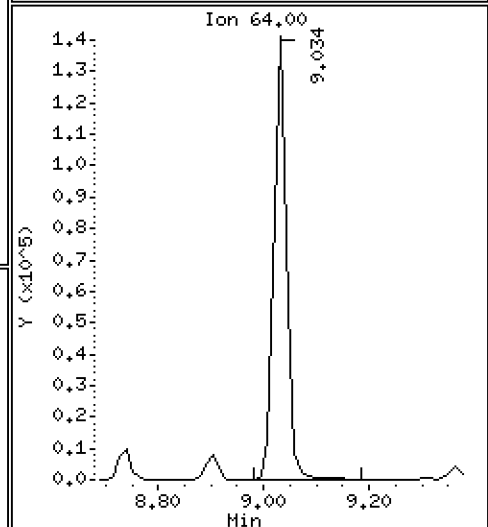
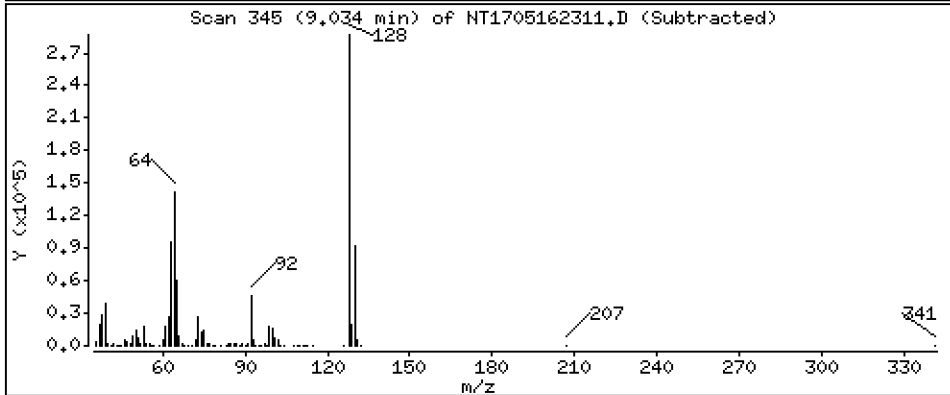
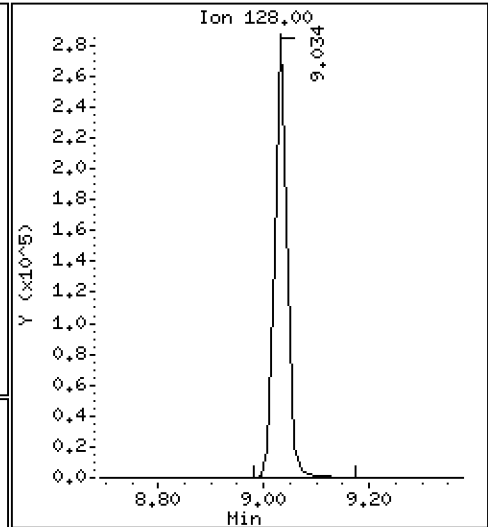
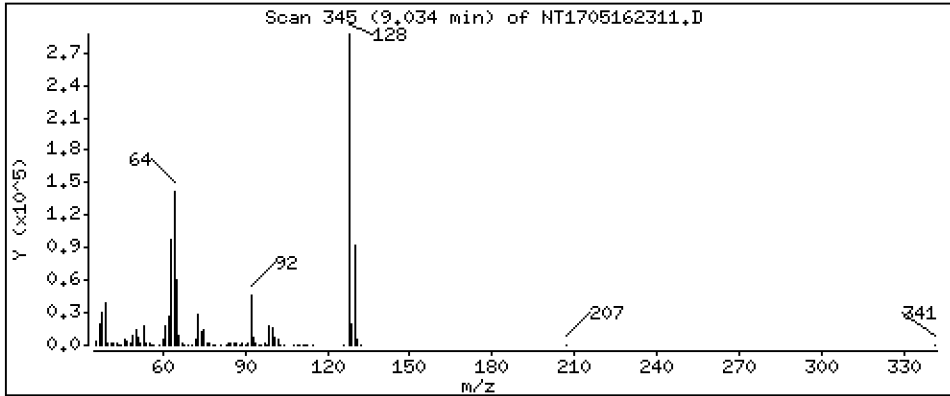
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 5,294 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

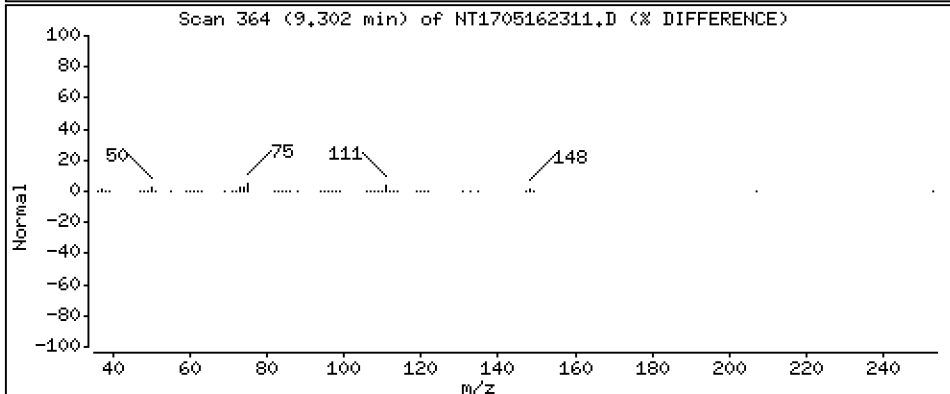
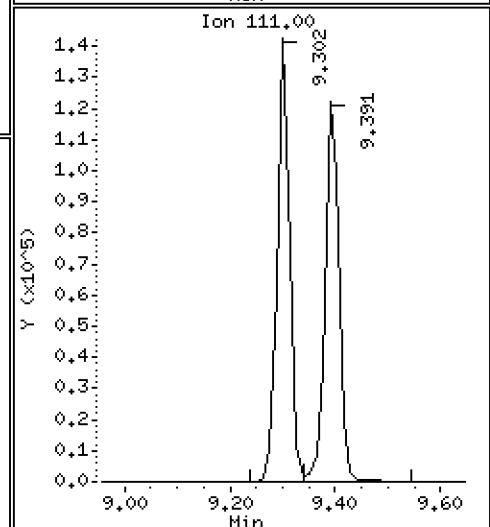
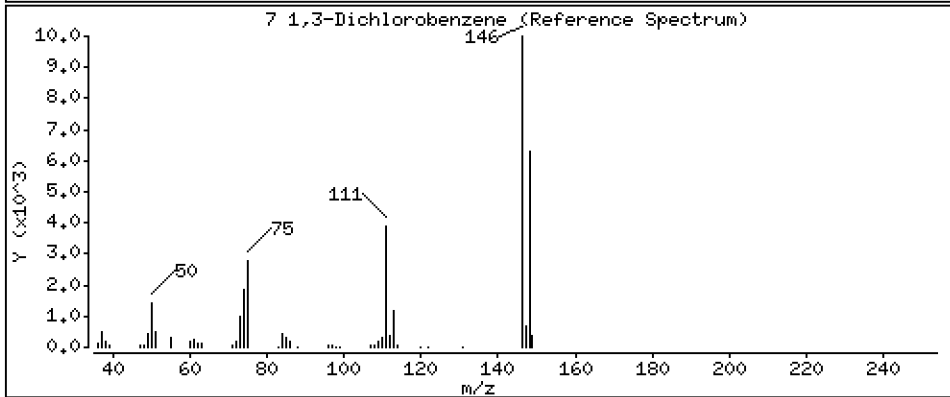
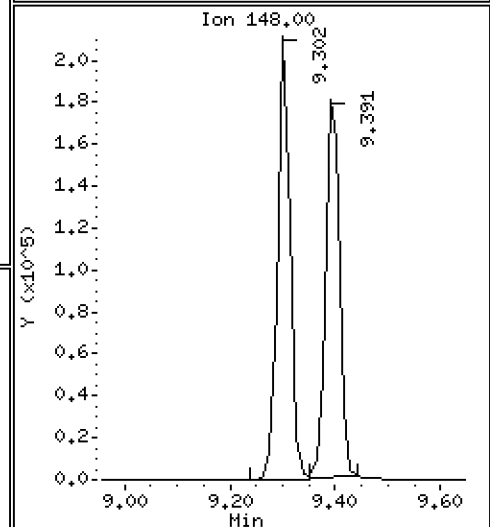
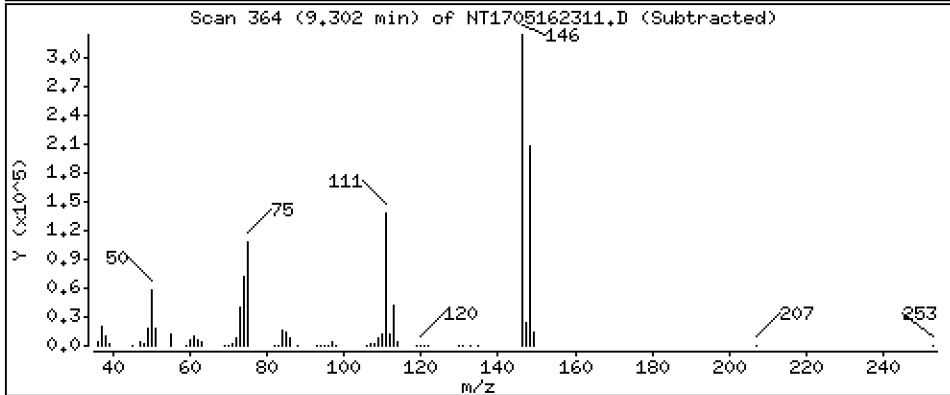
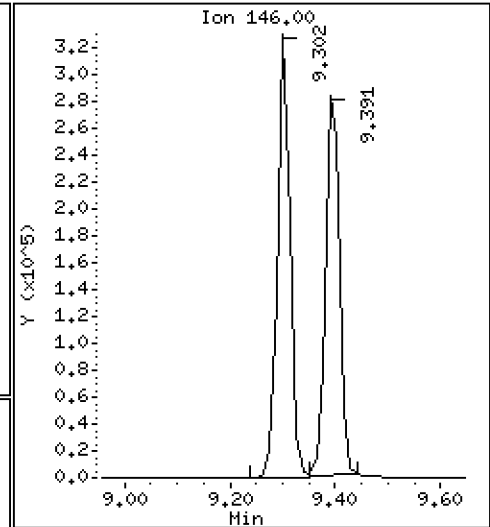
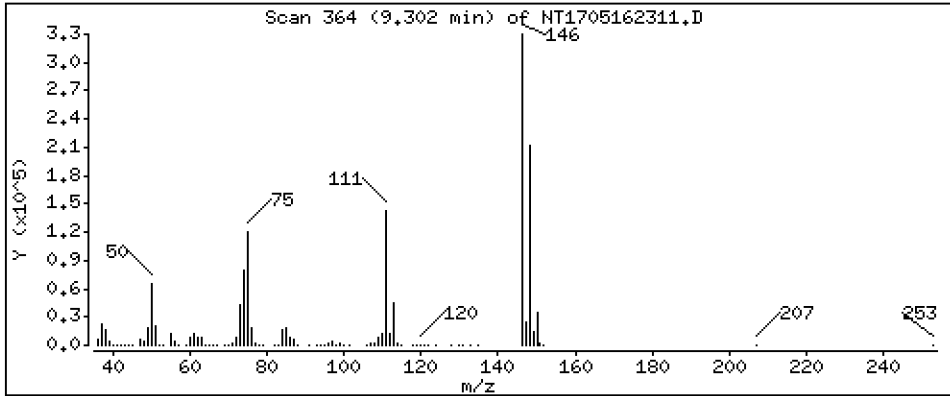
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.319 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

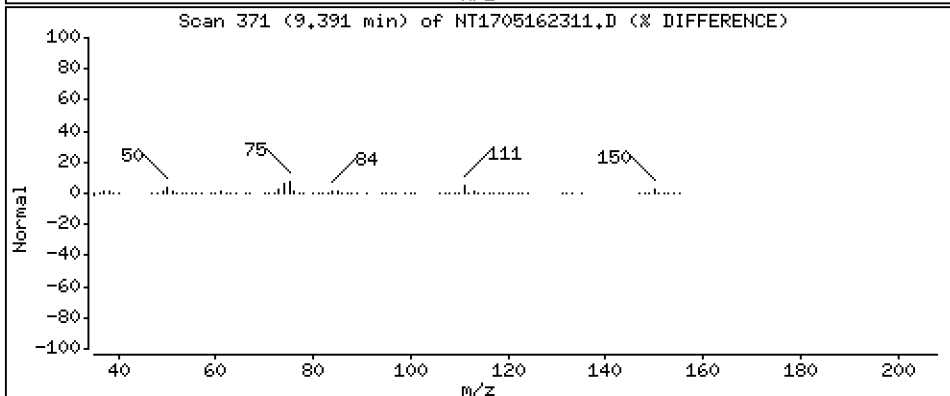
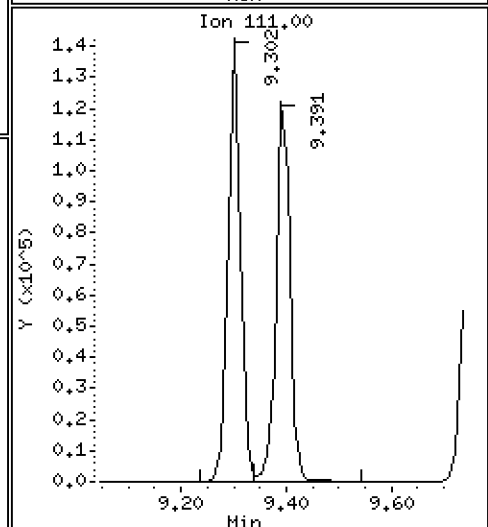
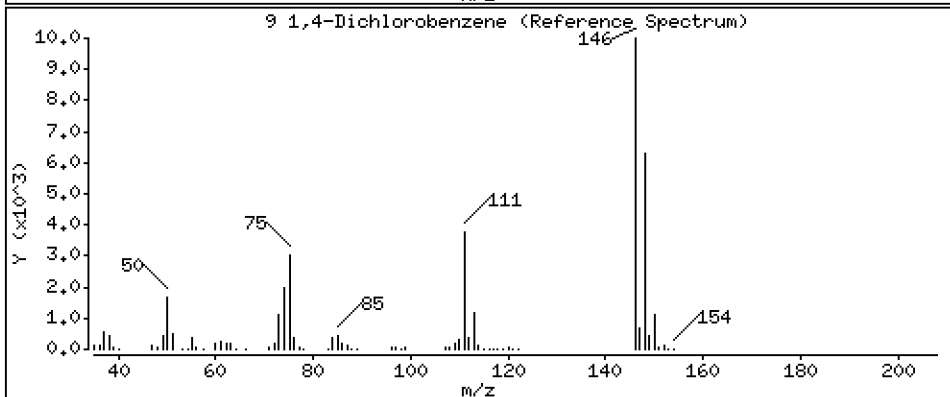
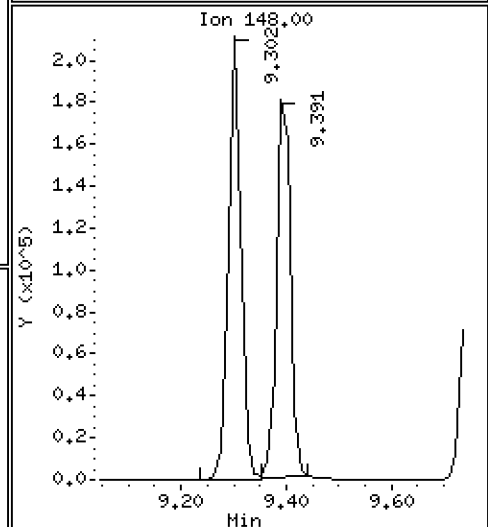
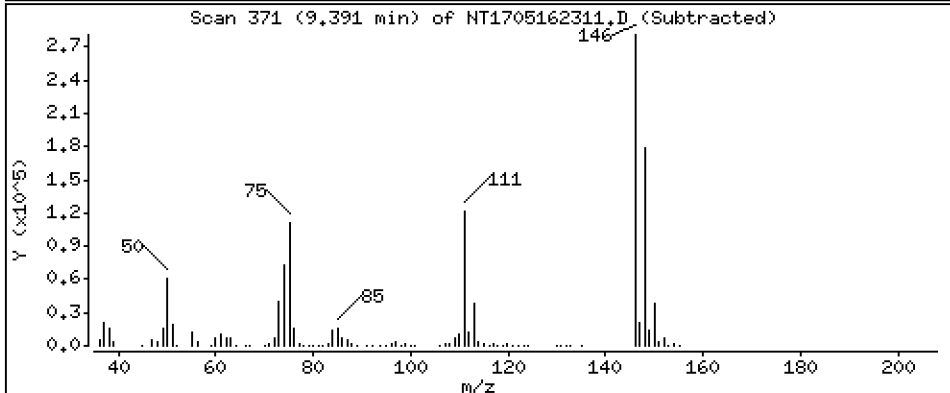
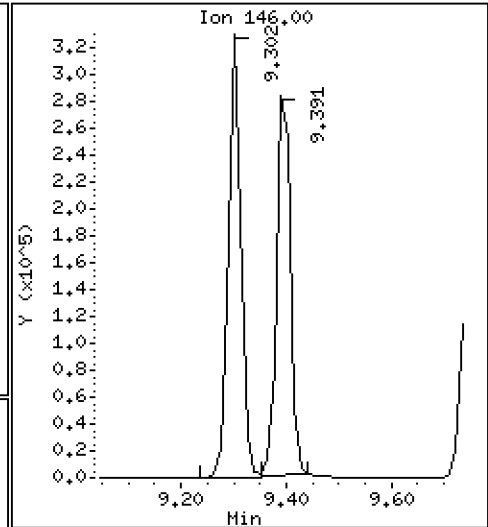
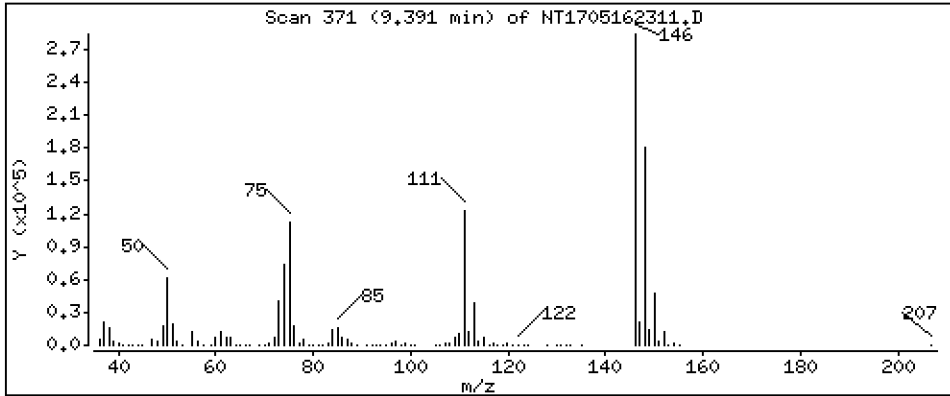
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 5.071 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

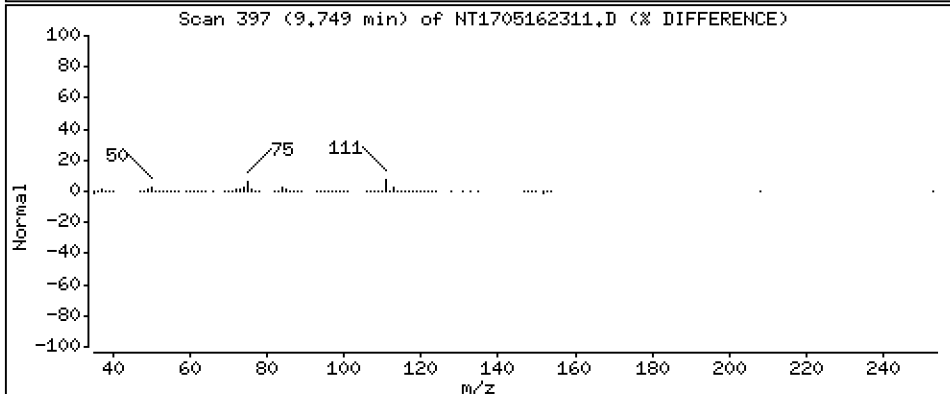
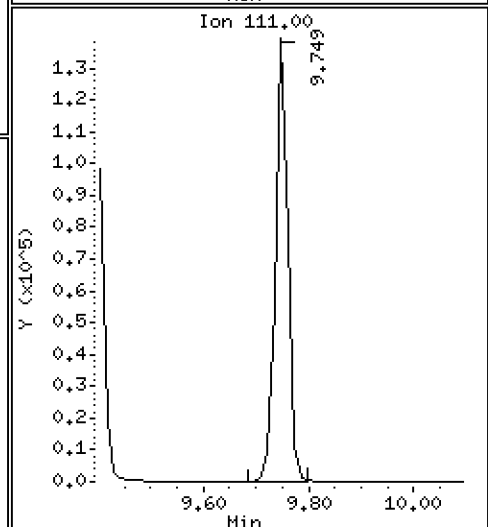
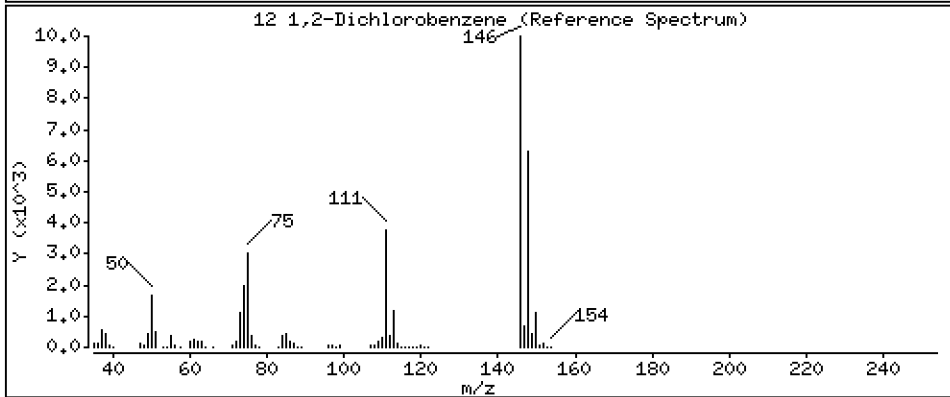
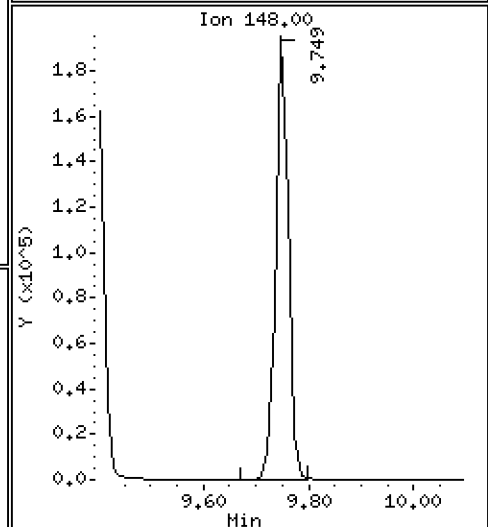
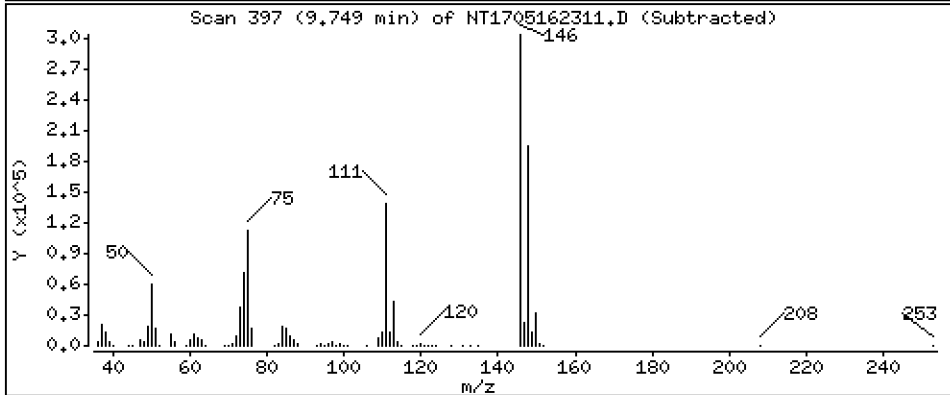
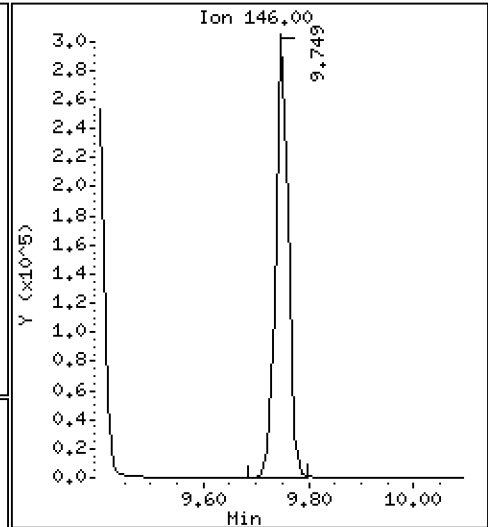
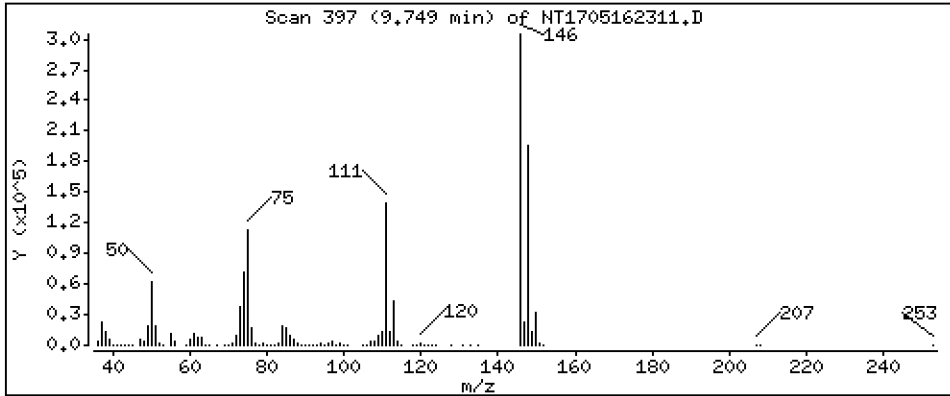
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.258 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

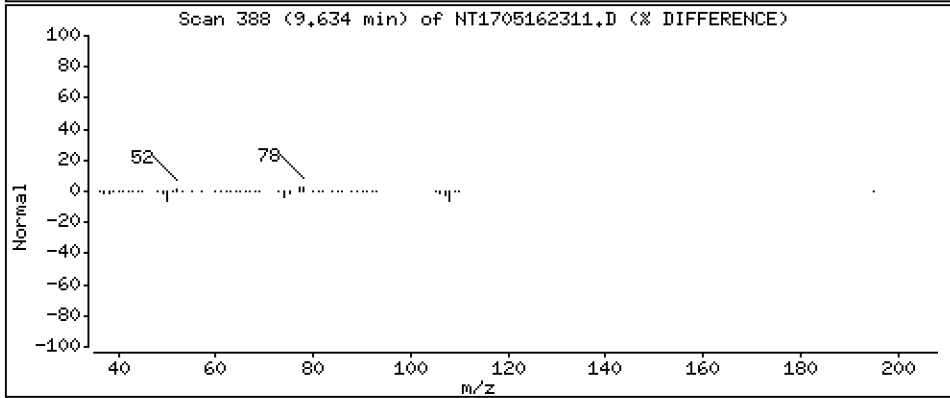
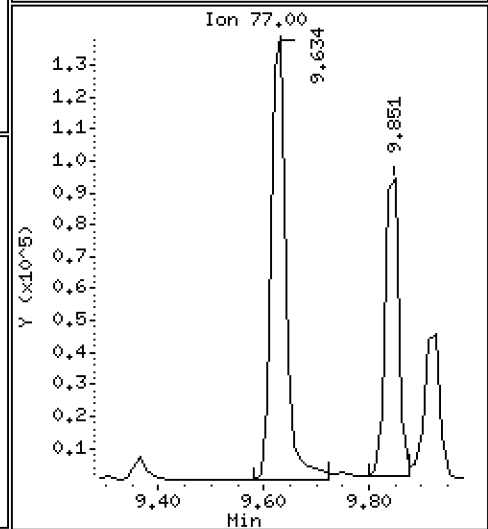
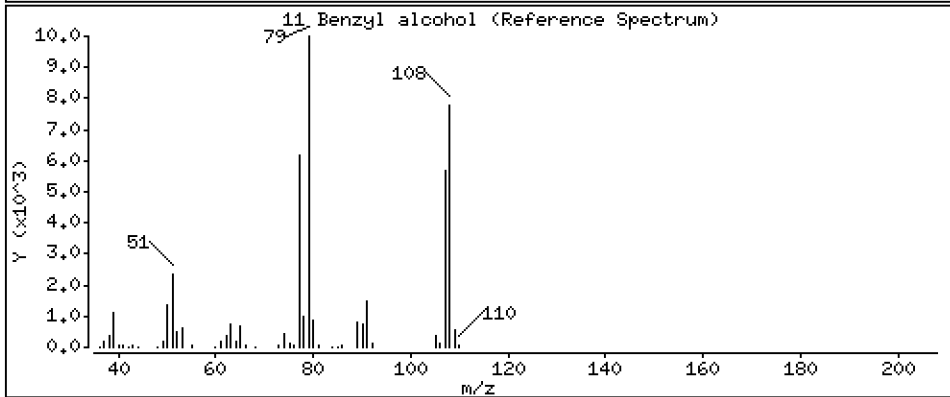
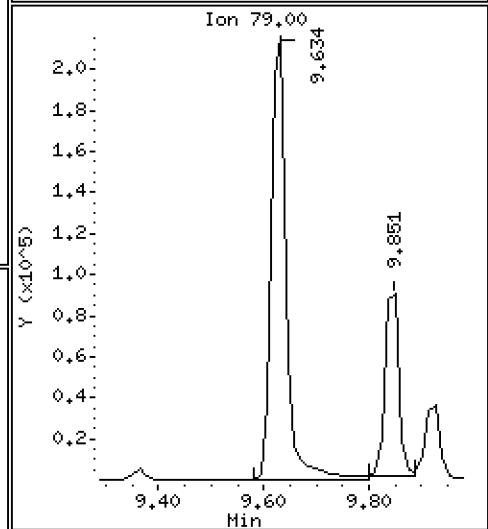
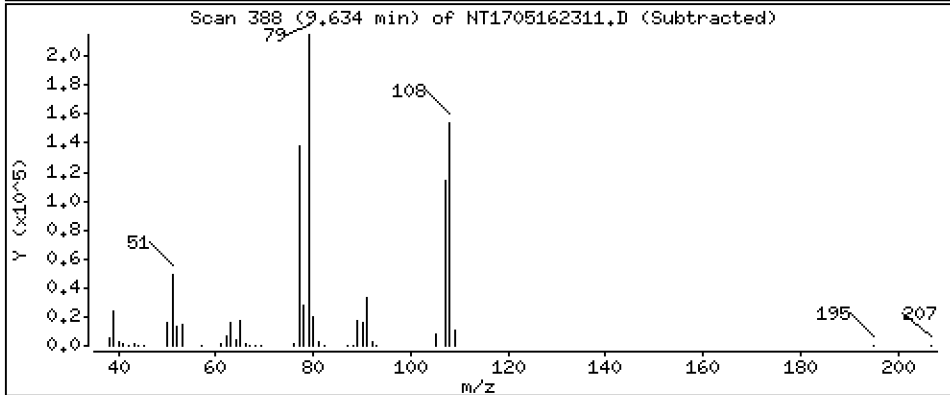
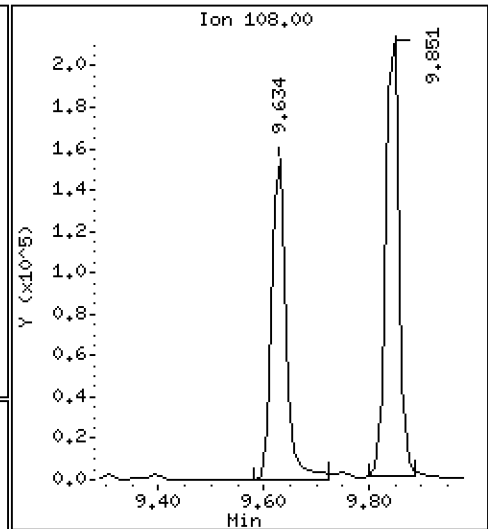
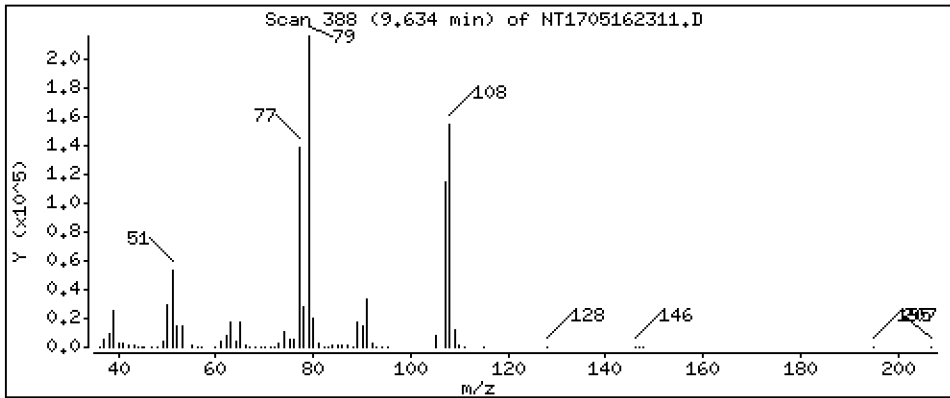
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.274 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

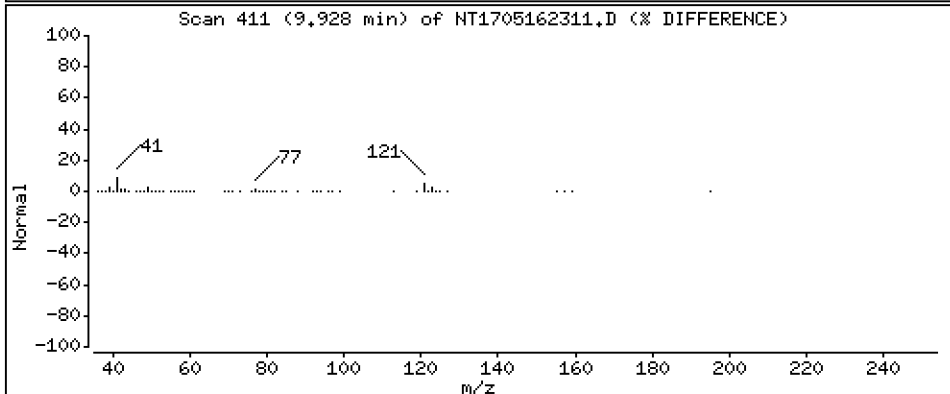
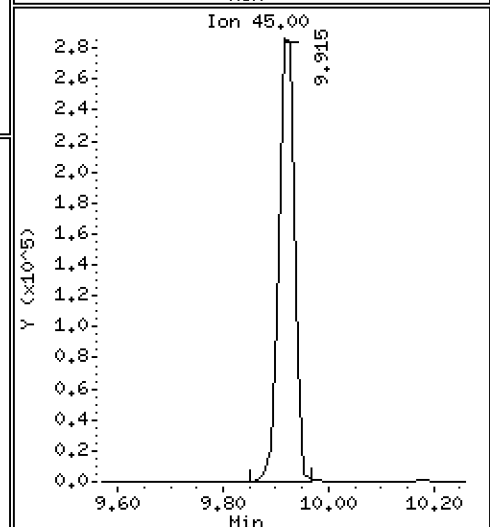
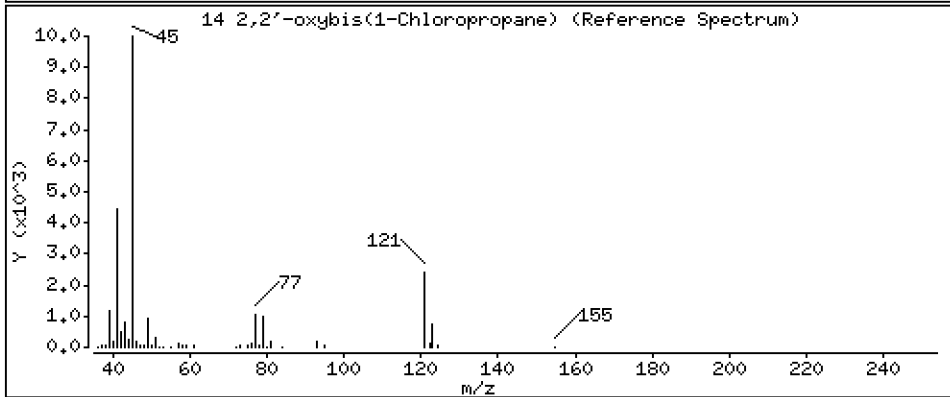
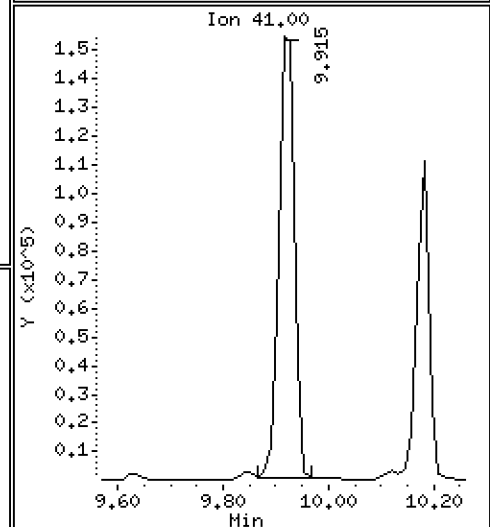
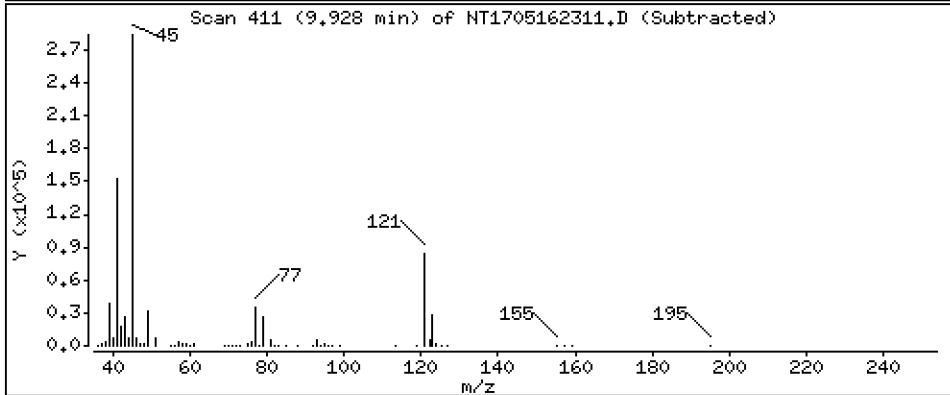
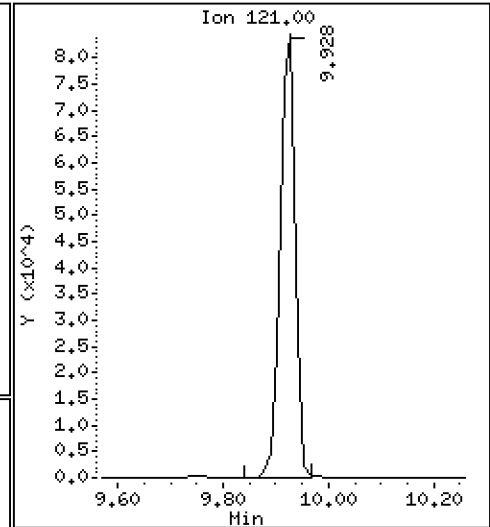
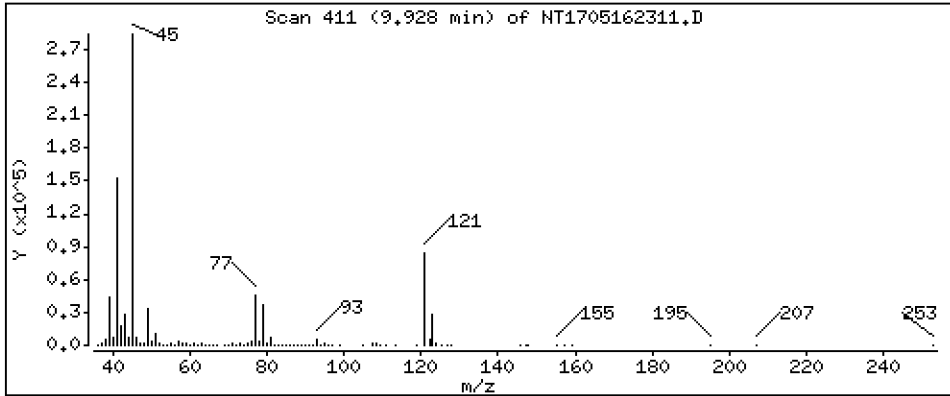
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 6,179 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

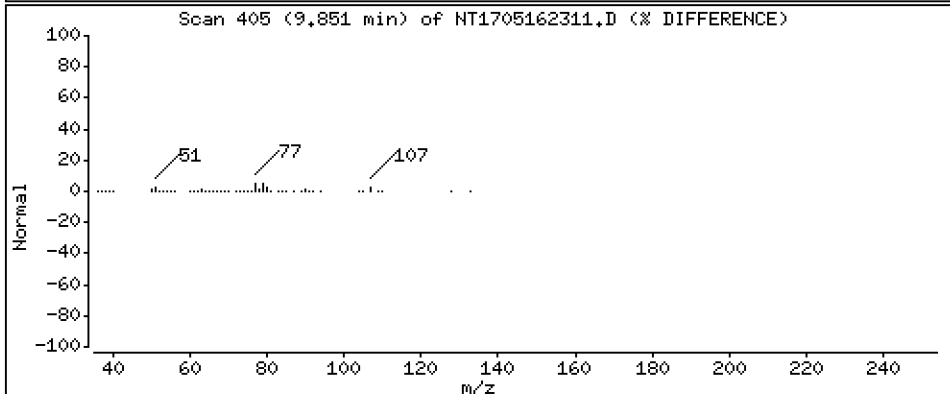
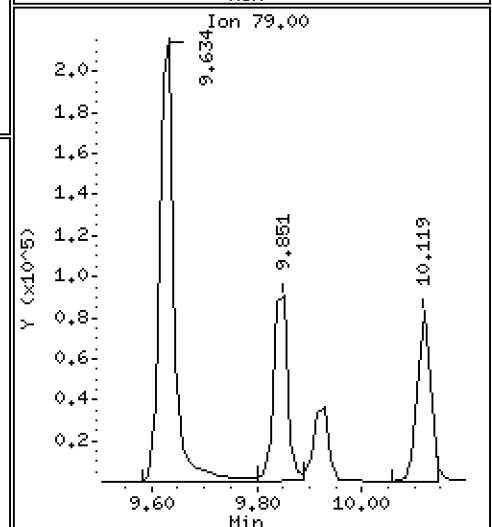
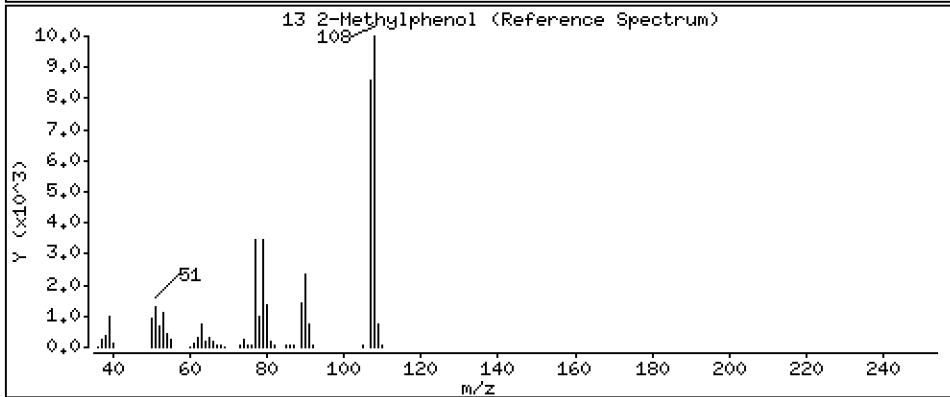
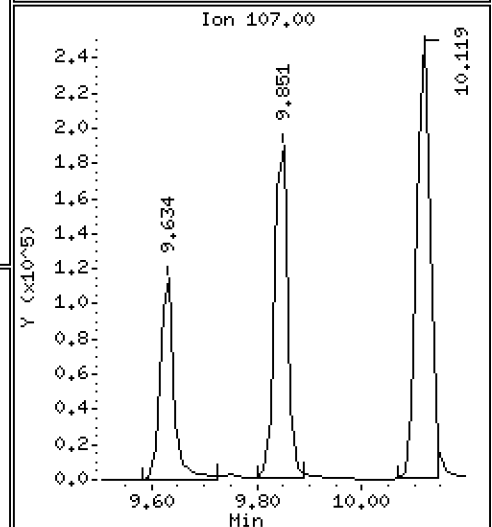
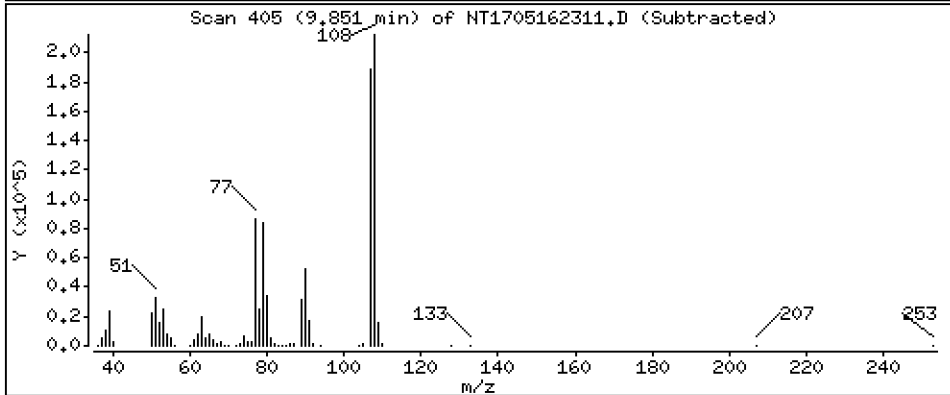
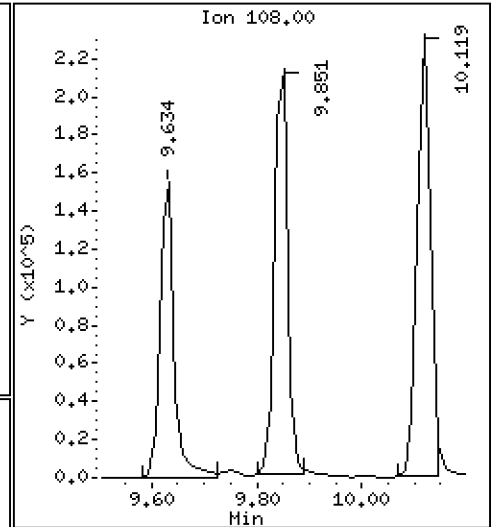
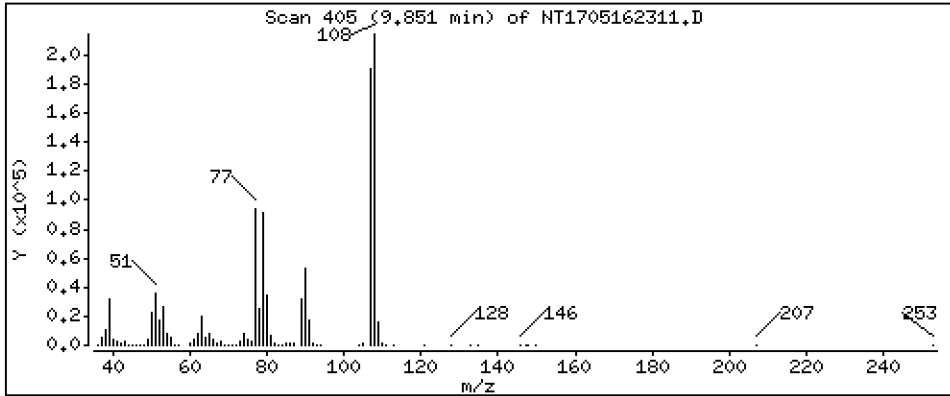
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.229 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

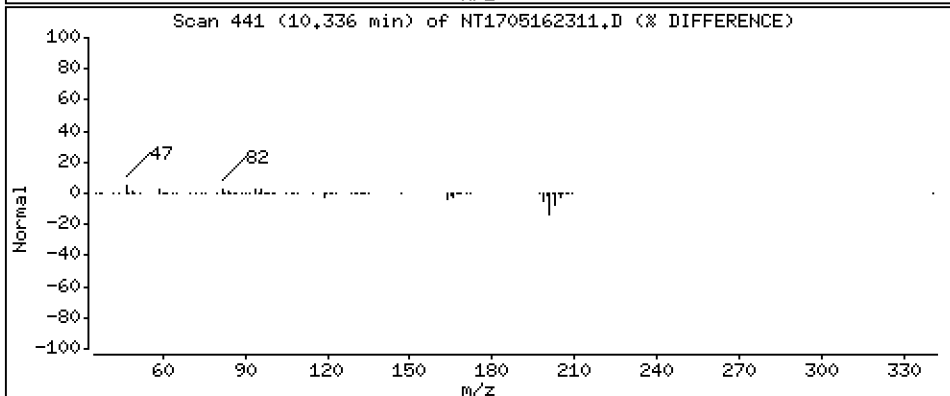
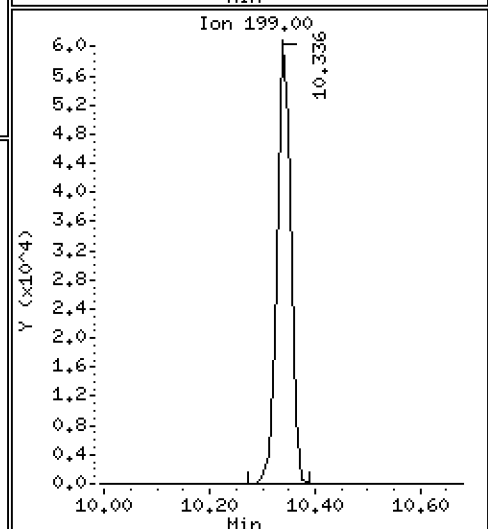
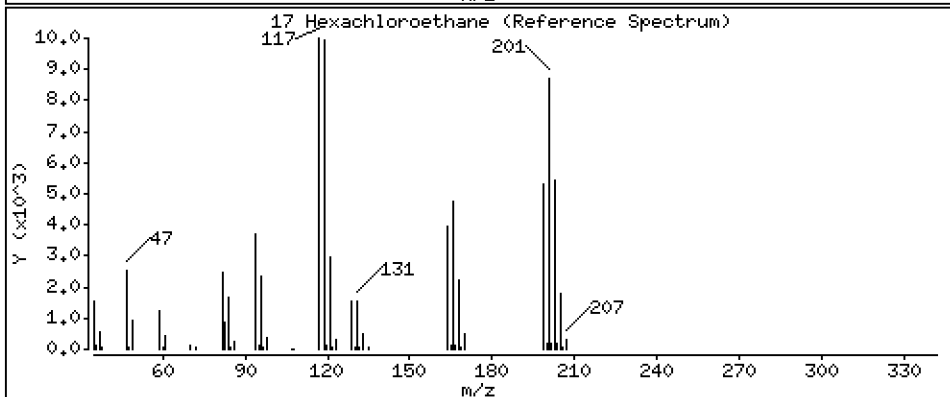
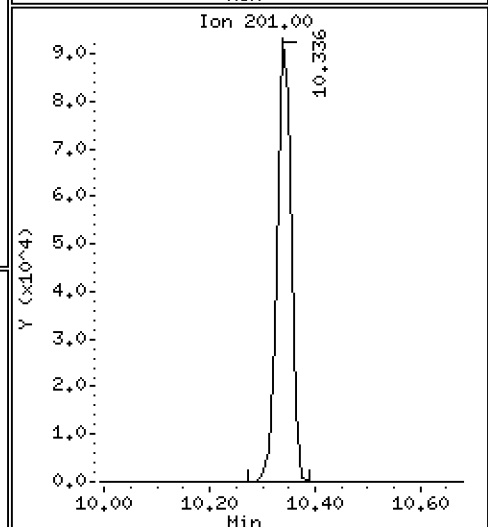
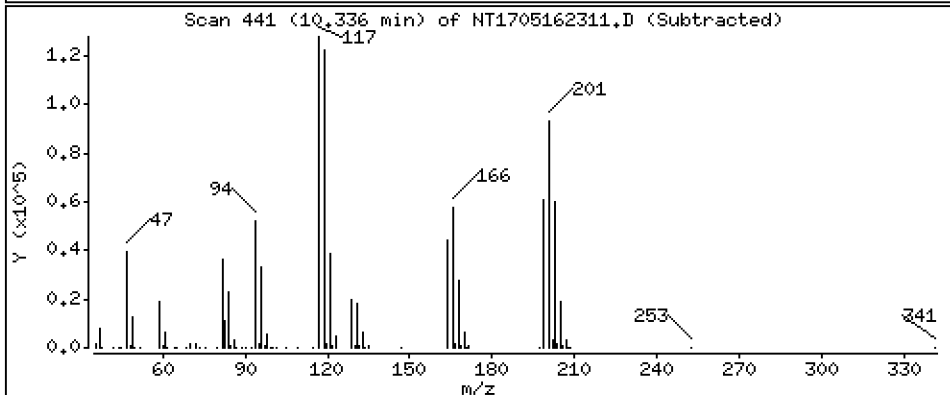
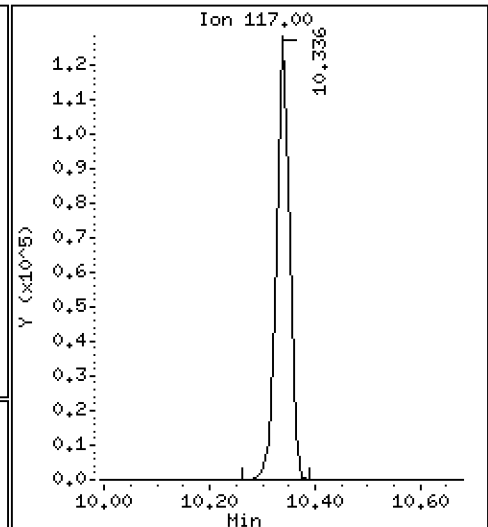
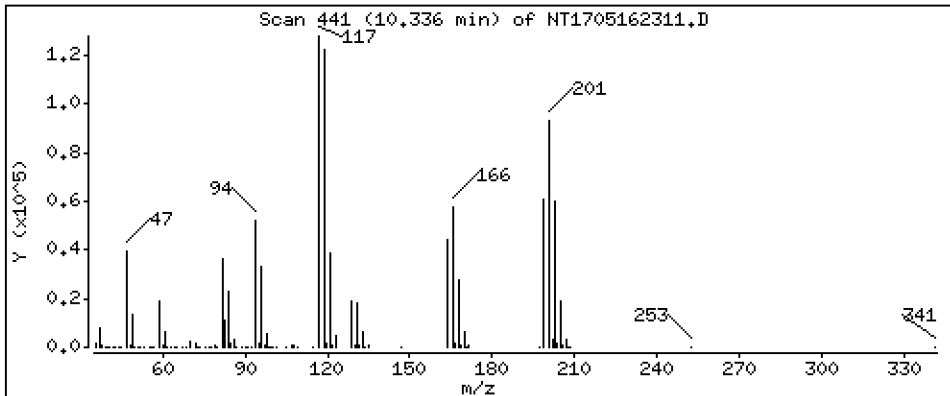
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 5,419 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

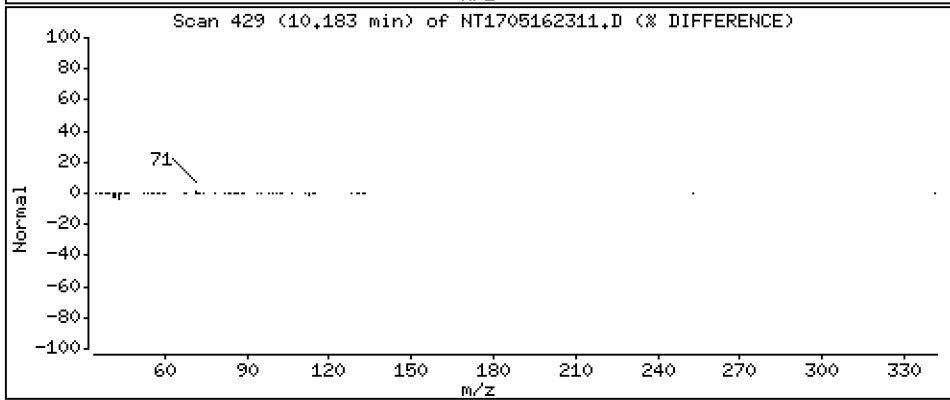
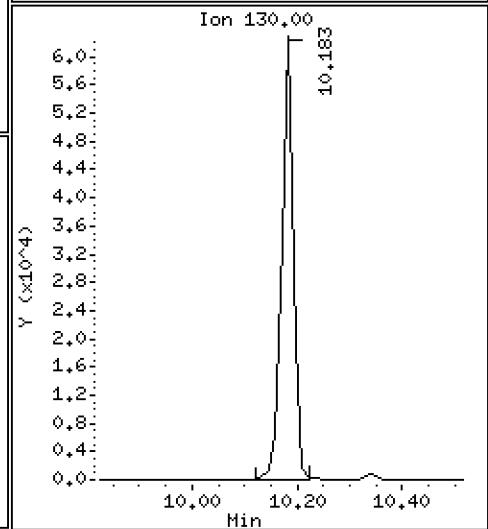
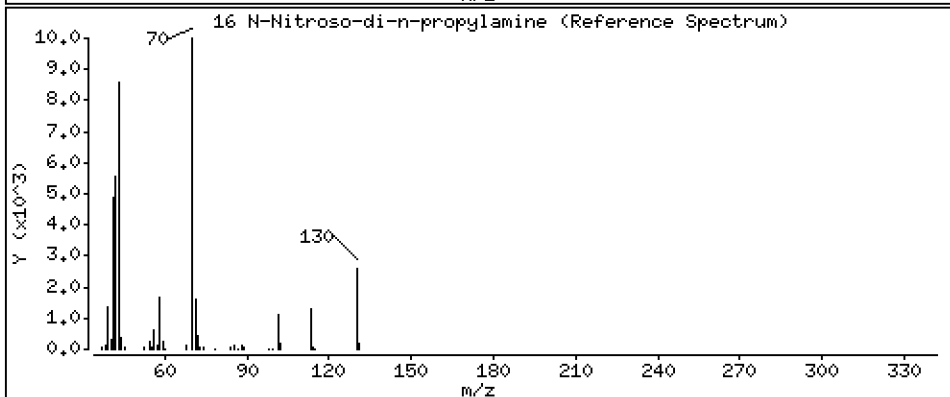
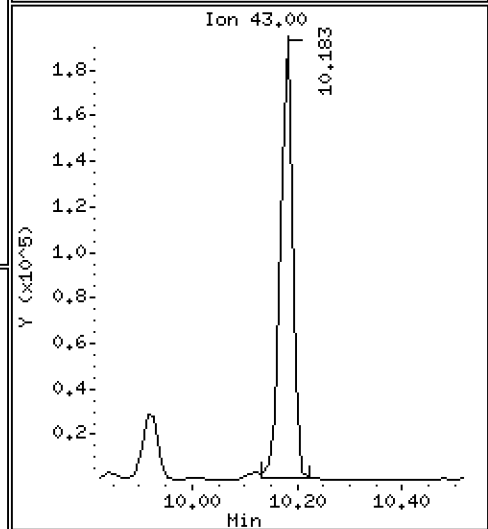
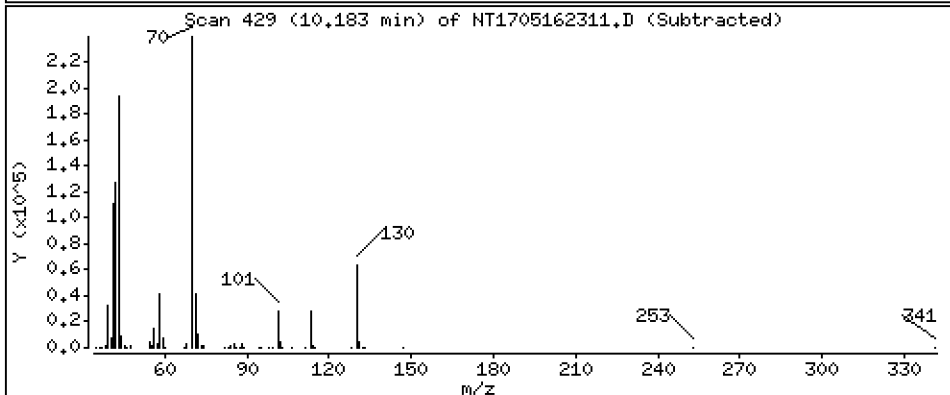
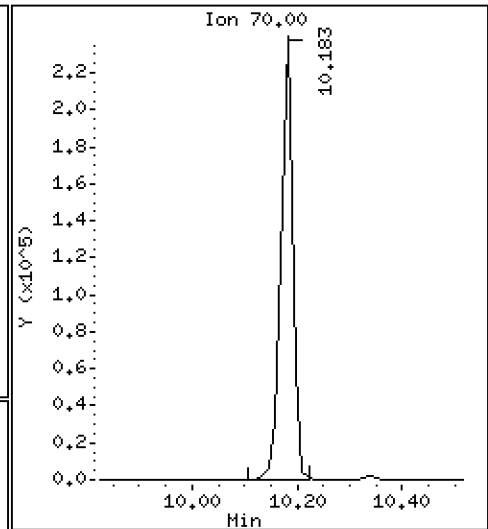
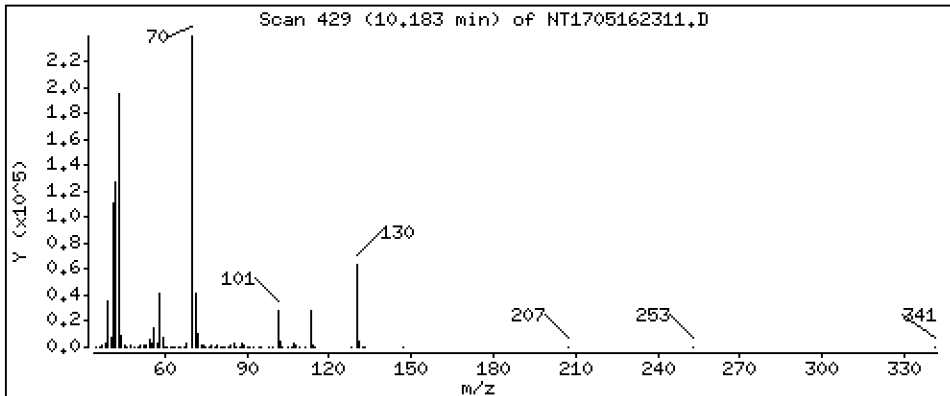
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,517 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

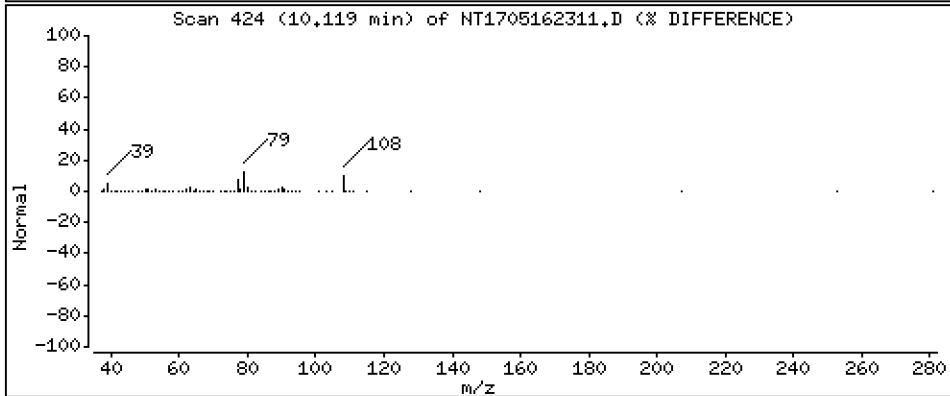
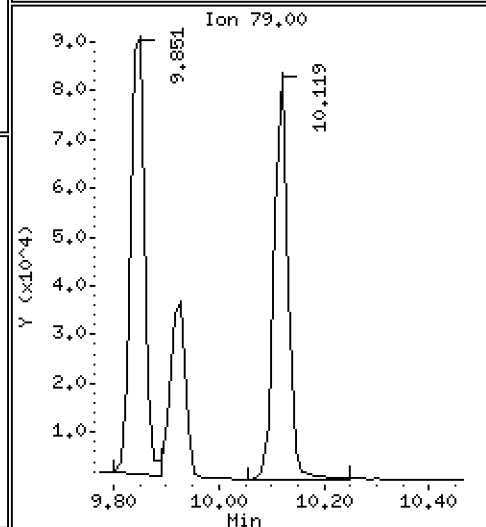
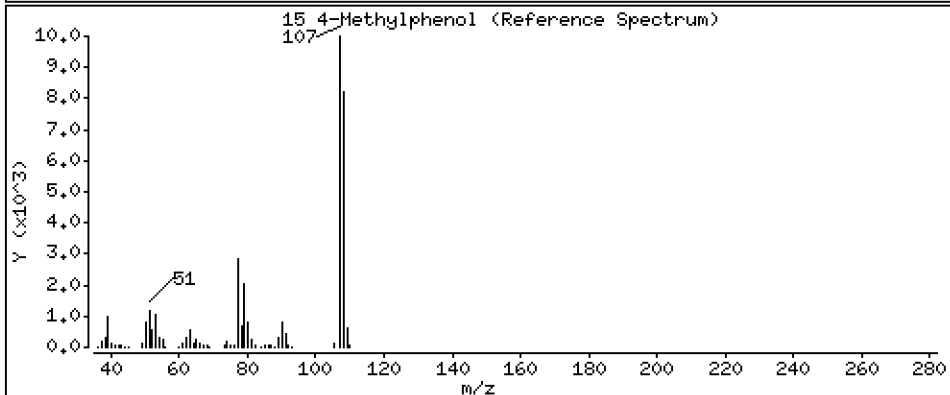
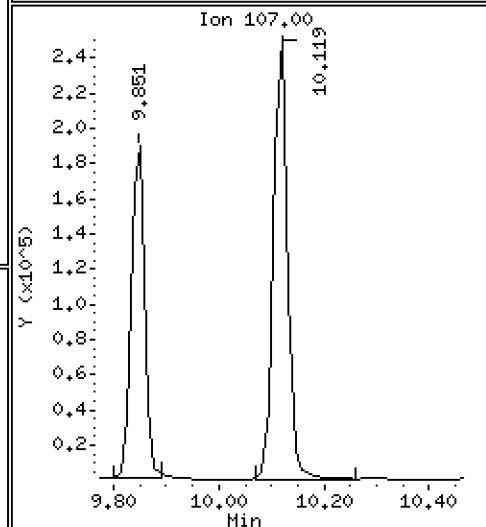
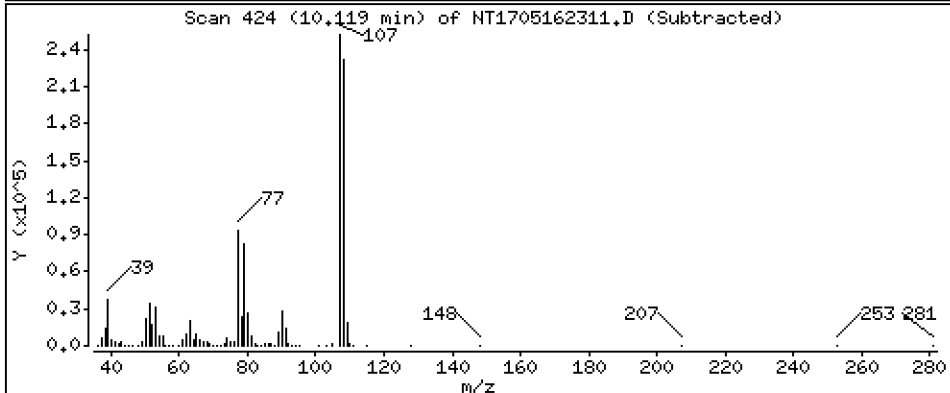
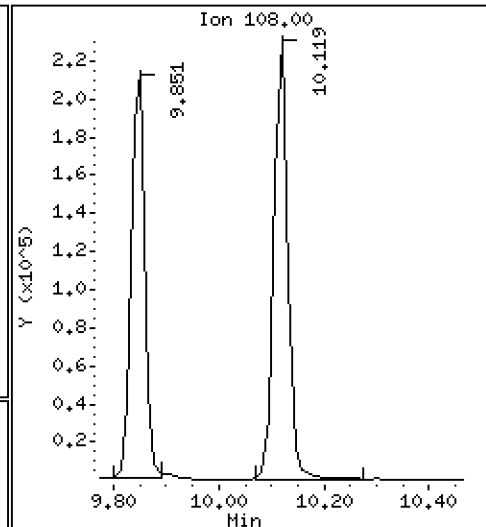
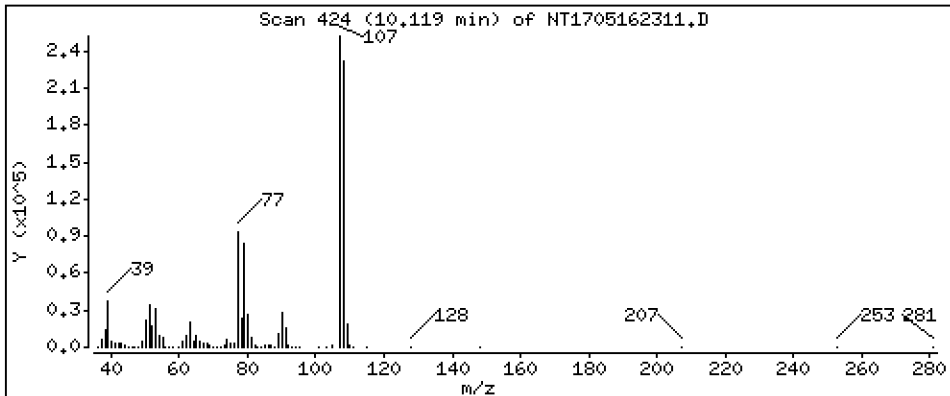
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 4.661 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

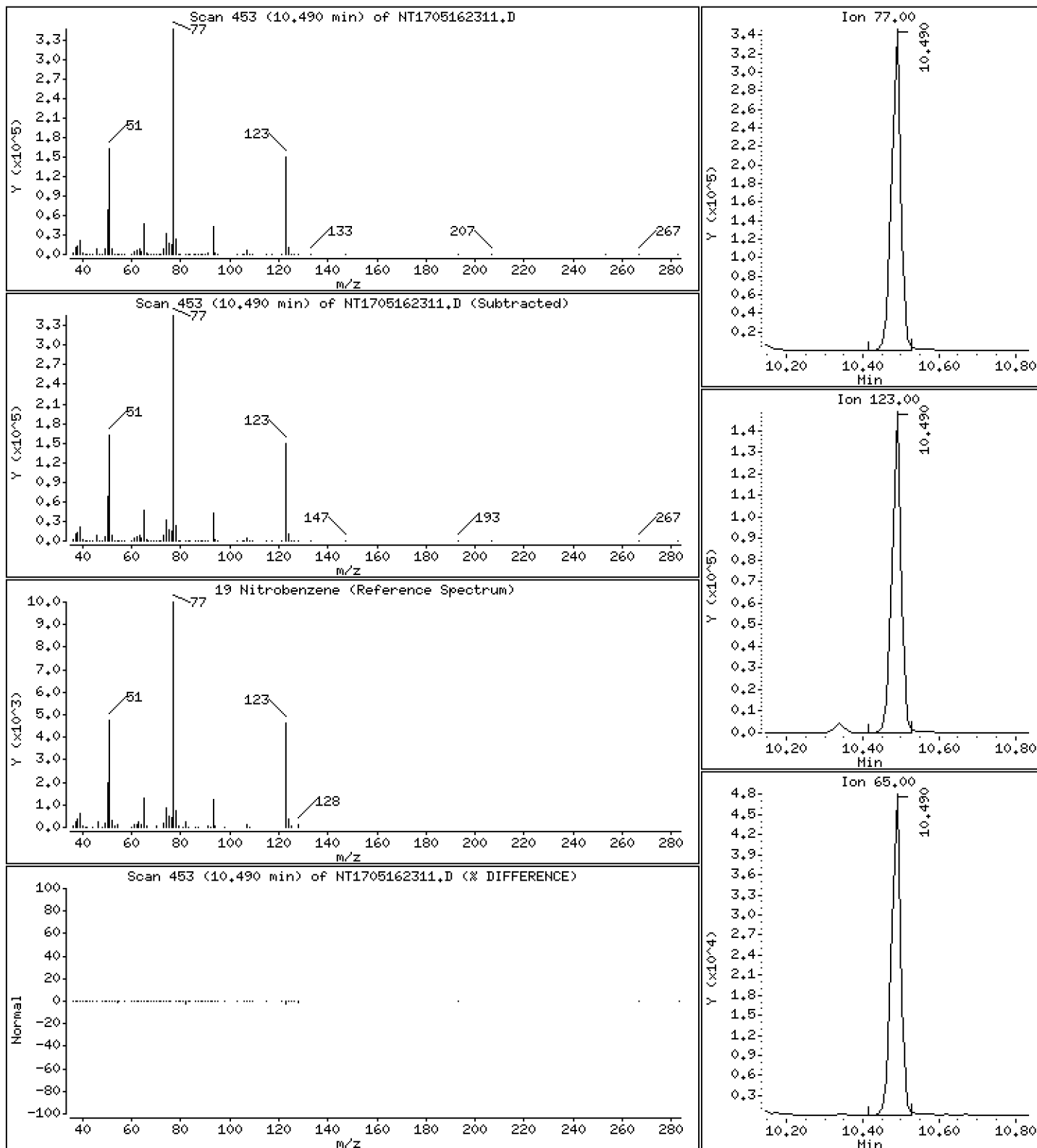
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 5,329 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

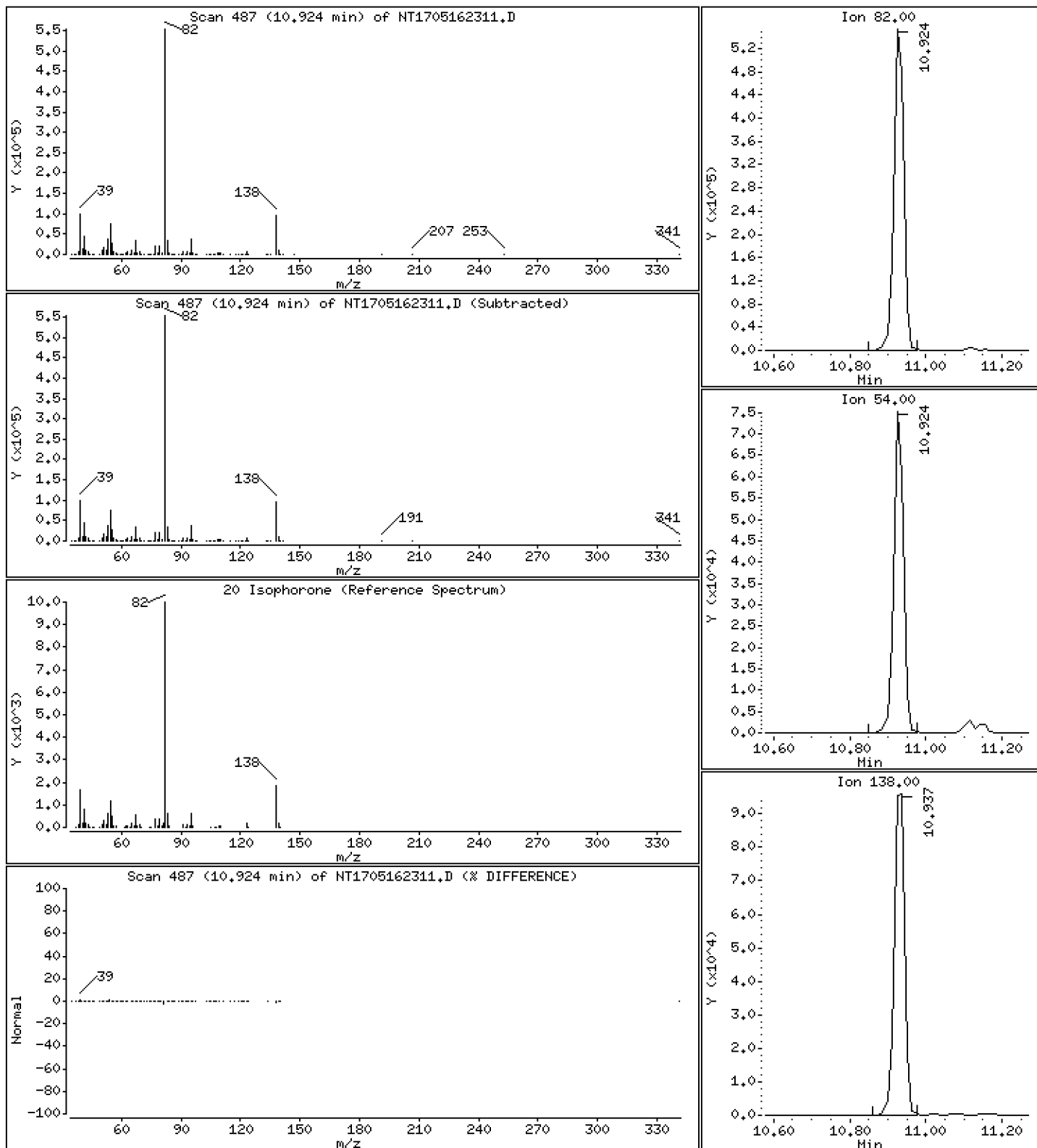
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 6,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

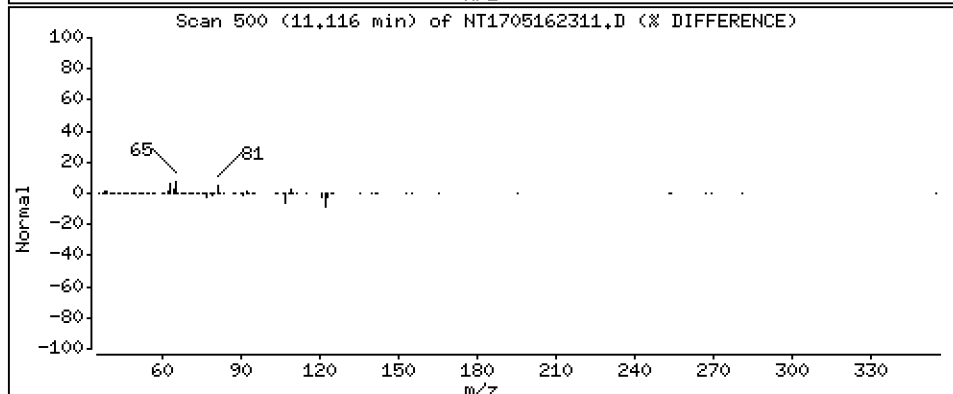
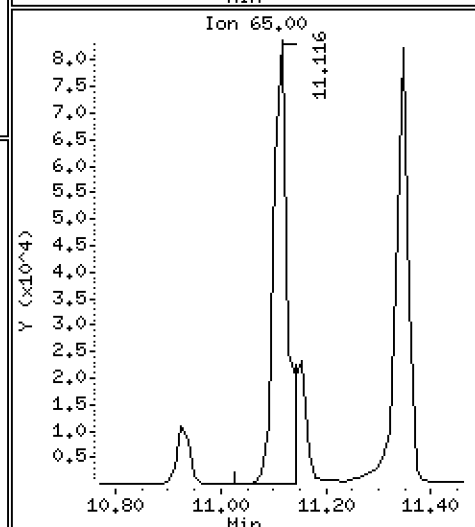
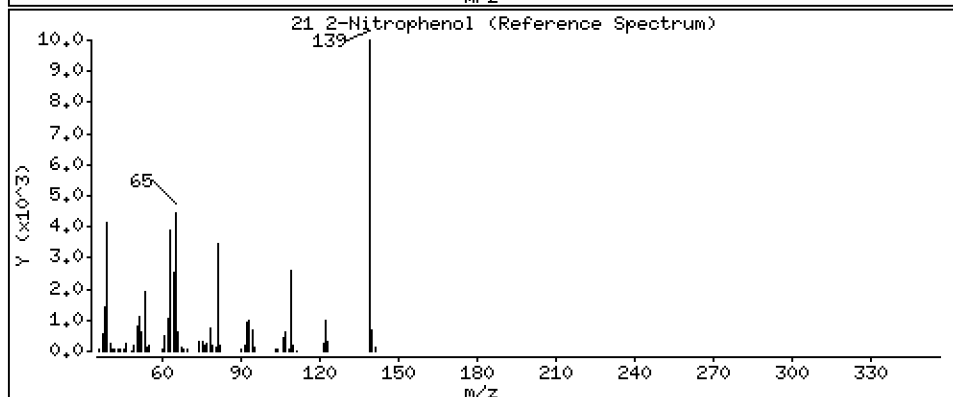
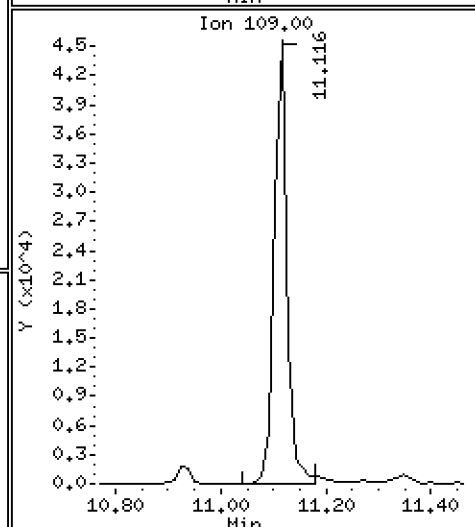
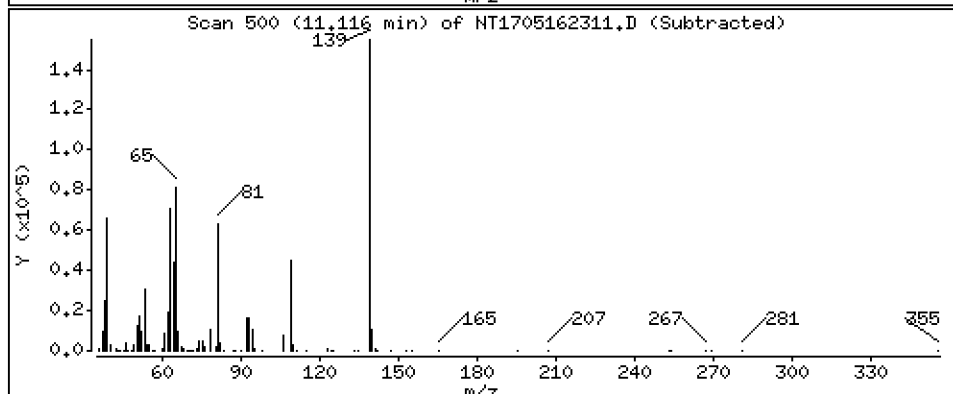
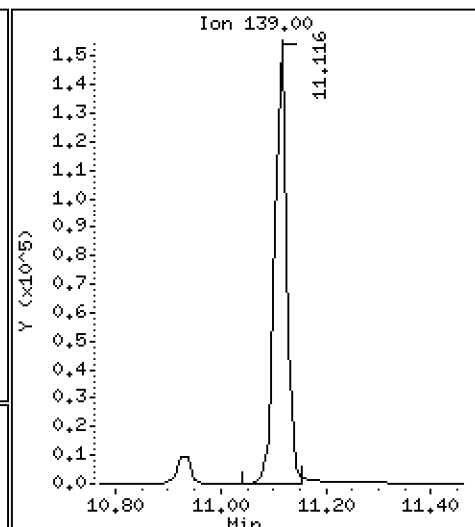
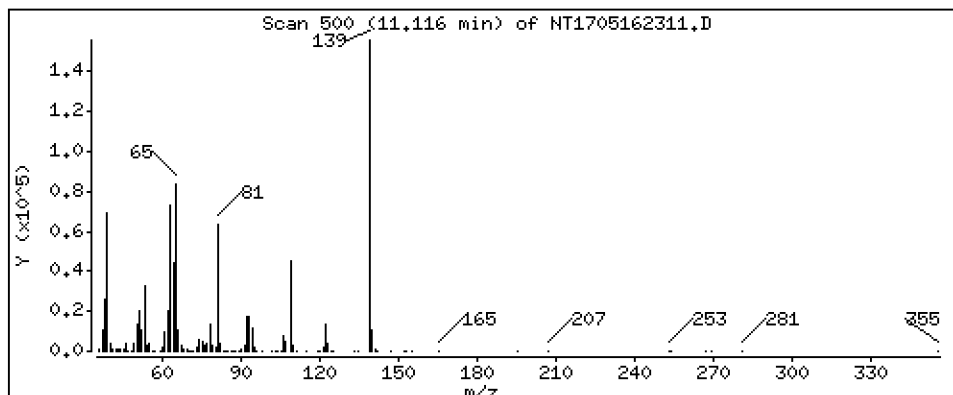
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,899 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

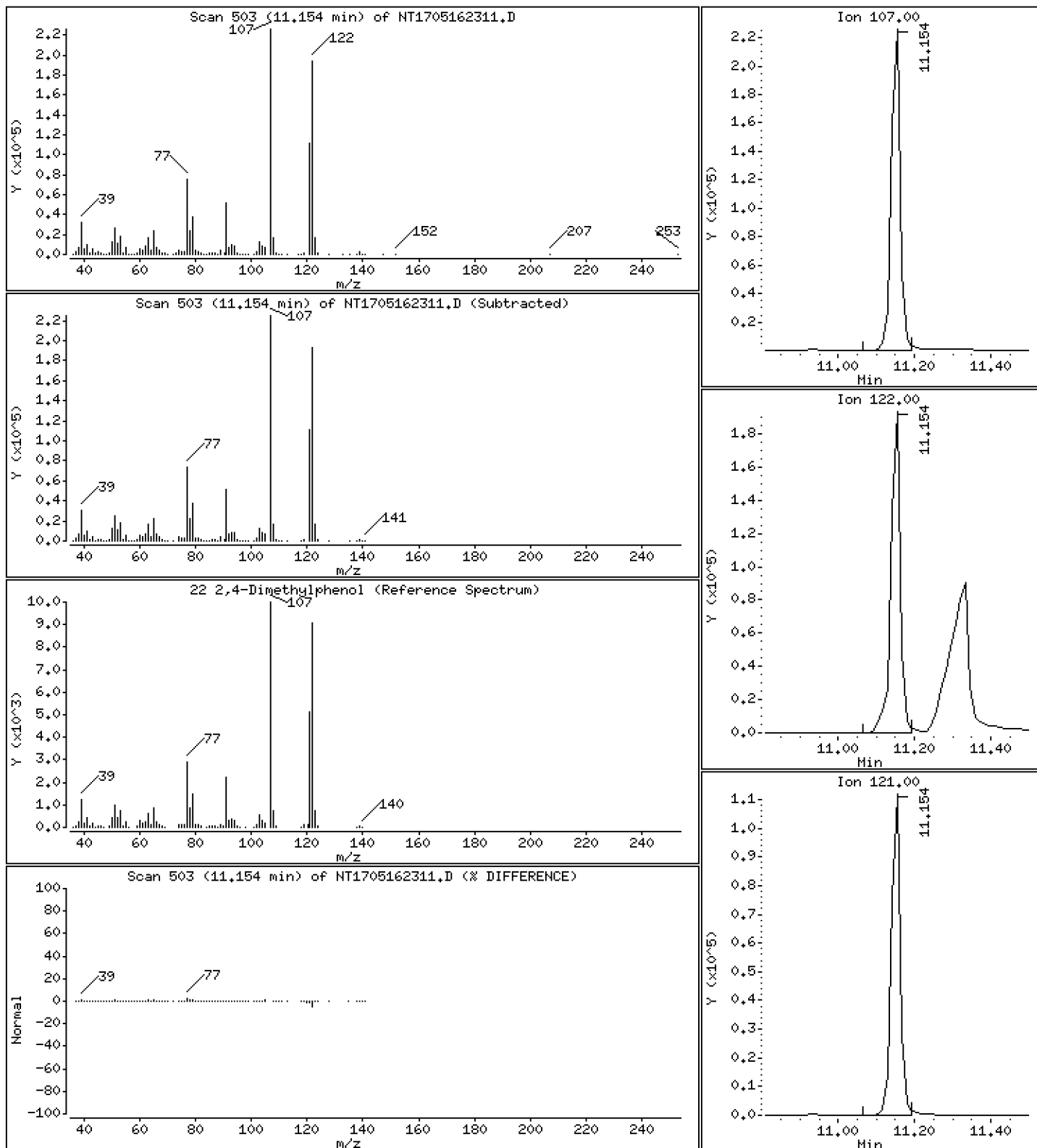
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

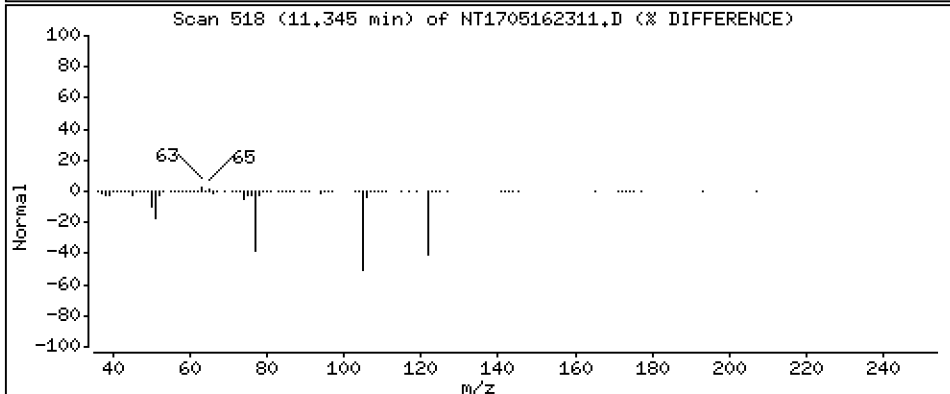
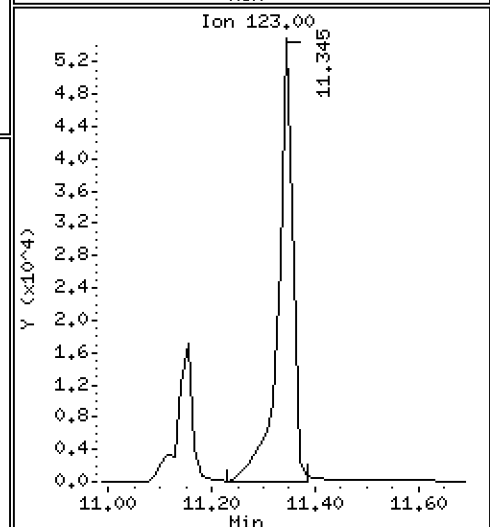
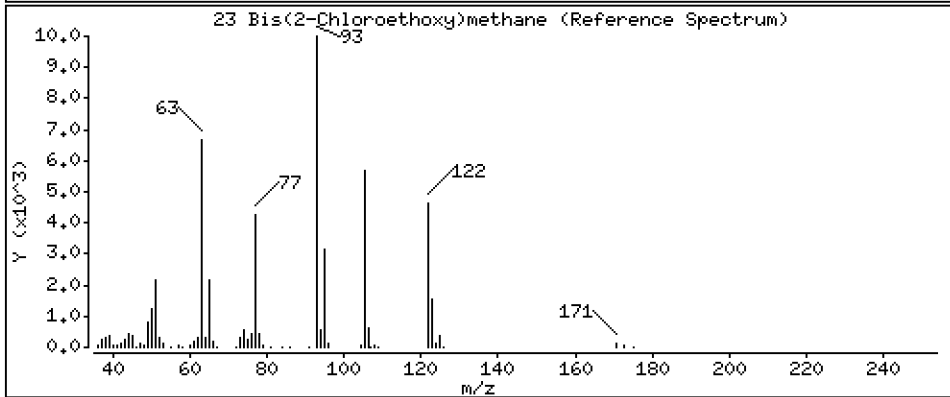
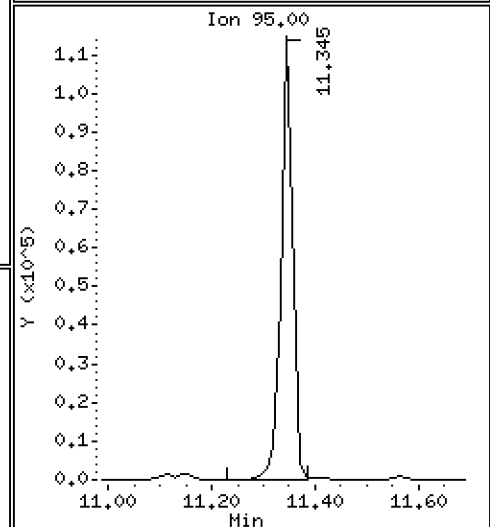
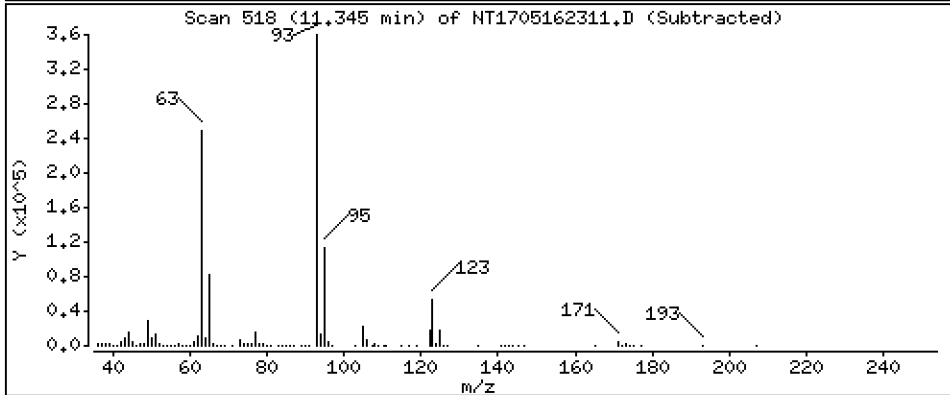
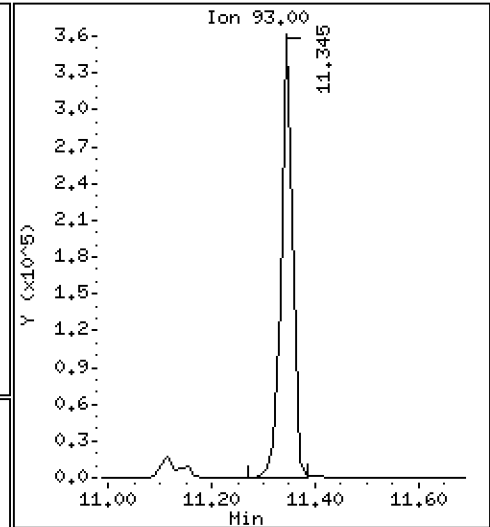
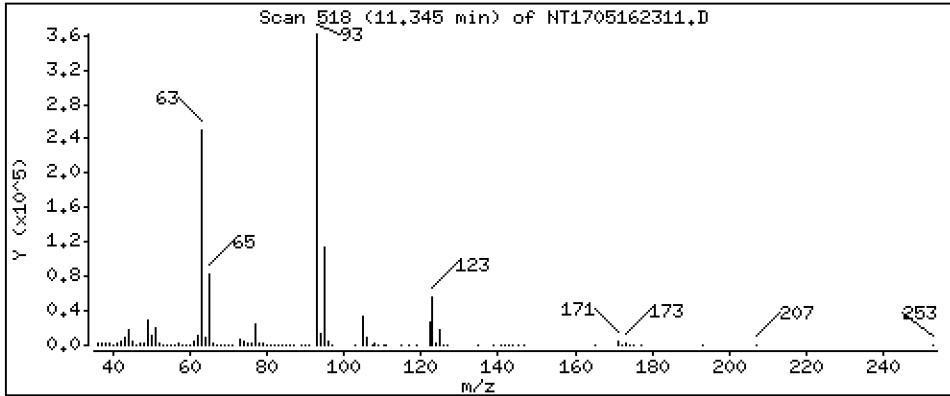
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 6,232 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

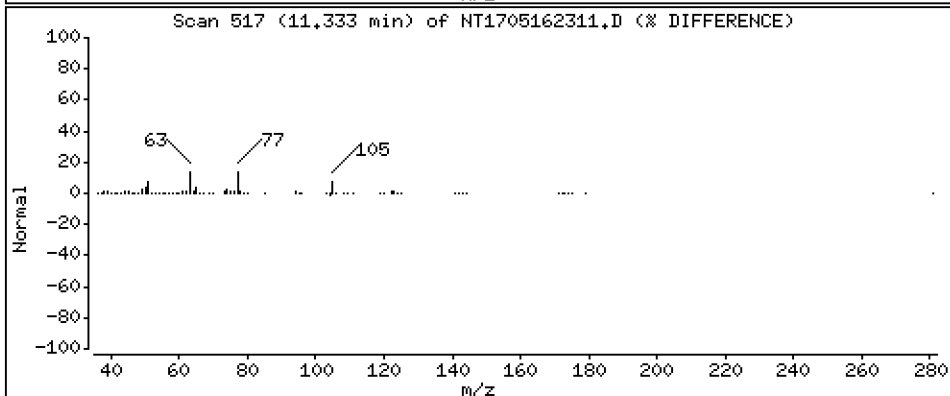
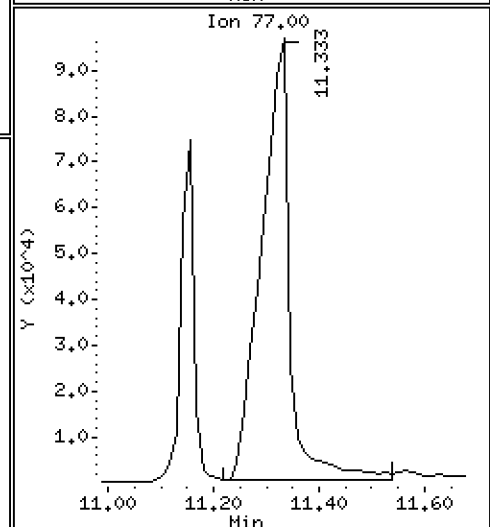
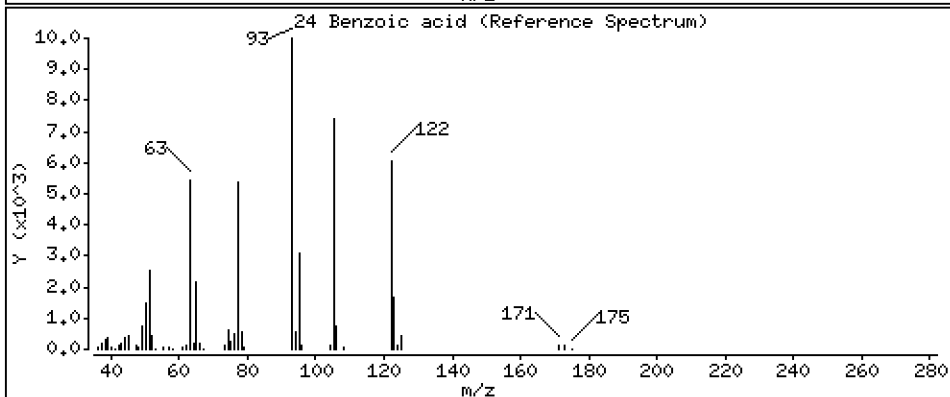
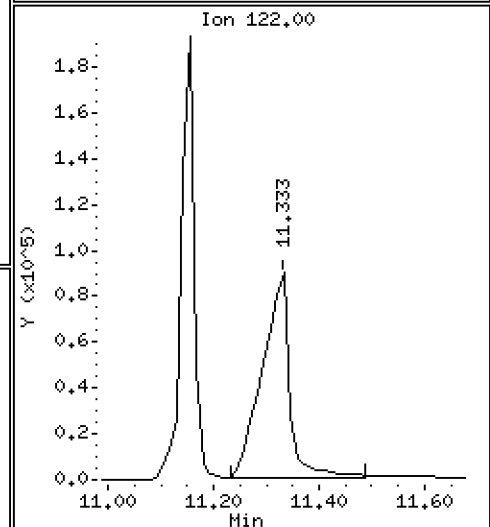
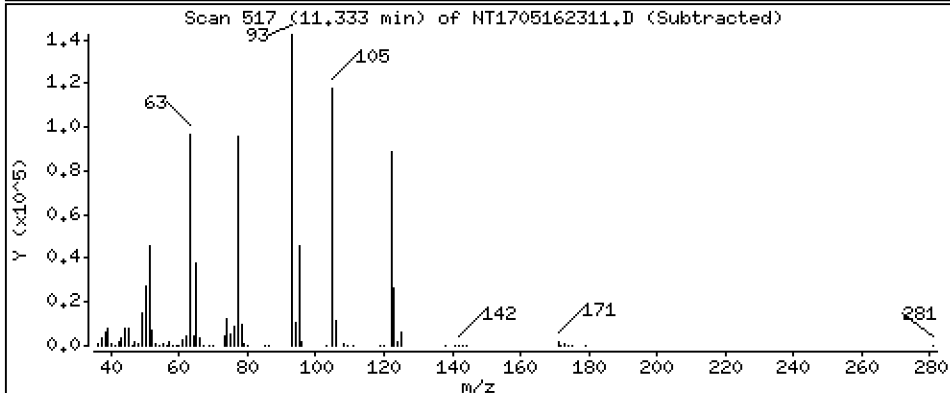
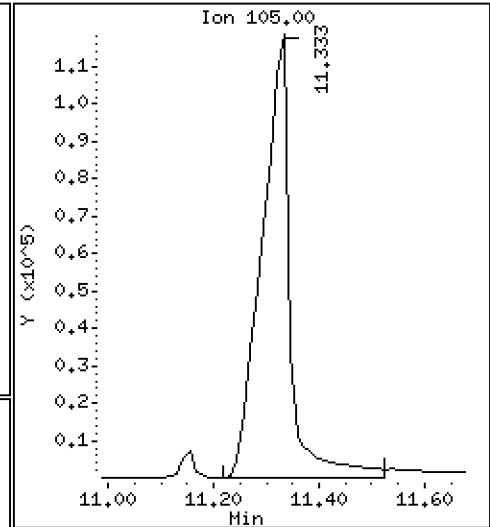
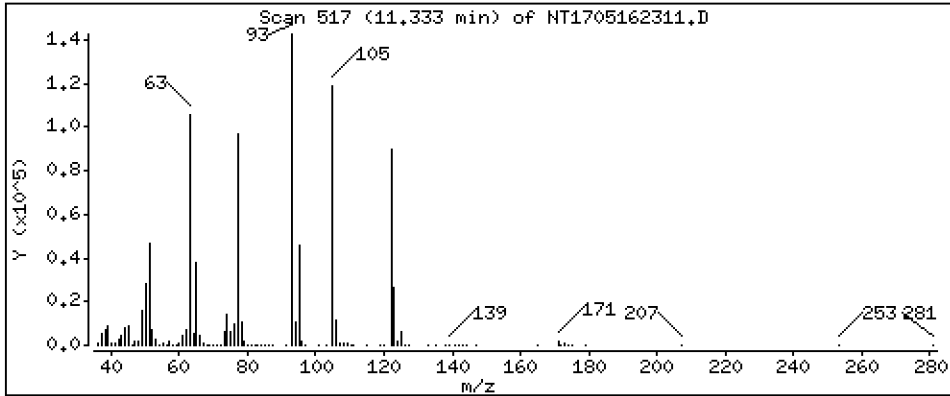
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 6.761 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

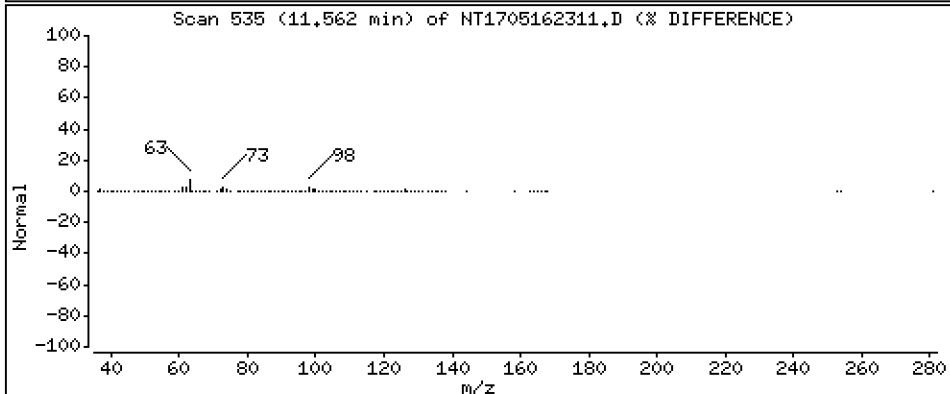
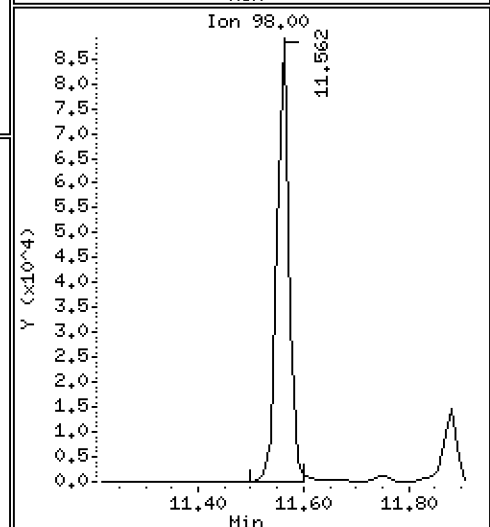
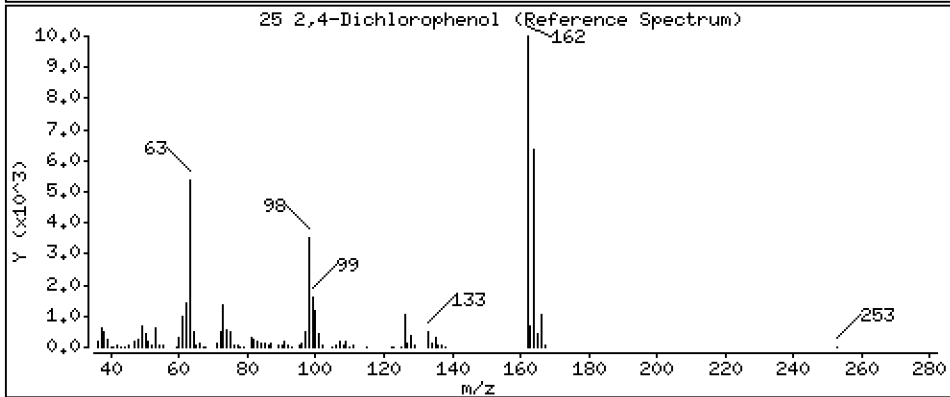
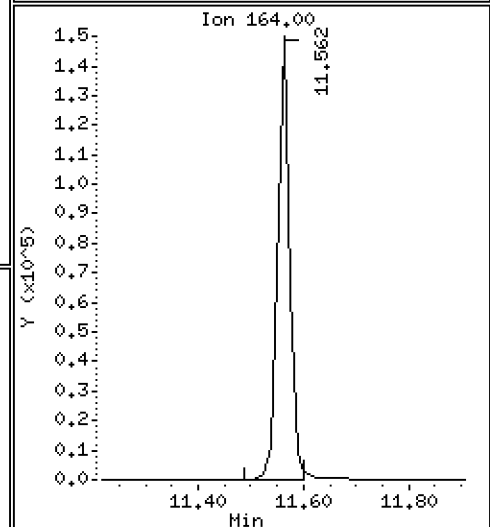
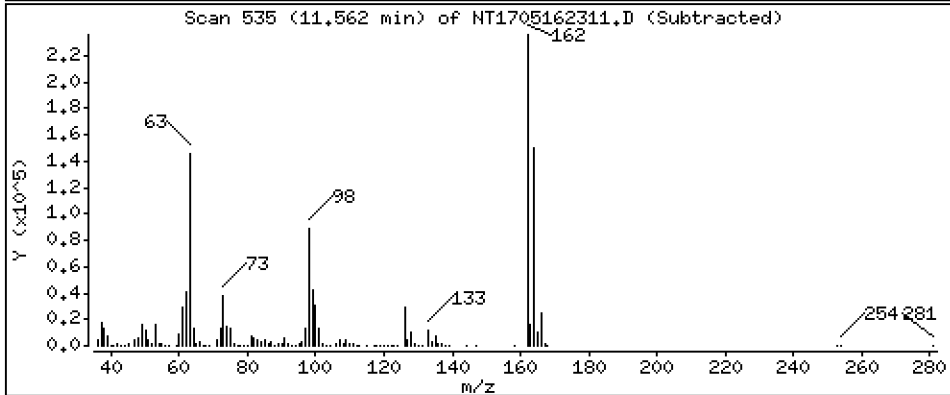
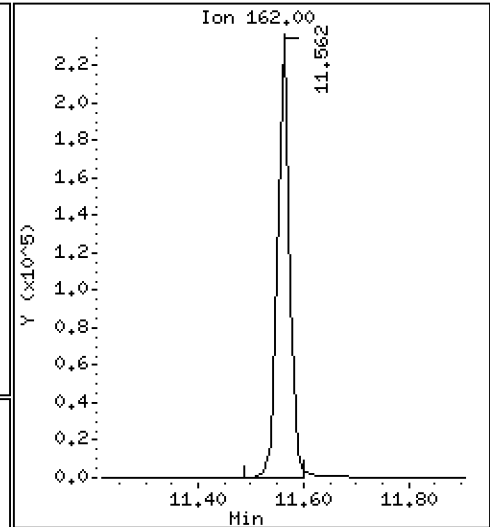
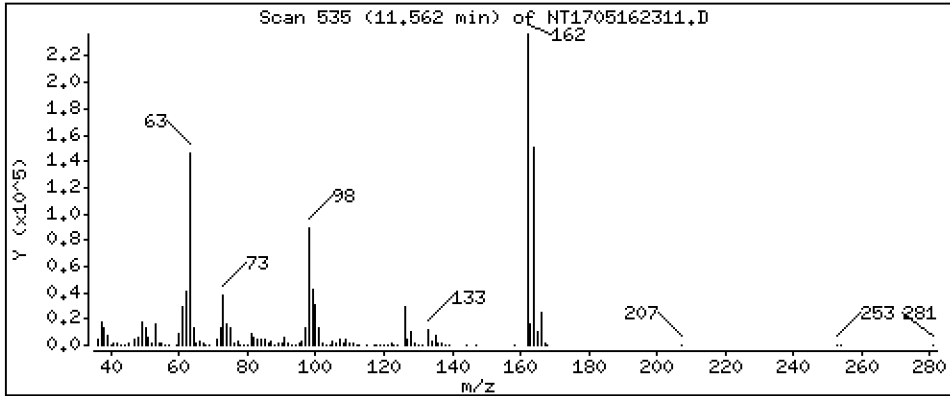
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,707 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

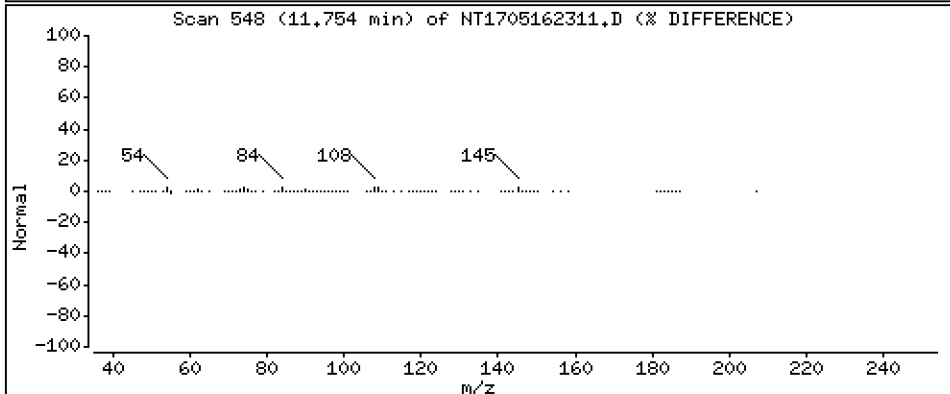
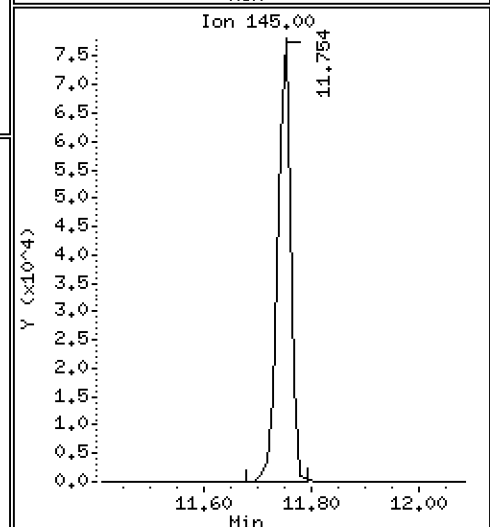
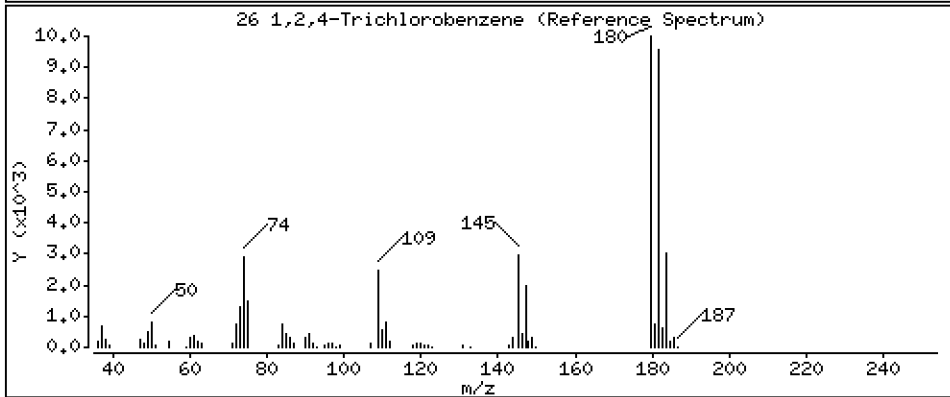
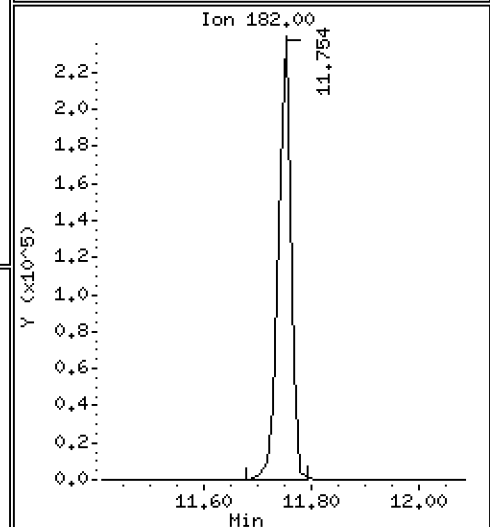
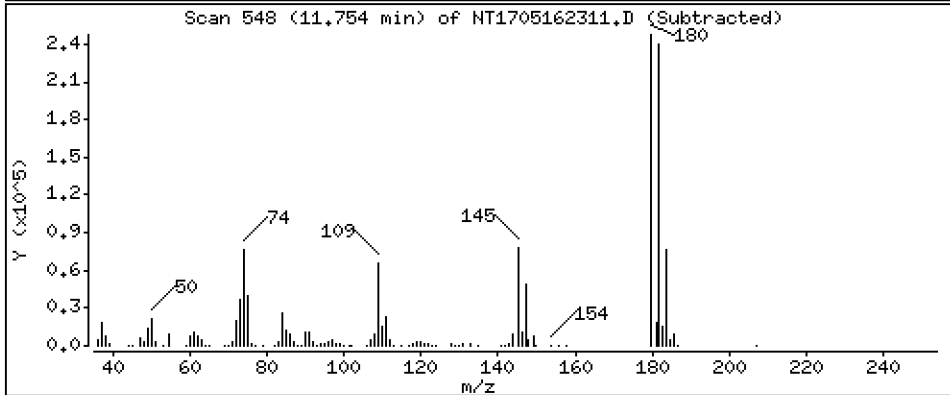
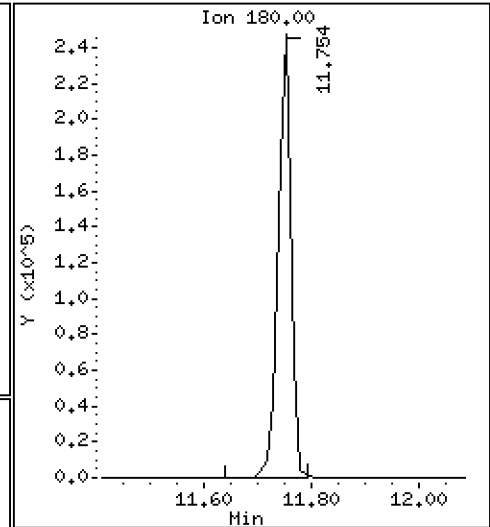
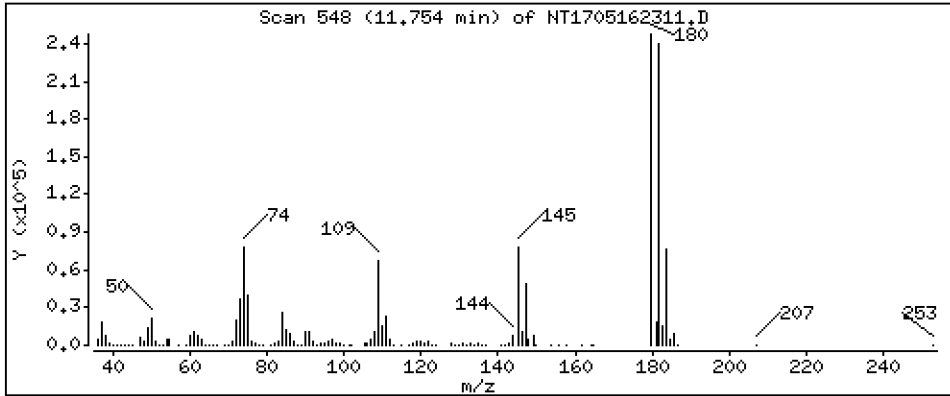
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 5,879 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

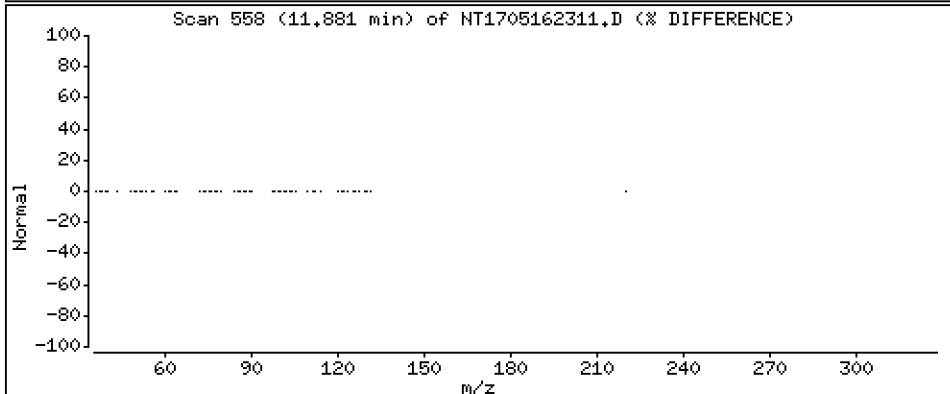
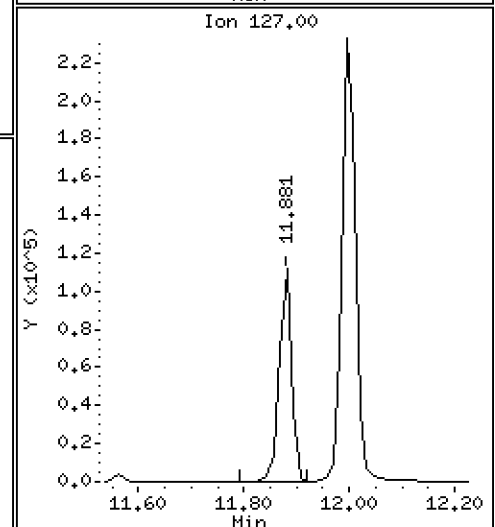
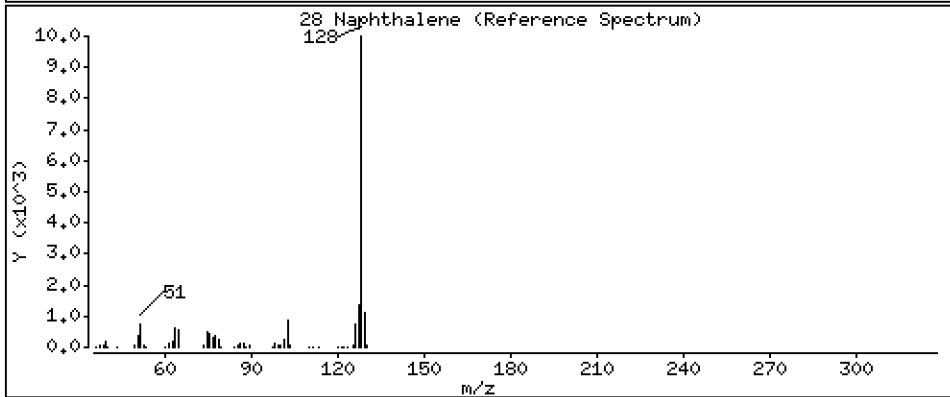
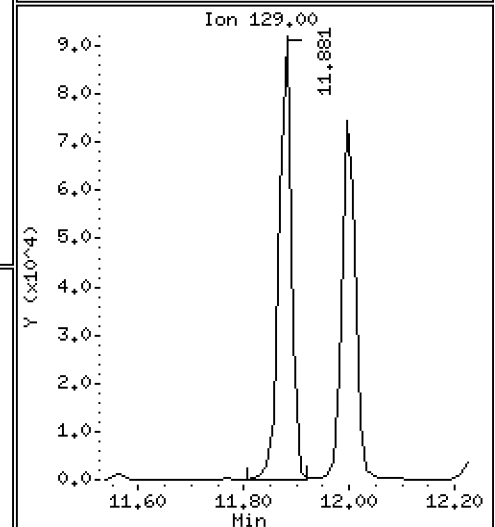
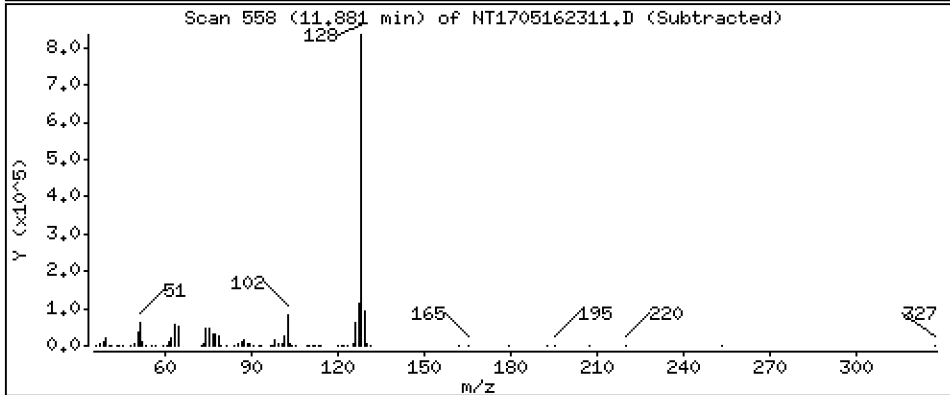
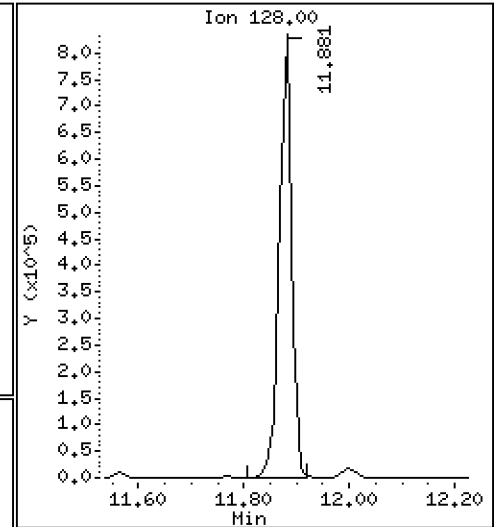
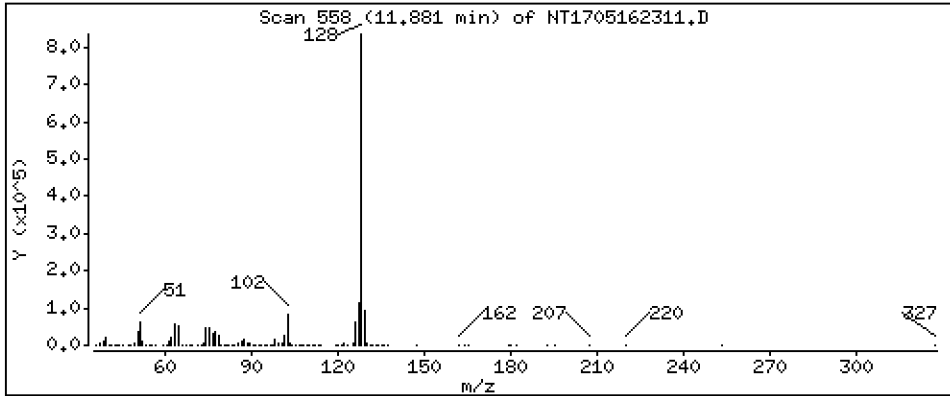
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 5,129 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

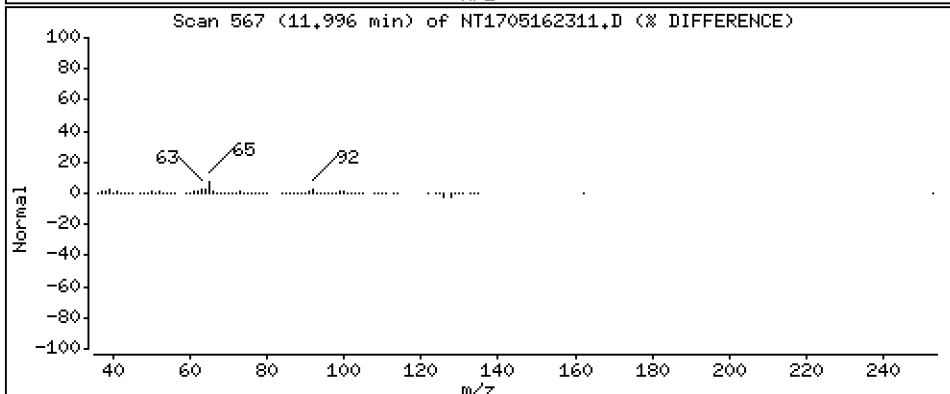
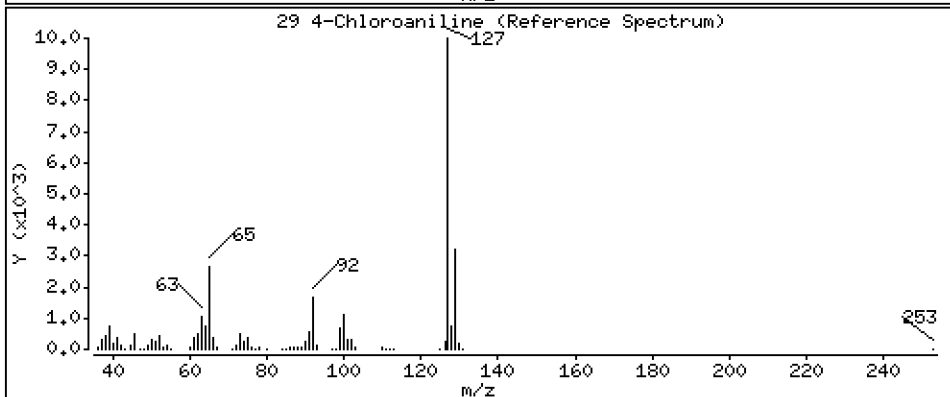
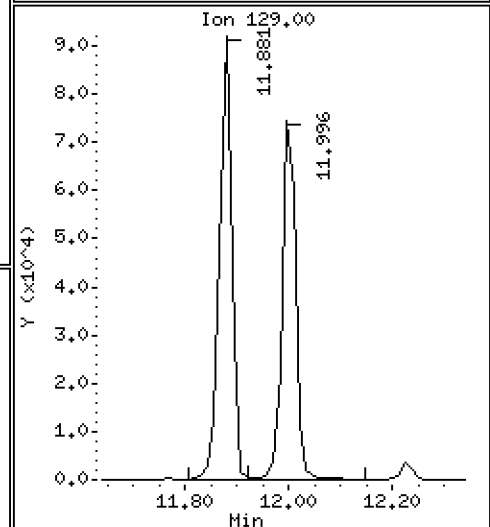
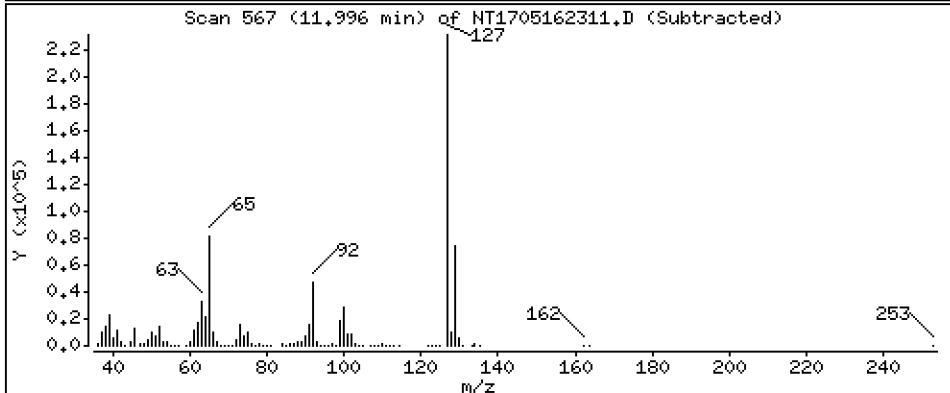
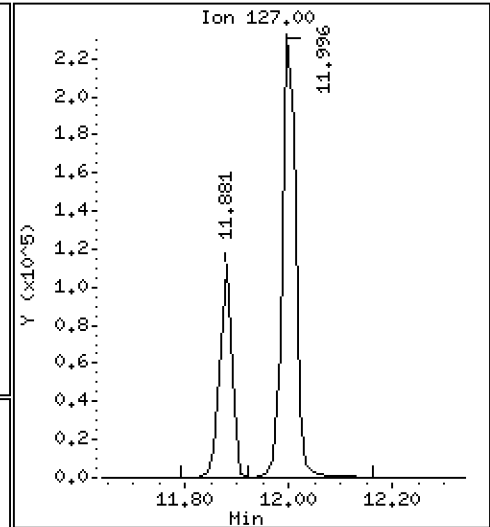
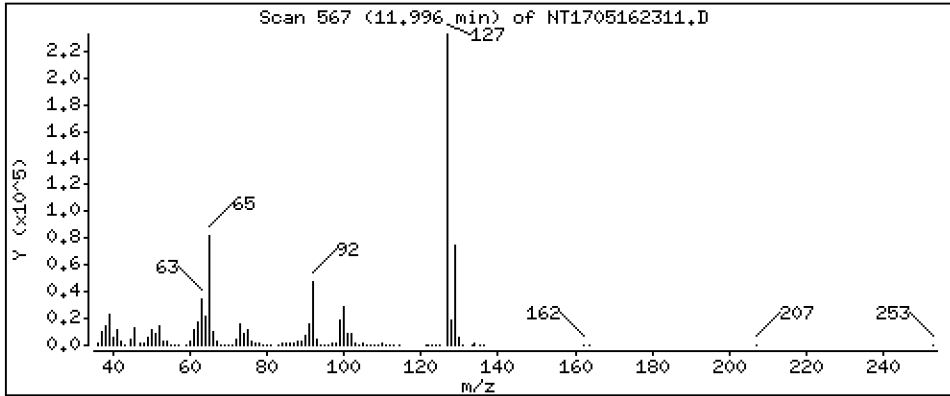
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 4,488 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

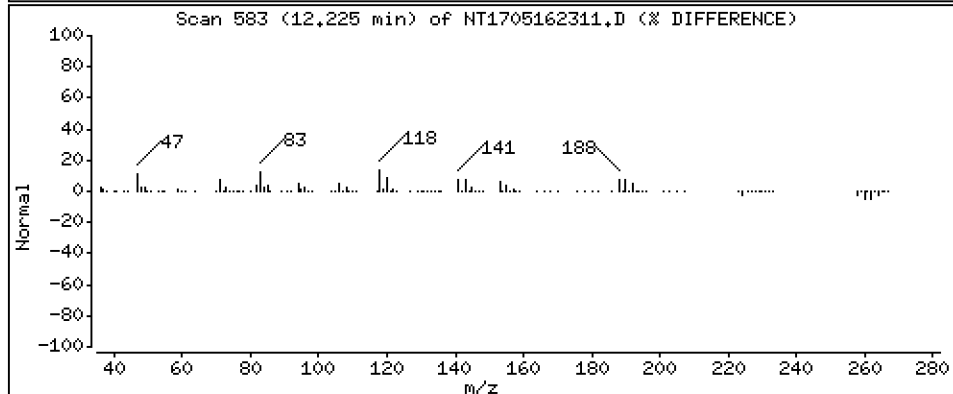
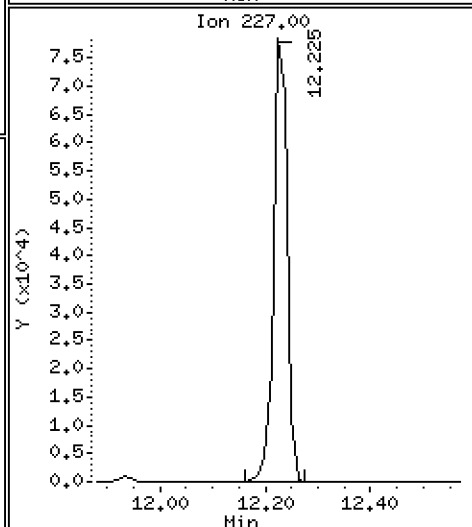
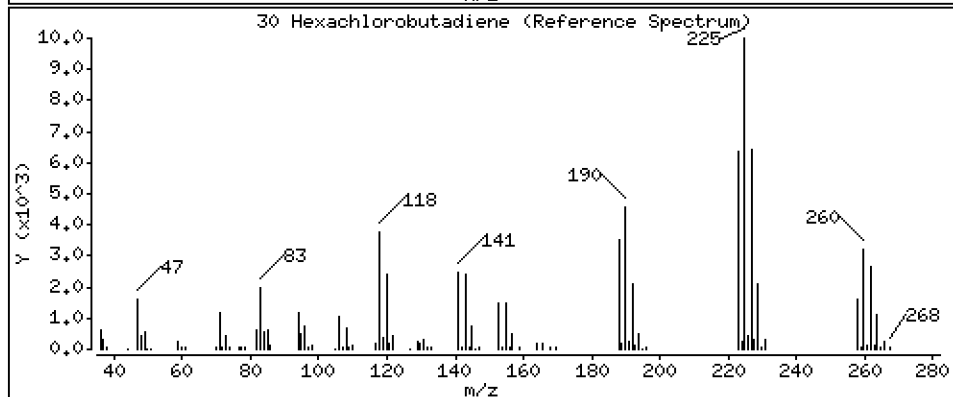
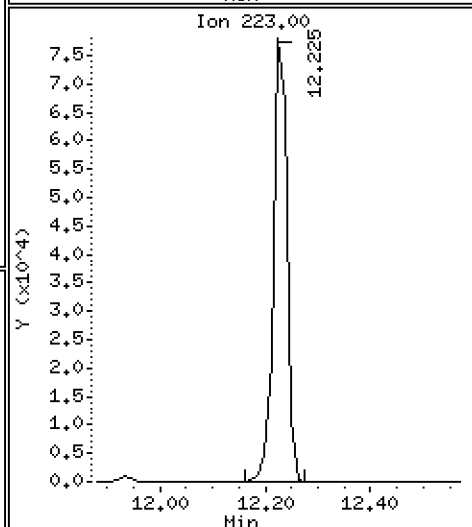
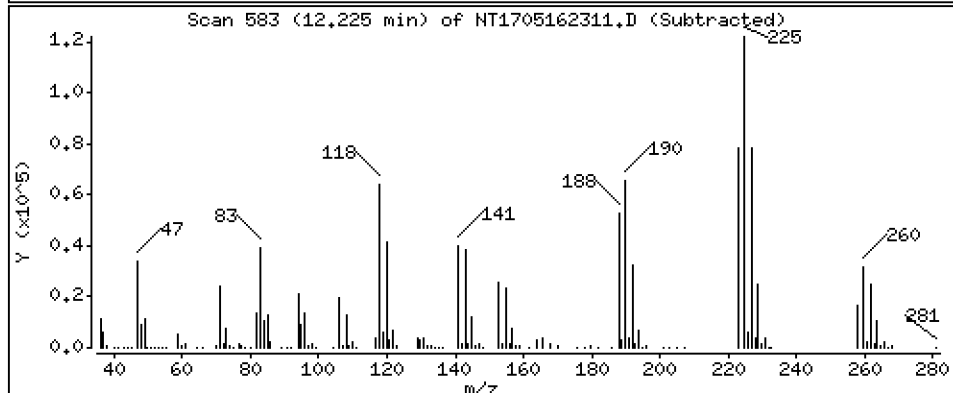
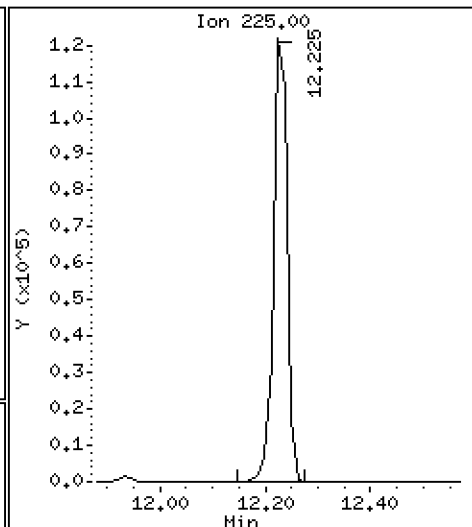
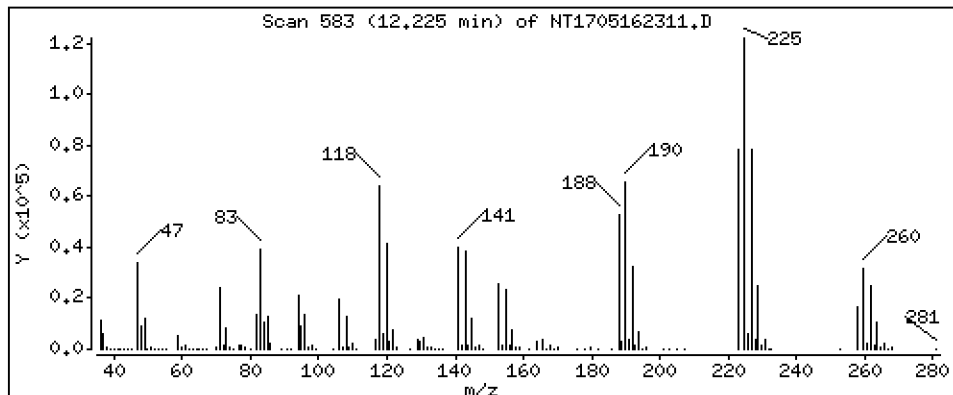
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,241 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

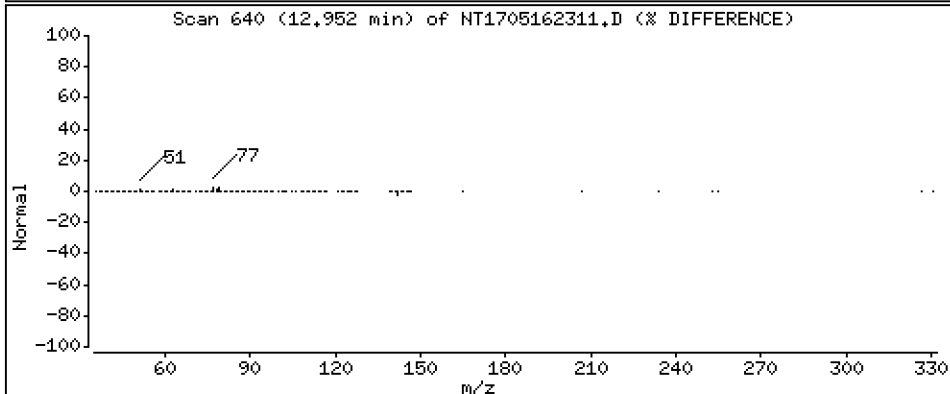
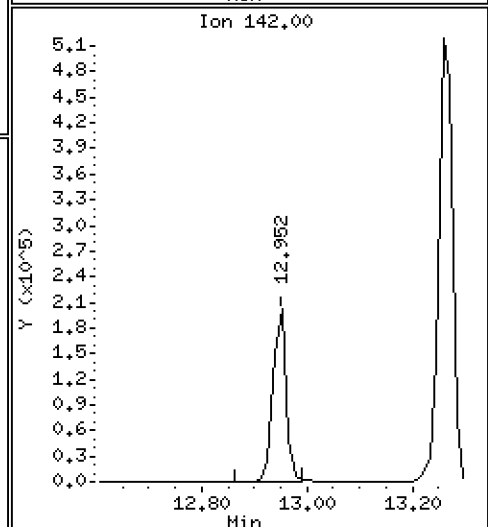
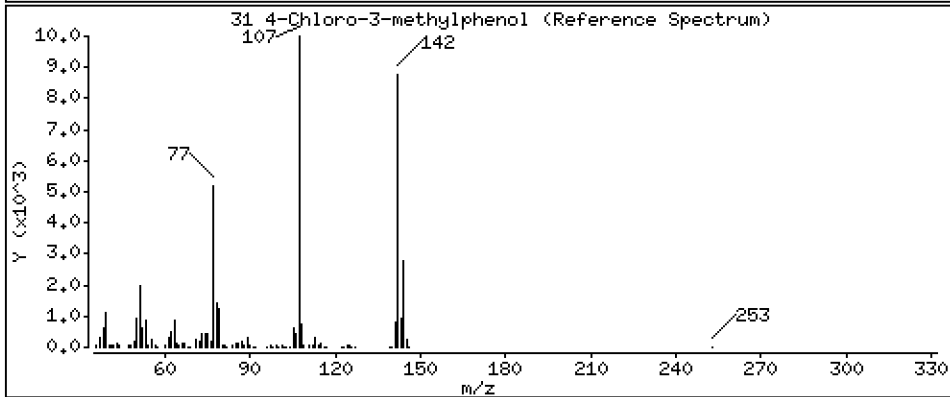
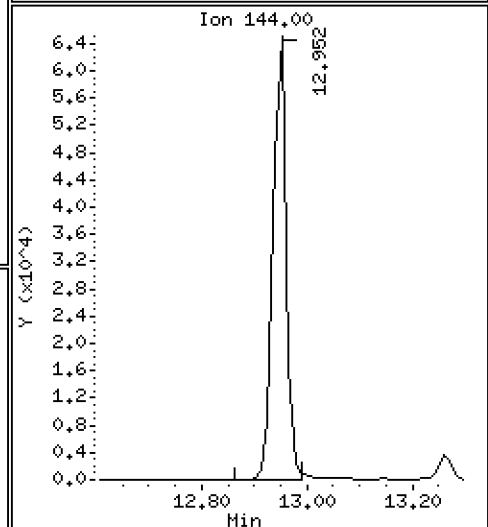
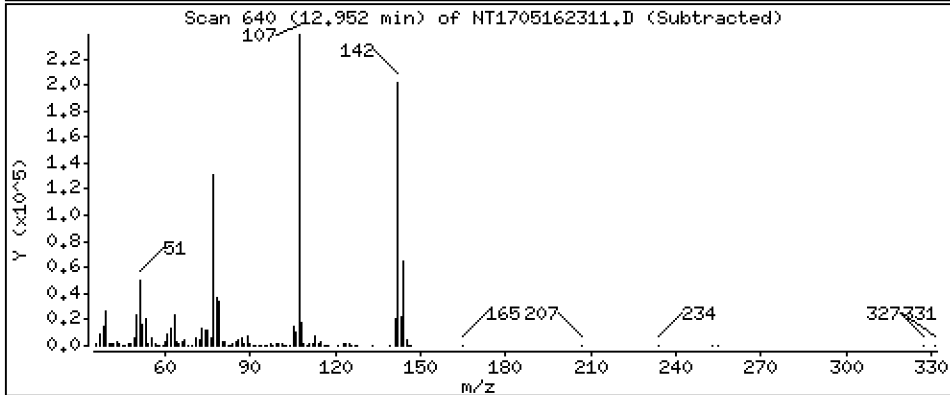
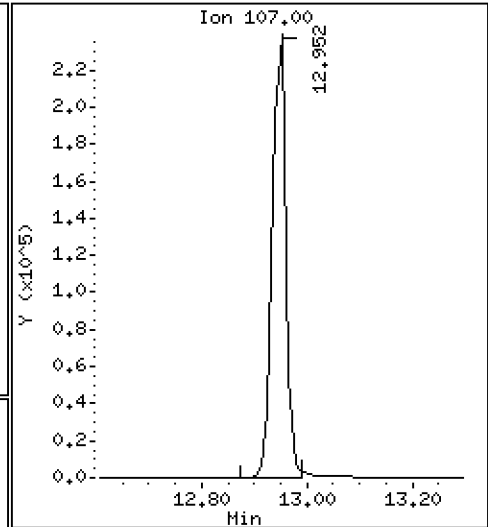
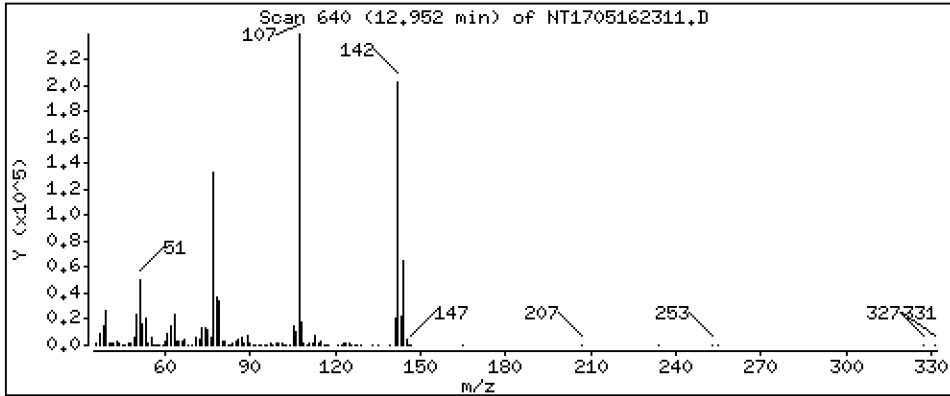
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,878 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

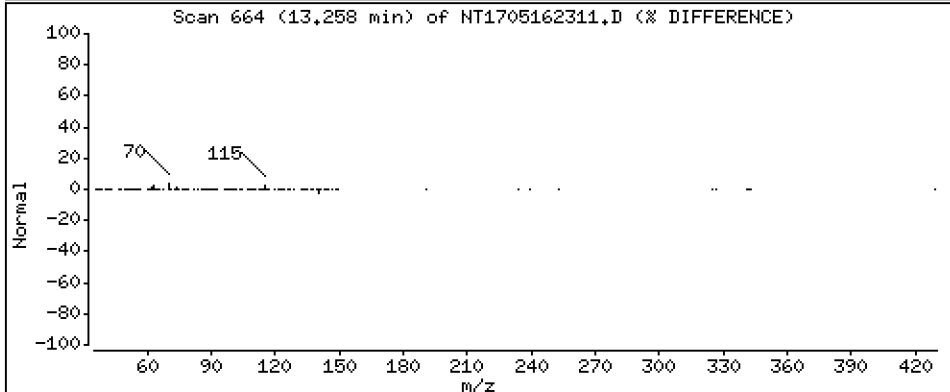
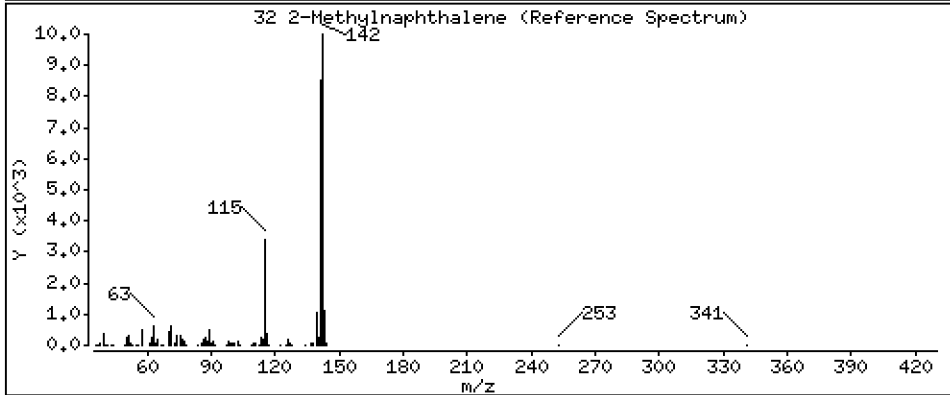
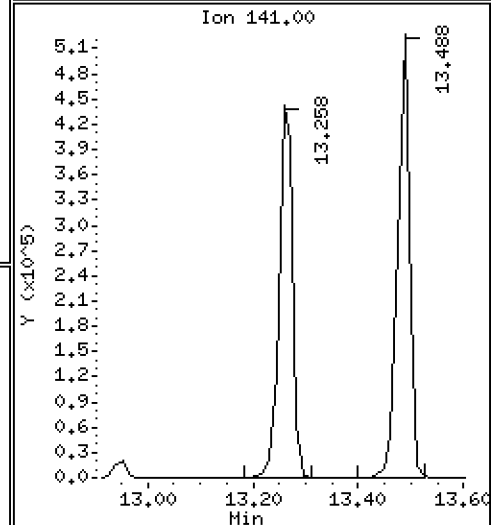
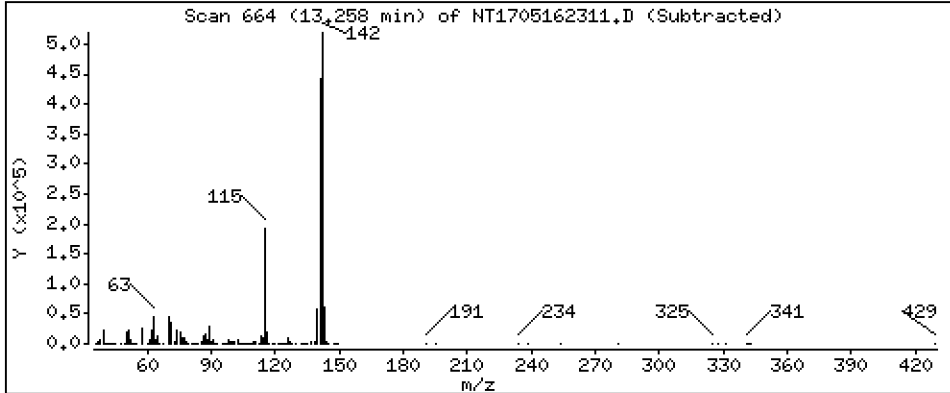
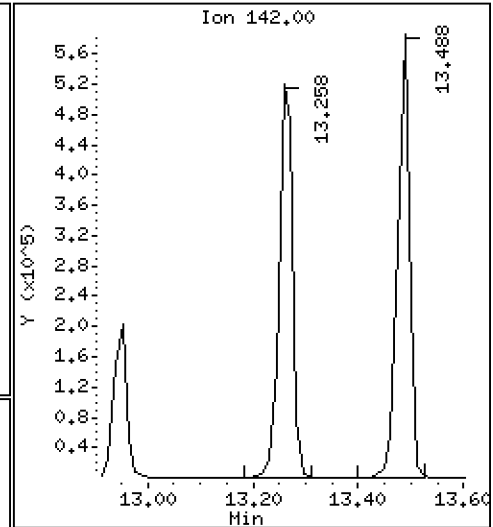
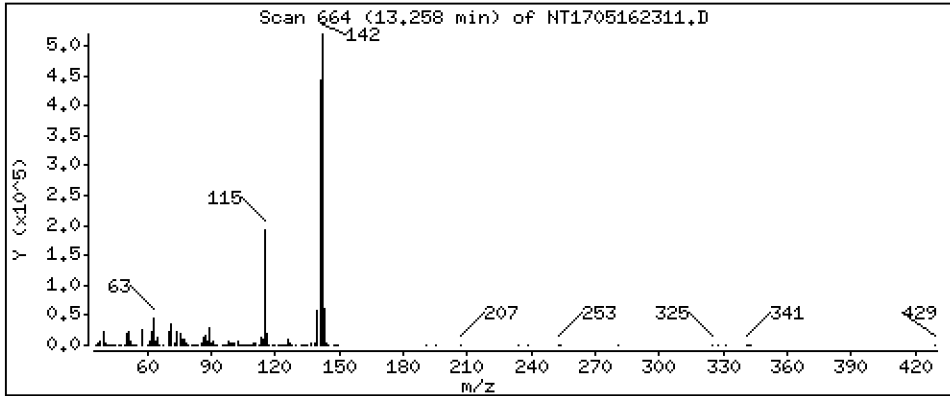
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 5,028 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

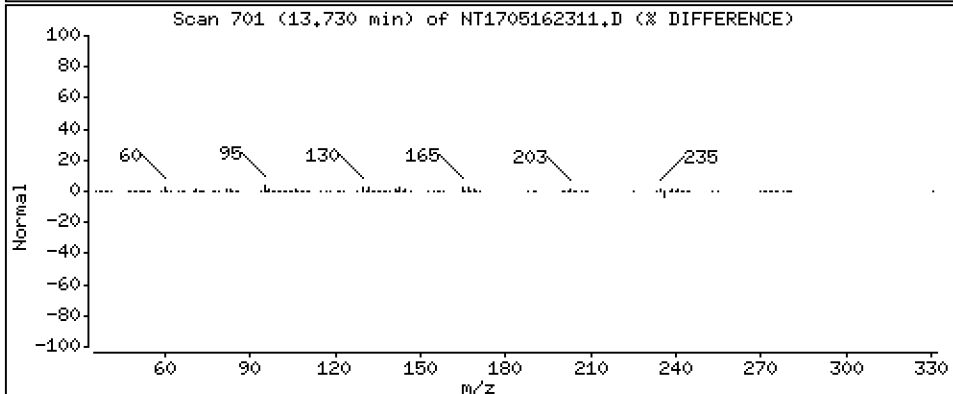
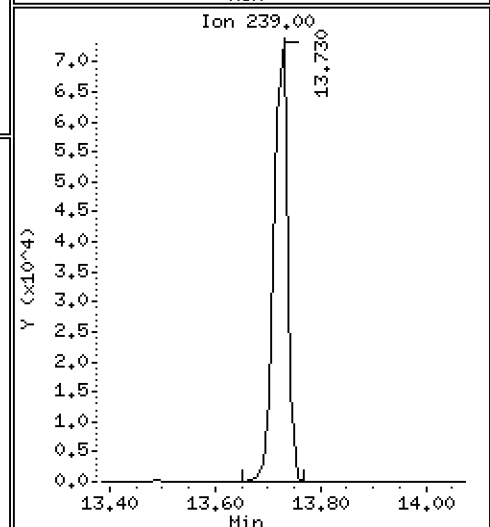
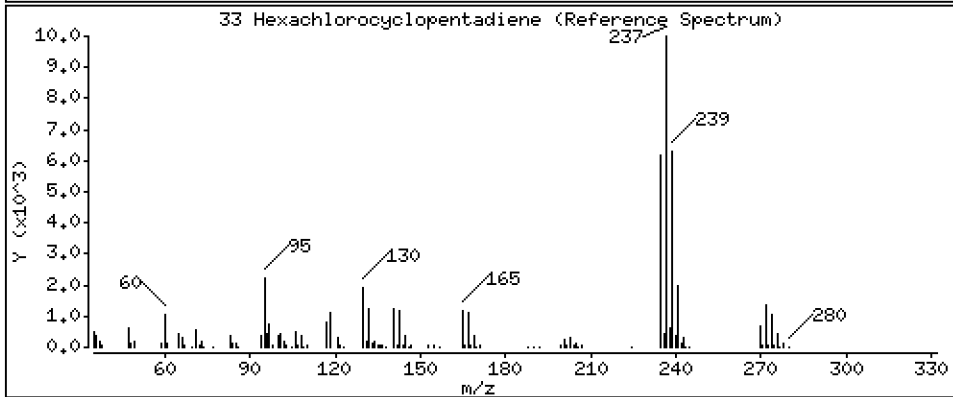
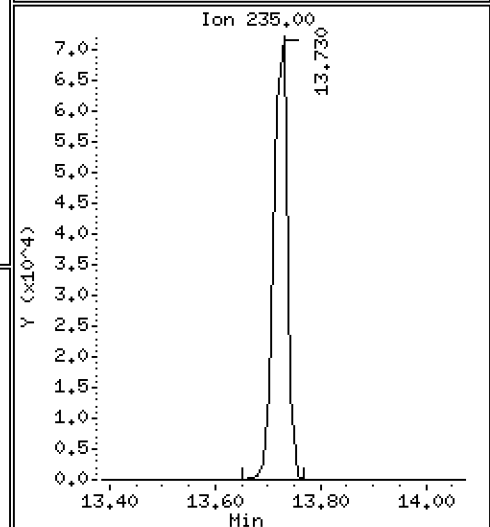
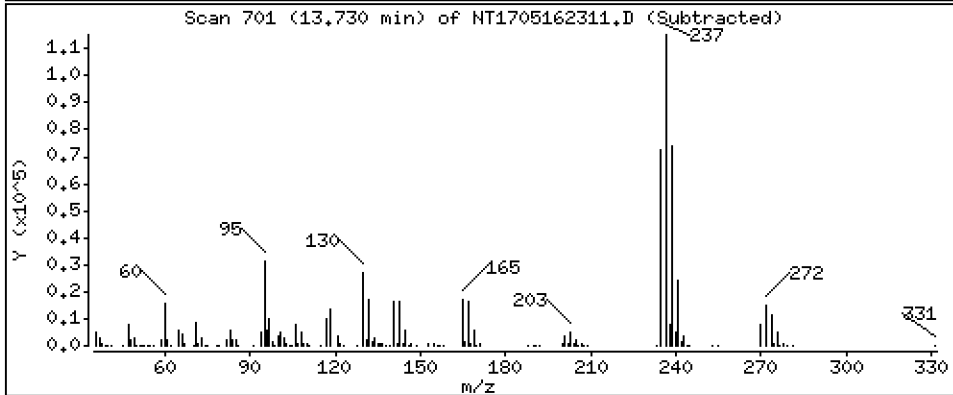
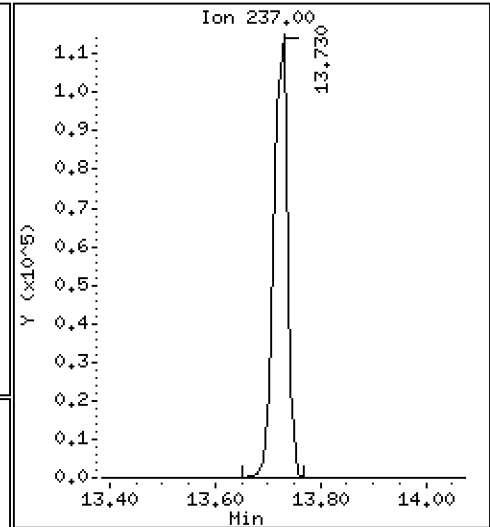
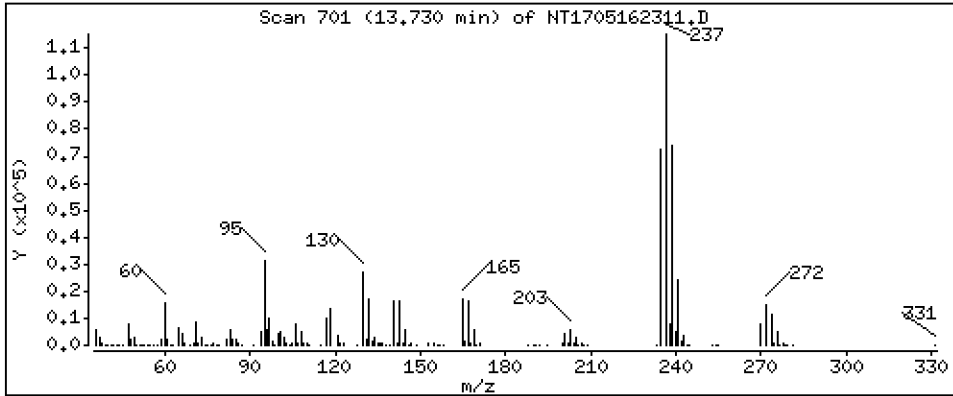
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,219 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

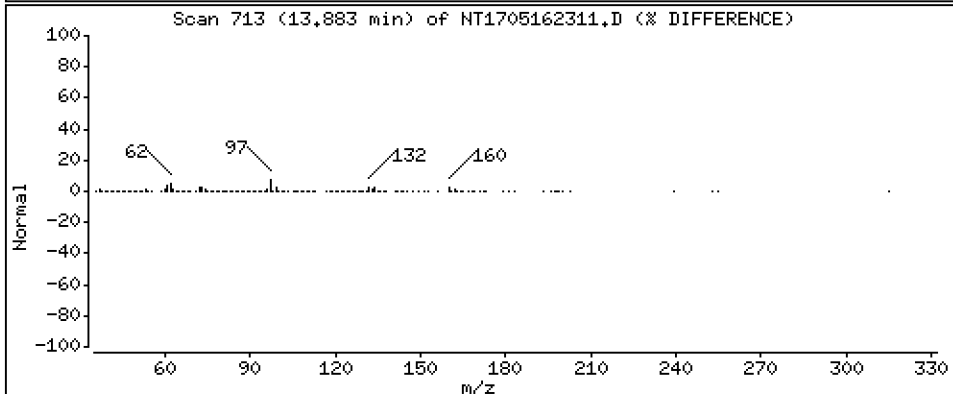
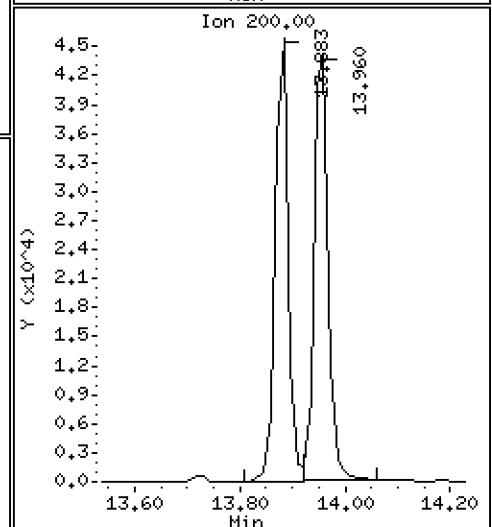
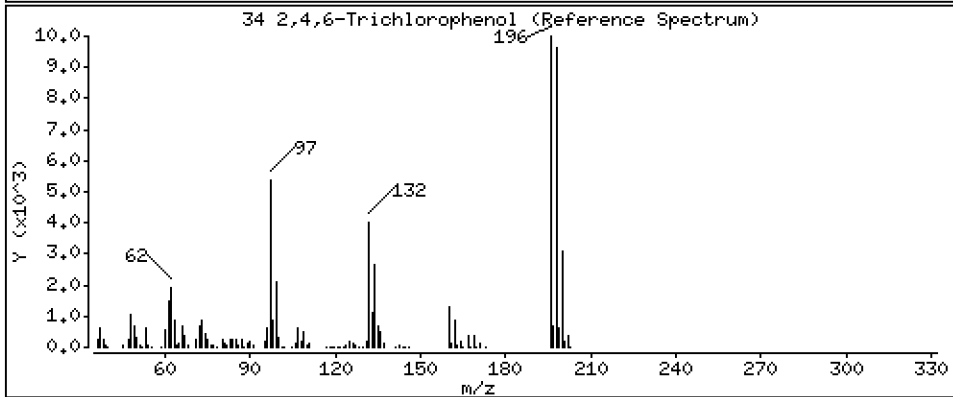
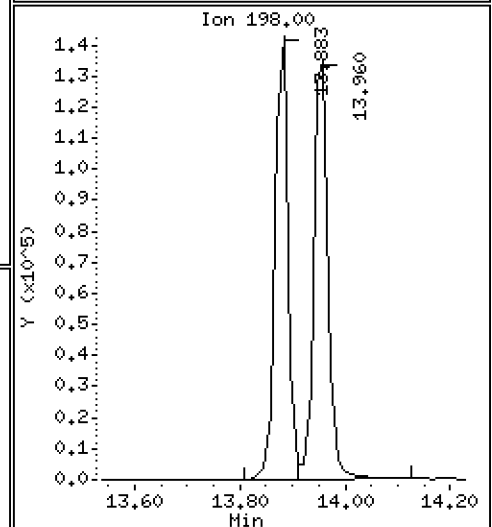
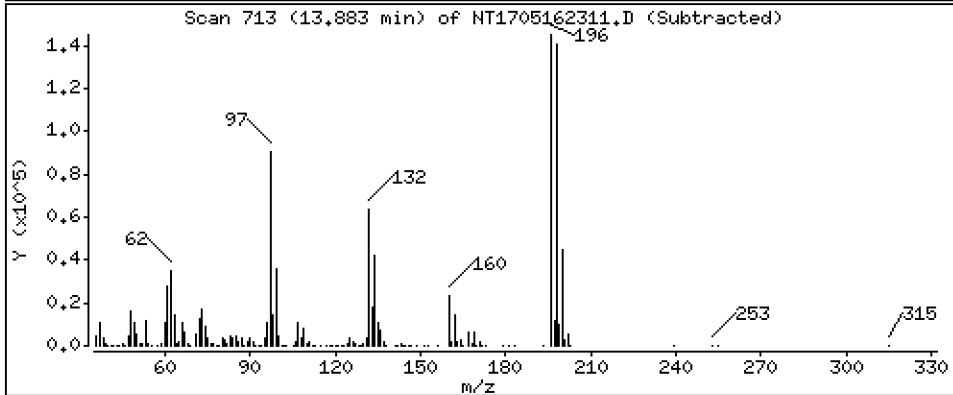
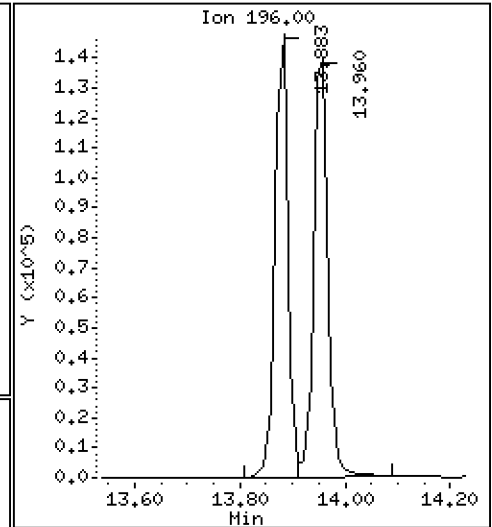
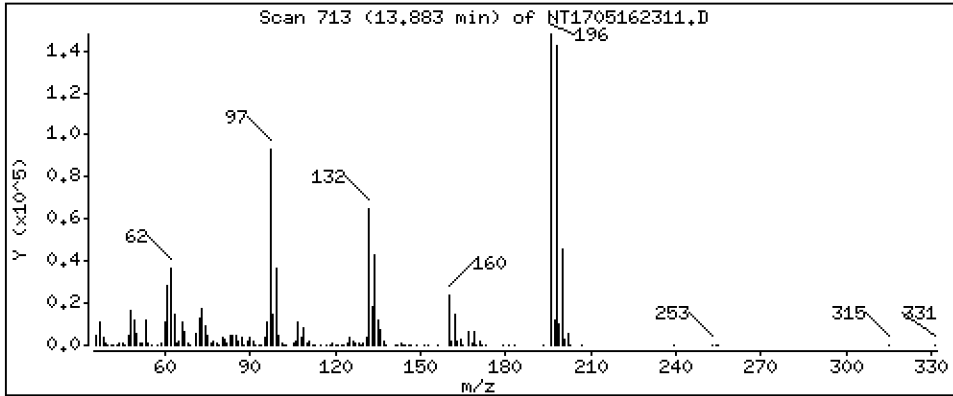
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,794 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

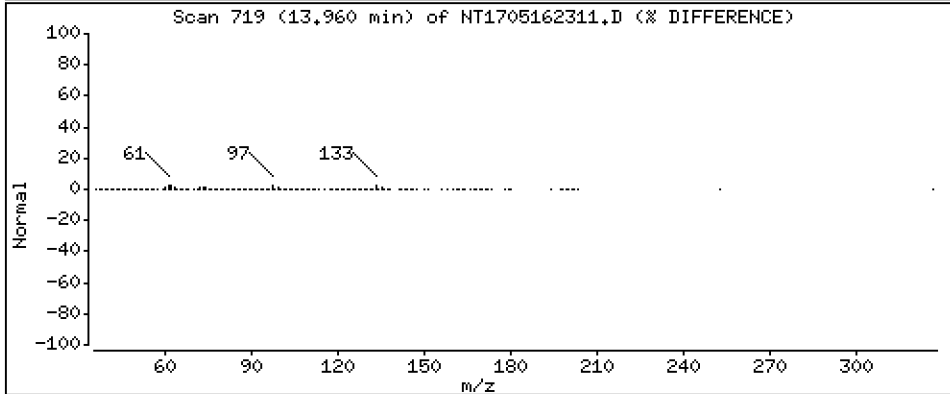
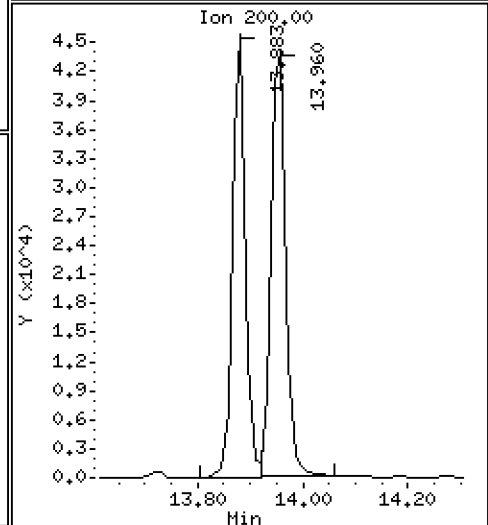
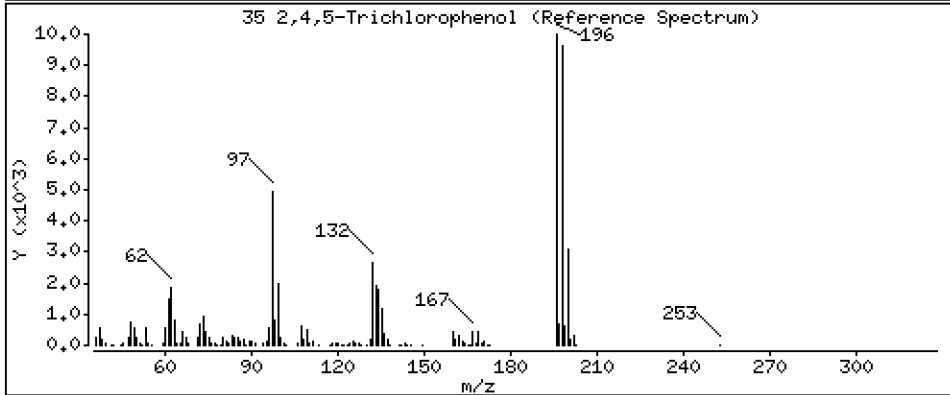
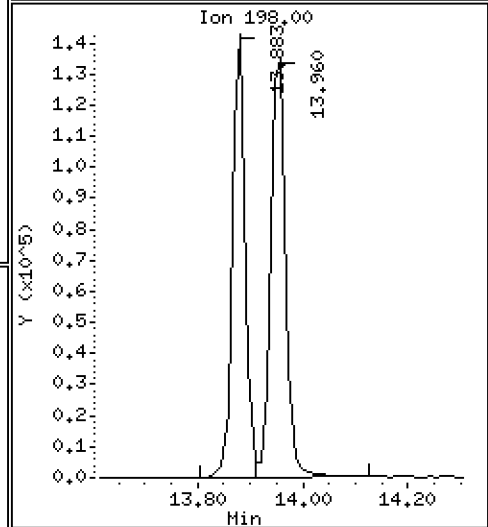
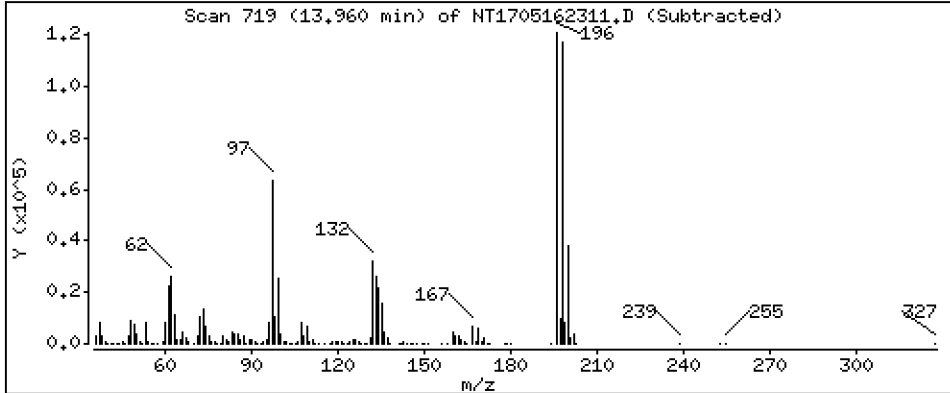
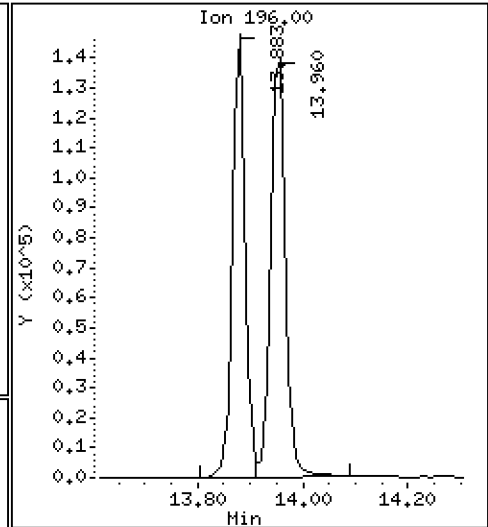
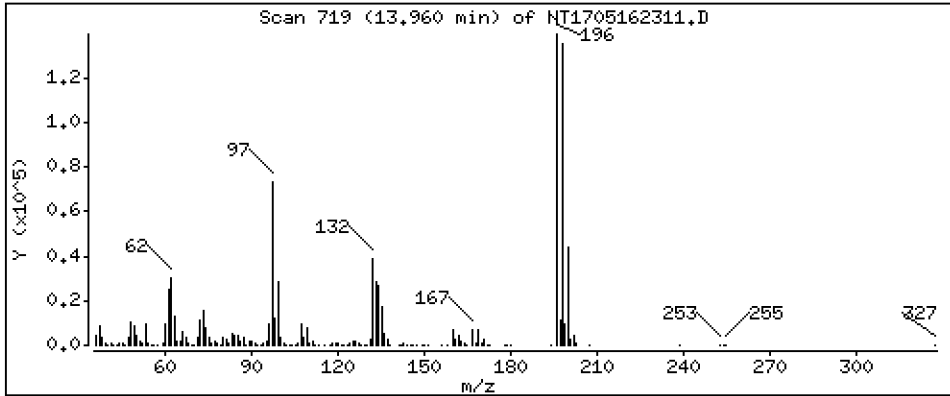
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,837 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

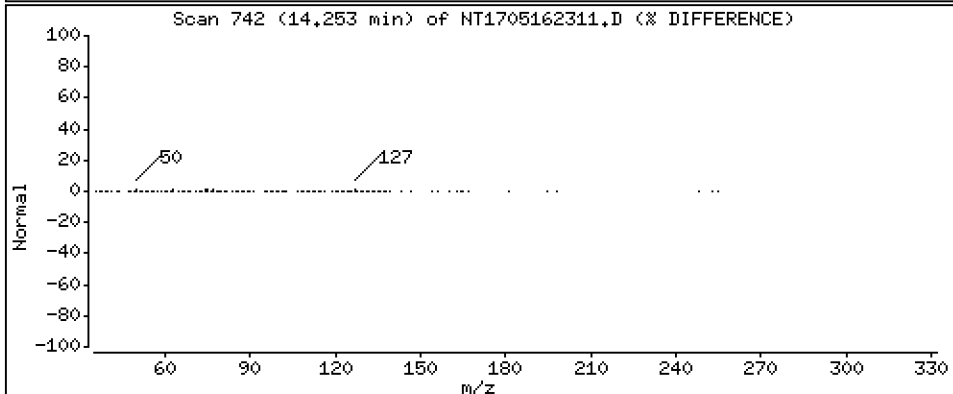
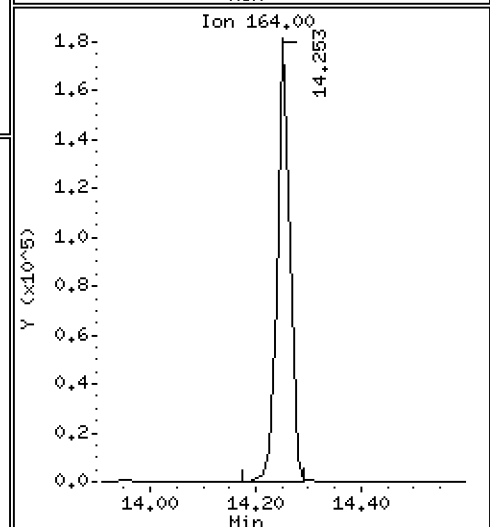
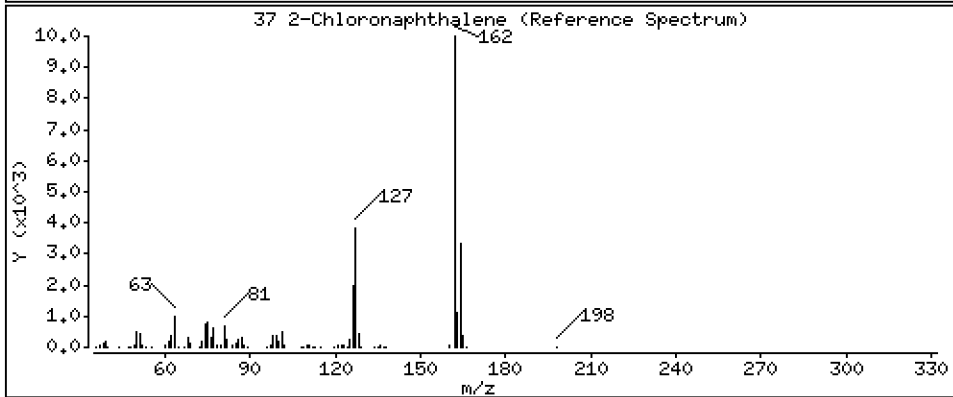
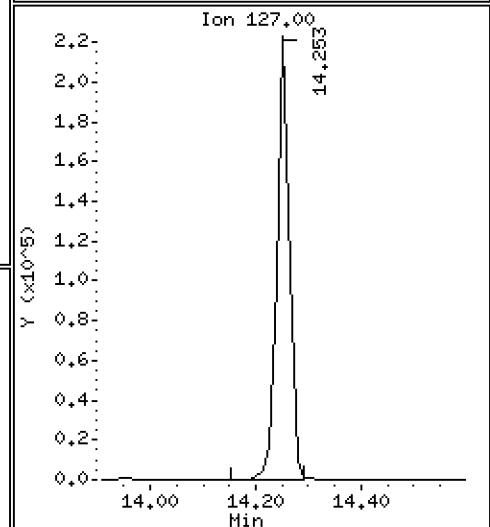
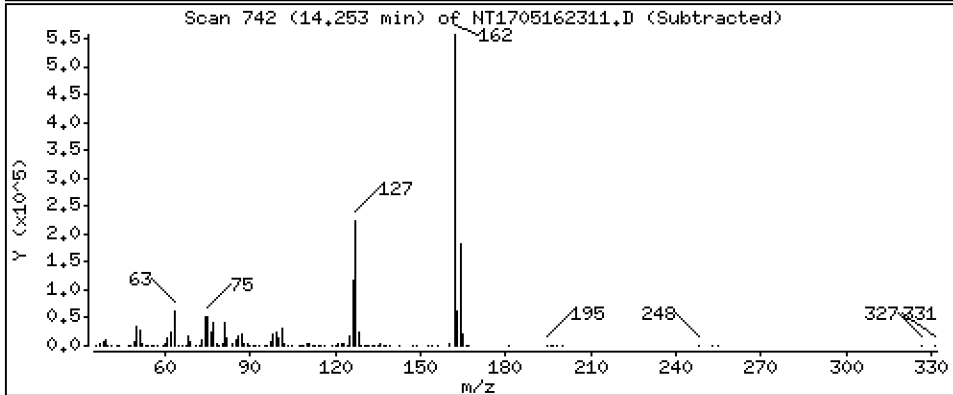
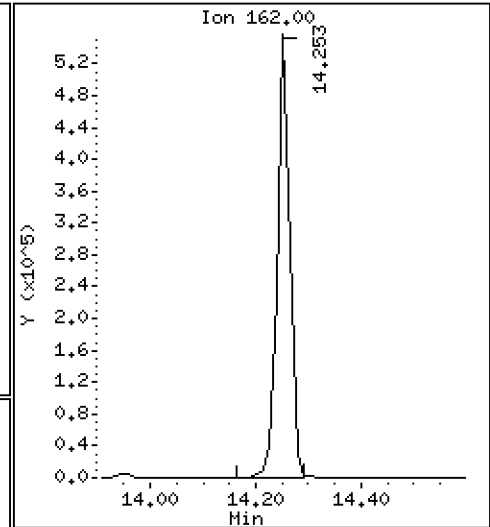
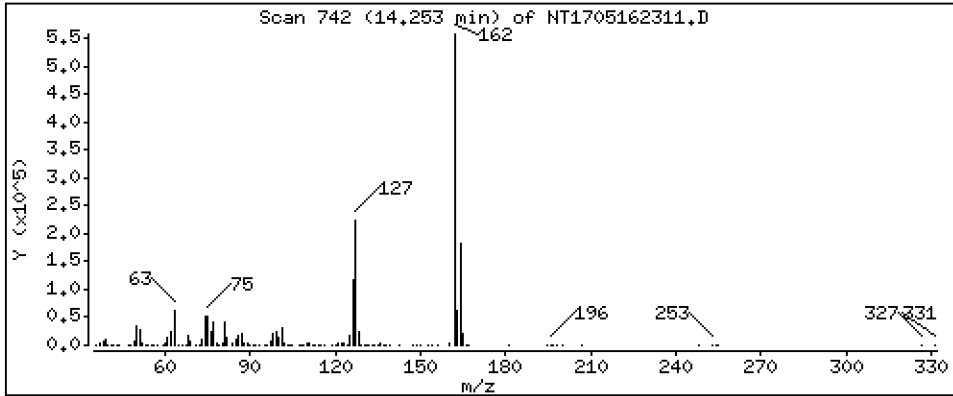
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 5.401 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

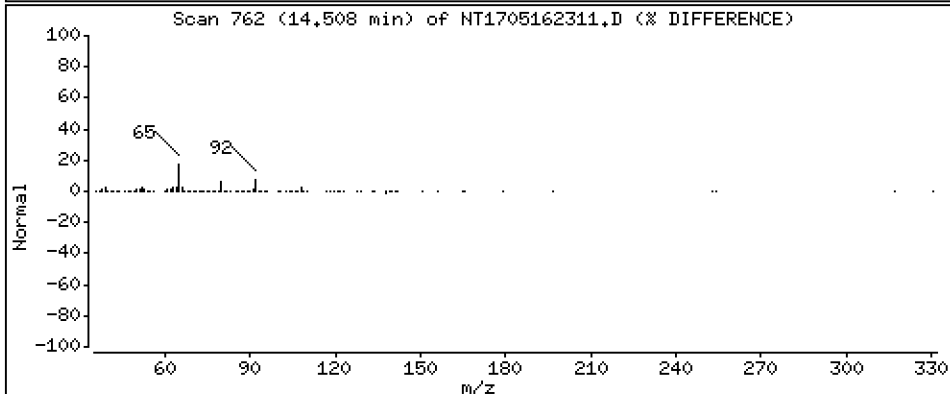
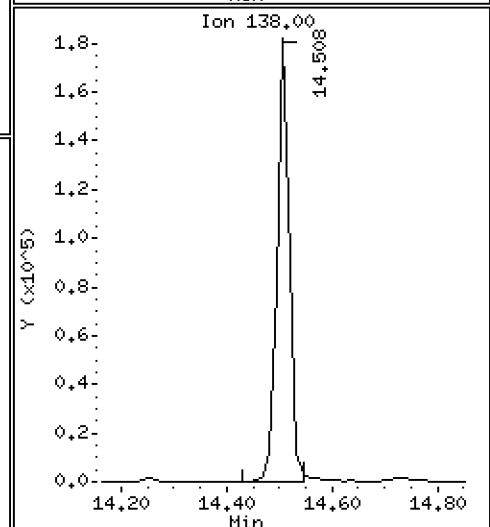
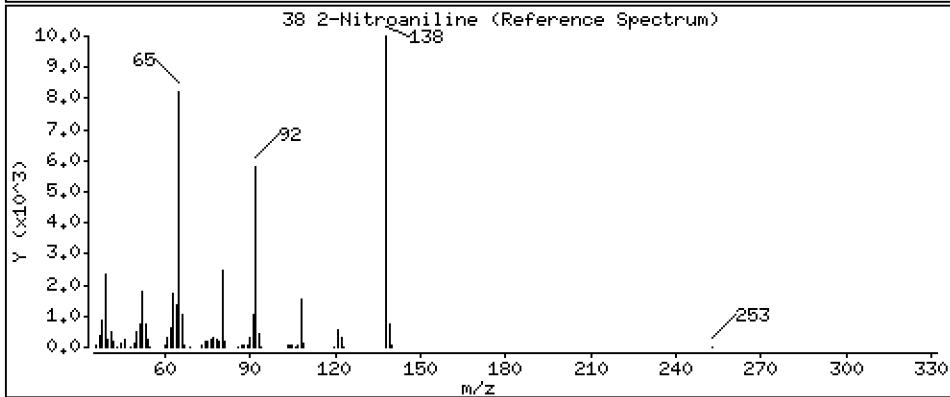
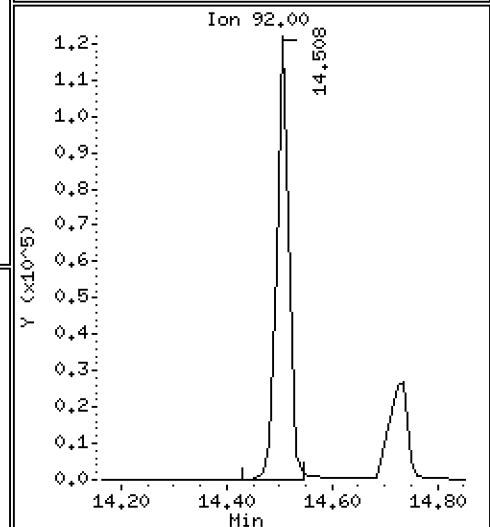
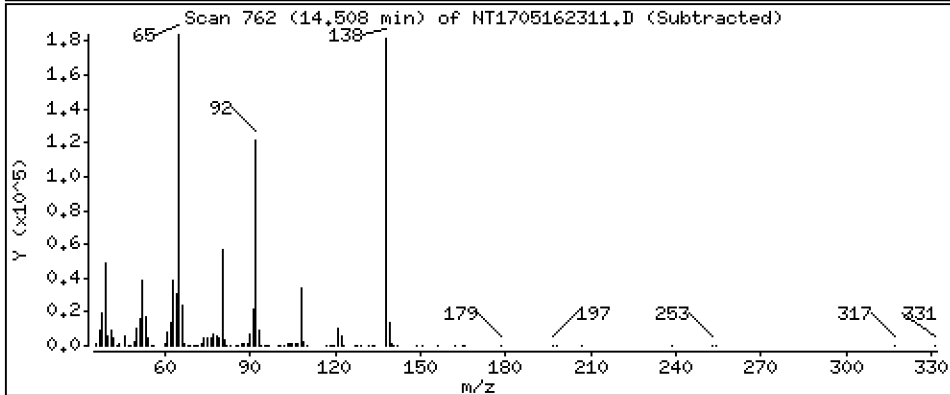
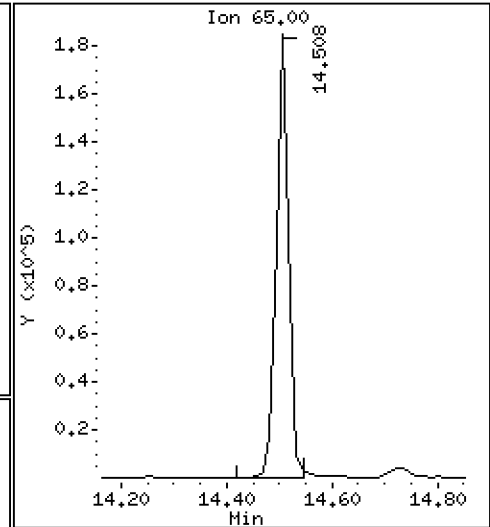
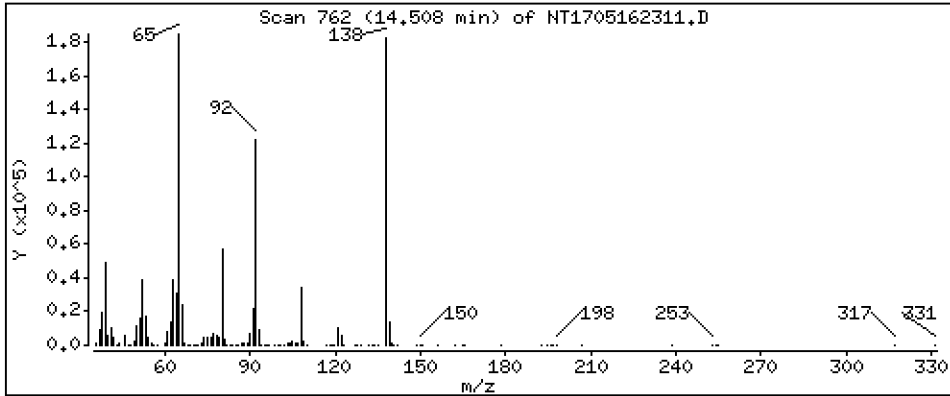
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 5,356 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

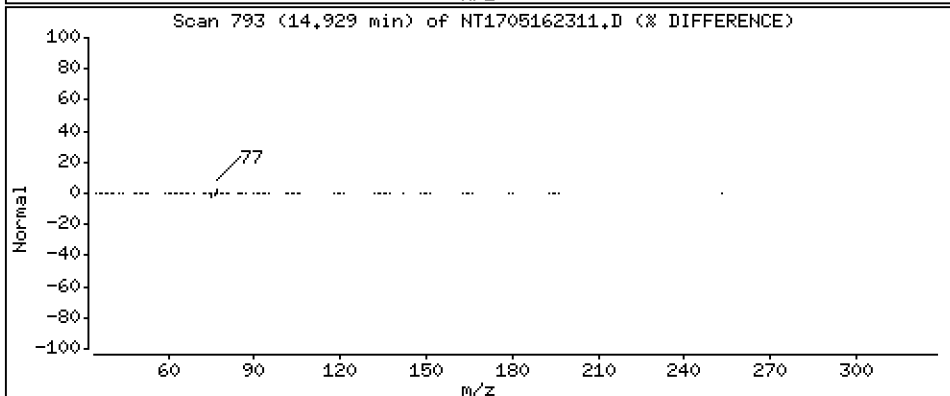
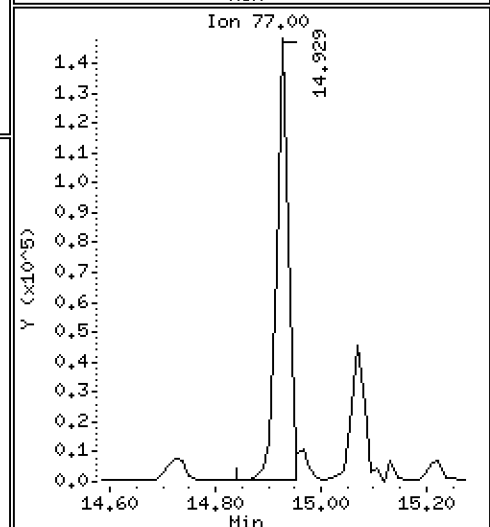
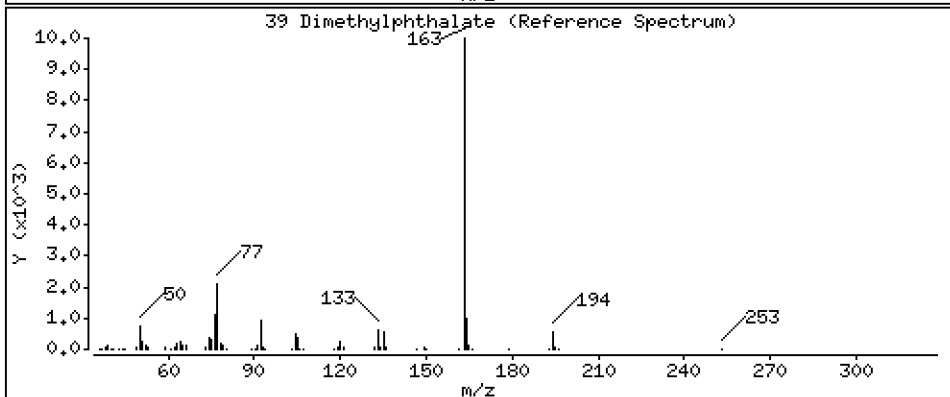
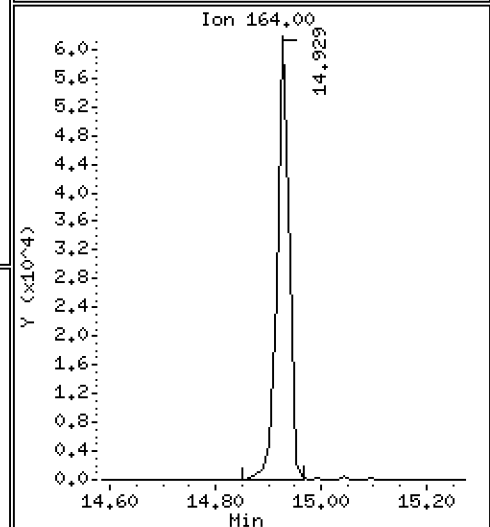
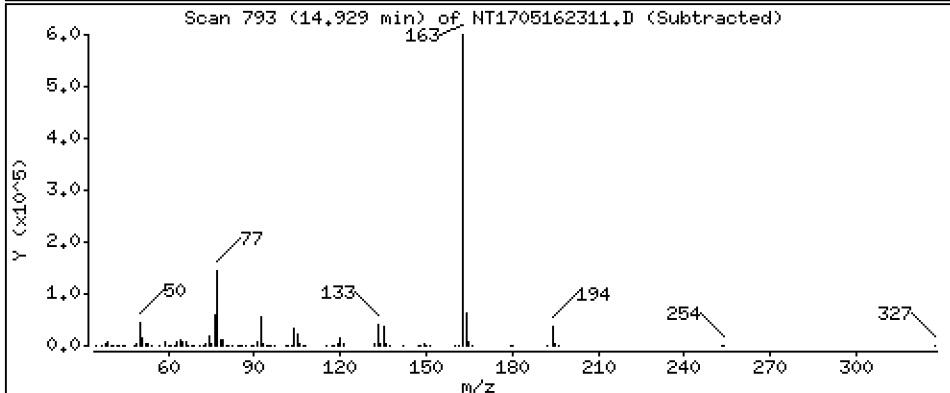
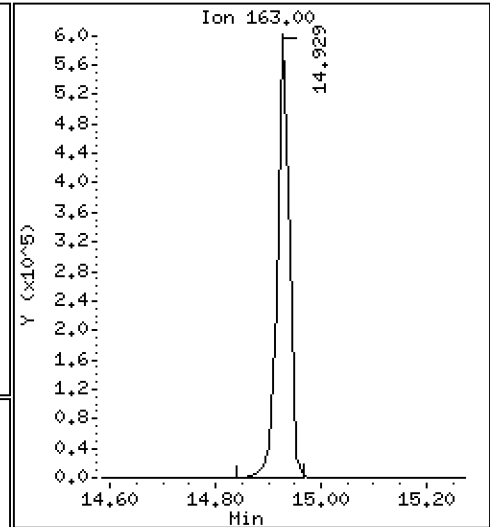
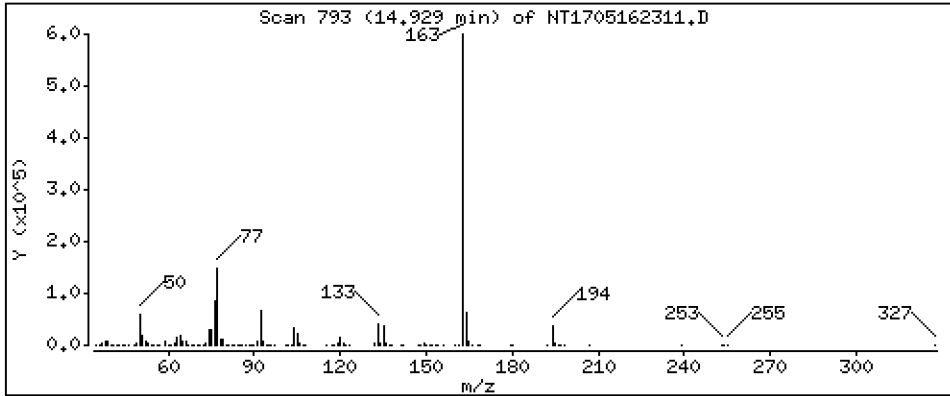
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,418 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

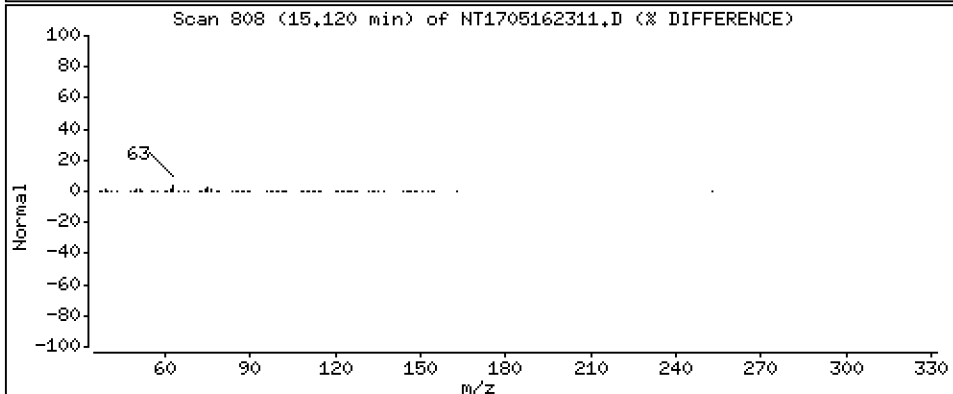
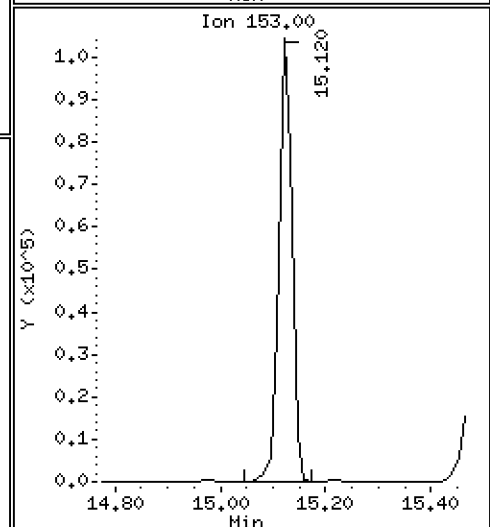
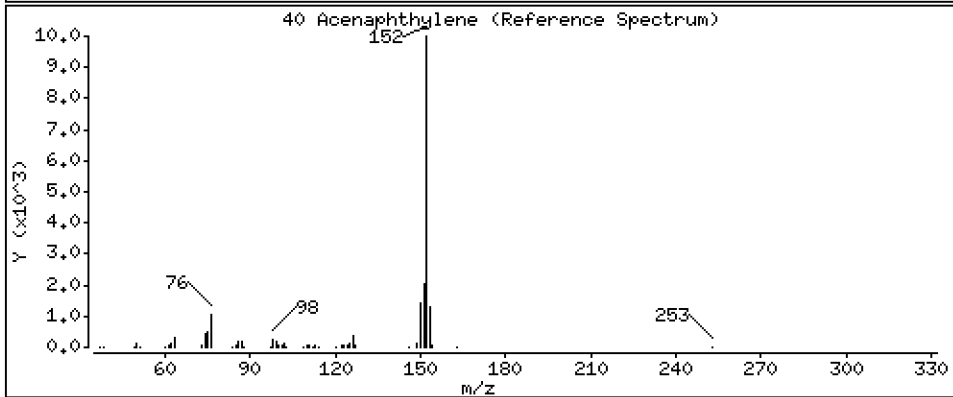
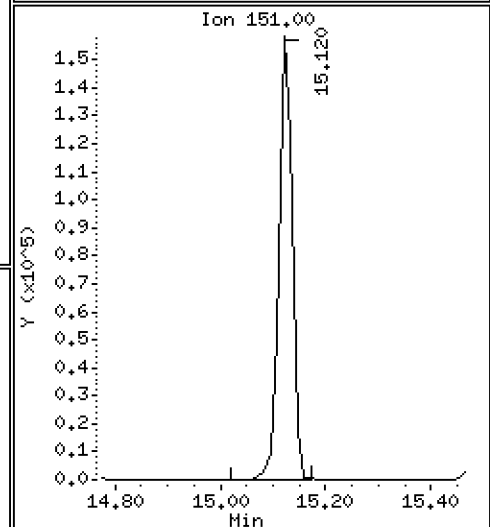
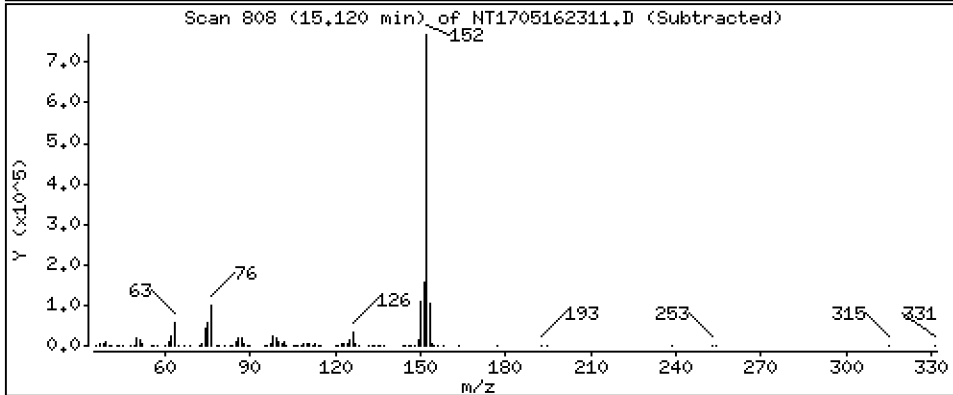
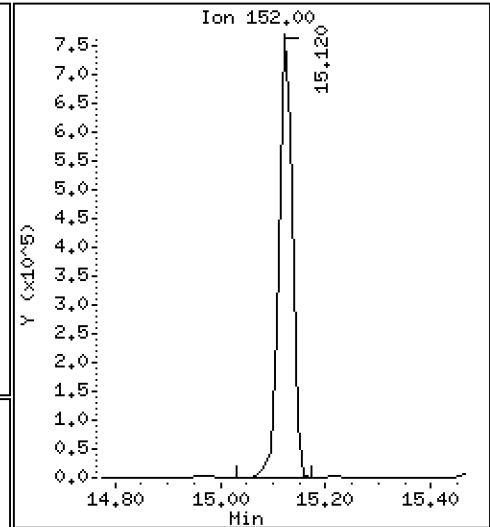
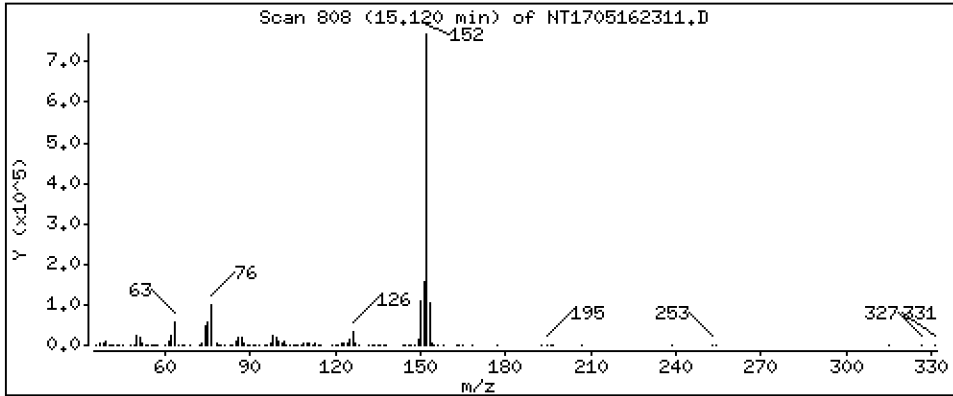
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 5,282 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

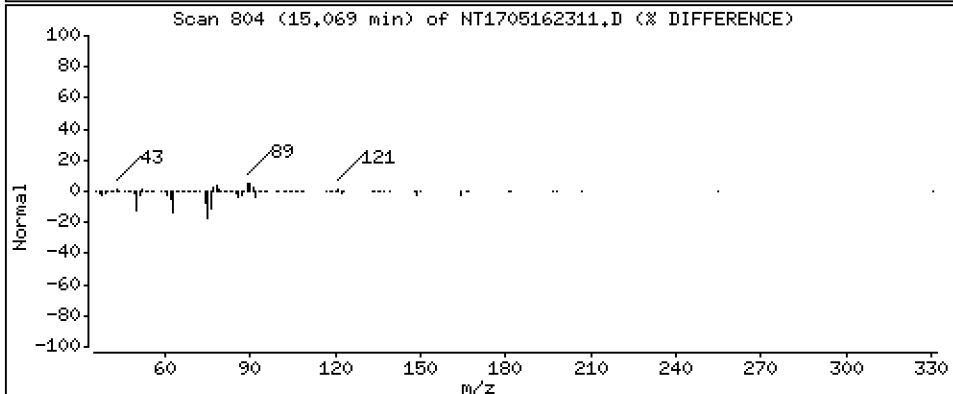
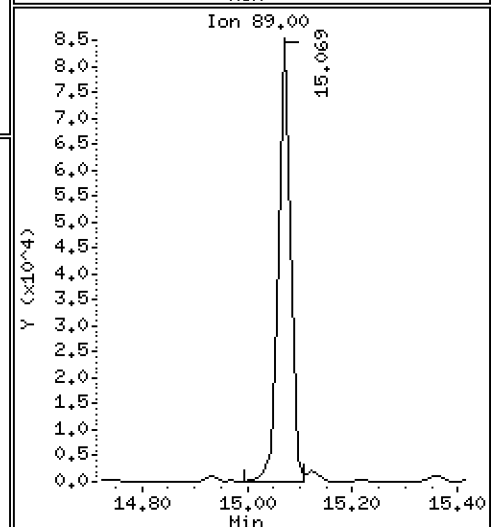
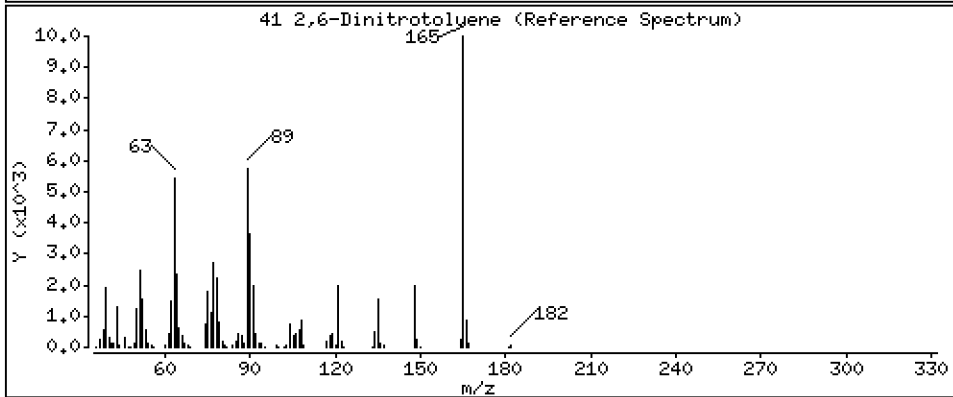
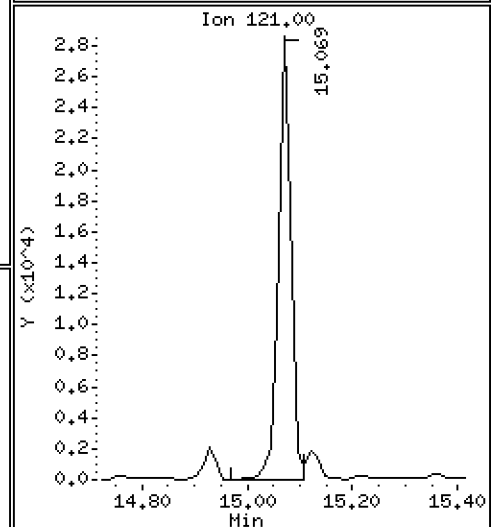
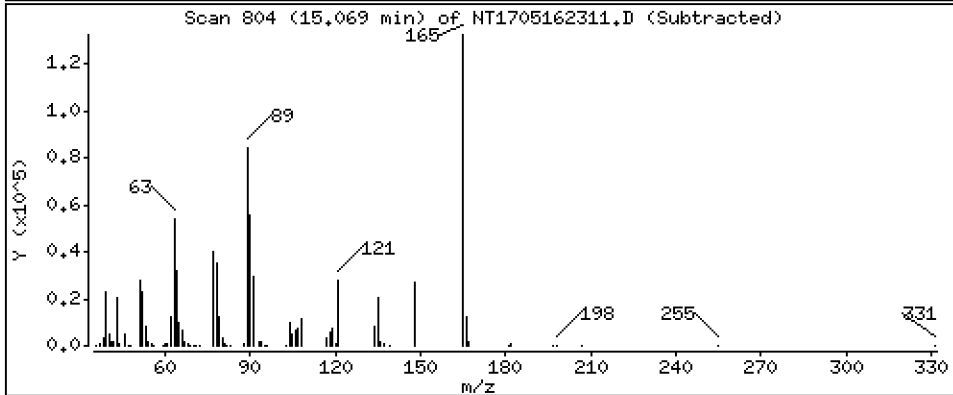
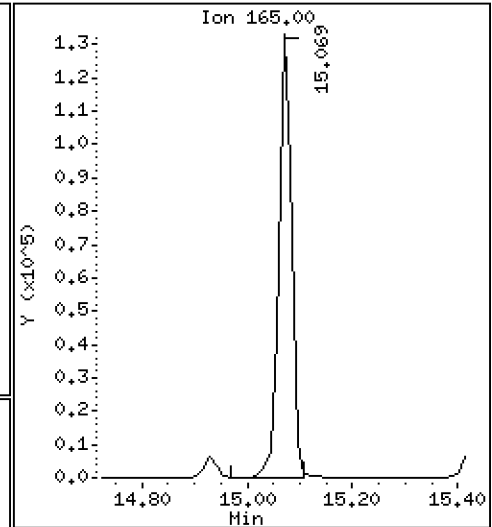
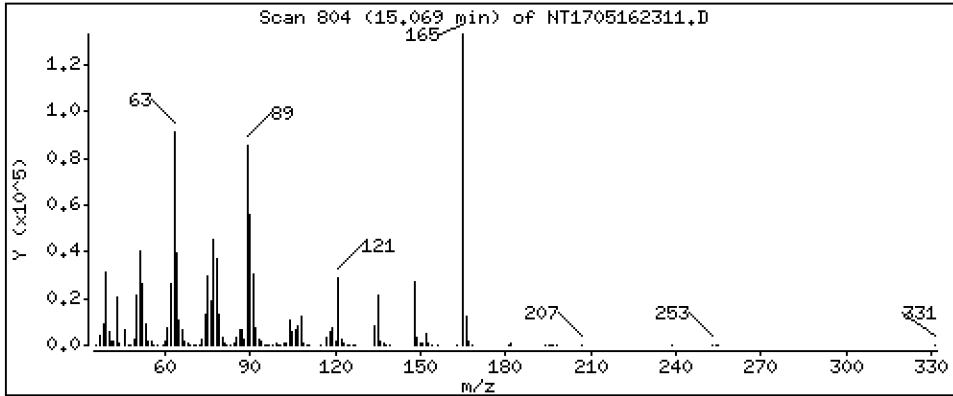
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 5,404 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

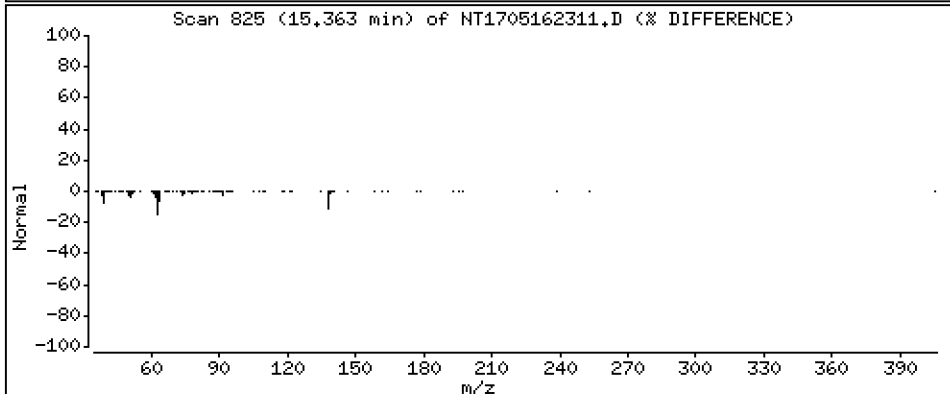
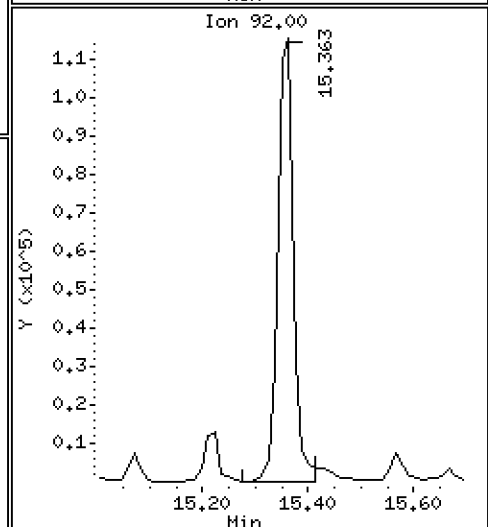
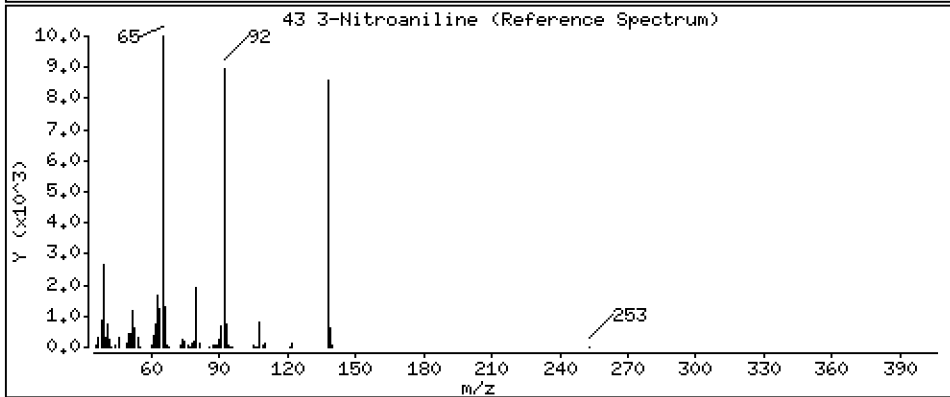
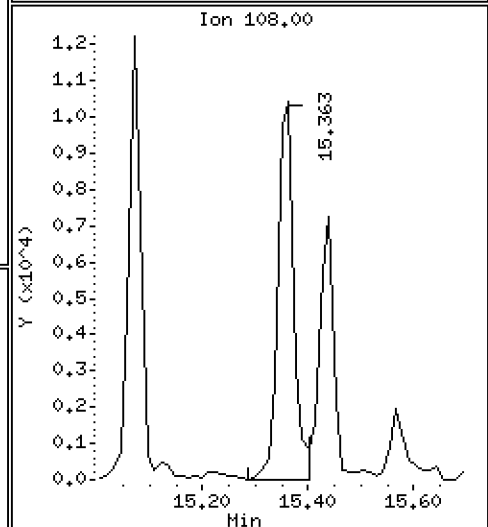
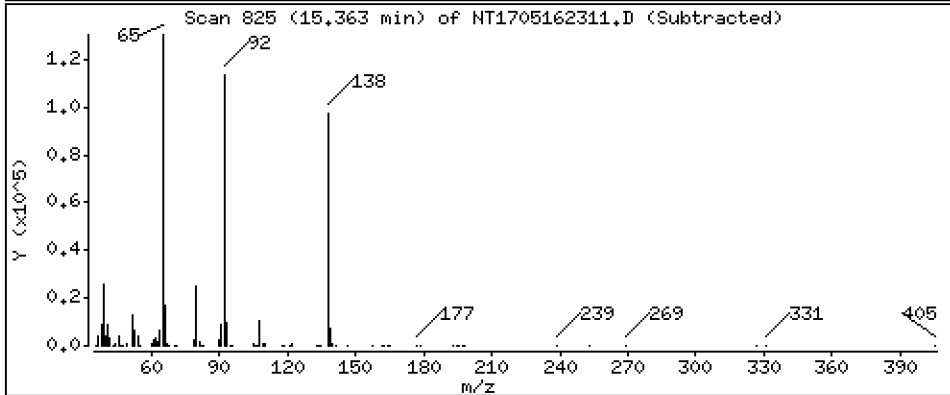
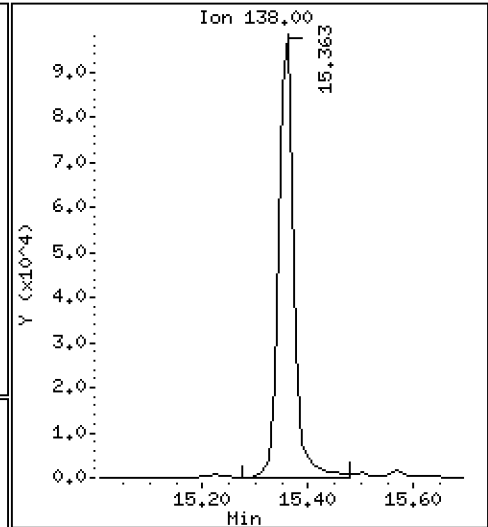
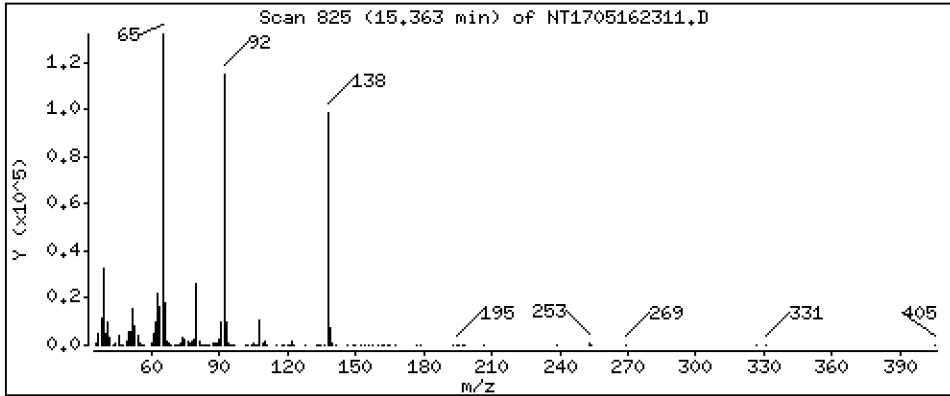
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 5,169 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

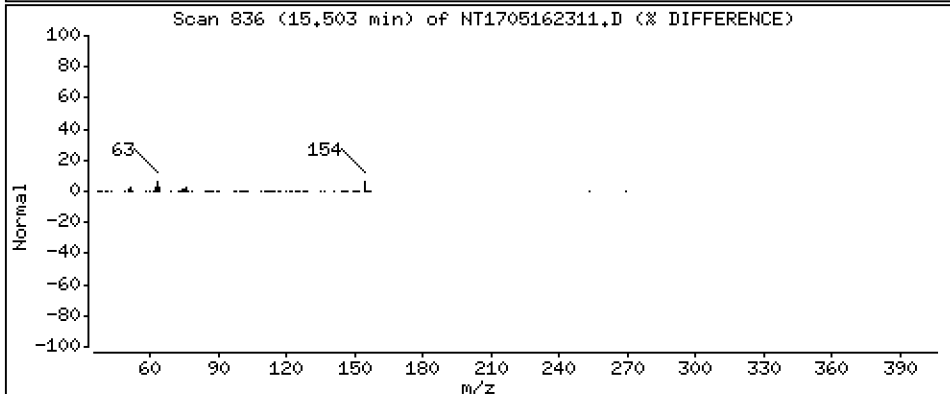
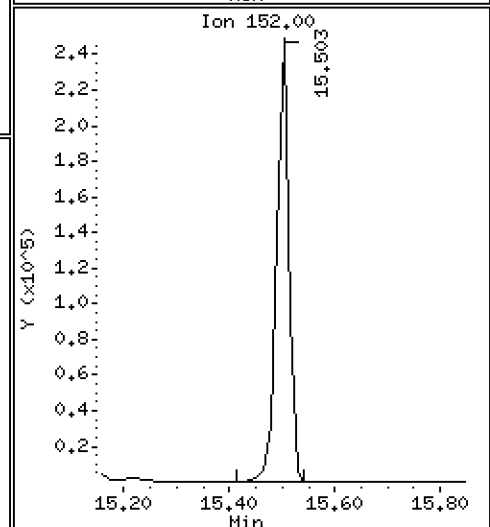
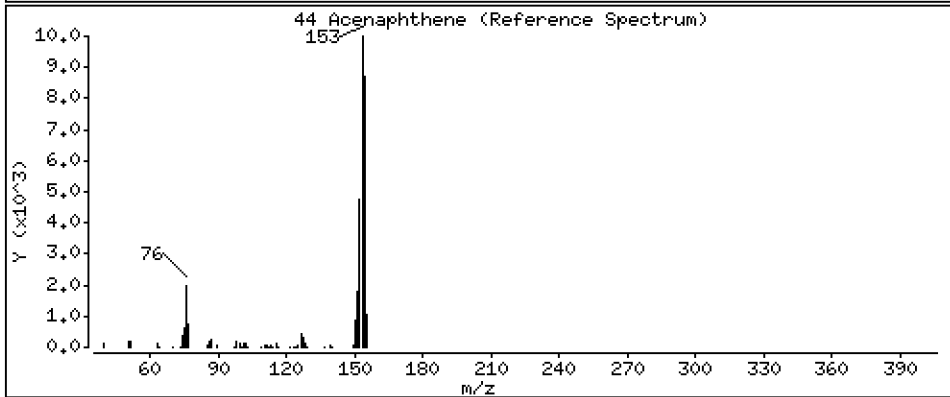
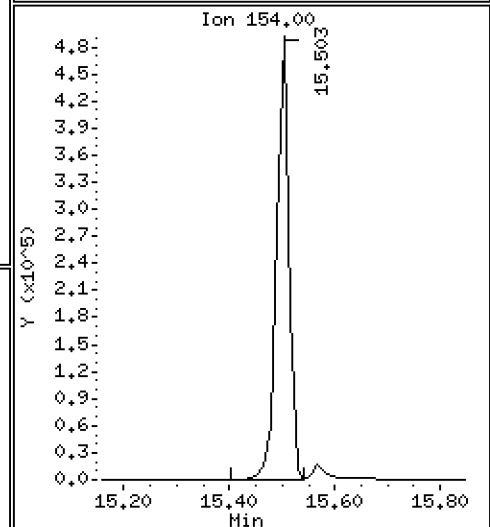
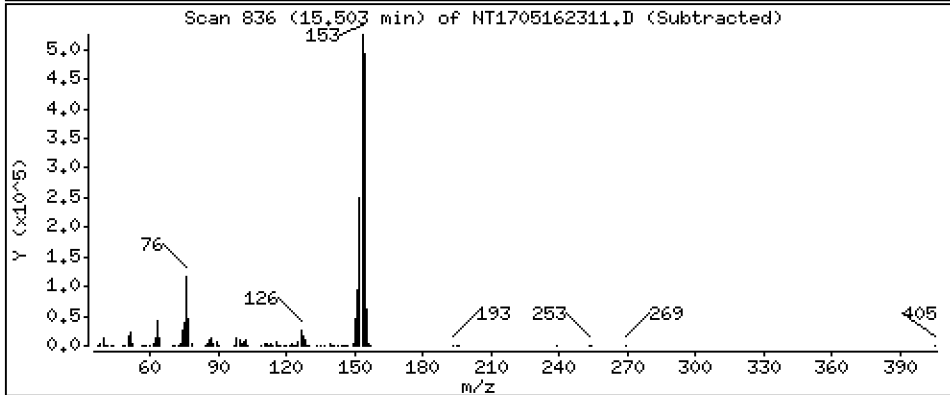
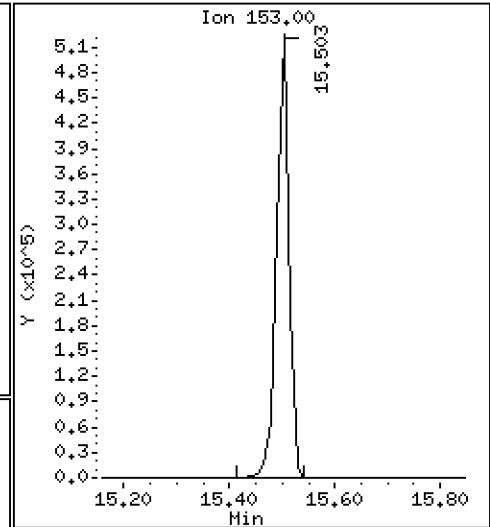
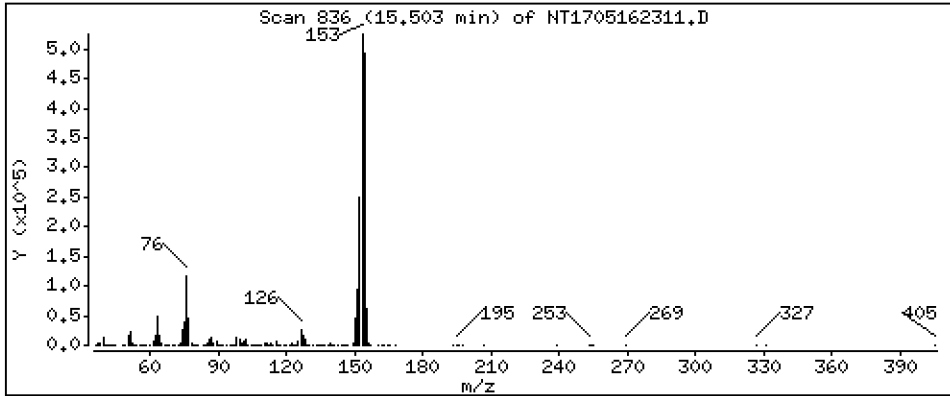
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 5,283 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

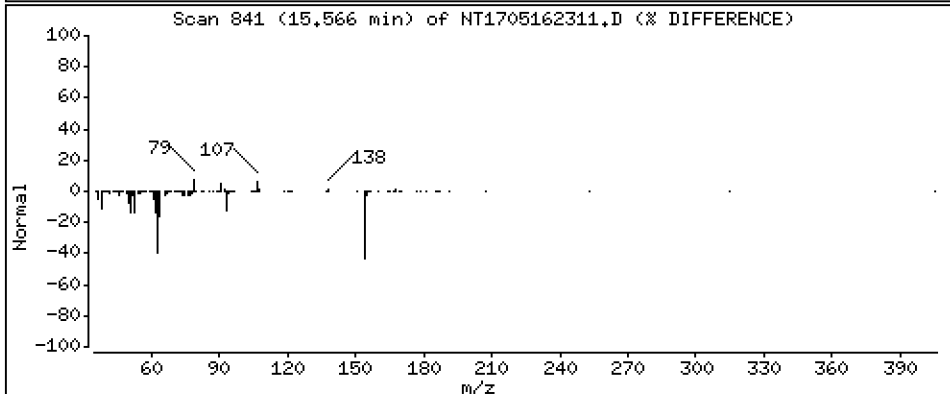
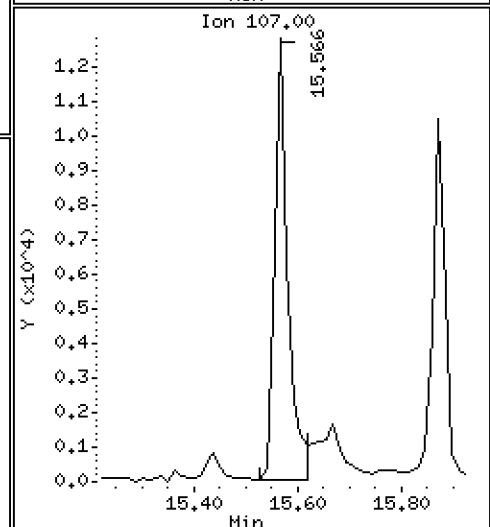
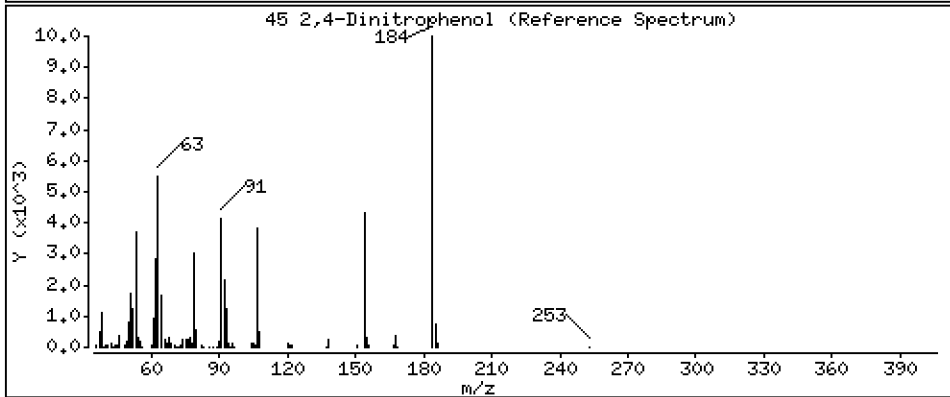
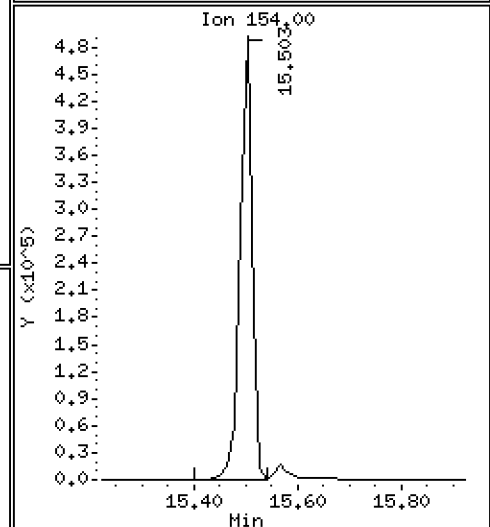
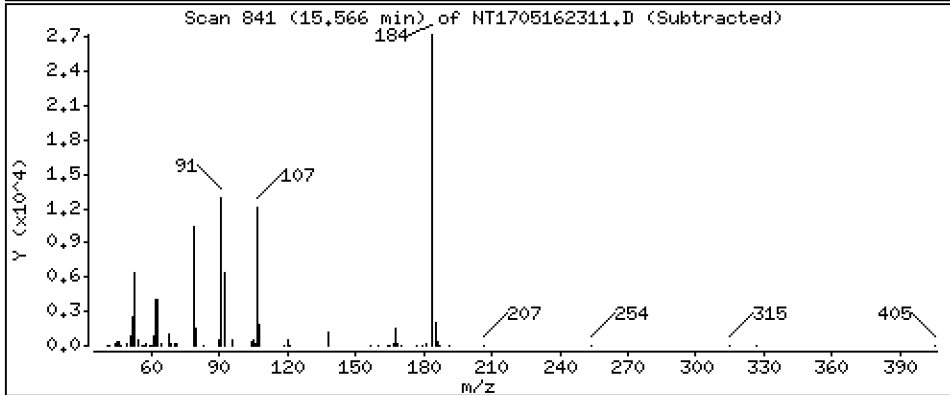
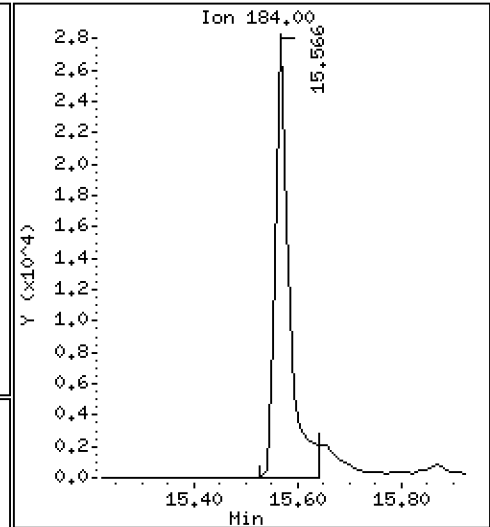
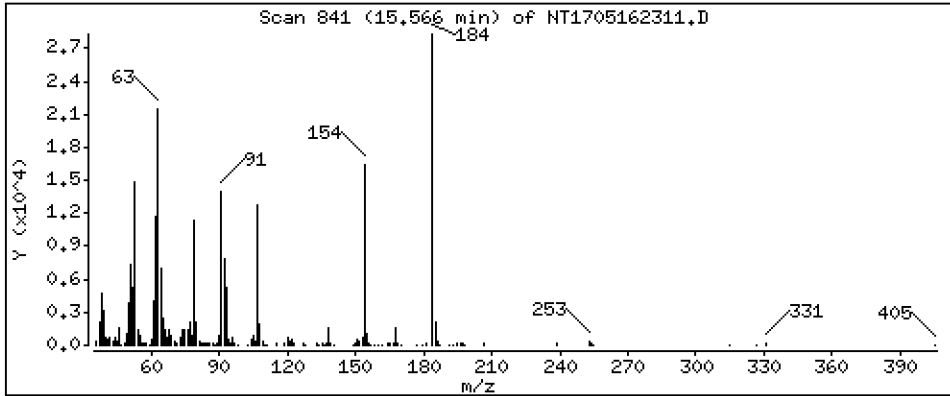
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 2,119 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

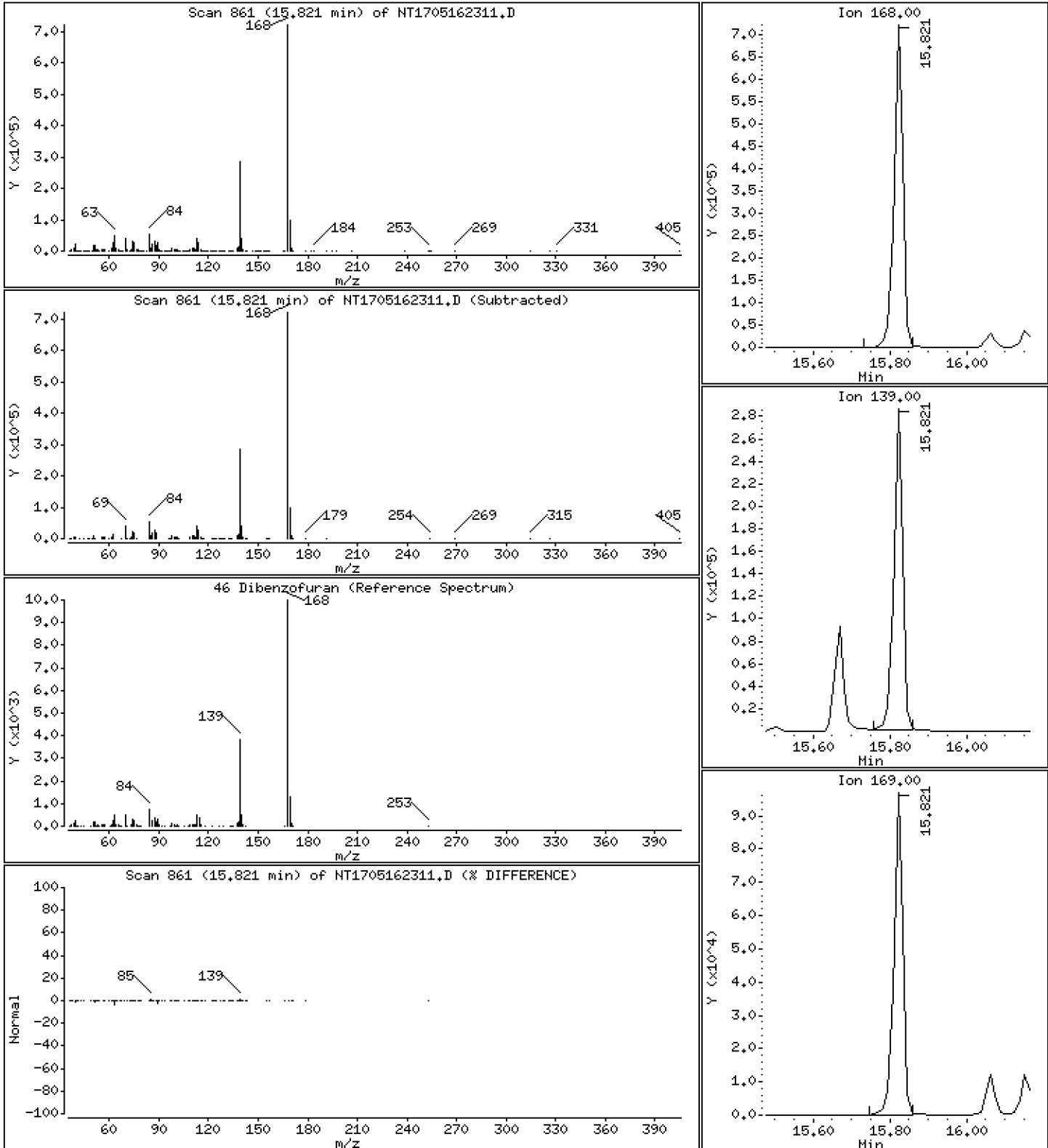
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 5,163 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

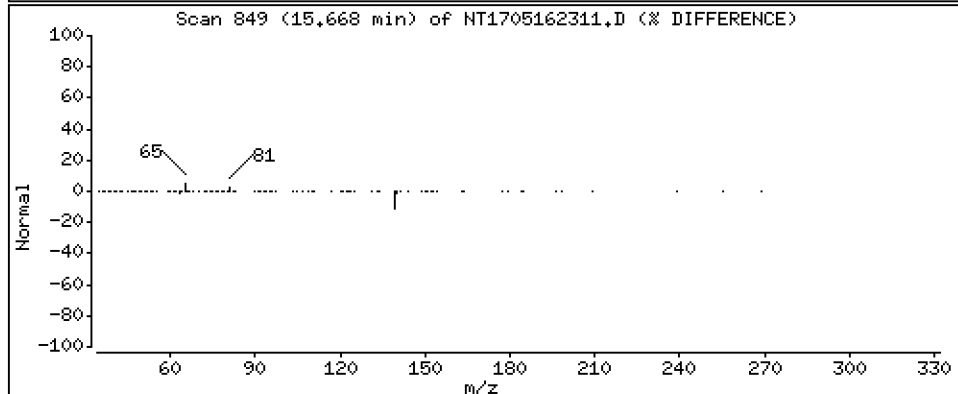
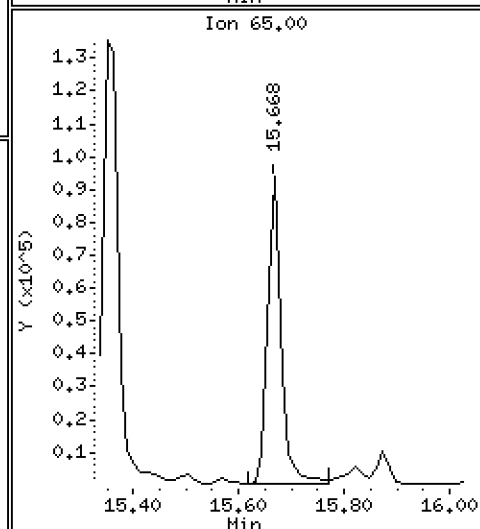
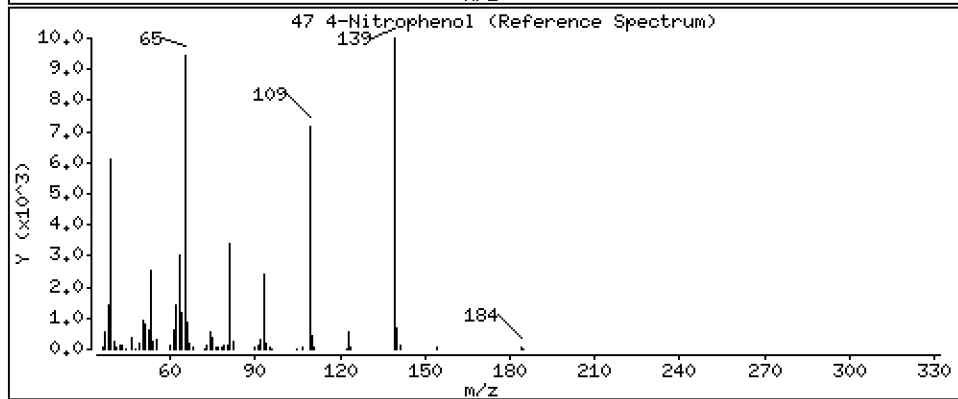
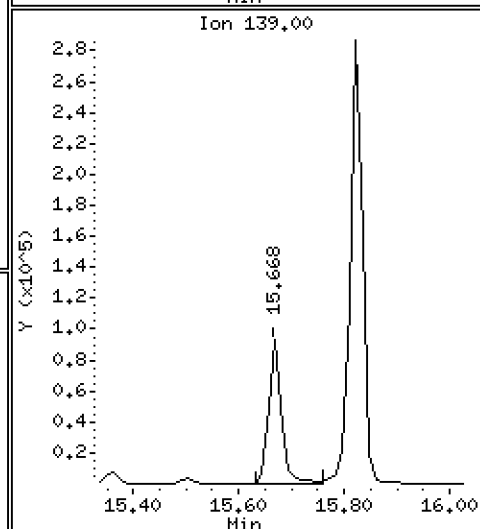
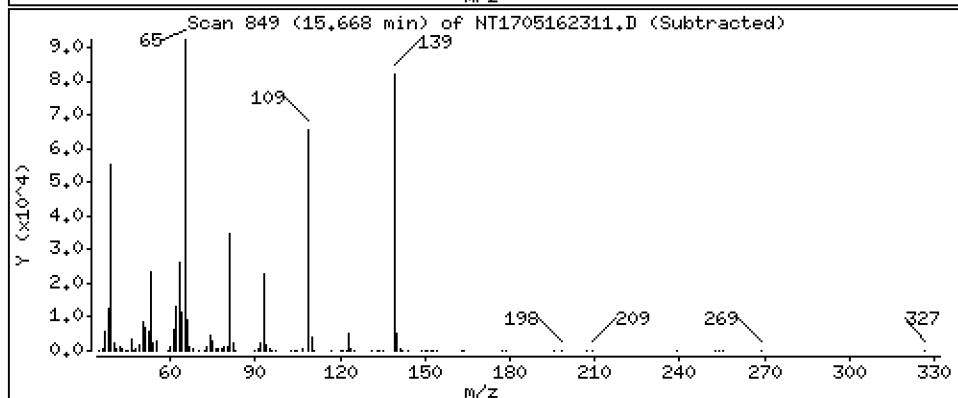
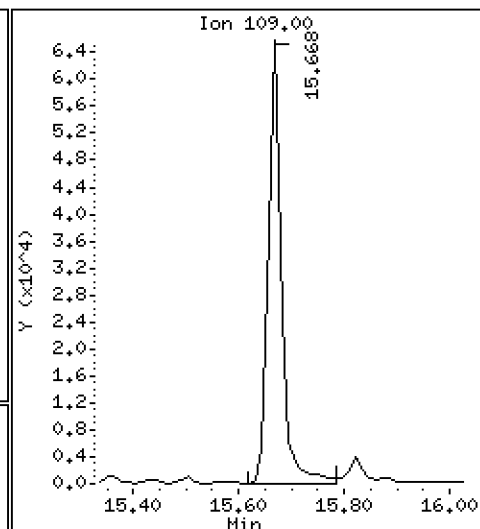
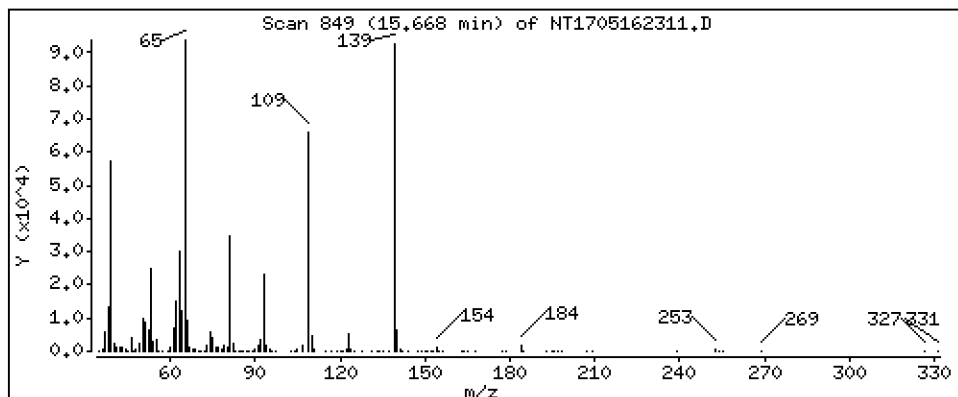
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,504 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

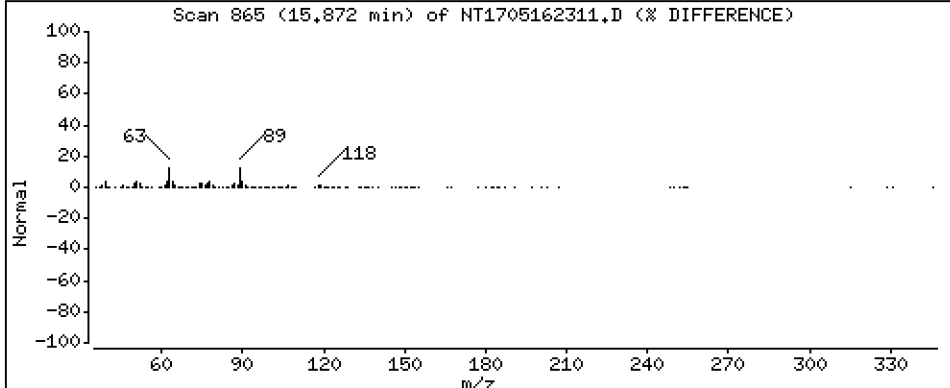
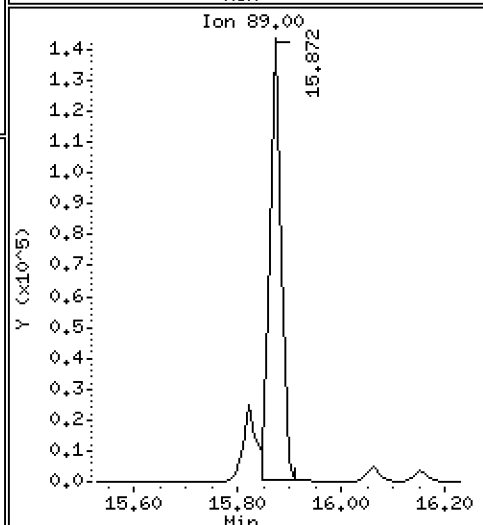
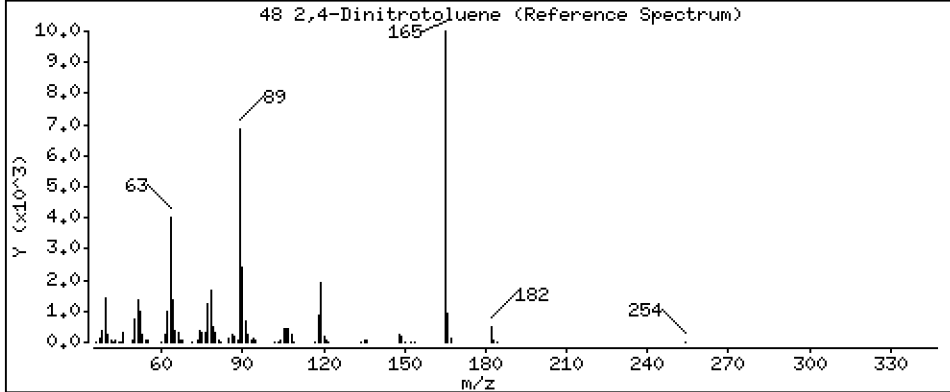
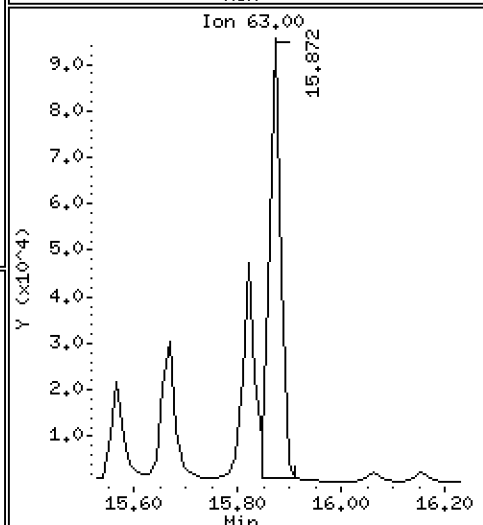
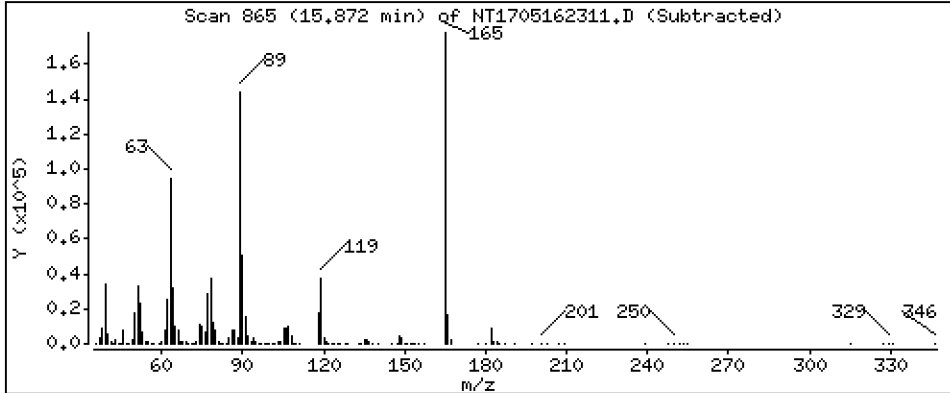
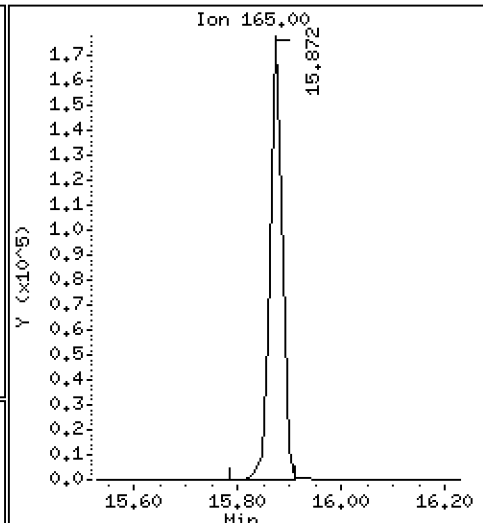
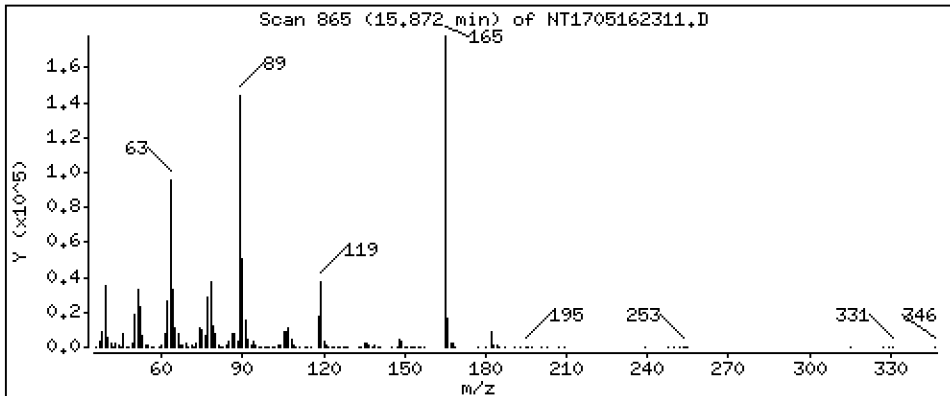
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 5.269 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

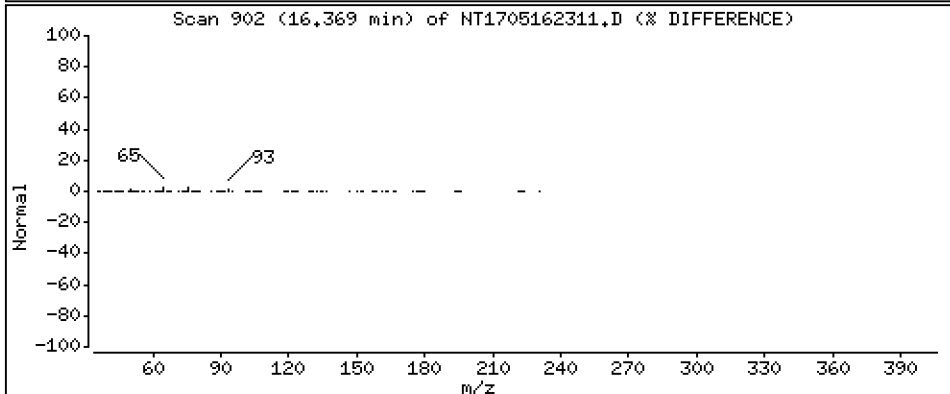
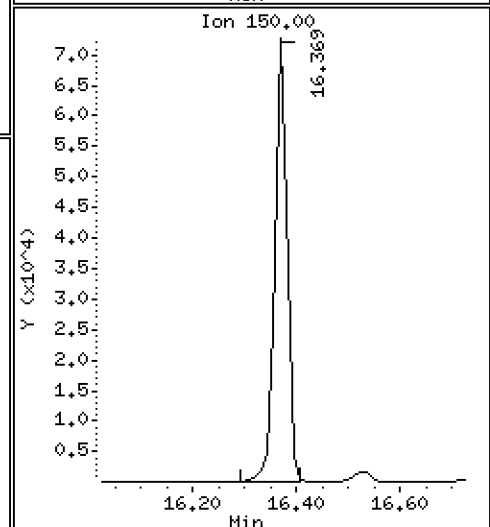
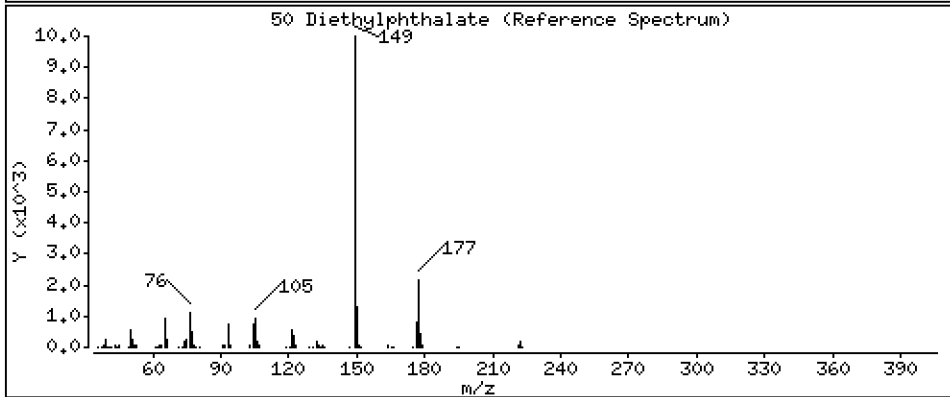
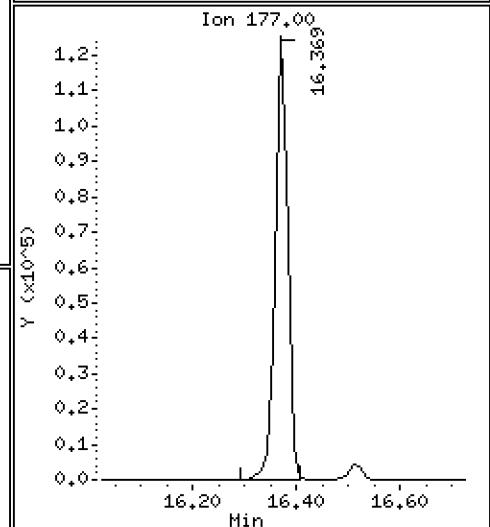
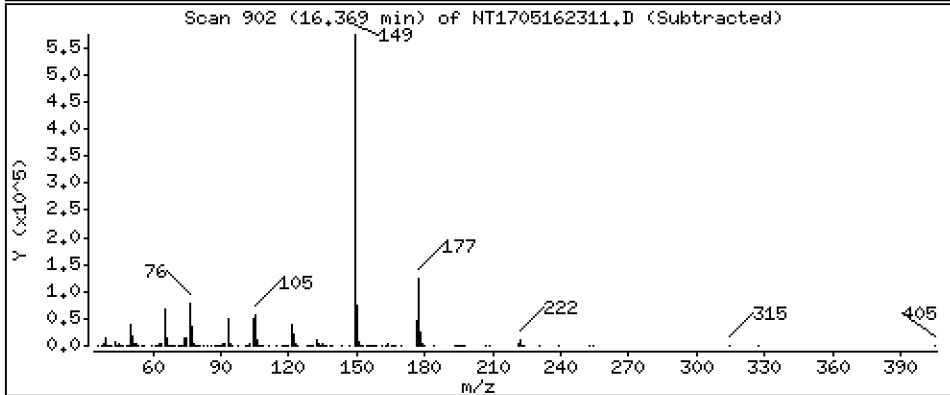
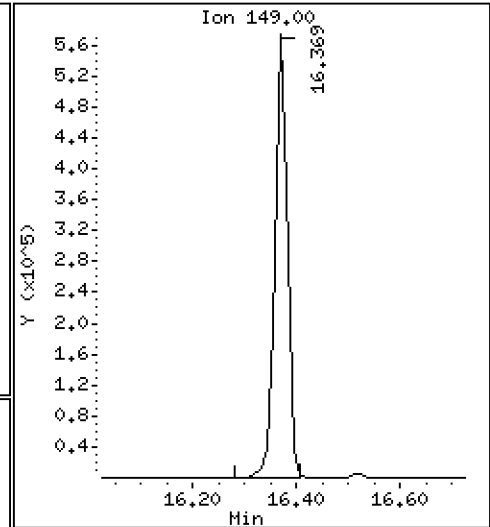
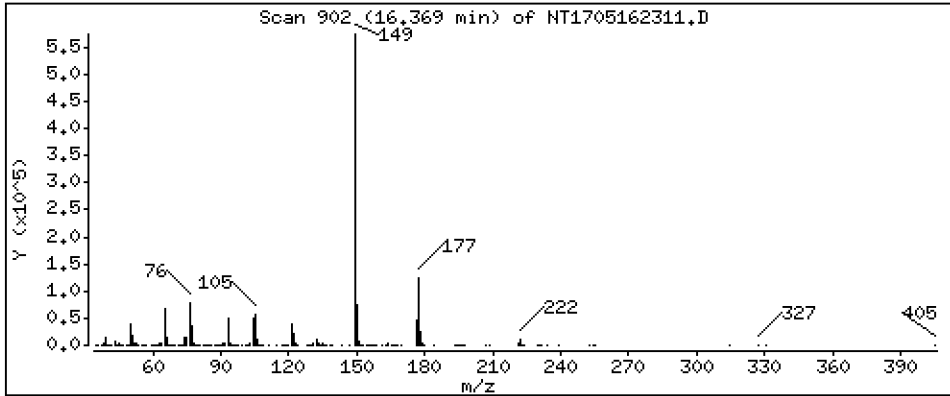
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,494 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

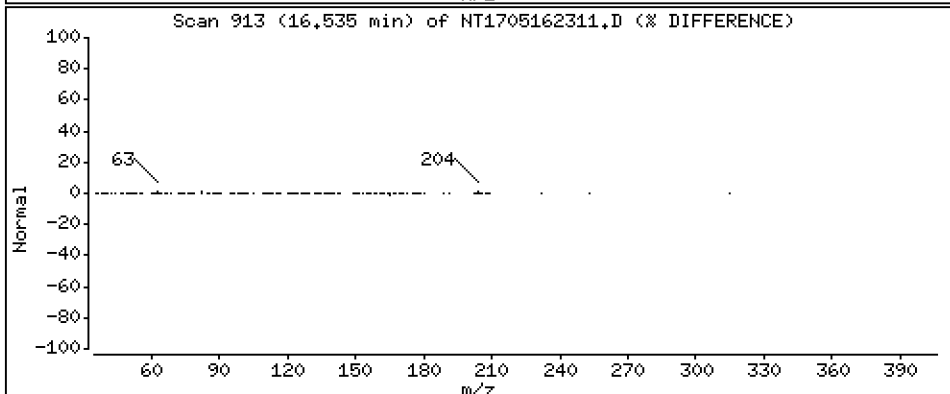
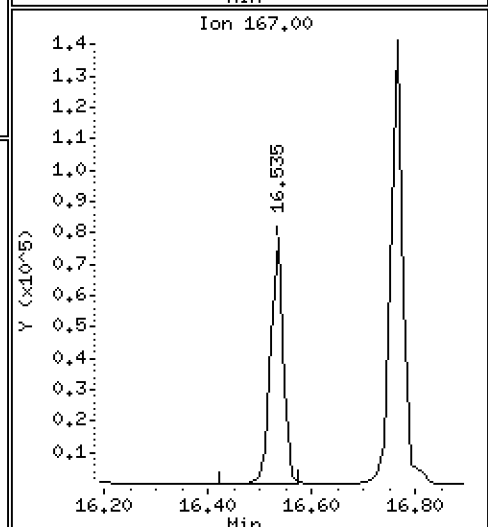
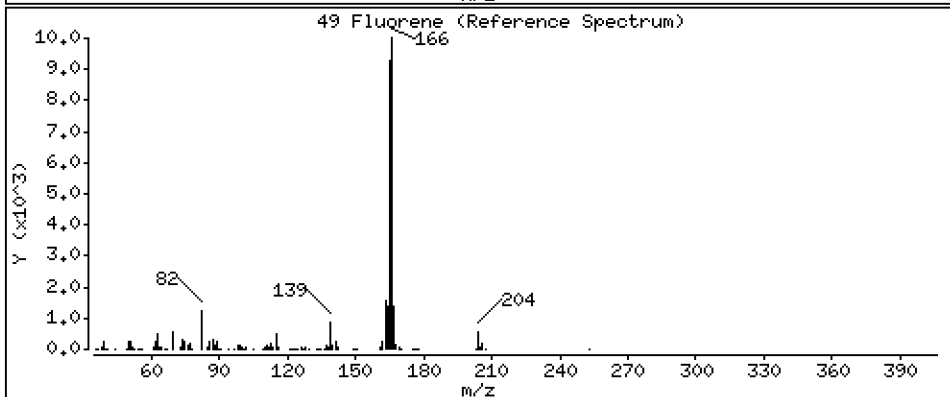
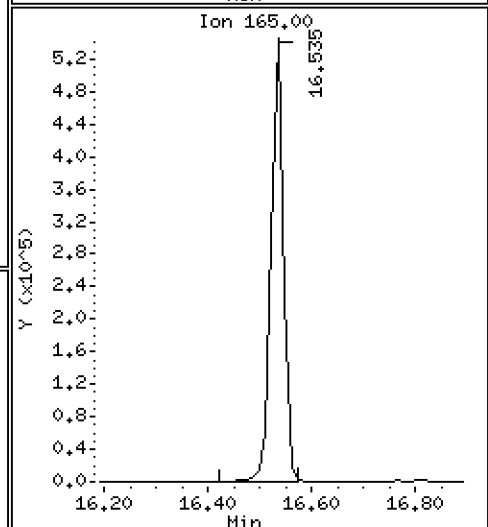
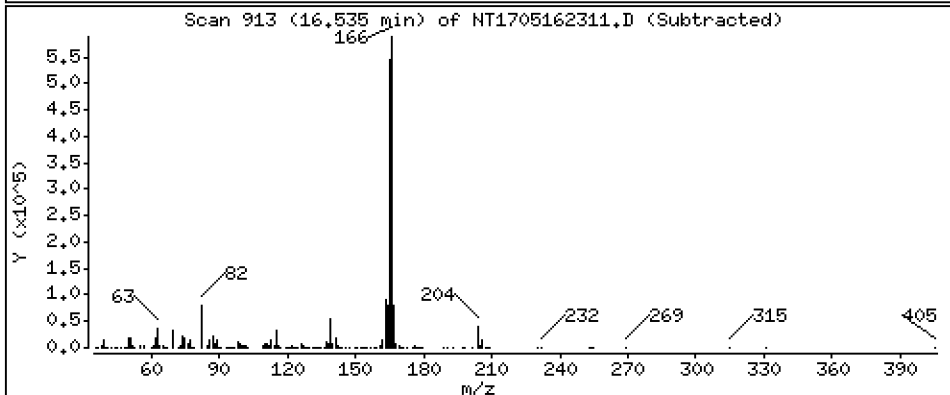
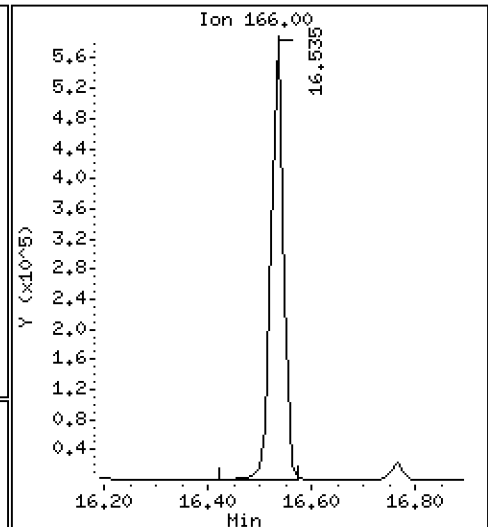
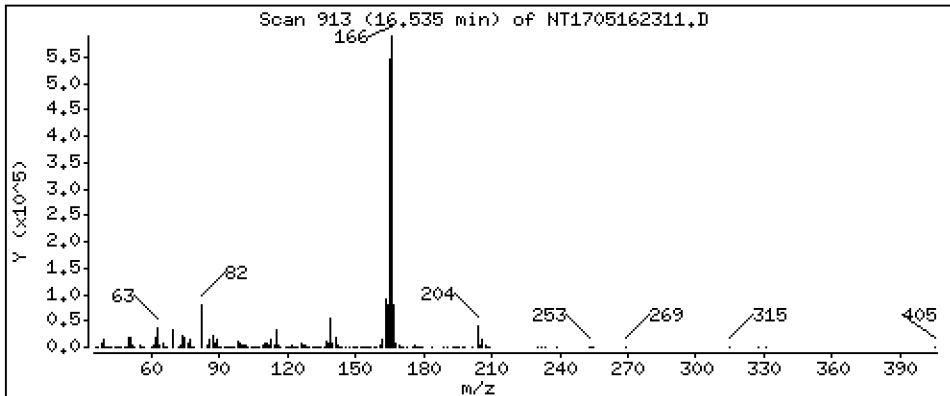
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 5,398 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

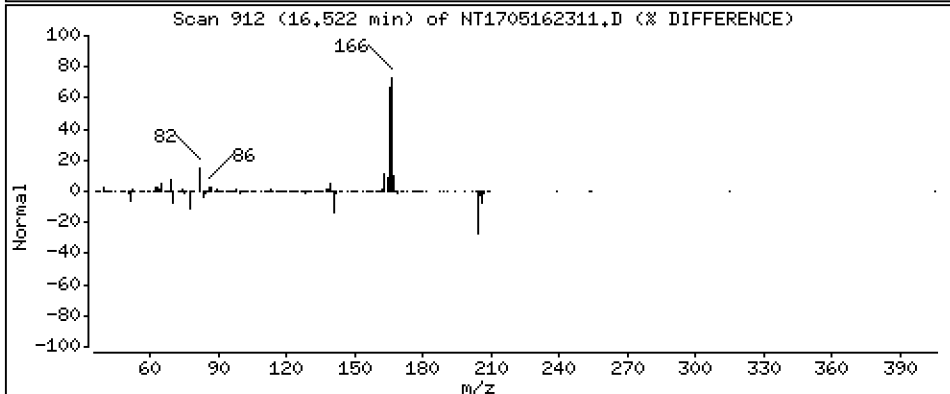
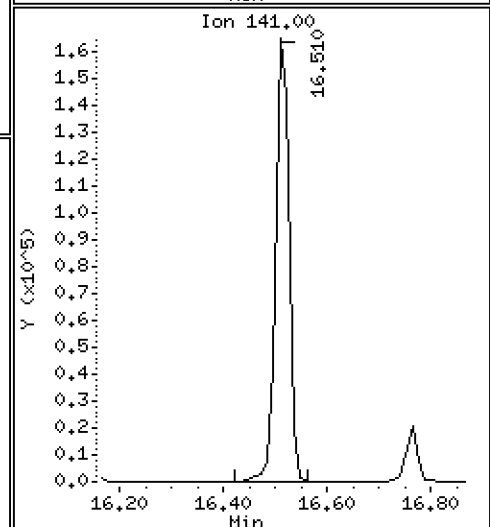
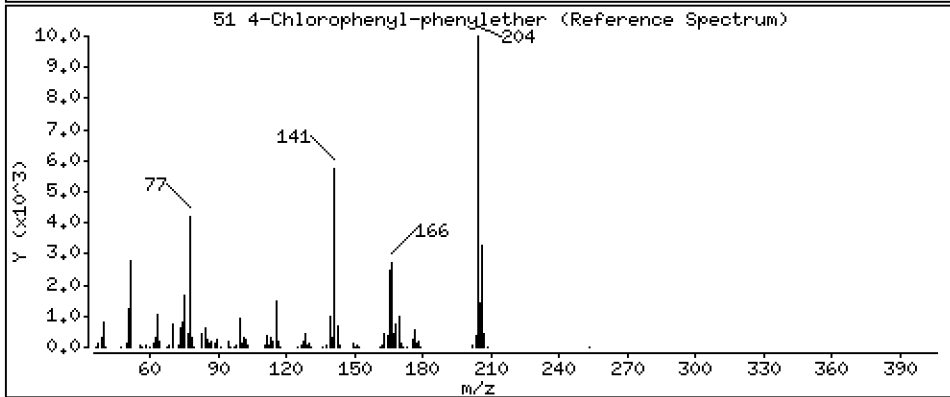
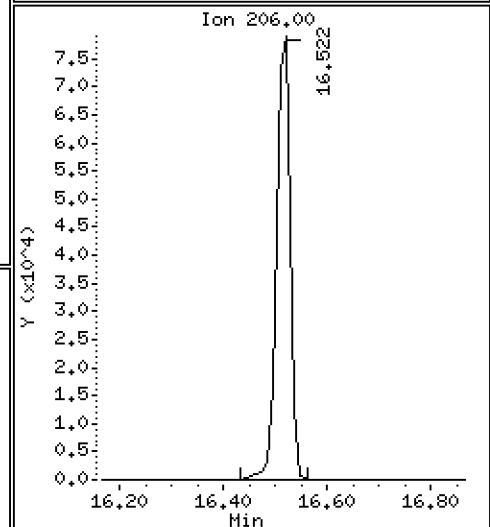
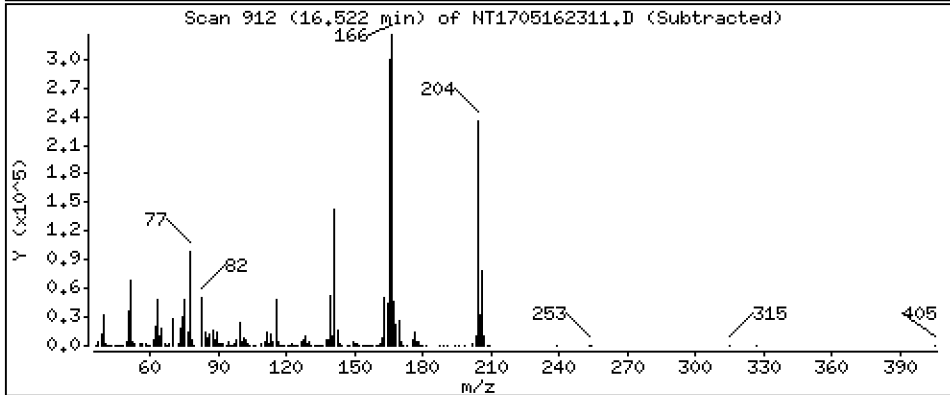
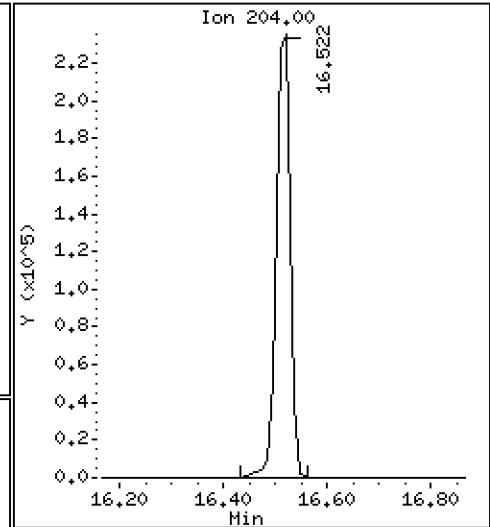
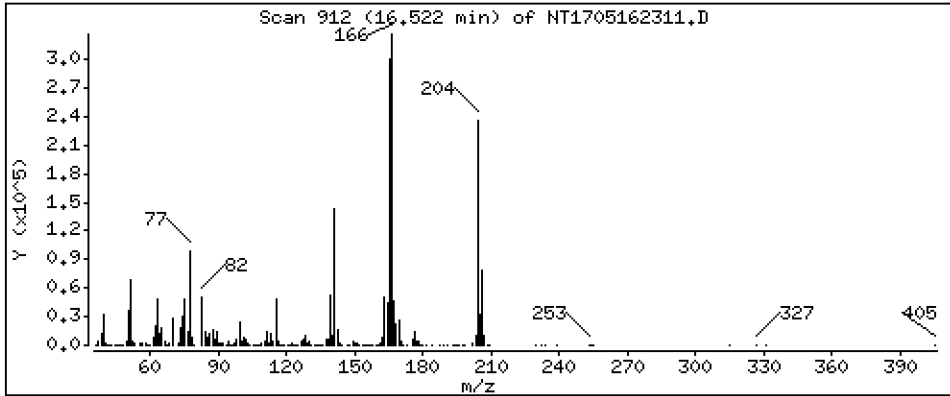
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 5,462 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

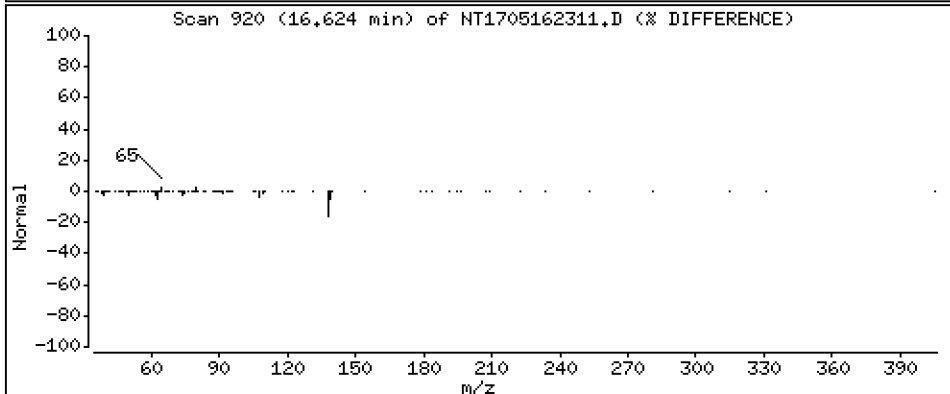
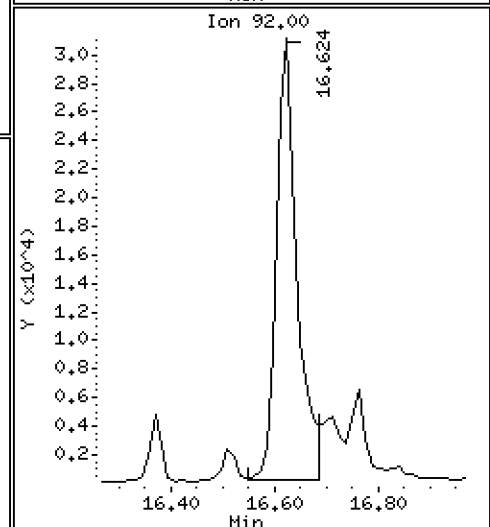
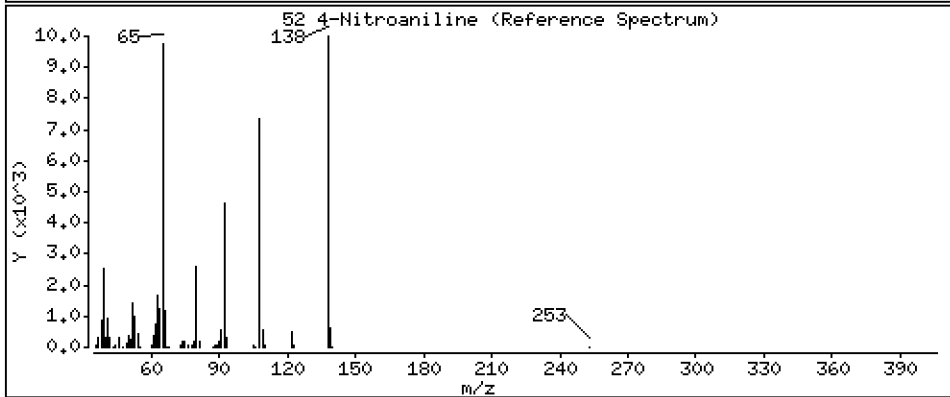
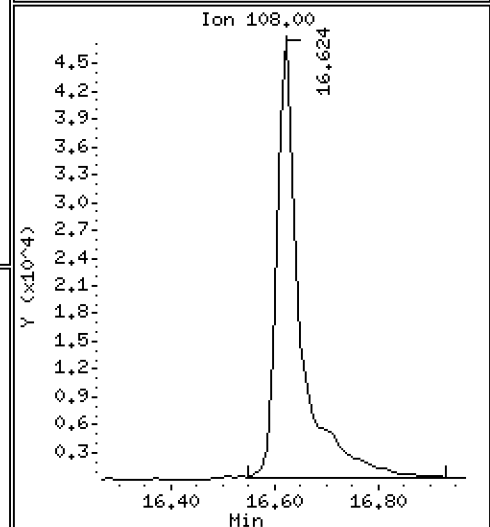
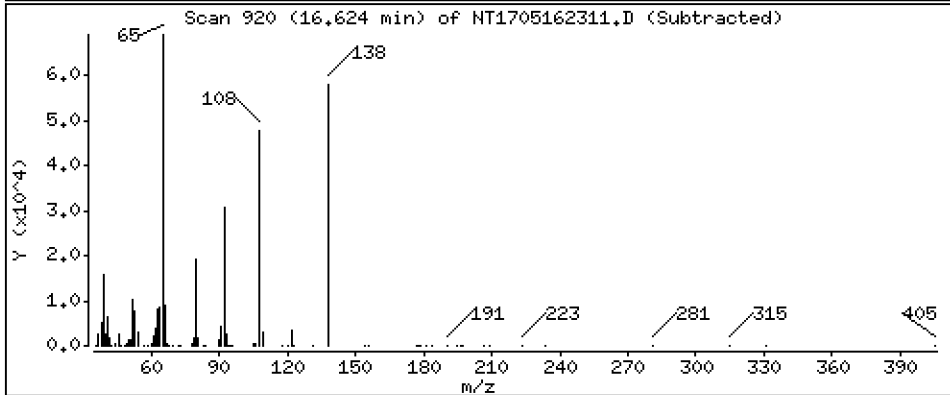
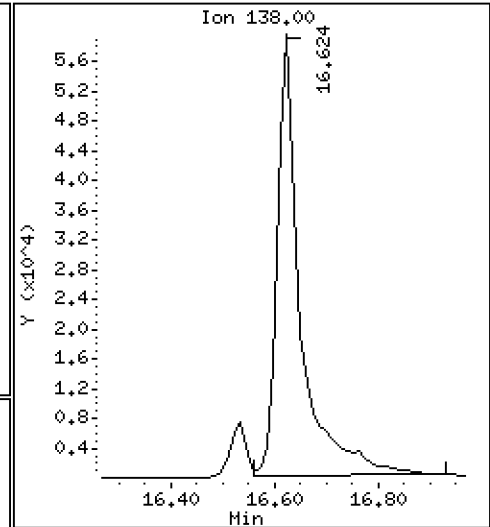
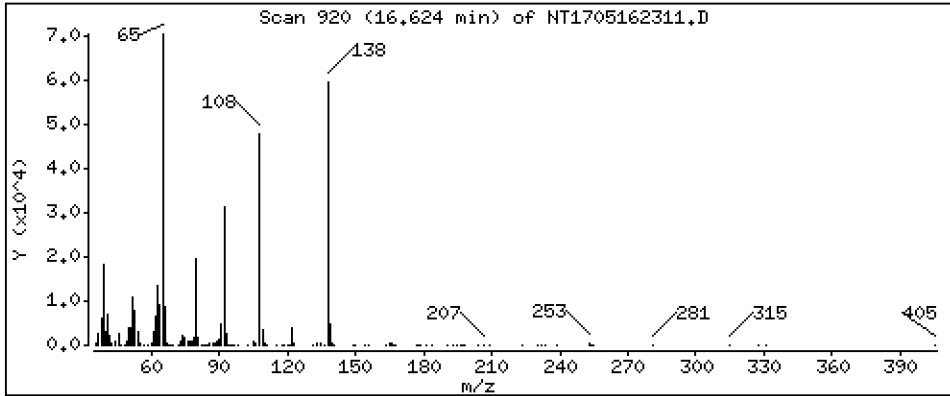
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 5,108 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

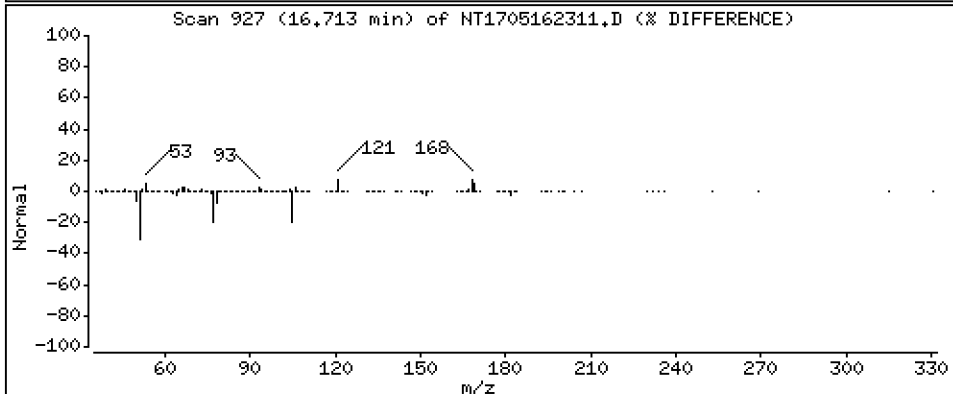
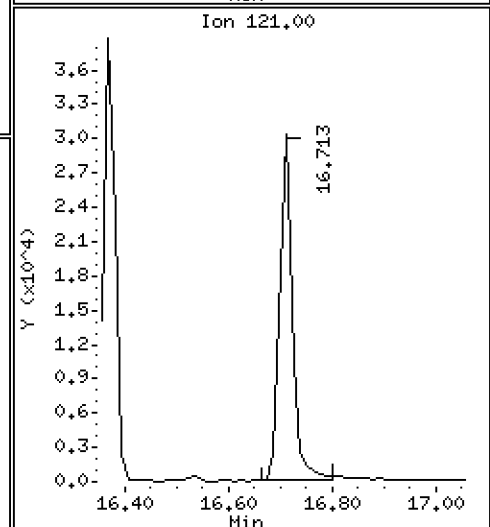
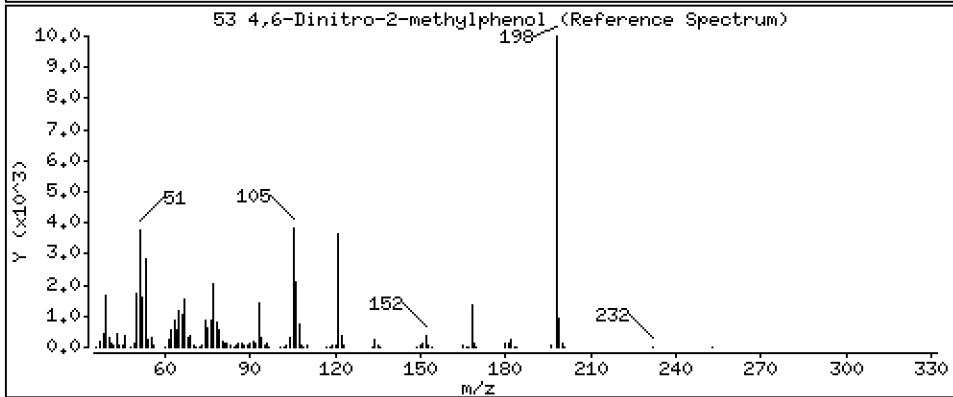
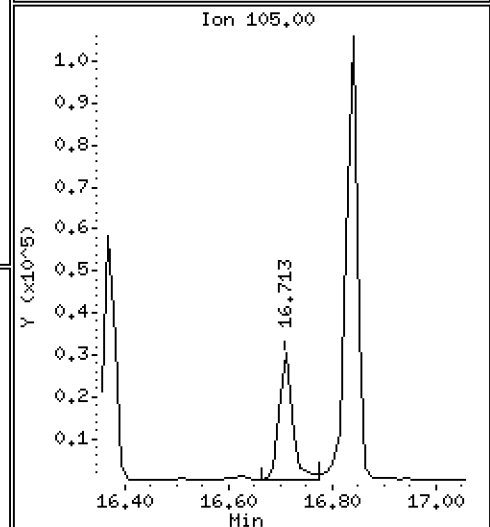
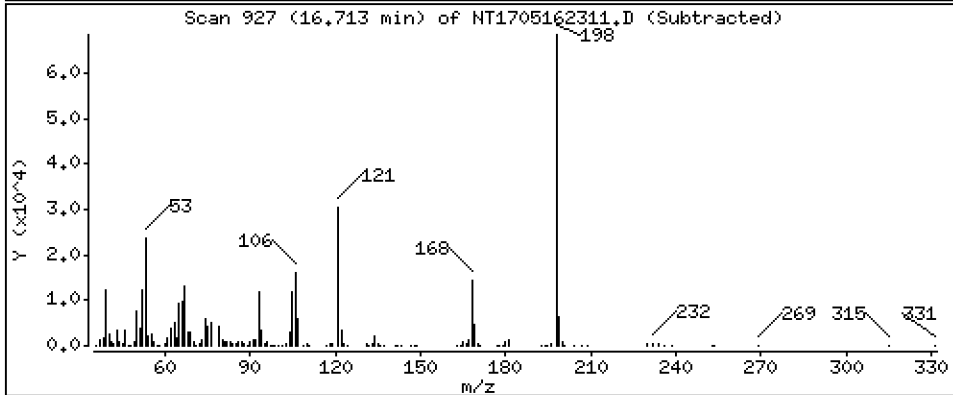
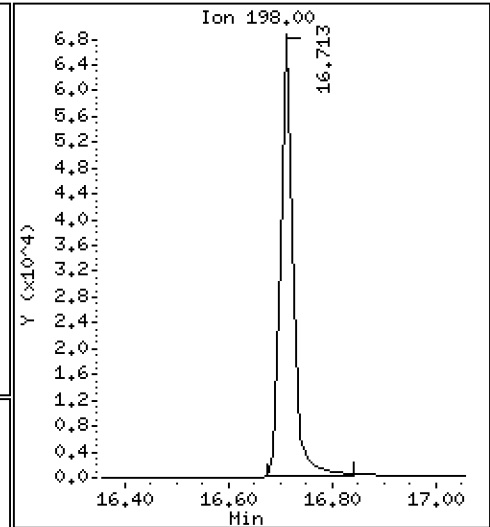
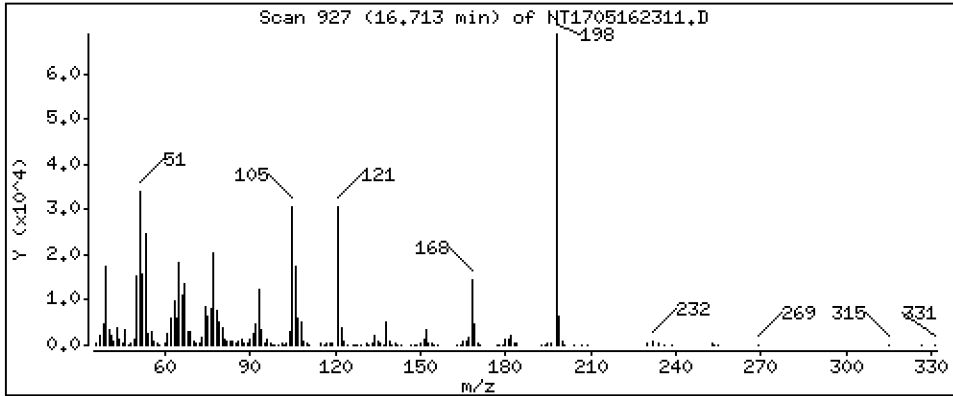
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,355 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

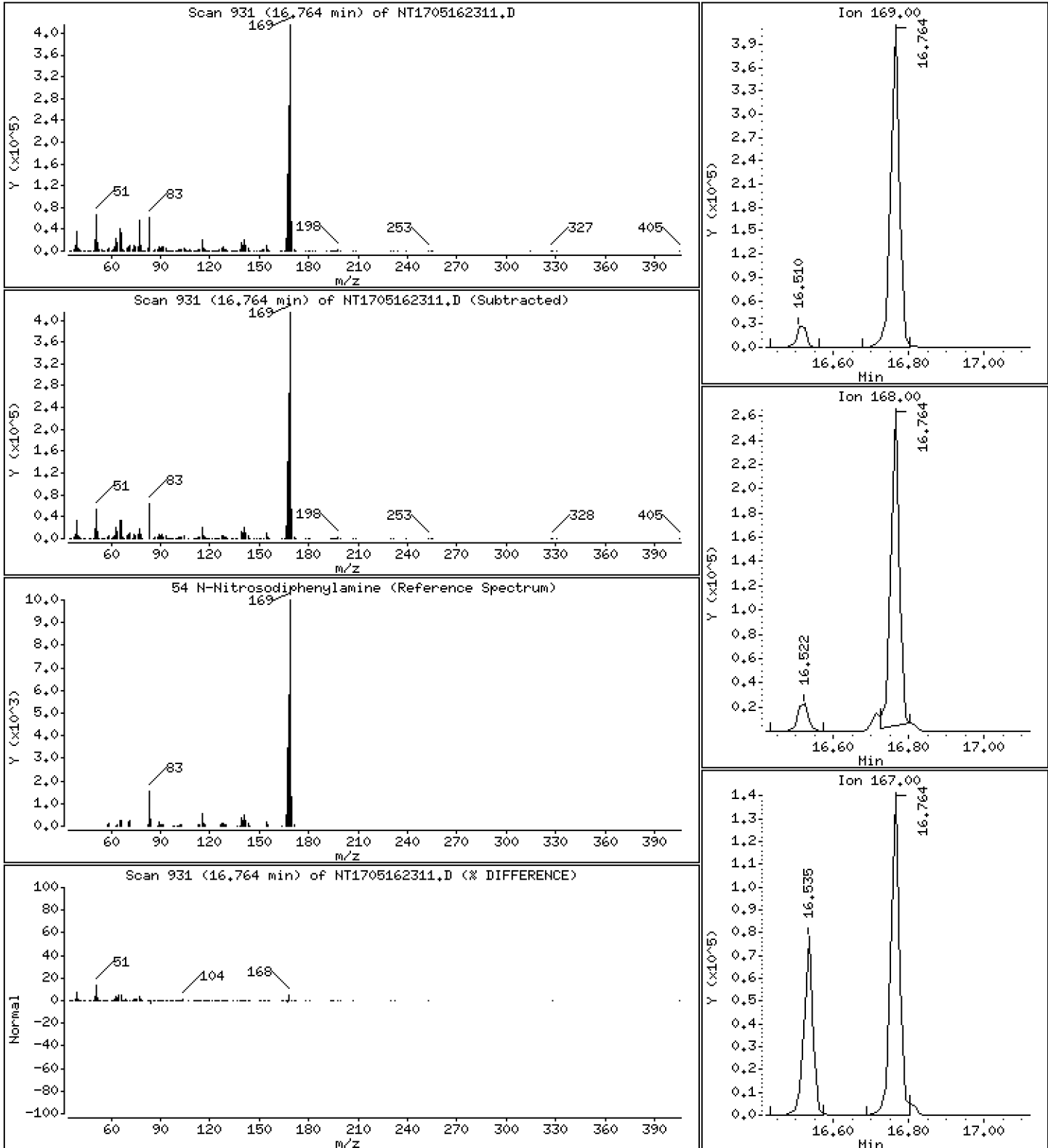
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,470 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

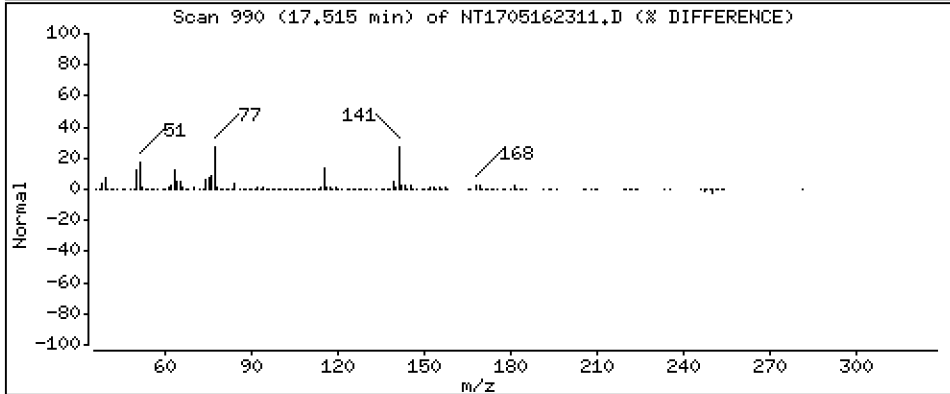
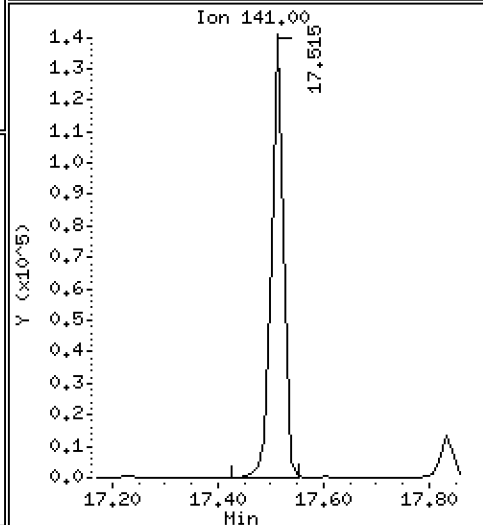
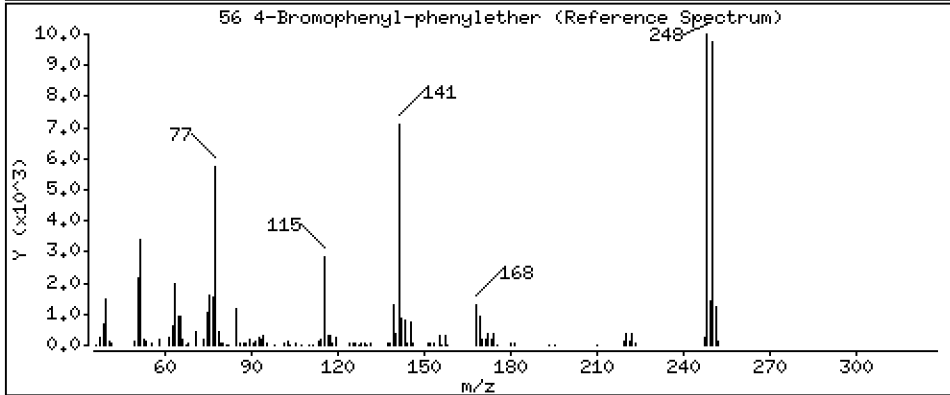
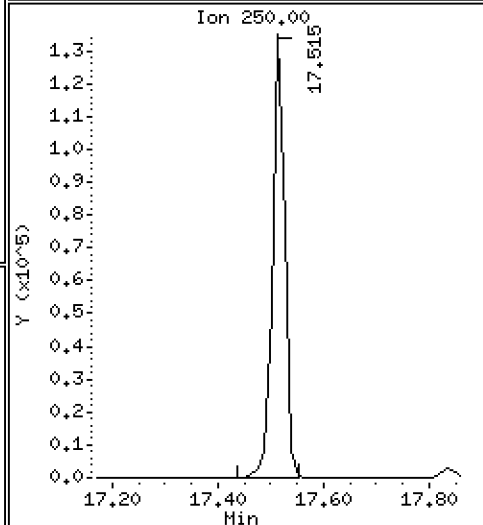
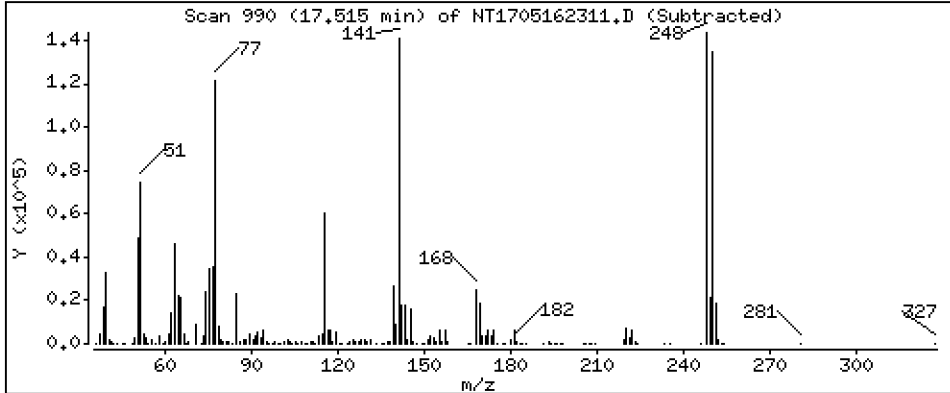
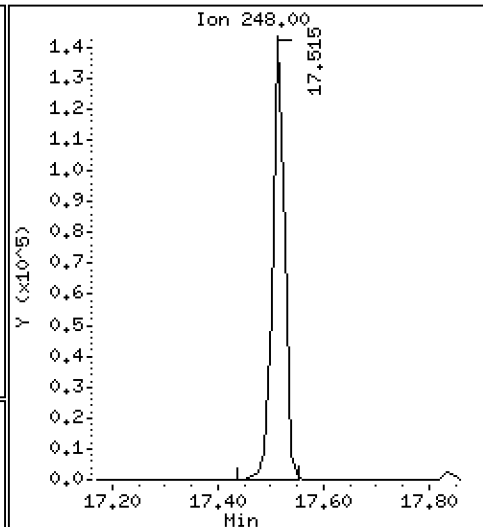
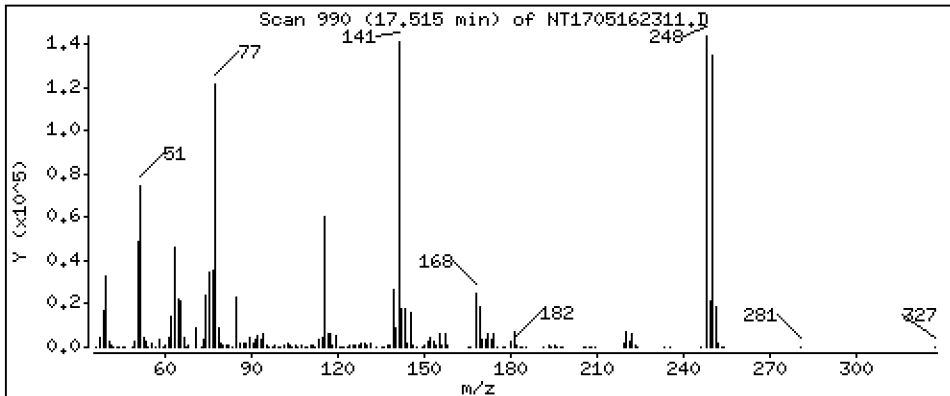
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 5,420 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

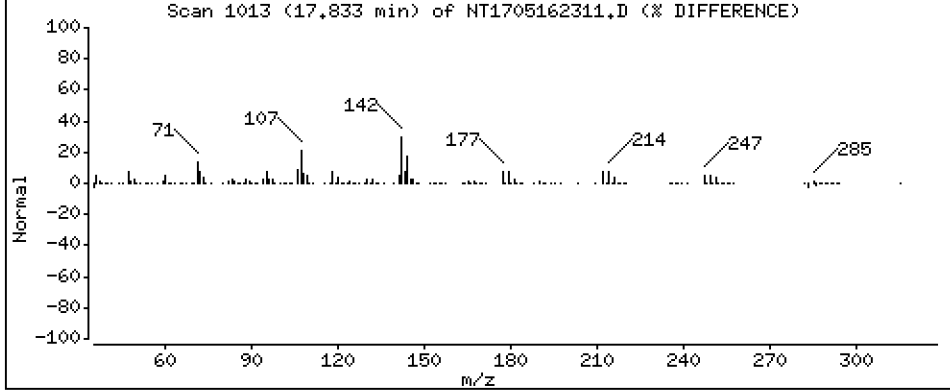
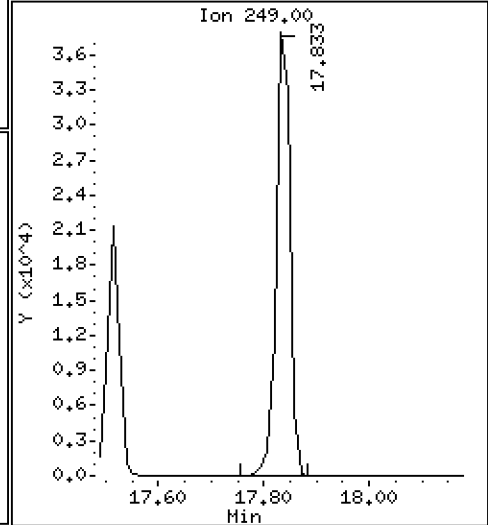
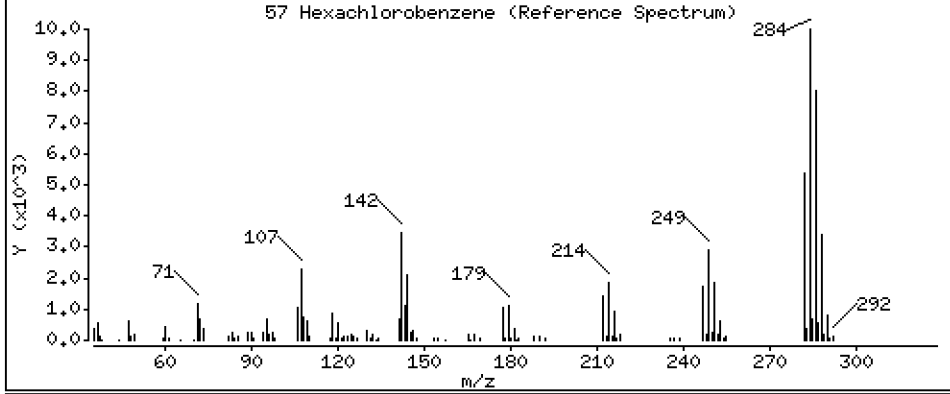
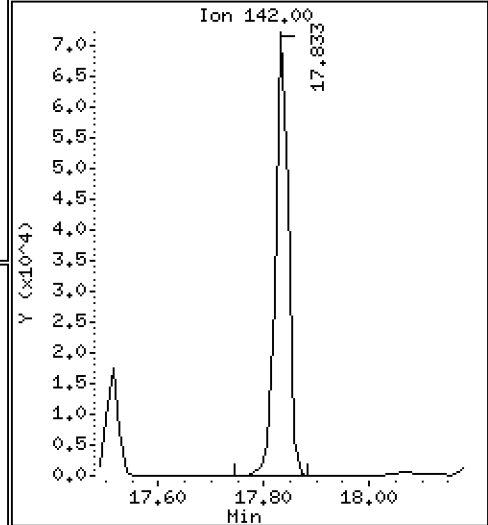
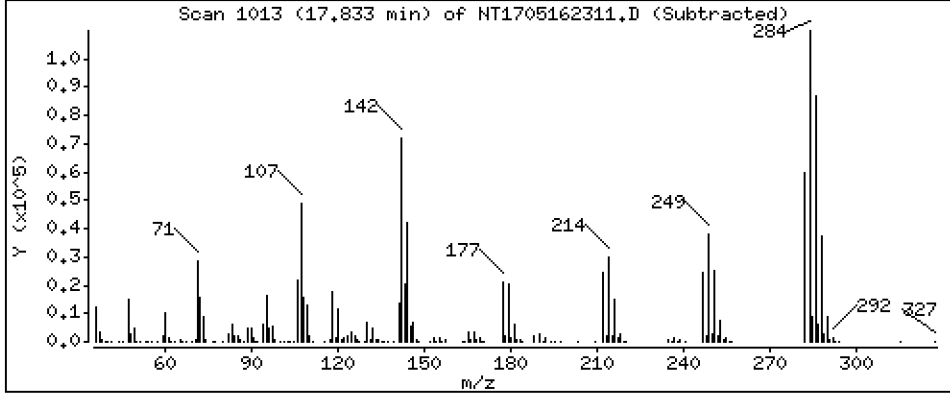
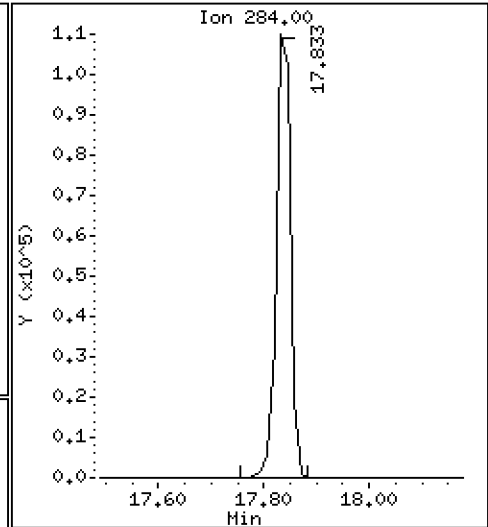
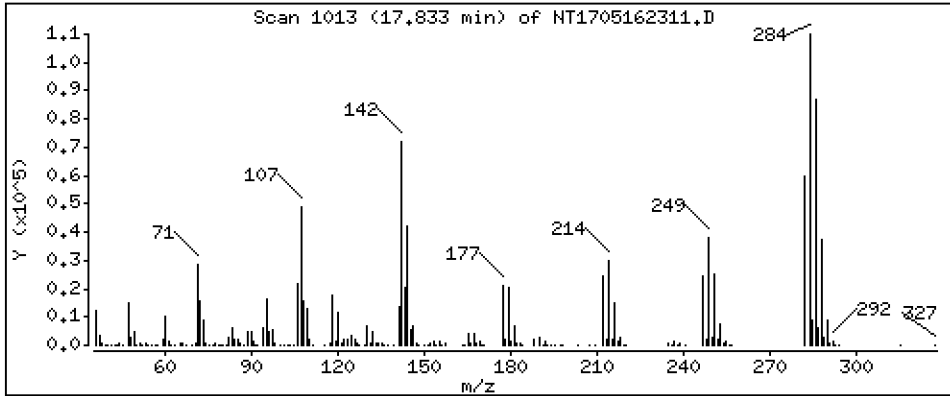
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,913 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

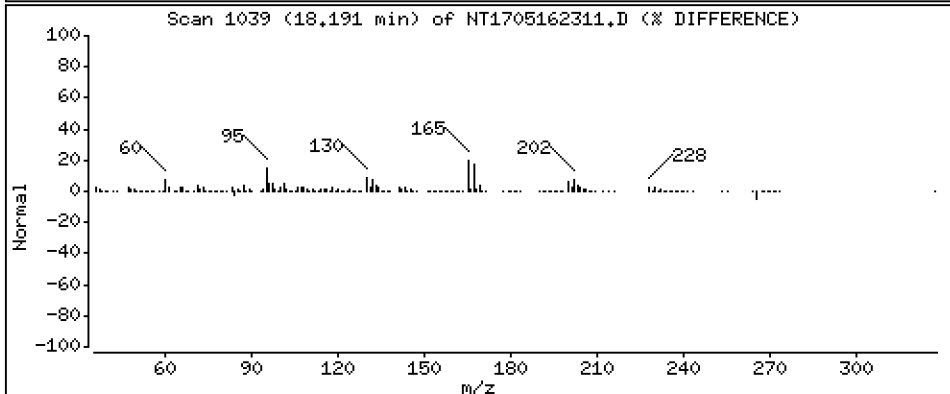
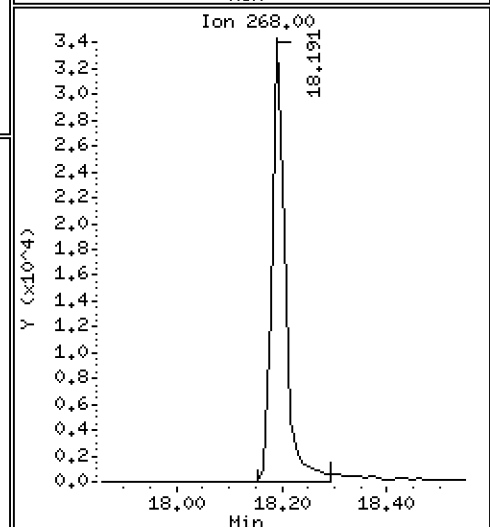
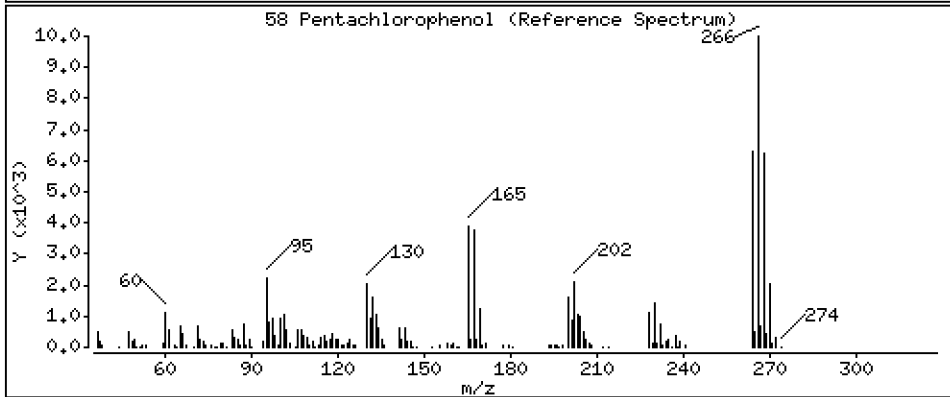
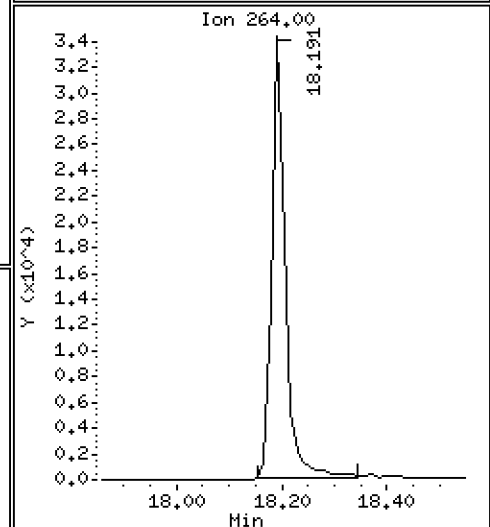
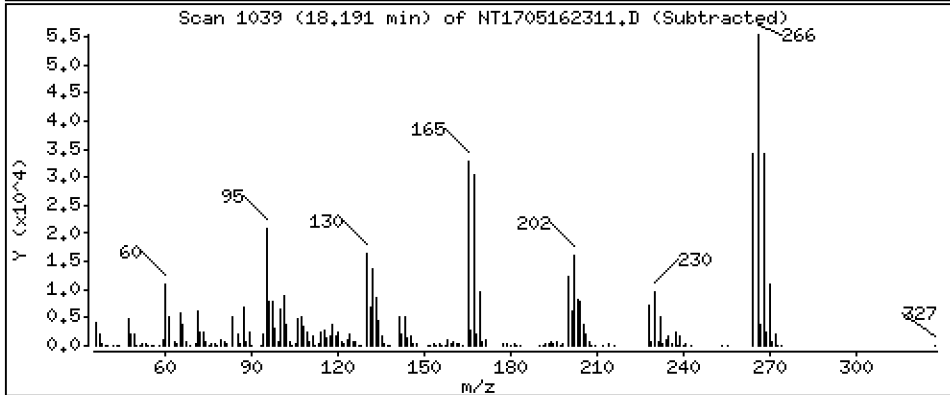
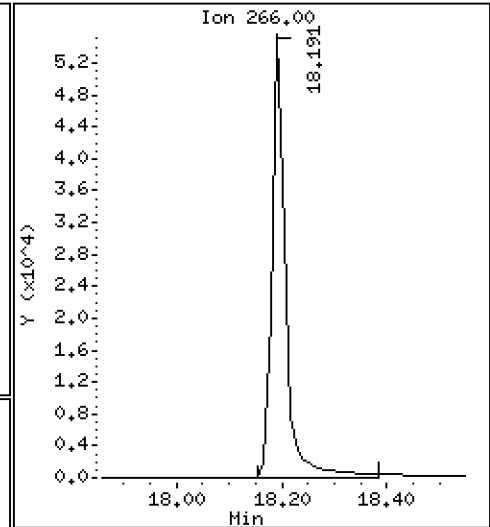
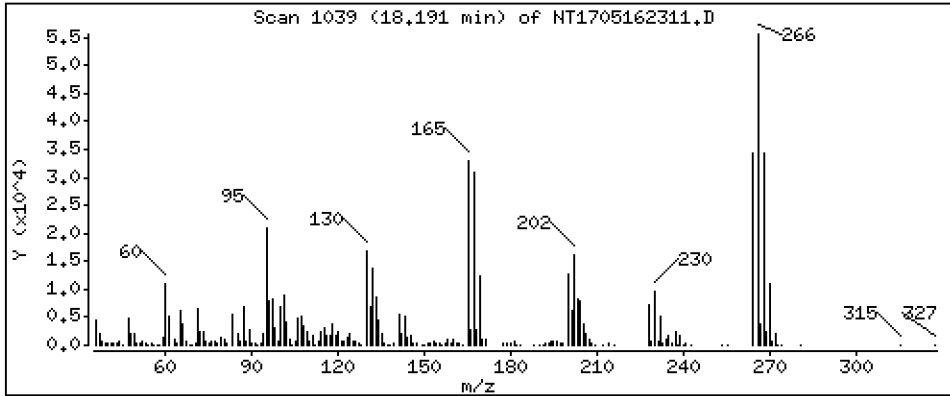
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,943 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

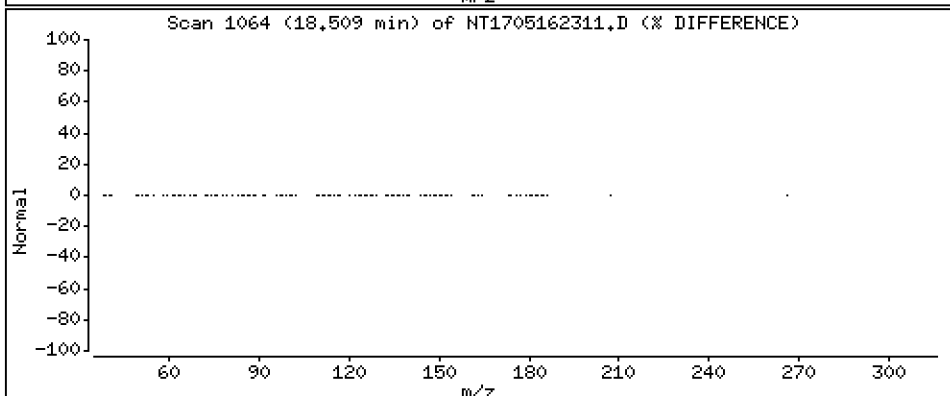
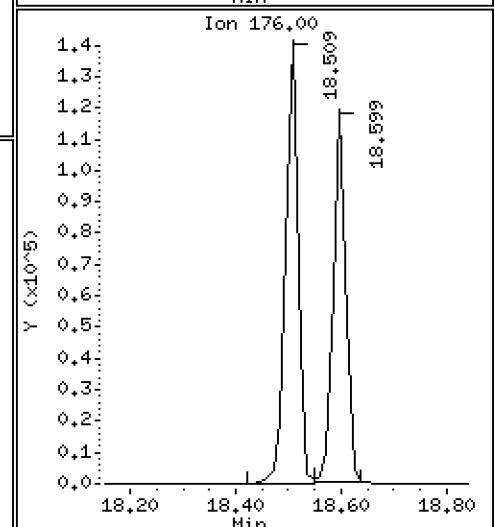
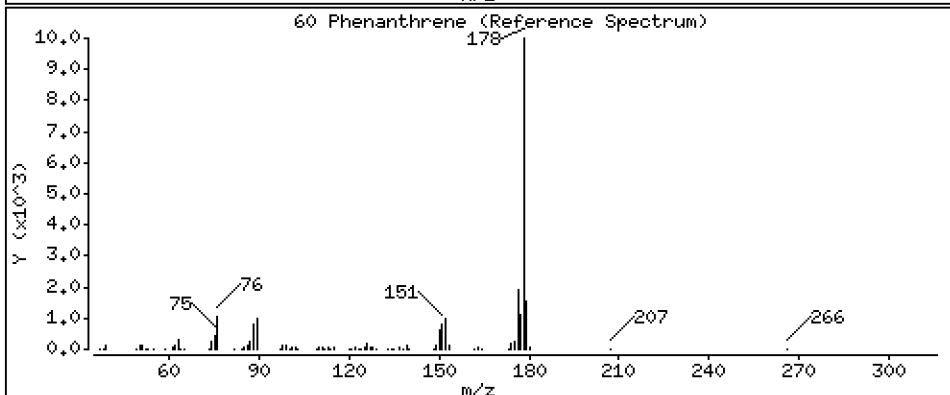
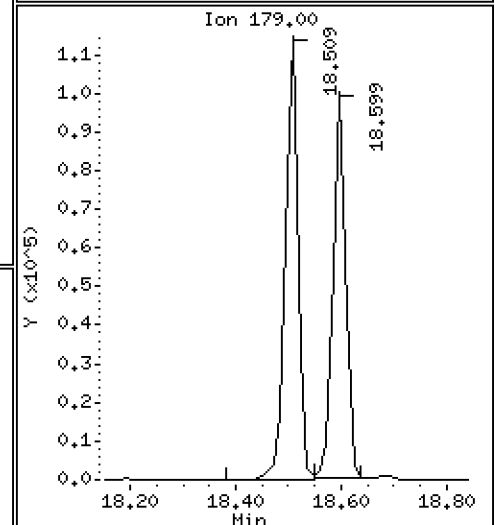
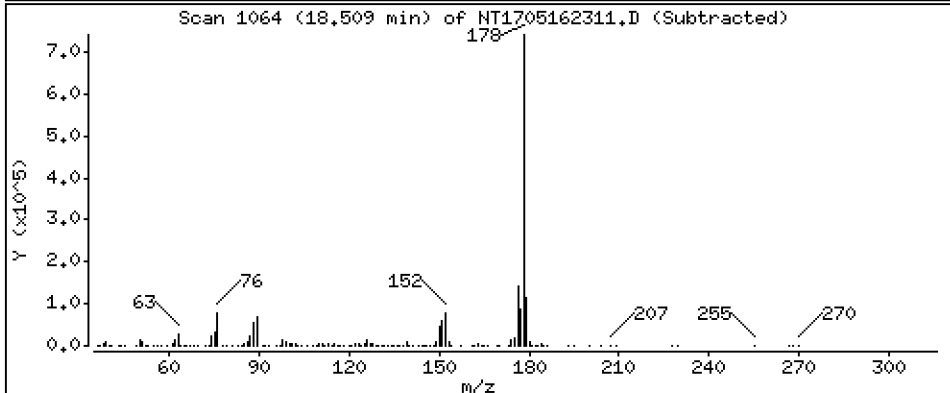
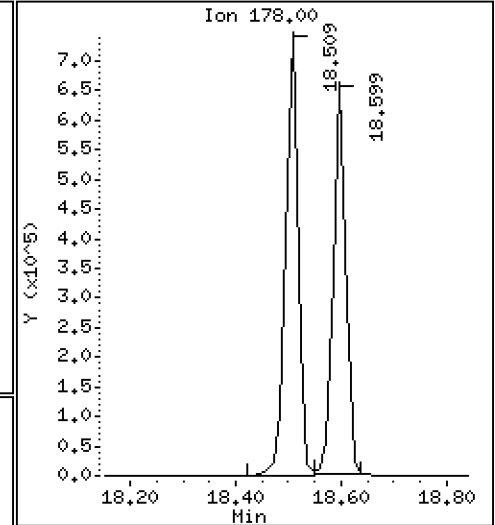
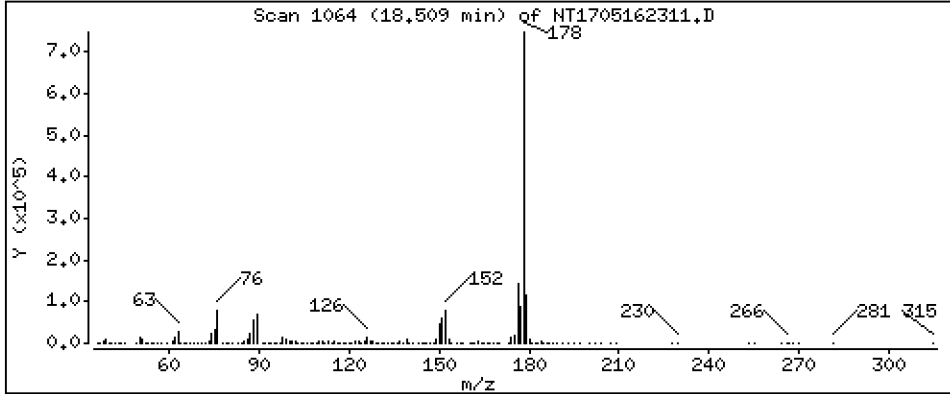
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,039 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

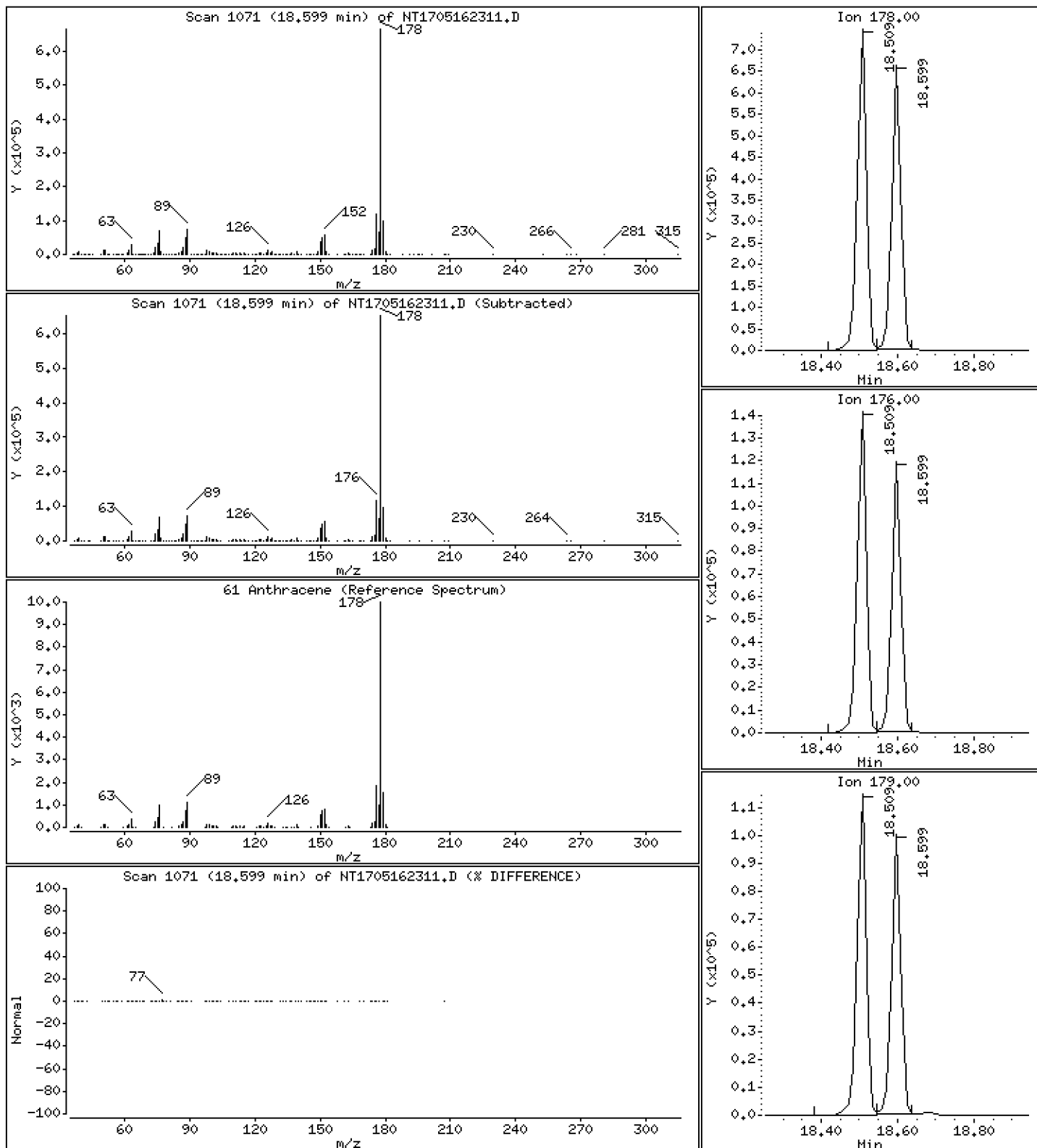
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,530 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

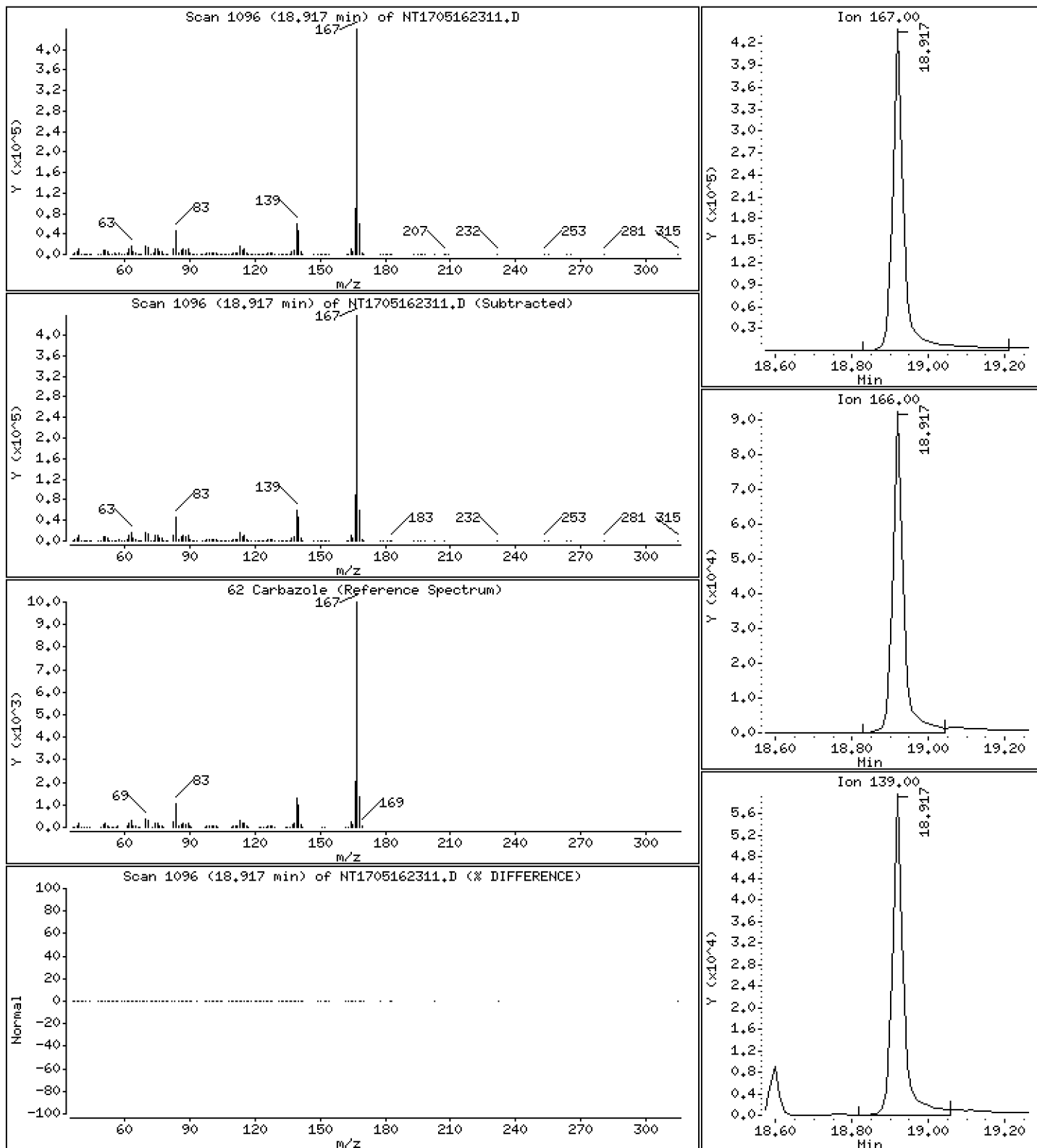
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 5,938 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

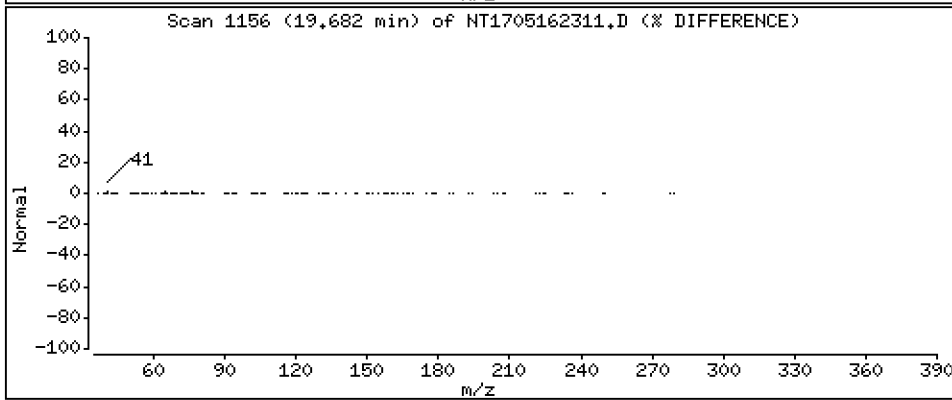
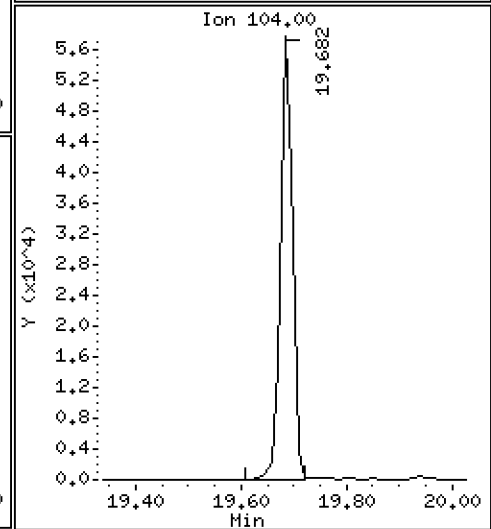
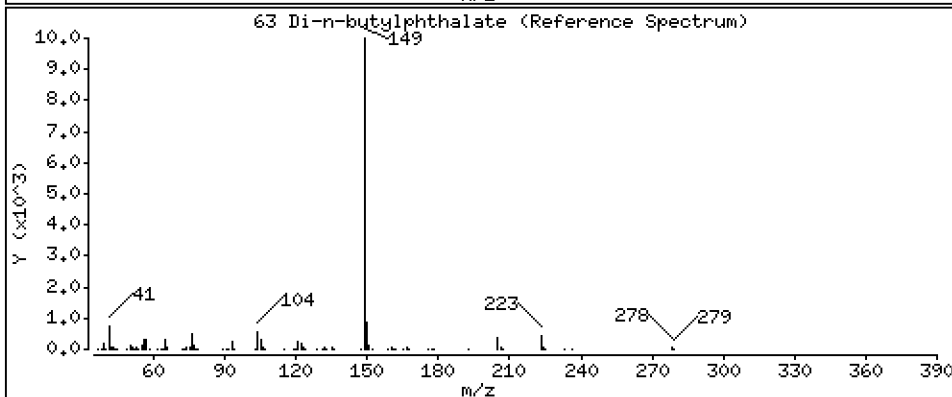
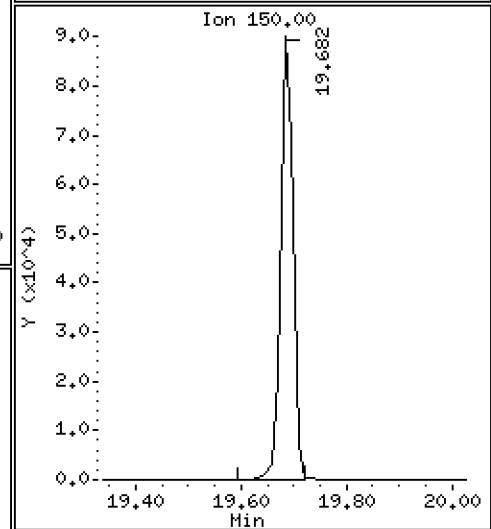
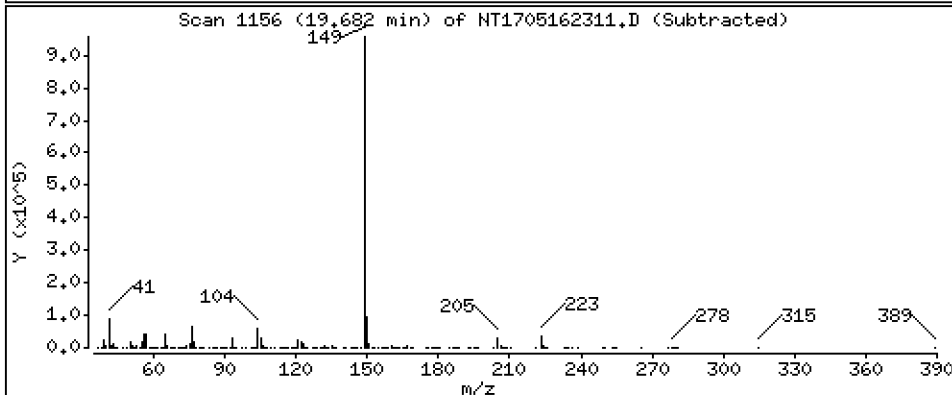
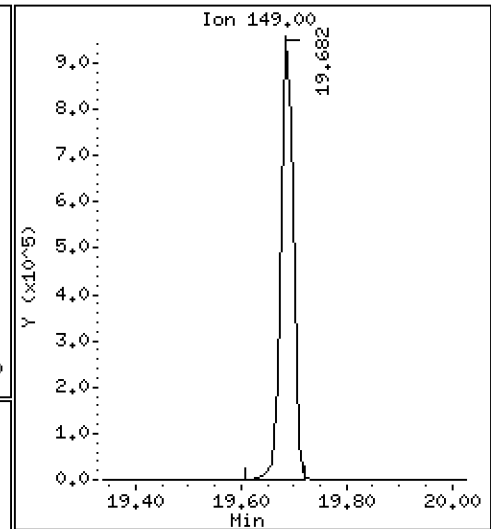
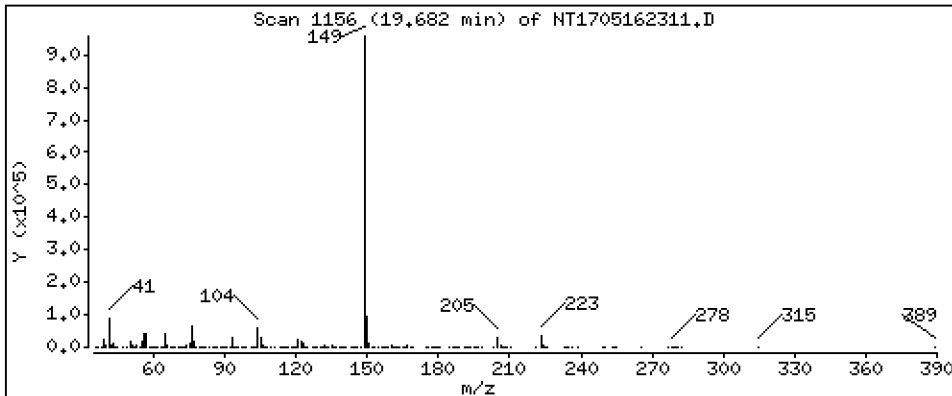
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 5,642 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

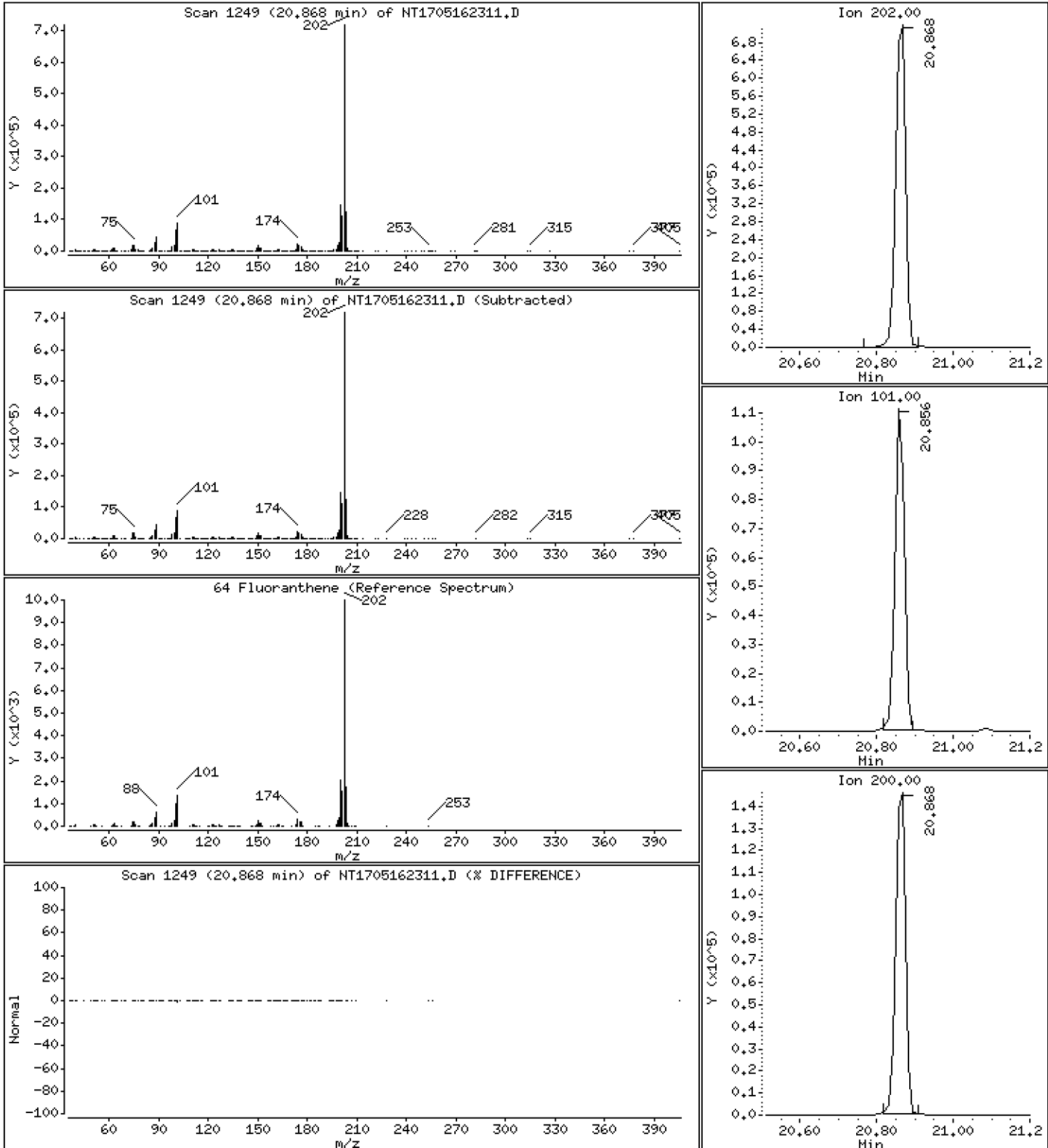
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 5,467 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

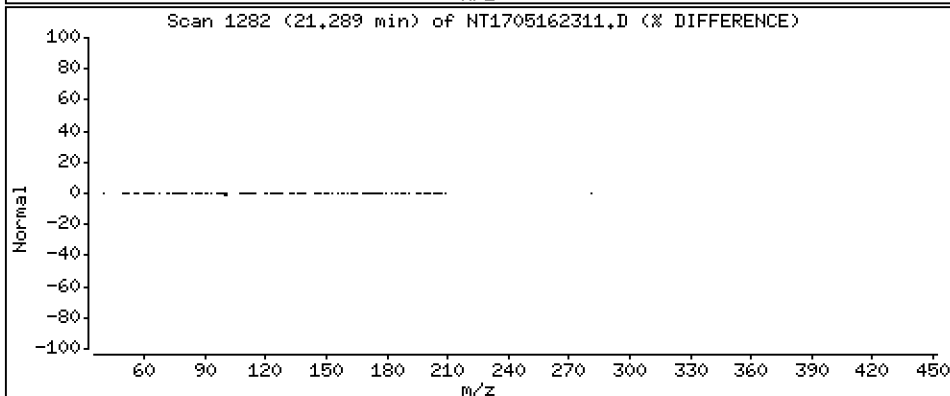
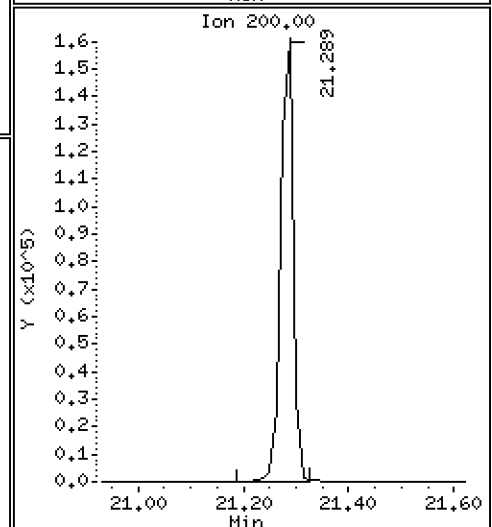
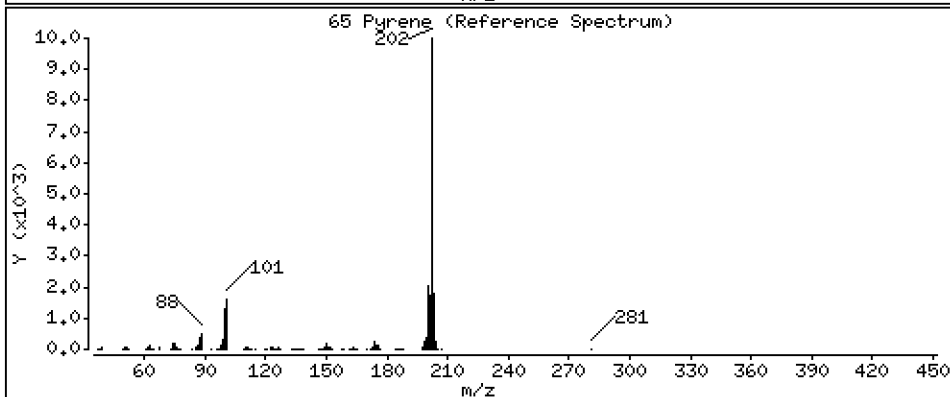
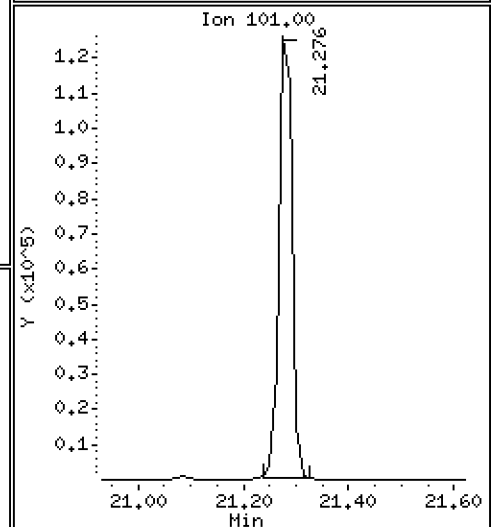
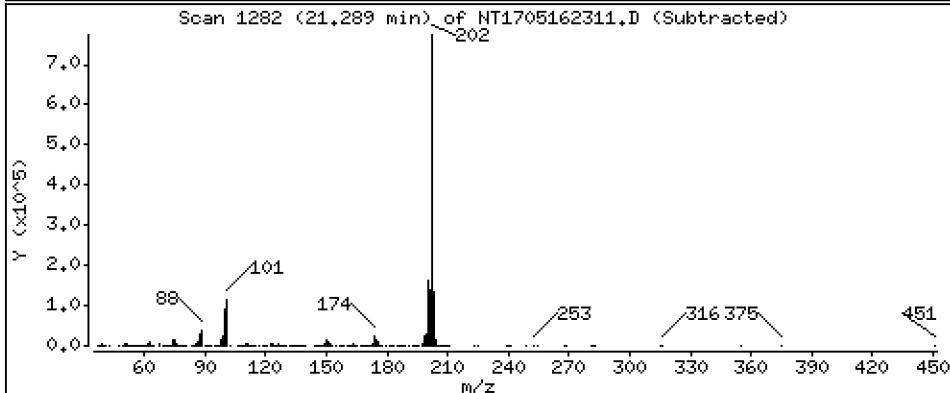
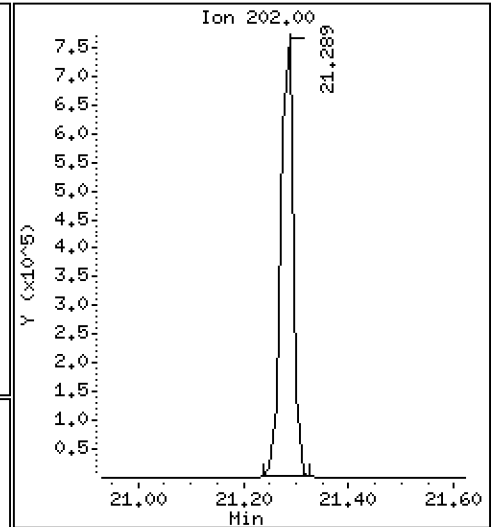
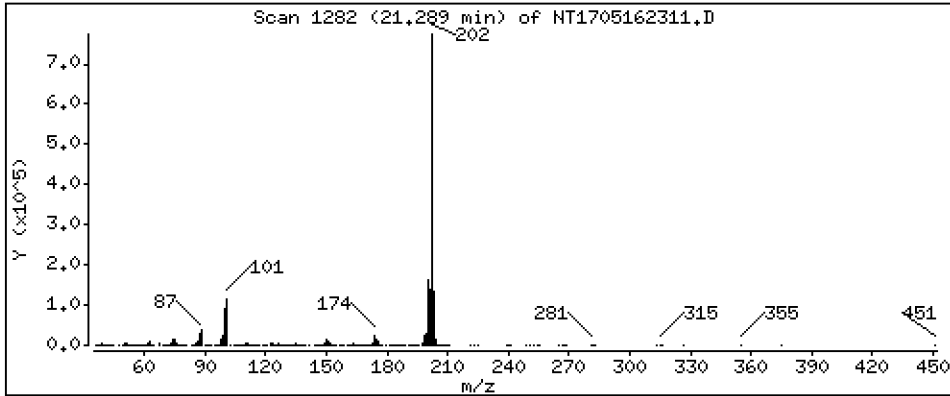
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,265 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

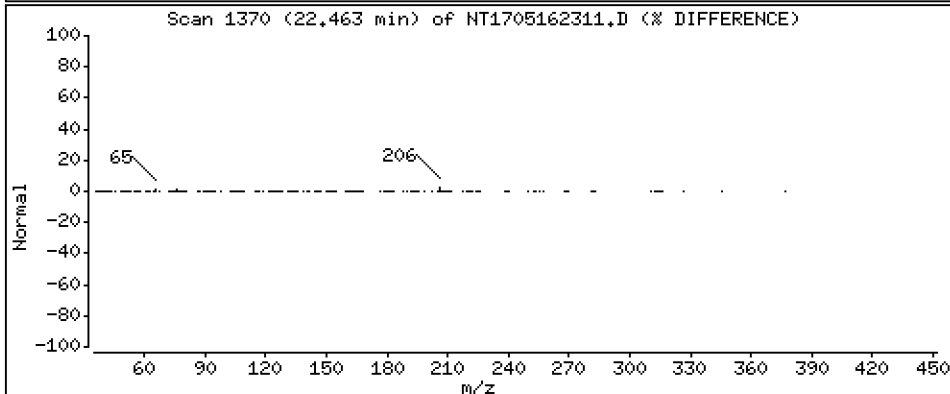
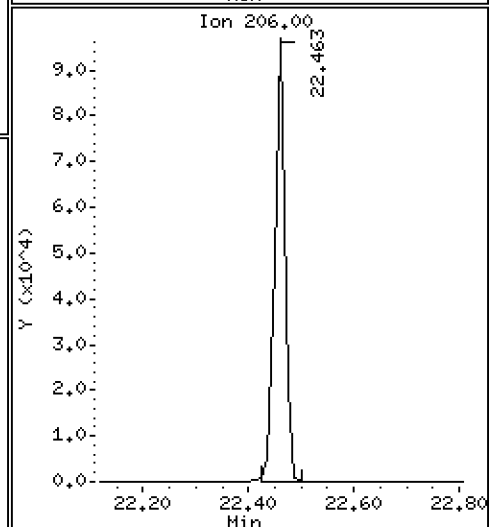
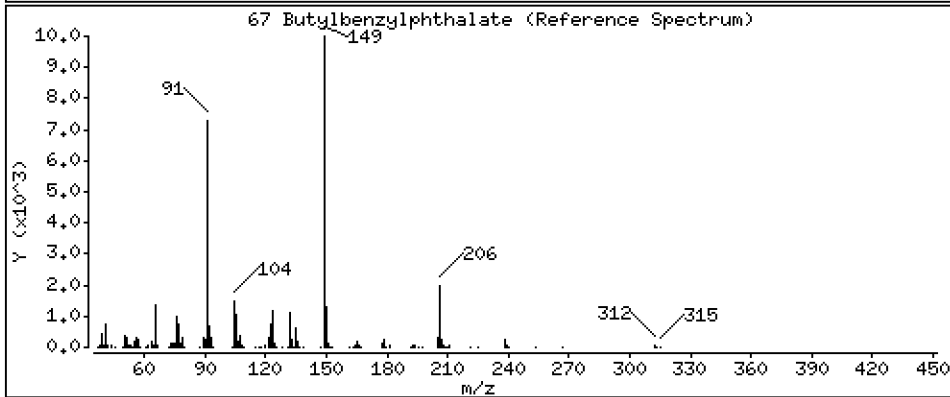
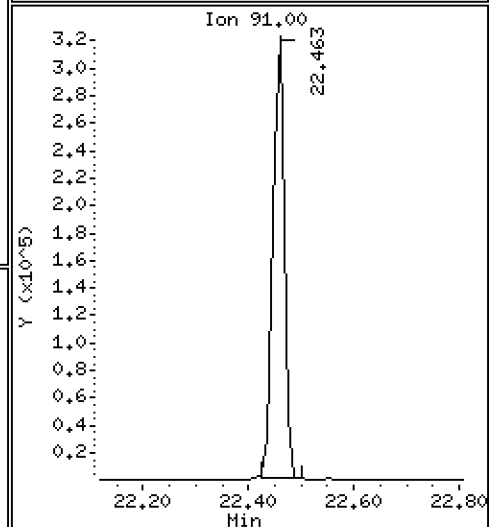
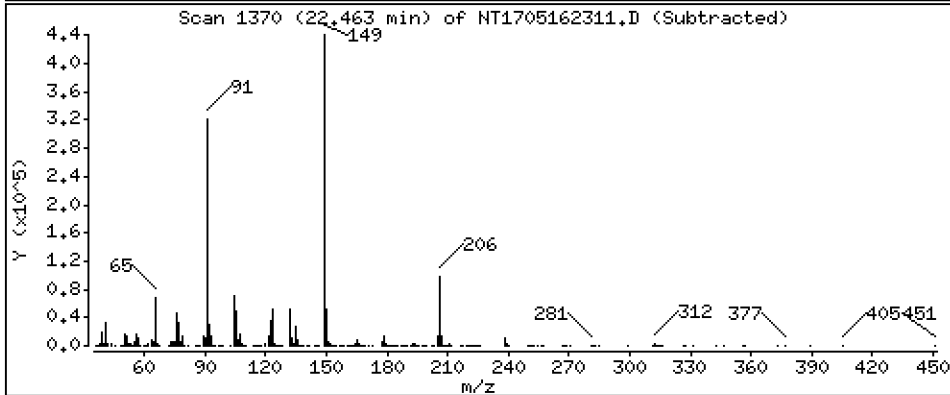
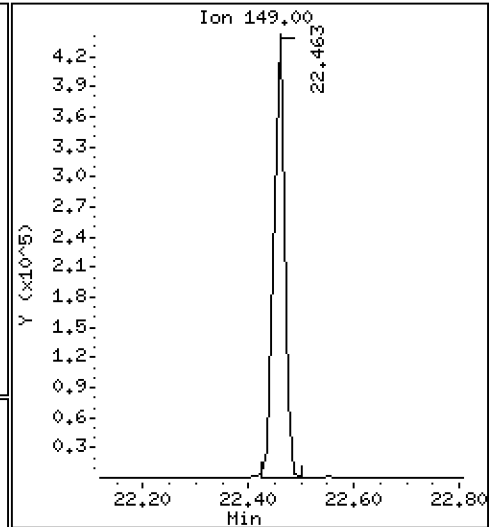
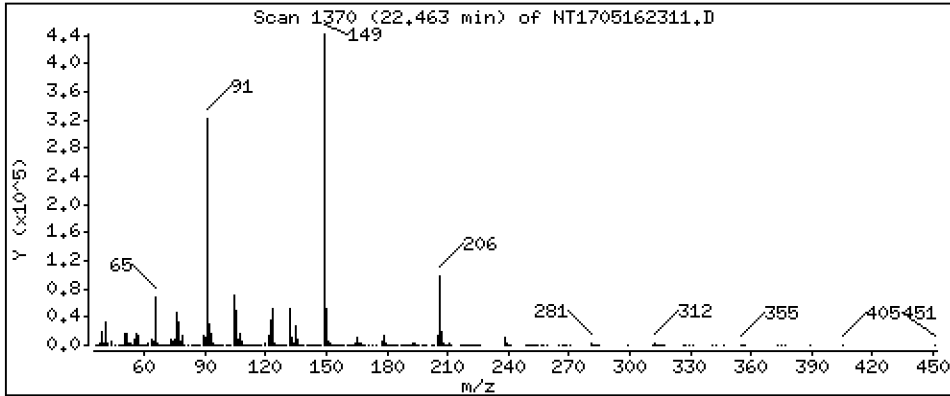
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,825 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

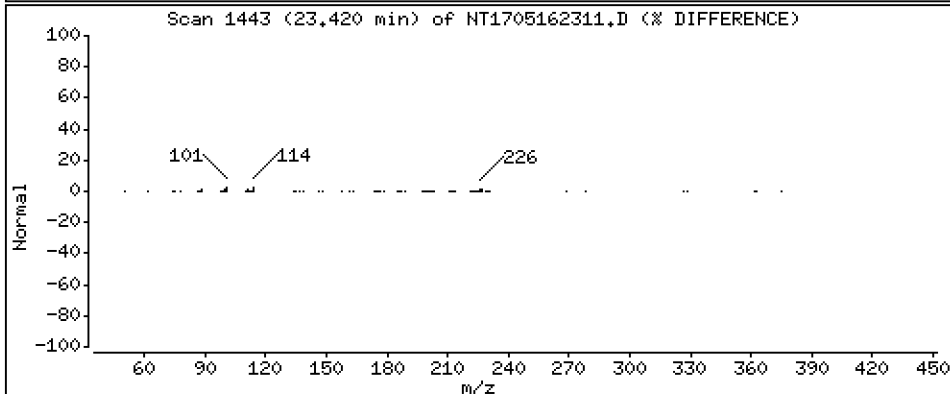
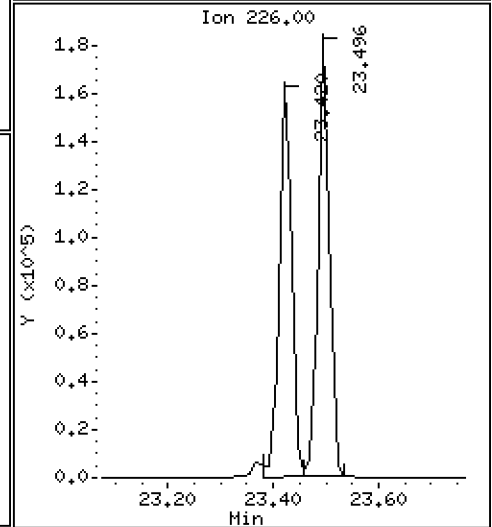
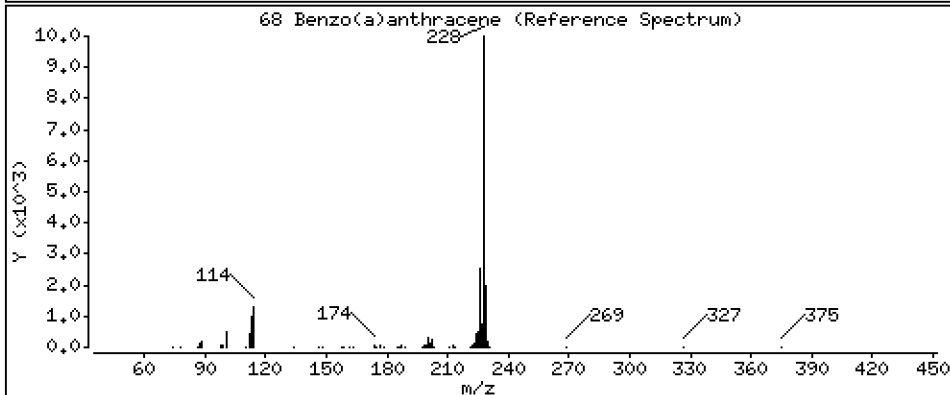
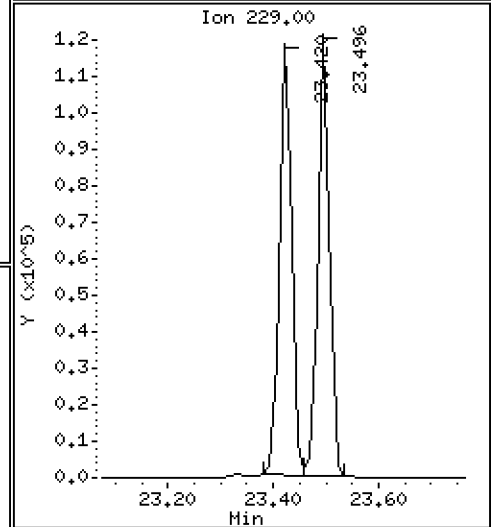
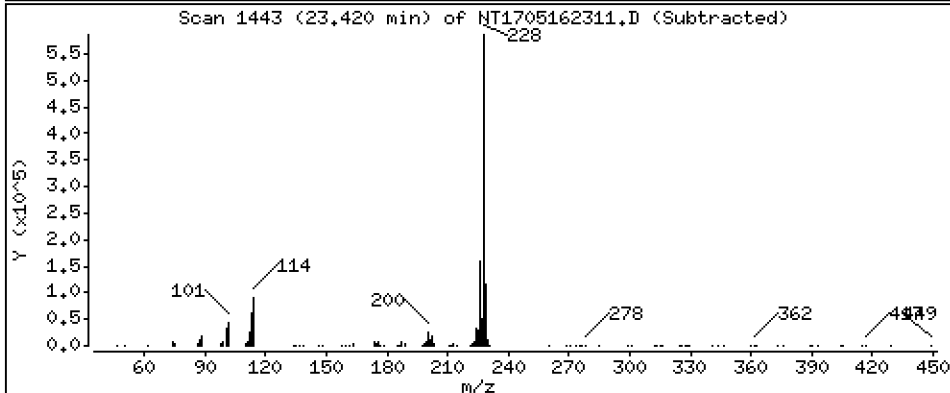
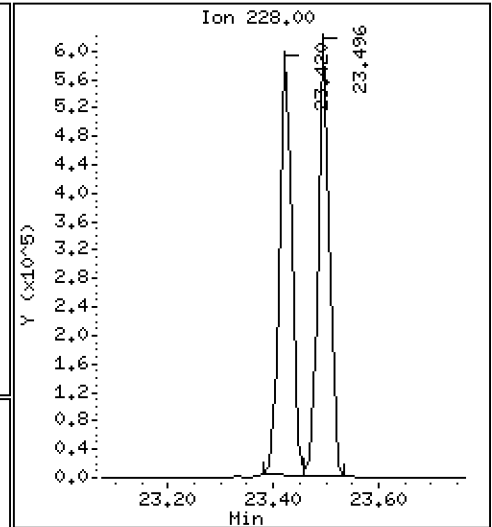
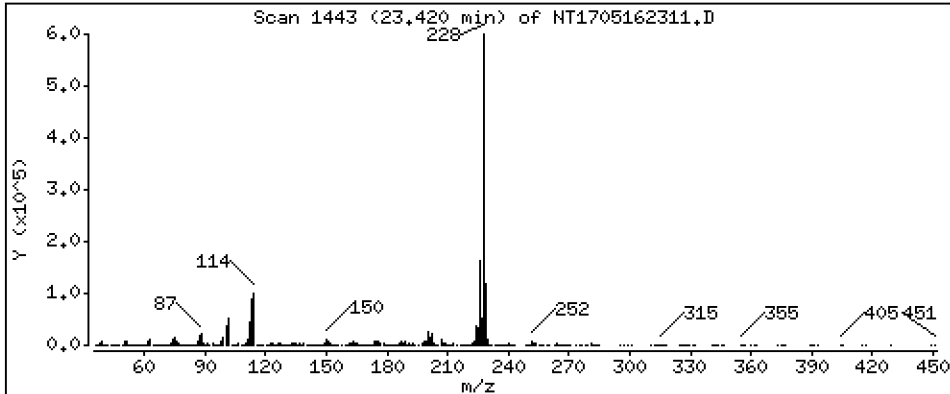
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 5,064 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

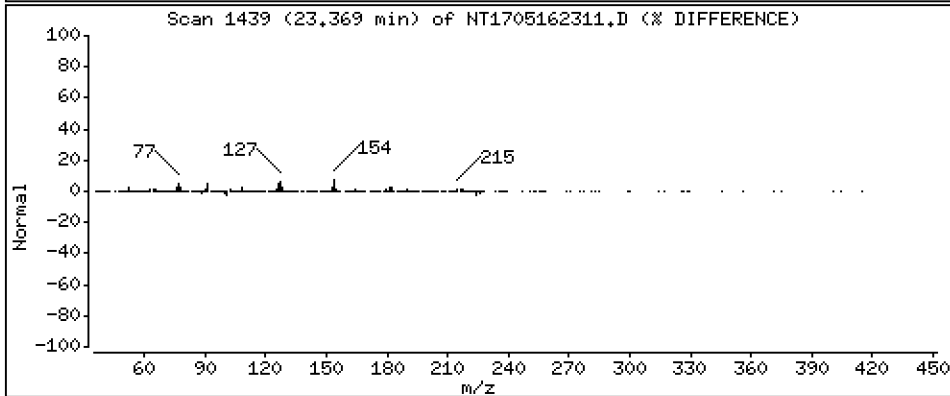
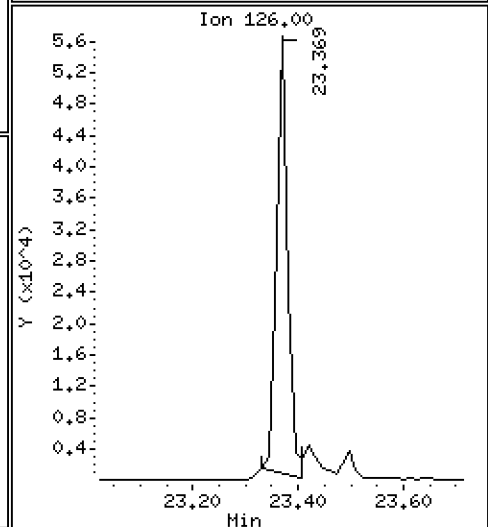
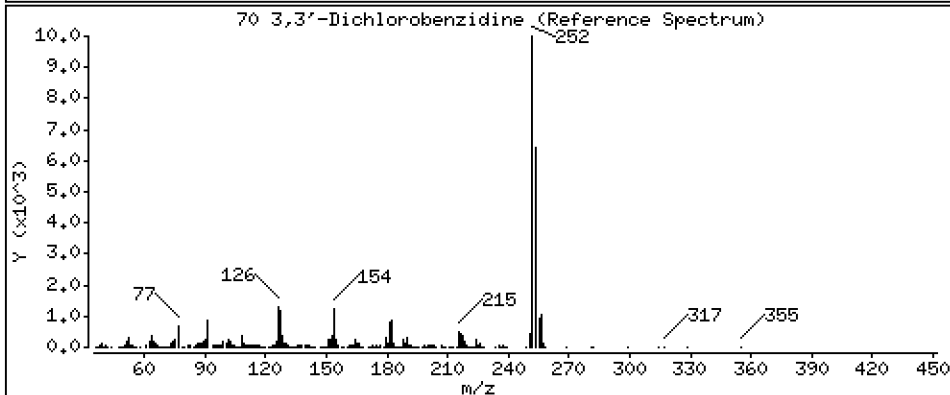
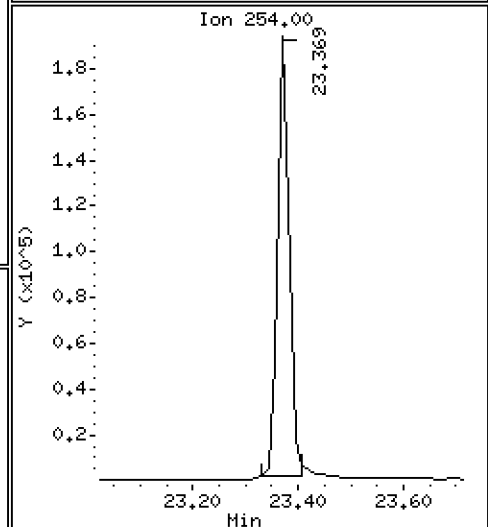
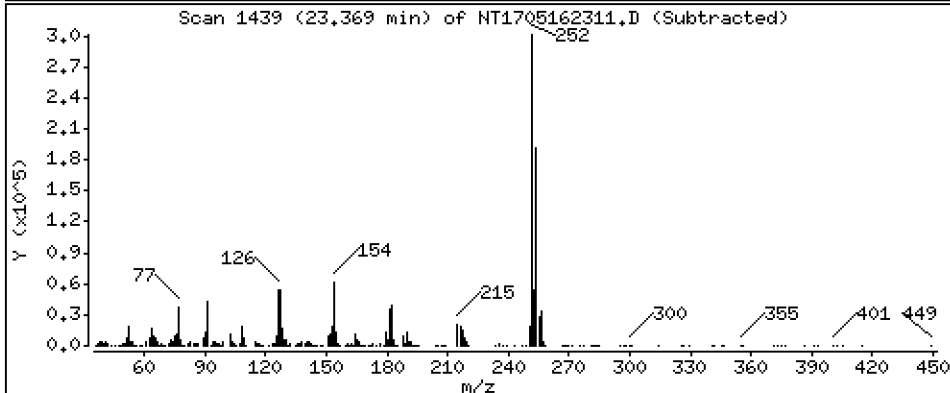
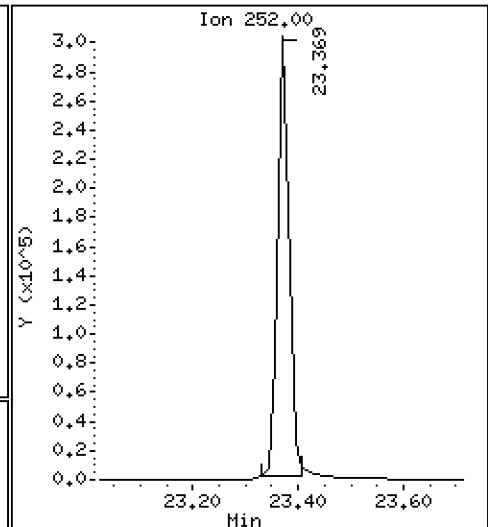
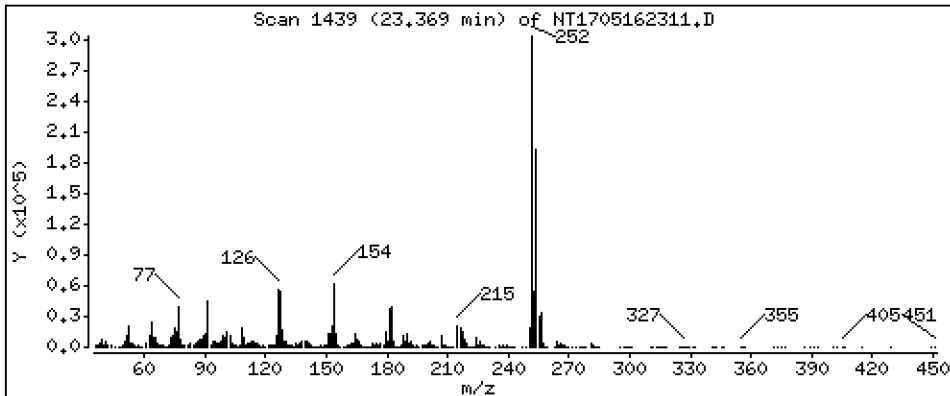
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 11,99 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

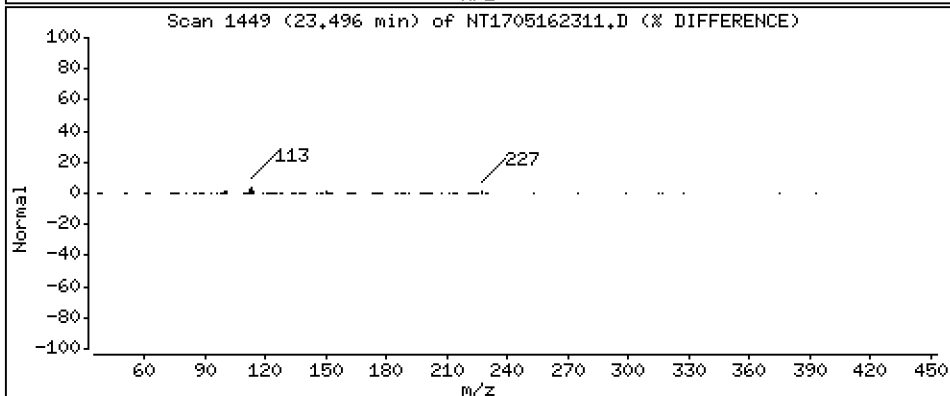
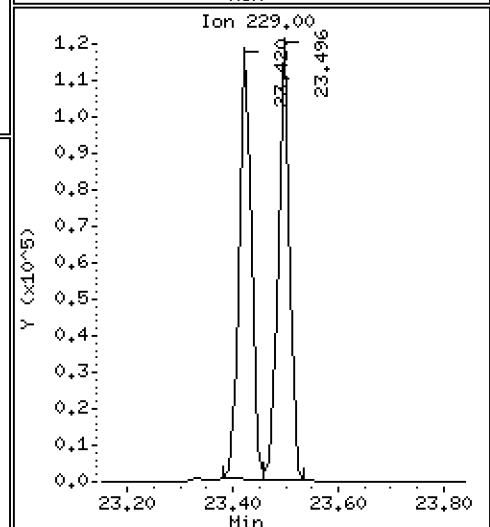
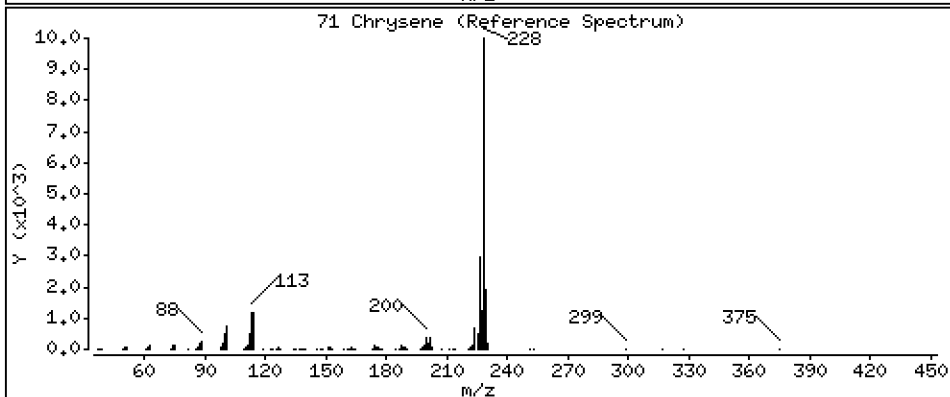
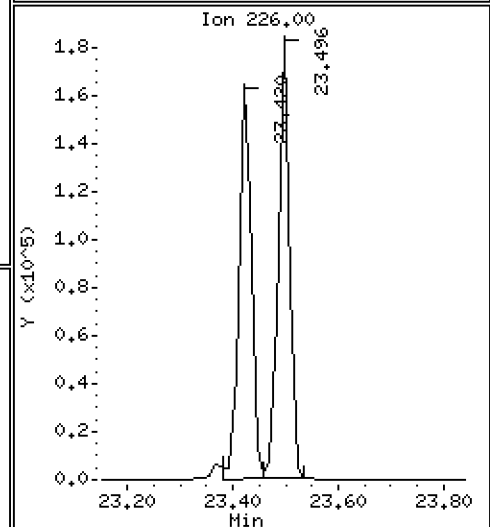
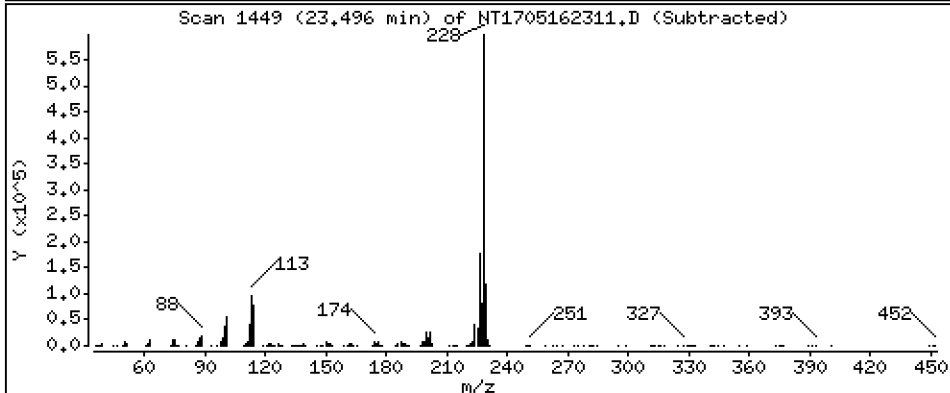
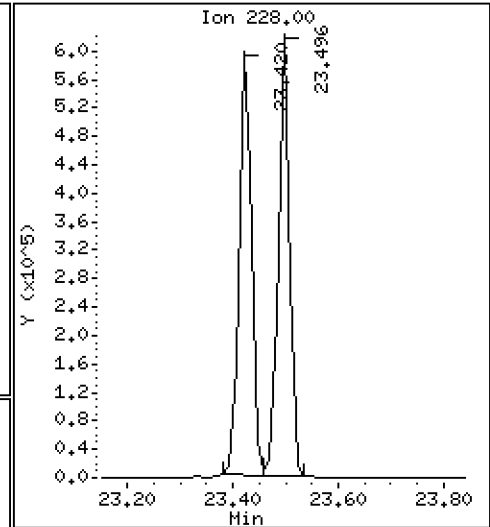
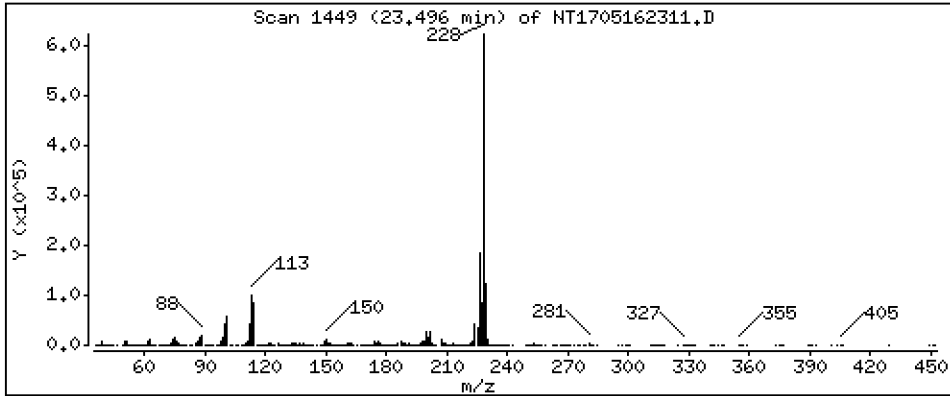
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 5,018 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

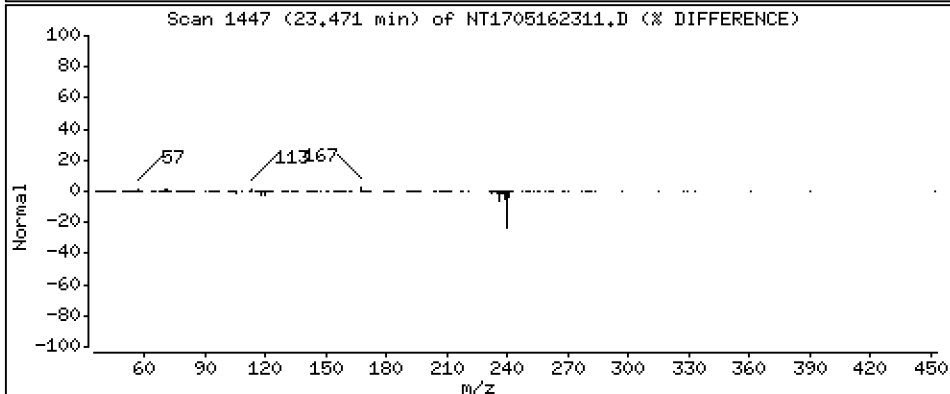
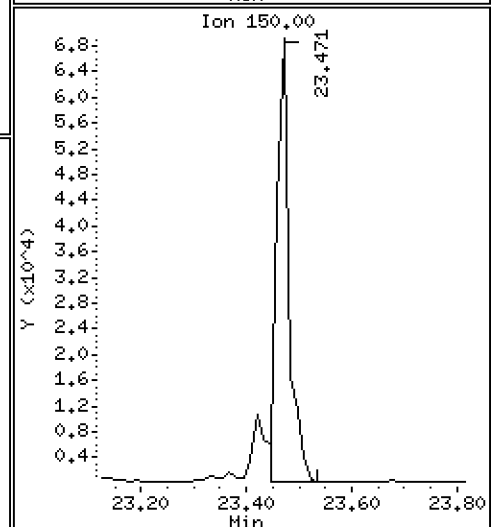
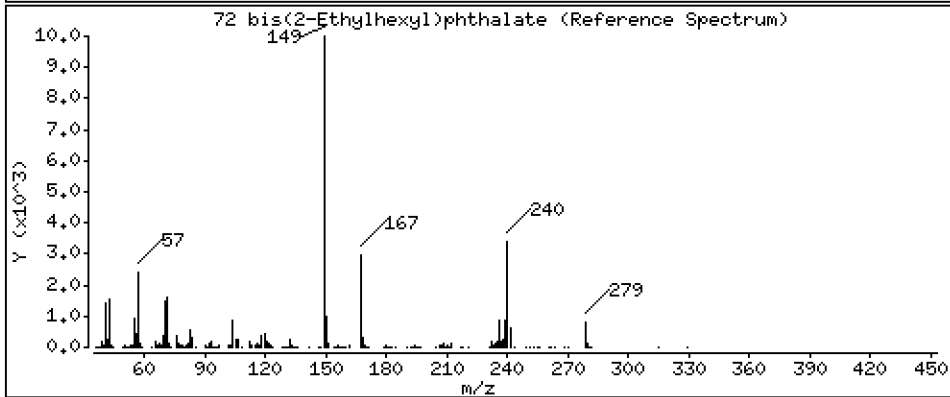
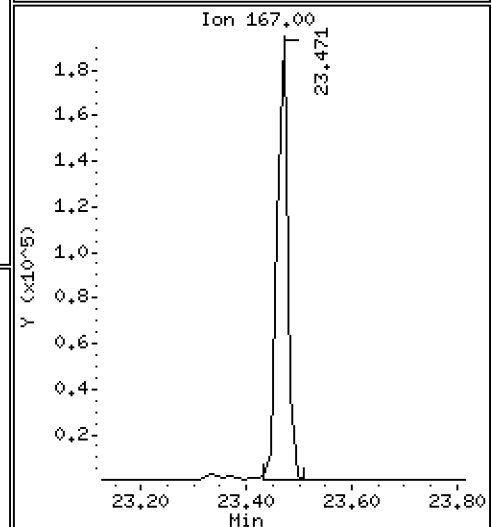
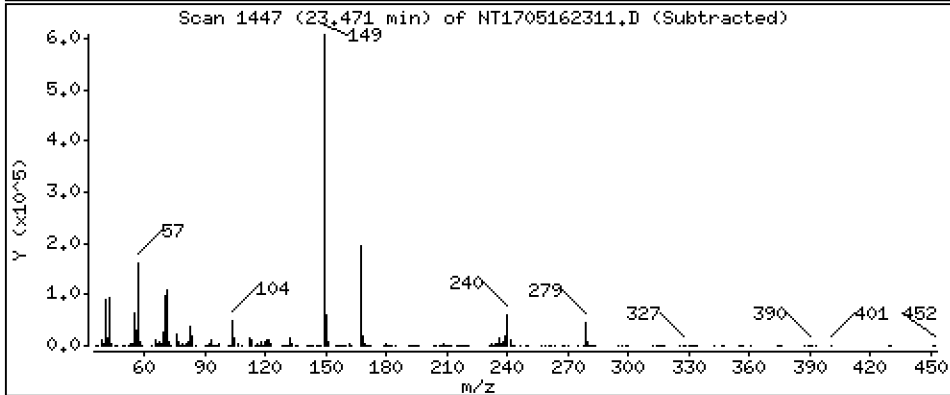
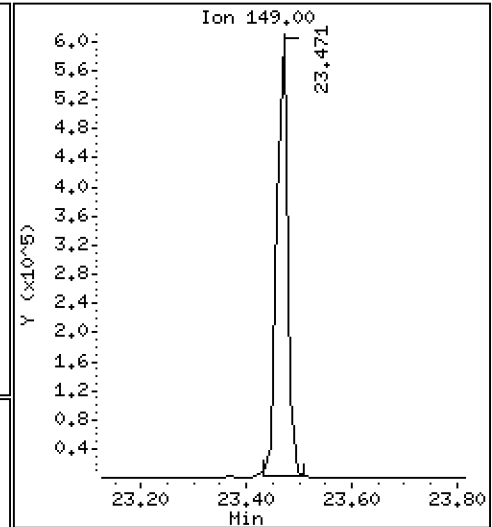
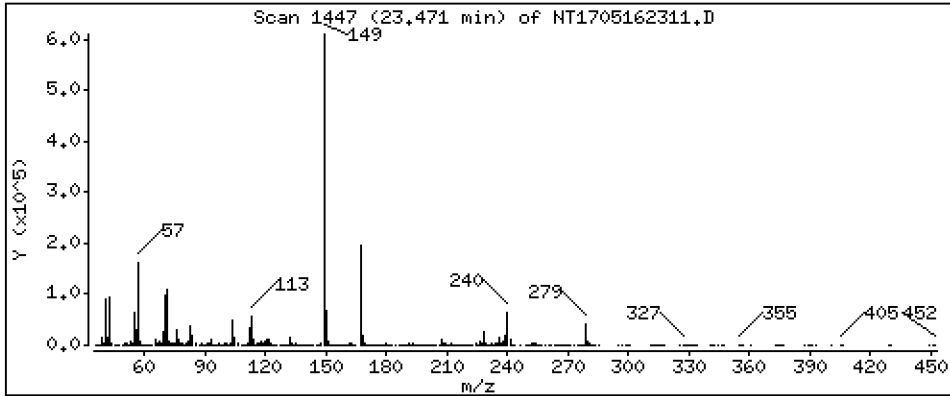
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 5,792 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

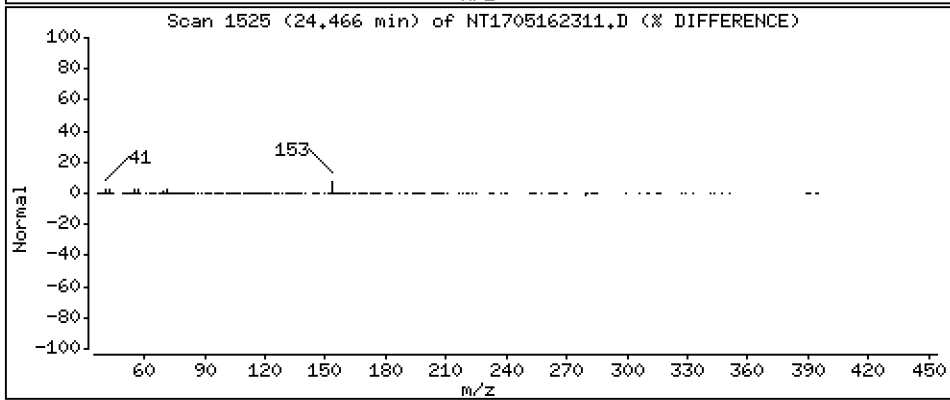
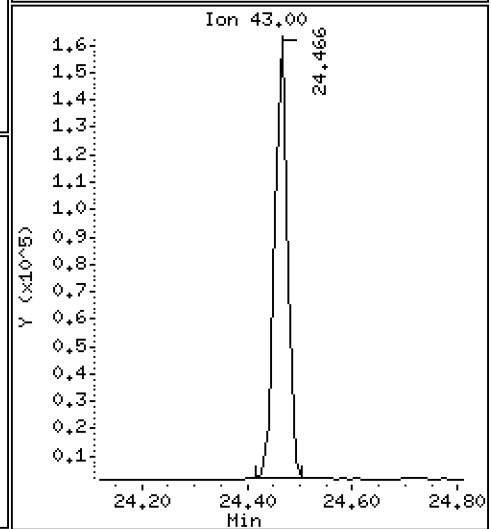
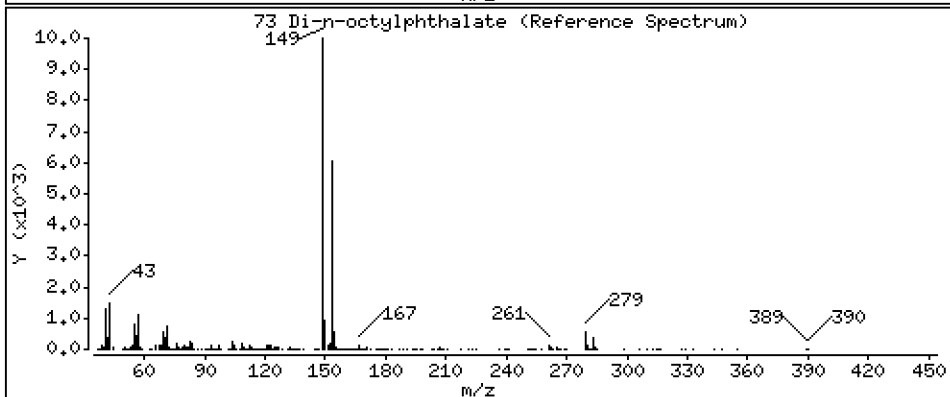
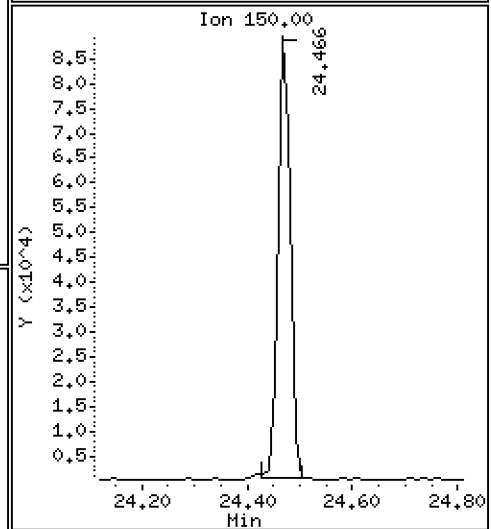
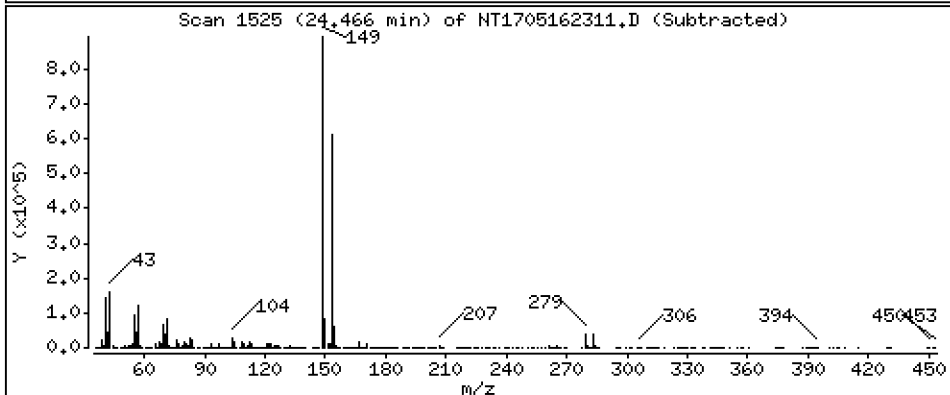
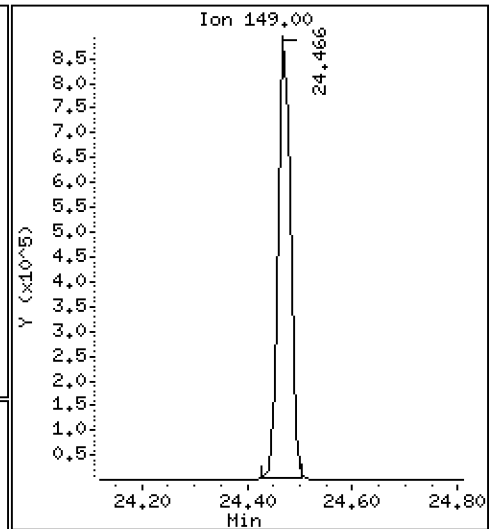
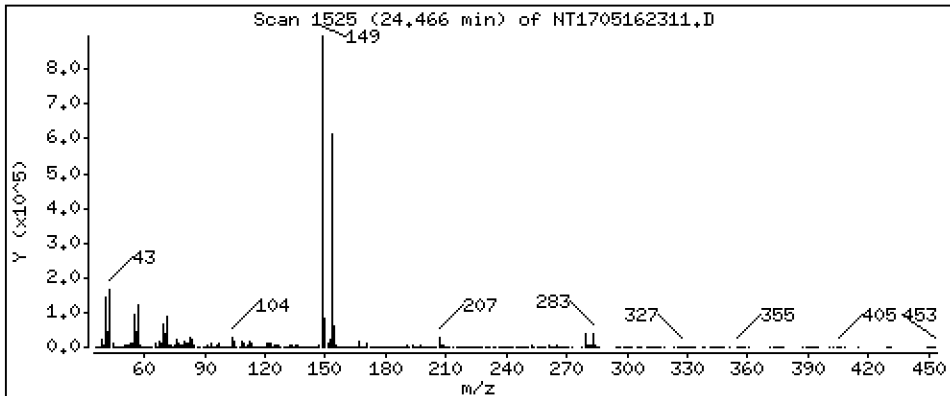
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 5,482 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

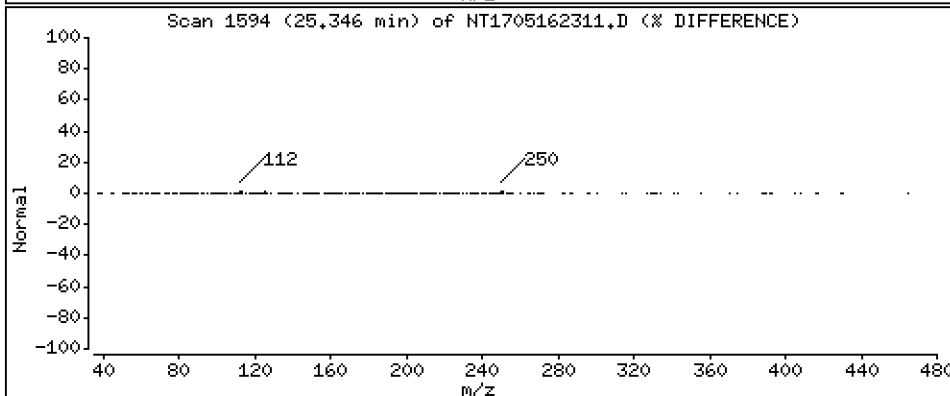
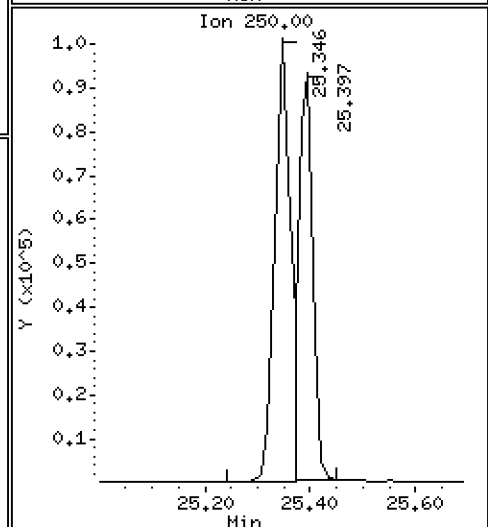
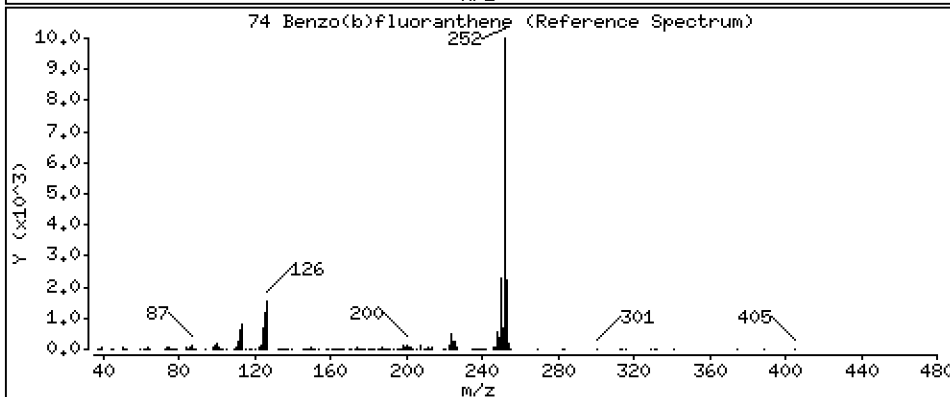
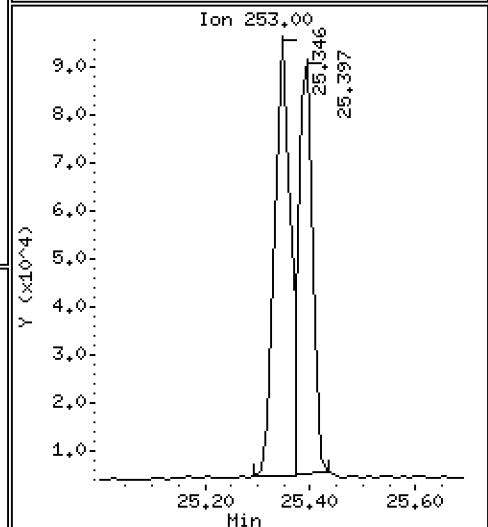
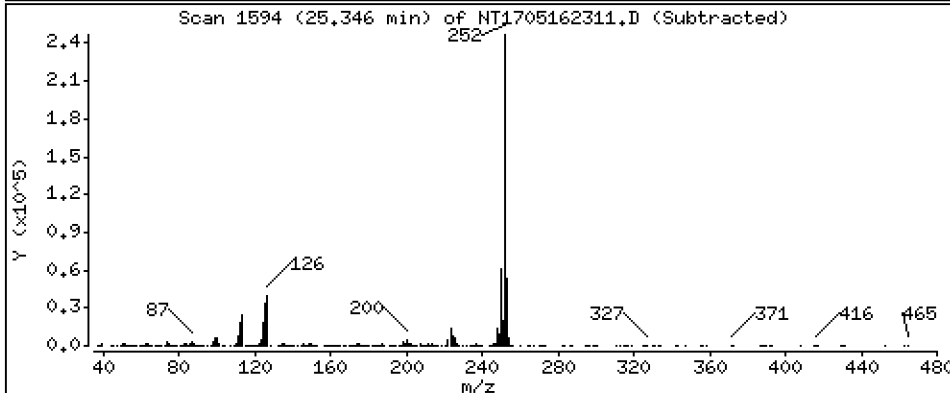
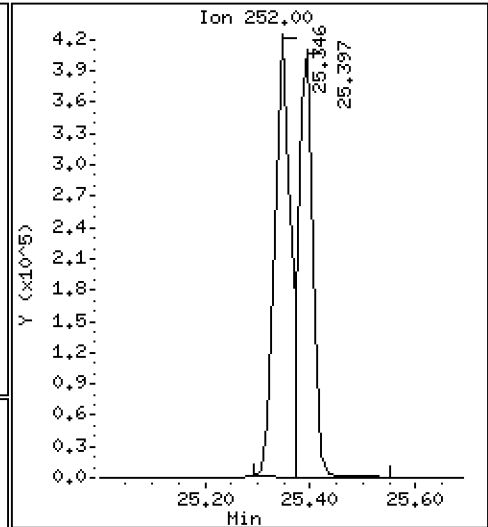
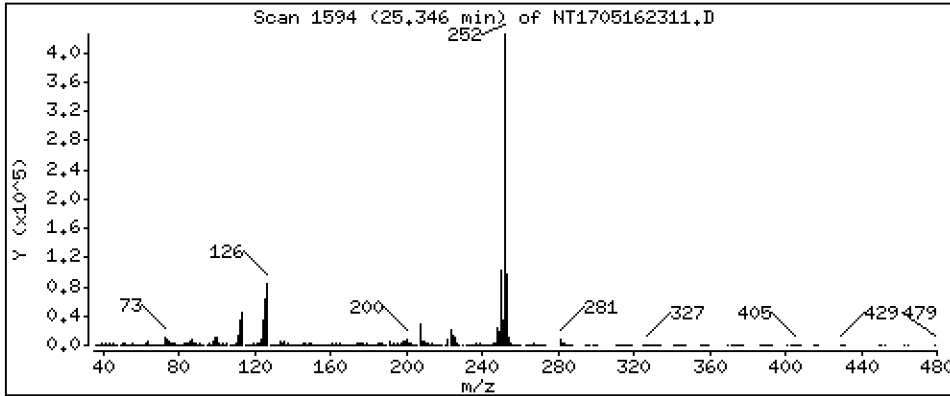
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,912 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

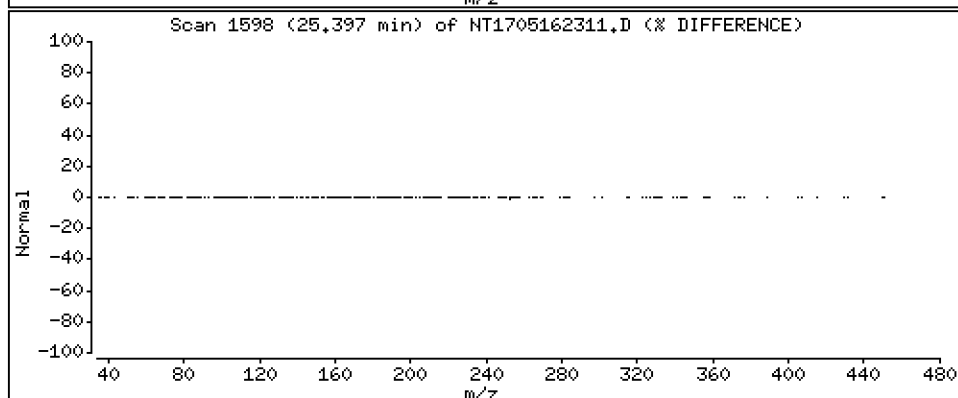
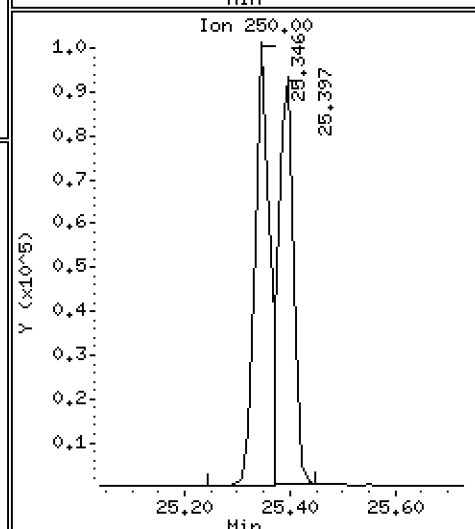
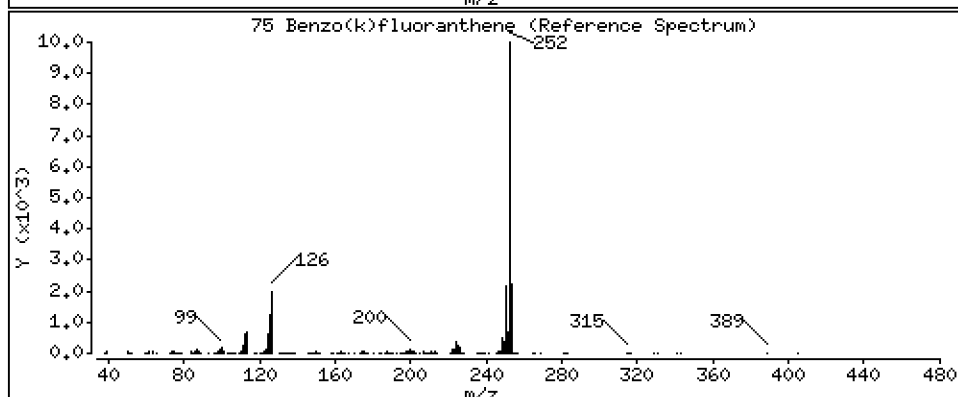
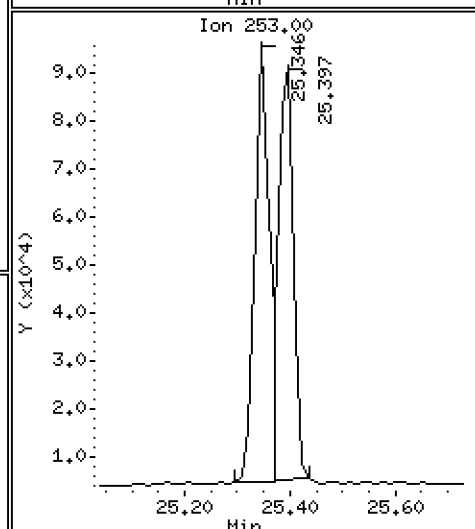
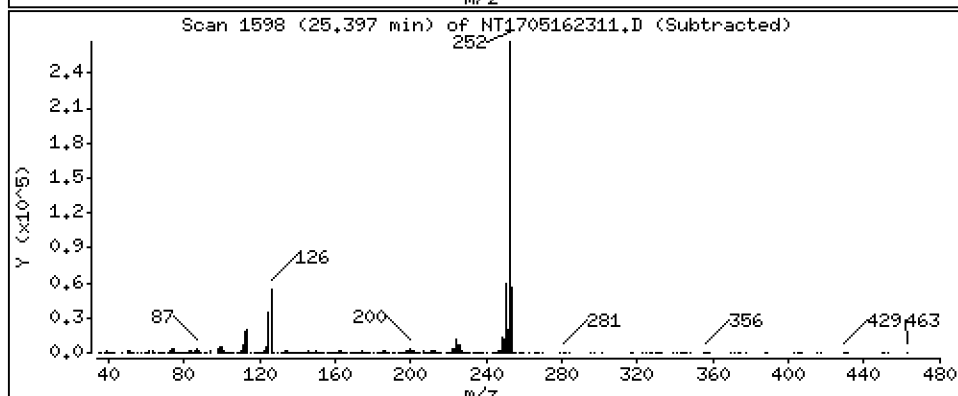
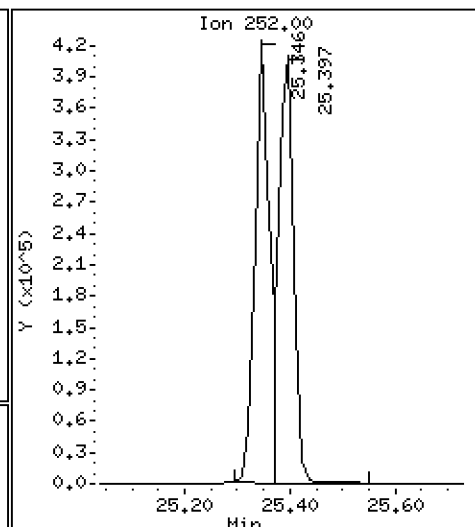
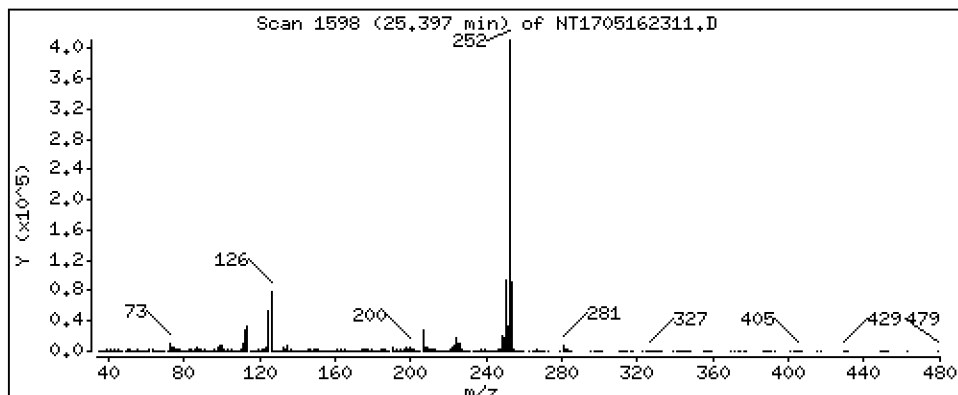
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,965 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

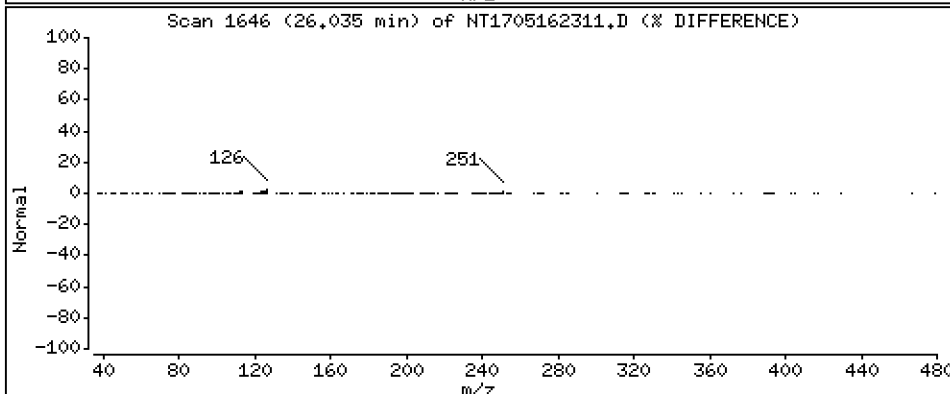
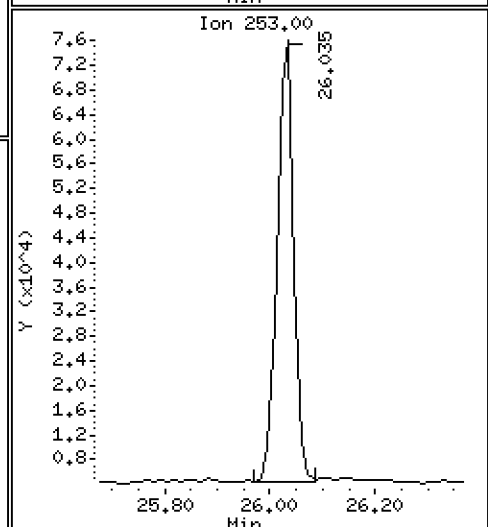
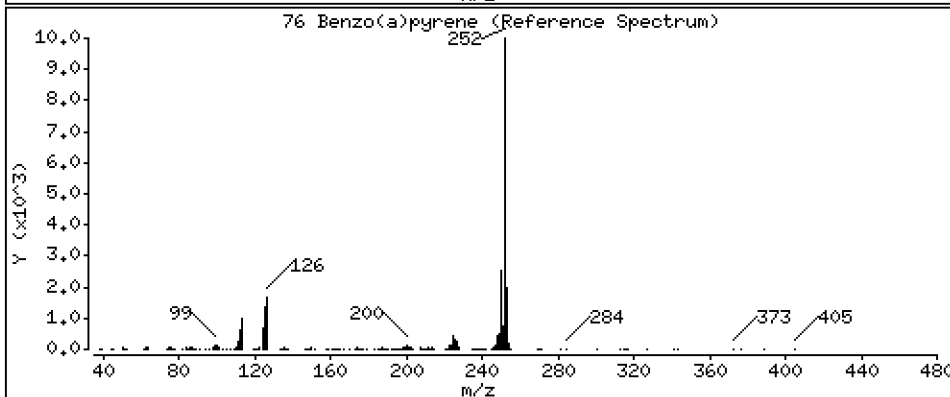
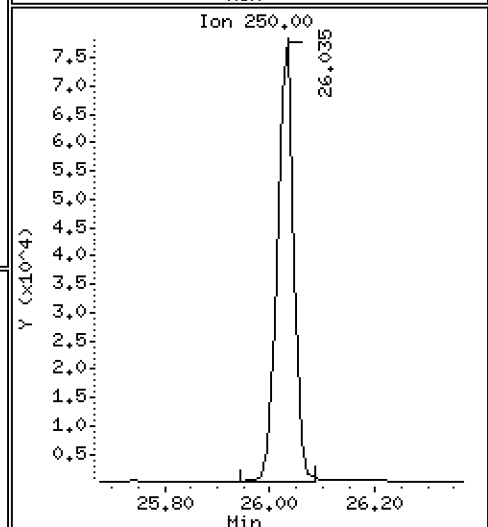
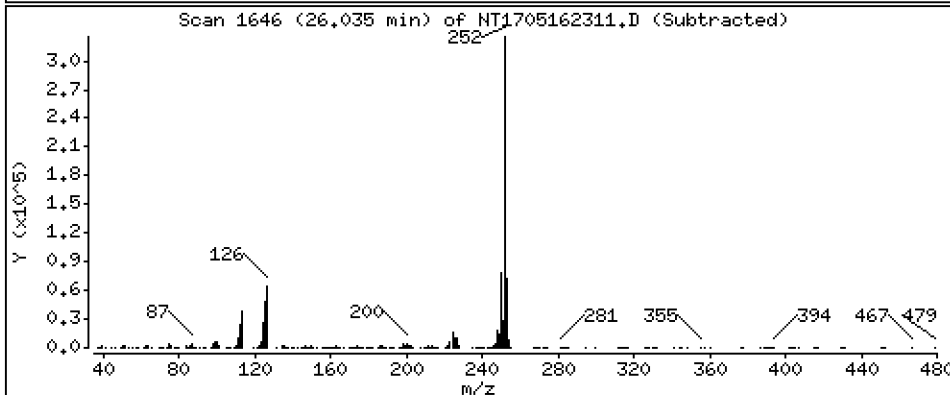
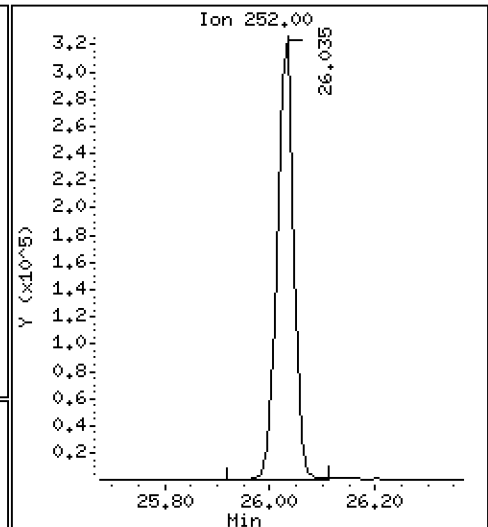
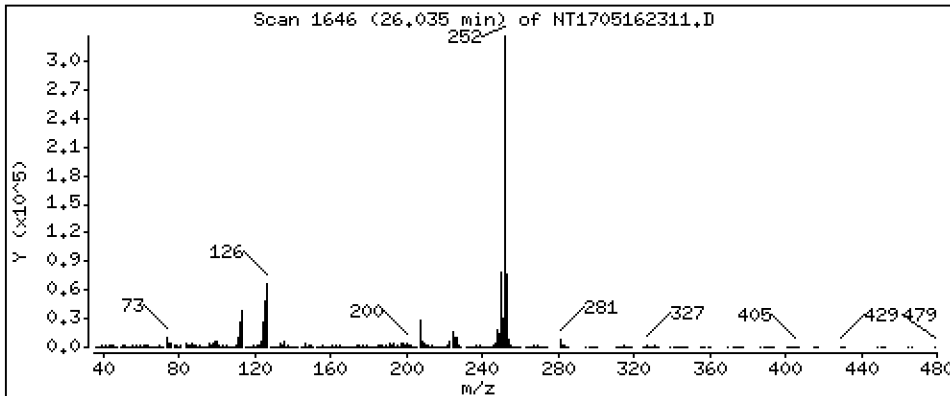
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 5,172 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

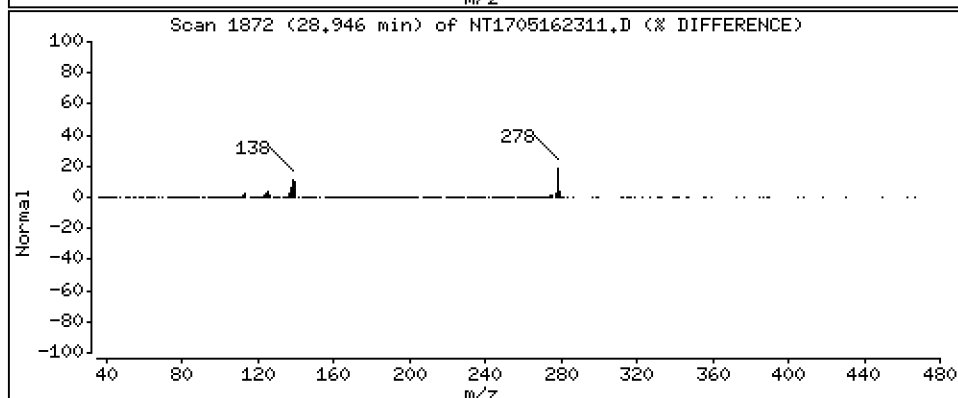
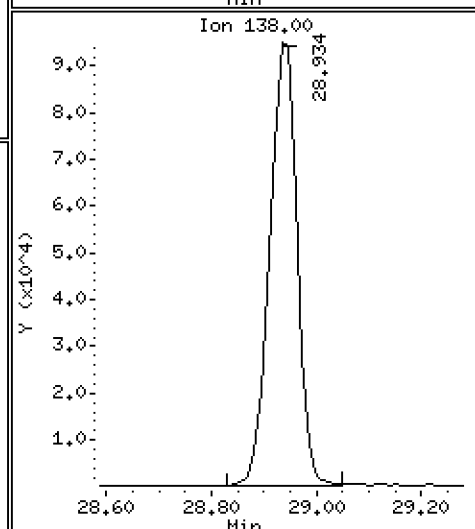
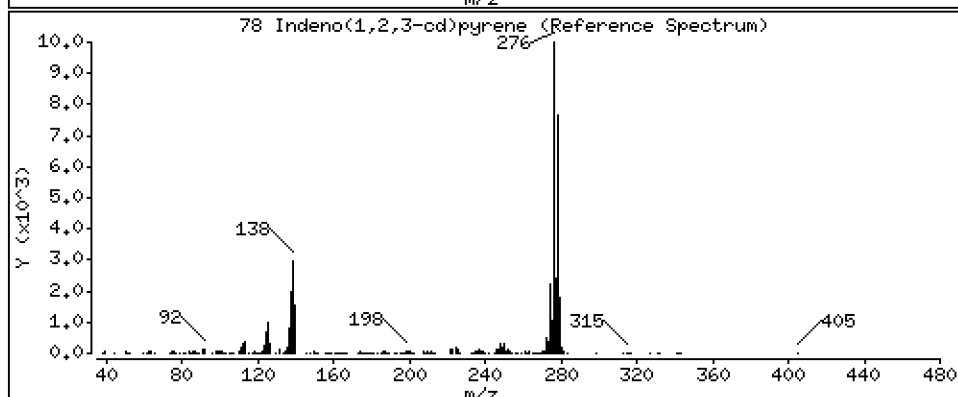
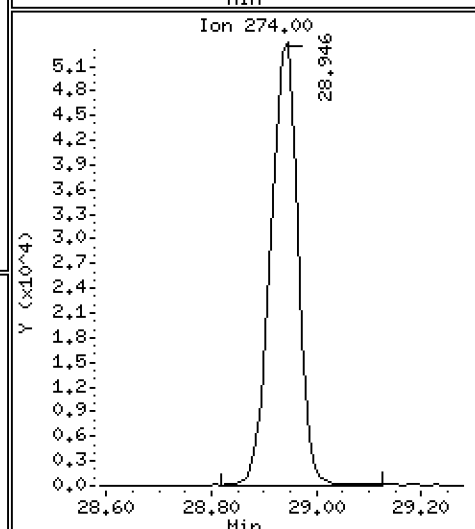
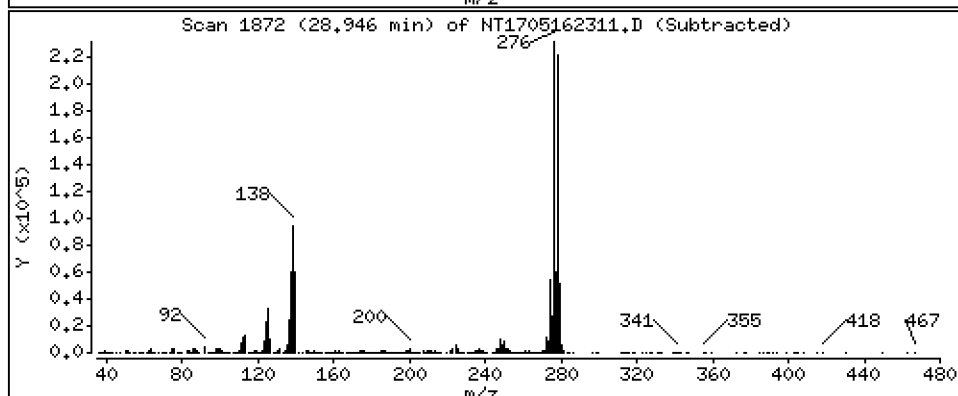
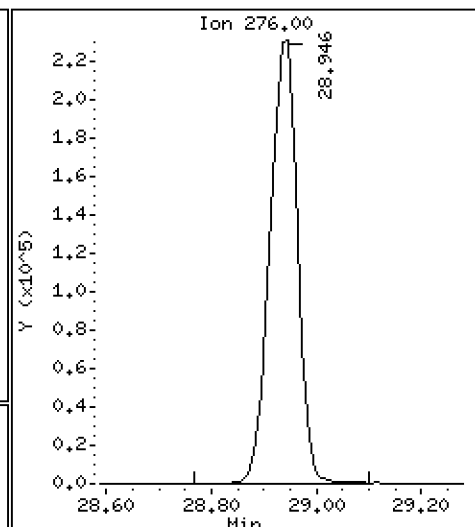
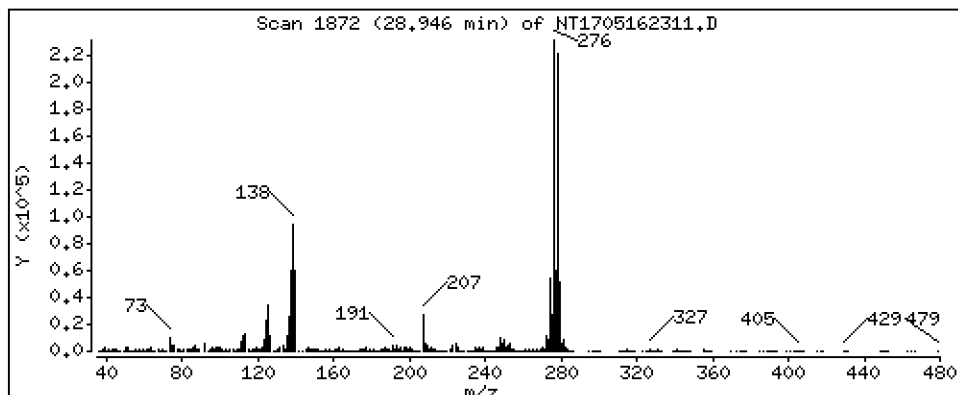
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 5,029 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

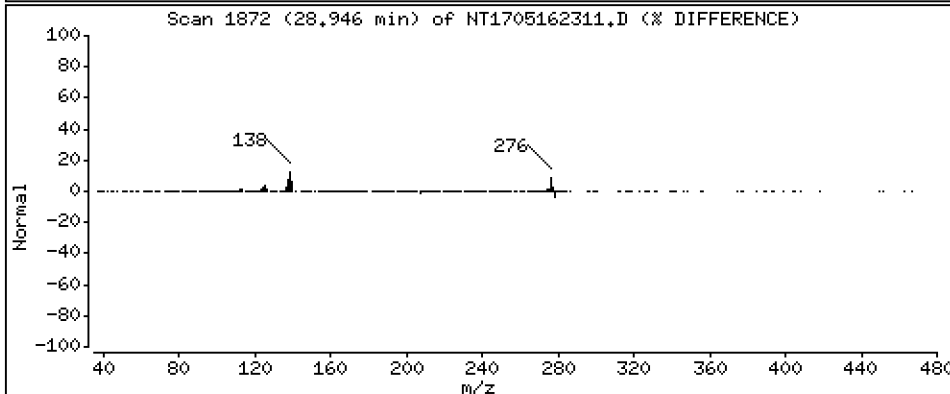
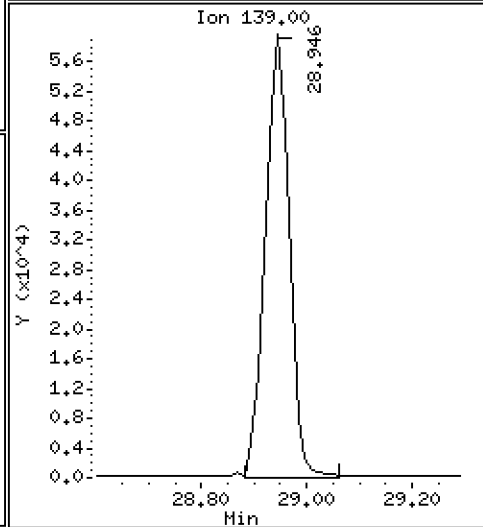
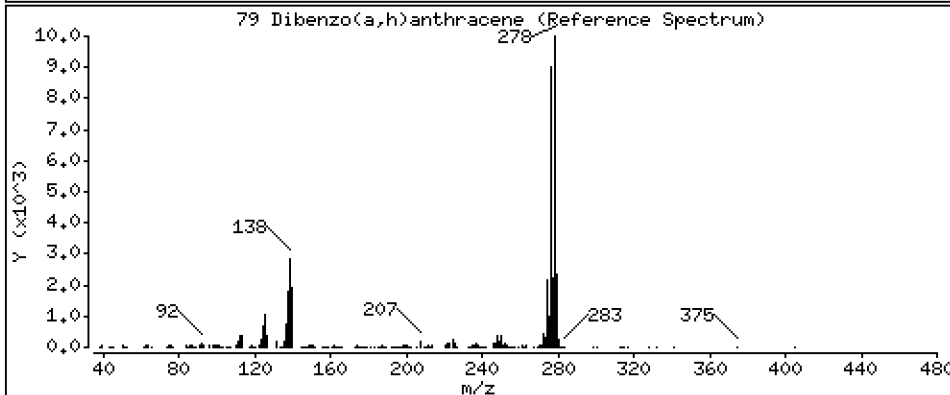
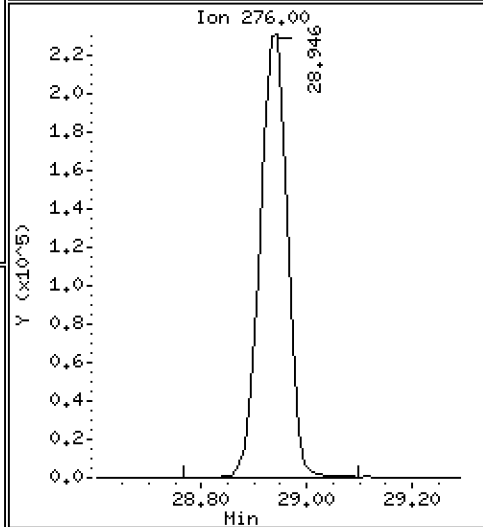
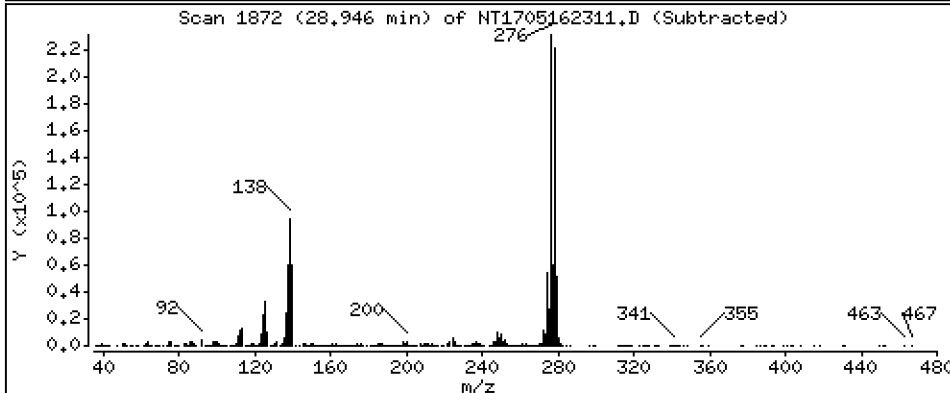
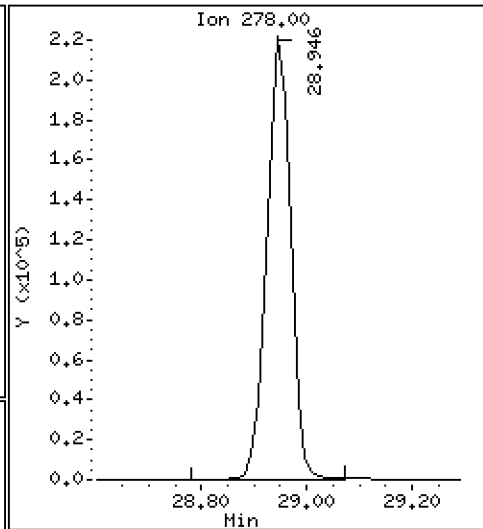
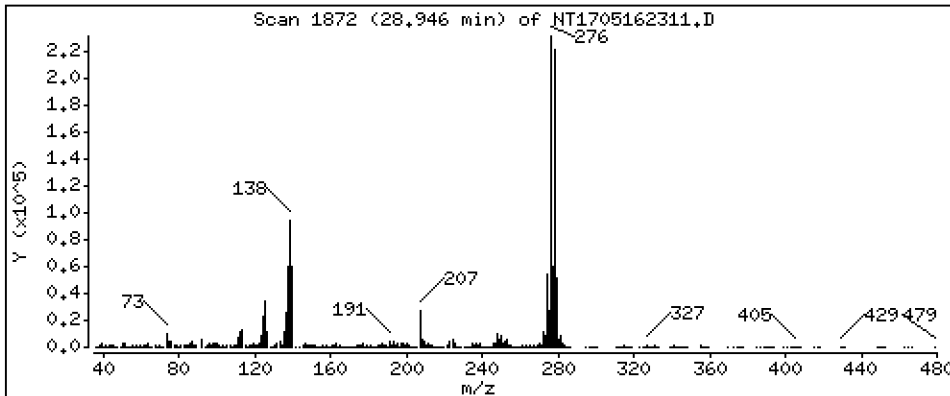
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,970 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

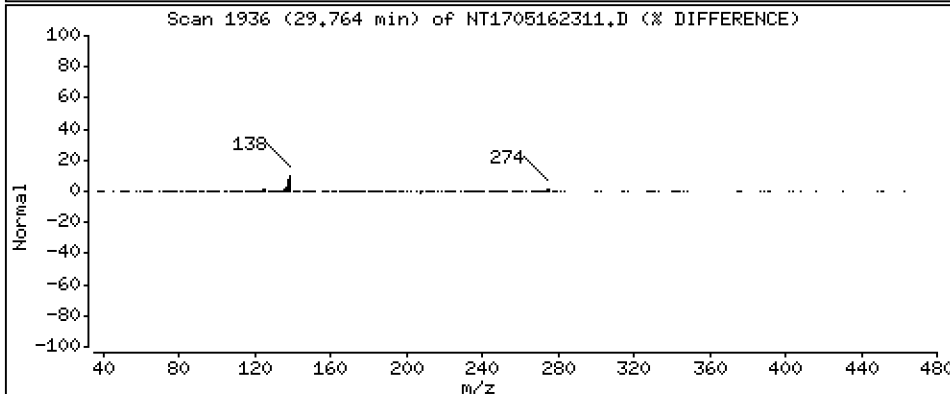
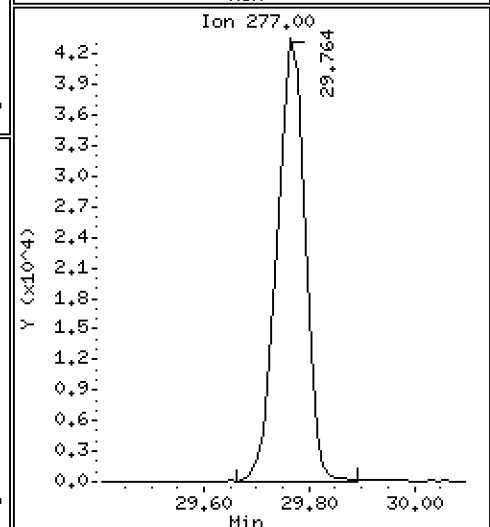
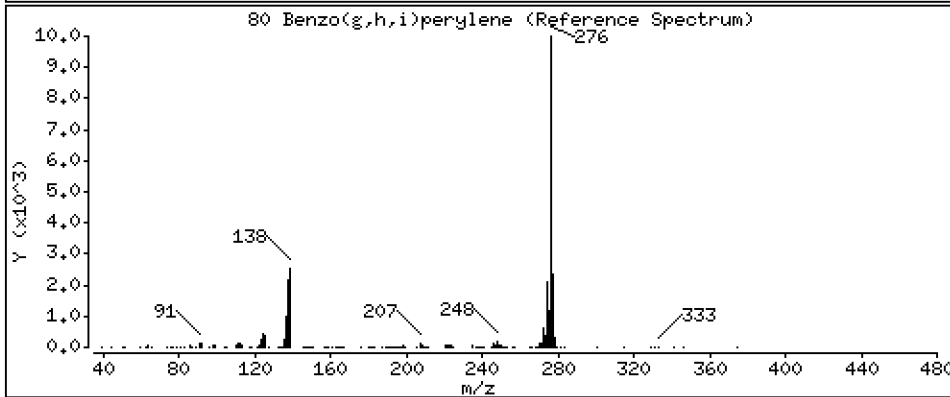
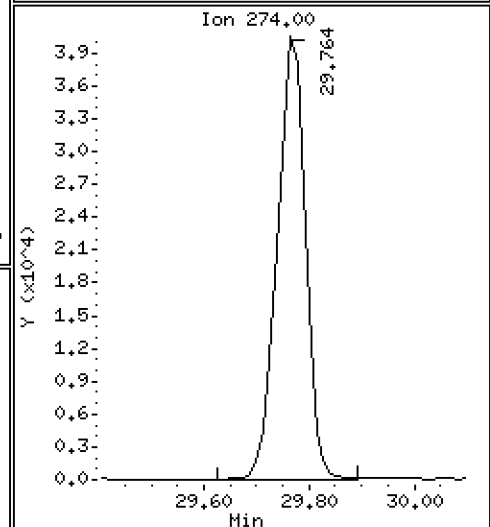
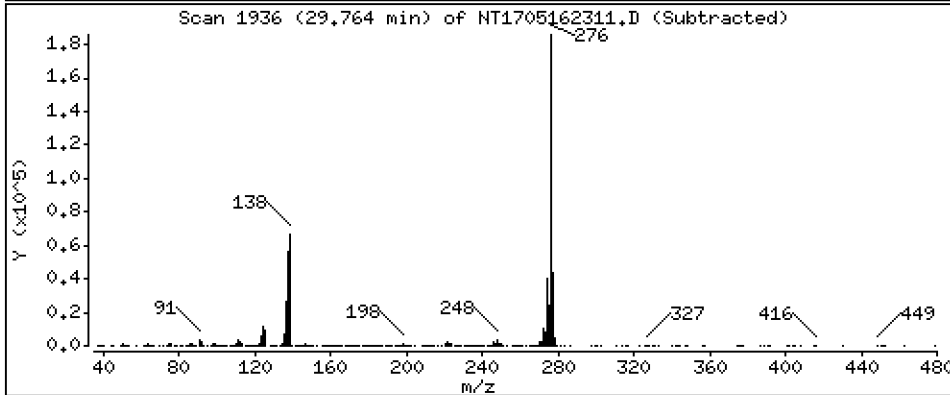
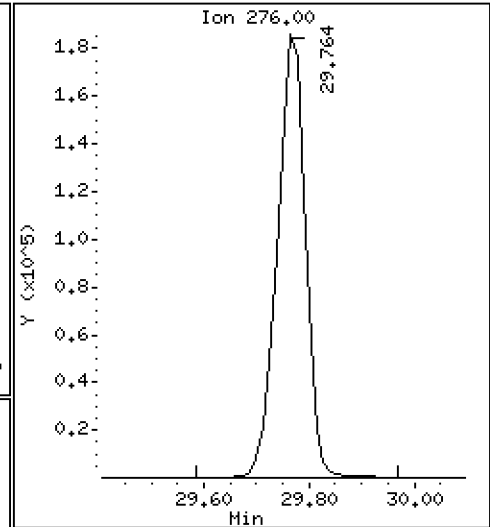
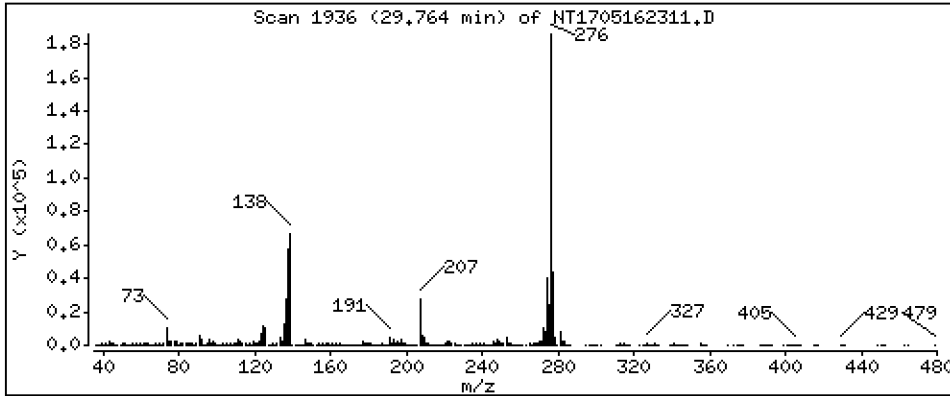
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 5,054 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

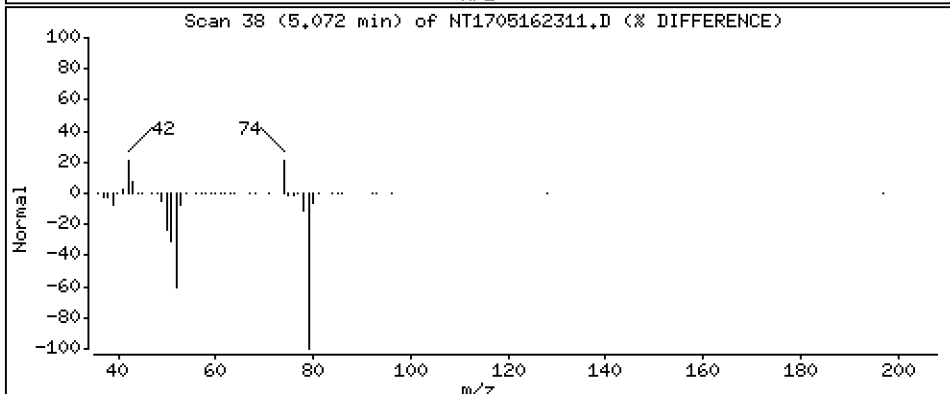
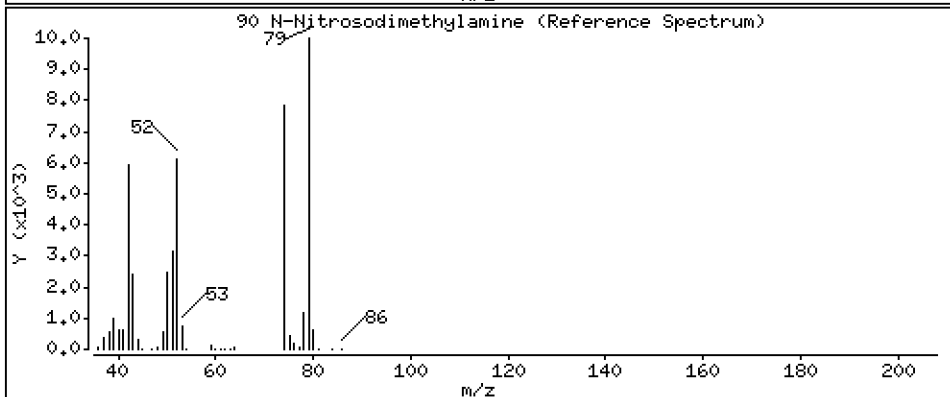
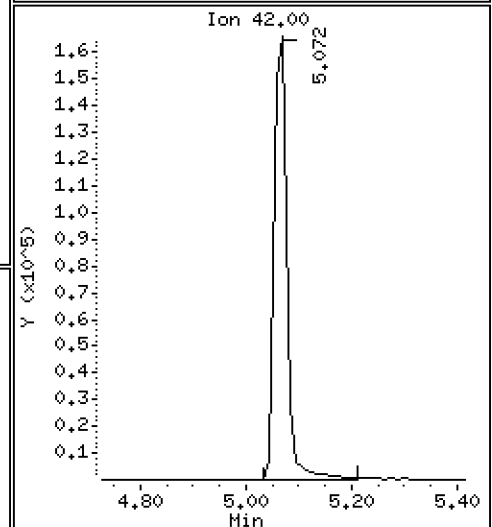
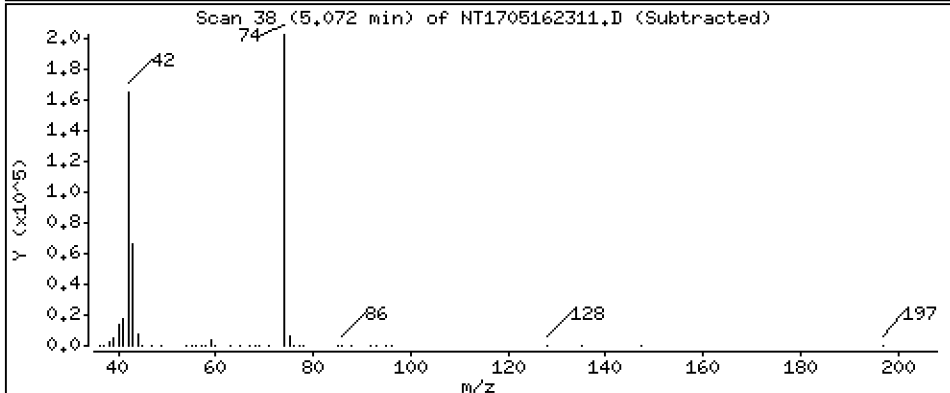
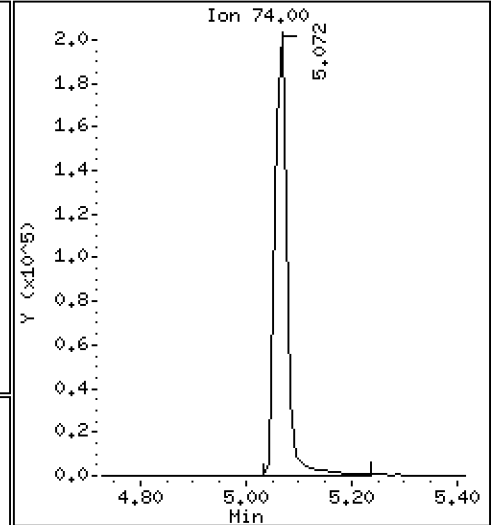
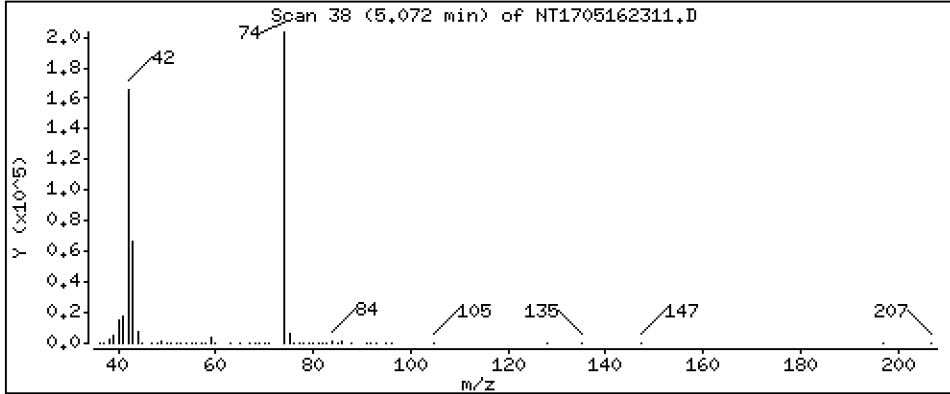
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 5,767 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

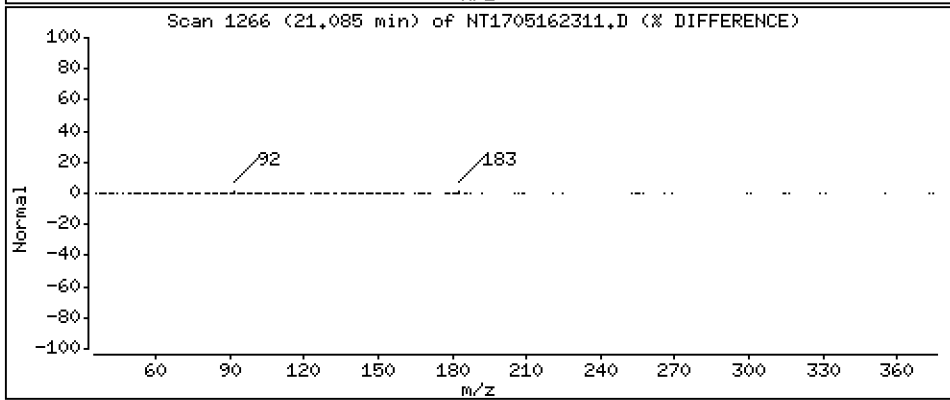
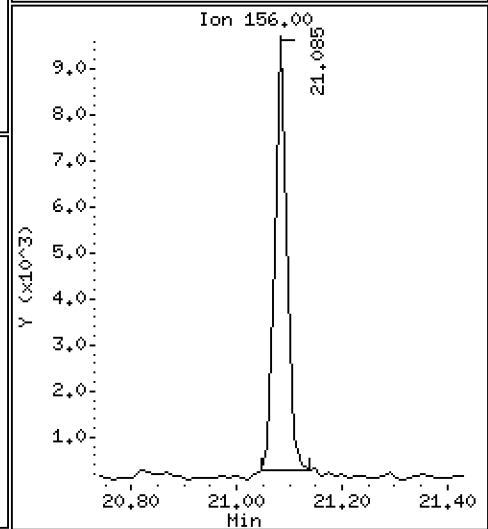
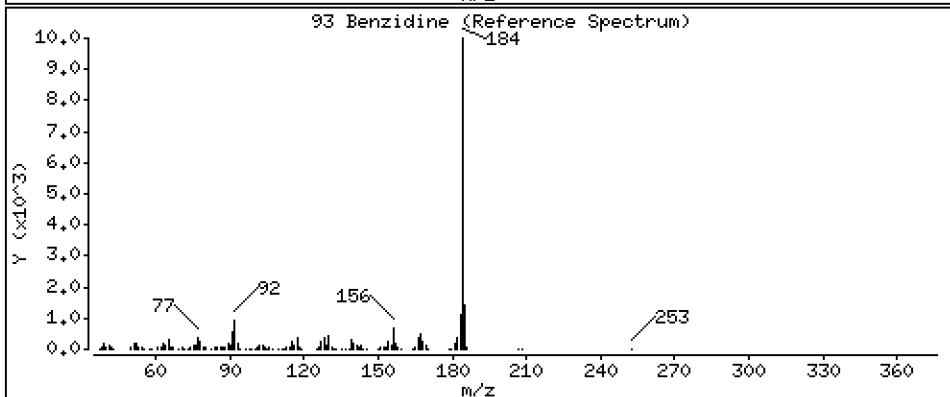
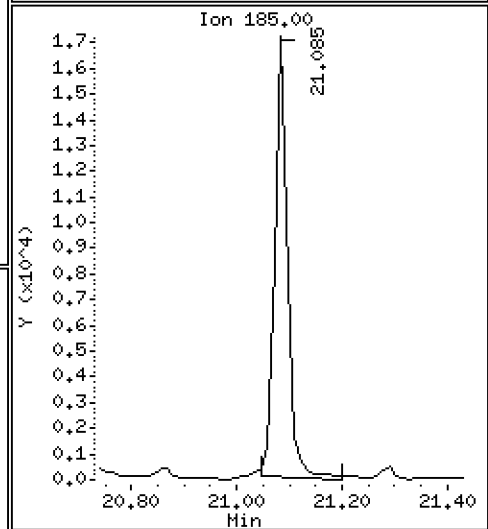
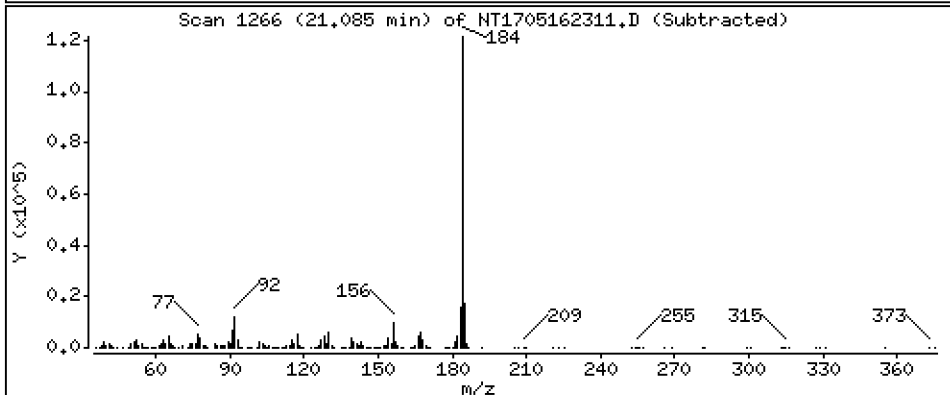
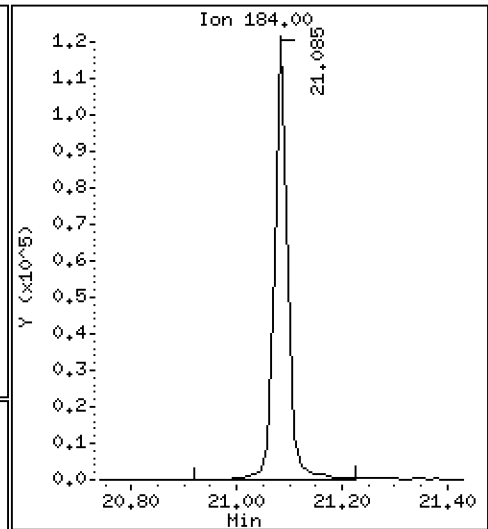
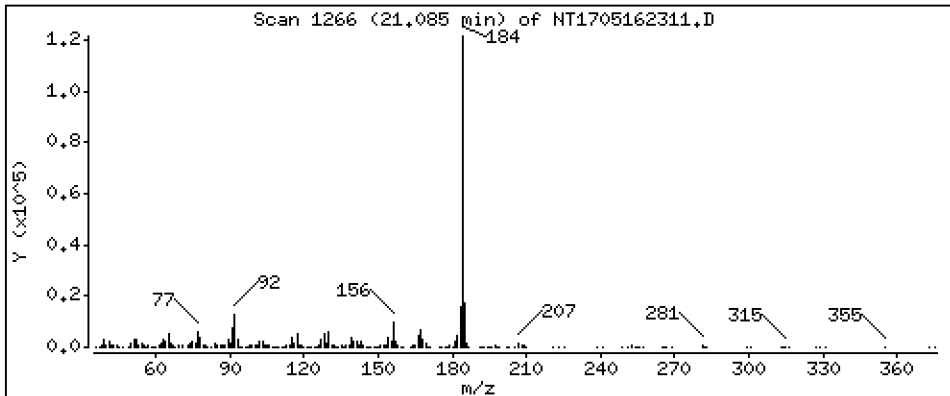
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 3,457 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

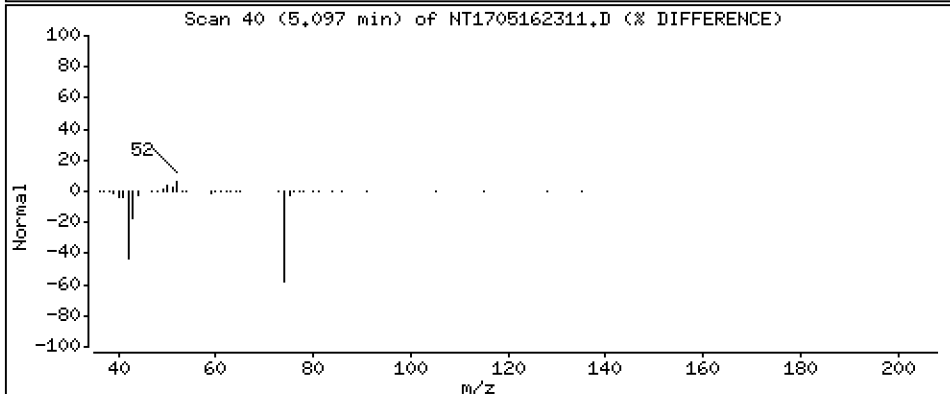
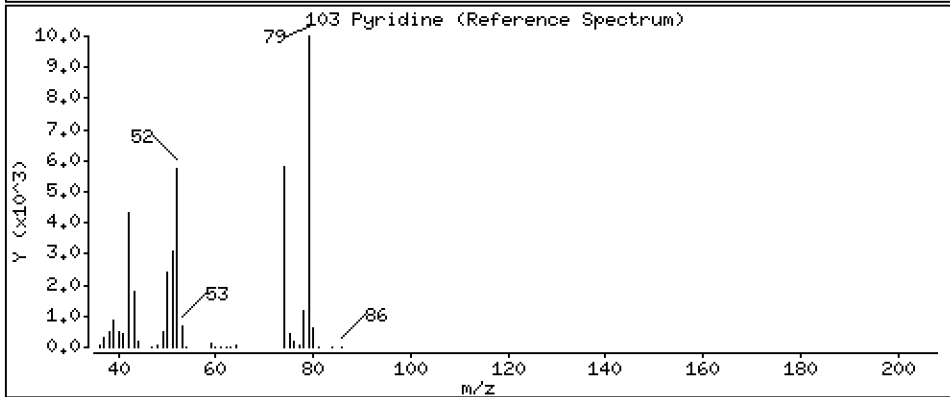
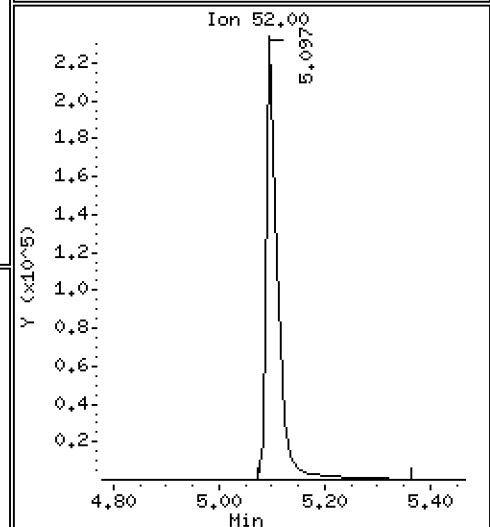
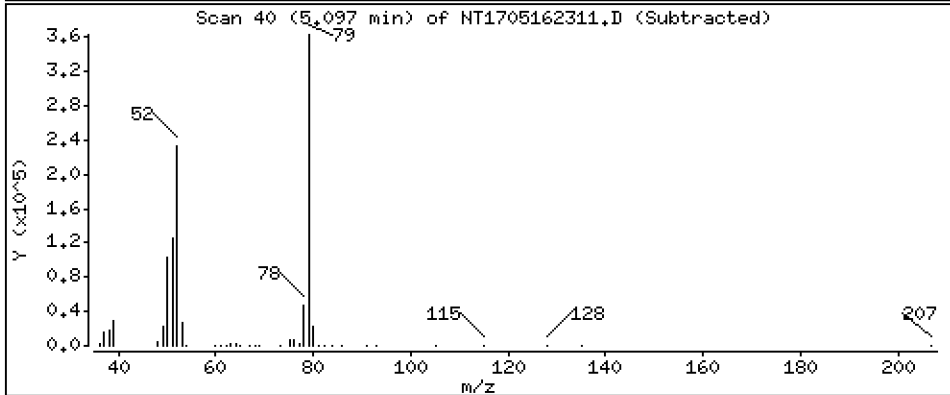
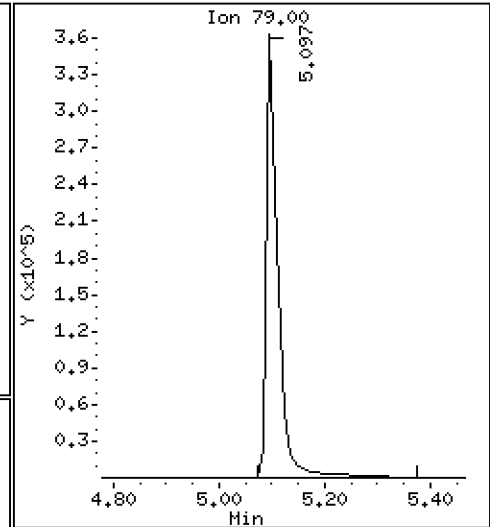
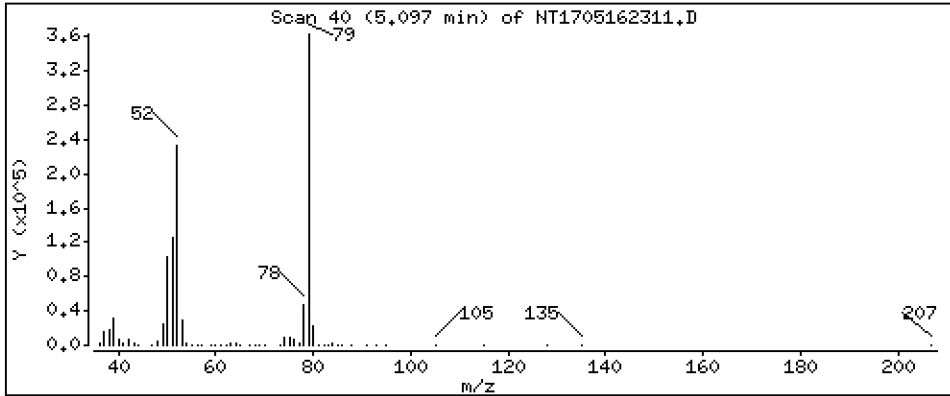
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,811 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

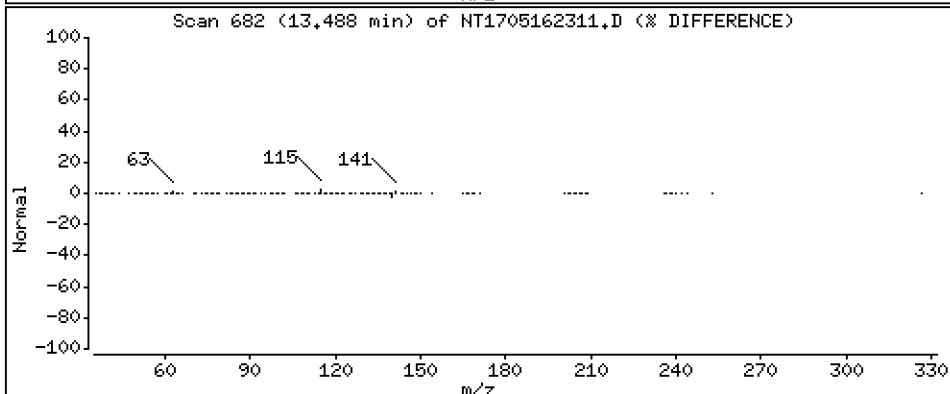
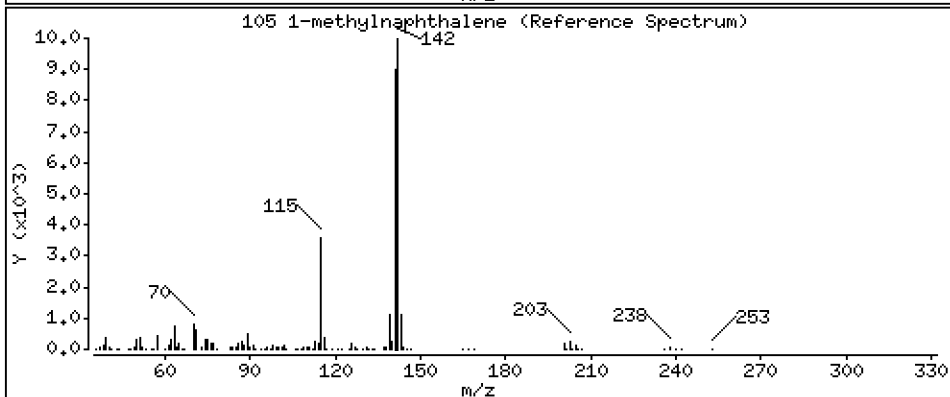
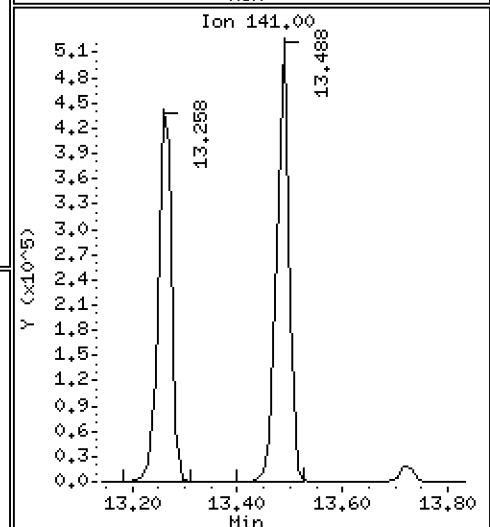
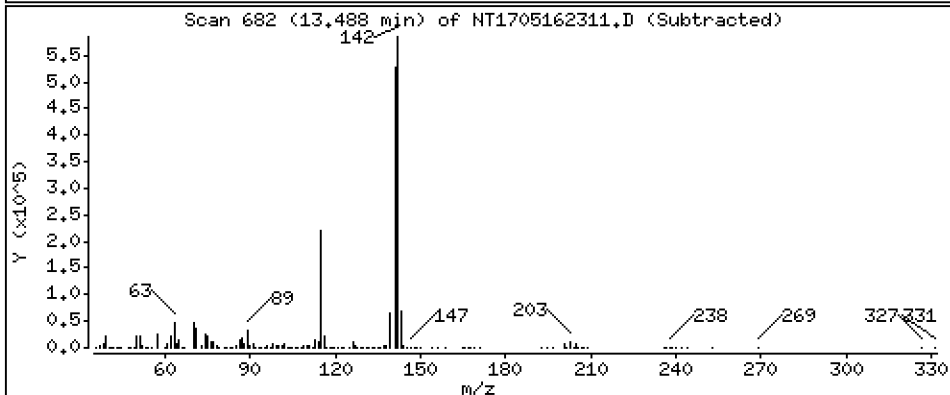
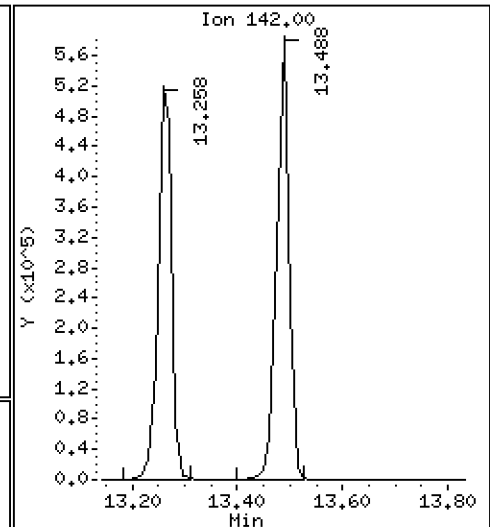
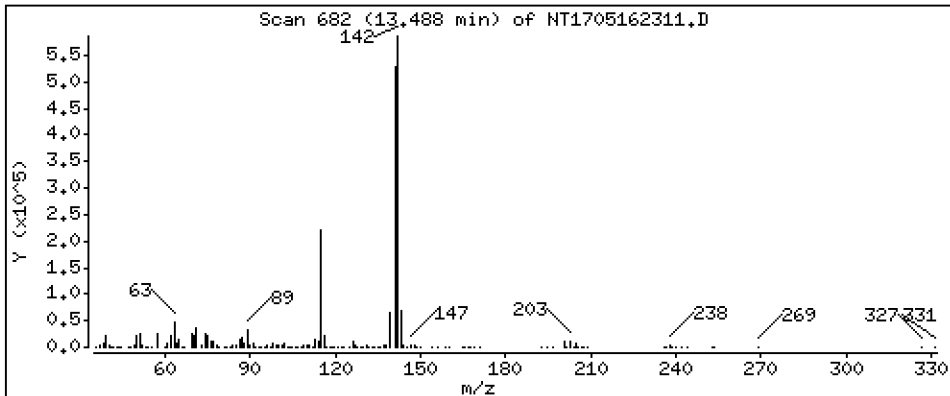
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 5,250 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

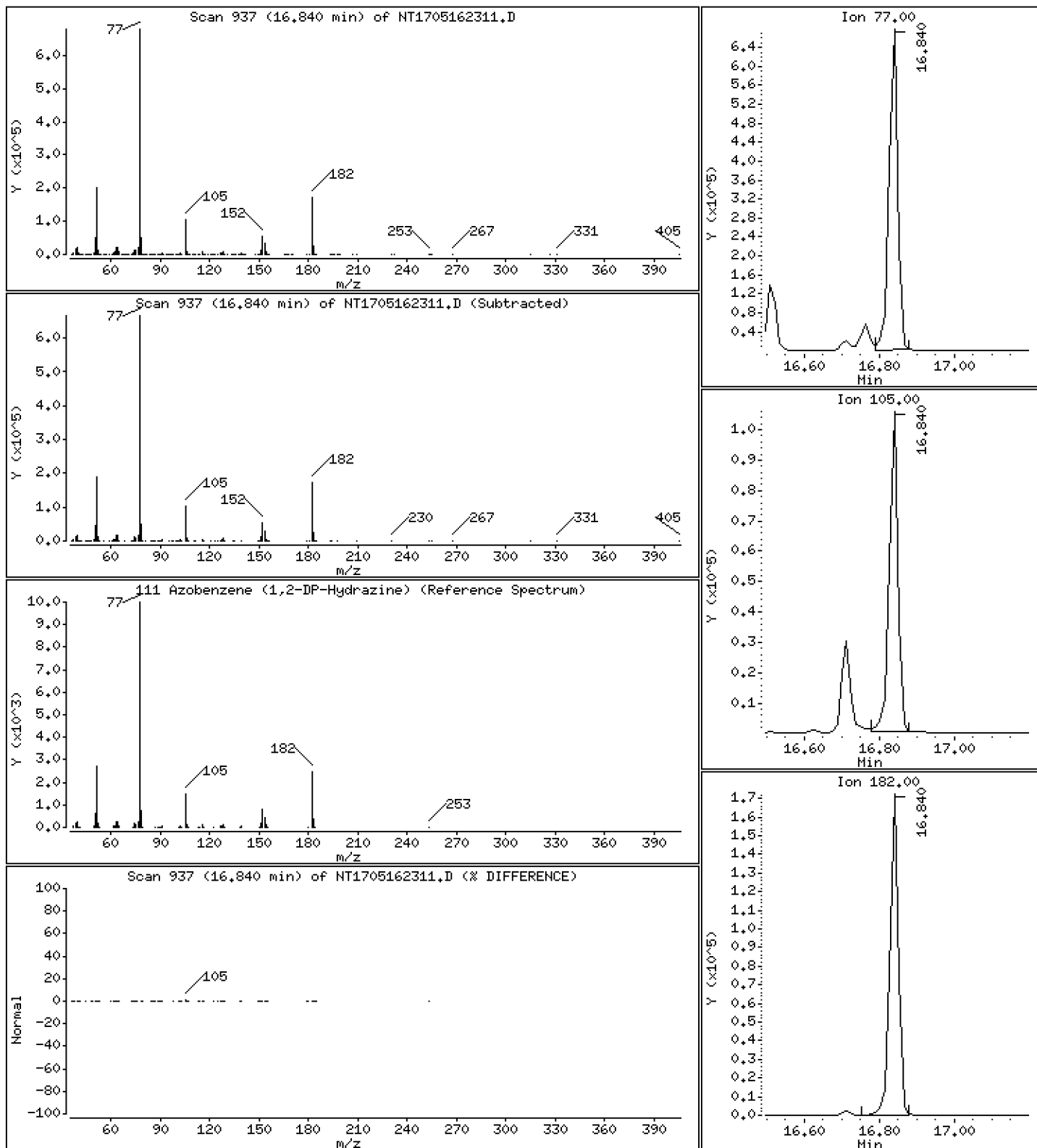
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 5,338 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

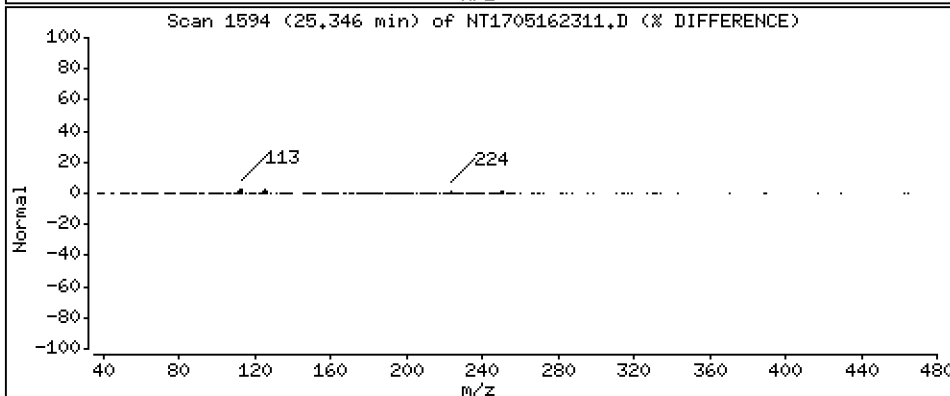
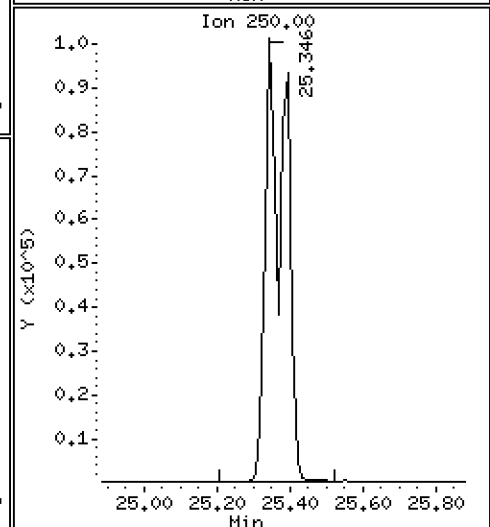
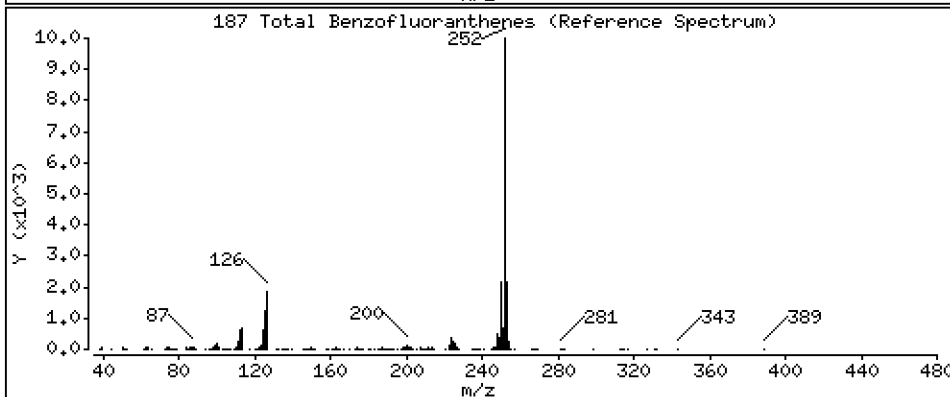
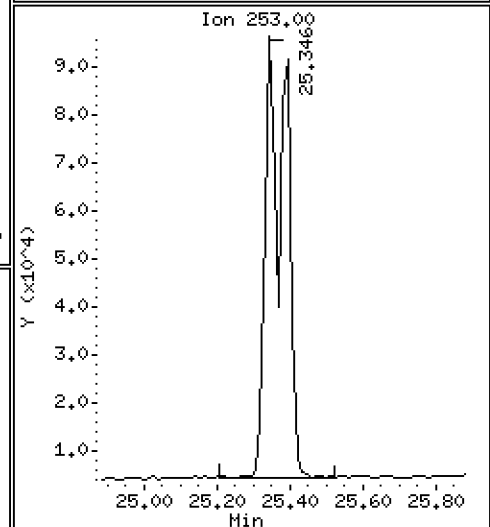
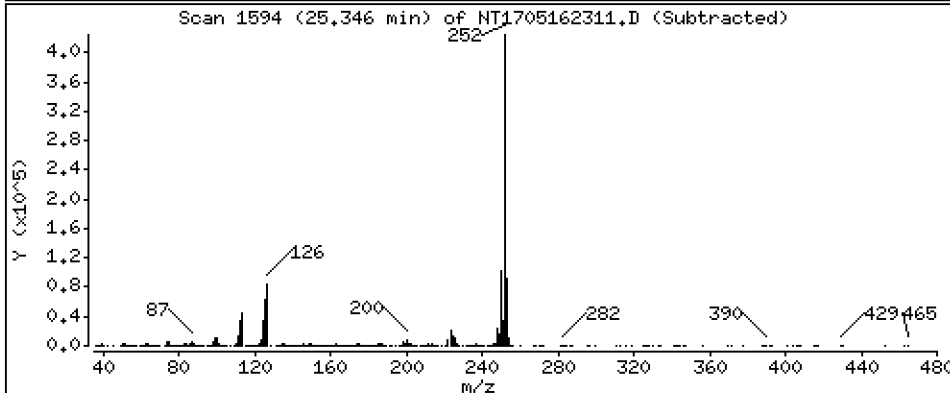
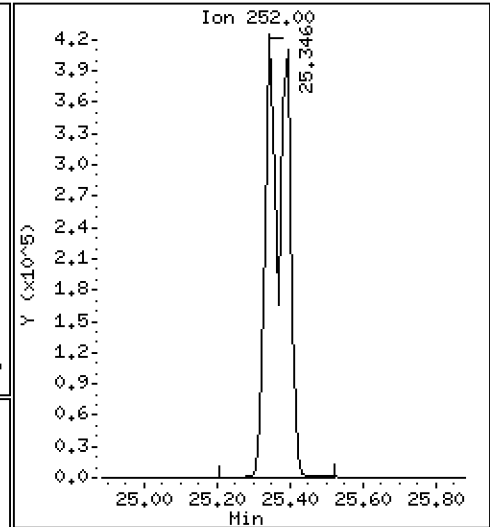
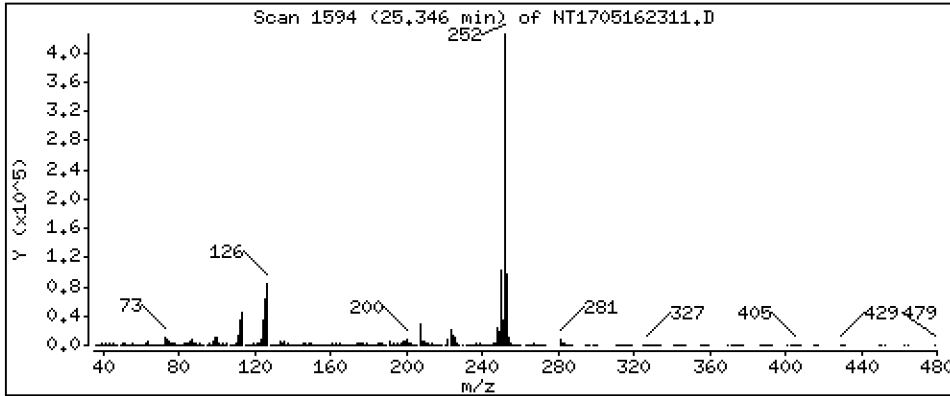
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 10,02 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0338-SCV1

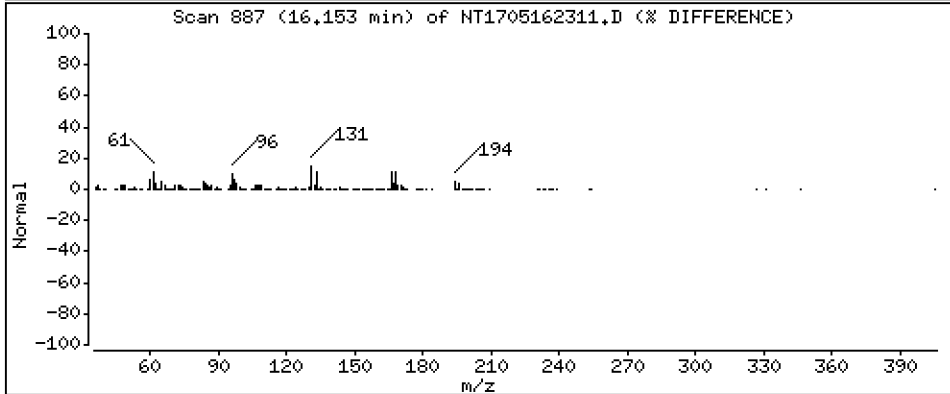
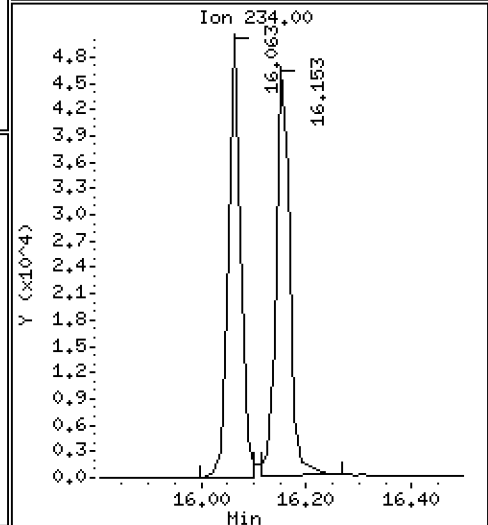
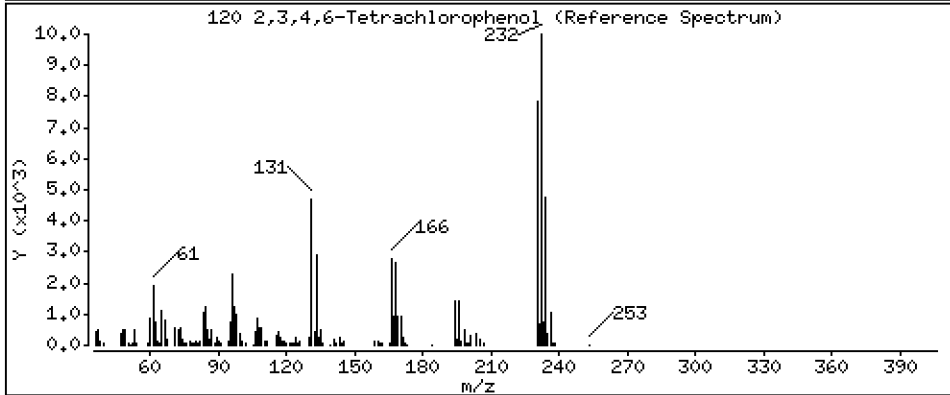
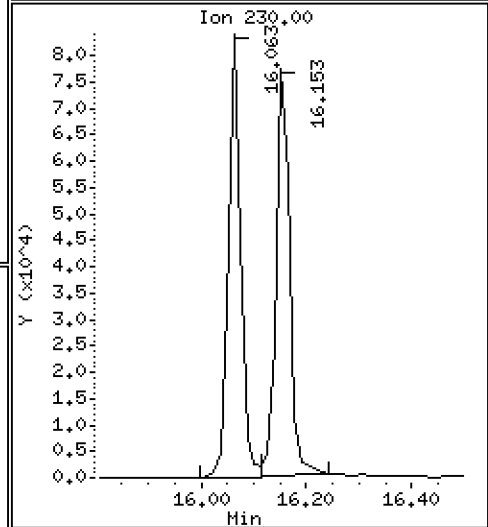
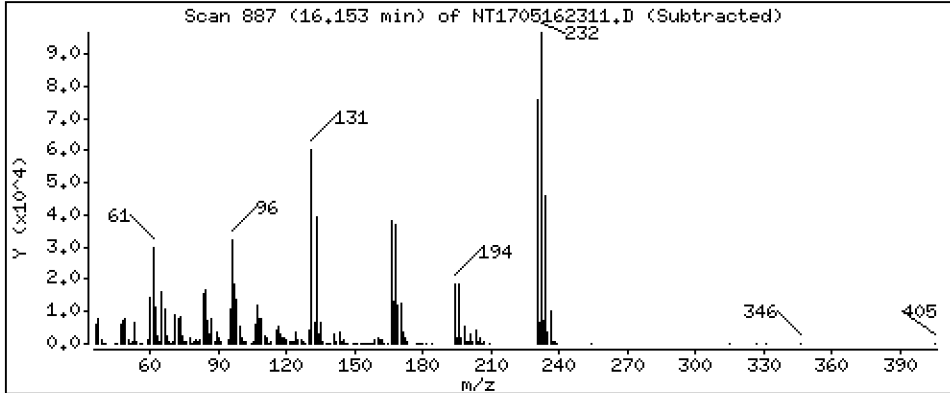
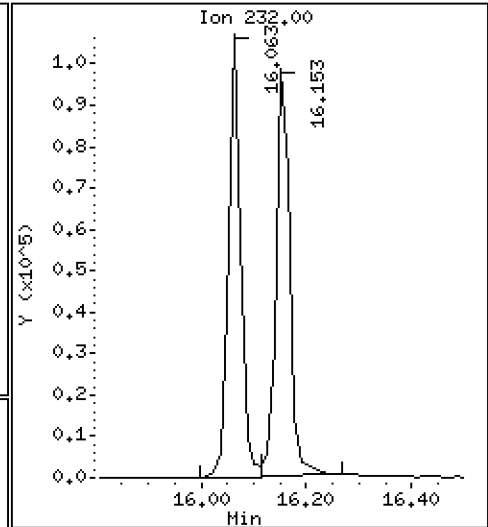
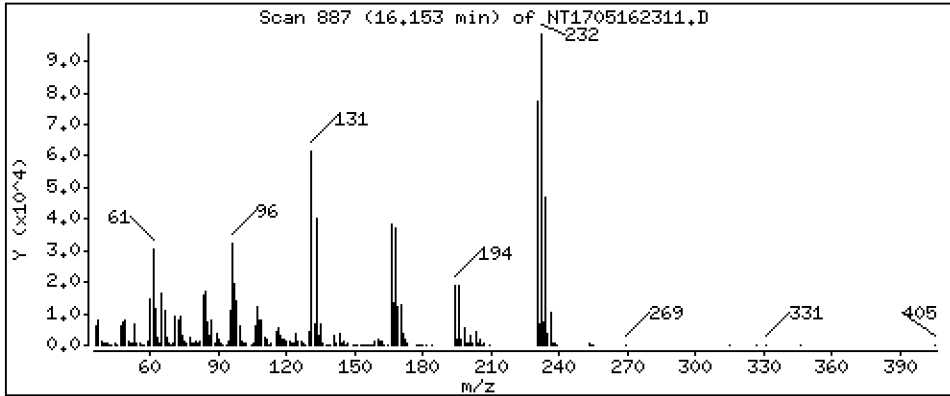
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,283 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230516.b\NT1705162311.D
 Lab Smp Id: SLE0338-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0338-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Meth Date : 20-May-2023 12:06 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112					Compound Not Detected.		
\$ 2 Phenol-d5	99					Compound Not Detected.		
3 Phenol	94		8.740	8.740	(0.933)	588001	4.82293	4.823
\$ 5 2-Chlorophenol-d4	132					Compound Not Detected.		
4 Bis(2-Chloroethyl)ether	93		8.906	8.906	(0.951)	494651	5.56554	5.566
6 2-Chlorophenol	128		9.033	9.033	(0.965)	539006	5.29416	5.294
7 1,3-Dichlorobenzene	146		9.301	9.301	(0.993)	548081	5.31911	5.319
* 8 1,4-Dichlorobenzene-d4	152		9.365	9.365	(1.000)	265705	4.00000	
9 1,4-Dichlorobenzene	146		9.390	9.391	(1.003)	521173	5.07146	5.071
\$ 10 1,2-Dichlorobenzene-d4	152					Compound Not Detected.		
12 1,2-Dichlorobenzene	146		9.748	9.748	(1.041)	507921	5.25771	5.258
11 Benzyl alcohol	108		9.633	9.633	(1.029)	299374	5.27414	5.274
14 2,2'-oxybis(1-Chloropropane)	121		9.927	9.914	(1.060)	168255	6.17916	6.179
13 2-Methylphenol	108		9.850	9.851	(1.052)	378927	4.22901	4.229
17 Hexachloroethane	117		10.336	10.336	(1.104)	222748	5.41856	5.419
16 N-Nitroso-di-n-propylamine	70		10.183	10.170	(1.087)	378231	5.51734	5.517
15 4-Methylphenol	108		10.119	10.119	(1.080)	425231	4.66096	4.661
\$ 18 Nitrobenzene-d5	82					Compound Not Detected.		
19 Nitrobenzene	77		10.489	10.489	(0.886)	558517	5.32891	5.329
20 Isophorone	82		10.924	10.924	(0.922)	996054	6.94254	6.943
21 2-Nitrophenol	139		11.115	11.115	(0.939)	247403	4.89866	4.899
22 2,4-Dimethylphenol	107		11.153	11.154	(0.942)	371455	3.78811	3.788
23 Bis(2-Chloroethoxy)methane	93		11.345	11.345	(0.958)	547968	6.23185	6.232
24 Benzoic acid	105		11.332	11.333	(0.957)	445958	6.76086	6.761
25 2,4-Dichlorophenol	162		11.562	11.562	(0.976)	370930	4.70748	4.707
26 1,2,4-Trichlorobenzene	180		11.753	11.753	(0.992)	503147	5.87937	5.879
* 27 Naphthalene-d8	136		11.842	11.830	(1.000)	965231	4.00000	
28 Naphthalene	128		11.881	11.881	(1.003)	1361438	5.12904	5.129
29 4-Chloroaniline	127		11.995	11.995	(1.013)	469527	4.48751	4.488
30 Hexachlorobutadiene	225		12.225	12.225	(1.032)	222159	5.24062	5.241
31 4-Chloro-3-methylphenol	107		12.952	12.952	(1.094)	413906	4.87847	4.878
32 2-Methylnaphthalene	142		13.258	13.258	(1.120)	955574	5.02794	5.028
33 Hexachlorocyclopentadiene	237		13.730	13.730	(0.889)	201170	4.21896	4.219

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.883	13.883	(0.899)	257193	4.79376	4.794	
35 2,4,5-Trichlorophenol	196		13.959	13.959	(0.904)	274739	4.83728	4.837	
§ 36 2-Fluorobiphenyl	172		Compound Not Detected.						
37 2-Chloronaphthalene	162		14.252	14.253	(0.923)	885085	5.40065	5.401	
38 2-Nitroaniline	65		14.507	14.508	(0.940)	297267	5.35584	5.356	
39 Dimethylphthalate	163		14.928	14.929	(0.967)	955980	5.41824	5.418	
40 Acenaphthylene	152		15.120	15.120	(0.979)	1374665	5.28203	5.282	
41 2,6-Dinitrotoluene	165		15.069	15.069	(0.976)	223225	5.40390	5.404	
* 42 Acenaphthene-d10	164		15.438	15.426	(1.000)	512787	4.00000		
43 3-Nitroaniline	138		15.362	15.349	(0.995)	197758	5.16887	5.169	
44 Acenaphthene	153		15.502	15.502	(1.004)	859485	5.28316	5.283	
45 2,4-Dinitrophenol	184		15.566	15.567	(1.008)	52944	2.11874	2.119	
46 Dibenzofuran	168		15.821	15.821	(1.025)	1172327	5.16305	5.163	
47 4-Nitrophenol	109		15.668	15.681	(1.015)	114450	4.50365	4.504	
48 2,4-Dinitrotoluene	165		15.872	15.872	(1.028)	284935	5.26937	5.269	
50 Diethylphthalate	149		16.369	16.369	(1.060)	945291	5.49374	5.494	
49 Fluorene	166		16.535	16.535	(1.071)	1165179	5.39758	5.398	
51 4-Chlorophenyl-phenylether	204		16.522	16.509	(1.070)	542088	5.46212	5.462	
52 4-Nitroaniline	138		16.624	16.611	(1.077)	184970	5.10772	5.108	
53 4,6-Dinitro-2-methylphenol	198		16.713	16.713	(0.905)	113822	3.35487	3.355	
54 N-Nitrosodiphenylamine	169		16.764	16.764	(0.908)	651392	5.46976	5.470	
§ 55 2,4,6-Tribromophenol	330		Compound Not Detected.						
56 4-Bromophenyl-phenylether	248		17.514	17.515	(0.949)	226164	5.42020	5.420	
57 Hexachlorobenzene	284		17.833	17.833	(0.966)	208878	4.91276	4.913	
58 Pentachlorophenol	266		18.190	18.203	(0.985)	98895	3.94337	3.943	
* 59 Phenanthrene-d10	188		18.458	18.458	(1.000)	850147	4.00000		
60 Phenanthrene	178		18.509	18.496	(1.003)	1250084	5.03943	5.039	
61 Anthracene	178		18.598	18.598	(1.008)	1054910	4.52965	4.530	
62 Carbazole	167		18.917	18.918	(1.025)	896606	5.93842	5.938	
63 Di-n-butylphthalate	149		19.682	19.682	(1.066)	1586517	5.64164	5.642	
64 Fluoranthene	202		20.868	20.855	(0.890)	1308113	5.46710	5.467	
65 Pyrene	202		21.289	21.276	(0.908)	1277121	5.26528	5.265	
§ 66 Terphenyl-d14	244		Compound Not Detected.						
67 Butylbenzylphthalate	149		22.462	22.462	(0.958)	632335	5.82476	5.825	
68 Benzo(a)anthracene	228		23.419	23.419	(0.998)	953848	5.06413	5.064	
* 69 Chrysene-d12	240		23.457	23.445	(1.000)	511511	4.00000		
70 3,3'-Dichlorobenzidine	252		23.368	23.369	(0.996)	459041	11.9948	11.99	
71 Chrysene	228		23.496	23.496	(1.002)	889381	5.01800	5.018	
72 bis(2-Ethylhexyl)phthalate	149		23.470	23.470	(0.959)	875291	5.79218	5.792	
* 134 Di-n-octylphthalate-d4	153		24.465	24.465	(1.000)	1044471	4.00000		
73 Di-n-octylphthalate	149		24.465	24.465	(1.000)	1451463	5.48238	5.482	
74 Benzo(b)fluoranthene	252		25.345	25.345	(0.969)	887996	4.91157	4.912	
75 Benzo(k)fluoranthene	252		25.396	25.384	(0.971)	848094	4.96504	4.965 (H)	
76 Benzo(a)pyrene	252		26.034	26.022	(0.996)	736579	5.17185	5.172	
* 77 Perylene-d12	264		26.149	26.149	(1.000)	456008	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.946	28.933	(1.107)	830811	5.02922	5.029	
79 Dibenzo(a,h)anthracene	278		28.946	28.946	(1.107)	689006	4.96953	4.970	
80 Benzo(g,h,i)perylene	276		29.764	29.751	(1.138)	689189	5.05448	5.054	
90 N-Nitrosodimethylamine	74		5.071	5.071	(0.542)	334608	5.76731	5.767	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		21.085	21.085	(0.899)	208933	3.45722	3.457	
103 Pyridine	79		5.097	5.122	(0.544)	534742	5.81084	5.811	
105 1-methylnaphthalene	142		13.487	13.487	(1.139)	925646	5.25003	5.250	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.840	16.840	(1.091)	1072104	5.33771	5.338	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.345	25.384	(0.969)	1625913	10.0183	10.02
120 2,3,4,6-Tetrachlorophenol	232		16.152	16.152	(1.046)	210743	3.28296	3.283

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 16-MAY-2023
 Lab File ID: NT1705162311.D Calibration Time: 20:07
 Lab Smp Id: SLE0338-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	287078	143539	574156	265705	-7.45
27 Naphthalene-d8	1056758	528379	2113516	965231	-8.66
42 Acenaphthene-d10	587510	293755	1175020	512787	-12.72
59 Phenanthrene-d10	933575	466788	1867150	850147	-8.94
69 Chrysene-d12	576570	288285	1153140	511511	-11.28
134 Di-n-octylphthala	1181651	590826	2363302	1044471	-11.61
77 Perylene-d12	491359	245680	982718	456008	-7.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.37	8.87	9.87	9.37	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
134 Di-n-octylphthala	24.47	23.97	24.97	24.47	-0.00
77 Perylene-d12	26.15	25.65	26.65	26.15	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311.D

Lab ID: SLE0338-SCV1
nt17.i, ABN.m, 17-MAY-2023 00:29

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

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.008	0.000	1.0083	2,4-Dinitrophenol

RRT check based on Ccal File: NT1705162308.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705262328.D

Calibration Date: 05/20/2023

Sequence: SLE0434

Injection Date: 05/27/23

Lab Sample ID: SLE0434-CCV1

Injection Time: 05:31

Sequence Name: ABN 5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	5.2	1.8353850	1.9058420		3.8	+/-50
Benzyl Alcohol	A	5.0000	5.2	0.8545202	0.8836087		3.4	+/-50
4-Methylphenol	A	5.0000	5.0	1.3734410	1.3739450		0.04	+/-50
Naphthalene	A	5.0000	5.0	1.0999940	1.1034940		0.3	+/-50
2-Methylnaphthalene	A	5.0000	5.0	0.7875944	0.7926639		0.6	+/-50
Acenaphthylene	A	5.0000	5.1	2.0301060	2.0666220		1.8	+/-50
Dibenzofuran	A	5.0000	5.1	1.7711910	1.8014260		1.7	+/-50
Fluorene	A	5.0000	4.4	1.6839010	1.4734580		-12.5	+/-50
Phenanthrene	A	5.0000	5.0	1.1671410	1.1683380		0.1	+/-50
Anthracene	A	5.0000	5.1	1.0957620	1.1203480		2.2	+/-50
Fluoranthene	A	5.0000	4.4	1.8710850	1.6364850		-12.5	+/-50
Pyrene	A	5.0000	4.4	1.8967730	1.6863950		-11.1	+/-50
Butylbenzylphthalate	A	5.0000	4.6	0.8489339	0.7760020		-8.6	+/-50
Benzo(a)anthracene	A	5.0000	5.0	1.4729210	1.4733670		0.04	+/-50
Chrysene	A	5.0000	5.0	1.3859970	1.3814360		-0.3	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.4	0.5787277	170504.8		-11.5	+/-50
Benzofluoranthenes, Total	A	10.000	11.6	1.4236150	1.6487280		15.8	+/-50
Benzo(a)pyrene	A	5.0000	5.0	1.2492830	1.2613410		1.0	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	3.0	1.4490690	0.8719830		-39.8	+/-50
Dibenzo(a,h)anthracene	A	5.0000	3.2	1.2161710	0.7839475		-35.5	+/-50
Benzo(g,h,i)perylene	A	5.0000	2.5	1.1960510	0.5910355		-50.6	+/-50 *
2-Fluorophenol	A	7.5000	8.13	1.3093930	1.4199840		8.4	+/-50
Phenol-d5	A	7.5000	7.94	1.7328160	1.8353590		5.9	+/-50
2-Chlorophenol-d4	A	7.5000	7.72	1.3879870	1.4286480		2.9	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	5.07	0.9755818	0.9886062		1.3	+/-50
Nitrobenzene-d5	A	5.0000	5.23	0.4552457	0.4757264		4.5	+/-50
2-Fluorobiphenyl	A	5.0000	5.23	1.5758130	1.6477170		4.6	+/-50
2,4,6-Tribromophenol	A	7.5000	7.13	0.1414414	0.1659621		-4.9	+/-50
p-Terphenyl-d14	A	5.0000	4.36	1.3483810	1.1755420		-12.8	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262328.D

Date: 27-May-2023 05:31

Client ID:

Sample Info: SLE0434-CCW1

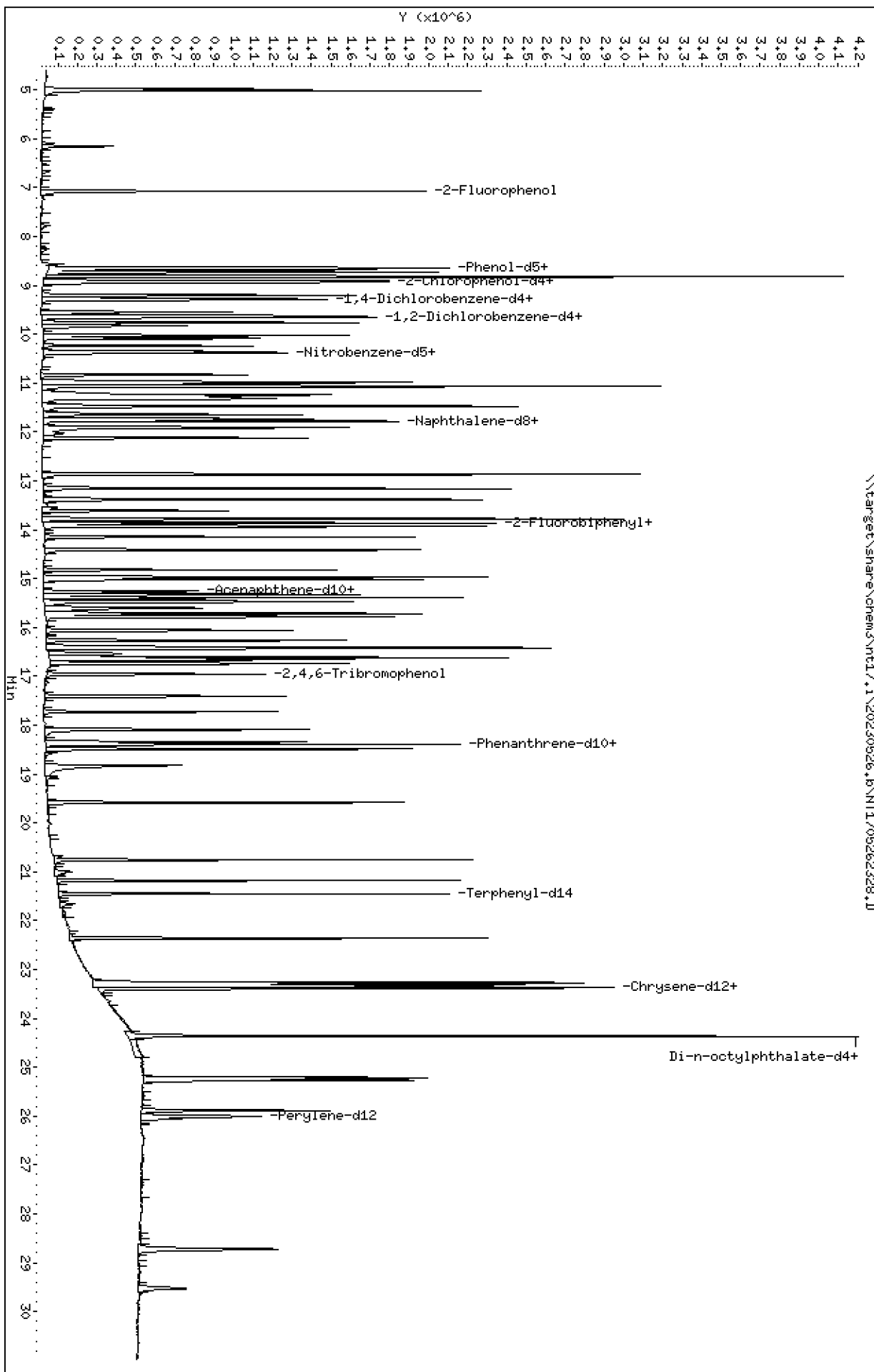
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262328.D
 Lab Smp Id: SLE0434-CCV1
 Inj Date : 27-MAY-2023 05:31
 Operator : VTS
 Smp Info : SLE0434-CCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:35 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i
 Quant Type: ISTD
 Cal File: NT1705162308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	845864	7.50000	8.133
\$ 2 Phenol-d5	99		8.639	8.639	(0.933)	1093297	7.50000	7.944
3 Phenol	94		8.664	8.664	(0.935)	756855	5.00000	5.192
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	851025	7.50000	7.720
4 Bis(2-Chloroethyl)ether	93		8.804	8.804	(0.950)	574951	5.00000	5.410
6 2-Chlorophenol	128		8.944	8.944	(0.966)	590310	5.00000	4.849
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	614969	5.00000	4.991
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	317699	4.00000	
9 1,4-Dichlorobenzene	146		9.301	9.301	(1.004)	591194	5.00000	4.811
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	392599	5.00000	5.067
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	580244	5.00000	5.023
11 Benzyl alcohol	108		9.544	9.544	(1.030)	350902	5.00000	5.170
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	158498	5.00000	4.868
13 2-Methylphenol	108		9.761	9.761	(1.054)	520015	5.00000	4.854
17 Hexachloroethane	117		10.234	10.234	(1.105)	221060	5.00000	4.497
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	399522	5.00000	4.874
15 4-Methylphenol	108		10.030	10.030	(1.083)	545626	5.00000	5.002
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	659625	5.00000	5.225
19 Nitrobenzene	77		10.387	10.387	(0.886)	622507	5.00000	5.168
20 Isophorone	82		10.835	10.835	(0.924)	771925	5.00000	4.682
21 2-Nitrophenol	139		11.013	11.013	(0.939)	311395	5.00000	5.365
22 2,4-Dimethylphenol	107		11.064	11.064	(0.943)	1073353	10.0000	9.525
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	504745	5.00000	4.995
24 Benzoic acid	105		11.320	11.320	(0.965)	1508987	20.0000	19.91
25 2,4-Dichlorophenol	162		11.473	11.473	(0.978)	986801	10.0000	10.90
26 1,2,4-Trichlorobenzene	180		11.652	11.652	(0.993)	586462	5.00000	5.963
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1109251	4.00000	
28 Naphthalene	128		11.779	11.779	(1.004)	1530065	5.00000	5.016
29 4-Chloroaniline	127		11.906	11.906	(1.015)	1137731	10.0000	9.462
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	239215	5.00000	4.910
31 4-Chloro-3-methylphenol	107		12.863	12.863	(1.097)	1000407	10.0000	10.26
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	1099079	5.00000	5.032
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	226843	10.0000	4.261

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	627108	10.0000	10.47
35 2,4,5-Trichlorophenol	196	13.870	13.870	(0.905)	670999	10.0000	10.58
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	1179234	5.00000	5.228
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	945278	5.00000	5.166
38 2-Nitroaniline	65	14.406	14.406	(0.940)	673009	10.0000	10.86
39 Dimethylphthalate	163	14.827	14.827	(0.968)	1002926	5.00000	5.091
40 Acenaphthylene	152	15.018	15.018	(0.980)	1479035	5.00000	5.090
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	471078	10.0000	10.21
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	572542	4.00000	
43 3-Nitroaniline	138	15.260	15.260	(0.996)	305067	10.0000	7.141
44 Acenaphthene	153	15.388	15.388	(1.004)	920101	5.00000	5.065
45 2,4-Dinitrophenol	184	15.477	15.477	(1.010)	462082	20.0000	16.12
46 Dibenzofuran	168	15.719	15.719	(1.026)	1289240	5.00000	5.085
47 4-Nitrophenol	109	15.604	15.604	(1.018)	233218	10.0000	8.219
48 2,4-Dinitrotoluene	165	15.783	15.783	(1.030)	616509	10.0000	10.21
50 Diethylphthalate	149	16.267	16.267	(1.062)	1235947	5.00000	6.433
49 Fluorene	166	16.420	16.420	(1.072)	1054521	5.00000	4.375
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	610969	5.00000	5.514
52 4-Nitroaniline	138	16.547	16.547	(1.080)	325510	10.0000	8.050
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	562060	20.0000	15.46
54 N-Nitrosodiphenylamine	169	16.662	16.662	(0.908)	648693	5.00000	5.083
§ 55 2,4,6-Tribromophenol	330	16.967	16.967	(1.107)	178163	7.50000	7.134
56 4-Bromophenyl-phenylether	248	17.413	17.413	(0.949)	238271	5.00000	5.329
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	243899	5.00000	5.353
58 Pentachlorophenol	266	18.088	18.088	(0.986)	254862	10.0000	9.238
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	911027	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	1330484	5.00000	5.005
61 Anthracene	178	18.484	18.484	(1.008)	1275834	5.00000	5.112
62 Carbazole	167	18.828	18.828	(1.026)	1058378	5.00000	6.493
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	1566193	5.00000	5.197
64 Fluoranthene	202	20.753	20.753	(0.889)	1382607	5.00000	4.373
65 Pyrene	202	21.174	21.174	(0.907)	1424774	5.00000	4.445
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	993173	5.00000	4.359
67 Butylbenzylphthalate	149	22.361	22.361	(0.957)	655616	5.00000	4.570
68 Benzo(a)anthracene	228	23.317	23.317	(0.998)	1244794	5.00000	5.002
* 69 Chrysene-d12	240	23.356	23.356	(1.000)	675891	4.00000	
70 3,3'-Dichlorobenzidine	252	23.279	23.279	(0.997)	981676	15.0000	18.78
71 Chrysene	228	23.394	23.394	(1.002)	1167125	5.00000	4.984
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	852524	5.00000	4.425
* 134 Di-n-octylphthalate-d4	153	24.351	24.351	(1.000)	1331493	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	1661815	5.00000	4.924
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	1108378	5.00000	5.658
75 Benzo(k)fluoranthene	252	25.269	25.269	(0.972)	1087056	5.00000	5.873
76 Benzo(a)pyrene	252	25.881	25.881	(0.995)	779080	5.00000	5.048
* 77 Perylene-d12	264	26.009	26.009	(1.000)	494128	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.729	28.729	(1.105)	538589	5.00000	3.009
79 Dibenzo(a,h)anthracene	278	28.729	28.729	(1.105)	484213	5.00000	3.223
80 Benzo(g,h,i)perylene	276	29.534	29.534	(1.136)	365059	5.00000	2.471
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	727879	10.0000	10.49
91 Aniline	93	8.728	8.728	(0.942)	1250758	10.0000	10.24
93 Benzidine	184	20.996	20.996	(0.899)	99669	10.0000	1.264
103 Pyridine	79	5.008	5.008	(0.541)	1087512	10.0000	9.884
105 1-methylnaphthalene	142	13.385	13.385	(1.141)	999698	5.00000	4.934
111 Azobenzene (1,2-DP-Hydrazine)	77	16.738	16.738	(1.092)	1133300	5.00000	5.054

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.269	25.269	(0.972)	2036707	10.0000	11.58
120 2,3,4,6-Tetrachlorophenol	232		16.050	16.050	(1.047)	295159	5.00000	4.118

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262328.D Calibration Time: 23:55
 Lab Smp Id: SLE0434-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	327251	163626	654502	317699	-2.92
27 Naphthalene-d8	1151610	575805	2303220	1109251	-3.68
42 Acenaphthene-d10	581592	290796	1163184	572542	-1.56
59 Phenanthrene-d10	918371	459186	1836742	911027	-0.80
69 Chrysene-d12	690072	345036	1380144	675891	-2.06
134 Di-n-octylphthala	1461689	730845	2923378	1331493	-8.91
77 Perylene-d12	568726	284363	1137452	494128	-13.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.01	25.51	26.51	26.01	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262328.D

Lab ID: SLE0434-CCV1
nt17.i, ABN.m, 27-MAY-2023 05:31

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

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b

Instrument: nt17.i Date: 27-MAY-2023 Method: ABN.m

INITIAL CAL: 09-MAY-2023

Compound	%RSD or R ²
NO Q-FLAGS	

ICV CAL: NT1705262328.D 27-MAY-2023 05:31

Compound	%D
Hexachlorocyclopentadiene	-57.4
3-Nitroaniline	-28.59
Diethylphthalate	28.67
4,6-Dinitro-2-methylphenol	-22.7
Carbazole	29.9
3,3'-Dichlorobenzidine	25.2
Indeno(1,2,3-cd)pyrene	-39.82
Dibenzo(a,h)anthracene	-35.54
Benzo(g,h,i)perylene	-50.58
Benzidine	-87.4



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705262304.D

Calibration Date: 05/20/2023

Sequence: SLE0434

Injection Date: 05/26/23

Lab Sample ID: SLE0434-LCV1

Injection Time: 14:31

Sequence Name: ABN 0.2

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.20000	0.2	1.8353850	1.8199460		-0.8	+/-50
Benzyl Alcohol	A	0.20000	0.2	0.8545202	0.6775815		-20.7	+/-50
4-Methylphenol	A	0.20000	0.2	1.3734410	1.2833660		-6.6	+/-50
Naphthalene	A	0.20000	0.2	1.0999940	1.0869750		-1.2	+/-50
2-Methylnaphthalene	A	0.20000	0.2	0.7875944	0.7378506		-6.3	+/-50
Acenaphthylene	A	0.20000	0.2	2.0301060	2.1027840		3.6	+/-50
Dibenzofuran	A	0.20000	0.2	1.7711910	1.7529620		-1.0	+/-50
Fluorene	A	0.20000	0.2	1.6839010	1.8860460		12.0	+/-50
Phenanthrene	A	0.20000	0.2	1.1671410	1.1871160		1.7	+/-50
Anthracene	A	0.20000	0.2	1.0957620	1.0138480		-7.5	+/-50
Fluoranthene	A	0.20000	0.2	1.8710850	1.8222070		-2.6	+/-50
Pyrene	A	0.20000	0.2	1.8967730	1.9308580		1.8	+/-50
Butylbenzylphthalate	A	0.20000	0.2	0.8489339	0.8252708		-2.8	+/-50
Benzo(a)anthracene	A	0.20000	0.2	1.4729210	1.5945180		8.3	+/-50
Chrysene	A	0.20000	0.2	1.3859970	1.4530120		4.8	+/-50
bis(2-Ethylhexyl)phthalate	A	0.20000	0.2	0.5787277	168555		-6.1	+/-50
Benzofluoranthenes, Total	A	0.40000	0.4	1.4236150	1.4105620		-0.9	+/-50
Benzo(a)pyrene	A	0.20000	0.2	1.2492830	1.2744000		2.0	+/-50
Indeno(1,2,3-cd)pyrene	A	0.20000	0.2	1.4490690	1.4329270		-1.1	+/-50
Dibenzo(a,h)anthracene	A	0.20000	0.2	1.2161710	1.1890510		-2.2	+/-50
Benzo(g,h,i)perylene	A	0.20000	0.2	1.1960510	1.1714120		-2.1	+/-50
2-Fluorophenol	A	0.30000	0.276	1.3093930	1.2028060		-8.1	+/-50
Phenol-d5	A	0.30000	0.282	1.7328160	1.6274340		-6.1	+/-50
2-Chlorophenol-d4	A	0.30000	0.296	1.3879870	1.3699520		-1.3	+/-50
1,2-Dichlorobenzene-d4	A	0.20000	0.218	0.9755818	1.0610870		8.8	+/-50
Nitrobenzene-d5	A	0.20000	0.186	0.4552457	0.4230946		-7.1	+/-50
2-Fluorobiphenyl	A	0.20000	0.204	1.5758130	1.6096390		2.1	+/-50
2,4,6-Tribromophenol	A	0.30000	0.243	0.1414414	0.1410673		-19.2	+/-50
p-Terphenyl-d14	A	0.20000	0.208	1.3483810	1.3994850		3.8	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262304.D

Date: 26-May-2023 14:31

Client ID:

Sample Info: SLE0434-LCW1

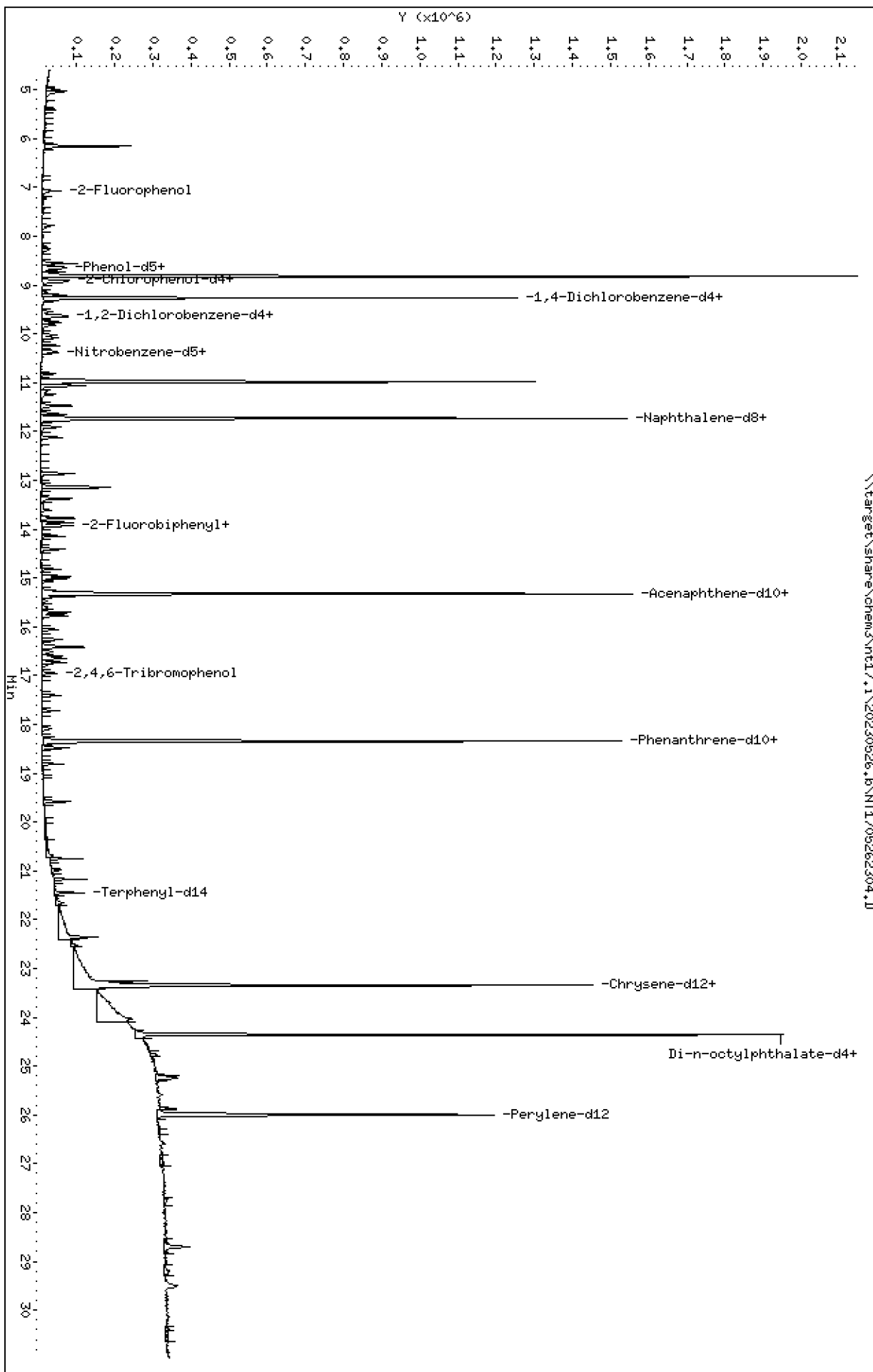
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

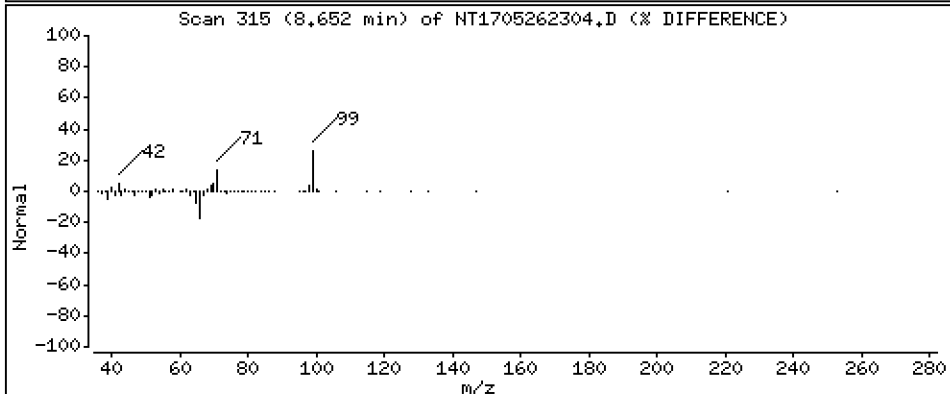
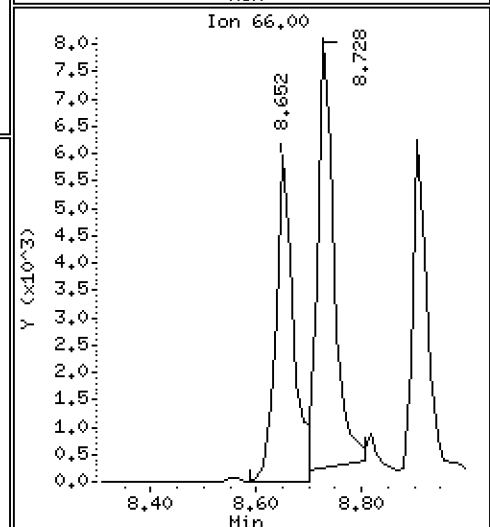
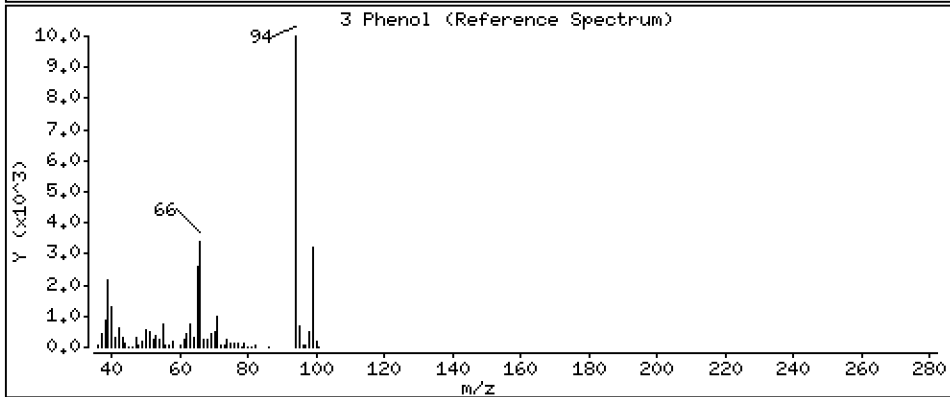
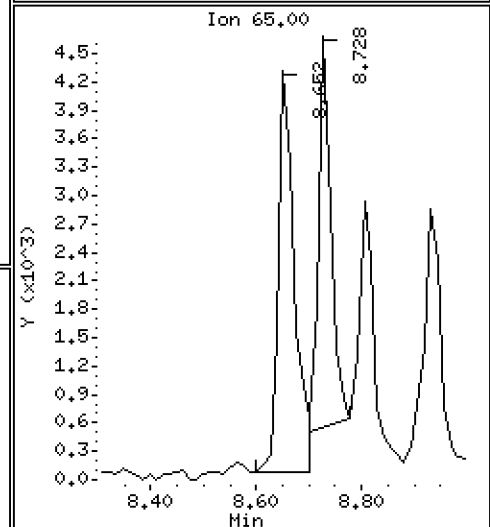
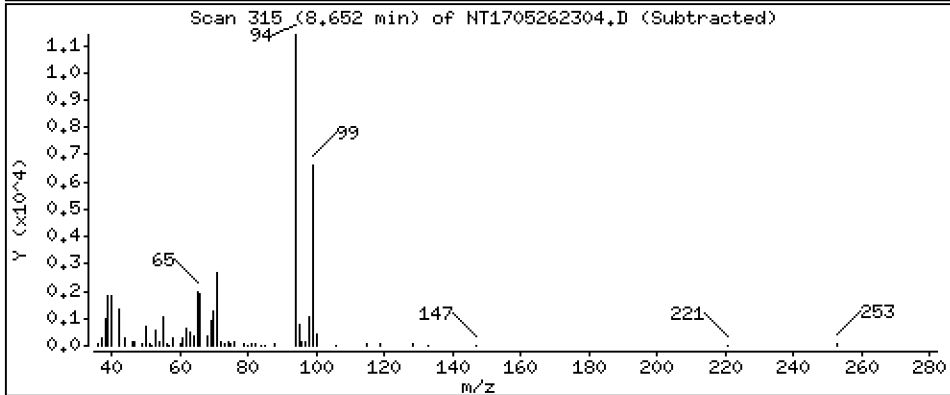
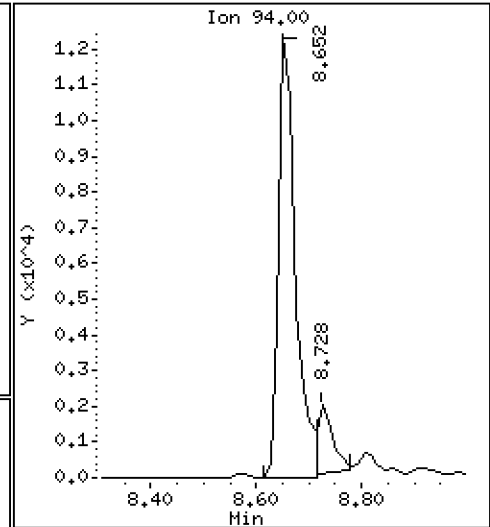
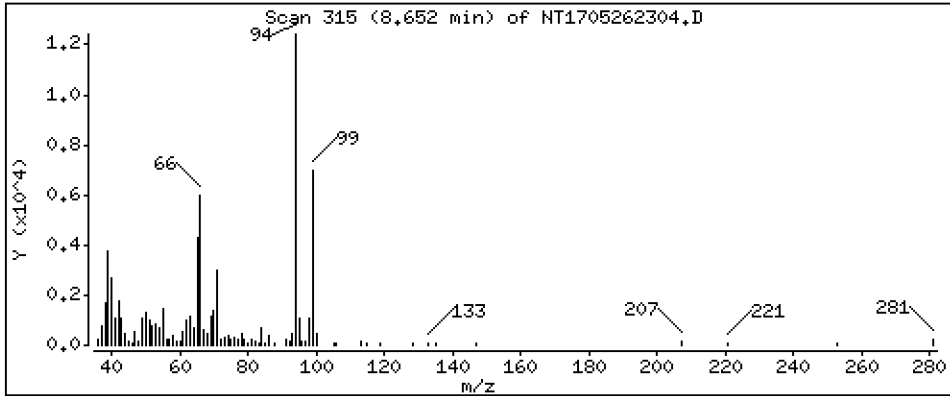
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1983 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

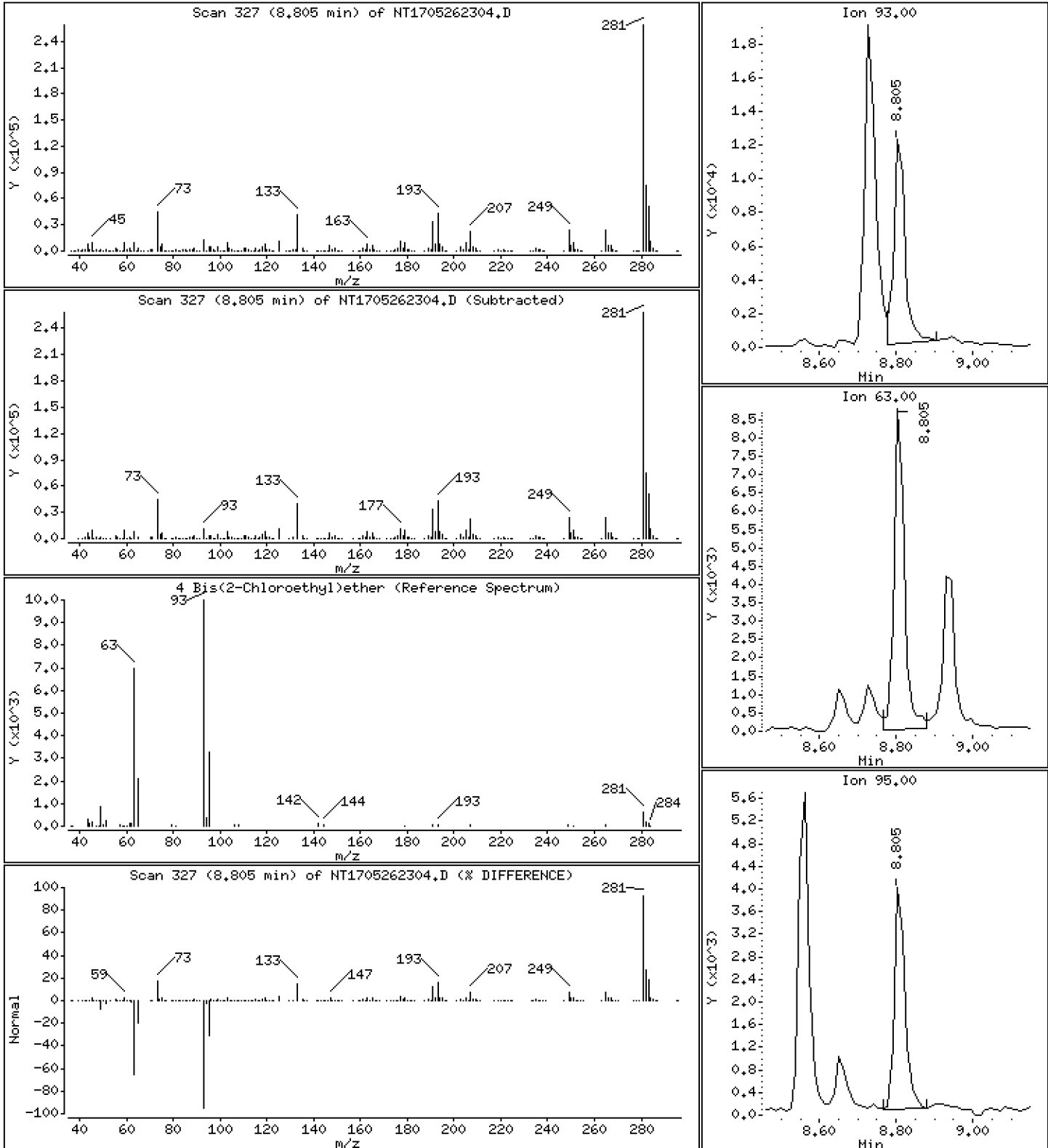
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,2369 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

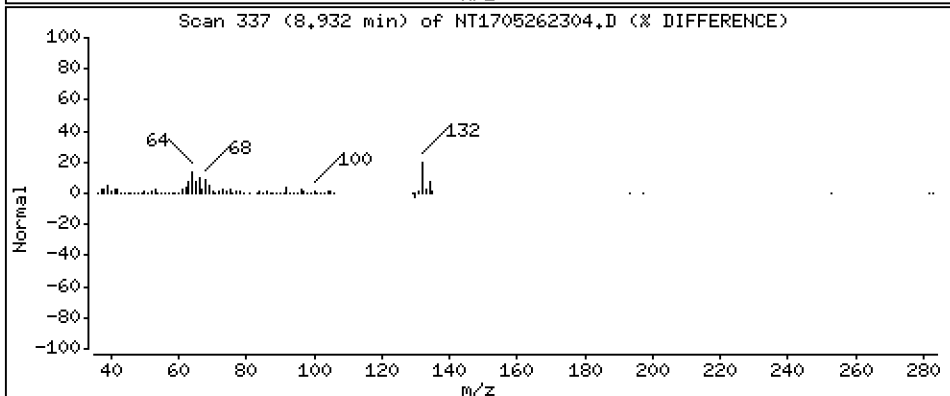
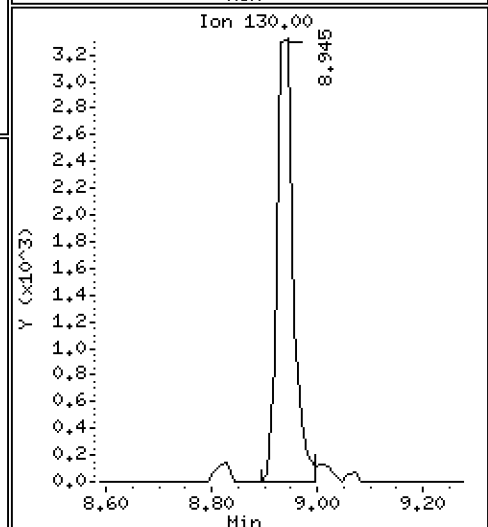
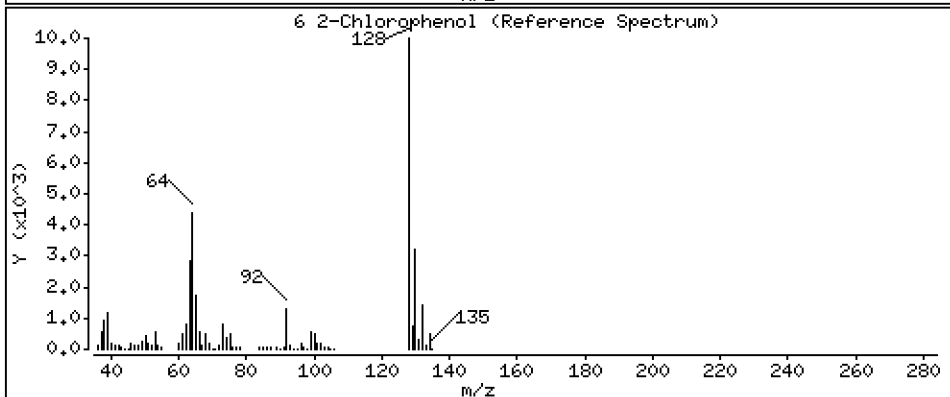
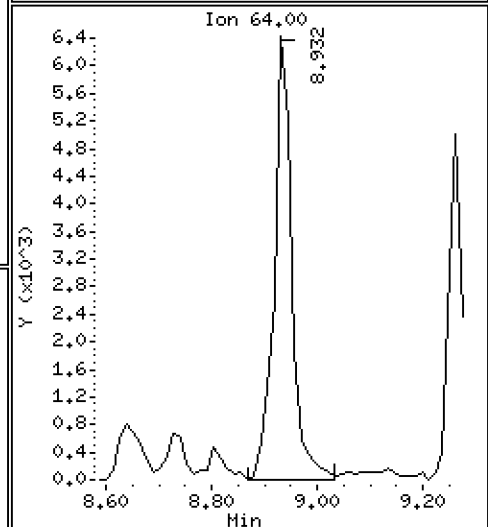
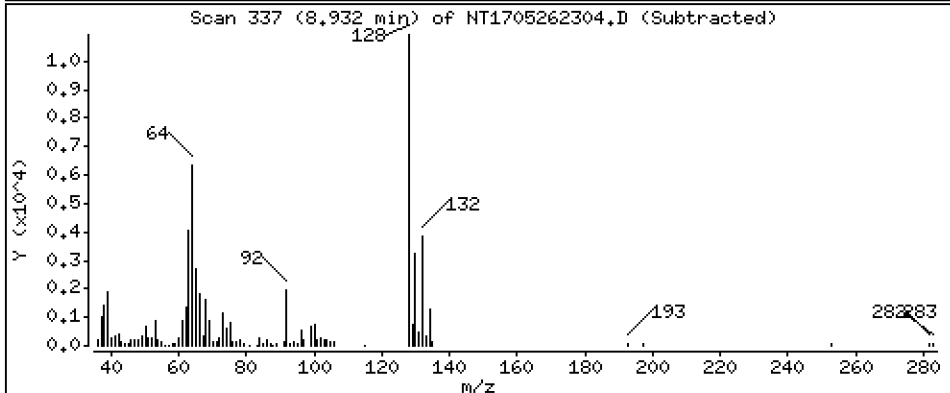
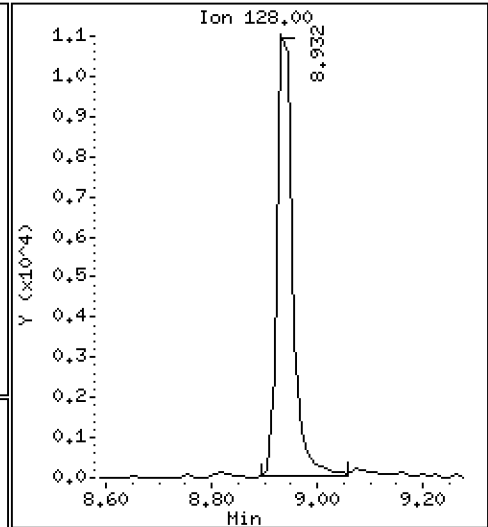
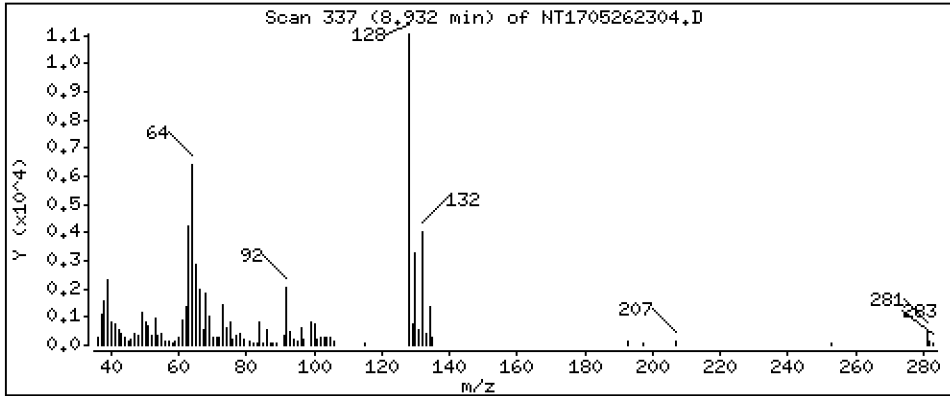
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,1888 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

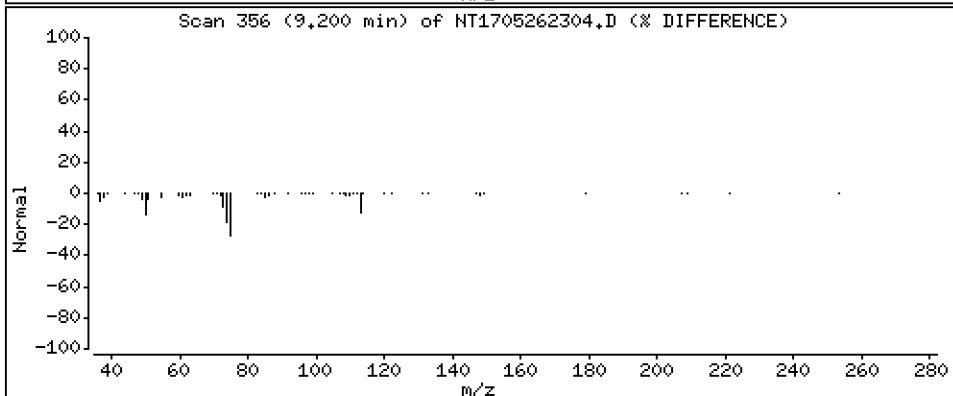
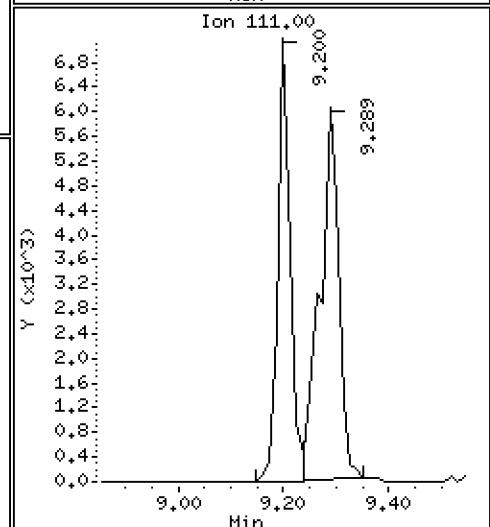
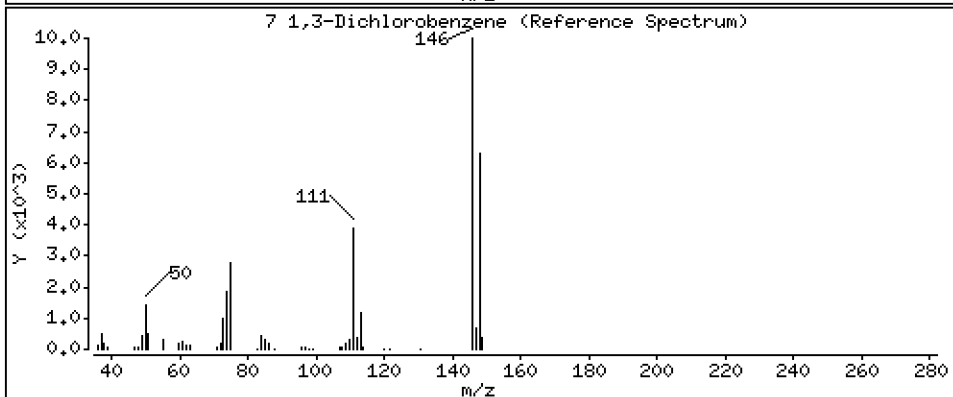
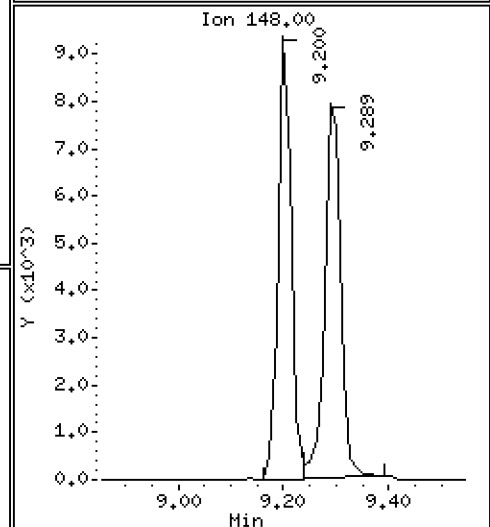
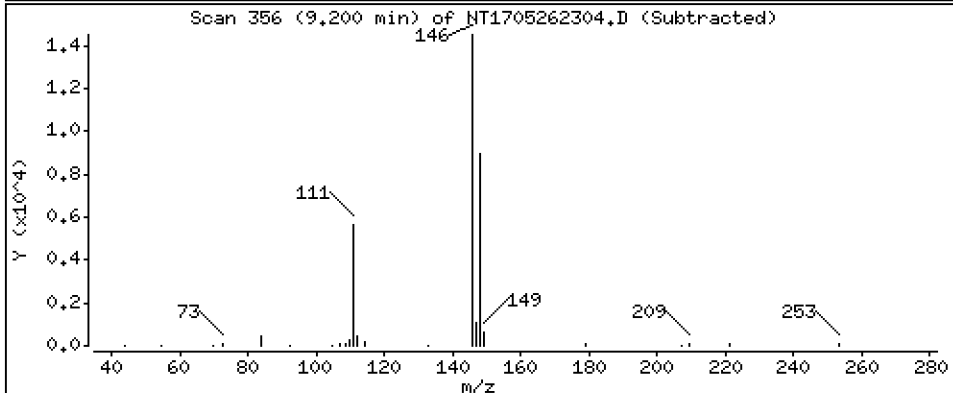
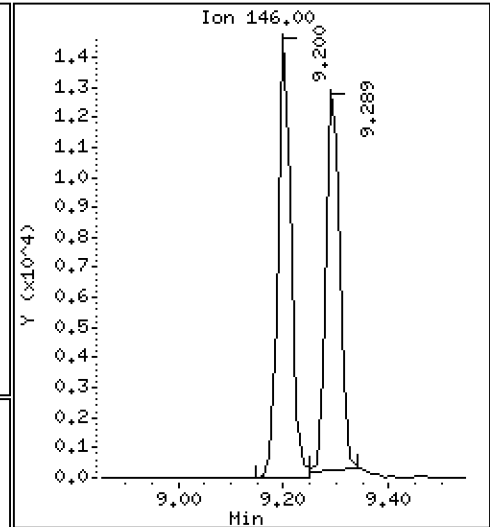
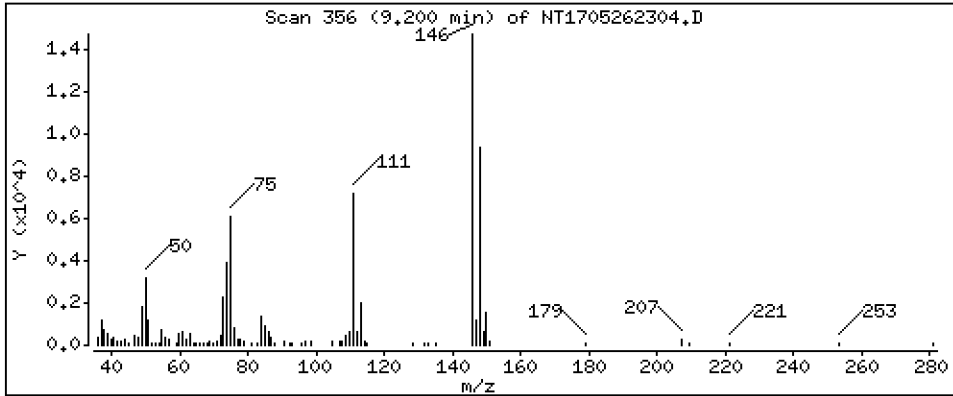
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,2088 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

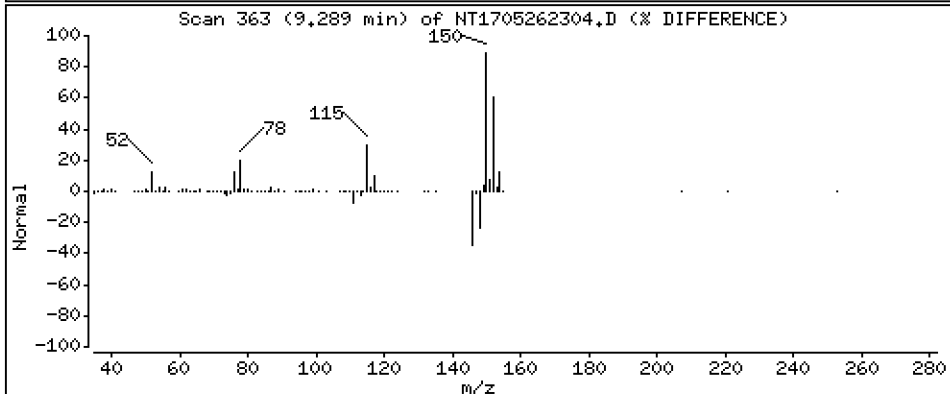
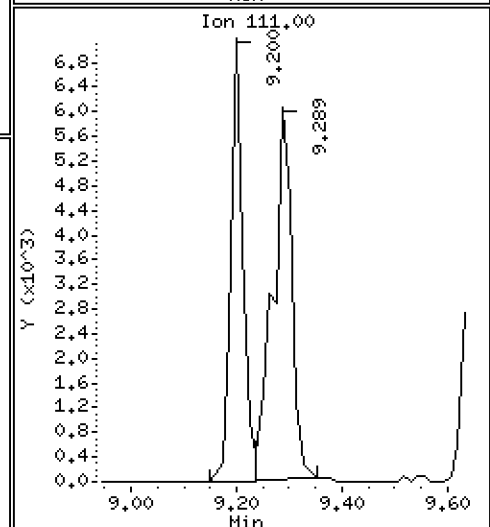
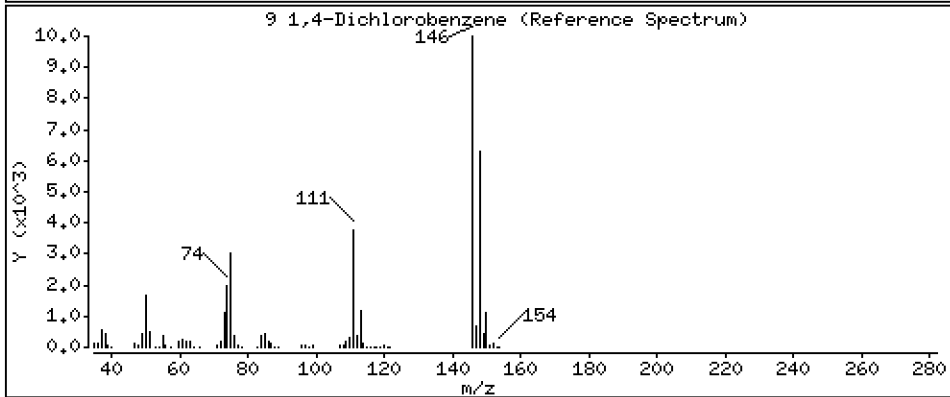
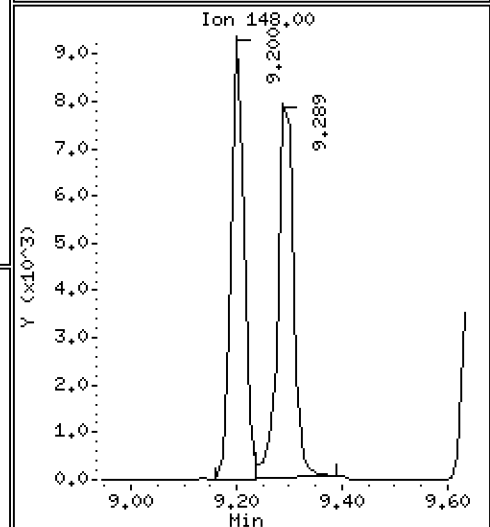
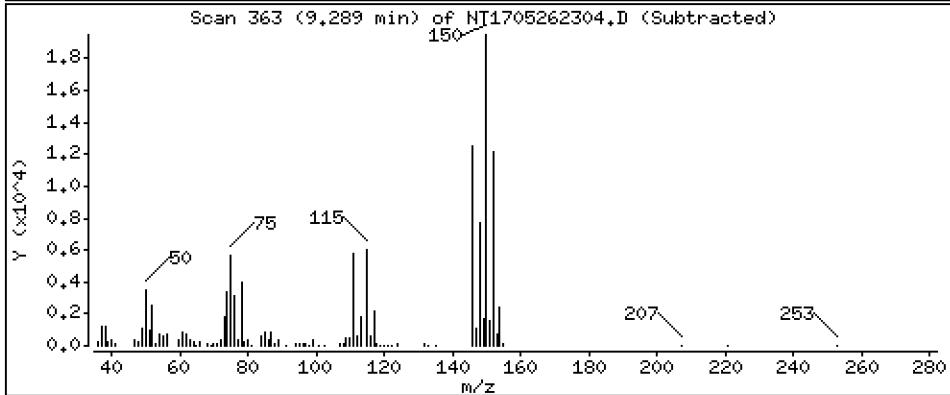
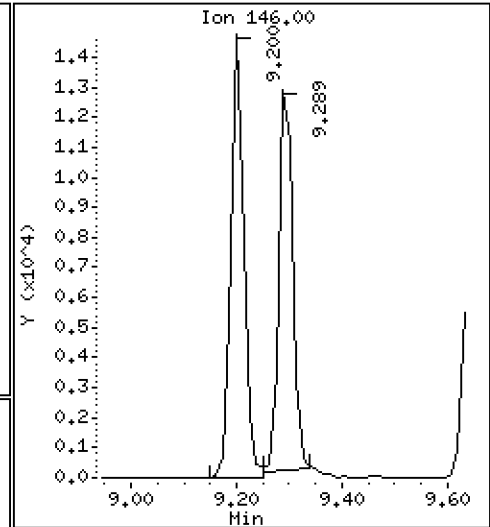
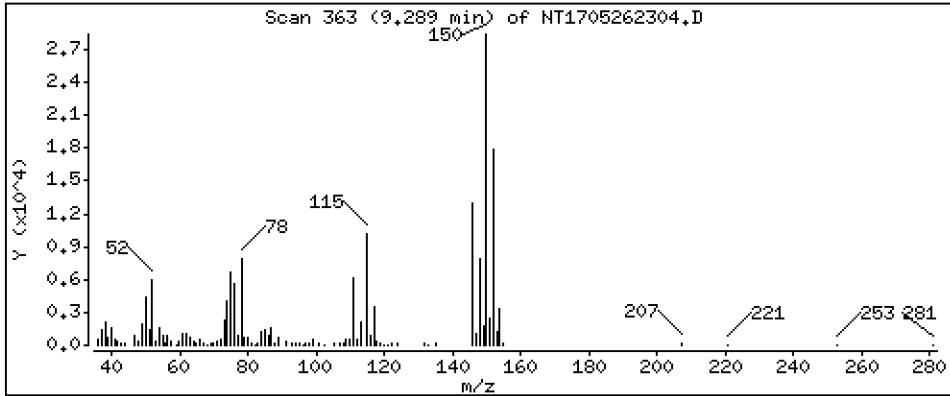
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.1906 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

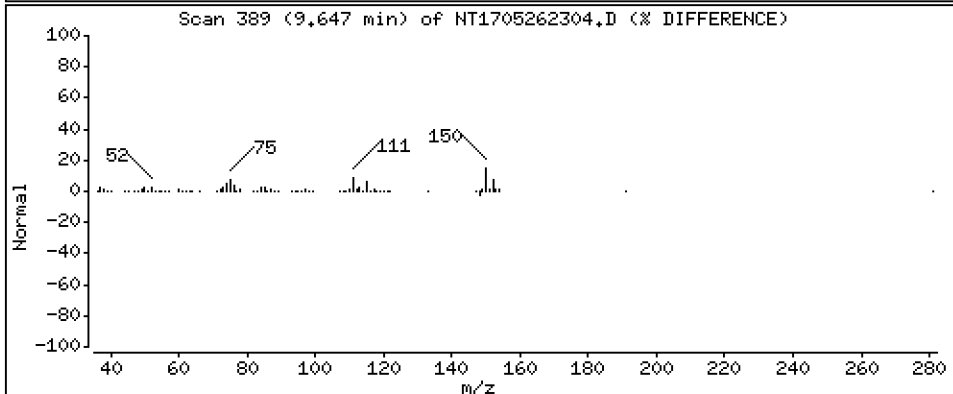
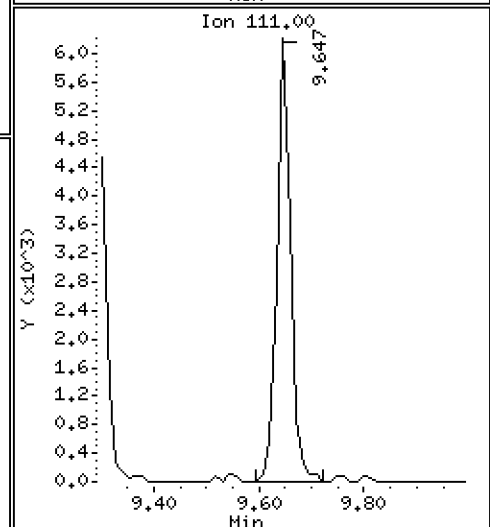
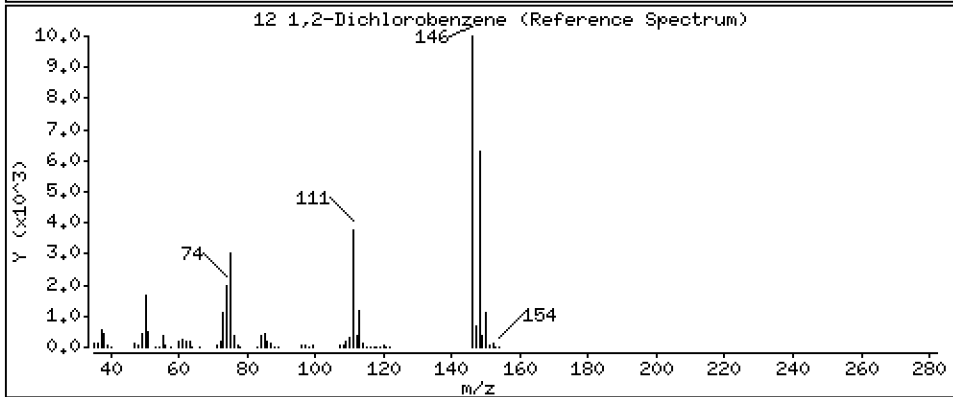
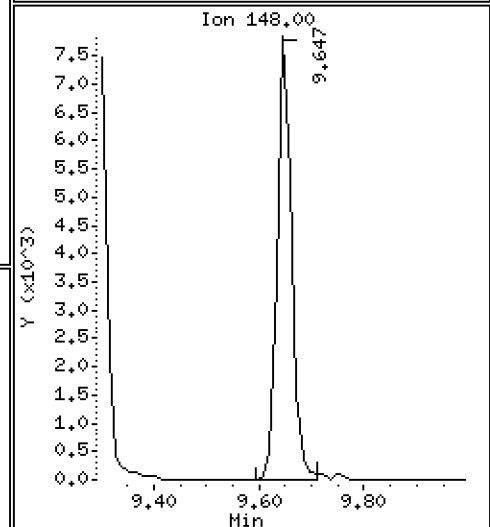
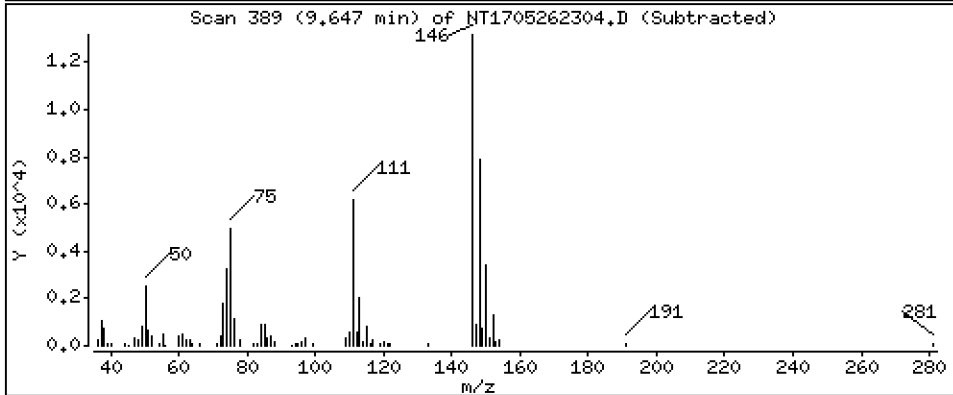
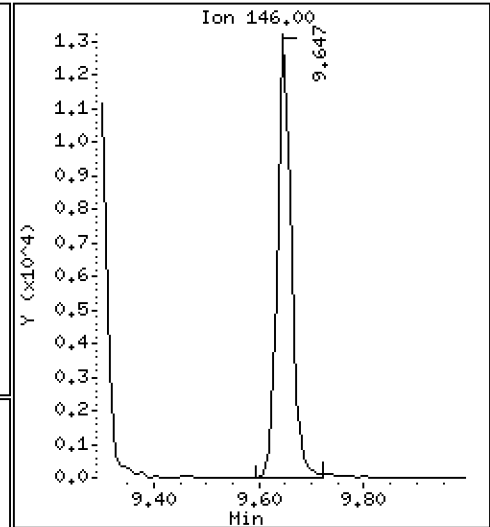
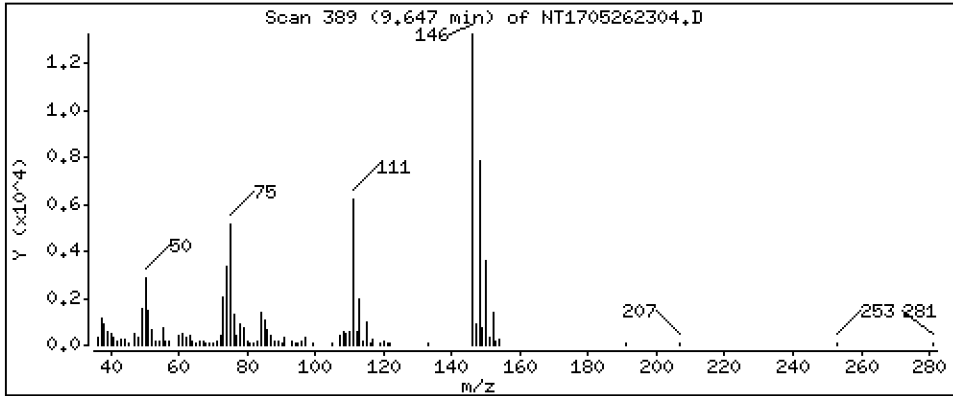
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,2120 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

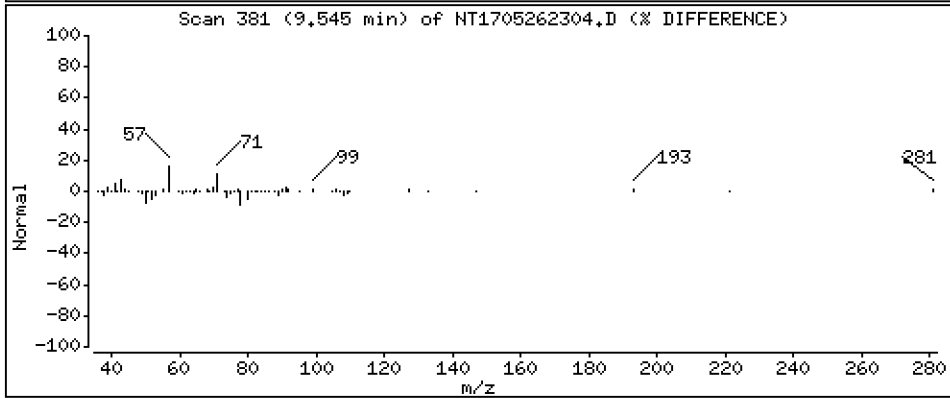
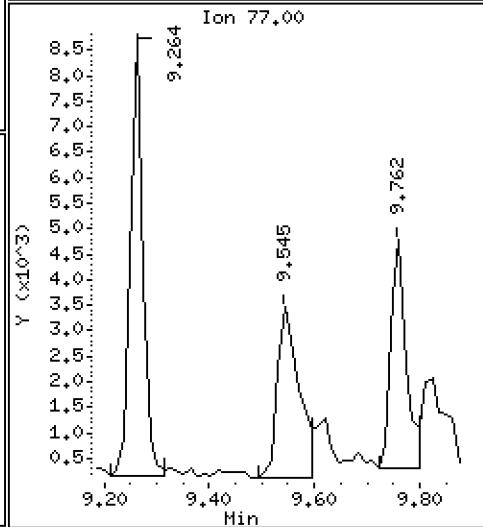
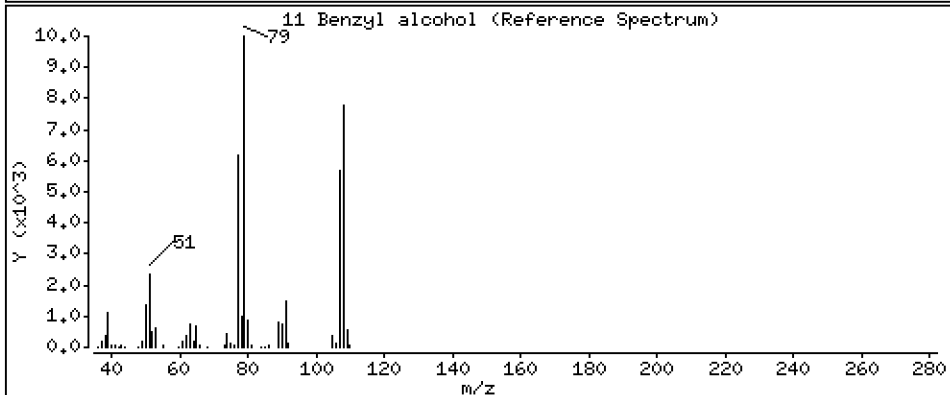
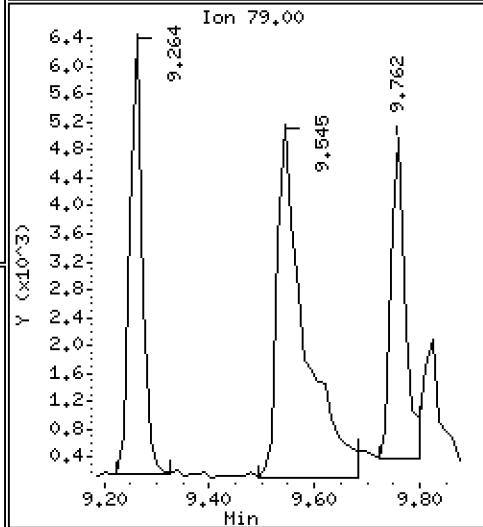
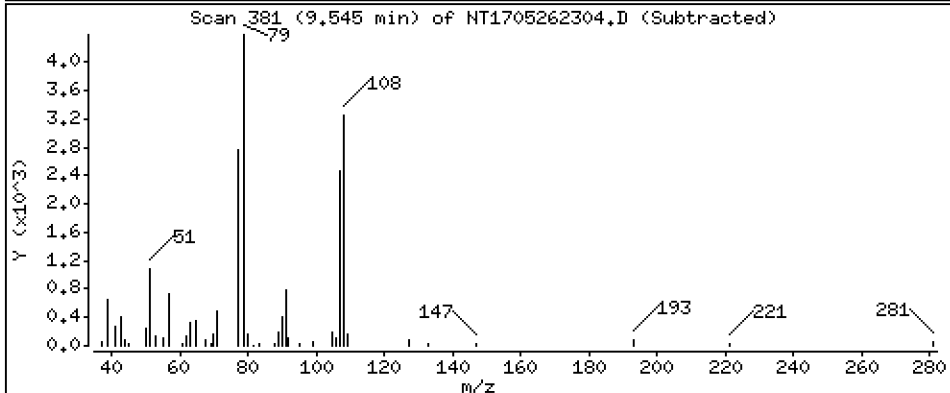
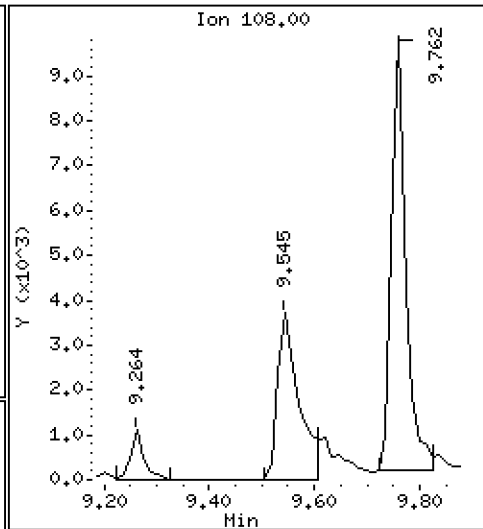
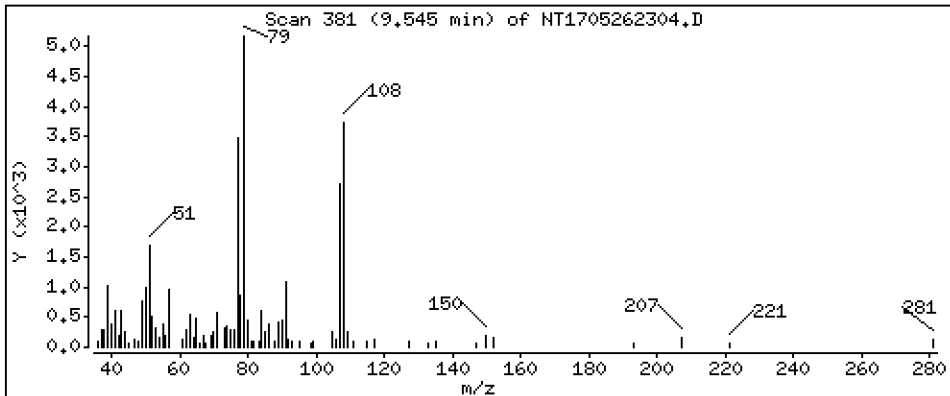
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,1586 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

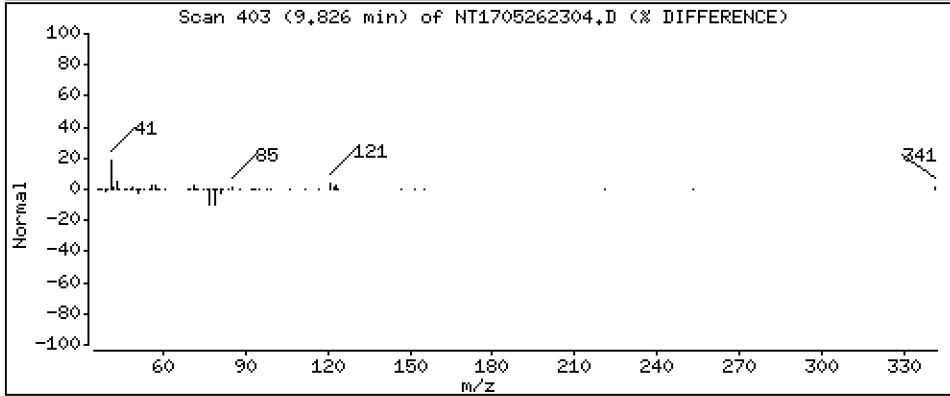
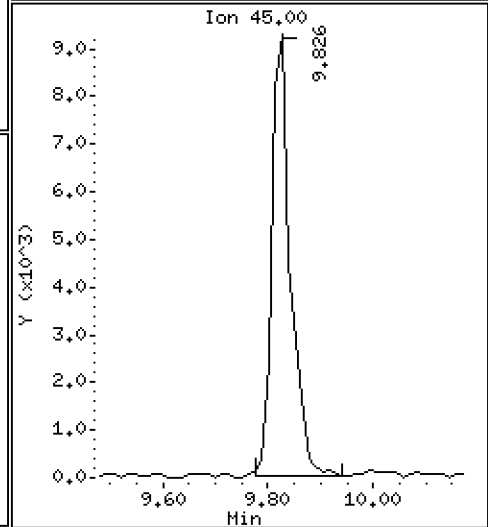
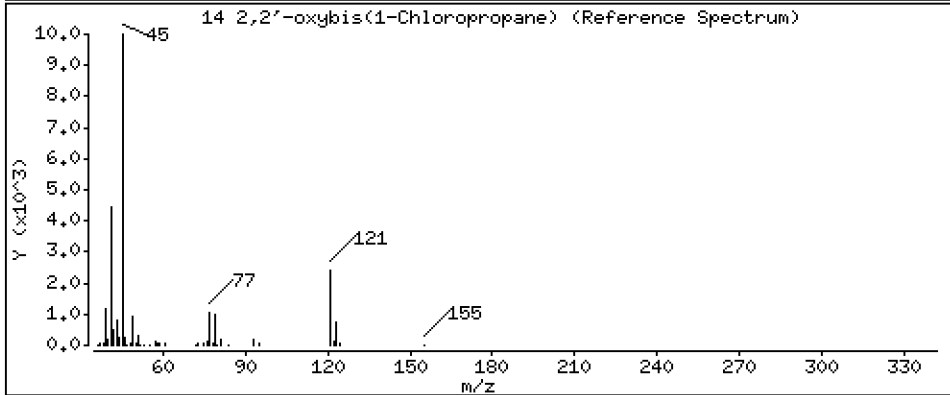
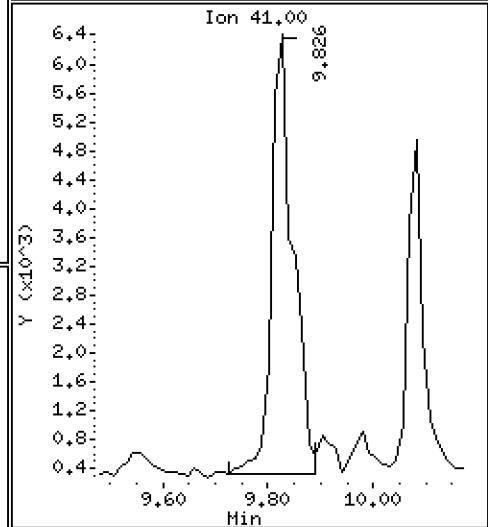
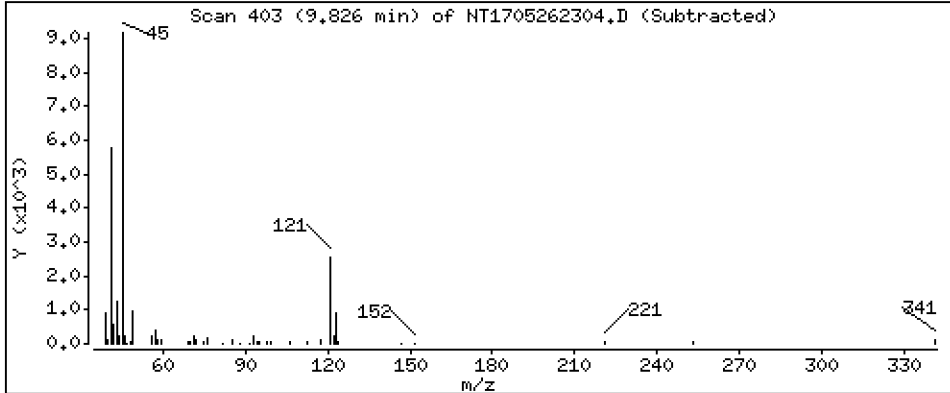
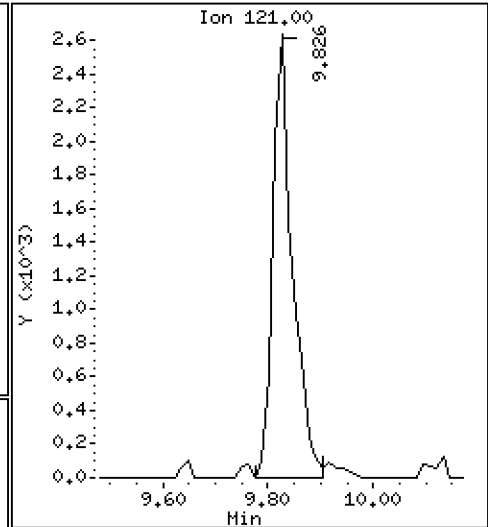
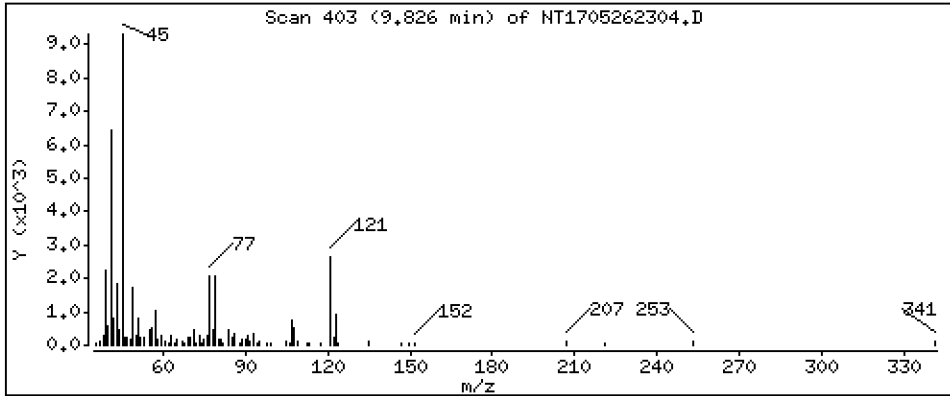
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,2123 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

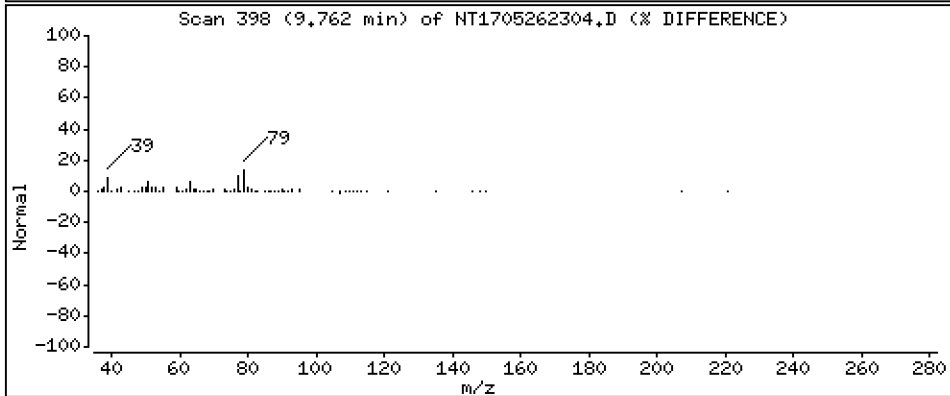
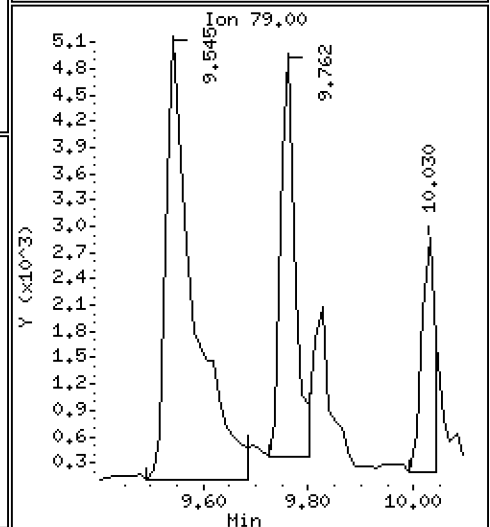
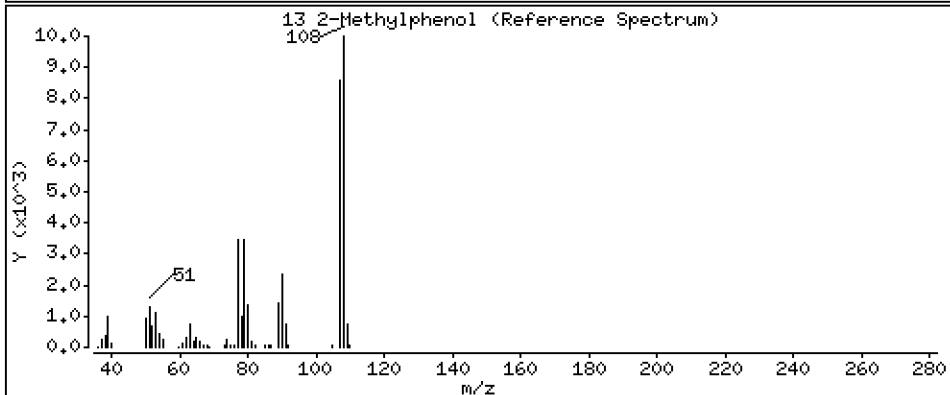
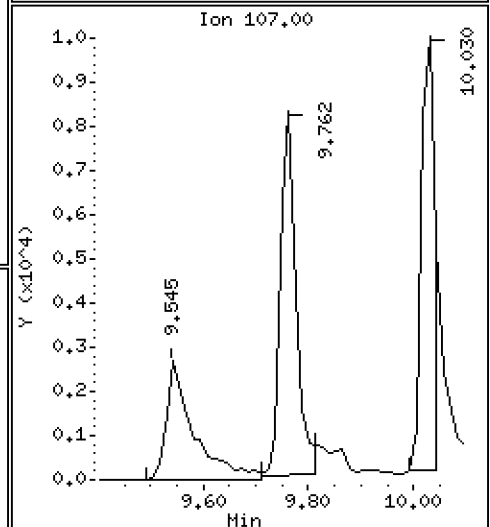
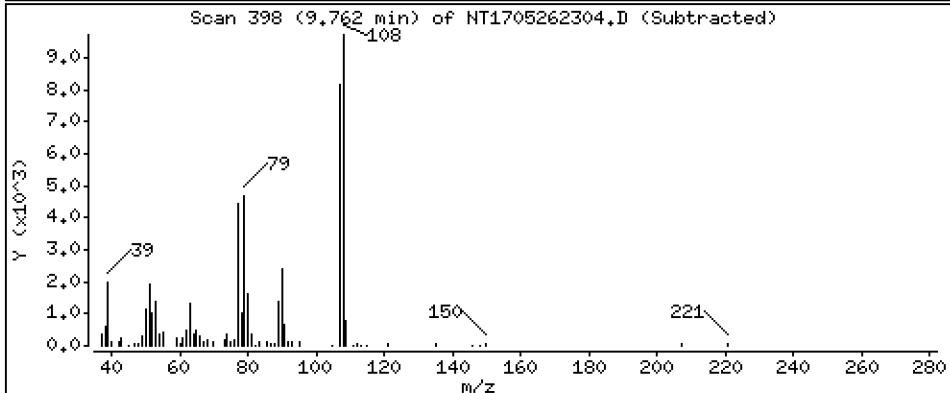
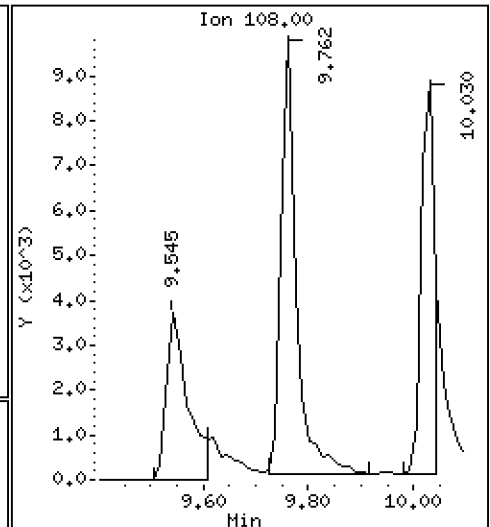
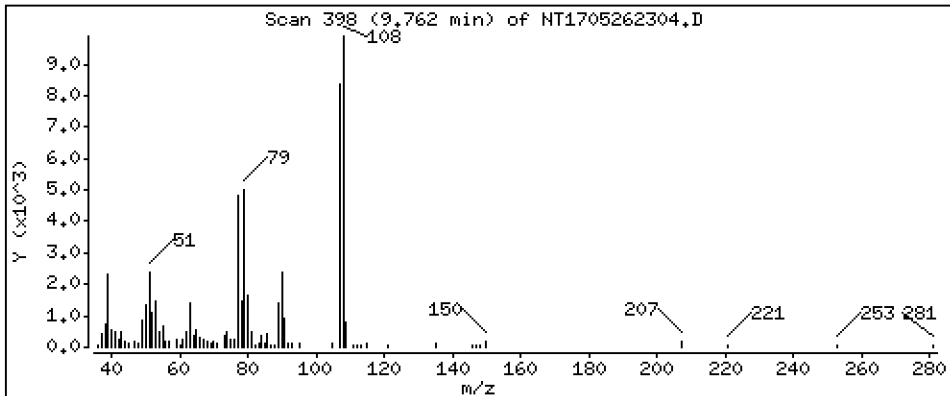
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,1868 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

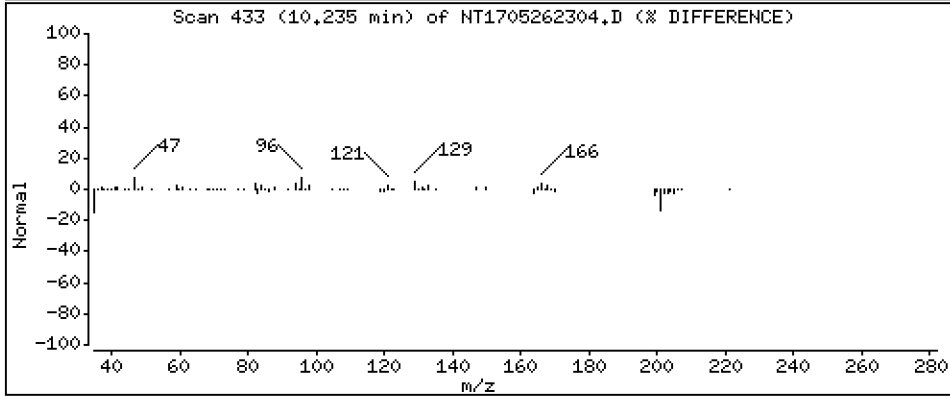
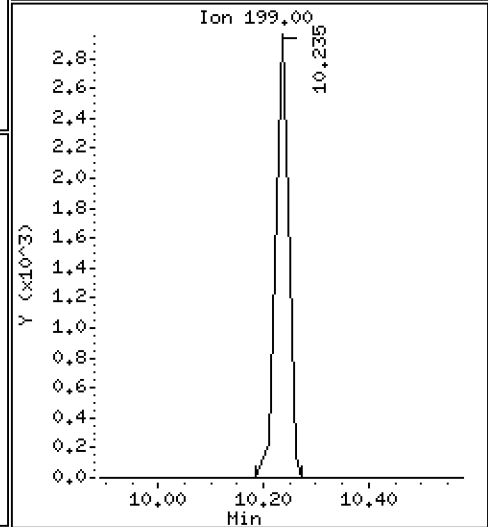
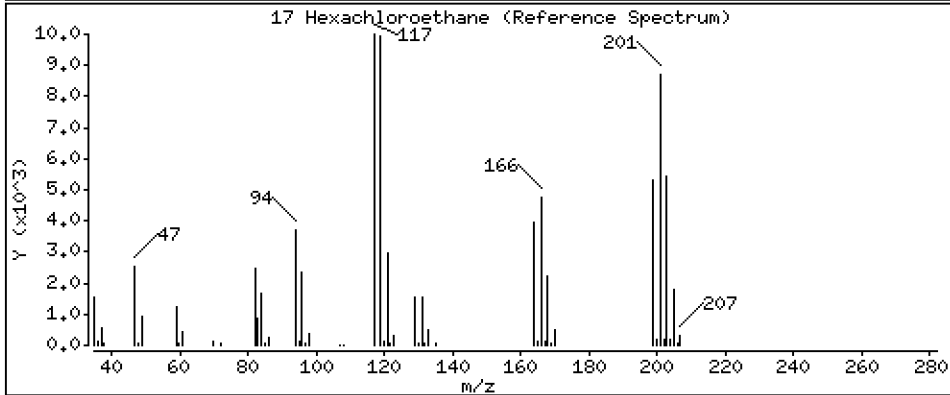
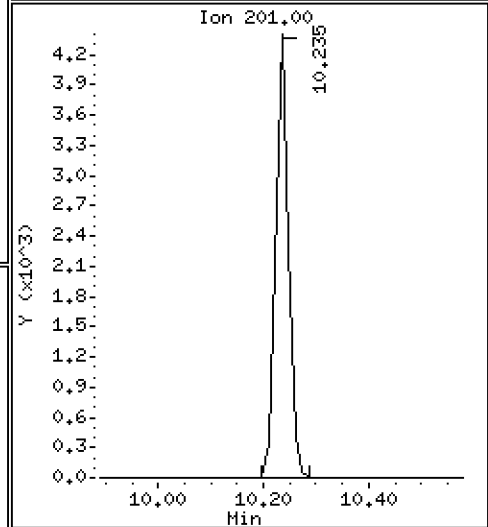
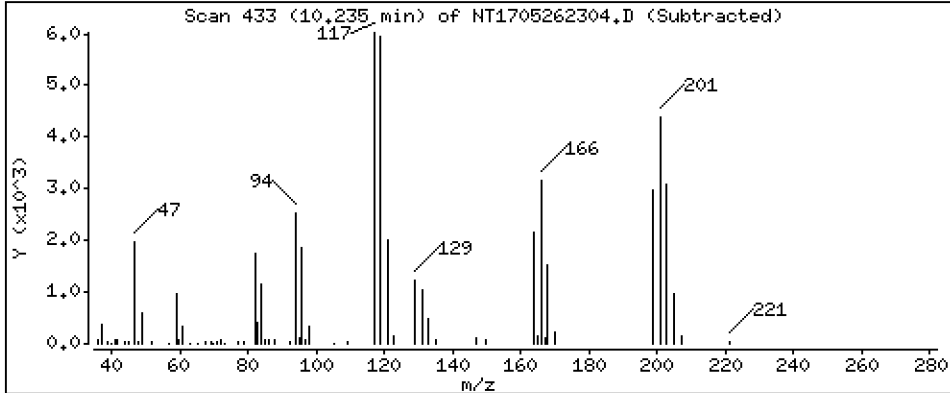
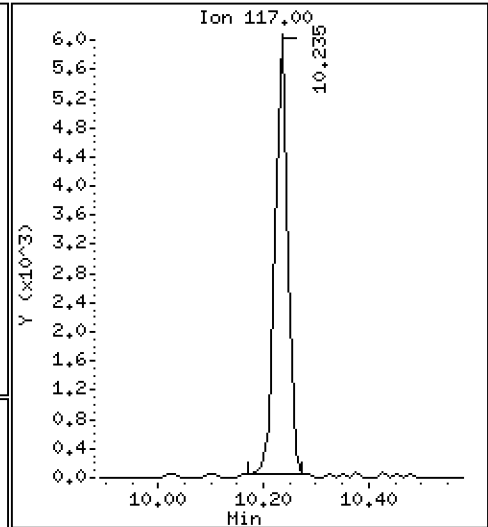
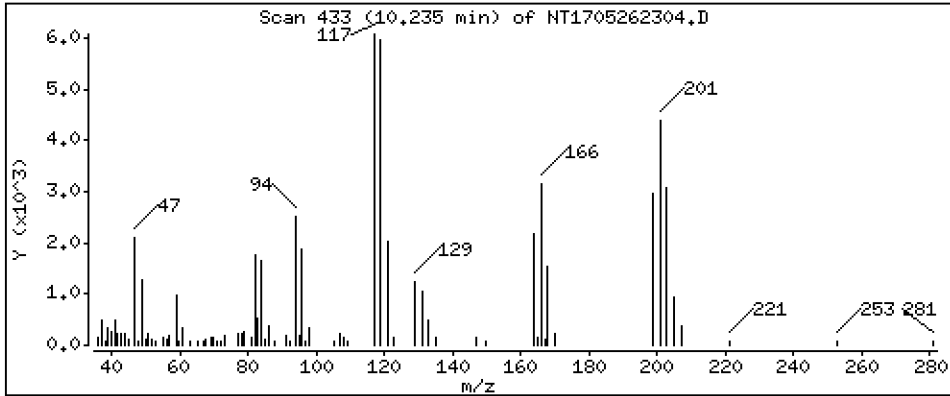
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,2061 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

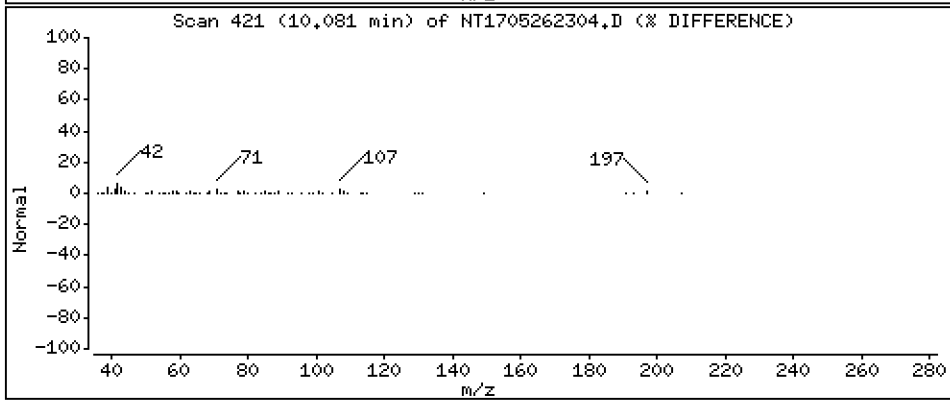
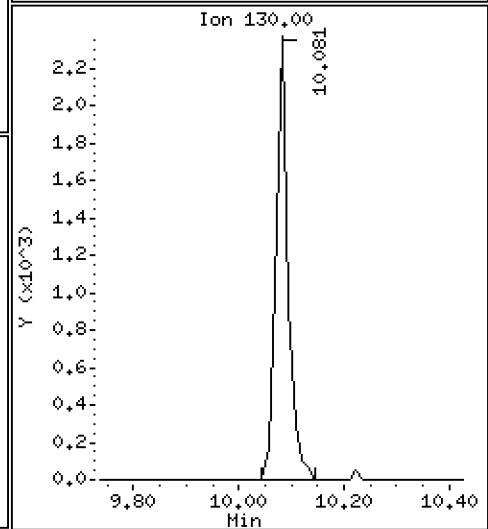
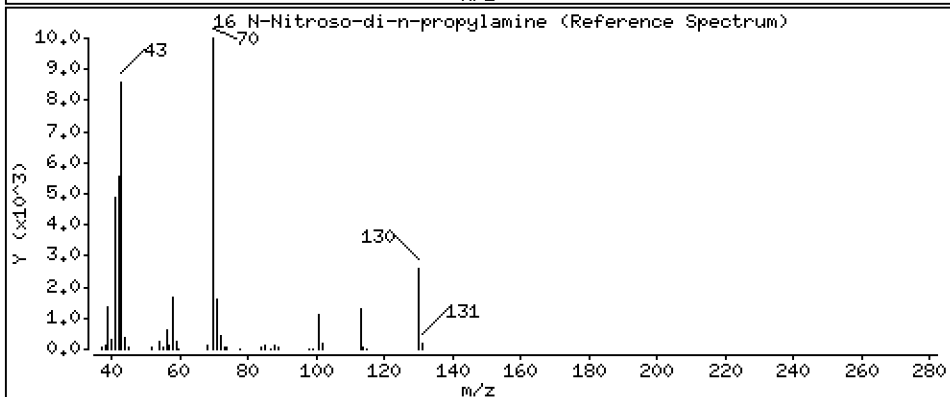
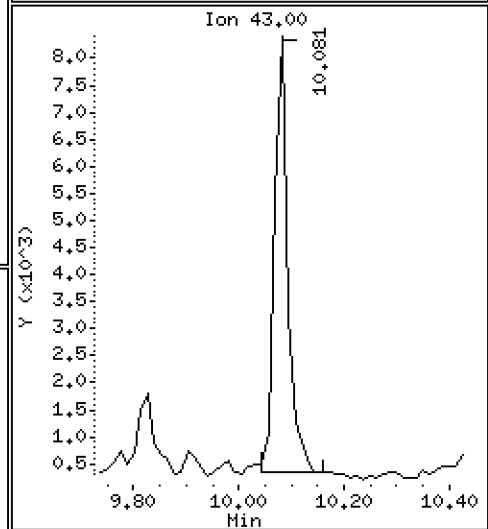
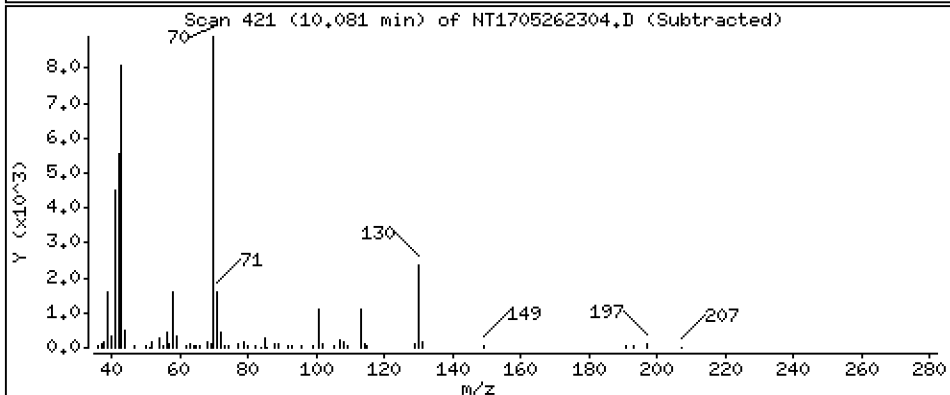
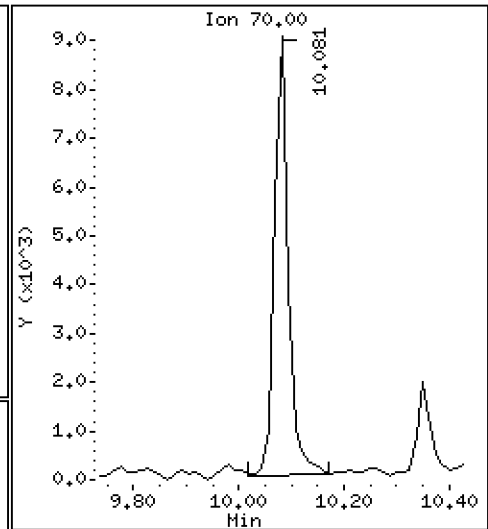
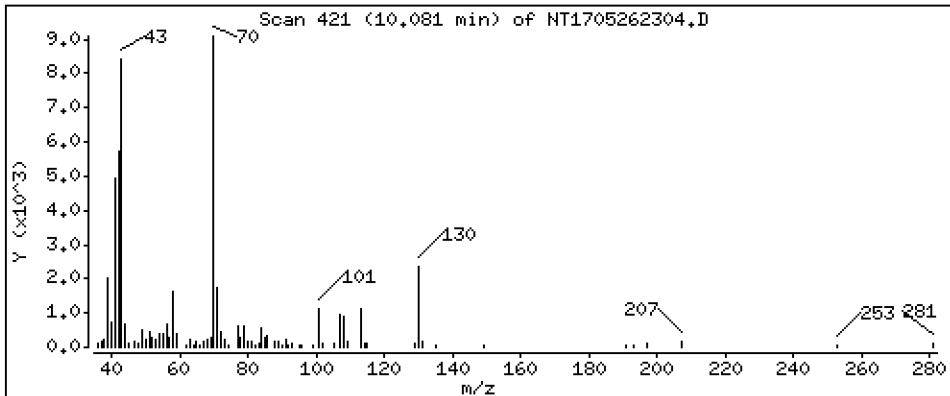
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,2032 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

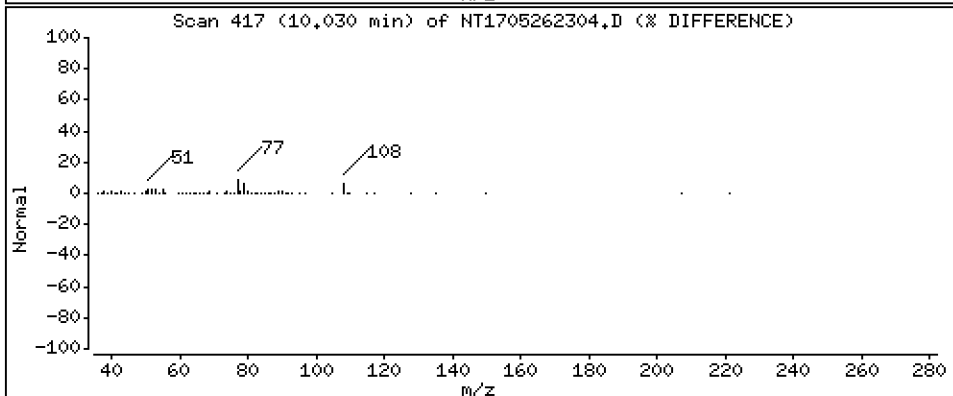
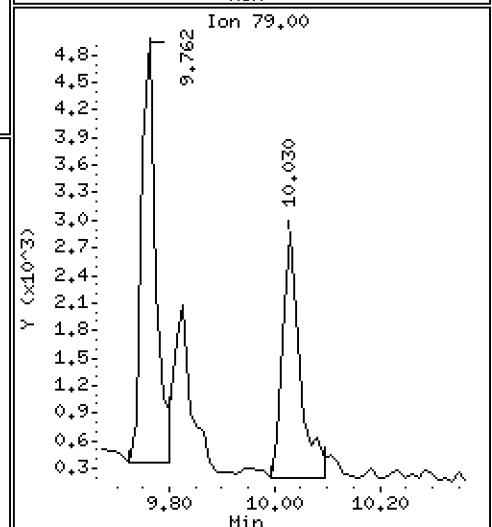
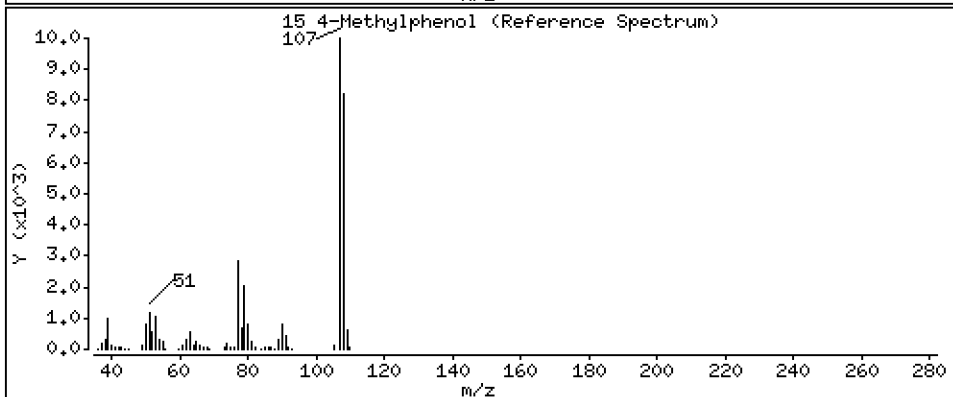
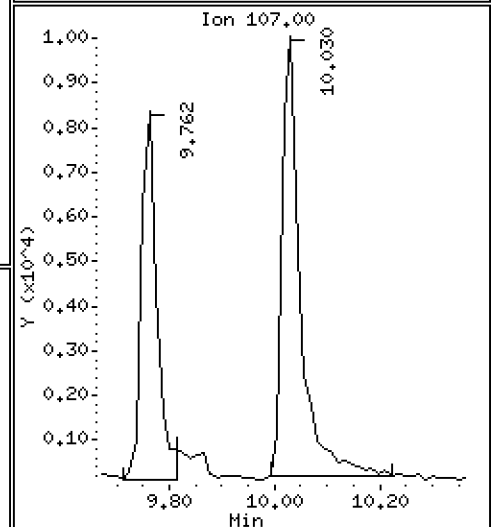
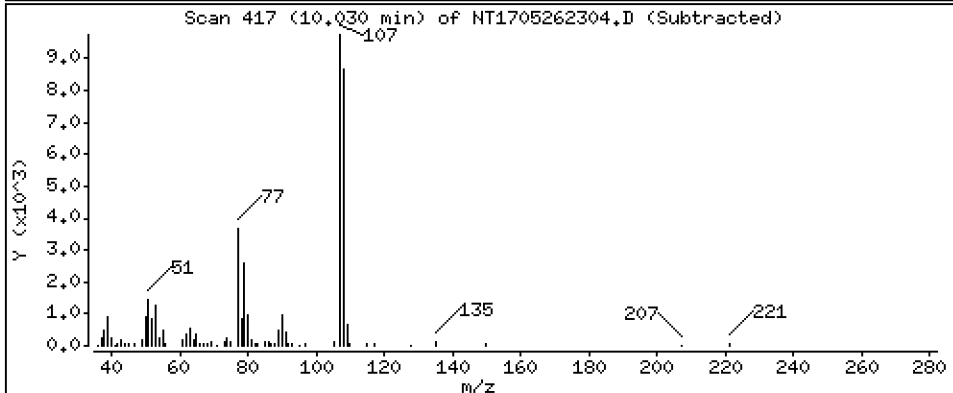
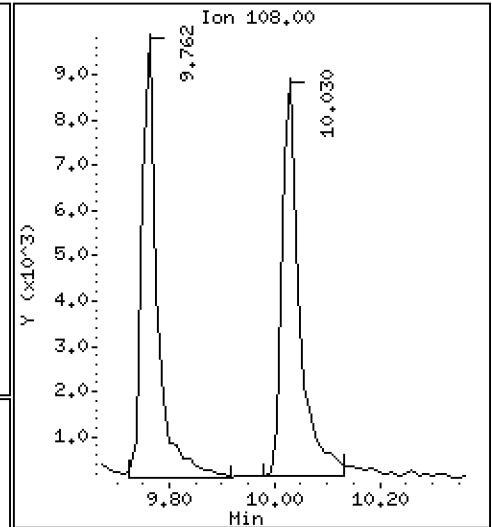
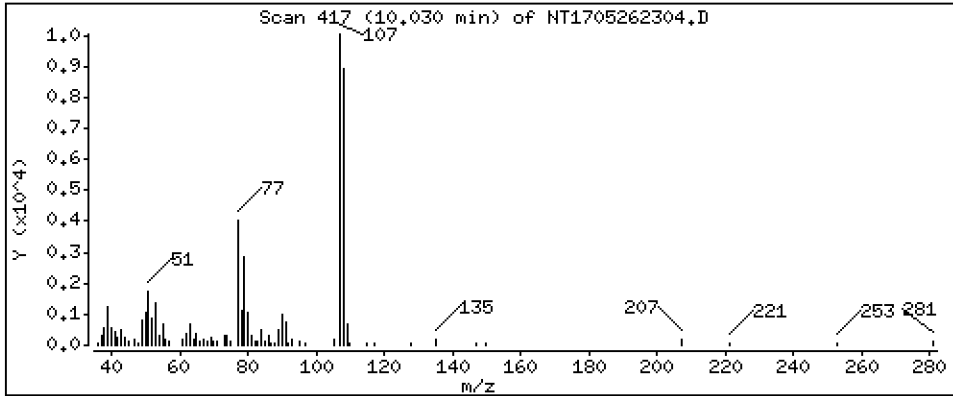
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1869 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

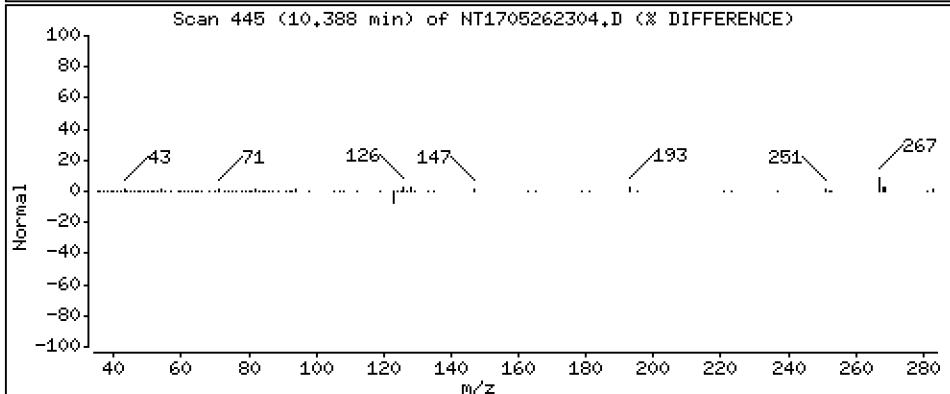
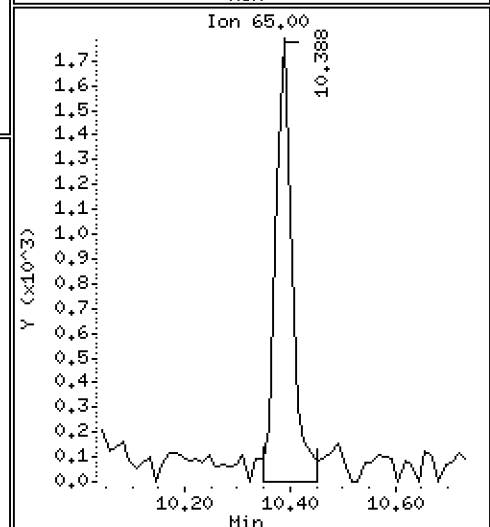
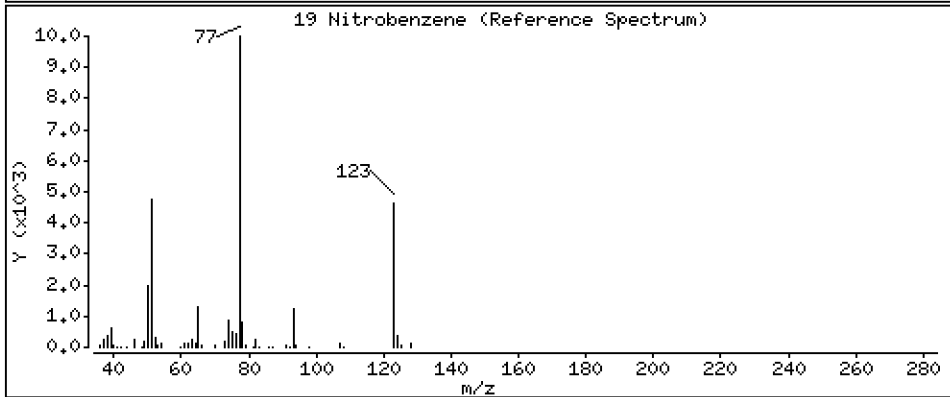
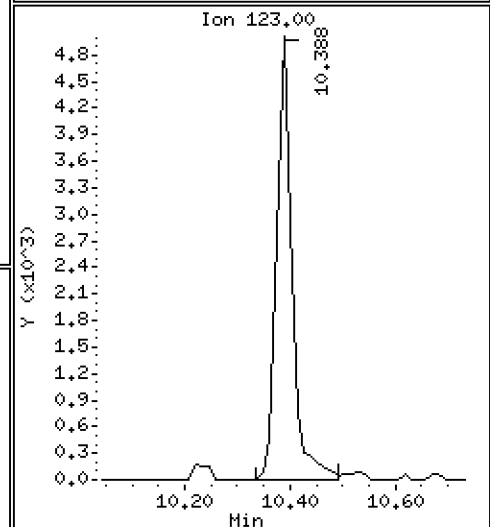
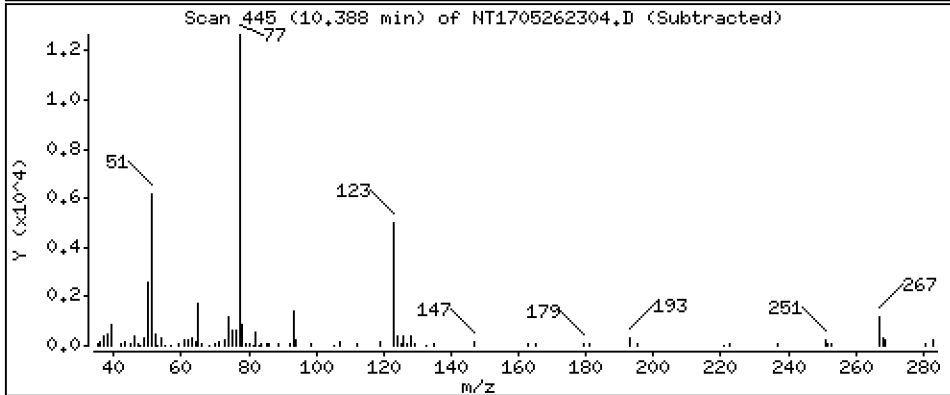
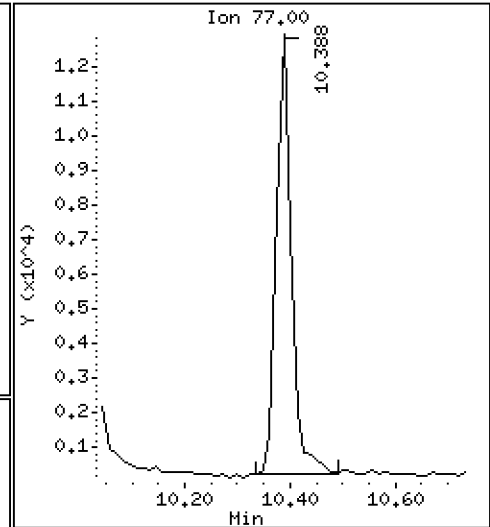
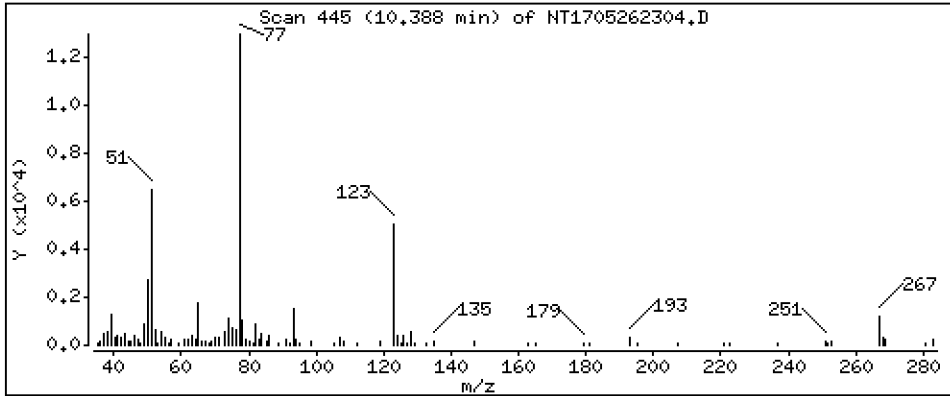
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,1974 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

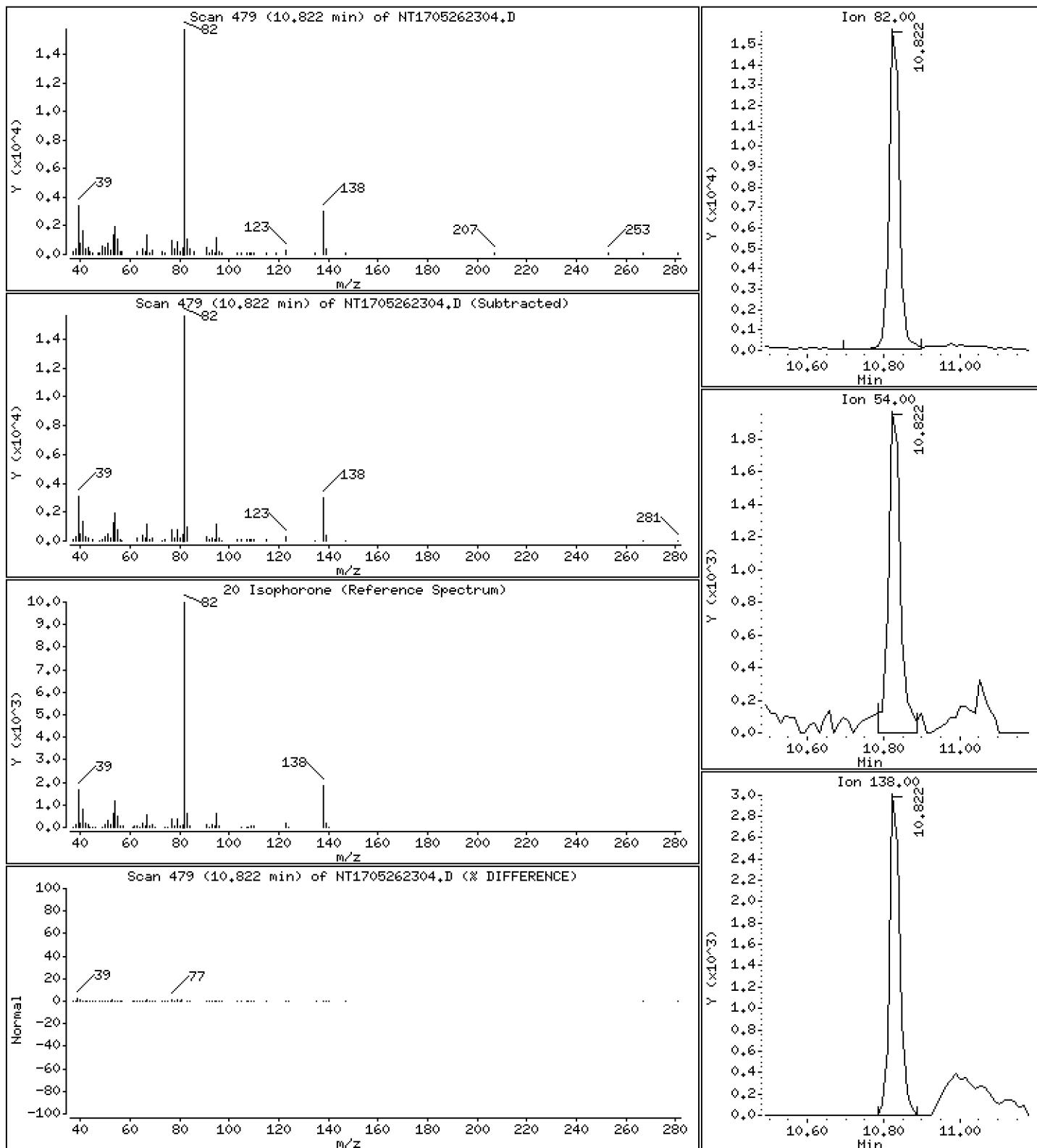
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,1762 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

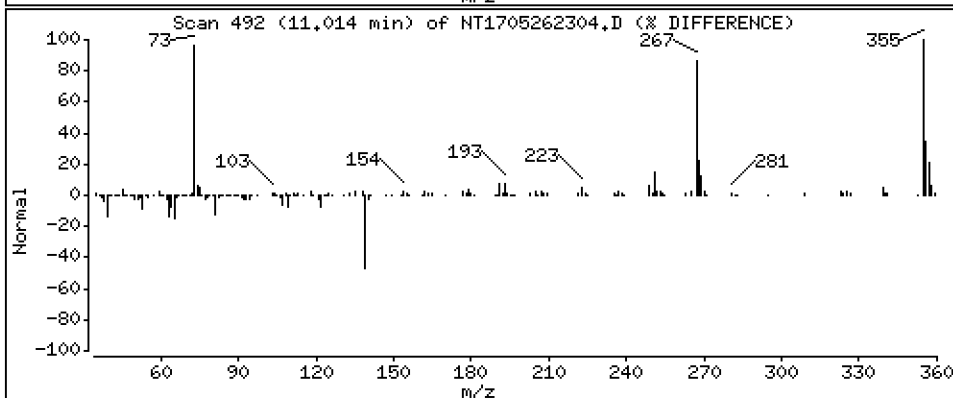
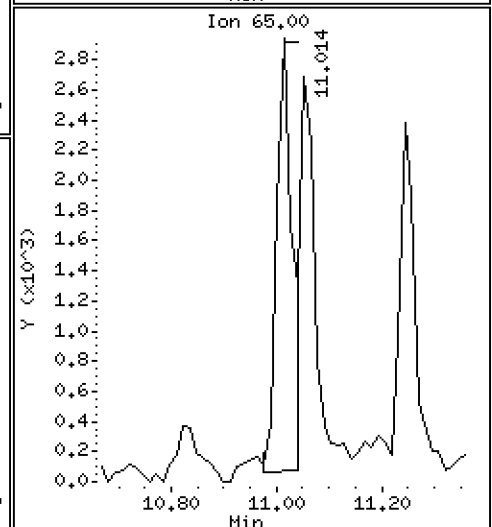
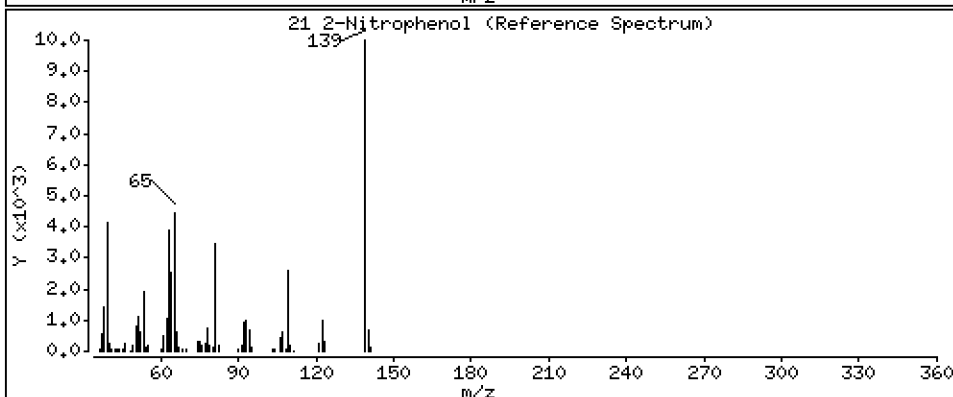
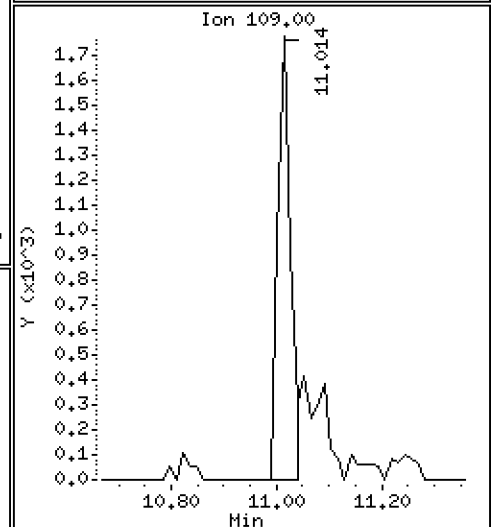
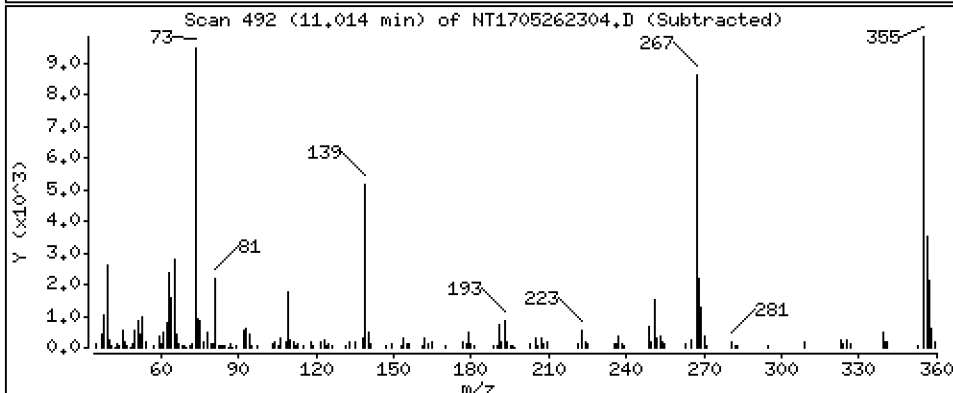
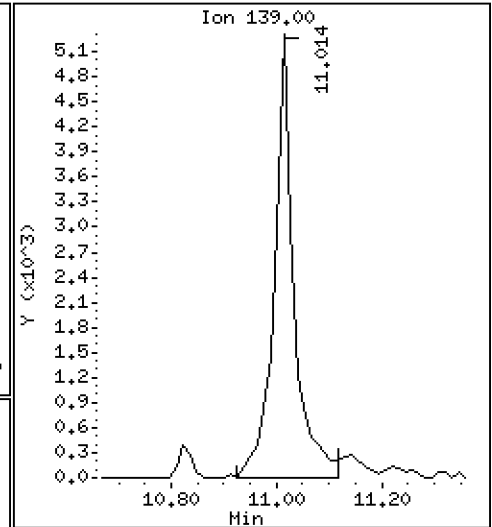
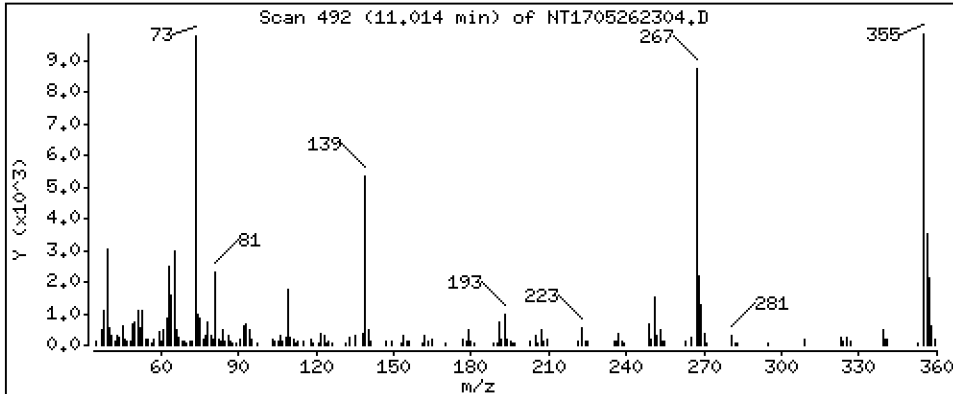
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

21 2-Nitrophenol

Concentration: 0.2610 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

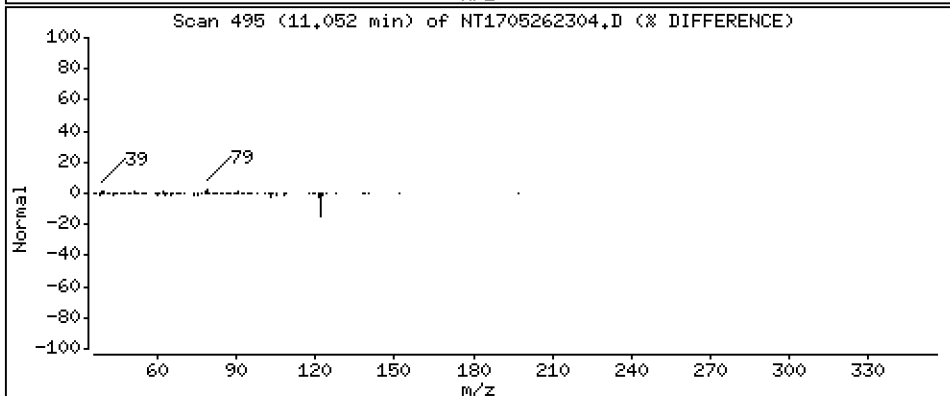
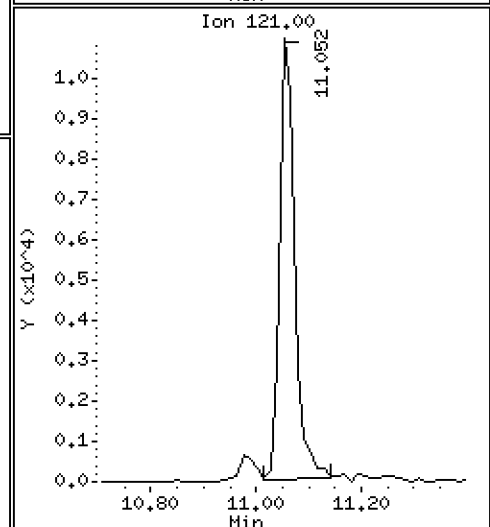
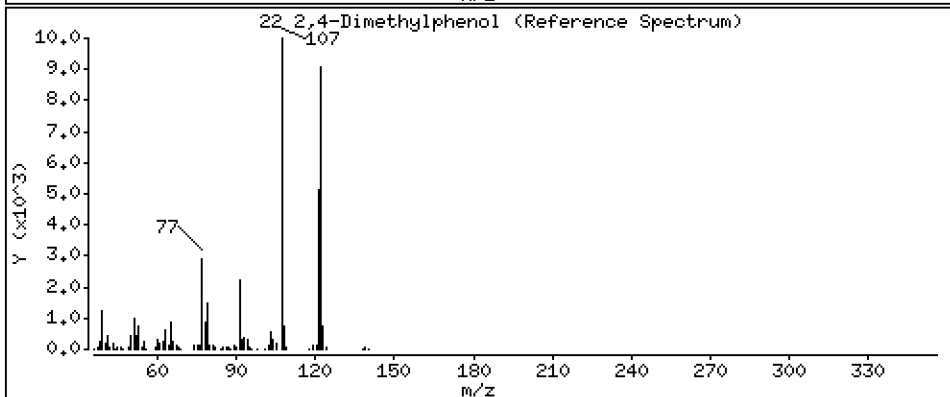
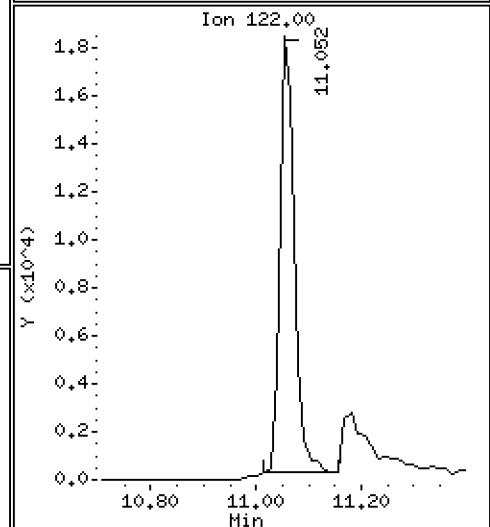
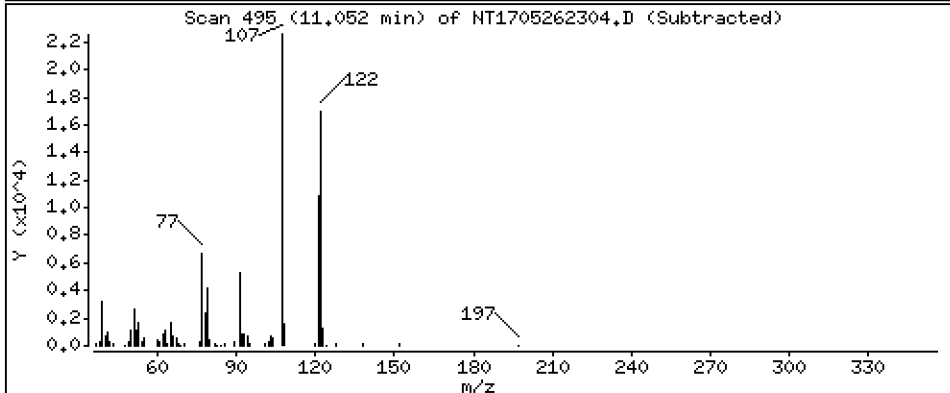
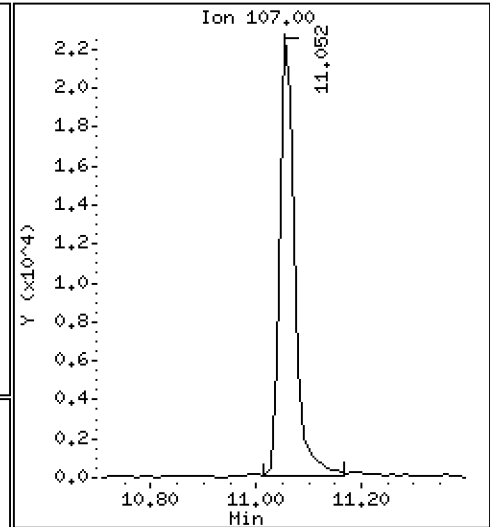
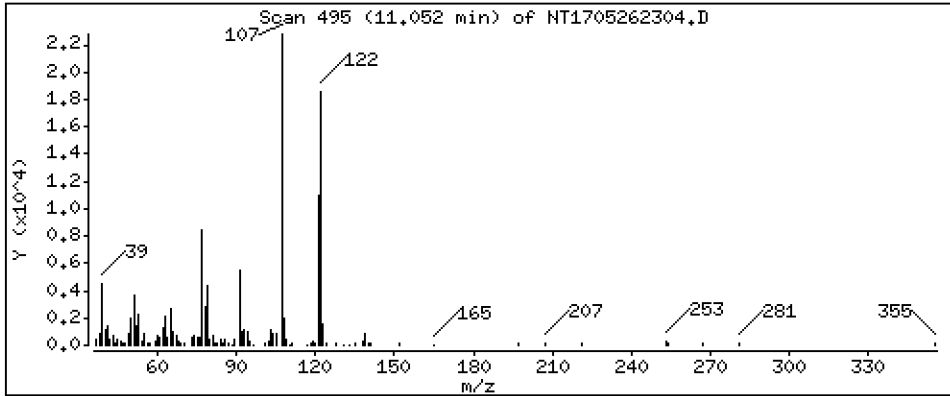
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,3870 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

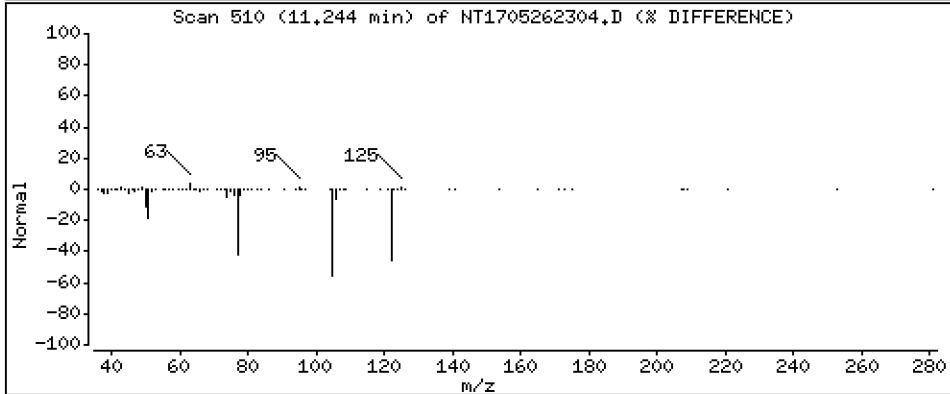
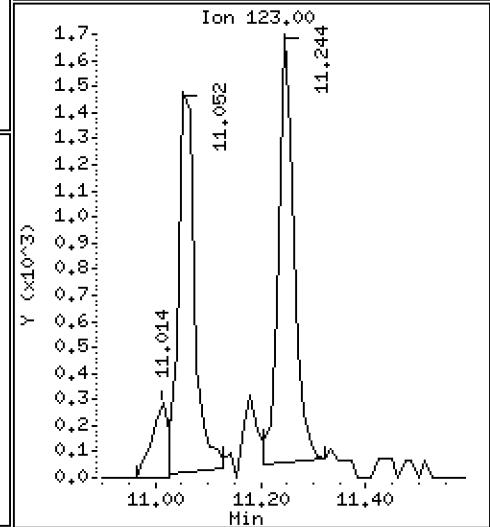
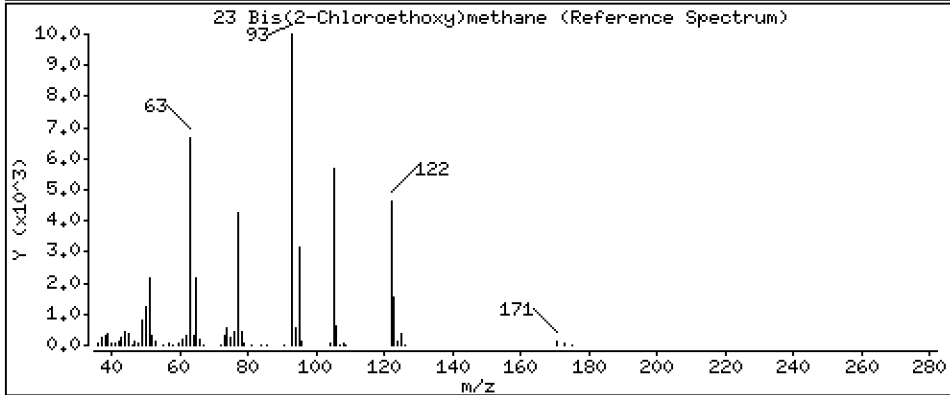
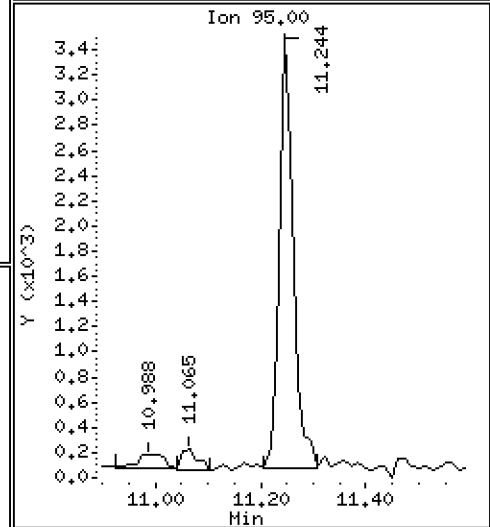
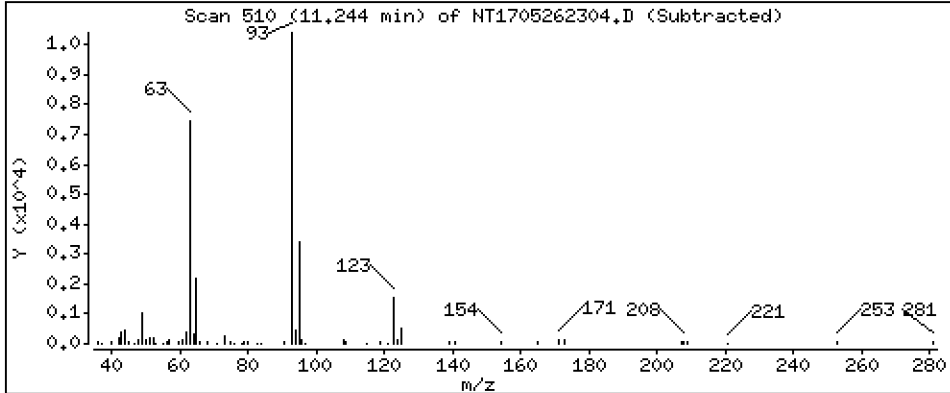
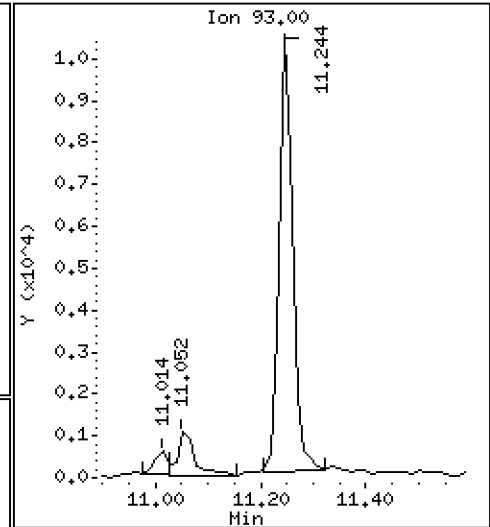
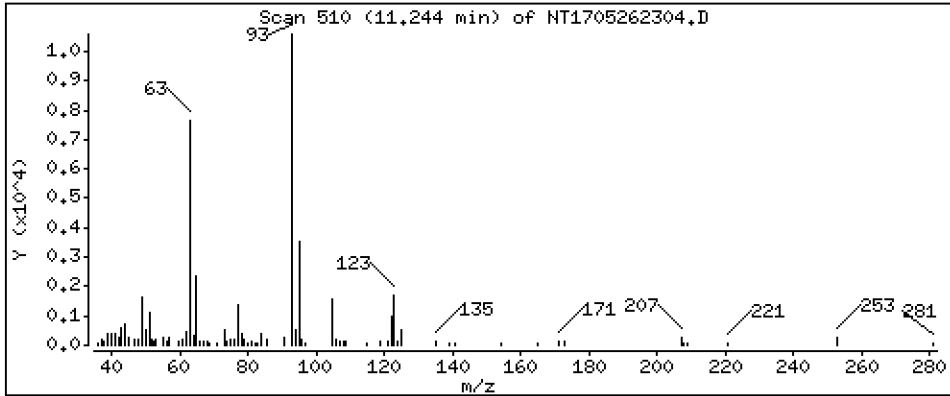
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,1790 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

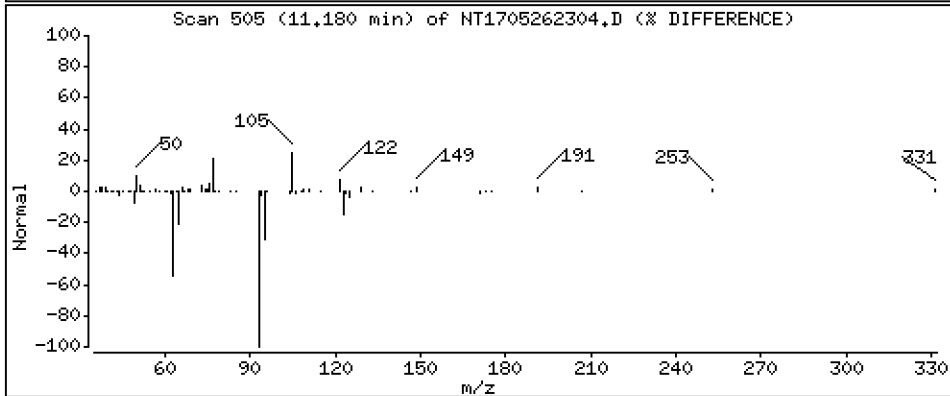
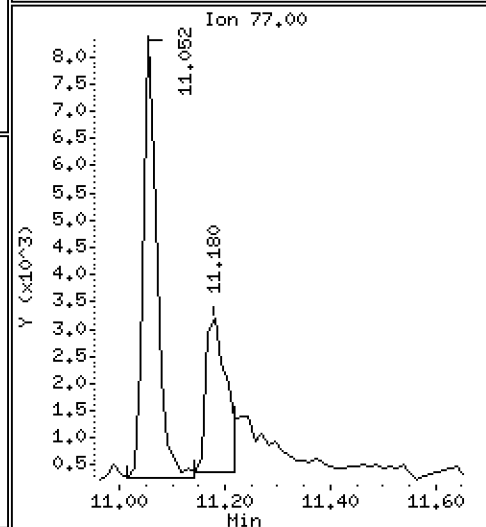
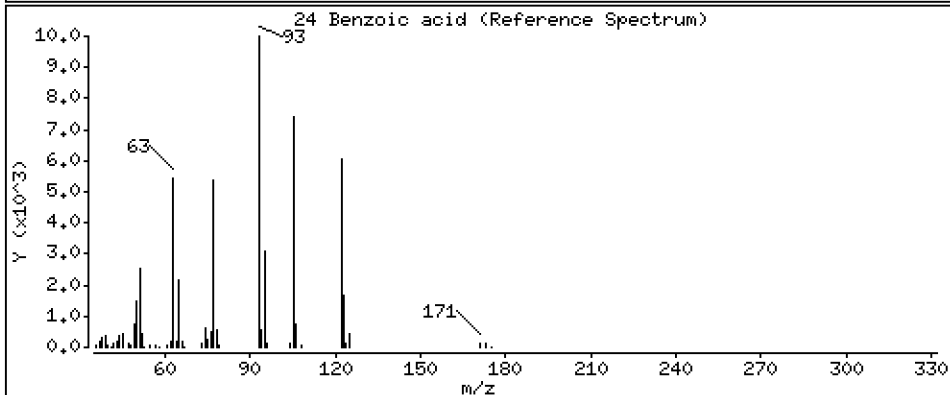
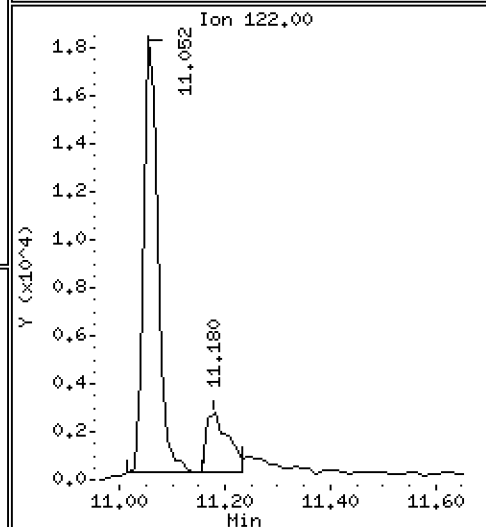
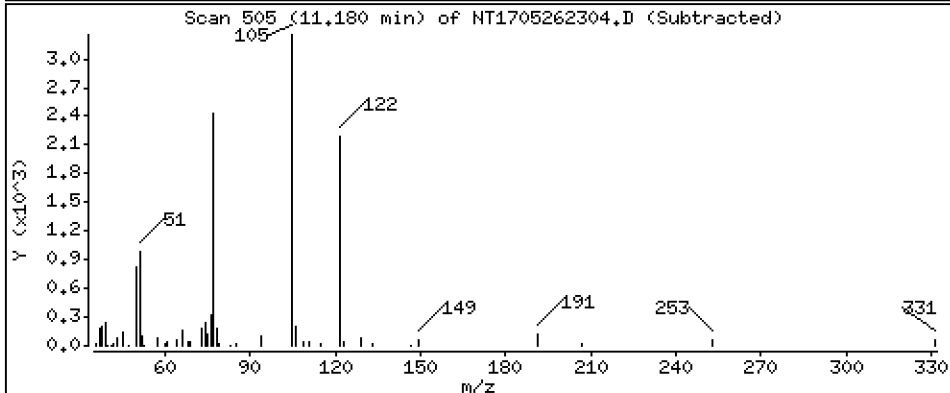
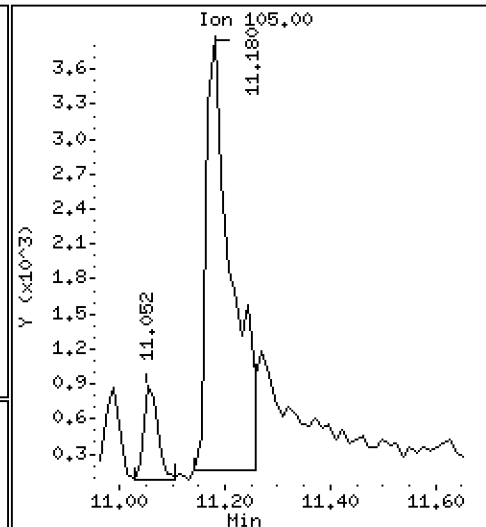
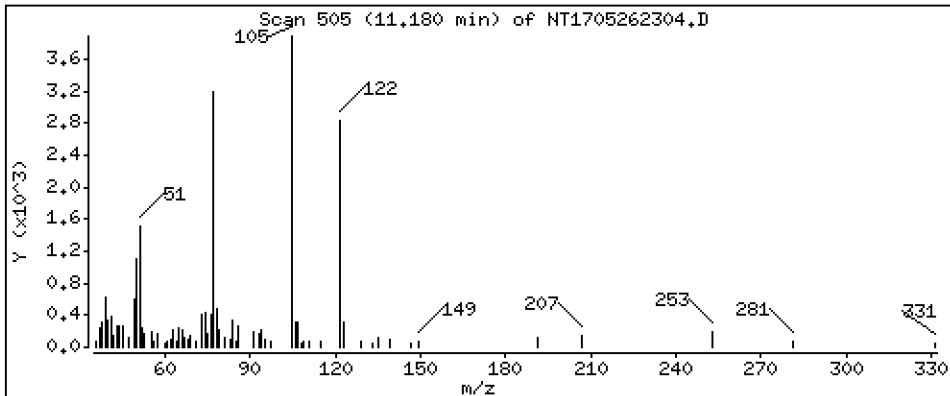
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.1600 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

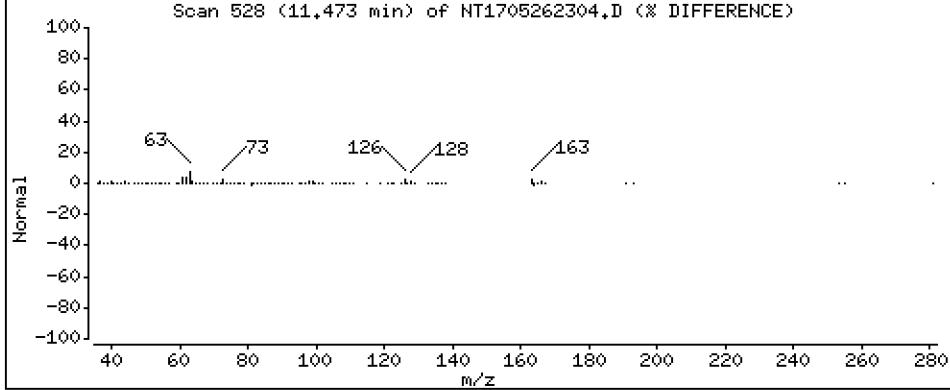
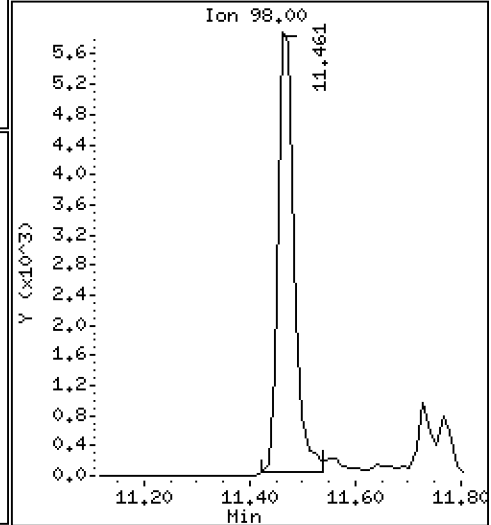
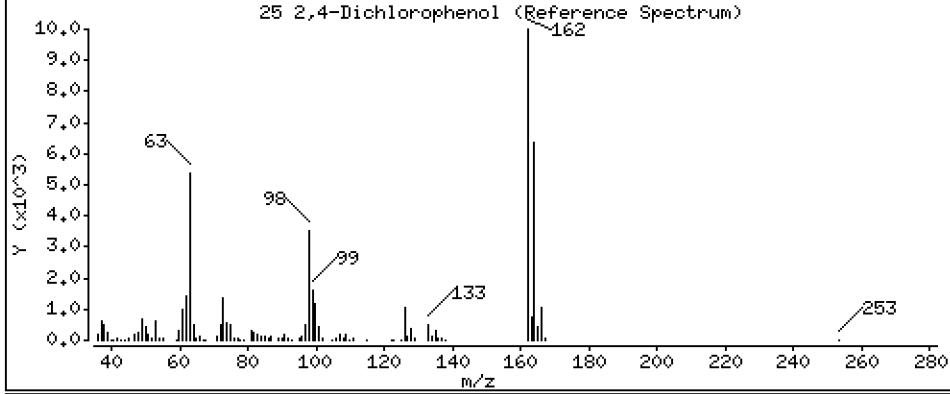
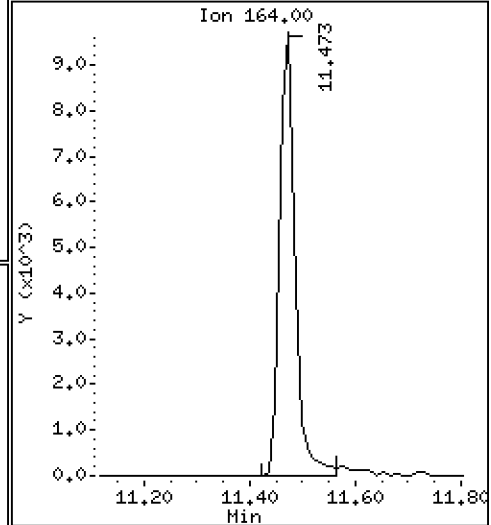
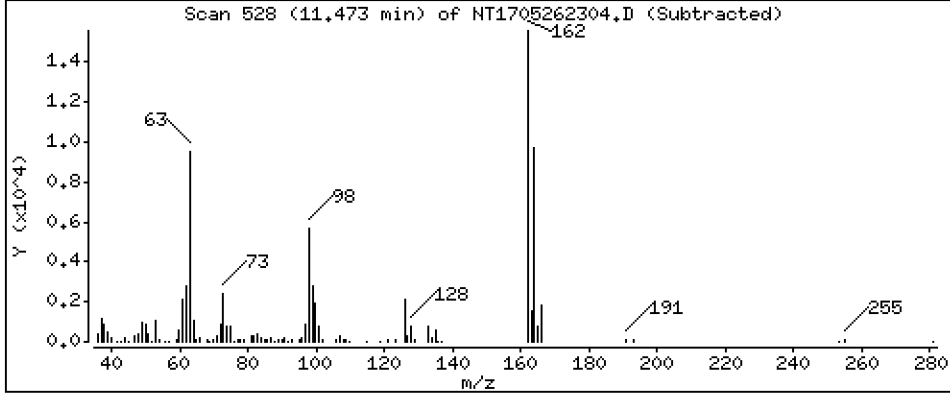
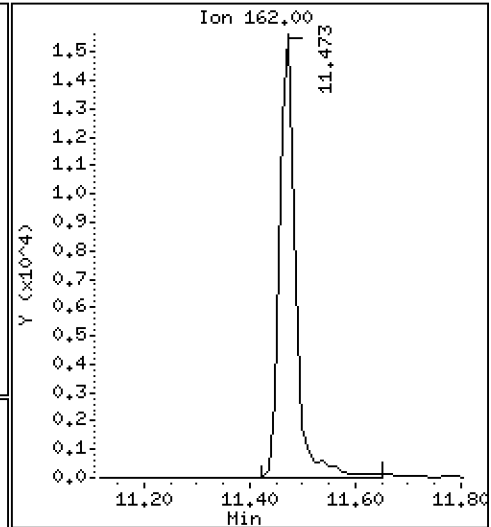
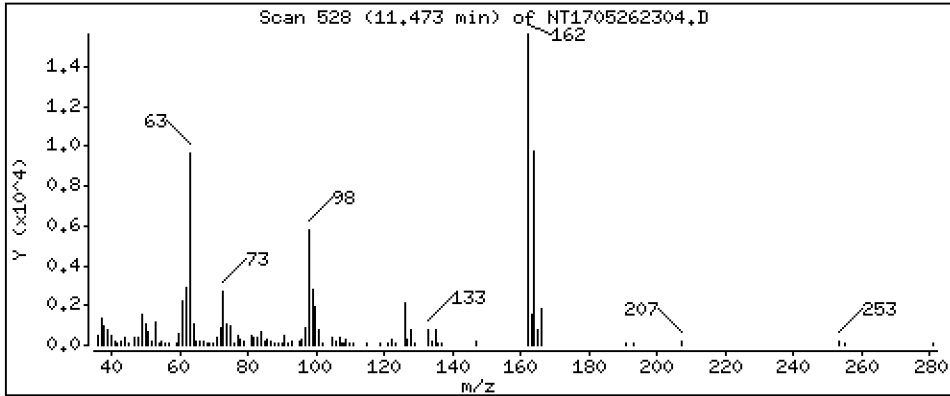
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,4023 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

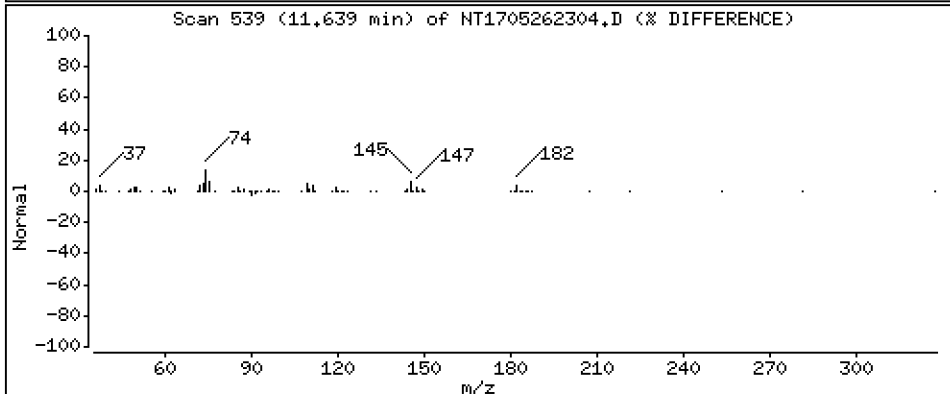
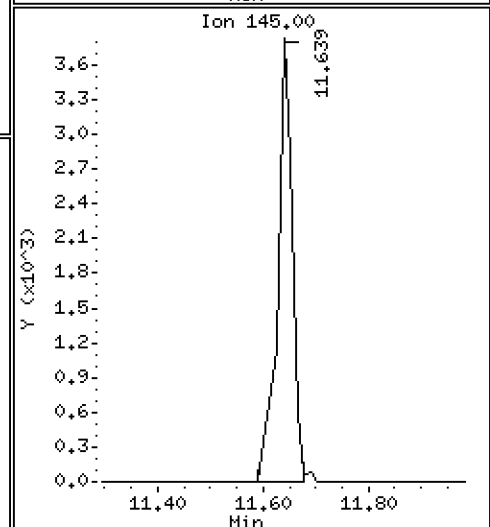
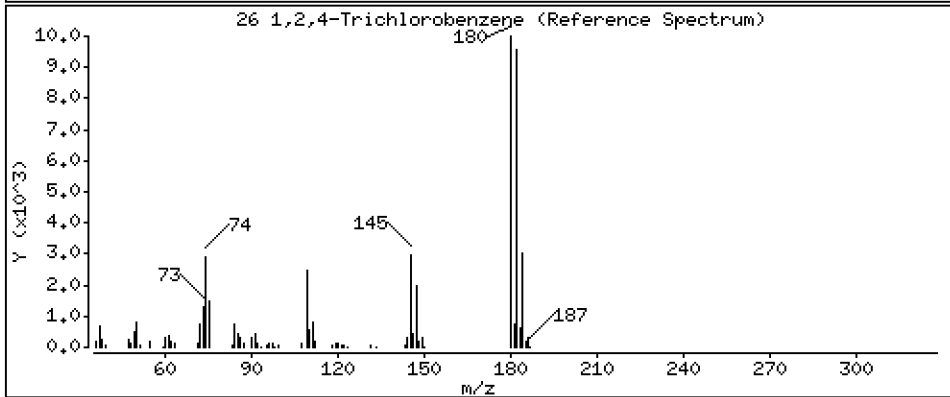
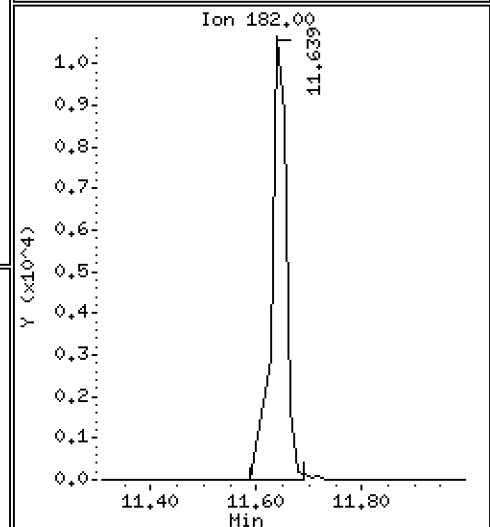
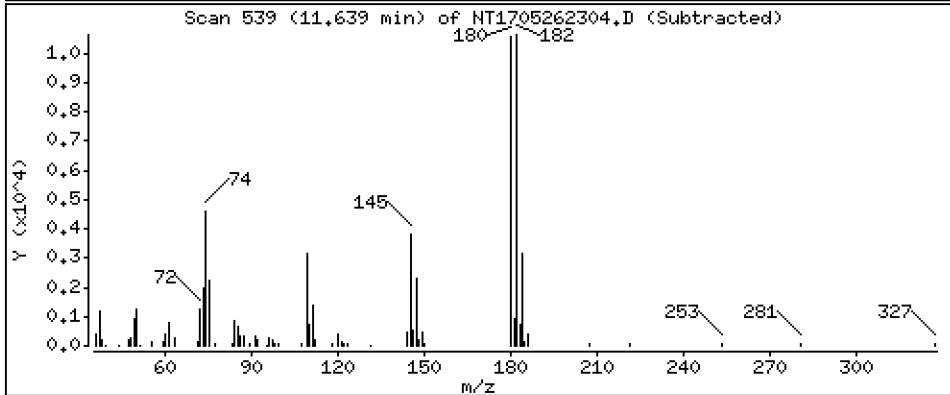
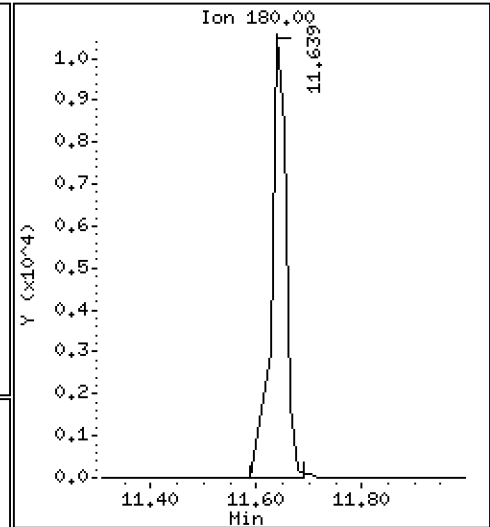
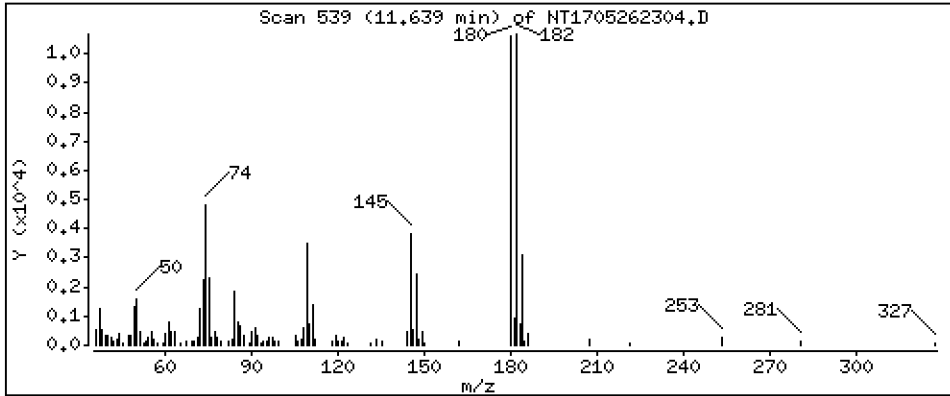
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,2404 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

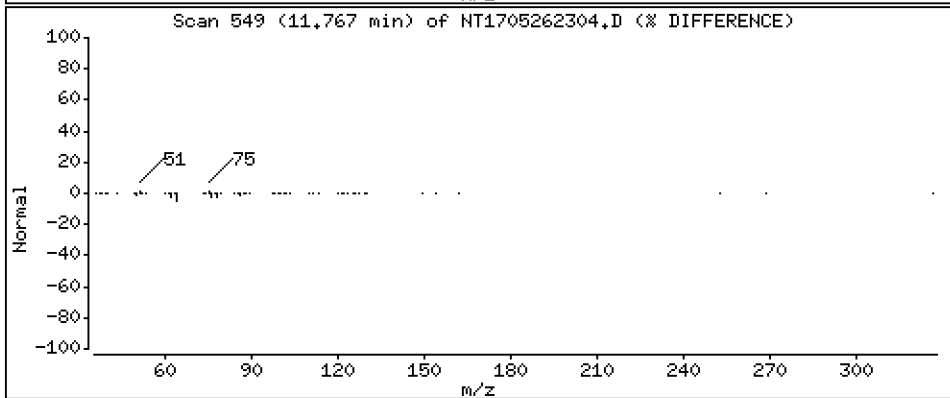
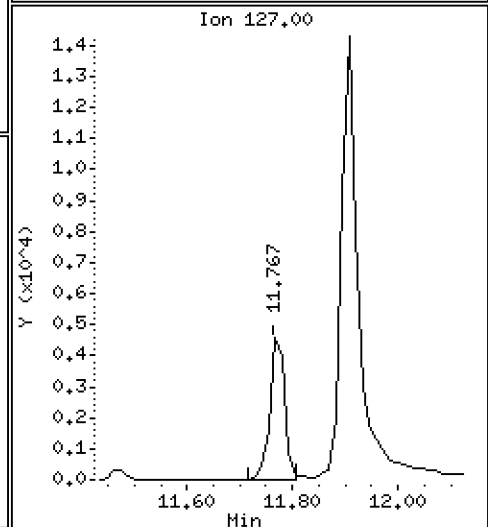
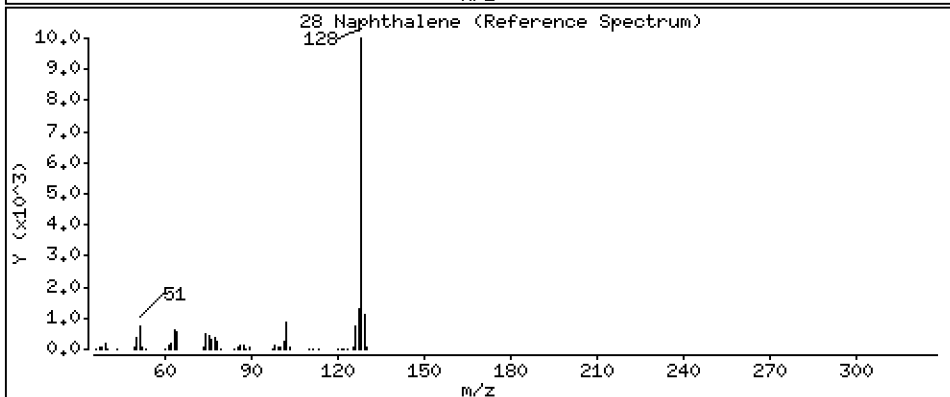
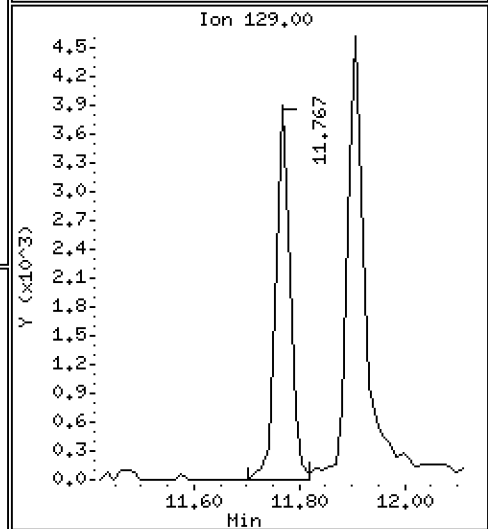
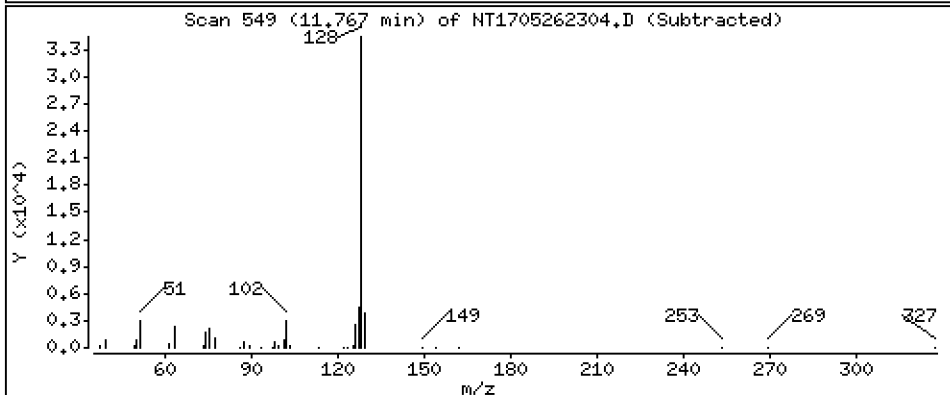
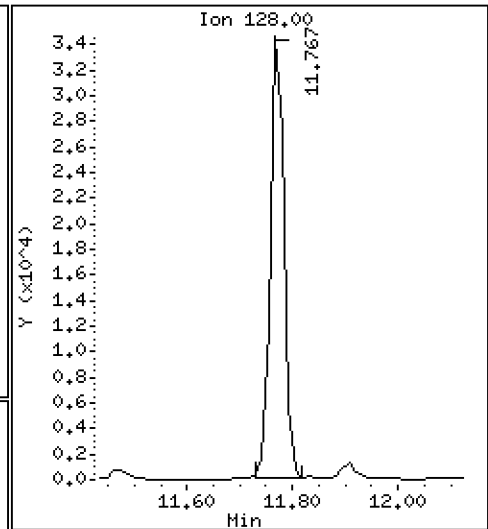
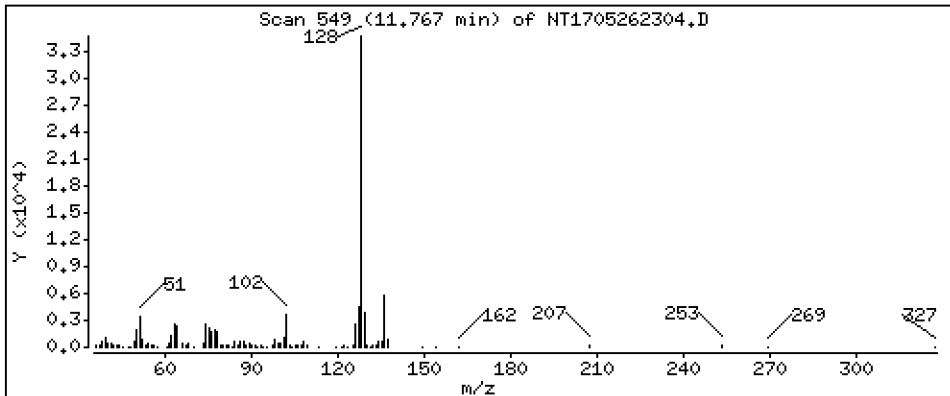
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,1976 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

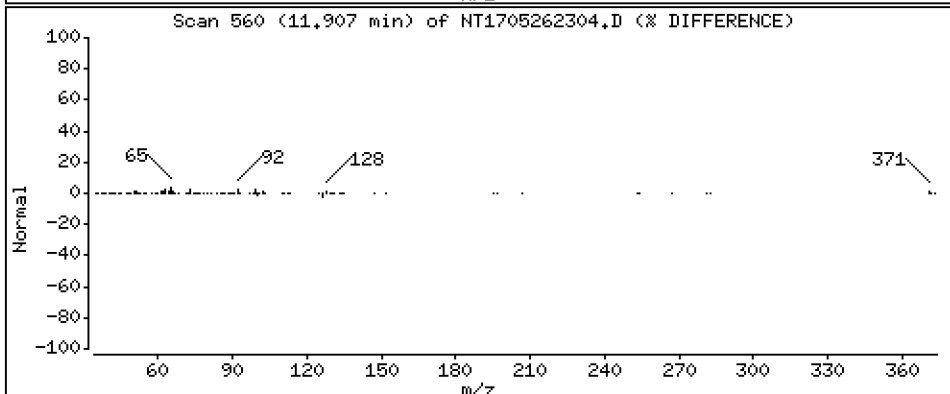
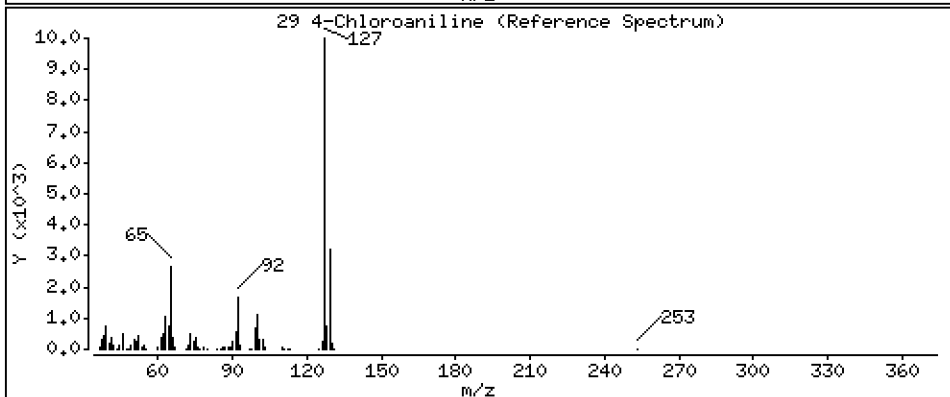
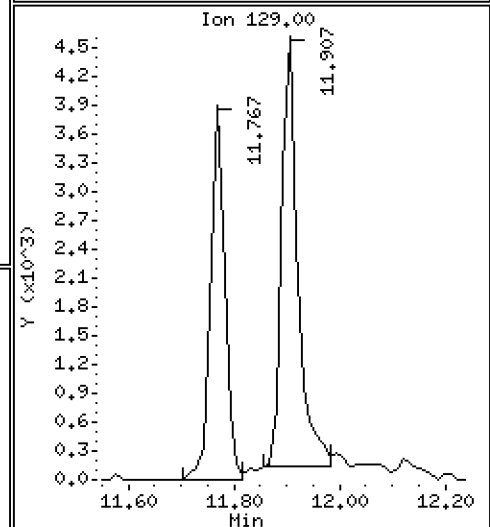
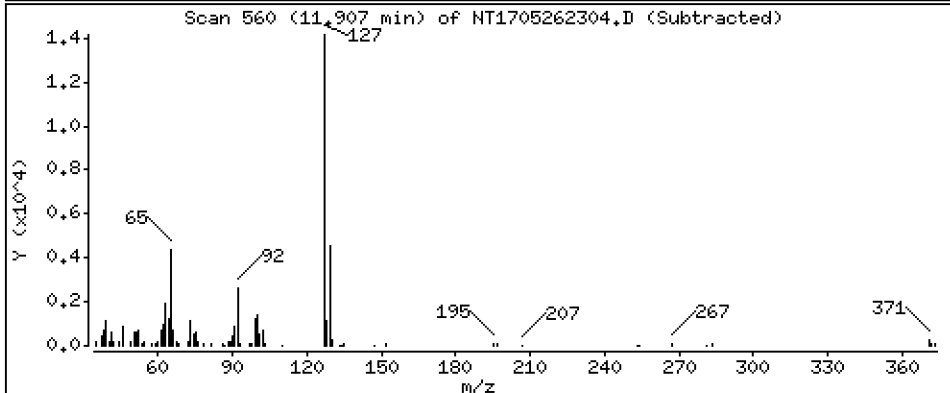
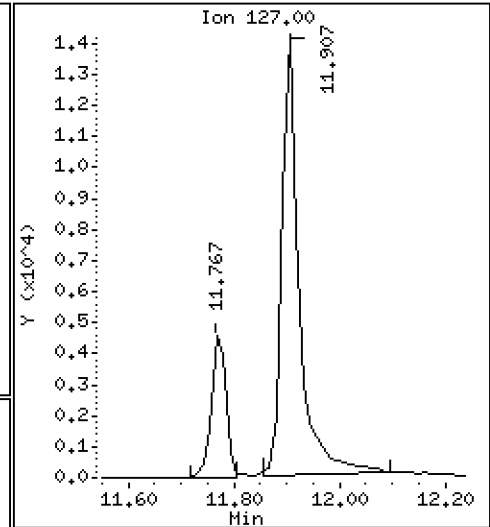
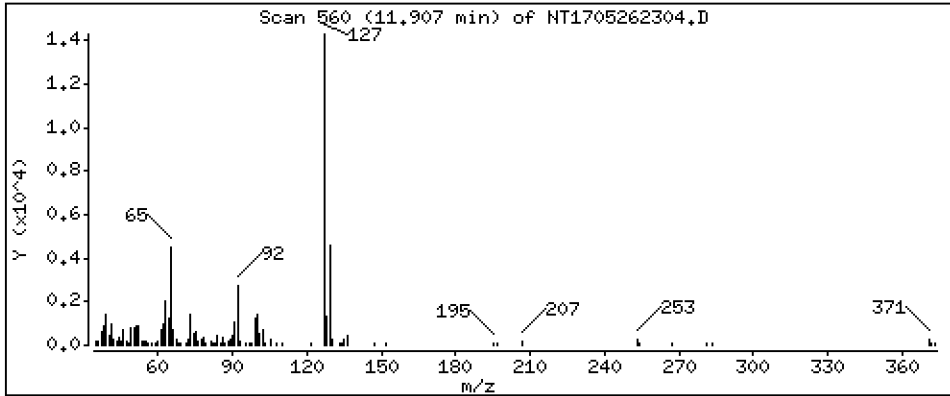
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,2918 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

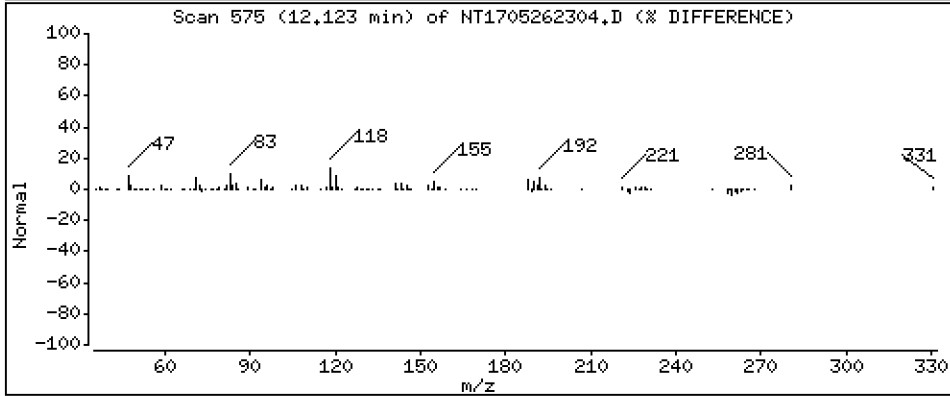
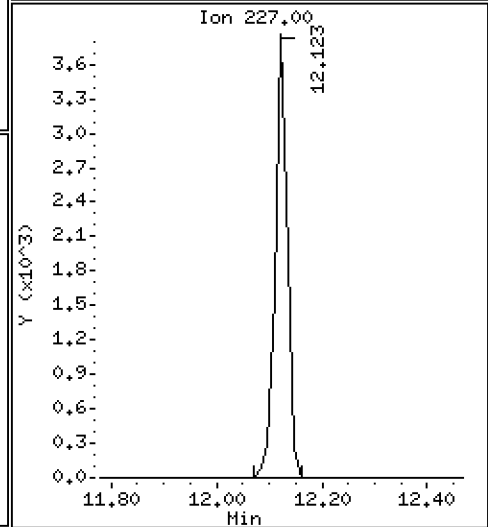
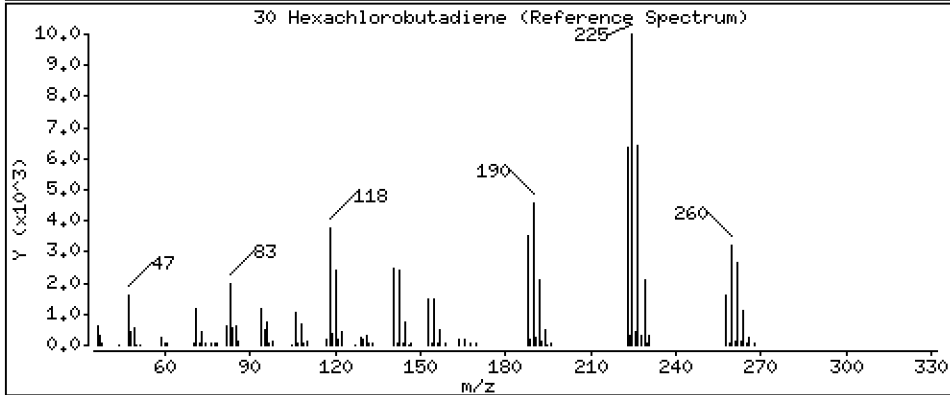
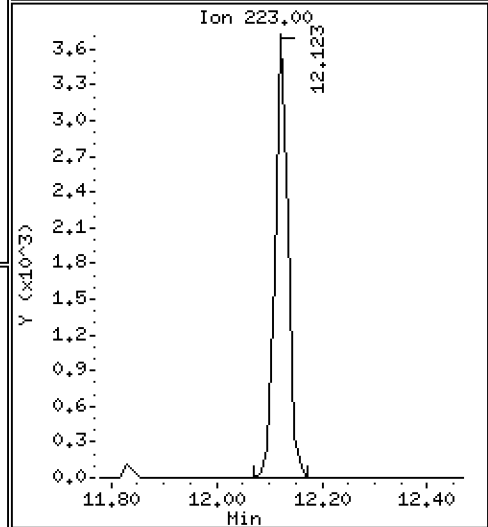
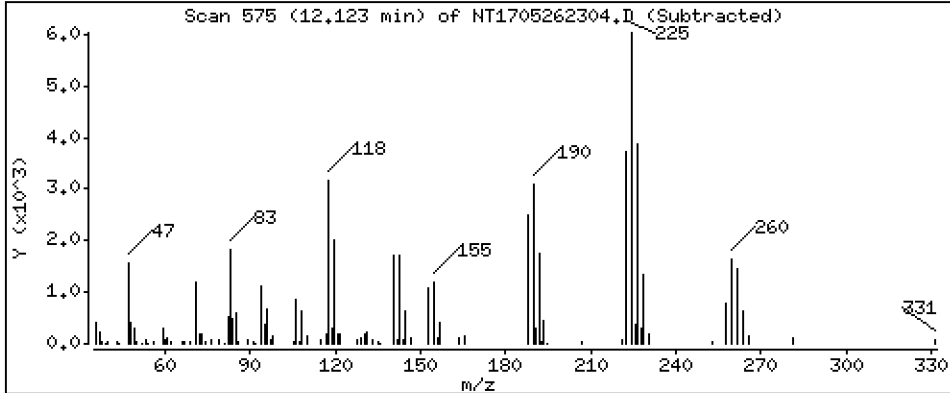
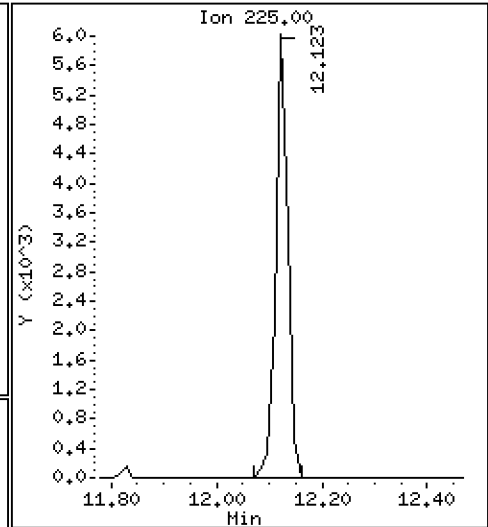
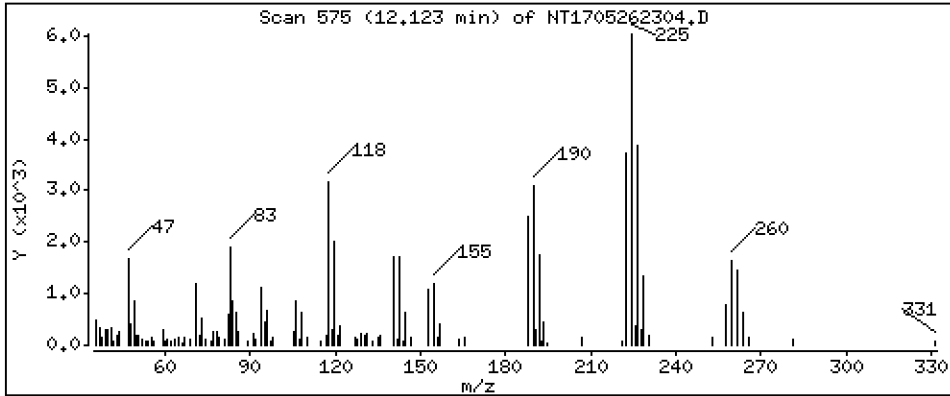
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,1913 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

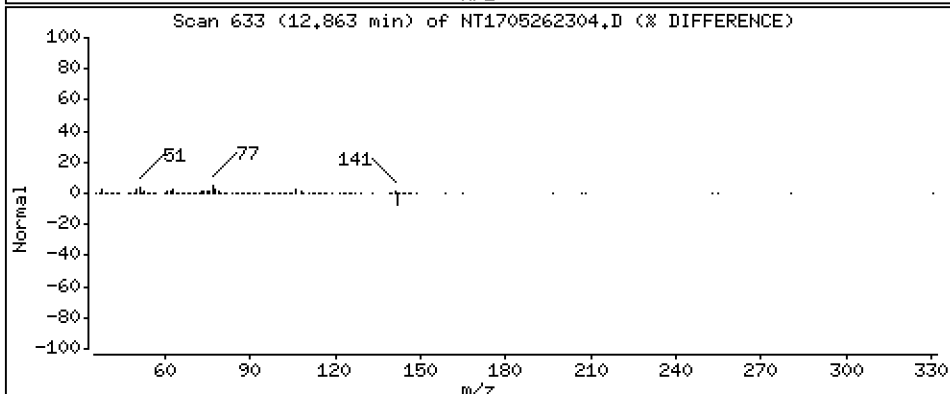
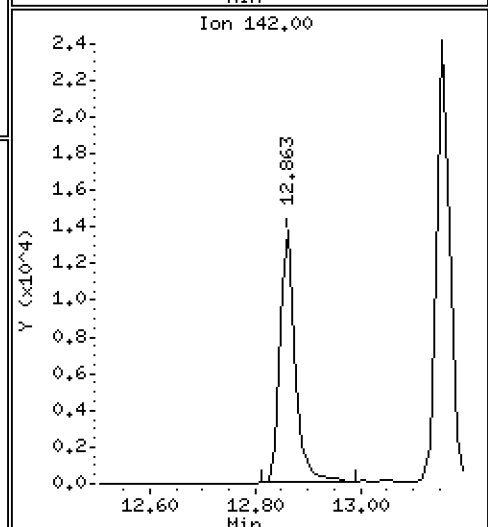
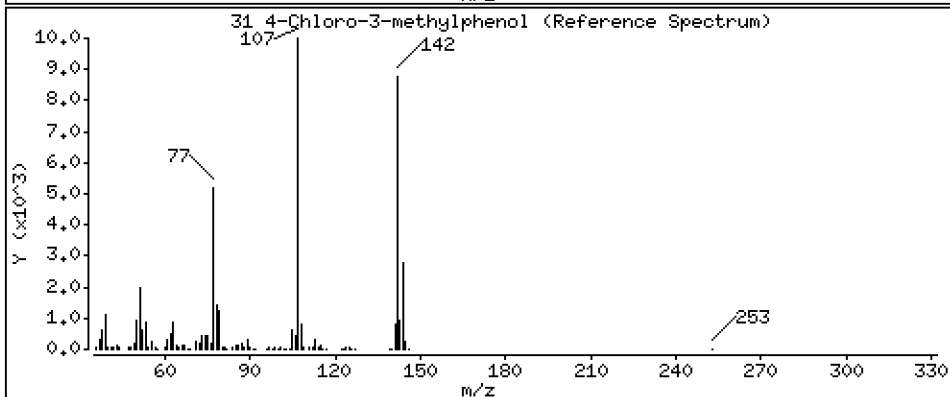
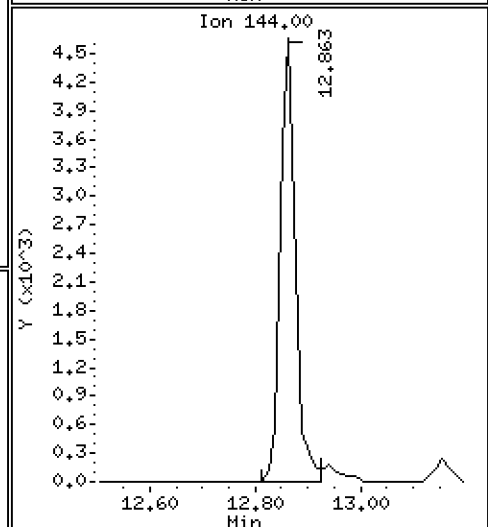
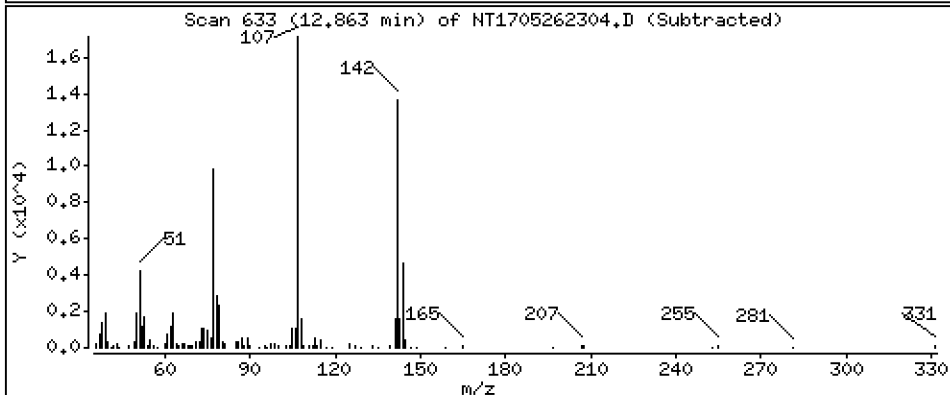
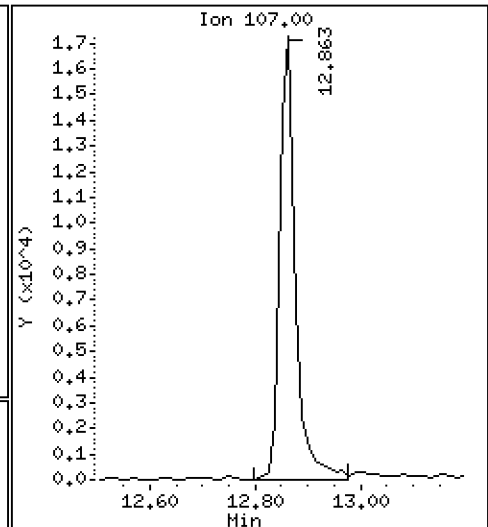
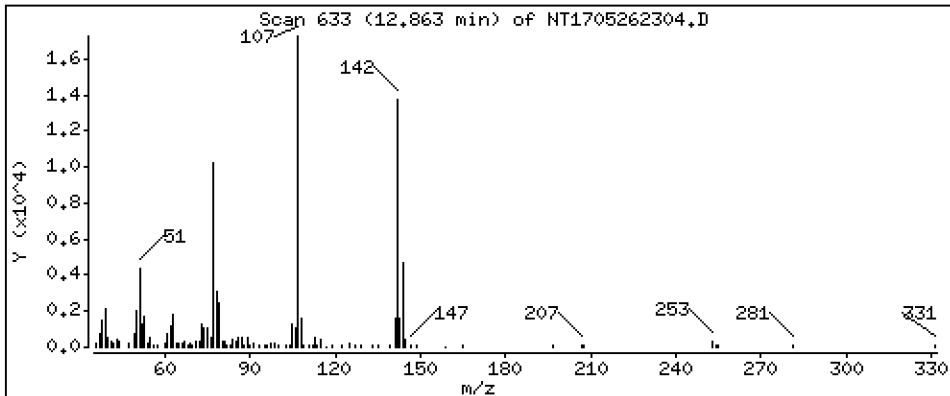
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,3609 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

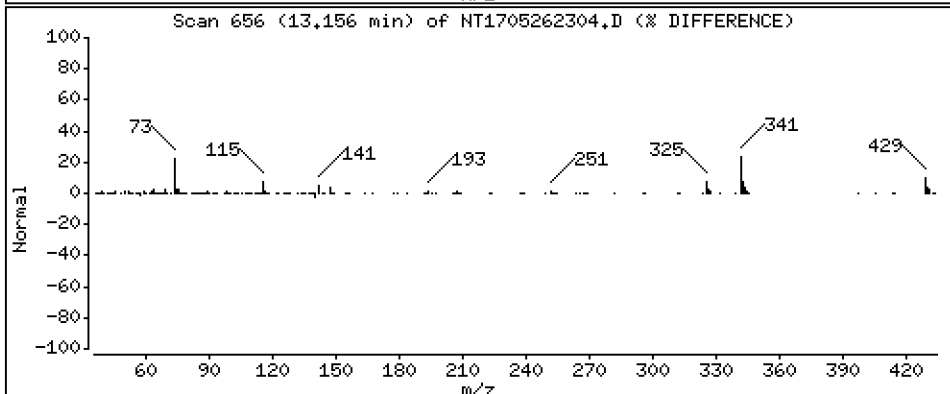
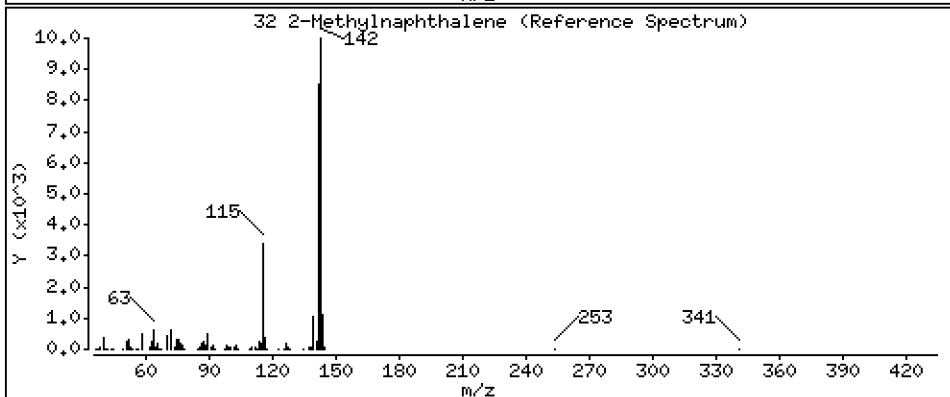
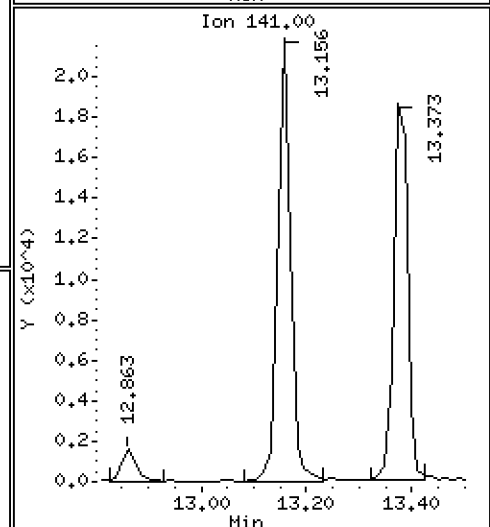
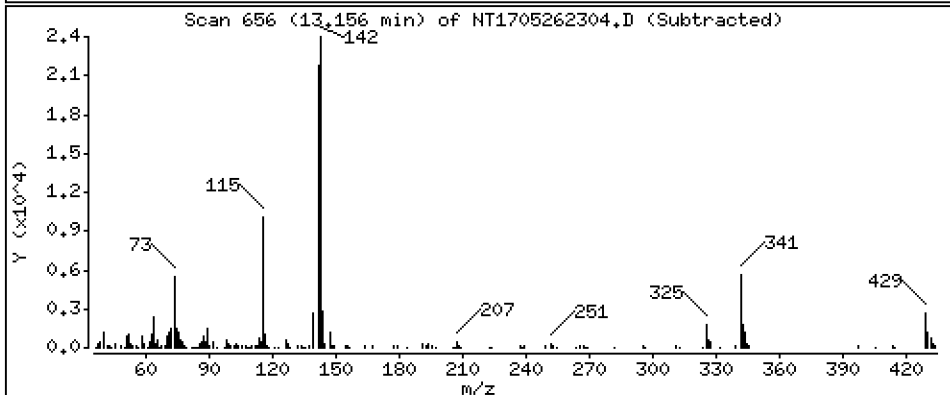
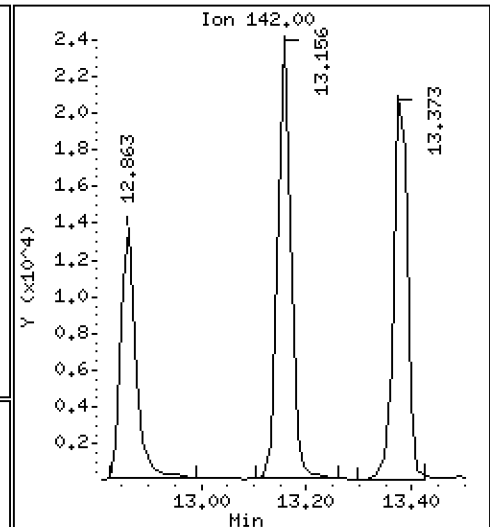
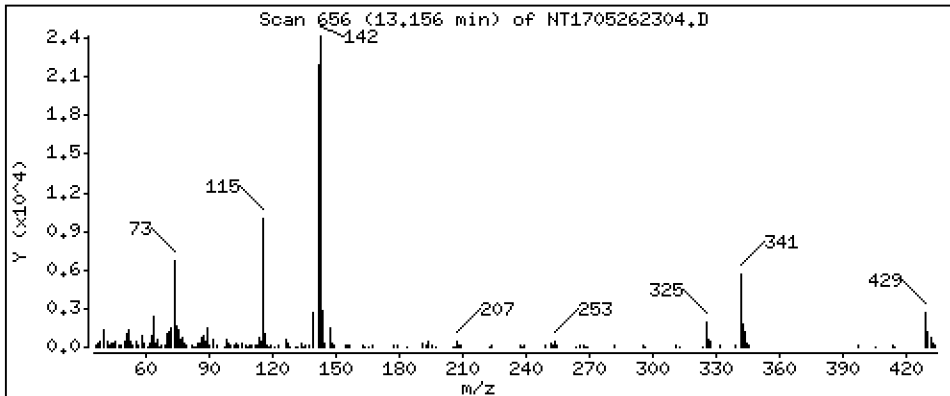
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,1874 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

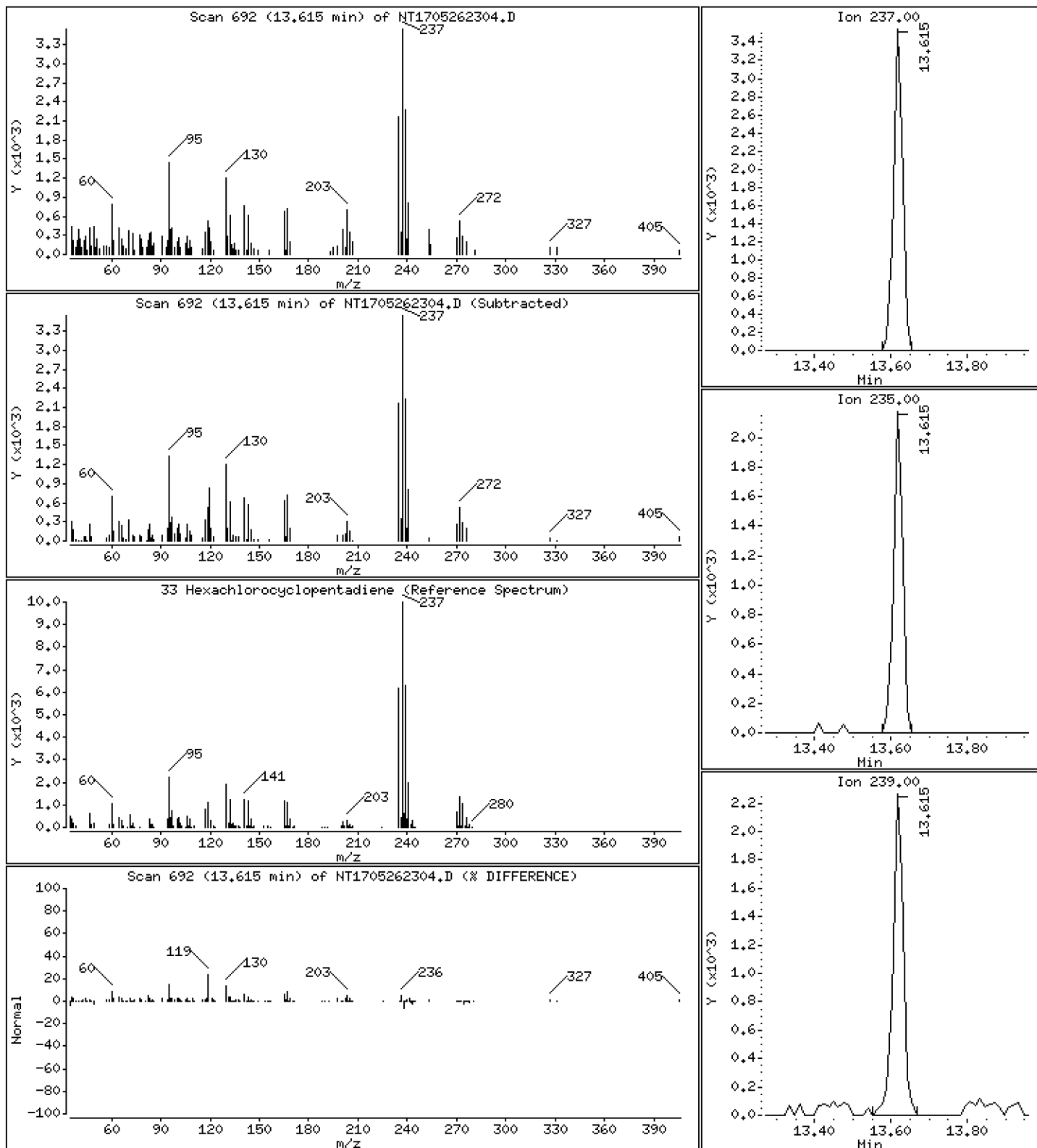
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 0.1077 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

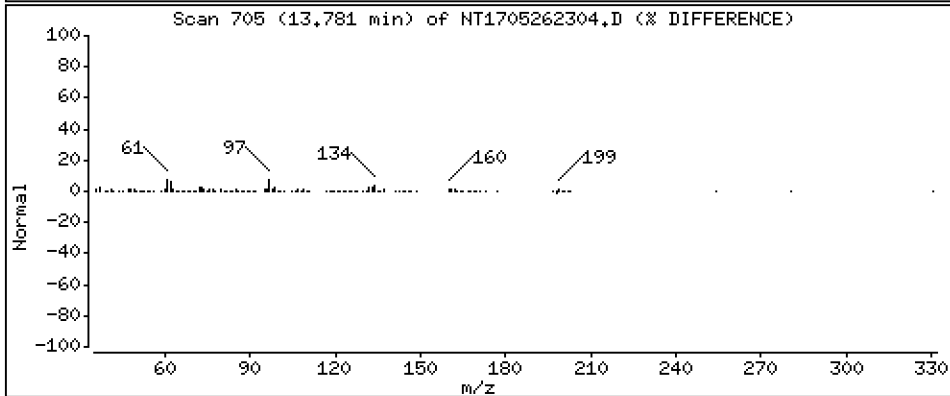
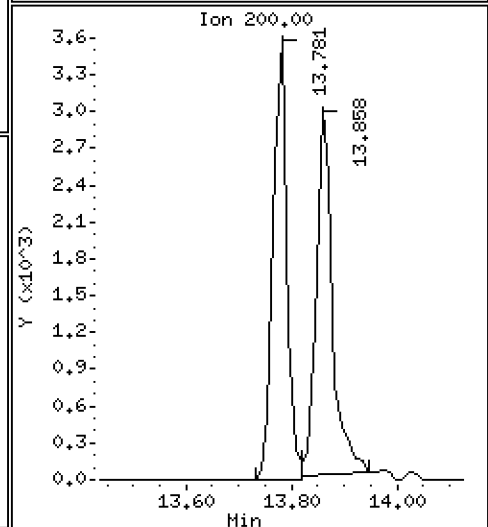
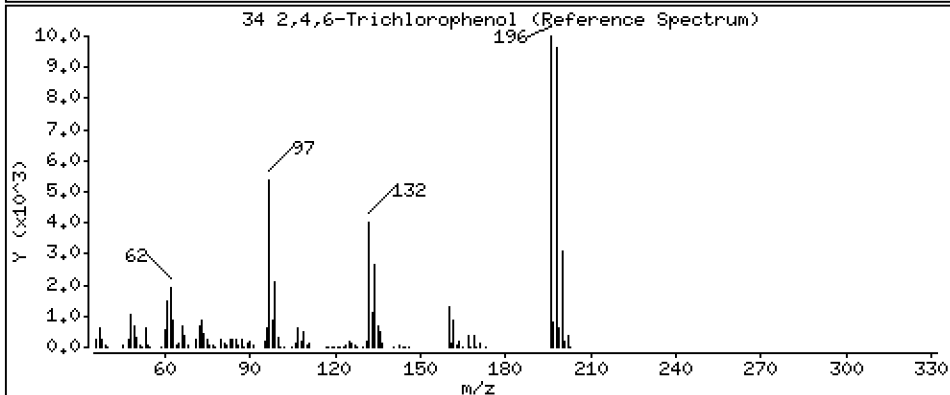
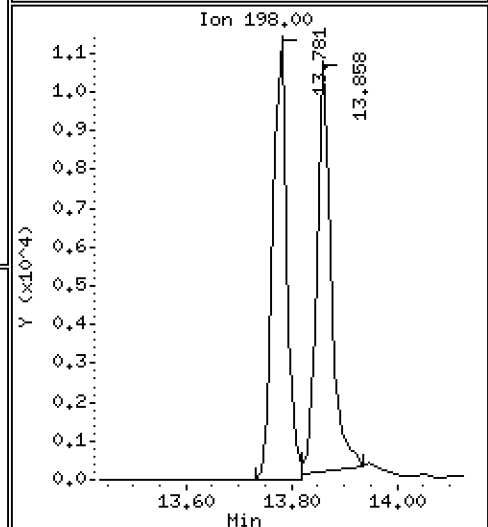
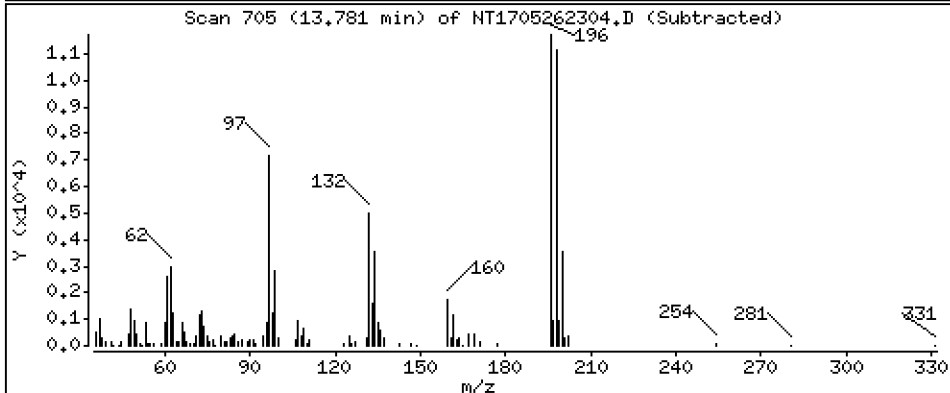
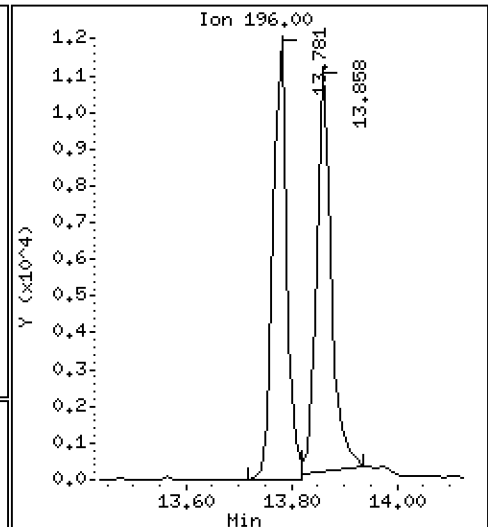
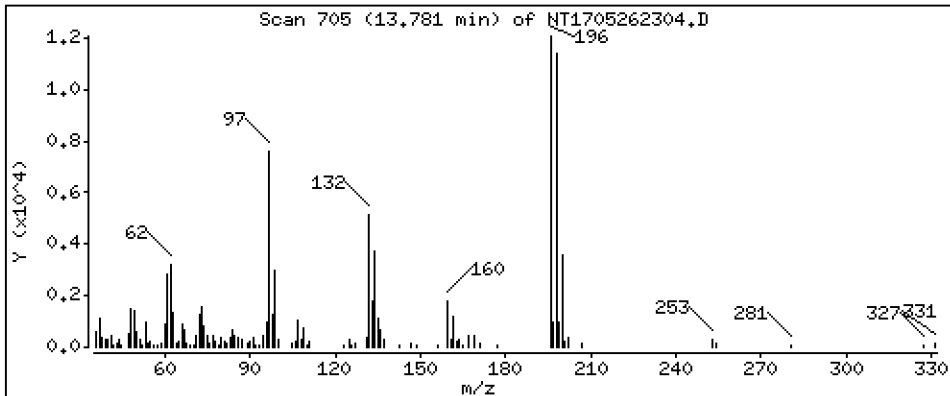
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.3562 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

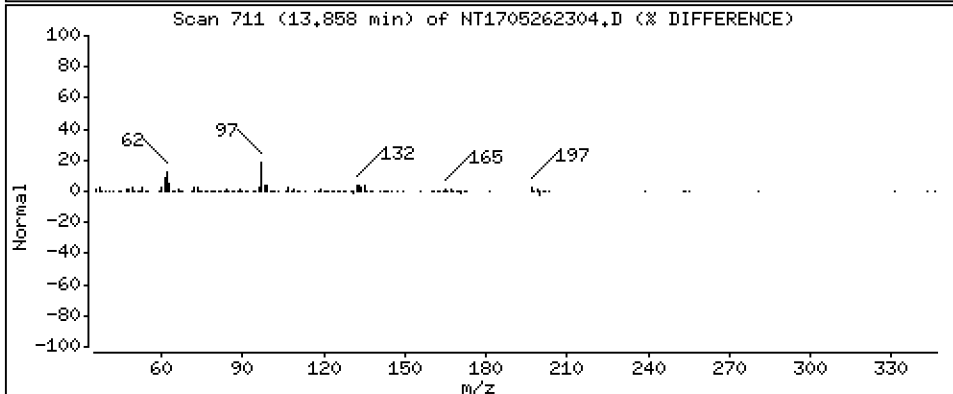
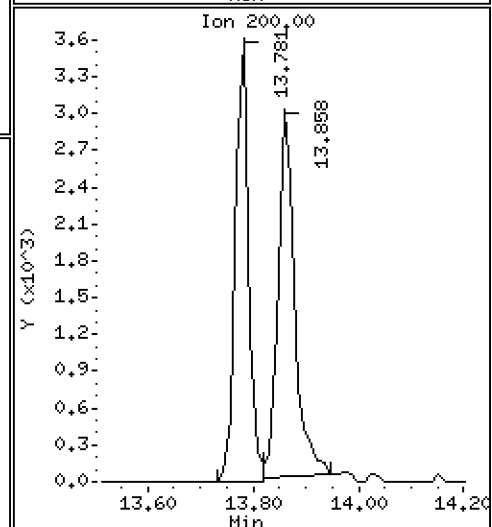
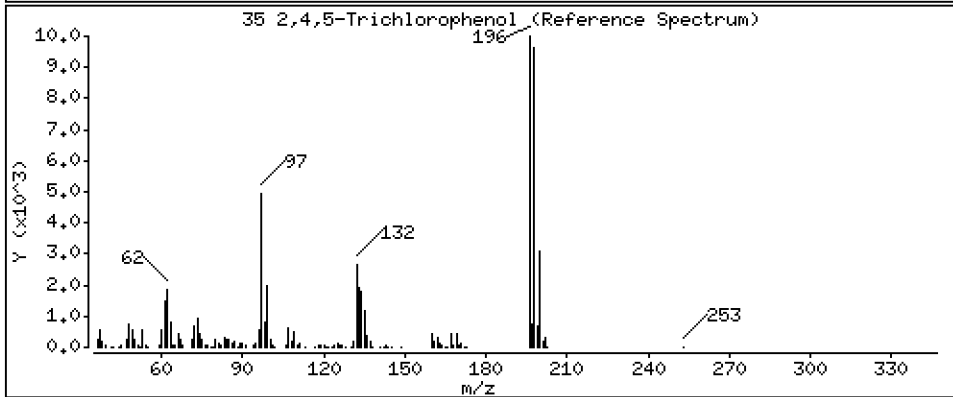
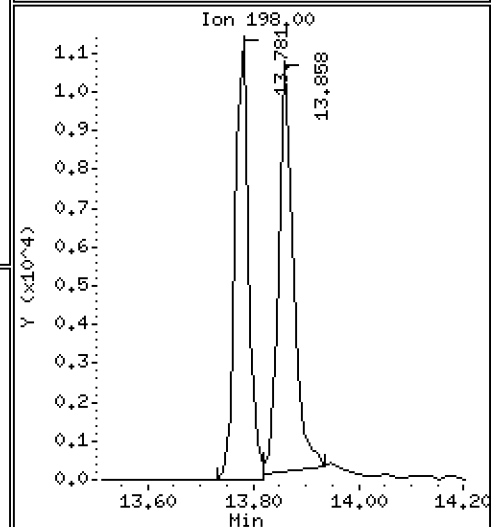
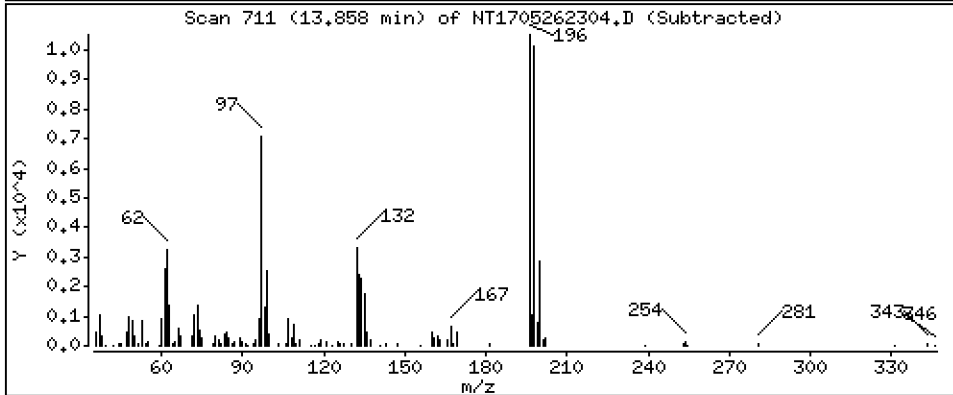
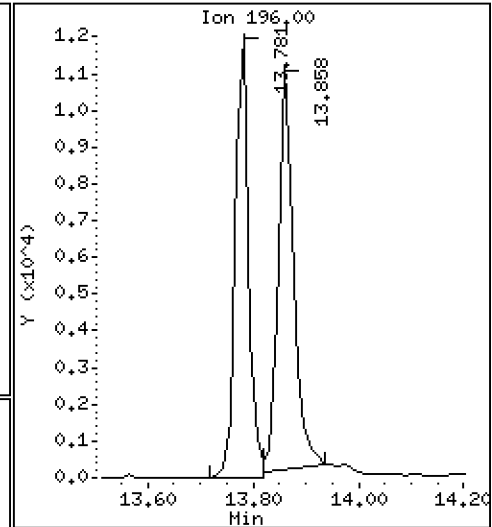
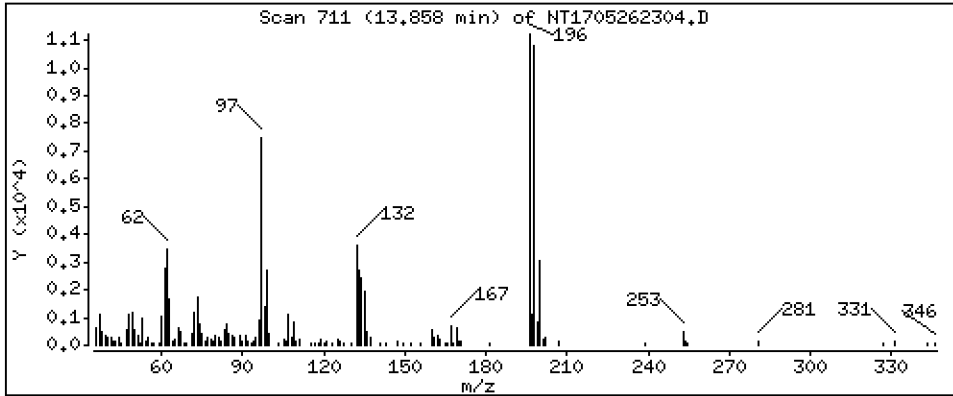
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,3389 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

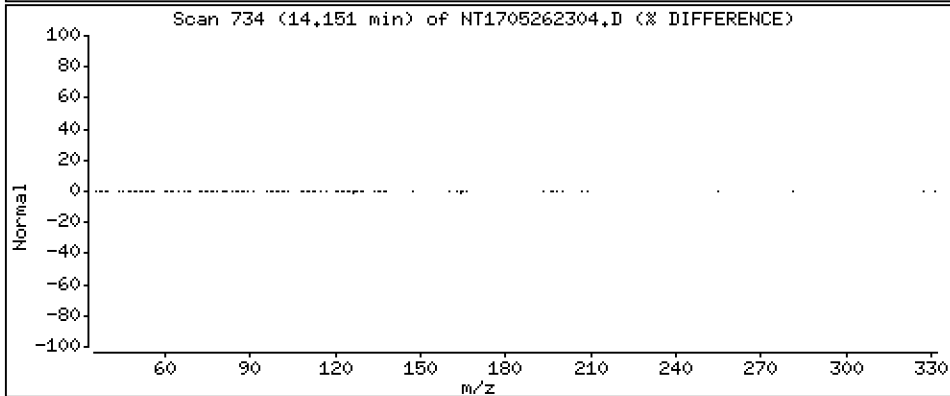
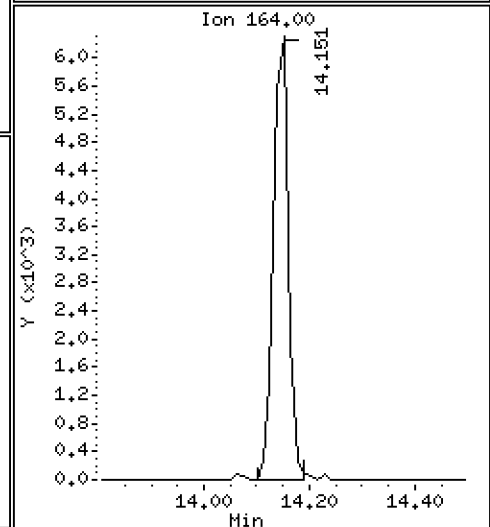
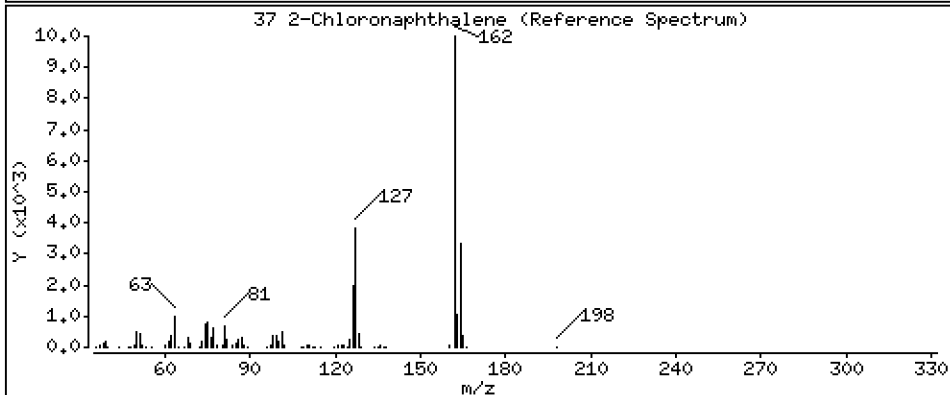
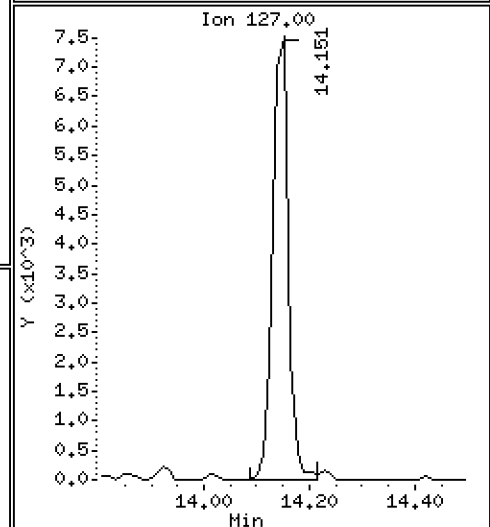
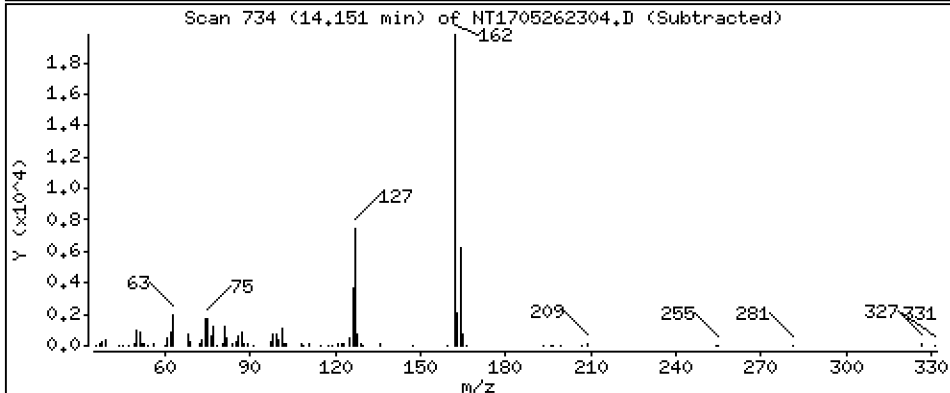
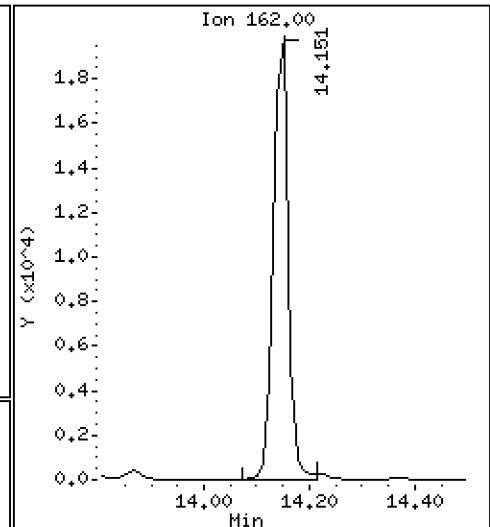
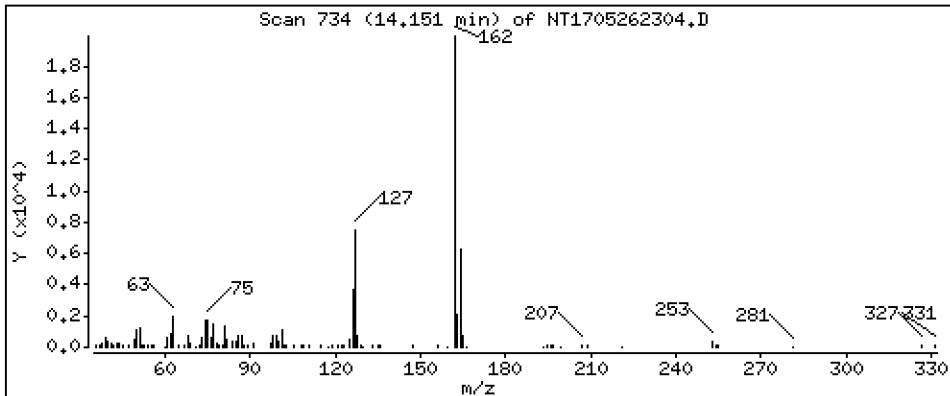
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 0.2059 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

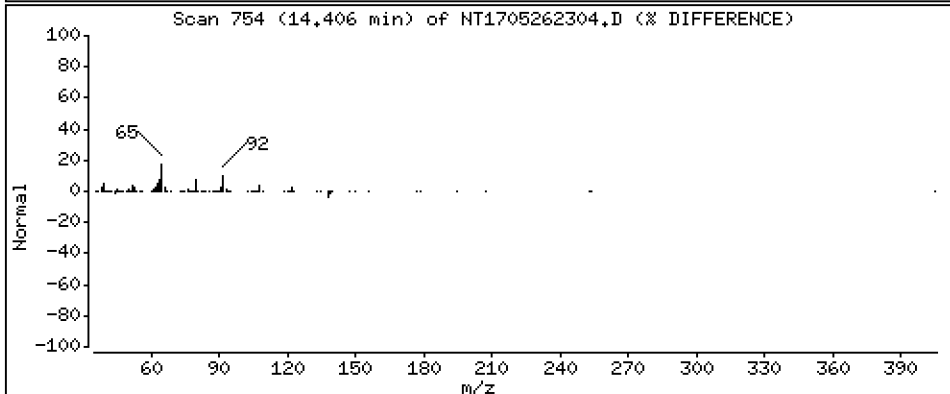
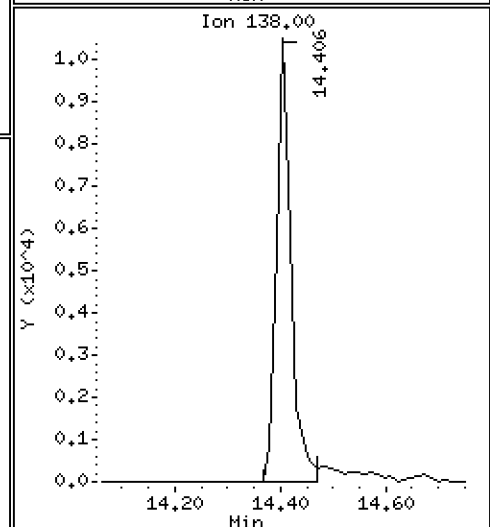
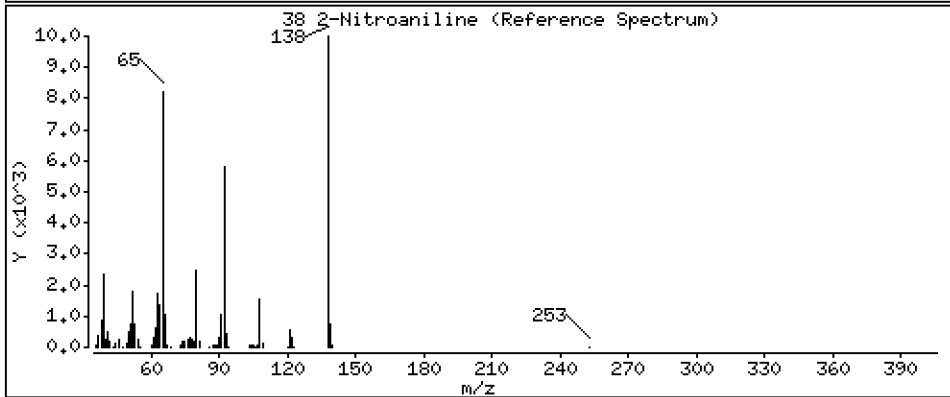
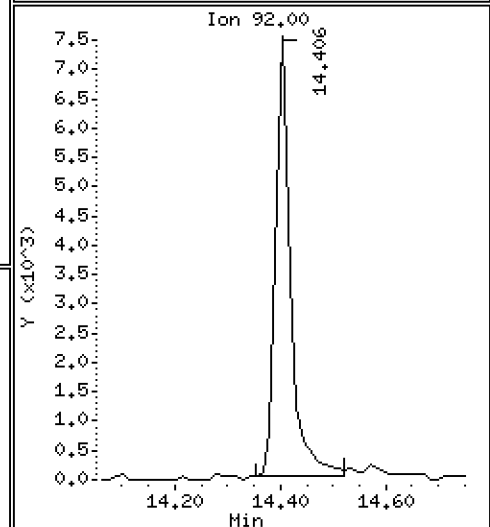
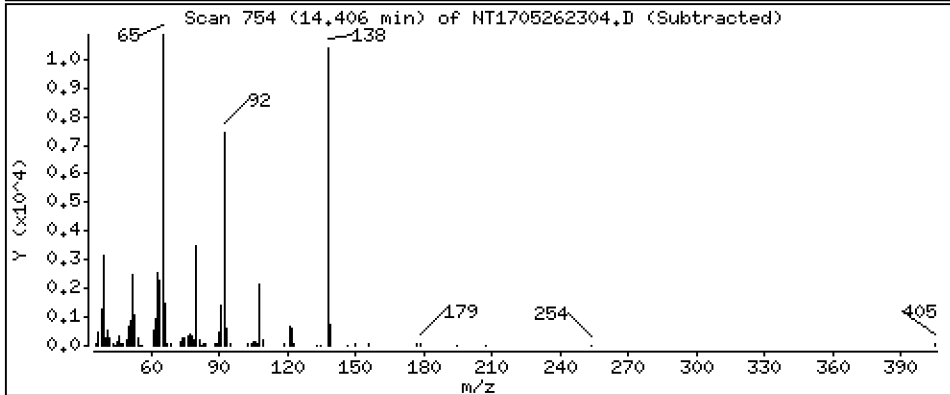
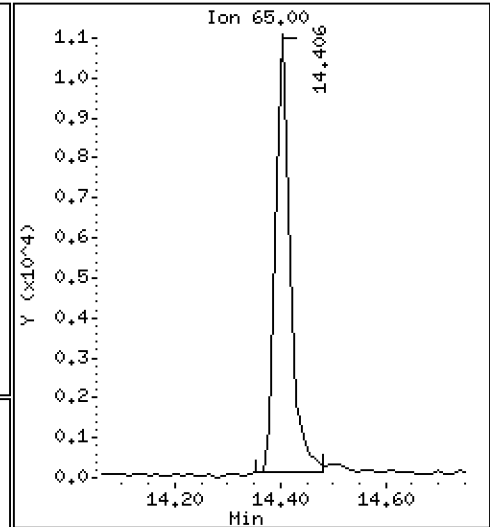
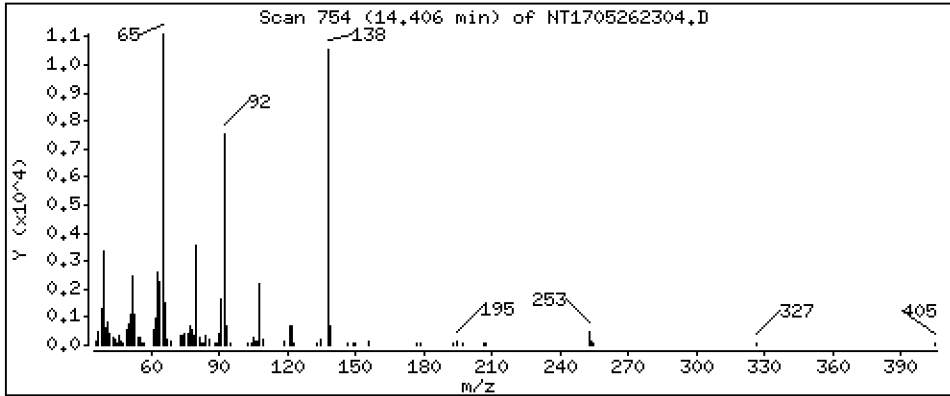
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,3449 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

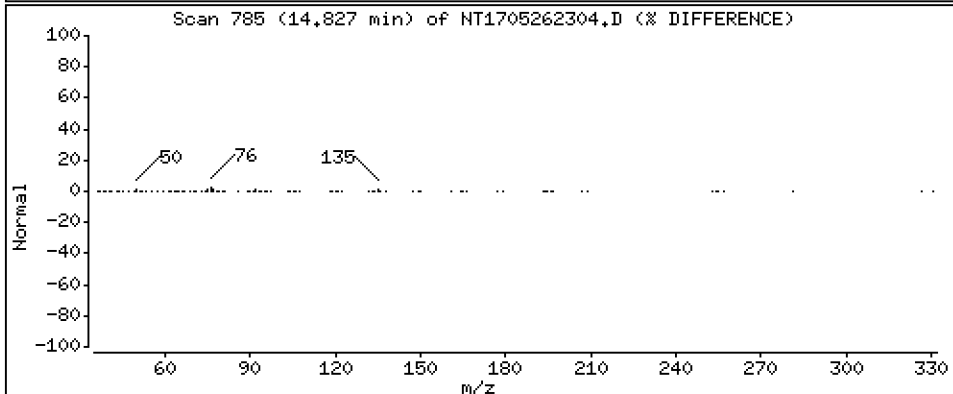
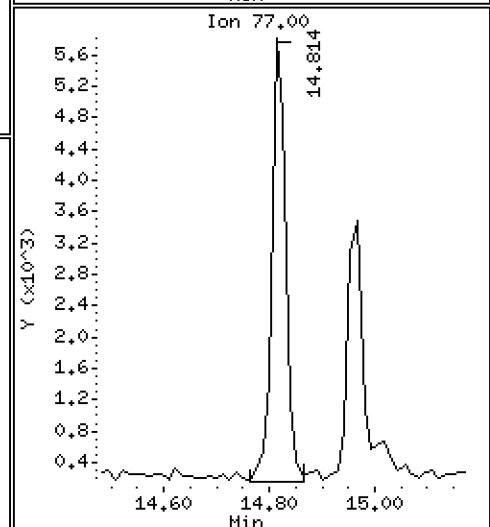
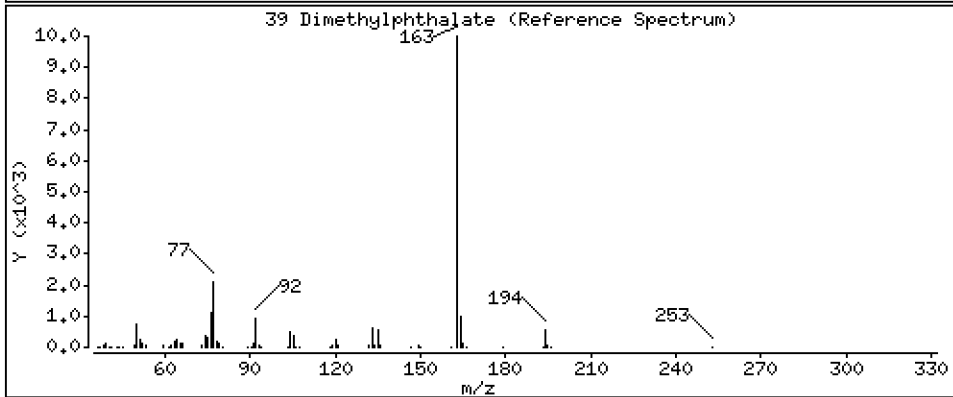
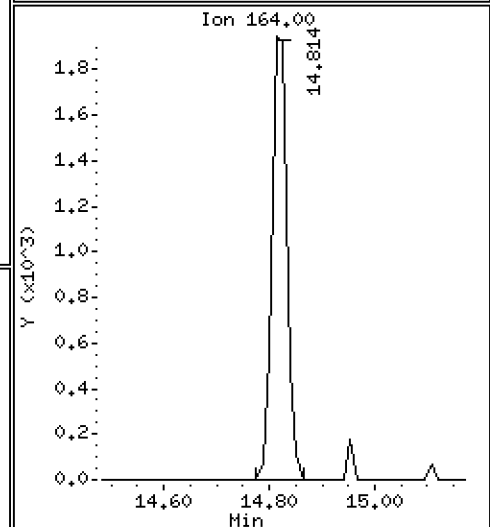
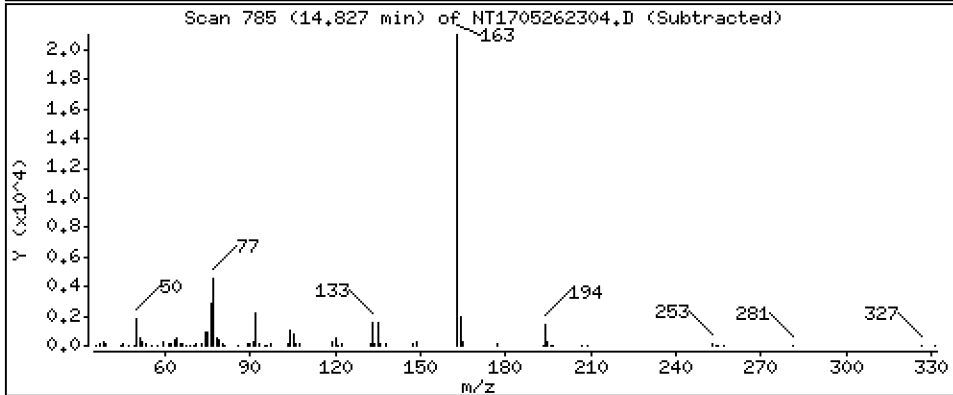
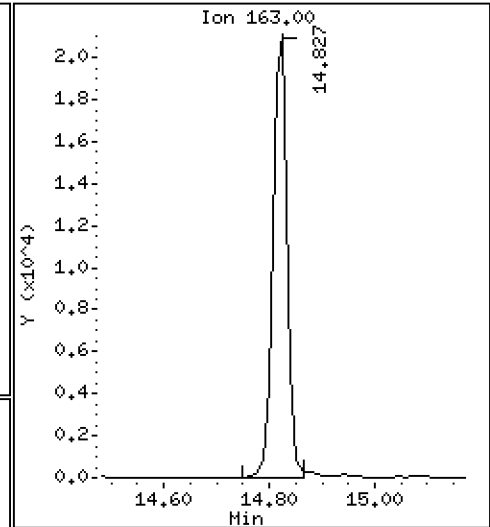
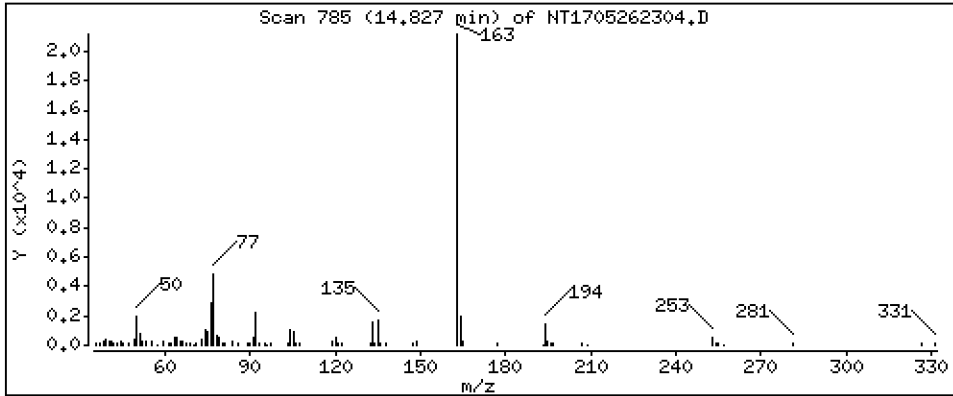
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,1997 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

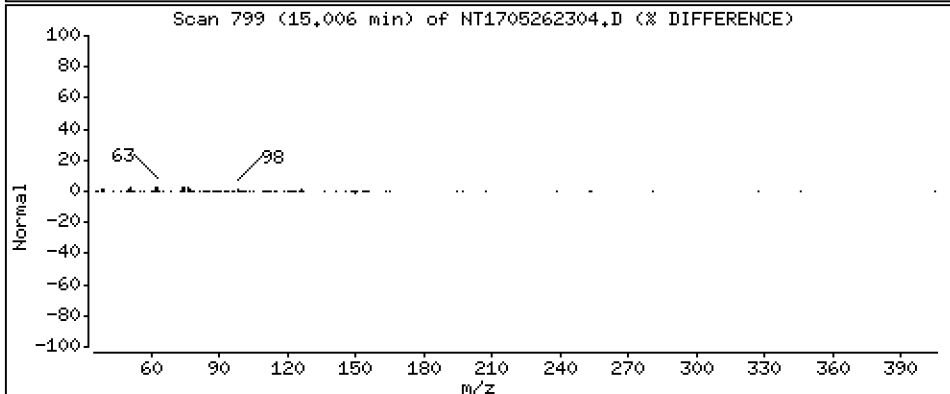
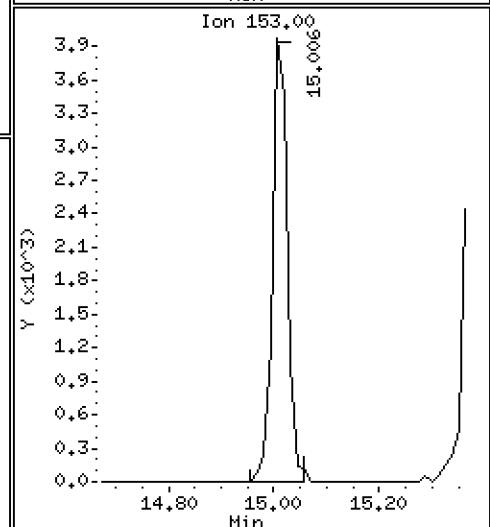
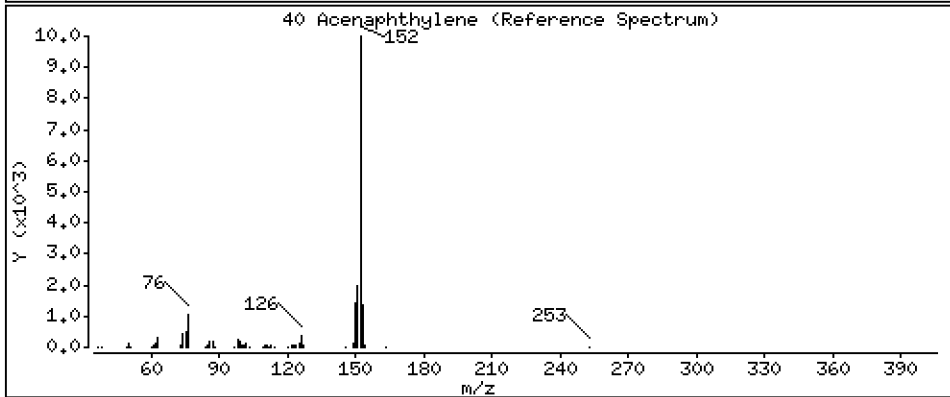
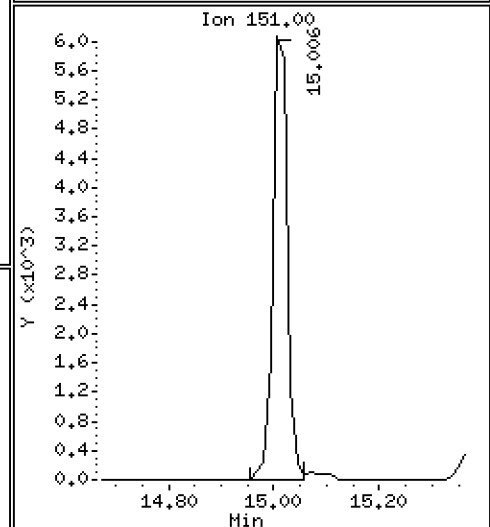
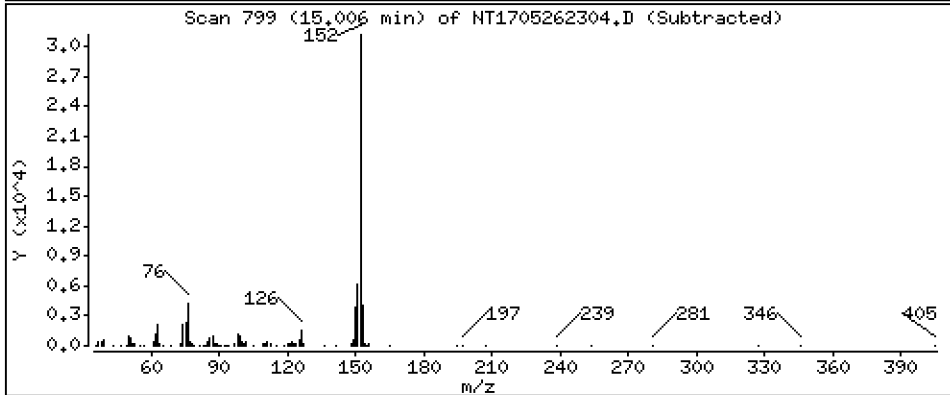
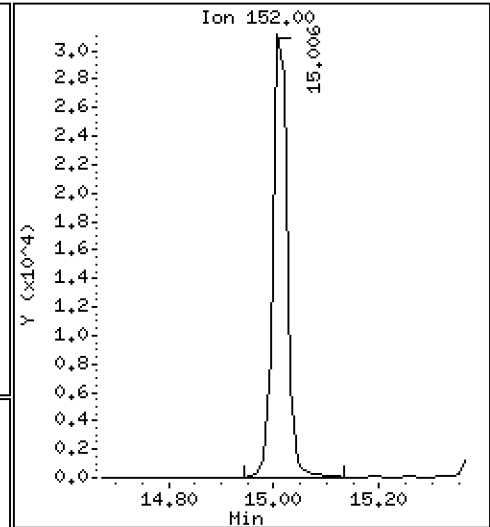
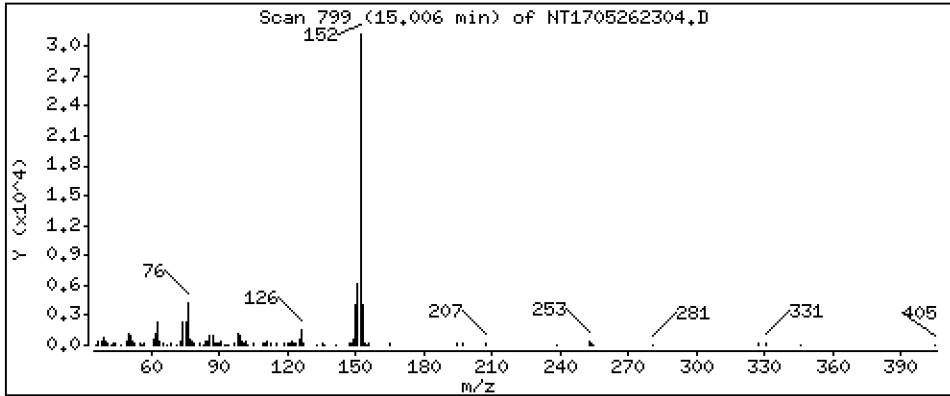
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,2072 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

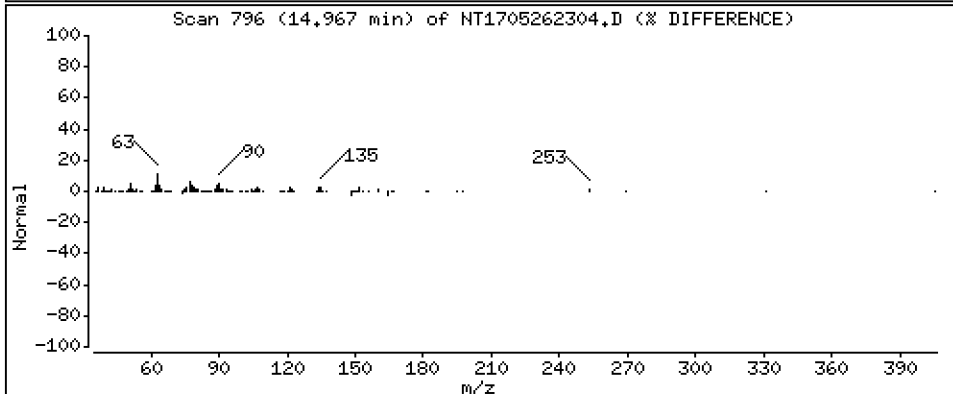
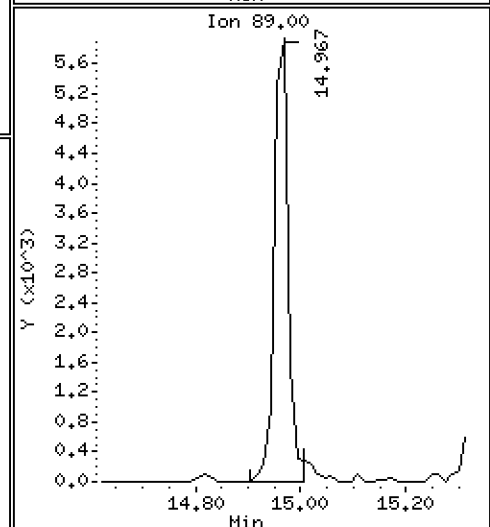
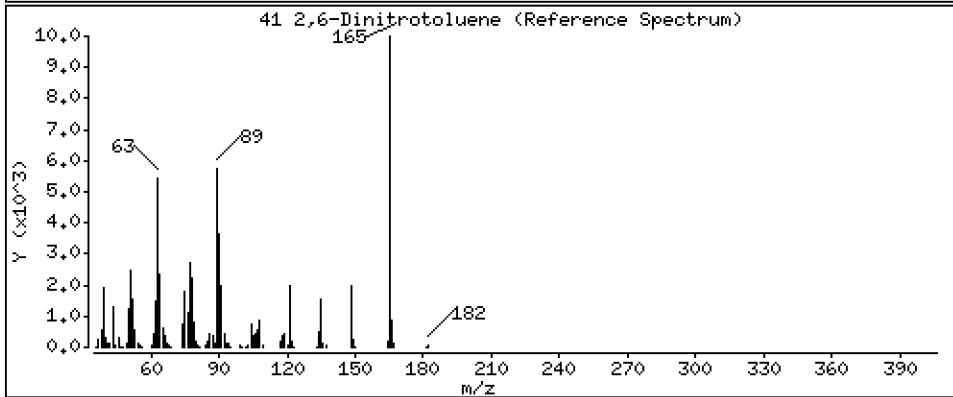
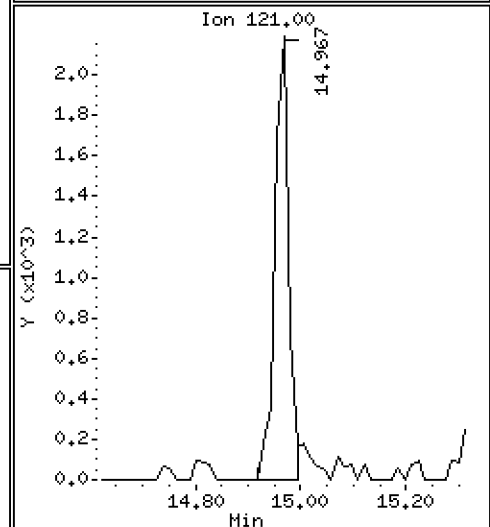
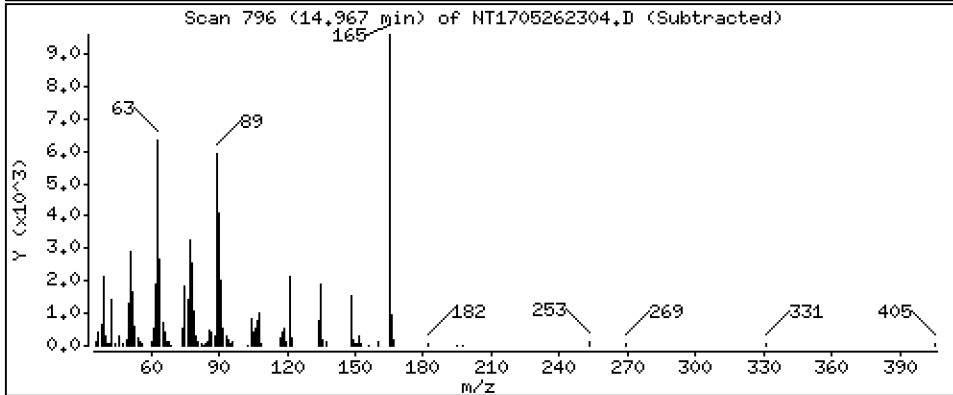
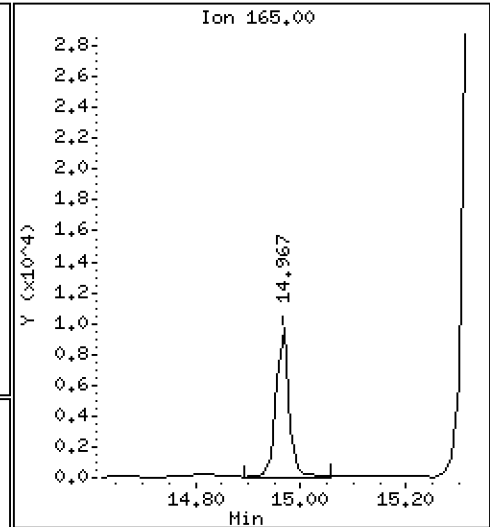
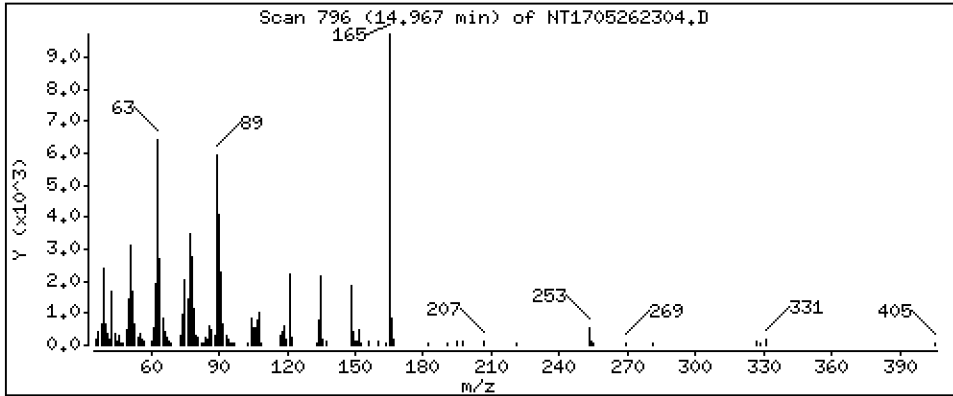
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,3679 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

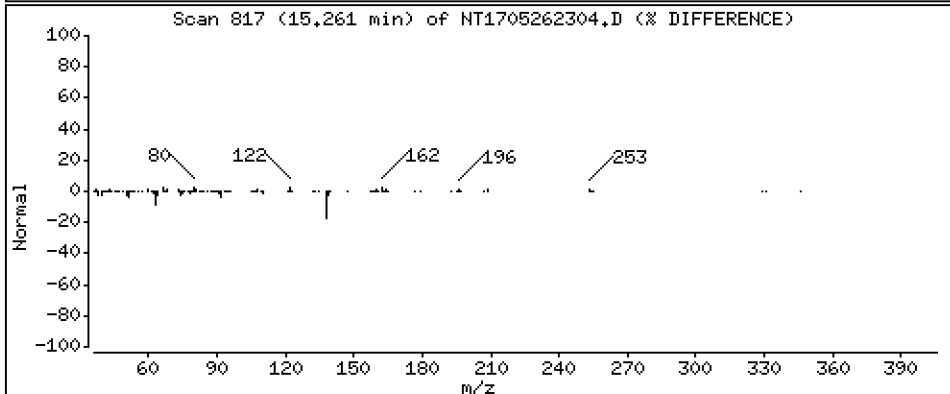
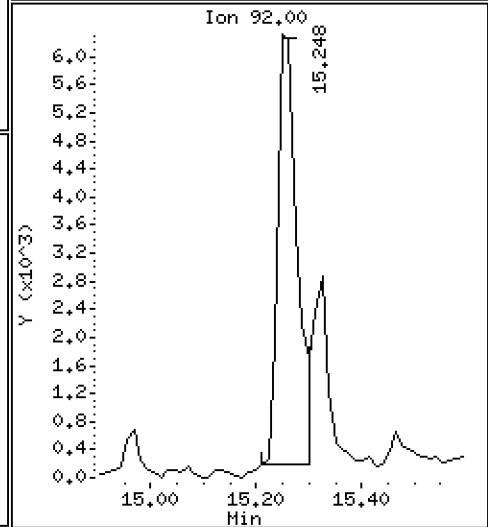
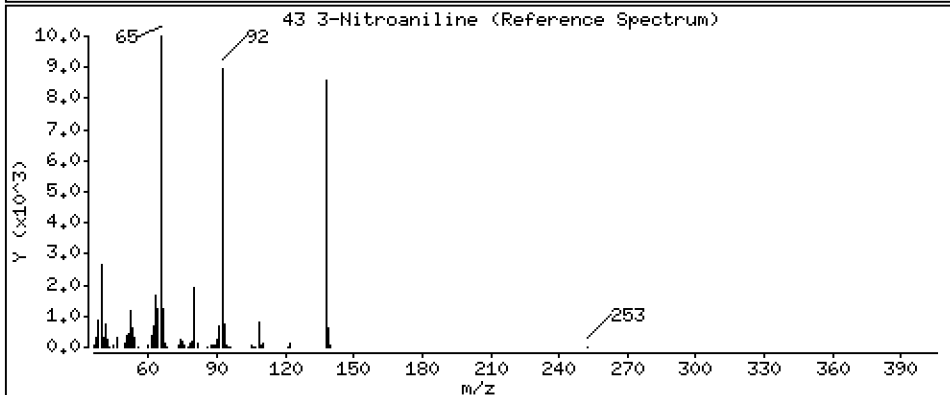
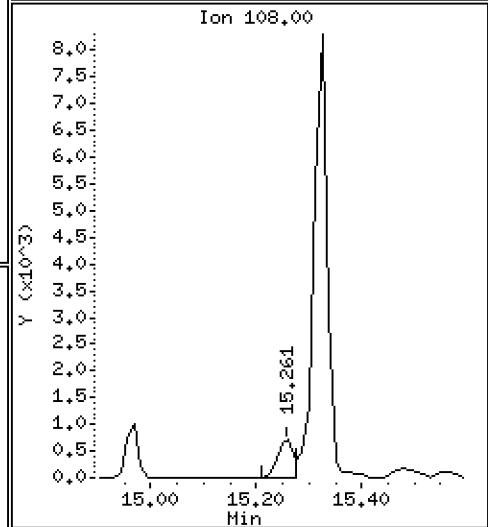
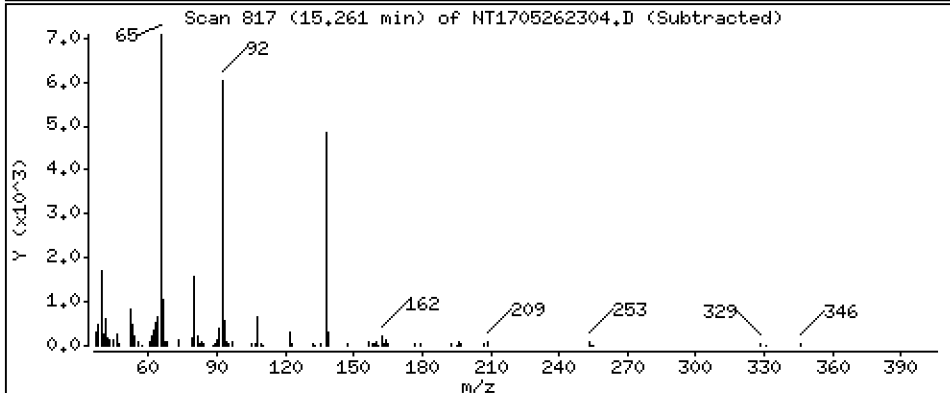
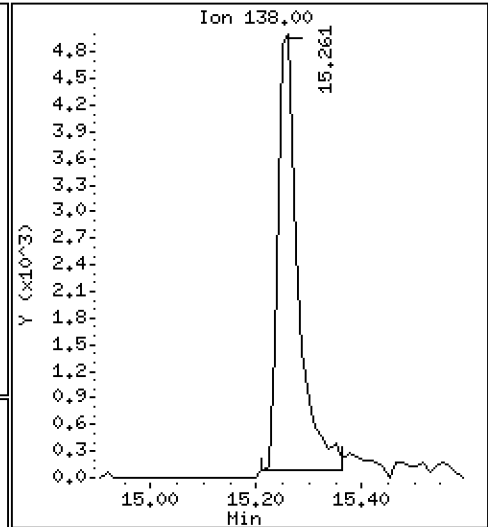
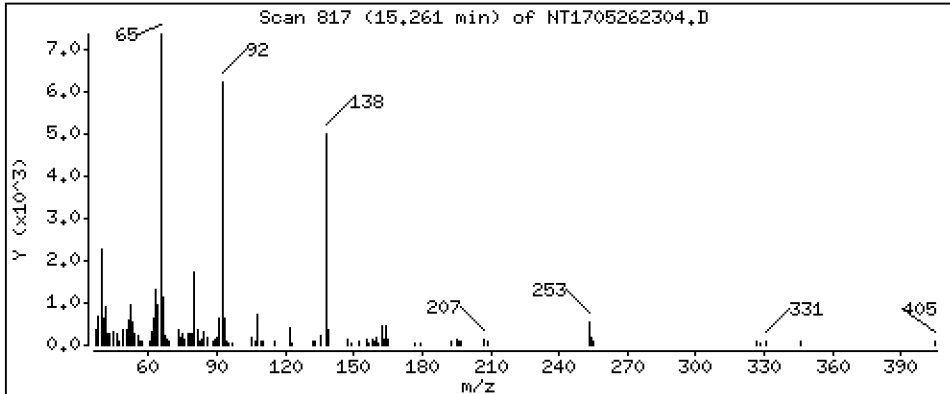
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,3056 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

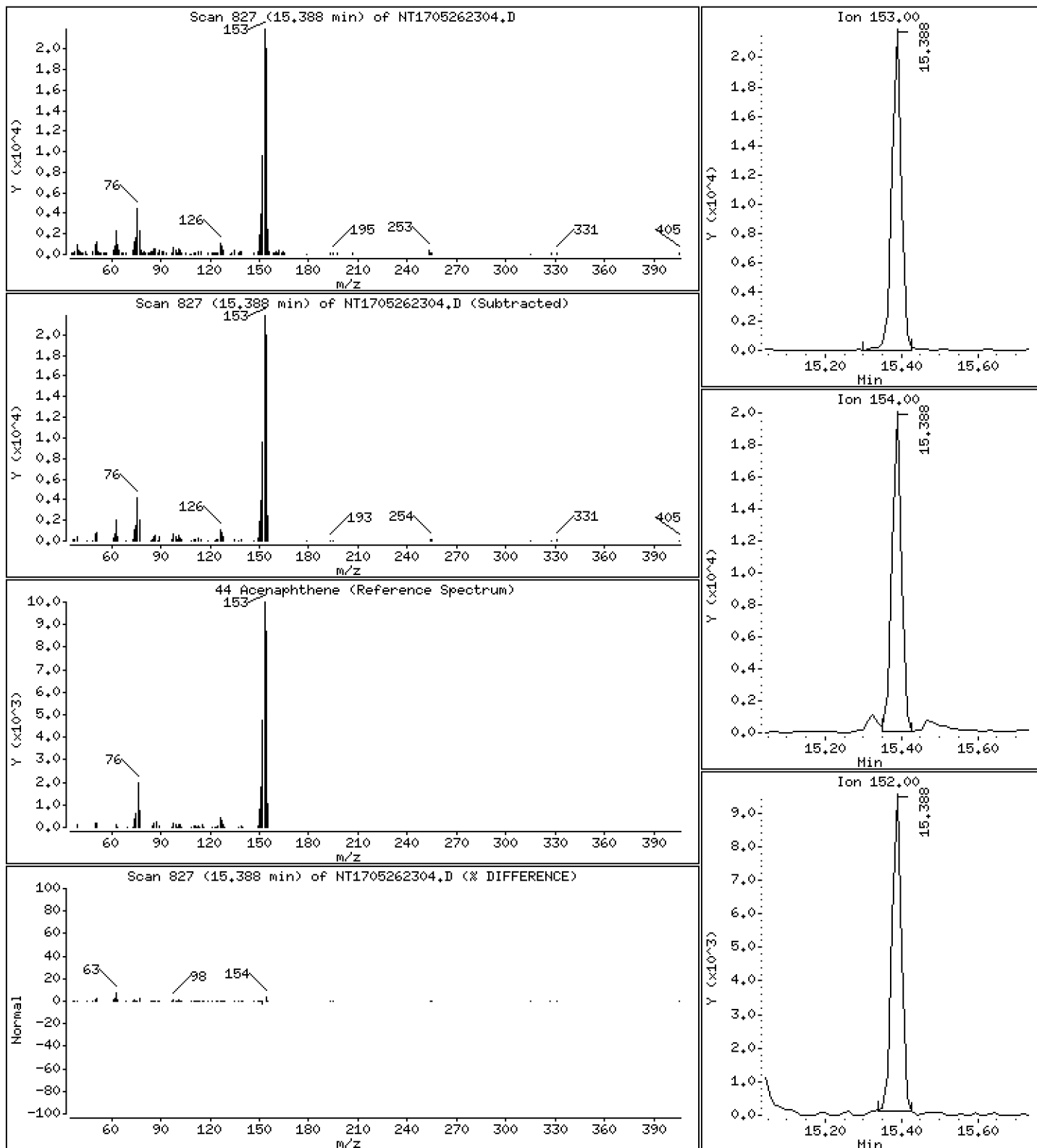
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,2060 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

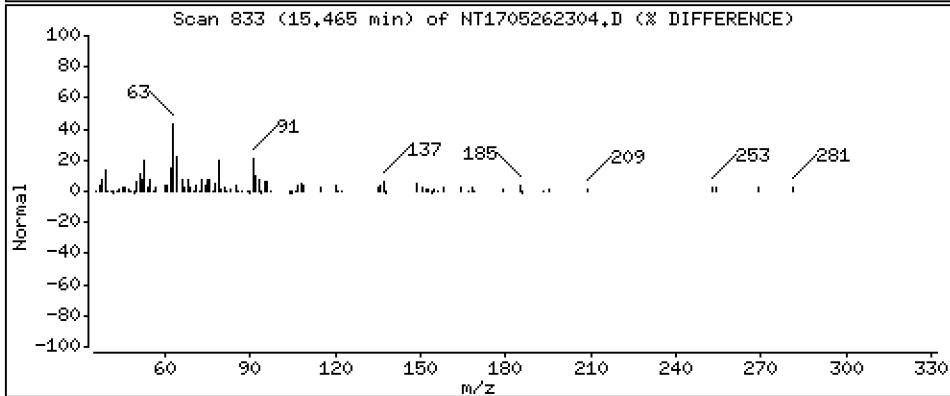
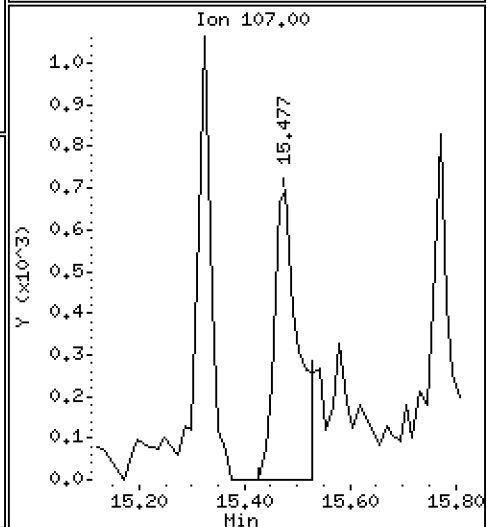
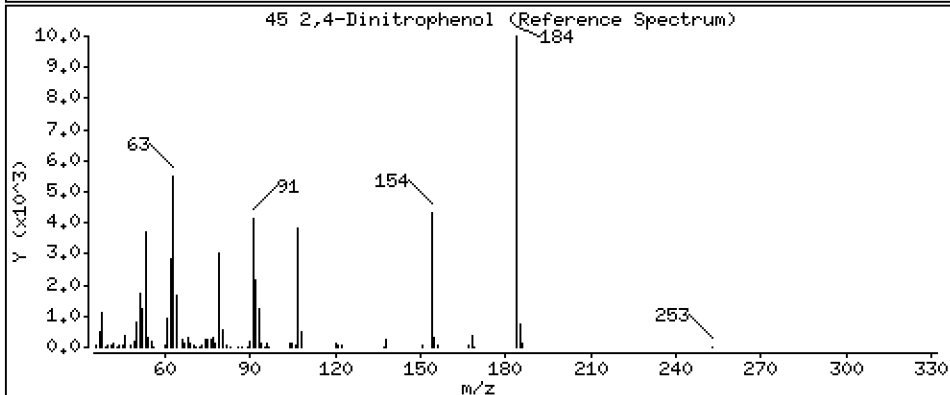
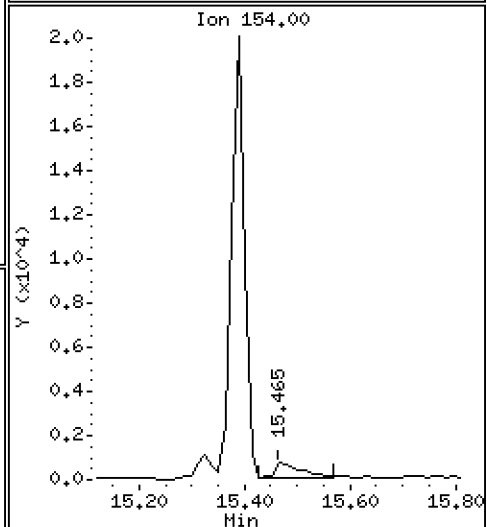
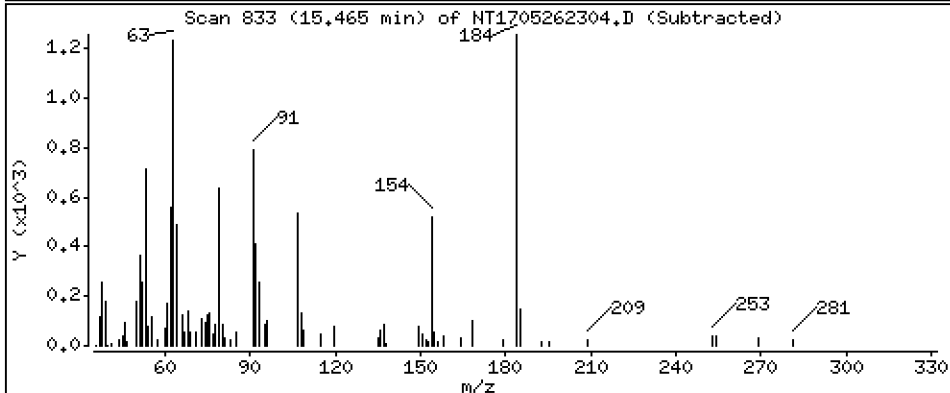
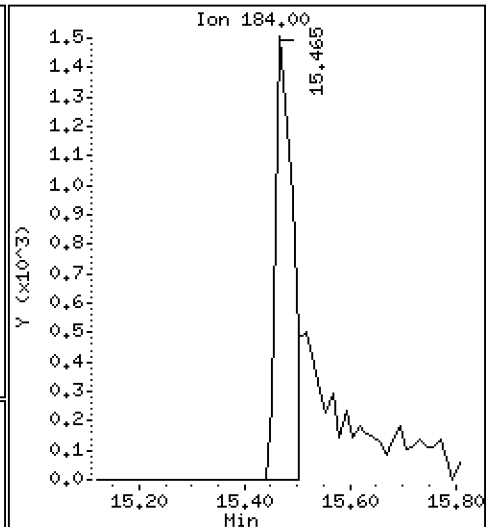
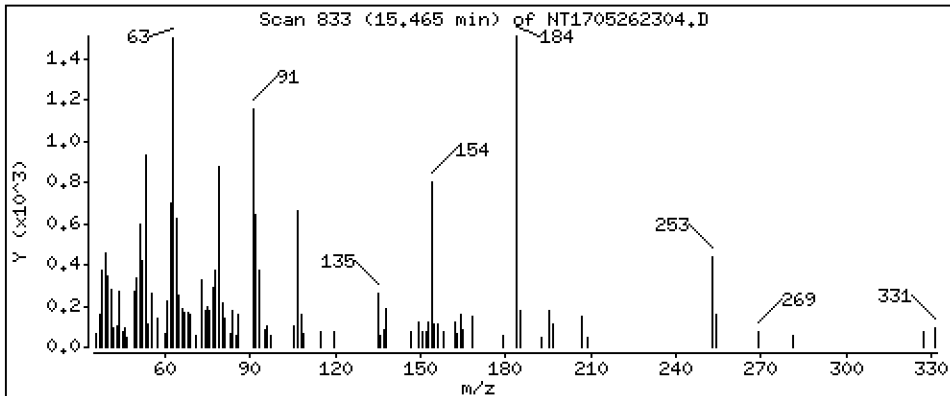
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,1227 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

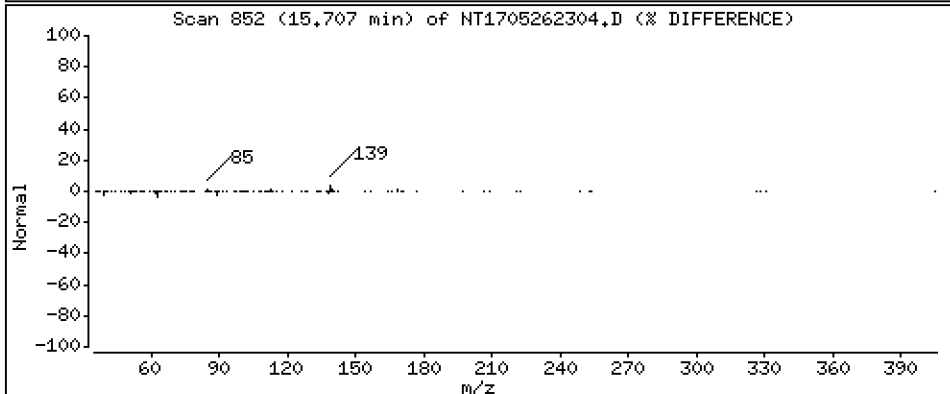
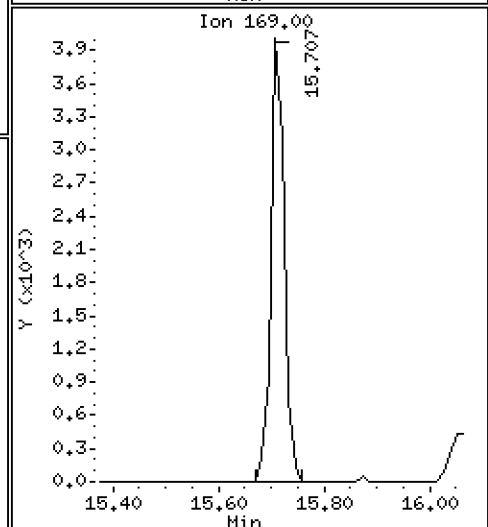
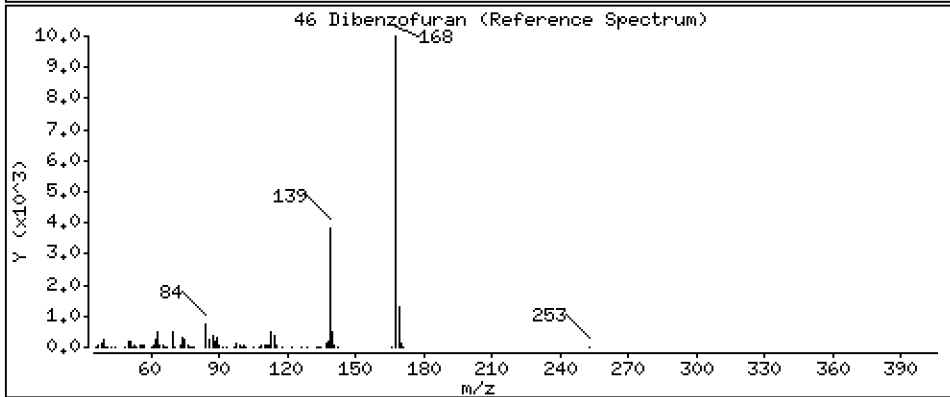
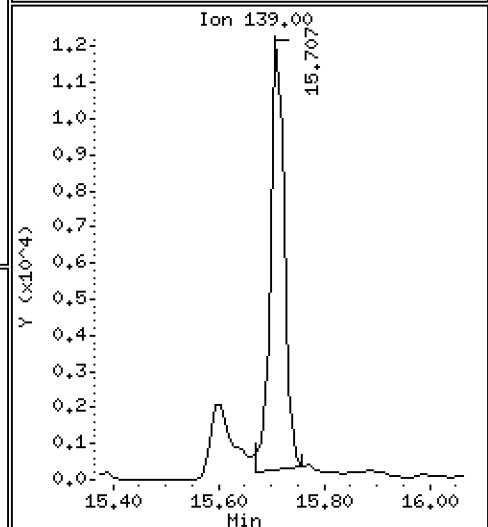
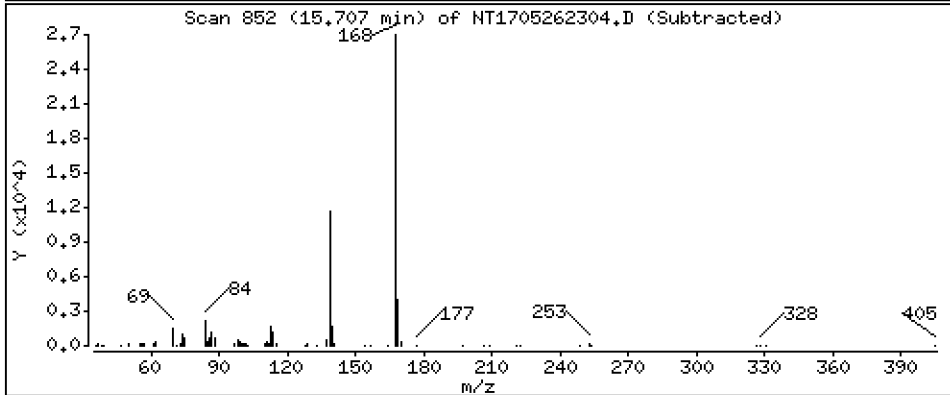
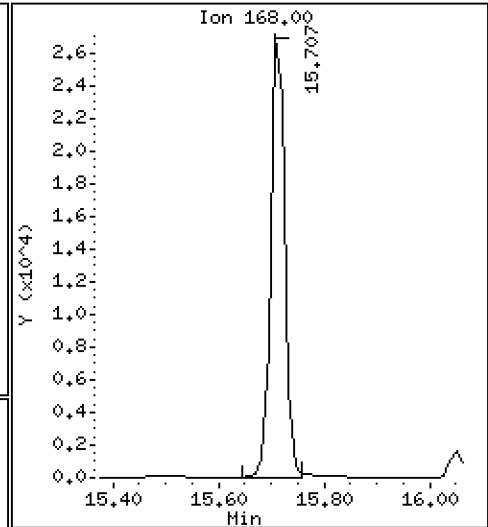
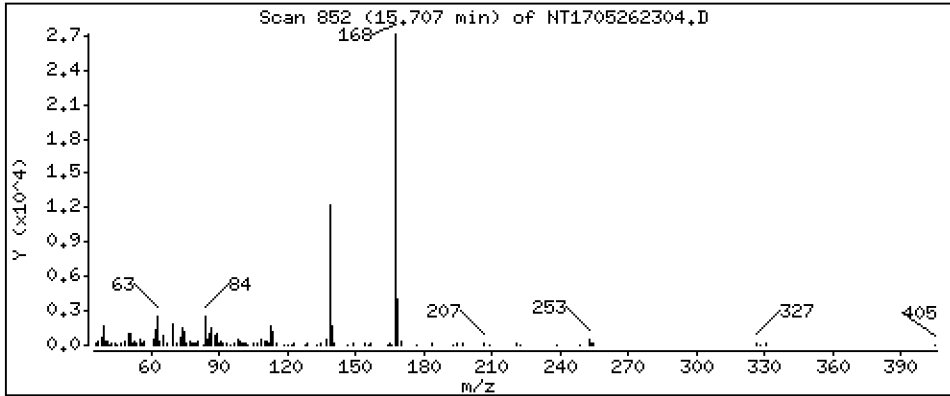
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1979 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

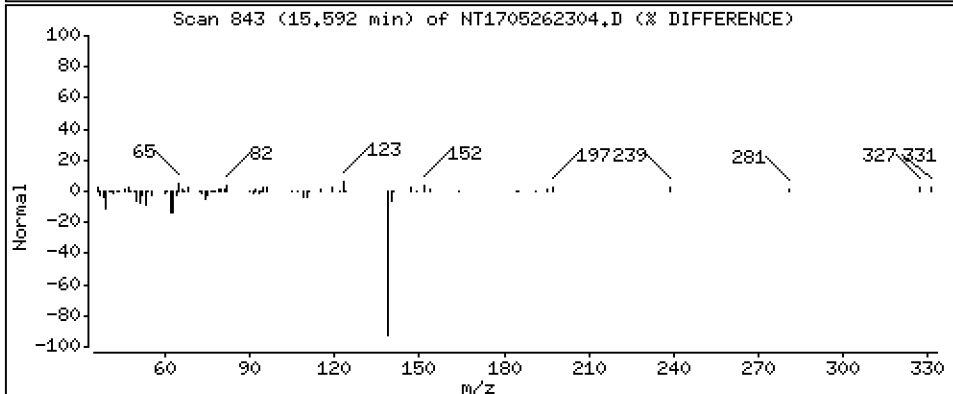
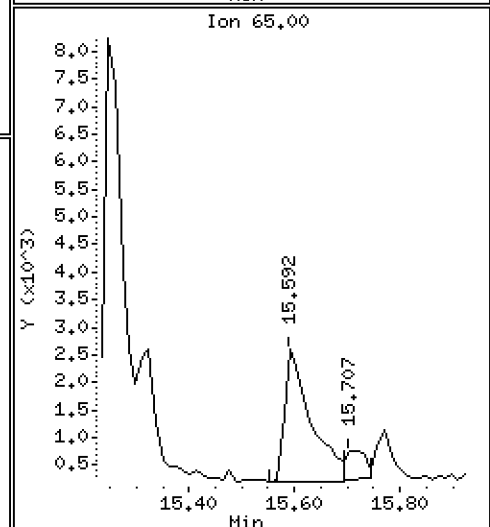
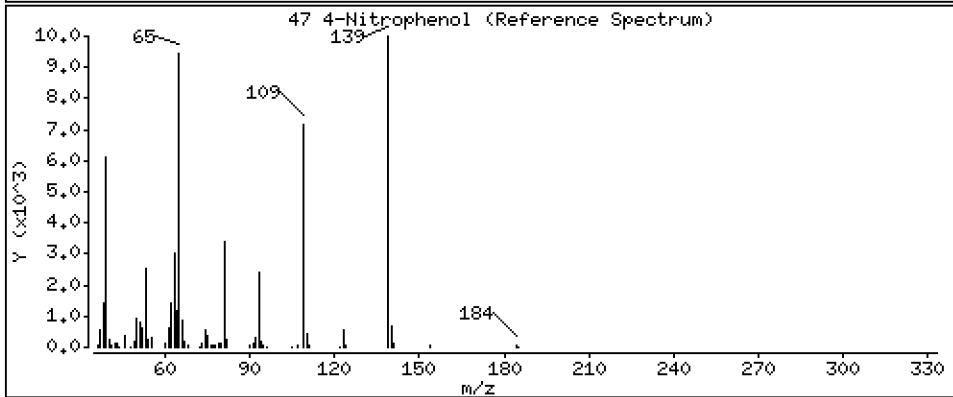
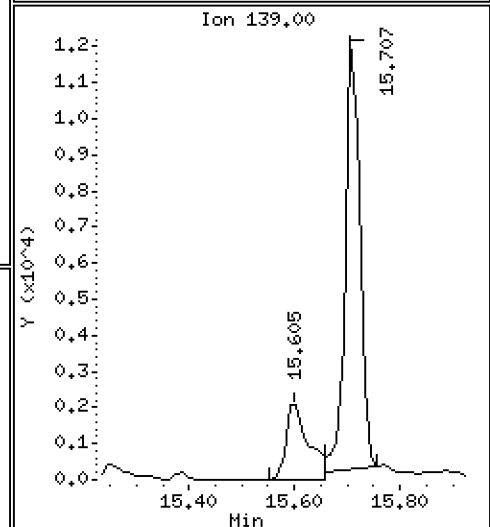
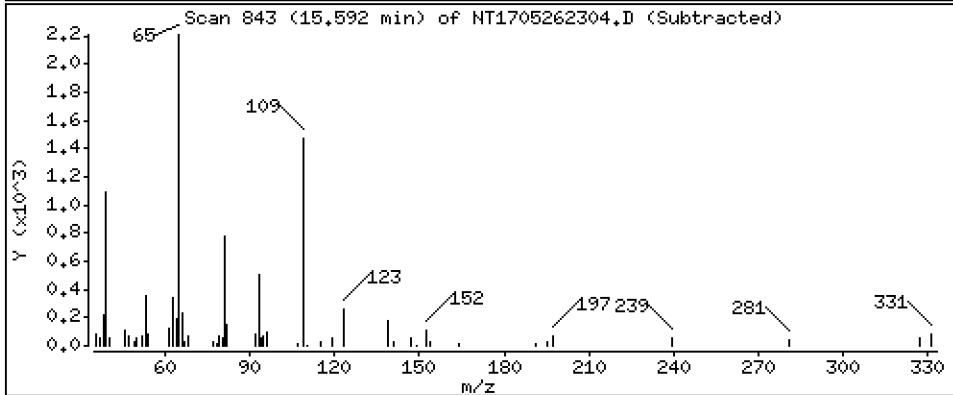
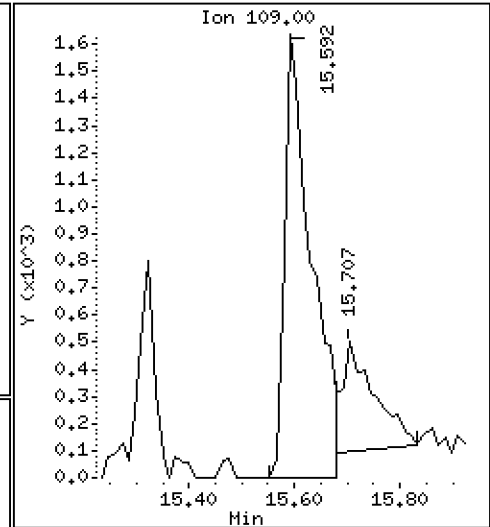
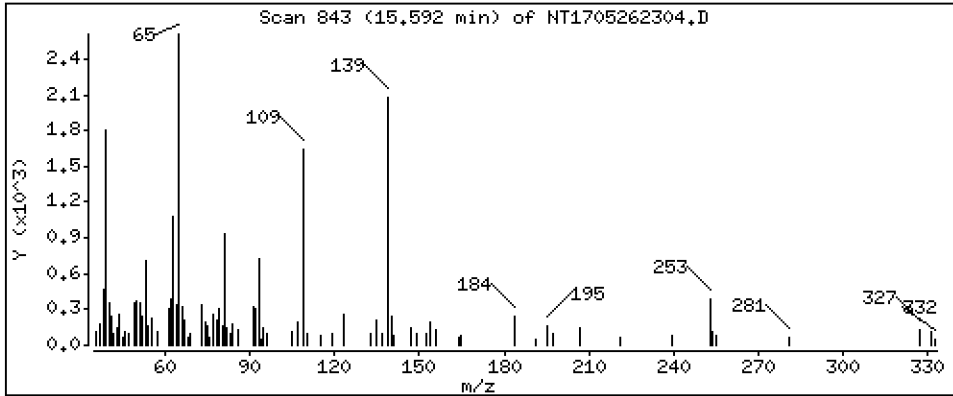
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

47 4-Nitrophenol

Concentration: 0.2097 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

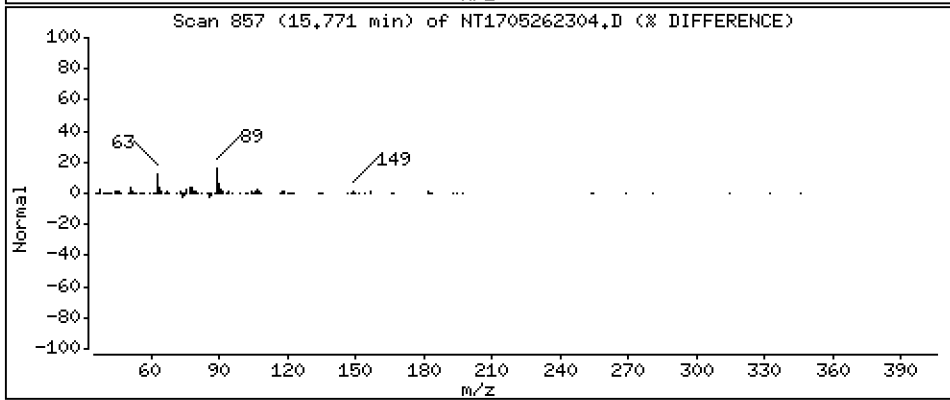
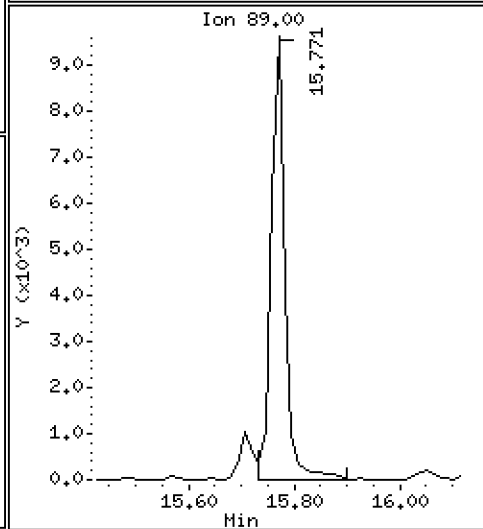
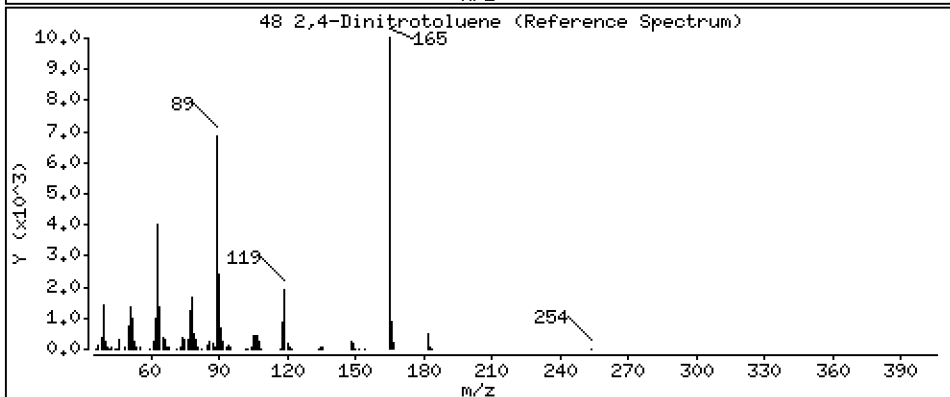
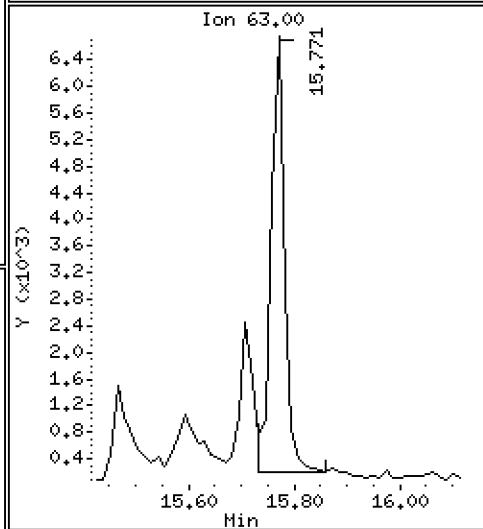
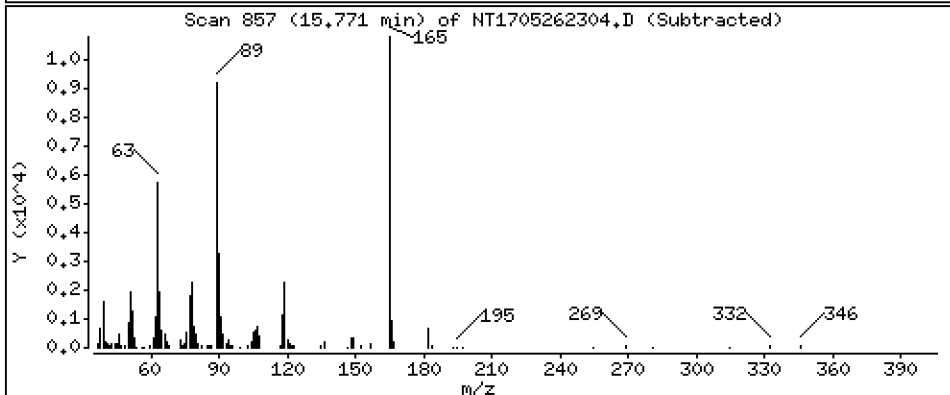
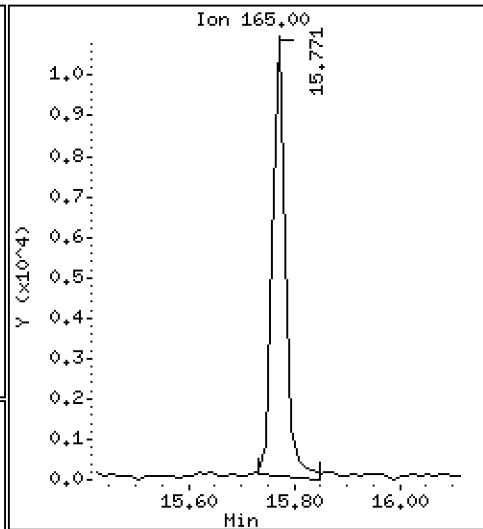
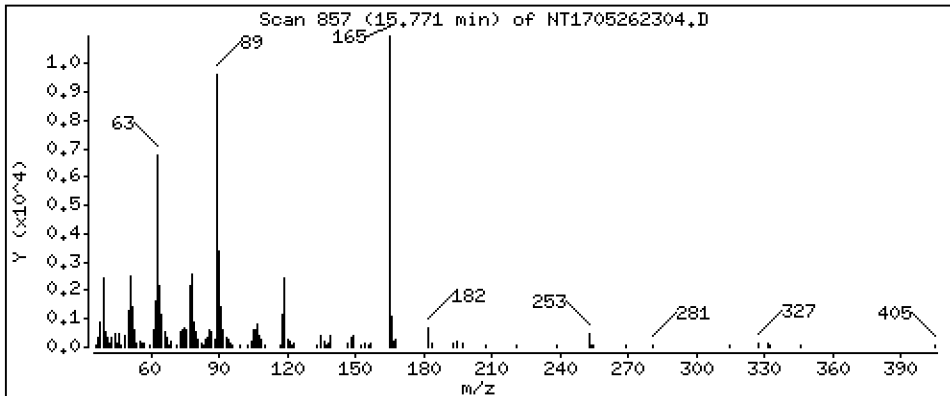
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,3191 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

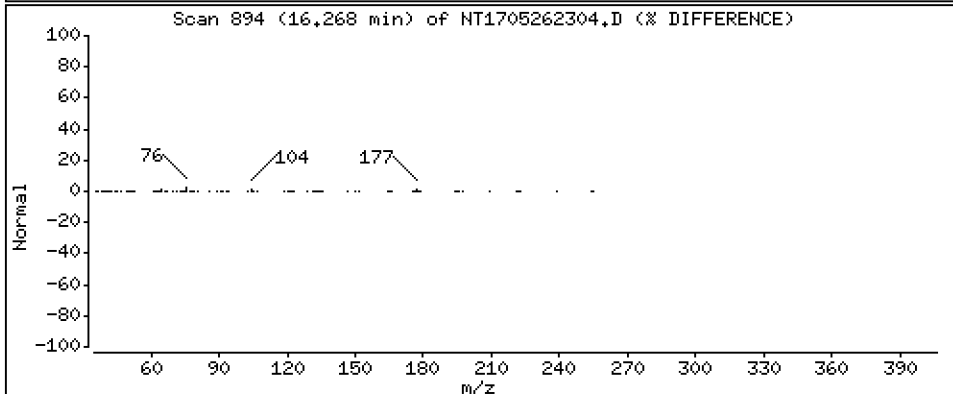
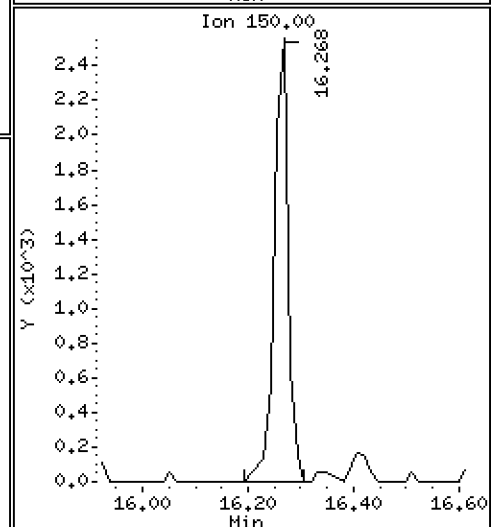
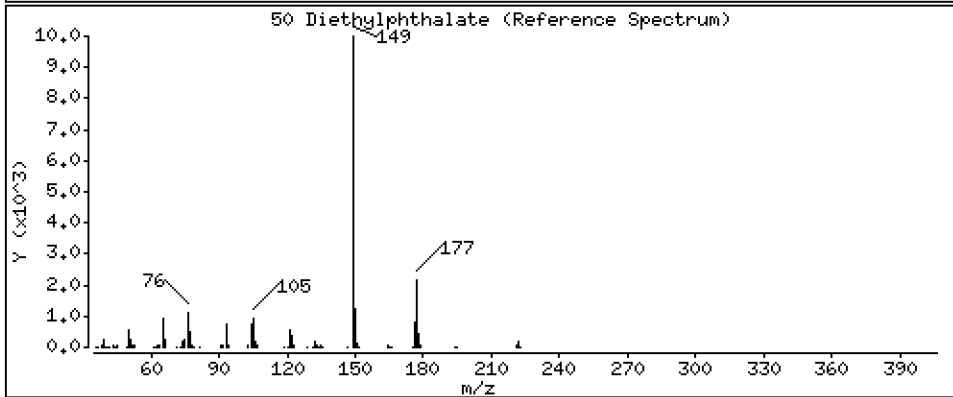
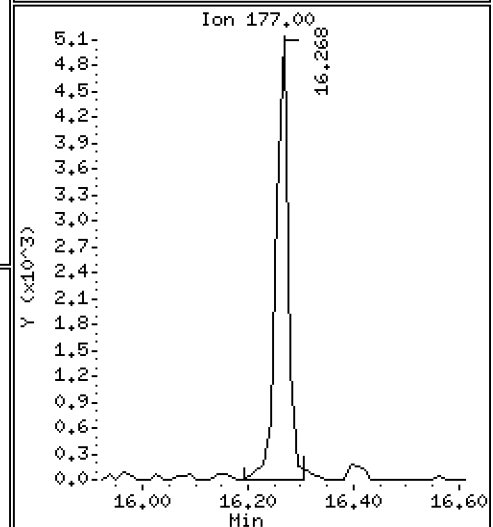
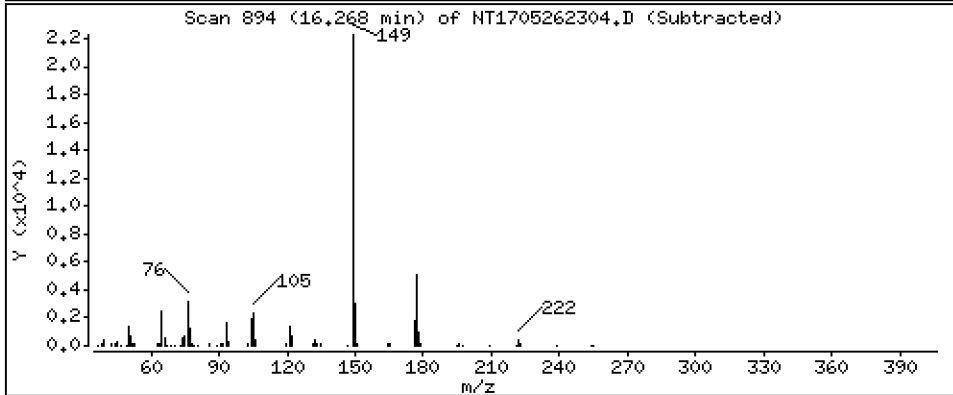
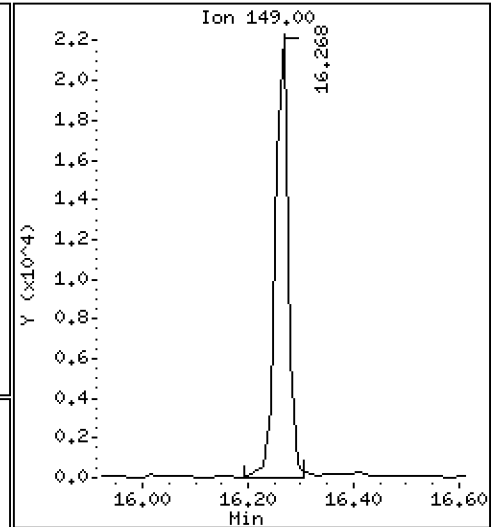
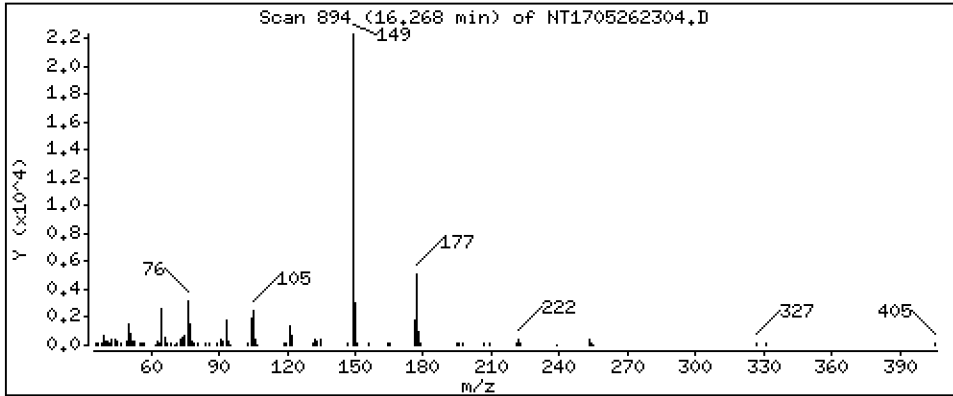
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,2517 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

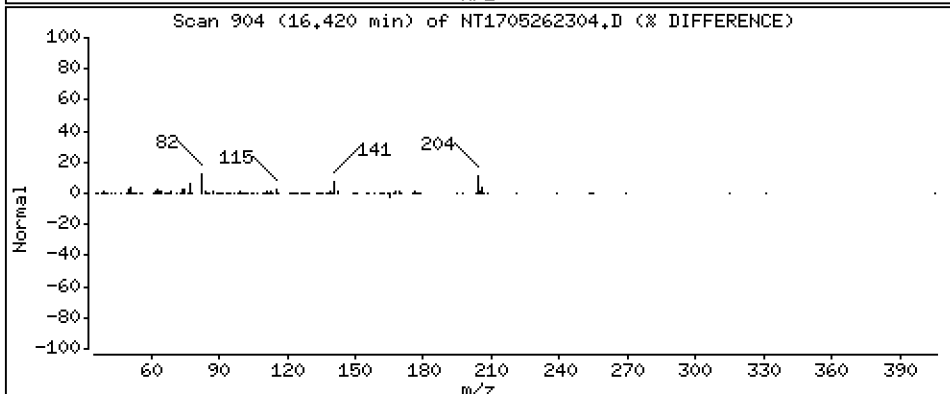
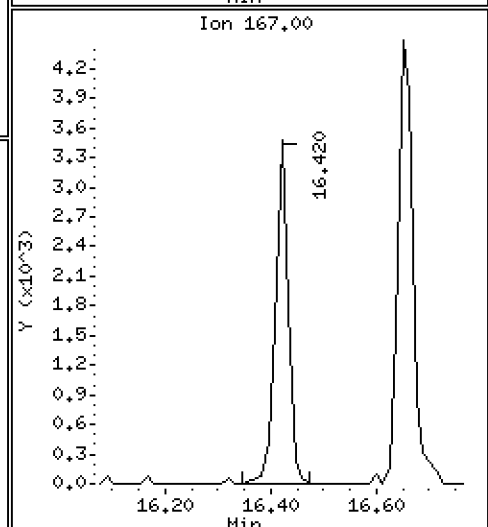
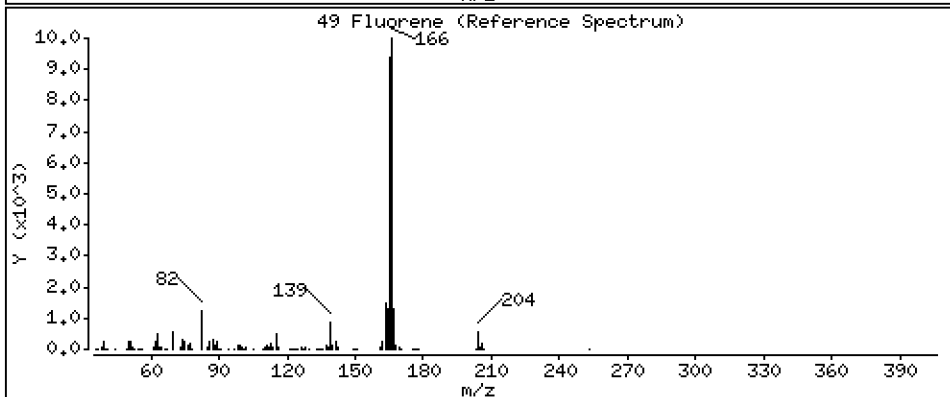
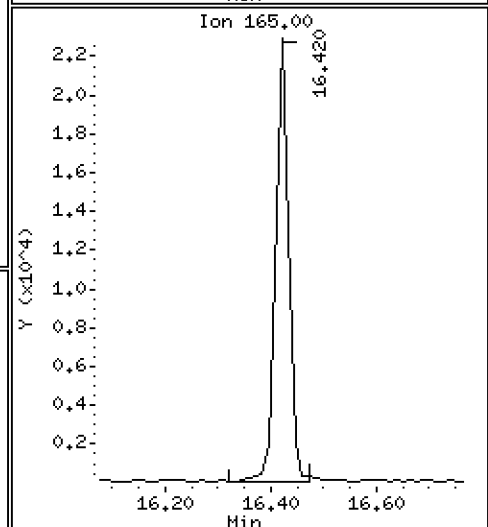
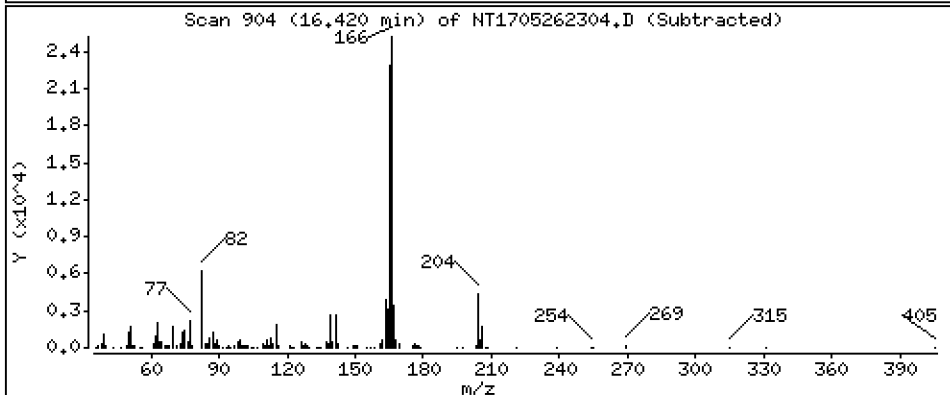
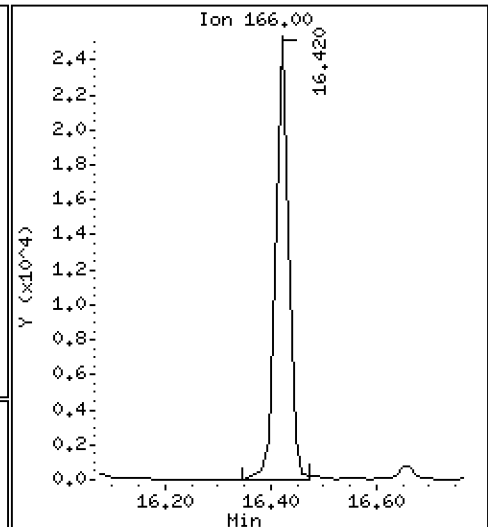
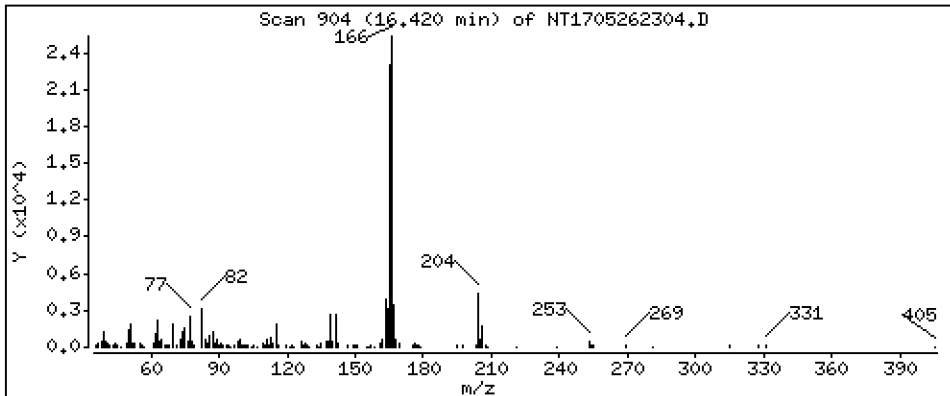
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,2240 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

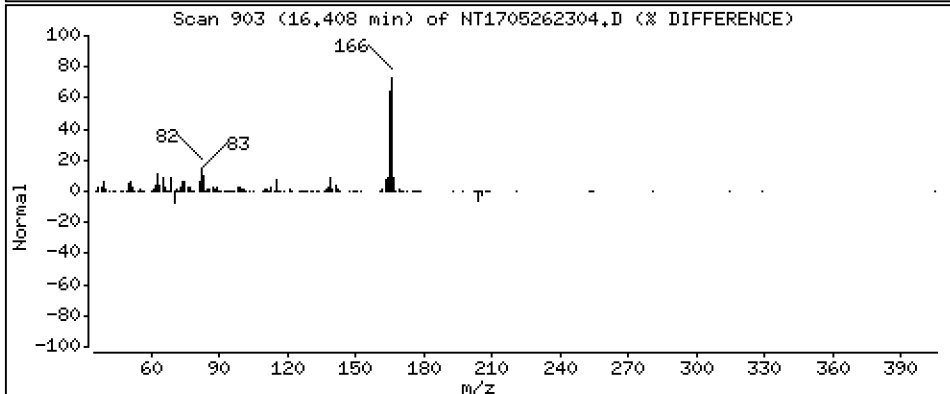
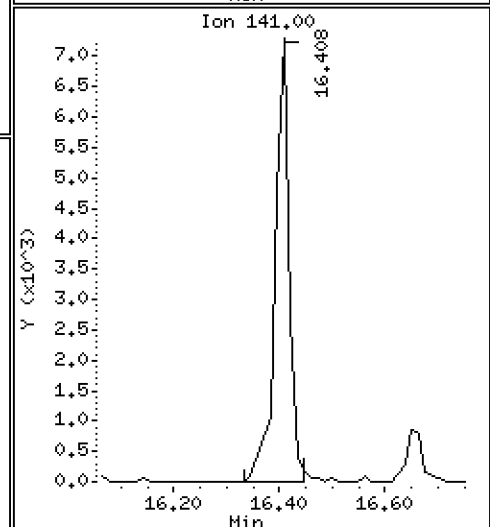
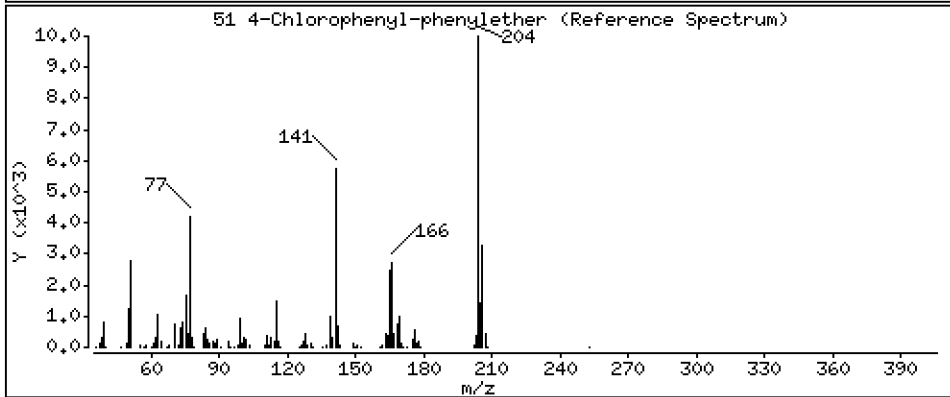
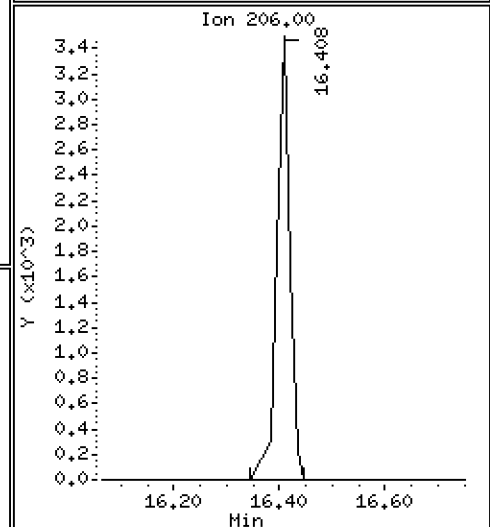
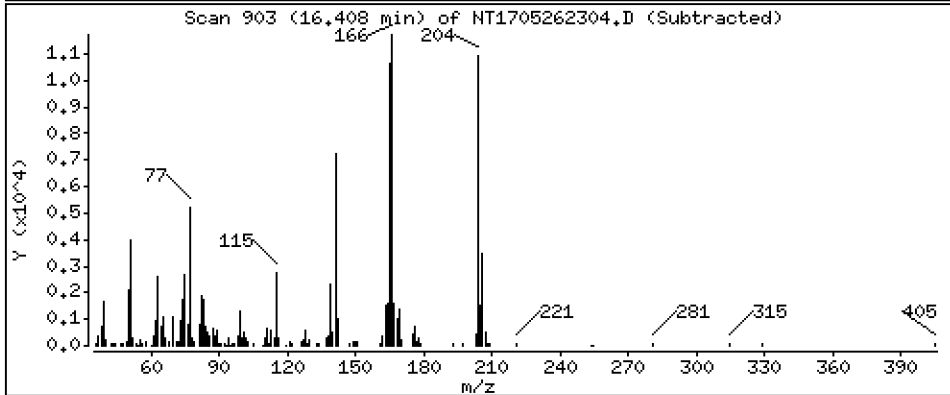
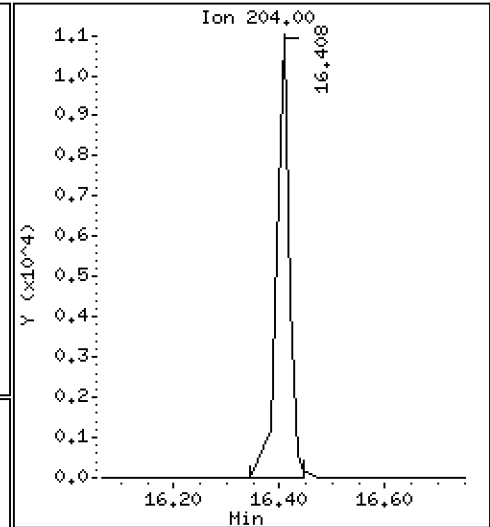
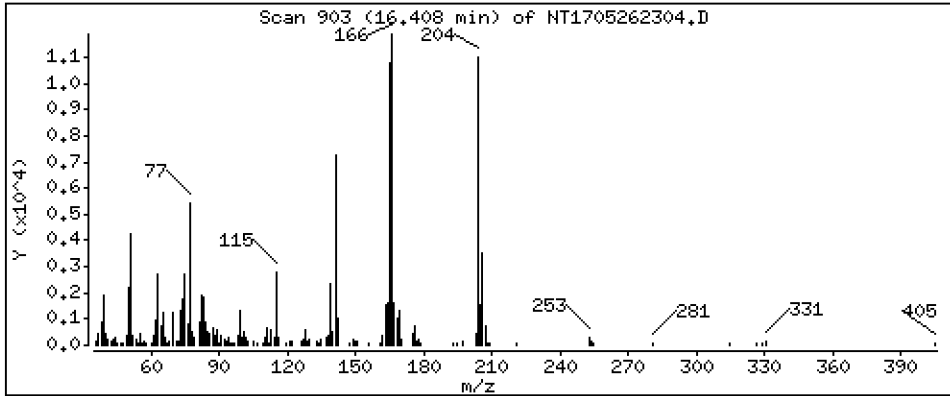
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,2107 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

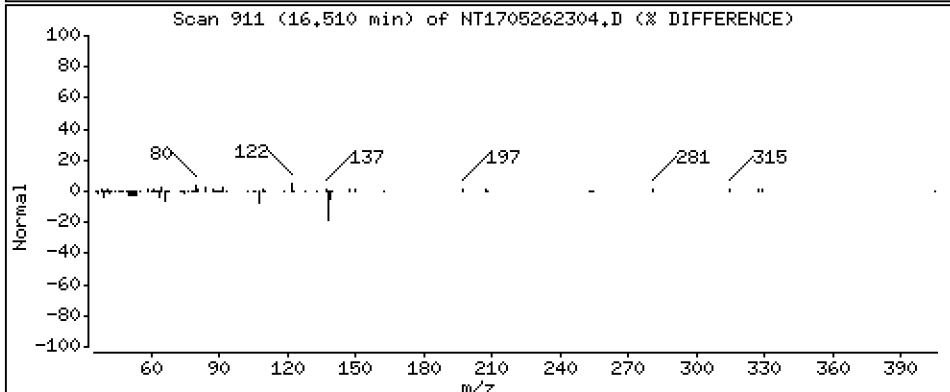
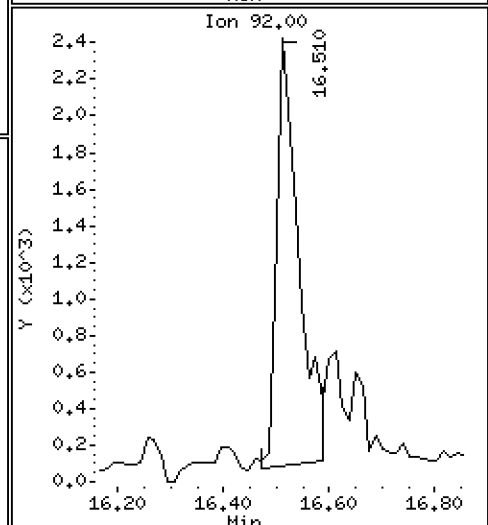
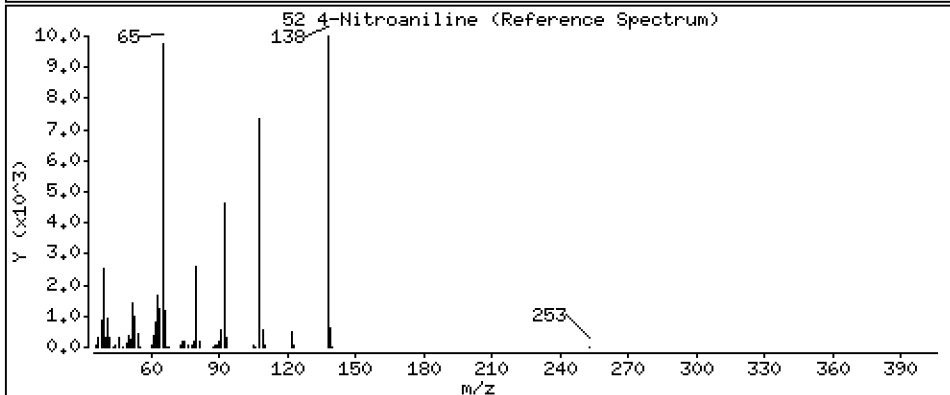
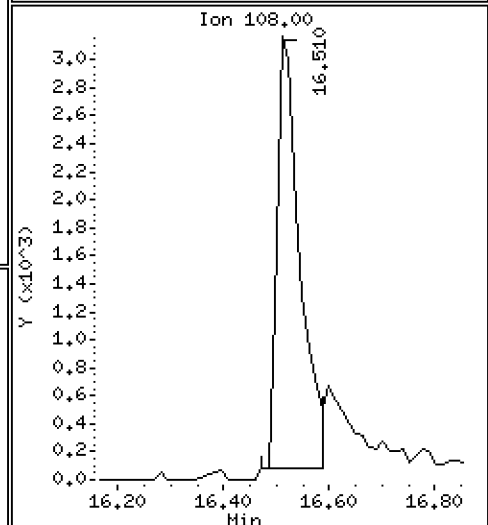
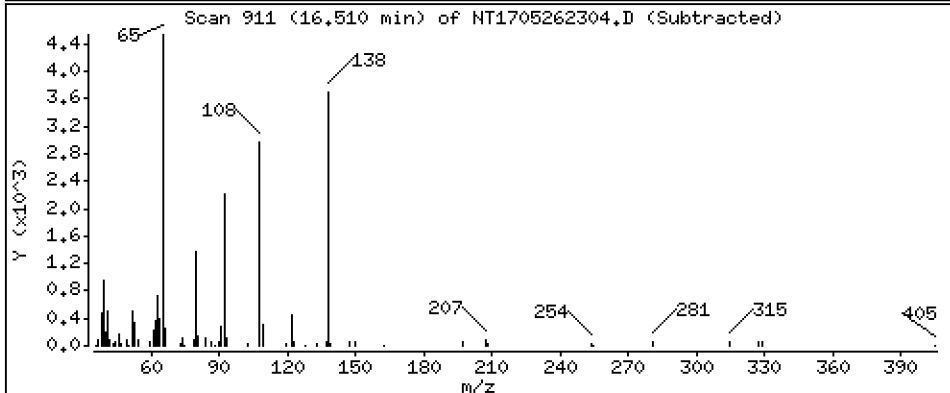
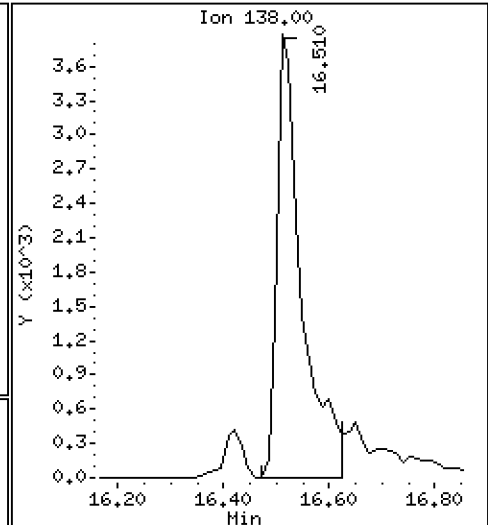
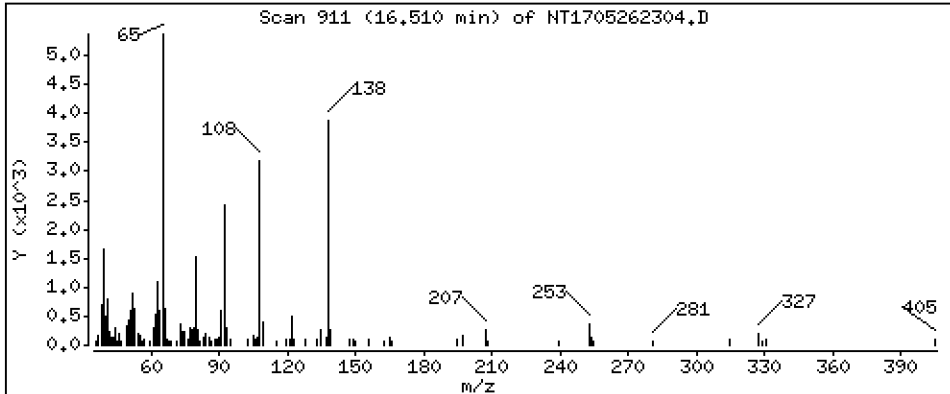
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,3136 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

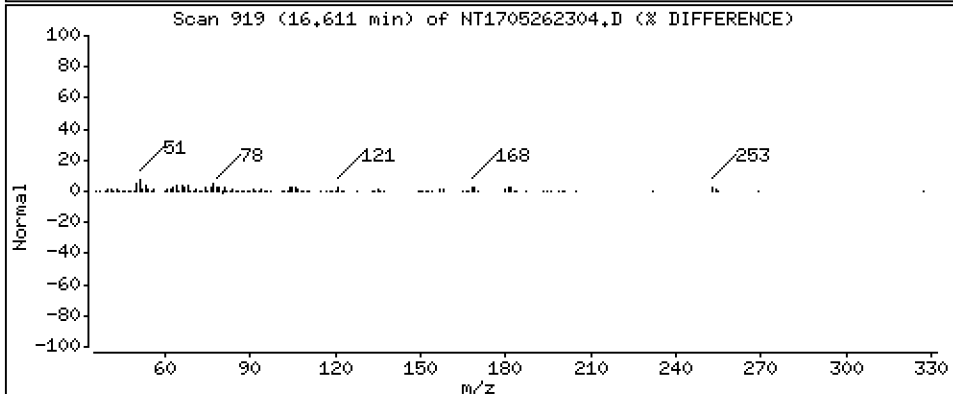
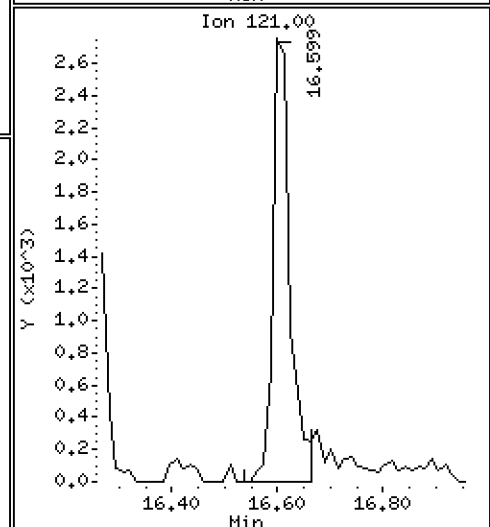
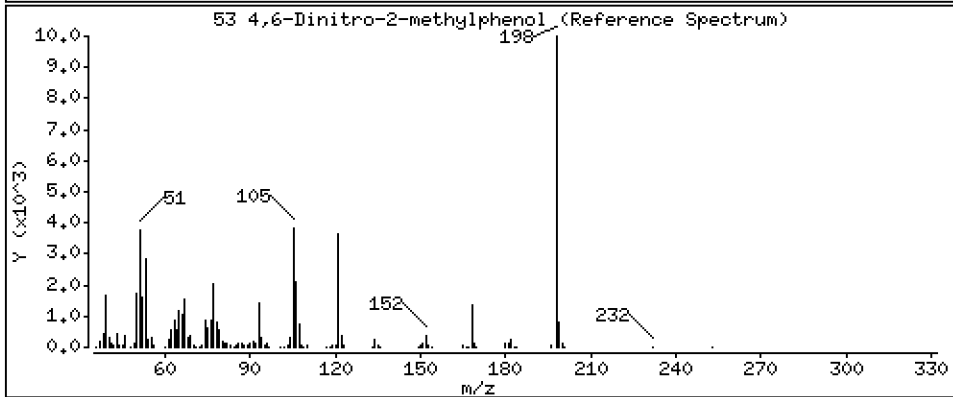
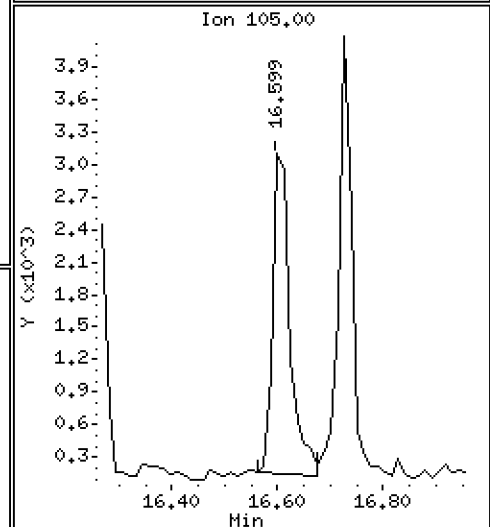
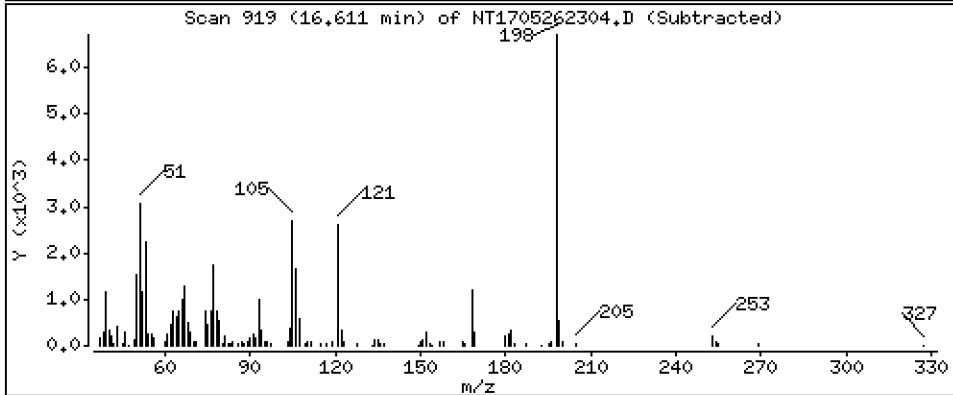
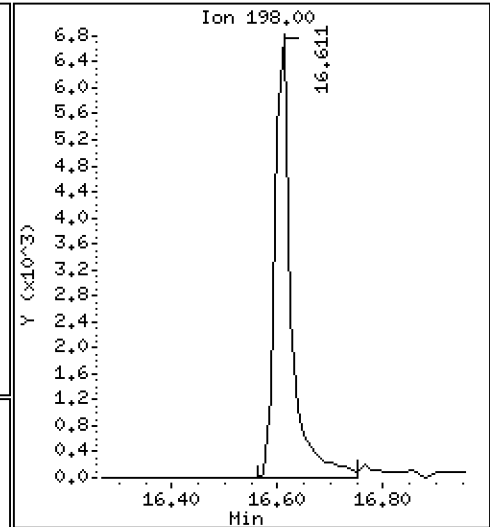
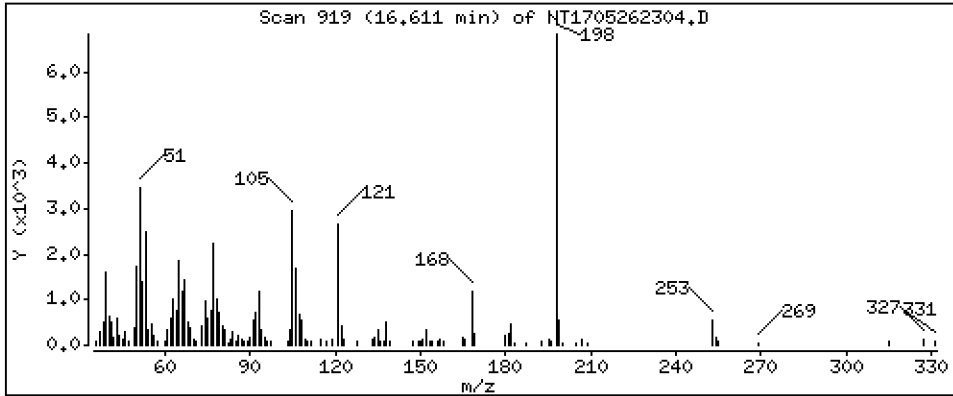
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 0,3902 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

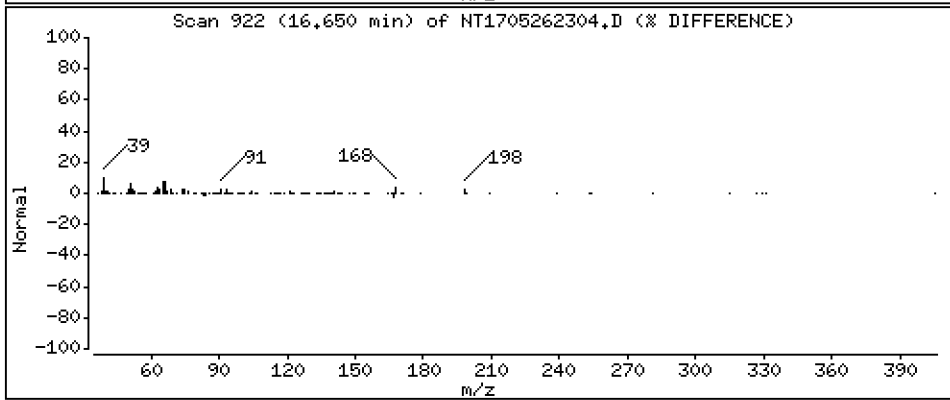
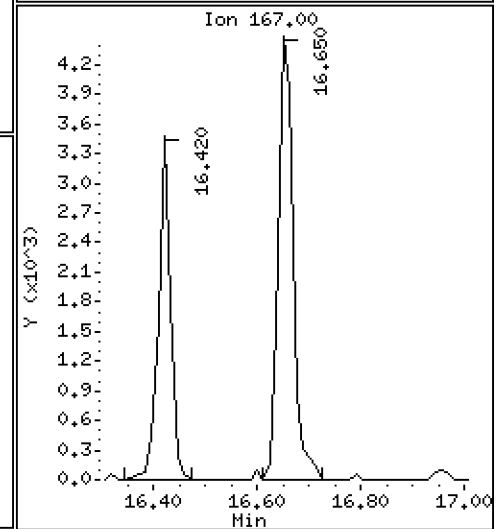
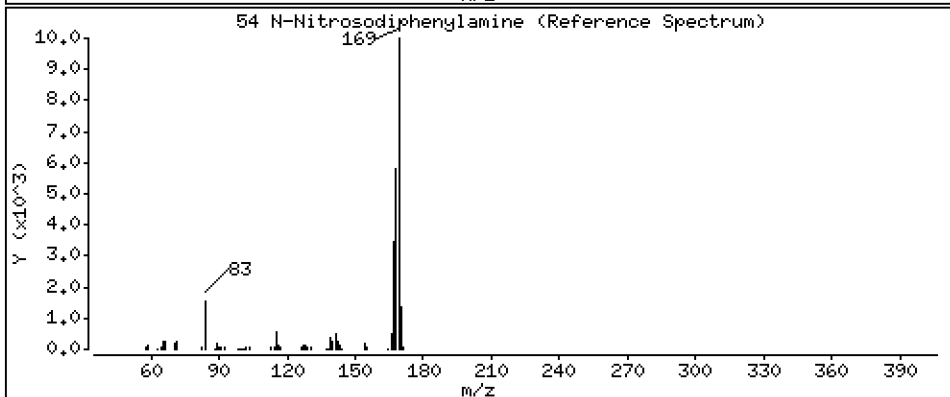
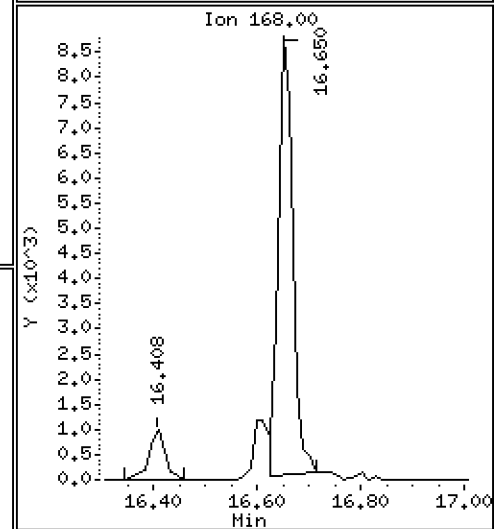
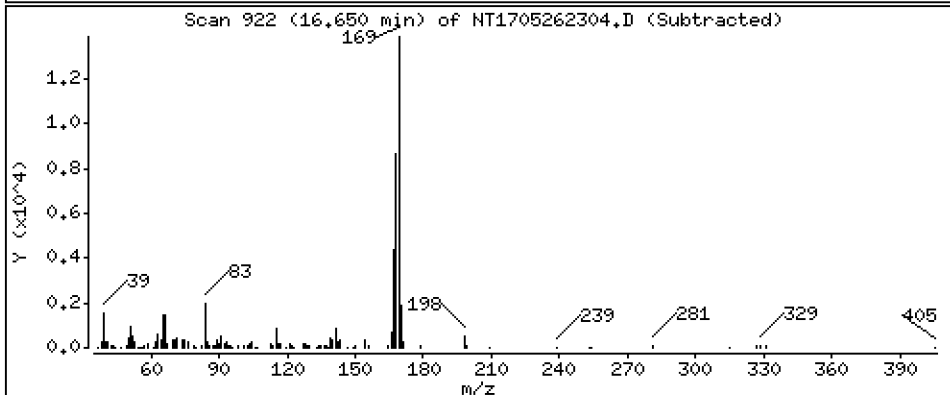
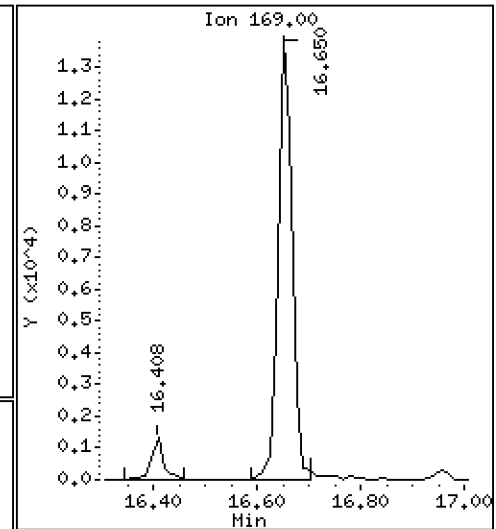
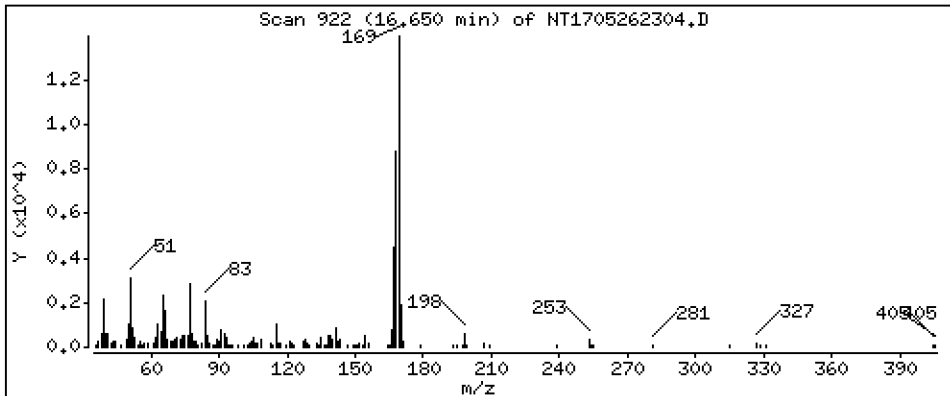
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1929 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

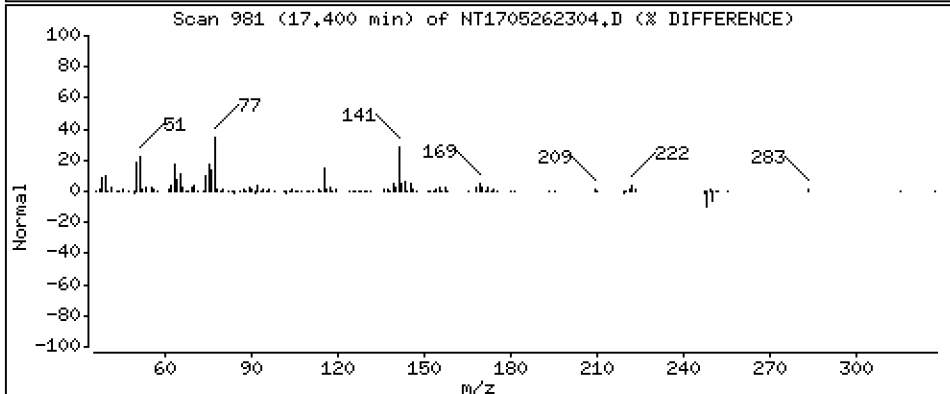
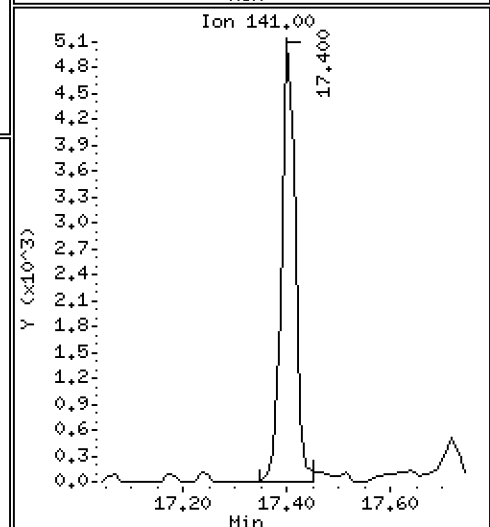
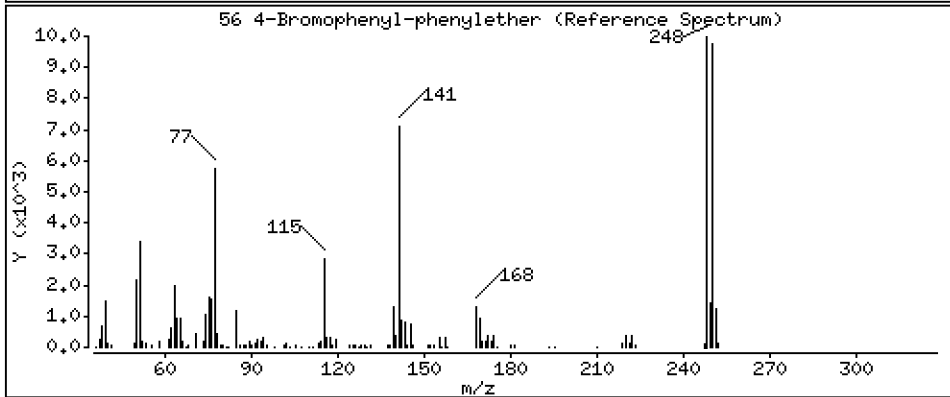
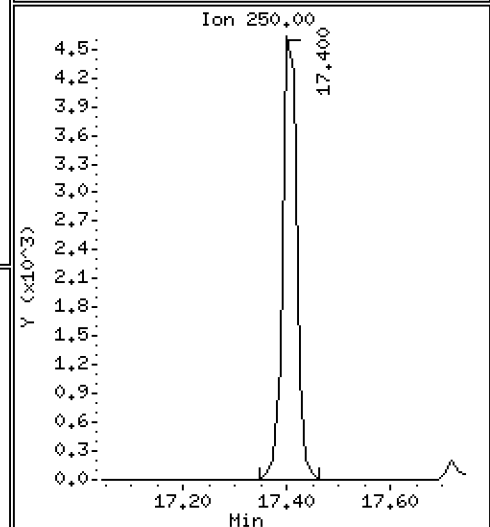
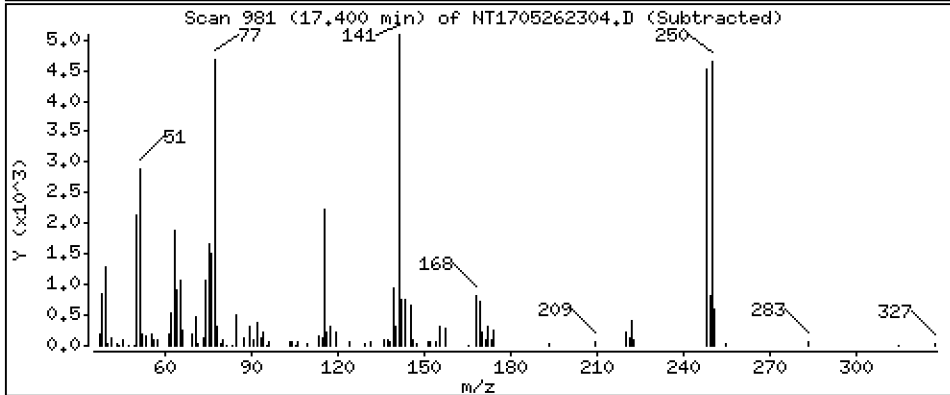
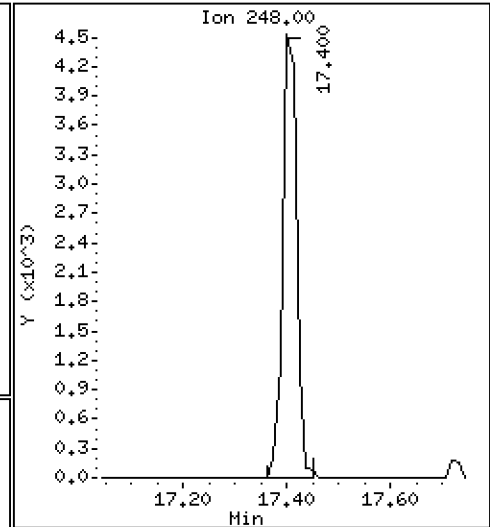
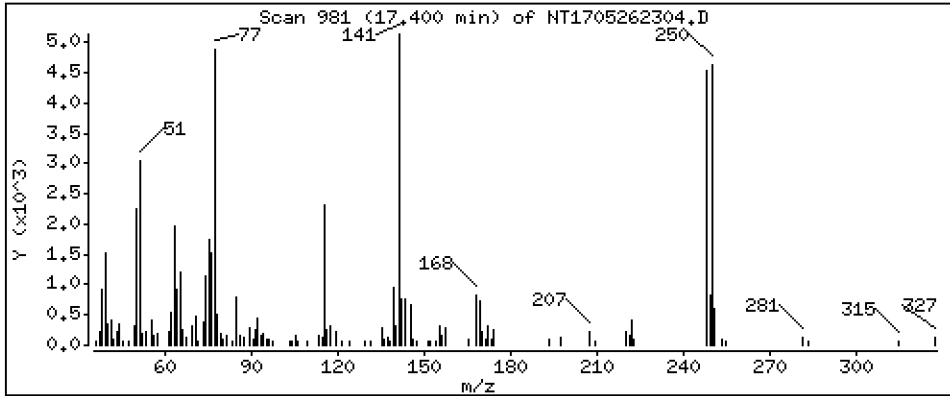
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,1845 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

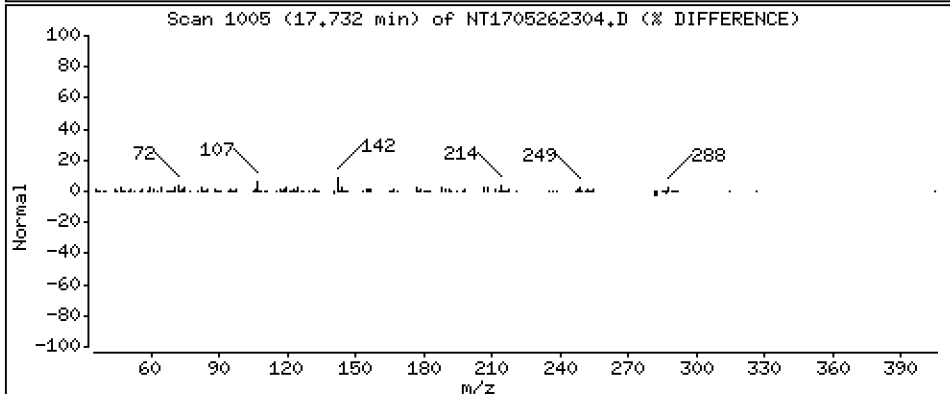
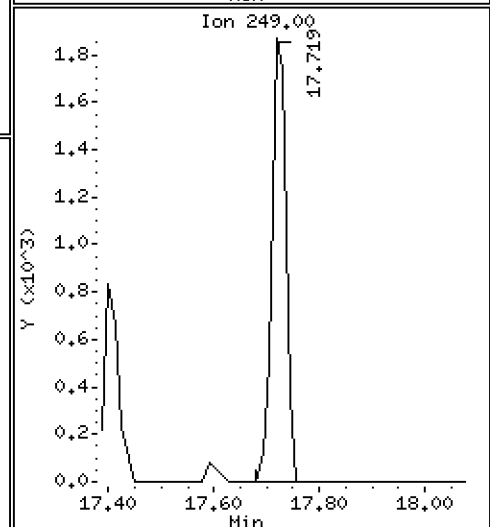
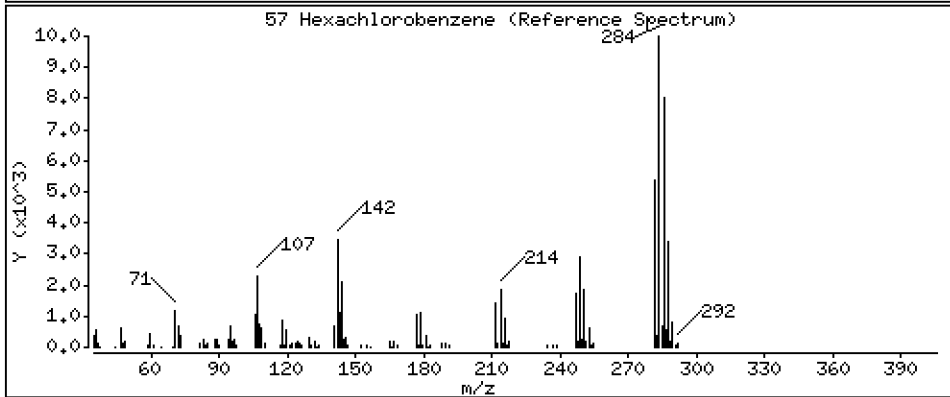
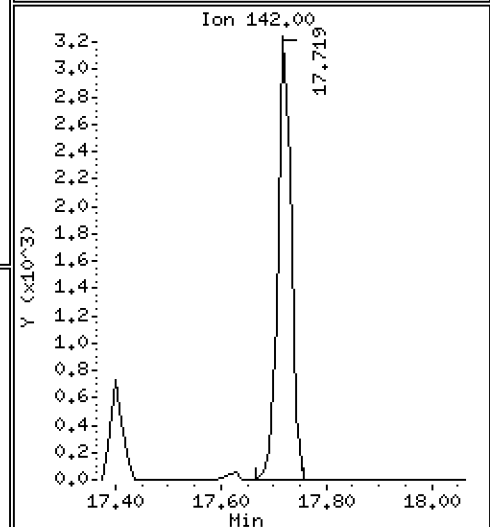
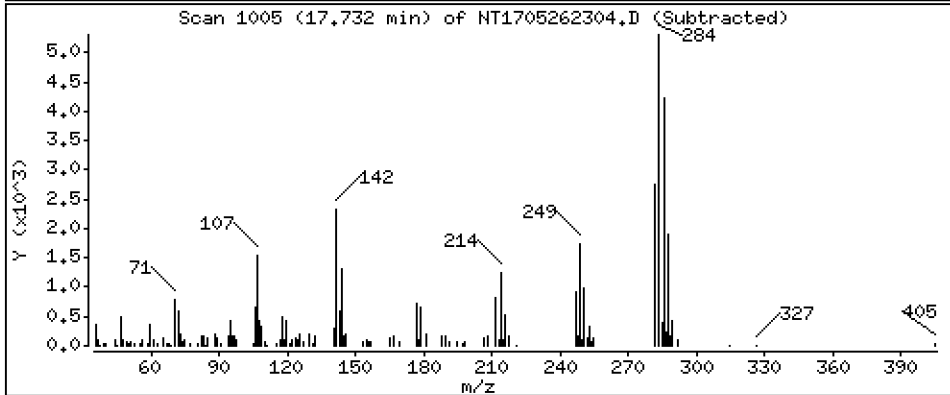
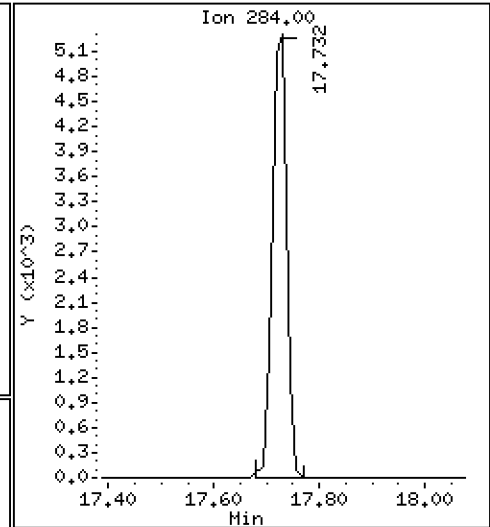
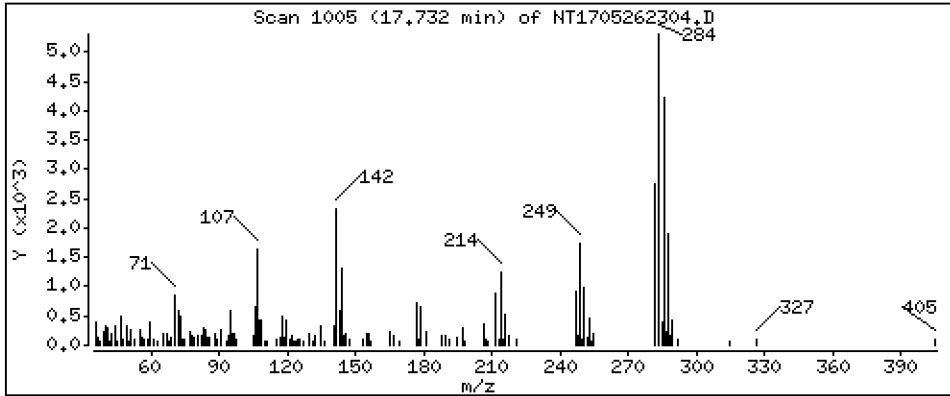
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,2131 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

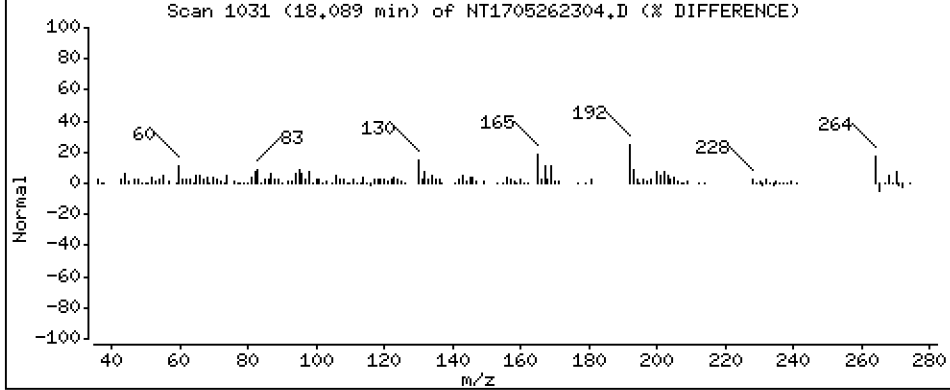
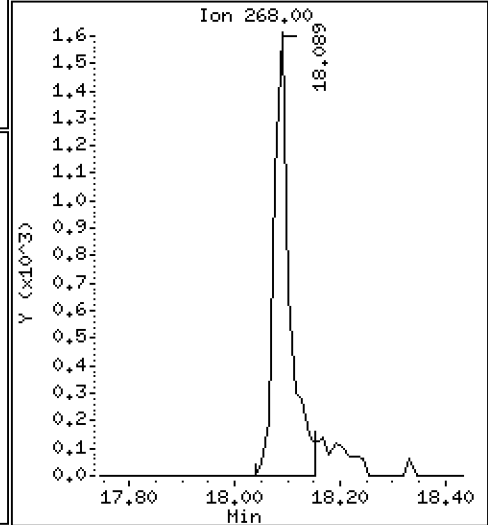
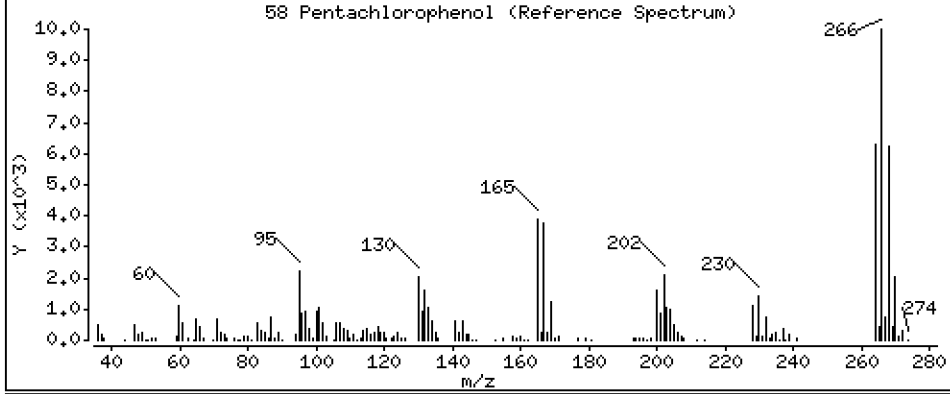
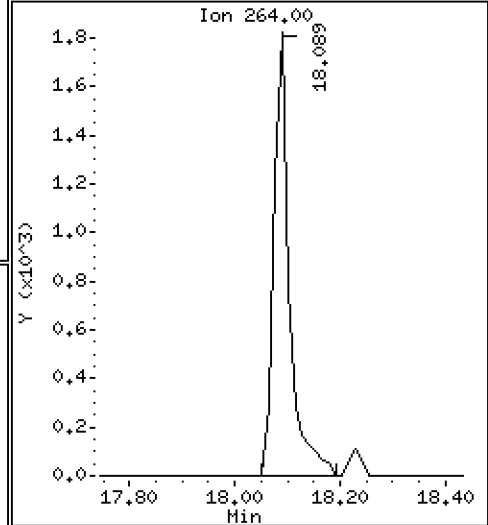
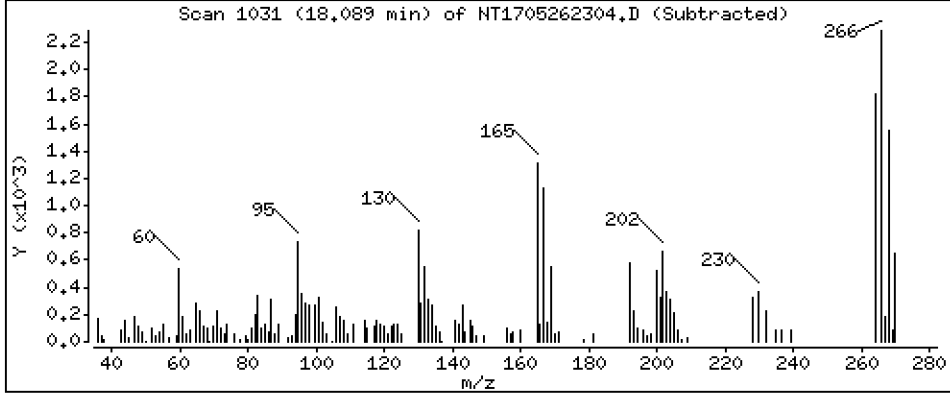
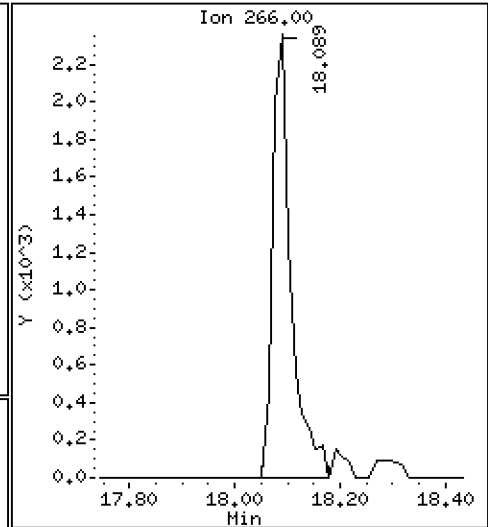
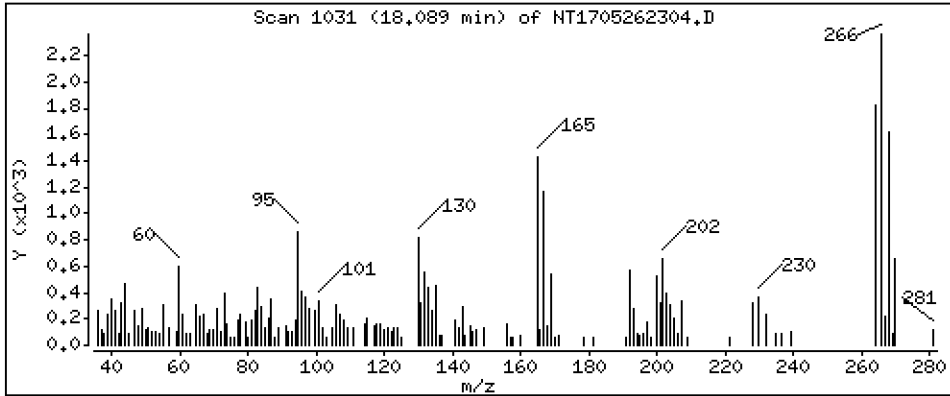
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

58 Pentachlorophenol

Concentration: 0.2079 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

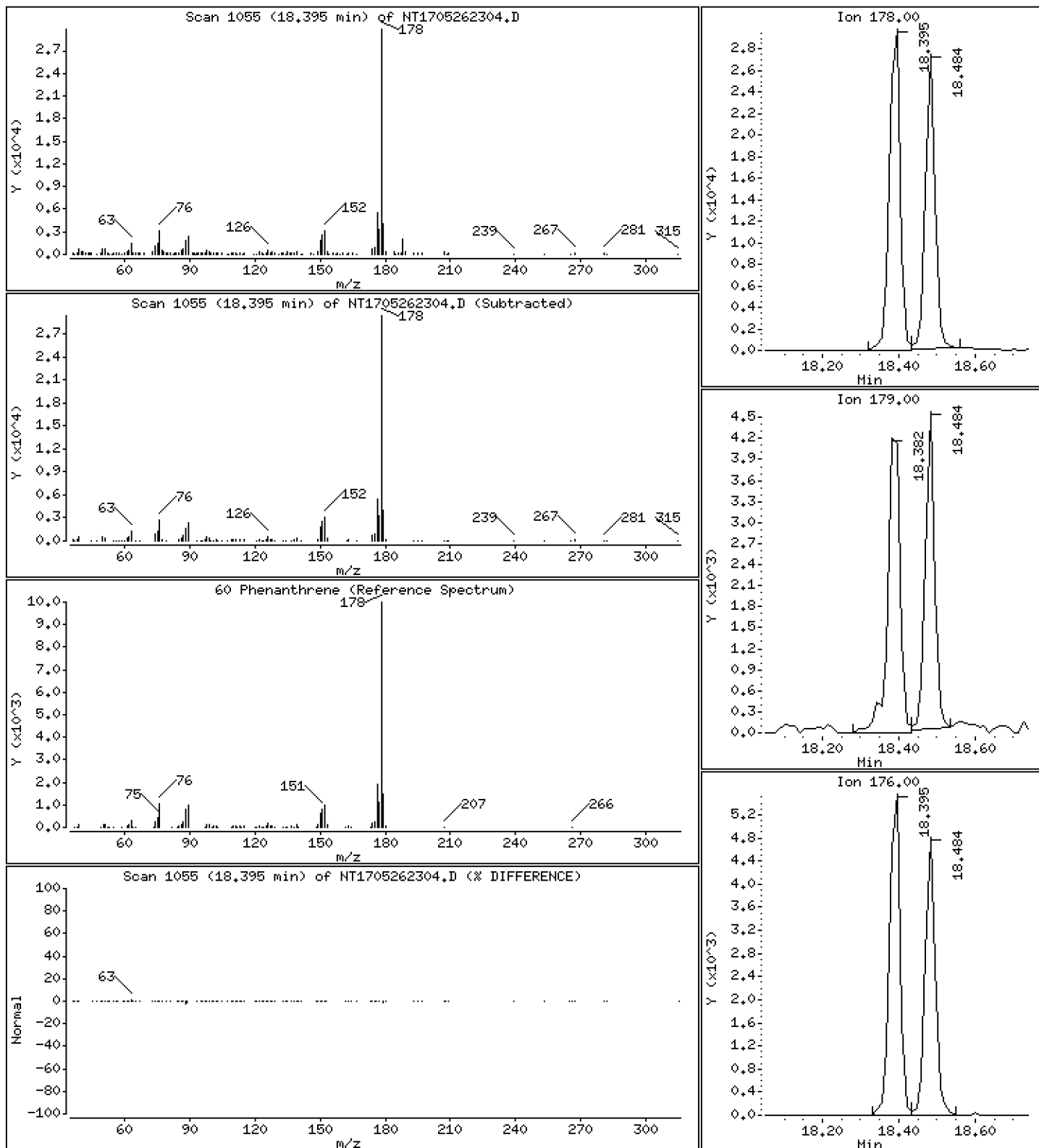
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,2034 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

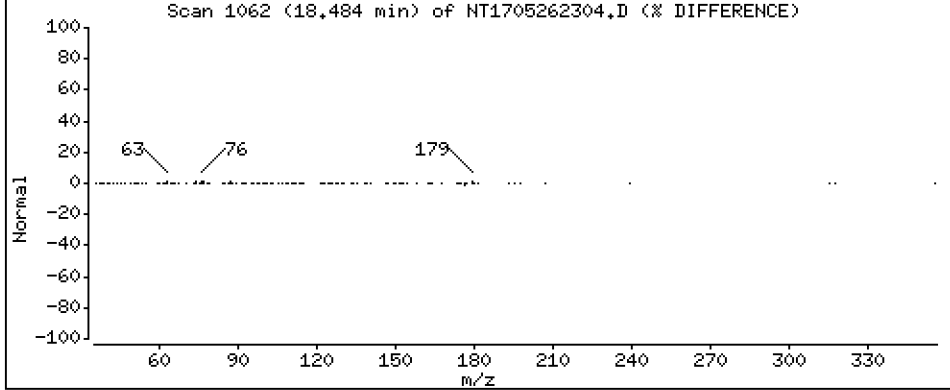
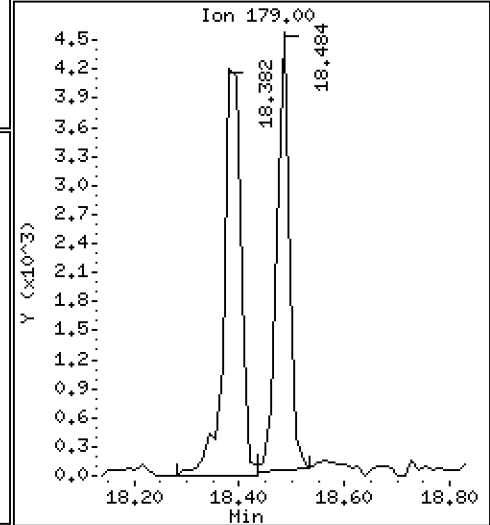
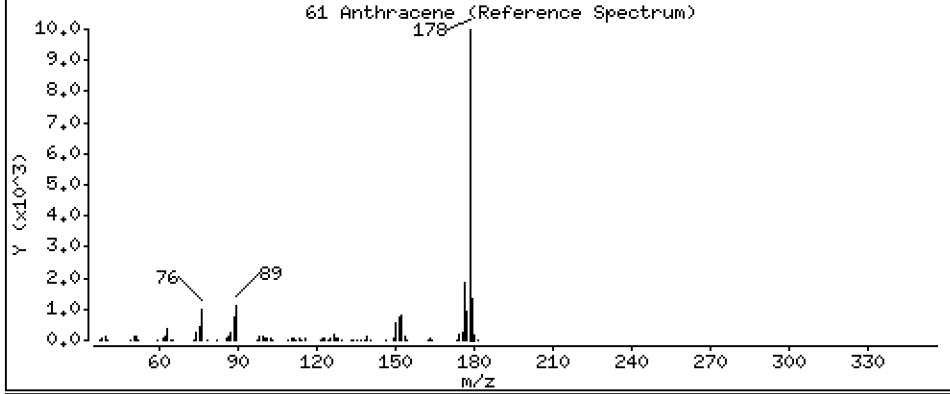
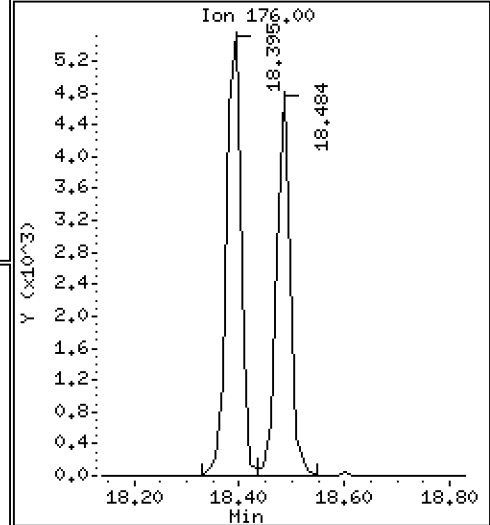
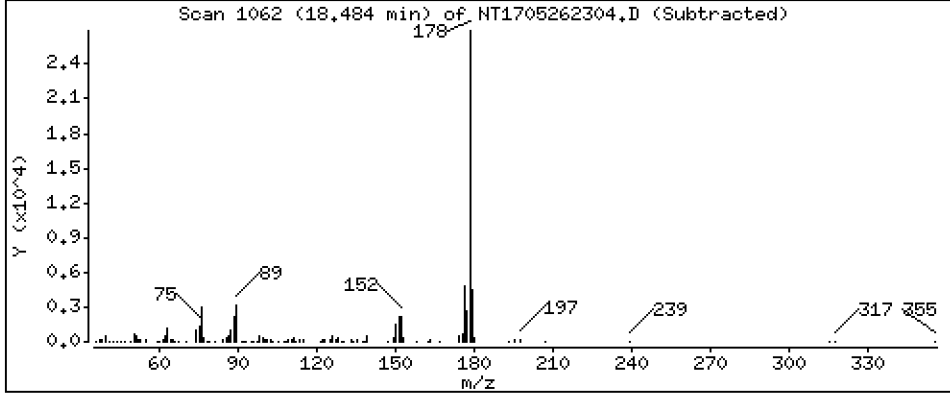
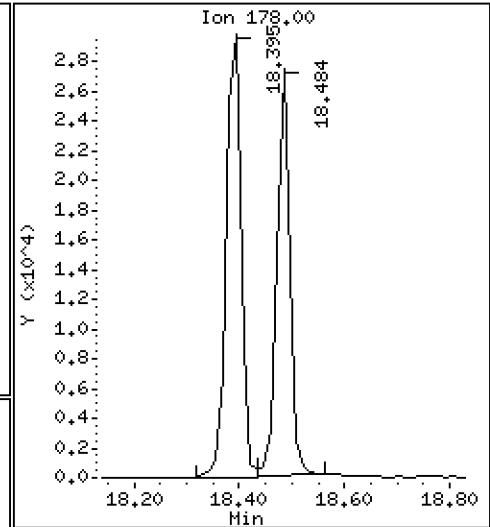
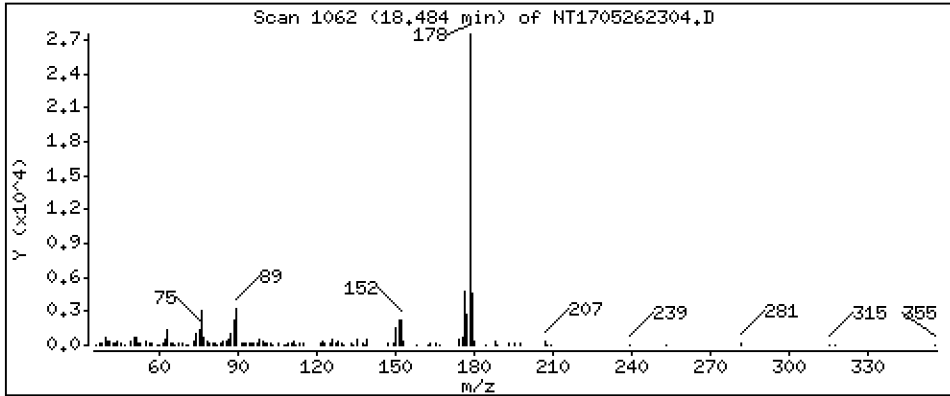
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,1850 ug/mL

61 Anthracene



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

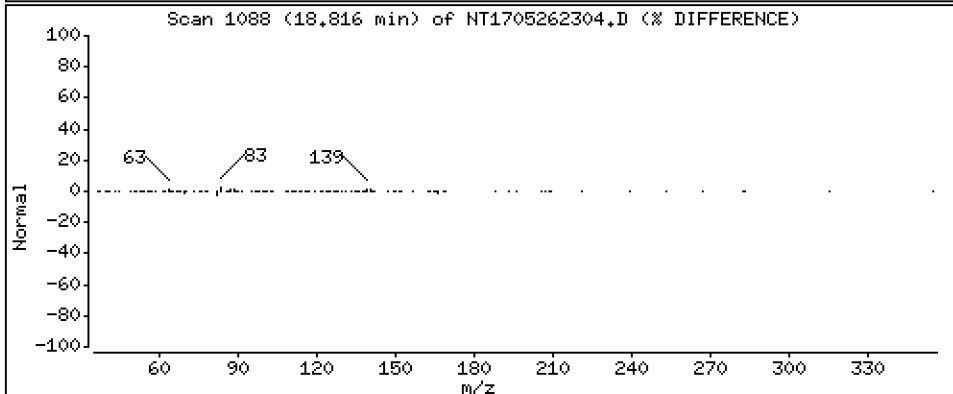
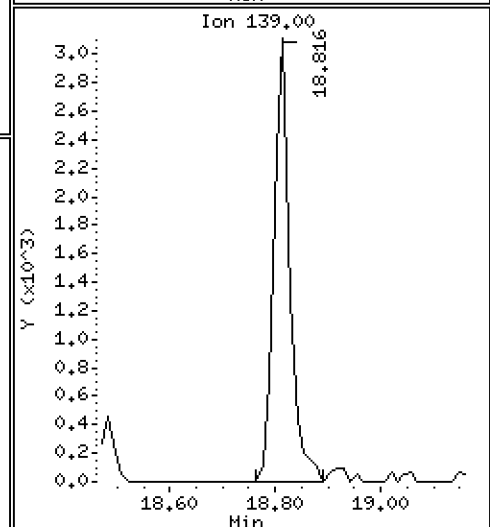
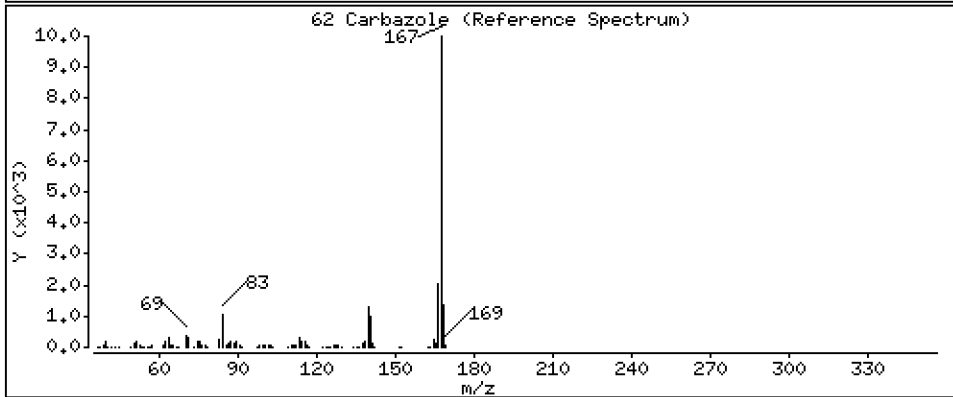
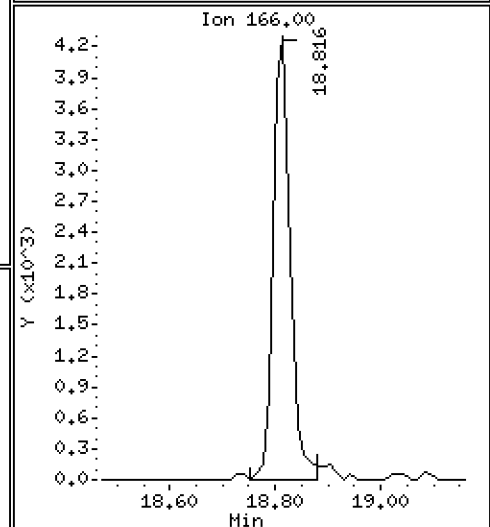
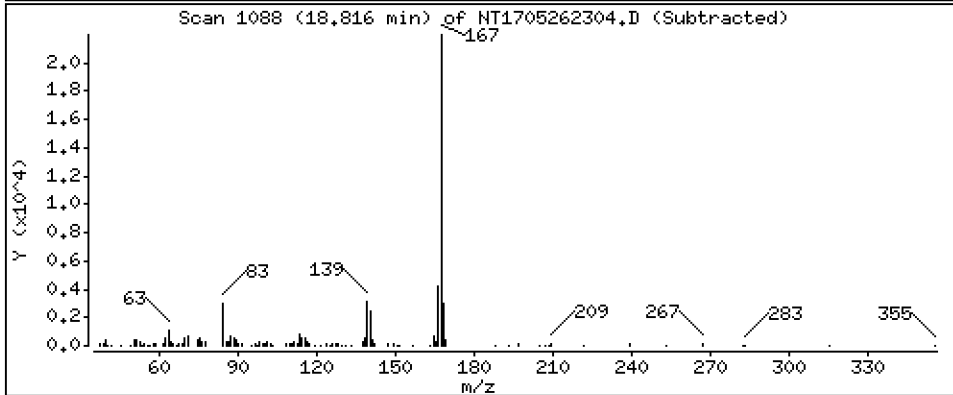
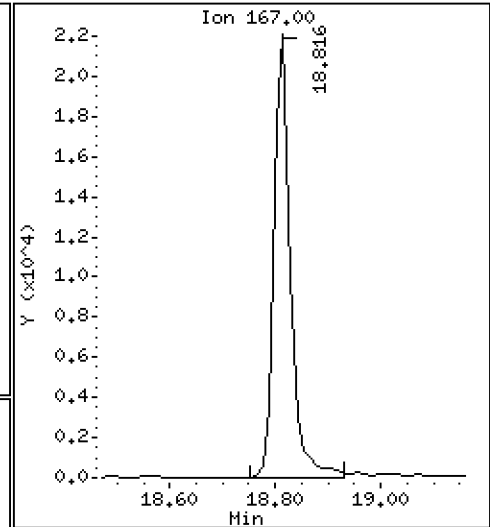
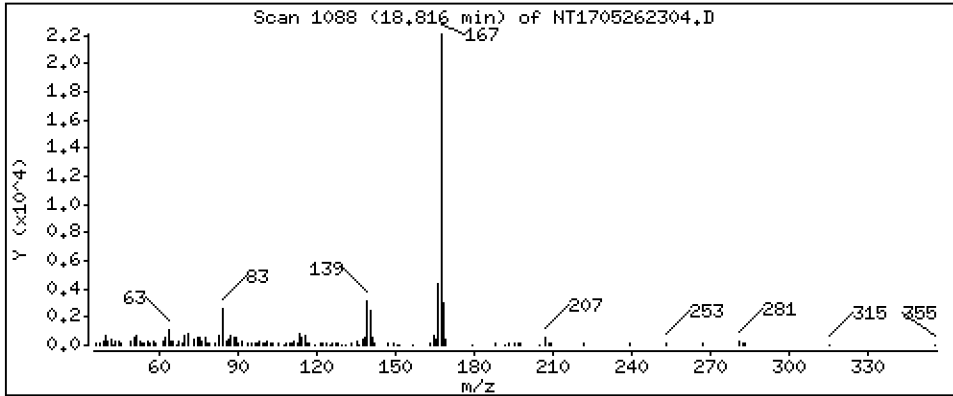
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,2944 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

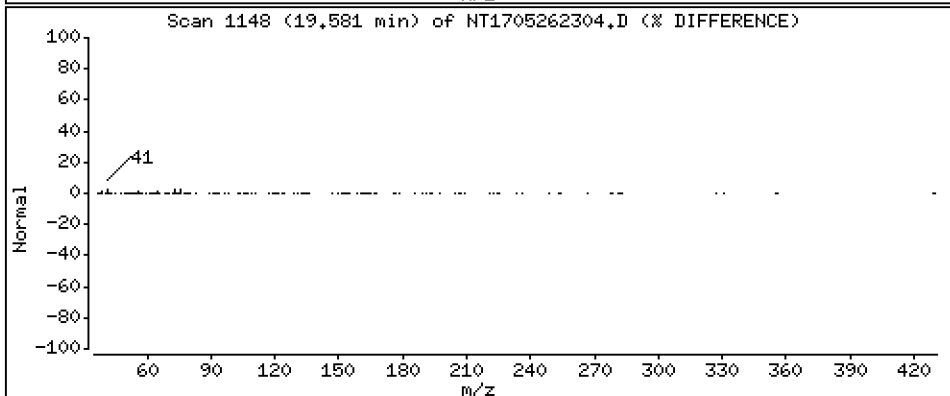
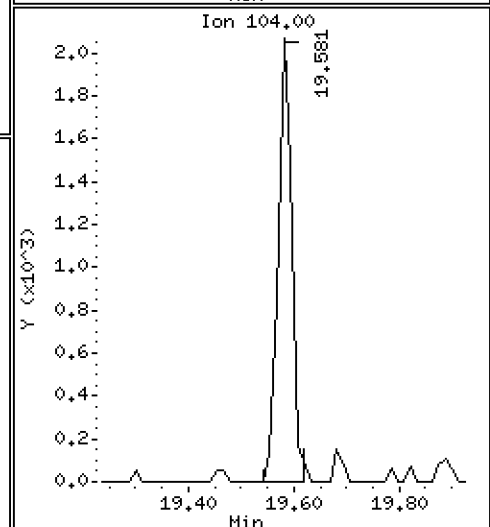
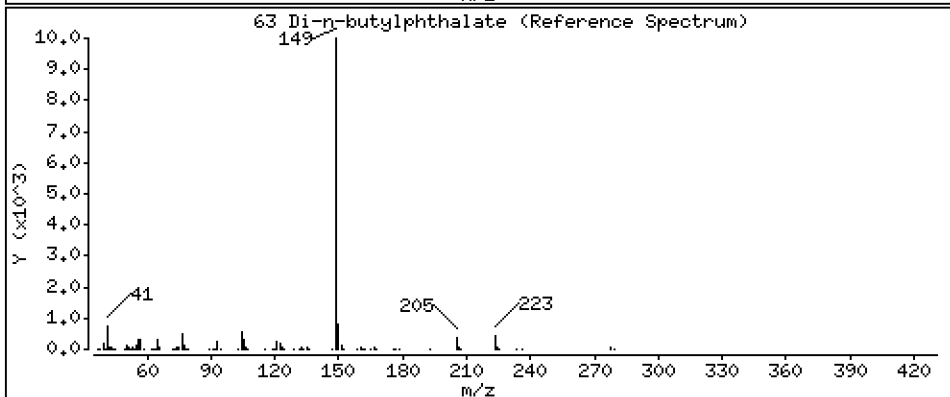
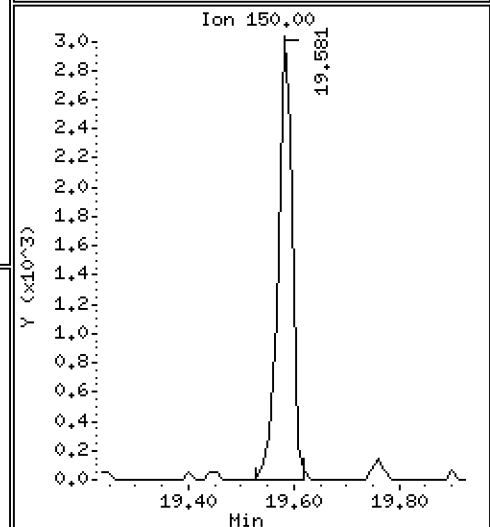
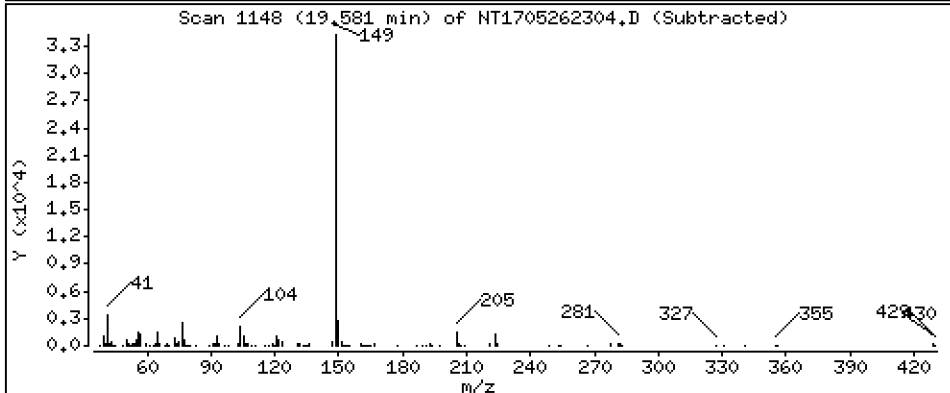
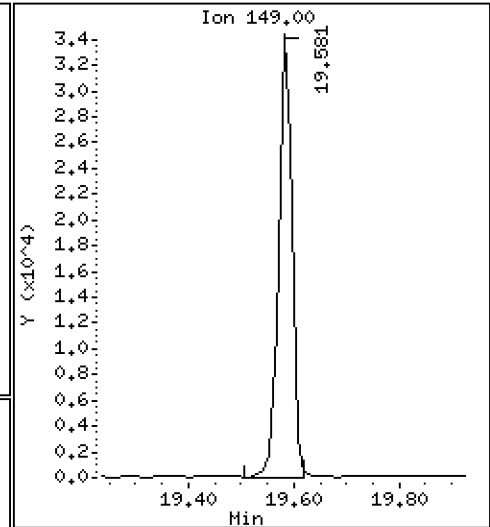
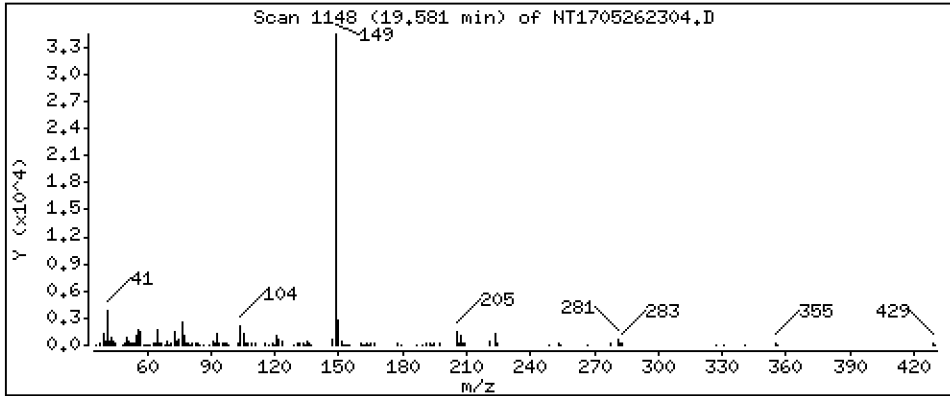
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.1889 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

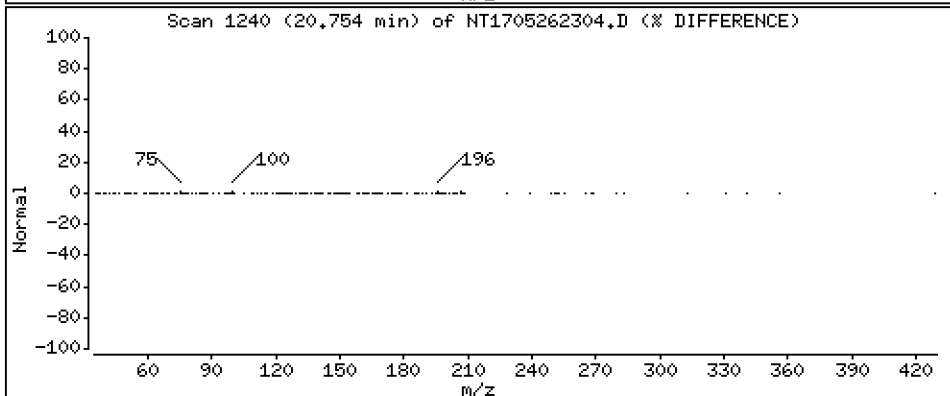
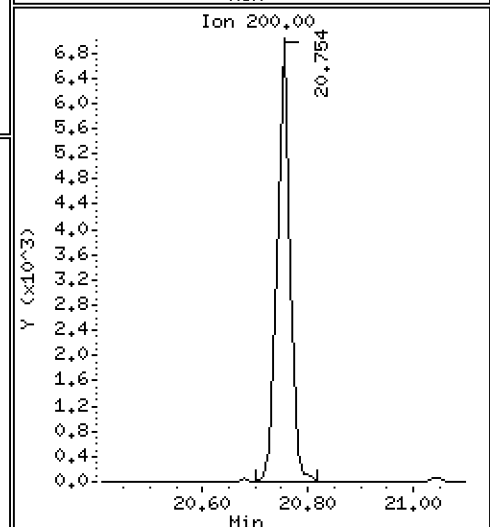
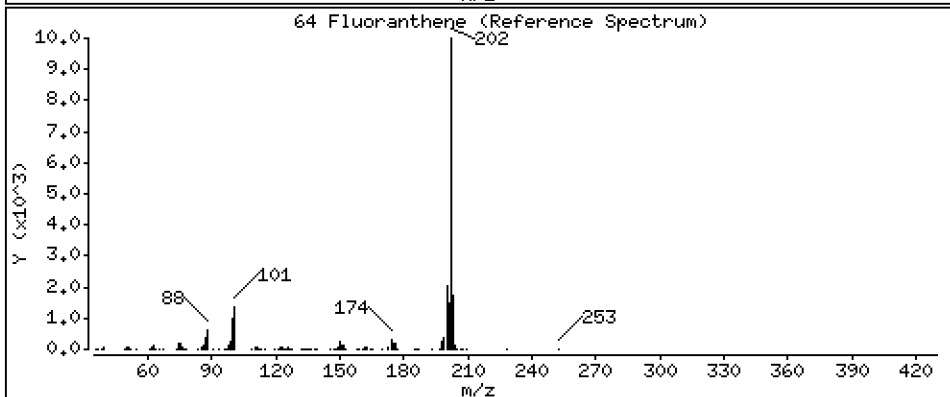
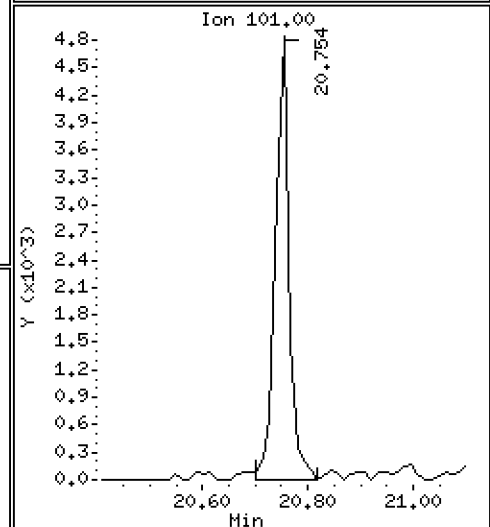
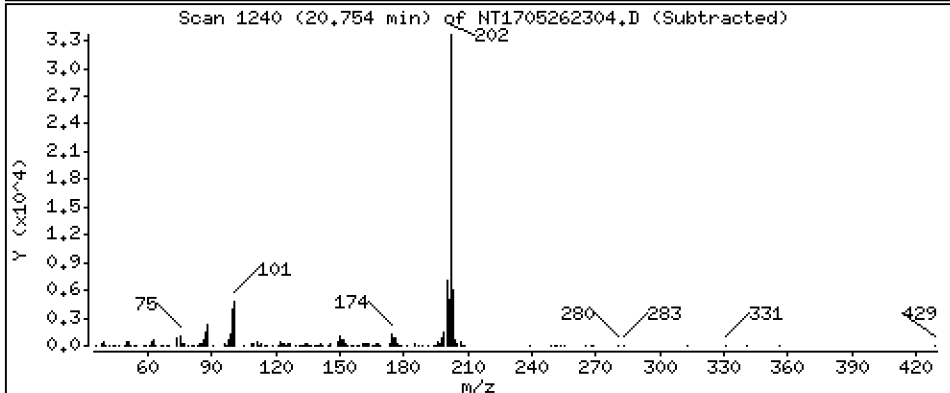
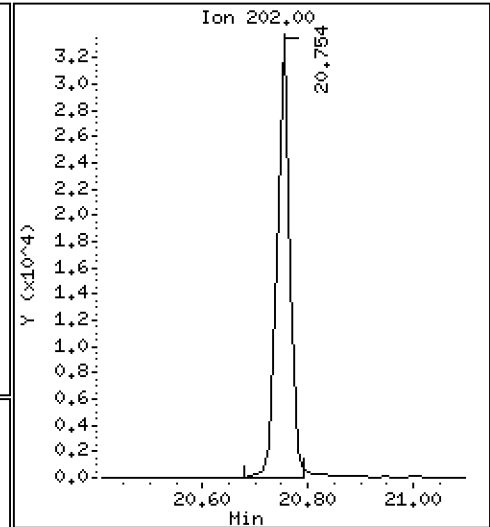
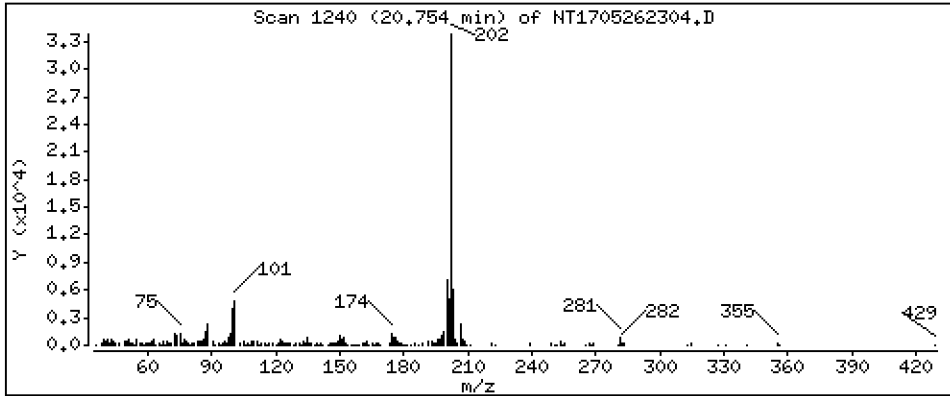
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,1948 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

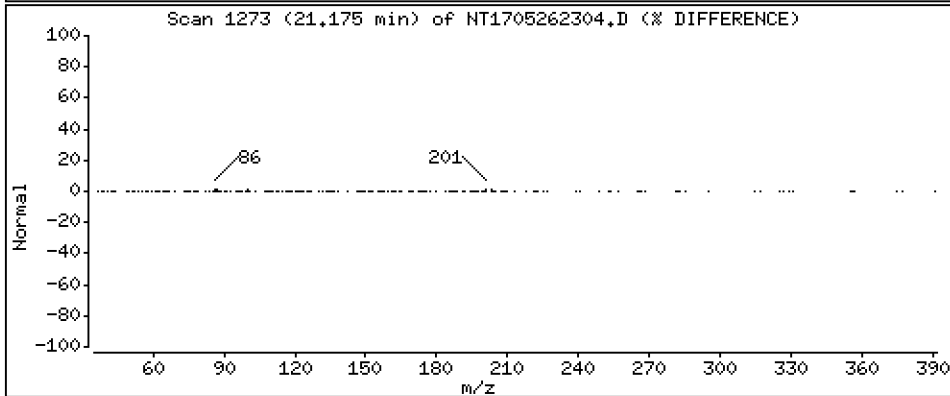
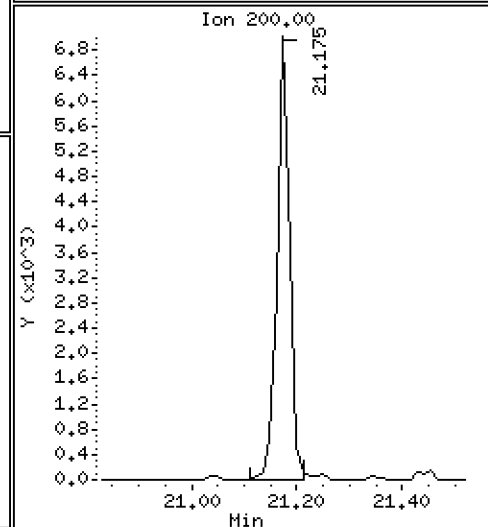
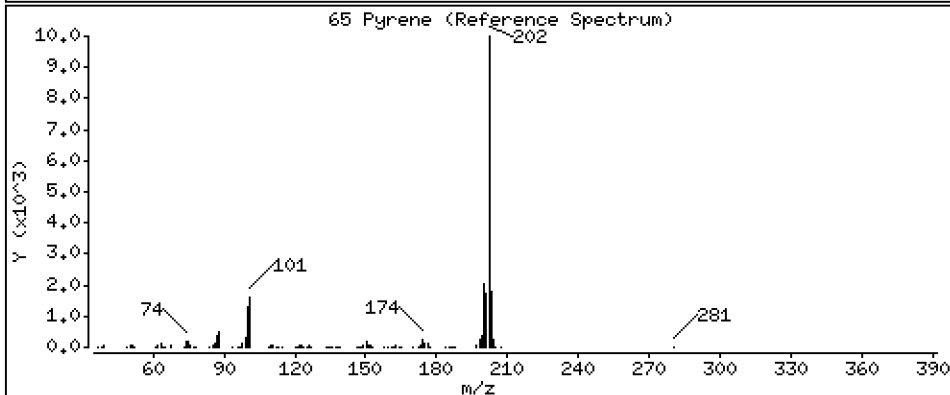
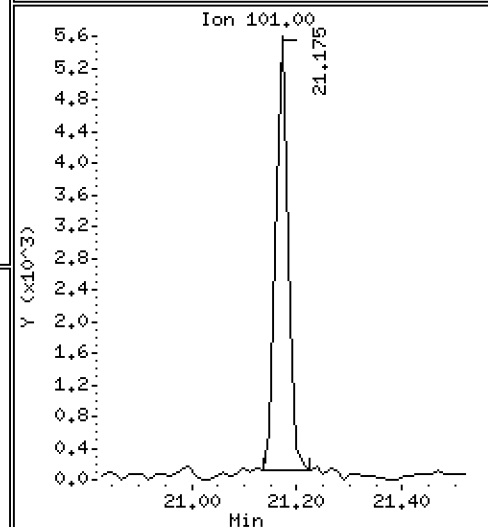
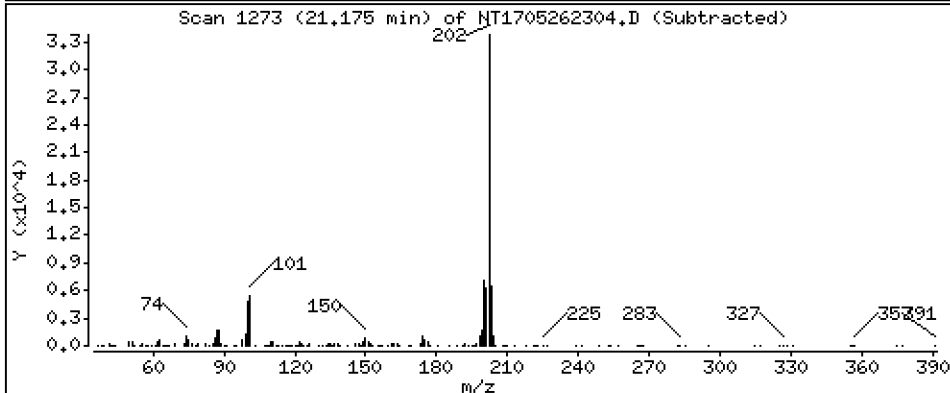
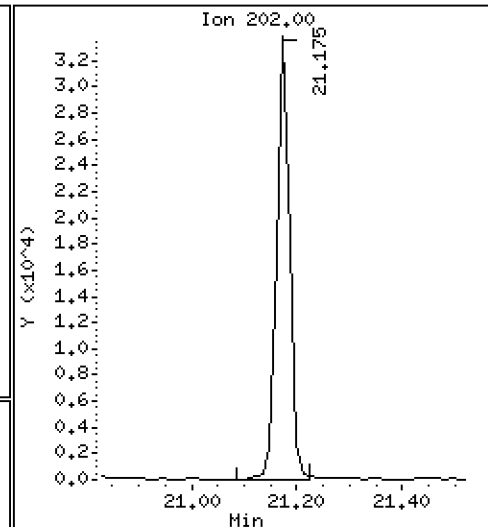
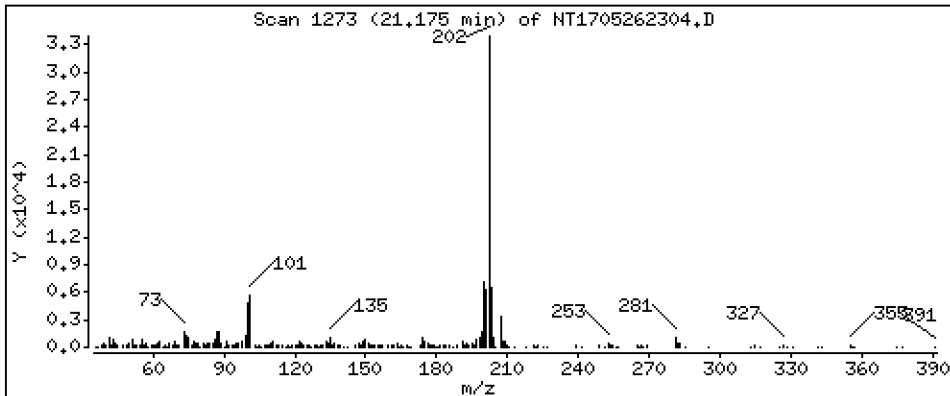
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,2036 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

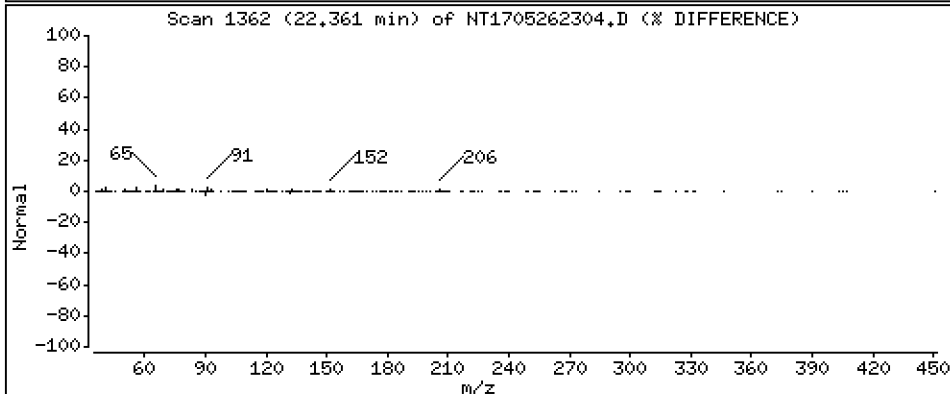
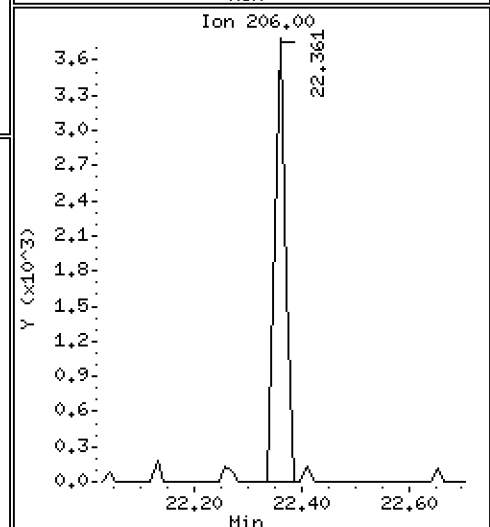
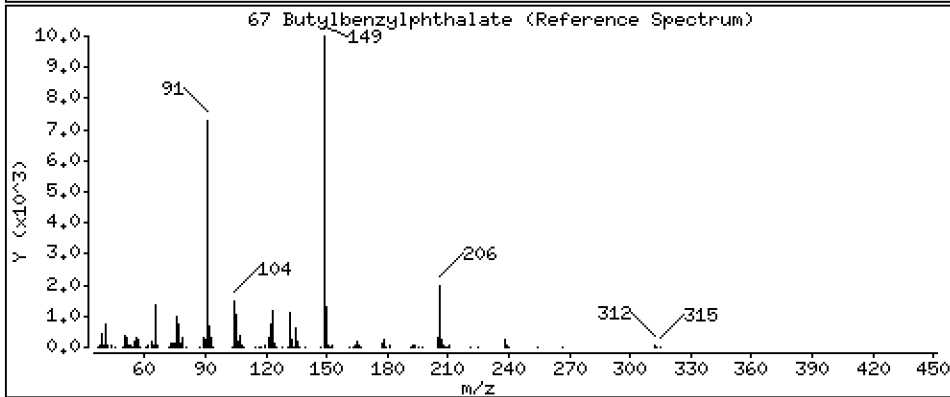
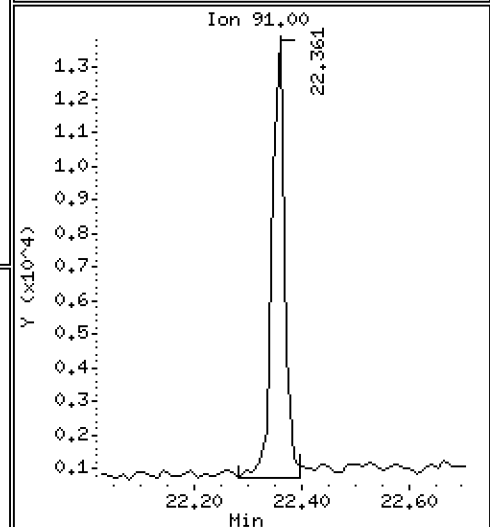
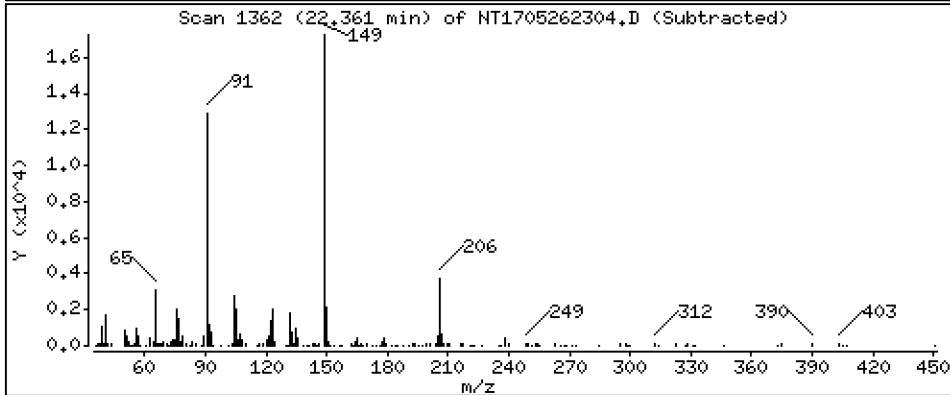
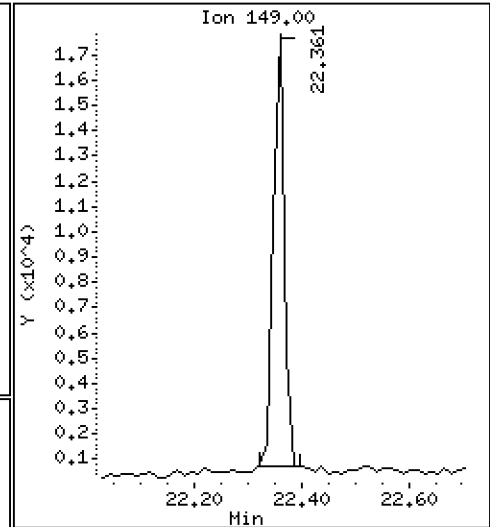
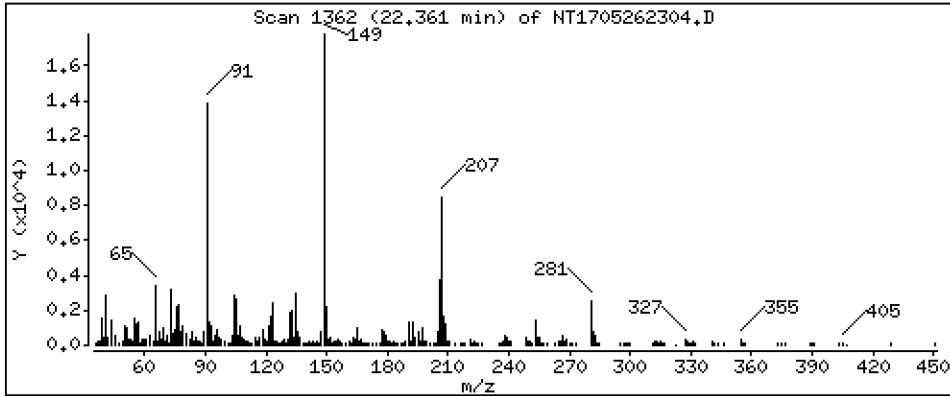
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1944 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

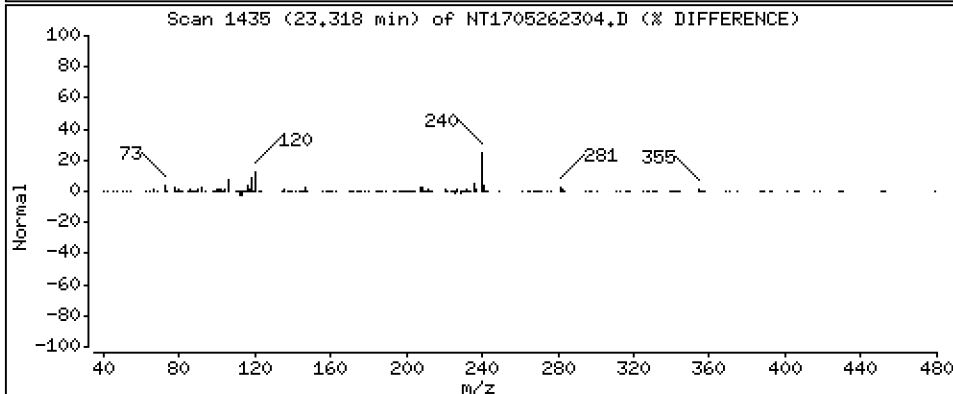
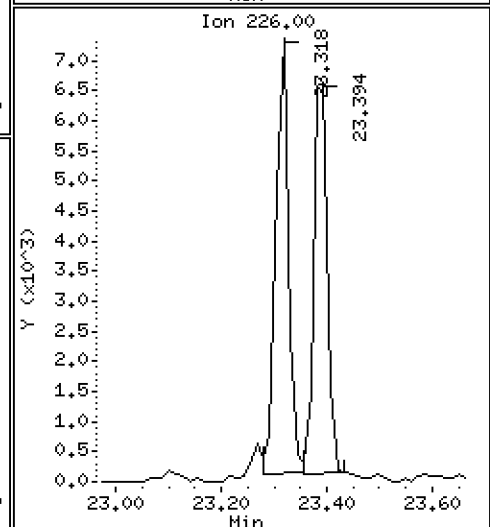
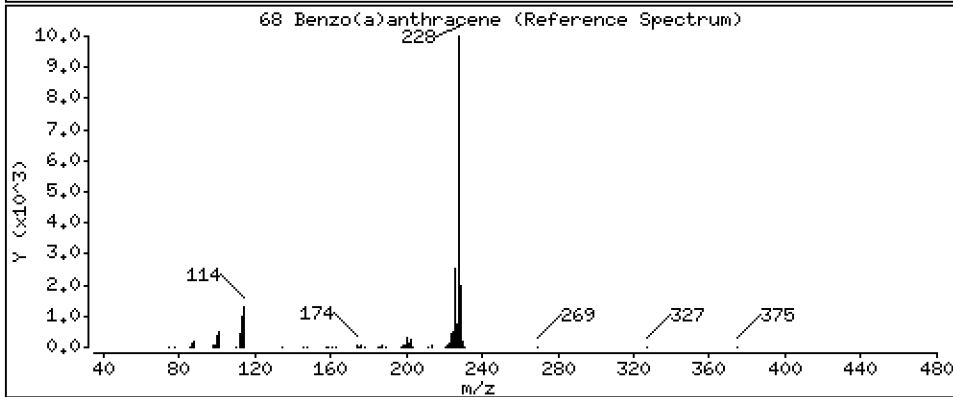
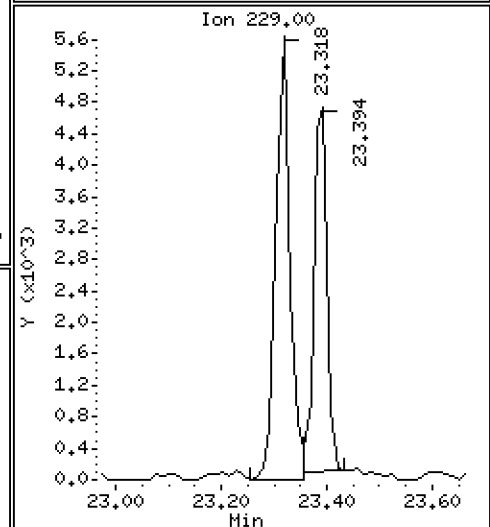
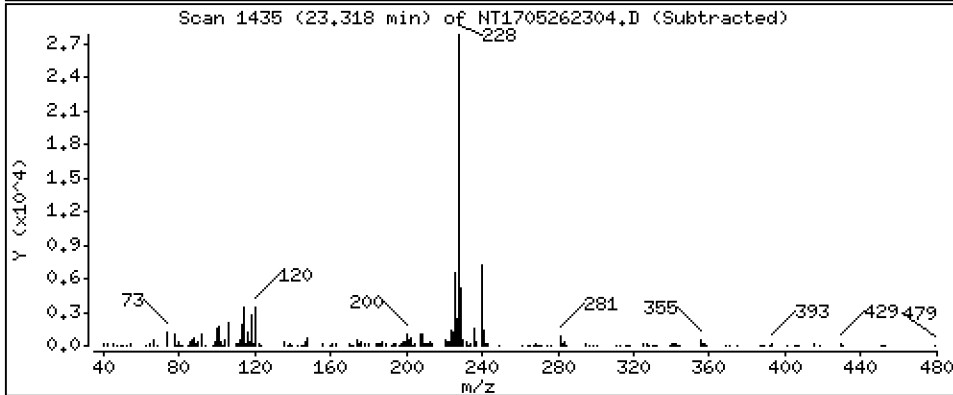
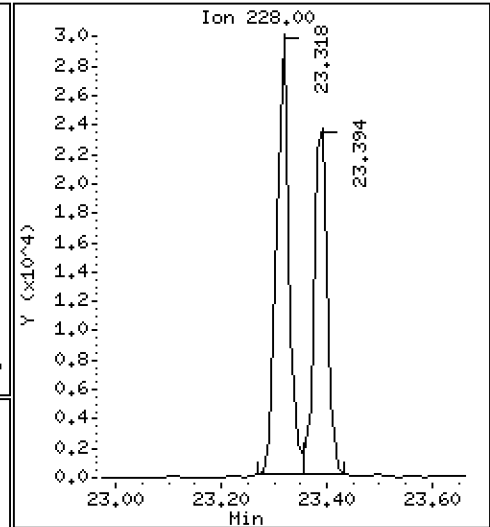
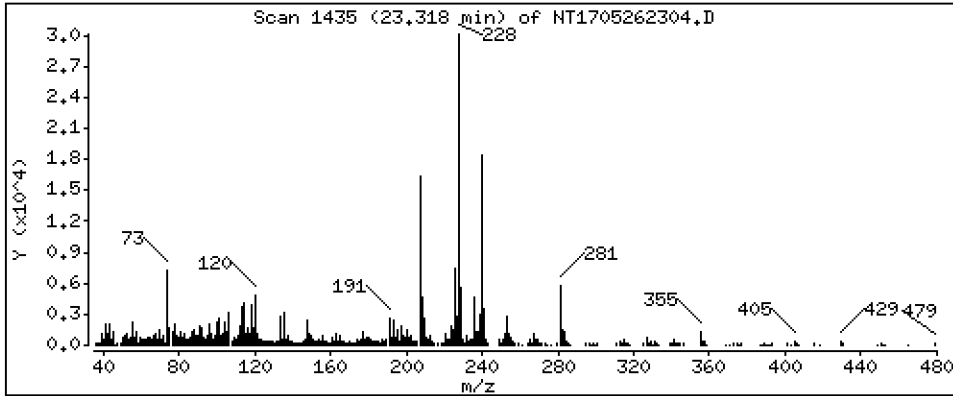
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,2165 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

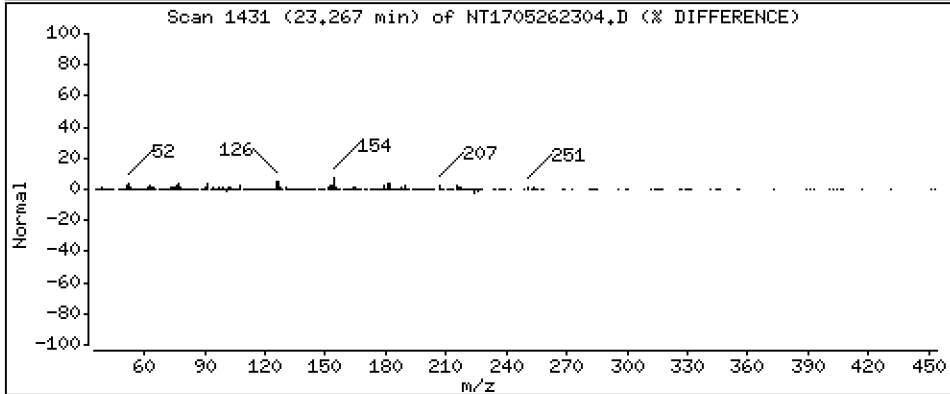
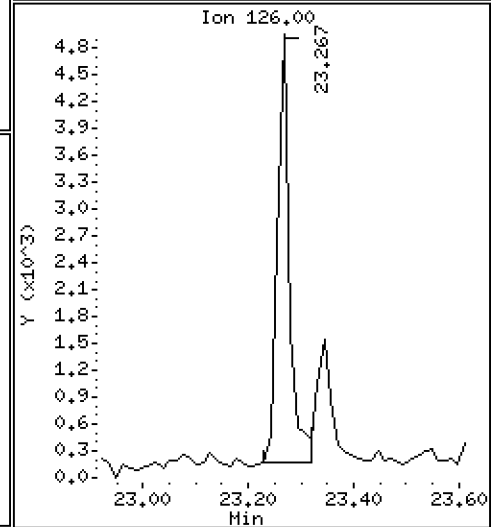
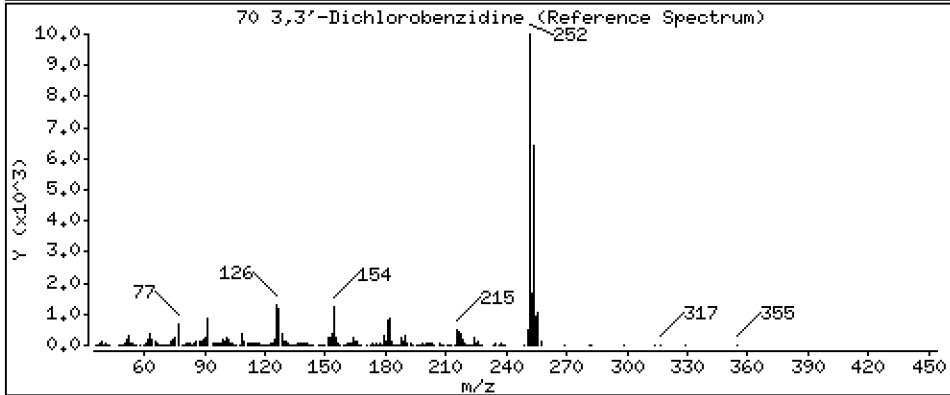
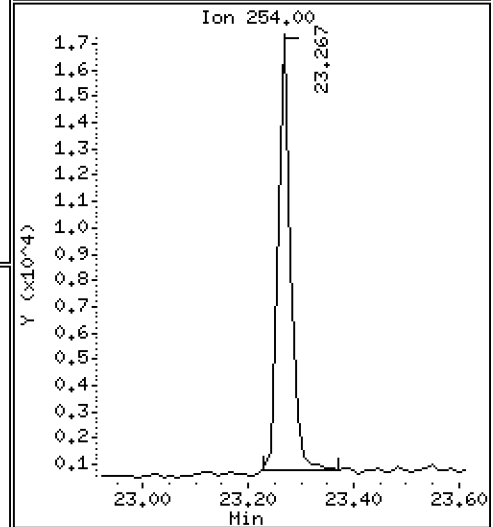
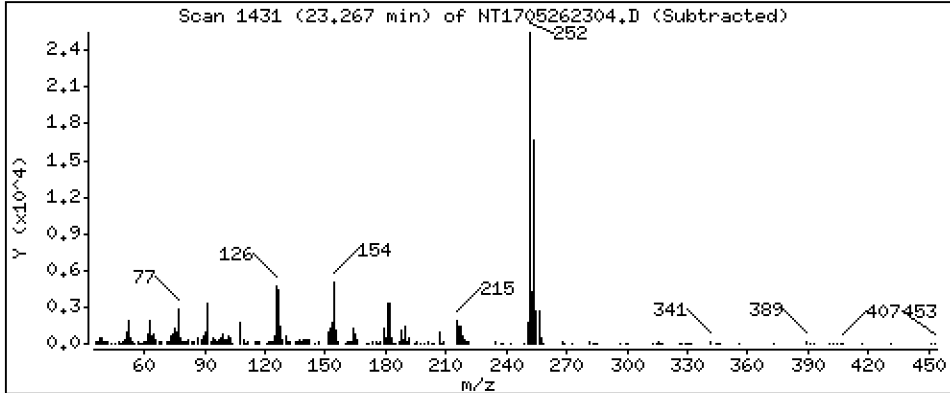
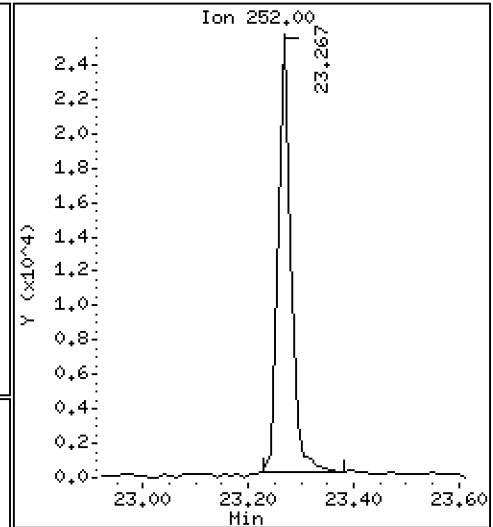
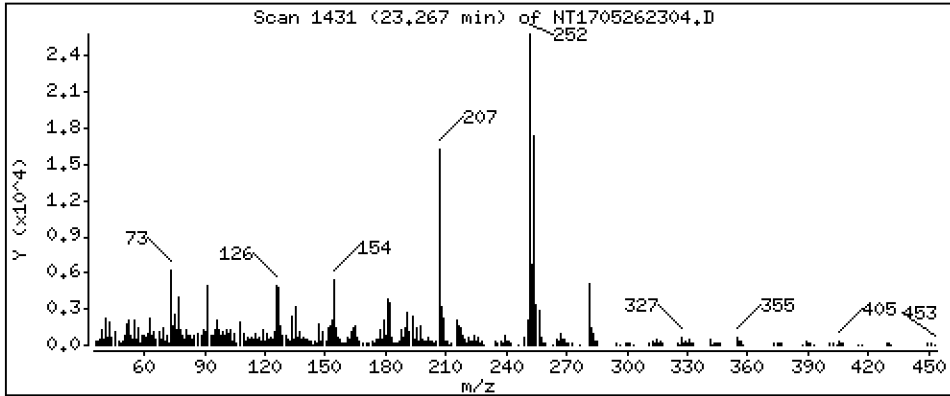
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,001 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

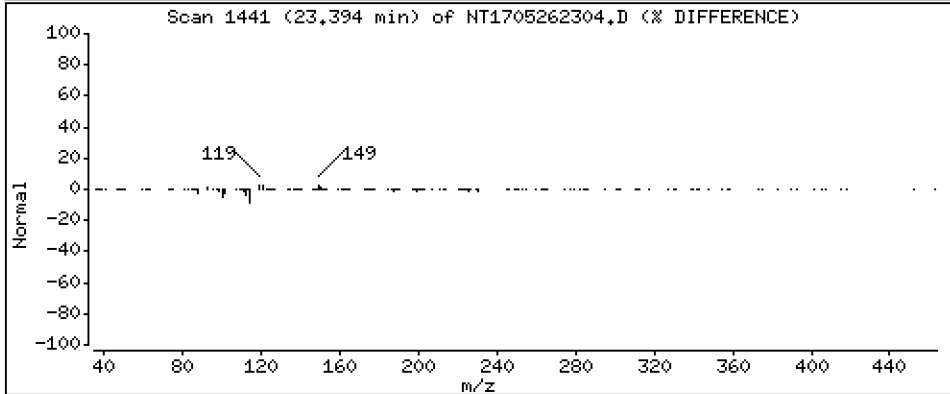
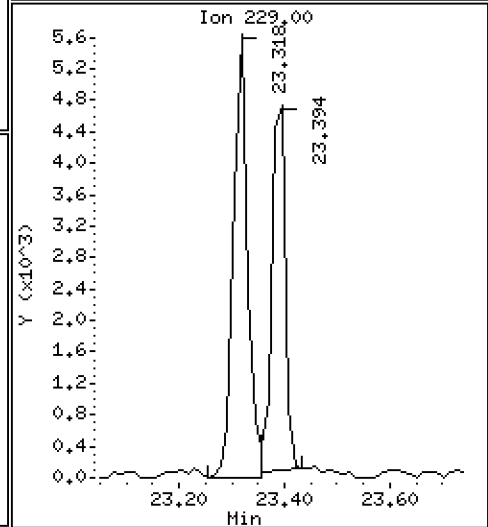
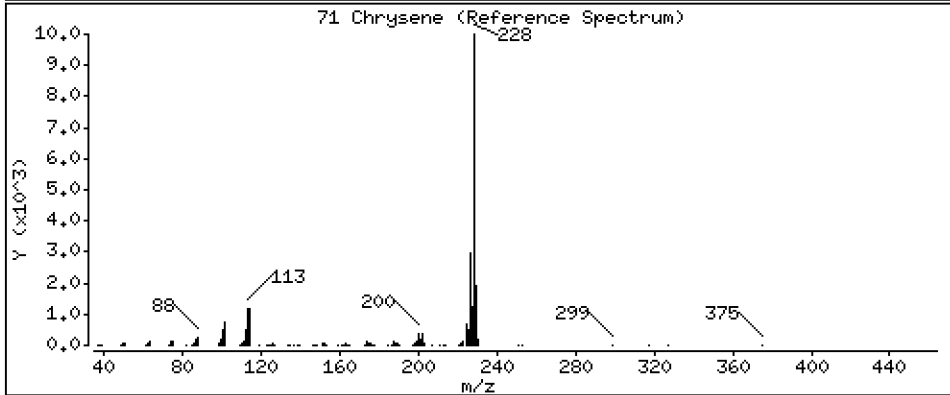
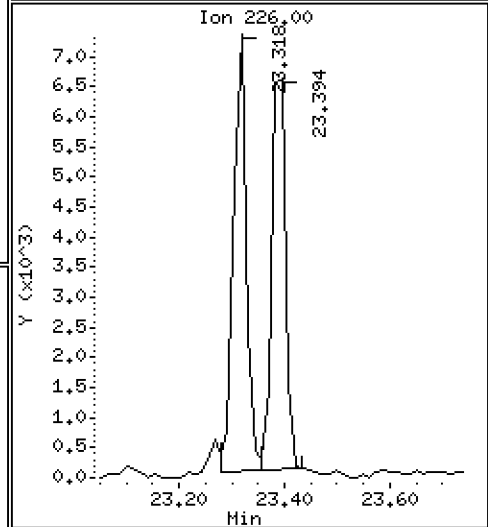
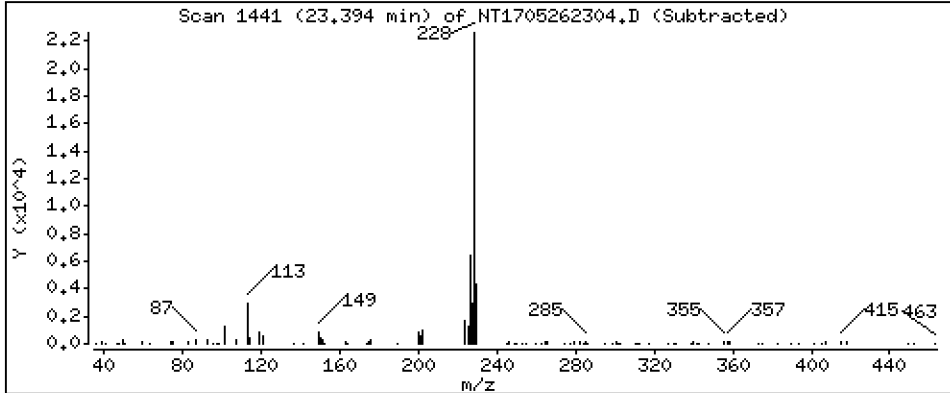
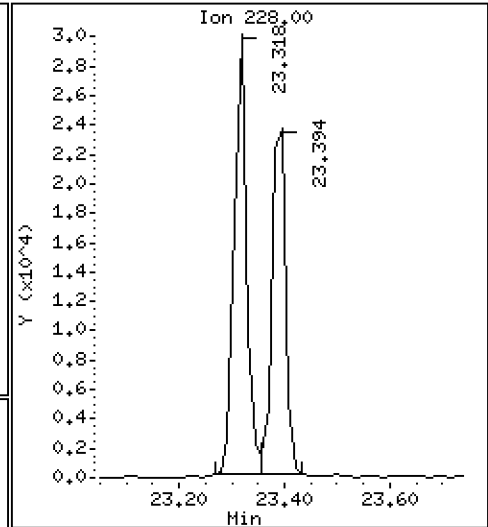
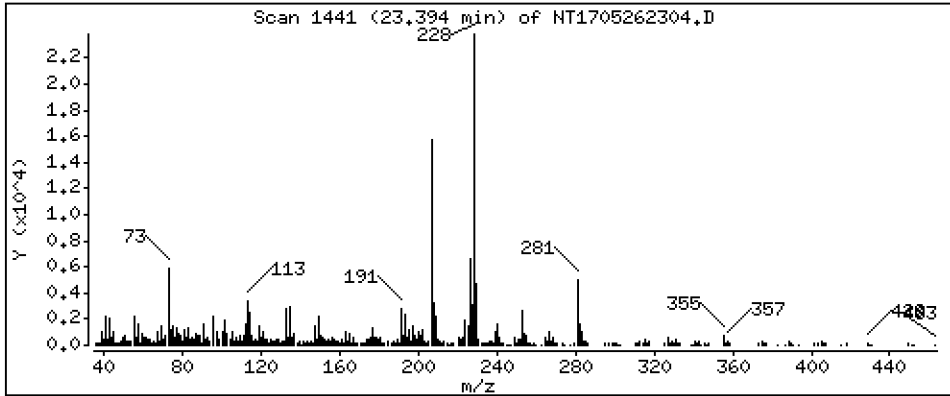
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,2097 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

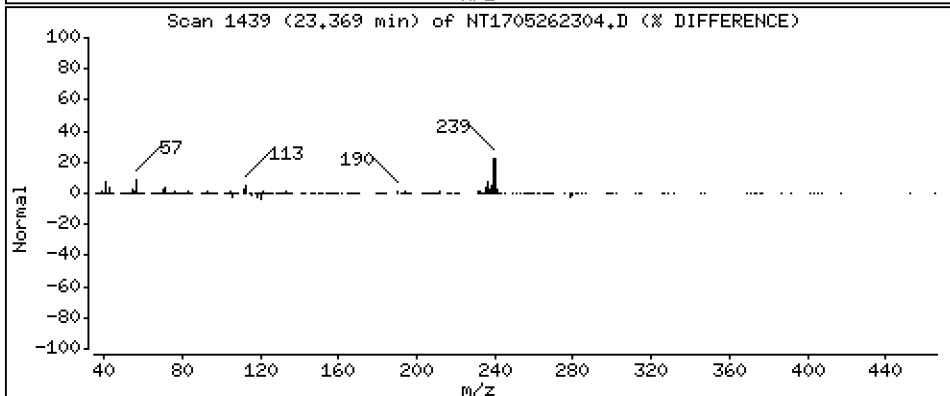
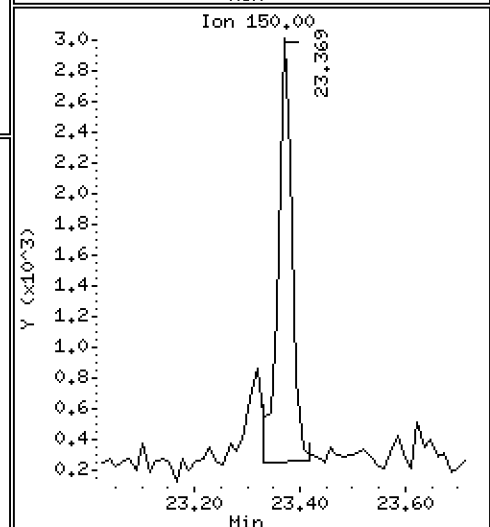
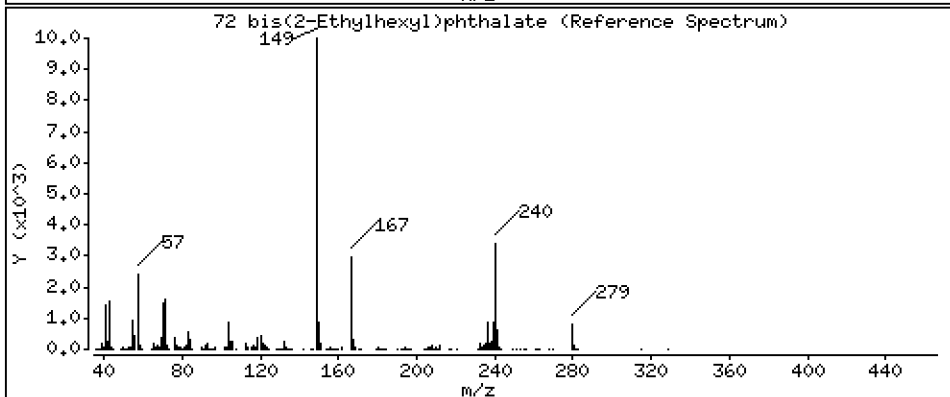
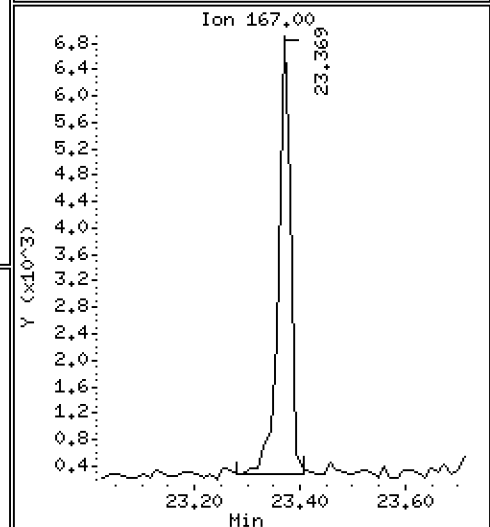
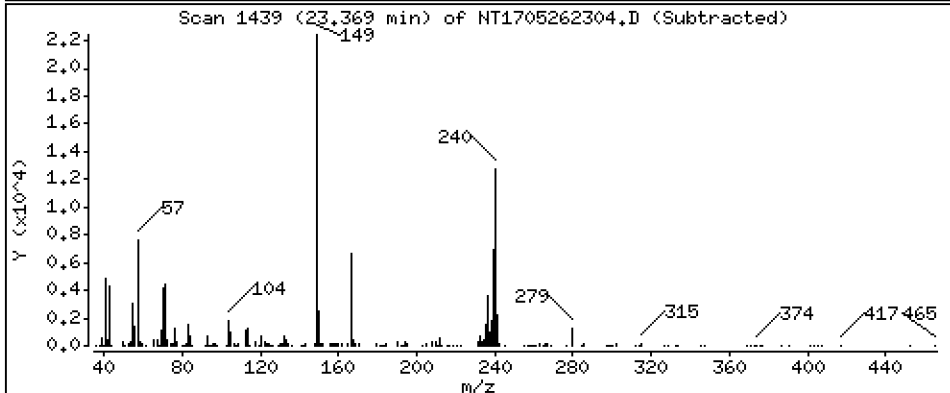
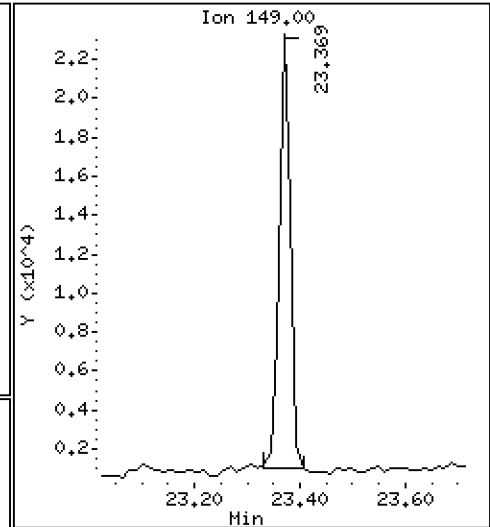
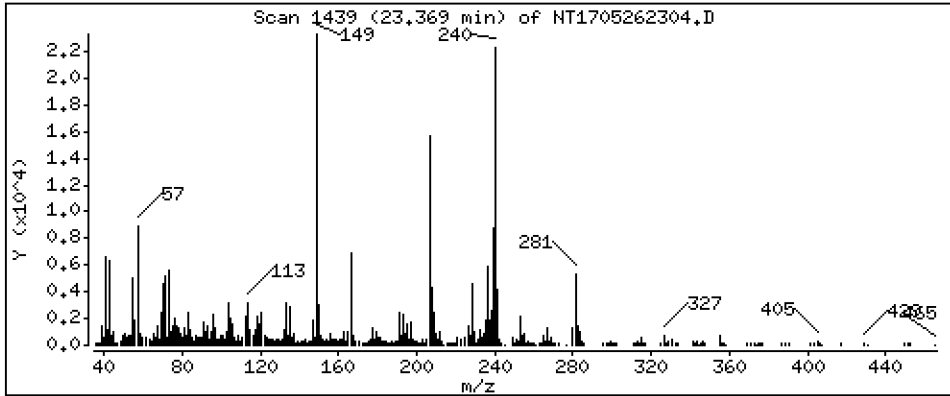
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,1878 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

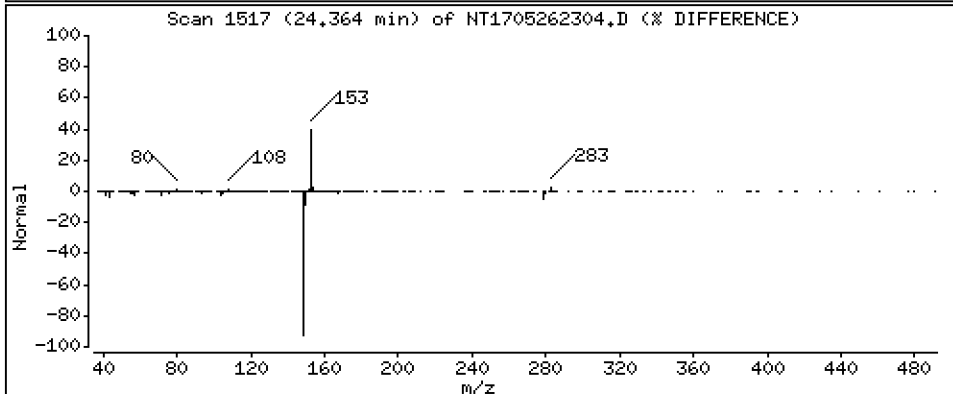
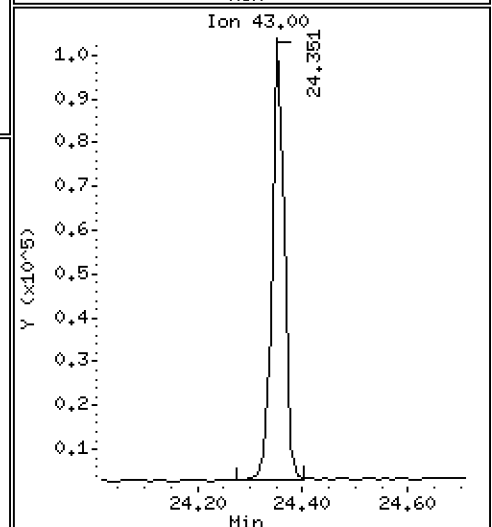
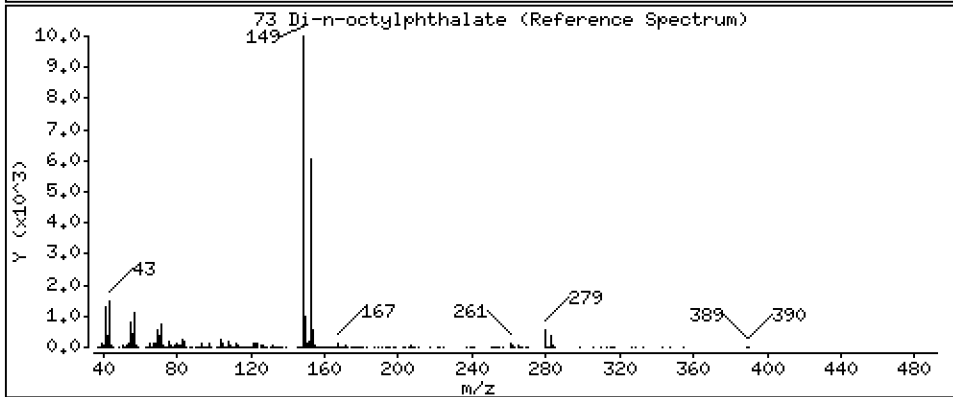
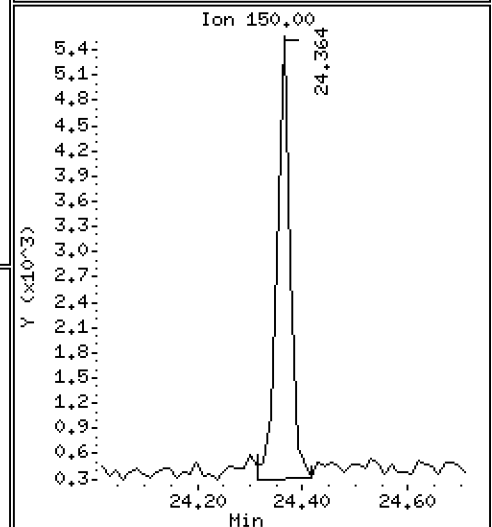
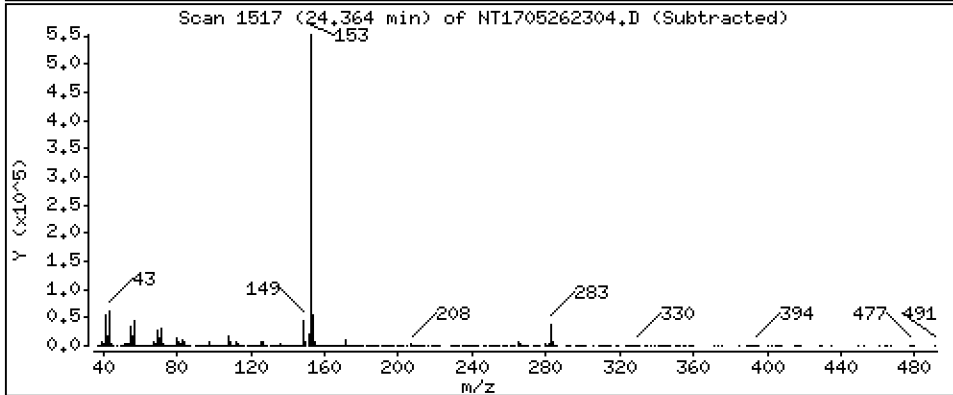
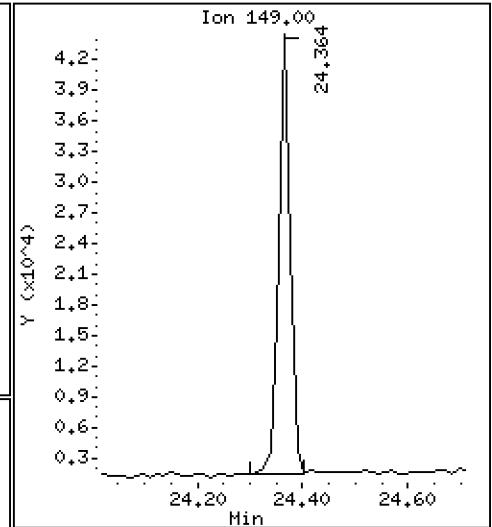
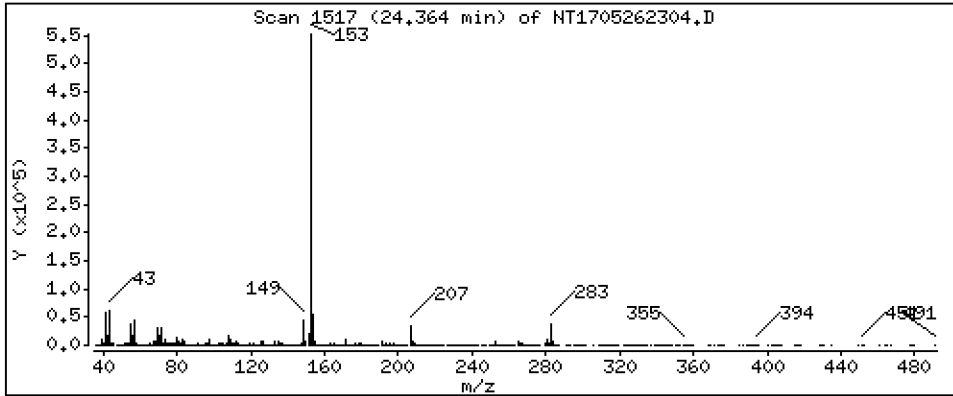
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,2110 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

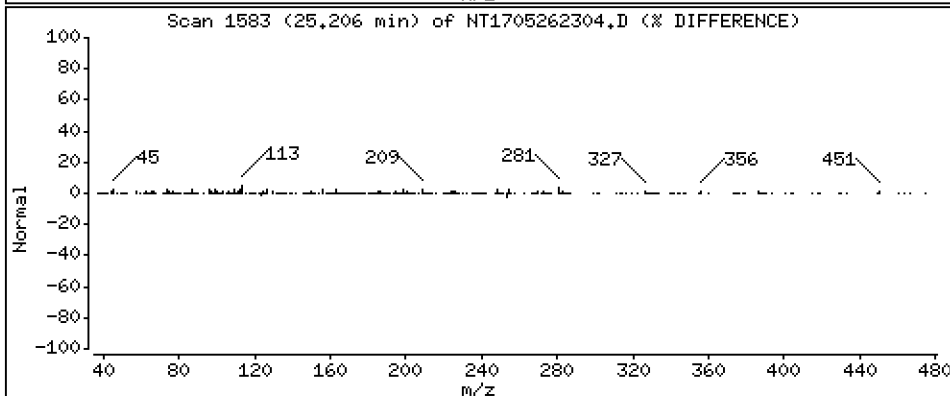
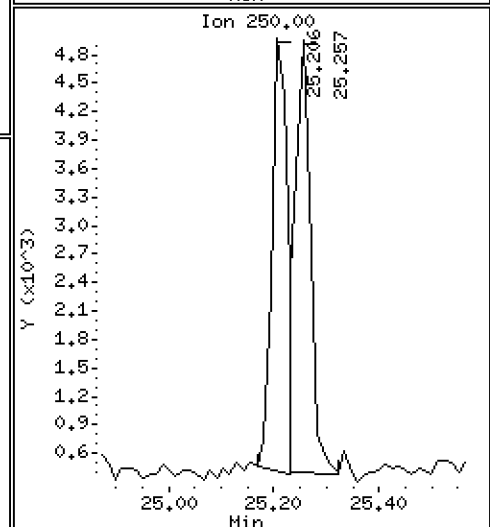
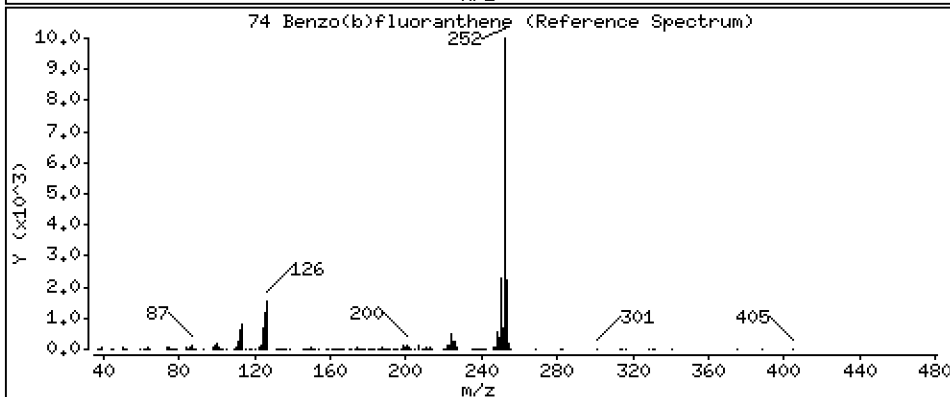
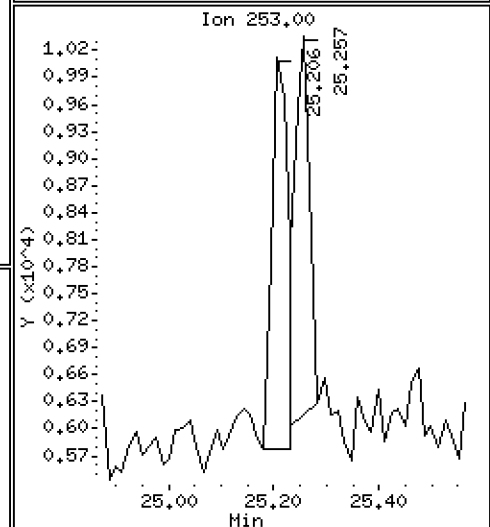
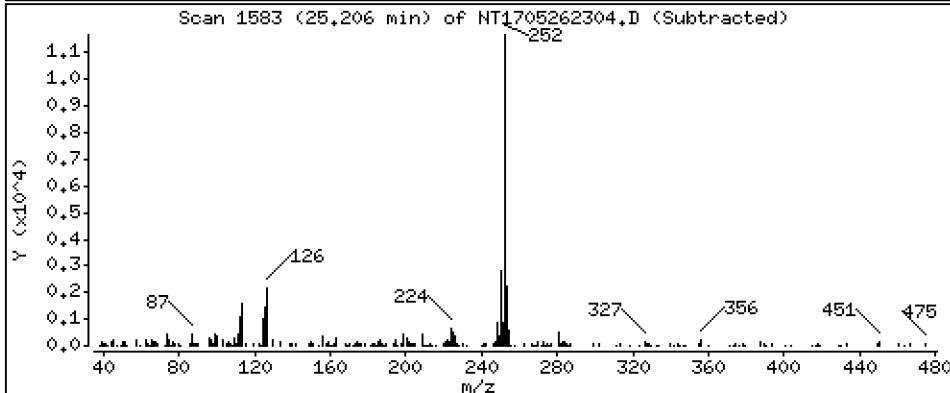
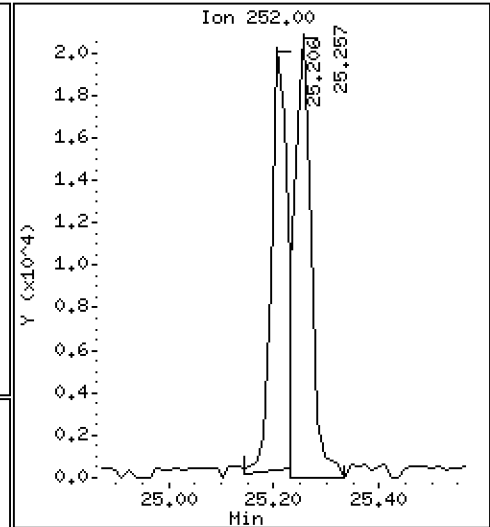
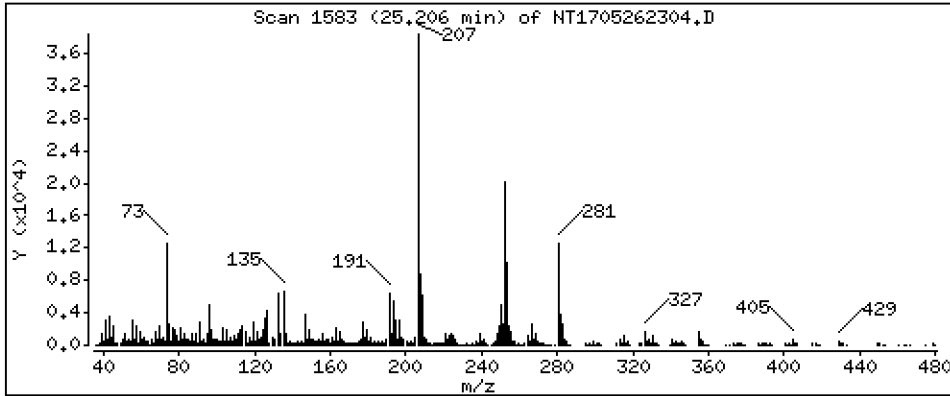
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,1795 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

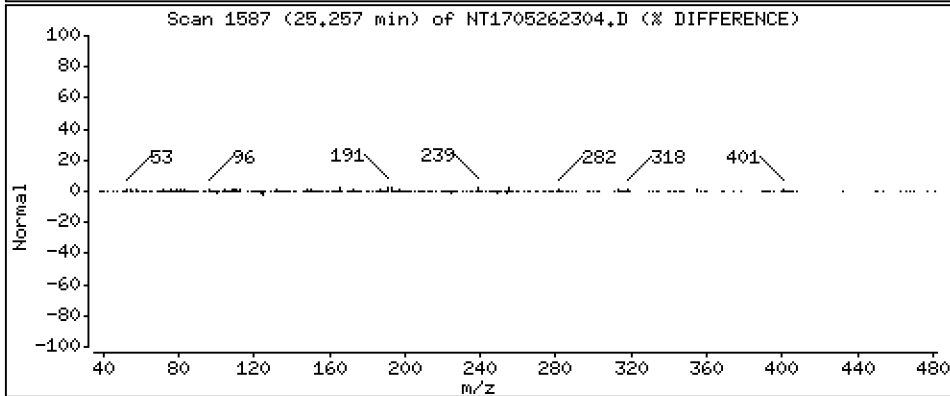
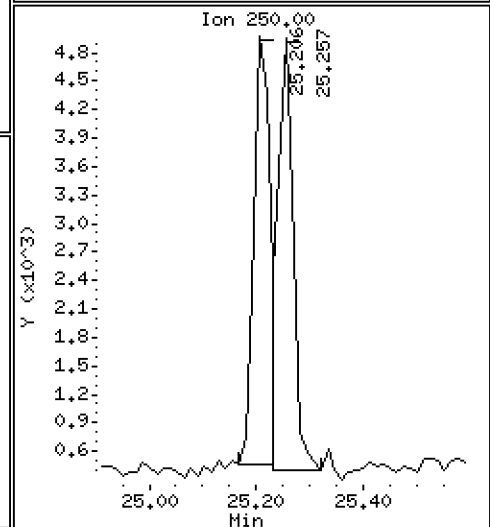
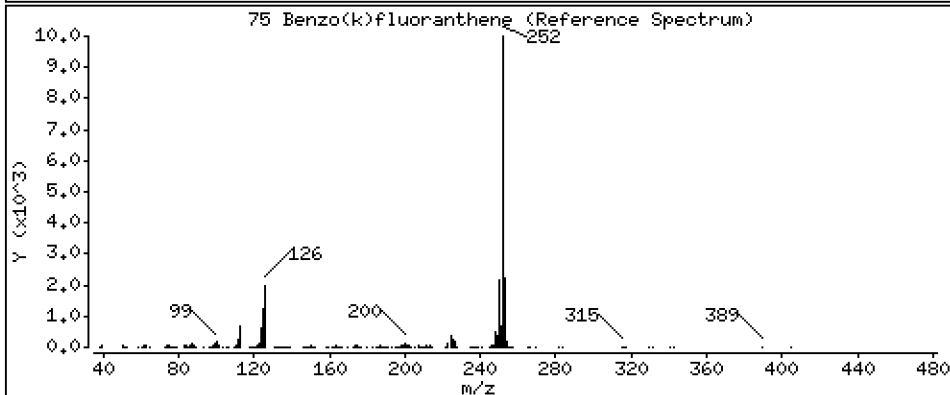
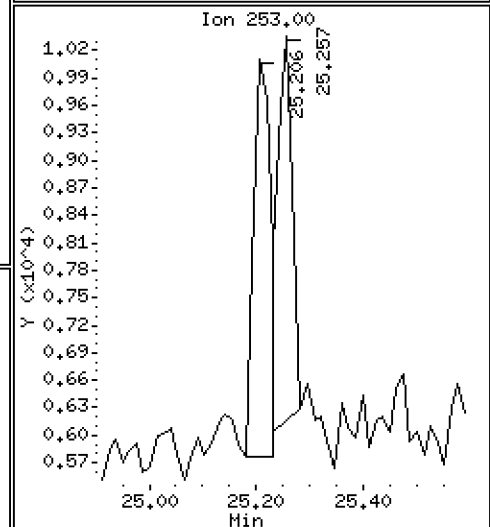
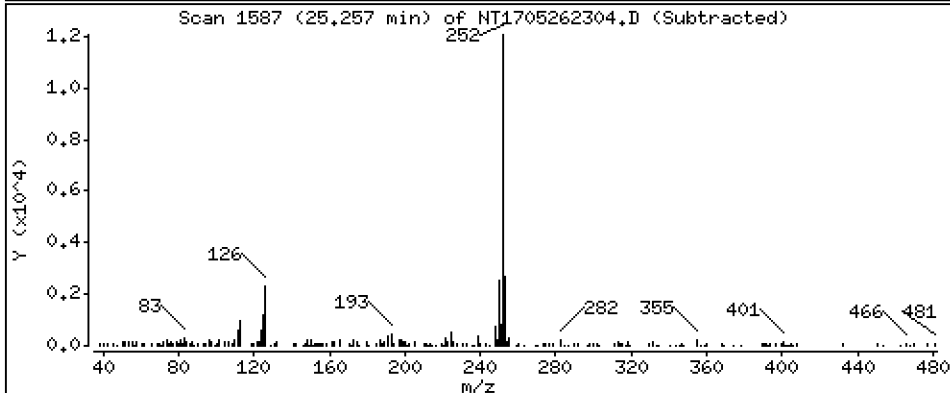
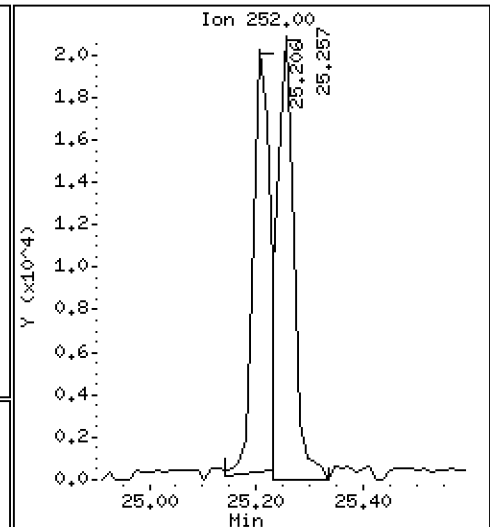
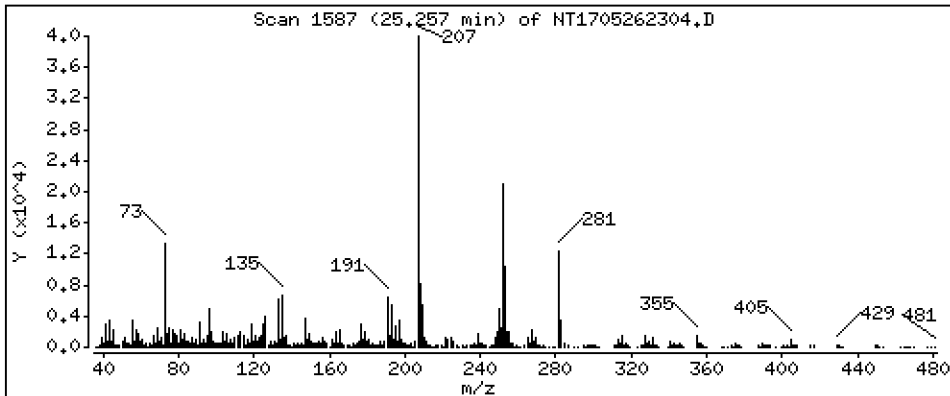
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,2115 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

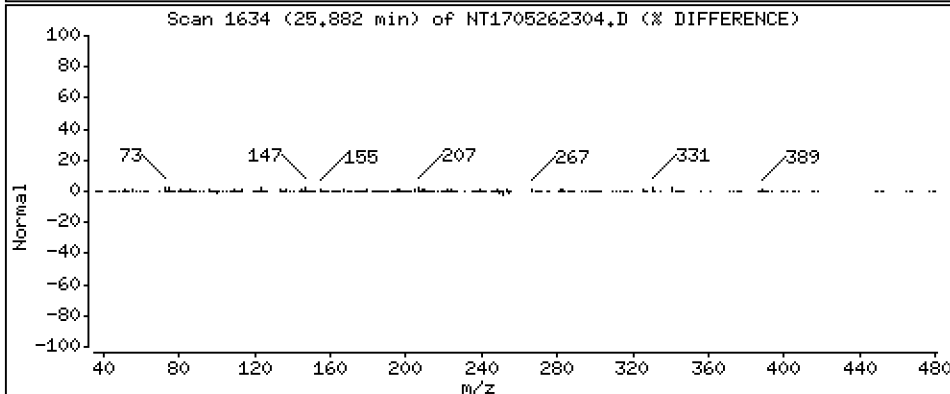
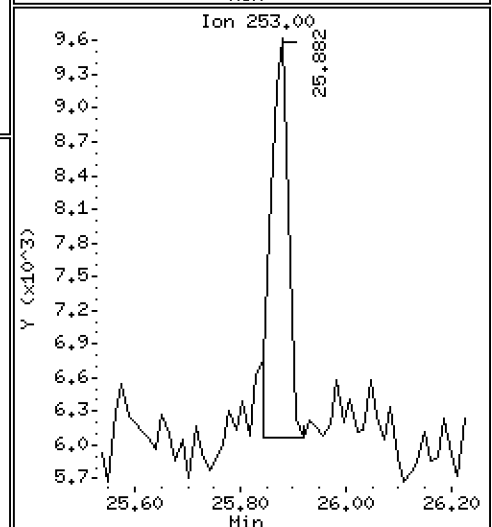
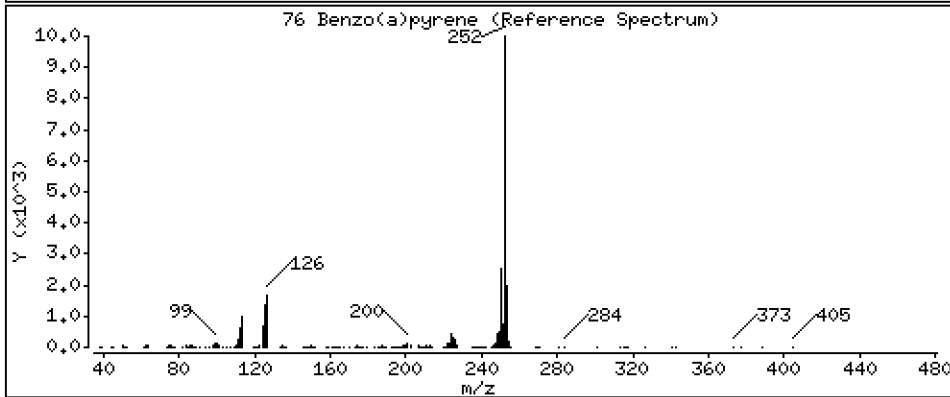
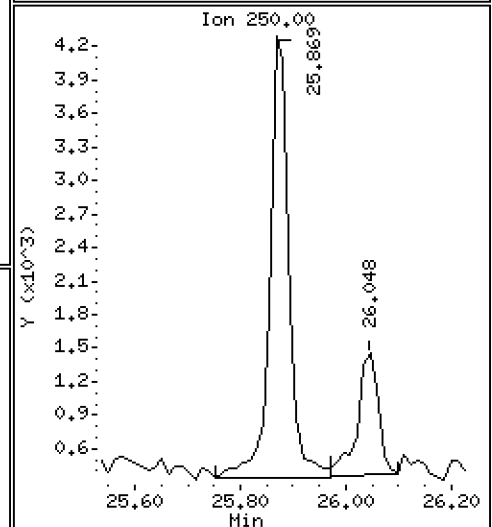
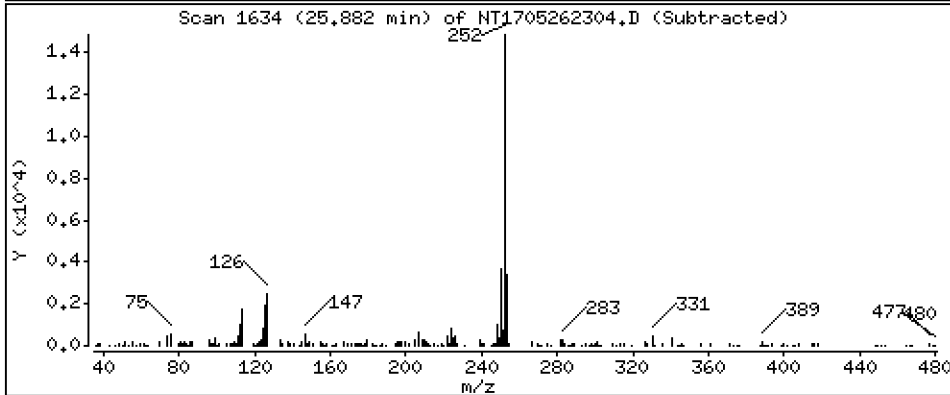
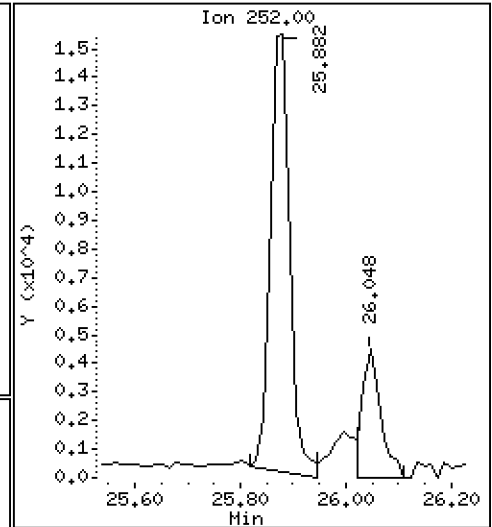
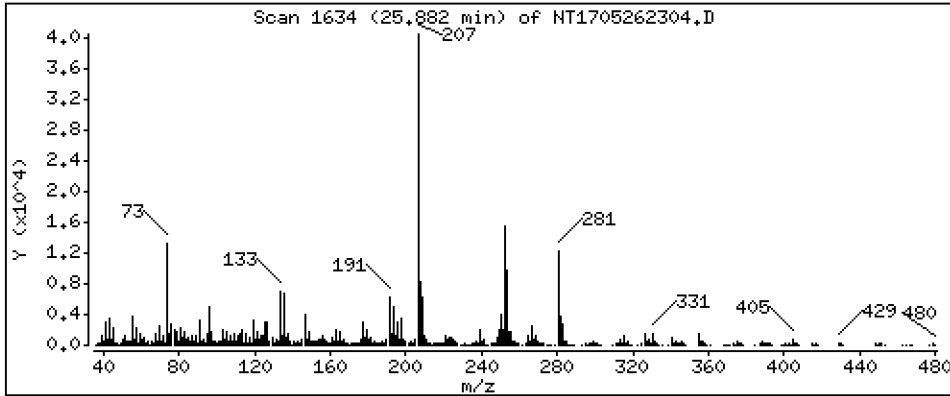
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,2040 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

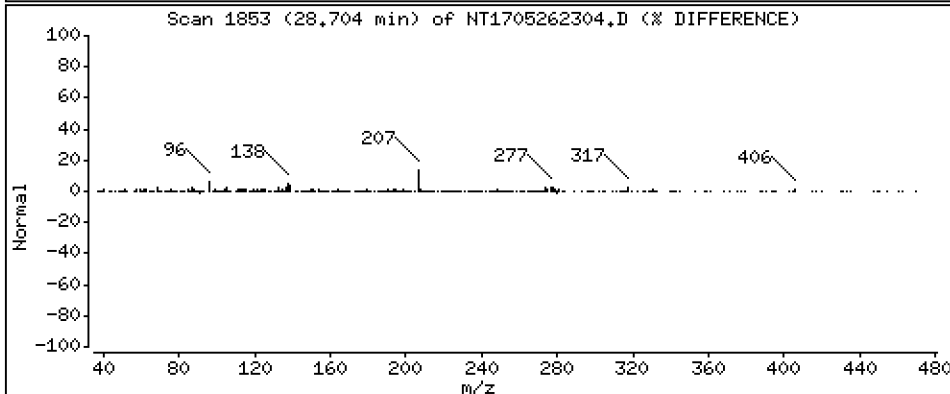
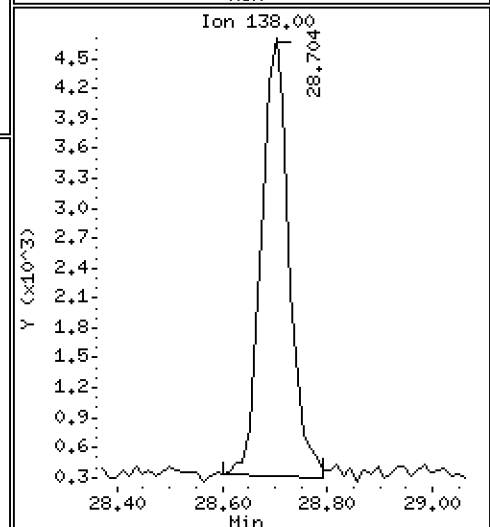
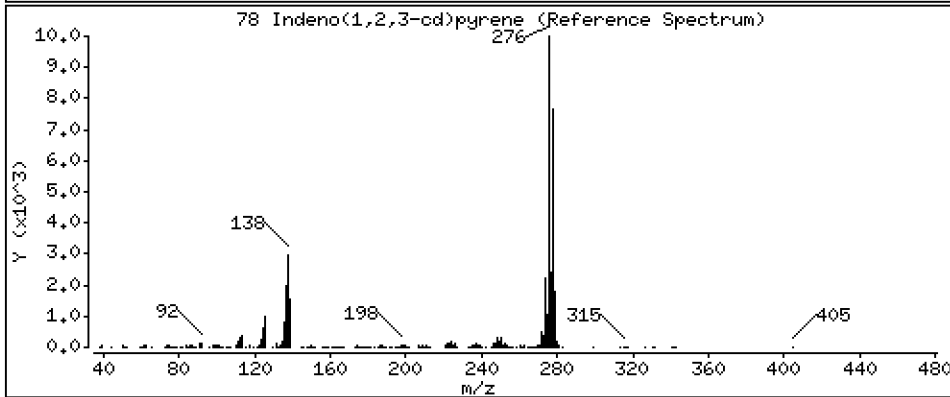
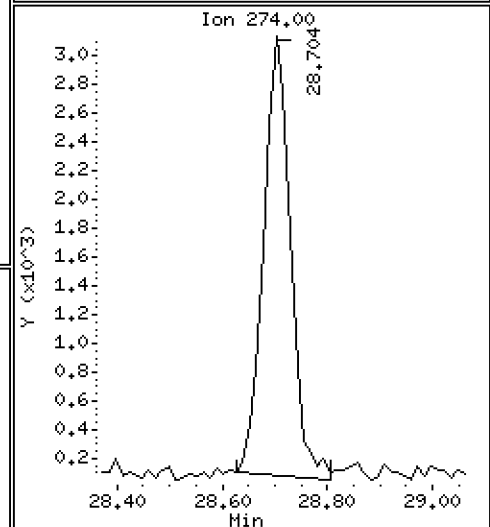
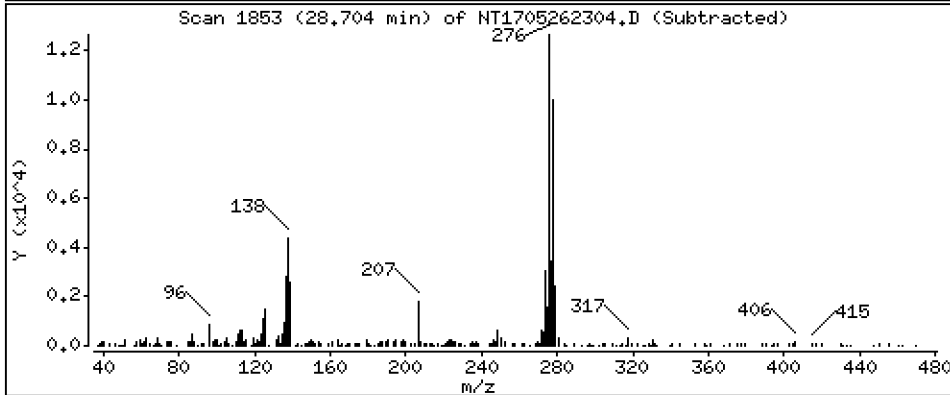
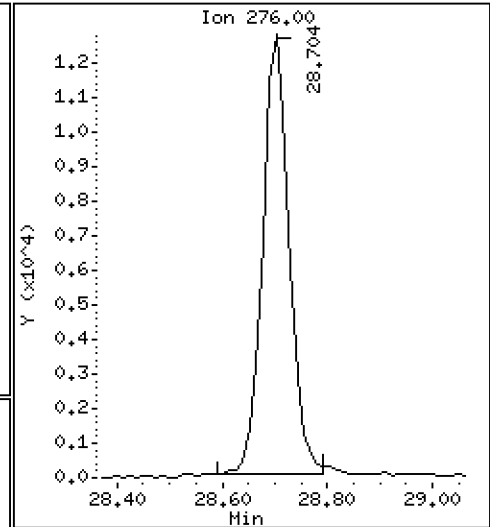
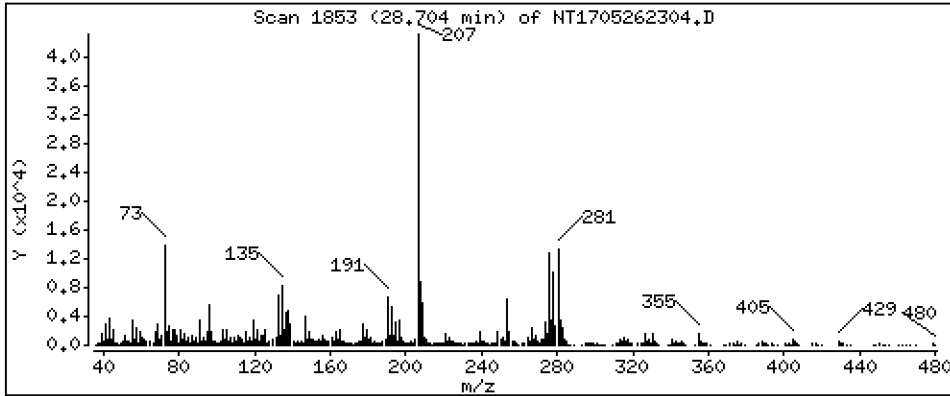
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,1978 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

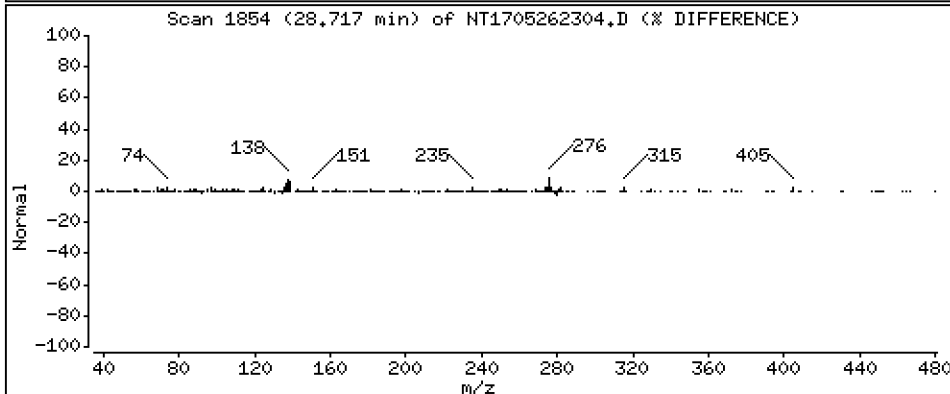
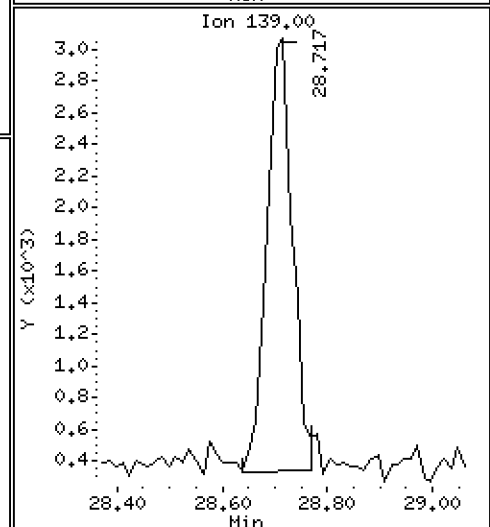
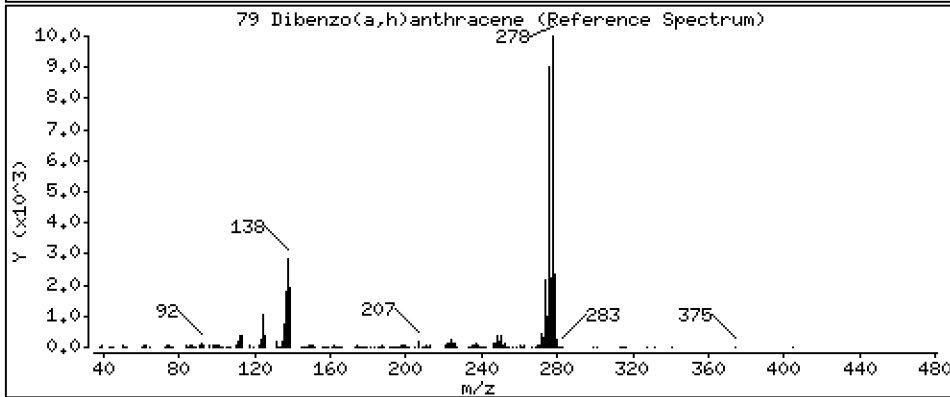
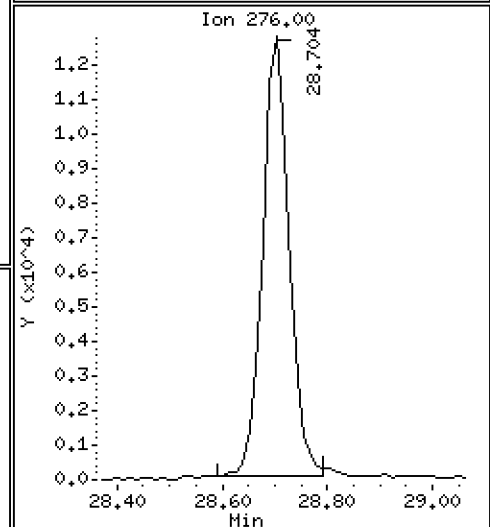
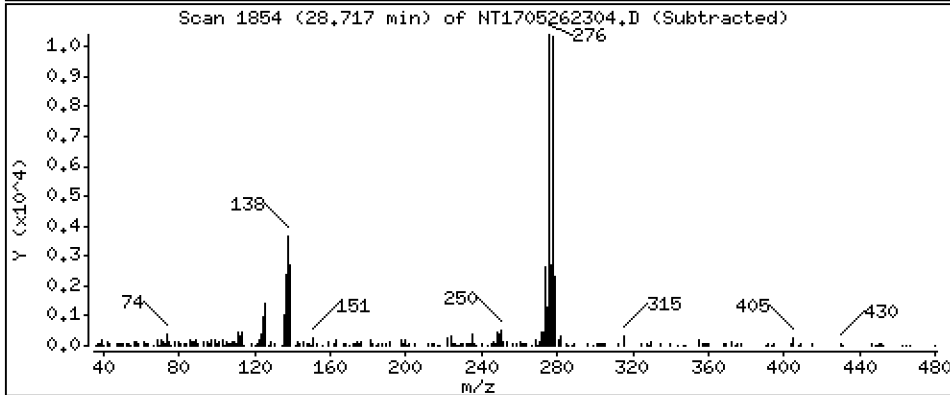
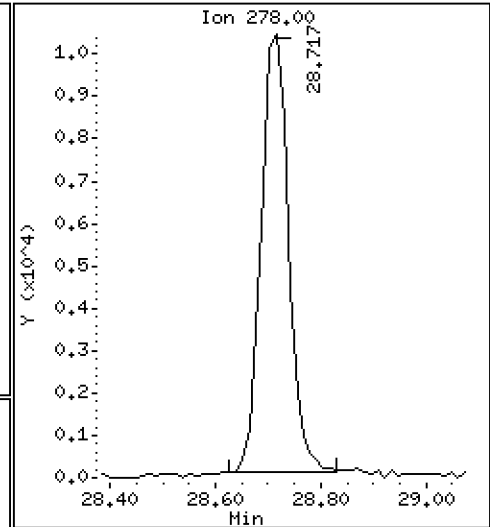
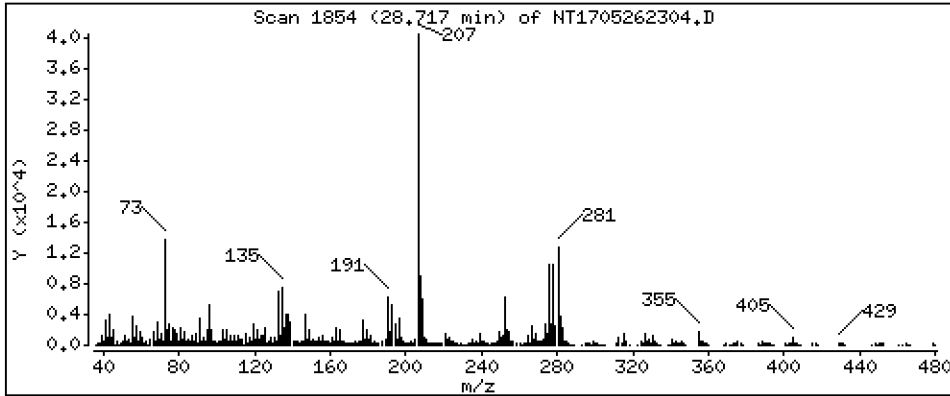
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1955 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

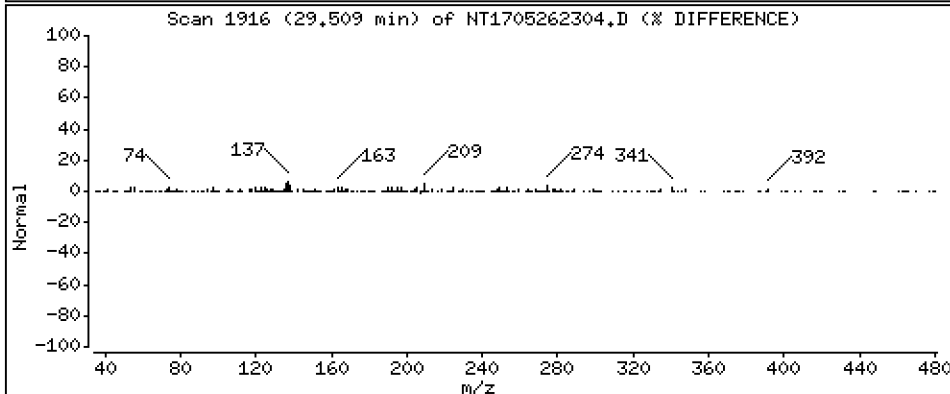
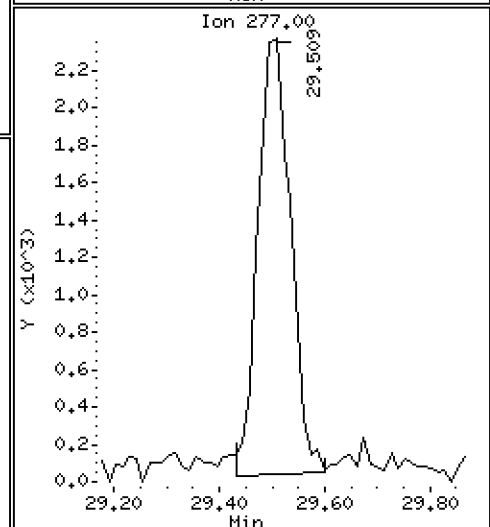
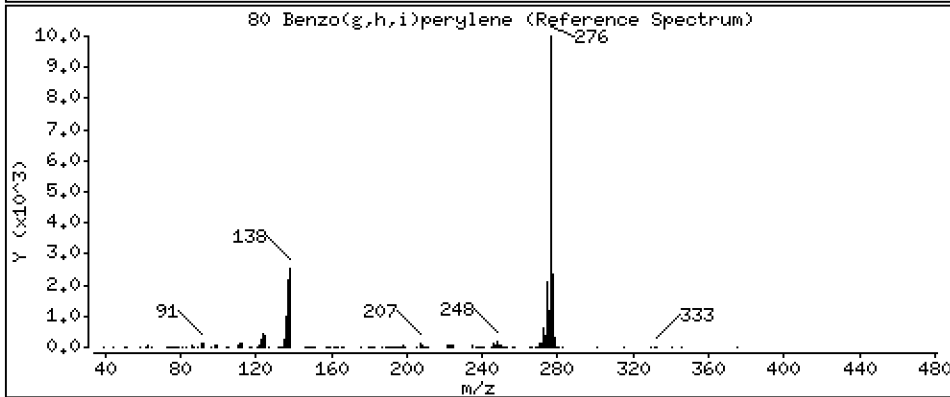
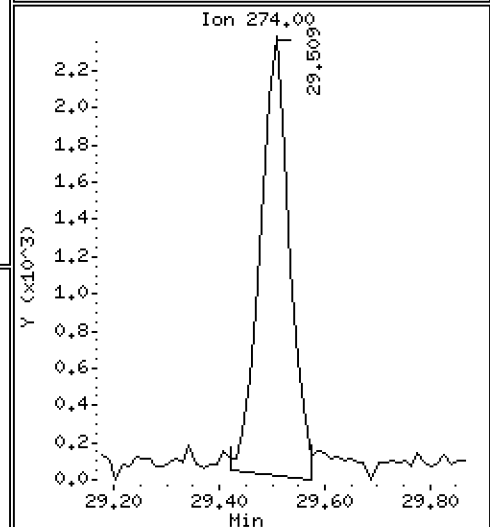
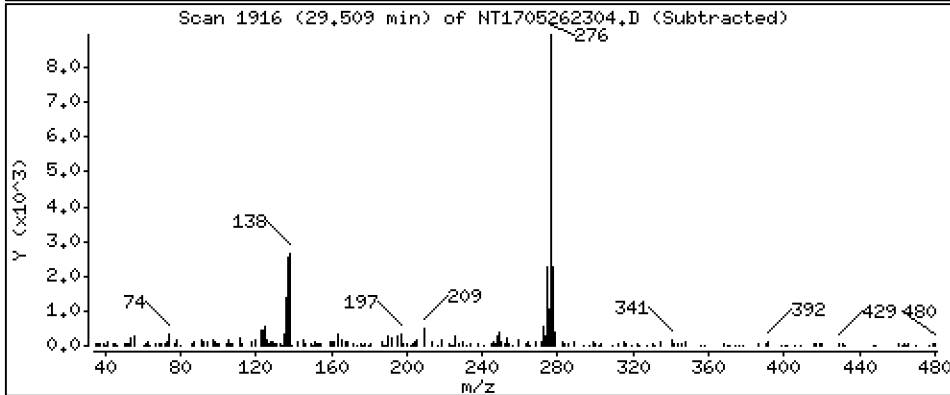
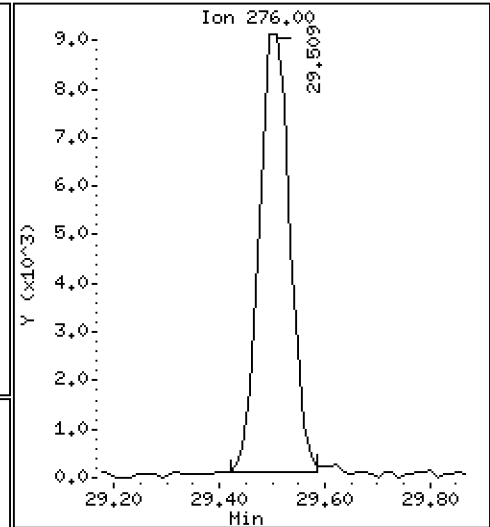
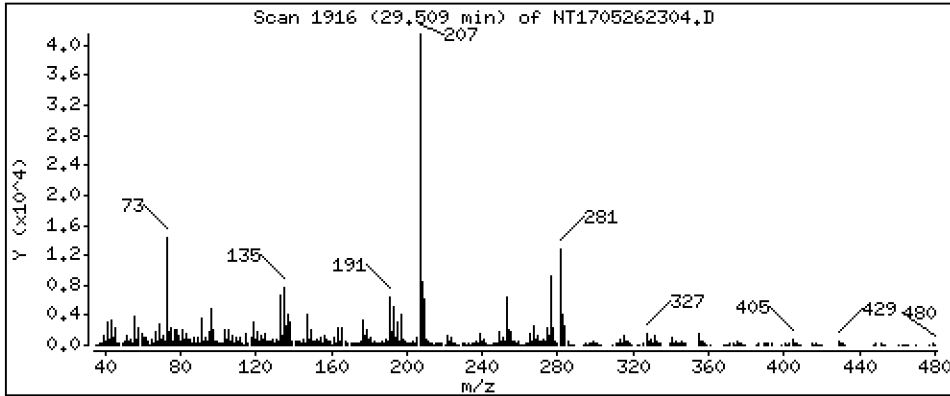
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,1959 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

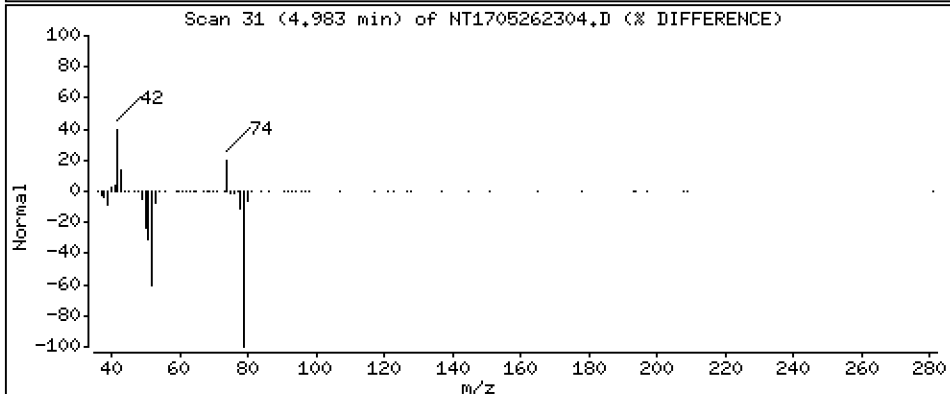
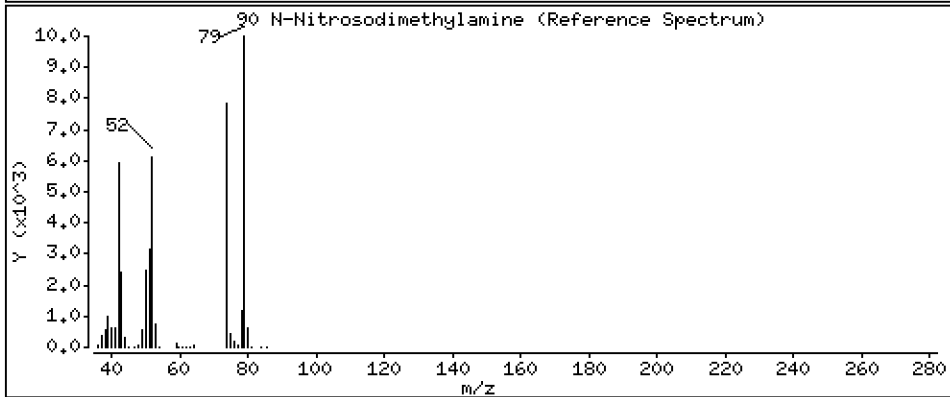
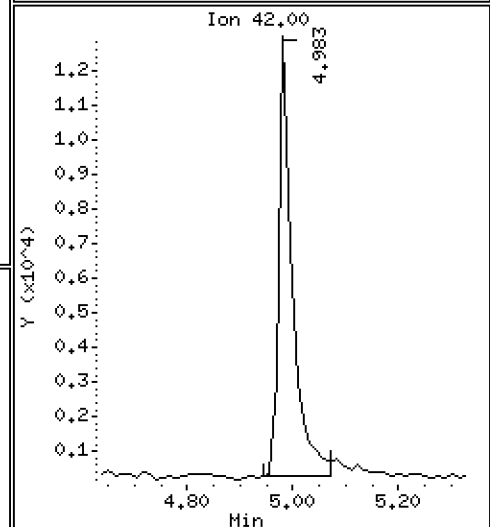
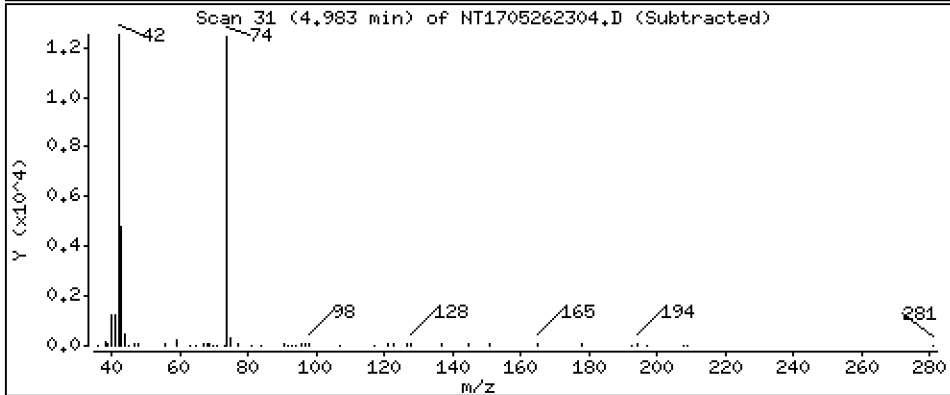
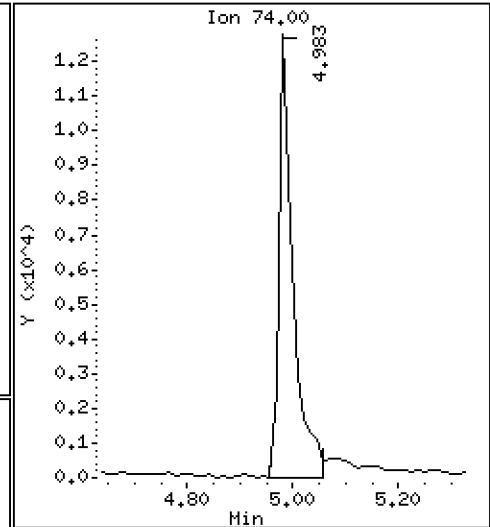
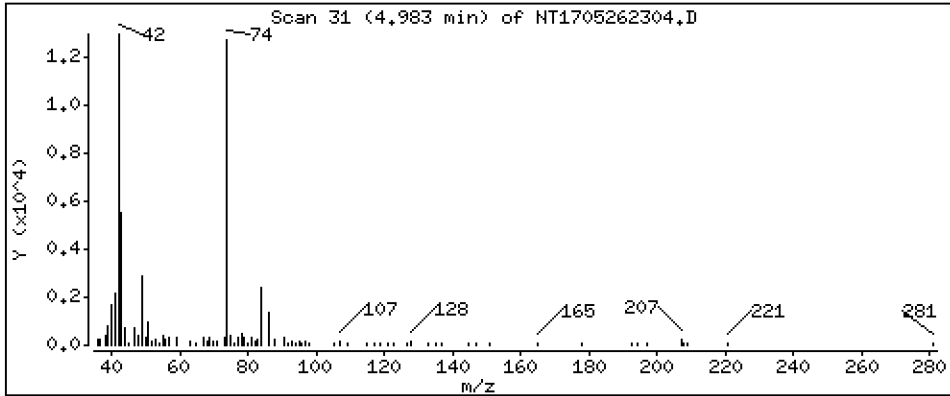
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,3325 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

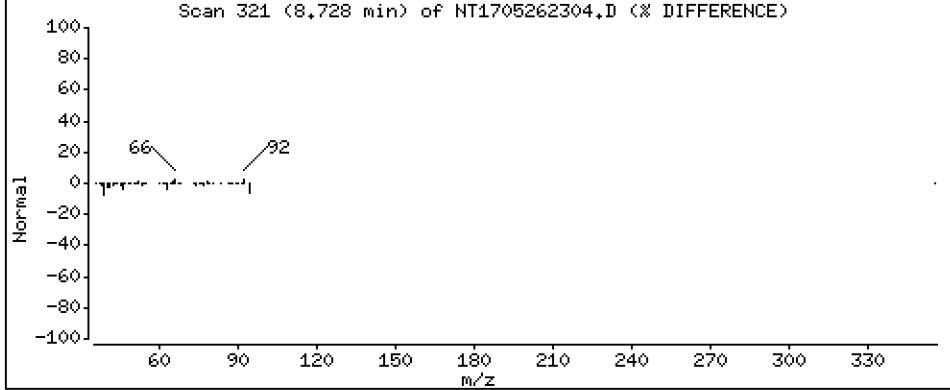
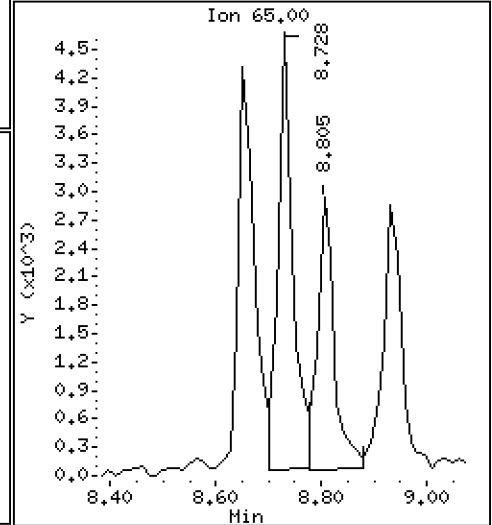
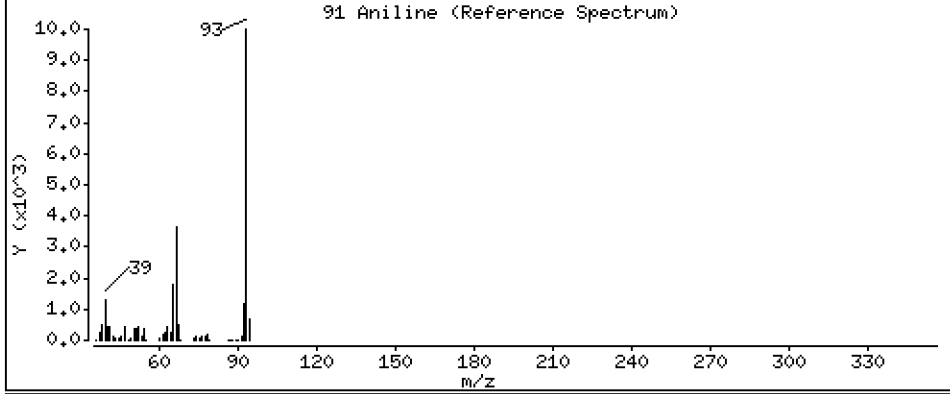
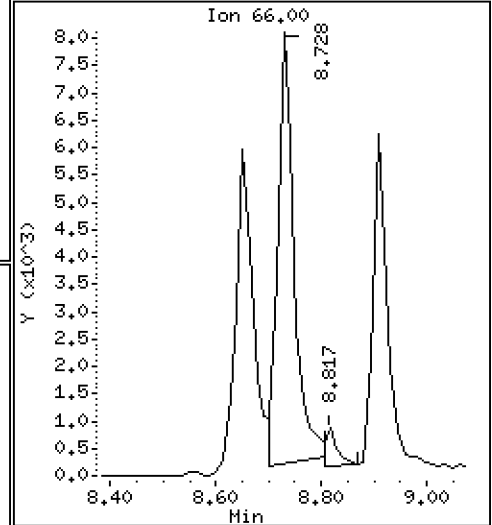
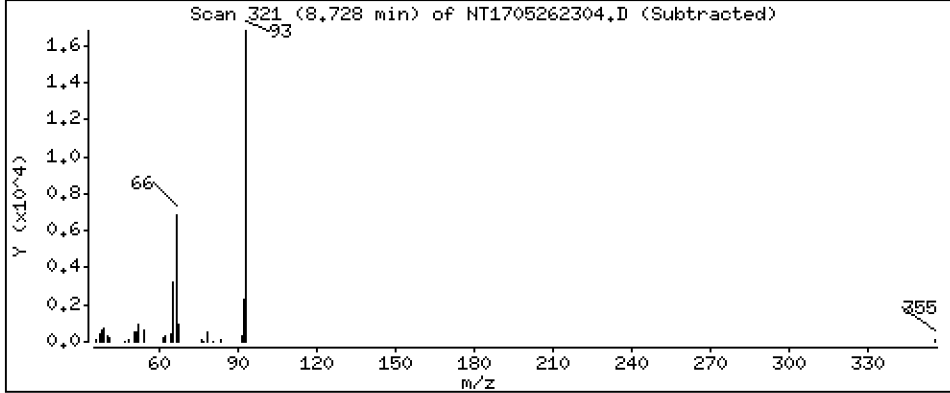
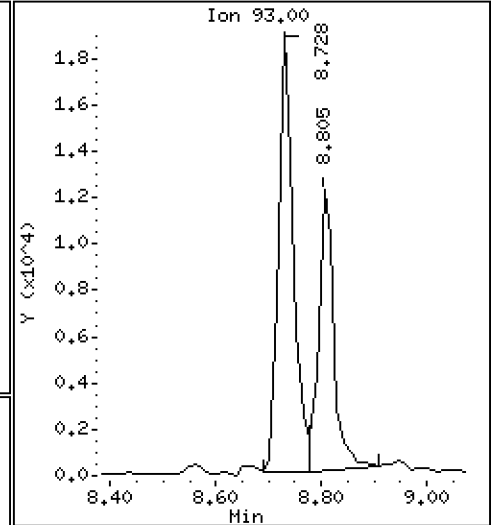
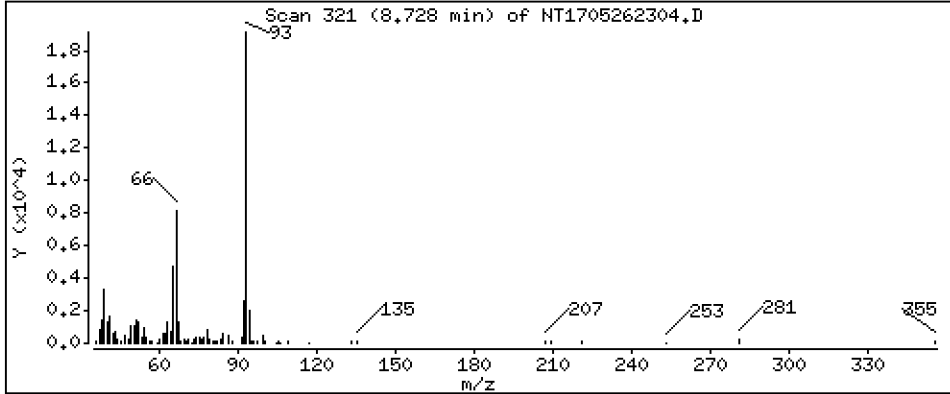
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,3170 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

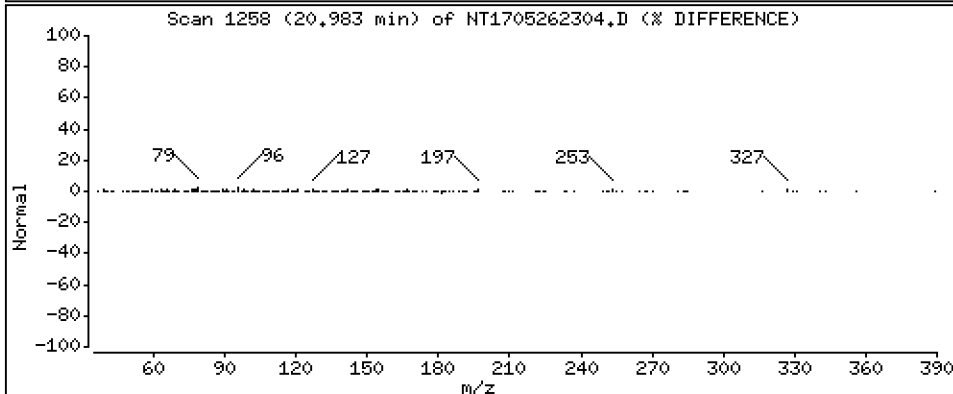
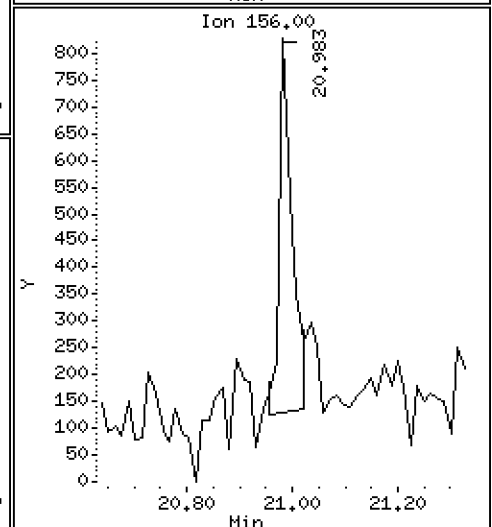
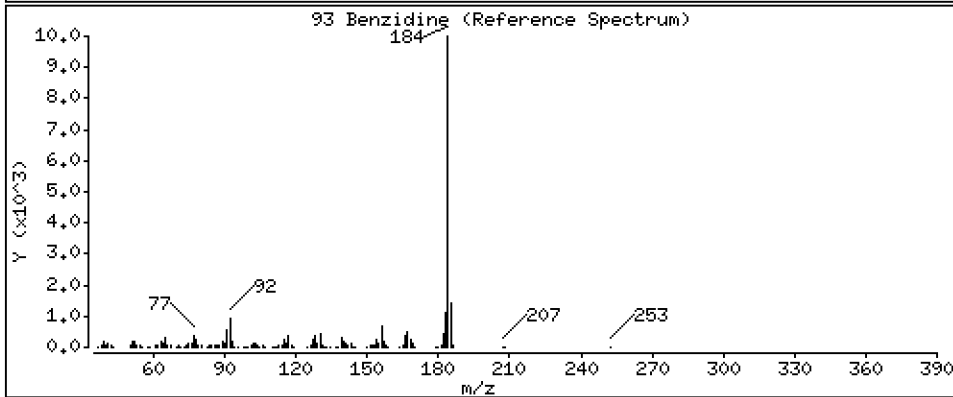
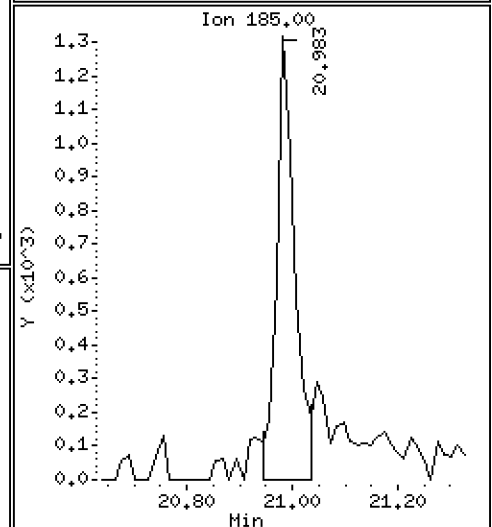
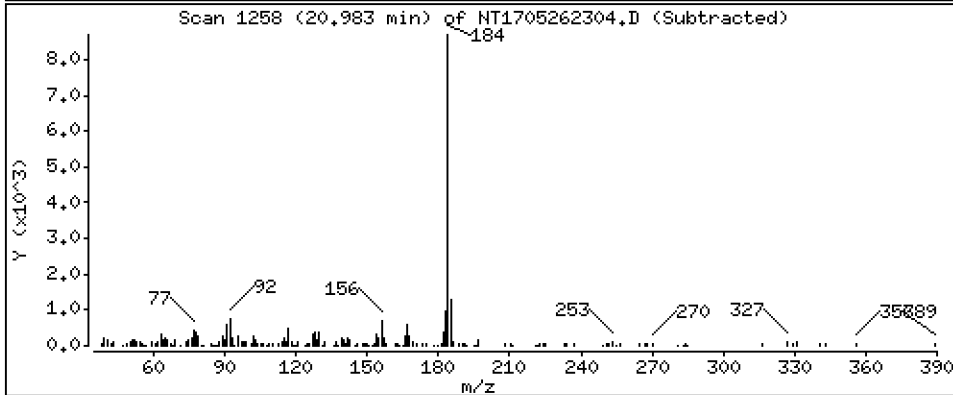
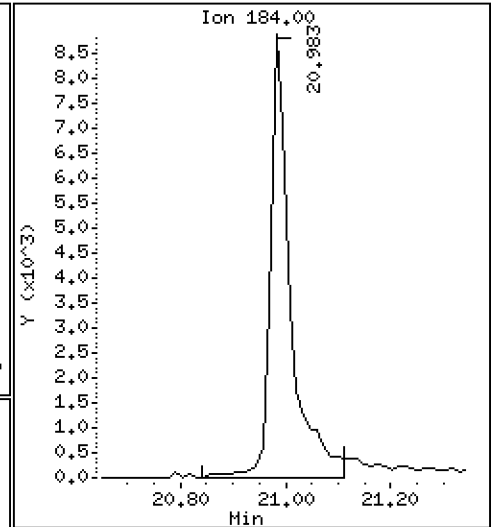
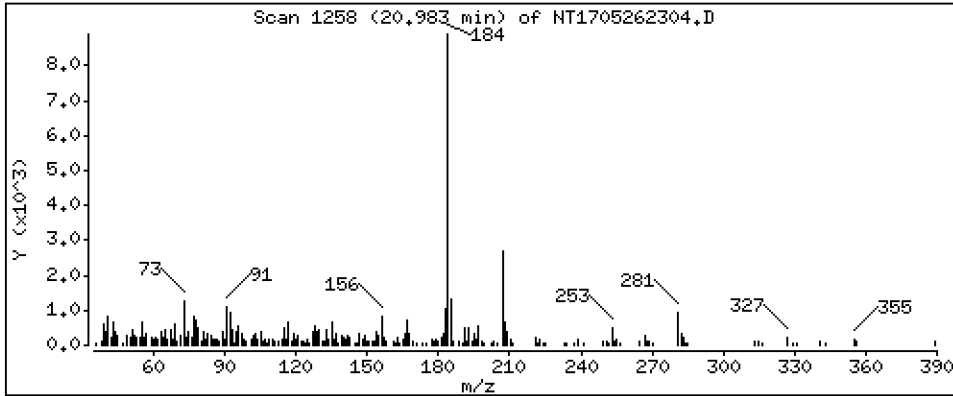
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

93 Benzidine

Concentration: 0.3413 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

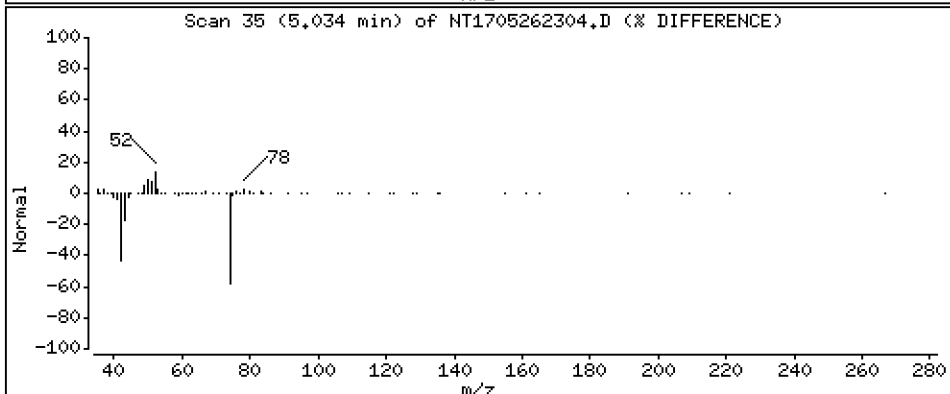
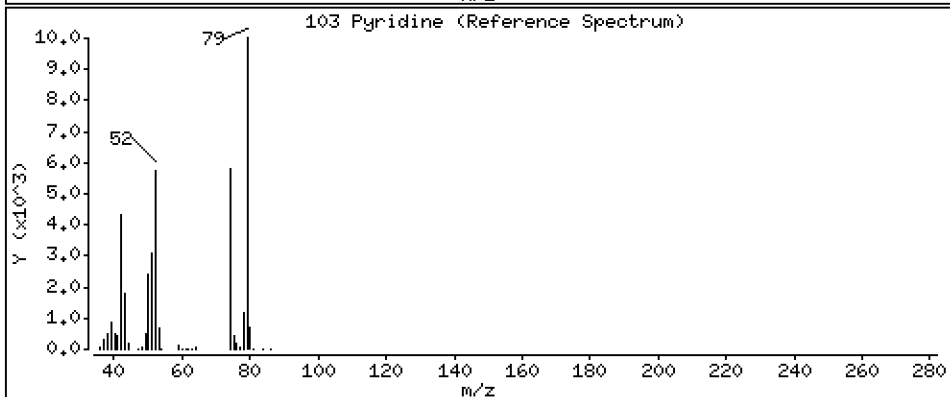
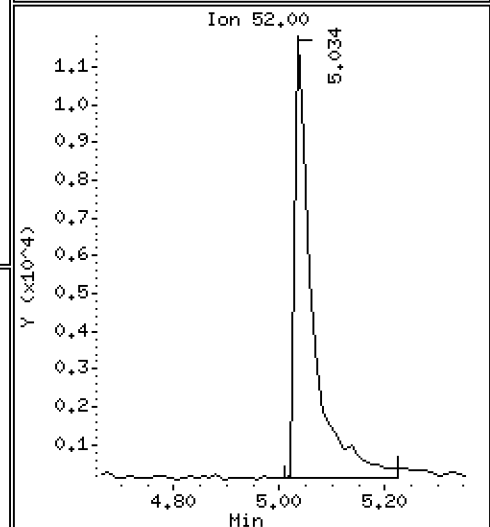
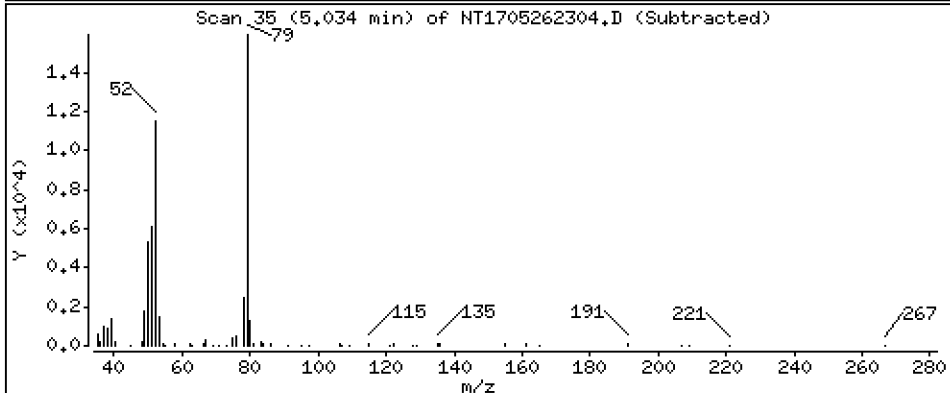
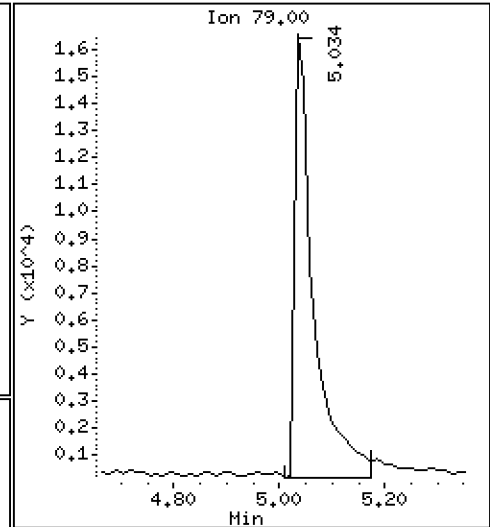
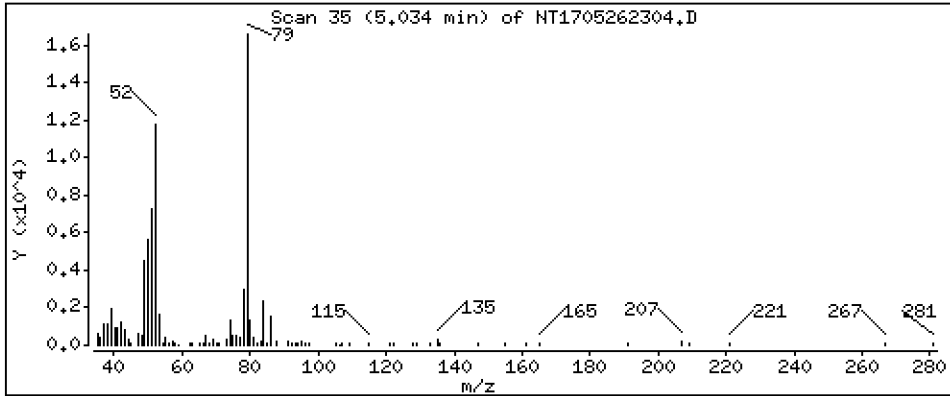
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,3879 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

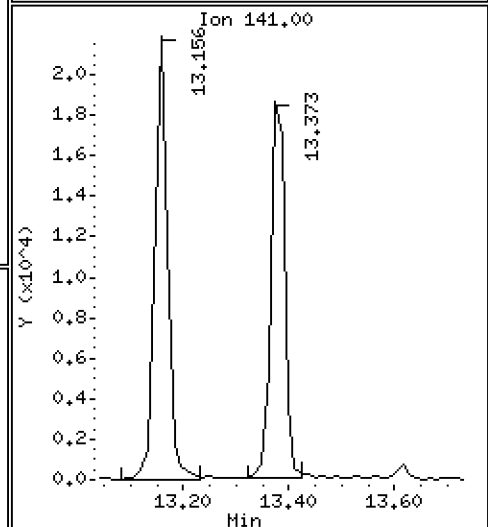
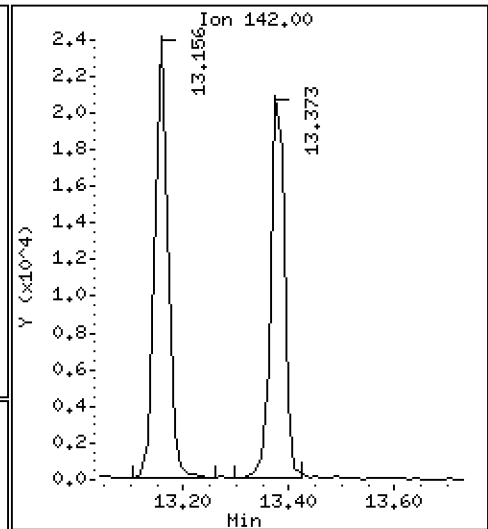
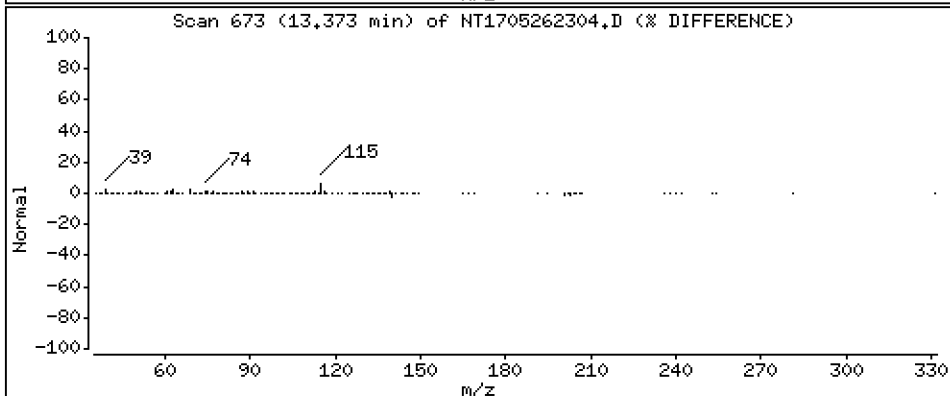
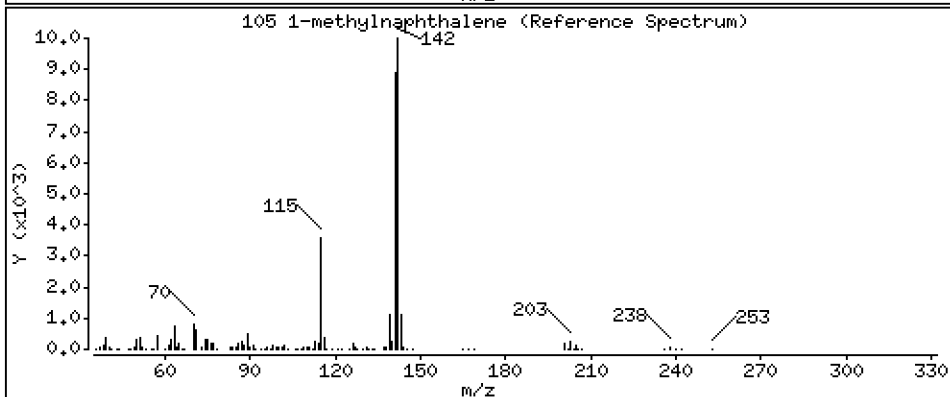
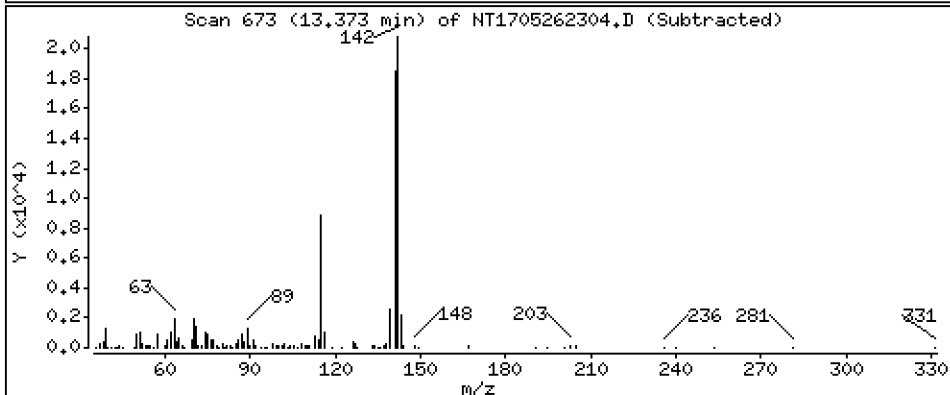
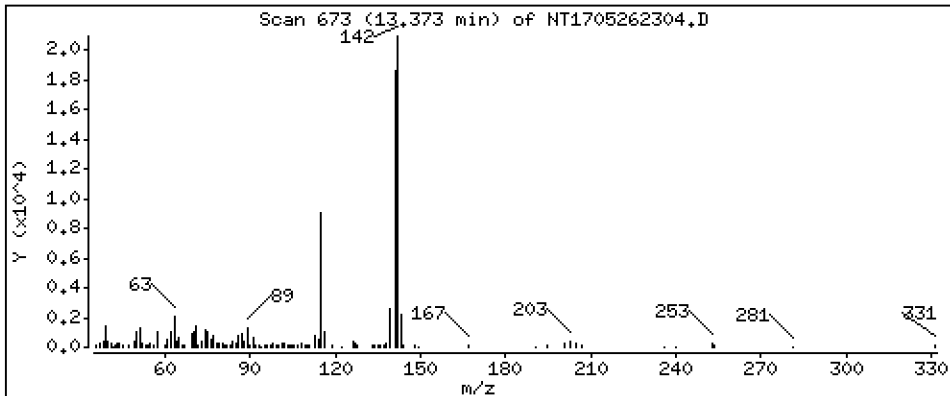
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1882 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

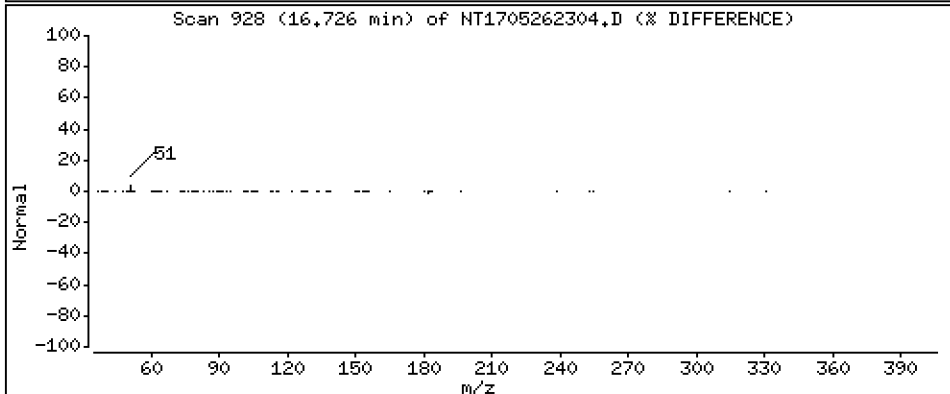
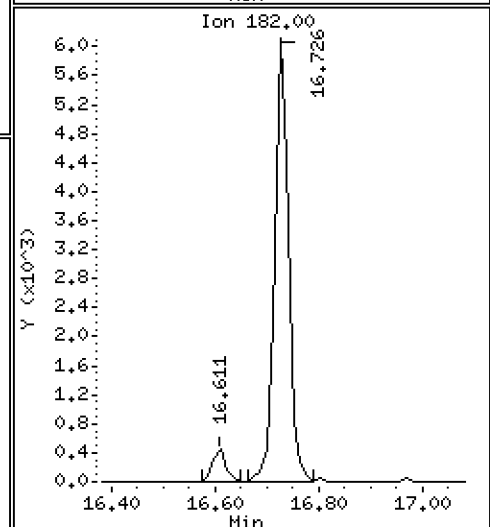
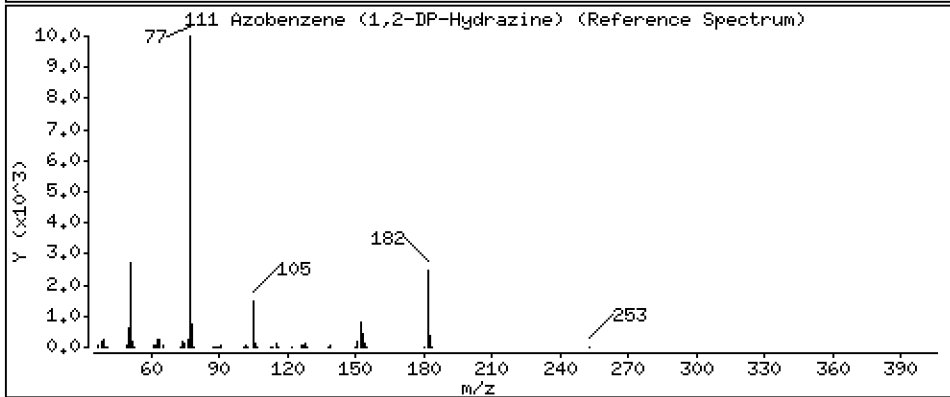
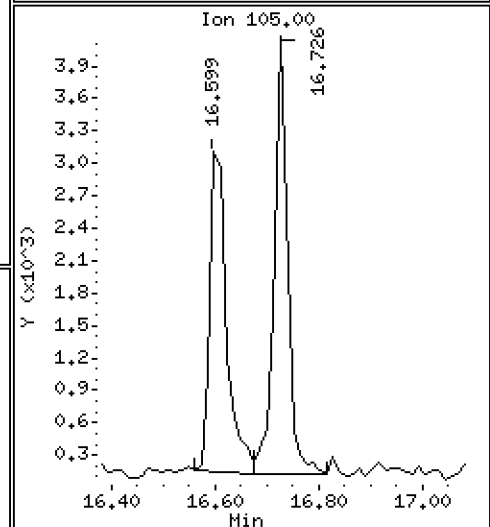
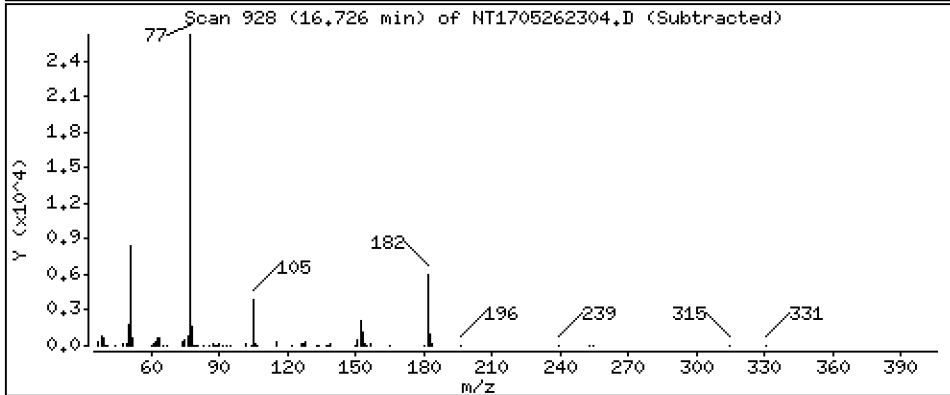
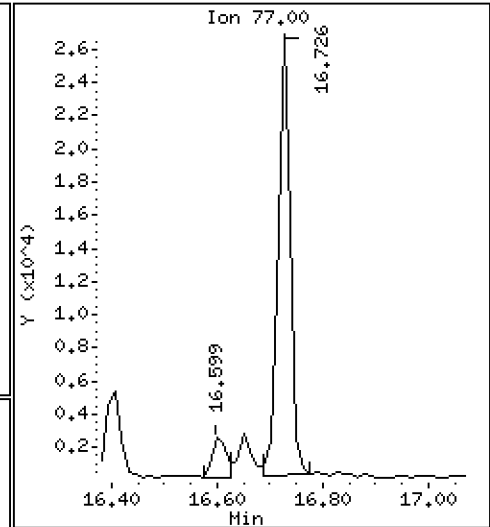
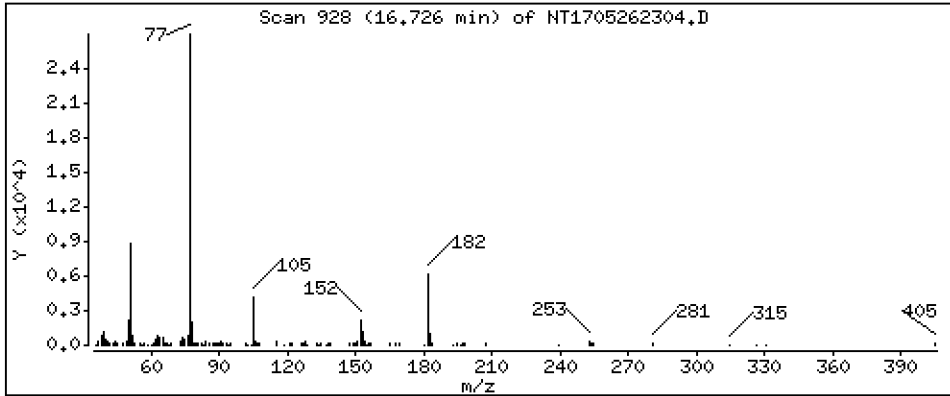
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,1949 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

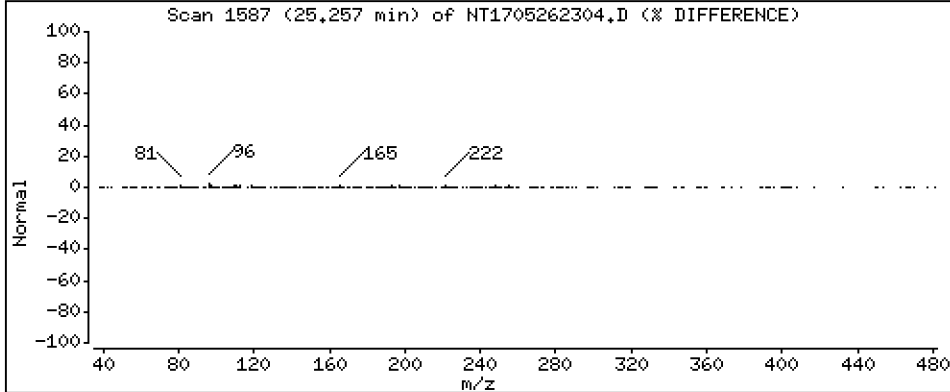
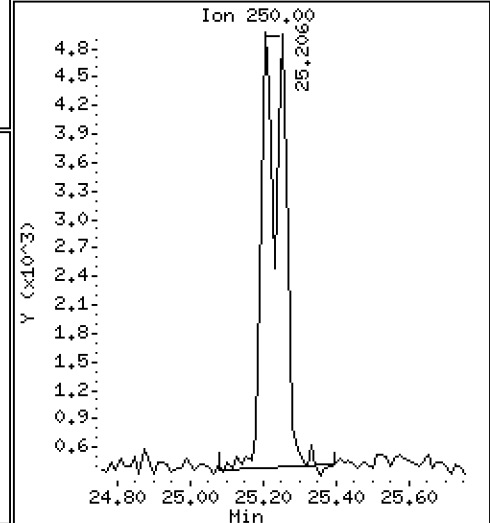
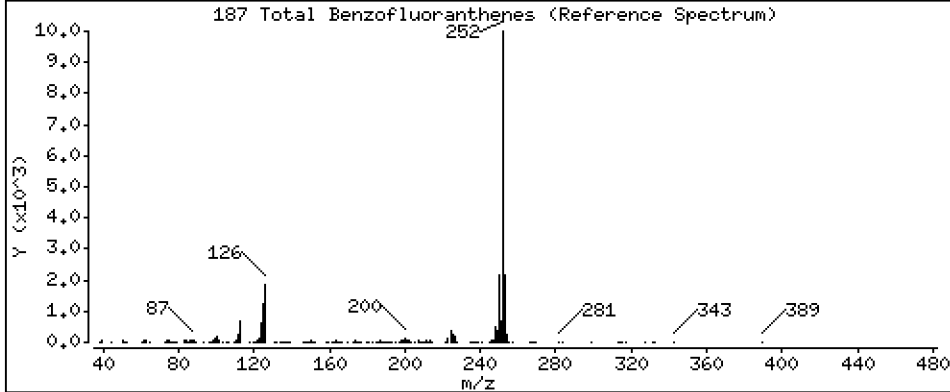
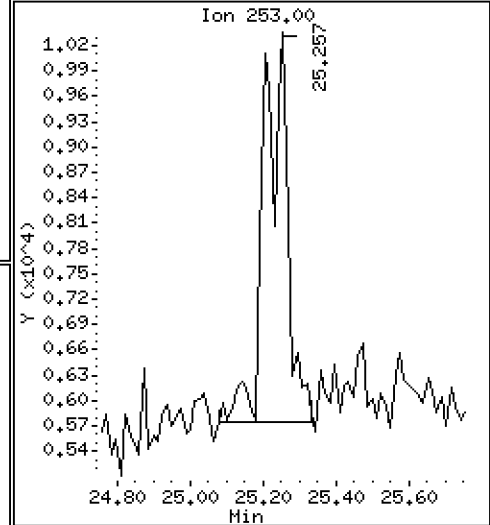
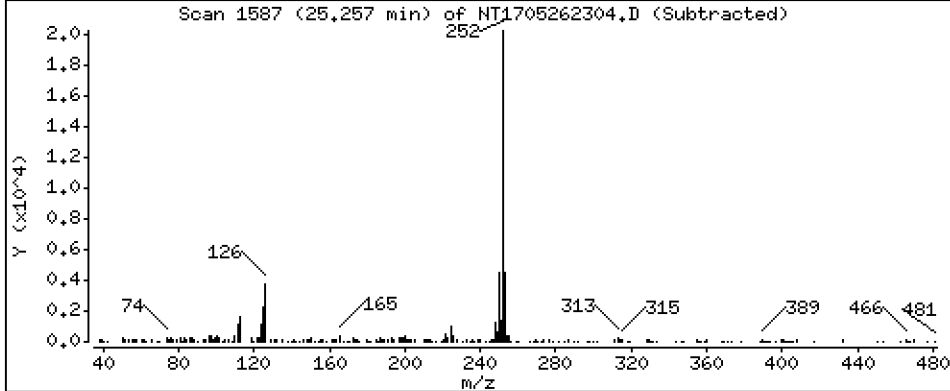
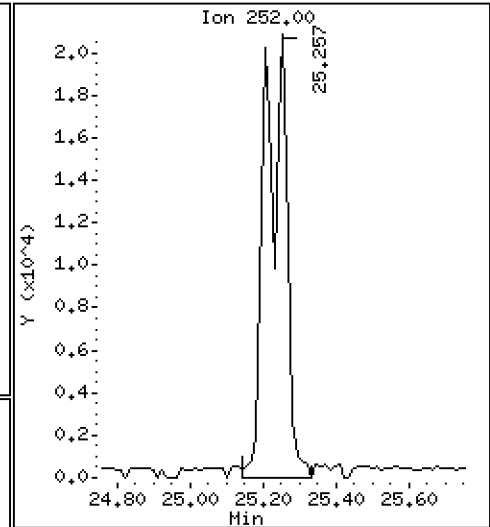
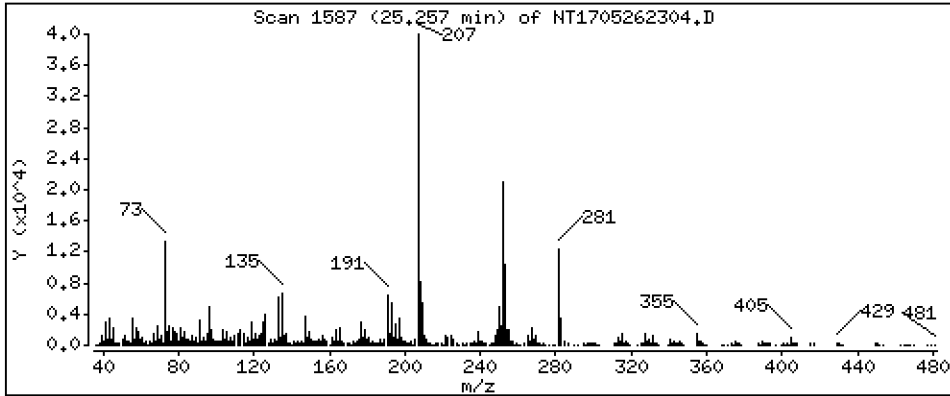
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,3963 ug/mL



Date : 26-MAY-2023 14:31

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV1

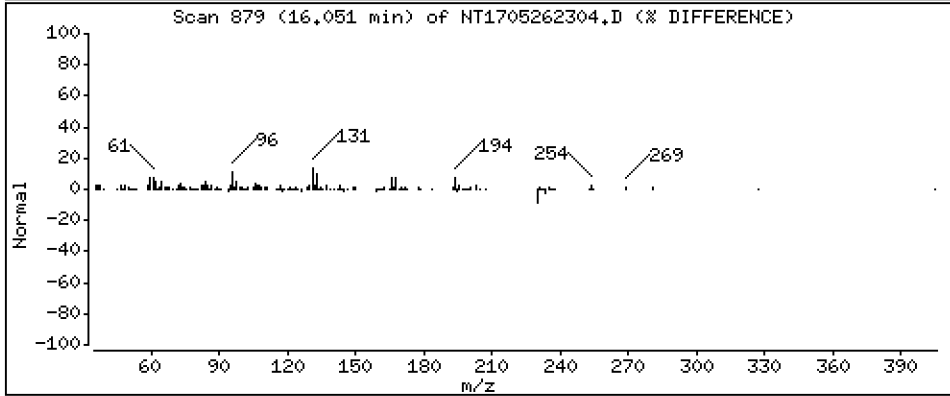
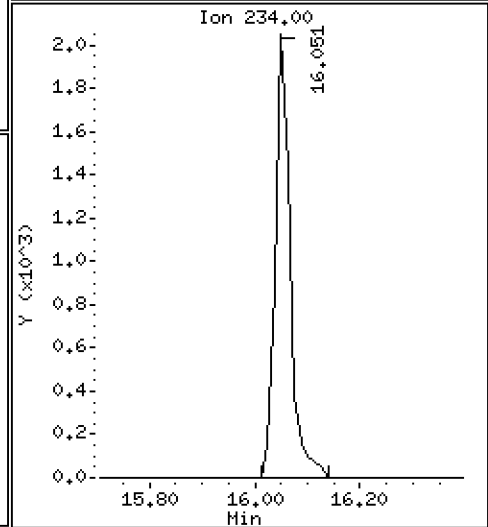
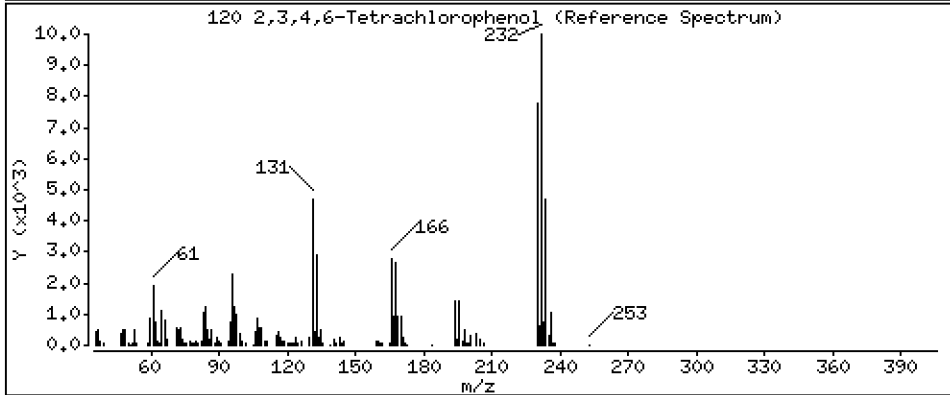
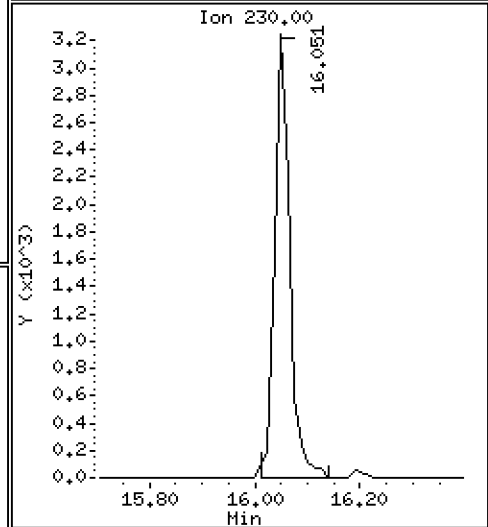
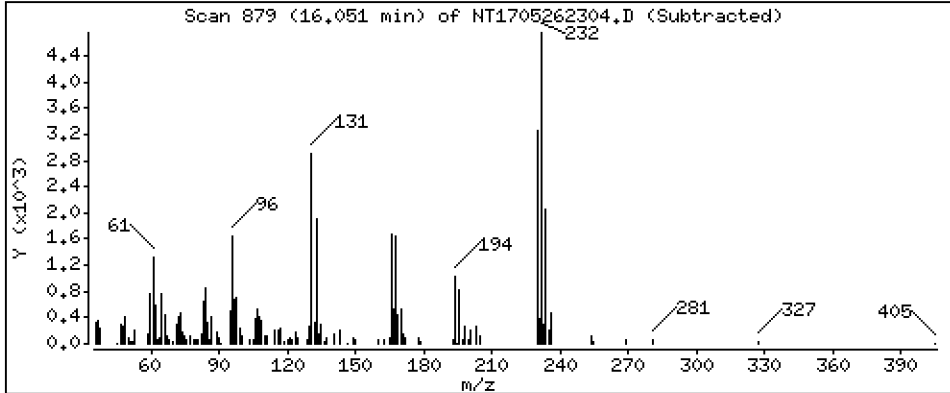
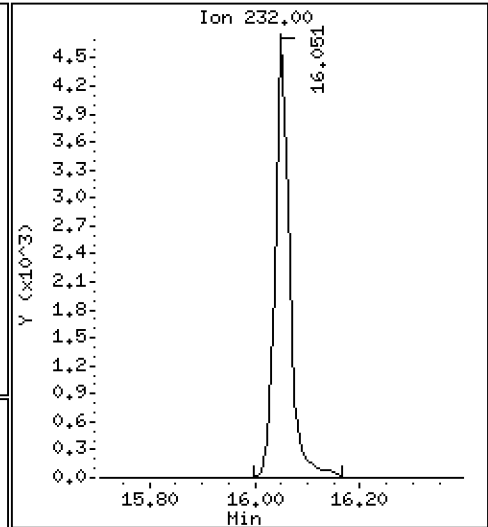
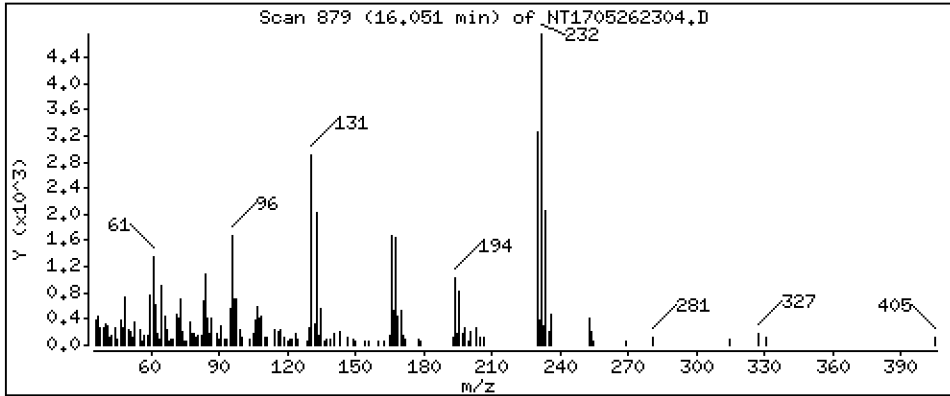
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,1256 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262304.D
 Lab Smp Id: SLE0434-LCV1
 Inj Date : 26-MAY-2023 14:31
 Operator : VTS
 Smp Info : SLE0434-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 12:20 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	28547	0.27558	0.2756
\$ 2 Phenol-d5	99		8.639	8.638	(0.933)	38625	0.28176	0.2818
3 Phenol	94		8.651	8.651	(0.934)	28796	0.19832	0.1983
\$ 5 2-Chlorophenol-d4	132		8.906	8.906	(0.961)	32514	0.29610	0.2961
4 Bis(2-Chloroethyl)ether	93		8.804	8.804	(0.950)	25073	0.23687	0.2369
6 2-Chlorophenol	128		8.932	8.931	(0.964)	22895	0.18882	0.1888
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	25619	0.20876	0.2088
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	316449	4.00000	
9 1,4-Dichlorobenzene	146		9.289	9.289	(1.003)	23333	0.19064	0.1906
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	16789	0.21753	0.2175
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	24388	0.21197	0.2120
11 Benzyl alcohol	108		9.544	9.531	(1.030)	10721	0.15859	0.1586
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	6885	0.21231	0.2123
13 2-Methylphenol	108		9.761	9.748	(1.054)	19936	0.18682	0.1868
17 Hexachloroethane	117		10.234	10.234	(1.105)	10091	0.20611	0.2061
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	16587	0.20316	0.2032
15 4-Methylphenol	108		10.030	10.017	(1.083)	20306	0.18688	0.1869
\$ 18 Nitrobenzene-d5	82		10.349	10.349	(0.882)	24166	0.18588	0.1859
19 Nitrobenzene	77		10.387	10.387	(0.886)	24485	0.19739	0.1974
20 Isophorone	82		10.822	10.834	(0.923)	29912	0.17616	0.1762
21 2-Nitrophenol	139		11.013	11.013	(0.939)	15602	0.26103	0.2610
22 2,4-Dimethylphenol	107		11.052	11.051	(0.942)	44914	0.38702	0.3870
23 Bis(2-Chloroethoxy)methane	93		11.243	11.243	(0.959)	18629	0.17901	0.1790
24 Benzoic acid	105		11.179	11.307	(0.953)	12488	0.15997	0.1600
25 2,4-Dichlorophenol	162		11.473	11.460	(0.978)	37519	0.40233	0.4023
26 1,2,4-Trichlorobenzene	180		11.639	11.651	(0.992)	24345	0.24037	0.2404
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1142345	4.00000	
28 Naphthalene	128		11.766	11.779	(1.003)	62085	0.19763	0.1976
29 4-Chloroaniline	127		11.906	11.893	(1.015)	36133	0.29180	0.2918
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	9598	0.19131	0.1913
31 4-Chloro-3-methylphenol	107		12.863	12.850	(1.097)	36237	0.36088	0.3609
32 2-Methylnaphthalene	142		13.156	13.156	(1.122)	42144	0.18737	0.1874
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	5772	0.10773	0.1077

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.781	13.781	(0.899)	21473	0.35620	0.3562
35 2,4,5-Trichlorophenol	196	13.857	13.857	(0.904)	21626	0.33887	0.3389
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	46372	0.20429	0.2043
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	37913	0.20589	0.2059
38 2-Nitroaniline	65	14.406	14.406	(0.940)	21512	0.34494	0.3449
39 Dimethylphthalate	163	14.827	14.826	(0.968)	39581	0.19965	0.1997
40 Acenaphthylene	152	15.005	15.018	(0.979)	60579	0.20716	0.2072
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	17075	0.36788	0.3679
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	576179	4.00000	
43 3-Nitroaniline	138	15.260	15.247	(0.996)	13138	0.30561	0.3056
44 Acenaphthene	153	15.388	15.388	(1.004)	37656	0.20600	0.2060
45 2,4-Dinitrophenol	184	15.464	15.464	(1.009)	3432	0.12268	0.1227
46 Dibenzofuran	168	15.706	15.719	(1.025)	50501	0.19794	0.1979
47 4-Nitrophenol	109	15.592	15.579	(1.017)	5988	0.20971	0.2097
48 2,4-Dinitrotoluene	165	15.770	15.770	(1.029)	19390	0.31913	0.3191
50 Diethylphthalate	149	16.267	16.267	(1.062)	48659	0.25168	0.2517
49 Fluorene	166	16.420	16.420	(1.072)	54335	0.22401	0.2240
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	23499	0.21073	0.2107
52 4-Nitroaniline	138	16.509	16.509	(1.077)	12759	0.31356	0.3136
53 4,6-Dinitro-2-methylphenol	198	16.611	16.611	(0.906)	14918	0.39018	0.3902
54 N-Nitrosodiphenylamine	169	16.649	16.662	(0.908)	25891	0.19292	0.1929
§ 55 2,4,6-Tribromophenol	330	16.954	16.954	(1.106)	6096	0.24255	0.2426
56 4-Bromophenyl-phenylether	248	17.400	17.400	(0.949)	8676	0.18451	0.1845
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	10211	0.21311	0.2131
58 Pentachlorophenol	266	18.088	18.088	(0.986)	5774	0.20787	0.2079
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	958053	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	56866	0.20342	0.2034
61 Anthracene	178	18.484	18.483	(1.008)	48566	0.18505	0.1850
62 Carbazole	167	18.815	18.815	(1.026)	46837	0.29440	0.2944
63 Di-n-butylphthalate	149	19.580	19.580	(1.067)	59856	0.18887	0.1889
64 Fluoranthene	202	20.753	20.753	(0.889)	54741	0.19478	0.1948
65 Pyrene	202	21.174	21.174	(0.907)	58005	0.20359	0.2036
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	42042	0.20758	0.2076
67 Butylbenzylphthalate	149	22.360	22.360	(0.958)	24792	0.19443	0.1944
68 Benzo(a)anthracene	228	23.317	23.317	(0.999)	47901	0.21651	0.2165
* 69 Chrysene-d12	240	23.343	23.355	(1.000)	600821	4.00000	
70 3,3'-Dichlorobenzidine	252	23.266	23.266	(0.997)	42918	1.00137	1.001
71 Chrysene	228	23.394	23.394	(1.002)	43650	0.20967	0.2097
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	33711	0.18777	0.1878
* 134 Di-n-octylphthalate-d4	153	24.351	24.363	(1.000)	1240881	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	66355	0.21096	0.2110
74 Benzo(b)fluoranthene	252	25.205	25.218	(0.970)	43971	0.17947	0.1795
75 Benzo(k)fluoranthene	252	25.256	25.256	(0.972)	48945	0.21145	0.2115
76 Benzo(a)pyrene	252	25.881	25.881	(0.996)	39375	0.20402	0.2040
* 77 Perylene-d12	264	25.996	25.996	(1.000)	617938	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.703	28.716	(1.104)	44273	0.19777	0.1978
79 Dibenzo(a,h)anthracene	278	28.716	28.729	(1.105)	36738	0.19554	0.1955
80 Benzo(g,h,i)perylene	276	29.509	29.521	(1.135)	36193	0.19588	0.1959
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	22974	0.33248	0.3325
91 Aniline	93	8.728	8.728	(0.942)	38575	0.31702	0.3170
93 Benzidine	184	20.983	20.996	(0.899)	23802	0.34129	0.3413
103 Pyridine	79	5.033	5.007	(0.543)	42515	0.38791	0.3879
105 1-methylnaphthalene	142	13.373	13.385	(1.140)	39278	0.18823	0.1882
111 Azobenzene (1,2-DP-Hydrazine)	77	16.725	16.725	(1.091)	43994	0.19494	0.1949

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.256	25.256	(0.972)	87164	0.39633	0.3963
120 2,3,4,6-Tetrachlorophenol	232	16.050	16.050	(1.047)	9060	0.12561	0.1256

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262304.D Calibration Time: 13:16
 Lab Smp Id: SLE0434-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	303517	151759	607034	316449	4.26
27 Naphthalene-d8	1140476	570238	2280952	1142345	0.16
42 Acenaphthene-d10	622461	311231	1244922	576179	-7.44
59 Phenanthrene-d10	1074054	537027	2148108	958053	-10.80
69 Chrysene-d12	723807	361904	1447614	600821	-16.99
134 Di-n-octylphthala	1524055	762028	3048110	1240881	-18.58
77 Perylene-d12	666992	333496	1333984	617938	-7.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	0.00
69 Chrysene-d12	23.36	22.86	23.86	23.34	-0.05
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.00	25.50	26.50	26.00	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262304.D

Lab ID: SLE0434-LCV1
nt17.i, ABN.m, 26-MAY-2023 14:31

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.964	-0.0109	Benzoic acid

RRT check based on Ccal File: NT1705262302.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00065

Lab File ID: NT1705262321.D

Calibration Date: 05/20/2023

Sequence: SLE0434

Injection Date: 05/27/23

Lab Sample ID: SLE0434-LCV2

Injection Time: 01:10

Sequence Name: ABN 0.2

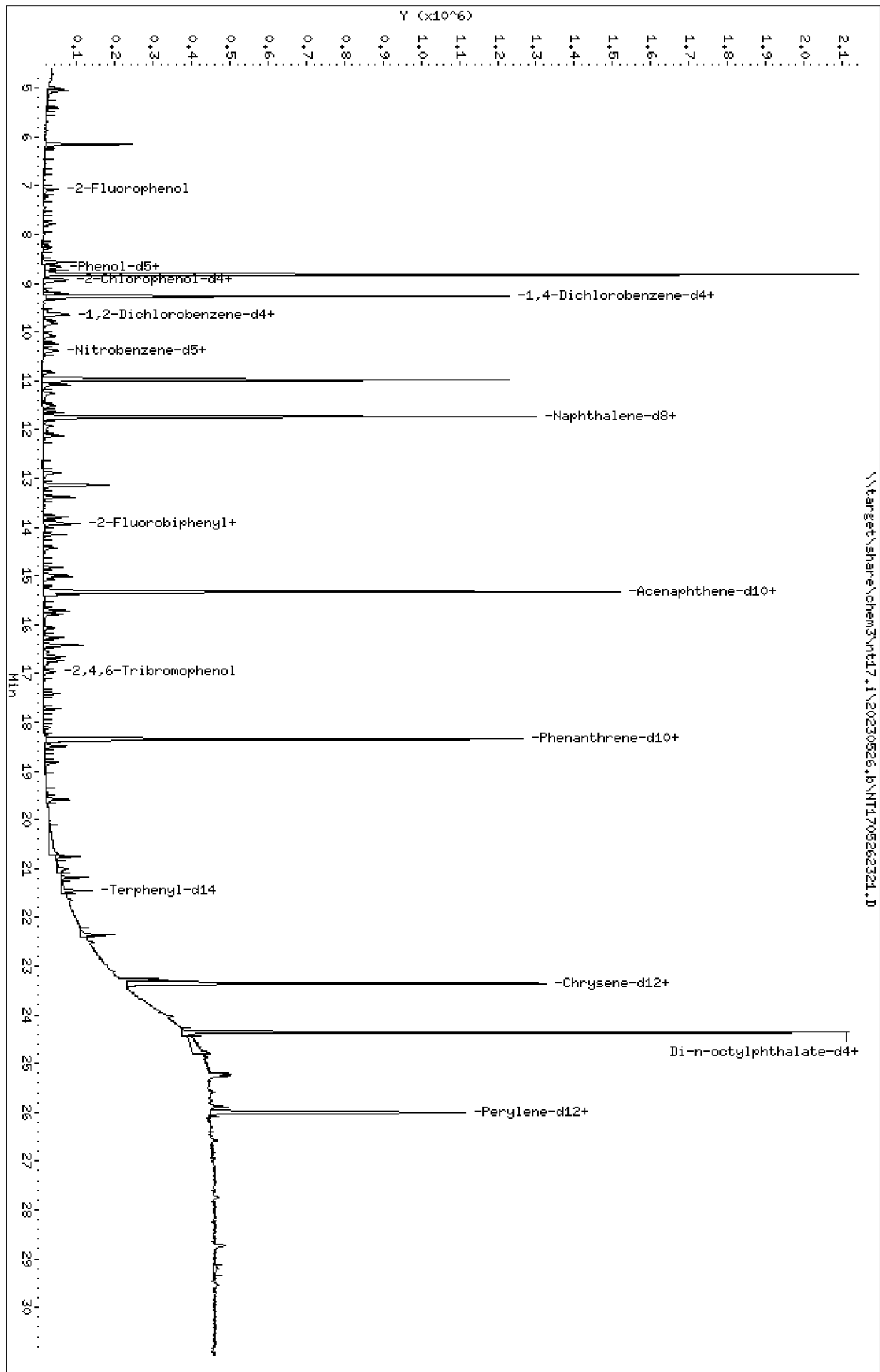
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.20000	0.2	1.8353850	1.5976220		-13.0	+/-50
Benzyl Alcohol	A	0.20000	0.1	0.8545202	0.6182050		-27.7	+/-50
4-Methylphenol	A	0.20000	0.1	1.3734410	0.7397017		-46.1	+/-50
Naphthalene	A	0.20000	0.2	1.0999940	1.1105820		1.0	+/-50
2-Methylnaphthalene	A	0.20000	0.2	0.7875944	0.7330459		-6.9	+/-50
Acenaphthylene	A	0.20000	0.2	2.0301060	2.0789090		2.4	+/-50
Dibenzofuran	A	0.20000	0.2	1.7711910	1.7252380		-2.6	+/-50
Fluorene	A	0.20000	0.2	1.6839010	1.4724840		-12.6	+/-50
Phenanthrene	A	0.20000	0.2	1.1671410	1.1369350		-2.6	+/-50
Anthracene	A	0.20000	0.2	1.0957620	1.0685610		-2.5	+/-50
Fluoranthene	A	0.20000	0.2	1.8710850	1.6325050		-12.8	+/-50
Pyrene	A	0.20000	0.2	1.8967730	1.7328950		-8.6	+/-50
Butylbenzylphthalate	A	0.20000	0.2	0.8489339	0.8060013		-5.1	+/-50
Benzo(a)anthracene	A	0.20000	0.2	1.4729210	1.5348040		4.2	+/-50
Chrysene	A	0.20000	0.2	1.3859970	1.5053480		8.6	+/-50
bis(2-Ethylhexyl)phthalate	A	0.20000	0.2	0.5787277	171405		-9.5	+/-50
Benzofluoranthenes, Total	A	0.40000	0.4	1.4236150	1.5672580		10.1	+/-50
Benzo(a)pyrene	A	0.20000	0.2	1.2492830	1.3249050		6.1	+/-50
Indeno(1,2,3-cd)pyrene	A	0.20000	0.1	1.4490690	0.9242251		-36.2	+/-50
Dibenzo(a,h)anthracene	A	0.20000	0.1	1.2161710	0.8377017		-31.1	+/-50
Benzo(g,h,i)perylene	A	0.20000	0.1	1.1960510	0.6606537		-44.8	+/-50
2-Fluorophenol	A	0.30000	0.247	1.3093930	1.0778590		-17.7	+/-50
Phenol-d5	A	0.30000	0.216	1.7328160	1.2463360		-28.1	+/-50
2-Chlorophenol-d4	A	0.30000	0.249	1.3879870	1.1517830		-17.0	+/-50
1,2-Dichlorobenzene-d4	A	0.20000	0.180	0.9755818	0.8770312		-10.1	+/-50
Nitrobenzene-d5	A	0.20000	0.189	0.4552457	0.4296153		-5.6	+/-50
2-Fluorobiphenyl	A	0.20000	0.202	1.5758130	1.5905830		0.9	+/-50
2,4,6-Tribromophenol	A	0.30000	0.237	0.1414414	0.1375491		-21.2	+/-50
p-Terphenyl-d14	A	0.20000	0.175	1.3483810	1.1801000		-12.5	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\NT1705262321.D
 Date: 27-May-2023 01:10
 Client ID:
 Sample Info: SLE0434-LCW2
 Column phase: ZB-5msi

Instrument: nt17.1
 Operator: VTS
 Column diameter: 0.25

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Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

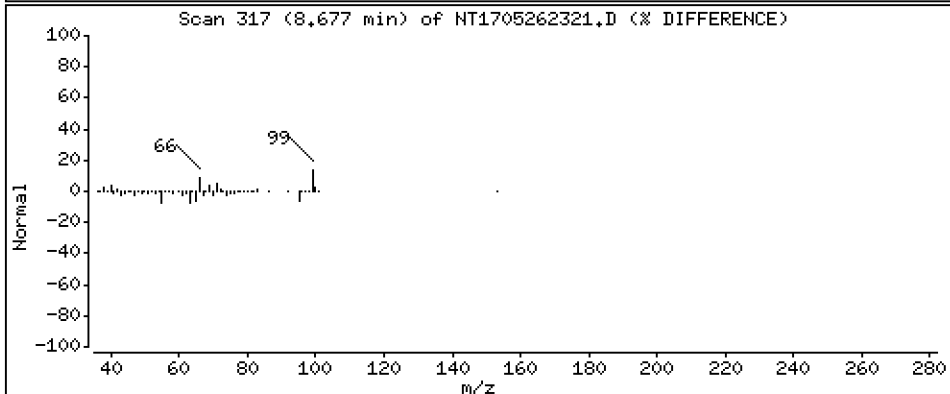
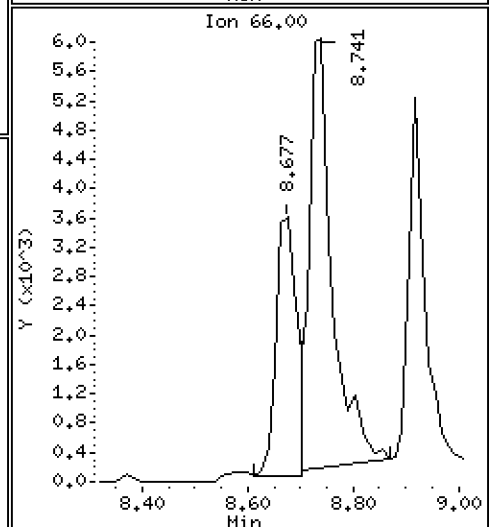
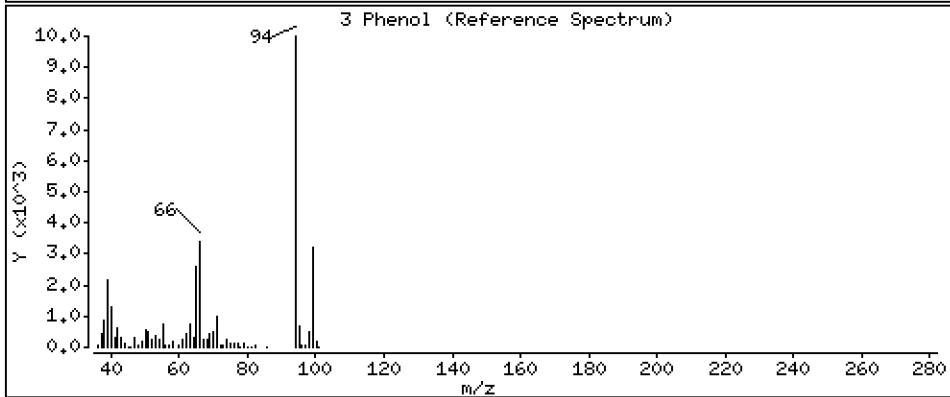
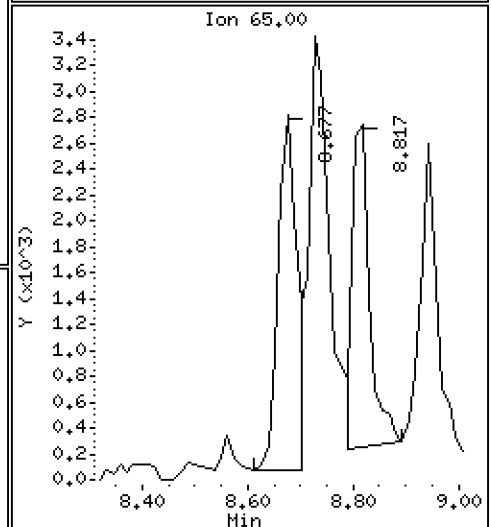
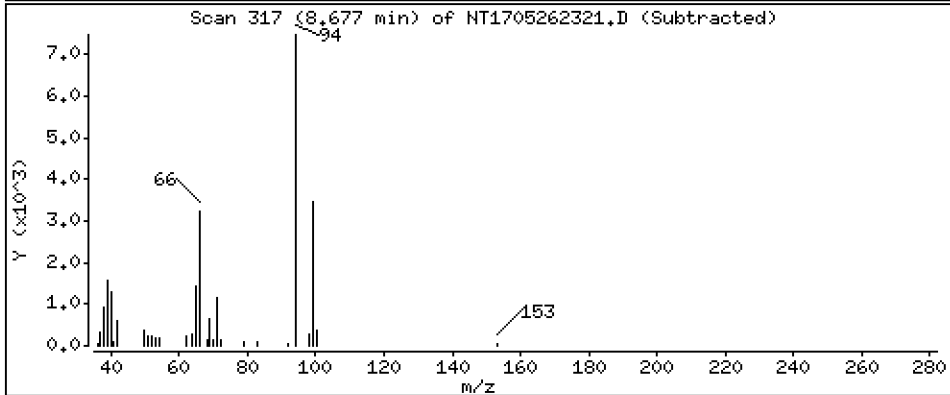
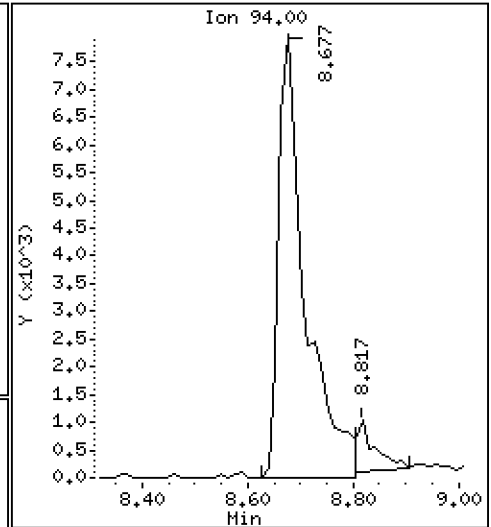
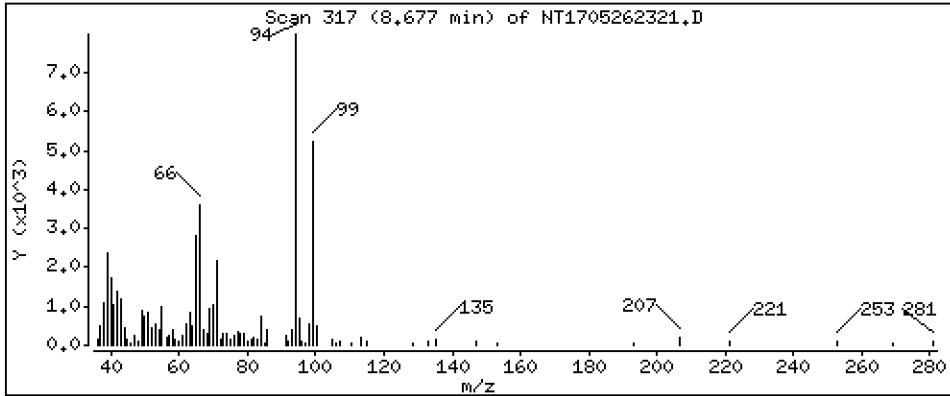
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1741 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

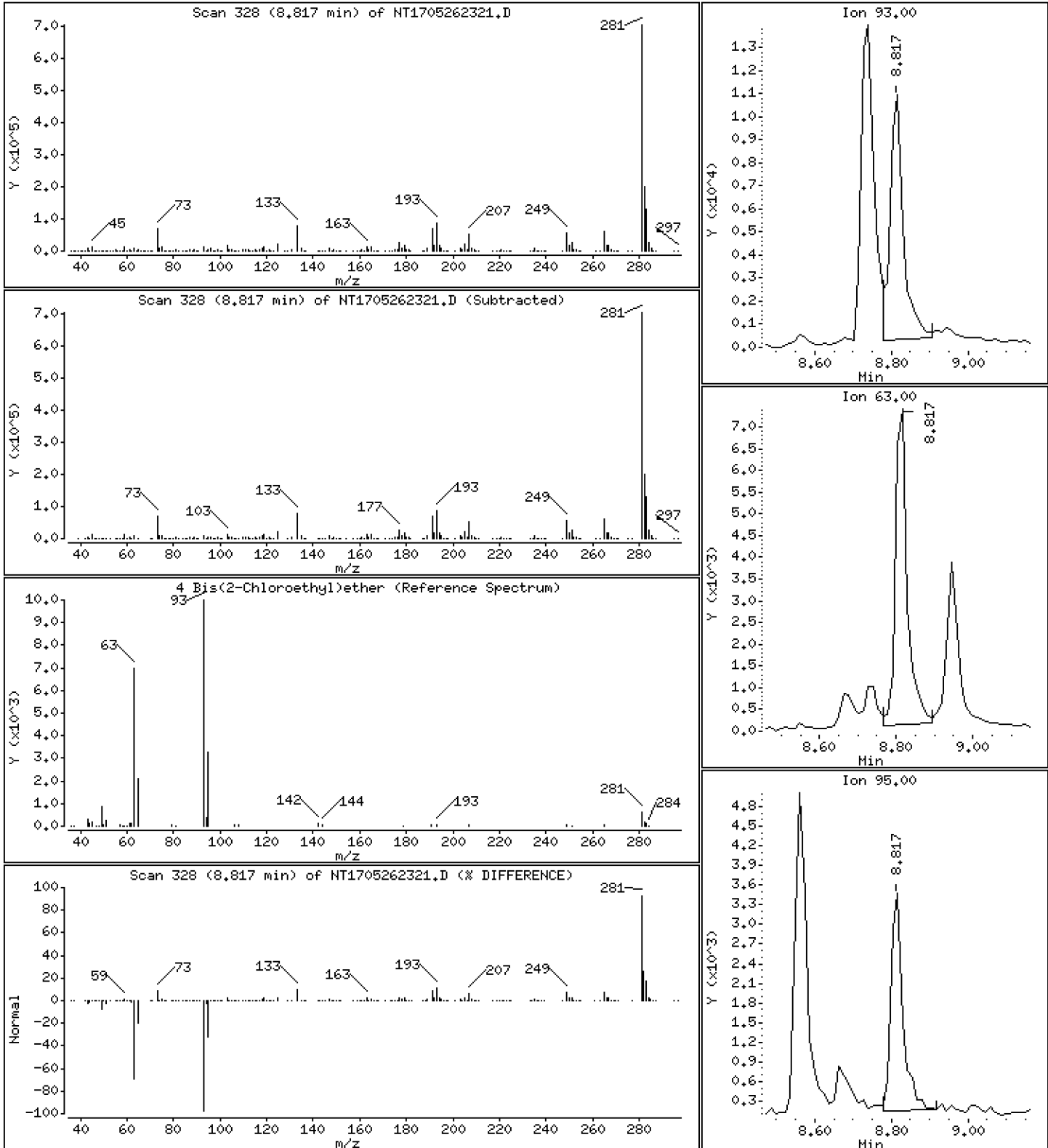
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,2213 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

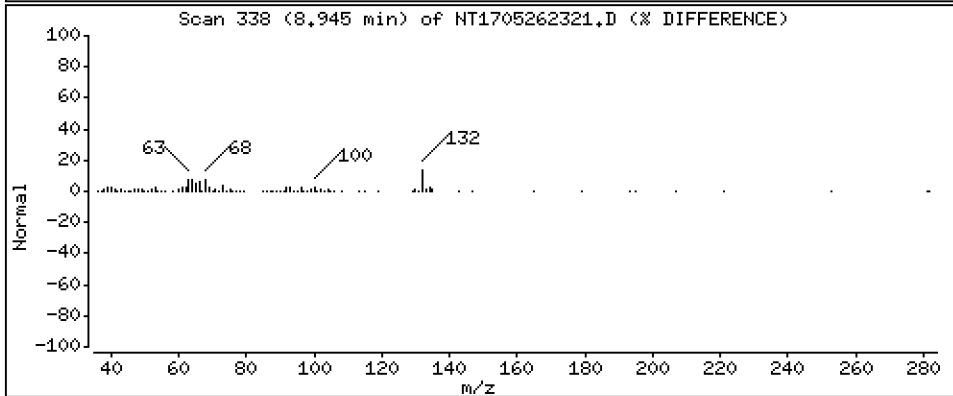
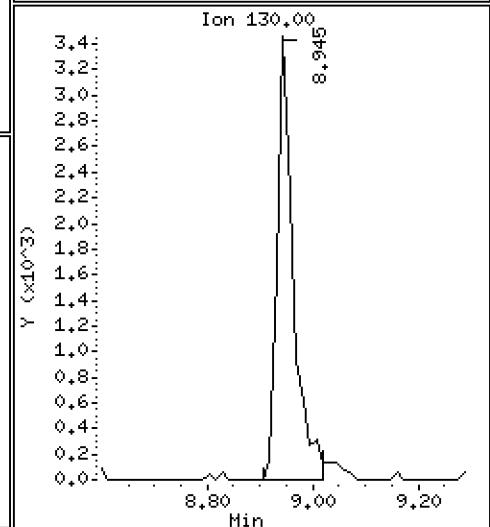
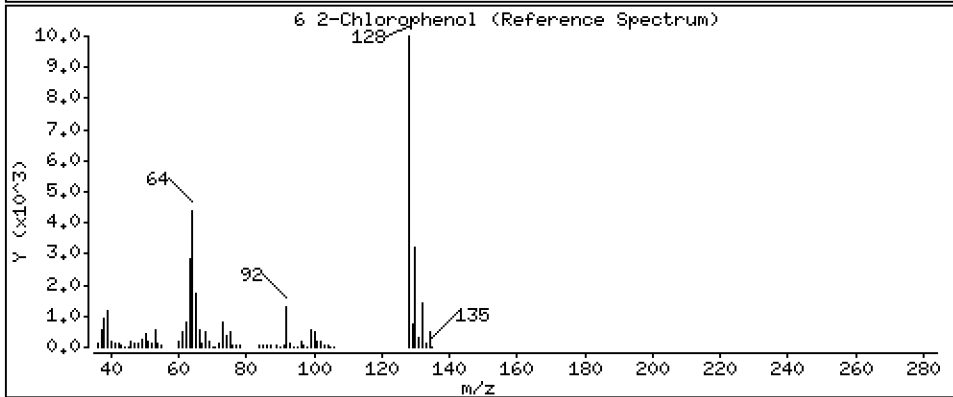
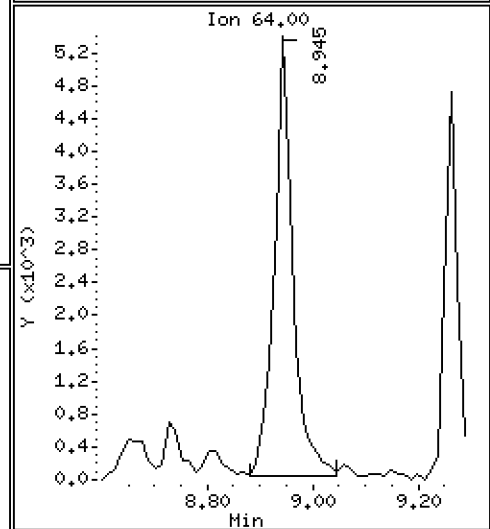
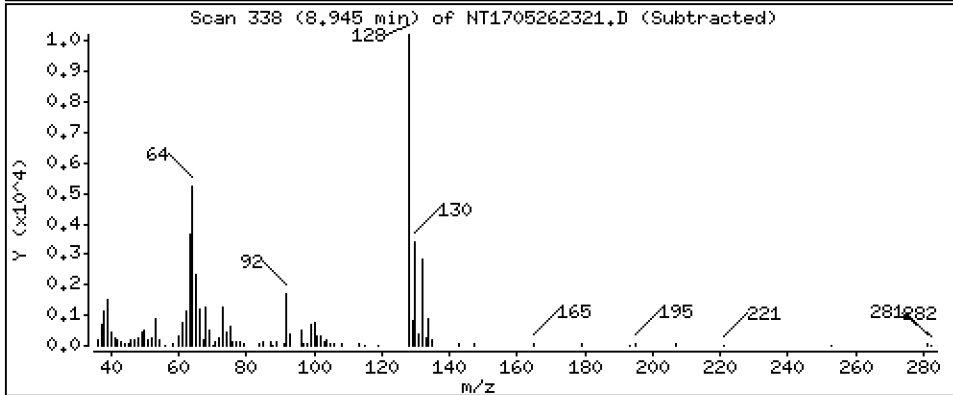
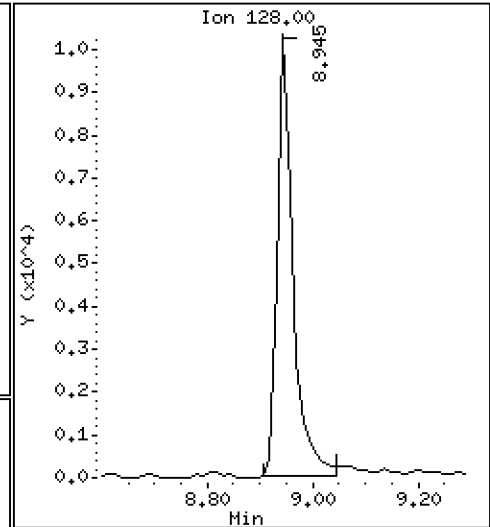
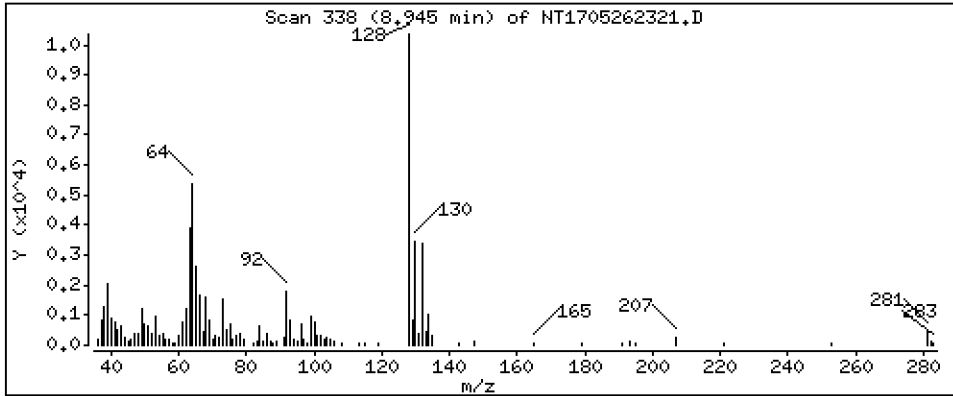
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,1536 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

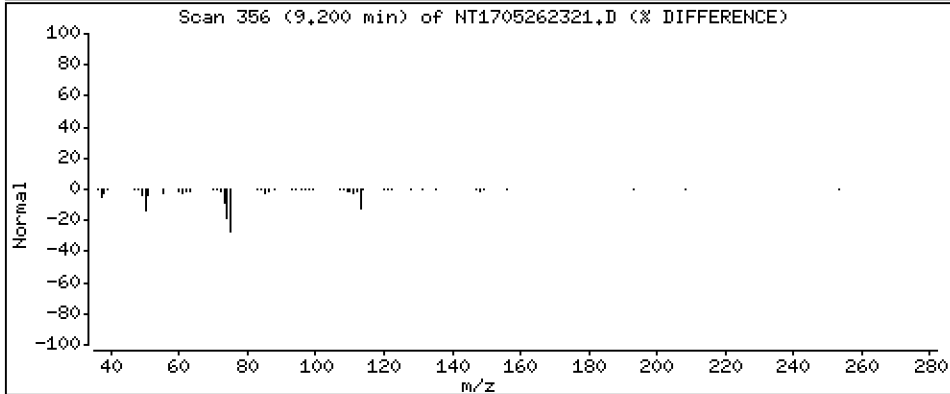
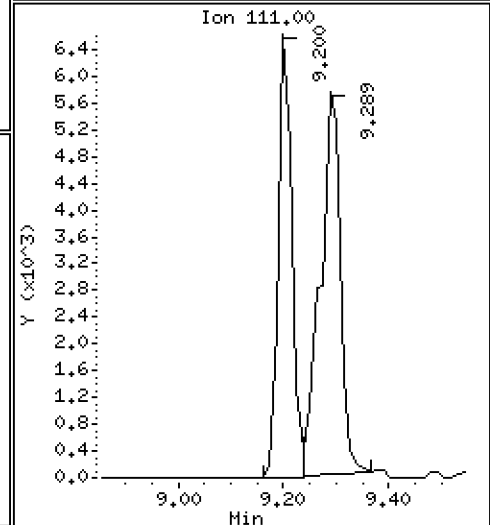
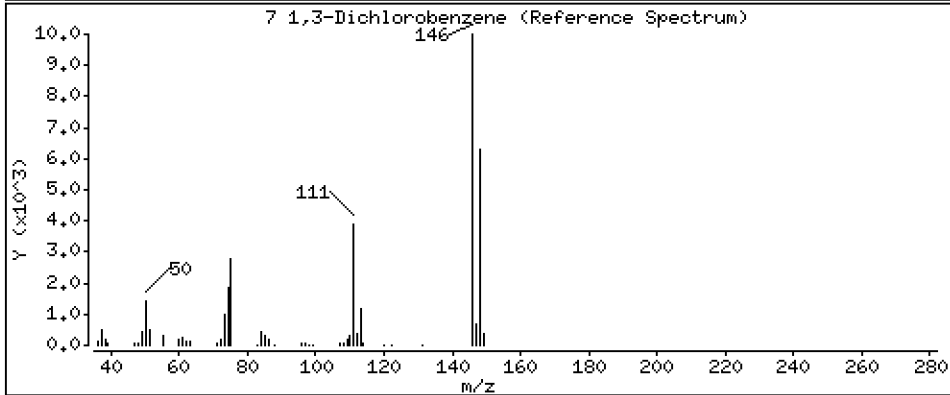
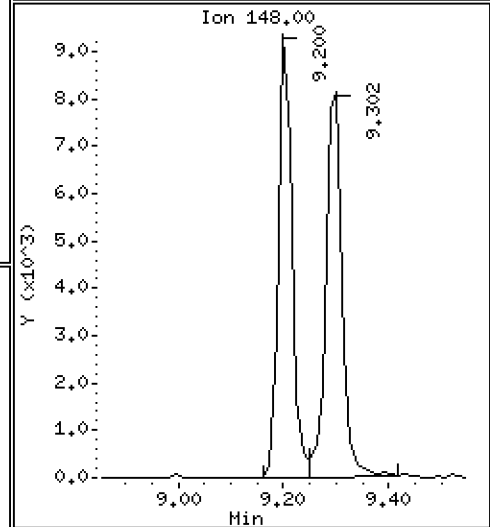
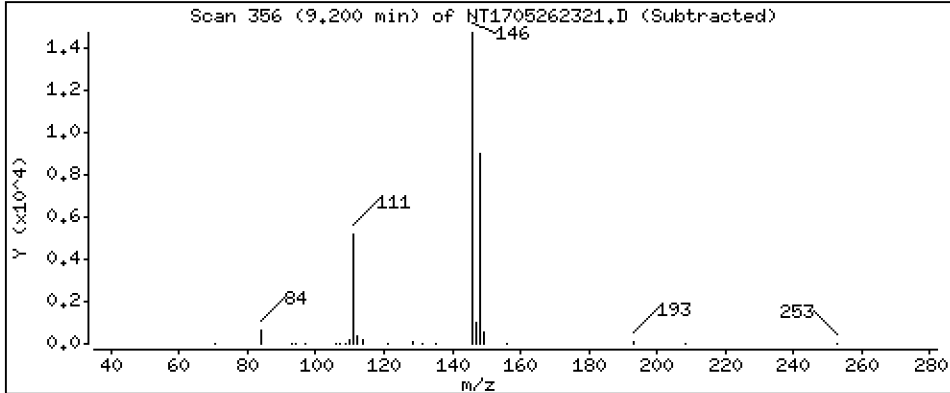
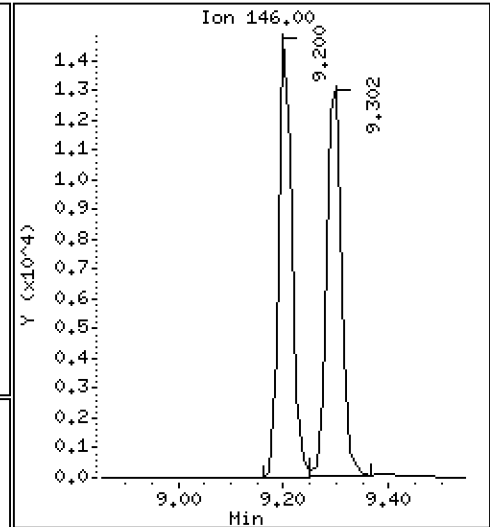
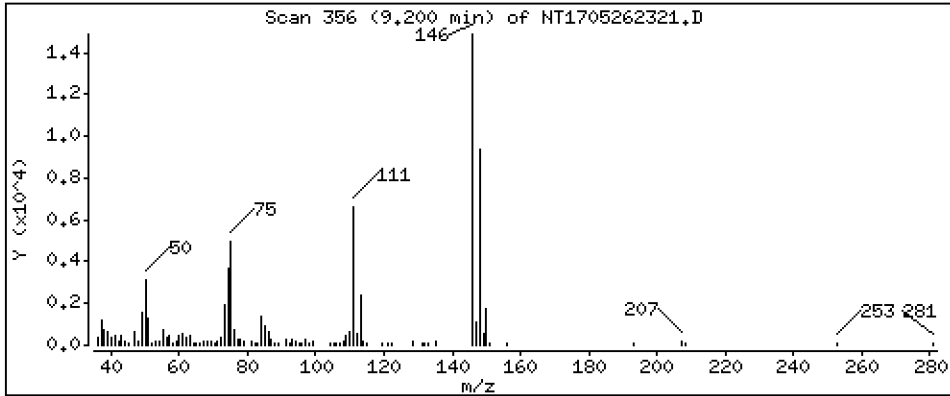
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,1868 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

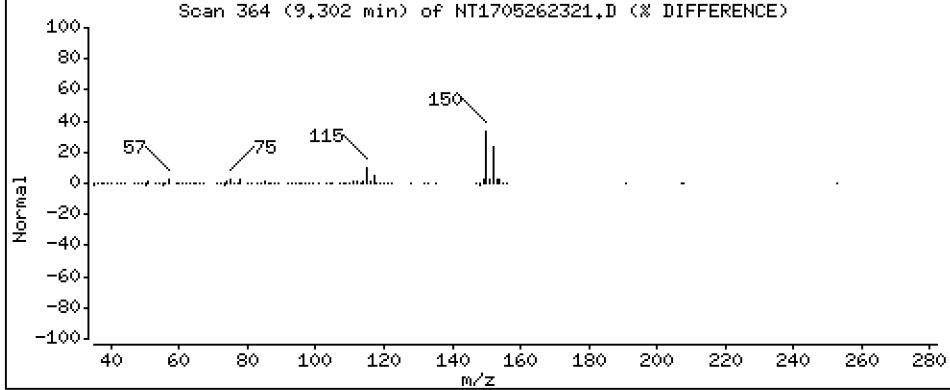
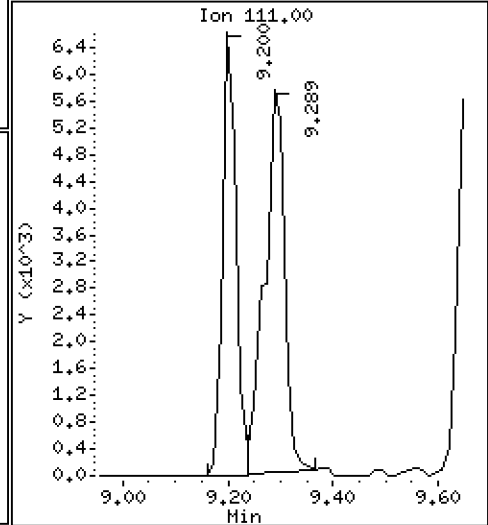
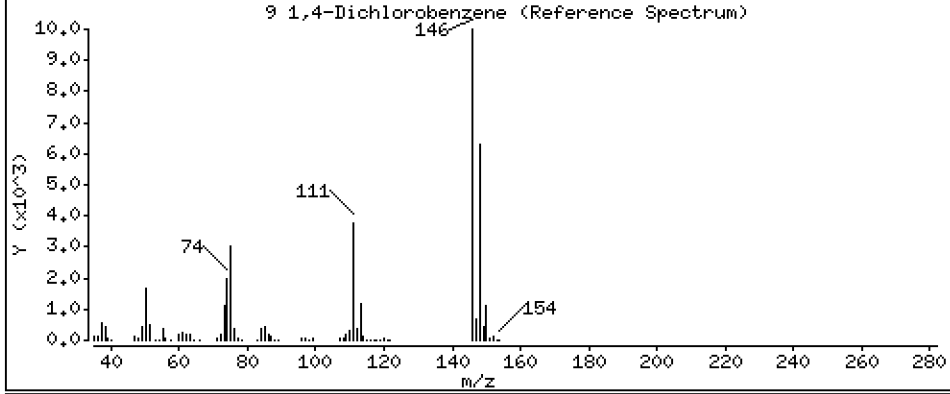
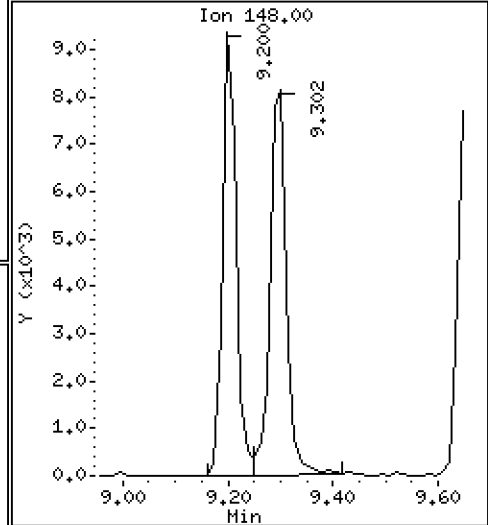
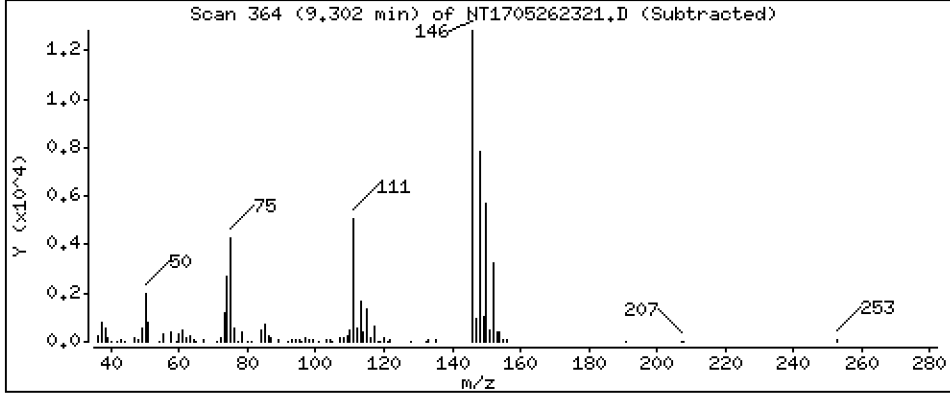
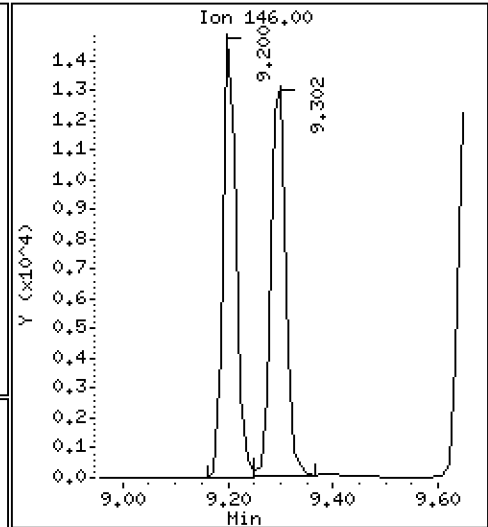
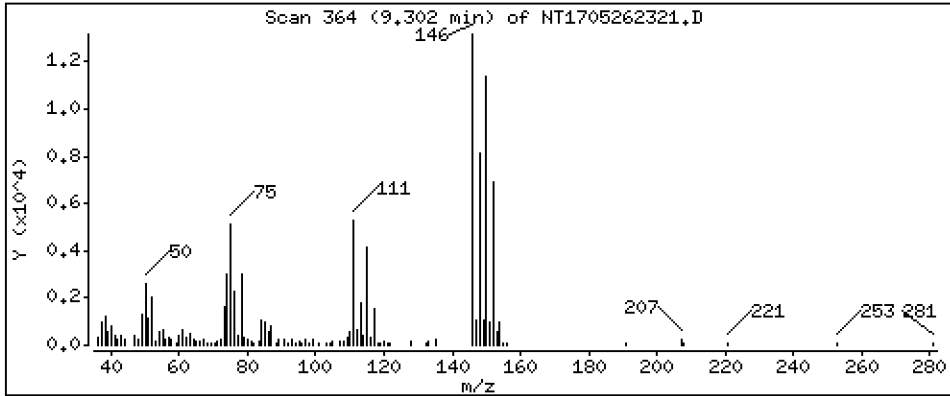
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,1864 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

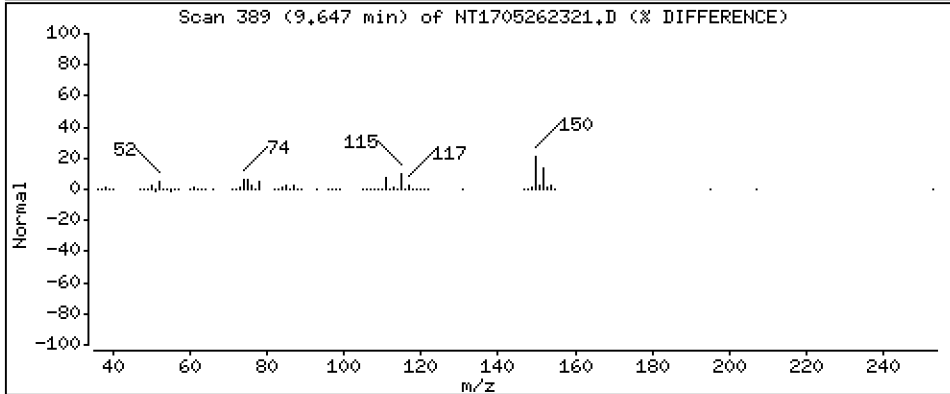
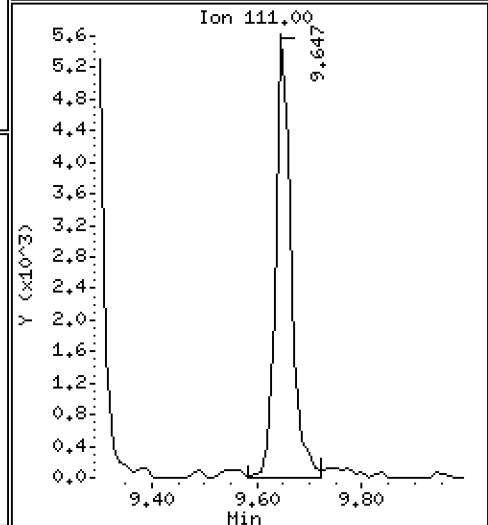
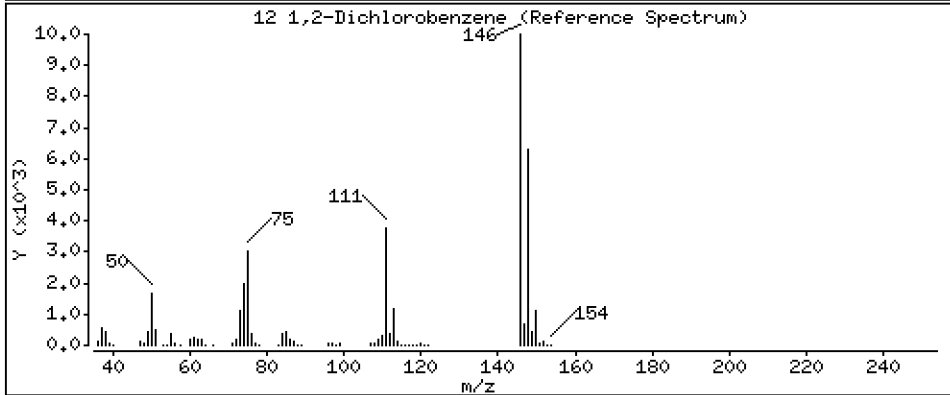
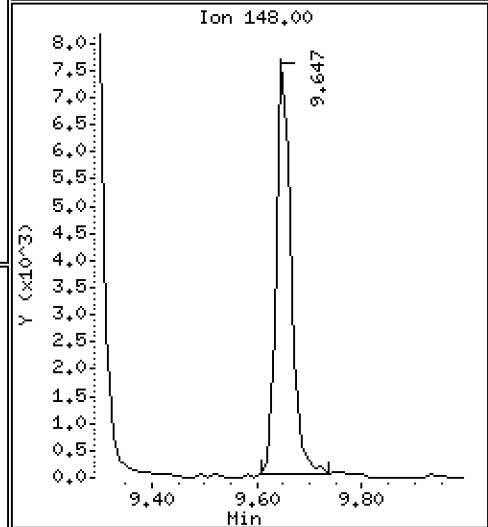
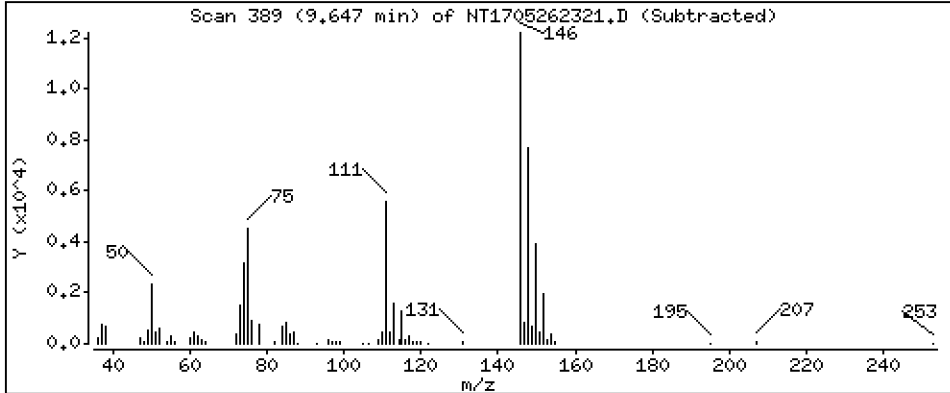
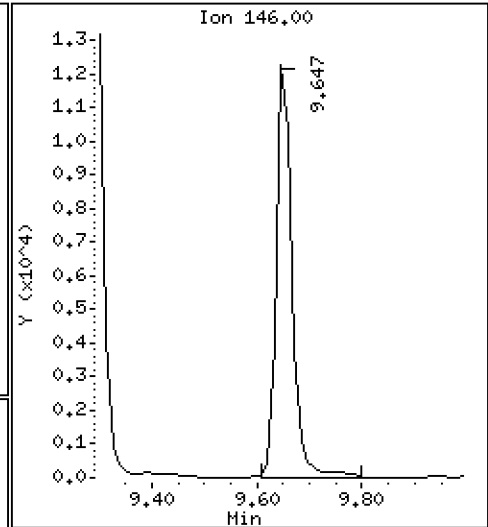
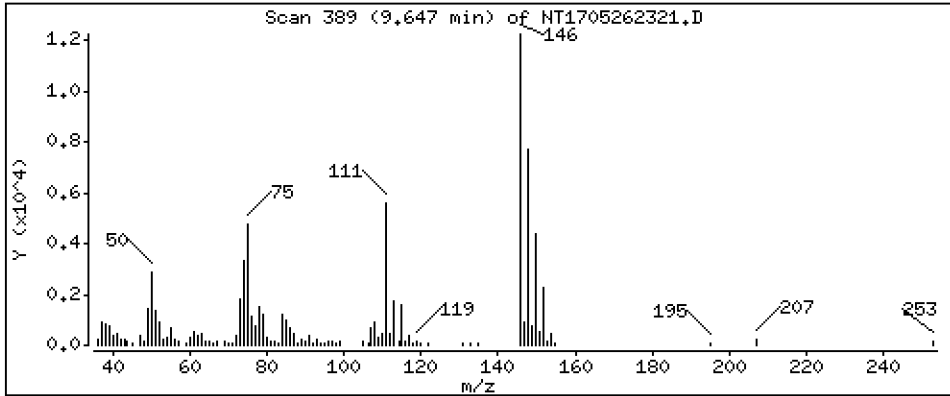
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,1962 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

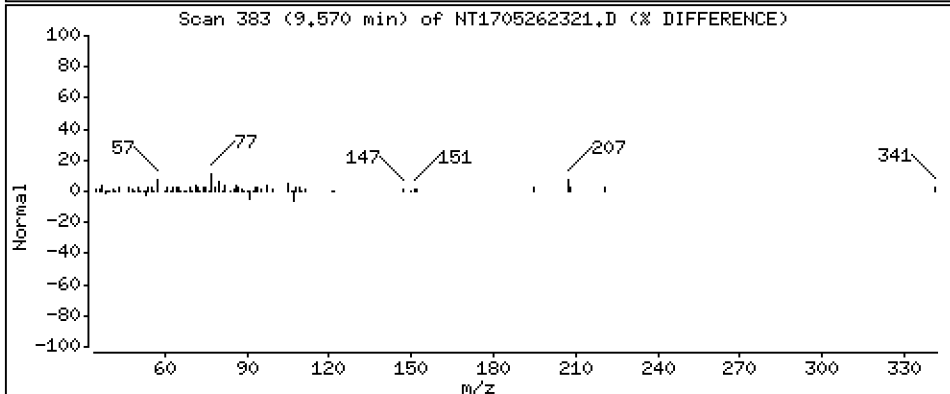
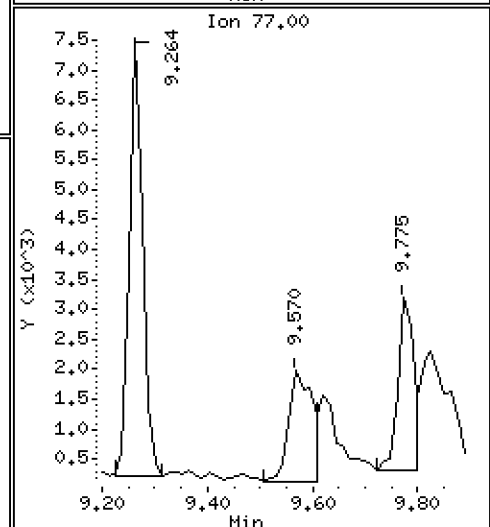
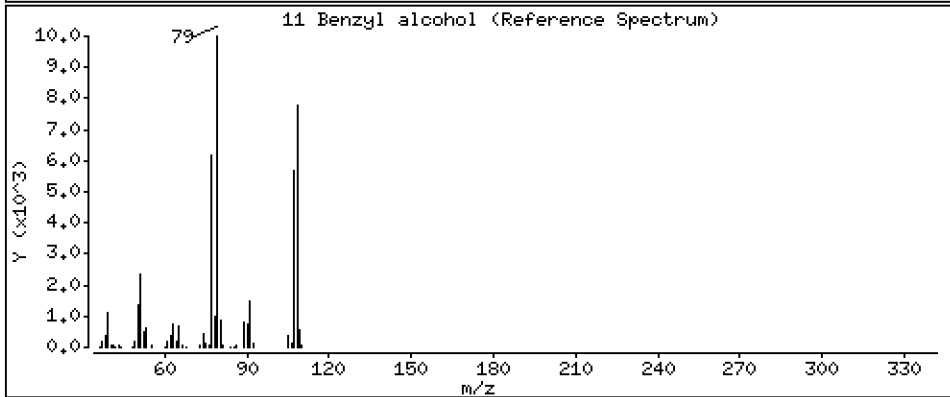
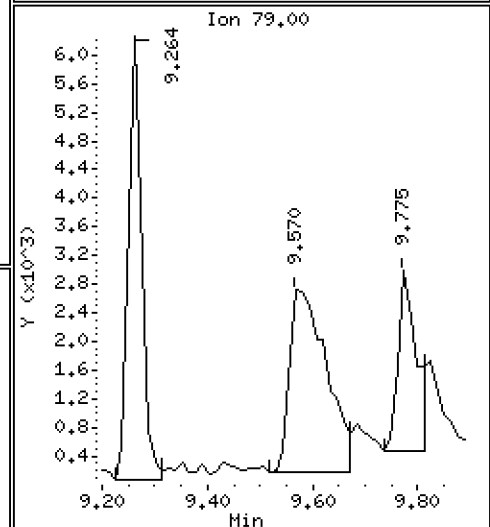
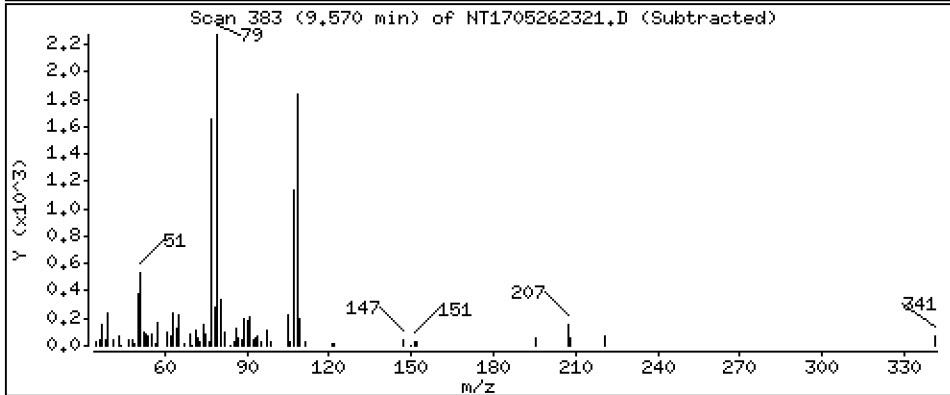
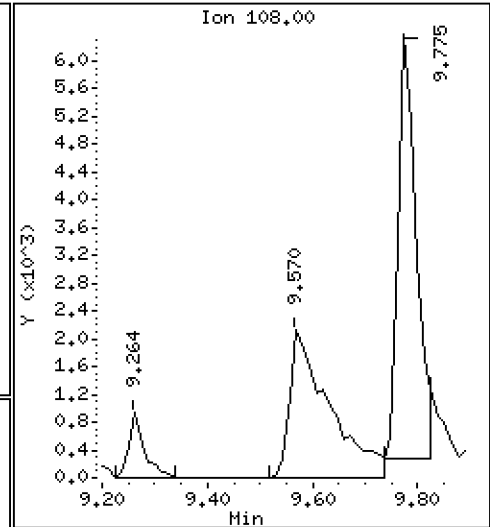
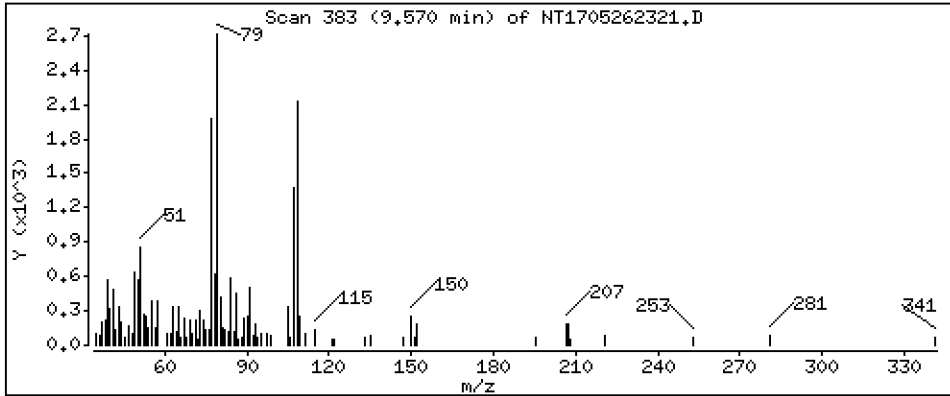
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1447 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

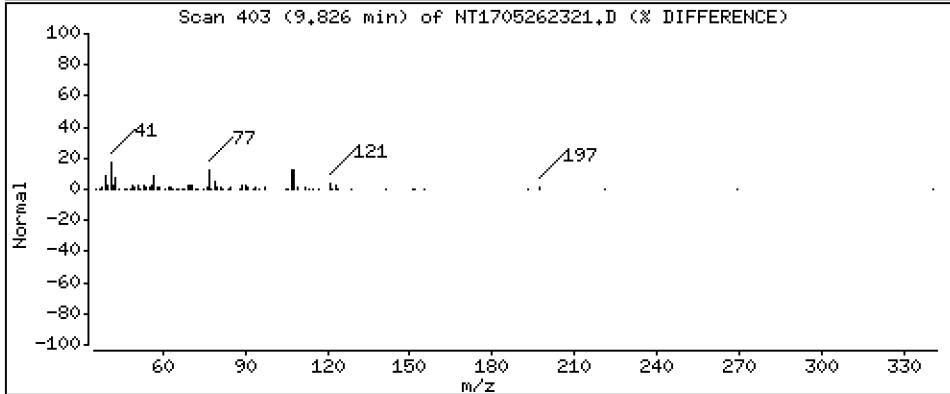
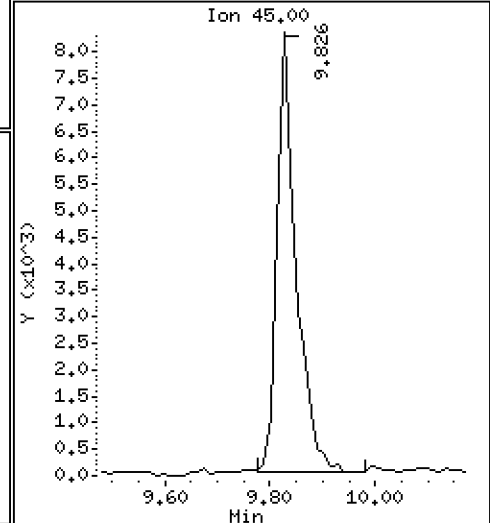
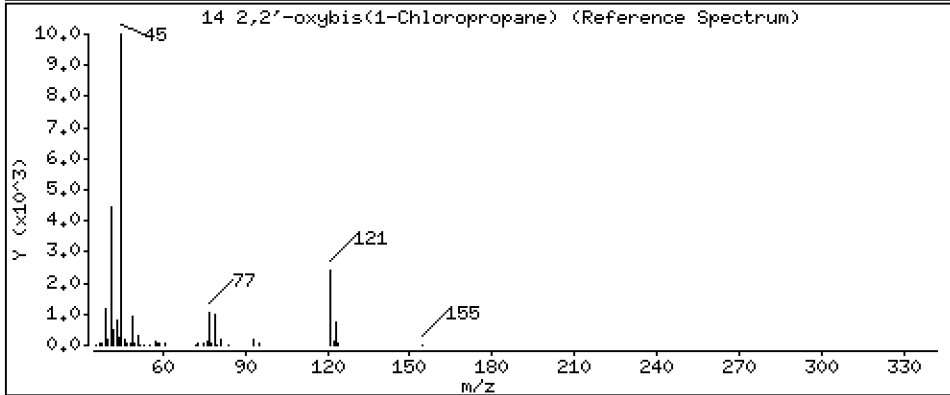
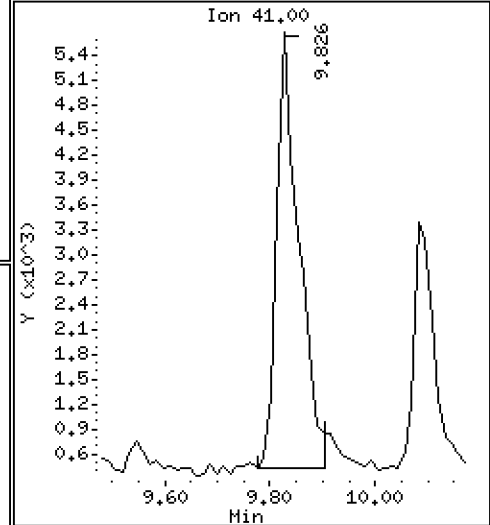
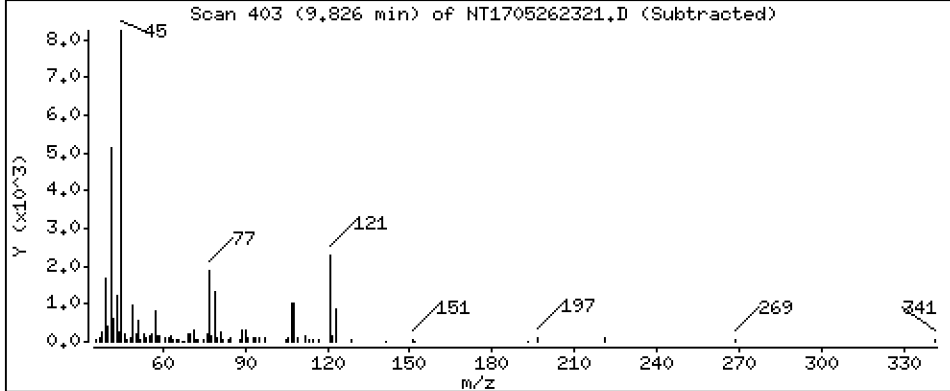
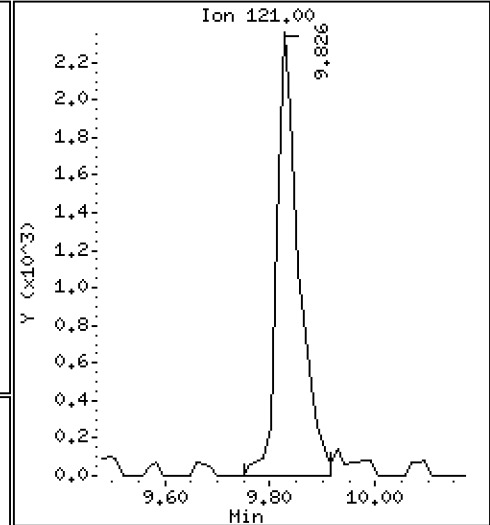
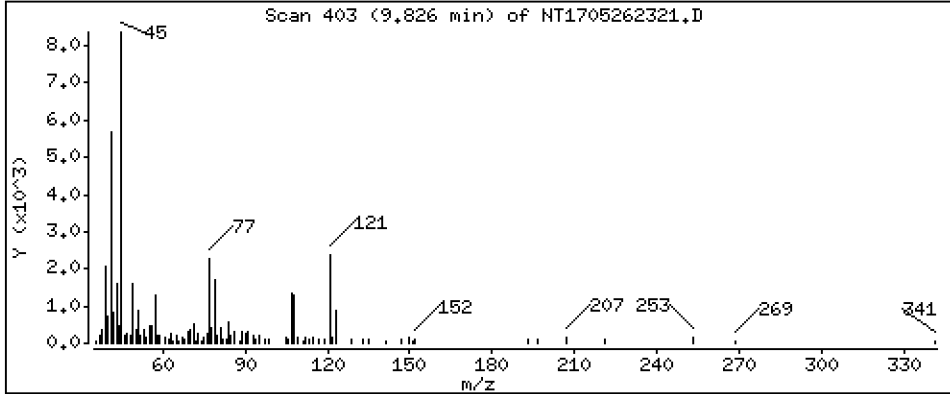
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

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

Concentration: 0.1873 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

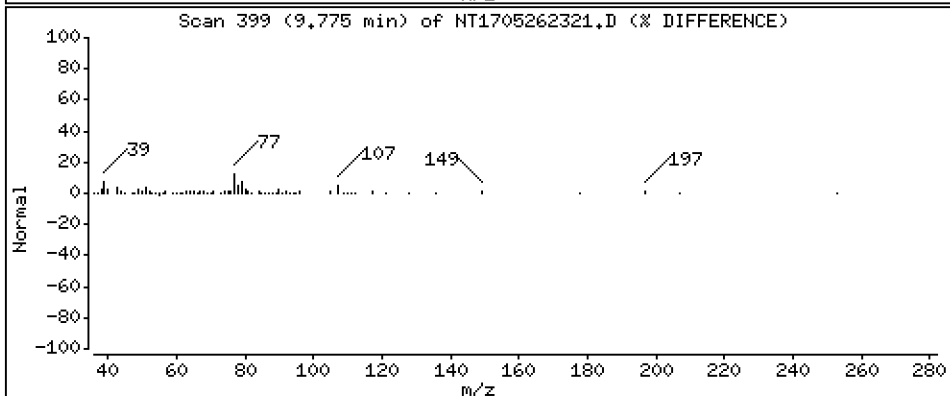
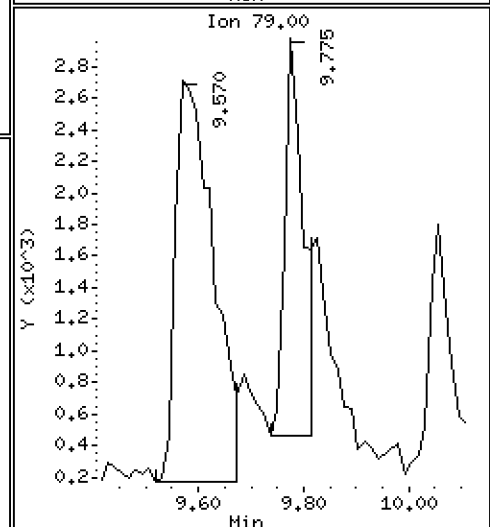
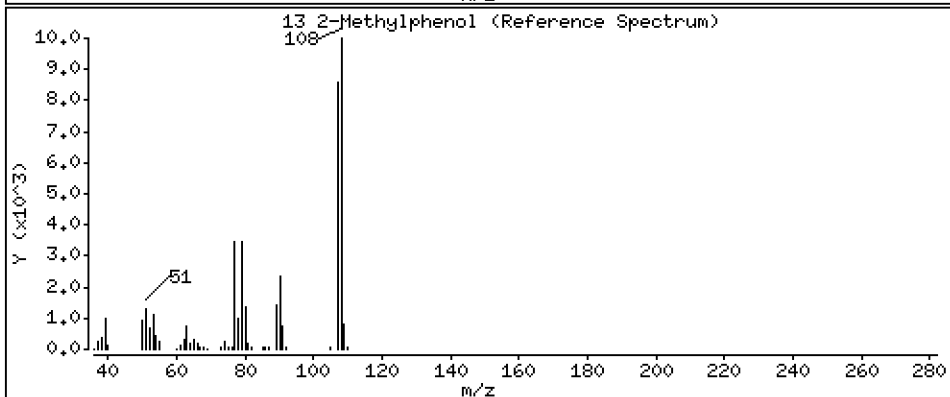
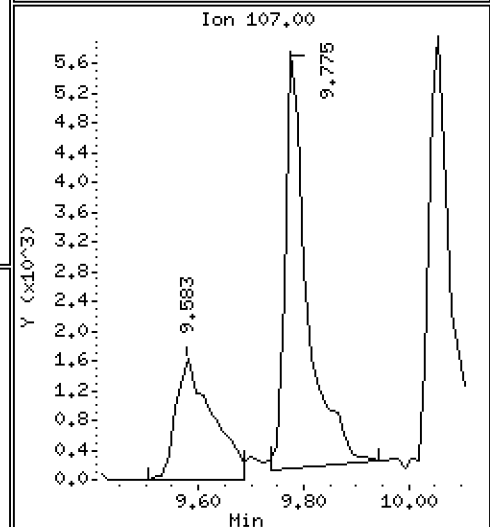
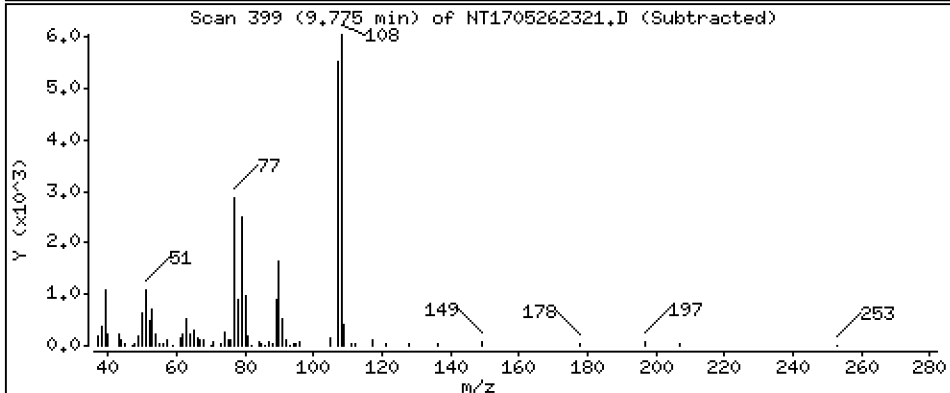
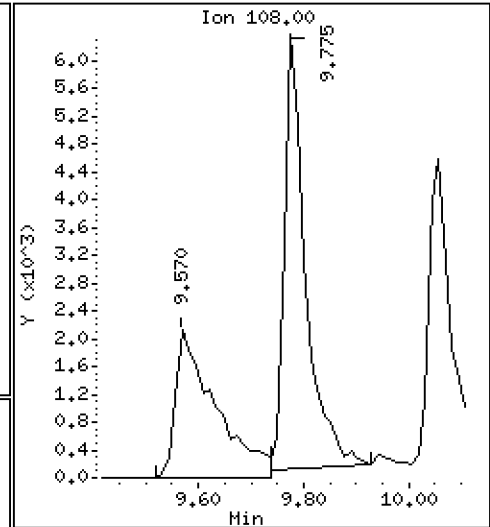
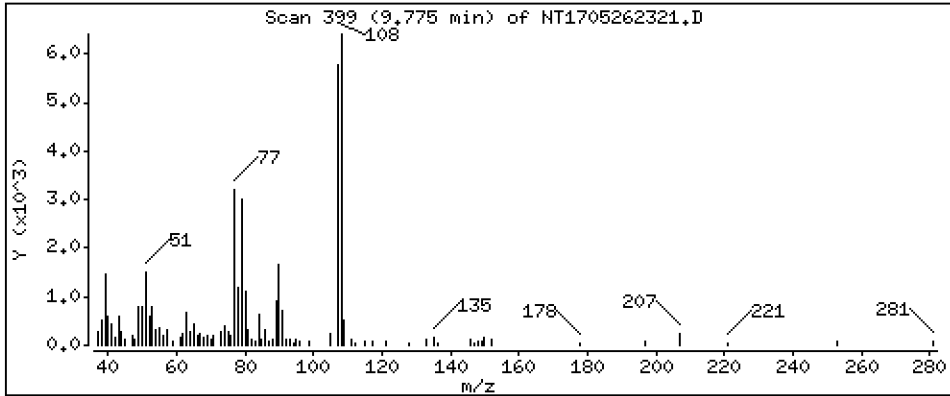
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.1460 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

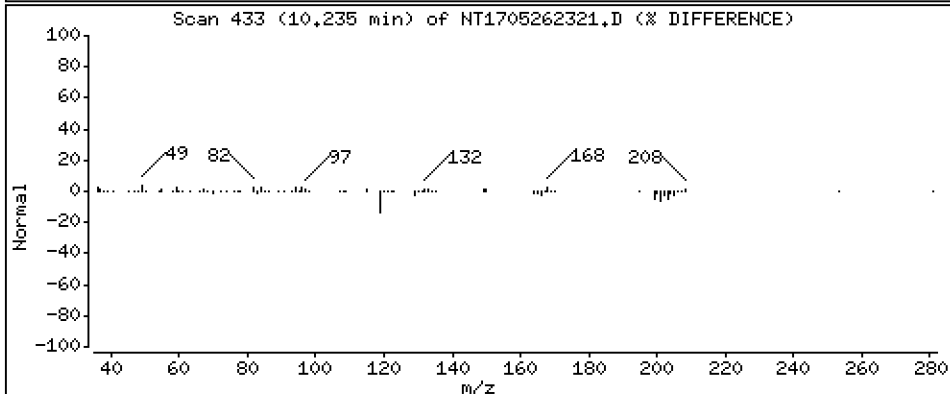
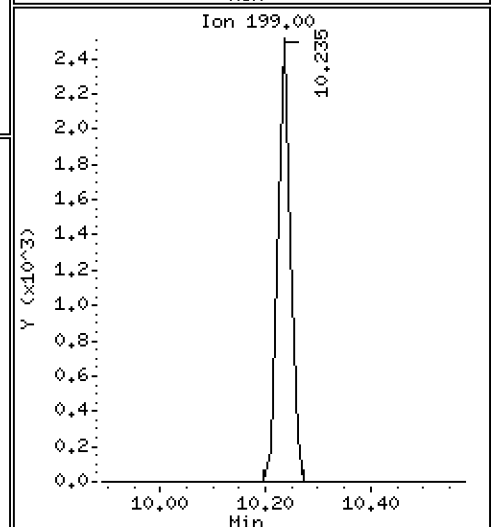
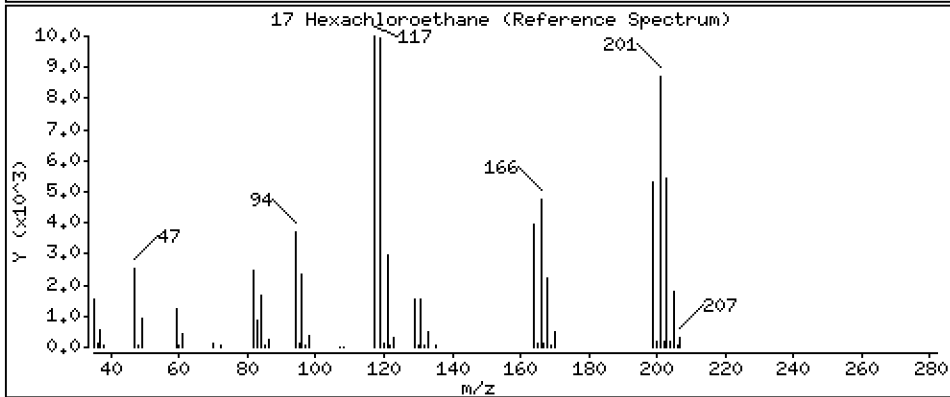
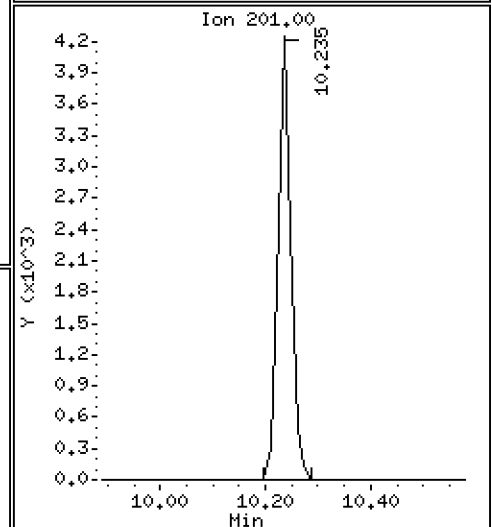
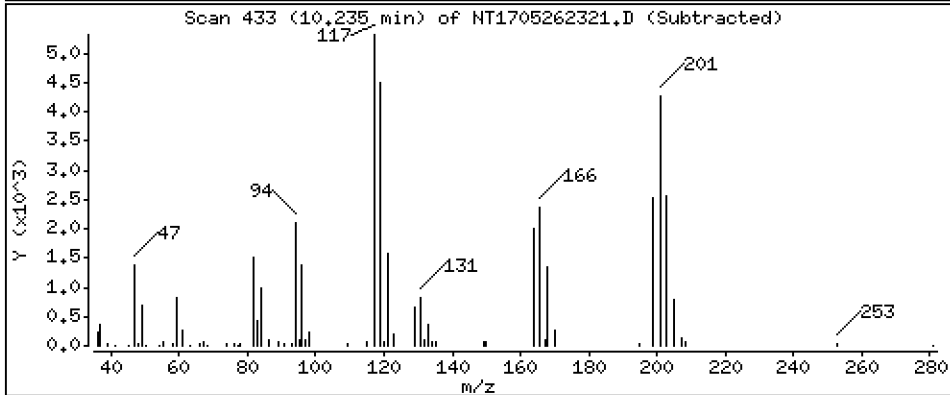
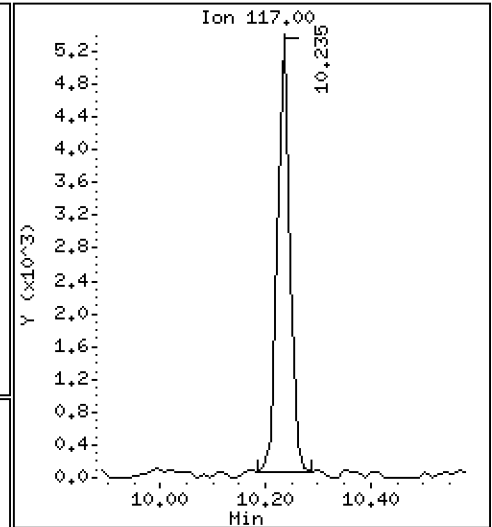
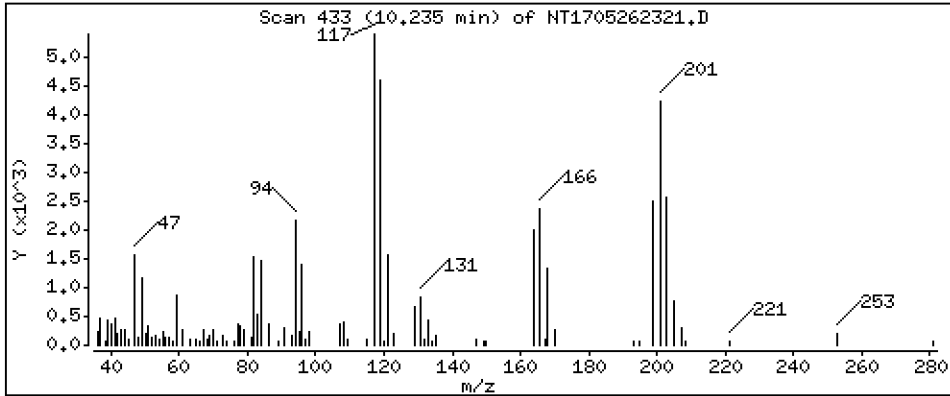
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,1574 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

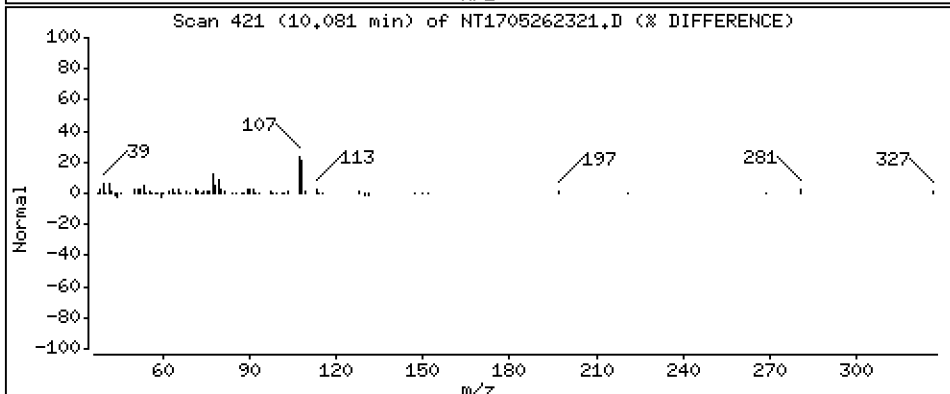
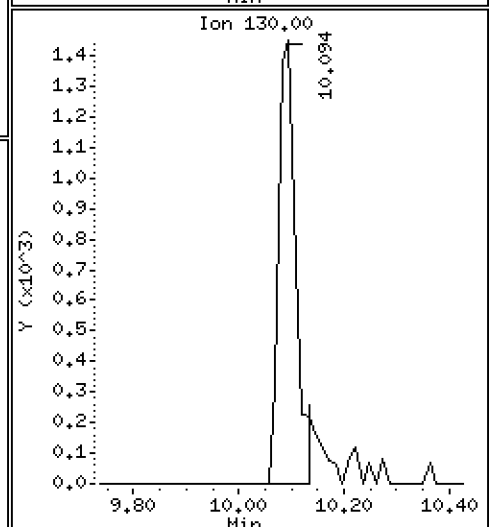
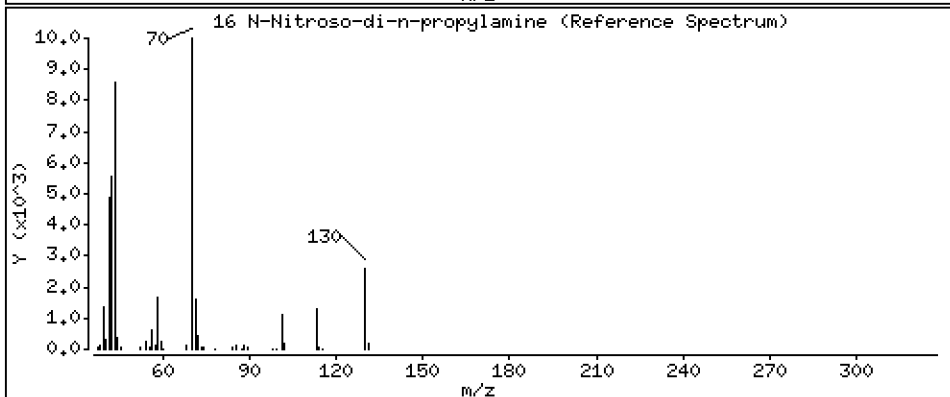
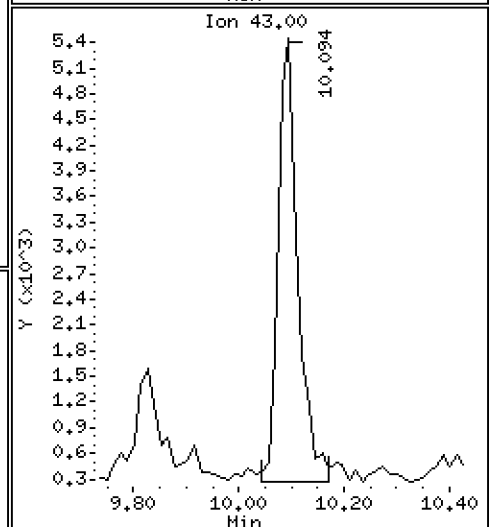
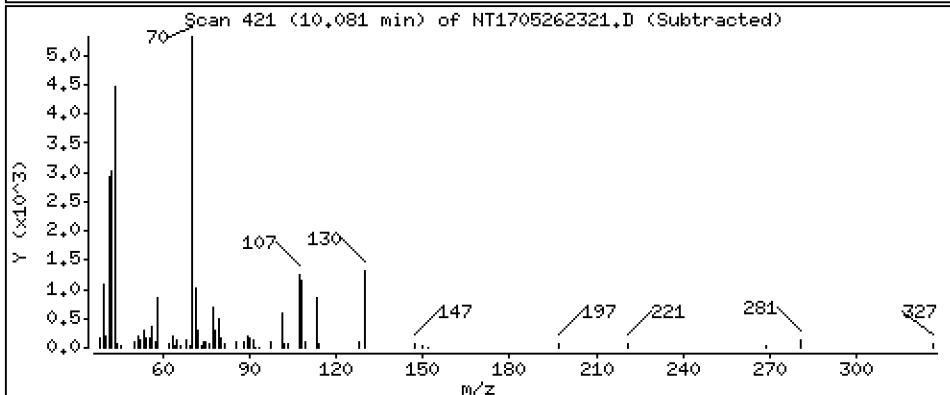
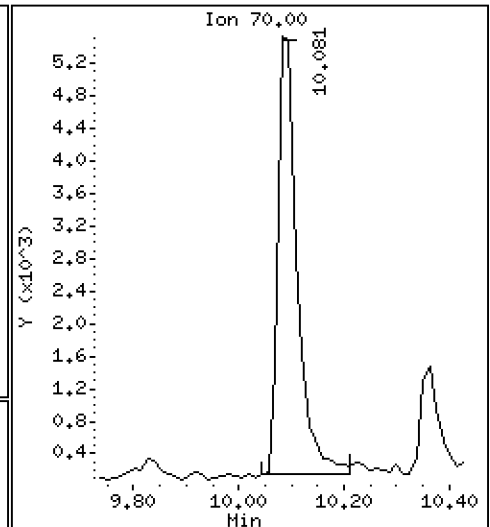
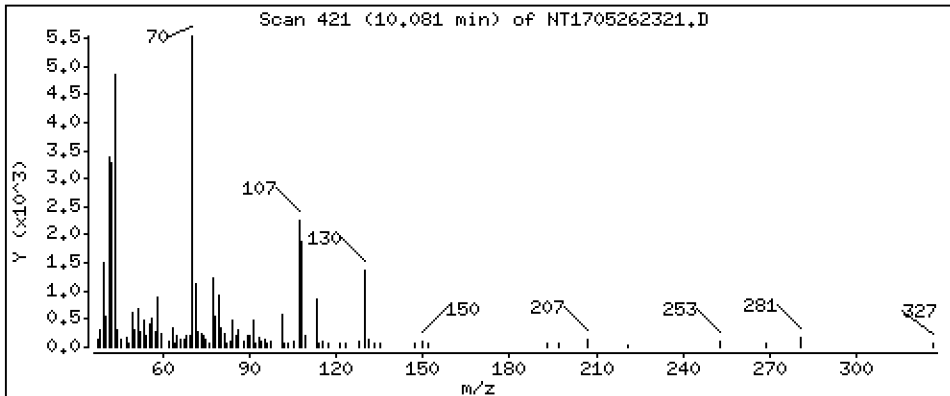
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,1492 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

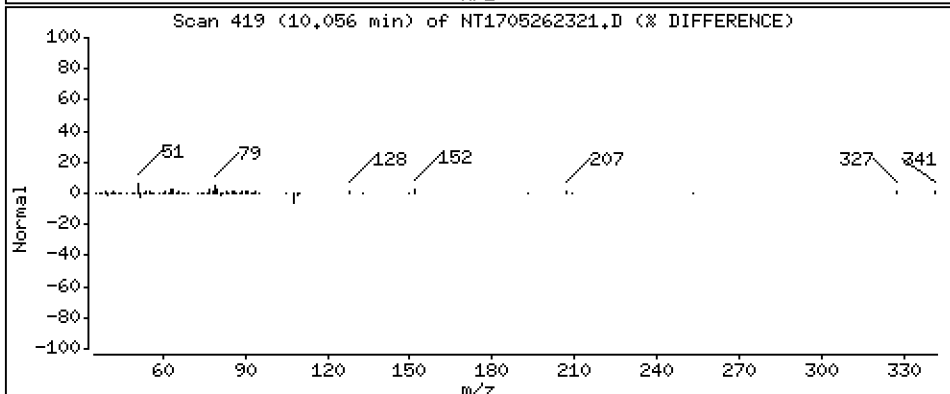
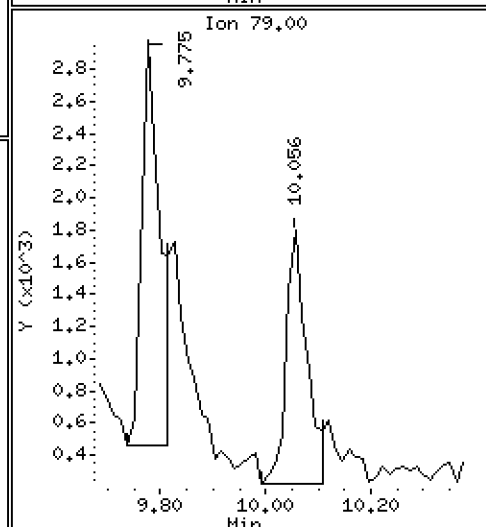
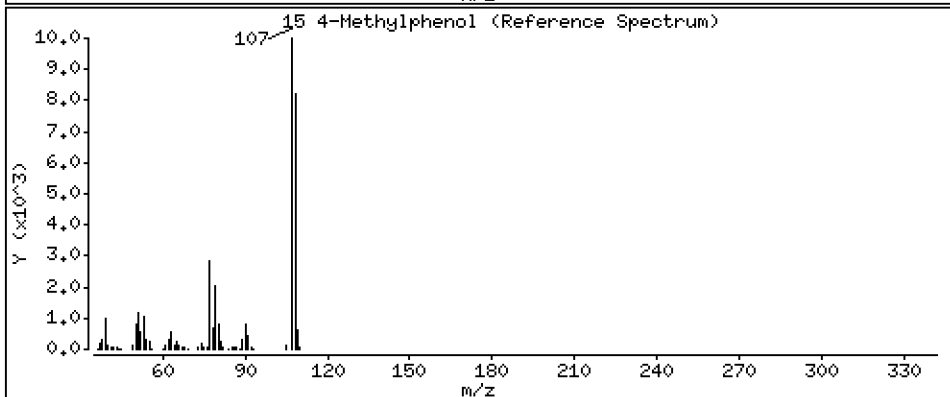
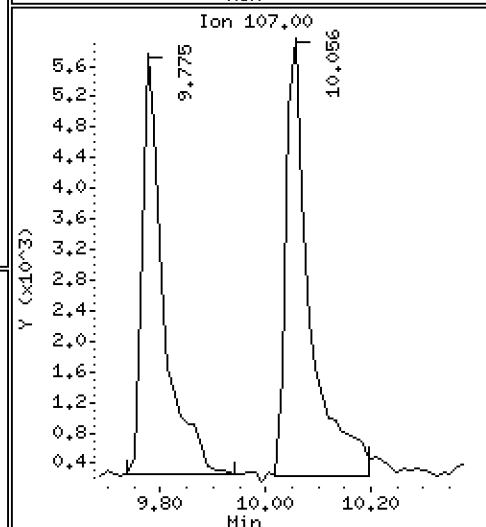
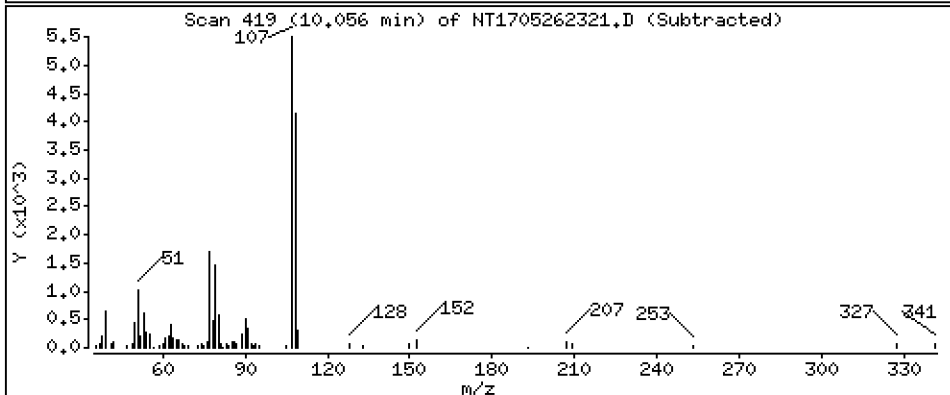
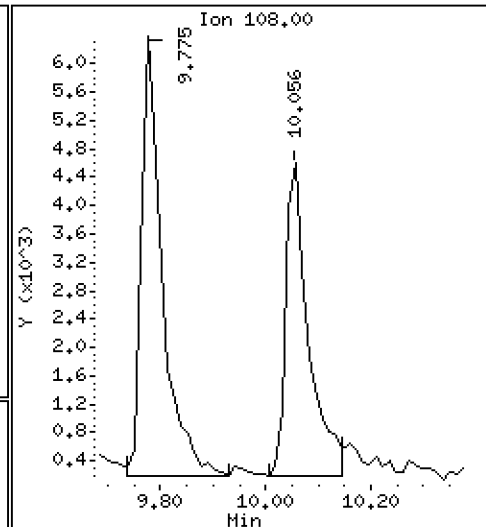
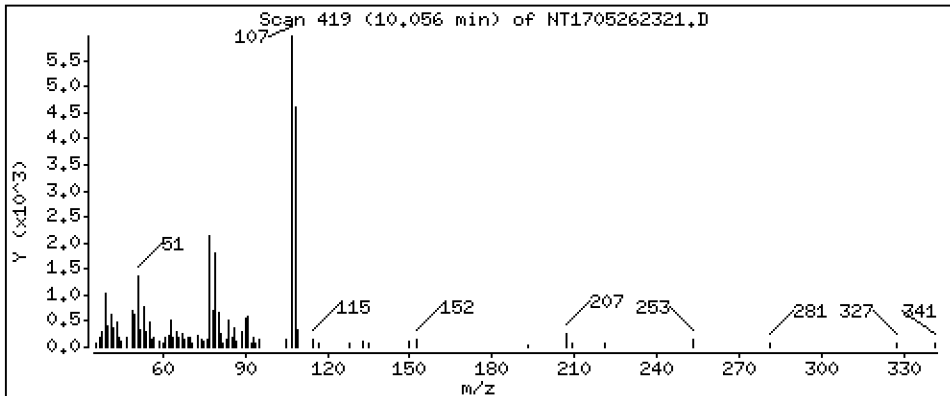
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1077 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

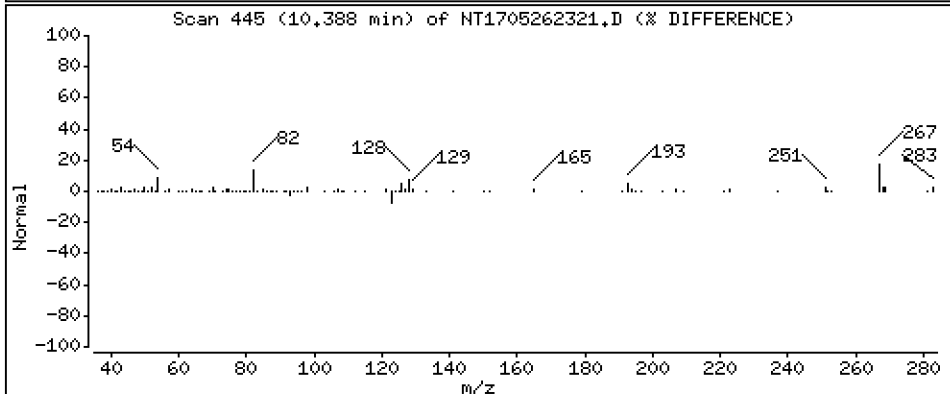
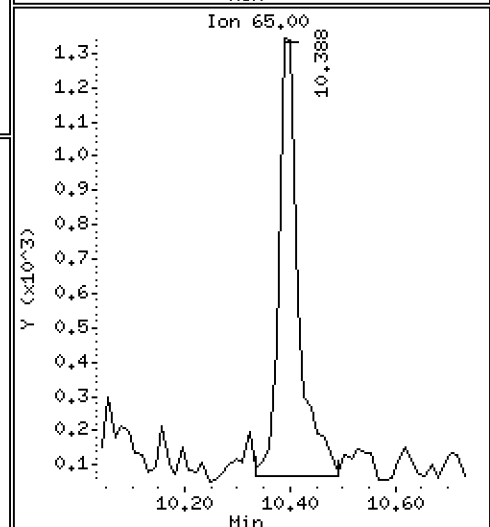
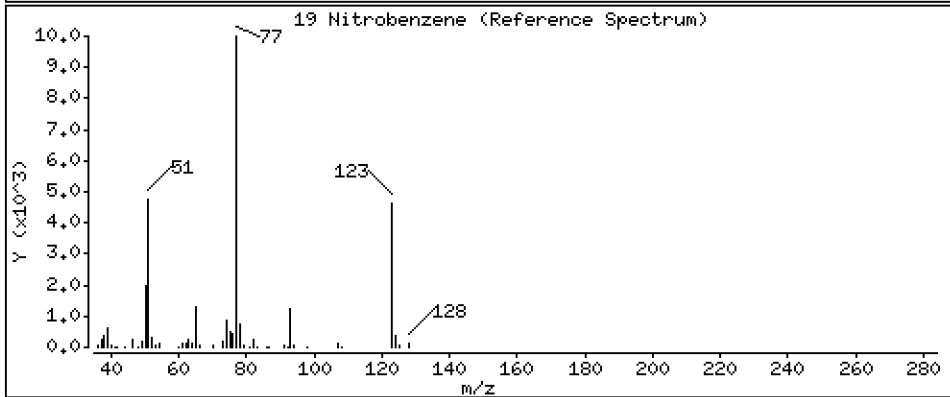
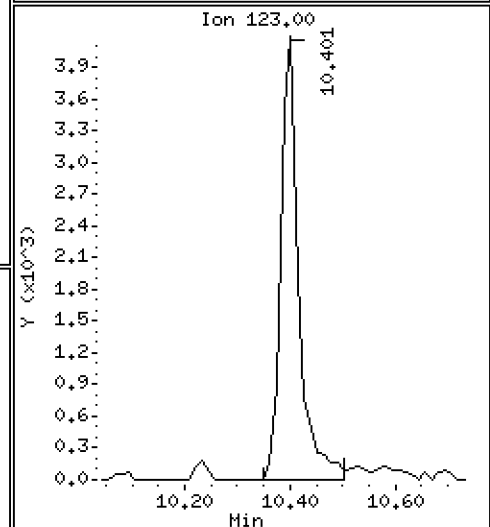
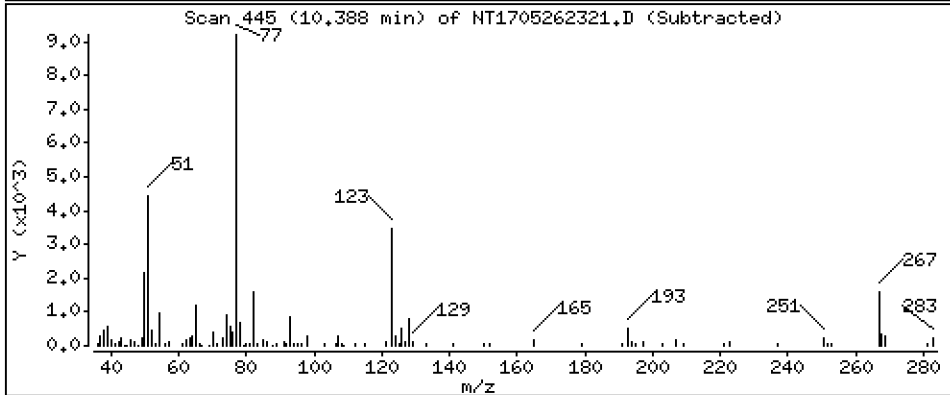
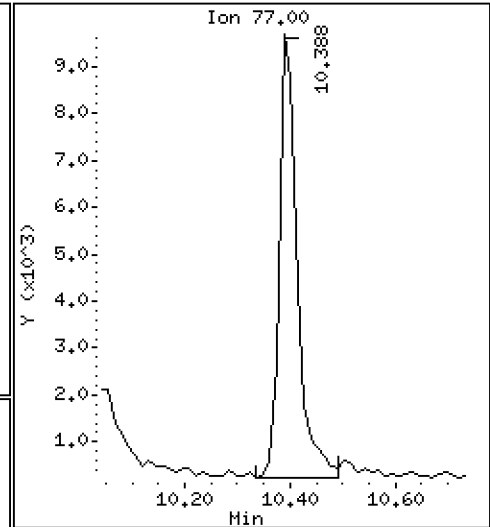
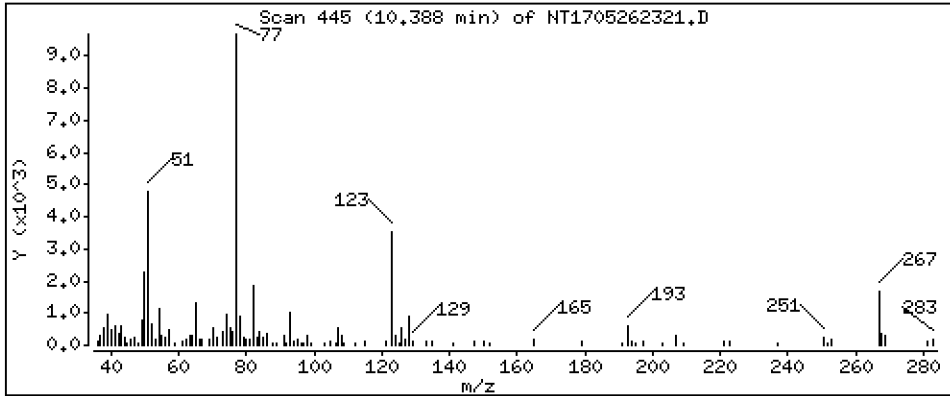
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,1951 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

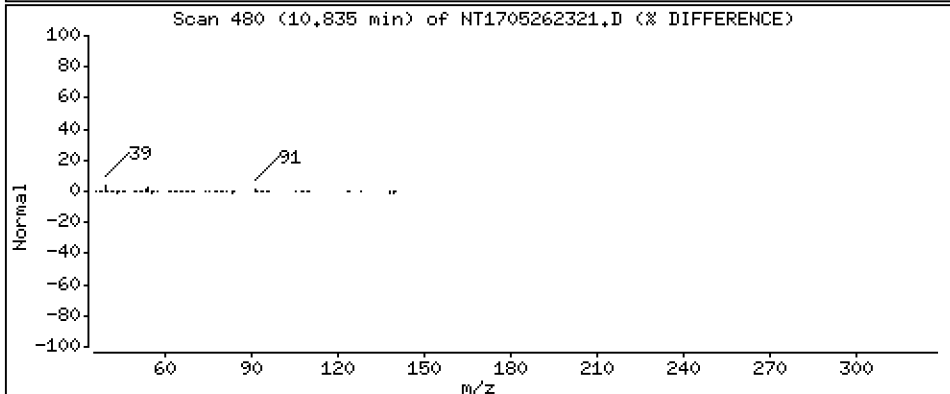
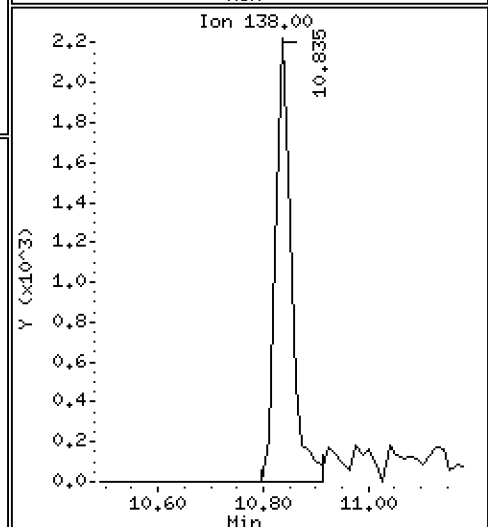
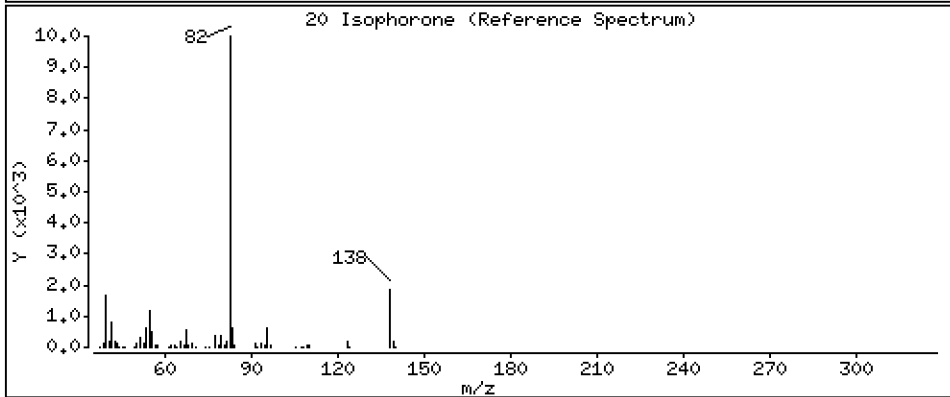
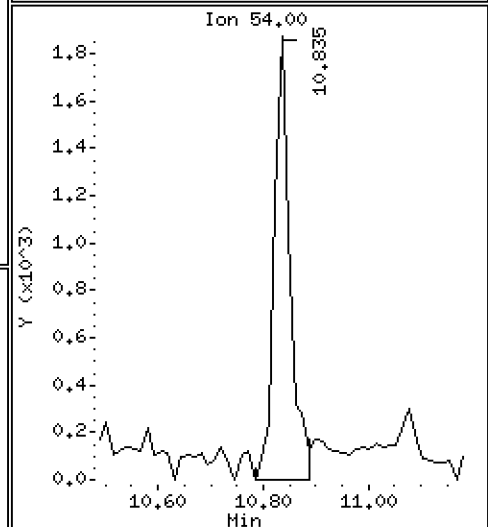
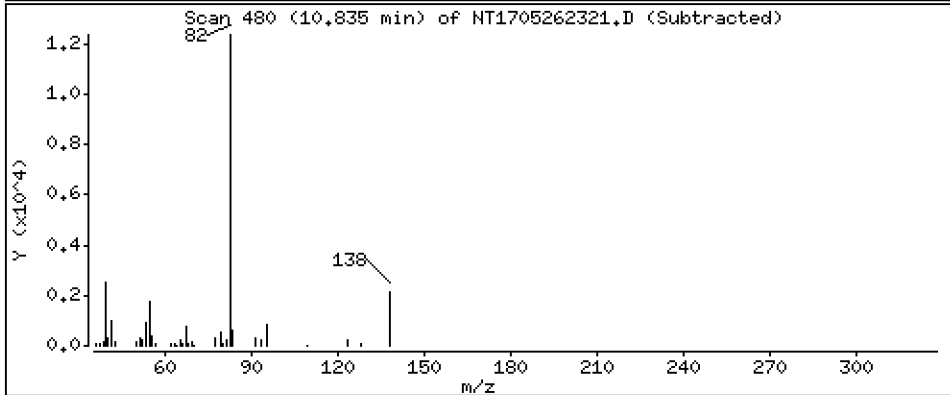
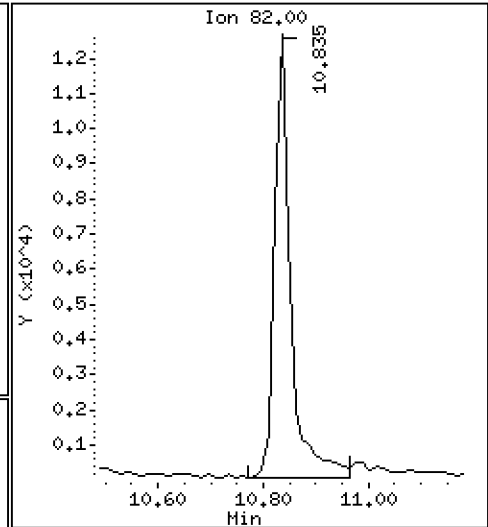
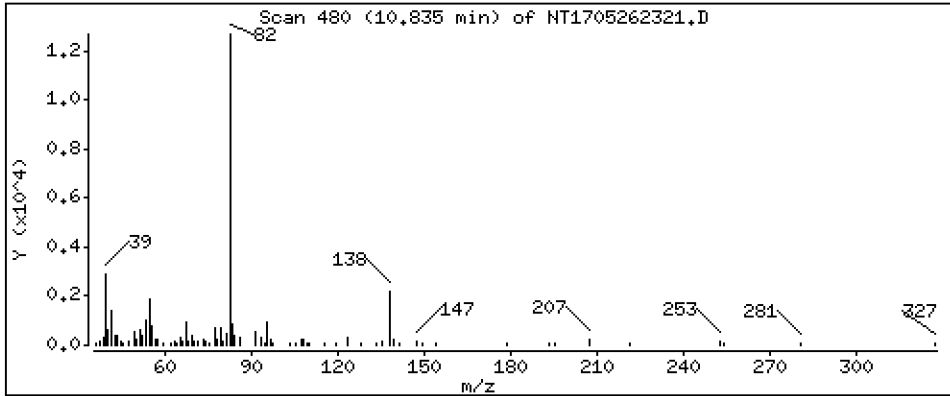
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,1961 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

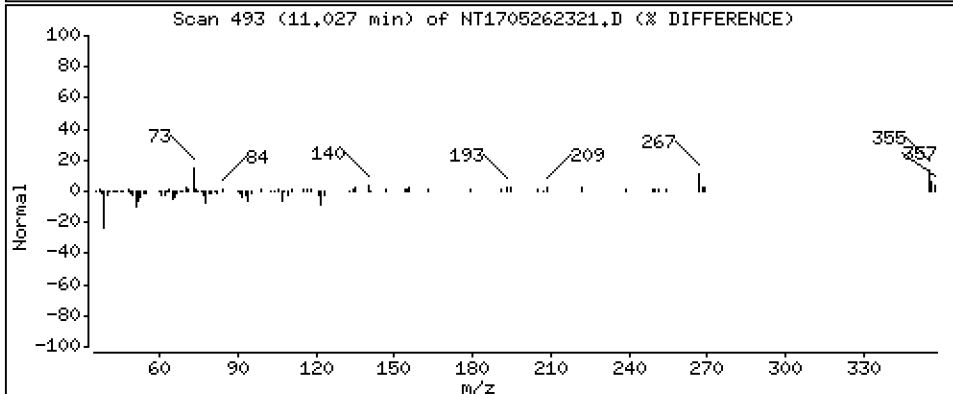
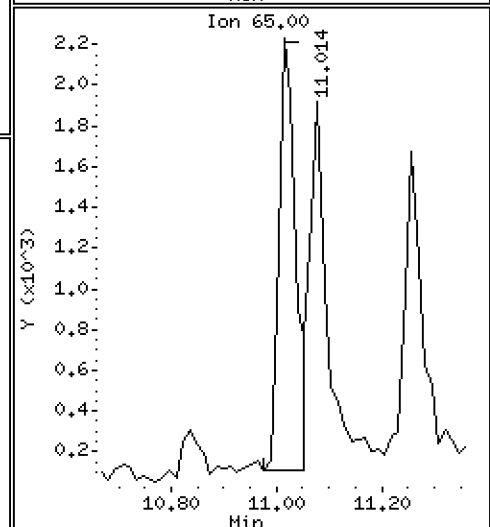
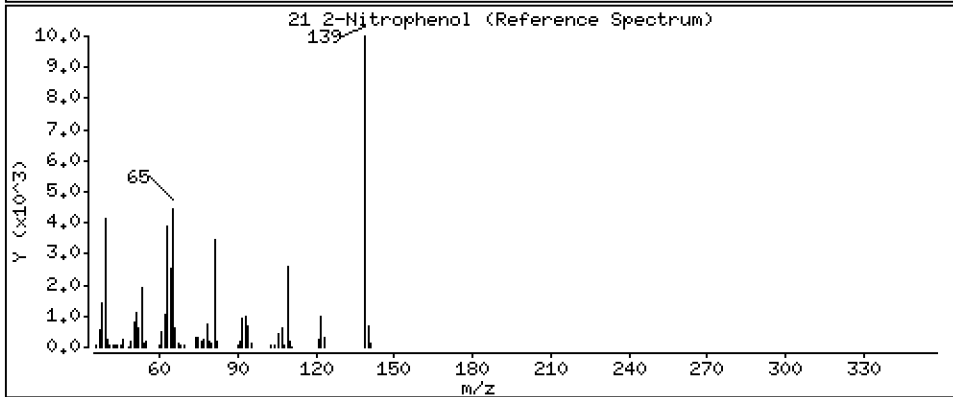
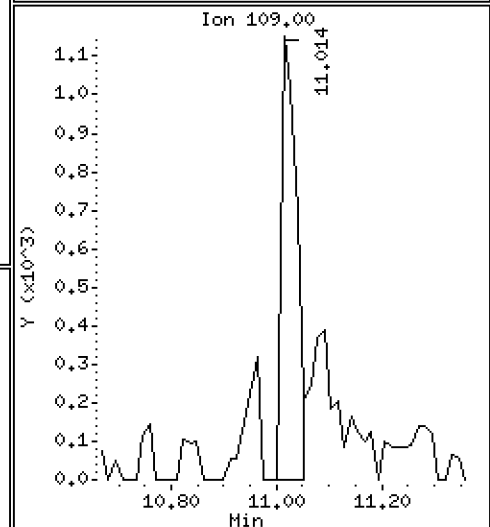
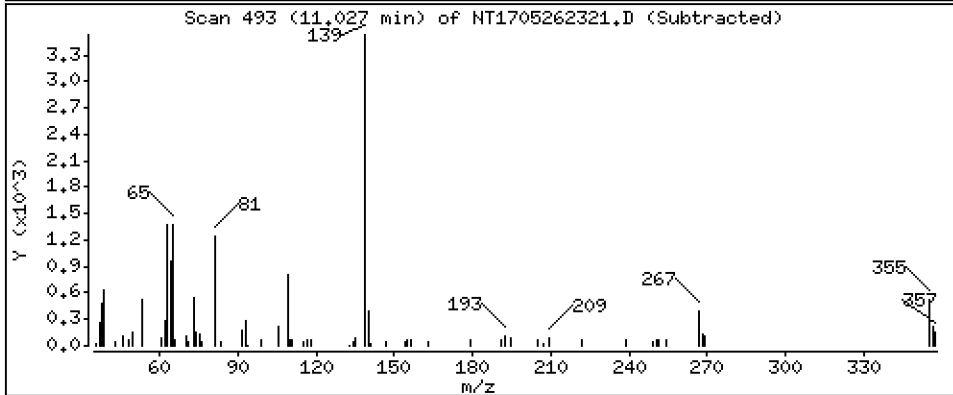
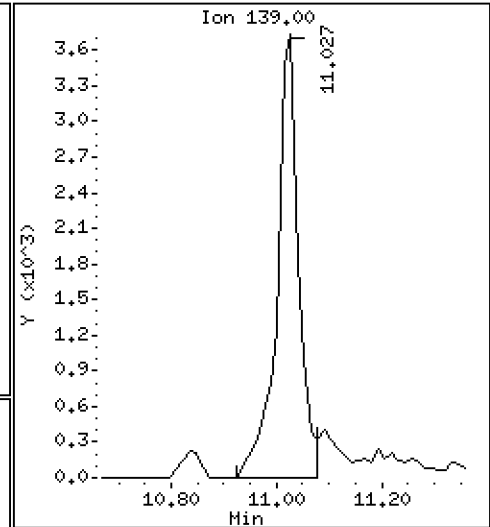
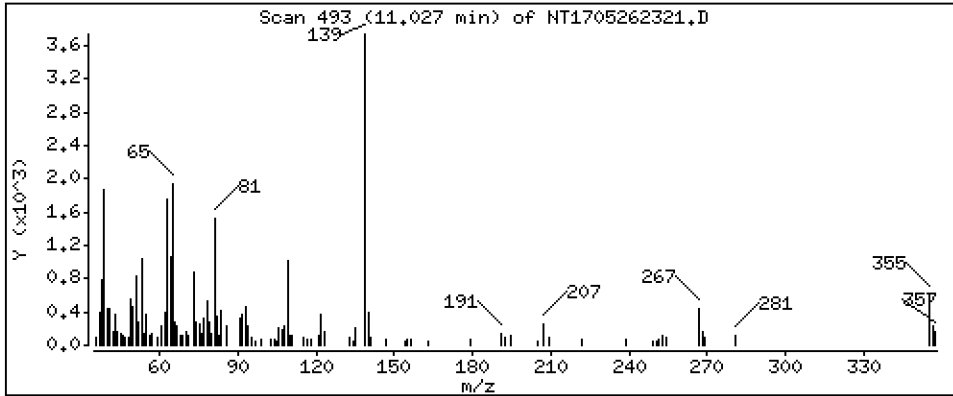
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,2302 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

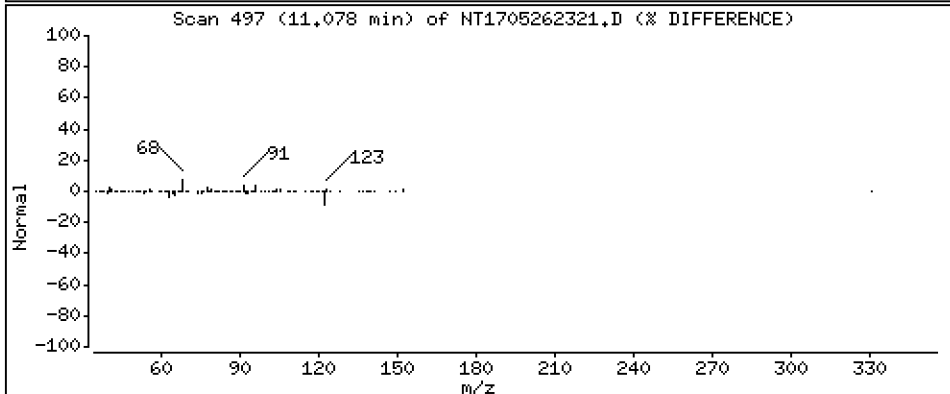
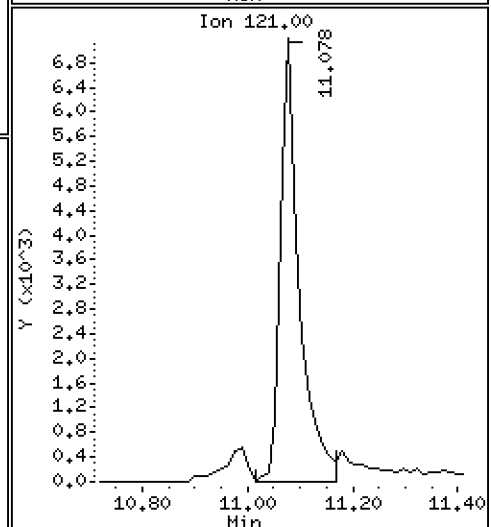
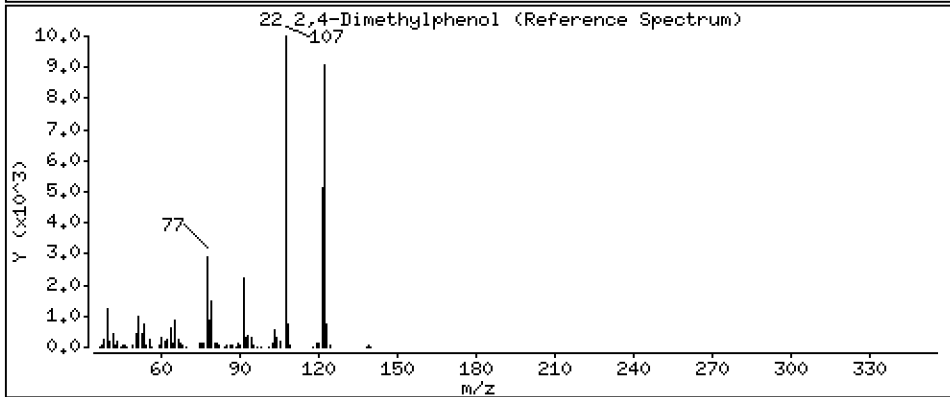
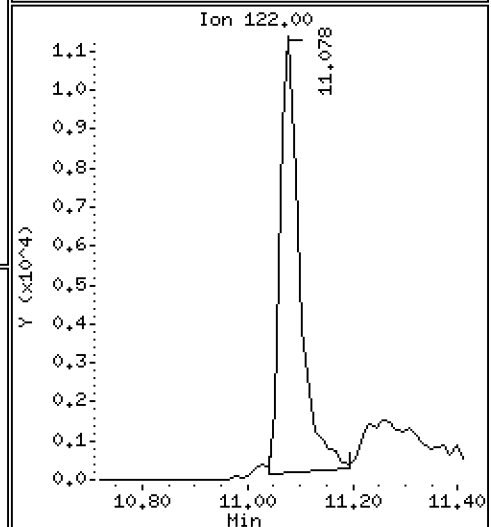
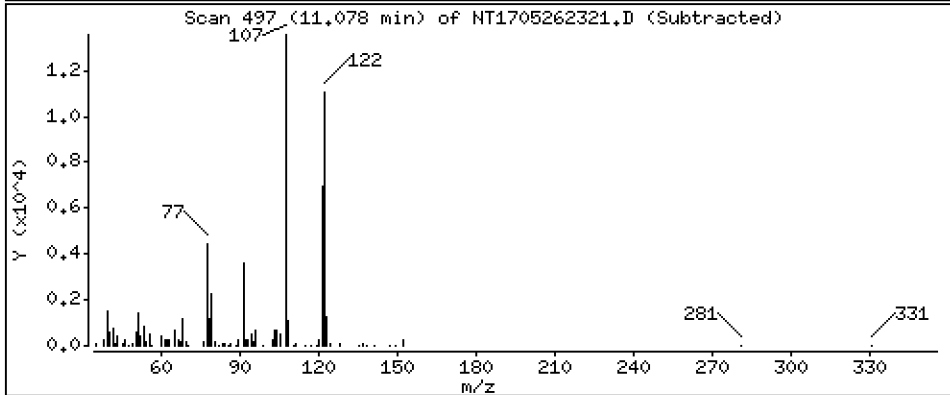
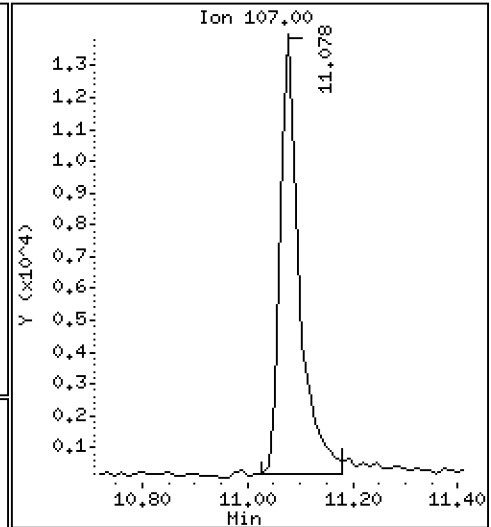
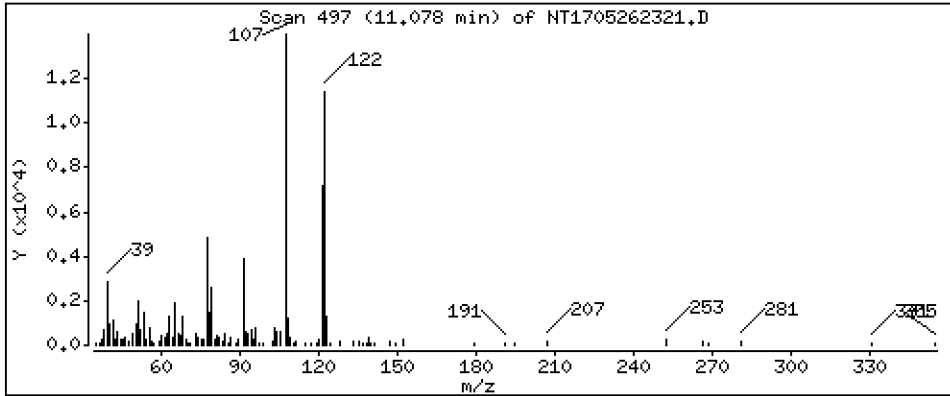
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,3345 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

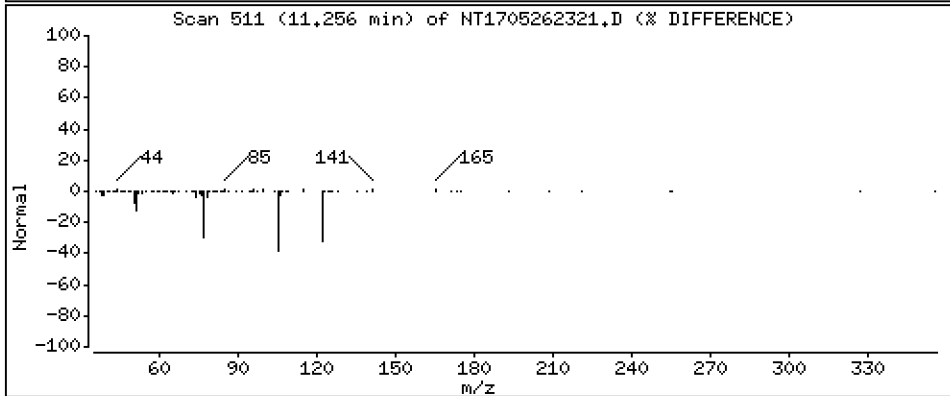
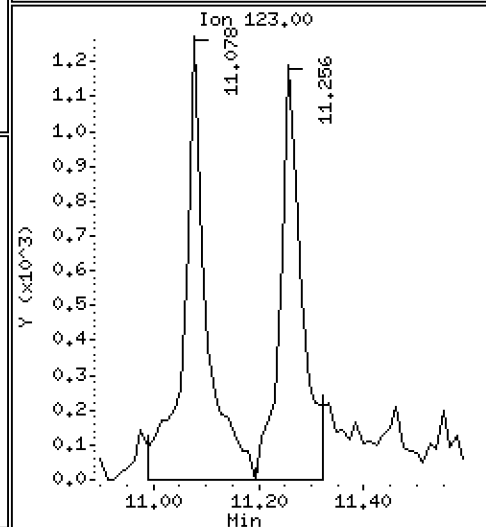
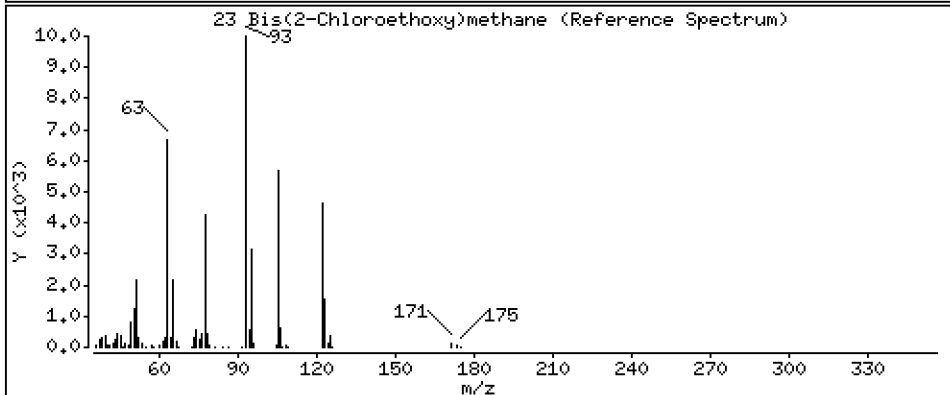
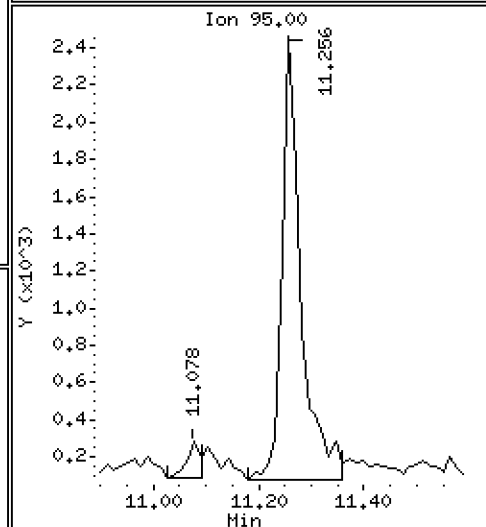
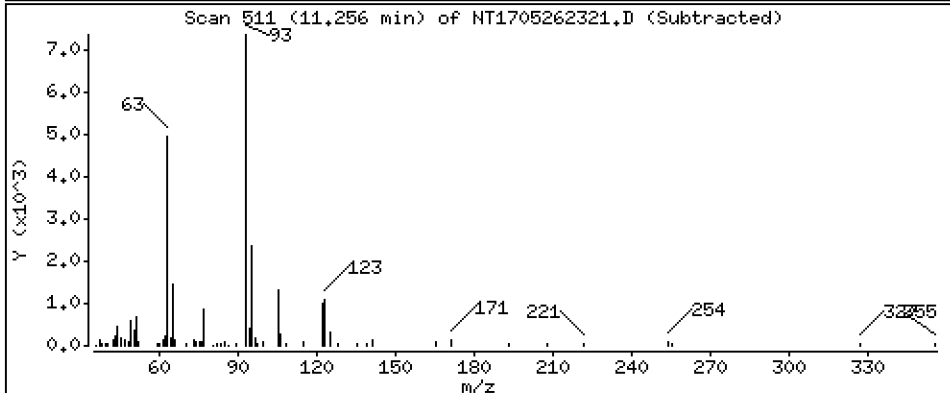
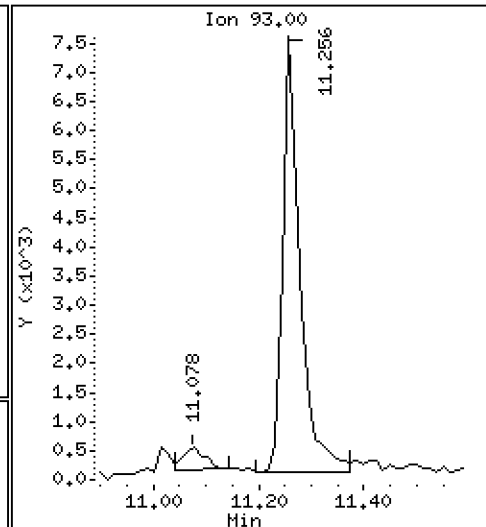
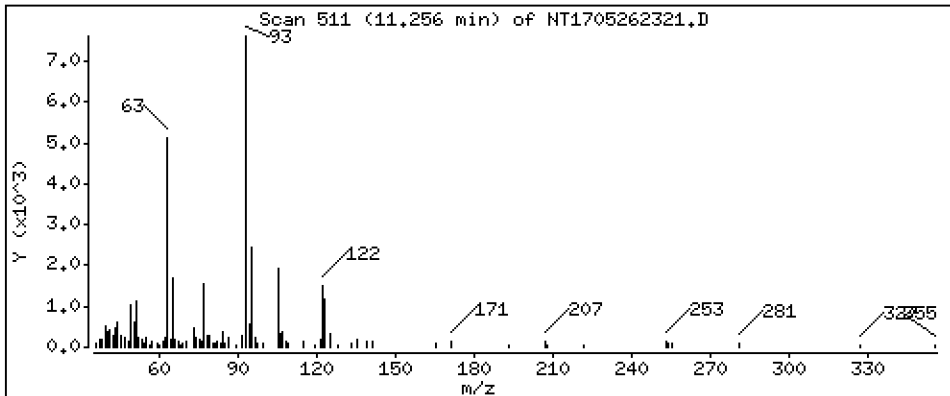
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 0.1812 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

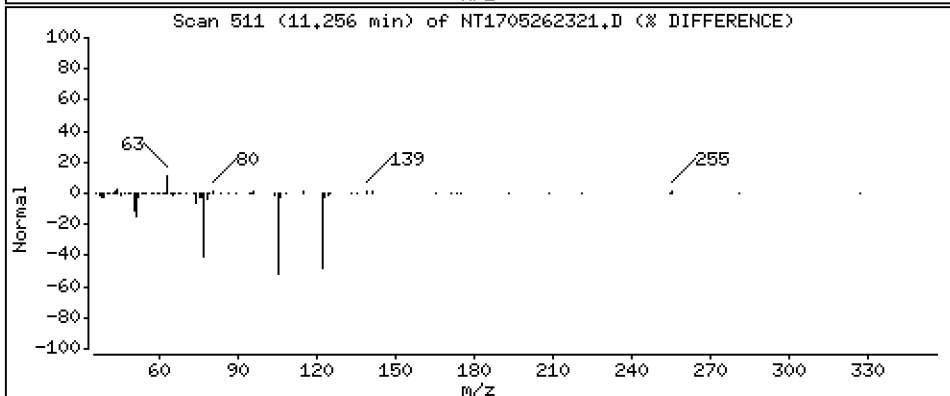
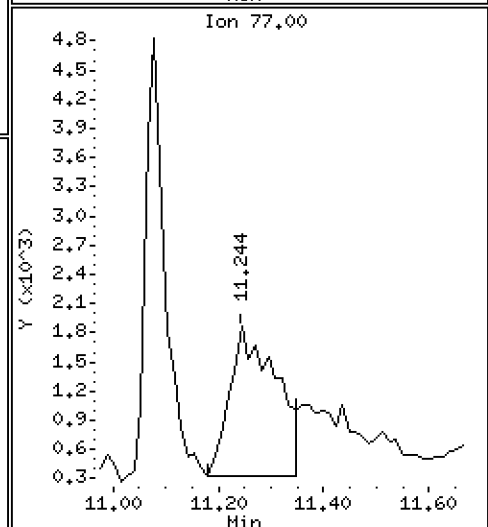
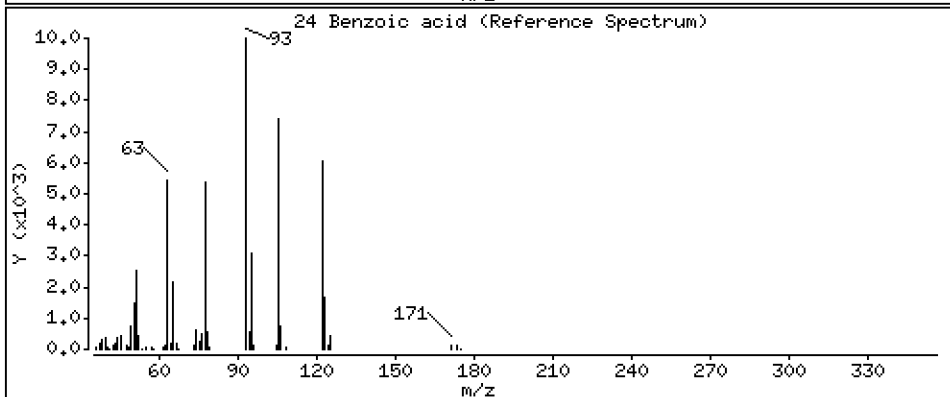
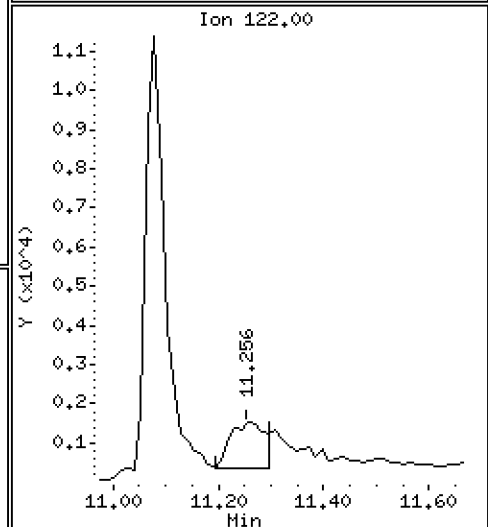
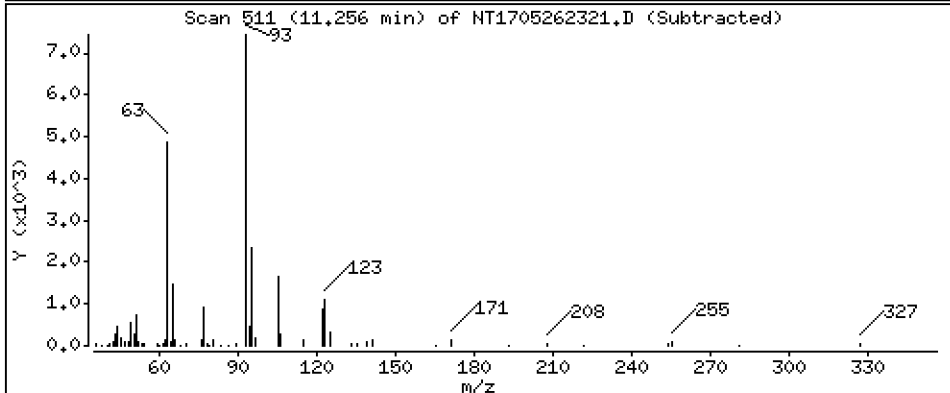
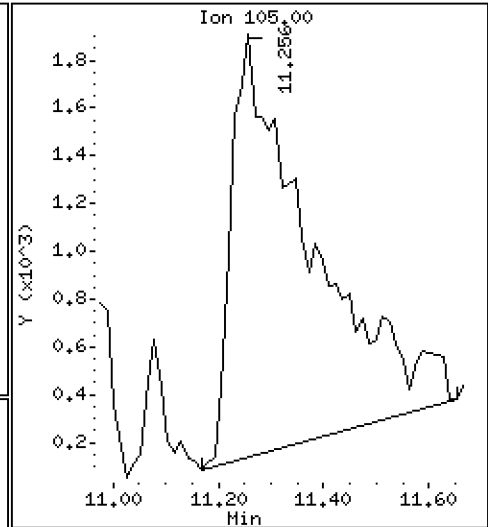
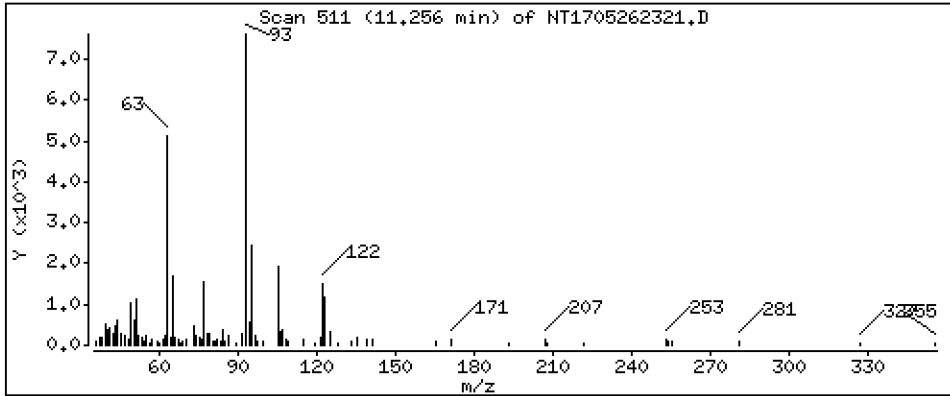
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.2696 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

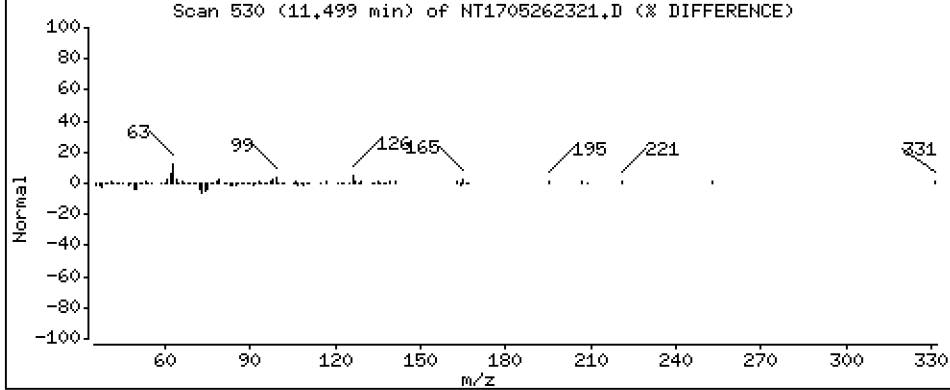
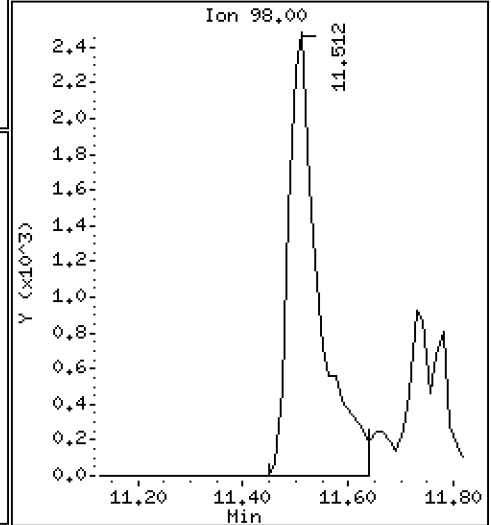
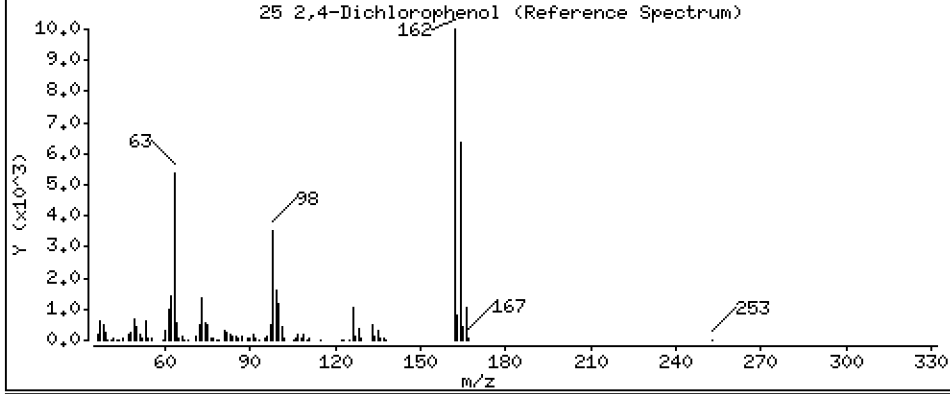
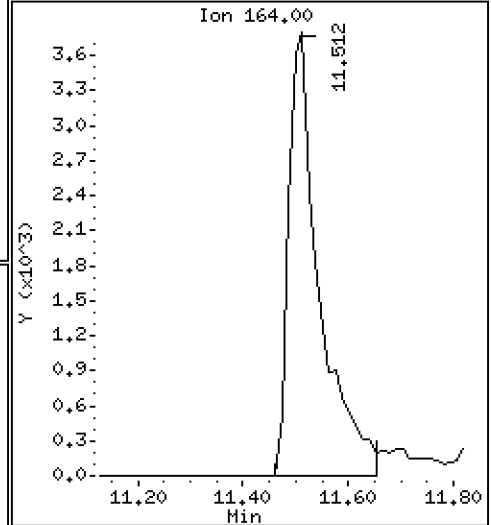
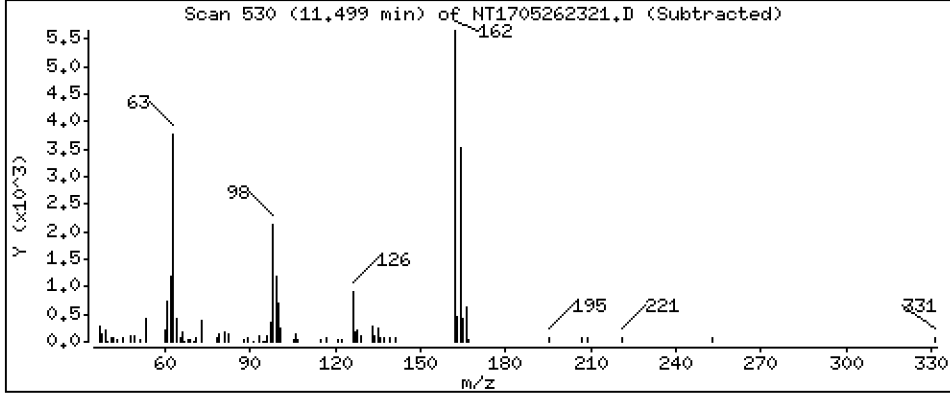
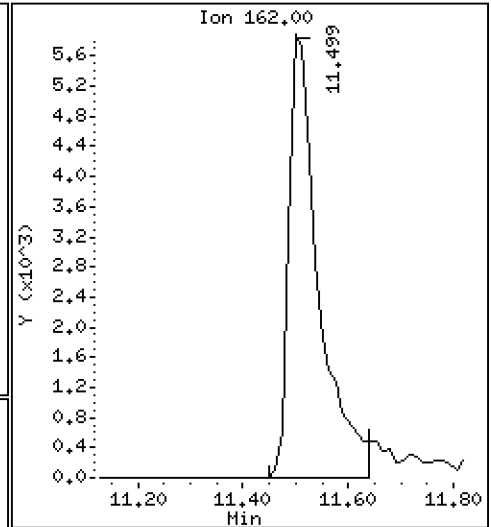
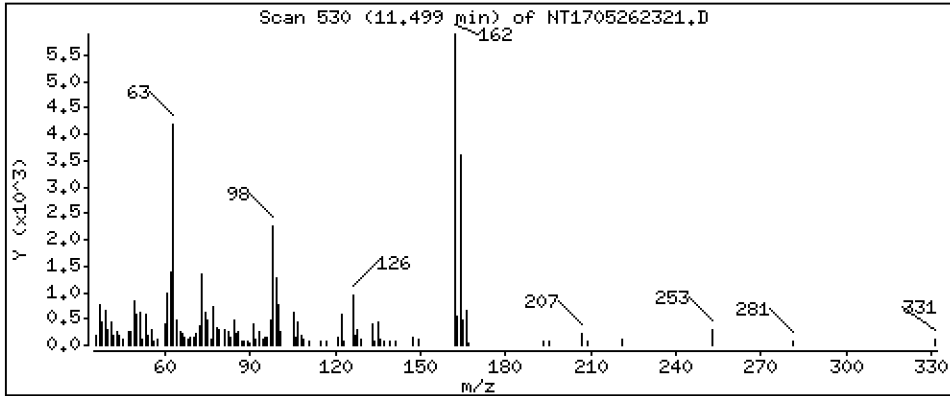
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,3035 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

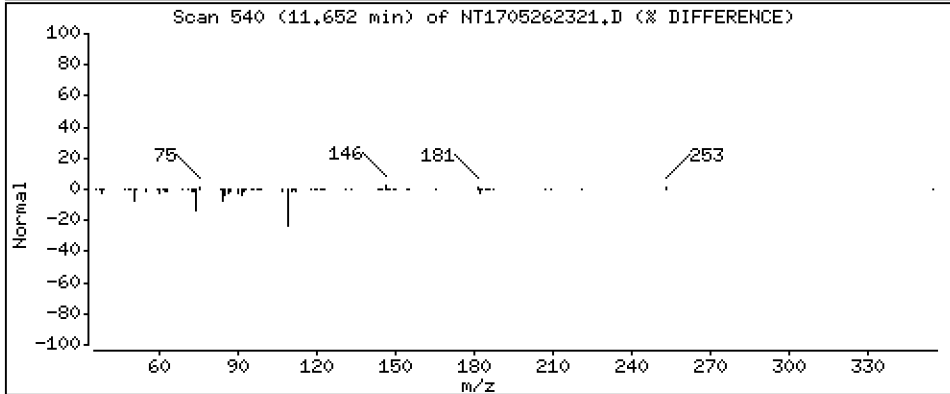
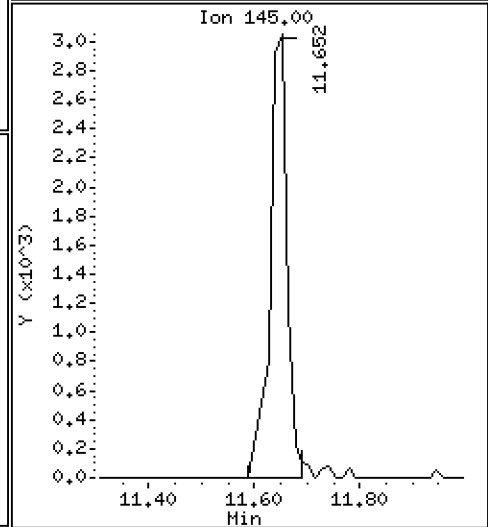
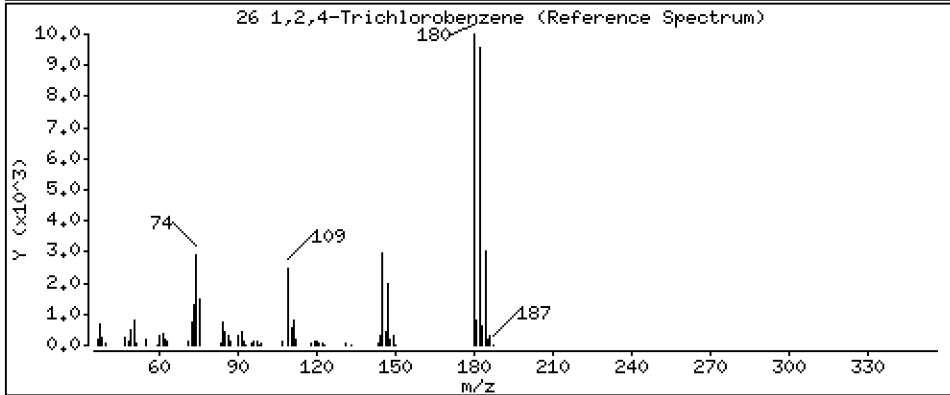
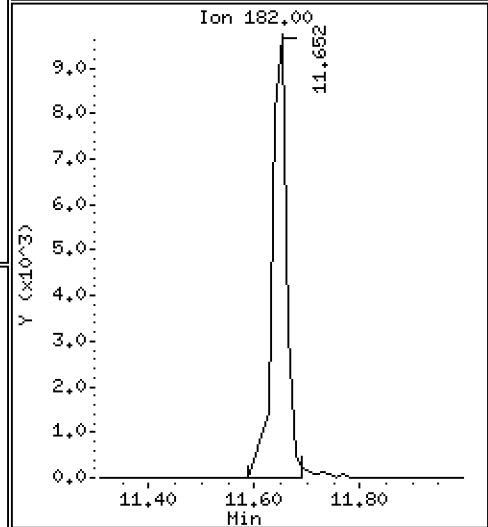
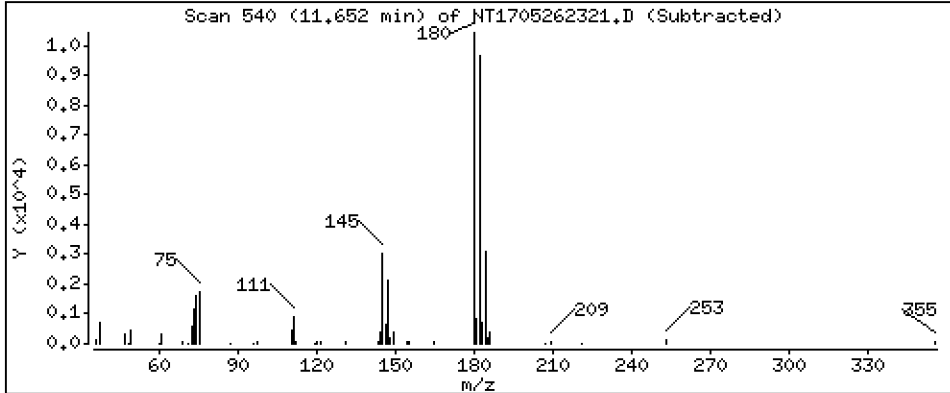
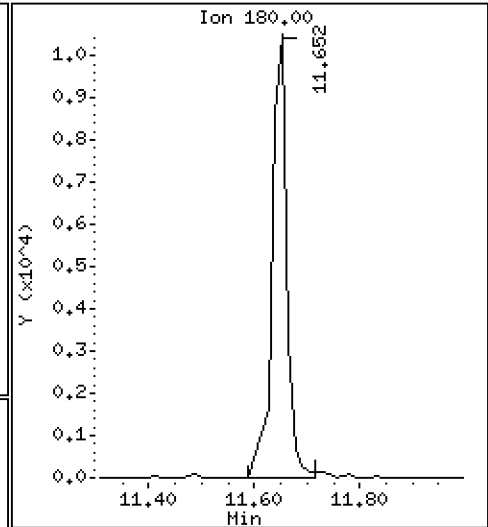
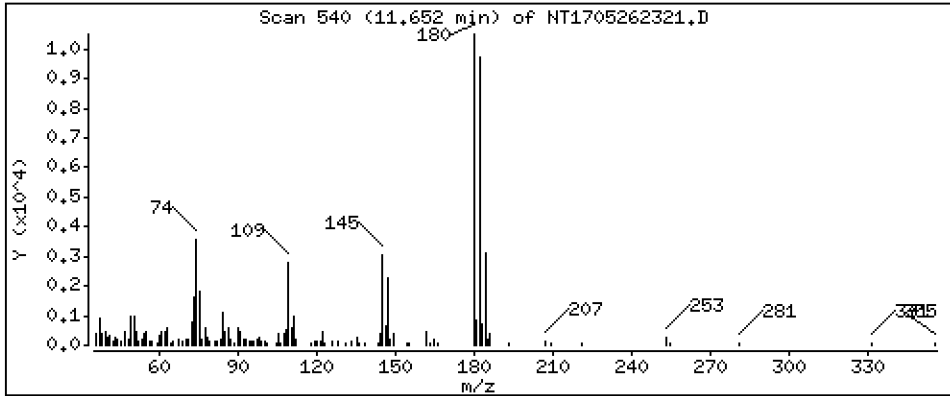
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,2610 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

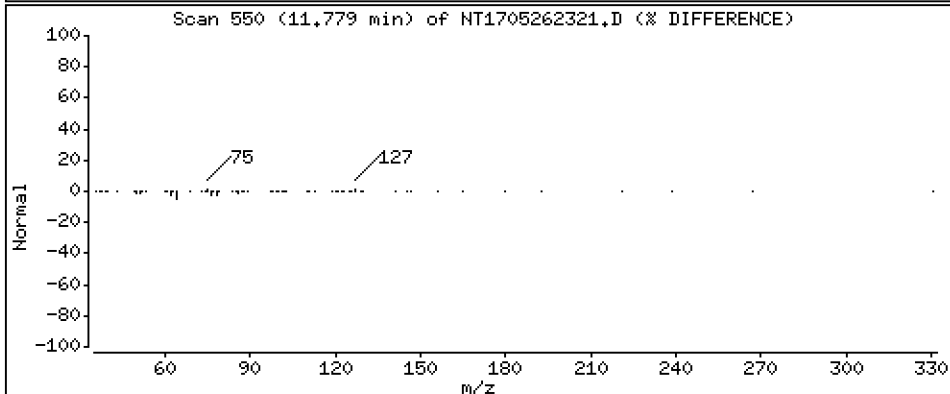
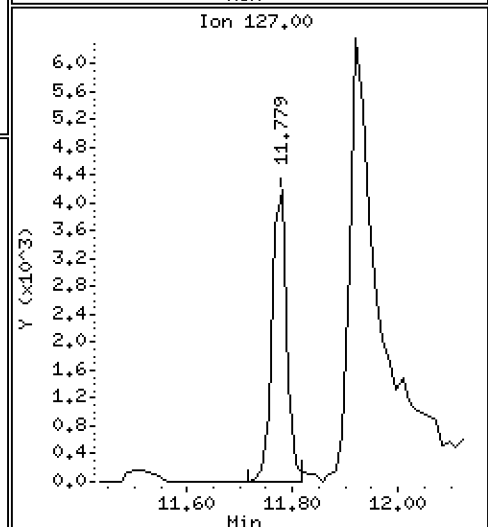
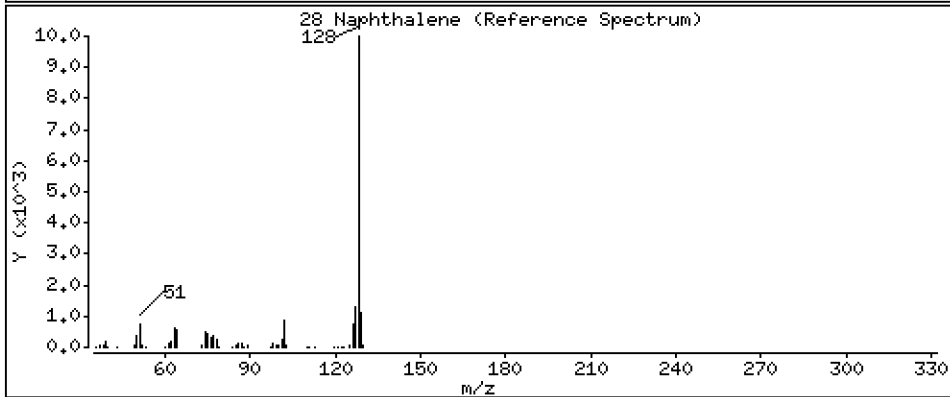
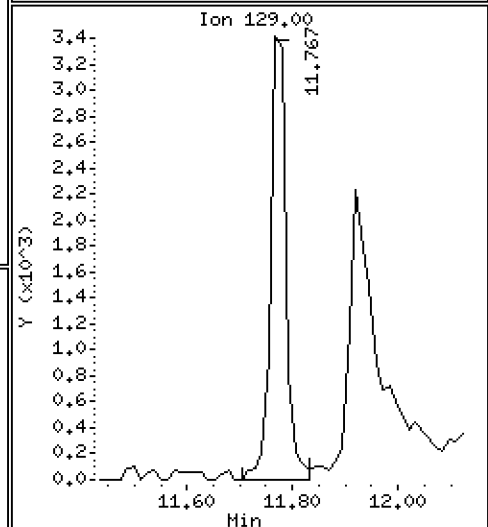
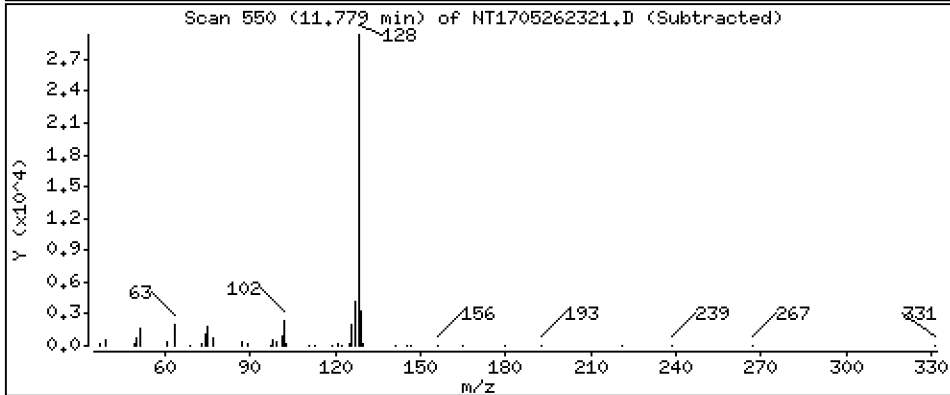
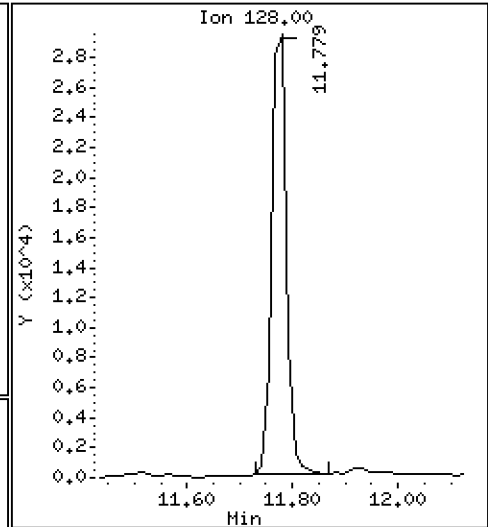
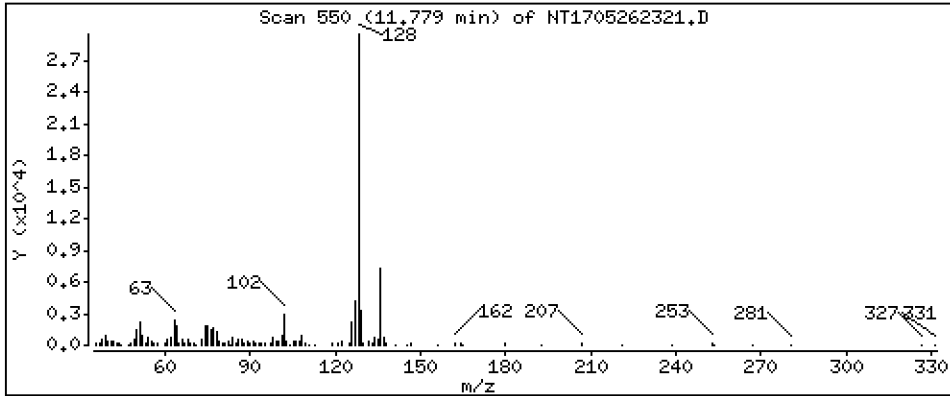
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,2019 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

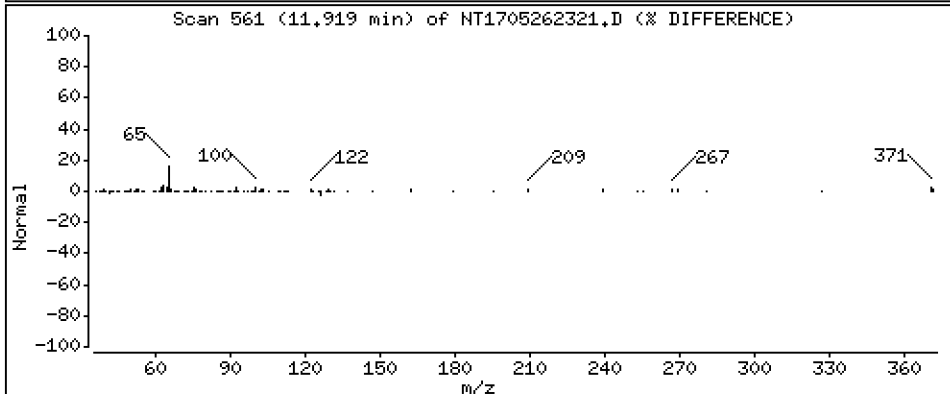
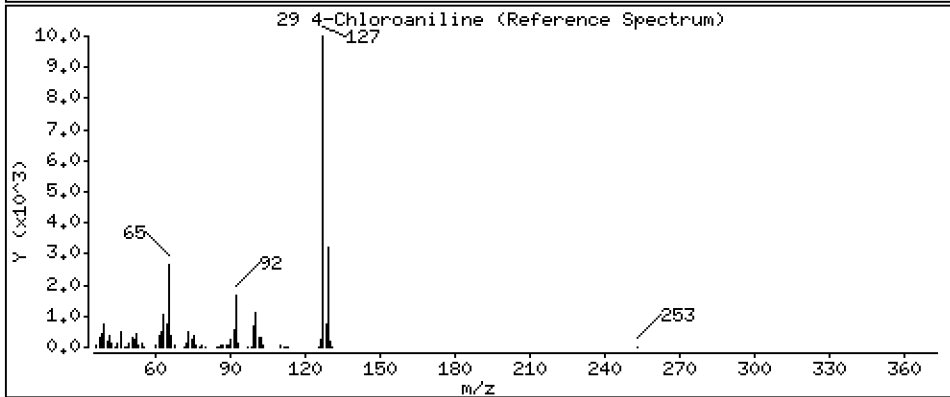
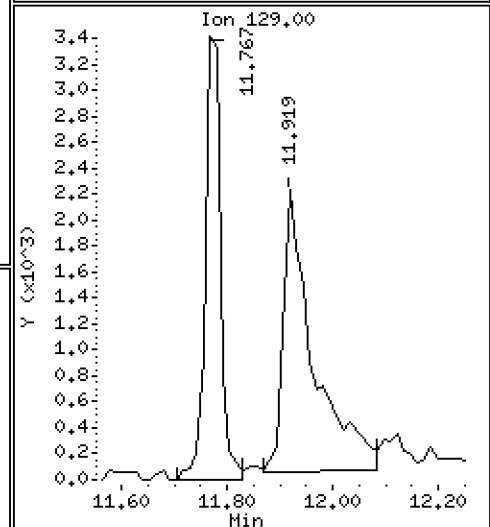
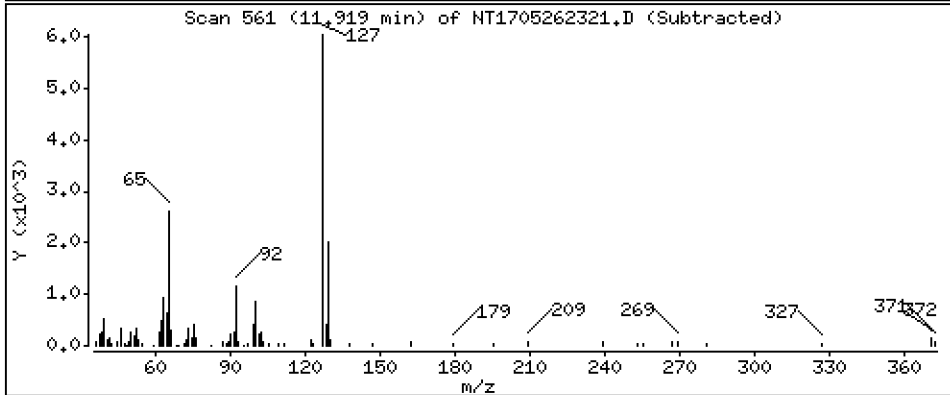
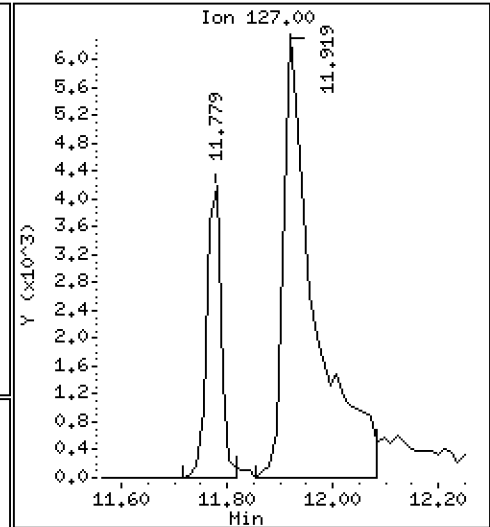
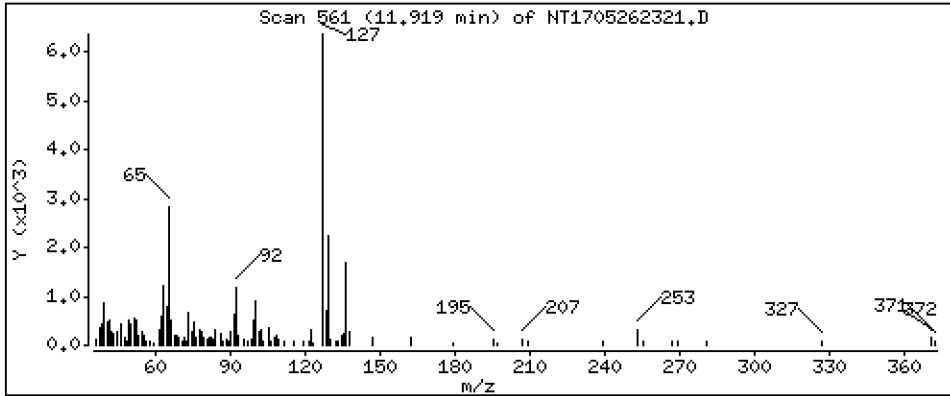
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,2470 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

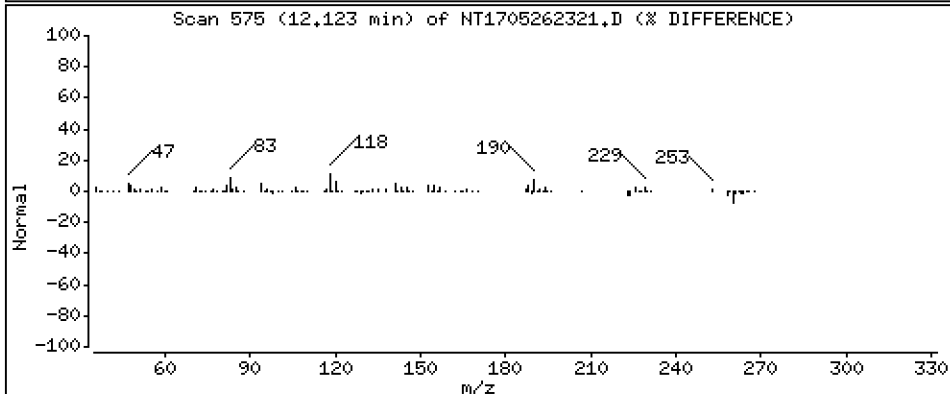
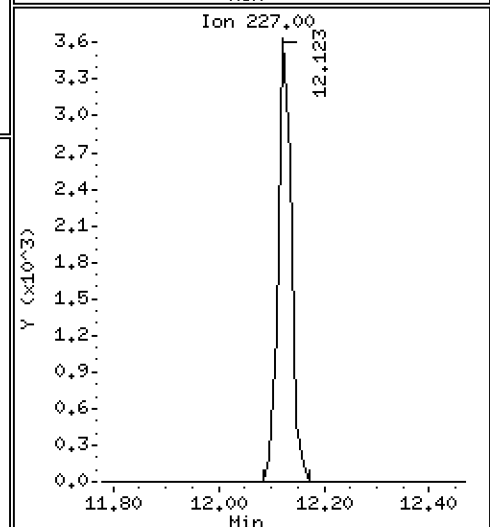
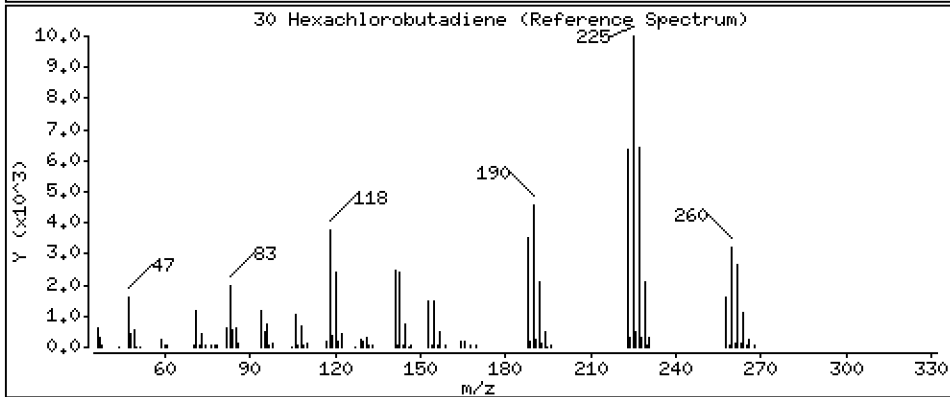
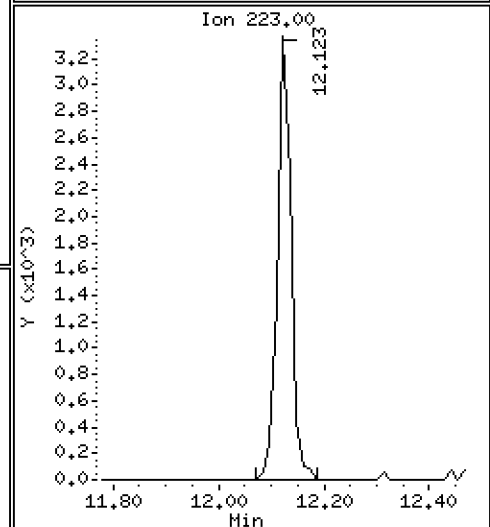
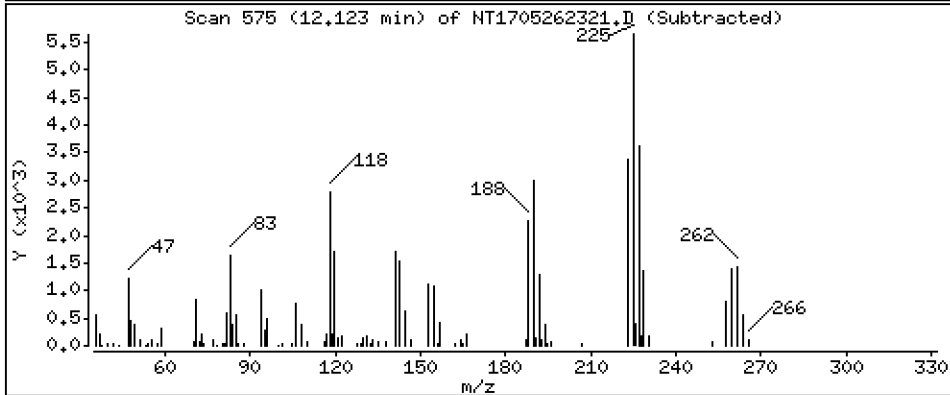
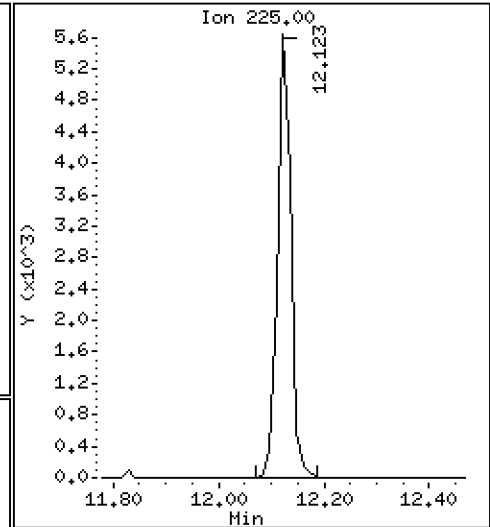
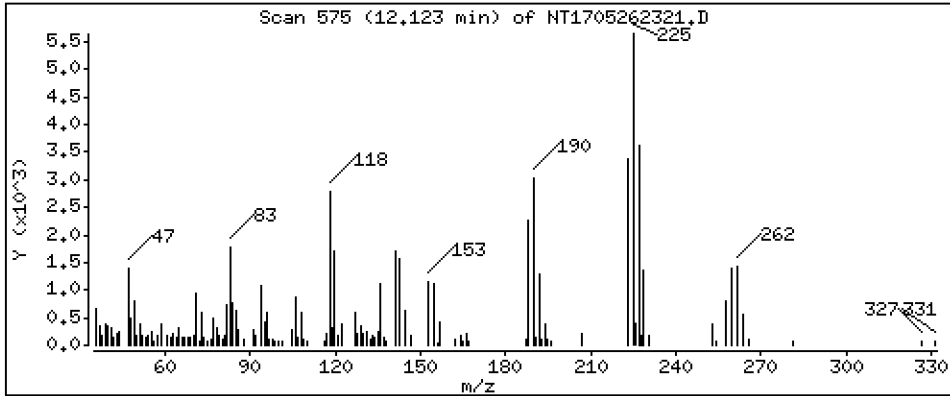
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,2180 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

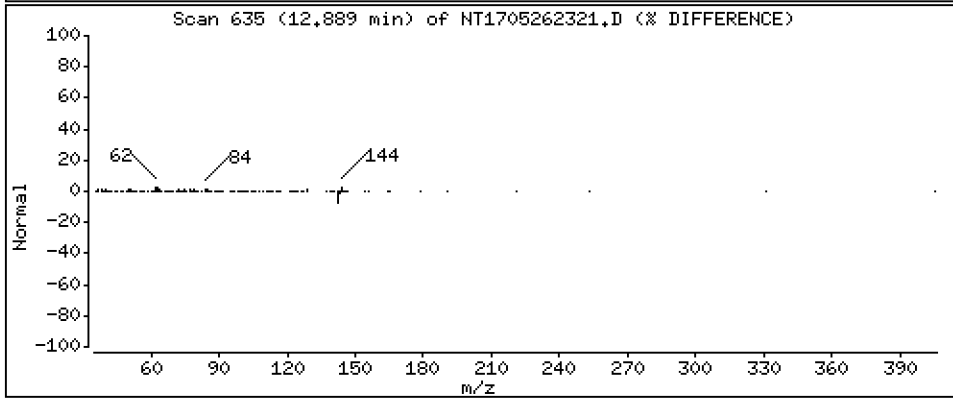
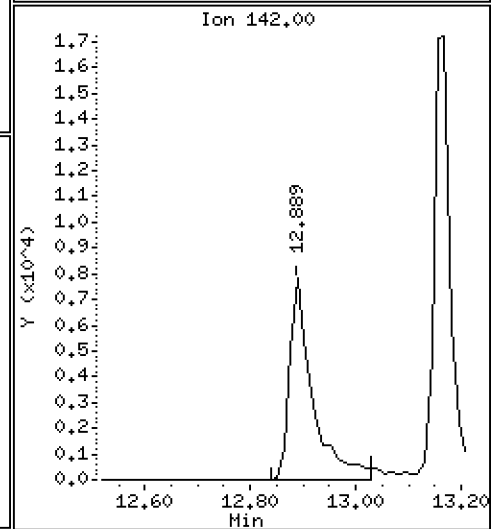
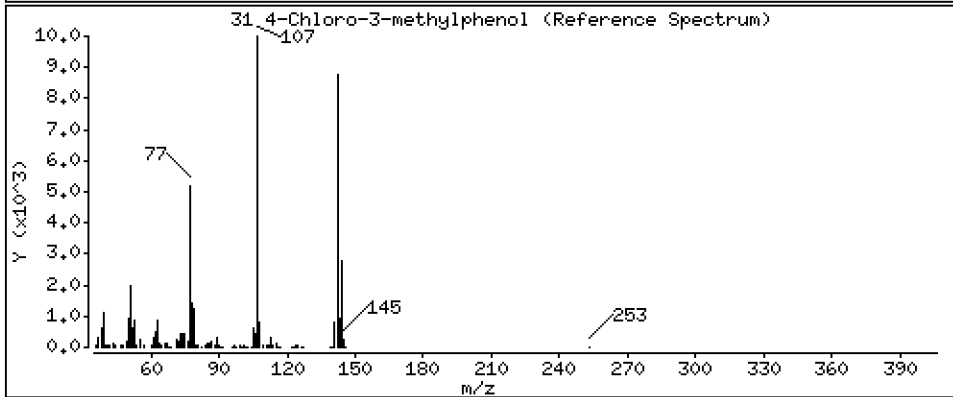
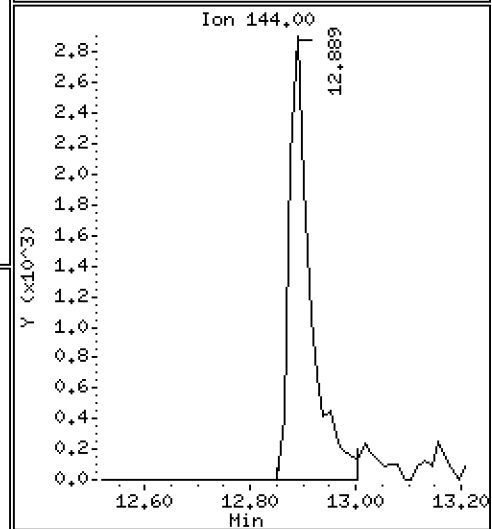
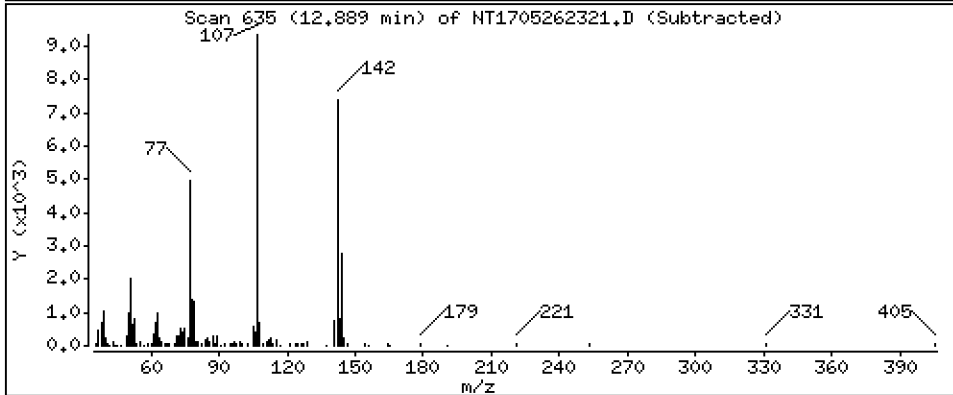
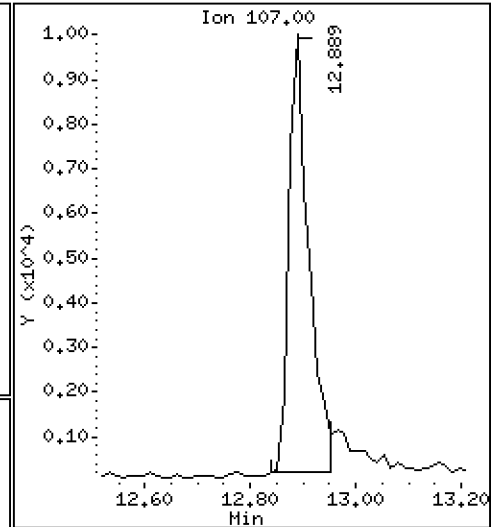
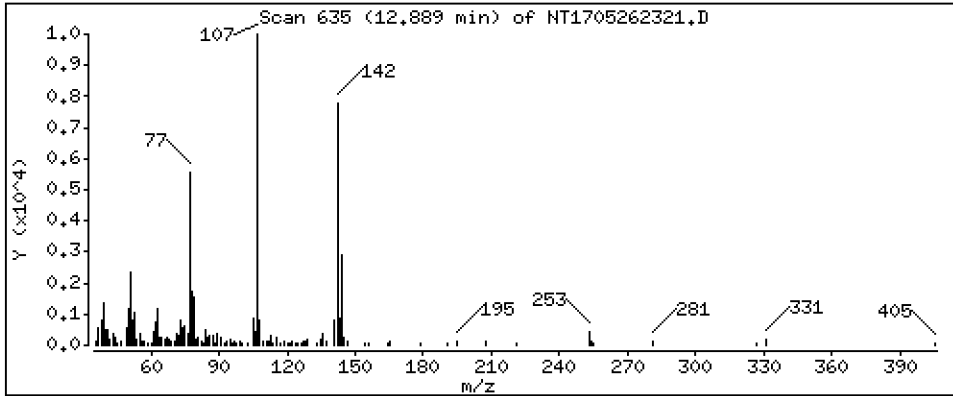
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,2869 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

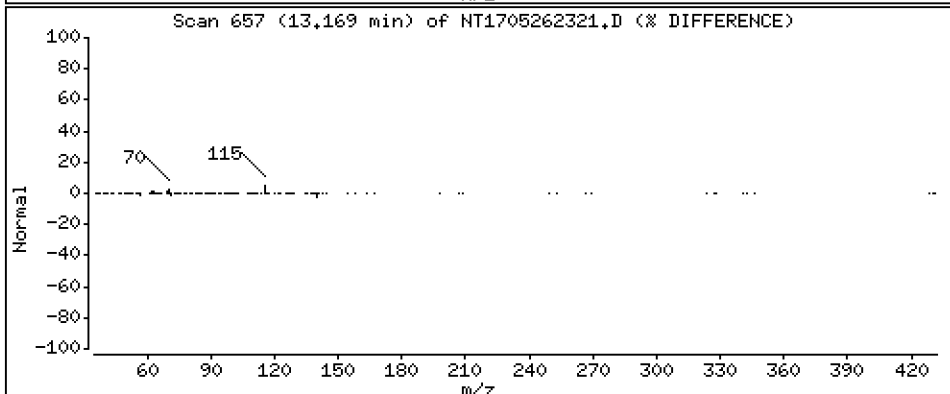
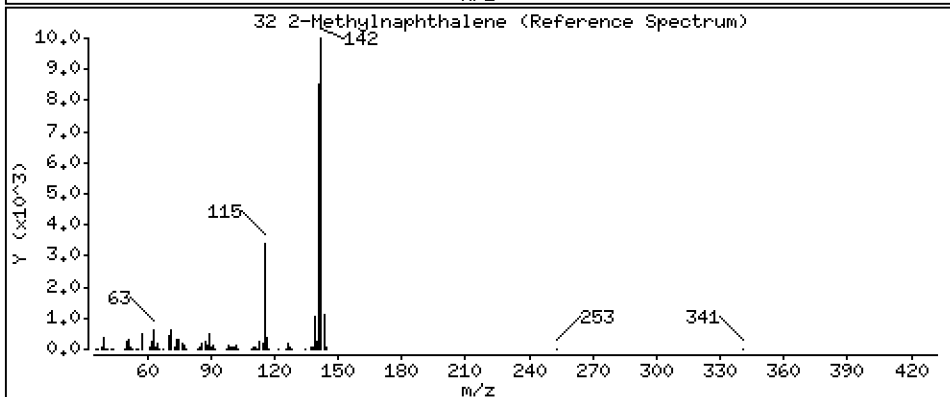
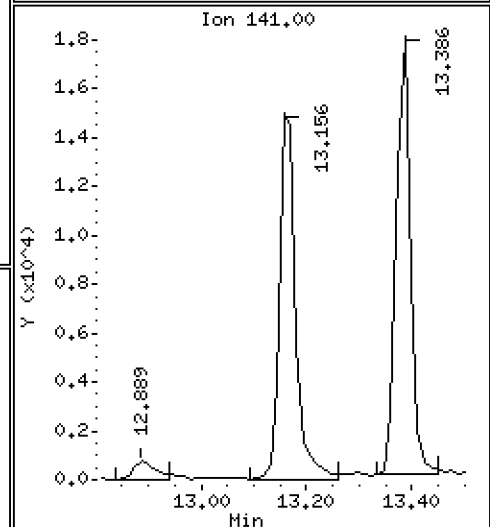
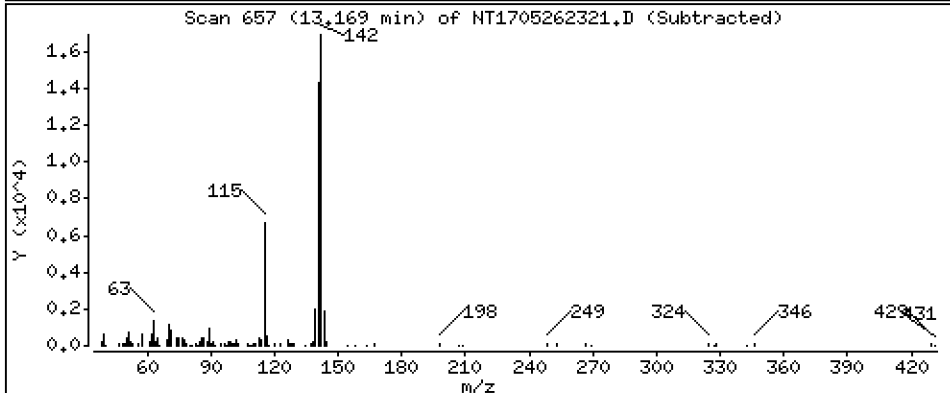
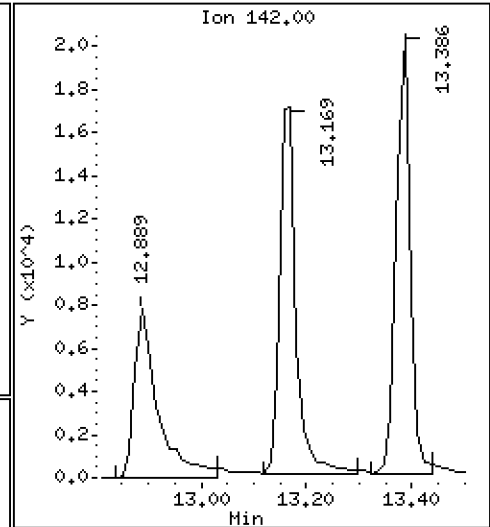
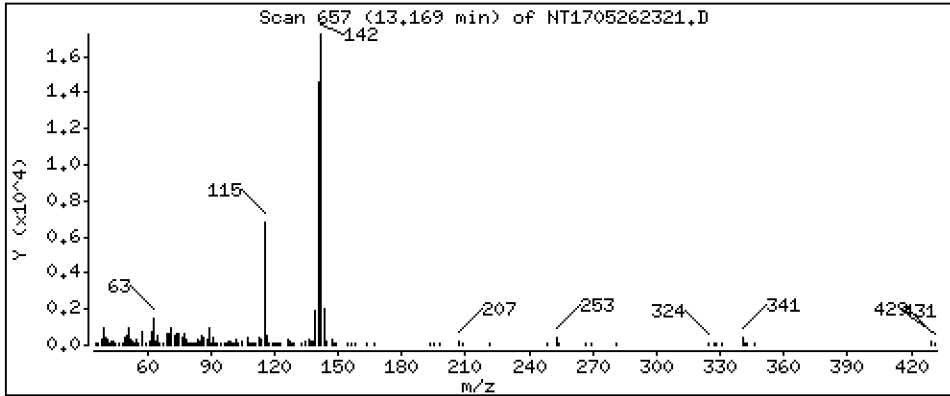
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.1861 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

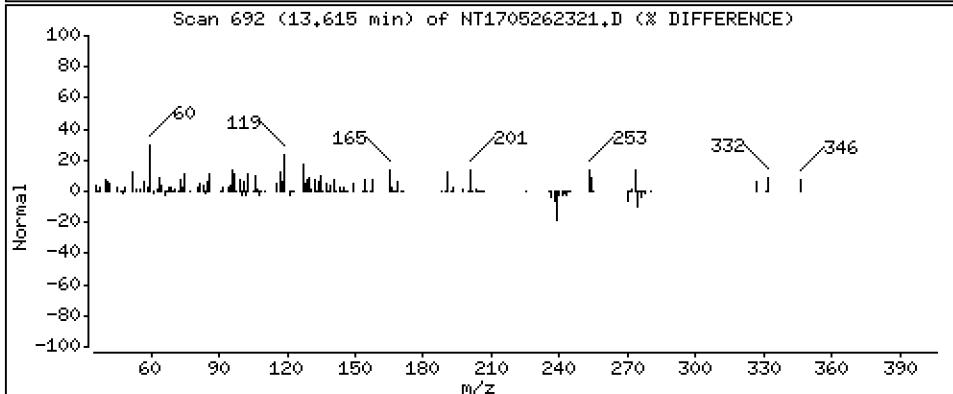
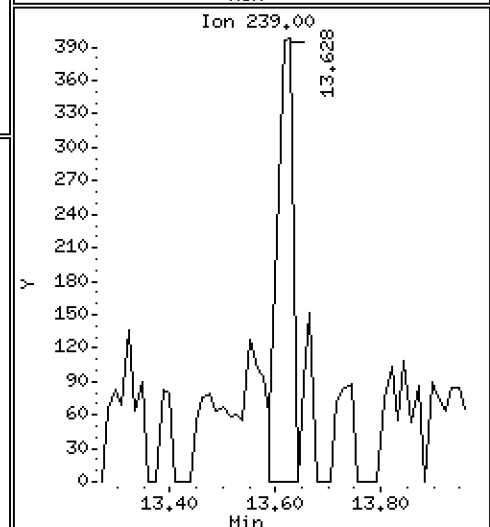
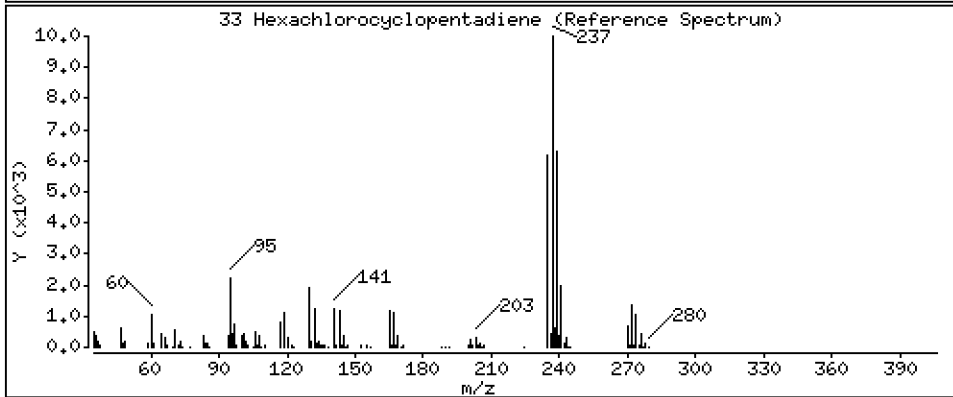
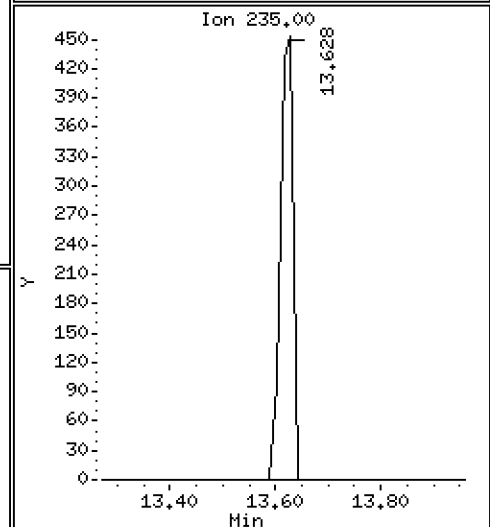
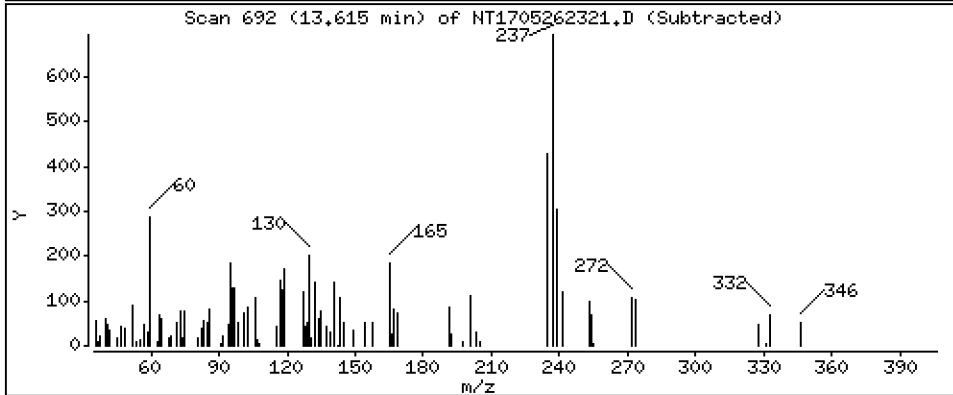
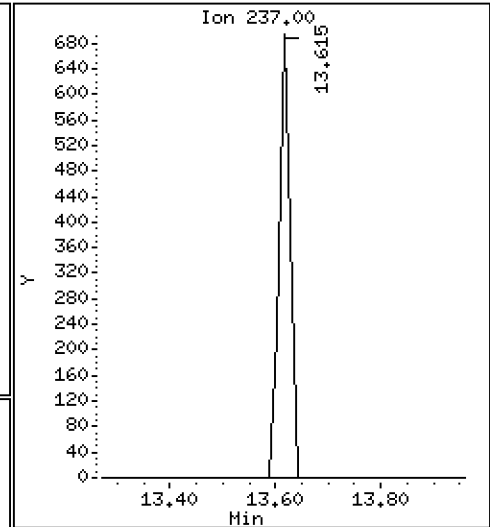
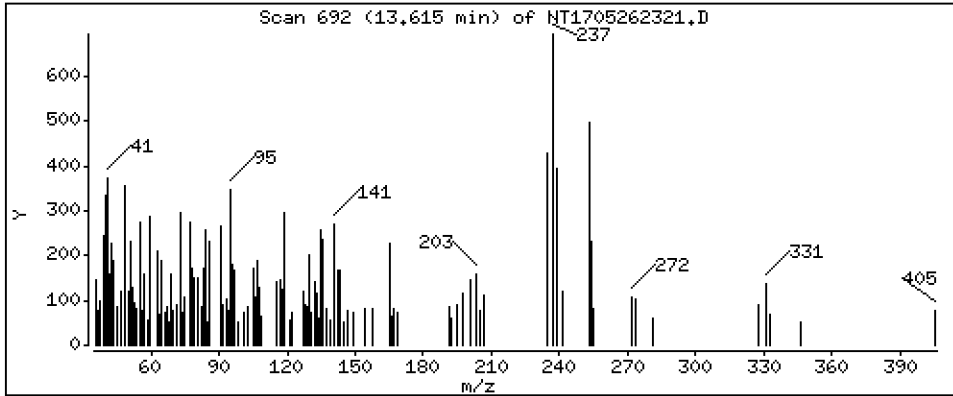
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,01976 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

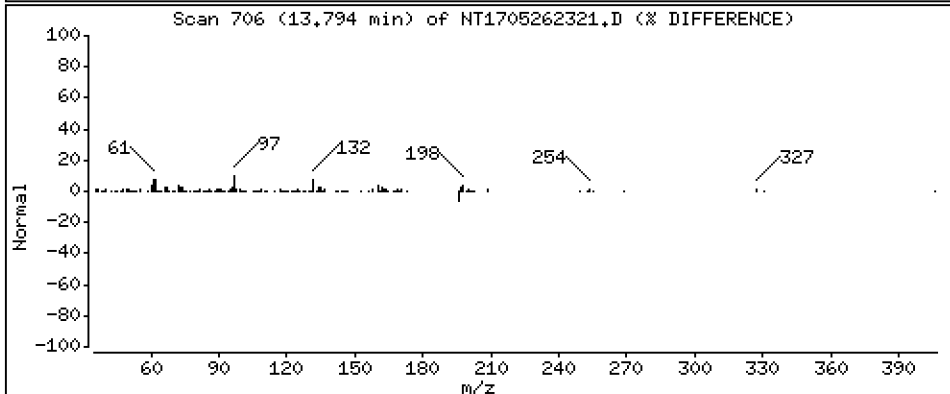
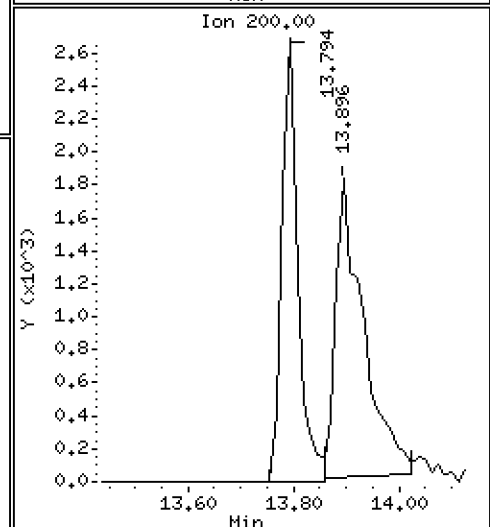
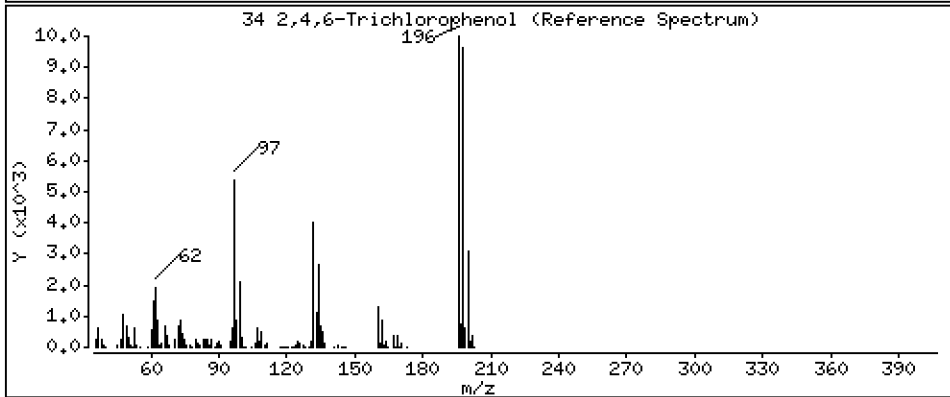
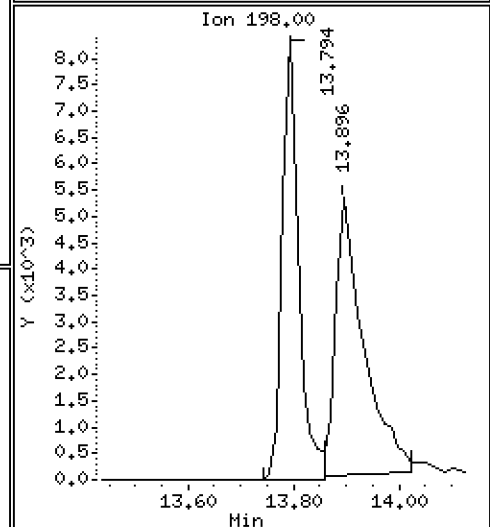
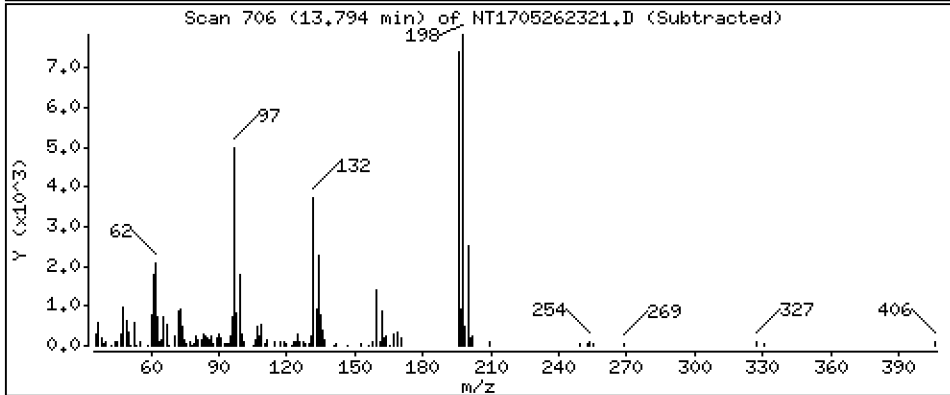
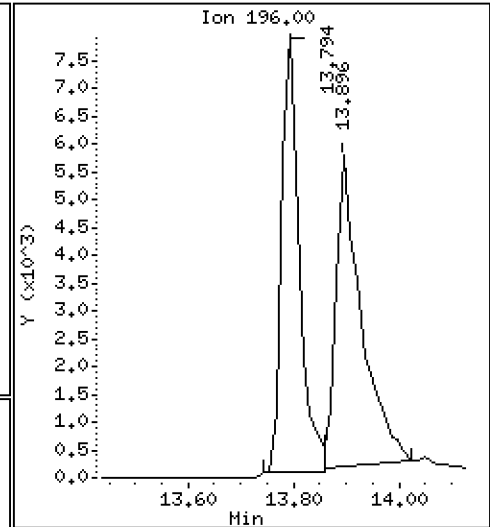
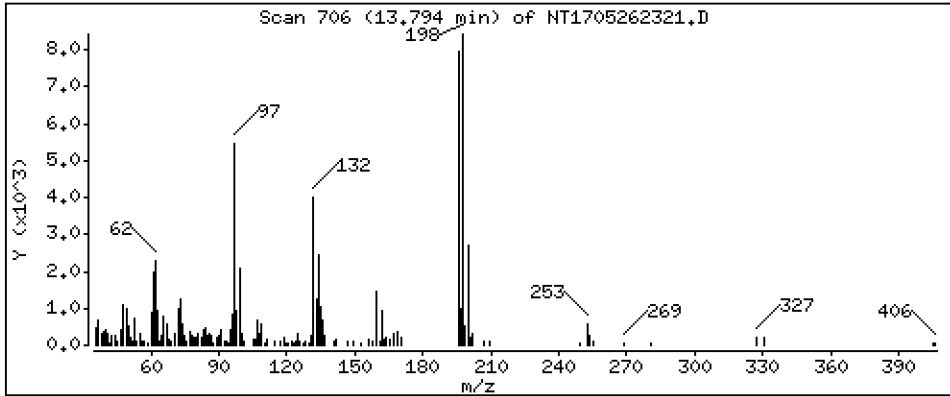
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.3164 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

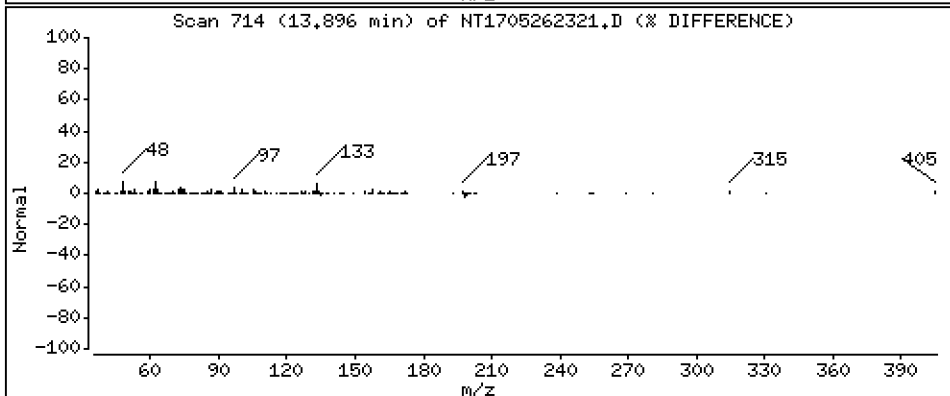
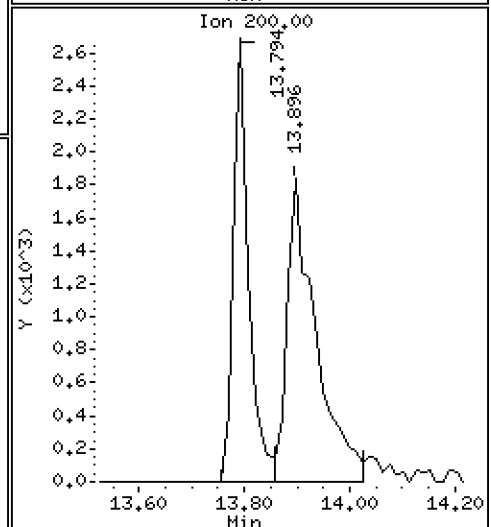
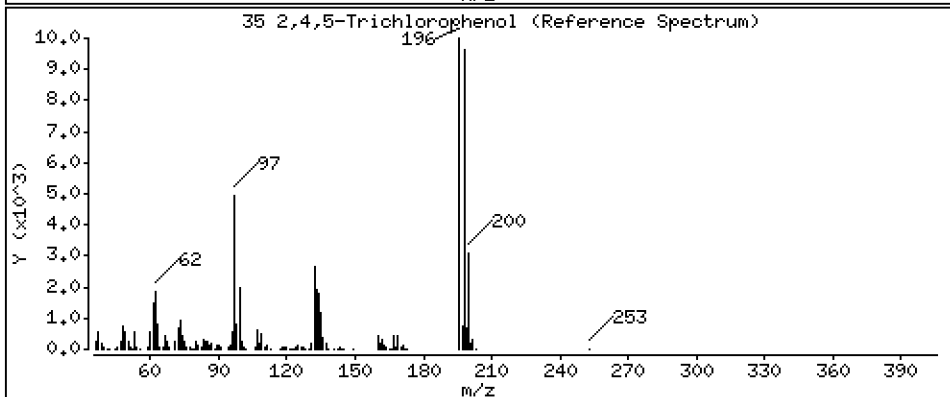
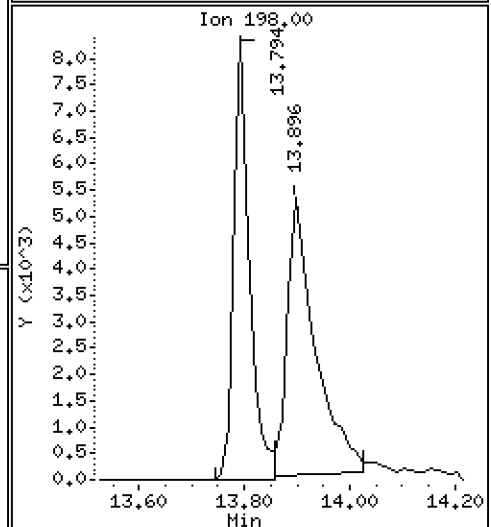
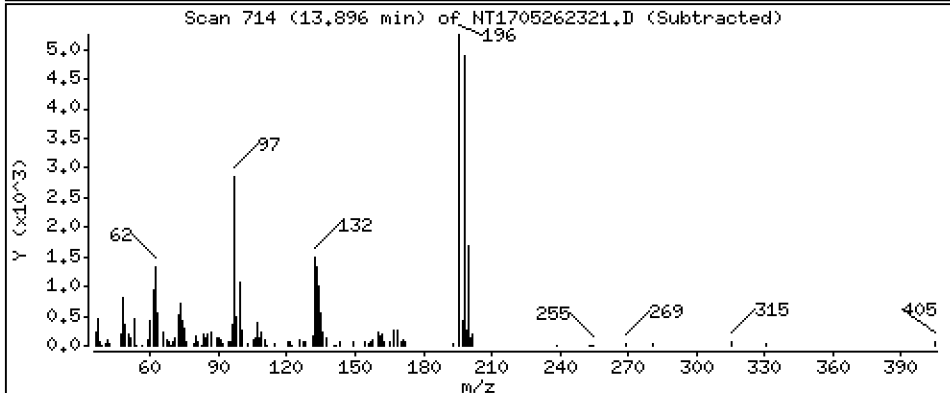
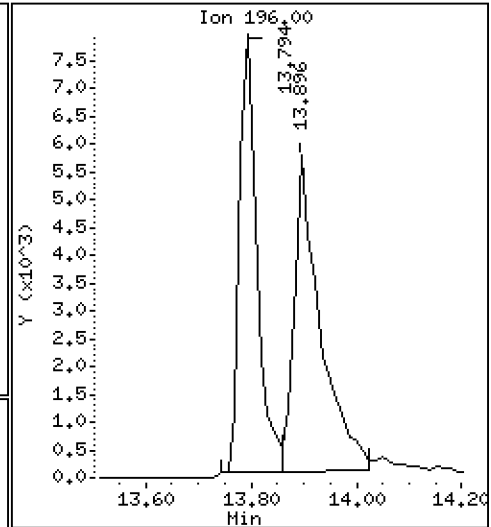
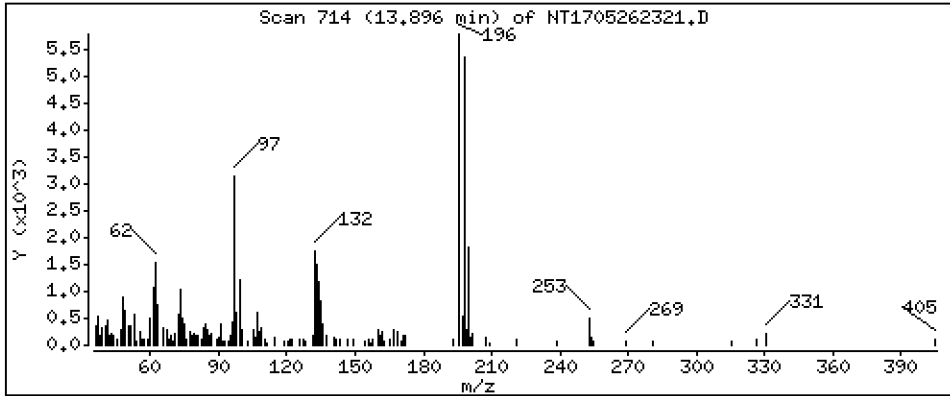
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

35 2,4,5-Trichlorophenol

Concentration: 0.3318 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

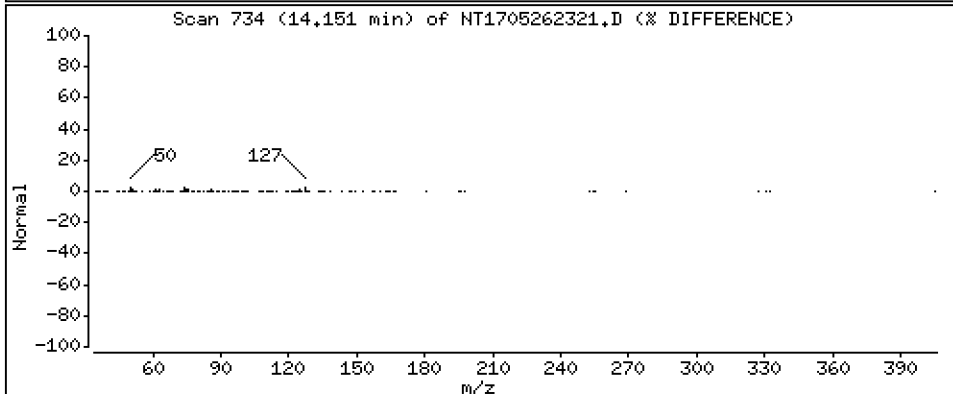
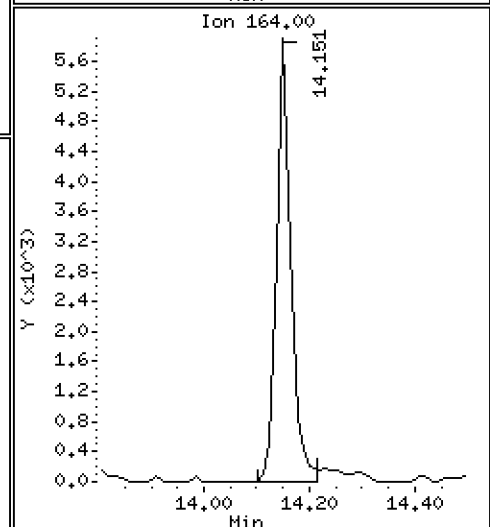
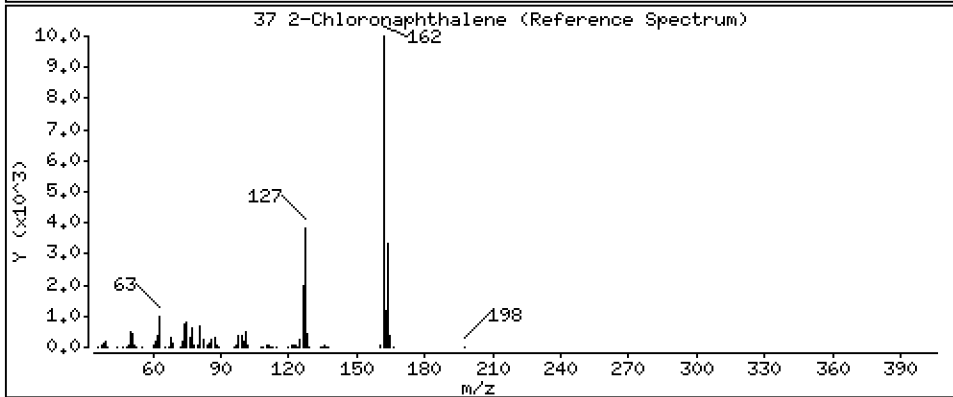
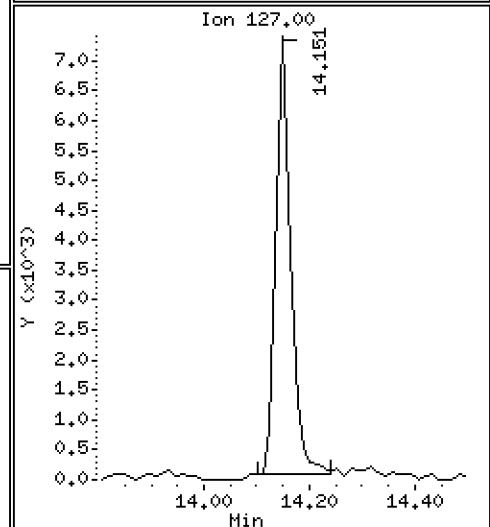
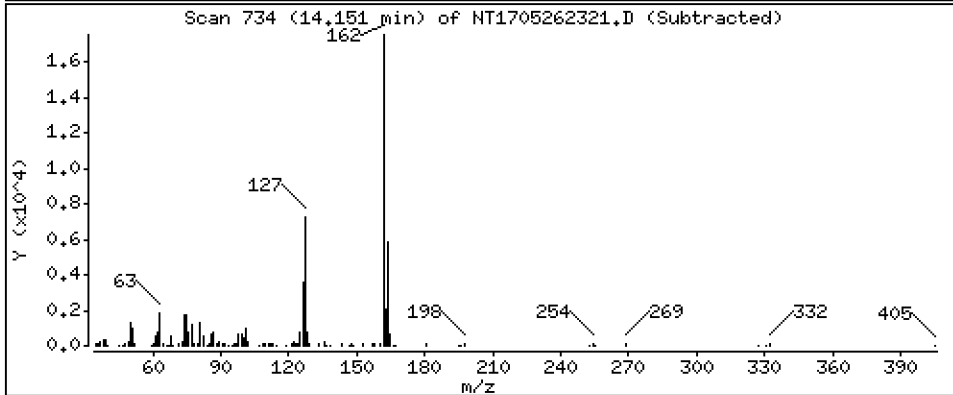
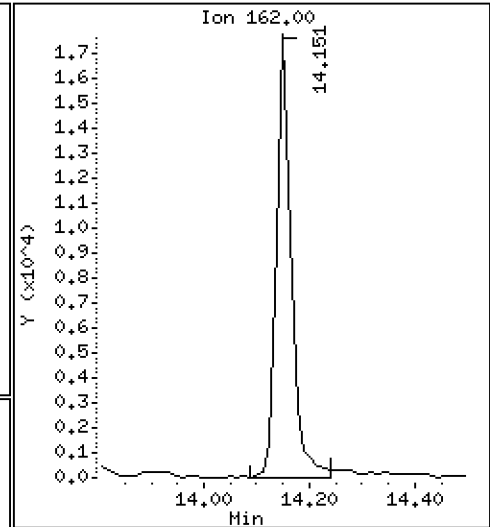
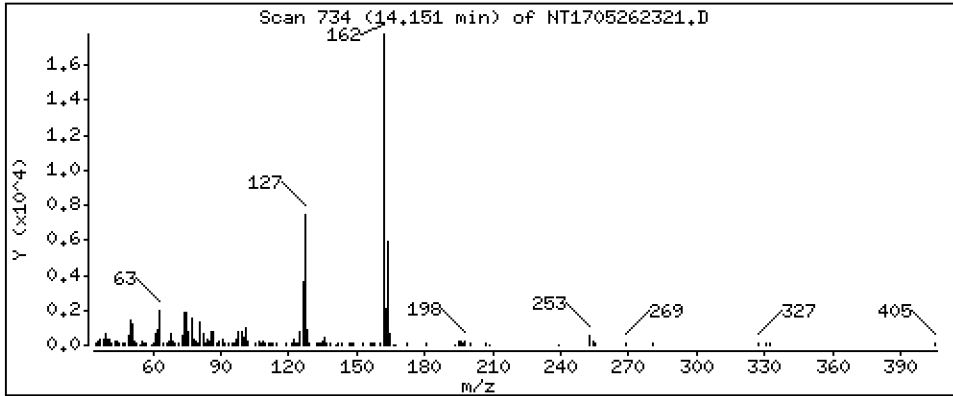
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,1956 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

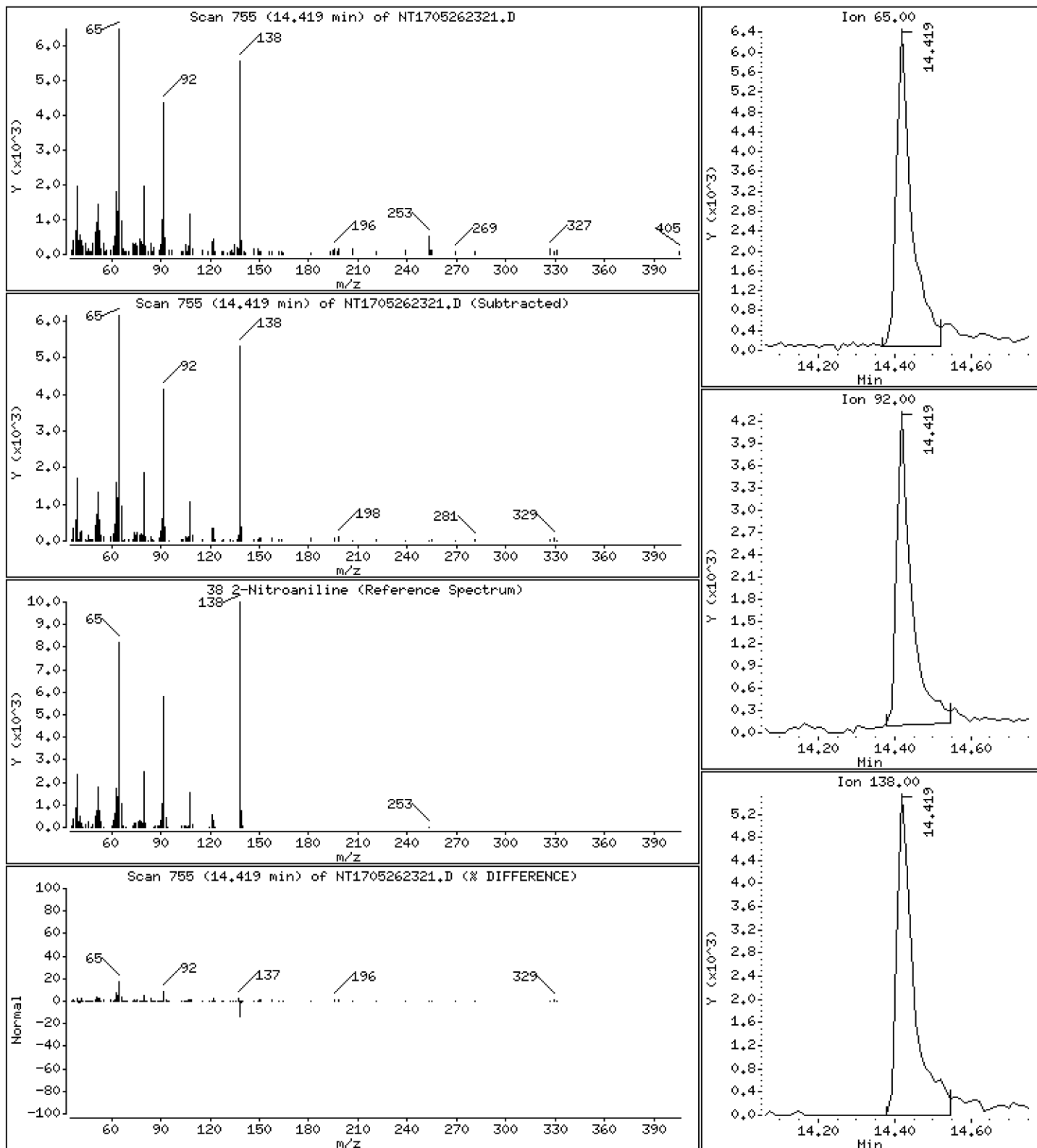
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,3033 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

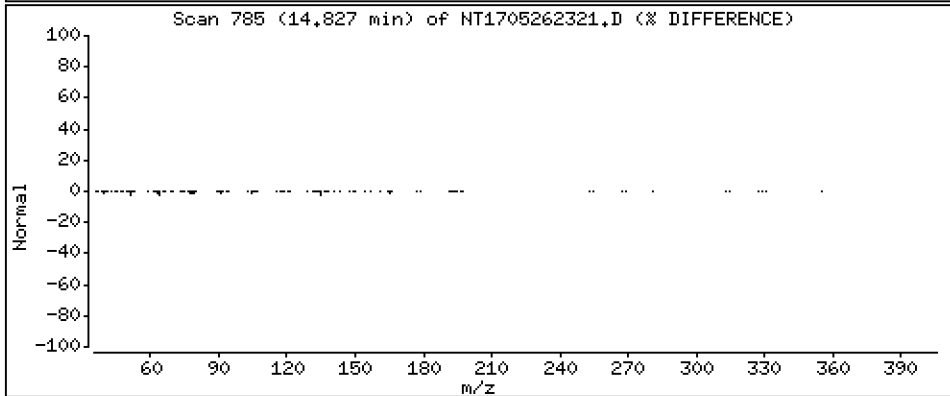
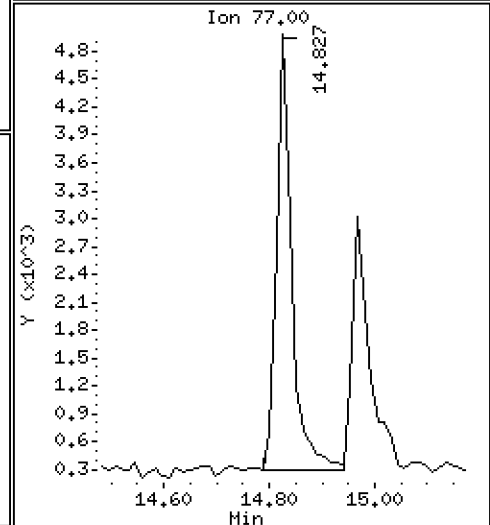
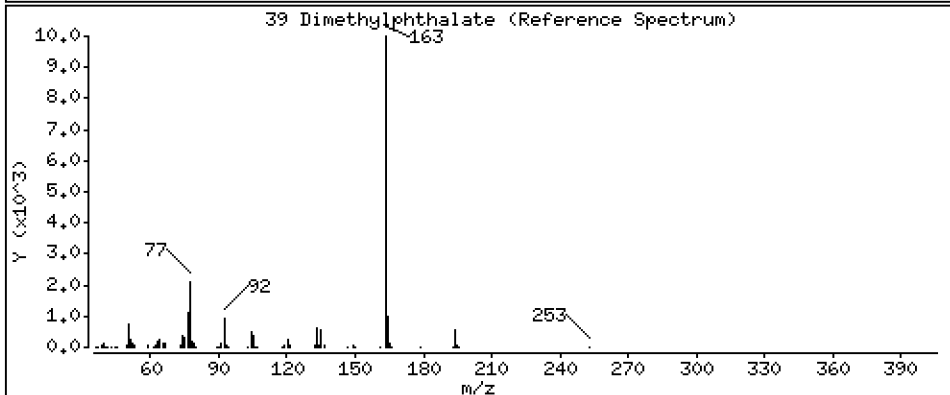
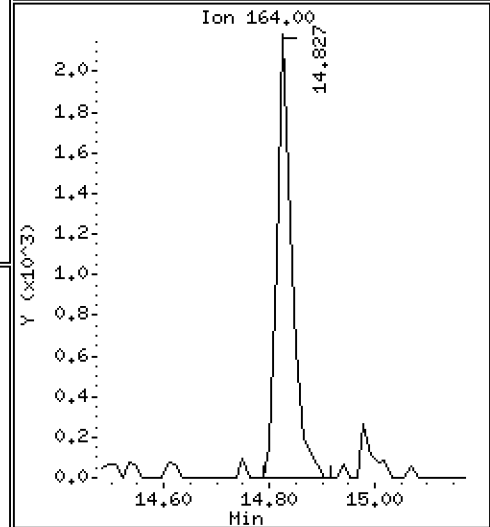
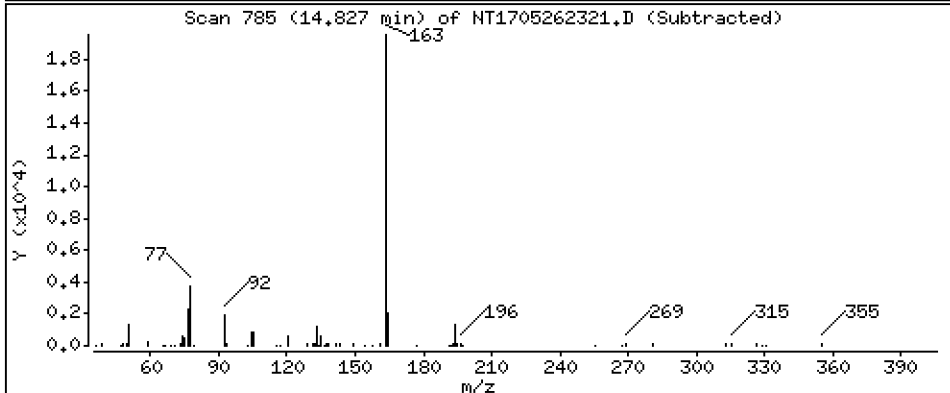
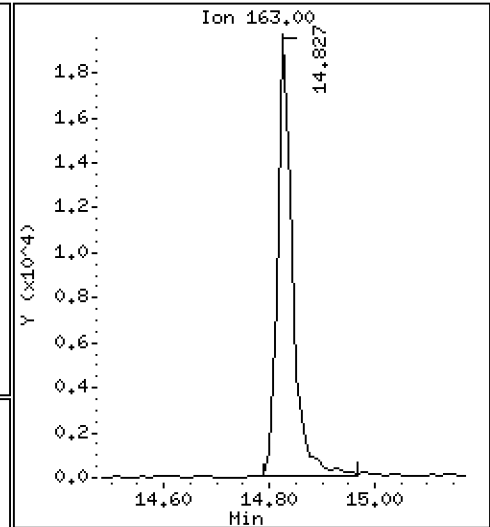
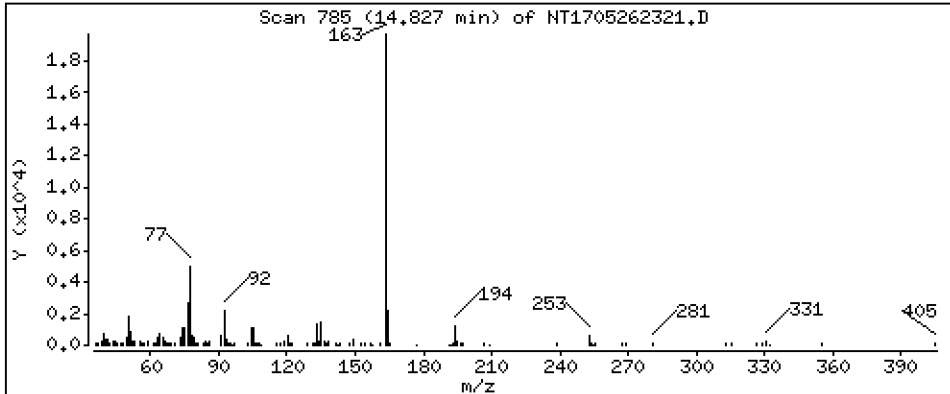
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,2071 ug/mL

39 Dimethylphthalate



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

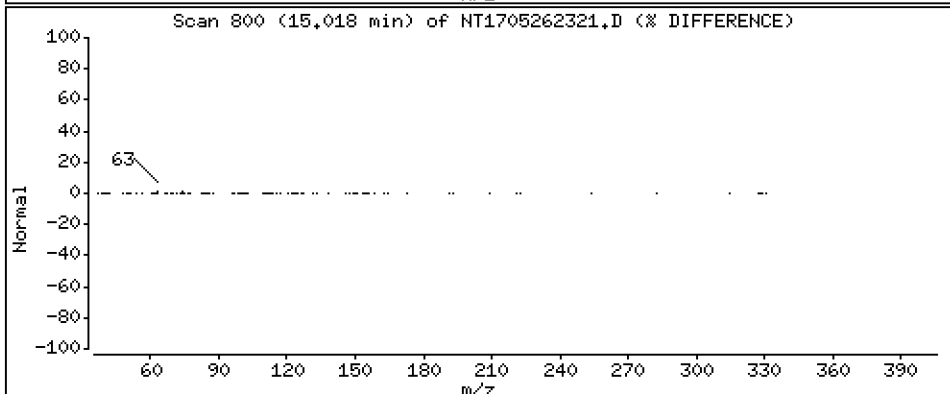
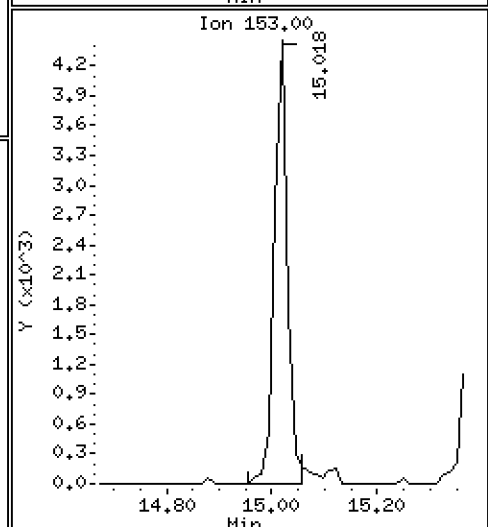
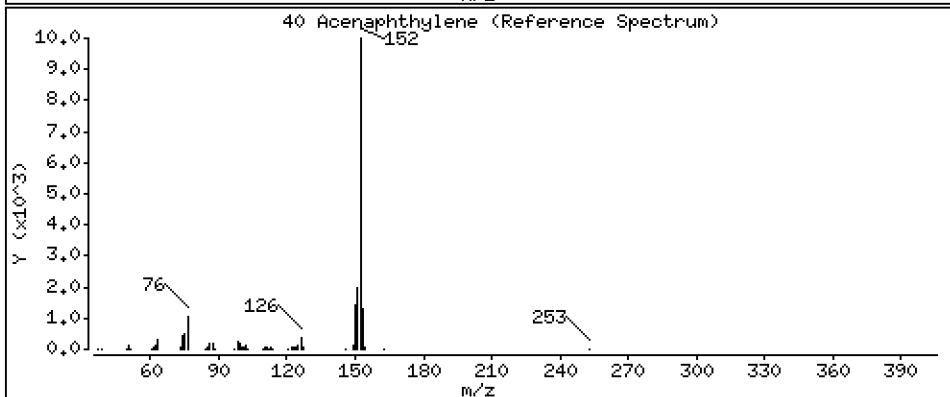
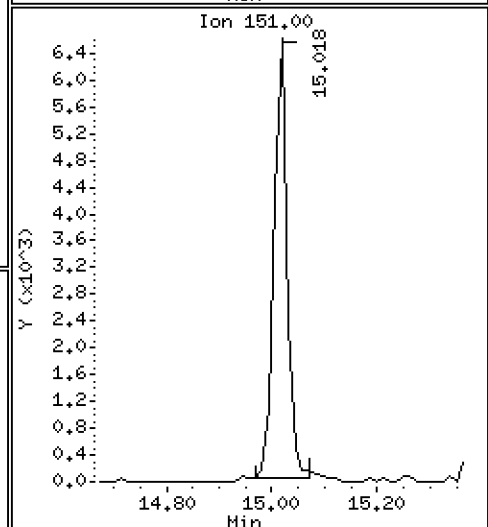
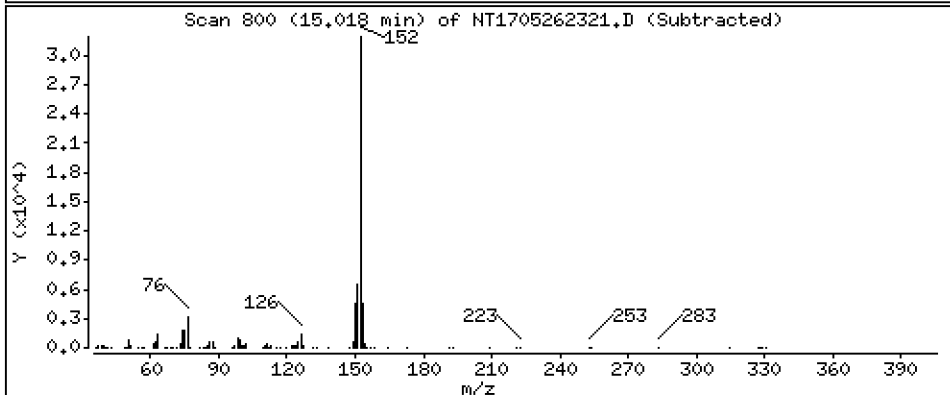
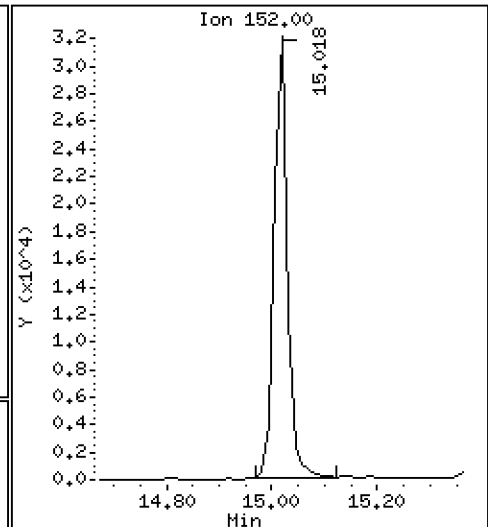
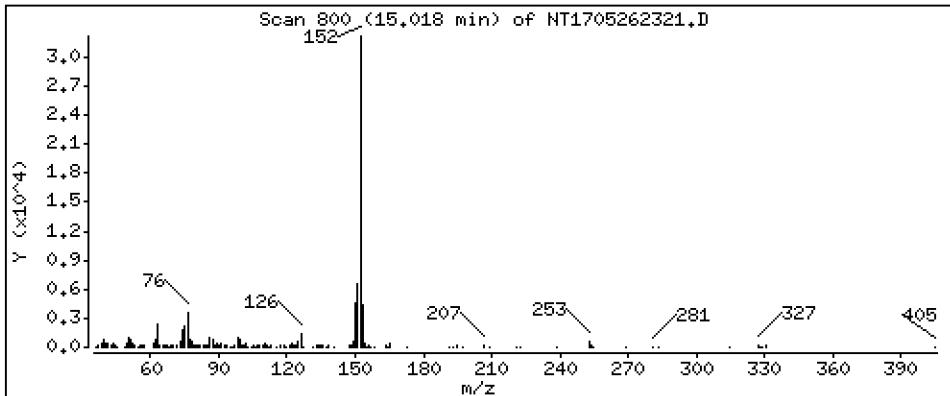
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,2048 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

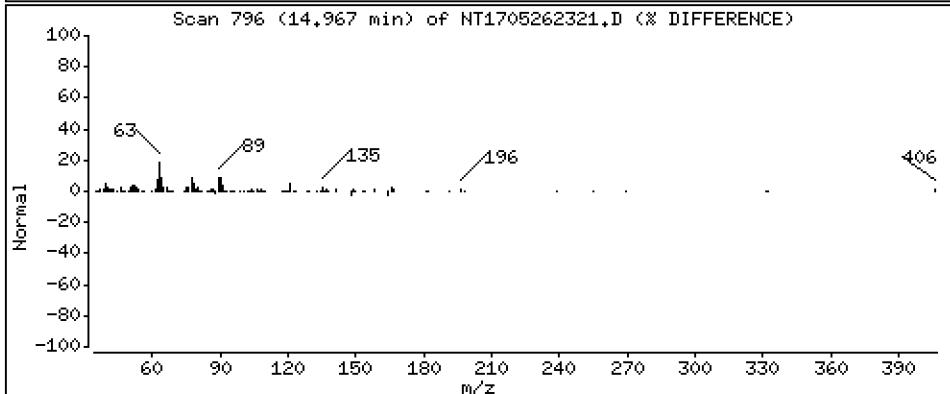
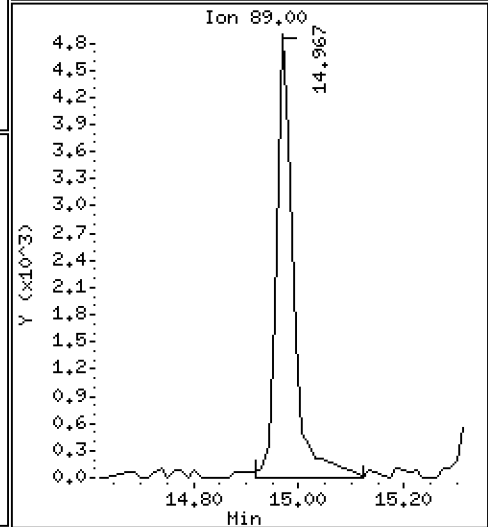
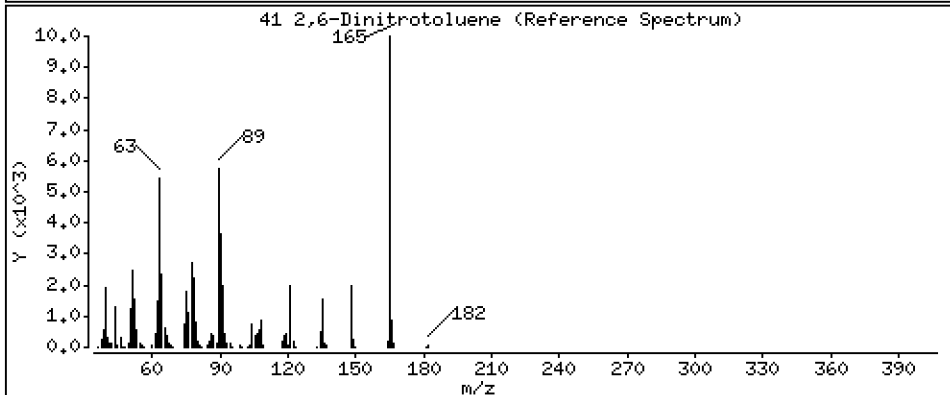
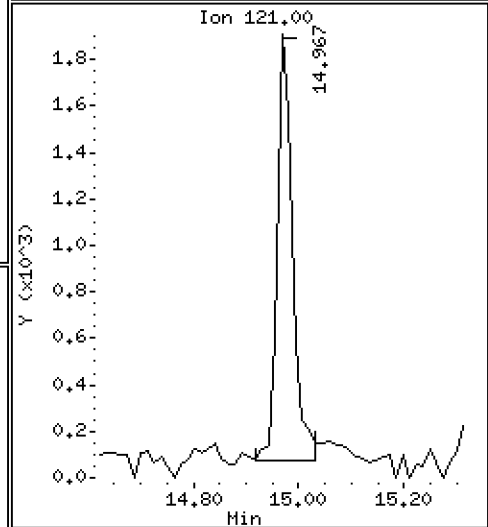
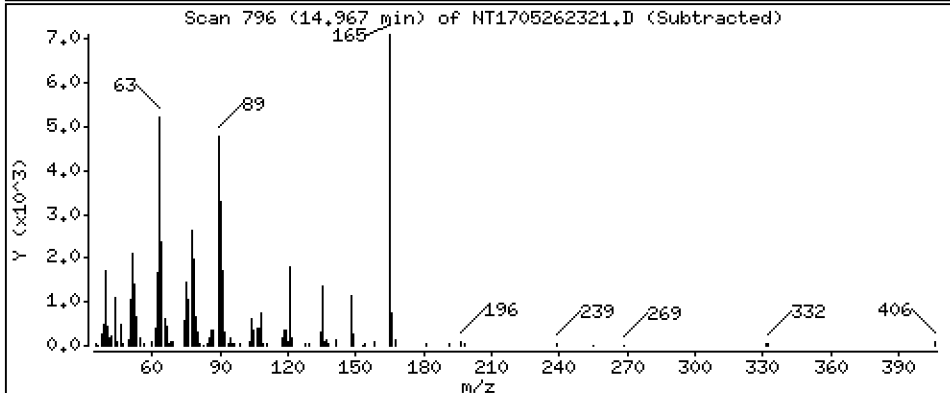
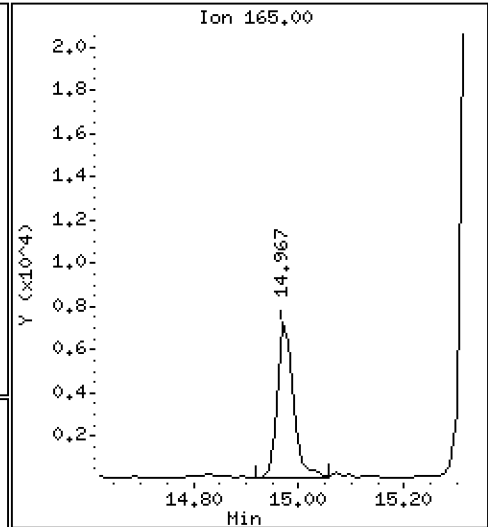
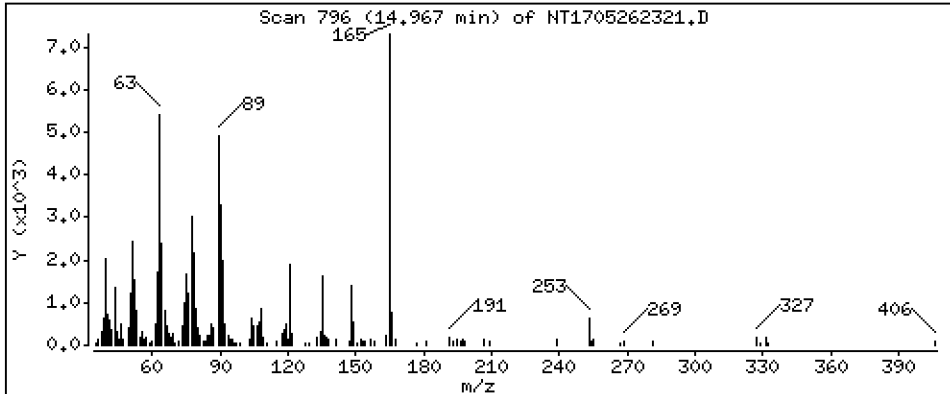
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,3456 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

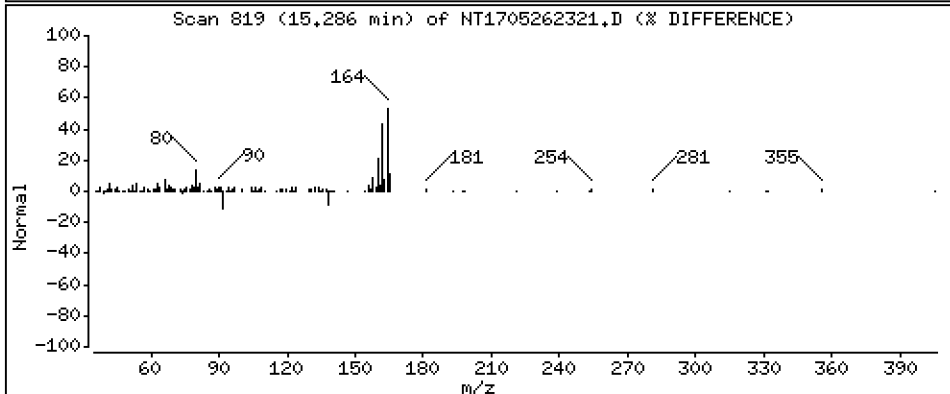
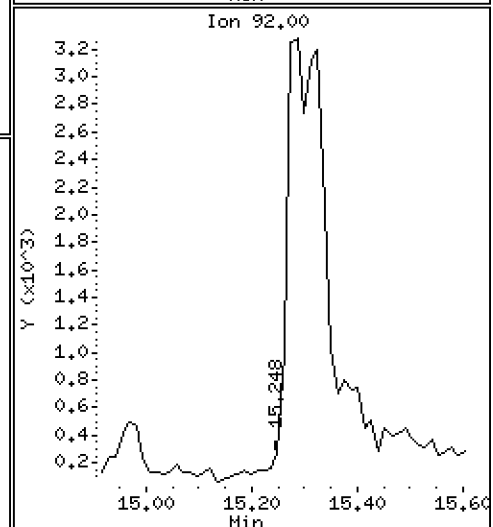
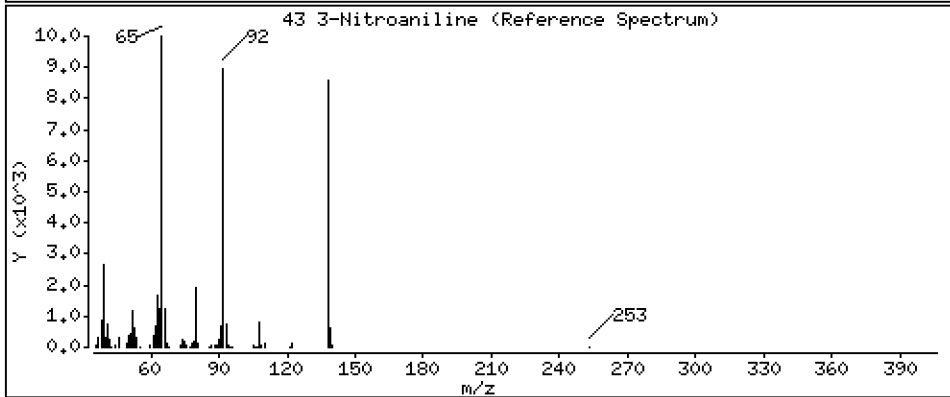
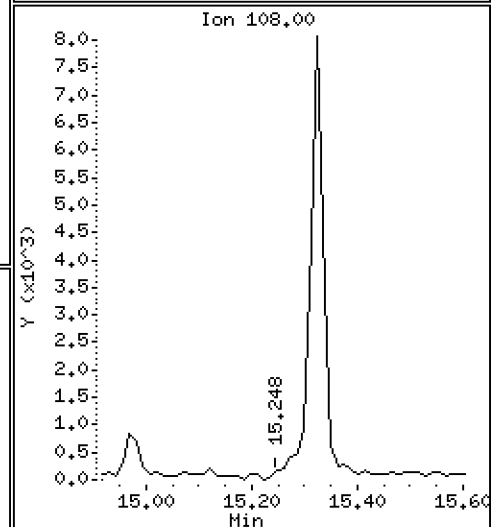
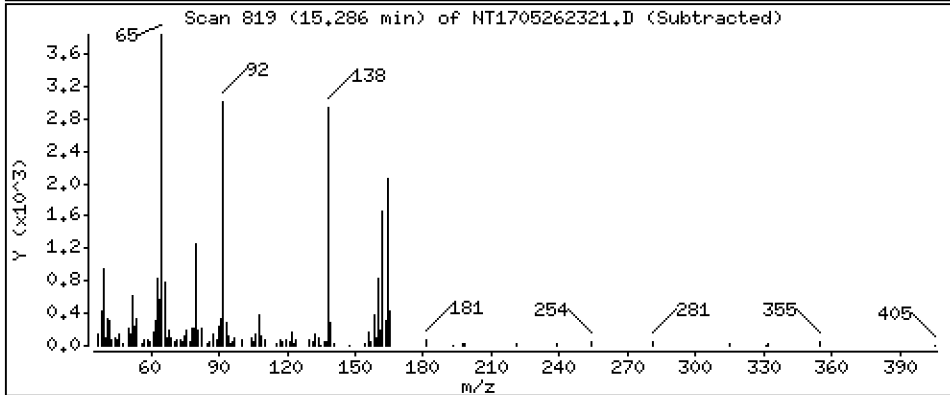
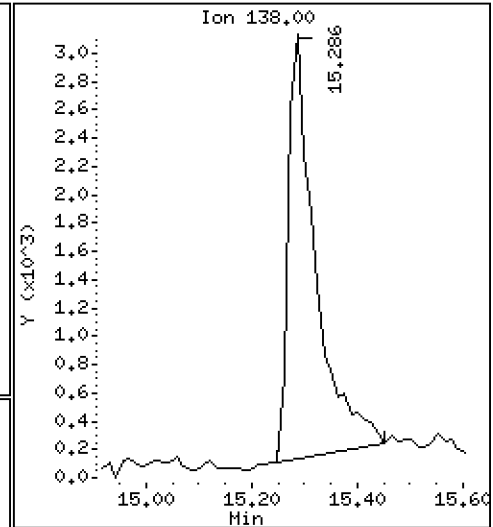
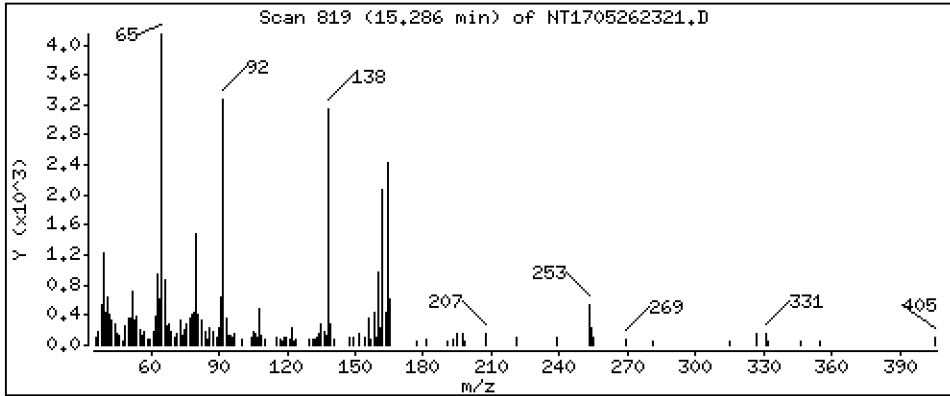
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,2660 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

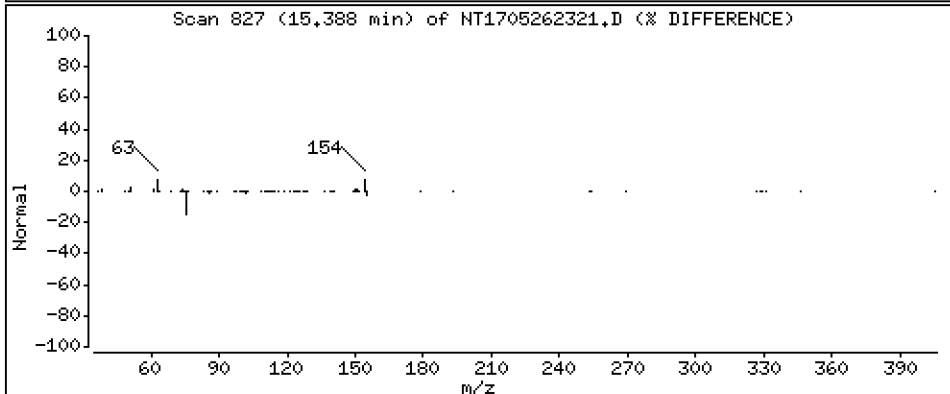
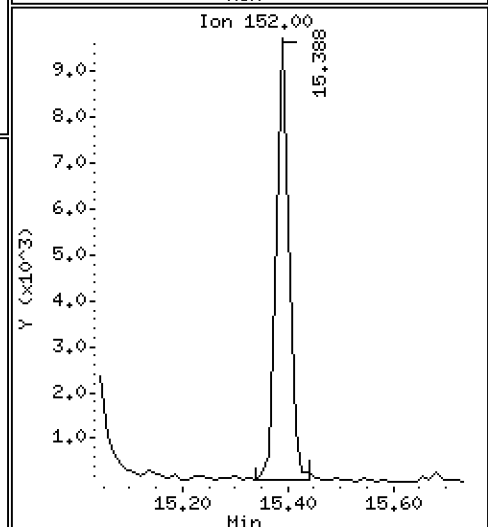
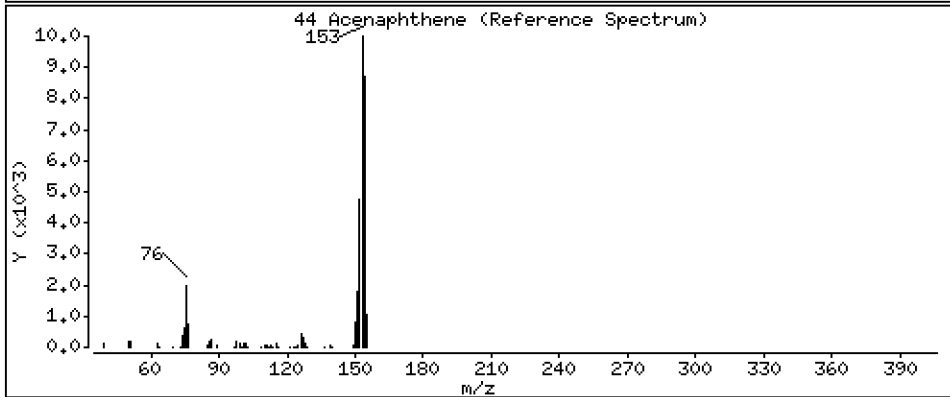
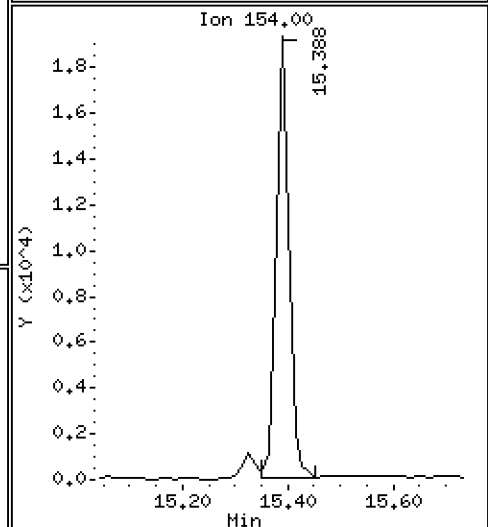
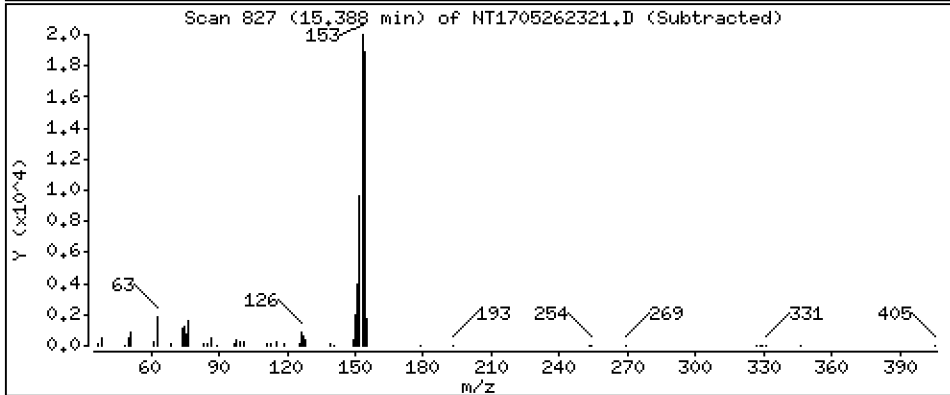
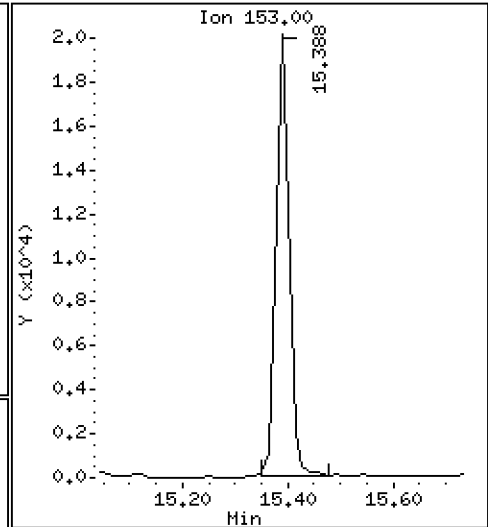
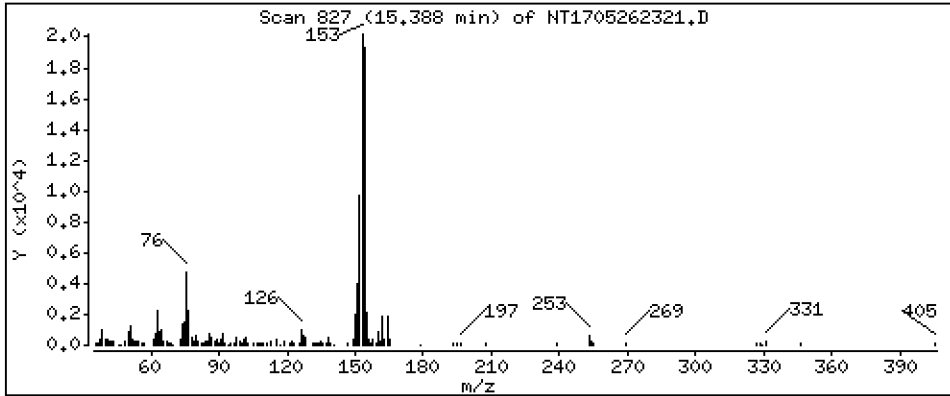
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1994 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

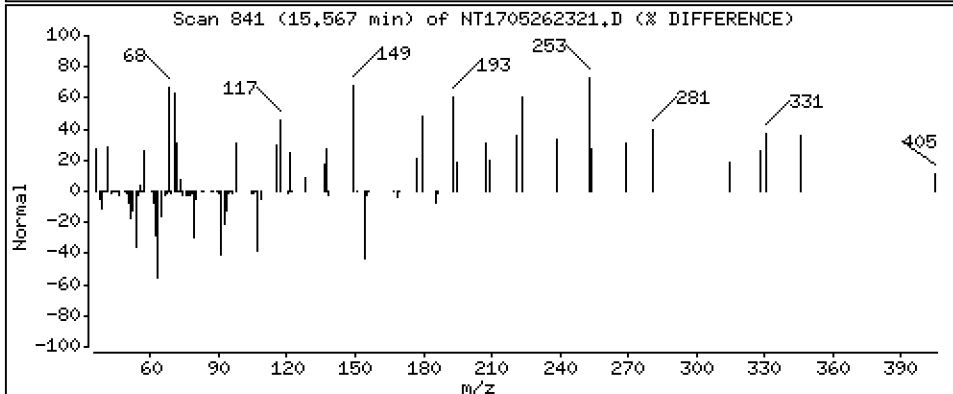
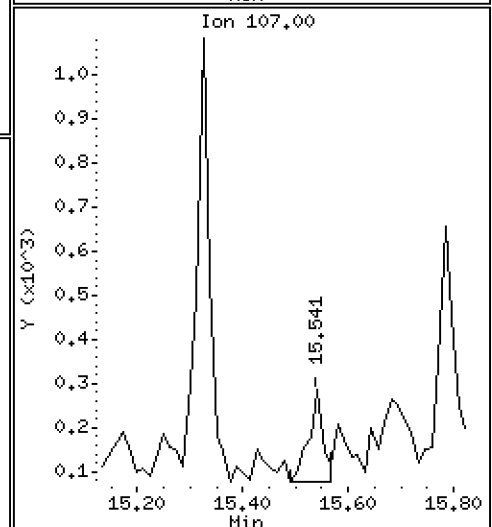
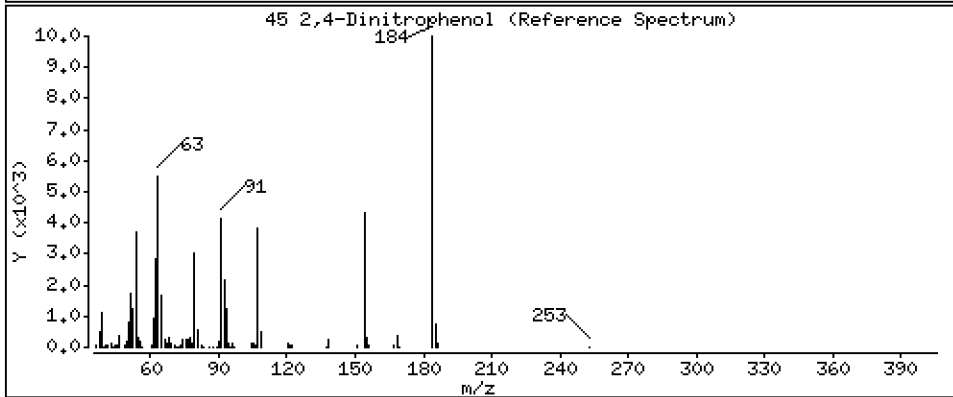
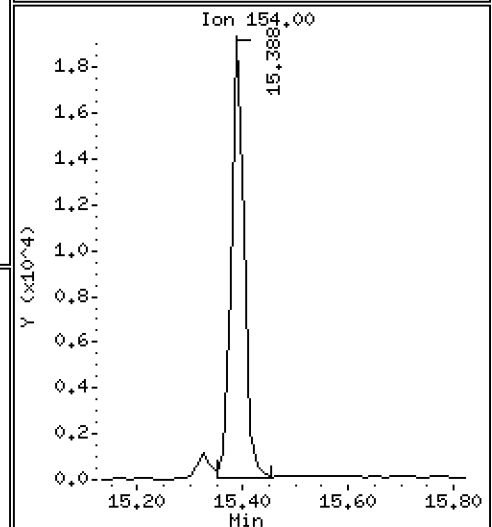
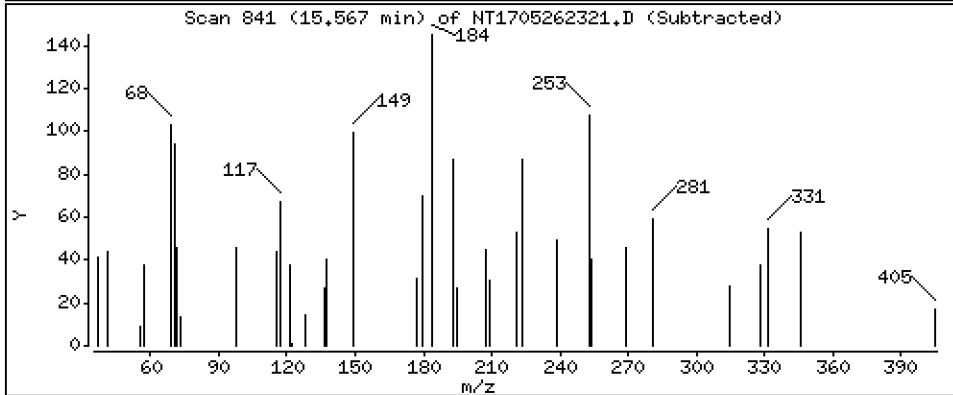
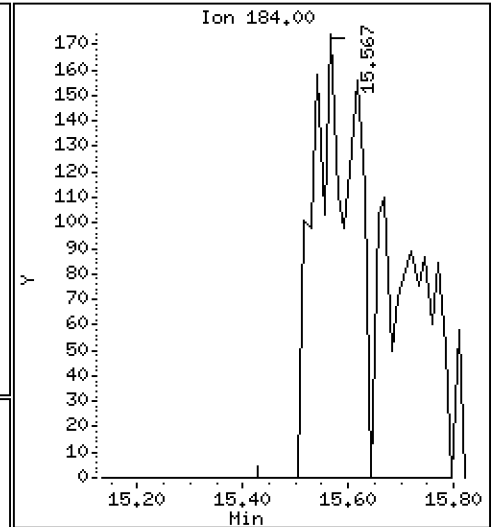
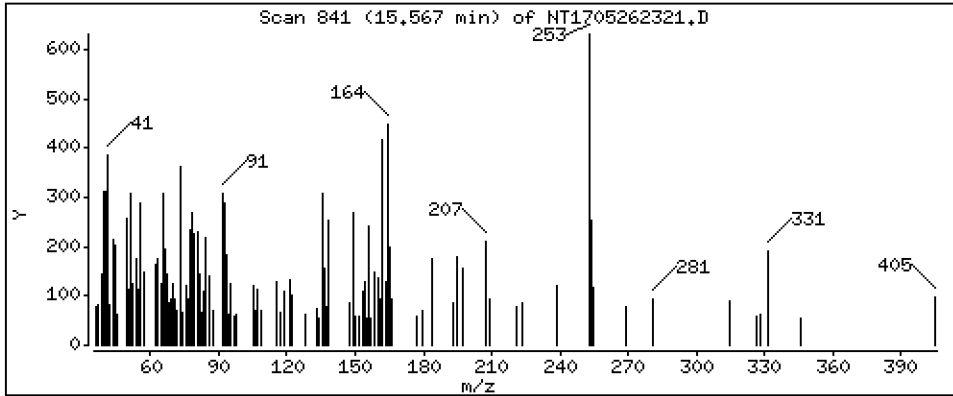
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,06089 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

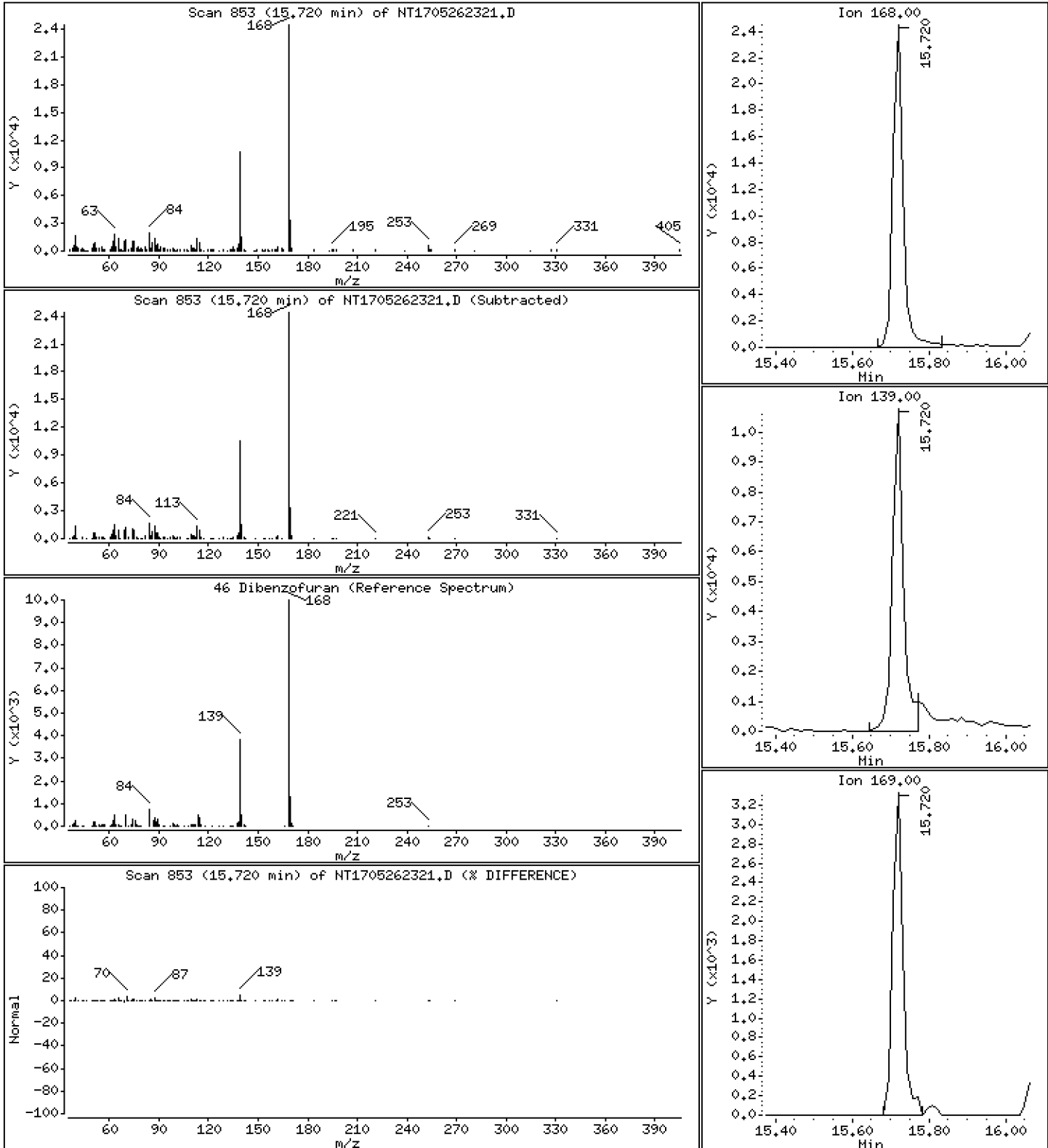
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1948 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

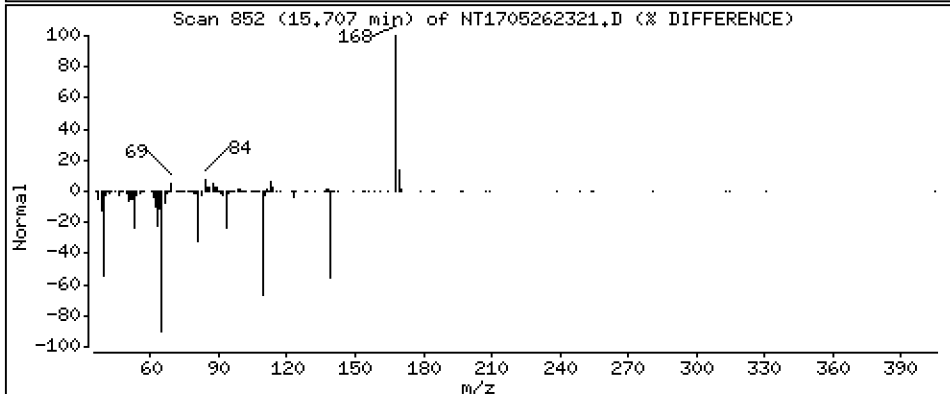
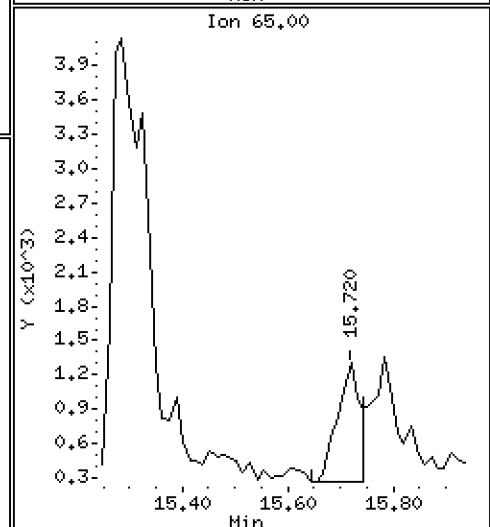
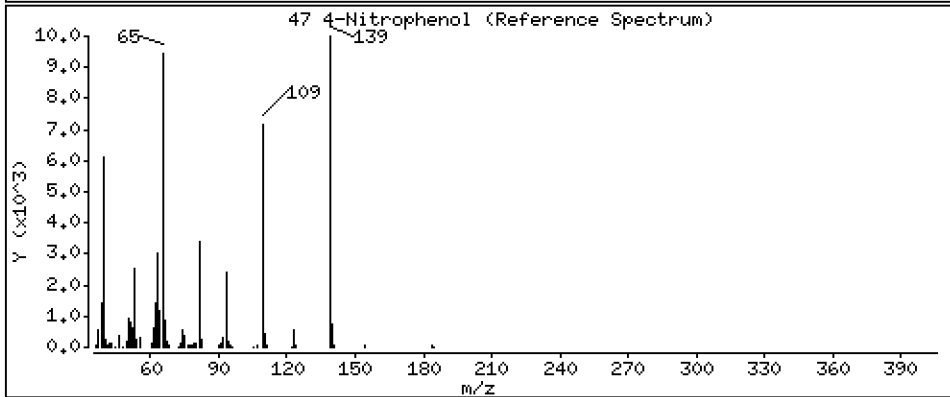
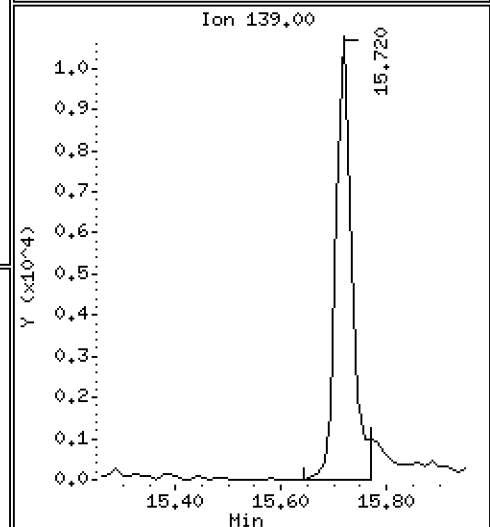
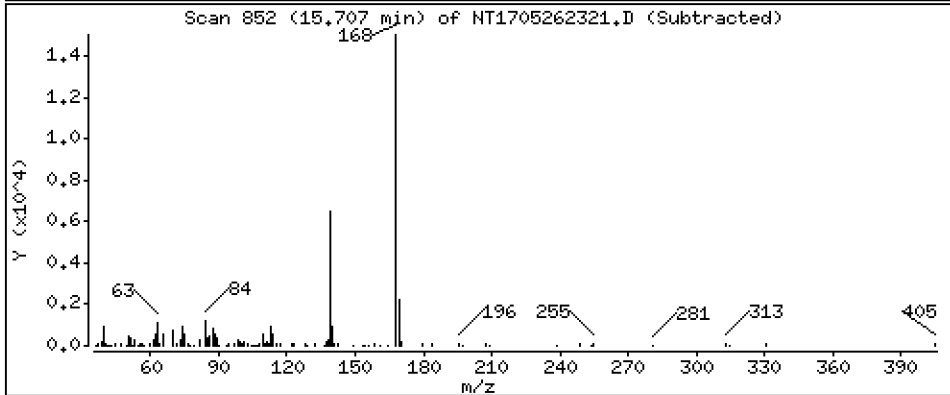
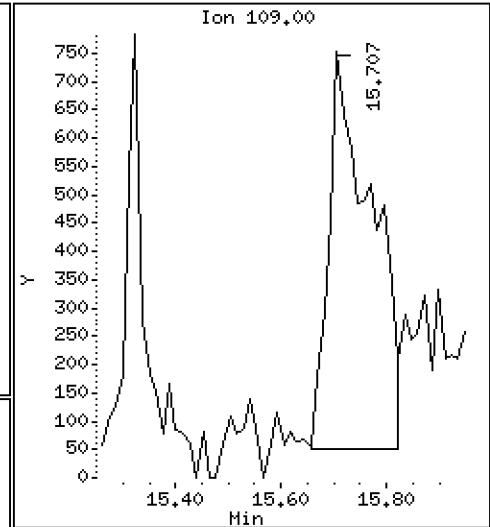
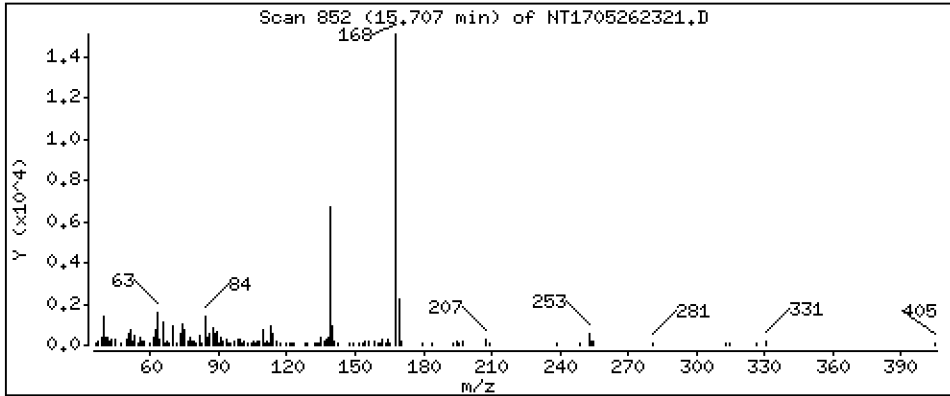
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,1478 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

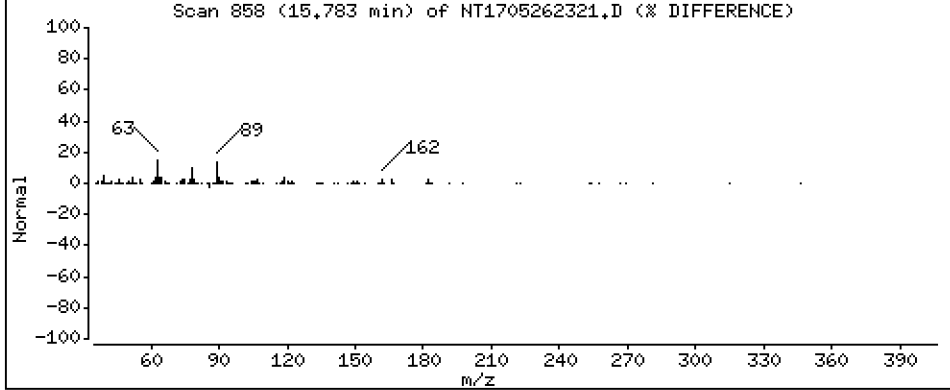
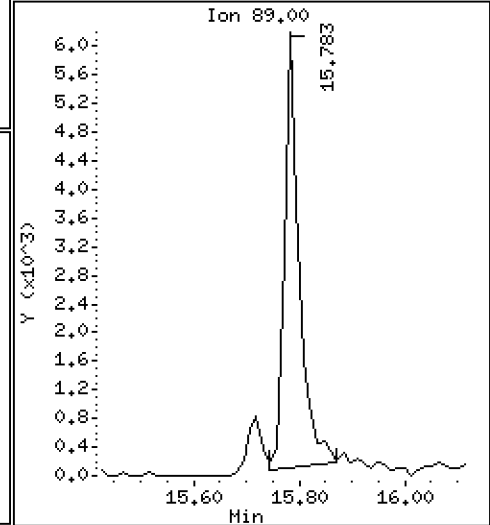
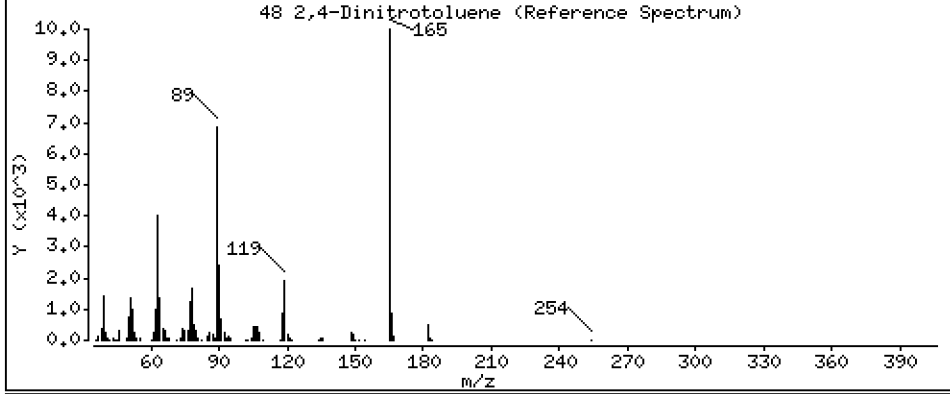
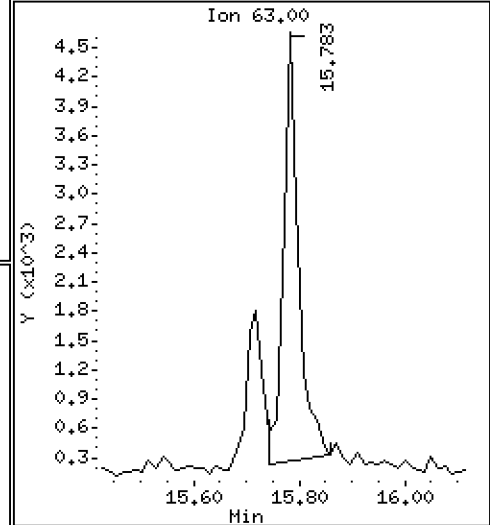
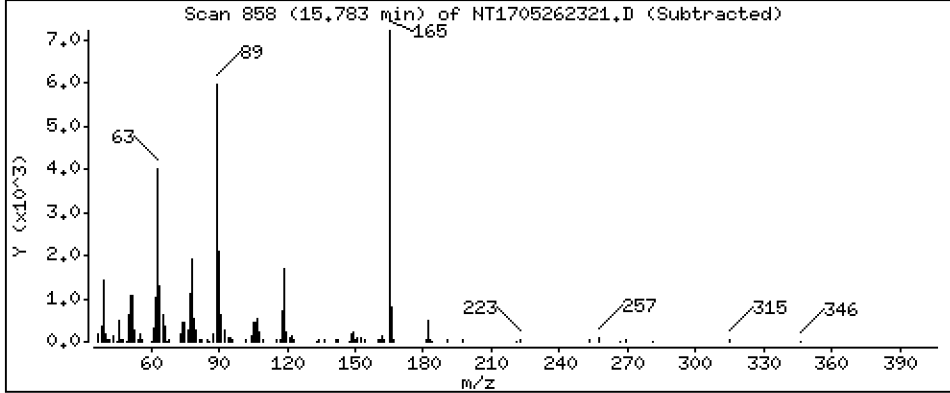
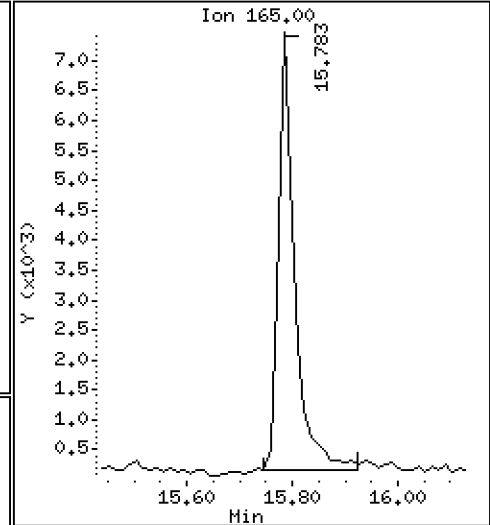
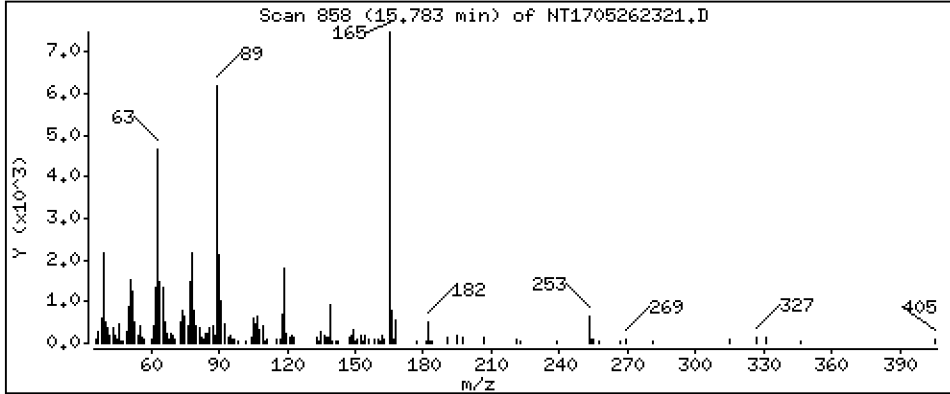
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,2750 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

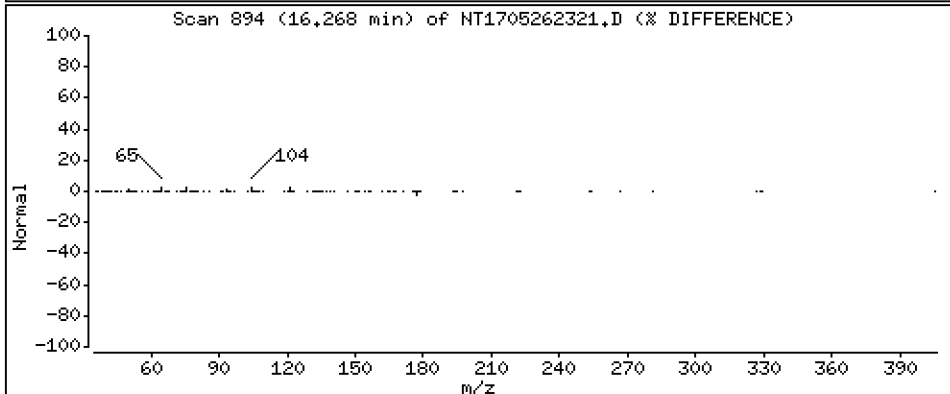
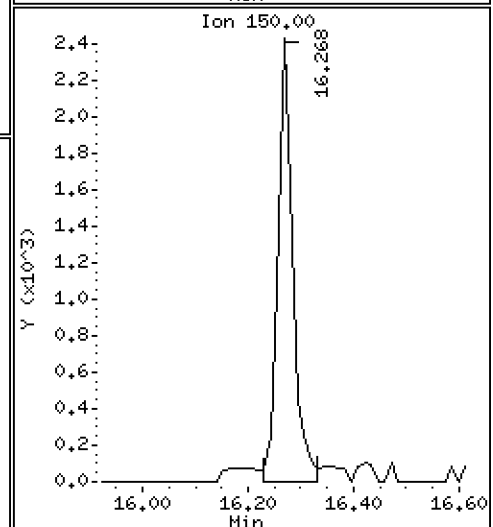
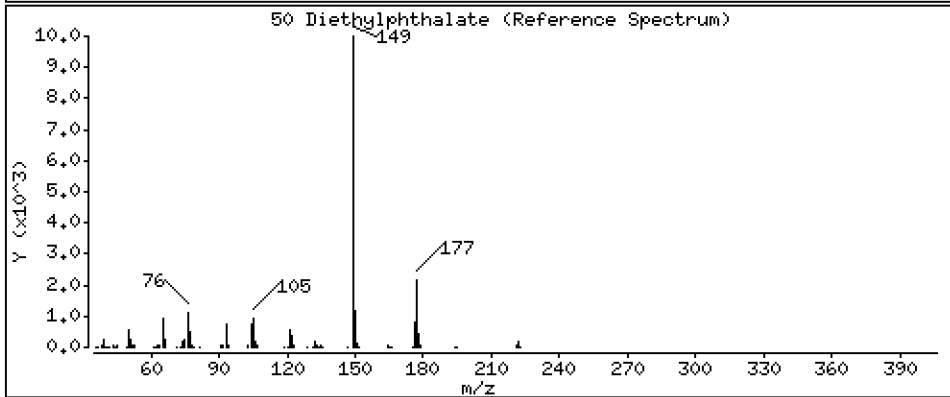
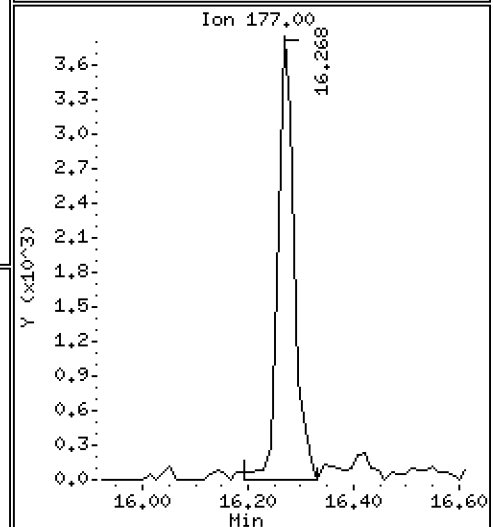
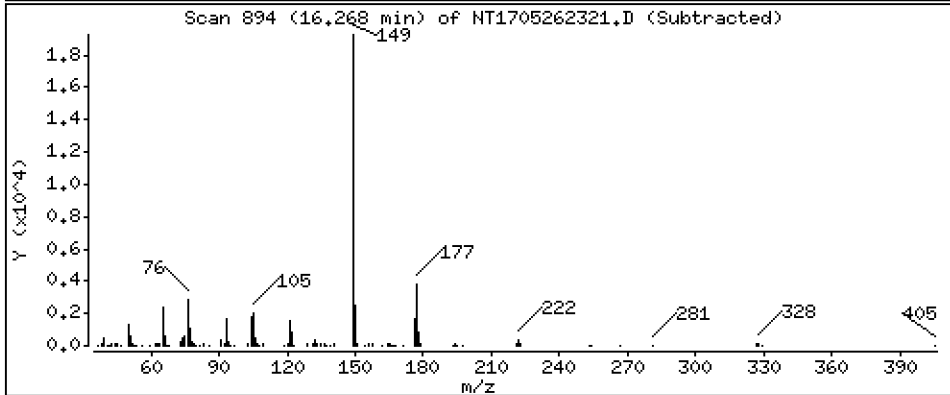
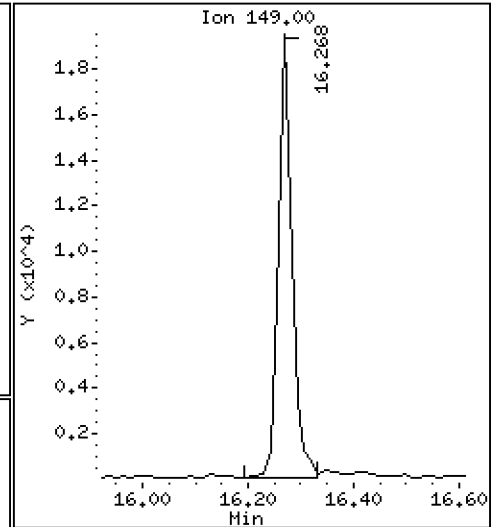
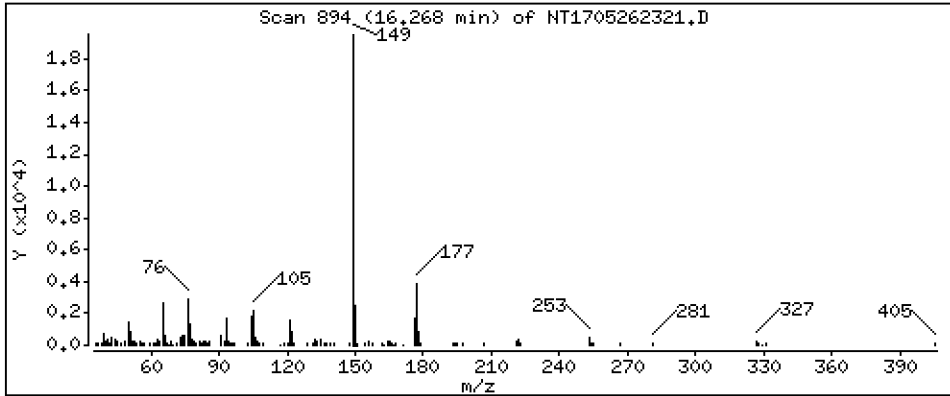
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,2357 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

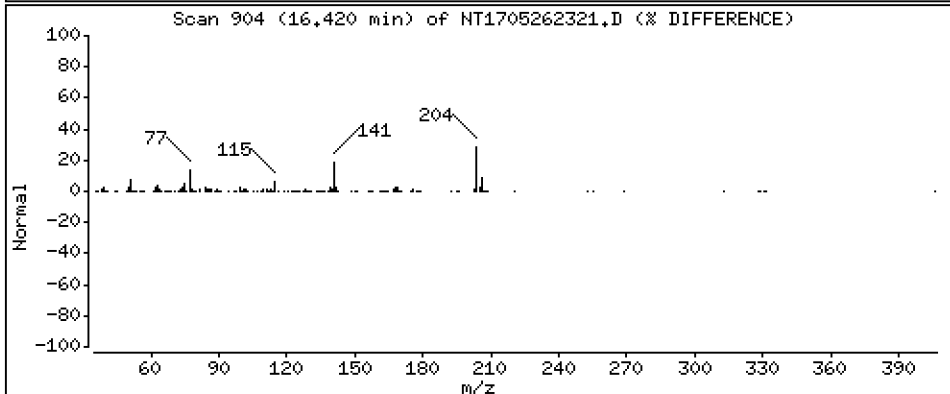
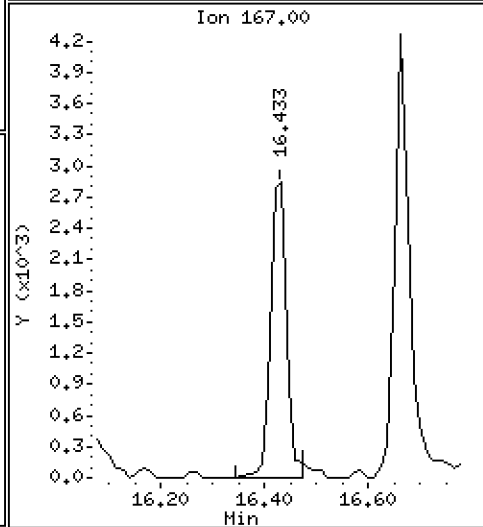
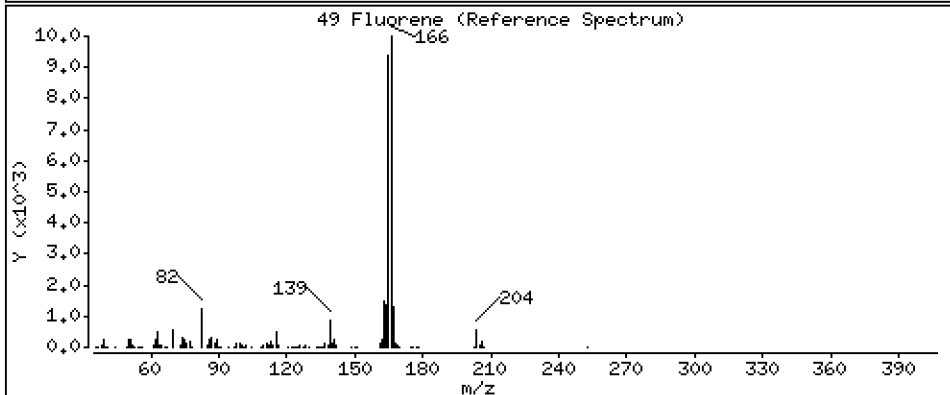
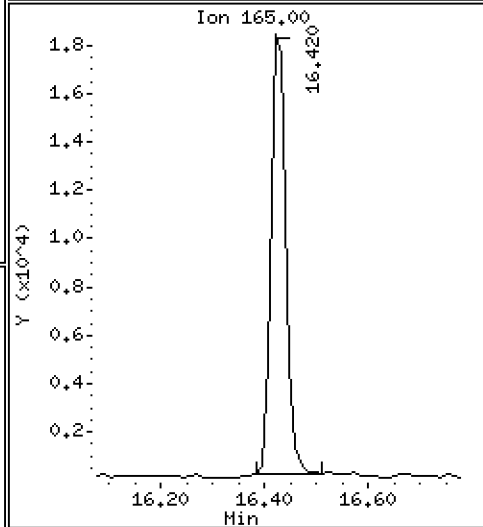
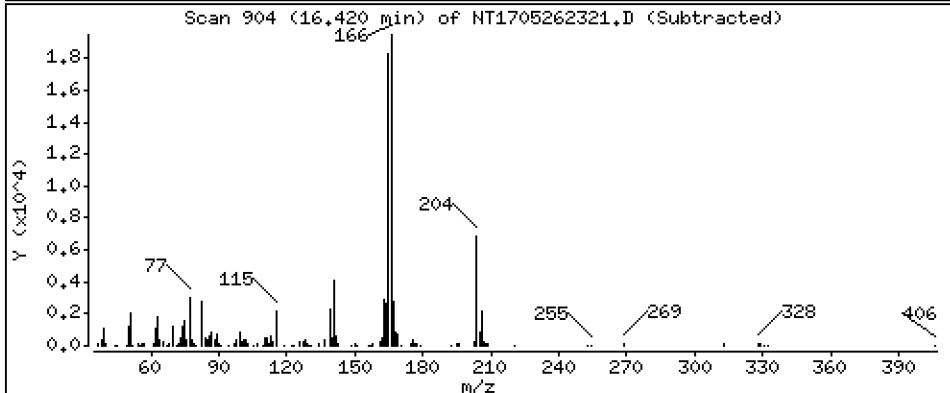
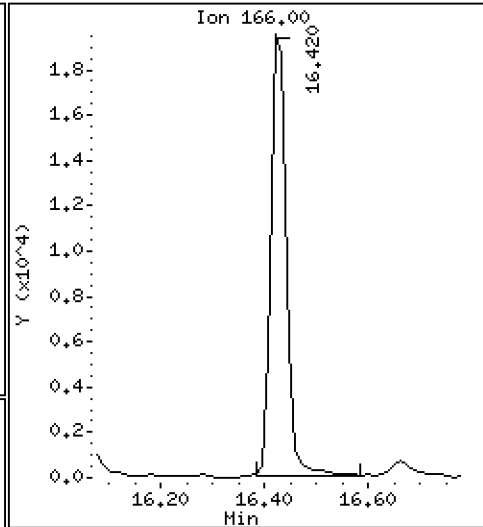
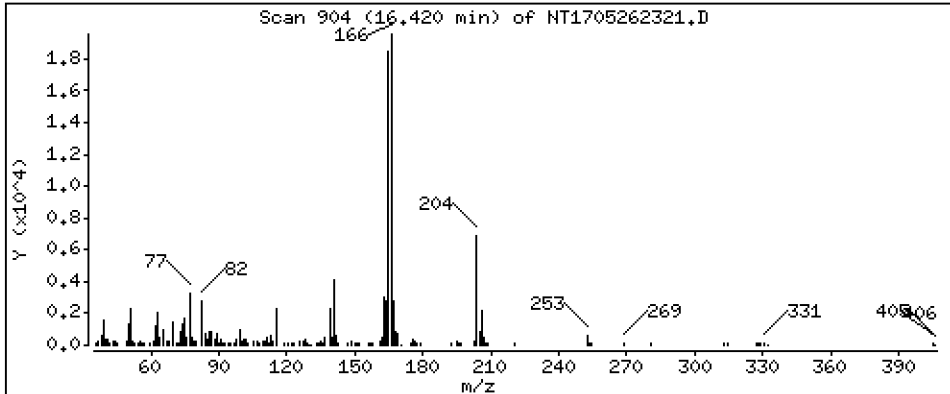
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,1749 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

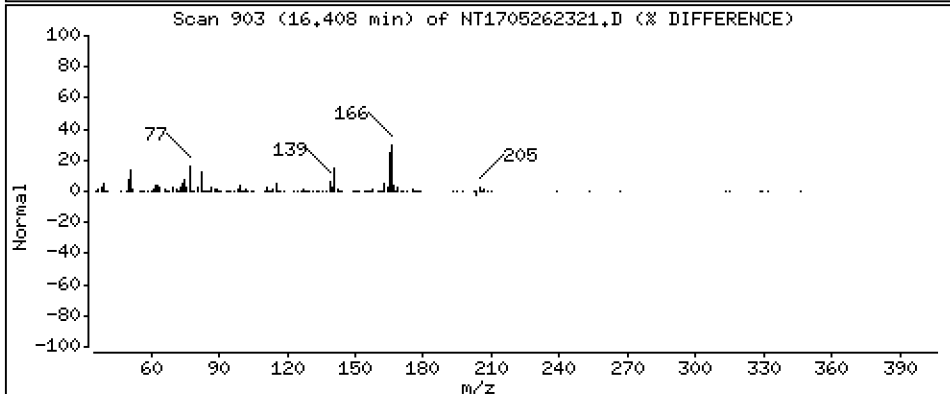
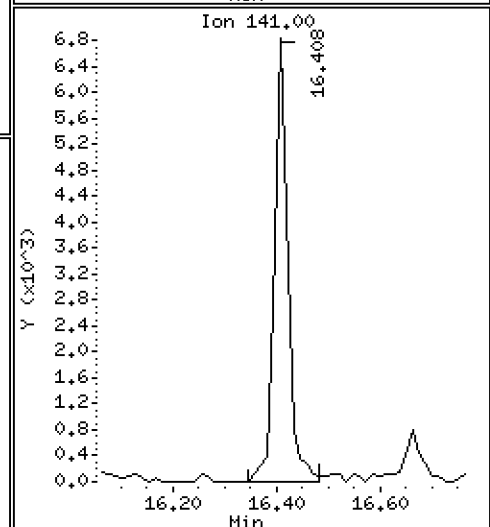
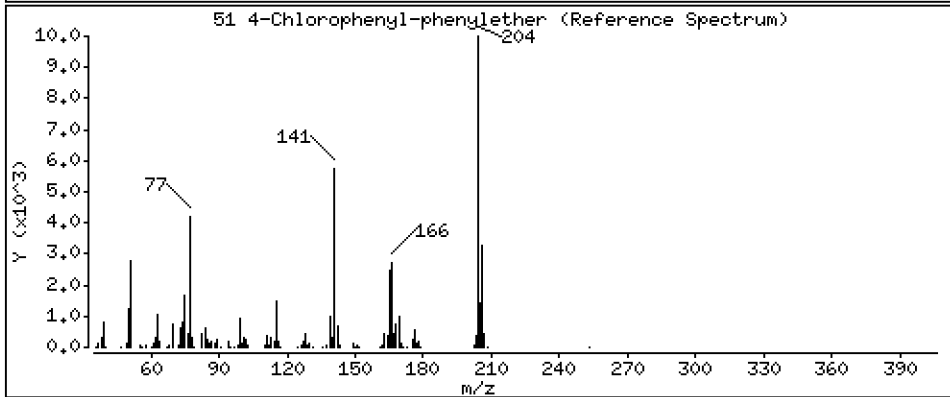
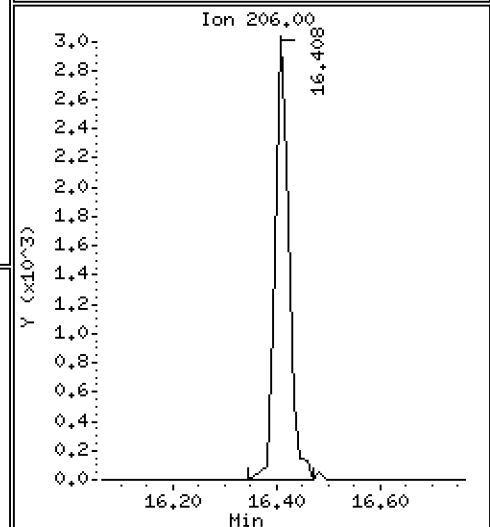
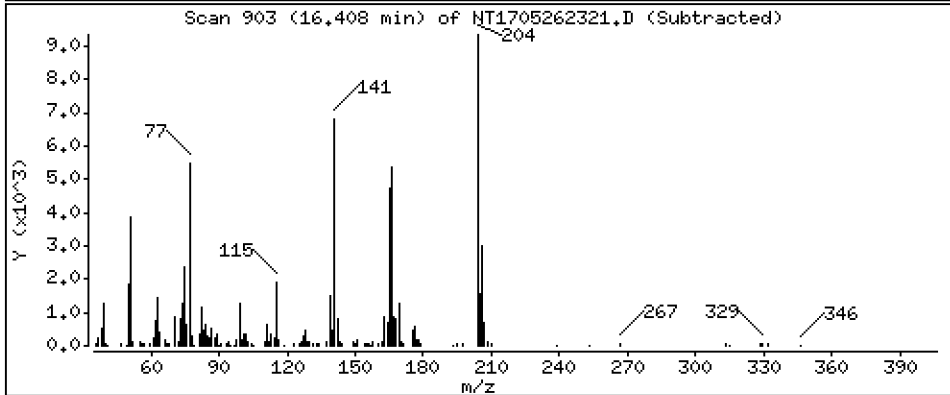
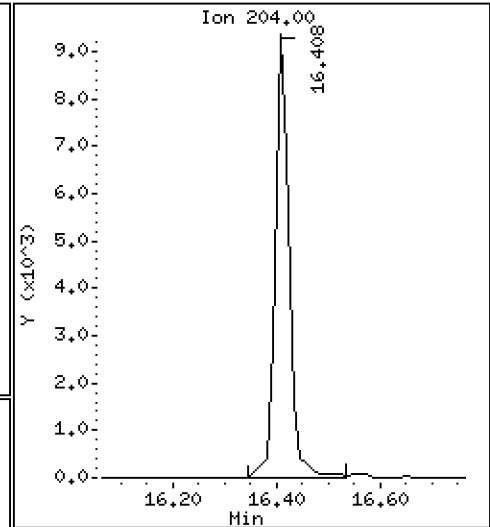
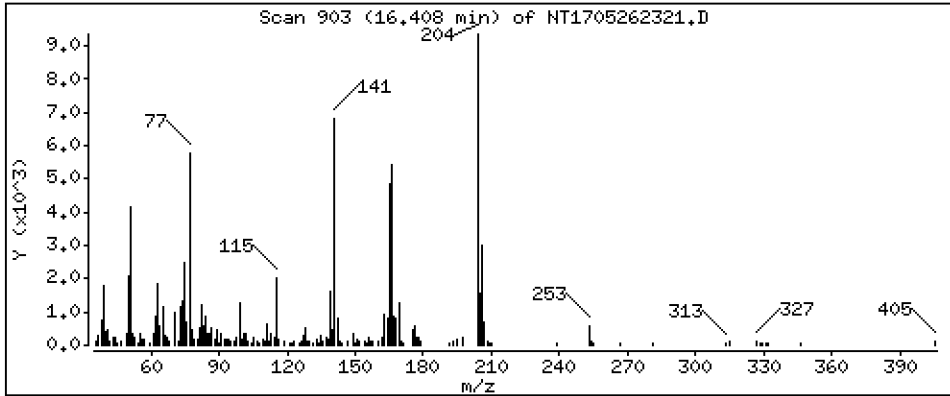
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,1866 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

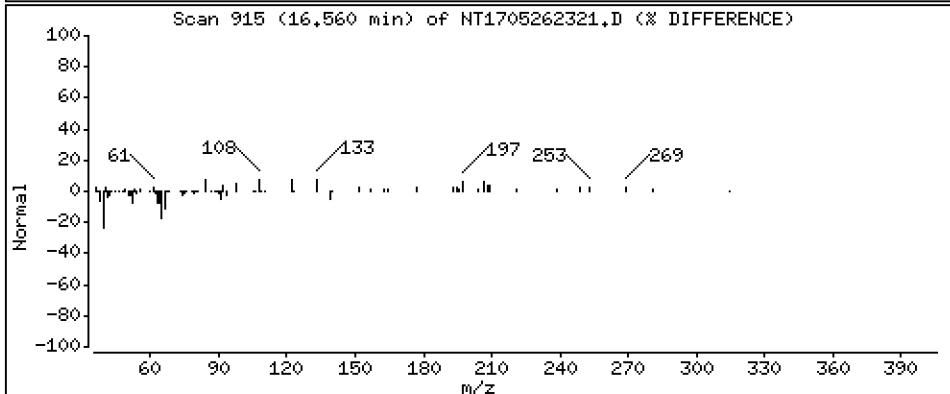
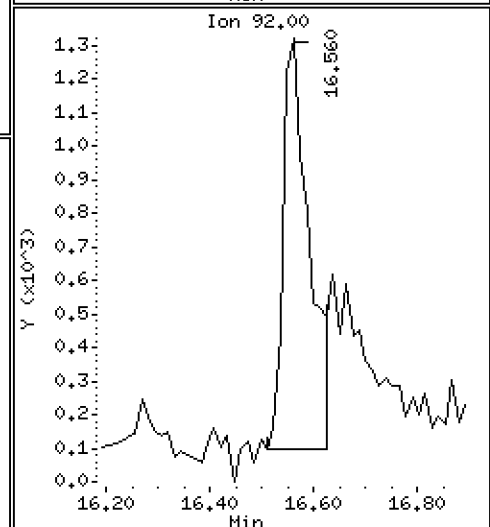
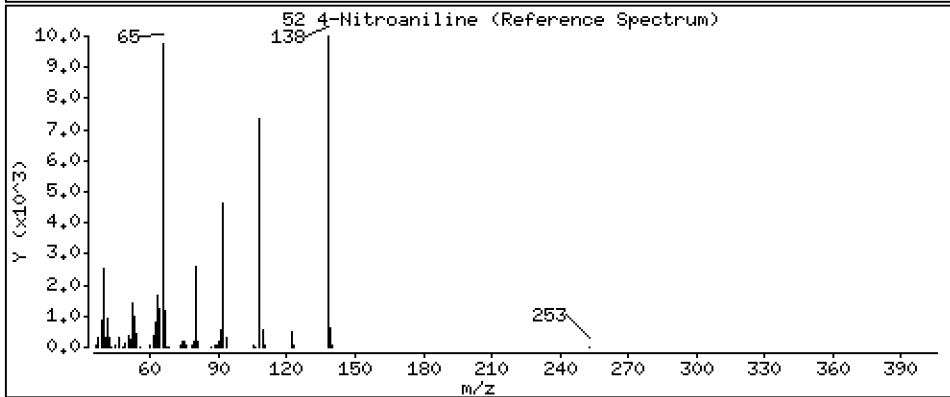
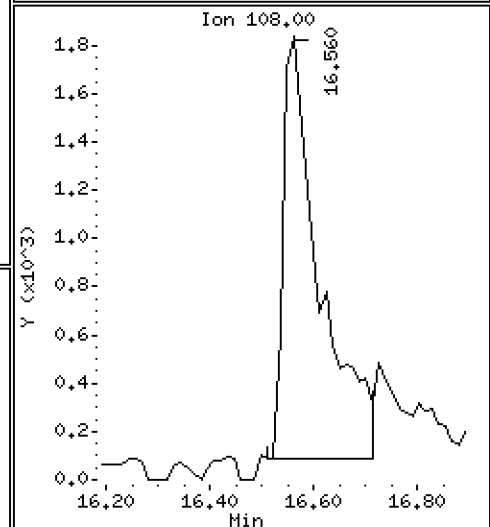
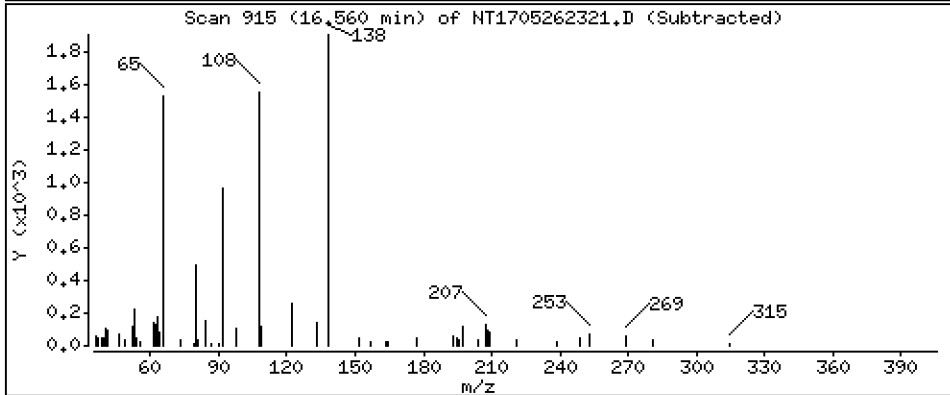
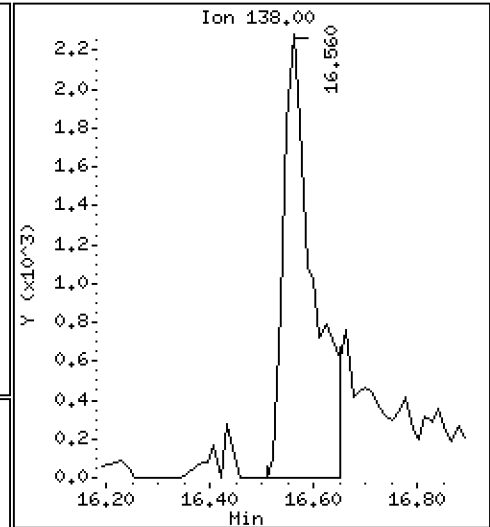
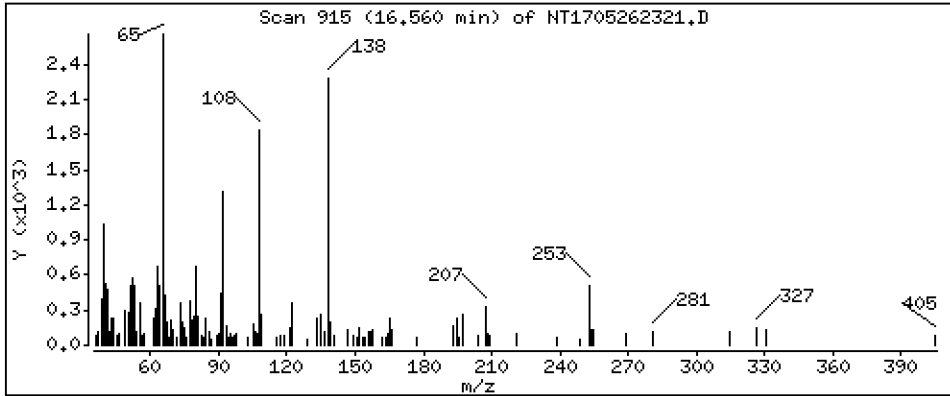
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,2364 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

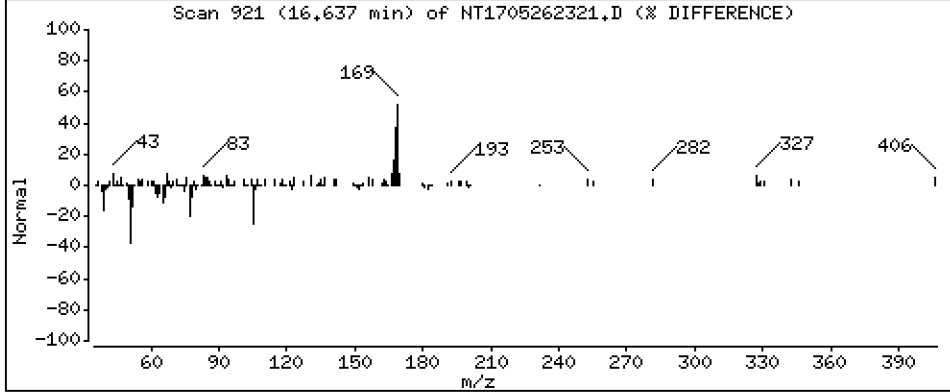
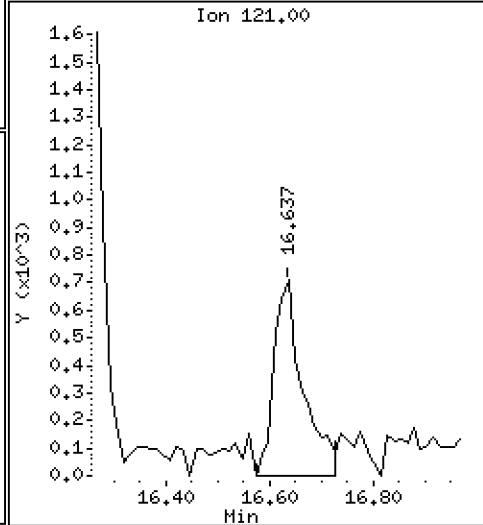
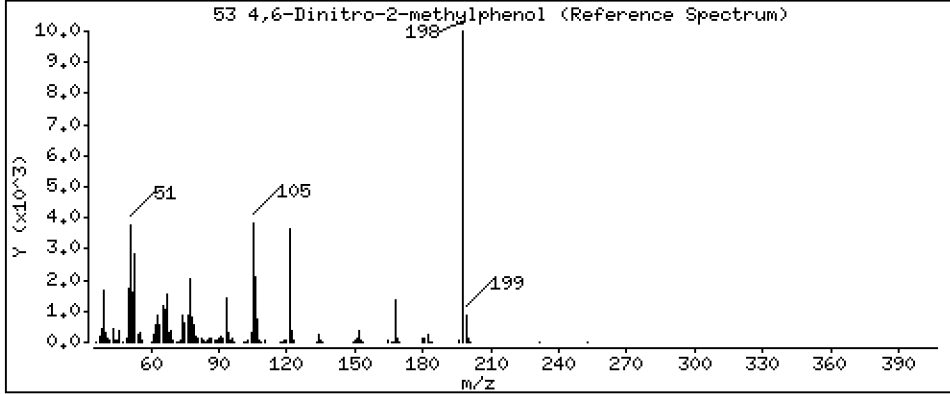
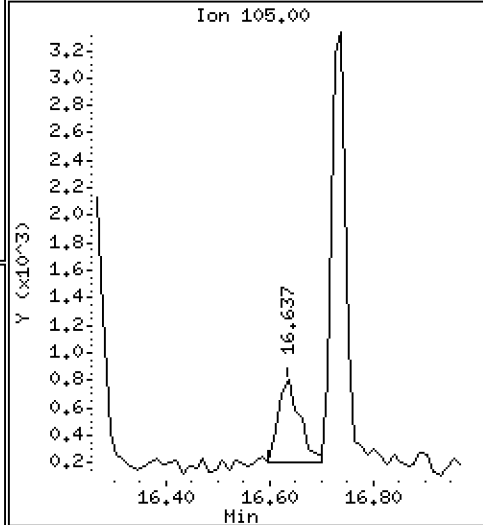
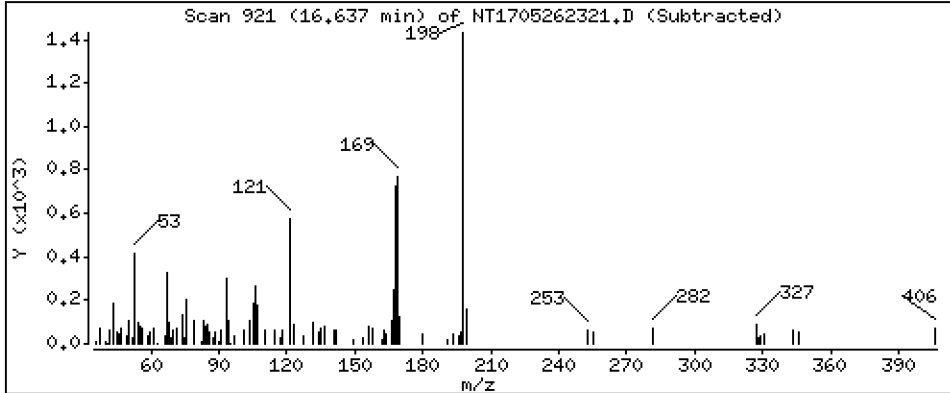
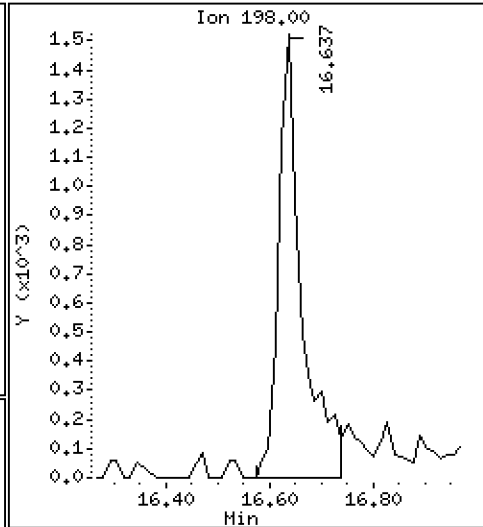
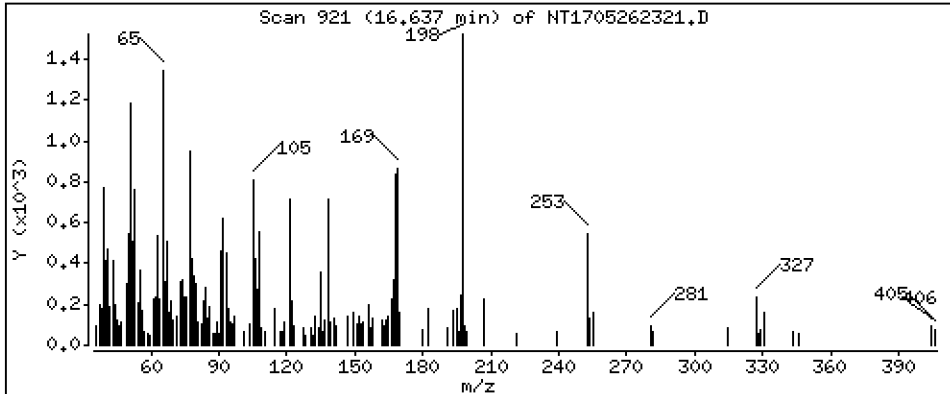
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 0.1349 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

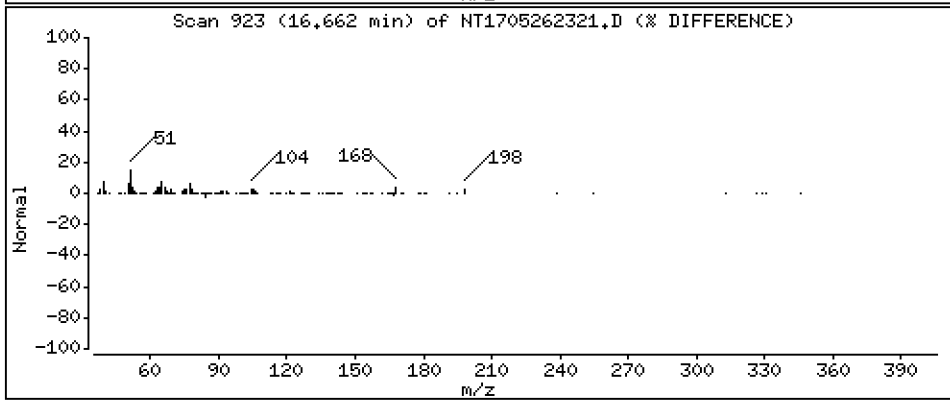
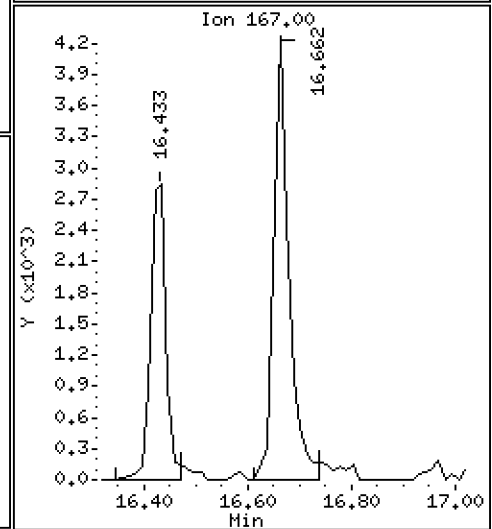
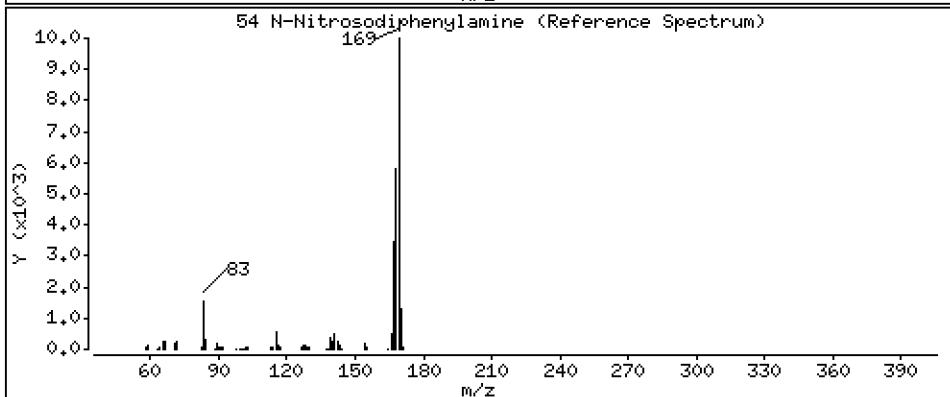
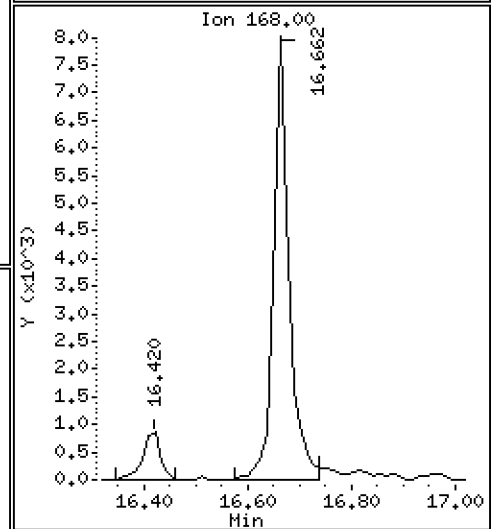
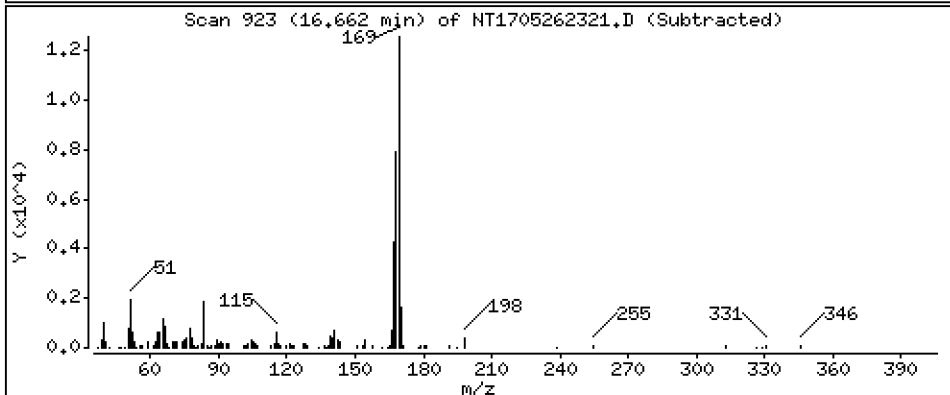
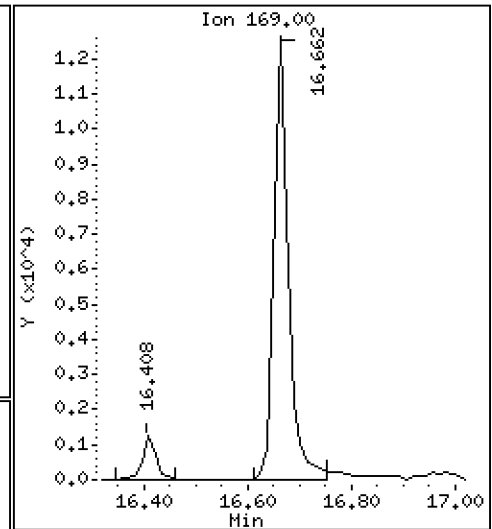
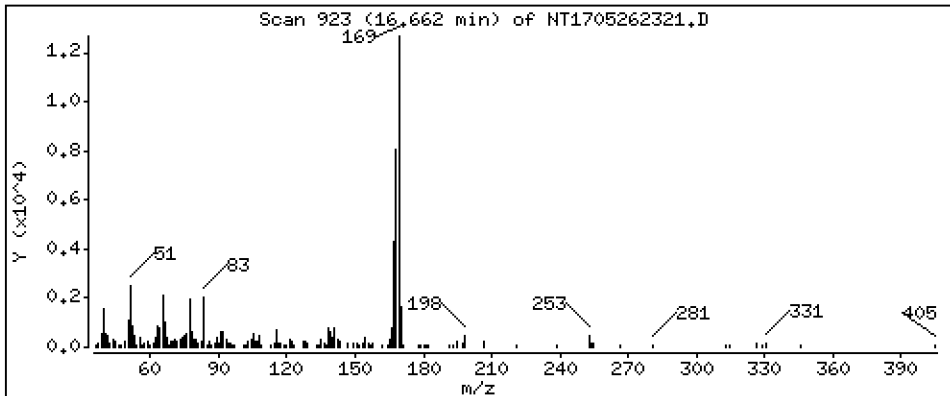
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1967 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

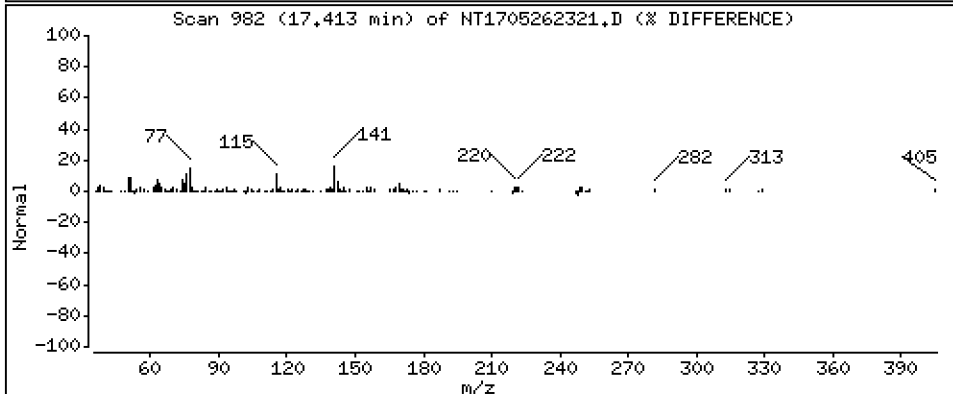
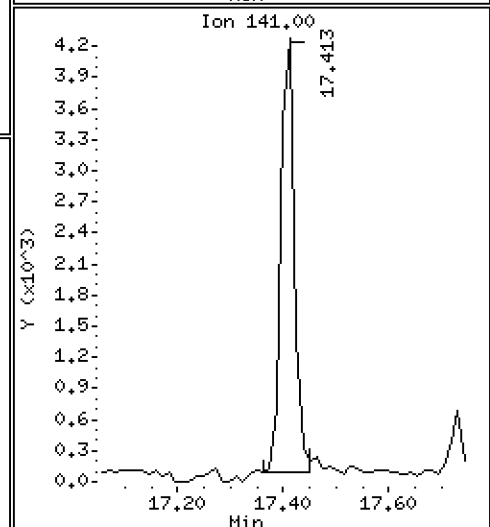
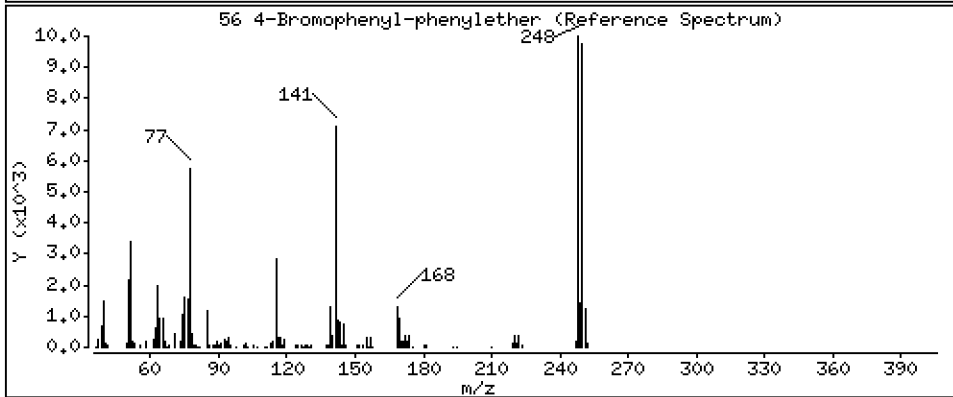
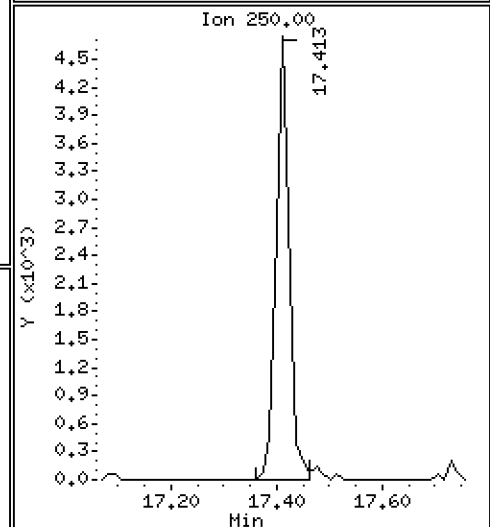
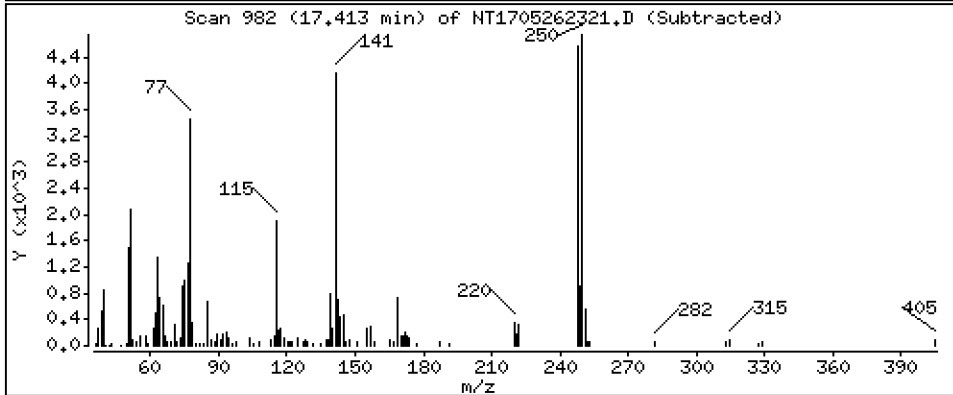
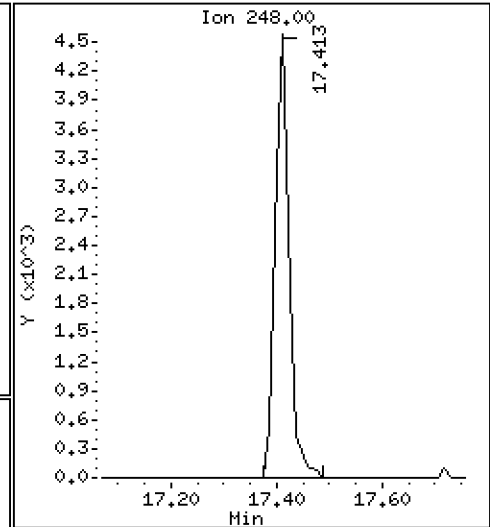
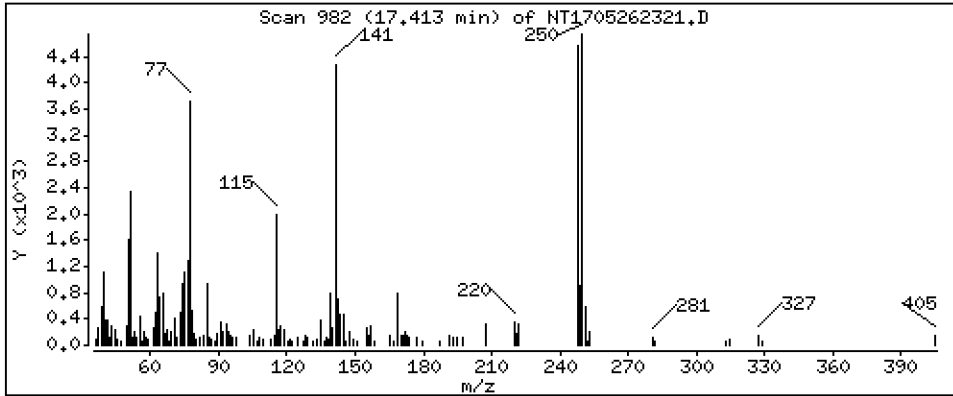
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,1950 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

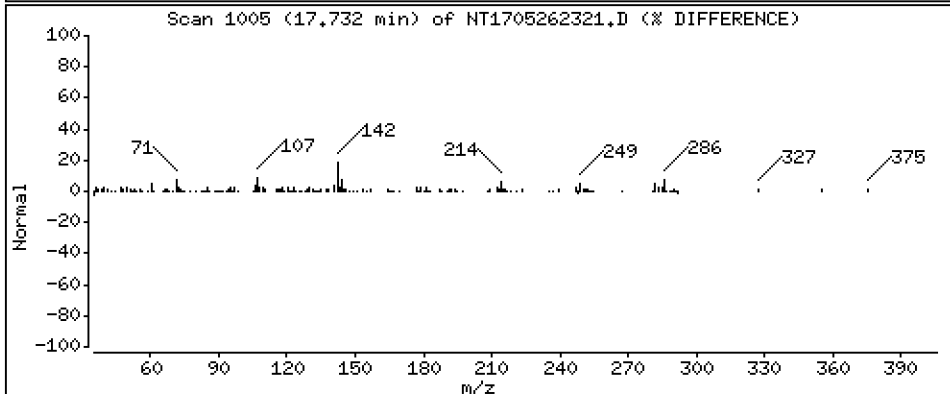
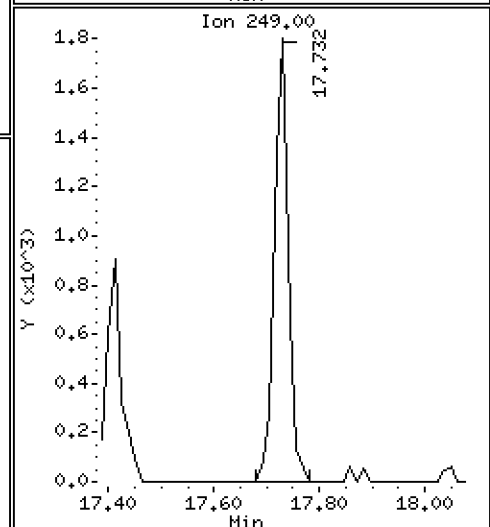
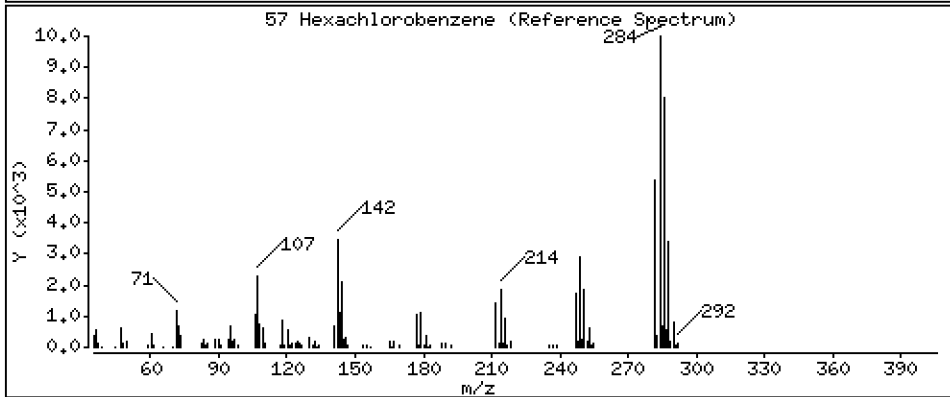
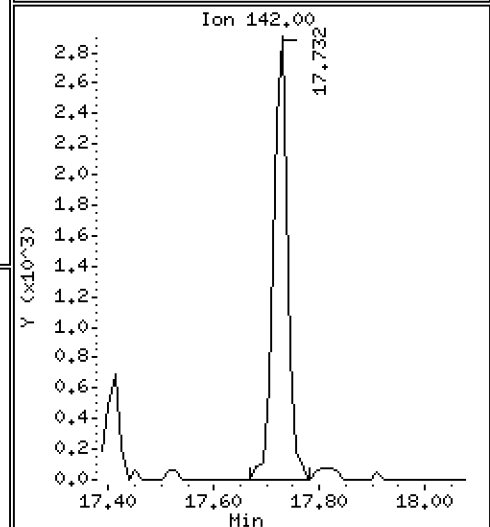
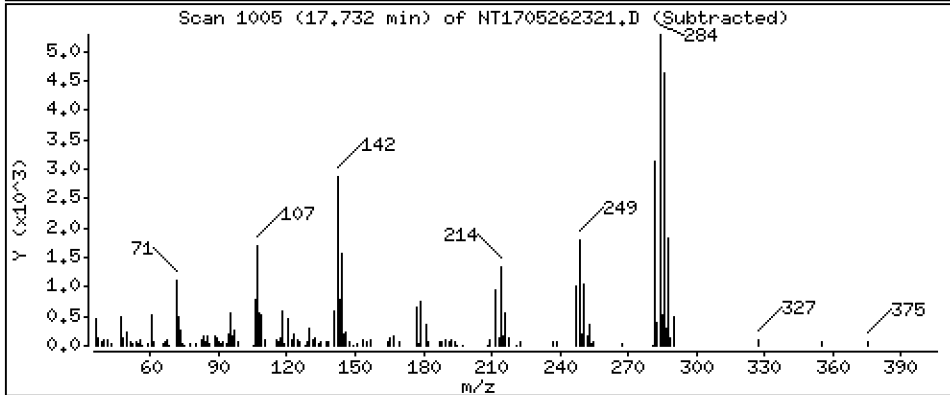
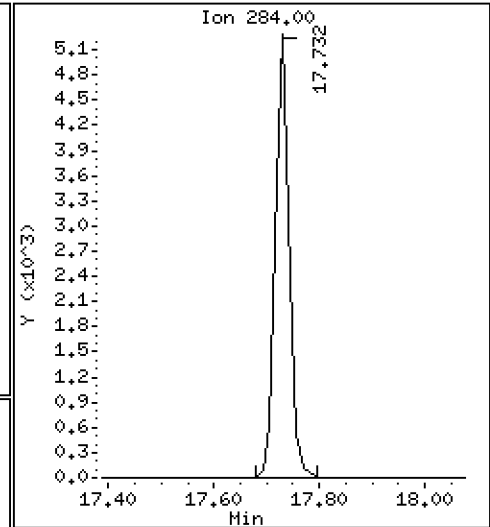
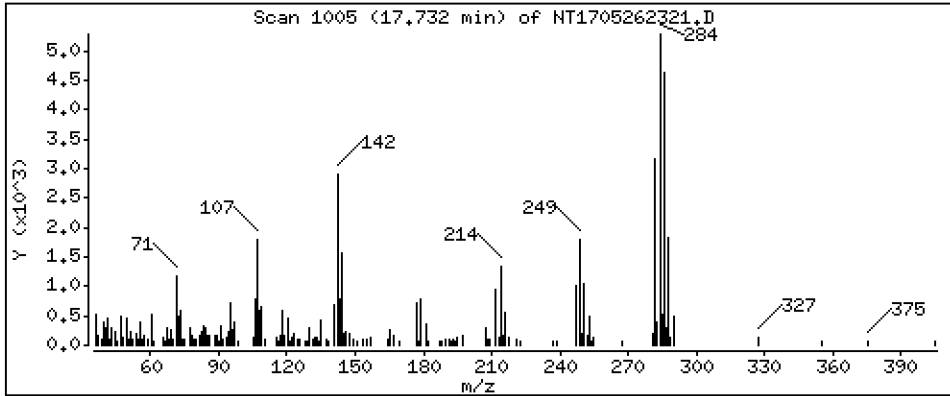
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,2192 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

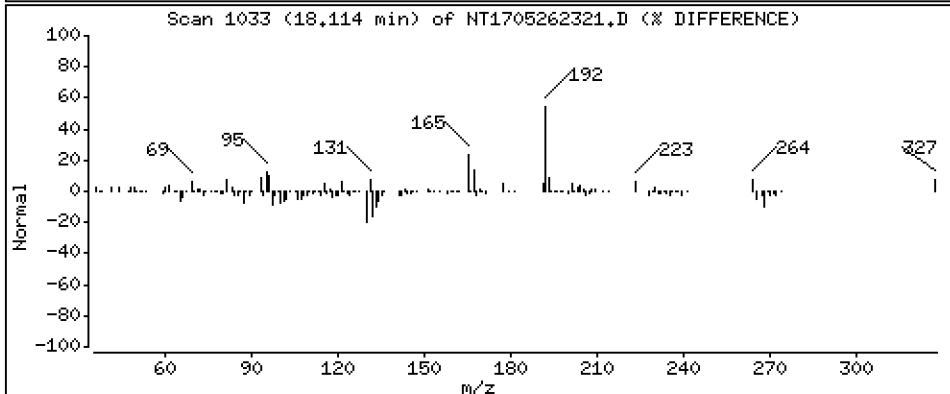
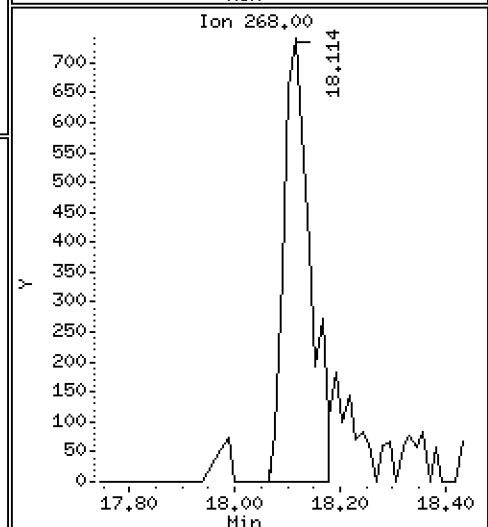
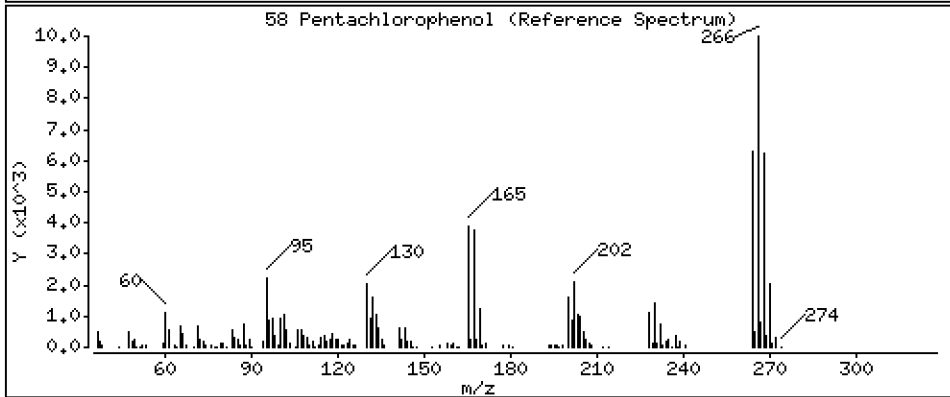
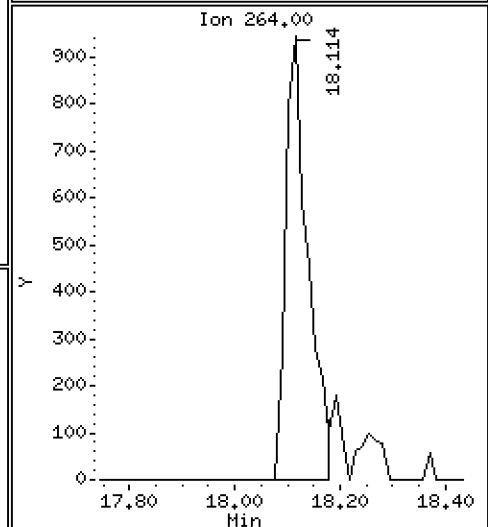
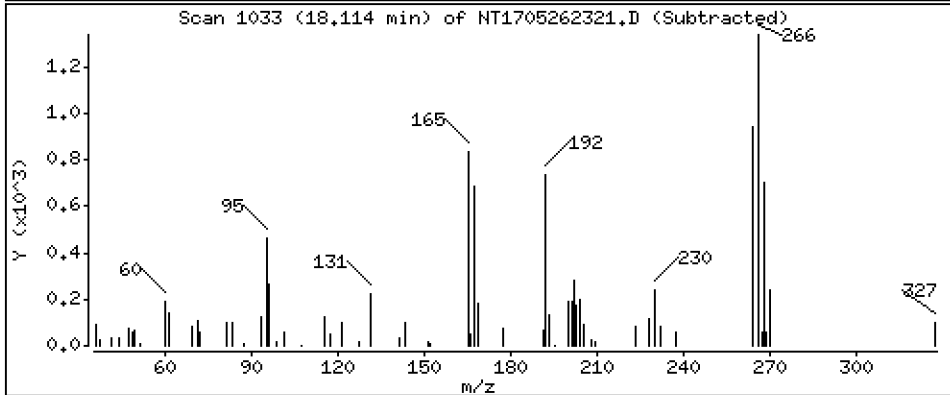
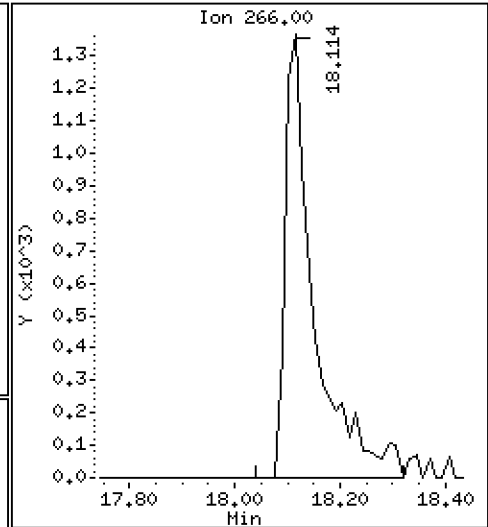
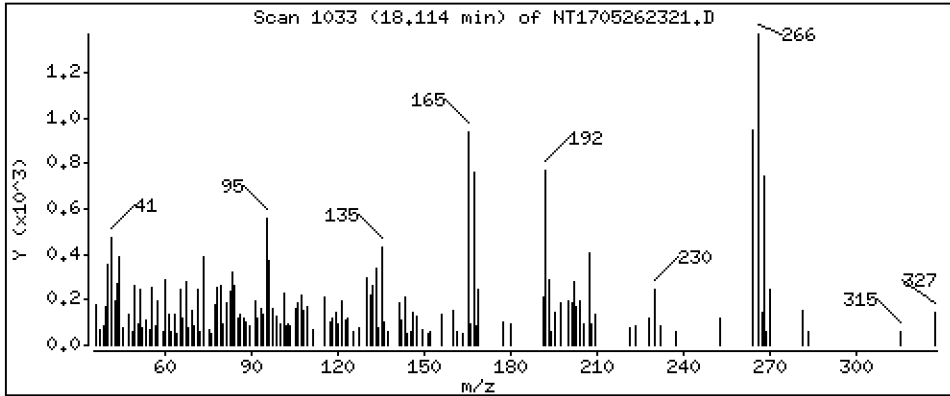
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,2038 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

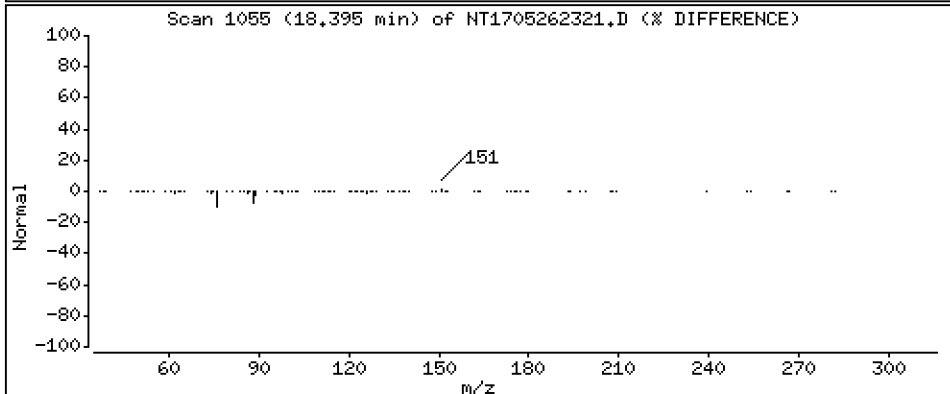
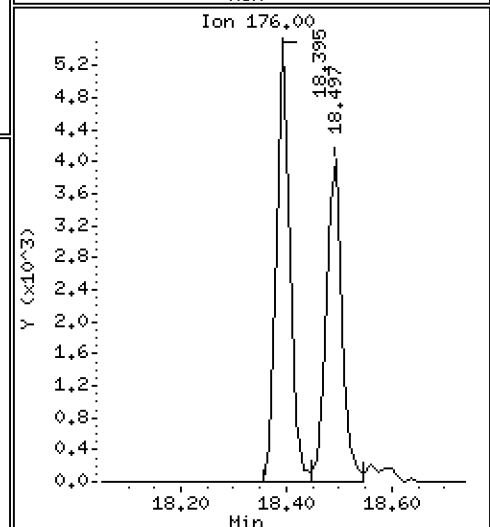
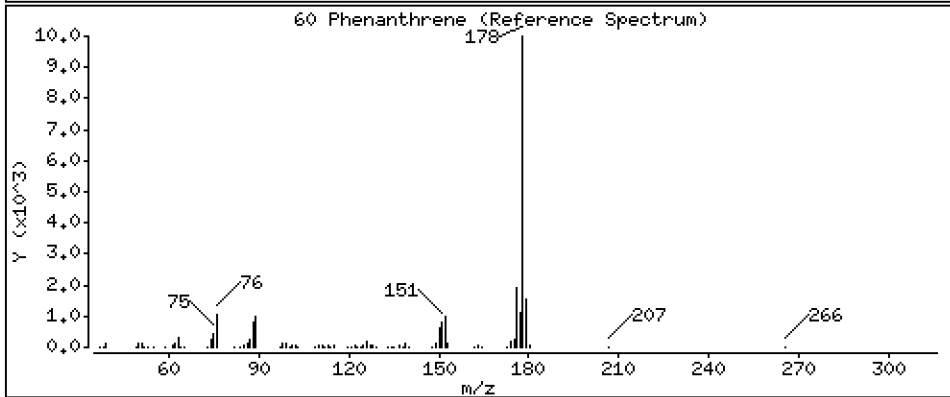
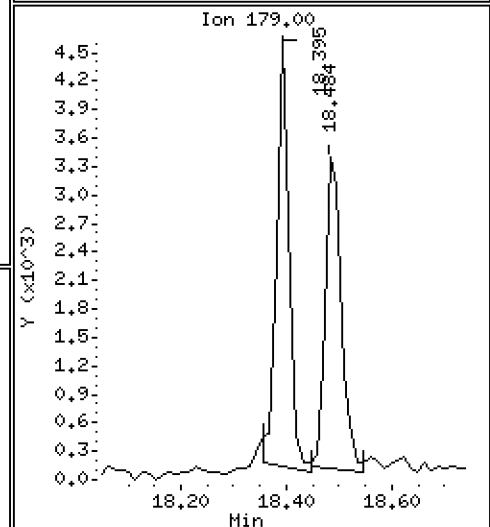
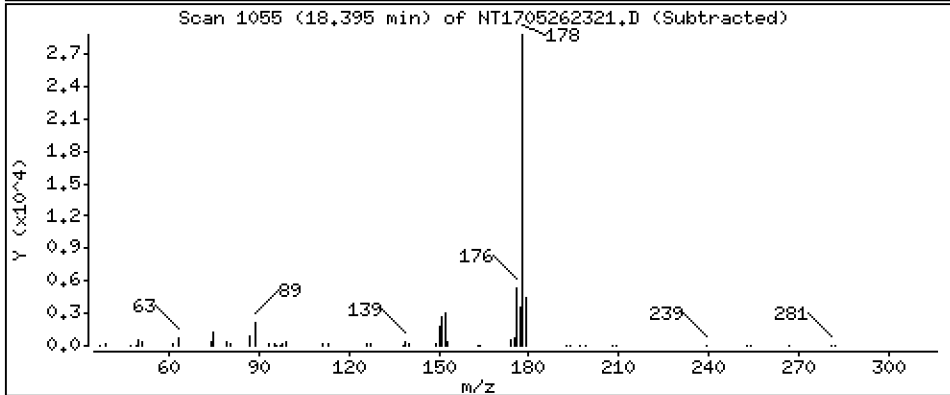
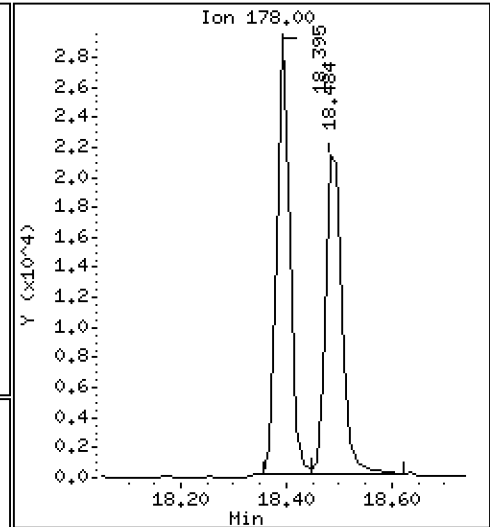
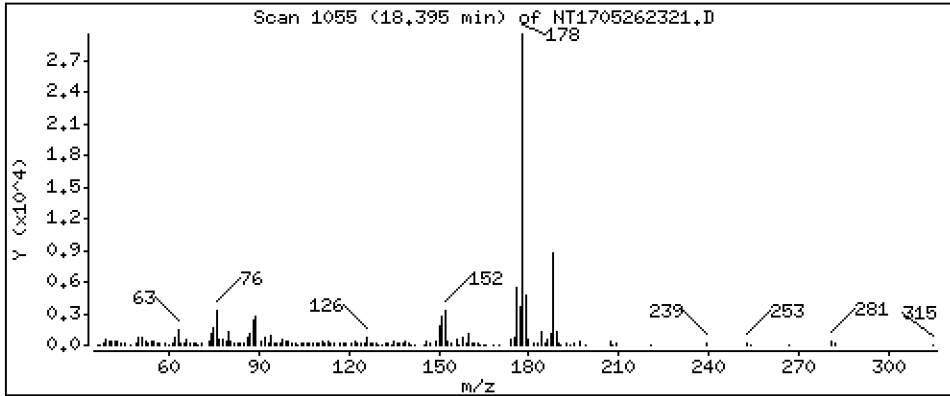
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,1948 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

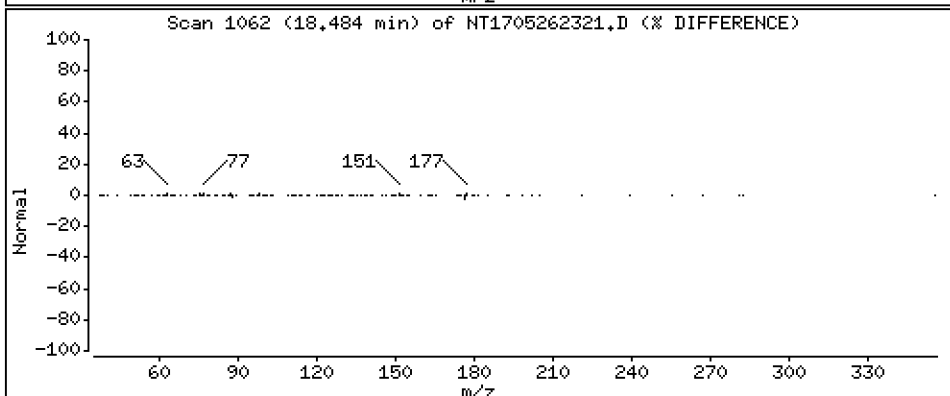
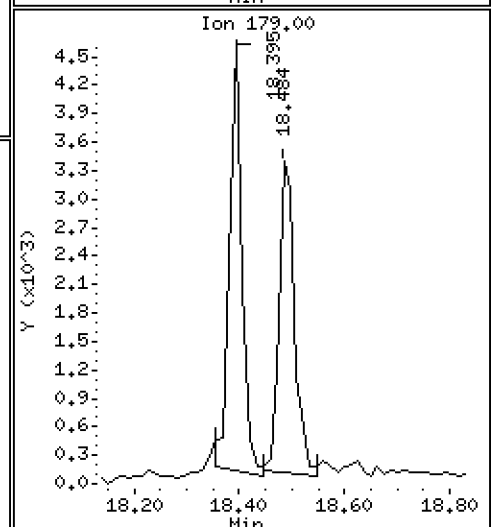
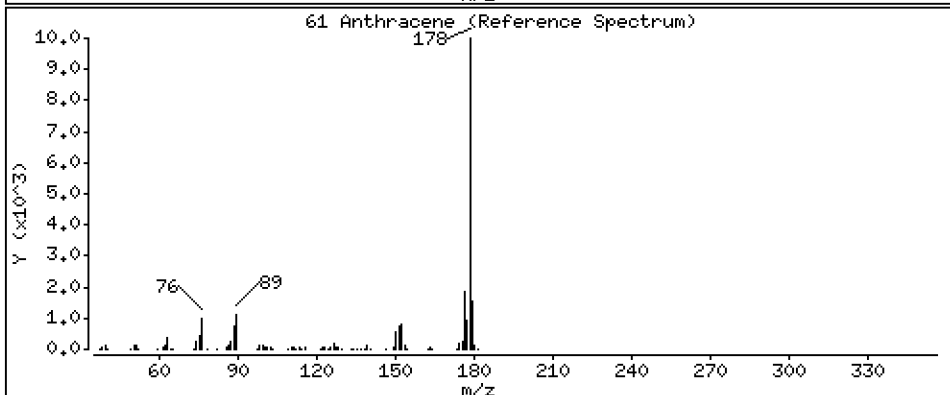
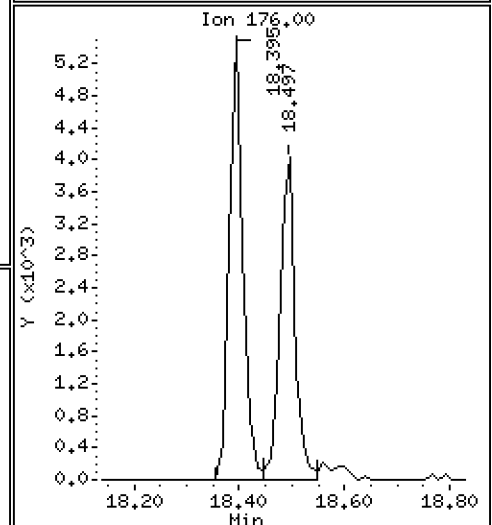
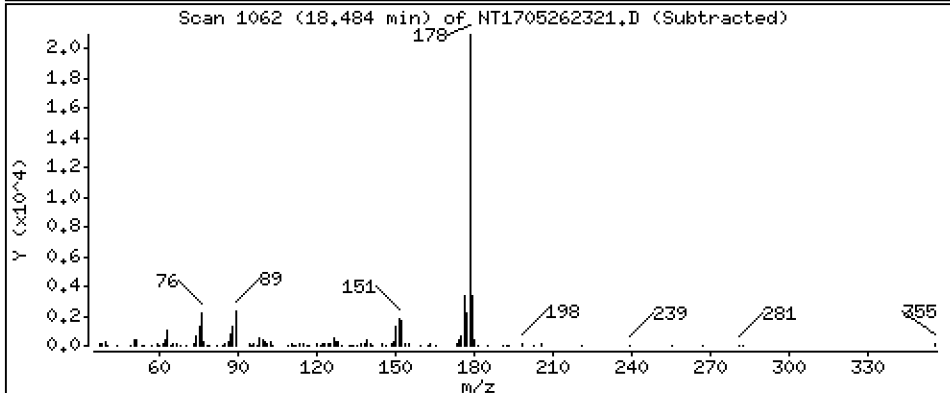
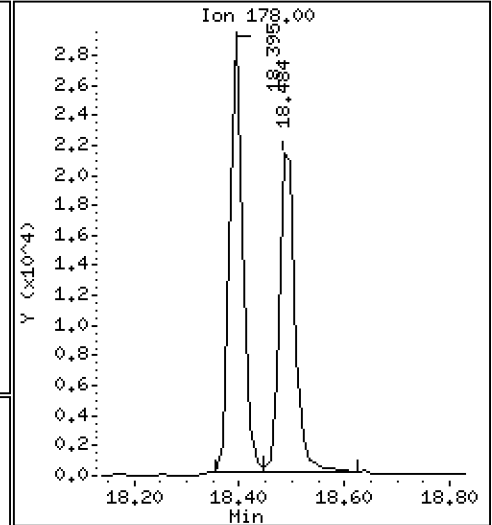
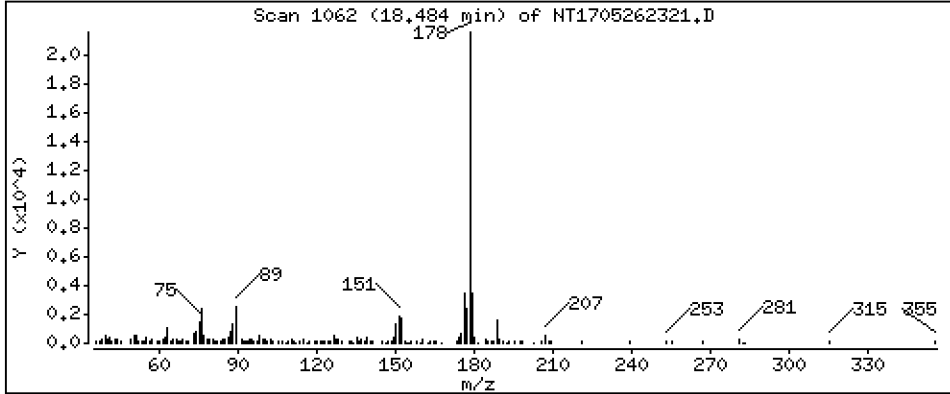
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,1950 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

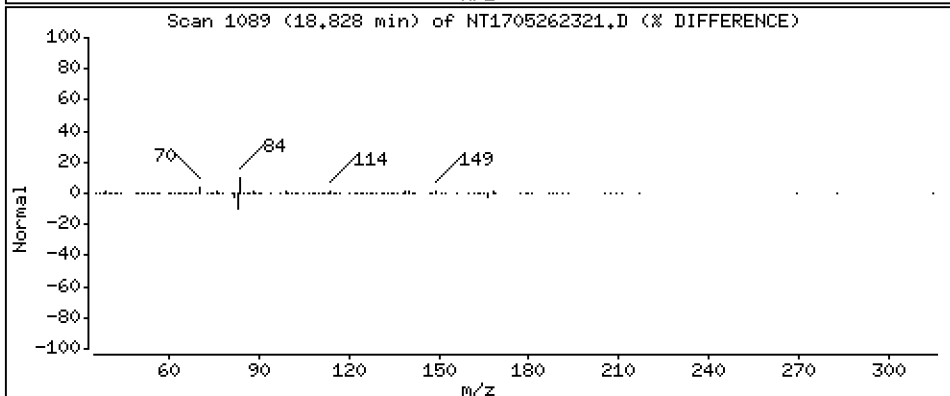
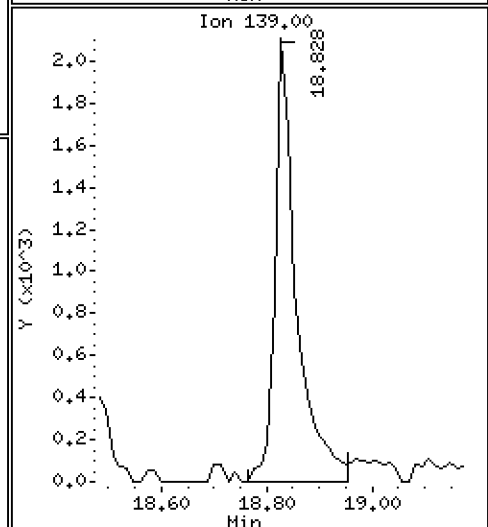
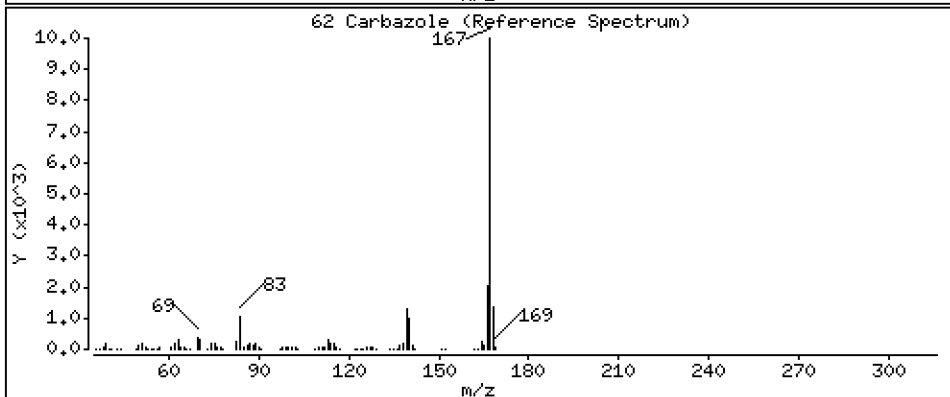
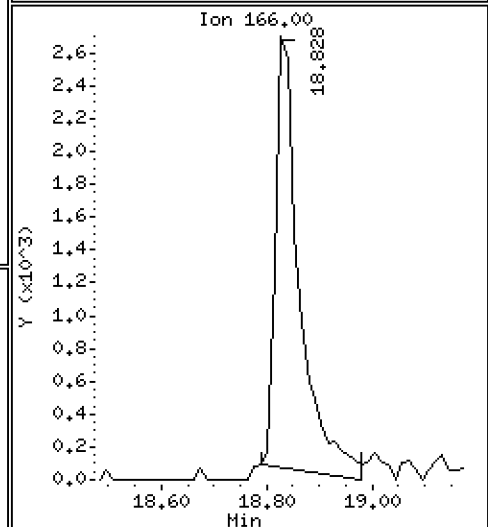
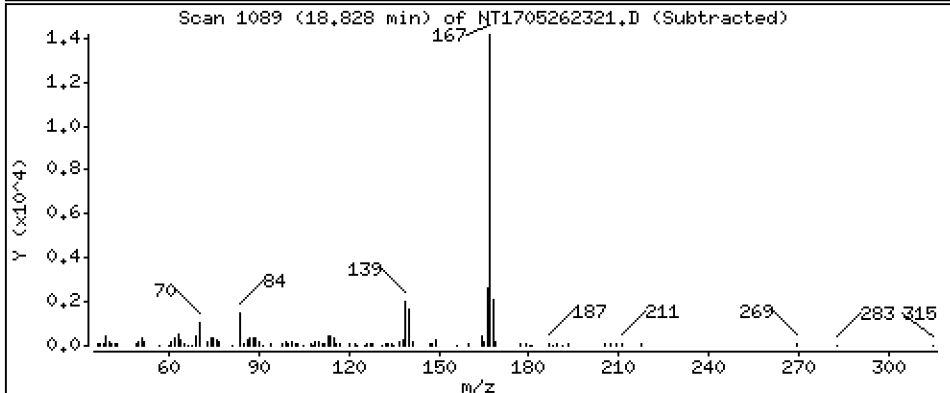
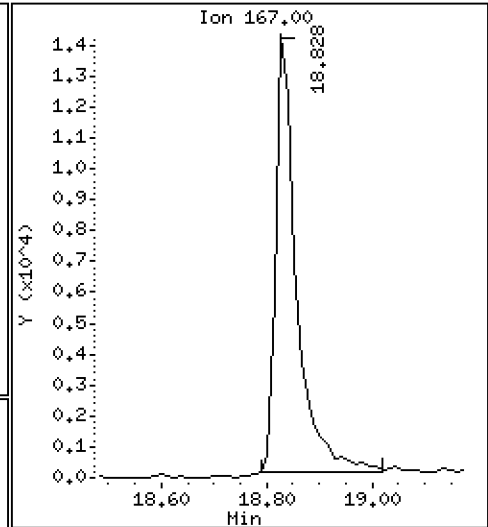
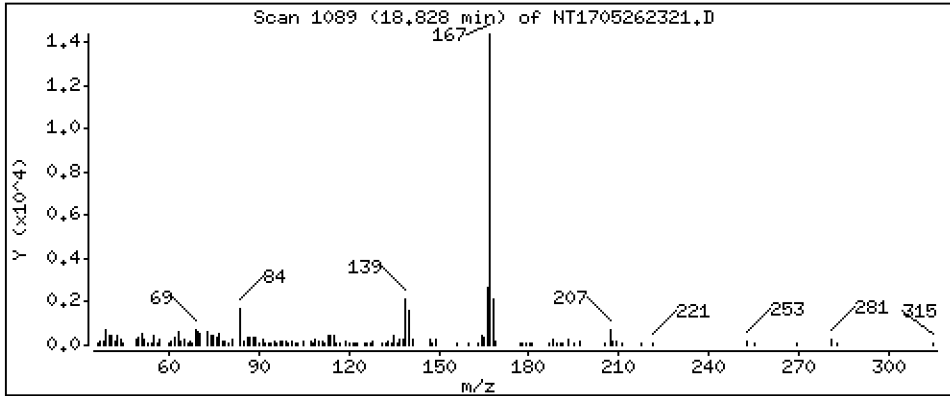
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,2639 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

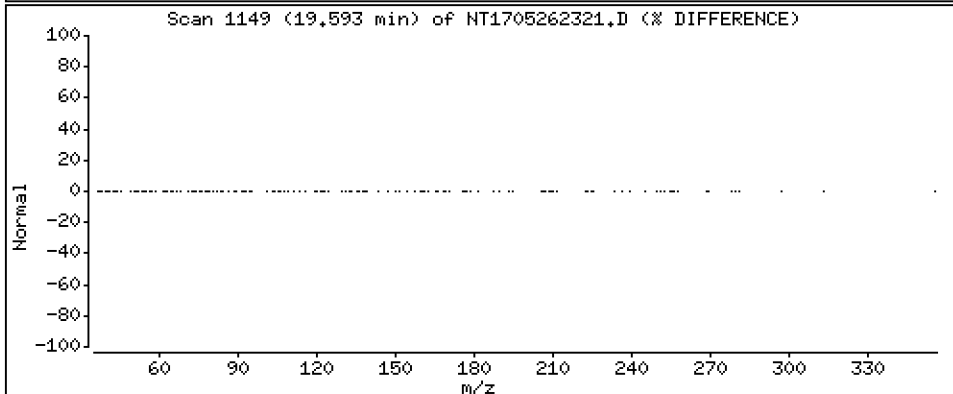
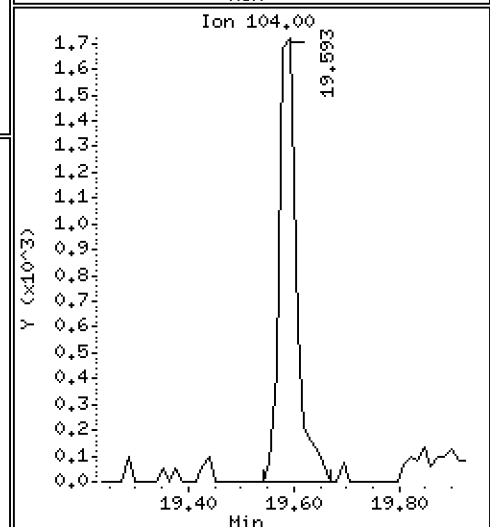
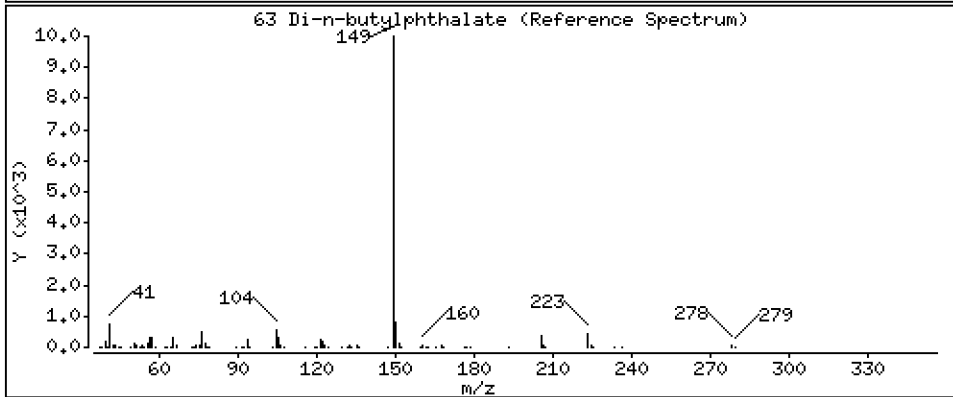
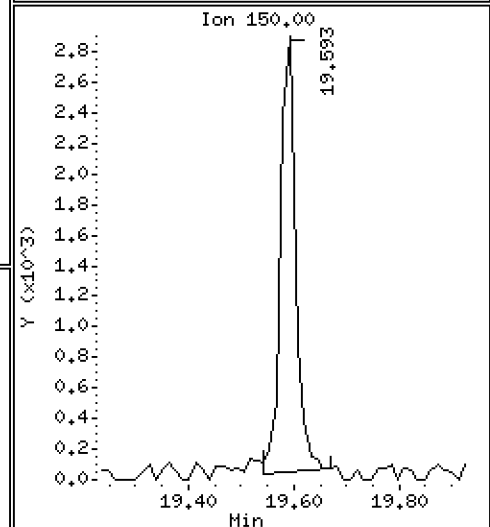
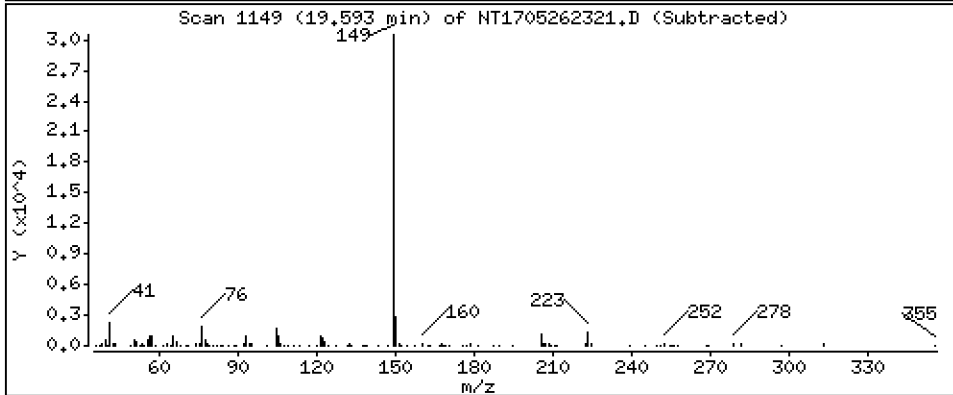
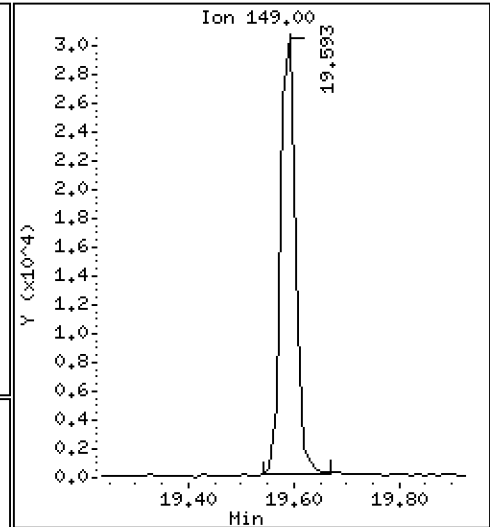
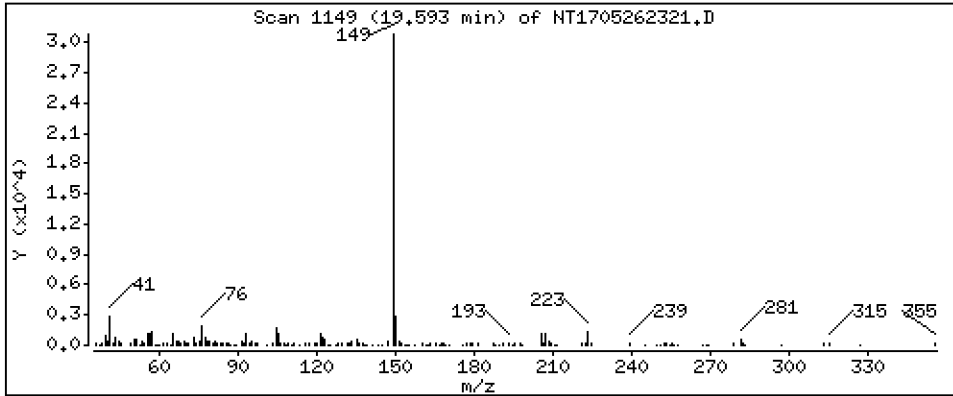
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,1972 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

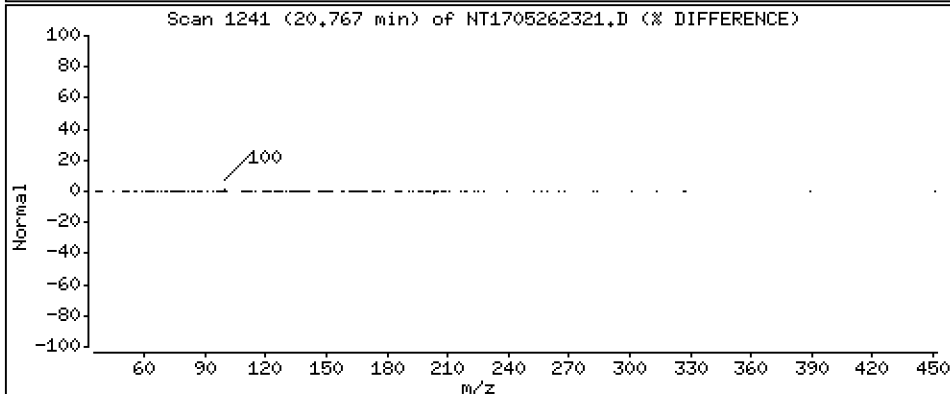
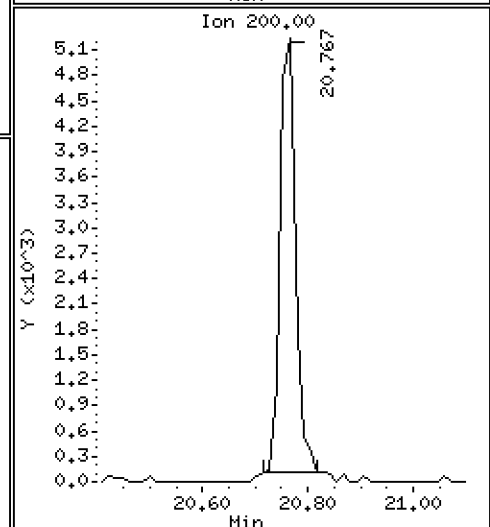
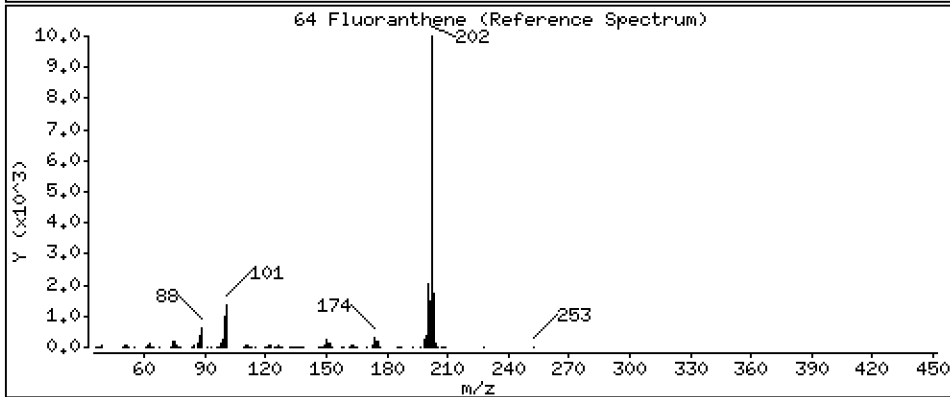
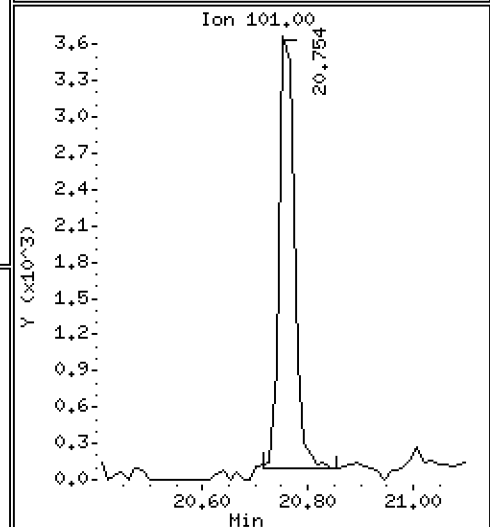
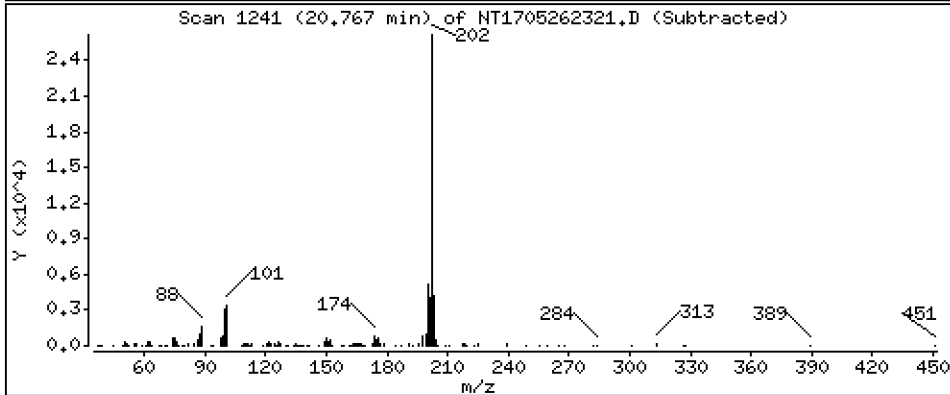
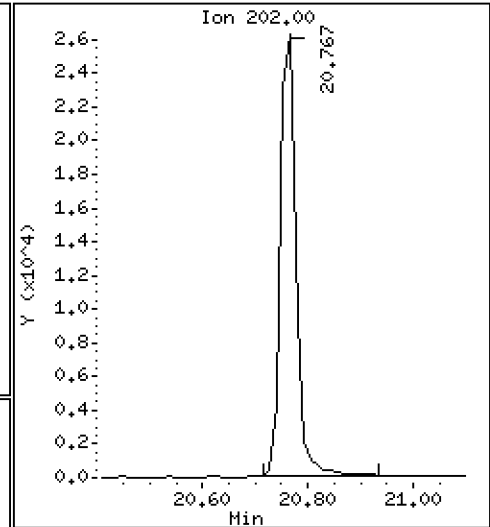
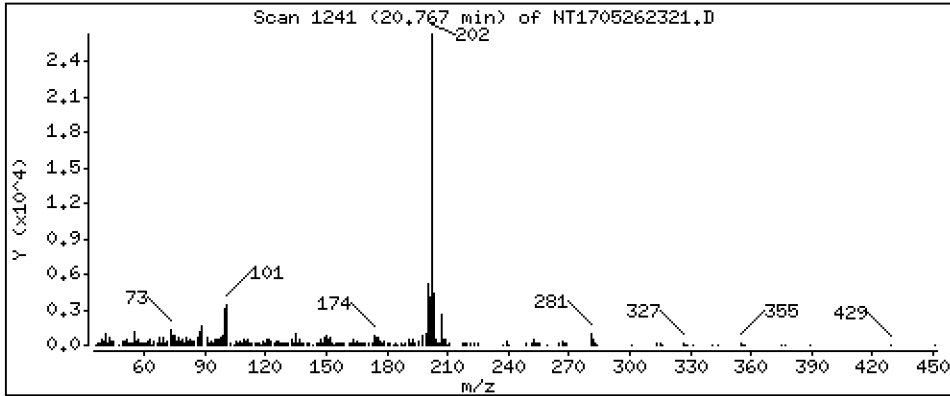
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,1745 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

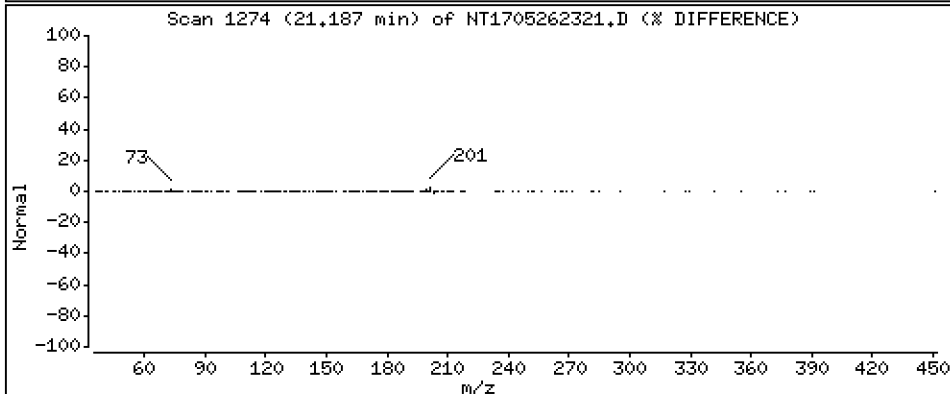
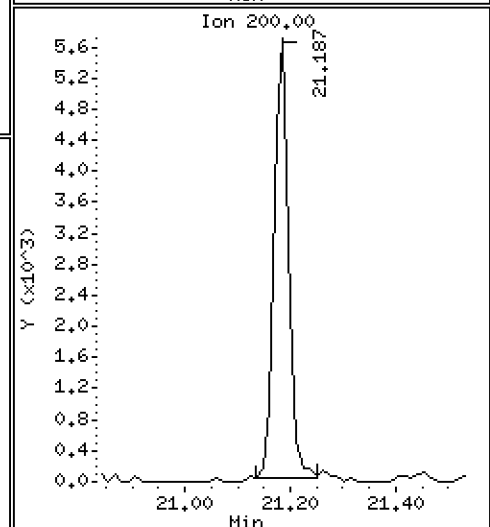
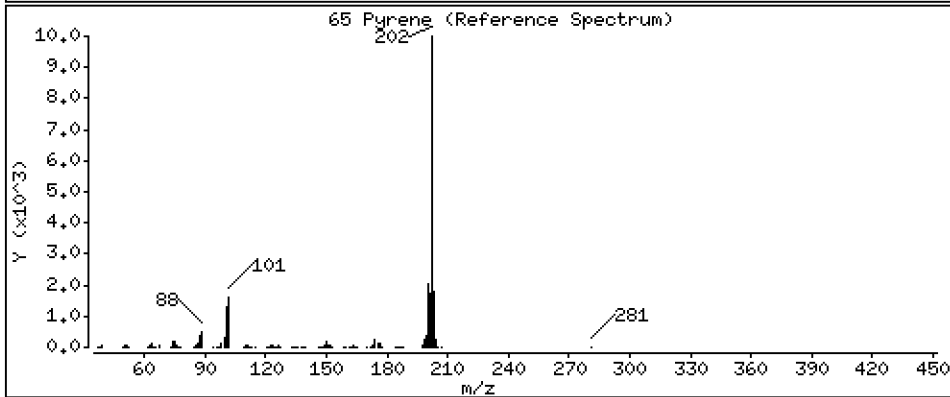
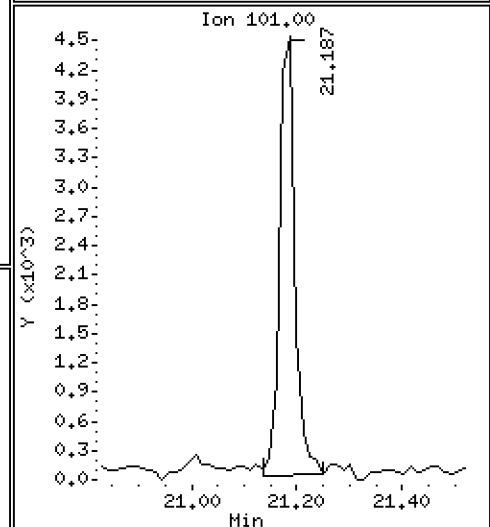
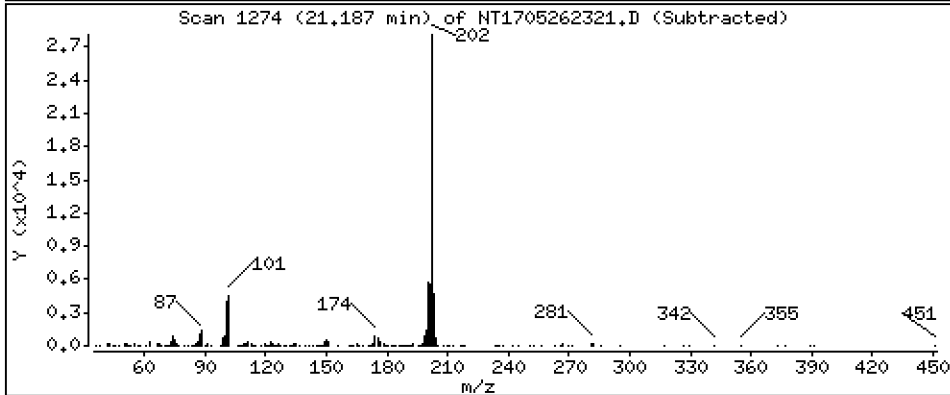
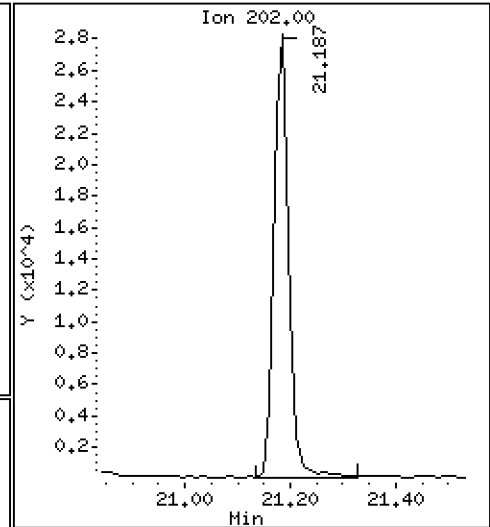
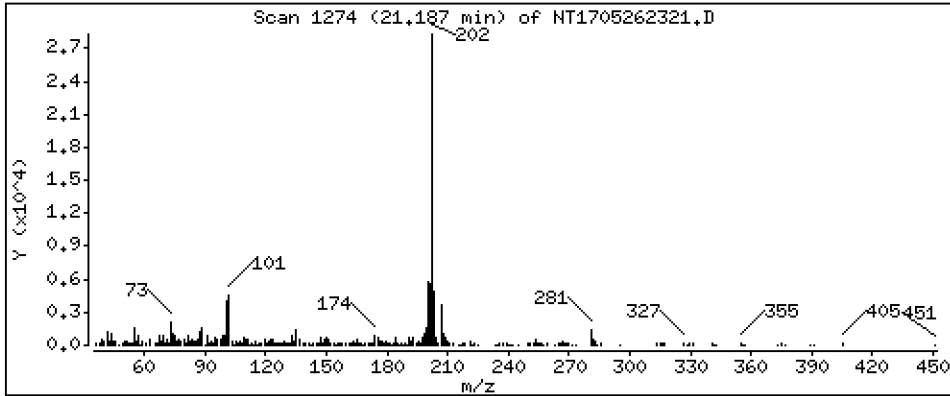
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,1827 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

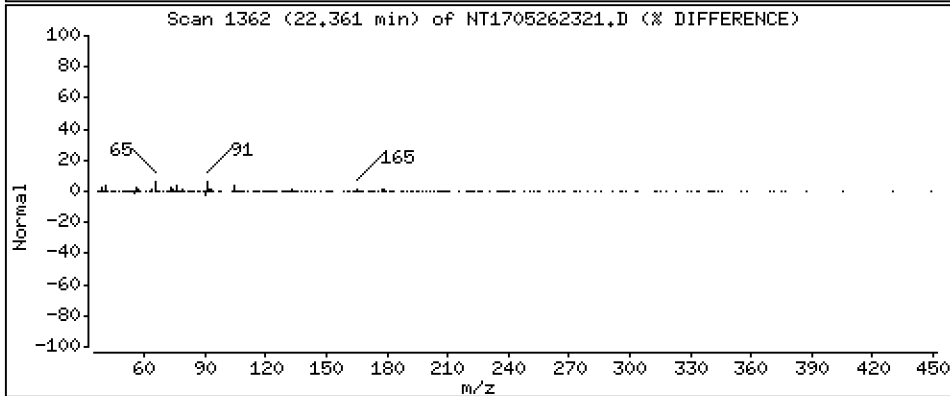
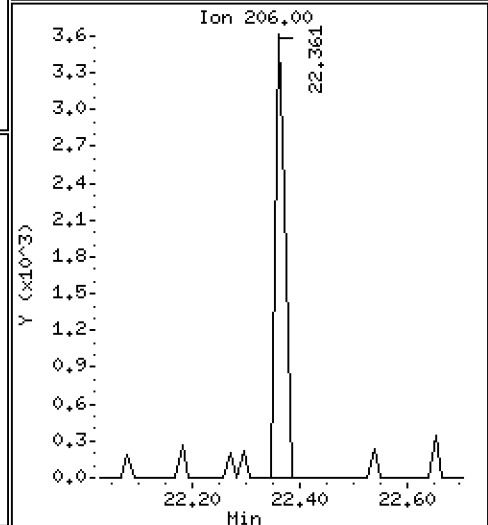
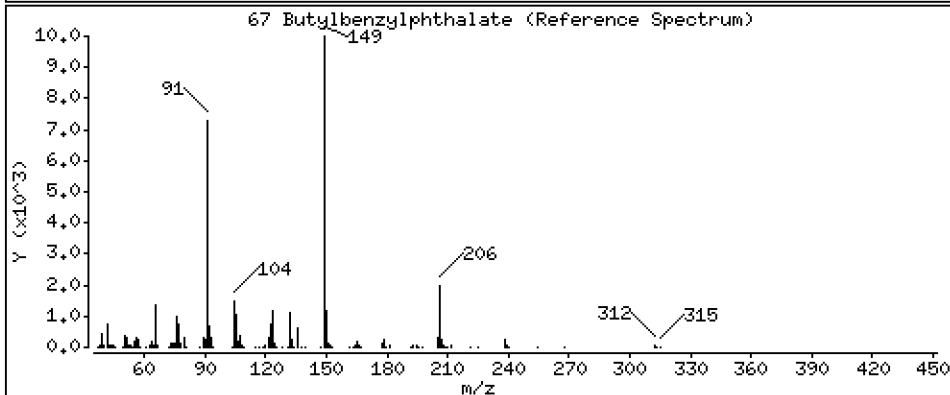
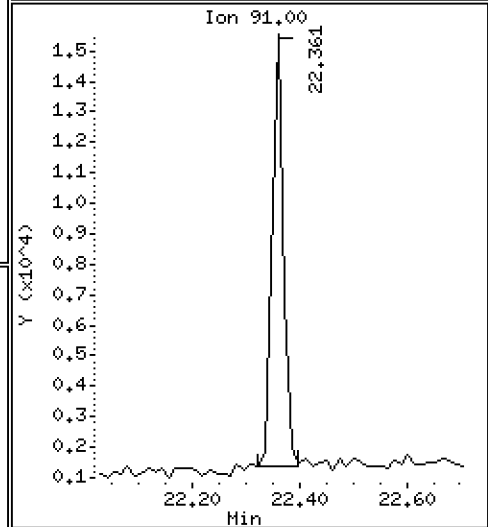
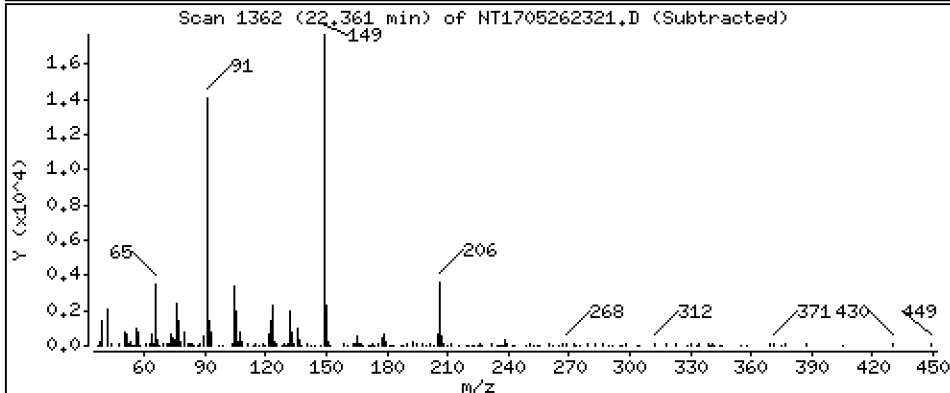
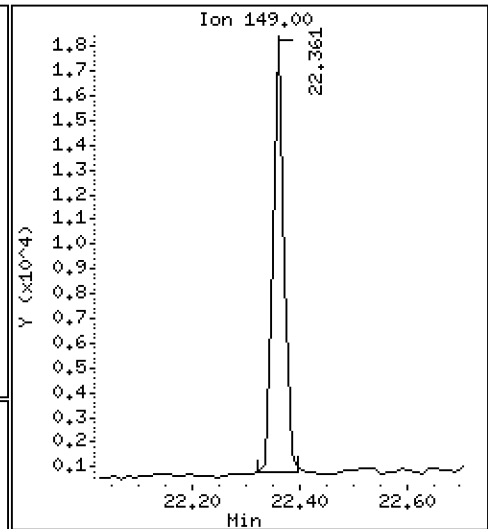
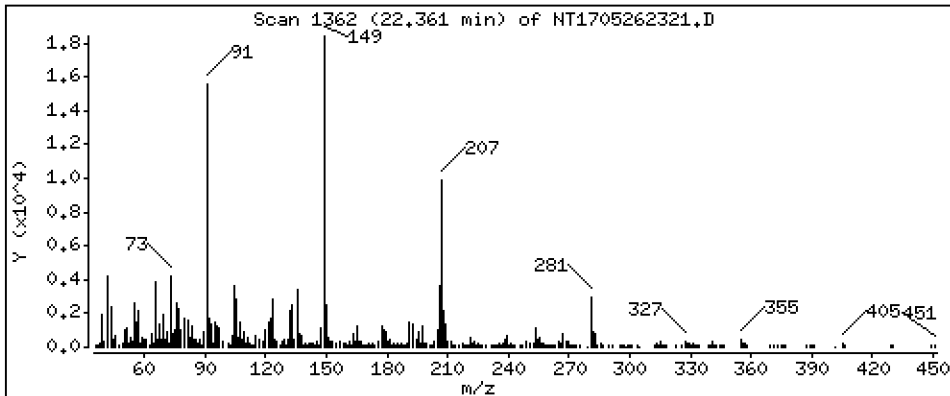
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1899 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

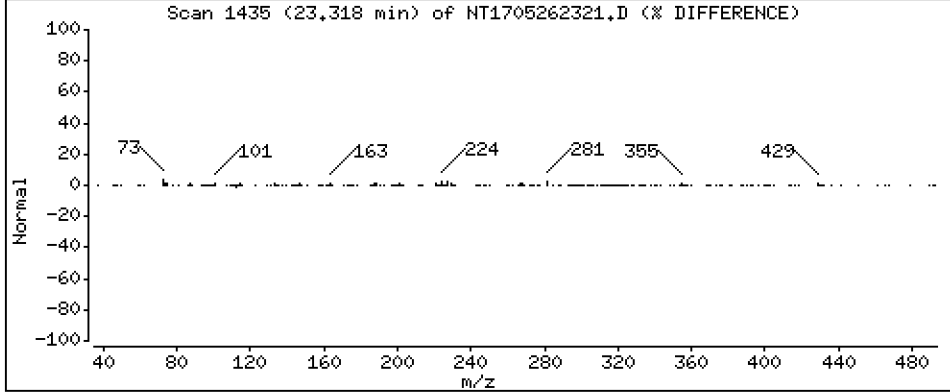
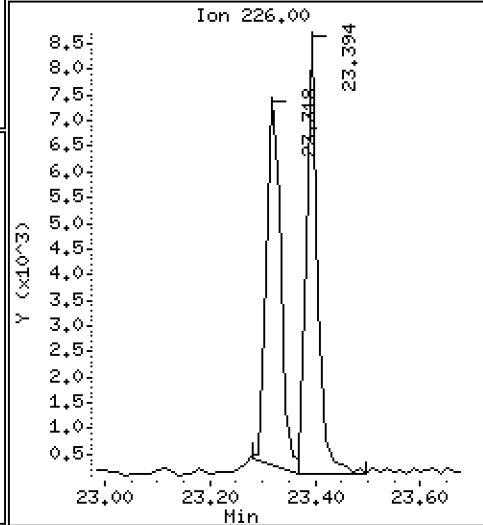
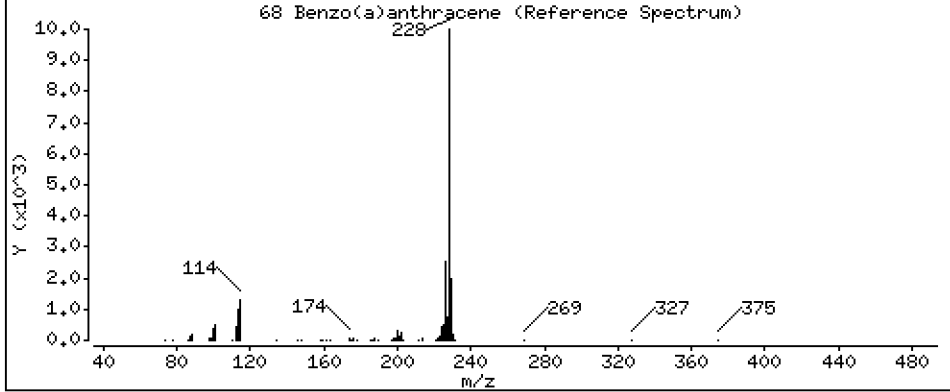
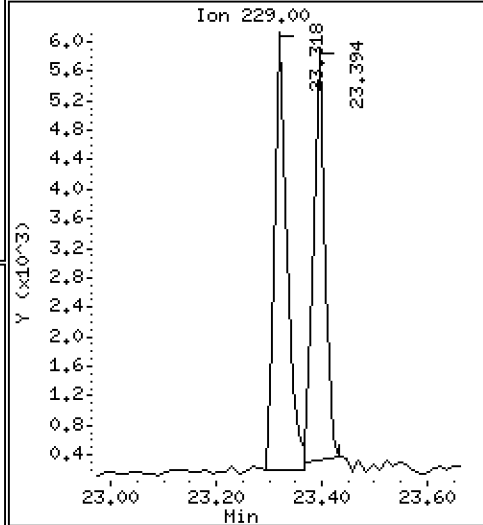
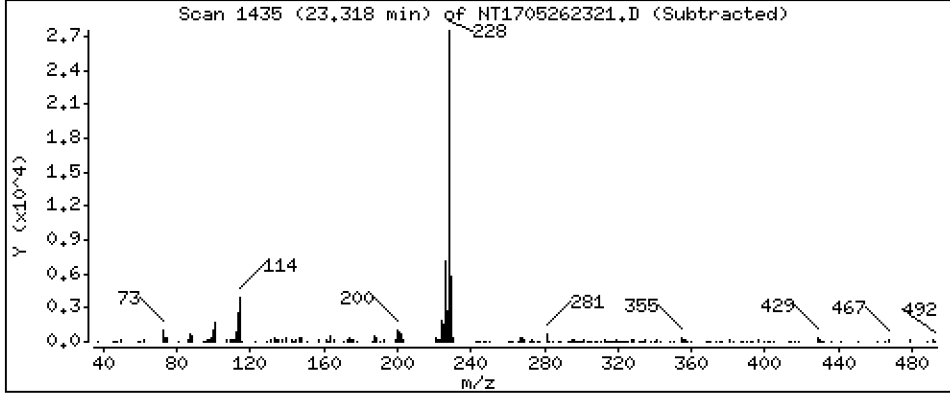
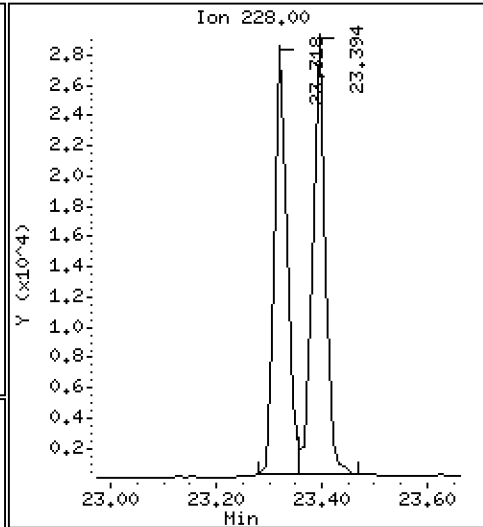
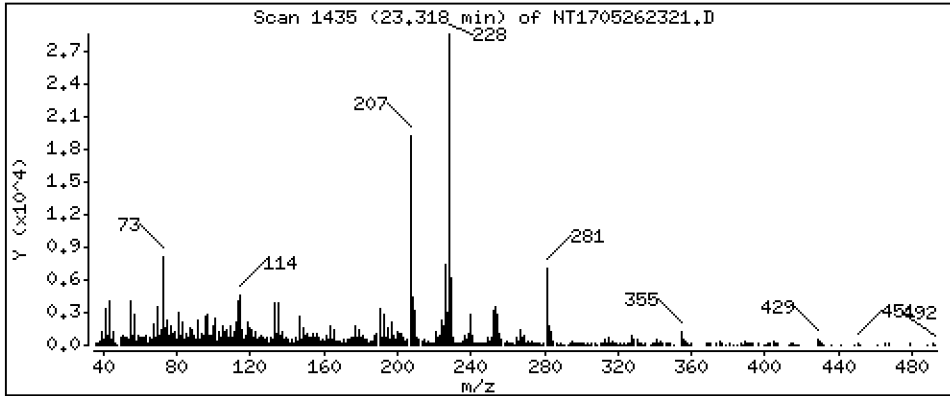
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,2084 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

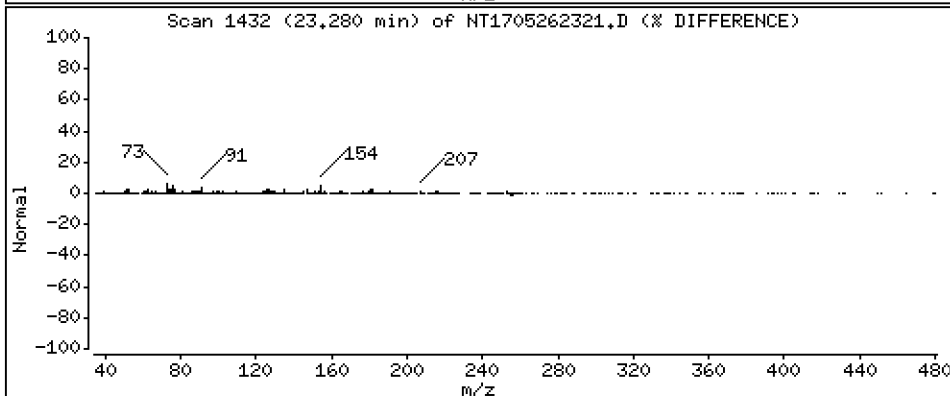
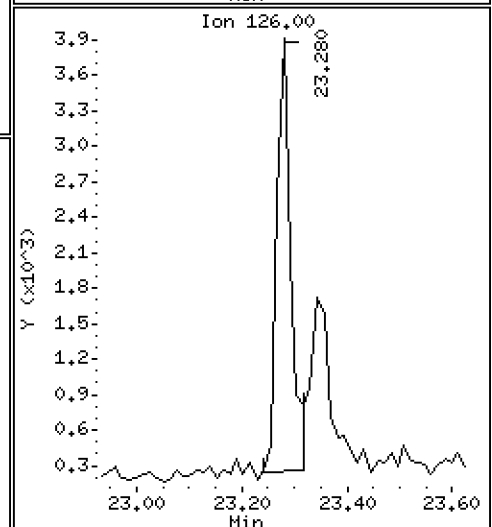
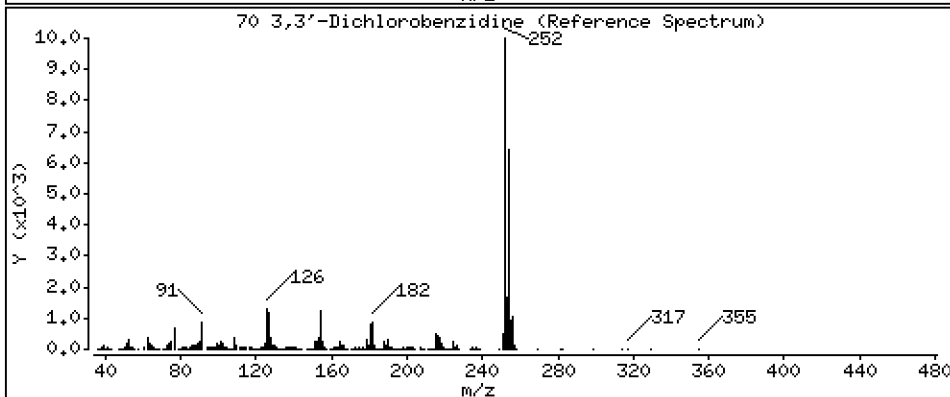
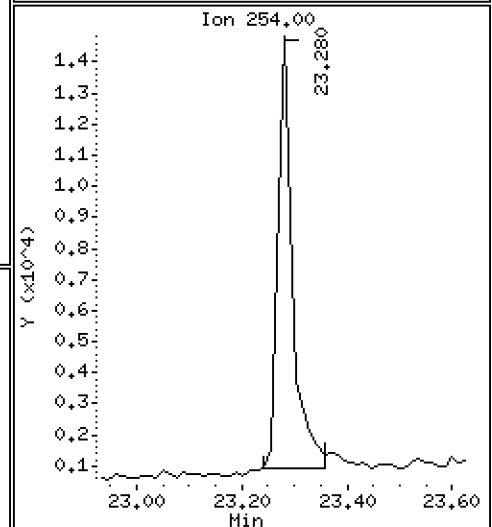
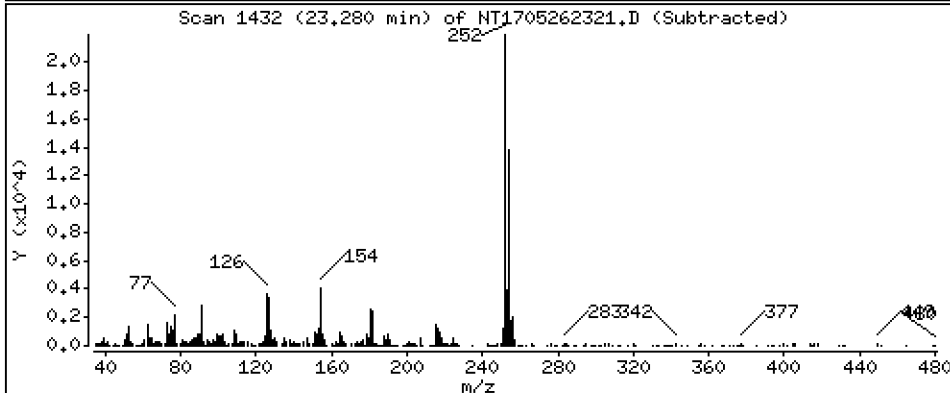
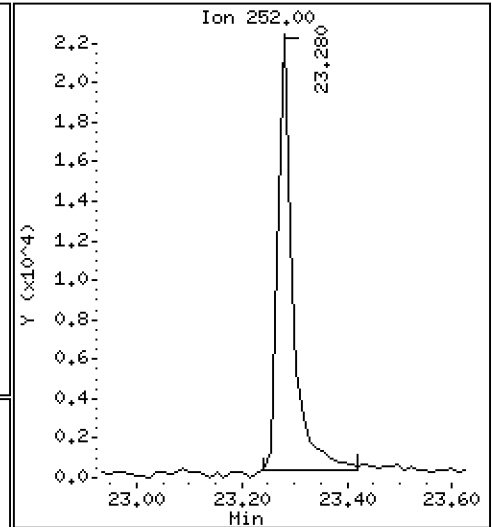
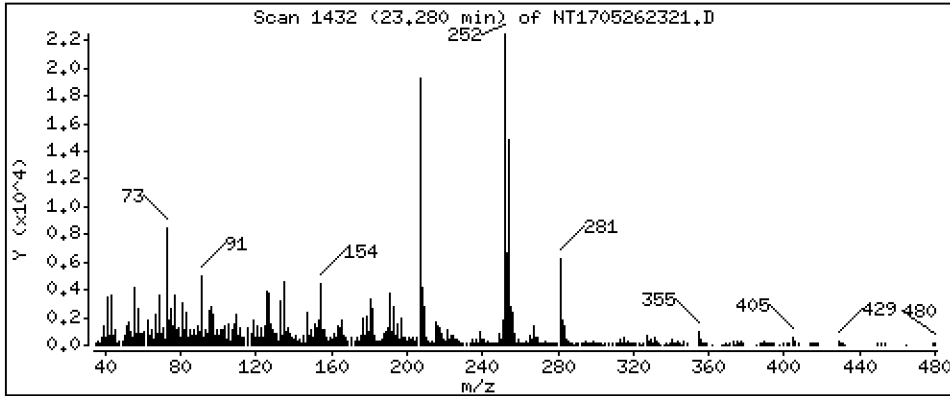
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 0,9960 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

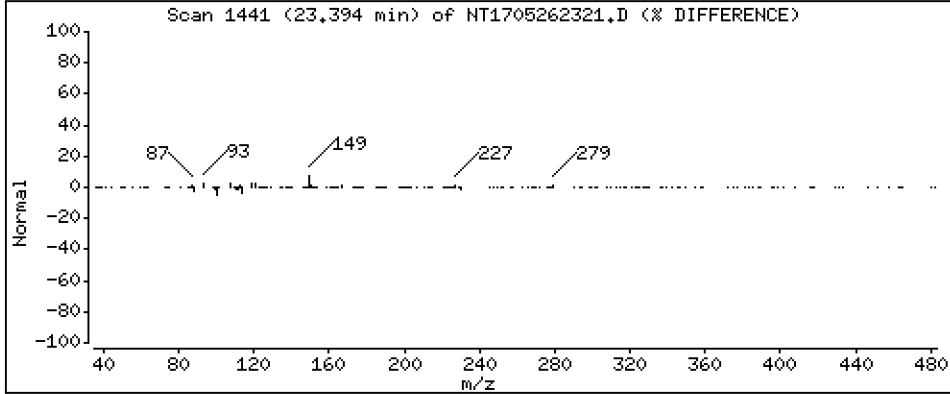
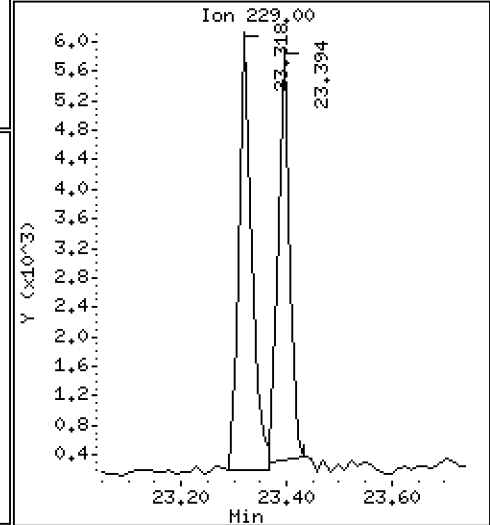
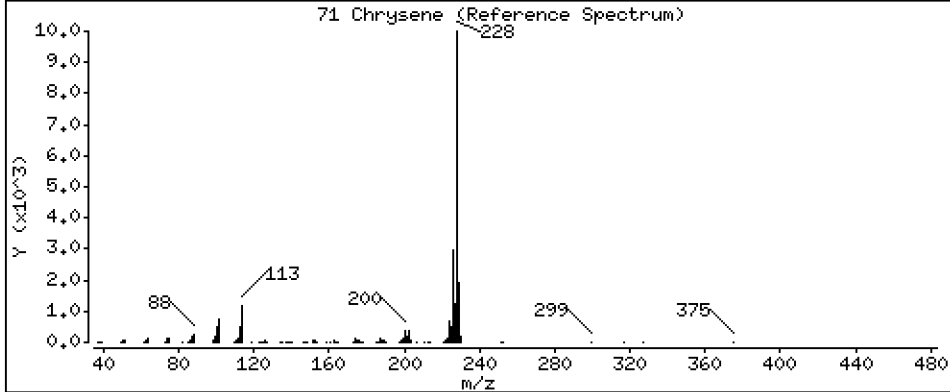
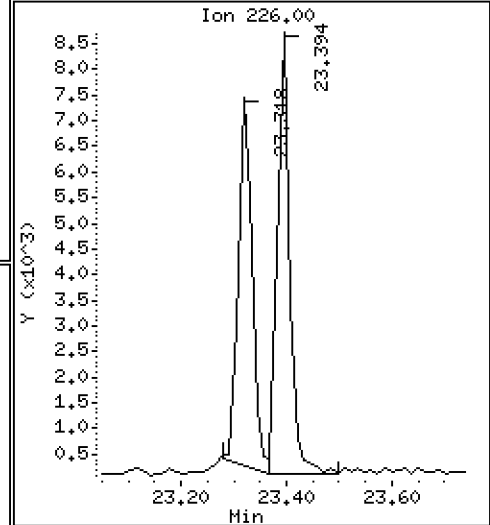
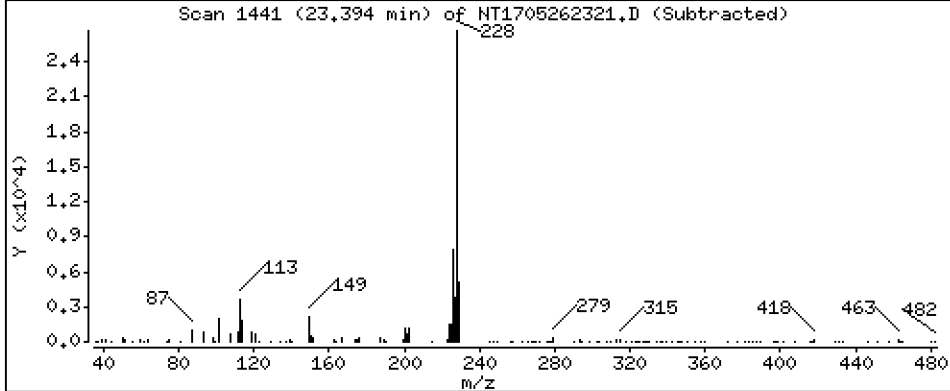
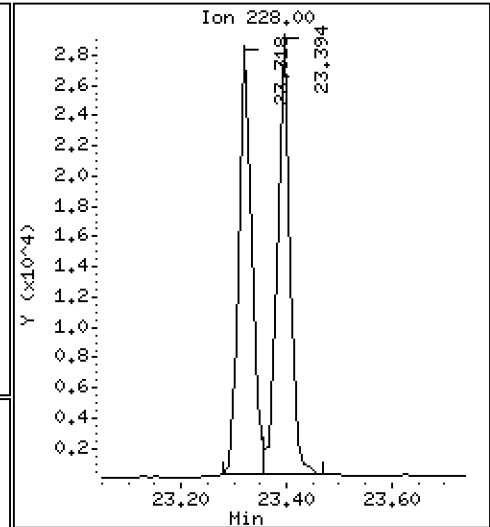
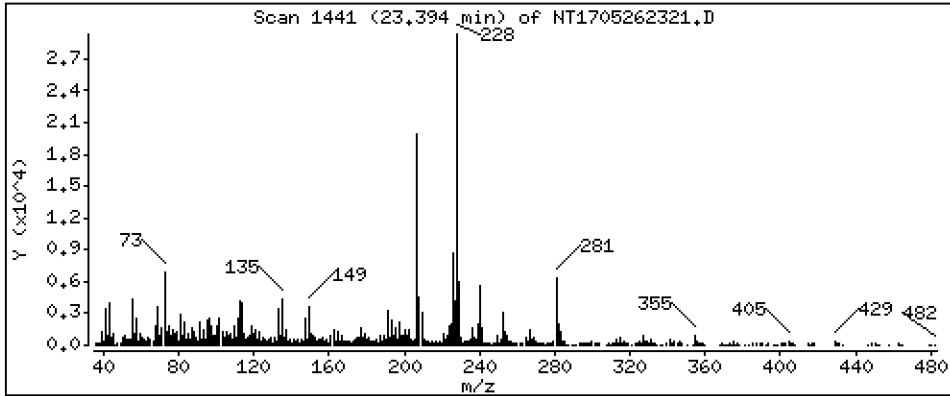
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,2172 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

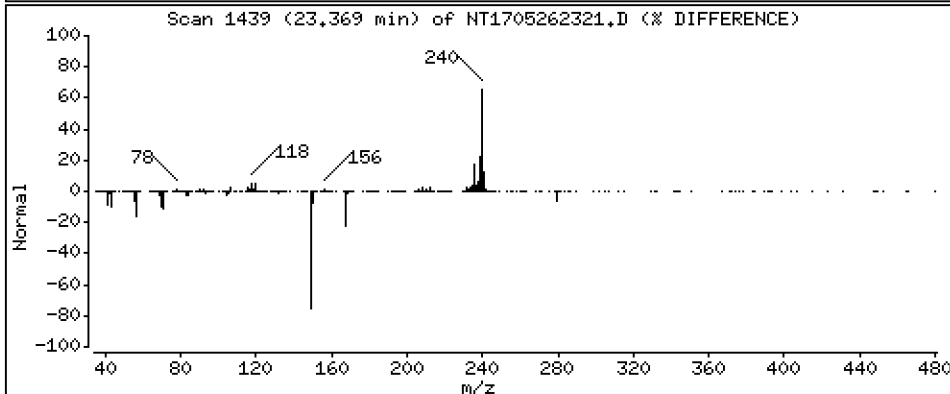
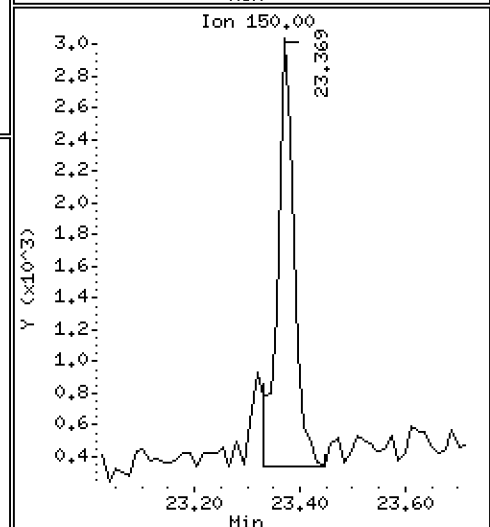
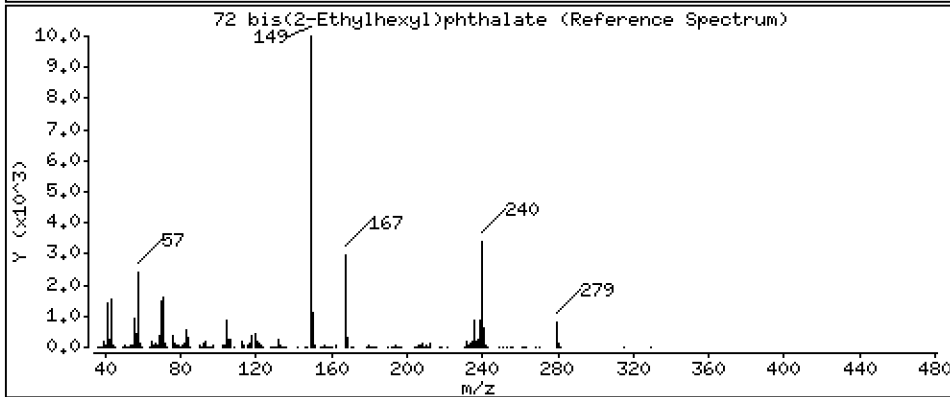
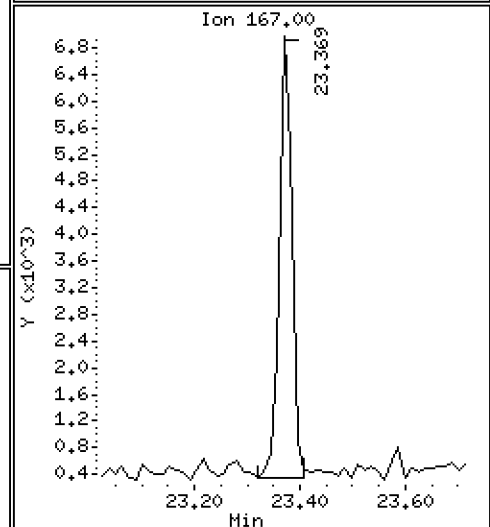
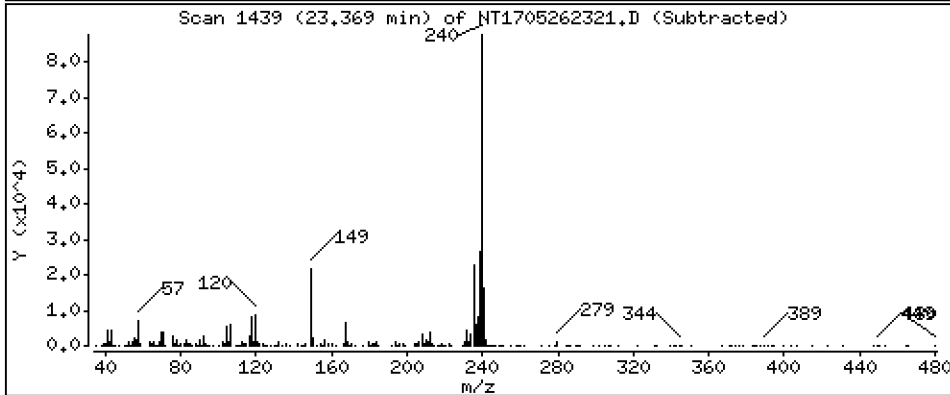
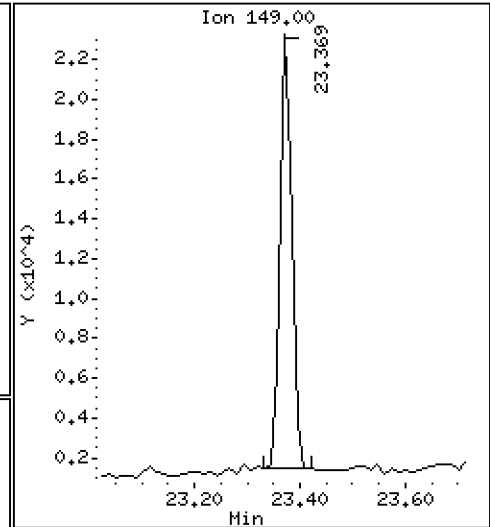
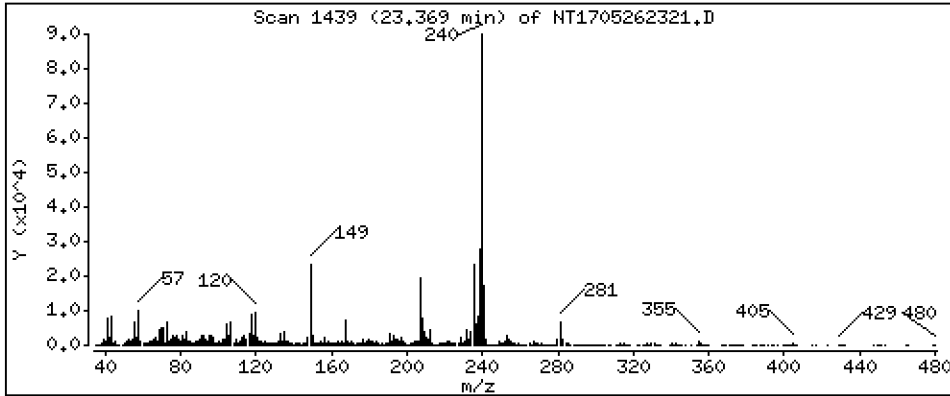
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,1810 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

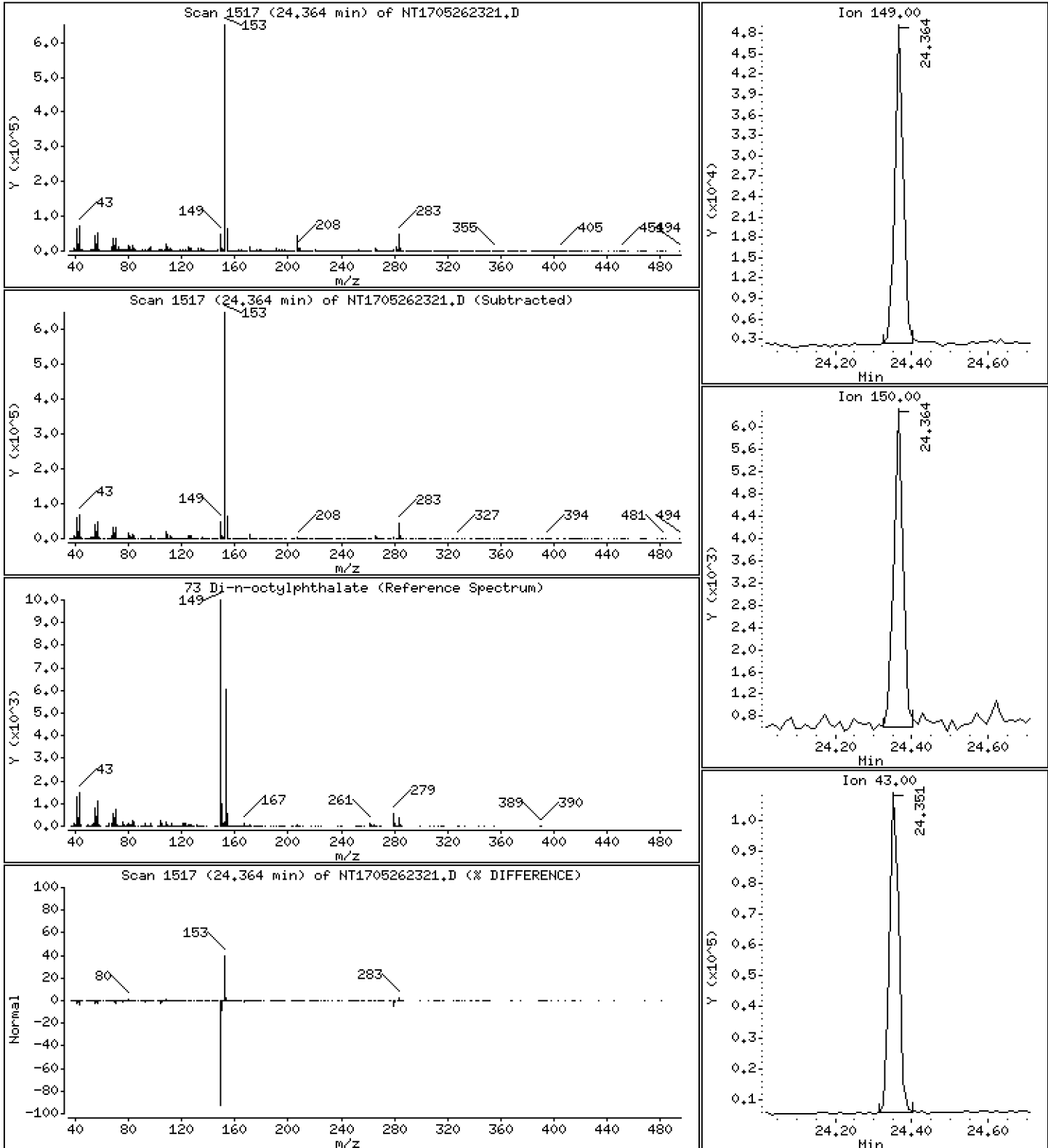
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,2125 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

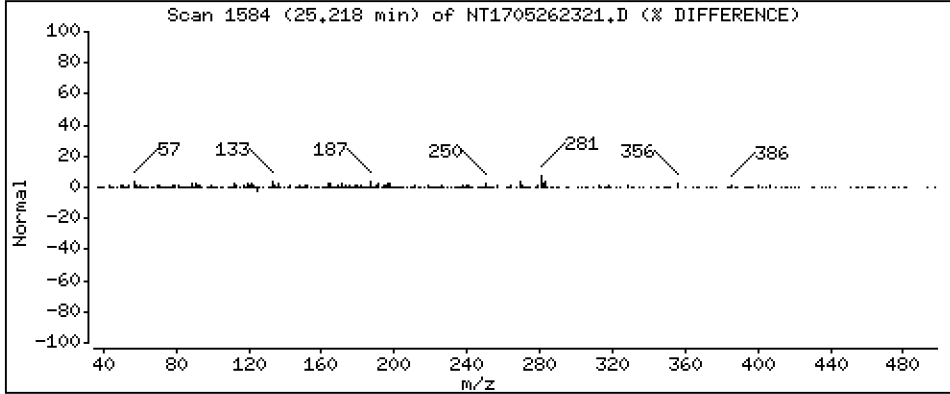
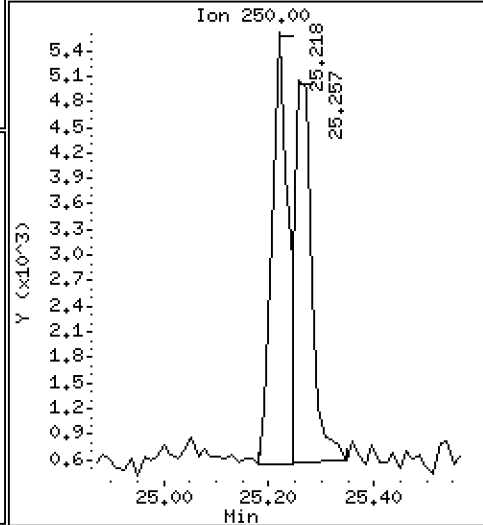
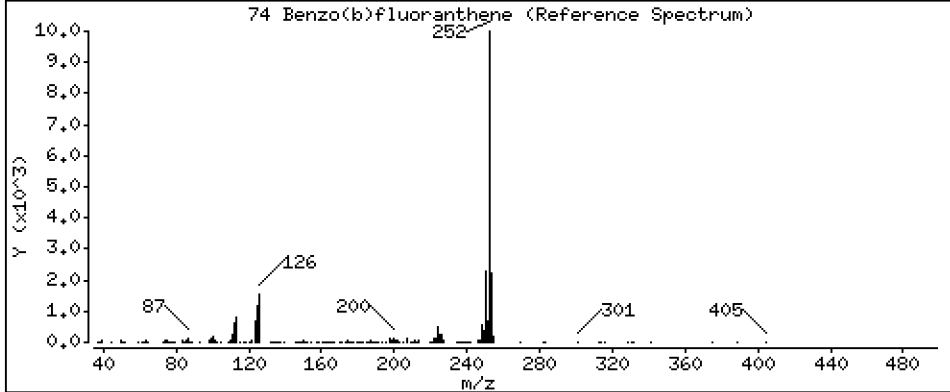
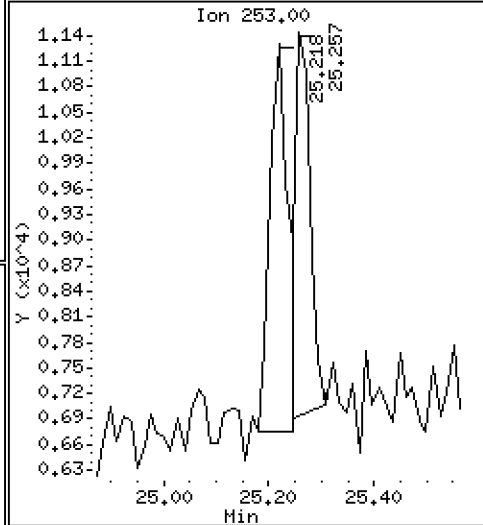
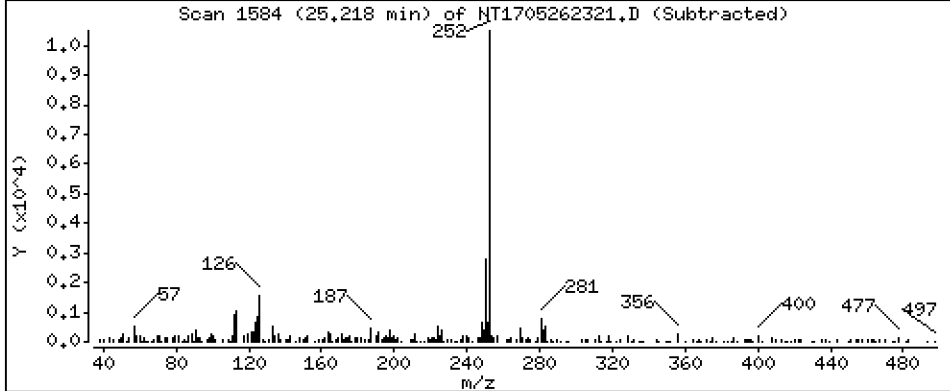
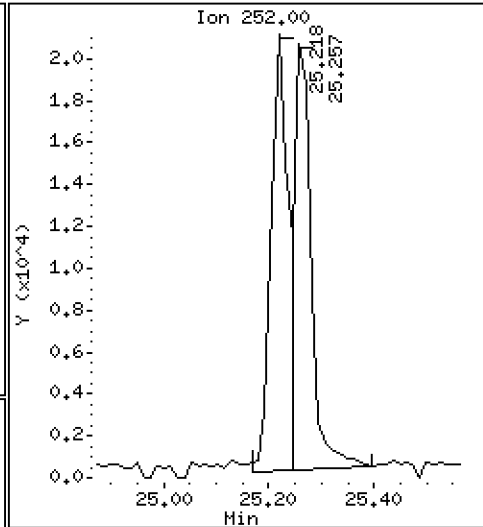
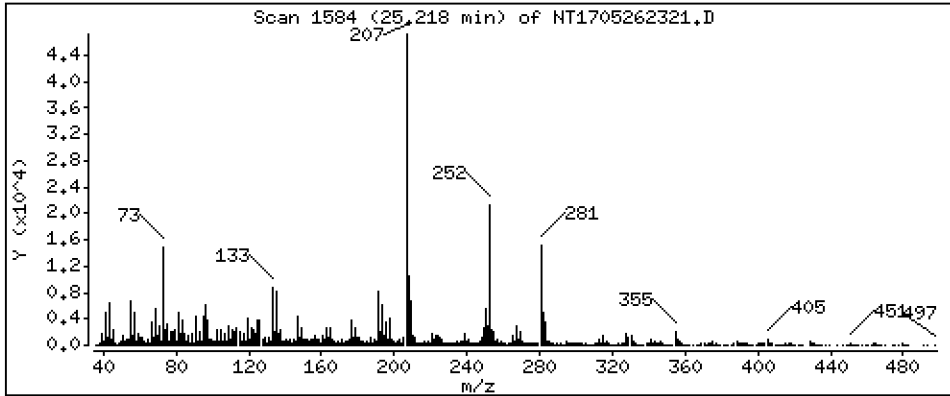
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,2243 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

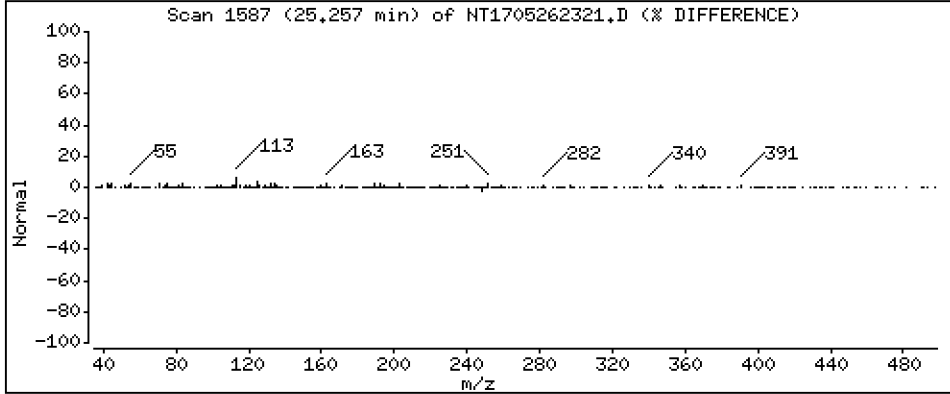
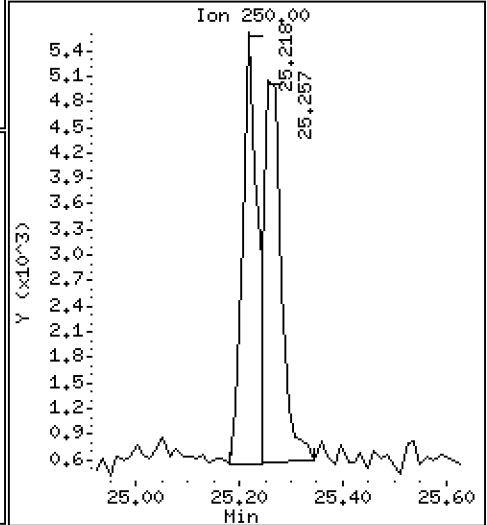
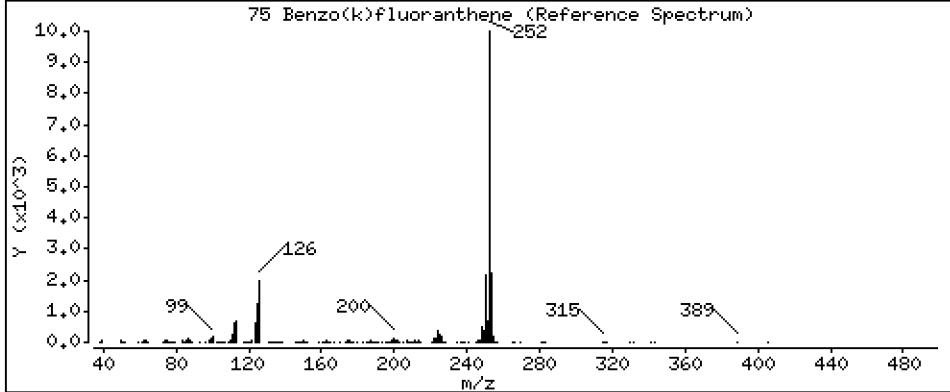
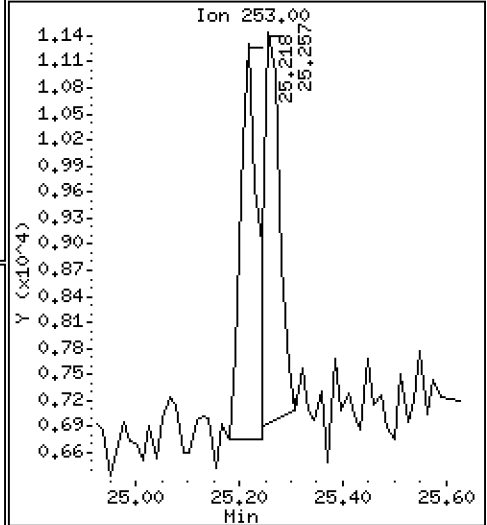
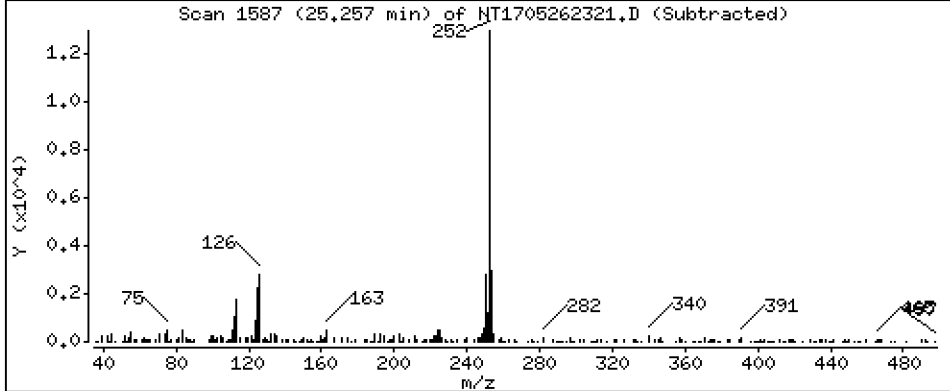
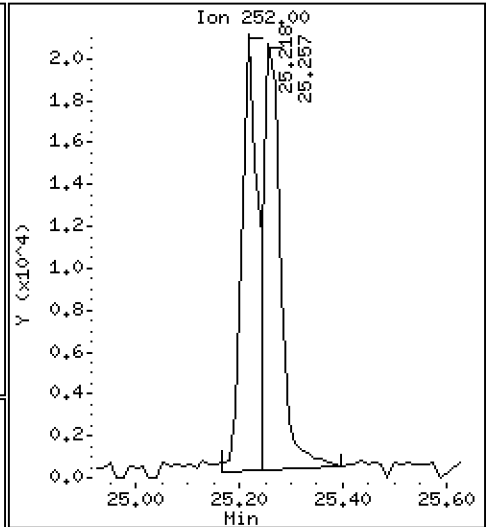
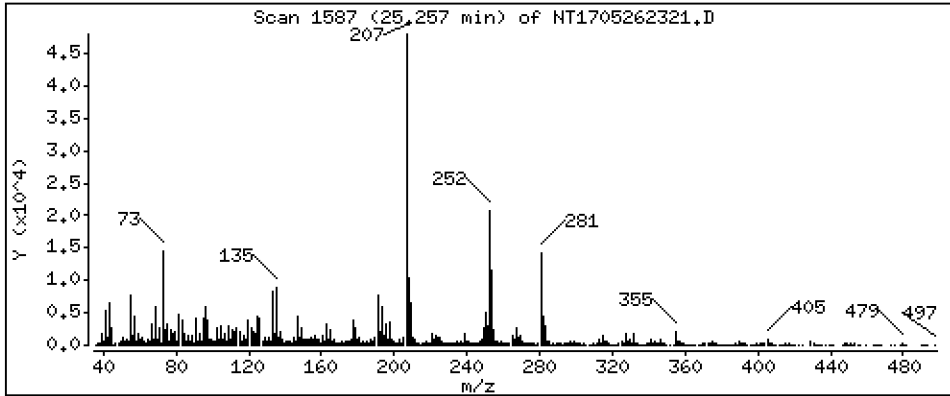
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,2410 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

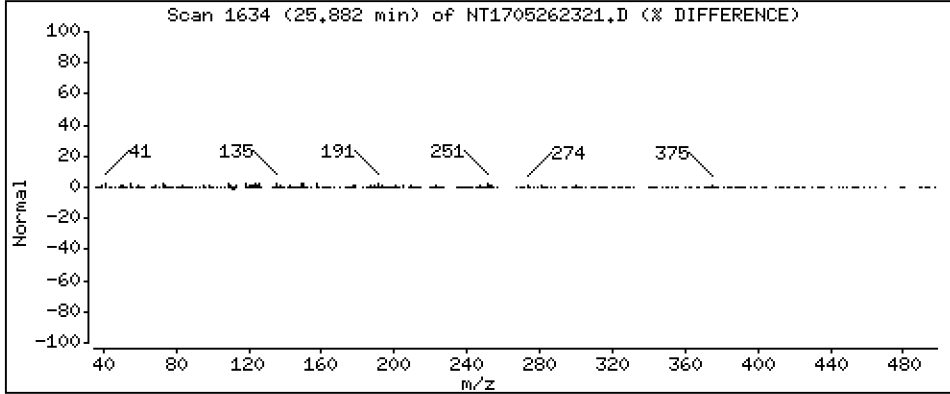
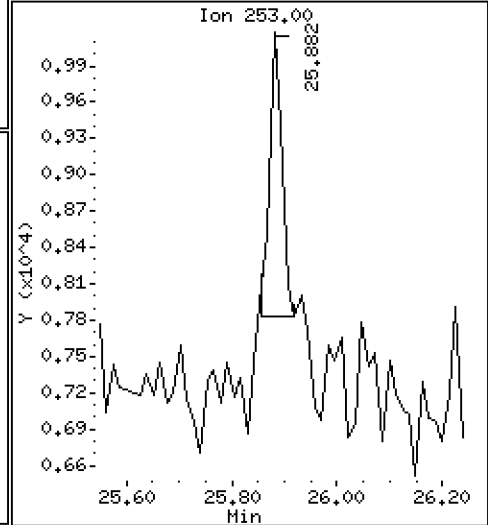
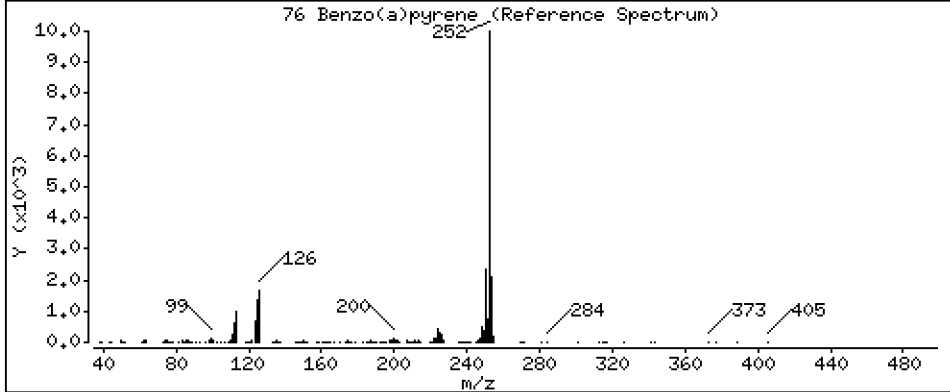
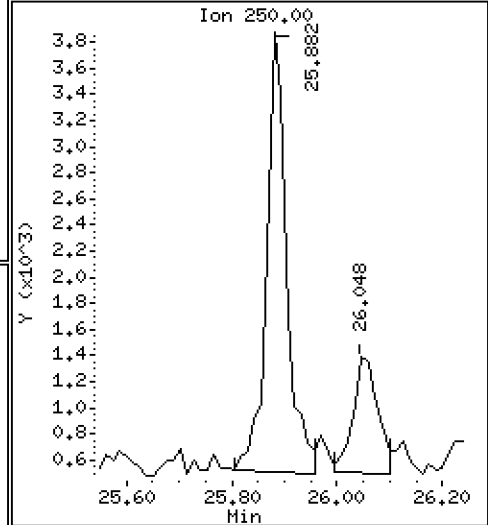
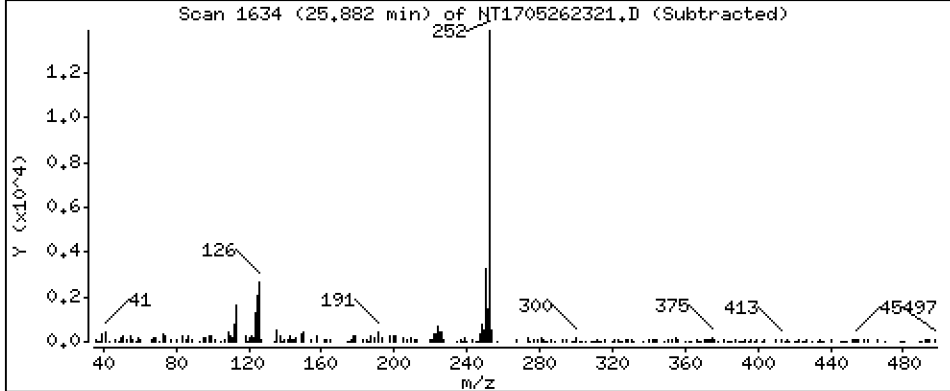
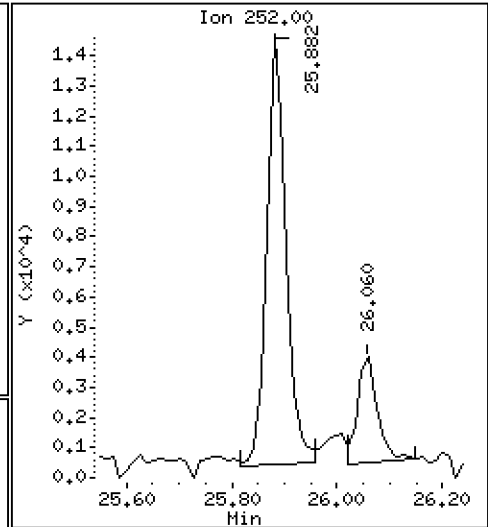
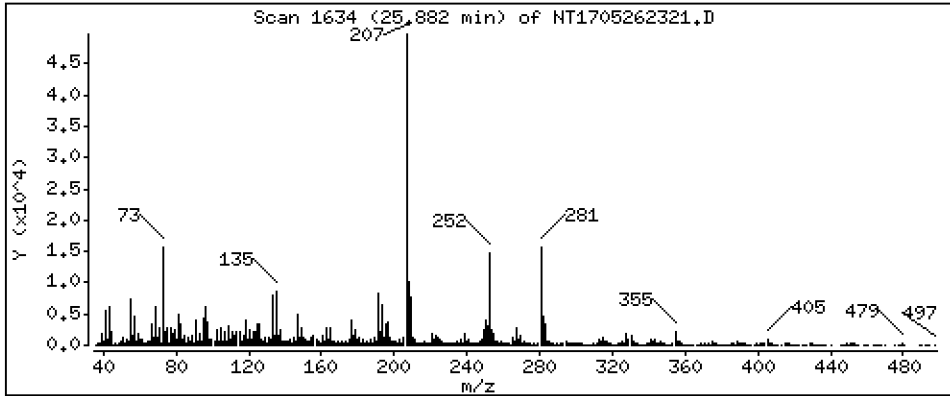
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,2121 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

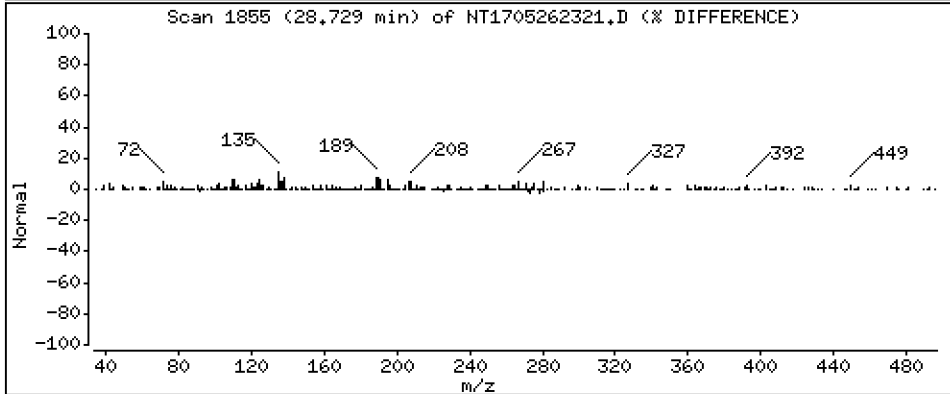
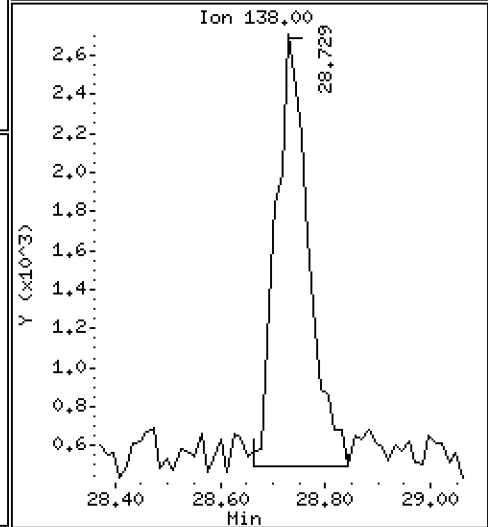
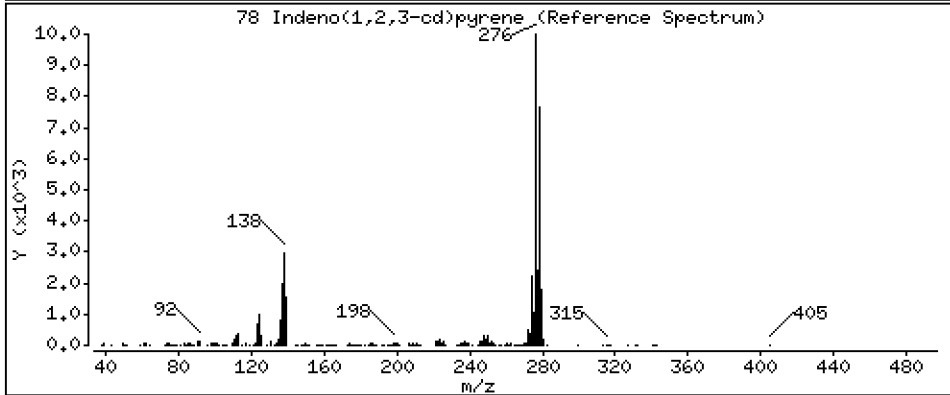
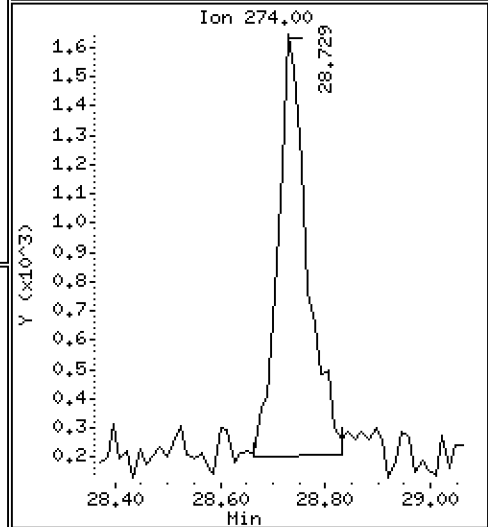
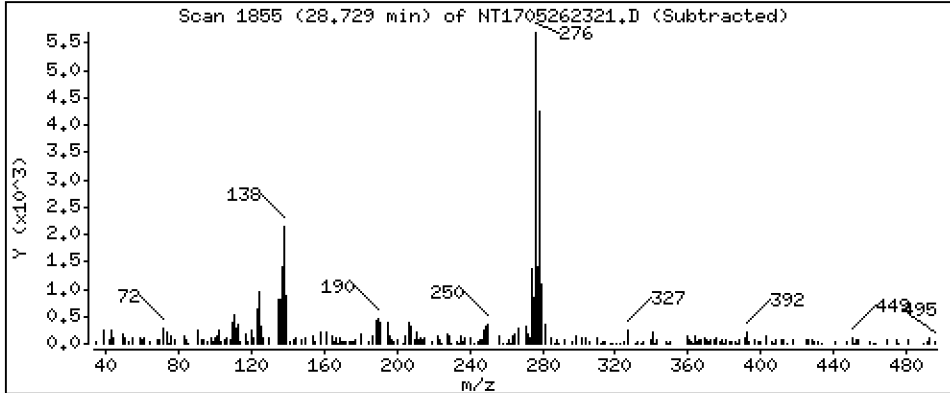
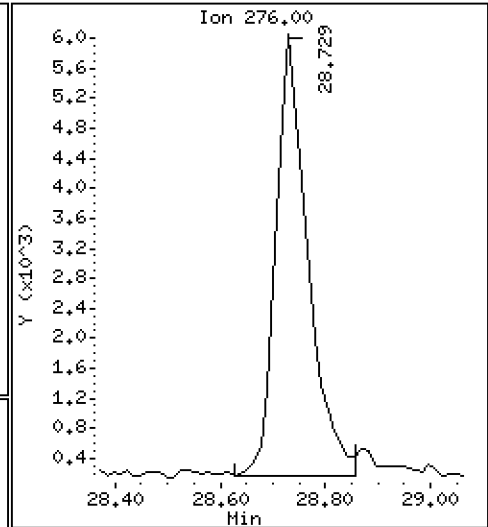
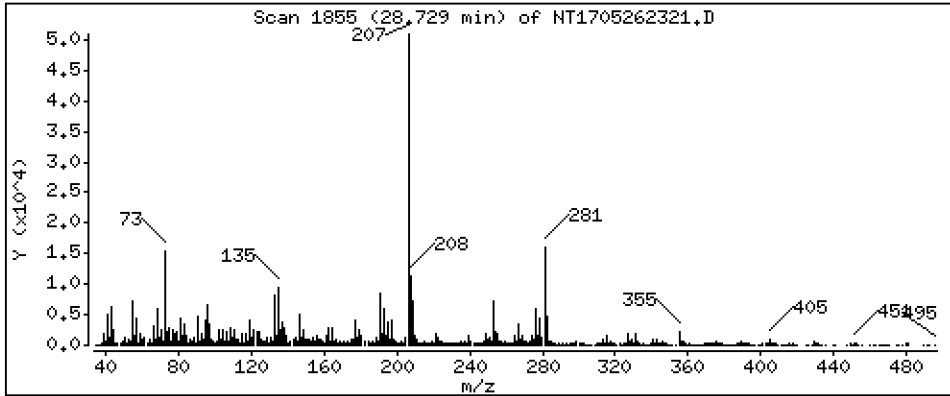
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

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

Concentration: 0,1276 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

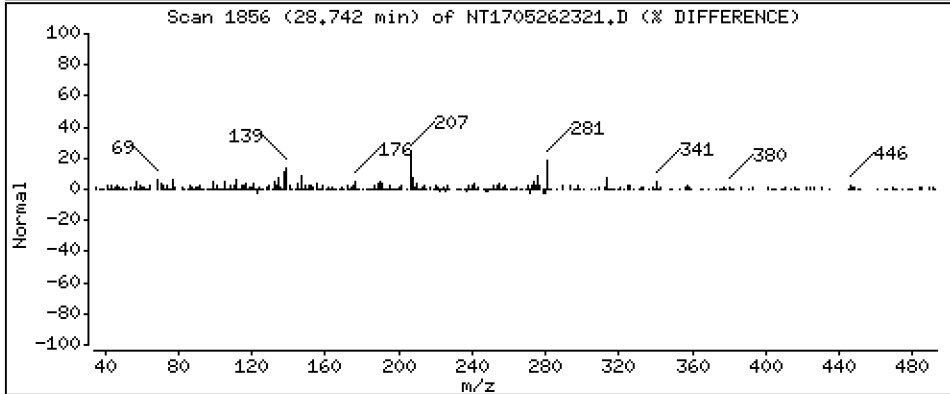
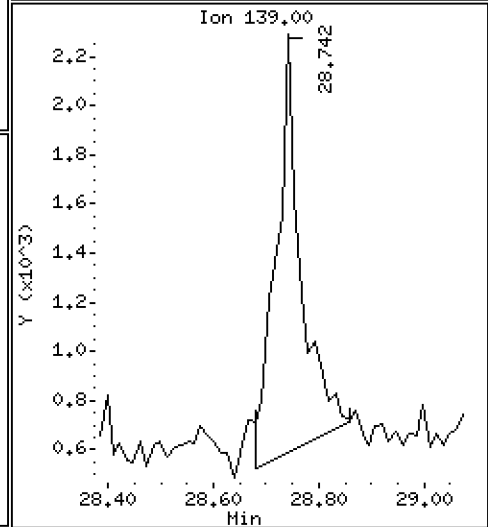
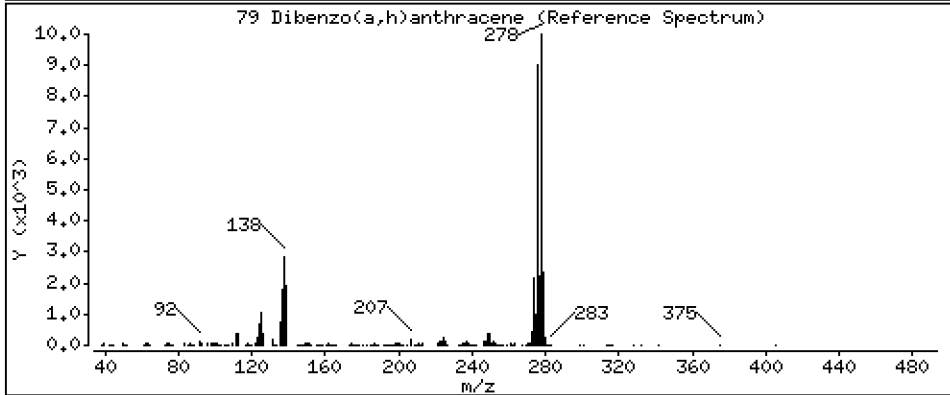
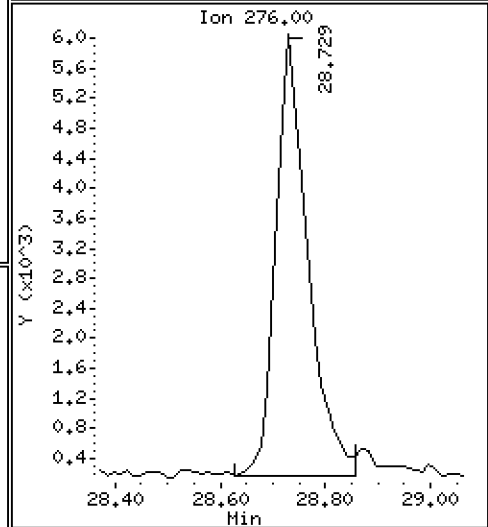
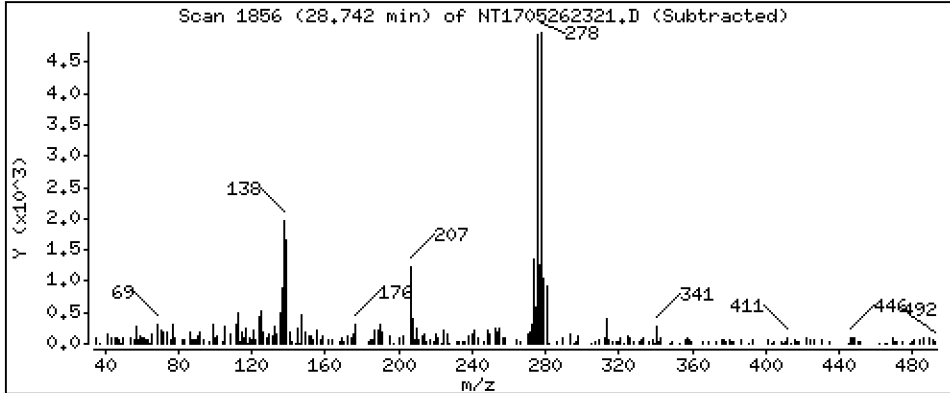
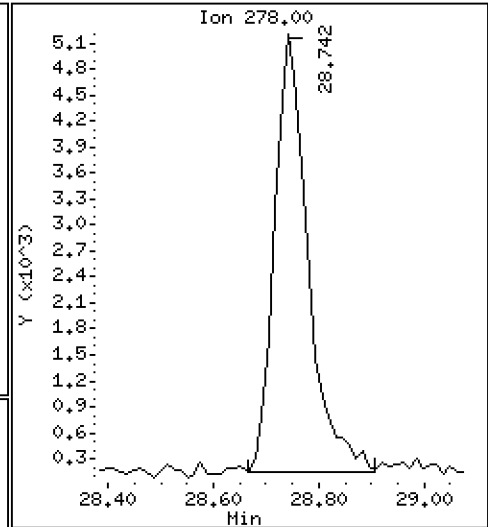
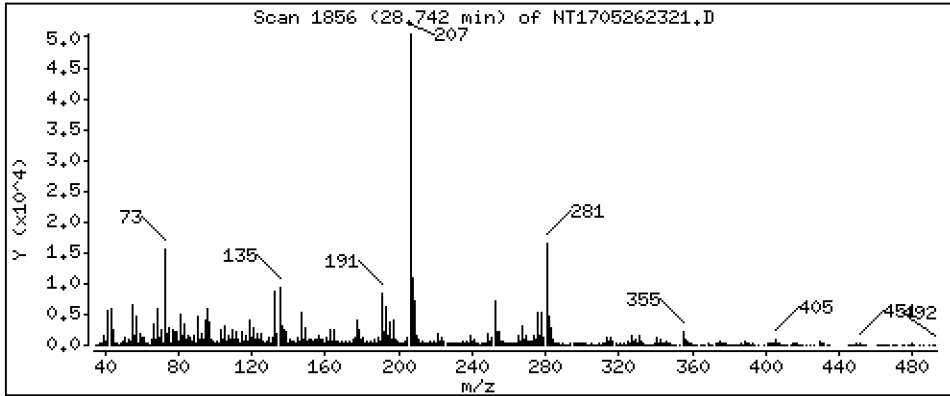
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.1378 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

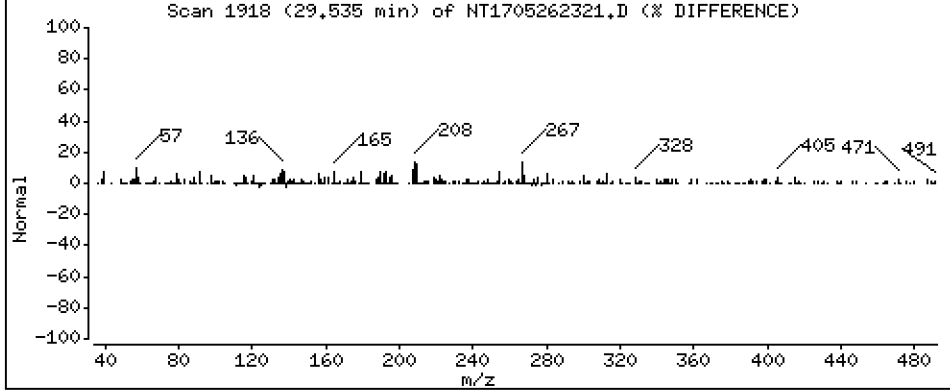
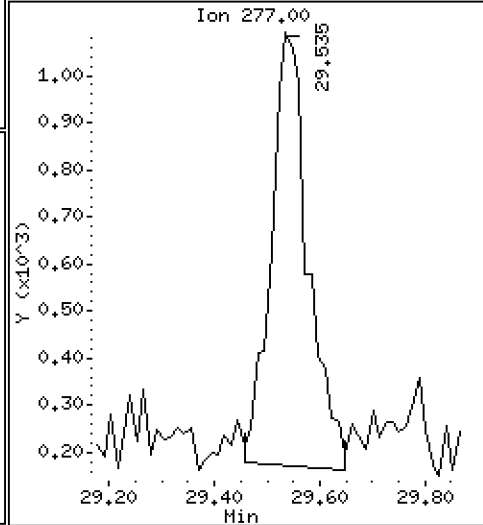
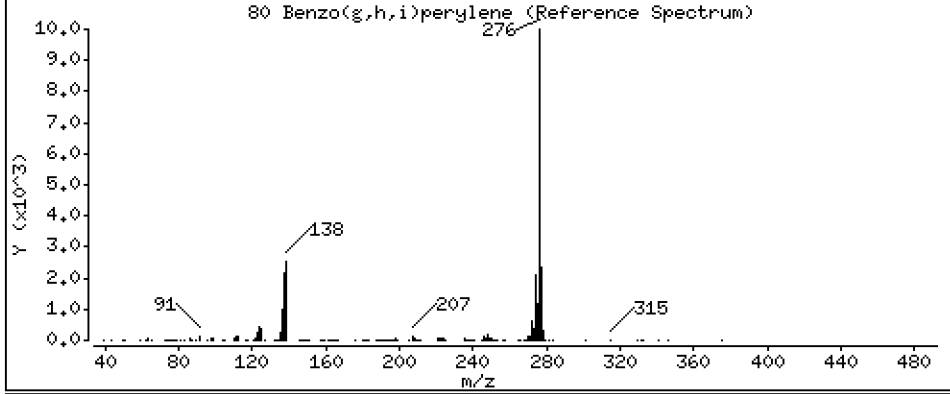
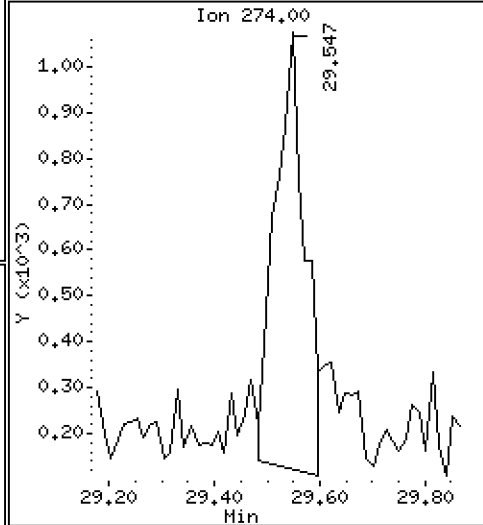
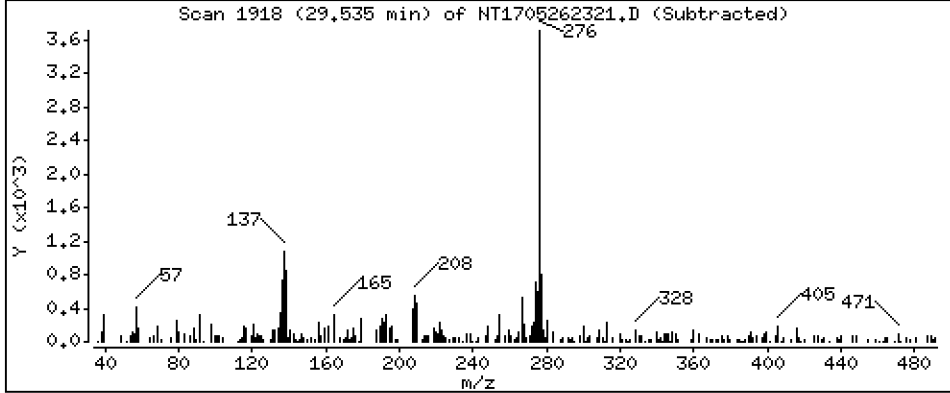
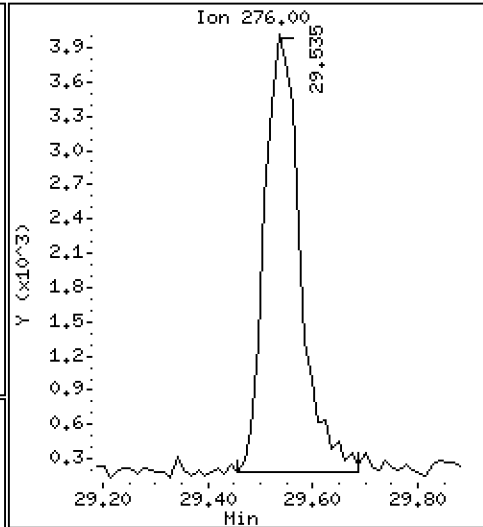
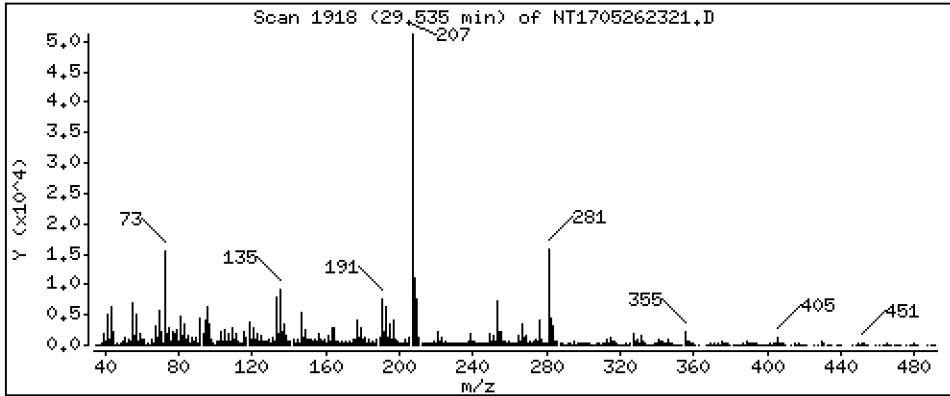
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,1105 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

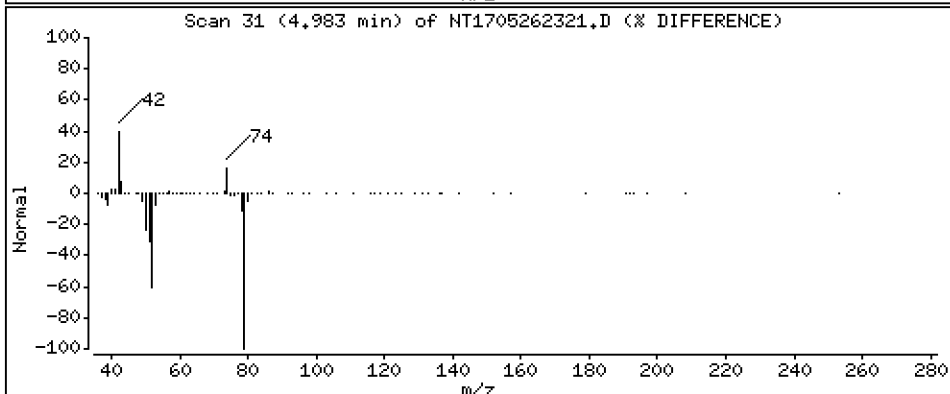
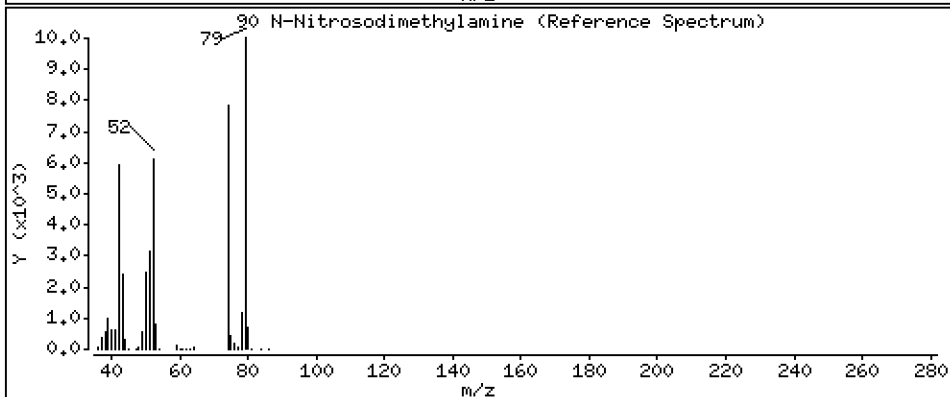
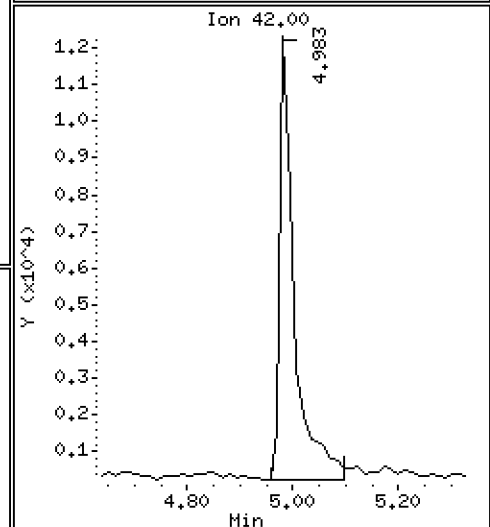
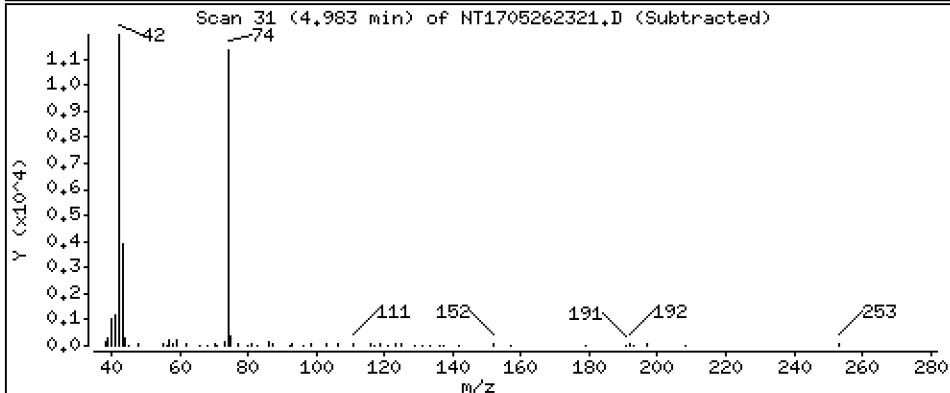
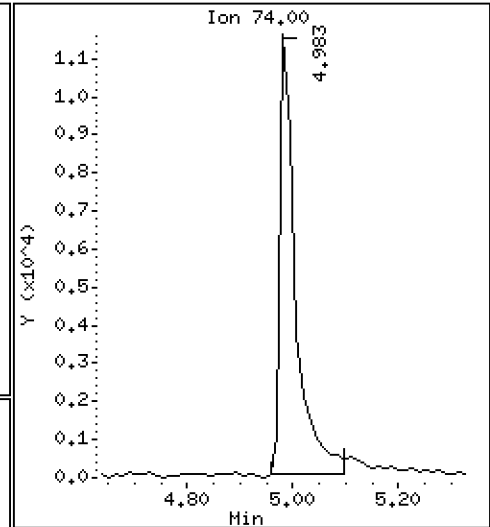
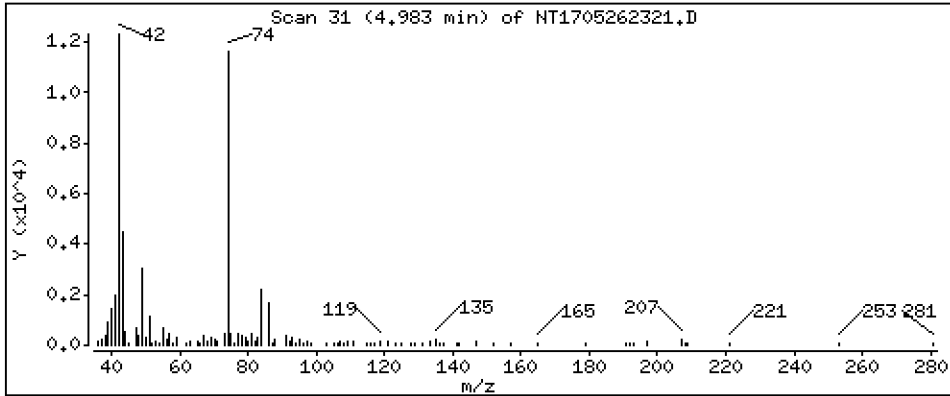
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.3074 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

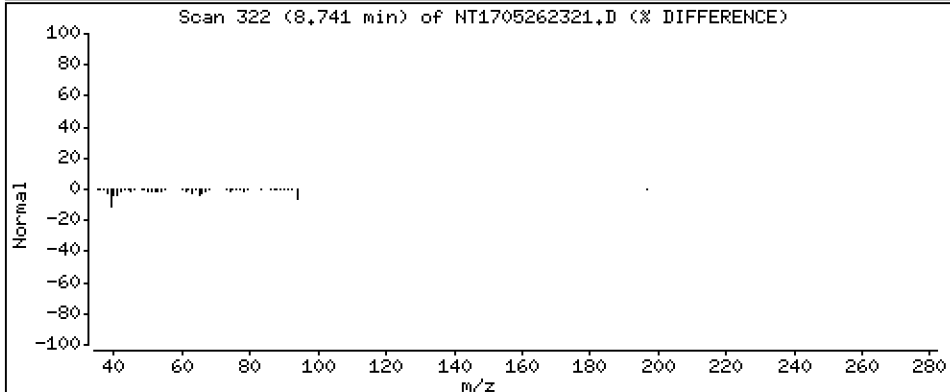
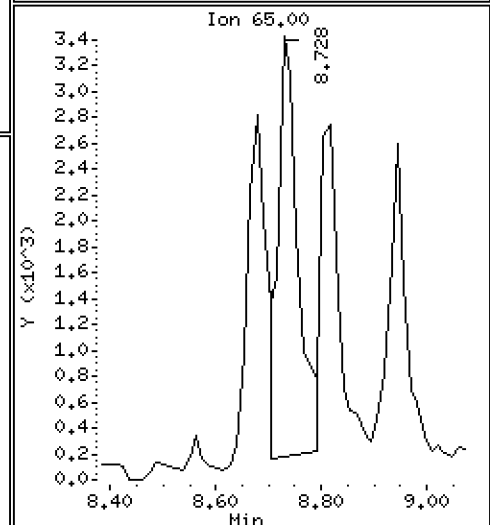
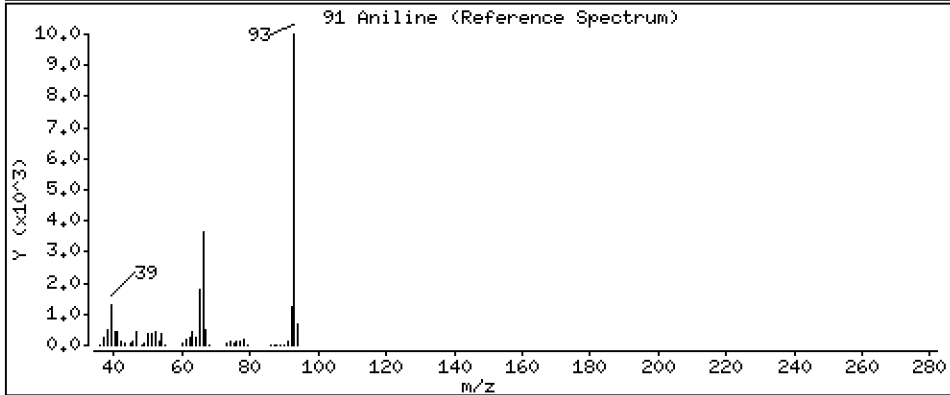
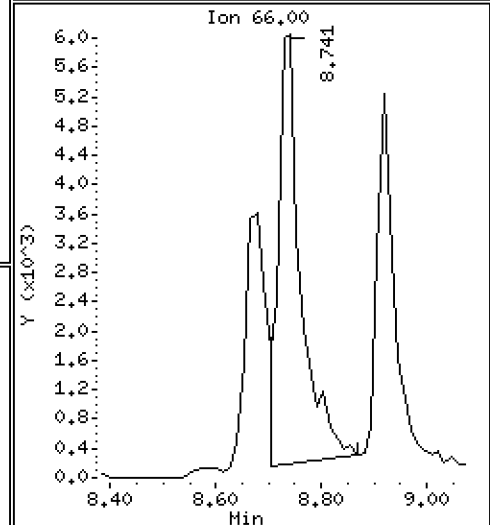
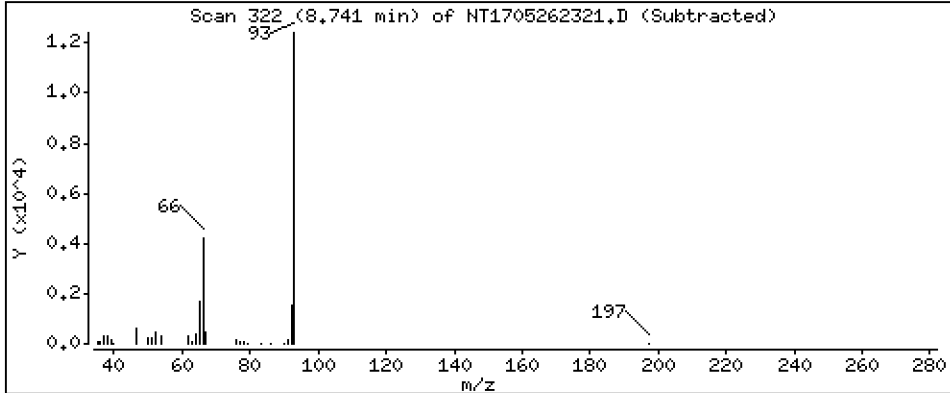
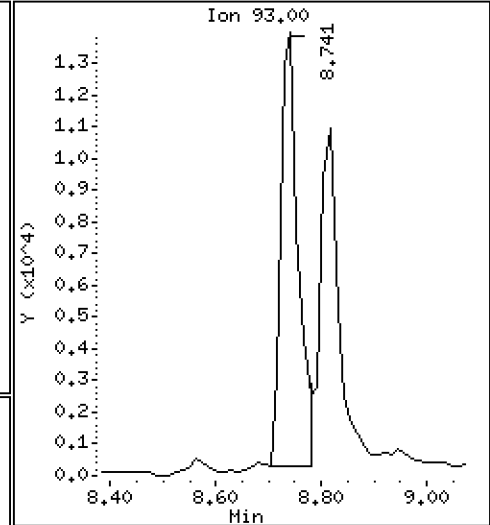
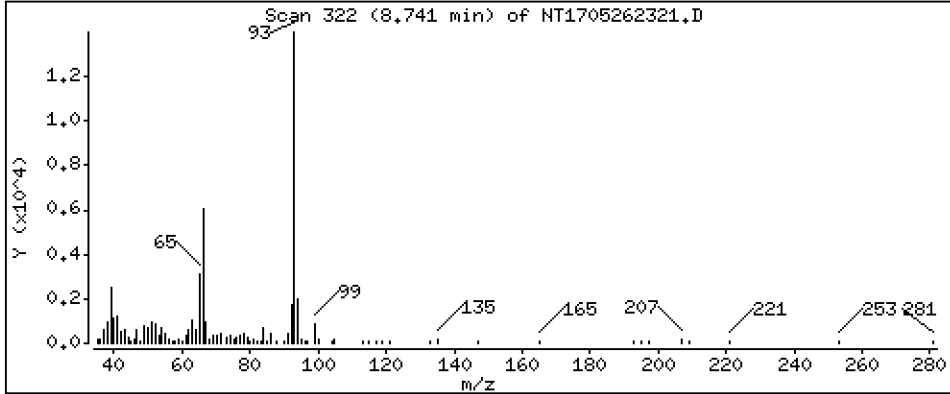
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,2362 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

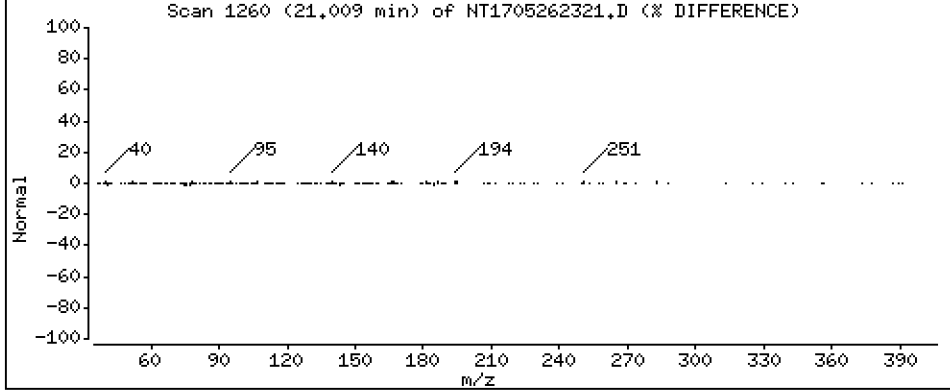
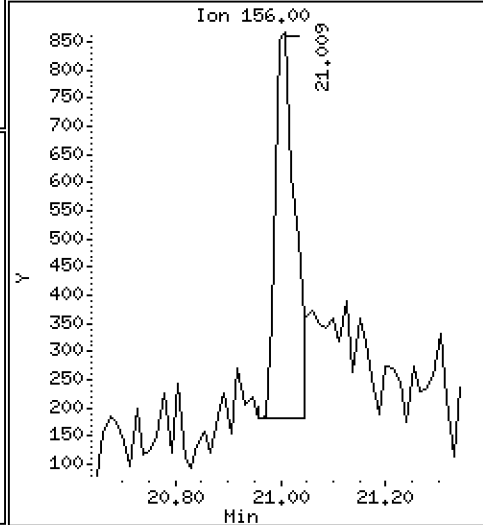
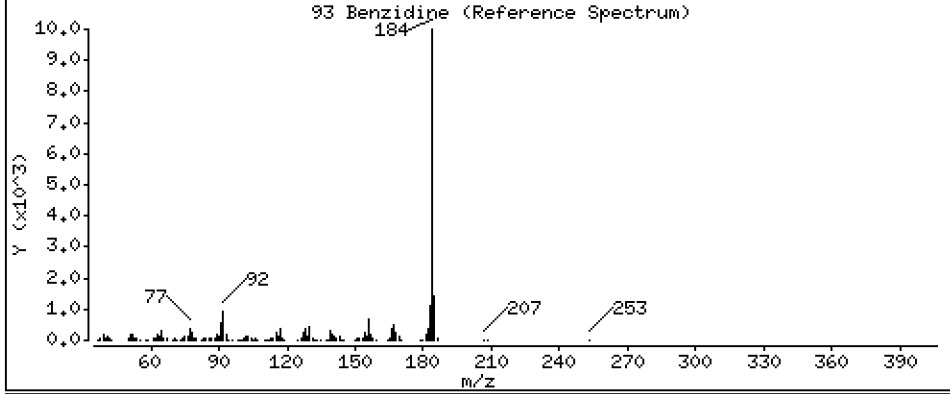
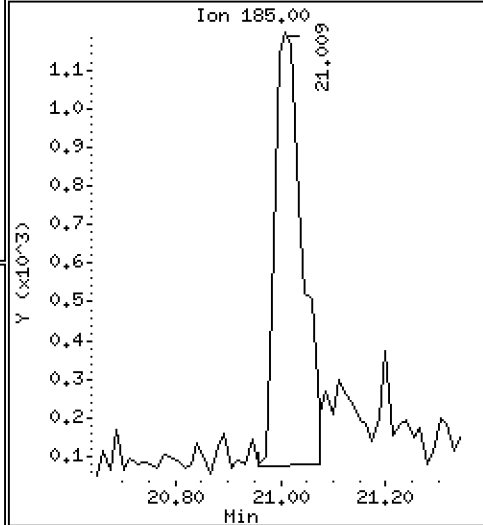
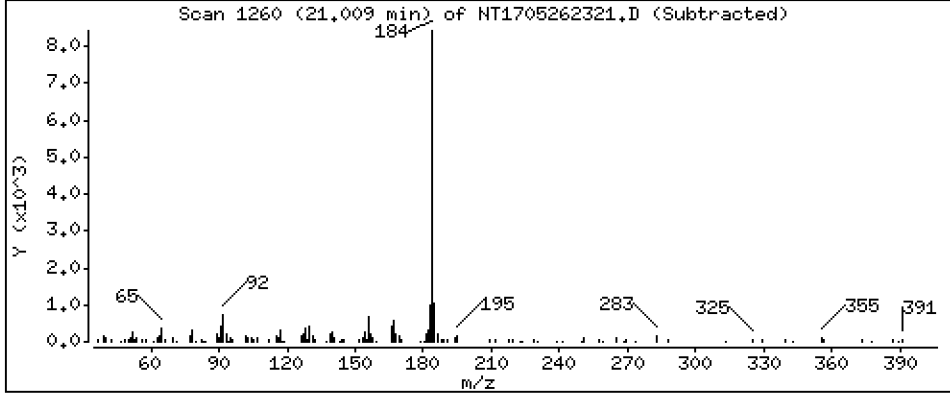
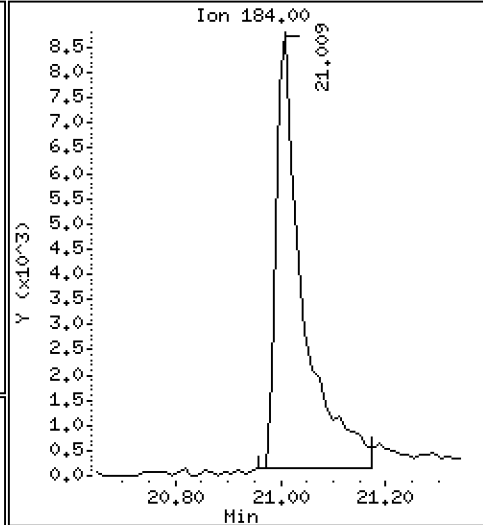
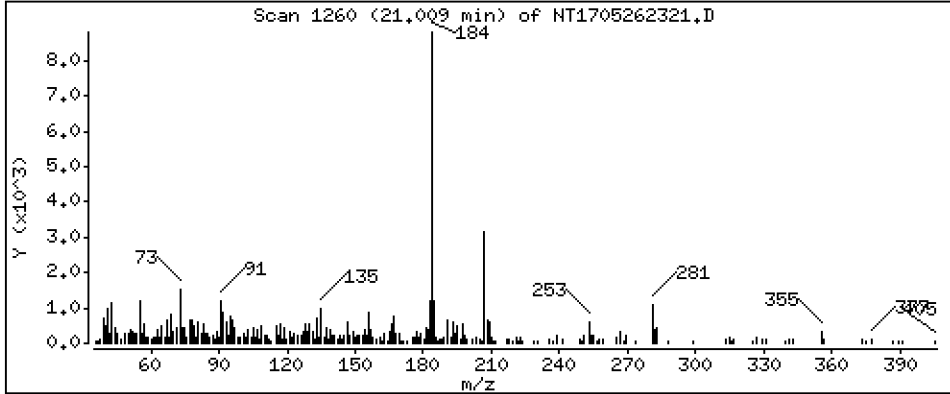
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,4249 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

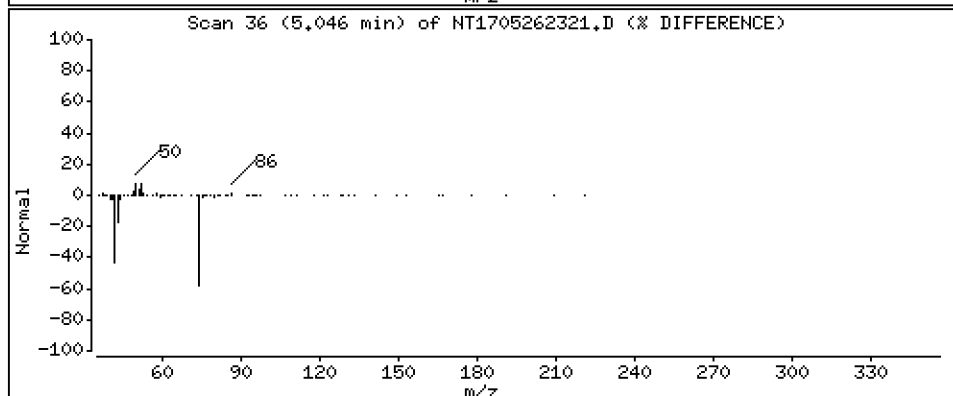
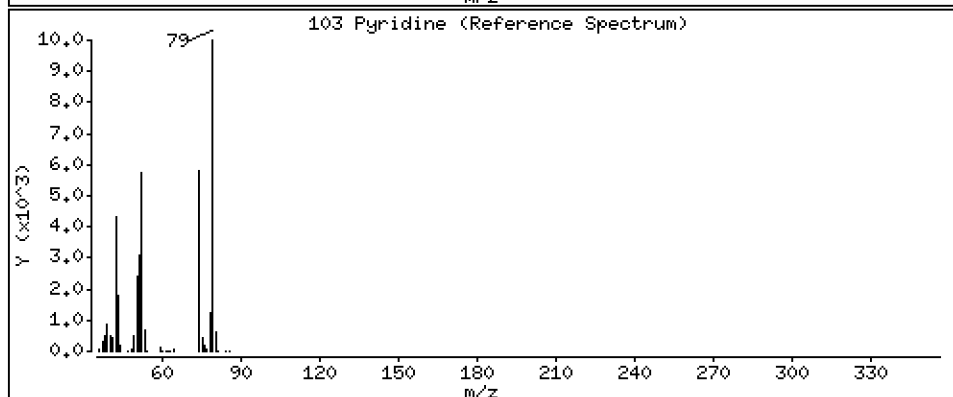
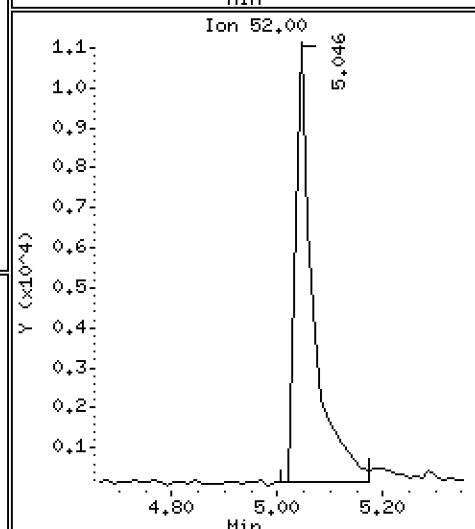
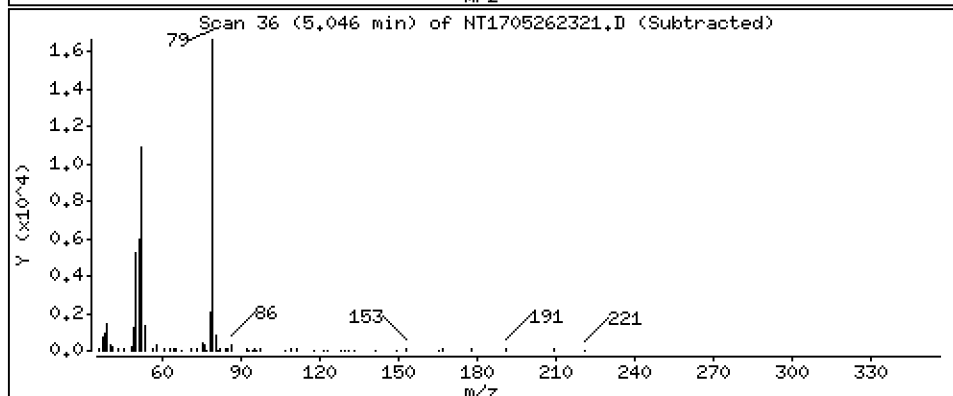
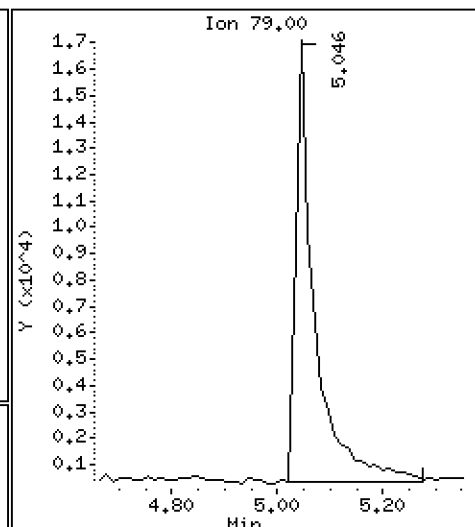
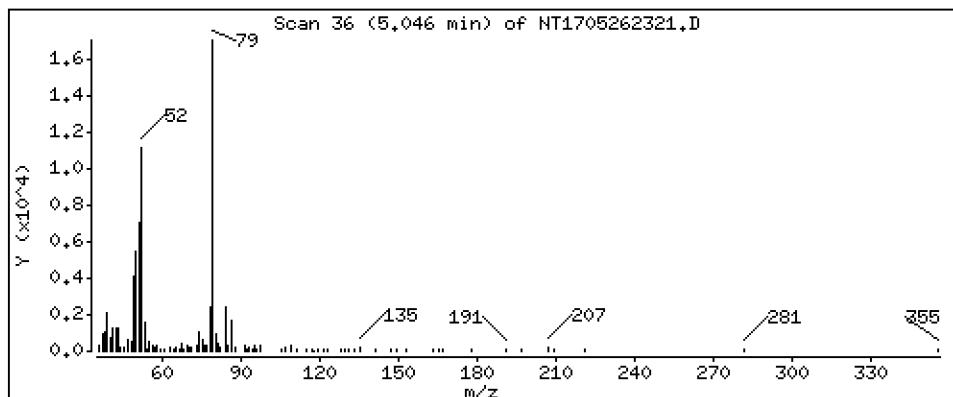
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,3488 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

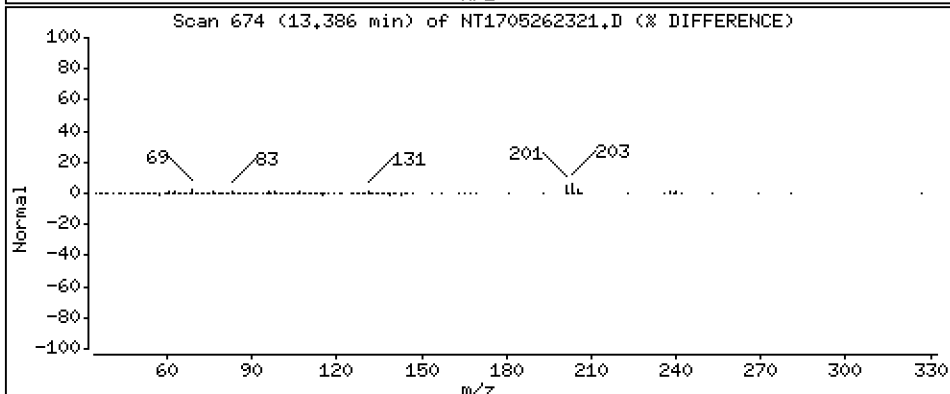
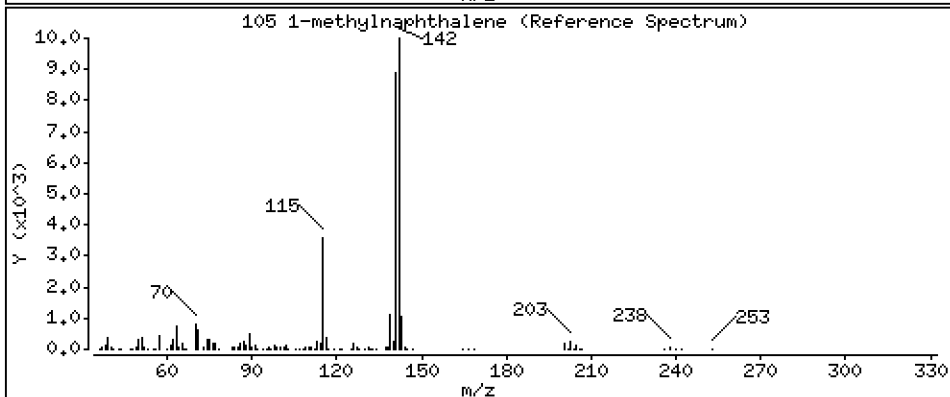
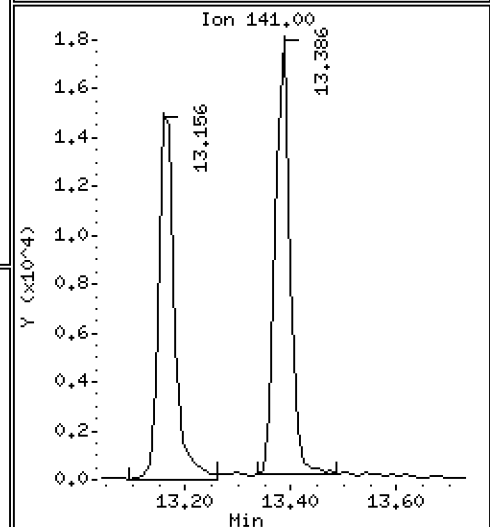
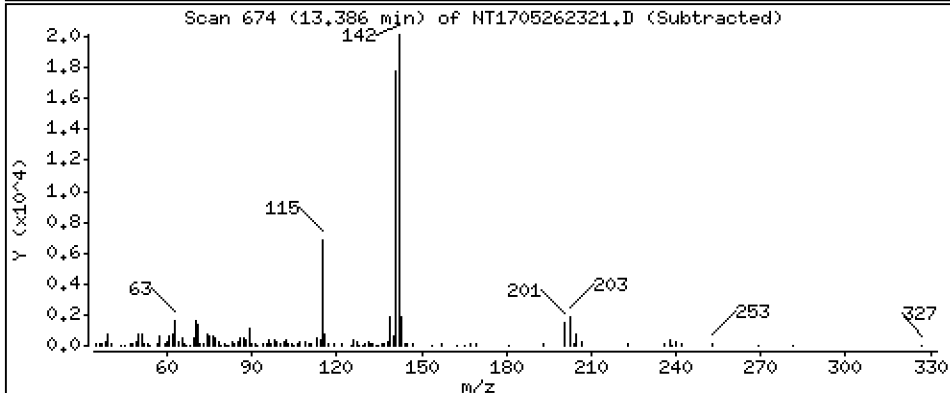
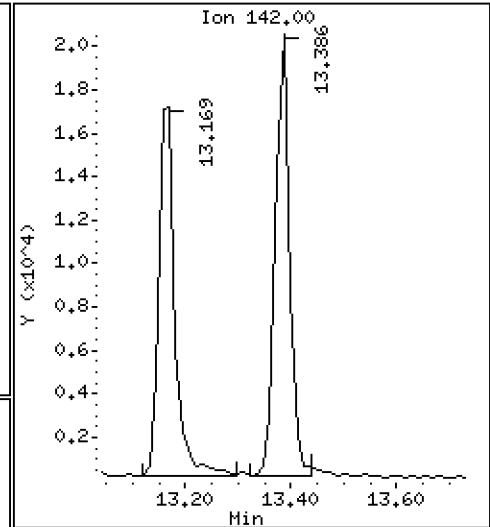
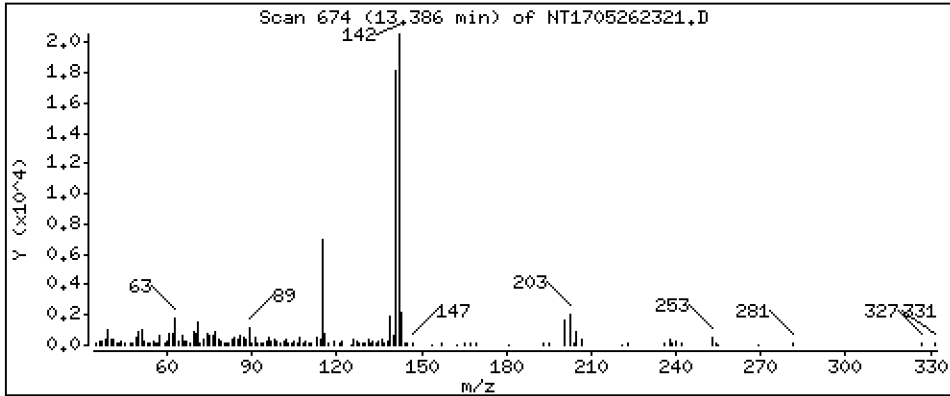
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1960 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

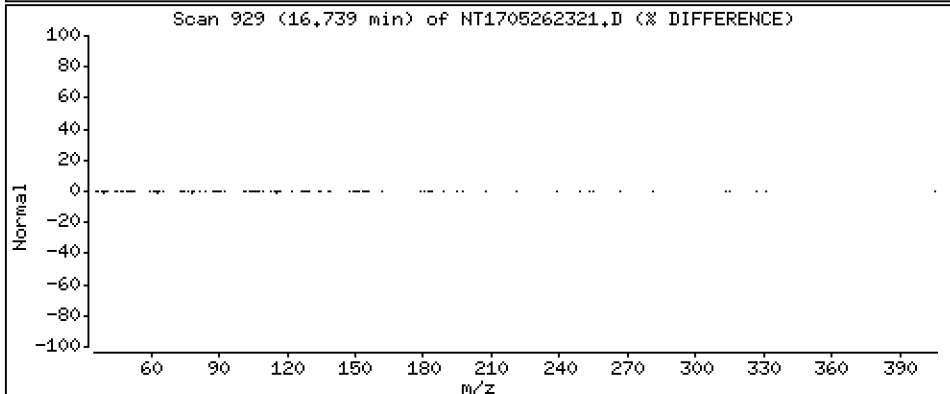
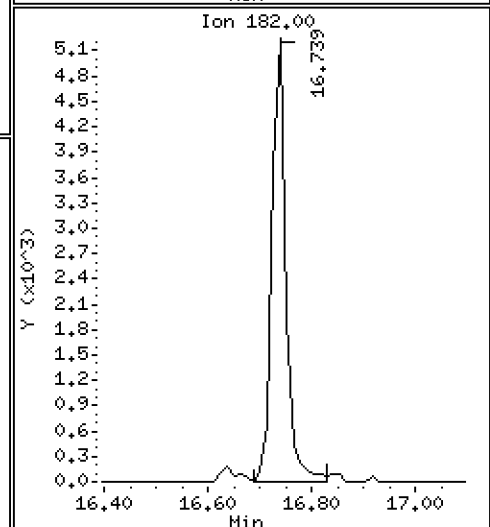
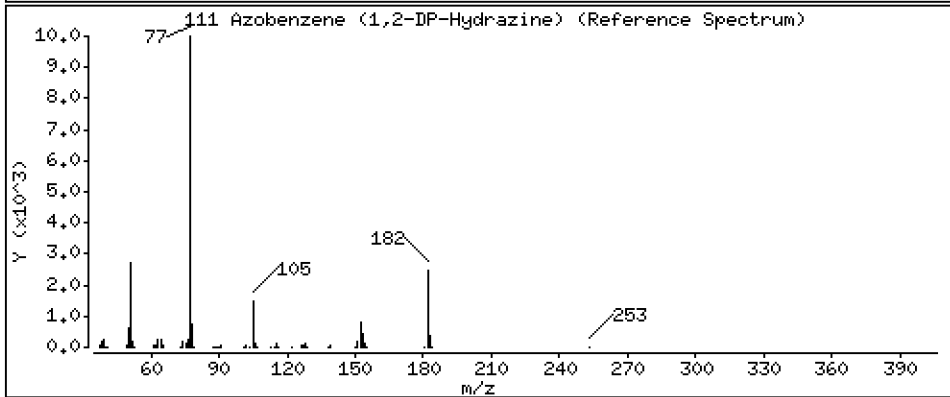
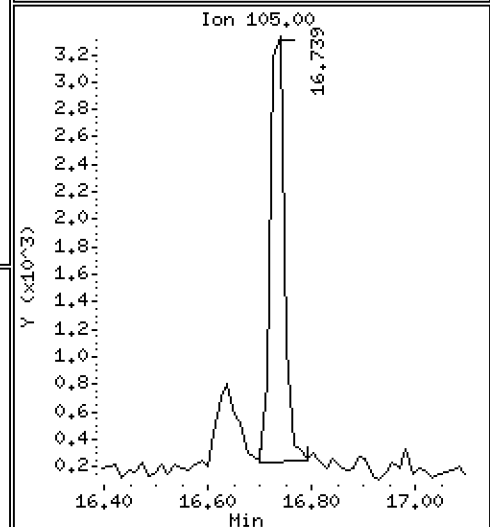
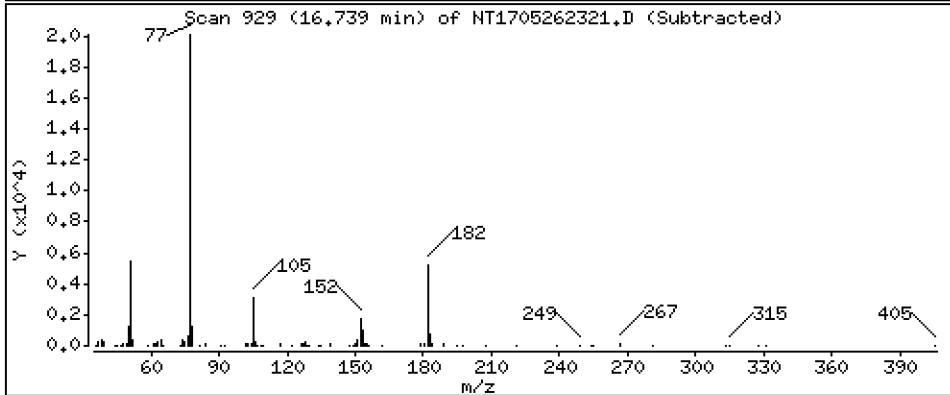
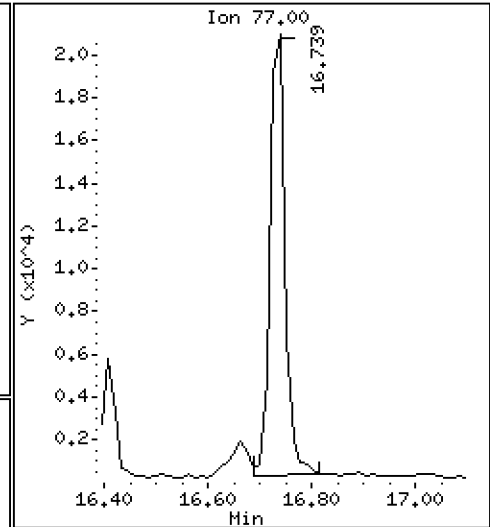
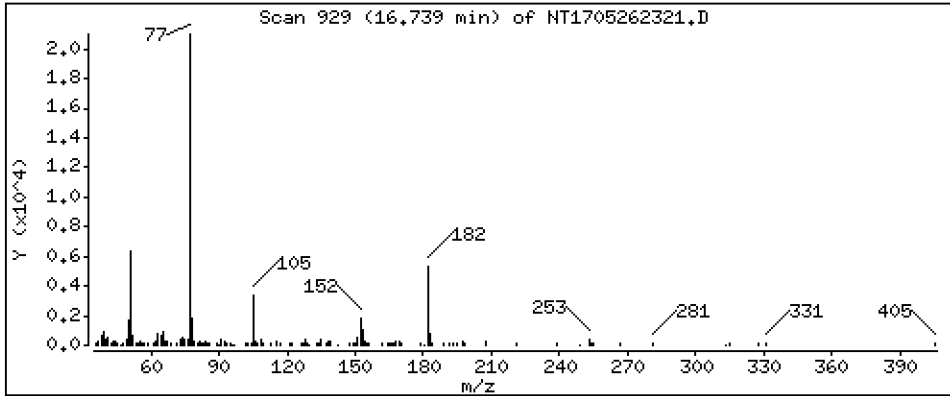
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,1930 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

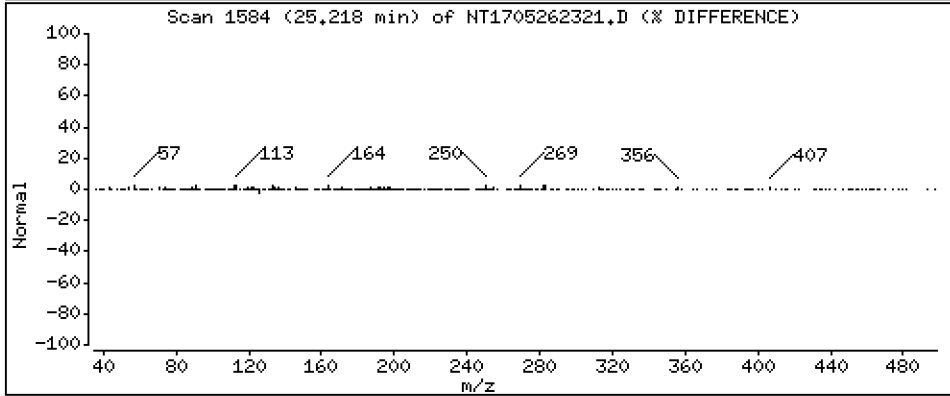
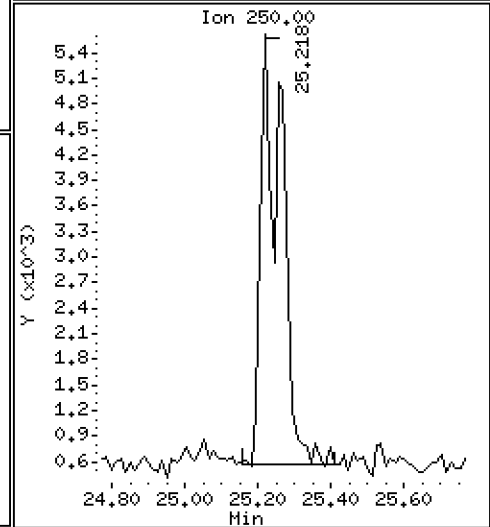
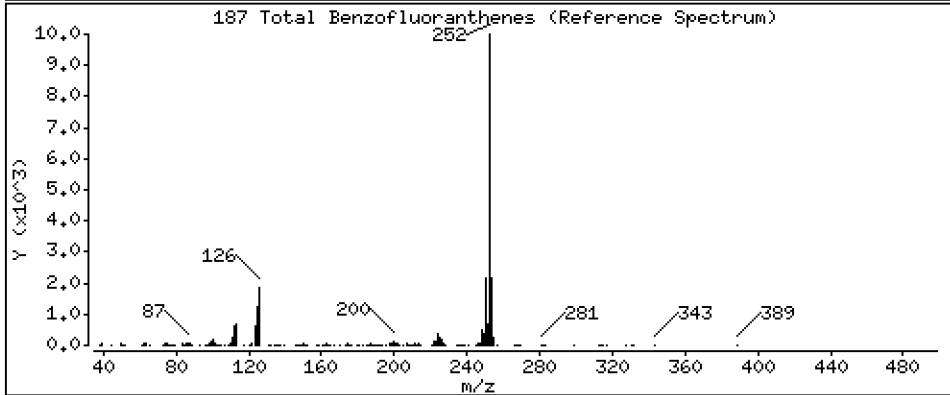
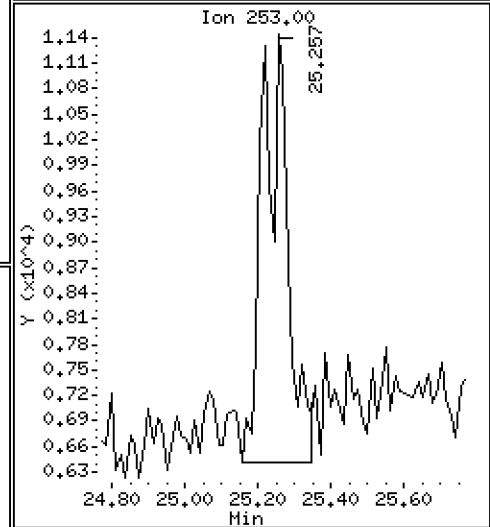
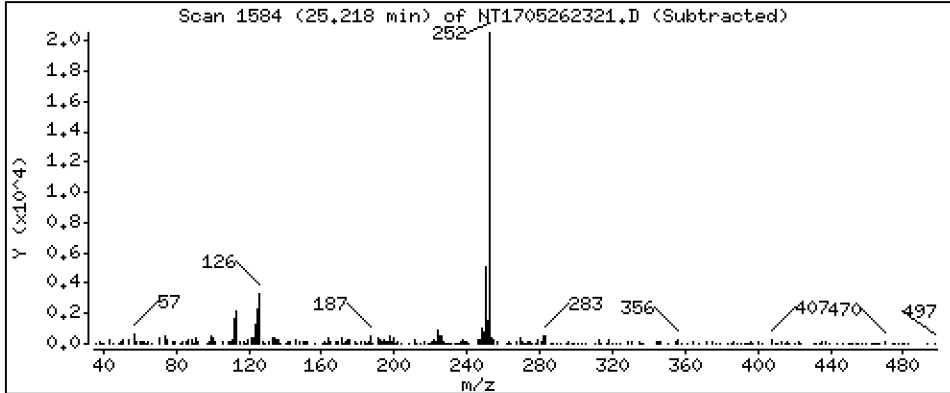
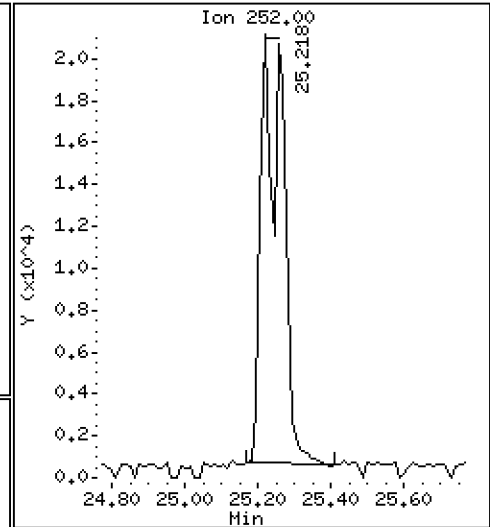
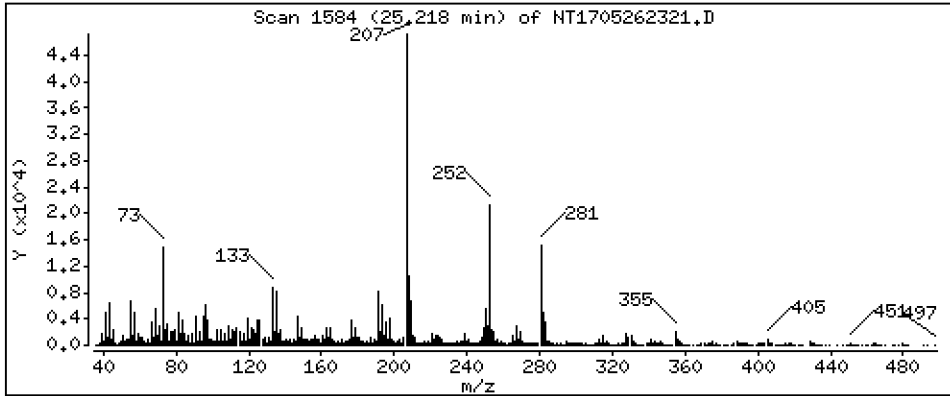
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 0,4404 ug/mL



Date : 27-MAY-2023 01:10

Client ID:

Instrument: nt17.i

Sample Info: SLE0434-LCV2

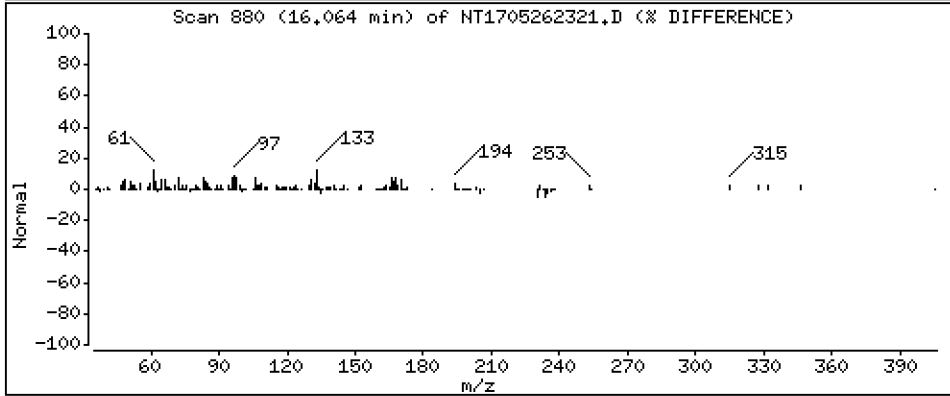
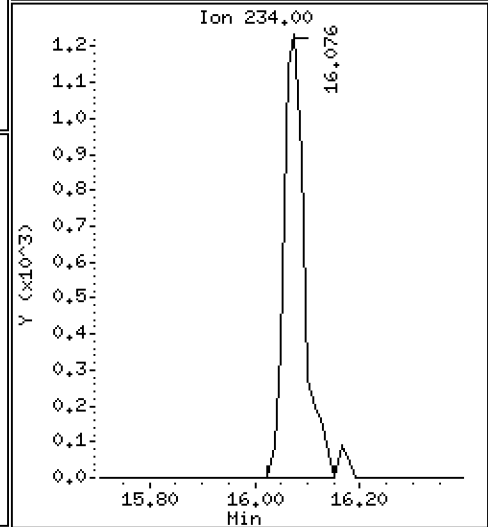
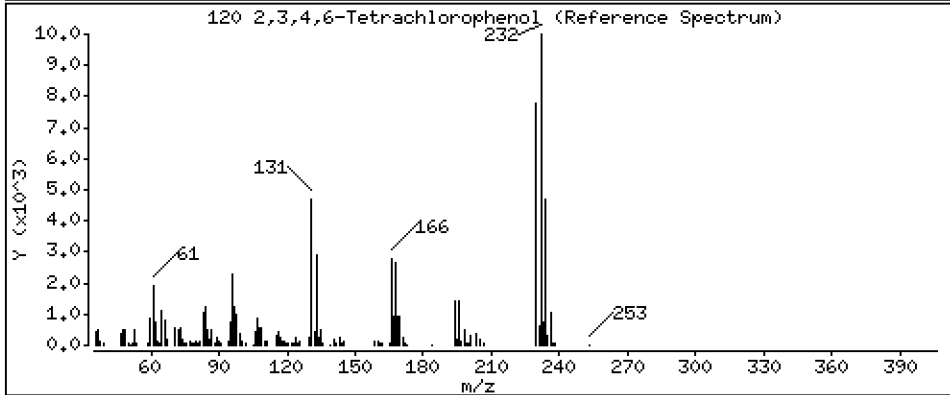
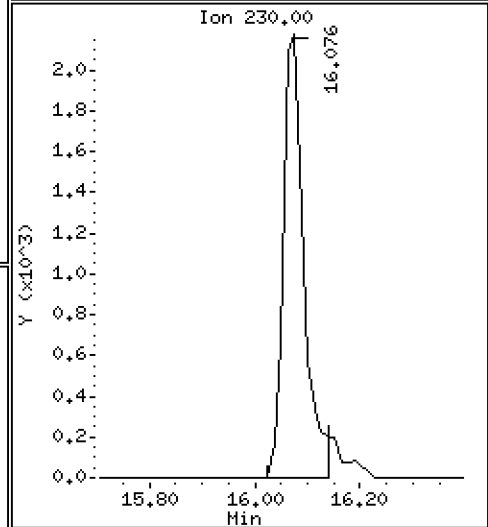
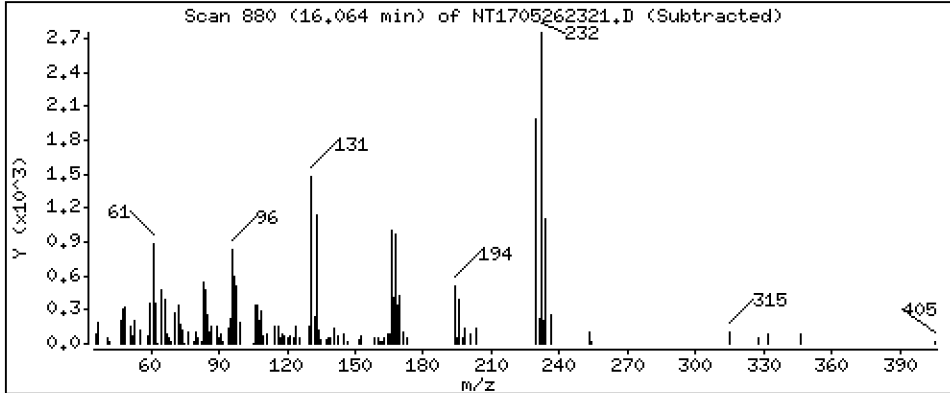
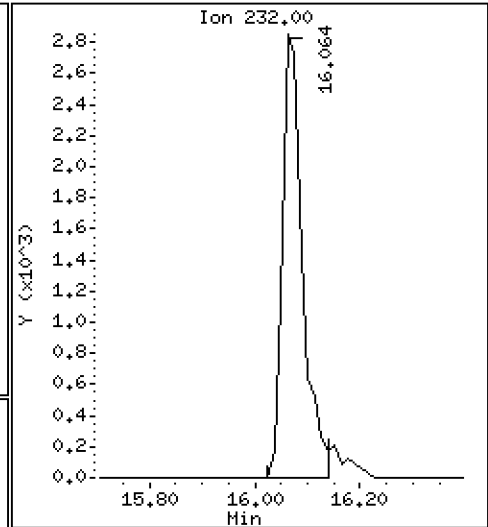
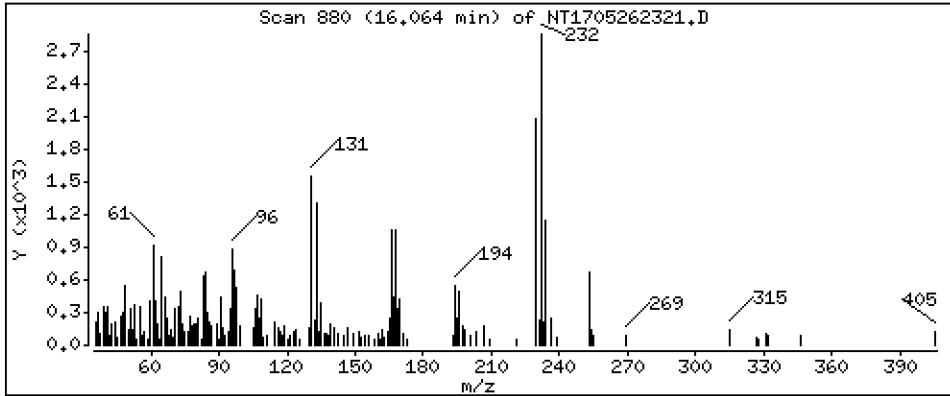
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,1117 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt17.i\20230526.b\NT1705262321.D
 Lab Smp Id: SLE0434-LCV2
 Inj Date : 27-MAY-2023 01:10
 Operator : VTS
 Smp Info : SLE0434-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Meth Date : 27-May-2023 13:34 van
 Cal Date : 16-MAY-2023 22:37
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.071	7.071	(0.763)	29103	0.24695	0.2470
\$ 2 Phenol-d5	99		8.651	8.639	(0.934)	33652	0.21578	0.2158
3 Phenol	94		8.677	8.664	(0.937)	28758	0.17409	0.1741
\$ 5 2-Chlorophenol-d4	132		8.919	8.919	(0.963)	31099	0.24895	0.2489
4 Bis(2-Chloroethyl)ether	93		8.817	8.817	(0.952)	26653	0.22133	0.2213
6 2-Chlorophenol	128		8.944	8.944	(0.966)	21183	0.15356	0.1536
7 1,3-Dichlorobenzene	146		9.199	9.199	(0.993)	26075	0.18677	0.1868
* 8 1,4-Dichlorobenzene-d4	152		9.263	9.263	(1.000)	360010	4.00000	
9 1,4-Dichlorobenzene	146		9.301	9.301	(1.004)	25958	0.18643	0.1864
\$ 10 1,2-Dichlorobenzene-d4	152		9.621	9.621	(1.039)	15787	0.17980	0.1798
12 1,2-Dichlorobenzene	146		9.646	9.646	(1.041)	25680	0.19619	0.1962
11 Benzyl alcohol	108		9.570	9.544	(1.033)	11128	0.14469	0.1447
14 2,2'-oxybis(1-Chloropropane)	121		9.825	9.825	(1.061)	6910	0.18729	0.1873
13 2-Methylphenol	108		9.774	9.761	(1.055)	17719	0.14595	0.1460
17 Hexachloroethane	117		10.234	10.234	(1.105)	8765	0.15736	0.1574
16 N-Nitroso-di-n-propylamine	70		10.081	10.081	(1.088)	13862	0.14924	0.1492
15 4-Methylphenol	108		10.055	10.030	(1.086)	13315	0.10772	0.1077
\$ 18 Nitrobenzene-d5	82		10.362	10.349	(0.884)	22372	0.18874	0.1887
19 Nitrobenzene	77		10.387	10.387	(0.886)	22066	0.19512	0.1951
20 Isophorone	82		10.834	10.835	(0.924)	30354	0.19608	0.1961
21 2-Nitrophenol	139		11.026	11.013	(0.940)	12543	0.23017	0.2302
22 2,4-Dimethylphenol	107		11.077	11.064	(0.945)	35391	0.33449	0.3345
23 Bis(2-Chloroethoxy)methane	93		11.256	11.243	(0.960)	17192	0.18120	0.1812
24 Benzoic acid	105		11.256	11.320	(0.960)	19189	0.26961	0.2696 (M)
25 2,4-Dichlorophenol	162		11.498	11.473	(0.980)	25801	0.30347	0.3035
26 1,2,4-Trichlorobenzene	180		11.652	11.652	(0.993)	24101	0.26100	0.2610
* 27 Naphthalene-d8	136		11.728	11.728	(1.000)	1041490	4.00000	
28 Naphthalene	128		11.779	11.779	(1.004)	57833	0.20193	0.2019
29 4-Chloroaniline	127		11.919	11.906	(1.016)	27891	0.24705	0.2470
30 Hexachlorobutadiene	225		12.123	12.123	(1.034)	9971	0.21799	0.2180
31 4-Chloro-3-methylphenol	107		12.888	12.863	(1.099)	26265	0.28690	0.2869
32 2-Methylnaphthalene	142		13.169	13.156	(1.123)	38173	0.18615	0.1861
33 Hexachlorocyclopentadiene	237		13.615	13.615	(0.888)	999	0.01976	0.01976

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.793	13.781	(0.900)	17995	0.31639	0.3164
35 2,4,5-Trichlorophenol	196	13.896	13.857	(0.907)	19980	0.33184	0.3318
§ 36 2-Fluorobiphenyl	172	13.934	13.934	(0.909)	43233	0.20187	0.2019
37 2-Chloronaphthalene	162	14.151	14.151	(0.923)	33979	0.19558	0.1956
38 2-Nitroaniline	65	14.418	14.406	(0.941)	17844	0.30326	0.3033
39 Dimethylphthalate	163	14.827	14.827	(0.968)	38730	0.20706	0.2071
40 Acenaphthylene	152	15.018	15.018	(0.980)	56506	0.20481	0.2048
41 2,6-Dinitrotoluene	165	14.967	14.967	(0.977)	15133	0.34557	0.3456
* 42 Acenaphthene-d10	164	15.324	15.324	(1.000)	543612	4.00000	
43 3-Nitroaniline	138	15.286	15.260	(0.998)	10790	0.26603	0.2660 (M)
44 Acenaphthene	153	15.388	15.388	(1.004)	34386	0.19938	0.1994
45 2,4-Dinitrophenol	184	15.566	15.477	(1.016)	1607	0.06089	0.06089 (M)
46 Dibenzofuran	168	15.719	15.719	(1.026)	46893	0.19481	0.1948
47 4-Nitrophenol	109	15.706	15.604	(1.025)	3983	0.14785	0.1478 (M)
48 2,4-Dinitrotoluene	165	15.783	15.783	(1.030)	15766	0.27503	0.2750
50 Diethylphthalate	149	16.267	16.267	(1.062)	42997	0.23572	0.2357
49 Fluorene	166	16.420	16.420	(1.072)	40023	0.17489	0.1749
51 4-Chlorophenyl-phenylether	204	16.407	16.407	(1.071)	19636	0.18663	0.1866
52 4-Nitroaniline	138	16.560	16.535	(1.081)	9075	0.23639	0.2364
53 4,6-Dinitro-2-methylphenol	198	16.636	16.611	(0.907)	4749	0.13493	0.1349
54 N-Nitrosodiphenylamine	169	16.662	16.662	(0.908)	24301	0.19671	0.1967
§ 55 2,4,6-Tribromophenol	330	16.967	16.967	(1.107)	5608	0.23650	0.2365
56 4-Bromophenyl-phenylether	248	17.413	17.413	(0.949)	8440	0.19499	0.1950
57 Hexachlorobenzene	284	17.731	17.731	(0.967)	9669	0.21922	0.2192
58 Pentachlorophenol	266	18.114	18.088	(0.987)	5211	0.20380	0.2038 (M)
* 59 Phenanthrene-d10	188	18.343	18.343	(1.000)	881915	4.00000	
60 Phenanthrene	178	18.394	18.394	(1.003)	50134	0.19482	0.1948
61 Anthracene	178	18.484	18.484	(1.008)	47119	0.19504	0.1950
62 Carbazole	167	18.828	18.828	(1.026)	38631	0.26387	0.2639
63 Di-n-butylphthalate	149	19.593	19.580	(1.068)	57536	0.19723	0.1972
64 Fluoranthene	202	20.766	20.753	(0.889)	51598	0.17450	0.1745
65 Pyrene	202	21.187	21.187	(0.907)	54771	0.18272	0.1827
§ 66 Terphenyl-d14	244	21.455	21.455	(0.919)	37299	0.17504	0.1750
67 Butylbenzylphthalate	149	22.360	22.361	(0.957)	25475	0.18989	0.1899
68 Benzo(a)anthracene	228	23.317	23.317	(0.998)	48510	0.20840	0.2084
* 69 Chrysene-d12	240	23.356	23.356	(1.000)	632133	4.00000	
70 3,3'-Dichlorobenzidine	252	23.279	23.279	(0.997)	44912	0.99601	0.9960
71 Chrysene	228	23.394	23.394	(1.002)	47579	0.21722	0.2172
72 bis(2-Ethylhexyl)phthalate	149	23.368	23.368	(0.960)	34281	0.18099	0.1810
* 134 Di-n-octylphthalate-d4	153	24.351	24.363	(1.000)	1309126	4.00000	
73 Di-n-octylphthalate	149	24.363	24.363	(1.001)	70500	0.21246	0.2125
74 Benzo(b)fluoranthene	252	25.218	25.218	(0.970)	48446	0.22428	0.2243
75 Benzo(k)fluoranthene	252	25.256	25.269	(0.971)	49174	0.24095	0.2410
76 Benzo(a)pyrene	252	25.881	25.894	(0.995)	36092	0.21211	0.2121
* 77 Perylene-d12	264	26.009	26.009	(1.000)	544824	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.729	28.716	(1.105)	25177	0.12756	0.1276
79 Dibenzo(a,h)anthracene	278	28.742	28.729	(1.105)	22820	0.13776	0.1378
80 Benzo(g,h,i)perylene	276	29.534	29.534	(1.136)	17997	0.11047	0.1105
90 N-Nitrosodimethylamine	74	4.982	4.982	(0.538)	24167	0.30743	0.3074
91 Aniline	93	8.740	8.728	(0.944)	32699	0.23622	0.2362
93 Benzidine	184	21.008	20.996	(0.900)	31189	0.42486	0.4249
103 Pyridine	79	5.046	5.008	(0.545)	43486	0.34876	0.3488
105 1-methylnaphthalene	142	13.385	13.385	(1.141)	37286	0.19599	0.1960
111 Azobenzene (1,2-DP-Hydrazine)	77	16.738	16.738	(1.092)	41103	0.19304	0.1930

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.218	25.269	(0.970)	85388	0.44036	0.4404 (M)
120 2,3,4,6-Tetrachlorophenol	232	16.063	16.050	(1.048)	7602	0.11171	0.1117

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i Calibration Date: 26-MAY-2023
 Lab File ID: NT1705262321.D Calibration Time: 23:55
 Lab Smp Id: SLE0434-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	327251	163626	654502	360010	10.01
27 Naphthalene-d8	1151610	575805	2303220	1041490	-9.56
42 Acenaphthene-d10	581592	290796	1163184	543612	-6.53
59 Phenanthrene-d10	918371	459186	1836742	881915	-3.97
69 Chrysene-d12	690072	345036	1380144	632133	-8.40
134 Di-n-octylphthala	1461689	730845	2923378	1309126	-10.44
77 Perylene-d12	568726	284363	1137452	544824	-4.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.26	8.76	9.76	9.26	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.32	14.82	15.82	15.32	-0.00
59 Phenanthrene-d10	18.34	17.84	18.84	18.34	-0.00
69 Chrysene-d12	23.36	22.86	23.86	23.36	-0.00
134 Di-n-octylphthala	24.36	23.86	24.86	24.35	-0.05
77 Perylene-d12	26.01	25.51	26.51	26.01	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262321.D

Lab ID: SLE0434-LCV2
nt17.i, ABN.m, 27-MAY-2023 01:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.960	0.965	-0.0054	Benzoic acid
1.016	1.010	0.0058	2,4-Dinitrophenol
1.025	1.018	0.0066	4-Nitrophenol

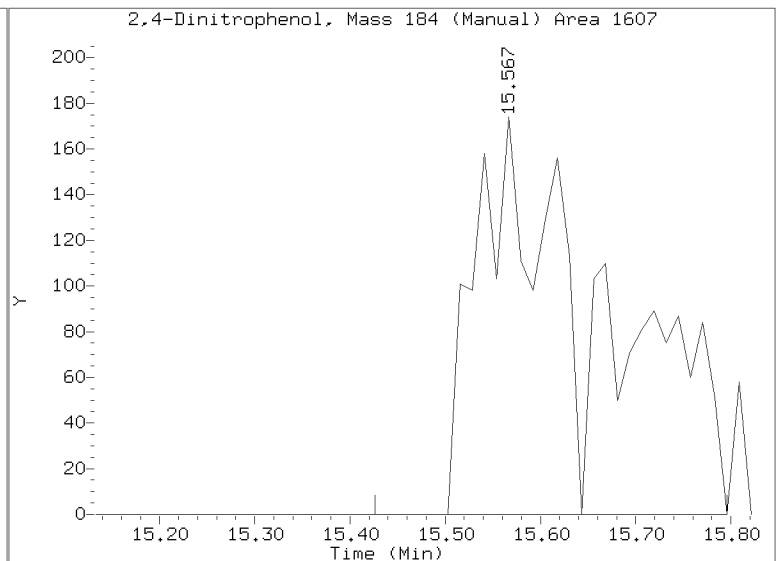
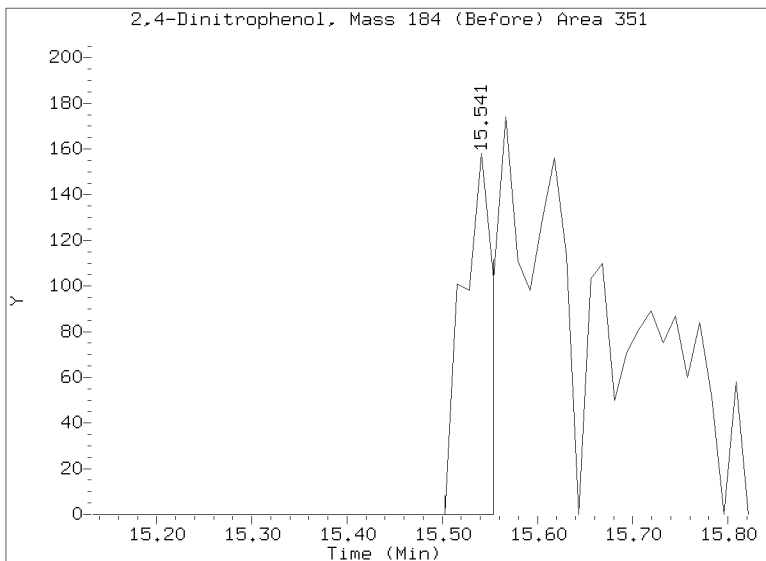
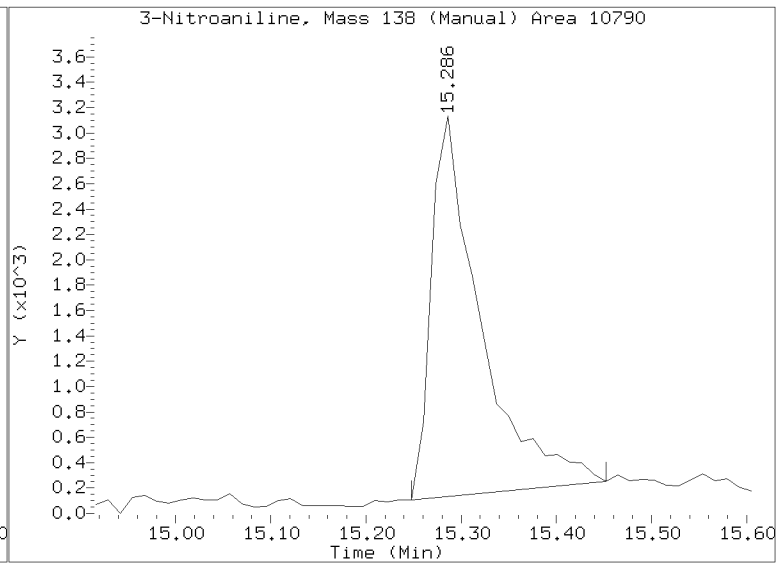
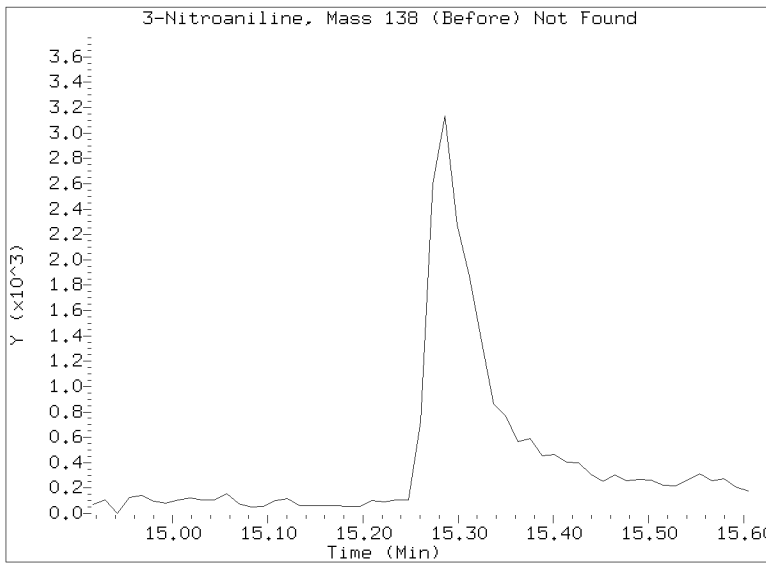
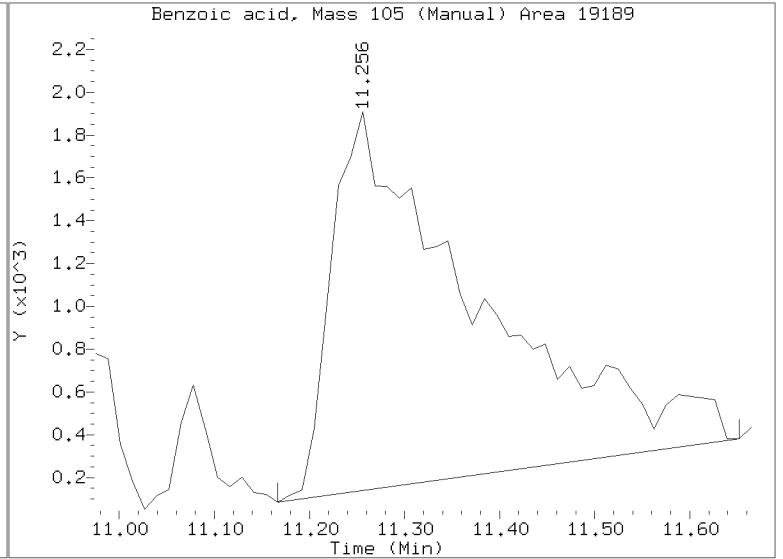
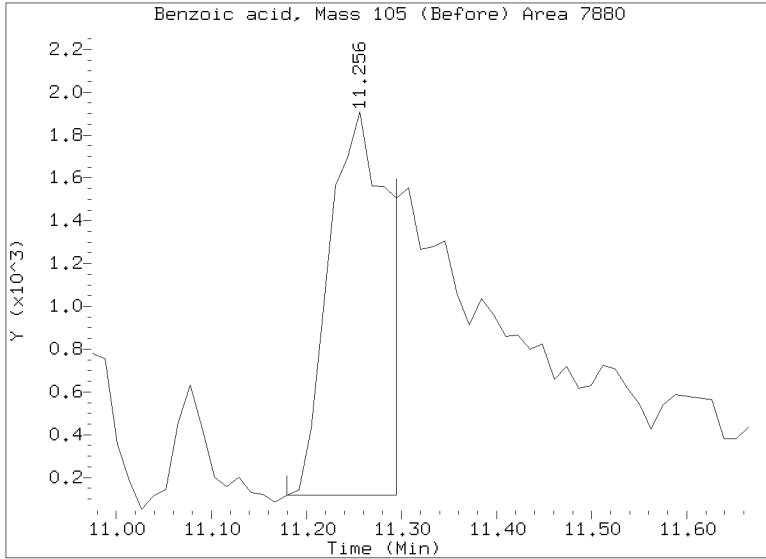
RRT check based on Ccal File: NT1705262319.D

On Column LOD for nt17.i, ABN.m, ICAL.sub = 0.0000

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

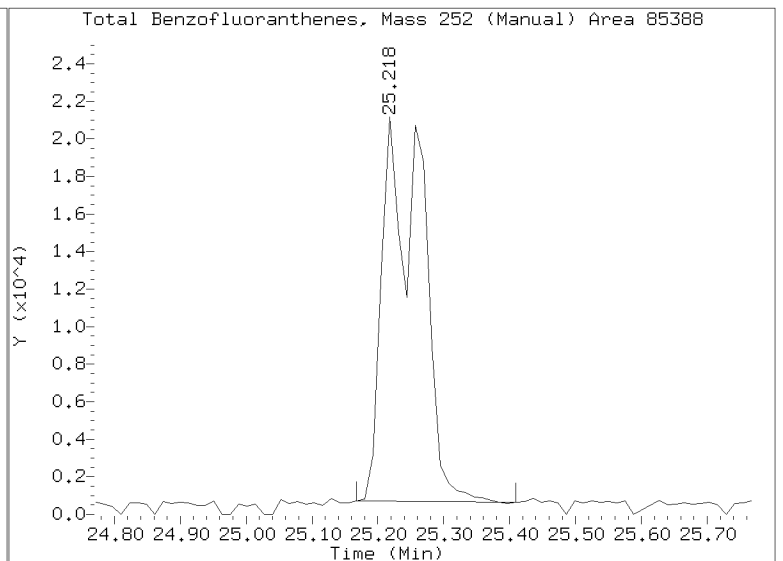
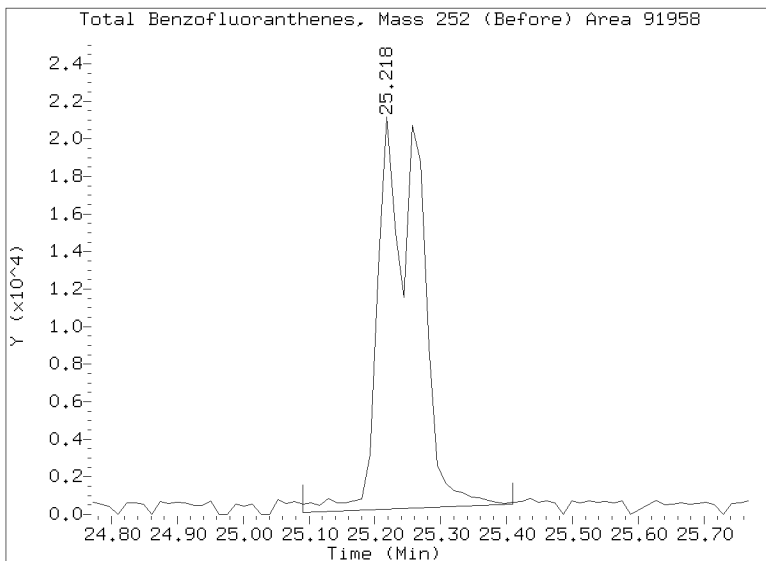
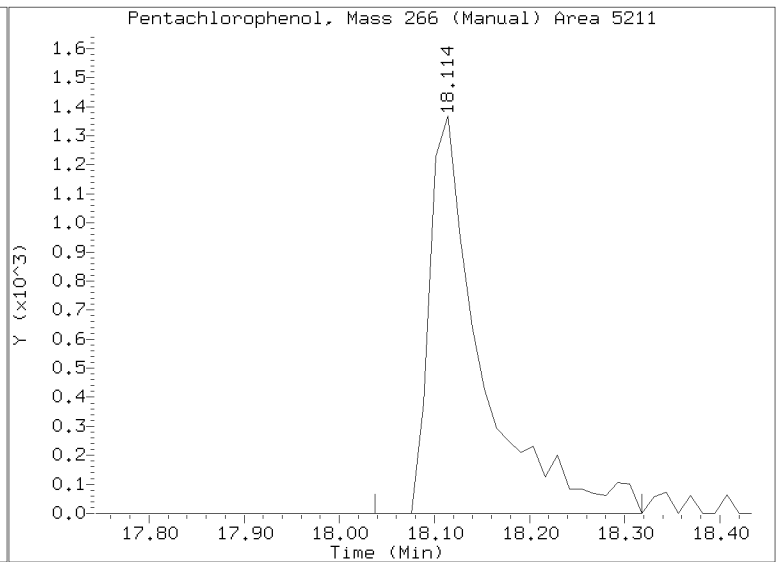
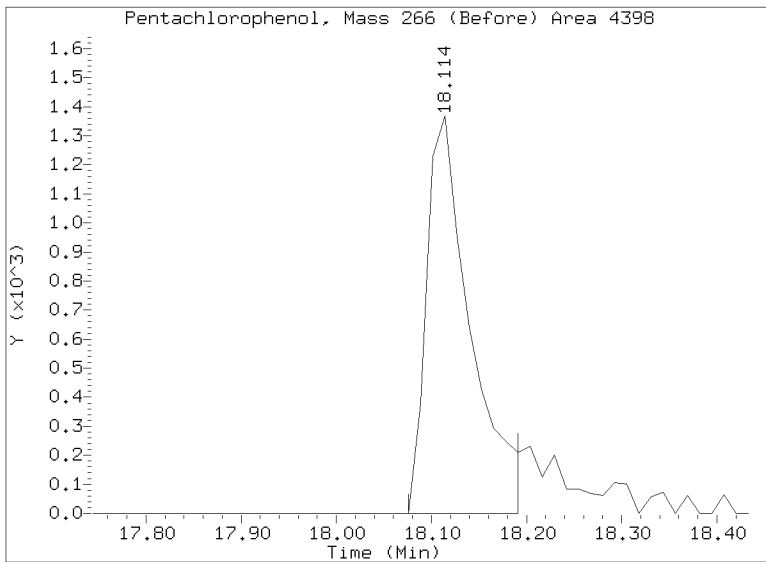
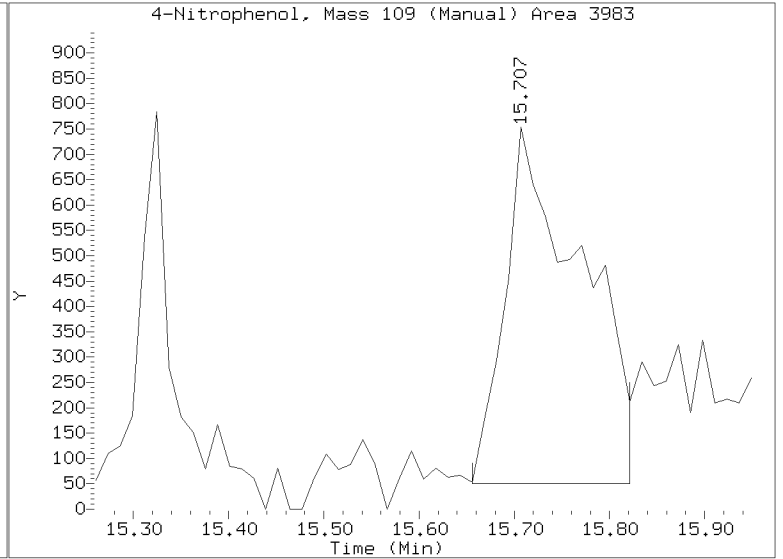
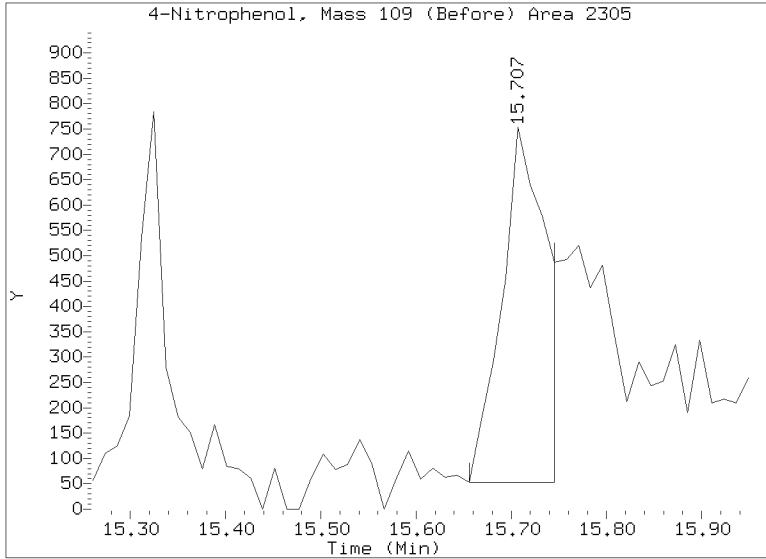
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262321.D
Injection Date: 27-MAY-2023 01:10
Lab ID: SLE0434-LCV2 Client ID:
Report Date: 05/27/2023 13:34



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/NT1705262321.D
Injection Date: 27-MAY-2023 01:10
Lab ID: SLE0434-LCV2 Client ID:
Report Date: 05/27/2023 13:34





ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0338

Instrument: NT17

Calibration: GE00065

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0338-TUN1	NT1705162301.D	NA	05/16/23 18:14
ABN 20	SLE0338-CAL7	NT1705162302.D	NA	05/16/23 18:52
ABN 10	SLE0338-CAL6	NT1705162303.D	NA	05/16/23 19:29
ABN 5	SLE0338-CAL5	NT1705162304.D	NA	05/16/23 20:07
ABN 2.5	SLE0338-CAL4	NT1705162305.D	NA	05/16/23 20:44
ABN 1.0	SLE0338-CAL3	NT1705162306.D	NA	05/16/23 21:22
ABN 0.5	SLE0338-CAL2	NT1705162307.D	NA	05/16/23 21:59
ABN 0.2	SLE0338-CAL1	NT1705162308.D	NA	05/16/23 22:37
SCV 5.0	SLE0338-SCV1	NT1705162311.D	NA	05/17/23 00:29
Initial Cal Blank	SLE0338-ICB1	NT1705162312.D	NA	05/17/23 01:07



ANALYSIS SEQUENCE

SLE0338

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00065 GCMS Column ID: L004289
MS EM Level: 1450 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0338-TUN1	MS Tune	QC		1	L005045		05/16/2023 18:14	NT1705162301.D	VTS	
SLE0338-CAL7	ABN 20	QC		2	K011111	K010831	05/16/2023 18:52	NT1705162302.D	JGR	
SLE0338-CAL6	ABN 10	QC		3	K011110	K010831	05/16/2023 19:29	NT1705162303.D	JGR	
SLE0338-CAL5	ABN 5	QC		4	K011109	K010831	05/16/2023 20:07	NT1705162304.D	JGR	
SLE0338-CAL4	ABN 2.5	QC		5	K011108	K010831	05/16/2023 20:44	NT1705162305.D	JGR	
SLE0338-CAL3	ABN 1.0	QC		6	K011107	K010831	05/16/2023 21:22	NT1705162306.D	JGR	
SLE0338-CAL2	ABN 0.5	QC		7	K011106	K010831	05/16/2023 21:59	NT1705162307.D	JGR	
SLE0338-CAL1	ABN 0.2	QC		8	K011105	K010831	05/16/2023 22:37	NT1705162308.D	JGR	
SLE0338-SCV1	SCV 5.0	QC		9	K010066	K010831	05/17/2023 00:29	NT1705162311.D	JGR	
SLE0338-ICB1	Initial Cal Blank	QC		10	K005156	K010831	05/17/2023 01:07	NT1705162312.D	JGR	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b

Instrument: nt17.i Date: 16-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1814	NT1705162301.D	SLE0338-TUN1	1	NO MANUAL INTEGRATION
1852	NT1705162302.D	SLE0338-CAL7	1	Benzoic acid, 2-Fluorophenol,
1929	NT1705162303.D	SLE0338-CAL6	1	Benzoic acid,
2007	NT1705162304.D	SLE0338-CAL5	1	NO MANUAL INTEGRATION
2044	NT1705162305.D	SLE0338-CAL4	1	Benzoic acid,
2122	NT1705162306.D	SLE0338-CAL3	1	NO MANUAL INTEGRATION
2159	NT1705162307.D	SLE0338-CAL2	1	NO MANUAL INTEGRATION
2237	NT1705162308.D	SLE0338-CAL1	1	Benzoic acid,
2314	NT1705162309.D	SIM0.1	1	Benzo(k)fluoranthene,
2351	NT1705162310.D	SIM 0.5	1	NO MANUAL INTEGRATION
0029	NT1705162311.D	SLE0338-SCV1	1	NO MANUAL INTEGRATION
0107	NT1705162312.D	SLE0338-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 20-May-2023 13:32

NT1705162301.D	Data Locked	van, 20-May-2023 13:32
NT1705162302.D	Data Locked	van, 20-May-2023 13:32
NT1705162303.D	Data Locked	van, 20-May-2023 13:32
NT1705162304.D	Data Locked	van, 20-May-2023 13:32
NT1705162305.D	Data Locked	van, 20-May-2023 13:32
NT1705162306.D	Data Locked	van, 20-May-2023 13:32
NT1705162307.D	Data Locked	van, 20-May-2023 13:32
NT1705162308.D	Data Locked	van, 20-May-2023 13:32
NT1705162309.D	Data Locked	van, 20-May-2023 13:32
NT1705162310.D	Data Locked	van, 20-May-2023 13:32
NT1705162311.D	Data Locked	van, 20-May-2023 13:32
NT1705162312.D	Data Locked	van, 20-May-2023 13:32



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0434

Instrument: NT17

Calibration: GE00065

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0434-TUN1	NT1705262301.D	NA	05/26/23 12:58
ABN 5	SLE0434-ICV1	NT1705262302.D	NA	05/26/23 13:16
ABN 0.2	SLE0434-LCV1	NT1705262304.D	NA	05/26/23 14:31
Blank	BLD0607-BLK1	NT1705262306.D	Solid	05/26/23 15:47
LCS	BLD0607-BS1	NT1705262307.D	Solid	05/26/23 16:25
LCS Dup	BLD0607-BSD1	NT1705262308.D	Solid	05/26/23 17:02
Reference	BLD0607-SRM1	NT1705262311.D	Solid	05/26/23 18:56
ZZZZZ	23D0394-01	NT1705262312.D	Solid	05/26/23 19:33
ZZZZZ	23D0394-02	NT1705262313.D	Solid	05/26/23 20:11
ZZZZZ	23D0394-04	NT1705262314.D	Solid	05/26/23 20:48
ZZZZZ	23D0394-06	NT1705262315.D	Solid	05/26/23 21:26
ZZZZZ	23D0394-08	NT1705262316.D	Solid	05/26/23 22:03
ZZZZZ	23D0394-11	NT1705262317.D	Solid	05/26/23 22:40
ZZZZZ	23D0394-12	NT1705262318.D	Solid	05/26/23 23:18
ABN 5	SLE0434-ICV2	NT1705262319.D	NA	05/26/23 23:55
ABN 0.2	SLE0434-LCV2	NT1705262321.D	NA	05/27/23 01:10
LDW23-SS1801	23D0396-01	NT1705262323.D	Solid	05/27/23 02:25
LDW23-SS1802	23D0396-03	NT1705262324.D	Solid	05/27/23 03:02
ZZZZZ	23C0109-03RE1	NT1705262325.D	Solid	05/27/23 03:40
ZZZZZ	23C0108-09RE1	NT1705262326.D	Solid	05/27/23 04:17
Blank	BLD0607-BLK3	NT1705262327.D	Solid	05/27/23 04:54
ABN 5	SLE0434-CCV1	NT1705262328.D	NA	05/27/23 05:31



ANALYSIS SEQUENCE

SLE0434

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00065 GCMS Column ID: L004289
MS EM Level: 1500 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0434-TUN1	MS Tune	QC		1	L005045		05/26/2023 12:58	NT1705262301.D	JGR	
SLE0434-ICV1	ABN 5	QC		2	L005950	L001570	05/26/2023 13:16	NT1705262302.D	VTS	
SLE0434-LCV1	ABN 0.2	QC		3	L005946	L001570	05/26/2023 14:31	NT1705262304.D	VTS	
BLD0607-BLK1	Blank	QC		4		L001570	05/26/2023 15:47	NT1705262306.D	VTS	
BLD0607-BS1	LCS	QC		5		L001570	05/26/2023 16:25	NT1705262307.D	VTS	
BLD0607-BSD1	LCS Dup	QC		6		L001570	05/26/2023 17:02	NT1705262308.D	VTS	
BLD0607-MS1	Matrix Spike	QC		7		L001570	05/26/2023 17:40	NT1705262309.D	VTS	
BLD0607-MSD1	Matrix Spike Dup	QC		8		L001570	05/26/2023 18:18	NT1705262310.D	VTS	
BLD0607-SRM1	Reference	QC		9		L001570	05/26/2023 18:56	NT1705262311.D	VTS	
23D0394-01	LDW23-SS1098	20ug/kg solid or 0.2ug/L l	A 02	10		L001570	05/26/2023 19:33	NT1705262312.D	VTS	
23D0394-02	LDW23-SS1071	20ug/kg solid or 0.2ug/L l	A 02	11		L001570	05/26/2023 20:11	NT1705262313.D	VTS	
23D0394-04	LDW23-SS1078	20ug/kg solid or 0.2ug/L l	A 02	12		L001570	05/26/2023 20:48	NT1705262314.D	VTS	
23D0394-06	LDW23-SS1807	20ug/kg solid or 0.2ug/L l	A 02	13		L001570	05/26/2023 21:26	NT1705262315.D	VTS	
23D0394-08	LDW23-SS1055	20ug/kg solid or 0.2ug/L l	A 02	14		L001570	05/26/2023 22:03	NT1705262316.D	VTS	
23D0394-11	LDW23-SS1034	20ug/kg solid or 0.2ug/L l	A 02	15		L001570	05/26/2023 22:40	NT1705262317.D	VTS	
23D0394-12	LDW23-SS1806	20ug/kg solid or 0.2ug/L l	A 02	16		L001570	05/26/2023 23:18	NT1705262318.D	VTS	
SLE0434-ICV2	ABN 5	QC		17	L005950	L001570	05/26/2023 23:55	NT1705262319.D	VTS	
SLE0434-LCV2	ABN 0.2	QC		18	L005946	L001570	05/27/2023 01:10	NT1705262321.D	VTS	
23D0396-01	LDW23-SS1801	20ug/kg solid or 0.2ug/L l	A 02	19		L001570	05/27/2023 02:25	NT1705262323.D	VTS	
23D0396-03	LDW23-SS1802	20ug/kg solid or 0.2ug/L l	A 02	20		L001570	05/27/2023 03:02	NT1705262324.D	VTS	
23C0108-09RE1	LDW23-SS1118	20ug/kg solid or 0.2ug/L l	A 02	21		L001570	05/27/2023 04:17	NT1705262326.D	VTS	Added 5/27/2023 by VTS
23C0109-03RE1	LDW23-SS1105	20ug/kg solid or 0.2ug/L l	A 02	22		L001570	05/27/2023 03:40	NT1705262325.D	VTS	Added 5/27/2023 by VTS



ANALYSIS SEQUENCE

SLE0434

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00065 GCMS Column ID: L004289
MS EM Level: 1500 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0434-CCV1	ABN 5	QC		23	L005950	L001570	05/27/2023 05:31	NT1705262328.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b

Time	Filename	LabID	ClientId	DF																					
1	1258	NT1705262301.D	SLE0434-TUN1	1	|NO	ISTDS	FOUND																		
2	1316	NT1705262302.D	SLE0434-ICV1	1	|	9.26	303517	|	11.73	1140476	|	15.32	622461	|	18.34	1074054	|	23.36	723807	|	26.00	666992	|	24.36	1524055
3	1431	NT1705262304.D	SLE0434-LCV1	1	|	9.26	316449	|	11.73	1142345	|	15.32	576179	|	18.34	958053	|	23.34	600821	|	26.00	617938	|	24.35	1240881
4	1509	NT1705262305.D	SIM LCV	1	|	9.26	392510	|	11.73	1272891	|	15.32	633869	|	18.34	1033436	|	23.34	604550	|	26.00	624810	|	24.35	1241015
5	1547	NT1705262306.D	BLD0607-BLK1	1	|	9.26	269574	|	11.73	1019925	|	15.32	537378	|	18.34	871516	|	23.34	560318	|	26.00	499749	|	24.35	1157035
6	1625	NT1705262307.D	BLD0607-BS1	1	|	9.26	270705	|	11.73	979437	|	15.32	504985	|	18.34	813869	|	23.34	502451	|	26.00	424472	|	24.35	1064023
7	1702	NT1705262308.D	BLD0607-BSD1	1	|	9.26	274132	|	11.73	1020740	|	15.32	518733	|	18.34	844493	|	23.34	499547	|	26.00	427148	|	24.35	1058373
8	1740	NT1705262309.D	BLD0607-MS1	1	|	9.26	271968	|	11.73	939956	|	15.32	447496	|	18.34	707304	|	23.36	671174	|	26.03	525393	|	24.38	1642643
9	1818	NT1705262310.D	BLD0607-MSD1	1	|	9.26	287159	|	11.73	1011804	|	15.32	489313	|	18.34	791605	|	23.36	758343	|	26.02	569703	|	24.36	1822326
10	1856	NT1705262311.D	BLD0607-SRM1	1	|	9.26	303211	|	11.73	1039513	|	15.32	497514	|	18.34	761526	|	23.36	632418	|	26.00	634142	|	24.36	1379317
11	1933	NT1705262312.D	23D0394-01	1	|	9.26	303743	|	11.73	1085418	|	15.32	520191	|	18.34	837196	|	23.36	660583	|	26.02	655161	|	24.36	1472114
12	2011	NT1705262313.D	23D0394-02	1	|	9.26	299469	|	11.73	1060356	|	15.32	502108	|	18.34	767944	|	23.36	783737	|	26.06	615979	|	24.38	2016432
13	2048	NT1705262314.D	23D0394-04	1	|	9.28	304909	|	11.73	1061244	|	15.32	493793	|	18.34	783670	|	23.36	737749	|	26.02	494226	|	24.36	1698072
14	2126	NT1705262315.D	23D0394-06	1	|	9.26	301405	|	11.73	1010477	|	15.32	506561	|	18.34	772575	|	23.36	666675	|	26.01	522592	|	24.36	1418587
15	2203	NT1705262316.D	23D0394-08	1	|	9.26	303859	|	11.73	1072420	|	15.32	508913	|	18.34	787959	|	23.36	665266	|	26.01	521405	|	24.36	1414537
16	2240	NT1705262317.D	23D0394-11	1	|	9.26	311452	|	11.73	1100726	|	15.32	520993	|	18.34	791976	|	23.36	706389	|	26.04	519498	|	24.36	1657614
17	2318	NT1705262318.D	23D0394-12	1	|	9.26	312418	|	11.73	1108028	|	15.32	537868	|	18.34	828519	|	23.36	671055	|	26.01	502096	|	24.36	1395059
18	2355	NT1705262319.D	SLE0434-ICV2	1	|	9.26	327251	|	11.73	1151610	|	15.32	581592	|	18.34	918371	|	23.36	690072	|	26.01	568726	|	24.36	1461689
19	0033	NT1705262320.D	SIM-ICV2	1	|	9.26	365589	|	11.73	1195826	|	15.32	589770	|	18.34	944374	|	23.36	757498	|	26.00	618753	|	24.35	1558916
20	0110	NT1705262321.D	SLE0434-LCV2	1	|	9.26	360010	|	11.73	1041490	|	15.32	543612	|	18.34	881915	|	23.36	632133	|	26.01	544824	|	24.35	1309126

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b

Time	Filename	LabID	ClientId	DF										
21	0148	NT1705262322.D	SIM-LCV2		1	|	9.26	401129||11.73	1133970||15.32	560347||18.34	908054||23.36	718891||26.01	590210||24.35	1418694|
22	0225	NT1705262323.D	23D0396-01		1	|	9.26	294445||11.73	1052858||15.32	500193||18.34	820099||23.36	657803||26.02	504765||24.36	1455169|
23	0302	NT1705262324.D	23D0396-03		1	|	9.26	306165||11.73	1084556||15.32	528488||18.36	828842||23.36	668942||26.02	499764||24.36	1475136|
24	0340	NT1705262325.D	23C0109-03RE1		1	|	9.26	307641||11.73	1140166||15.32	562462||18.34	883290||23.36	683398||26.01	542966||24.36	1434453|
25	0417	NT1705262326.D	23C0108-09RE1		1	|	9.26	303458||11.73	1102108||15.32	546362||18.34	877674||23.36	651586||26.02	493084||24.36	1379744|
26	0454	NT1705262327.D	BLD0607-BLK2		1	|	9.26	308543||11.73	1052532||15.32	519310||18.34	793037||23.36	599277||26.01	437418||24.35	1180466|
27	0531	NT1705262328.D	SLE0434-CCV1		1	|	9.26	317699||11.73	1109251||15.32	572542||18.34	911027||23.36	675891||26.01	494128||24.35	1331493|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b

Instrument: nt17.i Date: 26-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1258	NT1705262301.D	SLE0434-TUN1	1	NO MANUAL INTEGRATION
1316	NT1705262302.D	SLE0434-ICV1	1	NO MANUAL INTEGRATION
1431	NT1705262304.D	SLE0434-LCV1	1	NO MANUAL INTEGRATION
1509	NT1705262305.D	SIM LCV	1	NO MANUAL INTEGRATION
1547	NT1705262306.D	BLD0607-BLK1	1	NO MANUAL INTEGRATION
1625	NT1705262307.D	BLD0607-BS1	1	NO MANUAL INTEGRATION
1702	NT1705262308.D	BLD0607-BSD1	1	NO MANUAL INTEGRATION
1740	NT1705262309.D	BLD0607-MS1	1	NO MANUAL INTEGRATION
1818	NT1705262310.D	BLD0607-MSD1	1	3-Nitroaniline, 4-Nitroaniline,
1856	NT1705262311.D	BLD0607-SRM1	1	Benzyl alcohol,
1933	NT1705262312.D	23D0394-01	1	1,4-Dichlorobenzene,
2011	NT1705262313.D	23D0394-02	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2048	NT1705262314.D	23D0394-04	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2126	NT1705262315.D	23D0394-06	1	Benzoic acid, Benzo(k)fluoranthene, Total Benzofluoranthenes,
2203	NT1705262316.D	23D0394-08	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2240	NT1705262317.D	23D0394-11	1	NO MANUAL INTEGRATION
2318	NT1705262318.D	23D0394-12	1	Benzoic acid, Benzo(k)fluoranthene, Total Benzofluoranthenes,

Instrument: nt17.i Date: 26-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
2355	NT1705262319.D	SLE0434-ICV2	1	NO MANUAL INTEGRATION
0033	NT1705262320.D	SIM-ICV2	1	NO MANUAL INTEGRATION
0110	NT1705262321.D	SLE0434-LCV2	1	Benzoic acid, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, Pentachlorophenol, Total Benzofluoranthenes,
0148	NT1705262322.D	SIM-LCV2	1	NO MANUAL INTEGRATION
0225	NT1705262323.D	23D0396-01	1	1,4-Dichlorobenzene, Dibenzo(a,h)anthracene,
0302	NT1705262324.D	23D0396-03	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0340	NT1705262325.D	23C0109-03RE1	1	Fluorene, Benzo(k)fluoranthene, Total Benzofluoranthenes,
0417	NT1705262326.D	23C0108-09RE1	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0454	NT1705262327.D	BLD0607-BLK2	1	NO MANUAL INTEGRATION
0531	NT1705262328.D	SLE0434-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 27-May-2023 13:51

NT1705262301.D	Data Locked	van, 27-May-2023 13:51
NT1705262302.D	Data Locked	van, 27-May-2023 13:51
NT1705262304.D	Data Locked	van, 27-May-2023 13:51
NT1705262305.D	Data Locked	van, 27-May-2023 13:51
NT1705262306.D	Data Locked	van, 27-May-2023 13:51
NT1705262307.D	Data Locked	van, 27-May-2023 13:51
NT1705262308.D	Data Locked	van, 27-May-2023 13:51
NT1705262309.D	Data Locked	van, 27-May-2023 13:51
NT1705262310.D	Data Locked	van, 27-May-2023 13:51
NT1705262311.D	Data Locked	van, 27-May-2023 13:51
NT1705262312.D	Data Locked	van, 27-May-2023 13:51
NT1705262313.D	Data Locked	van, 27-May-2023 13:51
NT1705262314.D	Data Locked	van, 27-May-2023 13:51
NT1705262315.D	Data Locked	van, 27-May-2023 13:51
NT1705262316.D	Data Locked	van, 27-May-2023 13:51
NT1705262317.D	Data Locked	van, 27-May-2023 13:51
NT1705262318.D	Data Locked	van, 27-May-2023 13:51
NT1705262319.D	Data Locked	van, 27-May-2023 13:51
NT1705262320.D	Data Locked	van, 27-May-2023 13:51
NT1705262321.D	Data Locked	van, 27-May-2023 13:51
NT1705262322.D	Data Locked	van, 27-May-2023 13:51
NT1705262323.D	Data Locked	van, 27-May-2023 13:51
NT1705262324.D	Data Locked	van, 27-May-2023 13:51
NT1705262325.D	Data Locked	van, 27-May-2023 13:51
NT1705262326.D	Data Locked	van, 27-May-2023 13:51
NT1705262327.D	Data Locked	van, 27-May-2023 13:51
NT1705262328.D	Data Locked	van, 27-May-2023 13:51



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0396</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0338</u>	Instrument:	<u>NT17</u>
Calibration:	<u>GE00065</u>	Calibration Date:	<u>05/20/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0338-ICB1 (Water)		Lab File ID: NT1705162312.D			Analyzed: 05/17/23 01:07			
2-Fluorophenol	7.5000	104	30 - 160	7.148	7.157143	-0.0091	N/A	
Phenol-d5	7.5000	96.0	30 - 160	8.715	8.720429	-0.0054	N/A	
2-Chlorophenol-d4	7.5000	102	30 - 160	9.008	9.009857	-0.0019	N/A	
1,2-Dichlorobenzene-d4	5.0000	100	30 - 160	9.723	9.726714	-0.0037	N/A	
Nitrobenzene-d5	5.0000	98.8	30 - 160	10.451	10.45471	-0.0037	N/A	
2-Fluorobiphenyl	5.0000	103	30 - 160	14.036	14.03771	-0.0017	N/A	
2,4,6-Tribromophenol	7.5000	78.1	30 - 160	17.069	17.07271	-0.0037	N/A	
p-Terphenyl-d14	5.0000	109	30 - 160	21.557	21.557	0.0000	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Sequence: SLE0434
 Calibration: GE00065

SDG/WO: 23D0396
 Project: AOC5 MR Phase 1
 Instrument: NT17
 Calibration Date: 05/20/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0434-ICV1 (Solid) Lab File ID: NT1705262302.D Analyzed: 05/26/23 13:16								
2-Fluorophenol	7.5000	109	80 - 120	7.071	7.157143	-0.0861	N/A	
Phenol-d5	7.5000	108	80 - 120	8.638	8.720429	-0.0824	N/A	
2-Chlorophenol-d4	7.5000	105	80 - 120	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	5.0000	102	80 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	5.0000	105	80 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	5.0000	98.3	80 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	7.5000	93.6	80 - 120	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	5.0000	117	80 - 120	21.455	21.557	-0.1020	N/A	
SLE0434-LCV1 (Solid) Lab File ID: NT1705262304.D Analyzed: 05/26/23 14:31								
2-Fluorophenol	0.30000	91.9	50 - 150	7.071	7.157143	-0.0861	N/A	
Phenol-d5	0.30000	93.9	50 - 150	8.639	8.720429	-0.0814	N/A	
2-Chlorophenol-d4	0.30000	98.7	50 - 150	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	0.20000	109	50 - 150	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	0.20000	92.9	50 - 150	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	0.20000	102	50 - 150	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	0.30000	80.9	50 - 150	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	0.20000	104	50 - 150	21.455	21.557	-0.1020	N/A	
BLD0607-BLK1 (Solid) Lab File ID: NT1705262306.D Analyzed: 05/26/23 15:47								
2-Fluorophenol	750.00	66.0	27 - 120	7.084	7.157143	-0.0731	N/A	
Phenol-d5	750.00	70.9	29 - 120	8.638	8.720429	-0.0824	N/A	
2-Chlorophenol-d4	750.00	74.4	31 - 120	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	500.00	78.5	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	500.00	81.8	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	500.00	81.4	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	750.00	48.7	24 - 134	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	500.00	91.8	37 - 120	21.455	21.557	-0.1020	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0434
Calibration: GE00065

SDG/WO: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration Date: 05/20/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0607-BS1 (Solid)		Lab File ID: NT1705262307.D			Analyzed: 05/26/23 16:25			
2-Fluorophenol	750.00	80.0	27 - 120	7.084	7.157143	-0.0731	N/A	
Phenol-d5	750.00	78.6	29 - 120	8.638	8.720429	-0.0824	N/A	
2-Chlorophenol-d4	750.00	83.6	31 - 120	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	500.00	79.9	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	500.00	86.4	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	500.00	84.7	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	750.00	74.1	24 - 134	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	500.00	115	37 - 120	21.455	21.557	-0.1020	N/A	
BLD0607-BSD1 (Solid)		Lab File ID: NT1705262308.D			Analyzed: 05/26/23 17:02			
2-Fluorophenol	750.00	81.6	27 - 120	7.084	7.157143	-0.0731	N/A	
Phenol-d5	750.00	80.0	29 - 120	8.639	8.720429	-0.0814	N/A	
2-Chlorophenol-d4	750.00	84.8	31 - 120	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	500.00	80.9	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	500.00	85.6	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	500.00	86.2	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	750.00	74.4	24 - 134	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	500.00	96.4	37 - 120	21.455	21.557	-0.1020	N/A	
BLD0607-SRM1 (Solid)		Lab File ID: NT1705262311.D			Analyzed: 05/26/23 18:56			
2-Fluorophenol	7500.0	83.2	27 - 120	7.097	7.157143	-0.0601	N/A	
Phenol-d5	7500.0	79.6	29 - 120	8.639	8.720429	-0.0814	N/A	
2-Chlorophenol-d4	7500.0	84.9	31 - 120	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	5000.0	79.7	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	5000.0	87.4	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	5000.0	92.7	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	7500.0	79.3	24 - 134	16.954	17.07271	-0.1187	N/A	
p-Terphenyl-d14	5000.0	75.6	37 - 120	21.455	21.557	-0.1020	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0434

Instrument: NT17

Calibration: GE00065

Calibration Date: 05/20/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0434-ICV2 (Solid) Lab File ID: NT1705262319.D Analyzed: 05/26/23 23:55								
2-Fluorophenol	7.5000	109	80 - 120	7.071	7.157143	-0.0861	N/A	
Phenol-d5	7.5000	107	80 - 120	8.639	8.720429	-0.0814	N/A	
2-Chlorophenol-d4	7.5000	104	80 - 120	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	5.0000	103	80 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	5.0000	104	80 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	5.0000	106	80 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	7.5000	91.4	80 - 120	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	5.0000	84.1	80 - 120	21.455	21.557	-0.1020	N/A	
SLE0434-LCV2 (Solid) Lab File ID: NT1705262321.D Analyzed: 05/27/23 01:10								
2-Fluorophenol	0.30000	82.3	50 - 150	7.071	7.157143	-0.0861	N/A	
Phenol-d5	0.30000	71.9	50 - 150	8.651	8.720429	-0.0694	N/A	
2-Chlorophenol-d4	0.30000	83.0	50 - 150	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	0.20000	89.9	50 - 150	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	0.20000	94.4	50 - 150	10.362	10.45471	-0.0927	N/A	
2-Fluorobiphenyl	0.20000	101	50 - 150	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	0.30000	78.8	50 - 150	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	0.20000	87.5	50 - 150	21.455	21.557	-0.1020	N/A	
23D0396-01 (Solid) Lab File ID: NT1705262323.D Analyzed: 05/27/23 02:25								
2-Fluorophenol	750.01	72.6	27 - 120	7.122	7.157143	-0.0351	N/A	
Phenol-d5	750.01	72.3	29 - 120	8.651	8.720429	-0.0694	N/A	
2-Chlorophenol-d4	750.01	76.5	31 - 120	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	500.01	71.6	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	500.01	77.6	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	500.01	87.5	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	750.01	77.7	24 - 134	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	500.01	66.1	37 - 120	21.455	21.557	-0.1020	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0434
Calibration: GE00065

SDG/WO: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration Date: 05/20/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23D0396-03 (Solid)								
				Lab File ID: NT1705262324.D		Analyzed: 05/27/23 03:02		
2-Fluorophenol	749.98	69.2	27 - 120	7.122	7.157143	-0.0351	N/A	
Phenol-d5	749.98	70.8	29 - 120	8.651	8.720429	-0.0694	N/A	
2-Chlorophenol-d4	749.98	73.2	31 - 120	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	499.99	65.8	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	499.99	74.9	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	499.99	82.6	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	749.98	76.2	24 - 134	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	499.99	63.8	37 - 120	21.455	21.557	-0.1020	N/A	
BLD0607-BLK3 (Solid)								
				Lab File ID: NT1705262327.D		Analyzed: 05/27/23 04:54		
2-Fluorophenol	750.00	65.4	27 - 120	7.084	7.157143	-0.0731	N/A	
Phenol-d5	750.00	68.2	29 - 120	8.638	8.720429	-0.0824	N/A	
2-Chlorophenol-d4	750.00	71.7	31 - 120	8.919	9.009857	-0.0909	N/A	
1,2-Dichlorobenzene-d4	500.00	77.3	32 - 120	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	500.00	85.0	30 - 120	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	500.00	83.6	35 - 120	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	750.00	48.5	24 - 134	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	500.00	76.5	37 - 120	21.455	21.557	-0.1020	N/A	
SLE0434-CCV1 (Solid)								
				Lab File ID: NT1705262328.D		Analyzed: 05/27/23 05:31		
2-Fluorophenol	7.5000	108	50 - 150	7.071	7.157143	-0.0861	N/A	
Phenol-d5	7.5000	106	50 - 150	8.639	8.720429	-0.0814	N/A	
2-Chlorophenol-d4	7.5000	103	50 - 150	8.906	9.009857	-0.1039	N/A	
1,2-Dichlorobenzene-d4	5.0000	101	50 - 150	9.621	9.726714	-0.1057	N/A	
Nitrobenzene-d5	5.0000	105	50 - 150	10.349	10.45471	-0.1057	N/A	
2-Fluorobiphenyl	5.0000	105	50 - 150	13.934	14.03771	-0.1037	N/A	
2,4,6-Tribromophenol	7.5000	95.1	50 - 150	16.967	17.07271	-0.1057	N/A	
p-Terphenyl-d14	5.0000	87.2	50 - 150	21.455	21.557	-0.1020	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0338

Instrument: NT17

Calibration: GE00065

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLE0338-SCV1)		(Water)	Lab File ID: NT1705162311.D			Analyzed: 05/17/23 00:29			
1,4-Dichlorobenzene-d4	265705	9.365	287078	9.365	93	50 - 200	0.000	+/-0.50	
Naphthalene-d8	965231	11.842	1056758	11.843	91	50 - 200	-0.001	+/-0.50	
Acenaphthene-d10	512787	15.438	587510	15.439	87	50 - 200	-0.001	+/-0.50	
Phenanthrene-d10	850147	18.458	933575	18.458	91	50 - 200	0.000	+/-0.50	
Chrysene-d12	511511	23.457	576570	23.458	89	50 - 200	-0.001	+/-0.50	
Di-n-Octylphthalate-d4	1044471	24.465	1181651	24.465	88	50 - 200	0.000	+/-0.50	
Perylene-d12	456008	26.149	491359	26.149	93	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SLE0338-ICB1)		(Water)	Lab File ID: NT1705162312.D			Analyzed: 05/17/23 01:07			
1,4-Dichlorobenzene-d4	287620	9.365	287078	9.365	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1041050	11.83	1056758	11.843	99	50 - 200	-0.013	+/-0.50	
Acenaphthene-d10	539097	15.439	587510	15.439	92	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	886060	18.458	933575	18.458	95	50 - 200	0.000	+/-0.50	
Chrysene-d12	518615	23.445	576570	23.458	90	50 - 200	-0.013	+/-0.50	
Di-n-Octylphthalate-d4	1011857	24.452	1181651	24.465	86	50 - 200	-0.013	+/-0.50	
Perylene-d12	487385	26.149	491359	26.149	99	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0434

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration: GE00065

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0434-ICV1)		(Solid)	Lab File ID: NT1705262302.D			Analyzed: 05/26/23 13:16			
1,4-Dichlorobenzene-d4	303517	9.263	303517	9.263	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1140476	11.728	1140476	11.728	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	622461	15.324	622461	15.324	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1074054	18.343	1074054	18.343	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	723807	23.355	723807	23.355	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1524055	24.363	1524055	24.363	100	50 - 200	0.000	+/-0.50	
Perylene-d12	666992	25.996	666992	25.996	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLE0434-LCV1)		(Solid)	Lab File ID: NT1705262304.D			Analyzed: 05/26/23 14:31			
1,4-Dichlorobenzene-d4	316449	9.263	303517	9.263	104	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1142345	11.728	1140476	11.728	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	576179	15.324	622461	15.324	93	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	958053	18.343	1074054	18.343	89	50 - 200	0.000	+/-0.50	
Chrysene-d12	600821	23.343	723807	23.355	83	50 - 200	-0.012	+/-0.50	
Di-n-Octylphthalate-d4	1240881	24.351	1524055	24.363	81	50 - 200	-0.012	+/-0.50	
Perylene-d12	617938	25.996	666992	25.996	93	50 - 200	0.000	+/-0.50	
Blank (BLD0607-BLK1)		(Solid)	Lab File ID: NT1705262306.D			Analyzed: 05/26/23 15:47			
1,4-Dichlorobenzene-d4	269574	9.263	303517	9.263	89	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1019925	11.728	1140476	11.728	89	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	537378	15.324	622461	15.324	86	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	871516	18.343	1074054	18.343	81	50 - 200	0.000	+/-0.50	
Chrysene-d12	560318	23.343	723807	23.355	77	50 - 200	-0.012	+/-0.50	
Di-n-Octylphthalate-d4	1157035	24.35	1524055	24.363	76	50 - 200	-0.013	+/-0.50	
Perylene-d12	499749	25.996	666992	25.996	75	50 - 200	0.000	+/-0.50	
LCS (BLD0607-BS1)		(Solid)	Lab File ID: NT1705262307.D			Analyzed: 05/26/23 16:25			
1,4-Dichlorobenzene-d4	270705	9.263	303517	9.263	89	50 - 200	0.000	+/-0.50	
Naphthalene-d8	979437	11.728	1140476	11.728	86	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	504985	15.324	622461	15.324	81	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	813869	18.343	1074054	18.343	76	50 - 200	0.000	+/-0.50	
Chrysene-d12	502451	23.343	723807	23.355	69	50 - 200	-0.012	+/-0.50	
Di-n-Octylphthalate-d4	1064023	24.35	1524055	24.363	70	50 - 200	-0.013	+/-0.50	
Perylene-d12	424472	25.996	666992	25.996	64	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLE0434

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration: GE00065

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (BLD0607-BSD1)		(Solid)	Lab File ID: NT1705262308.D			Analyzed: 05/26/23 17:02			
1,4-Dichlorobenzene-d4	274132	9.263	303517	9.263	90	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1020740	11.728	1140476	11.728	90	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	518733	15.324	622461	15.324	83	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	844493	18.343	1074054	18.343	79	50 - 200	0.000	+/-0.50	
Chrysene-d12	499547	23.343	723807	23.355	69	50 - 200	-0.012	+/-0.50	
Di-n-Octylphthalate-d4	1058373	24.351	1524055	24.363	69	50 - 200	-0.012	+/-0.50	
Perylene-d12	427148	25.996	666992	25.996	64	50 - 200	0.000	+/-0.50	
Reference (BLD0607-SRM1)		(Solid)	Lab File ID: NT1705262311.D			Analyzed: 05/26/23 18:56			
1,4-Dichlorobenzene-d4	303211	9.263	303517	9.263	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1039513	11.728	1140476	11.728	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	497514	15.324	622461	15.324	80	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	761526	18.343	1074054	18.343	71	50 - 200	0.000	+/-0.50	
Chrysene-d12	632418	23.356	723807	23.355	87	50 - 200	0.001	+/-0.50	
Di-n-Octylphthalate-d4	1379317	24.363	1524055	24.363	91	50 - 200	0.000	+/-0.50	
Perylene-d12	634142	25.996	666992	25.996	95	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLE0434-ICV2)		(Solid)	Lab File ID: NT1705262319.D			Analyzed: 05/26/23 23:55			
1,4-Dichlorobenzene-d4	327251	9.263	327251	9.263	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1151610	11.728	1151610	11.728	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	581592	15.324	581592	15.324	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	918371	18.343	918371	18.343	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	690072	23.356	690072	23.356	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1461689	24.363	1461689	24.363	100	50 - 200	0.000	+/-0.50	
Perylene-d12	568726	26.009	568726	26.009	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLE0434-LCV2)		(Solid)	Lab File ID: NT1705262321.D			Analyzed: 05/27/23 01:10			
1,4-Dichlorobenzene-d4	360010	9.263	327251	9.263	110	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1041490	11.728	1151610	11.728	90	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	543612	15.324	581592	15.324	93	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	881915	18.343	918371	18.343	96	50 - 200	0.000	+/-0.50	
Chrysene-d12	632133	23.356	690072	23.356	92	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1309126	24.351	1461689	24.363	90	50 - 200	-0.012	+/-0.50	
Perylene-d12	544824	26.009	568726	26.009	96	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0434

Instrument: NT17

Calibration: GE00065

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SS1801 (23D0396-01)		(Solid)	Lab File ID: NT1705262323.D			Analyzed: 05/27/23 02:25			
1,4-Dichlorobenzene-d4	294445	9.263	327251	9.263	90	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1052858	11.728	1151610	11.728	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	500193	15.324	581592	15.324	86	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	820099	18.343	918371	18.343	89	50 - 200	0.000	+/-0.50	
Chrysene-d12	657803	23.356	690072	23.356	95	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1455169	24.363	1461689	24.363	100	50 - 200	0.000	+/-0.50	
Perylene-d12	504765	26.022	568726	26.009	89	50 - 200	0.013	+/-0.50	
LDW23-SS1802 (23D0396-03)		(Solid)	Lab File ID: NT1705262324.D			Analyzed: 05/27/23 03:02			
1,4-Dichlorobenzene-d4	306165	9.263	327251	9.263	94	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1084556	11.728	1151610	11.728	94	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	528488	15.324	581592	15.324	91	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	828842	18.356	918371	18.343	90	50 - 200	0.013	+/-0.50	
Chrysene-d12	668942	23.355	690072	23.356	97	50 - 200	-0.001	+/-0.50	
Di-n-Octylphthalate-d4	1475136	24.363	1461689	24.363	101	50 - 200	0.000	+/-0.50	
Perylene-d12	499764	26.022	568726	26.009	88	50 - 200	0.013	+/-0.50	
Blank (BLD0607-BLK3)		(Solid)	Lab File ID: NT1705262327.D			Analyzed: 05/27/23 04:54			
1,4-Dichlorobenzene-d4	308543	9.263	327251	9.263	94	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1052532	11.728	1151610	11.728	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	519310	15.324	581592	15.324	89	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	793037	18.343	918371	18.343	86	50 - 200	0.000	+/-0.50	
Chrysene-d12	599277	23.355	690072	23.356	87	50 - 200	-0.001	+/-0.50	
Di-n-Octylphthalate-d4	1180466	24.35	1461689	24.363	81	50 - 200	-0.013	+/-0.50	
Perylene-d12	437418	26.009	568726	26.009	77	50 - 200	0.000	+/-0.50	
Calibration Check (SLE0434-CCV1)		(Water)	Lab File ID: NT1705262328.D			Analyzed: 05/27/23 05:31			
1,4-Dichlorobenzene-d4	317699	9.263	327251	9.263	97	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1109251	11.728	1151610	11.728	96	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	572542	15.324	581592	15.324	98	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	911027	18.343	918371	18.343	99	50 - 200	0.000	+/-0.50	
Chrysene-d12	675891	23.356	690072	23.356	98	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1331493	24.351	1461689	24.363	91	50 - 200	-0.012	+/-0.50	
Perylene-d12	494128	26.009	568726	26.009	87	50 - 200	0.000	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/24/23 16:38	12	14	05/27/23 02:25	32	40	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/24/23 16:38	12	14	05/27/23 03:02	32	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT17

Analyte	MDL	RL	Units
Phenol	4.4	20.0	ug/kg
Benzyl Alcohol	16.3	20.0	ug/kg
4-Methylphenol	7.4	20.0	ug/kg
Naphthalene	4.2	20.0	ug/kg
2-Methylnaphthalene	4.5	20.0	ug/kg
Acenaphthylene	6.2	20.0	ug/kg
Dibenzofuran	14.1	20.0	ug/kg
Fluorene	14.6	20.0	ug/kg
Phenanthrene	8.7	20.0	ug/kg
Anthracene	7.2	20.0	ug/kg
Fluoranthene	6.1	20.0	ug/kg
Pyrene	5.7	20.0	ug/kg
Butylbenzylphthalate	9.4	20.0	ug/kg
Benzo(a)anthracene	6.0	20.0	ug/kg
Chrysene	6.1	20.0	ug/kg
bis(2-Ethylhexyl)phthalate	5.5	50.0	ug/kg
Benzo(a)fluoranthenes, Total	10.0	40.0	ug/kg
Benzo(a)pyrene	4.2	20.0	ug/kg
Indeno(1,2,3-cd)pyrene	14.7	20.0	ug/kg
Dibenzo(a,h)anthracene	17.2	20.0	ug/kg
Benzo(g,h,i)perylene	13.6	20.0	ug/kg



Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

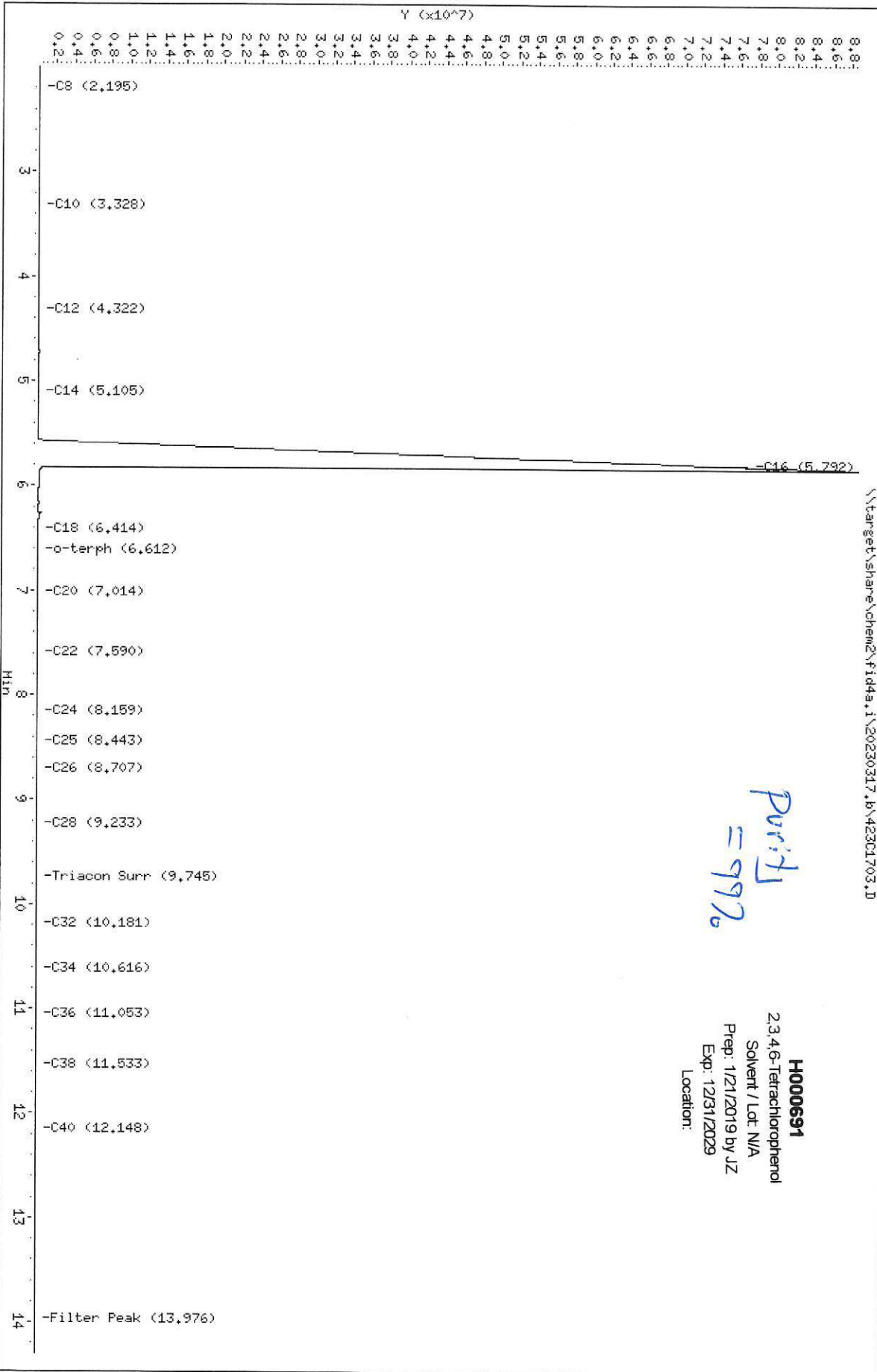
Purity: 99%

Analyst: AB

Data File: \\target\share\chem2\fid4a,1\20230317,1\42301703.D
Date: 17-MAR-2023 10:46
Client ID:
Sample Info: K007226

Column phase: RTX-1

Instrument: fid4a.i
Operator: AA
Column diameter: 0.25



H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

Purity = 99%

H000691

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
 Lab Smp Id: K007226
 Inj Date : 17-MAR-2023 10:46
 Operator : AA Inst ID: fid4a.i
 Smp Info : K007226
 Misc Info :
 Comment :
 Method : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
 Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
 Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: Falcon+ Compound Sublist: tph.sub
 Target Version: 4.14
 Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	\$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	\$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
===== 677340272	===== 268782821	===== 100.000			


Total unknown % area = 25.478

Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:



Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate of Analysis

J008074

 SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Issue Date: 11-Jun-2020

Lot Number: 0006540449

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

 ISO 17034 Cert No.
 AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/

 ISO 17025 Cert
 No. AT-1937

Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

<i>Analyte</i>	<i>Units</i>	<i>Suggested Acceptance Windows</i>	<i>Standard Deviation</i>
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021





Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave

Report of Certification

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c =$ combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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SPEX CertiPrep 

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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com

Phone: 1-732-549-7144 • Fax 1-732-603-9647





Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

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2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
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K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

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Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

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Date of Certification: 1-26-2021

Certifying Officer: Shannon Nove

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
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- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

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Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0181243

Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

Handwritten signature and date: 05/11/22

K004545
 CLP 04.1 BNA SURR MIX
 Solvent / Lot: AO175316
 Prep: 5/11/2022 by JZ
 Exp: 10/20/2025
 Location:

Elution Order	Compound	Gr (weight)					
1	2-Fluorophenol CAS # 367-12-4 (Lot STBJ2508) Purity 99%	1,50					
			+/-	53.3632	µg/mL		Stressed
2	Phenol-d6 CAS # 13127-88-3 (Lot PR-31262) Purity 99%	1,506.0	µg/mL				
			+/-	8.9452	µg/mL		Gravimetric
			+/-	43.9882	µg/mL		Unstressed
			+/-	53.3632	µg/mL		Stressed
3	2-Chlorophenol-d4 CAS # 93951-73-6 (Lot PR-30568) Purity 99%	1,510.0	µg/mL				
			+/-	8.9689	µg/mL		Gravimetric
			+/-	44.1050	µg/mL		Unstressed
			+/-	53.5049	µg/mL		Stressed
4	1,2-Dichlorobenzene-d4 CAS # 2199-69-1 (Lot PR-32542/022621DB1) Purity 99%	1,004.0	µg/mL				
			+/-	5.9635	µg/mL		Gravimetric
			+/-	29.3255	µg/mL		Unstressed
			+/-	35.5754	µg/mL		Stressed
5	Nitrobenzene-d5 CAS # 4165-60-0 (Lot PR-29940A) Purity 99%	1,008.0	µg/mL				
			+/-	5.9872	µg/mL		Gravimetric
			+/-	29.4423	µg/mL		Unstressed
			+/-	35.7172	µg/mL		Stressed
6	2-Fluorobiphenyl CAS # 321-60-8 (Lot 19169) Purity 99%	1,006.0	µg/mL				
			+/-	5.9753	µg/mL		Gravimetric
			+/-	29.3839	µg/mL		Unstressed
			+/-	35.6463	µg/mL		Stressed
7	2,4,6-Tribromophenol CAS # 118-79-6 (Lot MKCJ7664) Purity 99%	1,506.0	µg/mL				
			+/-	8.9452	µg/mL		Gravimetric
			+/-	43.9882	µg/mL		Unstressed
			+/-	53.3632	µg/mL		Stressed

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

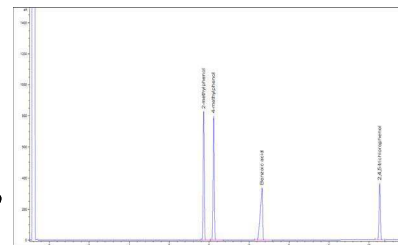


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

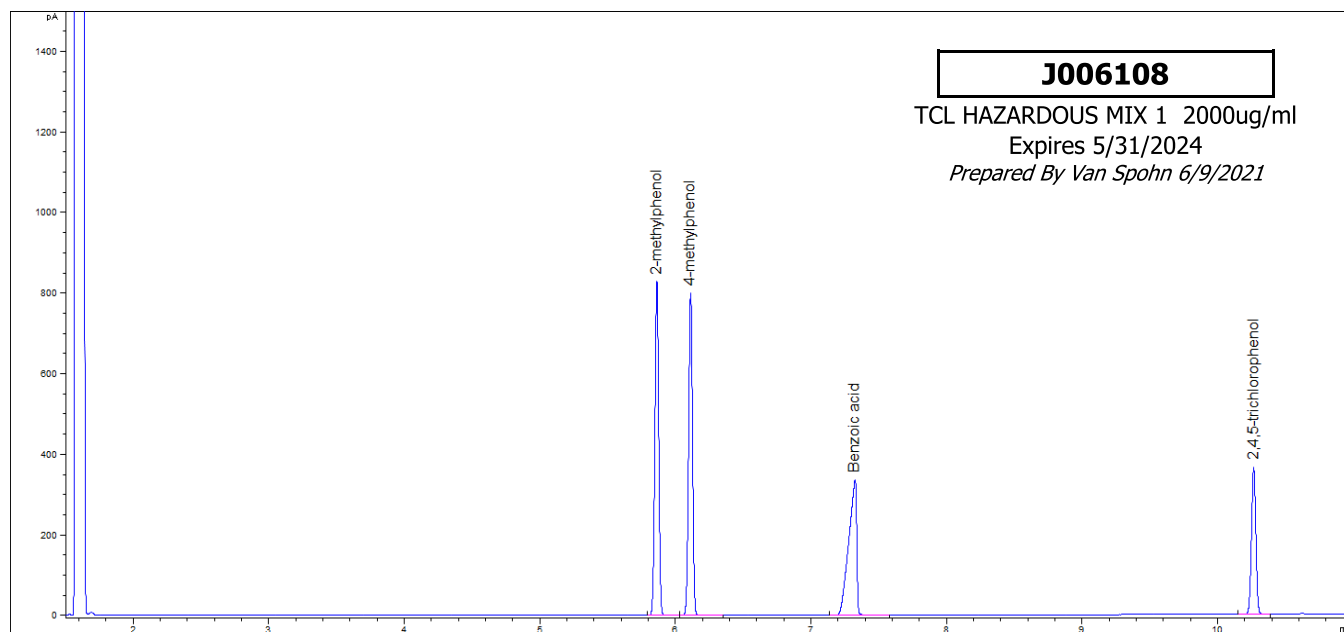
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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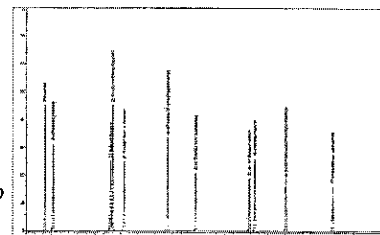
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

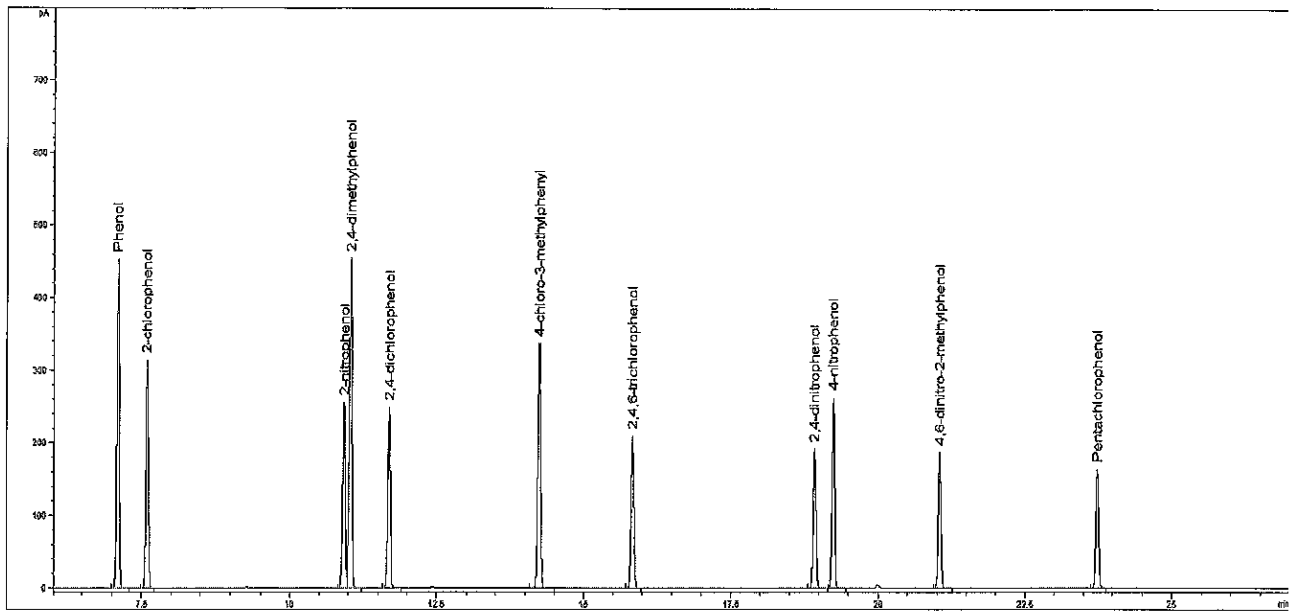
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen

Mark Pooler

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

Certificate of Analysis

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

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Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAD2750
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2750.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	800	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	800	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	801	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1799	µg/mL	66.9	STBJ5751
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	800	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	800	µg/mL	100.0	BCCD4461
4-NITROPHENOL CAS# 100-02-7	800	µg/mL	100.0	MKCN1089
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1800	µg/mL	100.0	BCBX5762
PENTACHLOROPHENOL CAS# 87-86-5	800	µg/mL	99.0	23614-01
BENZOIC ACID CAS# 65-85-0	1800	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2750.01	03 JUN 2022	Original Release Date

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Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL18939

Description: Benzidines Standard

Certification Date: September 7, 2022

Storage: 4 °C

Expiration Date: August 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 3.812%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.419%

L001288

Benzidines std @2000ug/ml
Solvent / Lot: CL18939
Prep: 2/7/2023 by VS
Exp: 8/31/2032
Location: GC



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
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Chemical Testing Laboratory
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101443

Lot Number: CL18741

Description: Aniline

Certification Date: July 21, 2022

Storage: 4 °C

Expiration Date: July 31, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 1.719%

L001290

Aniline-1000ug/mL
Solvent / Lot: CL18741
Prep: 2/7/2023 by VS
Exp: 7/31/2030
Location: GC



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

L001291

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: CL18811

Prep: 2/7/2023 by VS

Exp: 11/30/2023

Location: FREEZER 44



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.643%
Acenaphthylene	208-96-8	1000	± 1.317%
Anthracene	120-12-7	1000	± 2.136%
Azobenzene	103-33-3	1000	± 1.630%
Benzo(a)anthracene	56-55-3	1000	± 2.372%
Benzo(a)pyrene	50-32-8	1000	± 3.028%
Benzo(b)fluoranthene	205-99-2	1000	± 2.377%
Benzo(k)fluoranthene	207-08-9	1000	± 2.286%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.561%
Benzyl alcohol	100-51-6	1000	± 1.803%
Benzyl butyl phthalate	85-68-7	1000	± 1.855%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.626%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.776%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.406%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.415%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 2.350%
4-Bromophenyl phenyl ether	101-55-3	1000	± 1.708%
Carbazole	86-74-8	1000	± 1.844%



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Certified Reference Material

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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 2.831%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.571%
2-Chloronaphthalene	91-58-7	1000	± 2.022%
2-Chlorophenol	95-57-8	1000	± 2.001%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 1.634%
Chrysene	218-01-9	1000	± 2.358%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.452%
Dibenzofuran	132-64-9	1000	± 0.310%
Di-n-butyl phthalate	84-74-2	1000	± 2.347%
1,2-Dichlorobenzene	95-50-1	1000	± 1.803%
1,3-Dichlorobenzene	541-73-1	1000	± 1.808%
1,4-Dichlorobenzene	106-46-7	1000	± 1.503%
2,4-Dichlorophenol	120-83-2	1000	± 1.393%
Diethyl phthalate	84-66-2	1000	± 1.870%
2,4-Dimethylphenol	105-67-9	1000	± 2.495%
Dimethyl phthalate	131-11-3	1000	± 2.113%
1,2-Dinitrobenzene	528-29-0	1000	± 0.240%
1,3-Dinitrobenzene	99-65-0	1000	± 1.221%
1,4-Dinitrobenzene	100-25-4	1000	± 0.246%
2,4-Dinitrophenol	51-28-5	1000	± 0.519%
2,4-Dinitrotoluene	121-14-2	1000	± 2.242%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.154%
Di-n-octyl phthalate	117-84-0	1000	± 2.670%
Fluoranthene	206-44-0	1000	± 2.103%
Fluorene	86-73-7	1000	± 0.890%
Hexachlorobenzene	118-74-1	1000	± 1.210%
Hexachlorobutadiene	87-68-3	1000	± 1.304%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.510%
Hexachloroethane	67-72-1	1000	± 3.281%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 1.921%
Isophorone	78-59-1	1000	± 2.022%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 1.661%
1-Methylnaphthalene	90-12-0	1000	± 1.929%
2-Methylnaphthalene	91-57-6	1000	± 2.220%
2-Methylphenol	95-48-7	1000	± 2.168%
3-Methylphenol	108-39-4	500	± 1.025%
4-Methylphenol	106-44-5	500	± 1.064%
Naphthalene	91-20-3	1000	± 1.199%
2-Nitroaniline	88-74-4	1000	± 1.874%
3-Nitroaniline	99-09-2	1000	± 2.146%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 1.704%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.051%
4-Nitrophenol	100-02-7	1000	± 1.413%
N-Nitrosodimethylamine	62-75-9	1000	± 0.545%
N-Nitrosodiphenylamine	86-30-6	1000	± 1.669%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.712%
Pentachlorophenol	87-86-5	1000	± 2.454%
Phenanthrene	85-01-8	1000	± 2.072%
Phenol	108-95-2	1000	± 2.140%
Pyrene	129-00-0	1000	± 1.869%
Pyridine	110-86-1	1000	± 0.545%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.552%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.220%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.632%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.596%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.481%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.



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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291

Lot Number: CL11000

Description: GC/MS Tuning Mix

Certification Date: May 9, 2014

Storage: 4 °C

Expiration Date: December 31, 2023

Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Revision Date: August 5, 2015

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

L00 1648



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



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Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Revision Date: August 5, 2015

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

L001648



Reference Material Producer
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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict International standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC Guide 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$uCRM = k \sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC Guide 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC Guide 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC Guide 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Chemical Testing Laboratory
Certificate No. 2427.03



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-01 A

SDG: 23D0396

Sampled: 04/12/23 09:56

Prepared: 04/24/23 16:38

File ID: NT1705262323S.D

% Solids: 43.01

Preparation: EPA 3546 (Microwave)

Analyzed: 05/27/23 02:25

Batch: BLD0607

Sequence: SLE0442

Initial/Final: 23.25 g Wet / 1 mL

Instrument: NT17

Column: ZB-5MS

Calibration: GE00070

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.2	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
65-85-0	Benzoic acid	1	83.7	J	13.4	100
105-67-9	2,4-Dimethylphenol	1	2.5	J	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	5.0	J	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	750.01	556	74.1	27 - 120	
p-Terphenyl-d14	500.01	373	74.6	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.16\SIH.6\NT1705262323S.D

Date: 27-May-2023 02:25

Client ID:

Sample Info: 23D0396-01

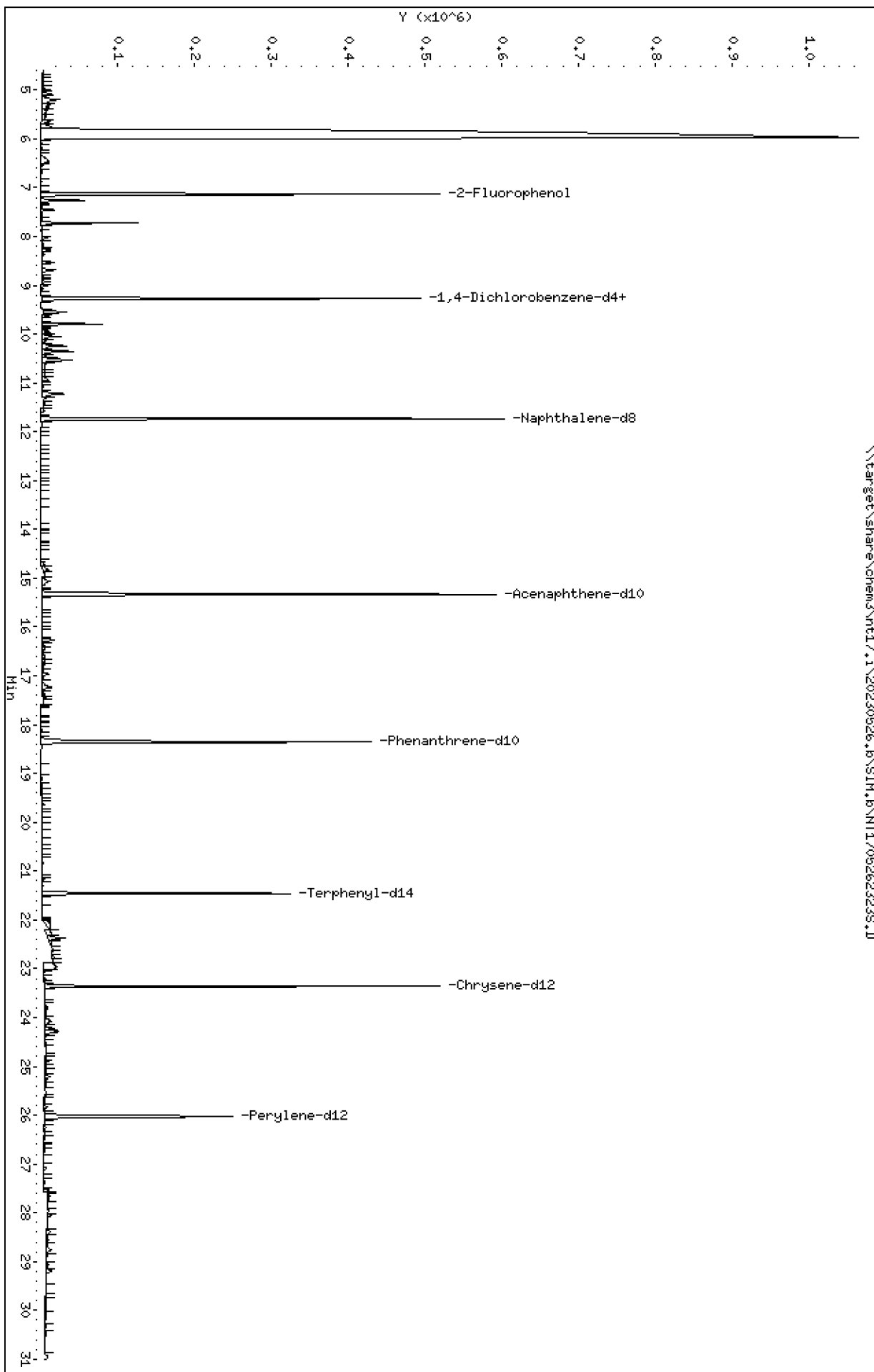
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230526.16\SIH.6\NT1705262323S.D



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

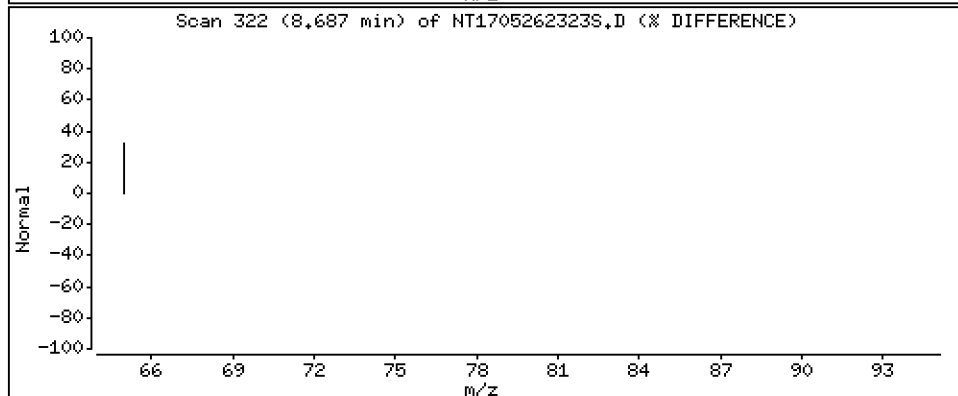
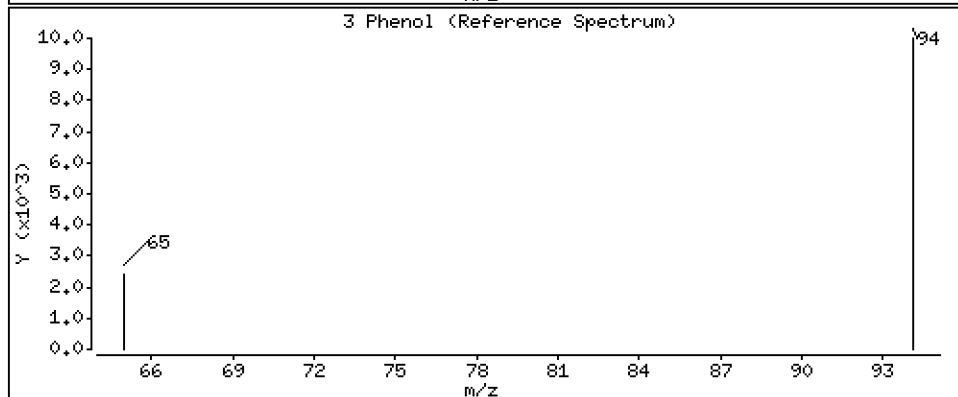
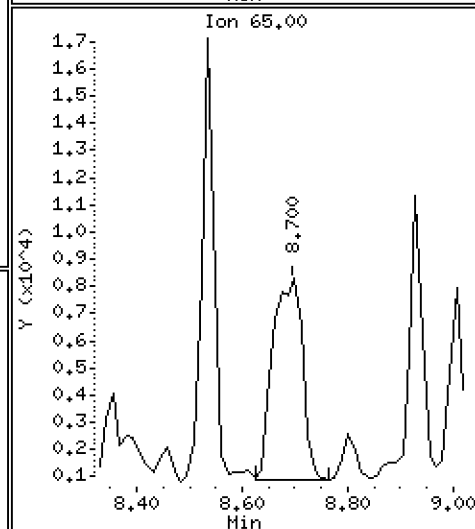
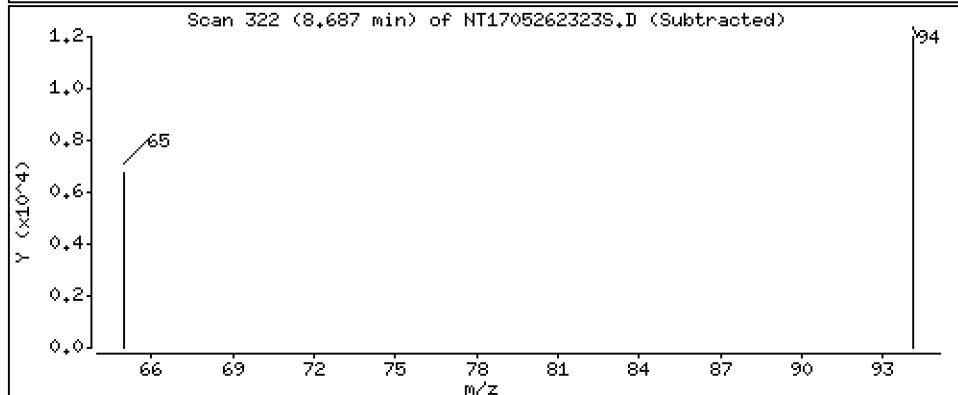
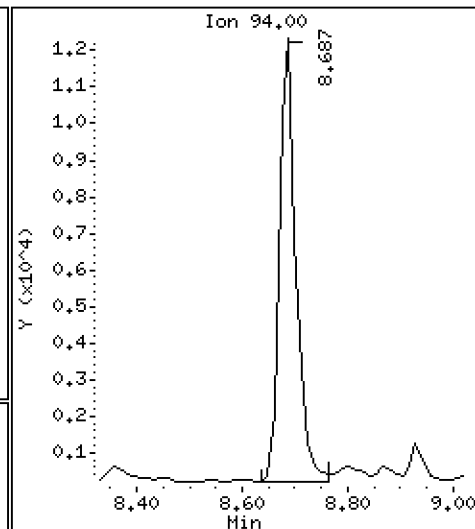
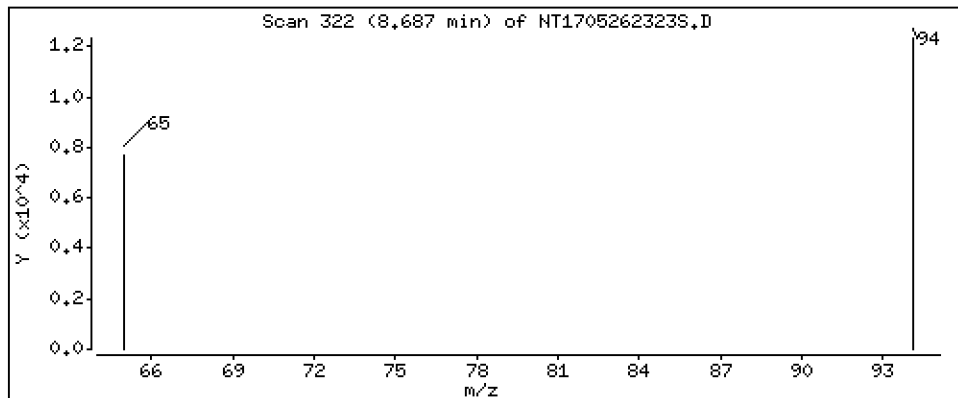
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1993 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

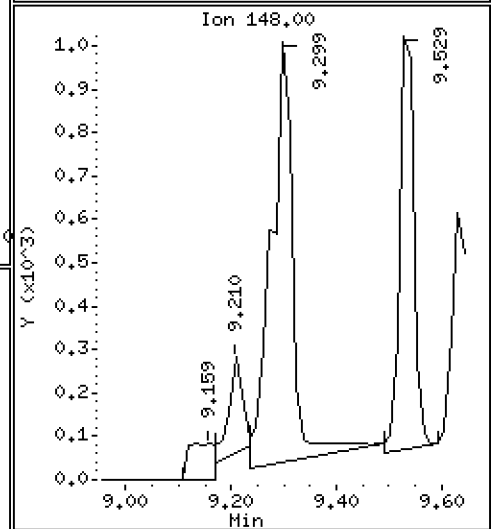
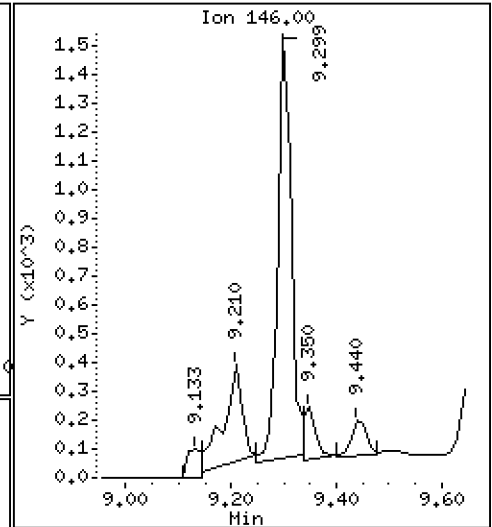
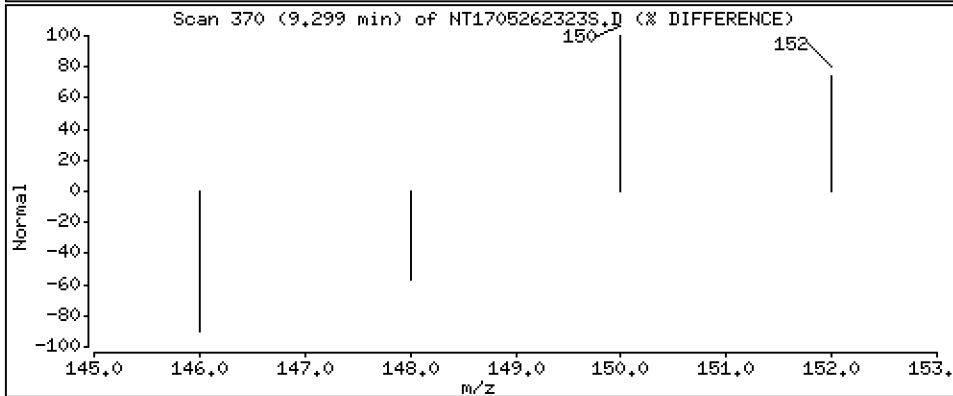
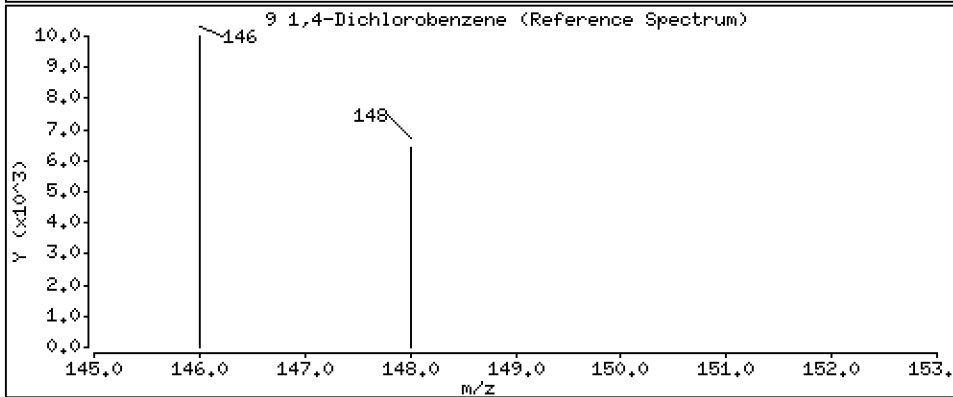
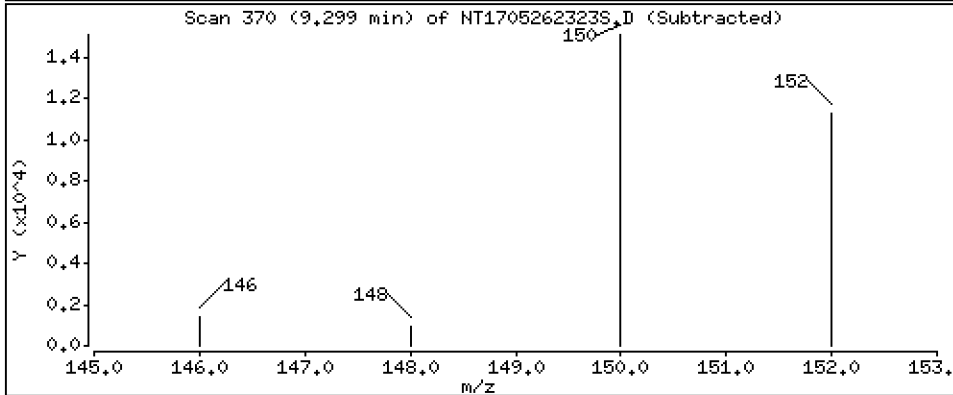
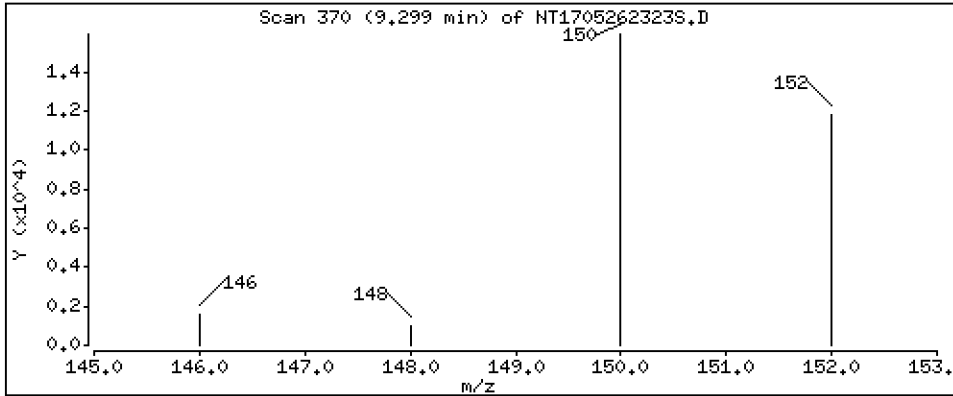
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,02234 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

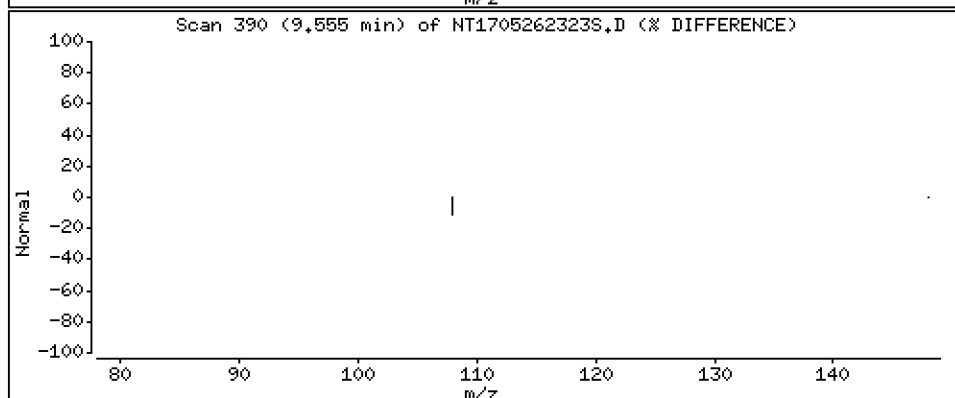
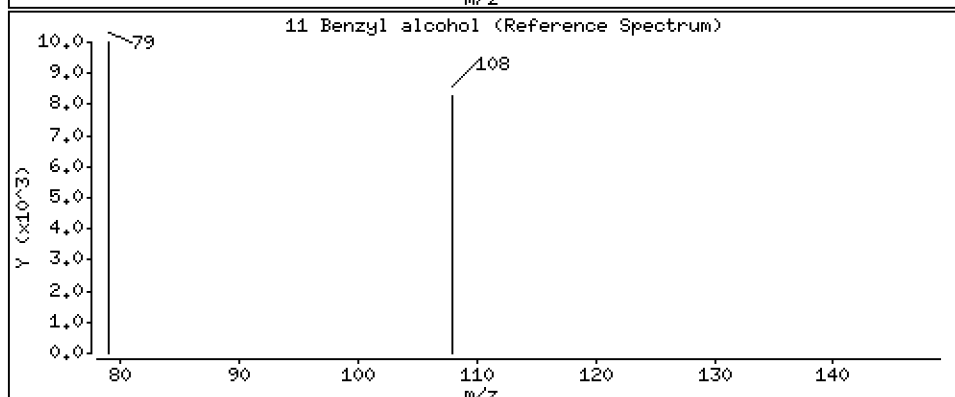
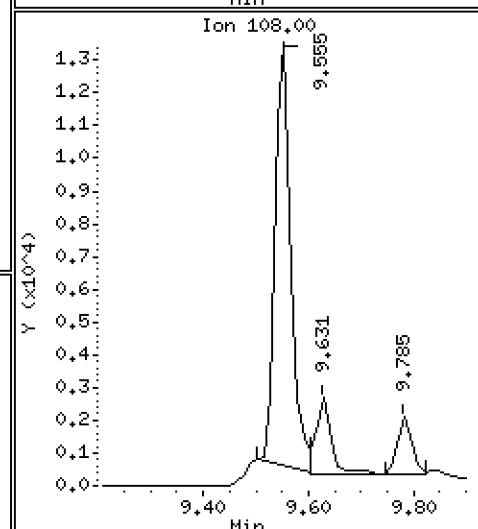
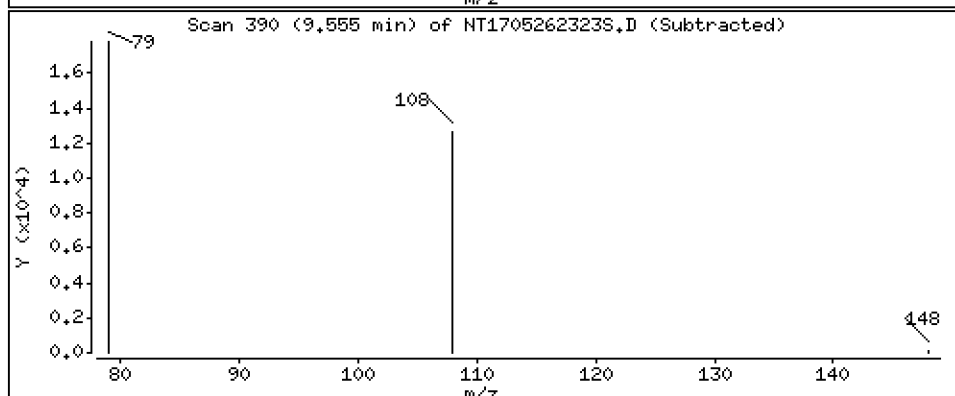
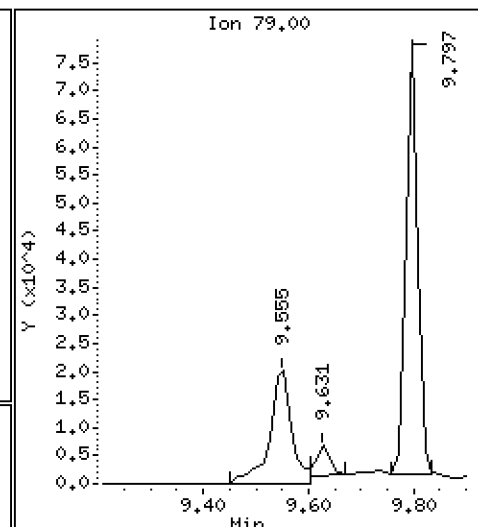
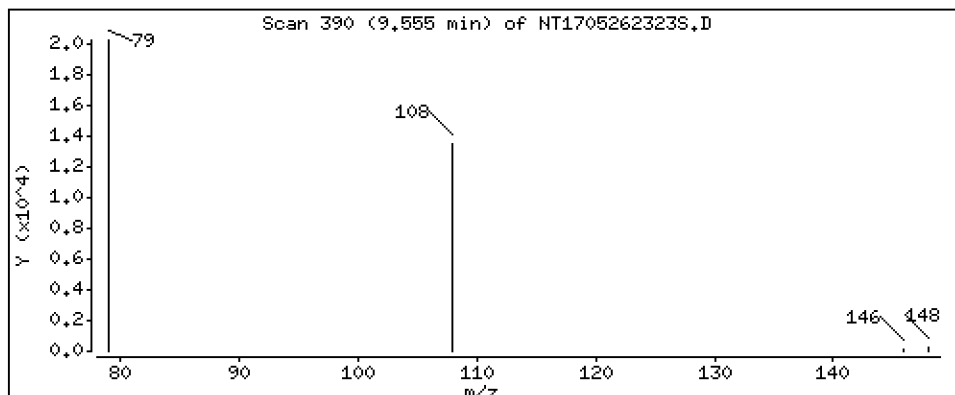
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,7730 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

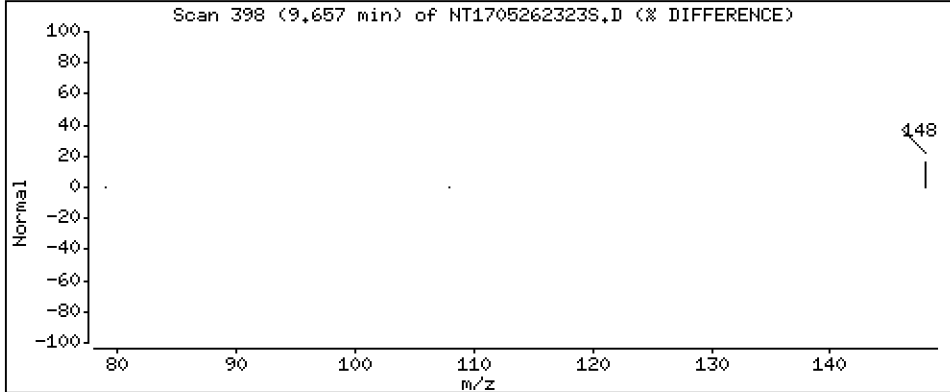
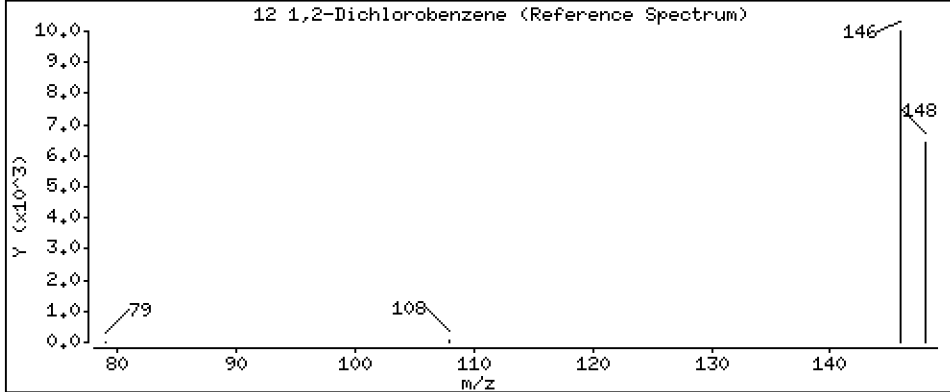
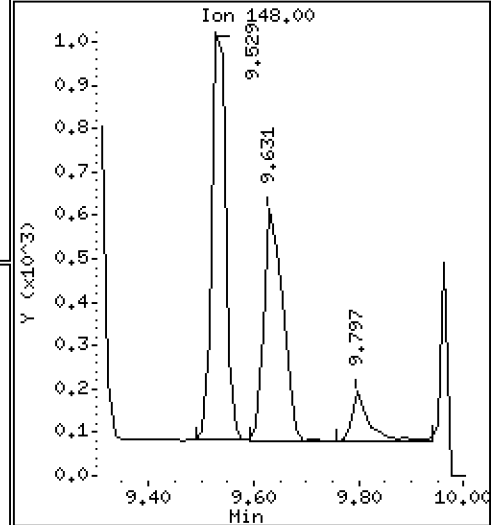
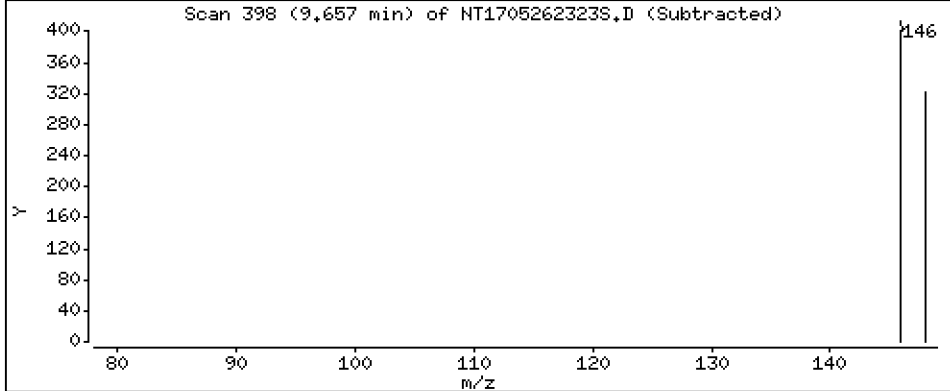
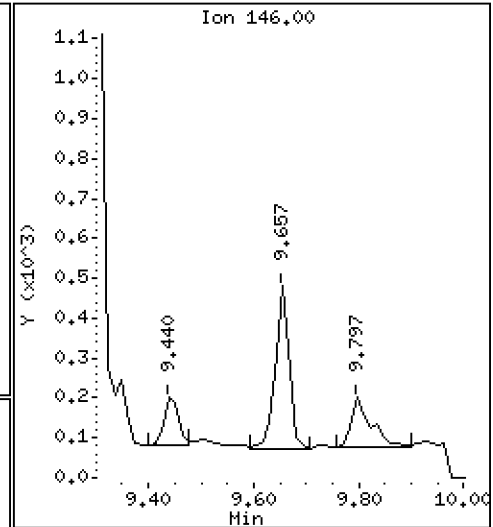
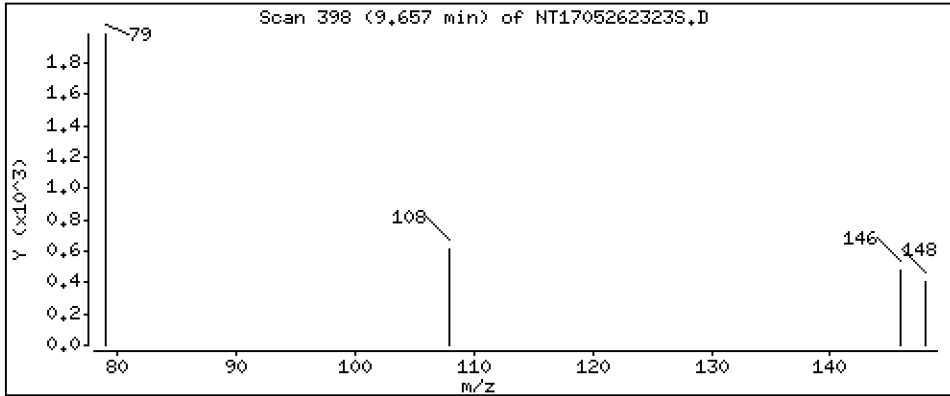
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.006282 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

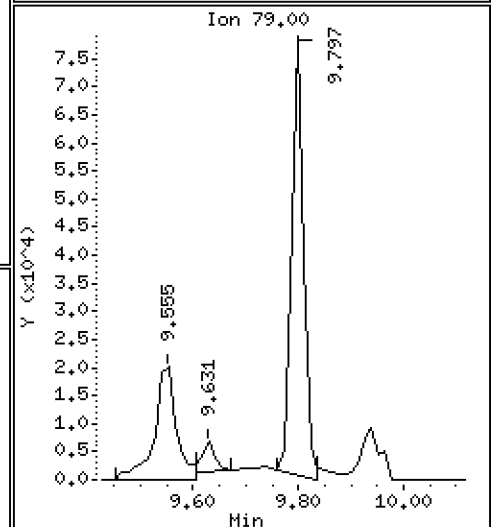
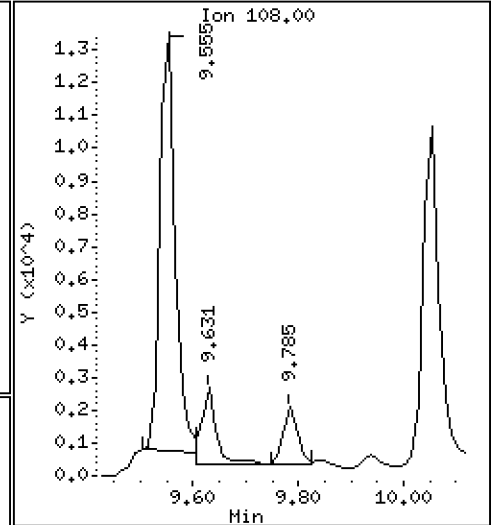
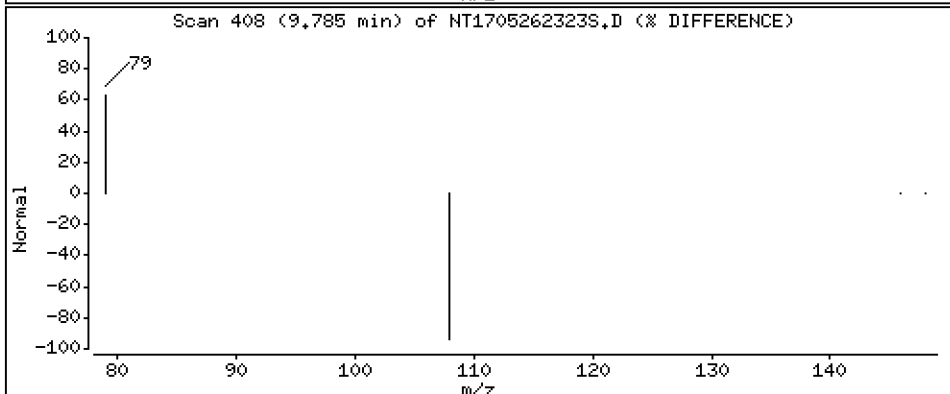
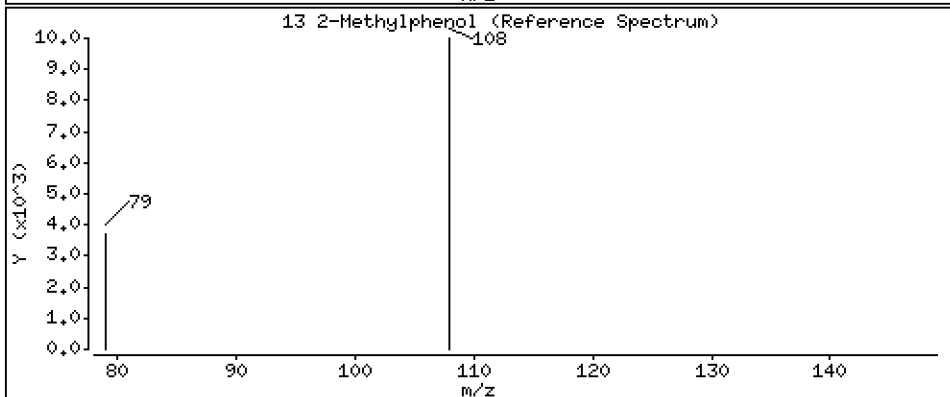
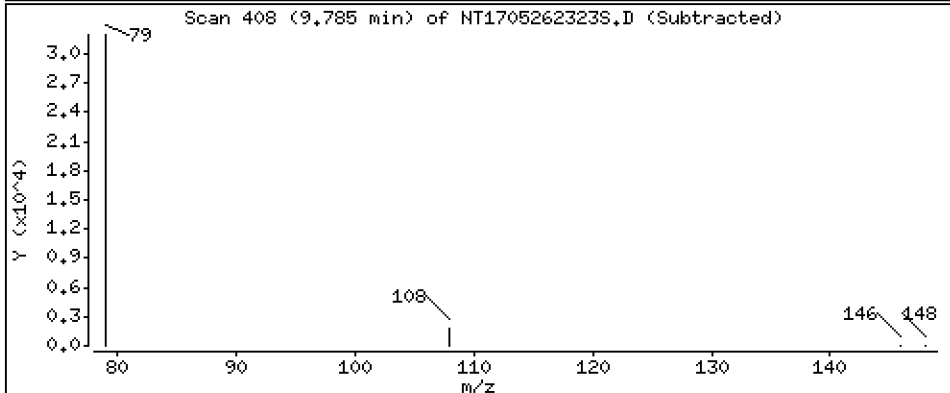
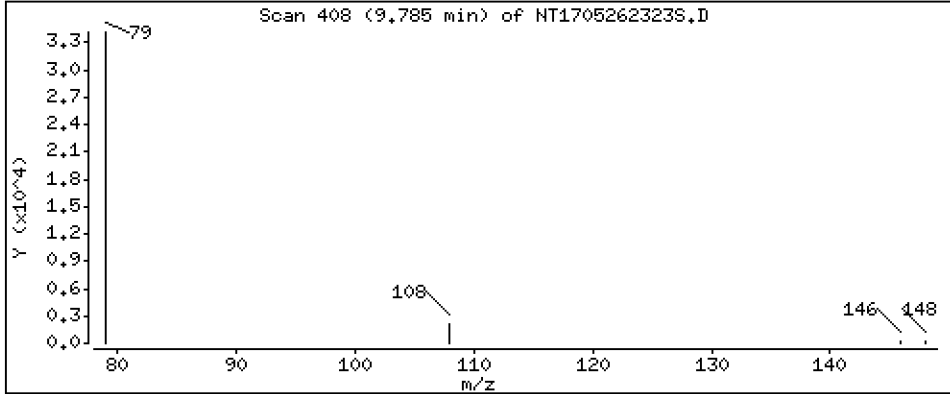
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,03560 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

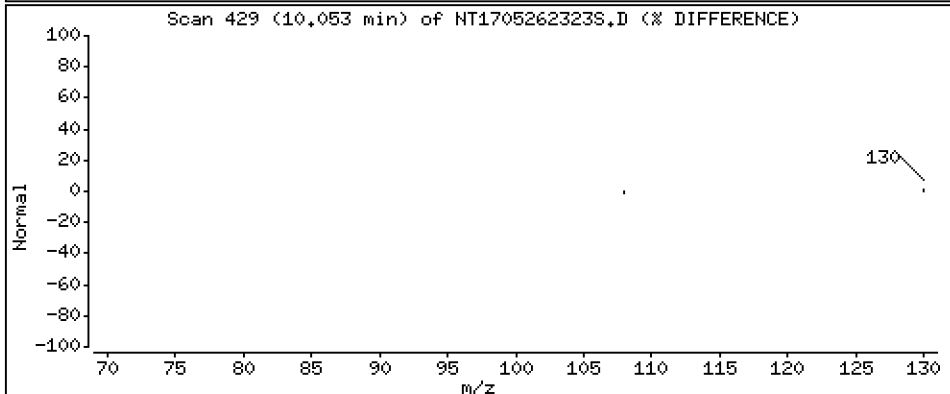
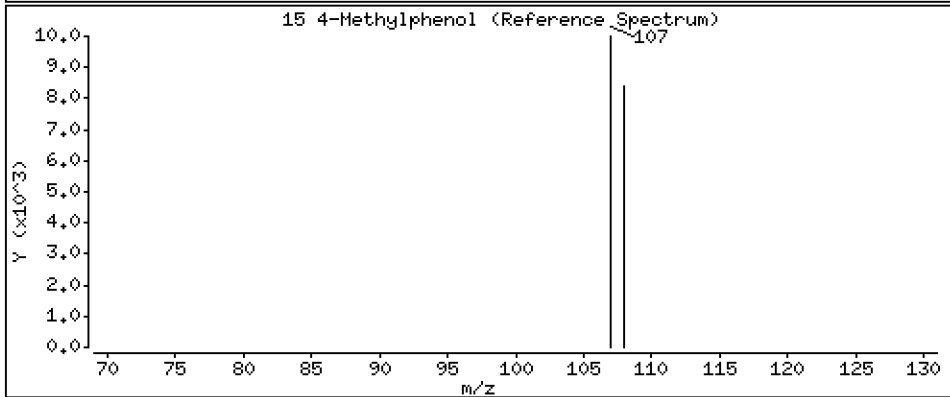
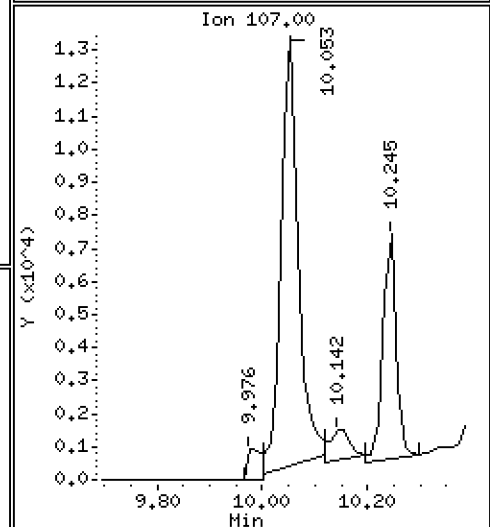
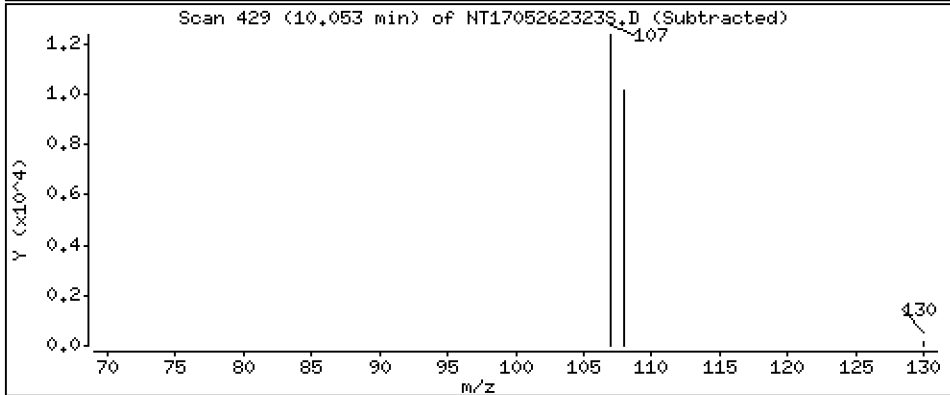
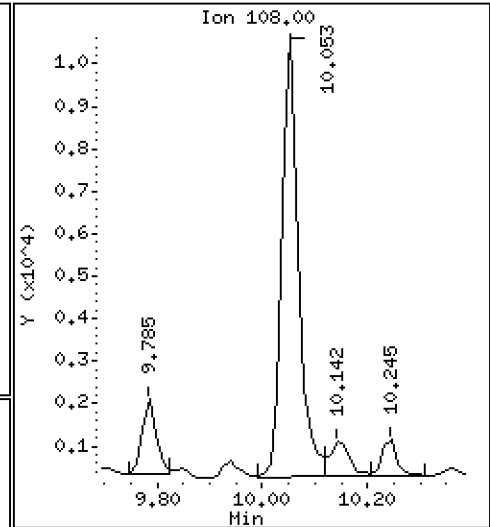
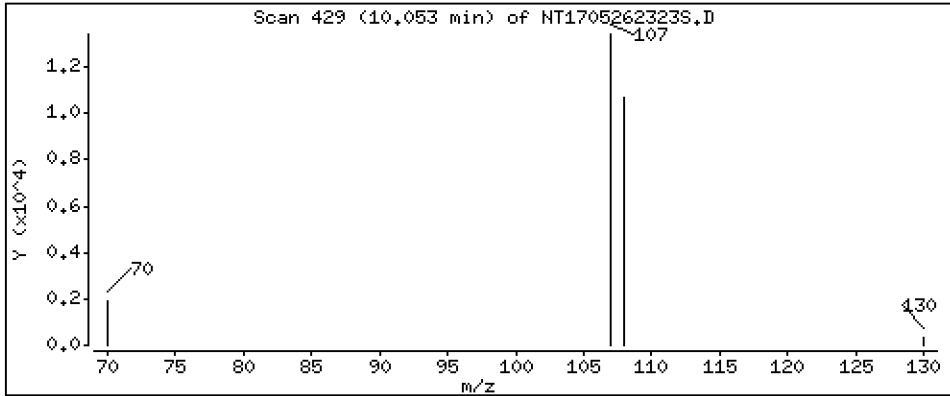
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,2393 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

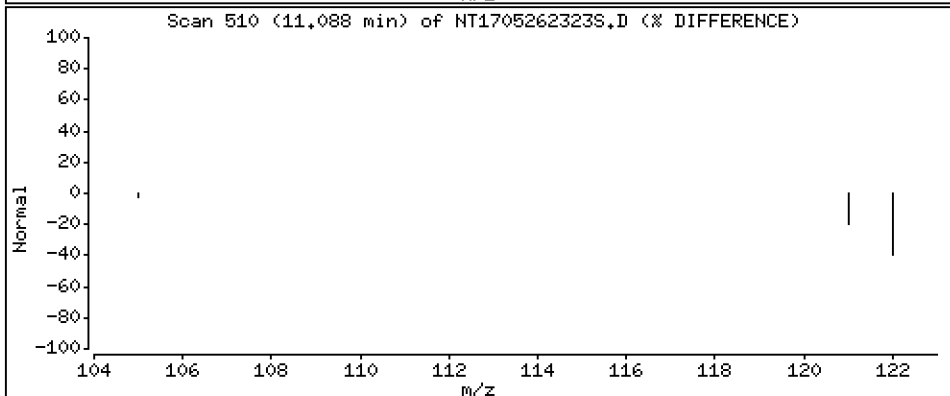
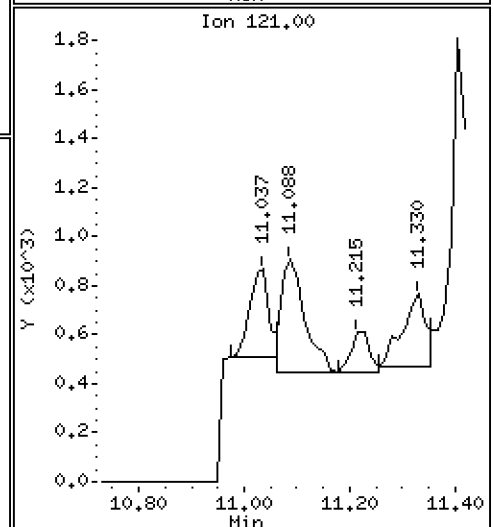
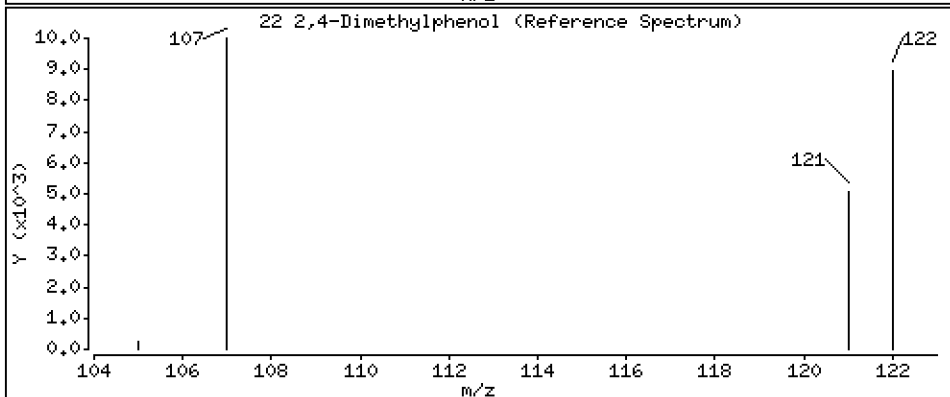
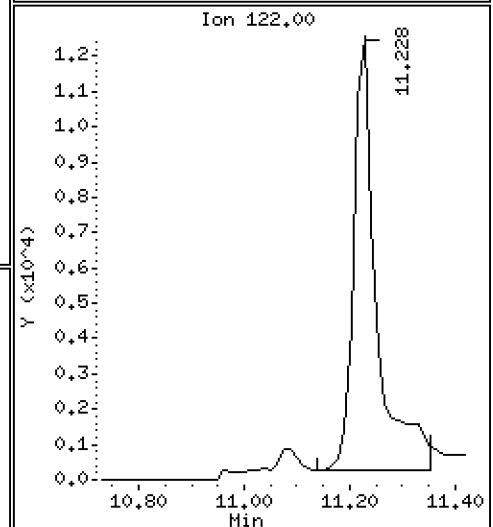
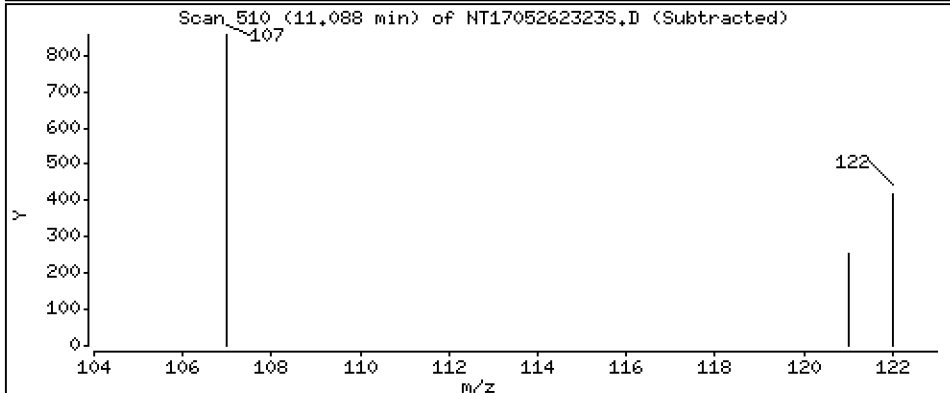
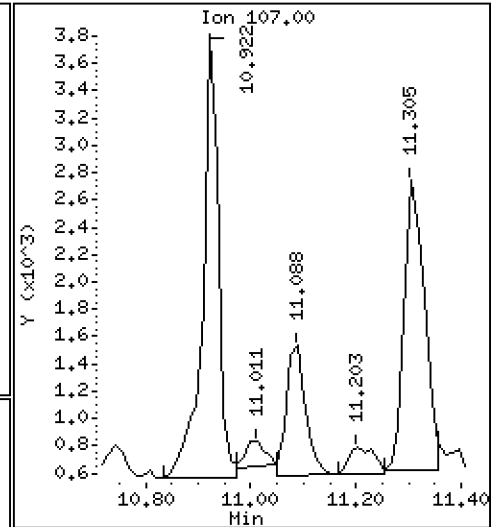
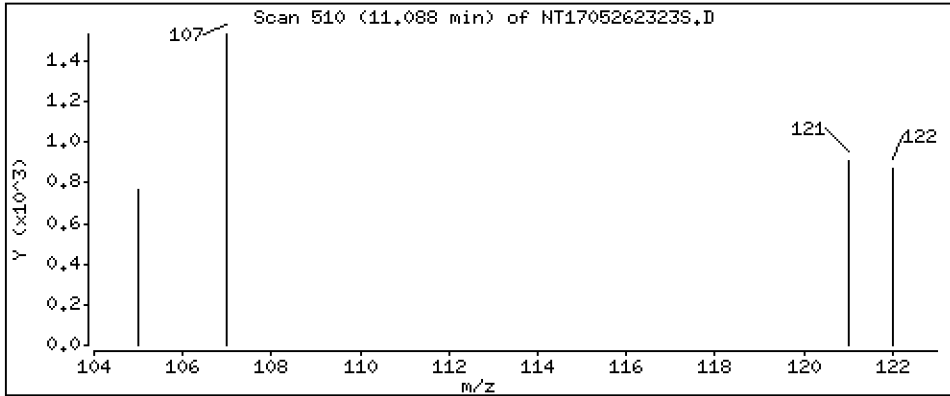
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.02474 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

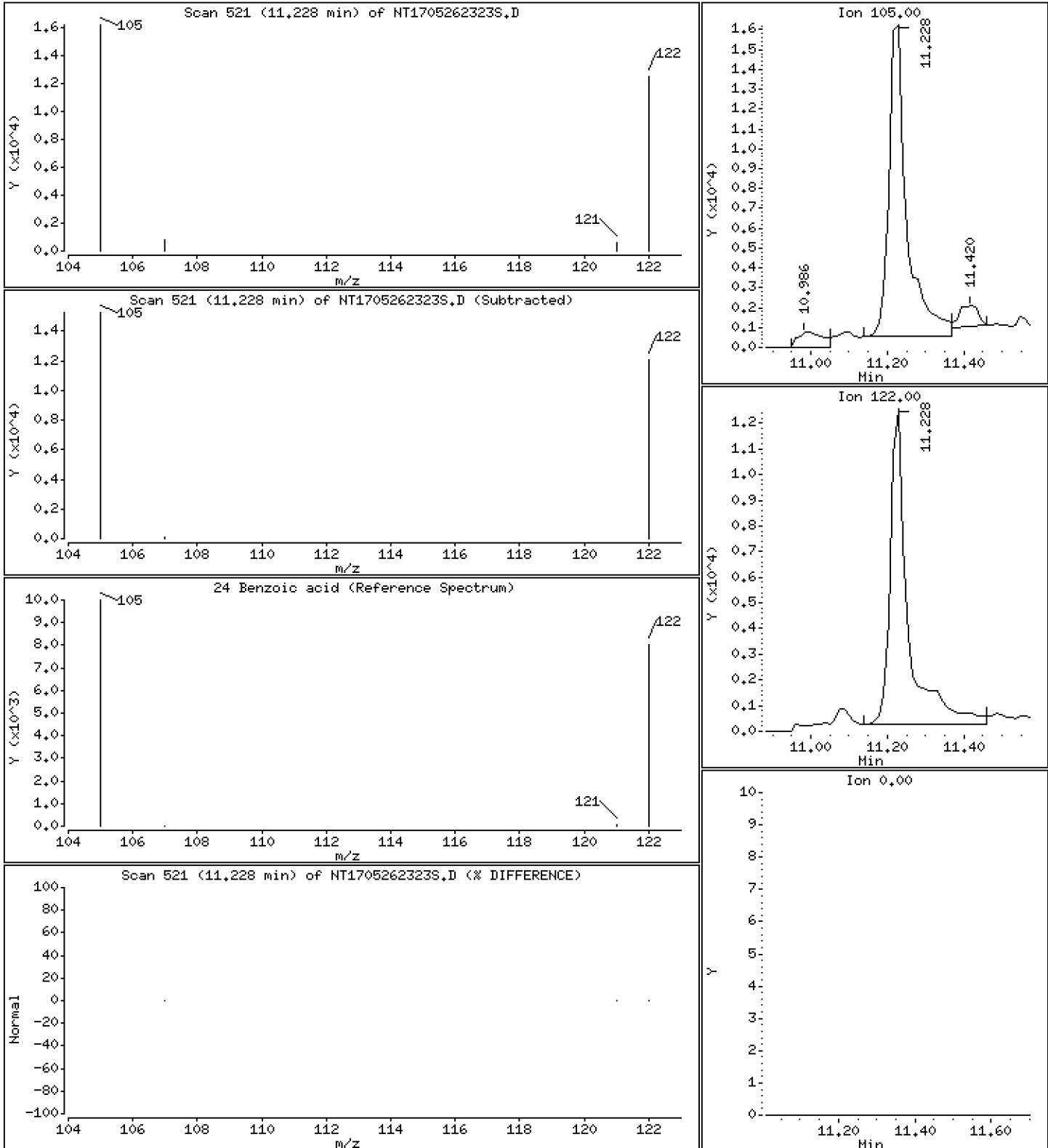
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.8366 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

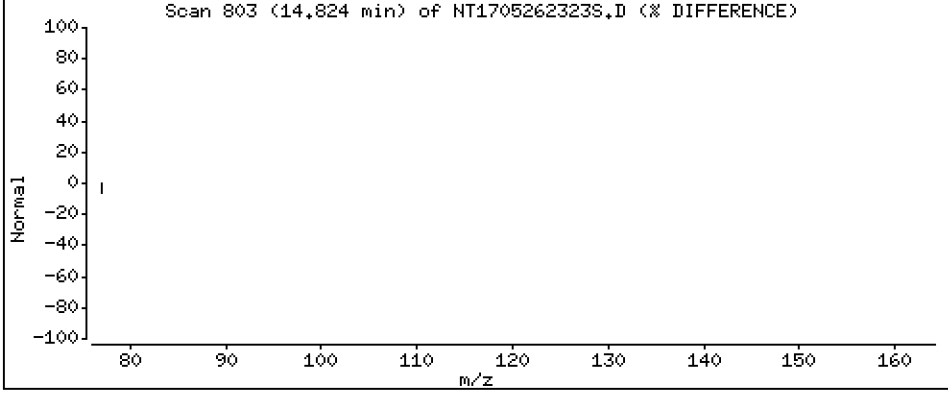
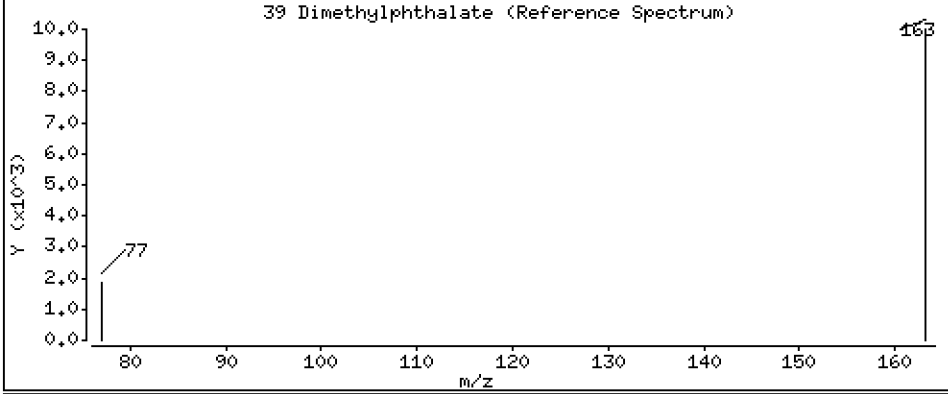
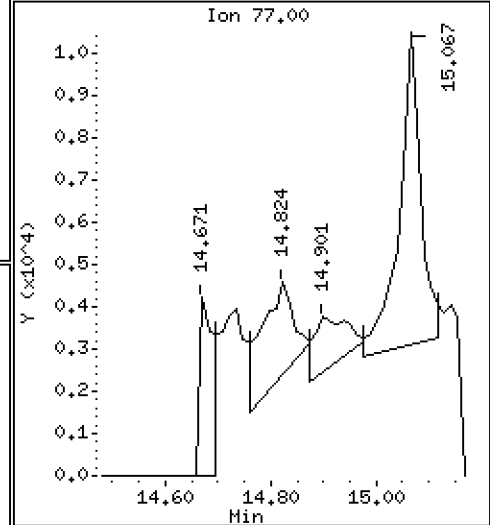
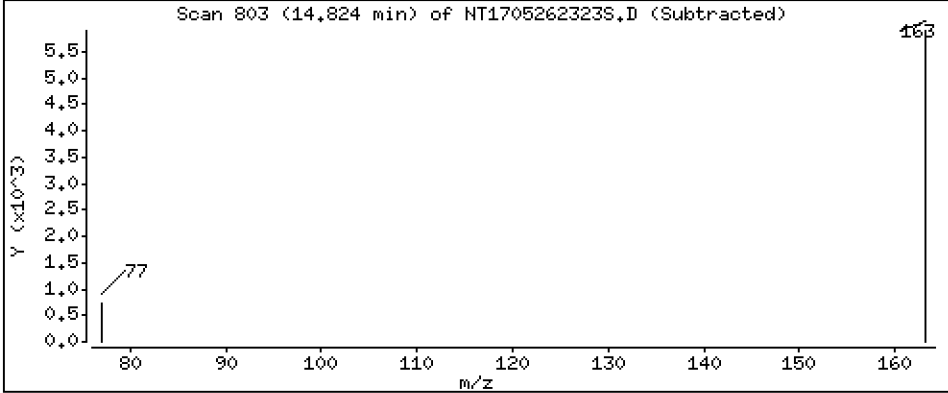
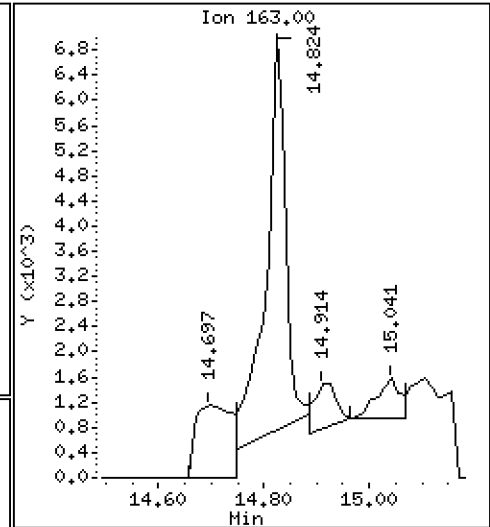
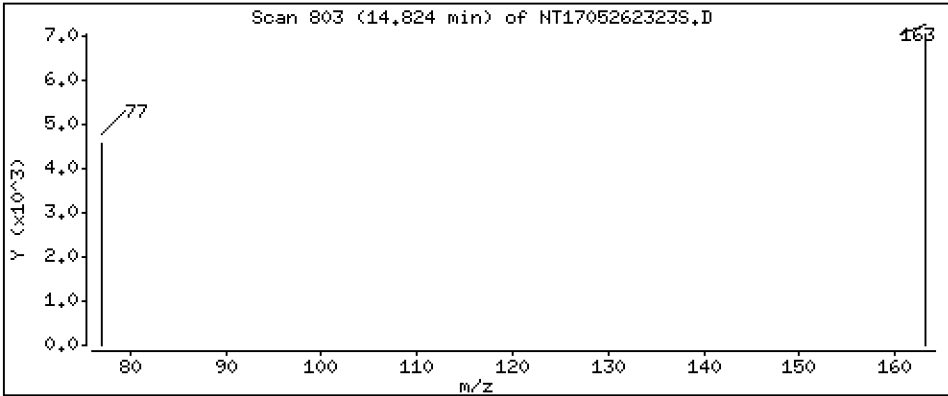
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.08193 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

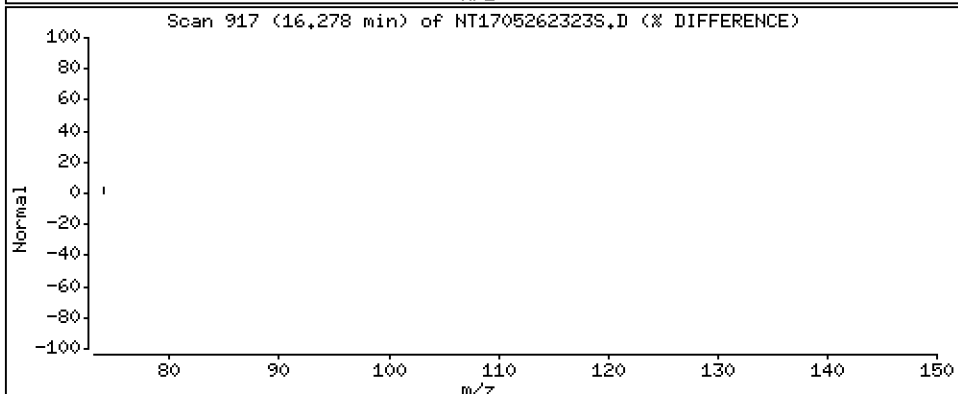
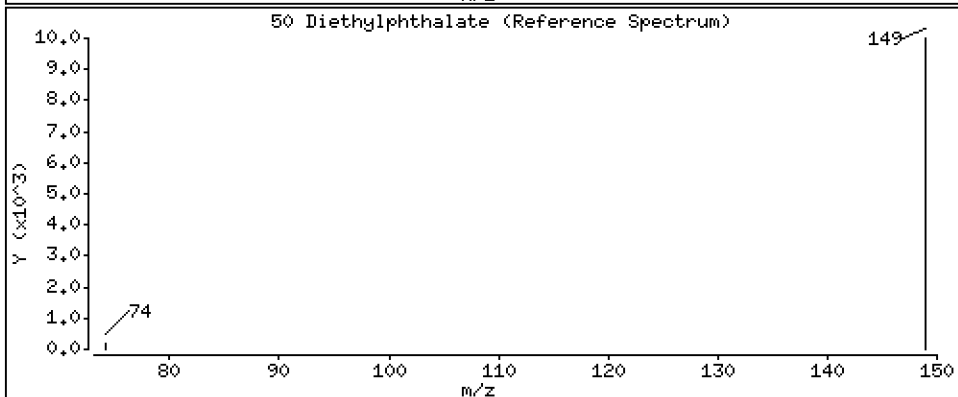
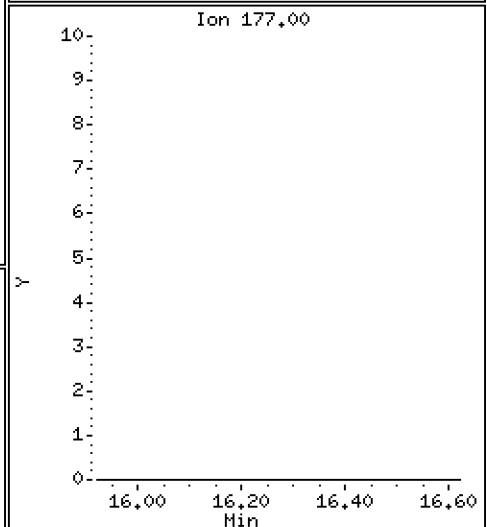
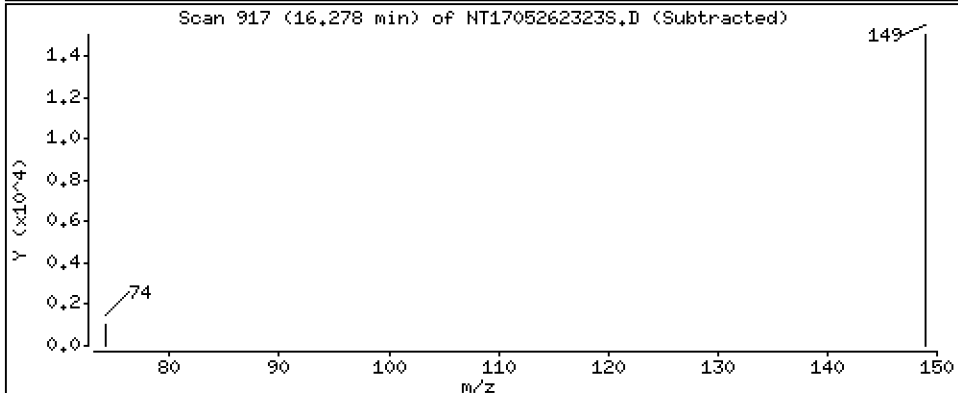
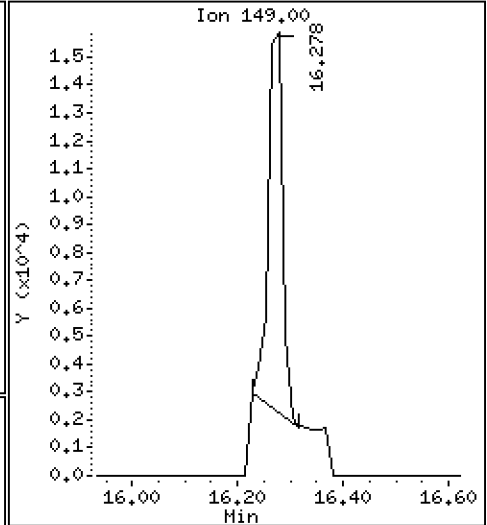
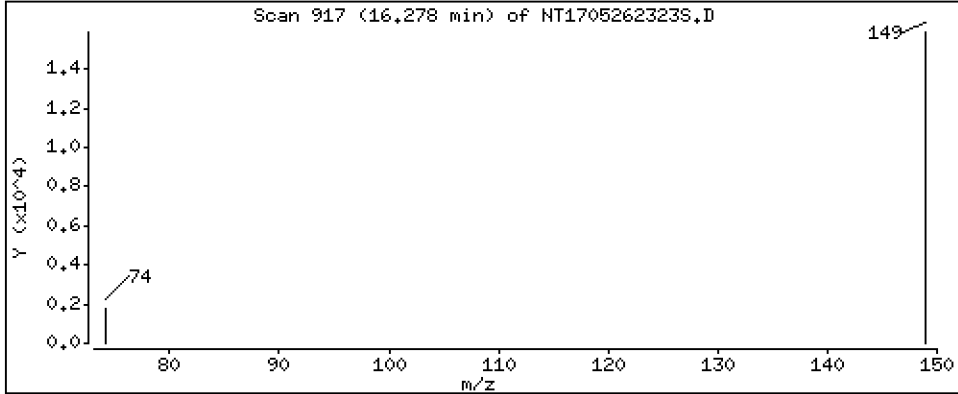
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1445 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

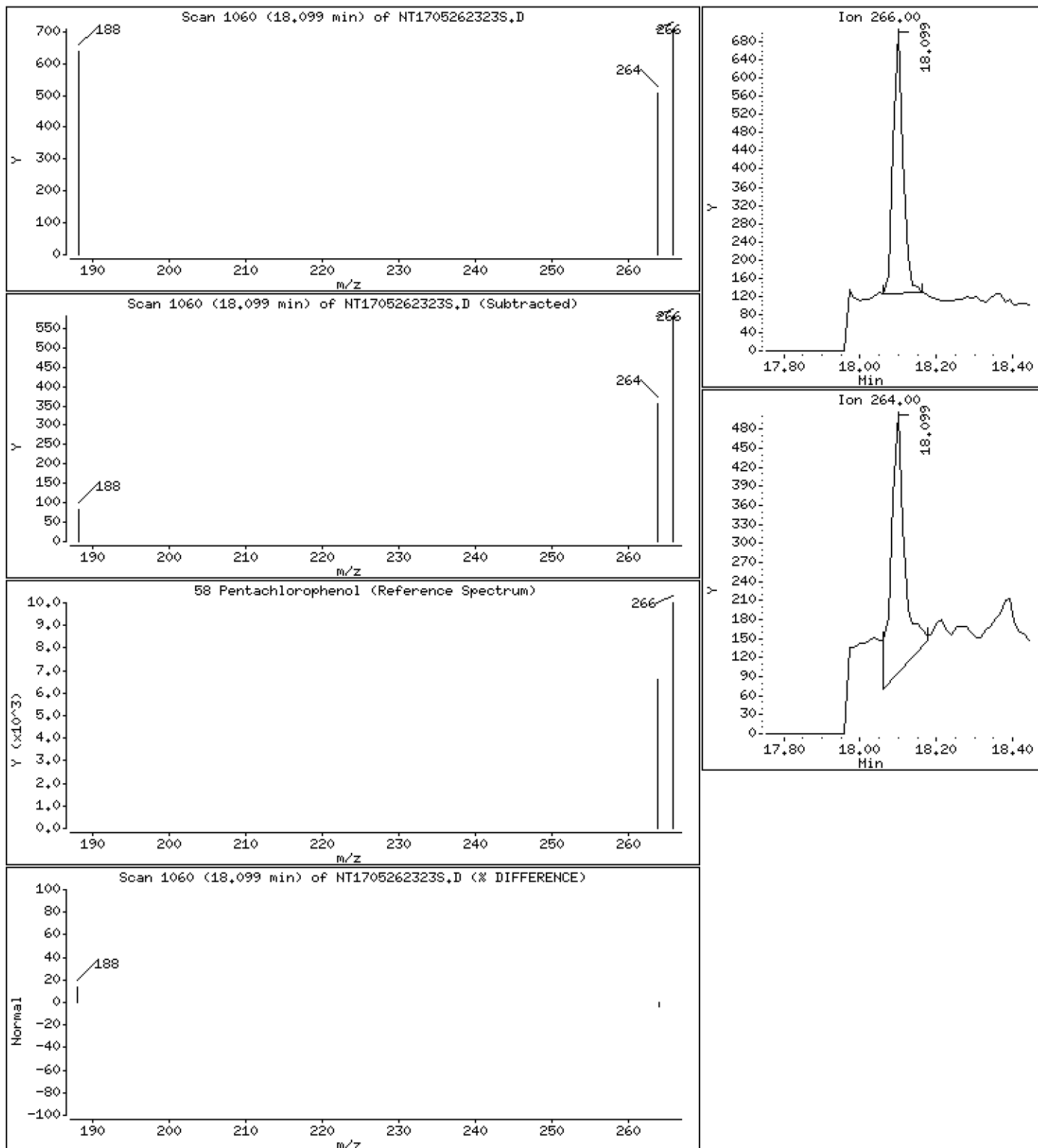
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,04966 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

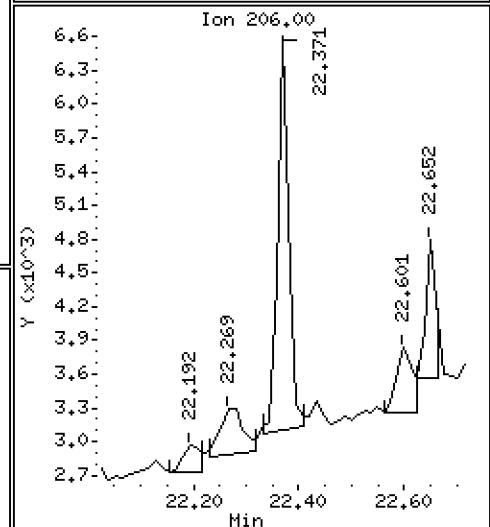
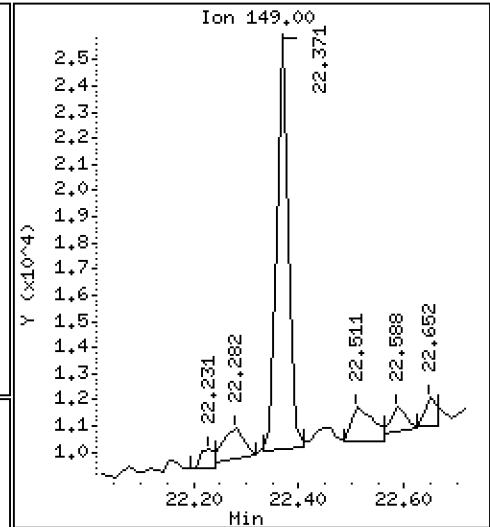
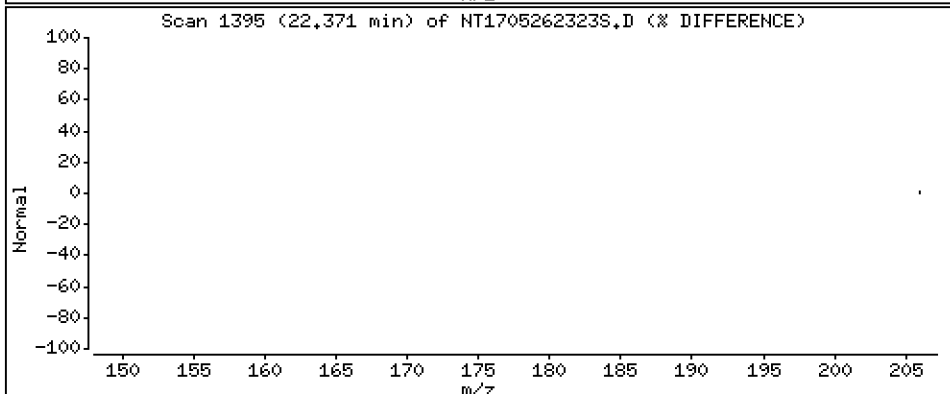
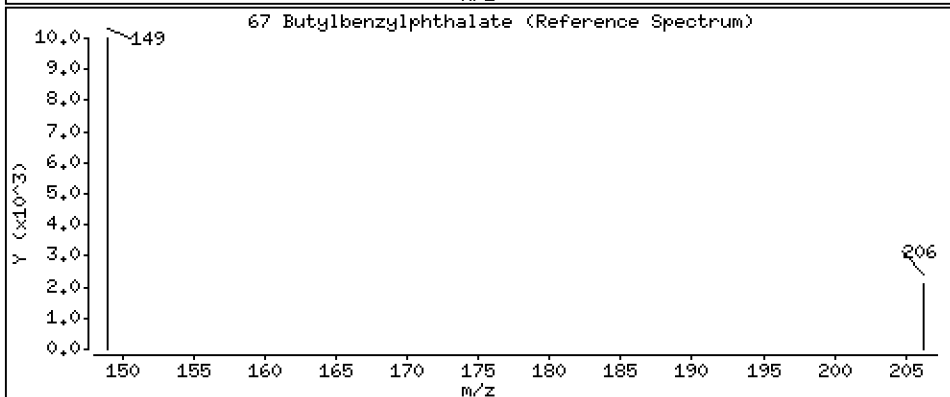
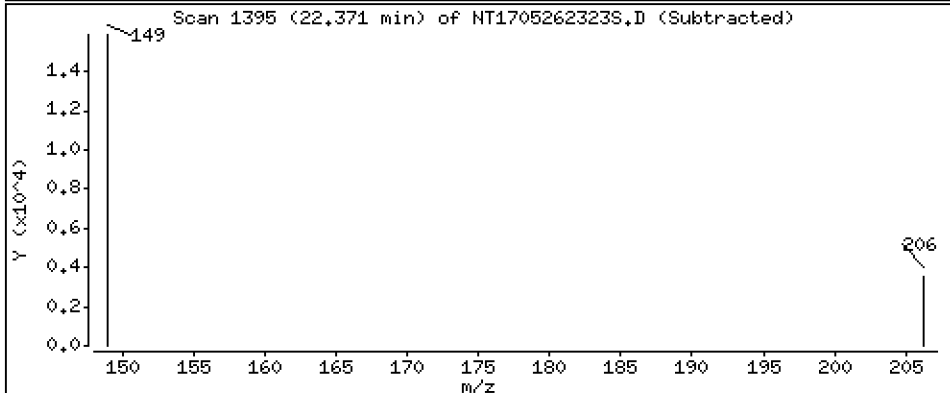
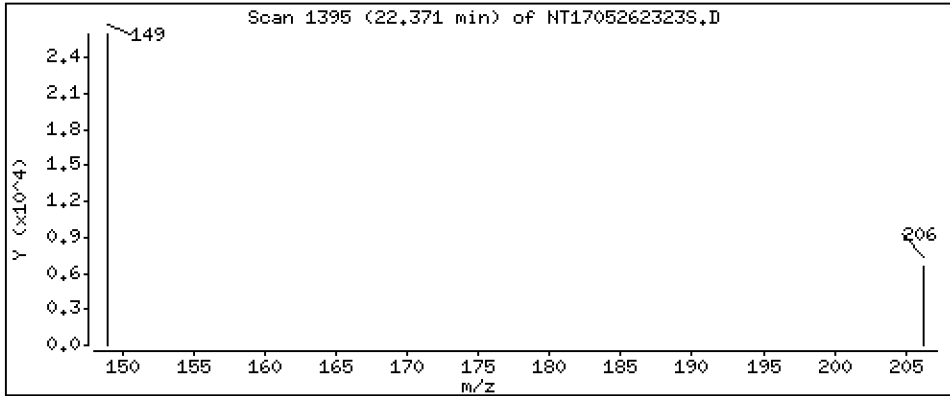
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,1732 ug/mL



Date : 27-MAY-2023 02:25

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-01

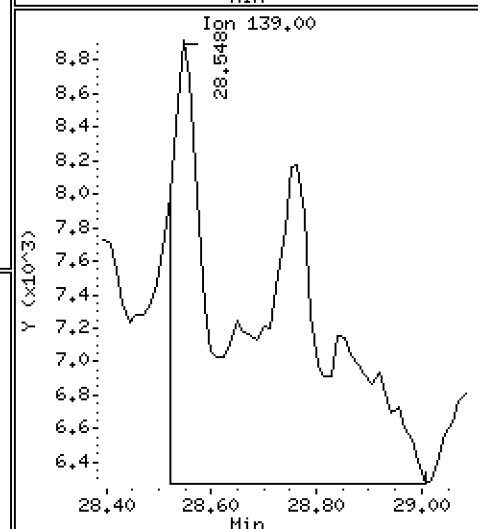
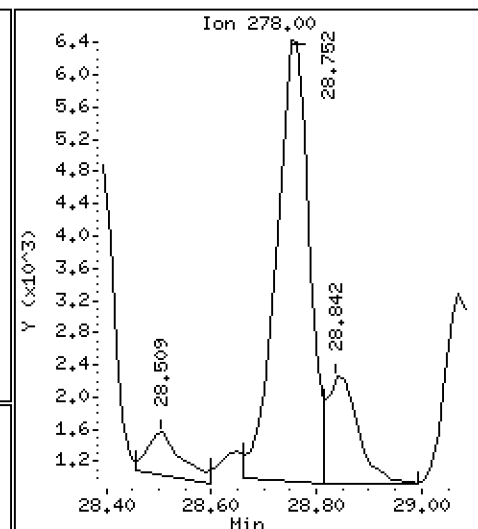
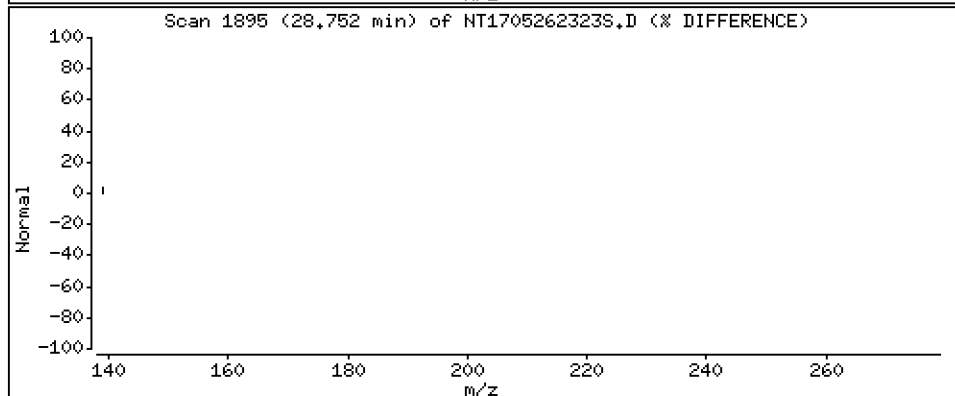
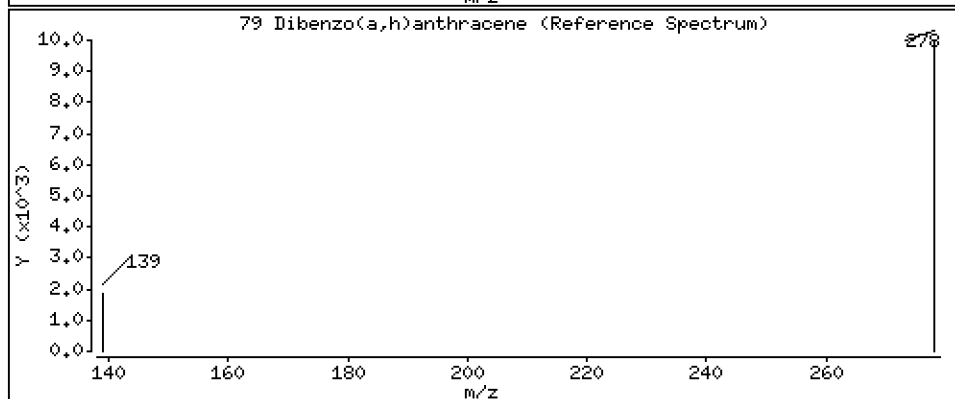
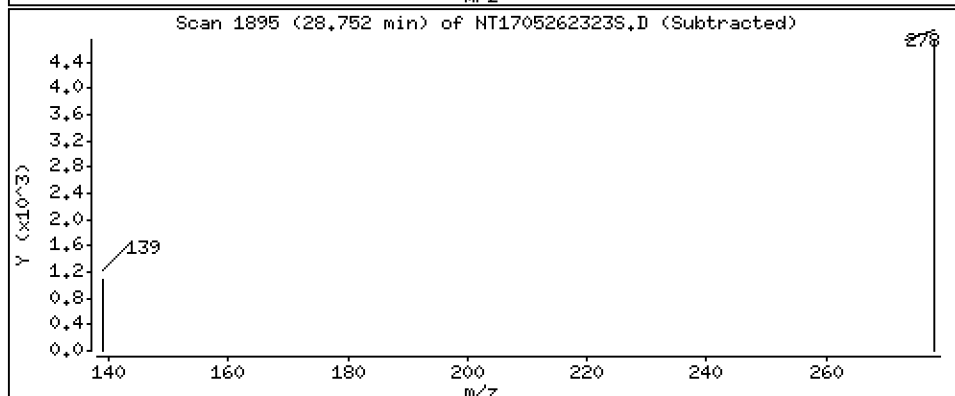
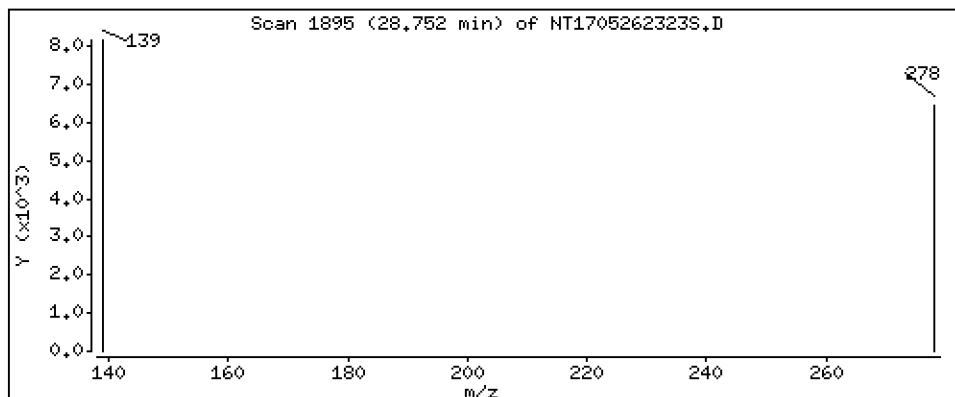
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1718 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262323S.D
 Lab Smp Id: 23D0396-01
 Inj Date : 27-MAY-2023 02:25
 Operator : VTS
 Smp Info : 23D0396-01
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 20
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.132	7.081	(0.769)	510341	5.55620	5.556 (R)
3 Phenol	94		8.687	8.674	(0.937)	27277	0.19930	0.1993
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	303678	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	2671	0.02234	0.02234
11 Benzyl alcohol	79		9.554	9.554	(1.030)	60279	0.77295	0.7730
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	736	0.00628	0.006282
13 2-Methylphenol	108		9.784	9.771	(1.055)	3376	0.03560	0.03560
15 4-Methylphenol	108		10.053	10.040	(1.084)	22939	0.23933	0.2393
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.087	11.062	(0.945)	2460	0.02474	0.02474
24 Benzoic acid	105		11.228	11.228	(0.957)	51814	0.83659	0.8366
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1033510	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		14.824	14.837	(0.967)	16324	0.08193	0.08193
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	542573	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	26141	0.14447	0.1445 (M)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		18.098	18.098	(0.986)	1033	0.04966	0.04966 (M)
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	773140	4.00000	
\$ 66 Terphenyl-d14	244		21.465	21.452	(0.919)	478498	3.73026	3.730 (R)
67 Butylbenzylphthalate	149		22.371	22.370	(0.957)	24149	0.17324	0.1732
* 69 Chrysene-d12	240		23.366	23.353	(1.000)	676021	4.00000	
* 77 Perylene-d12	264		26.032	26.006	(1.000)	507114	4.00000	
79 Dibenzo(a,h)anthracene	278		28.752	28.739	(1.104)	24577	0.17182	0.1718
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262323S.D
 Lab Smp Id: 23D0396-01
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 27-MAY-2023
 Calibration Time: 00:33
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	375423	187712	750846	303678	-19.11
27 Naphthalene-d8	1173037	586519	2346074	1033510	-11.89
42 Acenaphthene-d10	638940	319470	1277880	542573	-15.08
59 Phenanthrene-d10	901788	450894	1803576	773140	-14.27
69 Chrysene-d12	767966	383983	1535932	676021	-11.97
77 Perylene-d12	642149	321075	1284298	507114	-21.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	0.00
69 Chrysene-d12	23.35	22.85	23.85	23.37	0.05
77 Perylene-d12	26.01	25.51	26.51	26.03	0.10

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

REVIEW SUMMARY FOR FILE - NT1705262323S.D

Lab ID: 23D0396-01

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 02:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.769	0.764	0.0055	2-Fluorophenol

RRT check based on Ccal File: SIM.b/NT1705262320S.D

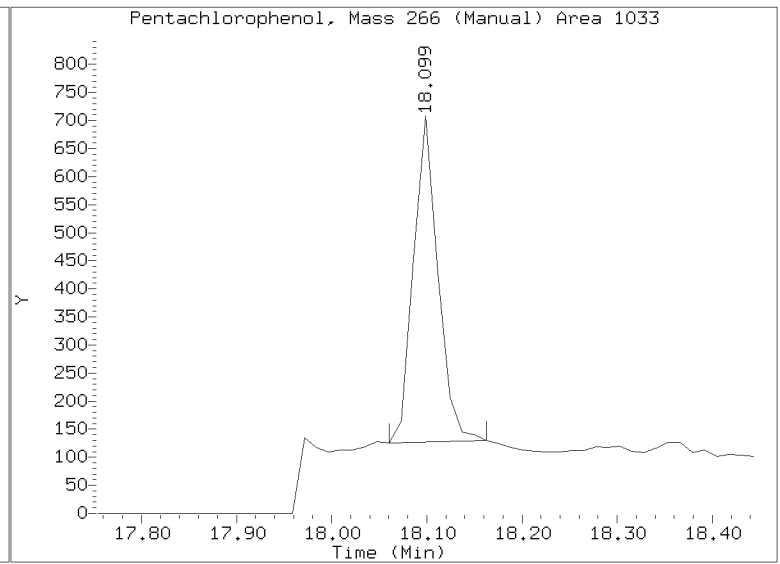
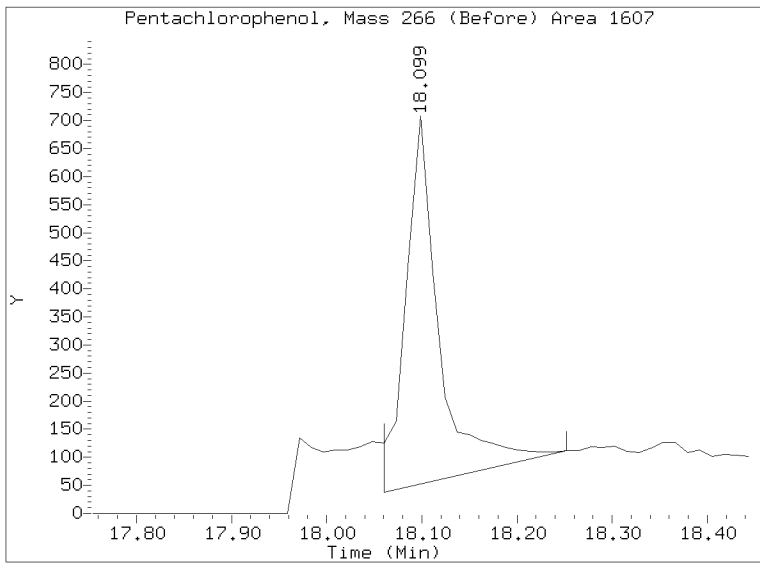
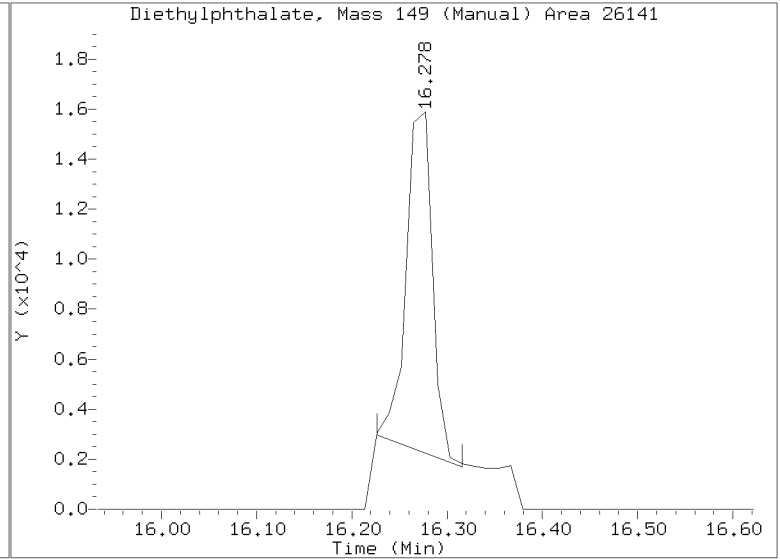
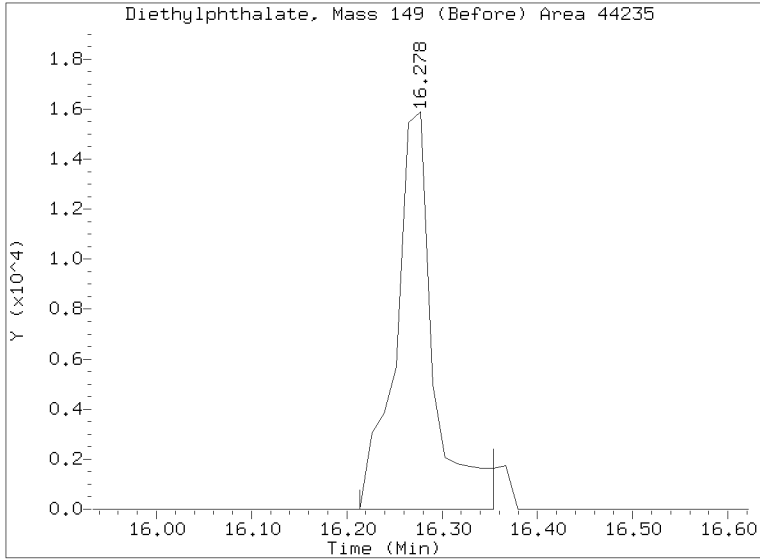
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/SIM.b/NT1705262323S.D
Injection Date: 27-MAY-2023 02:25
Lab ID:23D0396-01 Client ID:
Report Date: 06/07/2023 07:57





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-03 A

SDG: 23D0396

Sampled: 04/12/23 15:03

Prepared: 04/24/23 16:38

File ID: NT1705262324S.D

% Solids: 43.88

Preparation: EPA 3546 (Microwave)

Analyzed: 05/27/23 03:02

Batch: BLD0607

Sequence: SLE0442

Initial/Final: 22.79 g Wet / 1 mL

Instrument: NT17

Column: ZB-5MS

Calibration: GE00070

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	1.9	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
65-85-0	Benzoic acid	1	64.4	J	13.4	100
105-67-9	2,4-Dimethylphenol	1	2.4	J	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	2.8	J	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	749.98	540	72.0	27 - 120	
p-Terphenyl-d14	499.99	356	71.2	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.16\SIM.1705262324S.D

Date: 27-May-2023 03:02

Client ID:

Sample Info: 23D0396-03

Page 1

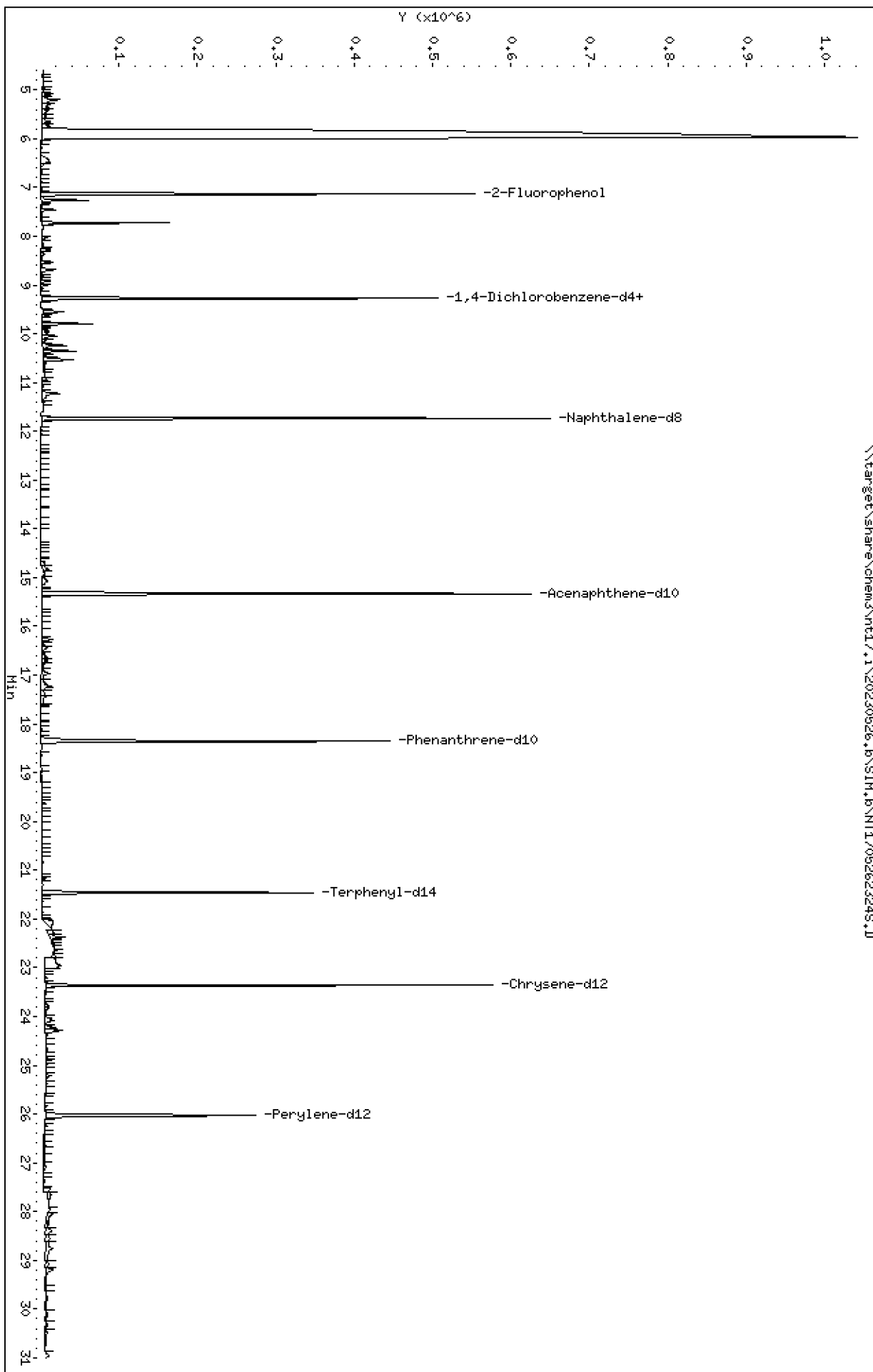
Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

\\target\share\chem3\nt17.1\20230526.16\SIM.1705262324S.D



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

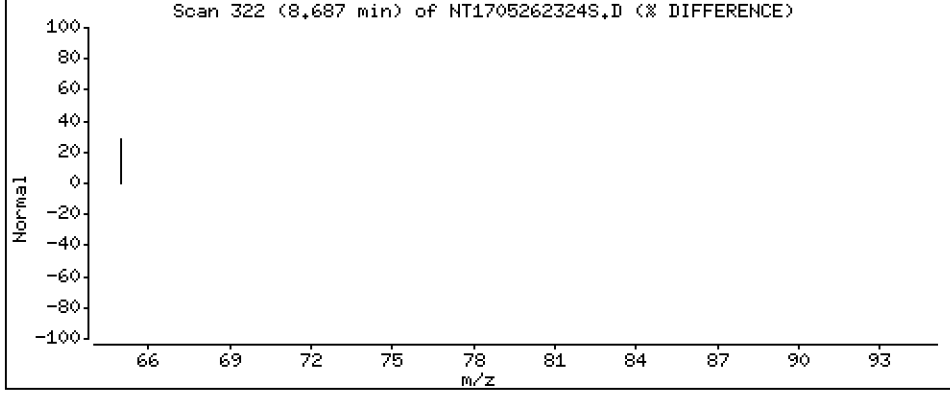
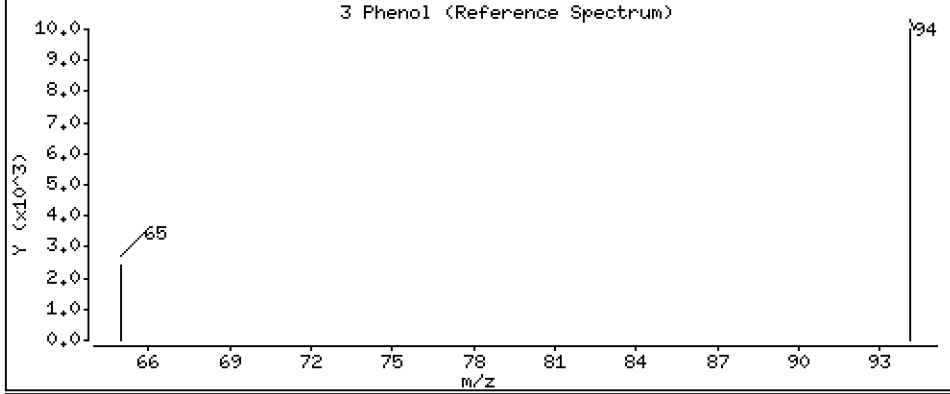
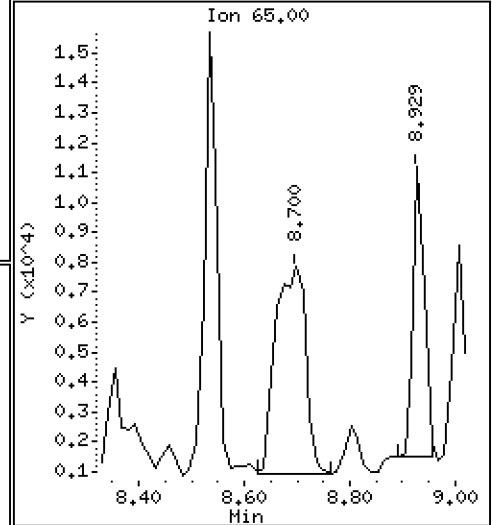
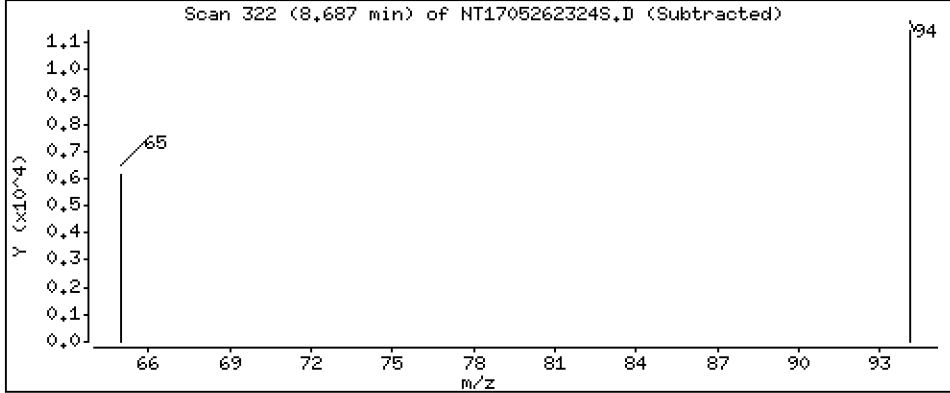
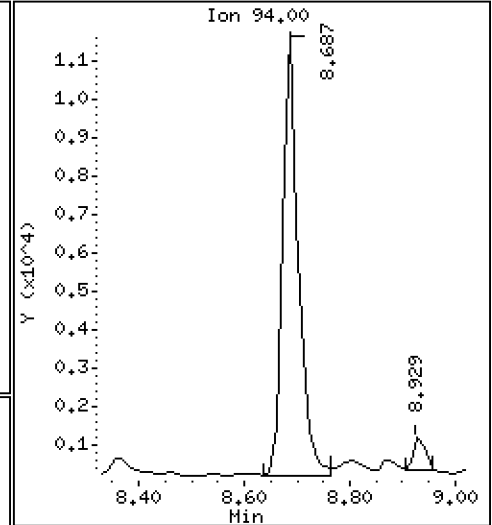
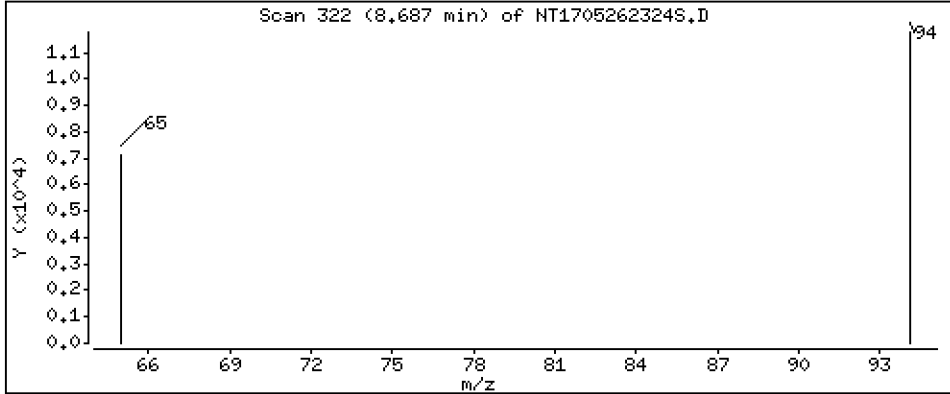
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,1773 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

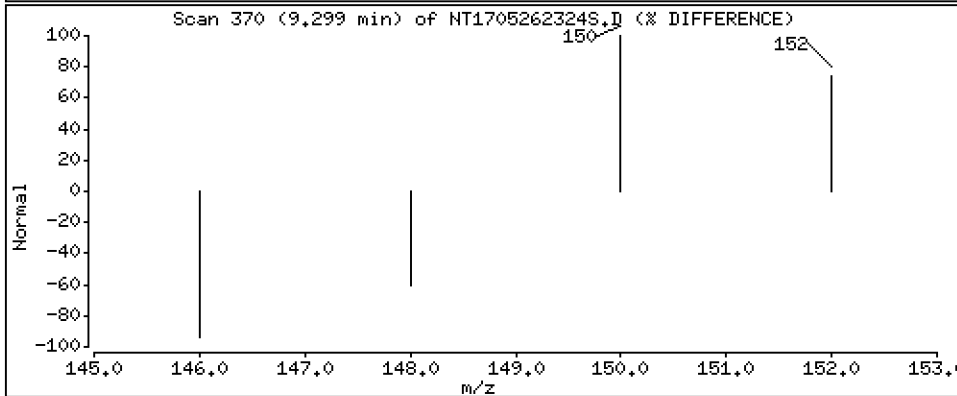
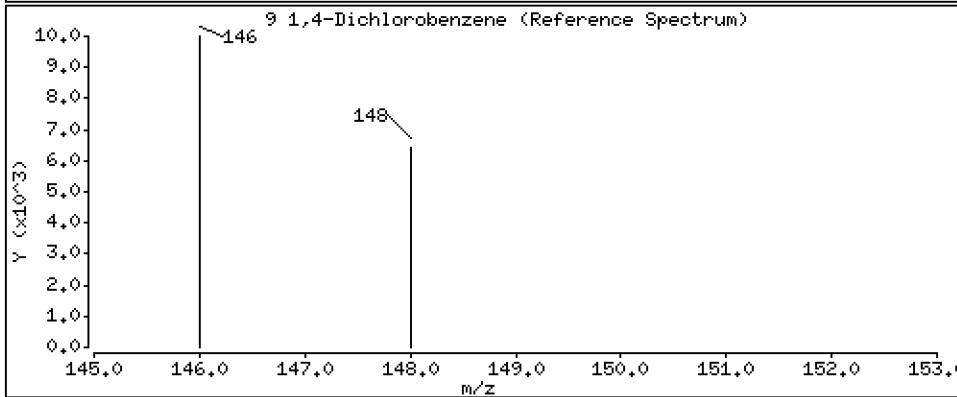
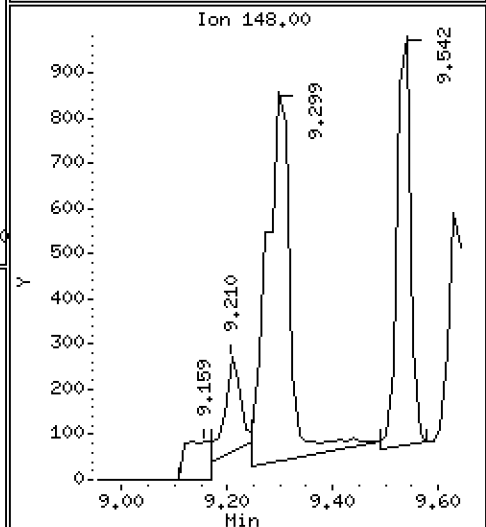
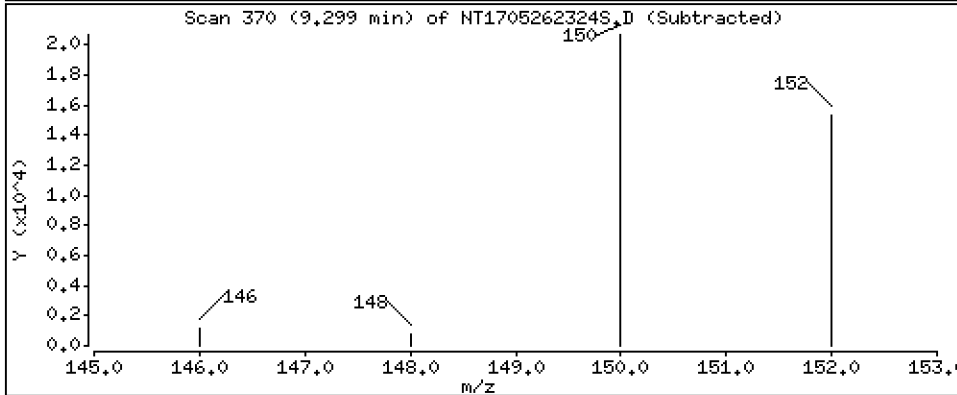
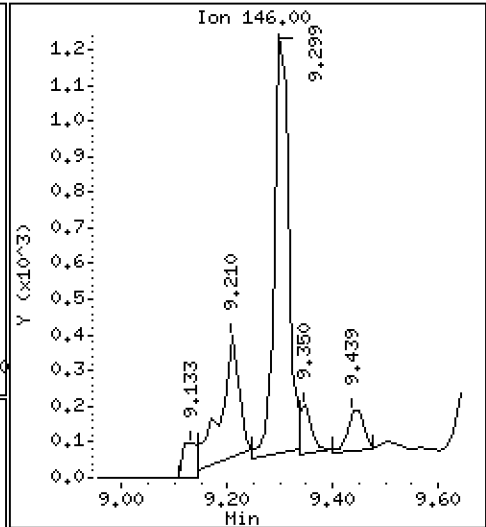
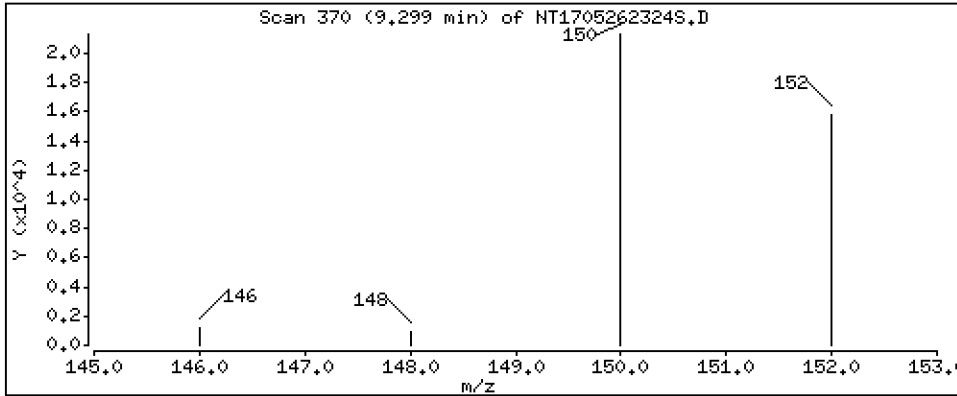
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,01856 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

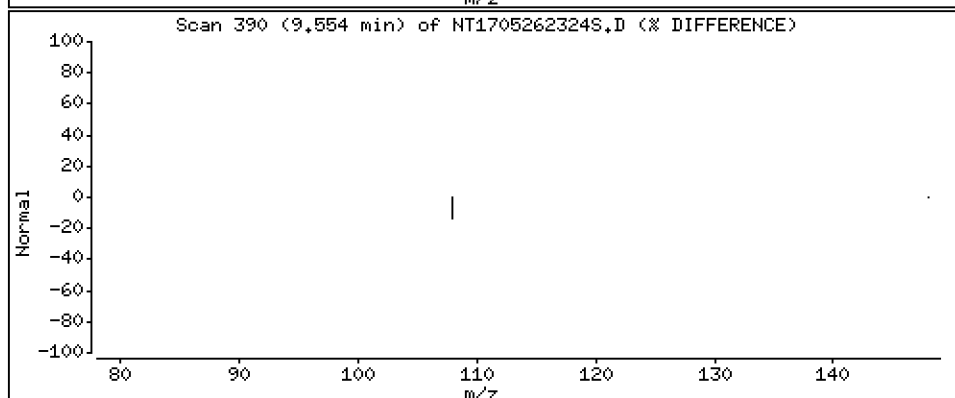
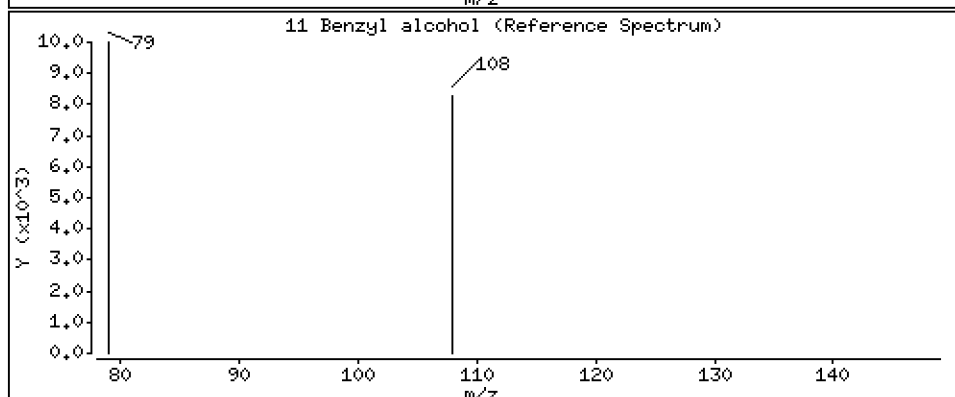
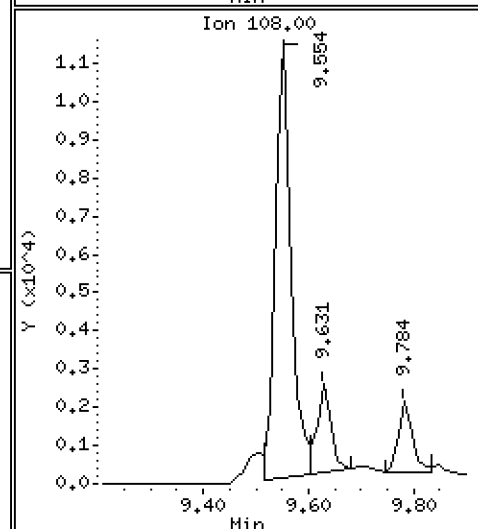
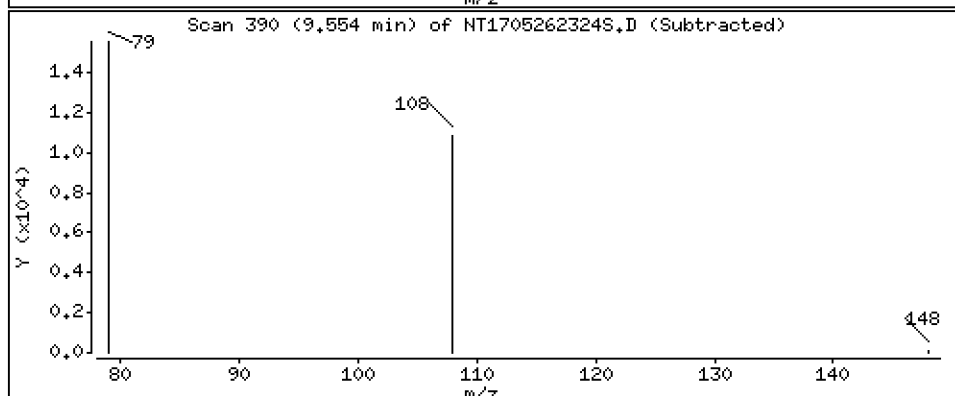
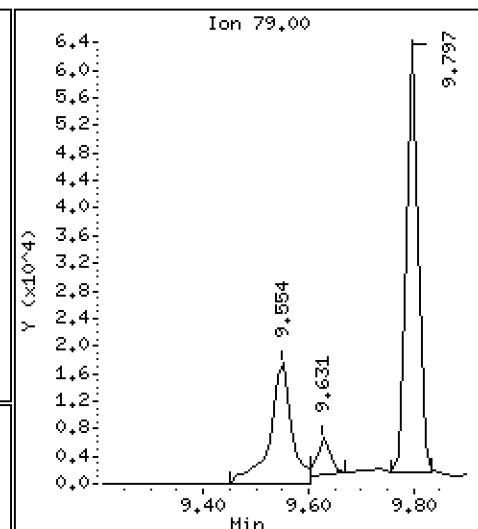
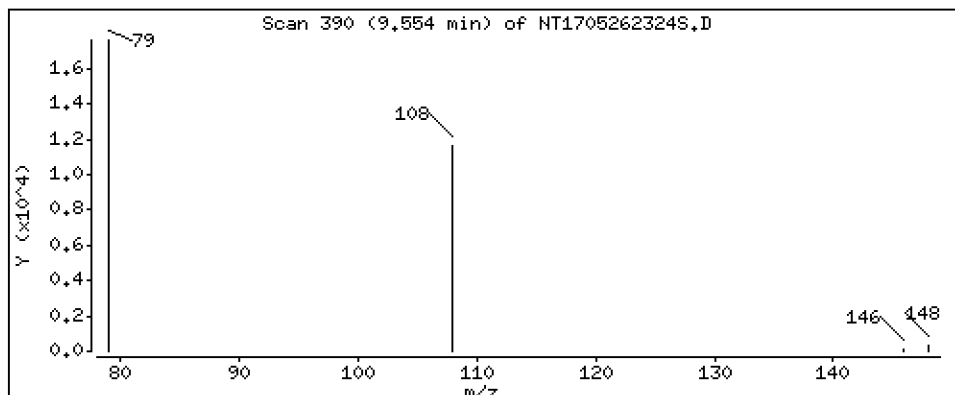
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.6494 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

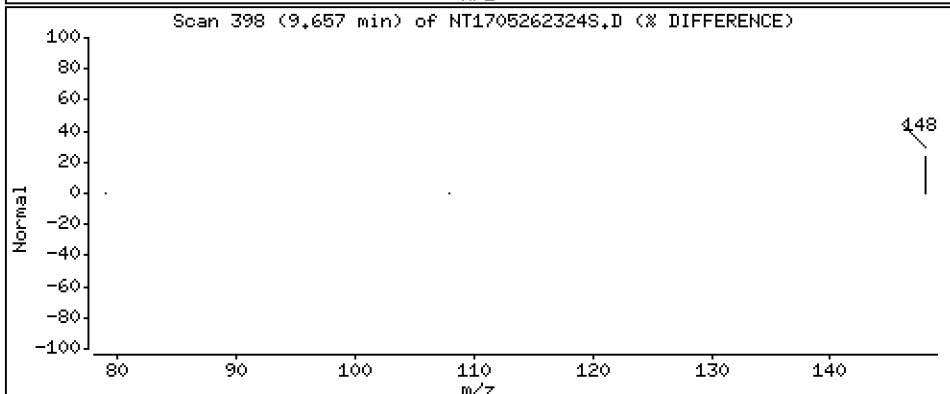
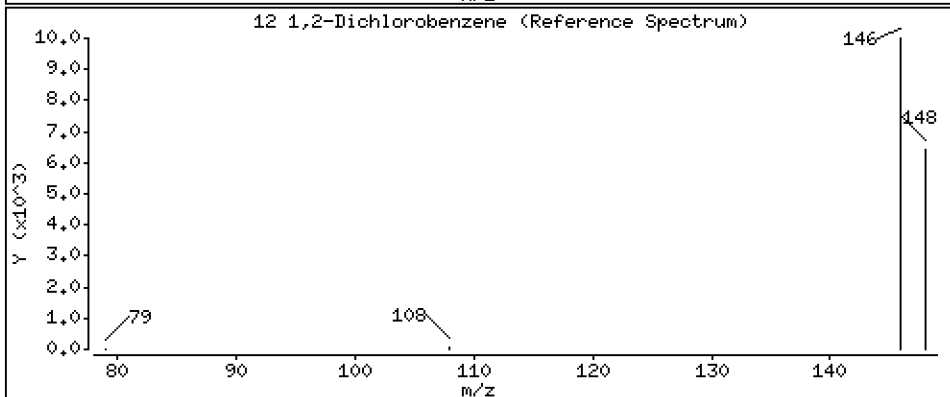
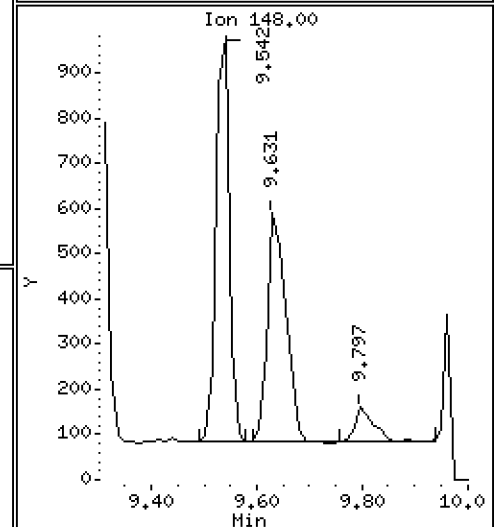
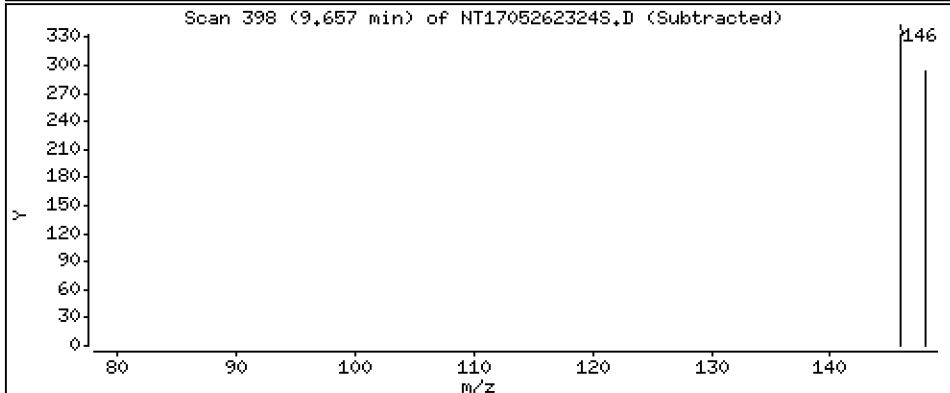
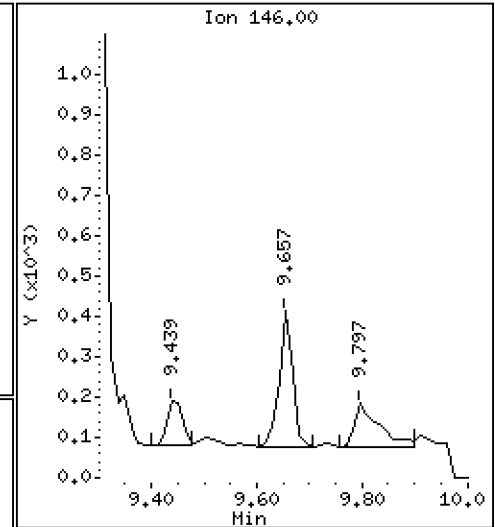
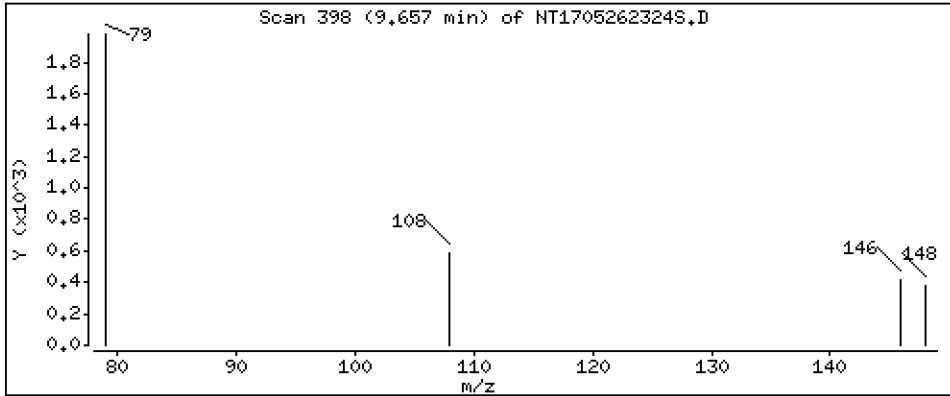
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.005003 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

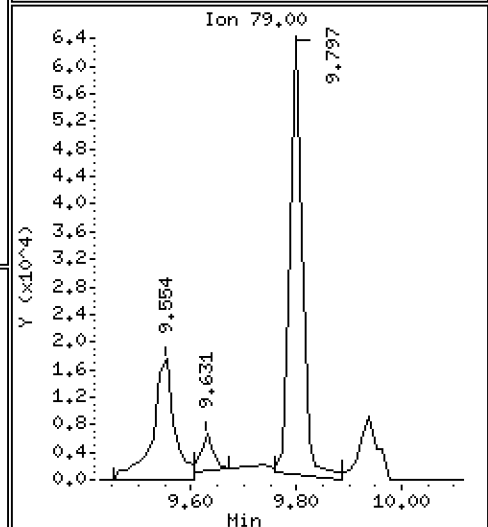
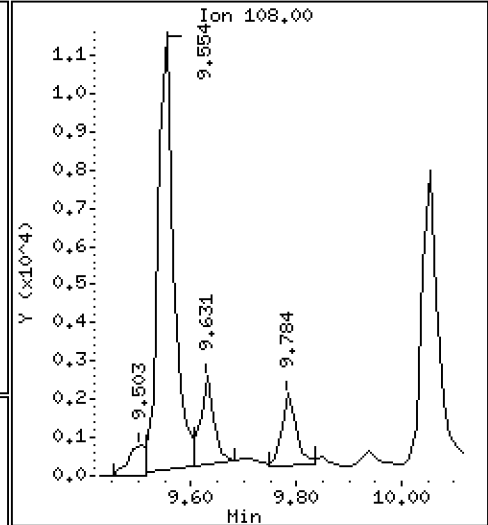
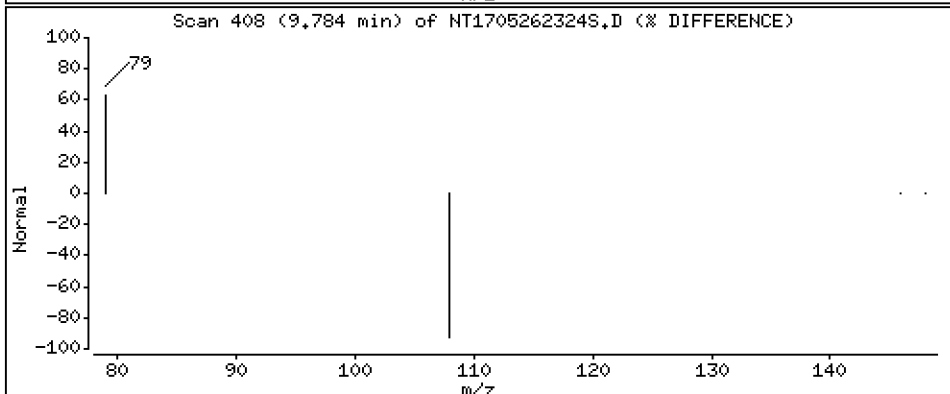
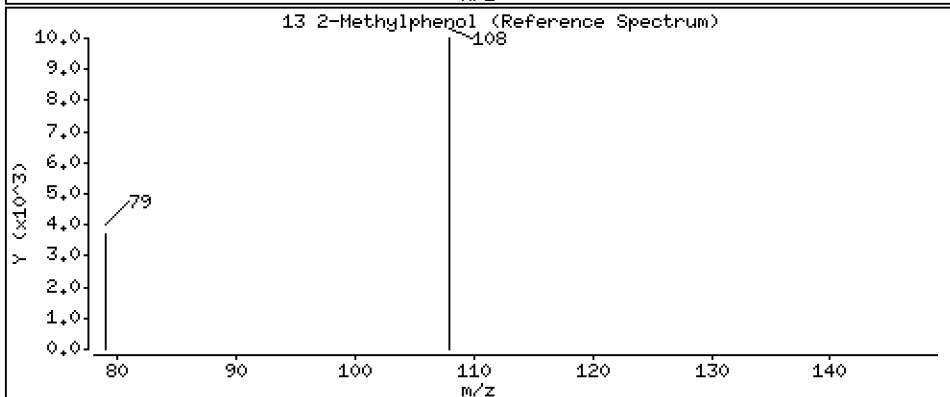
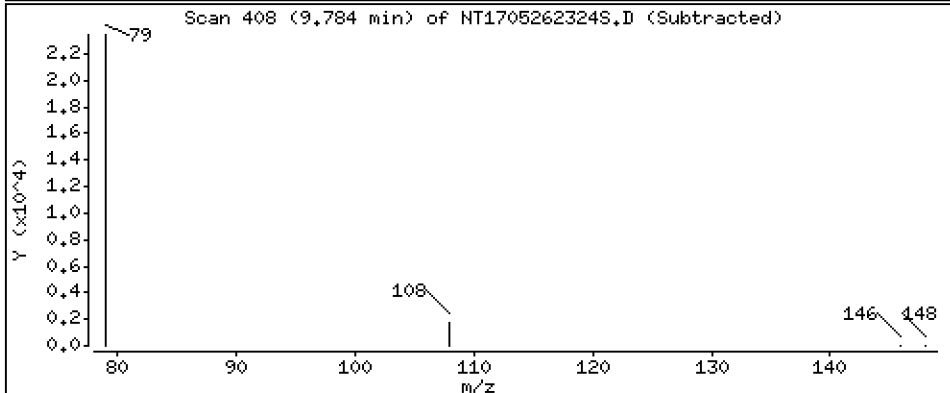
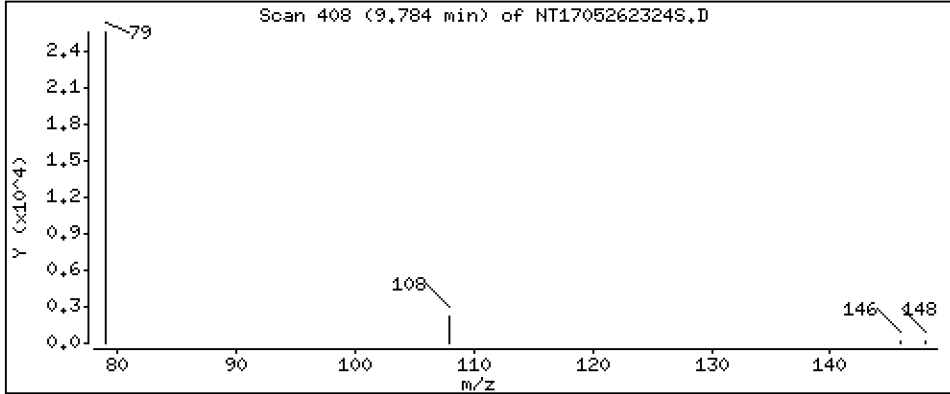
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 0.03802 ug/mL

13 2-Methylphenol



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

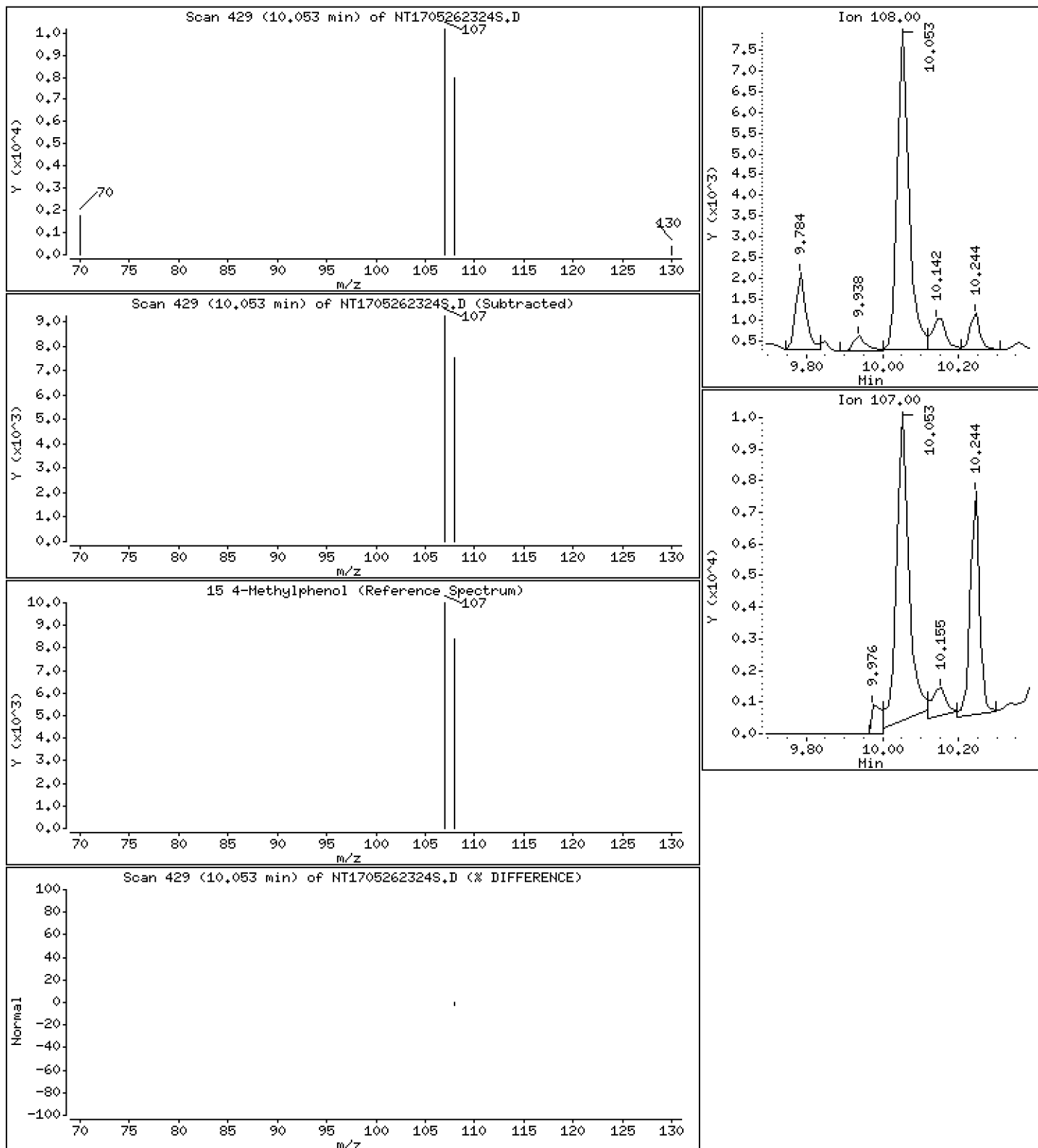
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,1680 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

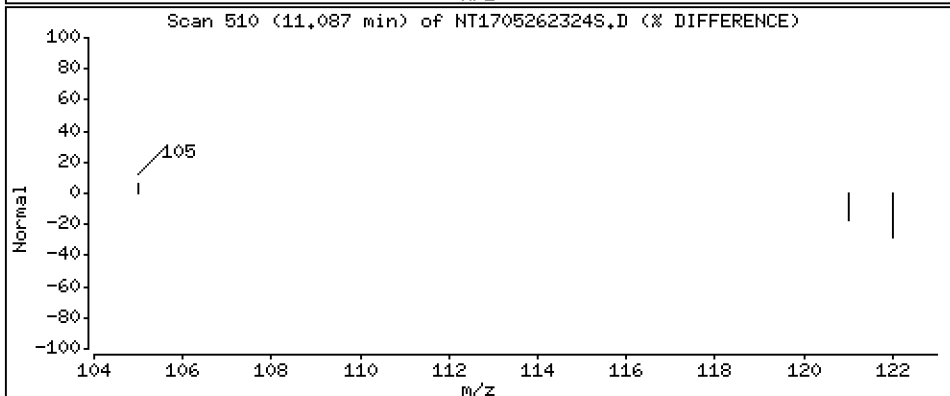
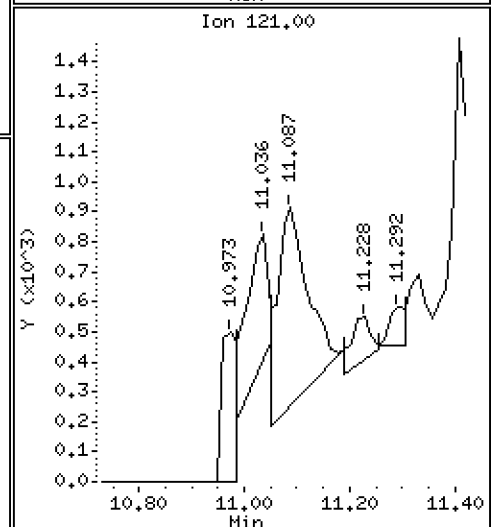
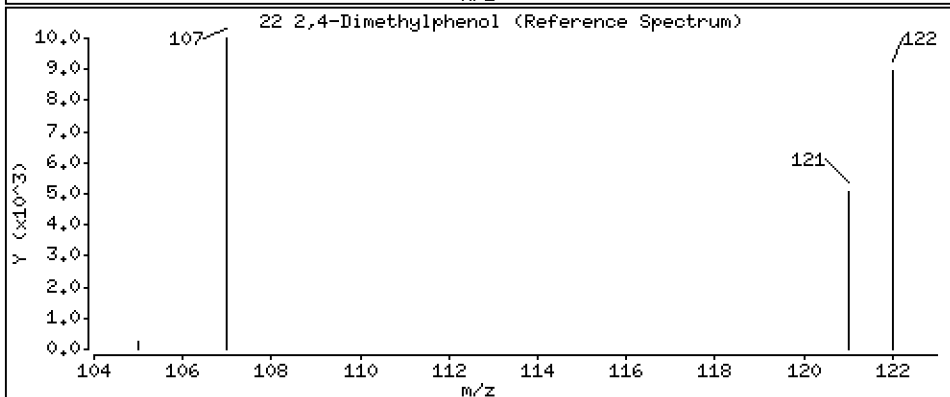
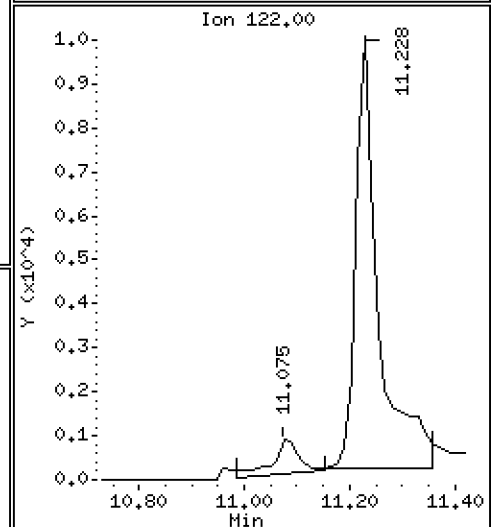
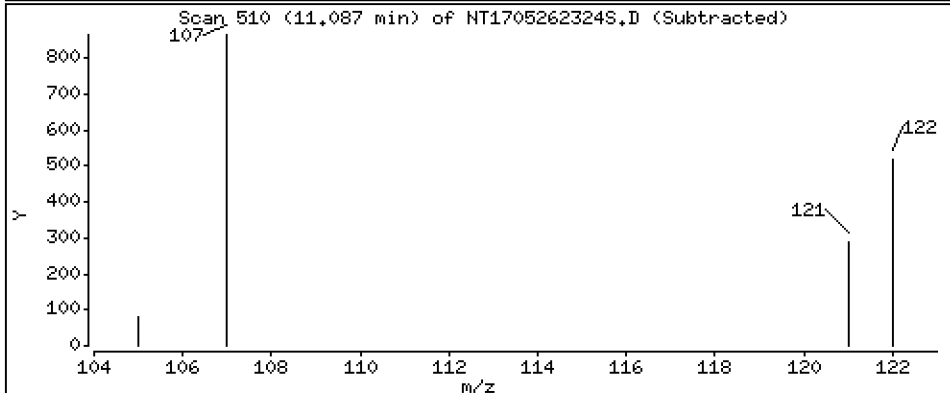
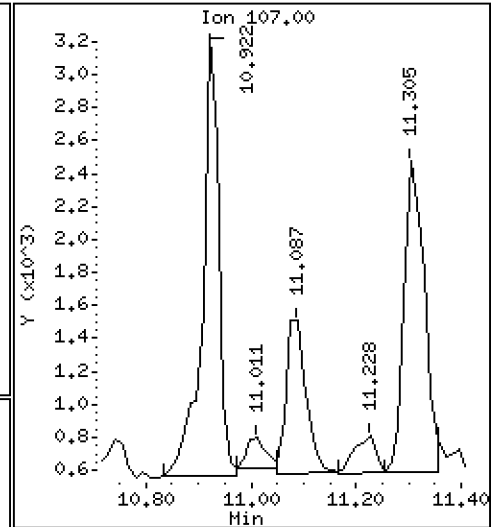
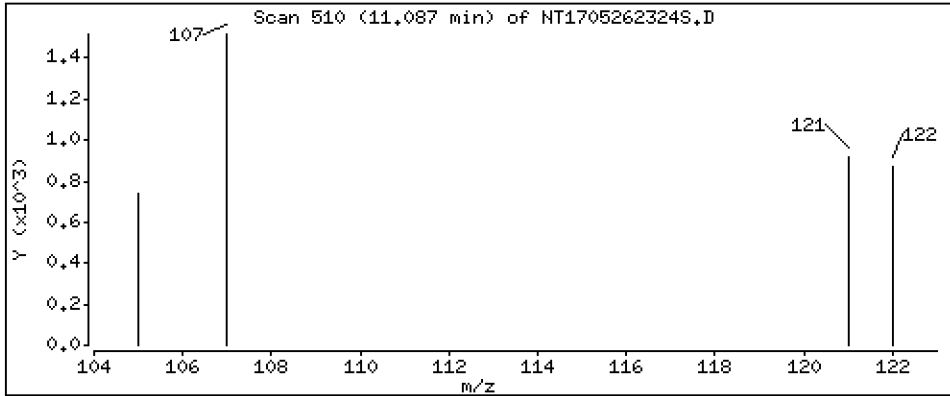
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,02363 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

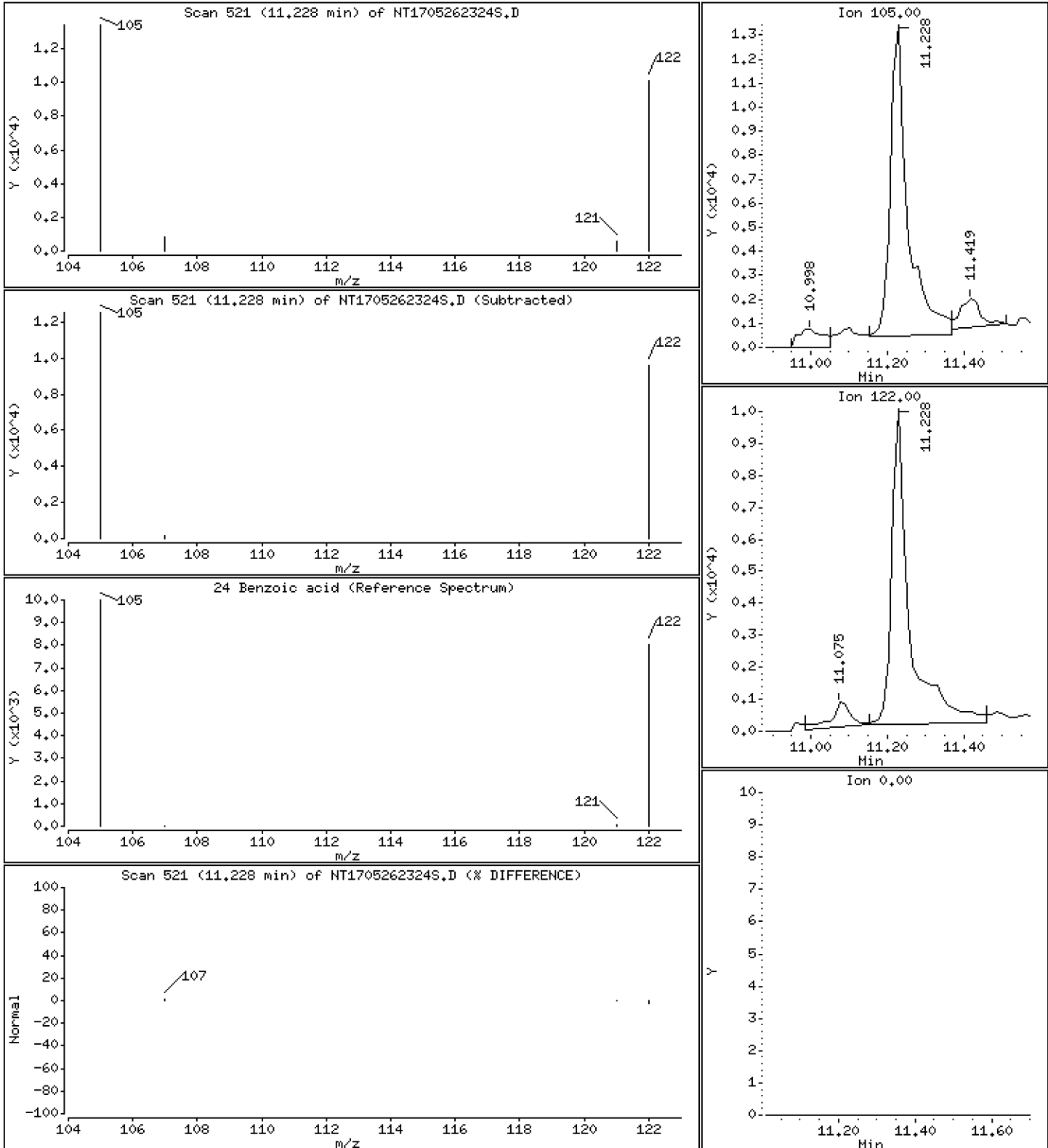
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,6439 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

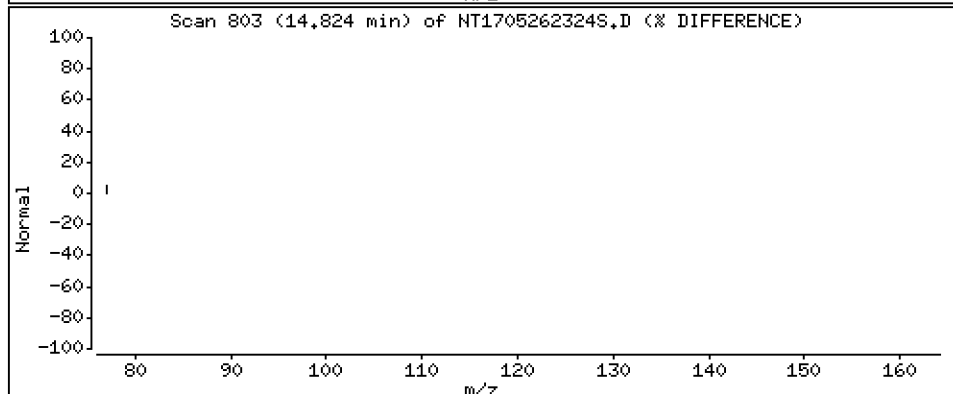
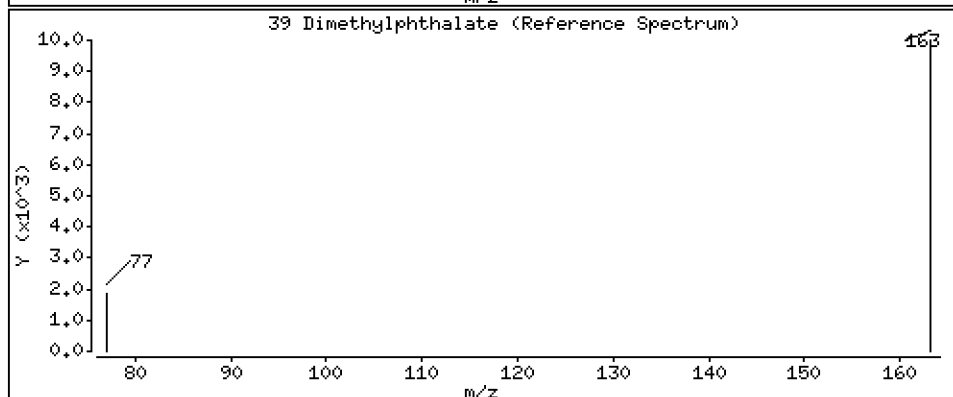
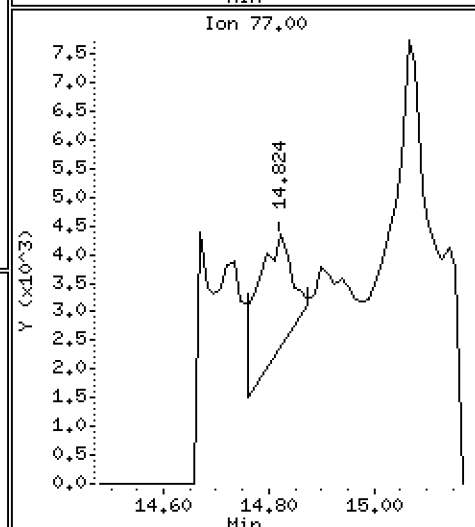
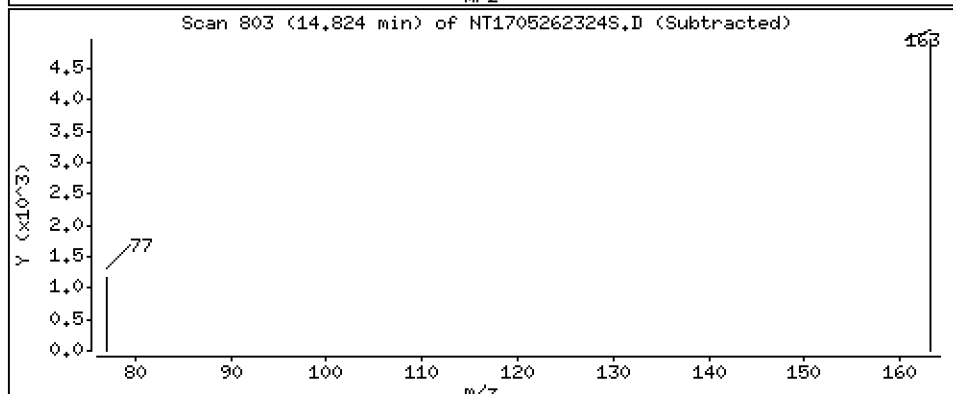
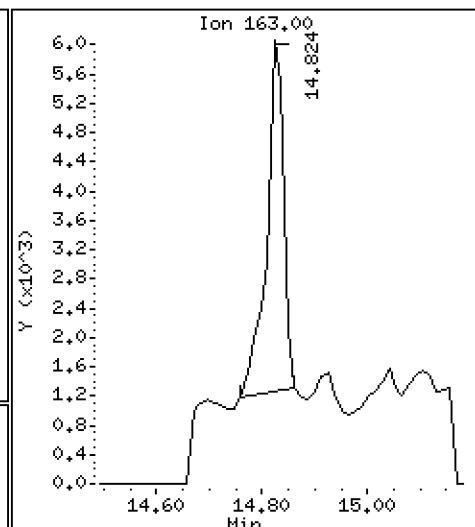
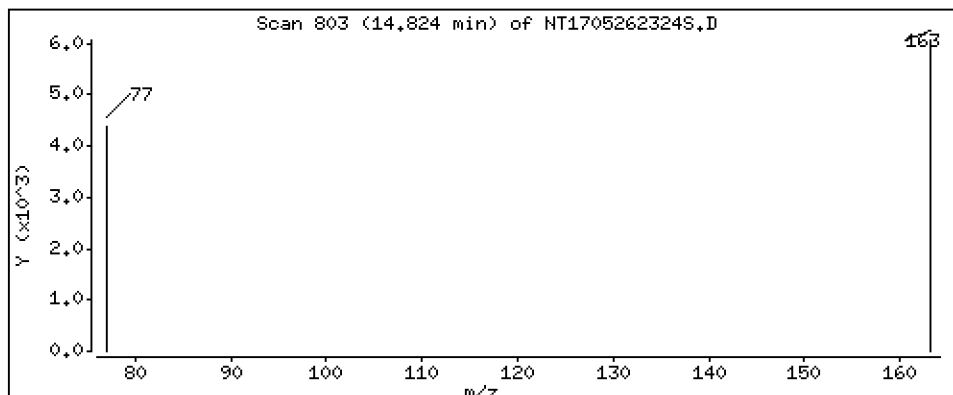
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,05163 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

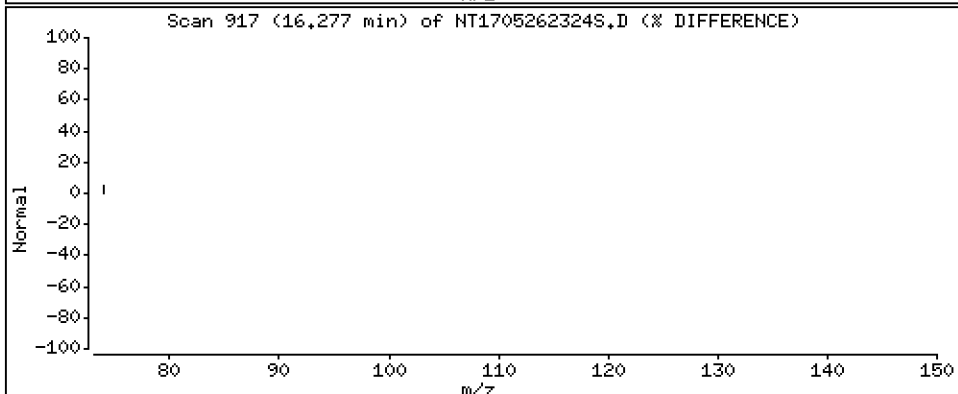
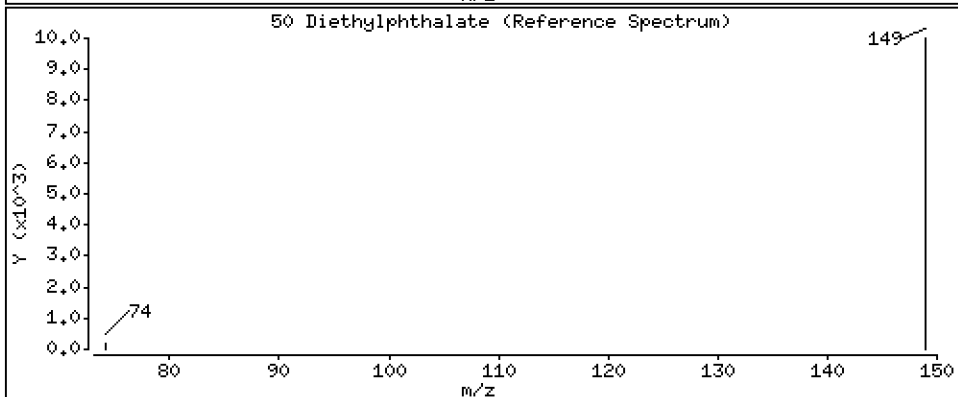
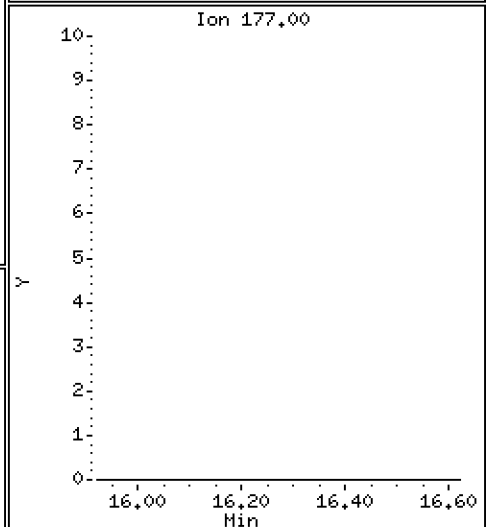
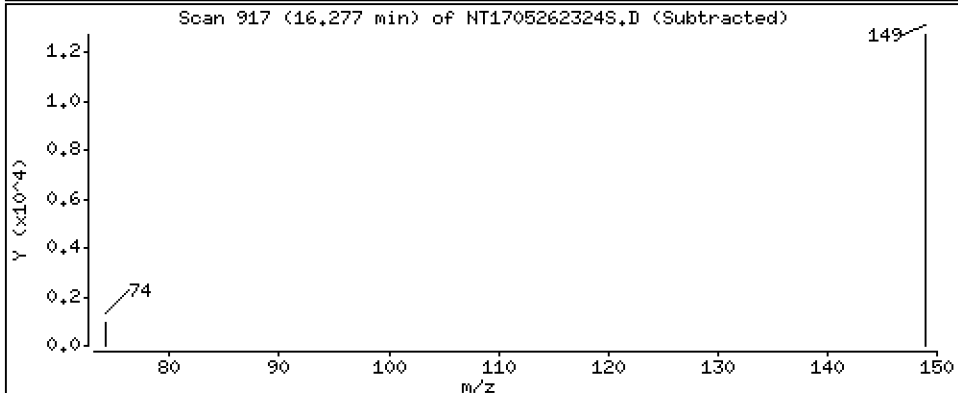
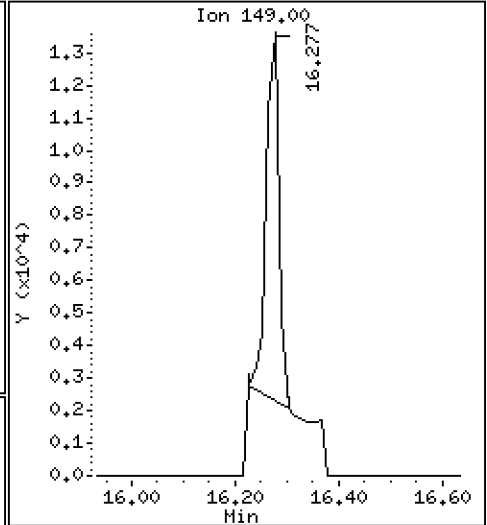
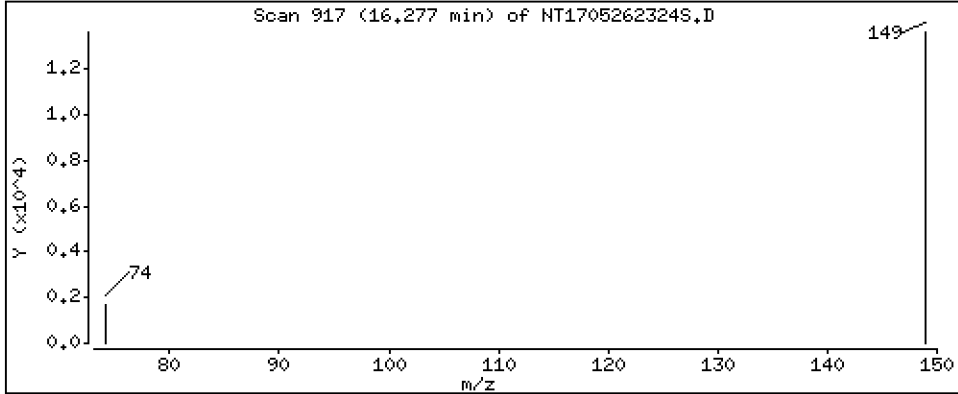
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1041 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

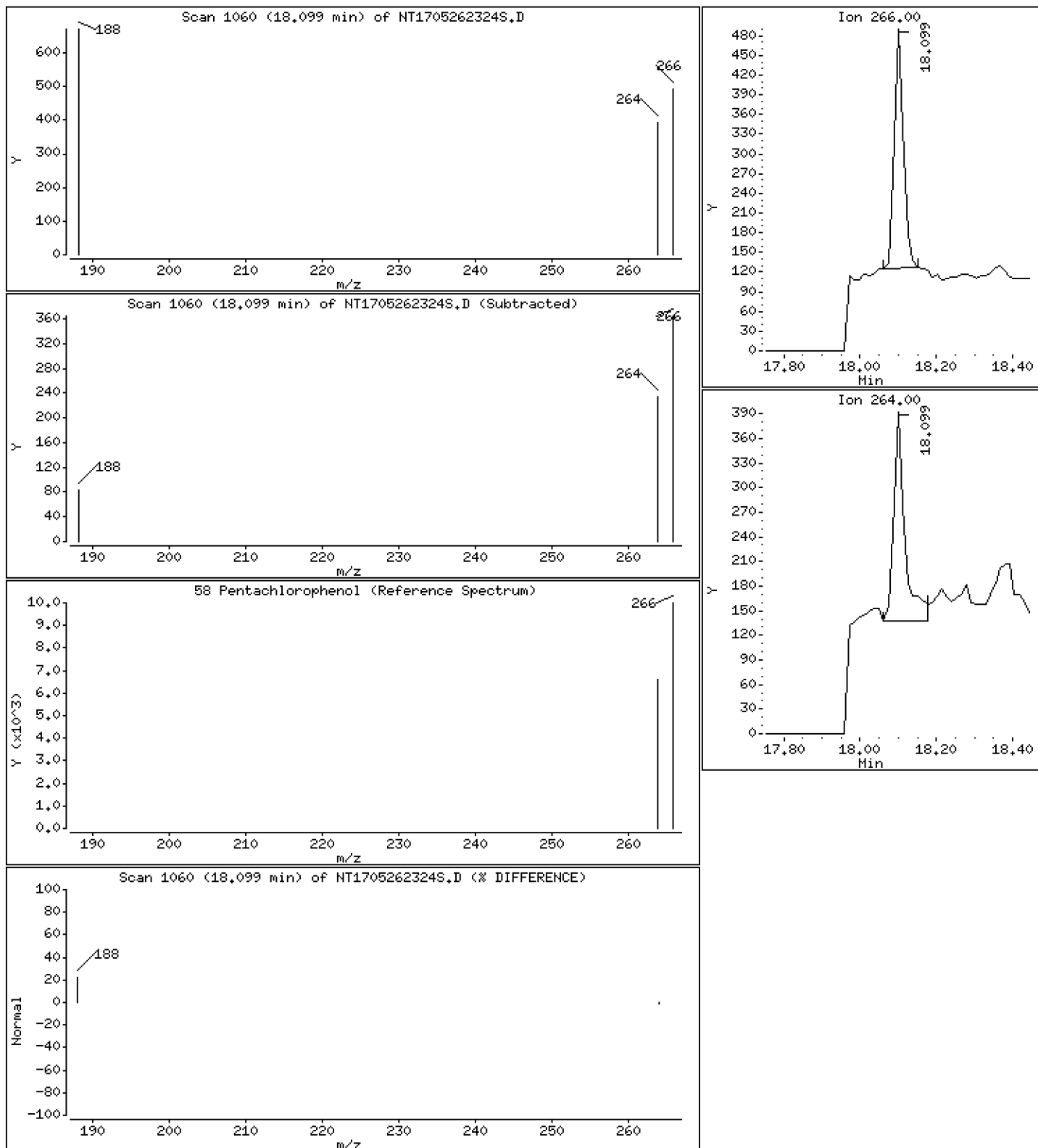
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,02825 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

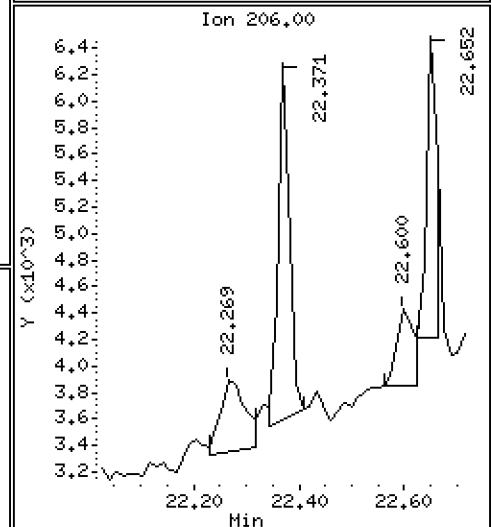
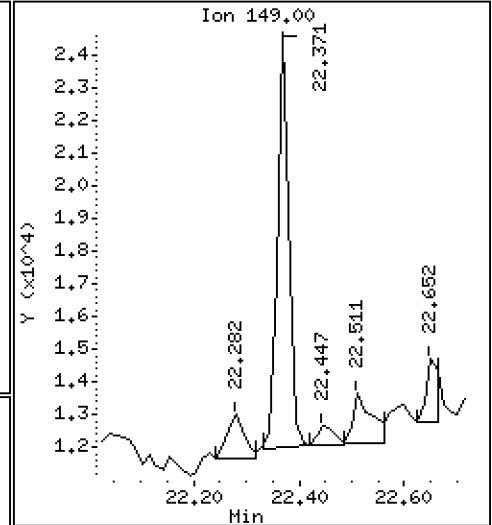
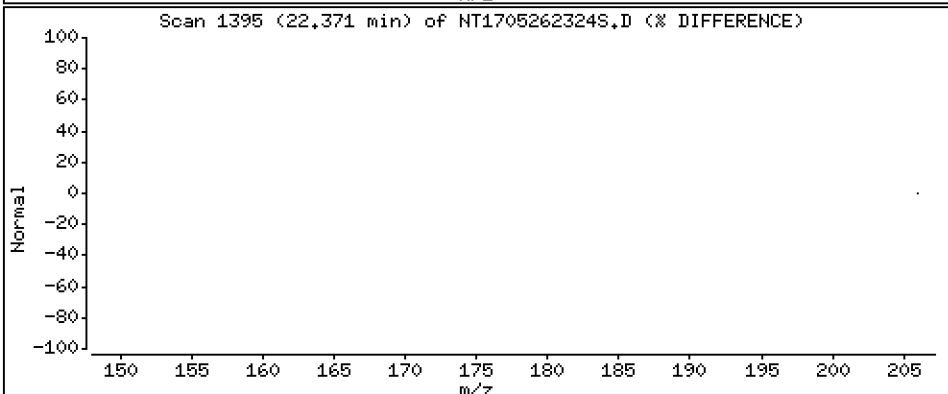
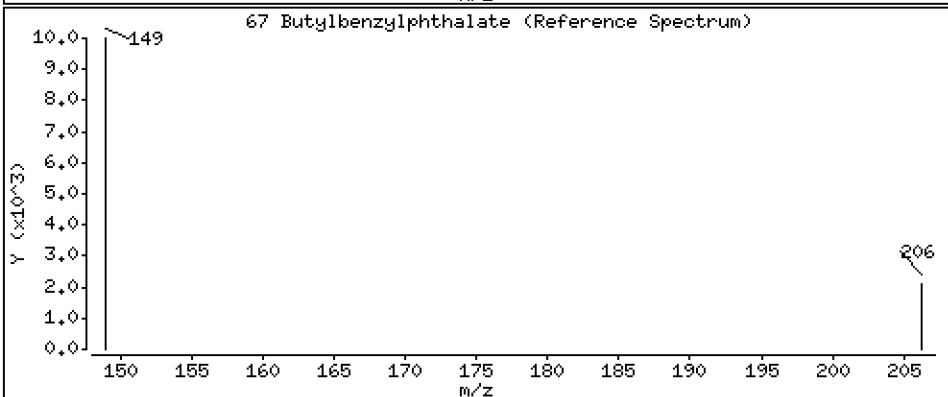
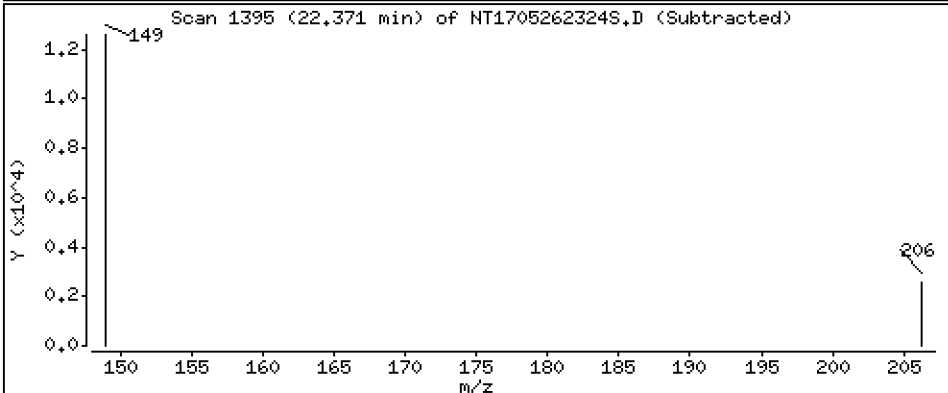
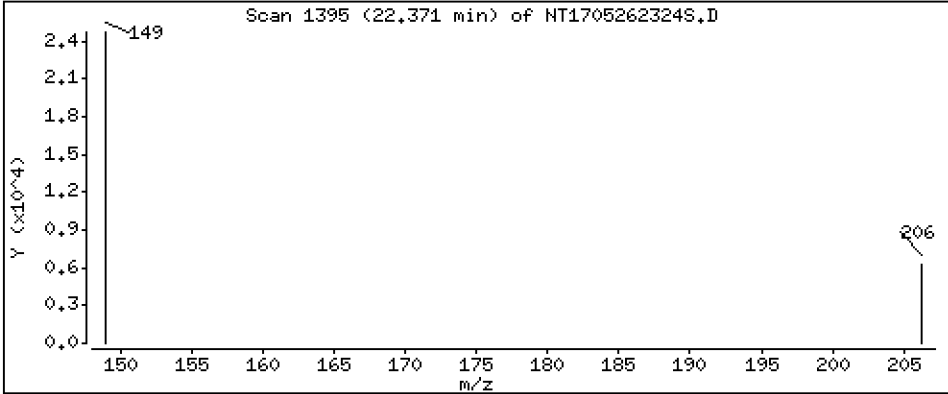
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.1310 ug/mL



Date : 27-MAY-2023 03:02

Client ID:

Instrument: nt17.i

Sample Info: 23D0396-03

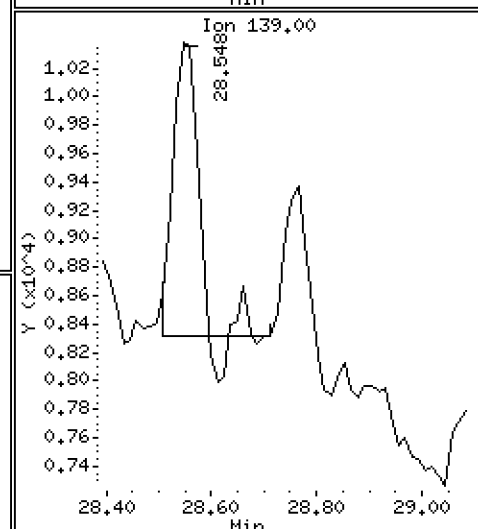
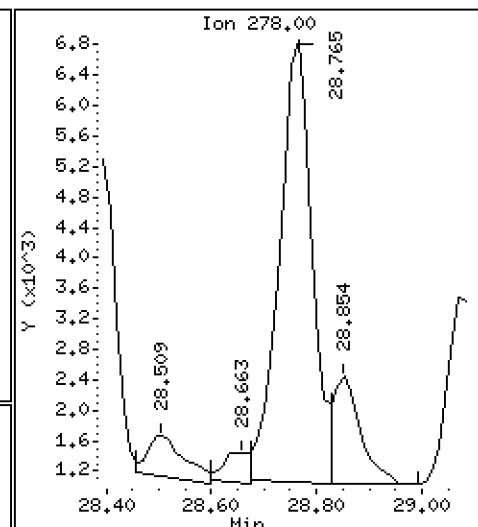
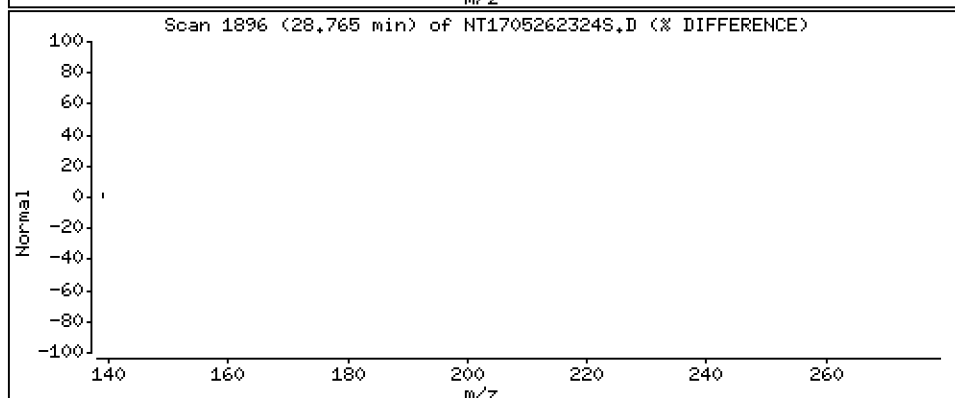
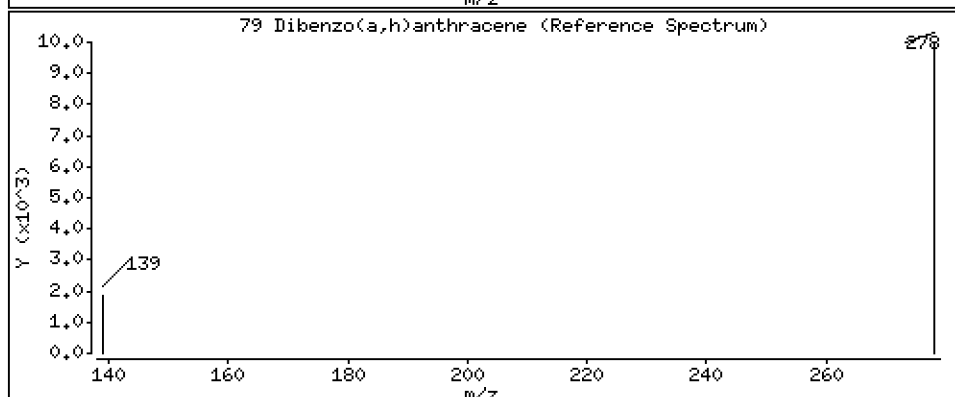
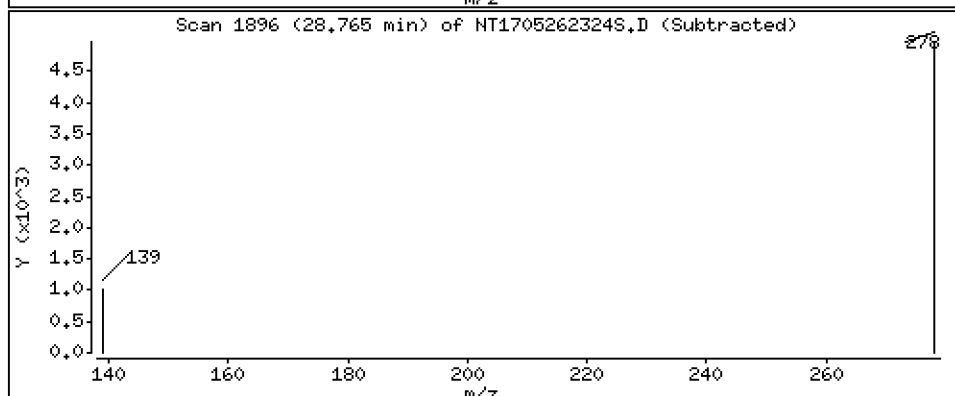
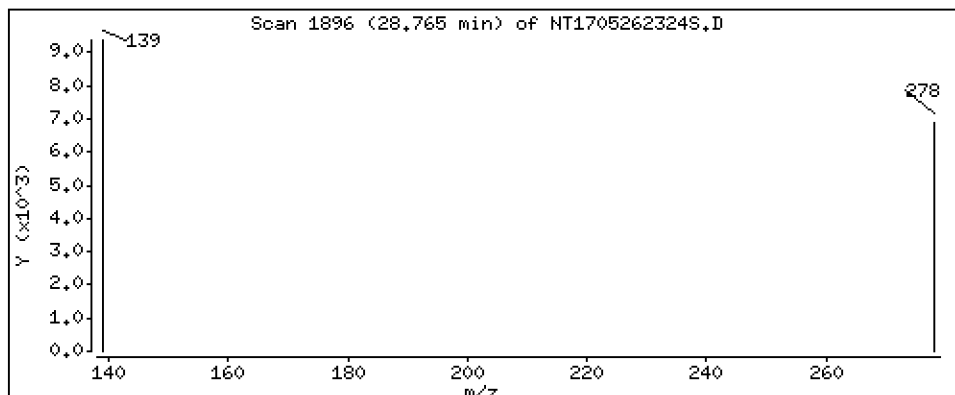
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1767 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262324S.D
 Lab Smp Id: 23D0396-03
 Inj Date : 27-MAY-2023 03:02
 Operator : VTS
 Smp Info : 23D0396-03
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 21
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.132	7.081	(0.769)	510281	5.40009	5.400 (R)
3 Phenol	94		8.687	8.674	(0.937)	24970	0.17734	0.1773
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	312420	4.00000	
9 1,4-Dichlorobenzene	146		9.298	9.299	(1.003)	2282	0.01856	0.01856
11 Benzyl alcohol	79		9.554	9.554	(1.030)	52101	0.64939	0.6494
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	603	0.00500	0.005003
13 2-Methylphenol	108		9.784	9.771	(1.055)	3710	0.03802	0.03802
15 4-Methylphenol	108		10.052	10.040	(1.084)	16563	0.16797	0.1680
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.087	11.062	(0.945)	2445	0.02363	0.02363
24 Benzoic acid	105		11.227	11.228	(0.957)	41495	0.64387	0.6439
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1075428	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		14.824	14.837	(0.967)	10616	0.05163	0.05163 (M)
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	559877	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	19442	0.10413	0.1041 (M)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		18.098	18.098	(0.986)	605	0.02825	0.02825 (M)
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	796135	4.00000	
\$ 66 Terphenyl-d14	244		21.465	21.452	(0.919)	472932	3.56050	3.561 (R)
67 Butylbenzylphthalate	149		22.370	22.370	(0.957)	18913	0.13103	0.1310
* 69 Chrysene-d12	240		23.365	23.353	(1.000)	700013	4.00000	
* 77 Perylene-d12	264		26.032	26.006	(1.000)	516440	4.00000	
79 Dibenzo(a,h)anthracene	278		28.764	28.739	(1.105)	25740	0.17670	0.1767
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262324S.D
 Lab Smp Id: 23D0396-03
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 27-MAY-2023
 Calibration Time: 00:33
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	375423	187712	750846	312420	-16.78
27 Naphthalene-d8	1173037	586519	2346074	1075428	-8.32
42 Acenaphthene-d10	638940	319470	1277880	559877	-12.37
59 Phenanthrene-d10	901788	450894	1803576	796135	-11.72
69 Chrysene-d12	767966	383983	1535932	700013	-8.85
77 Perylene-d12	642149	321075	1284298	516440	-19.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.37	0.05
77 Perylene-d12	26.01	25.51	26.51	26.03	0.10

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

REVIEW SUMMARY FOR FILE - NT1705262324S.D

Lab ID: 23D0396-03

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 03:02

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.769	0.764	0.0055	2-Fluorophenol

RRT check based on Ccal File: SIM.b/NT1705262320S.D

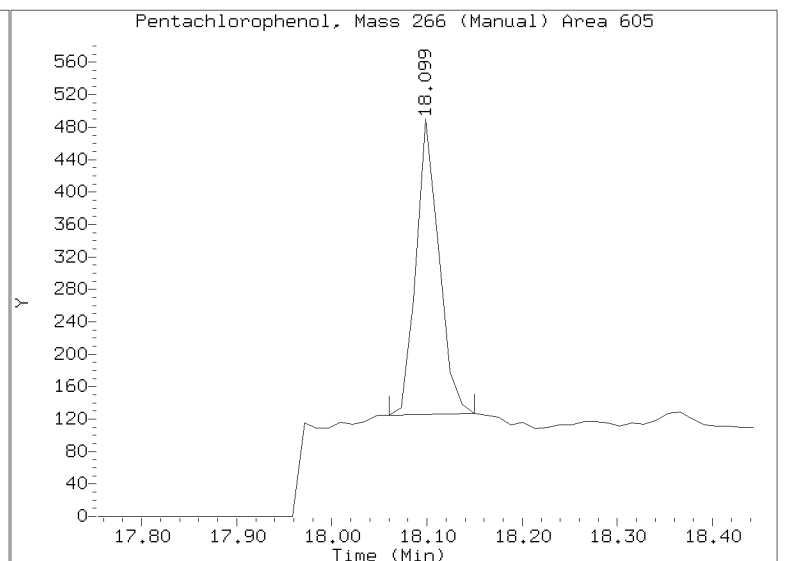
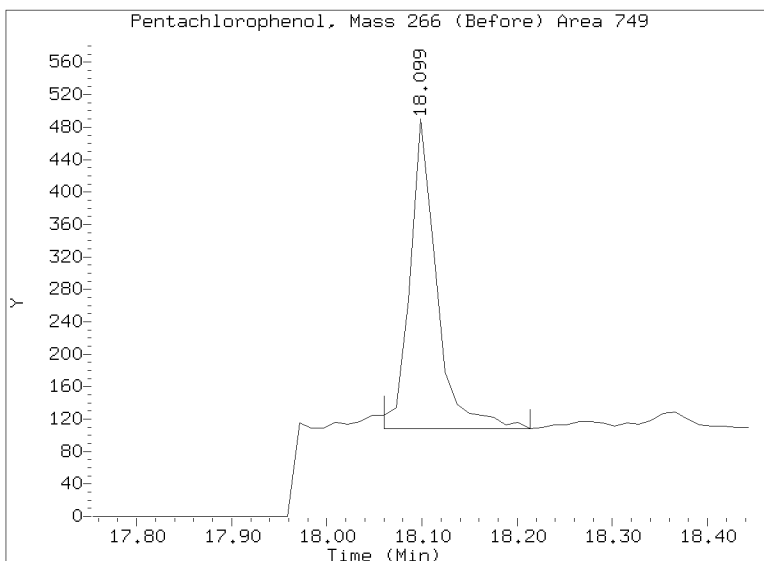
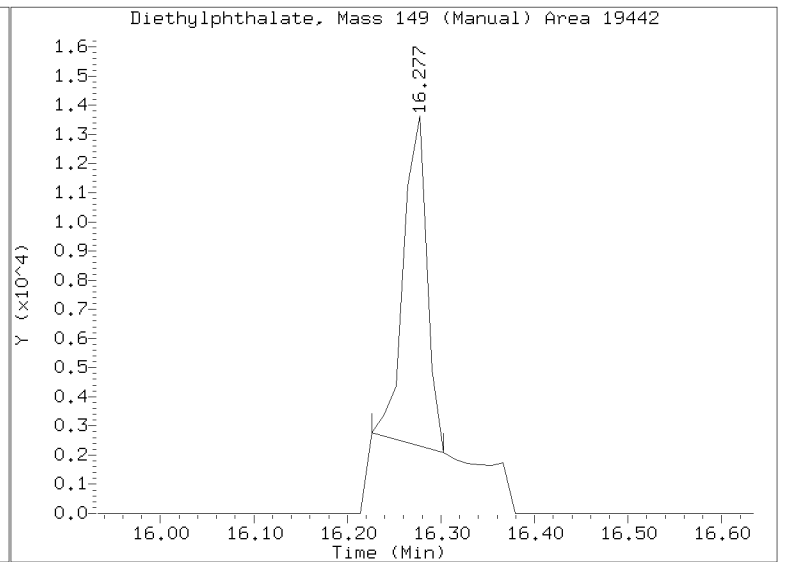
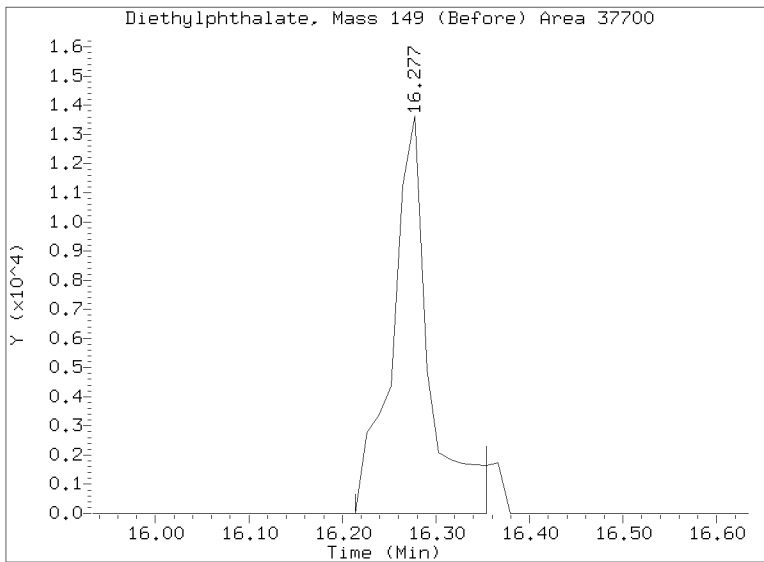
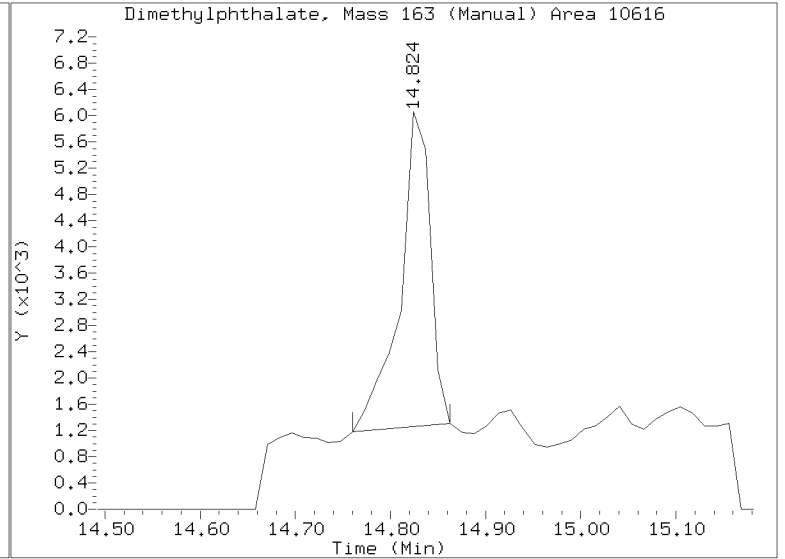
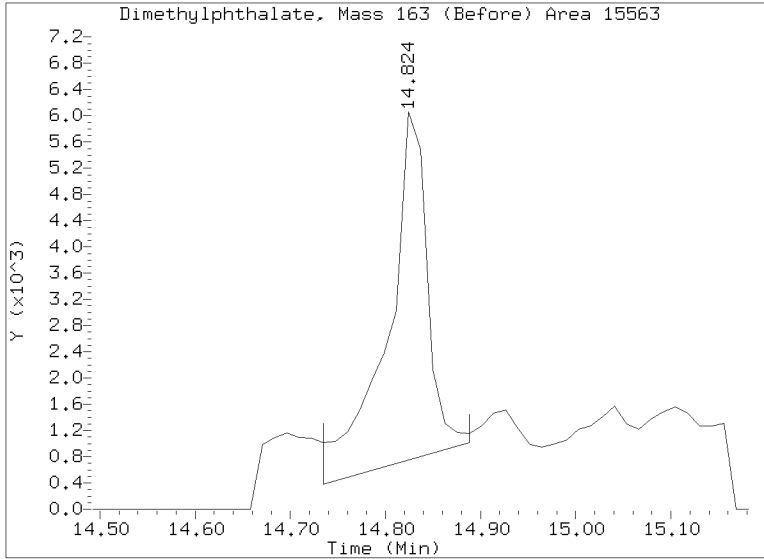
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/SIM.b/NT1705262324S.D
Injection Date: 27-MAY-2023 03:02
Lab ID:23D0396-03 Client ID:
Report Date: 06/07/2023 07:57





PREPARATION BATCH SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23D0396
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLD0607 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01	NT1705262323S.D	04/24/23 16:38	
LDW23-SS1802	23D0396-03	NT1705262324S.D	04/24/23 16:38	
Blank	BLD0607-BLK2	NT1705262306S.D	04/24/23 16:38	
Blank	BLD0607-BLK4	NT1705262327S.D	04/24/23 16:38	sim rerun
LCS	BLD0607-BS2	NT1705262307S.D	04/24/23 16:38	
LCS Dup	BLD0607-BSD2	NT1705262308S.D	04/24/23 16:38	
Reference	BLD0607-SRM2	NT1705262311S.D	04/24/23 16:38	



Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

Matrix: Solid

Date Prepared: 4/24/23

Balance ID: B146462614

Set Up By: CTO 4/24/23

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

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

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

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash ImL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23D0394-01 A	46.4	(21.57)	<u>21.57</u>	1 2 3 (1:1)	1mL	1	0.5	
23D0394-02 A	76.2	(13.13)	<u>13.23</u>	(1:1)	1mL	1	0.5	
23D0394-04 A	76.8	(13.03)	<u>13.06</u>	(1:1)	1mL	1	0.5	
23D0394-06 A	90.3	(11.07)	<u>11.08</u>	(1:1)	1mL	1	0.5	
23D0394-08 A	78.3	(12.77)	<u>12.78</u>	(1:1)	1mL	1	0.5	
23D0394-11 A	77.4	(12.92)	<u>12.97</u>	(1:1)	1mL	1	0.5	
23D0394-12 A	80.4	(12.44)	<u>12.46</u>	(1:1)	1mL	1	0.5	
23D0396-01 A	43.0	(23.25)	<u>23.25</u>	(1:1)	1mL	1	0.5	
23D0396-03 A	43.9	(22.79)	<u>22.79</u>	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1)	Water Wash ImL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLD0607-BLK1	100.0	(10.00)	<u>10.00</u>	1 2 3 (1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-BS1	100.0	(10.00)	<u>10.00</u>	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-BSD1	100.0	(10.00)	<u>10.00</u>	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLD0607-MS1	76.8	(13.03)	<u>13.03</u>	(1:1)	1mL	1	0.5	Use 23D0394-04
BLD0607-MSD1	76.8	(13.03)	<u>13.03</u>	(1:1)	1mL	1	0.5	Use 23D0394-04
BLD0607-SRM1	100.0	(10.00)	<u>1.00</u>	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER

Client ID: 4/24/23

Date

Preparation Reviewed By: NKBS

Date: 5/25/23

Extraction Date and Time: 4/24/23 16:38



Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

WO Comments
 23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
 23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used
Microwave 02 3 Analyst/Date: 4/25/23	Station/Reagent Microwave Analyst: JG Date: 4/25/23 Anhydrous Sodium Sulfate LCP3875 1:1 Methylene Chloride/Acetone LCP4178 Methylene Chloride KCP5941 Pre-Deactivated Glass Wool LCP1924 Pre GPC KD Analyst: WJ Date: 5/3/23 Pre-Deactivated Glass Wool	Type Surrogate A L001153 50µL Exp Date: 8/1/23 100/150µg/mL Full List Spike (Freezer) 7 L001812 (V) 50µL Exp LCP41781 Date: 8/4/23 100µg/mL Base Spike 56 L001812 (V) 50µL Exp LCP1778 Date: 8/24/23 200µg/mL Acid Spike 38 L001812 (V) 50µL Exp LCP1779 Date: 2/24/23 100/200µg/mL
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) 02 45 6 Analyst/Date: 5/3/23	Anhydrous Sodium Sulfate SJT #5/11/23 Methylene Chloride L004175 Hexane L00350 GPC Filter Prep Analyst: NMS Date: 5/10/23	MANUALLY ENTER EXPIRATION DATES! (V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards. If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).
TurboVap Pre GPC 1 2 3 4 5 Analyst/Date: 5/11/23	Methylene Chloride KCP5941 GPC Calibration File CLB132-GR2 Post GPC KD Analyst: CR Date: 5/24/23	
Post GPC KD 80-85°C 0 2 4 5 6 Analyst/Date: 5/24/23	Methylene Chloride L004175 GPC Filter L001799 GPC Analyst: SJ Date: 5/11/23	
TurboVap 1 2 3 4 5 Analyst/Date: 5/25/23	Methylene Chloride KCP5941 Vialing Analyst: NMS Date: 5/25/23	
Water Wash Analyst/Date: 5/25/23	Methylene Chloride KCP5941 Methylene Chloride L005941	



Batch: BLD0607

Prepared using: EPA 3546 (Microwave)

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

WO Comments
 23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
 23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

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



Extraction Parameter: SWA Extraction Batch BL00607

Total Solids Batch: BLD0431 Work Order(s): 23D0394

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= 01-13	CR 4/18/23
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= 01-05, 07-13	CR 4/18/23
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = 01-13	CR 4/18/23
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	CR 4/18/23
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	CR 4/18/23
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: SWA Extraction Batch: BLP0607

Total Solids Batch: BLP0432 Work Order(s): 23D0396

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-04</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = <u>01-04</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/N <u>(N)</u>	<u>CR 4/18/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/N <u>(N)</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0214

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01	NT1705262323S.D	05/25/2023	
Reference	BLD0607-SRM2	NT1705262311S.D	05/25/2023	
LDW23-SS1802	23D0396-03	NT1705262324S.D	05/25/2023	
Blank	BLD0607-BLK2	NT1705262306S.D	05/25/2023	
LCS Dup	BLD0607-BSD2	NT1705262308S.D	05/25/2023	
LCS	BLD0607-BS2	NT1705262307S.D	05/25/2023	



CLEANUP BENCH SHEET

CLE0214

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLC0092-GPC1 Printed: 5/25/2023 3:38:04PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0394-01	A	LDW23-SS1098	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-01	A	LDW23-SS1098	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 02	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	5/25/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 03	1	1	8270E-SIM Dual Scan SVOC	5/25/2023	NRB	
BLD0607-BLK1	-	Blank	-	1	1	-	5/25/2023	NRB	
BLD0607-BLK2	-	Blank	-	1	1	-	5/25/2023	NRB	
BLD0607-BS1	-	LCS	-	1	1	-	5/25/2023	NRB	
BLD0607-BS2	-	LCS	-	1	1	-	5/25/2023	NRB	



CLEANUP BENCH SHEET

CLE0214

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLC0092-GPC1 Printed: 5/25/2023 3:38:04PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLD0607-BSD1	-	LCS Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-BSD2	-	LCS Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-MS1	-	Matrix Spike	-	1	1	-	5/25/2023	NRB	
BLD0607-MS2	-	Matrix Spike	-	1	1	-	5/25/2023	NRB	
BLD0607-MSD1	-	Matrix Spike Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-MSD2	-	Matrix Spike Dup	-	1	1	-	5/25/2023	NRB	
BLD0607-SRM1	-	Reference	-	1	1	-	5/25/2023	NRB	
BLD0607-SRM2	-	Reference	-	1	1	-	5/25/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0607-BLK2</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/24/23 16:38</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0607</u>	Sequence:	<u>SLE0442</u>
Instrument:	<u>NT17</u>	Column:	<u>ZB-5MS</u>
		File ID:	<u>NT1705262306S.D</u>
		Analyzed:	<u>05/26/23 15:47</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>GE00070</u>
		Cleanups:	<u>GPC</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	0.9	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	0.9	J	0.7	5.0
100-51-6	Benzyl Alcohol	1	27.0		2.5	20.0
65-85-0	Benzoic acid	1	100	U	13.4	100
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	507	67.6	27 - 120	
p-Terphenyl-d14	500.00	509	102	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.16\SIM.B\NT1705262306S.D

Date: 26-May-2023 15:47

Client ID:

Sample Info: BLD0607-BLK2

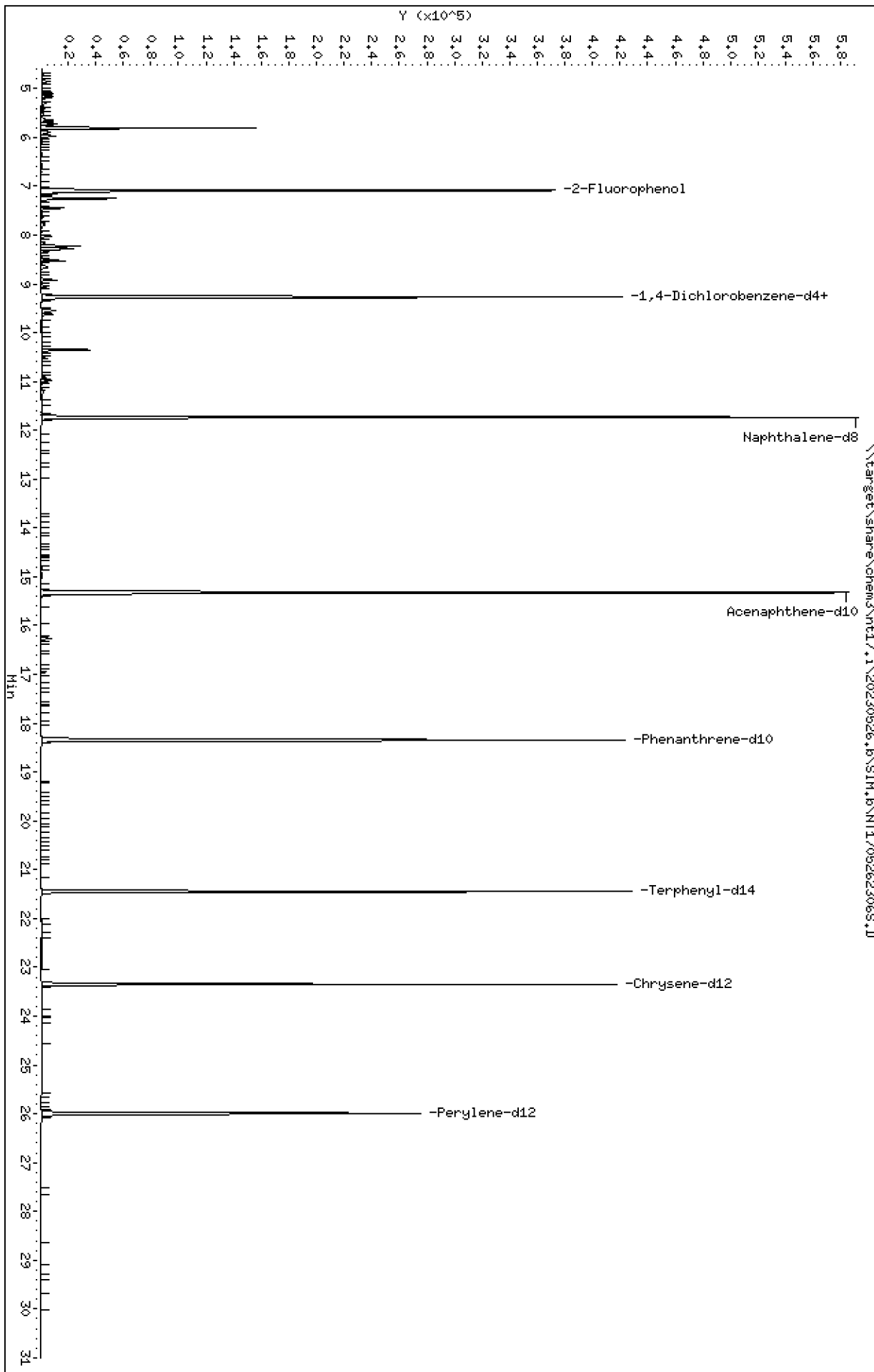
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

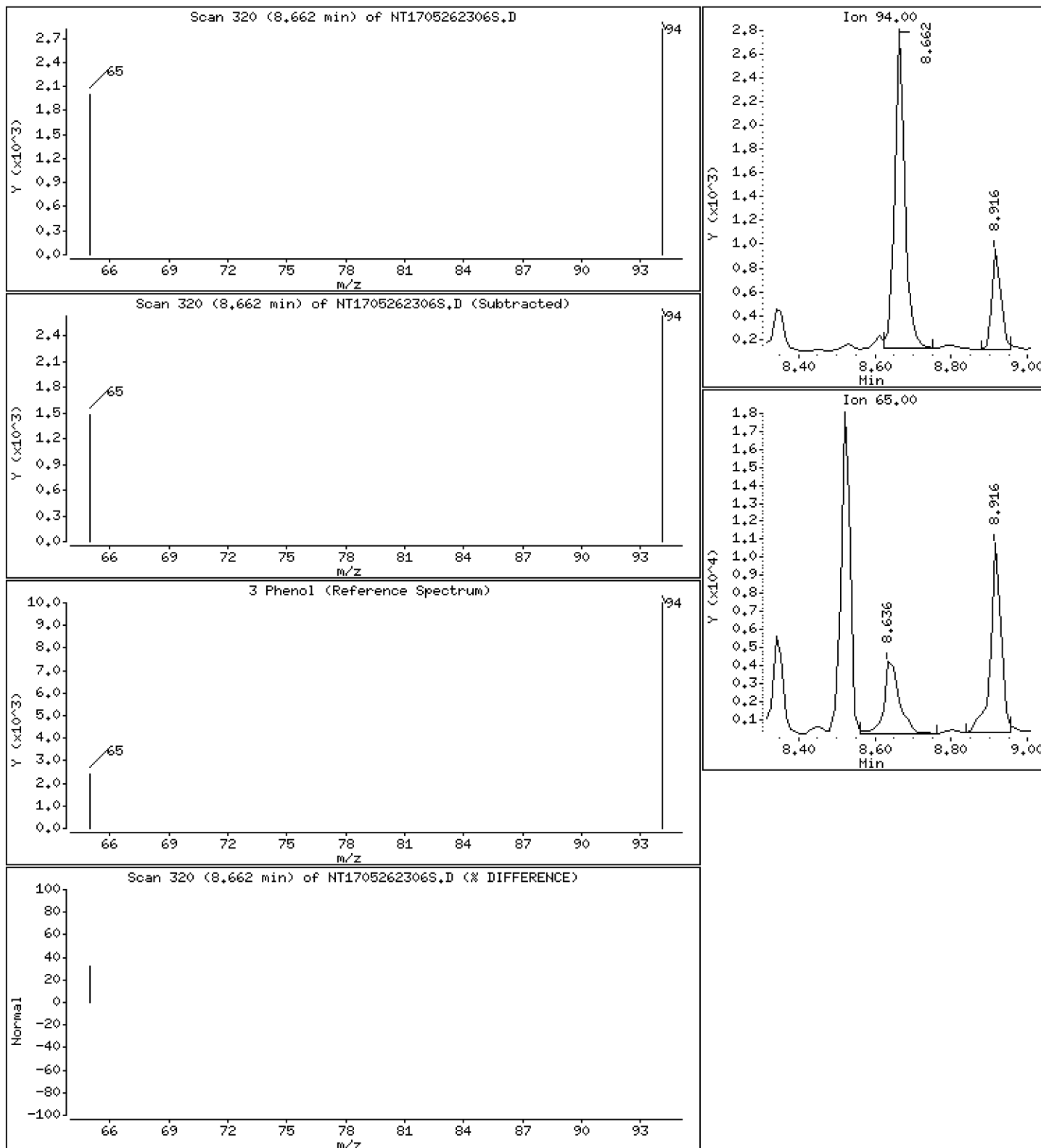
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,03985 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

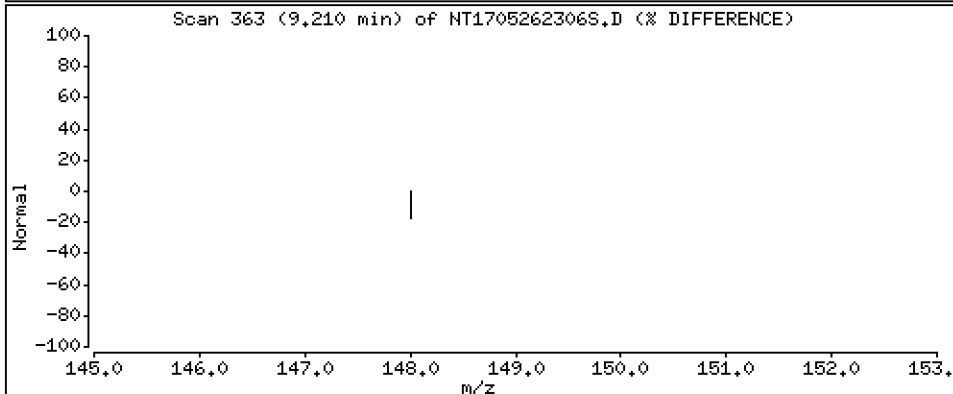
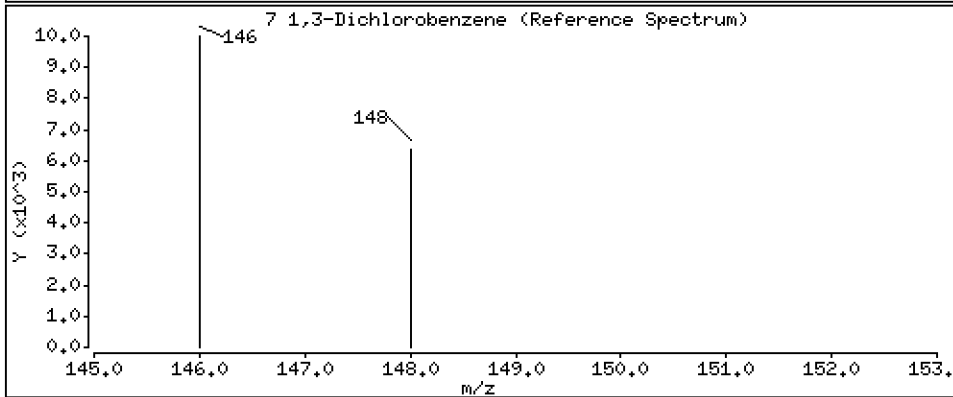
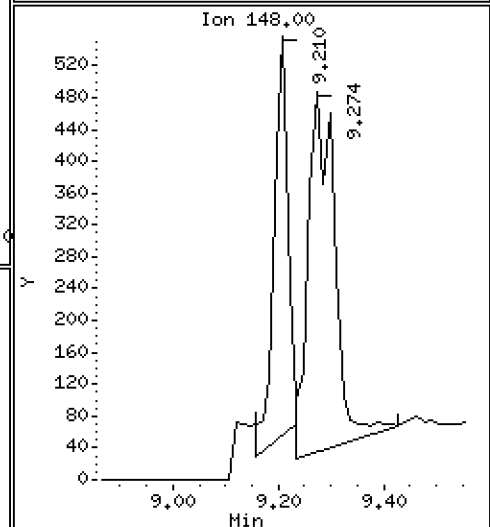
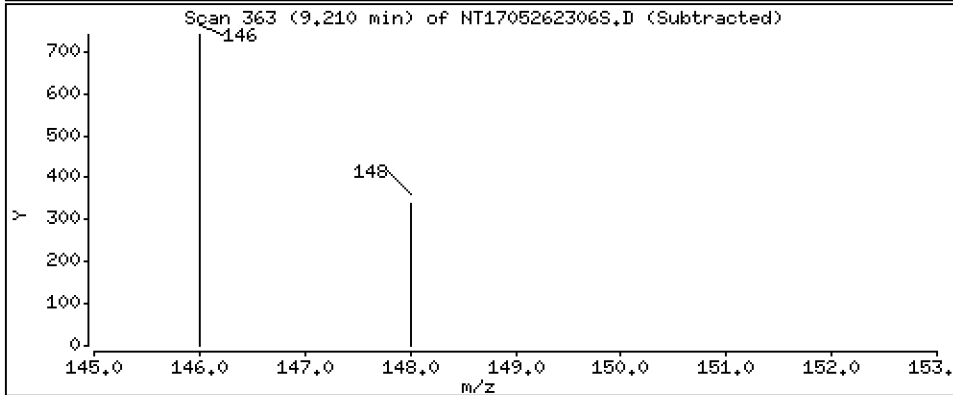
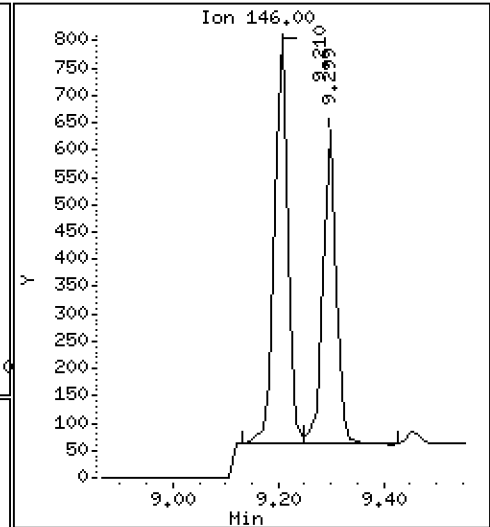
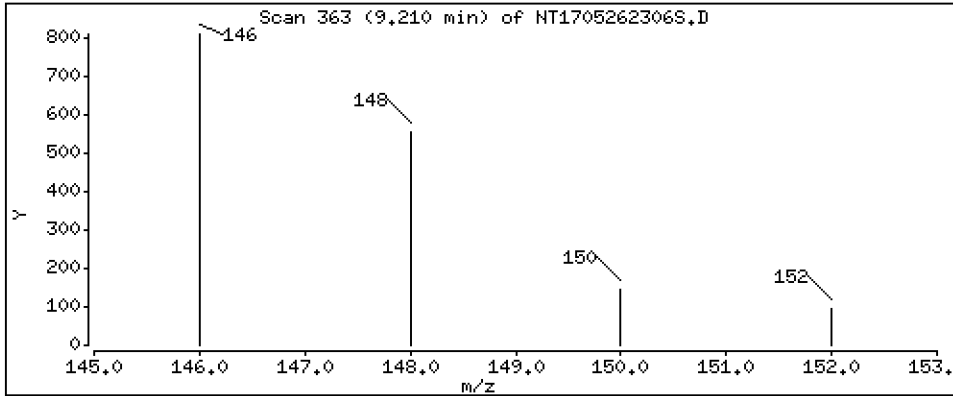
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,01158 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

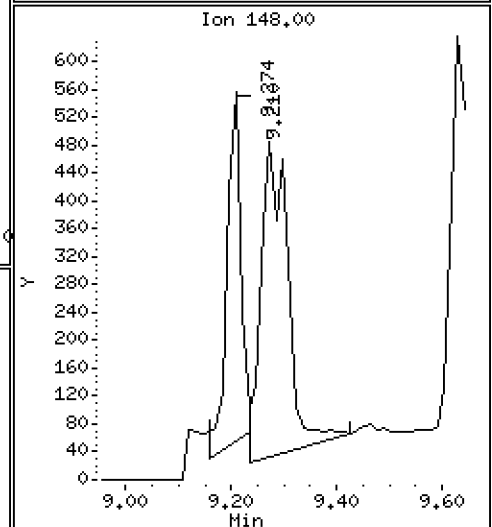
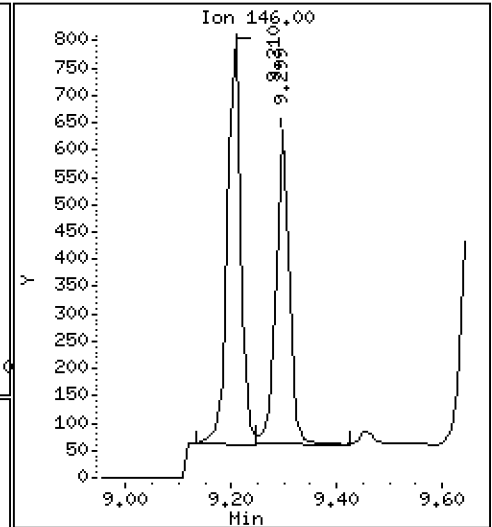
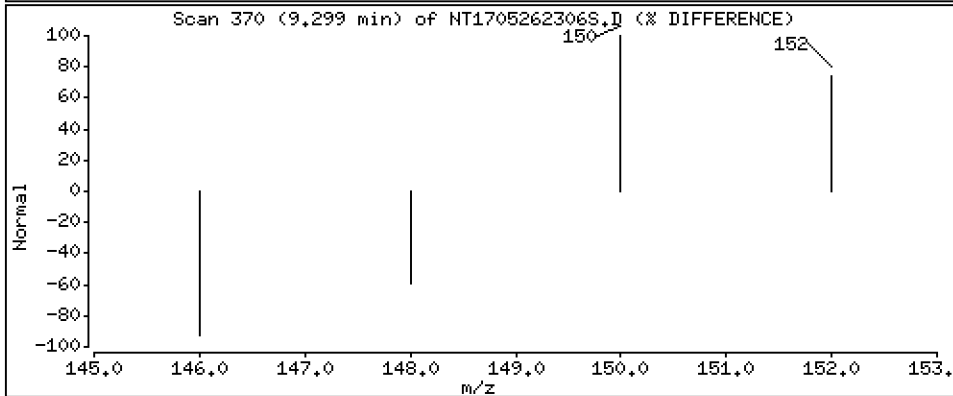
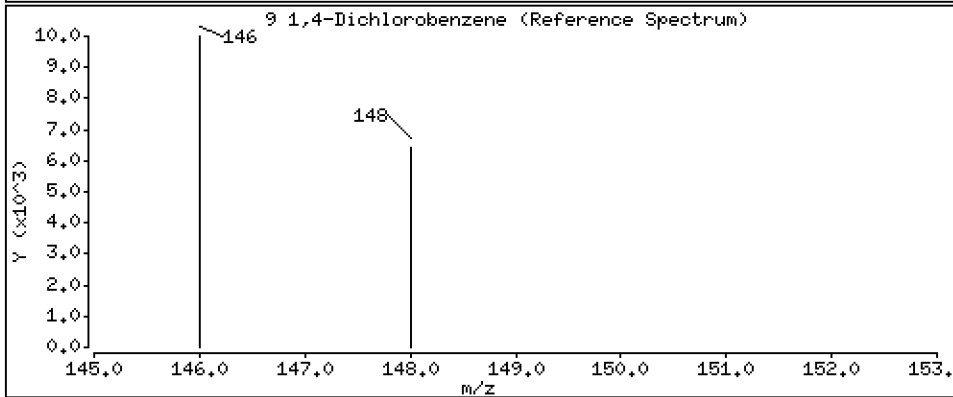
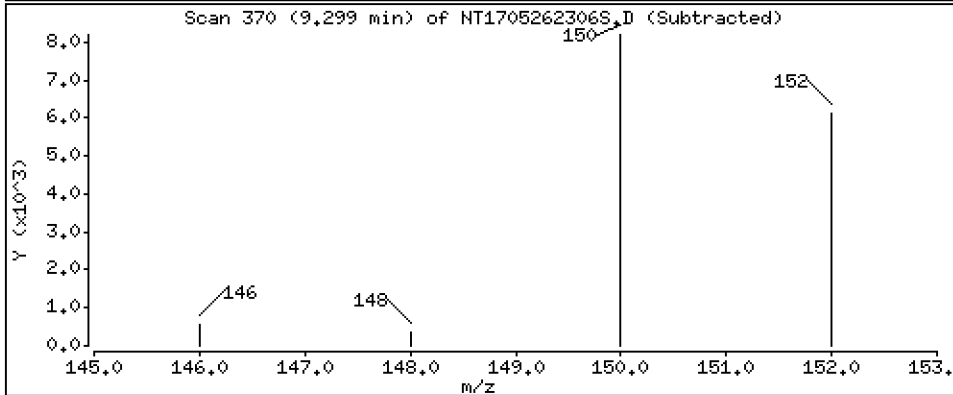
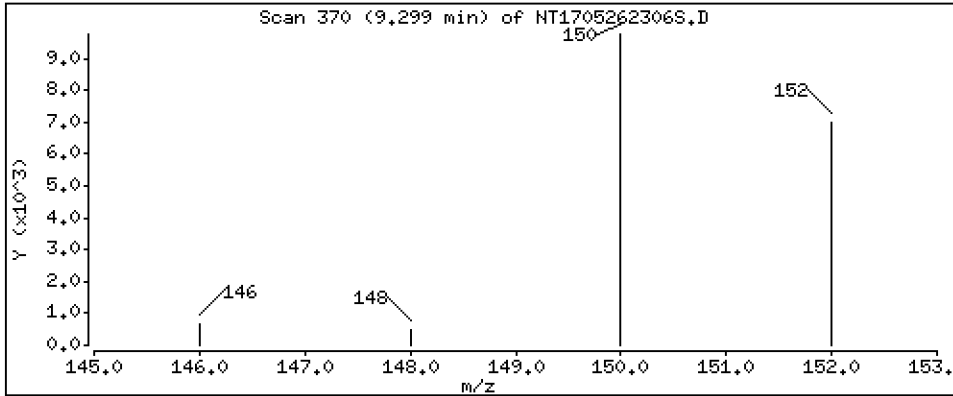
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,009274 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

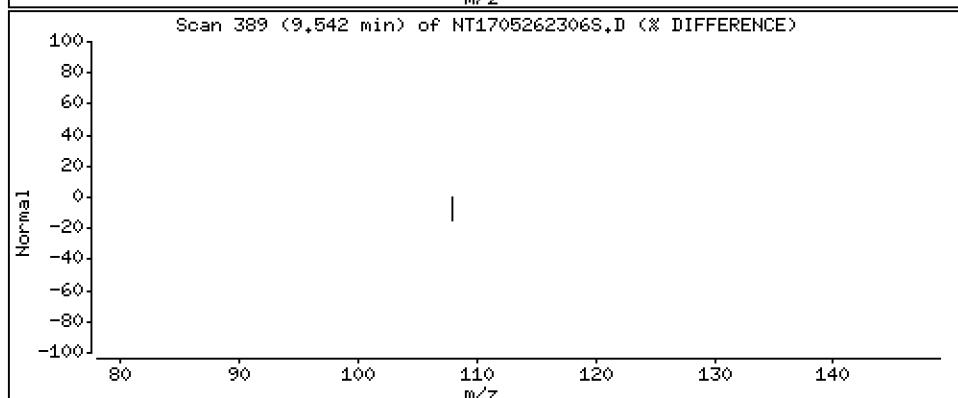
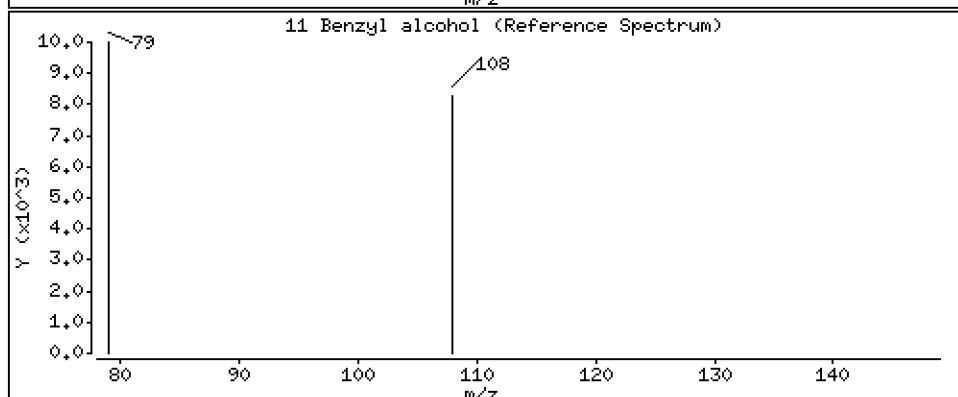
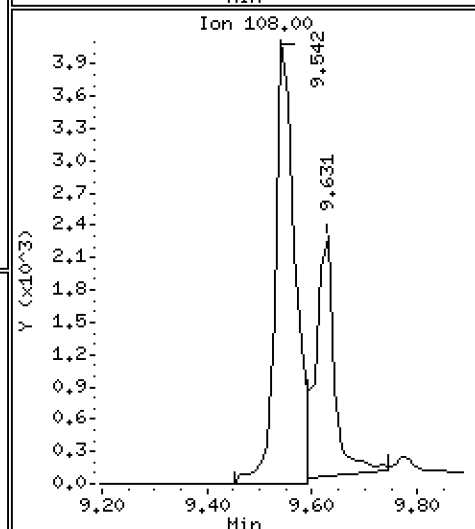
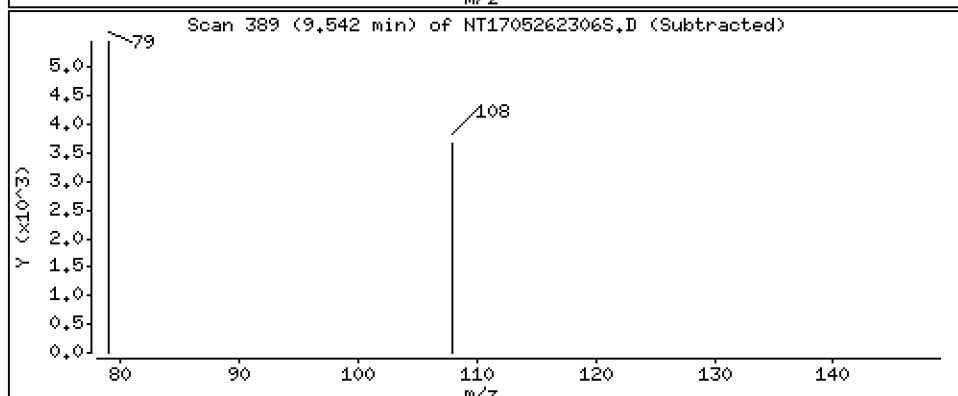
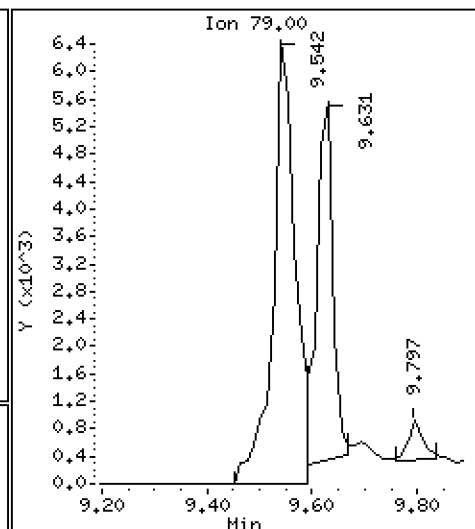
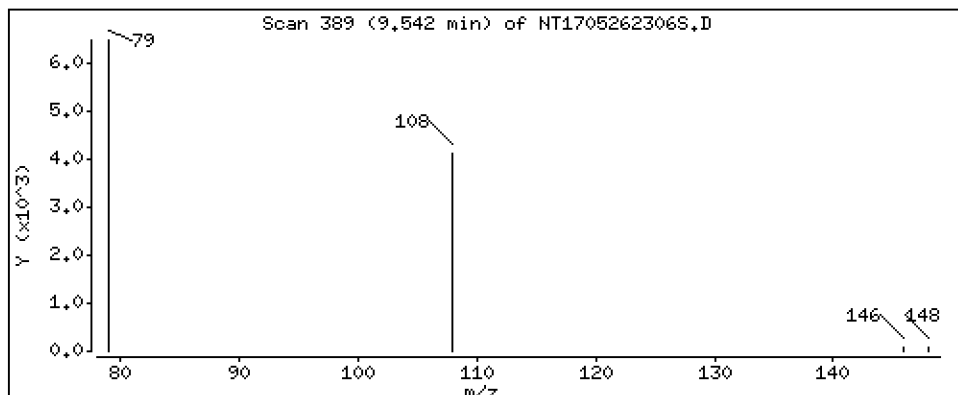
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,2701 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

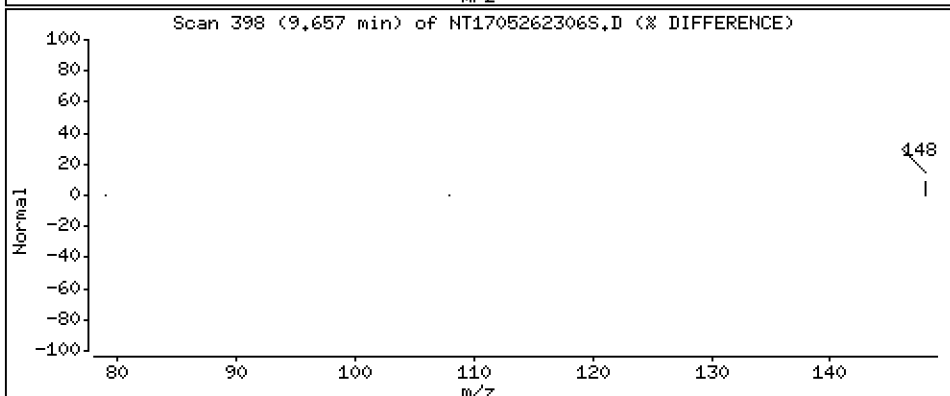
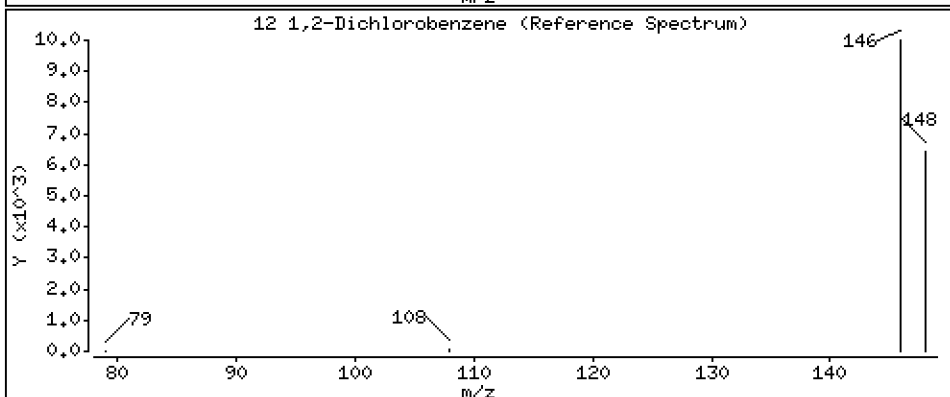
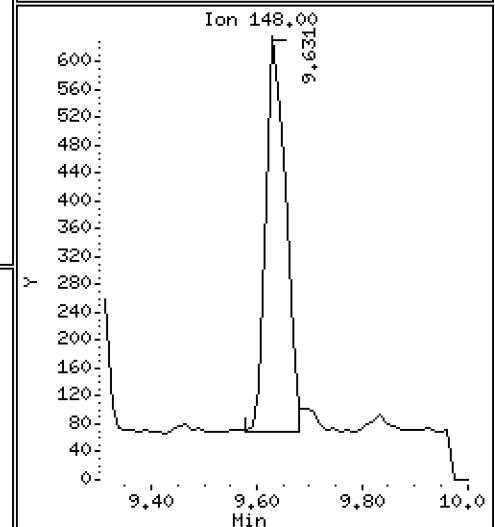
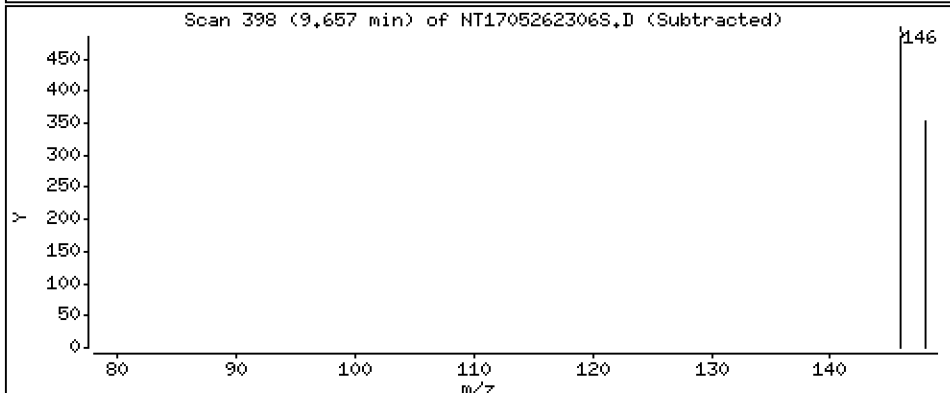
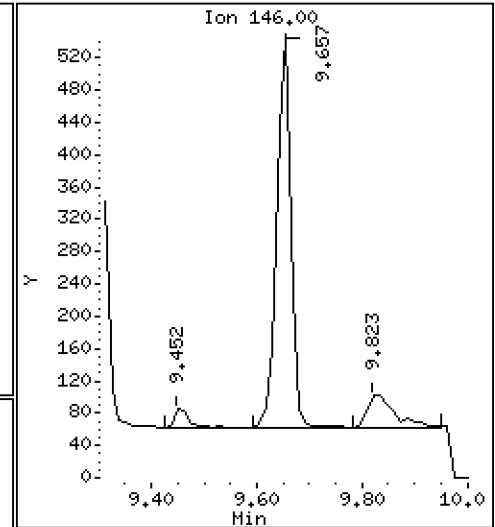
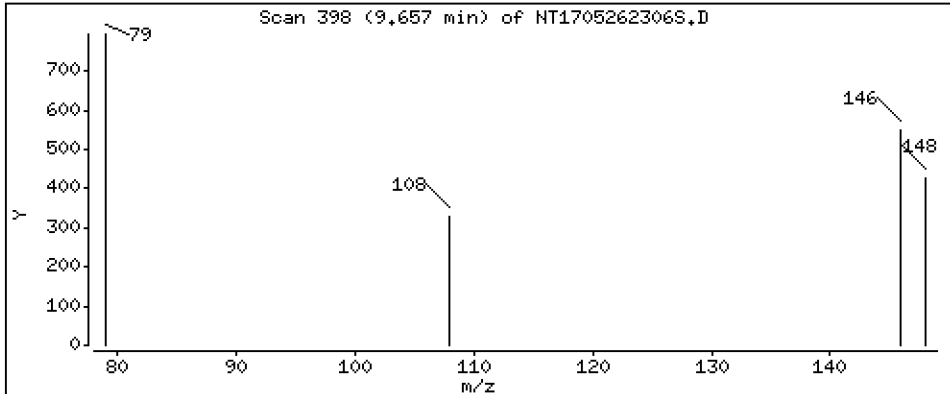
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,008508 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

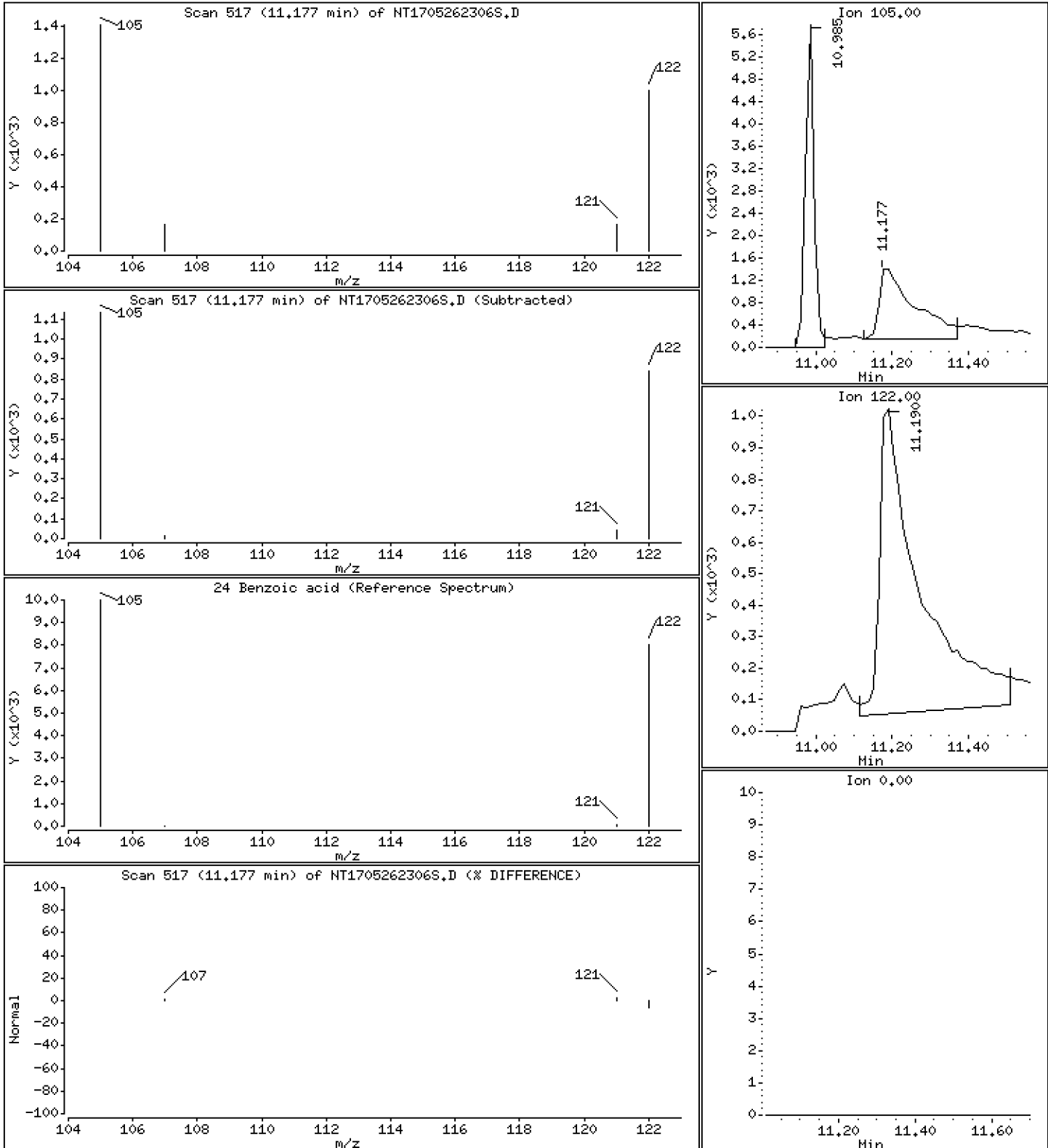
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.1322 ug/mL



Date : 26-MAY-2023 15:47

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK2

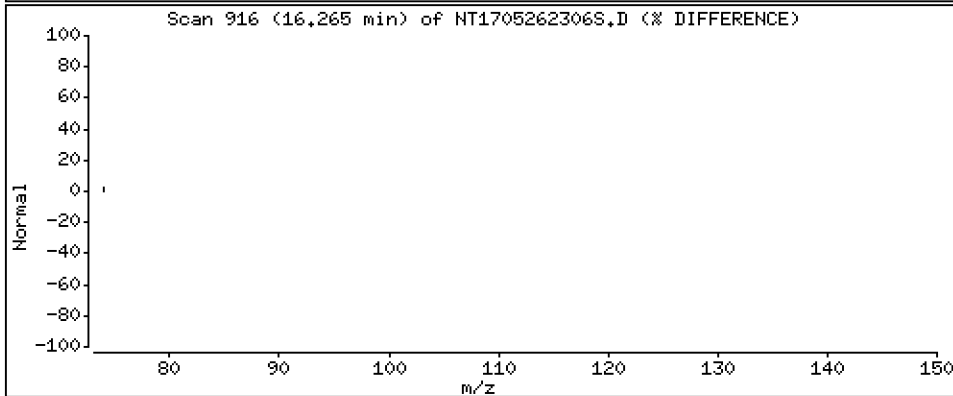
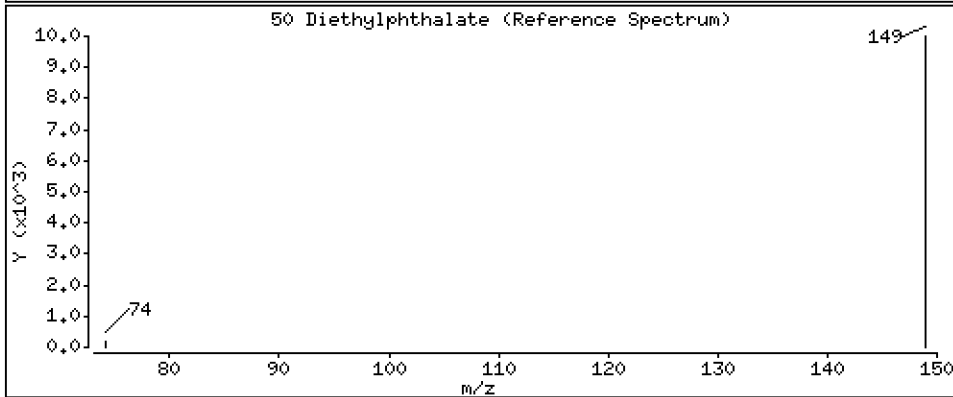
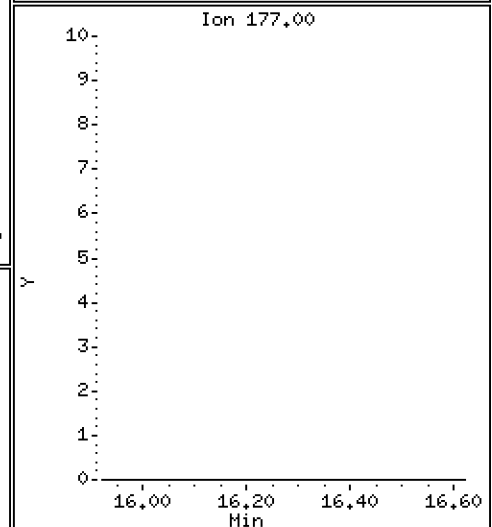
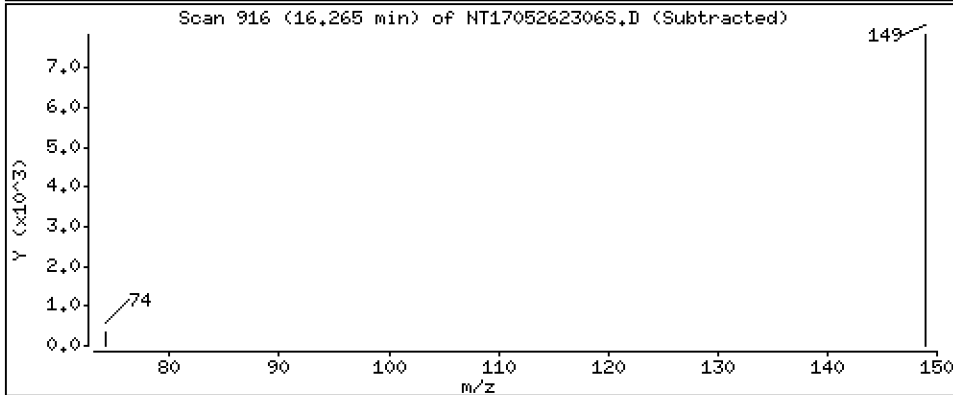
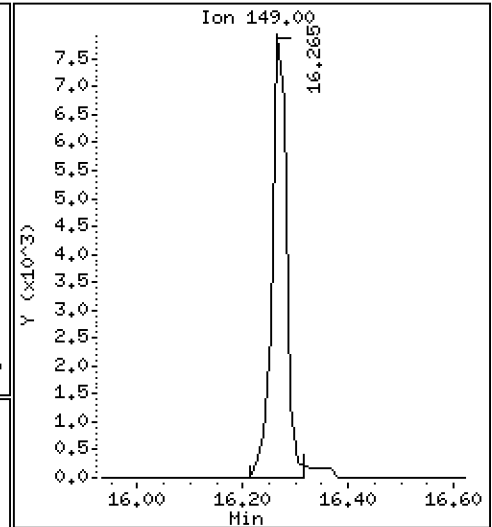
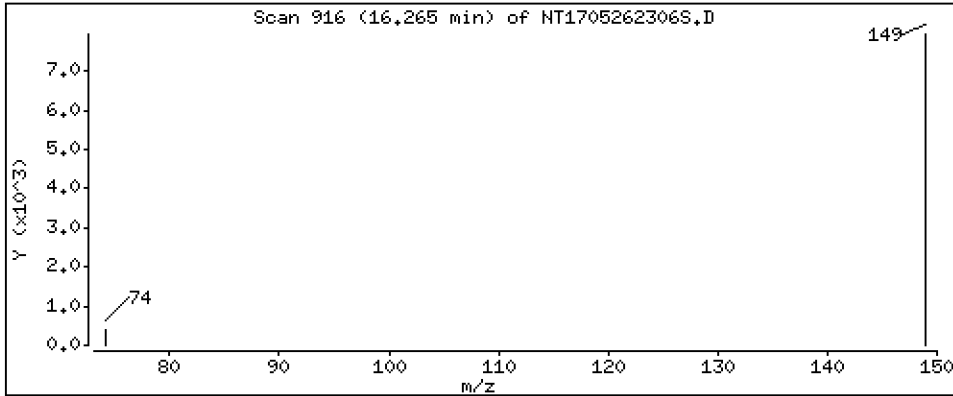
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,08112 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262306S.D
 Lab Smp Id: BLD0607-BLK2
 Inj Date : 26-MAY-2023 15:47
 Operator : VTS
 Smp Info : BLD0607-BLK2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 06-Jun-2023 14:52 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.094	7.069	(0.765)	429243	5.06932	5.069(R)
3 Phenol	94		8.661	8.661	(0.934)	5028	0.03985	0.03985
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	1310	0.01158	0.01158
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	279952	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	1022	0.00927	0.009274
11 Benzyl alcohol	79		9.541	9.541	(1.029)	19415	0.27006	0.2701
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	919	0.00851	0.008508
13 2-Methylphenol	108		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		11.176	11.215	(0.952)	8043	0.13225	0.1322
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1014860	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		Compound Not Detected.					
* 42 Acenaphthene-d10	162		15.321	15.334	(1.000)	570372	4.00000	
50 Diethylphthalate	149		16.264	16.277	(1.062)	15430	0.08112	0.08112
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.341	18.353	(1.000)	845585	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	549251	5.08546	5.085(R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	569193	4.00000	
* 77 Perylene-d12	264		25.993	25.994	(1.000)	513712	4.00000	
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262306S.D
 Lab Smp Id: BLD0607-BLK2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	279952	-21.13
27 Naphthalene-d8	1204481	602241	2408962	1014860	-15.74
42 Acenaphthene-d10	658677	329339	1317354	570372	-13.41
59 Phenanthrene-d10	965415	482708	1930830	845585	-12.41
69 Chrysene-d12	615102	307551	1230204	569193	-7.46
77 Perylene-d12	580660	290330	1161320	513712	-11.53

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.32	-0.08
59 Phenanthrene-d10	18.35	17.85	18.85	18.34	-0.07
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	25.99	25.49	26.49	25.99	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262306S.D

Lab ID: BLD0607-BLK2

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 26-MAY-2023 15:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1705262303S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0607-BLK4</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/24/23 16:38</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0607</u>	Sequence:	<u>SLE0442</u>
Instrument:	<u>NT17</u>	Column:	<u>ZB-5MS</u>
		File ID:	<u>NT1705262327S.D</u>
		Analyzed:	<u>05/27/23 04:54</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>GE00070</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	0.8	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	0.9	J	0.7	5.0
100-51-6	Benzyl Alcohol	1	16.8	J	2.5	20.0
65-85-0	Benzoic acid	1	100	U	13.4	100
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	504	67.1	27 - 120	
p-Terphenyl-d14	500.00	428	85.7	37 - 120	

Data File: \\target\share\chem3\nt17.1\20230526.16\SIM.6\NT1705262327S.D

Date: 27-May-2023 04:54

Client ID:

Sample Info: BLD0607-BLK4

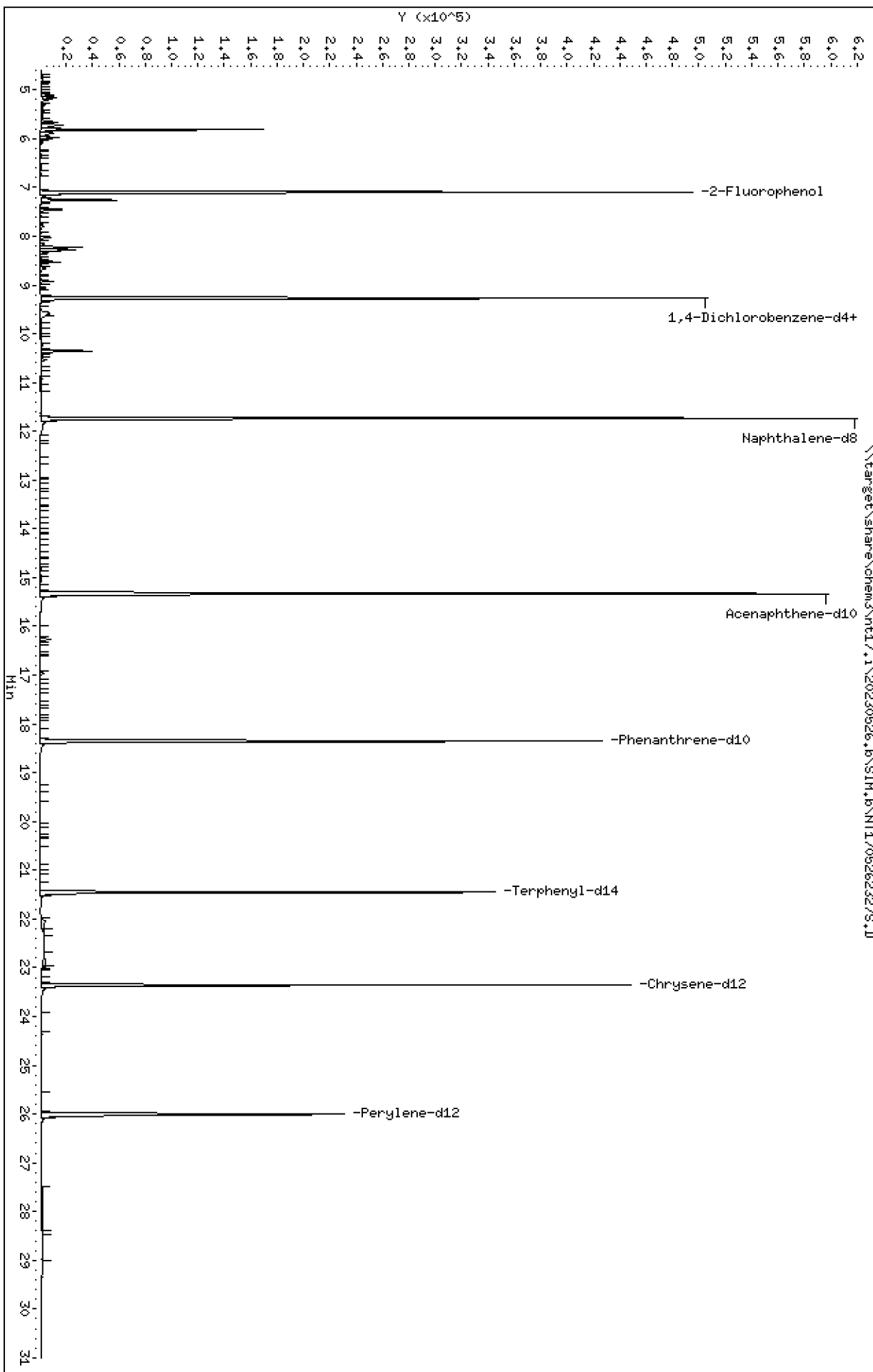
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

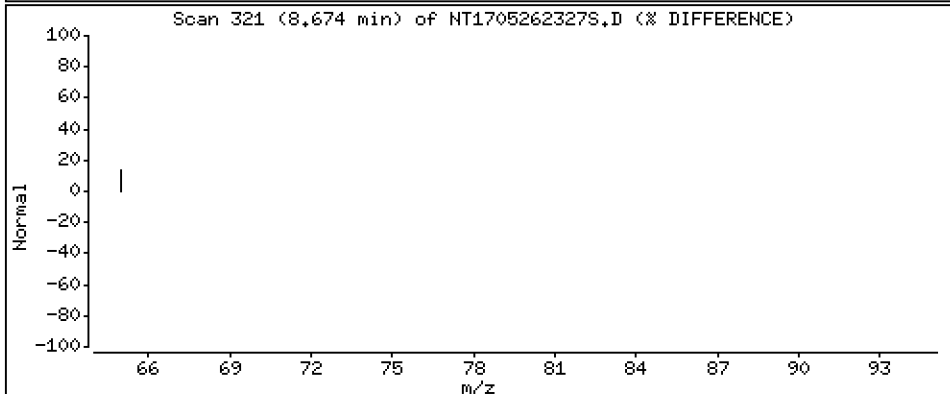
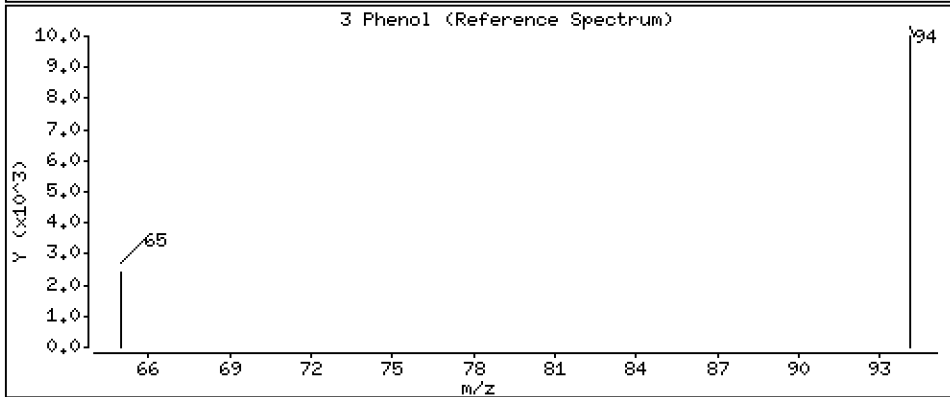
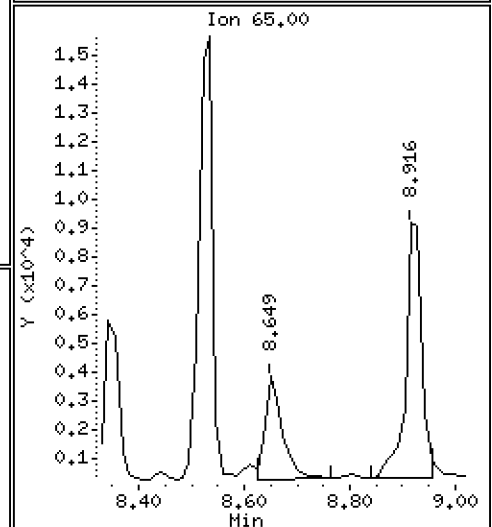
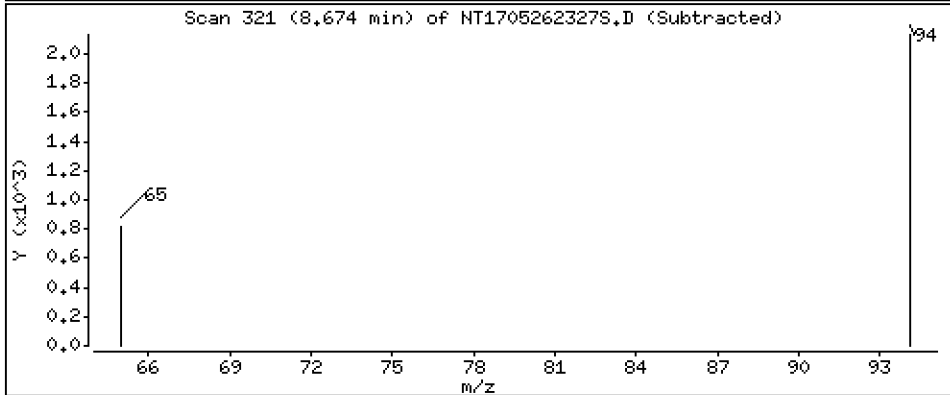
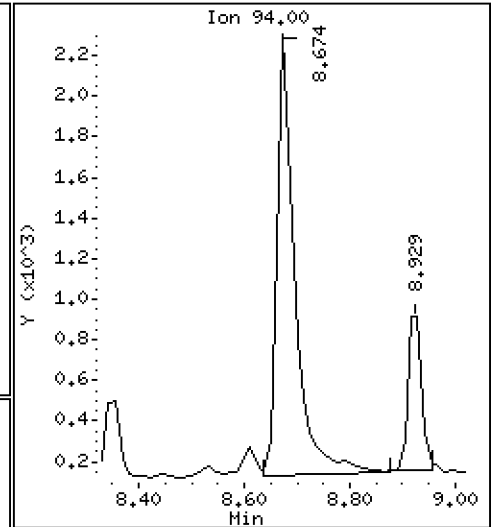
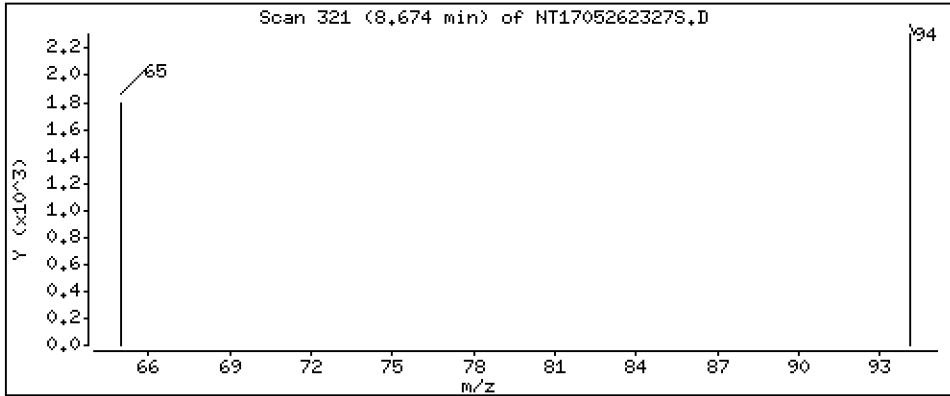
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,03524 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

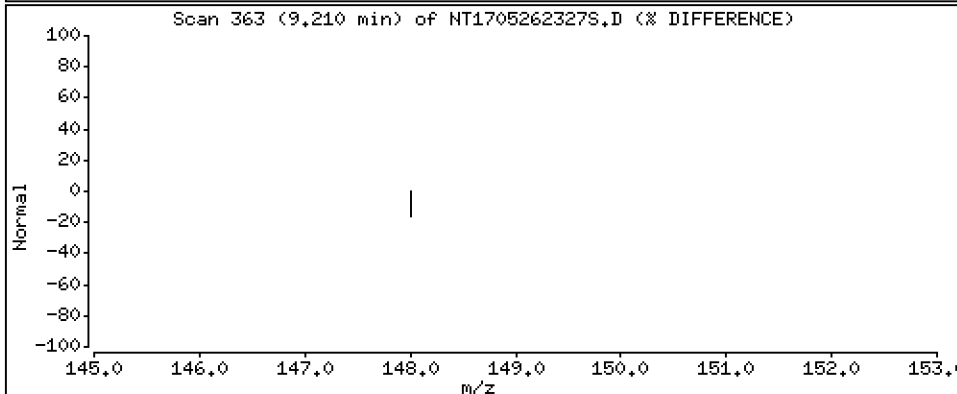
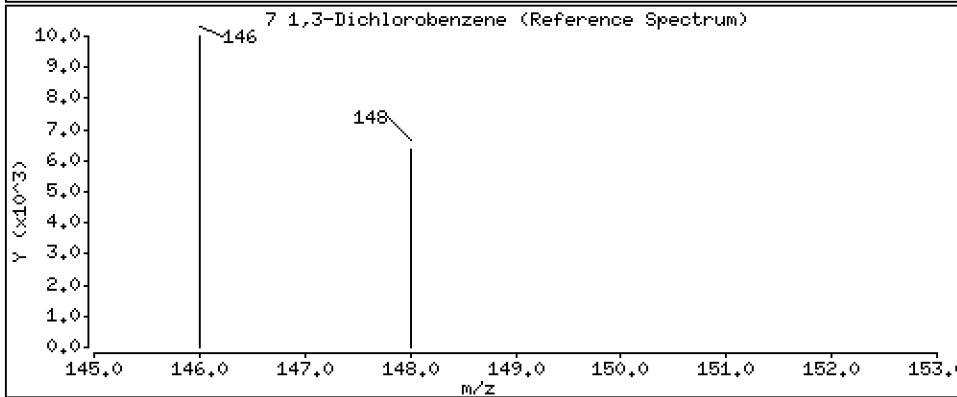
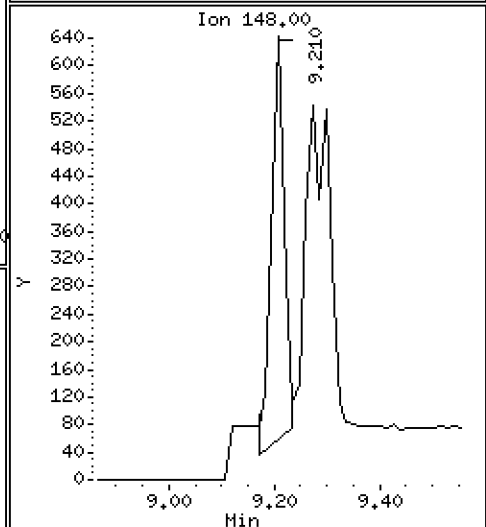
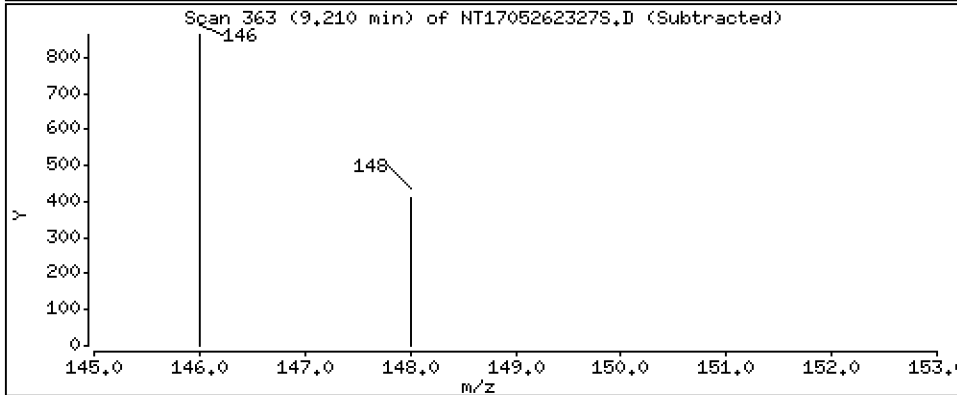
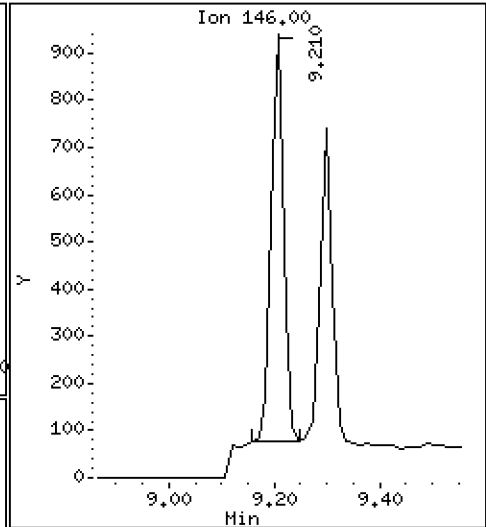
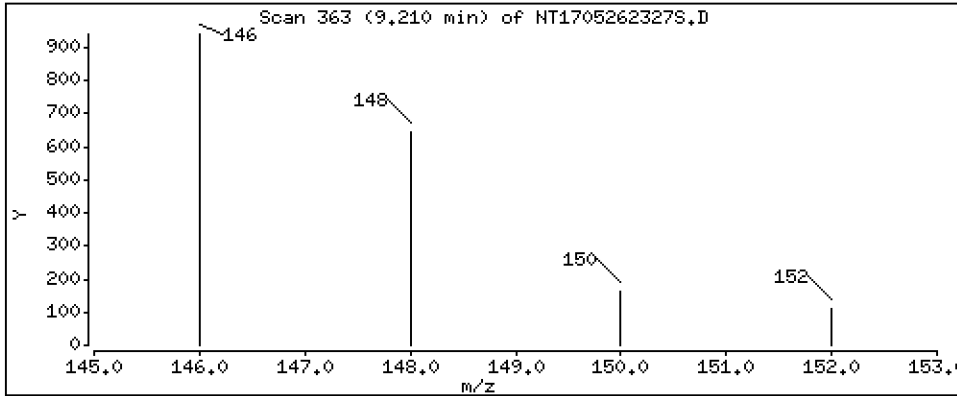
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,01104 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

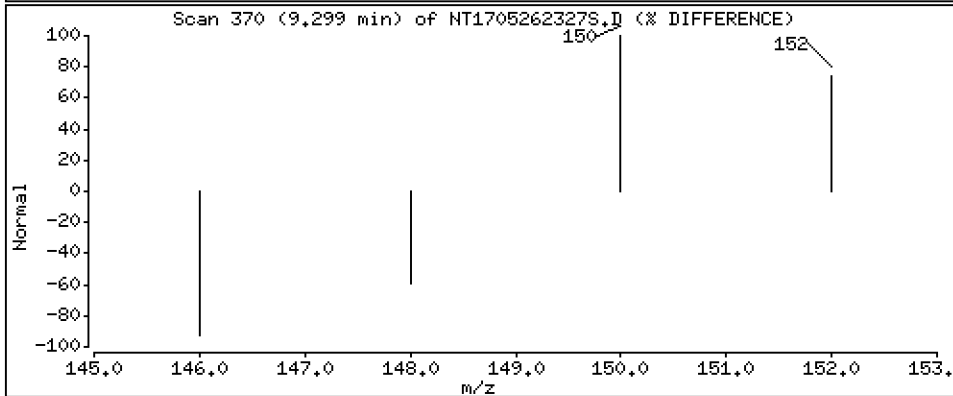
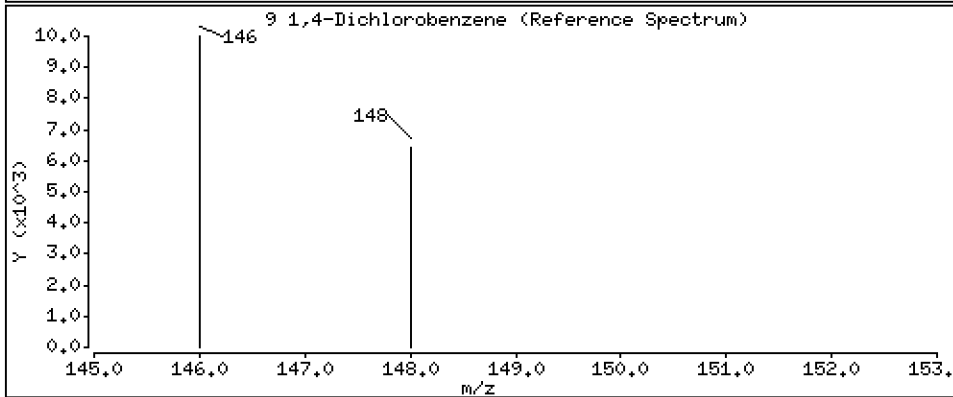
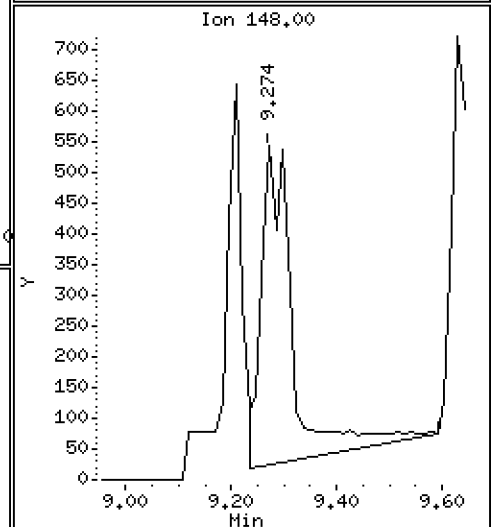
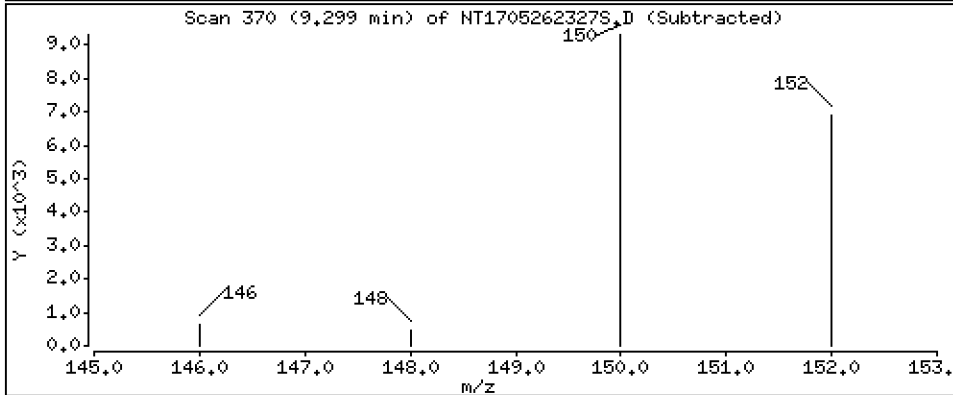
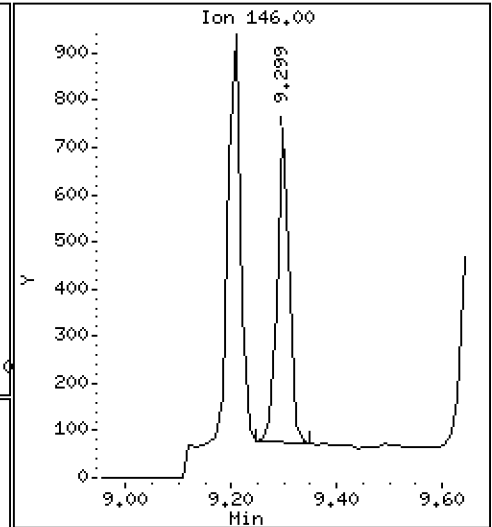
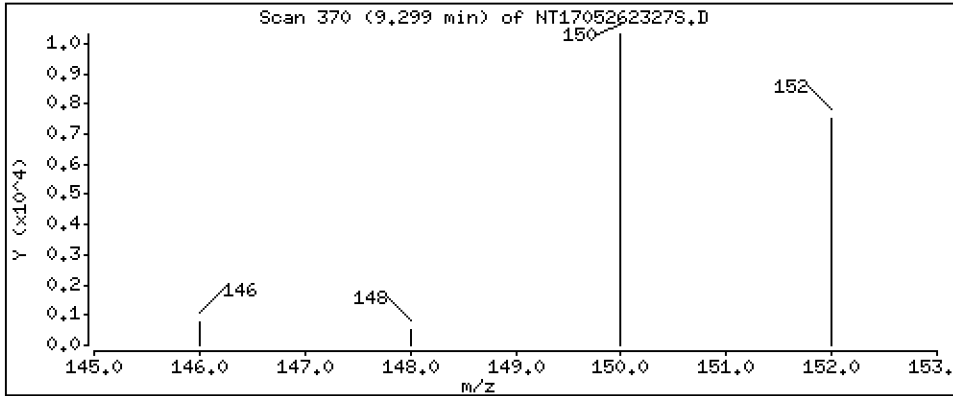
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,008306 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

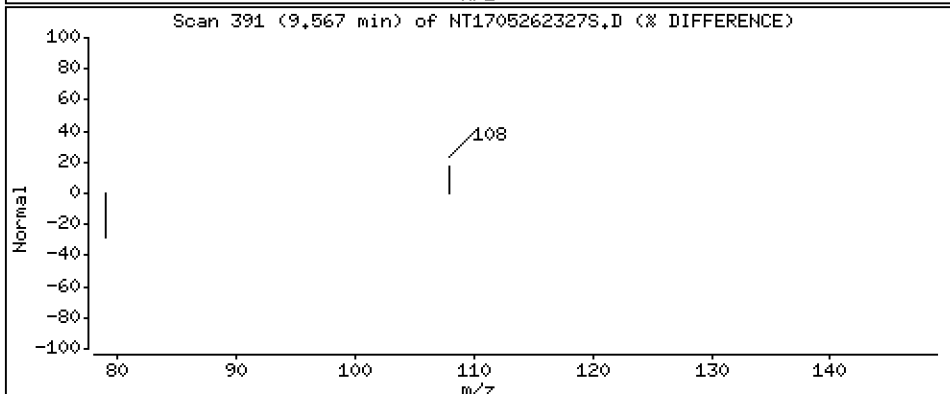
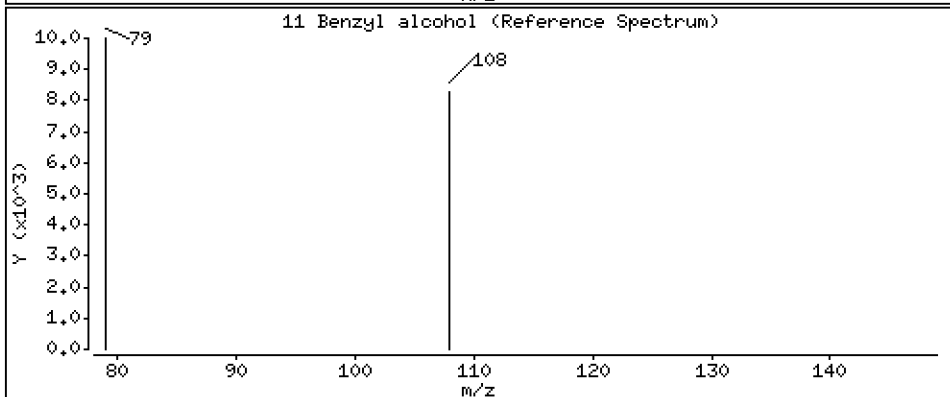
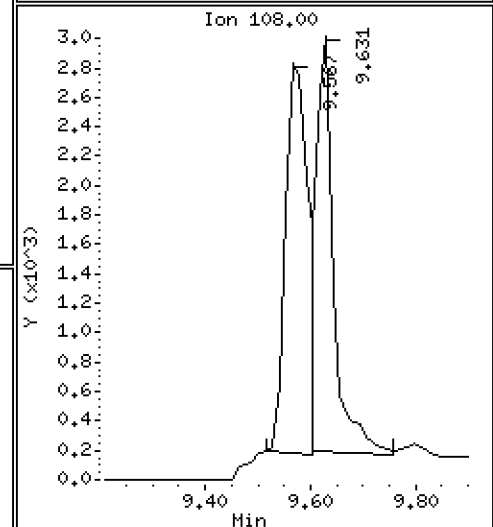
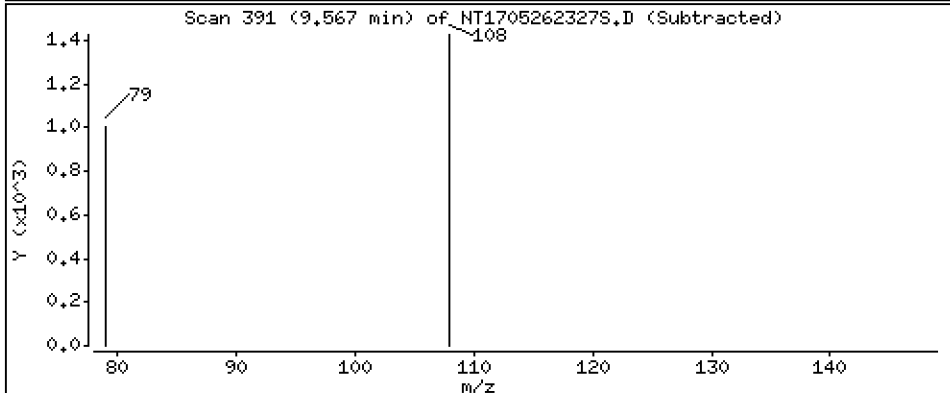
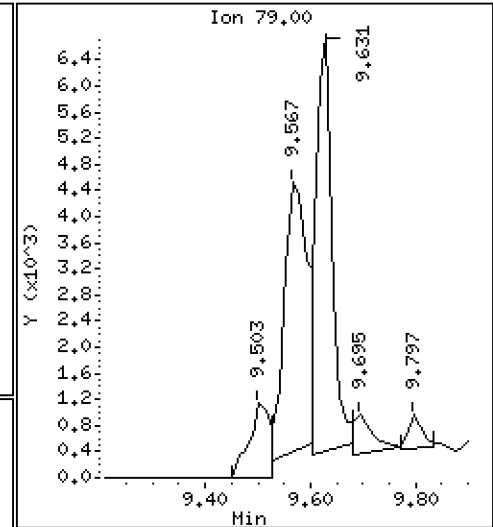
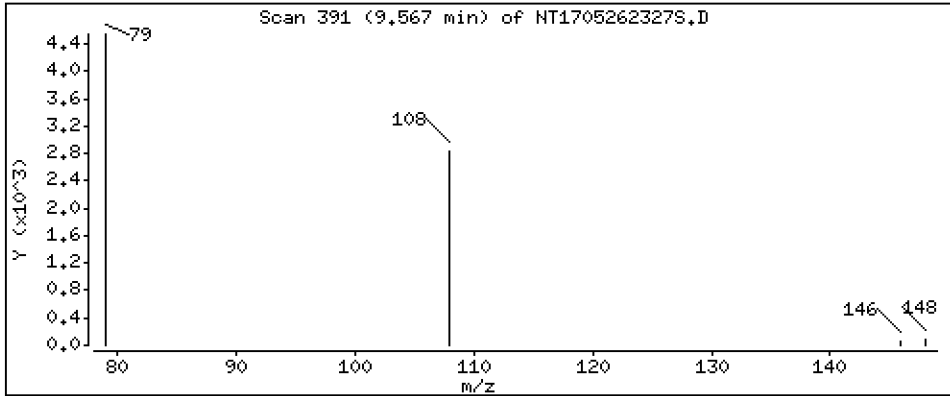
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1681 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

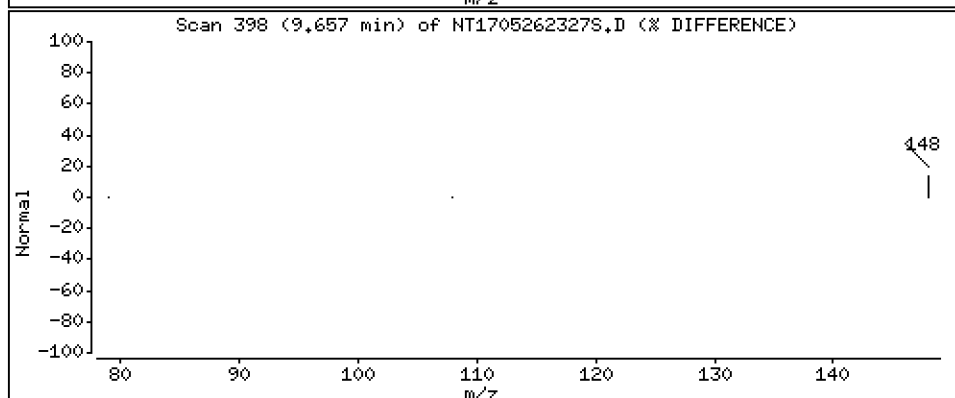
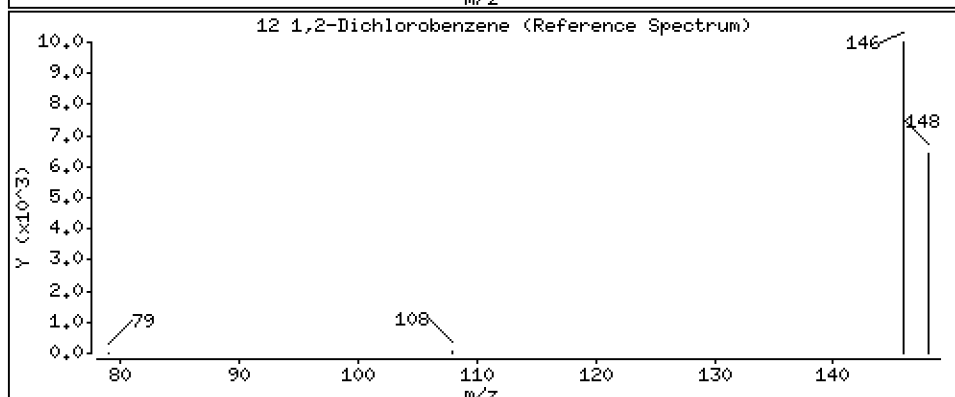
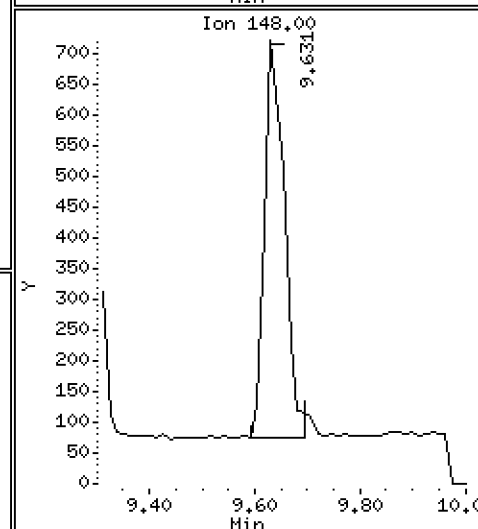
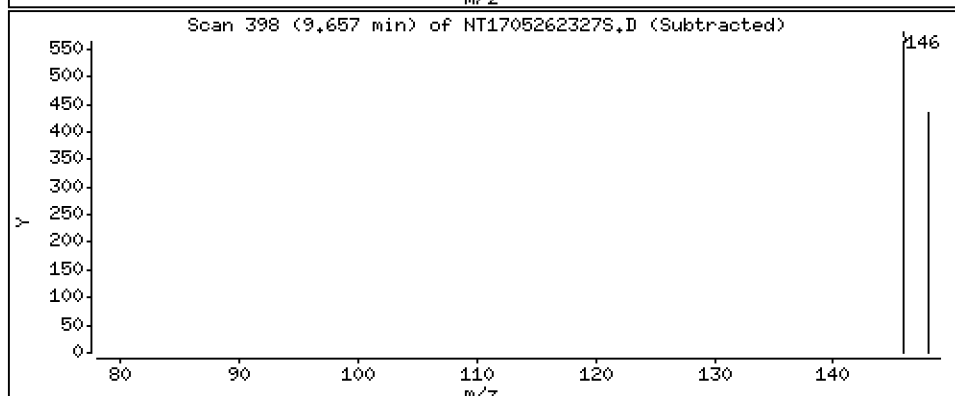
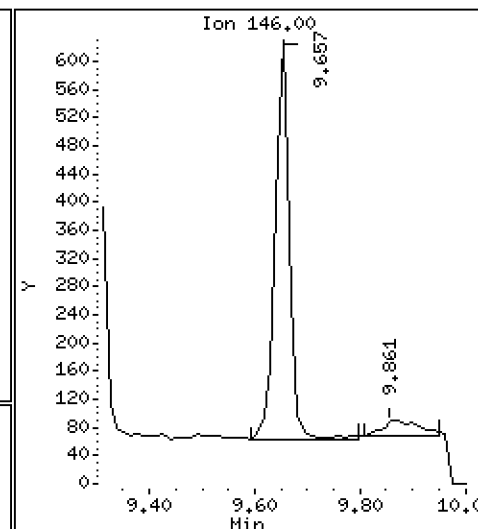
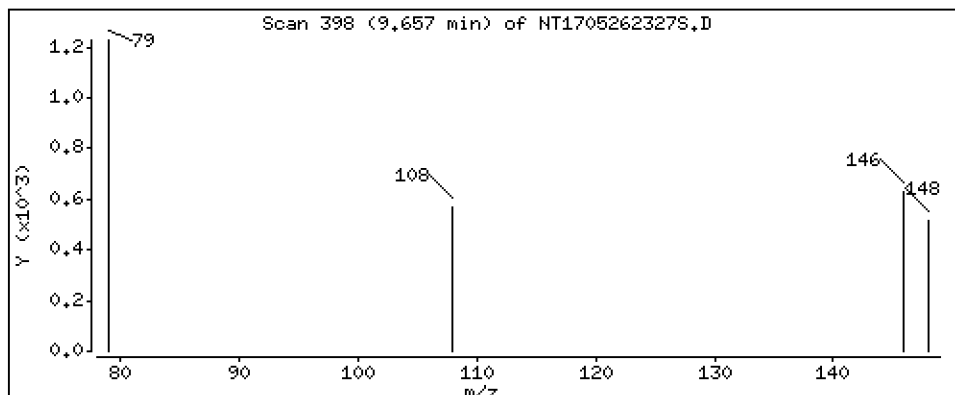
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,008555 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

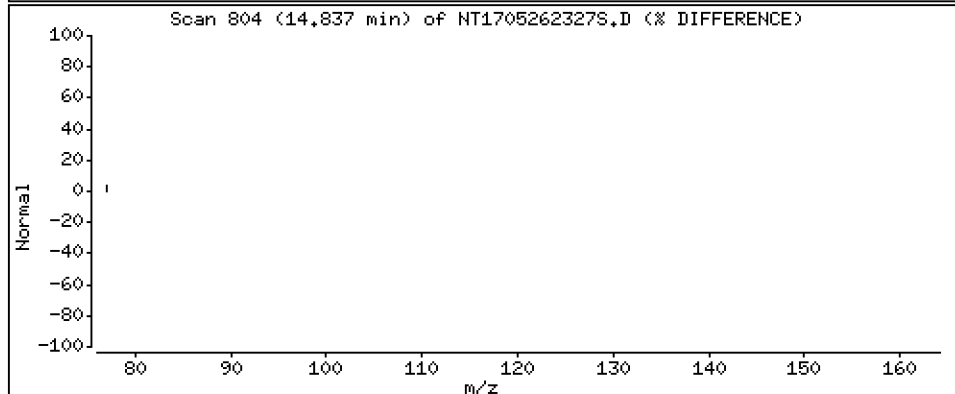
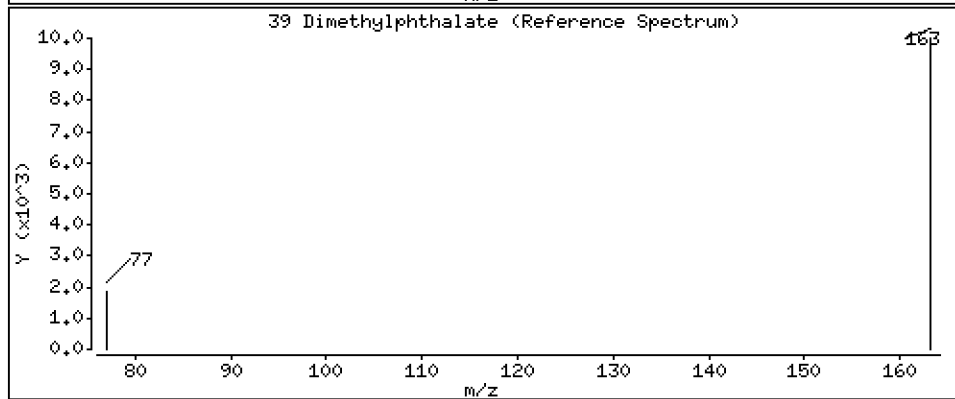
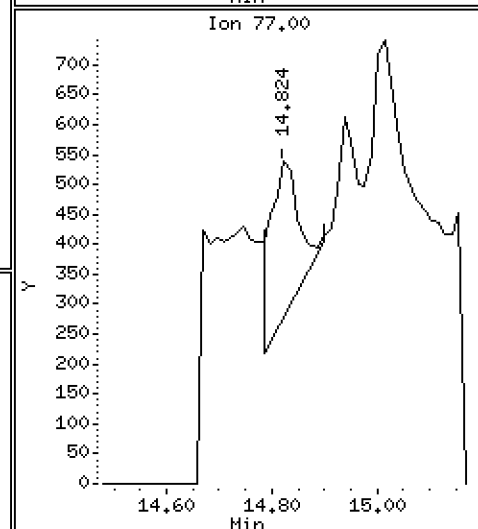
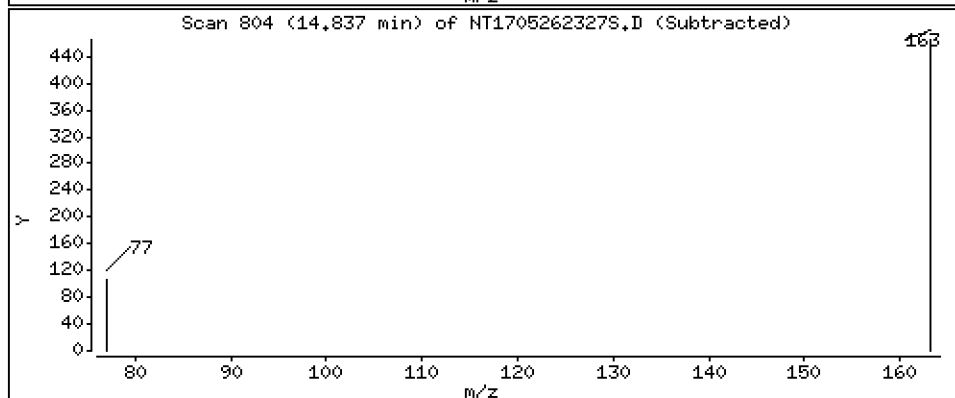
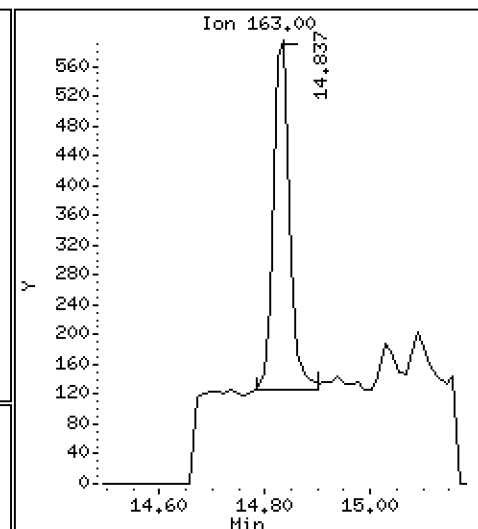
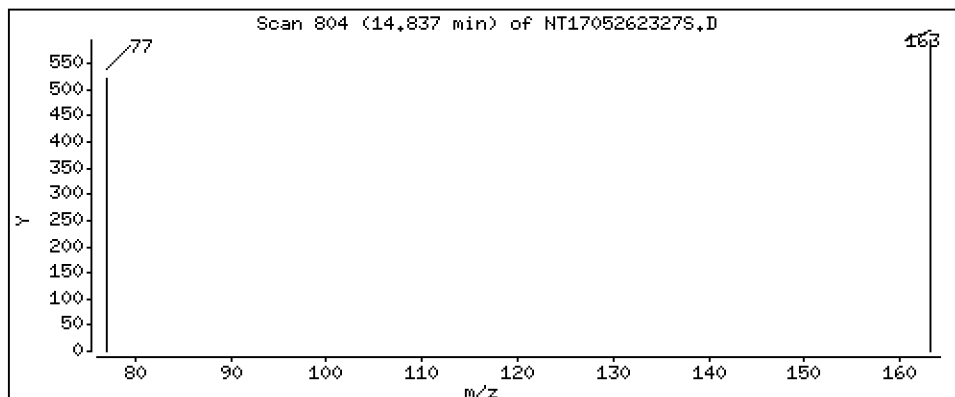
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,004890 ug/mL



Date : 27-MAY-2023 04:54

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BLK4

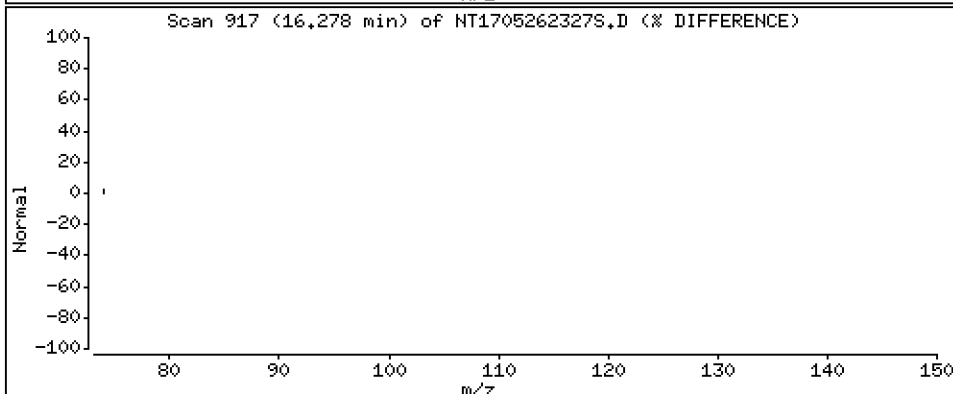
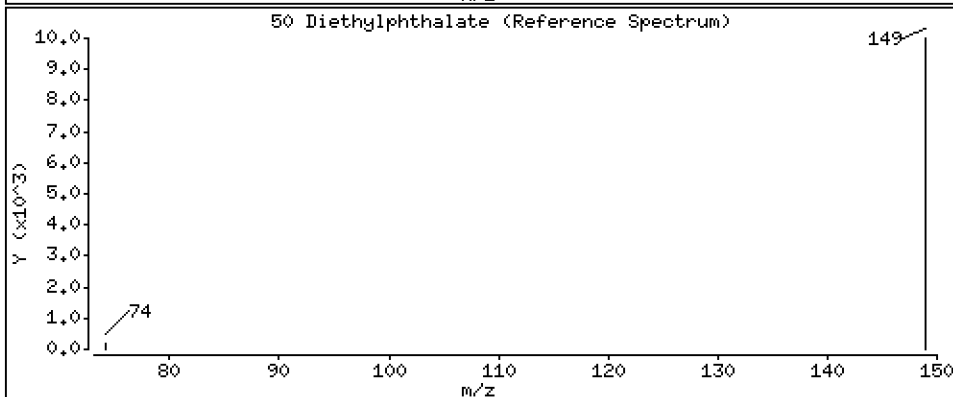
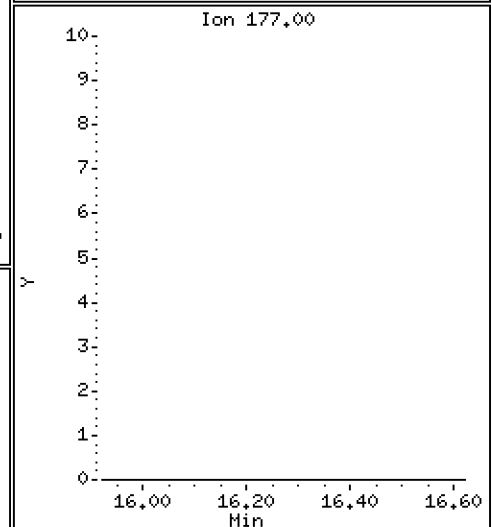
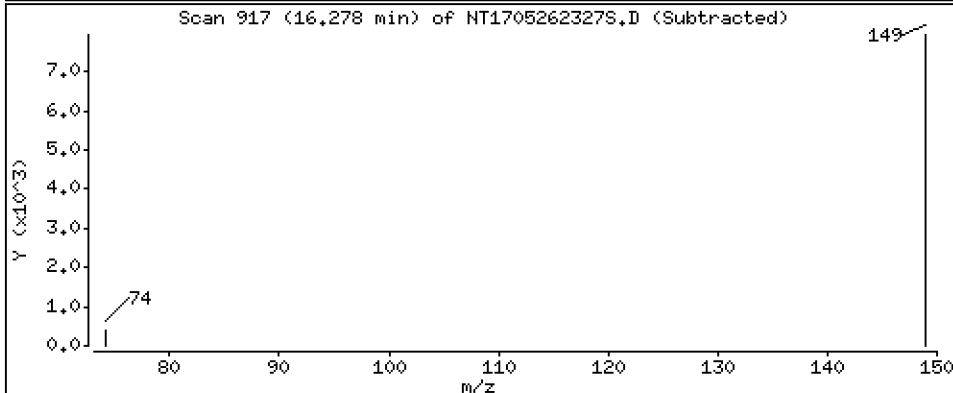
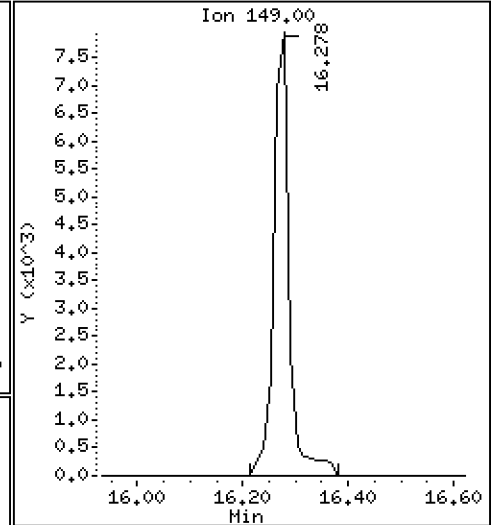
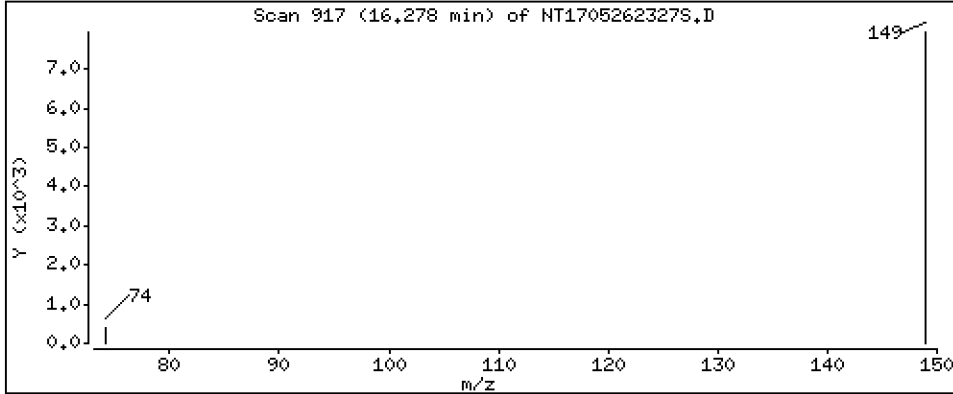
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,08821 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262327S.D
 Lab Smp Id: BLD0607-BLK4
 Inj Date : 27-MAY-2023 04:54
 Operator : VTS
 Smp Info : BLD0607-BLK4
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.094	7.081	(0.765)	485833	5.03514	5.035(R)
3 Phenol	94		8.674	8.674	(0.935)	5066	0.03524	0.03524
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	1423	0.01104	0.01104(M)
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	319011	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	1043	0.00831	0.008306(M)
11 Benzyl alcohol	79		9.567	9.554	(1.032)	13769	0.16807	0.1681
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	1053	0.00856	0.008555
13 2-Methylphenol	108		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1068298	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		14.837	14.837	(0.968)	1006	0.00489	0.004890(M)
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	560262	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	16481	0.08821	0.08821
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	759069	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	498952	4.28453	4.285(R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	613725	4.00000	
* 77 Perylene-d12	264		26.006	26.006	(1.000)	449111	4.00000	
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262327S.D
 Lab Smp Id: BLD0607-BLK4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 27-MAY-2023
 Calibration Time: 00:33
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	375423	187712	750846	319011	-15.03
27 Naphthalene-d8	1173037	586519	2346074	1068298	-8.93
42 Acenaphthene-d10	638940	319470	1277880	560262	-12.31
59 Phenanthrene-d10	901788	450894	1803576	759069	-15.83
69 Chrysene-d12	767966	383983	1535932	613725	-20.08
77 Perylene-d12	642149	321075	1284298	449111	-30.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	26.01	25.51	26.51	26.01	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262327S.D

Lab ID: BLD0607-BLK4

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 04:54

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1705262320S.D

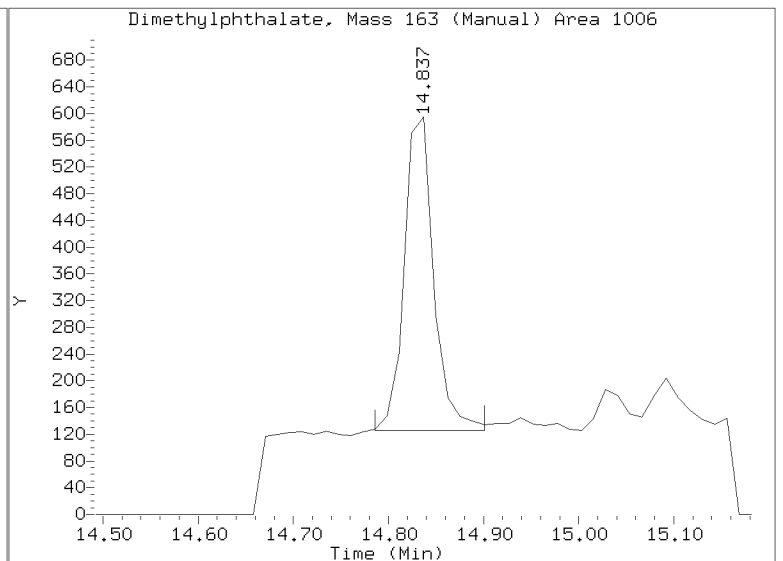
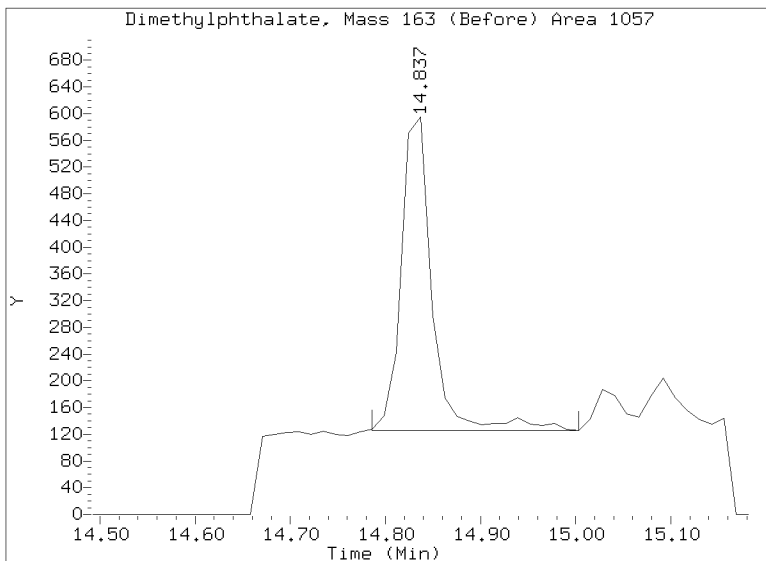
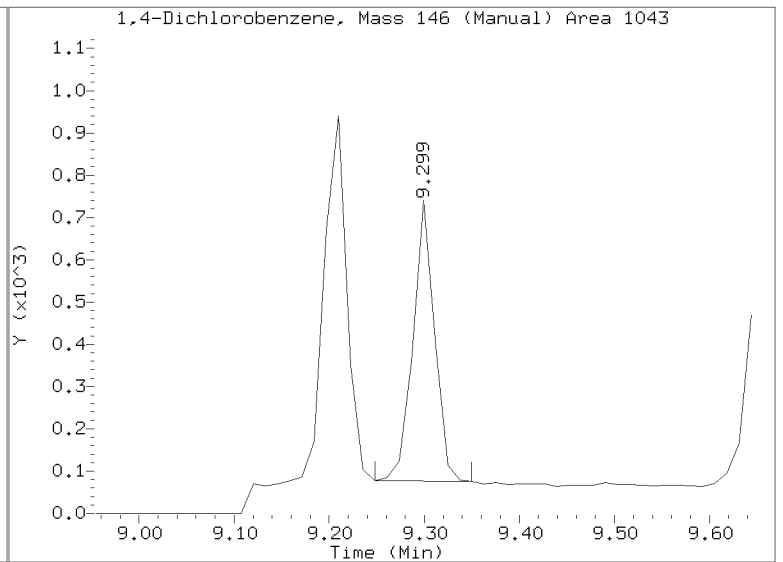
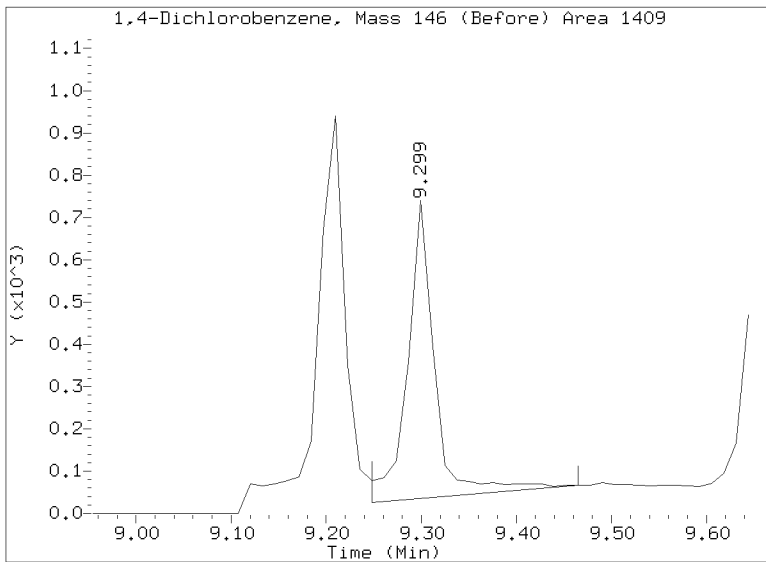
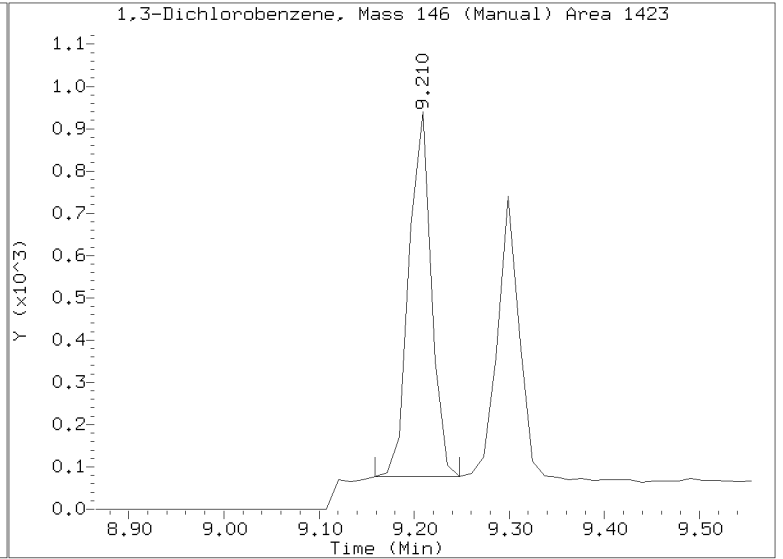
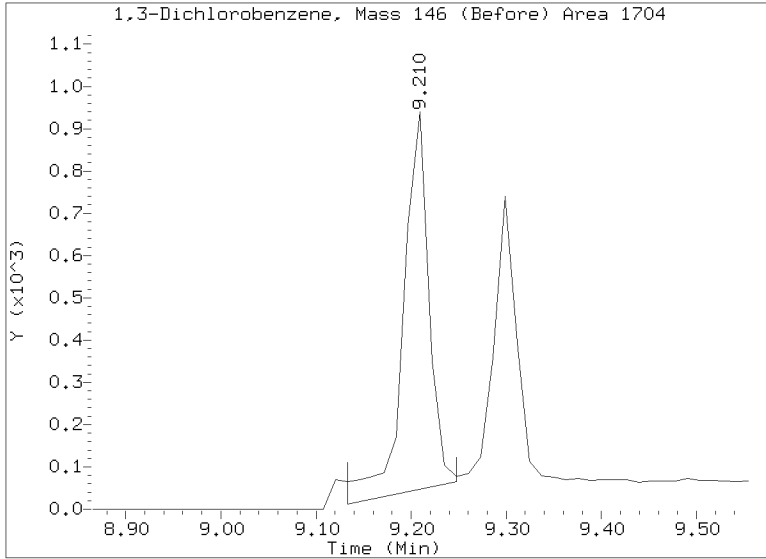
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/SIM.b/NT1705262327S.D
Injection Date: 27-MAY-2023 04:54
Lab ID:BLD0607-BLK4 Client ID:
Report Date: 06/07/2023 07:57





LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 05/26/23 16:25

Batch: BLD0607

Laboratory ID: BLD0607-BS2

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 1 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	386		77.3	36 - 120
1,2-Dichlorobenzene	500	389		77.9	36 - 120
Benzyl Alcohol	500	460	B	91.9	25 - 123
Benzoic acid	2300	2820		123	10 - 160
2,4-Dimethylphenol	1300	90.4	*	6.96 *	10 - 120
1,2,4-Trichlorobenzene	500	359		71.9	35 - 120
N-Nitrosodiphenylamine	500	243		48.5	27 - 120
Pentachlorophenol	1300	1350		104	26 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
1,4-Dichlorobenzene	500	385		77.0	0.410	30	36 - 120
1,2-Dichlorobenzene	500	390		78.1	0.253	30	36 - 120
Benzyl Alcohol	500	506	B	101	9.62	30	25 - 123
Benzoic acid	2300	2850		124	0.912	30	10 - 160
2,4-Dimethylphenol	1300	86.1	*	6.63 *	4.85	30	10 - 120
1,2,4-Trichlorobenzene	500	359		71.8	0.0543	30	35 - 120
N-Nitrosodiphenylamine	500	252		50.3	3.64	30	27 - 120
Pentachlorophenol	1300	1310		101	2.75	30	26 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.16\SIH.6\N1705262307S.D

Date : 26-May-2023 16:25

Client ID:

Sample Info: BLD0607-B52

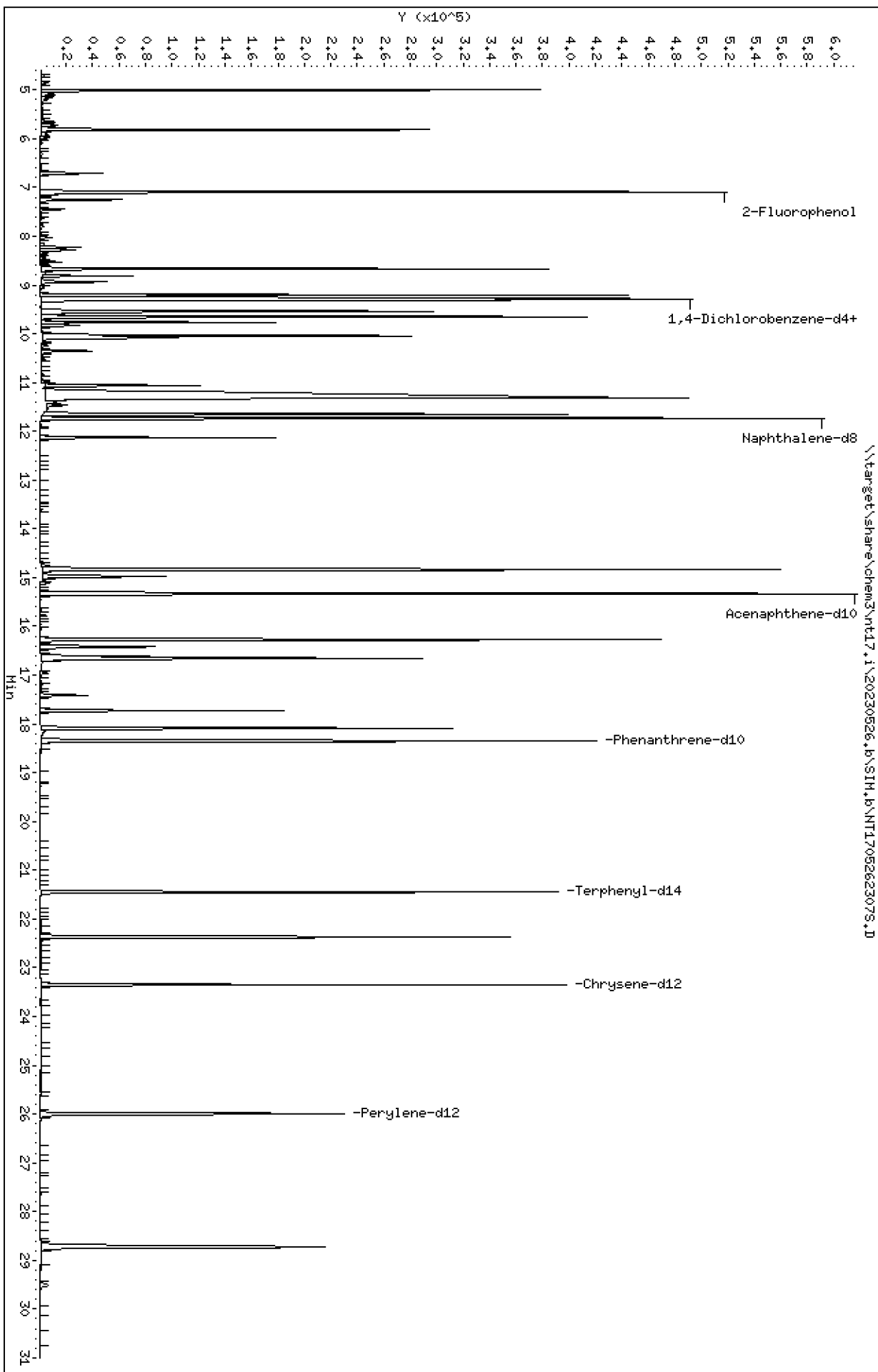
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

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Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

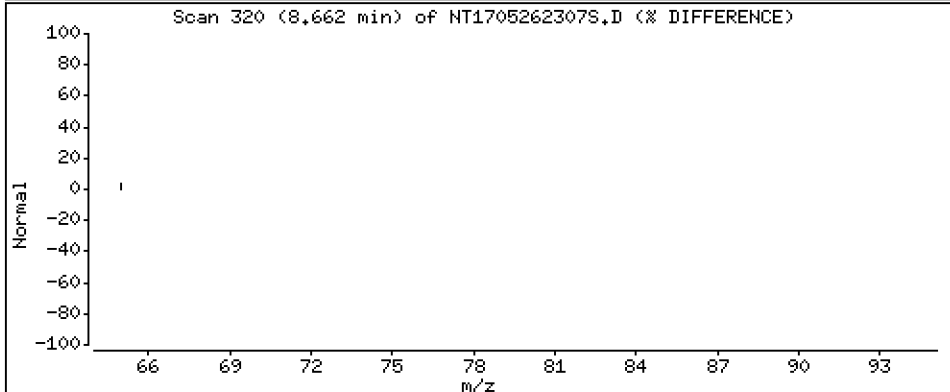
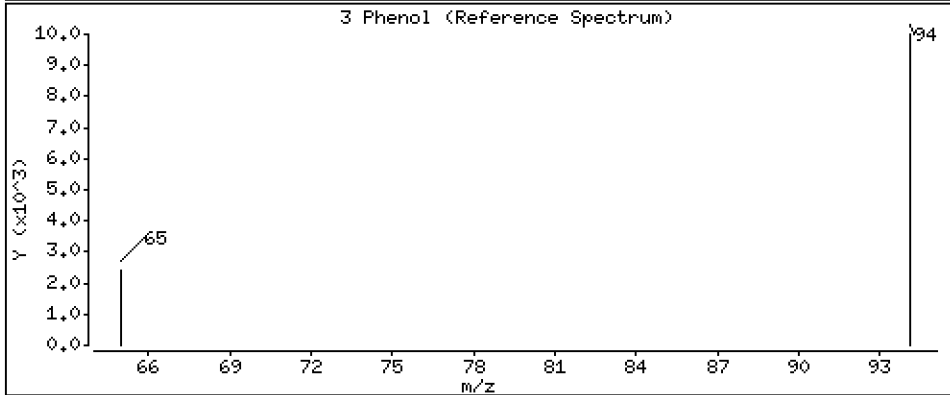
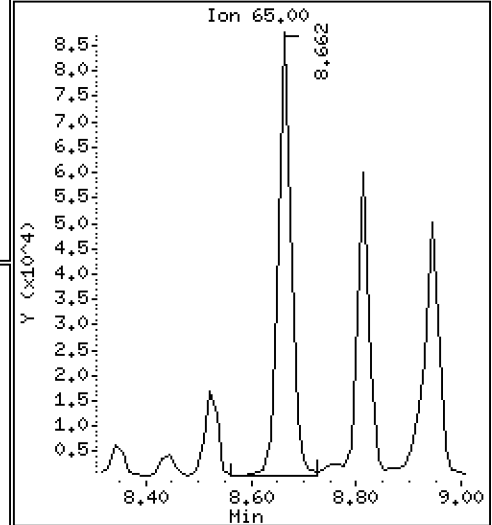
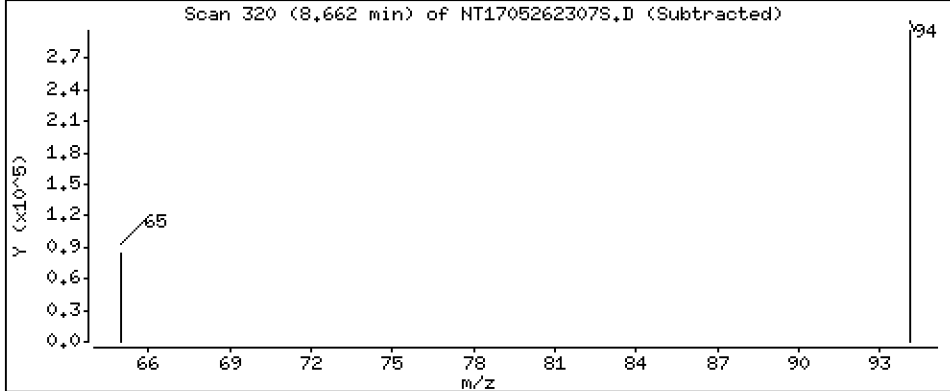
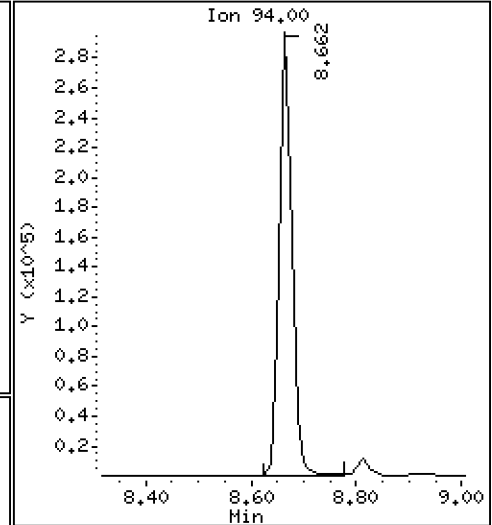
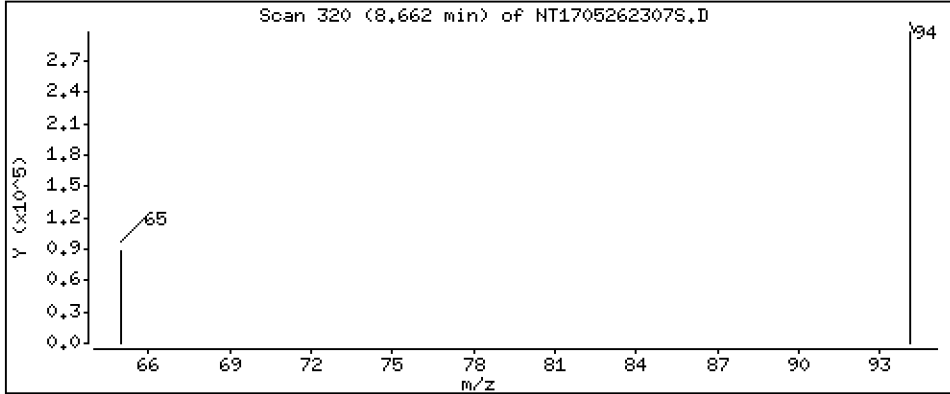
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,982 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

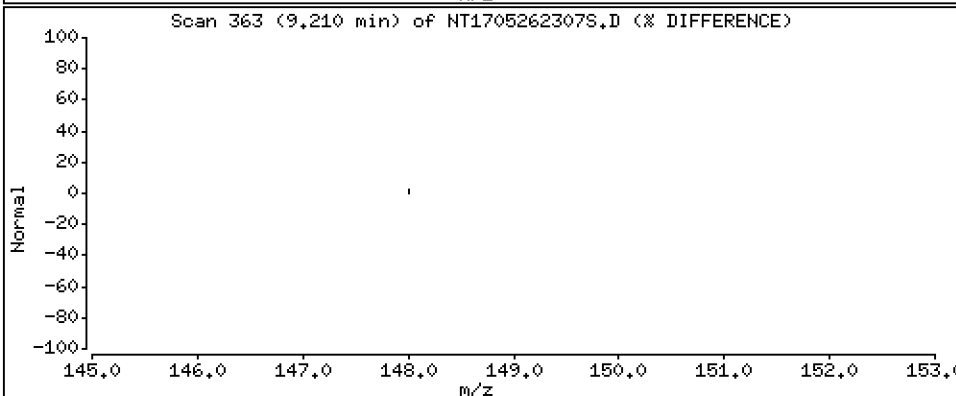
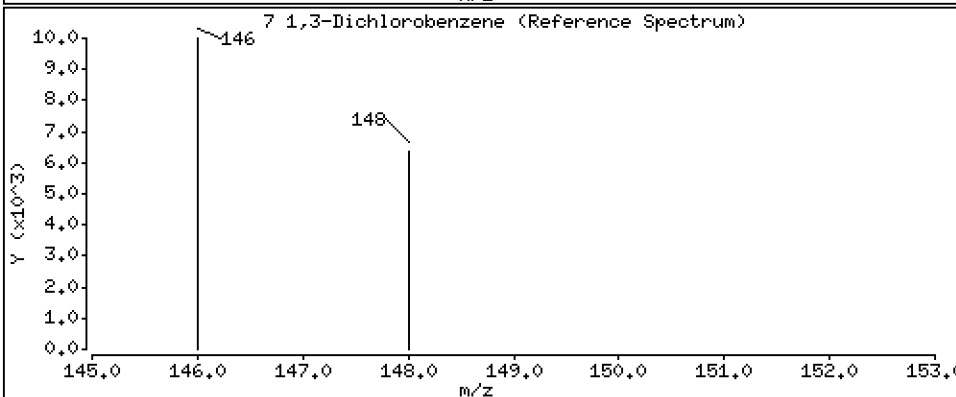
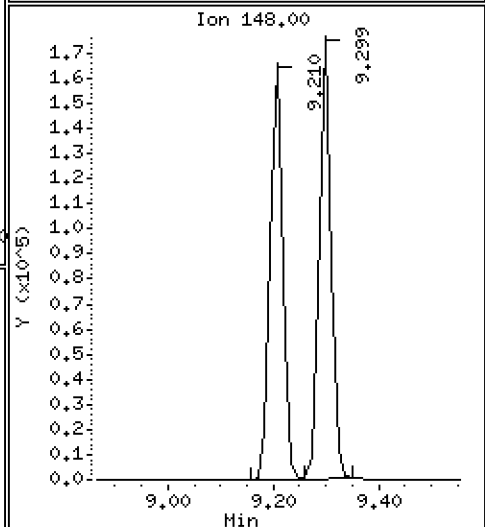
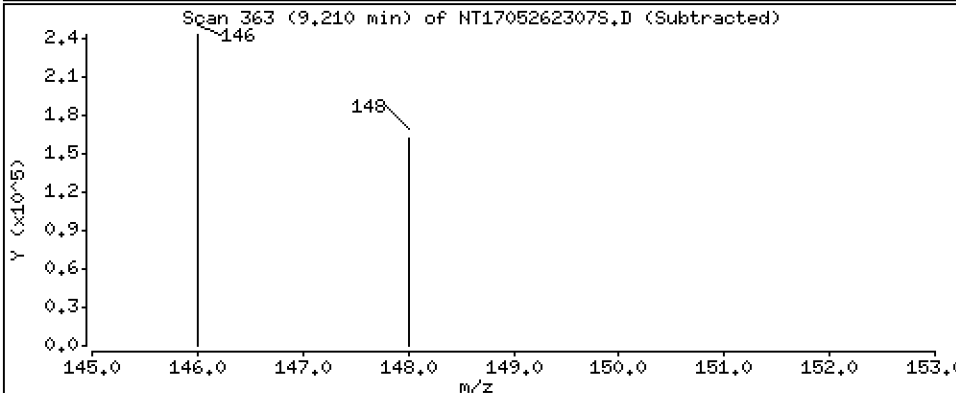
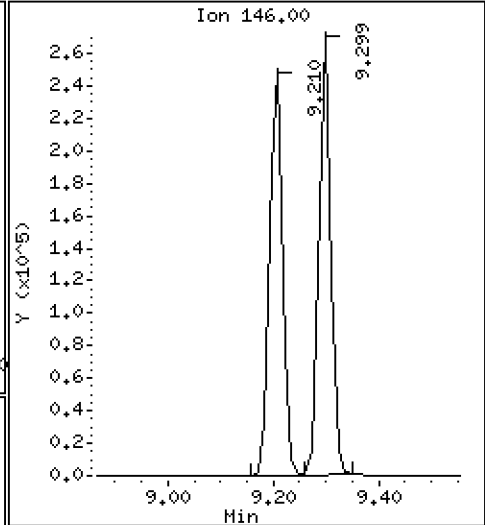
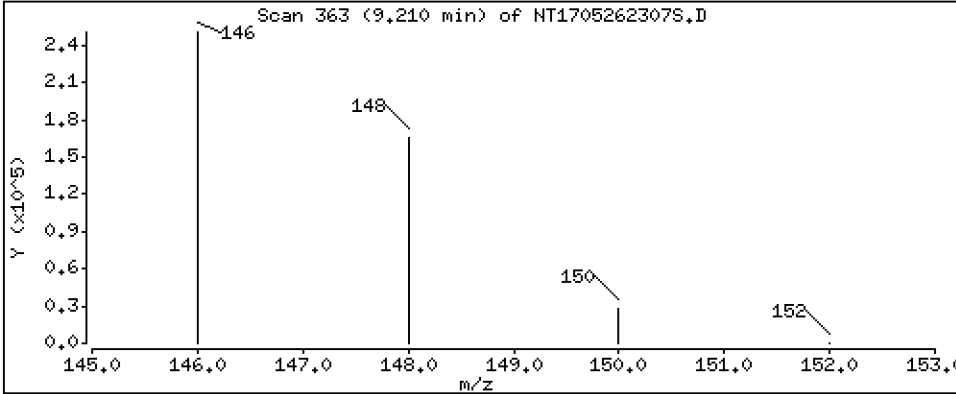
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,848 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

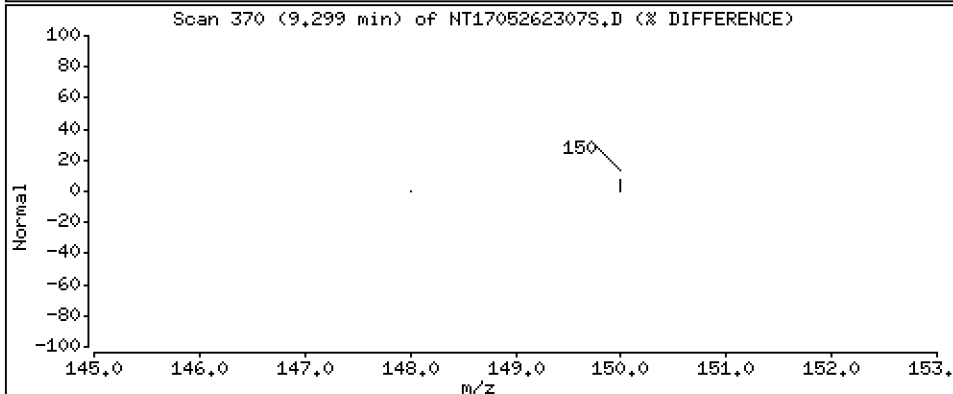
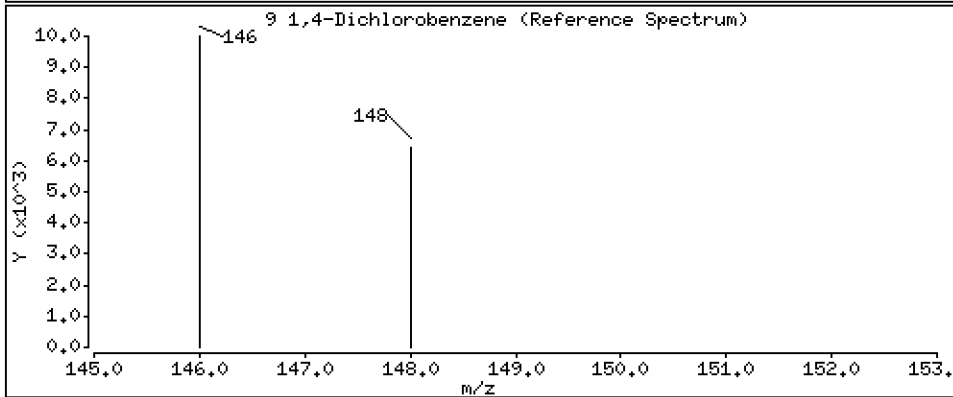
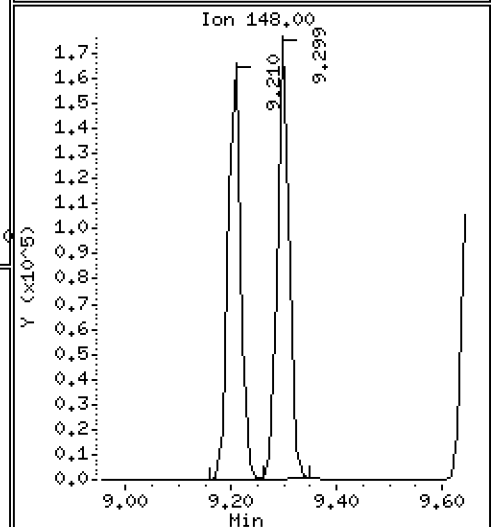
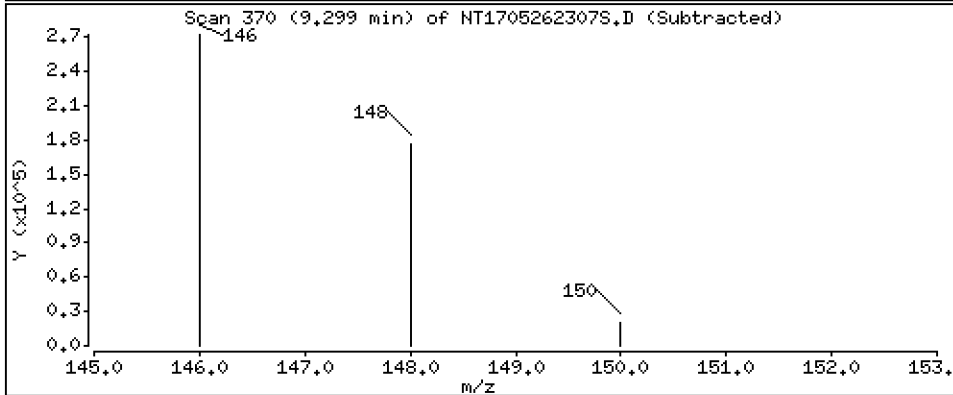
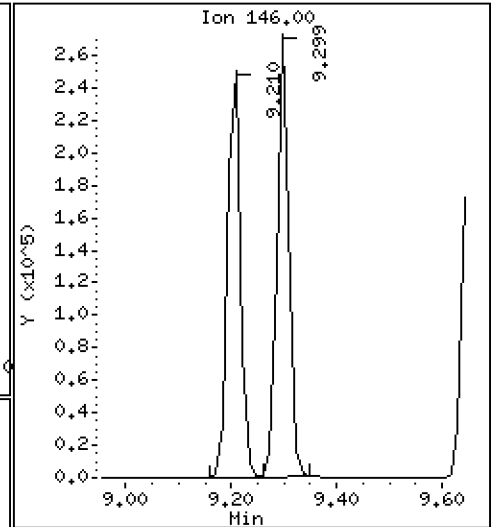
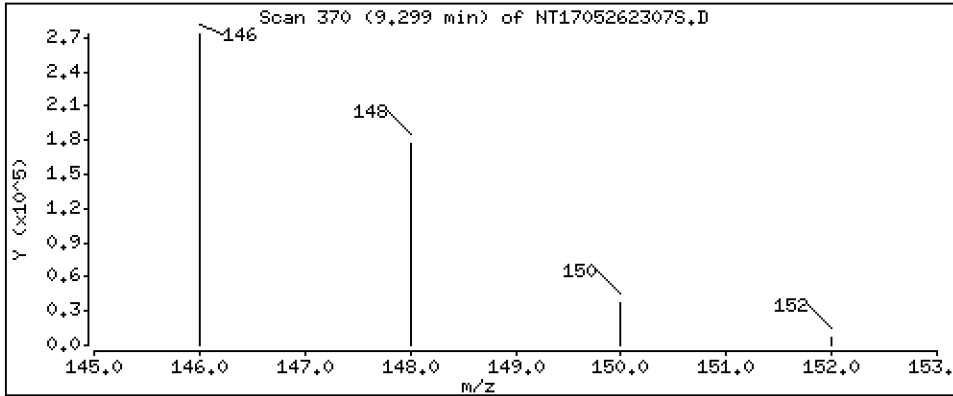
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,863 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

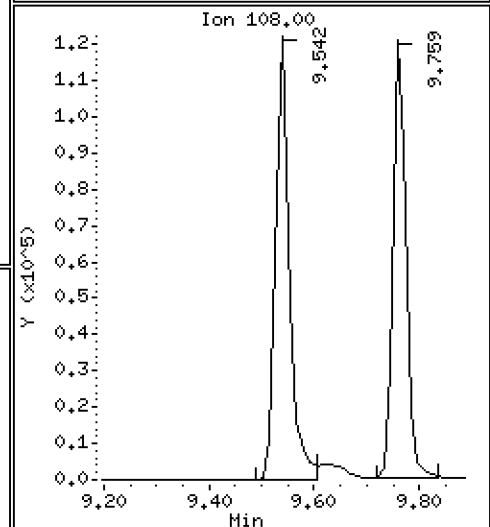
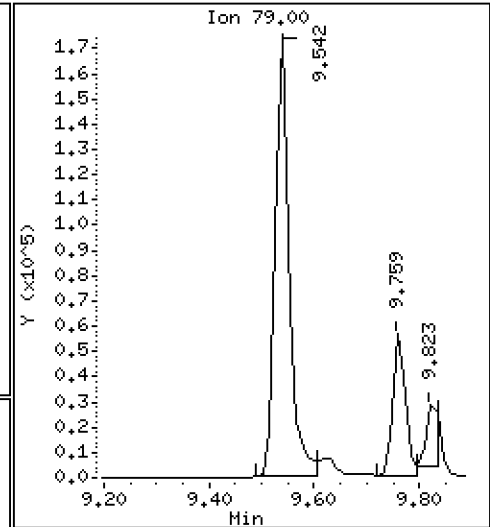
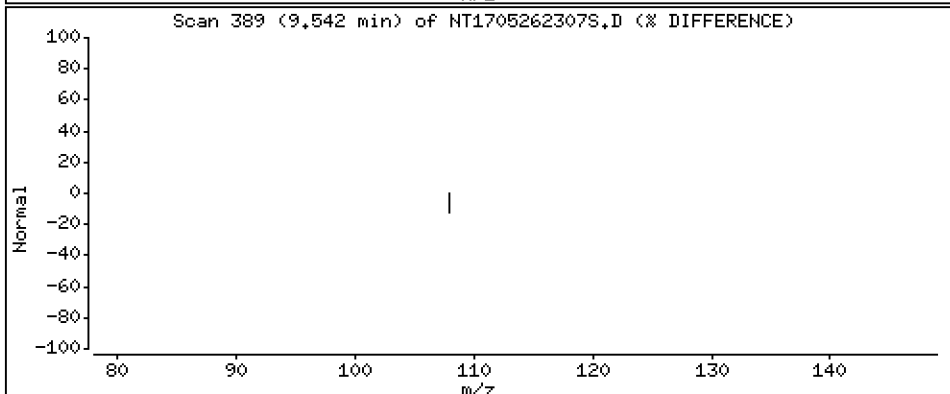
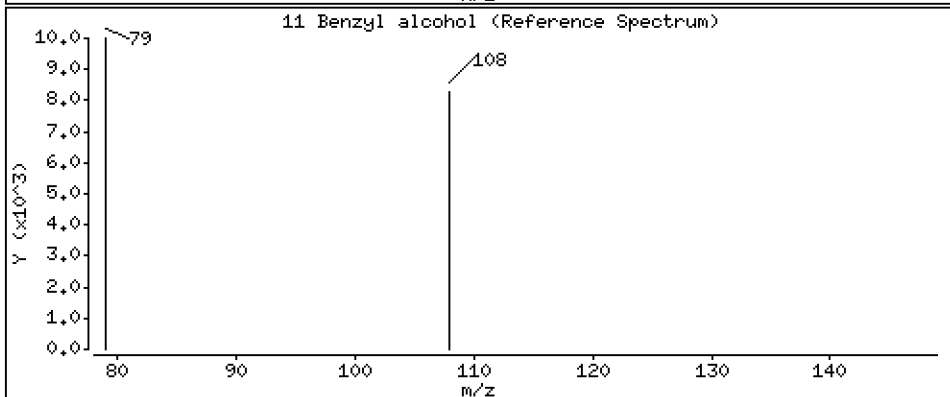
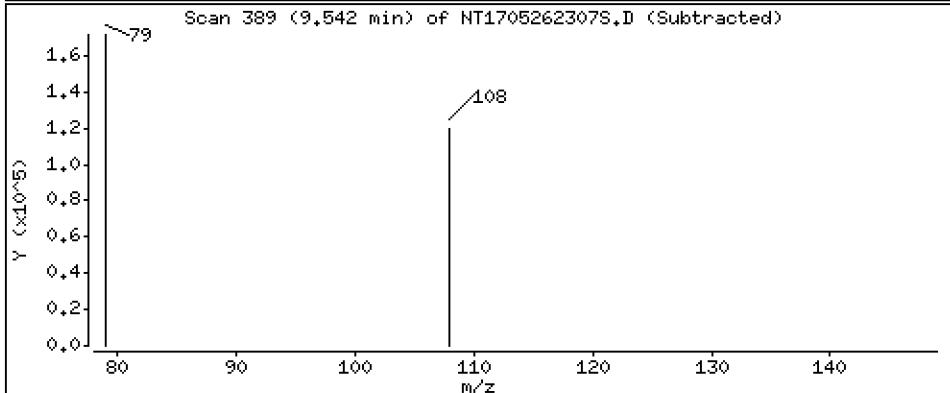
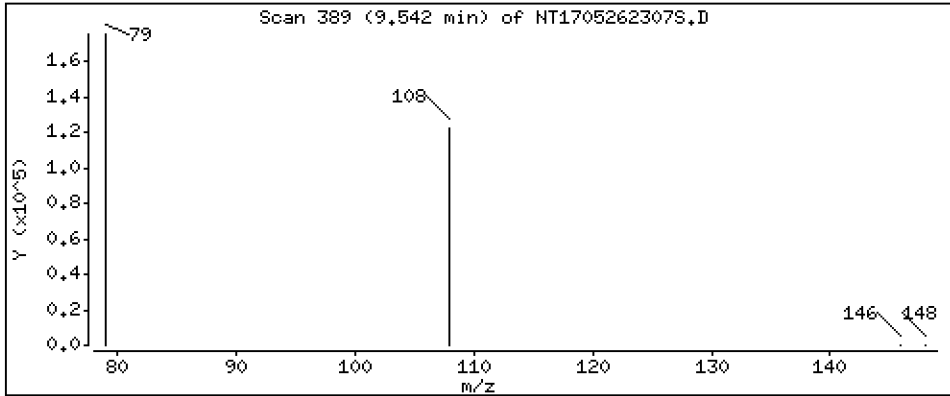
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.597 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

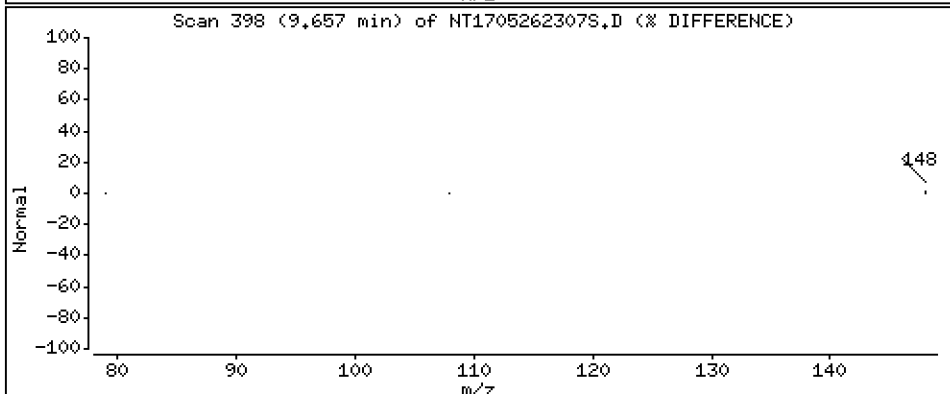
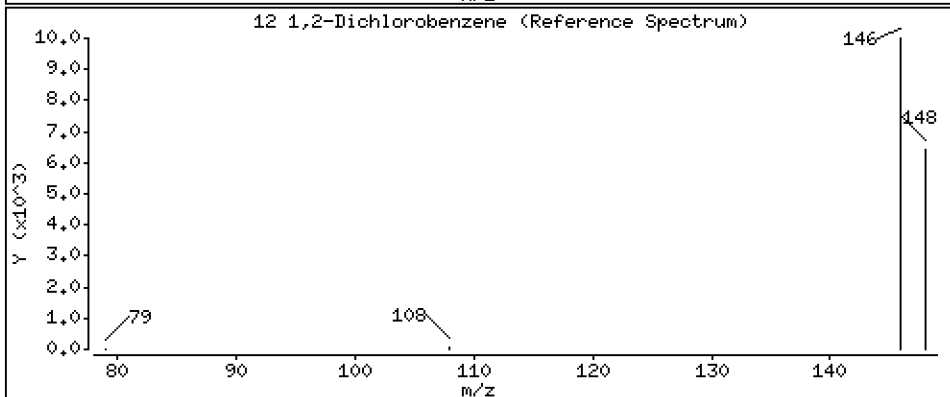
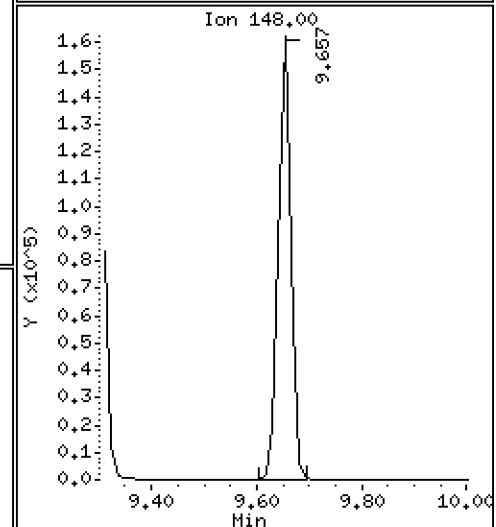
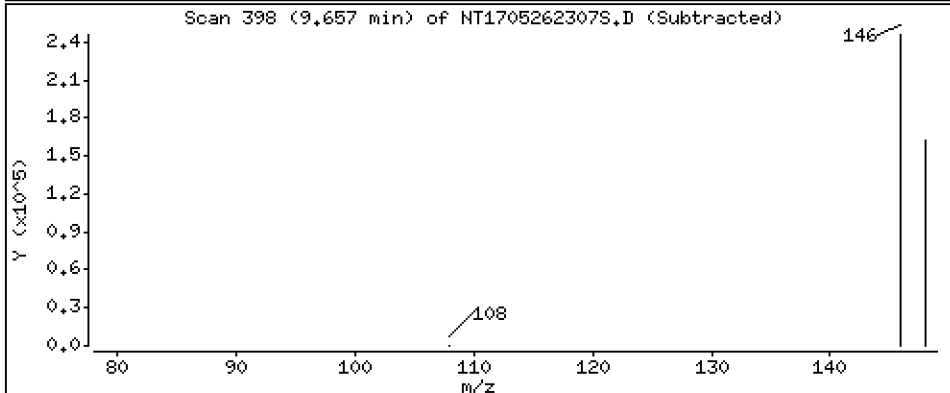
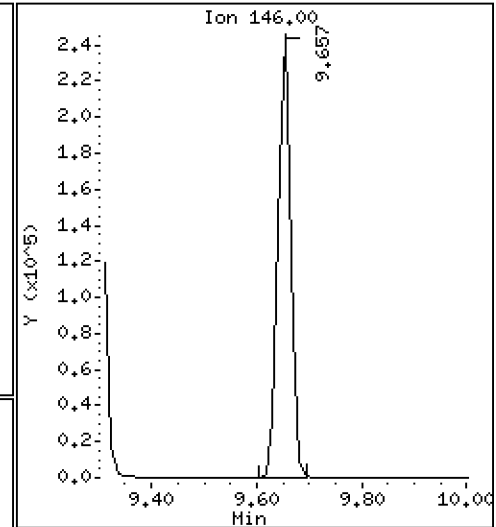
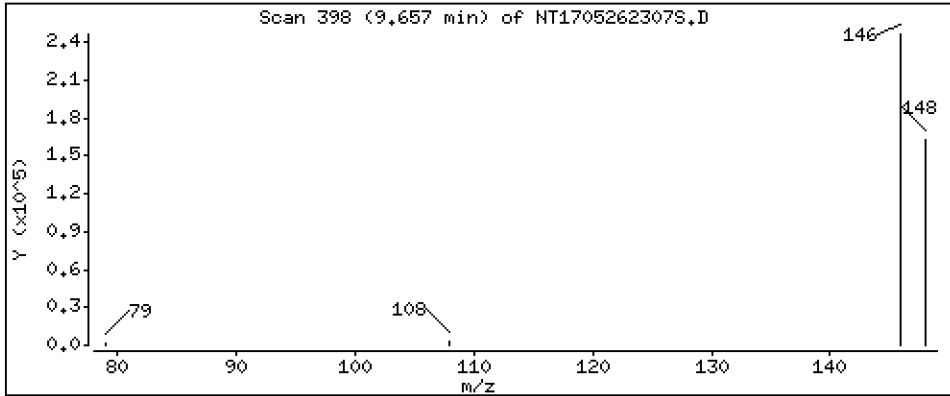
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,894 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

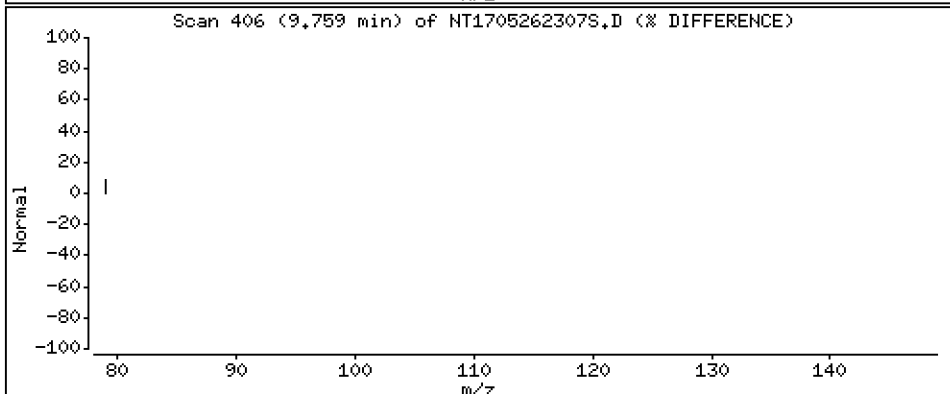
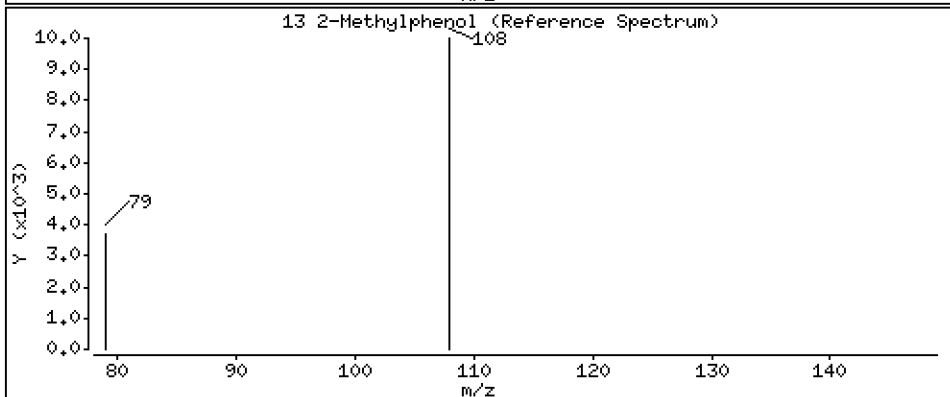
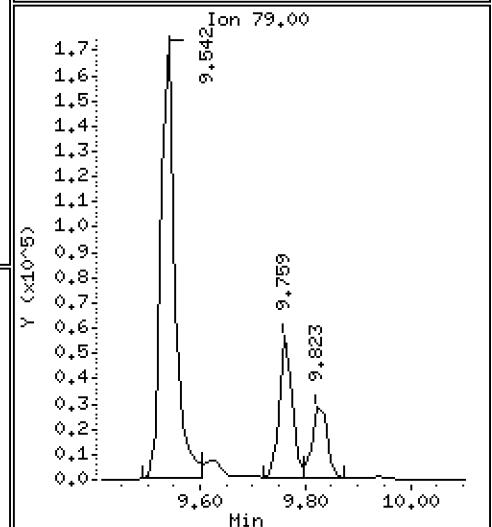
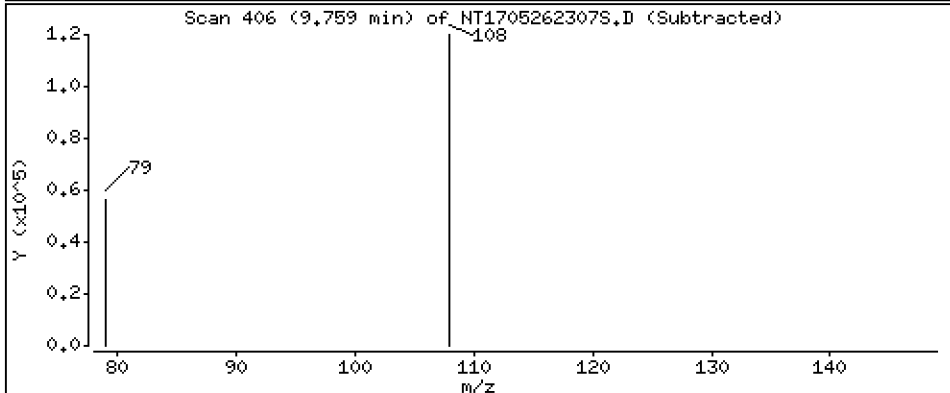
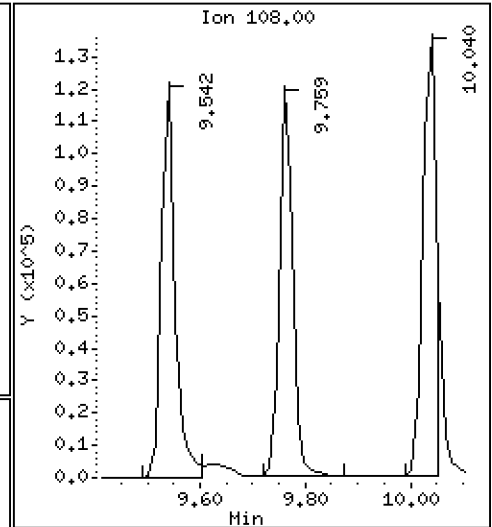
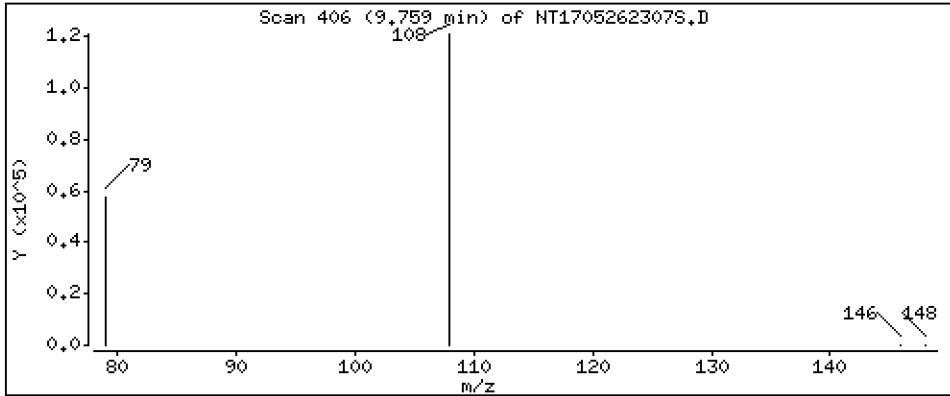
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2.405 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

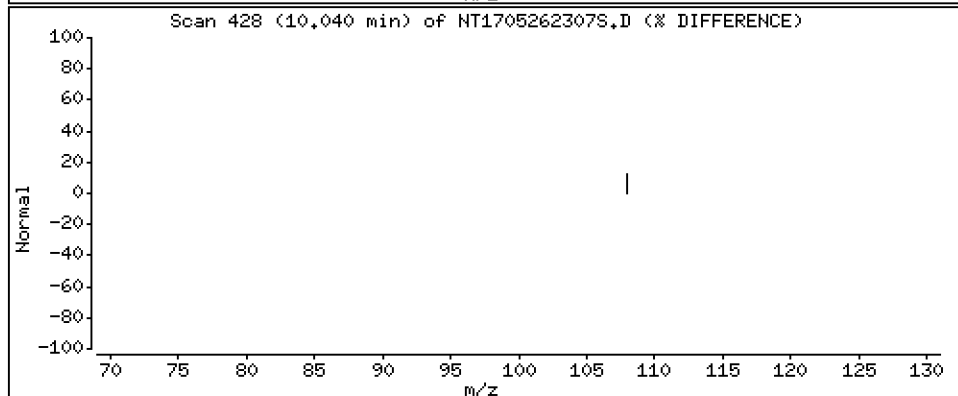
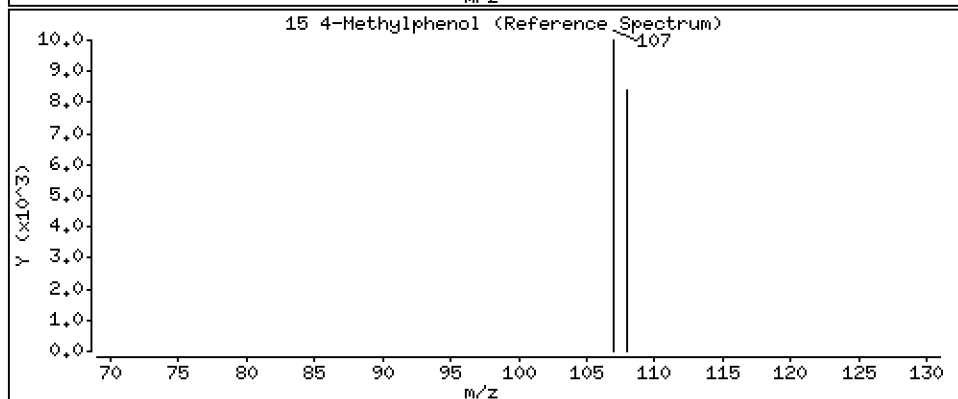
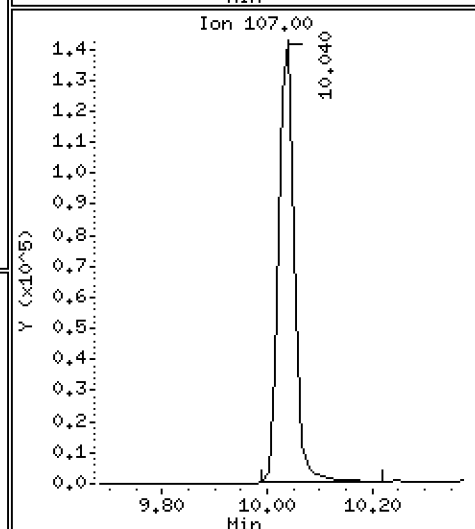
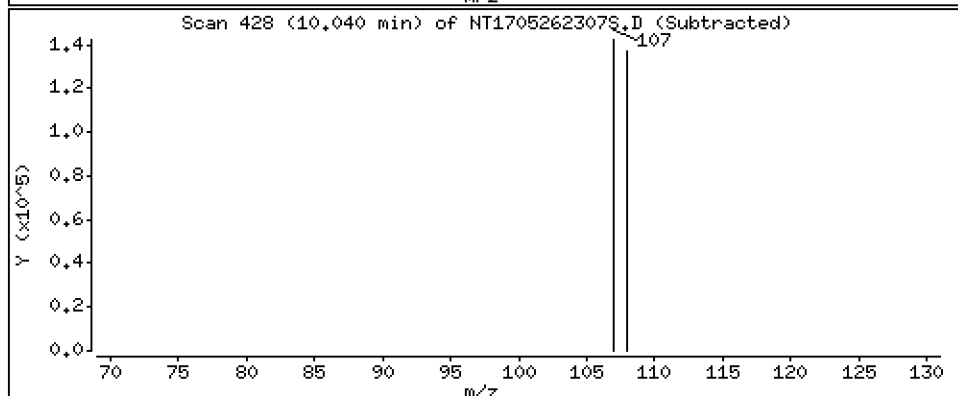
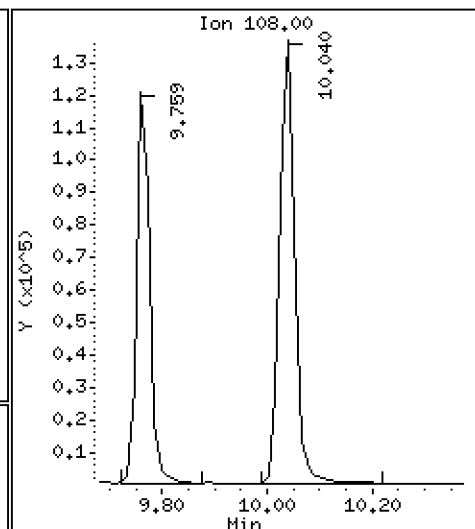
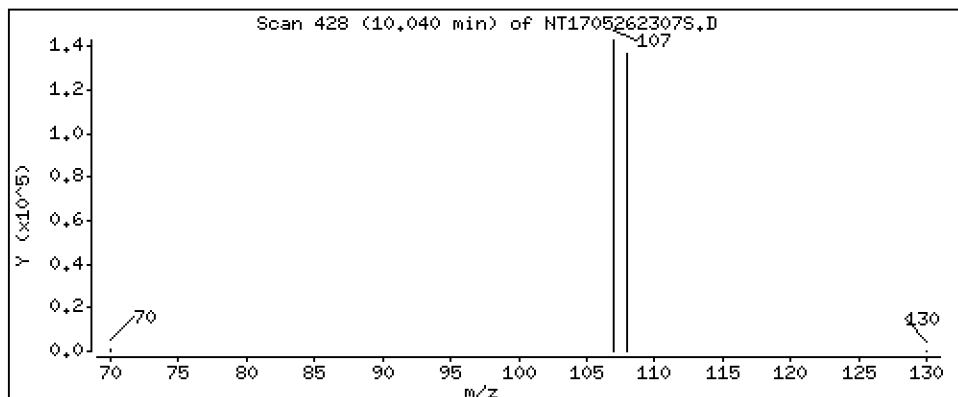
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,130 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

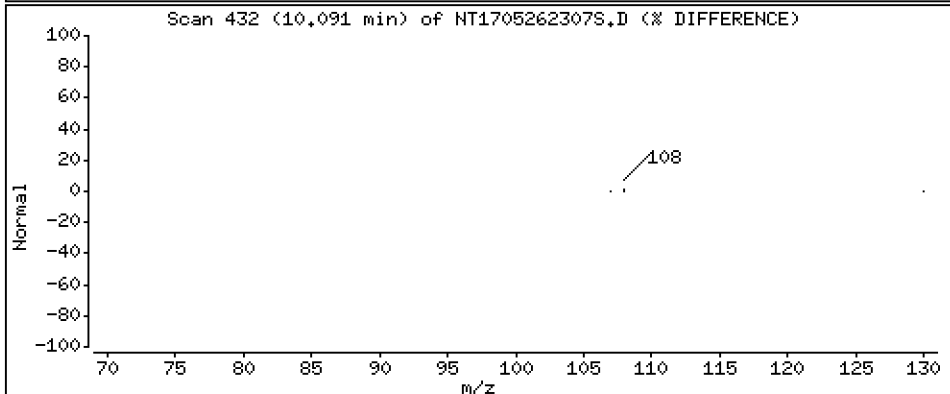
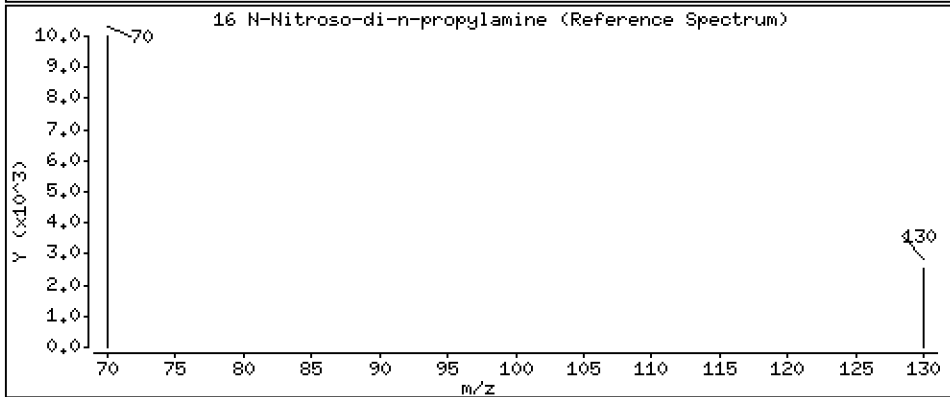
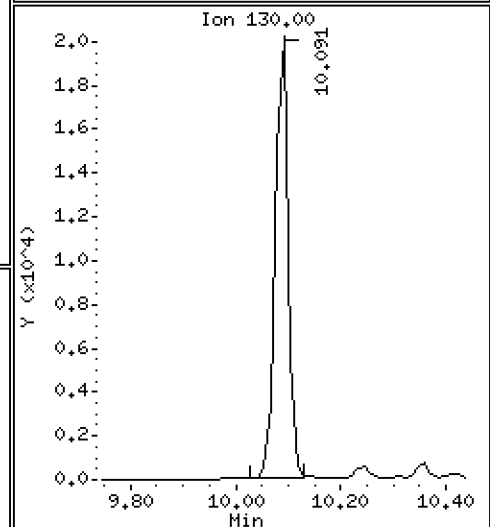
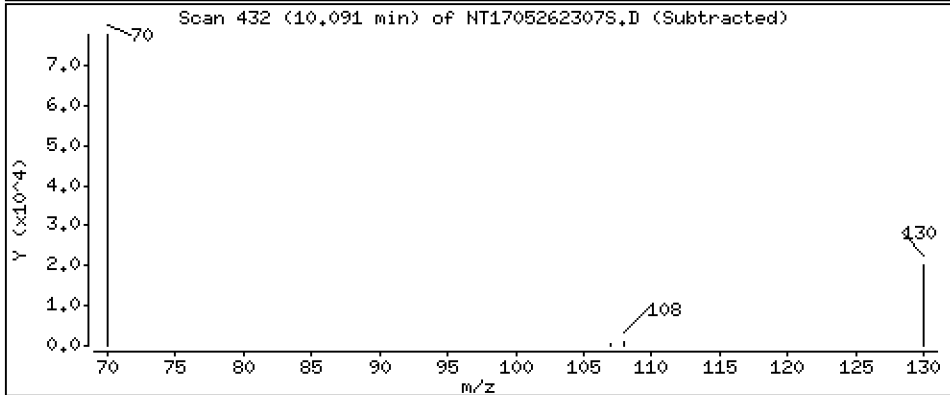
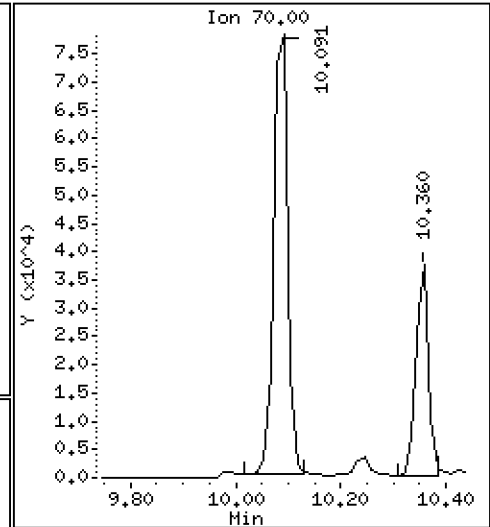
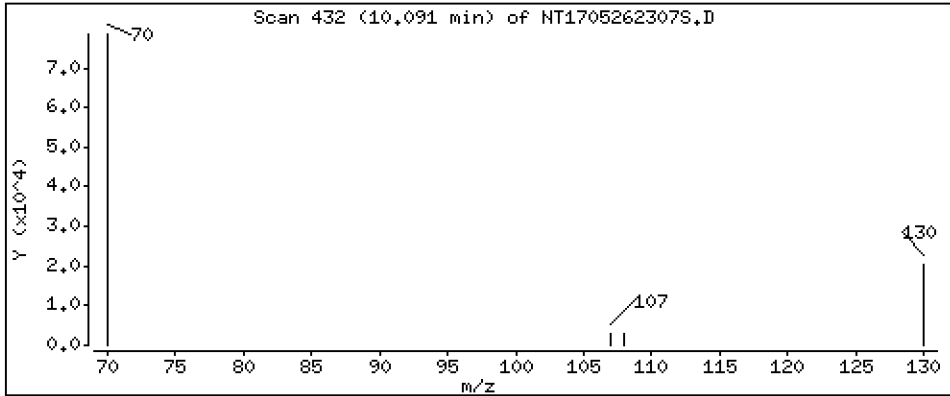
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 2,324 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

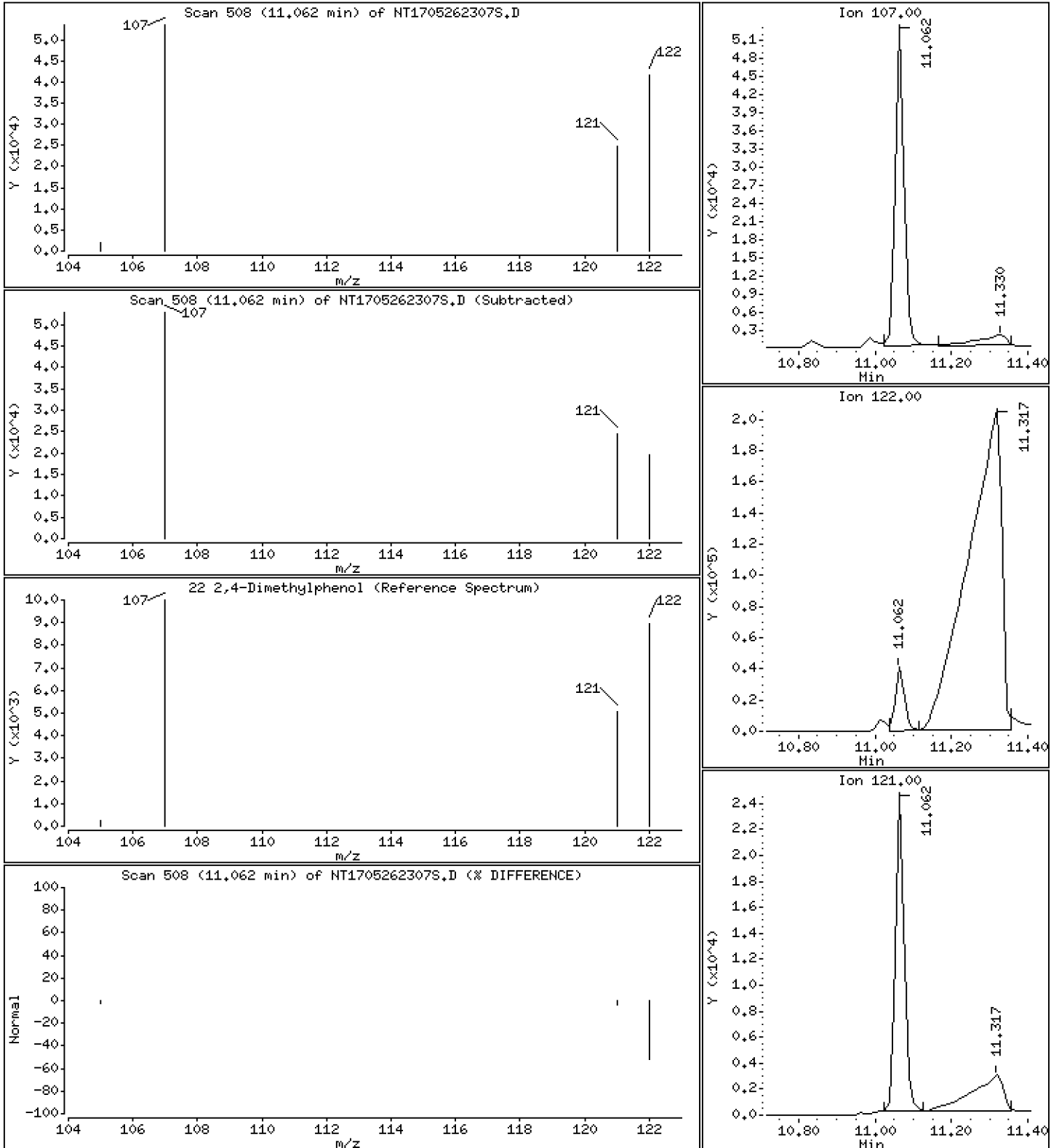
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,9043 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

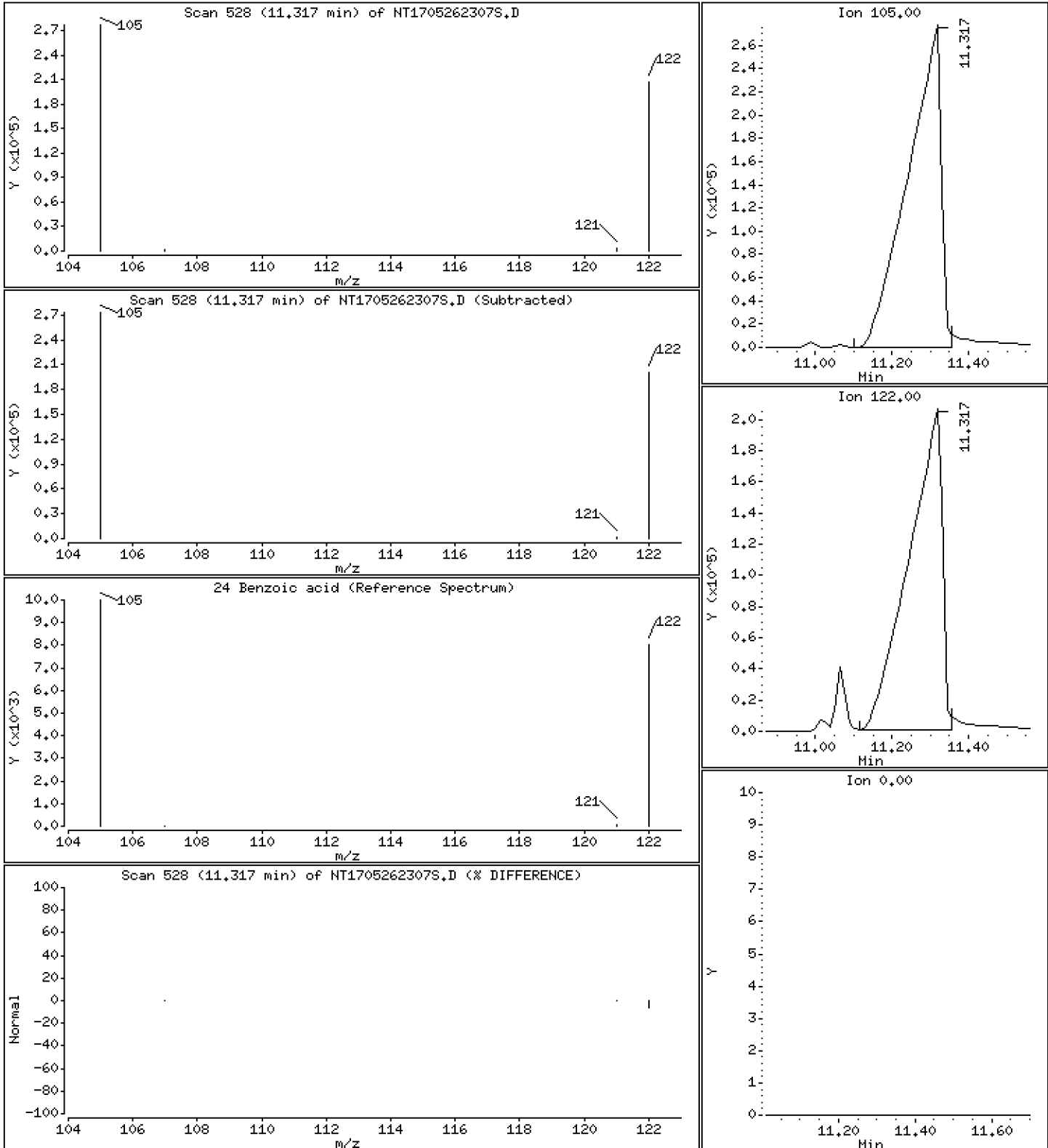
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 28,24 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

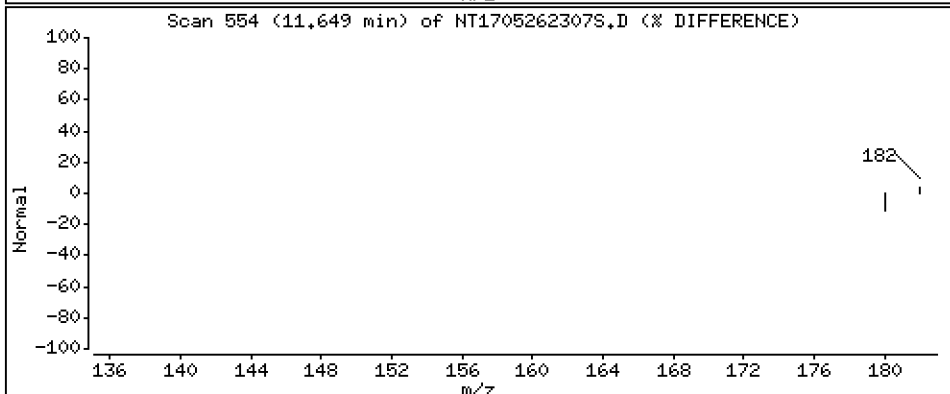
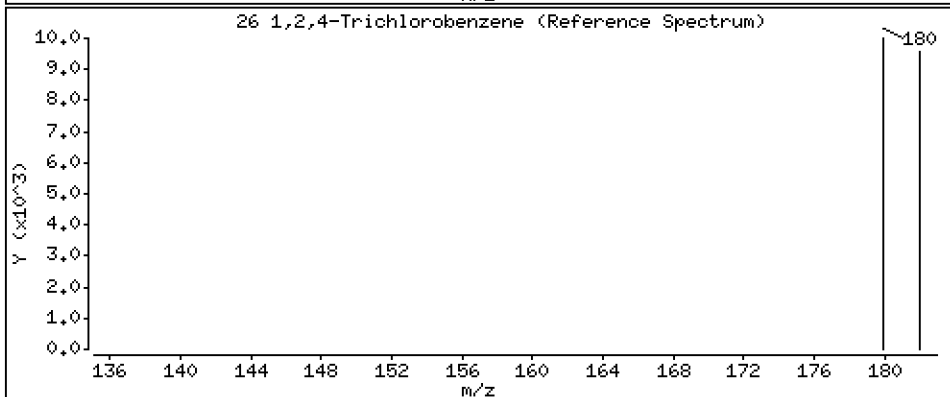
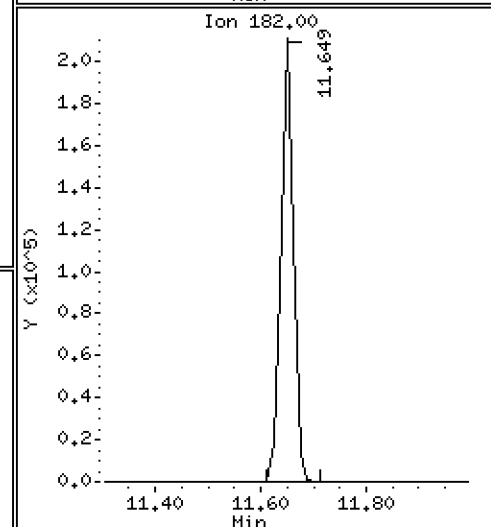
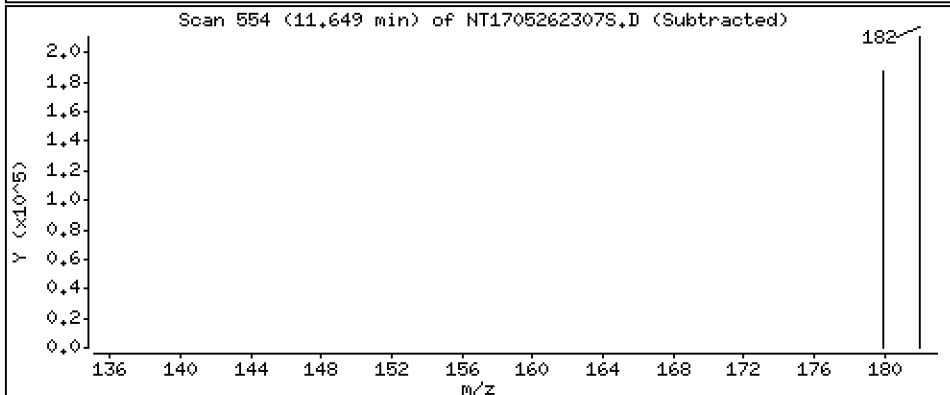
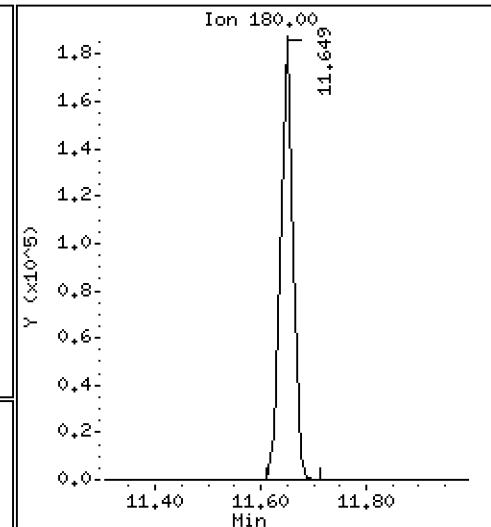
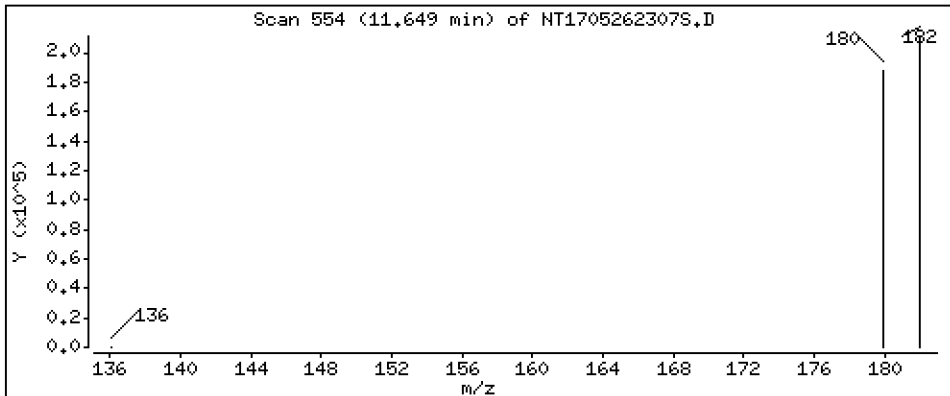
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,594 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

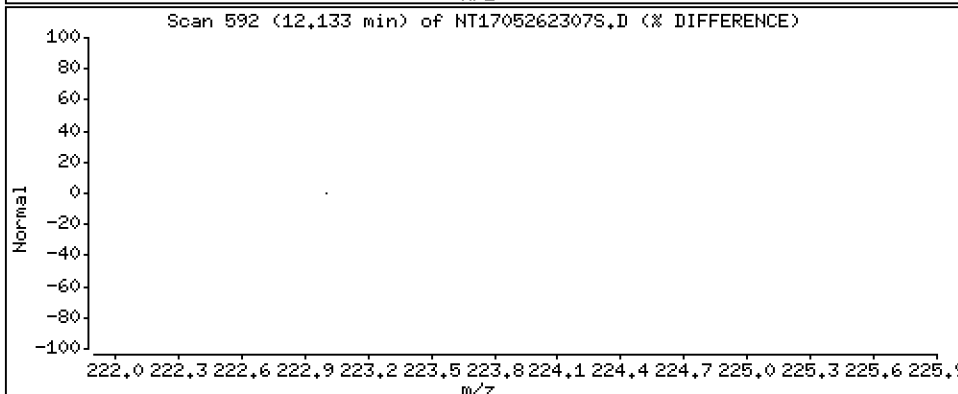
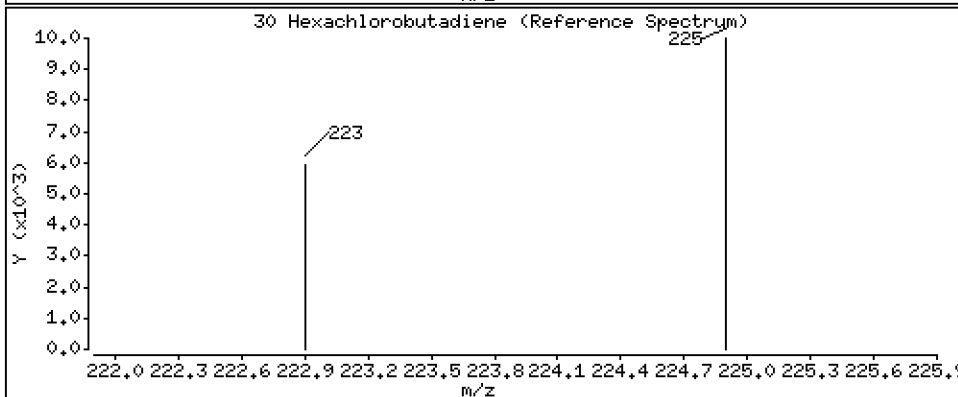
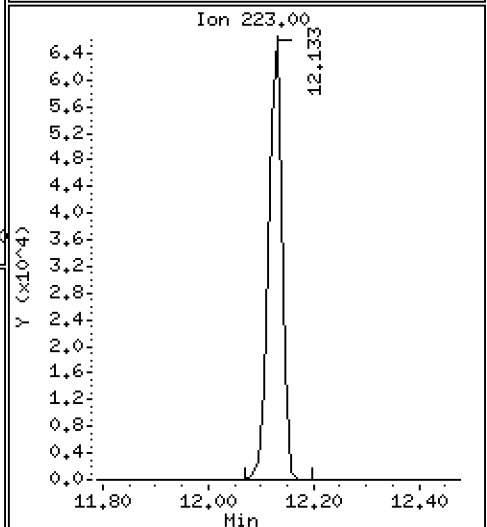
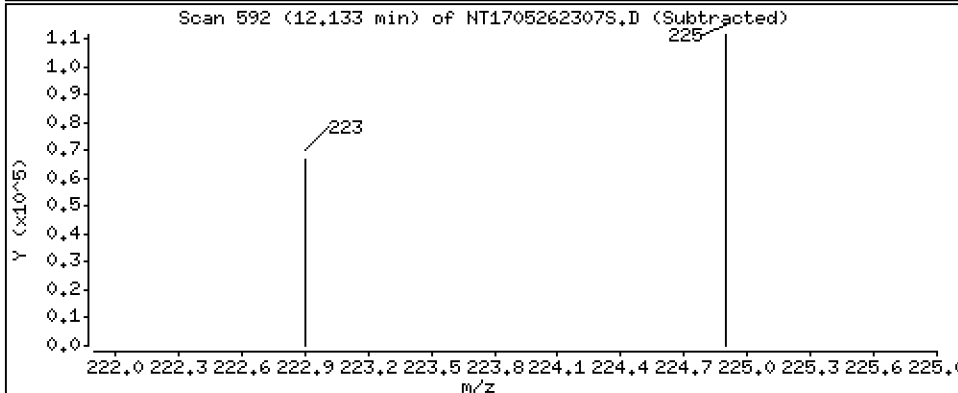
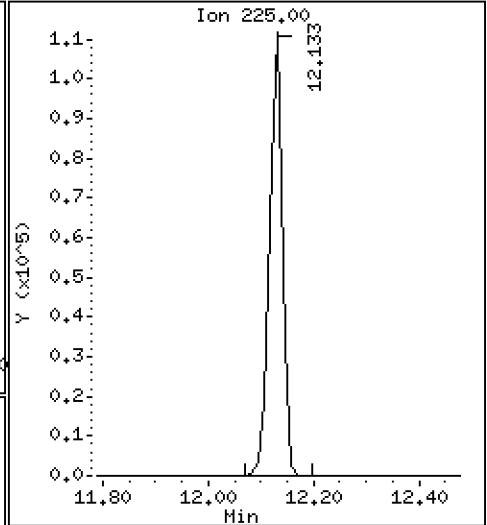
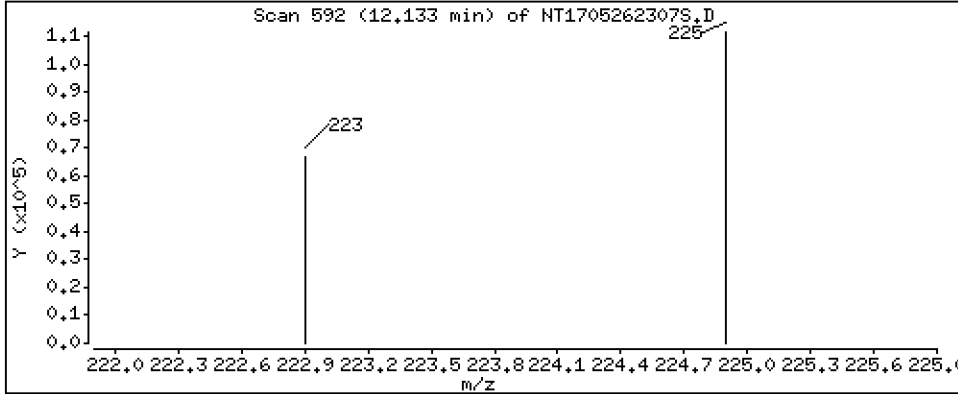
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,215 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

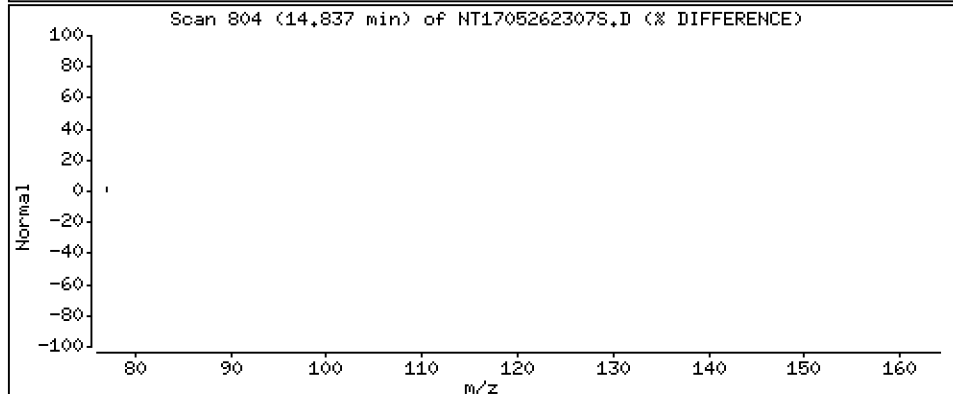
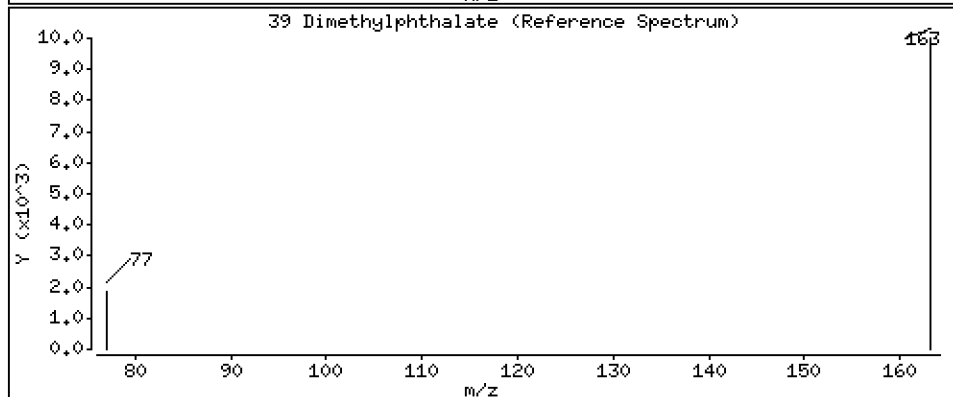
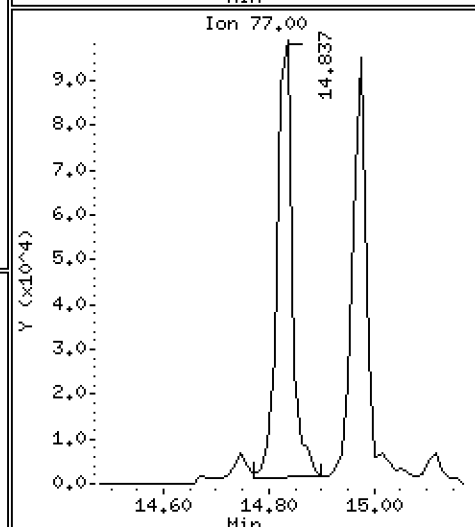
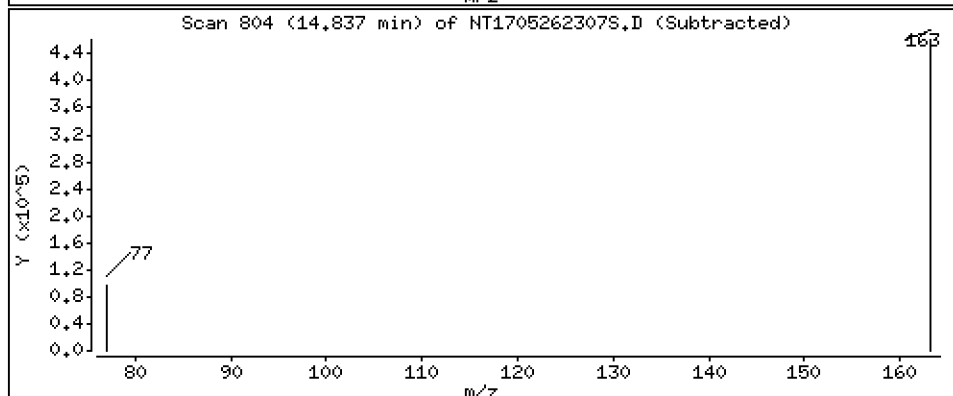
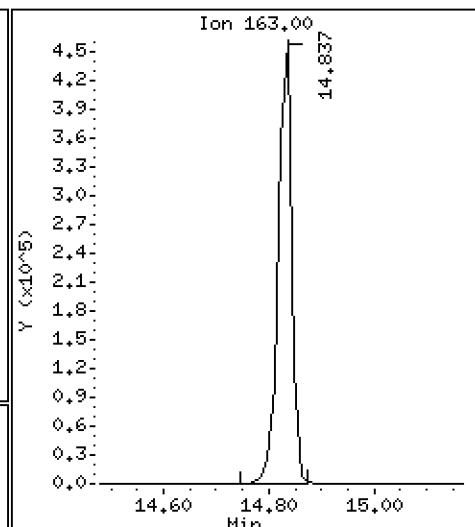
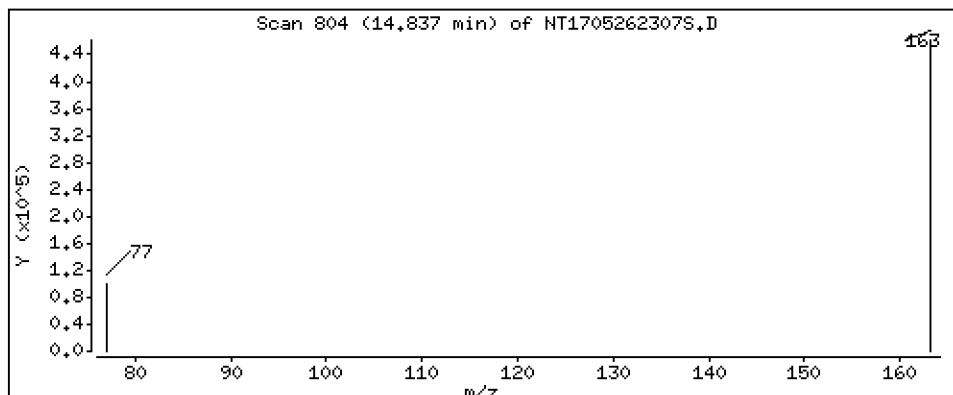
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,166 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

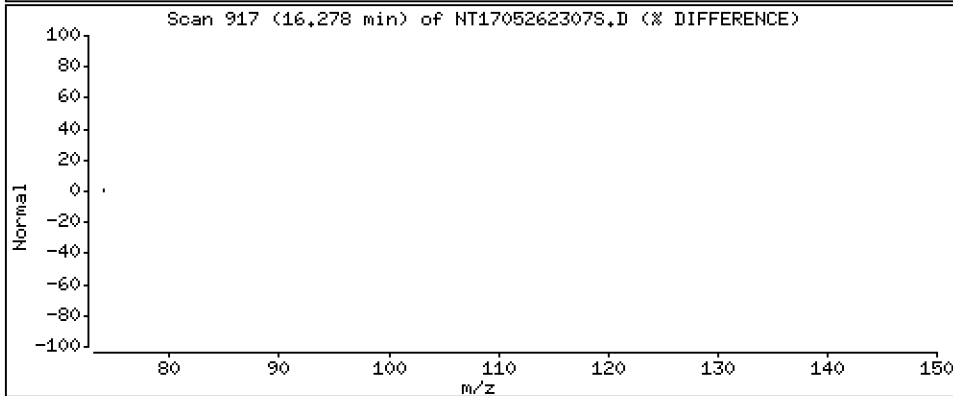
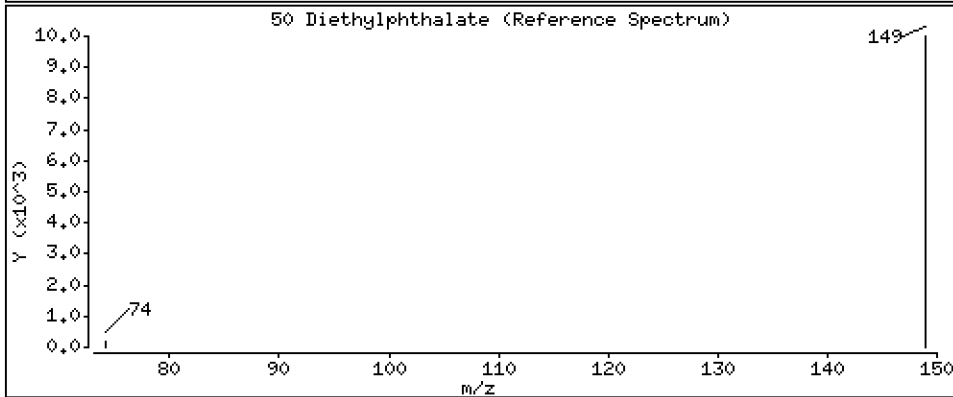
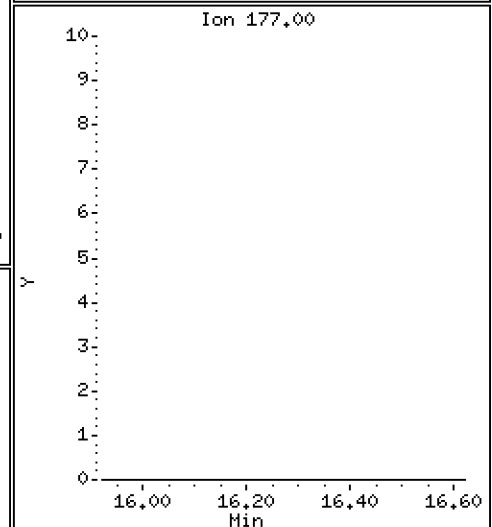
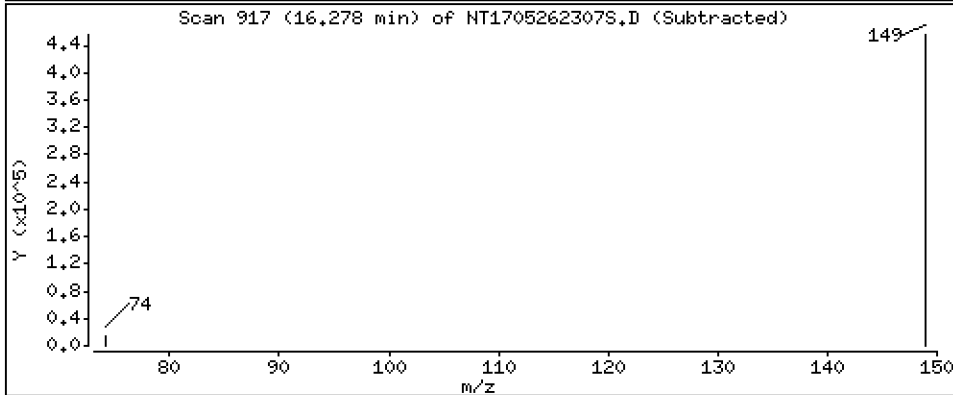
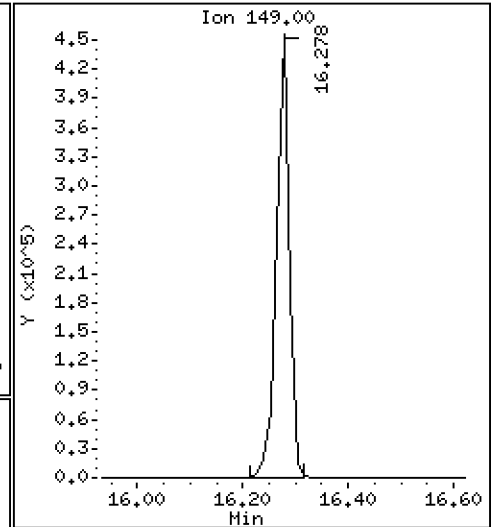
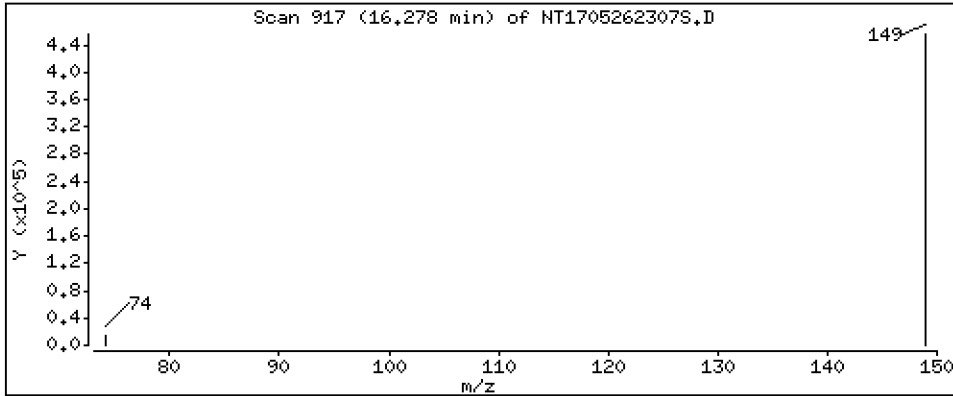
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,293 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

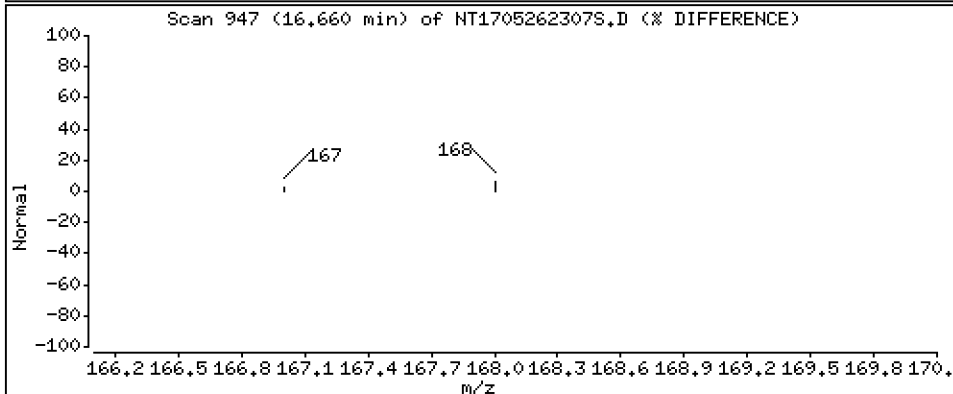
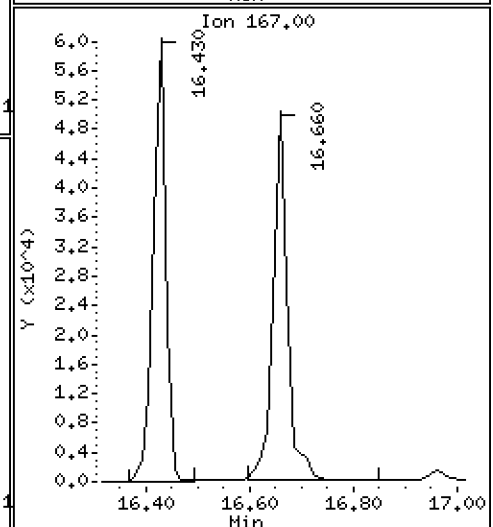
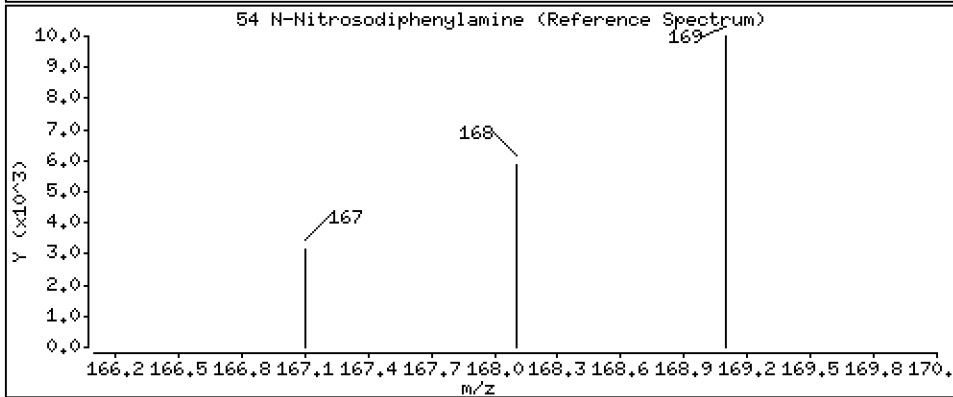
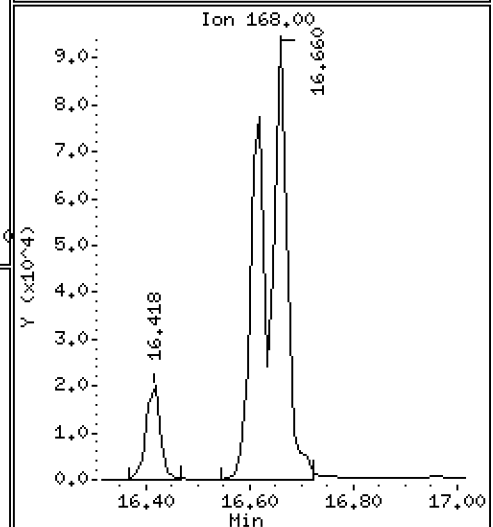
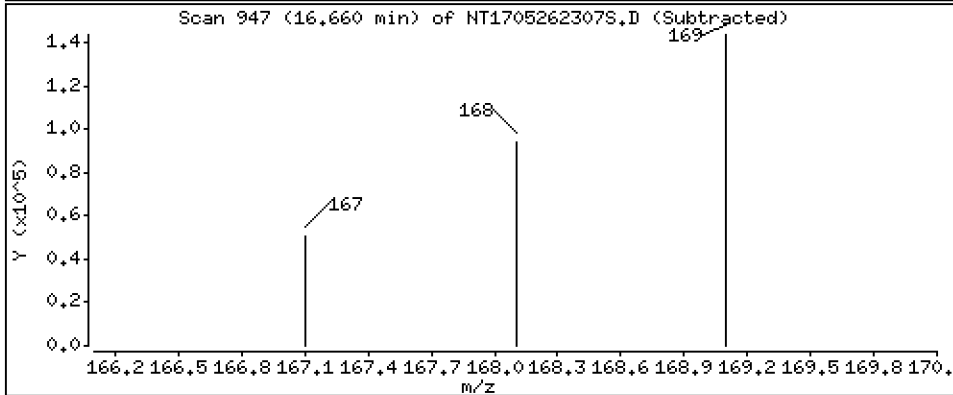
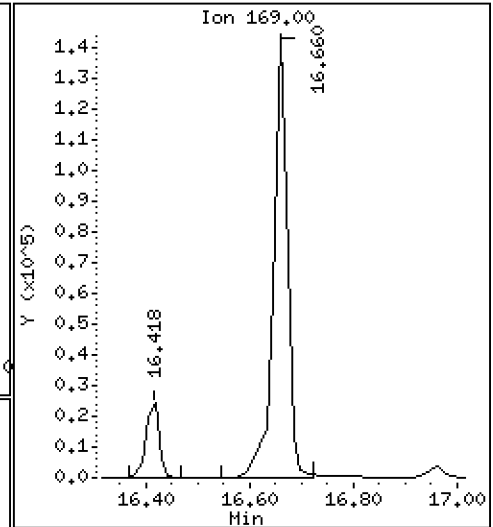
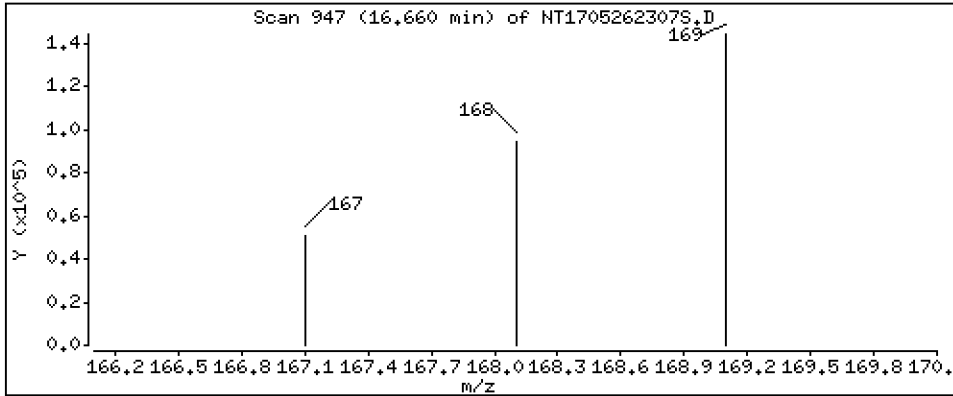
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,426 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

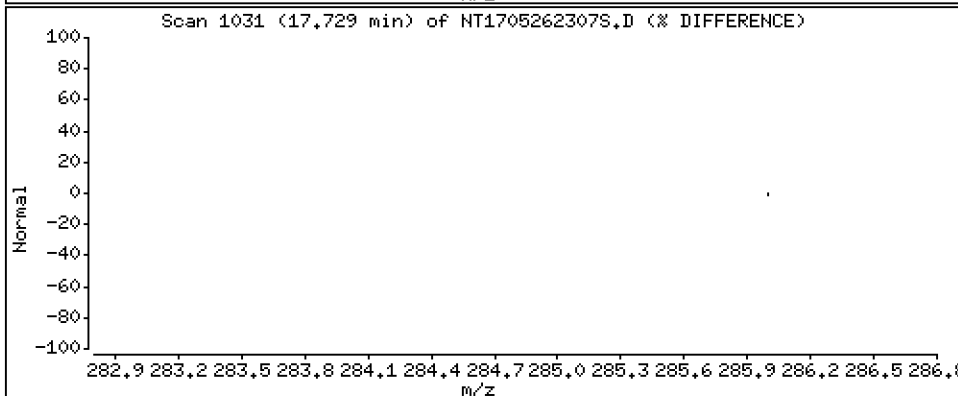
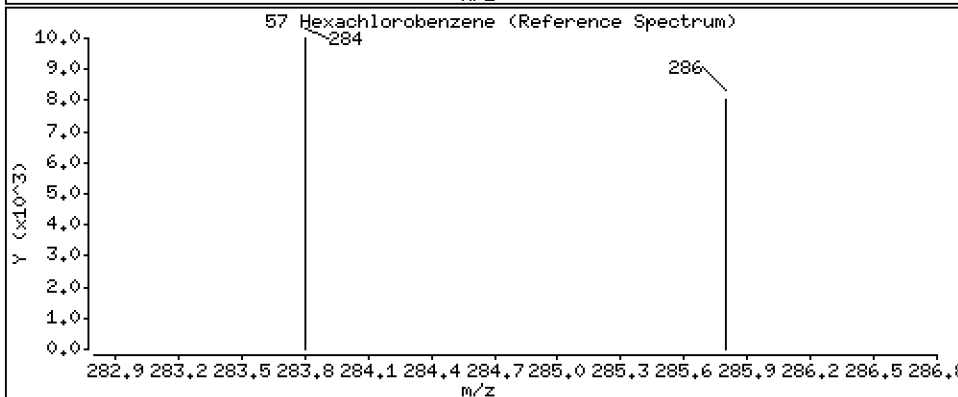
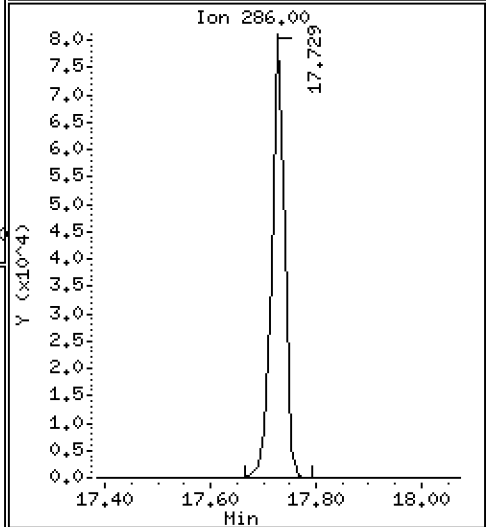
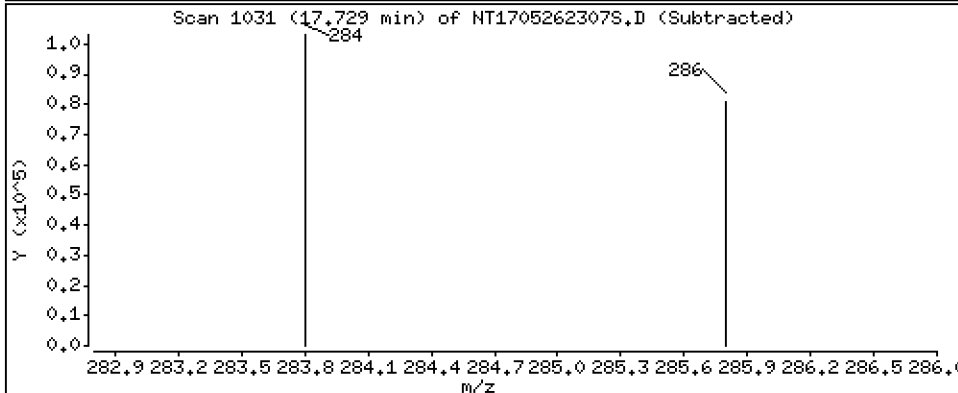
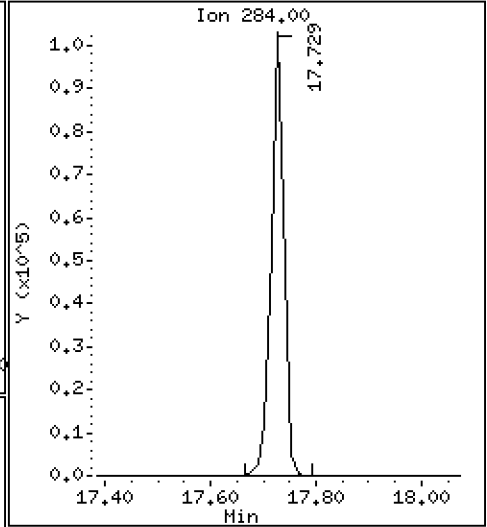
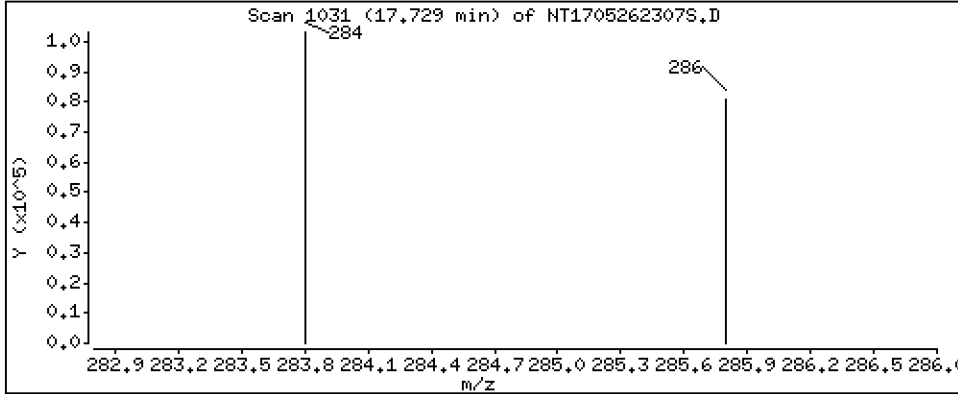
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,611 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

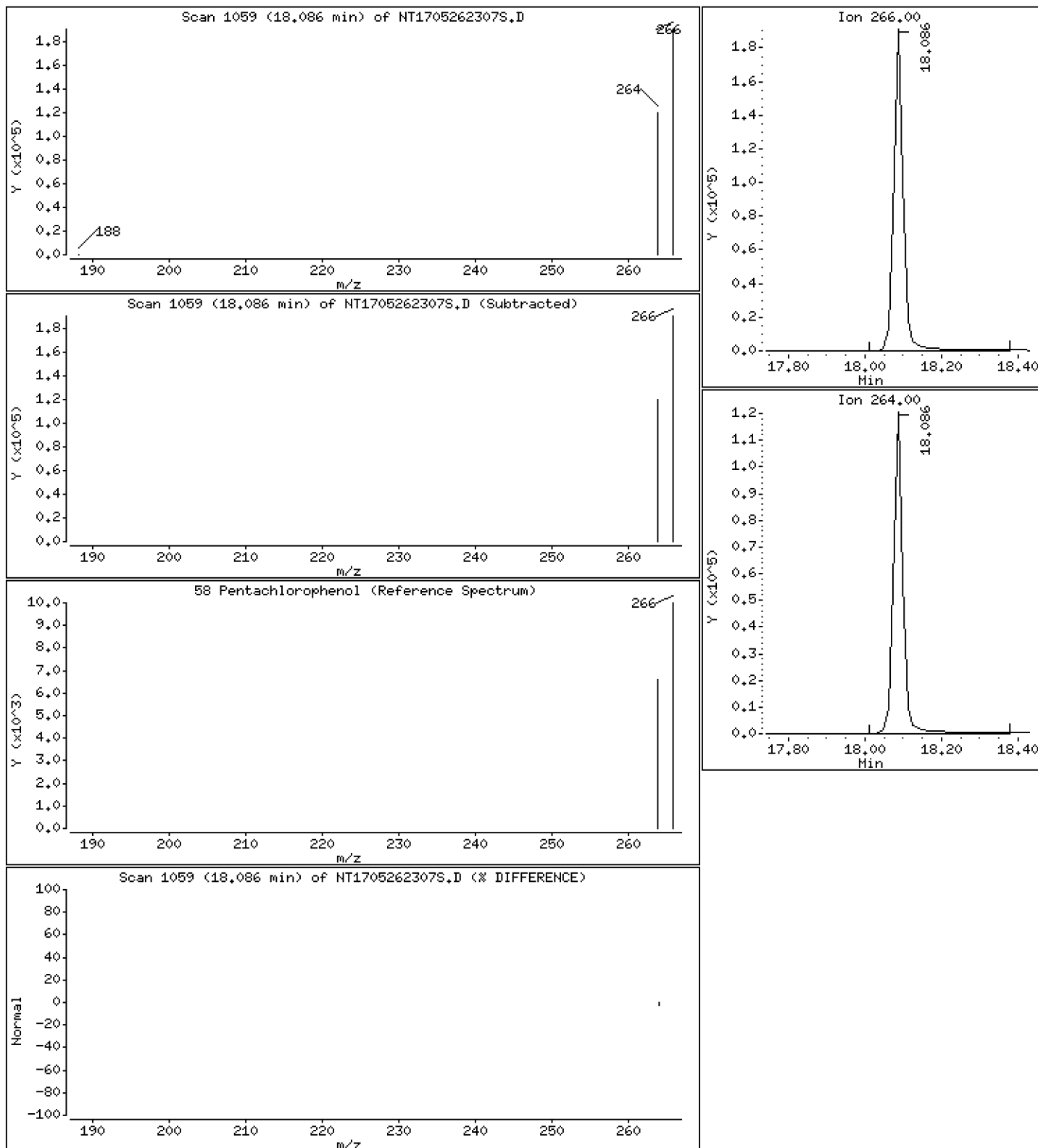
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 13,51 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

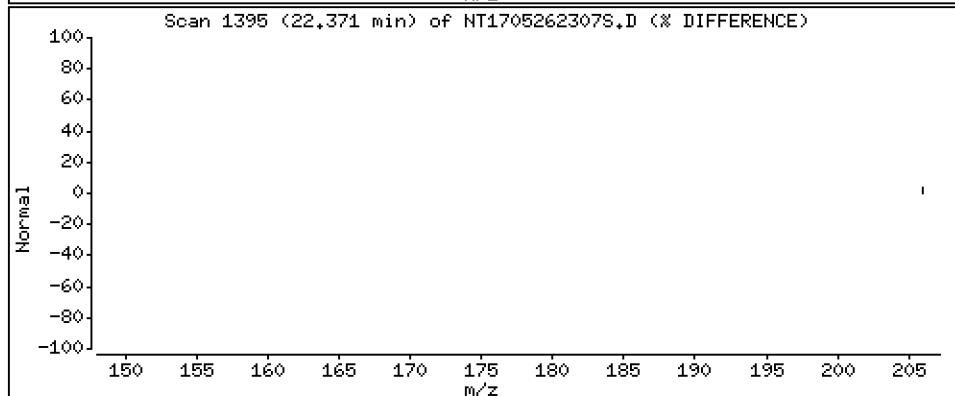
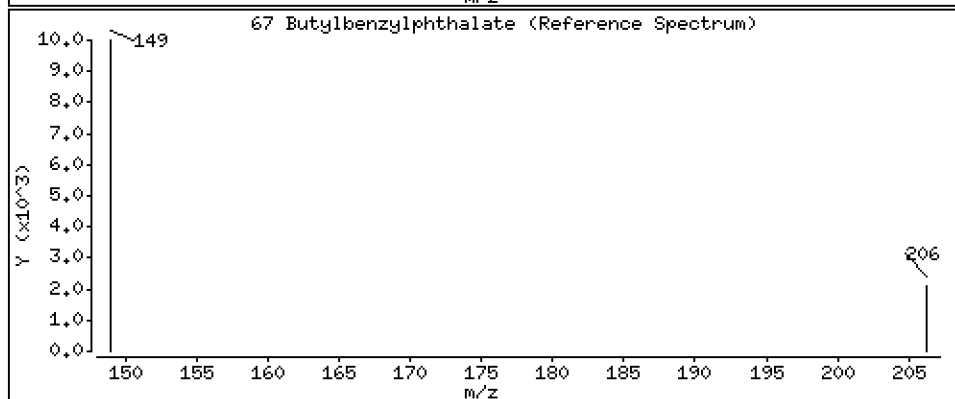
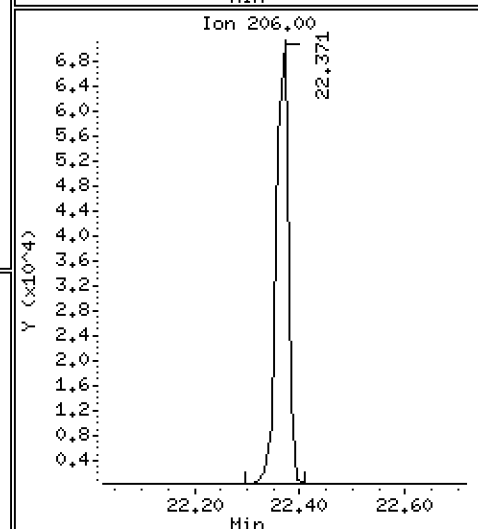
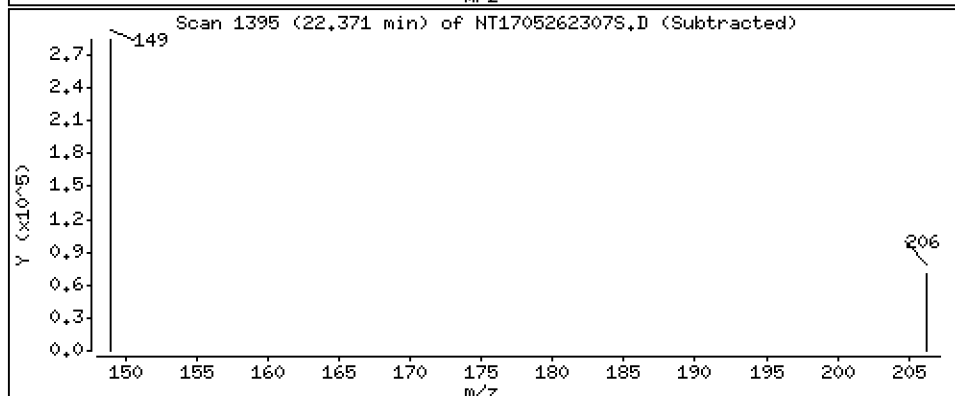
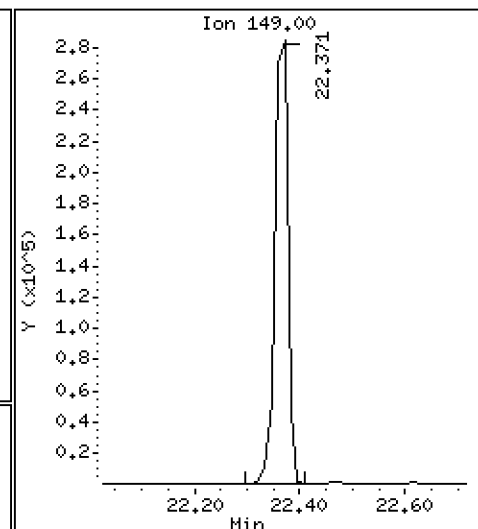
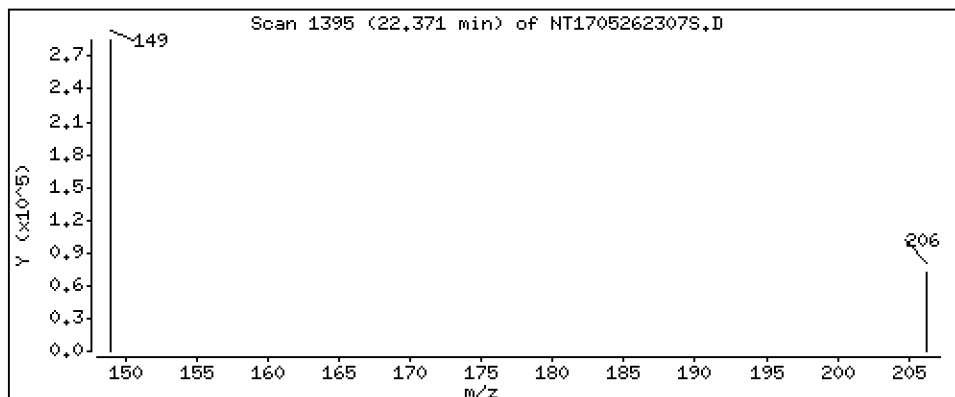
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,873 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

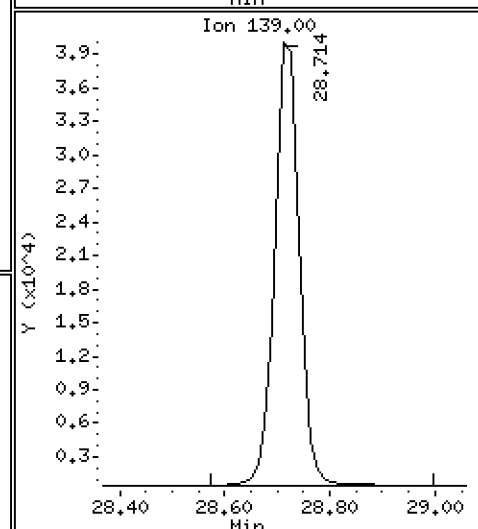
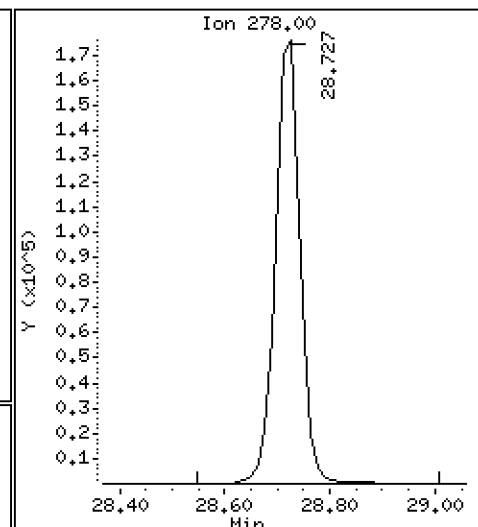
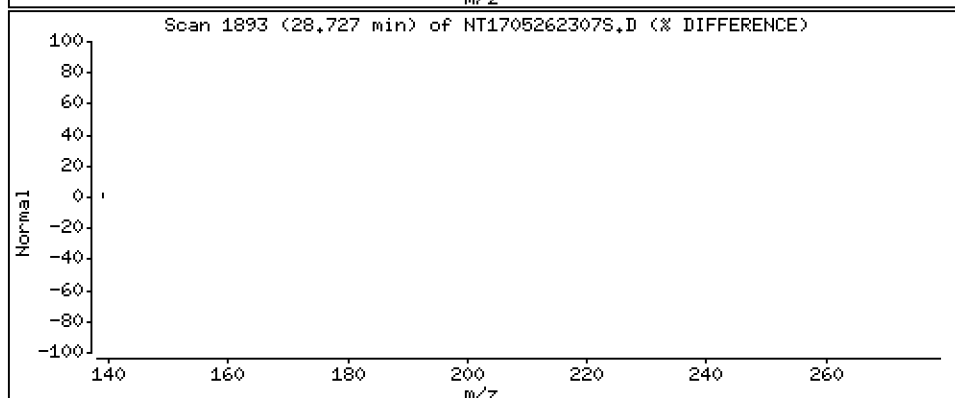
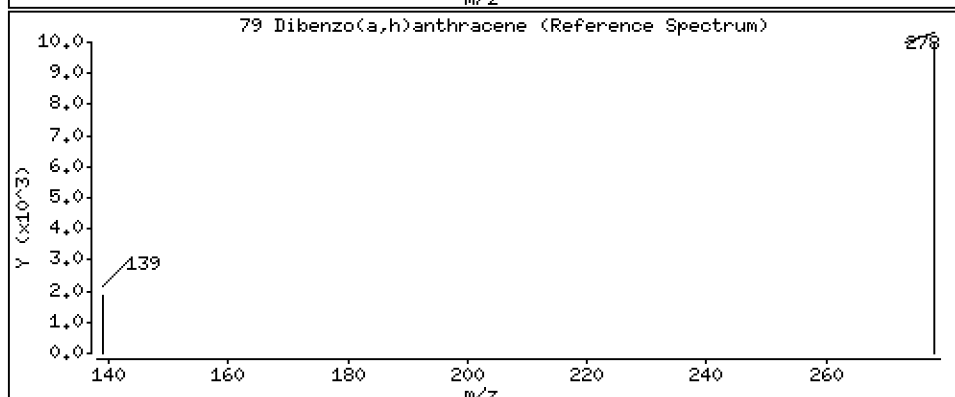
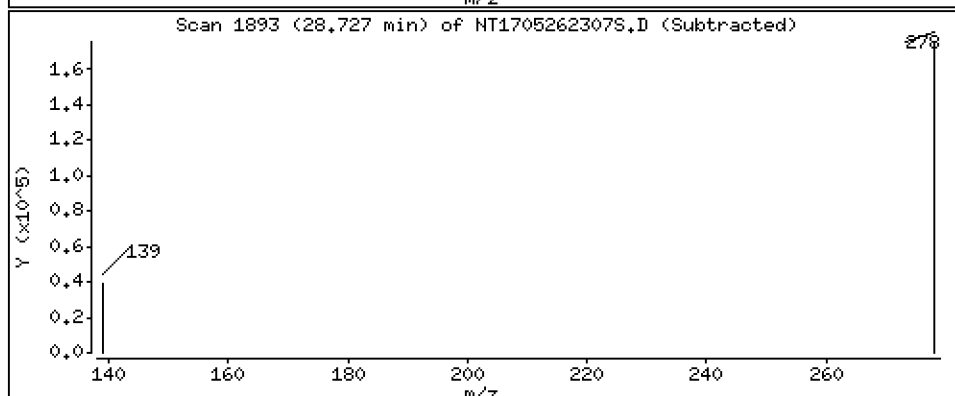
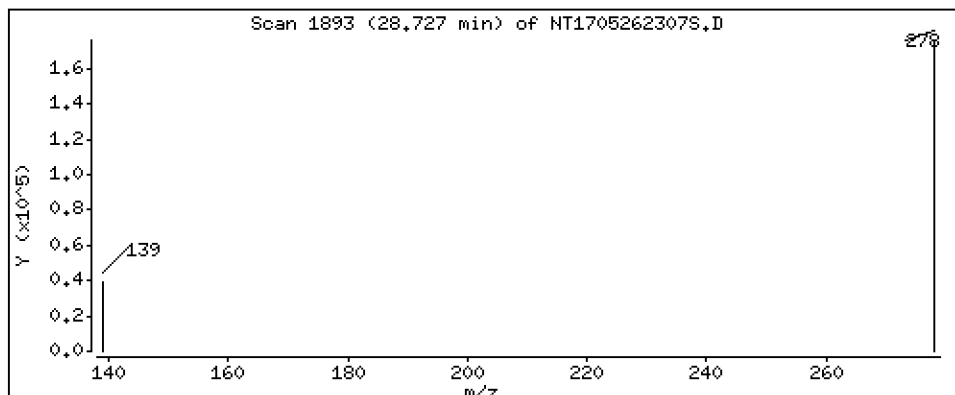
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,895 ug/mL



Date : 26-MAY-2023 16:25

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BS2

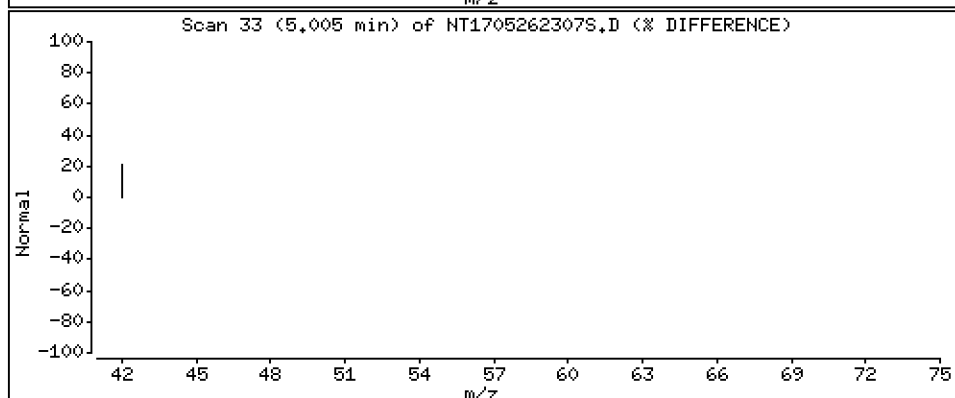
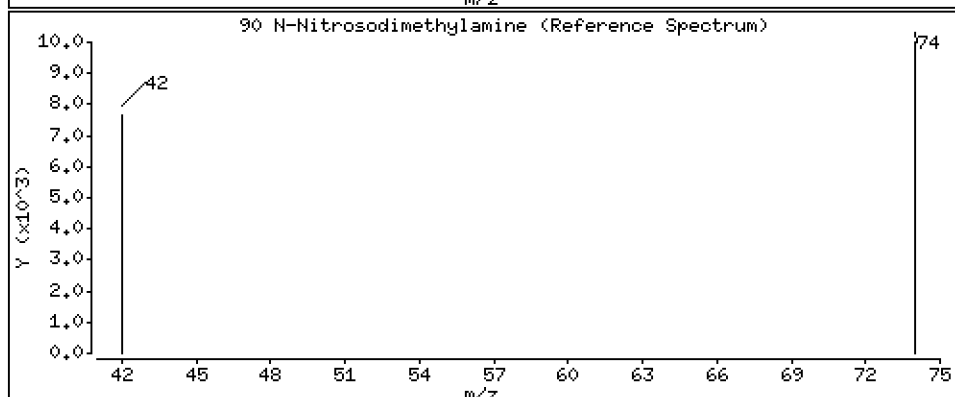
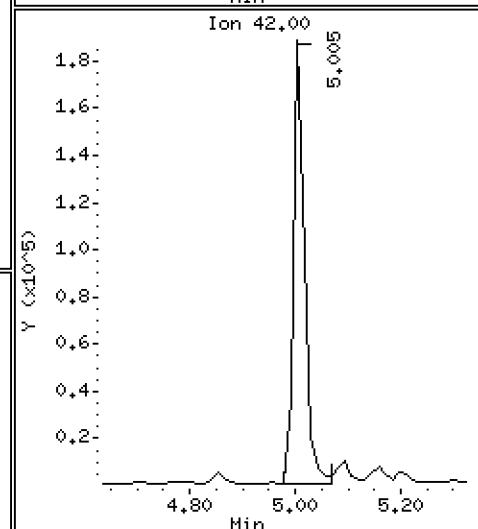
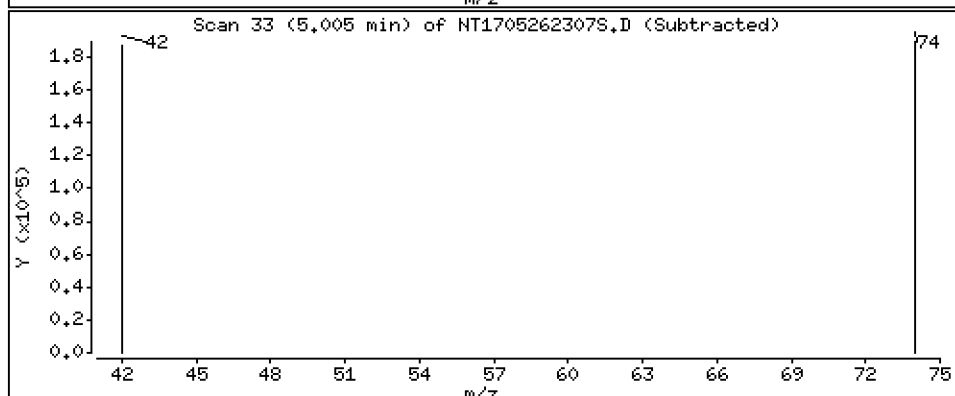
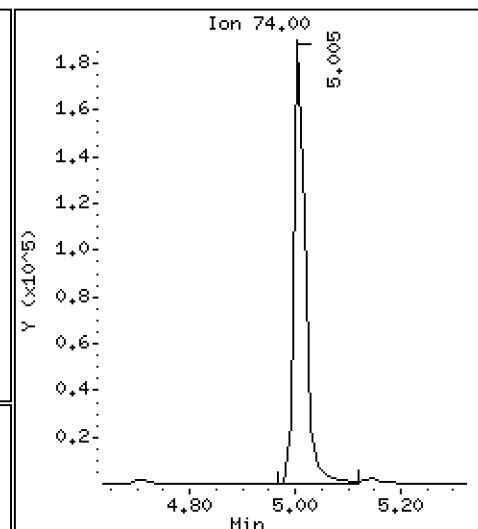
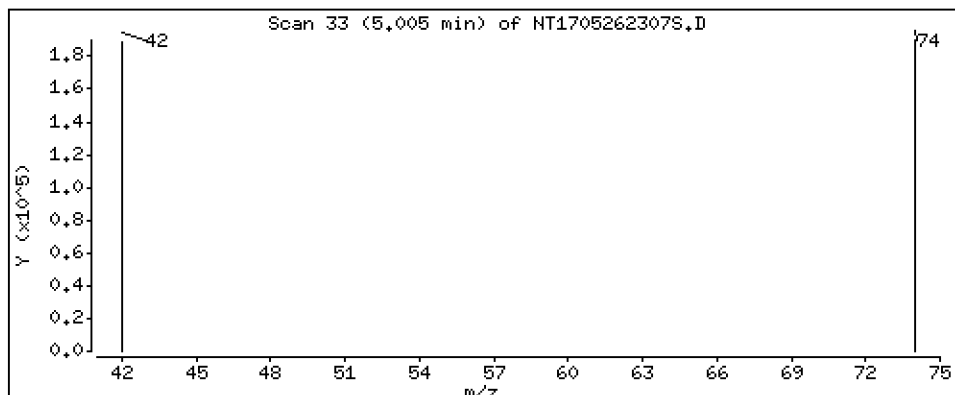
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.271 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262307S.D
 Lab Smp Id: BLD0607-BS2
 Inj Date : 26-MAY-2023 16:25
 Operator : VTS
 Smp Info : BLD0607-BS2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 06-Jun-2023 14:52 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.094	7.069	(0.765)	524922	6.26325	6.263 (R)
3 Phenol	94		8.661	8.661	(0.934)	497238	3.98171	3.982
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	430742	3.84815	3.848
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	277093	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	421397	3.86339	3.863
11 Benzyl alcohol	79		9.541	9.541	(1.029)	327107	4.59690	4.597
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	416262	3.89367	3.894
13 2-Methylphenol	108		9.759	9.759	(1.052)	208107	2.40484	2.405
15 4-Methylphenol	108		10.040	10.027	(1.083)	273707	3.12966	3.130
16 N-Nitroso-di-n-propylamine	70		10.091	10.091	(1.088)	146474	2.32389	2.324
22 2,4-Dimethylphenol	107		11.062	11.062	(0.942)	85068	0.90427	0.9043
24 Benzoic acid	105		11.317	11.215	(0.964)	1655009	28.2397	28.24
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	306735	3.59386	3.594
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	977960	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	189422	4.21494	4.215
39 Dimethylphthalate	163		14.837	14.824	(0.968)	827367	4.16650	4.166
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	540748	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	774246	4.29330	4.293
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	265730	2.42616	2.426
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	171330	4.61130	4.611
58 Pentachlorophenol	266		18.086	18.086	(0.985)	329489	13.5080	13.51
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	777447	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	495918	5.14311	5.143 (R)
67 Butylbenzylphthalate	149		22.370	22.371	(0.958)	510553	4.87251	4.873
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	508163	4.00000	
* 77 Perylene-d12	264		25.993	25.994	(1.000)	427670	4.00000	
79 Dibenzo(a,h)anthracene	278		28.726	28.713	(1.105)	590443	4.89473	4.895
90 N-Nitrosodimethylamine	74		5.005	4.979	(0.540)	285124	5.27112	5.271

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262307S.D
 Lab Smp Id: BLD0607-BS2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	277093	-21.93
27 Naphthalene-d8	1204481	602241	2408962	977960	-18.81
42 Acenaphthene-d10	658677	329339	1317354	540748	-17.90
59 Phenanthrene-d10	965415	482708	1930830	777447	-19.47
69 Chrysene-d12	615102	307551	1230204	508163	-17.39
77 Perylene-d12	580660	290330	1161320	427670	-26.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	25.99	25.49	26.49	25.99	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262307S.D

Lab ID: BLD0607-BS2

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 26-MAY-2023 16:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.964	0.955	0.0087	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705262303S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt17.1\20230526.16\SIH.6\NT1705262308S.D

Date: 26-May-2023 17:02

Client ID:

Sample Info: BLD0607-BSM2

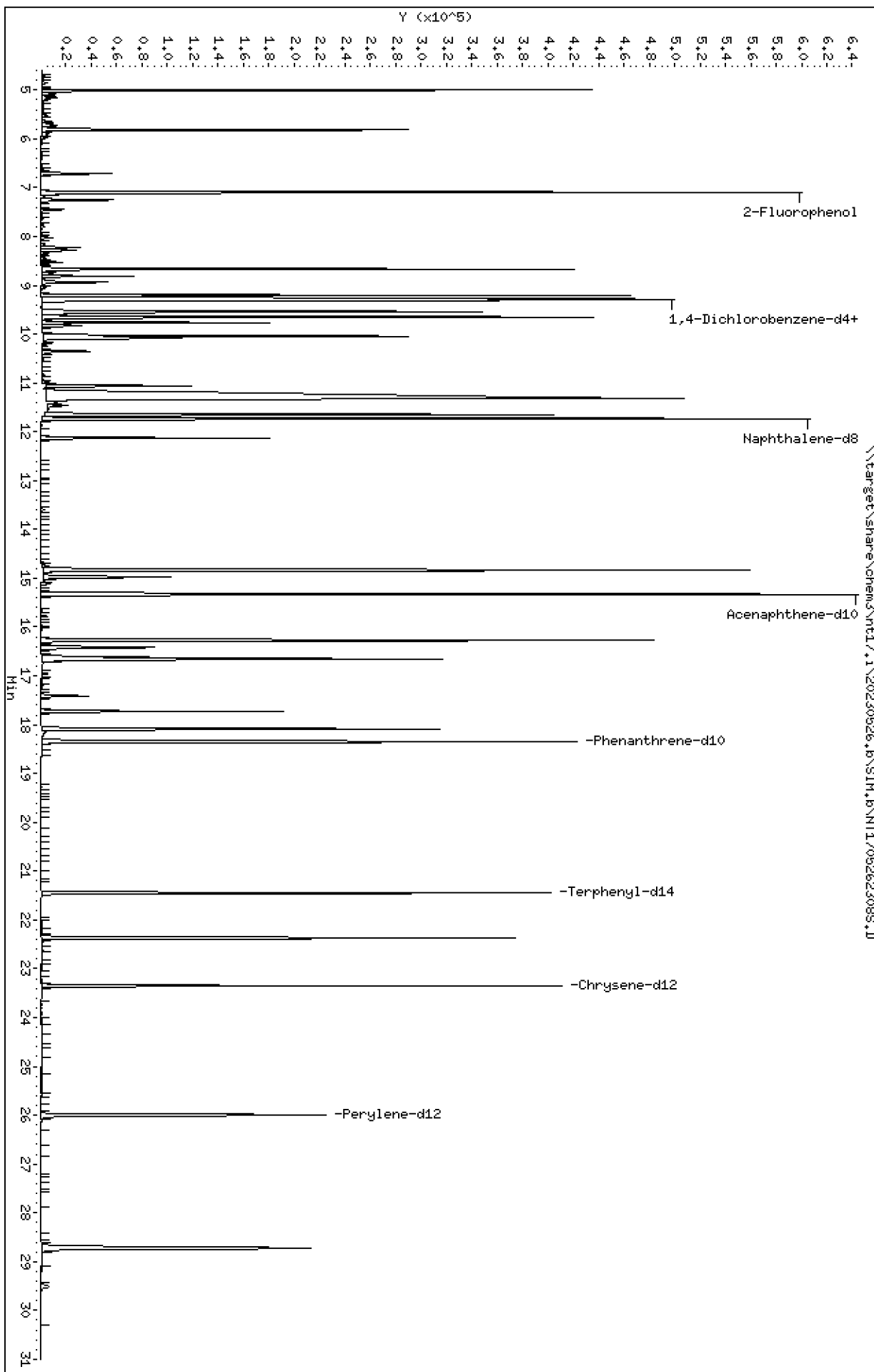
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

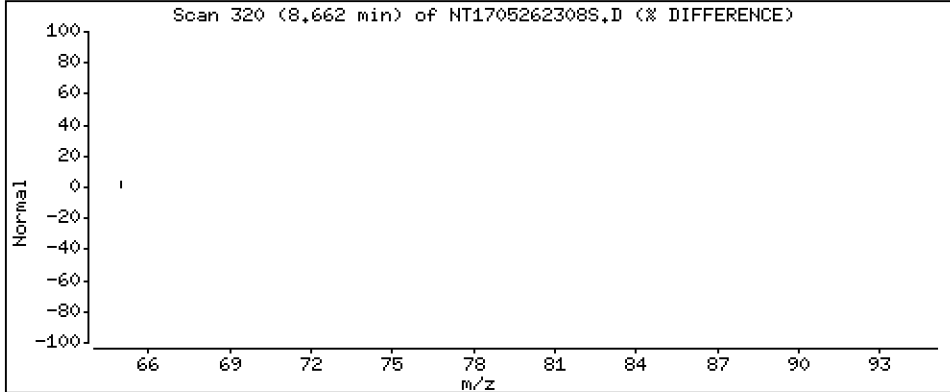
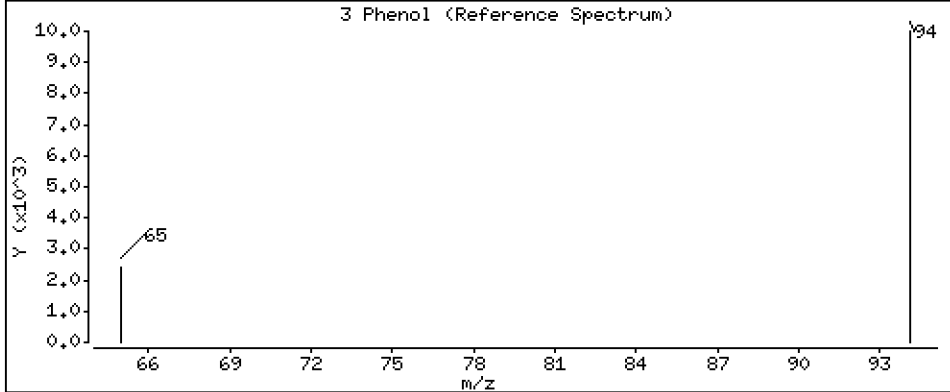
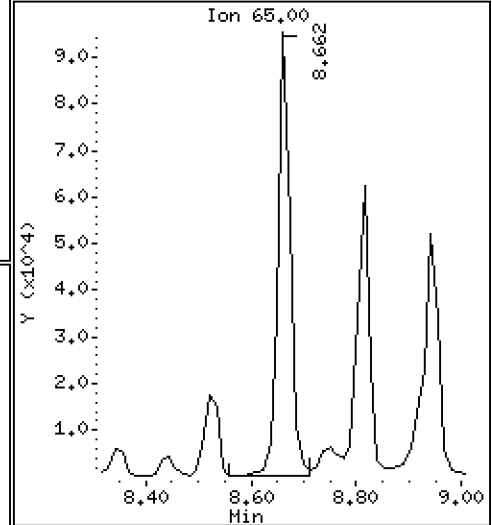
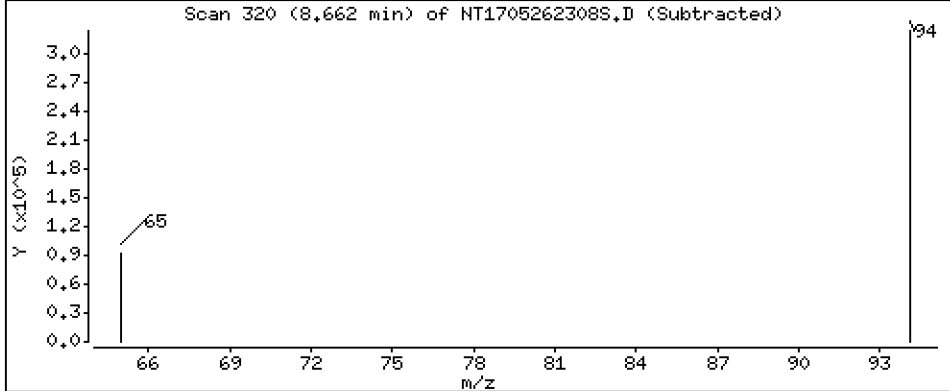
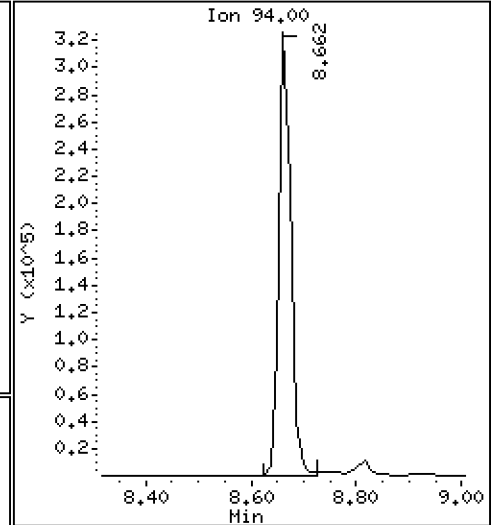
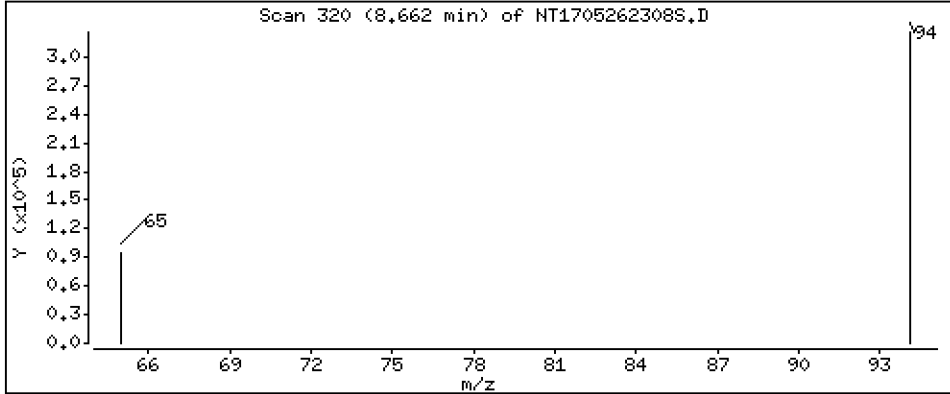
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,111 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

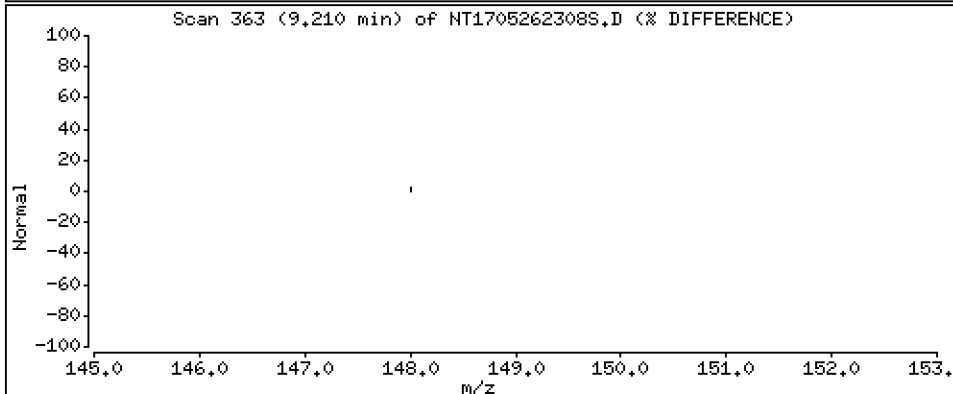
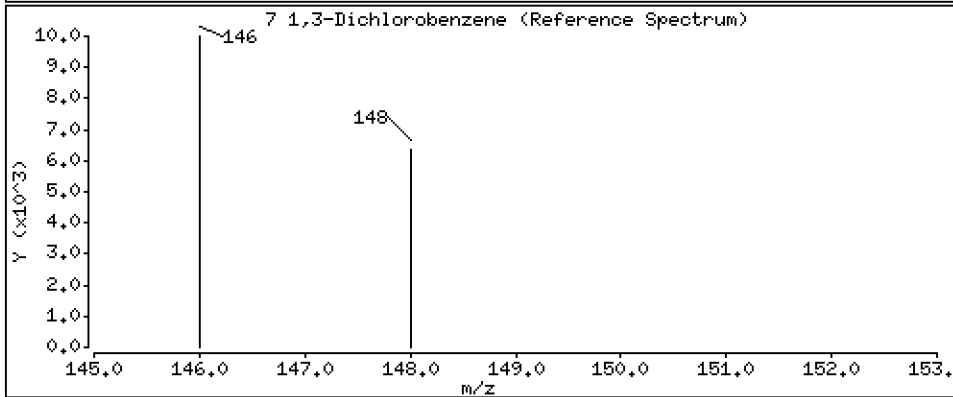
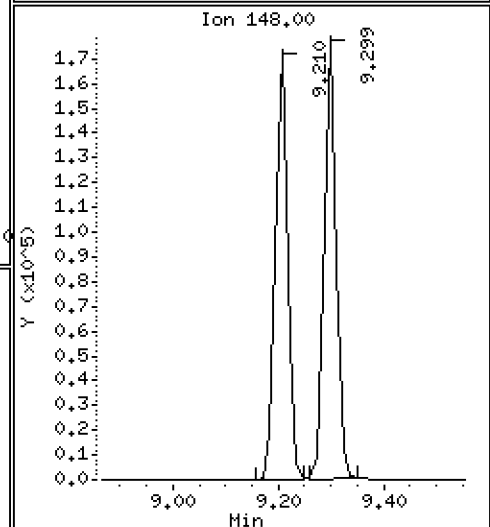
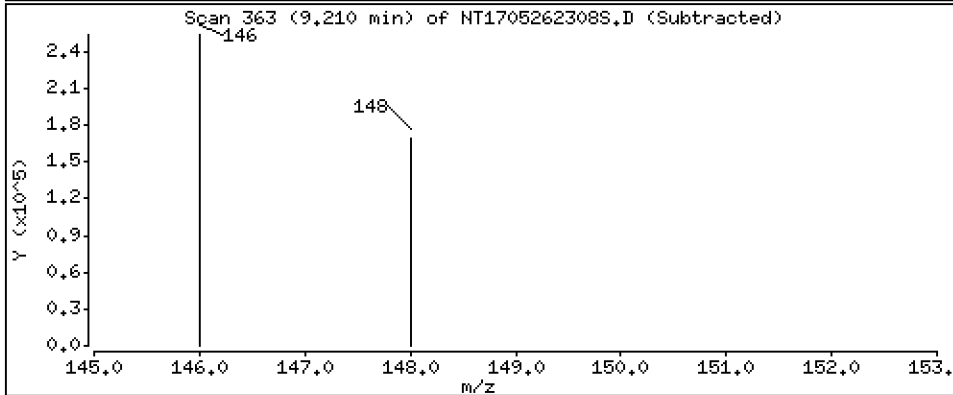
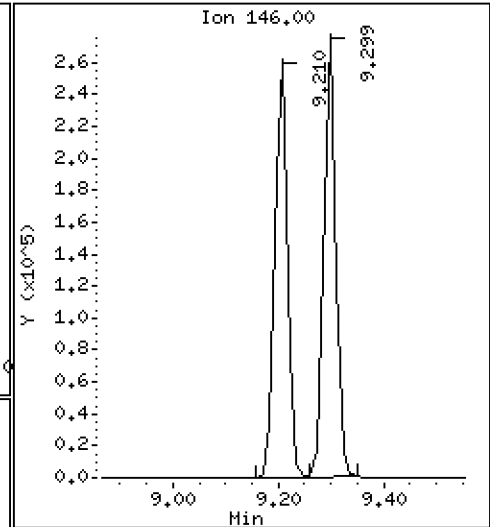
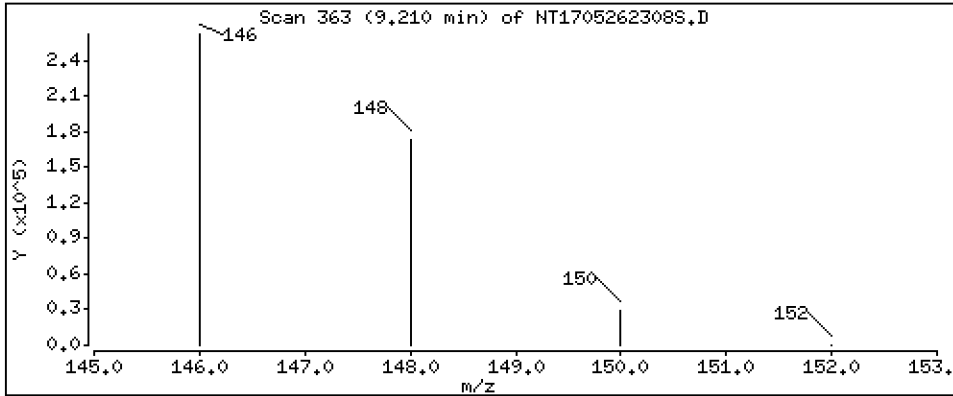
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,808 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

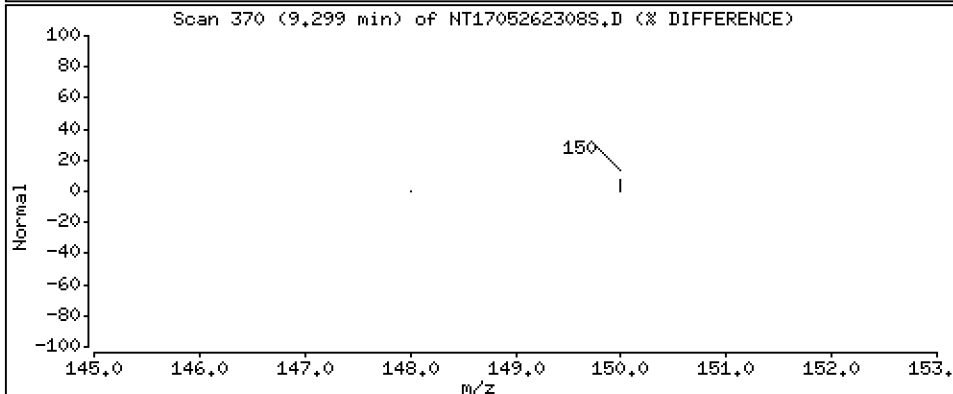
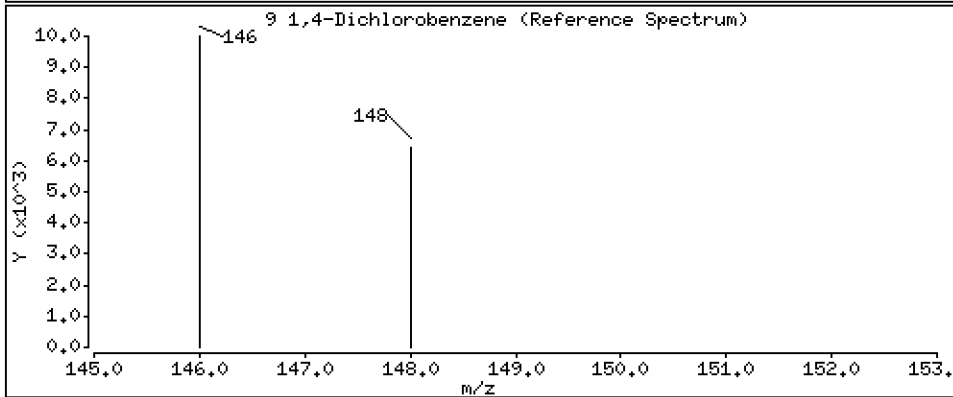
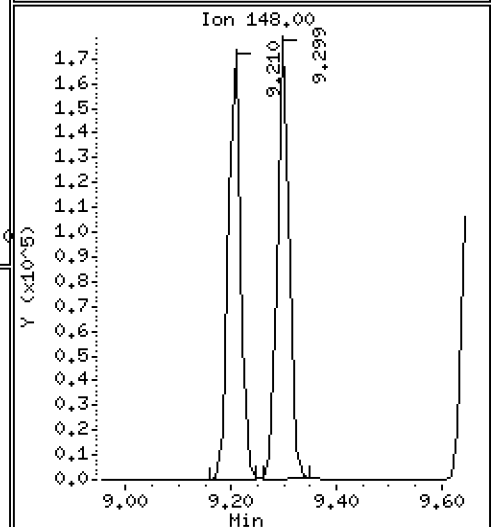
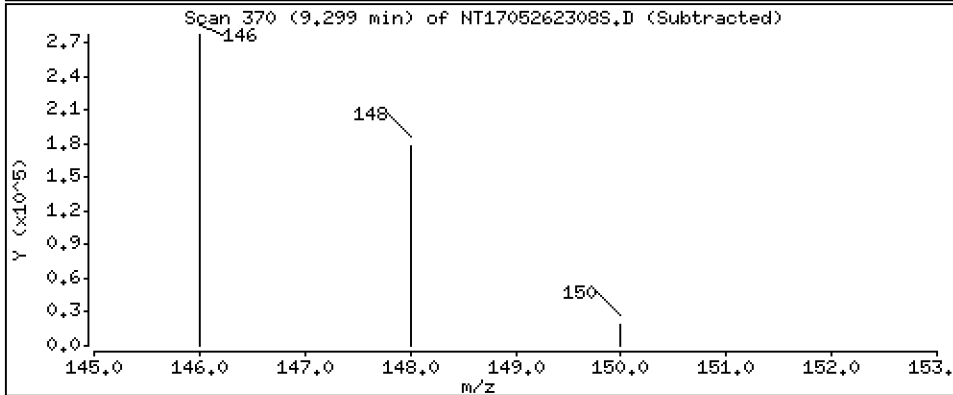
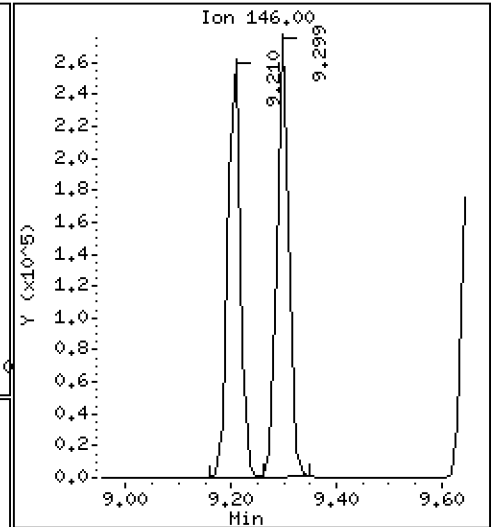
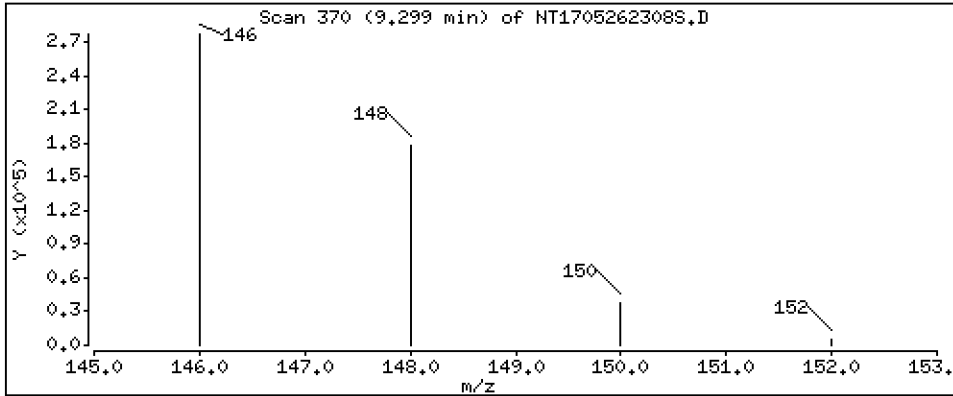
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,848 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

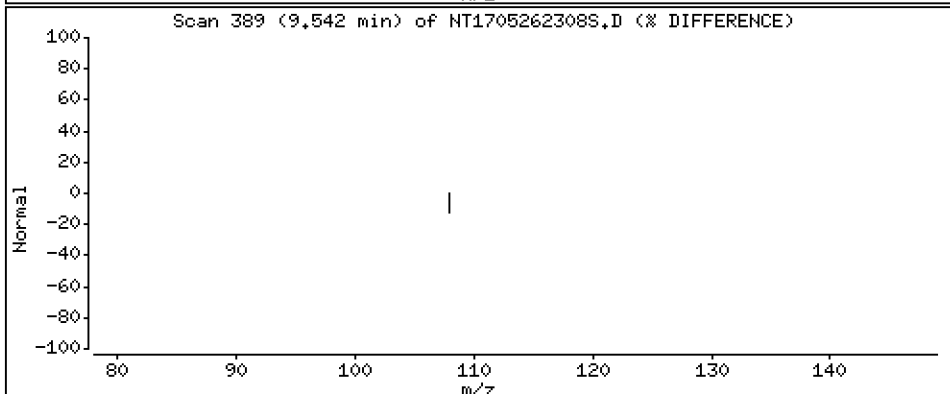
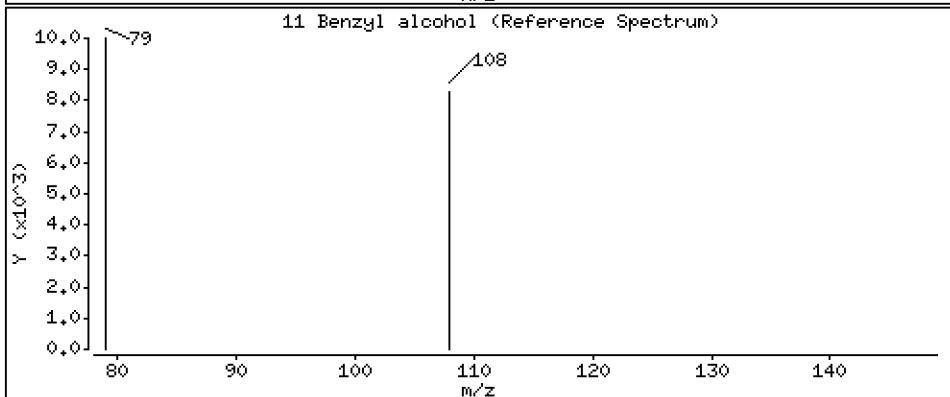
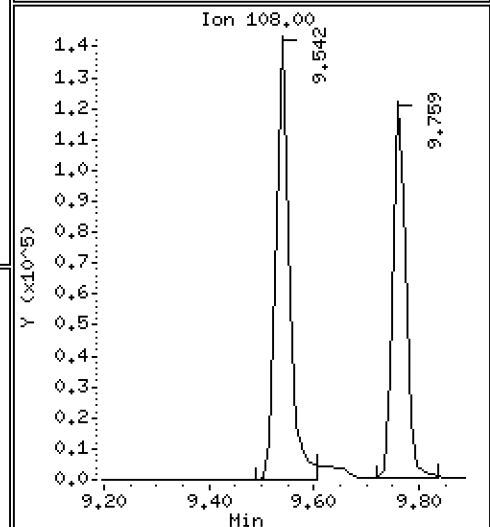
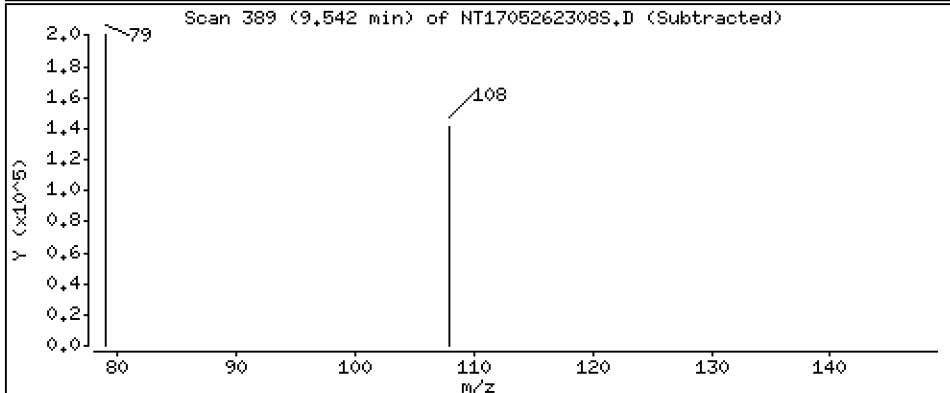
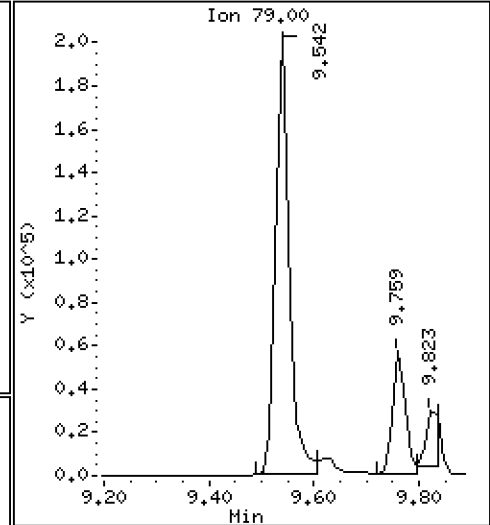
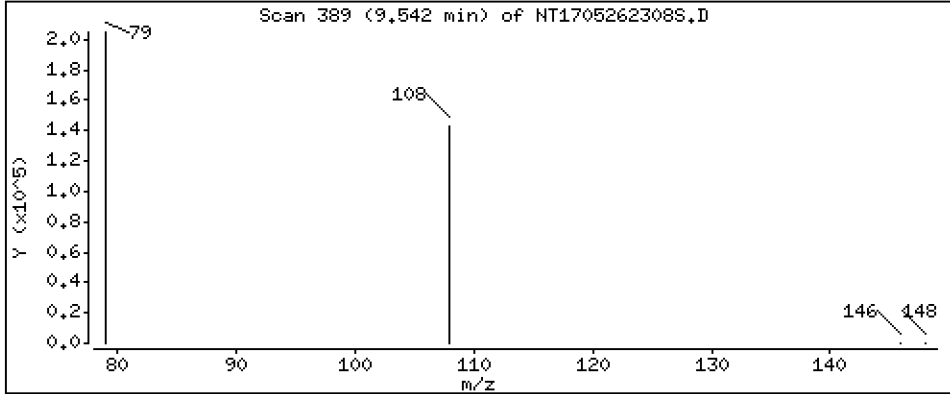
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,062 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

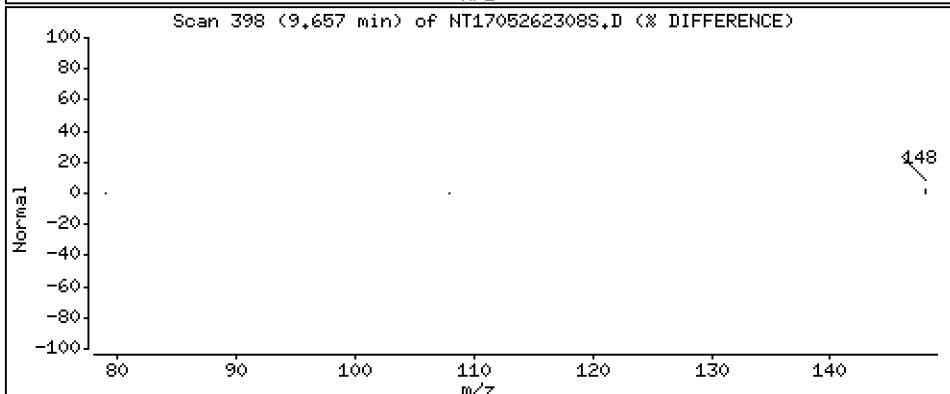
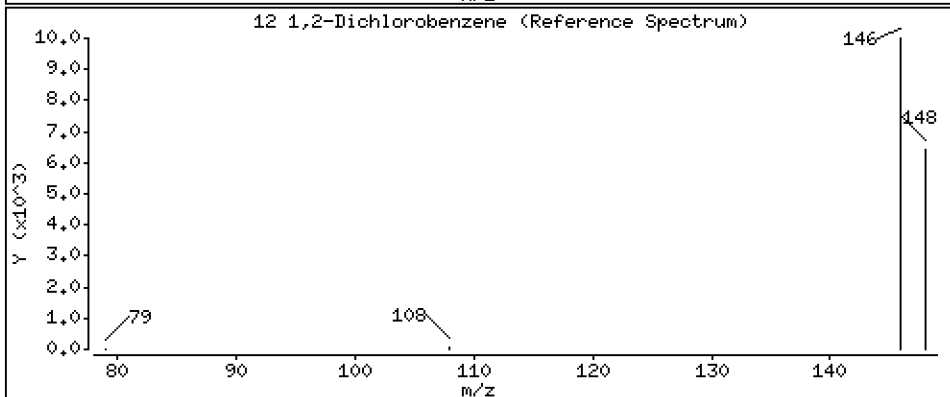
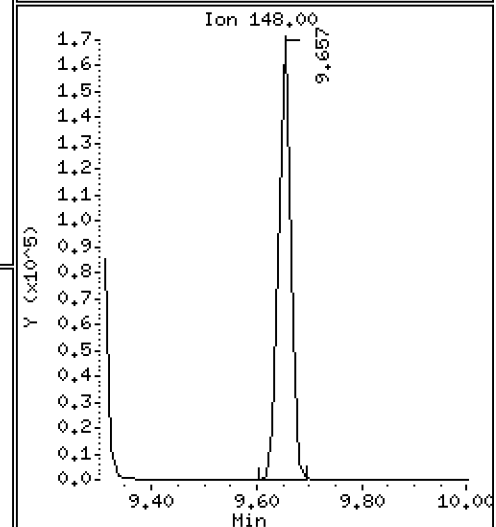
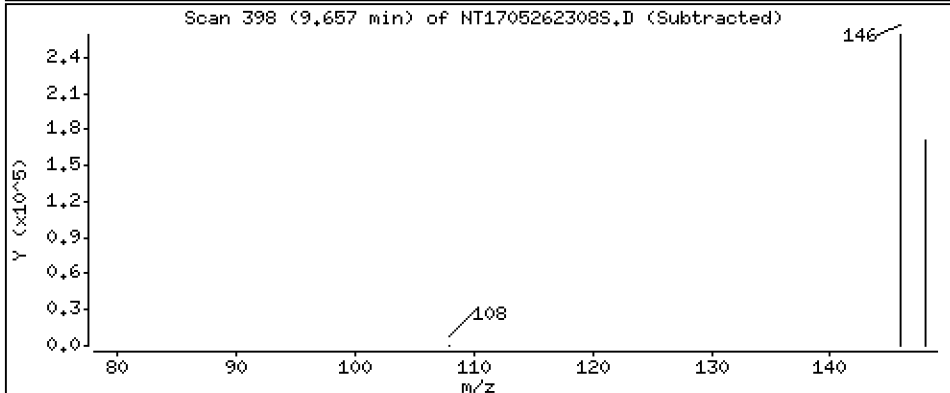
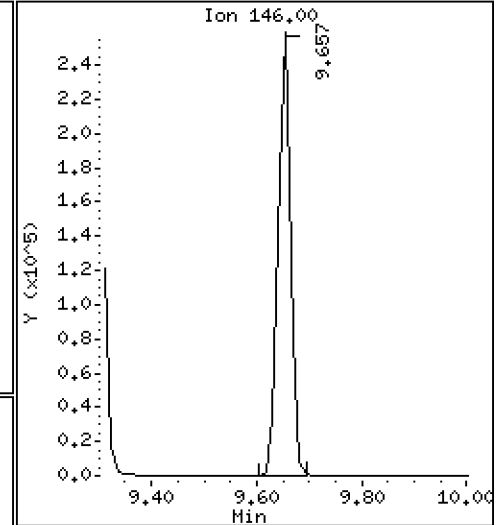
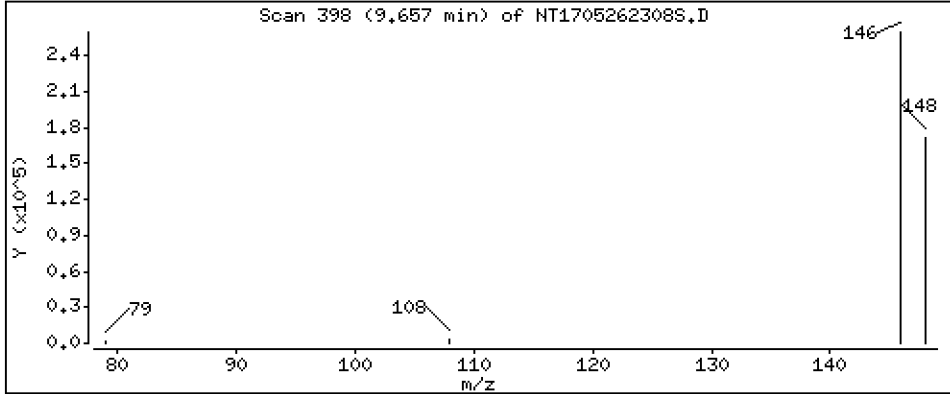
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 3.904 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

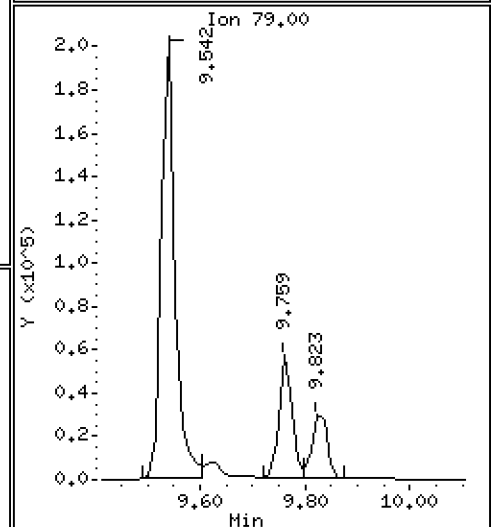
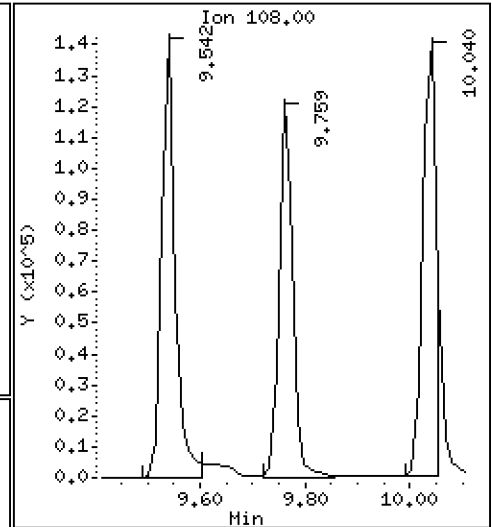
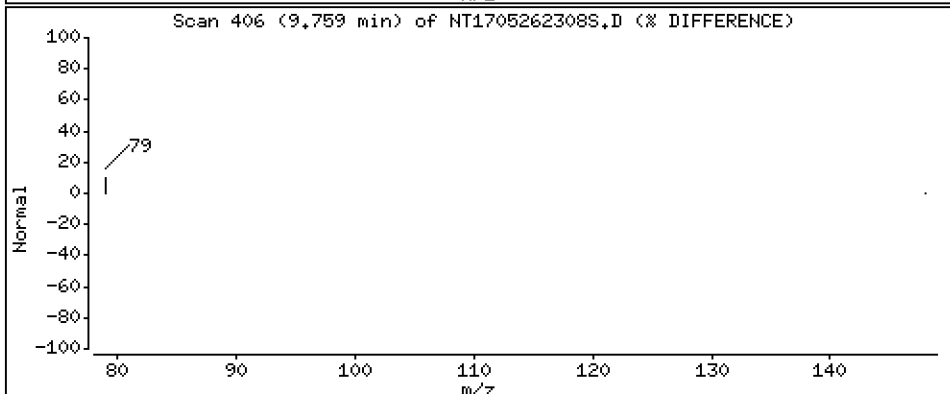
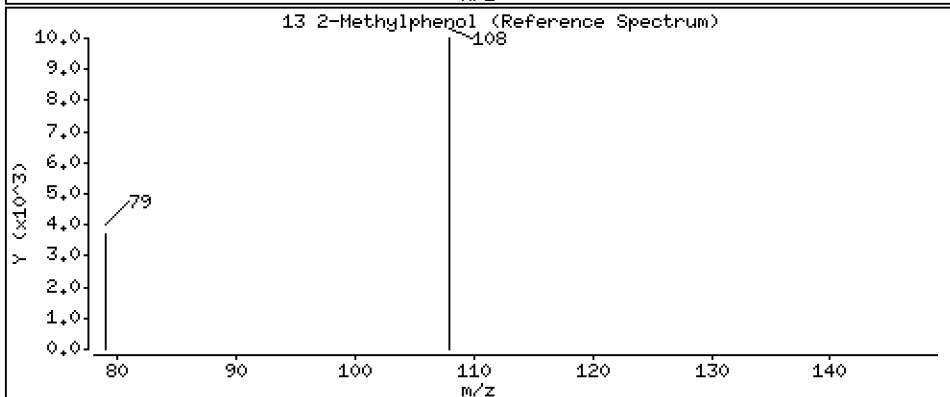
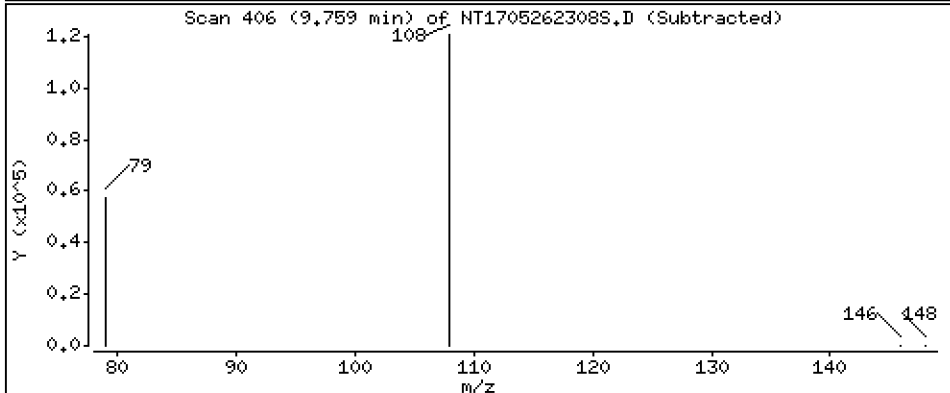
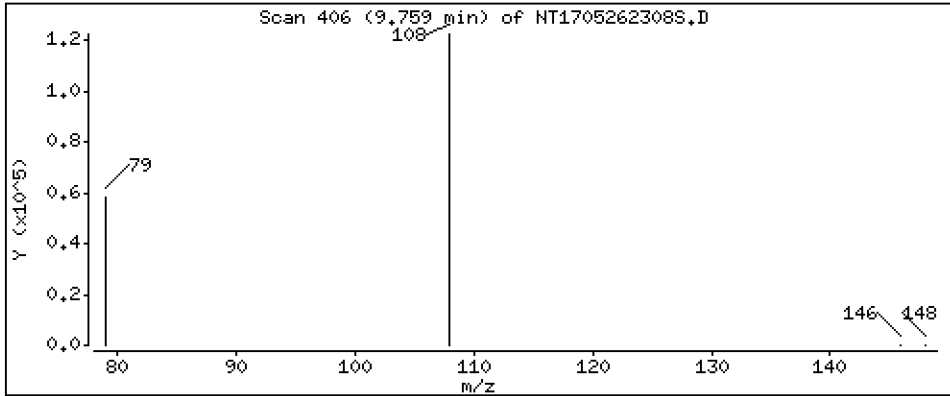
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 2,389 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

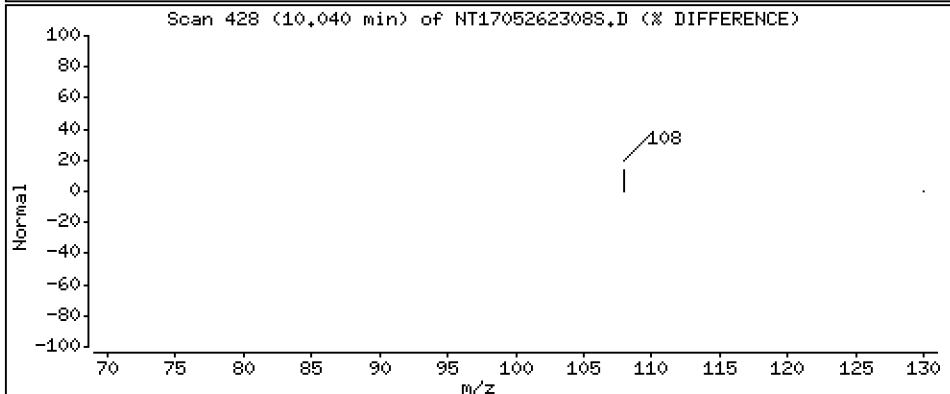
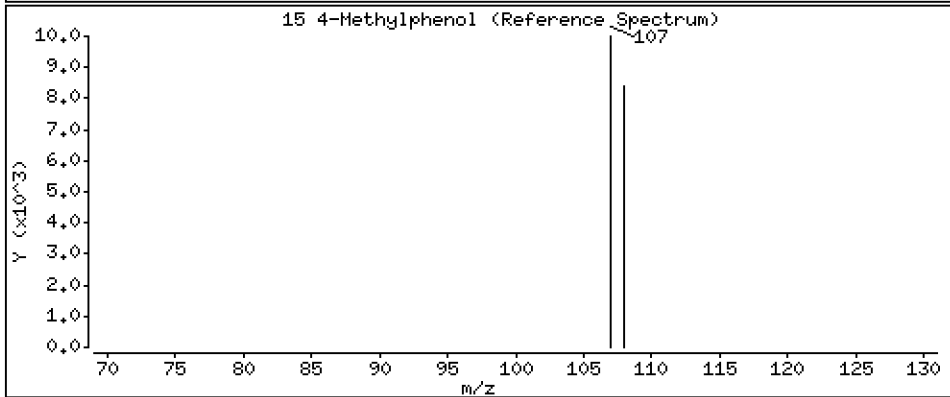
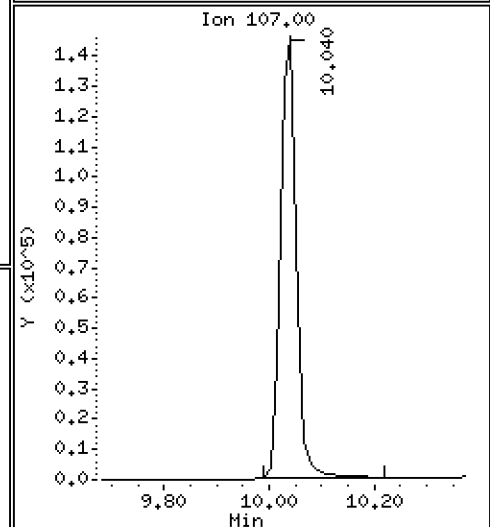
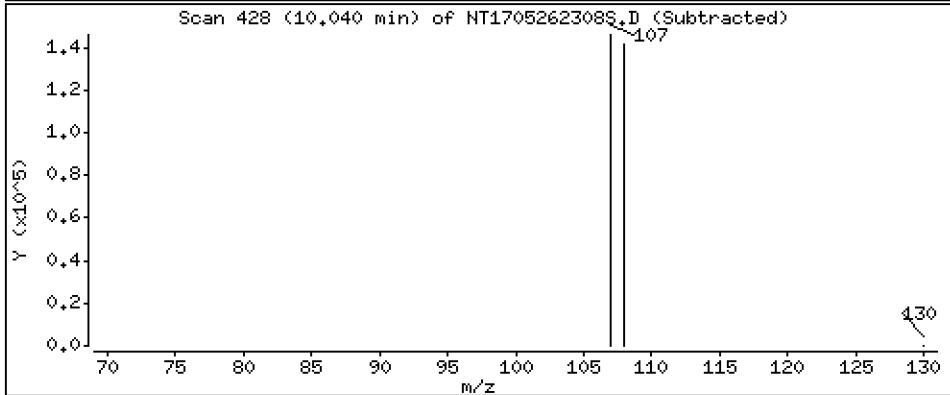
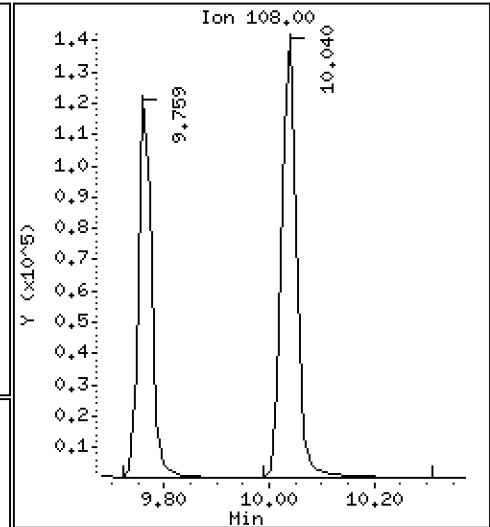
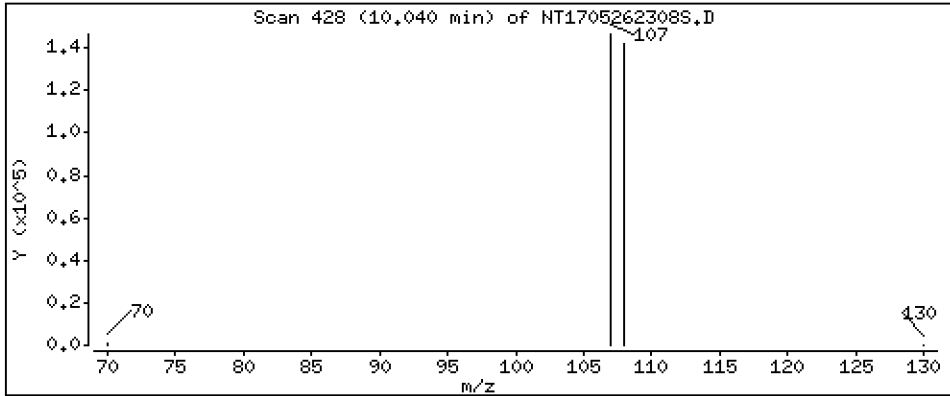
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,153 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

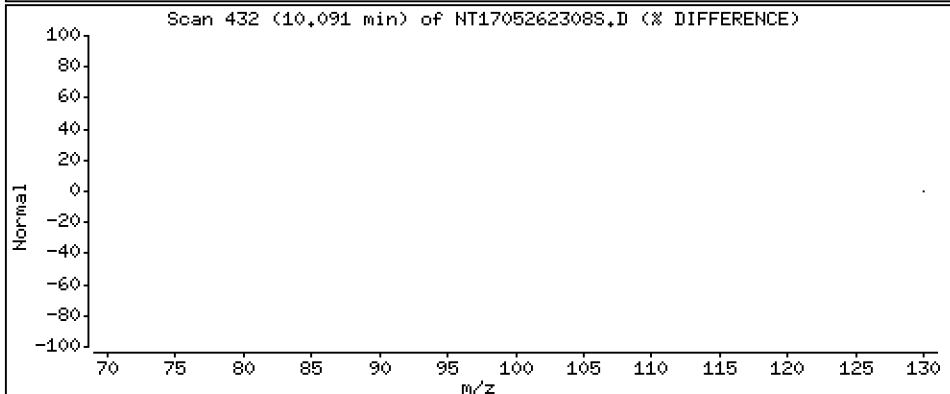
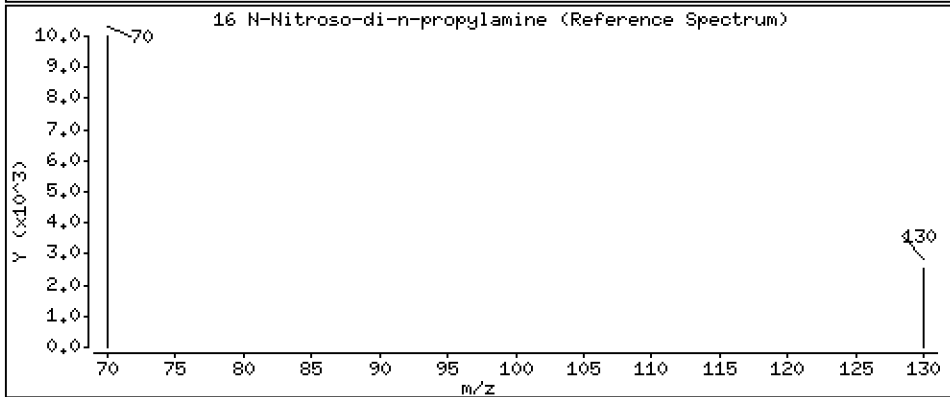
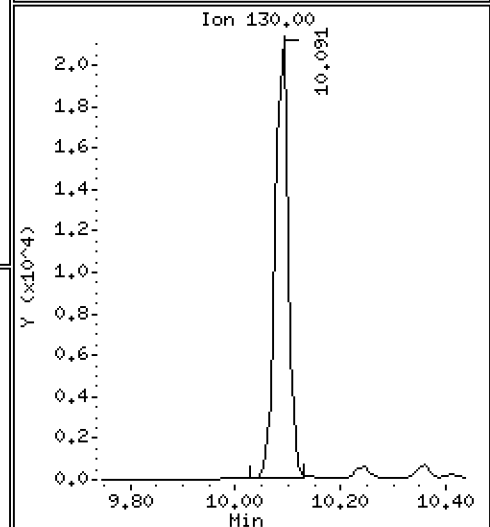
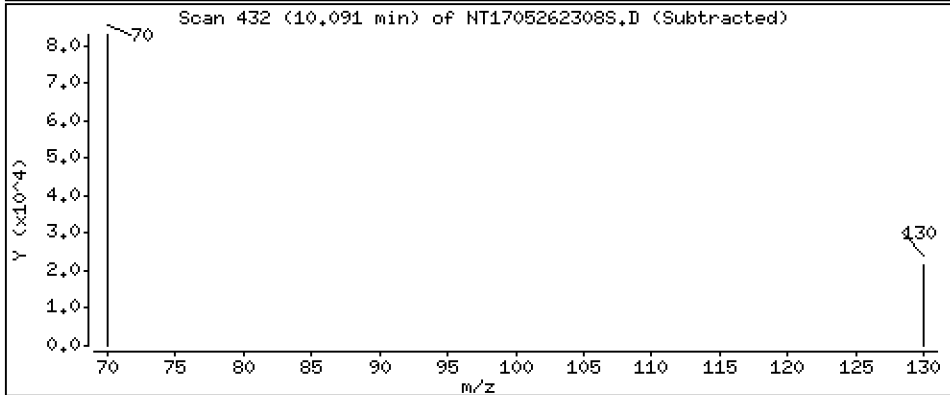
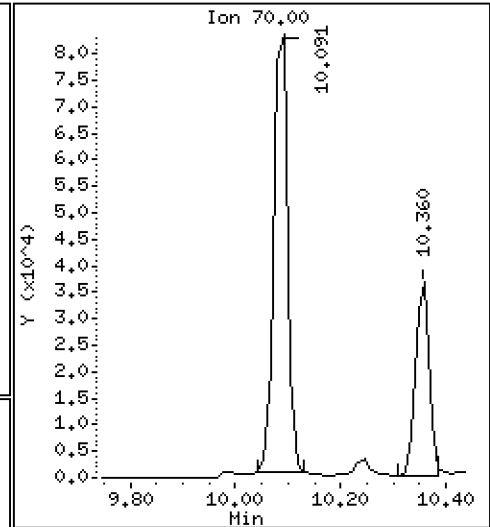
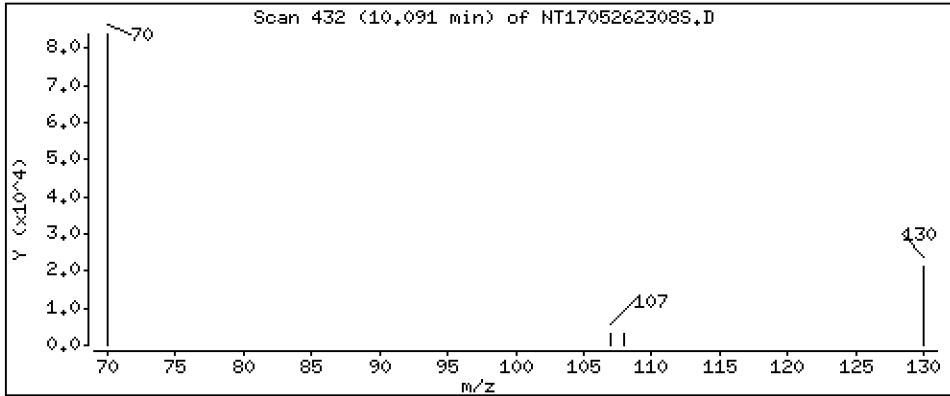
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 2,386 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

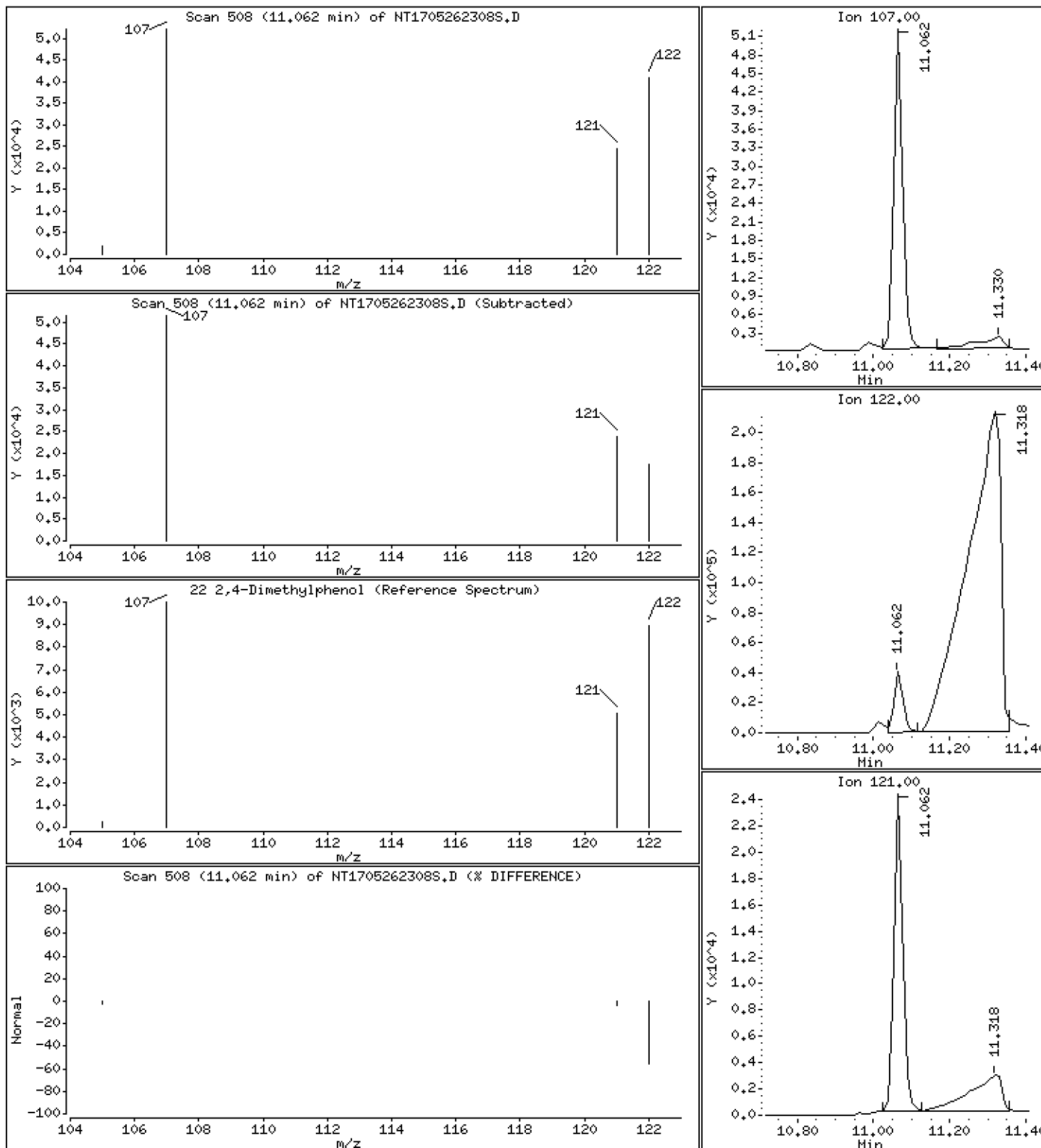
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,8615 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

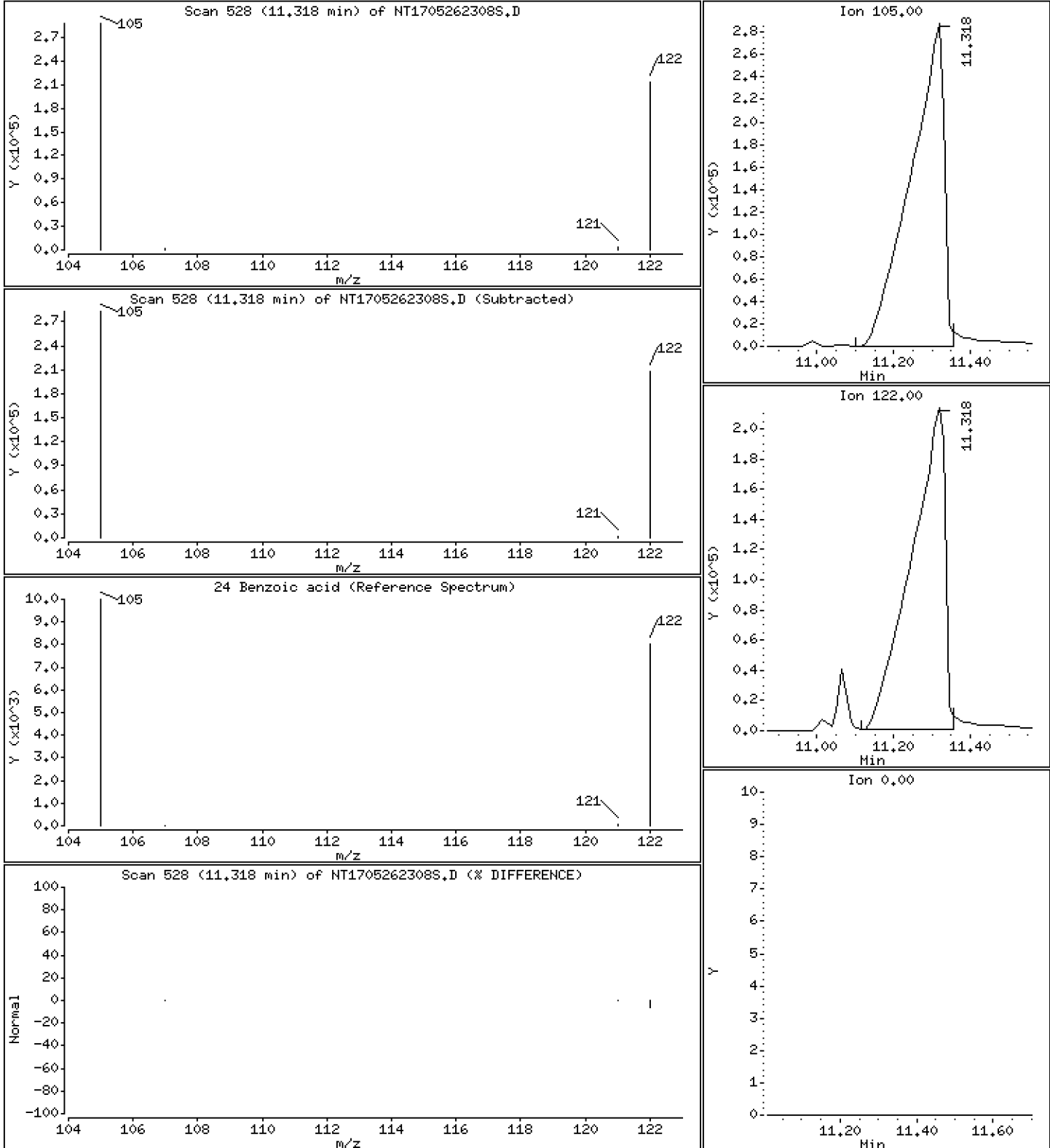
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 28,50 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

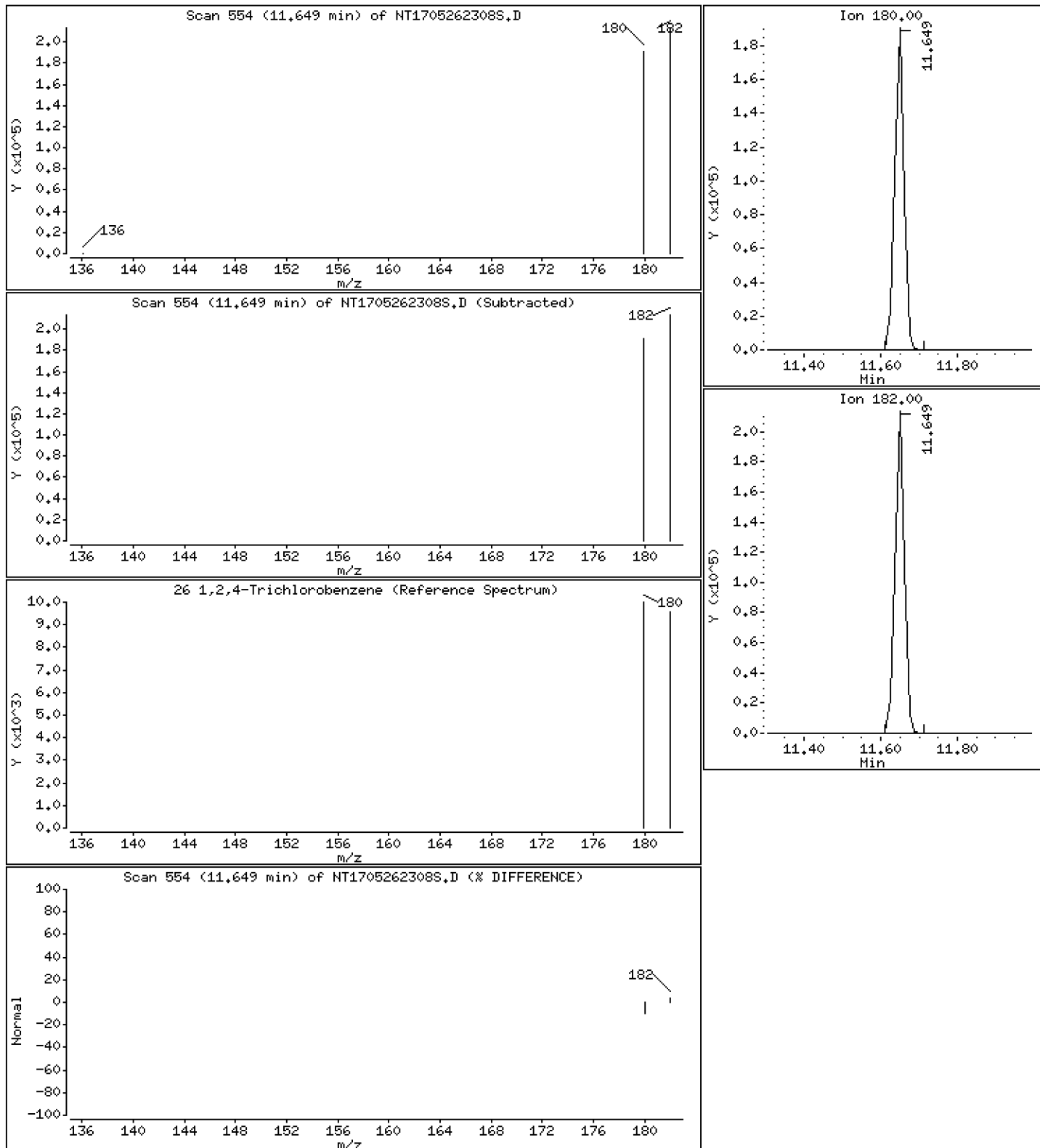
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,592 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

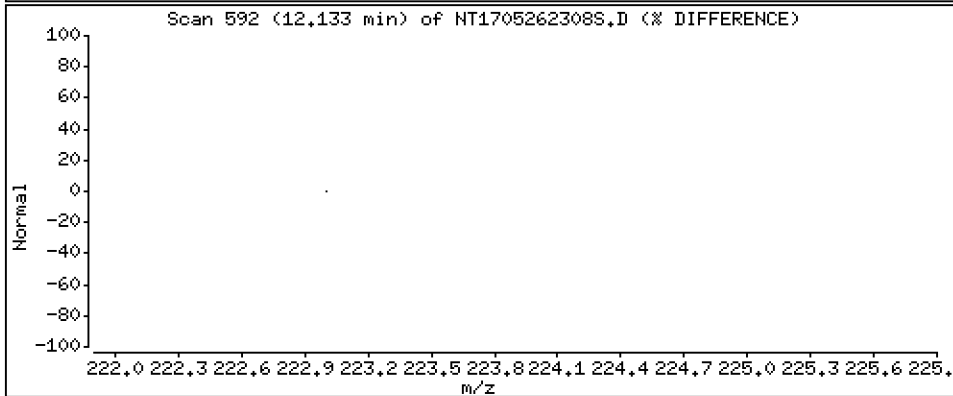
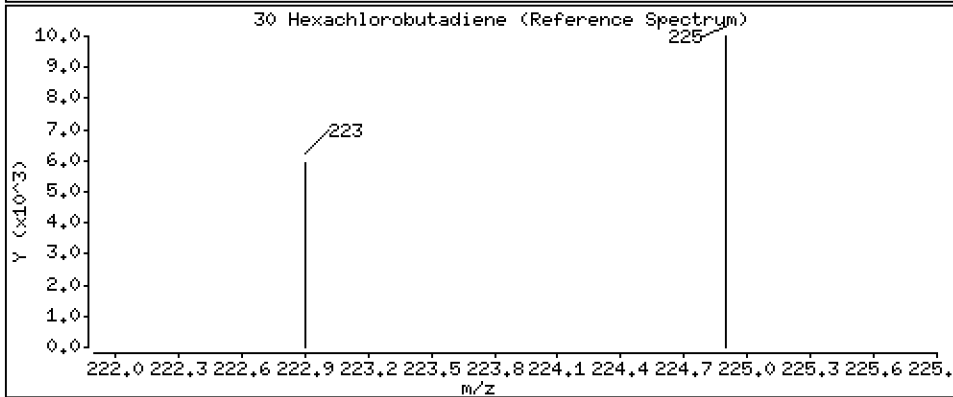
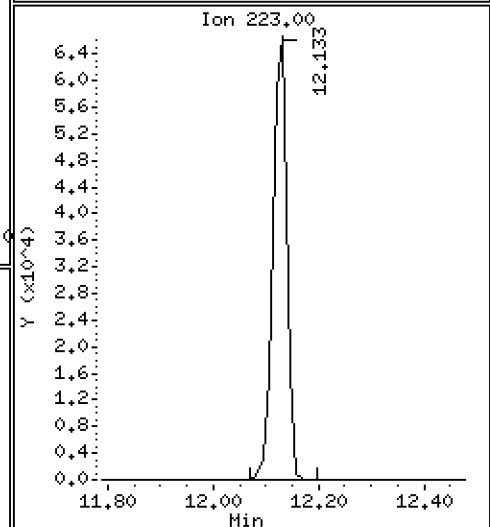
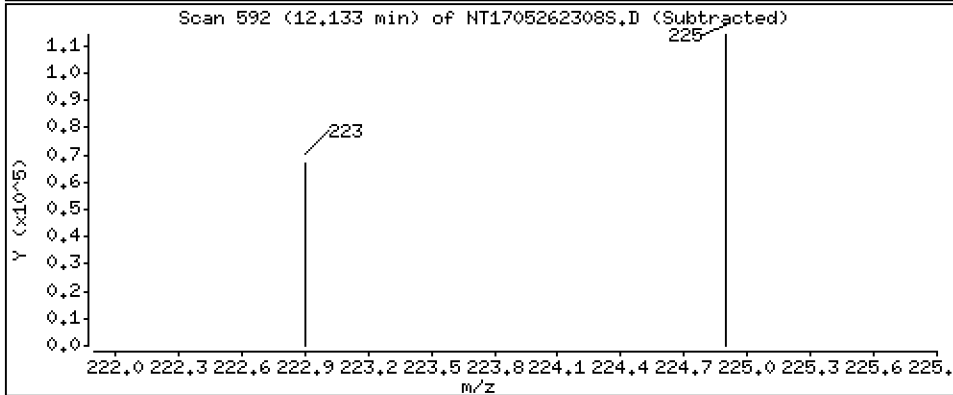
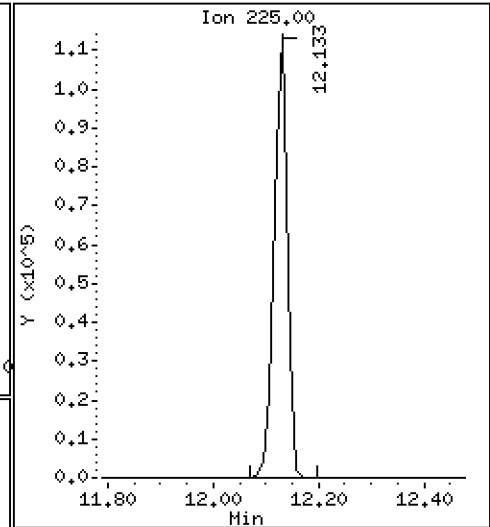
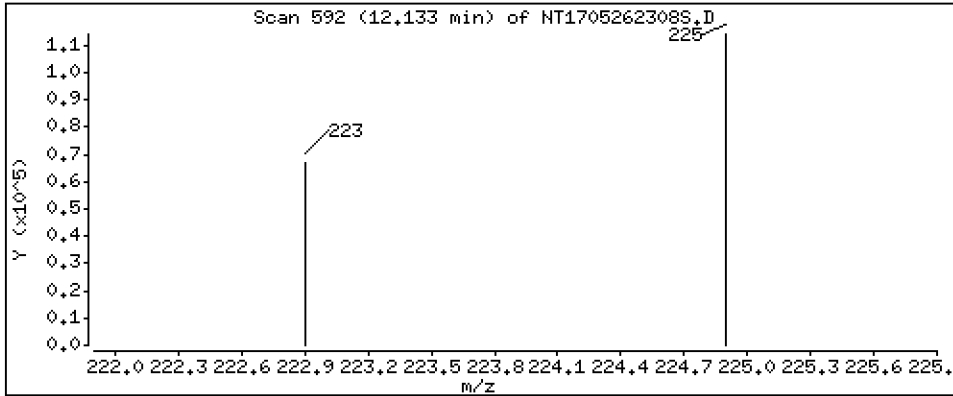
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,232 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

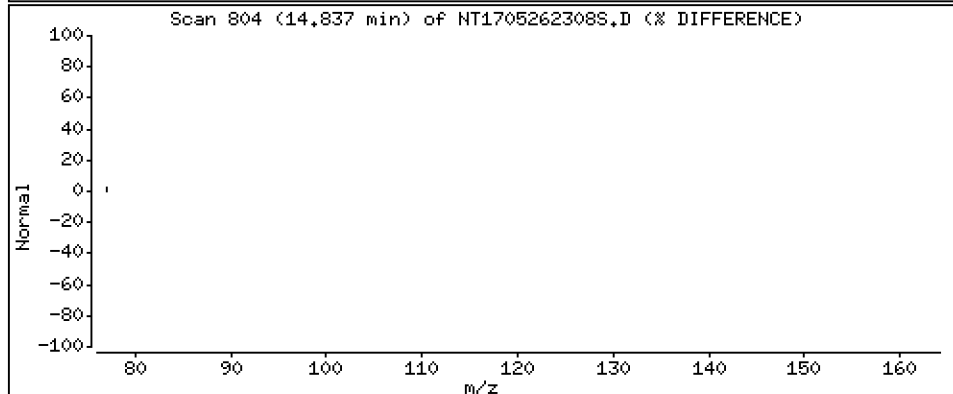
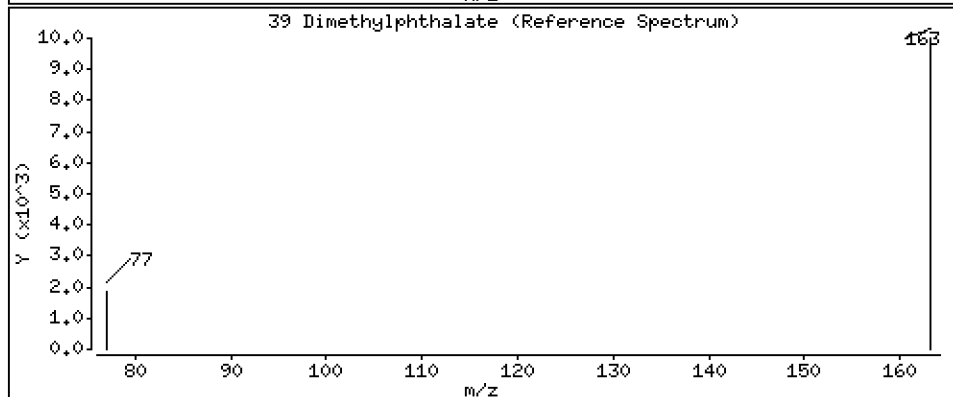
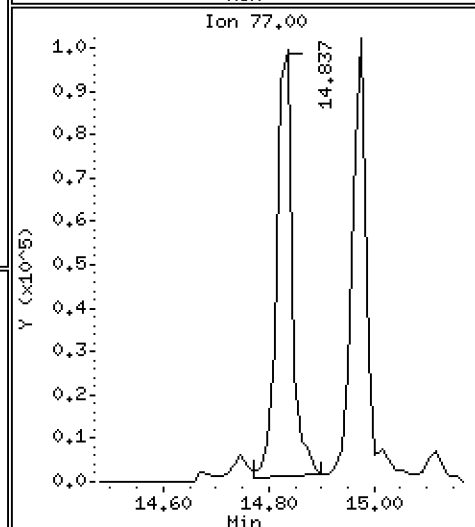
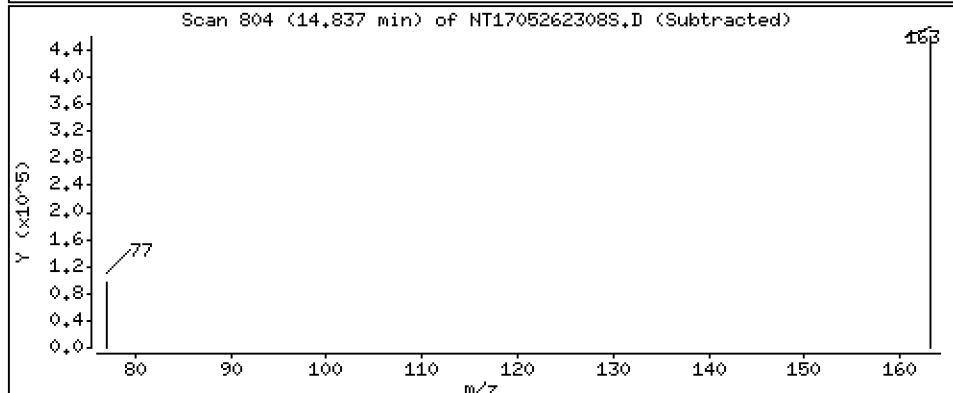
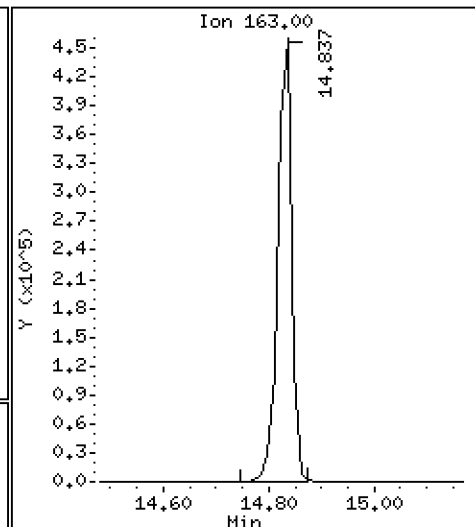
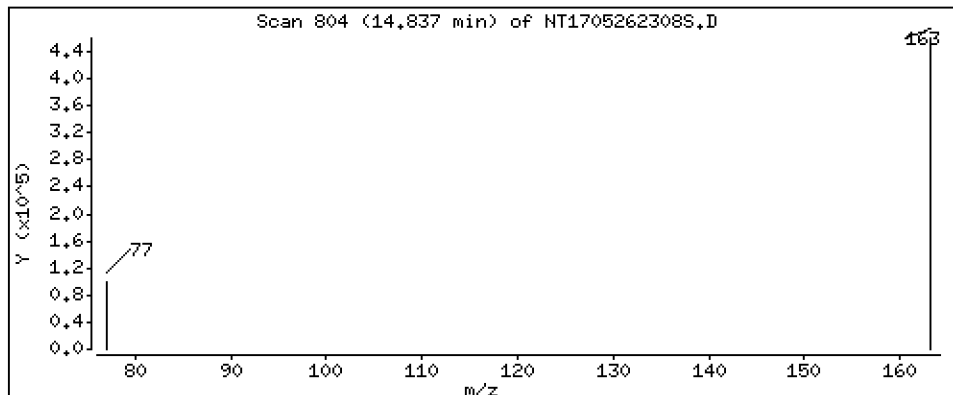
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,097 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

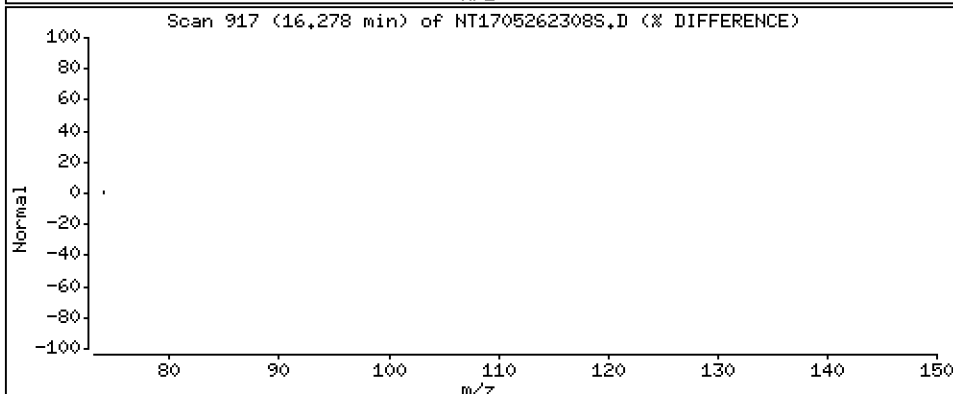
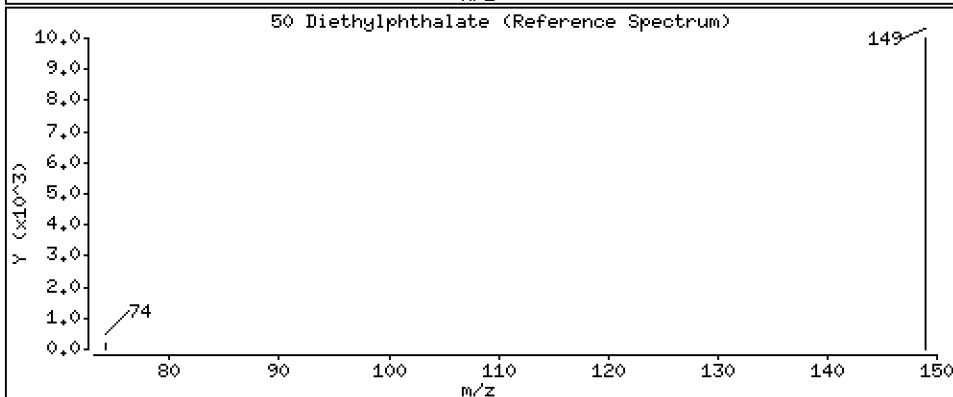
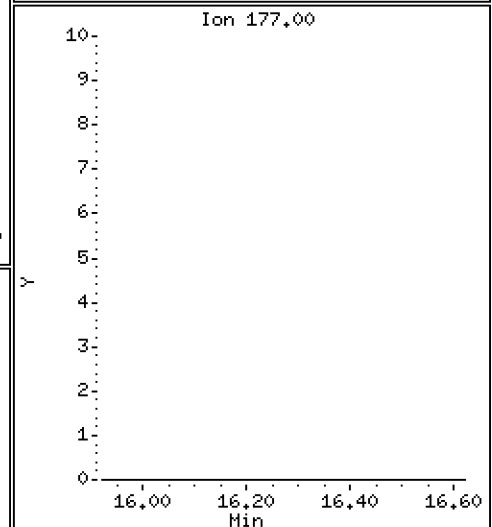
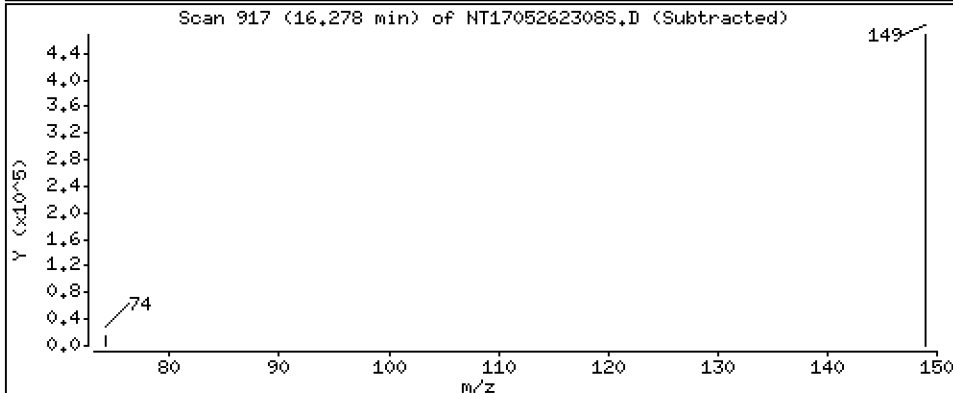
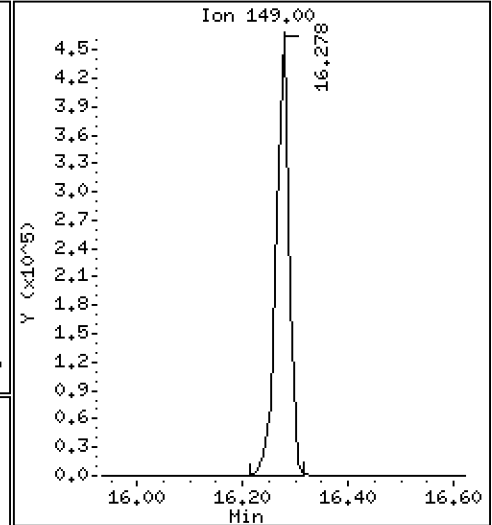
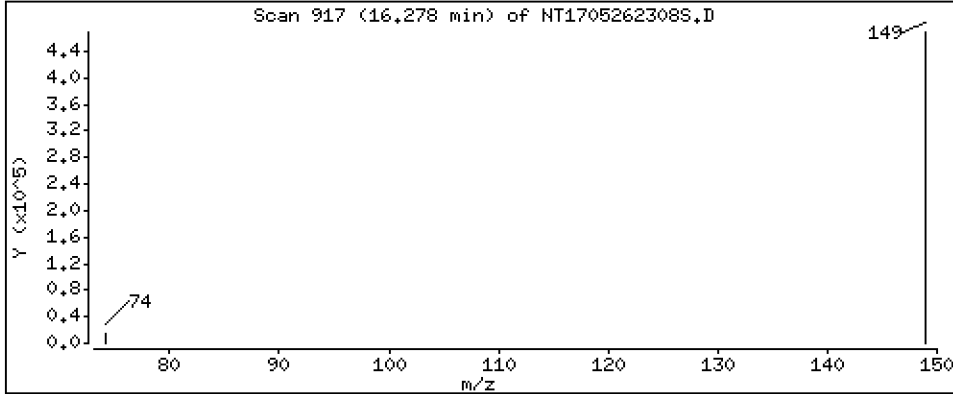
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,272 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

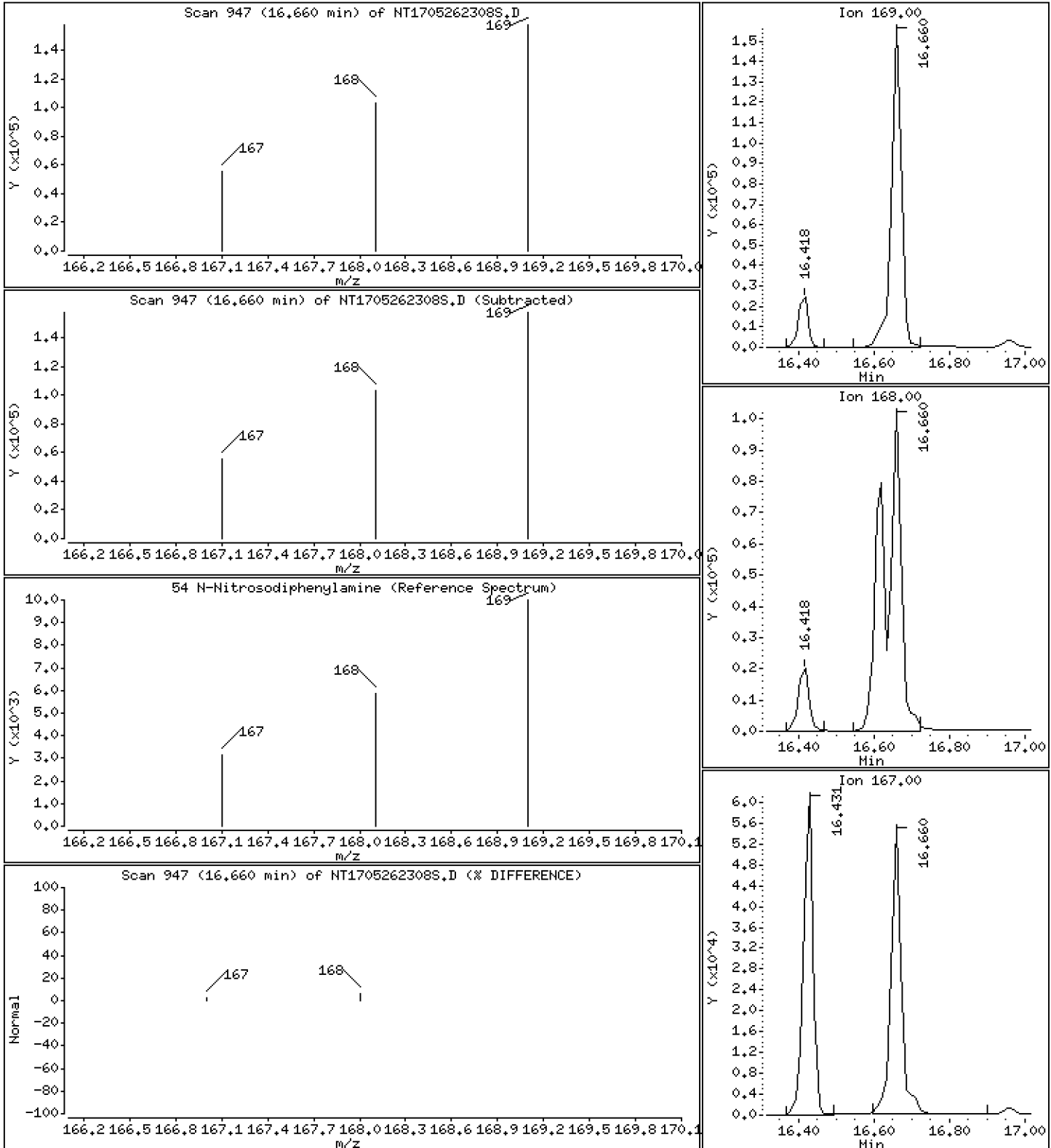
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,516 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

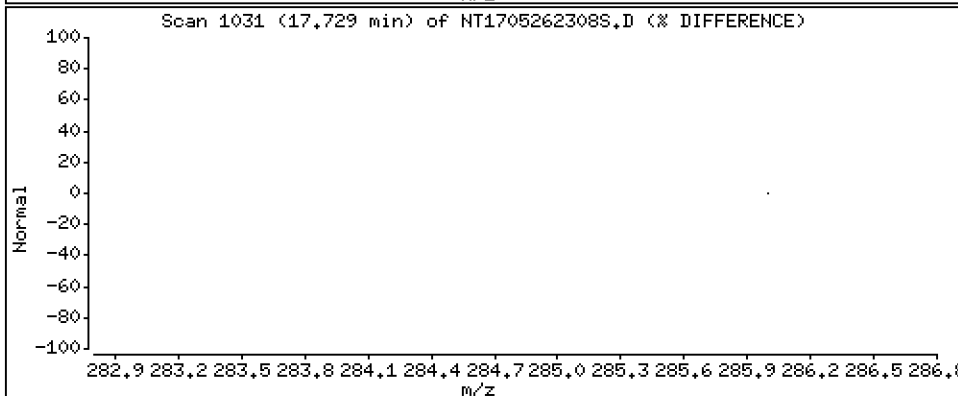
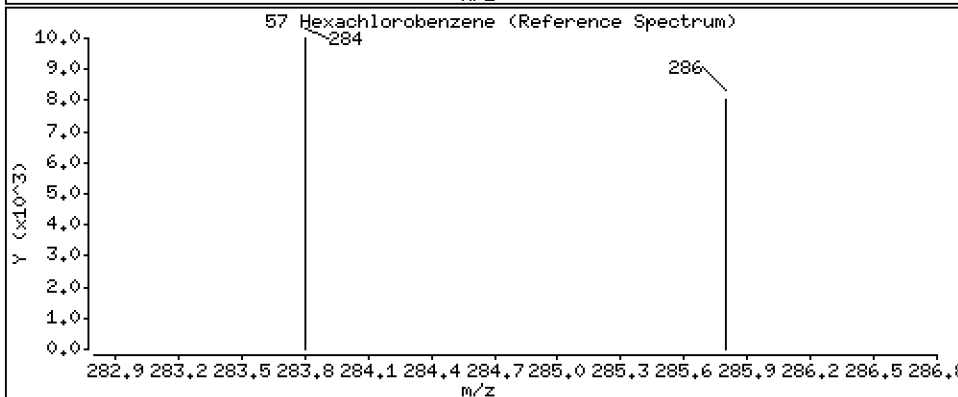
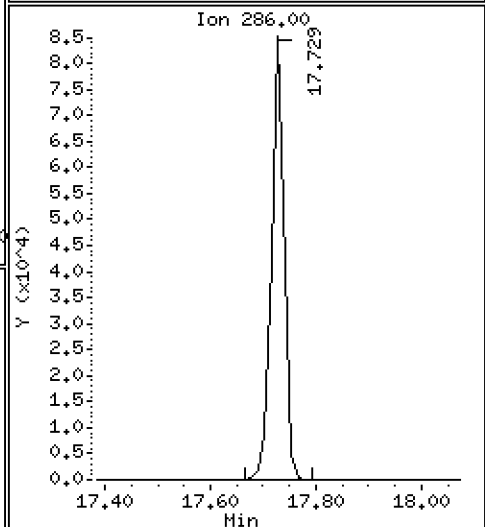
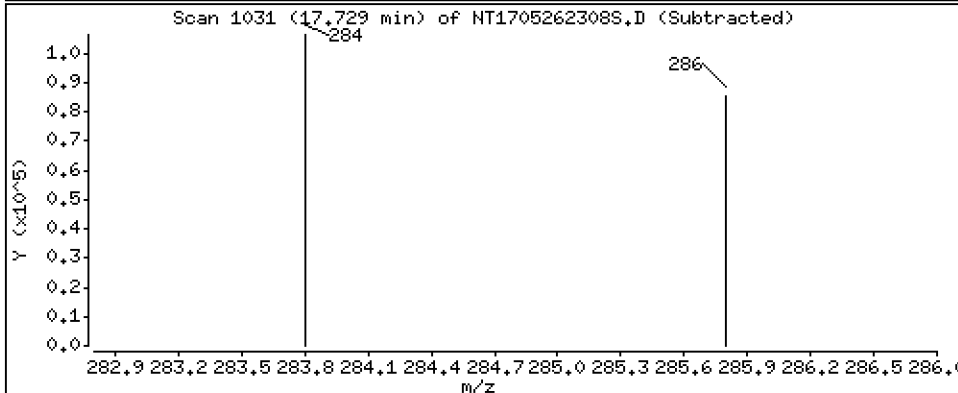
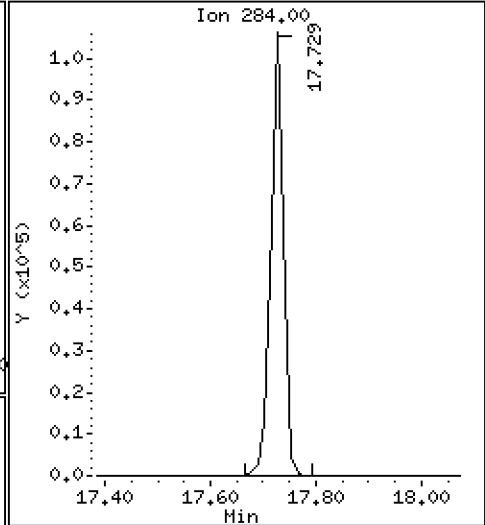
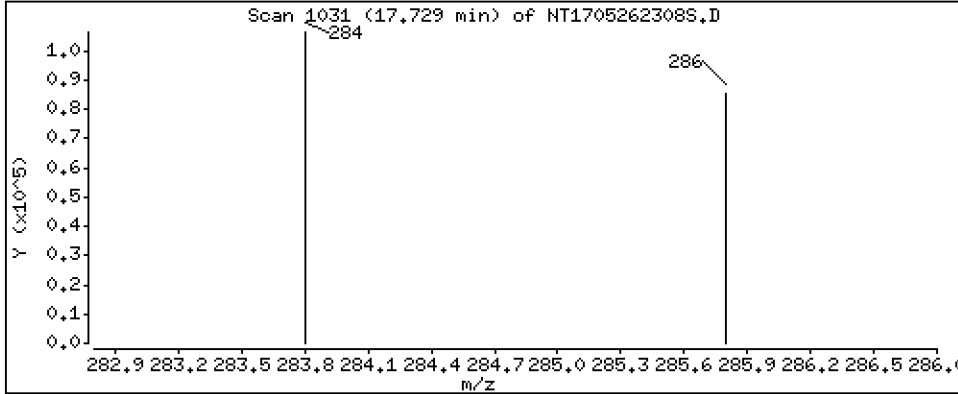
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,567 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

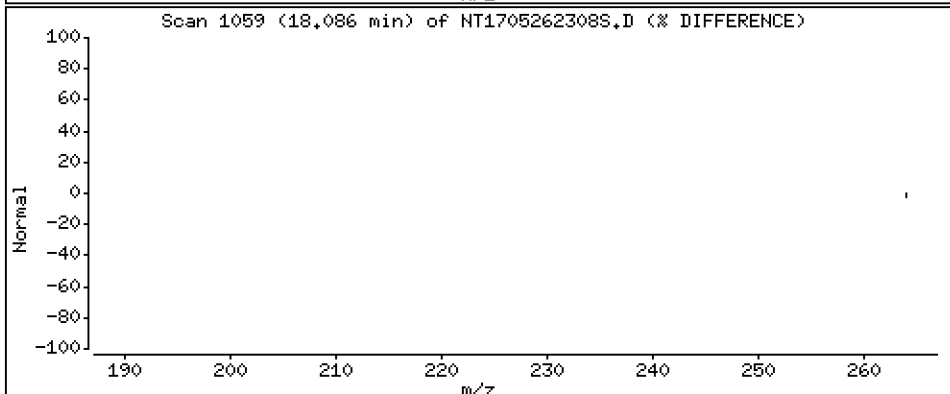
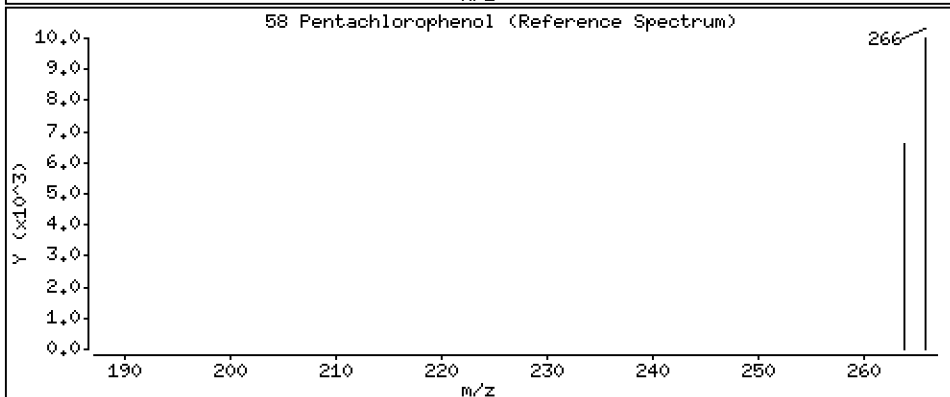
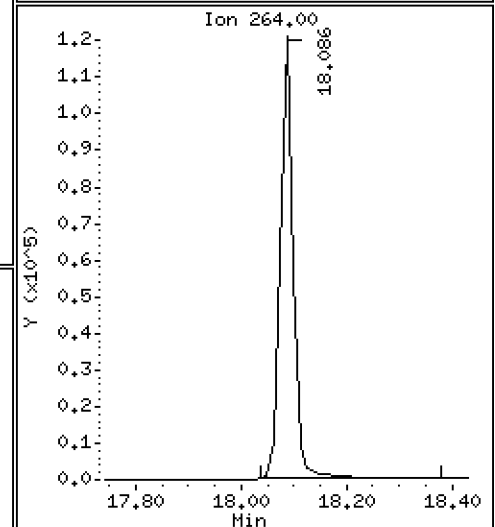
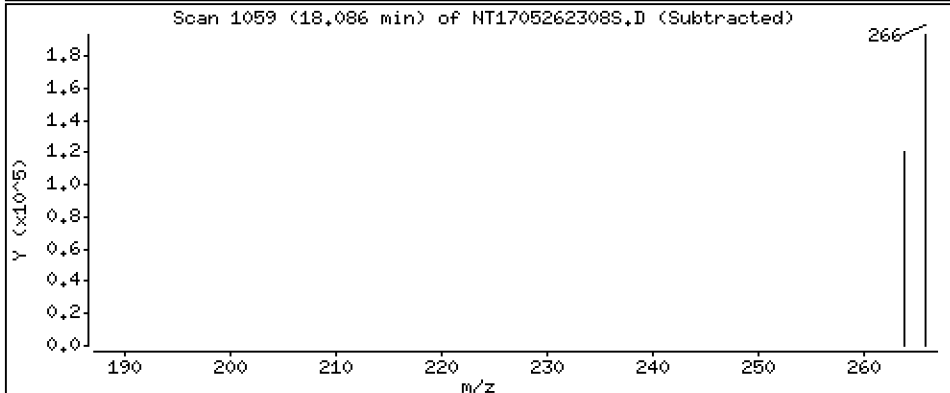
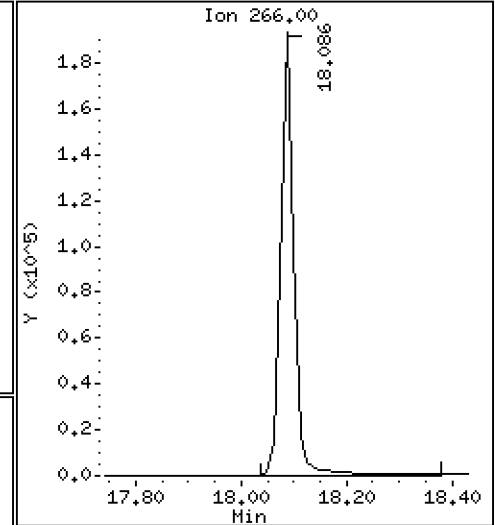
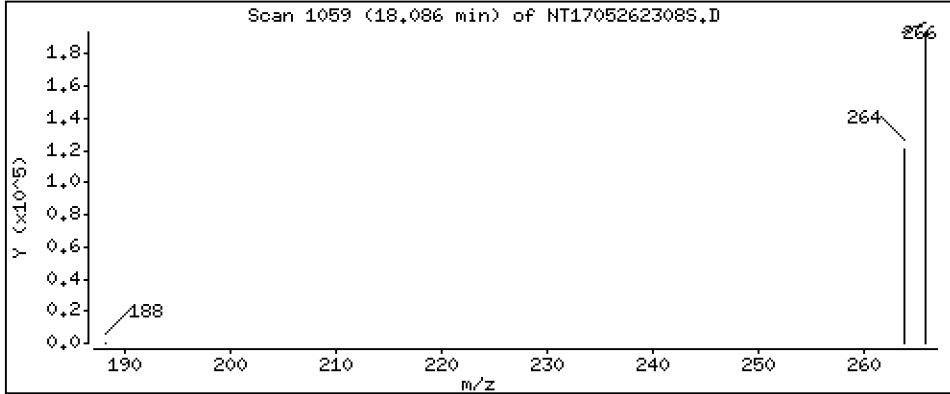
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 13,14 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

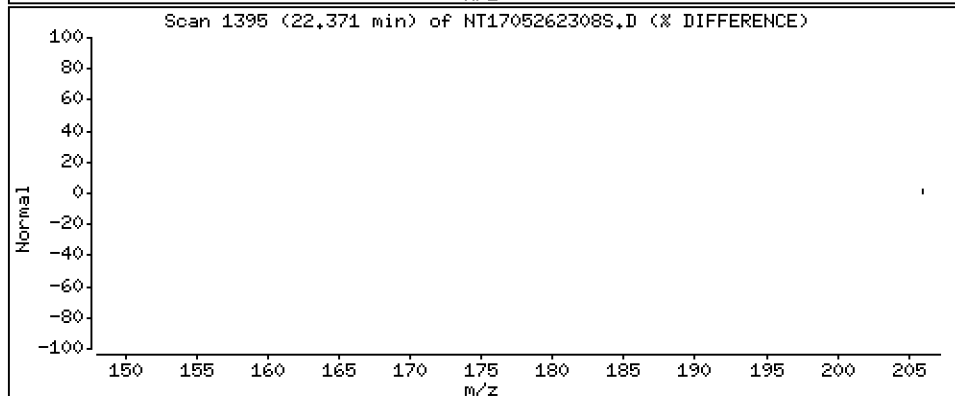
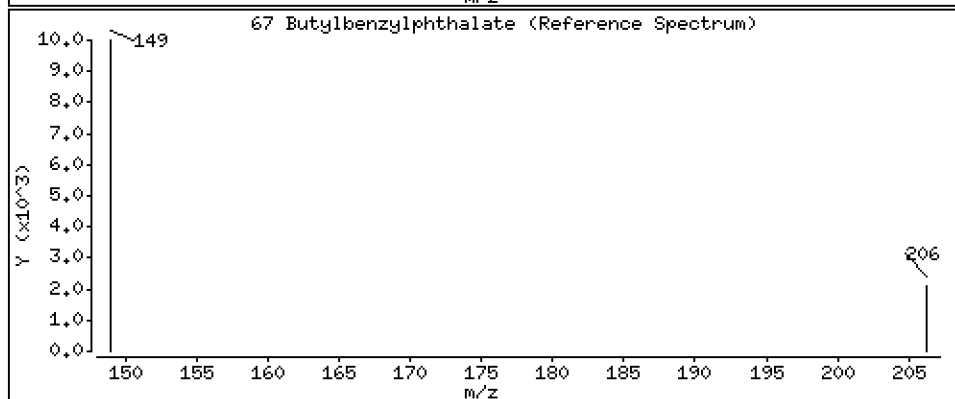
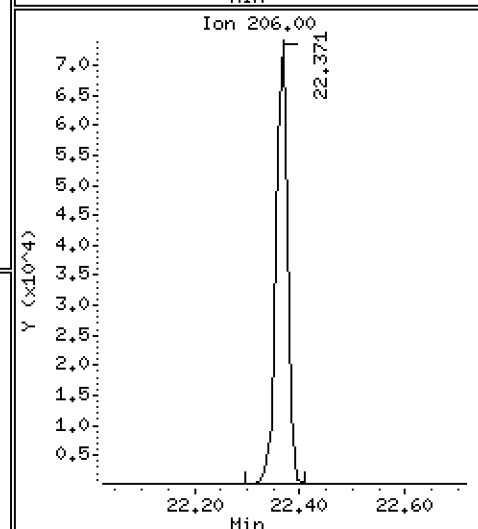
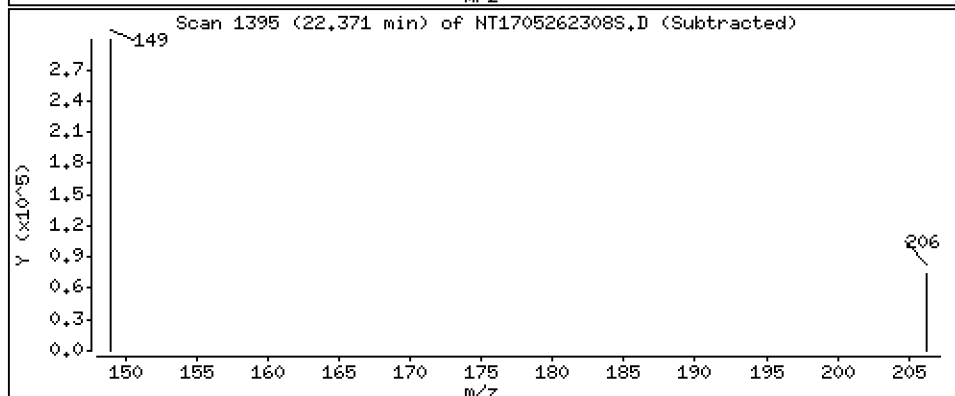
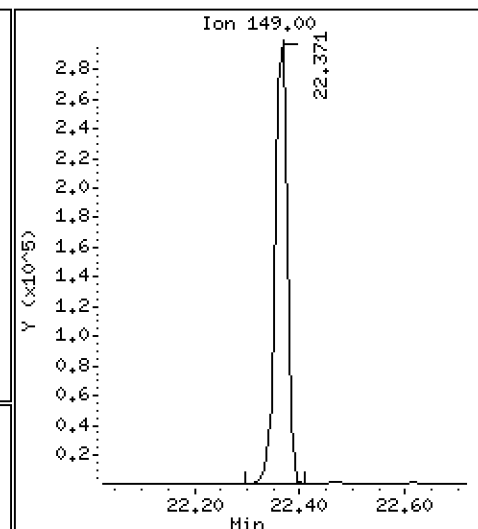
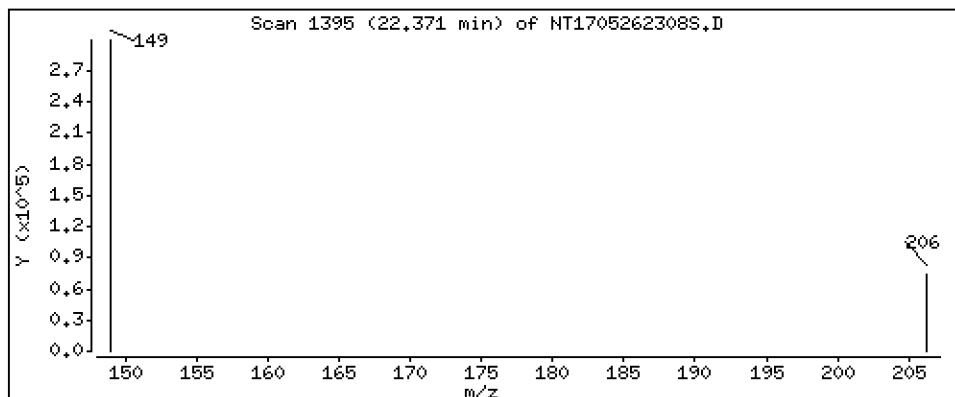
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,847 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

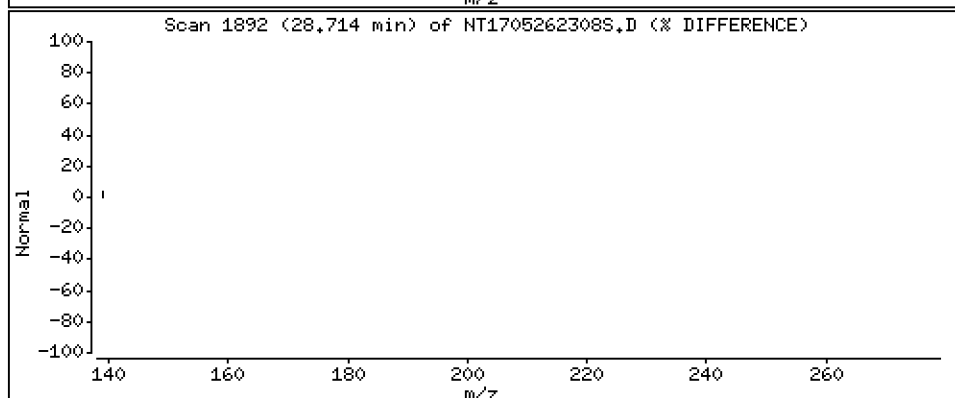
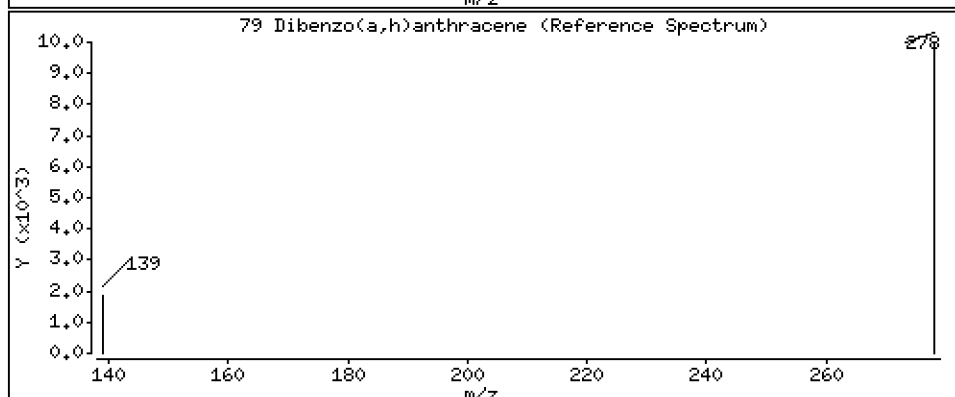
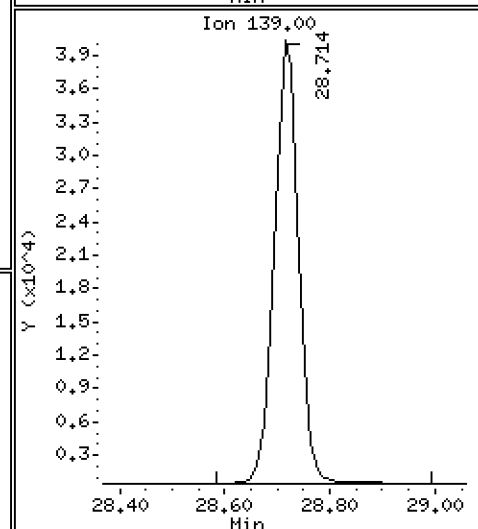
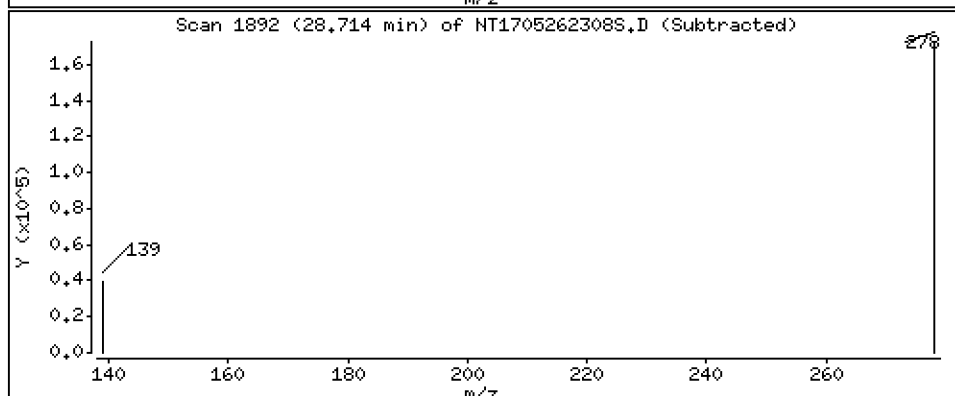
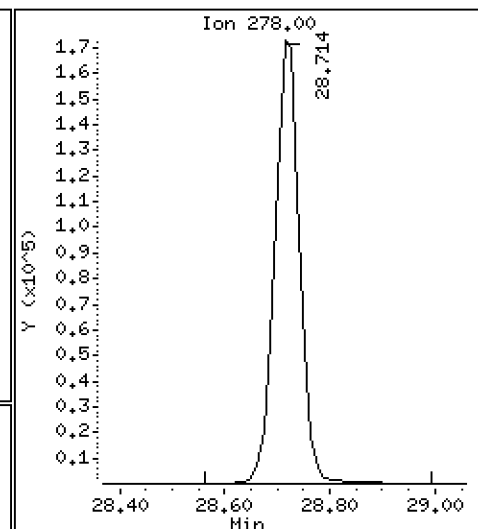
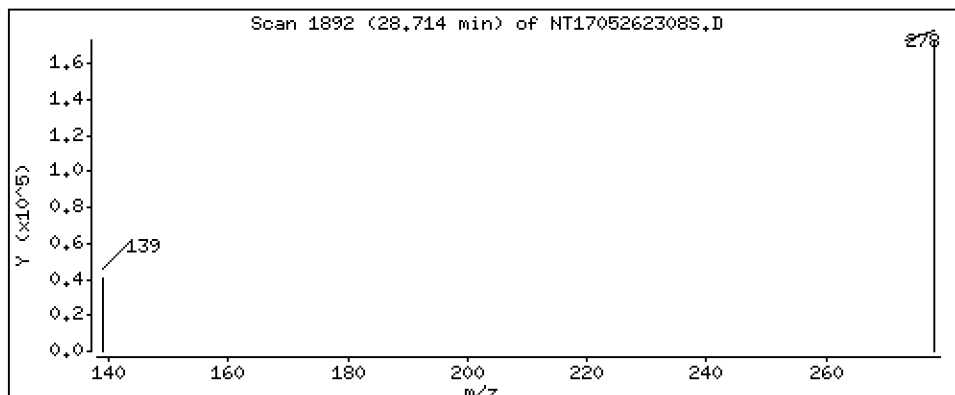
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,674 ug/mL



Date : 26-MAY-2023 17:02

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-BSD2

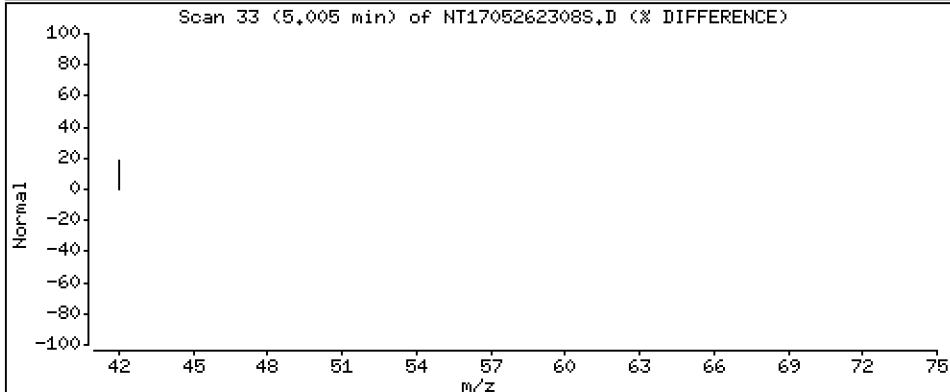
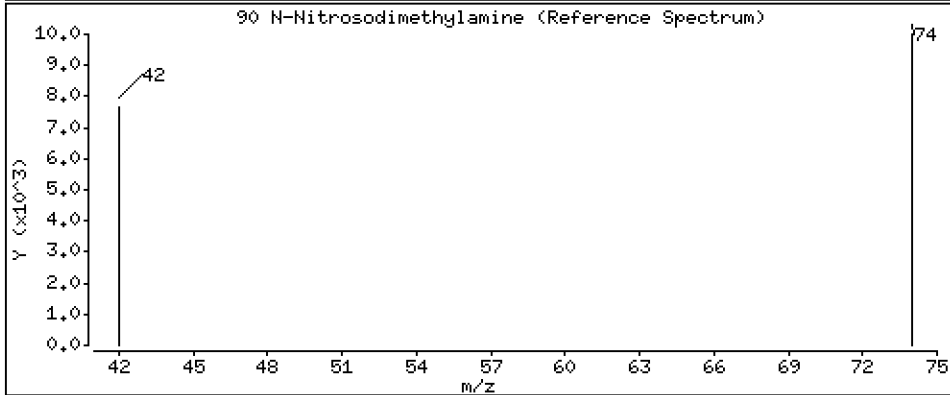
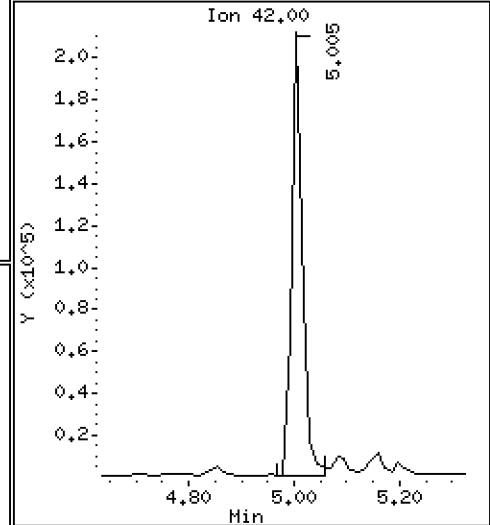
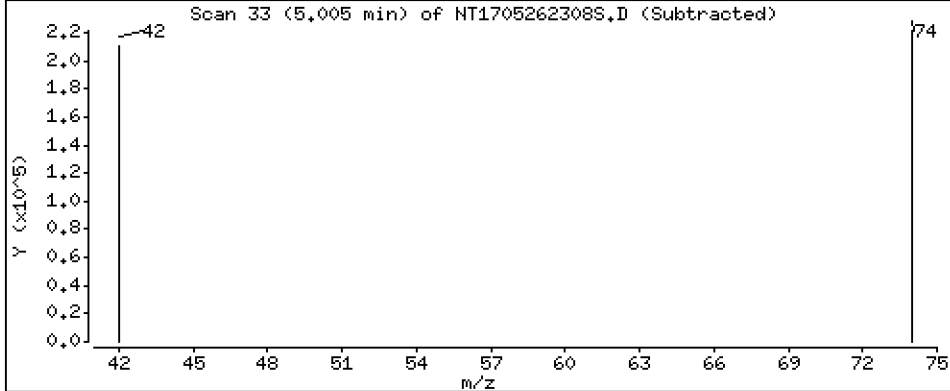
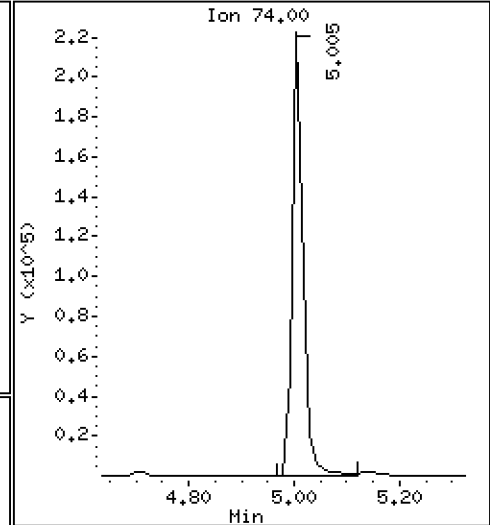
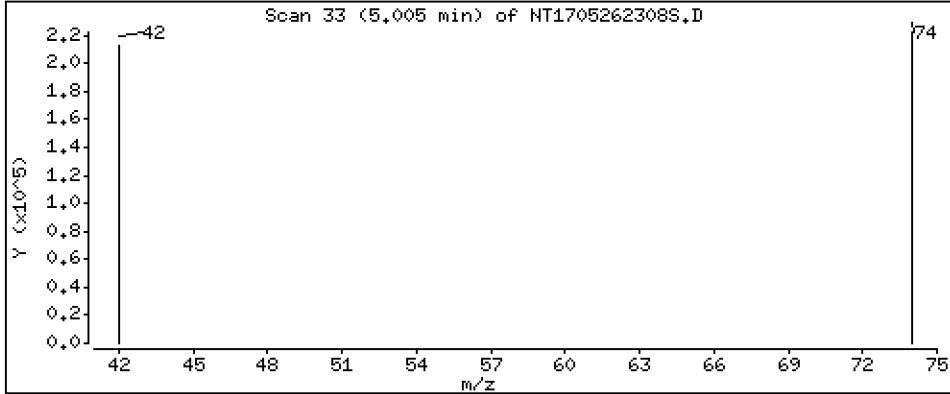
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.641 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262308S.D
 Lab Smp Id: BLD0607-BSD2
 Inj Date : 26-MAY-2023 17:02
 Operator : VTS
 Smp Info : BLD0607-BSD2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 06-Jun-2023 14:52 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.094	7.069	(0.765)	533490	6.18061	6.181 (R)
3 Phenol	94		8.661	8.661	(0.934)	528690	4.11061	4.111
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	438990	3.80794	3.808
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	285381	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	432226	3.84759	3.848
11 Benzyl alcohol	79		9.541	9.541	(1.029)	370948	5.06161	5.062
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	429798	3.90352	3.904
13 2-Methylphenol	108		9.759	9.759	(1.052)	212942	2.38925	2.389
15 4-Methylphenol	108		10.040	10.027	(1.083)	283972	3.15274	3.153
16 N-Nitroso-di-n-propylamine	70		10.091	10.091	(1.088)	154898	2.38617	2.386
22 2,4-Dimethylphenol	107		11.062	11.062	(0.942)	84269	0.86149	0.8615
24 Benzoic acid	105		11.317	11.215	(0.964)	1736646	28.4983	28.50
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	318772	3.59191	3.592
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1016889	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	197739	4.23156	4.232
39 Dimethylphthalate	163		14.837	14.824	(0.968)	847884	4.09699	4.097
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	563559	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	802810	4.27150	4.272
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	286669	2.51602	2.516
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	176511	4.56684	4.567
58 Pentachlorophenol	266		18.086	18.086	(0.985)	331676	13.1417	13.14
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	808753	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	506614	5.16192	5.162 (R)
67 Butylbenzylphthalate	149		22.371	22.371	(0.958)	516950	4.84707	4.847
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	517231	4.00000	
* 77 Perylene-d12	264		25.994	25.994	(1.000)	436120	4.00000	
79 Dibenzo(a,h)anthracene	278		28.713	28.713	(1.105)	574931	4.67379	4.674
90 N-Nitrosodimethylamine	74		5.005	4.979	(0.540)	314258	5.64100	5.641

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262308S.D
 Lab Smp Id: BLD0607-BSD2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	285381	-19.60
27 Naphthalene-d8	1204481	602241	2408962	1016889	-15.57
42 Acenaphthene-d10	658677	329339	1317354	563559	-14.44
59 Phenanthrene-d10	965415	482708	1930830	808753	-16.23
69 Chrysene-d12	615102	307551	1230204	517231	-15.91
77 Perylene-d12	580660	290330	1161320	436120	-24.89

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	25.99	25.49	26.49	25.99	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262308S.D

Lab ID: BLD0607-BSD2

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 26-MAY-2023 17:02

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.964	0.955	0.0087	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705262303S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



STANDARD REFERENCE MATERIAL RECOVERY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0607-SRM2

Batch: BLD0607

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/26/2023 18:56

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,4-Dimethylphenol	6357.0	1950	21.7	200		30.7	0 - 220
1,2,4-Trichlorobenzene	1477.0	1290	26.8	50.0		87.6	10 - 193
N-Nitrosodiphenylamine	2854.0	2620	13.1	50.0		91.8	40 - 160
Pentachlorophenol	3411.0	3210	21.3	200		94.0	10 - 206

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.16\SIM.B\NT17052623115.D

Date: 26-May-2023 18:56

Client ID:

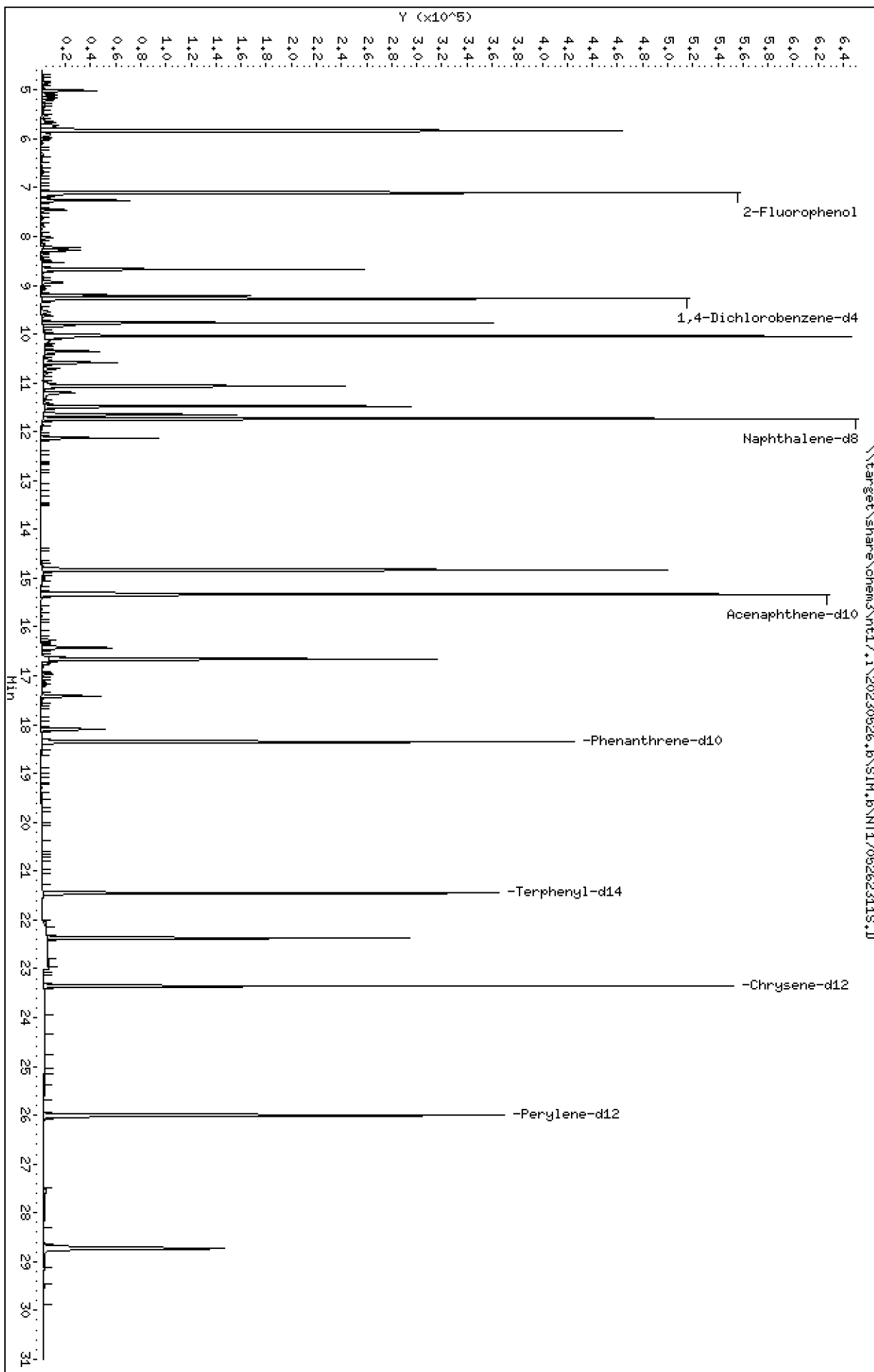
Sample Info: BLD0607-SRM2

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

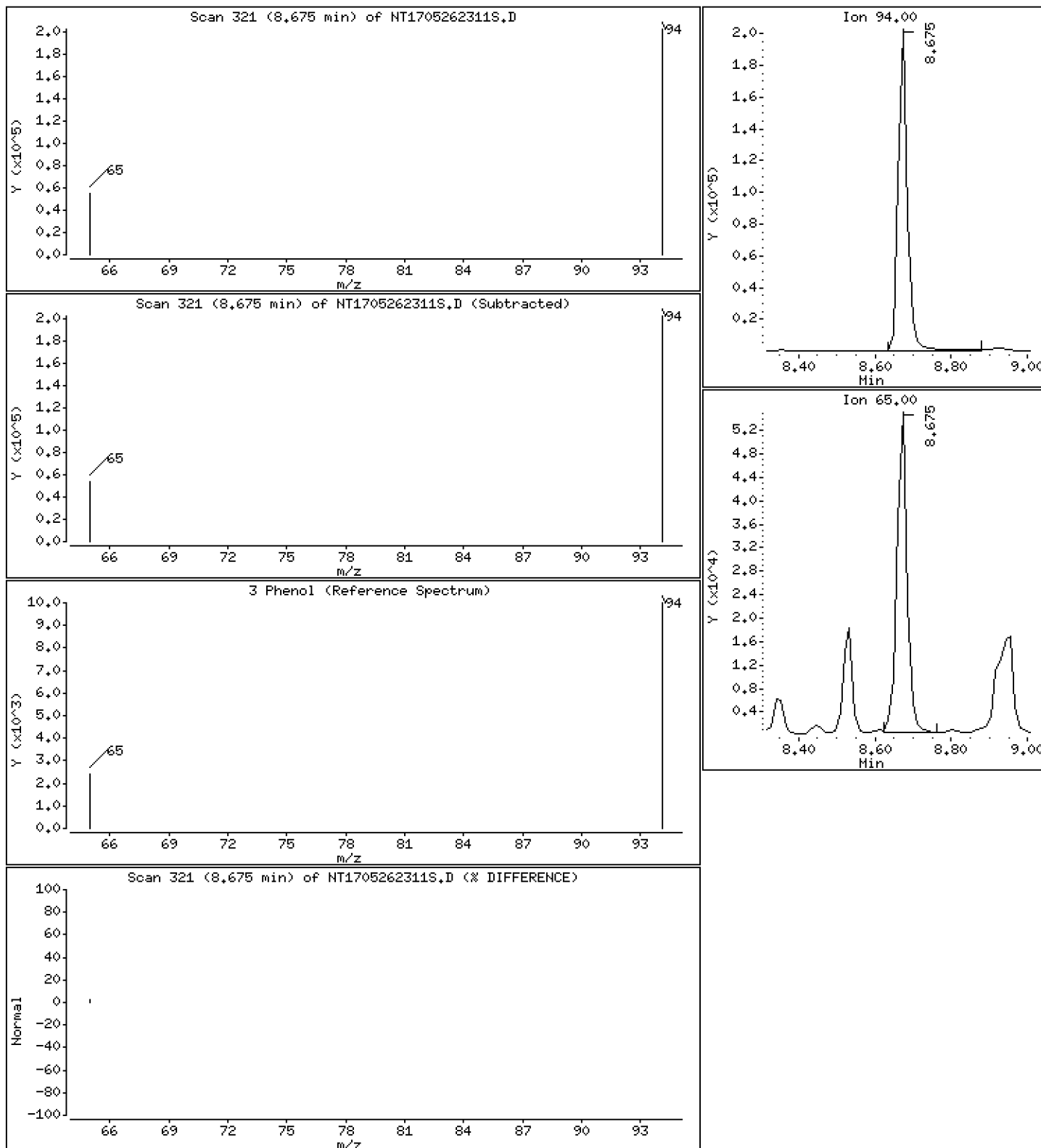
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,398 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

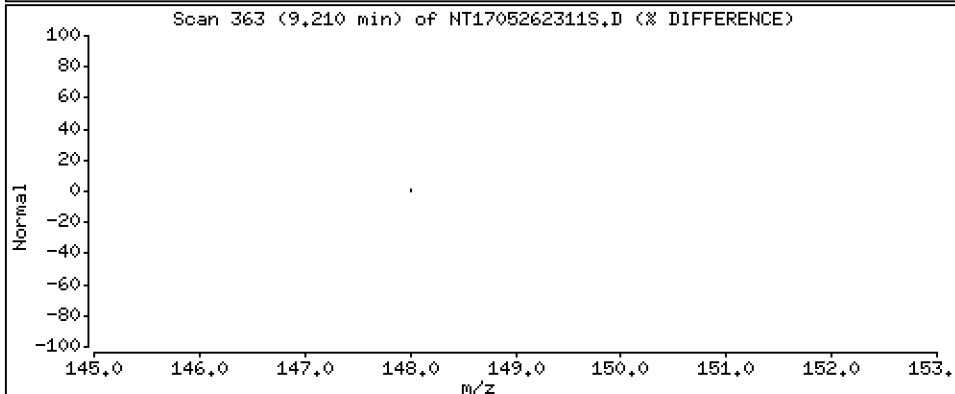
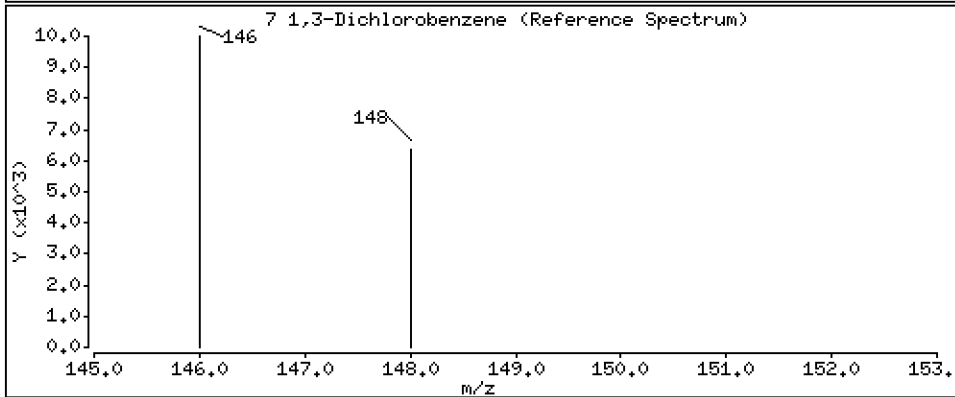
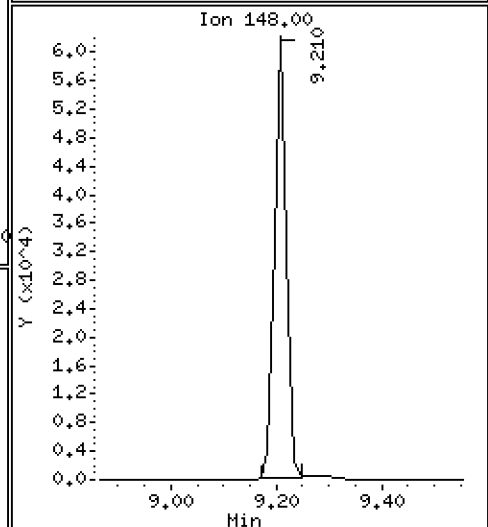
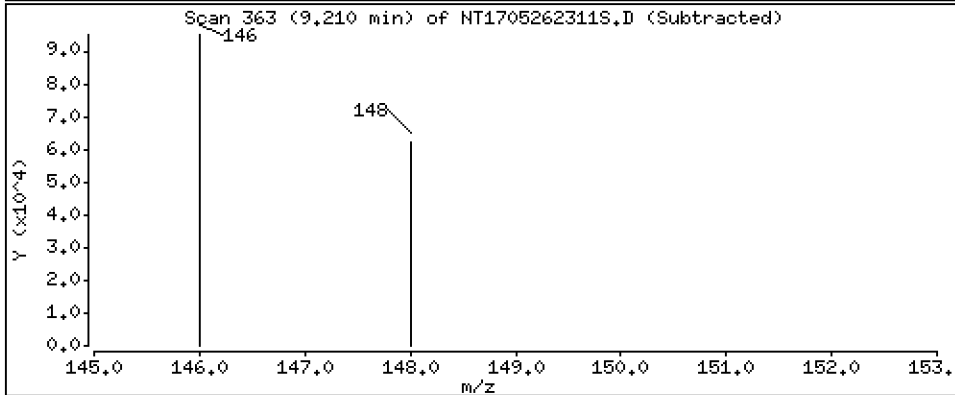
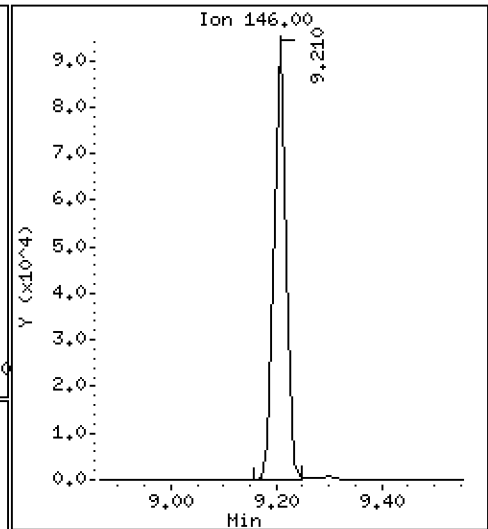
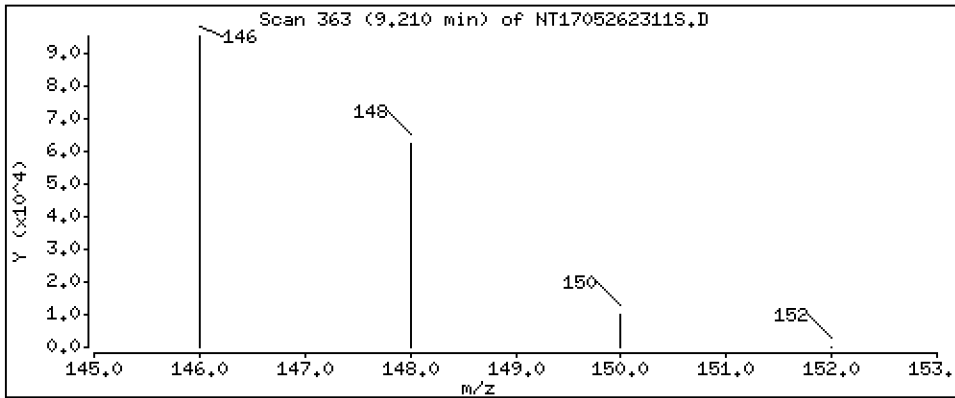
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 1,195 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

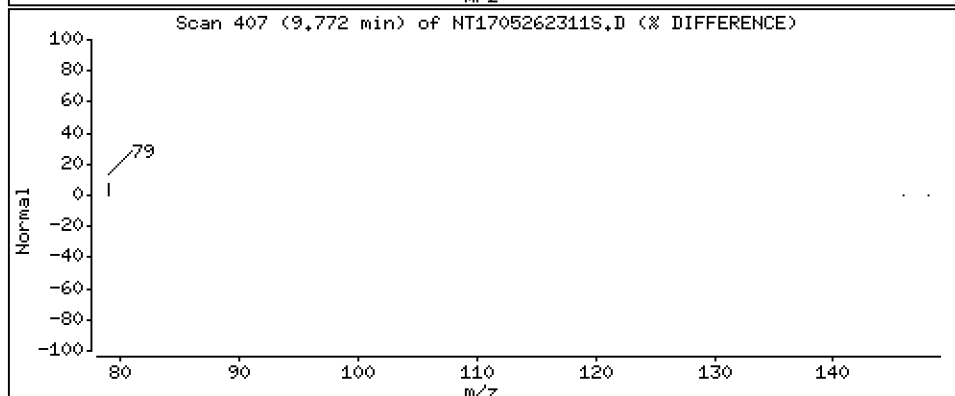
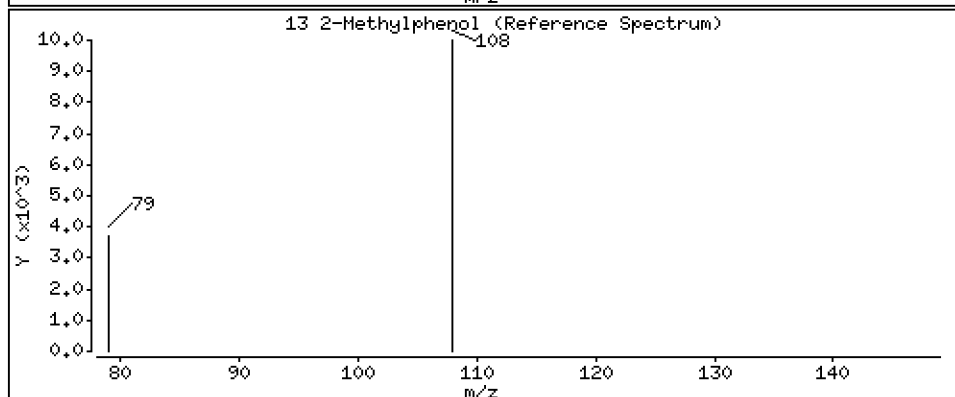
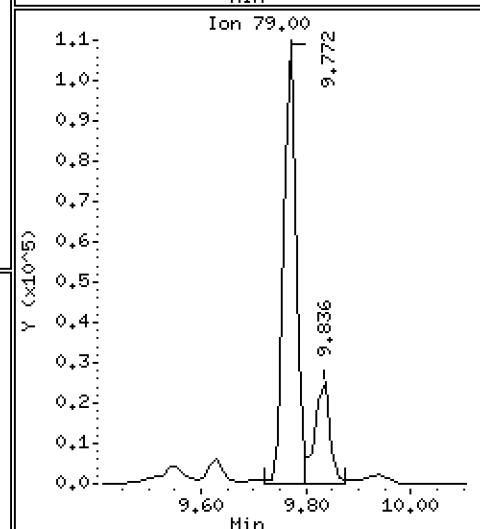
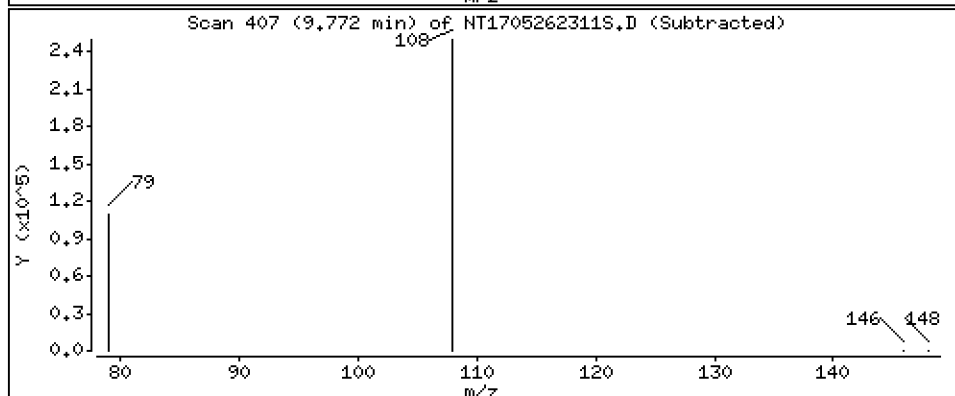
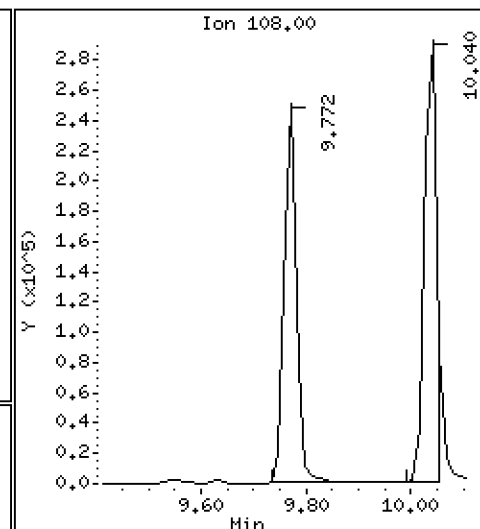
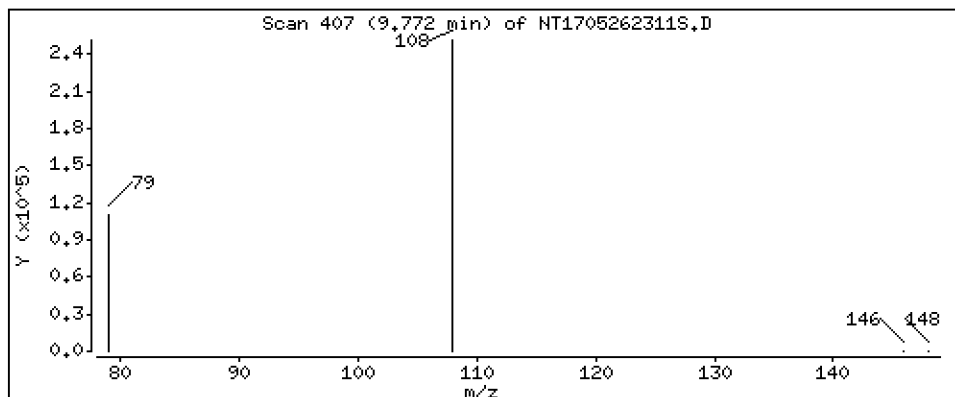
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,231 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

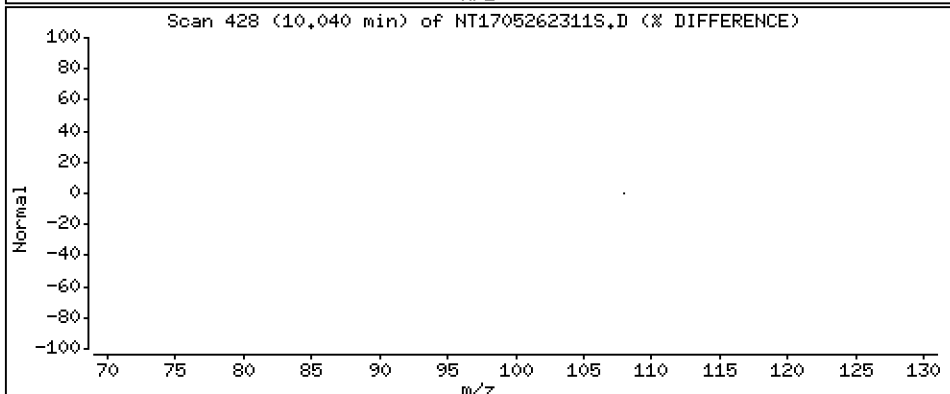
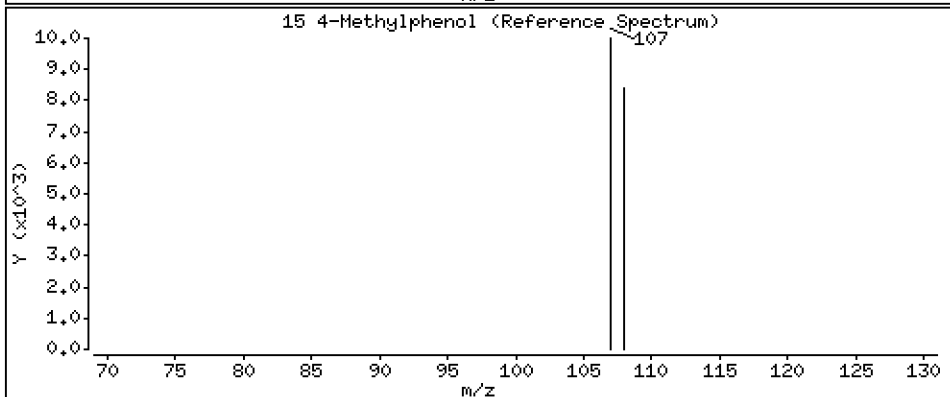
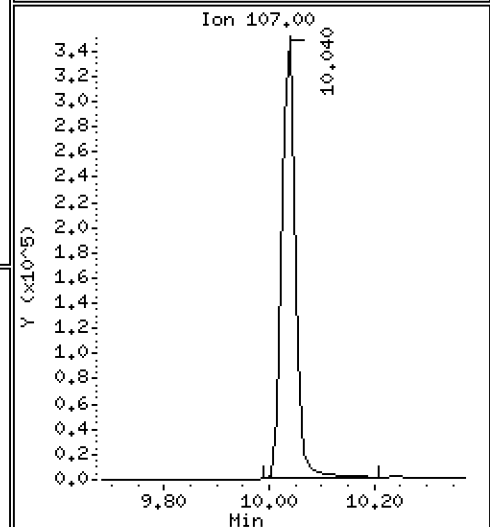
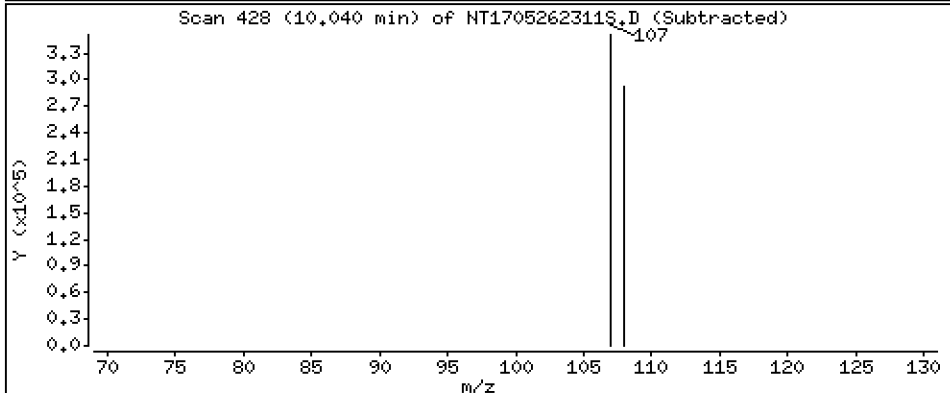
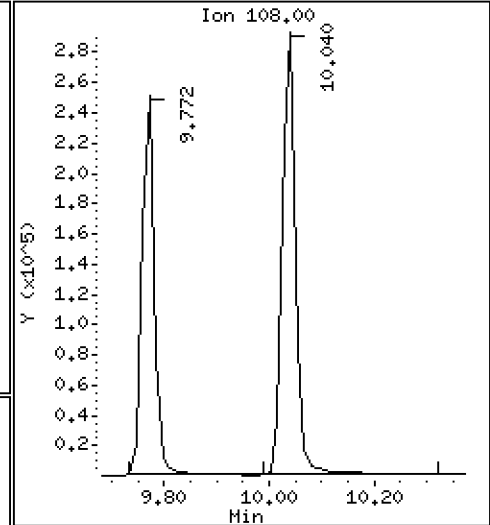
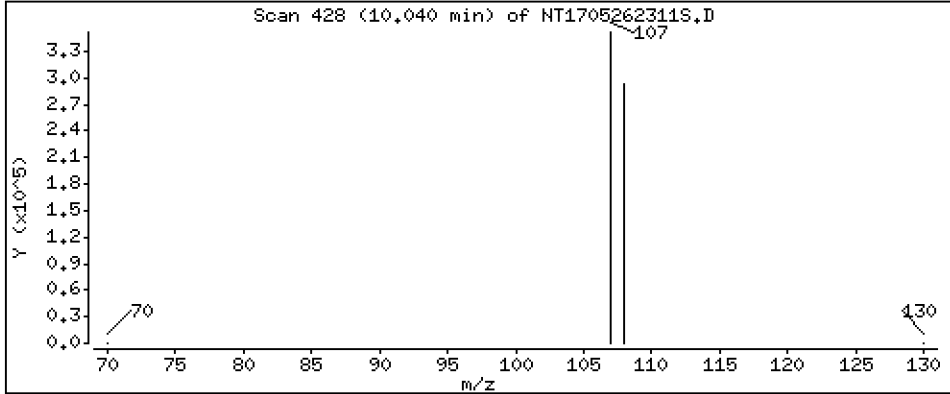
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 5,353 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

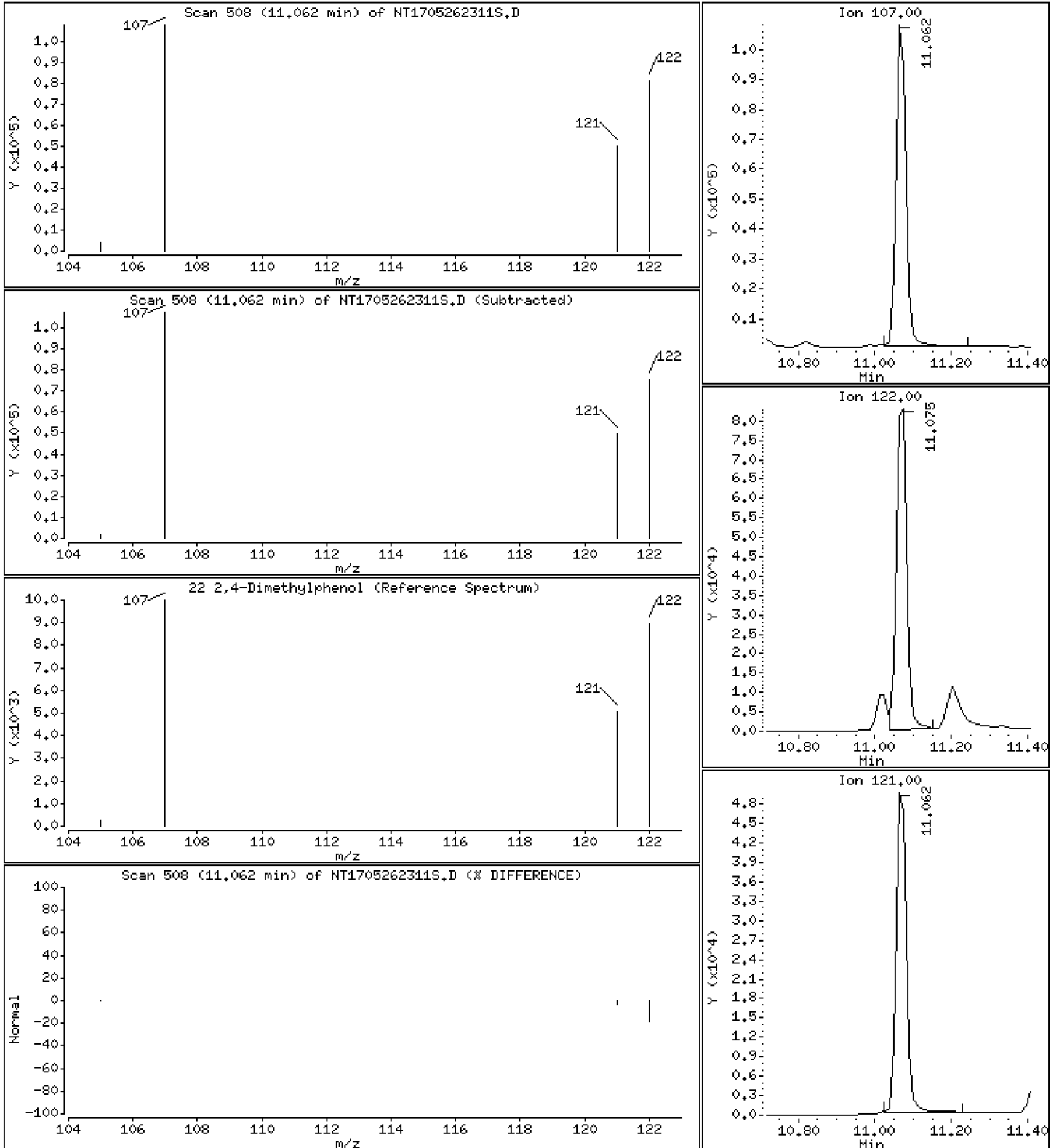
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,952 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

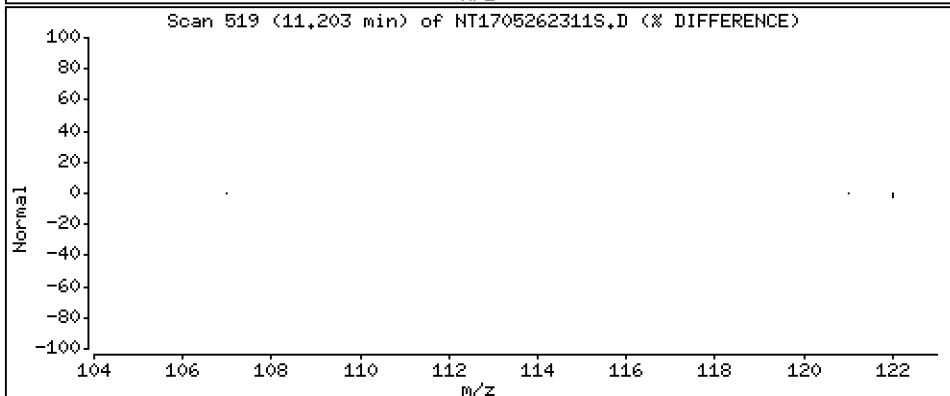
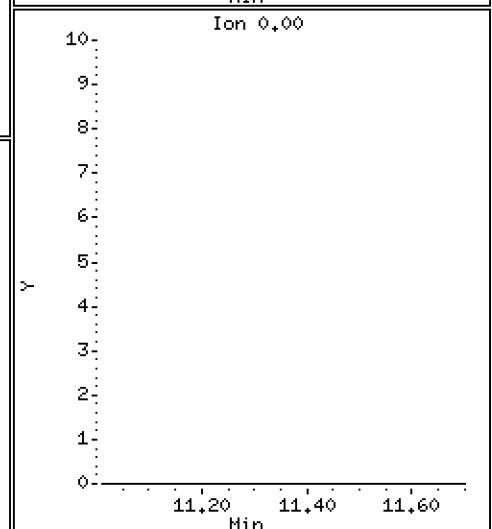
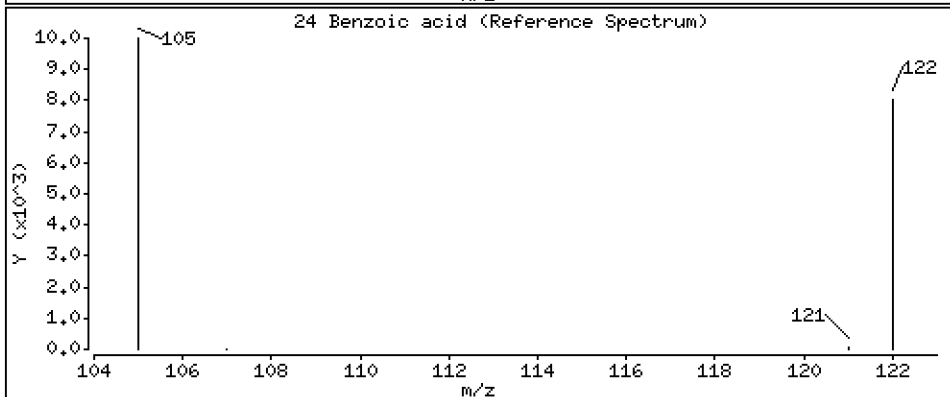
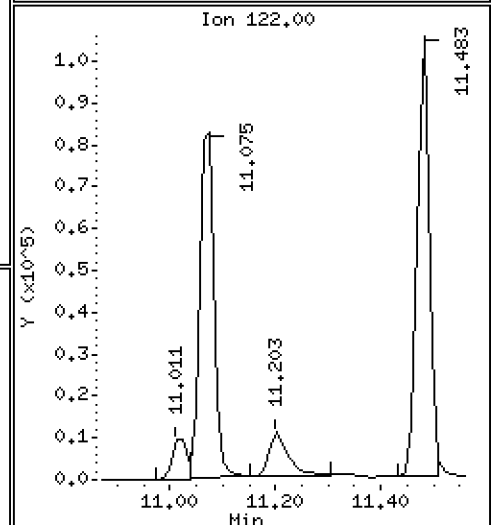
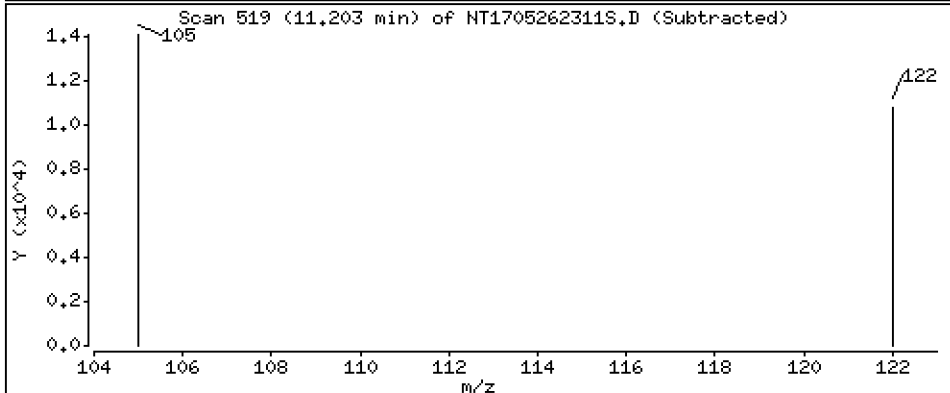
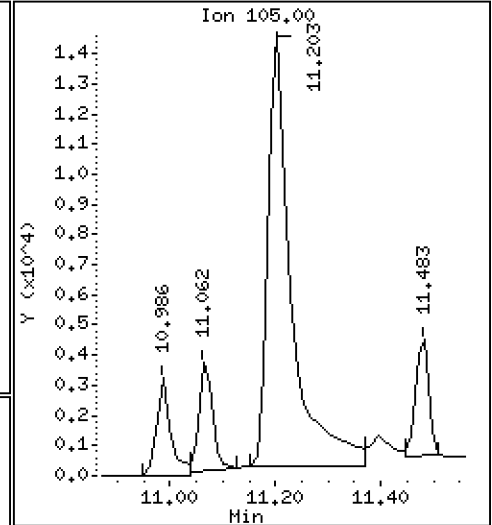
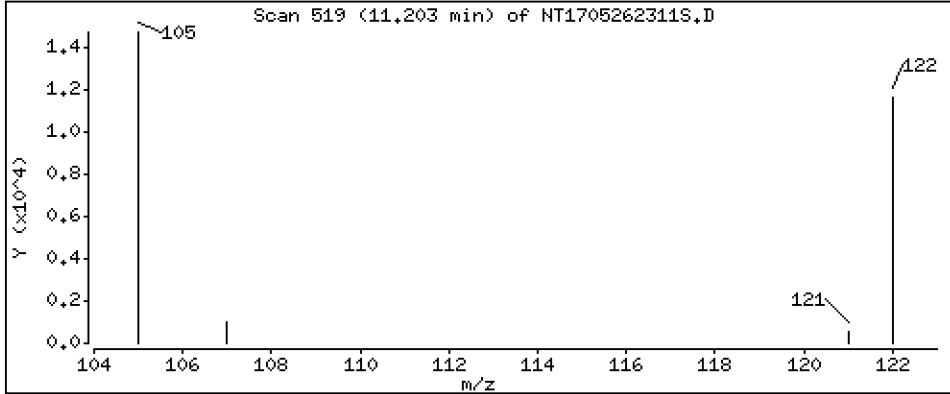
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,7125 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

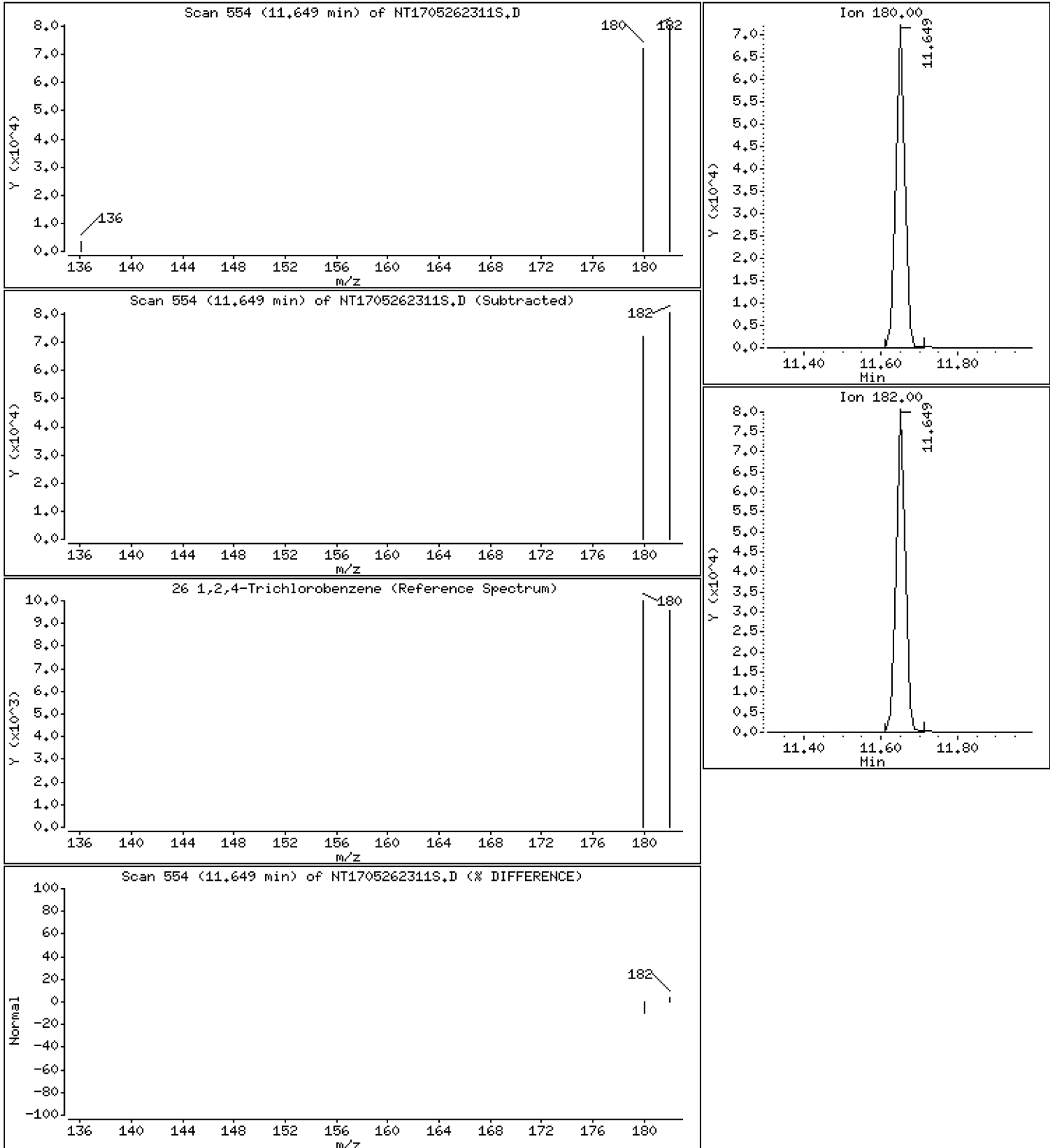
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 1,294 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

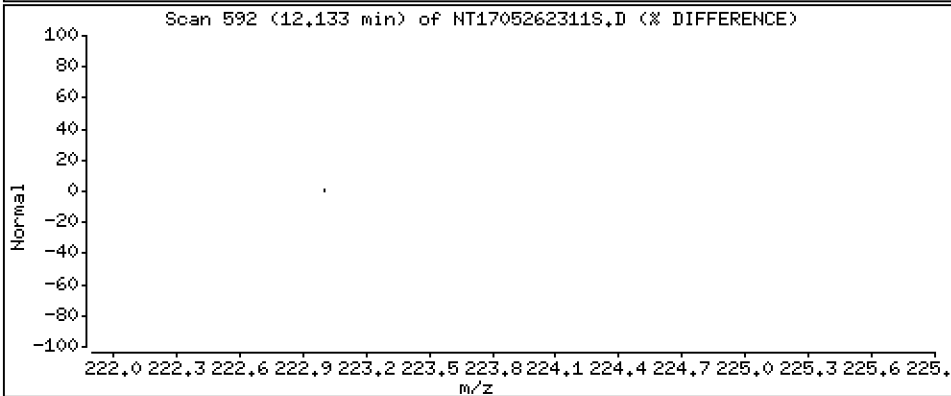
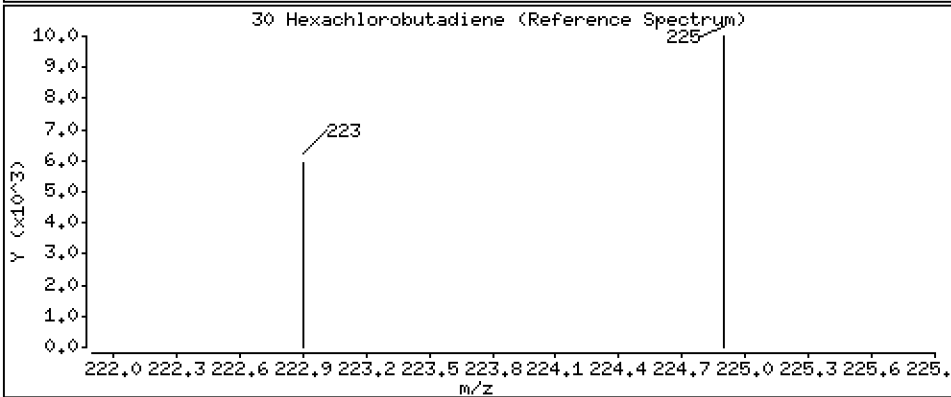
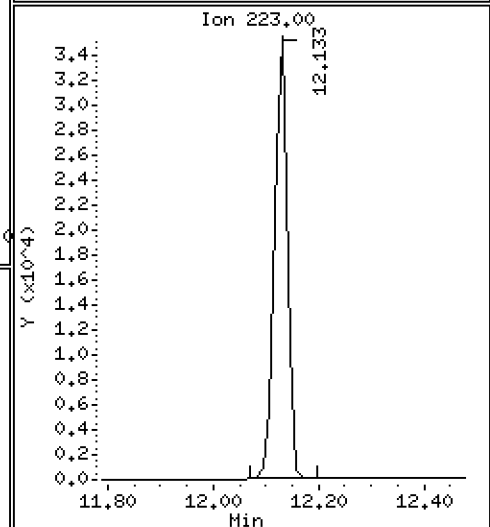
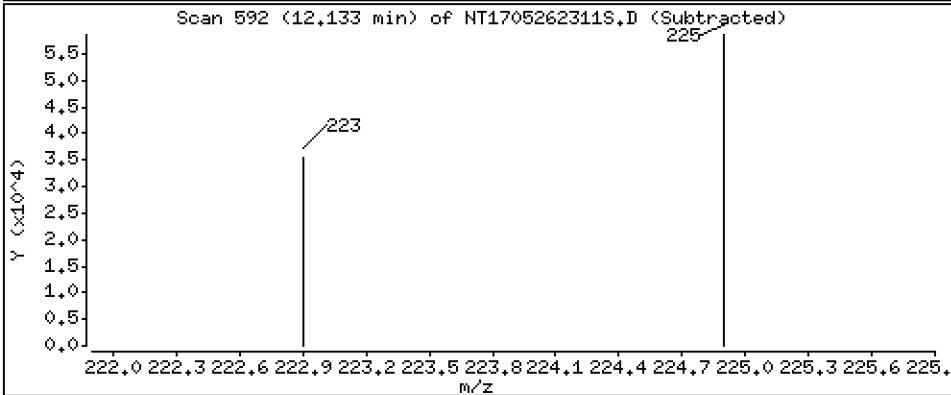
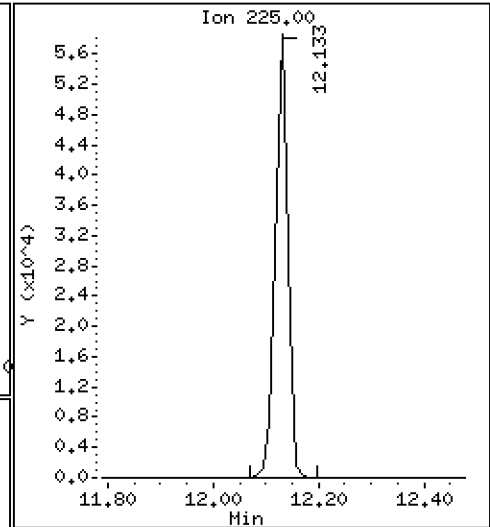
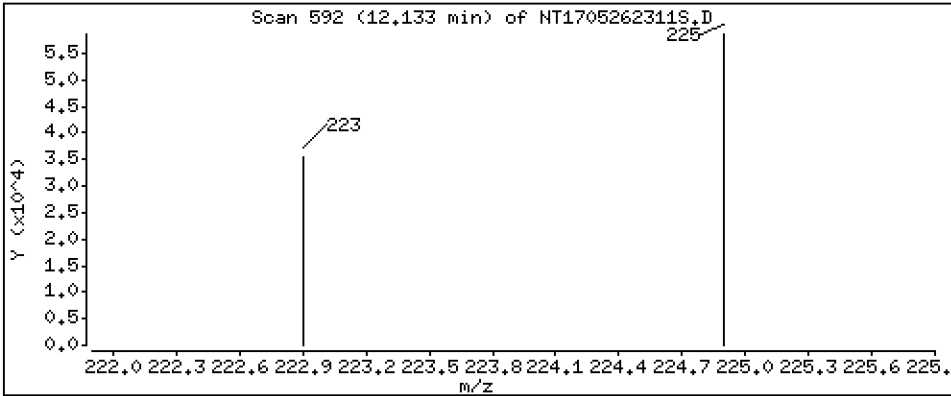
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 2,029 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

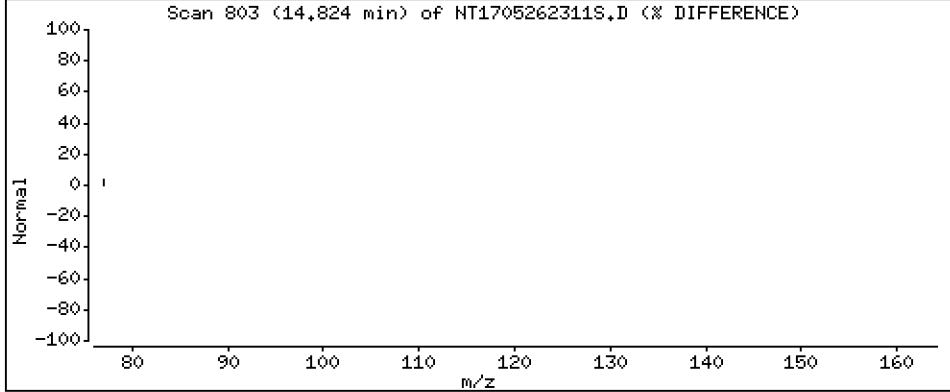
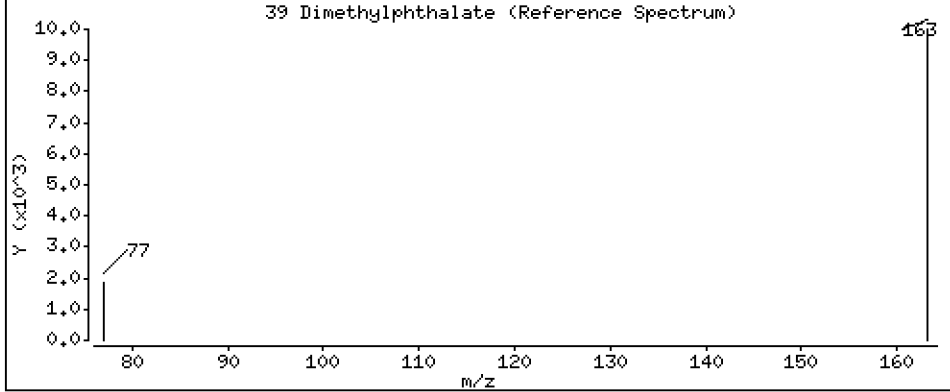
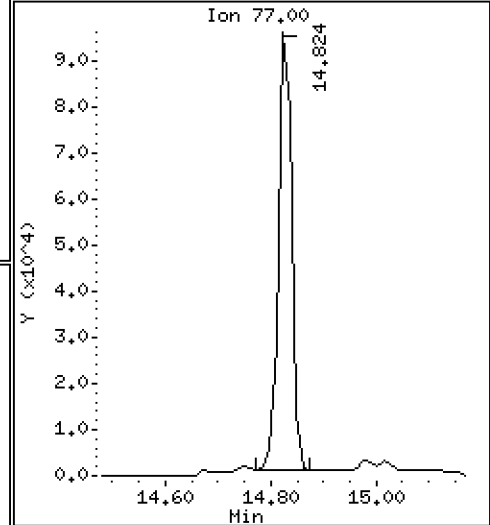
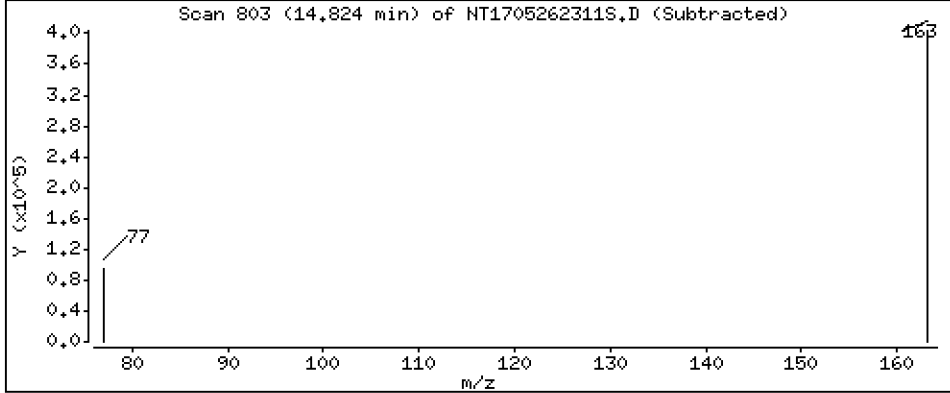
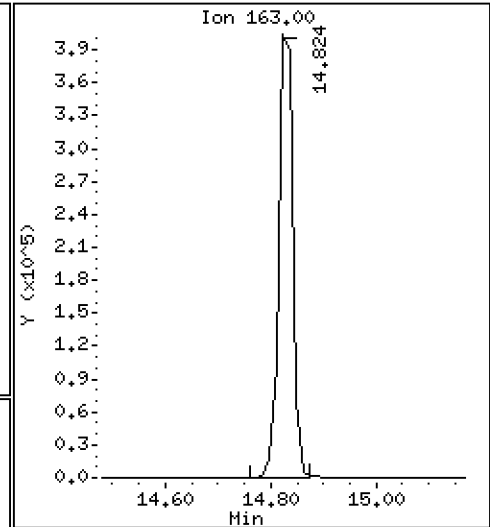
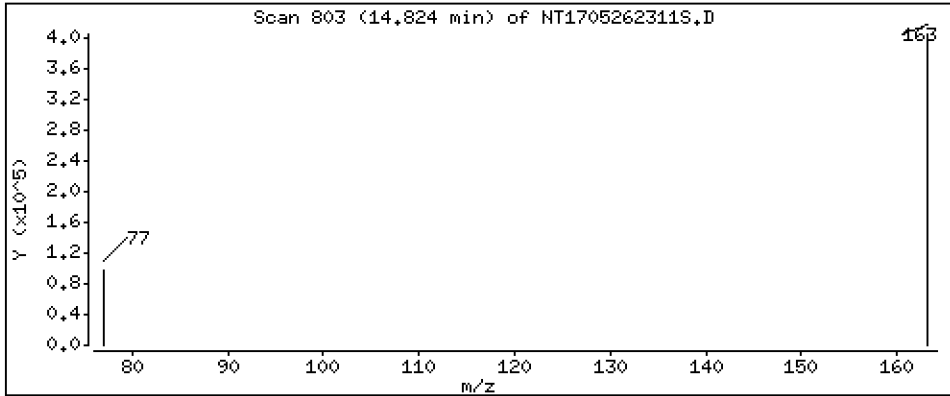
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,892 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

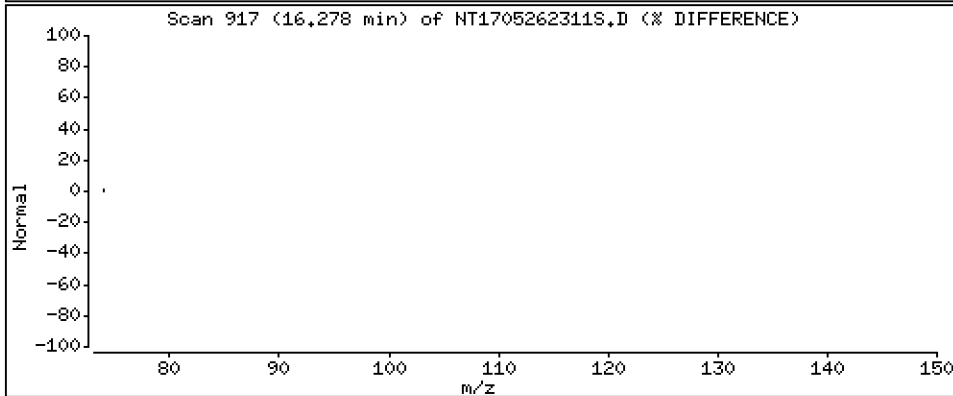
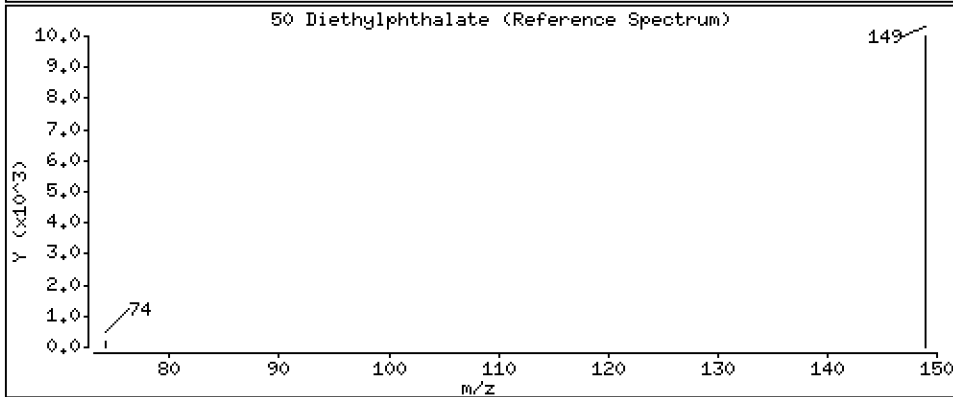
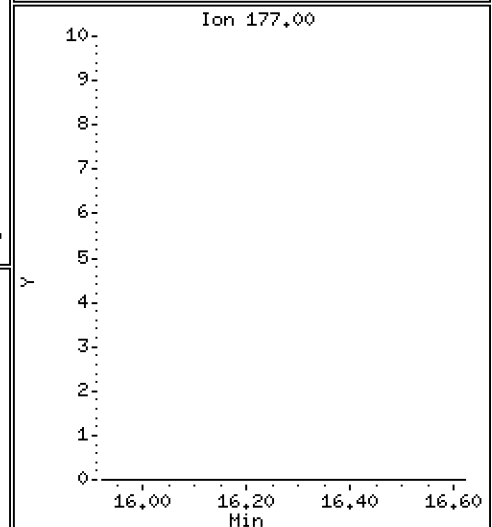
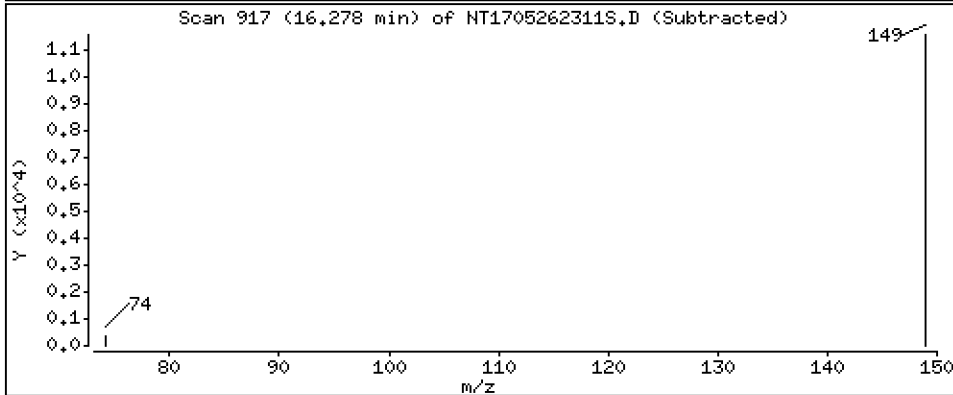
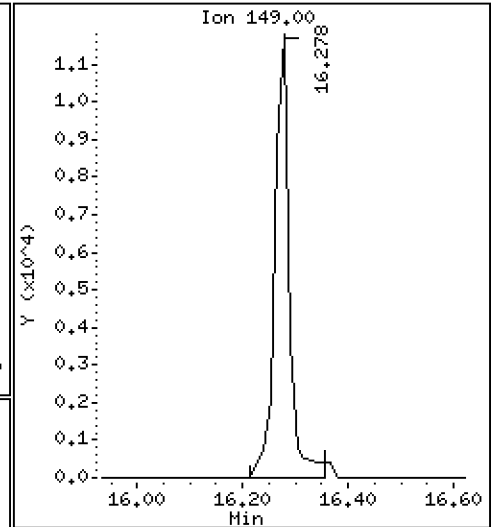
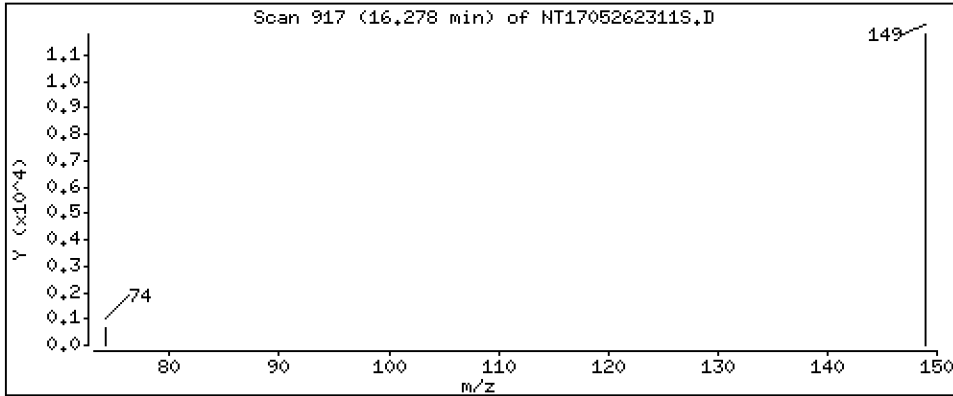
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1297 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

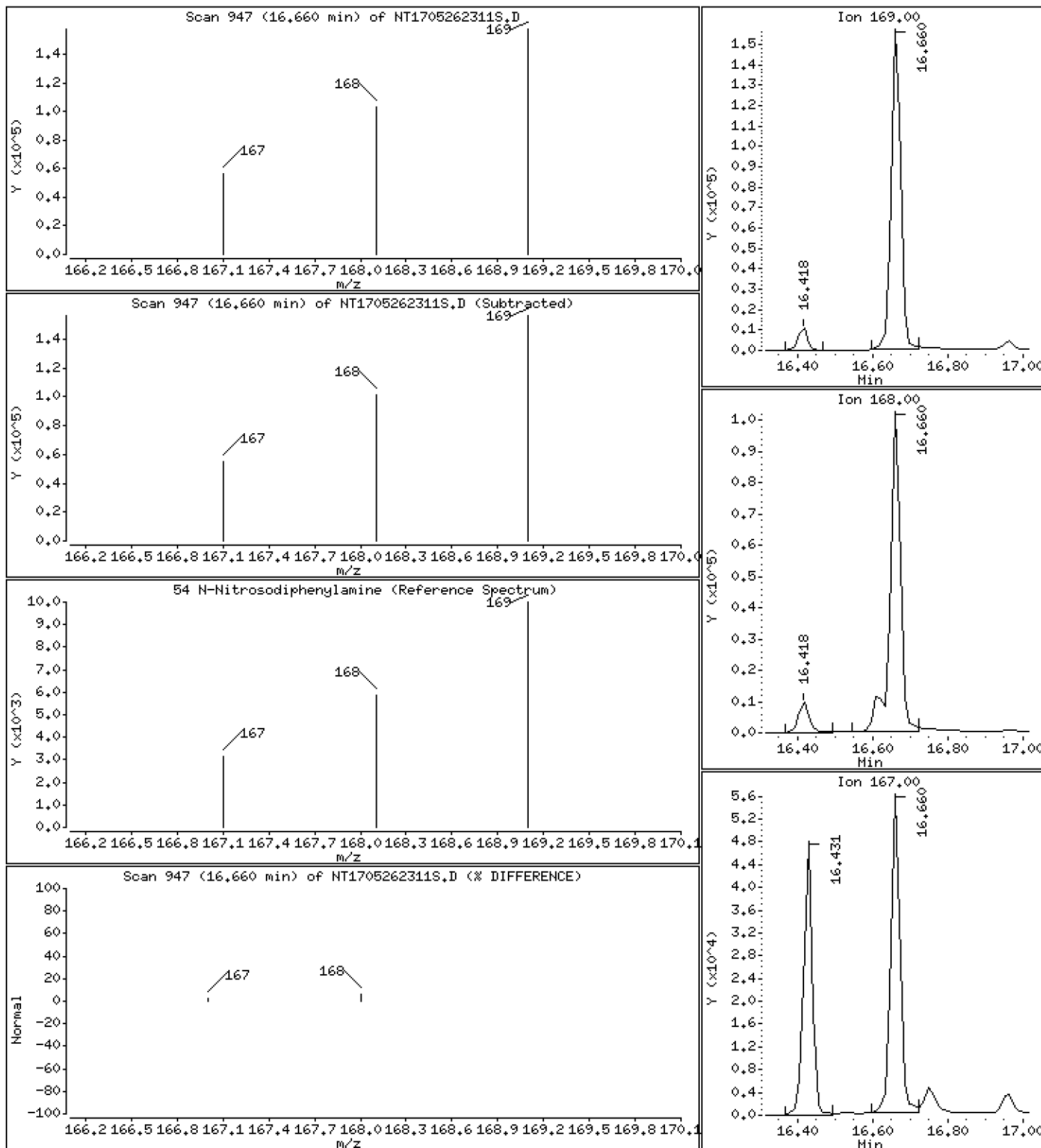
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 2,620 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

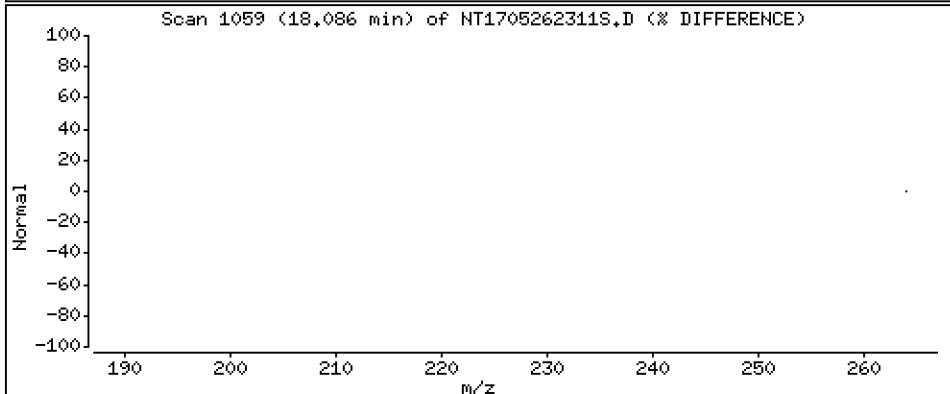
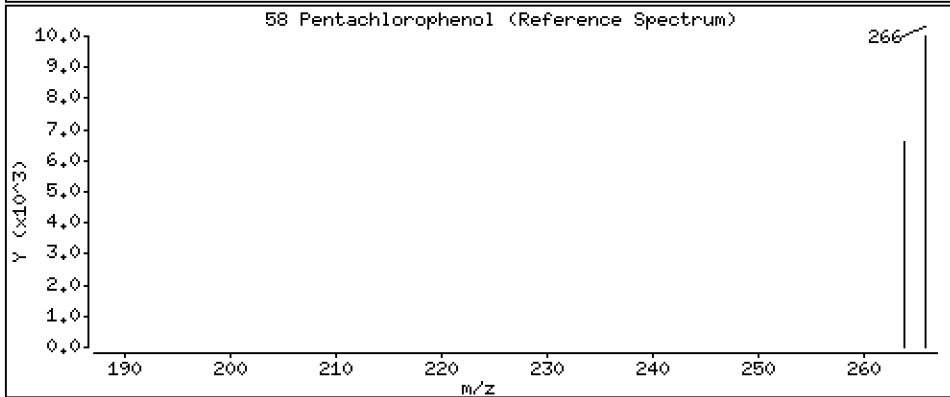
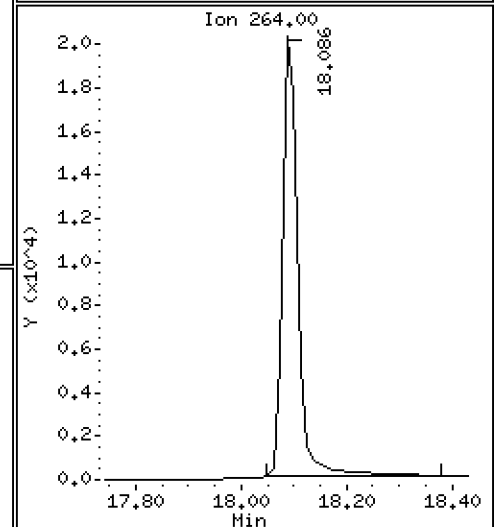
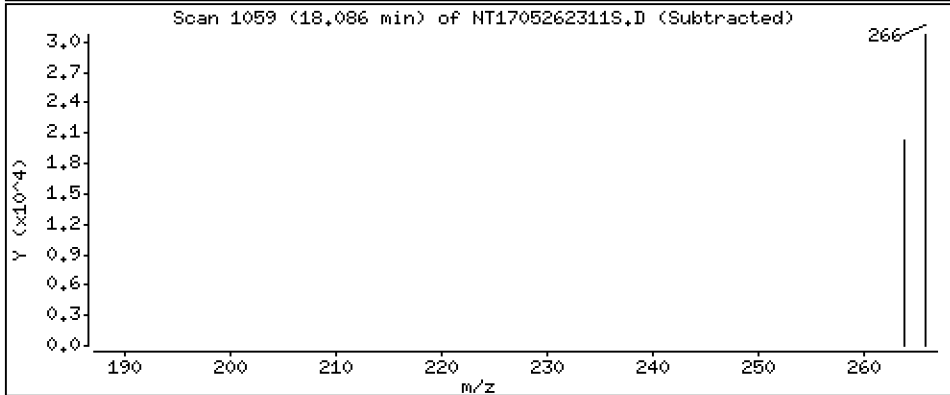
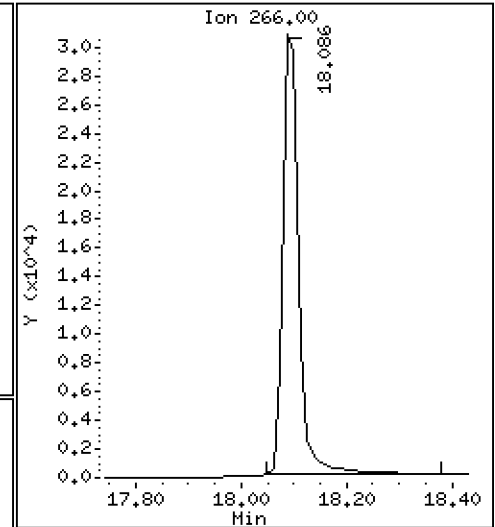
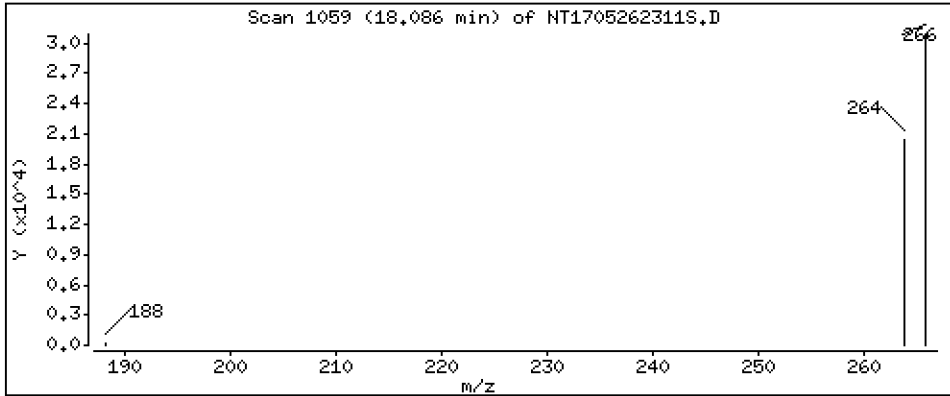
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,206 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

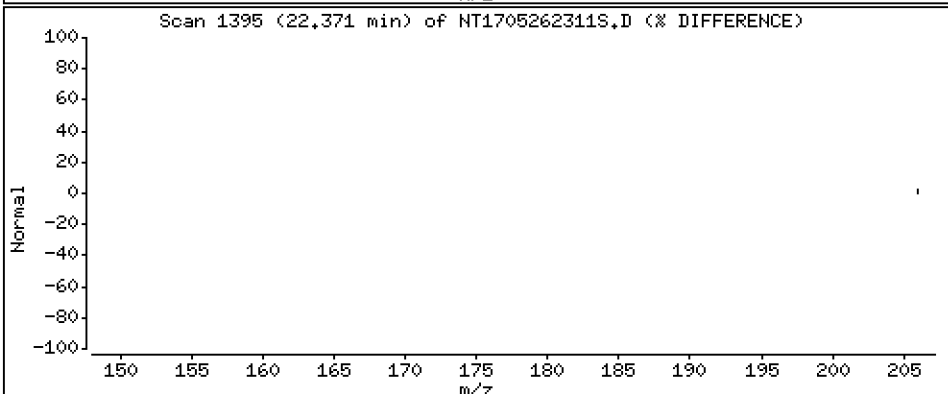
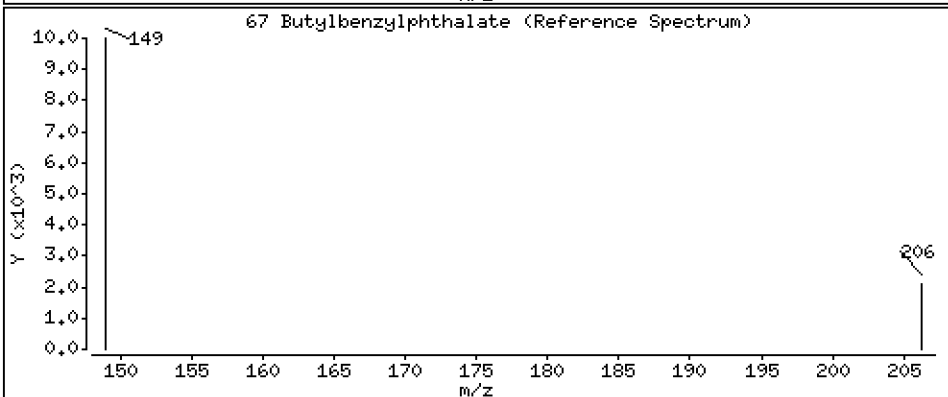
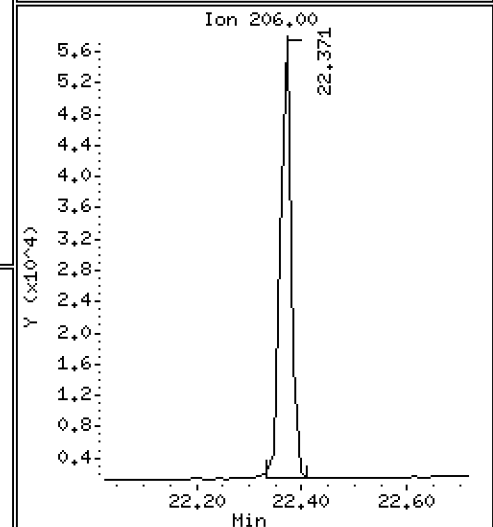
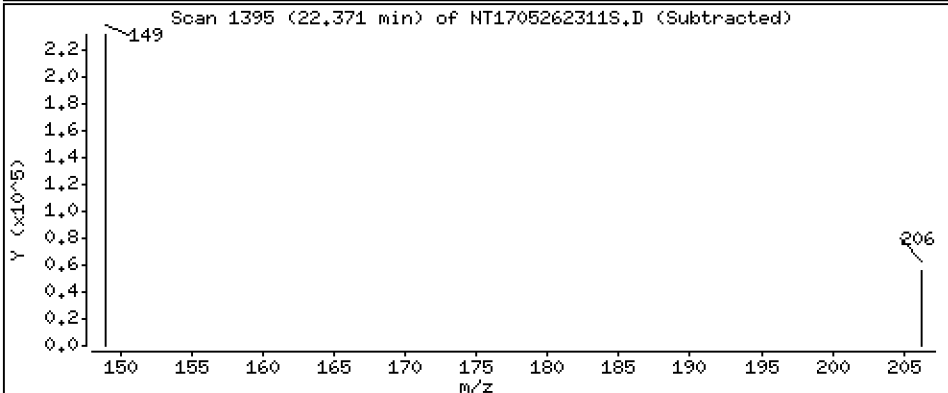
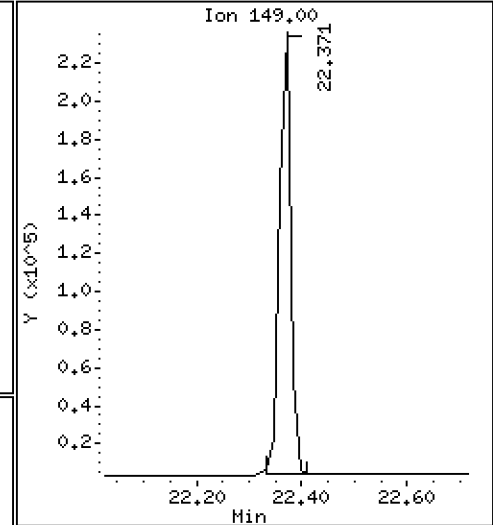
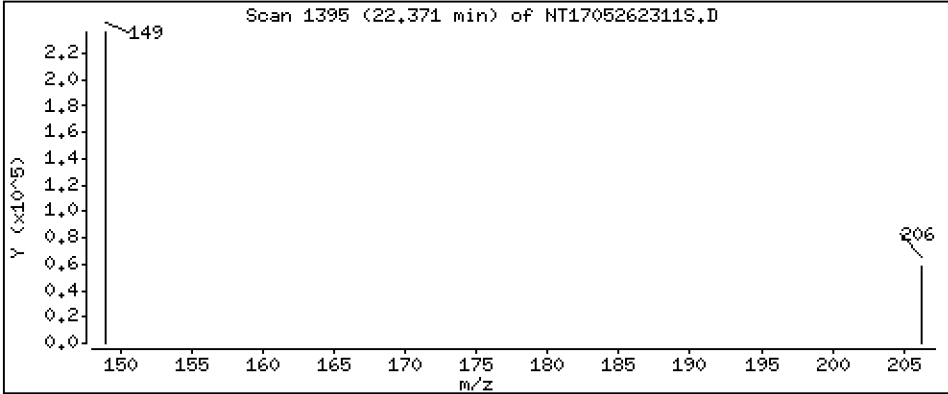
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 2,672 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

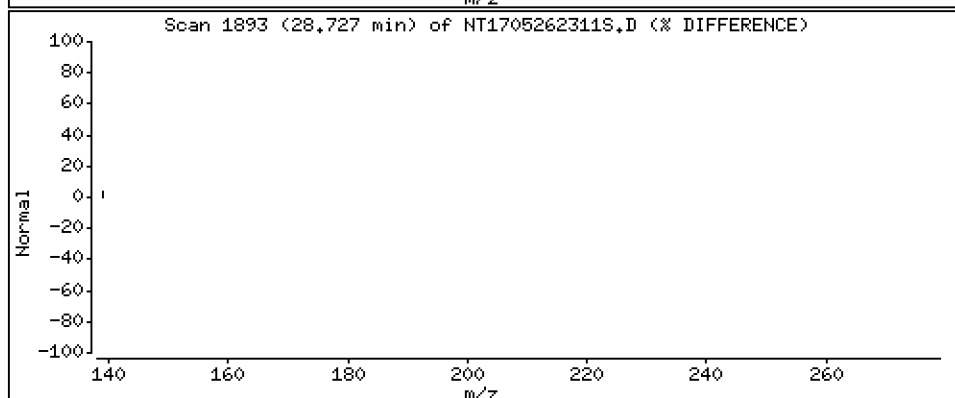
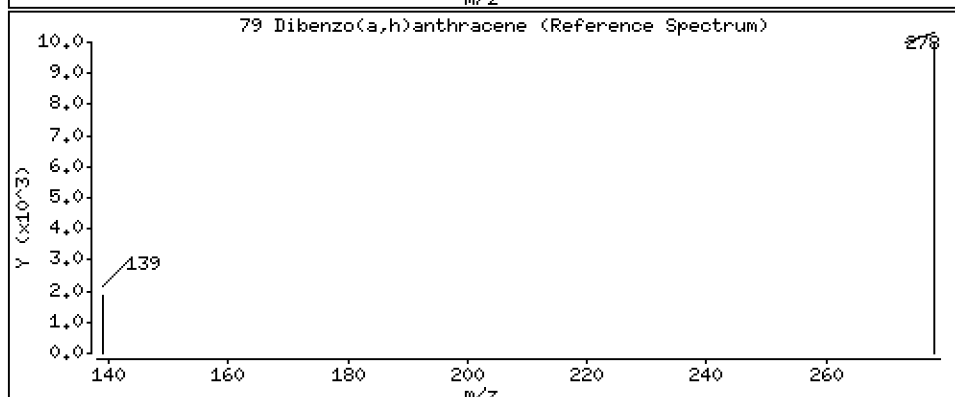
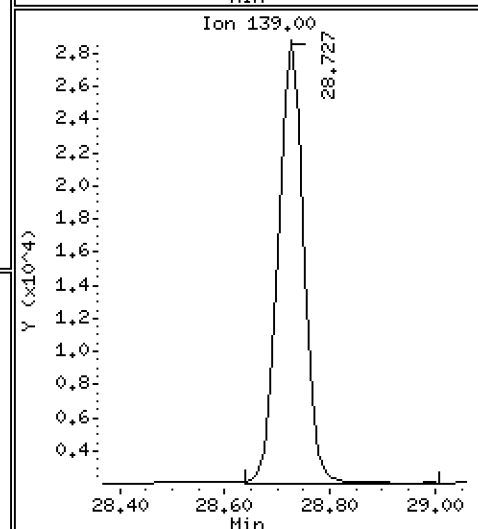
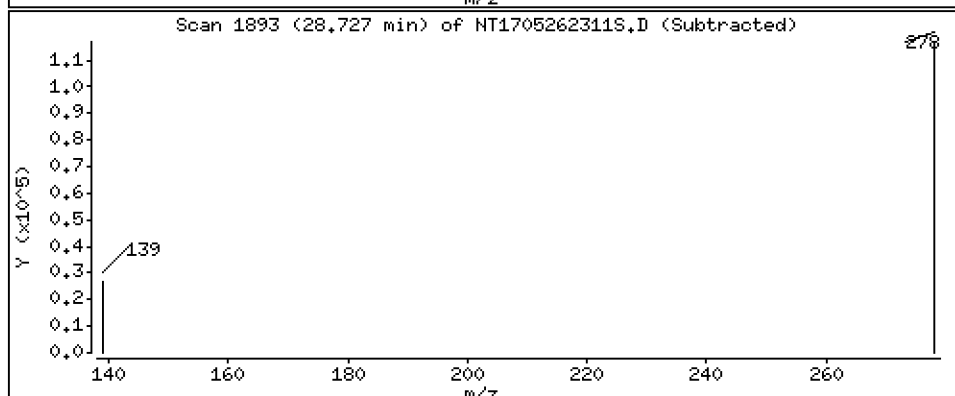
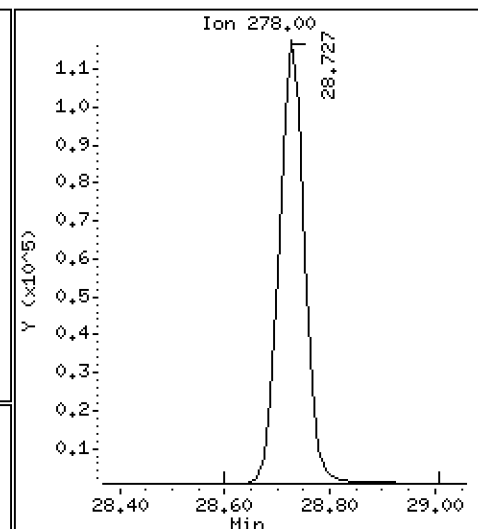
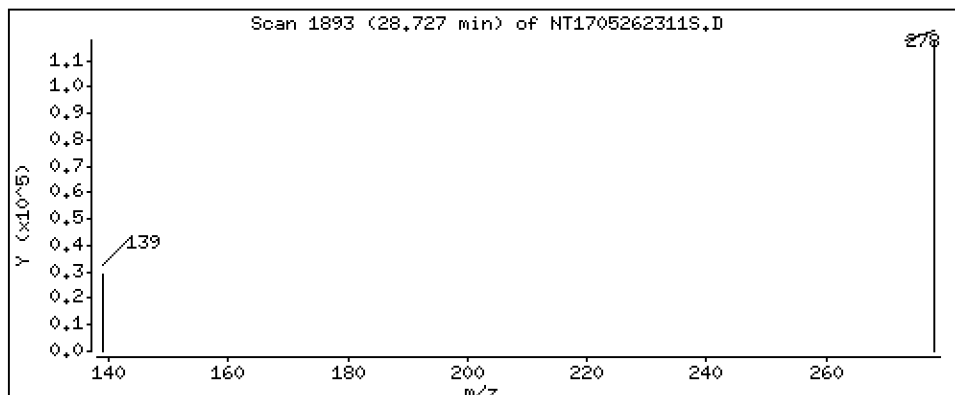
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 2,090 ug/mL



Date : 26-MAY-2023 18:56

Client ID:

Instrument: nt17.i

Sample Info: BLD0607-SRM2

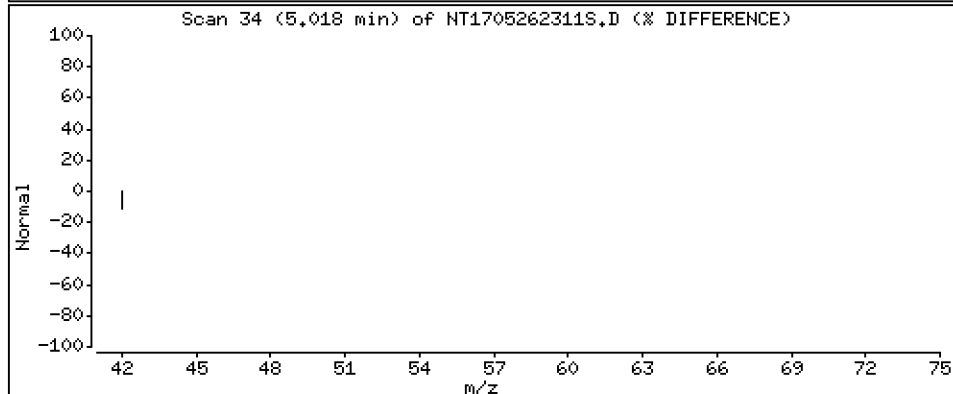
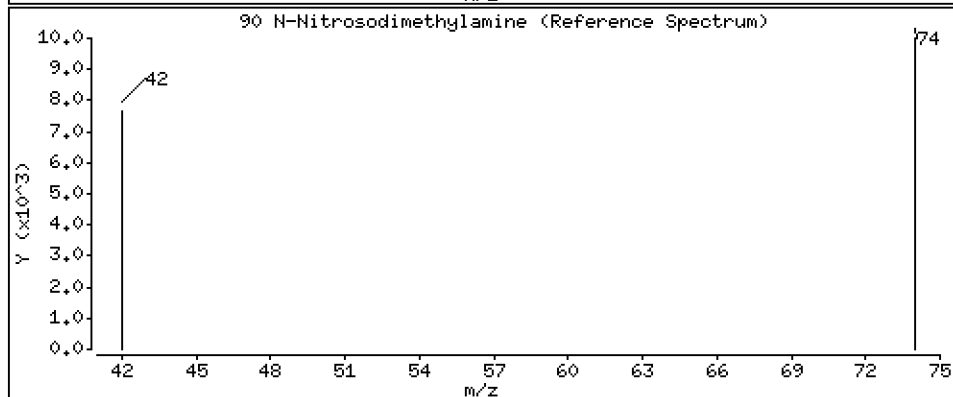
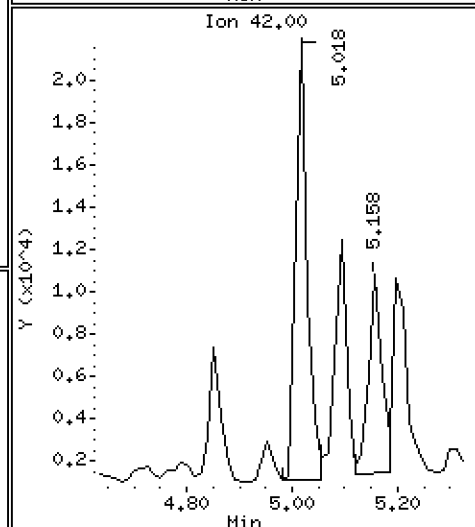
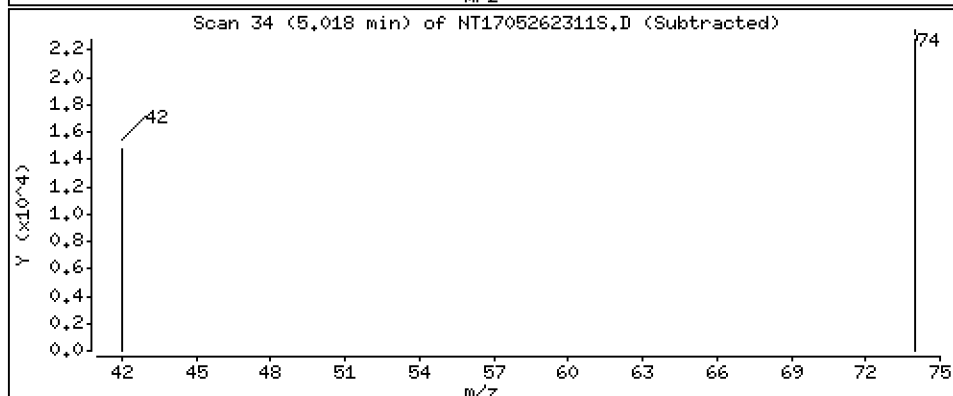
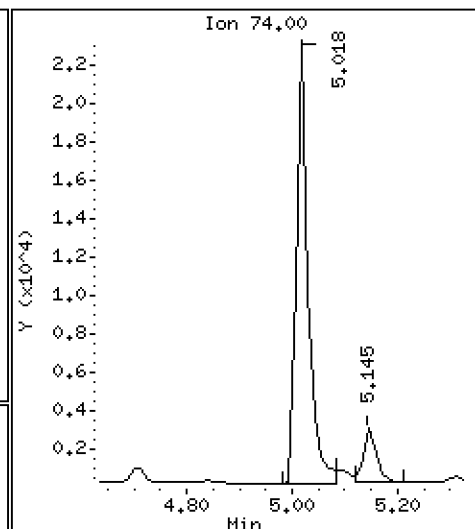
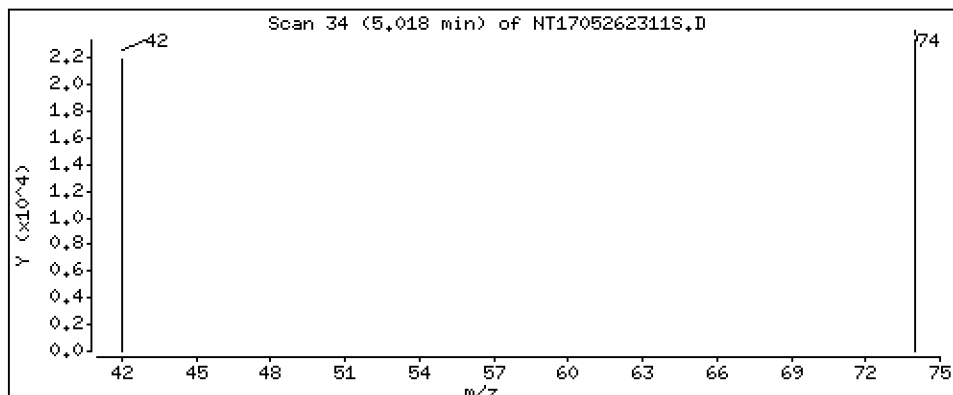
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.6319 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262311S.D
 Lab Smp Id: BLD0607-SRM2
 Inj Date : 26-MAY-2023 18:56
 Operator : VTS
 Smp Info : BLD0607-SRM2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 06-Jun-2023 14:52 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.107	7.069	(0.766)	603145	6.45320	6.453(R)
3 Phenol	94		8.674	8.661	(0.935)	333898	2.39755	2.398
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	149110	1.19451	1.195
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	309013	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
13 2-Methylphenol	108		9.771	9.759	(1.054)	408280	4.23065	4.231
15 4-Methylphenol	108		10.040	10.027	(1.083)	522037	5.35256	5.353
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.062	11.062	(0.942)	194784	1.95209	1.952
24 Benzoic acid	105		11.202	11.215	(0.954)	44288	0.71246	0.7125
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	117146	1.29401	1.294
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1037311	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	96730	2.02924	2.029
39 Dimethylphthalate	163		14.824	14.824	(0.967)	757643	3.89176	3.892
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	530135	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	22929	0.12969	0.1297
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	272203	2.61958	2.620
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		18.086	18.086	(0.985)	65560	3.20604	3.206
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	737581	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	492762	4.08903	4.089(R)
67 Butylbenzylphthalate	149		22.371	22.371	(0.958)	349901	2.67193	2.672
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	635091	4.00000	
* 77 Perylene-d12	264		26.006	25.994	(1.000)	660695	4.00000	
79 Dibenzo(a,h)anthracene	278		28.726	28.713	(1.105)	389540	2.09031	2.090
90 N-Nitrosodimethylamine	74		5.018	4.979	(0.541)	38116	0.63187	0.6319

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262311S.D
 Lab Smp Id: BLD0607-SRM2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	309013	-12.94
27 Naphthalene-d8	1204481	602241	2408962	1037311	-13.88
42 Acenaphthene-d10	658677	329339	1317354	530135	-19.52
59 Phenanthrene-d10	965415	482708	1930830	737581	-23.60
69 Chrysene-d12	615102	307551	1230204	635091	3.25
77 Perylene-d12	580660	290330	1161320	660695	13.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	25.99	25.49	26.49	26.01	0.05

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

REVIEW SUMMARY FOR FILE - NT1705262311S.D

Lab ID: BLD0607-SRM2

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 26-MAY-2023 18:56

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1705262303S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



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

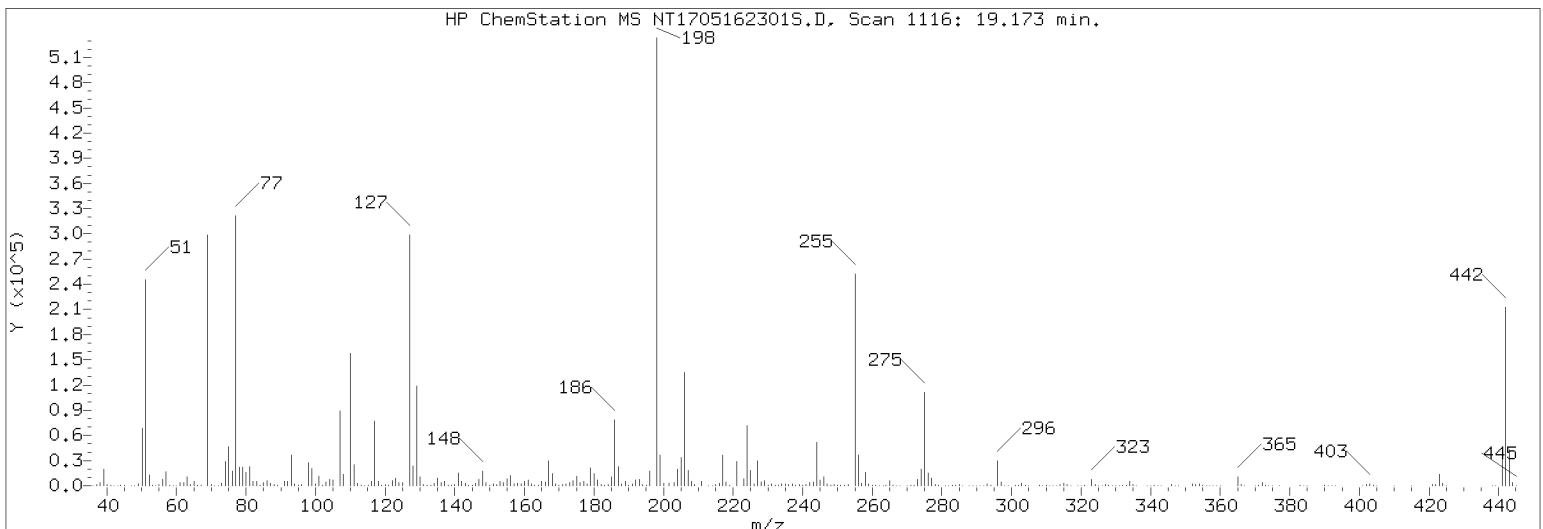
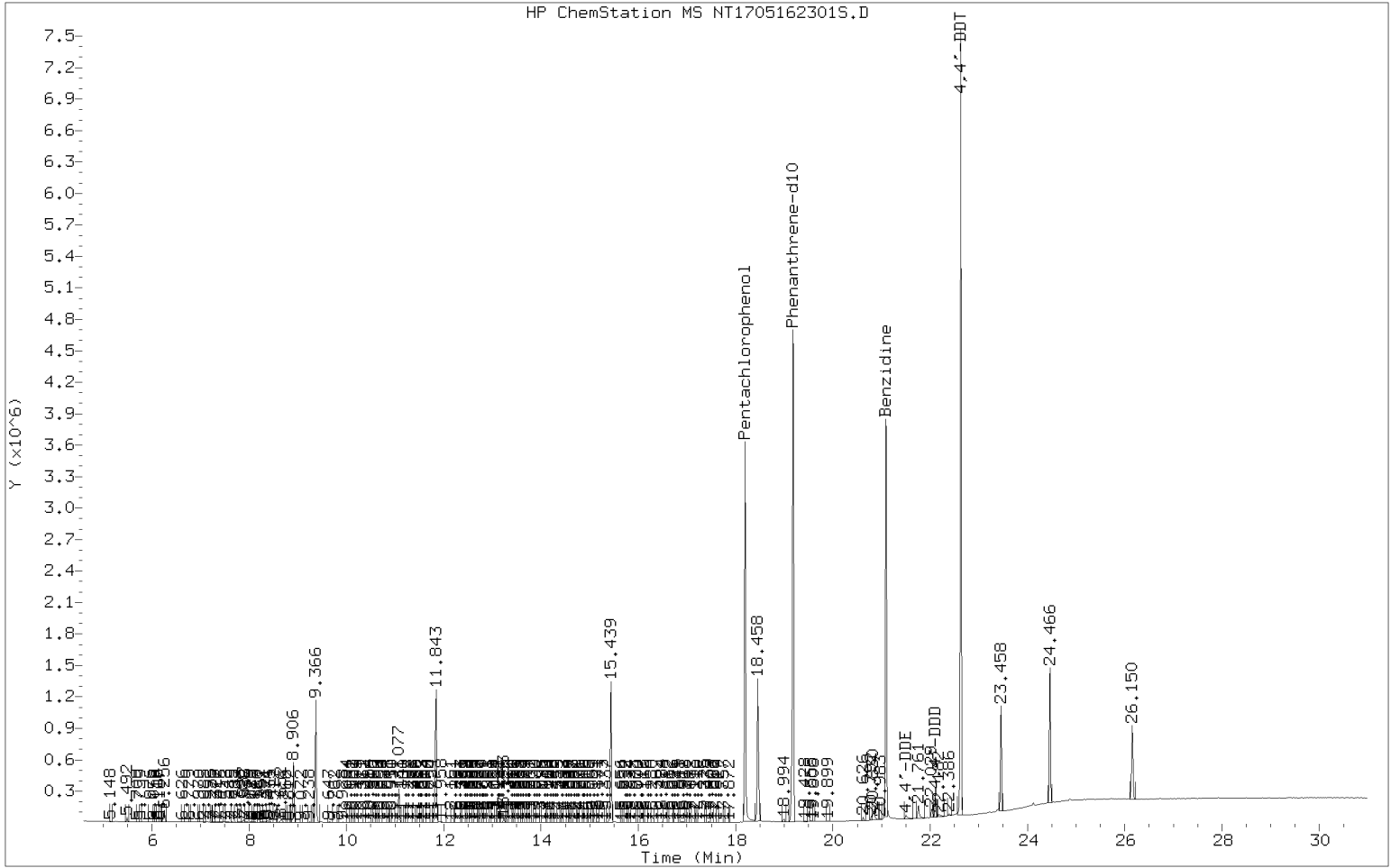
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1705162301S.D</u>	Injection Date:	<u>05/16/23</u>
Instrument ID:	<u>NT17</u>	Injection Time:	<u>18:14</u>
Sequence:	<u>SLE0339</u>	Lab Sample ID:	<u>SLE0339-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	55.7	PASS
70	Less than 2% of 69	0.497	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
365	1 - 100% of 198	2.01	PASS
441	Less than 150% of 443	80.7	PASS
442	1 - 200% of 198	39.8	PASS
443	15 - 24% of 442	20.1	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Less than 200% of		

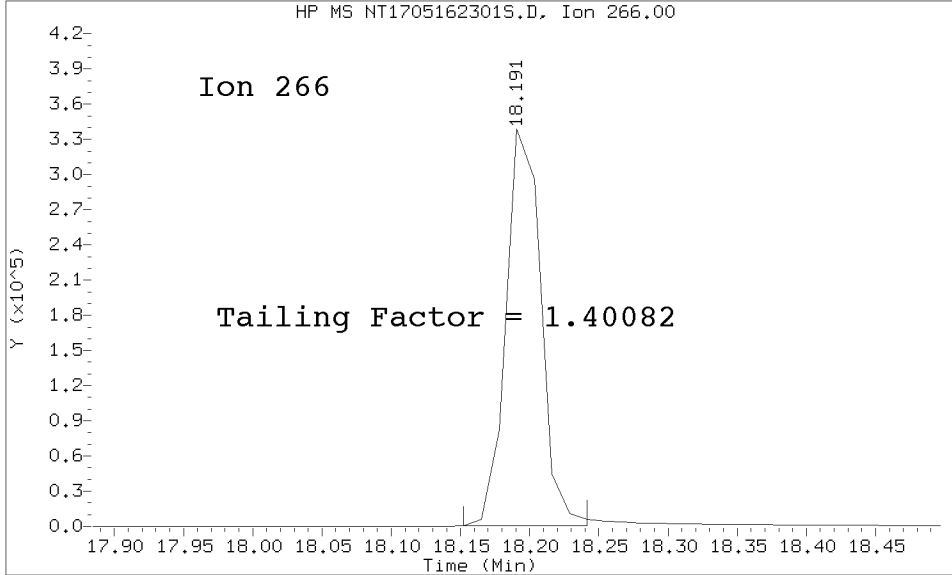
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLE0339-TUN1	NT1705162301S.D	05/16/2023	18:14
Cal Standard	SLE0339-CAL8	NT1705162303S.D	05/16/2023	19:29
Cal Standard	SLE0339-CAL7	NT1705162304S.D	05/16/2023	20:07
Cal Standard	SLE0339-CAL6	NT1705162305S.D	05/16/2023	20:44
Cal Standard	SLE0339-CAL5	NT1705162306S.D	05/16/2023	21:22
Cal Standard	SLE0339-CAL4	NT1705162307S.D	05/16/2023	21:59
Cal Standard	SLE0339-CAL3	NT1705162308S.D	05/16/2023	22:37
Cal Standard	SLE0339-CAL2	NT1705162309S.D	05/16/2023	23:14
Cal Standard	SLE0339-CAL1	NT1705162310S.D	05/16/2023	23:51
Secondary Cal Check	SLE0339-SCV1	NT1705162311S.D	05/17/2023	0:29
Initial Cal Blank	SLE0339-ICB1	NT1705162312S.D	05/17/2023	1:07

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230516.b/SIM.b/NT1705162301S.D/NT1705162301S.D
 Method Used: \20230516.b\SIM.b\DFTPP8270E.m Inst: nt17
 Injection Date: 16-MAY-2023 18:14 Operator: VTS
 Sample Info: SLE0339-TUN1 SLE0339-TUN1
 Report Date: 05/24/2023 06:46



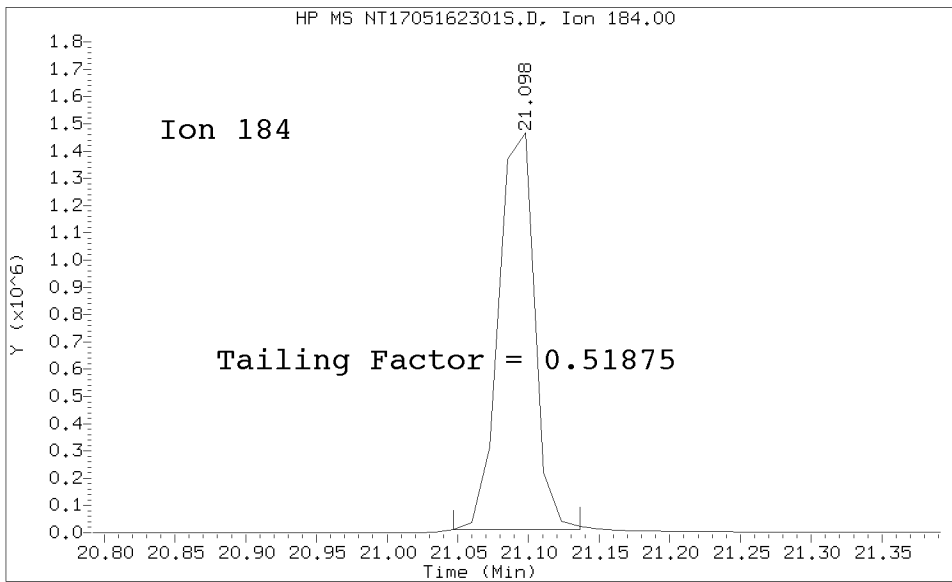
Datafile Analyzed: /20230516.b/SIM.b/NT1705162301S.D/NT1705162301S.D
Method Used: \20230516.b\DFTPP8270E.m\sw846ddt.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: JGR
Sample Info: NT1705162301
Report Date: 05/24/2023 06:46



Pentachlorophenol

=====
Exp. RT = 18.191
Found RT = 18.191

Tail Factor = 1.401 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 21.098
Found RT = 21.098

Tail Factor = 0.519 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4008163	2.000	PASS
Benzidine	0.5187468	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1797024			N/A
4,4-DDE	5899	0.3	20.0	PASS
4,4-DDD	55596	3.0	20.0	PASS
4,4-DDD + DDE	61495	3.3	20.0	PASS

Tuning Sample, nt17.i/20230516.b/SIM.b/NT1705162301S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	55.71
70	Less than 2.00% of mass 69	0.28 (0.50)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
365	1.00 - 100.00% of mass 198	2.01
441	Less than 150.00% of mass 443	6.45 (80.67)
442	Less than 200.00% of mass 198	39.79
443	15.00 - 24.00% of mass 442	8.00 (20.10)

Data File: NT1705162301S.D
 Spectrum: HP ChemStation MS NT1705162301.D, Scan 1116: 19.173 min.
 Location of Maximum: 198.00
 Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	373	125.00	3764	212.90	378	304.10	870
37.10	1236	127.00	299008	214.00	187	304.90	93
38.10	3574	128.00	23768	215.00	1418	308.00	456
39.10	19776	129.00	119136	216.10	3082	309.00	262
40.10	1147	130.00	10361	217.00	36592	310.00	402
41.10	878	131.00	1814	218.00	4762	311.00	86
42.00	117	132.00	965	219.00	396	312.00	116
43.10	290	133.10	535	221.00	29232	313.00	219
44.00	563	134.00	3393	223.00	8299	314.00	1504
45.00	582	135.00	9407	224.00	71792	315.00	3072
47.00	97	136.00	3952	225.00	17928	316.00	1521
48.00	170	137.00	4988	226.10	2276	317.00	314
49.10	2254	138.00	1078	227.00	30000	319.10	73
50.10	68392	139.00	652	228.00	4583	320.10	106
51.10	245312	140.00	1657	229.00	6282	321.00	853
52.10	13090	141.00	15600	230.00	812	323.00	7992
53.10	590	142.00	5275	231.00	2667	324.10	1422
54.10	108	143.00	3193	232.00	430	325.00	180
55.00	1424	144.00	947	233.00	547	326.10	206
56.00	7762	145.00	844	234.00	1964	327.00	1582
57.00	17056	146.00	3027	235.00	2156	328.00	897
58.00	866	147.00	7959	236.00	1308	329.00	186
59.10	293	148.00	17552	237.00	2222	329.90	82
60.00	267	149.00	3605	237.90	416	331.10	85
61.00	3445	150.00	847	239.00	1164	332.00	681
62.10	3924	151.10	1978	240.00	951	333.00	829
63.10	10682	152.00	1250	241.00	1482	334.00	5269
64.00	1343	153.00	5043	242.00	3506	335.00	1251
65.10	5380	154.00	3616	243.10	4237	335.90	192
66.00	439	155.00	8310	244.00	51672	339.00	128
67.10	548	156.00	12288	245.00	7098	340.10	147
69.00	297216	157.00	2390	246.00	10908	341.00	859
70.00	1476	158.00	3197	247.00	2147	342.00	240
70.90	268	159.00	2124	248.10	405	343.10	69
72.10	180	160.00	4998	249.00	1791	346.00	1668
73.00	2846	161.00	6841	250.00	400	347.00	375
74.10	28912	162.00	1948	250.90	471	348.00	75
75.00	46408	163.00	565	252.00	547	352.00	2294
76.10	17424	164.00	677	253.00	1432	353.00	1625
77.10	321920	165.00	5602	255.00	252288	354.10	2225
78.10	22048	166.00	4612	256.00	36264	355.00	516
79.00	22016	167.00	29864	257.00	3077	356.00	63
80.00	16324	168.00	14362	258.00	15639	356.90	53
81.00	22800	169.00	2523	259.00	2592	358.00	71
82.00	5387	170.00	957	260.10	431	359.00	210
83.00	5076	171.00	1311	261.00	461	360.10	57
84.00	563	172.00	2519	262.00	108	365.00	10733
85.00	4136	173.00	3591	263.10	161	366.00	1640
86.00	6323	174.00	6157	264.00	692	366.90	121

87.00	3104	175.00	11592	265.00	6219	370.00	199
88.00	1154	176.00	3445	266.00	980	371.00	691
89.00	552	177.00	5417	267.00	143	372.00	3968
91.00	5210	178.00	1917	267.90	329	373.00	1018
92.00	5631	179.00	21584	270.00	364	374.00	88
93.00	36336	180.00	14393	271.00	614	375.00	64
94.00	2258	181.00	6949	272.00	778	377.00	178
95.10	602	182.00	1161	273.00	7503	382.90	939
96.00	1677	183.00	749	274.00	19672	384.00	273
98.00	27664	184.00	1652	275.00	111592	385.00	126
99.00	20856	185.00	10677	276.00	15342	390.00	425
100.00	1939	186.00	78320	277.00	9319	391.00	350
101.00	11566	187.00	22896	278.00	1573	392.10	253
102.00	831	188.00	2244	279.00	451	393.00	72
103.00	4398	189.00	5077	281.00	219	401.00	268
104.00	7600	190.00	951	282.00	285	402.00	1410
105.00	7080	191.00	2327	283.00	1010	403.00	2061
107.00	89200	192.00	6979	284.00	690	404.00	774
108.00	13702	193.00	7409	285.00	1524	405.00	123
110.00	158144	194.00	1633	286.00	314	410.00	81
111.00	25024	195.10	1054	287.90	160	414.90	77
112.00	3002	196.00	17264	289.00	314	421.00	1760
113.00	864	198.00	533504	290.00	311	422.00	1730
114.00	302	199.00	36760	291.00	191	423.00	13610
115.10	463	200.00	2858	292.00	365	424.00	2795
116.00	5300	201.50	3067	293.00	1946	425.00	303
117.00	76832	203.00	3883	294.00	397	438.30	74
118.00	5637	204.00	19736	296.00	30016	439.10	152
119.00	739	205.00	33208	297.00	4246	441.10	34424
120.00	1147	206.00	134656	297.90	294	442.00	212288
121.00	584	207.00	18008	299.00	90	443.00	42672
122.00	6244	208.00	5001	301.10	394	444.00	3817
123.00	9329	209.00	1511	302.00	506	445.10	229
124.00	4061	211.00	5429	303.00	3269		



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00070

Instrument: NT17

Calibration Date: 05/16/2023

Column (1): ZB-5MS

Calibration Comments: SIM ABN DUAL SCAN

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	0.05	1.510233	0.1	1.700245	0.2	1.726023	0.5	1.829147	1	1.894452	2.5	1.954116
1,3-Dichlorobenzene	0.05	1.694413	0.1	1.7069	0.2	1.637621	0.5	1.615017	1	1.595717	2.5	1.583886
1,4-Dichlorobenzene	0.05	1.691138	0.1	1.655409	0.2	1.598139	0.5	1.570033	1	1.553587	2.5	1.530901
1,2-Dichlorobenzene	0.05	1.593379	0.1	1.752436	0.2	1.537622	0.5	1.56151	1	1.490372	2.5	1.471163
Benzyl Alcohol	0.05	0.7992089	0.1	0.9533373	0.2	0.9961691	0.5	1.057984	1	1.009194	2.5	1.109553
Benzoic acid	0.2		0.4		0.8	1.818224E-02	2	7.882056E-02	4	0.1440004	10	0.2083584
2-Methylphenol	0.05	1.180924	0.1	1.246986	0.2	1.236575	0.5	1.251541	1	1.271279	2.5	1.296297
N-Nitroso-di-n-Propylamine	0.05	0.8324672	0.1	0.8964756	0.2	0.9011666	0.5	0.8930603	1	0.9204786	2.5	0.953399
4-Methylphenol	0.05	1.058725	0.1	1.175296	0.2	1.207827	0.5	1.261068	1	1.315801	2.5	1.358173
2,4-Dimethylphenol	0.1	0.3686173	0.2	0.3926927	0.4	0.3929127	1	0.3983172	2	0.3920884	5	0.3936473
1,2,4-Trichlorobenzene	0.05	0.3693107	0.1	0.3657439	0.2	0.3594776	0.5	0.3516595	1	0.3453927	2.5	0.3405857
Hexachlorobutadiene	0.05	0.186699	0.1	0.1839466	0.2	0.1823744	0.5	0.1822806	1	0.1812693	2.5	0.1833965
N-Nitrosodimethylamine	0.1	0.6584906	0.2	0.7286346	0.4	0.7589404	1	0.8005047	2	0.8265679	5	0.850121
Dimethylphthalate	0.05	1.554171	0.1	1.499869	0.2	1.466813	0.5	1.457694	1	1.490163	2.5	1.460173
Diethyl phthalate	0.05	1.293663	0.1	1.340785	0.2	1.32948	0.5	1.343468	1	1.373197	2.5	1.364108
N-Nitrosodiphenylamine	0.05	0.5374742	0.1	0.5686295	0.2	0.5611377	0.5	0.5779646	1	0.5846267	2.5	0.5733399
Hexachlorobenzene	0.05	0.194297	0.1	0.1901746	0.2	0.1890891	0.5	0.1911384	1	0.1887741	2.5	0.1887438
Pentachlorophenol	0.1	2.188652E-02	0.2	4.148927E-02	0.4	4.372929E-02	1	5.895972E-02	2	7.925497E-02	5	0.1089373
Butylbenzylphthalate	0.05	0.744036	0.1	0.7766521	0.2	0.8029298	0.5	0.847431	1	0.8492773	2.5	0.8770343
Dibenzo(a,h)anthracene	0.05	1.106936	0.1	1.108218	0.2	1.111978	0.5	1.134107	1	1.136012	2.5	1.124346
2-Fluorophenol	0.075	0.934426	0.15	1.041412	0.3	1.133285	0.75	1.236632	1.5	1.306622	3.75	1.344967
p-Terphenyl-d14	0.05	0.8616656	0.1	0.7406533	0.2	0.7424803	0.5	0.7399778	1	0.7493396	2.5	0.7470775



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00070	Instrument:	NT17
Calibration Date:	05/16/2023	Column (1):	ZB-5MS

Calibration Comments: SIM ABN DUAL SCAN

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	5	1.923621	10	1.883962								
1,3-Dichlorobenzene	5	1.564741	10	1.52845								
1,4-Dichlorobenzene	5	1.526751	10	1.470473								
1,2-Dichlorobenzene	5	1.480587	10	1.45911								
Benzyl Alcohol	5	1.139568	10	1.15267								
Benzoic acid	20	0.2280701	40	0.244783								
2-Methylphenol	5	1.257426	10	1.252625								
N-Nitroso-di-n-Propylamine	5	0.9455376	10	0.9363708								
4-Methylphenol	5	1.373195	10	1.349716								
2,4-Dimethylphenol	10	0.3743479	20	0.365561								
1,2,4-Trichlorobenzene	5	0.3329241	10	0.3276487								
Hexachlorobutadiene	5	0.1839531	10	0.1865901								
N-Nitrosodimethylamine	10	0.8243177	20	0.7991862								
Dimethylphthalate	5	1.431934	10	1.39038								
Diethyl phthalate	5	1.333062	10	1.294163								
N-Nitrosodiphenylamine	5	0.5489592	10	0.5560433								
Hexachlorobenzene	5	0.1927298	10	0.1943424								
Pentachlorophenol	10	0.1232907	20	0.1406918								
Butylbenzylphthalate	5	0.8755105	10	0.825469								
Dibenzo(a,h)anthracene	5	1.143859	10	1.160435								
2-Fluorophenol	7.5	1.354833	15	1.326579								
p-Terphenyl-d14	5	0.7515412	10	0.7392585								



ANALYSIS SEQUENCE

SLE0339

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00070 GCMS Column ID: L004289
MS EM Level: 1450 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0339-TUN1	MS Tune	QC		1	L005516		05/16/2023 18:14	NT1705162301S.D	VTS	
SLE0339-CAL8	CAL 10.0	QC		2	K011110	K010831	05/16/2023 19:29	NT1705162303S.D	JGR	
SLE0339-CAL7	CAL 5.0	QC		3	K011109	K010831	05/16/2023 20:07	NT1705162304S.D	JGR	
SLE0339-CAL6	CAL 2.5	QC		4	K011108	K010831	05/16/2023 20:44	NT1705162305S.D	JGR	
SLE0339-CAL5	CAL 1.0	QC		5	K011107	K010831	05/16/2023 21:22	NT1705162306S.D	JGR	
SLE0339-CAL4	CAL 0.50	QC		6	K011106	K010831	05/16/2023 21:59	NT1705162307S.D	JGR	
SLE0339-CAL3	CAL 0.20	QC		7	K011105	K010831	05/16/2023 22:37	NT1705162308S.D	JGR	
SLE0339-CAL2	CAL 0.10	QC		8	L002877	K010831	05/16/2023 23:14	NT1705162309S.D	JGR	
SLE0339-CAL1	CAL 0.05	QC		9	L002878	K010831	05/16/2023 23:51	NT1705162310S.D	JGR	
SLE0339-SCV1	SCV 5.0	QC		10	K010066	K010831	05/17/2023 00:29	NT1705162311S.D	JGR	
SLE0339-ICB1	Initial Cal Blank	QC		11	K005156	K010831	05/17/2023 01:07	NT1705162312S.D	JGR	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b\SIM.b

Time	Filename	LabID	ClientId	DF
1 1814	NT1705162301S.D	SLE0339-TUN1		1 |NO ISTDS FOUND||
2 1929	NT1705162303S.D	SLE0339-CAL8		1 | 9.38 304989||11.85 1098933||15.45 590948||18.47 969131||23.47 604233||26.16 501580|
3 2007	NT1705162304S.D	SLE0339-CAL7		1 | 9.38 303993||11.84 1096471||15.44 588455||18.47 962811||23.46 594121||26.16 517800|
4 2044	NT1705162305S.D	SLE0339-CAL6		1 | 9.38 312779||11.84 1112850||15.44 600559||18.47 997102||23.46 638760||26.16 569257|
5 2122	NT1705162306S.D	SLE0339-CAL5		1 | 9.38 316066||11.84 1102073||15.44 583826||18.47 970917||23.46 590568||26.16 537938|
6 2159	NT1705162307S.D	SLE0339-CAL4		1 | 9.38 310689||11.84 1075836||15.44 560079||18.46 909163||23.46 547811||26.16 508065|
7 2237	NT1705162308S.D	SLE0339-CAL3		1 | 9.38 324202||11.84 1123074||15.44 587914||18.46 972346||23.46 582965||26.15 529057|
8 2314	NT1705162309S.D	SLE0339-CAL2		1 | 9.38 342586||11.84 1209699||15.44 635389||18.46 1076905||23.46 694468||26.16 649331|
9 2351	NT1705162310S.D	SLE0339-CAL1		1 | 9.38 317514||11.84 1096096||15.44 567814||18.46 924770||23.46 560403||26.15 515224|
10 0029	NT1705162311S.D	SLE0339-SCV1		1 | 9.38 280298||11.84 999390||15.44 527927||18.47 860054||23.46 527529||26.16 475440|
11 0107	NT1705162312S.D	SLE0339-ICB1		1 | 9.38 302680||11.84 1065796||15.44 551880||18.46 903730||23.46 538208||26.15 508161|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b\SIM.b

Instrument: nt17.i Date: 16-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1814	NT1705162301S.D	SLE0339-TUN1	1	NO MANUAL INTEGRATION
1929	NT1705162303S.D	SLE0339-CAL8	1	Benzoic acid,
2007	NT1705162304S.D	SLE0339-CAL7	1	Benzoic acid,
2044	NT1705162305S.D	SLE0339-CAL6	1	Benzoic acid,
2122	NT1705162306S.D	SLE0339-CAL5	1	Benzoic acid,
2159	NT1705162307S.D	SLE0339-CAL4	1	Benzoic acid,
2237	NT1705162308S.D	SLE0339-CAL3	1	Benzoic acid,
2314	NT1705162309S.D	SLE0339-CAL2	1	NO MANUAL INTEGRATION
2351	NT1705162310S.D	SLE0339-CAL1	1	Benzyl alcohol, Pentachlorophenol,
0029	NT1705162311S.D	SLE0339-SCV1	1	NO MANUAL INTEGRATION
0107	NT1705162312S.D	SLE0339-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 24-May-2023 07:10

NT1705162301S.D	Data Locked	van, 24-May-2023 07:10
NT1705162303S.D	Data Locked	van, 24-May-2023 07:10
NT1705162304S.D	Data Locked	van, 24-May-2023 07:10
NT1705162305S.D	Data Locked	van, 24-May-2023 07:10
NT1705162306S.D	Data Locked	van, 24-May-2023 07:10
NT1705162307S.D	Data Locked	van, 24-May-2023 07:10
NT1705162308S.D	Data Locked	van, 24-May-2023 07:10
NT1705162309S.D	Data Locked	van, 24-May-2023 07:10
NT1705162310S.D	Data Locked	van, 24-May-2023 07:10
NT1705162311S.D	Data Locked	van, 24-May-2023 07:10
NT1705162312S.D	Data Locked	van, 24-May-2023 07:10

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
 End Cal Date : 16-MAY-2023 23:51
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Calibration File Names:

Level 1: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162310S.D
 Level 2: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162309S.D
 Level 3: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162308S.D
 Level 4: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162307S.D
 Level 5: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162306S.D
 Level 6: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162305S.D
 Level 7: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162304S.D
 Level 8: \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162303S.D

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		|0.000e+000|		|0.000e+000|
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		|0.000e+000|		|0.000e+000|
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
 End Cal Date : 16-MAY-2023 23:51
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
141 Diallate B	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
142 1,2-Dibromo-3-Chloropropane	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
135 2,3,5,6-Tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
136 2,3,4,5-tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
137 NewCpnd_131	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
133 Butylatedhydroxytoluene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
132 3,6-Dimethylphenanthrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
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 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
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 Quant Method : ISTD
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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
 End Cal Date : 16-MAY-2023 23:51
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
120 2,3,4,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
106 Guaiacol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
3 Phenol	1.51023	1.70024	1.72602	1.82915	1.89445	1.95412					
	1.92362	1.88396					AVRG		1.80272		8.25933
4 Bis(2-Chloroethyl)ether	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.69441	1.70690	1.63762	1.61502	1.59572	1.58389					
	1.56474	1.52845					AVRG		1.61584		3.81605
9 1,4-Dichlorobenzene	1.69114	1.65541	1.59814	1.57003	1.55359	1.53090					
	1.52675	1.47047					AVRG		1.57455		4.56524

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
11 Benzyl alcohol	0.79921| 1.13957|	0.95334| 1.15267|	0.99617|	1.05798|	1.00919|	1.10955|	|	|	|	|	|
							|AVRG|	|	|1.02721|	|	|11.33041|
12 1,2-Dichlorobenzene	1.59338| 1.48059|	1.75244| 1.45911|	1.53762|	1.56151|	1.49037|	1.47116|	|	|	|	|	|
							|AVRG|	|	|1.54327|	|	|6.27449|
13 2-Methylphenol	1.18092| 1.25743|	1.24699| 1.25262|	1.23657|	1.25154|	1.27128|	1.29630|	|	|	|	|	|
							|AVRG|	|	|1.24921|	|	|2.64052|
14 2,2'-oxybis(1-Chloropropane)	++++| ++++|	++++| ++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
							|AVRG|	|	|0.000e+000|	|	|0.000e+000|
15 4-Methylphenol	1.05872| 1.37319|	1.17530| 1.34972|	1.20783|	1.26107|	1.31580|	1.35817|	|	|	|	|	|
							|AVRG|	|	|1.26248|	|	|8.67563|
16 N-Nitroso-di-n-propylamine	0.83247 0.94554	0.89648 0.93637	0.90117	0.89306	0.92048	0.95340					
							AVRG		0.90987		4.25881
17 Hexachloroethane	++++ ++++	++++ ++++	++++	++++	++++	++++					
							AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
19 Nitrobenzene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
20 Isophorone	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	0.36862	0.39269	0.39291	0.39832	0.39209	0.39365					
	0.37435	0.36556					AVRG		0.38477		3.37930
23 Bis(2-Chloroethoxy)methane	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	++++	++++	4084	42399	158699	579679					
	1250361	2690001					LINR	0.000e+000	0.23971		0.99273
25 2,4-Dichlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
26 1,2,4-Trichlorobenzene	0.36931	0.36574	0.35948	0.35166	0.34539	0.34059					
	0.33292	0.32765					AVRG		0.34909		4.34135
28 Naphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
29 4-Chloroaniline	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
30 Hexachlorobutadiene	0.18670	0.18395	0.18237	0.18228	0.18127	0.18340					
	0.18395	0.18659					AVRG		0.18381		1.07122
31 4-Chloro-3-methylphenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
32 2-Methylnaphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
34 2,4,6-Trichlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
35 2,4,5-Trichlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
37 2-Chloronaphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
38 2-Nitroaniline	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
39 Dimethylphthalate	1.55417	1.49987	1.46681	1.45769	1.49016	1.46017					
	1.43193	1.39038					AVRG		1.46890		3.29723
40 Acenaphthylene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
43 3-Nitroaniline	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
44 Acenaphthene	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
45 2,4-Dinitrophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
46 Dibenzofuran	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
47 4-Nitrophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
48 2,4-Dinitrotoluene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
49 Fluorene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
50 Diethylphthalate	1.29366	1.34078	1.32948	1.34347	1.37320	1.36411					
	1.33306	1.29416					AVRG		1.33399		2.16040
51 4-Chlorophenyl-phenylether	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
52 4-Nitroaniline	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
53 4,6-Dinitro-2-methylphenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
54 N-Nitrosodiphenylamine	0.53747	0.56863	0.56114	0.57796	0.58463	0.57334					
	0.54896	0.55604					AVRG		0.56352		2.78865
56 4-Bromophenyl-phenylether	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
57 Hexachlorobenzene	0.19430	0.19017	0.18909	0.19114	0.18877	0.18874					
	0.19273	0.19434					AVRG		0.19116		1.23829

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
58 Pentachlorophenol	++++	2234	4252	13401	38475	135777					
	296764	681744					QUAD	0.000e+000	9.29579	-3.13248	0.99908
60 Phenanthrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000
61 Anthracene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000
62 Carbazole	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000
63 Di-n-butylphthalate	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000
64 Fluoranthene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000
65 Pyrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG	0.000e+000			0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
67 Butylbenzylphthalate	0.74404| 0.87551|	0.77665| 0.82547|	0.80293|	0.84743|	0.84928|	0.87703|	|	|	|	|	|
							|AVRG|	|	|0.82479|	|	|5.74759|
68 Benzo(a)anthracene	++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
	++++|	++++|					|AVRG|	|	|0.000e+000|	|	|0.000e+000|
70 3,3'-Dichlorobenzidine	++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
	++++|	++++|					|AVRG|	|	|0.000e+000|	|	|0.000e+000|
71 Chrysene	++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
	++++|	++++|					|AVRG|	|	|0.000e+000|	|	|0.000e+000|
72 bis(2-Ethylhexyl)phthalate	++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
	++++|	++++|					|AVRG|	|	|0.000e+000|	|	|0.000e+000|
73 Di-n-octylphthalate	++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
	++++	++++					AVRG		0.000e+000		0.000e+000
74 Benzo(b)fluoranthene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
75 Benzo(k)fluoranthene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
76 Benzo(a)pyrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
78 Indeno(1,2,3-cd)pyrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
79 Dibenzo(a,h)anthracene	1.10694	1.10822	1.11198	1.13411	1.13601	1.12435					
	1.14386	1.16044					AVRG		1.12824		1.67827
80 Benzo(g,h,i)perylene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
90 N-Nitrosodimethylamine	0.65849	0.72863	0.75894	0.80050	0.82657	0.85012					
	0.82432	0.79919					AVRG		0.78085		8.05304
91 Aniline	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 1 2-Fluorophenol	0.93443|	1.04141|	1.13329|	1.23663|	1.30662|	1.34497|					
	1.35483|	1.32658|					|AVRG|		|1.20984|		|12.99690|
\$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 10 1,2-Dichlorobenzene-d4	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 18 Nitrobenzene-d5	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 36 2-Fluorobiphenyl	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 55 2,4,6-Tribromophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 66 Terphenyl-d14	0.86167	0.74065	0.74248	0.73998	0.74934	0.74708					
	0.75154	0.73926					AVRG		0.75900		5.49863
\$ 85 p-Cresol-d4	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 86 Anthracene-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
 End Cal Date : 16-MAY-2023 23:51
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Last Edit : 23-May-2023 12:59 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 87 Fluoranthene-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 88 Dibenz(a,h)anthracene-d14	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 89 Diphenyl-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 95 D10-1-methylnaphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2023 19:29
End Cal Date : 16-MAY-2023 23:51
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Last Edit : 23-May-2023 12:59 van

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07 RT08
FILENAME: NT1705162303S NT1705162304S NT1705162305S NT1705162306S NT1705162307S NT1705162308S NT1705162309S NT1705162310S
INJ. DATE: 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023 16-MAY-2023
INJ. TIME: 19:29 20:07 20:44 21:22 21:59 22:37 23:14 23:51

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, RT08, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like 2-Fluorophenol, Chlorobenzilate, Isodrin, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hydroxy)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.247	15.747-16.747	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.899	12.399-13.399	+++++	+++++
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.219	7.719-8.719	+++++	+++++
3 Phenol	8.764	8.751	8.751	8.751	8.751	8.751	8.751	8.751	8.751	8.251-9.251	8.753	0.005
4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.381	7.881-8.881	+++++	+++++
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.466	7.966-8.966	+++++	+++++
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
7 1,3-Dichlorobenzene	9.312	9.312	9.312	9.312	9.312	9.312	9.312	9.312	9.312	8.812-9.812	9.312	0.000
* 8 1,4-Dichlorobenzene-d4	9.376	9.376	9.376	9.376	9.376	9.376	9.376	9.376	9.376	8.876-9.876	9.376	0.000
9 1,4-Dichlorobenzene	9.401	9.401	9.401	9.401	9.401	9.401	9.401	9.401	9.401	8.901-9.901	9.401	0.000
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.164	8.664-9.664	+++++	+++++
11 Benzyl alcohol	9.644	9.644	9.631	9.631	9.644	9.644	9.644	9.657	9.657	9.157-10.157	9.642	0.008
12 1,2-Dichlorobenzene	9.759	9.759	9.759	9.759	9.759	9.759	9.759	9.759	9.759	9.259-10.259	9.759	0.000
13 2-Methylphenol	9.861	9.848	9.848	9.848	9.848	9.848	9.861	9.861	9.861	9.361-10.361	9.853	0.007
14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.381	8.881-9.881	+++++	+++++
15 4-Methylphenol	10.129	10.117	10.117	10.117	10.117	10.117	10.129	10.130	10.130	9.630-10.630	10.122	0.007
16 N-Nitroso-di-n-propyla	10.206	10.193	10.181	10.181	10.181	10.181	10.181	10.181	10.181	9.681-10.681	10.185	0.010
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.769	9.269-10.269	+++++	+++++
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.893	9.393-10.393	+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.932	9.432-10.432	+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.375	9.875-10.875	+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.549	10.049-11.049	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
22 2,4-Dimethylphenol	11.164	11.164	11.164	11.151	11.151	11.151	11.151	11.164	11.164	10.664-11.664	11.158	0.007
23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.804	10.304-11.304	+++++	+++++
24 Benzoic acid	11.471	11.407	11.356	11.305	11.279	11.356	+++++	+++++	11.356	10.856-11.856	11.362	0.069
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.007	10.507-11.507	+++++	+++++
26 1,2,4-Trichlorobenzene	11.764	11.764	11.751	11.751	11.751	11.751	11.751	11.751	11.751	11.251-12.251	11.754	0.006
* 27 Naphthalene-d8	11.853	11.840	11.840	11.840	11.840	11.840	11.840	11.841	11.841	11.341-12.341	11.842	0.004
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.297	10.797-11.797	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.436	10.936-11.936	+++++	+++++
30 Hexachlorobutadiene	12.235	12.235	12.235	12.235	12.235	12.235	12.235	12.235	12.235	11.735-12.735	12.235	0.000
31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.411	11.911-12.911	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.682	12.182-13.182	+++++	+++++
33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.146	12.646-13.646	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.309	12.809-13.809	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.386	12.886-13.886	+++++	+++++
\$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.456	12.956-13.956	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.665	13.165-14.165	+++++	+++++
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.928	13.428-14.428	+++++	+++++
39 Dimethylphthalate	14.952	14.939	14.939	14.939	14.926	14.926	14.926	14.926	14.926	14.426-15.426	14.934	0.009
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.524	14.024-15.024	+++++	+++++
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.501	14.001-15.001	+++++	+++++
* 42 Acenaphthene-d10	15.449	15.437	15.436	15.436	15.437	15.436	15.436	15.437	15.437	14.937-15.937	15.438	0.005
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.779	14.279-15.279	+++++	+++++
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.895	14.395-15.395	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.003	14.503-15.503	+++++	+++++
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.220	14.720-15.720	+++++	+++++
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.135	14.635-15.635	+++++	+++++
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.305	14.805-15.805	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.931	15.431-16.431	+++++	+++++
50 Diethylphthalate	16.392	16.380	16.380	16.380	16.380	16.380	16.380	16.380	16.380	15.880-16.880	16.381	0.005
51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.923	15.423-16.423	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.039	15.539-16.539	+++++	+++++
53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.139	15.639-16.639	+++++	+++++
54 N-Nitrosodiphenylamine	16.787	16.774	16.774	16.774	16.762	16.762	16.762	16.774	16.774	16.274-17.274	16.771	0.009
55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.463	15.963-16.963	+++++	+++++
56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.918	16.418-17.418	+++++	+++++
57 Hexachlorobenzene	17.844	17.844	17.844	17.844	17.844	17.844	17.844	17.844	17.844	17.344-18.344	17.844	0.000
58 Pentachlorophenol	18.201	18.201	18.201	18.201	18.201	18.201	18.201	18.214	18.214	17.714-18.714	18.202	0.005
* 59 Phenanthrene-d10	18.469	18.469	18.469	18.469	18.456	18.456	18.456	18.456	18.456	17.956-18.956	18.462	0.007
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.885	17.385-18.385	+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.978	17.478-18.478	+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.311	17.811-18.811	+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.123	18.623-19.623	+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.276	19.776-20.776	+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.694	20.194-21.194	+++++	+++++
66 Terphenyl-d14	21.567	21.555	21.555	21.554	21.555	21.554	21.554	21.555	21.555	21.055-22.055	21.556	0.005
67 Butylbenzylphthalate	22.473	22.473	22.460	22.460	22.460	22.460	22.460	22.460	22.460	21.960-22.960	22.463	0.006
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.854	22.354-23.354	+++++	+++++

ARI Labs, Inc.
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Batch File: \\target\share\chem3\nt17.i\20230516.b\SIM.b
Inst ID: nt17.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 69 Chrysene-d12	23.468	23.455	23.455	23.455	23.455	23.455	23.455	23.455	23.455	22.955-23.955	23.457	0.005
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.815	22.315-23.315	+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.923	22.423-23.423	+++++	+++++
72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.947	22.447-23.447	+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.930	23.430-24.430	+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.650	24.150-25.150	+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.688	24.188-25.188	+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.238	24.738-25.738	+++++	+++++
* 77 Perylene-d12	26.160	26.160	26.160	26.160	26.160	26.147	26.160	26.147	26.147	25.647-26.647	26.157	0.006
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.736	27.236-28.236	+++++	+++++
79 Dibenzo(a,h)anthracene	28.969	28.957	28.957	28.944	28.944	28.944	28.944	28.944	28.944	28.444-29.444	28.950	0.010
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.435	27.935-28.935	+++++	+++++
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
\$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.085	15.585-16.585	+++++	+++++
90 N-Nitrosodimethylamine	5.095	5.082	5.069	5.082	5.082	5.082	5.082	5.095	5.095	4.595-5.595	5.083	0.008
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.289	7.789-8.789	+++++	+++++
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.516	20.016-21.016	+++++	+++++
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

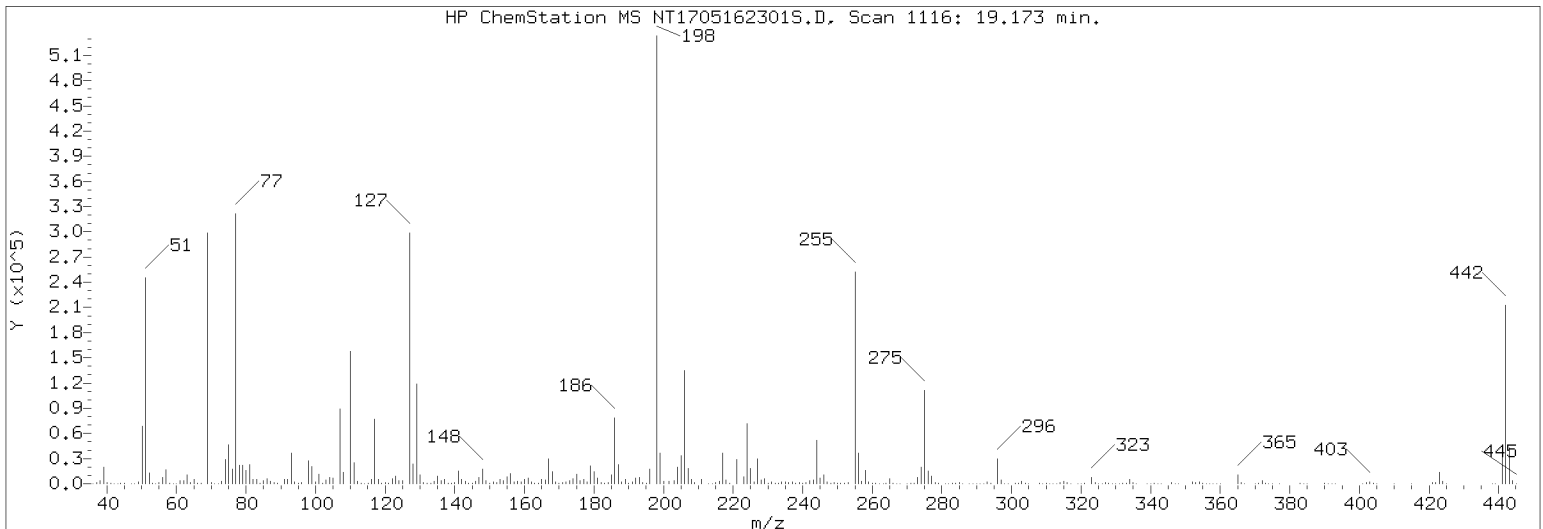
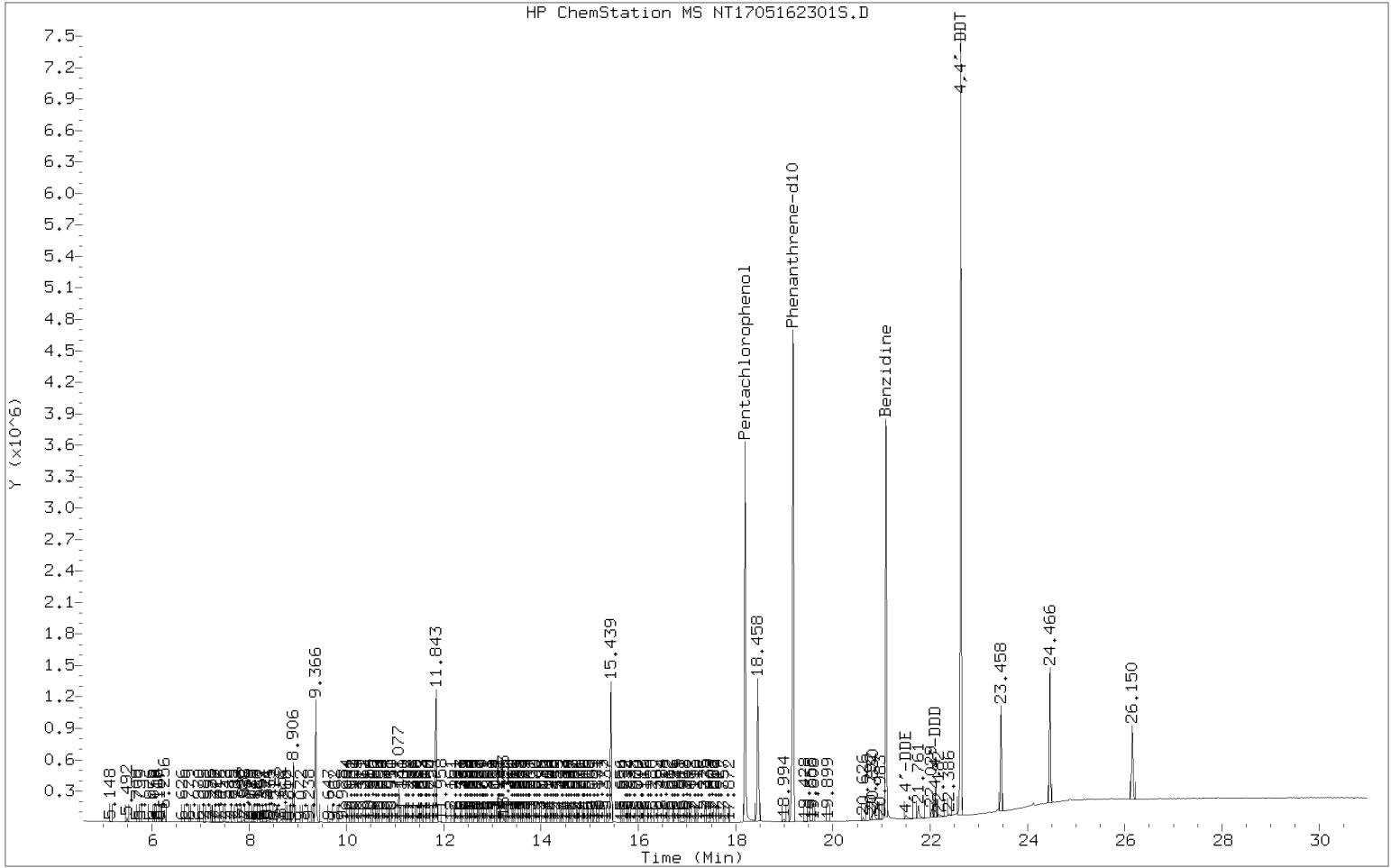
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
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 Inst ID: nt17.i

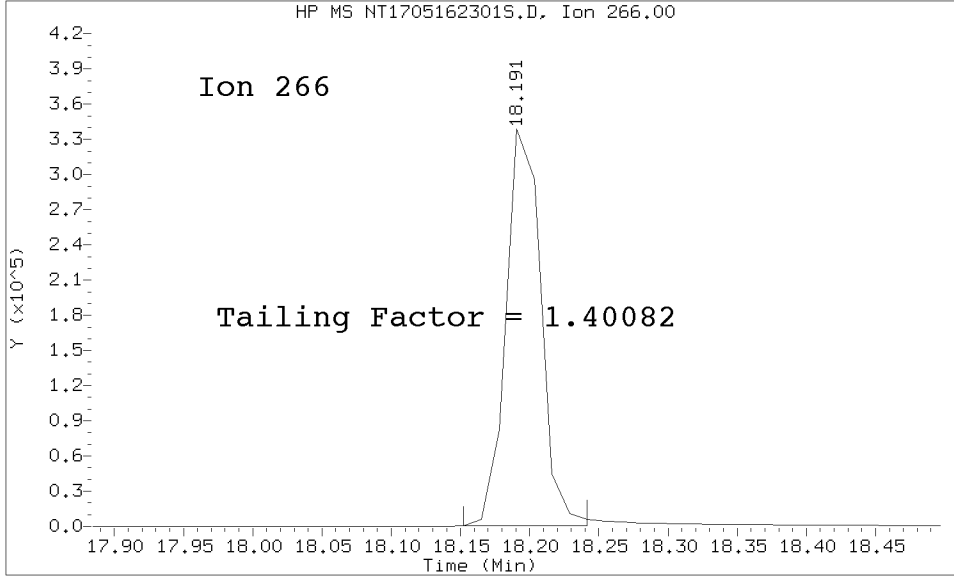
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.589	4.089-5.089	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230516.b/SIM.b/NT1705162301S.D/NT1705162301S.D
 Method Used: \20230516.b\SIM.b\DFTPP8270E.m Inst: nt17
 Injection Date: 16-MAY-2023 18:14 Operator: VTS
 Sample Info: SLE0339-TUN1 SLE0339-TUN1
 Report Date: 05/24/2023 06:46



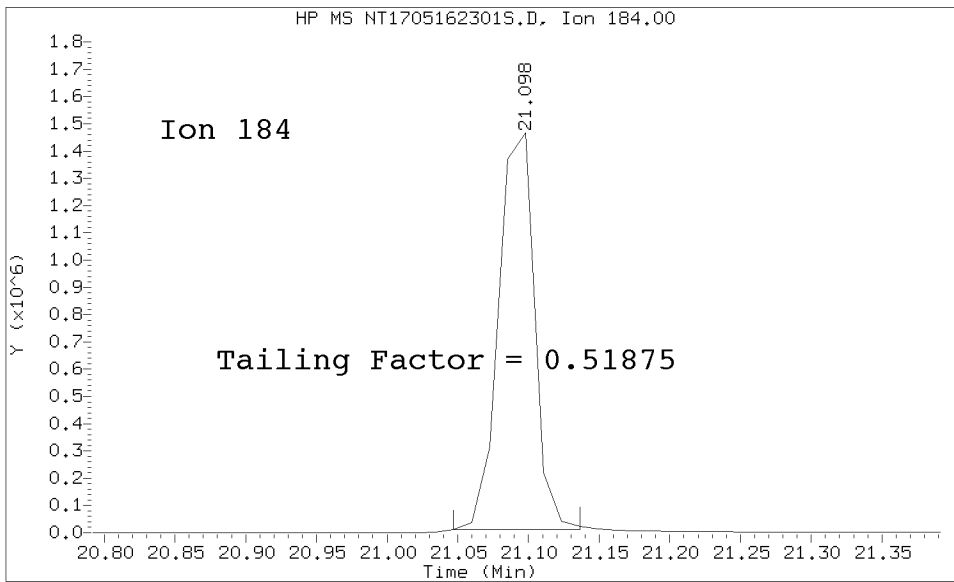
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Method Used: \20230516.b\DFTPP8270E.m\sw846ddt.m Inst: nt17
Injection Date: 16-MAY-2023 18:14 Operator: JGR
Sample Info: NT1705162301
Report Date: 05/24/2023 06:46



Pentachlorophenol

=====
Exp. RT = 18.191
Found RT = 18.191

Tail Factor = 1.401 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 21.098
Found RT = 21.098

Tail Factor = 0.519 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4008163	2.000	PASS
Benzidine	0.5187468	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1797024			N/A
4,4-DDE	5899	0.3	20.0	PASS
4,4-DDD	55596	3.0	20.0	PASS
4,4-DDD + DDE	61495	3.3	20.0	PASS

Tuning Sample, nt17.i/20230516.b/SIM.b/NT1705162301S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	55.71
70	Less than 2.00% of mass 69	0.28 (0.50)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
365	1.00 - 100.00% of mass 198	2.01
441	Less than 150.00% of mass 443	6.45 (80.67)
442	Less than 200.00% of mass 198	39.79
443	15.00 - 24.00% of mass 442	8.00 (20.10)

Data File: NT1705162301S.D

Spectrum: HP ChemStation MS NT1705162301.D, Scan 1116: 19.173 min.

Location of Maximum: 198.00

Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	373	125.00	3764	212.90	378	304.10	870
37.10	1236	127.00	299008	214.00	187	304.90	93
38.10	3574	128.00	23768	215.00	1418	308.00	456
39.10	19776	129.00	119136	216.10	3082	309.00	262
40.10	1147	130.00	10361	217.00	36592	310.00	402
41.10	878	131.00	1814	218.00	4762	311.00	86
42.00	117	132.00	965	219.00	396	312.00	116
43.10	290	133.10	535	221.00	29232	313.00	219
44.00	563	134.00	3393	223.00	8299	314.00	1504
45.00	582	135.00	9407	224.00	71792	315.00	3072
47.00	97	136.00	3952	225.00	17928	316.00	1521
48.00	170	137.00	4988	226.10	2276	317.00	314
49.10	2254	138.00	1078	227.00	30000	319.10	73
50.10	68392	139.00	652	228.00	4583	320.10	106
51.10	245312	140.00	1657	229.00	6282	321.00	853
52.10	13090	141.00	15600	230.00	812	323.00	7992
53.10	590	142.00	5275	231.00	2667	324.10	1422
54.10	108	143.00	3193	232.00	430	325.00	180
55.00	1424	144.00	947	233.00	547	326.10	206
56.00	7762	145.00	844	234.00	1964	327.00	1582
57.00	17056	146.00	3027	235.00	2156	328.00	897
58.00	866	147.00	7959	236.00	1308	329.00	186
59.10	293	148.00	17552	237.00	2222	329.90	82
60.00	267	149.00	3605	237.90	416	331.10	85
61.00	3445	150.00	847	239.00	1164	332.00	681
62.10	3924	151.10	1978	240.00	951	333.00	829
63.10	10682	152.00	1250	241.00	1482	334.00	5269
64.00	1343	153.00	5043	242.00	3506	335.00	1251
65.10	5380	154.00	3616	243.10	4237	335.90	192
66.00	439	155.00	8310	244.00	51672	339.00	128
67.10	548	156.00	12288	245.00	7098	340.10	147
69.00	297216	157.00	2390	246.00	10908	341.00	859
70.00	1476	158.00	3197	247.00	2147	342.00	240
70.90	268	159.00	2124	248.10	405	343.10	69
72.10	180	160.00	4998	249.00	1791	346.00	1668
73.00	2846	161.00	6841	250.00	400	347.00	375
74.10	28912	162.00	1948	250.90	471	348.00	75
75.00	46408	163.00	565	252.00	547	352.00	2294
76.10	17424	164.00	677	253.00	1432	353.00	1625
77.10	321920	165.00	5602	255.00	252288	354.10	2225
78.10	22048	166.00	4612	256.00	36264	355.00	516
79.00	22016	167.00	29864	257.00	3077	356.00	63
80.00	16324	168.00	14362	258.00	15639	356.90	53
81.00	22800	169.00	2523	259.00	2592	358.00	71
82.00	5387	170.00	957	260.10	431	359.00	210
83.00	5076	171.00	1311	261.00	461	360.10	57
84.00	563	172.00	2519	262.00	108	365.00	10733
85.00	4136	173.00	3591	263.10	161	366.00	1640
86.00	6323	174.00	6157	264.00	692	366.90	121

87.00	3104	175.00	11592	265.00	6219	370.00	199
88.00	1154	176.00	3445	266.00	980	371.00	691
89.00	552	177.00	5417	267.00	143	372.00	3968
91.00	5210	178.00	1917	267.90	329	373.00	1018
92.00	5631	179.00	21584	270.00	364	374.00	88
93.00	36336	180.00	14393	271.00	614	375.00	64
94.00	2258	181.00	6949	272.00	778	377.00	178
95.10	602	182.00	1161	273.00	7503	382.90	939
96.00	1677	183.00	749	274.00	19672	384.00	273
98.00	27664	184.00	1652	275.00	111592	385.00	126
99.00	20856	185.00	10677	276.00	15342	390.00	425
100.00	1939	186.00	78320	277.00	9319	391.00	350
101.00	11566	187.00	22896	278.00	1573	392.10	253
102.00	831	188.00	2244	279.00	451	393.00	72
103.00	4398	189.00	5077	281.00	219	401.00	268
104.00	7600	190.00	951	282.00	285	402.00	1410
105.00	7080	191.00	2327	283.00	1010	403.00	2061
107.00	89200	192.00	6979	284.00	690	404.00	774
108.00	13702	193.00	7409	285.00	1524	405.00	123
110.00	158144	194.00	1633	286.00	314	410.00	81
111.00	25024	195.10	1054	287.90	160	414.90	77
112.00	3002	196.00	17264	289.00	314	421.00	1760
113.00	864	198.00	533504	290.00	311	422.00	1730
114.00	302	199.00	36760	291.00	191	423.00	13610
115.10	463	200.00	2858	292.00	365	424.00	2795
116.00	5300	201.50	3067	293.00	1946	425.00	303
117.00	76832	203.00	3883	294.00	397	438.30	74
118.00	5637	204.00	19736	296.00	30016	439.10	152
119.00	739	205.00	33208	297.00	4246	441.10	34424
120.00	1147	206.00	134656	297.90	294	442.00	212288
121.00	584	207.00	18008	299.00	90	443.00	42672
122.00	6244	208.00	5001	301.10	394	444.00	3817
123.00	9329	209.00	1511	302.00	506	445.10	229
124.00	4061	211.00	5429	303.00	3269		

Data File: \\target\share\chem3\nt17.1\20230516.B\SIH.B\NT1705162303S.D

Date: 16-May-2023 19:29

Client ID:

Sample Info: SLE0339-CAL8

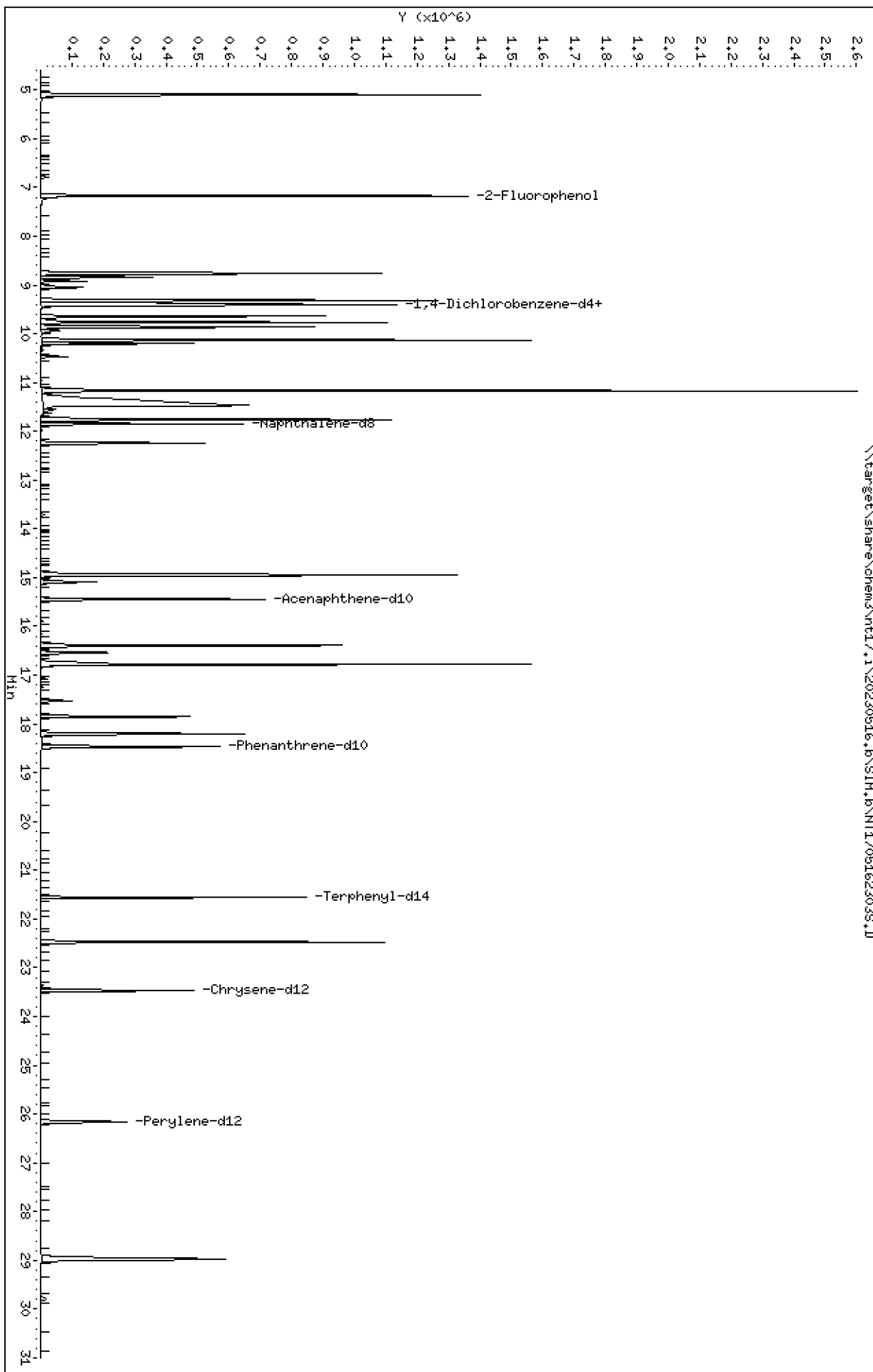
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162303S.D
 Lab Smp Id: SLE0339-CAL8
 Inj Date : 16-MAY-2023 19:29
 Operator : JGR
 Smp Info : SLE0339-CAL8
 Misc Info :
 Comment :
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 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 8

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.171	7.171	(0.765)	1517220	15.0000	16.45
3 Phenol	94		8.763	8.751	(0.935)	1436469	10.0000	10.45
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	1165401	10.0000	9.459
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	304989	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	1121195	10.0000	9.339
11 Benzyl alcohol	79		9.643	9.656	(1.029)	878879	10.0000	11.22
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	1112531	10.0000	9.455
13 2-Methylphenol	108		9.861	9.861	(1.052)	955092	10.0000	10.03
15 4-Methylphenol	108		10.129	10.129	(1.080)	1029121	10.0000	10.69
16 N-Nitroso-di-n-propylamine	70		10.206	10.180	(1.089)	713957	10.0000	10.29
22 2,4-Dimethylphenol	107		11.164	11.164	(0.942)	2008635	20.0000	19.00
24 Benzoic acid	105		11.470	11.356	(0.968)	2690001	40.0000	40.85 (M)
26 1,2,4-Trichlorobenzene	180		11.763	11.751	(0.992)	900160	10.0000	9.386
* 27 Naphthalene-d8	136		11.853	11.840	(1.000)	1098933	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.032)	512625	10.0000	10.15
39 Dimethylphthalate	163		14.951	14.926	(0.968)	2054105	10.0000	9.465
* 42 Acenaphthene-d10	162		15.449	15.436	(1.000)	590948	4.00000	
50 Diethylphthalate	149		16.392	16.379	(1.061)	1911957	10.0000	9.701
54 N-Nitrosodiphenylamine	169		16.787	16.774	(0.909)	1347197	10.0000	9.867
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	470858	10.0000	10.17
58 Pentachlorophenol	266		18.200	18.214	(0.986)	681744	20.0000	19.96
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	969131	4.00000	
\$ 66 Terphenyl-d14	244		21.567	21.554	(0.919)	1116711	10.0000	9.740
67 Butylbenzylphthalate	149		22.472	22.460	(0.958)	1246939	10.0000	10.01
* 69 Chrysene-d12	240		23.468	23.455	(1.000)	604233	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	501580	4.00000	
79 Dibenzo(a,h)anthracene	278		28.969	28.943	(1.107)	1455128	10.0000	10.29
90 N-Nitrosodimethylamine	74		5.094	5.094	(0.543)	1218715	20.0000	20.47

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162303S.D
 Lab Smp Id: SLE0339-CAL8
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	304989	-3.50
27 Naphthalene-d8	1102073	551037	2204146	1098933	-0.28
42 Acenaphthene-d10	583826	291913	1167652	590948	1.22
59 Phenanthrene-d10	970917	485459	1941834	969131	-0.18
69 Chrysene-d12	590568	295284	1181136	604233	2.31
77 Perylene-d12	537938	268969	1075876	501580	-6.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.85	0.11
42 Acenaphthene-d10	15.44	14.94	15.94	15.45	0.08
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.47	0.05
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162303S.D

Lab ID: SLE0339-CAL8

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 19:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.968	0.000	0.9677		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

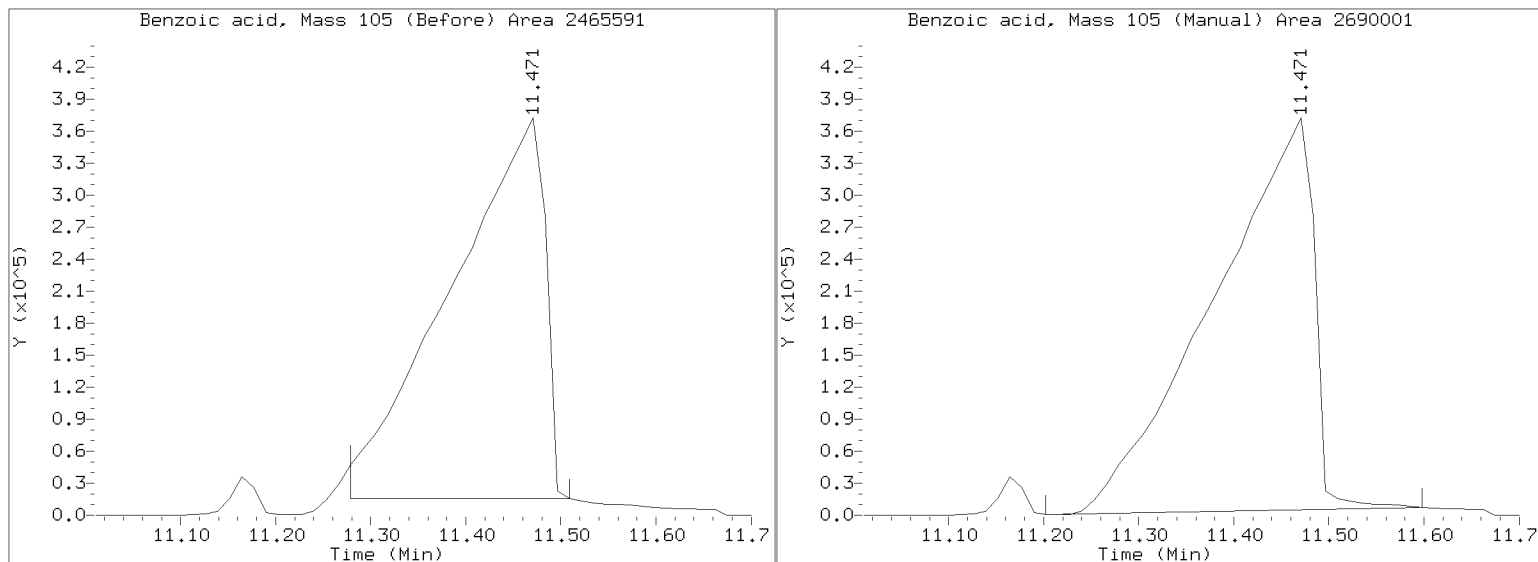
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162303S.D

Injection Date: 16-MAY-2023 19:29

Lab ID: SLE0339-CAL8 Client ID:

Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT1705162304S.D

Date: 16-May-2023 20:07

Client ID:

Sample Info: SLE0339-CAL7

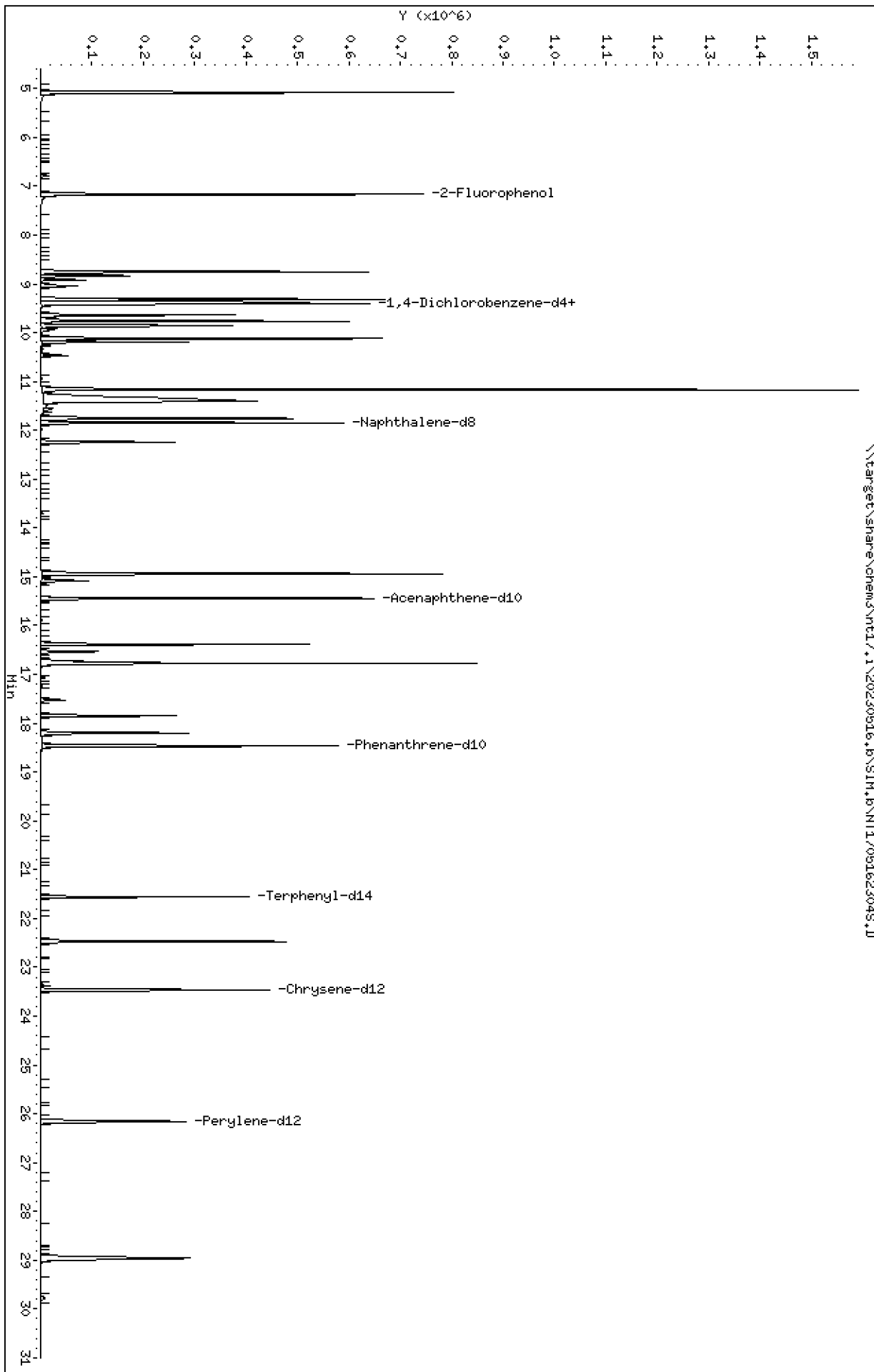
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162304S.D
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 Inj Date : 16-MAY-2023 20:07
 Operator : JGR
 Smp Info : SLE0339-CAL7
 Misc Info :
 Comment :
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 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 7

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.158	7.171	(0.764)	772237	7.50000	8.399
3 Phenol	94		8.751	8.751	(0.933)	730959	5.00000	5.335
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	594588	5.00000	4.842
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	303993	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	580152	5.00000	4.848
11 Benzyl alcohol	79		9.643	9.656	(1.029)	433026	5.00000	5.547
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	562610	5.00000	4.797
13 2-Methylphenol	108		9.848	9.861	(1.050)	477811	5.00000	5.033
15 4-Methylphenol	108		10.116	10.129	(1.079)	521802	5.00000	5.439
16 N-Nitroso-di-n-propylamine	70		10.193	10.180	(1.087)	359296	5.00000	5.196
22 2,4-Dimethylphenol	107		11.164	11.164	(0.943)	1026154	10.0000	9.729
24 Benzoic acid	105		11.406	11.356	(0.963)	1250361	20.0000	19.03 (M)
26 1,2,4-Trichlorobenzene	180		11.764	11.751	(0.994)	456302	5.00000	4.768
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1096471	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	252124	5.00000	5.004
39 Dimethylphthalate	163		14.939	14.926	(0.968)	1053286	5.00000	4.874
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	588455	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	980559	5.00000	4.997
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	660680	5.00000	4.871
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	231953	5.00000	5.041
58 Pentachlorophenol	266		18.200	18.214	(0.986)	296764	10.0000	10.27
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	962811	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	558133	5.00000	4.951
67 Butylbenzylphthalate	149		22.473	22.460	(0.958)	650199	5.00000	5.307
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	594121	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	517800	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	740363	5.00000	5.069
90 N-Nitrosodimethylamine	74		5.081	5.094	(0.542)	626467	10.0000	10.56

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162304S.D
 Lab Smp Id: SLE0339-CAL7
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	303993	-3.82
27 Naphthalene-d8	1102073	551037	2204146	1096471	-0.51
42 Acenaphthene-d10	583826	291913	1167652	588455	0.79
59 Phenanthrene-d10	970917	485459	1941834	962811	-0.83
69 Chrysene-d12	590568	295284	1181136	594121	0.60
77 Perylene-d12	537938	268969	1075876	517800	-3.74

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162304S.D

Lab ID: SLE0339-CAL7

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 20:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.963	0.000	0.9634		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

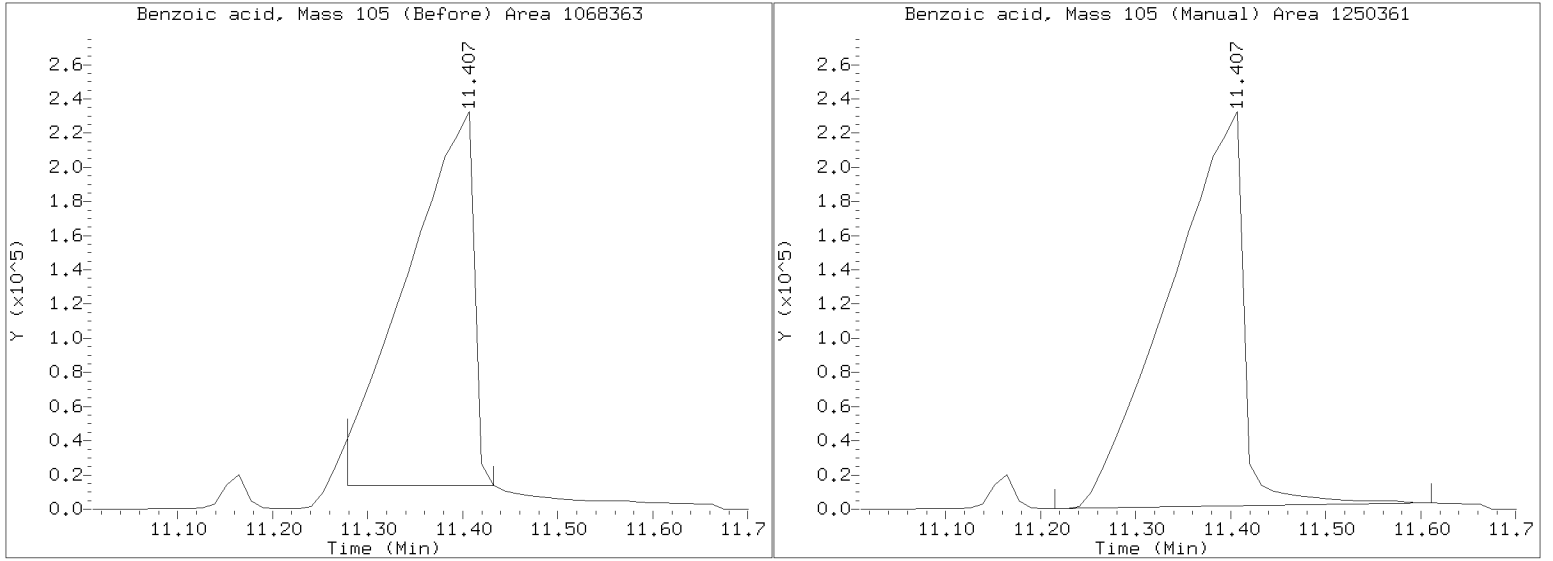
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162304S.D
Injection Date: 16-MAY-2023 20:07
Lab ID: SLE0339-CAL7 Client ID:
Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516.6\SIH.6\NT1705162305S.D

Date: 16-May-2023 20:44

Client ID:

Sample Info: SLE0339-CAL6

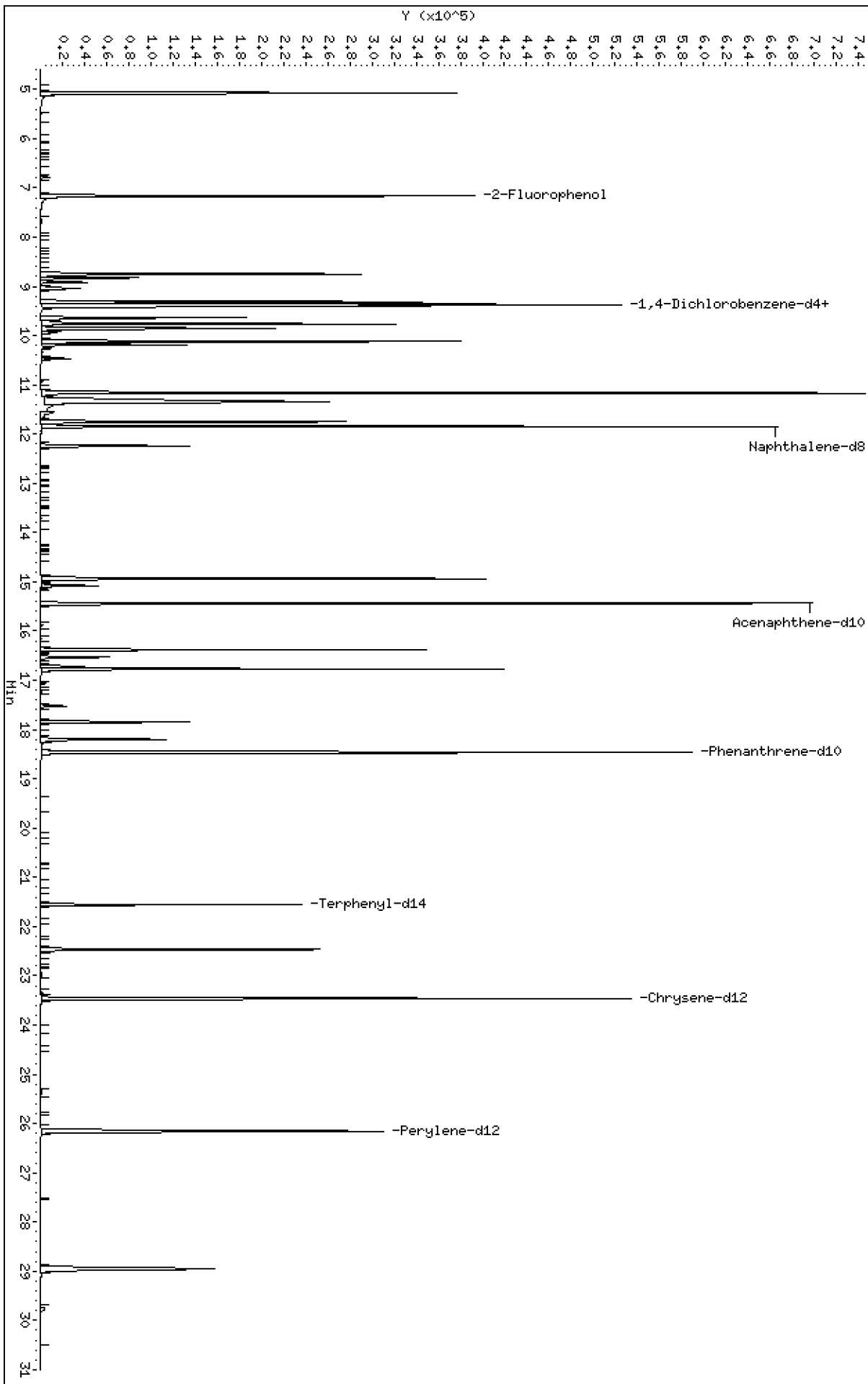
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

\\target\share\chem3\nt17.1\20230516.6\SIH.6\NT1705162305S.D



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162305S.D
 Lab Smp Id: SLE0339-CAL6
 Inj Date : 16-MAY-2023 20:44
 Operator : JGR
 Smp Info : SLE0339-CAL6
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 6

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.158	7.171	(0.764)	394385	3.75000	4.169
3 Phenol	94		8.751	8.751	(0.933)	382004	2.50000	2.710
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	309629	2.50000	2.451
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	312779	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	299271	2.50000	2.431
11 Benzyl alcohol	79		9.631	9.656	(1.027)	216903	2.50000	2.700
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	287593	2.50000	2.383
13 2-Methylphenol	108		9.848	9.861	(1.050)	253409	2.50000	2.594
15 4-Methylphenol	108		10.116	10.129	(1.079)	265505	2.50000	2.690
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	186377	2.50000	2.620
22 2,4-Dimethylphenol	107		11.164	11.164	(0.943)	547588	5.00000	5.115
24 Benzoic acid	105		11.355	11.356	(0.959)	579679	10.0000	8.692 (M)
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	236888	2.50000	2.439
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1112850	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	127558	2.50000	2.494
39 Dimethylphthalate	163		14.939	14.926	(0.968)	548075	2.50000	2.485
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	600559	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	512017	2.50000	2.556
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	357299	2.50000	2.544
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	117623	2.50000	2.468
58 Pentachlorophenol	266		18.200	18.214	(0.986)	135777	5.00000	4.831
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	997102	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	298252	2.50000	2.461
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	350134	2.50000	2.658
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	638760	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	569257	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	400026	2.50000	2.491
90 N-Nitrosodimethylamine	74		5.069	5.094	(0.541)	332375	5.00000	5.444

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162305S.D
 Lab Smp Id: SLE0339-CAL6
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	312779	-1.04
27 Naphthalene-d8	1102073	551037	2204146	1112850	0.98
42 Acenaphthene-d10	583826	291913	1167652	600559	2.87
59 Phenanthrene-d10	970917	485459	1941834	997102	2.70
69 Chrysene-d12	590568	295284	1181136	638760	8.16
77 Perylene-d12	537938	268969	1075876	569257	5.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162305S.D

Lab ID: SLE0339-CAL6

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 20:44

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.959	0.000	0.9590		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

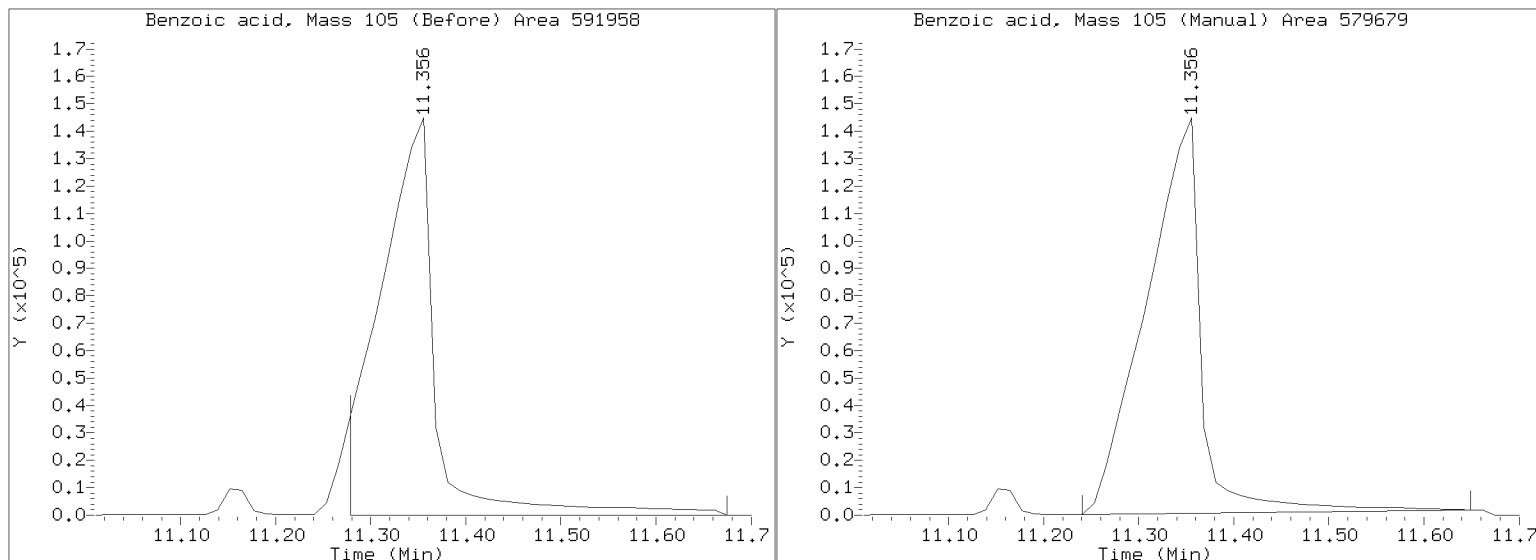
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162305S.D

Injection Date: 16-MAY-2023 20:44

Lab ID: SLE0339-CAL6 Client ID:

Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT1705162306S.D

Date: 16-May-2023 21:22

Client ID:

Sample Info: SLE0339-CAL5

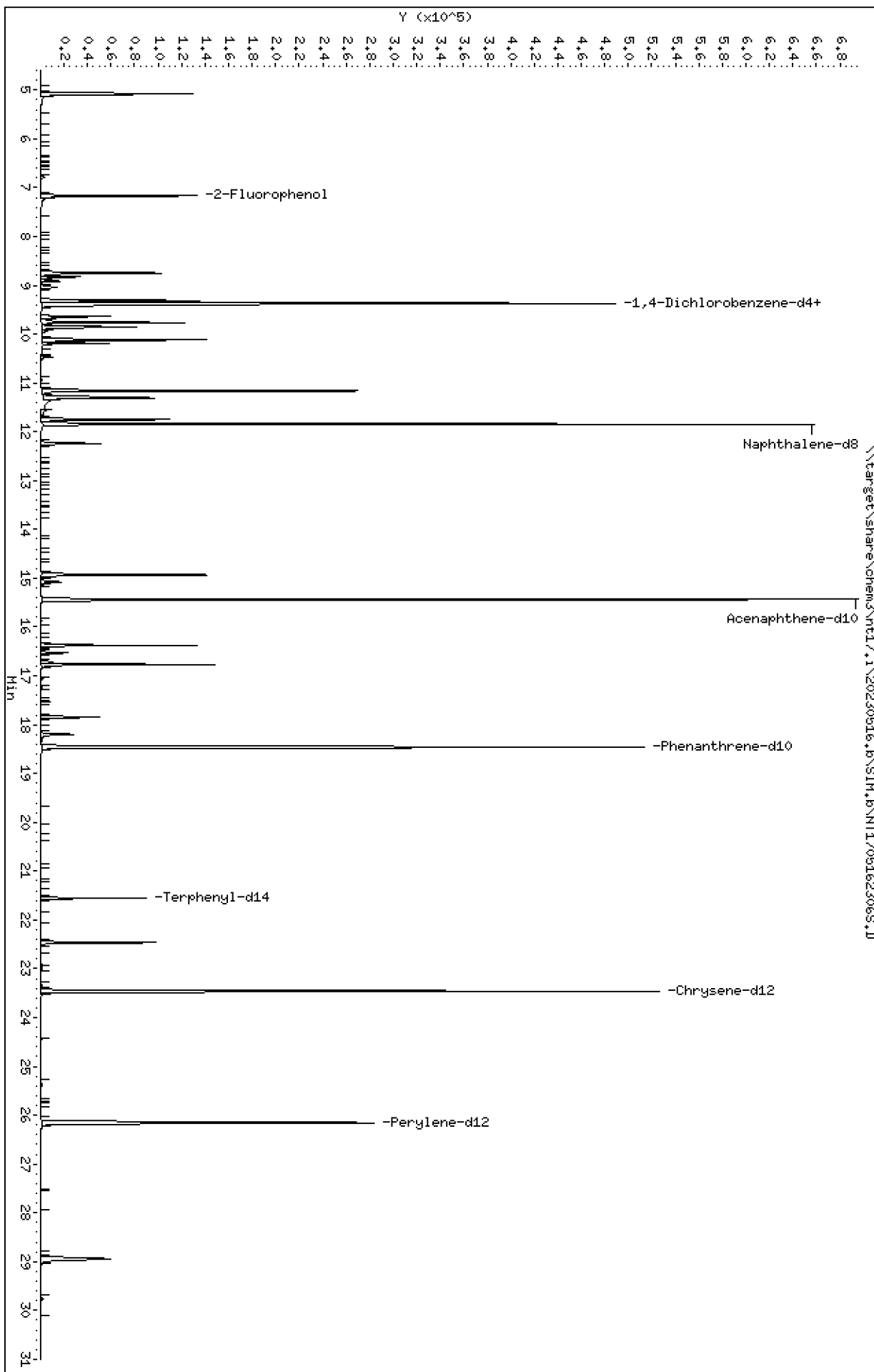
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162306S.D
 Lab Smp Id: SLE0339-CAL5
 Inj Date : 16-MAY-2023 21:22
 Operator : JGR
 Smp Info : SLE0339-CAL5
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 5

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.158	7.171	(0.764)	154867	1.50000	1.620
3 Phenol	94		8.750	8.751	(0.933)	149693	1.00000	1.051
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	126088	1.00000	0.9875
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	316066	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	122759	1.00000	0.9867
11 Benzyl alcohol	79		9.631	9.656	(1.027)	79743	1.00000	0.9825
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	117764	1.00000	0.9657
13 2-Methylphenol	108		9.848	9.861	(1.050)	100452	1.00000	1.018
15 4-Methylphenol	108		10.116	10.129	(1.079)	103970	1.00000	1.042
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	72733	1.00000	1.012
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	216055	2.00000	2.038
24 Benzoic acid	105		11.304	11.356	(0.955)	158699	4.00000	2.403 (M)
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	95162	1.00000	0.9894
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1102073	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	49943	1.00000	0.9862
39 Dimethylphthalate	163		14.939	14.926	(0.968)	217499	1.00000	1.014
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	583826	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	200427	1.00000	1.029
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	141906	1.00000	1.037
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	45821	1.00000	0.9875
58 Pentachlorophenol	266		18.200	18.214	(0.986)	38475	2.00000	1.454
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	970917	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	110634	1.00000	0.9873
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	125389	1.00000	1.030
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	590568	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	537938	4.00000	
79 Dibenzo(a,h)anthracene	278		28.943	28.943	(1.106)	152776	1.00000	1.007
90 N-Nitrosodimethylamine	74		5.081	5.094	(0.542)	130625	2.00000	2.117

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162306S.D
 Lab Smp Id: SLE0339-CAL5
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	316066	0.00
27 Naphthalene-d8	1102073	551037	2204146	1102073	0.00
42 Acenaphthene-d10	583826	291913	1167652	583826	0.00
59 Phenanthrene-d10	970917	485459	1941834	970917	0.00
69 Chrysene-d12	590568	295284	1181136	590568	0.00
77 Perylene-d12	537938	268969	1075876	537938	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162306S.D

Lab ID: SLE0339-CAL5

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 21:22

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.955	0.000	0.9547		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

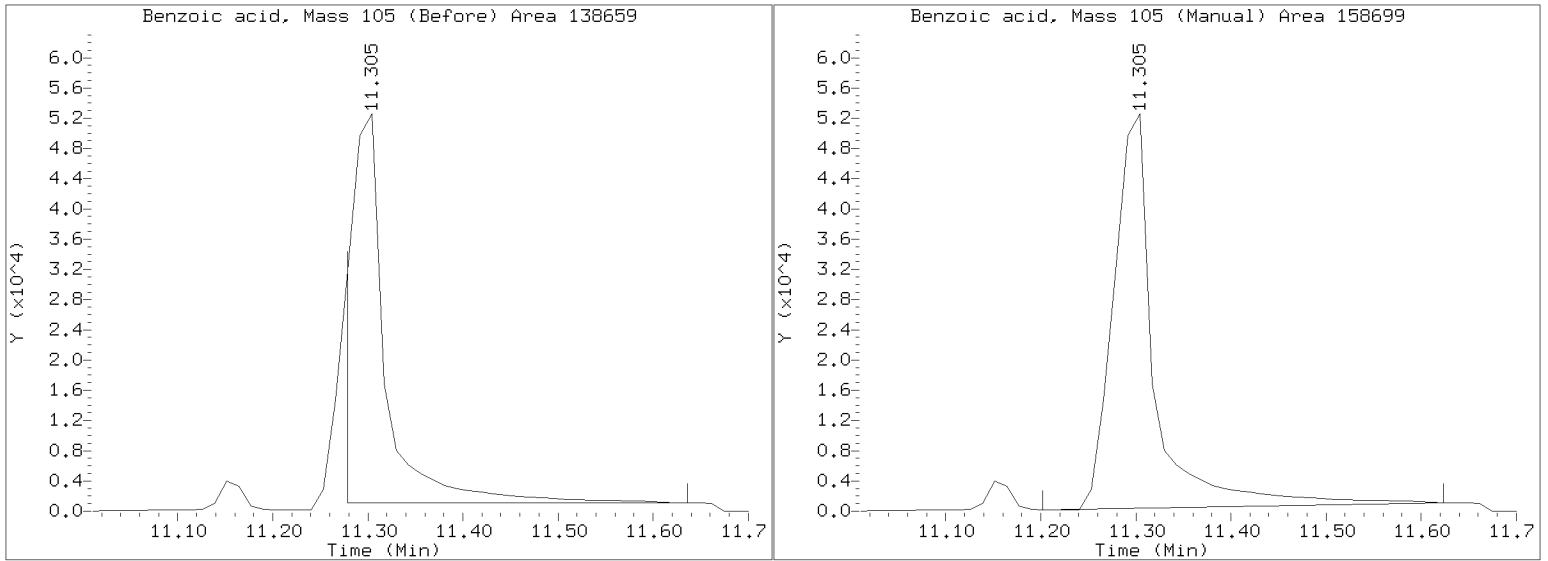
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162306S.D
Injection Date: 16-MAY-2023 21:22
Lab ID: SLE0339-CAL5 Client ID:
Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516_b\SIH_b\NT1705162307S.D

Date: 16-May-2023 21:59

Client ID:

Sample Info: SLE0339-CAL4

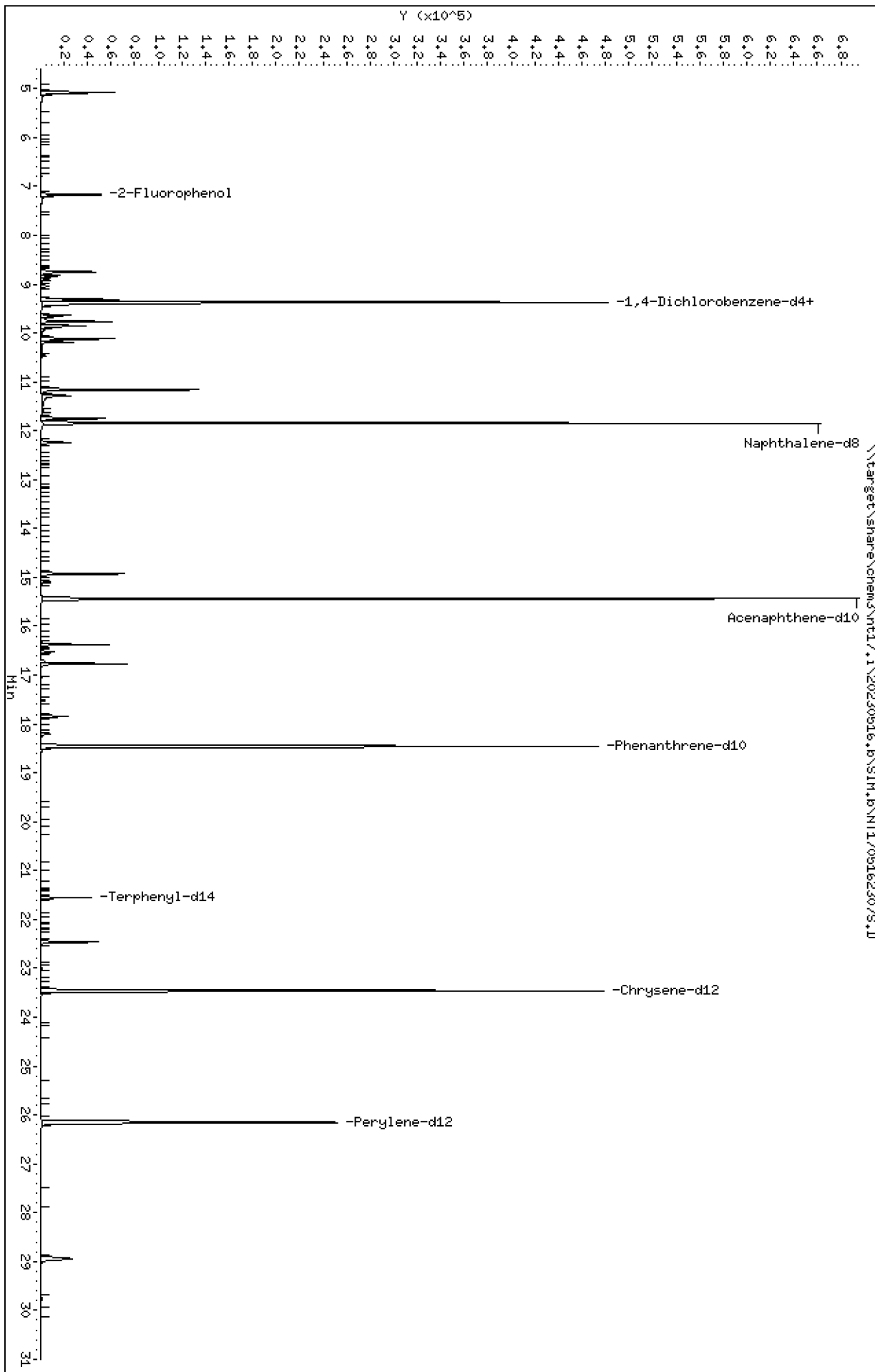
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162307S.D
 Lab Smp Id: SLE0339-CAL4
 Inj Date : 16-MAY-2023 21:59
 Operator : JGR
 Smp Info : SLE0339-CAL4
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 4

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.171	7.171	(0.765)	72039	0.75000	0.7666
3 Phenol	94		8.751	8.751	(0.933)	71037	0.50000	0.5073
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	62721	0.50000	0.4997
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	310689	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	60974	0.50000	0.4986
11 Benzyl alcohol	79		9.643	9.656	(1.029)	41088	0.50000	0.5150
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	60643	0.50000	0.5059
13 2-Methylphenol	108		9.848	9.861	(1.050)	48605	0.50000	0.5009
15 4-Methylphenol	108		10.116	10.129	(1.079)	48975	0.50000	0.4994
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	34683	0.50000	0.4908
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	107131	1.00000	1.035
24 Benzoic acid	105		11.279	11.356	(0.953)	42399	2.00000	0.6576 (M)
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	47291	0.50000	0.5037
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1075836	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	24513	0.50000	0.4958
39 Dimethylphthalate	163		14.926	14.926	(0.967)	102053	0.50000	0.4962
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	560079	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	94056	0.50000	0.5036
54 N-Nitrosodiphenylamine	169		16.761	16.774	(0.908)	65683	0.50000	0.5128
57 Hexachlorobenzene	284		17.843	17.843	(0.967)	21722	0.50000	0.4999
58 Pentachlorophenol	266		18.200	18.214	(0.986)	13401	1.00000	0.5454
* 59 Phenanthrene-d10	188		18.455	18.455	(1.000)	909163	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	50671	0.50000	0.4875
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	58029	0.50000	0.5137
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	547811	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	508065	4.00000	
79 Dibenzo(a,h)anthracene	278		28.943	28.943	(1.106)	72025	0.50000	0.5026
90 N-Nitrosodimethylamine	74		5.081	5.094	(0.542)	62177	1.00000	1.025

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162307S.D
 Lab Smp Id: SLE0339-CAL4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	310689	-1.70
27 Naphthalene-d8	1102073	551037	2204146	1075836	-2.38
42 Acenaphthene-d10	583826	291913	1167652	560079	-4.07
59 Phenanthrene-d10	970917	485459	1941834	909163	-6.36
69 Chrysene-d12	590568	295284	1181136	547811	-7.24
77 Perylene-d12	537938	268969	1075876	508065	-5.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.46	-0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162307S.D

Lab ID: SLE0339-CAL4

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 21:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.953	0.000	0.9526		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

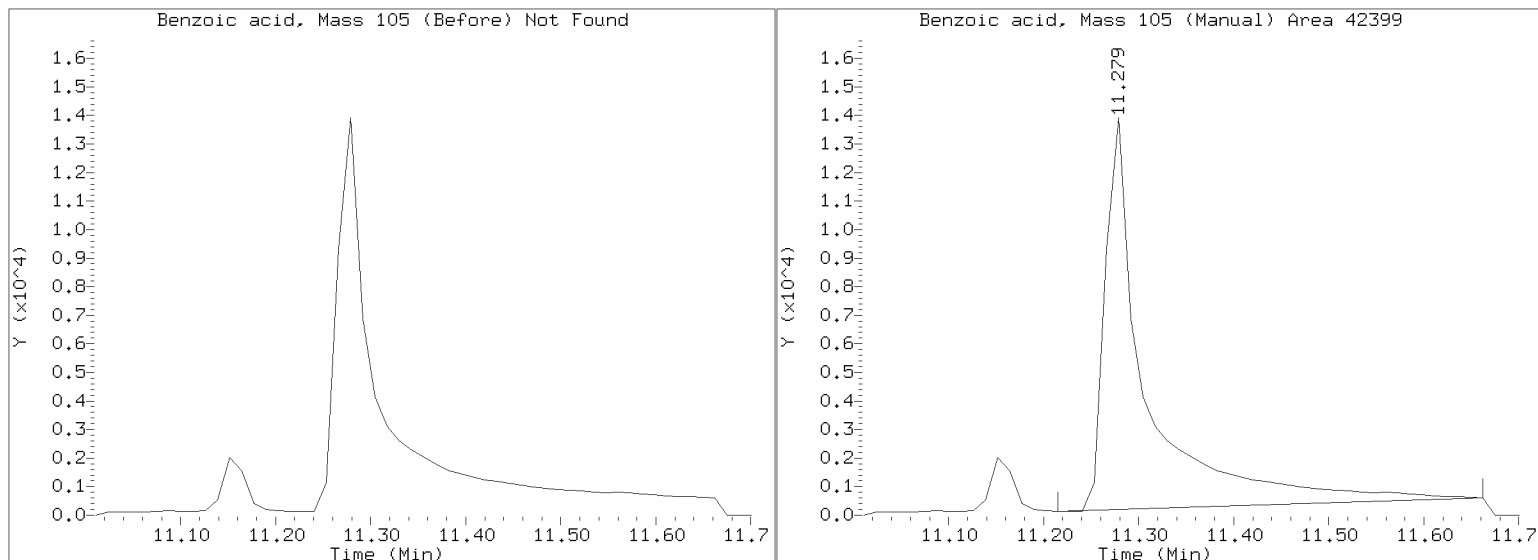
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162307S.D

Injection Date: 16-MAY-2023 21:59

Lab ID: SLE0339-CAL4 Client ID:

Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.1\NT1705162308S.D

Date: 16-May-2023 22:37

Client ID:

Sample Info: SLE0339-CAL3

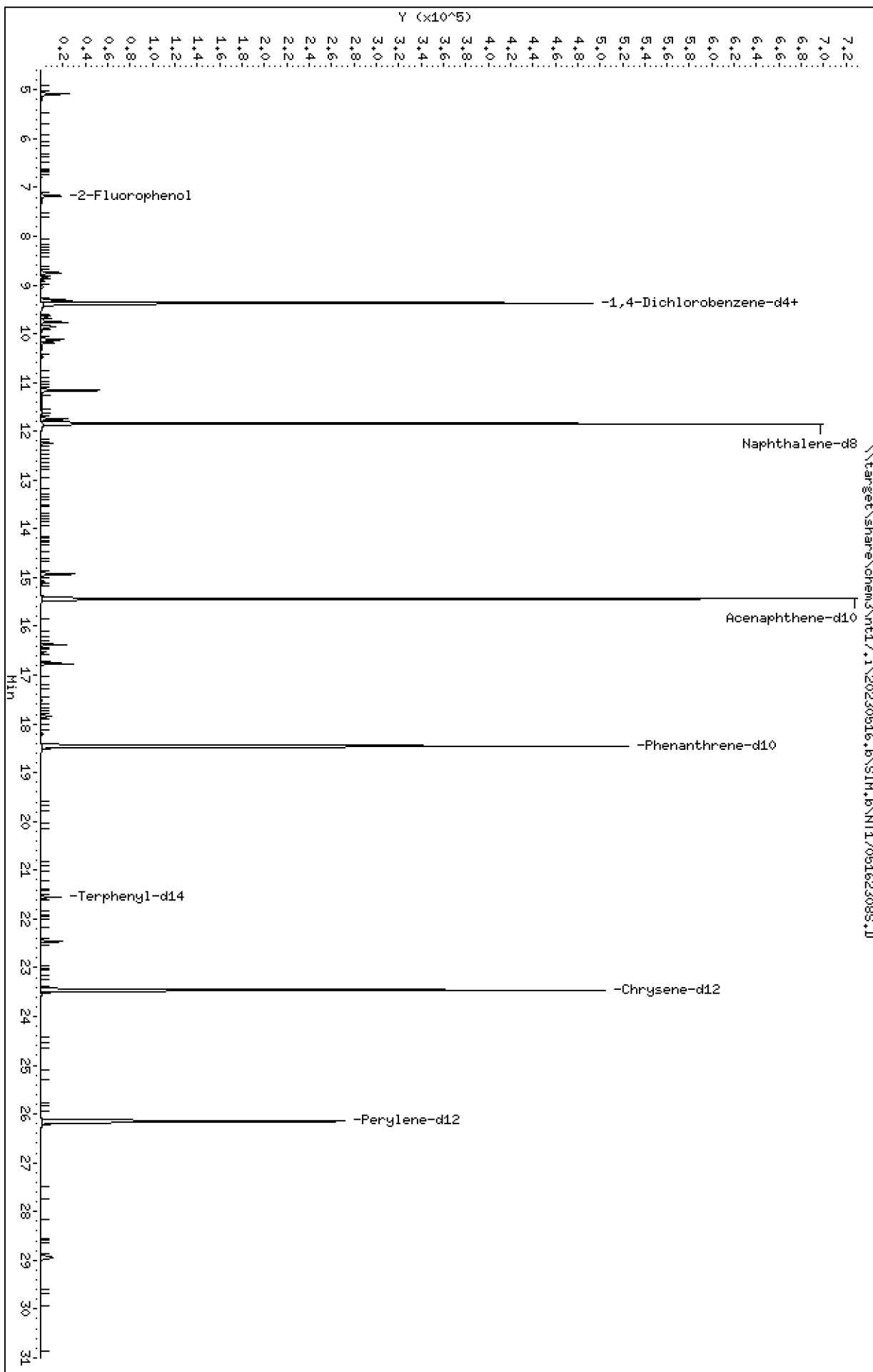
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162308S.D
 Lab Smp Id: SLE0339-CAL3
 Inj Date : 16-MAY-2023 22:37
 Operator : JGR
 Smp Info : SLE0339-CAL3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 3

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.171	7.171	(0.765)	27556	0.30000	0.2810
3 Phenol	94		8.750	8.751	(0.933)	27979	0.20000	0.1915
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	26546	0.20000	0.2027
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	324202	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	25906	0.20000	0.2030
11 Benzyl alcohol	79		9.643	9.656	(1.029)	16148	0.20000	0.1940
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	24925	0.20000	0.1993
13 2-Methylphenol	108		9.848	9.861	(1.050)	20045	0.20000	0.1980
15 4-Methylphenol	108		10.116	10.129	(1.079)	19579	0.20000	0.1913
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	14608	0.20000	0.1981
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	44127	0.40000	0.4085
24 Benzoic acid	105		11.355	11.356	(0.959)	4084	0.80000	0.06068 (M)
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	20186	0.20000	0.2059
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1123074	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	10241	0.20000	0.1984
39 Dimethylphthalate	163		14.926	14.926	(0.967)	43118	0.20000	0.1997
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	587914	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	39081	0.20000	0.1993
54 N-Nitrosodiphenylamine	169		16.761	16.774	(0.908)	27281	0.20000	0.1992
57 Hexachlorobenzene	284		17.843	17.843	(0.967)	9193	0.20000	0.1978
58 Pentachlorophenol	266		18.200	18.214	(0.986)	4252	0.40000	0.1624
* 59 Phenanthrene-d10	188		18.455	18.455	(1.000)	972346	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	21642	0.20000	0.1956
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	23404	0.20000	0.1947
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	582965	4.00000	
* 77 Perylene-d12	264		26.146	26.147	(1.000)	529057	4.00000	
79 Dibenzo(a,h)anthracene	278		28.943	28.943	(1.107)	29415	0.20000	0.1971
90 N-Nitrosodimethylamine	74		5.081	5.094	(0.542)	24605	0.40000	0.3888

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162308S.D
 Lab Smp Id: SLE0339-CAL3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	324202	2.57
27 Naphthalene-d8	1102073	551037	2204146	1123074	1.91
42 Acenaphthene-d10	583826	291913	1167652	587914	0.70
59 Phenanthrene-d10	970917	485459	1941834	972346	0.15
69 Chrysene-d12	590568	295284	1181136	582965	-1.29
77 Perylene-d12	537938	268969	1075876	529057	-1.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.46	-0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.15	-0.05

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

REVIEW SUMMARY FOR FILE - NT1705162308S.D

Lab ID: SLE0339-CAL3

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 22:37

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.959	0.000	0.9590		Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

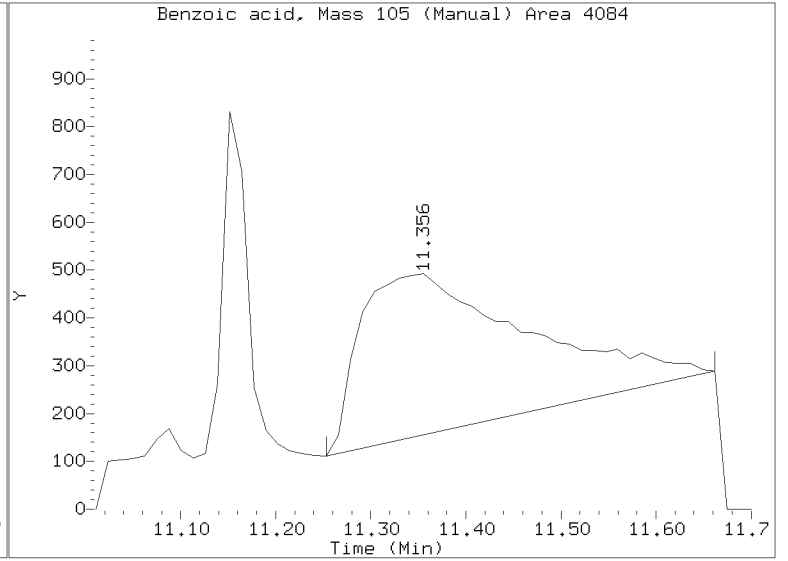
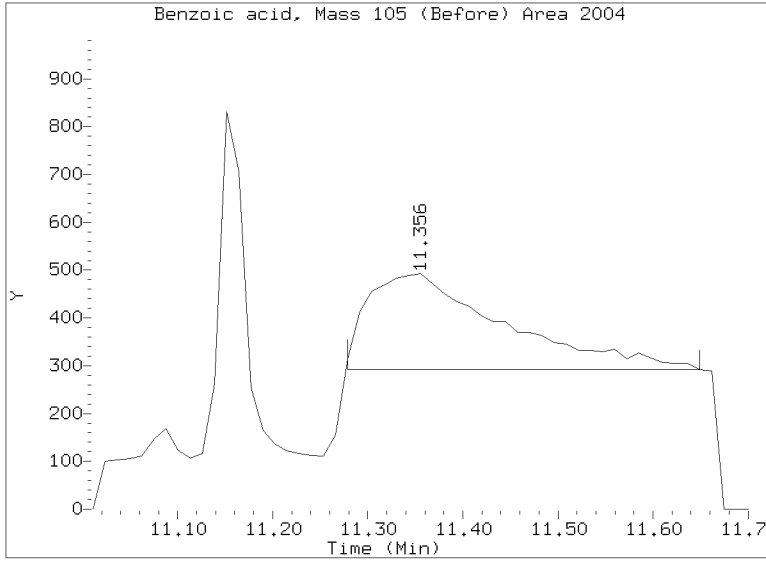
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162308S.D
Injection Date: 16-MAY-2023 22:37
Lab ID: SLE0339-CAL3 Client ID:
Report Date: 05/24/2023 06:44



Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT1705162309S.D

Date: 16-May-2023 23:14

Client ID:

Sample Info: SLE0339-CAL2

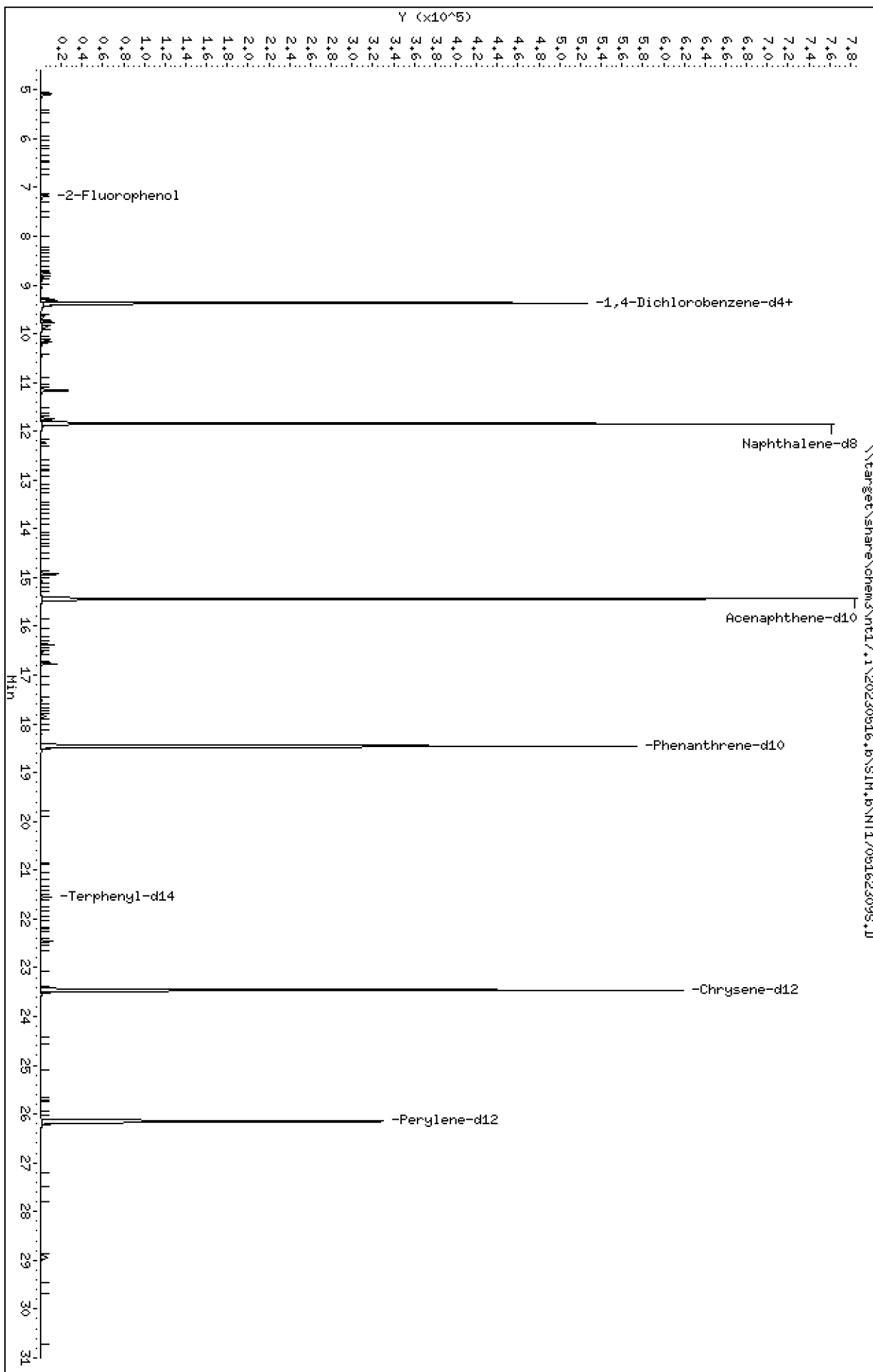
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162309S.D
 Lab Smp Id: SLE0339-CAL2
 Inj Date : 16-MAY-2023 23:14
 Operator : JGR
 Smp Info : SLE0339-CAL2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 2

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.171	7.171	(0.765)	13379	0.15000	0.1291
3 Phenol	94		8.750	8.751	(0.933)	14562	0.10000	0.09432
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	14619	0.10000	0.1056
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	342586	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	14178	0.10000	0.1051
11 Benzyl alcohol	79		9.643	9.656	(1.029)	8165	0.10000	0.09281
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	15009	0.10000	0.1136
13 2-Methylphenol	108		9.861	9.861	(1.052)	10680	0.10000	0.09982
15 4-Methylphenol	108		10.129	10.129	(1.080)	10066	0.10000	0.09309
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	7678	0.10000	0.09853
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	23752	0.20000	0.2041
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	11061	0.10000	0.1048
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1209699	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	5563	0.10000	0.1001
39 Dimethylphthalate	163		14.926	14.926	(0.967)	23825	0.10000	0.1021
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	635389	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	21298	0.10000	0.1005
54 N-Nitrosodiphenylamine	169		16.761	16.774	(0.908)	15309	0.10000	0.1009
57 Hexachlorobenzene	284		17.843	17.843	(0.967)	5120	0.10000	0.09948
58 Pentachlorophenol	266		18.200	18.214	(0.986)	2234	0.20000	0.07708
* 59 Phenanthrene-d10	188		18.455	18.455	(1.000)	1076905	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	12859	0.10000	0.09758
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	13484	0.10000	0.09416
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	694468	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	649331	4.00000	
79 Dibenzo(a,h)anthracene	278		28.943	28.943	(1.106)	17990	0.10000	0.09823
90 N-Nitrosodimethylamine	74		5.081	5.094	(0.542)	12481	0.20000	0.1866

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162309S.D
 Lab Smp Id: SLE0339-CAL2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	342586	8.39
27 Naphthalene-d8	1102073	551037	2204146	1209699	9.77
42 Acenaphthene-d10	583826	291913	1167652	635389	8.83
59 Phenanthrene-d10	970917	485459	1941834	1076905	10.92
69 Chrysene-d12	590568	295284	1181136	694468	17.59
77 Perylene-d12	537938	268969	1075876	649331	20.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.46	-0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	0.00

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

REVIEW SUMMARY FOR FILE - NT1705162309S.D

Lab ID: SLE0339-CAL2

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 23:14

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.6\NT1705162310S.D

Date: 16-May-2023 23:51

Client ID:

Sample Info: SLE0339-CAL1

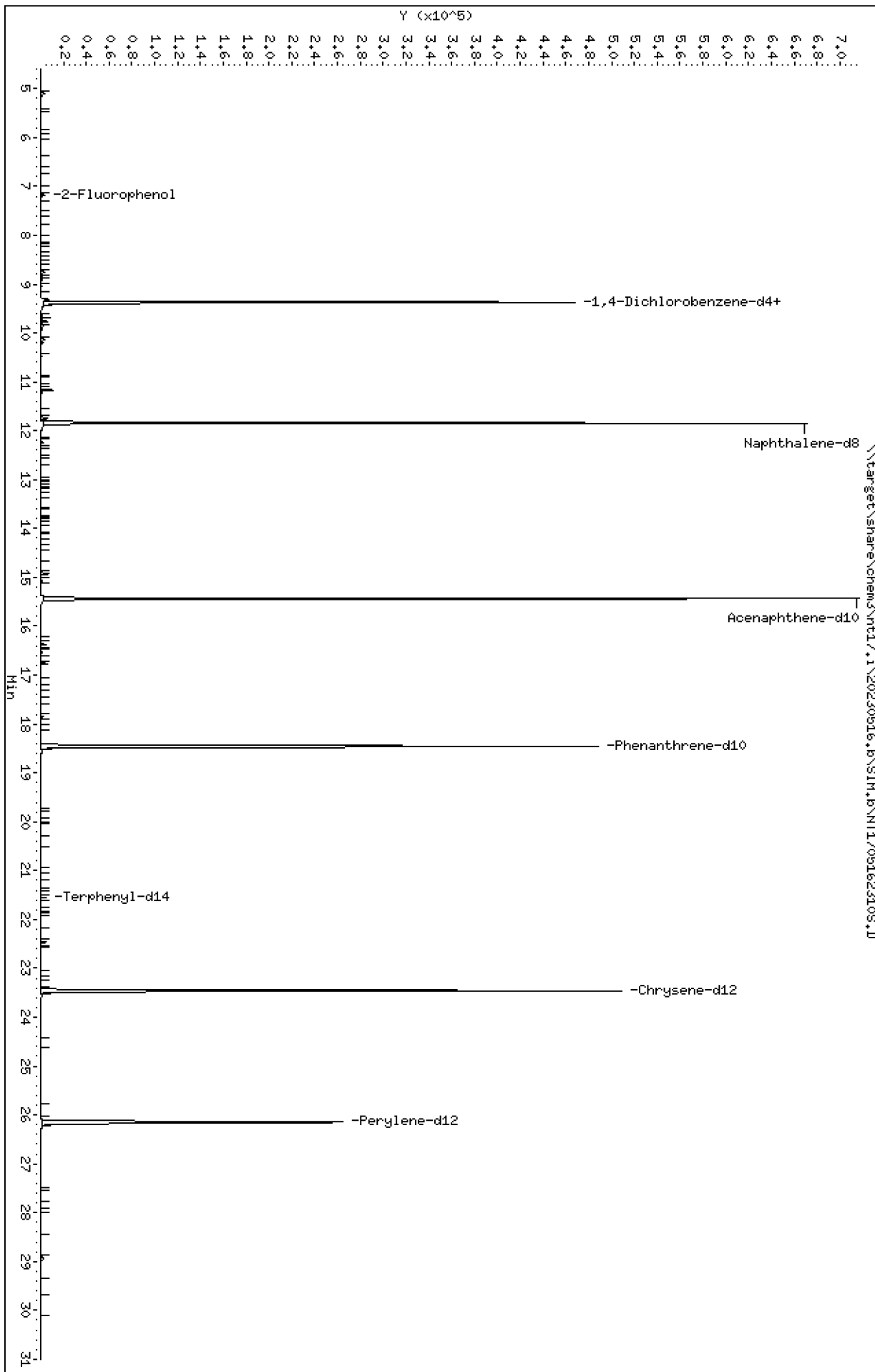
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

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ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162310S.D
 Lab Smp Id: SLE0339-CAL1
 Inj Date : 16-MAY-2023 23:51
 Operator : JGR
 Smp Info : SLE0339-CAL1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Calibration Sample, Level: 1

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.171	7.171	(0.765)	5563	0.07500	0.05793
3 Phenol	94		8.751	8.751	(0.933)	5994	0.05000	0.04189
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	6725	0.05000	0.05243
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	317514	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	6712	0.05000	0.05370
11 Benzyl alcohol	79		9.656	9.656	(1.030)	3172	0.05000	0.03890 (M)
12 1,2-Dichlorobenzene	146		9.759	9.759	(1.041)	6324	0.05000	0.05162
13 2-Methylphenol	108		9.861	9.861	(1.052)	4687	0.05000	0.04727
15 4-Methylphenol	108		10.129	10.129	(1.080)	4202	0.05000	0.04193
16 N-Nitroso-di-n-propylamine	70		10.180	10.180	(1.086)	3304	0.05000	0.04575
22 2,4-Dimethylphenol	107		11.164	11.164	(0.943)	10101	0.10000	0.09580
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	5060	0.05000	0.05290
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1096096	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	2558	0.05000	0.05078
39 Dimethylphthalate	163		14.926	14.926	(0.967)	11031	0.05000	0.05290
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	567814	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	9182	0.05000	0.04849
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.909)	6213	0.05000	0.04769
57 Hexachlorobenzene	284		17.843	17.843	(0.967)	2246	0.05000	0.05082
58 Pentachlorophenol	266		18.213	18.214	(0.987)	506	0.10000	0.02034 (M)
* 59 Phenanthrene-d10	188		18.455	18.455	(1.000)	924770	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	6036	0.05000	0.05676
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	5212	0.05000	0.04510
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	560403	4.00000	
* 77 Perylene-d12	264		26.147	26.147	(1.000)	515224	4.00000	
79 Dibenzo(a,h)anthracene	278		28.943	28.943	(1.107)	7129	0.05000	0.04906
90 N-Nitrosodimethylamine	74		5.094	5.094	(0.543)	5227	0.10000	0.08433

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162310S.D
 Lab Smp Id: SLE0339-CAL1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	317514	0.46
27 Naphthalene-d8	1102073	551037	2204146	1096096	-0.54
42 Acenaphthene-d10	583826	291913	1167652	567814	-2.74
59 Phenanthrene-d10	970917	485459	1941834	924770	-4.75
69 Chrysene-d12	590568	295284	1181136	560403	-5.11
77 Perylene-d12	537938	268969	1075876	515224	-4.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.46	-0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	0.00
77 Perylene-d12	26.16	25.66	26.66	26.15	-0.05

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

REVIEW SUMMARY FOR FILE - NT1705162310S.D

Lab ID: SLE0339-CAL1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 16-MAY-2023 23:51

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1705162310S.D

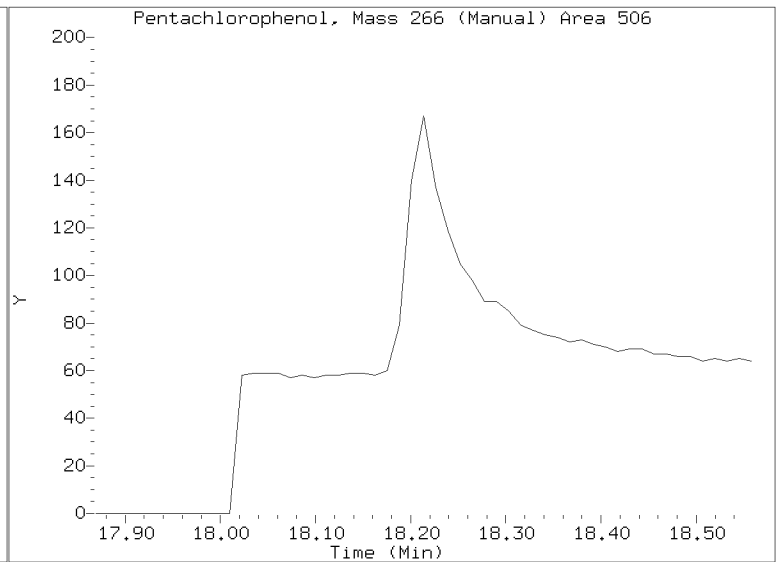
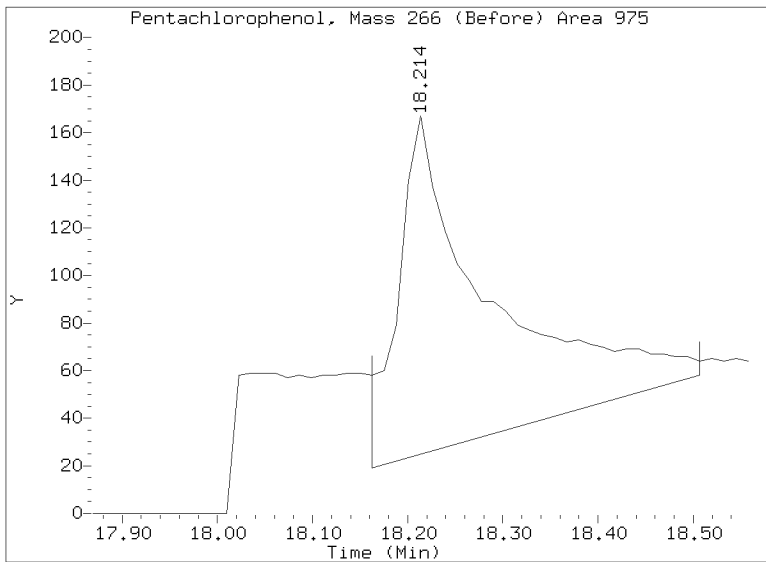
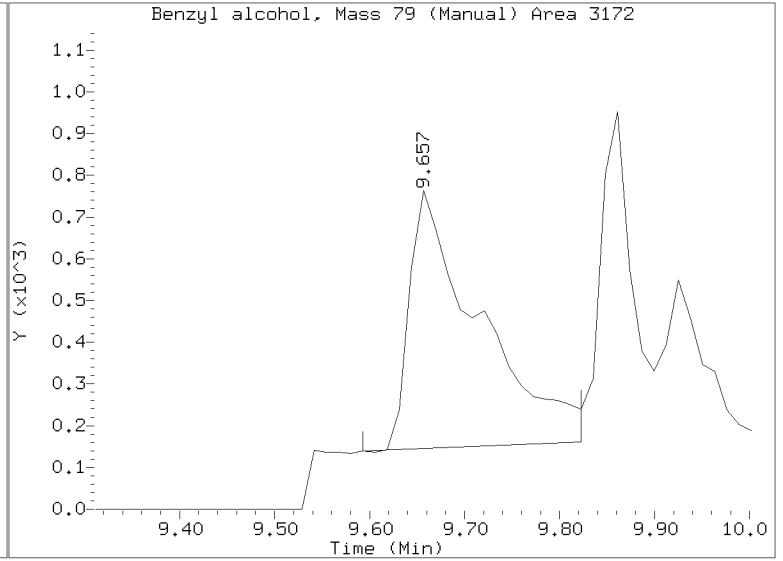
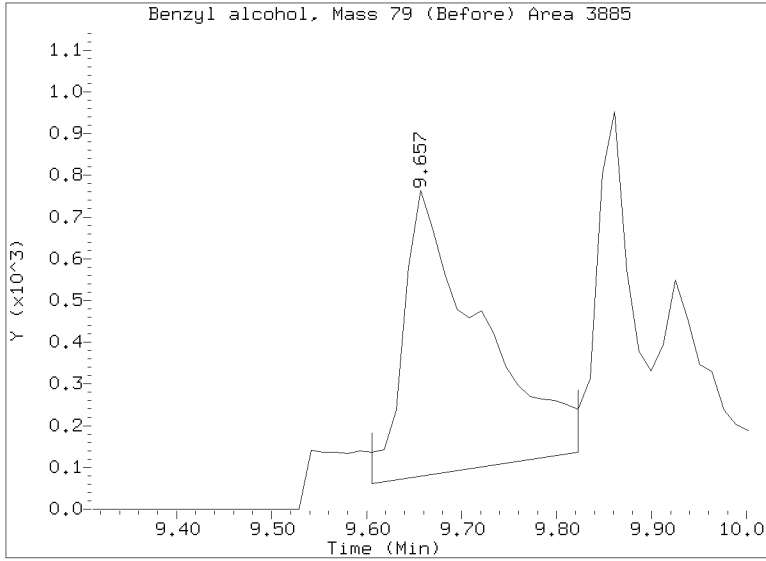
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230516.b/SIM.b/NT1705162310S.D
Injection Date: 16-MAY-2023 23:51
Lab ID: SLE0339-CAL1 Client ID:
Report Date: 05/24/2023 06:45



Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT17051623115.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0339-SCW1

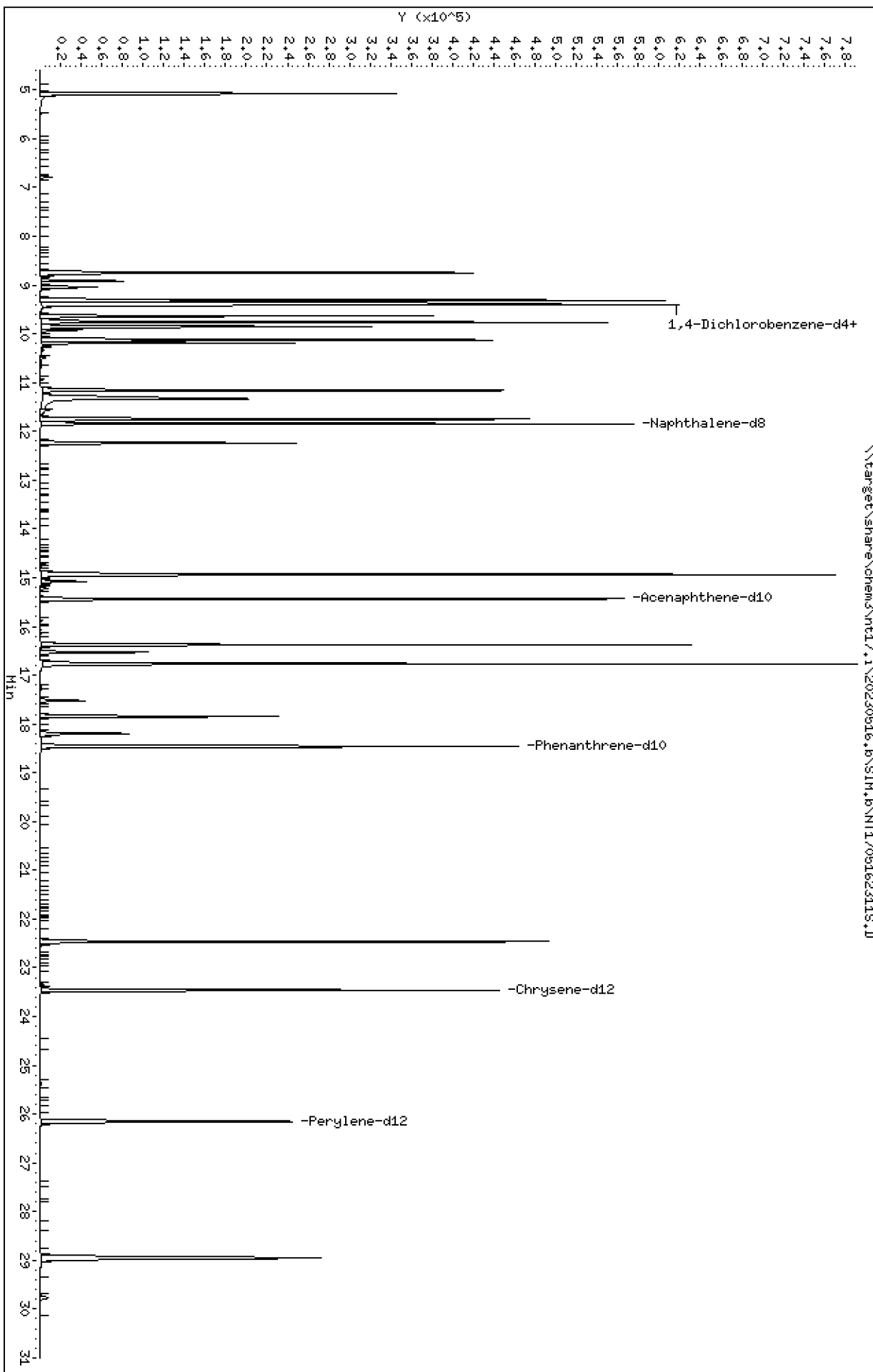
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

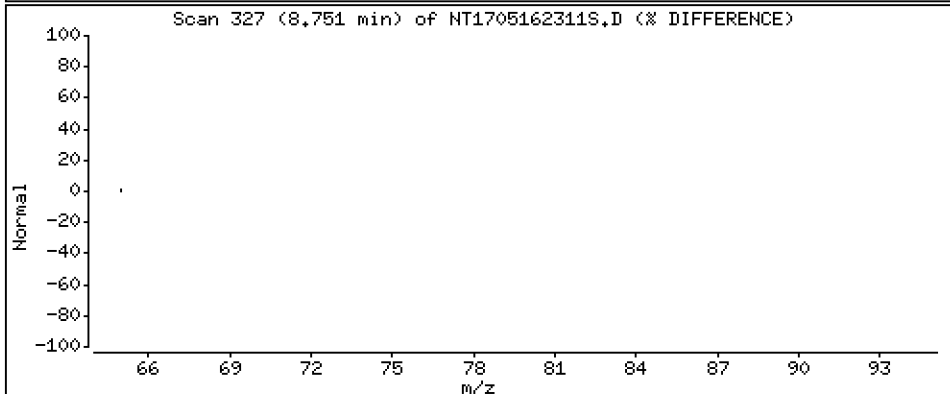
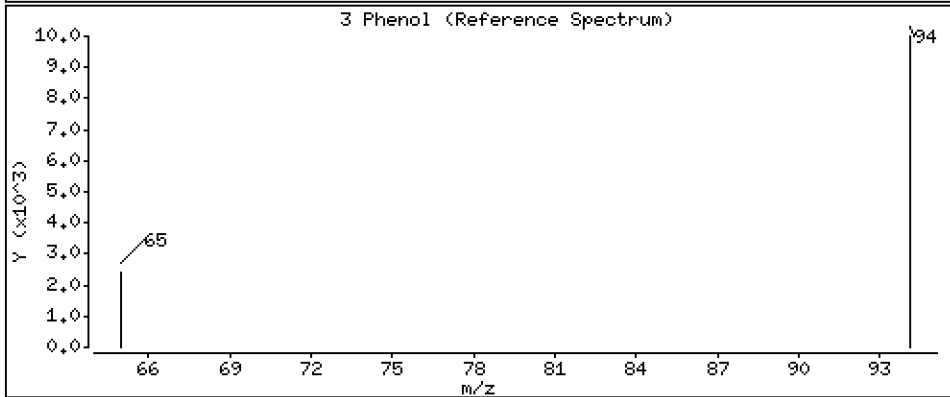
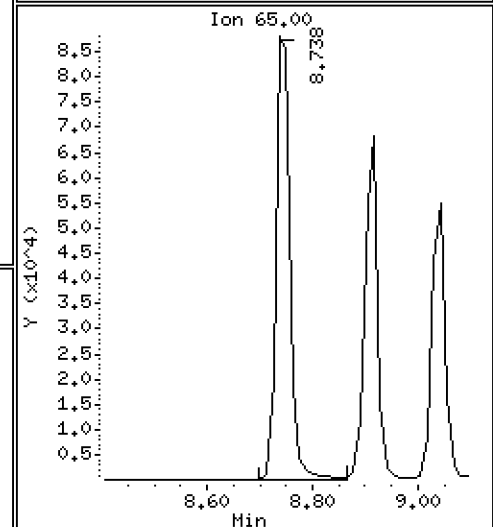
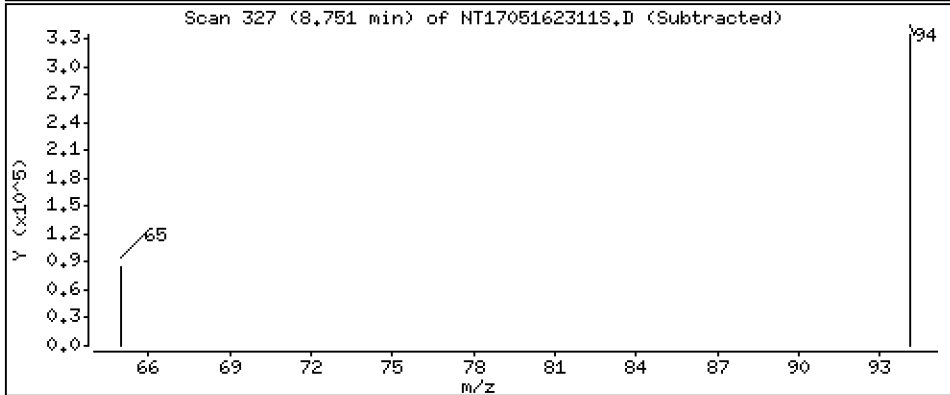
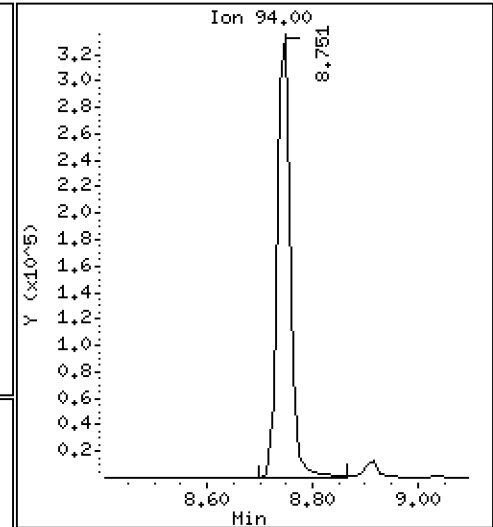
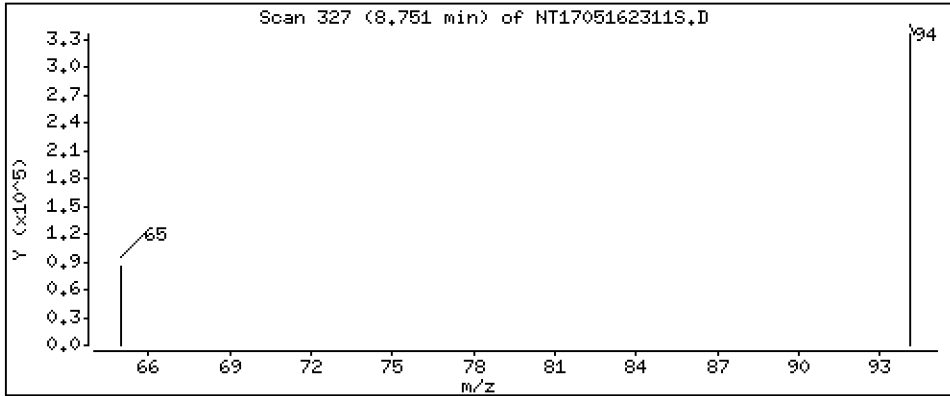
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,884 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

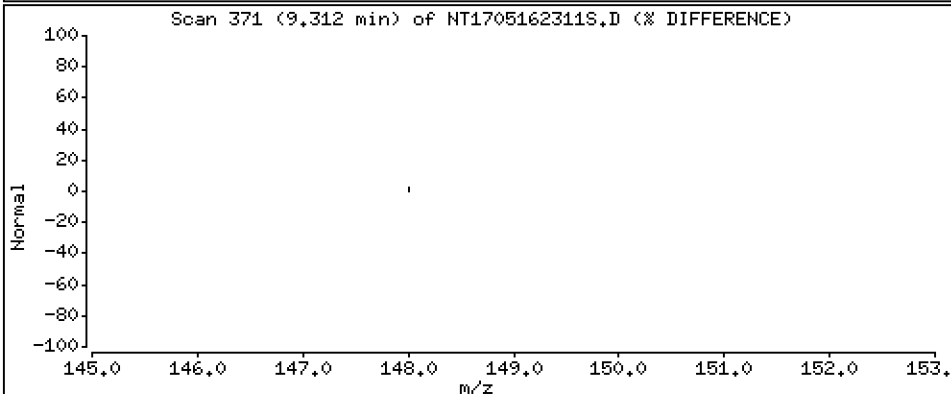
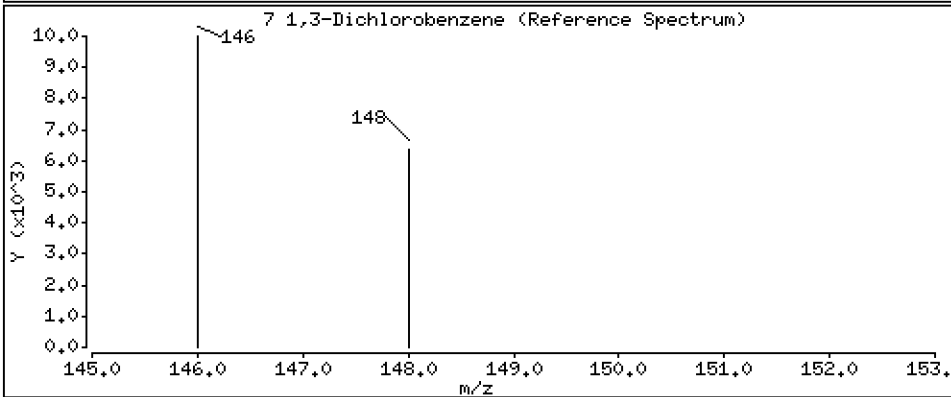
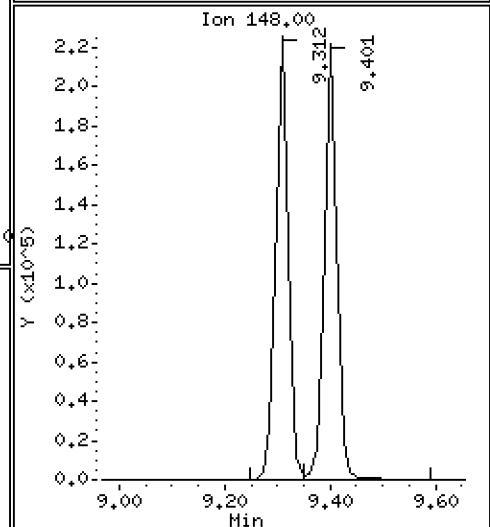
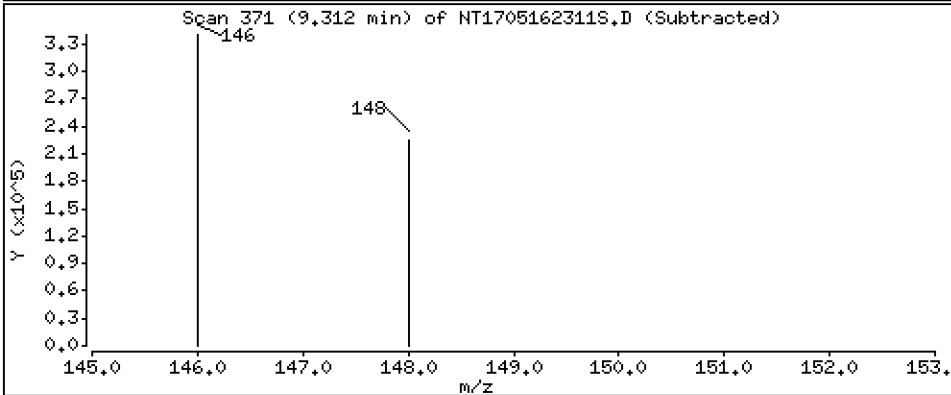
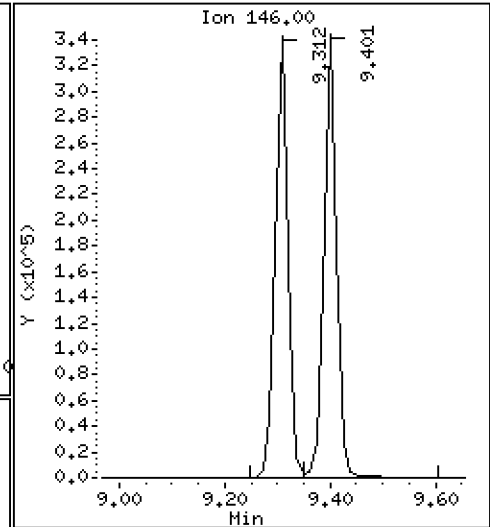
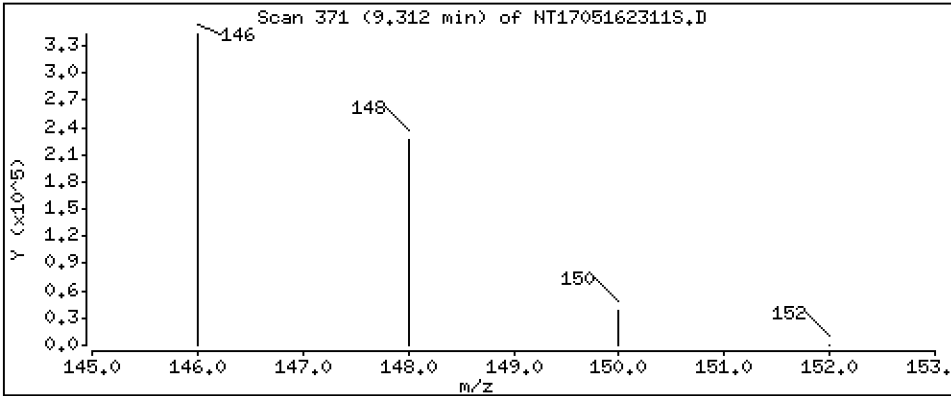
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.087 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

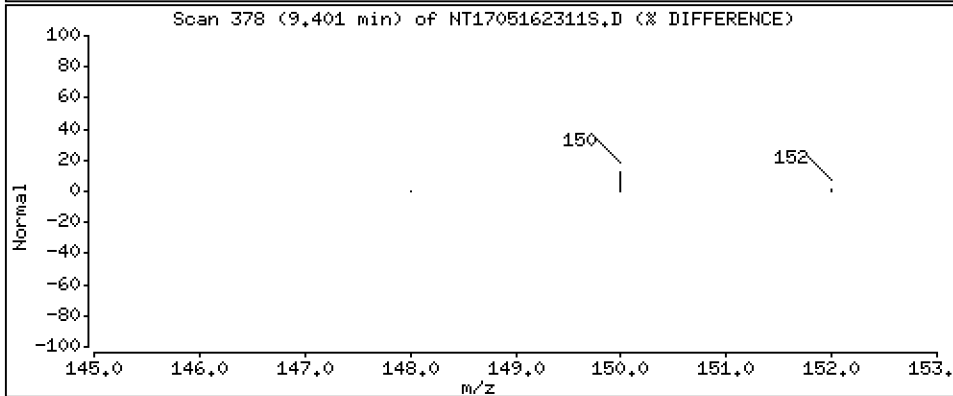
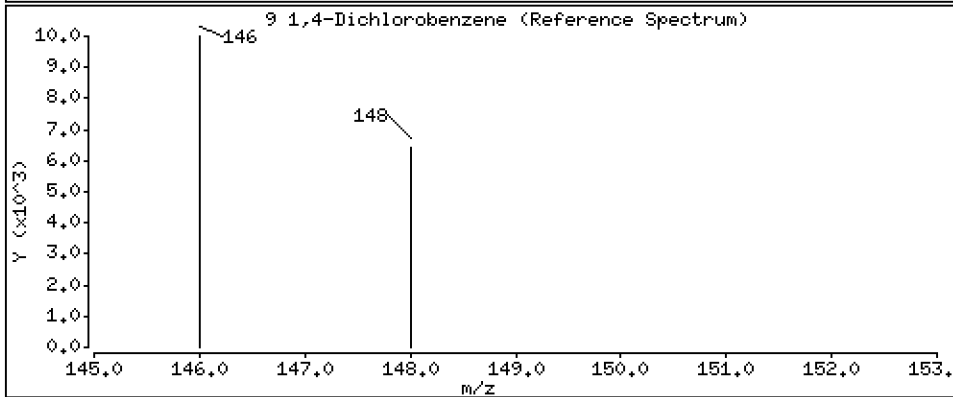
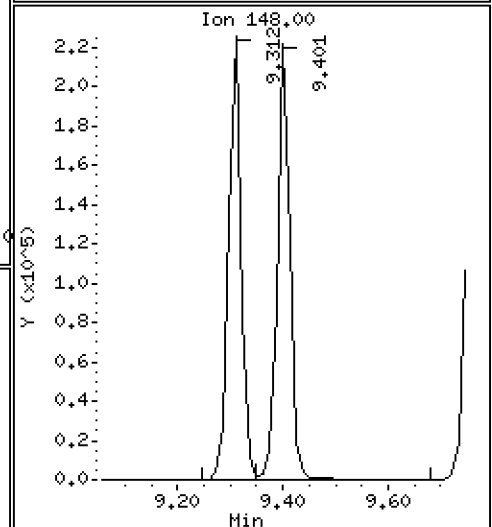
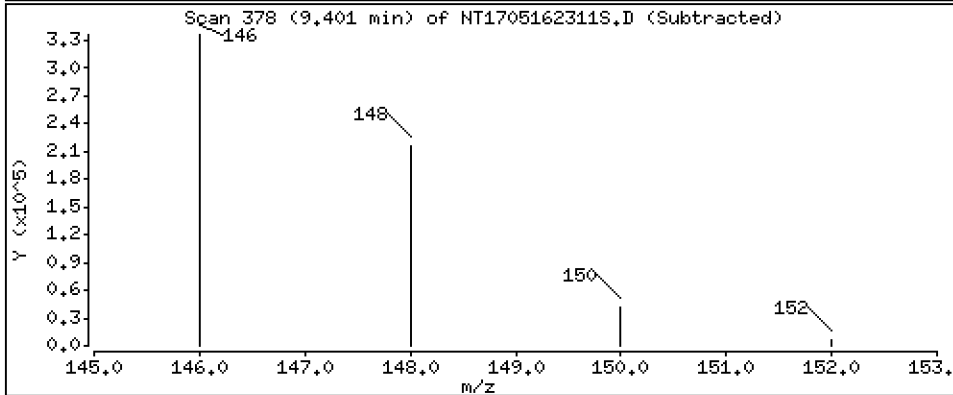
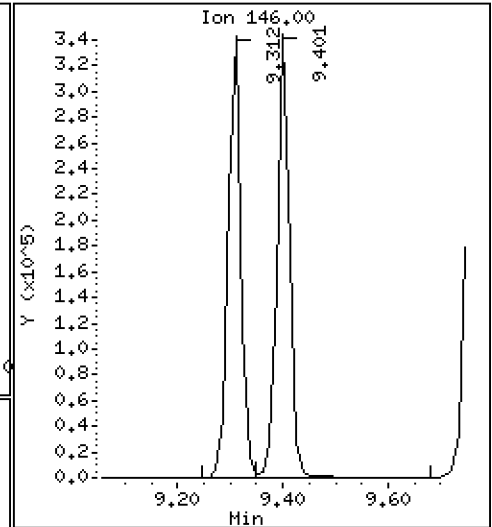
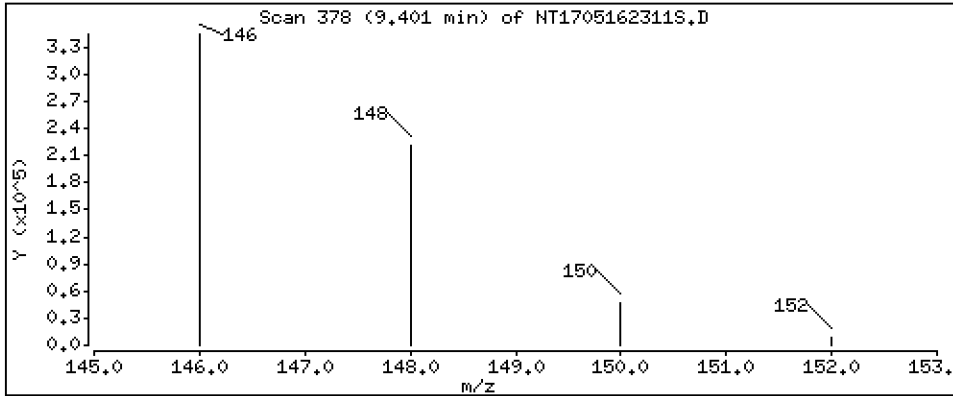
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

9,1,4-Dichlorobenzene

Concentration: 5,132 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

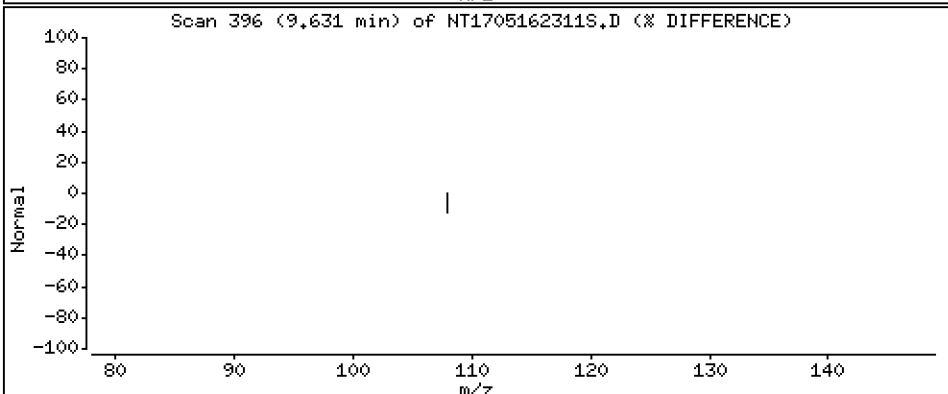
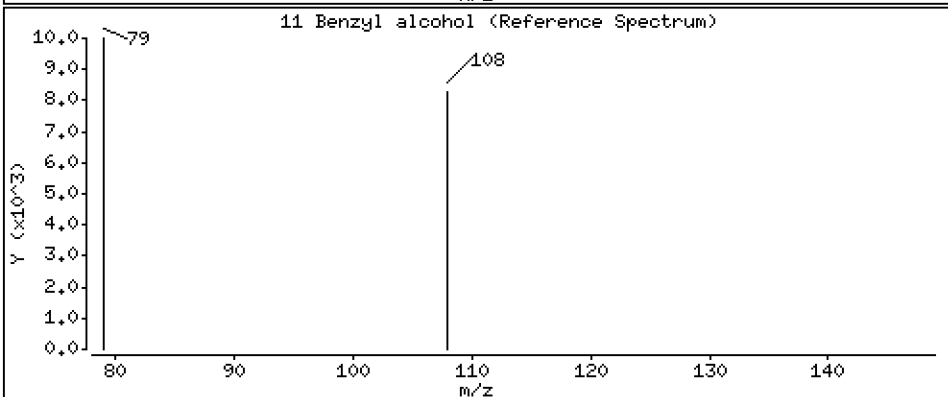
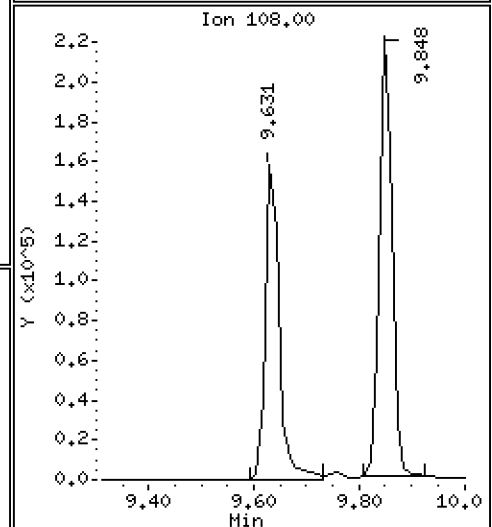
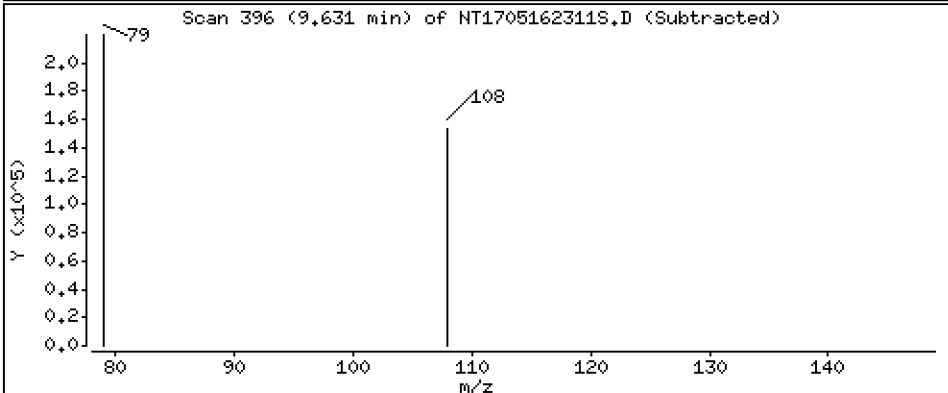
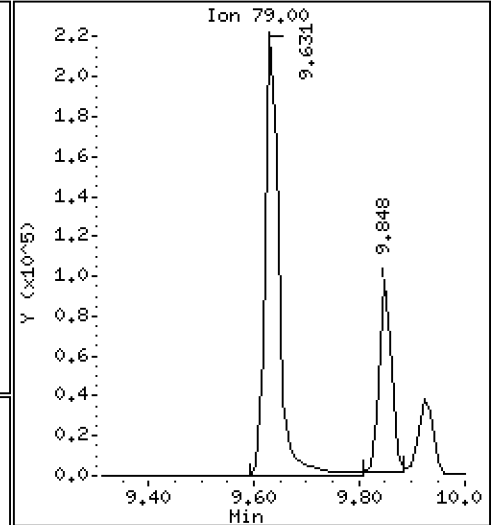
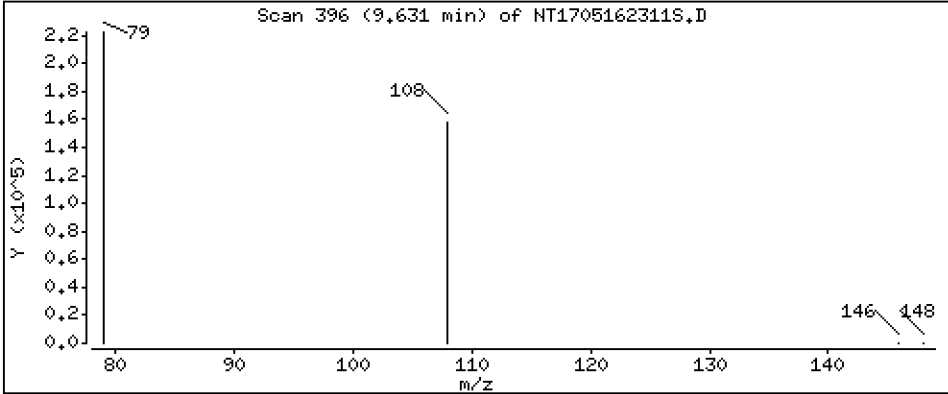
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,706 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

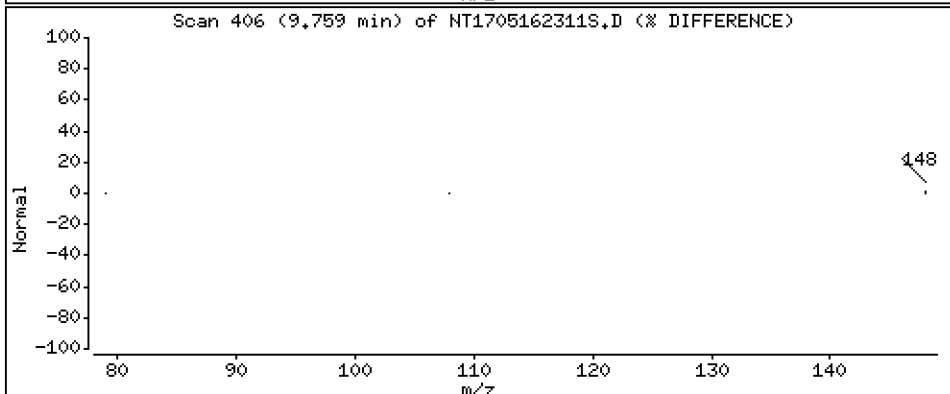
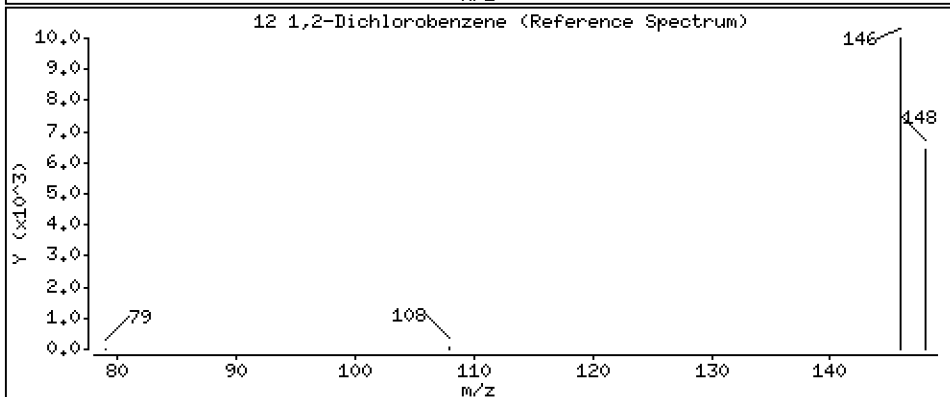
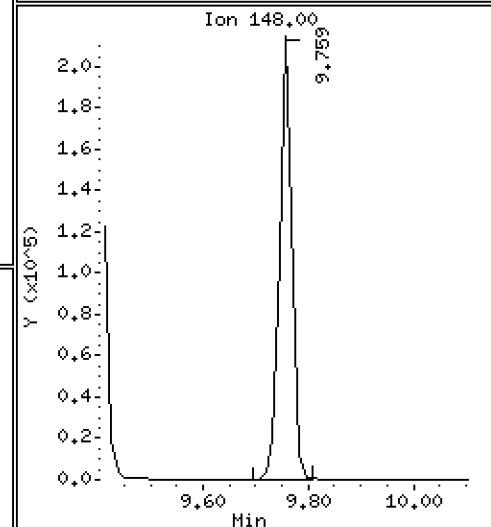
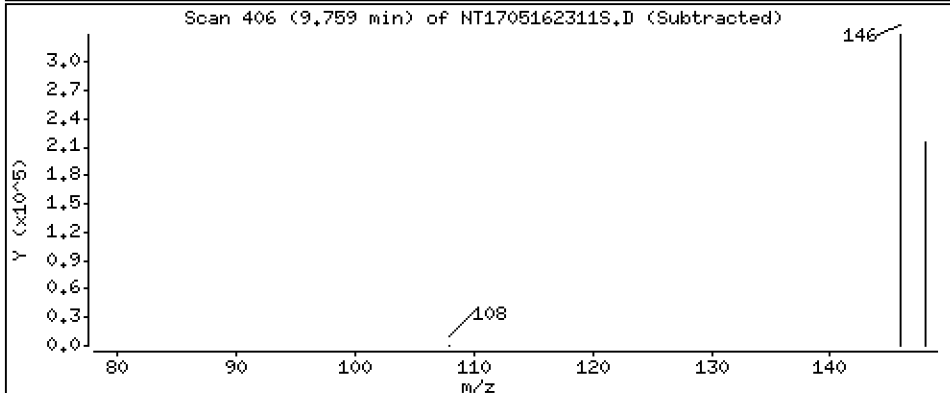
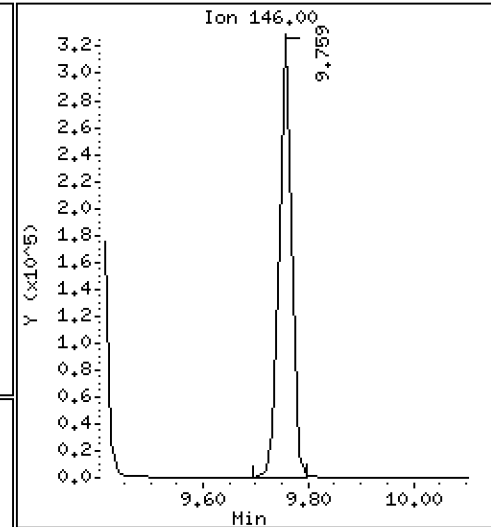
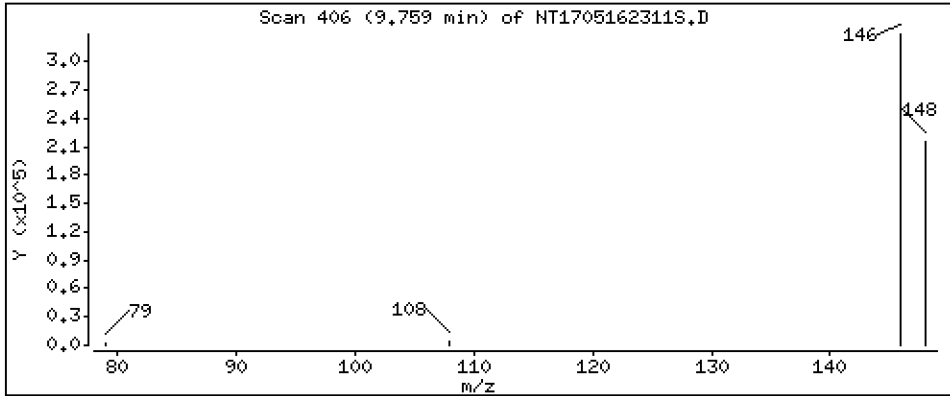
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.007 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

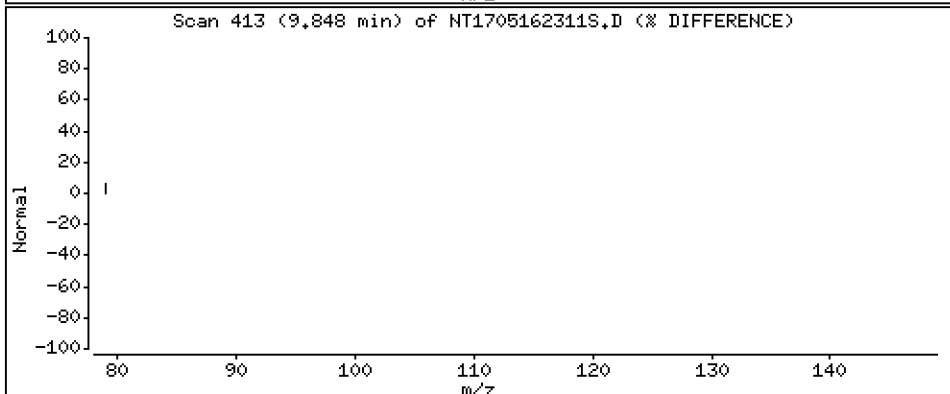
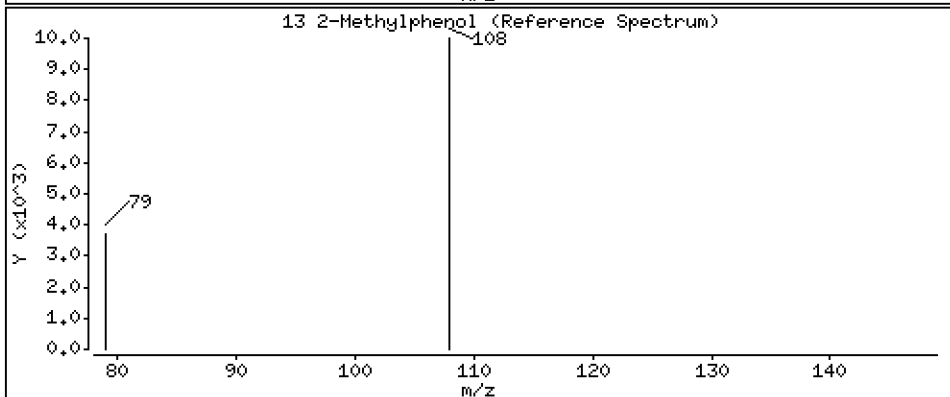
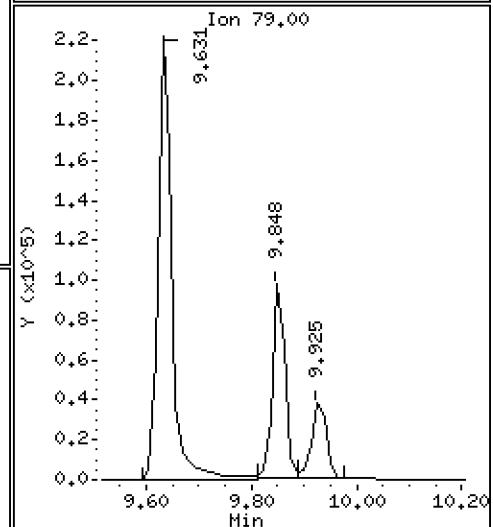
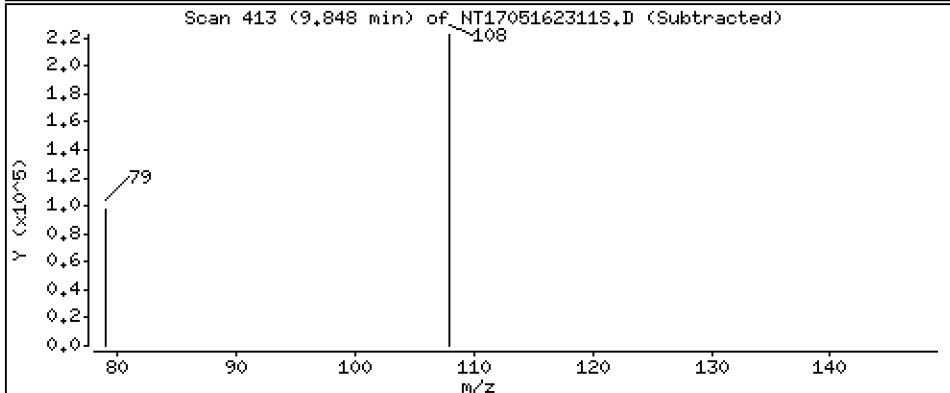
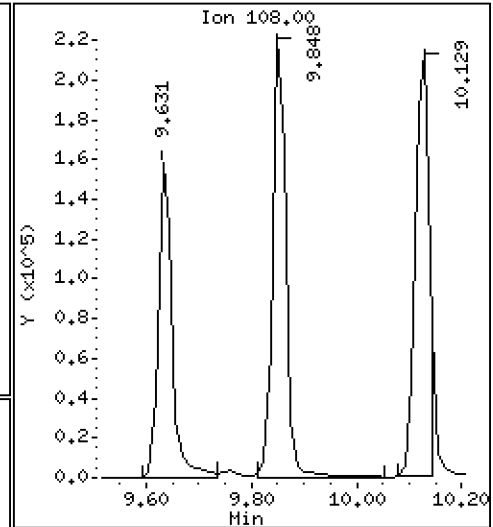
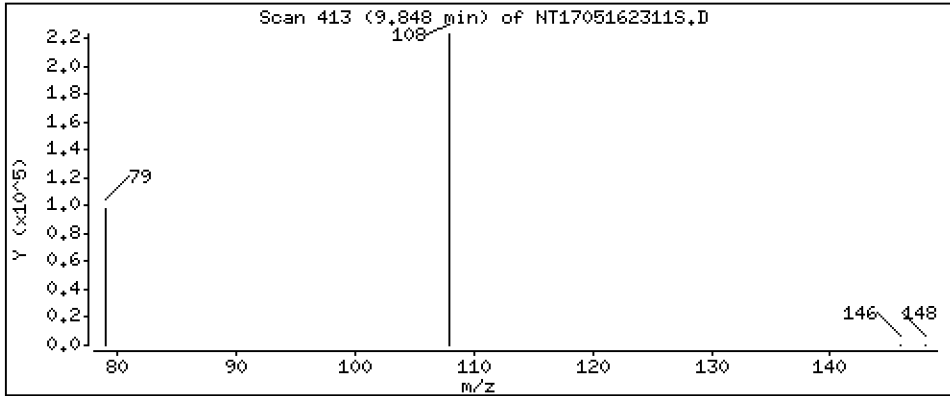
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,408 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

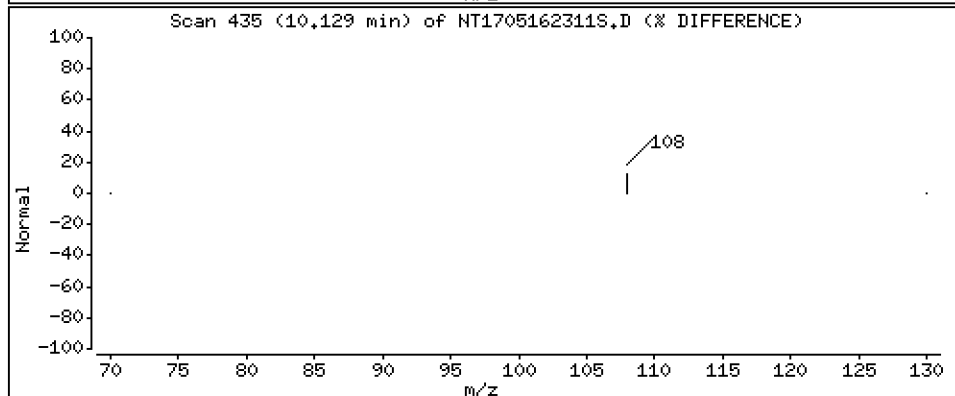
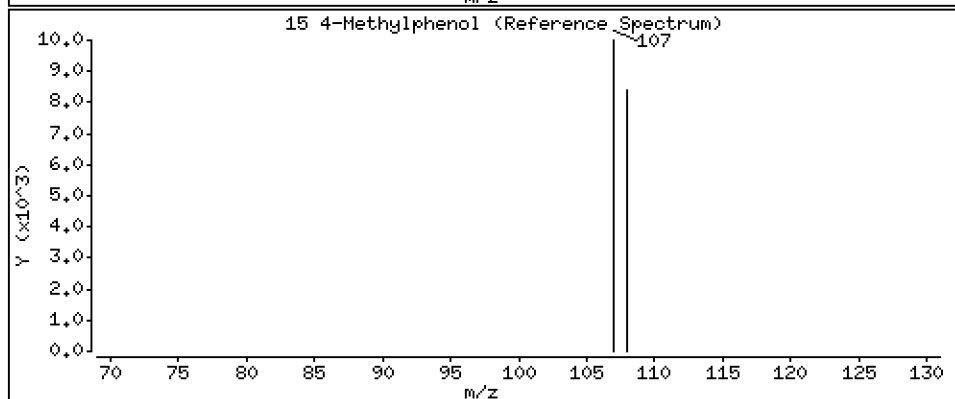
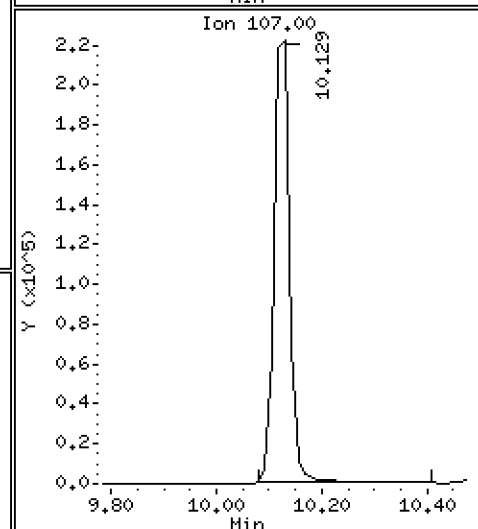
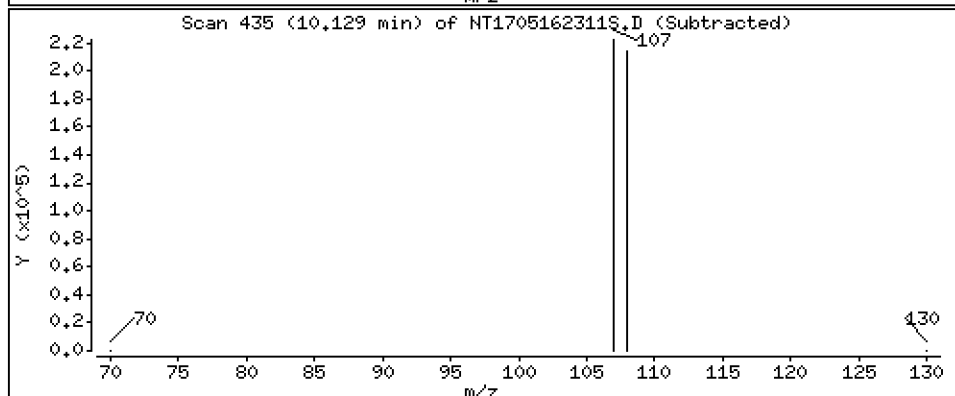
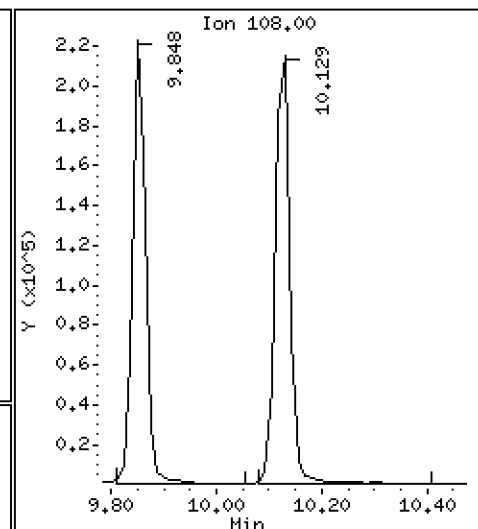
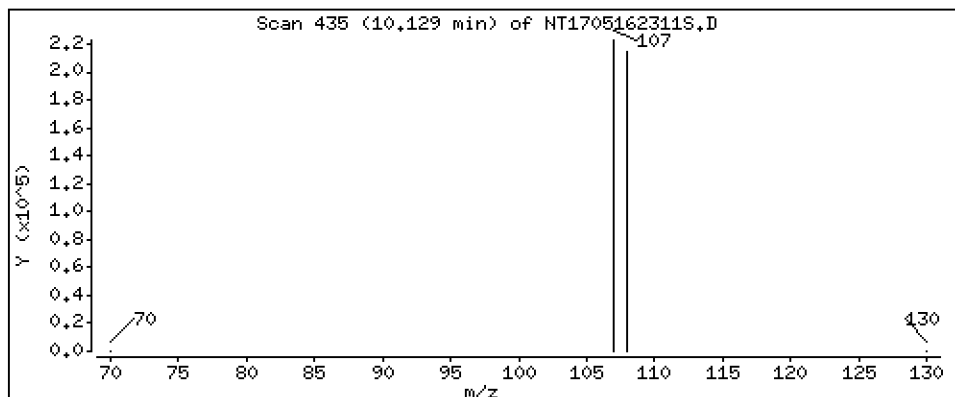
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

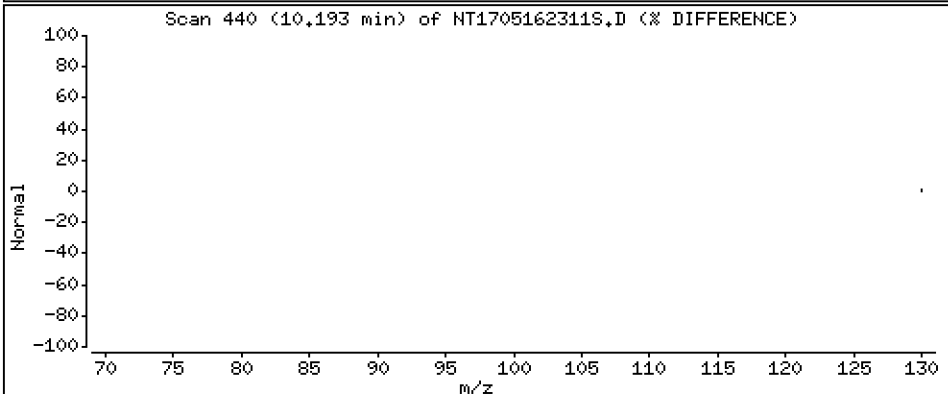
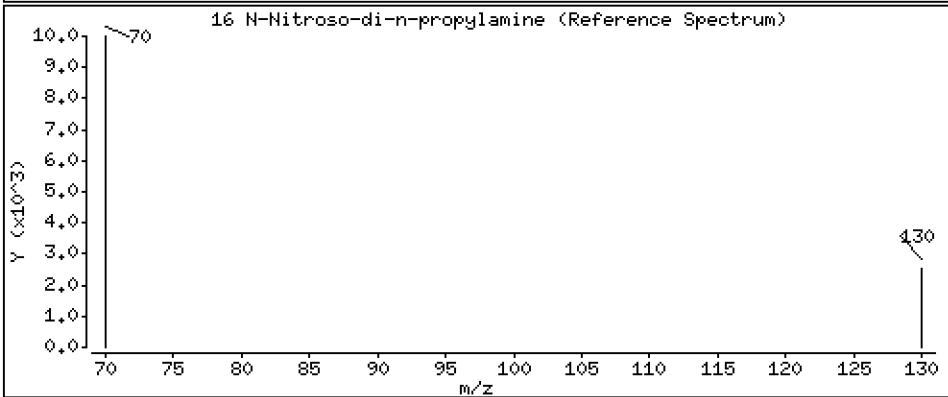
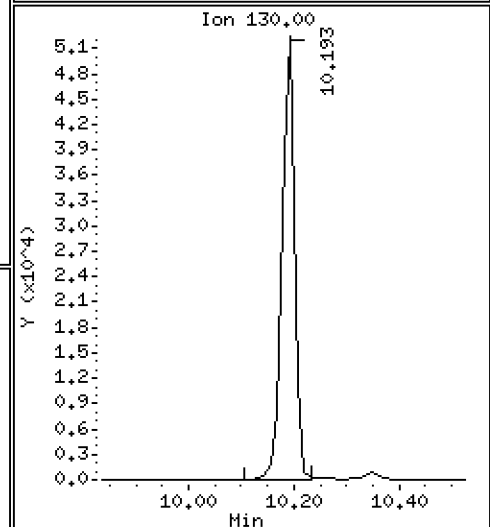
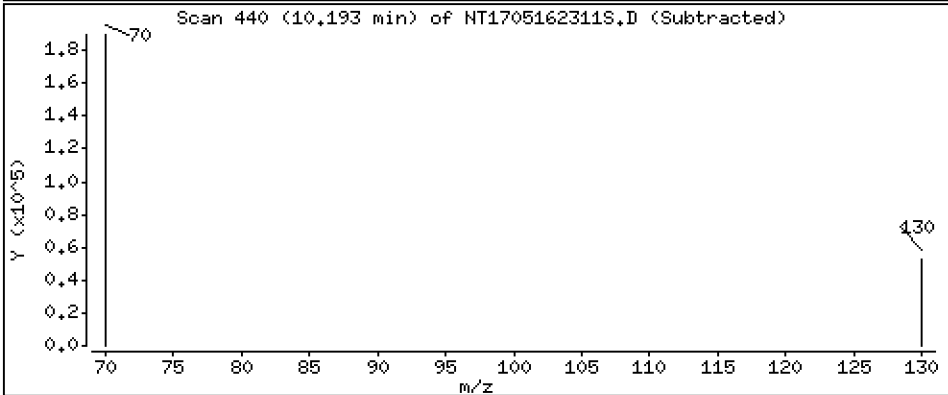
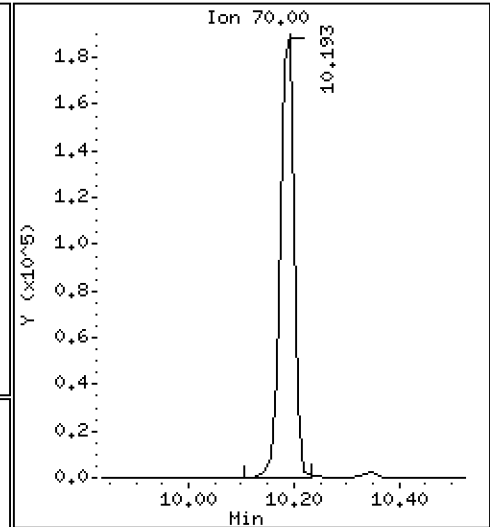
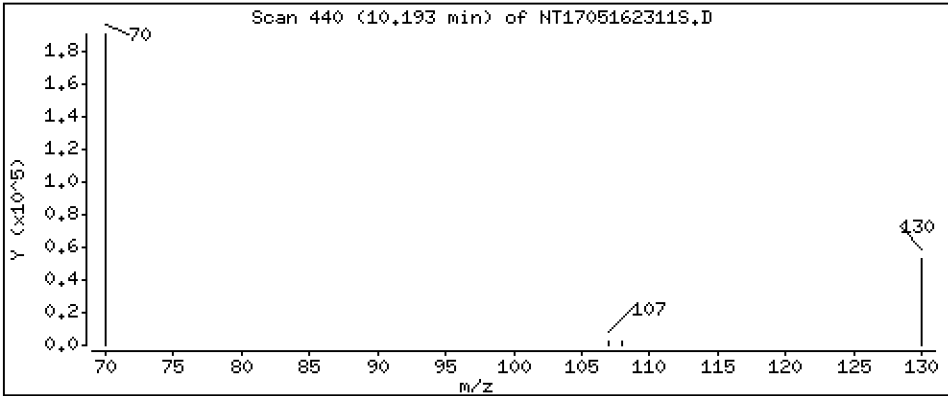
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,479 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

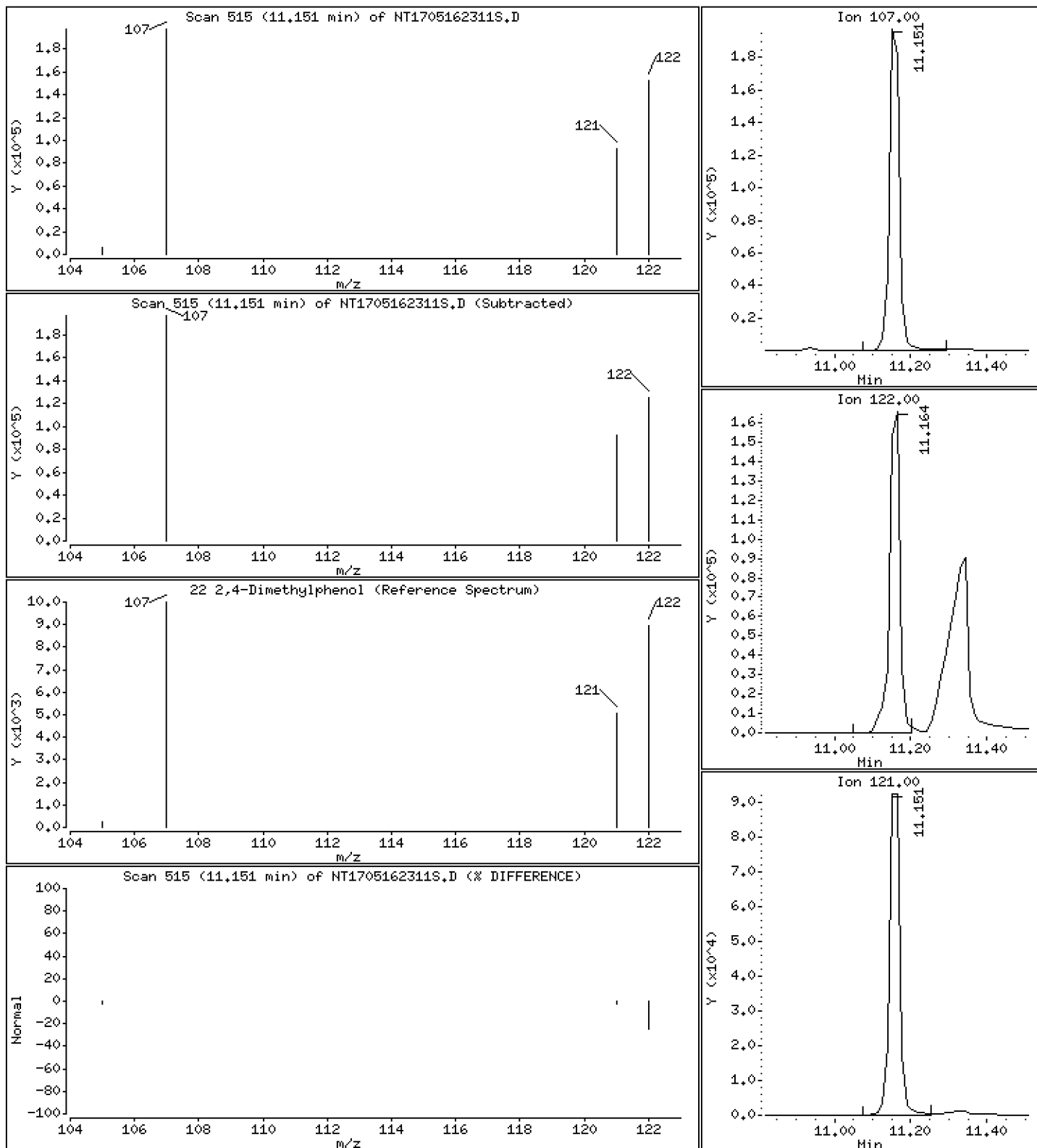
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3.816 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

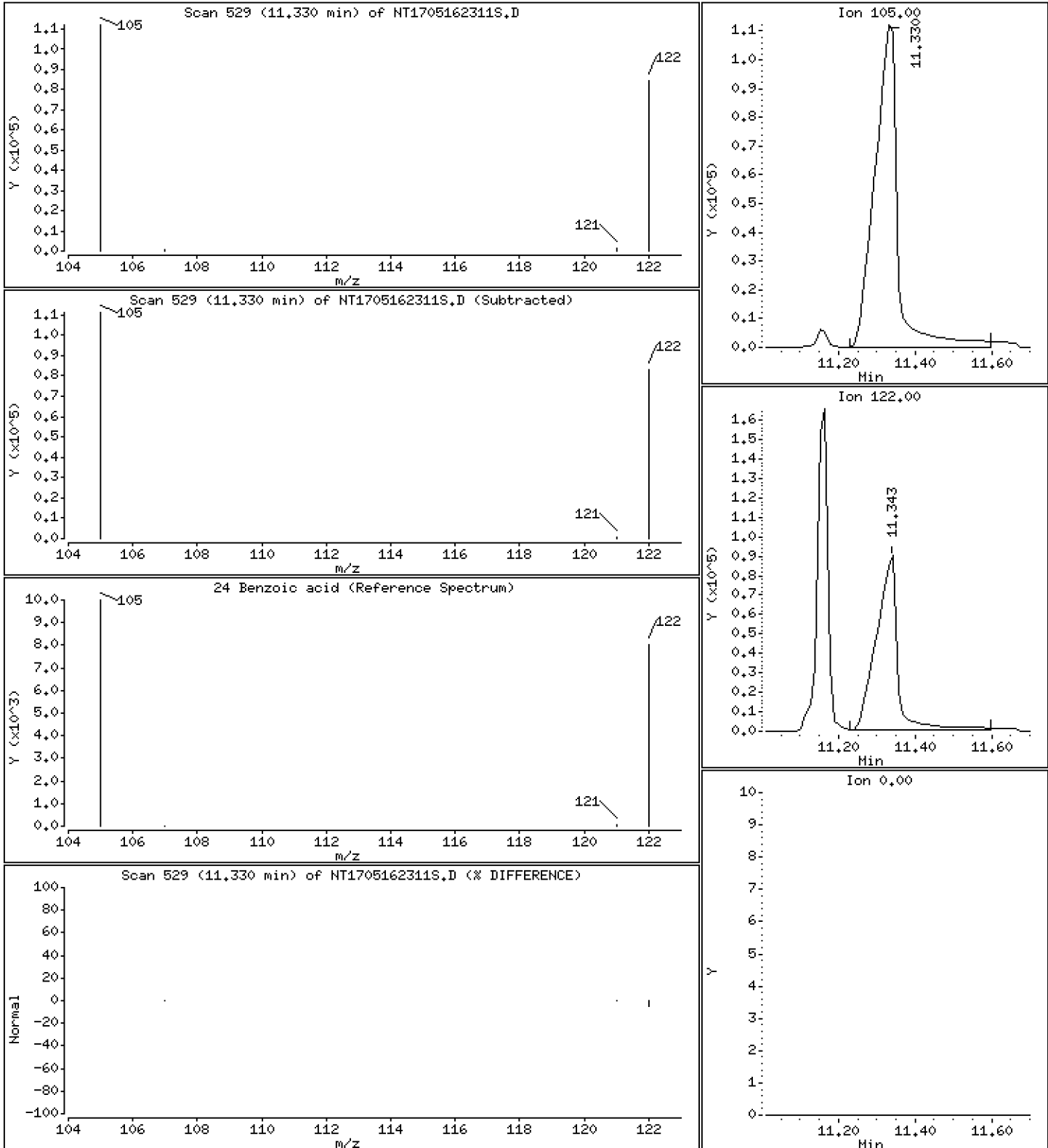
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 7.777 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

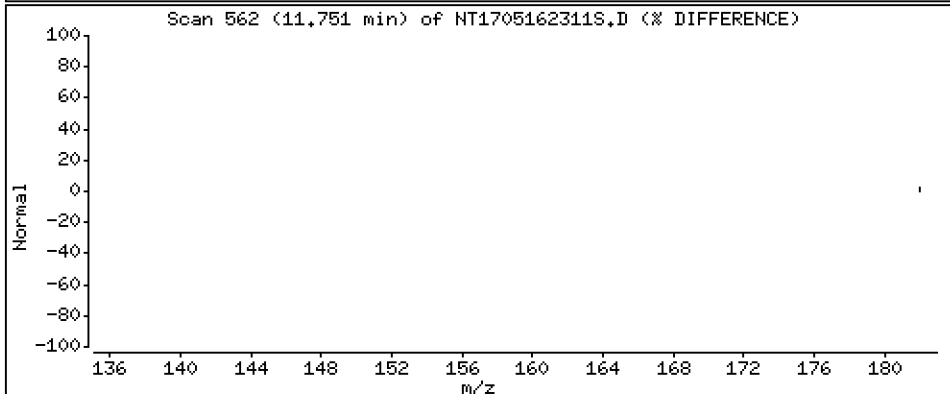
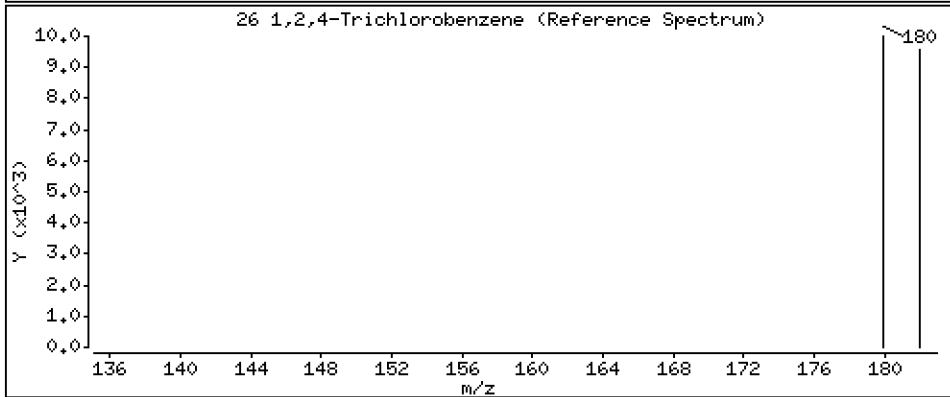
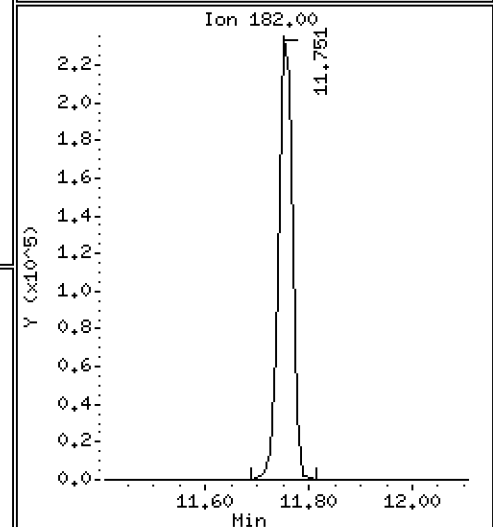
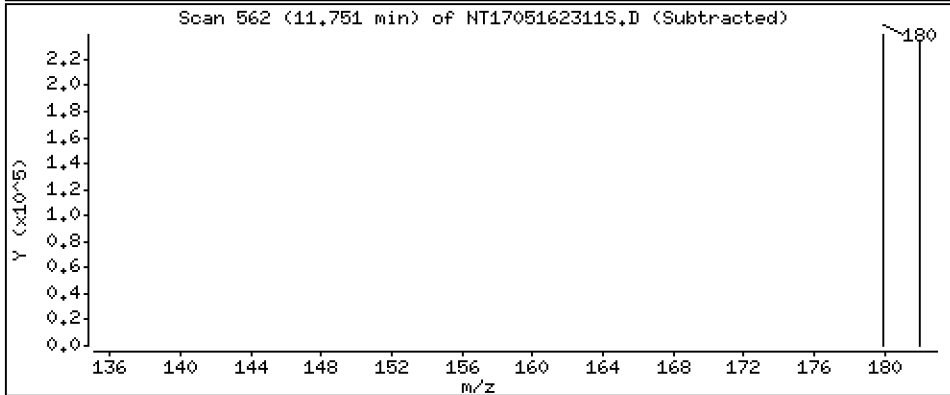
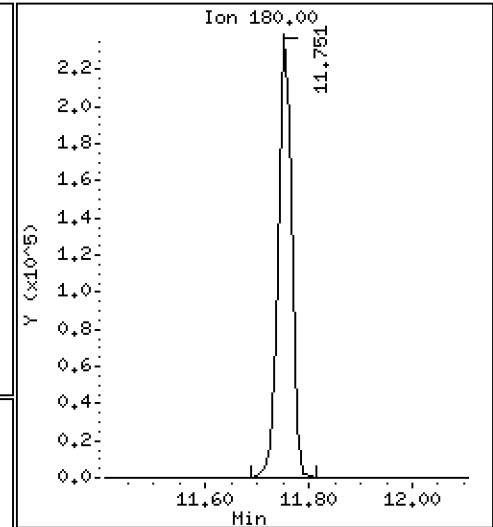
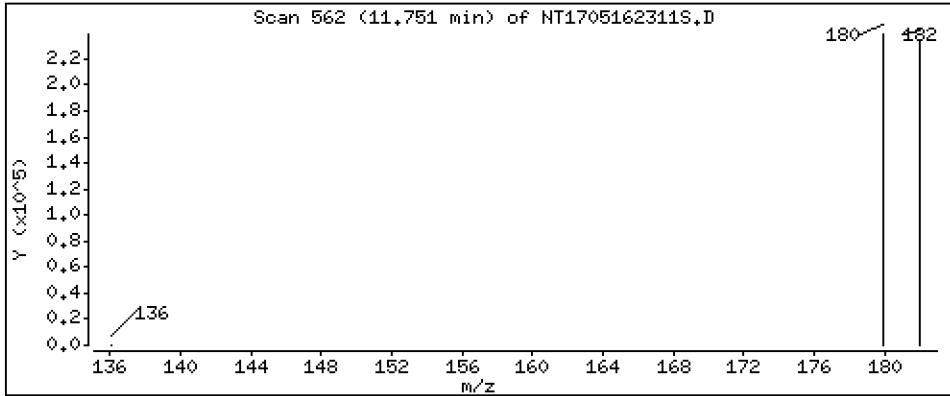
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,906 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

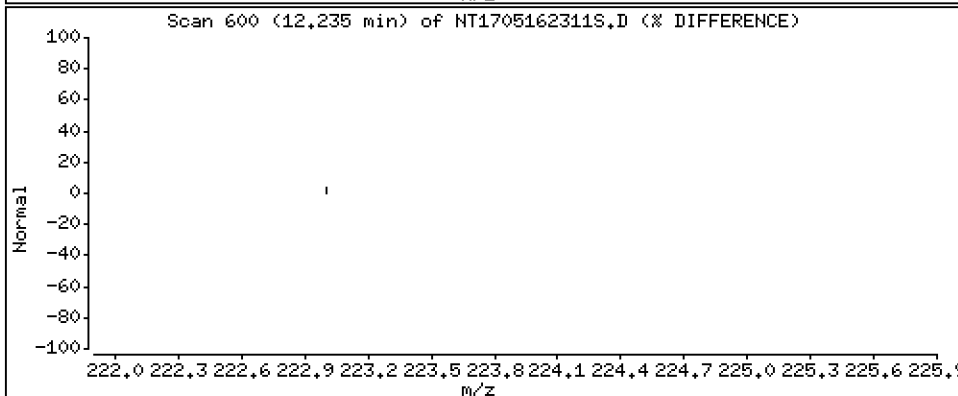
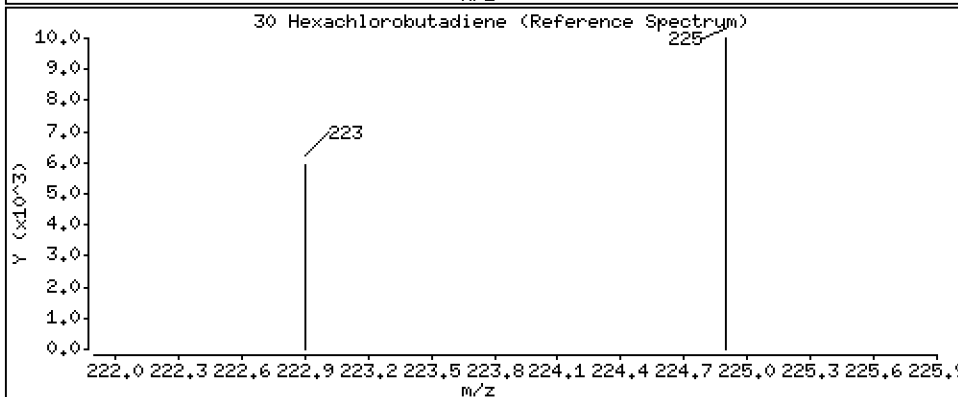
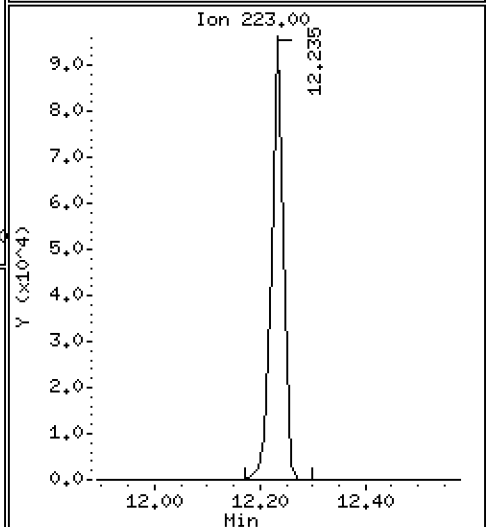
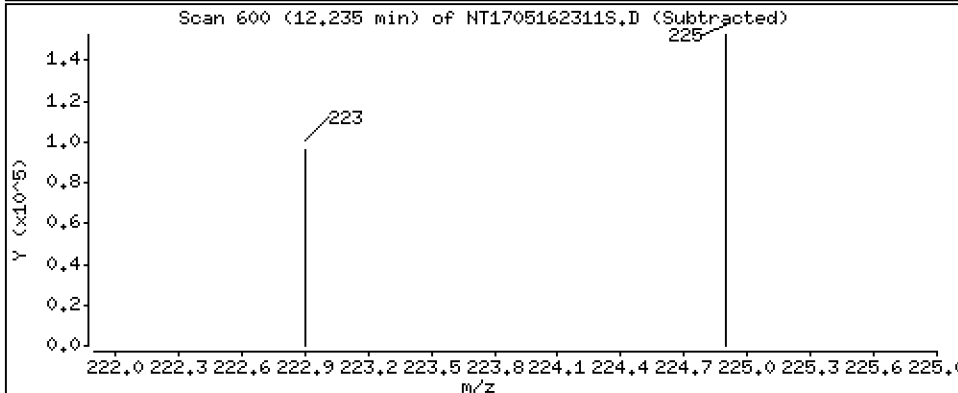
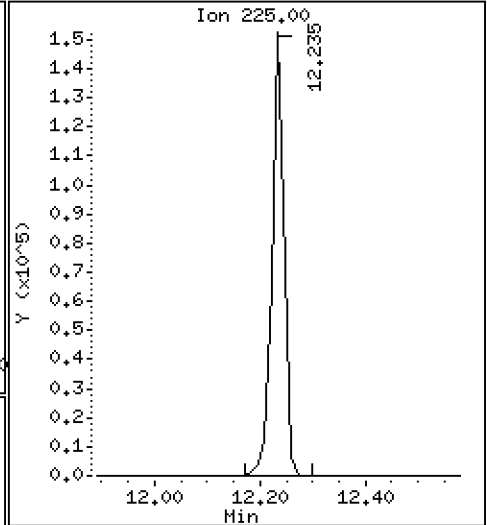
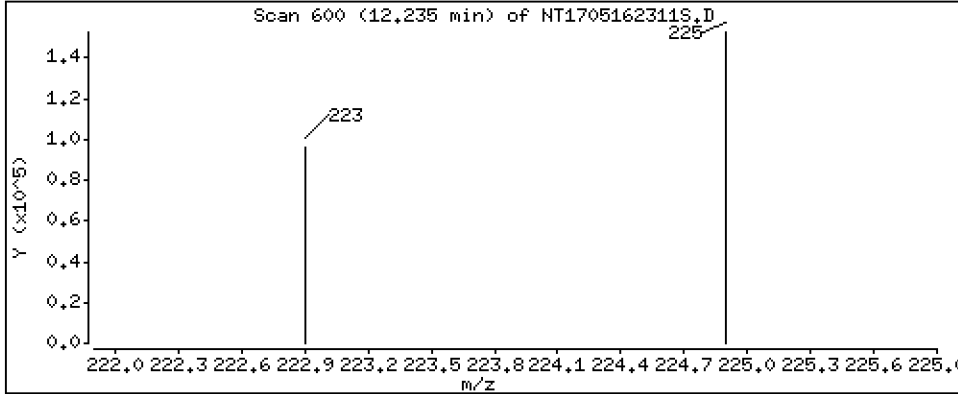
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,201 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

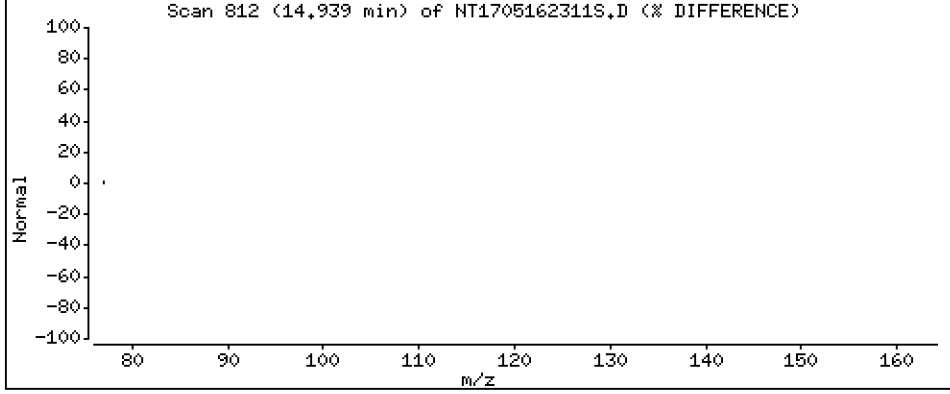
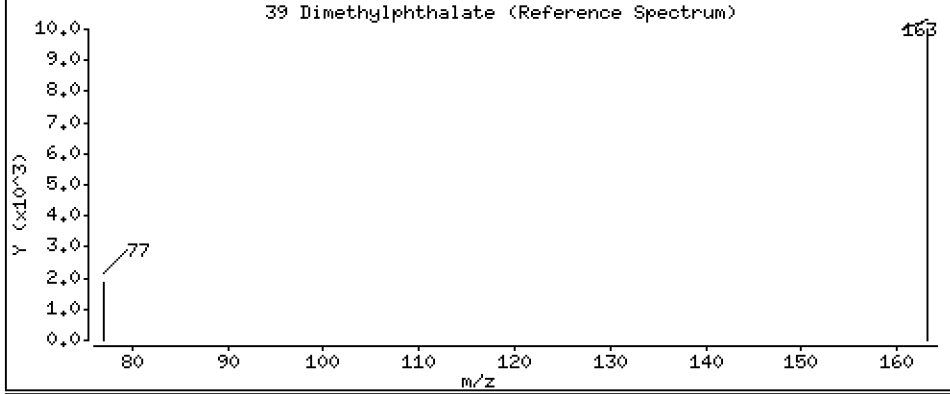
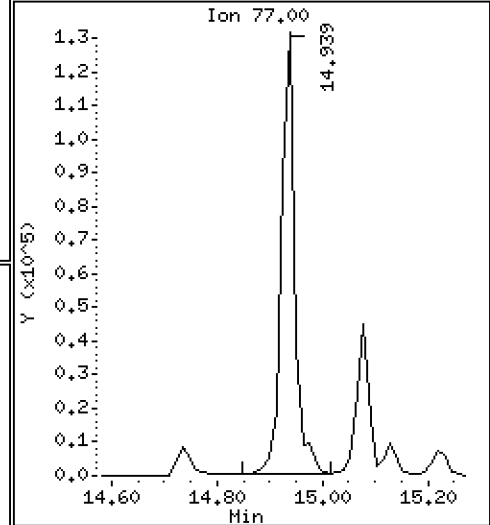
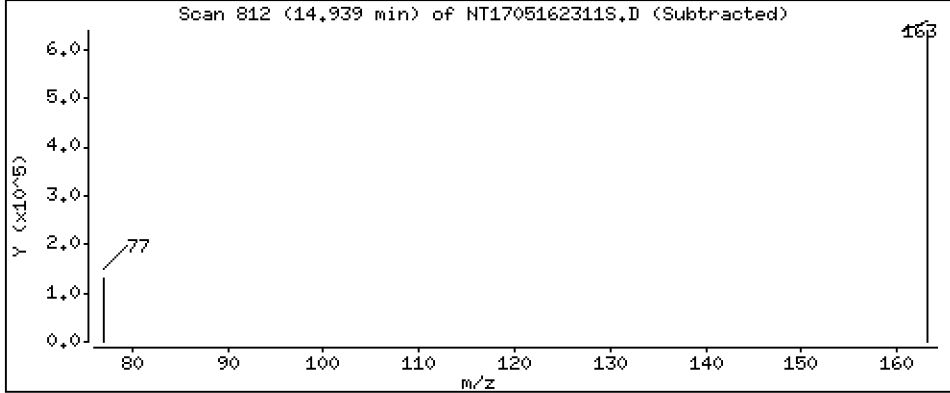
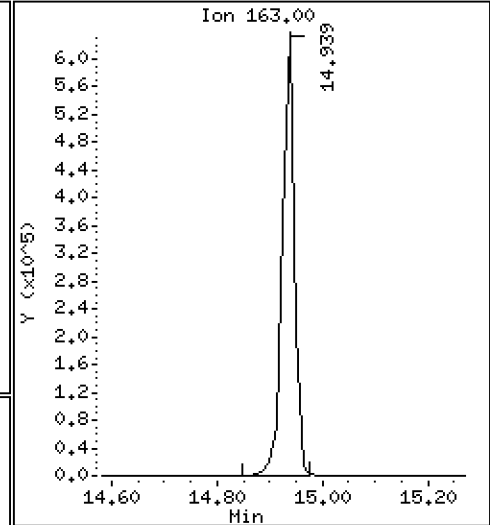
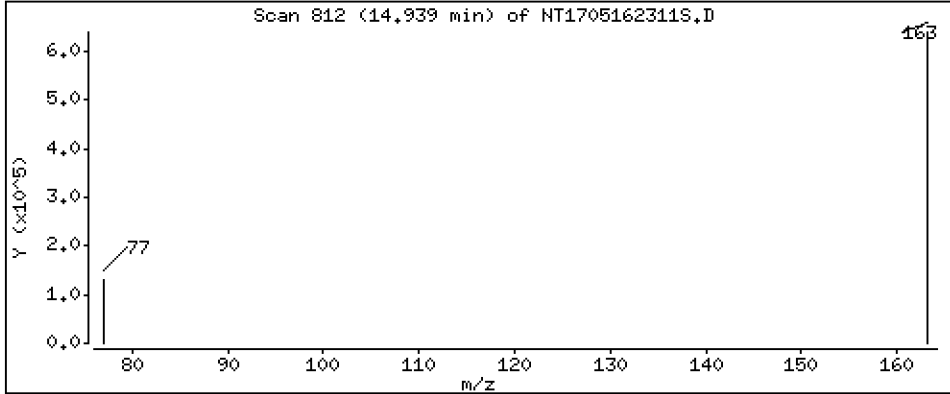
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,240 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

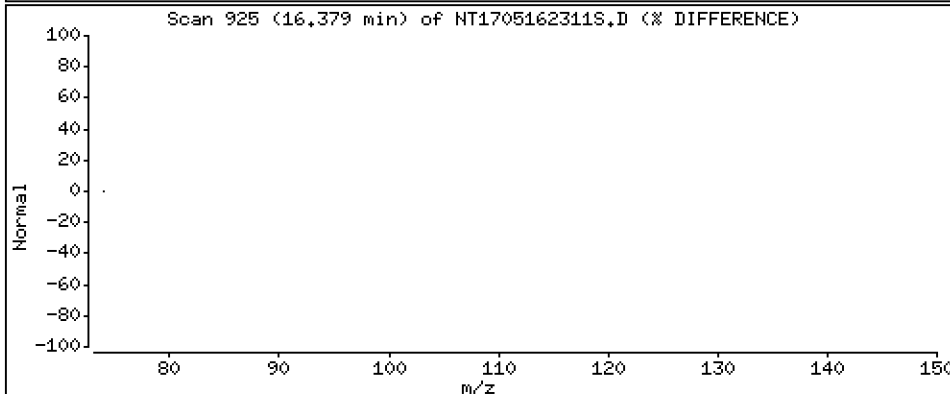
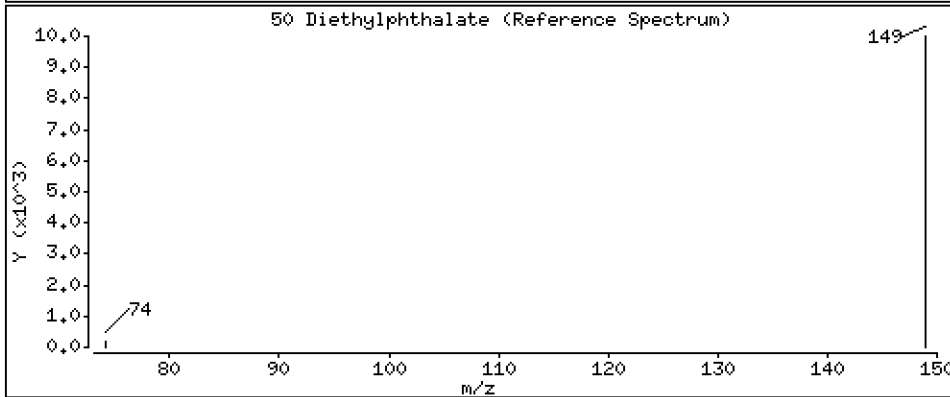
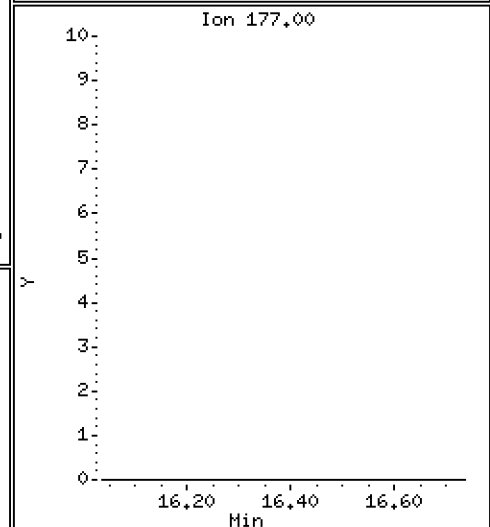
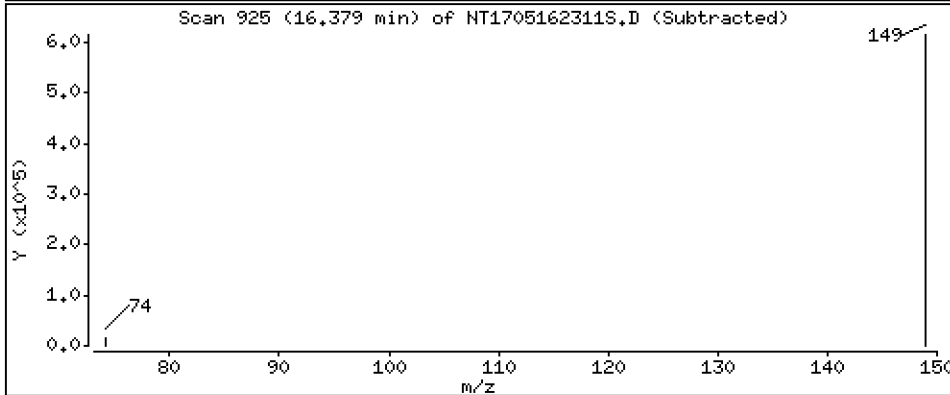
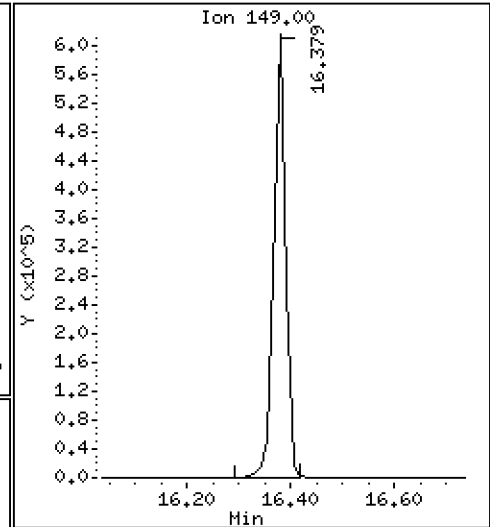
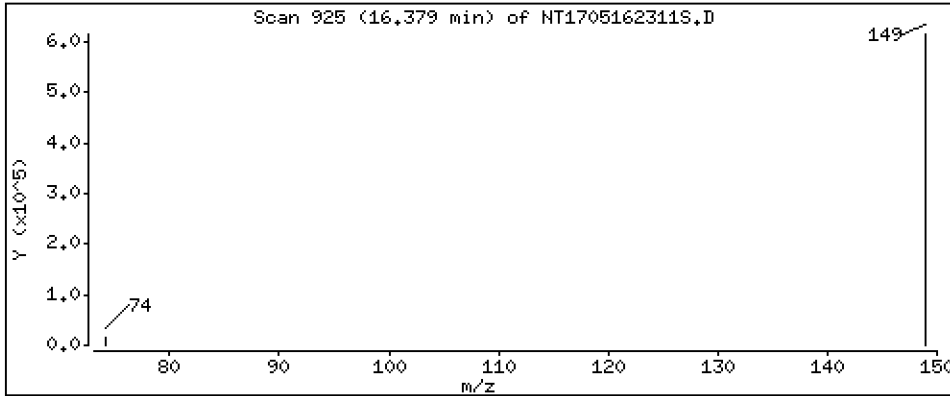
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,478 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

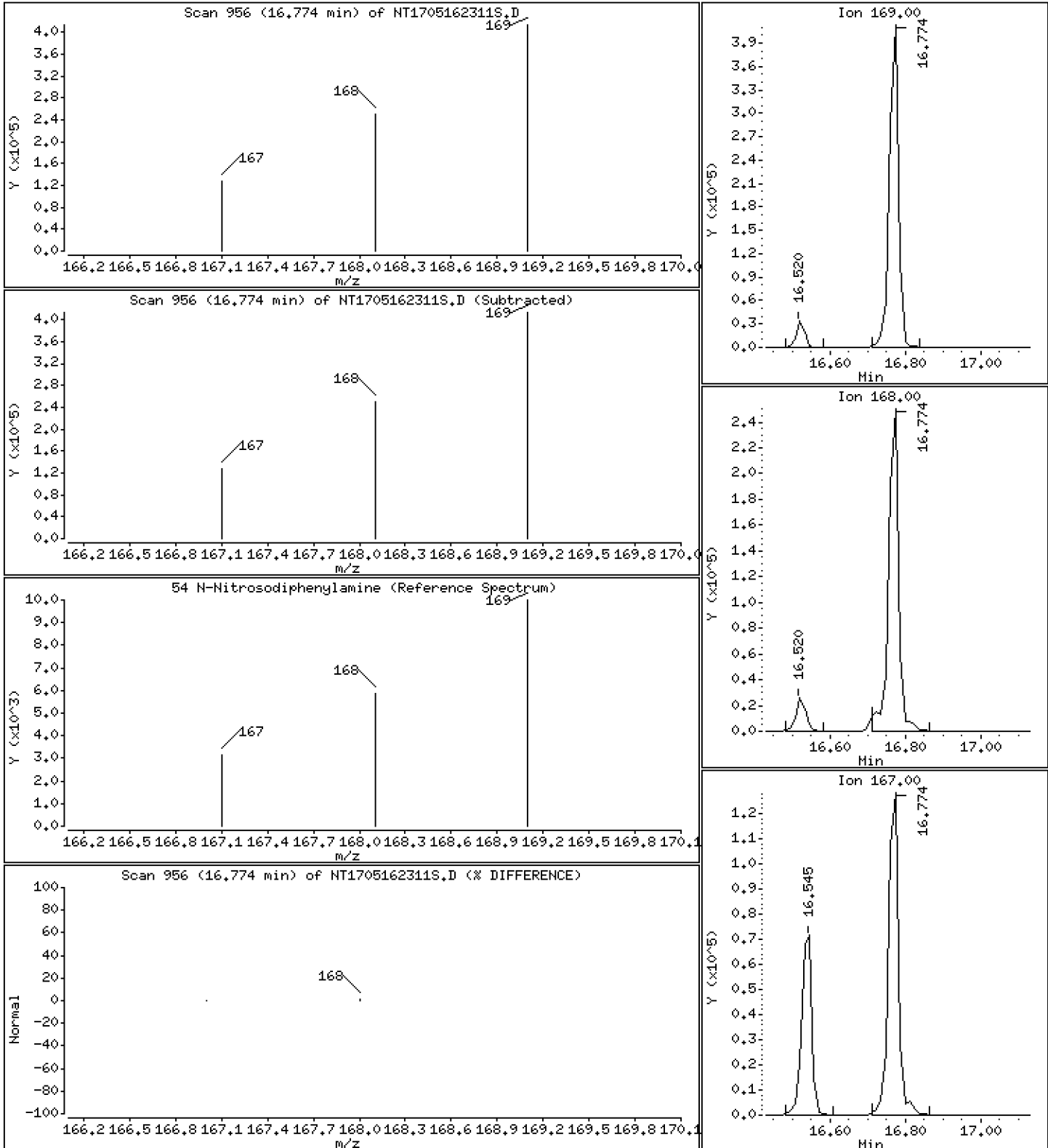
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,627 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

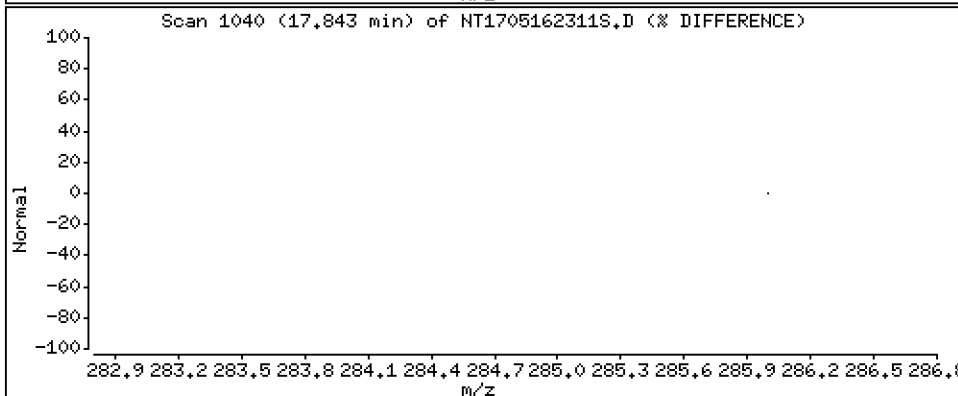
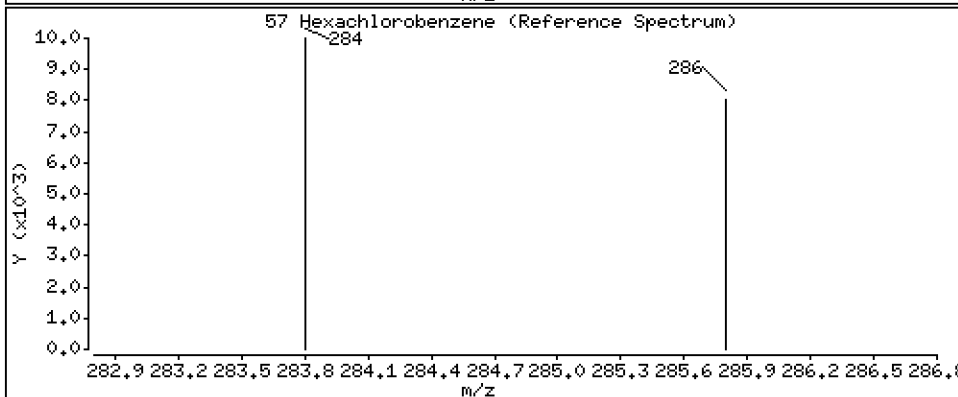
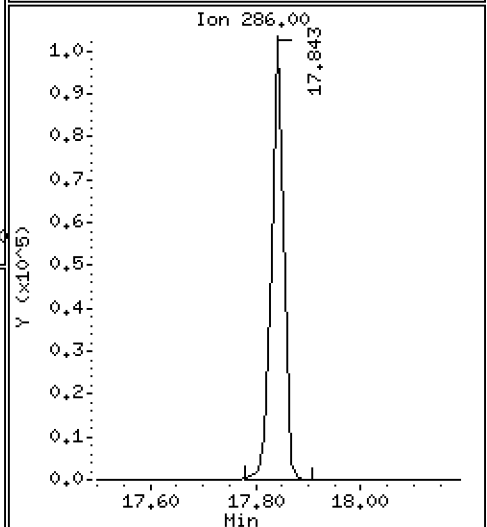
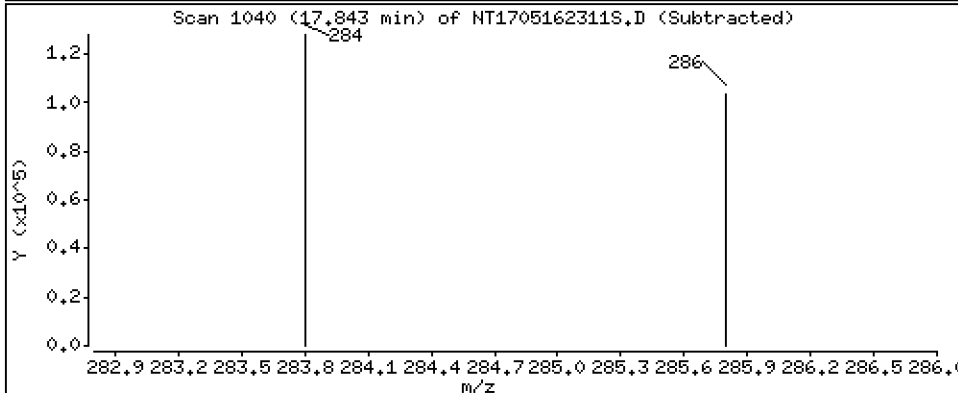
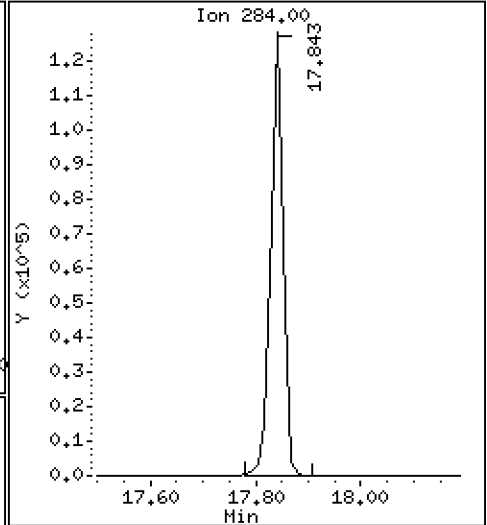
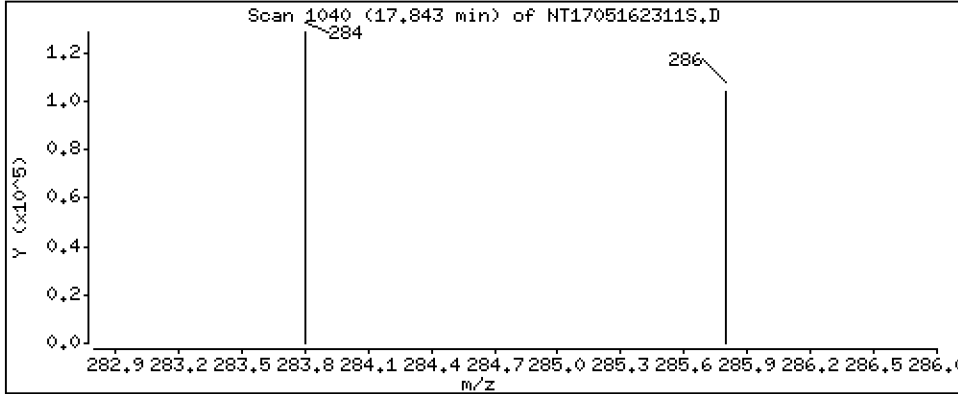
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 5,081 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

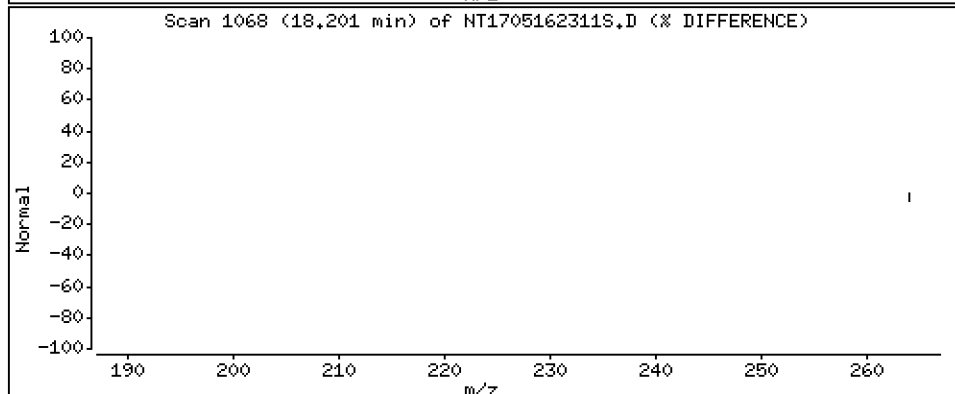
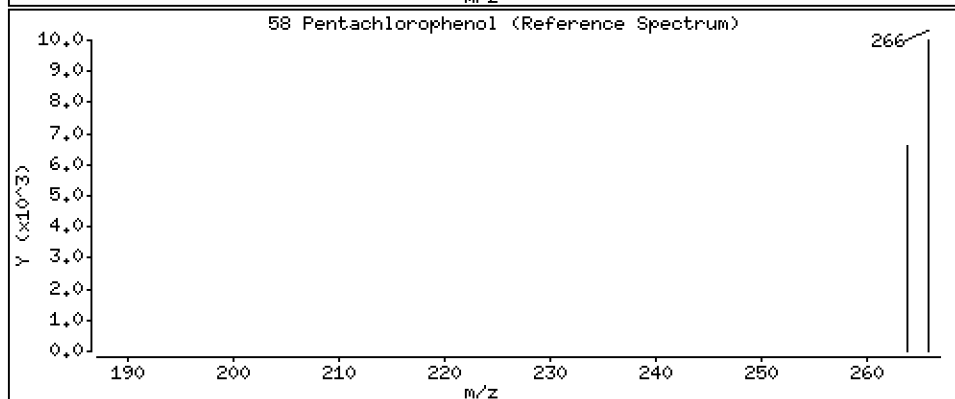
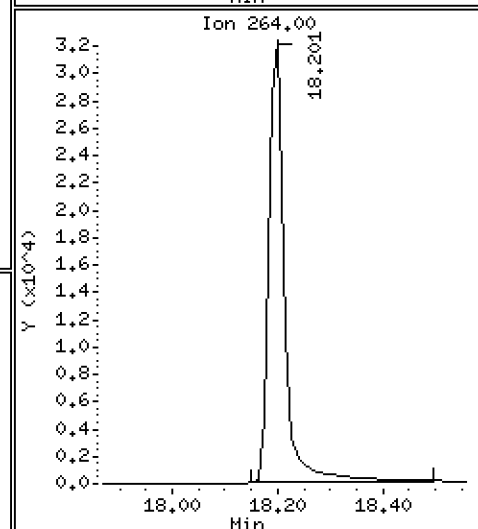
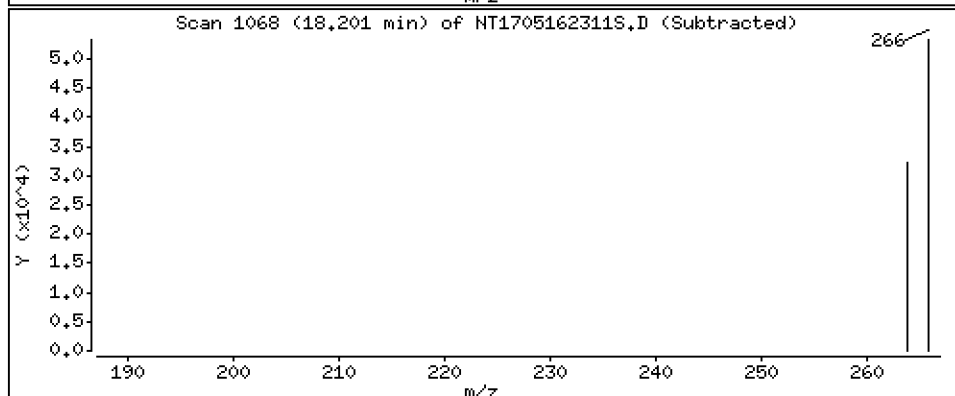
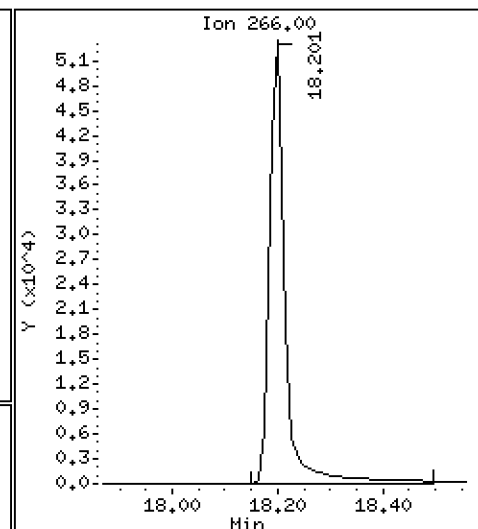
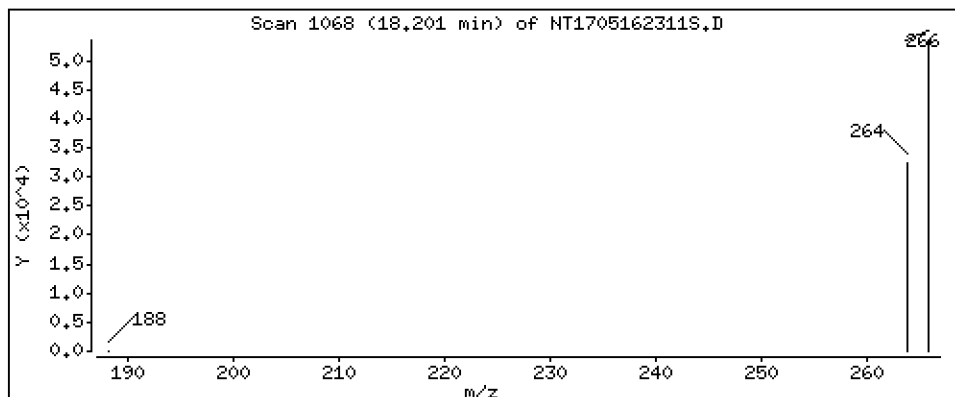
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,506 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

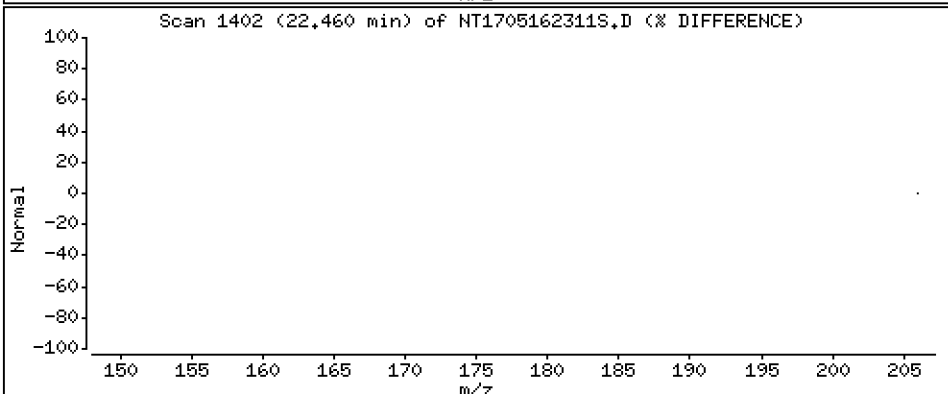
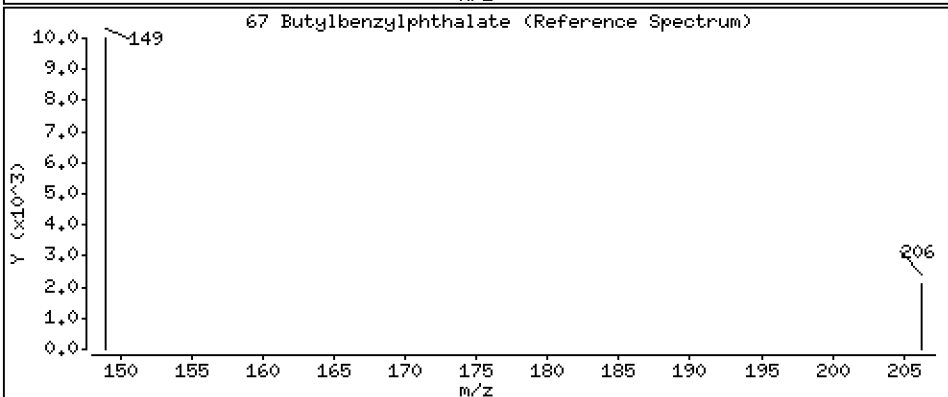
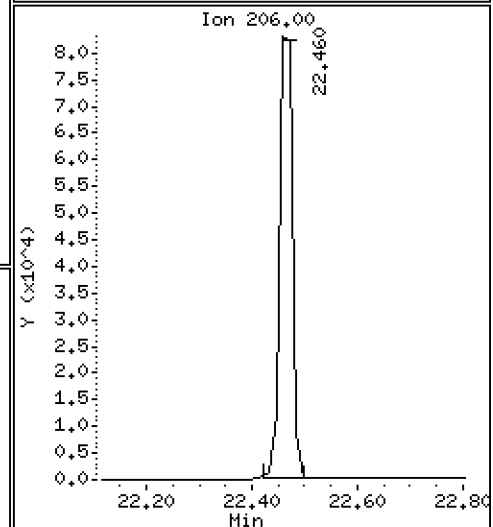
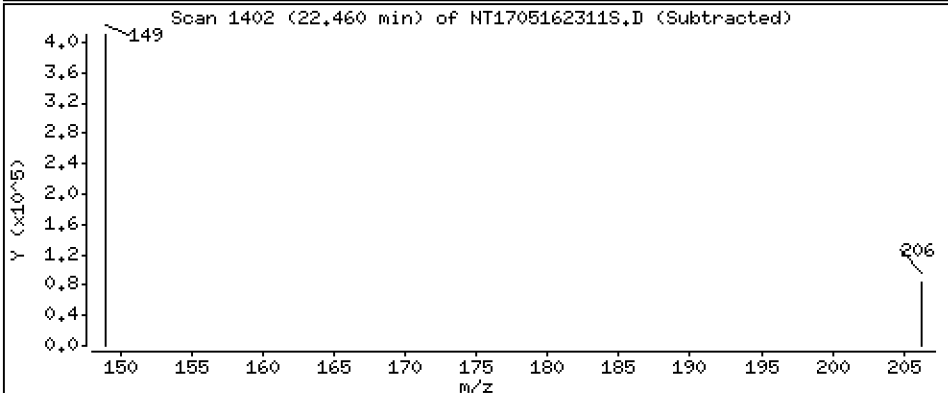
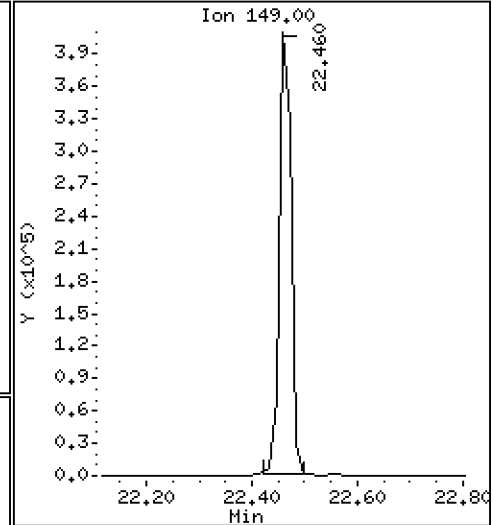
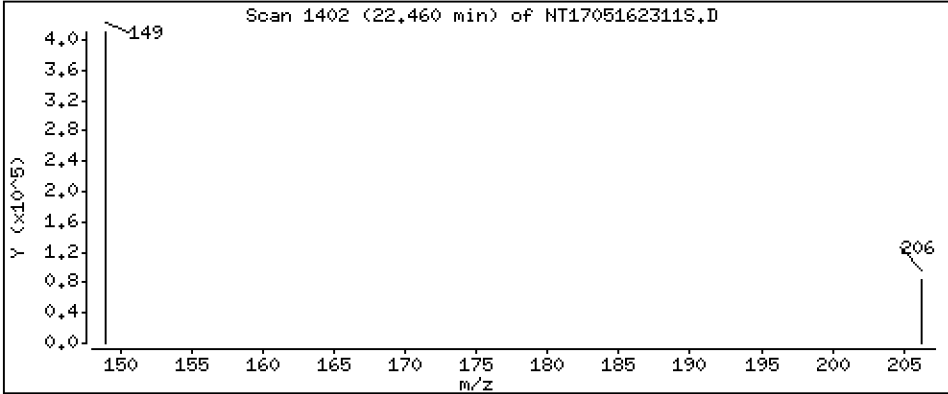
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,905 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

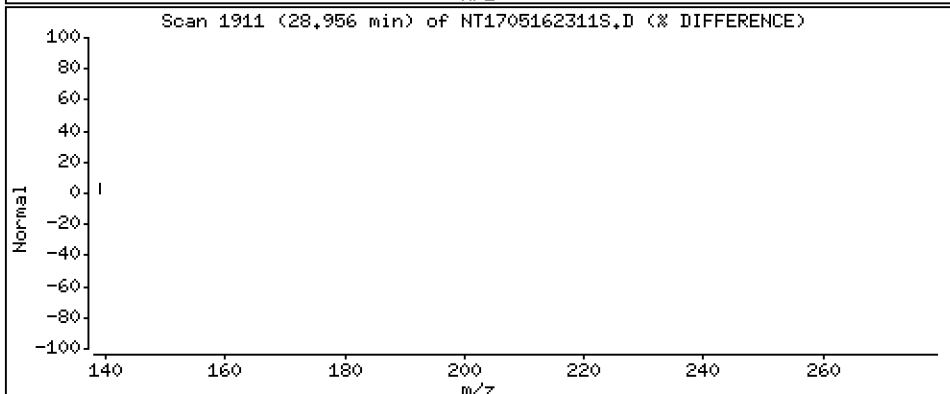
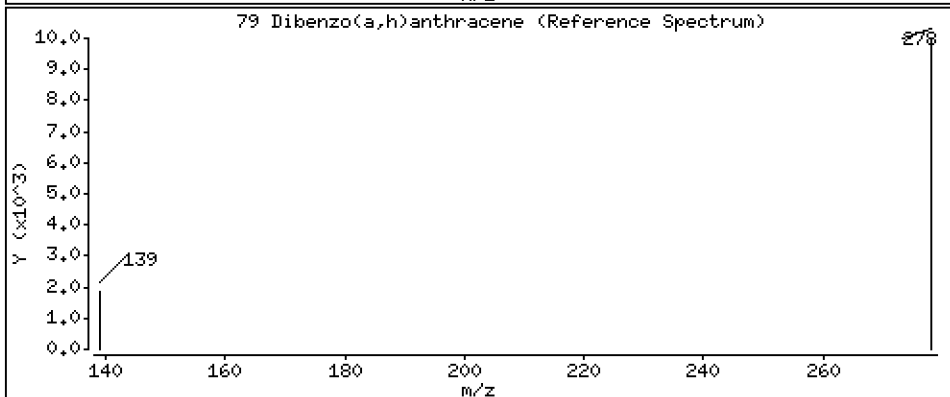
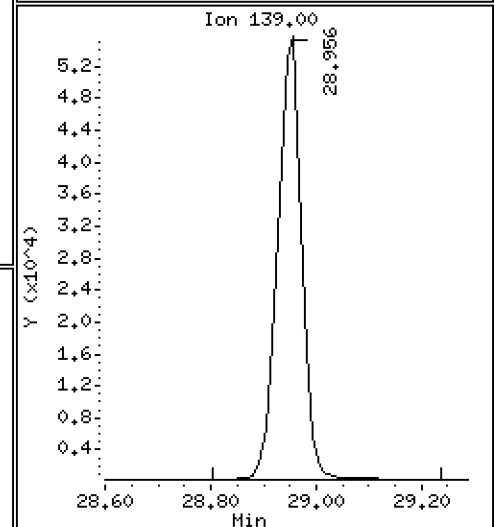
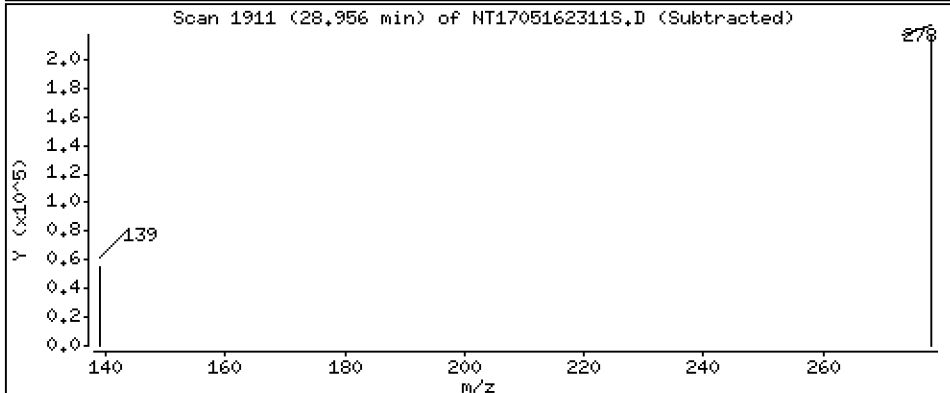
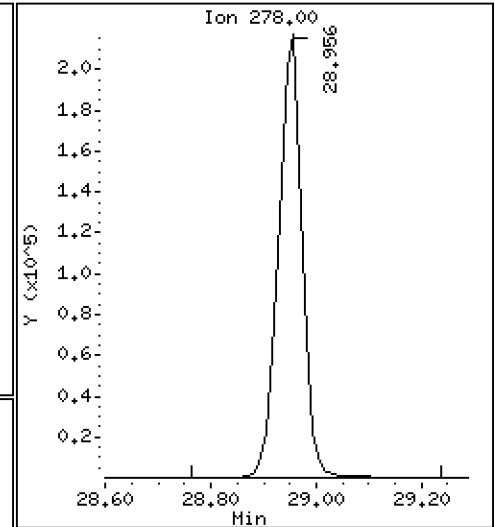
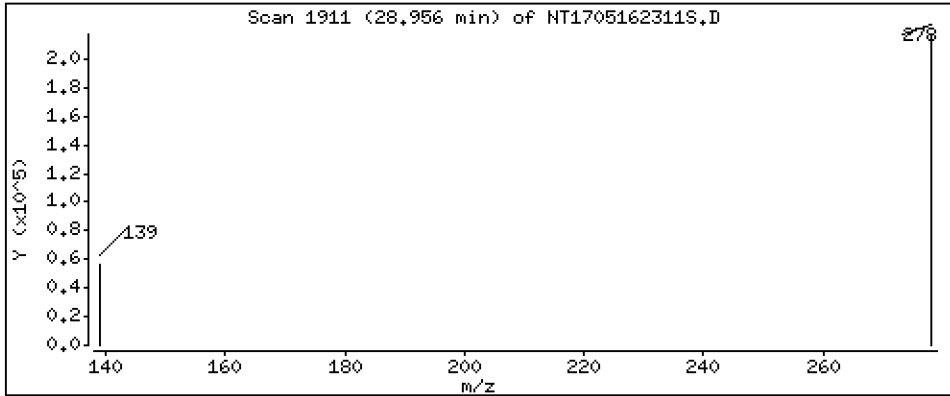
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 5,149 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

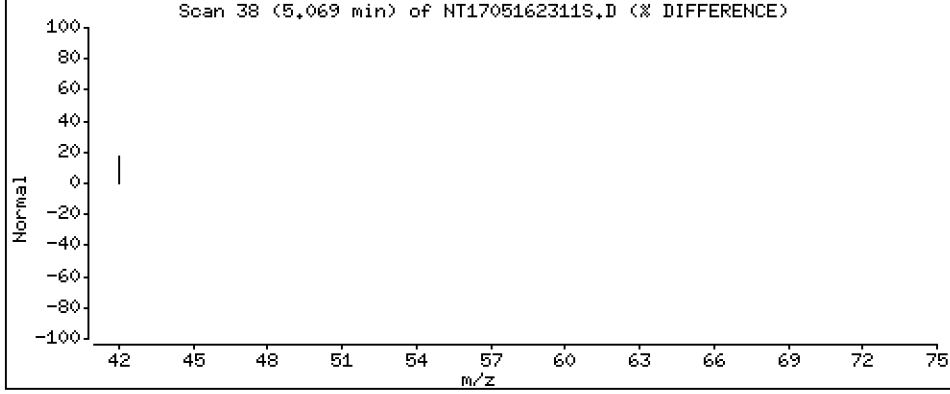
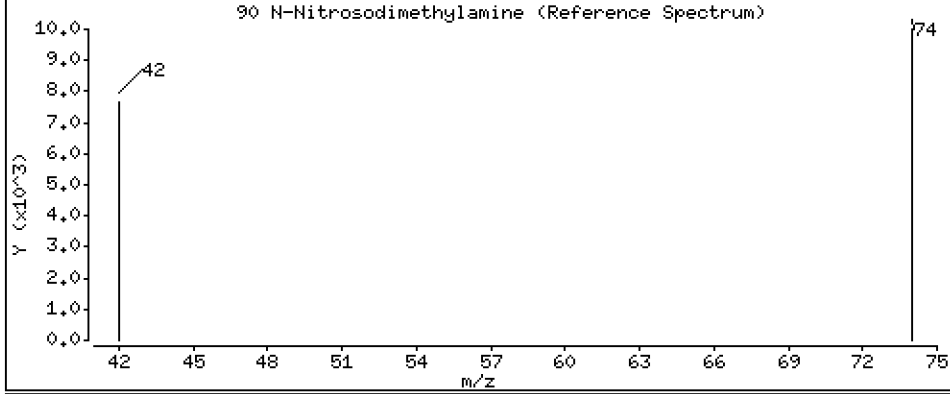
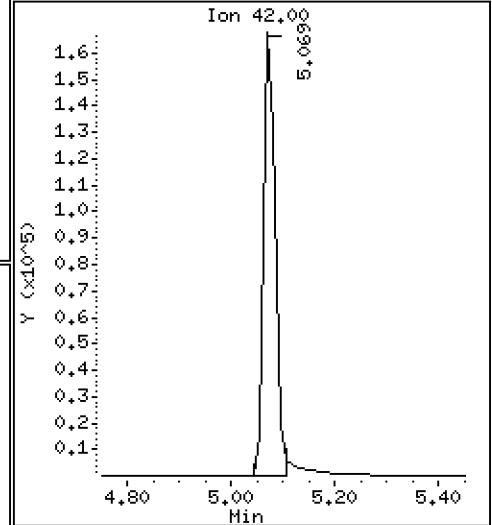
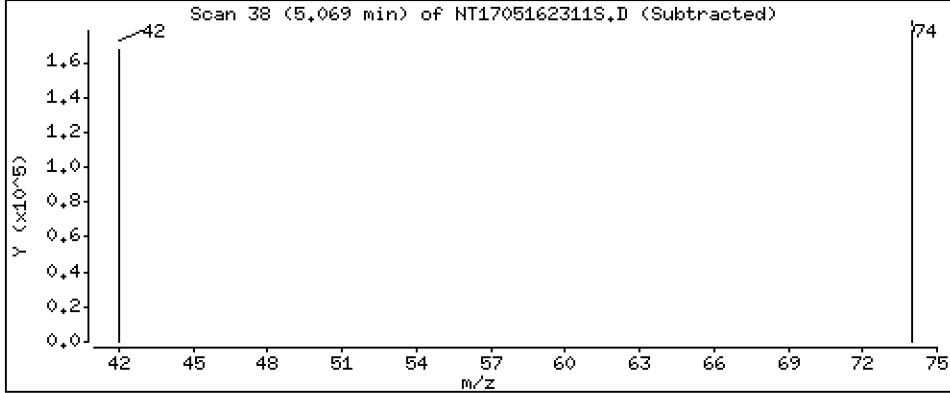
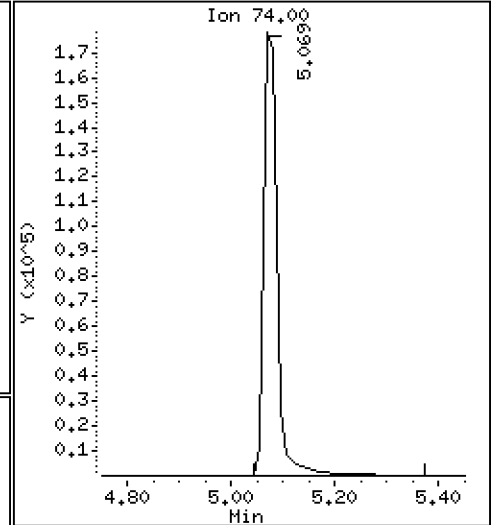
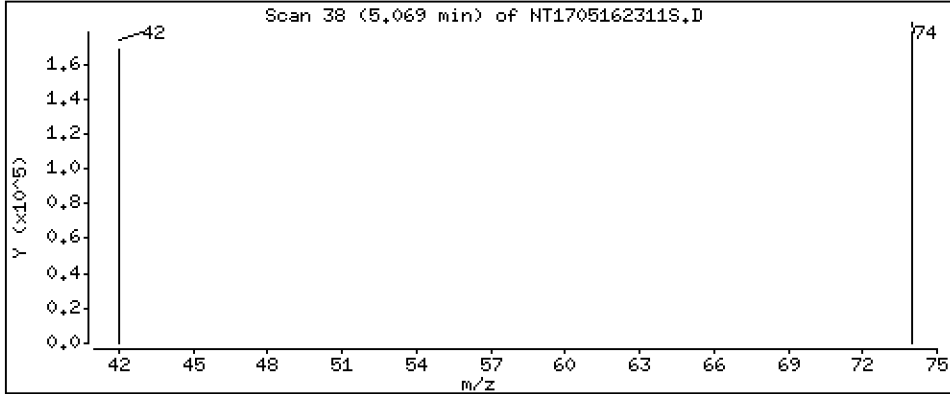
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.868 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0339-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
3 Phenol	94		8.750	8.751	(0.933)	616997	4.88420	4.884
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	575988	5.08691	5.087
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	280298	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	566257	5.13211	5.132
11 Benzyl alcohol	79		9.630	9.656	(1.027)	410745	5.70628	5.706
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	541461	5.00685	5.007
13 2-Methylphenol	108		9.848	9.861	(1.050)	385832	4.40762	4.408
15 4-Methylphenol	108		10.129	10.129	(1.080)	423610	4.78832	4.788
16 N-Nitroso-di-n-propylamine	70		10.193	10.180	(1.087)	349317	5.47874	5.479
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	366886	3.81638	3.816
24 Benzoic acid	105		11.329	11.356	(0.957)	465783	7.77732	7.777
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	427934	4.90638	4.906
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	999390	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	238867	5.20120	5.201
39 Dimethylphthalate	163		14.938	14.926	(0.968)	1015804	5.23967	5.240
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	527927	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	964439	5.47782	5.478
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	681829	5.62729	5.627
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	208857	5.08140	5.081
58 Pentachlorophenol	266		18.200	18.214	(0.986)	108866	4.50590	4.506
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	860054	4.00000	
\$ 66 Terphenyl-d14	244		Compound Not Detected.					
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	642329	5.90509	5.905
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	527529	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	475440	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	690513	5.14916	5.149
90 N-Nitrosodimethylamine	74		5.068	5.094	(0.541)	321072	5.86783	5.868

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	280298	-11.32
27 Naphthalene-d8	1102073	551037	2204146	999390	-9.32
42 Acenaphthene-d10	583826	291913	1167652	527927	-9.57
59 Phenanthrene-d10	970917	485459	1941834	860054	-11.42
69 Chrysene-d12	590568	295284	1181136	527529	-10.67
77 Perylene-d12	537938	268969	1075876	475440	-11.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311S.D

Lab ID: SLE0339-SCV1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 17-MAY-2023 00:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9569	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt17.1\20230516.1\SIH.1\NT1705162312S.D

Date: 17-May-2023 01:07

Client ID:

Sample Info: SLE0339-ICB1

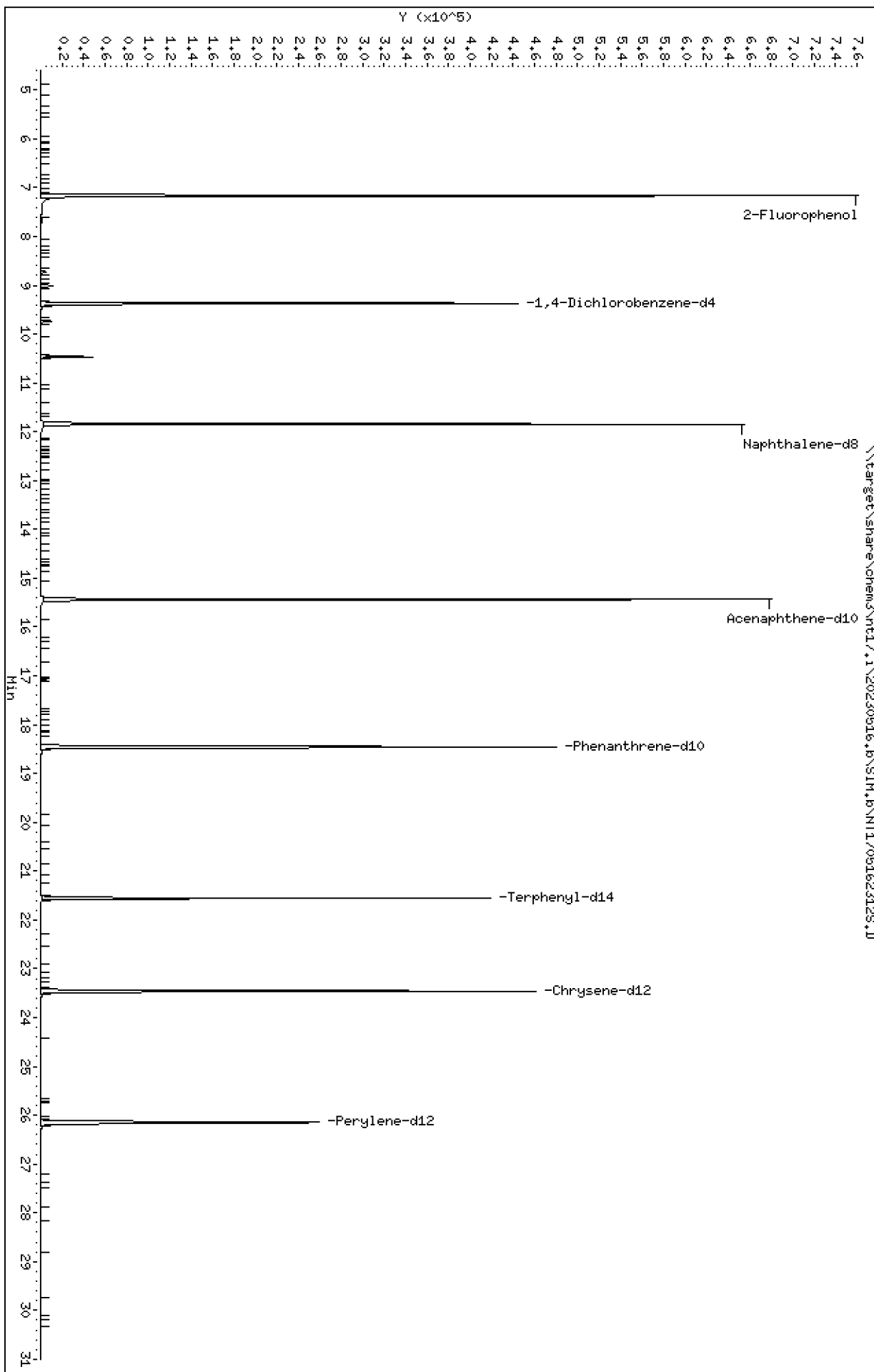
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162312S.D
 Lab Smp Id: SLE0339-ICB1
 Inj Date : 17-MAY-2023 01:07
 Operator : JGR
 Smp Info : SLE0339-ICB1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.158	7.171	(0.764)	743464	8.12095	8.121(R)
3 Phenol	94		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	302680	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	1065796	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		Compound Not Detected.					
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	551880	4.00000	
50 Diethylphthalate	149		Compound Not Detected.					
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		18.455	18.455	(1.000)	903730	4.00000	
\$ 66 Terphenyl-d14	244		21.554	21.554	(0.919)	538056	5.26861	5.269(R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	538208	4.00000	
* 77 Perylene-d12	264		26.146	26.147	(1.000)	508161	4.00000	
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162312S.D
 Lab Smp Id: SLE0339-ICB1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	302680	-4.24
27 Naphthalene-d8	1102073	551037	2204146	1065796	-3.29
42 Acenaphthene-d10	583826	291913	1167652	551880	-5.47
59 Phenanthrene-d10	970917	485459	1941834	903730	-6.92
69 Chrysene-d12	590568	295284	1181136	538208	-8.87
77 Perylene-d12	537938	268969	1075876	508161	-5.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.46	-0.07
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
77 Perylene-d12	26.16	25.66	26.66	26.15	-0.05

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

REVIEW SUMMARY FOR FILE - NT1705162312S.D

Lab ID: SLE0339-ICB1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 17-MAY-2023 01:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00070

Laboratory ID: SLE0339-SCV1

Sequence: SLE0339

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	5.1	2.6	20.00
1,2-Dichlorobenzene	5.0000	5.0	0.1	20.00
Benzyl Alcohol	5.0000	5.7	14.1	20.00
Benzoic acid	10.000	7.8	-22.2 *	20.00
2,4-Dimethylphenol	5.0000	3.8	-23.7 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-1.9	20.00
N-Nitrosodiphenylamine	5.0000	5.6	12.5	20.00
Pentachlorophenol	5.0000	4.5	-9.9	20.00
2-Fluorophenol	7.5000	0.00		
p-Terphenyl-d14	5.0000	0.00		

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT17051623115.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0339-SCW1

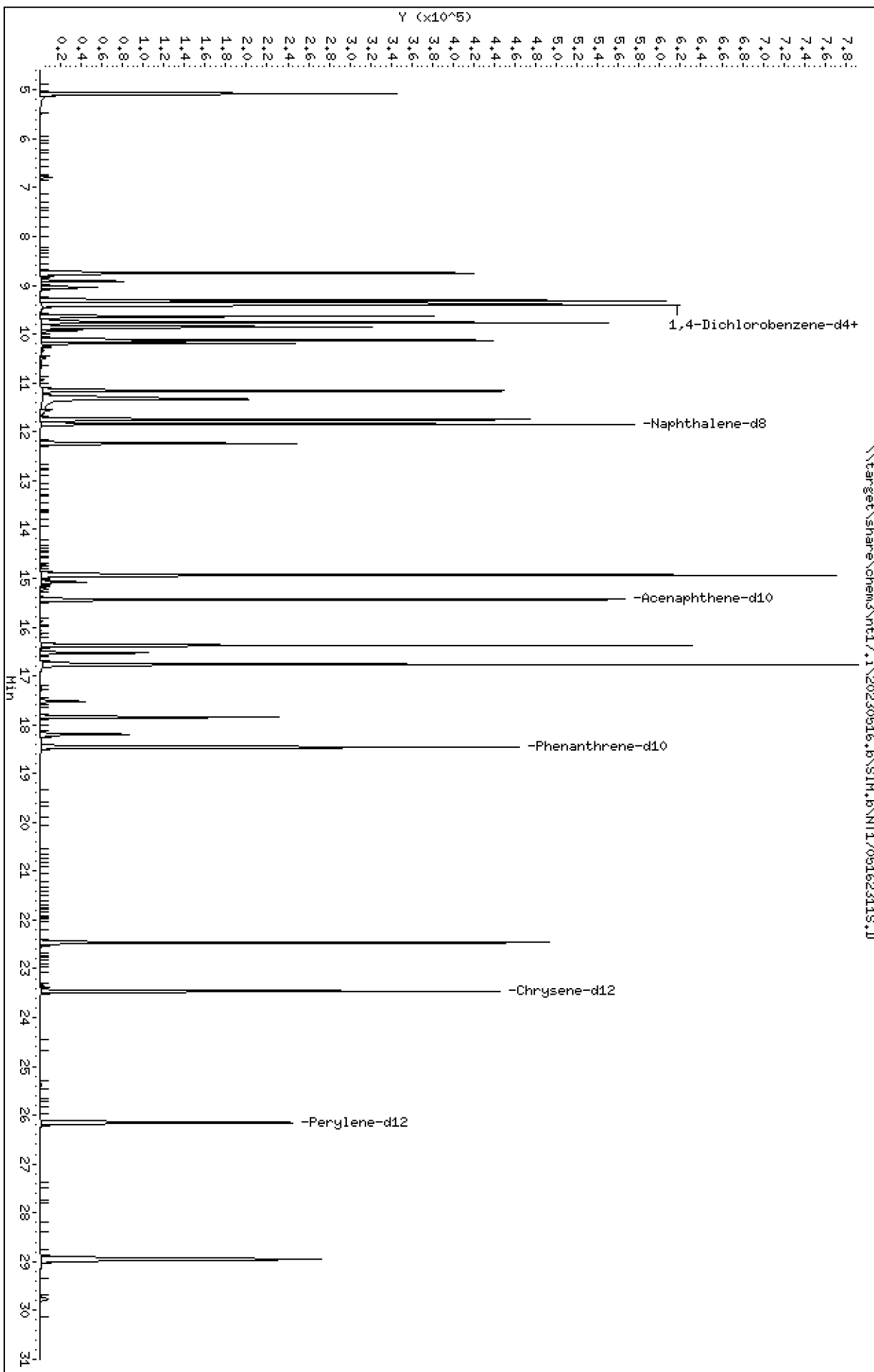
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

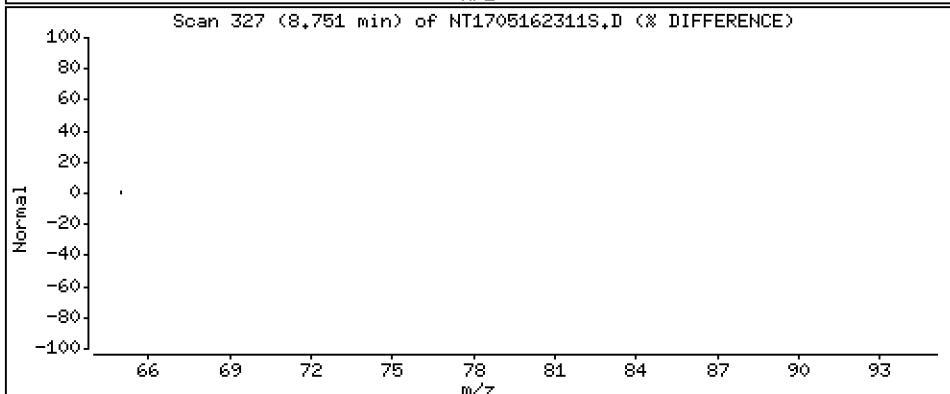
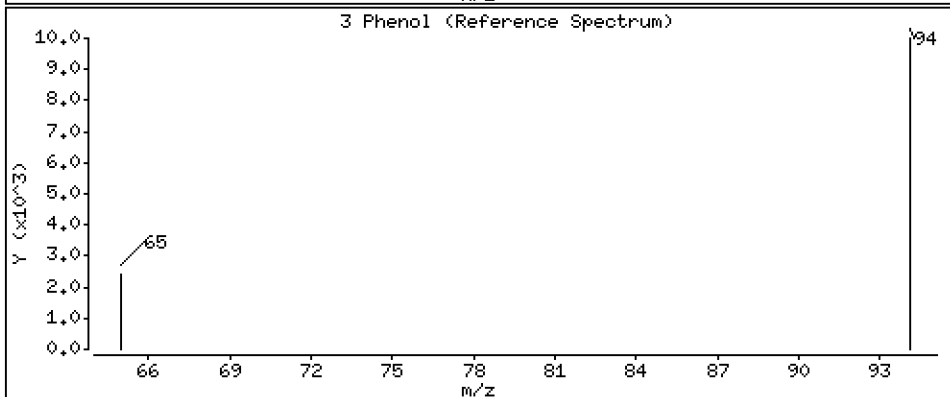
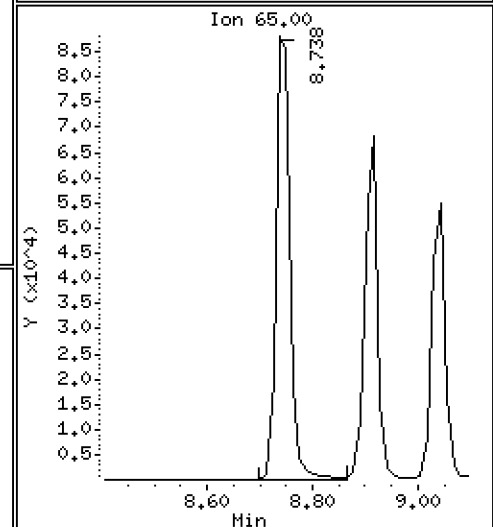
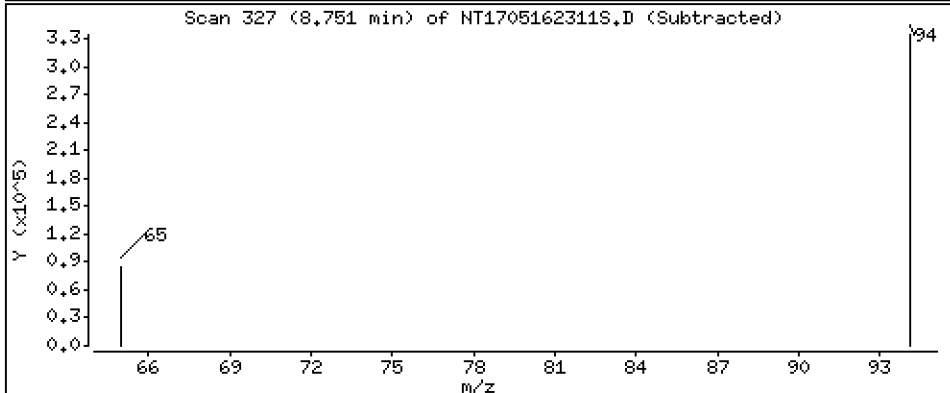
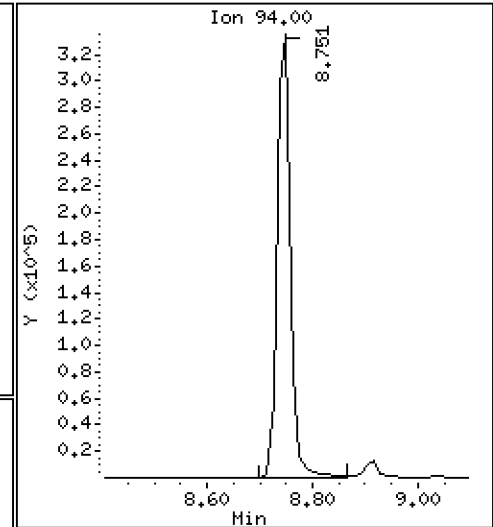
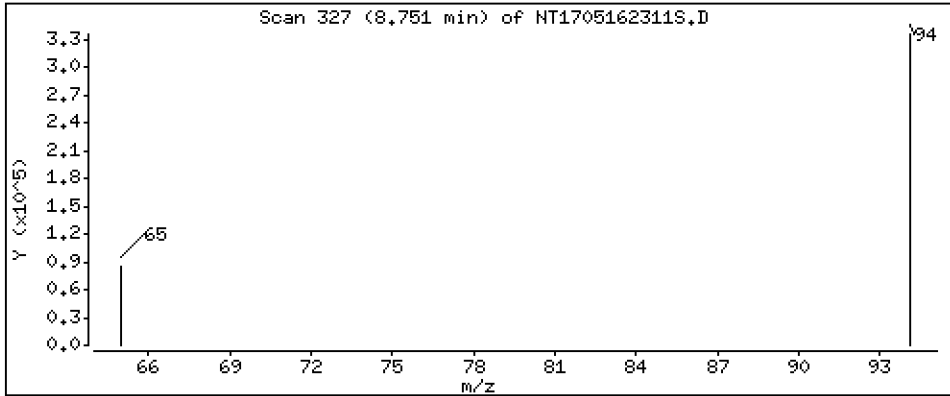
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,884 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

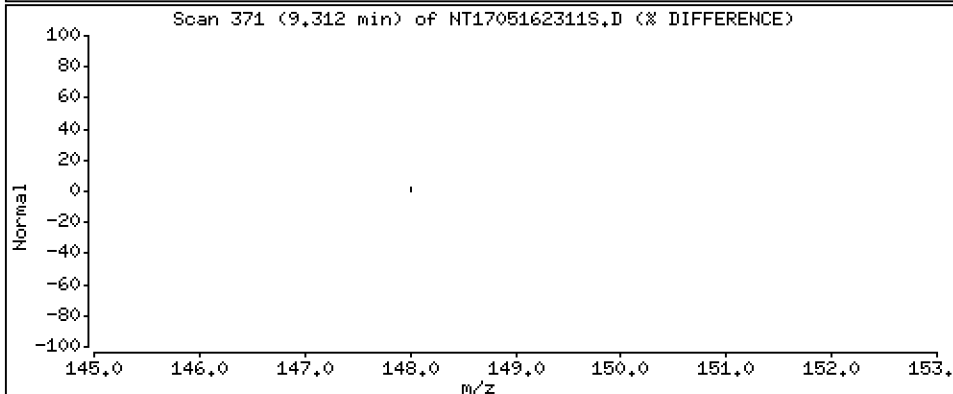
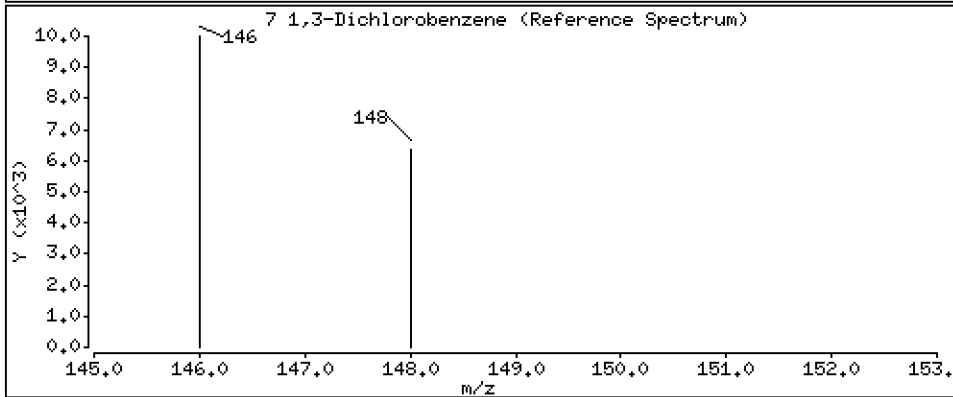
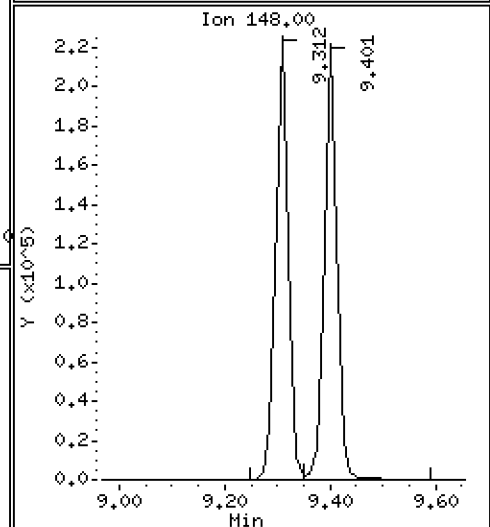
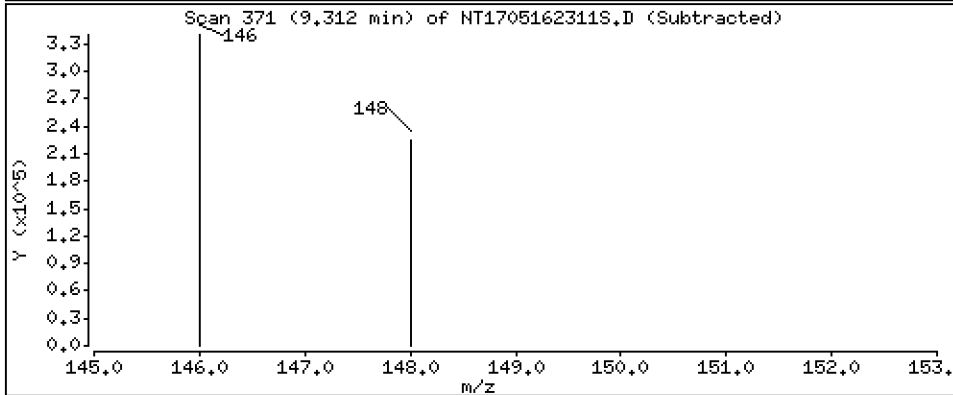
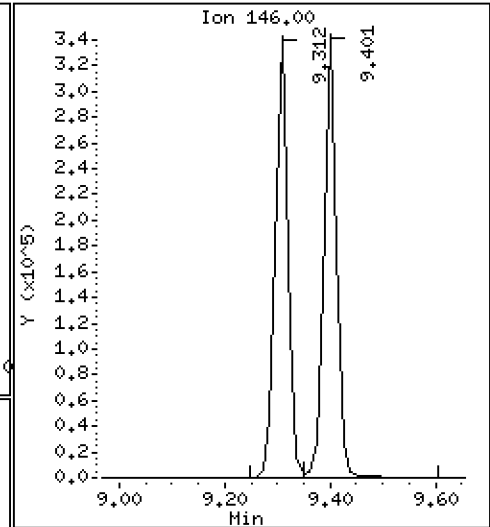
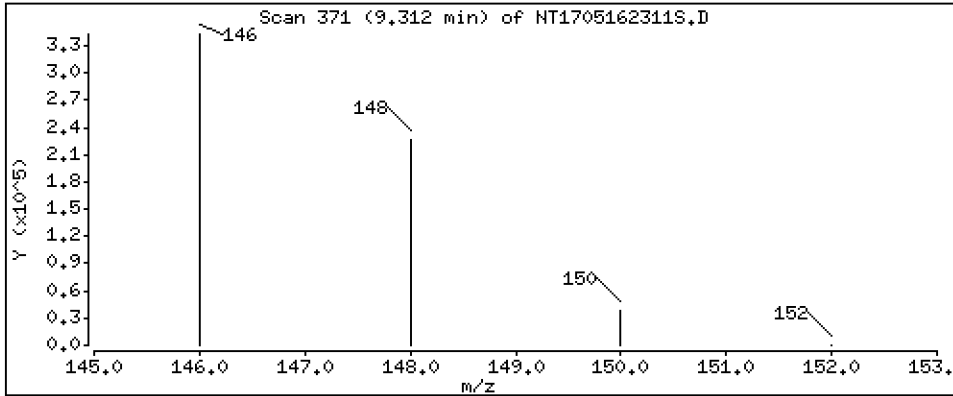
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 5,087 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

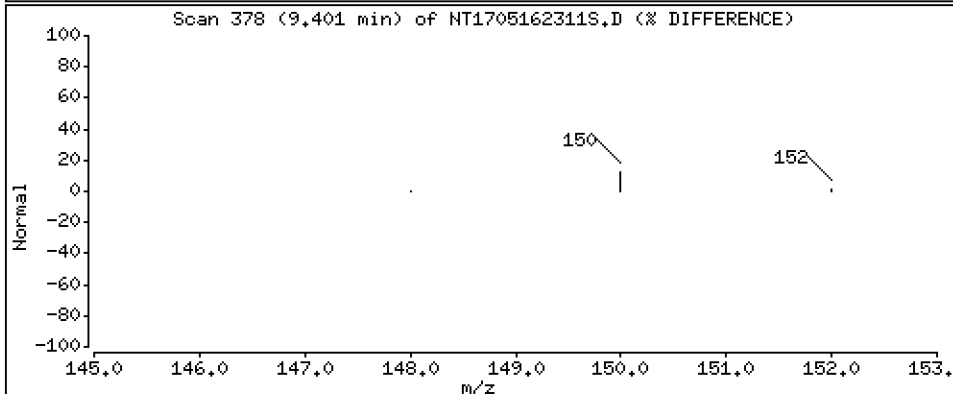
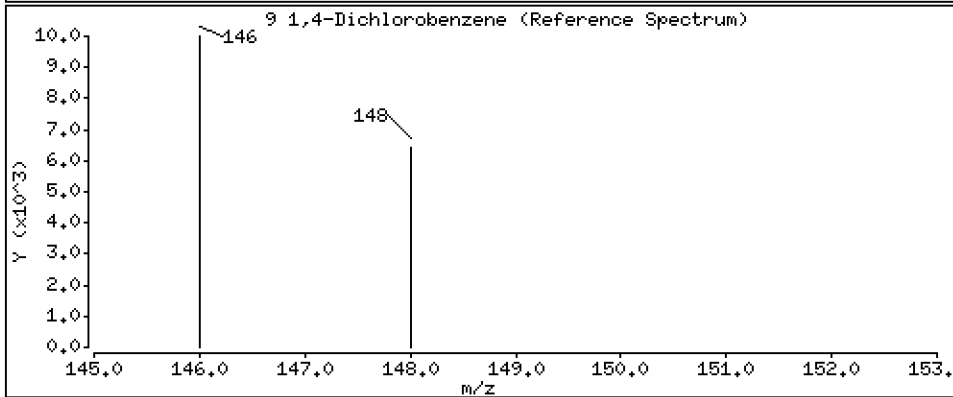
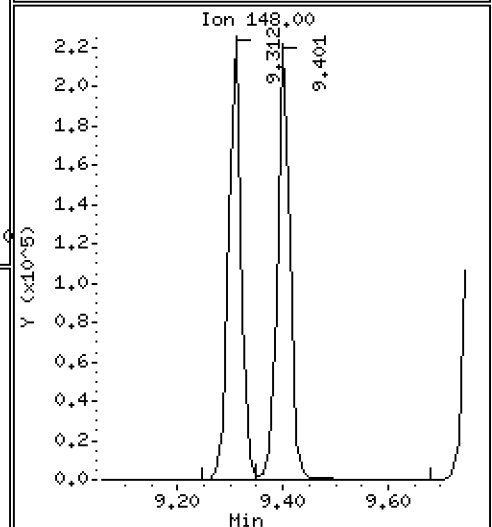
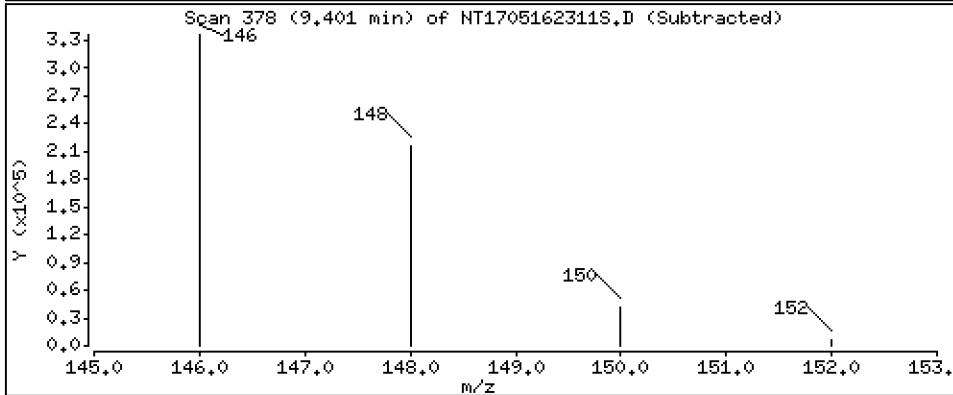
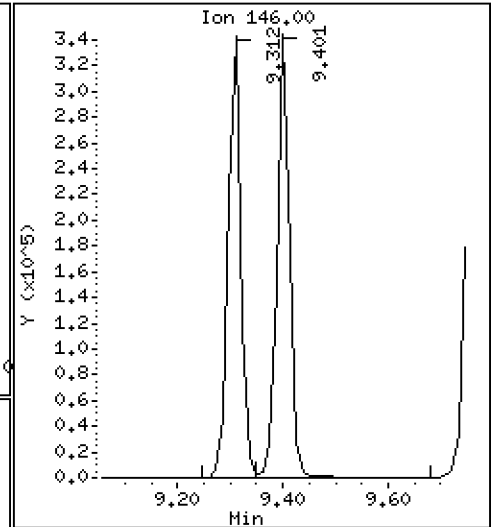
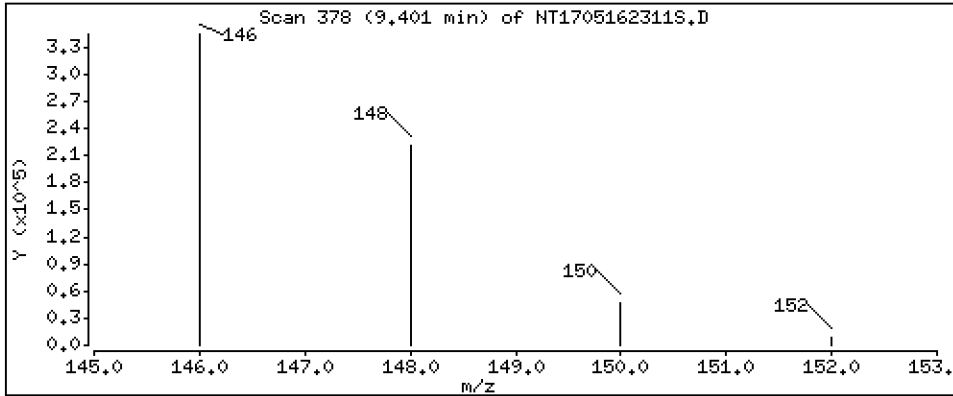
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 5,132 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

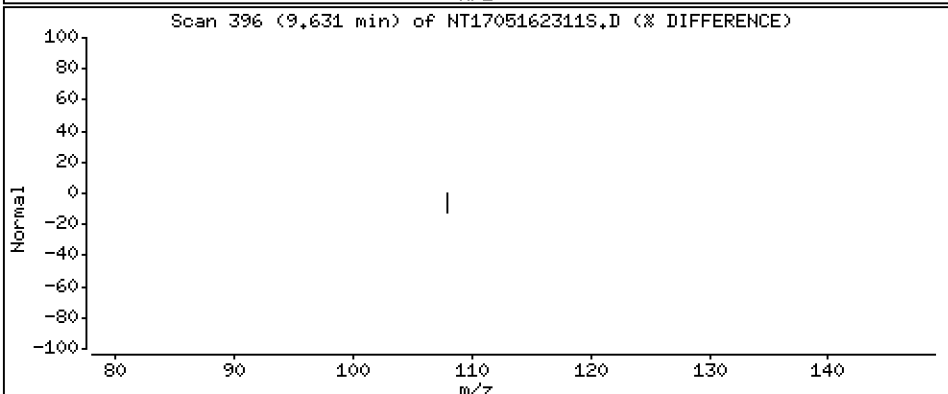
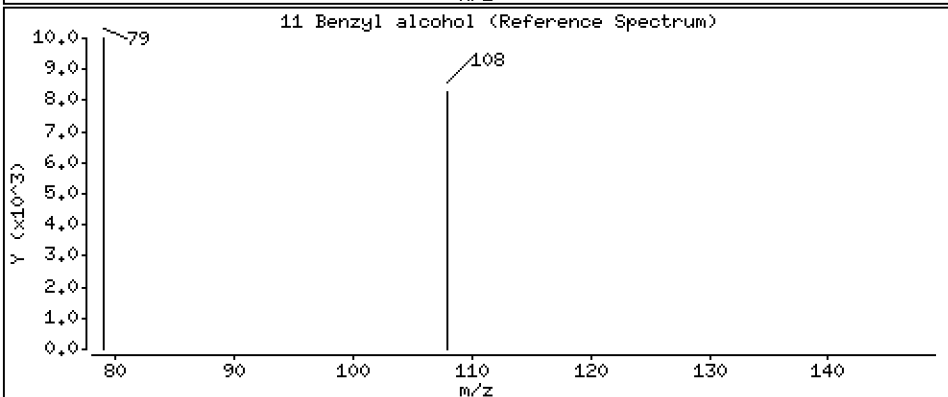
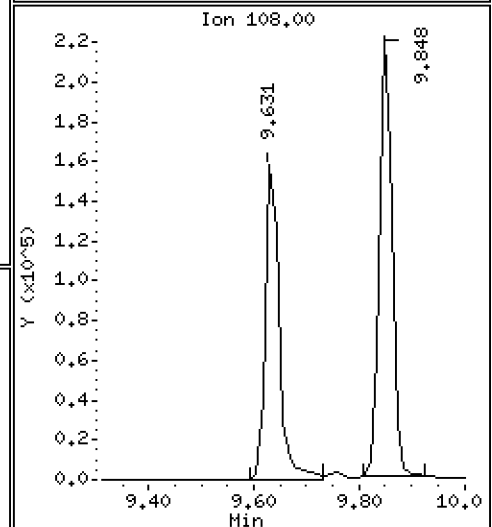
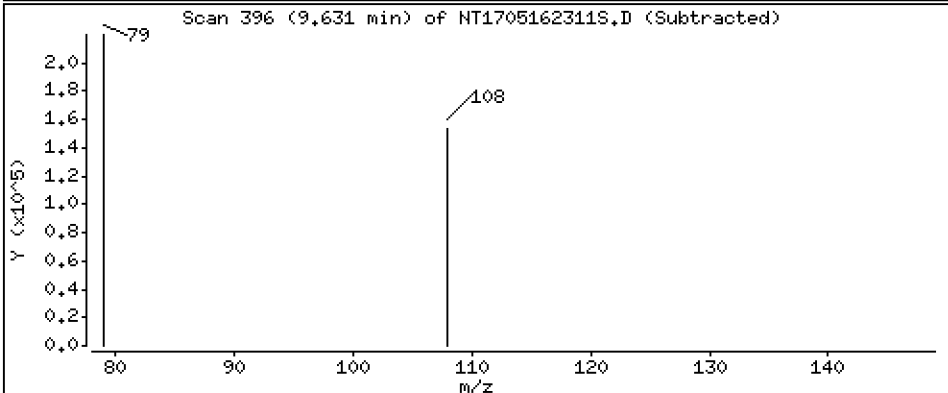
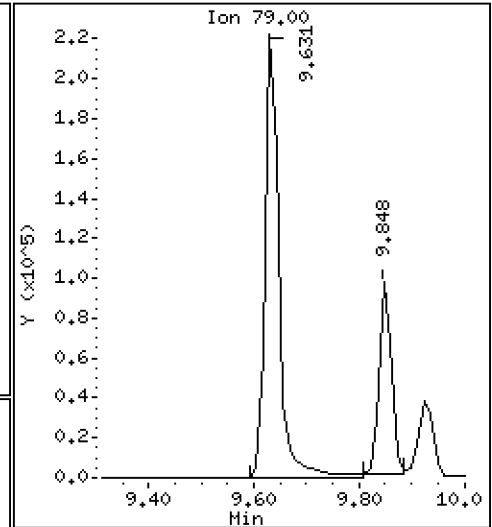
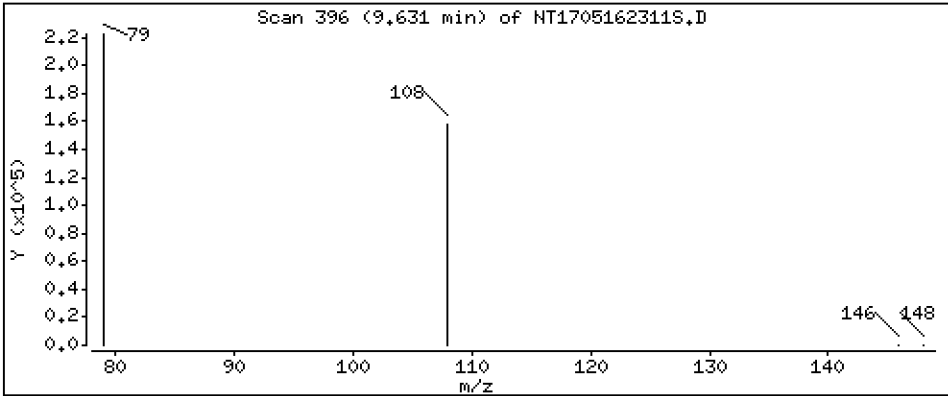
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.706 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

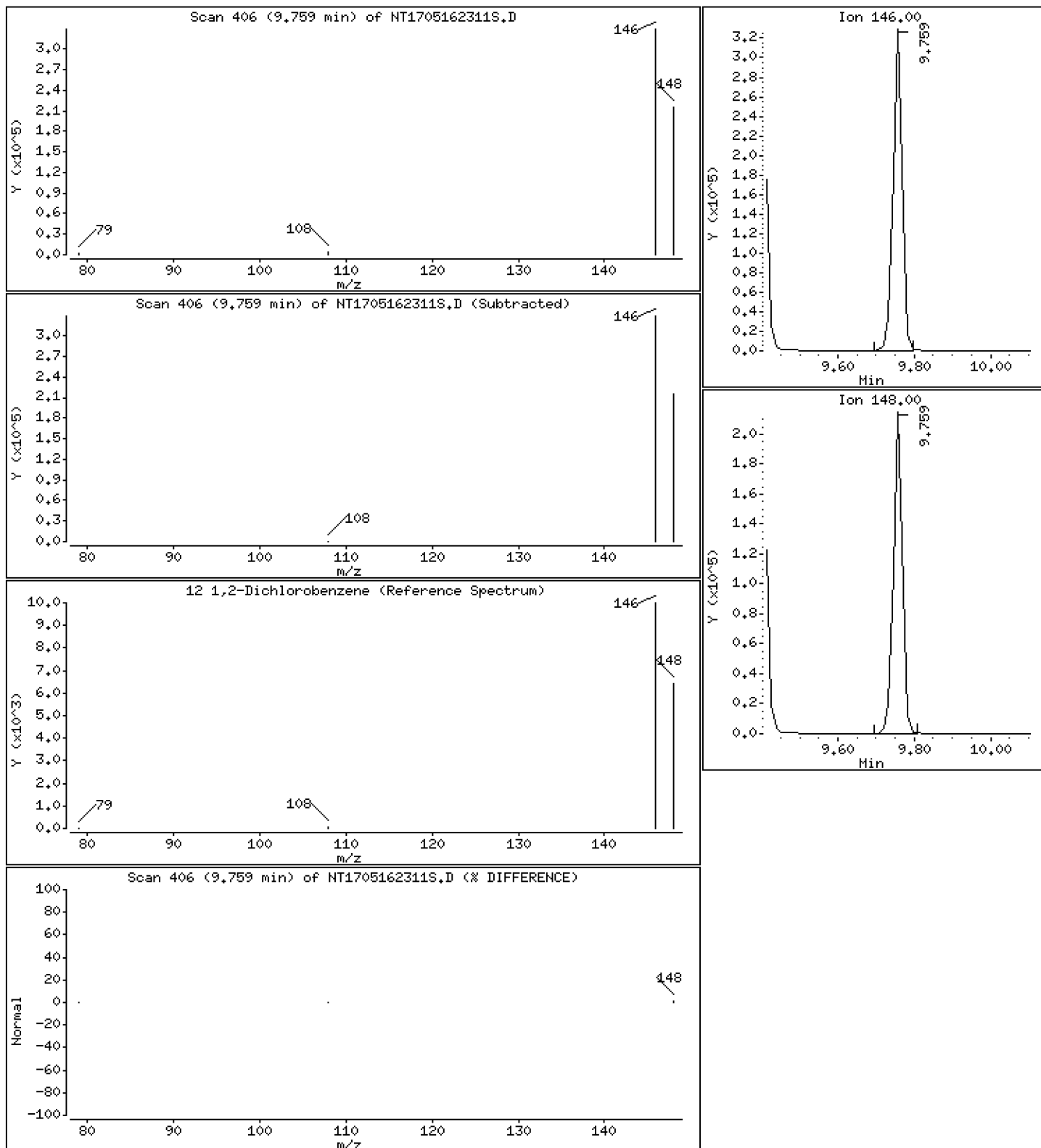
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.007 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

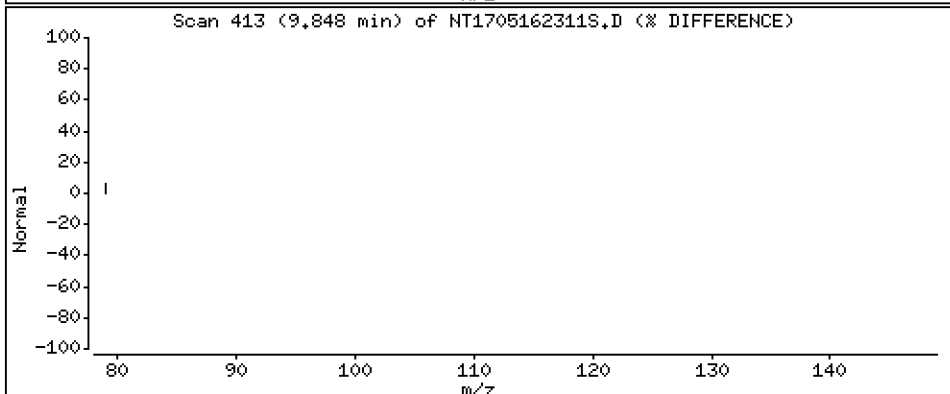
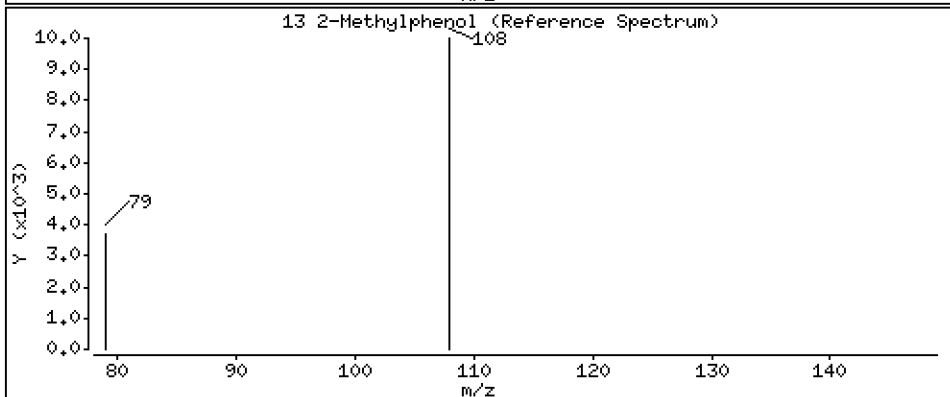
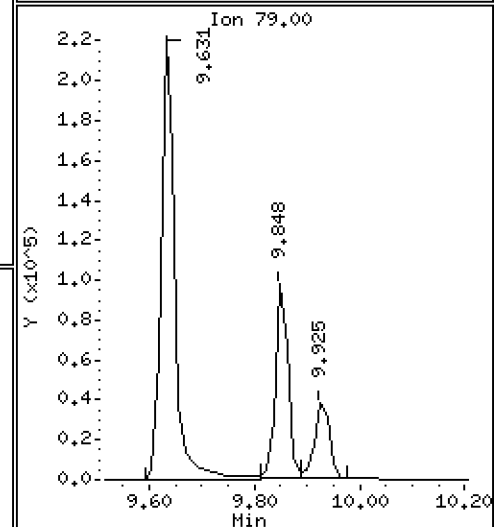
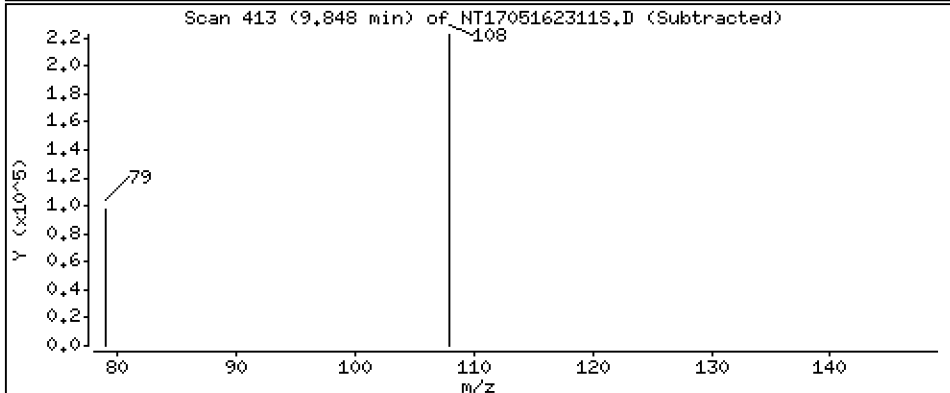
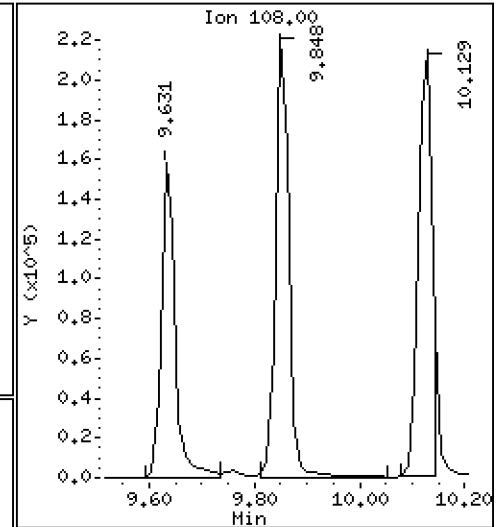
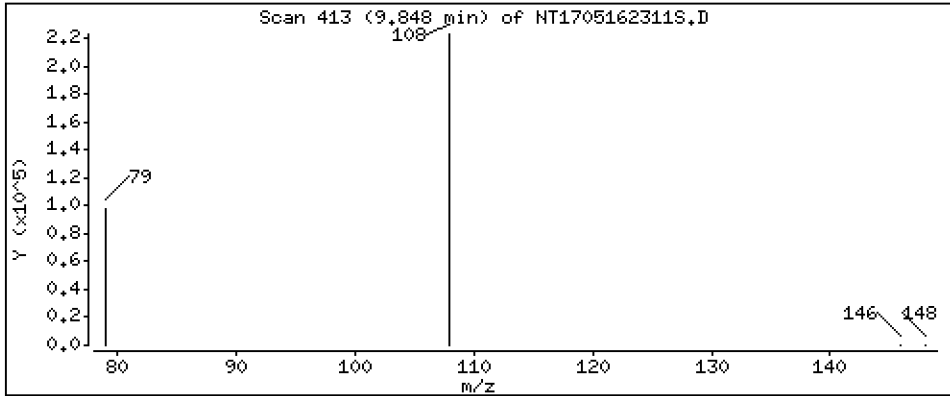
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,408 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

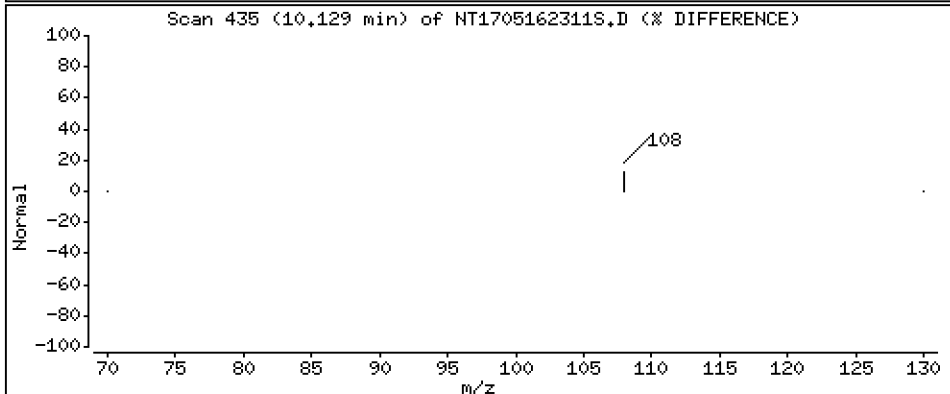
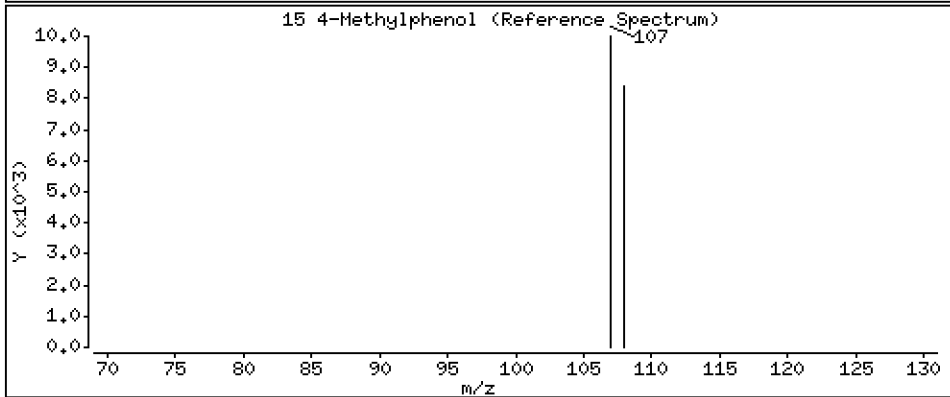
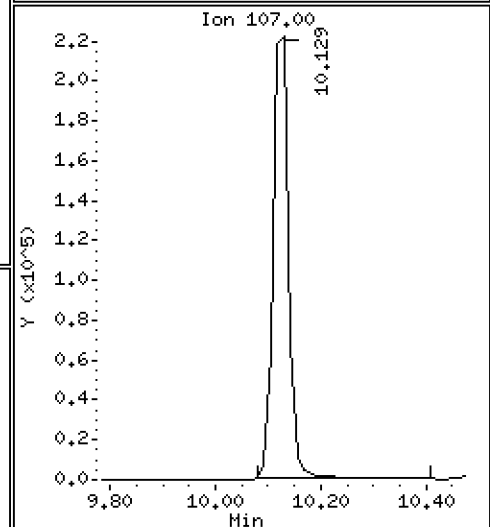
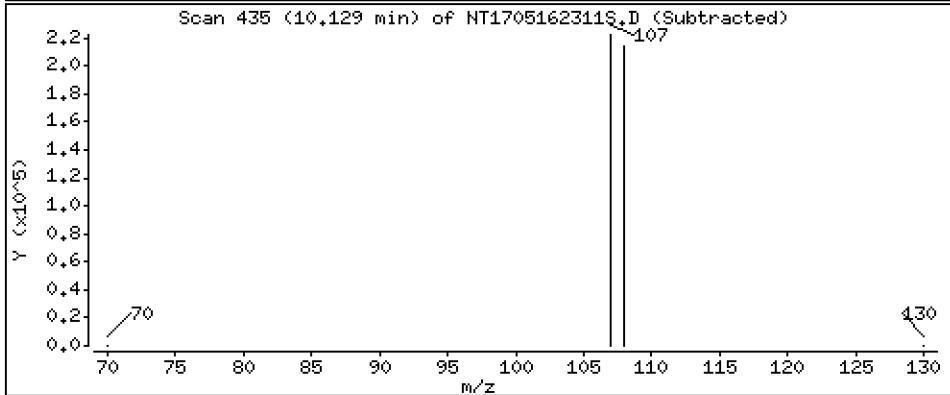
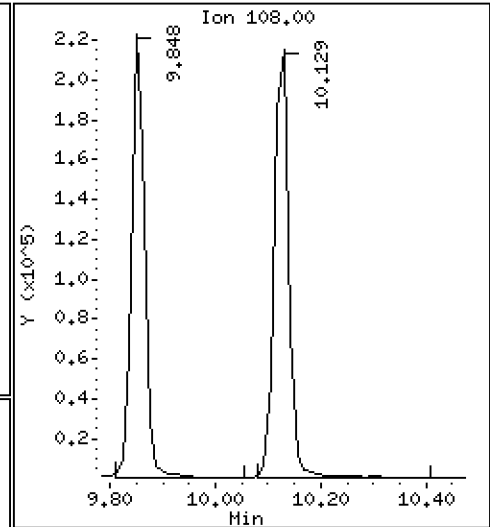
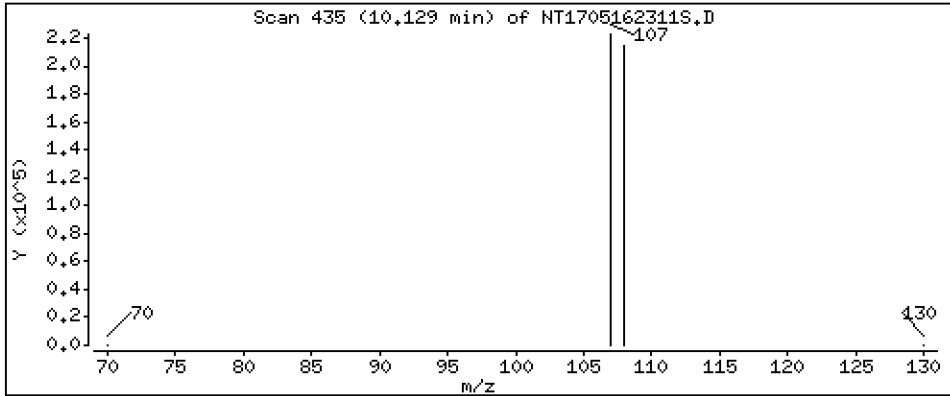
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

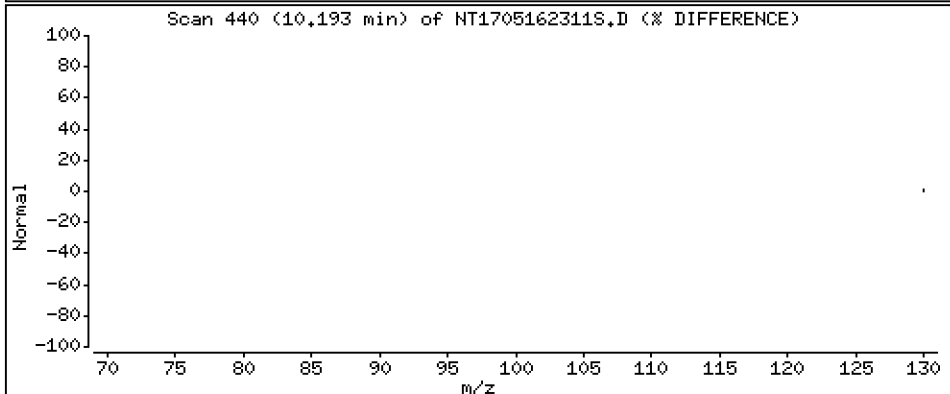
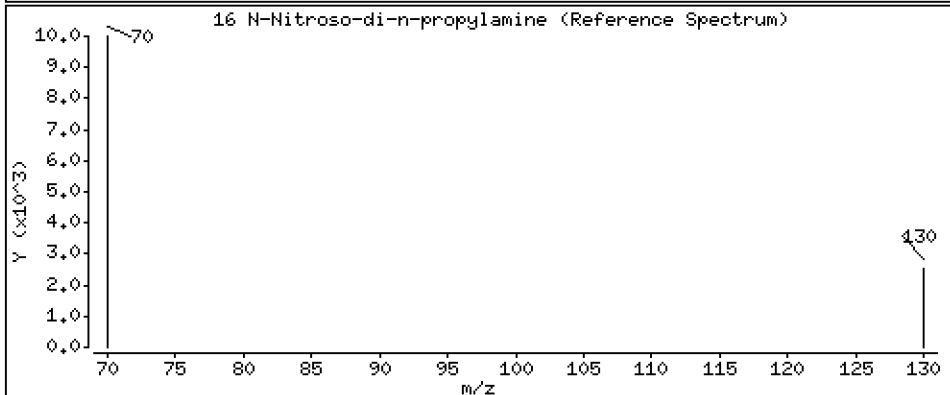
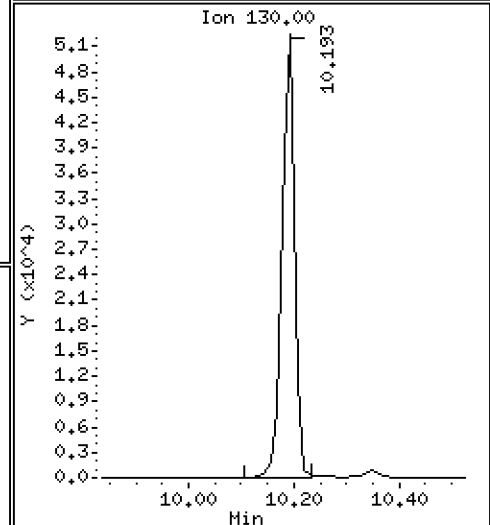
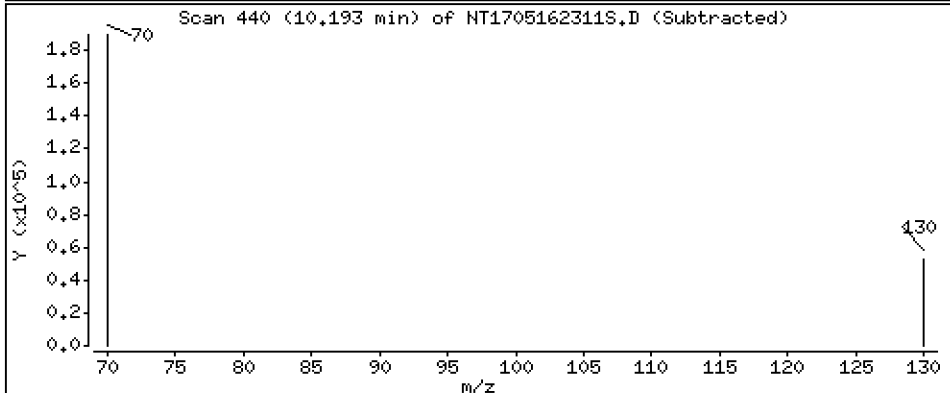
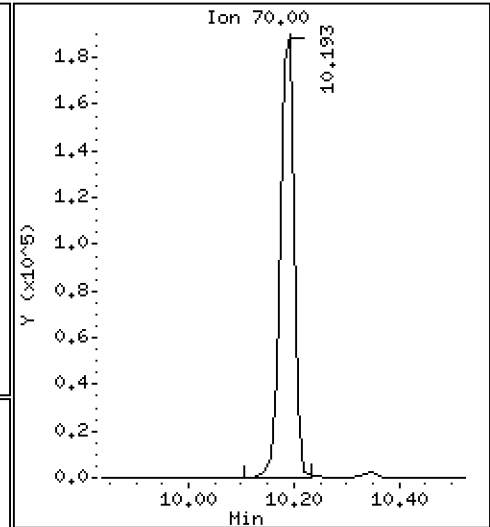
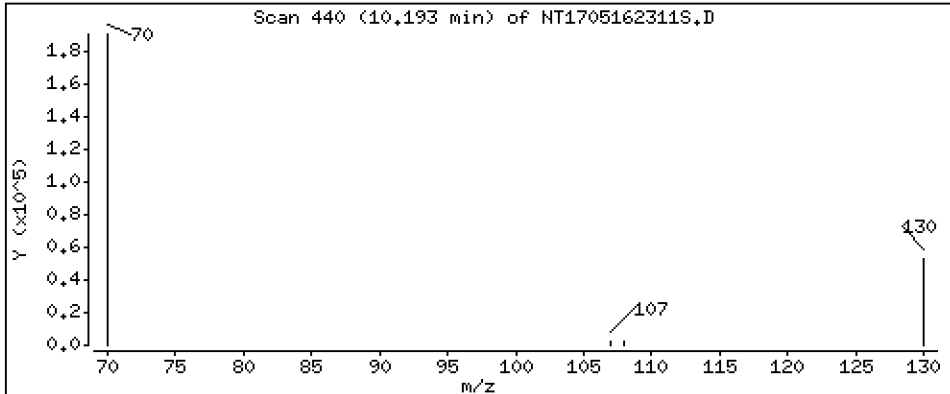
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,479 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

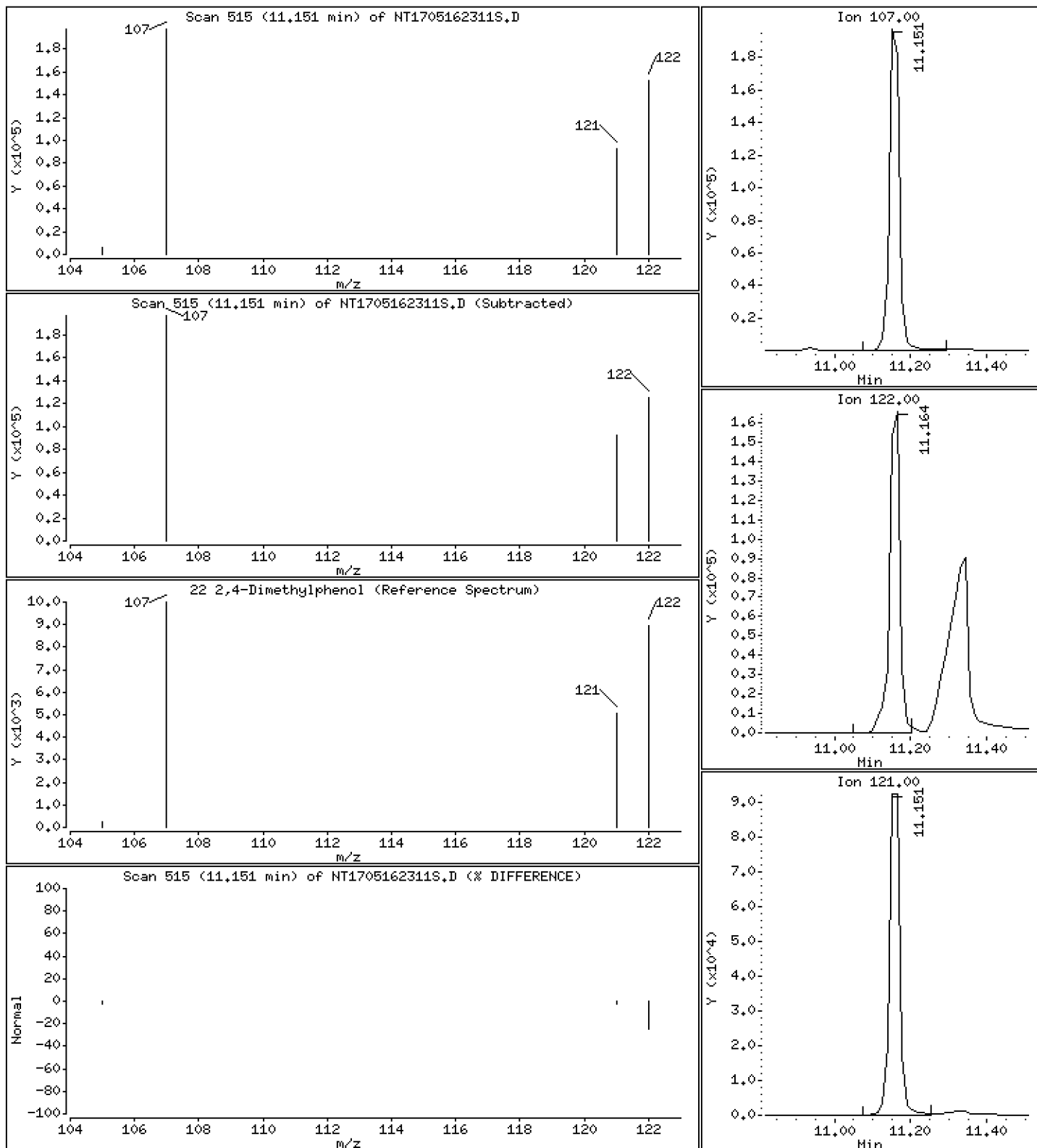
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3.816 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

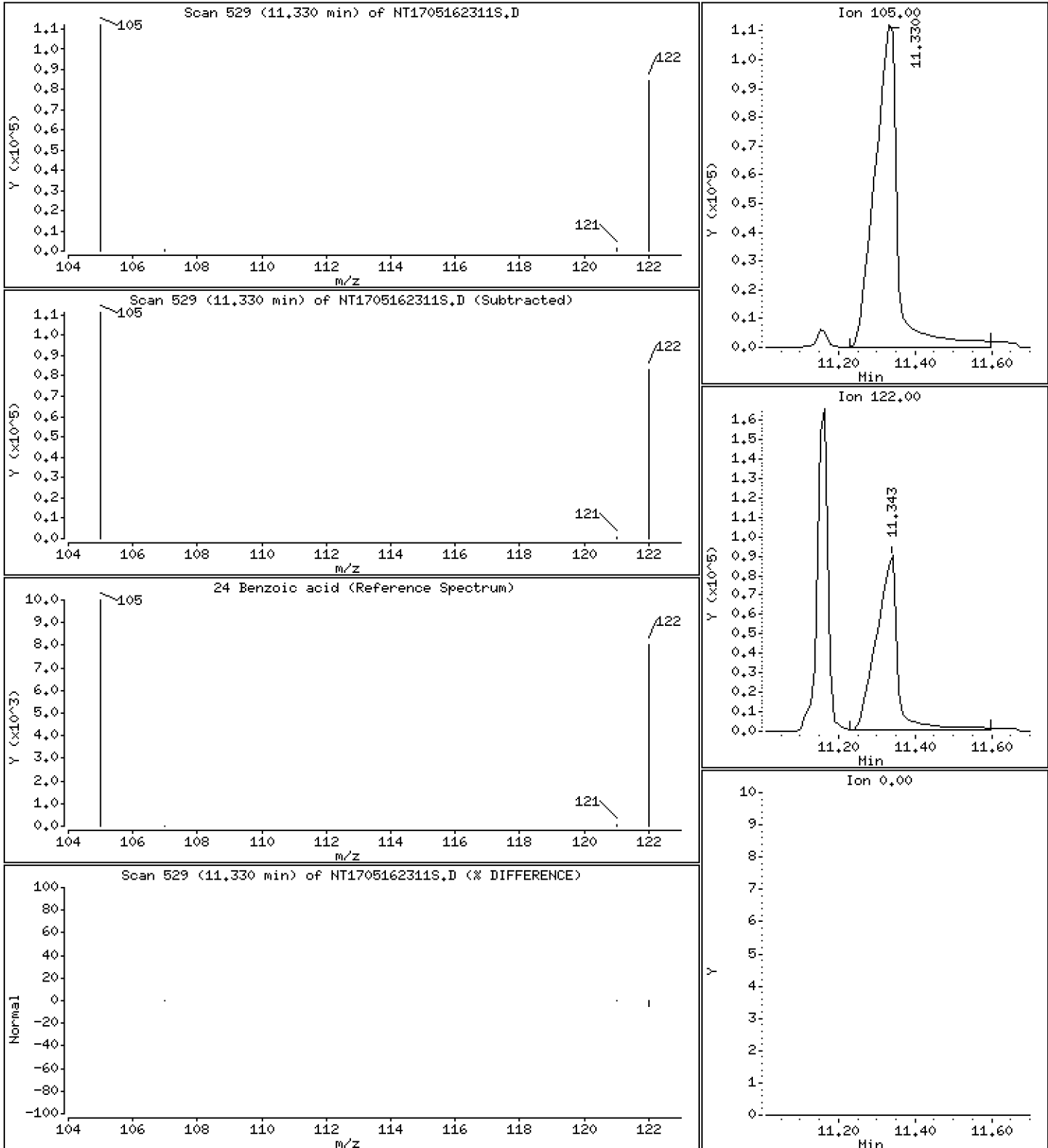
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 7.777 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

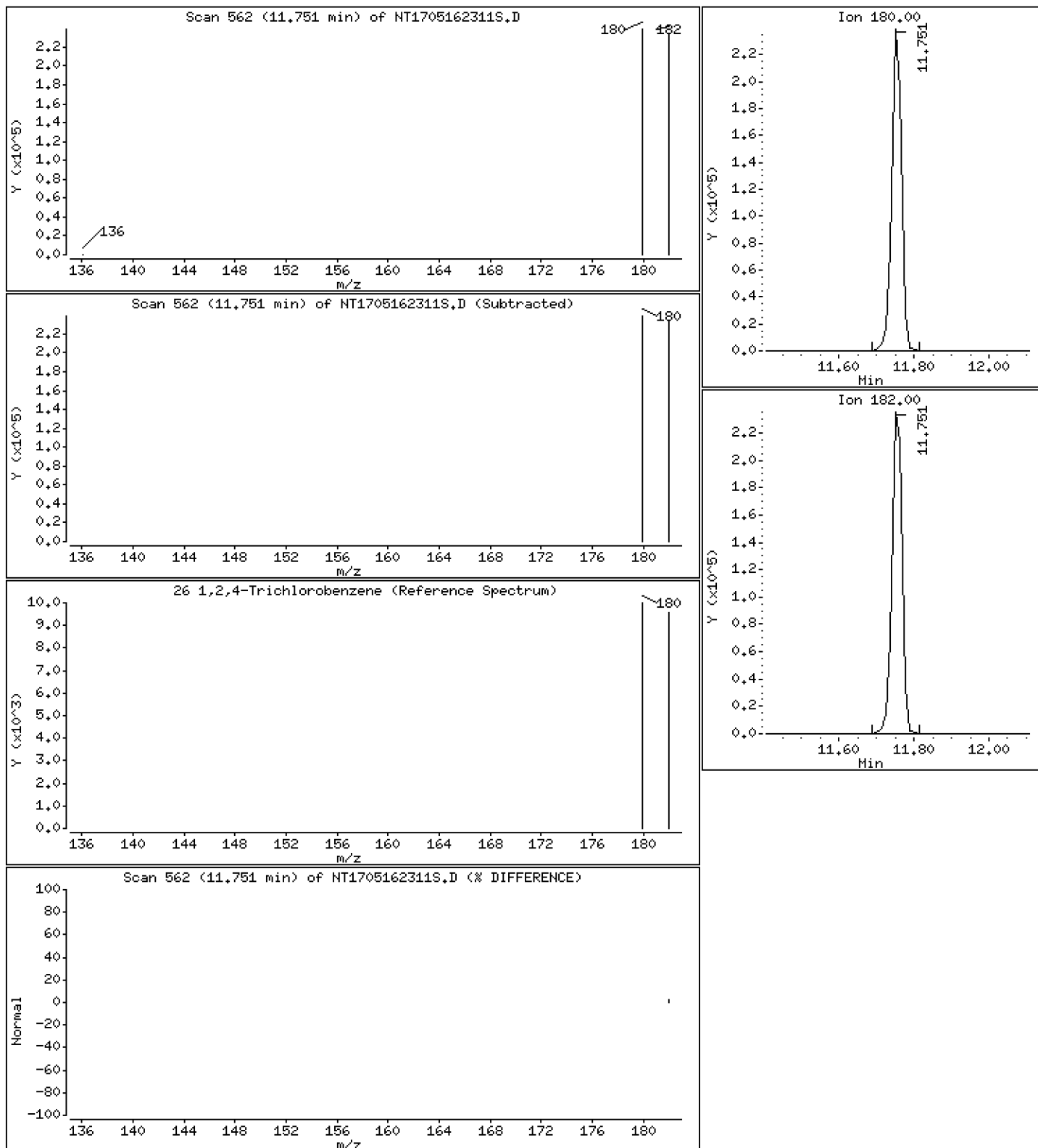
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,906 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

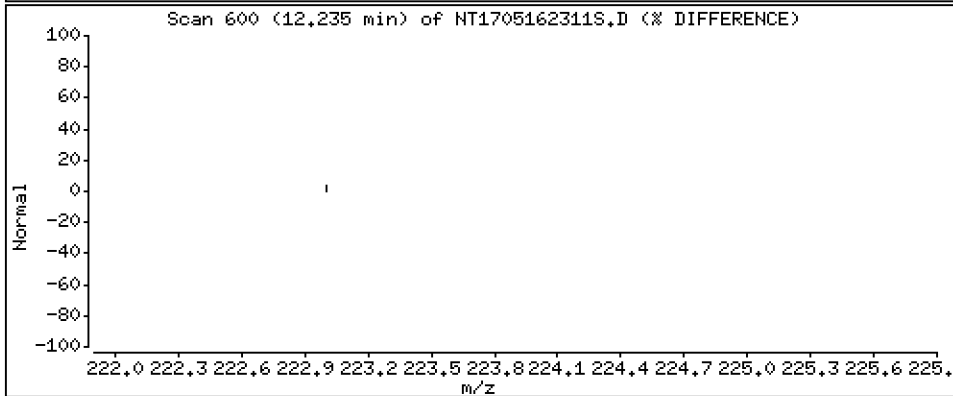
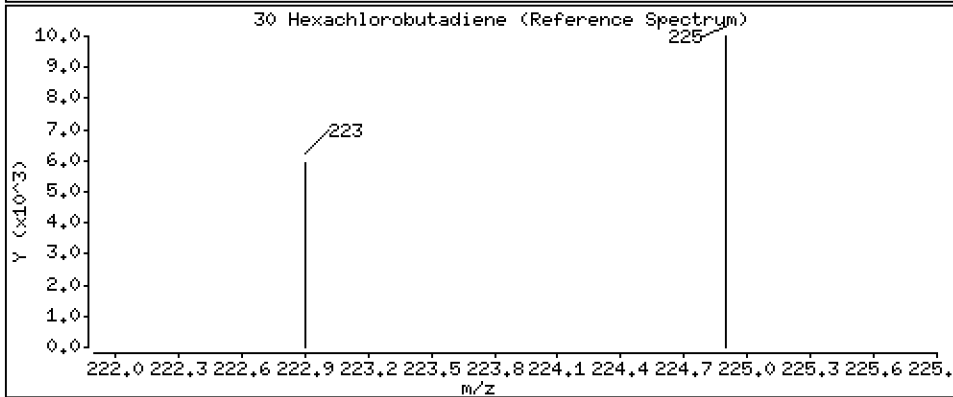
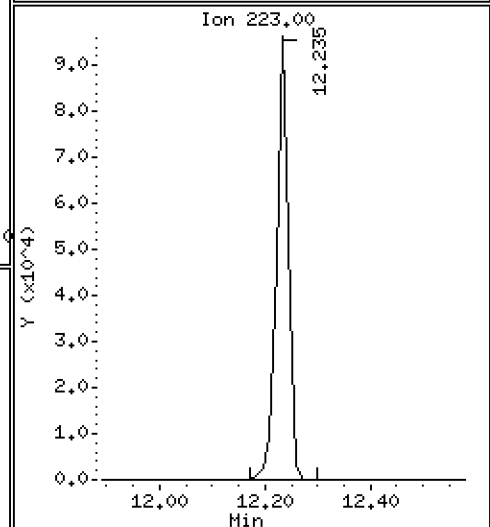
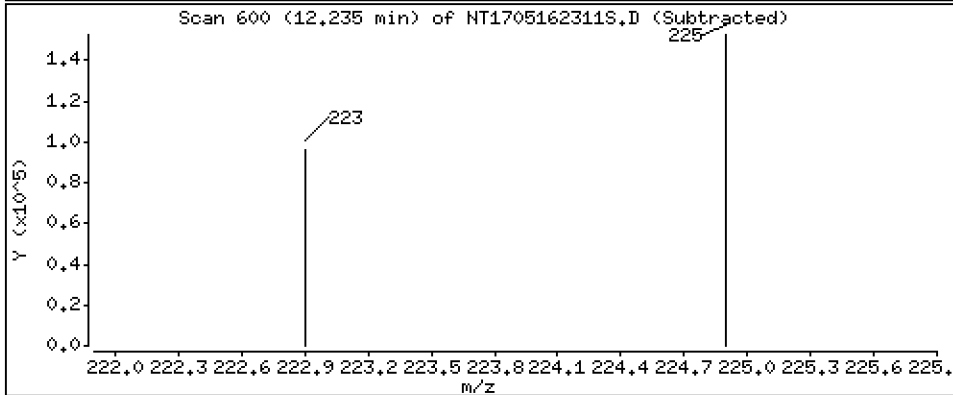
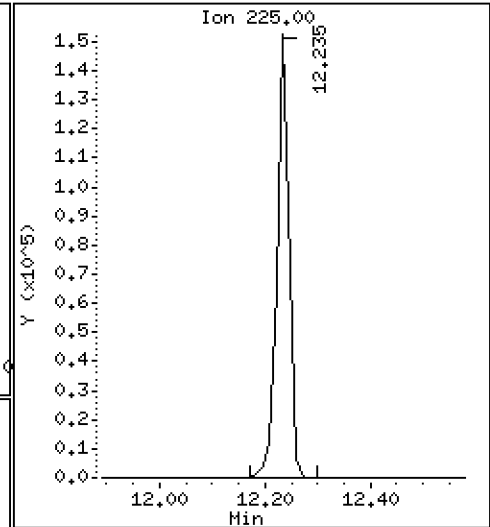
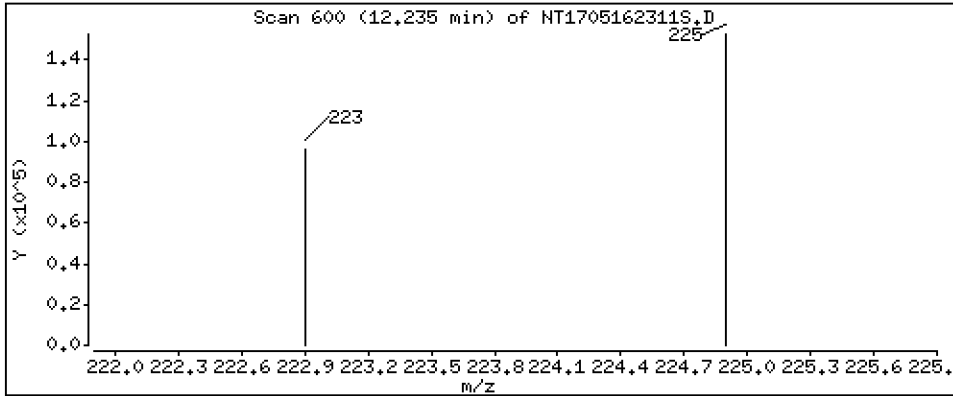
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,201 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

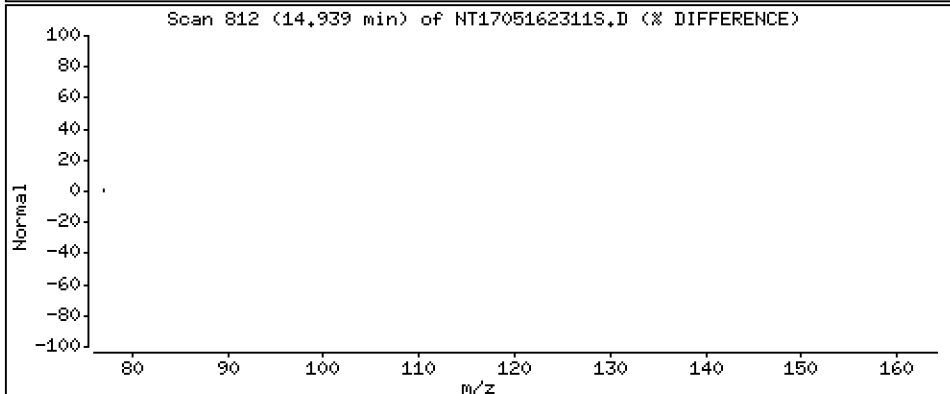
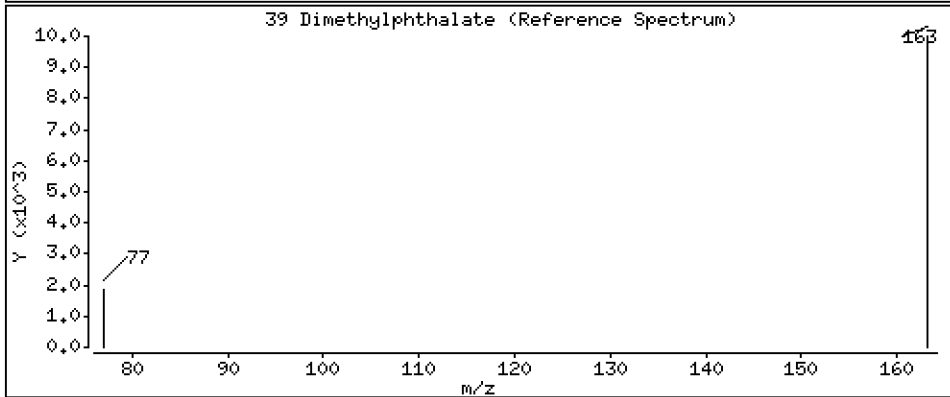
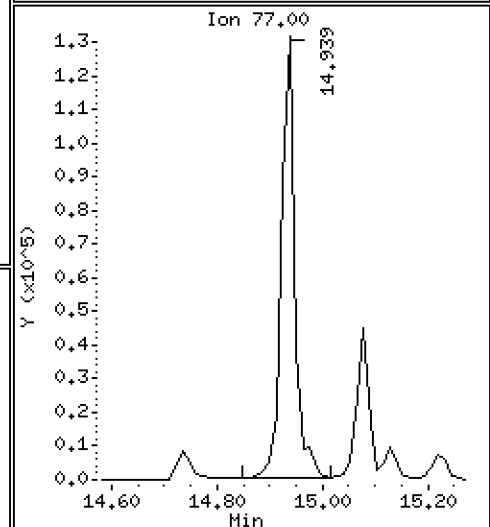
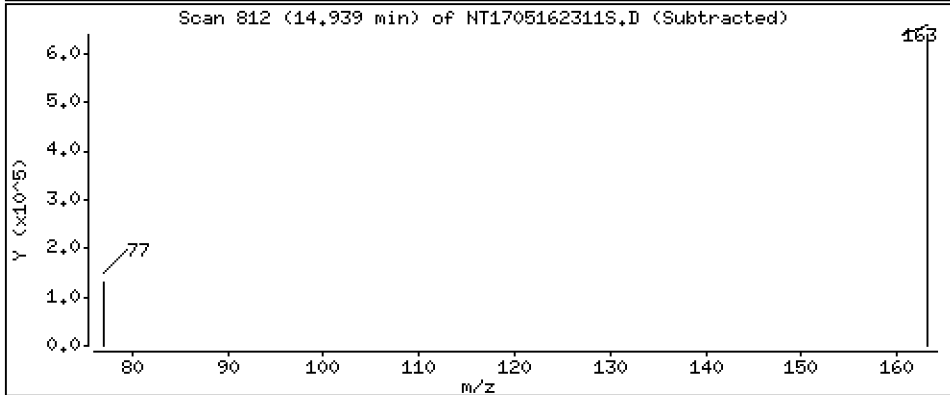
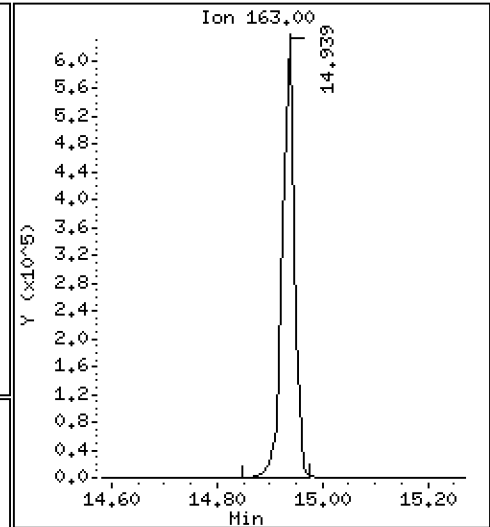
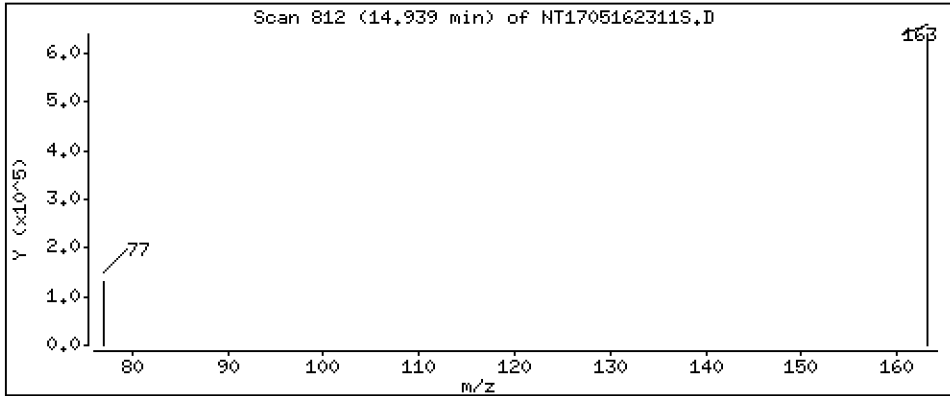
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,240 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

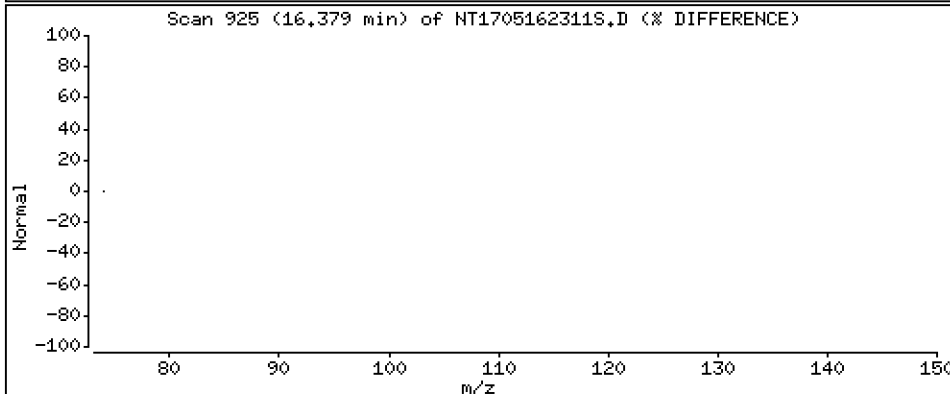
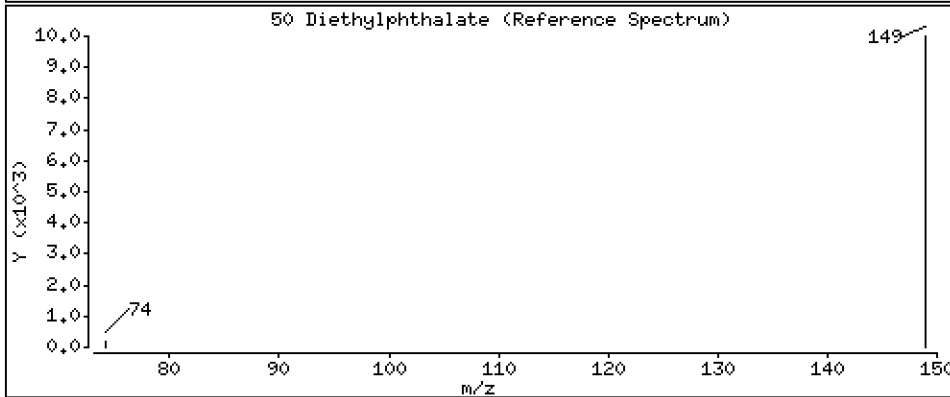
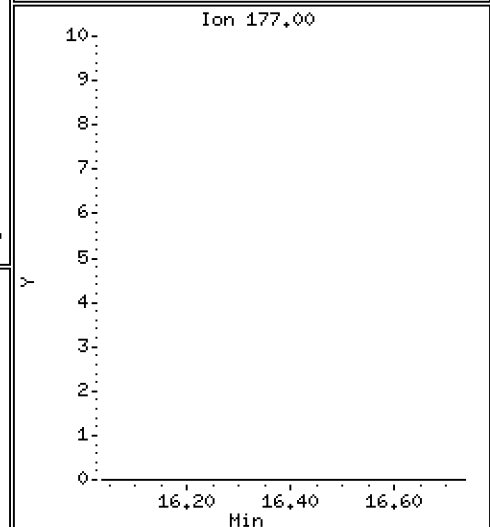
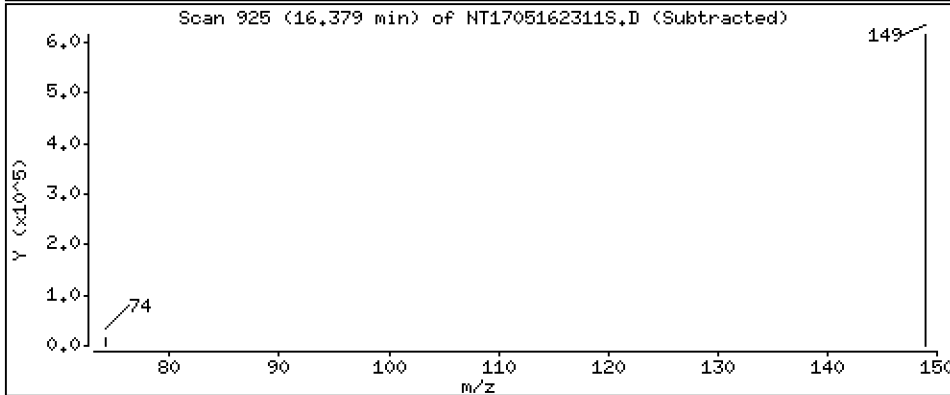
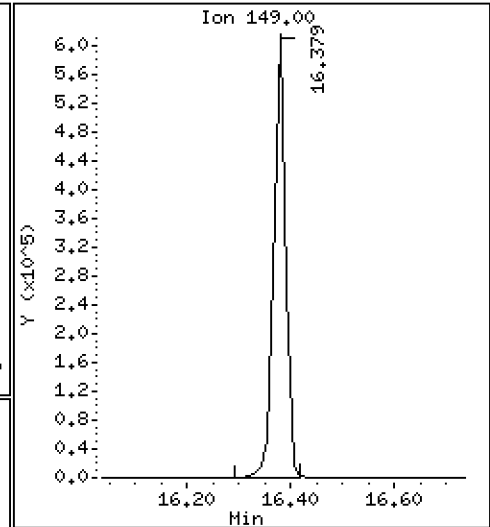
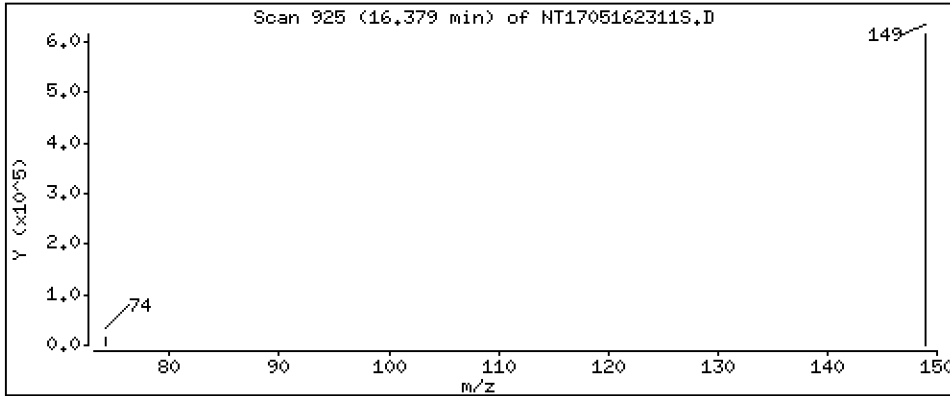
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,478 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

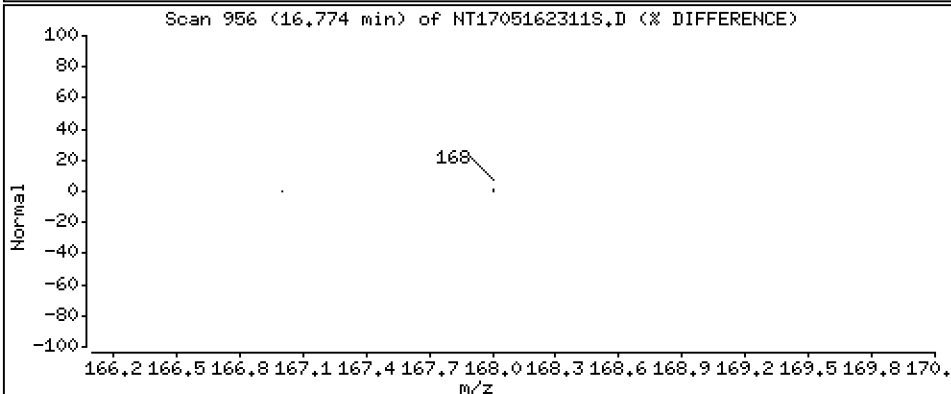
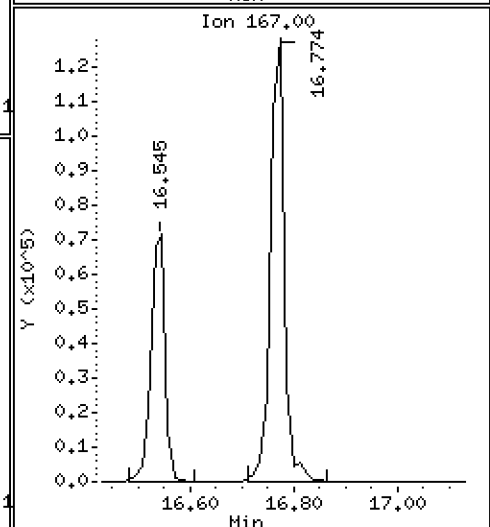
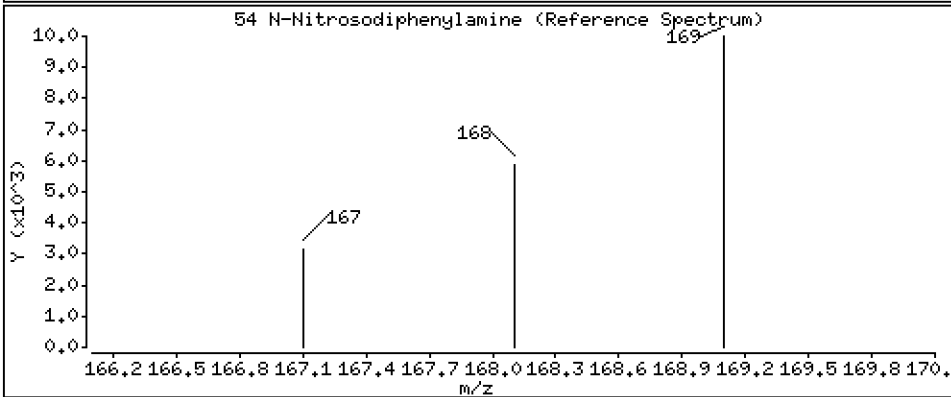
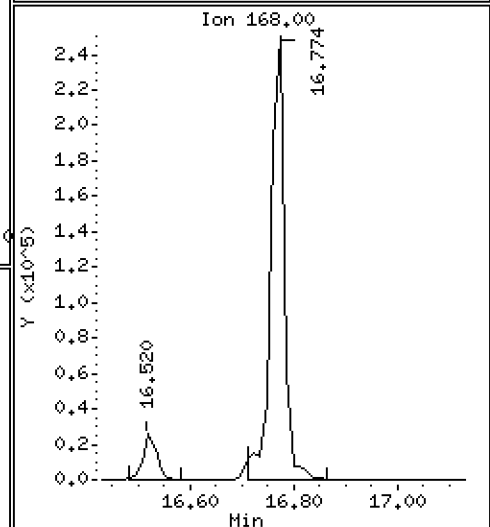
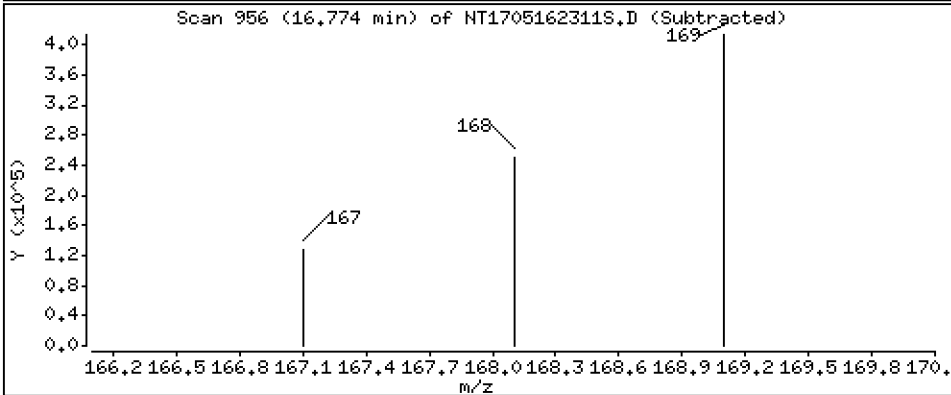
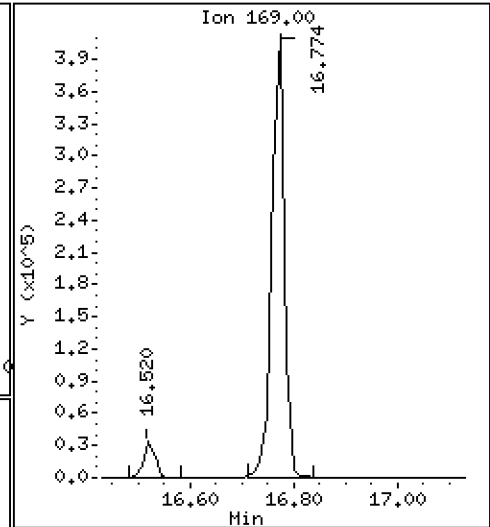
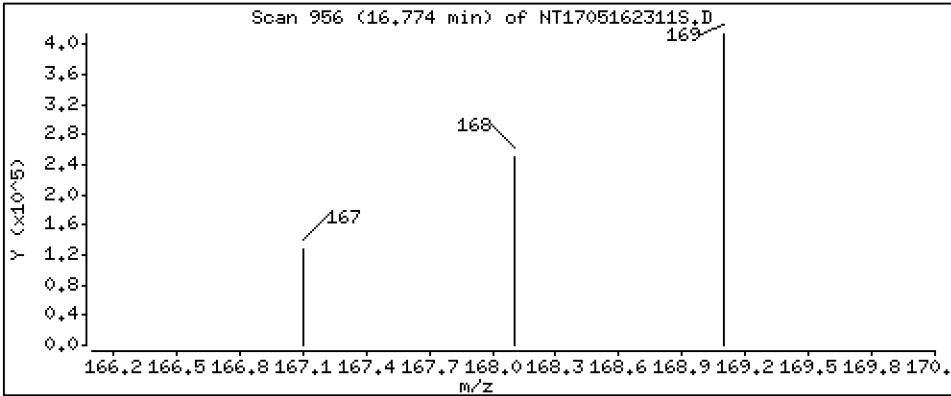
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,627 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

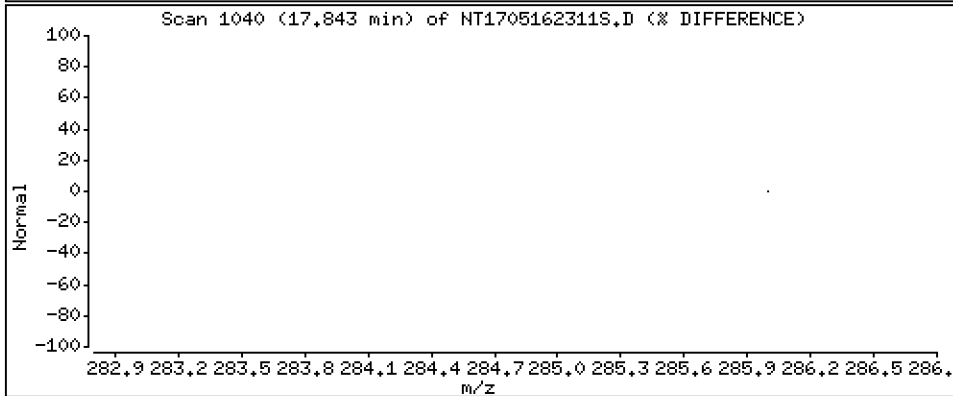
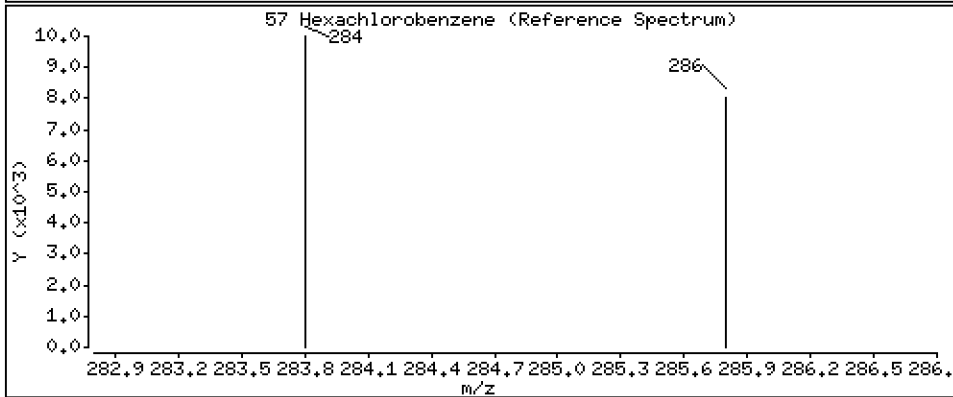
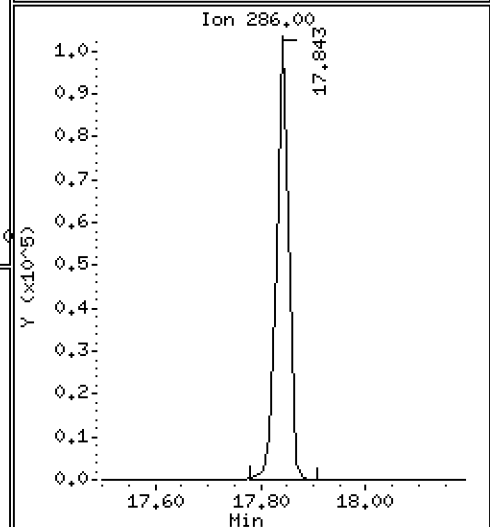
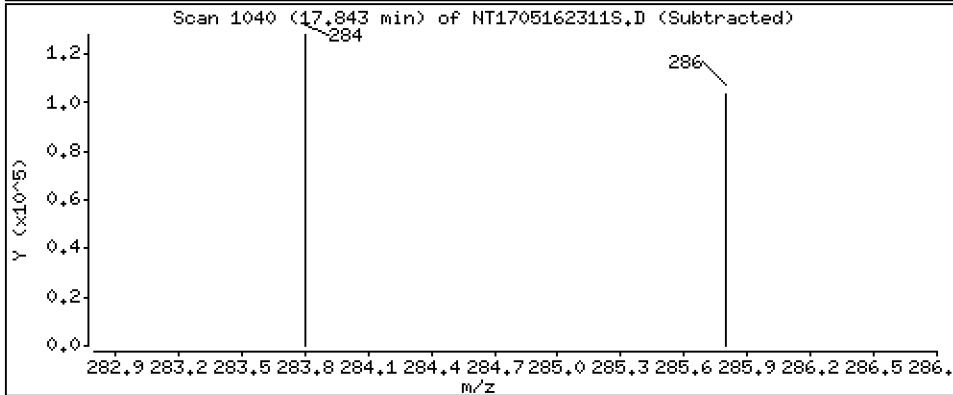
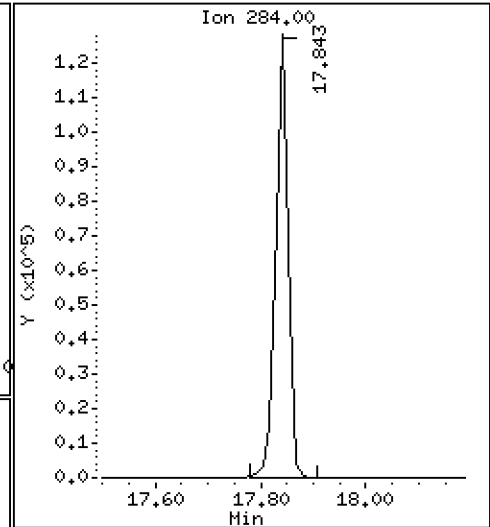
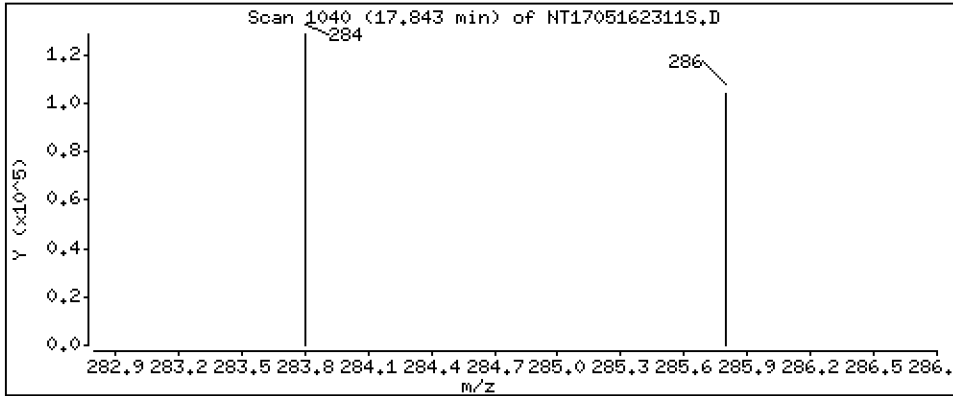
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 5,081 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

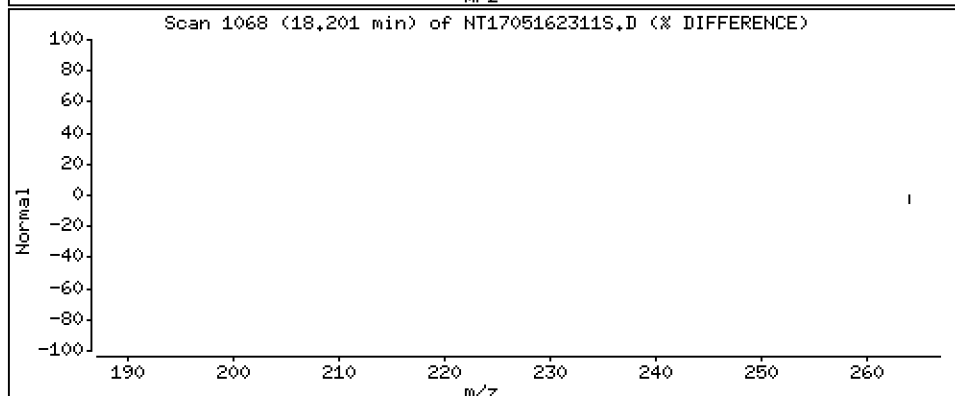
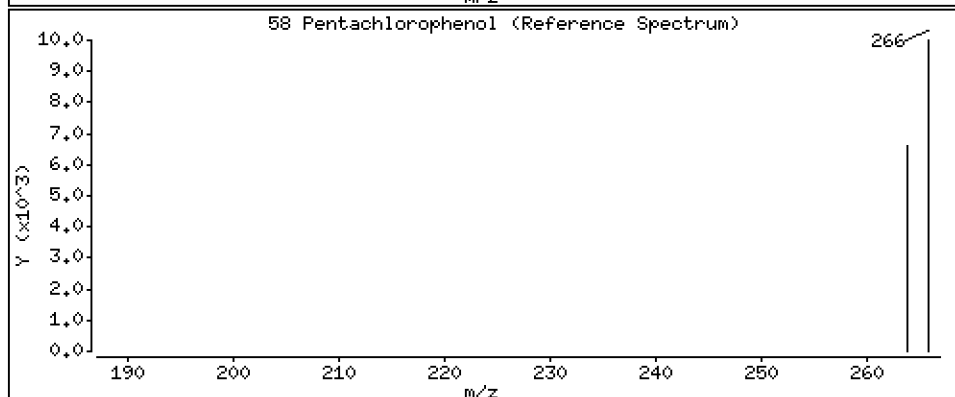
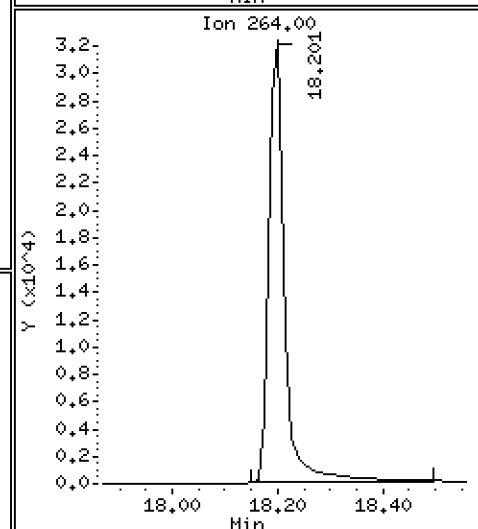
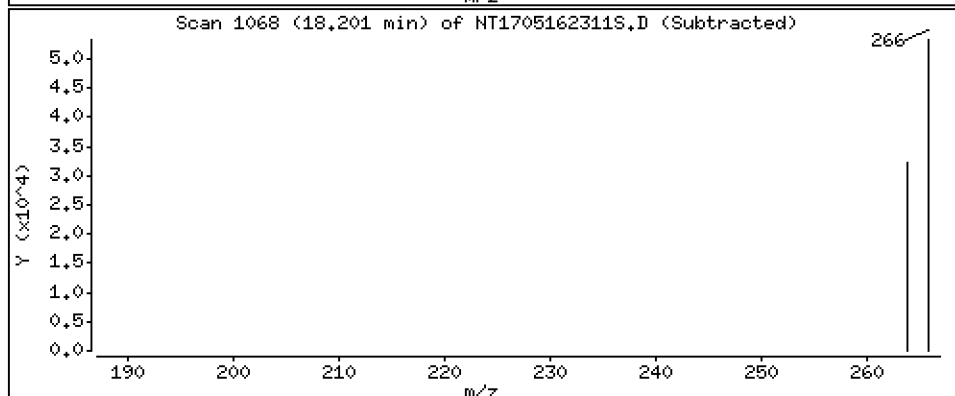
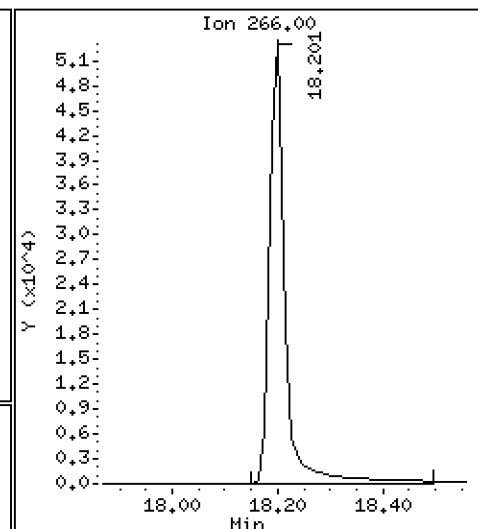
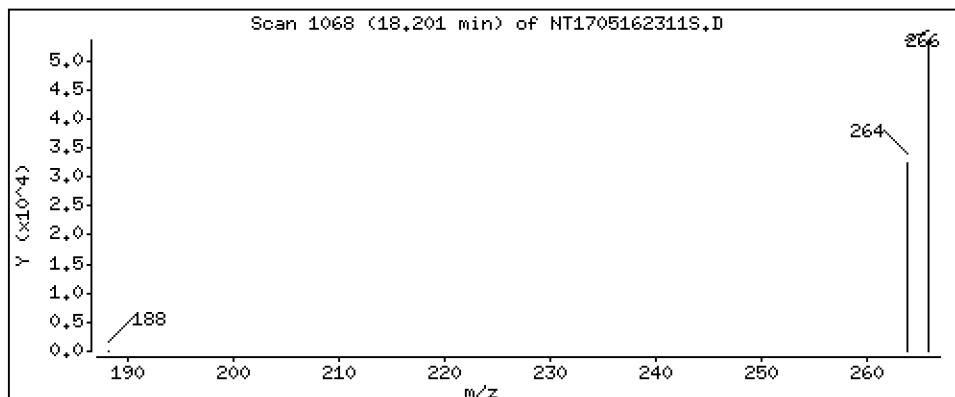
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,506 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

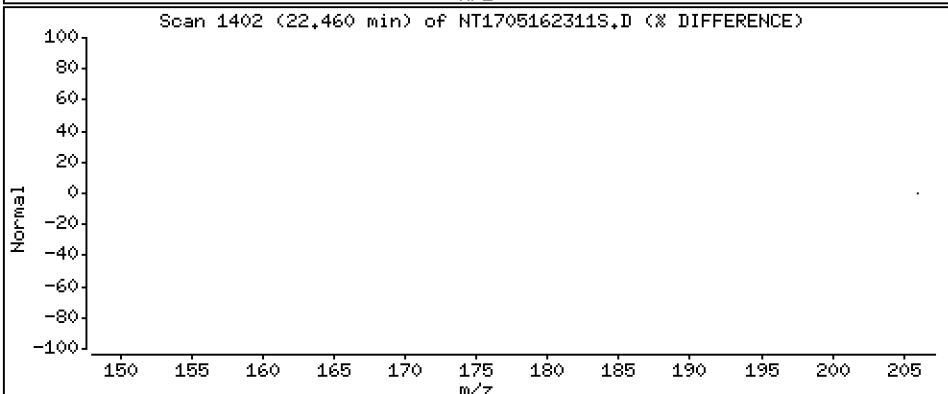
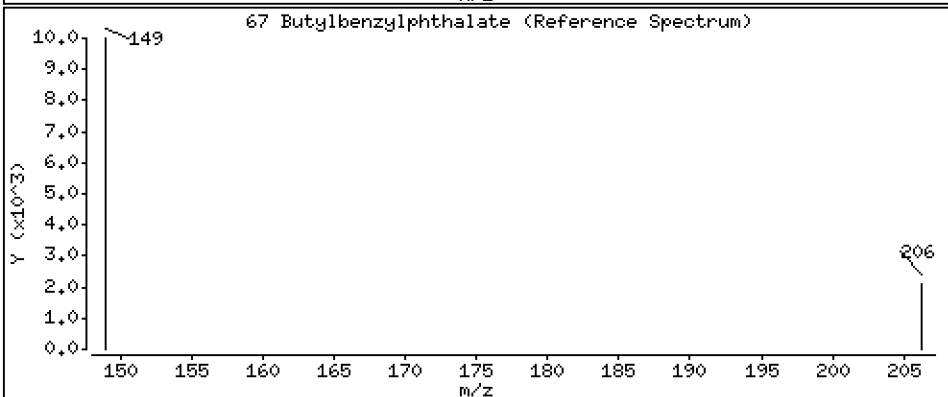
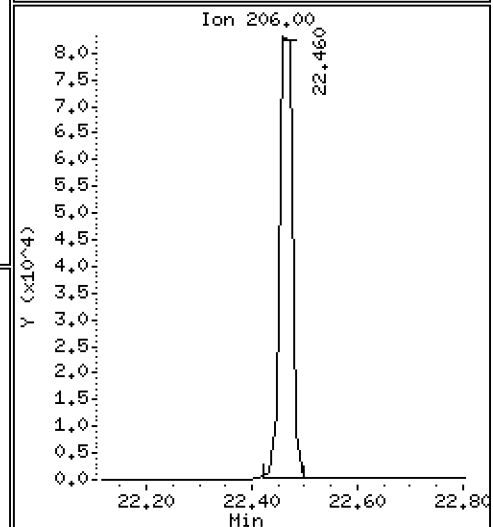
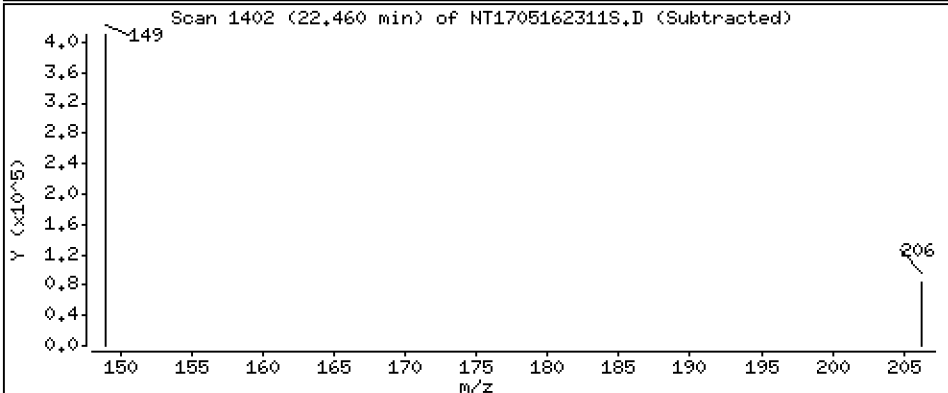
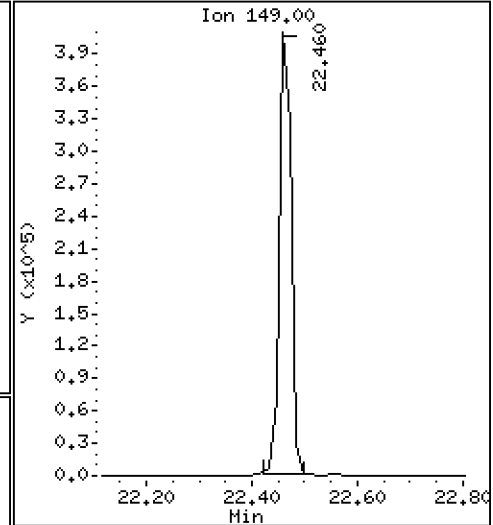
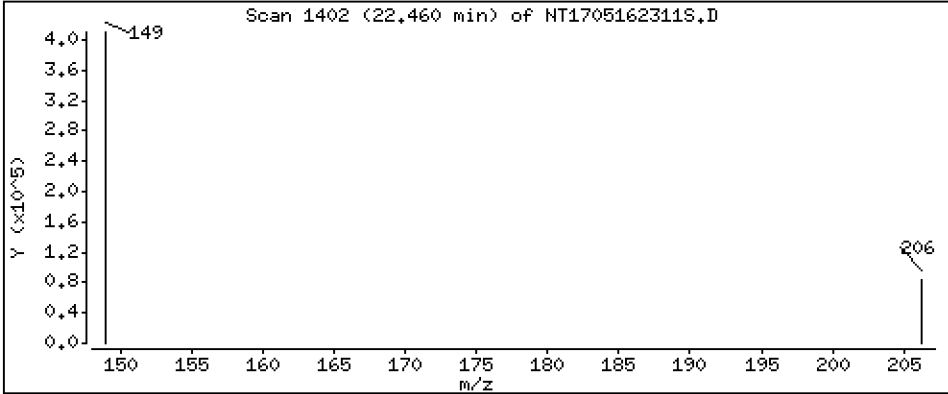
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,905 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

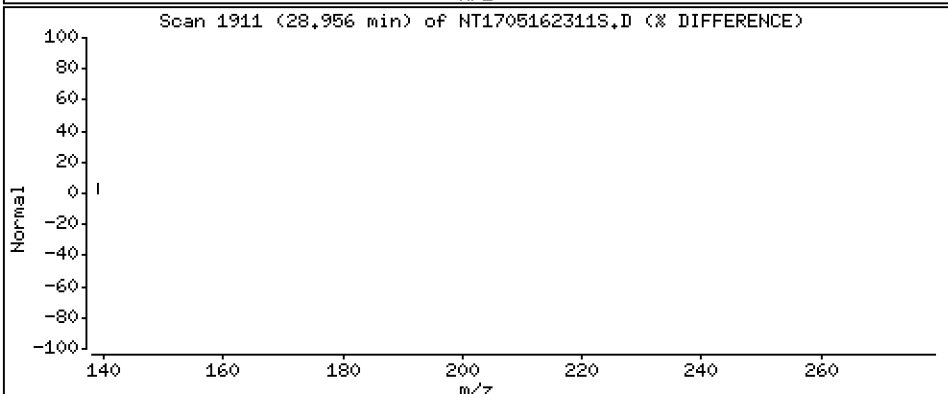
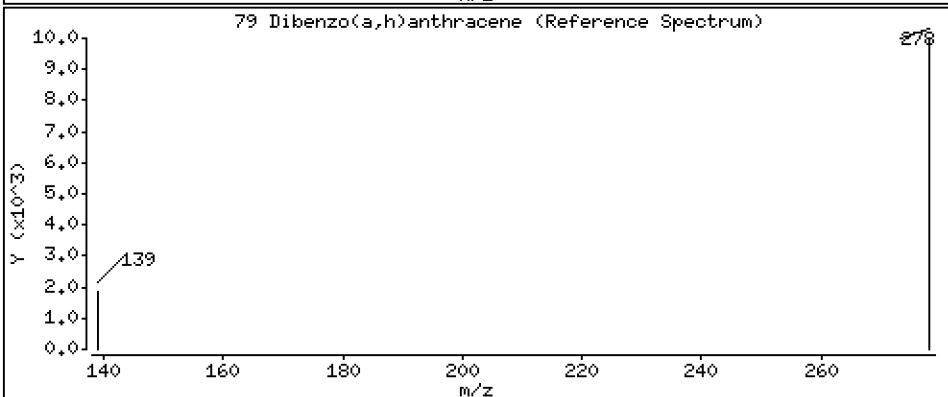
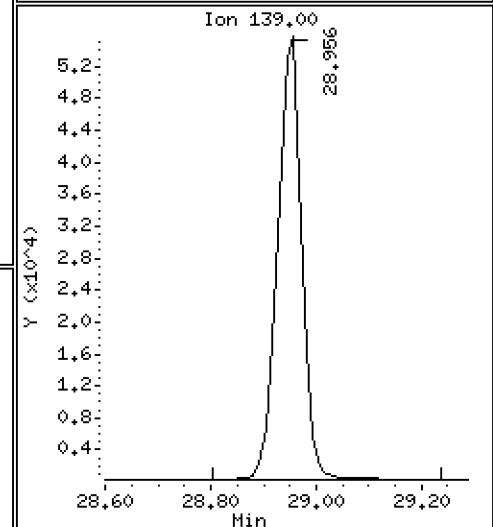
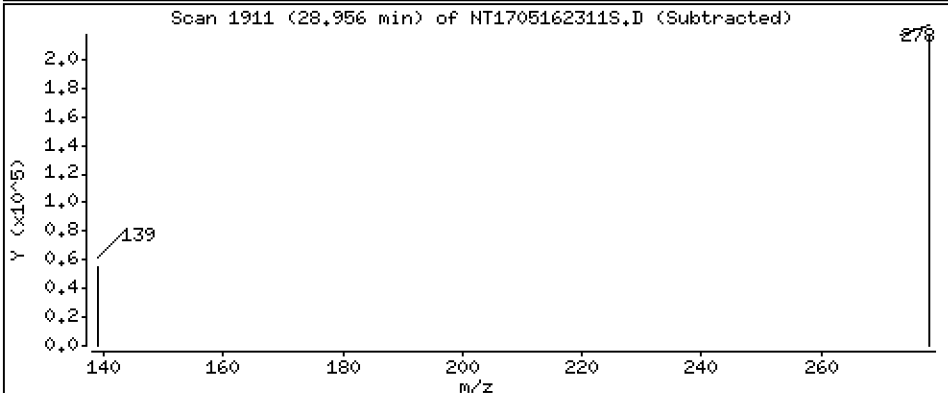
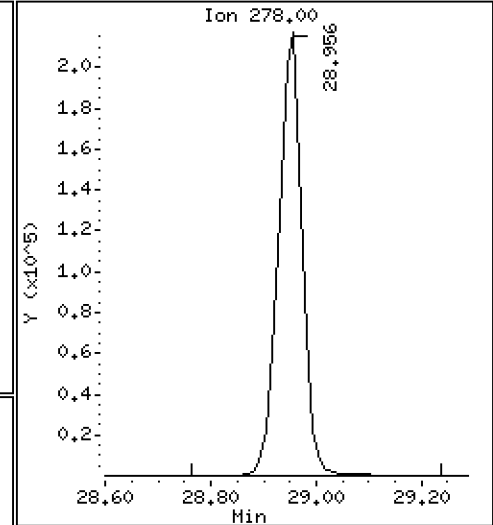
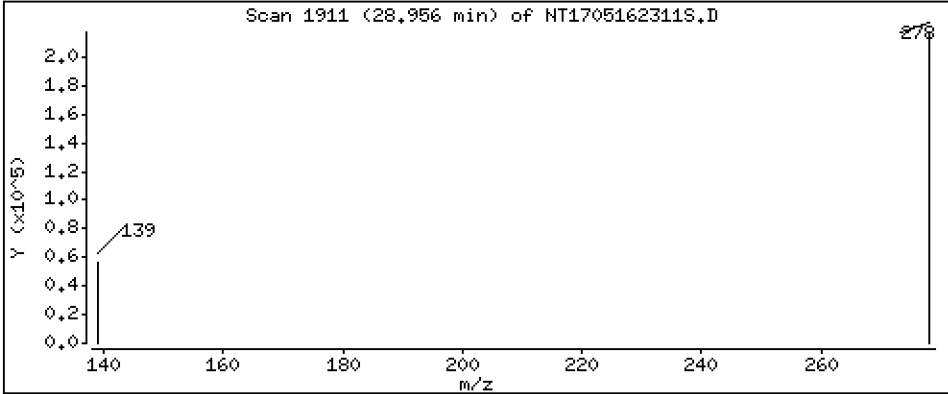
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 5,149 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

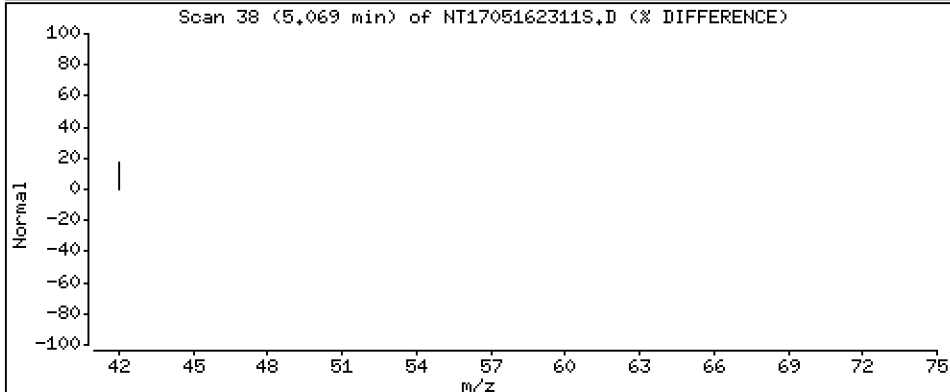
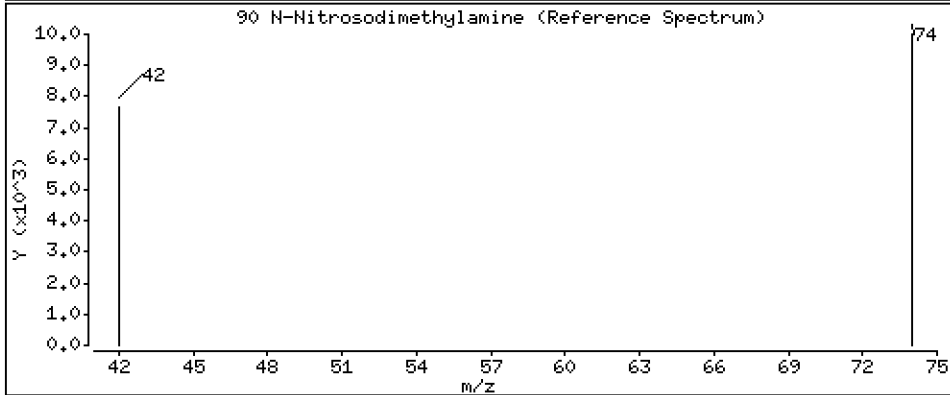
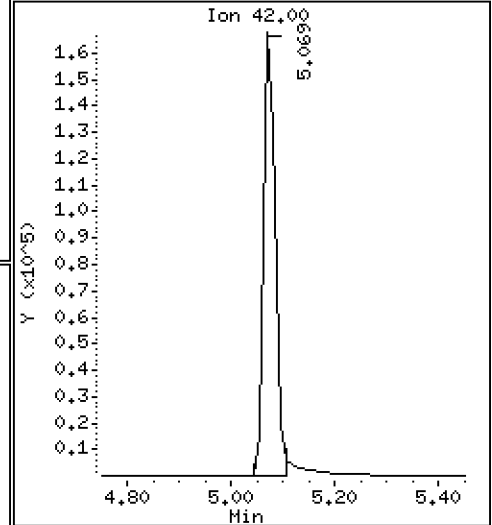
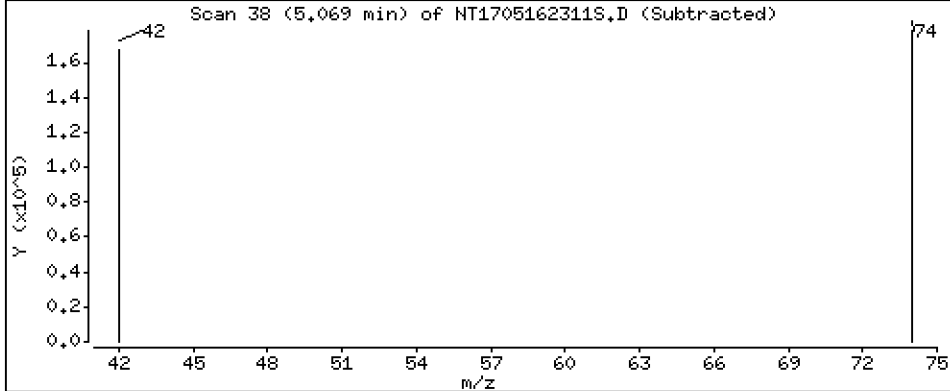
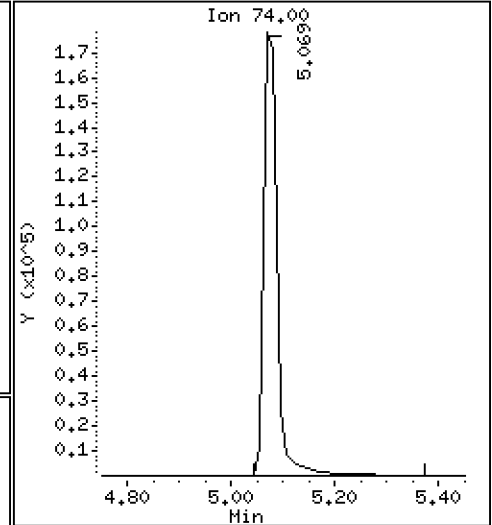
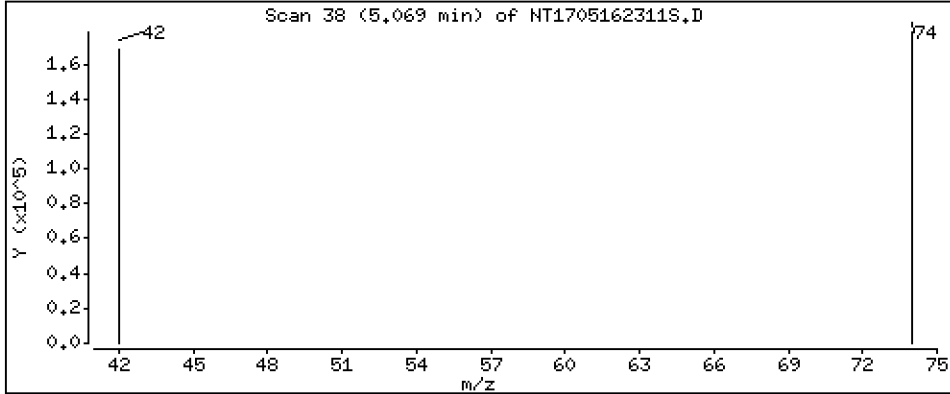
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.868 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0339-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
3 Phenol	94		8.750	8.751	(0.933)	616997	4.88420	4.884
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	575988	5.08691	5.087
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	280298	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	566257	5.13211	5.132
11 Benzyl alcohol	79		9.630	9.656	(1.027)	410745	5.70628	5.706
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	541461	5.00685	5.007
13 2-Methylphenol	108		9.848	9.861	(1.050)	385832	4.40762	4.408
15 4-Methylphenol	108		10.129	10.129	(1.080)	423610	4.78832	4.788
16 N-Nitroso-di-n-propylamine	70		10.193	10.180	(1.087)	349317	5.47874	5.479
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	366886	3.81638	3.816
24 Benzoic acid	105		11.329	11.356	(0.957)	465783	7.77732	7.777
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	427934	4.90638	4.906
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	999390	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	238867	5.20120	5.201
39 Dimethylphthalate	163		14.938	14.926	(0.968)	1015804	5.23967	5.240
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	527927	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	964439	5.47782	5.478
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	681829	5.62729	5.627
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	208857	5.08140	5.081
58 Pentachlorophenol	266		18.200	18.214	(0.986)	108866	4.50590	4.506
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	860054	4.00000	
\$ 66 Terphenyl-d14	244		Compound Not Detected.					
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	642329	5.90509	5.905
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	527529	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	475440	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	690513	5.14916	5.149
90 N-Nitrosodimethylamine	74		5.068	5.094	(0.541)	321072	5.86783	5.868

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	280298	-11.32
27 Naphthalene-d8	1102073	551037	2204146	999390	-9.32
42 Acenaphthene-d10	583826	291913	1167652	527927	-9.57
59 Phenanthrene-d10	970917	485459	1941834	860054	-11.42
69 Chrysene-d12	590568	295284	1181136	527529	-10.67
77 Perylene-d12	537938	268969	1075876	475440	-11.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311S.D

Lab ID: SLE0339-SCV1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 17-MAY-2023 00:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9569	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00070

Laboratory ID: SLE0339-SCV1

Sequence: SLE0339

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	5.1	2.6	20.00
1,2-Dichlorobenzene	5.0000	5.0	0.1	20.00
Benzyl Alcohol	5.0000	5.7	14.1	20.00
Benzoic acid	10.000	7.8	-22.2 *	20.00
2,4-Dimethylphenol	5.0000	3.8	-23.7 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-1.9	20.00
N-Nitrosodiphenylamine	5.0000	5.6	12.5	20.00
Pentachlorophenol	5.0000	4.5	-9.9	20.00
2-Fluorophenol	7.5000	0.00		
p-Terphenyl-d14	5.0000	0.00		

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT17051623115.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0339-SCW1

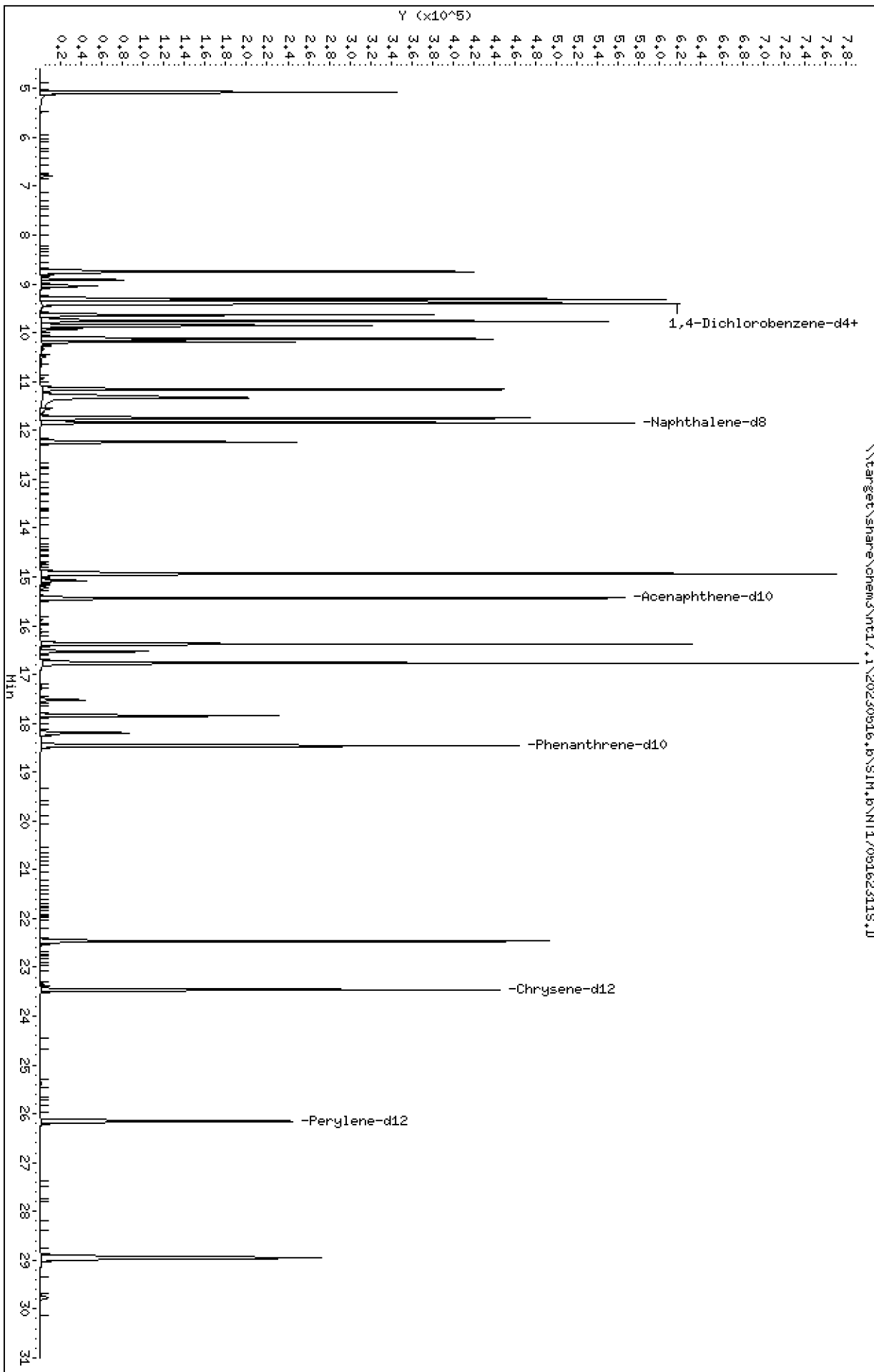
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

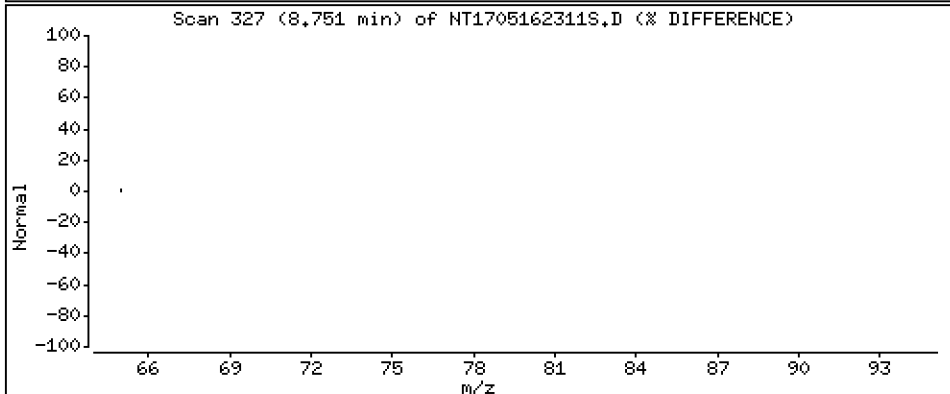
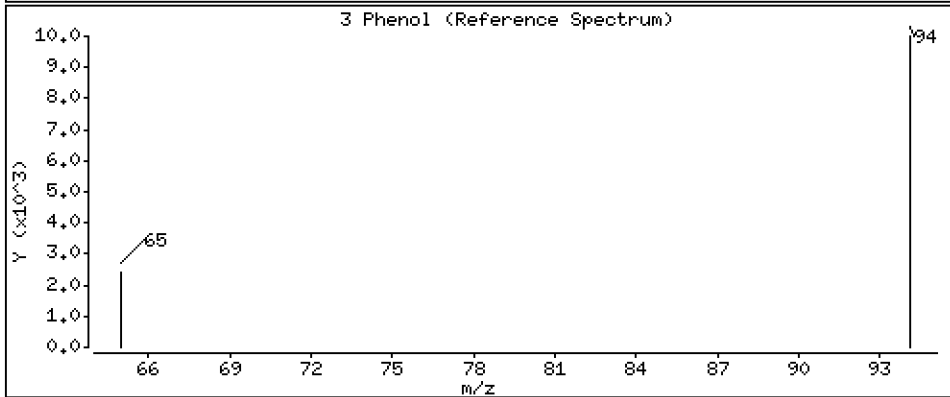
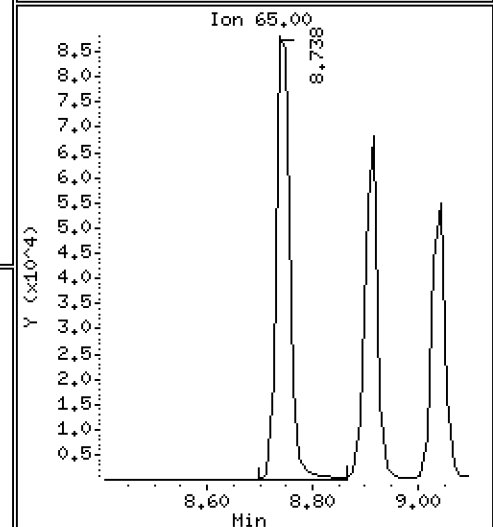
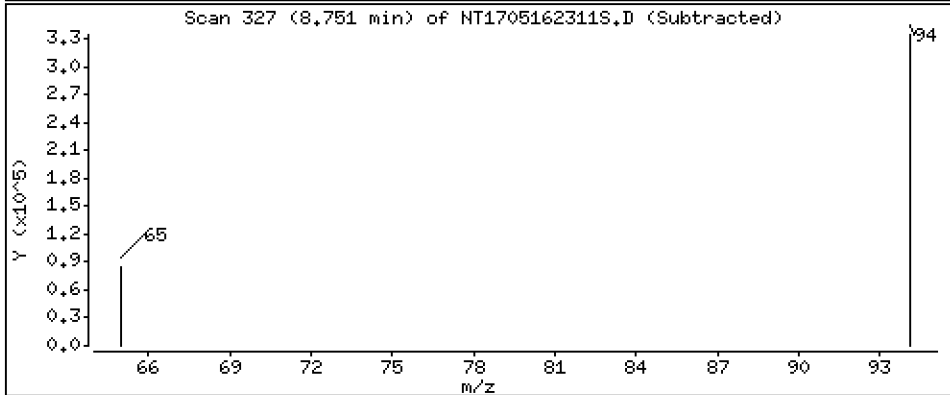
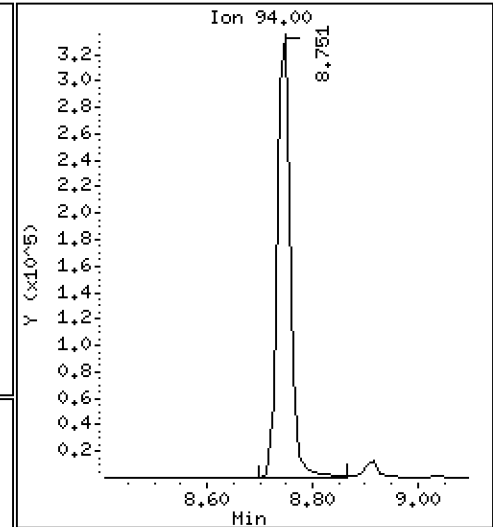
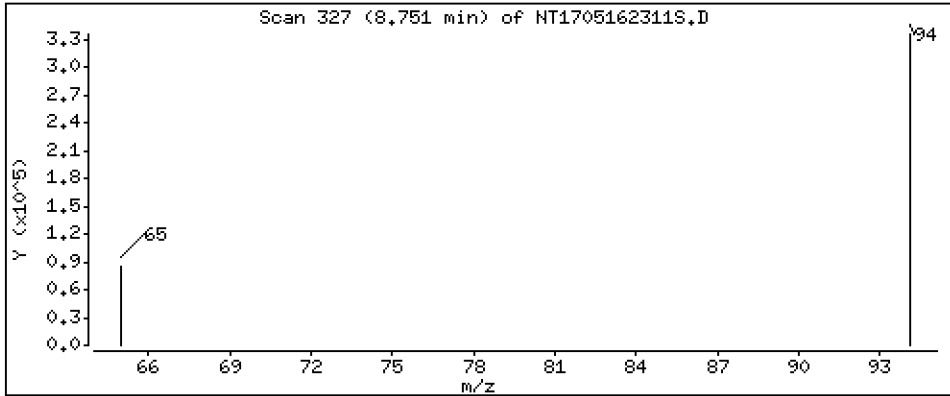
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,884 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

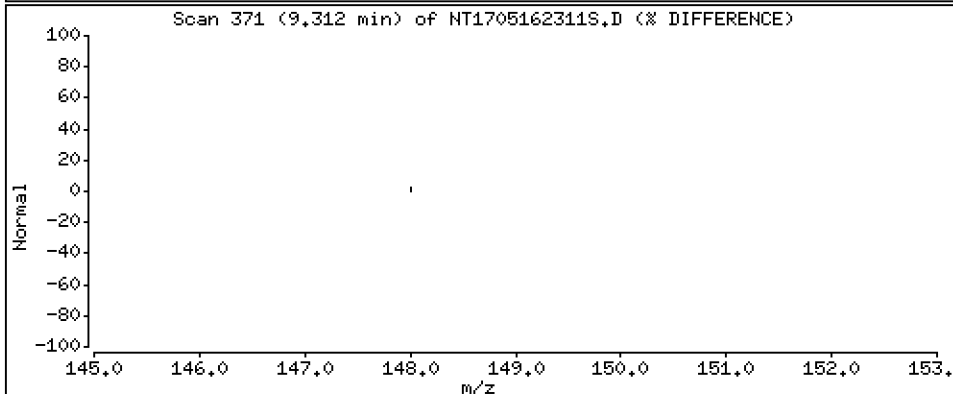
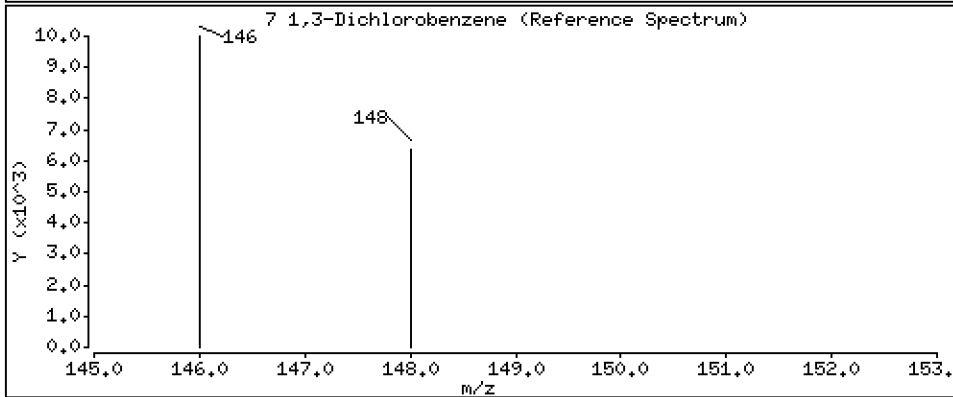
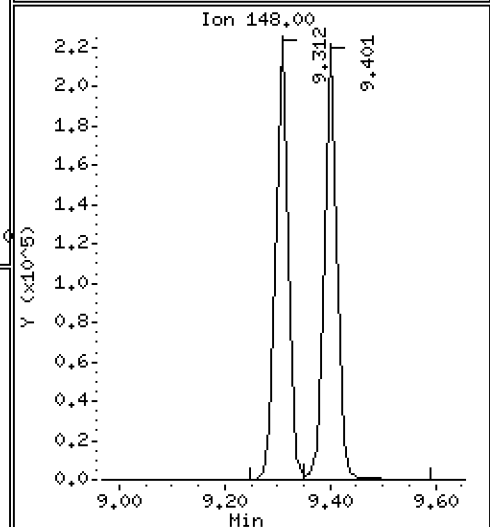
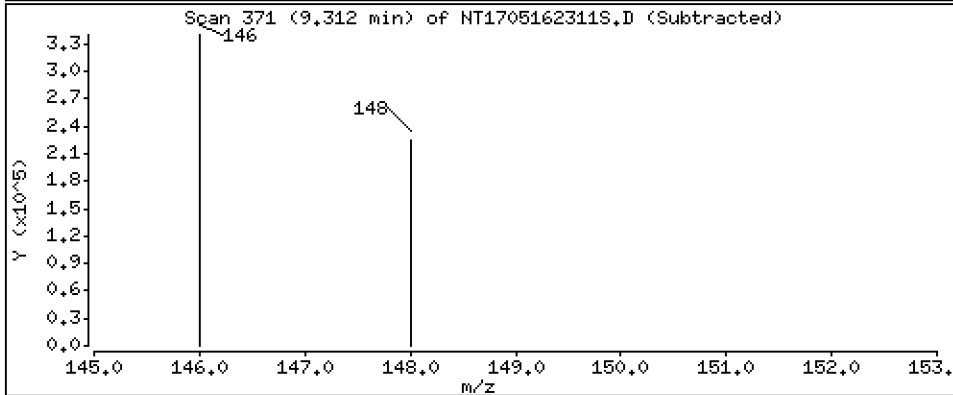
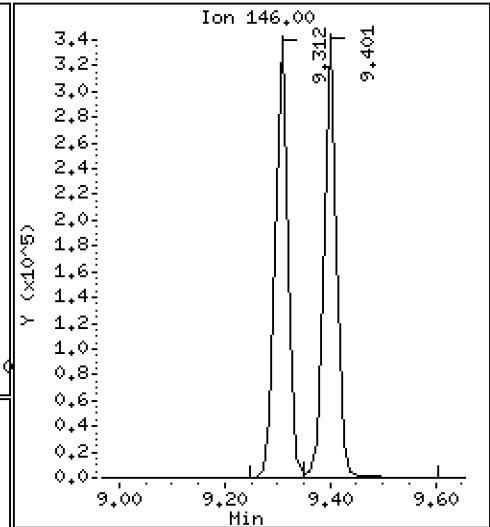
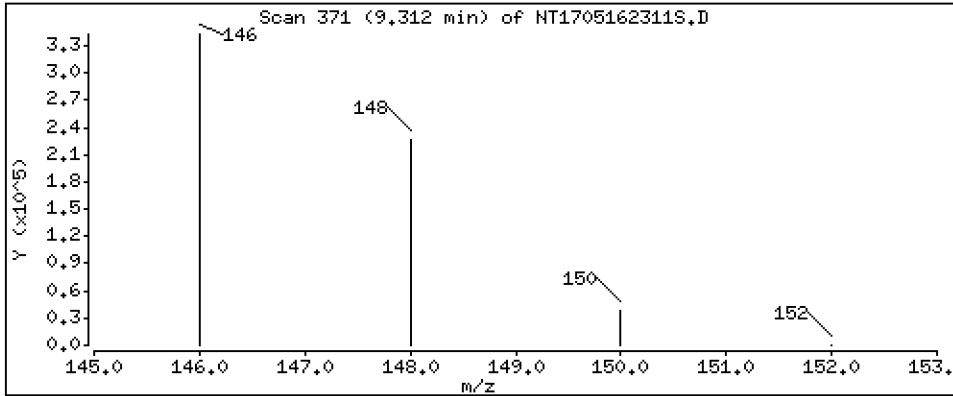
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 5,087 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

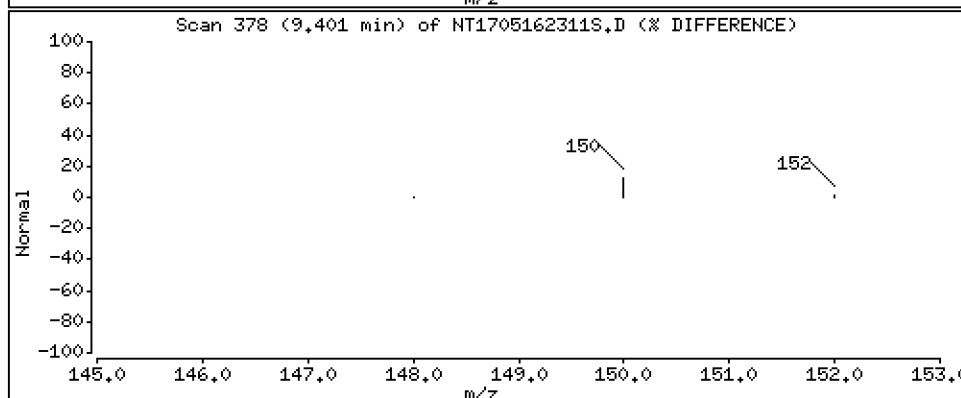
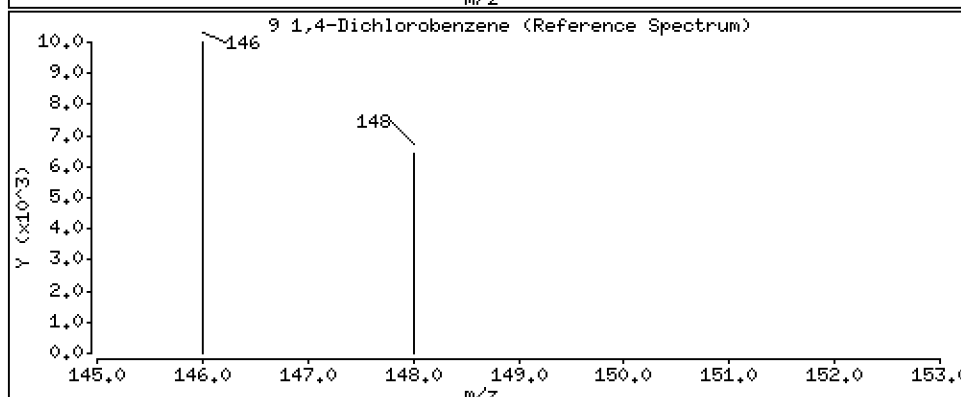
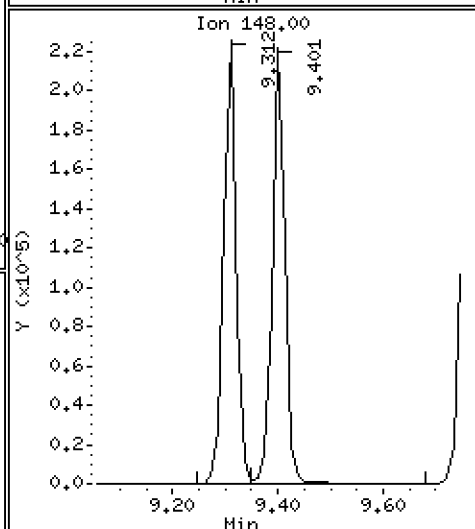
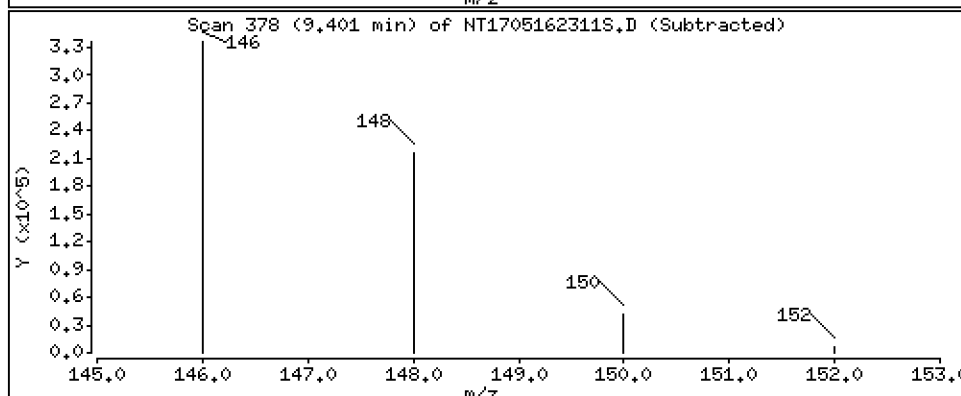
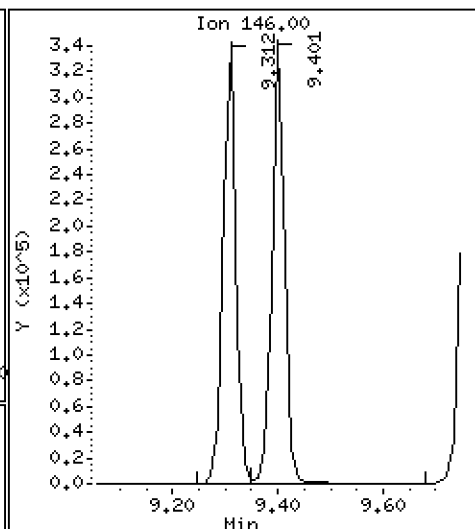
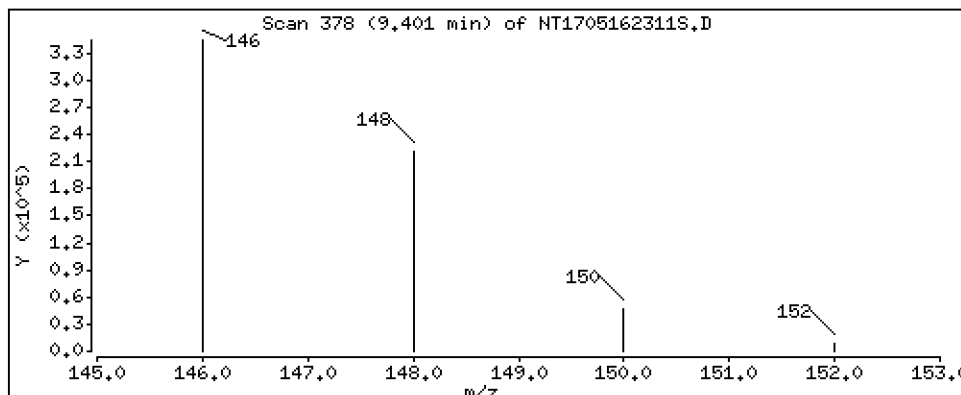
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 5,132 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

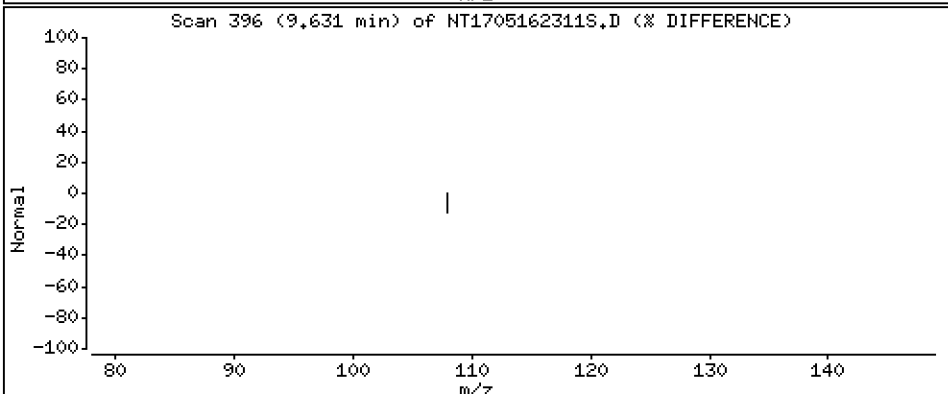
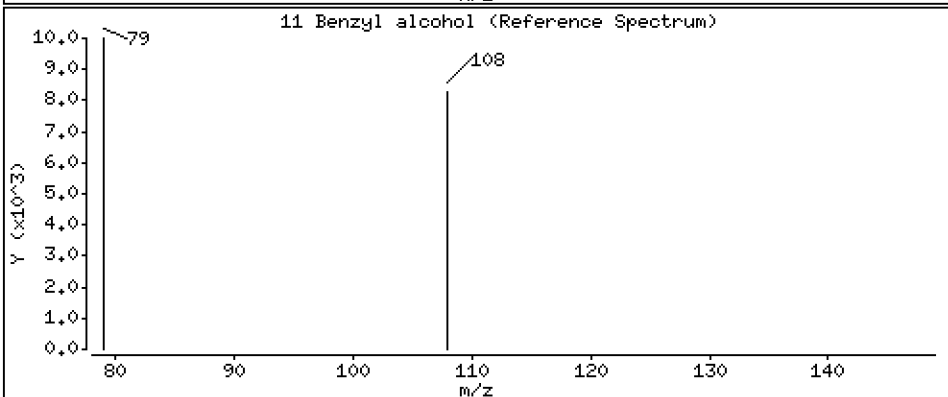
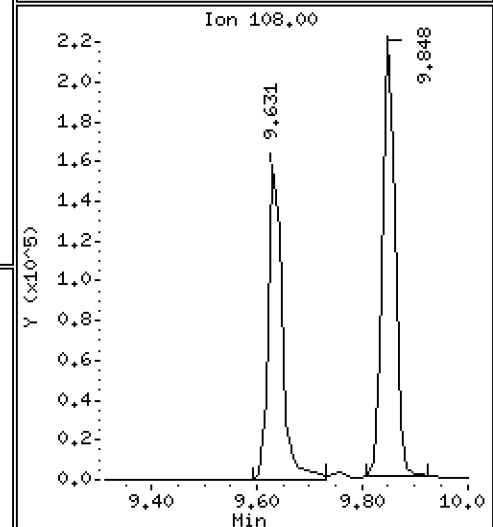
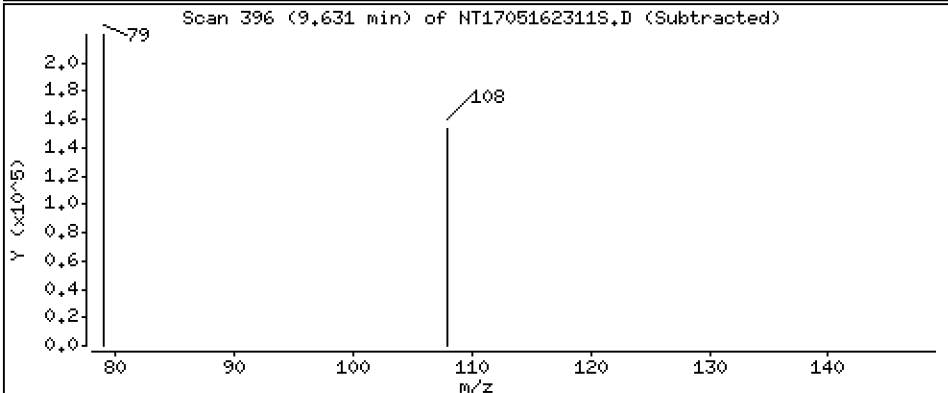
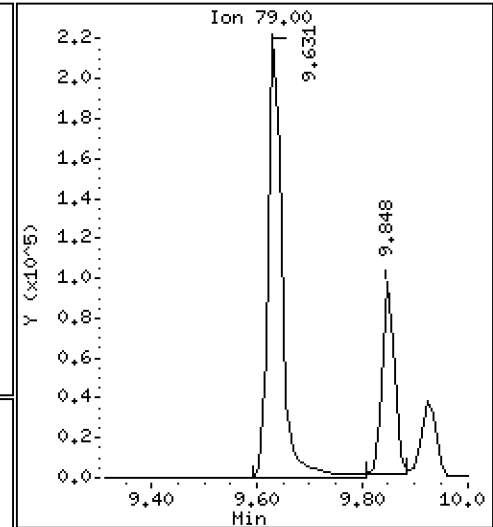
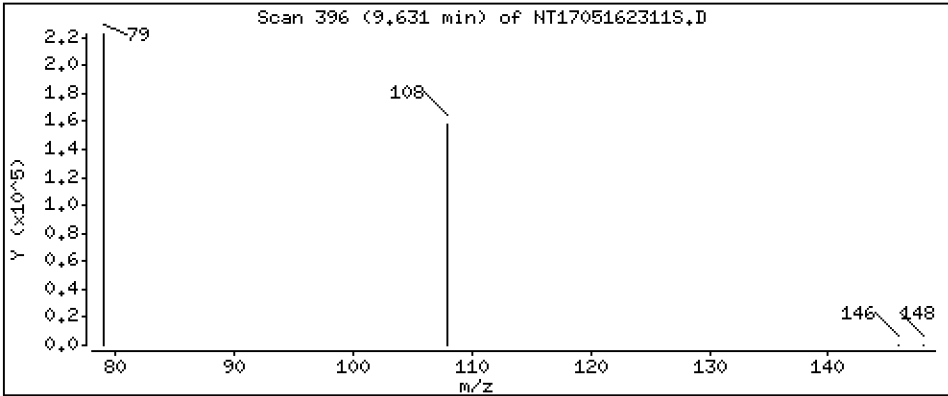
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 5,706 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

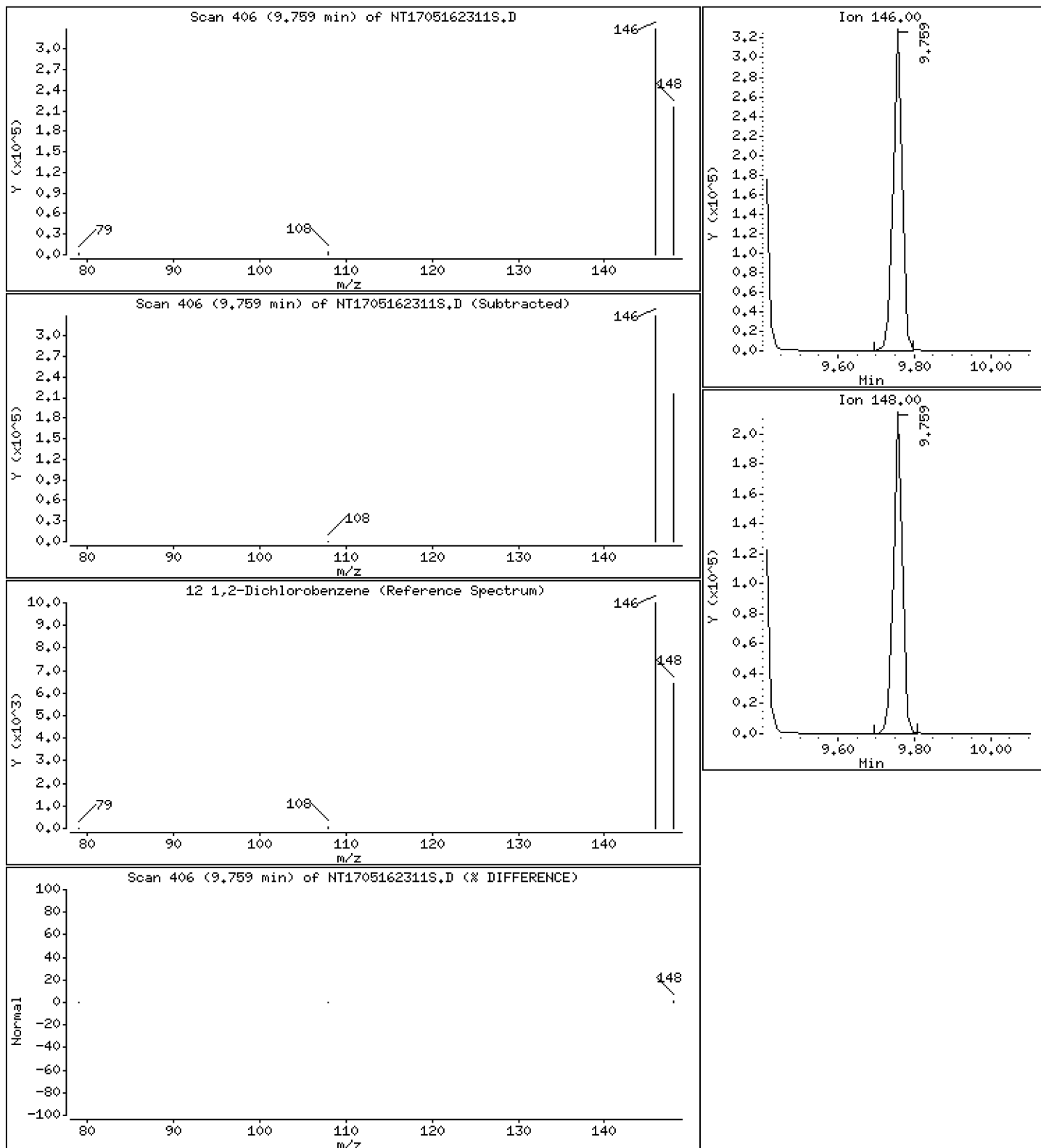
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.007 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

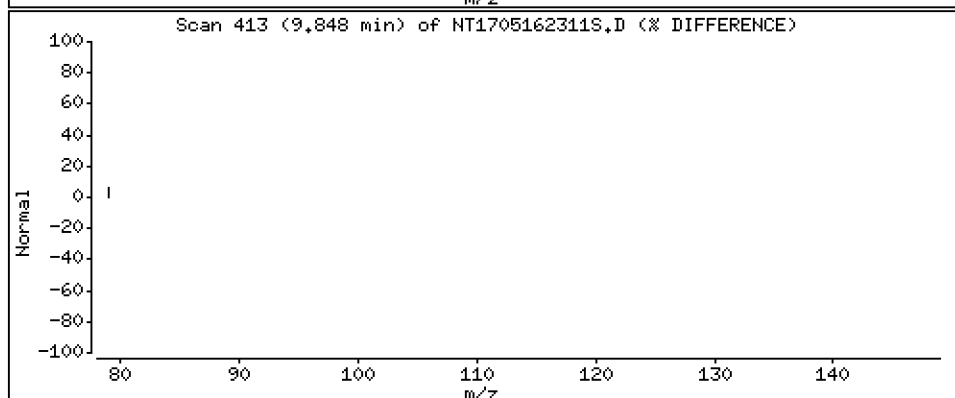
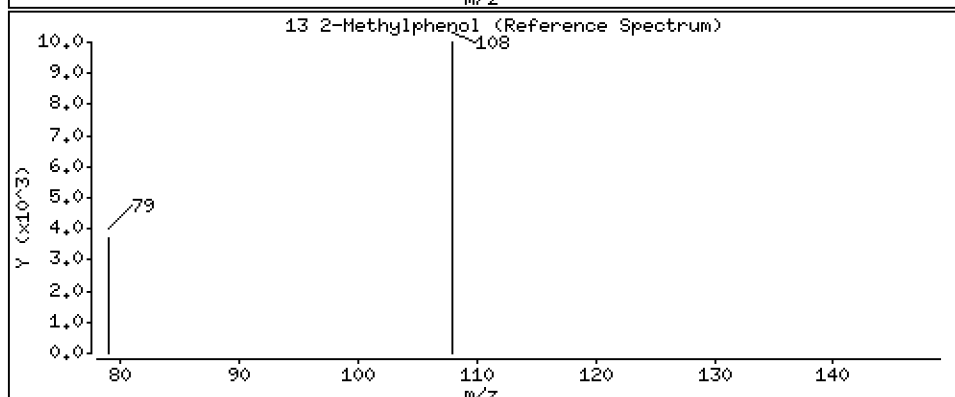
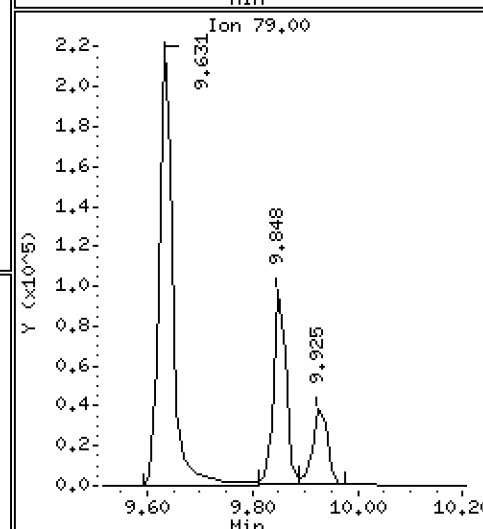
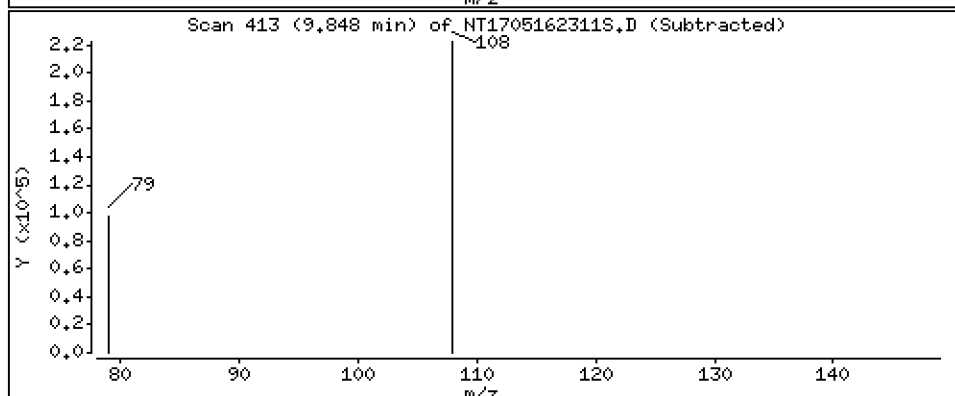
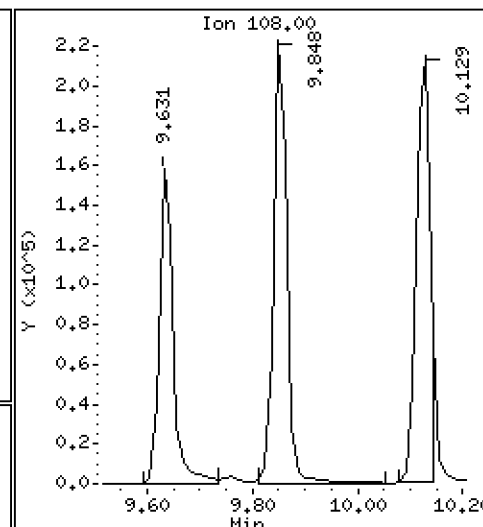
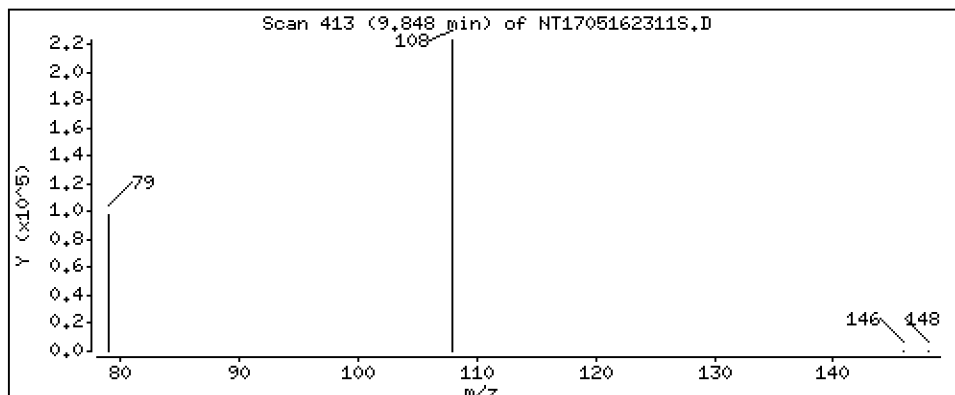
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,408 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

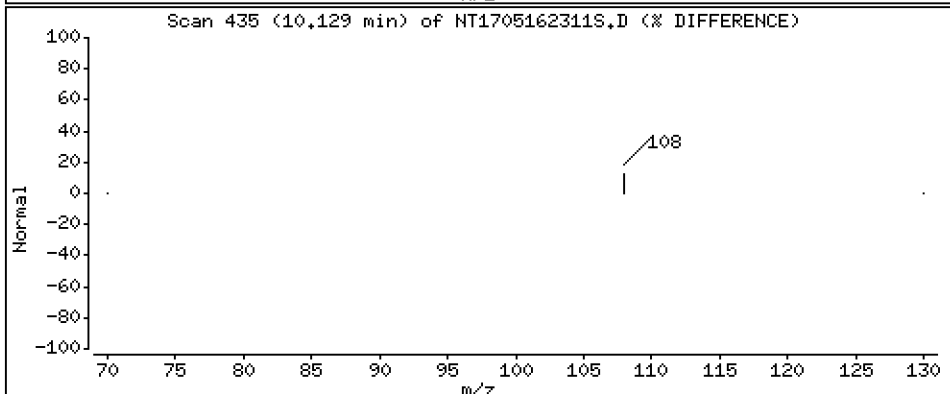
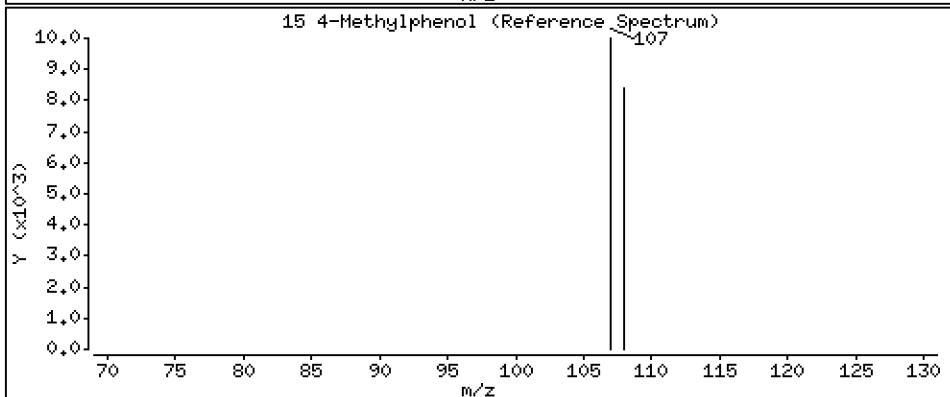
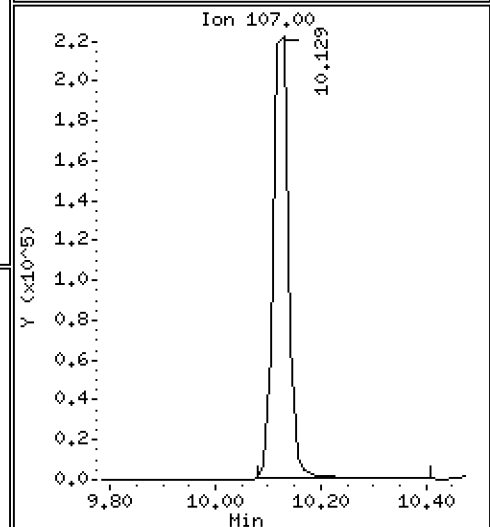
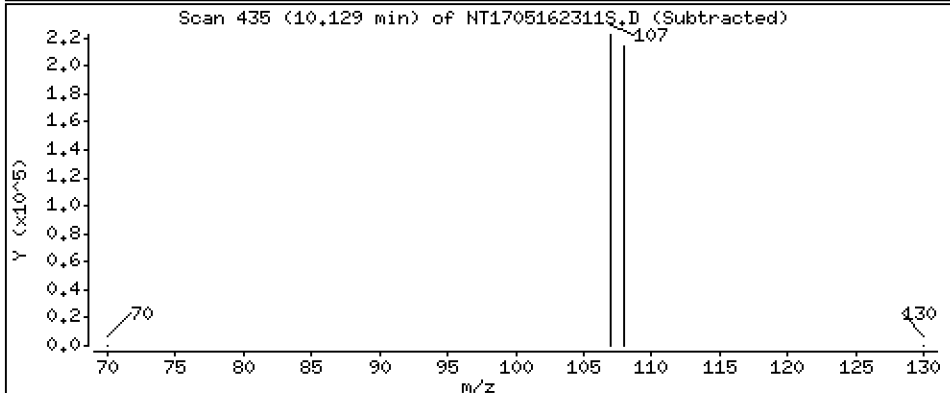
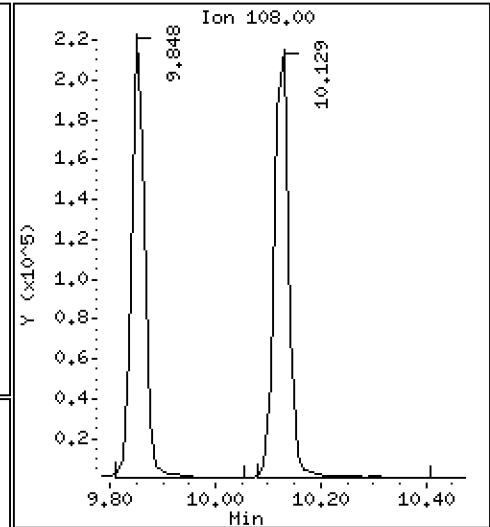
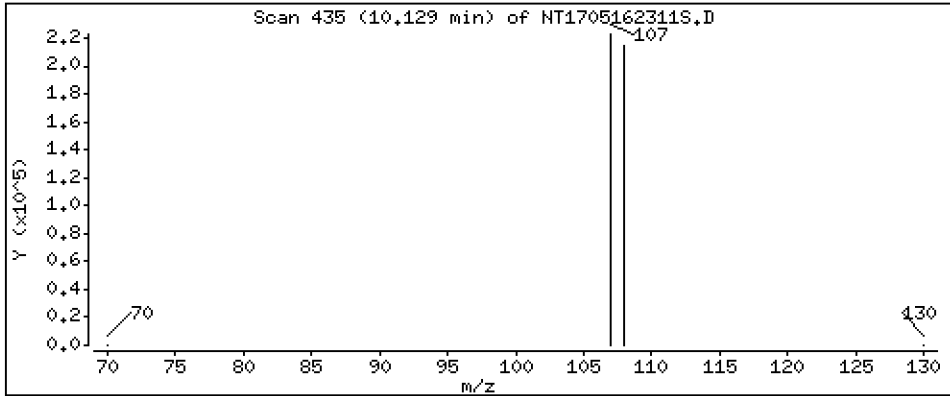
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

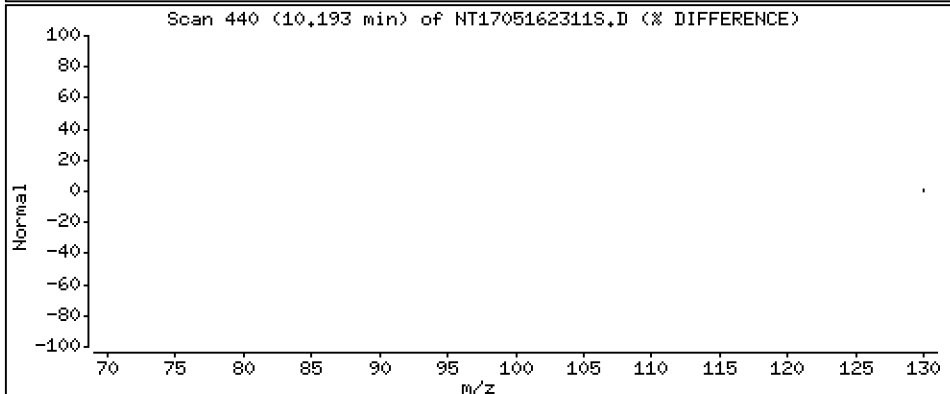
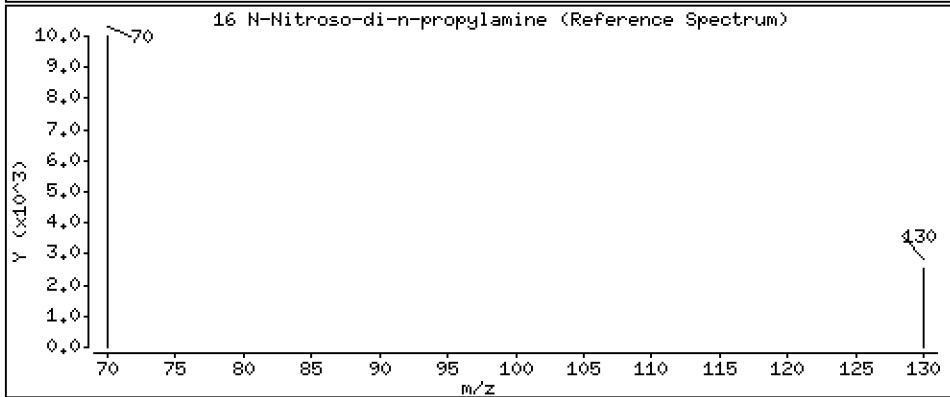
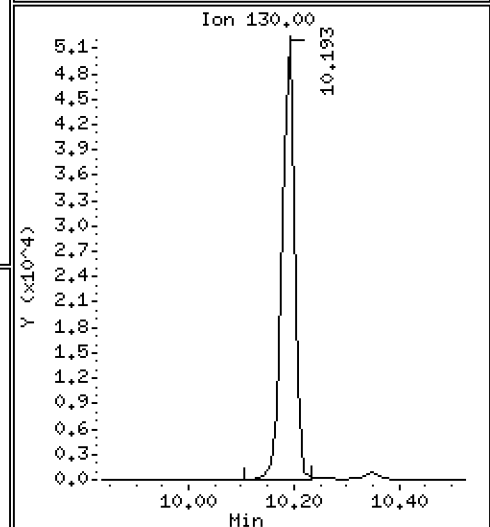
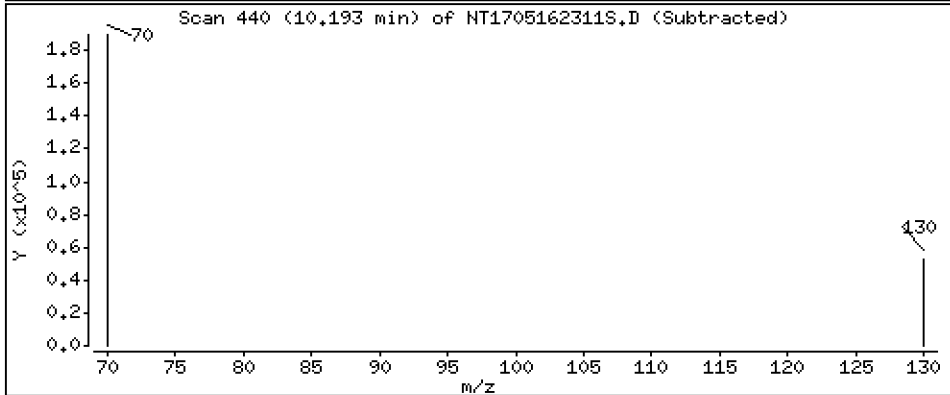
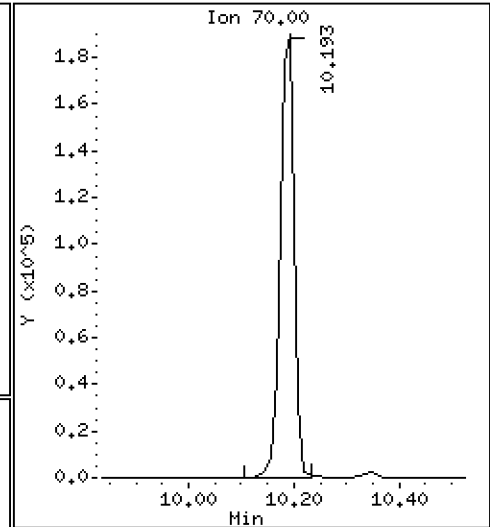
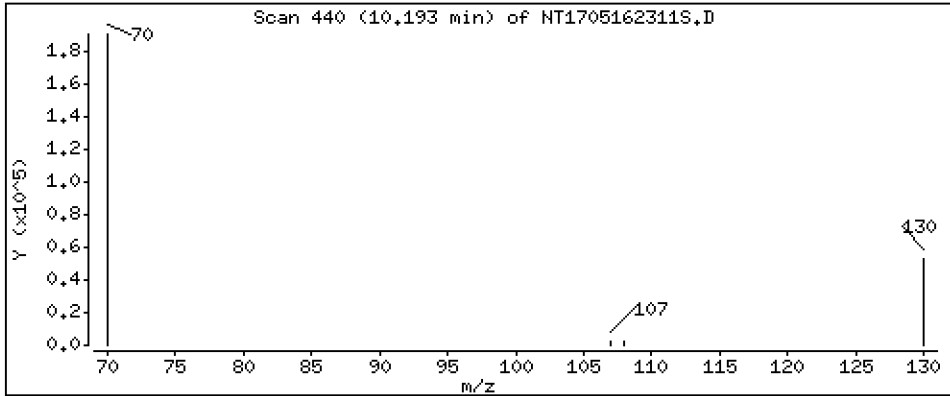
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,479 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

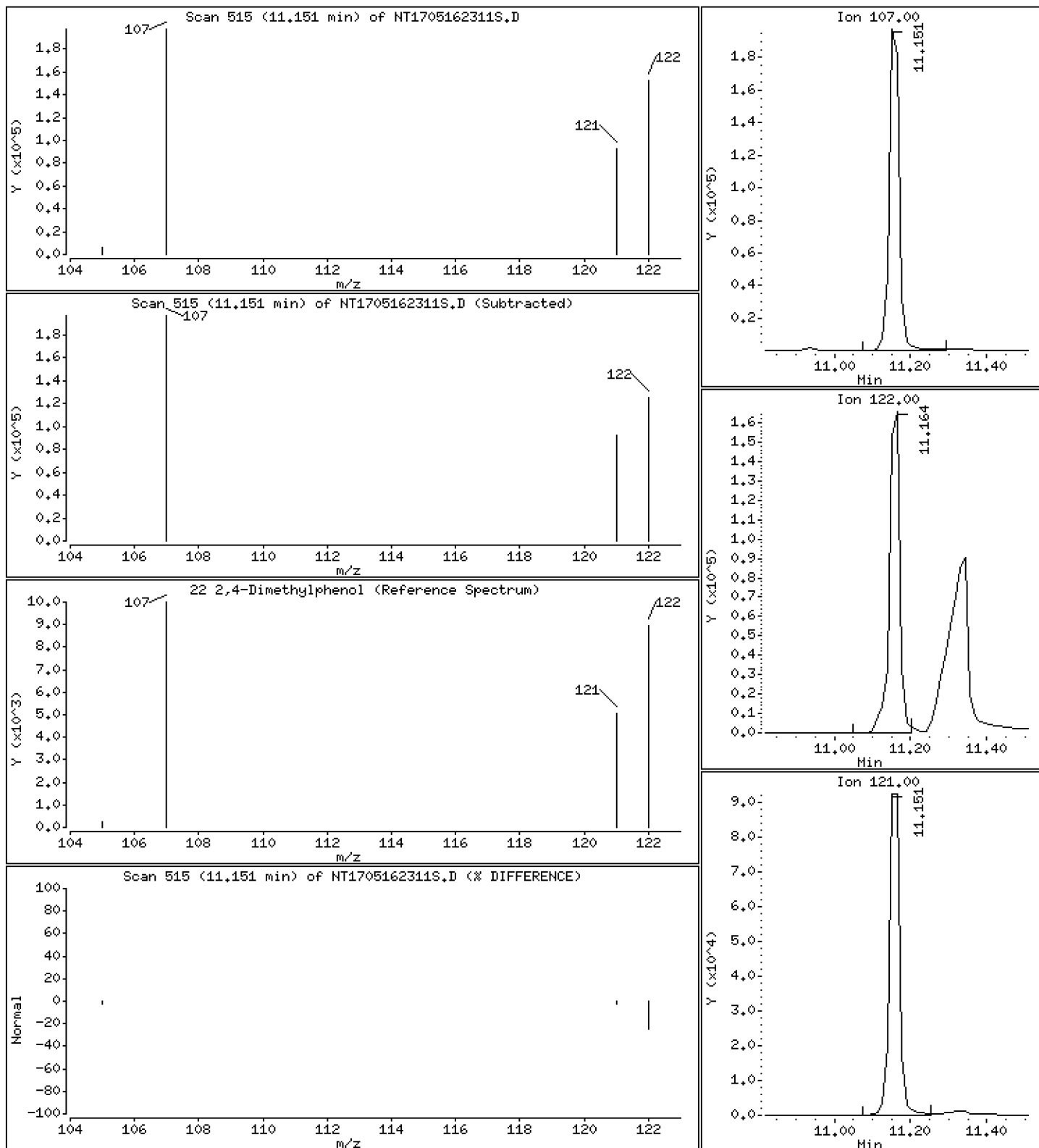
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3.816 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

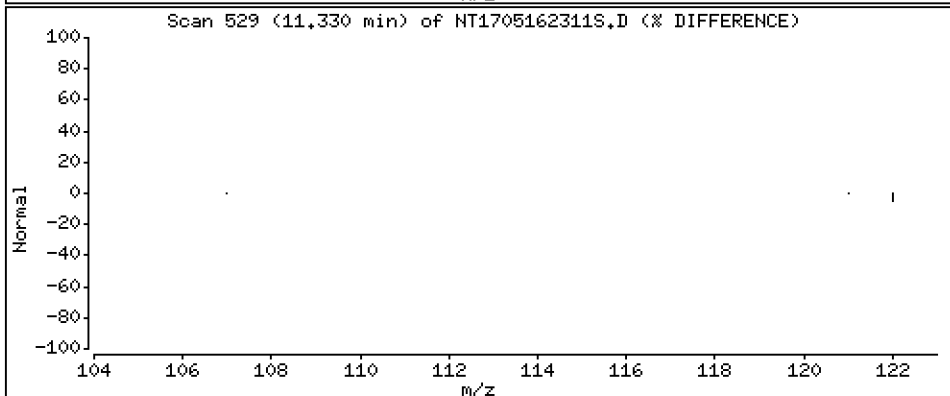
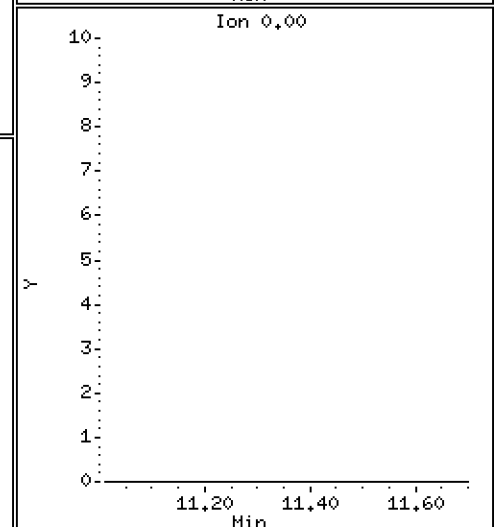
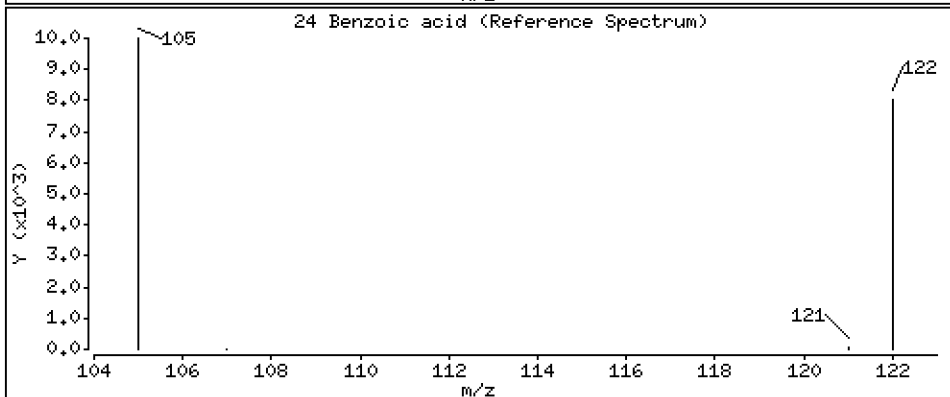
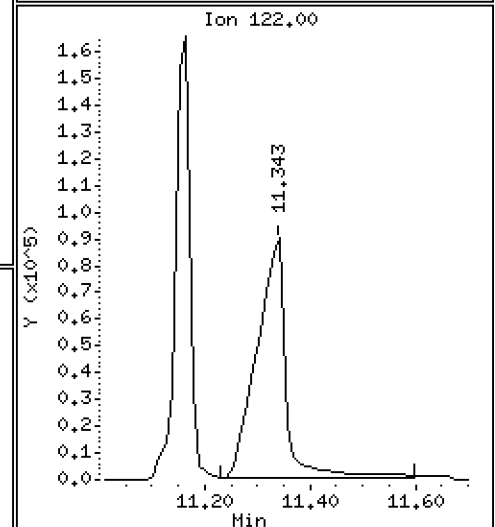
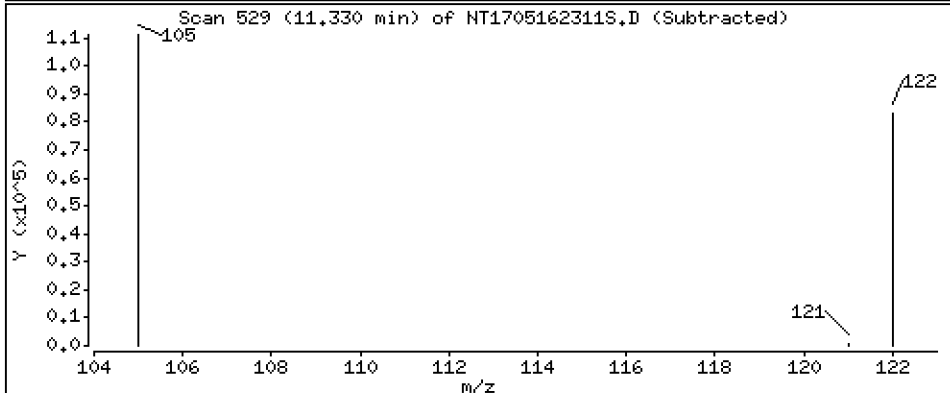
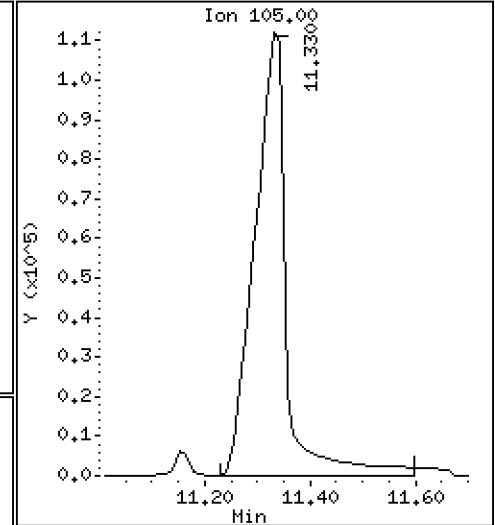
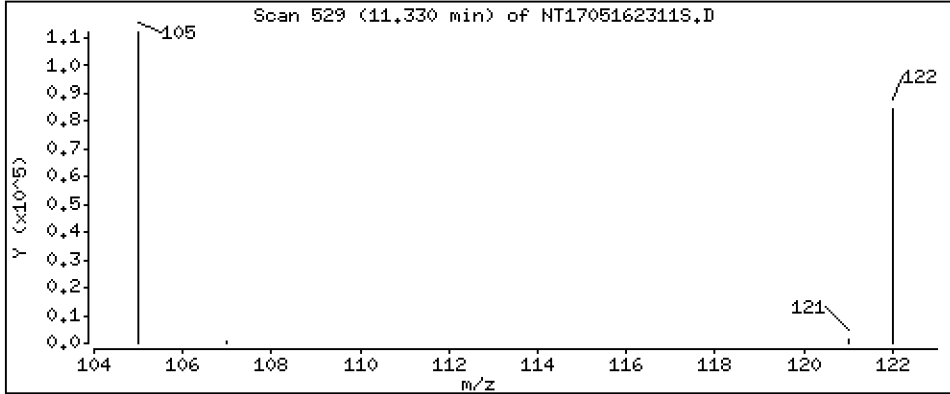
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 7.777 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

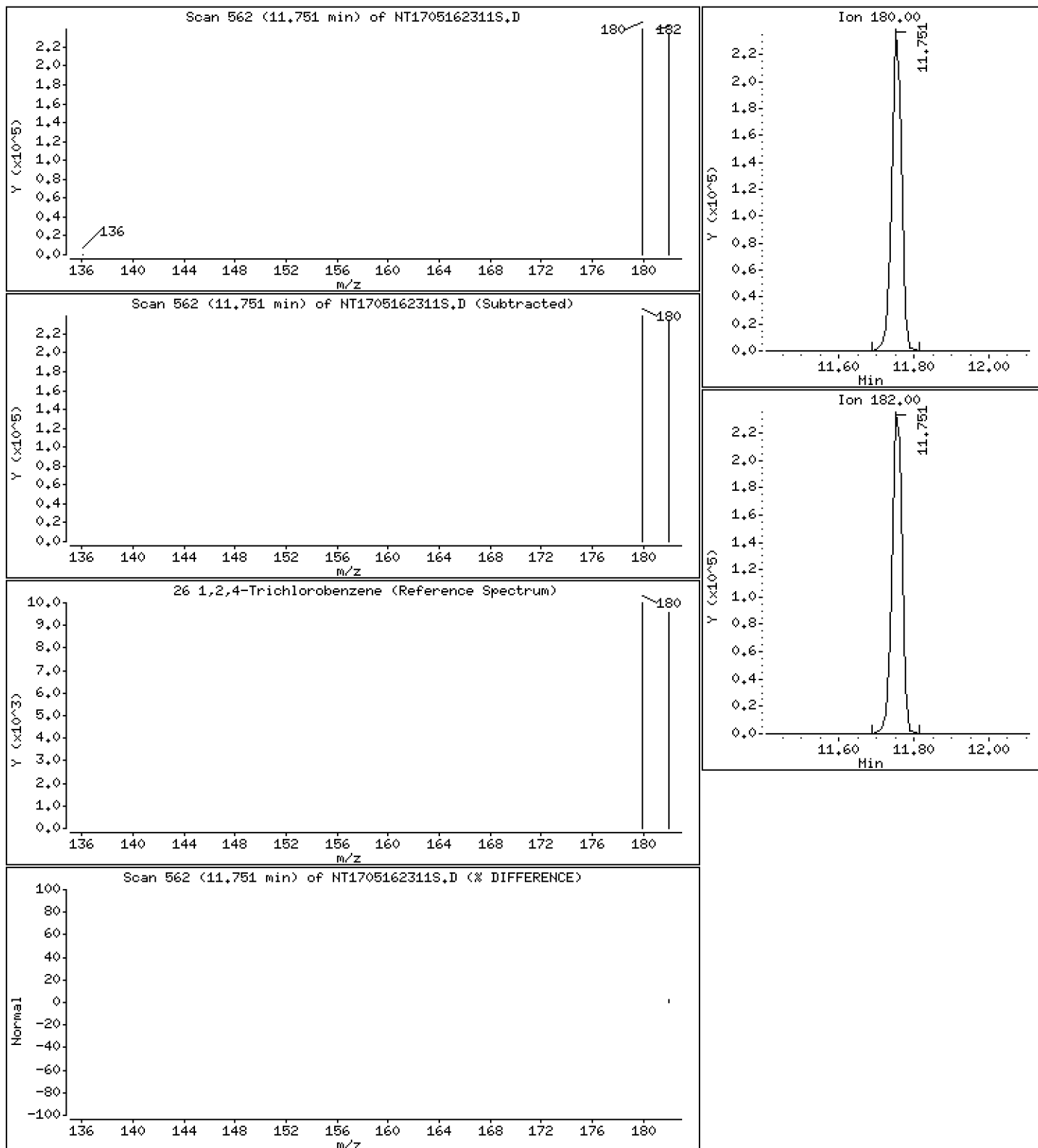
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,906 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

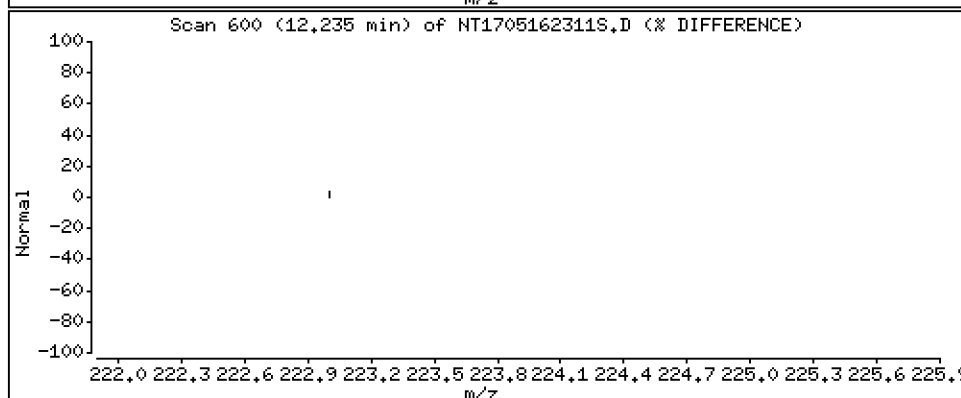
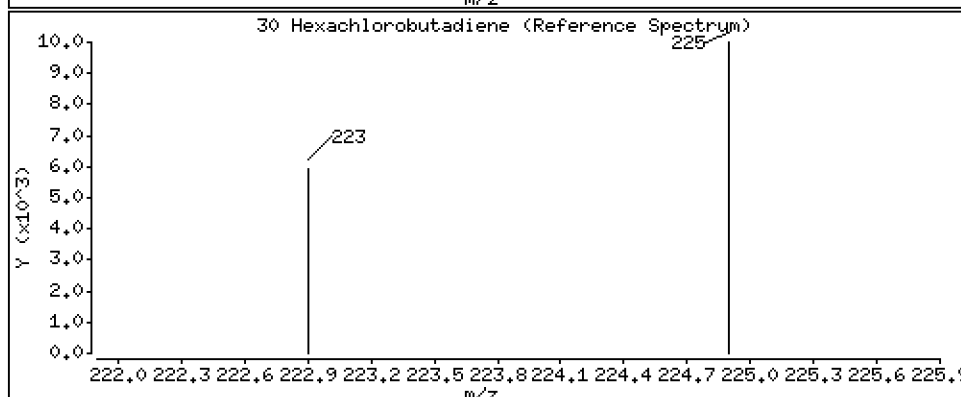
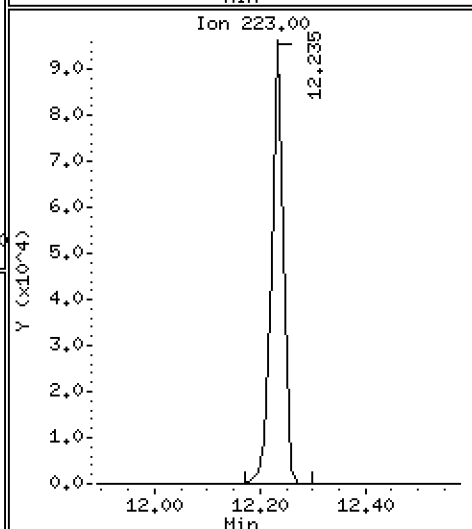
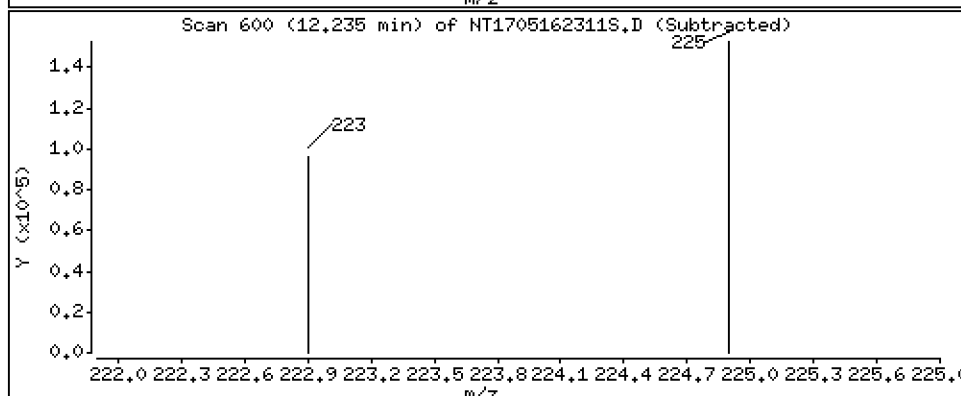
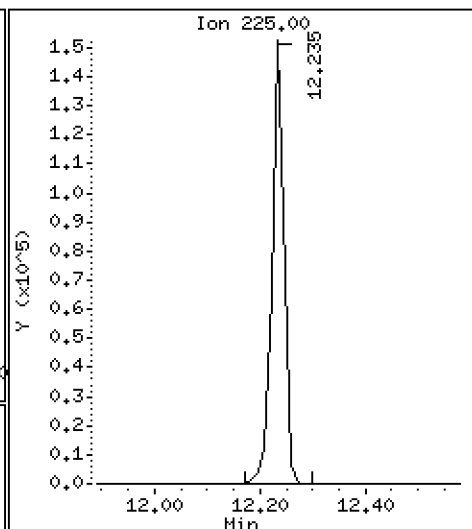
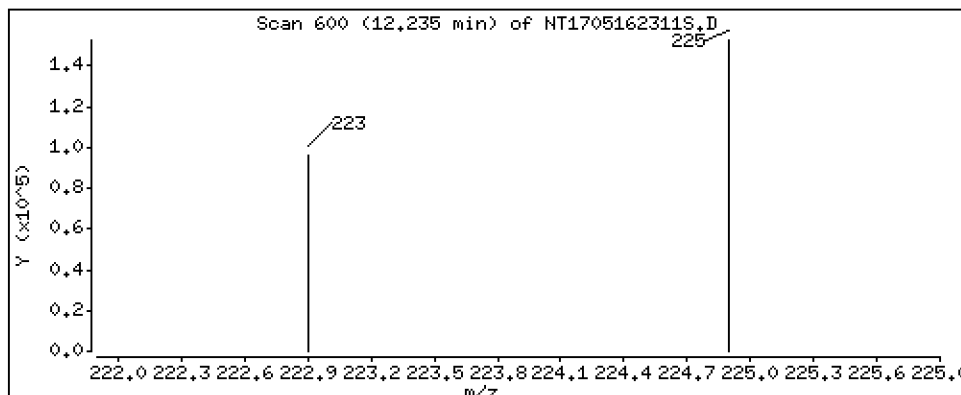
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,201 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

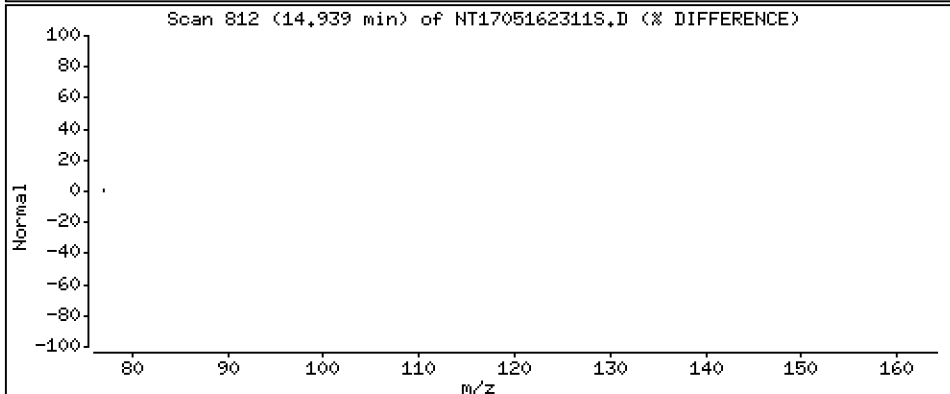
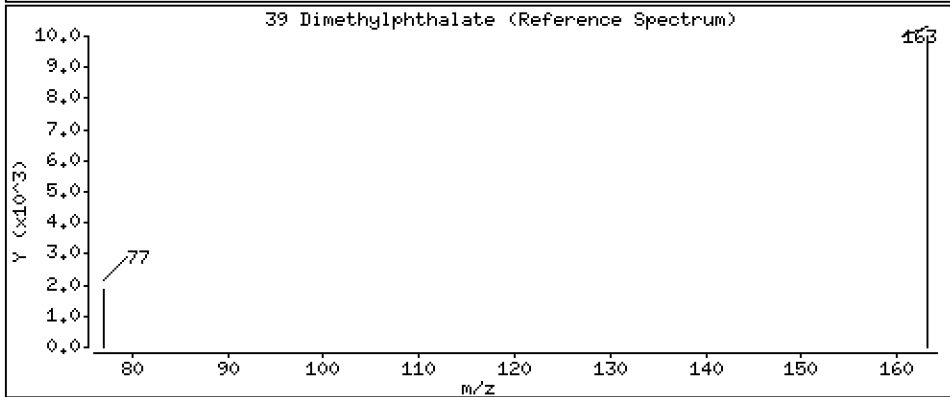
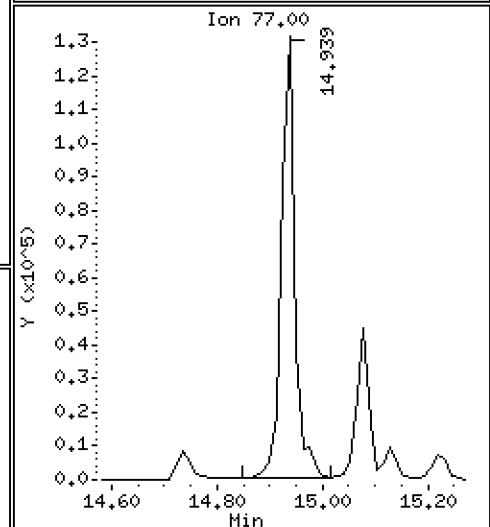
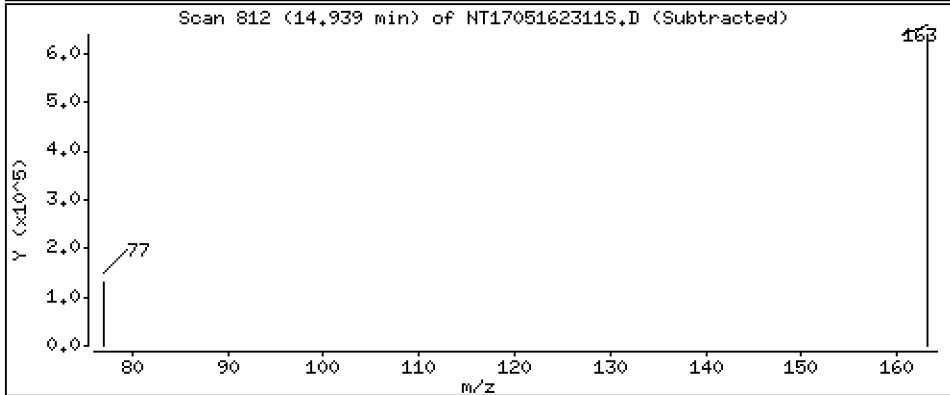
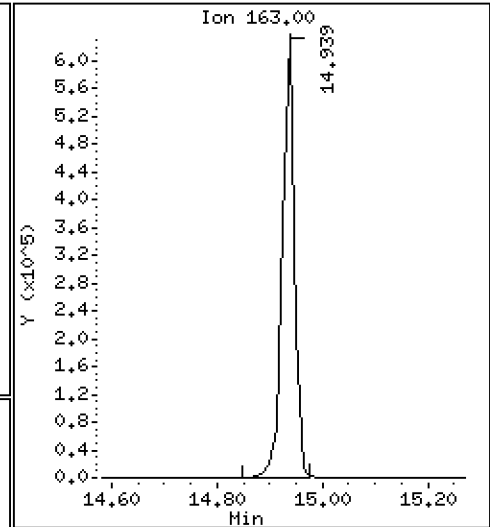
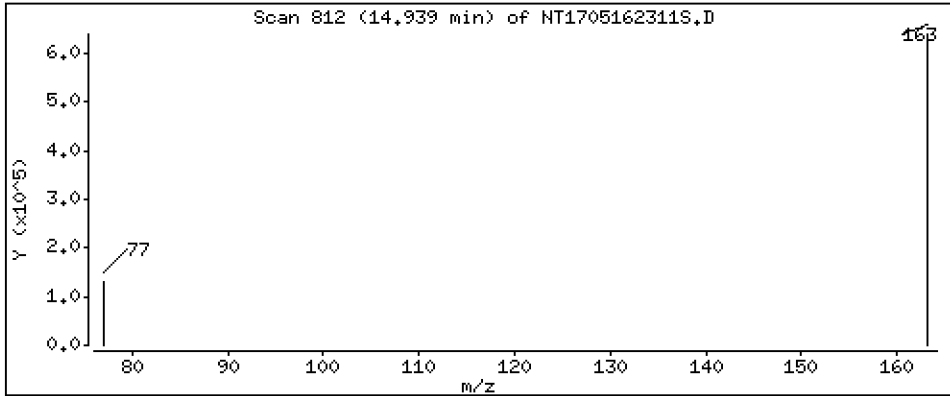
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,240 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

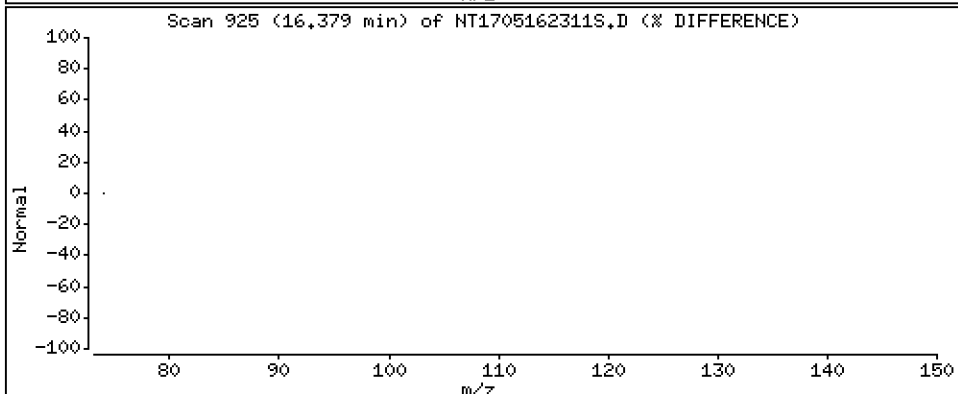
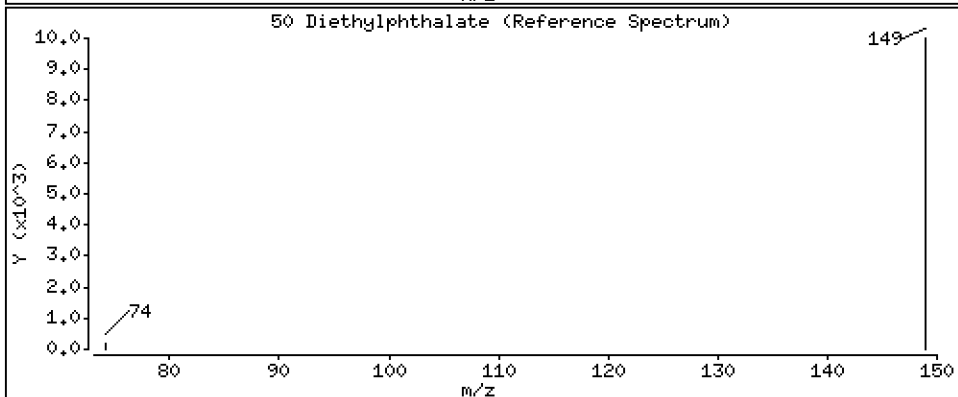
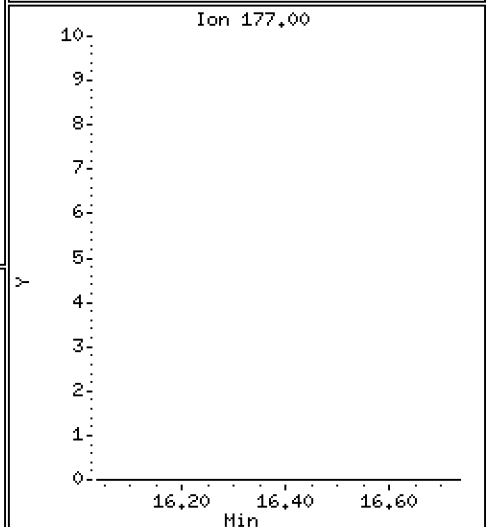
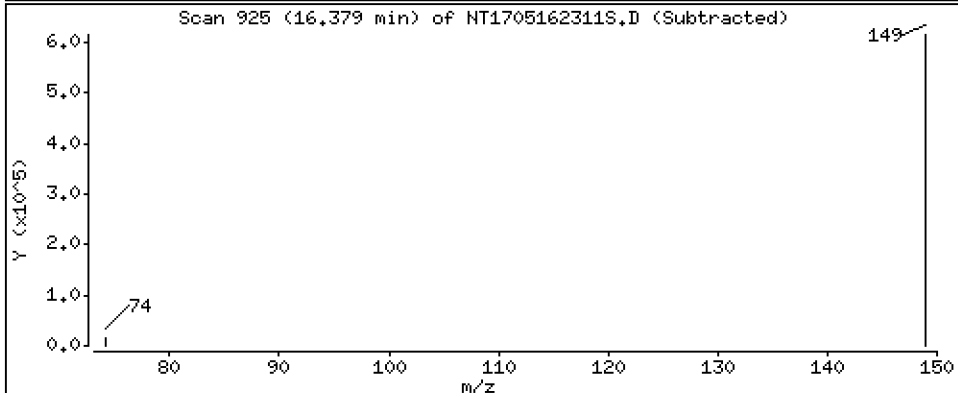
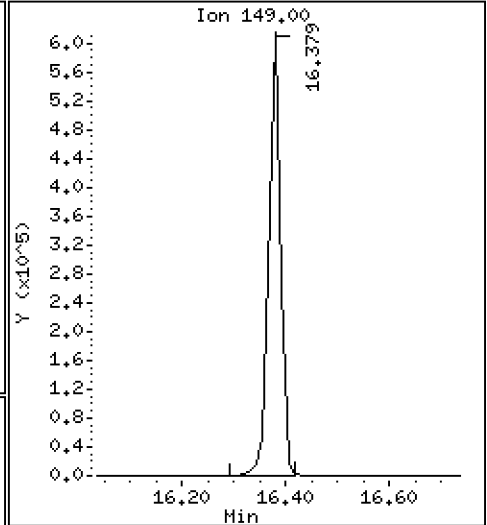
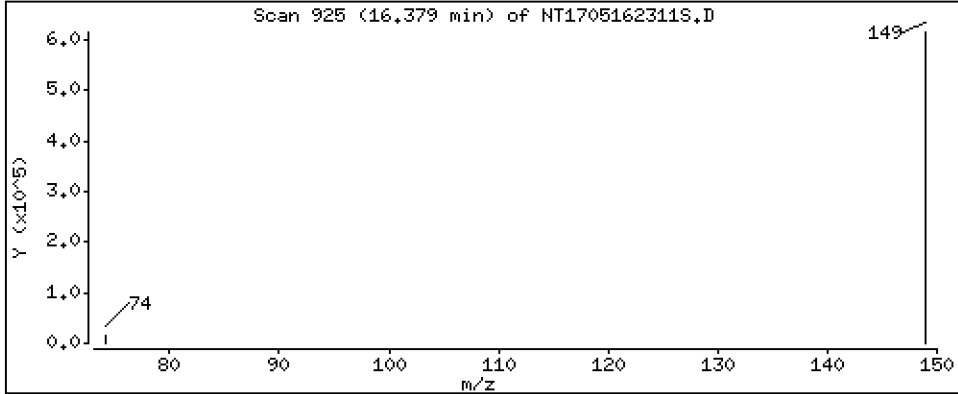
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,478 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

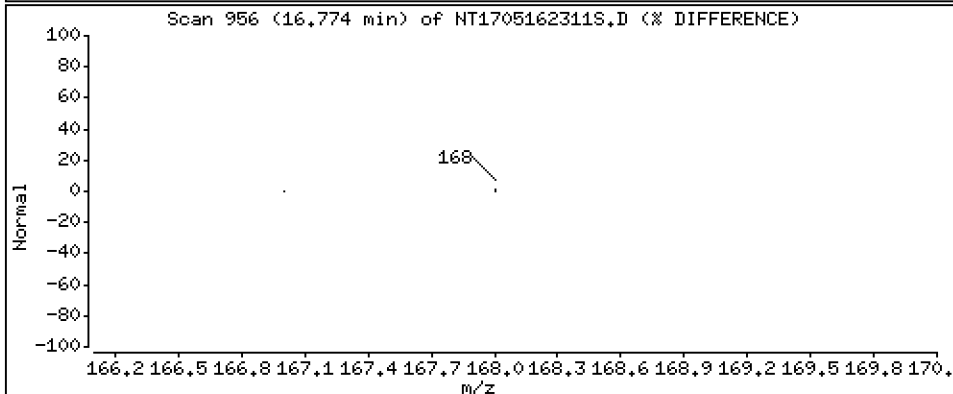
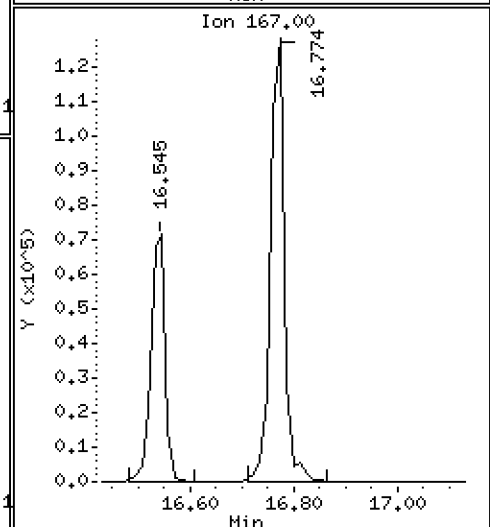
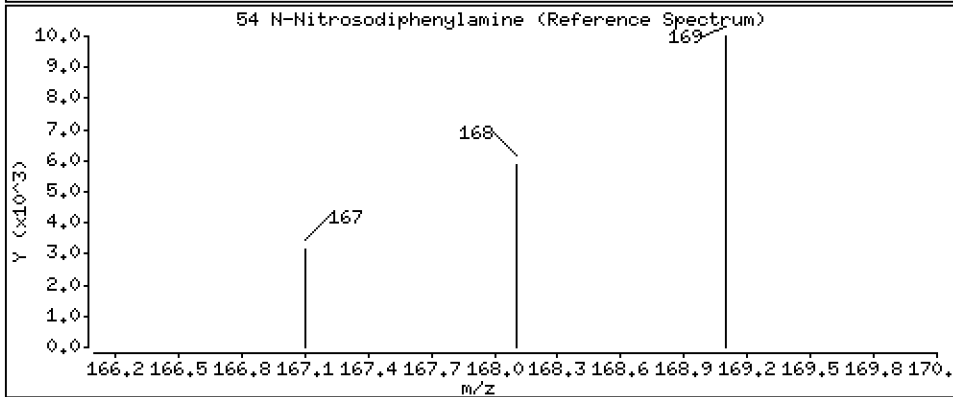
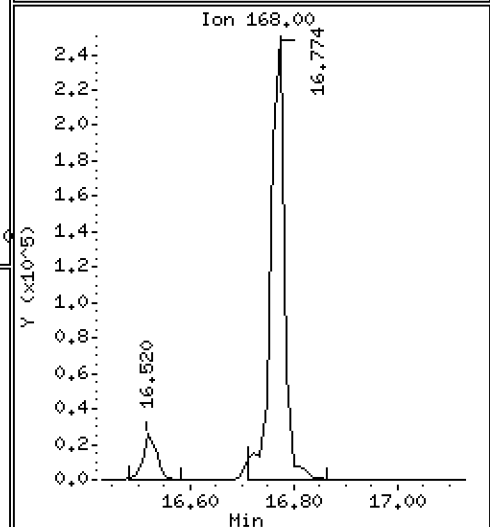
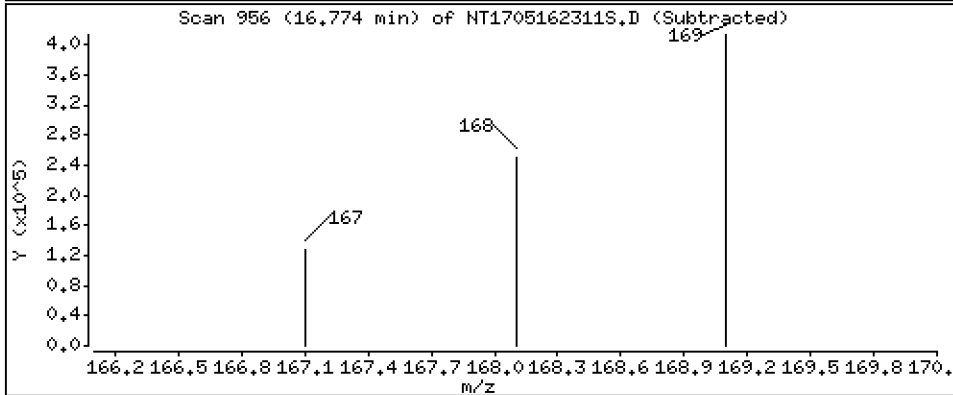
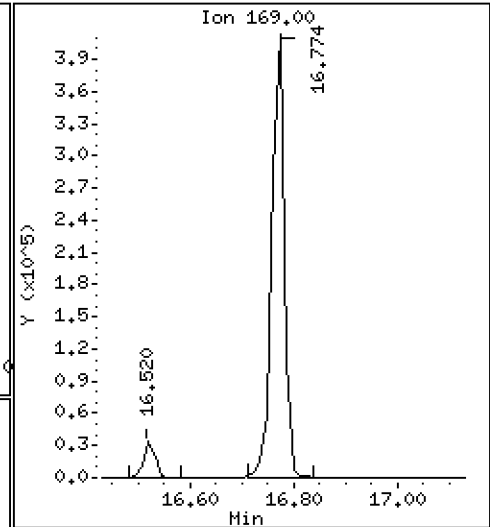
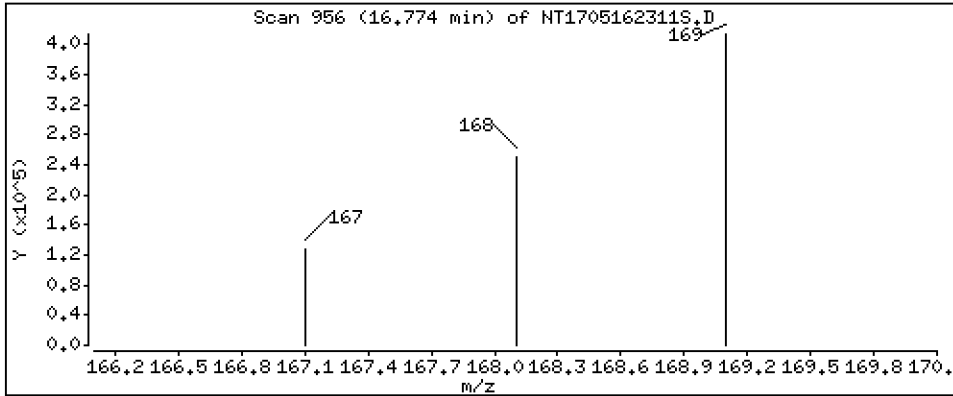
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,627 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

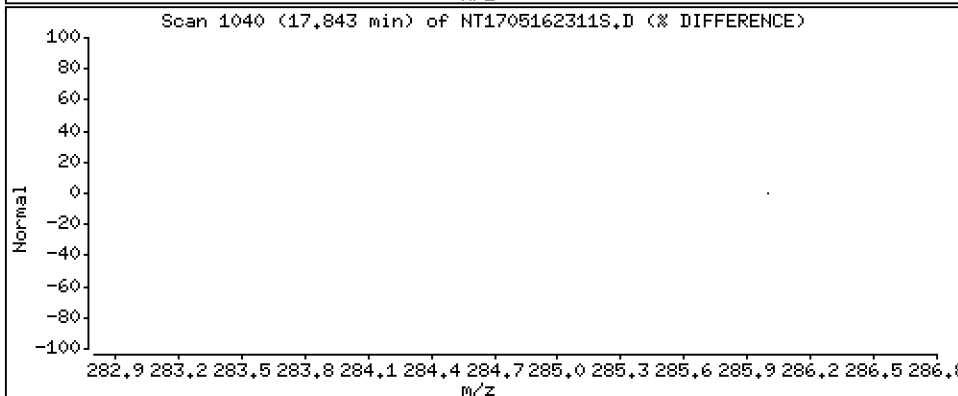
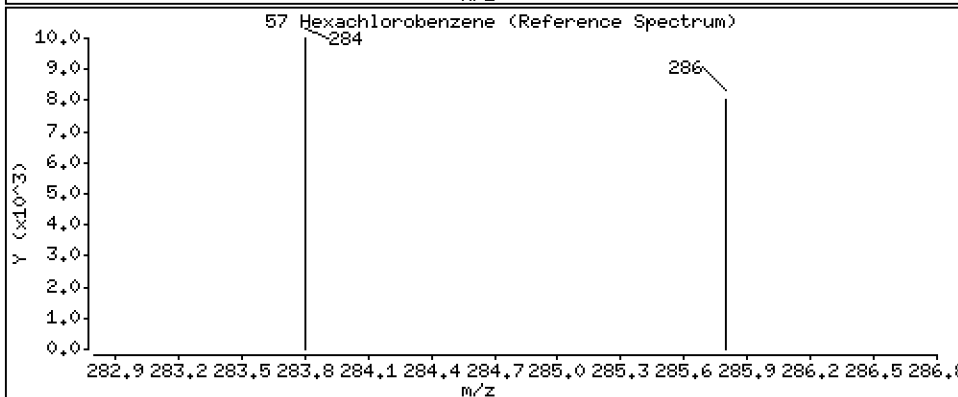
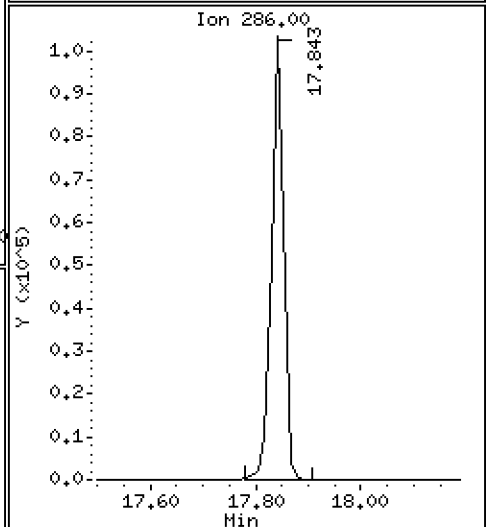
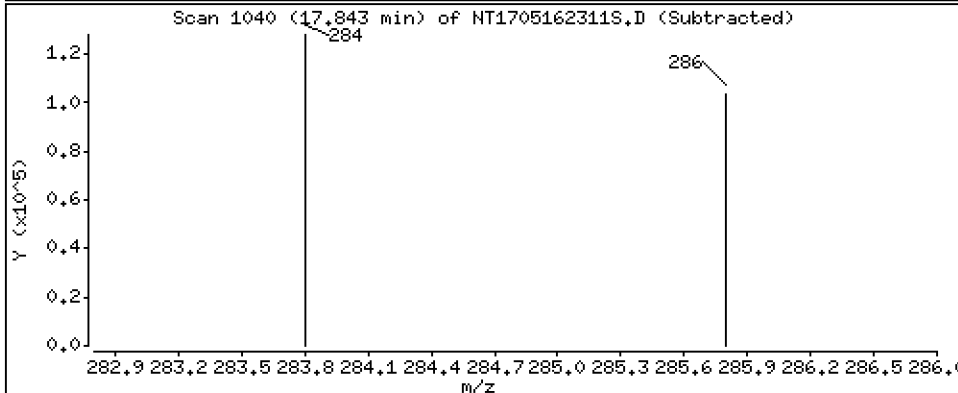
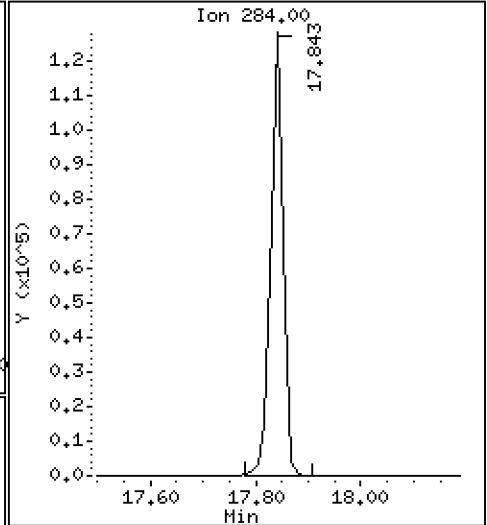
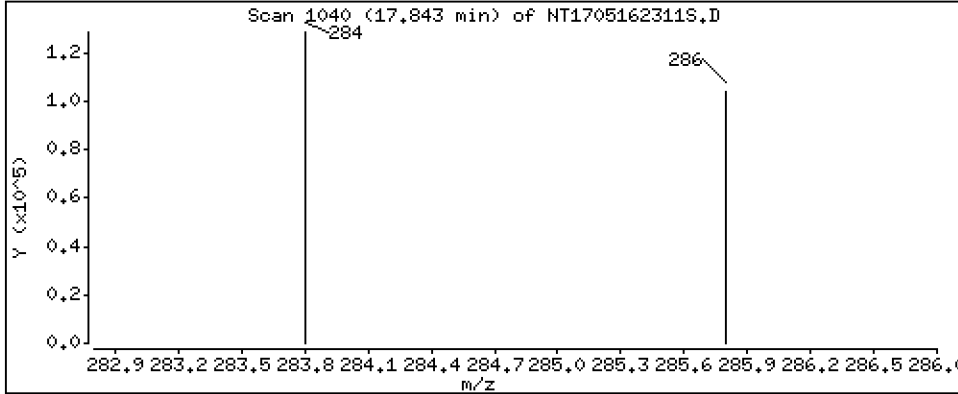
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 5,081 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

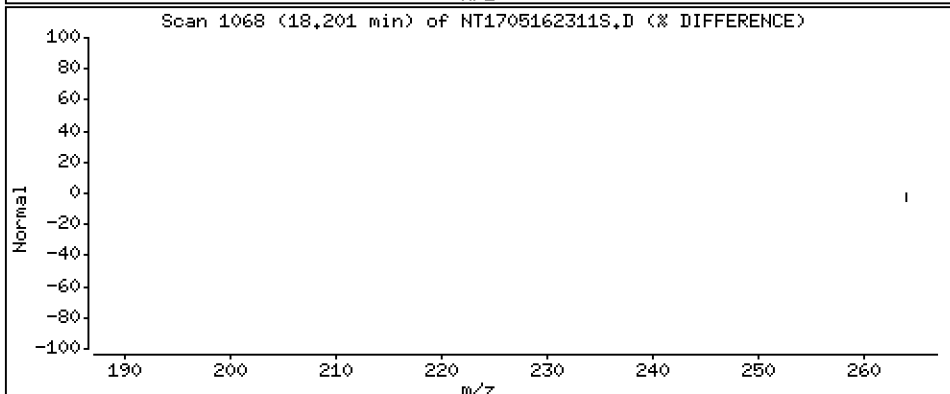
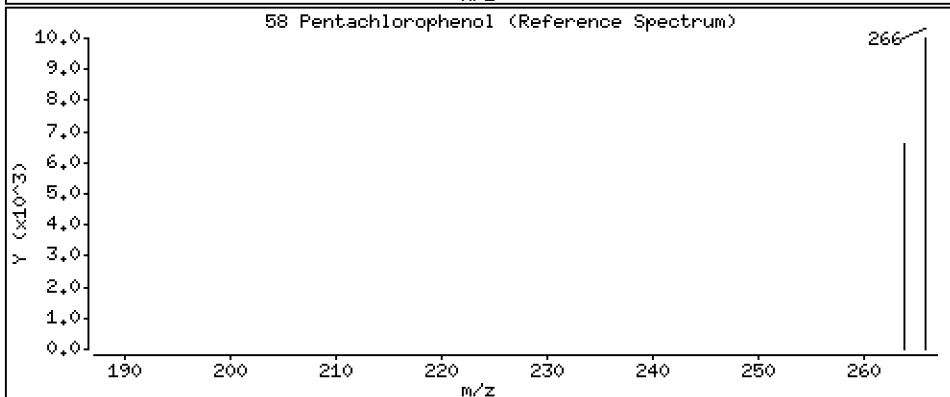
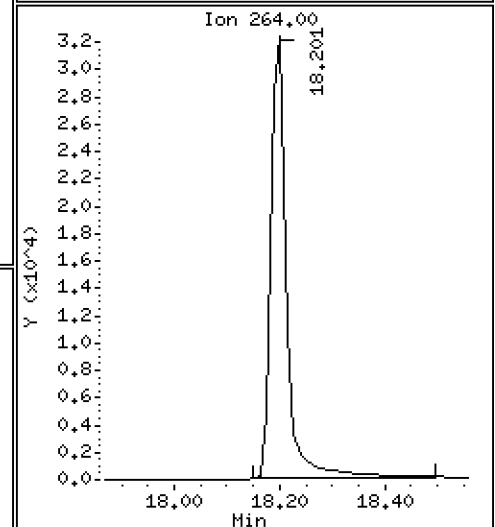
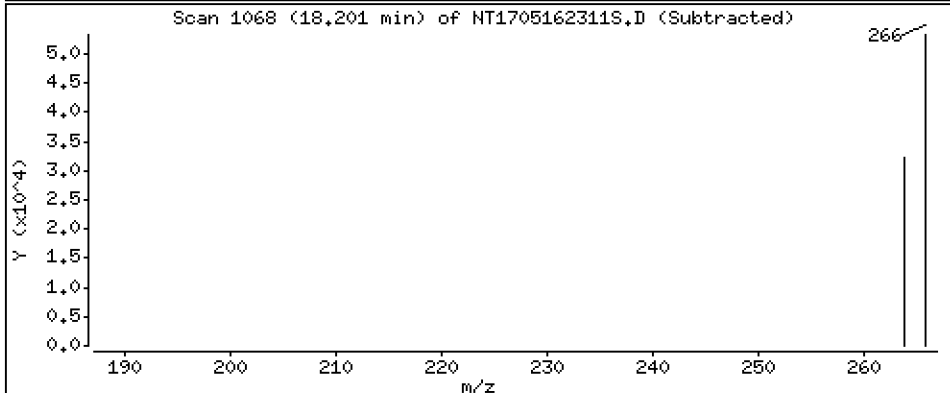
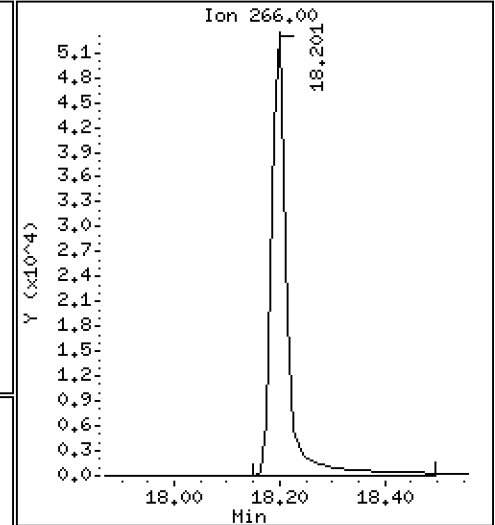
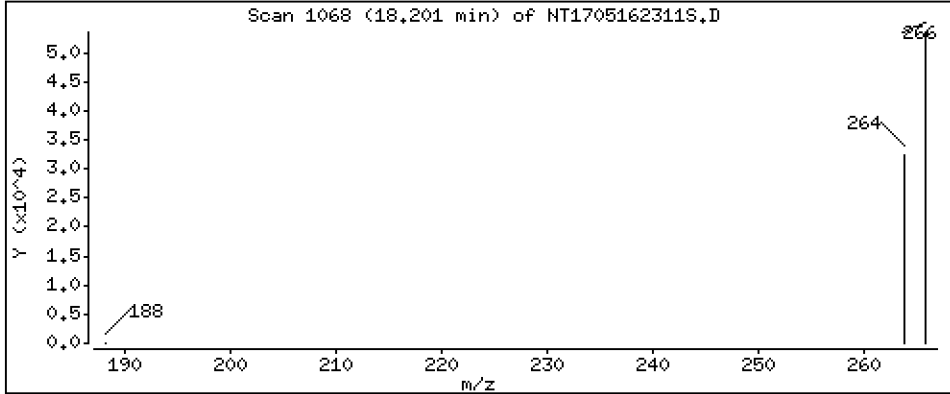
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,506 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

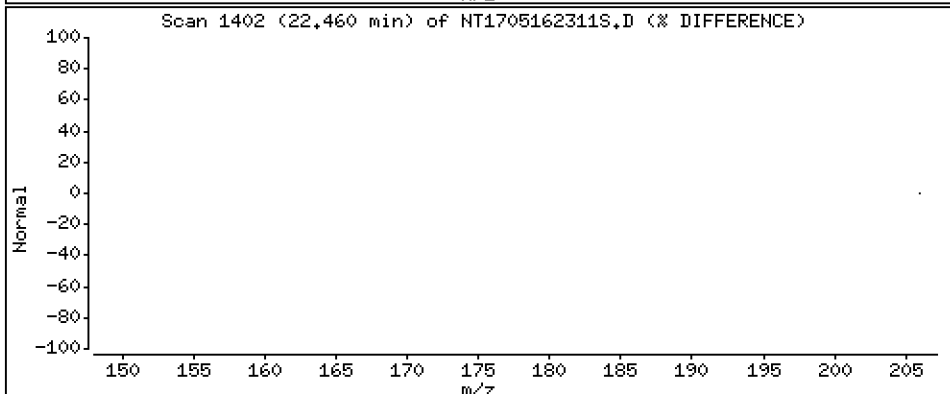
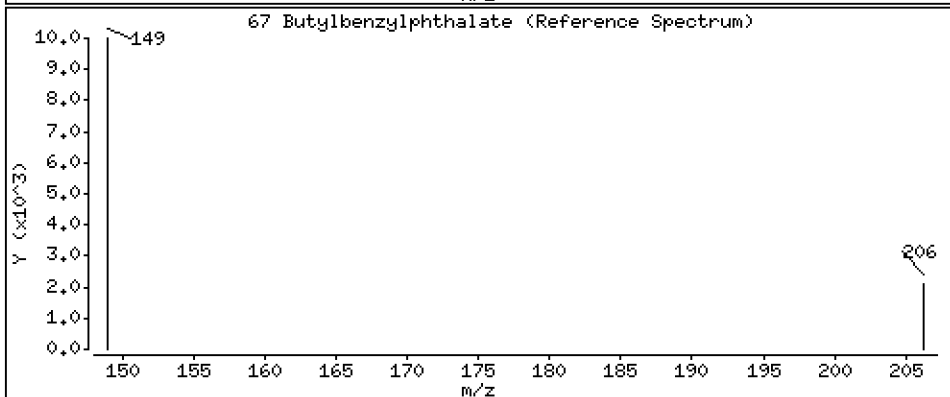
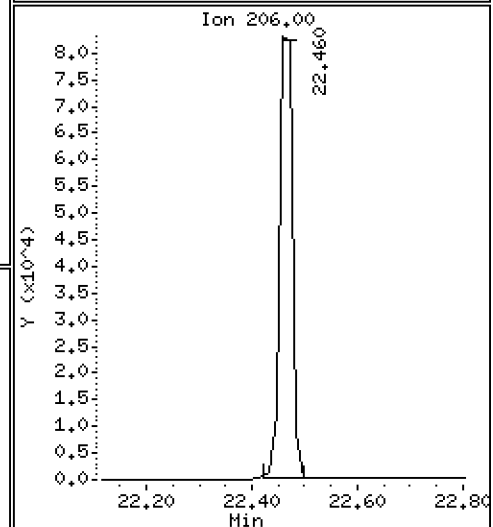
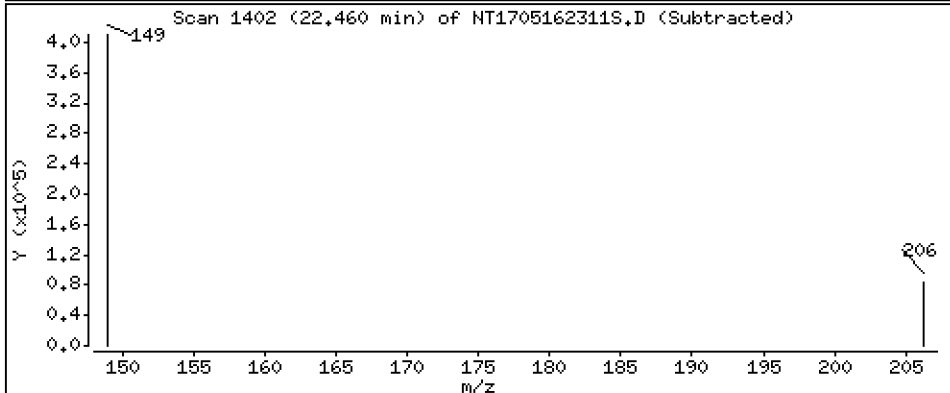
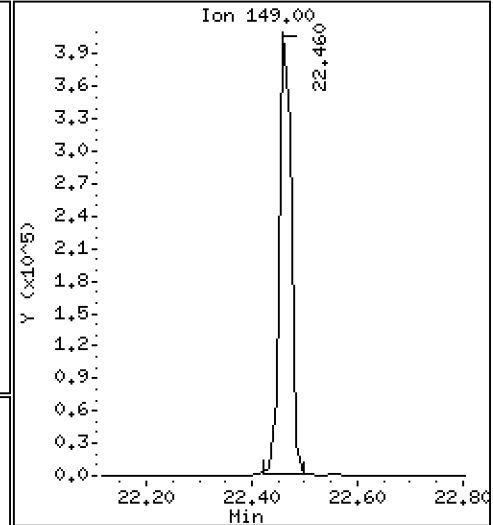
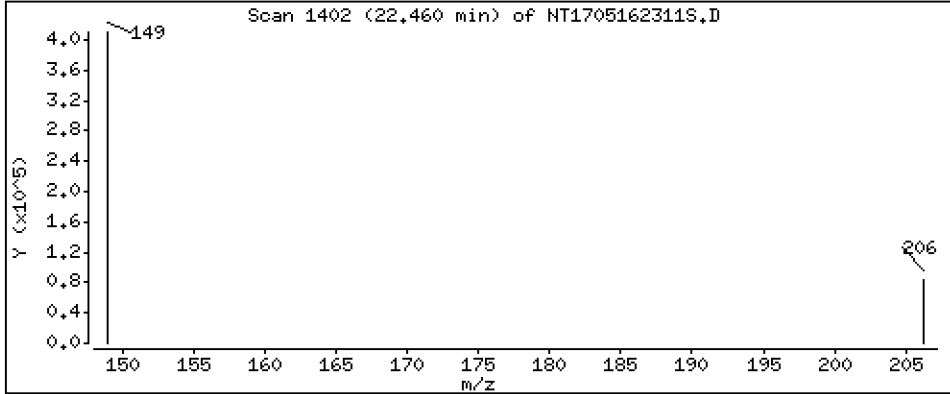
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,905 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

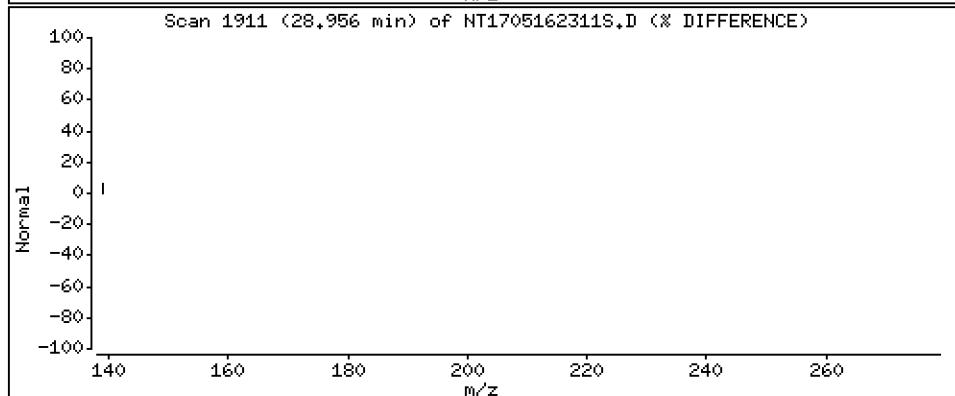
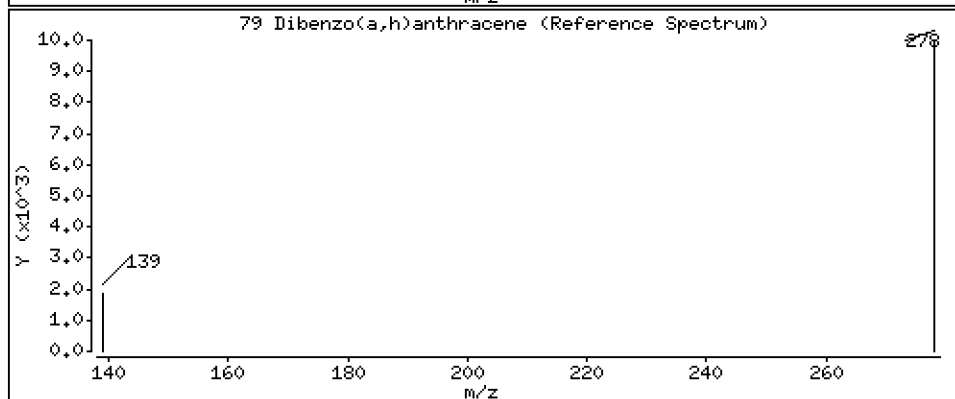
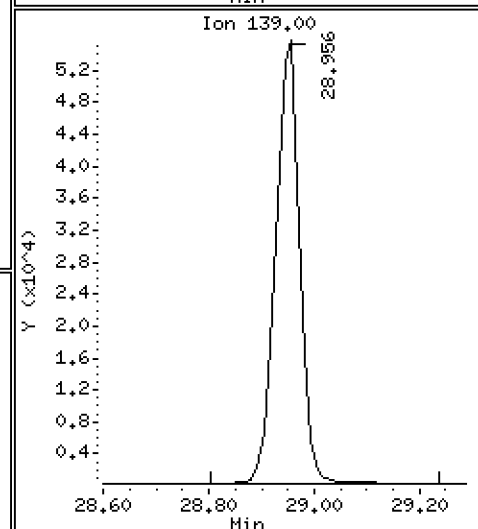
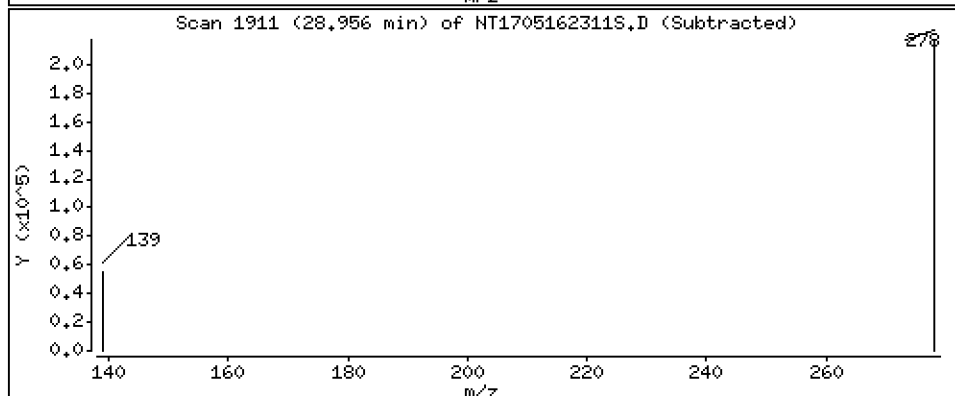
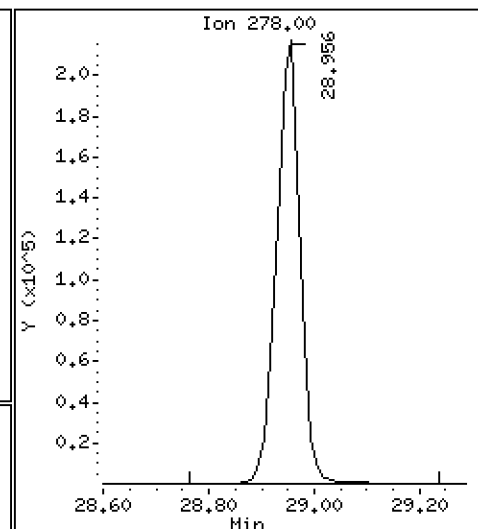
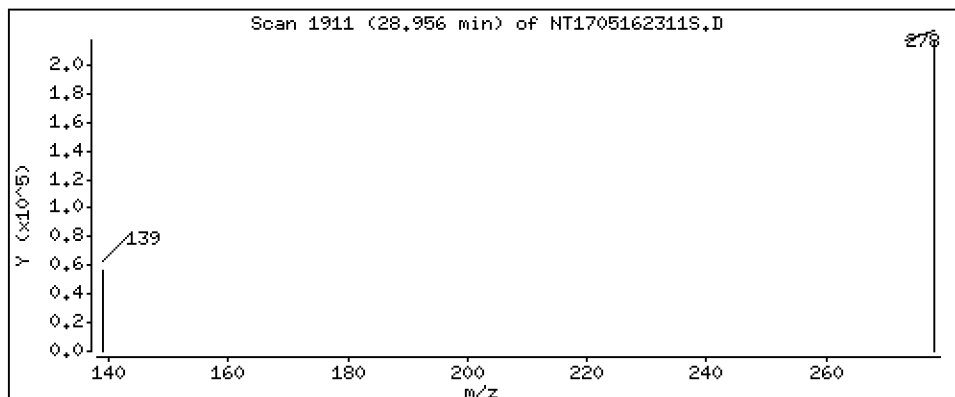
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 5,149 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

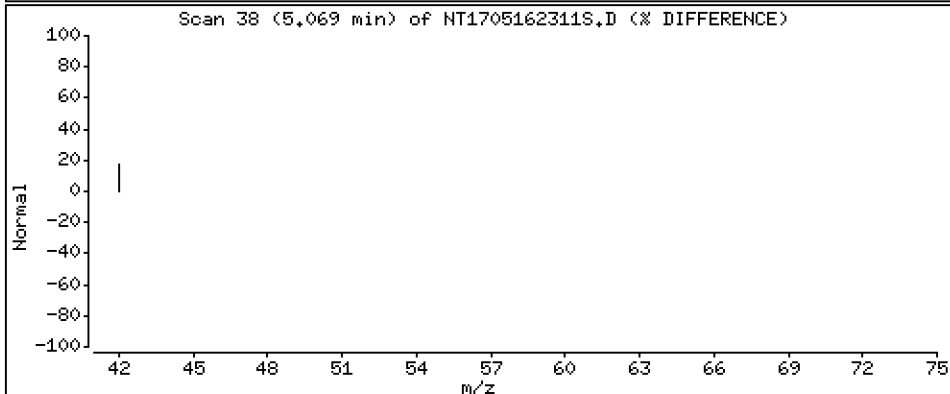
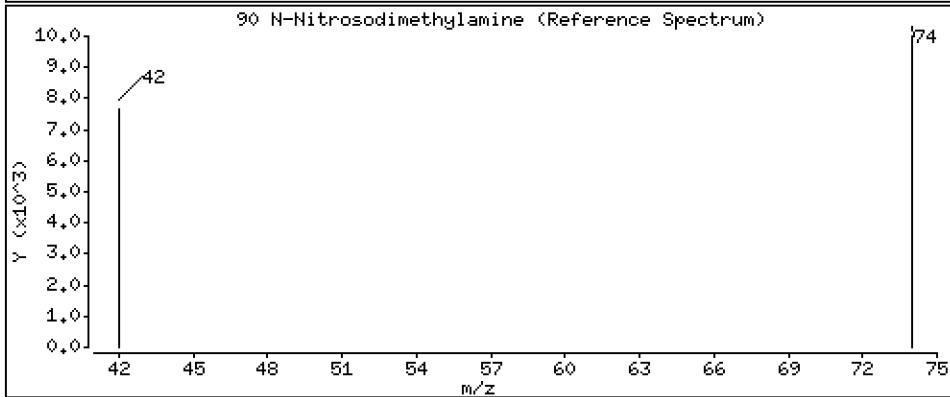
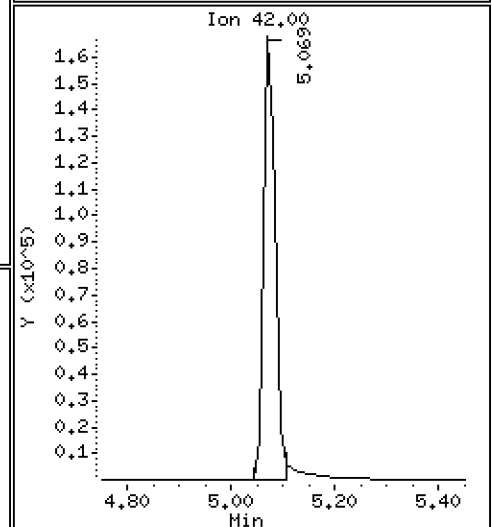
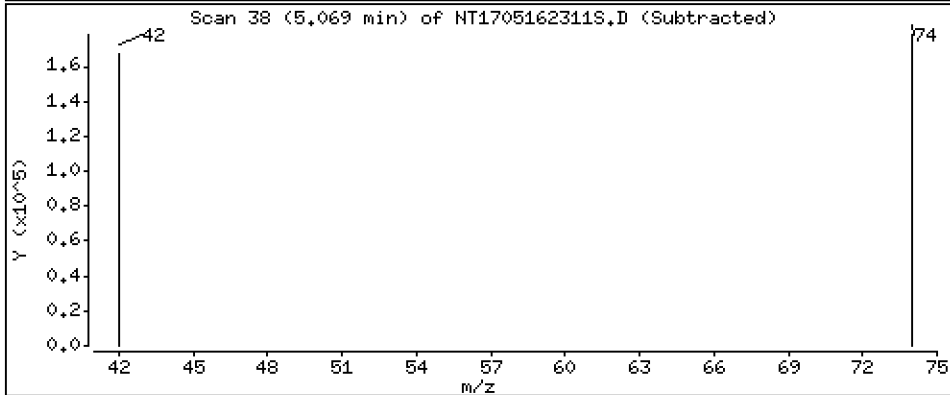
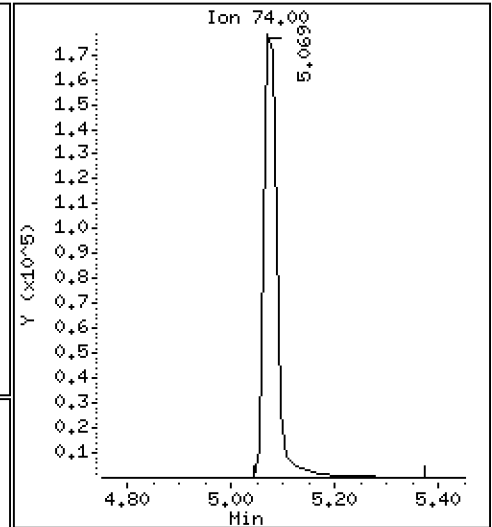
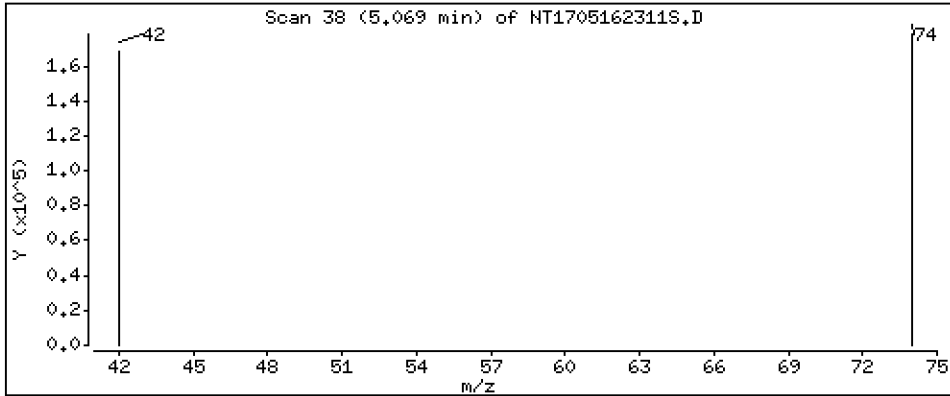
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.868 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0339-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
3 Phenol	94		8.750	8.751	(0.933)	616997	4.88420	4.884
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	575988	5.08691	5.087
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	280298	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	566257	5.13211	5.132
11 Benzyl alcohol	79		9.630	9.656	(1.027)	410745	5.70628	5.706
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	541461	5.00685	5.007
13 2-Methylphenol	108		9.848	9.861	(1.050)	385832	4.40762	4.408
15 4-Methylphenol	108		10.129	10.129	(1.080)	423610	4.78832	4.788
16 N-Nitroso-di-n-propylamine	70		10.193	10.180	(1.087)	349317	5.47874	5.479
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	366886	3.81638	3.816
24 Benzoic acid	105		11.329	11.356	(0.957)	465783	7.77732	7.777
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	427934	4.90638	4.906
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	999390	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	238867	5.20120	5.201
39 Dimethylphthalate	163		14.938	14.926	(0.968)	1015804	5.23967	5.240
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	527927	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	964439	5.47782	5.478
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	681829	5.62729	5.627
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	208857	5.08140	5.081
58 Pentachlorophenol	266		18.200	18.214	(0.986)	108866	4.50590	4.506
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	860054	4.00000	
\$ 66 Terphenyl-d14	244		Compound Not Detected.					
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	642329	5.90509	5.905
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	527529	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	475440	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	690513	5.14916	5.149
90 N-Nitrosodimethylamine	74		5.068	5.094	(0.541)	321072	5.86783	5.868

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	280298	-11.32
27 Naphthalene-d8	1102073	551037	2204146	999390	-9.32
42 Acenaphthene-d10	583826	291913	1167652	527927	-9.57
59 Phenanthrene-d10	970917	485459	1941834	860054	-11.42
69 Chrysene-d12	590568	295284	1181136	527529	-10.67
77 Perylene-d12	537938	268969	1075876	475440	-11.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311S.D

Lab ID: SLE0339-SCV1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 17-MAY-2023 00:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9569	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00070

Lab File ID: NT1705262303S.D

Calibration Date: 05/16/2023

Sequence: SLE0442

Injection Date: 05/26/23

Lab Sample ID: SLE0442-ICV1

Injection Time: 13:53

Sequence Name: ABN 1.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	1.0000	1.12	1.8027250	2.0155690		11.8	+/-20
1,3-Dichlorobenzene	A	1.0000	1.01	1.6158430	1.6234880		0.5	+/-20
1,4-Dichlorobenzene	A	1.0000	1.01	1.5745540	1.5832220		0.6	+/-20
1,2-Dichlorobenzene	A	1.0000	0.996	1.5432720	1.5370500		-0.4	+/-20
Benzyl Alcohol	A	1.0000	1.13	1.0272110	1.1554050		12.5	+/-20
Benzoic acid	A	4.0000	3.42	0.1537024	0.2046749		-14.6	+/-20
2-Methylphenol	A	1.0000	0.976	1.2492070	1.2188080		-2.4	+/-20
N-Nitroso-di-n-Propylamine	A	1.0000	1.02	0.9098695	0.9272519		1.9	+/-20
4-Methylphenol	A	1.0000	1.01	1.2624750	1.2738370		0.9	+/-20
2,4-Dimethylphenol	A	2.0000	2.03	0.3847731	0.3910398		1.7	+/-20
1,2,4-Trichlorobenzene	A	1.0000	0.939	0.3490929	0.3277528		-6.1	+/-20
Hexachlorobutadiene	A	1.0000	1.04	0.1838137	0.1904389		3.6	+/-20
N-Nitrosodimethylamine	A	2.0000	2.10	0.7808454	0.8179931		4.8	+/-20
Dimethylphthalate	A	1.0000	0.918	1.4689	1.3481990		-8.2	+/-20
Diethyl phthalate	A	1.0000	0.910	1.3339910	1.2135780		-9.0	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.03	0.5635219	0.5811221		3.1	+/-20
Hexachlorobenzene	A	1.0000	1.08	0.1911612	0.2064729		8.0	+/-20
Pentachlorophenol	A	2.0000	1.72	0.0772800	0.0937814		-14.2	+/-20
Butylbenzylphthalate	A	1.0000	1.02	0.8247925	0.8421953		2.1	+/-20
Dibenzo(a,h)anthracene	A	1.0000	1.04	1.1282360	1.1733200		4.0	+/-20
2-Fluorophenol	A	1.5000	1.62	1.2098450	1.3087770		8.2	+/-20
p-Terphenyl-d14	A	1.0000	1.15	0.7589992	0.8700541		14.6	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.00	79150.5600	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.00	278594.8000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.00	147343.3000	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.00	243223.3000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.00	150416.5000	1.0000		0.0	
Perylene-d12	A	4.0000	4.00	135257.9000	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.16\SIH.6\NT1705262303S.D

Date: 26-May-2023 13:53

Client ID:

Sample Info: SLE0442-ICV1

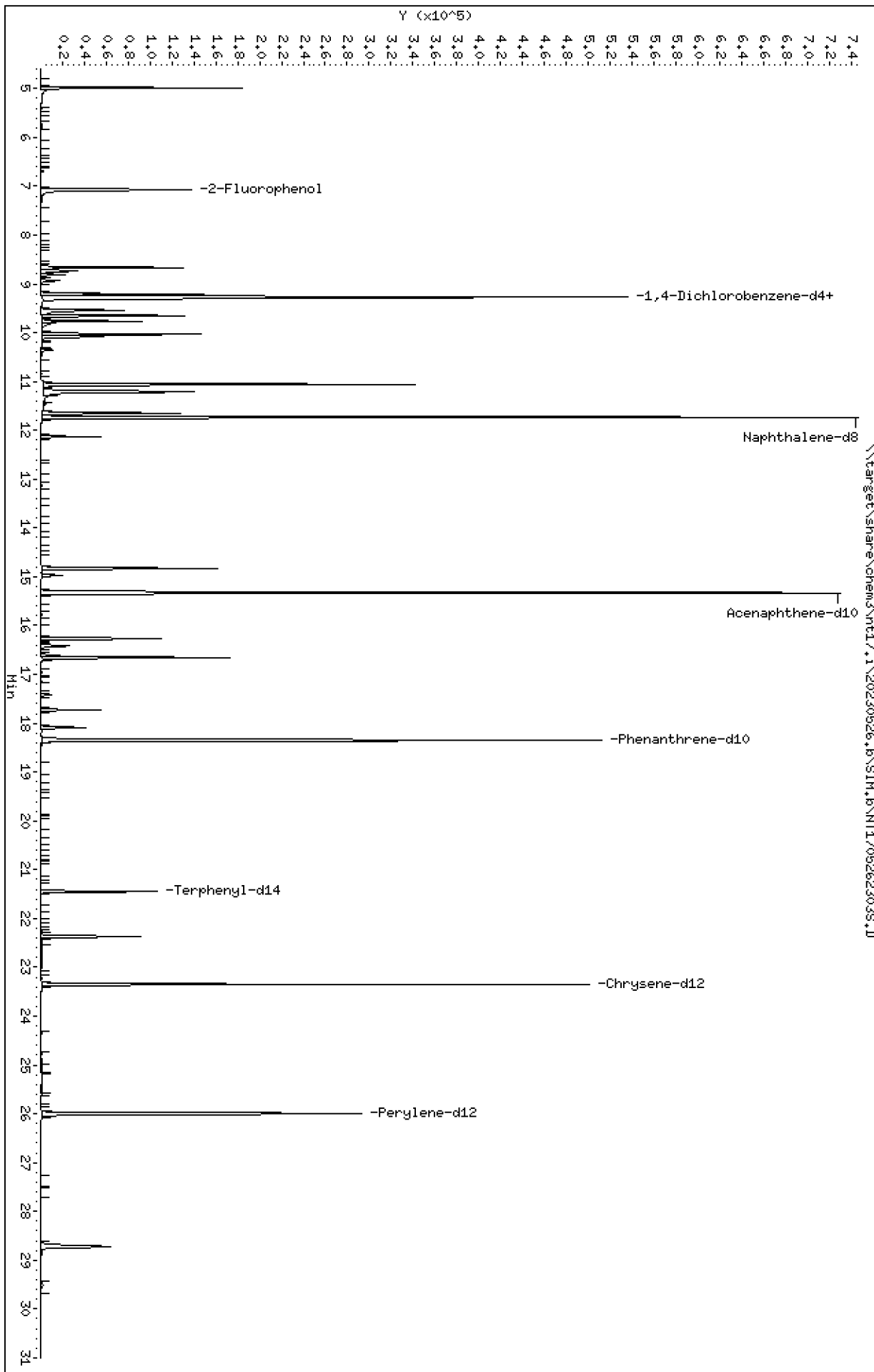
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262303S.D
 Lab Smp Id: SLE0442-ICV1
 Inj Date : 26-MAY-2023 13:53
 Operator : JGR
 Smp Info : SLE0442-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 06-Jun-2023 14:52 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Continuing Calibration Sample

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		7.069	7.069	(0.762)	174200	1.50000	1.623
3 Phenol	94		8.661	8.661	(0.934)	178850	1.00000	1.118
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	144059	1.00000	1.005
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	354937	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	140486	1.00000	1.006
11 Benzyl alcohol	79		9.541	9.541	(1.029)	102524	1.00000	1.125
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	136389	1.00000	0.9960
13 2-Methylphenol	108		9.759	9.759	(1.052)	108150	1.00000	0.9757
15 4-Methylphenol	108		10.027	10.027	(1.081)	113033	1.00000	1.009
16 N-Nitroso-di-n-propylamine	70		10.091	10.091	(1.088)	82279	1.00000	1.019
22 2,4-Dimethylphenol	107		11.062	11.062	(0.942)	235500	2.00000	2.033
24 Benzoic acid	105		11.215	11.215	(0.955)	246527	4.00000	3.415
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	98693	1.00000	0.9389
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1204481	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	57345	1.00000	1.036
39 Dimethylphthalate	163		14.824	14.824	(0.967)	222007	1.00000	0.9178
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	658677	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	199839	1.00000	0.9097
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	140256	1.00000	1.031
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	49833	1.00000	1.080
58 Pentachlorophenol	266		18.086	18.086	(0.985)	45269	2.00000	1.716
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	965415	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	133793	1.00000	1.146
67 Butylbenzylphthalate	149		22.371	22.371	(0.958)	129509	1.00000	1.021
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	615102	4.00000	
* 77 Perylene-d12	264		25.994	25.994	(1.000)	580660	4.00000	
79 Dibenzo(a,h)anthracene	278		28.713	28.713	(1.105)	170325	1.00000	1.040
90 N-Nitrosodimethylamine	74		4.979	4.979	(0.537)	145168	2.00000	2.095

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262303S.D
 Lab Smp Id: SLE0442-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	354937	0.00
27 Naphthalene-d8	1204481	602241	2408962	1204481	0.00
42 Acenaphthene-d10	658677	329339	1317354	658677	0.00
59 Phenanthrene-d10	965415	482708	1930830	965415	0.00
69 Chrysene-d12	615102	307551	1230204	615102	0.00
77 Perylene-d12	580660	290330	1161320	580660	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	0.00
77 Perylene-d12	25.99	25.49	26.49	25.99	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262303S.D

Lab ID: SLE0442-ICV1

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 26-MAY-2023 13:53

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b\SIM.b

Instrument: nt17.i Date: 26-MAY-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 16-MAY-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1705262303S.D 26-MAY-2023 13:53

Compound	%D

NO Q-FLAGS	



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT17

Calibration: GE00070

Lab File ID: NT1705262320S.D

Calibration Date: 05/16/2023

Sequence: SLE0442

Injection Date: 05/27/23

Lab Sample ID: SLE0442-ICV2

Injection Time: 00:33

Sequence Name: ABN 1

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	1.0000	1.01	1.8027250	1.8228930		1.1	+/-20
1,3-Dichlorobenzene	A	1.0000	1.01	1.6158430	1.6358610		1.2	+/-20
1,4-Dichlorobenzene	A	1.0000	1.01	1.5745540	1.5932110		1.2	+/-20
1,2-Dichlorobenzene	A	1.0000	0.987	1.5432720	1.5227840		-1.3	+/-20
Benzyl Alcohol	A	1.0000	0.978	1.0272110	1.0041690		-2.2	+/-20
Benzoic acid	A	4.0000	3.40	0.1537024	0.2037455		-15.0	+/-20
2-Methylphenol	A	1.0000	0.869	1.2492070	1.0850800		-13.1	+/-20
N-Nitroso-di-n-Propylamine	A	1.0000	0.913	0.9098695	0.8308175		-8.7	+/-20
4-Methylphenol	A	1.0000	0.858	1.2624750	1.0829490		-14.2	+/-20
2,4-Dimethylphenol	A	2.0000	1.98	0.3847731	0.3799198		-1.3	+/-20
1,2,4-Trichlorobenzene	A	1.0000	0.956	0.3490929	0.3336024		-4.4	+/-20
Hexachlorobutadiene	A	1.0000	1.06	0.1838137	0.1938933		5.5	+/-20
N-Nitrosodimethylamine	A	2.0000	2.12	0.7808454	0.8278129		6.0	+/-20
Dimethylphthalate	A	1.0000	0.936	1.4689	1.3744640		-6.4	+/-20
Diethyl phthalate	A	1.0000	0.898	1.3339910	1.1977960		-10.2	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.10	0.5635219	0.6216095		10.3	+/-20
Hexachlorobenzene	A	1.0000	1.11	0.1911612	0.2127773		11.3	+/-20
Pentachlorophenol	A	2.0000	1.78	0.0772800	0.0973089		-11.1	+/-20
Butylbenzylphthalate	A	1.0000	0.900	0.8247925	0.7424600		-10.0	+/-20
Dibenzo(a,h)anthracene	A	1.0000	0.627	1.1282360	0.7074059		-37.3	+/-20 *
2-Fluorophenol	A	1.5000	1.66	1.2098450	1.3375990		10.5	+/-20
p-Terphenyl-d14	A	1.0000	0.917	0.7589992	0.6961558		-8.3	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.00	79150.5600	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.00	278594.8000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.00	147343.3000	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.00	243223.3000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.00	150416.5000	1.0000		0.0	
Perylene-d12	A	4.0000	4.00	135257.9000	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.1\SIH.1\NT1705262320S.D

Date: 27-May-2023 00:33

Client ID:

Sample Info: SLE0442-ICV2

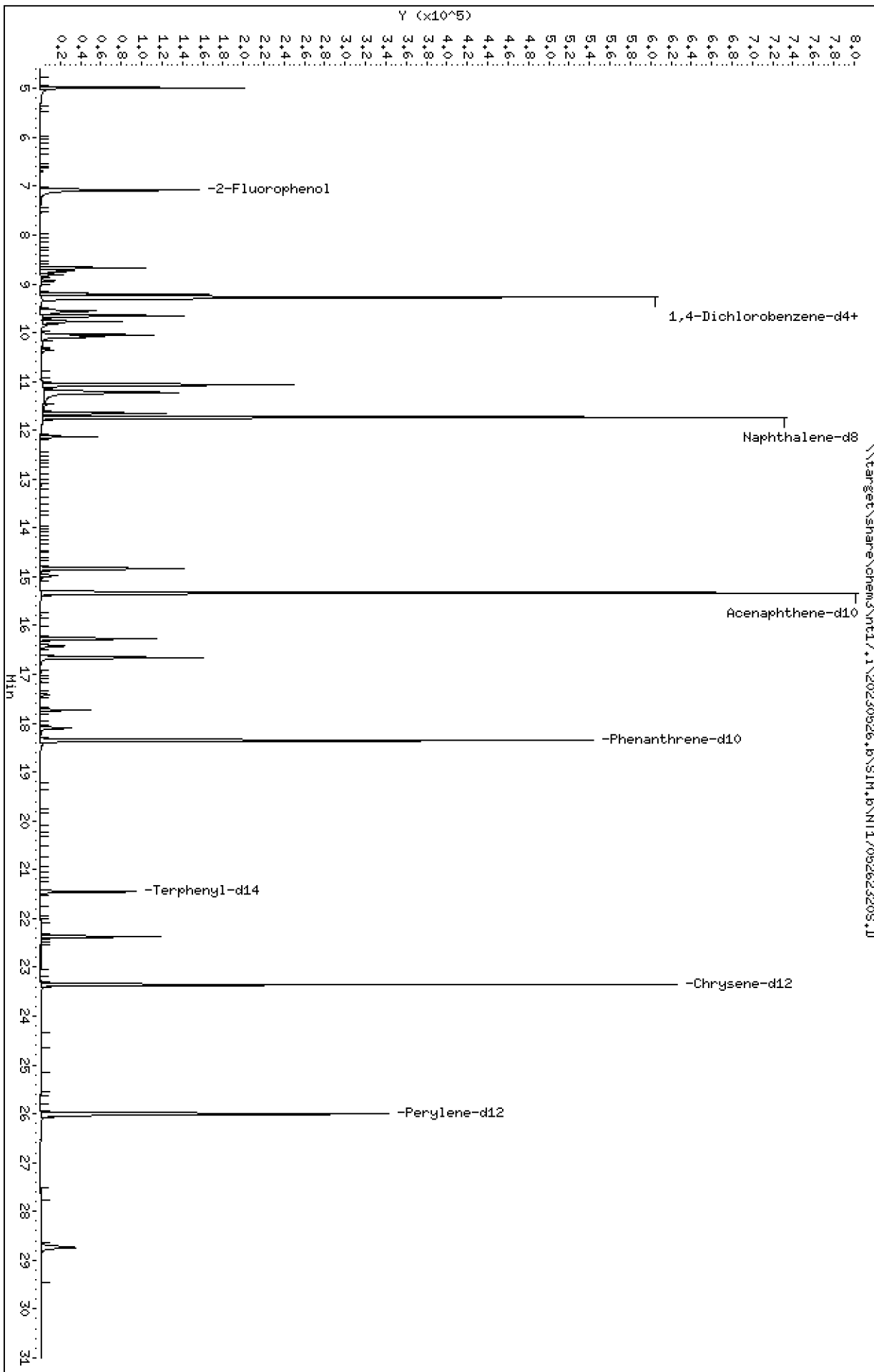
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262320S.D
 Lab Smp Id: SLE0442-ICV2
 Inj Date : 27-MAY-2023 00:33
 Operator : VTS
 Smp Info : SLE0442-ICV2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D
 Continuing Calibration Sample

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.081	7.081	(0.764)	188312	1.50000	1.658
3 Phenol	94		8.674	8.674	(0.935)	171089	1.00000	1.011
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	153535	1.00000	1.012
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	375423	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	149532	1.00000	1.012
11 Benzyl alcohol	79		9.554	9.554	(1.030)	94247	1.00000	0.9776
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	142922	1.00000	0.9867
13 2-Methylphenol	108		9.771	9.771	(1.054)	101841	1.00000	0.8686
15 4-Methylphenol	108		10.040	10.040	(1.083)	101641	1.00000	0.8578
16 N-Nitroso-di-n-propylamine	70		10.091	10.091	(1.088)	77977	1.00000	0.9131
22 2,4-Dimethylphenol	107		11.062	11.062	(0.942)	222830	2.00000	1.975
24 Benzoic acid	105		11.228	11.228	(0.957)	239001	4.00000	3.400
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	97832	1.00000	0.9556
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1173037	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	56861	1.00000	1.055
39 Dimethylphthalate	163		14.837	14.837	(0.968)	219550	1.00000	0.9357
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	638940	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	191330	1.00000	0.8979
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	140140	1.00000	1.103
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	47970	1.00000	1.113
58 Pentachlorophenol	266		18.098	18.098	(0.986)	43876	2.00000	1.779
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	901788	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	133656	1.00000	0.9172
67 Butylbenzylphthalate	149		22.370	22.370	(0.958)	142546	1.00000	0.9002
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	767966	4.00000	
* 77 Perylene-d12	264		26.006	26.006	(1.000)	642149	4.00000	
79 Dibenzo(a,h)anthracene	278		28.739	28.739	(1.105)	113565	1.00000	0.6270
90 N-Nitrosodimethylamine	74		4.979	4.979	(0.537)	155390	2.00000	2.120

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262320S.D
 Lab Smp Id: SLE0442-ICV2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 26-MAY-2023
 Calibration Time: 13:53
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	354937	177469	709874	375423	5.77
27 Naphthalene-d8	1204481	602241	2408962	1173037	-2.61
42 Acenaphthene-d10	658677	329339	1317354	638940	-3.00
59 Phenanthrene-d10	965415	482708	1930830	901788	-6.59
69 Chrysene-d12	615102	307551	1230204	767966	24.85
77 Perylene-d12	580660	290330	1161320	642149	10.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	25.99	25.49	26.49	26.01	0.05

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

REVIEW SUMMARY FOR FILE - NT1705262320S.D

Lab ID: SLE0442-ICV2

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 00:33

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b\SIM.b

Instrument: nt17.i Date: 27-MAY-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 16-MAY-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1705262320S.D 27-MAY-2023 00:33

Compound	%D

Dibenzo(a,h)anthracene	-37.3



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT17</u>	Calibration:	<u>GE00070</u>
Lab File ID:	<u>NT1705162311S.D</u>	Calibration Date:	<u>05/16/2023</u>
Sequence:	<u>SLE0339</u>	Injection Date:	<u>05/17/23</u>
Lab Sample ID:	<u>SLE0339-SCV1</u>	Injection Time:	<u>00:29</u>
Sequence Name:	<u>SCV 5.0</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	5.0000	5.1	1.5745540	1.6161570		2.6	+/-20
1,2-Dichlorobenzene	A	5.0000	5.0	1.5432720	1.5453870		0.1	+/-20
Benzyl Alcohol	A	5.0000	5.7	1.0272110	1.1723090		14.1	+/-20
Benzoic acid	A	10.000	7.8	0.1537024	0.1864269		-22.2	+/-20 *
2,4-Dimethylphenol	A	5.0000	3.8	0.3847731	0.2936879		-23.7	+/-20 *
1,2,4-Trichlorobenzene	A	5.0000	4.9	0.3490929	0.3425562		-1.9	+/-20
N-Nitrosodiphenylamine	A	5.0000	5.6	0.5635219	0.6342197		12.5	+/-20
Pentachlorophenol	A	5.0000	4.5	0.0772800	0.1012643		-9.9	+/-20
2-Fluorophenol	A	7.5000	0.00	1.2098450				
p-Terphenyl-d14	A	5.0000	0.00	0.7589992				

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230516.16\SIH.16\NT17051623115.D

Date: 17-May-2023 00:29

Client ID:

Sample Info: SLE0339-SCW1

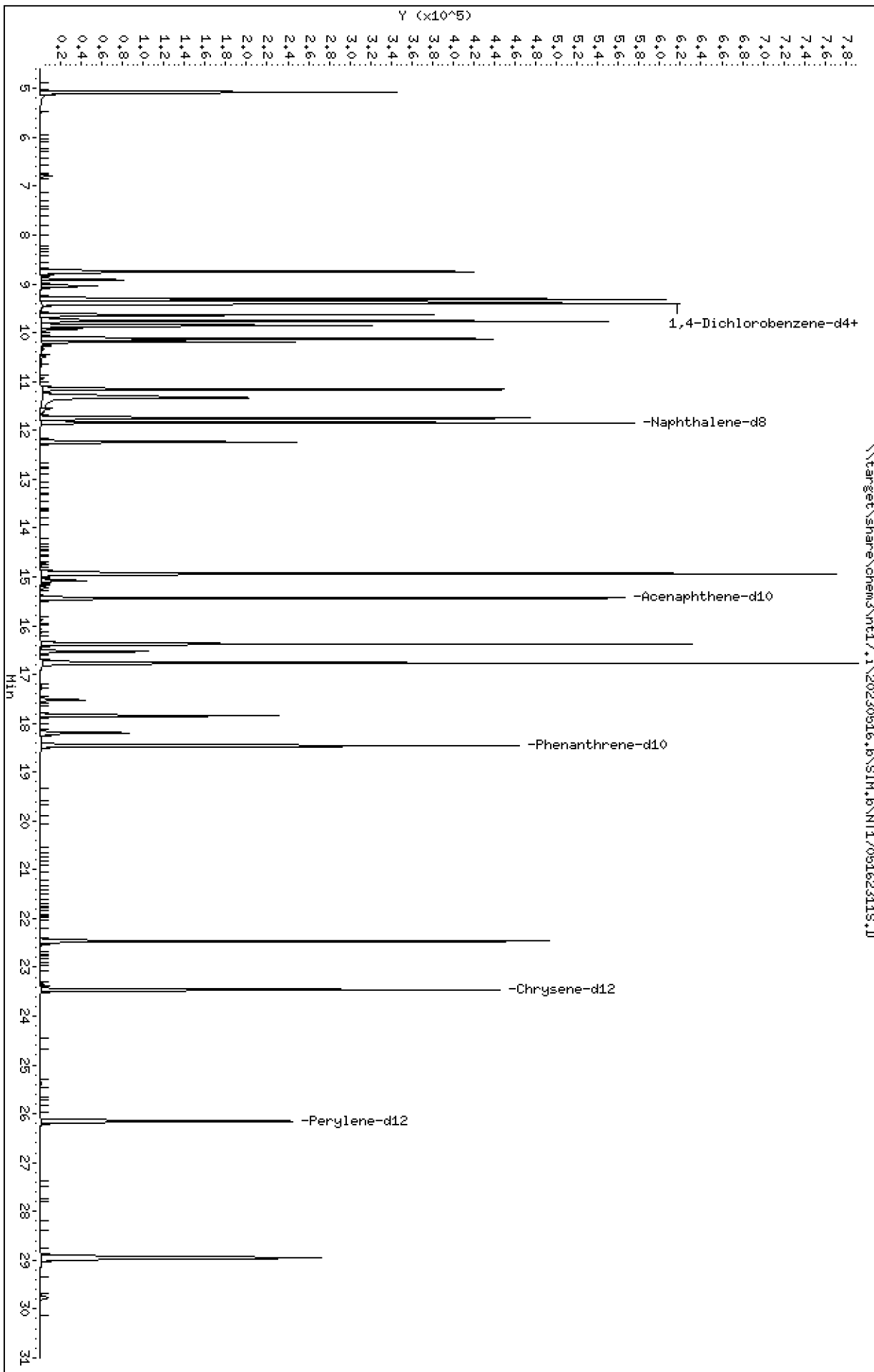
Column phase: ZB-5msi

Instrument: nt17.1

Operator: JGR

Column diameter: 0.25

Page 1



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

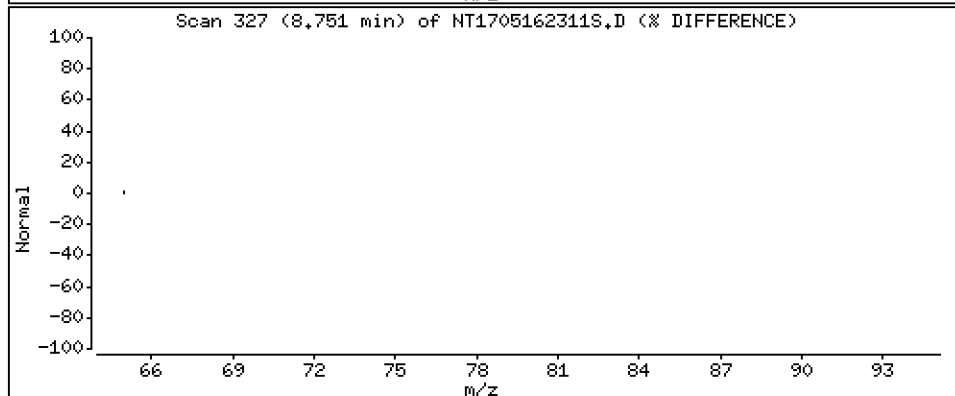
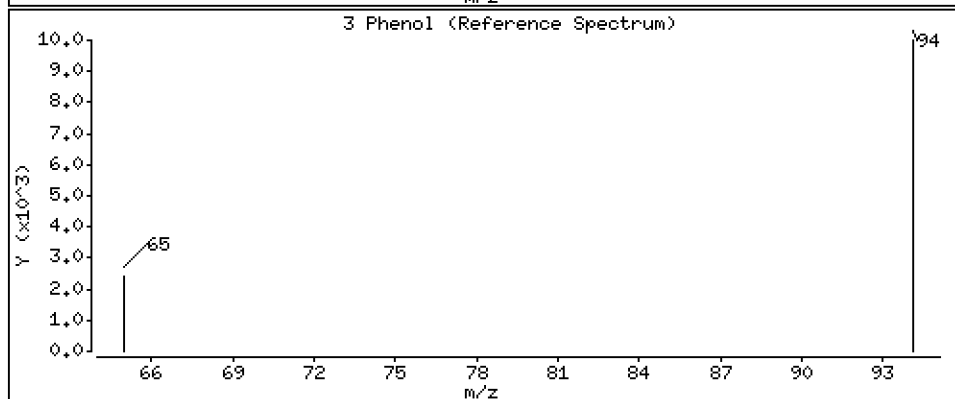
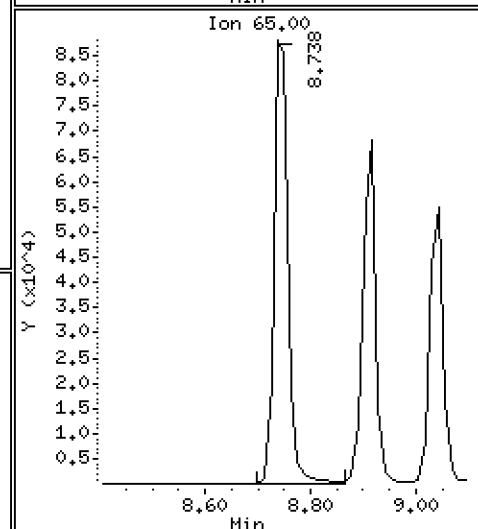
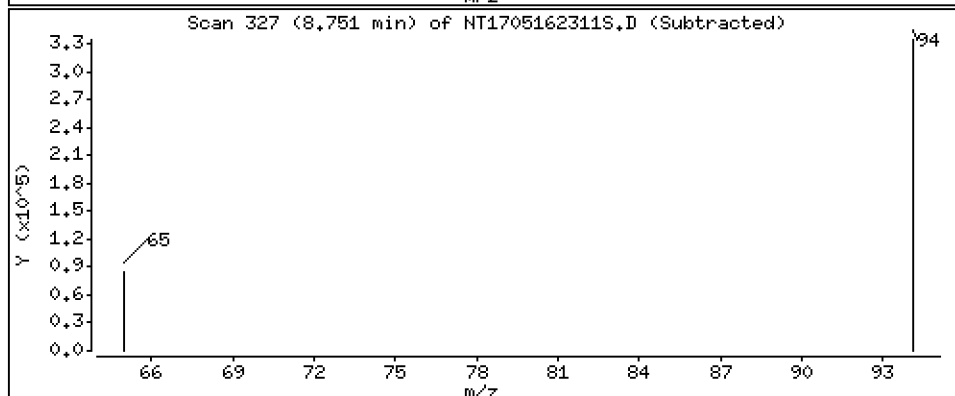
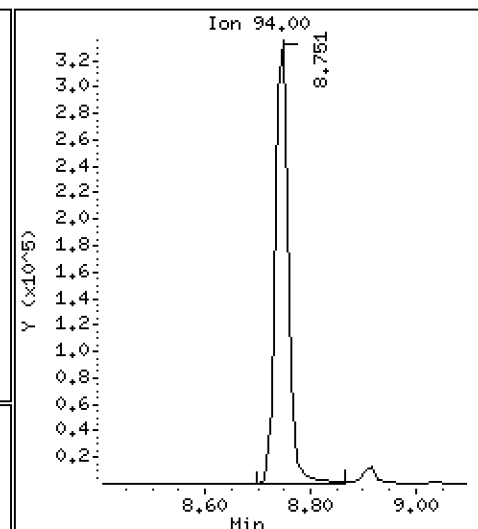
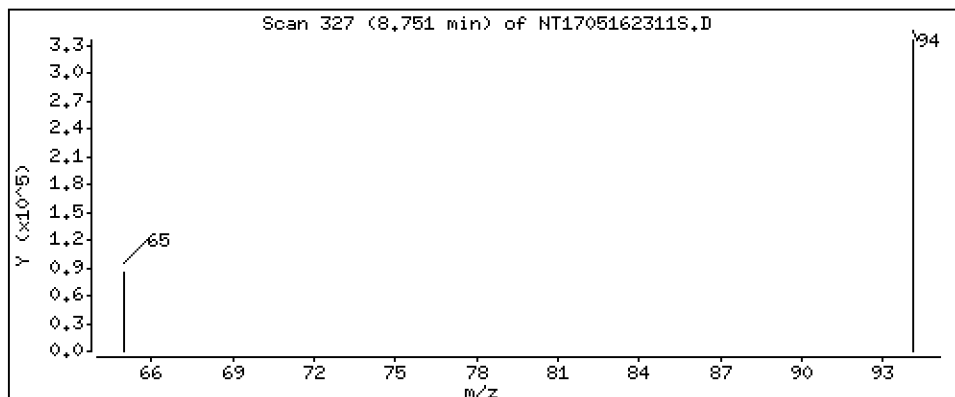
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,884 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

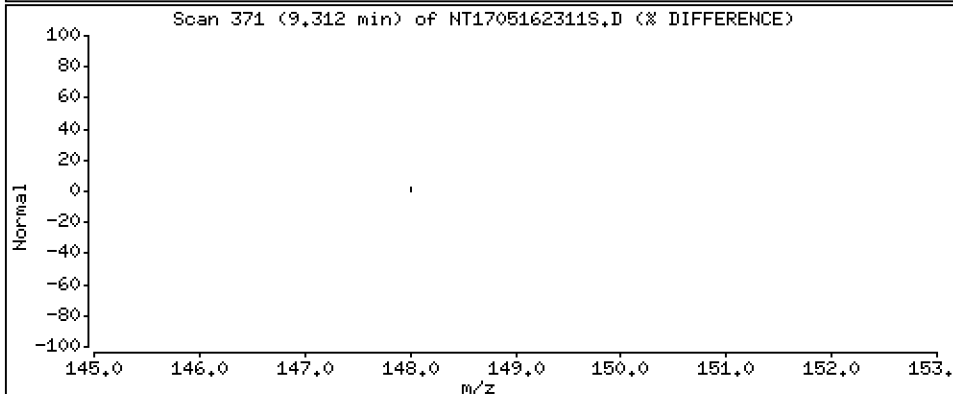
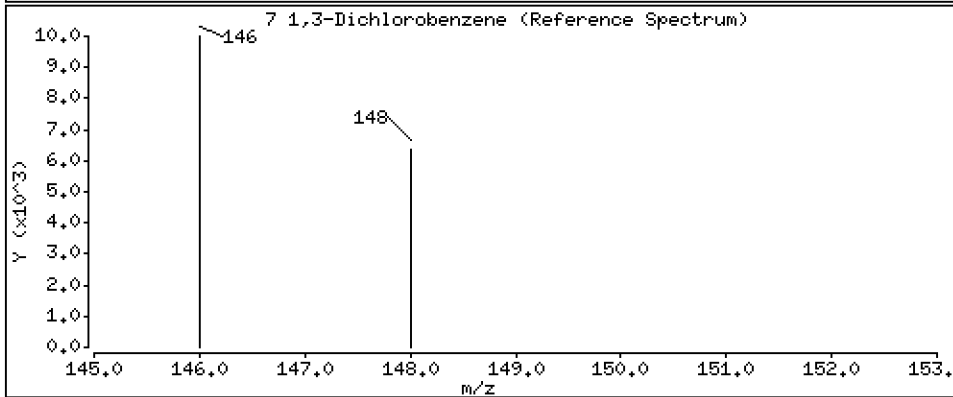
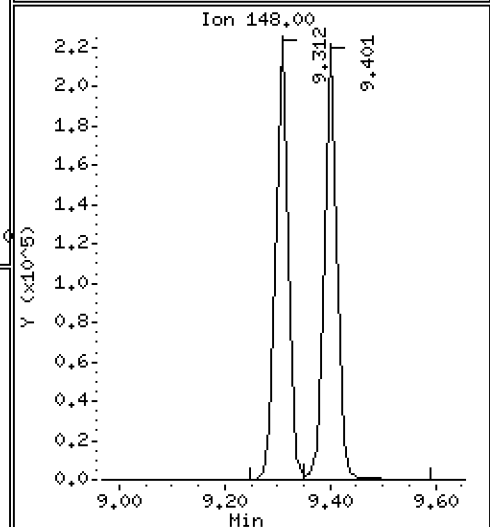
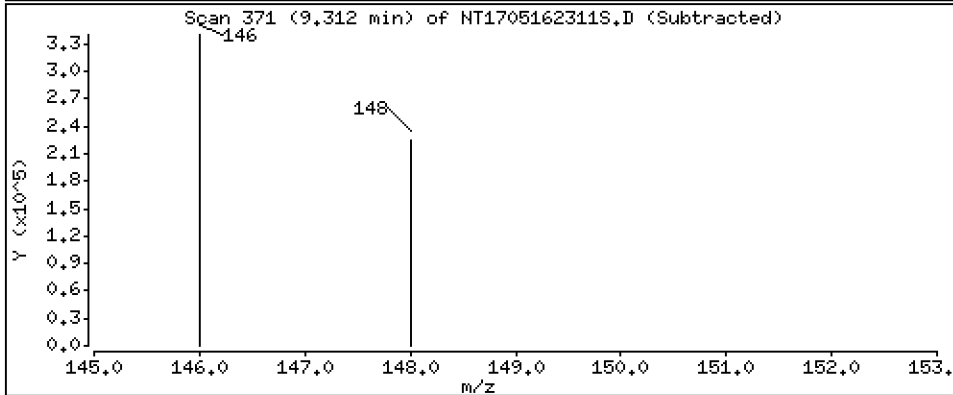
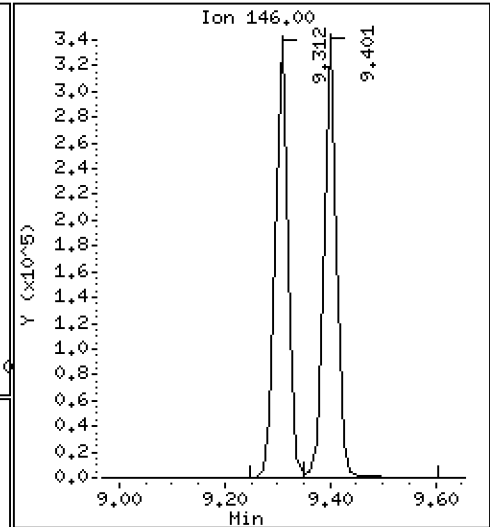
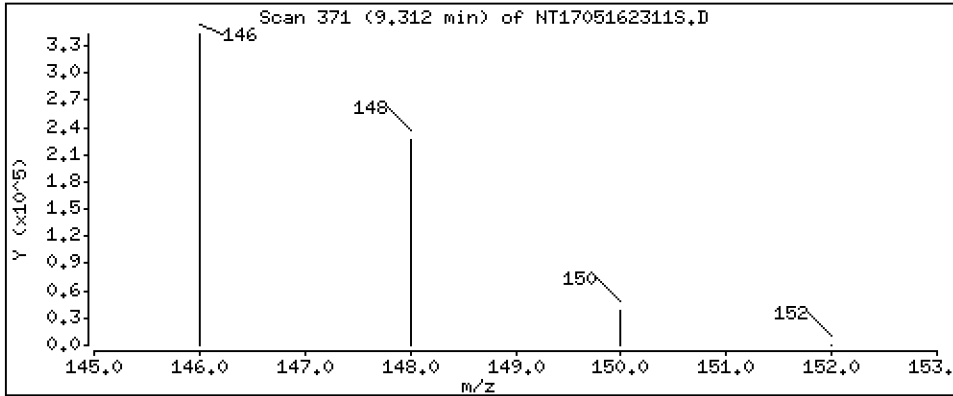
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 5.087 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

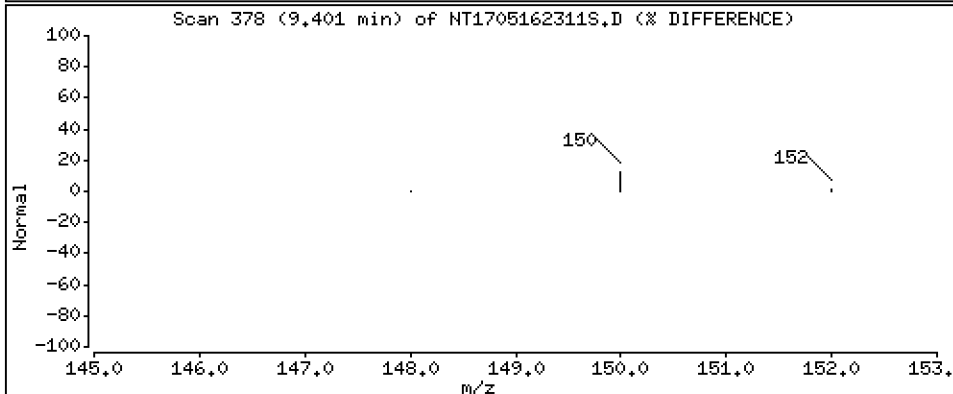
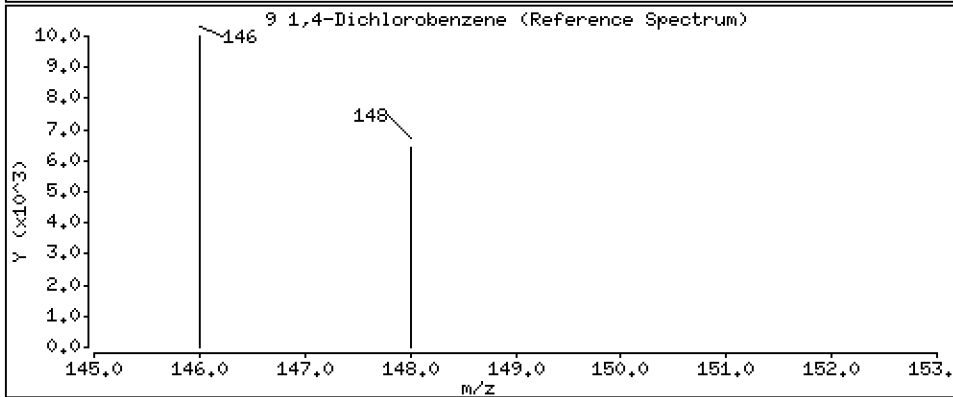
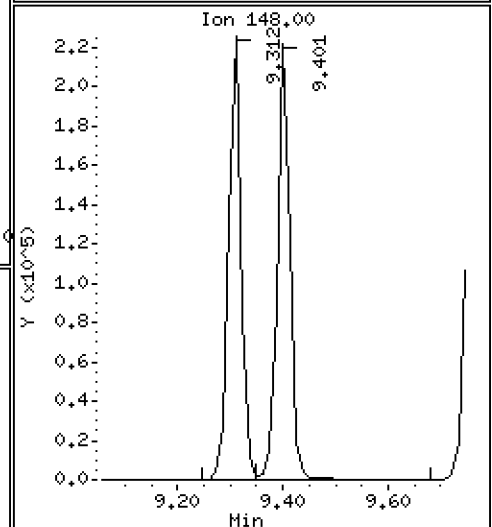
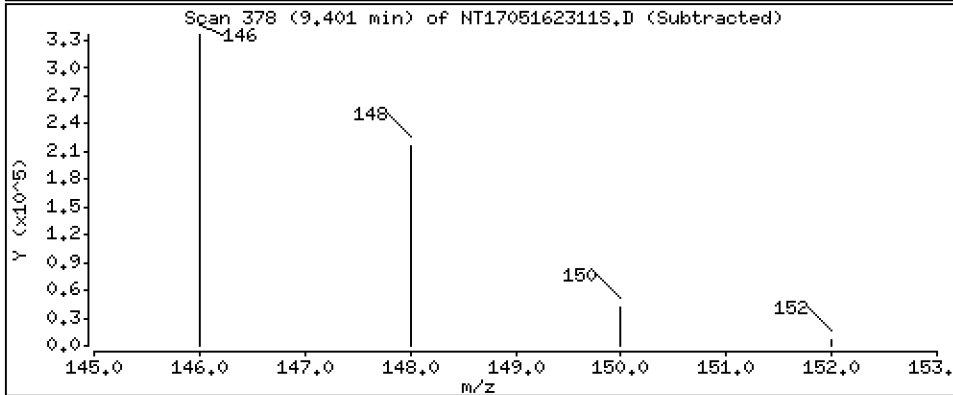
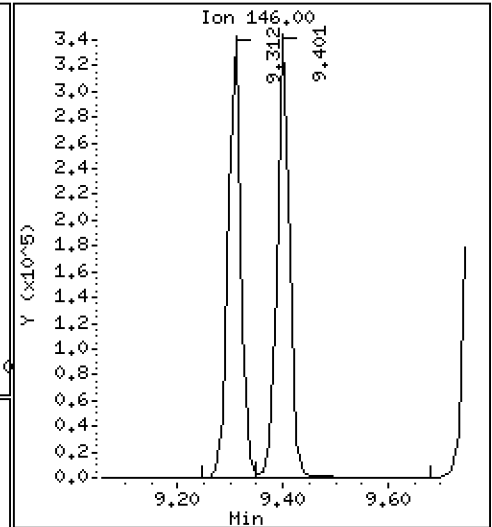
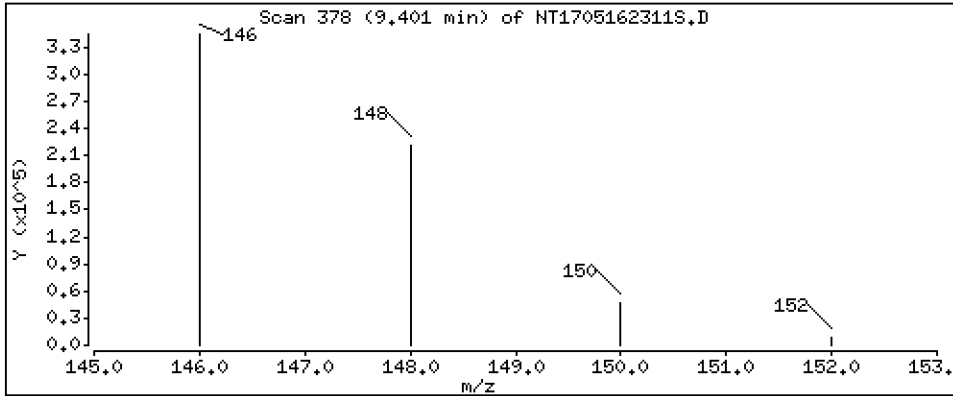
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

9,1,4-Dichlorobenzene

Concentration: 5.132 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

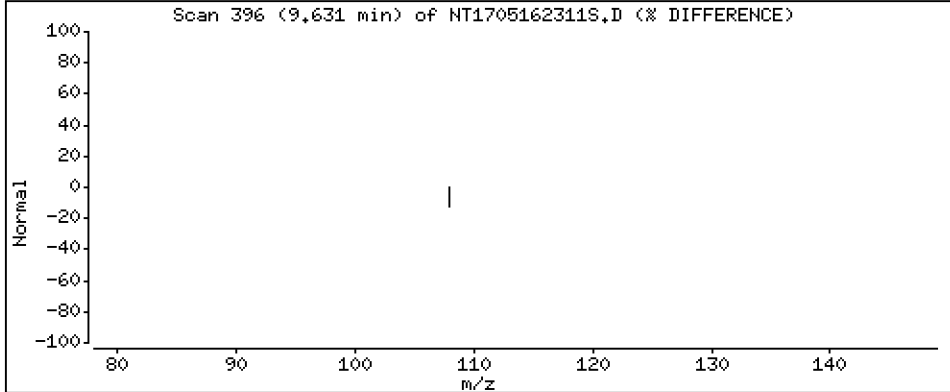
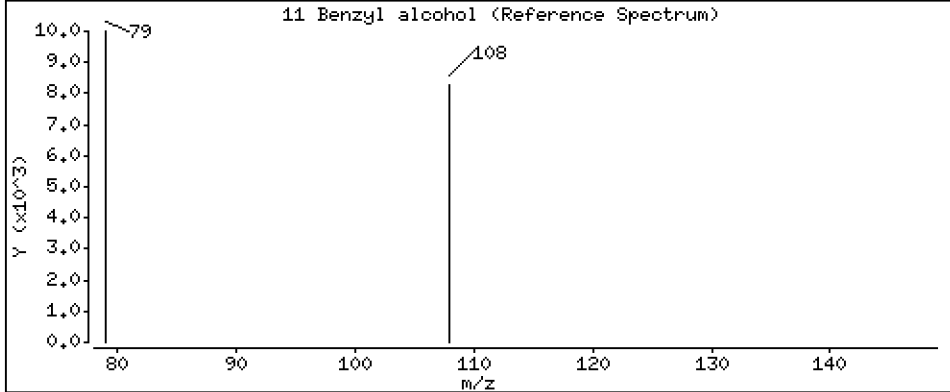
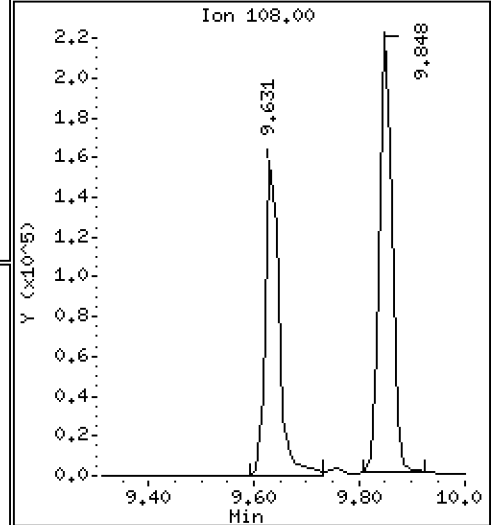
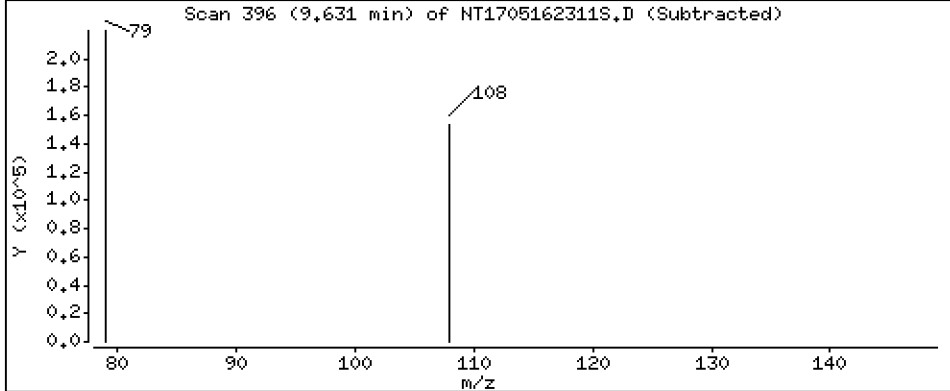
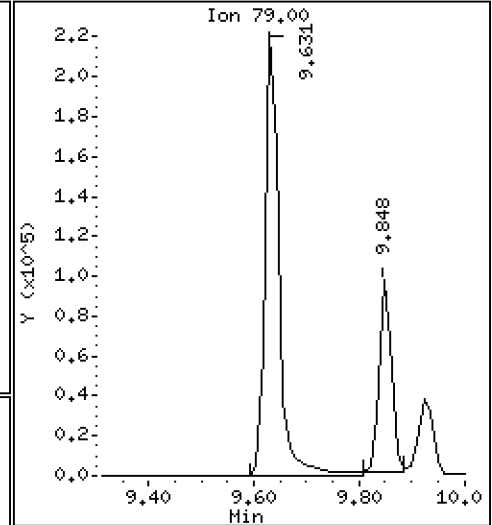
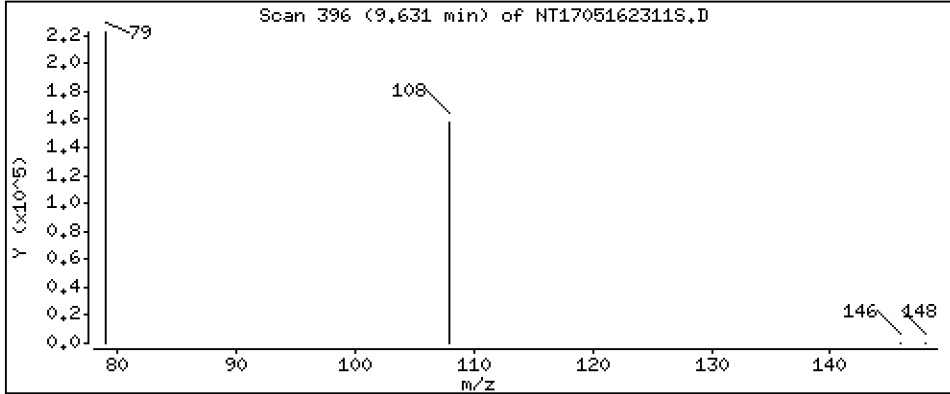
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.706 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

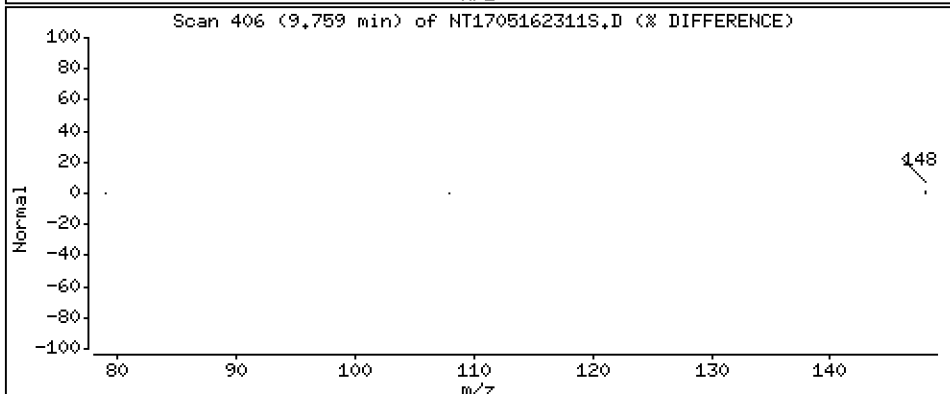
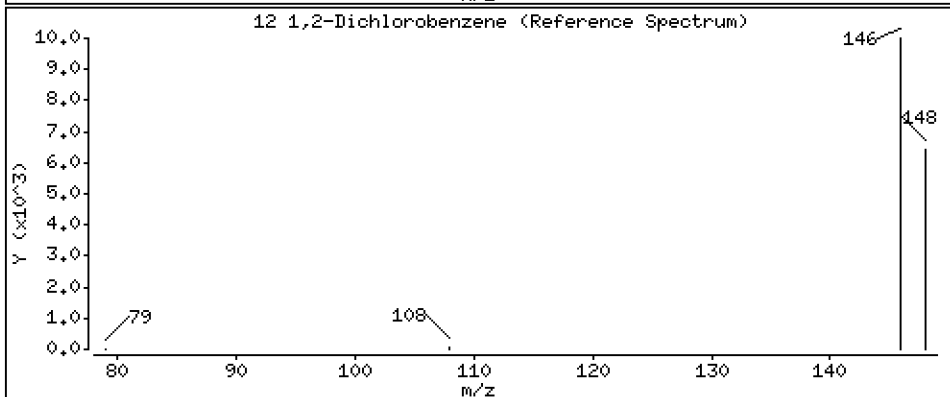
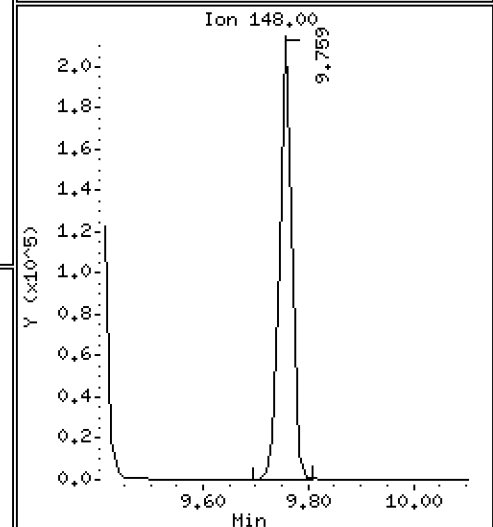
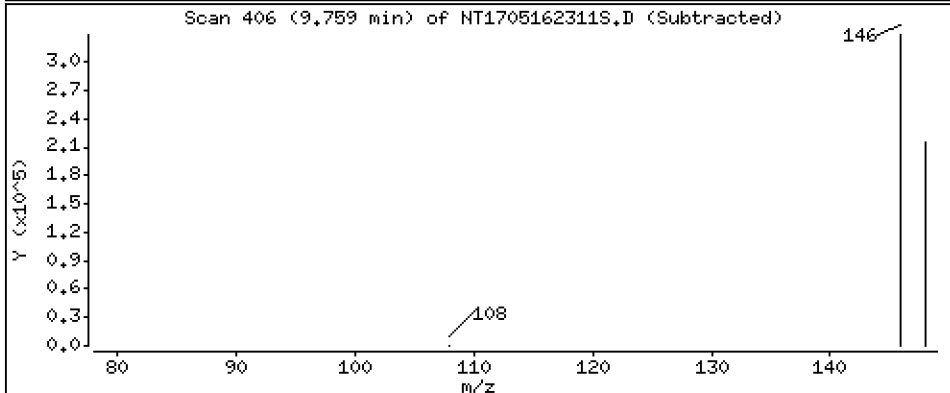
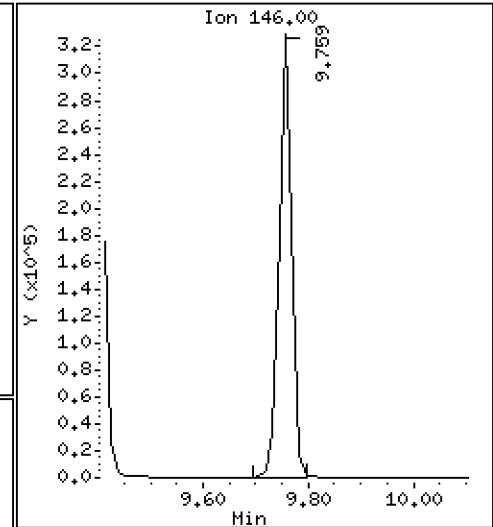
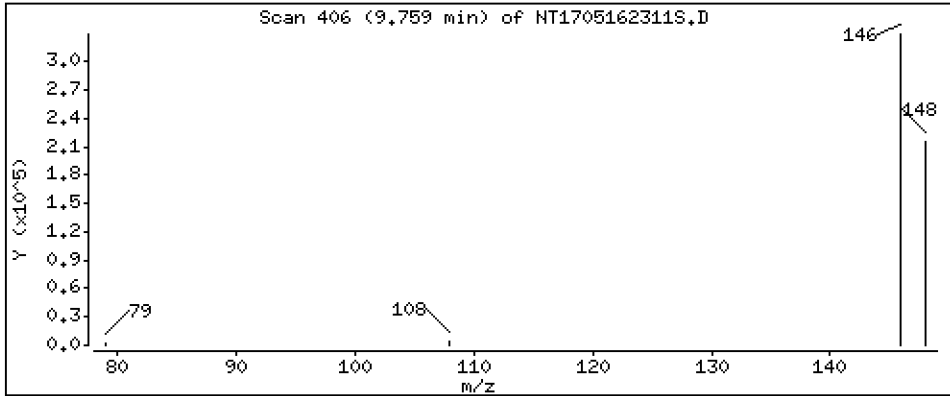
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 5.007 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

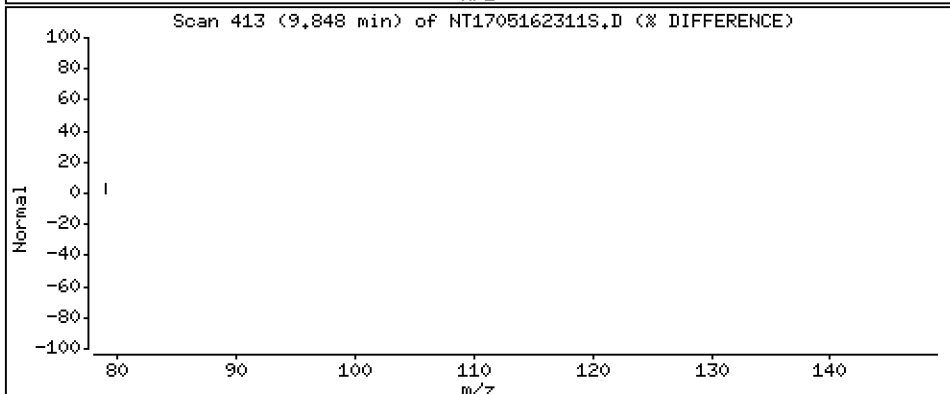
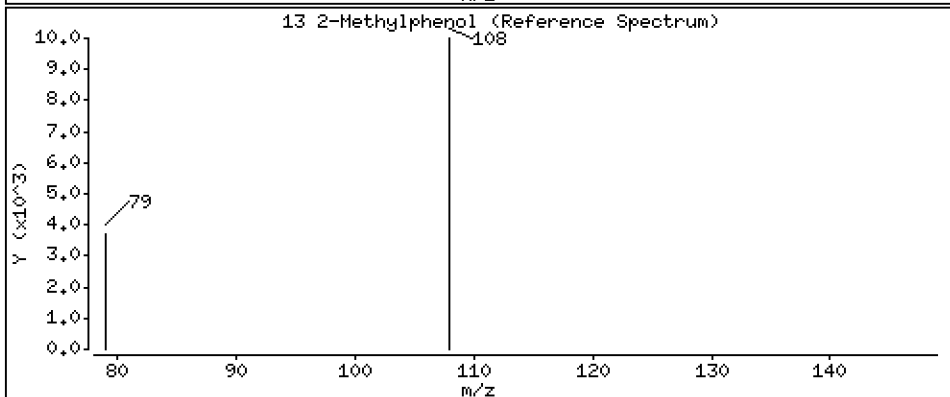
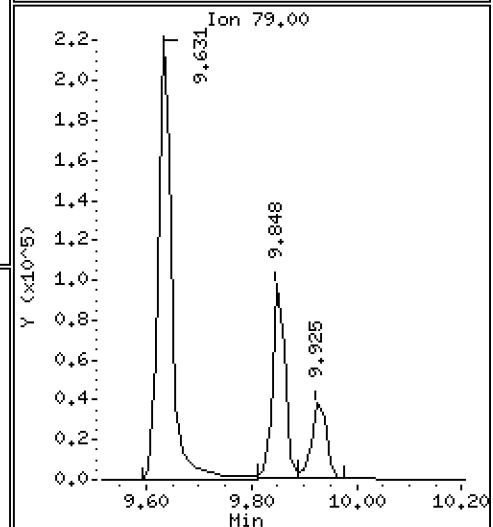
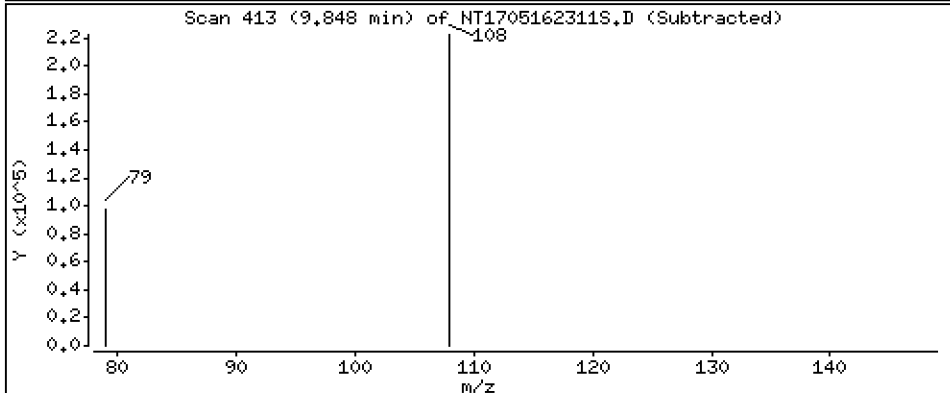
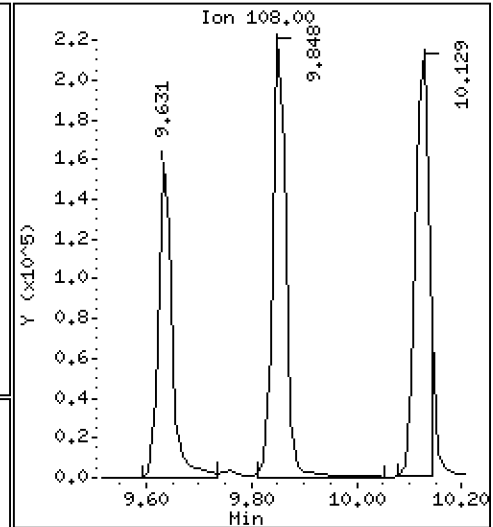
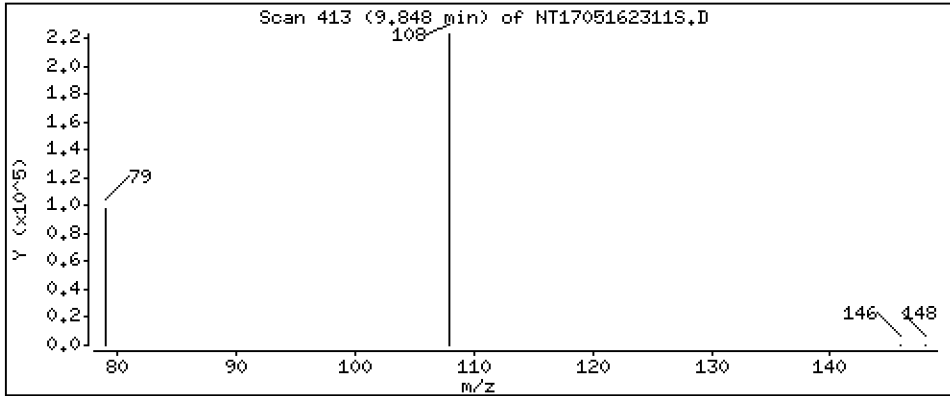
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,408 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

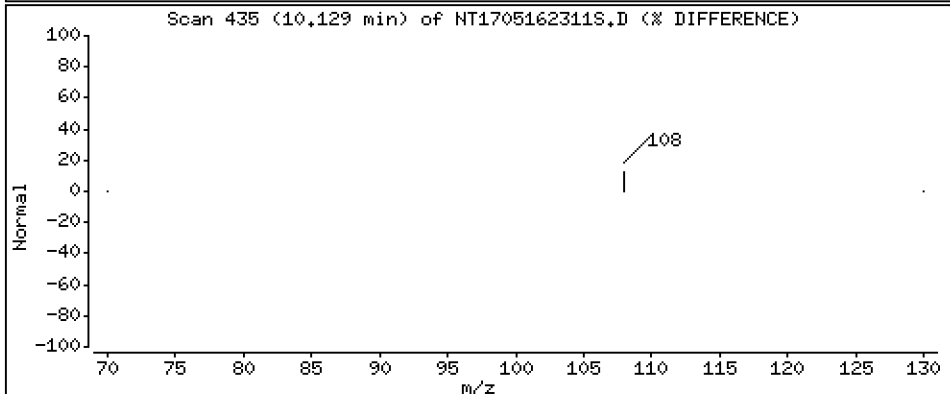
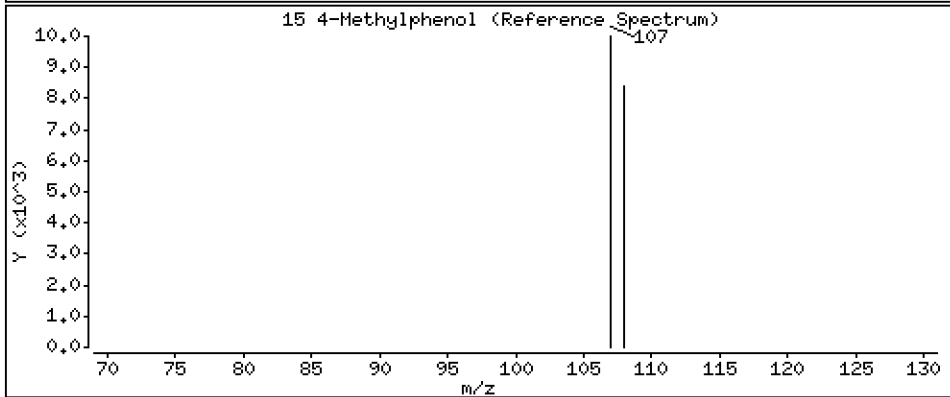
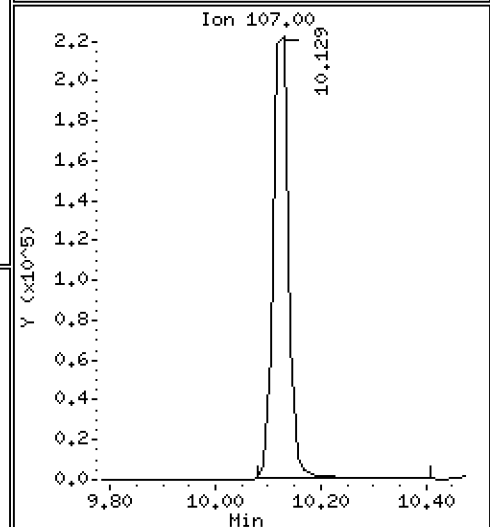
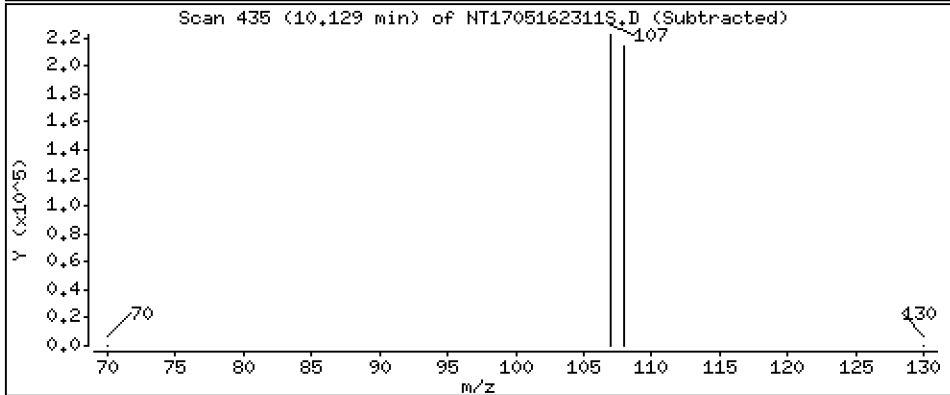
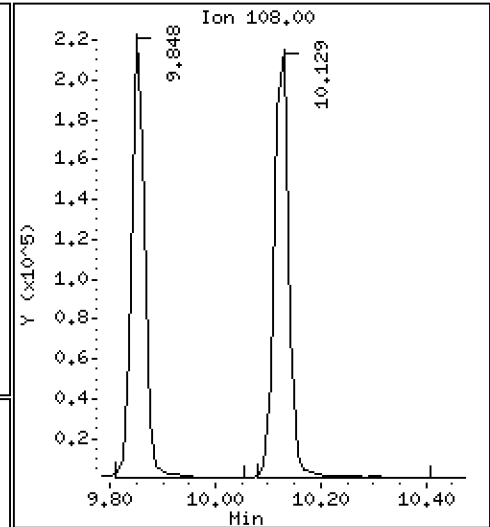
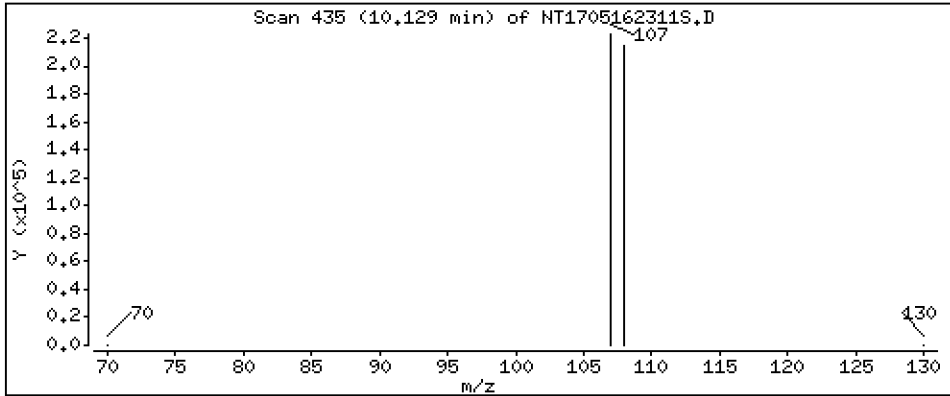
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,788 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

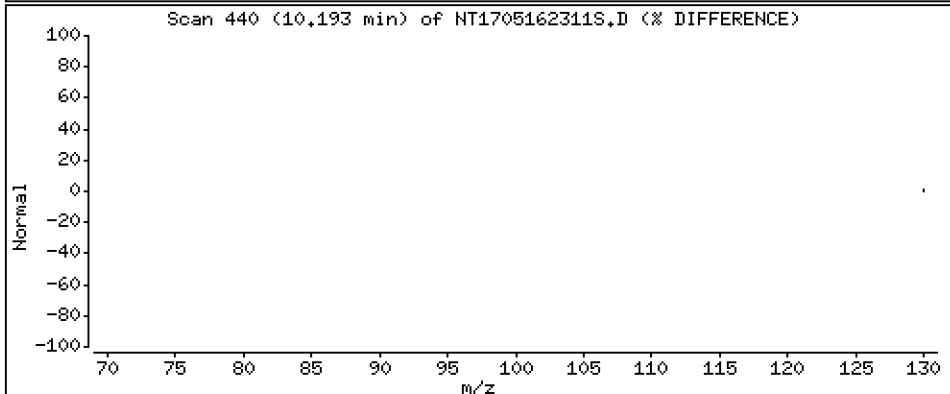
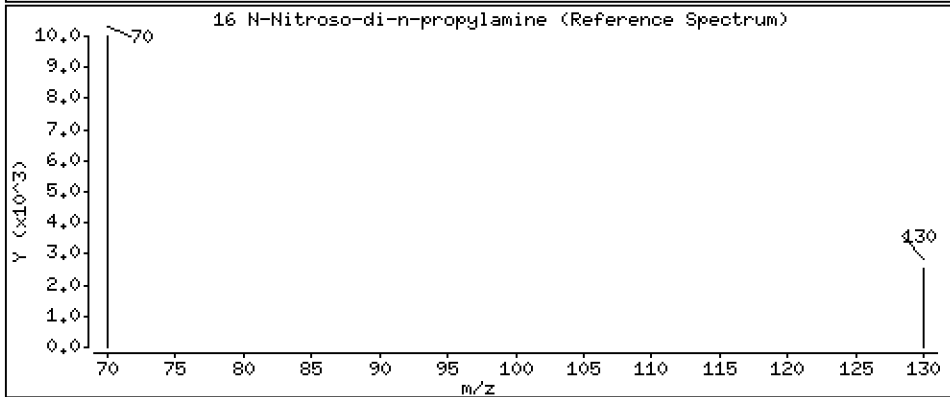
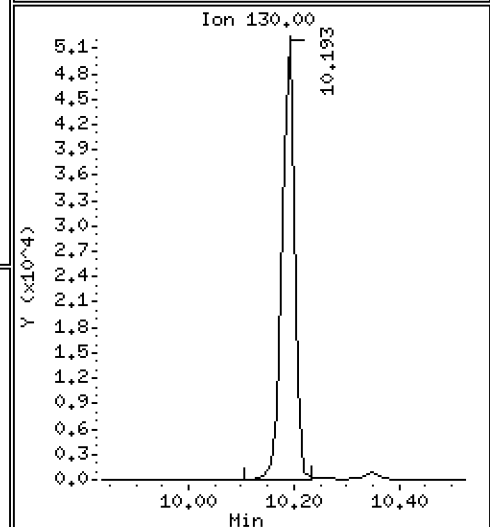
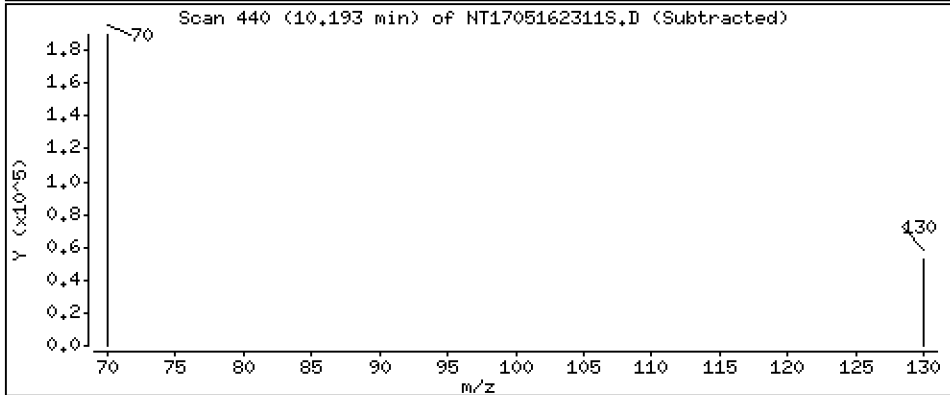
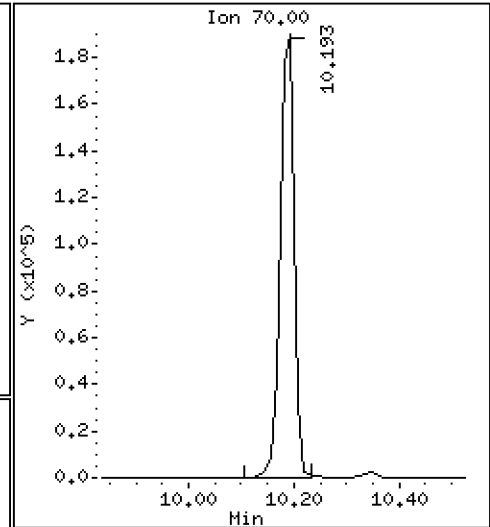
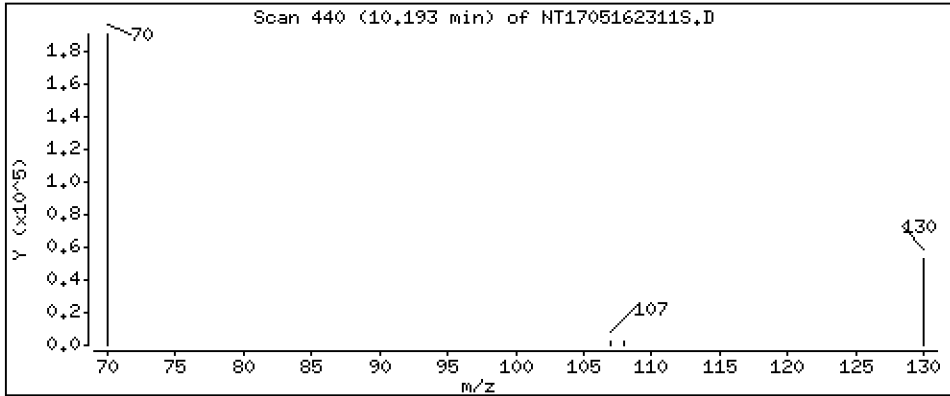
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 5,479 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

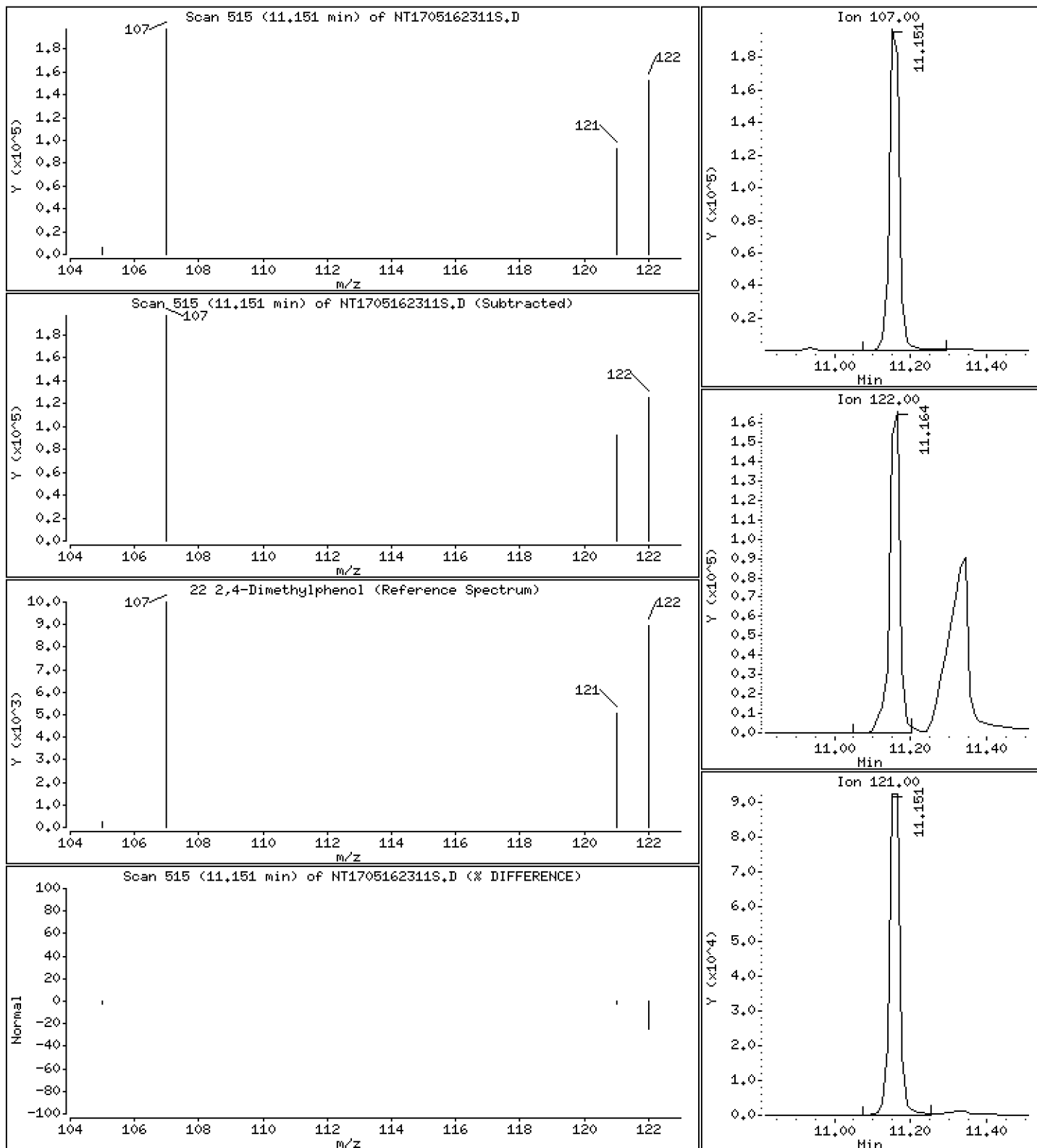
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3.816 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

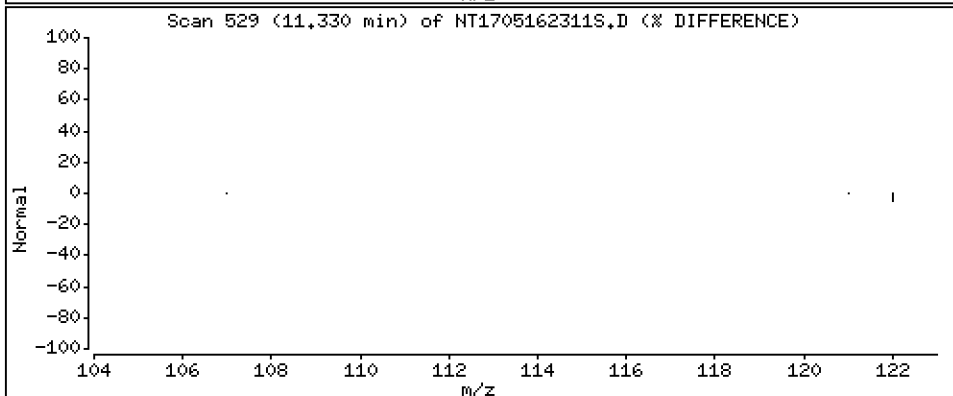
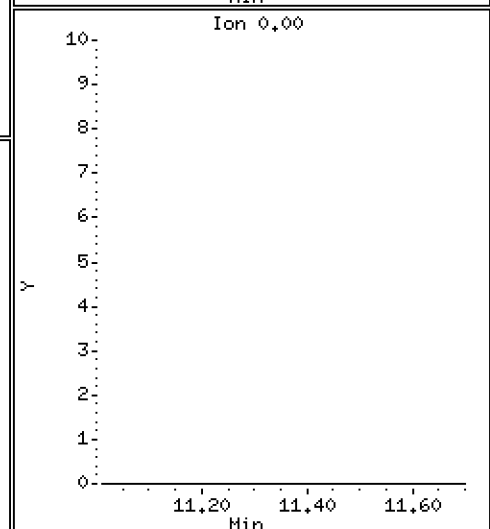
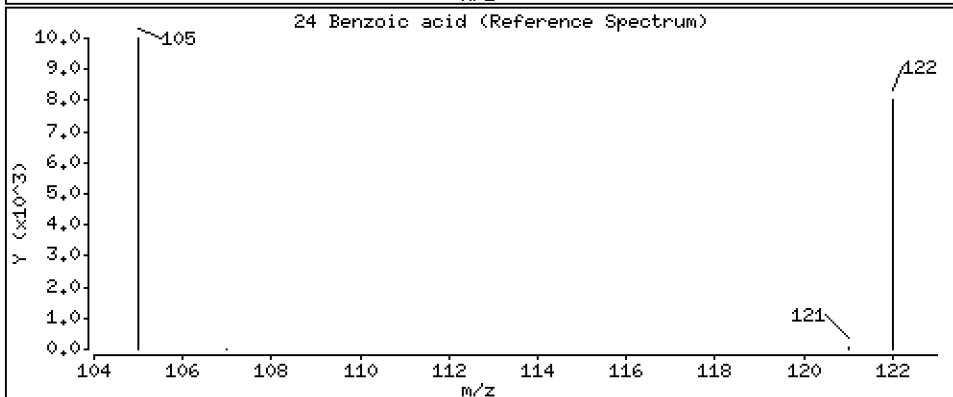
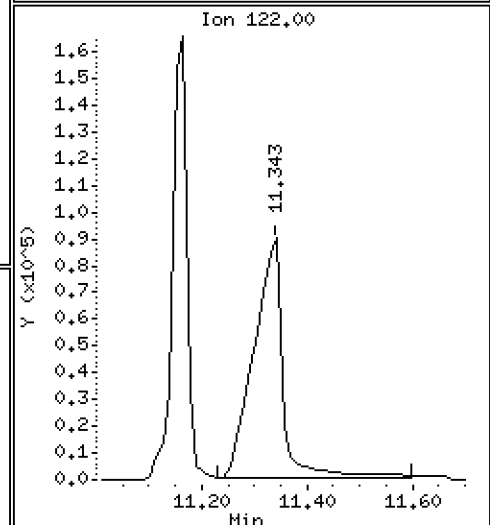
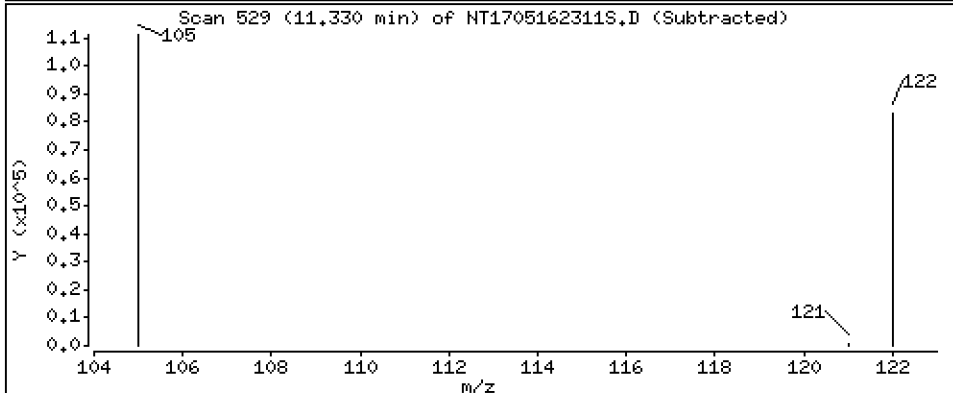
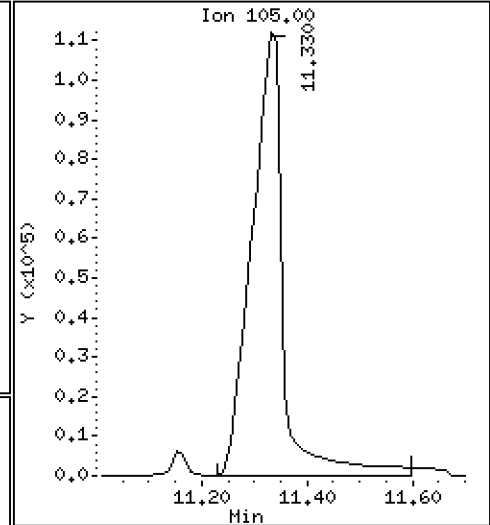
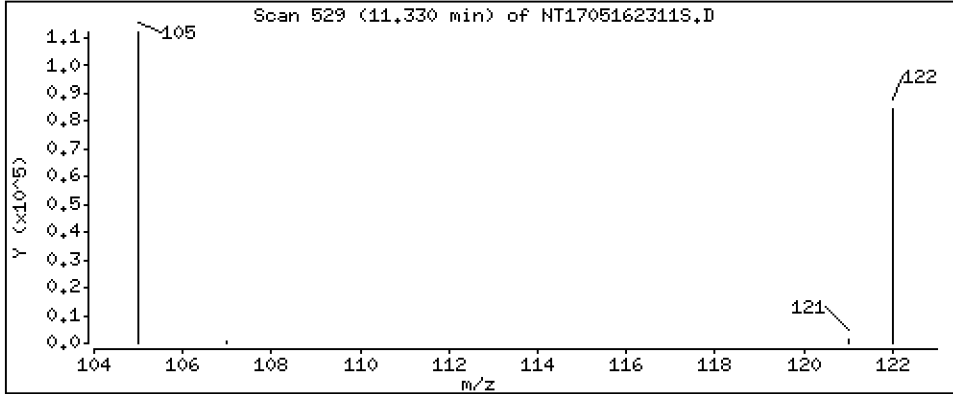
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 7.777 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

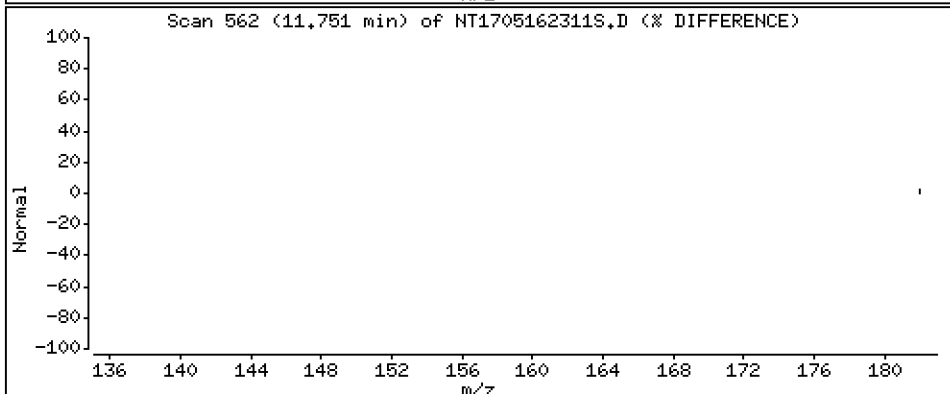
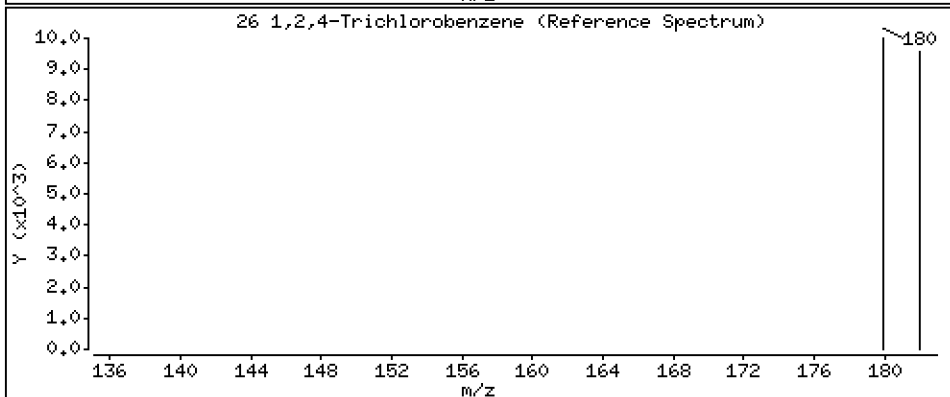
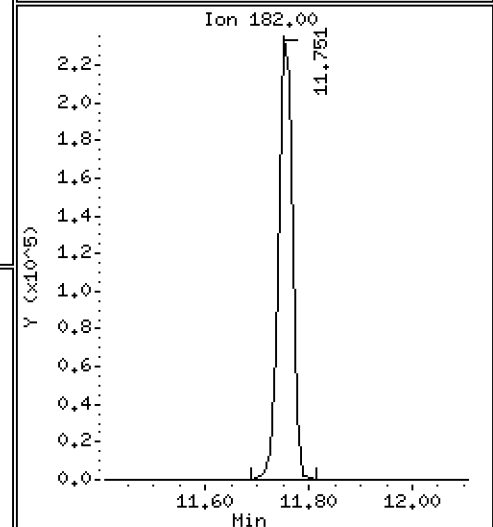
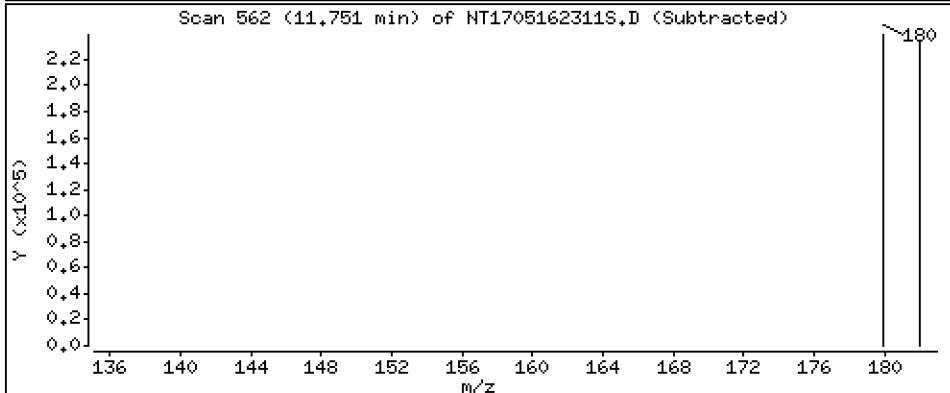
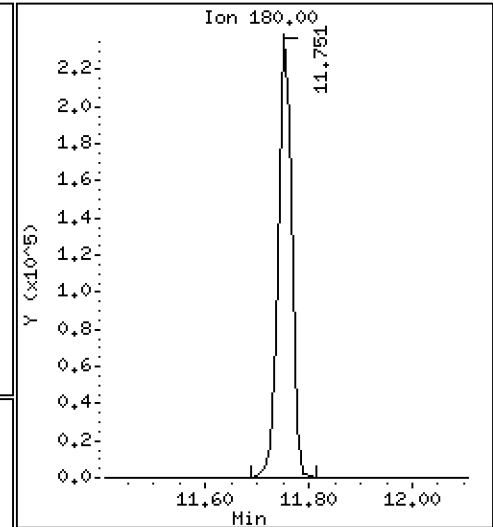
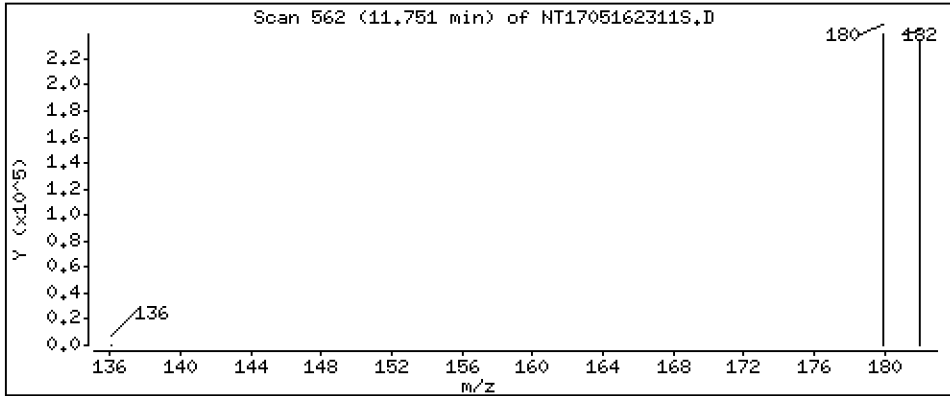
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,906 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

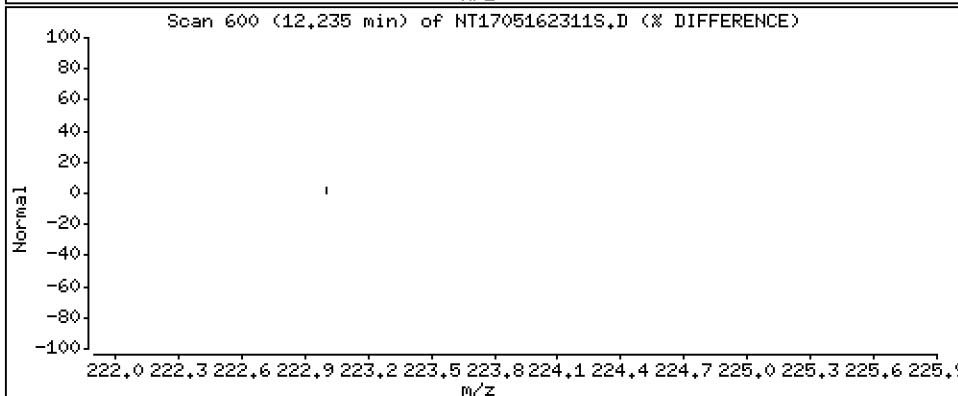
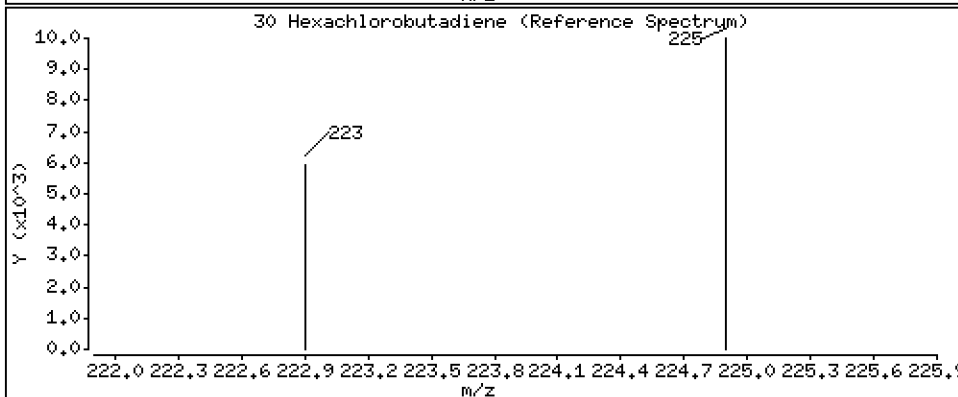
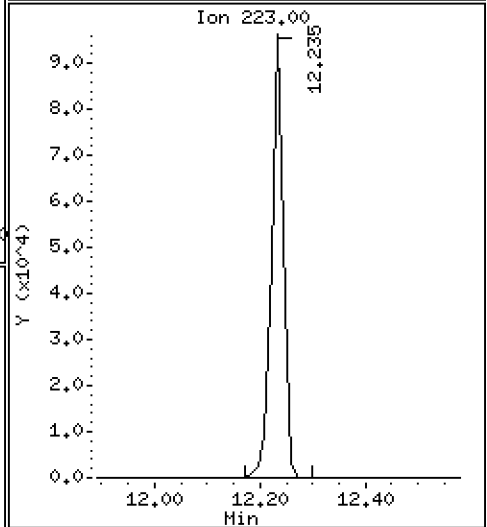
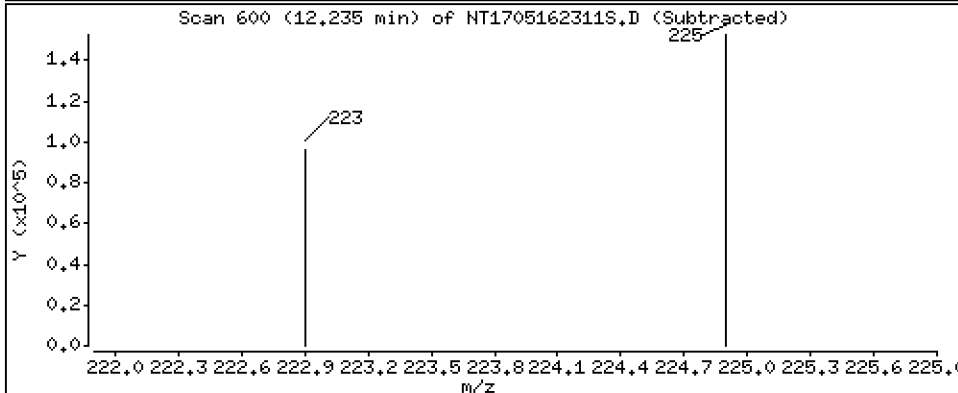
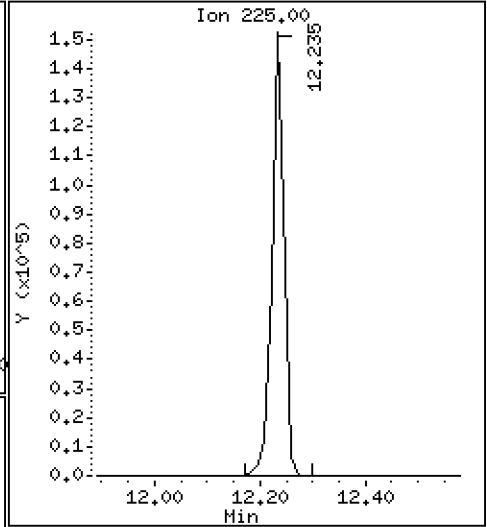
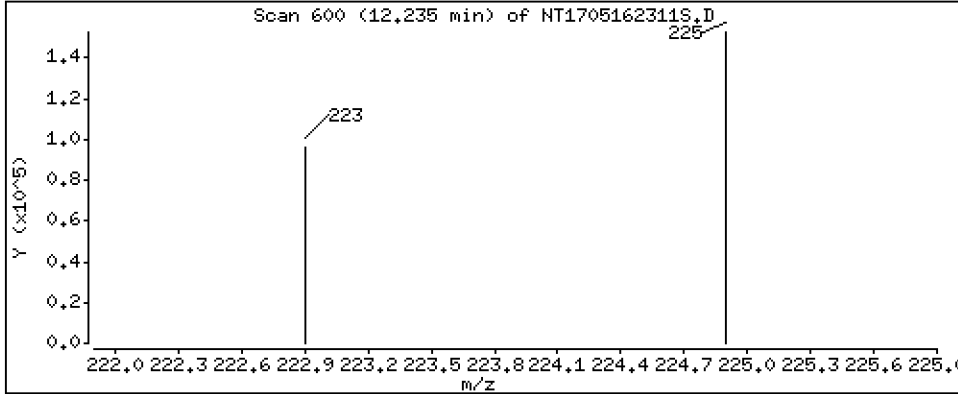
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 5,201 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

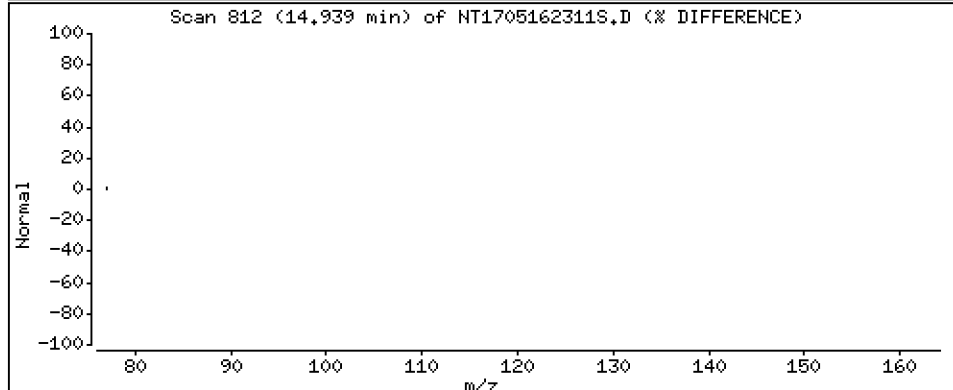
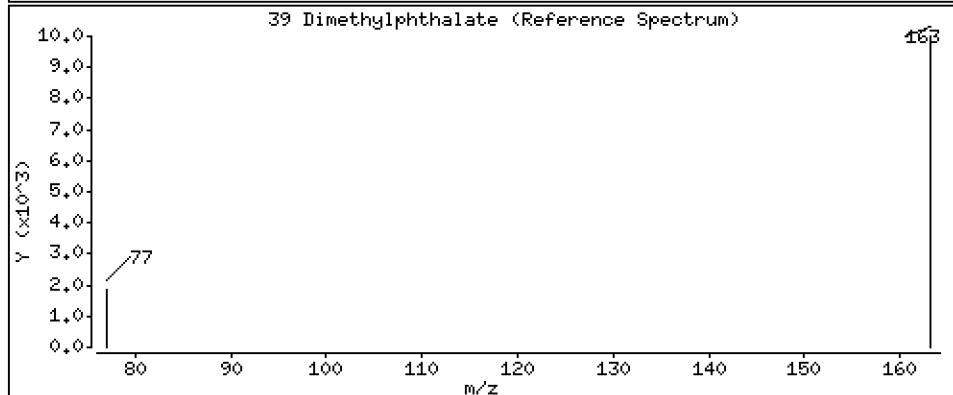
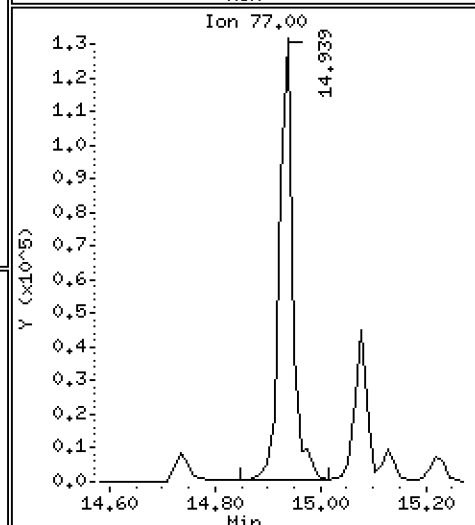
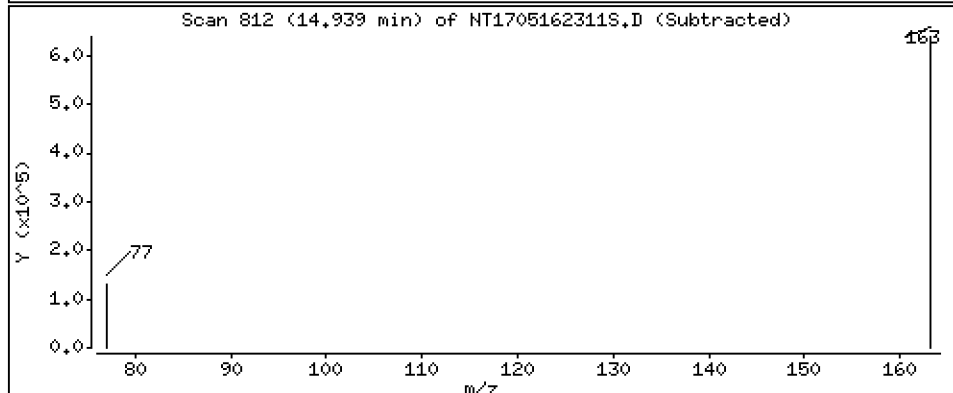
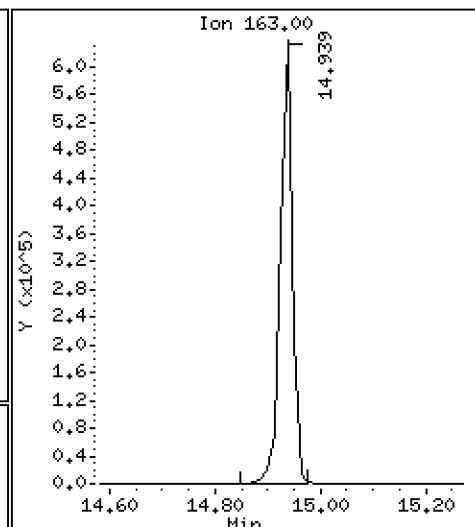
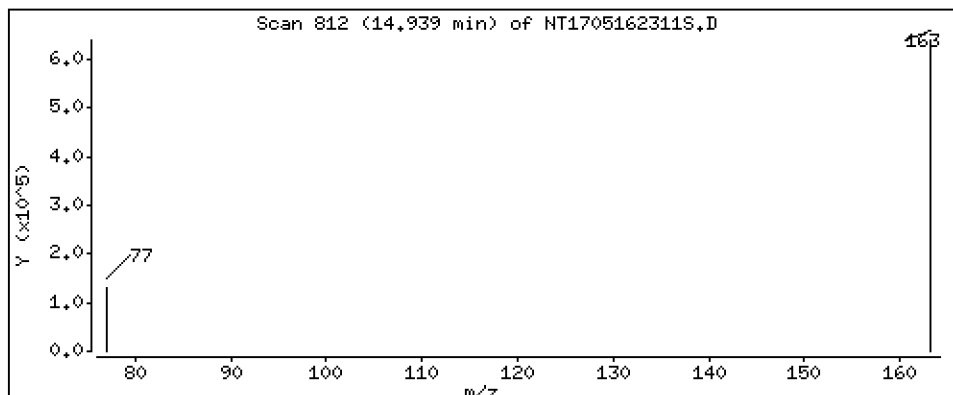
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,240 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

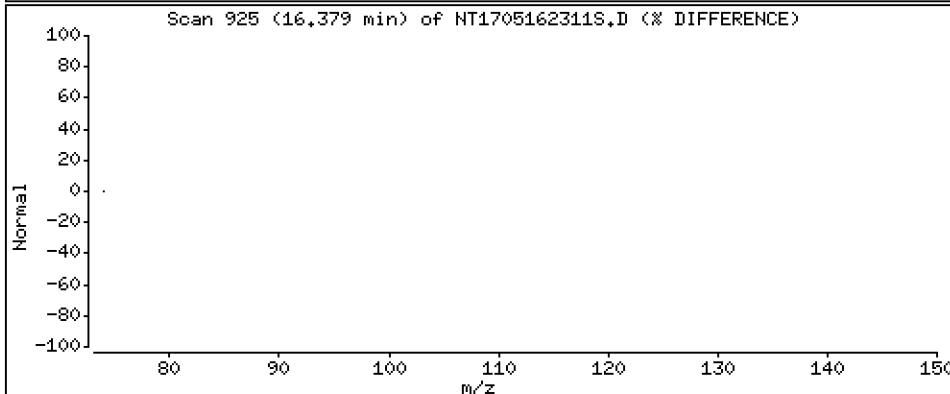
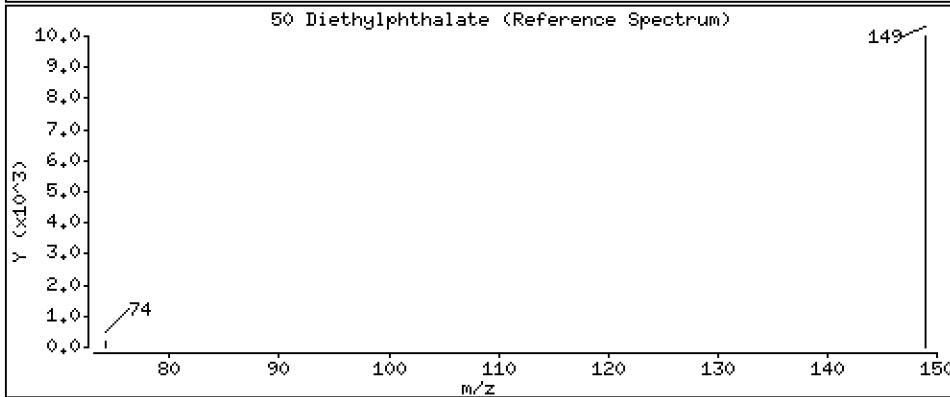
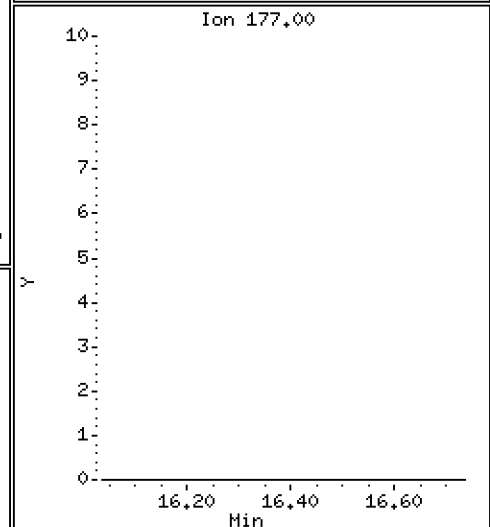
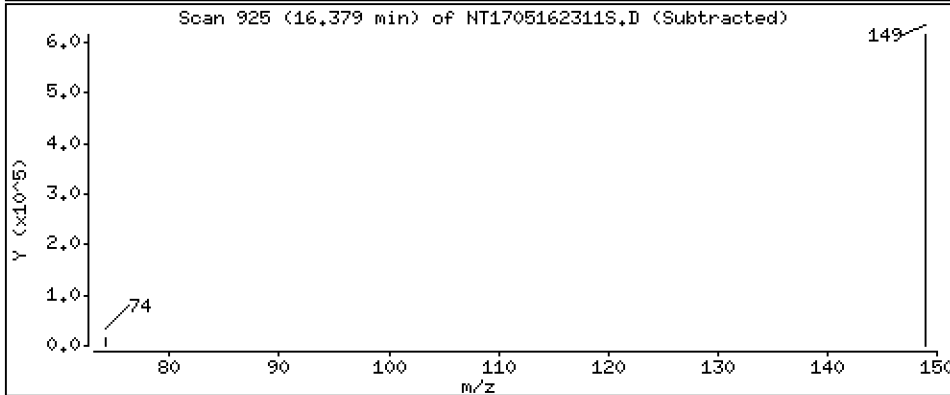
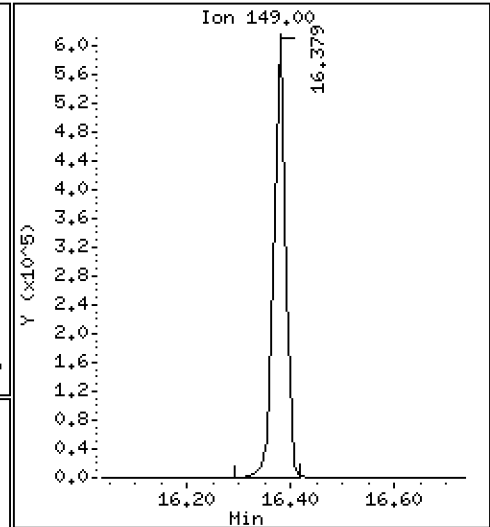
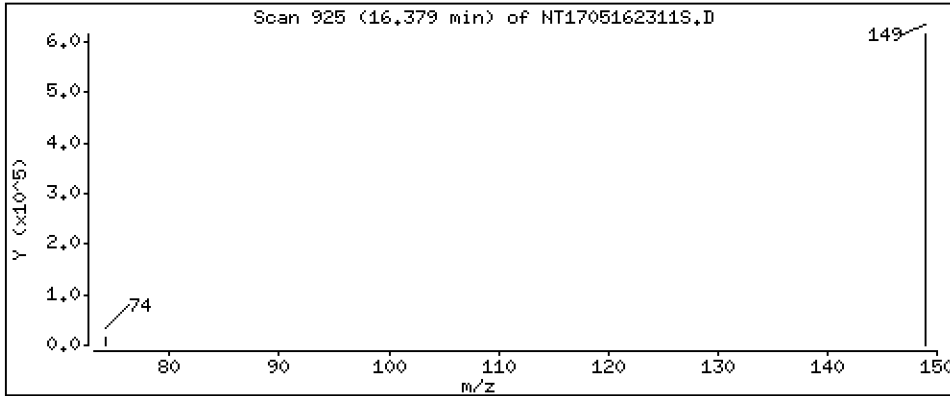
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,478 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

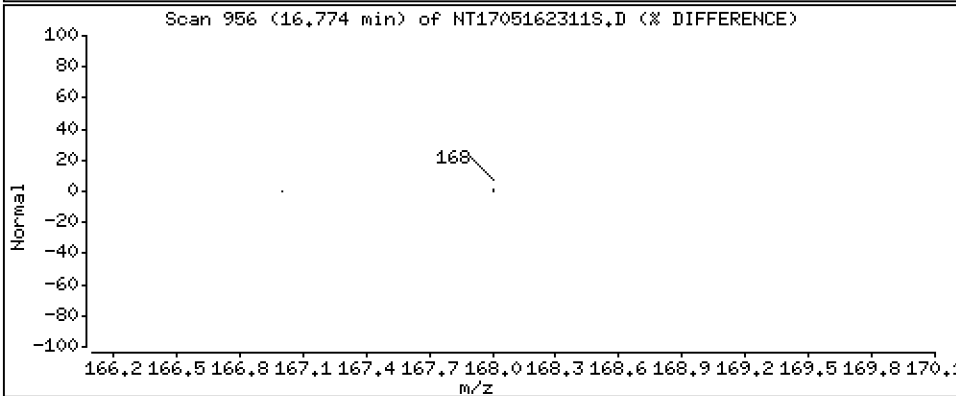
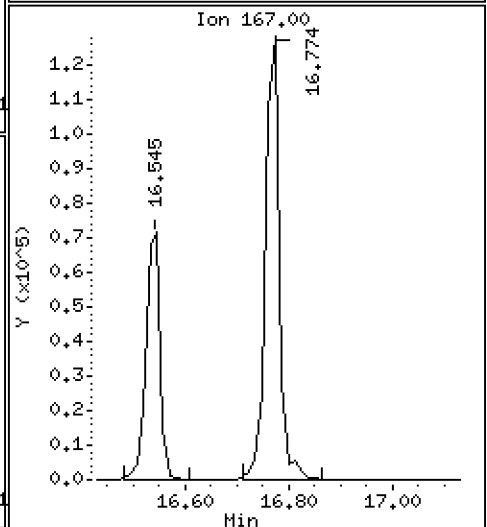
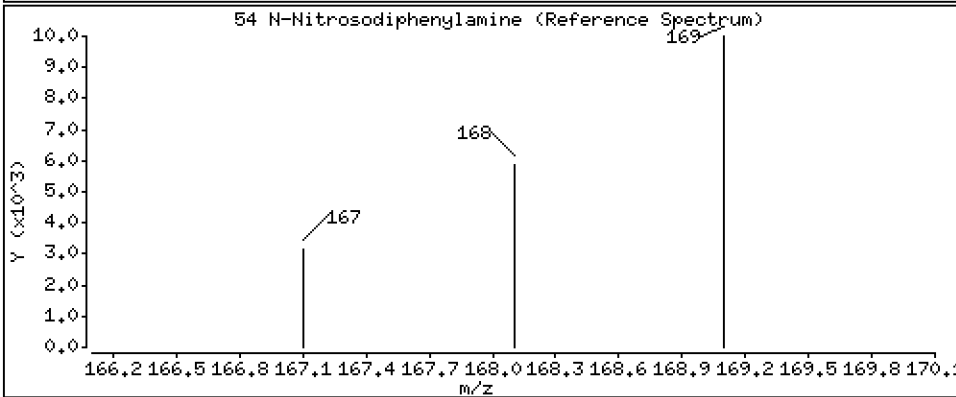
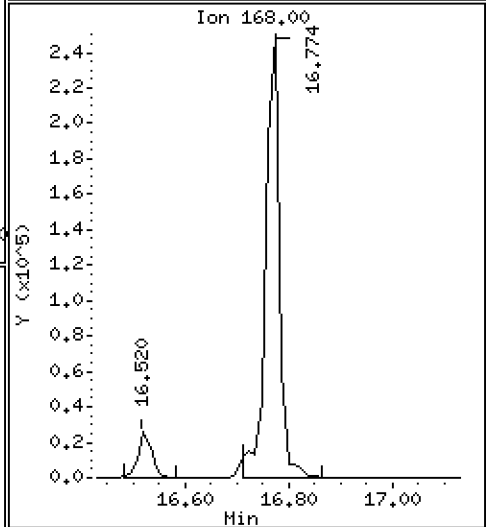
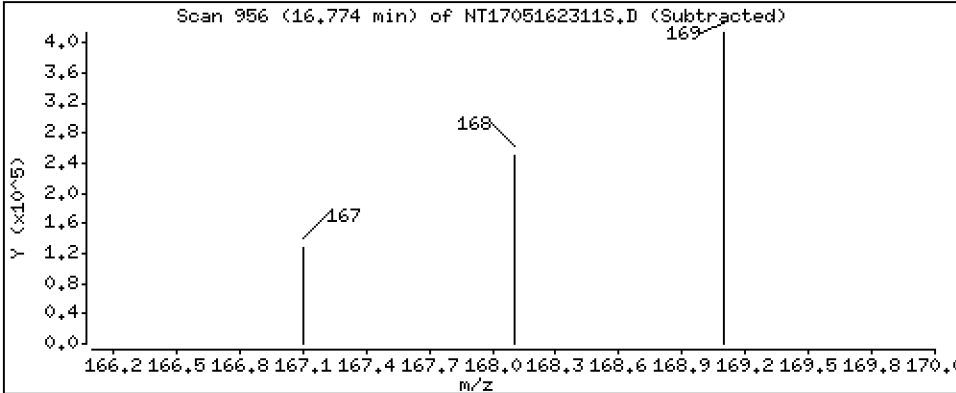
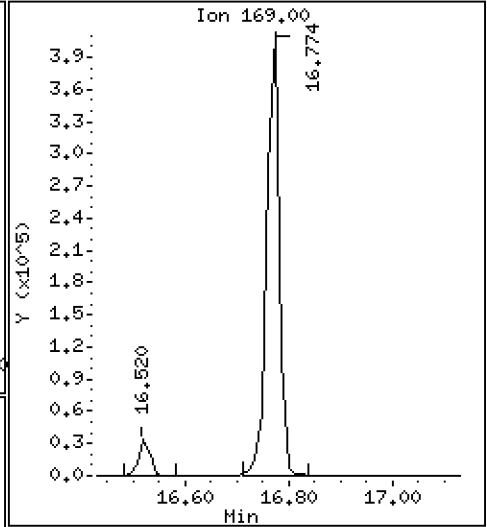
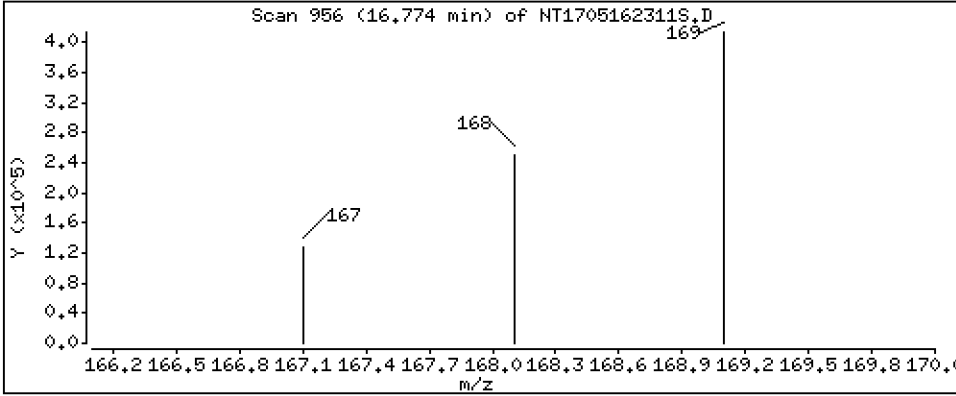
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 5,627 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

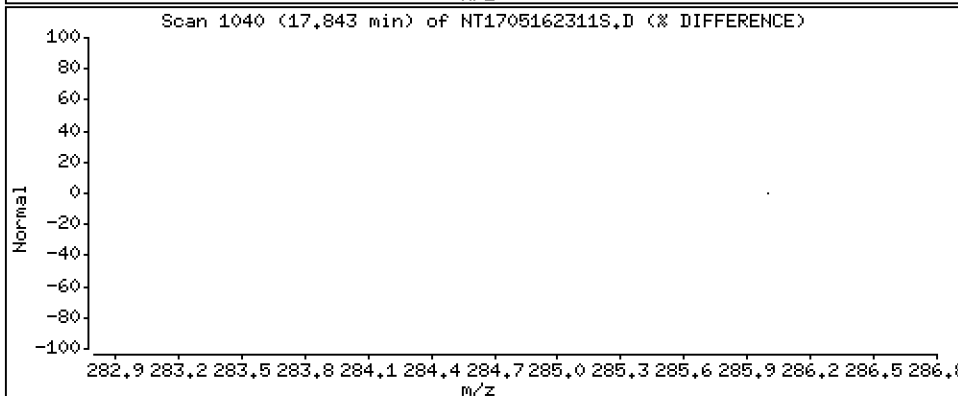
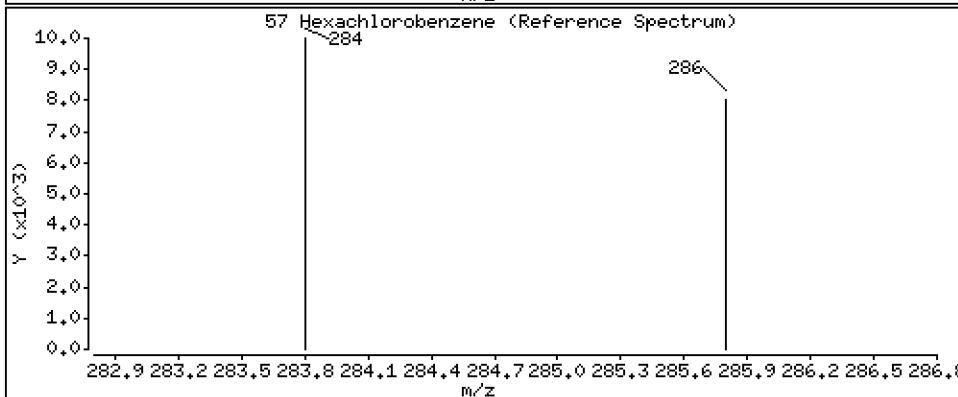
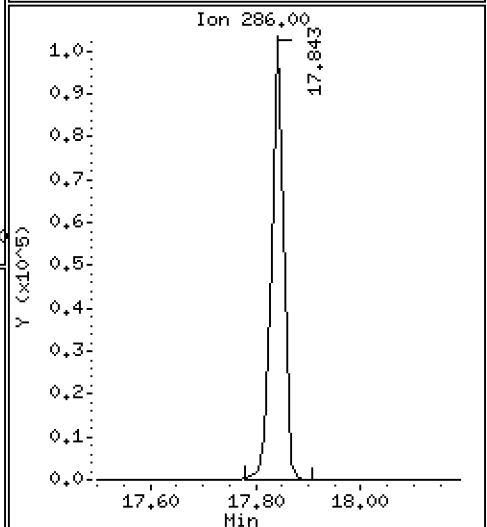
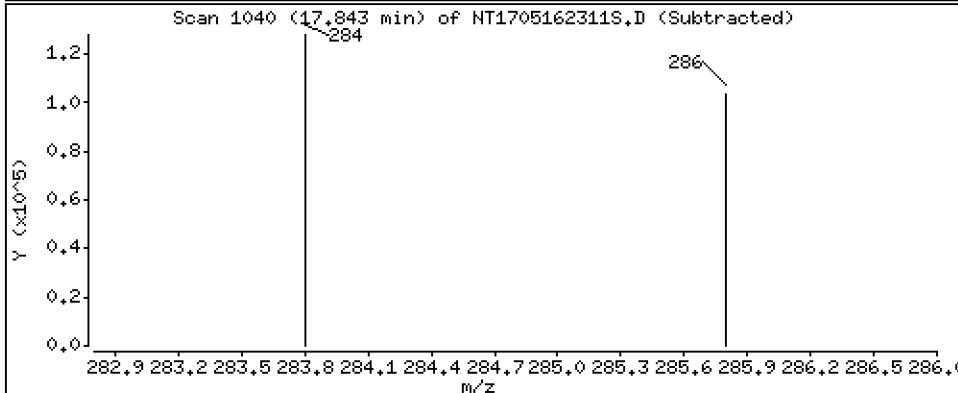
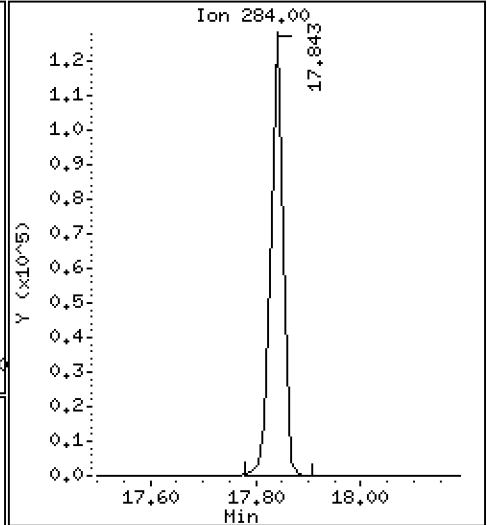
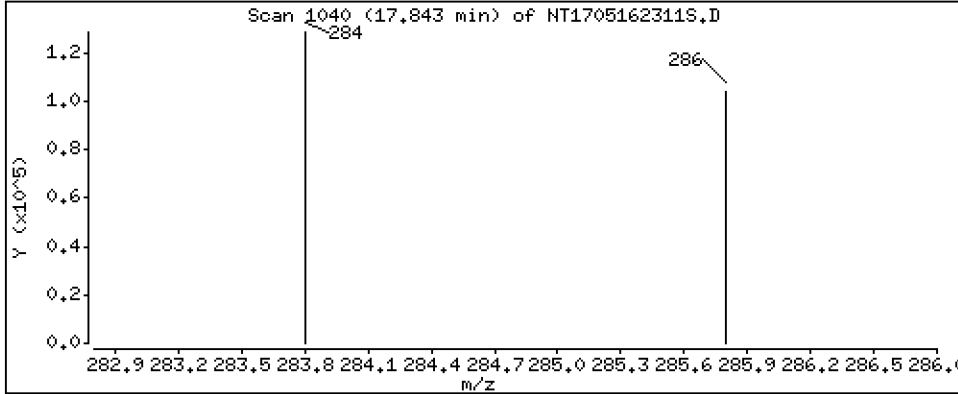
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 5,081 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

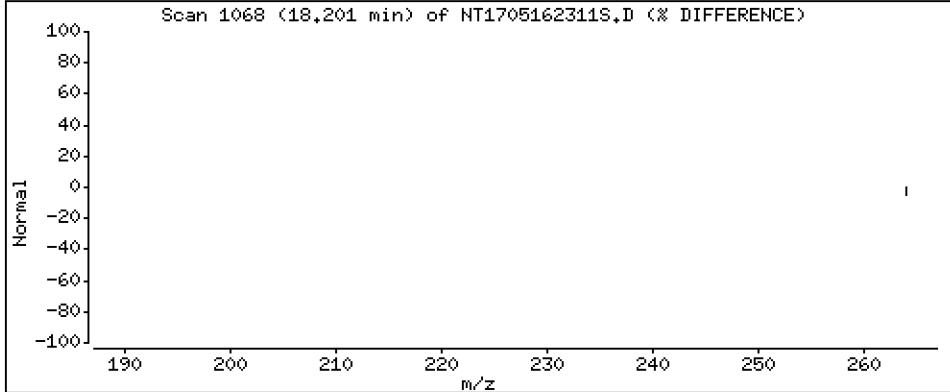
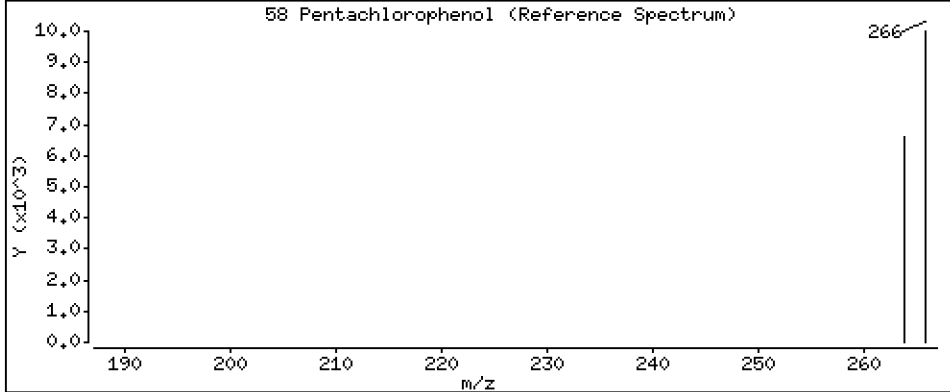
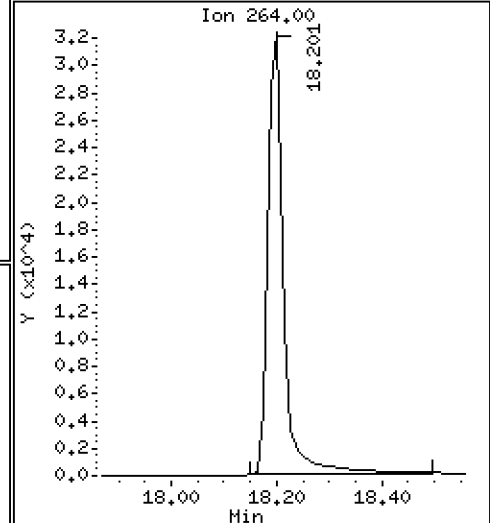
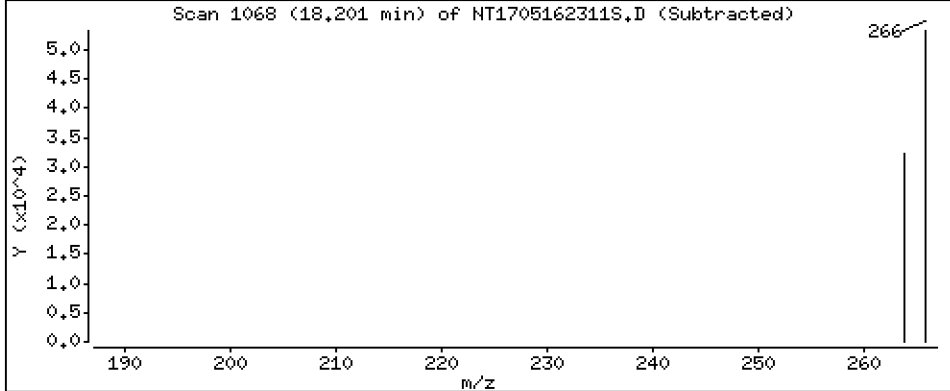
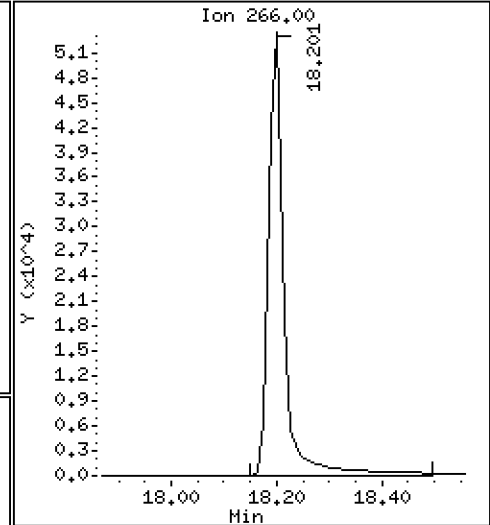
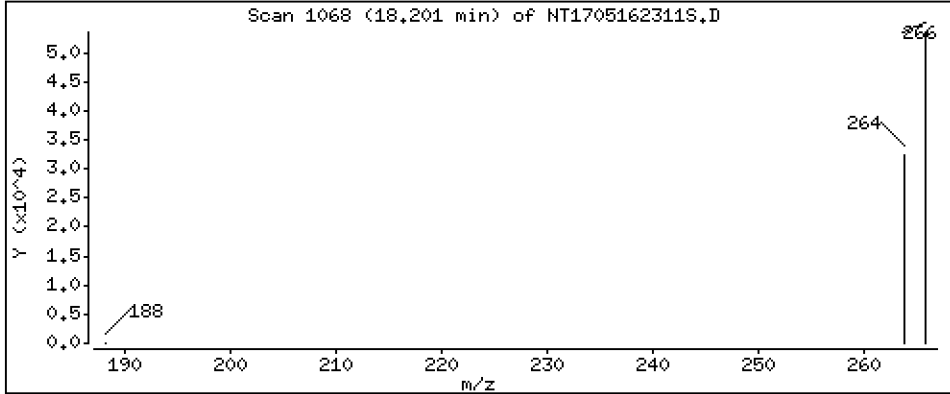
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,506 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

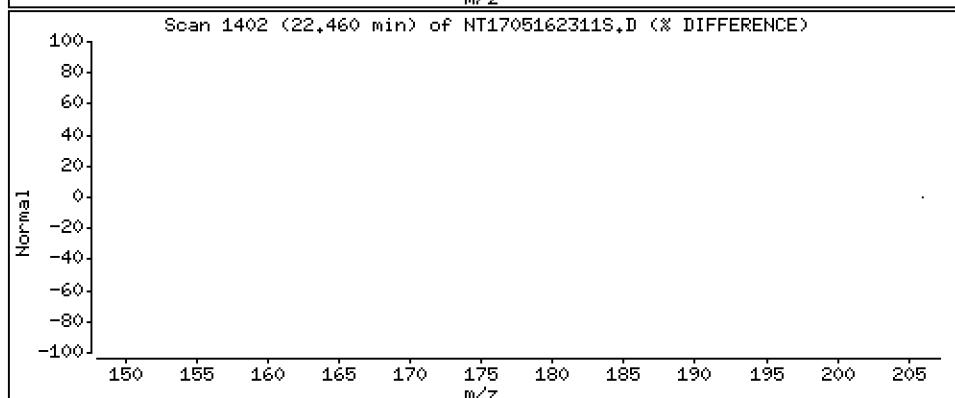
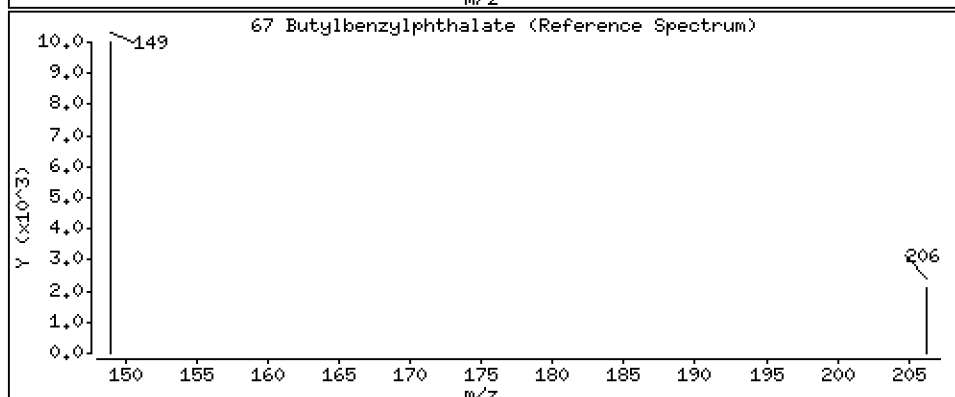
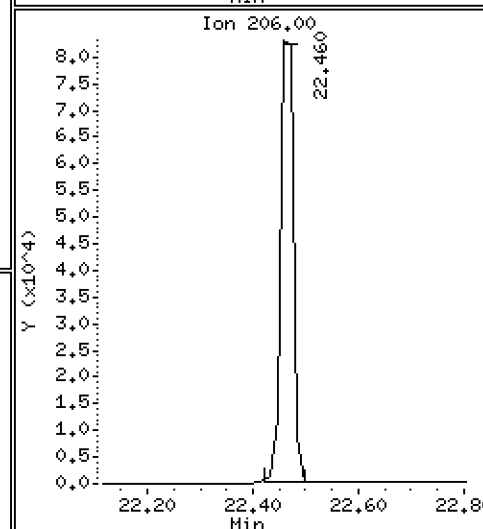
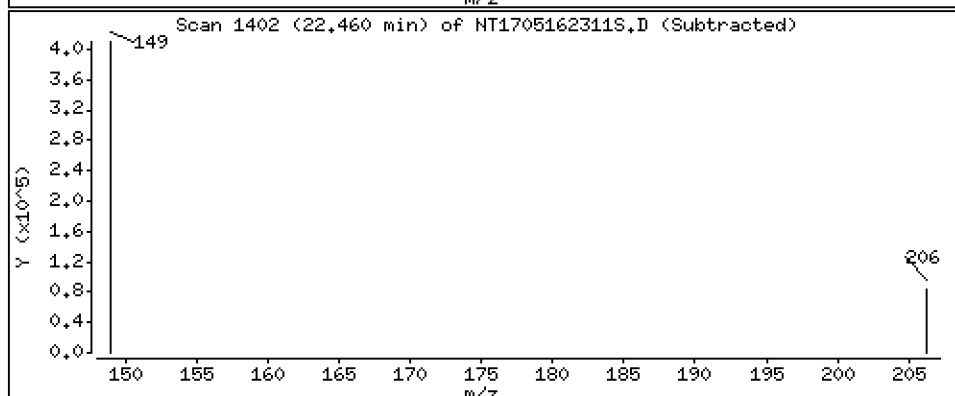
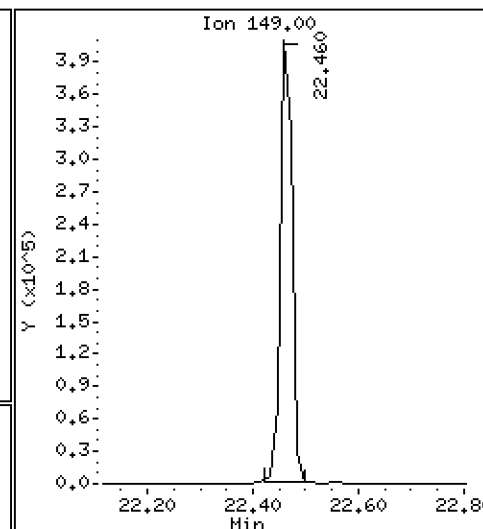
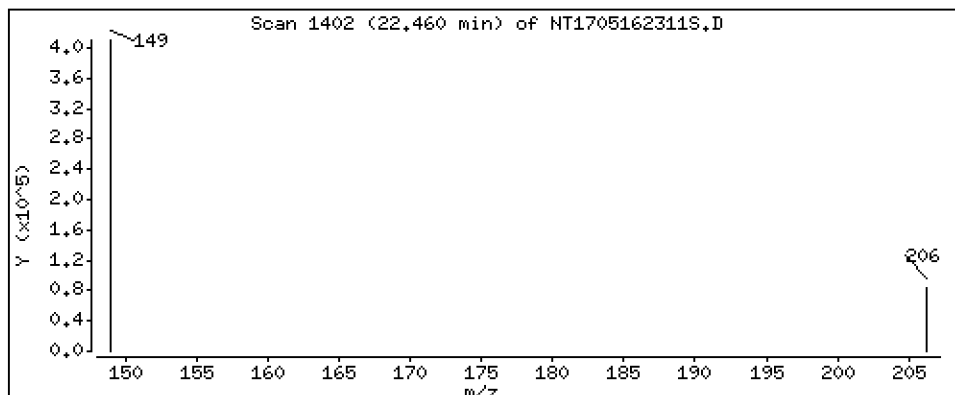
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 5,905 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

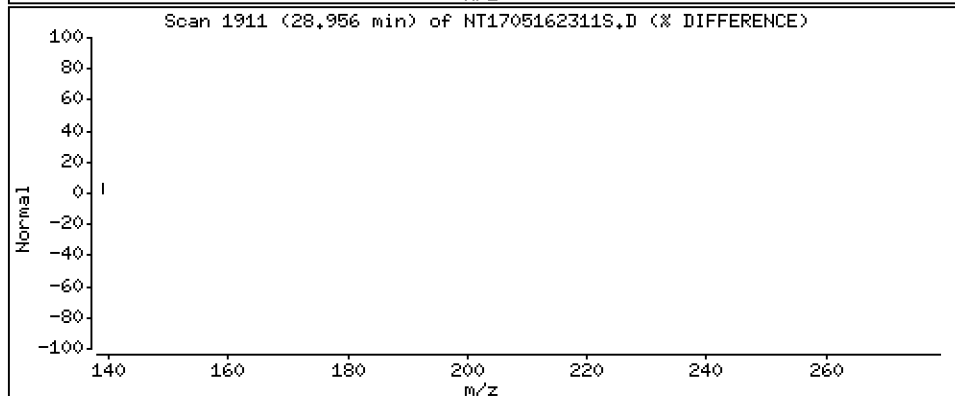
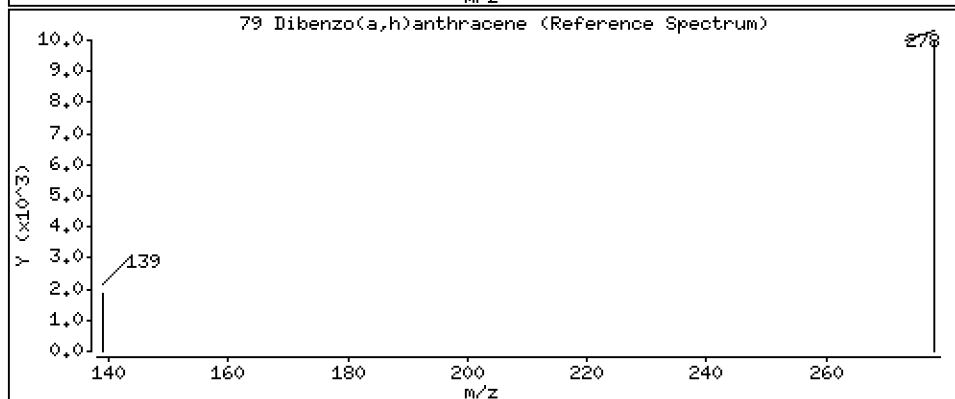
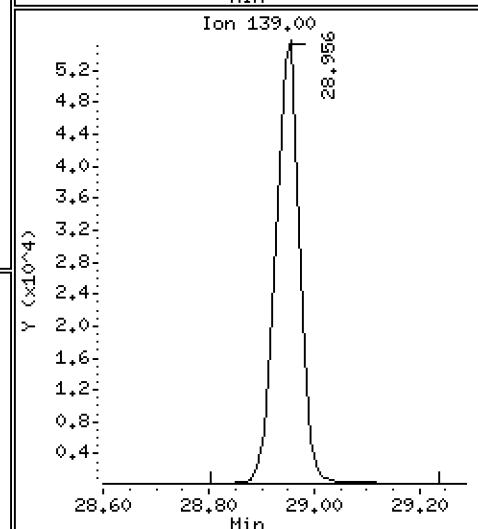
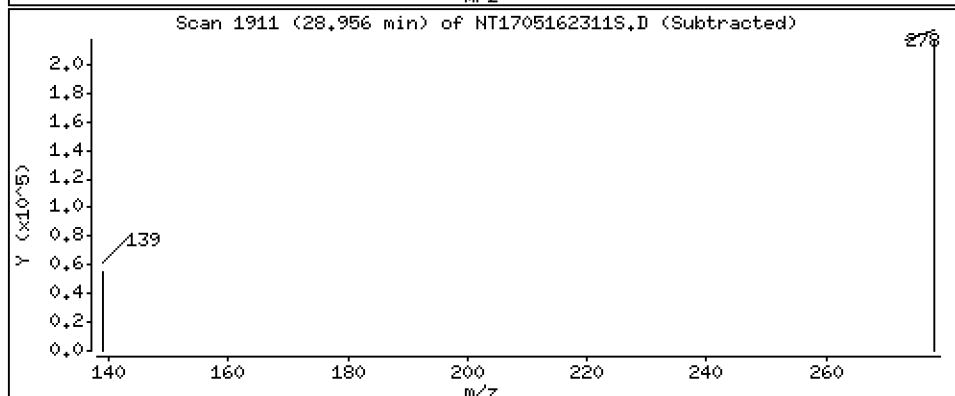
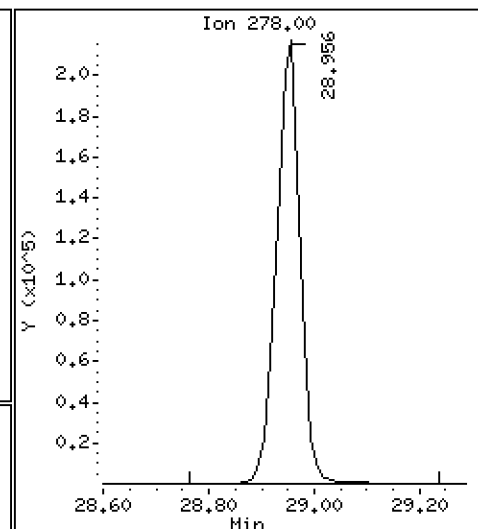
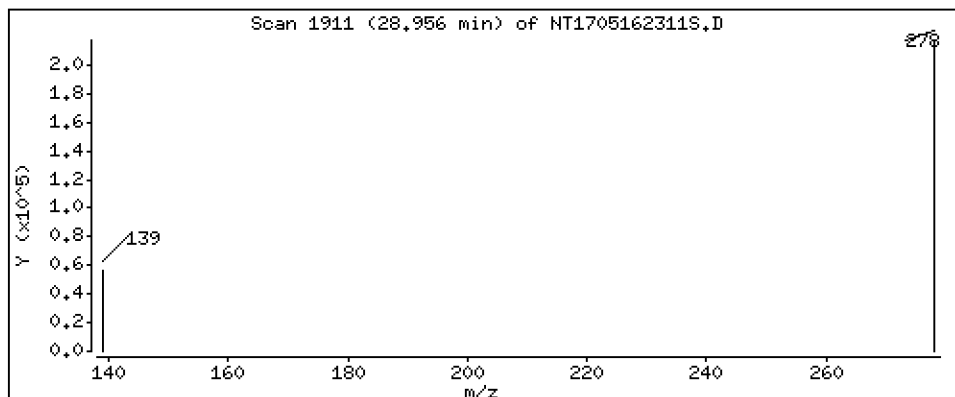
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenz(a,h)anthracene

Concentration: 5,149 ug/mL



Date : 17-MAY-2023 00:29

Client ID:

Instrument: nt17.i

Sample Info: SLE0339-SCV1

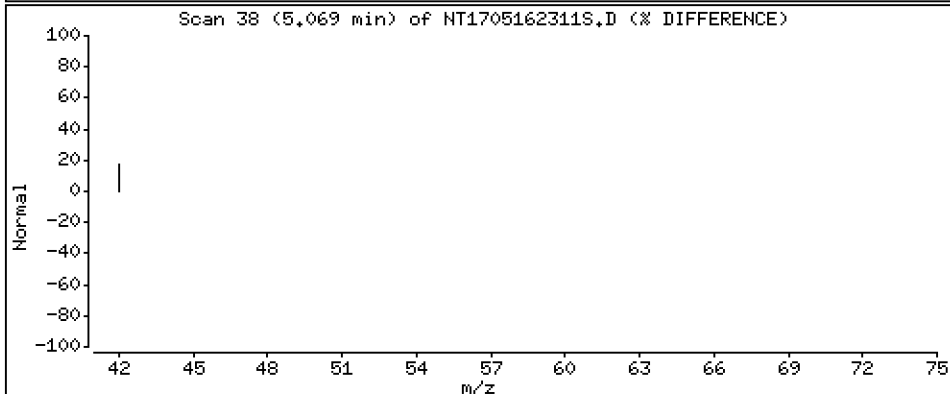
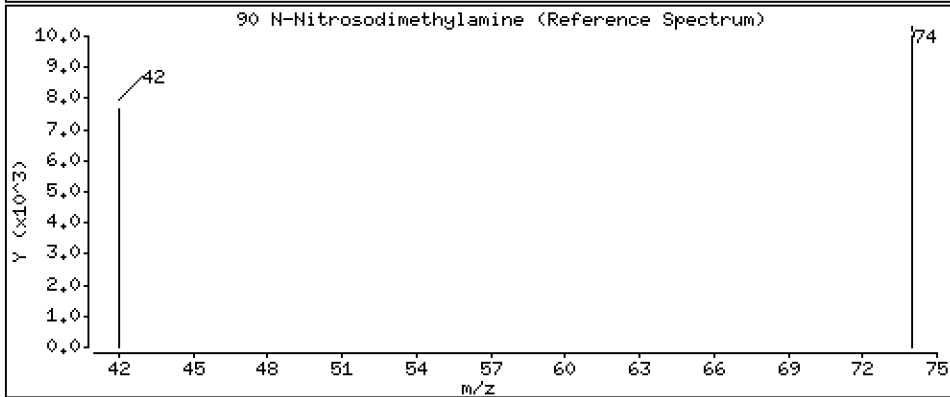
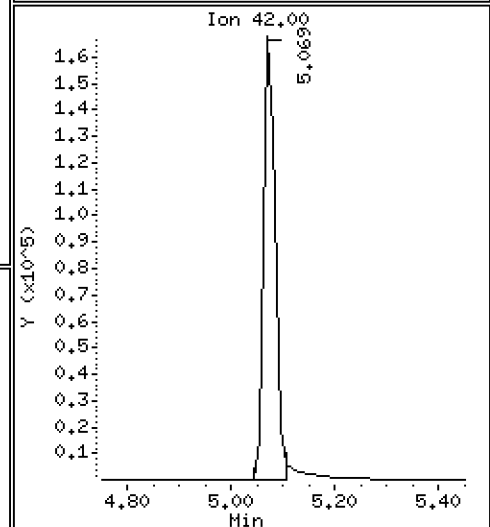
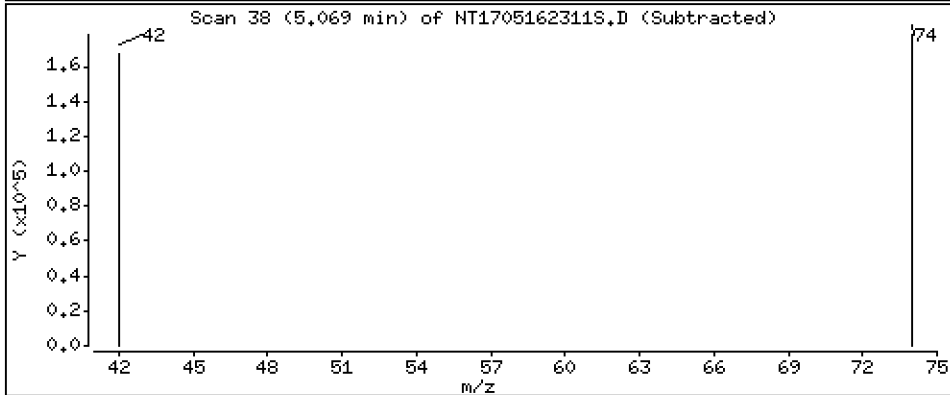
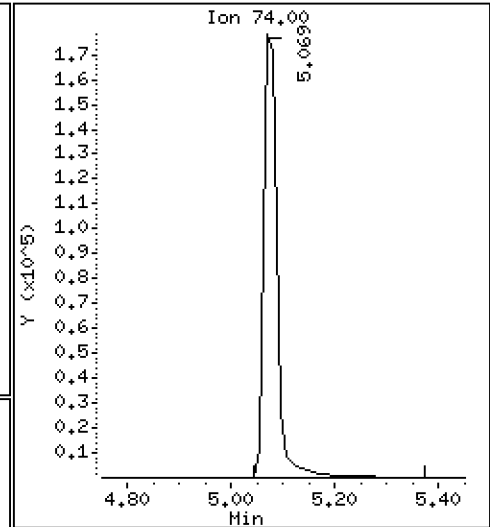
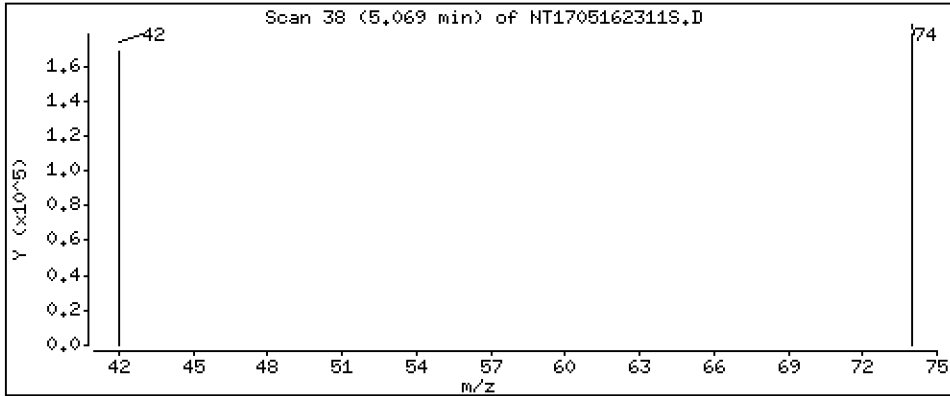
Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 5.868 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230516.b\SIM.b\NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Inj Date : 17-MAY-2023 00:29
 Operator : JGR
 Smp Info : SLE0339-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Meth Date : 23-May-2023 13:02 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		Compound Not Detected.					
3 Phenol	94		8.750	8.751	(0.933)	616997	4.88420	4.884
7 1,3-Dichlorobenzene	146		9.311	9.311	(0.993)	575988	5.08691	5.087
* 8 1,4-Dichlorobenzene-d4	152		9.375	9.375	(1.000)	280298	4.00000	
9 1,4-Dichlorobenzene	146		9.401	9.401	(1.003)	566257	5.13211	5.132
11 Benzyl alcohol	79		9.630	9.656	(1.027)	410745	5.70628	5.706
12 1,2-Dichlorobenzene	146		9.758	9.759	(1.041)	541461	5.00685	5.007
13 2-Methylphenol	108		9.848	9.861	(1.050)	385832	4.40762	4.408
15 4-Methylphenol	108		10.129	10.129	(1.080)	423610	4.78832	4.788
16 N-Nitroso-di-n-propylamine	70		10.193	10.180	(1.087)	349317	5.47874	5.479
22 2,4-Dimethylphenol	107		11.151	11.164	(0.942)	366886	3.81638	3.816
24 Benzoic acid	105		11.329	11.356	(0.957)	465783	7.77732	7.777
26 1,2,4-Trichlorobenzene	180		11.751	11.751	(0.992)	427934	4.90638	4.906
* 27 Naphthalene-d8	136		11.840	11.840	(1.000)	999390	4.00000	
30 Hexachlorobutadiene	225		12.235	12.235	(1.033)	238867	5.20120	5.201
39 Dimethylphthalate	163		14.938	14.926	(0.968)	1015804	5.23967	5.240
* 42 Acenaphthene-d10	162		15.436	15.436	(1.000)	527927	4.00000	
50 Diethylphthalate	149		16.379	16.379	(1.061)	964439	5.47782	5.478
54 N-Nitrosodiphenylamine	169		16.774	16.774	(0.908)	681829	5.62729	5.627
57 Hexachlorobenzene	284		17.843	17.843	(0.966)	208857	5.08140	5.081
58 Pentachlorophenol	266		18.200	18.214	(0.986)	108866	4.50590	4.506
* 59 Phenanthrene-d10	188		18.468	18.455	(1.000)	860054	4.00000	
\$ 66 Terphenyl-d14	244		Compound Not Detected.					
67 Butylbenzylphthalate	149		22.460	22.460	(0.958)	642329	5.90509	5.905
* 69 Chrysene-d12	240		23.455	23.455	(1.000)	527529	4.00000	
* 77 Perylene-d12	264		26.159	26.147	(1.000)	475440	4.00000	
79 Dibenzo(a,h)anthracene	278		28.956	28.943	(1.107)	690513	5.14916	5.149
90 N-Nitrosodimethylamine	74		5.068	5.094	(0.541)	321072	5.86783	5.868

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705162311S.D
 Lab Smp Id: SLE0339-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JGR
 Method File: \\target\share\chem3\nt17.i\20230516.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 16-MAY-2023
 Calibration Time: 21:22
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	316066	158033	632132	280298	-11.32
27 Naphthalene-d8	1102073	551037	2204146	999390	-9.32
42 Acenaphthene-d10	583826	291913	1167652	527927	-9.57
59 Phenanthrene-d10	970917	485459	1941834	860054	-11.42
69 Chrysene-d12	590568	295284	1181136	527529	-10.67
77 Perylene-d12	537938	268969	1075876	475440	-11.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.38	8.88	9.88	9.38	-0.00
27 Naphthalene-d8	11.84	11.34	12.34	11.84	-0.00
42 Acenaphthene-d10	15.44	14.94	15.94	15.44	-0.00
59 Phenanthrene-d10	18.47	17.97	18.97	18.47	-0.00
69 Chrysene-d12	23.46	22.96	23.96	23.46	-0.00
77 Perylene-d12	26.16	25.66	26.66	26.16	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705162311S.D

Lab ID: SLE0339-SCV1

nt17.i, 20230516.b\SIM.b\SIMABN2.m, 17-MAY-2023 00:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9569	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705162310S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Data File: \\target\share\chem3\nt17.1\20230526.16\SIH.6\NT1705262329S.D

Date: 27-May-2023 06:08

Client ID:

Sample Info: SLE0442-CCW1

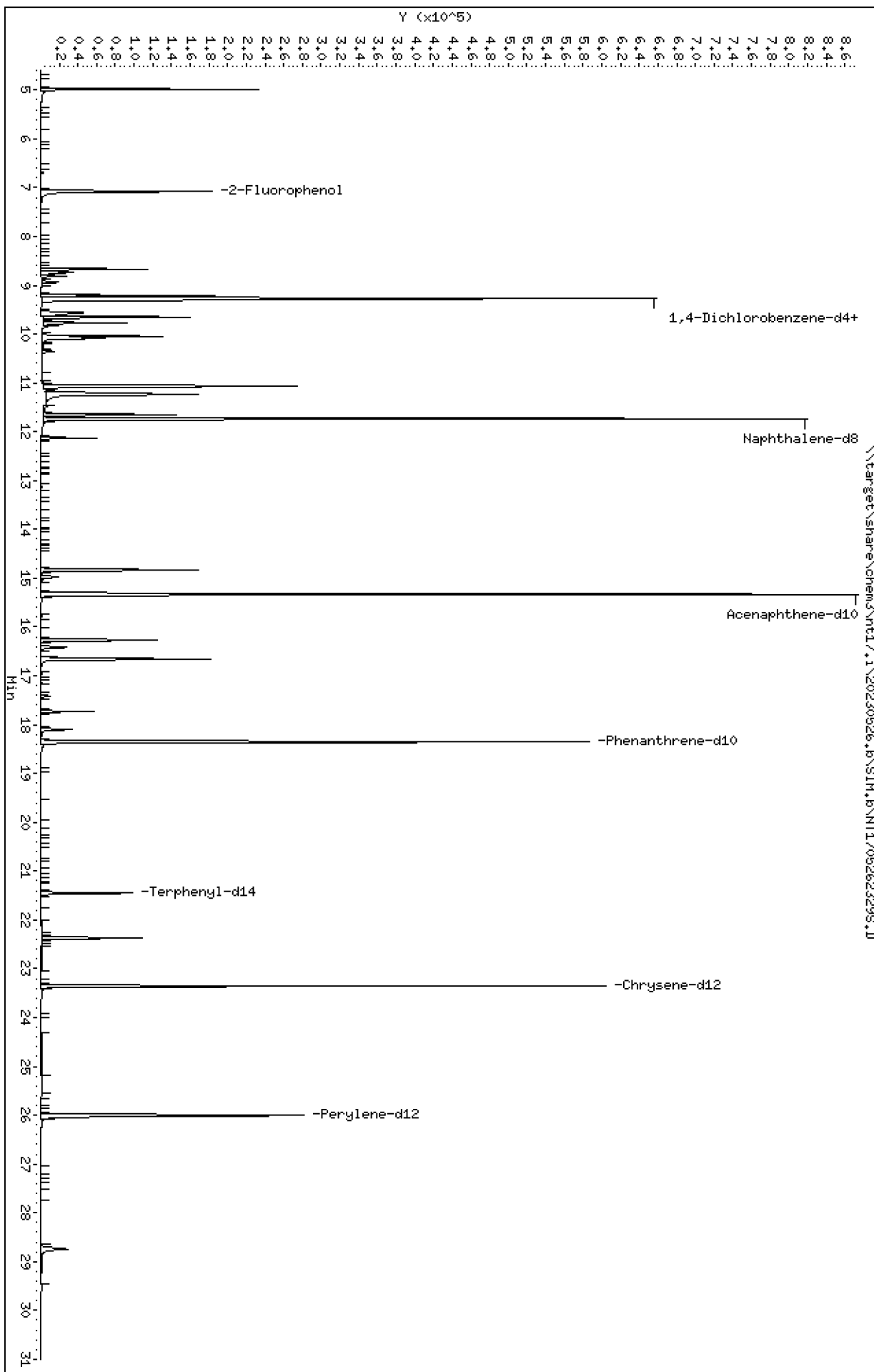
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

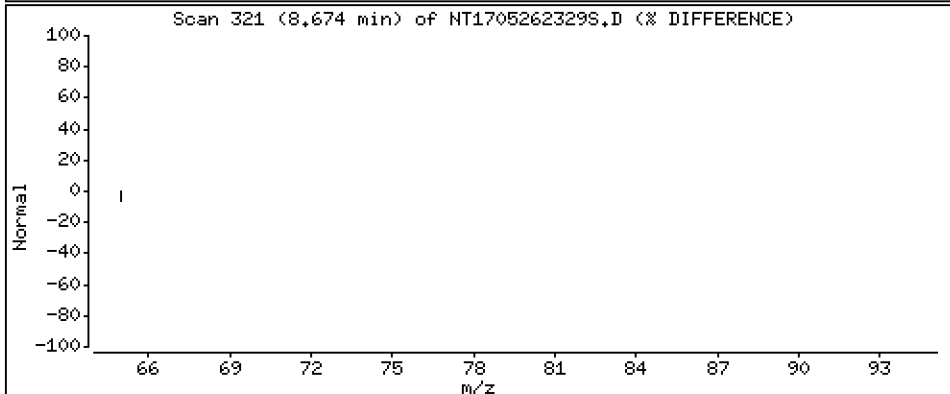
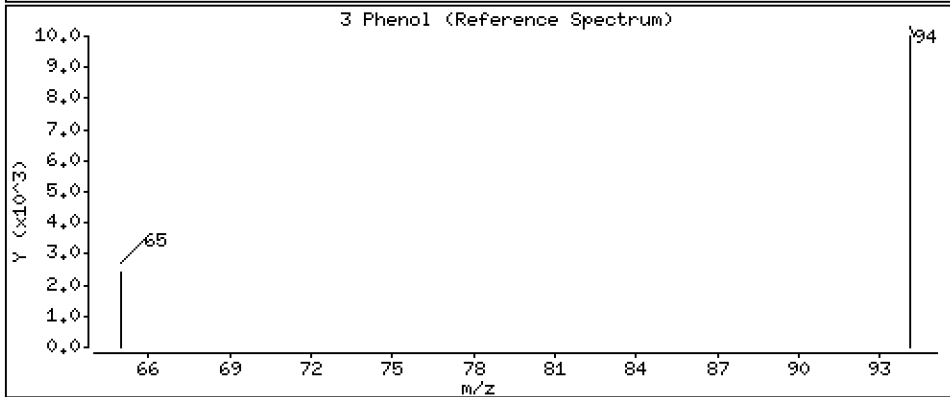
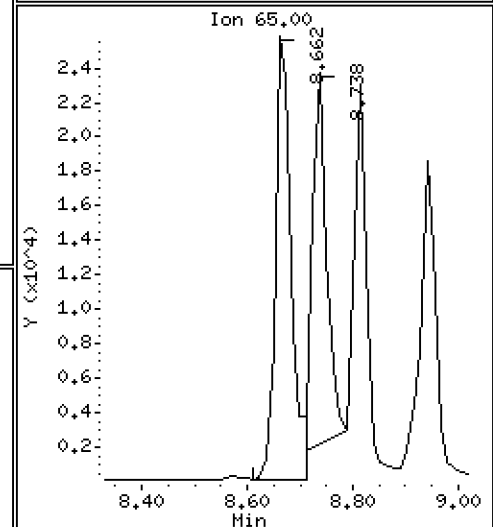
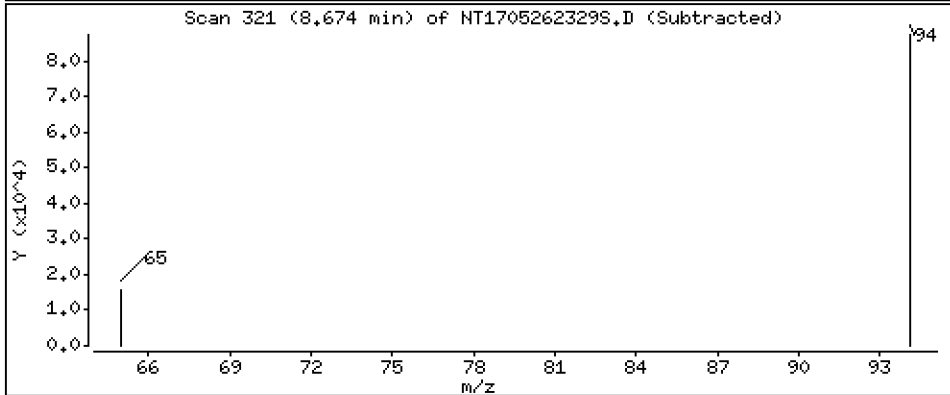
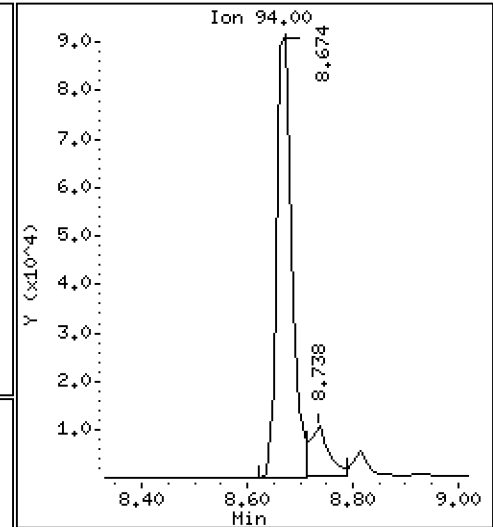
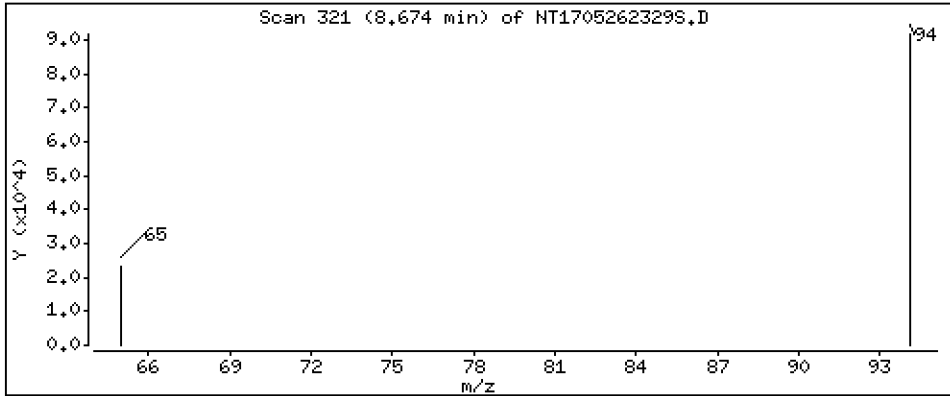
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 1.059 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

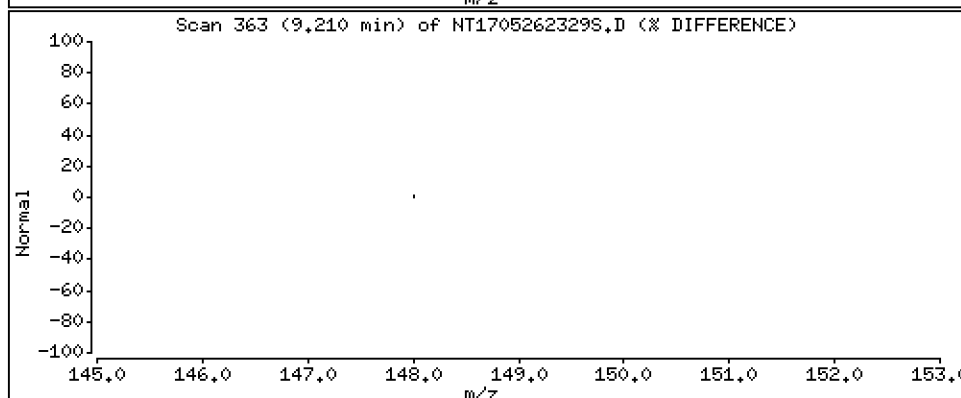
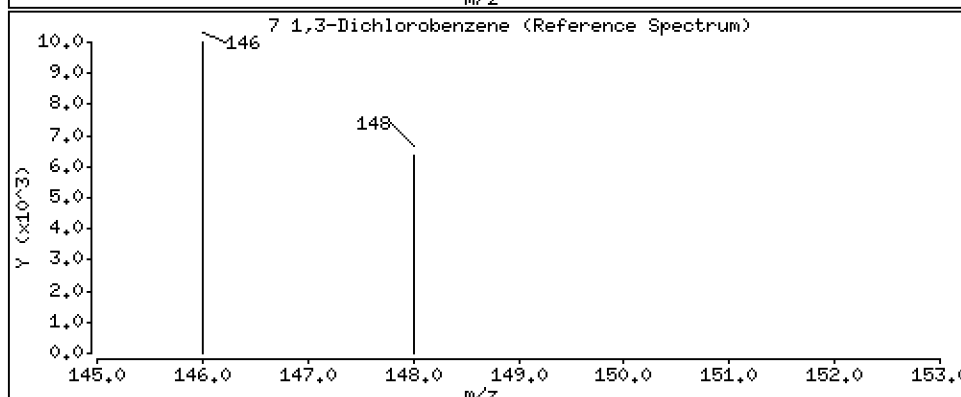
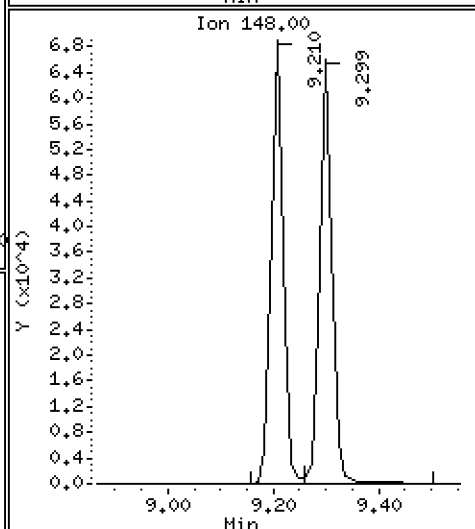
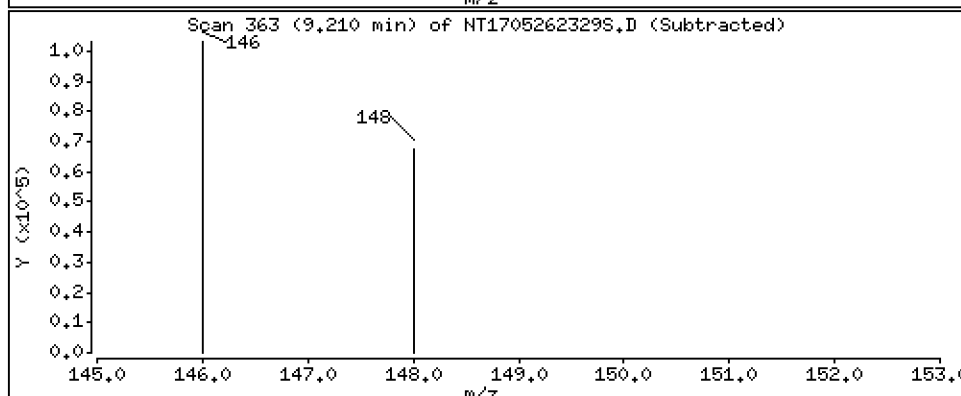
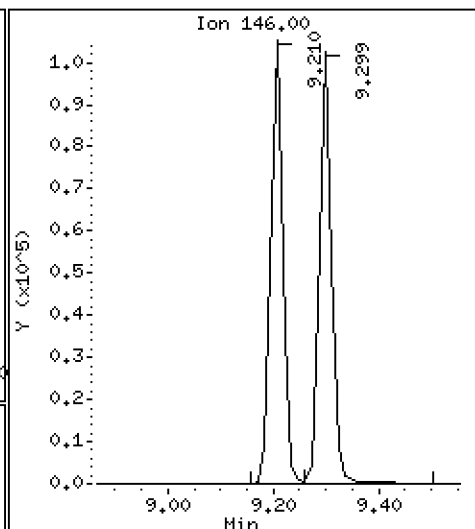
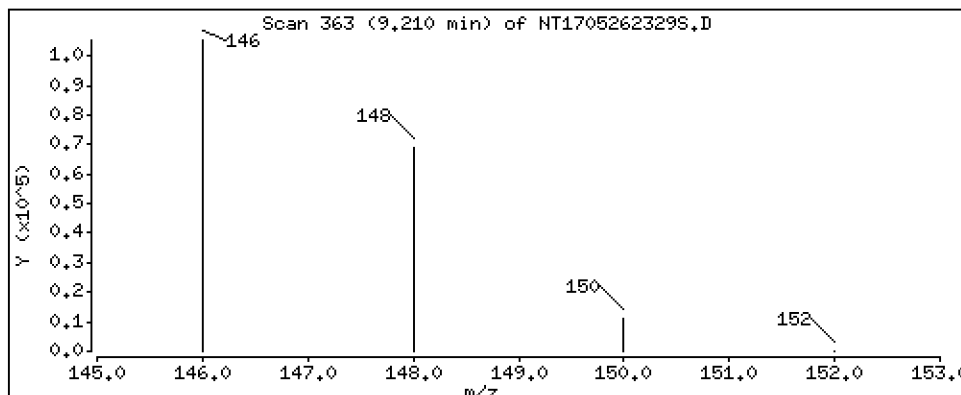
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 1,026 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

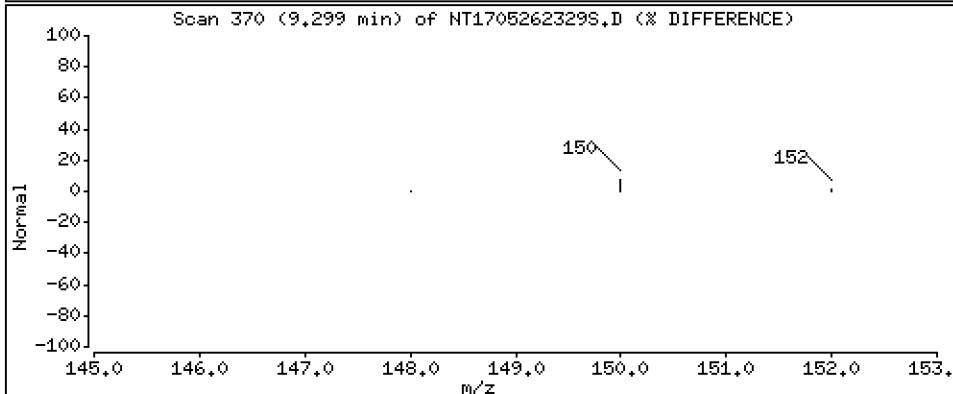
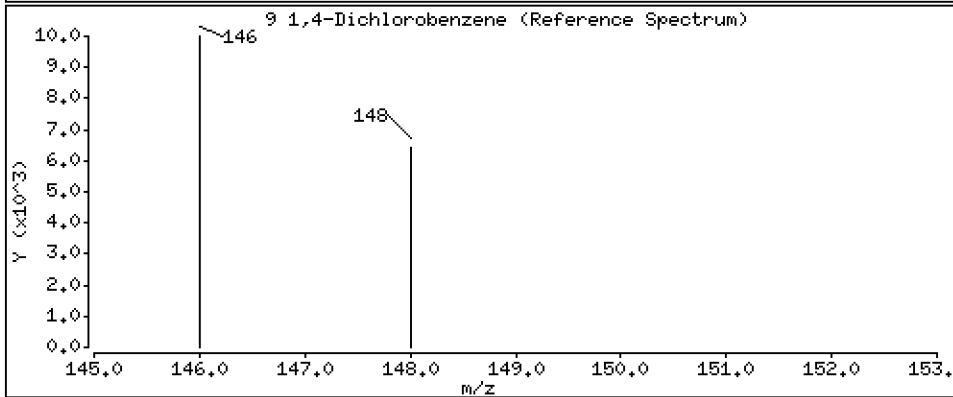
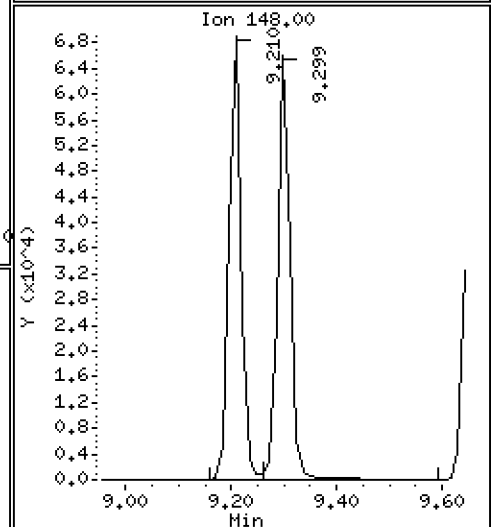
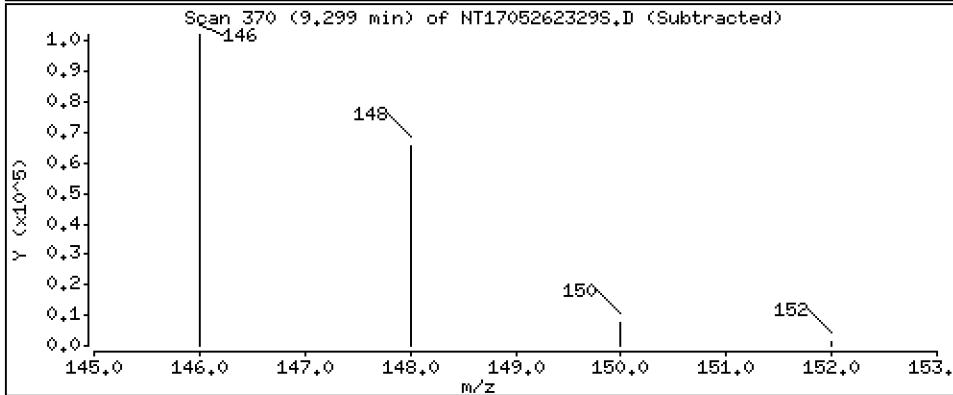
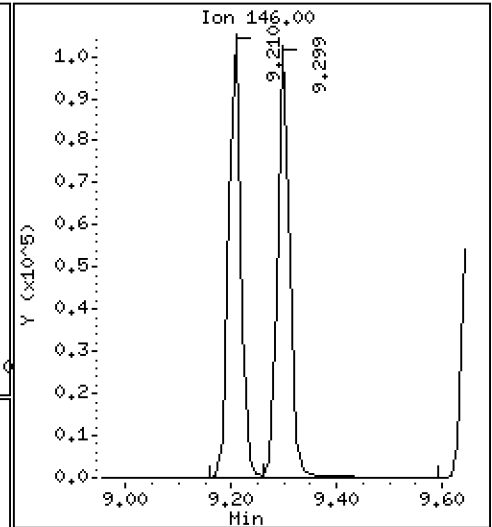
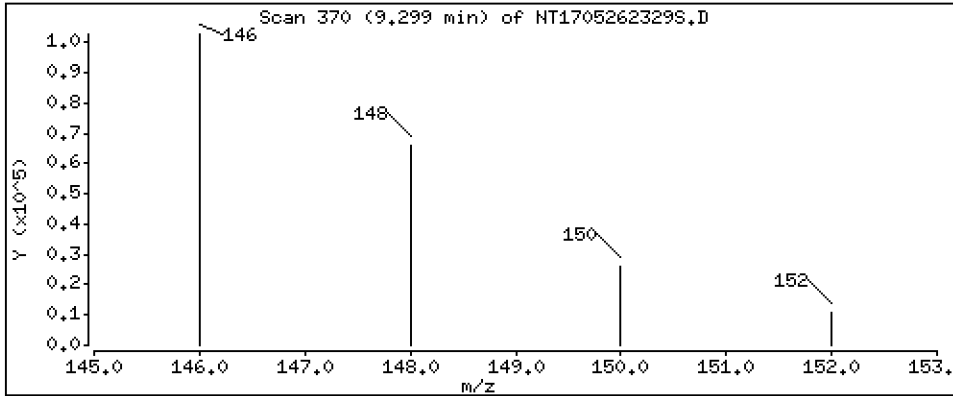
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 1,016 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

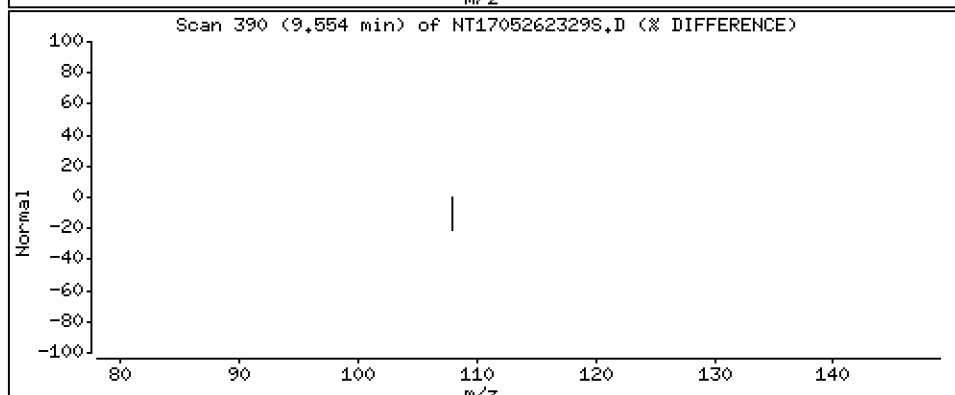
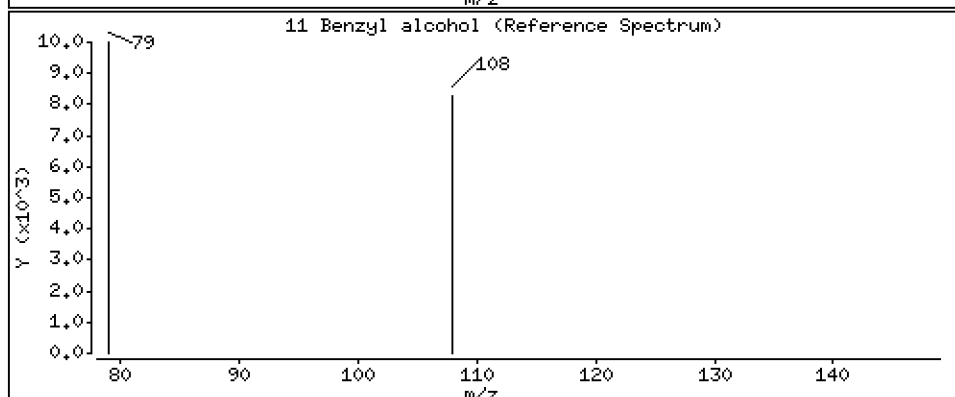
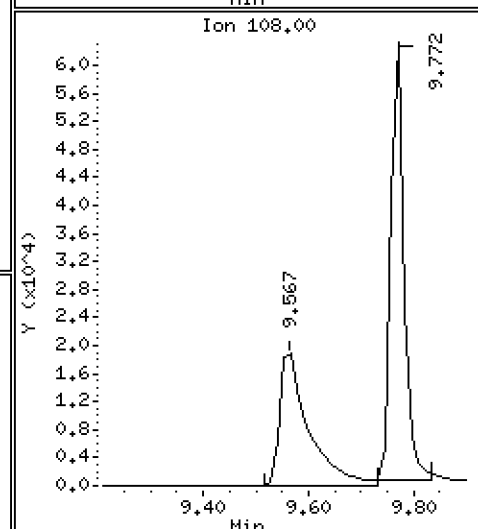
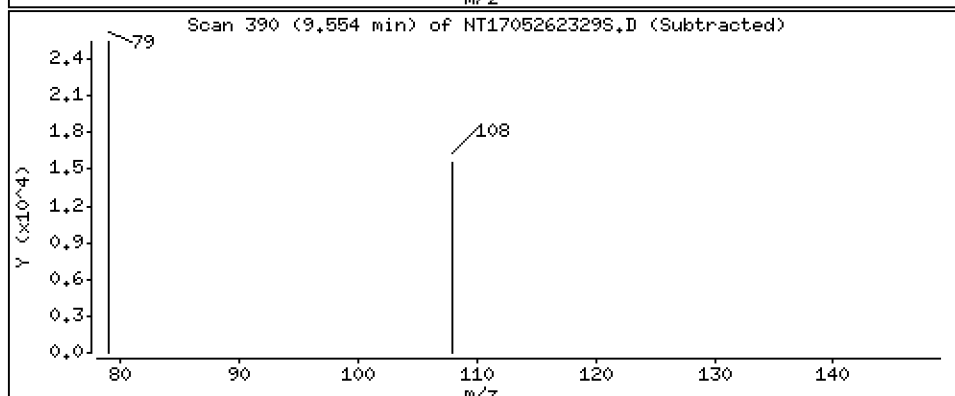
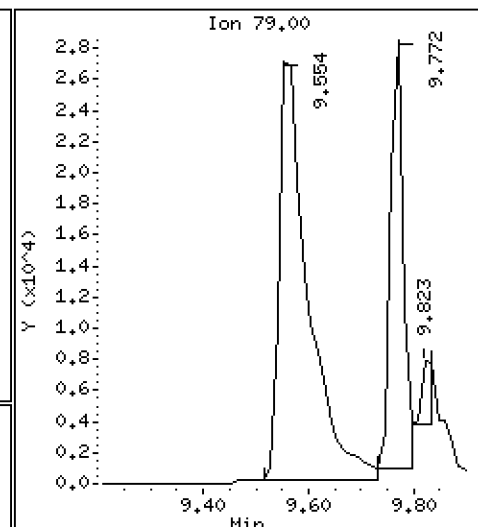
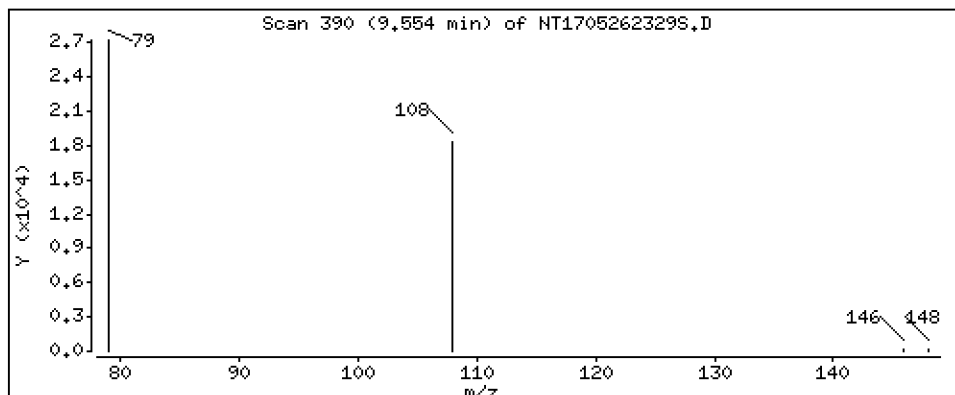
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,9842 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

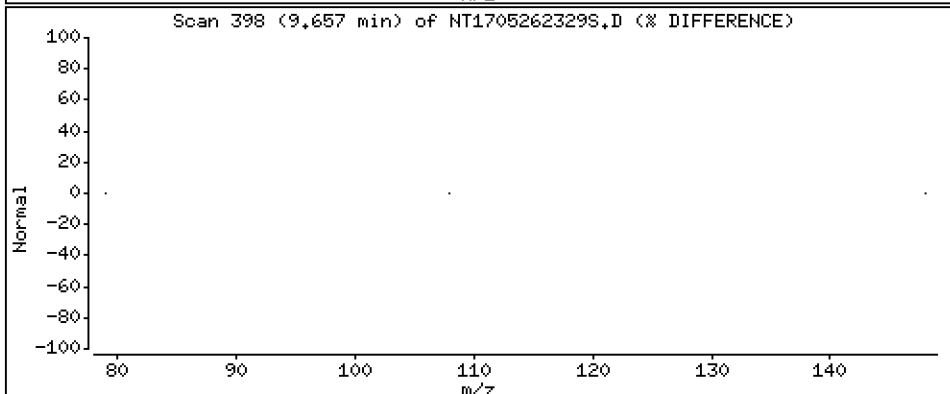
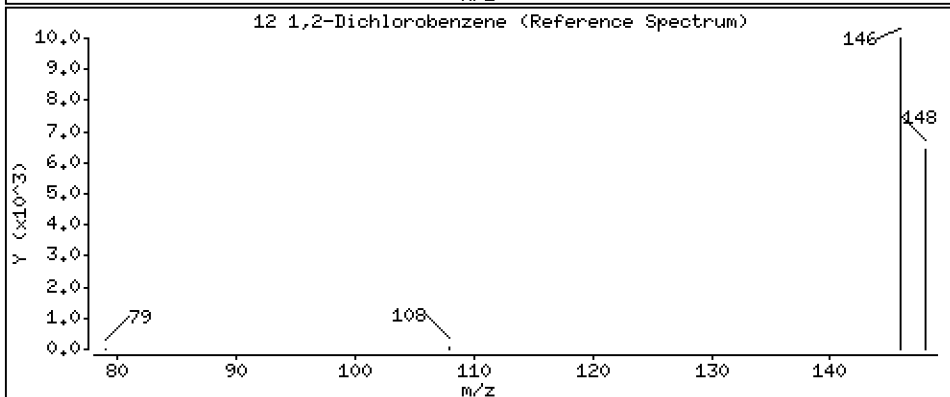
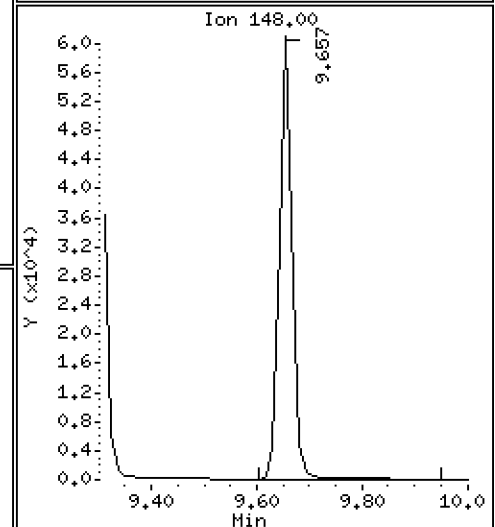
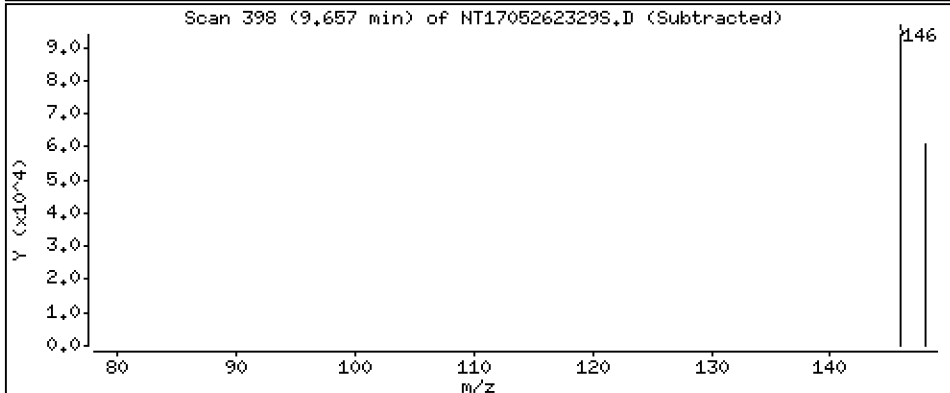
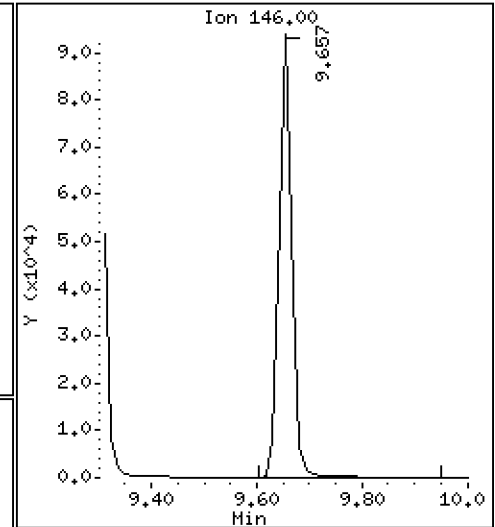
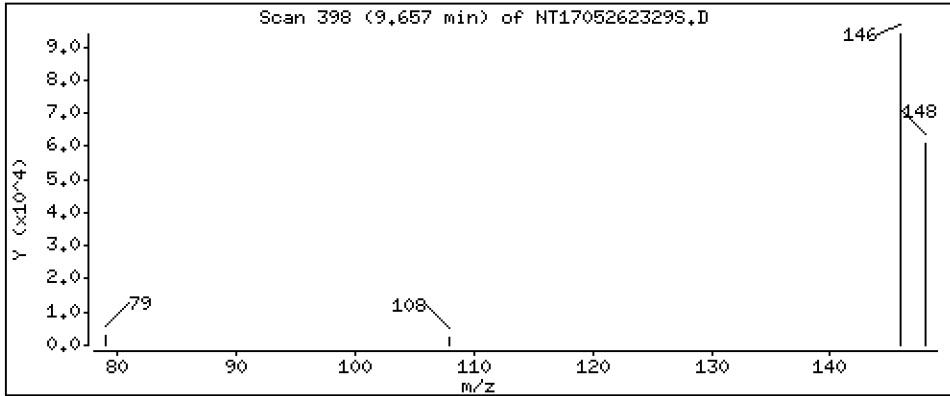
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,9949 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

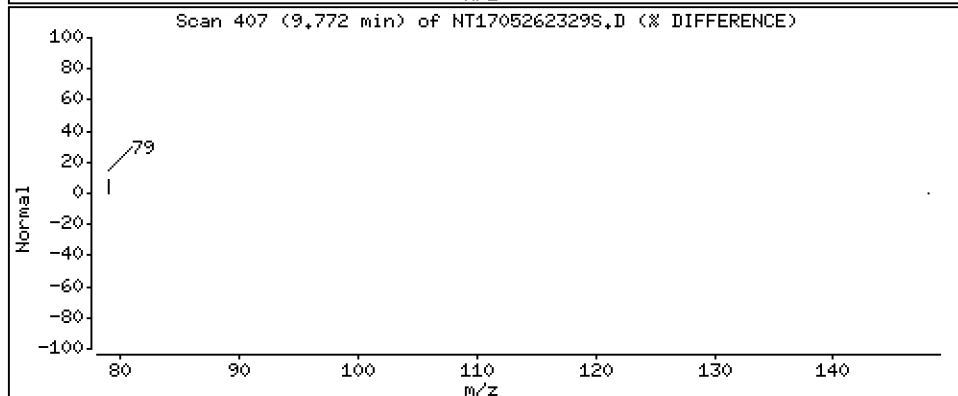
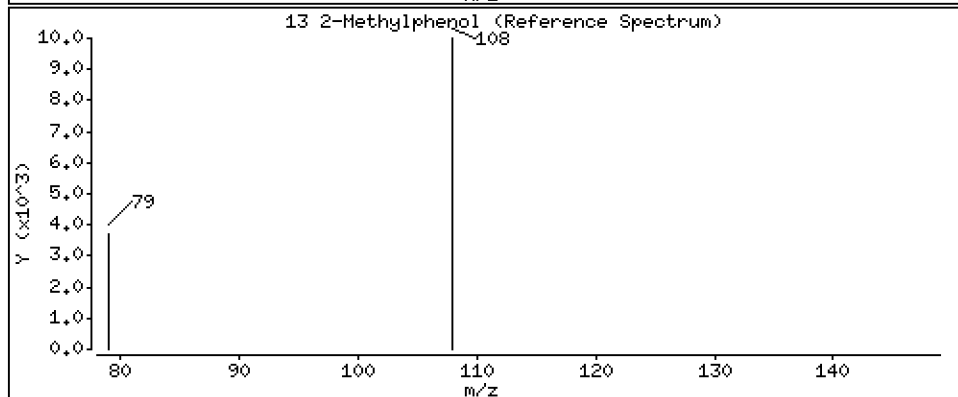
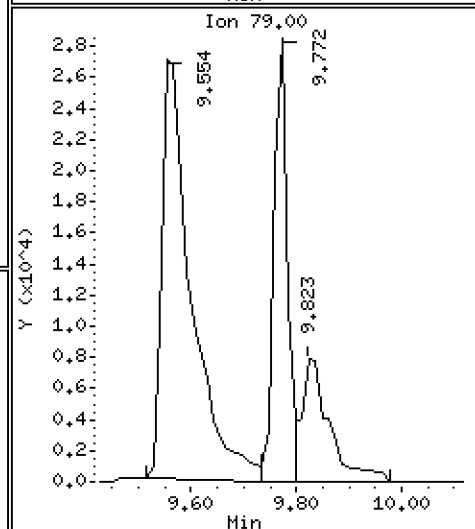
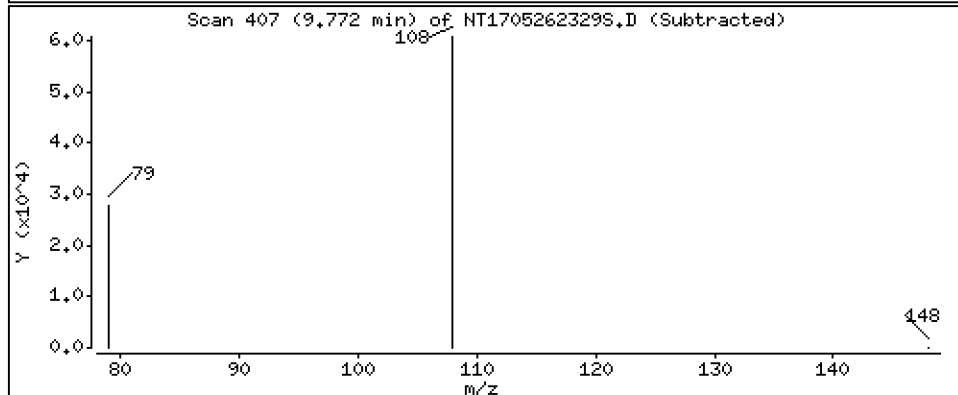
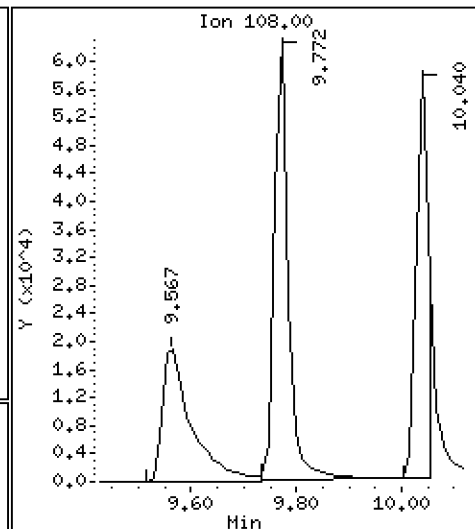
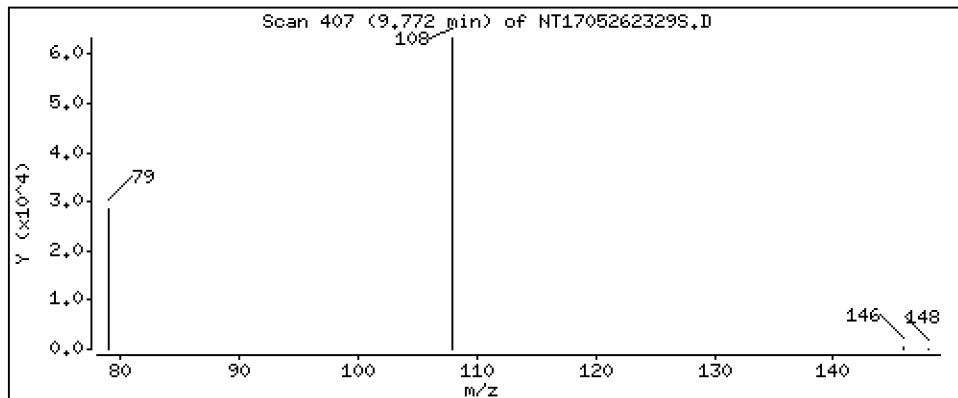
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,8906 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

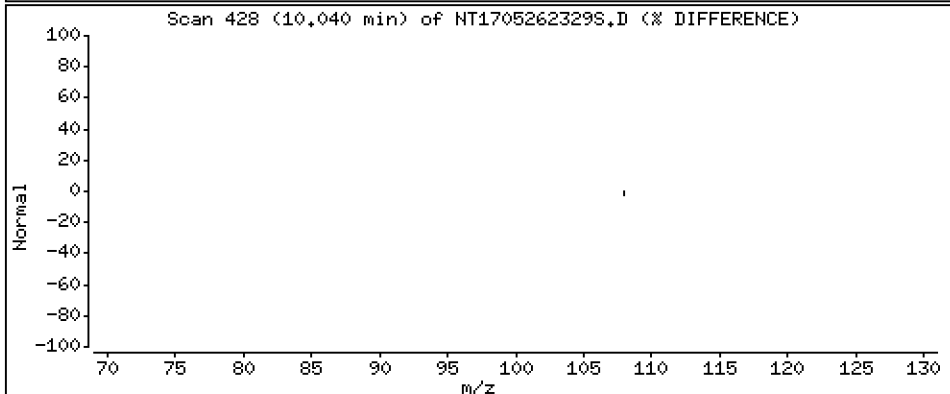
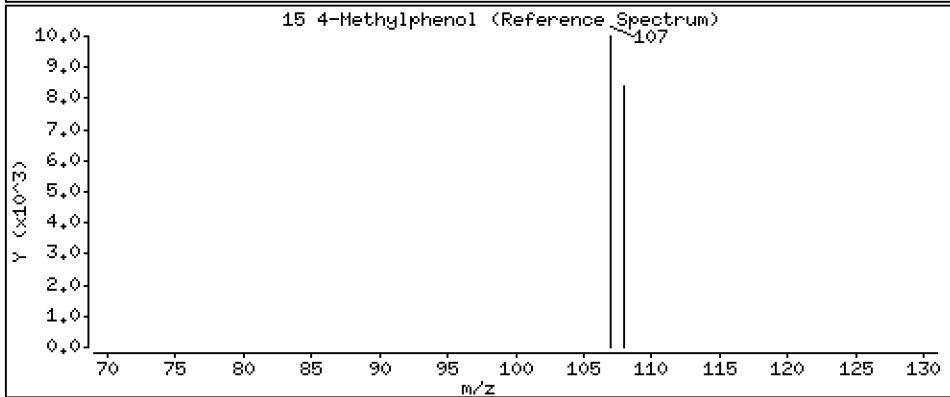
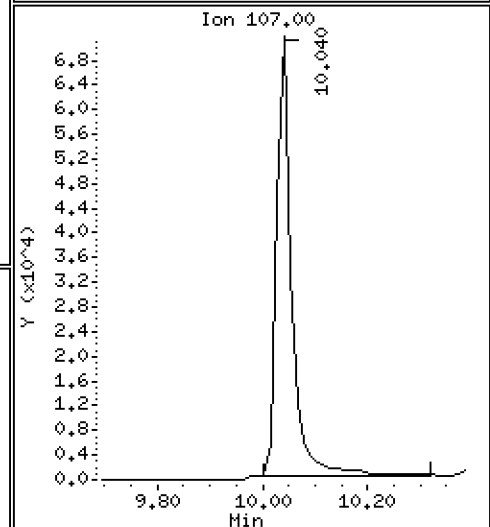
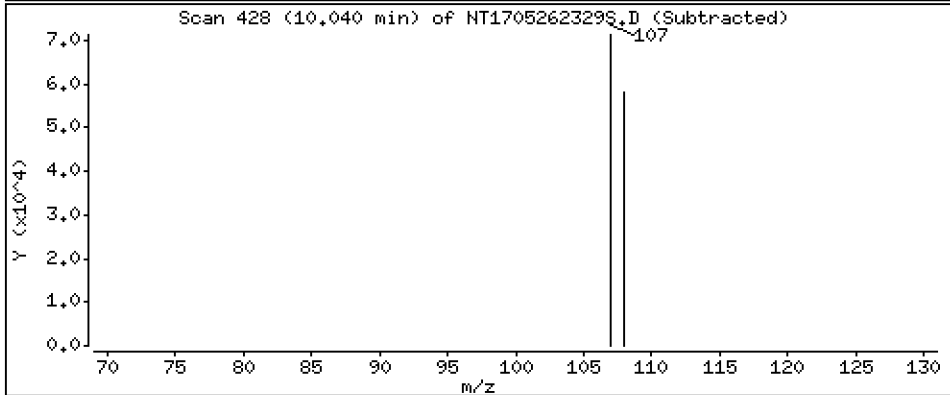
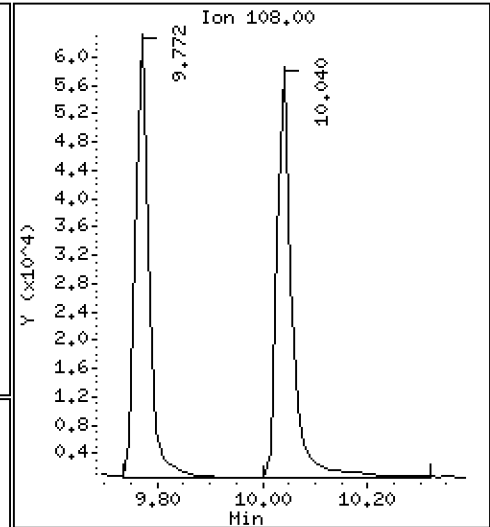
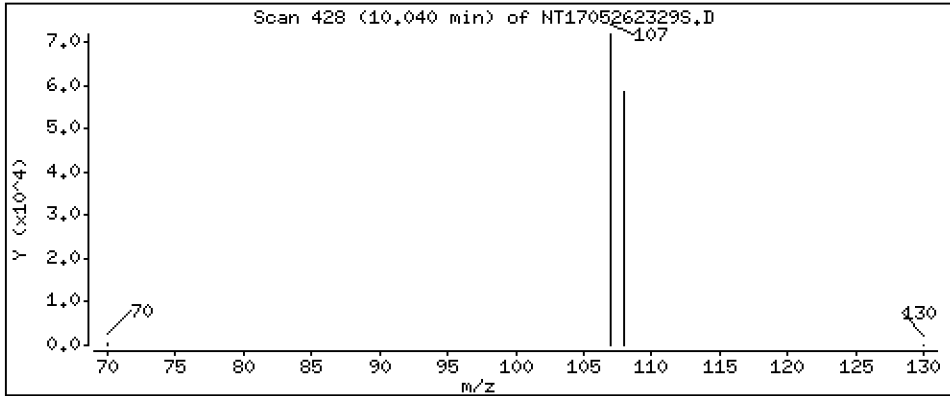
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,8855 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

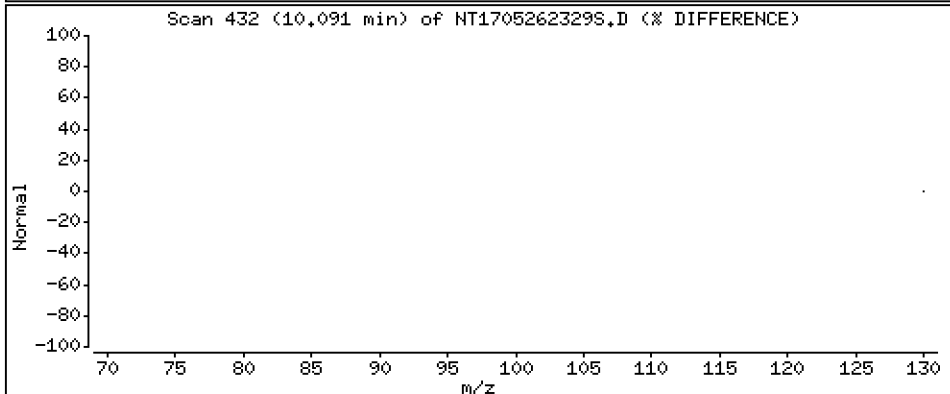
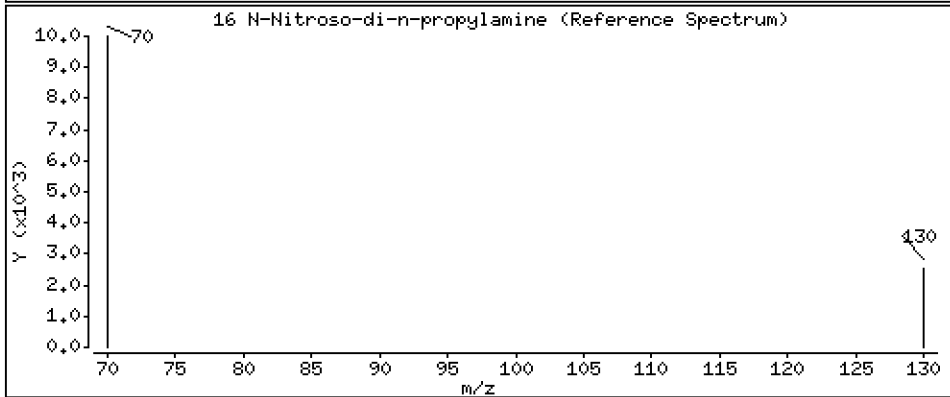
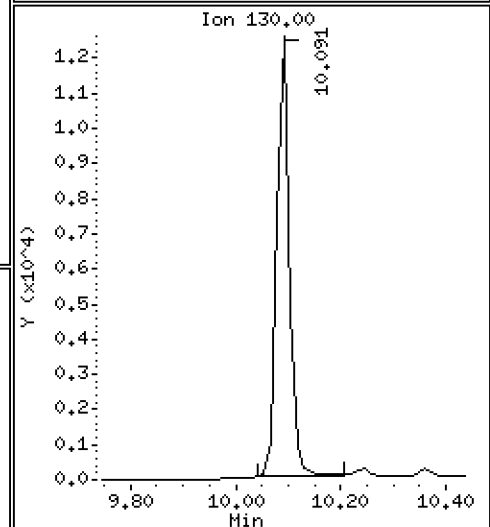
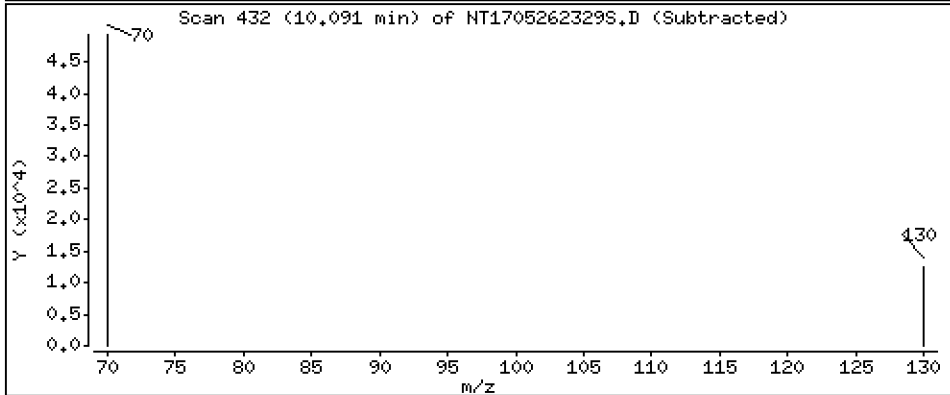
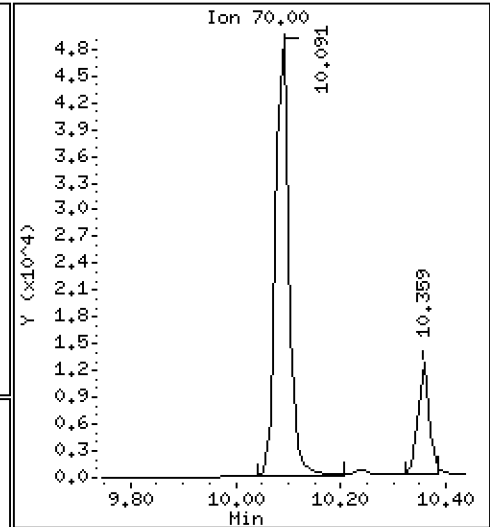
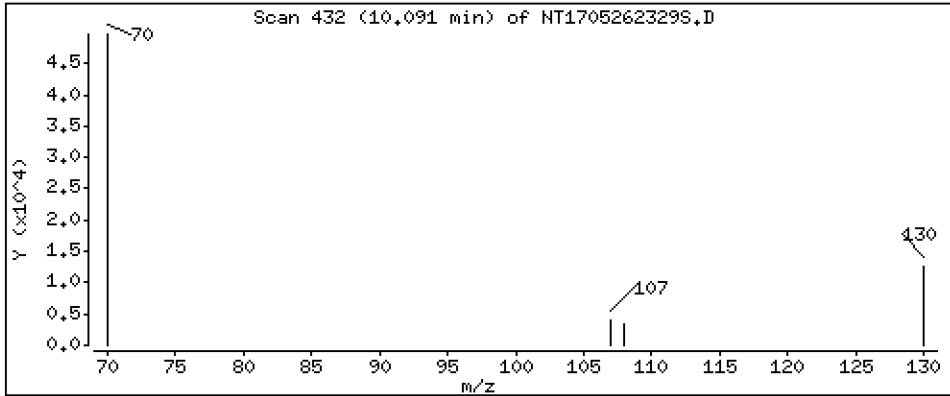
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,9440 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

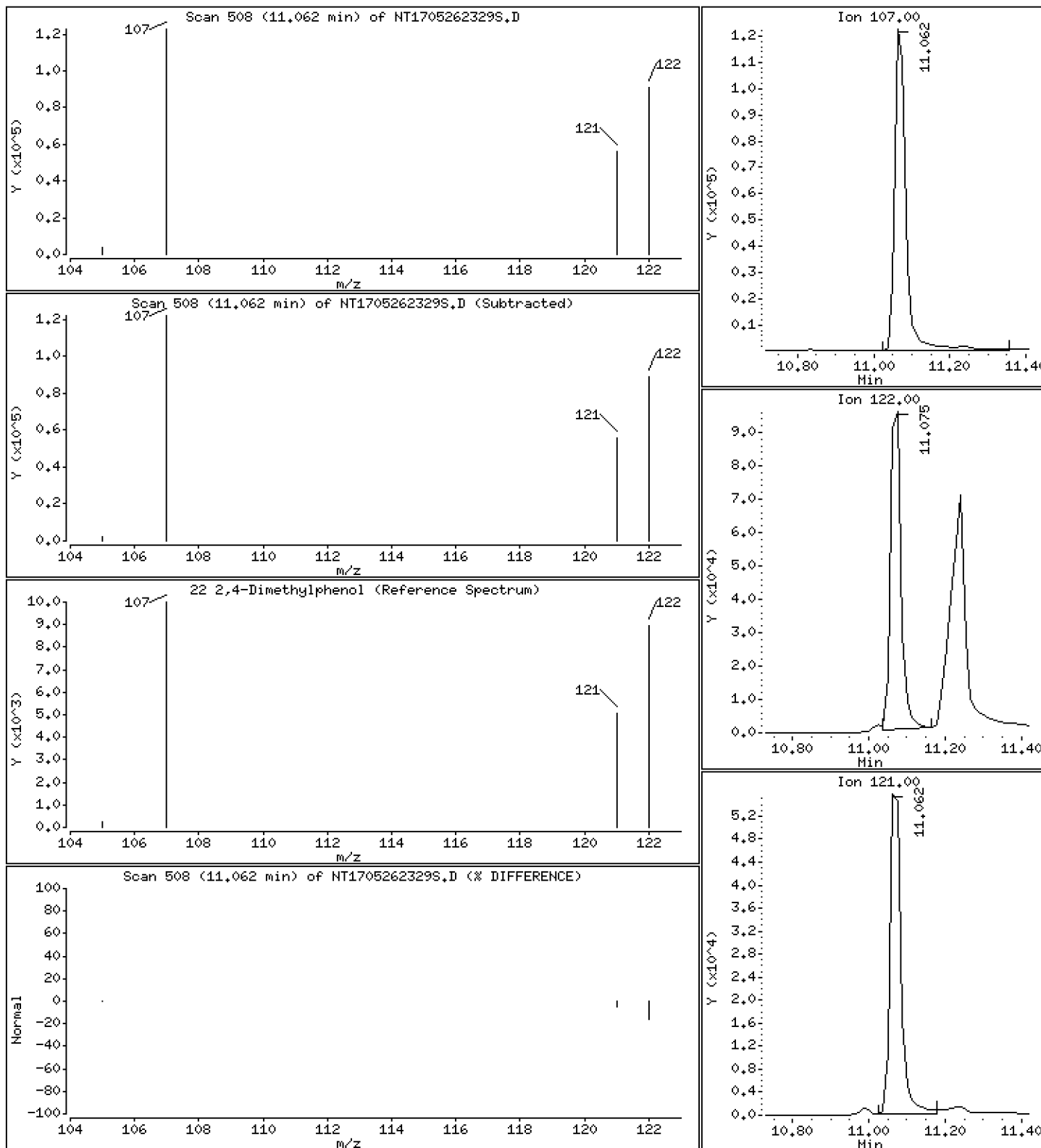
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,982 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

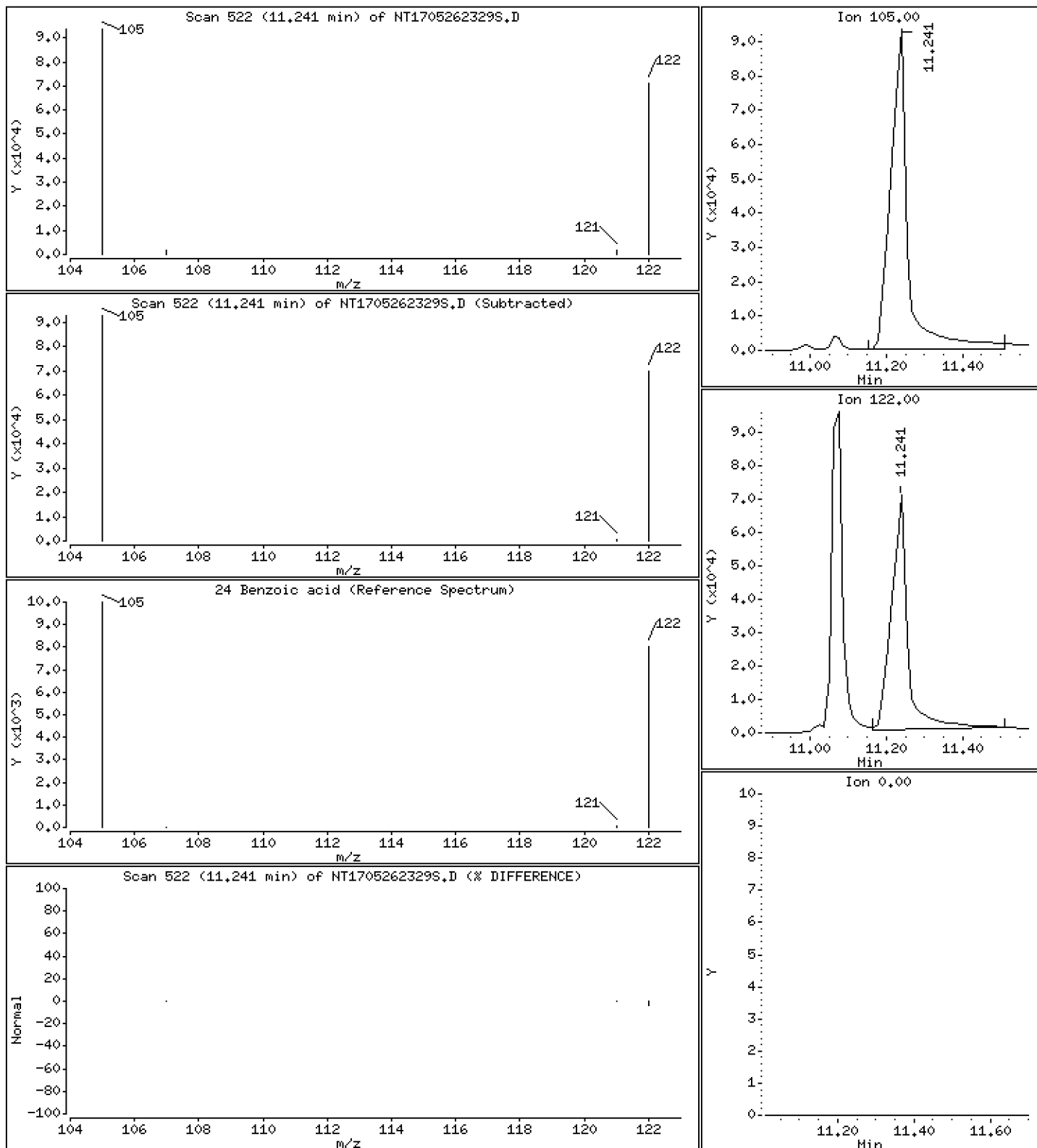
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 3,815 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

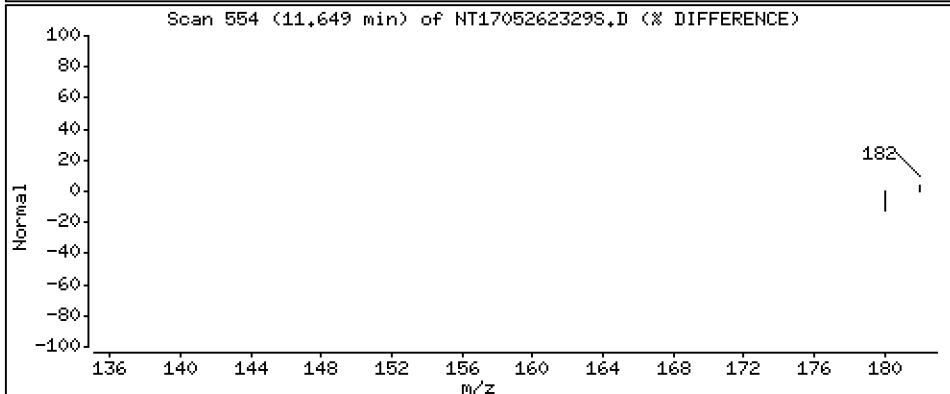
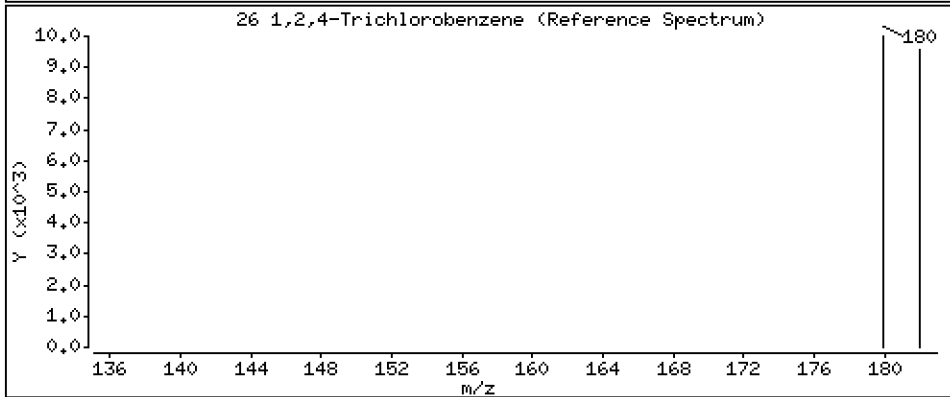
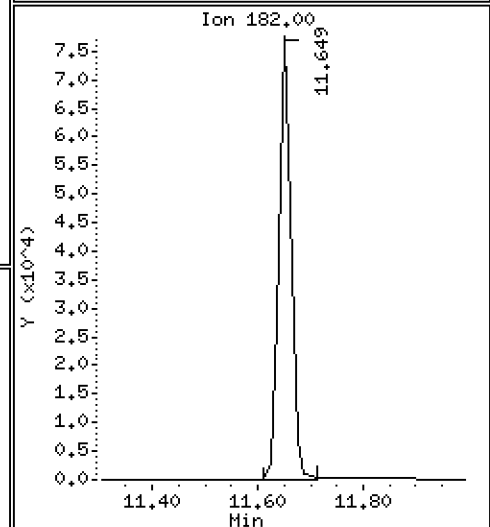
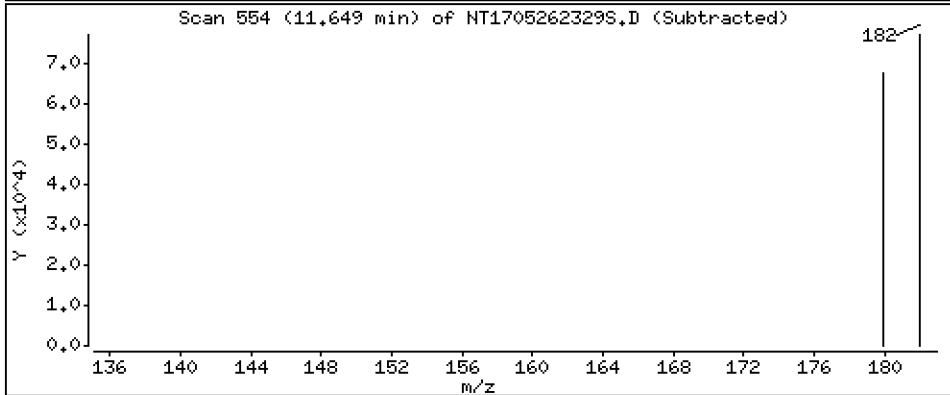
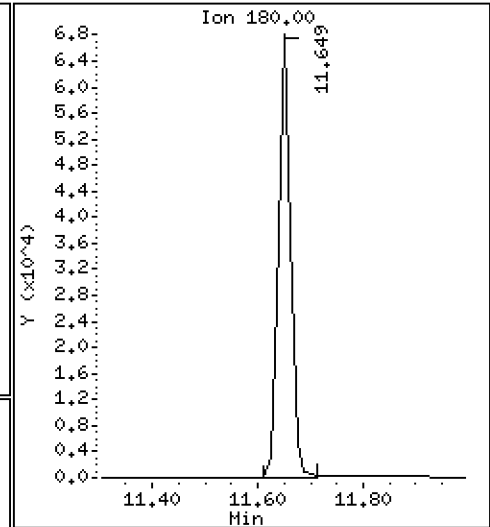
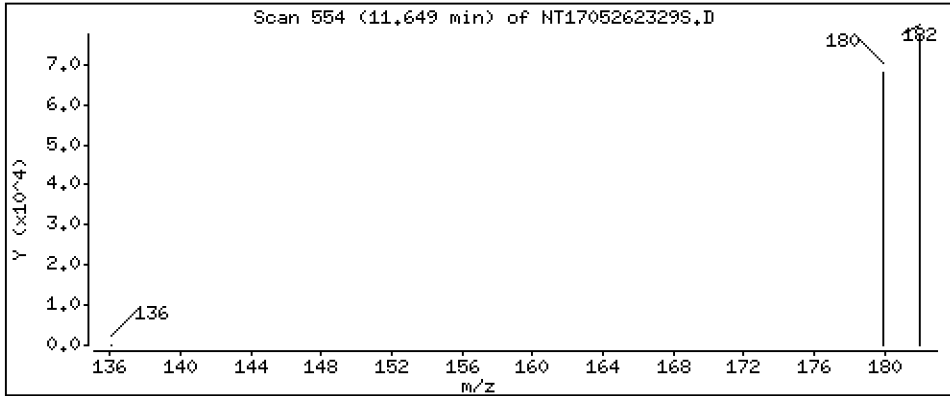
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,9574 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

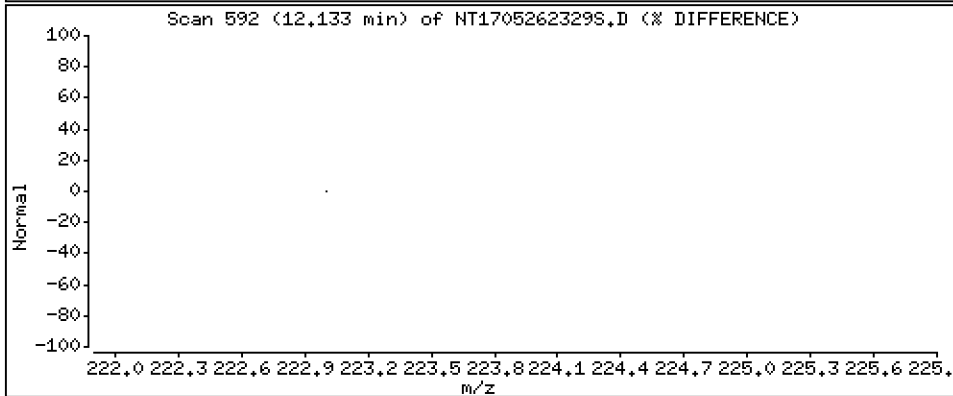
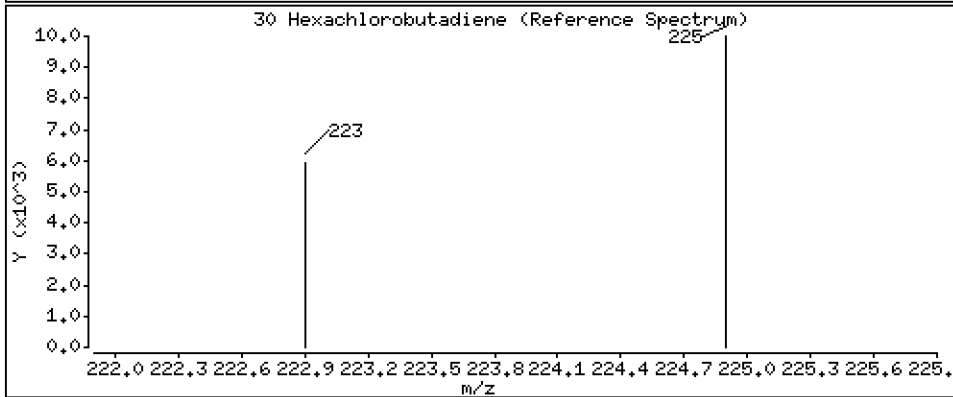
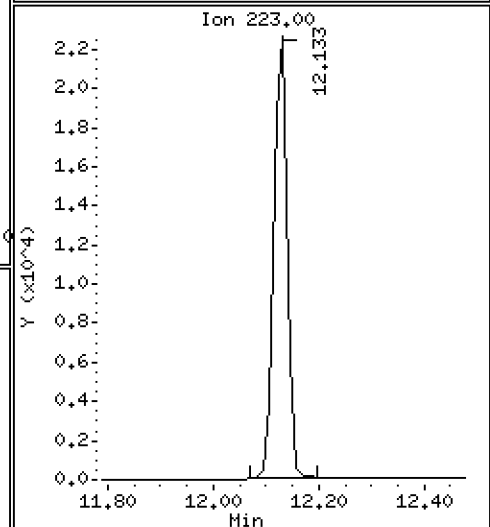
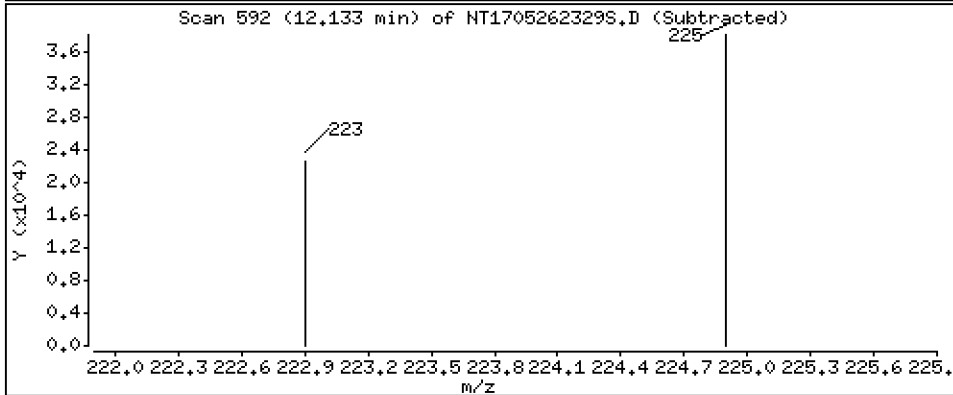
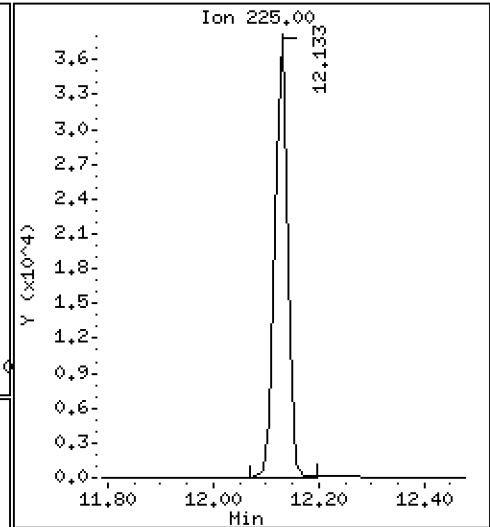
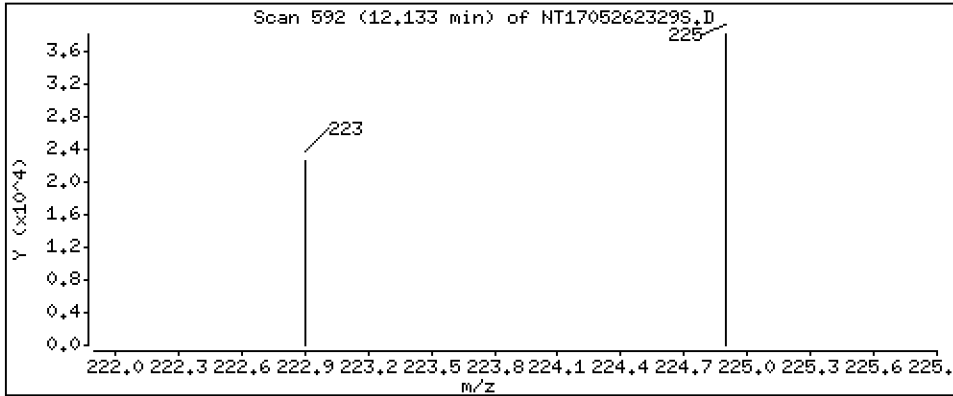
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 1,072 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

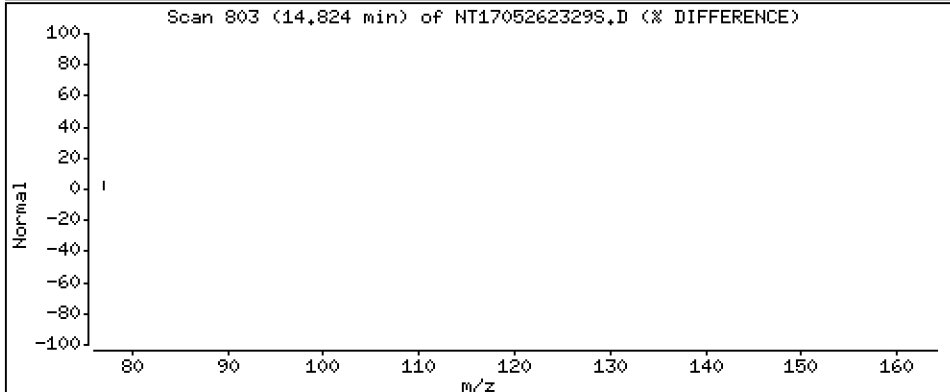
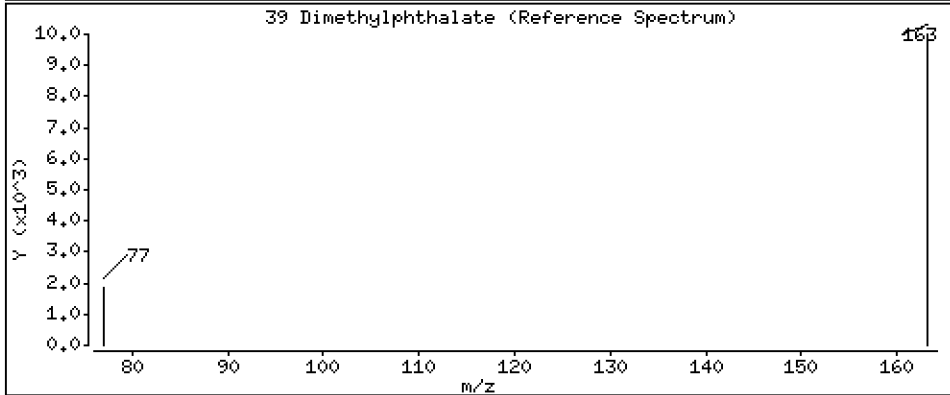
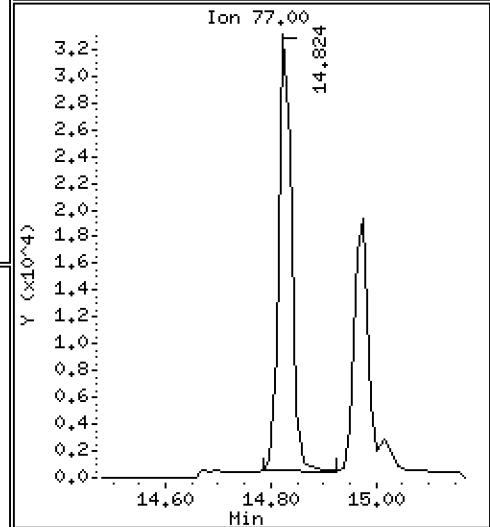
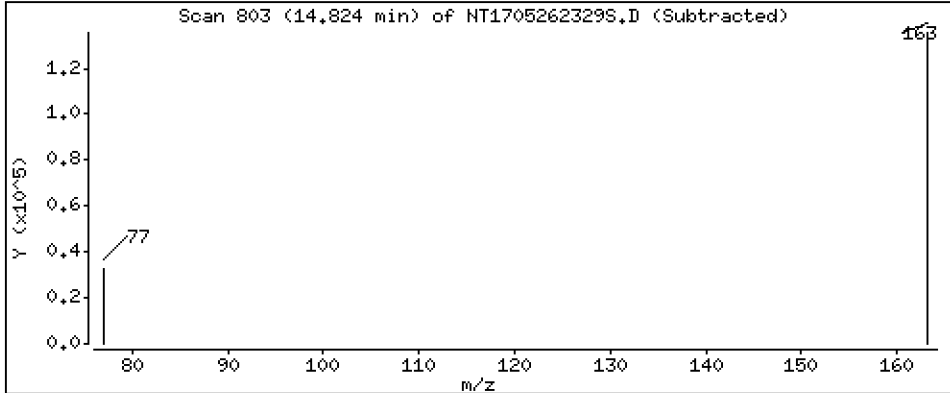
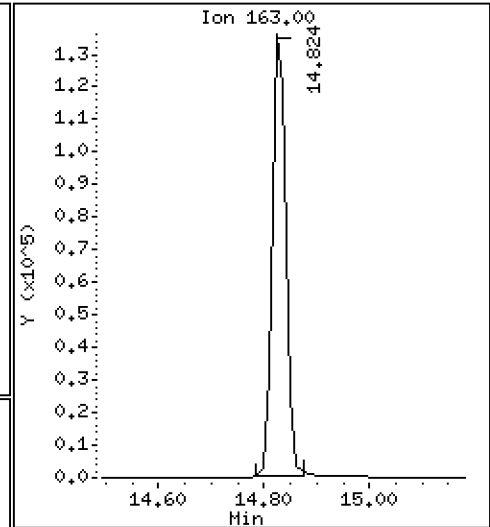
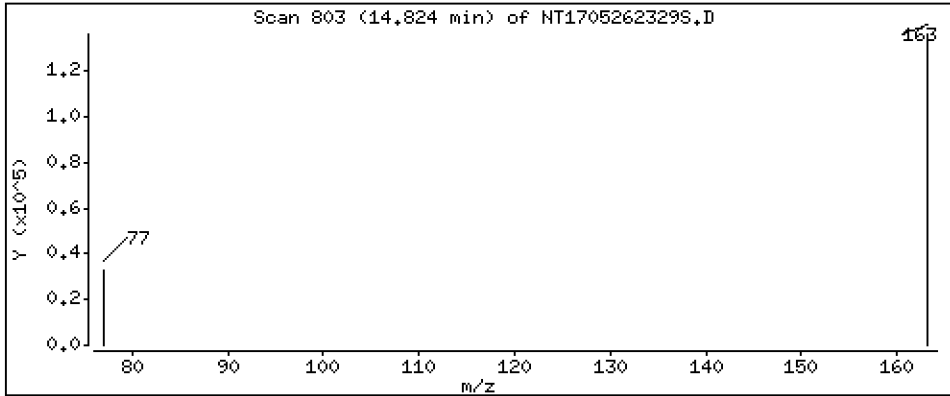
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,9266 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

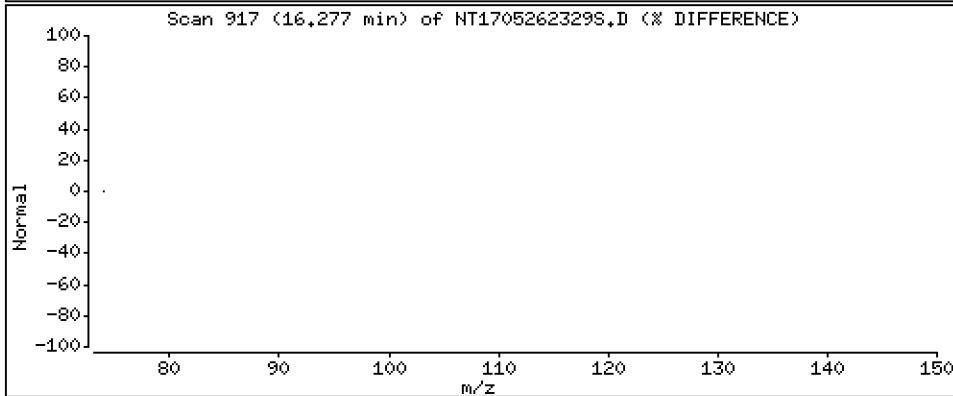
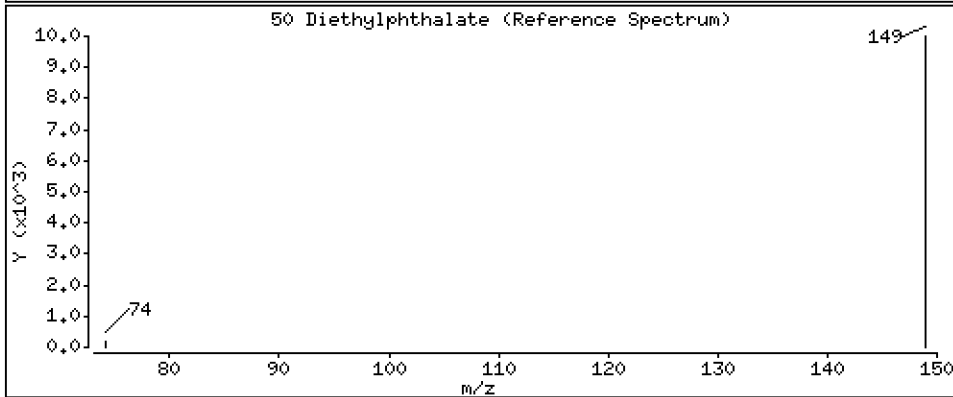
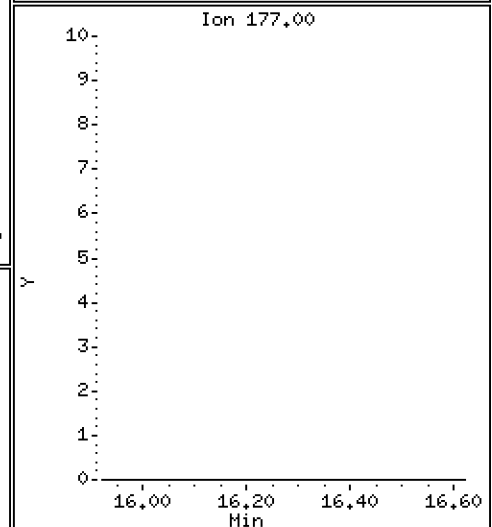
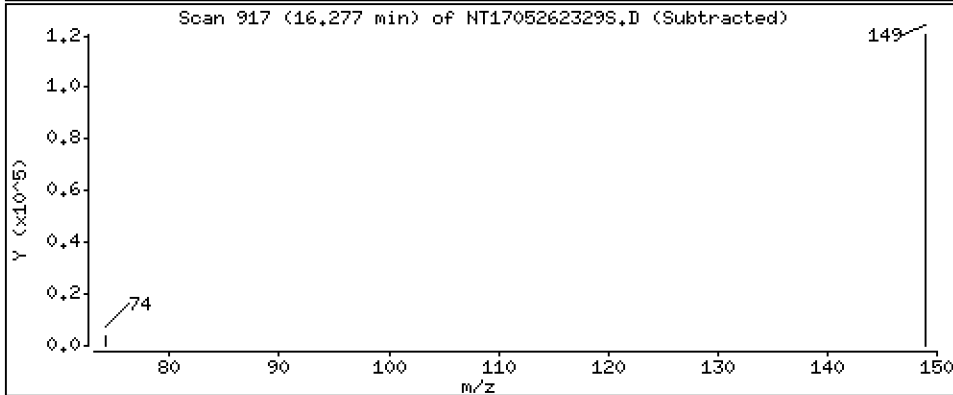
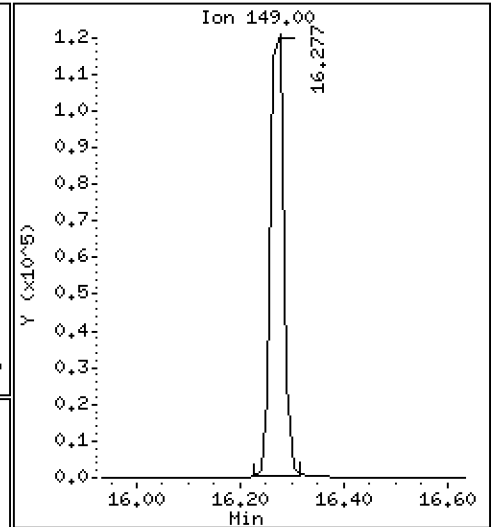
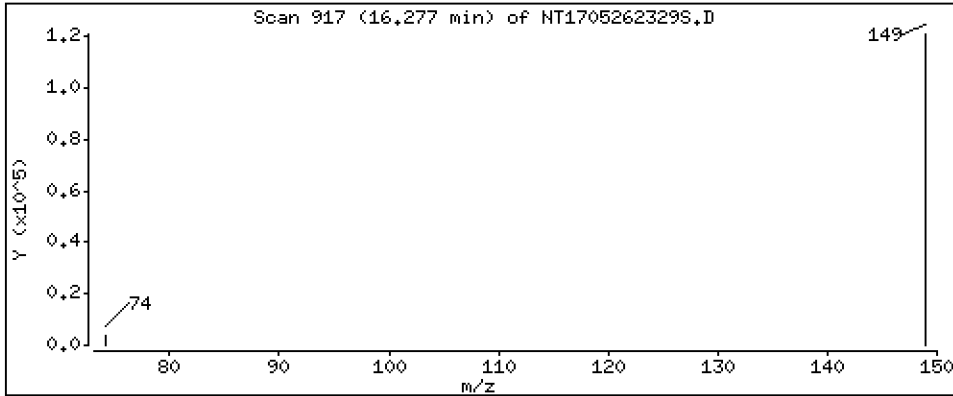
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,9126 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

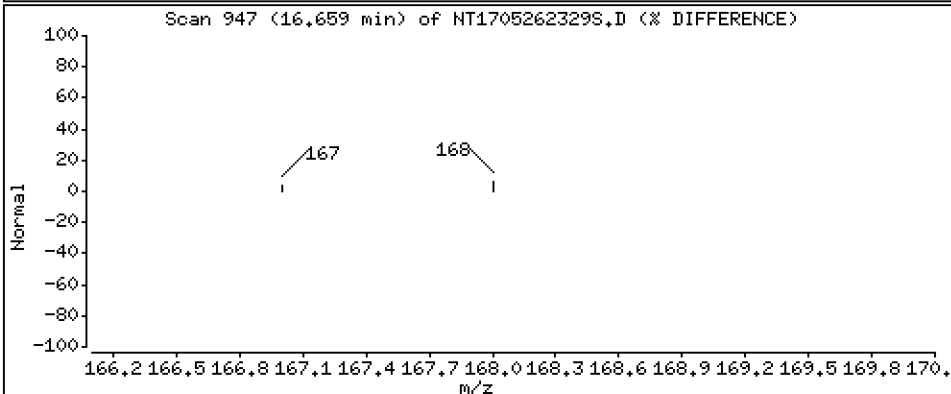
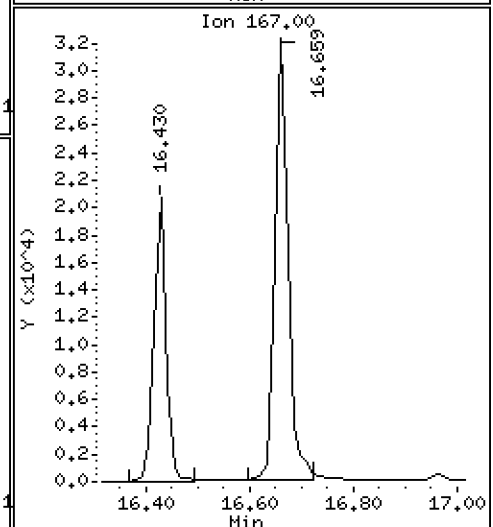
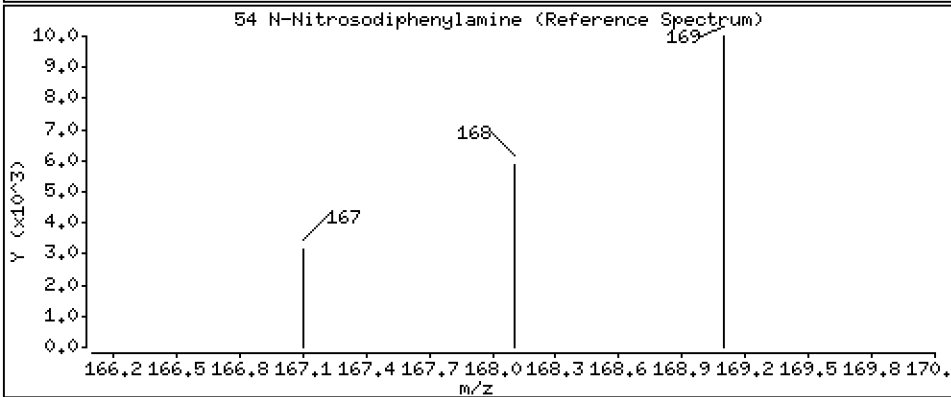
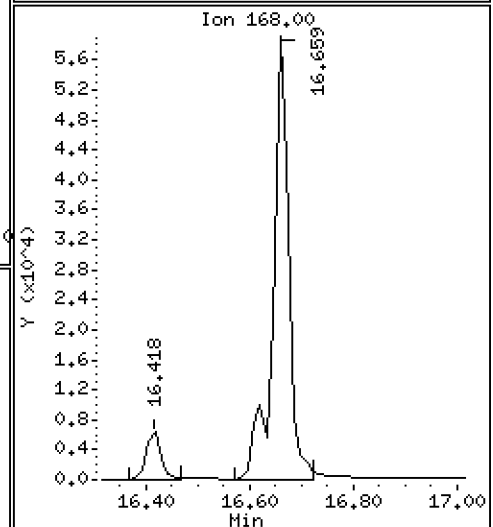
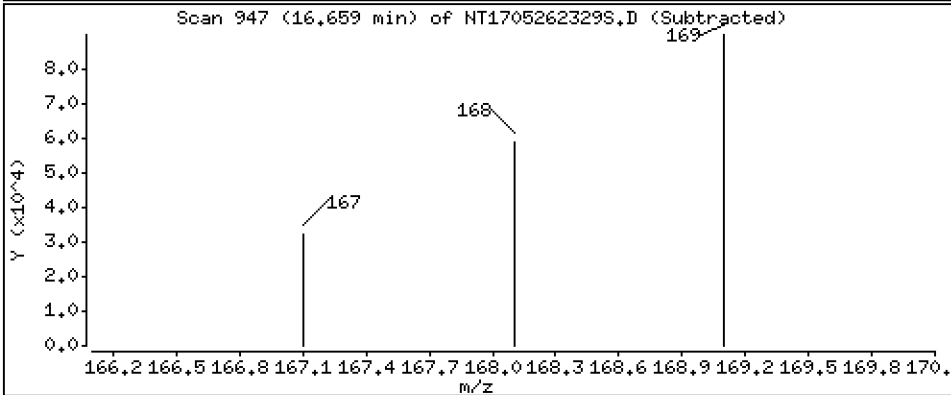
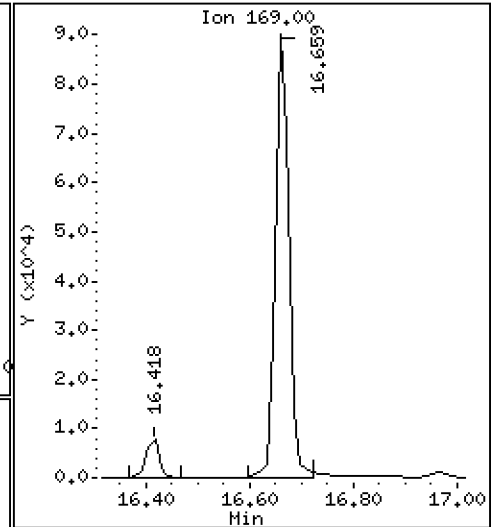
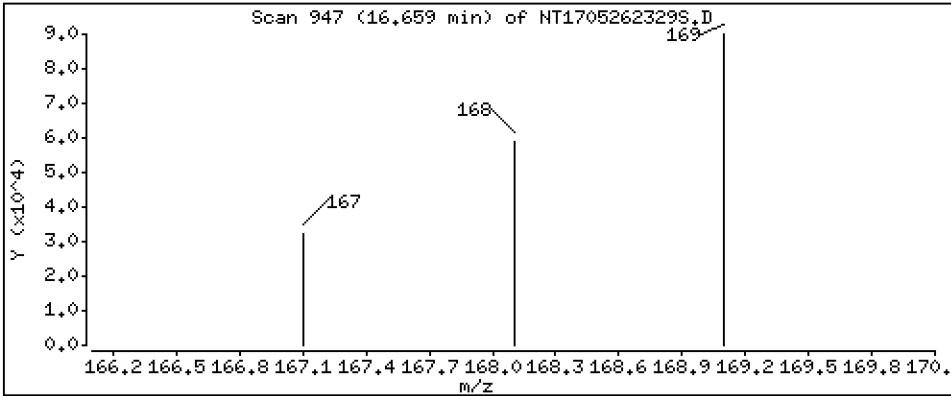
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 1,155 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

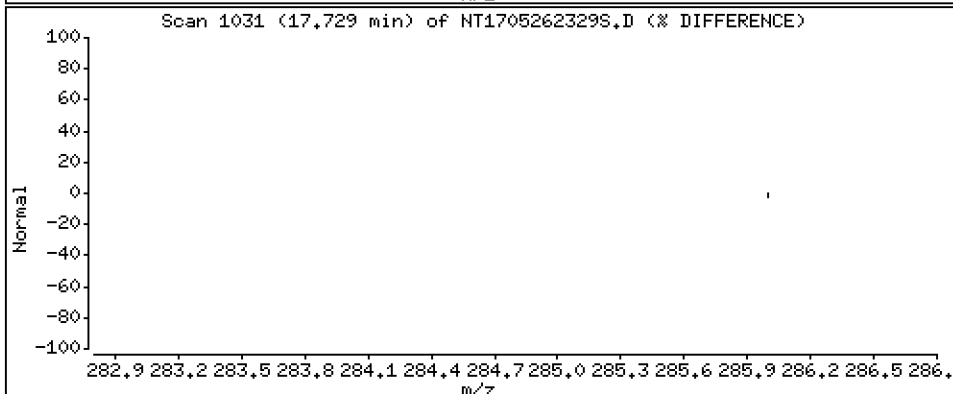
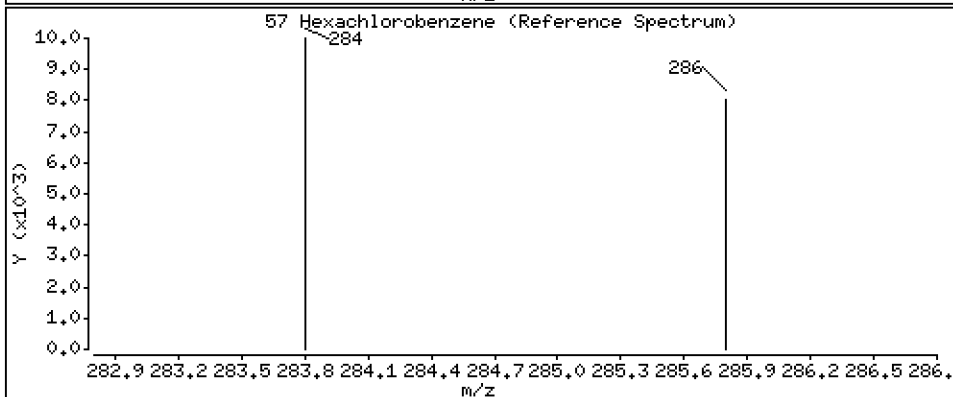
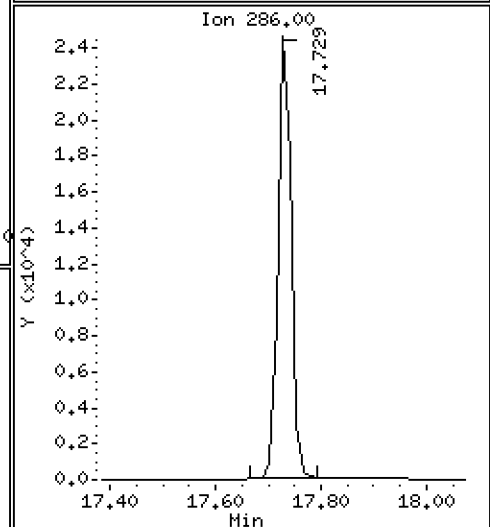
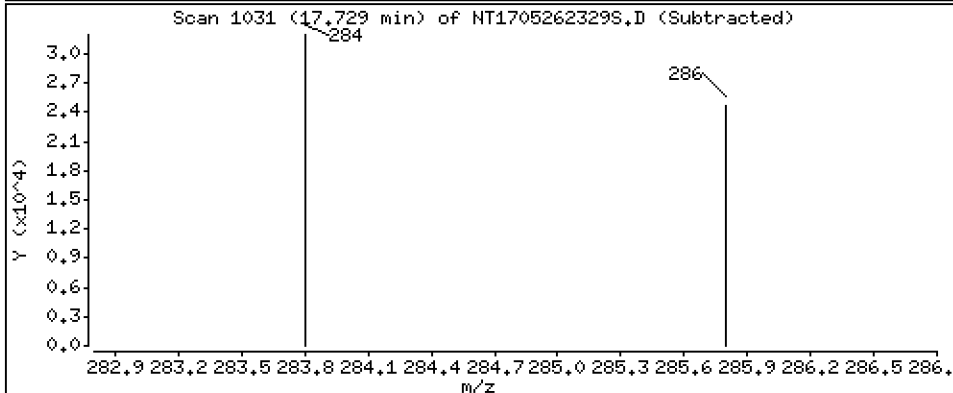
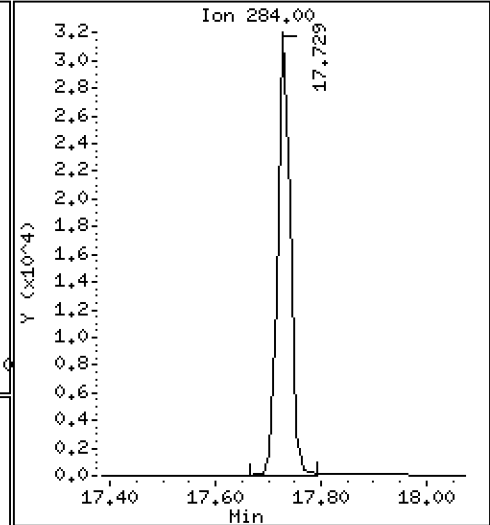
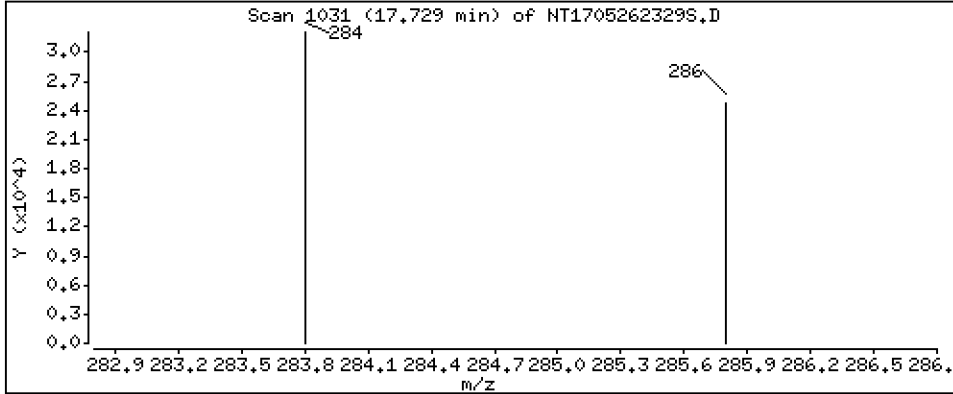
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 1,139 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

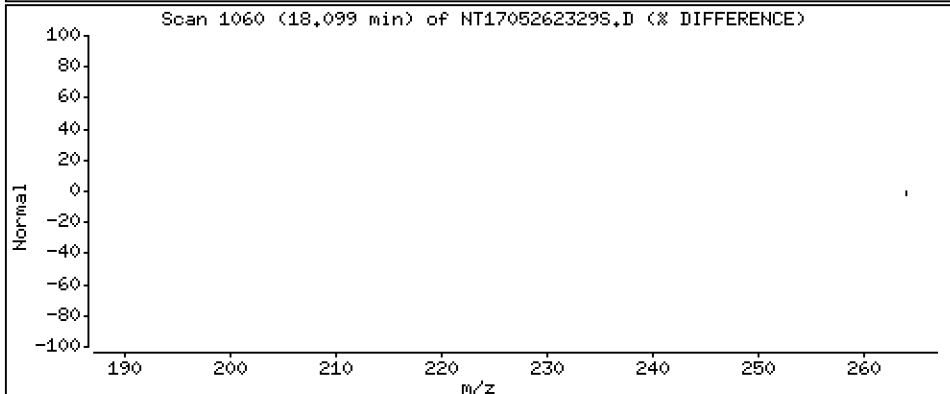
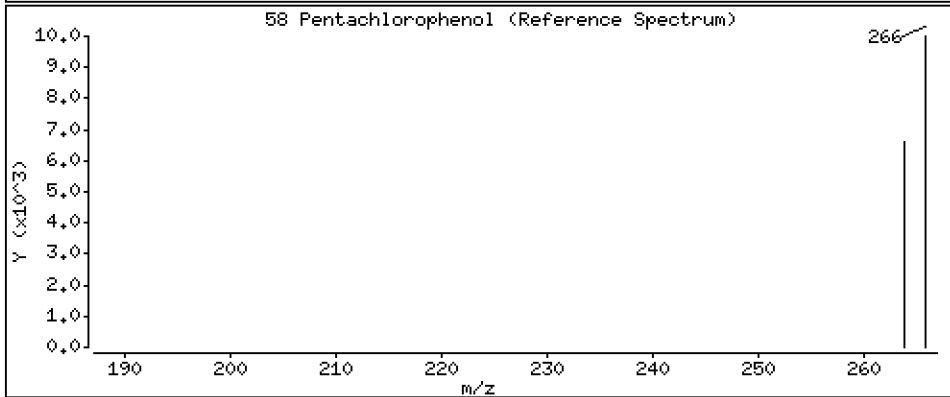
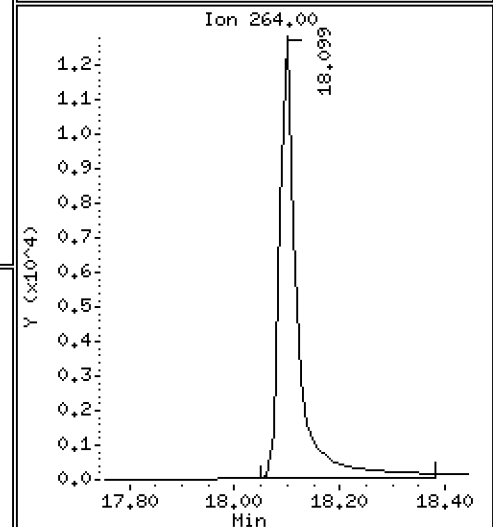
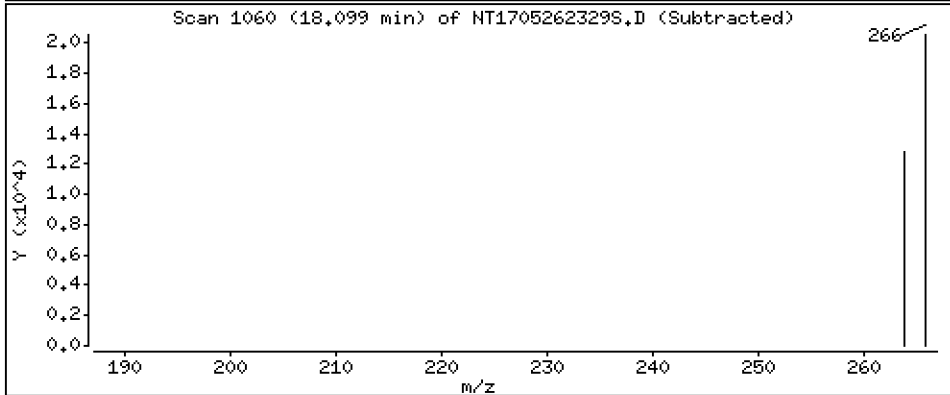
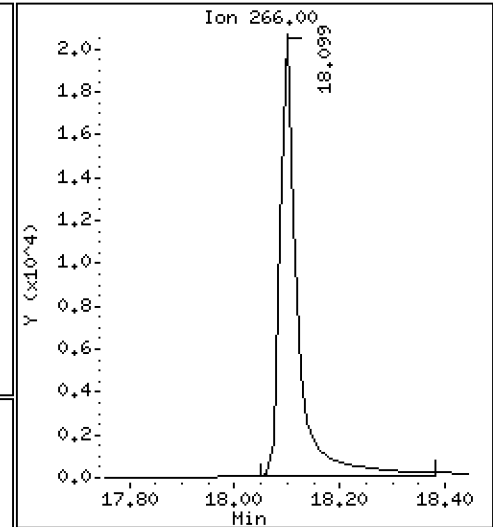
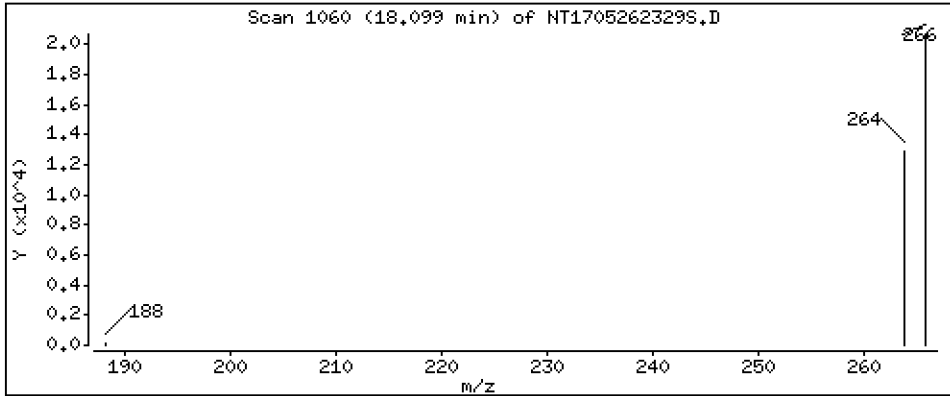
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 1,779 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

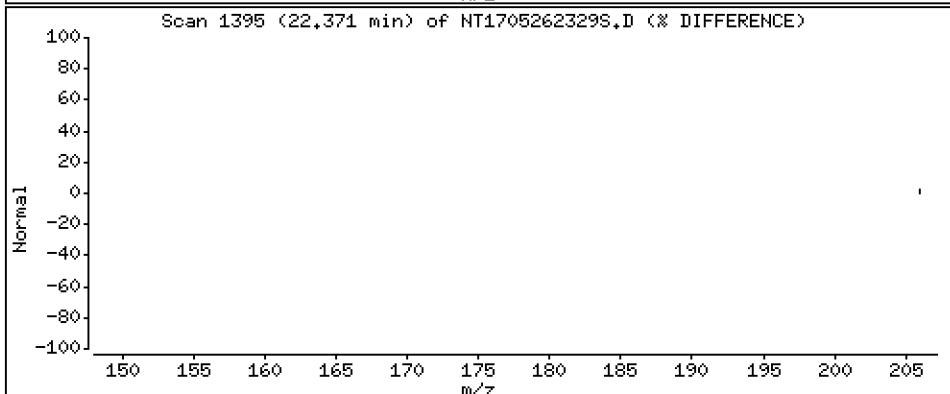
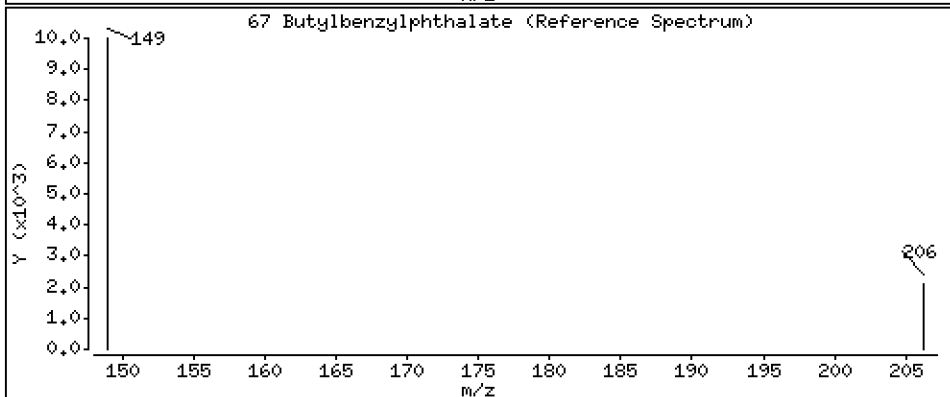
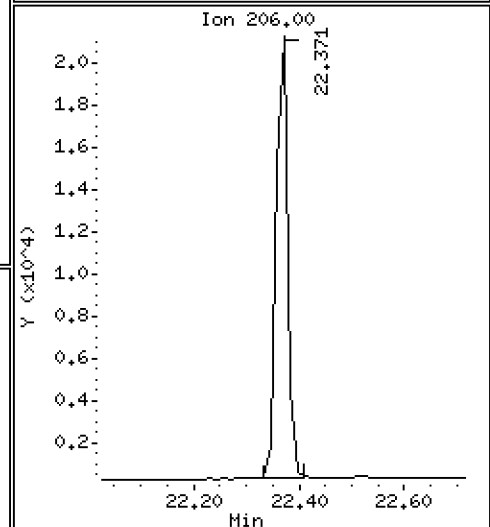
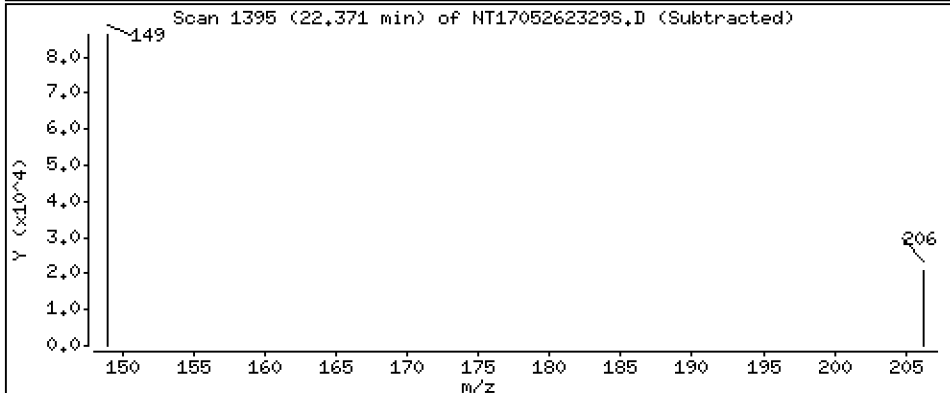
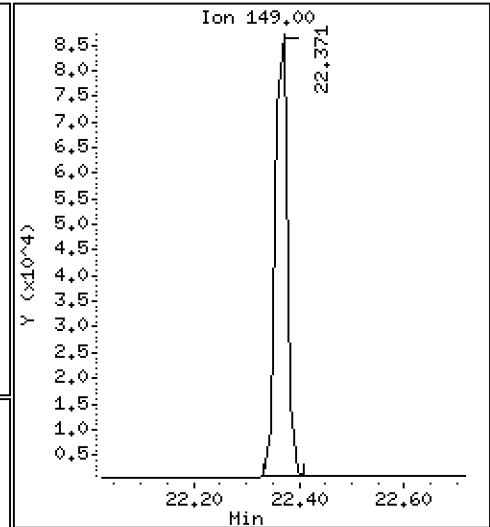
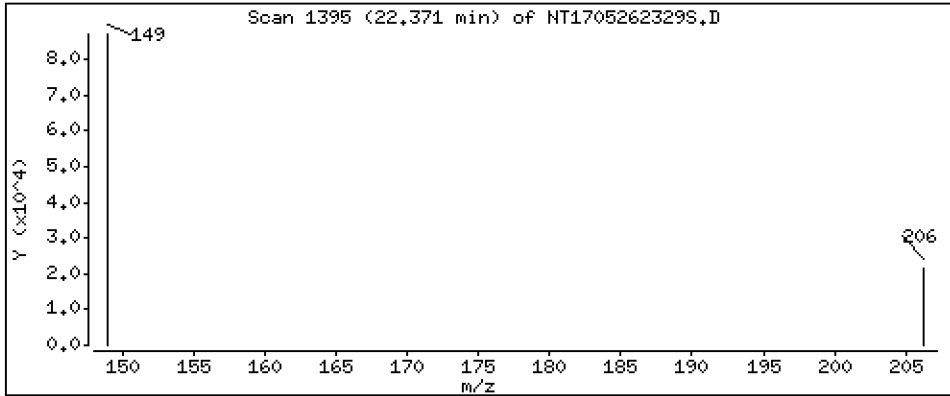
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,8996 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

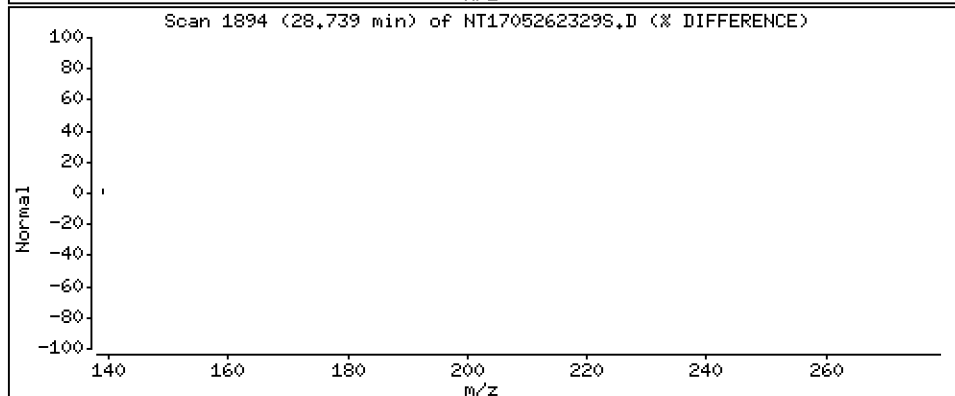
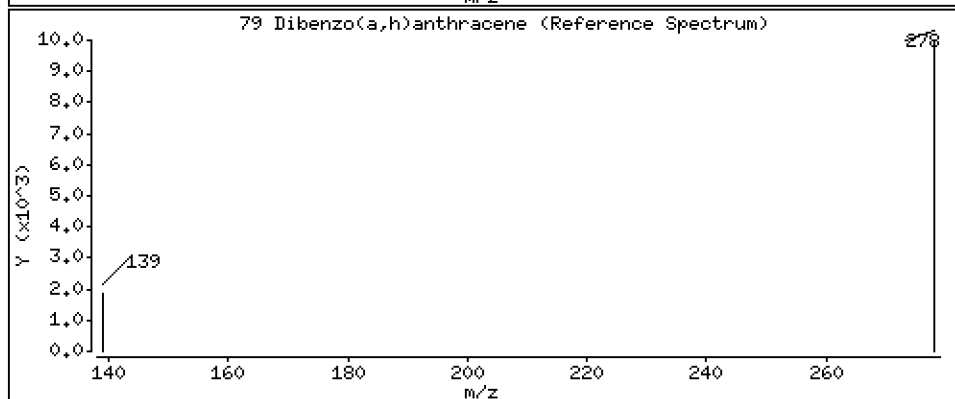
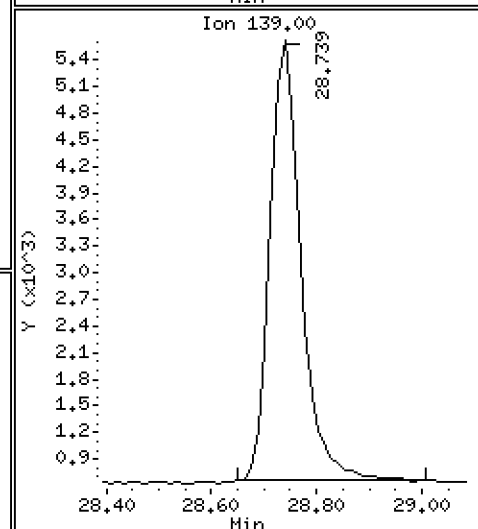
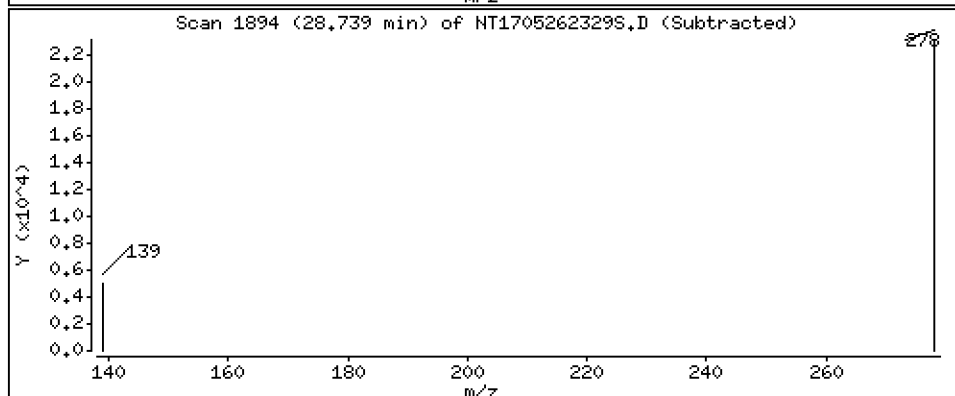
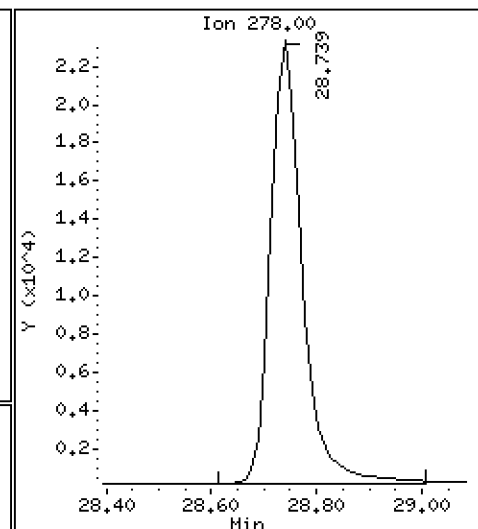
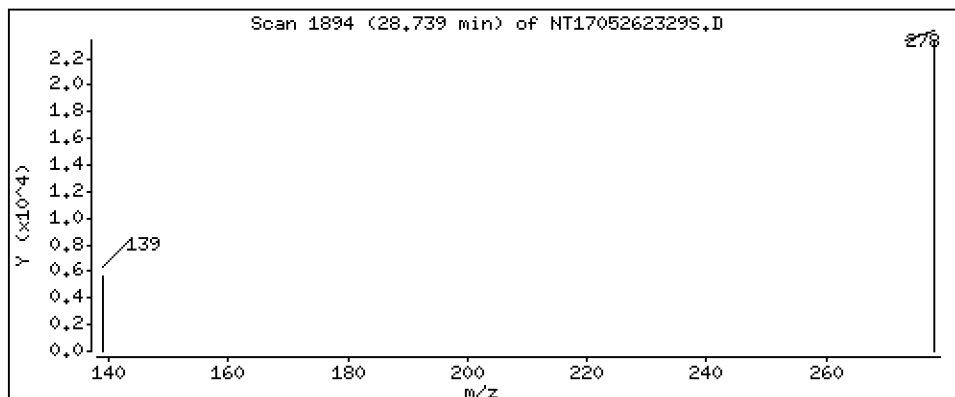
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,6167 ug/mL



Date : 27-MAY-2023 06:08

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-CCV1

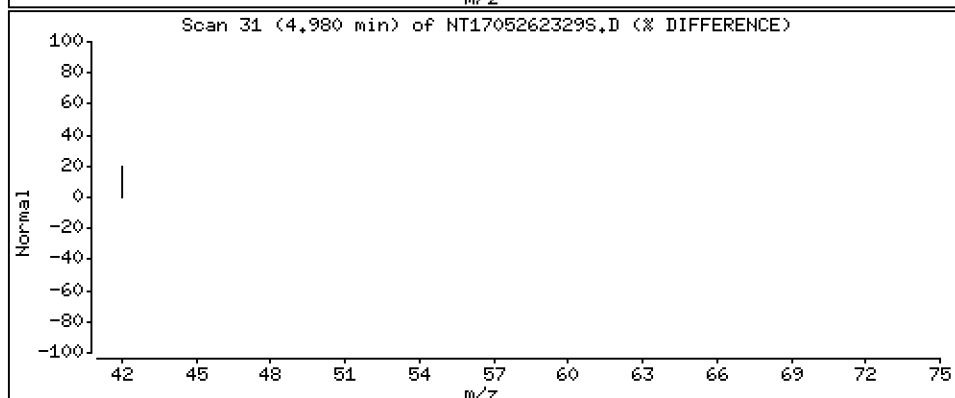
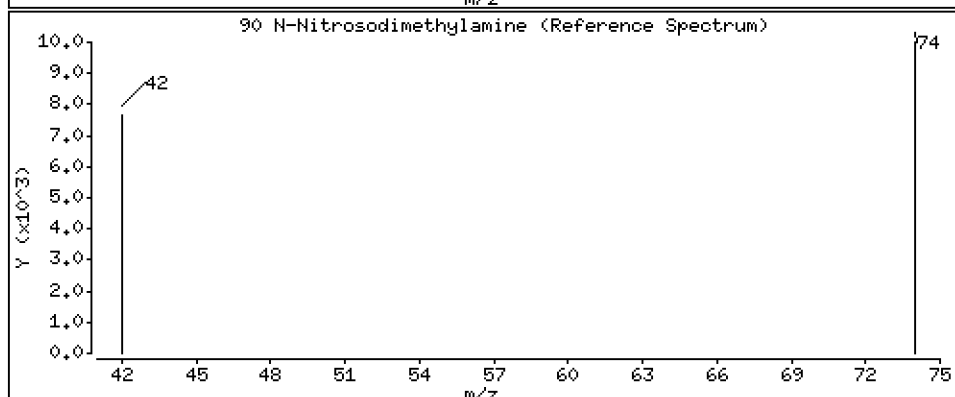
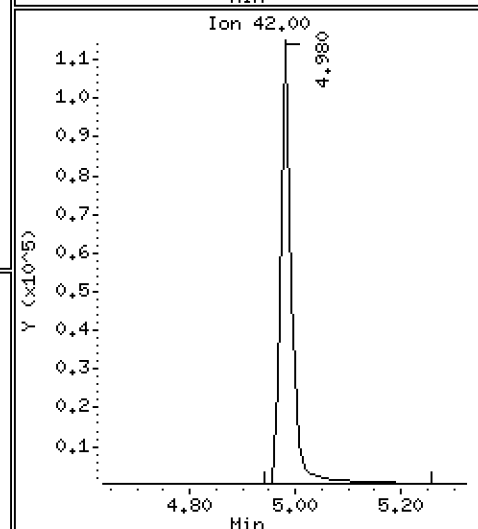
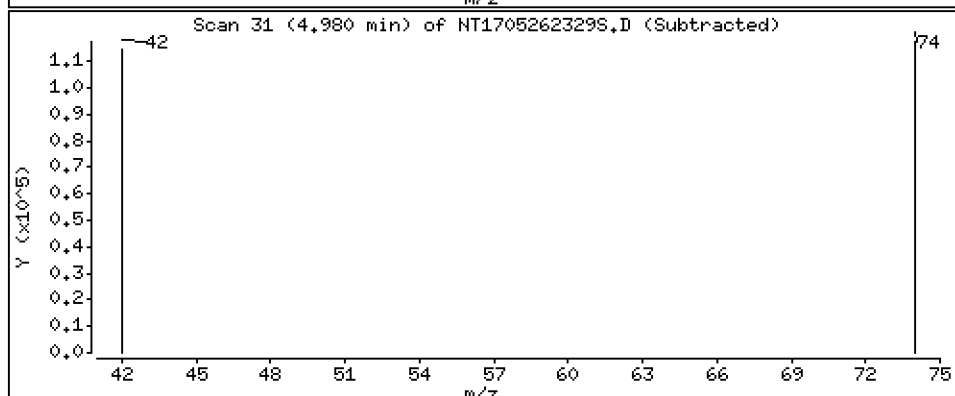
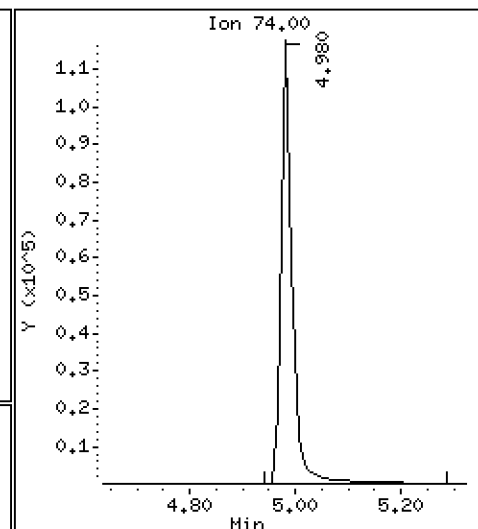
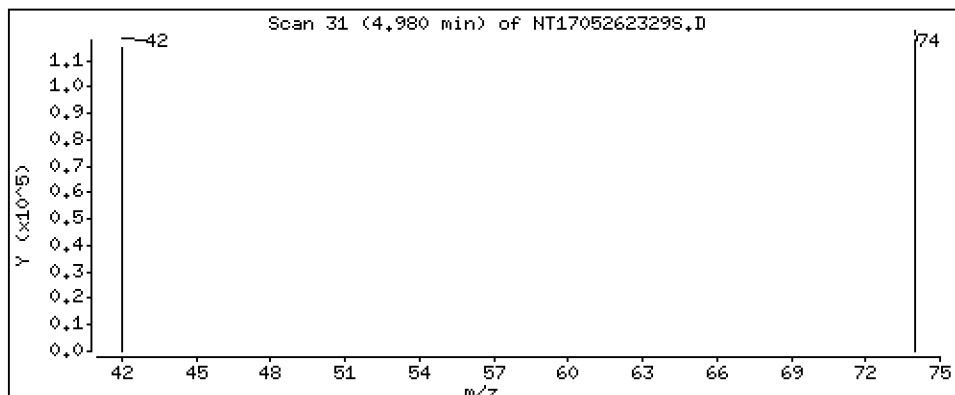
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 2,153 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262329S.D
 Lab Smp Id: SLE0442-CCV1
 Inj Date : 27-MAY-2023 06:08
 Operator : VTS
 Smp Info : SLE0442-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSDDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.081	7.081	(0.764)	202542	1.63157	1.632 (R)
3 Phenol	94		8.674	8.674	(0.935)	195919	1.05917	1.059
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	170079	1.02582	1.026
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	410431	4.00000	
9 1,4-Dichlorobenzene	146		9.298	9.299	(1.003)	164083	1.01561	1.016
11 Benzyl alcohol	79		9.554	9.554	(1.030)	103734	0.98420	0.9842
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	157545	0.99491	0.9949
13 2-Methylphenol	108		9.771	9.771	(1.054)	114154	0.89059	0.8906
15 4-Methylphenol	108		10.040	10.040	(1.083)	114709	0.88551	0.8855
16 N-Nitroso-di-n-propylamine	70		10.091	10.091	(1.088)	88132	0.94401	0.9440
22 2,4-Dimethylphenol	107		11.061	11.062	(0.942)	249304	1.98246	1.982
24 Benzoic acid	105		11.240	11.228	(0.958)	298874	3.81496	3.815
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	109236	0.95743	0.9574
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1307314	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	64379	1.07163	1.072
39 Dimethylphthalate	163		14.824	14.837	(0.967)	244409	0.92658	0.9266
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	718296	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	218619	0.91262	0.9126
54 N-Nitrosodiphenylamine	169		16.659	16.659	(0.908)	159849	1.15536	1.155
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	53461	1.13908	1.139
58 Pentachlorophenol	266		18.098	18.098	(0.986)	47783	1.77950	1.779
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	982072	4.00000	
\$ 66 Terphenyl-d14	244		21.452	21.452	(0.919)	138350	0.97239	0.9724 (R)
67 Butylbenzylphthalate	149		22.370	22.370	(0.958)	139084	0.89957	0.8996
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	749817	4.00000	
* 77 Perylene-d12	264		26.006	26.006	(1.000)	554047	4.00000	
79 Dibenzo(a,h)anthracene	278		28.739	28.739	(1.105)	96373	0.61669	0.6167
90 N-Nitrosodimethylamine	74		4.979	4.979	(0.537)	172482	2.15277	2.153

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262329S.D
 Lab Smp Id: SLE0442-CCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 27-MAY-2023
 Calibration Time: 00:33
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	375423	187712	750846	410431	9.32
27 Naphthalene-d8	1173037	586519	2346074	1307314	11.45
42 Acenaphthene-d10	638940	319470	1277880	718296	12.42
59 Phenanthrene-d10	901788	450894	1803576	982072	8.90
69 Chrysene-d12	767966	383983	1535932	749817	-2.36
77 Perylene-d12	642149	321075	1284298	554047	-13.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	-0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	-0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	-0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	-0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	-0.00
77 Perylene-d12	26.01	25.51	26.51	26.01	-0.00

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

REVIEW SUMMARY FOR FILE - NT1705262329S.D

Lab ID: SLE0442-CCV1

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 06:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1705262320S.D

On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT17</u>	Calibration:	<u>GE00070</u>
Lab File ID:	<u>NT1705262322S.D</u>	Calibration Date:	<u>05/16/2023</u>
Sequence:	<u>SLE0442</u>	Injection Date:	<u>05/27/23</u>
Lab Sample ID:	<u>SLE0442-LCV1</u>	Injection Time:	<u>01:48</u>
Sequence Name:	<u>ABN 0.1</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.10000	0.092	1.8027250	1.6592240		-8.0	
1,3-Dichlorobenzene	A	0.10000	0.105	1.6158430	1.6935120		4.8	
1,4-Dichlorobenzene	A	0.10000	0.108	1.5745540	1.7054340		8.3	
1,2-Dichlorobenzene	A	0.10000	0.103	1.5432720	1.5876940		2.9	
Benzyl Alcohol	A	0.10000	0.077	1.0272110	0.7869368		-23.4	
Benzoic acid	A	0.40000	0.063	0.1537024	0.0379620		-84.2	
2-Methylphenol	A	0.10000	0.077	1.2492070	0.9562669		-23.5	
N-Nitroso-di-n-Propylamine	A	0.10000	0.085	0.9098695	0.7762811		-14.7	
4-Methylphenol	A	0.10000	0.062	1.2624750	0.7781801		-38.4	
2,4-Dimethylphenol	A	0.20000	0.167	0.3847731	0.3221424		-16.3	
1,2,4-Trichlorobenzene	A	0.10000	0.104	0.3490929	0.3619561		3.7	
Hexachlorobutadiene	A	0.10000	0.112	0.1838137	0.2057637		11.9	
N-Nitrosodimethylamine	A	0.20000	0.189	0.7808454	0.7368235		-5.6	
Dimethylphthalate	A	0.10000	0.096	1.4689000	1.4041270		-4.4	
Diethyl phthalate	A	0.10000	0.095	1.3339910	1.2686600		-4.9	
N-Nitrosodiphenylamine	A	0.10000	0.108	0.5635219	0.6101975		8.3	
Hexachlorobenzene	A	0.10000	0.115	0.1911612	0.2205311		15.4	
Pentachlorophenol	A	0.20000	0.096	0.0772800	0.0516264		-52.1	
Butylbenzylphthalate	A	0.10000	0.090	0.8247925	0.7458223		-9.6	
Dibenzo(a,h)anthracene	A	0.10000	0.060	1.1282360	0.6787192		-39.8	
2-Fluorophenol	A	0.15000	0.132	1.2098450	1.0622610		-12.2	
p-Terphenyl-d14	A	0.10000	0.0963	0.7589992	0.7308134		-3.7	

* Values outside of QC limits

Data File: \\target\share\chem3\nt17.1\20230526.16\SIM.6\NT1705262322S.D

Date: 27-May-2023 01:48

Client ID:

Sample Info: SLE0442-LCW1

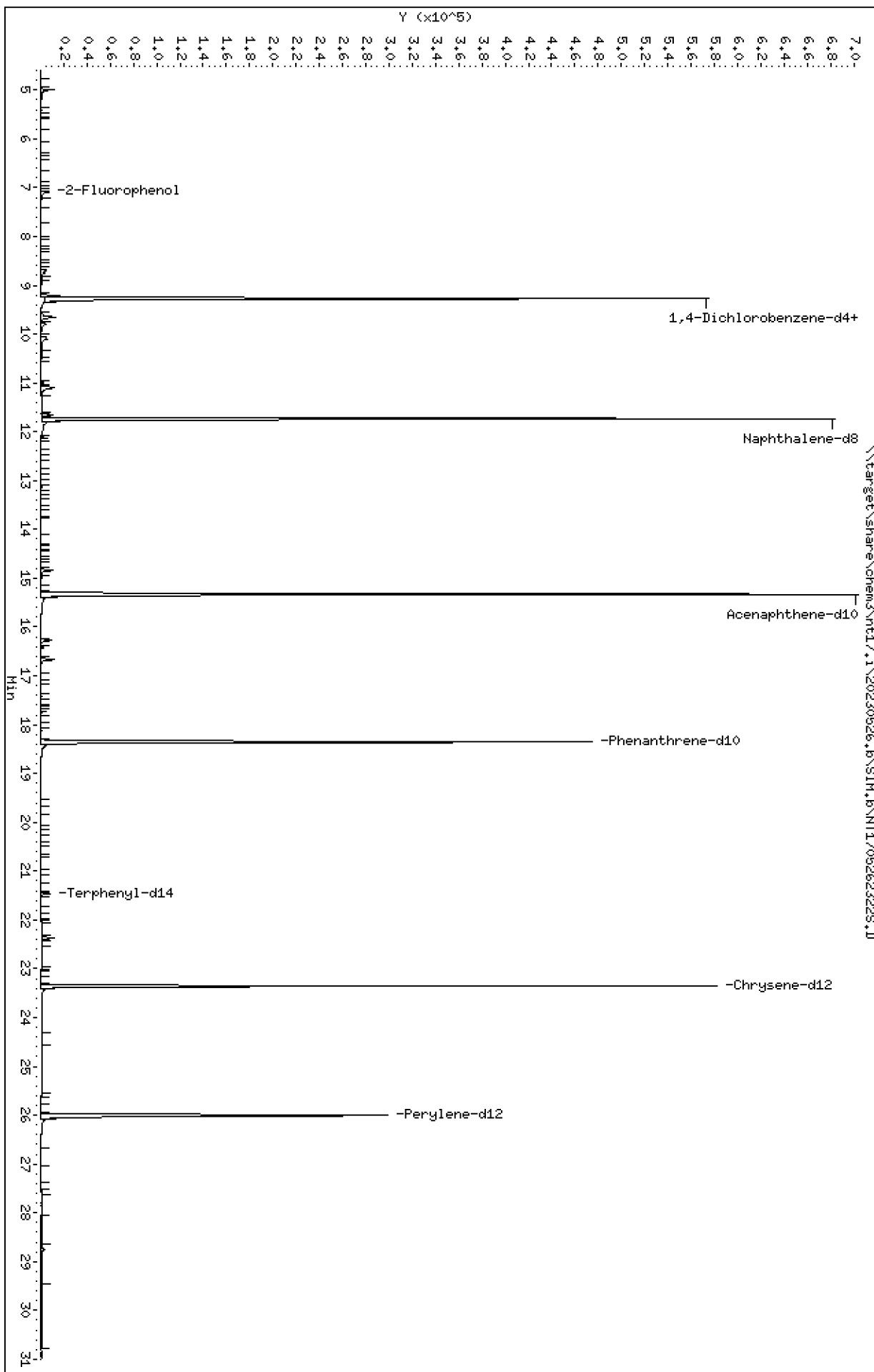
Column phase: ZB-5msi

Instrument: nt17.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

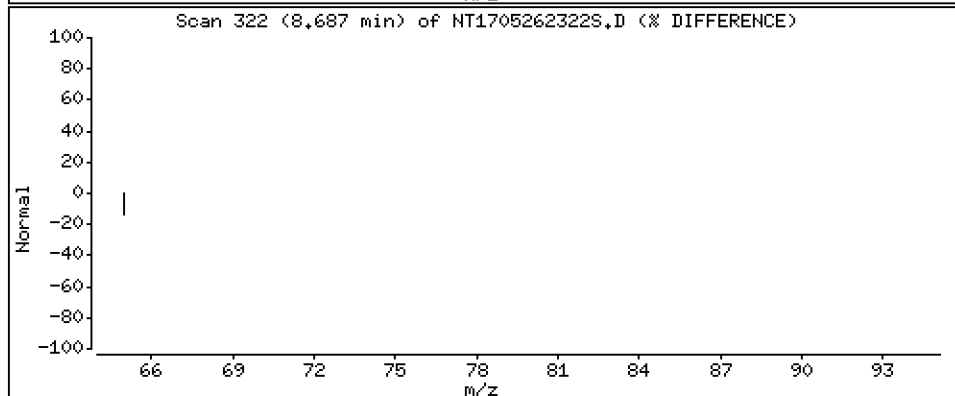
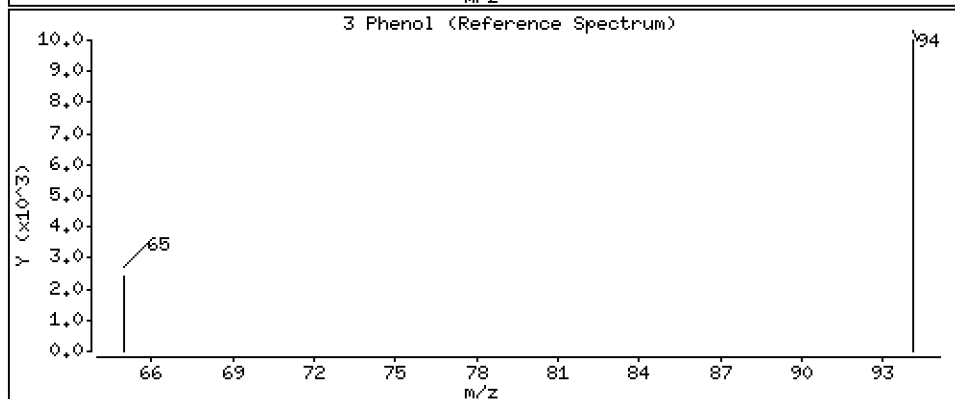
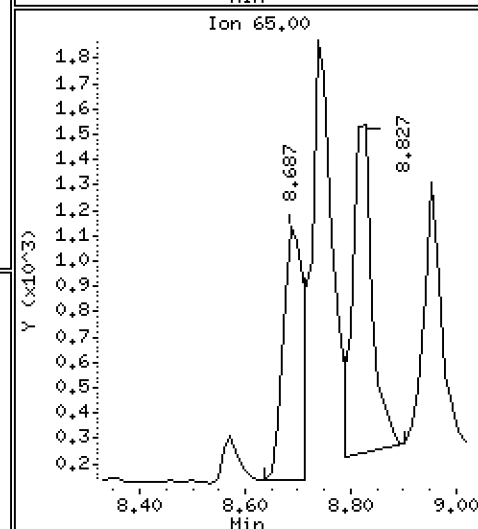
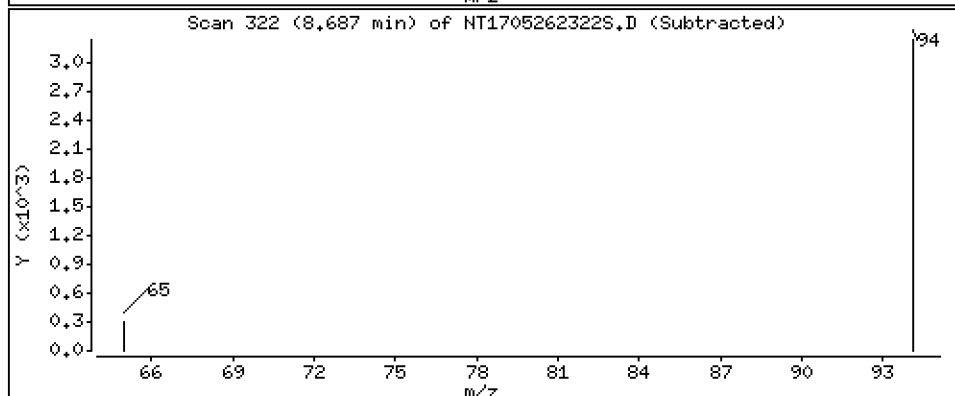
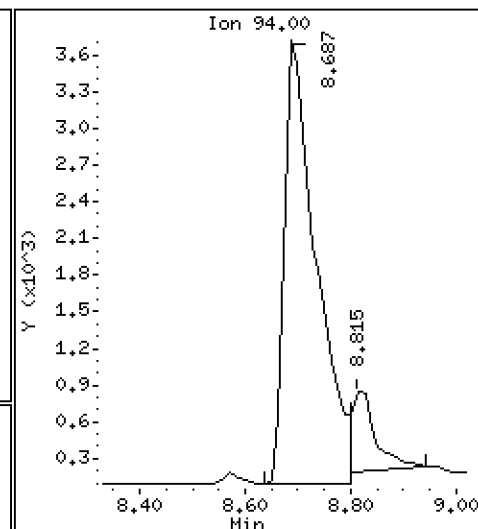
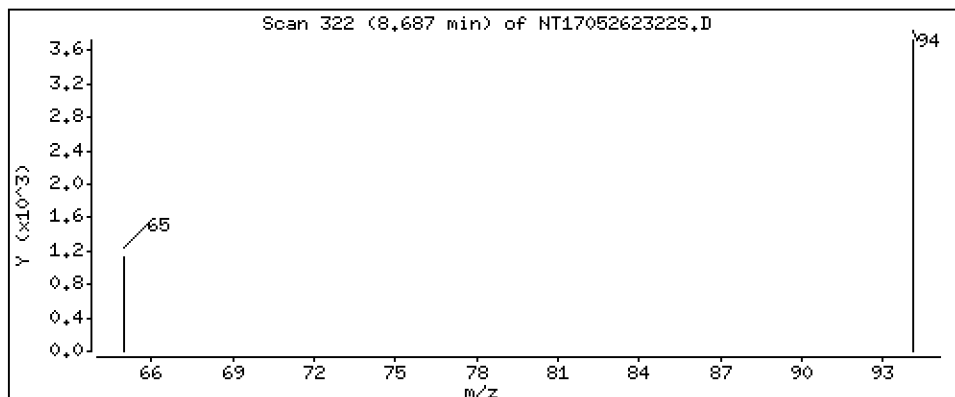
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,09204 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

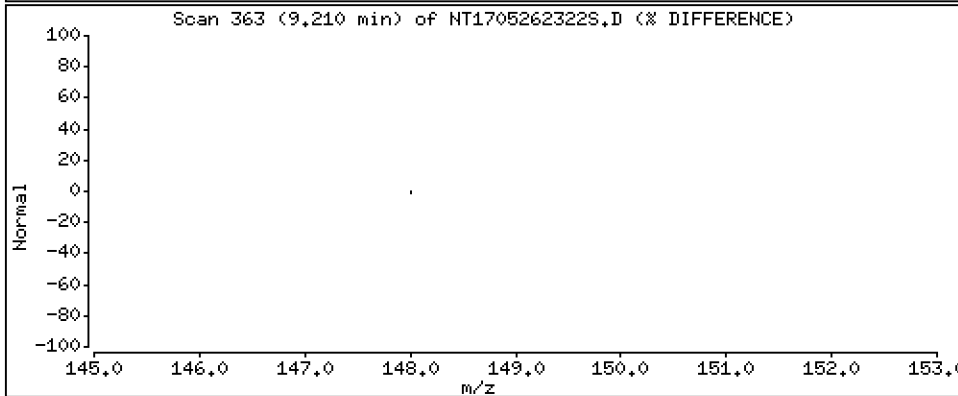
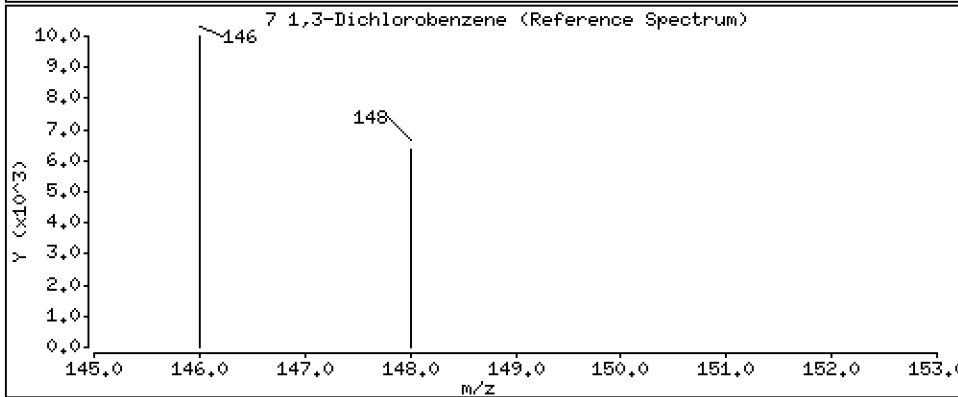
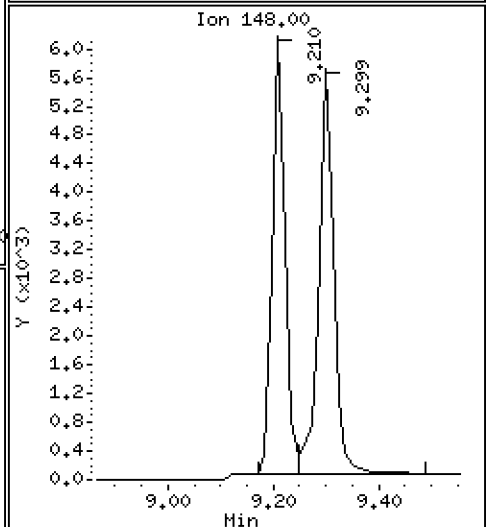
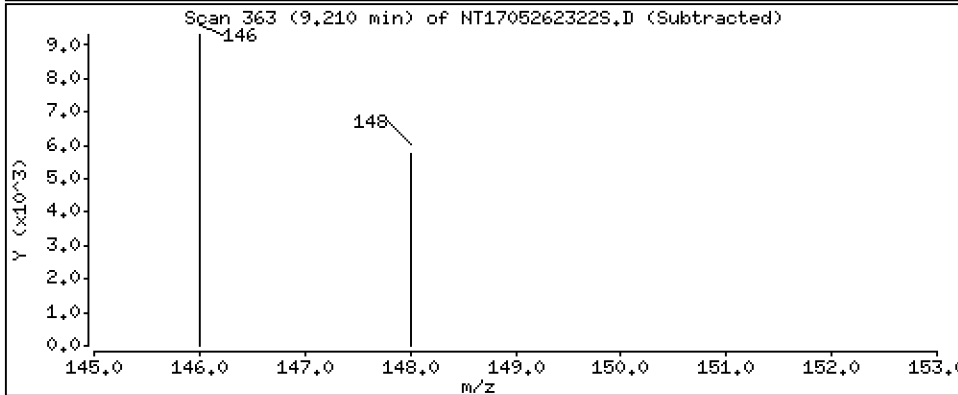
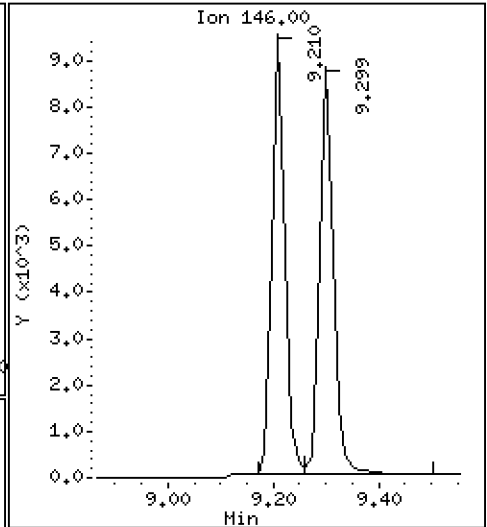
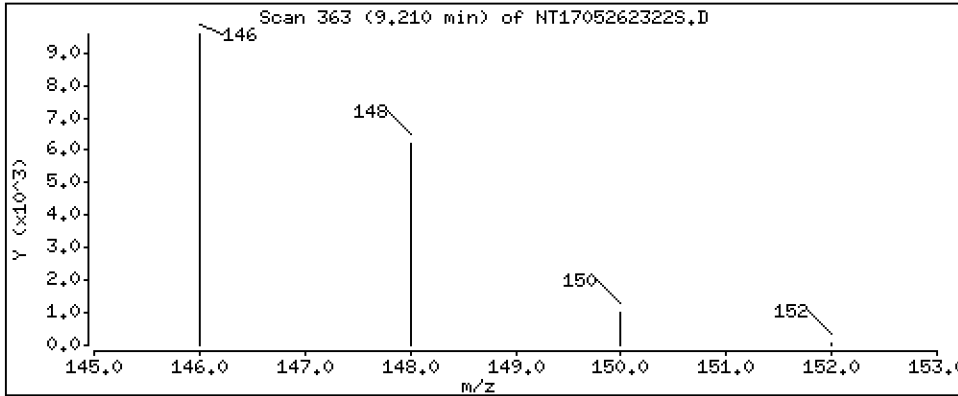
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,1048 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

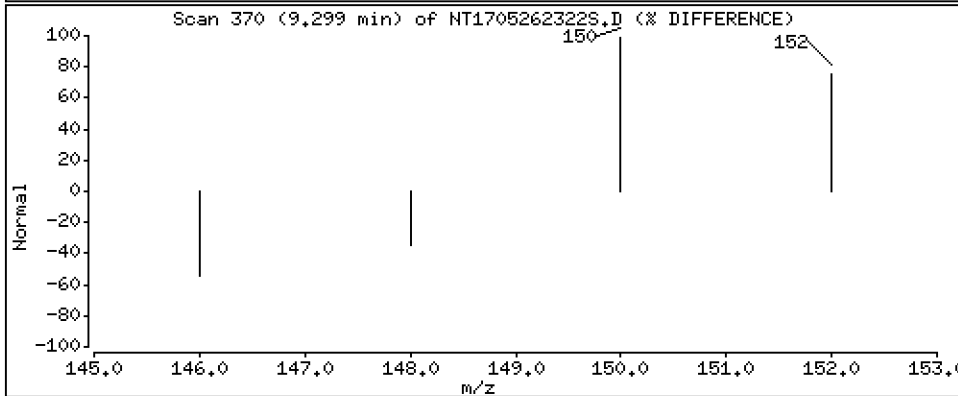
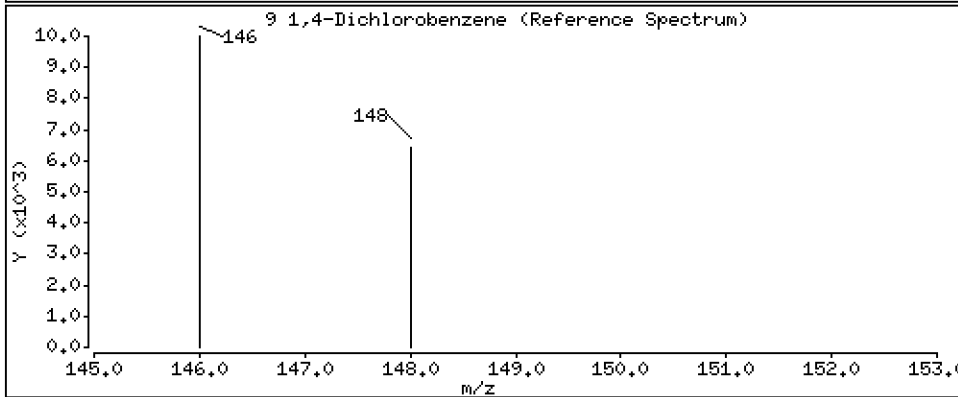
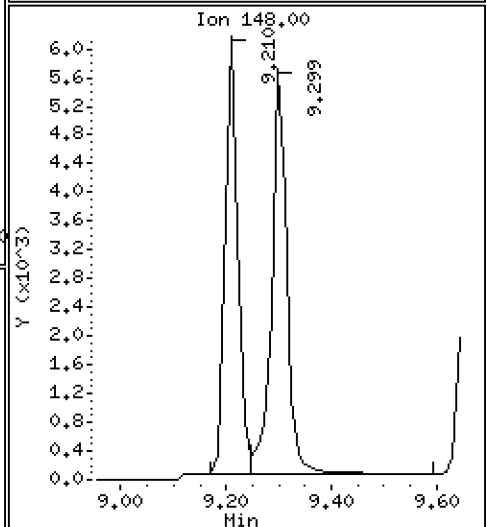
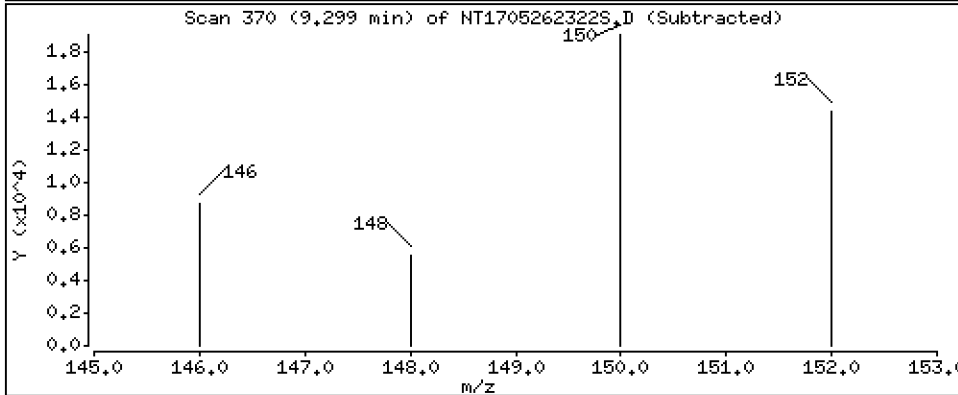
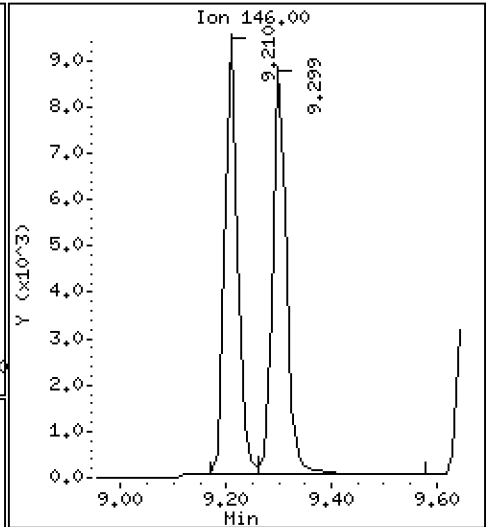
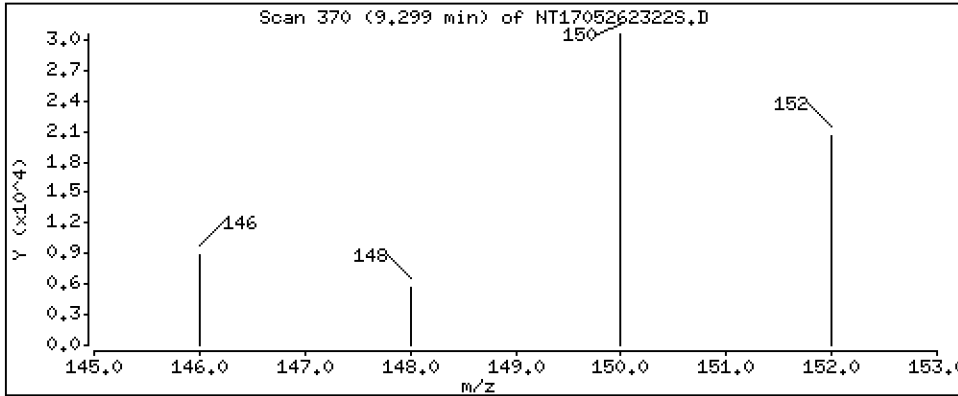
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,1083 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

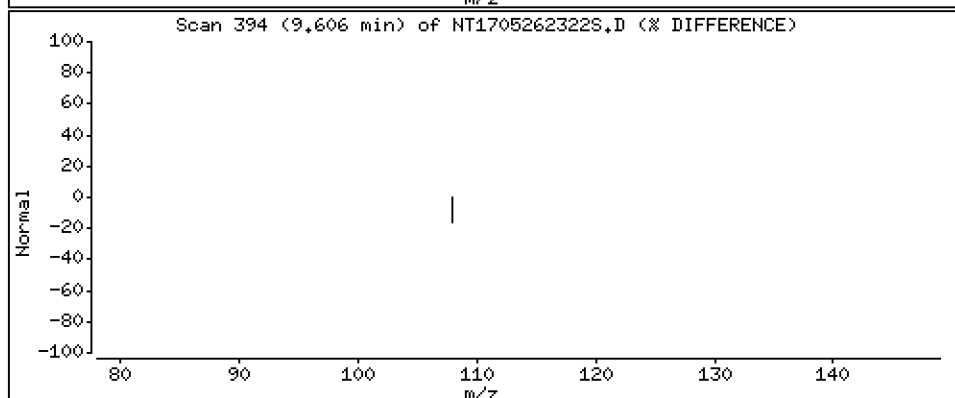
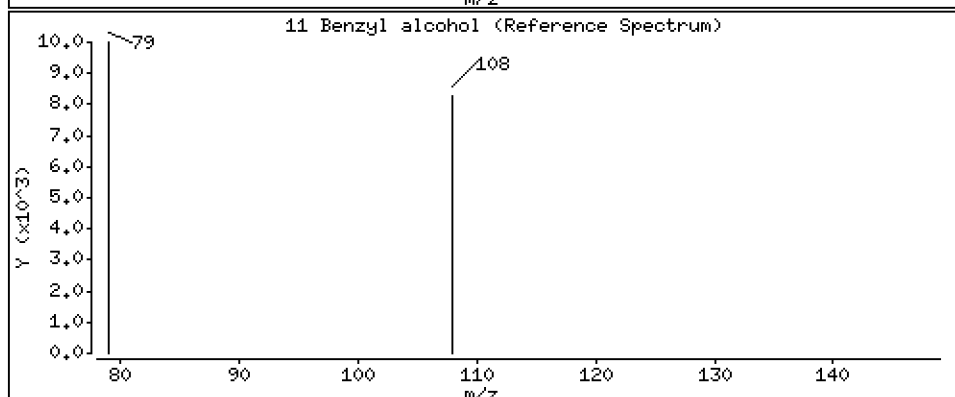
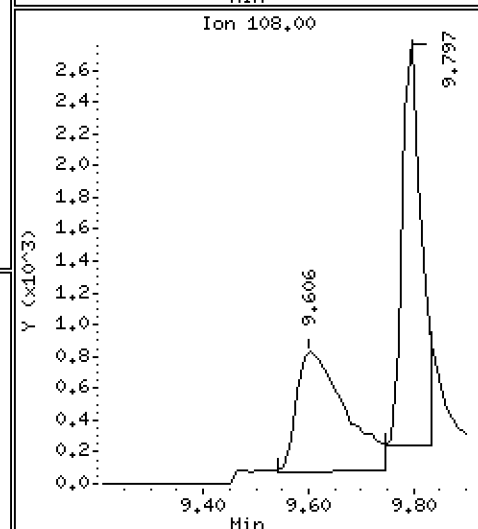
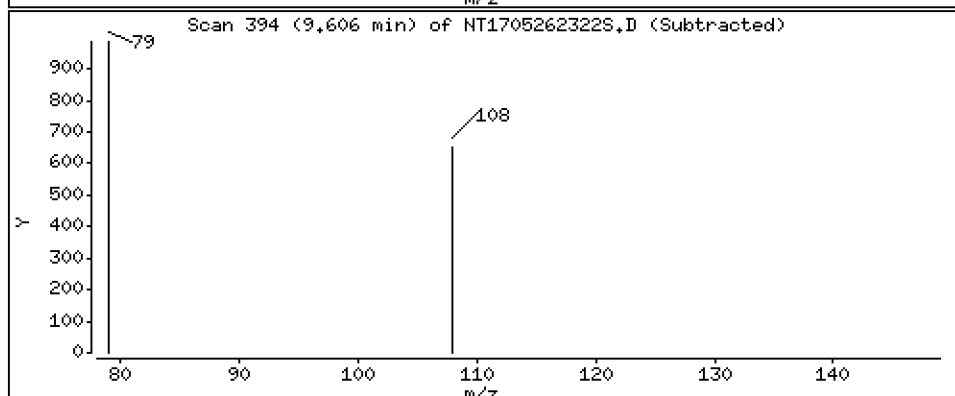
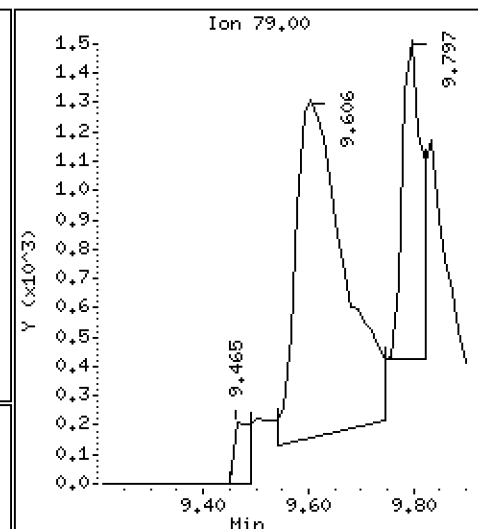
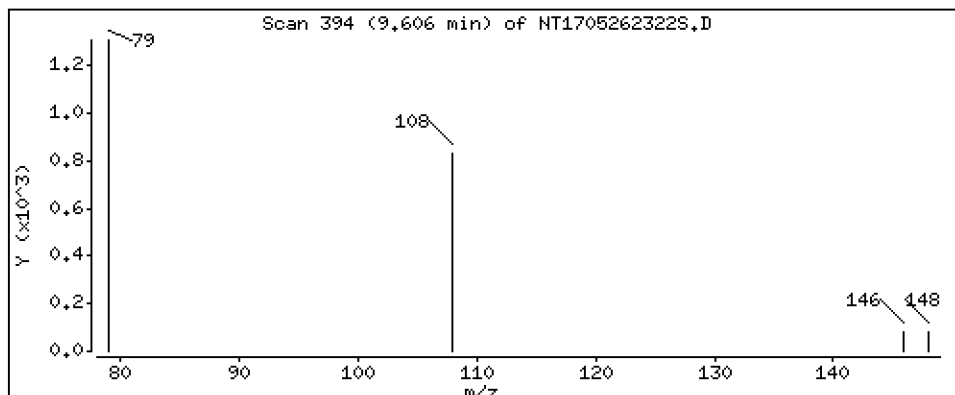
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,07661 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

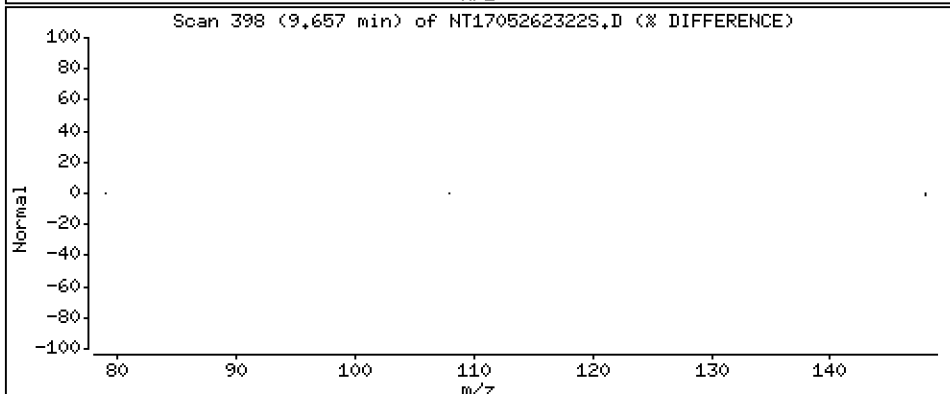
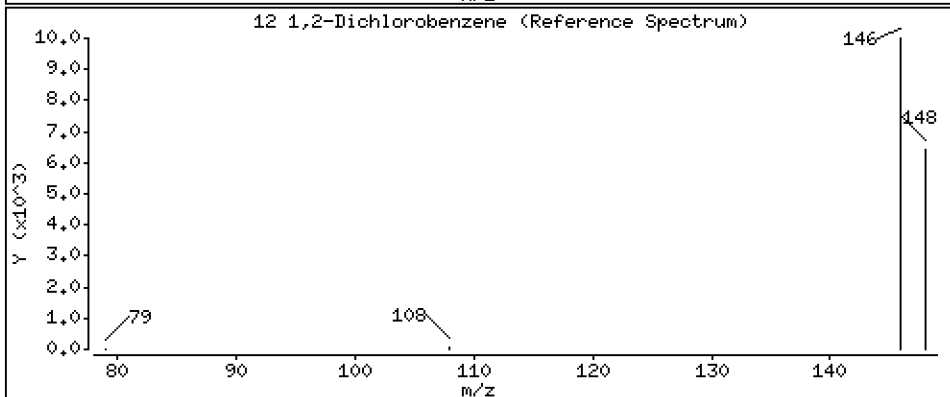
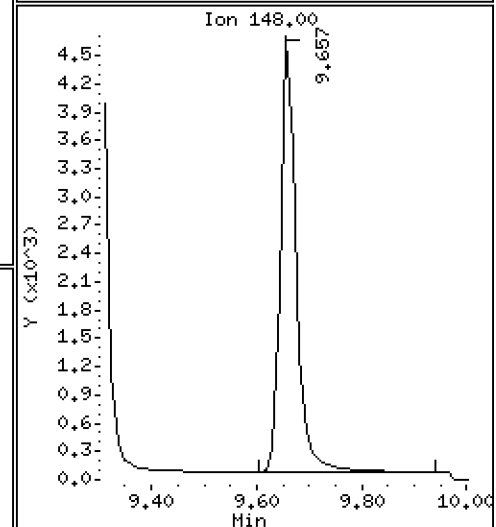
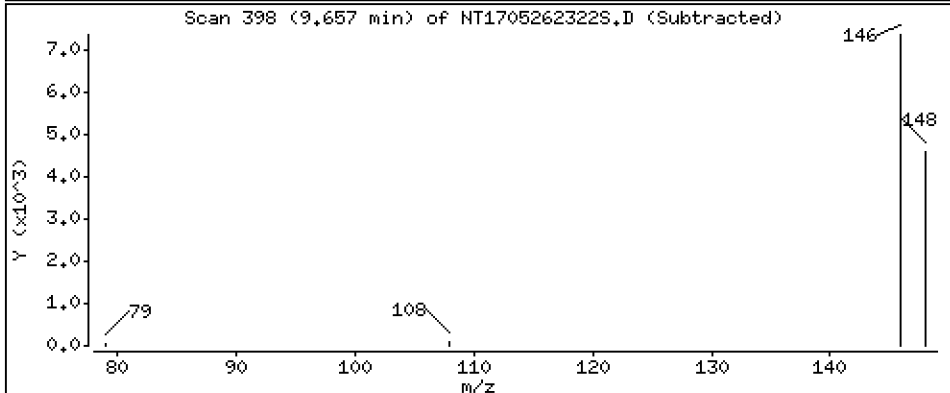
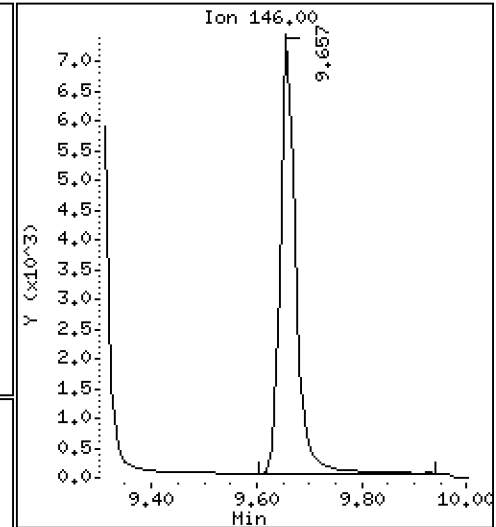
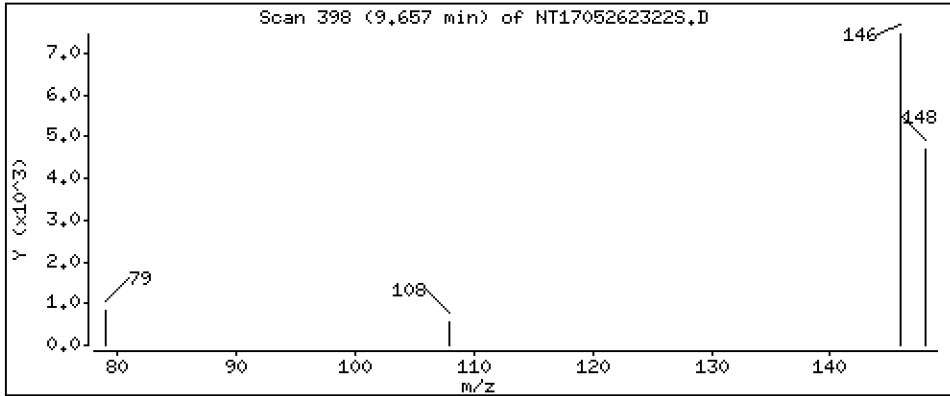
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,1029 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

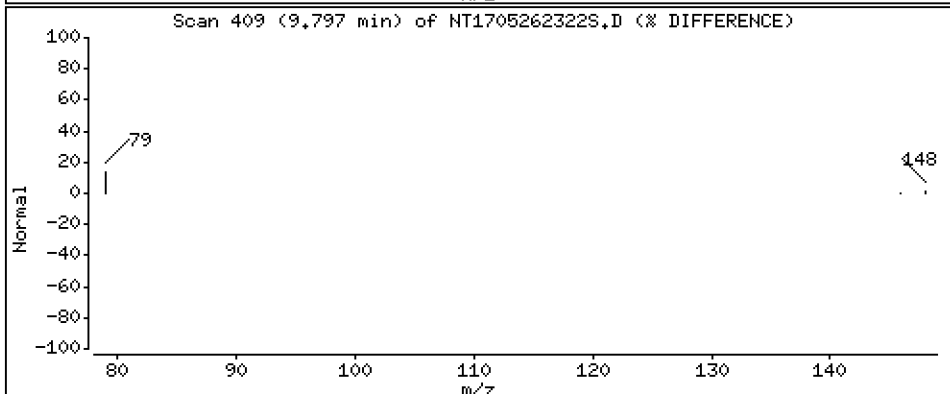
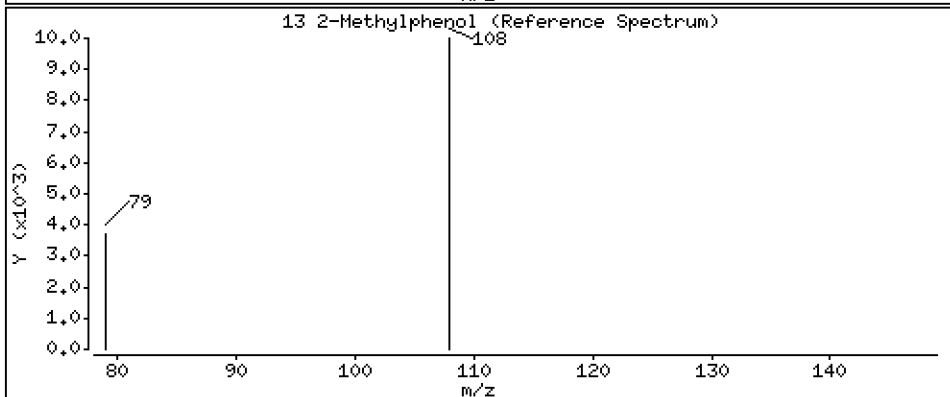
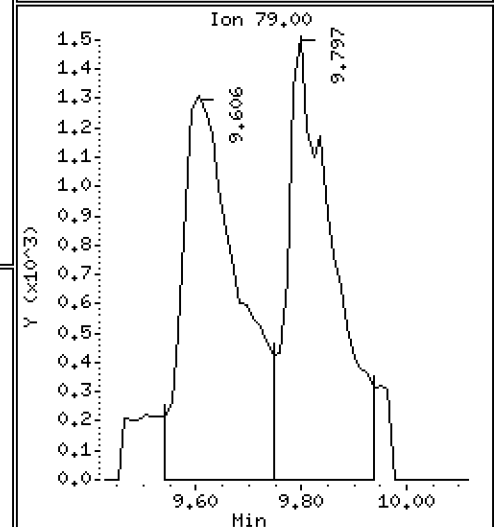
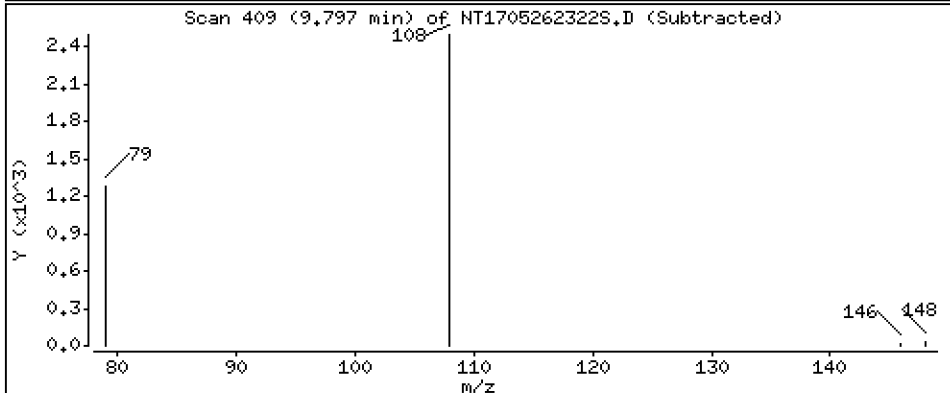
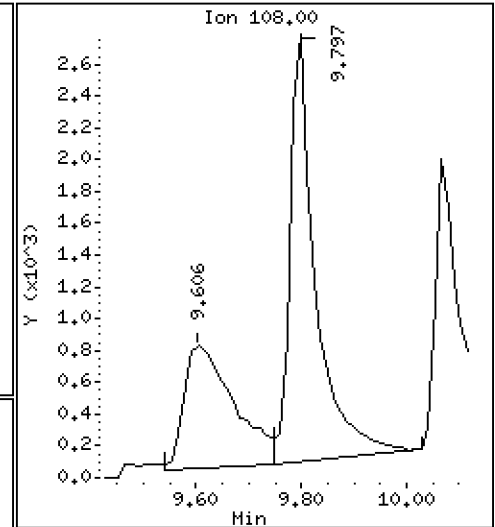
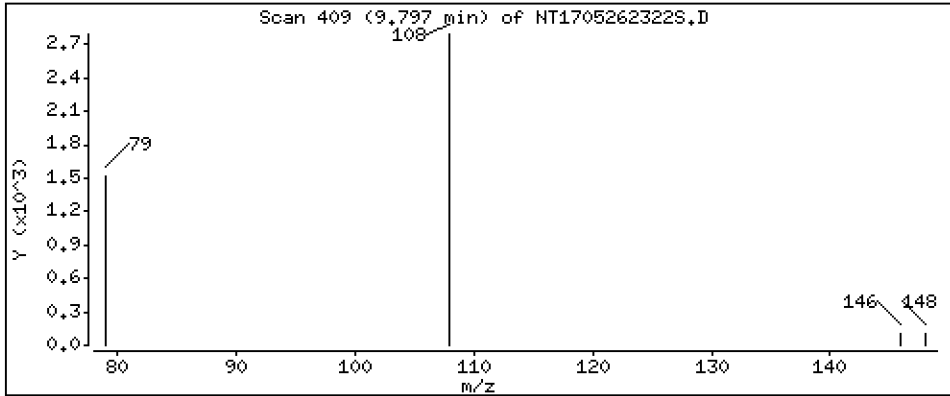
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,07655 ug/mL

13 2-Methylphenol



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

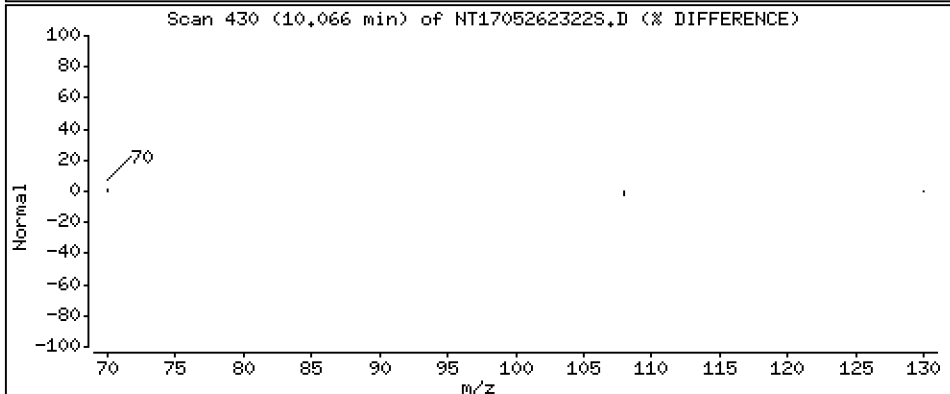
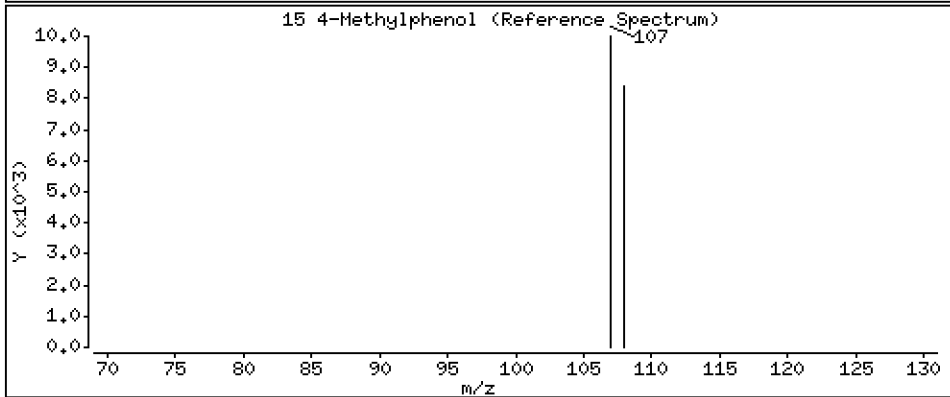
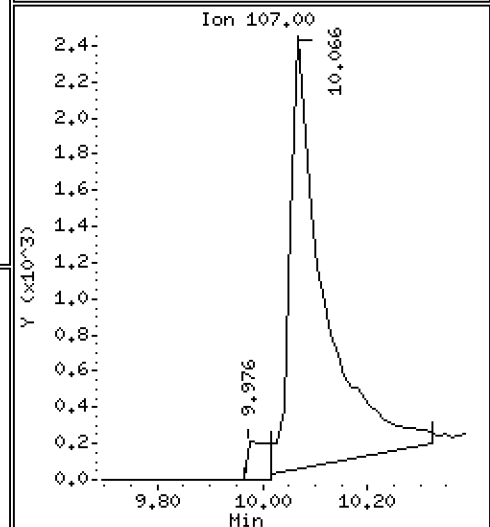
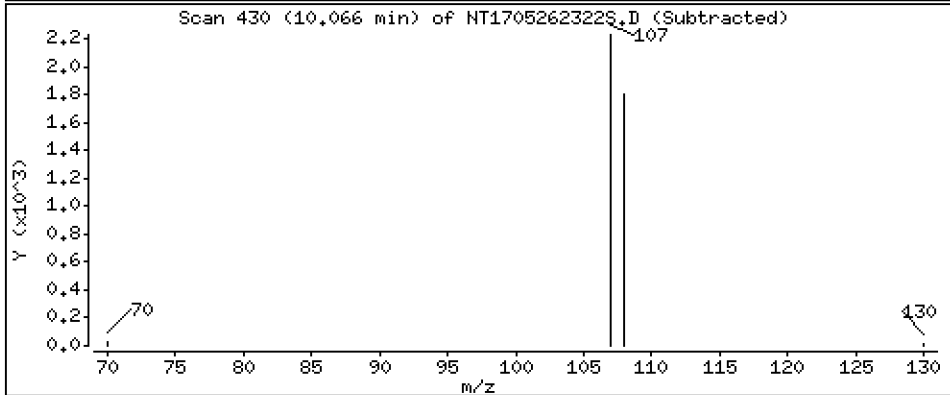
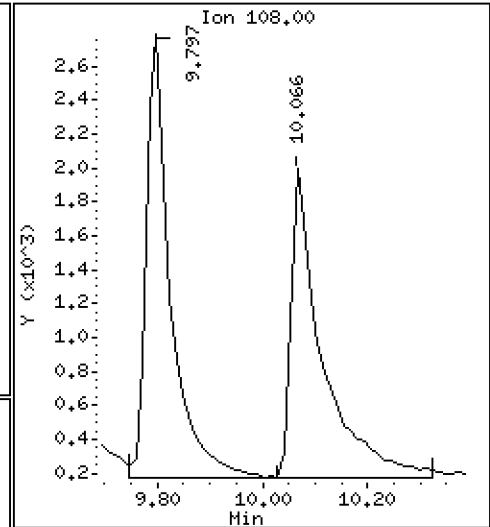
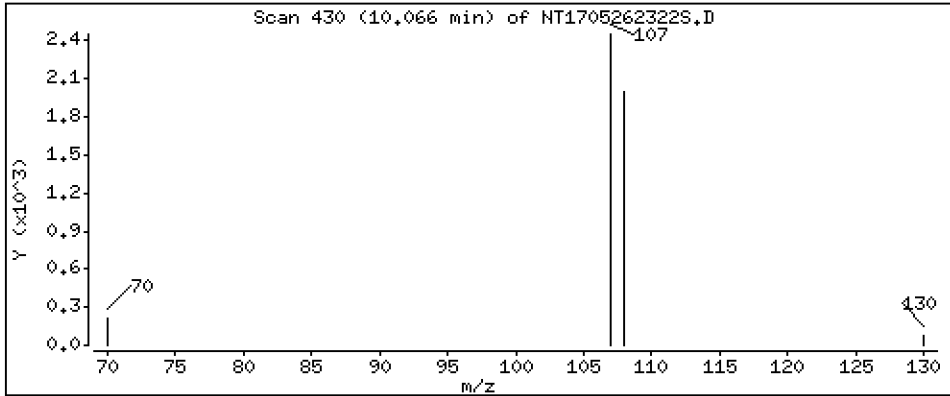
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.06164 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

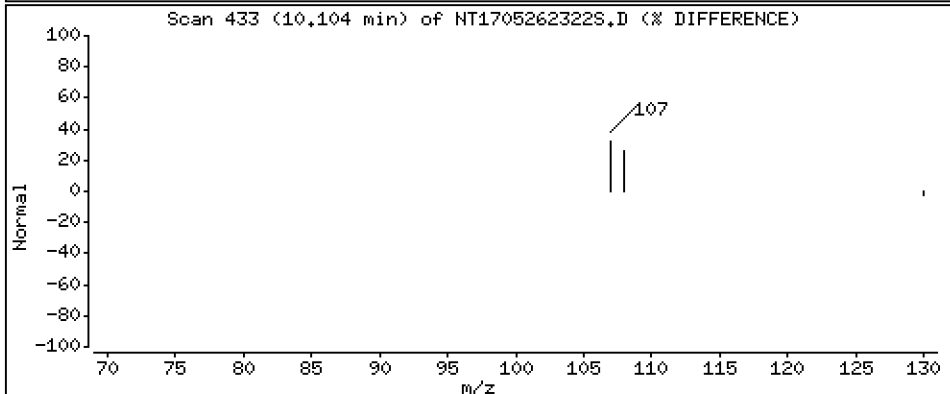
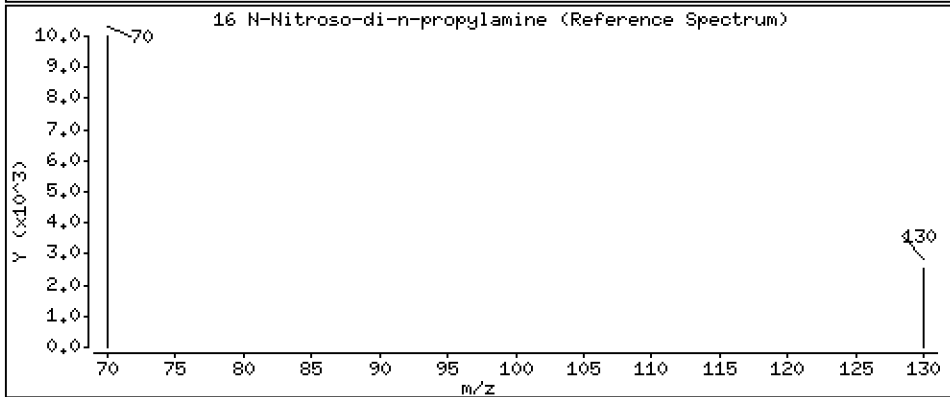
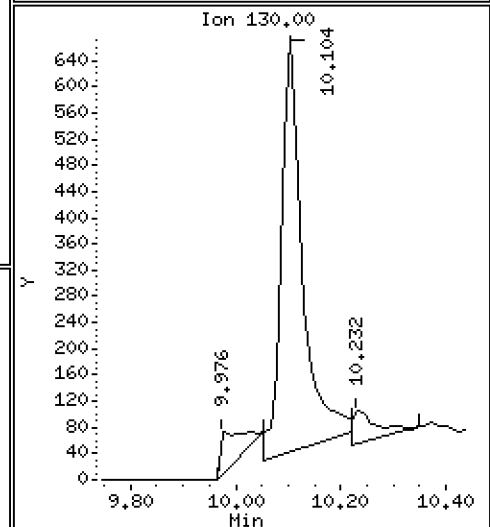
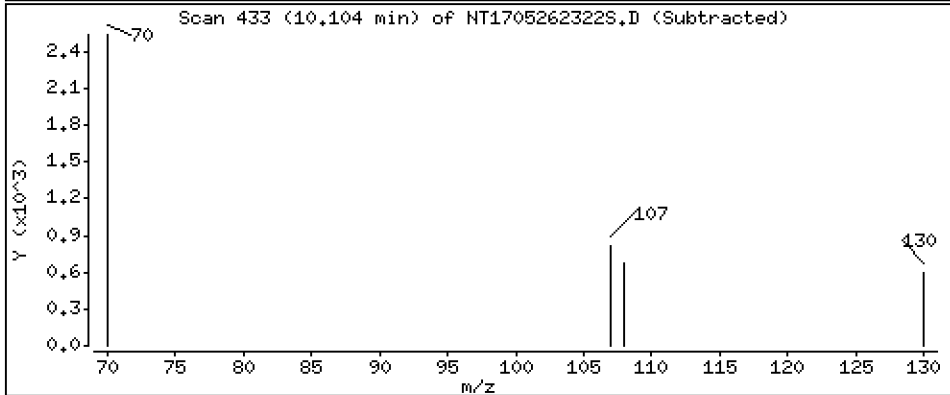
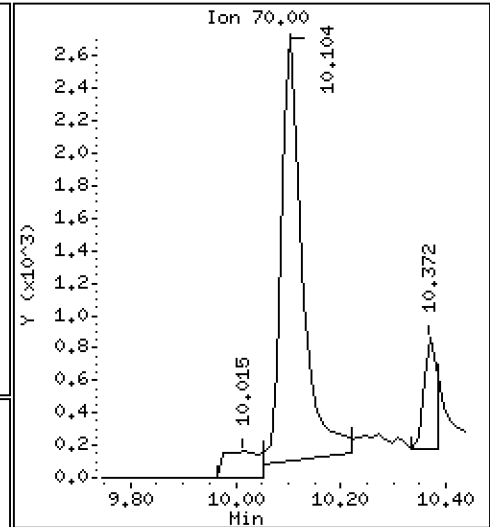
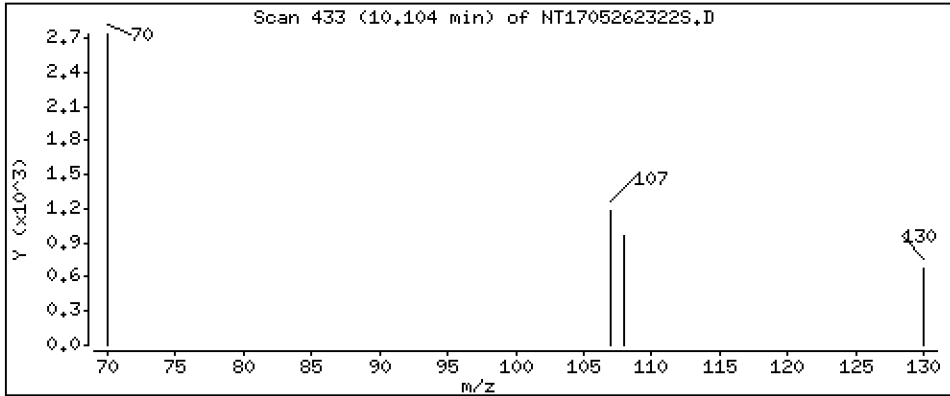
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,08532 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

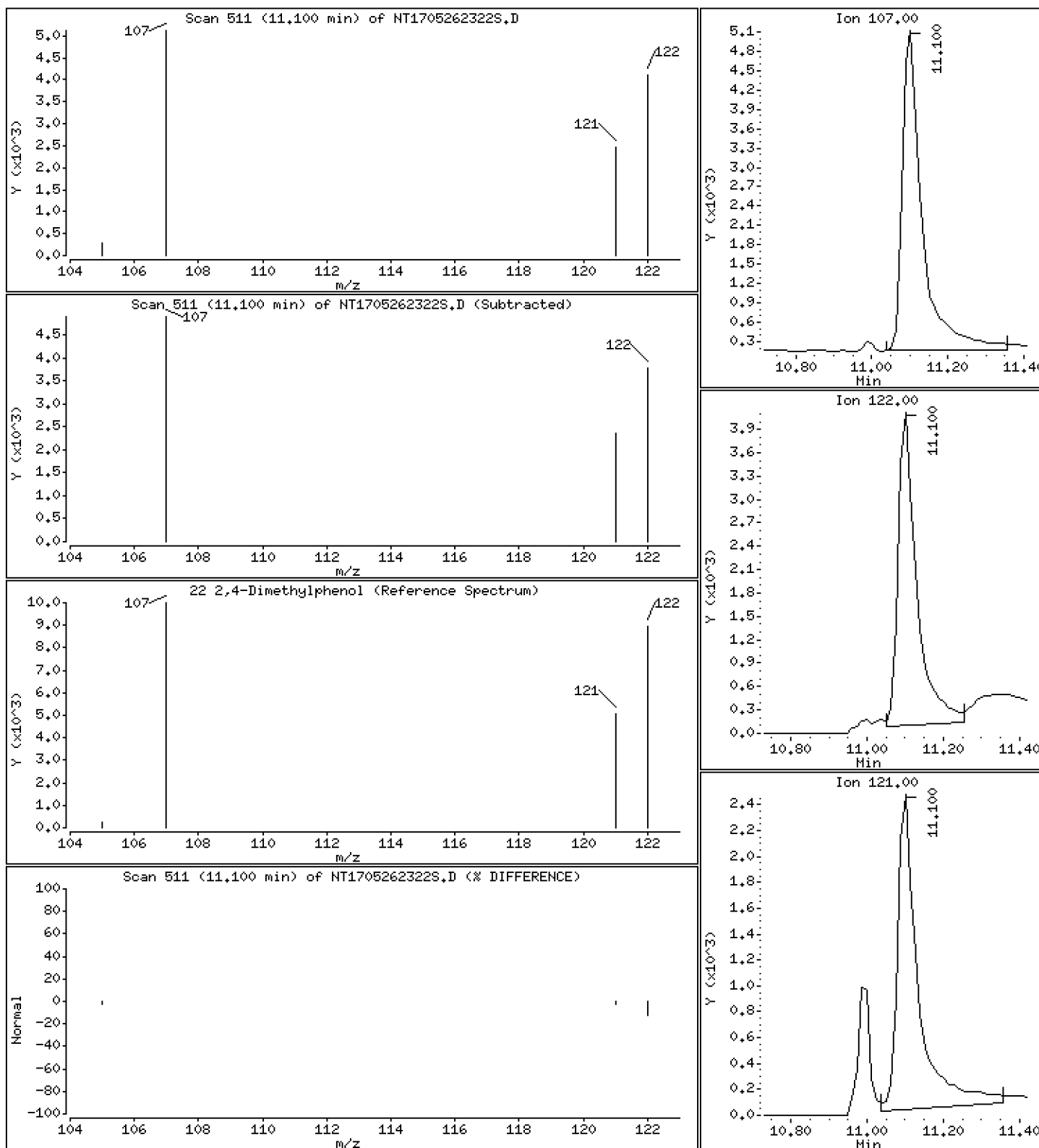
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,1674 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

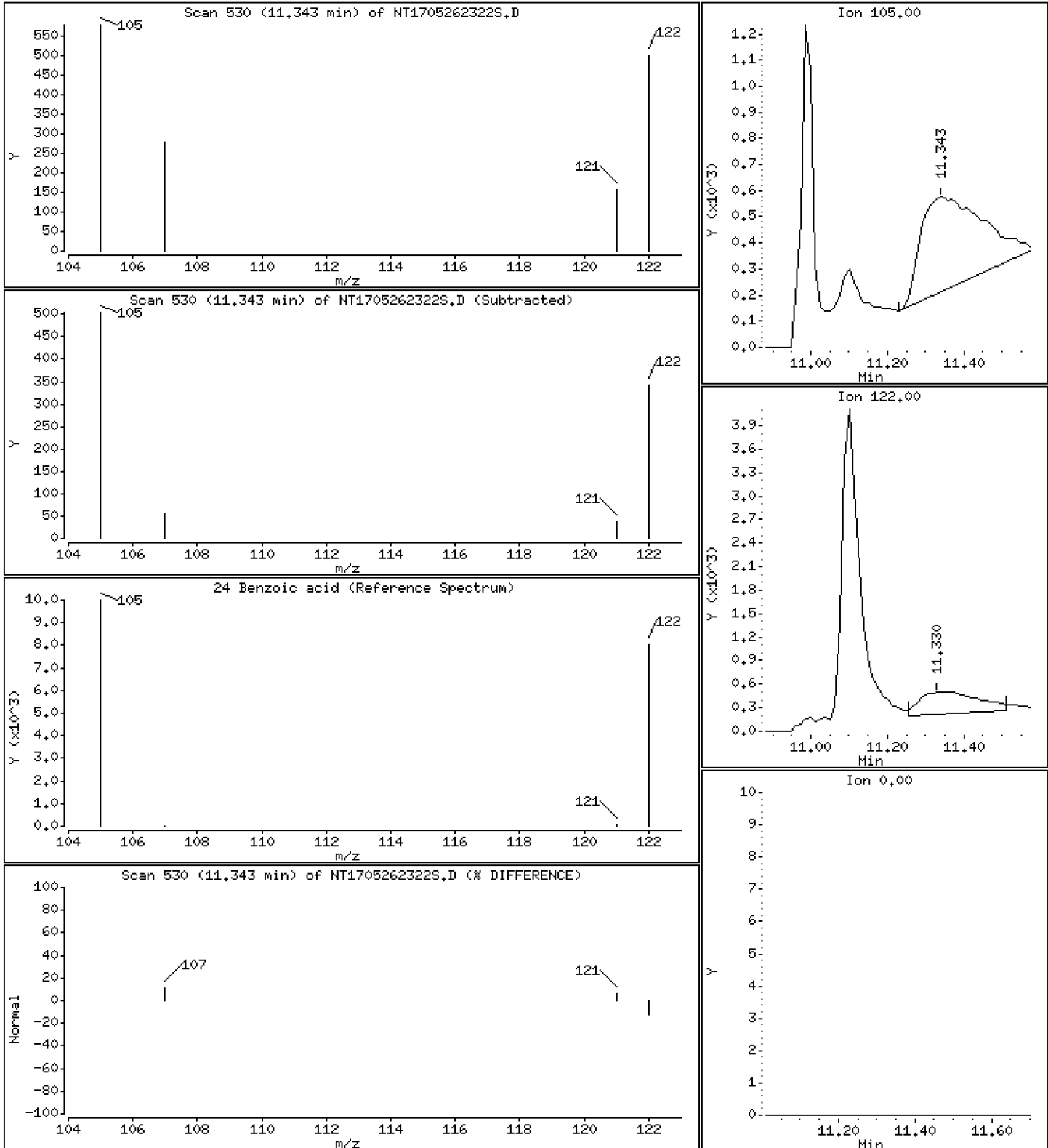
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,06335 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

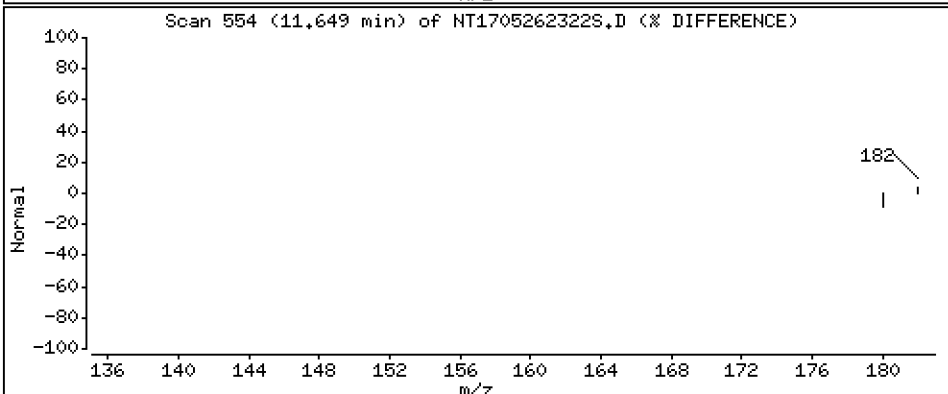
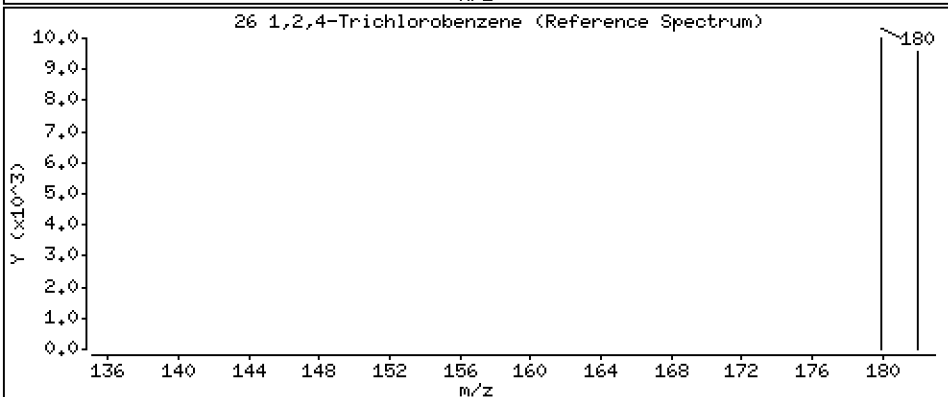
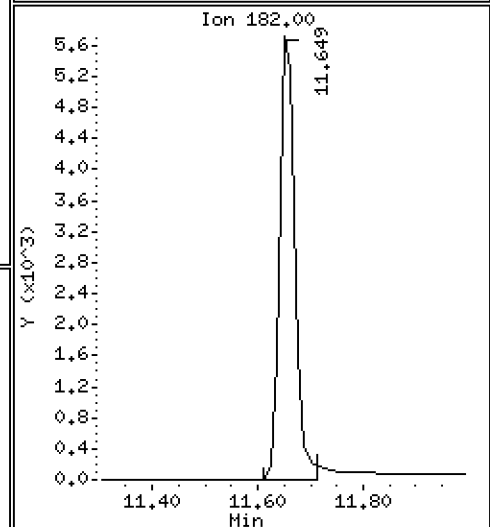
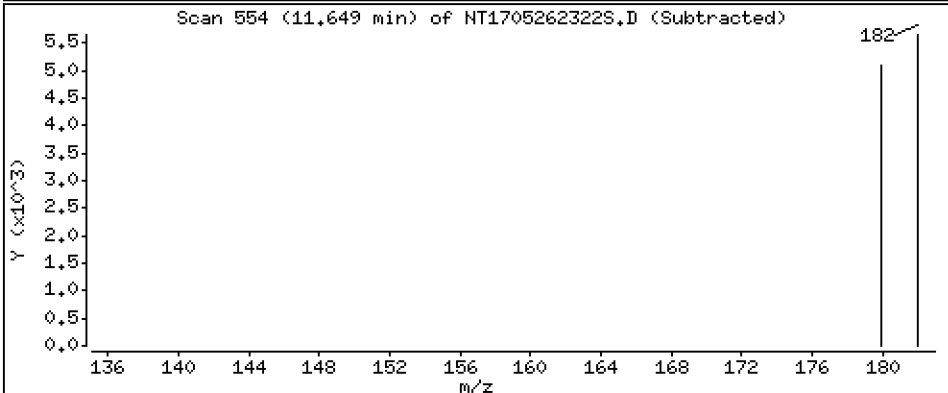
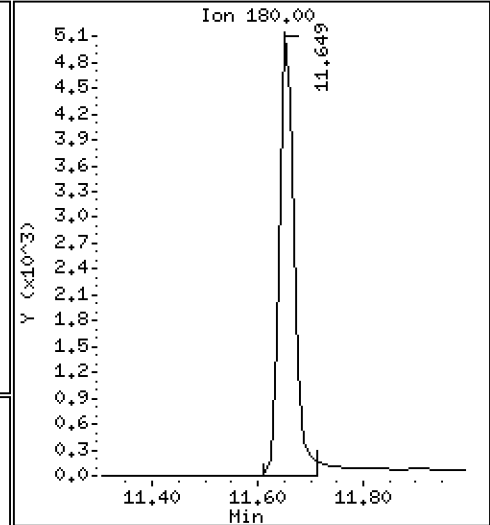
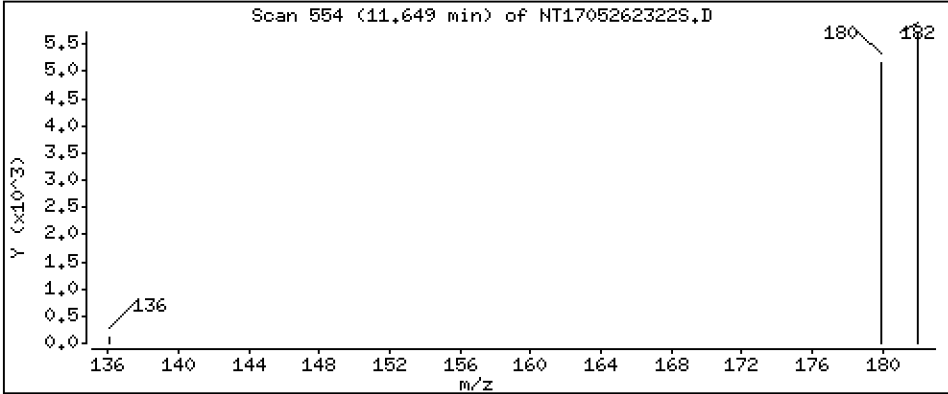
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,1037 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

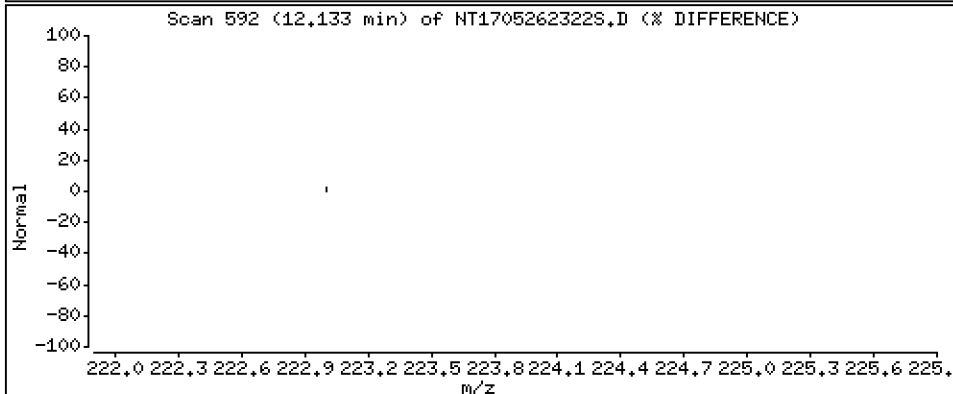
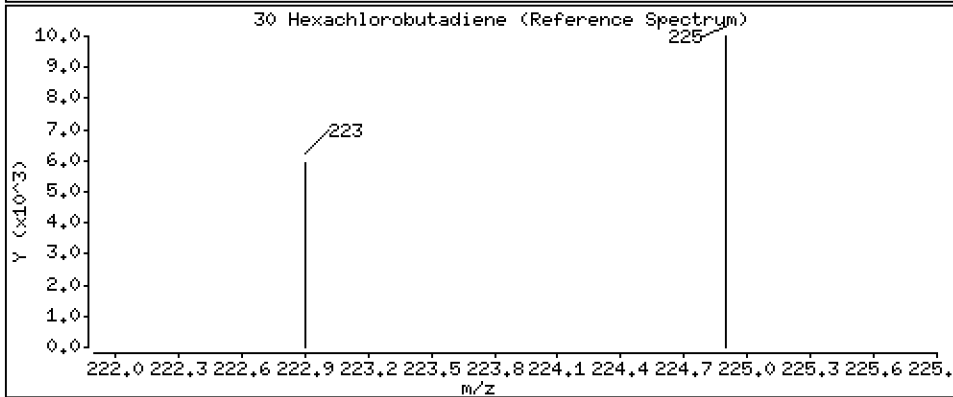
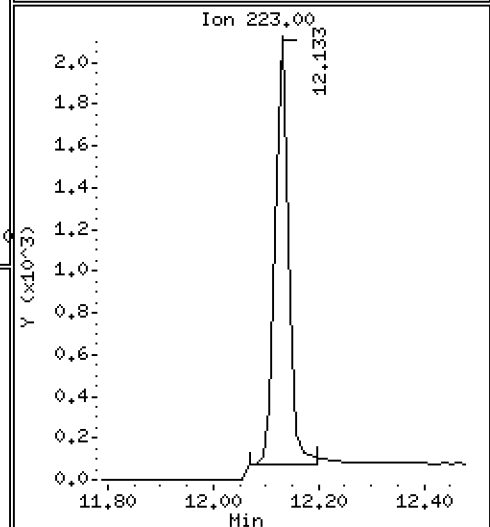
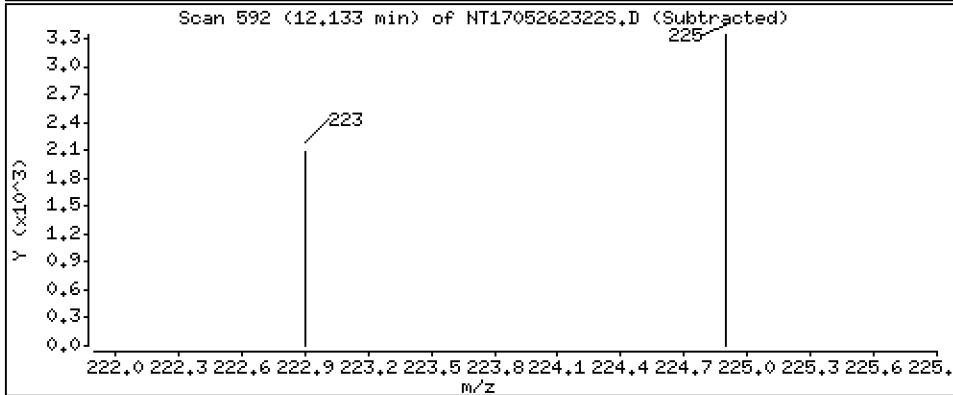
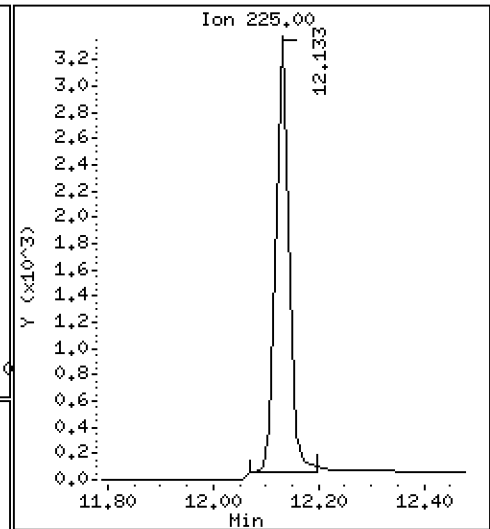
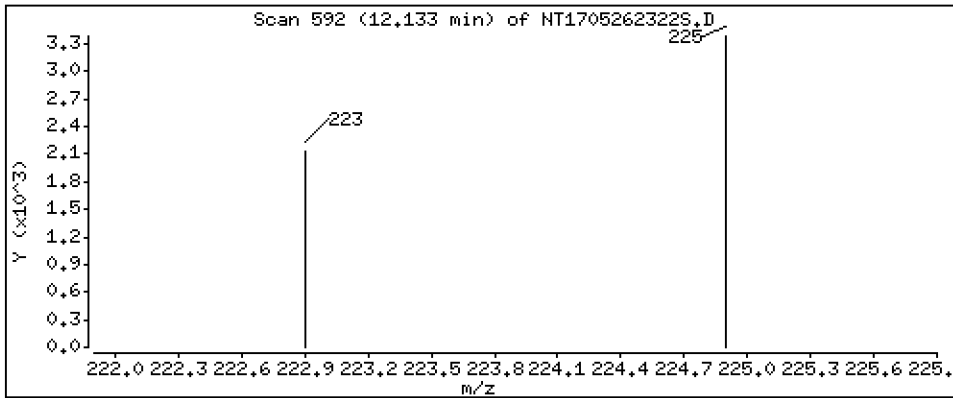
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,1119 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

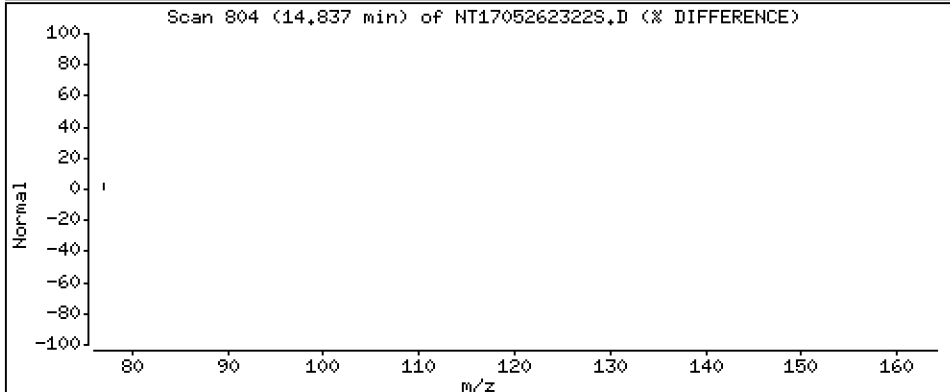
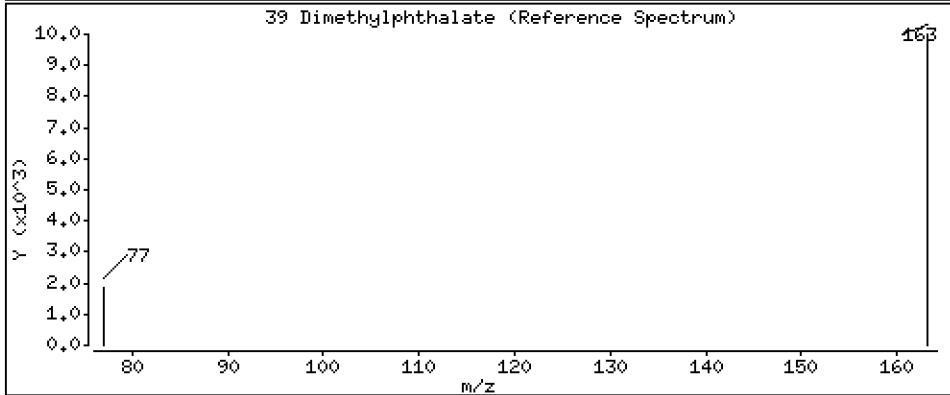
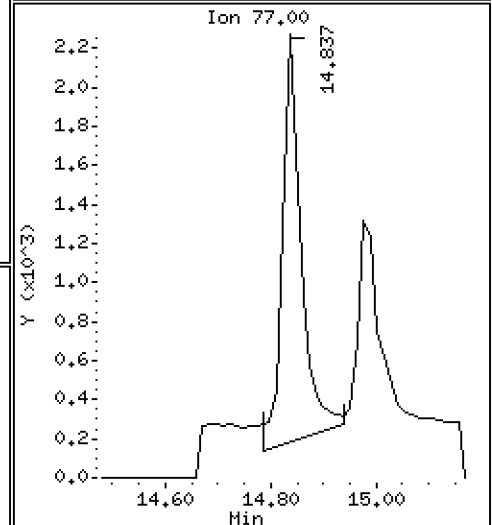
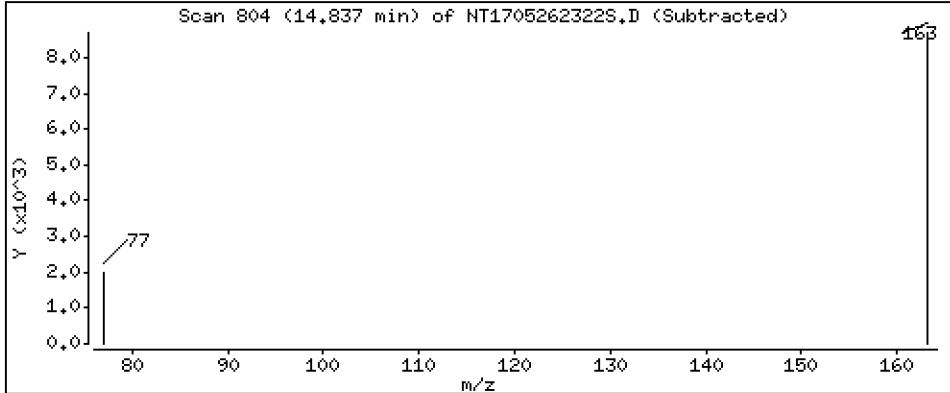
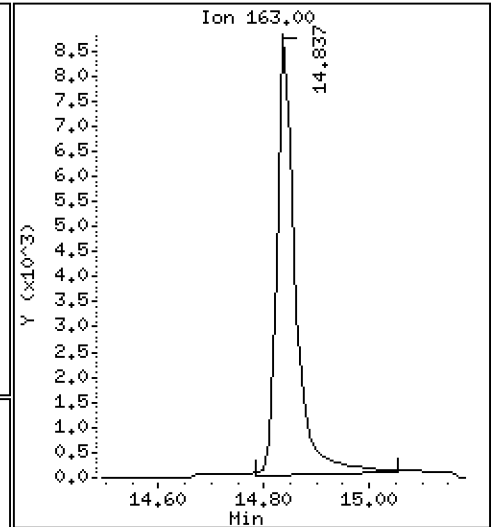
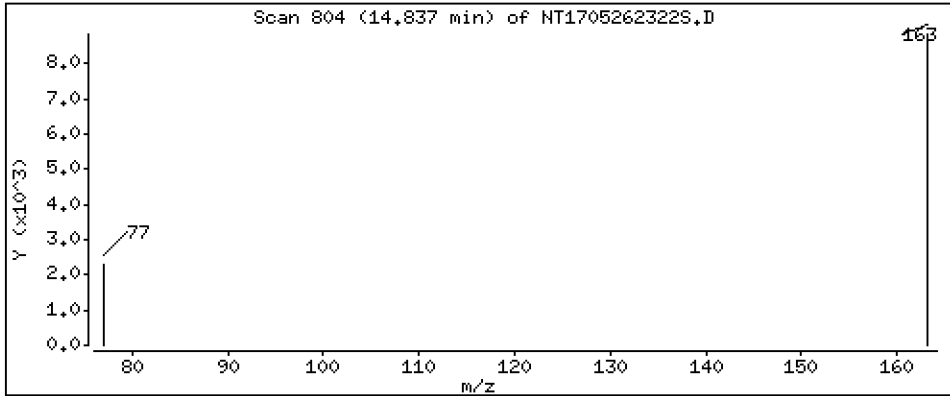
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,09559 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

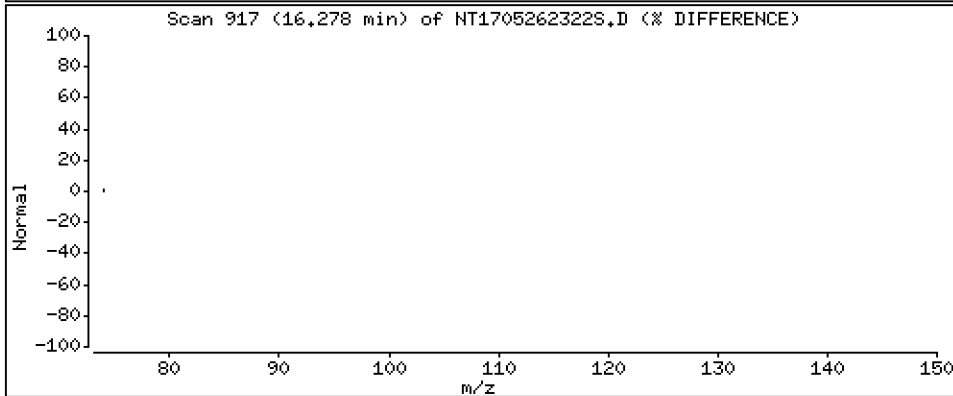
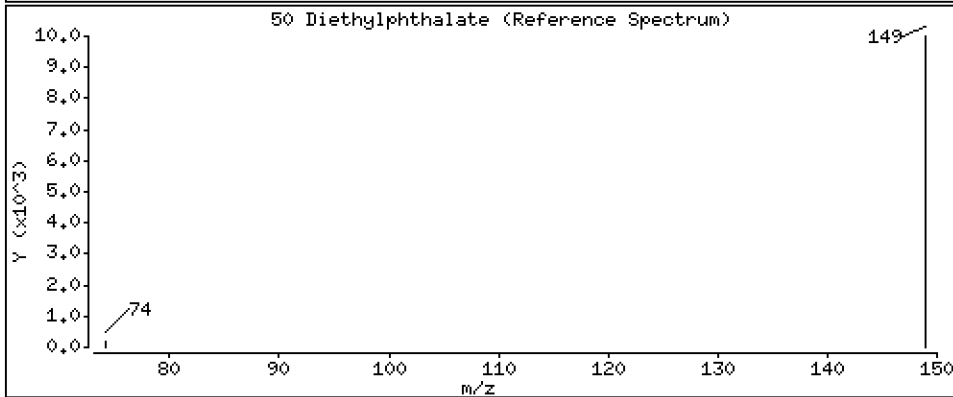
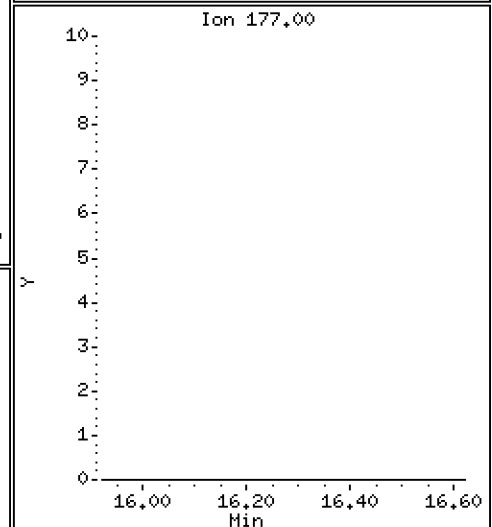
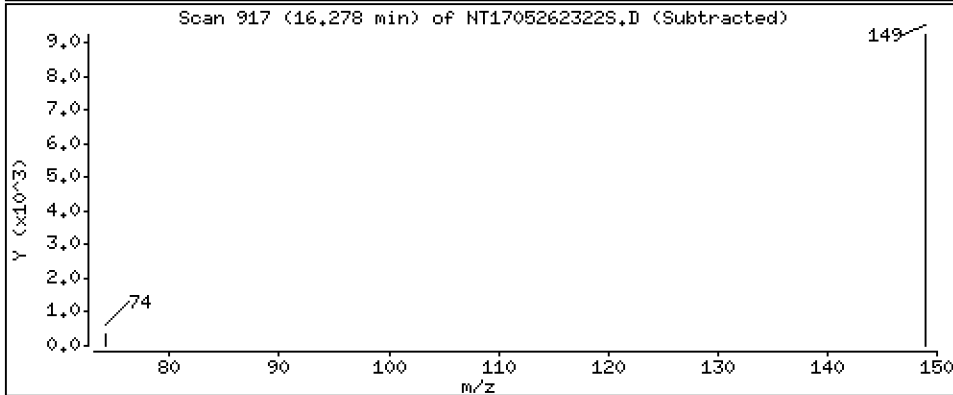
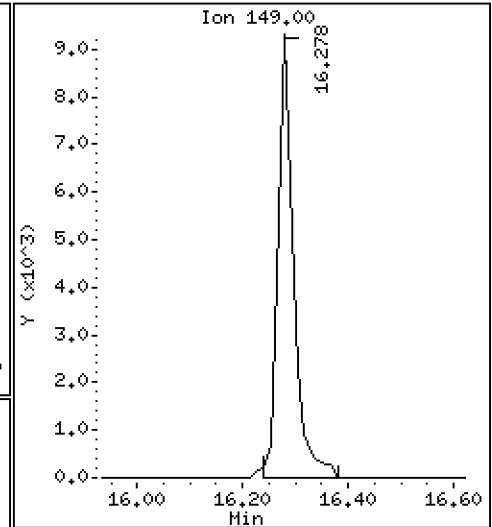
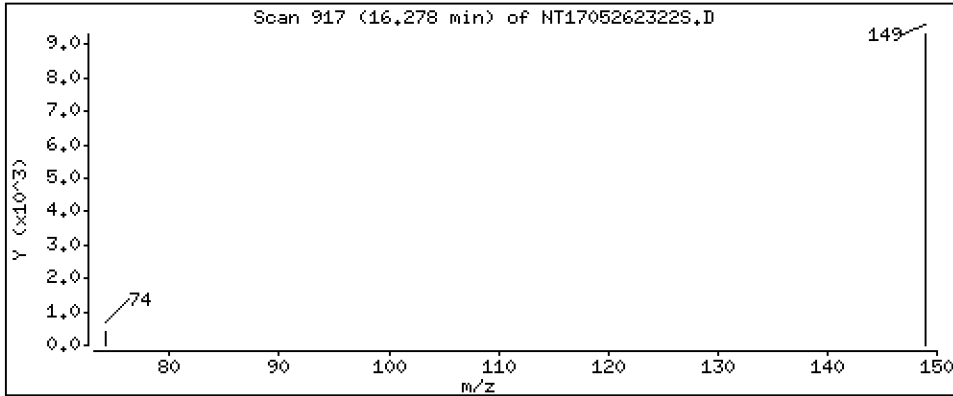
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,09510 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

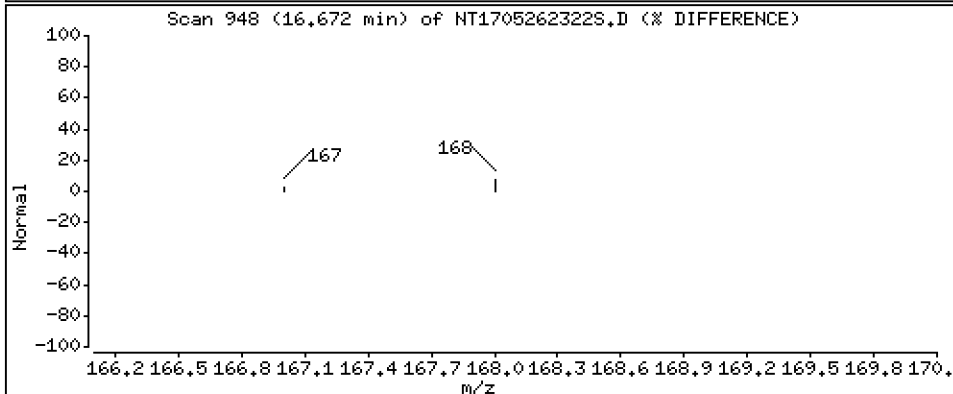
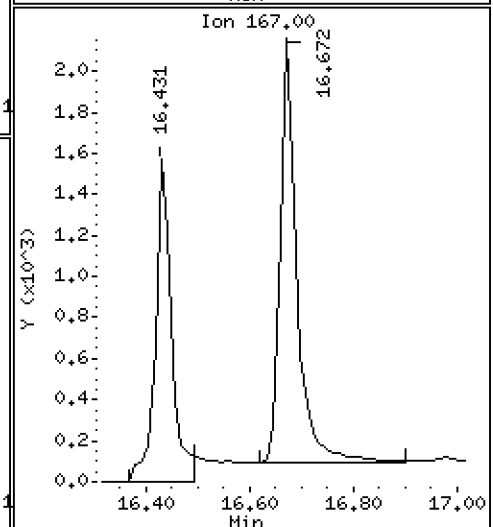
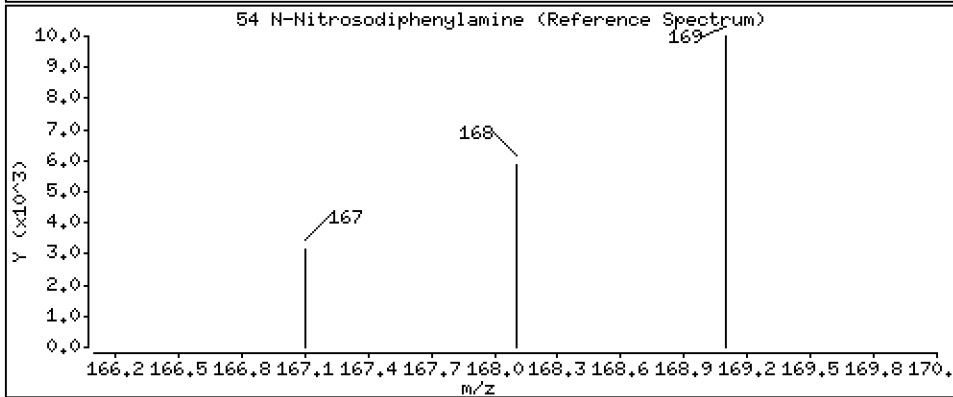
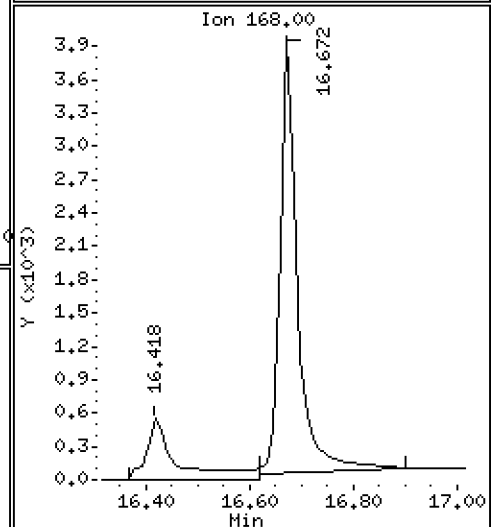
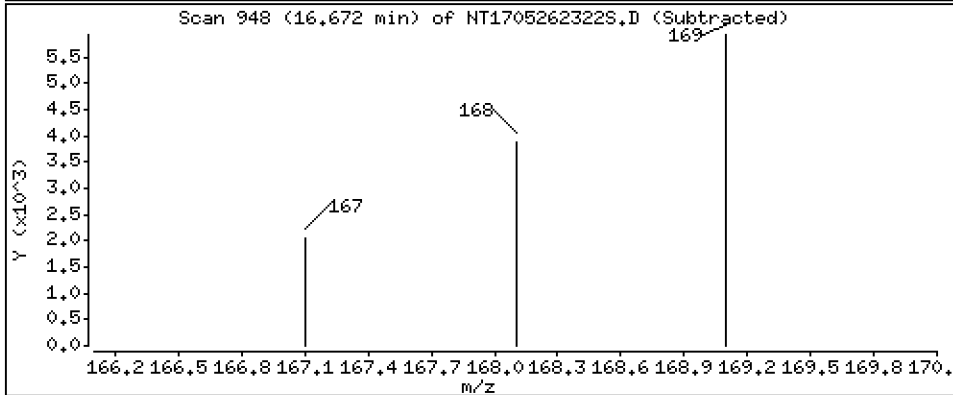
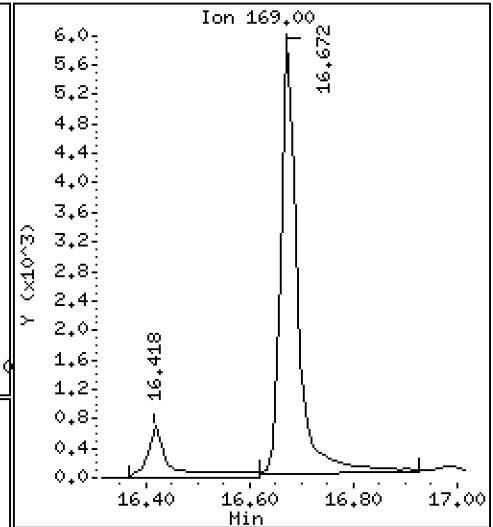
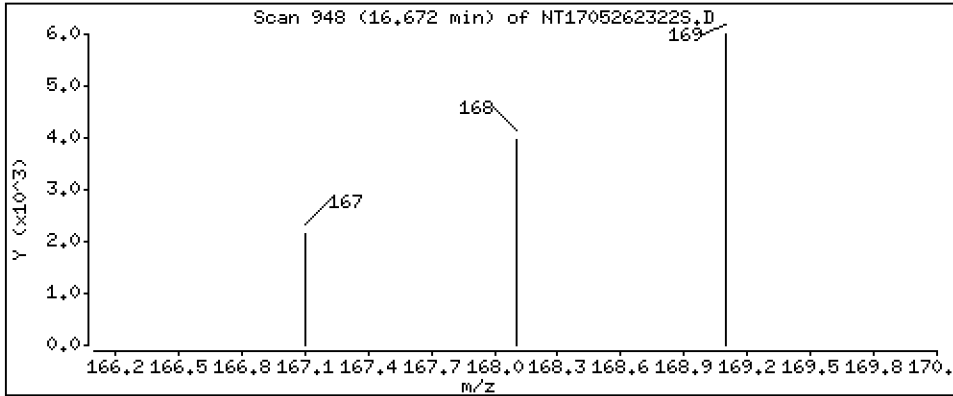
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,1083 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

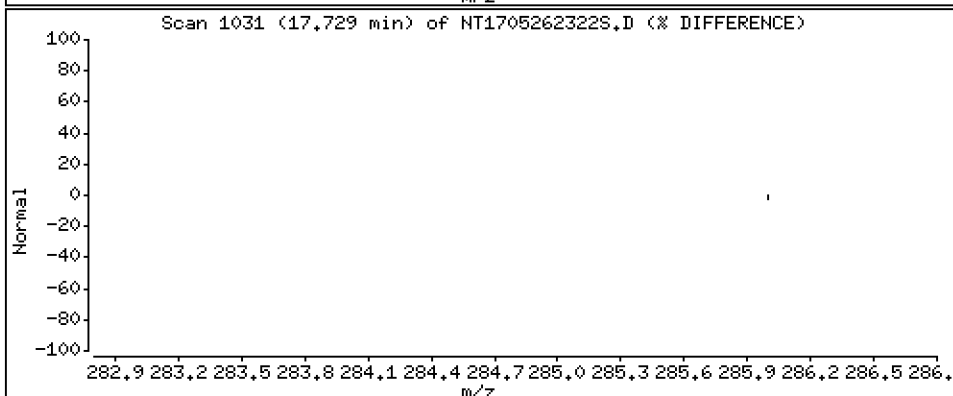
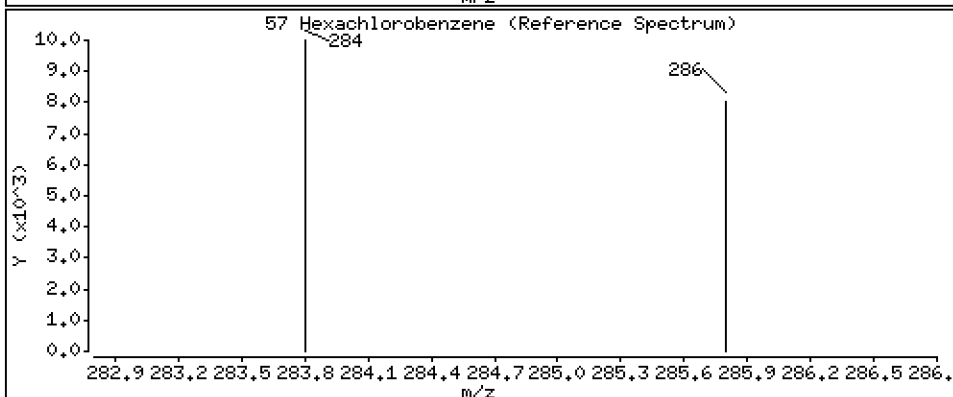
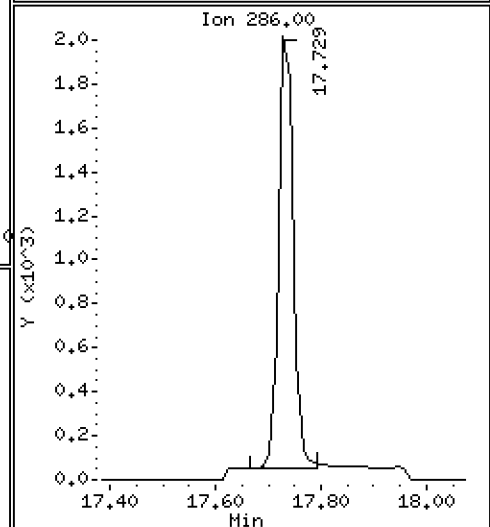
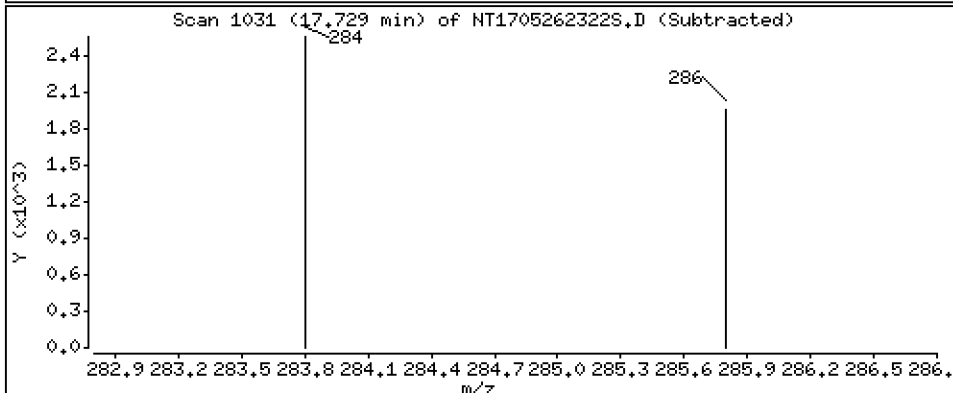
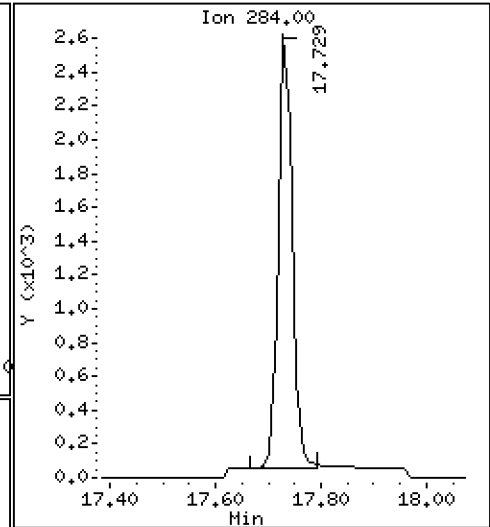
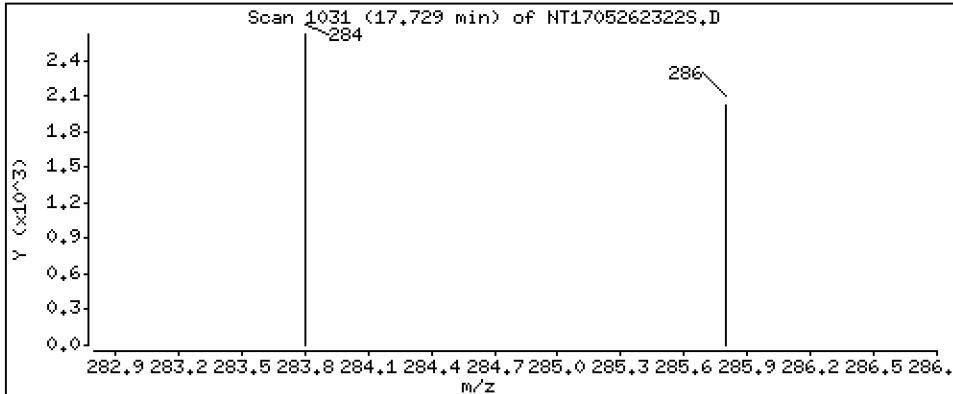
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,1154 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

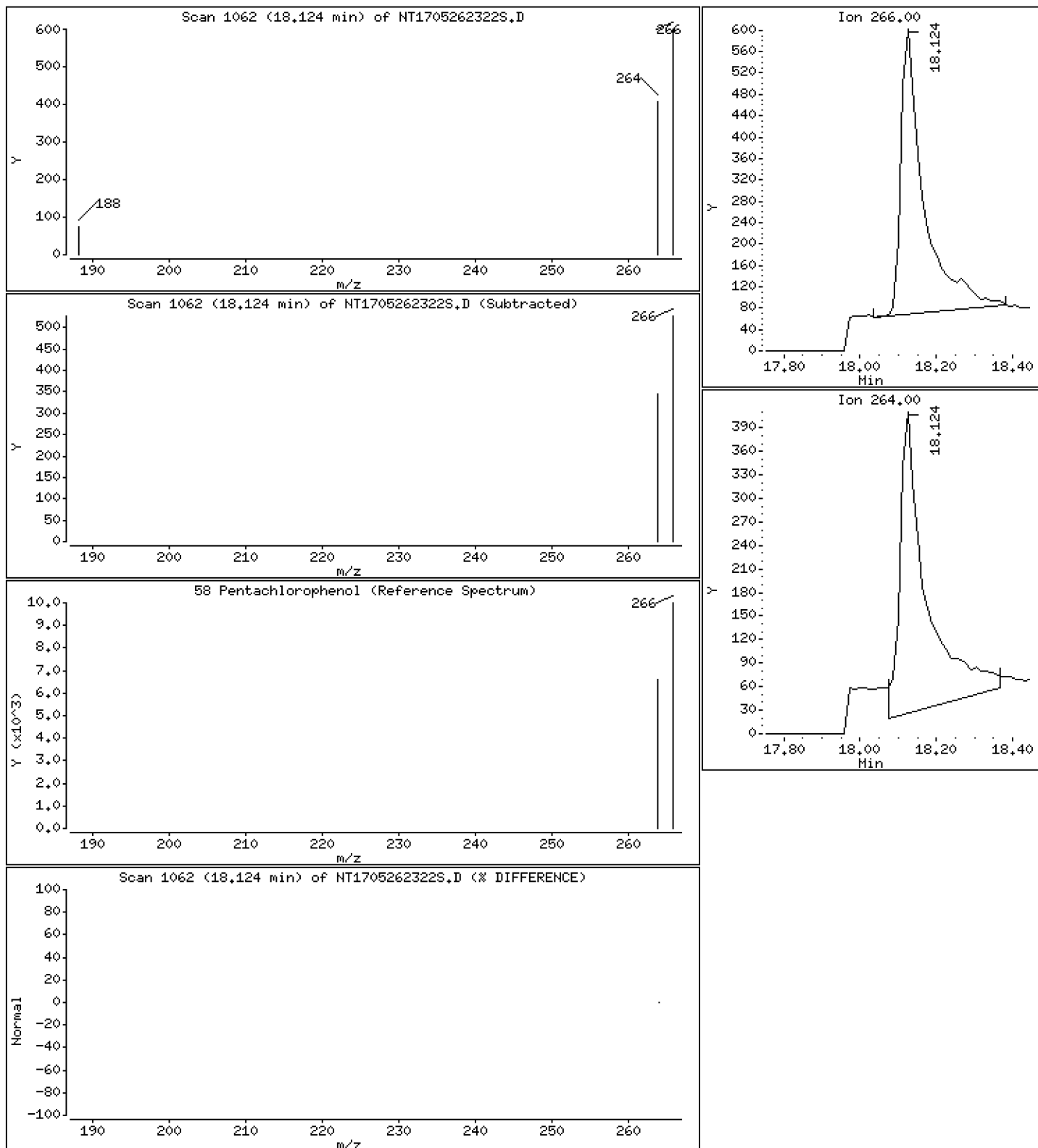
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,09590 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

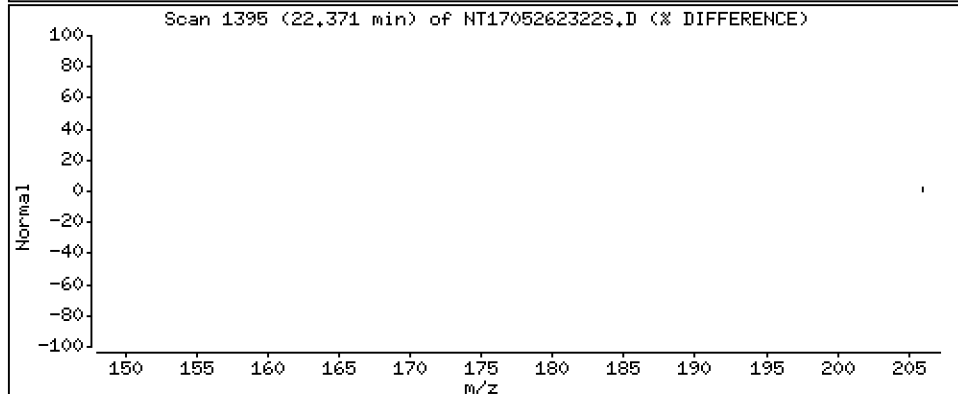
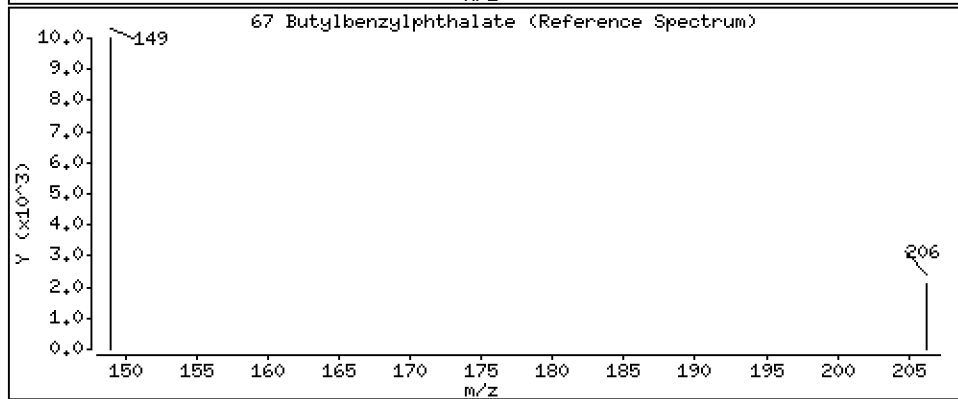
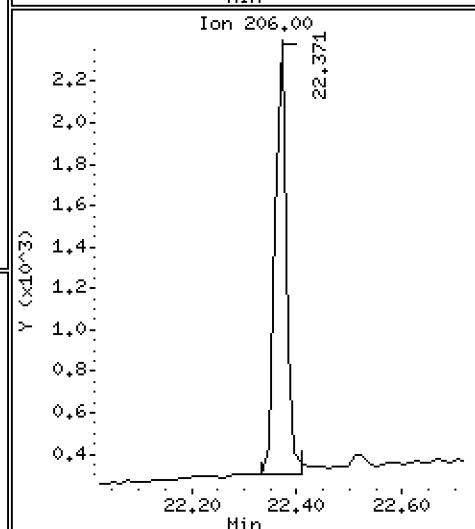
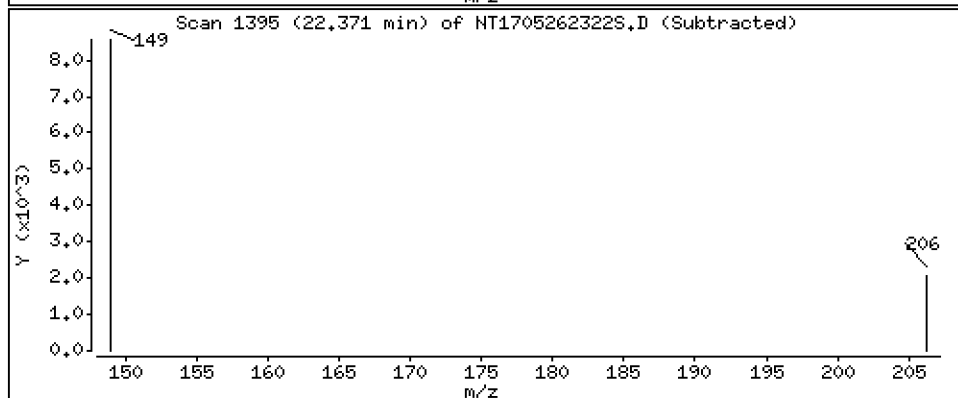
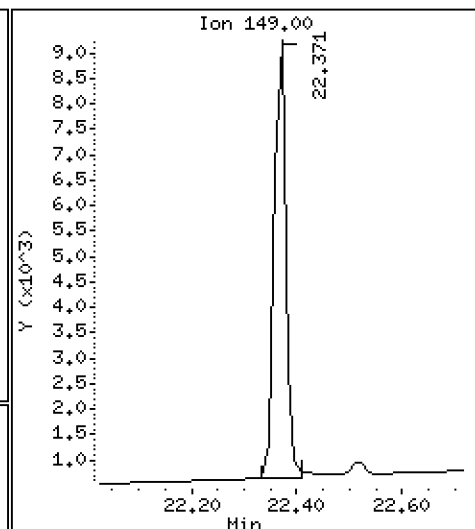
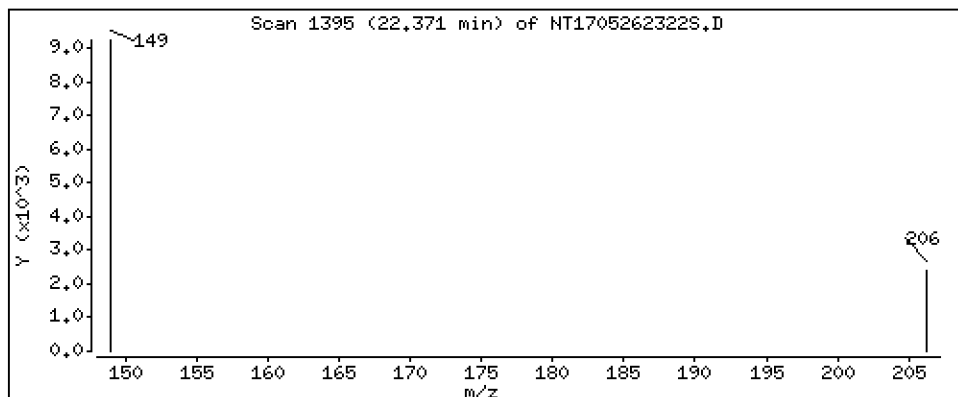
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,09043 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

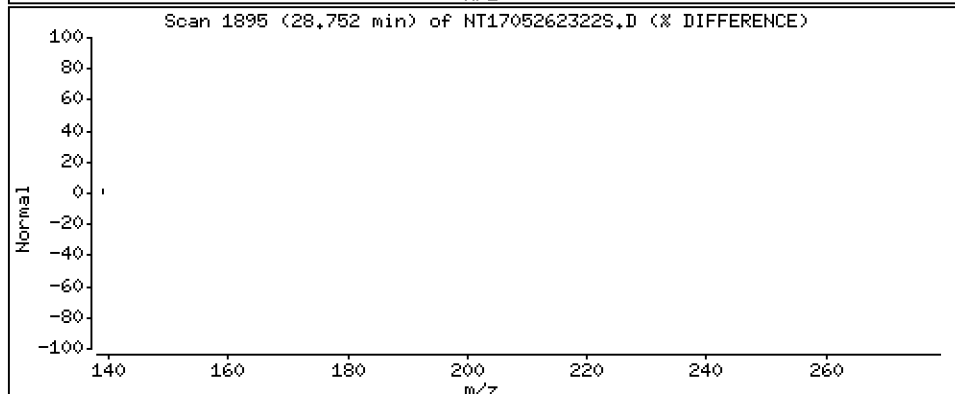
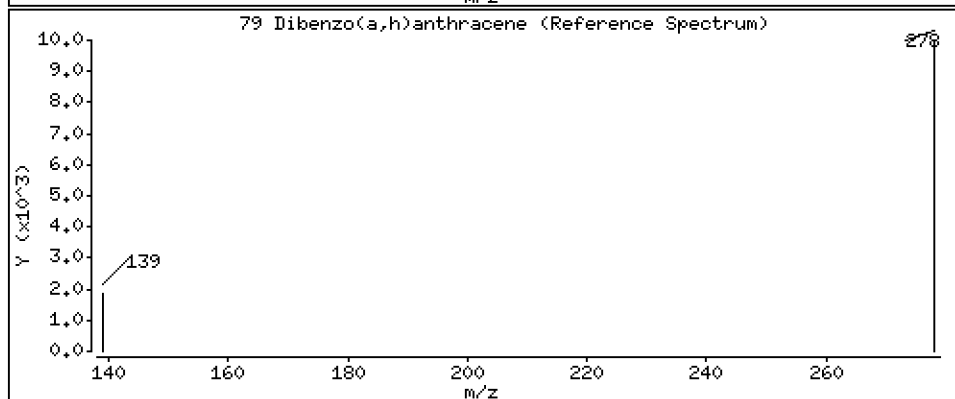
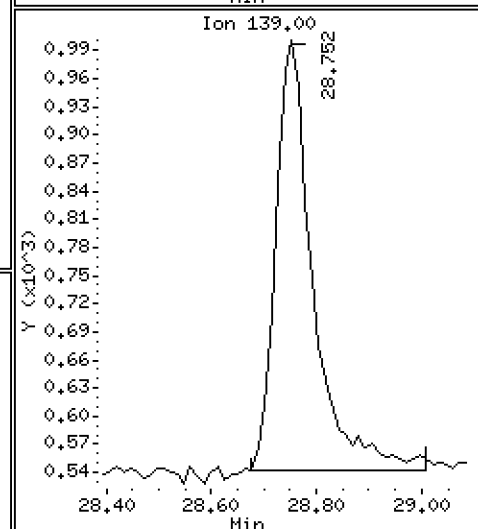
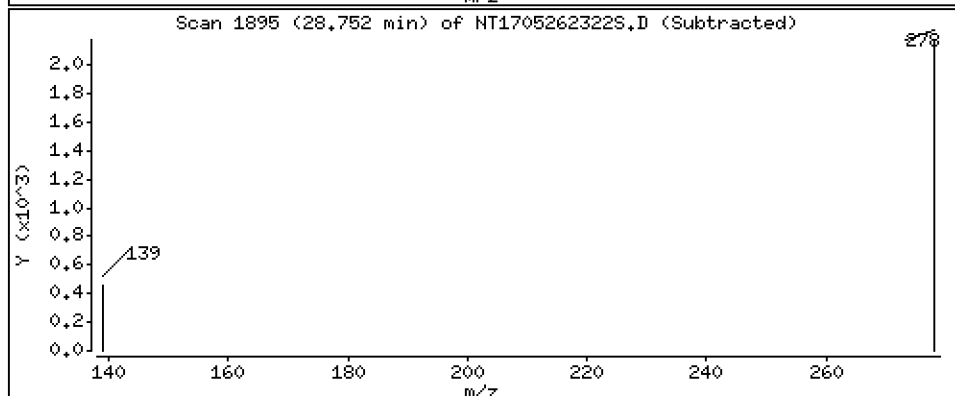
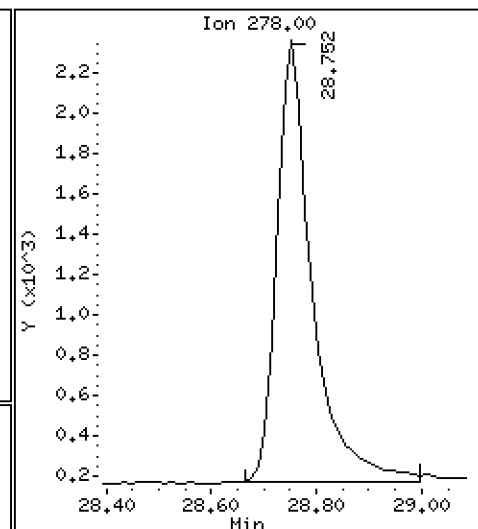
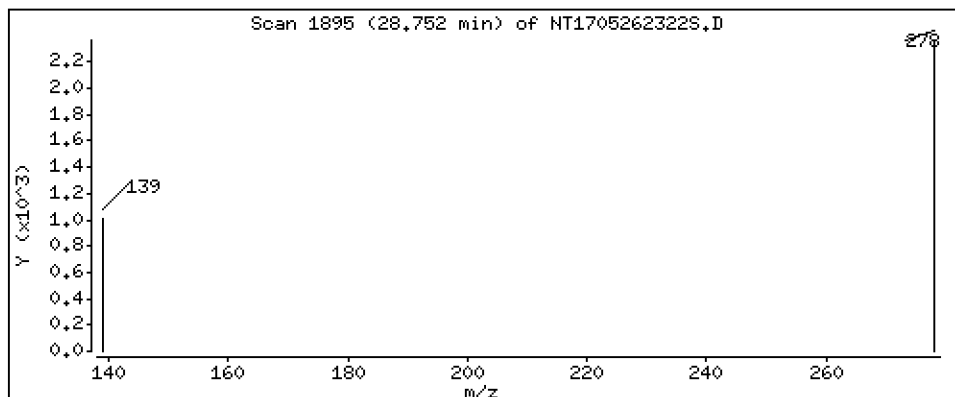
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,06016 ug/mL



Date : 27-MAY-2023 01:48

Client ID:

Instrument: nt17.i

Sample Info: SLE0442-LCV1

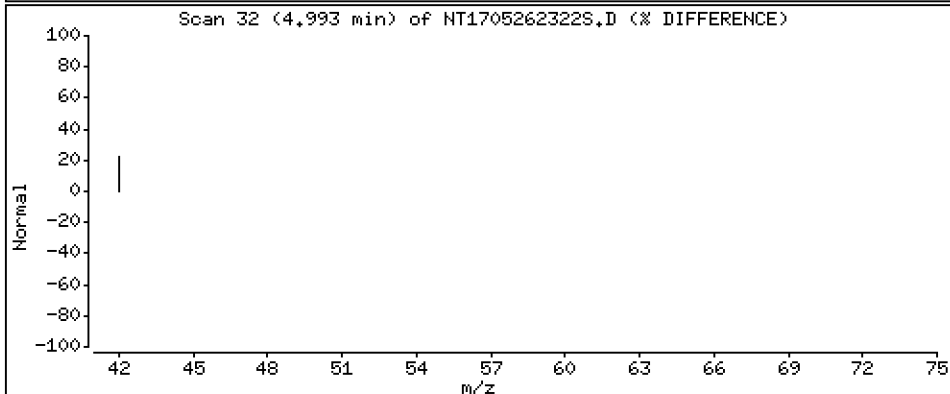
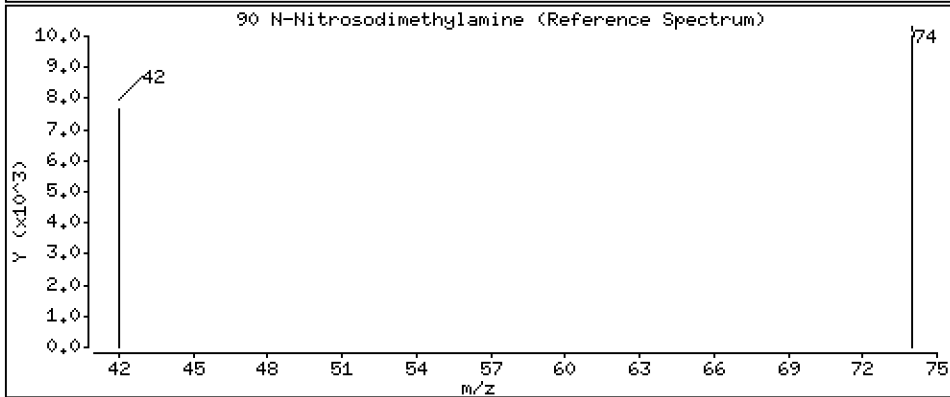
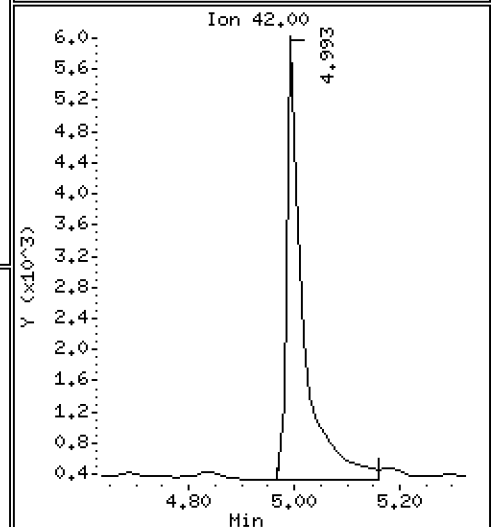
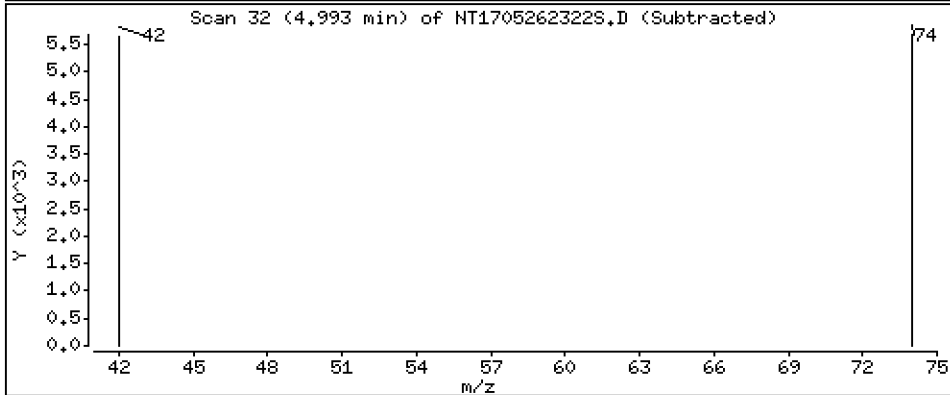
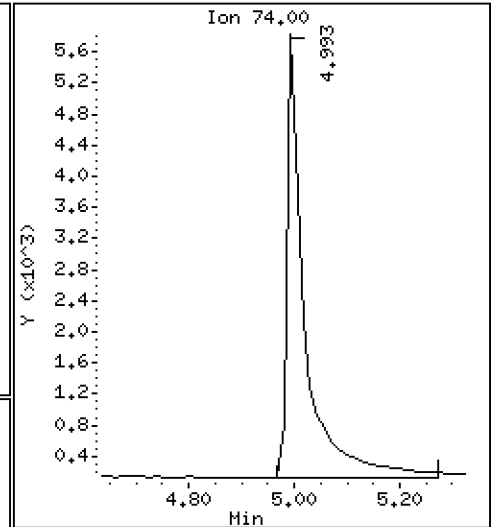
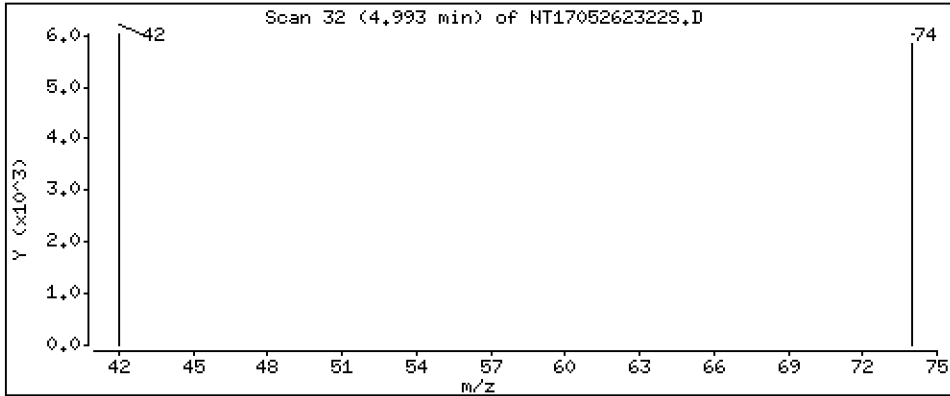
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.1887 ug/mL



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt17.i\20230526.b\SIM.b\NT1705262322S.D
 Lab Smp Id: SLE0442-LCV1
 Inj Date : 27-MAY-2023 01:48
 Operator : VTS
 Smp Info : SLE0442-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Meth Date : 07-Jun-2023 07:26 van
 Cal Date : 16-MAY-2023 23:51
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt17.i

Quant Type: ISTD
 Cal File: NT1705162310S.D

Compound Sublist: PSSDA.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.094	7.081	(0.765)	15103	0.13170	0.1317 (R)
3 Phenol	94		8.687	8.674	(0.937)	15727	0.09204	0.09204
7 1,3-Dichlorobenzene	146		9.209	9.209	(0.993)	16052	0.10481	0.1048
* 8 1,4-Dichlorobenzene-d4	152		9.273	9.273	(1.000)	379141	4.00000	
9 1,4-Dichlorobenzene	146		9.299	9.299	(1.003)	16165	0.10831	0.1083
11 Benzyl alcohol	79		9.605	9.554	(1.036)	7459	0.07661	0.07661
12 1,2-Dichlorobenzene	146		9.656	9.656	(1.041)	15049	0.10288	0.1029
13 2-Methylphenol	108		9.797	9.771	(1.056)	9064	0.07655	0.07655
15 4-Methylphenol	108		10.065	10.040	(1.085)	7376	0.06164	0.06164
16 N-Nitroso-di-n-propylamine	70		10.104	10.091	(1.090)	7358	0.08532	0.08532
22 2,4-Dimethylphenol	107		11.100	11.062	(0.946)	18092	0.16745	0.1674
24 Benzoic acid	105		11.342	11.228	(0.966)	4264	0.06335	0.06335 (MH)
26 1,2,4-Trichlorobenzene	180		11.649	11.649	(0.992)	10164	0.10368	0.1037
* 27 Naphthalene-d8	136		11.738	11.738	(1.000)	1123230	4.00000	
30 Hexachlorobutadiene	225		12.133	12.133	(1.034)	5778	0.11194	0.1119
39 Dimethylphthalate	163		14.837	14.837	(0.968)	21352	0.09559	0.09559
* 42 Acenaphthene-d10	162		15.334	15.334	(1.000)	608264	4.00000	
50 Diethylphthalate	149		16.277	16.277	(1.062)	19292	0.09510	0.09510
54 N-Nitrosodiphenylamine	169		16.672	16.659	(0.908)	13226	0.10828	0.1083
57 Hexachlorobenzene	284		17.728	17.728	(0.966)	4780	0.11536	0.1154
58 Pentachlorophenol	266		18.124	18.098	(0.987)	2238	0.09590	0.09590 (M)
* 59 Phenanthrene-d10	188		18.353	18.353	(1.000)	866998	4.00000	
\$ 66 Terphenyl-d14	244		21.465	21.452	(0.919)	13439	0.09629	0.09629 (R)
67 Butylbenzylphthalate	149		22.370	22.370	(0.958)	13715	0.09043	0.09043
* 69 Chrysene-d12	240		23.353	23.353	(1.000)	735564	4.00000	
* 77 Perylene-d12	264		26.006	26.006	(1.000)	596830	4.00000	
79 Dibenzo(a,h)anthracene	278		28.752	28.739	(1.106)	10127	0.06016	0.06016
90 N-Nitrosodimethylamine	74		4.992	4.979	(0.538)	13968	0.18872	0.1887

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
 M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt17.i
 Lab File ID: NT1705262322S.D
 Lab Smp Id: SLE0442-LCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt17.i\20230526.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 27-MAY-2023
 Calibration Time: 00:33
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	375423	187712	750846	379141	0.99
27 Naphthalene-d8	1173037	586519	2346074	1123230	-4.25
42 Acenaphthene-d10	638940	319470	1277880	608264	-4.80
59 Phenanthrene-d10	901788	450894	1803576	866998	-3.86
69 Chrysene-d12	767966	383983	1535932	735564	-4.22
77 Perylene-d12	642149	321075	1284298	596830	-7.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.27	8.77	9.77	9.27	0.00
27 Naphthalene-d8	11.74	11.24	12.24	11.74	0.00
42 Acenaphthene-d10	15.33	14.83	15.83	15.33	0.00
59 Phenanthrene-d10	18.35	17.85	18.85	18.35	0.00
69 Chrysene-d12	23.35	22.85	23.85	23.35	0.00
77 Perylene-d12	26.01	25.51	26.51	26.01	0.00

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

REVIEW SUMMARY FOR FILE - NT1705262322S.D

Lab ID: SLE0442-LCV1

nt17.i, 20230526.b\SIM.b\SIMABN2.m, 27-MAY-2023 01:48

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.036	1.030	0.0055	Benzyl alcohol
0.966	0.957	0.0098	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1705262320S.D

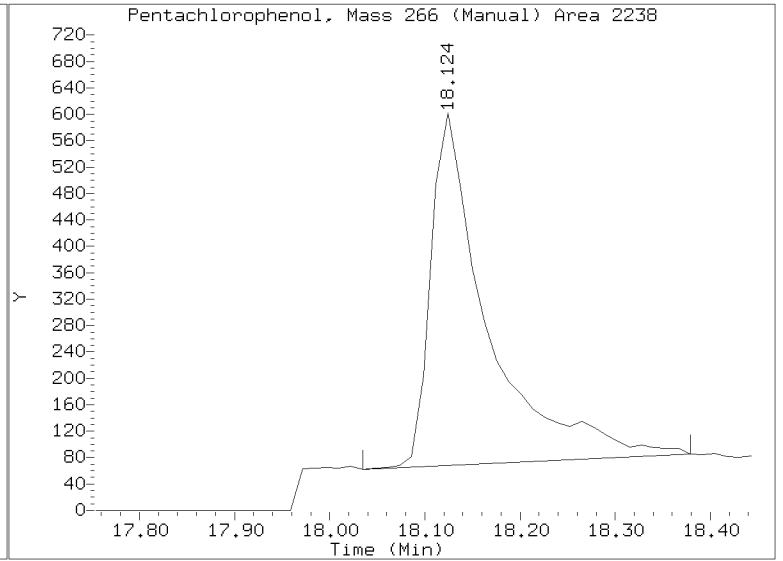
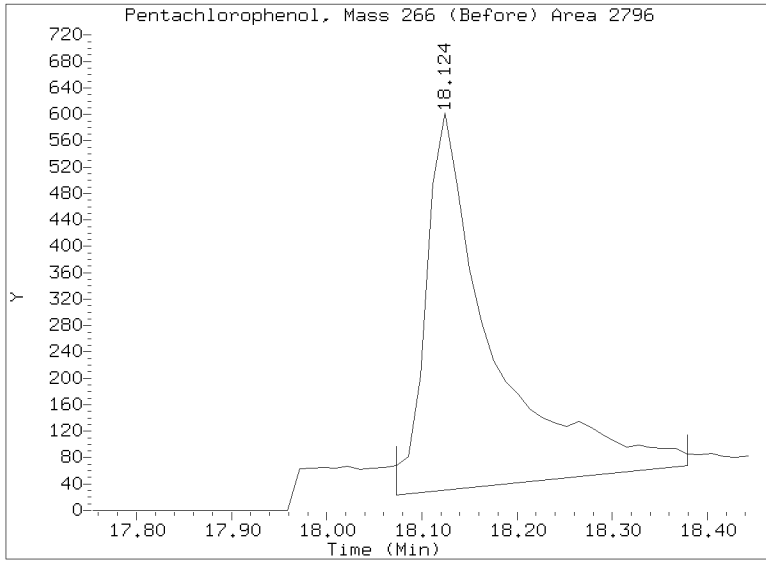
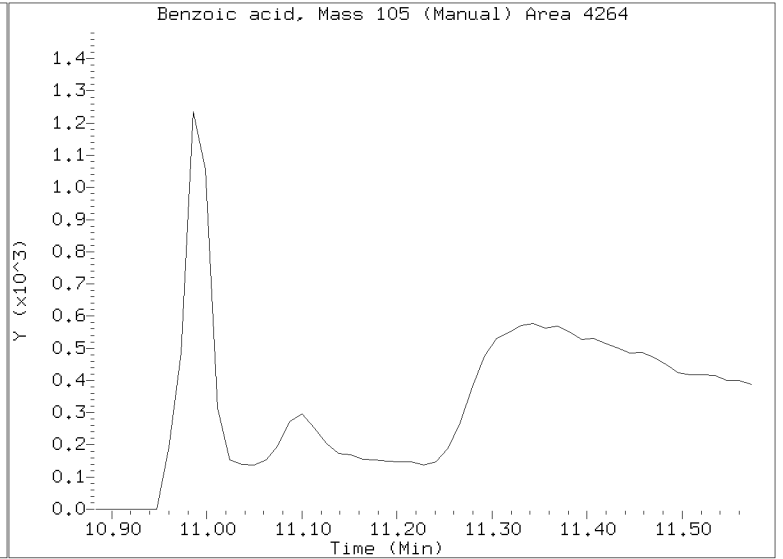
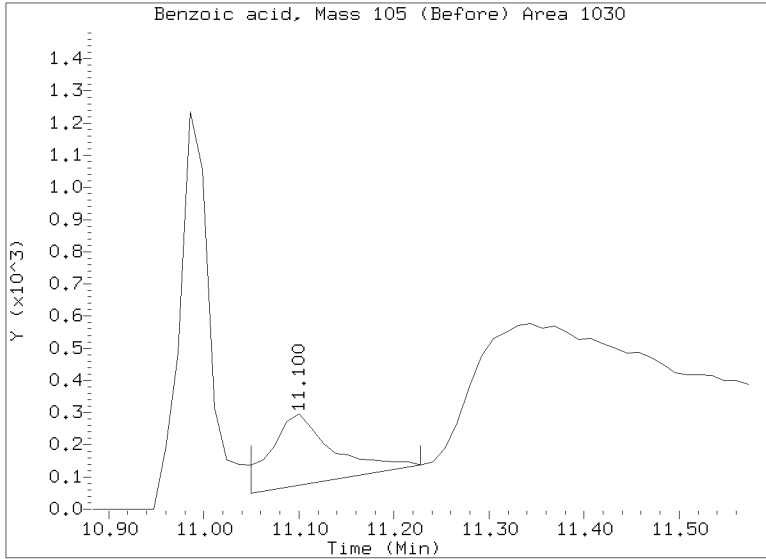
On Column LOD for nt17.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

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

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt17.i/20230526.b/SIM.b/NT1705262322S.D
Injection Date: 27-MAY-2023 01:48
Lab ID: SLE0442-LCV1 Client ID:
Report Date: 06/07/2023 07:57





ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0339

Instrument: NT17

Calibration: GE00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0339-TUN1	NT1705162301S.D	NA	05/16/23 18:14
CAL 10.0	SLE0339-CAL8	NT1705162303S.D	NA	05/16/23 19:29
CAL 5.0	SLE0339-CAL7	NT1705162304S.D	NA	05/16/23 20:07
CAL 2.5	SLE0339-CAL6	NT1705162305S.D	NA	05/16/23 20:44
CAL 1.0	SLE0339-CAL5	NT1705162306S.D	NA	05/16/23 21:22
CAL 0.50	SLE0339-CAL4	NT1705162307S.D	NA	05/16/23 21:59
CAL 0.20	SLE0339-CAL3	NT1705162308S.D	NA	05/16/23 22:37
CAL 0.10	SLE0339-CAL2	NT1705162309S.D	NA	05/16/23 23:14
CAL 0.05	SLE0339-CAL1	NT1705162310S.D	NA	05/16/23 23:51
SCV 5.0	SLE0339-SCV1	NT1705162311S.D	NA	05/17/23 00:29
Initial Cal Blank	SLE0339-ICB1	NT1705162312S.D	NA	05/17/23 01:07



ANALYSIS SEQUENCE

SLE0339

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
Calibration ID: GE00070 GCMS Column ID: L004289
MS EM Level: 1450 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0339-TUN1	MS Tune	QC		1	L005516		05/16/2023 18:14	NT1705162301S.D	VTS	
SLE0339-CAL8	CAL 10.0	QC		2	K011110	K010831	05/16/2023 19:29	NT1705162303S.D	JGR	
SLE0339-CAL7	CAL 5.0	QC		3	K011109	K010831	05/16/2023 20:07	NT1705162304S.D	JGR	
SLE0339-CAL6	CAL 2.5	QC		4	K011108	K010831	05/16/2023 20:44	NT1705162305S.D	JGR	
SLE0339-CAL5	CAL 1.0	QC		5	K011107	K010831	05/16/2023 21:22	NT1705162306S.D	JGR	
SLE0339-CAL4	CAL 0.50	QC		6	K011106	K010831	05/16/2023 21:59	NT1705162307S.D	JGR	
SLE0339-CAL3	CAL 0.20	QC		7	K011105	K010831	05/16/2023 22:37	NT1705162308S.D	JGR	
SLE0339-CAL2	CAL 0.10	QC		8	L002877	K010831	05/16/2023 23:14	NT1705162309S.D	JGR	
SLE0339-CAL1	CAL 0.05	QC		9	L002878	K010831	05/16/2023 23:51	NT1705162310S.D	JGR	
SLE0339-SCV1	SCV 5.0	QC		10	K010066	K010831	05/17/2023 00:29	NT1705162311S.D	JGR	
SLE0339-ICB1	Initial Cal Blank	QC		11	K005156	K010831	05/17/2023 01:07	NT1705162312S.D	JGR	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230516.b\SIM.b

Instrument: nt17.i Date: 16-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1814	NT1705162301S.D	SLE0339-TUN1	1	NO MANUAL INTEGRATION
1929	NT1705162303S.D	SLE0339-CAL8	1	Benzoic acid,
2007	NT1705162304S.D	SLE0339-CAL7	1	Benzoic acid,
2044	NT1705162305S.D	SLE0339-CAL6	1	Benzoic acid,
2122	NT1705162306S.D	SLE0339-CAL5	1	Benzoic acid,
2159	NT1705162307S.D	SLE0339-CAL4	1	Benzoic acid,
2237	NT1705162308S.D	SLE0339-CAL3	1	Benzoic acid,
2314	NT1705162309S.D	SLE0339-CAL2	1	NO MANUAL INTEGRATION
2351	NT1705162310S.D	SLE0339-CAL1	1	Benzyl alcohol, Pentachlorophenol,
0029	NT1705162311S.D	SLE0339-SCV1	1	NO MANUAL INTEGRATION
0107	NT1705162312S.D	SLE0339-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 24-May-2023 07:10

NT1705162301S.D	Data Locked	van, 24-May-2023 07:10
NT1705162303S.D	Data Locked	van, 24-May-2023 07:10
NT1705162304S.D	Data Locked	van, 24-May-2023 07:10
NT1705162305S.D	Data Locked	van, 24-May-2023 07:10
NT1705162306S.D	Data Locked	van, 24-May-2023 07:10
NT1705162307S.D	Data Locked	van, 24-May-2023 07:10
NT1705162308S.D	Data Locked	van, 24-May-2023 07:10
NT1705162309S.D	Data Locked	van, 24-May-2023 07:10
NT1705162310S.D	Data Locked	van, 24-May-2023 07:10
NT1705162311S.D	Data Locked	van, 24-May-2023 07:10
NT1705162312S.D	Data Locked	van, 24-May-2023 07:10



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0442

Instrument: NT17

Calibration: GE00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLE0442-TUN1	NT1705262301S.D	NA	05/26/23 12:58
ABN 1.0	SLE0442-ICV1	NT1705262303S.D	NA	05/26/23 13:53
Blank	BLD0607-BLK2	NT1705262306S.D	Solid	05/26/23 15:47
LCS	BLD0607-BS2	NT1705262307S.D	Solid	05/26/23 16:25
LCS Dup	BLD0607-BSD2	NT1705262308S.D	Solid	05/26/23 17:02
Reference	BLD0607-SRM2	NT1705262311S.D	Solid	05/26/23 18:56
ZZZZZ	23D0394-01	NT1705262312S.D	Solid	05/26/23 19:33
ZZZZZ	23D0394-02	NT1705262313S.D	Solid	05/26/23 20:11
ZZZZZ	23D0394-04	NT1705262314S.D	Solid	05/26/23 20:48
ZZZZZ	23D0394-06	NT1705262315S.D	Solid	05/26/23 21:26
ZZZZZ	23D0394-08	NT1705262316S.D	Solid	05/26/23 22:03
ZZZZZ	23D0394-11	NT1705262317S.D	Solid	05/26/23 22:40
ZZZZZ	23D0394-12	NT1705262318S.D	Solid	05/26/23 23:18
ABN 1	SLE0442-ICV2	NT1705262320S.D	NA	05/27/23 00:33
ABN 0.1	SLE0442-LCV1	NT1705262322S.D	NA	05/27/23 01:48
LDW23-SS1801	23D0396-01	NT1705262323S.D	Solid	05/27/23 02:25
LDW23-SS1802	23D0396-03	NT1705262324S.D	Solid	05/27/23 03:02
Blank	BLD0607-BLK4	NT1705262327S.D	Solid	05/27/23 04:54
ABN 1.0	SLE0442-CCV1	NT1705262329S.D	NA	05/27/23 06:08



ANALYSIS SEQUENCE

SLE0442

Instrument ID: NT17 GCMS Description: Agilent 7890B/5977B
 Calibration ID: GE00070 GCMS Column ID: L004289
 MS EM Level: 1500 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLE0442-TUN1	MS Tune	QC		1	L005516		05/26/2023 12:58	NT1705262301S.D	JGR	
SLE0442-ICV1	ABN 1.0	QC		2	L005948	L001570	05/26/2023 13:53	NT1705262303S.D	JGR	
BLD0607-BLK2	Blank	QC		3		L001570	05/26/2023 15:47	NT1705262306S.D	VTS	
BLD0607-BS2	LCS	QC		4		L001570	05/26/2023 16:25	NT1705262307S.D	VTS	
BLD0607-BSD2	LCS Dup	QC		5		L001570	05/26/2023 17:02	NT1705262308S.D	VTS	
BLD0607-SRM2	Reference	QC		6		L001570	05/26/2023 18:56	NT1705262311S.D	VTS	
BLD0607-MS2	Matrix Spike	QC		7		L001570	05/26/2023 17:40	NT1705262309S.D	VTS	
BLD0607-MSD2	Matrix Spike Dup	QC		8		L001570	05/26/2023 18:18	NT1705262310S.D	VTS	
23D0394-01	LDW23-SS1098	270E-SIM Dual Scan SVO	A 02	9		L001570	05/26/2023 19:33	NT1705262312S.D	VTS	
23D0394-02	LDW23-SS1071	270E-SIM Dual Scan SVO	A 02	10		L001570	05/26/2023 20:11	NT1705262313S.D	VTS	
23D0394-04	LDW23-SS1078	270E-SIM Dual Scan SVO	A 02	11		L001570	05/26/2023 20:48	NT1705262314S.D	VTS	
23D0394-06	LDW23-SS1807	270E-SIM Dual Scan SVO	A 02	12		L001570	05/26/2023 21:26	NT1705262315S.D	VTS	
23D0394-08	LDW23-SS1055	270E-SIM Dual Scan SVO	A 02	13		L001570	05/26/2023 22:03	NT1705262316S.D	VTS	
23D0394-11	LDW23-SS1034	270E-SIM Dual Scan SVO	A 02	14		L001570	05/26/2023 22:40	NT1705262317S.D	VTS	
23D0394-12	LDW23-SS1806	270E-SIM Dual Scan SVO	A 02	15		L001570	05/26/2023 23:18	NT1705262318S.D	VTS	
SLE0442-ICV2	ABN 1	QC		16	L005948	L001570	05/27/2023 00:33	NT1705262320S.D	VTS	
SLE0442-LCV1	ABN 0.1	QC		17	L005953	L001570	05/27/2023 01:48	NT1705262322S.D	VTS	
23D0396-01	LDW23-SS1801	270E-SIM Dual Scan SVO	A 02	18		L001570	05/27/2023 02:25	NT1705262323S.D	VTS	
23D0396-03	LDW23-SS1802	270E-SIM Dual Scan SVO	A 02	19		L001570	05/27/2023 03:02	NT1705262324S.D	VTS	
BLD0607-BLK4	Blank	QC		20		L001570	05/27/2023 04:54	NT1705262327S.D	VTS	
SLE0442-CCV1	ABN 1.0	QC		21	L005948	L001570	05/27/2023 06:08	NT1705262329S.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b\SIM.b

Time	Filename	LabID	ClientId	DF
1	1258	NT1705262301S.D	SLE0442-TUN1	1 |NO ISTDs FOUND|
2	1353	NT1705262303S.D	SLE0442-ICV1	1 | 9.27 354937||11.74 1204481||15.33 658677||18.35 965415||23.35 615102||25.99 580660|
3	1431	NT1705262304S.D	SLE0434-LCV200	1 | 9.27 328321||11.74 1118326||15.32 617650||18.35 922083||23.35 615598||25.99 628559|
4	1509	NT1705262305S.D	SLE0442-LCV1	1 | 9.27 367704||11.74 1242714||15.32 677616||18.35 988775||23.35 644760||25.99 640968|
5	1547	NT1705262306S.D	BLD0607-BLK2	1 | 9.27 279952||11.74 1014860||15.32 570372||18.34 845585||23.35 569193||25.99 513712|
6	1625	NT1705262307S.D	BLD0607-BS2	1 | 9.27 277093||11.74 977960||15.33 540748||18.35 777447||23.35 508163||25.99 427670|
7	1702	NT1705262308S.D	BLD0607-BSD2	1 | 9.27 285381||11.74 1016889||15.33 563559||18.35 808753||23.35 517231||25.99 436120|
8	1740	NT1705262309S.D	BLD0607-MS2	1 | 9.27 271585||11.74 937566||15.33 470023||18.35 681691||23.37 683924||26.03 539789|
9	1818	NT1705262310S.D	BLD0607-MSD2	1 | 9.27 293739||11.74 1002142||15.33 518067||18.35 761797||23.37 765009||26.03 584836|
10	1856	NT1705262311S.D	BLD0607-SRM2	1 | 9.27 309013||11.74 1037311||15.33 530135||18.35 737581||23.35 635091||26.01 660695|
11	1933	NT1705262312S.D	23D0394-01	1 | 9.27 312770||11.74 1074928||15.33 564327||18.35 792090||23.37 668369||26.02 667499|
12	2011	NT1705262313S.D	23D0394-02	1 | 9.27 309584||11.74 1054248||15.33 531367||18.35 738395||23.37 793180||26.07 617037|
13	2048	NT1705262314S.D	23D0394-04	1 | 9.27 313946||11.74 1060478||15.33 529982||18.35 767549||23.37 753824||26.03 513695|
14	2126	NT1705262315S.D	23D0394-06	1 | 9.27 304242||11.74 1027590||15.33 535671||18.35 768426||23.35 685494||26.01 539741|
15	2203	NT1705262316S.D	23D0394-08	1 | 9.27 310702||11.74 1061743||15.33 541770||18.35 758934||23.35 675822||26.02 522322|
16	2240	NT1705262317S.D	23D0394-11	1 | 9.27 318678||11.74 1094853||15.33 556026||18.35 771451||23.37 731665||26.03 530600|
17	2318	NT1705262318S.D	23D0394-12	1 | 9.27 318831||11.74 1089402||15.33 569217||18.35 809483||23.35 688089||26.02 516716|
18	2355	NT1705262319S.D	Full-ICV2	1 | 9.27 336397||11.74 1129240||15.33 626421||18.35 889876||23.35 712210||26.01 582406|
19	0033	NT1705262320S.D	SLE0442-ICV2	1 | 9.27 375423||11.74 1173037||15.33 638940||18.35 901788||23.35 767966||26.01 642149|
20	0110	NT1705262321S.D	SLE0434-LCV2	1 | 9.27 336735||11.74 1050991||15.33 586965||18.35 844050||23.35 664774||26.01 566734|

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b\SIM.b

Time	Filename	LabID	ClientId	DF									
21	0148	NT1705262322S.D	SLE0442-LCV1		1	|	9.27	379141||11.74	1123230||15.33	608264||18.35	866998||23.35	735564||26.01	596830|
22	0225	NT1705262323S.D	23D0396-01		1	|	9.27	303678||11.74	1033510||15.33	542573||18.35	773140||23.37	676021||26.03	507114|
23	0302	NT1705262324S.D	23D0396-03		1	|	9.27	312420||11.74	1075428||15.33	559877||18.35	796135||23.37	700013||26.03	516440|
24	0340	NT1705262325S.D	23C0109-03RE1		1	|	9.27	319229||11.74	1125873||15.33	604433||18.35	864416||23.37	705007||26.02	559974|
25	0417	NT1705262326S.D	23C0108-09RE1		1	|	9.27	310438||11.74	1091661||15.33	585442||18.35	852083||23.37	679554||26.02	512691|
26	0454	NT1705262327S.D	BLD0607-BLK4		1	|	9.27	319011||11.74	1068298||15.33	560262||18.35	759069||23.35	613725||26.01	449111|
27	0531	NT1705262328S.D	SLE0434-CCV1		1	|	9.27	322824||11.74	1098244||15.33	611480||18.35	891263||23.35	684792||26.01	513007|
28	0608	NT1705262329S.D	SLE0442-CCV1		1	|	9.27	410431||11.74	1307314||15.33	718296||18.35	982072||23.35	749817||26.01	554047|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt17.i\20230526.b\SIM.b

Instrument: nt17.i Date: 26-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1258	NT1705262301S.D	SLE0442-TUN1	1	NO MANUAL INTEGRATION
1353	NT1705262303S.D	SLE0442-ICV1	1	NO MANUAL INTEGRATION
1431	NT1705262304S.D	SLE0434-LCV200	1	NO MANUAL INTEGRATION
1509	NT1705262305S.D	SLE0442-LCV1	1	NO MANUAL INTEGRATION
1547	NT1705262306S.D	BLD0607-BLK2	1	NO MANUAL INTEGRATION
1625	NT1705262307S.D	BLD0607-BS2	1	NO MANUAL INTEGRATION
1702	NT1705262308S.D	BLD0607-BSD2	1	NO MANUAL INTEGRATION
1740	NT1705262309S.D	BLD0607-MS2	1	NO MANUAL INTEGRATION
1818	NT1705262310S.D	BLD0607-MSD2	1	NO MANUAL INTEGRATION
1856	NT1705262311S.D	BLD0607-SRM2	1	NO MANUAL INTEGRATION
1933	NT1705262312S.D	23D0394-01	1	Pentachlorophenol,
2011	NT1705262313S.D	23D0394-02	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate, Diethylphthalate, Dibenzo(a,h)anthracene,
2048	NT1705262314S.D	23D0394-04	1	1,2-Dichlorobenzene, Benzoic acid, Diethylphthalate,
2126	NT1705262315S.D	23D0394-06	1	1,2-Dichlorobenzene, Dibenzo(a,h)anthracene,
2203	NT1705262316S.D	23D0394-08	1	Dimethylphthalate, Diethylphthalate,
2240	NT1705262317S.D	23D0394-11	1	Dimethylphthalate, Diethylphthalate, Pentachlorophenol,
2318	NT1705262318S.D	23D0394-12	1	1,2-Dichlorobenzene, Benzoic acid, Dimethylphthalate,

Instrument: nt17.i Date: 26-MAY-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
2355	NT1705262319S.D	full-ICV2	1	NO MANUAL INTEGRATION
0033	NT1705262320S.D	SLE0442-ICV2	1	NO MANUAL INTEGRATION
0110	NT1705262321S.D	SLE0434-LCV2	1	NO MANUAL INTEGRATION
0148	NT1705262322S.D	SLE0442-LCV1	1	Benzoic acid, Pentachlorophenol,
0225	NT1705262323S.D	23D0396-01	1	Diethylphthalate, Pentachlorophenol,
0302	NT1705262324S.D	23D0396-03	1	Dimethylphthalate, Diethylphthalate, Pentachlorophenol,
0340	NT1705262325S.D	23C0109-03RE1	1	2-Methylphenol,
0417	NT1705262326S.D	23C0108-09RE1	1	NO MANUAL INTEGRATION
0454	NT1705262327S.D	BLD0607-BLK4	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate,
0531	NT1705262328S.D	SLE0434-CCV1	1	NO MANUAL INTEGRATION
0608	NT1705262329S.D	SLE0442-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 24-May-2023 10:46

NT1705182301S.D	Data Locked	van, 24-May-2023 10:46
NT1705182303S.D	Data Locked	van, 24-May-2023 10:46
NT1705182304S.D	Data Locked	van, 24-May-2023 10:46
NT1705182305S.D	Data Locked	van, 24-May-2023 10:46
NT1705182313S.D	Data Locked	van, 24-May-2023 10:46
NT1705182314S.D	Data Locked	van, 24-May-2023 10:46
NT1705182315S.D	Data Locked	van, 24-May-2023 10:46
NT1705182316S.D	Data Locked	van, 24-May-2023 10:46
NT1705182317S.D	Data Locked	van, 24-May-2023 10:46
NT1705182318S.D	Data Locked	van, 24-May-2023 10:46
NT1705182319S.D	Data Locked	van, 24-May-2023 10:46
NT1705182320S.D	Data Locked	van, 24-May-2023 10:46
NT1705182322S.D	Data Locked	van, 24-May-2023 10:46
NT1705182324S.D	Data Locked	van, 24-May-2023 10:46



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0396</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0339</u>	Instrument:	<u>NT17</u>
Calibration:	<u>GE00070</u>	Calibration Date:	<u>05/16/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0339-SCV1 (Solid)		Lab File ID: NT1705162311S.D			Analyzed: 05/17/23 00:29			
2-Fluorophenol	7.5000		0 - 200		7.166125	-7.1661	N/A	
p-Terphenyl-d14	5.0000		0 - 200		21.55563	-21.5556	N/A	
SLE0339-ICB1 (Solid)		Lab File ID: NT1705162312S.D			Analyzed: 05/17/23 01:07			
2-Fluorophenol	7.5000	108	27 - 120	7.158	7.166125	-0.0081	N/A	
p-Terphenyl-d14	5.0000	105	37 - 120	21.554	21.55563	-0.0016	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0442</u>	Instrument:	<u>NT17</u>
Calibration:	<u>GE00070</u>	Calibration Date:	<u>05/16/2023</u>

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0607-BLK4 (Solid)		Lab File ID: NT1705262327S.D			Analyzed: 05/27/23 04:54			
2-Fluorophenol	750.00	67.1	27 - 120	7.094	7.166125	-0.0721	N/A	
p-Terphenyl-d14	500.00	85.7	37 - 120	21.452	21.55563	-0.1036	N/A	
SLE0442-CCV1 (Water)		Lab File ID: NT1705262329S.D			Analyzed: 05/27/23 06:08			
2-Fluorophenol	1.5000	109	50 - 150	7.081	7.166125	-0.0851	N/A	
p-Terphenyl-d14	1.0000	97.2	50 - 150	21.452	21.55563	-0.1036	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0339

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration: GE00070

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLE0339-SCV1)		(Solid)	Lab File ID: NT1705162311S.D			Analyzed: 05/17/23 00:29			
1,4-Dichlorobenzene-d4	280298	9.375	316066	9.375	89	50 - 200	0.000	+/-0.50	
Naphthalene-d8	999390	11.84	1102073	11.84	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	527927	15.436	583826	15.436	90	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	860054	18.468	970917	18.468	89	50 - 200	0.000	+/-0.50	
Chrysene-d12	527529	23.455	590568	23.455	89	50 - 200	0.000	+/-0.50	
Perylene-d12	475440	26.159	537938	26.159	88	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SLE0339-ICB1)		(Solid)	Lab File ID: NT1705162312S.D			Analyzed: 05/17/23 01:07			
1,4-Dichlorobenzene-d4	302680	9.375	316066	9.375	96	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1065796	11.84	1102073	11.84	97	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	551880	15.436	583826	15.436	95	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	903730	18.455	970917	18.468	93	50 - 200	-0.013	+/-0.50	
Chrysene-d12	538208	23.455	590568	23.455	91	50 - 200	0.000	+/-0.50	
Perylene-d12	508161	26.146	537938	26.159	94	50 - 200	-0.013	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0442

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration: GE00070

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0442-ICV1)		(Water)	Lab File ID: NT1705262303S.D			Analyzed: 05/26/23 13:53			
1,4-Dichlorobenzene-d4	354937	9.273	354937	9.273	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1204481	11.738	1204481	11.738	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	658677	15.334	658677	15.334	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	965415	18.353	965415	18.353	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	615102	23.353	615102	23.353	100	50 - 200	0.000	+/-0.50	
Perylene-d12	580660	25.994	580660	25.994	100	50 - 200	0.000	+/-0.50	
Blank (BLD0607-BLK2)		(Solid)	Lab File ID: NT1705262306S.D			Analyzed: 05/26/23 15:47			
1,4-Dichlorobenzene-d4	279952	9.273	375423	9.273	75	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1014860	11.738	1173037	11.738	87	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	570372	15.321	638940	15.334	89	50 - 200	-0.013	+/-0.50	
Phenanthrene-d10	845585	18.341	901788	18.353	94	50 - 200	-0.012	+/-0.50	
Chrysene-d12	569193	23.353	767966	23.353	74	50 - 200	0.000	+/-0.50	
Perylene-d12	513712	25.993	642149	26.006	80	50 - 200	-0.013	+/-0.50	
LCS (BLD0607-BS2)		(Solid)	Lab File ID: NT1705262307S.D			Analyzed: 05/26/23 16:25			
1,4-Dichlorobenzene-d4	277093	9.273	375423	9.273	74	50 - 200	0.000	+/-0.50	
Naphthalene-d8	977960	11.738	1173037	11.738	83	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	540748	15.334	638940	15.334	85	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	777447	18.353	901788	18.353	86	50 - 200	0.000	+/-0.50	
Chrysene-d12	508163	23.353	767966	23.353	66	50 - 200	0.000	+/-0.50	
Perylene-d12	427670	25.993	642149	26.006	67	50 - 200	-0.013	+/-0.50	
LCS Dup (BLD0607-BSD2)		(Solid)	Lab File ID: NT1705262308S.D			Analyzed: 05/26/23 17:02			
1,4-Dichlorobenzene-d4	285381	9.273	375423	9.273	76	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1016889	11.738	1173037	11.738	87	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	563559	15.334	638940	15.334	88	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	808753	18.353	901788	18.353	90	50 - 200	0.000	+/-0.50	
Chrysene-d12	517231	23.353	767966	23.353	67	50 - 200	0.000	+/-0.50	
Perylene-d12	436120	25.994	642149	26.006	68	50 - 200	-0.012	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLE0442

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: NT17
Calibration: GE00070

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Reference (BLD0607-SRM2)		(Solid)	Lab File ID: NT1705262311S.D			Analyzed: 05/26/23 18:56			
1,4-Dichlorobenzene-d4	309013	9.273	375423	9.273	82	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1037311	11.738	1173037	11.738	88	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	530135	15.334	638940	15.334	83	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	737581	18.353	901788	18.353	82	50 - 200	0.000	+/-0.50	
Chrysene-d12	635091	23.353	767966	23.353	83	50 - 200	0.000	+/-0.50	
Perylene-d12	660695	26.006	642149	26.006	103	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLE0442-ICV2)		(Water)	Lab File ID: NT1705262320S.D			Analyzed: 05/27/23 00:33			
1,4-Dichlorobenzene-d4	375423	9.273	375423	9.273	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1173037	11.738	1173037	11.738	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	638940	15.334	638940	15.334	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	901788	18.353	901788	18.353	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	767966	23.353	767966	23.353	100	50 - 200	0.000	+/-0.50	
Perylene-d12	642149	26.006	642149	26.006	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLE0442-LCV1)		(Water)	Lab File ID: NT1705262322S.D			Analyzed: 05/27/23 01:48			
1,4-Dichlorobenzene-d4	379141	9.273	375423	9.273	101	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1123230	11.738	1173037	11.738	96	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	608264	15.334	638940	15.334	95	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	866998	18.353	901788	18.353	96	50 - 200	0.000	+/-0.50	
Chrysene-d12	735564	23.353	767966	23.353	96	50 - 200	0.000	+/-0.50	
Perylene-d12	596830	26.006	642149	26.006	93	50 - 200	0.000	+/-0.50	
LDW23-SS1801 (23D0396-01)		(Solid)	Lab File ID: NT1705262323S.D			Analyzed: 05/27/23 02:25			
1,4-Dichlorobenzene-d4	303678	9.273	375423	9.273	81	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1033510	11.738	1173037	11.738	88	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	542573	15.334	638940	15.334	85	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	773140	18.353	901788	18.353	86	50 - 200	0.000	+/-0.50	
Chrysene-d12	676021	23.366	767966	23.353	88	50 - 200	0.013	+/-0.50	
Perylene-d12	507114	26.032	642149	26.006	79	50 - 200	0.026	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0442

Instrument: NT17

Calibration: GE00070

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SS1802 (23D0396-03)		(Solid)	Lab File ID: NT1705262324S.D			Analyzed: 05/27/23 03:02			
1,4-Dichlorobenzene-d4	312420	9.273	375423	9.273	83	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1075428	11.738	1173037	11.738	92	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	559877	15.334	638940	15.334	88	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	796135	18.353	901788	18.353	88	50 - 200	0.000	+/-0.50	
Chrysene-d12	700013	23.365	767966	23.353	91	50 - 200	0.012	+/-0.50	
Perylene-d12	516440	26.032	642149	26.006	80	50 - 200	0.026	+/-0.50	
Blank (BLD0607-BLK4)		(Solid)	Lab File ID: NT1705262327S.D			Analyzed: 05/27/23 04:54			
1,4-Dichlorobenzene-d4	319011	9.273	375423	9.273	85	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1068298	11.738	1173037	11.738	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	560262	15.334	638940	15.334	88	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	759069	18.353	901788	18.353	84	50 - 200	0.000	+/-0.50	
Chrysene-d12	613725	23.353	767966	23.353	80	50 - 200	0.000	+/-0.50	
Perylene-d12	449111	26.006	642149	26.006	70	50 - 200	0.000	+/-0.50	
Calibration Check (SLE0442-CCV1)		(Solid)	Lab File ID: NT1705262329S.D			Analyzed: 05/27/23 06:08			
1,4-Dichlorobenzene-d4	410431	9.273	375423	9.273	109	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1307314	11.738	1173037	11.738	111	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	718296	15.334	638940	15.334	112	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	982072	18.353	901788	18.353	109	50 - 200	0.000	+/-0.50	
Chrysene-d12	749817	23.353	767966	23.353	98	50 - 200	0.000	+/-0.50	
Perylene-d12	554047	26.006	642149	26.006	86	50 - 200	0.000	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/24/23 16:38	12	14	05/27/23 02:25	32	40	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/24/23 16:38	12	14	05/27/23 03:02	32	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT17

Analyte	MDL	RL	Units
1,4-Dichlorobenzene	0.6	5.0	ug/kg
1,2-Dichlorobenzene	0.7	5.0	ug/kg
Benzyl Alcohol	2.5	20.0	ug/kg
Benzoic acid	13.4	100	ug/kg
2,4-Dimethylphenol	2.2	20.0	ug/kg
1,2,4-Trichlorobenzene	2.7	5.0	ug/kg
N-Nitrosodiphenylamine	1.3	5.0	ug/kg
Pentachlorophenol	2.1	20.0	ug/kg



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: 0-916

Lot #: 59-57A

Purity: 99%

Analyst: VFB

Element: B000954



Description: SVOC 4,4 DDT Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 23-Sep-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 11:46 by JZ
Vendor: Chem Service Lot #: 198-128A
Vendor Catalog #:

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AS



Description: SVOC alpha-Terpineol Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 12:13 by JZ
Vendor: ACROS Organics Lot #: AD16481201
Vendor Catalog #:

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: AD6481201

Purity: 98%

Analyst: 12



Description: SVOA Dibutyl Phenyl phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:45 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: AD



Description: SVOC Triphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:59 by JZ
Vendor: Aldrich Lot #: 04902CM
Vendor Catalog #:

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Triphenyl phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04902CM

Purity: 99%

Analyst: [Signature]



Description: SVOC Butylated Hydroxytoluene Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 16:18 by JZ
Vendor: SIGMA Lot #: 39F-0197
Vendor Catalog #:

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Bulkyated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AB



Description: SVOC Butyl Diphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 17:02 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 99%

Analyst: [Signature]



Description: SVOC 2,4-Dinitrophenol
 Standard Type: Calibration Stan
 Solvent: NA
 Final Volume (mls): 1
 Vials: 1
 Vendor: SIGMA
 Vendor Catalog #:

Expires: 31-Dec-29
 Prepared: 25-Sep-13
 Prepared By: Jianqing Zhou
 Department: Organics
 Last Edit: 25-Sep-13 13:45 by JZ
 Lot #: 65H5021

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
 Expires 12/31/2029
 Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By _____ Date _____



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

Purity: 99%

Analyst: AB



Description: SVOA Benzidine Expires: 31-Dec-29
Standard Type: Analyte Spike Prepared: 15-Oct-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 15-Oct-13 12:07 by JZ
Vendor: SIGMA Lot #: 18C0024
Vendor Catalog #:

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

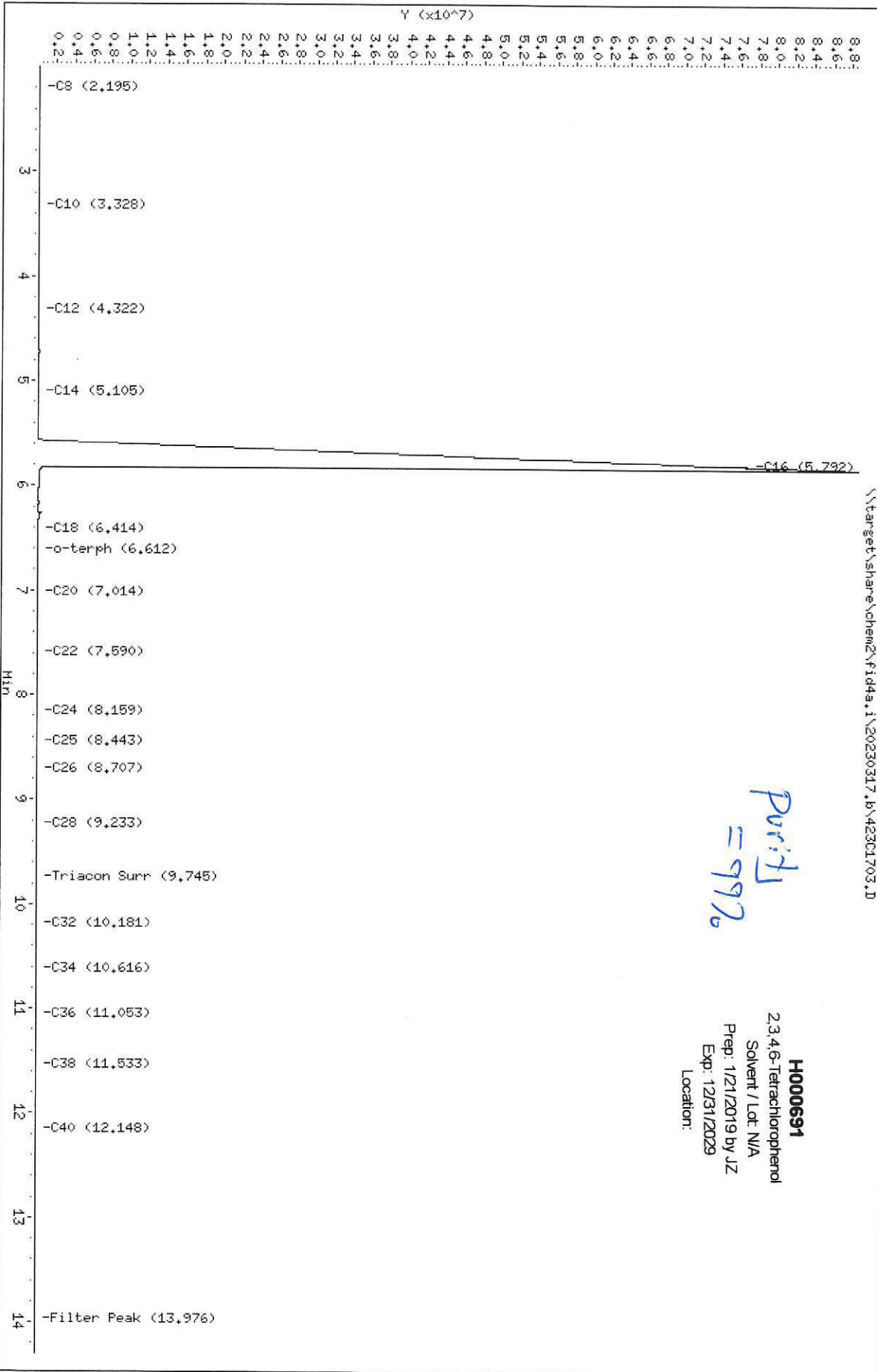
Purity: 95%

Analyst: B.

Data File: \\target\share\chem2\fid4a,1\20230317,1\42301703.D
Date: 17-MAR-2023 10:46
Client ID:
Sample Info: K007226

Column phase: RTX-1

Instrument: fid4a.i
Operator: AA
Column diameter: 0.25



Purity
= 99%

H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

H000691

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
 Lab Smp Id: K007226
 Inj Date : 17-MAR-2023 10:46
 Operator : AA Inst ID: fid4a.i
 Smp Info : K007226
 Misc Info :
 Comment :
 Method : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
 Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
 Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: Falcon+ Compound Sublist: tph.sub
 Target Version: 4.14
 Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	\$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	\$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
===== 677340272	===== 268782821	===== 100.000			

Total unknown % area = 25.478

Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:

 5/18/21

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate of Analysis

J008074

 SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Issue Date: 11-Jun-2020

Lot Number: 0006540449

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

 ISO 17034 Cert No.
 AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/

 ISO 17025 Cert
 No. AT-1937

Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

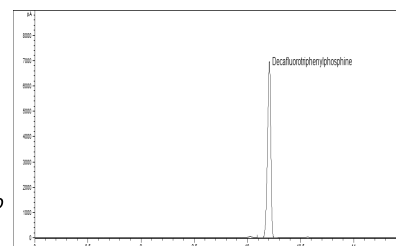


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

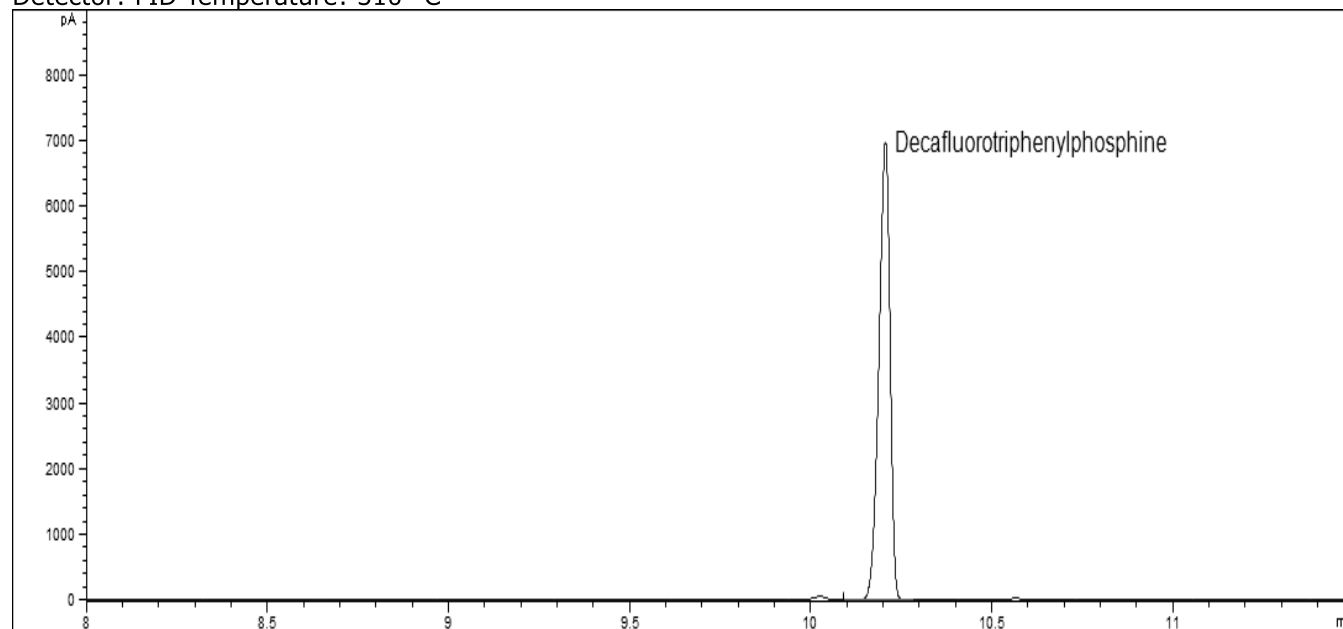
Carrier Gas: H₂ Flow Rate: 4.3 mL/min

Inlet Temperature: 250 °C Injection Volume: 1 µL

Injection Mode: 25:1

Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)

Detector: FID Temperature: 310 °C



Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability:	Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
Measurement method:	Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.
Intended use:	Intended for R&D and Analytical Use only. Not for drug, household or other uses.
Minimum sample size:	1 µL
Packaging:	1 mL in amber ampule
Instructions for handling and correct use:	Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.
Health and safety information:	All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.
Accreditation:	Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.
Certificate issue date:	30-Sep-2021



Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability:	This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.
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Associated uncertainty:	Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:
--------------------------------	--

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment:	Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.
--------------------------------	---

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Analyte	Units	Suggested Acceptance Windows	Standard Deviation
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021





Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1

Lot Issue Date: 25-May-2021

Lot Number: 0006609664

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

[Handwritten signature]
5/11/22

K004539

toxic sub mix#1

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 6/30/2024

Location:



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Reference Material Certificate

Product Name: Phenols Standard **Lot Number:** 0006648297
Product Number: US-107N-1 **Lot Issue Date:** 17-Nov-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 31-Dec-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
4-chloro-3-methylphenol	2006	± 10 µg/mL		000059-50-7	RM01885
2-chlorophenol	2007	± 10 µg/mL		000095-57-8	RM01871
2,4-dichlorophenol	2005	± 10 µg/mL		000120-83-2	RM13878
2,4-dimethylphenol	2006	± 10 µg/mL		000105-67-9	RM13009
2,4-dinitrophenol	2006	± 10 µg/mL		000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005	± 10 µg/mL		000534-52-1	RM02292
2-nitrophenol	2007	± 10 µg/mL		000088-75-5	RM13445
4-nitrophenol	2006	± 10 µg/mL		000100-02-7	RM03752
pentachlorophenol	2006	± 10 µg/mL		000087-86-5	RM02474
phenol	2006	± 10 µg/mL		000108-95-2	RM11471
2,4,6-trichlorophenol	2006	± 10 µg/mL		000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSS Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

JZ 5/11/22

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: PAH Standard

Lot Number: 0006627349

Product Number: US-106N-1

Lot Issue Date: 17-Sep-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
acenaphthene	2007	± 10 µg/mL		000083-32-9	RM10879
acenaphthylene	2004	± 10 µg/mL		000208-96-8	RM10891
anthracene	2006	± 10 µg/mL		000120-12-7	RM14212
benz[a]anthracene	2006	± 10 µg/mL		000056-55-3	RM16072
benzo[b]fluoranthene	2006	± 10 µg/mL		000205-99-2	RM14571
benzo[k]fluoranthene	2006	± 10 µg/mL		000207-08-9	RM18376
benzo[ghi]perylene	2006	± 10 µg/mL		000191-24-2	RM15761
benzo[a]pyrene	2006	± 10 µg/mL		000050-32-8	RM17573
chrysene	2007	± 10 µg/mL		000218-01-9	RM13771
dibenz[a,h]anthracene	2006	± 10 µg/mL		000053-70-3	RM06786
fluoranthene	2006	± 10 µg/mL		000206-44-0	RM12277
fluorene	2006	± 10 µg/mL		000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006	± 10 µg/mL		000193-39-5	RM14192
naphthalene	2007	± 10 µg/mL		000091-20-3	RM10445
phenanthrene	2005	± 10 µg/mL		000085-01-8	RM10495
pyrene	2005	± 10 µg/mL		000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541

SVOA PAH STD 2000ug/ml

Solvent / Lot: DCM/BENZENE

Prep: 5/11/2022 by JZ

Exp: 10/31/2024

Location: Fridge 19

Page: 1 of 2

CSD-QA-015.1



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Nove

Report of Certification

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1		
Matrix:	Methylene Chloride	Manufactured Date:	1-26-2021
		Expiration Date:	1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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SPEX CertiPrep 

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203 Norcross Ave. Metuchen NJ 08840

www.spexcertiprep.com • E-mail: crmsales@spexcsp.com

Phone: 1-732-549-7144 • Fax 1-732-603-9647





Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1

Lot Issue Date: 19-Jul-2021

Lot Number: 0006624769

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543

1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

JZ
5/11/22

Sample lot approver:

Monica Bourgeois
Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 31493 Lot No.: A0181243
Description: CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: October 31, 2025 Storage: 10°C or colder
Handling: Sonicate prior to use. Ship: Ambient

Handwritten signature and date: 05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Table with 7 columns: Elution Order, Compound, CAS #, Purity, Weight, µg/mL, and Stressed. Contains 7 rows of data for various compounds like 2-Fluorophenol, Phenol-d6, 2-Chlorophenol-d4, 1,2-Dichlorobenzene-d4, Nitrobenzene-d5, 2-Fluorobiphenyl, and 2,4,6-Tribromophenol.

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

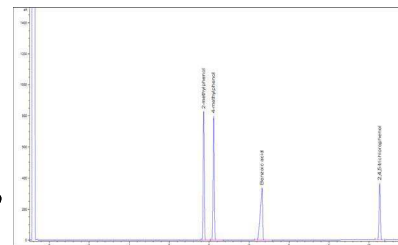


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

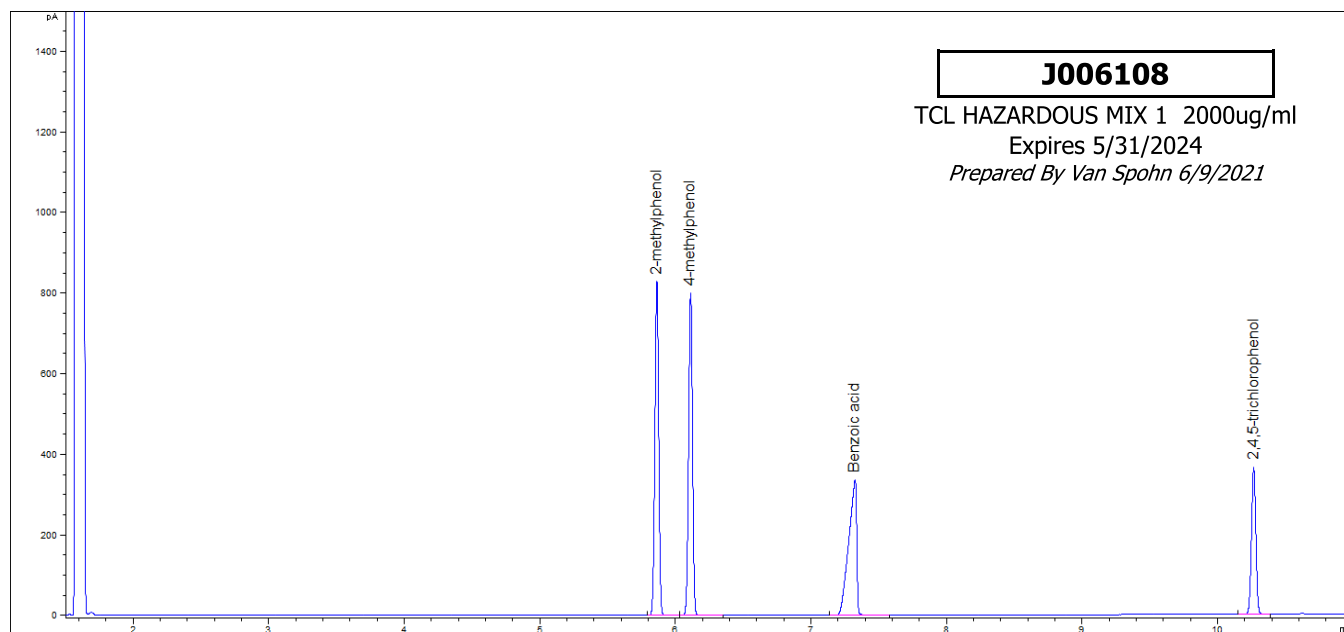
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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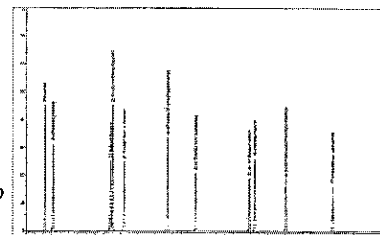
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

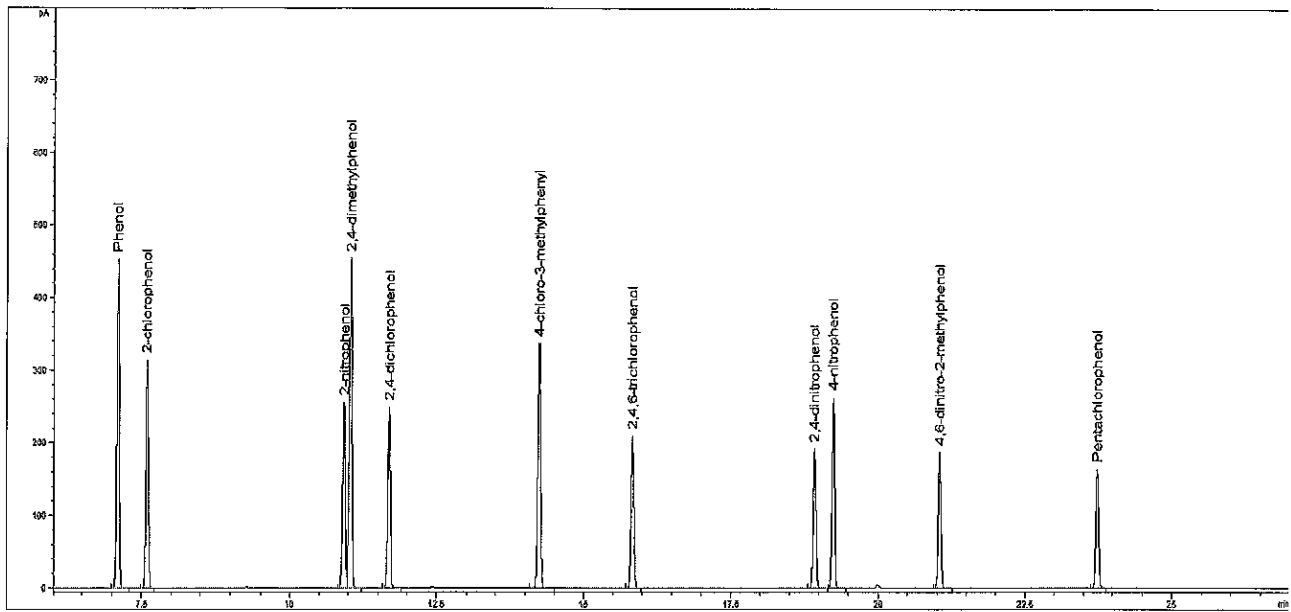
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m x 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen

Mark Pooler

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability:

This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty:

Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment:

Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.





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www.restek.com

K007194
 CLP 04.1 BNA SURR MIX
 Solvent / Lot: A0187400
 Prep: 8/5/2022 by VS
 Exp: 4/30/2026
 Location:

IAL



Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0187400
Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
			µg/mL	µg/mL	µg/mL	Gravimetric
1	2-Fluorophenol	1,508.0 µg/mL	+/- 8.9571	µg/mL	Gravimetric	
	CAS # 367-12-4 (Lot STBJ3299)		+/- 44.0466	µg/mL	Unstressed	
	Purity 99%		+/- 53.4340	µg/mL	Stressed	
2	Phenol-d6	1,510.0 µg/mL	+/- 8.9689	µg/mL	Gravimetric	
	CAS # 13127-88-3 (Lot SL210831)		+/- 44.1050	µg/mL	Unstressed	
	Purity 99%		+/- 53.5049	µg/mL	Stressed	
3	2-Chlorophenol-d4	1,512.0 µg/mL	+/- 8.9808	µg/mL	Gravimetric	
	CAS # 93951-73-6 (Lot PR-30568)		+/- 44.1635	µg/mL	Unstressed	
	Purity 99%		+/- 53.5758	µg/mL	Stressed	
4	1,2-Dichlorobenzene-d4	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 2199-69-1 (Lot PR-32597)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
5	Nitrobenzene-d5	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 4165-60-0 (Lot PR-29940A)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
6	2-Fluorobiphenyl	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric	
	CAS # 321-60-8 (Lot 00021384)		+/- 29.3255	µg/mL	Unstressed	
	Purity 99%		+/- 35.5754	µg/mL	Stressed	
7	2,4,6-Tribromophenol	1,502.0 µg/mL	+/- 8.9214	µg/mL	Gravimetric	
	CAS # 118-79-6 (Lot MKCJ7664)		+/- 43.8714	µg/mL	Unstressed	
	Purity 99%		+/- 53.2214	µg/mL	Stressed	

8	p-Terphenyl-d14		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)		+/- 29.2671	µg/mL	Unstressed
	Purity 99%			+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

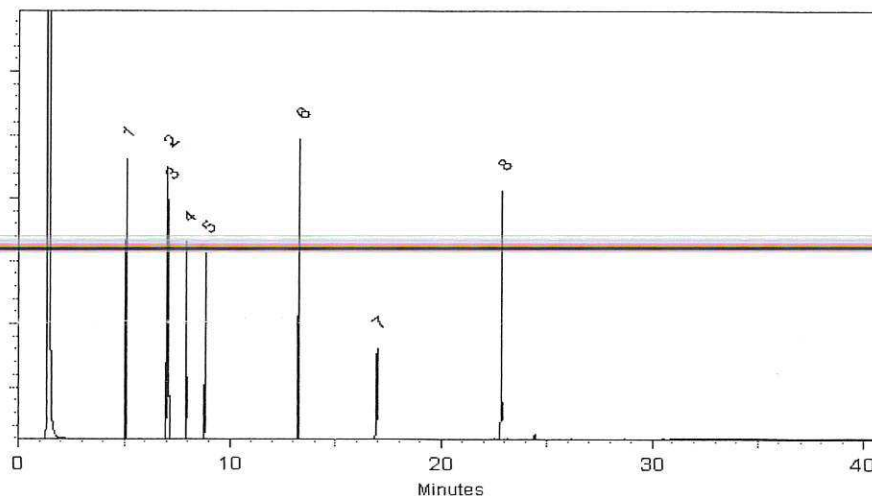
Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder
 Bryan Snyder - Operations Tech I

Date Mixed: 17-Jul-2022 **Balance:** 1128353505

Christie Mills
 Christie Mills - Operations Tech II - ARM QC

Date Passed: 21-Jul-2022

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

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Certified Reference Material

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

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Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

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Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAD2750
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2750.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	800	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	800	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	801	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1799	µg/mL	66.9	STBJ5751
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	800	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	800	µg/mL	100.0	BCCD4461
4-NITROPHENOL CAS# 100-02-7	800	µg/mL	100.0	MKCN1089
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1800	µg/mL	100.0	BCBX5762
PENTACHLOROPHENOL CAS# 87-86-5	800	µg/mL	99.0	23614-01
BENZOIC ACID CAS# 65-85-0	1800	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.



Certificate issue date: 03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2750.01	03 JUN 2022	Original Release Date

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.



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Certified Reference Material

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Catalog No.: AL0-101244

Lot Number: CL18939

Description: Benzidines Standard

Certification Date: September 7, 2022

Storage: 4 °C

Expiration Date: August 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 3.812%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.419%

L001288

Benzidines std @2000ug/ml
Solvent / Lot: CL18939
Prep: 2/7/2023 by VS
Exp: 8/31/2032
Location: GC



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Certified Reference Material

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Catalog No.: AL0-101443

Lot Number: CL18741

Description: Aniline

Certification Date: July 21, 2022

Storage: 4 °C

Expiration Date: July 31, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 1.719%

L001290

Aniline-1000ug/mL
Solvent / Lot: CL18741
Prep: 2/7/2023 by VS
Exp: 7/31/2030
Location: GC



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Certified Reference Material

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Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

L001291

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: CL18811

Prep: 2/7/2023 by VS

Exp: 11/30/2023

Location: FREEZER 44



Aaron Duker, Certified Reference Materials Manager

Component	CAS #	µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.643%
Acenaphthylene	208-96-8	1000	± 1.317%
Anthracene	120-12-7	1000	± 2.136%
Azobenzene	103-33-3	1000	± 1.630%
Benzo(a)anthracene	56-55-3	1000	± 2.372%
Benzo(a)pyrene	50-32-8	1000	± 3.028%
Benzo(b)fluoranthene	205-99-2	1000	± 2.377%
Benzo(k)fluoranthene	207-08-9	1000	± 2.286%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.561%
Benzyl alcohol	100-51-6	1000	± 1.803%
Benzyl butyl phthalate	85-68-7	1000	± 1.855%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.626%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.776%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.406%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.415%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 2.350%
4-Bromophenyl phenyl ether	101-55-3	1000	± 1.708%
Carbazole	86-74-8	1000	± 1.844%



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Catalog No.: AL0-101444

Lot Number: CL18811

Description: 8270 Calibration Standard

Certification Date: August 9, 2022

Storage: -18 °C

Expiration Date: November 30, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 2.831%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.571%
2-Chloronaphthalene	91-58-7	1000	± 2.022%
2-Chlorophenol	95-57-8	1000	± 2.001%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 1.634%
Chrysene	218-01-9	1000	± 2.358%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.452%
Dibenzofuran	132-64-9	1000	± 0.310%
Di-n-butyl phthalate	84-74-2	1000	± 2.347%
1,2-Dichlorobenzene	95-50-1	1000	± 1.803%
1,3-Dichlorobenzene	541-73-1	1000	± 1.808%
1,4-Dichlorobenzene	106-46-7	1000	± 1.503%
2,4-Dichlorophenol	120-83-2	1000	± 1.393%
Diethyl phthalate	84-66-2	1000	± 1.870%
2,4-Dimethylphenol	105-67-9	1000	± 2.495%
Dimethyl phthalate	131-11-3	1000	± 2.113%
1,2-Dinitrobenzene	528-29-0	1000	± 0.240%
1,3-Dinitrobenzene	99-65-0	1000	± 1.221%
1,4-Dinitrobenzene	100-25-4	1000	± 0.246%
2,4-Dinitrophenol	51-28-5	1000	± 0.519%
2,4-Dinitrotoluene	121-14-2	1000	± 2.242%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.154%
Di-n-octyl phthalate	117-84-0	1000	± 2.670%
Fluoranthene	206-44-0	1000	± 2.103%
Fluorene	86-73-7	1000	± 0.890%
Hexachlorobenzene	118-74-1	1000	± 1.210%
Hexachlorobutadiene	87-68-3	1000	± 1.304%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.510%
Hexachloroethane	67-72-1	1000	± 3.281%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 1.921%
Isophorone	78-59-1	1000	± 2.022%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 1.661%
1-Methylnaphthalene	90-12-0	1000	± 1.929%
2-Methylnaphthalene	91-57-6	1000	± 2.220%
2-Methylphenol	95-48-7	1000	± 2.168%
3-Methylphenol	108-39-4	500	± 1.025%
4-Methylphenol	106-44-5	500	± 1.064%
Naphthalene	91-20-3	1000	± 1.199%
2-Nitroaniline	88-74-4	1000	± 1.874%
3-Nitroaniline	99-09-2	1000	± 2.146%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 1.704%



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Catalog No.: AL0-101444 **Lot Number:** CL18811
Description: 8270 Calibration Standard **Certification Date:** August 9, 2022
Storage: -18 °C **Expiration Date:** November 30, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.051%
4-Nitrophenol	100-02-7	1000	± 1.413%
N-Nitrosodimethylamine	62-75-9	1000	± 0.545%
N-Nitrosodiphenylamine	86-30-6	1000	± 1.669%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.712%
Pentachlorophenol	87-86-5	1000	± 2.454%
Phenanthrene	85-01-8	1000	± 2.072%
Phenol	108-95-2	1000	± 2.140%
Pyrene	129-00-0	1000	± 1.869%
Pyridine	110-86-1	1000	± 0.545%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.552%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.220%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.632%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.596%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.481%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.



Reference Material Producer
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Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Dual Column

LDW23-SS1801

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory: Analytical Resources, LLC SDG: 23D0396
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid Laboratory ID: 23D0396-01 A File ID: 23051316.D
Sampled: 04/12/23 09:56 Prepared: 04/25/23 11:56 Analyzed: 05/13/23 20:14
% Solids: 43.01 Preparation: EPA 3546 (Microwave) Initial/Final: 29.08 g Wet / 2.5 mL
Batch: BLD0606 Sequence: SLE0423 Calibration: GD00035
Instrument: ECD6 Column 1: STX-CLP Column 2: STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.14	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9953	4.86	60.8	30 - 160	
<i>Decachlorobiphenyl</i>	2	7.9953	5.04	63.0	30 - 160	
<i>Tetrachlorometaxylene</i>	1	7.9953	4.18	52.3	30 - 160	
<i>Tetrachlorometaxylene</i>	2	7.9953	4.26	53.3	30 - 160	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051316.D
Data file 2: /20230513.b/B20230513.b/23051316.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23D0396-01
Client ID:
Injection Date: 13-MAY-2023 20:14
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.311	-0.000	20174	----			0.66	0.00	---	alpha-BHC
4.694	-0.001	8614	----			0.70	0.00	---	beta-BHC
4.891	0.013	154577	----			5.58	0.00	---	delta-BHC
4.618	0.004	23245	5.126	0.001	6909	0.86	0.28	101.6*	gamma-BHC (Lindane) M
5.087	-0.013	44252	----			1.78	0.00	---	Heptachlor
5.444	0.021	96167	6.047	0.008	25978	3.80	1.16	106.1*	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			7.135	-0.008	11515	0.00	0.69	---	Endosulfan I
6.789	-0.012	152803	----			7.09	0.00	---	Dieldrin
6.461	-0.004	183715	7.230	0.001	65989	9.04	3.78	82.0*	4,4'-DDE
7.082	0.030	256722	----			16.94	0.00	---	Endrin
7.268	-0.020	24446	----			1.72	0.00	---	Endosulfan II
7.109	-0.003	132342	7.836	0.001	88777	9.73	7.49	26.1	4,4'-DDD M
8.146	-0.006	10818	----			0.81	0.00	---	Endosulfan sulfate
7.423	0.017	16301	----			1.11	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
8.404	-0.022	61180	----			4.01	0.00	---	Endrin ketone
----			8.303	-0.001	52882	0.00	5.97	---	Endrin aldehyde
6.240	0.001	24330	----			1.09	0.00	---	trans-Chlordane
6.410	0.023	108202	7.073	0.002	19136	4.82	1.03	129.4*	cis-Chlordane
2.293	-0.001	5139	----			0.16	0.00	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
3.799	-0.000	409539	4.113	-0.000	385277	20.91	21.33	2.0	Tetrachloro-m-xylene
9.347	0.005	251616	10.279	0.005	196050	24.33	25.20	3.5	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

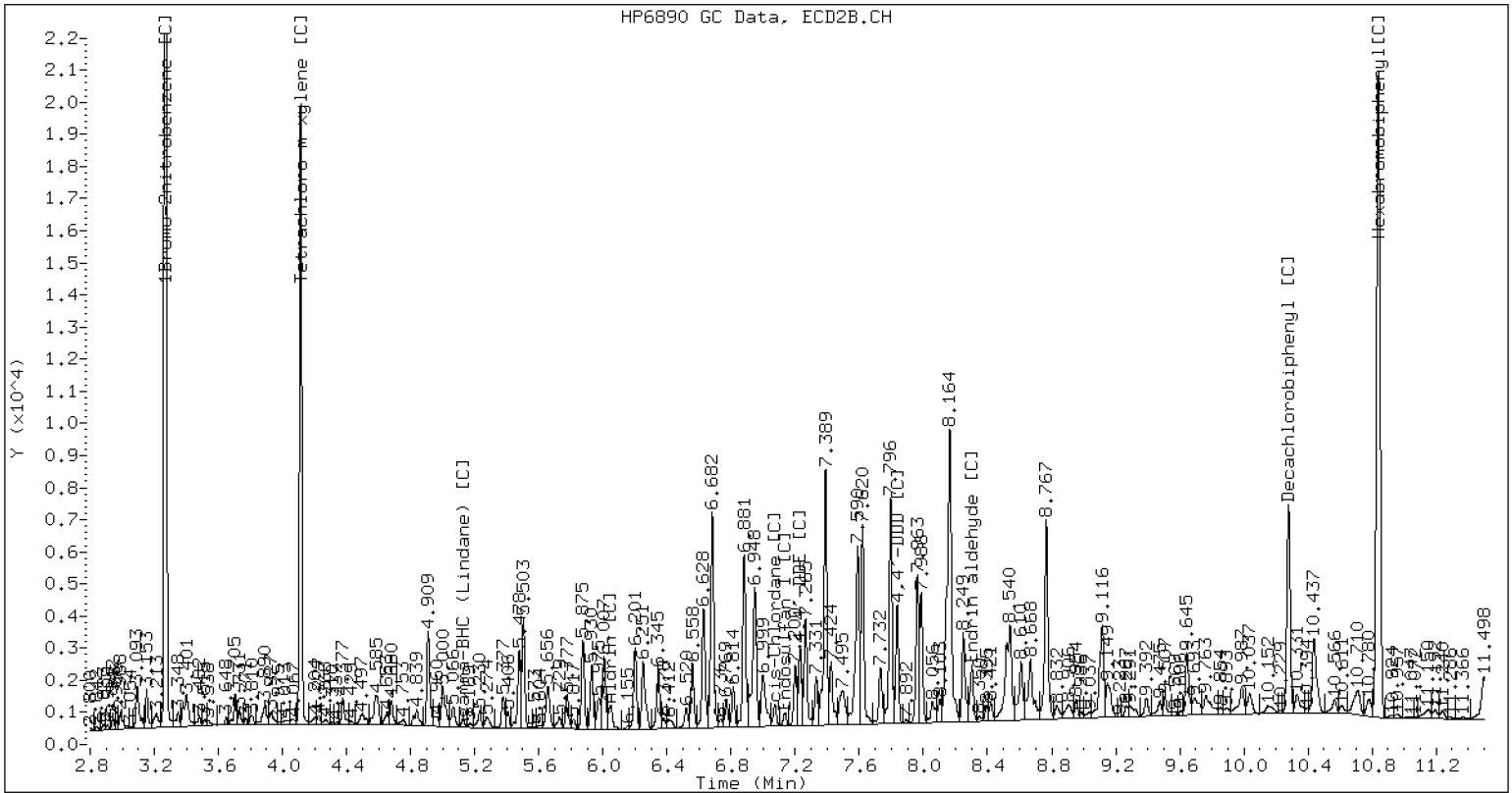
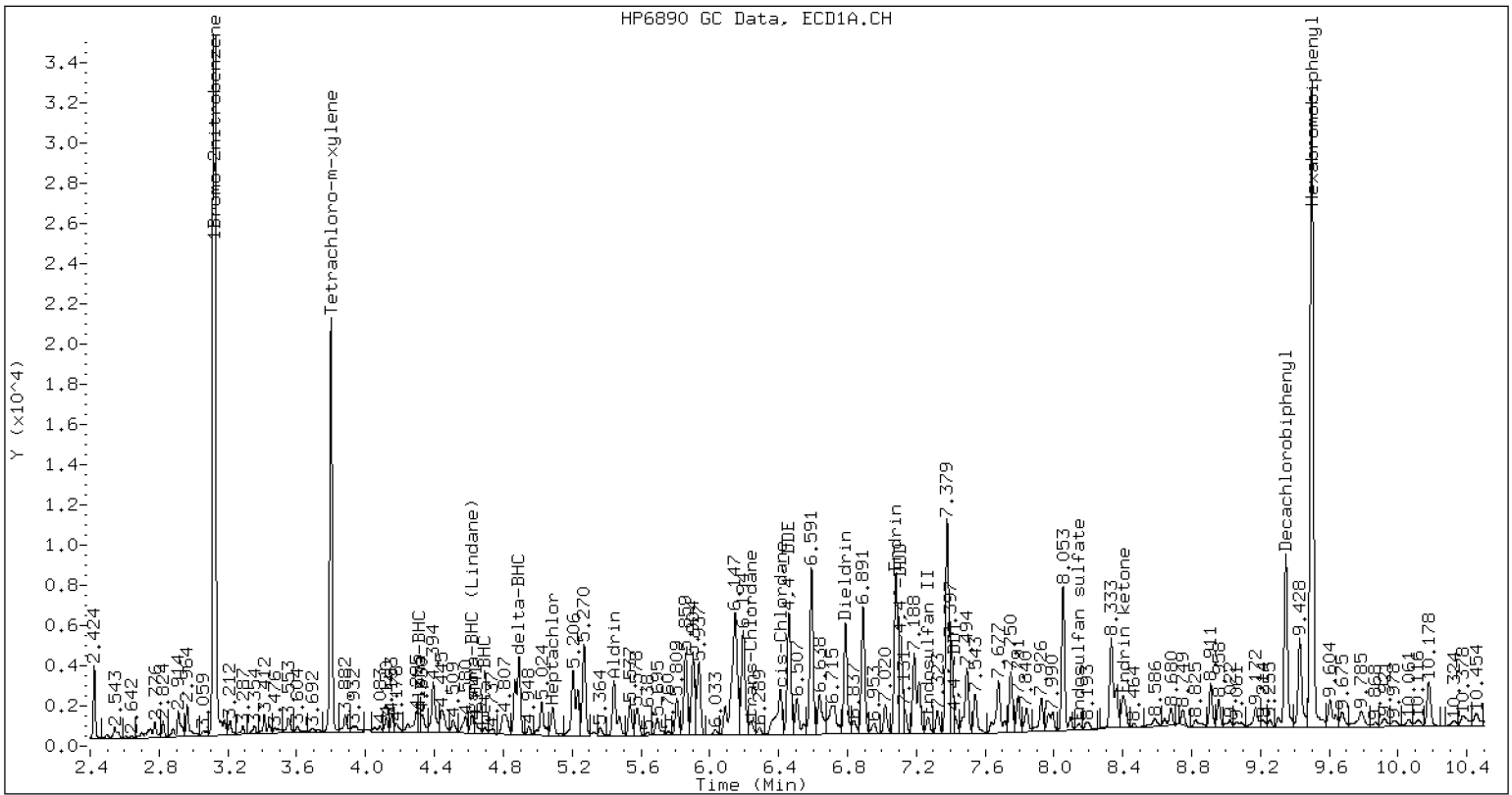
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	1399601	50.0
Hexabromobiphenyl	745426	876824	17.6

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	1313494	5.2
Hexabromobiphenyl	754634	644626	-14.6

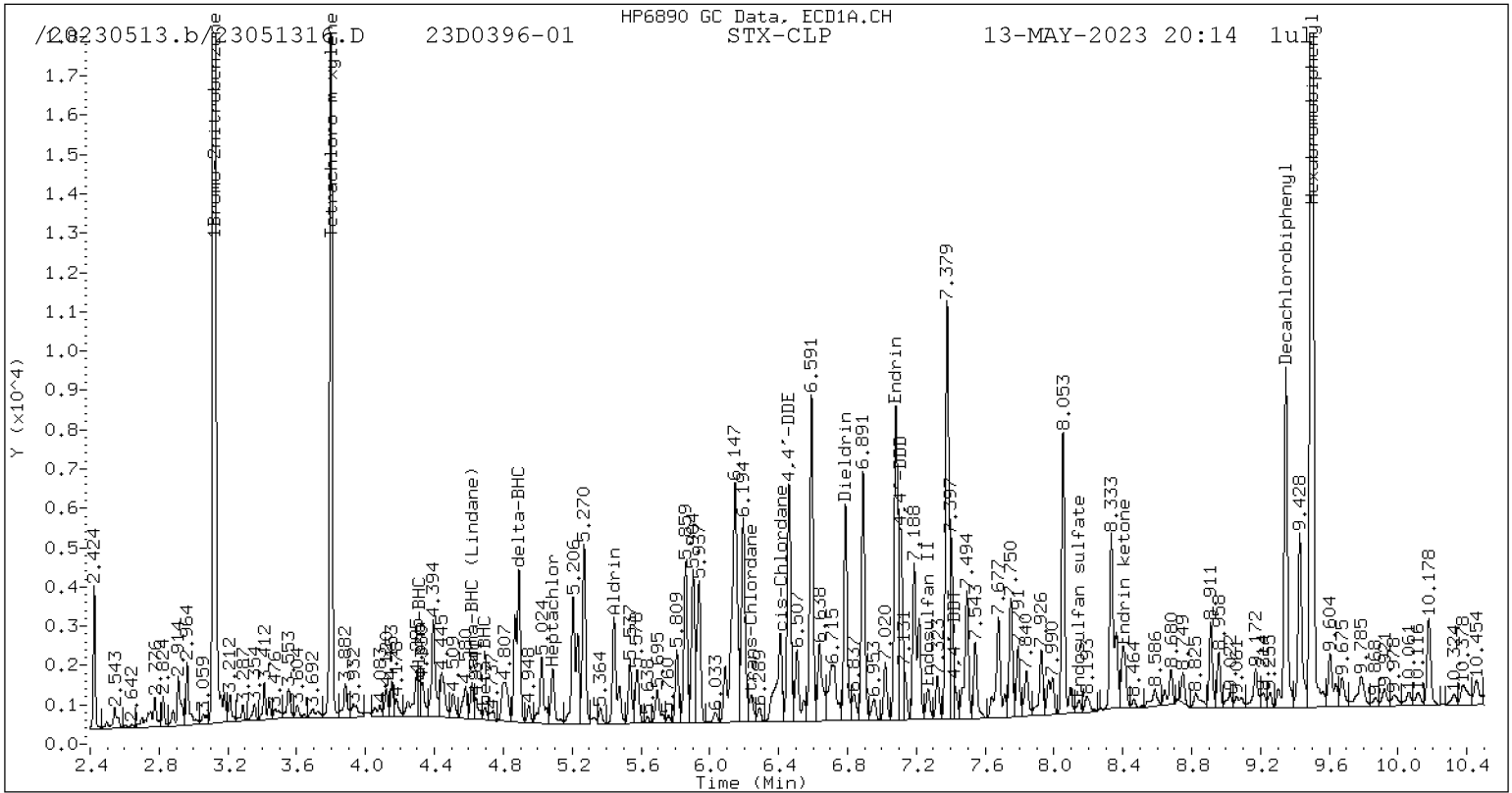
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

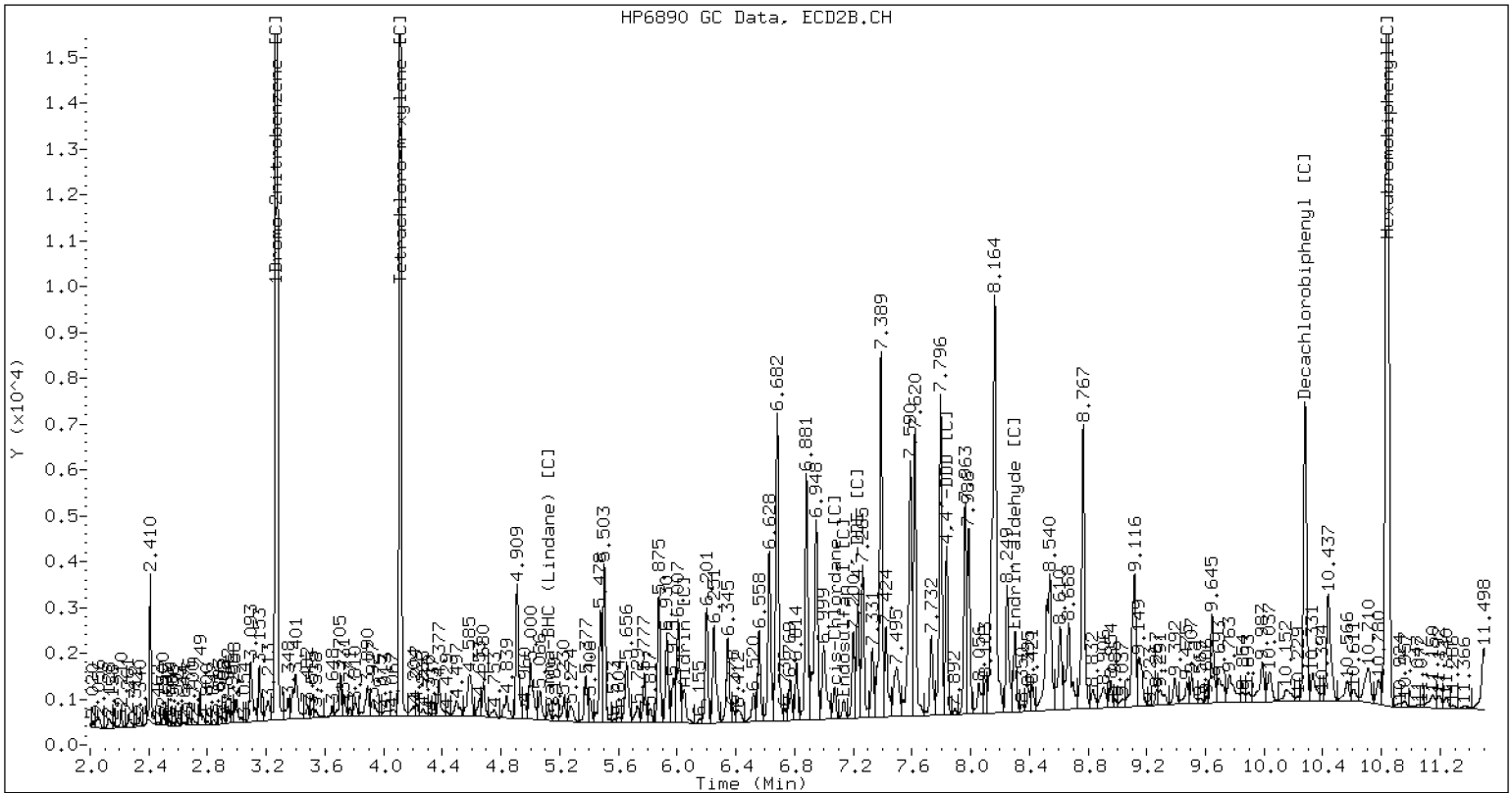


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

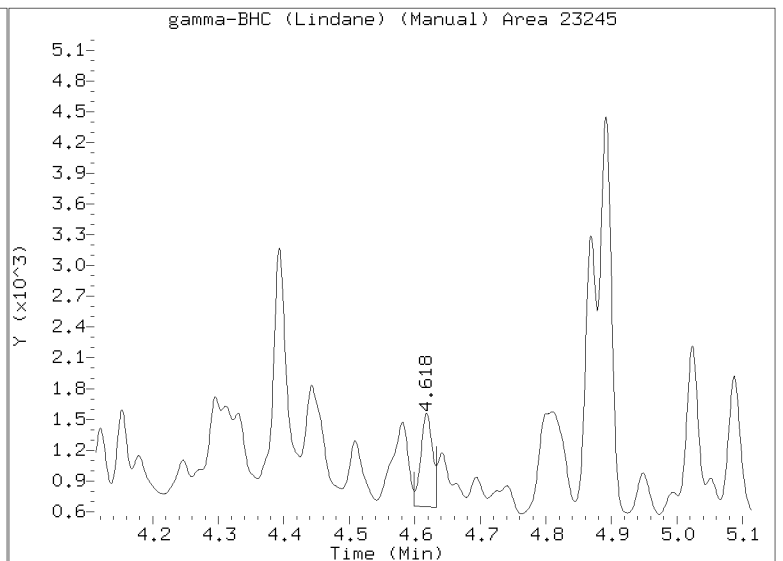
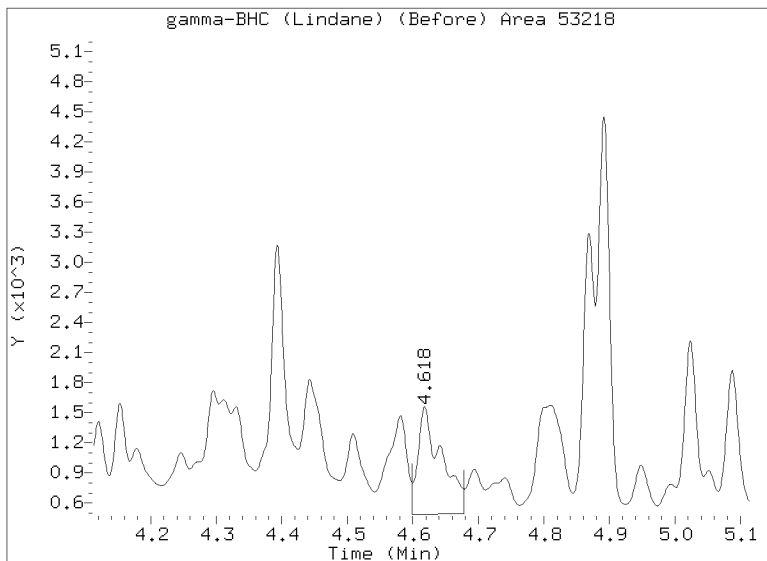
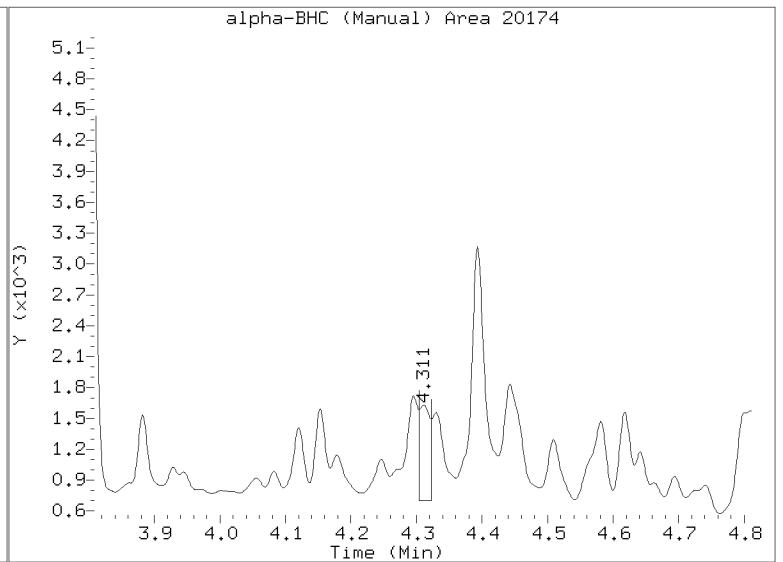
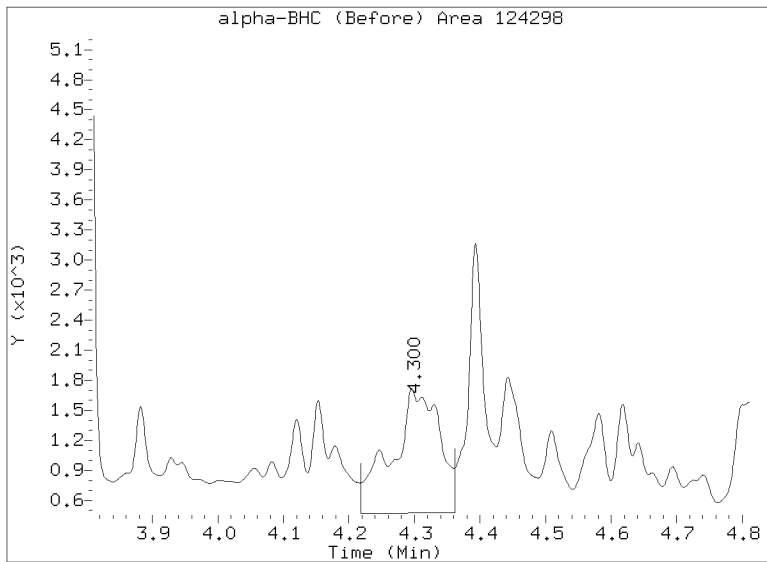
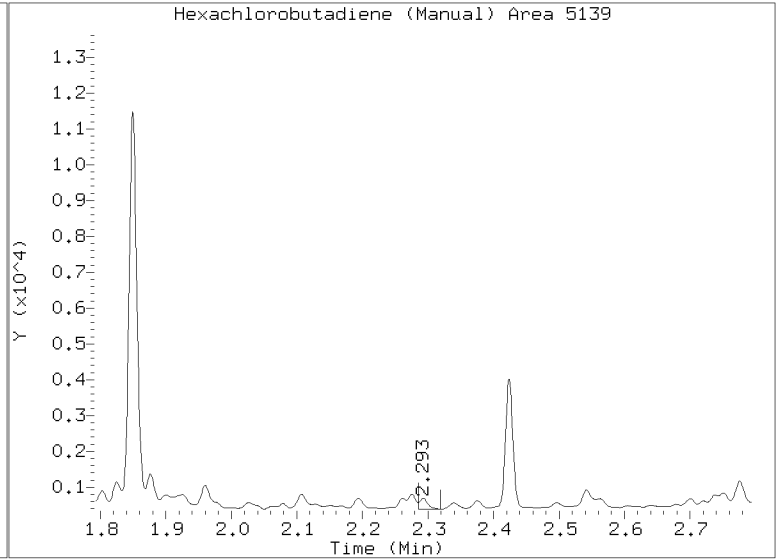
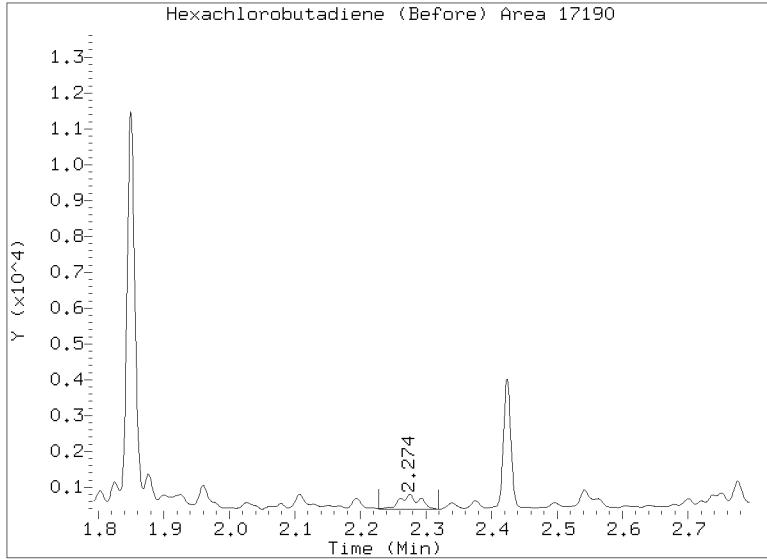
/20230513.b/B20230513.b/23051316.D 23D0396-01 CLP2



CLP-2 Manual Integration: NO

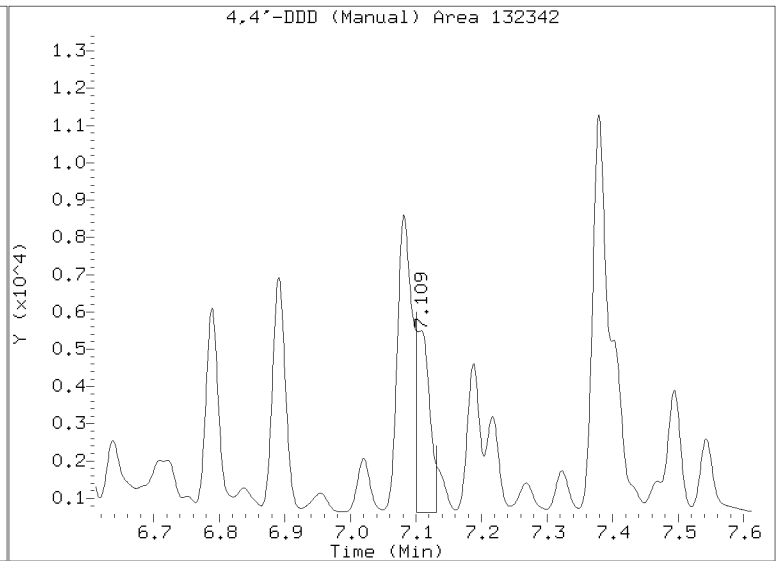
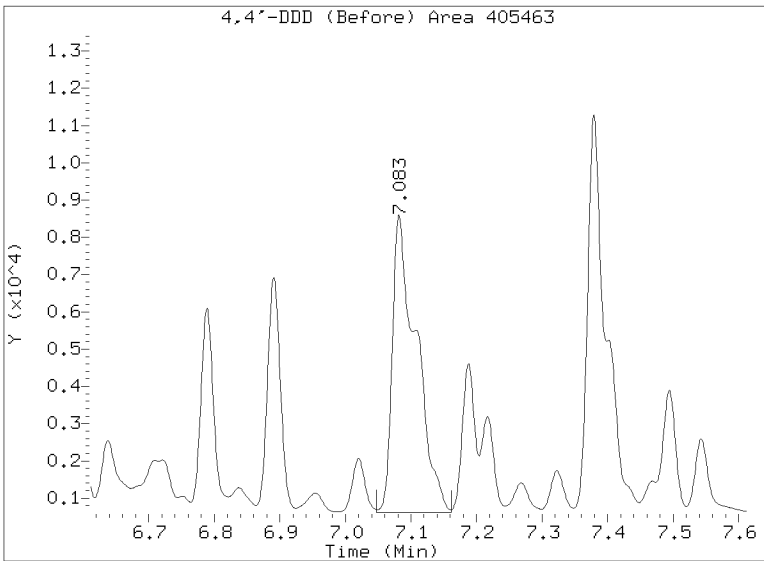
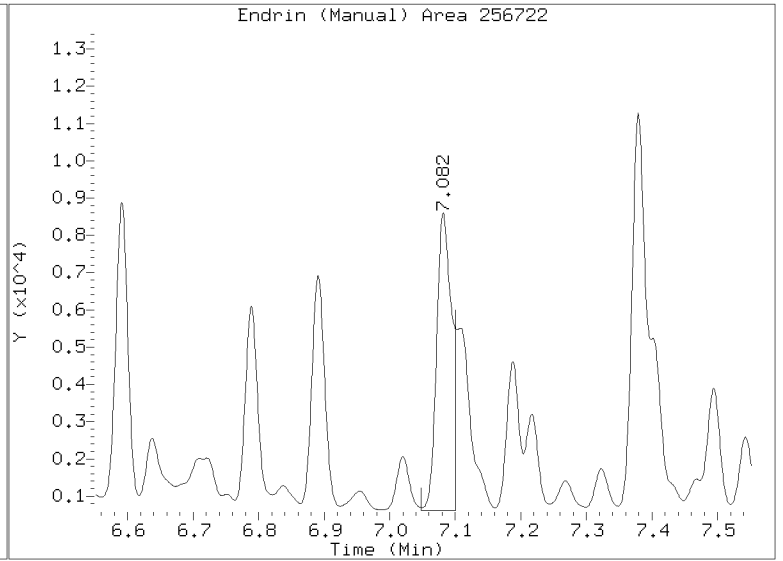
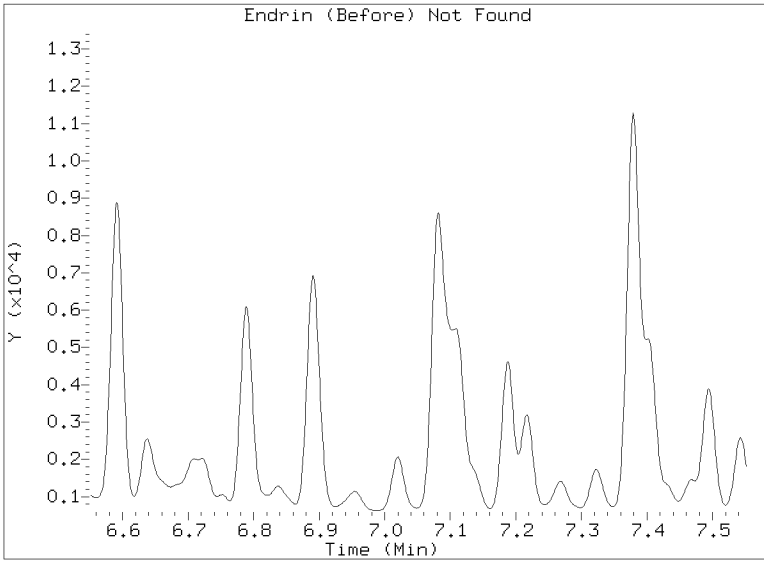
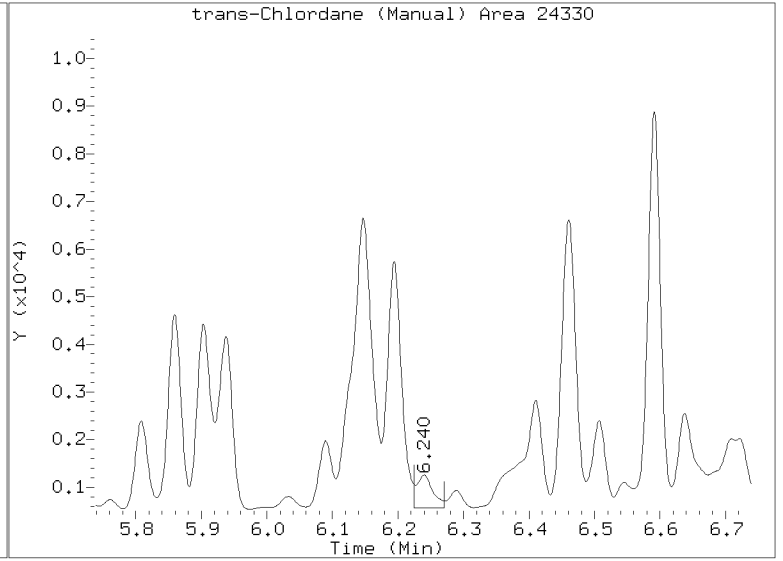
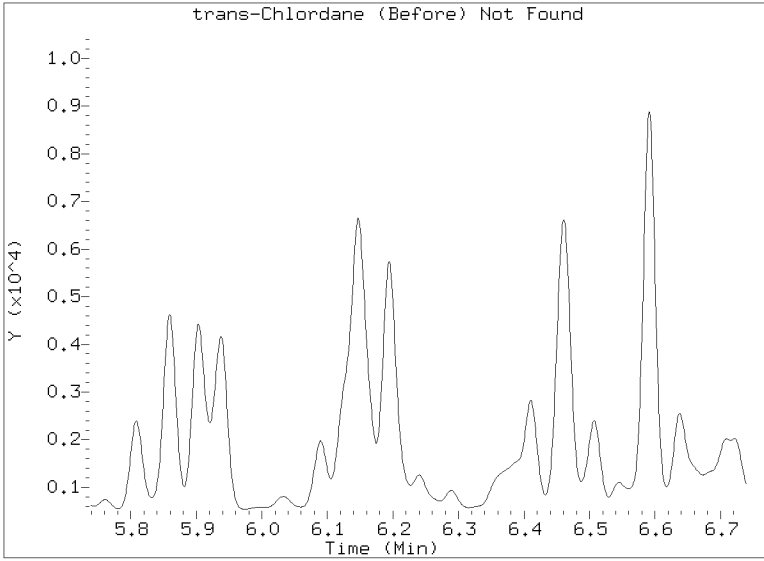
Manual Peak Adjustment Report, STX-CLP

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Injection Date: 13-MAY-2023 20:14
Lab ID:23D0396-01 Client ID:
Report Date: 05/25/2023 19:14



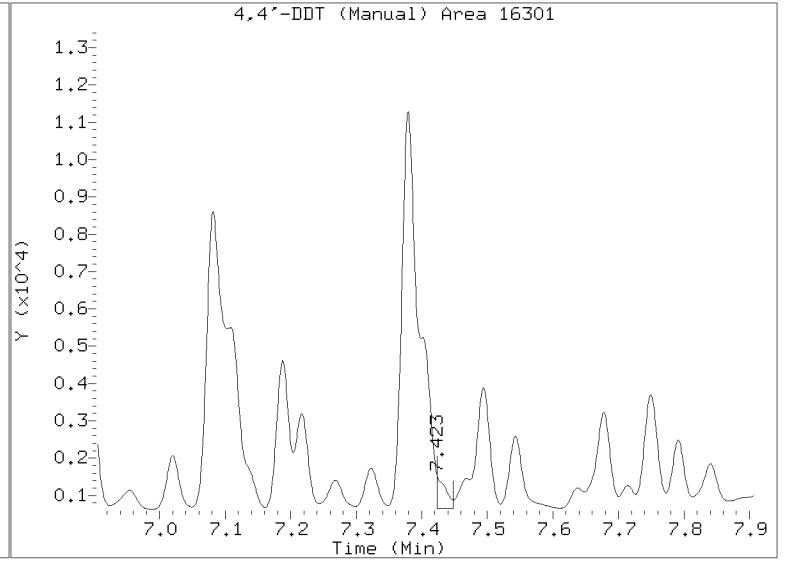
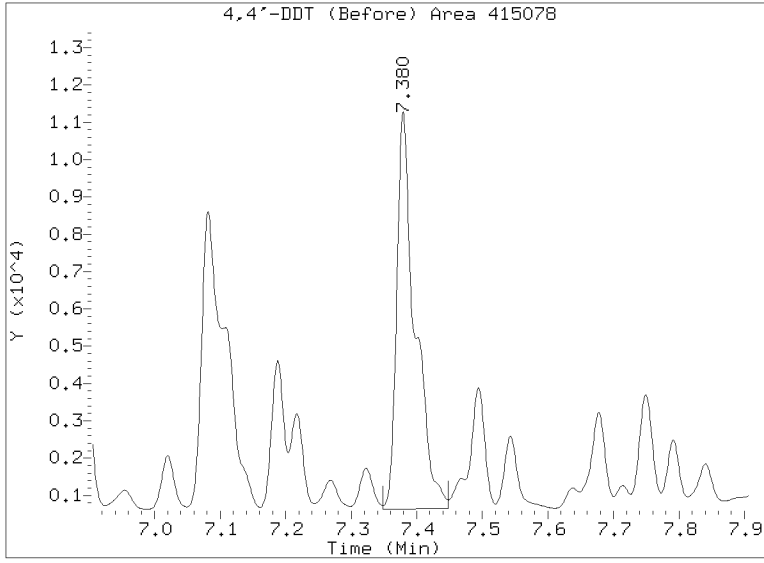
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Manual Peak Adjustment Report, STX-CLP

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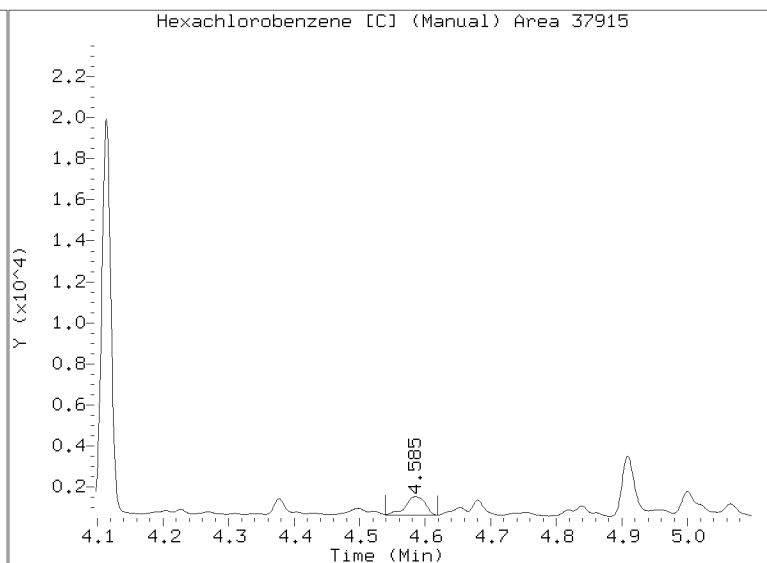
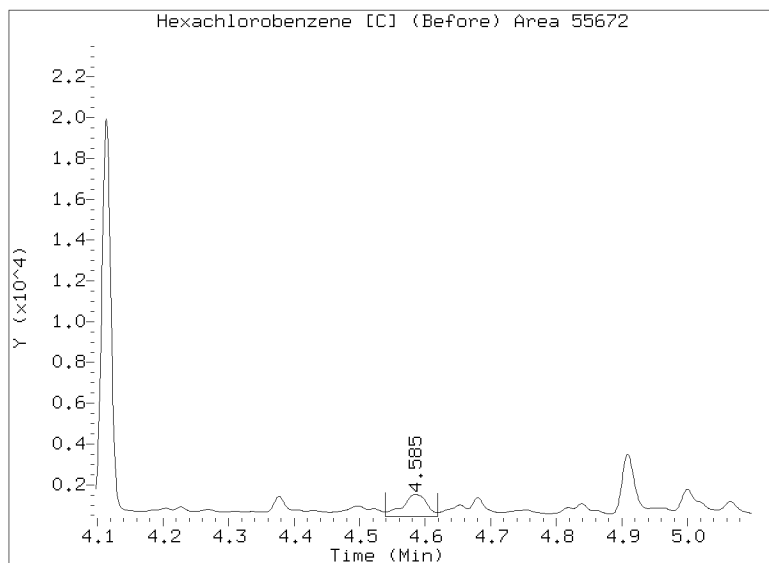
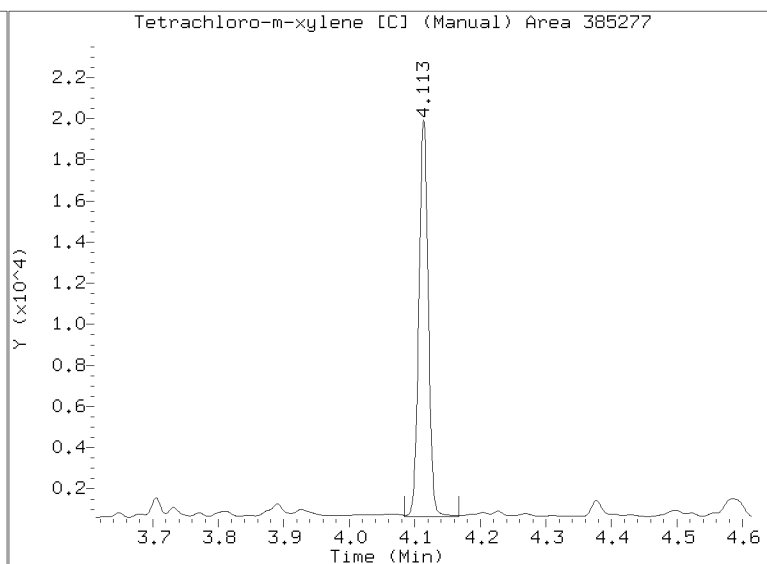
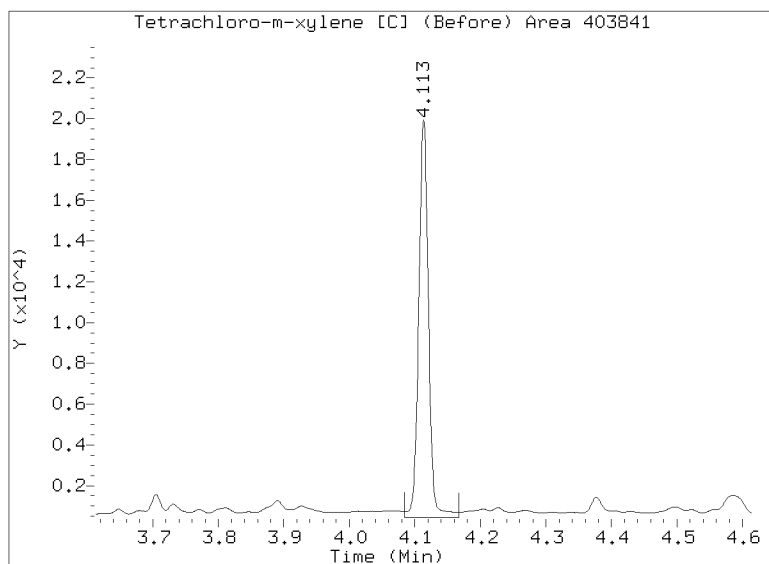
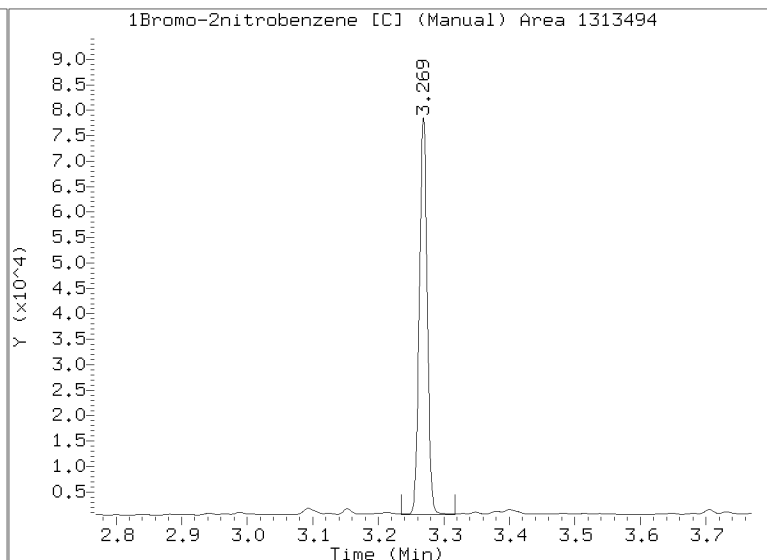
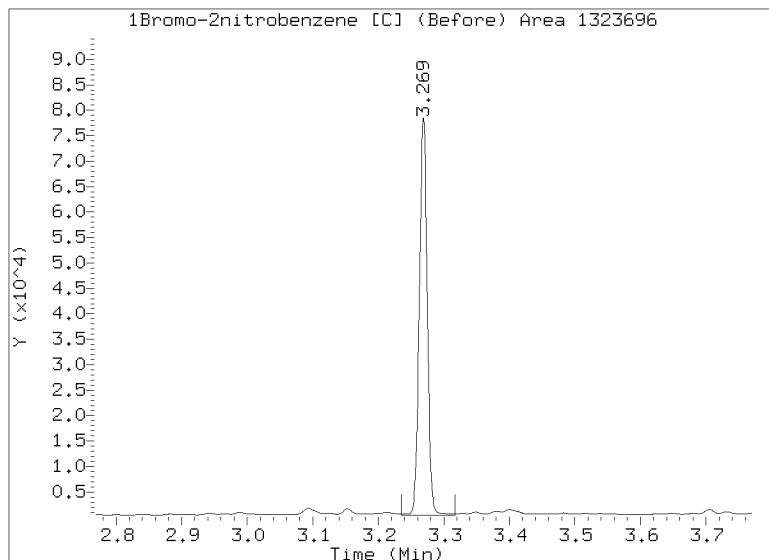


Manual Peak Adjustment Report, CLP-2

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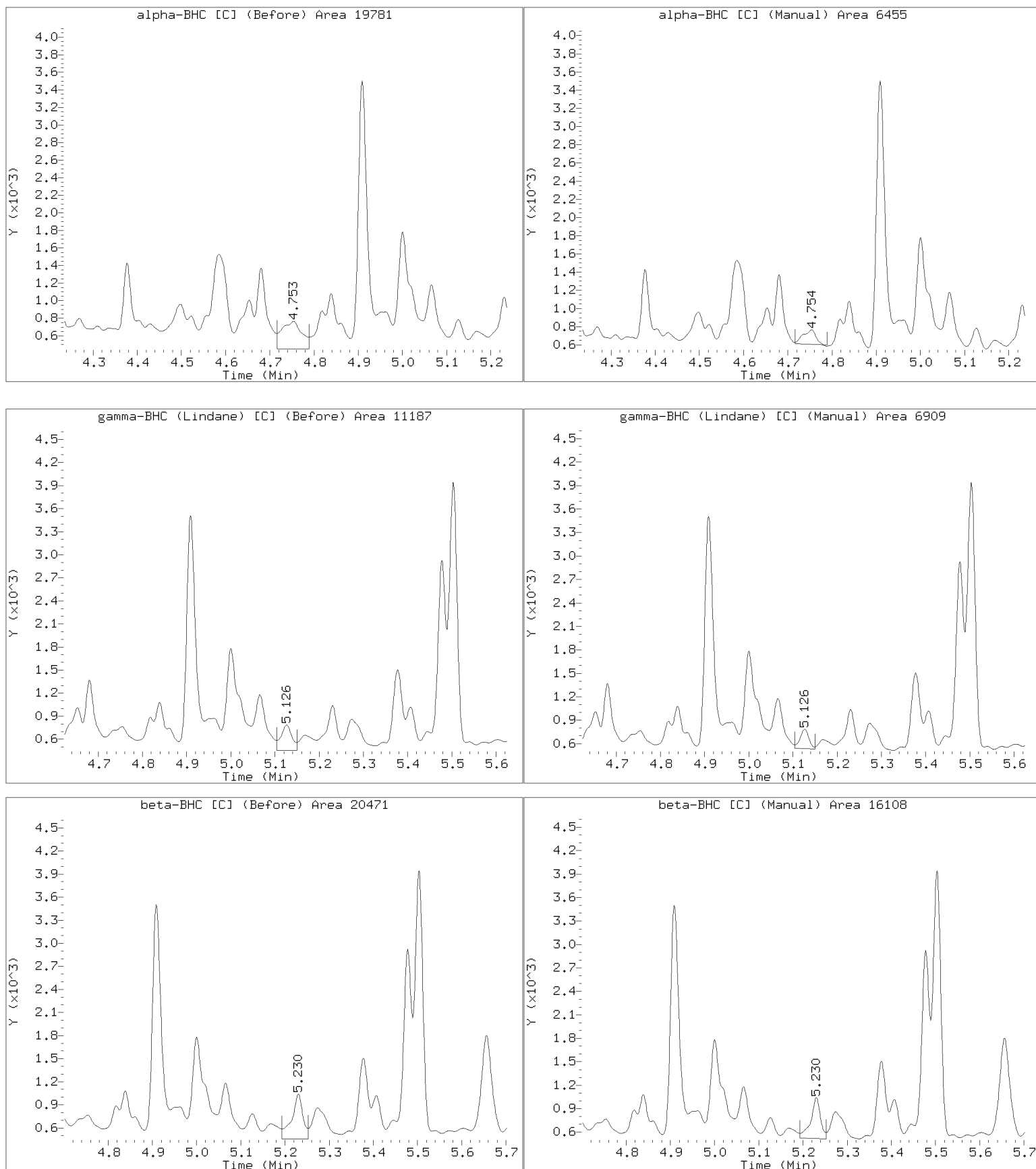


Manual Peak Adjustment Report, CLP-2

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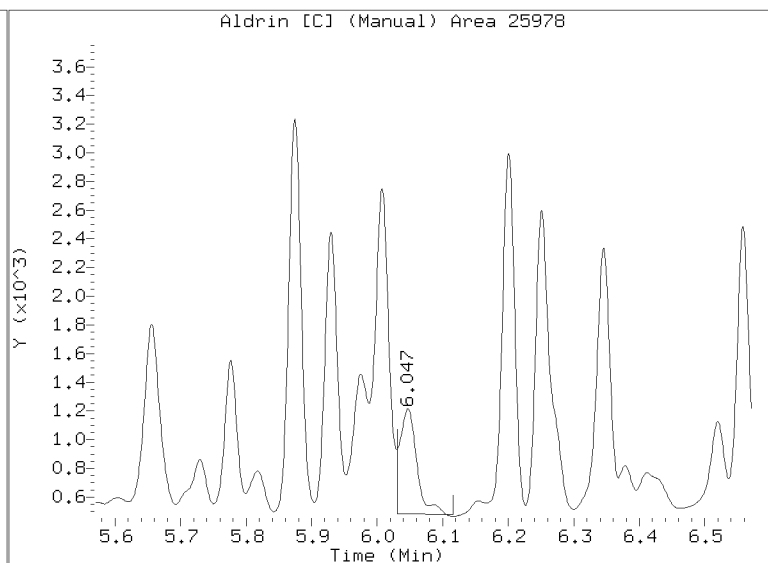
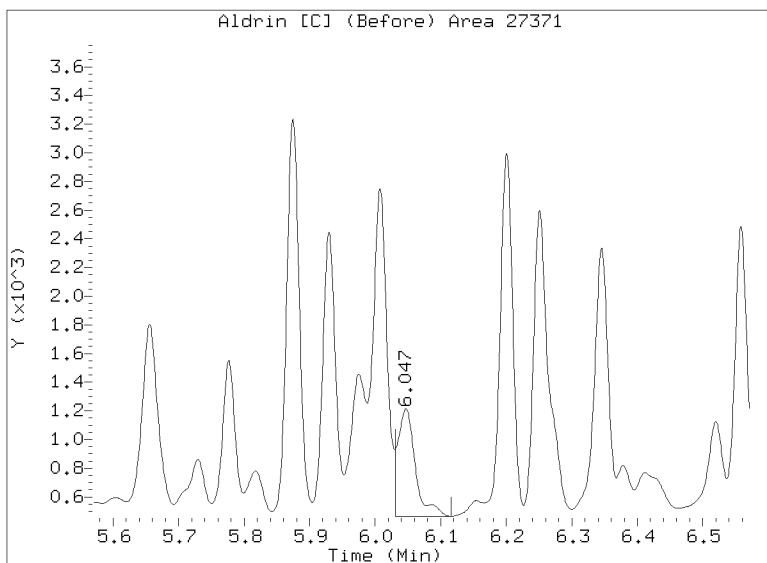
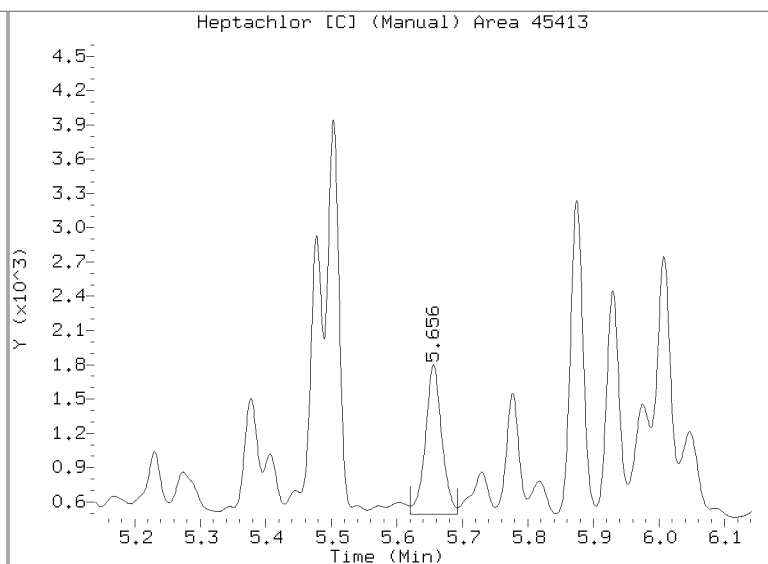
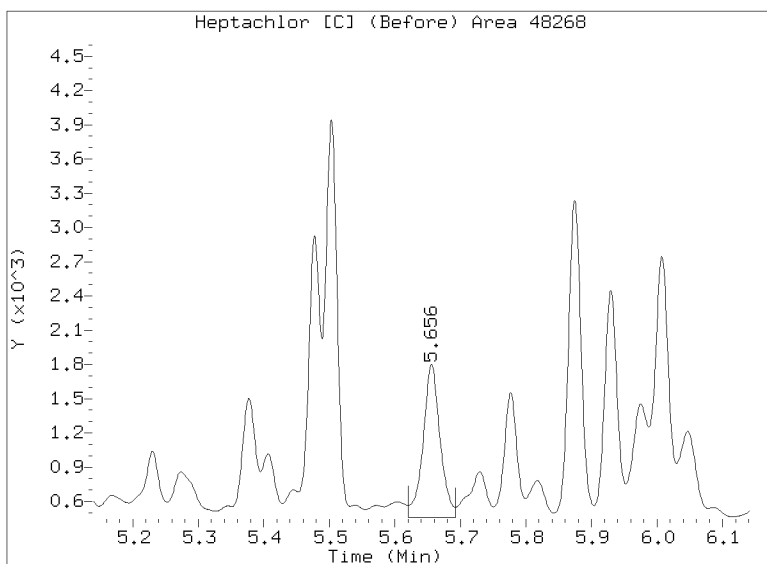
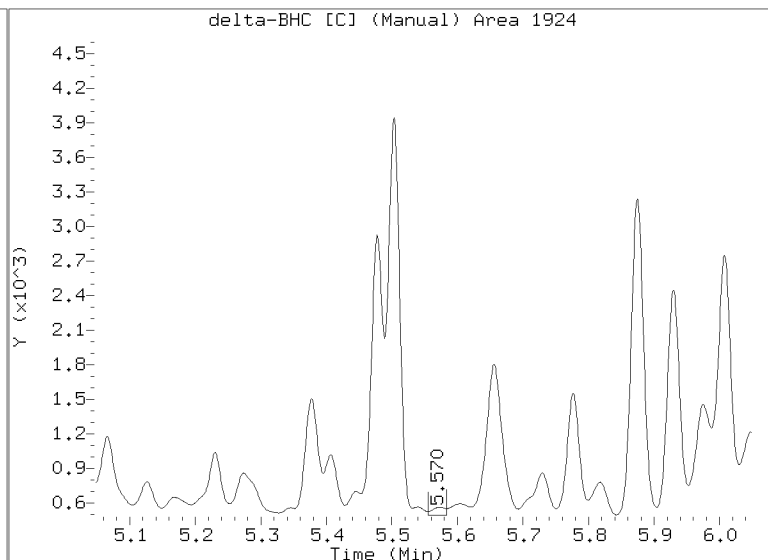
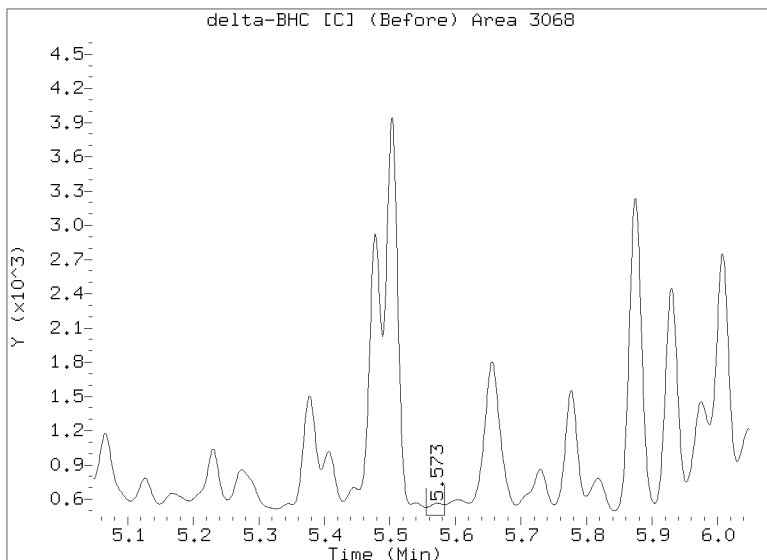


Manual Peak Adjustment Report, CLP-2

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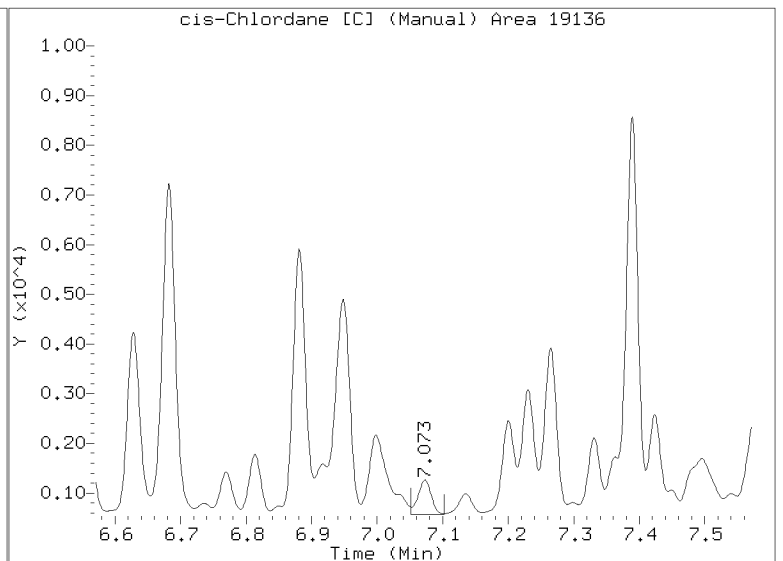
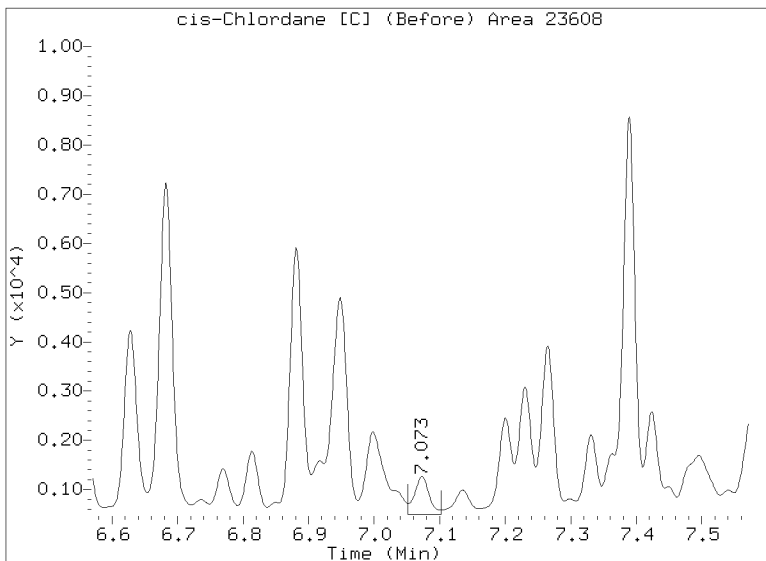
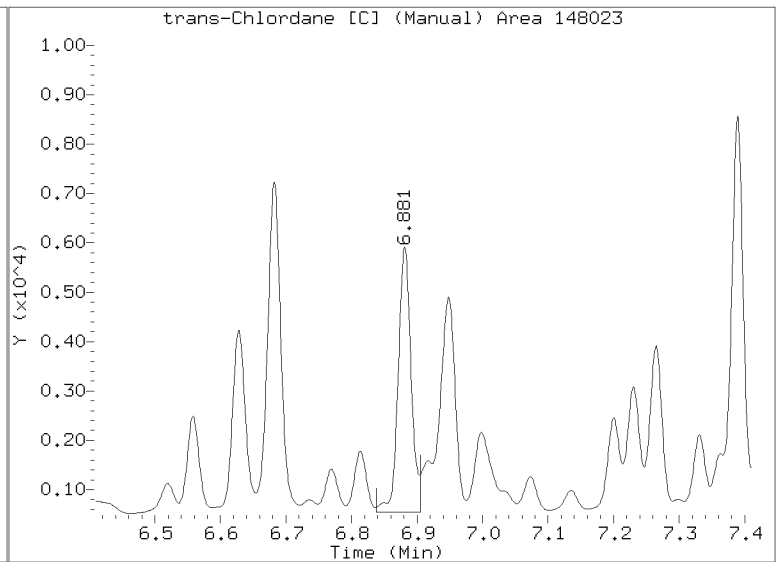
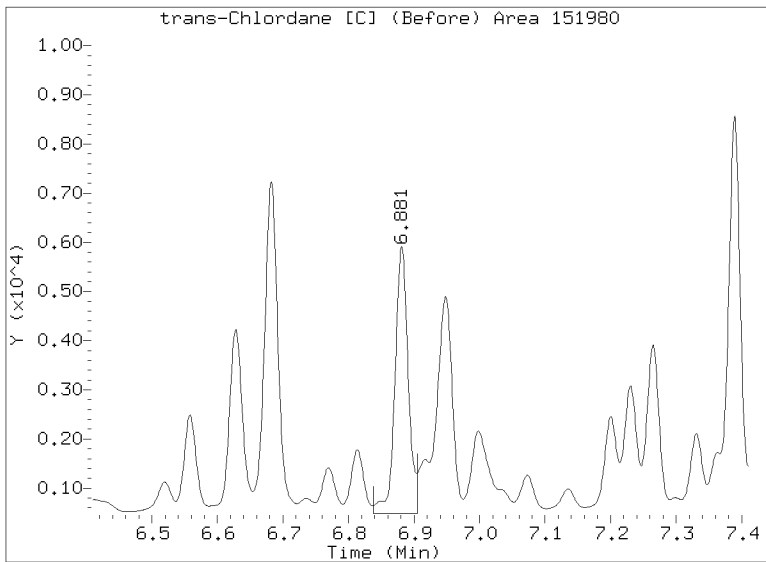
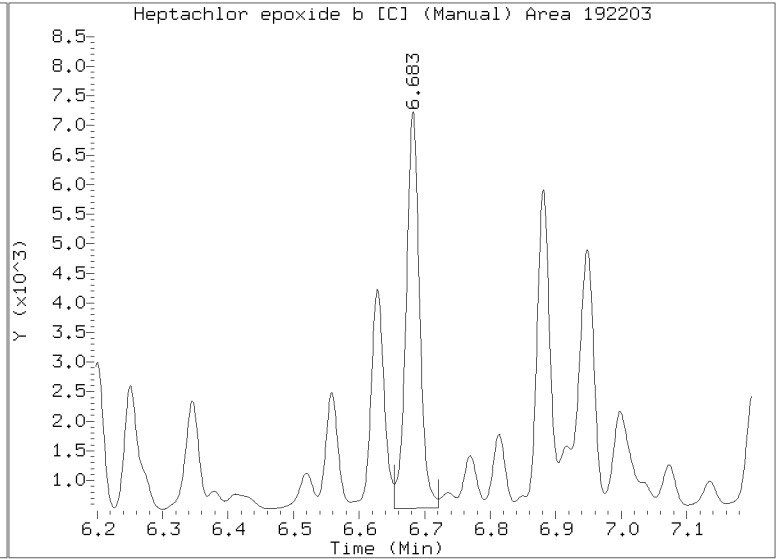
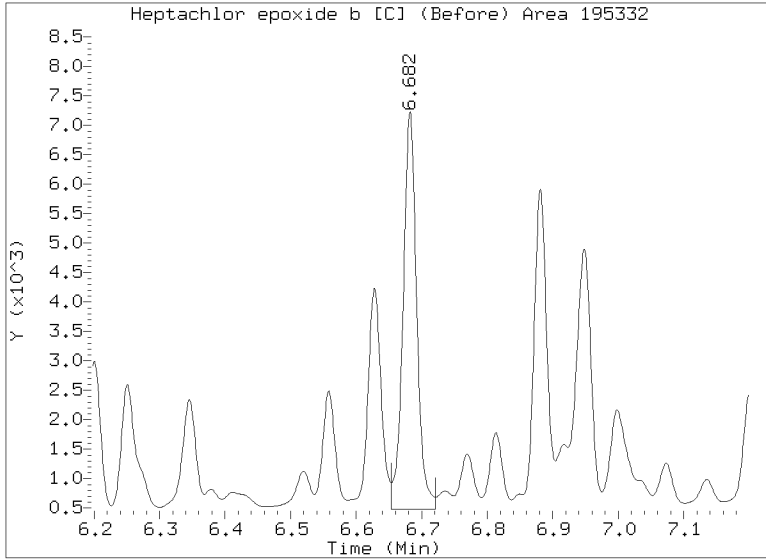


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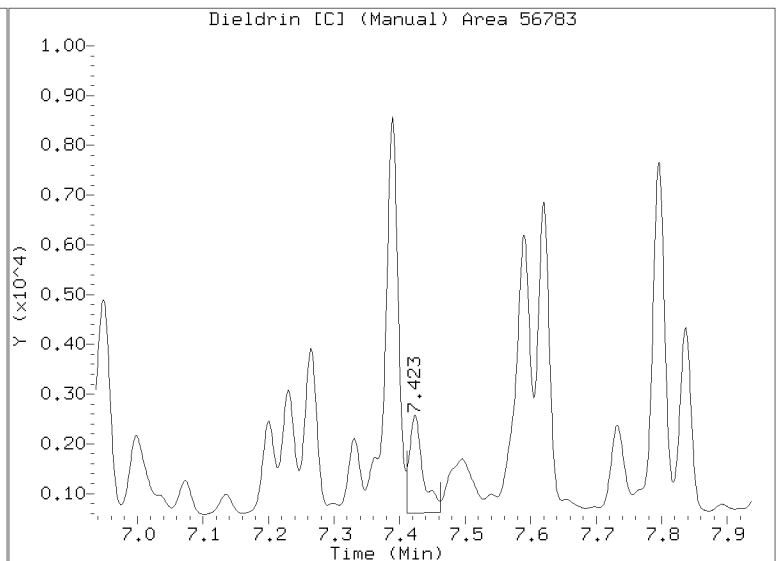
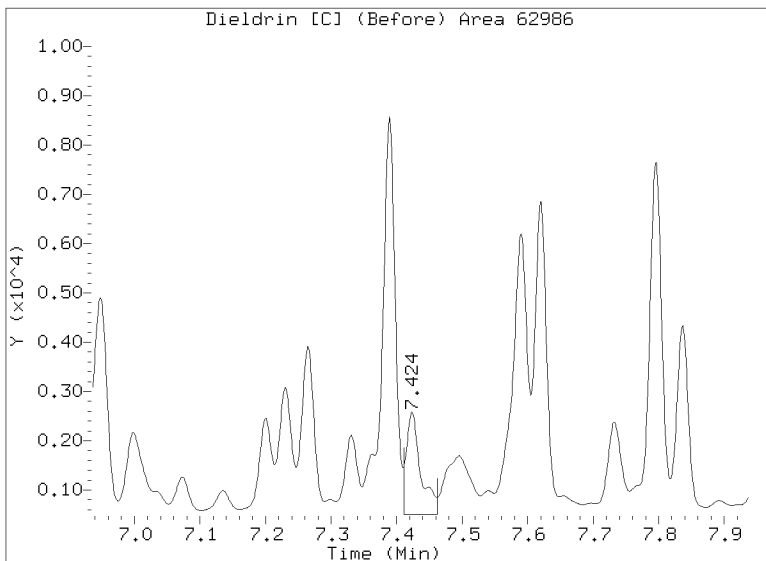
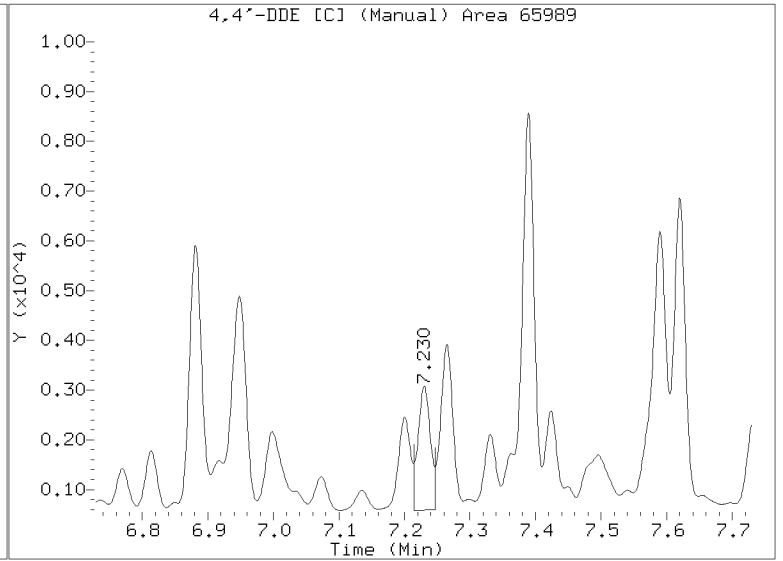
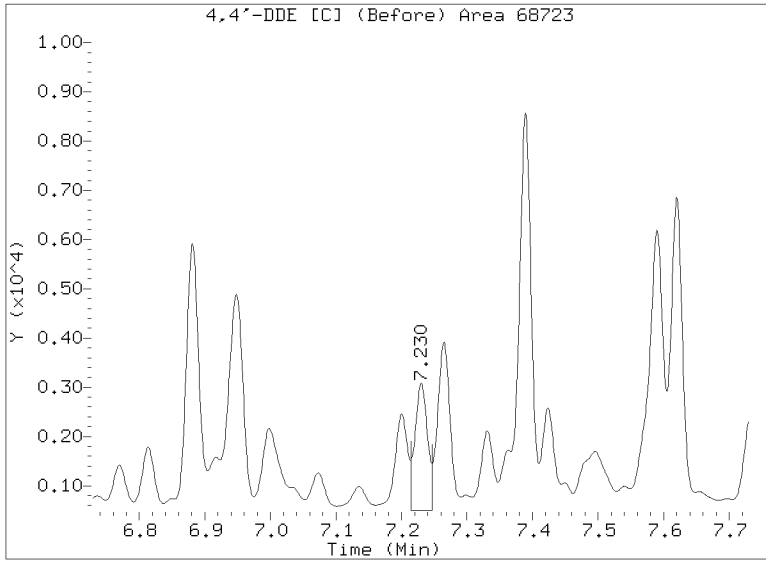
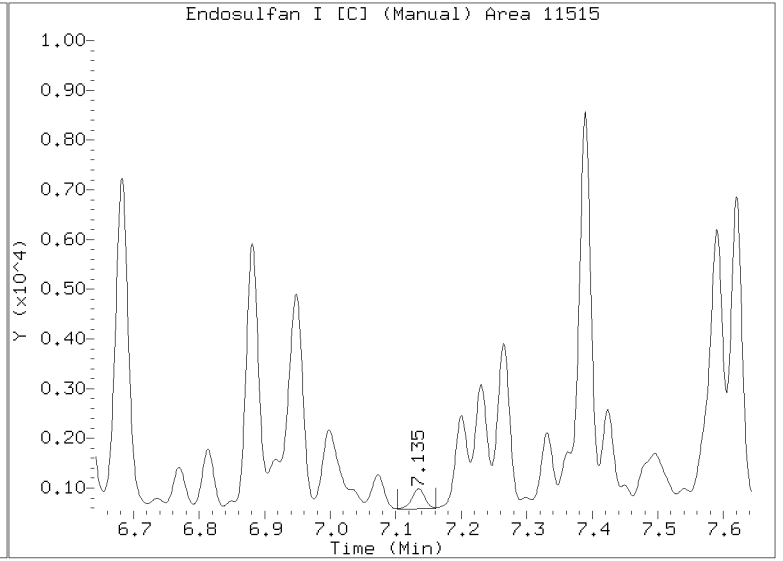
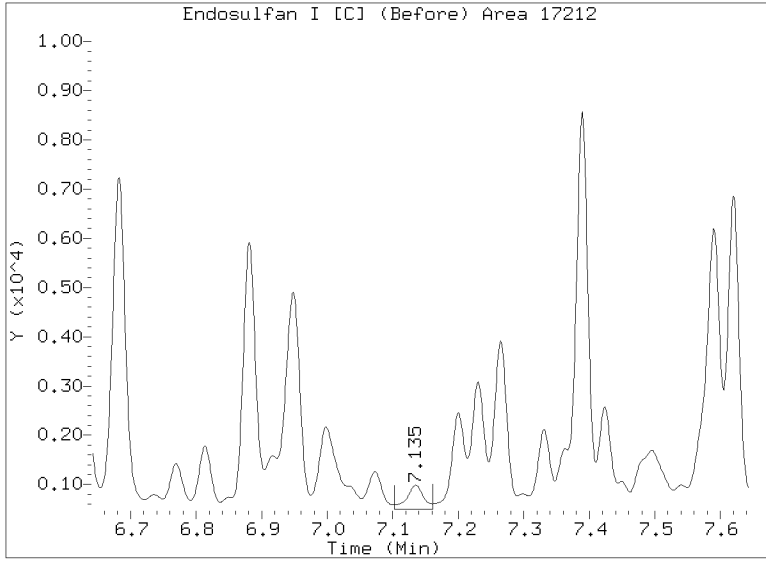


Manual Peak Adjustment Report, CLP-2

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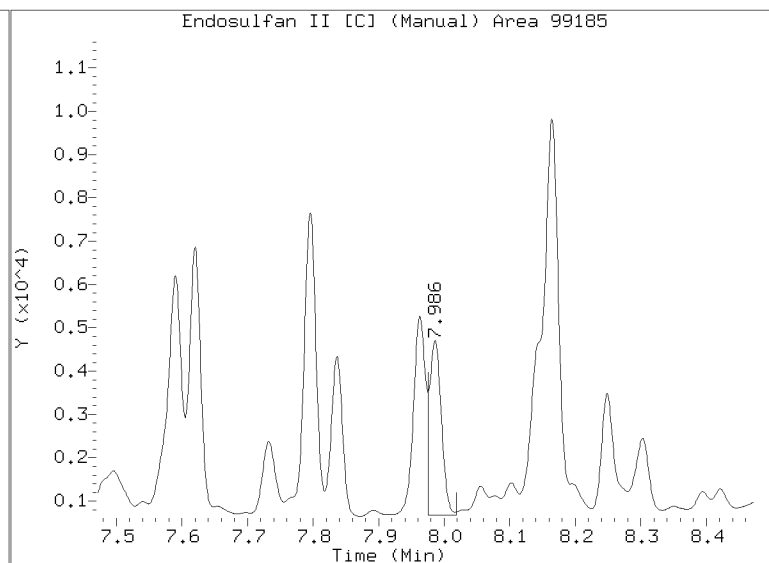
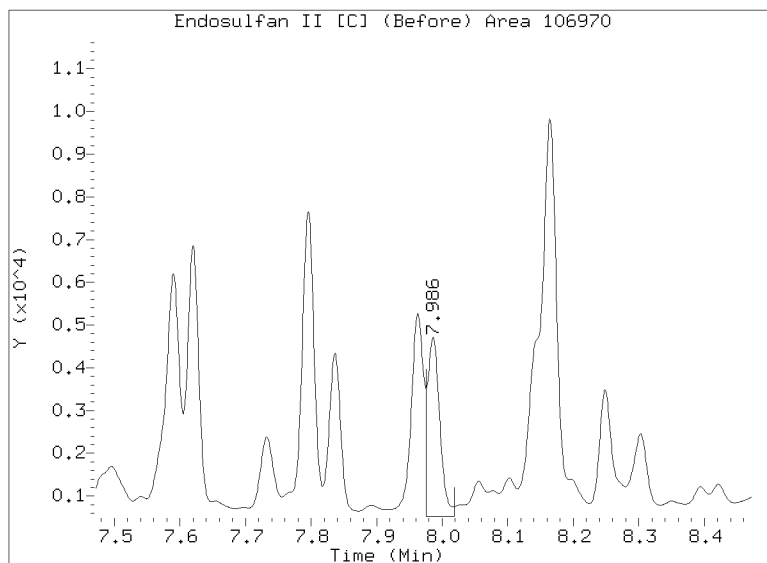
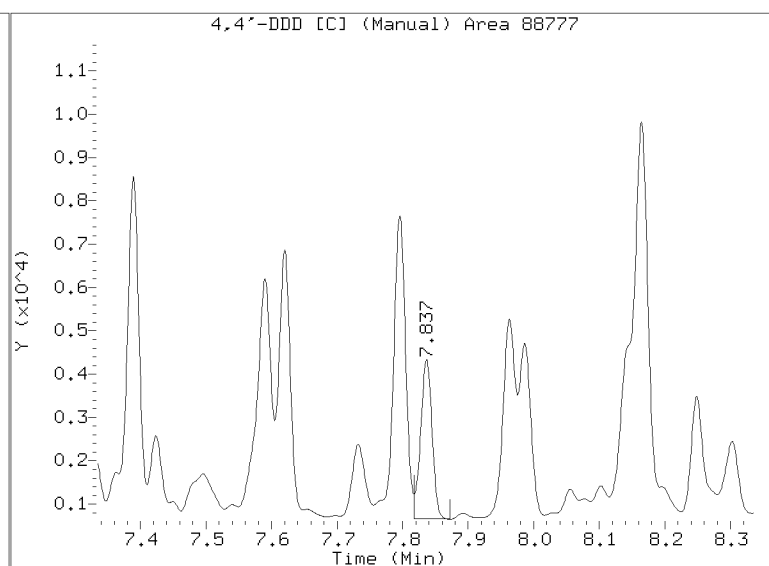
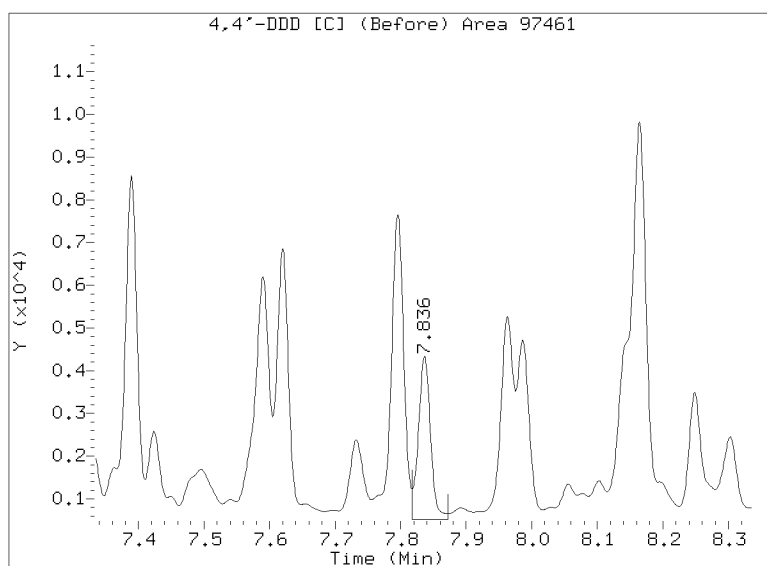
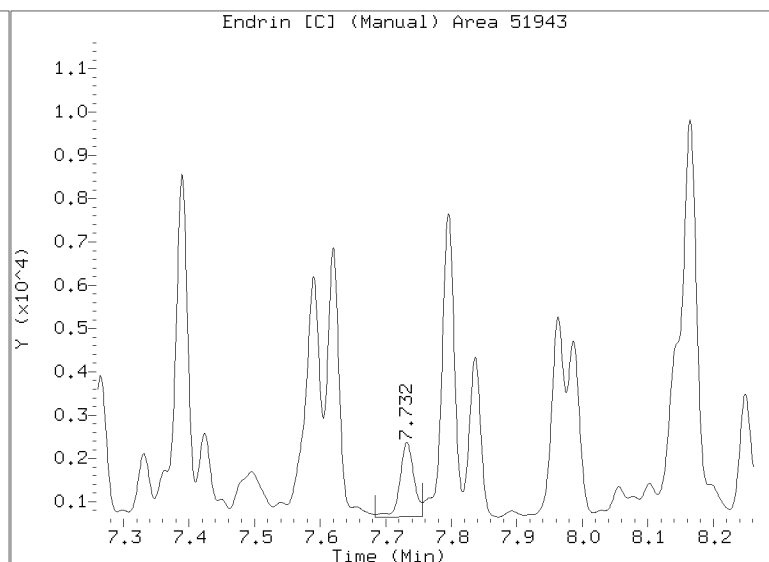
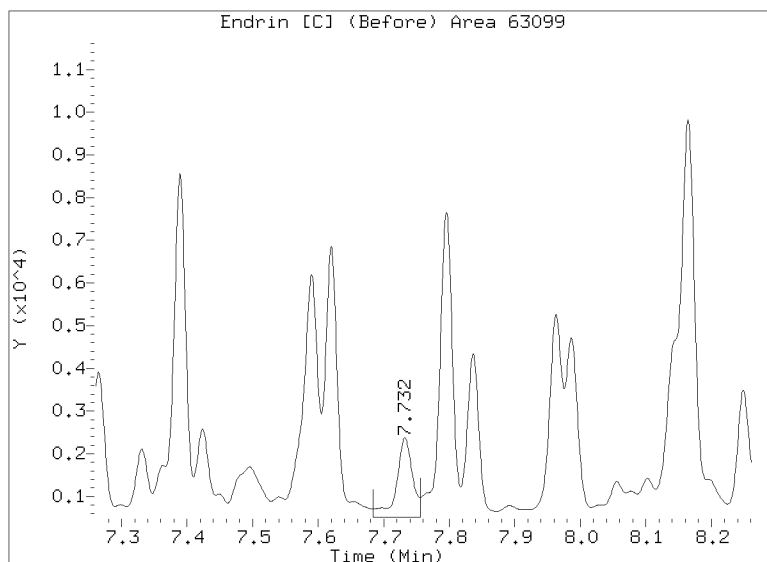


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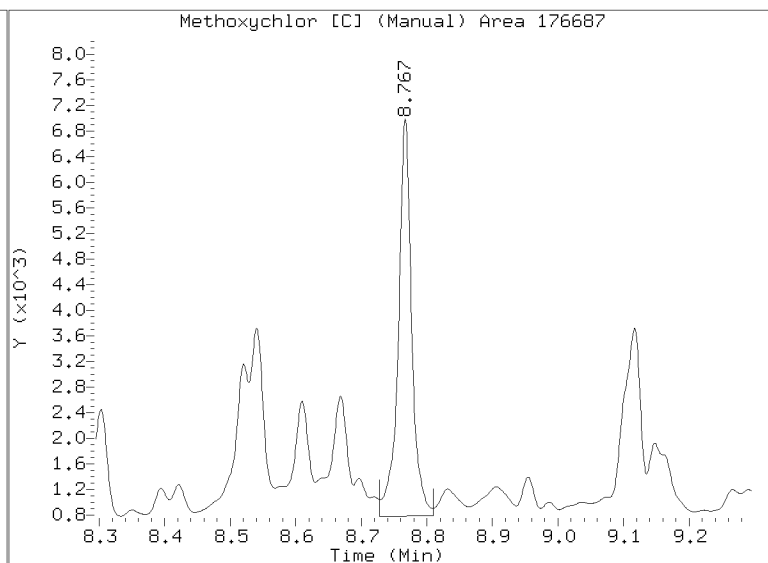
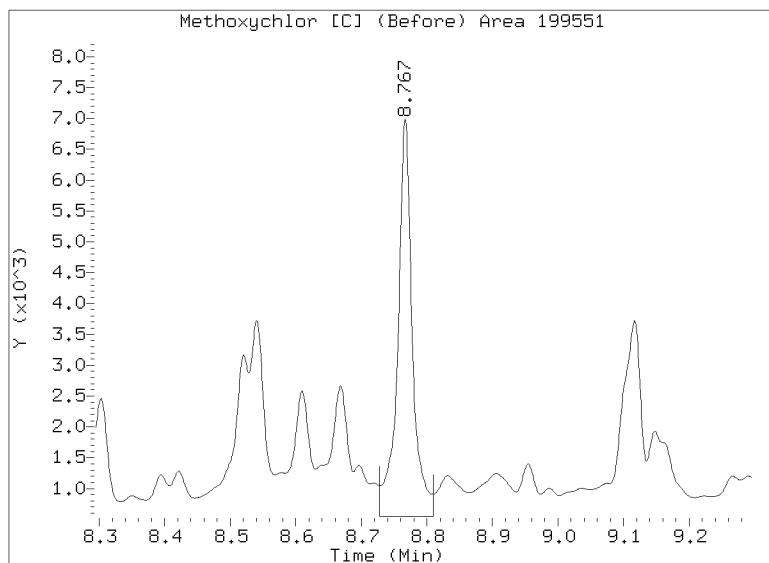
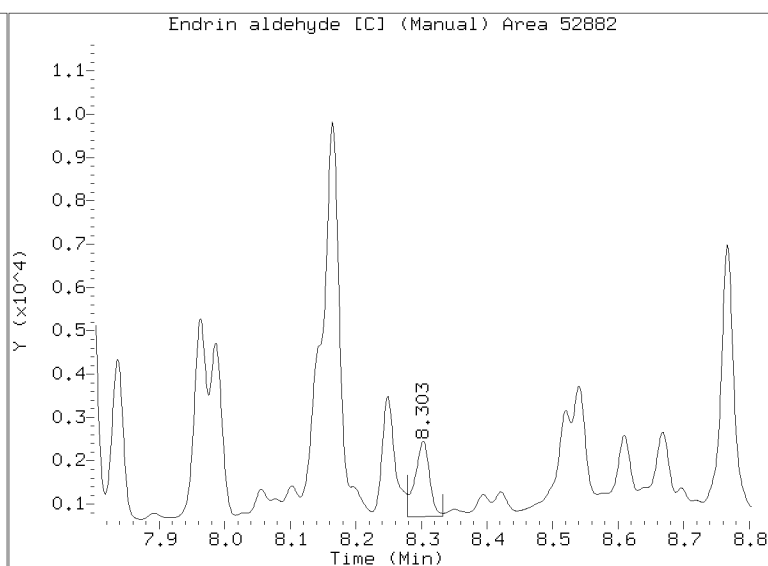
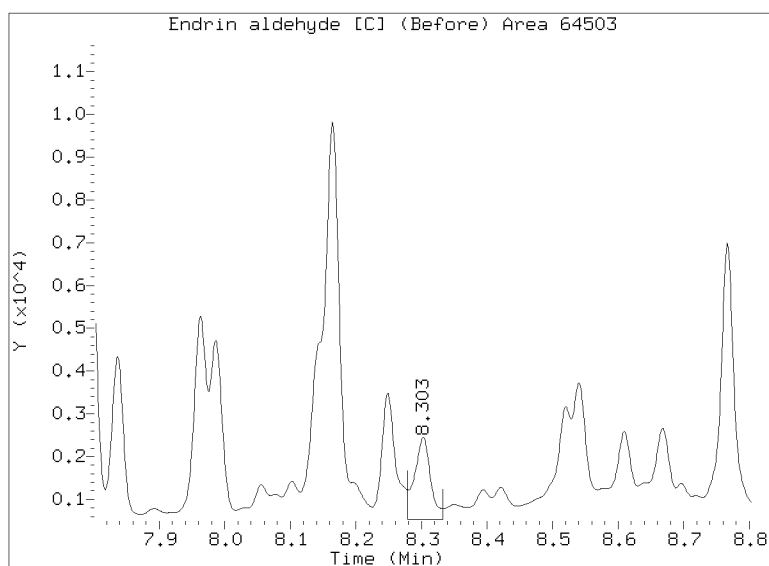
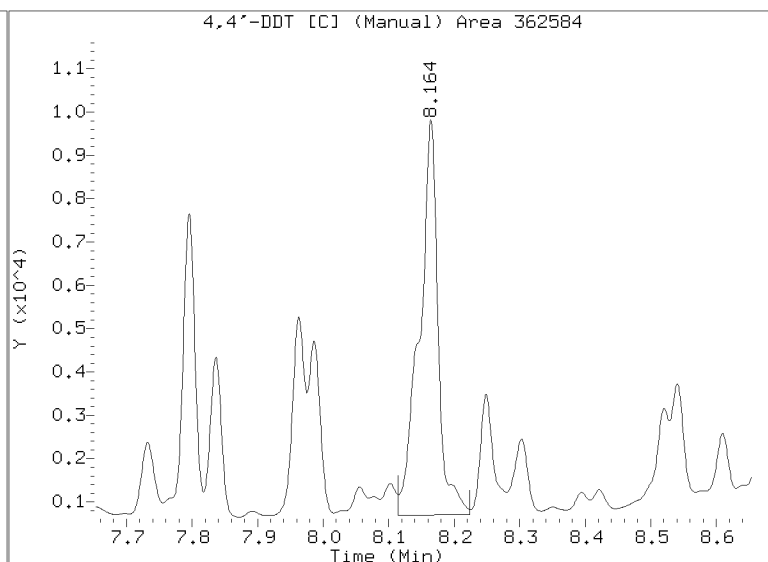
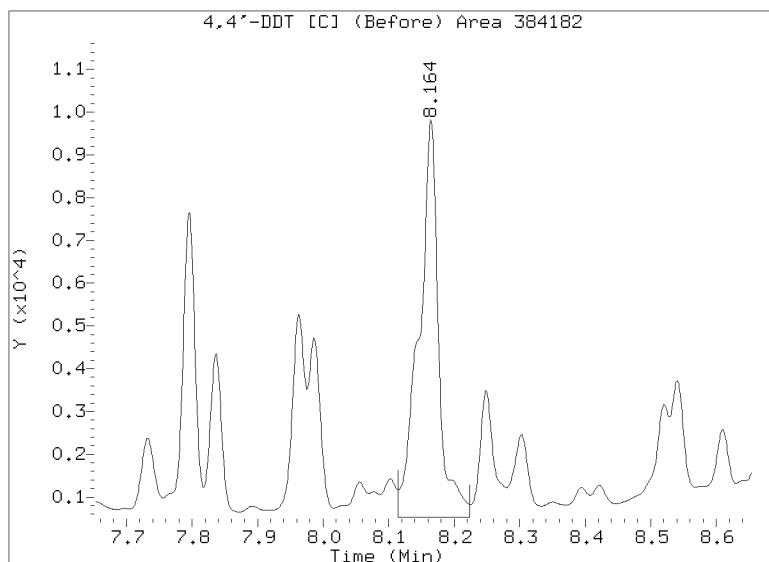


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051316.D

Injection Date: 13-MAY-2023 20:14

Lab ID:23D0396-01 Client ID:

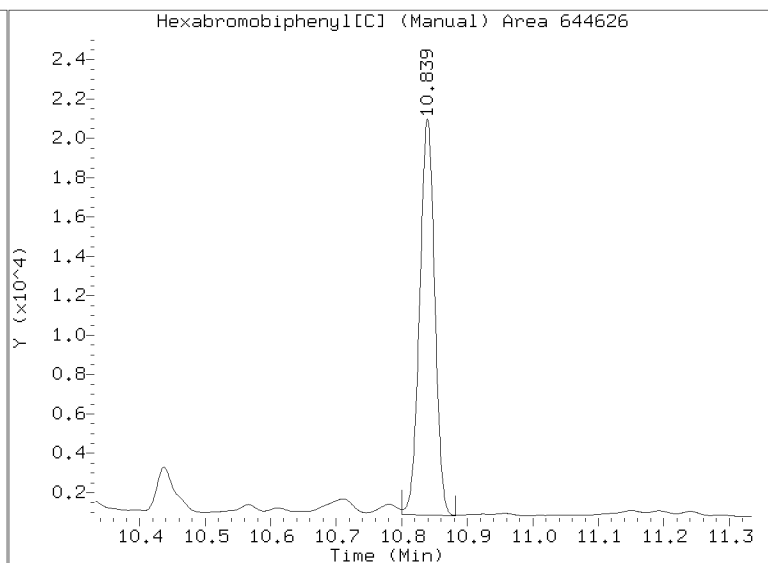
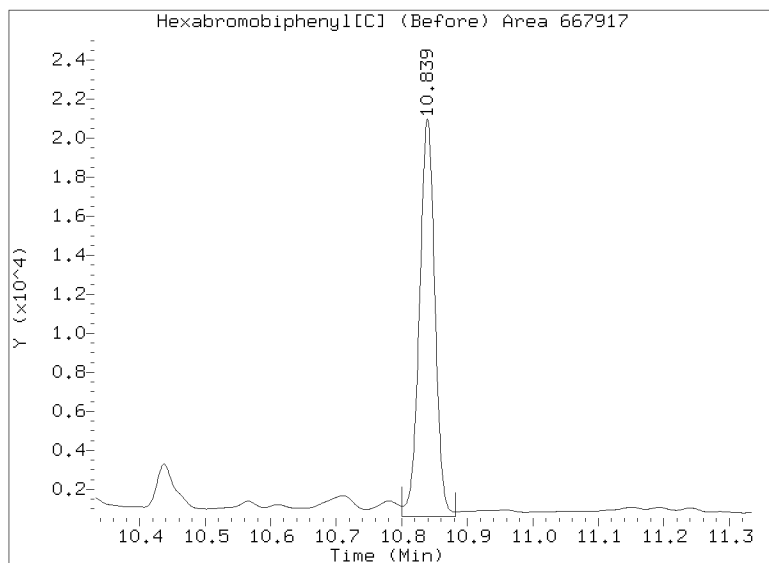
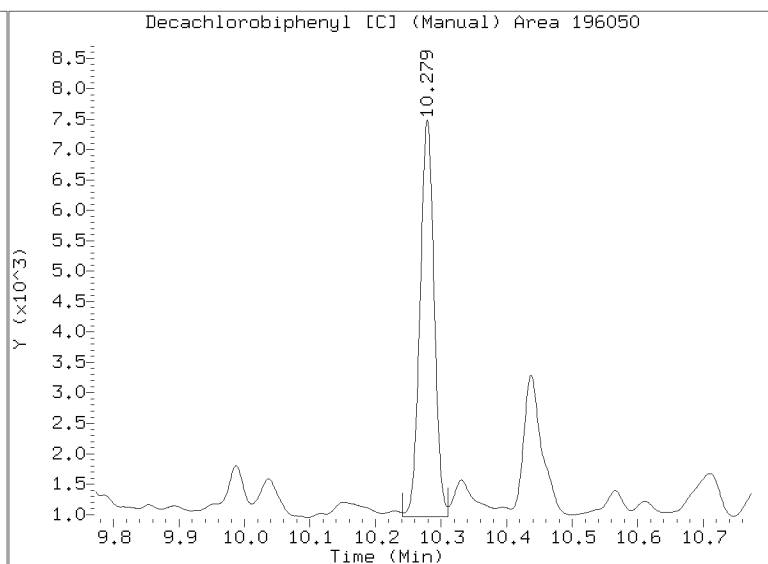
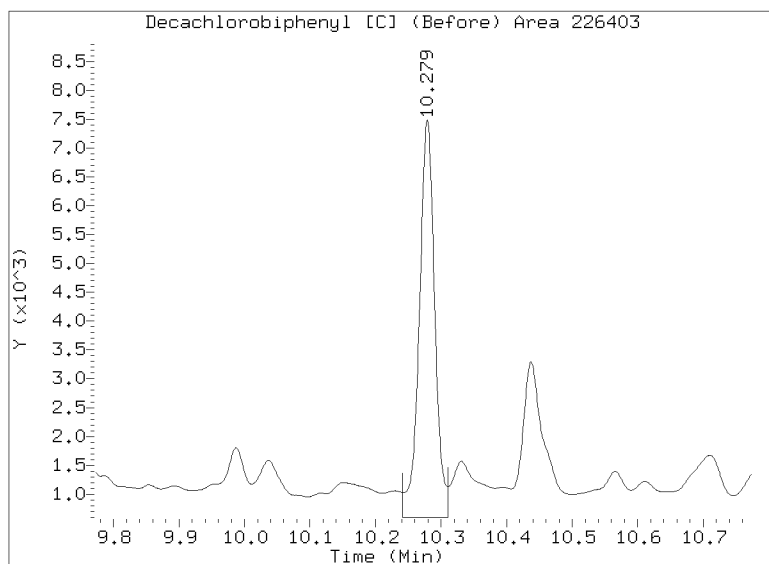
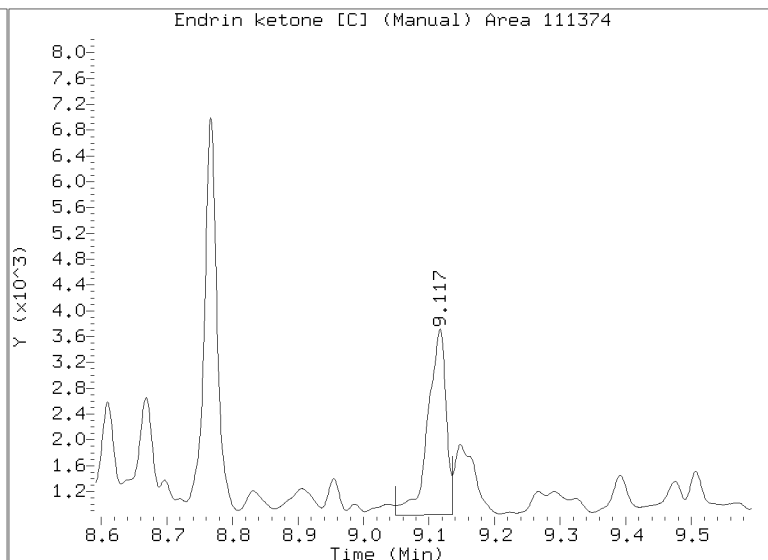
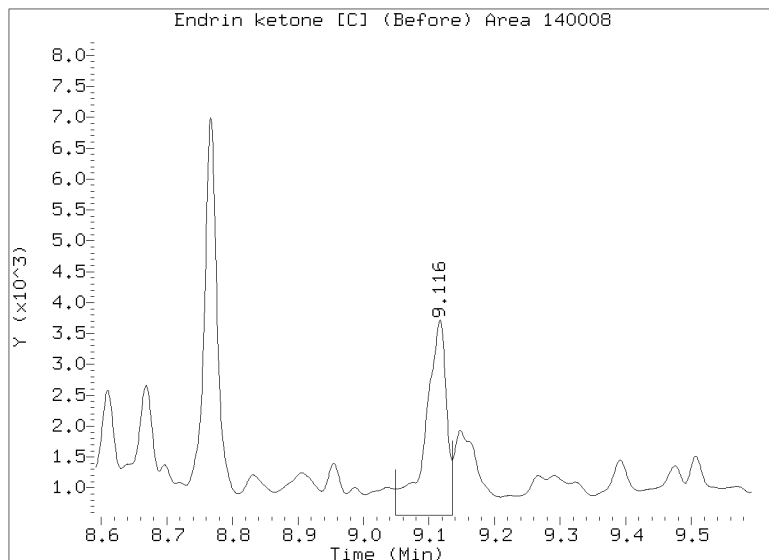


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051316.D

Injection Date: 13-MAY-2023 20:14

Lab ID:23D0396-01 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051317.D
Data file 2: /20230513.b/B20230513.b/23051317.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23D0396-03
Client ID:
Injection Date: 13-MAY-2023 20:32
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.320	0.009	14704	----			0.48	0.00	---	alpha-BHC
4.694	-0.001	8391	----			0.68	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
4.618	0.004	25036	5.126	0.001	5743	0.92	0.24	117.5*	gamma-BHC (Lindane) M
----			----			0.00	0.00	---	Heptachlor
----			6.046	0.007	22979	0.00	1.05	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
6.544	0.004	15396	7.135	-0.008	10811	0.75	0.66	12.6	Endosulfan I M
----			----			0.00	0.00	---	Dieldrin
6.461	-0.004	183953	7.230	0.001	66150	8.98	3.88	79.4*	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
7.101	-0.011	119146	7.837	0.001	77622	8.68	6.36	30.9	4,4'-DDD M
8.146	-0.006	11720	----			0.87	0.00	---	Endosulfan sulfate
7.396	-0.010	87380	----			5.91	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
7.714	-0.004	13825	8.303	-0.002	46938	1.27	5.14	121.0*	Endrin aldehyde M
6.239	-0.000	23205	----			1.03	0.00	---	trans-Chlordane
----			7.073	0.002	19591	0.00	1.08	---	cis-Chlordane
----			2.462	0.025	1464	0.00	0.06	---	Hexachlorobutadiene
4.153	-0.001	24914	4.592	-0.006	38041	0.91	1.60	54.7*	Hexachlorobenzene M
3.799	-0.000	416437	4.113	-0.000	392323	21.10	22.22	5.2	Tetrachloro-m-xylene M
9.347	0.005	246122	10.278	0.005	197135	23.59	24.61	4.2	Decachlorobiphenyl M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

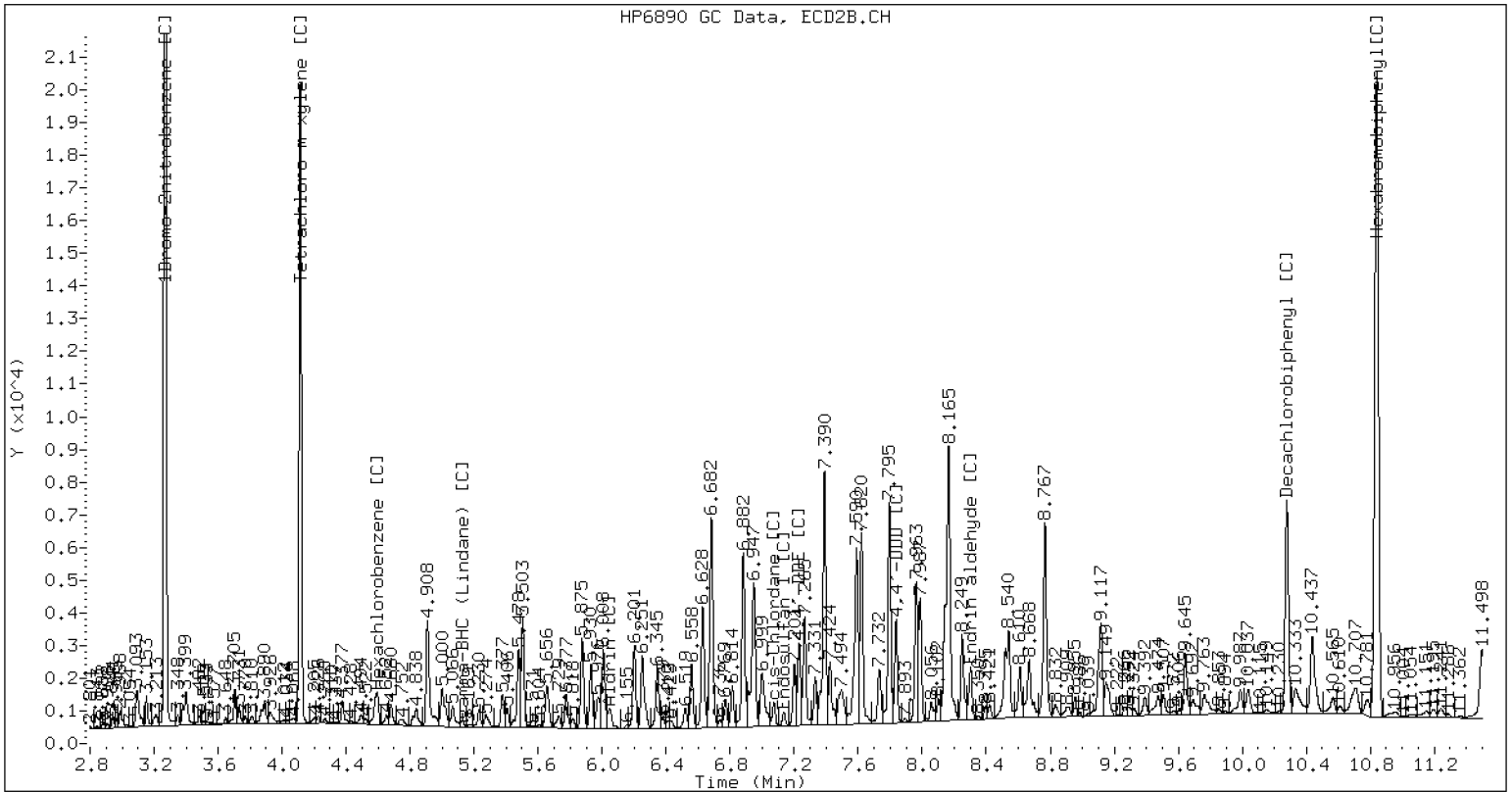
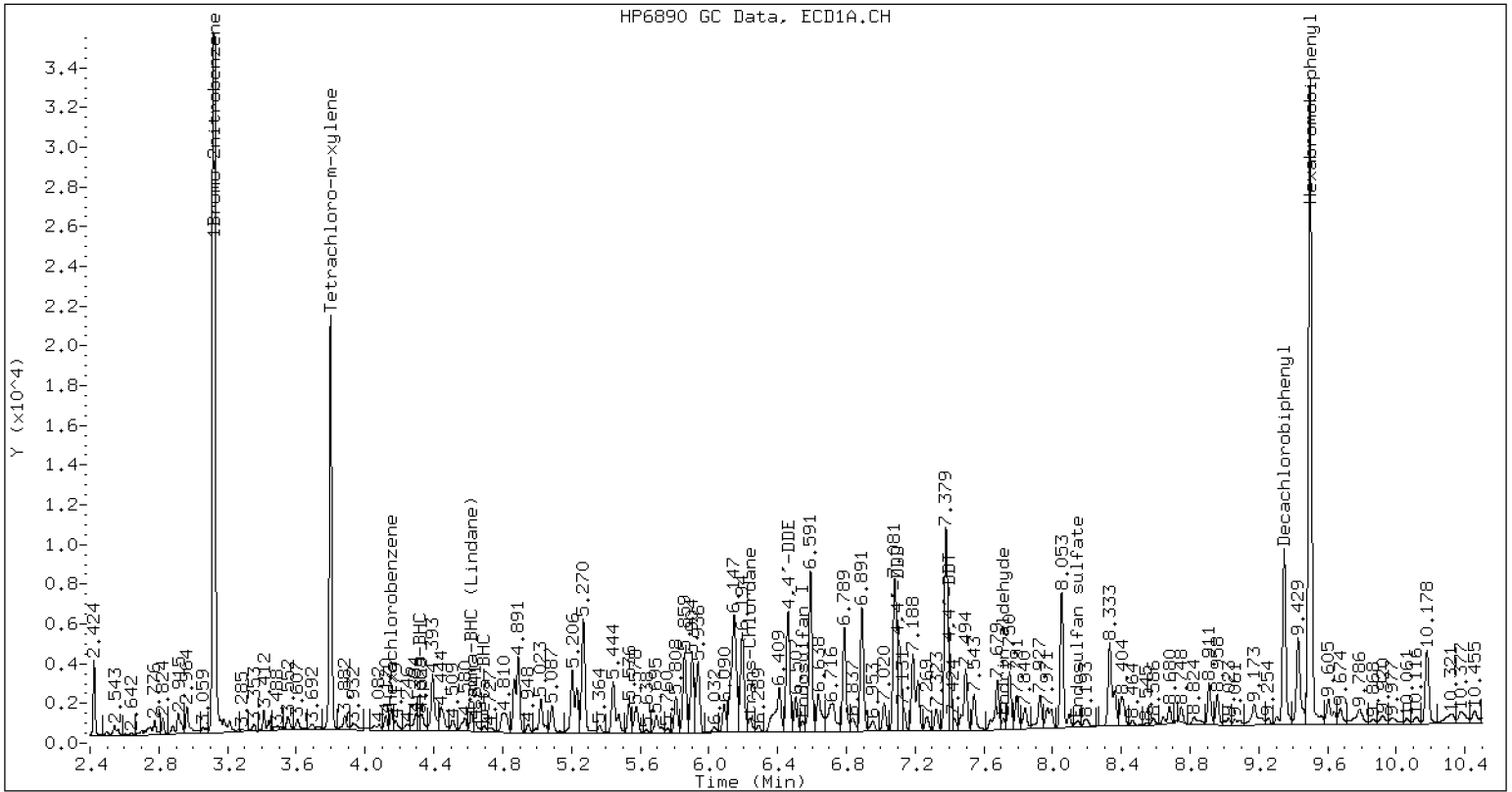
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	1410491	51.2
Hexabromobiphenyl	745426	884703	18.7

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	1283782	2.8
Hexabromobiphenyl	754634	663781	-12.0

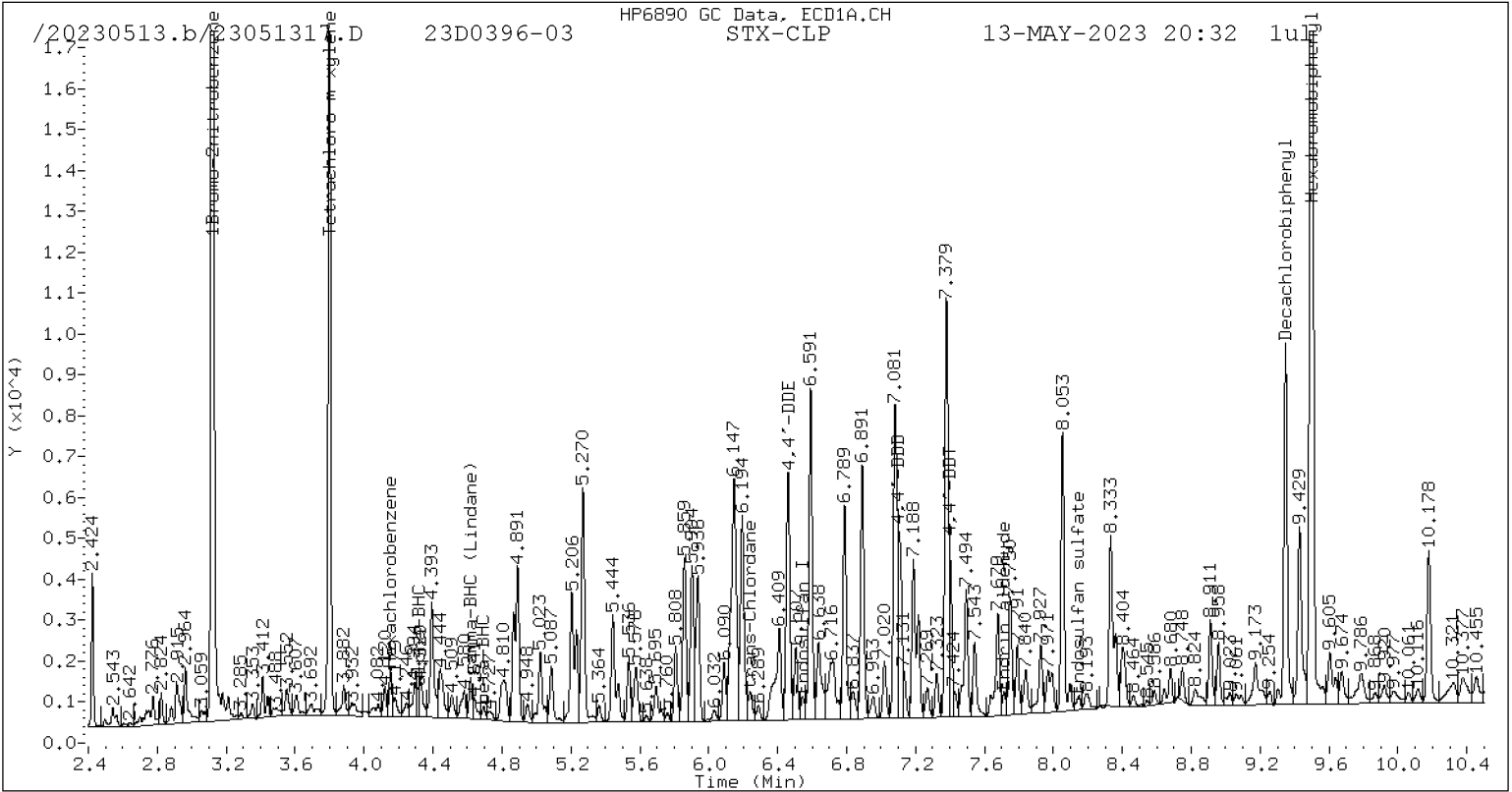
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

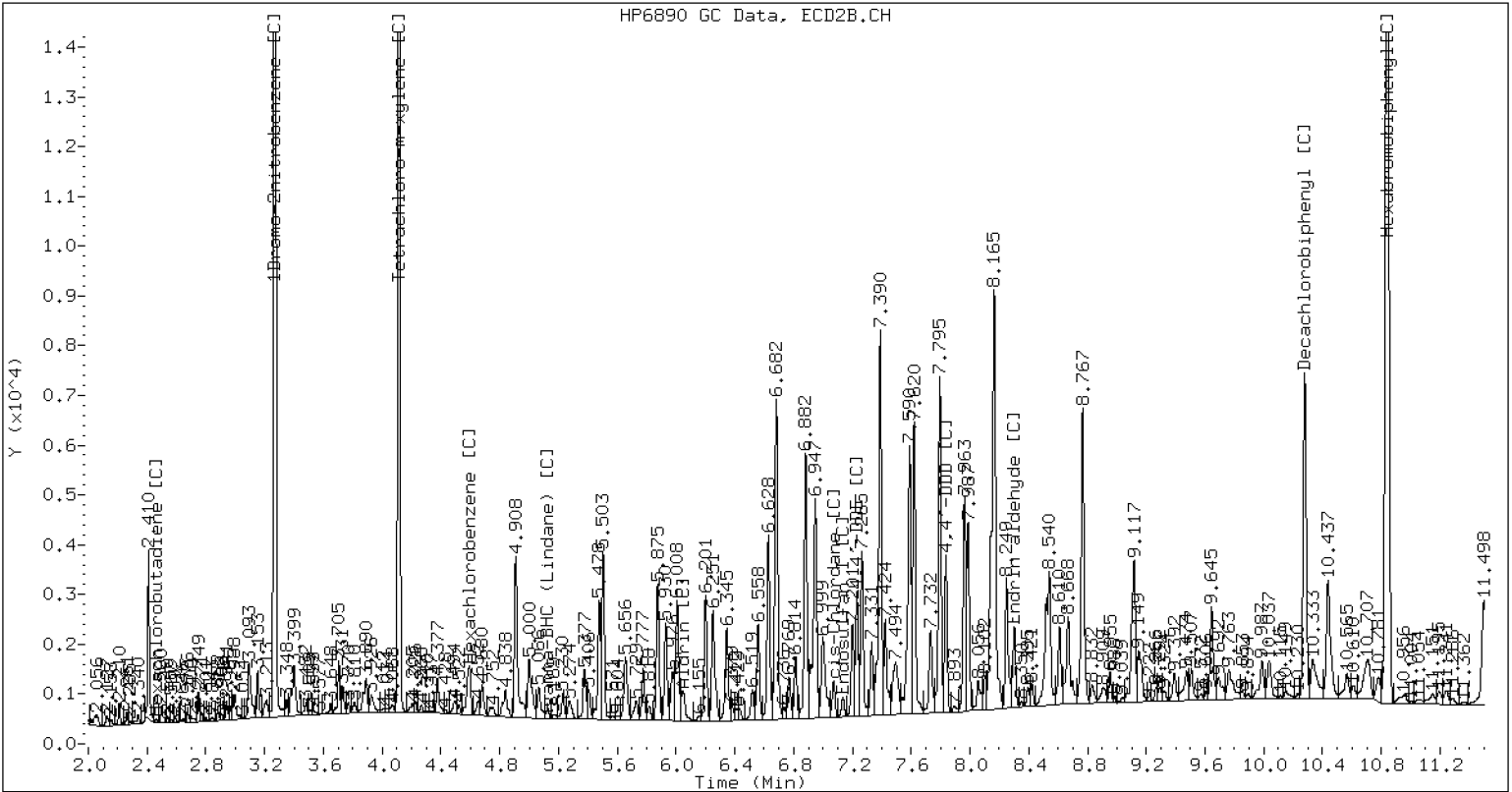


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

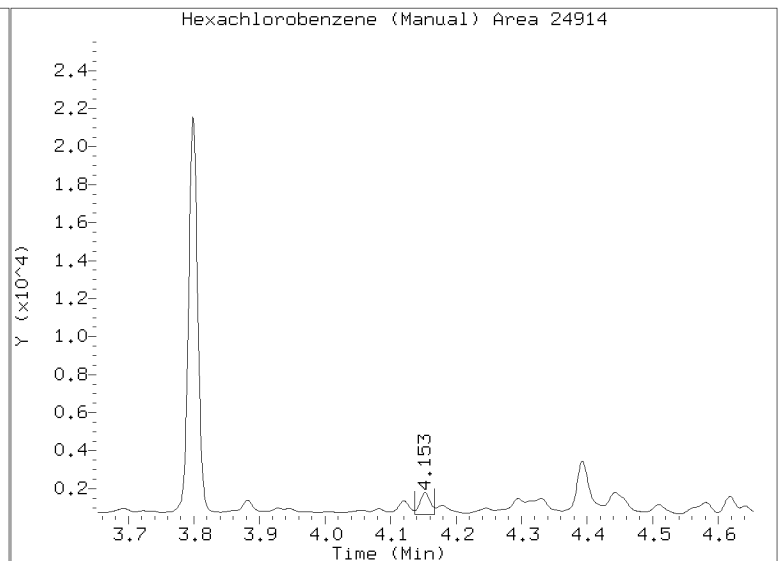
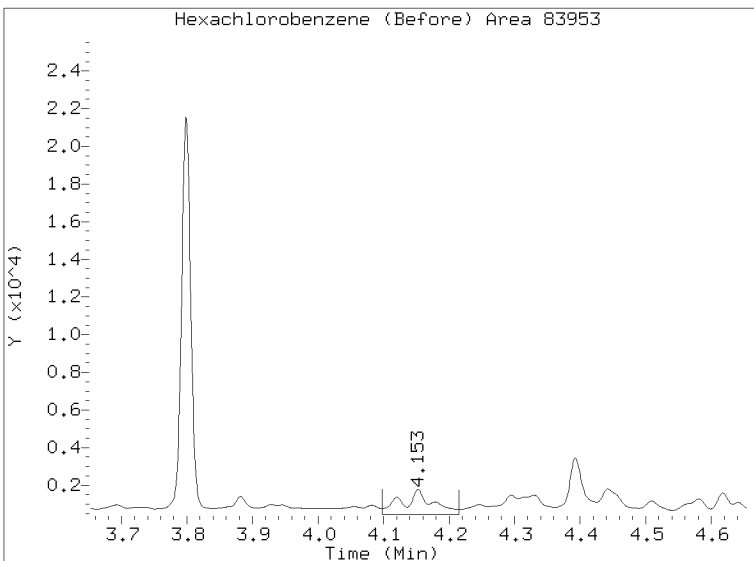
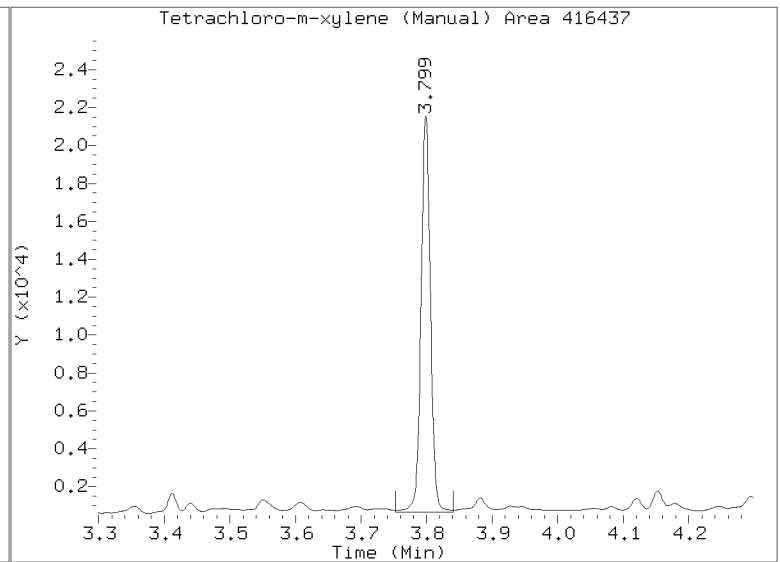
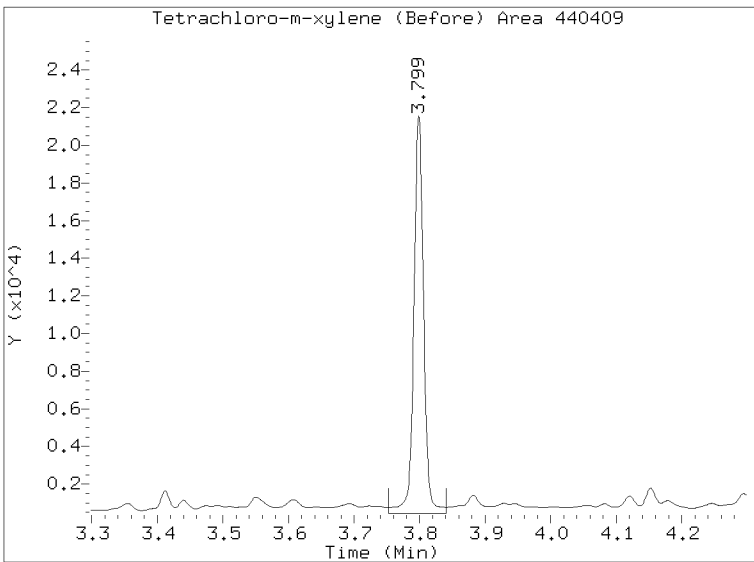
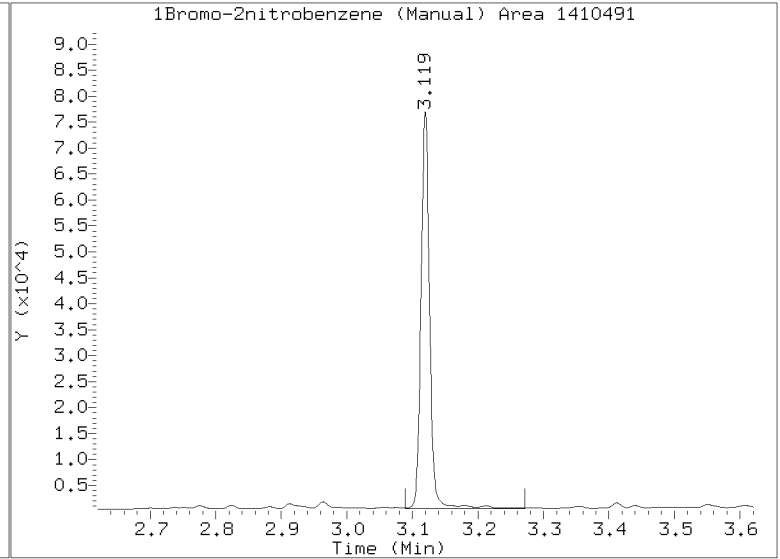
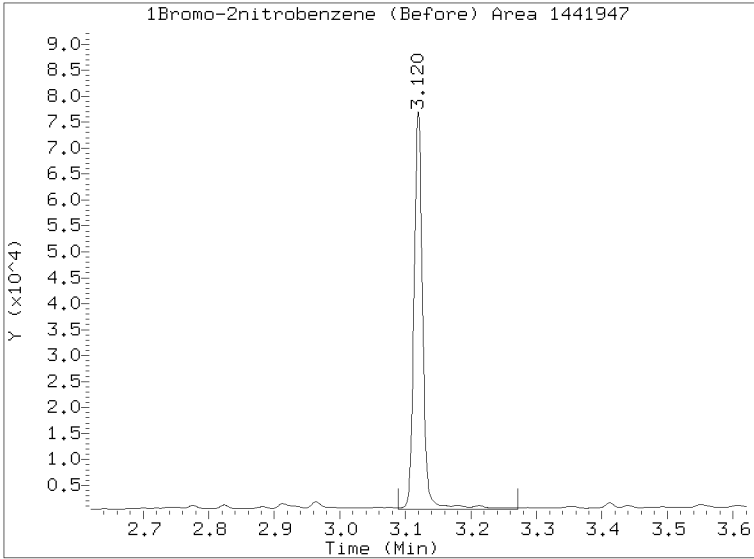
/20230513.b/B20230513.b/23051317.D 23D0396-03 CLP2



CLP-2 Manual Integration: NO

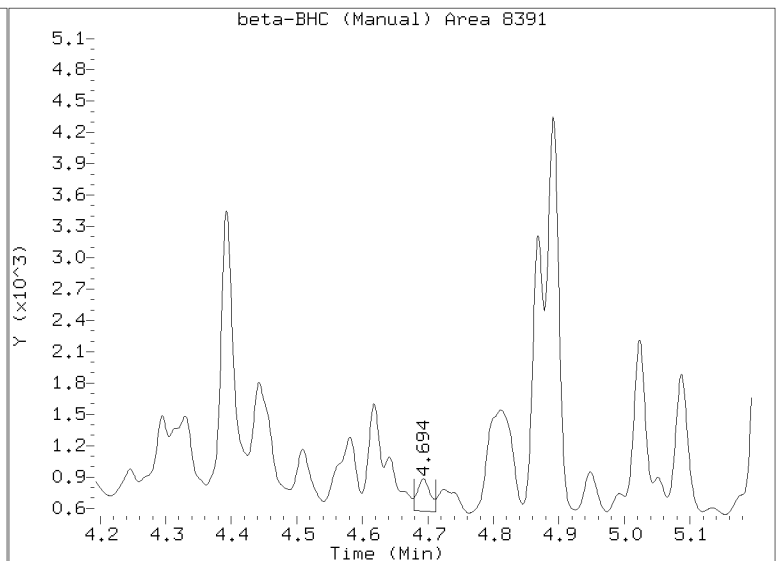
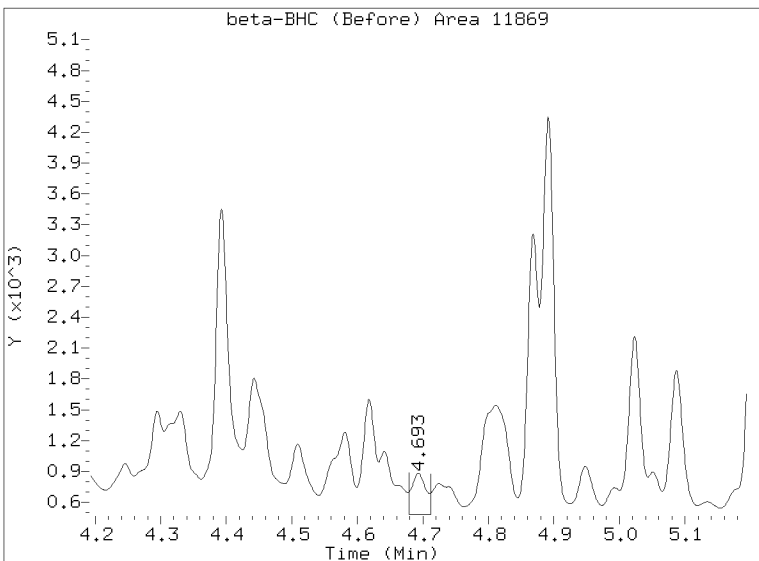
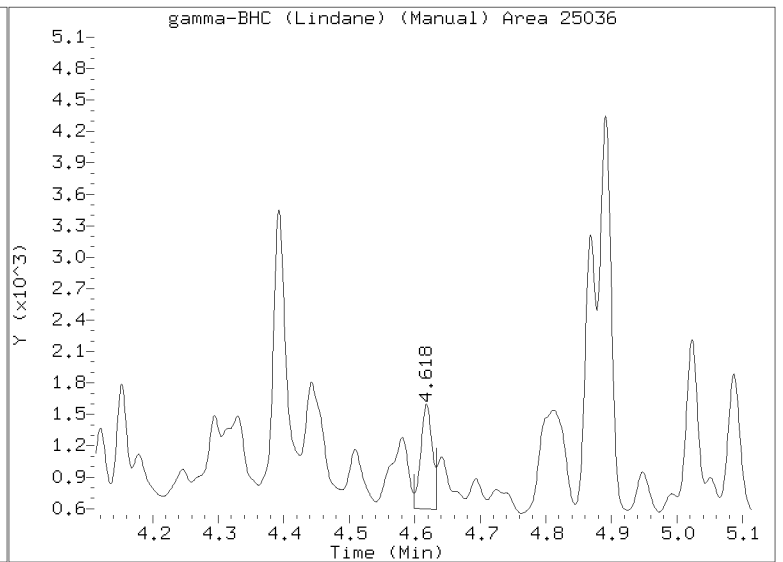
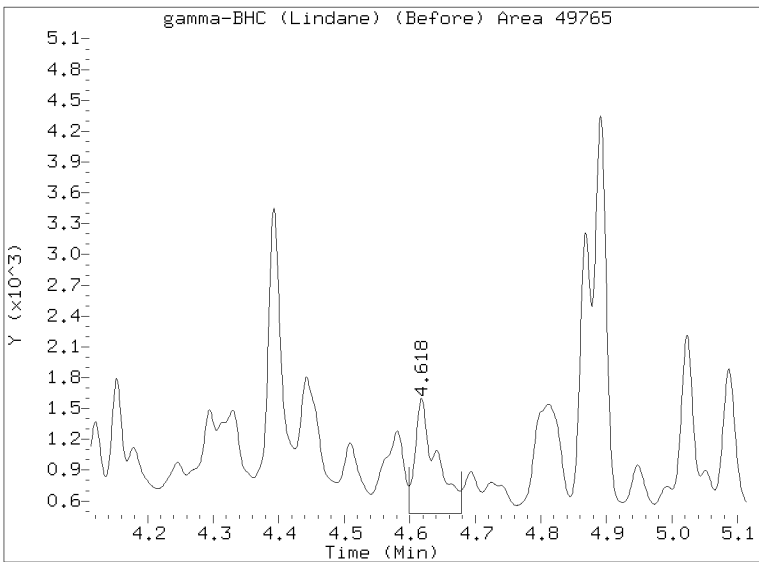
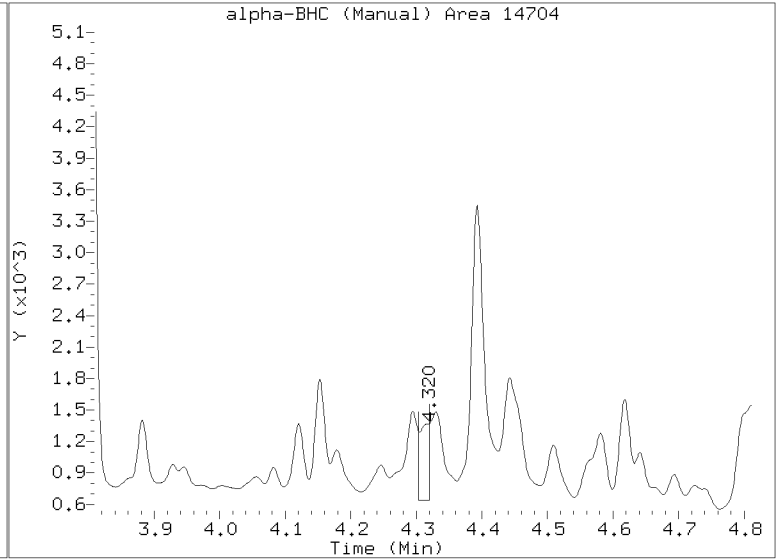
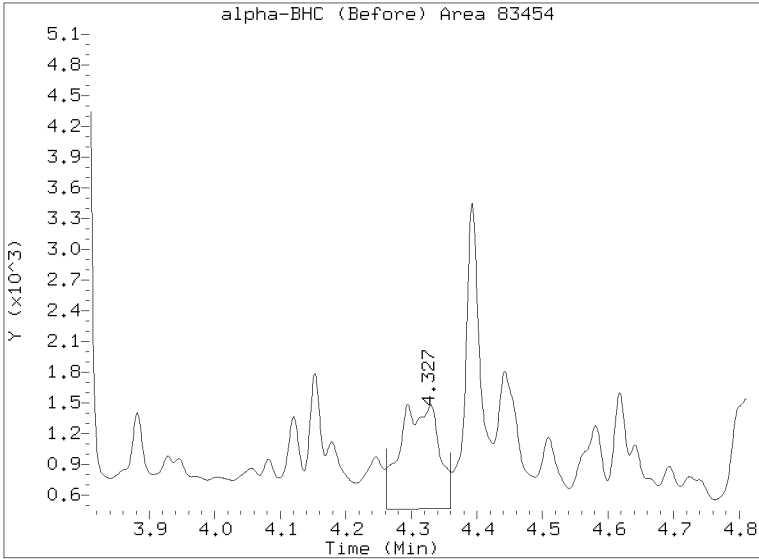
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230513.b/23051317.D
Injection Date: 13-MAY-2023 20:32
Lab ID:23D0396-03 Client ID:
Report Date: 05/25/2023 19:15



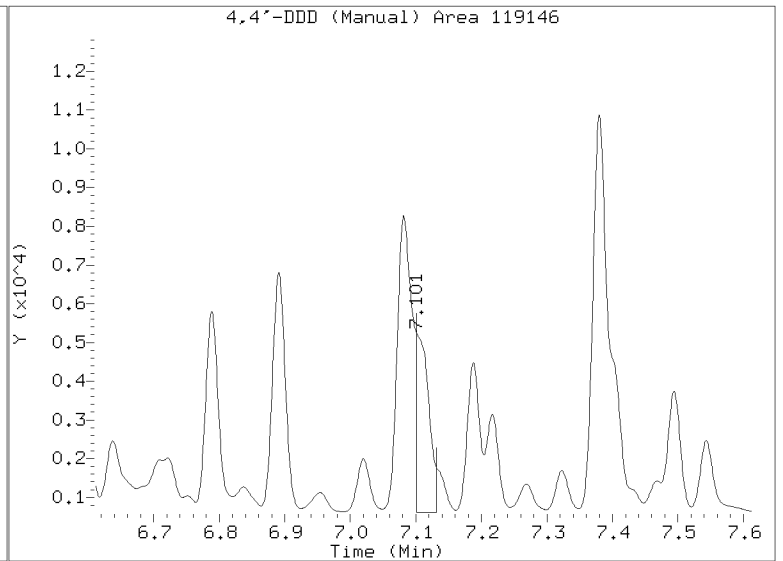
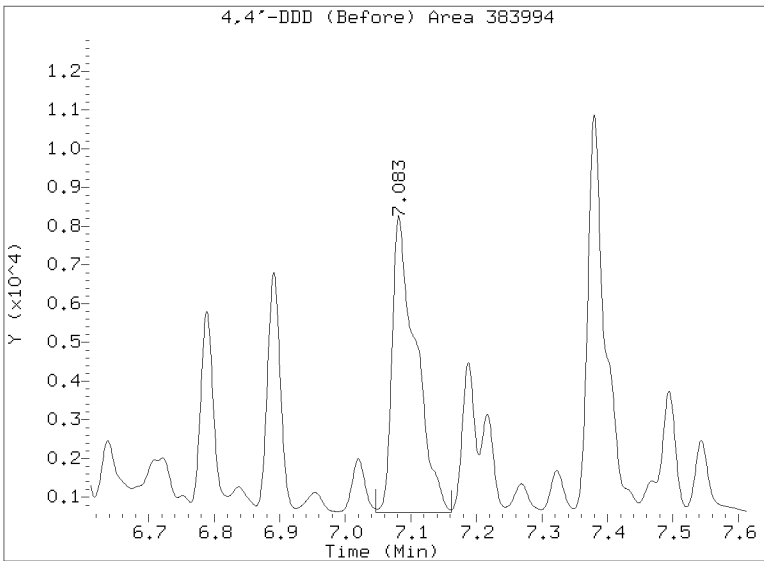
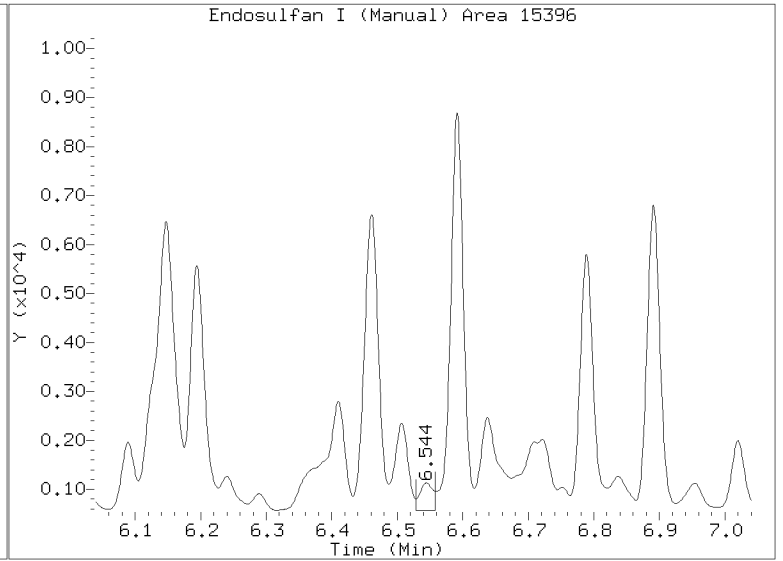
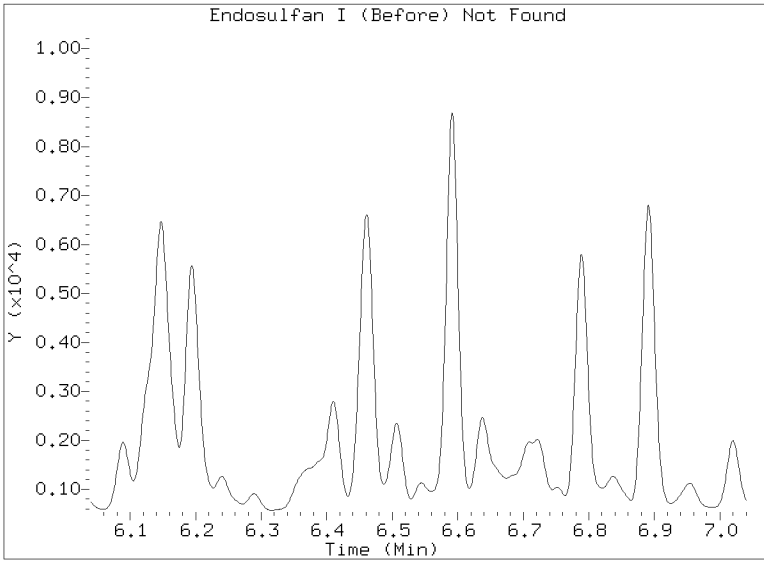
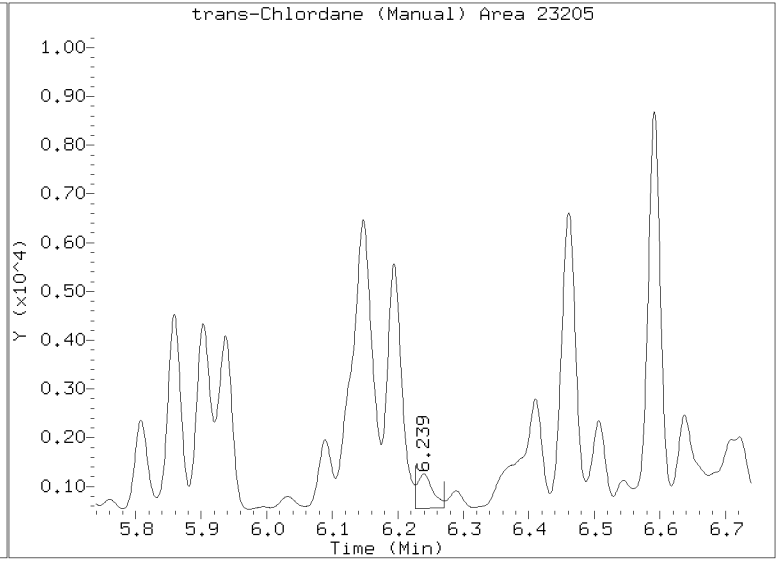
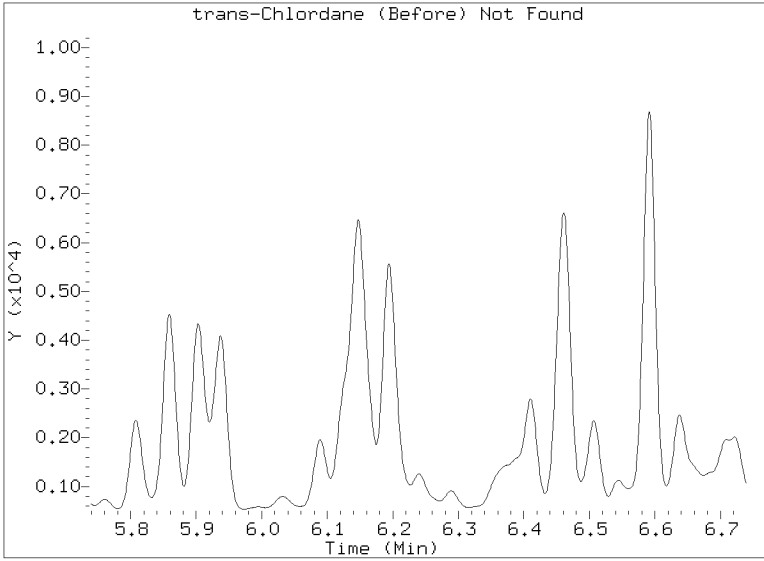
Manual Peak Adjustment Report, STX-CLP

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Lab ID:23D0396-03 Client ID:
Report Date: 05/25/2023 19:15



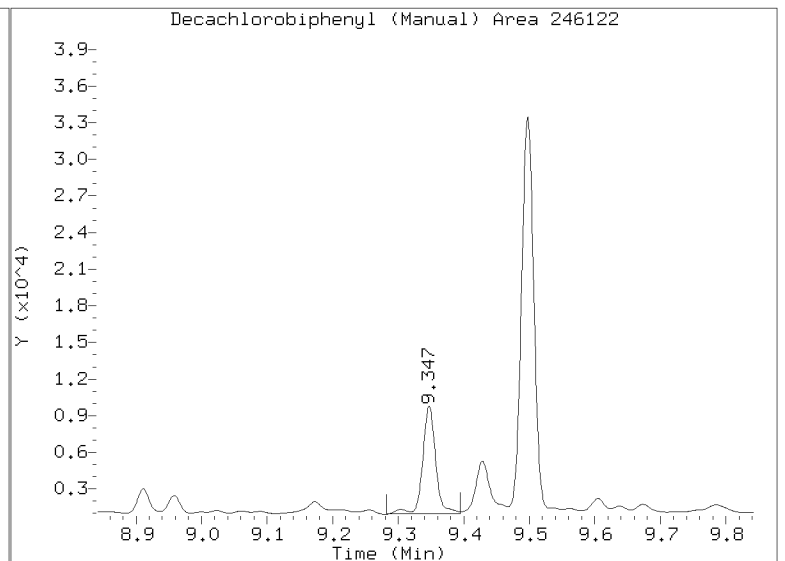
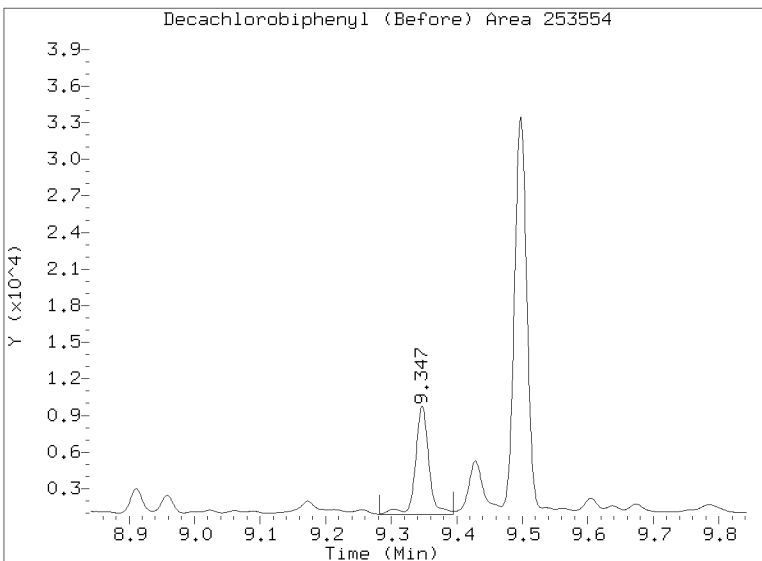
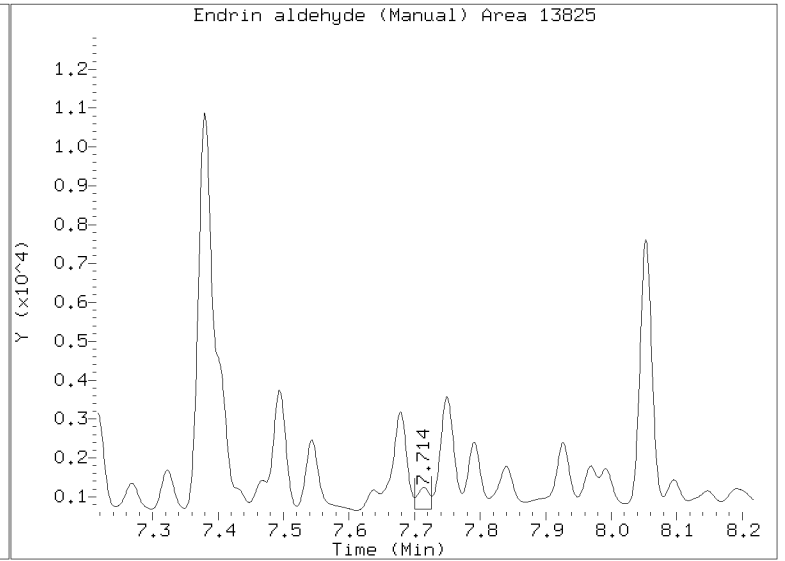
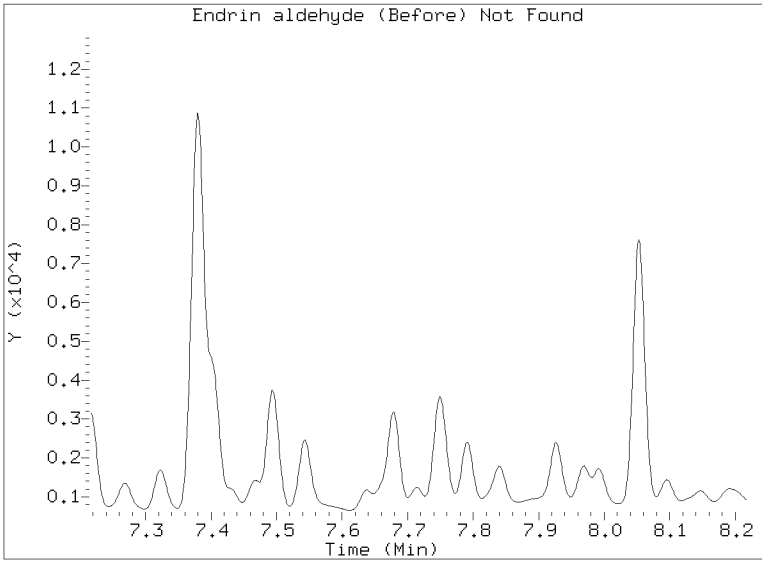
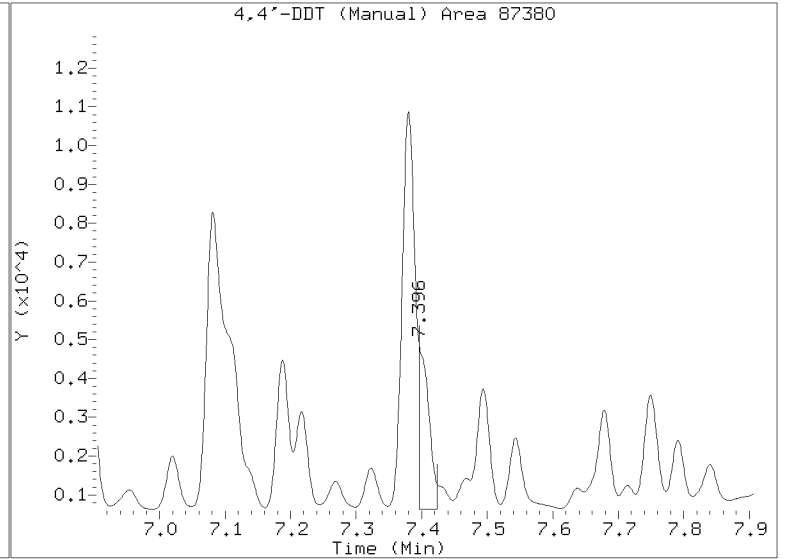
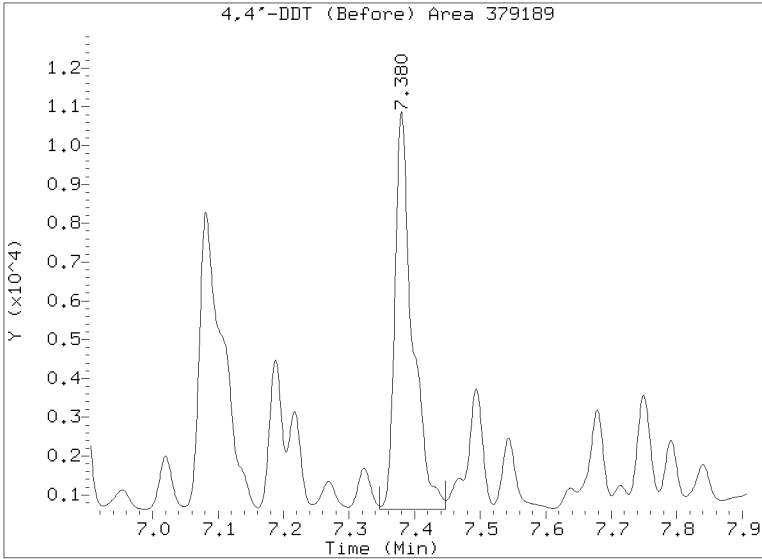
Manual Peak Adjustment Report, STX-CLP

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Lab ID:23D0396-03 Client ID:
Report Date: 05/25/2023 19:15



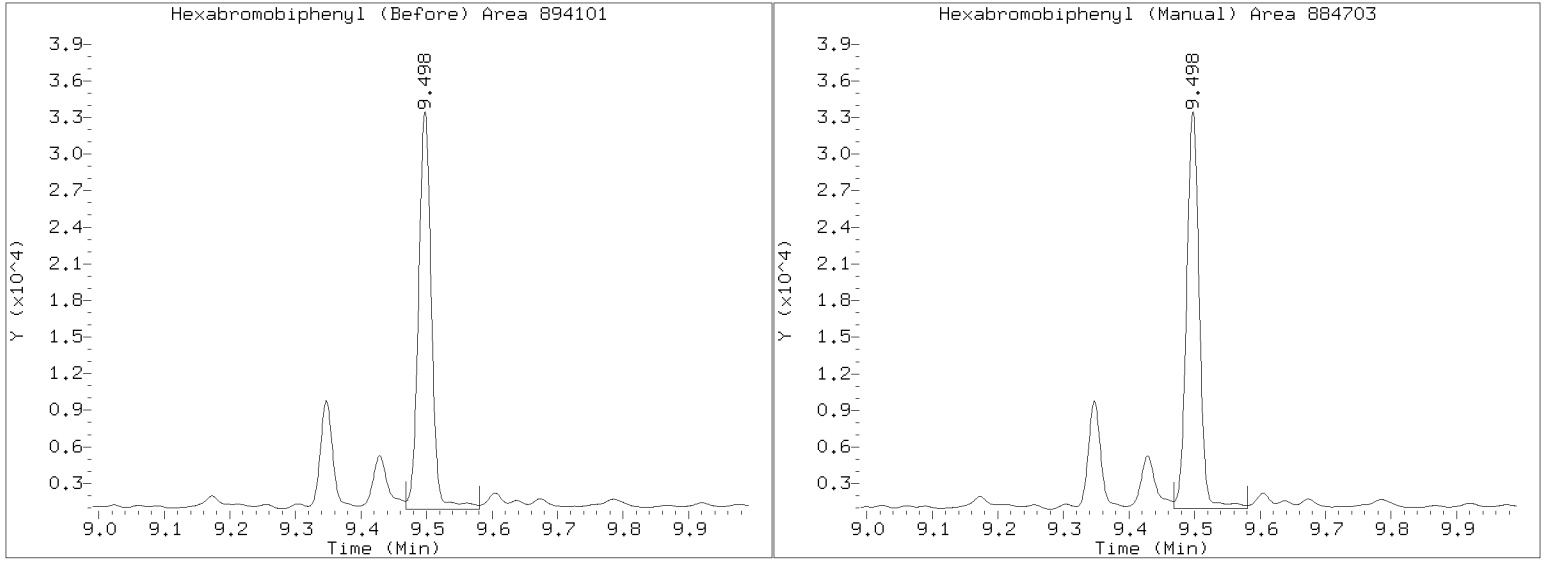
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230513.b/23051317.D
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Report Date: 05/25/2023 19:15



Manual Peak Adjustment Report, STX-CLP

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Injection Date: 13-MAY-2023 20:32
Lab ID:23D0396-03 Client ID:
Report Date: 05/25/2023 19:15

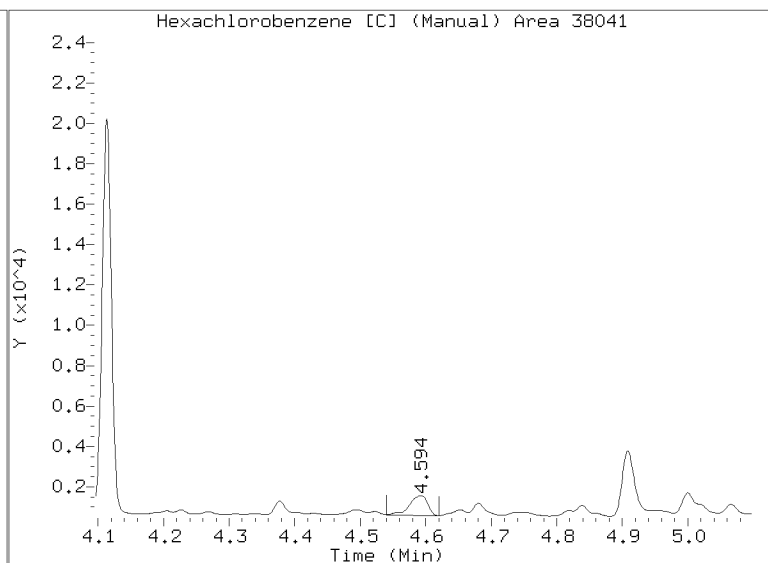
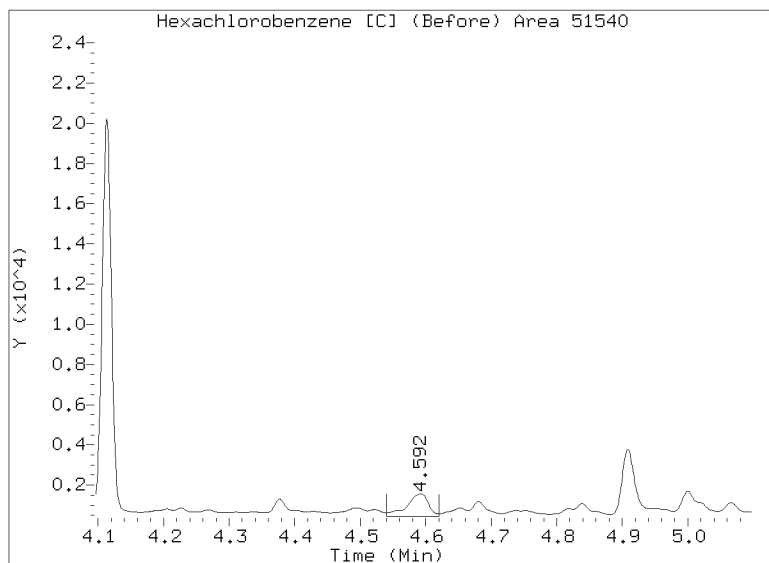
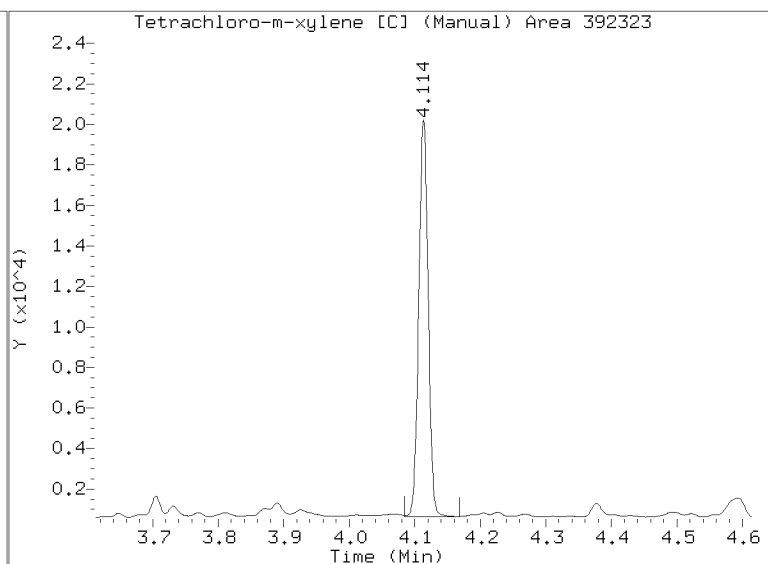
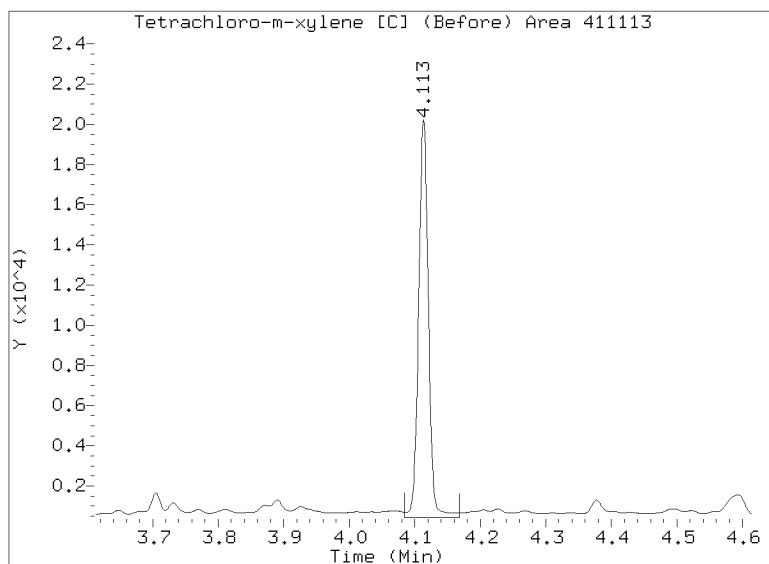
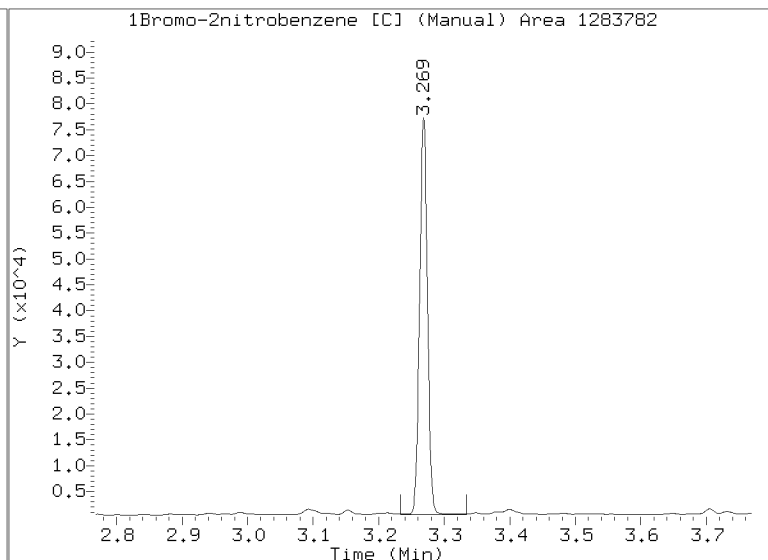
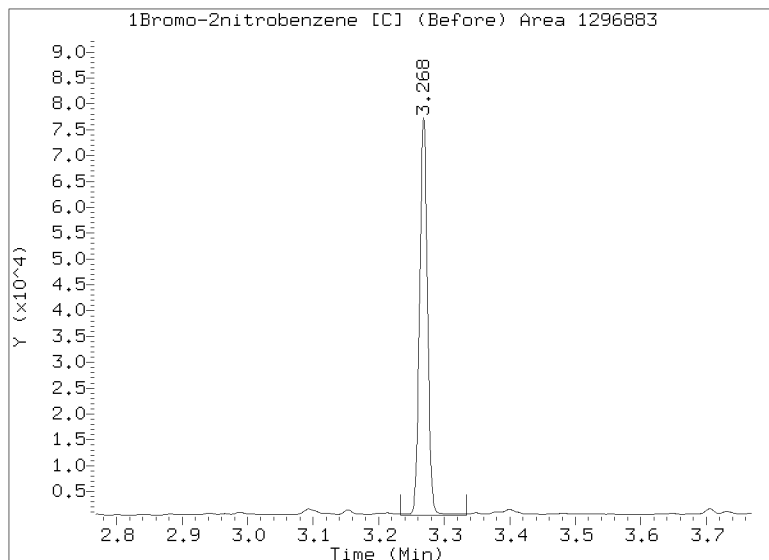


Manual Peak Adjustment Report, CLP-2

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Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

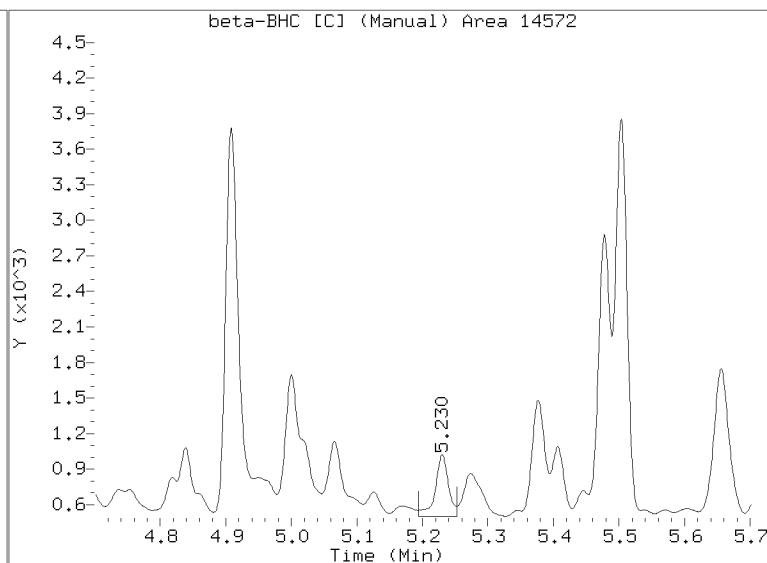
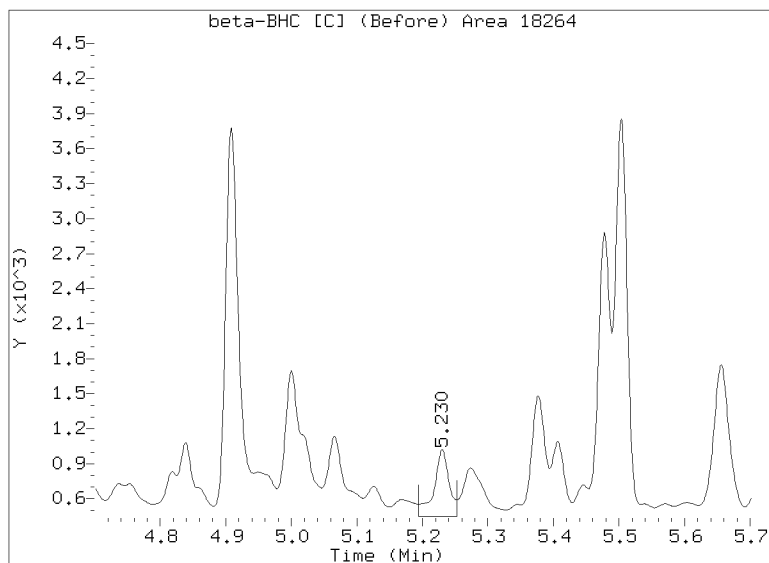
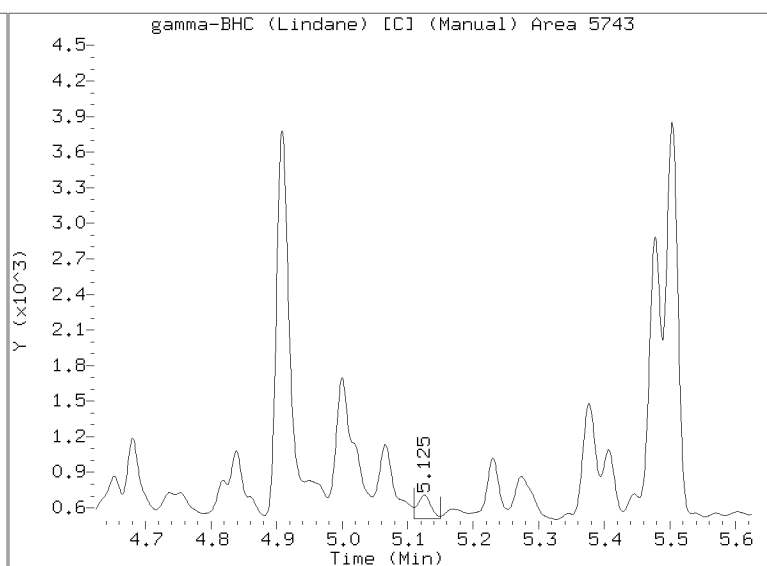
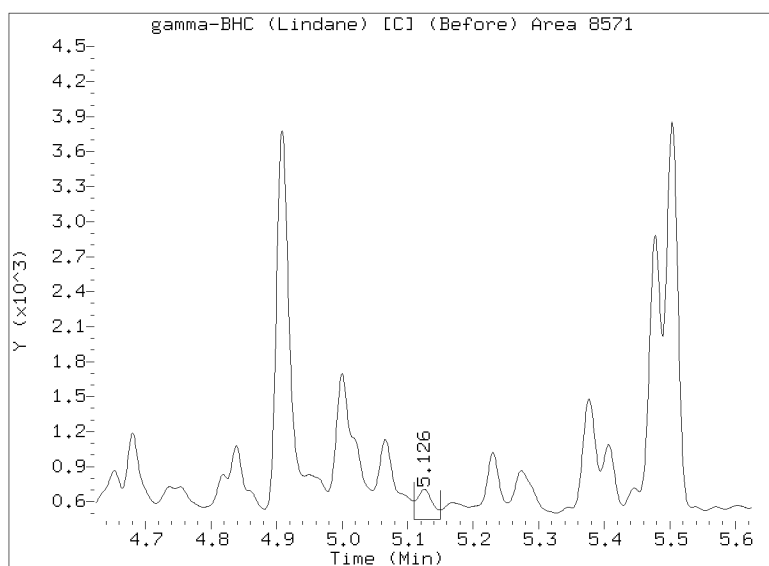
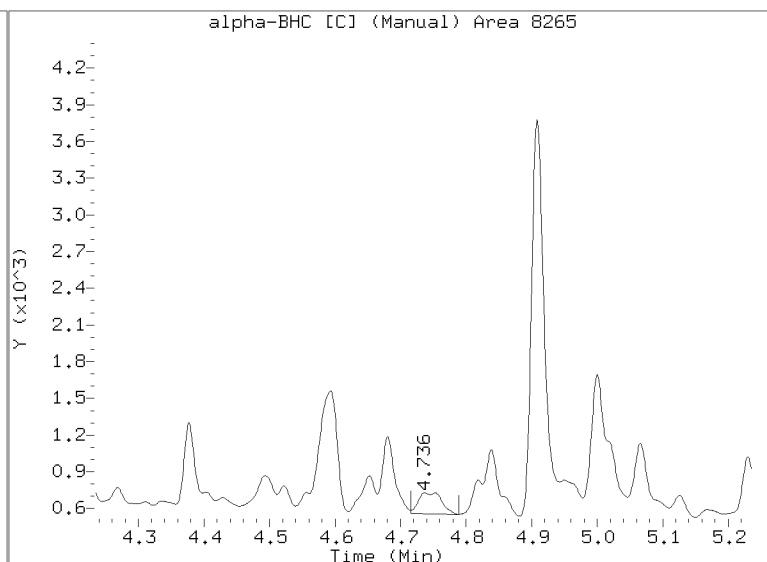
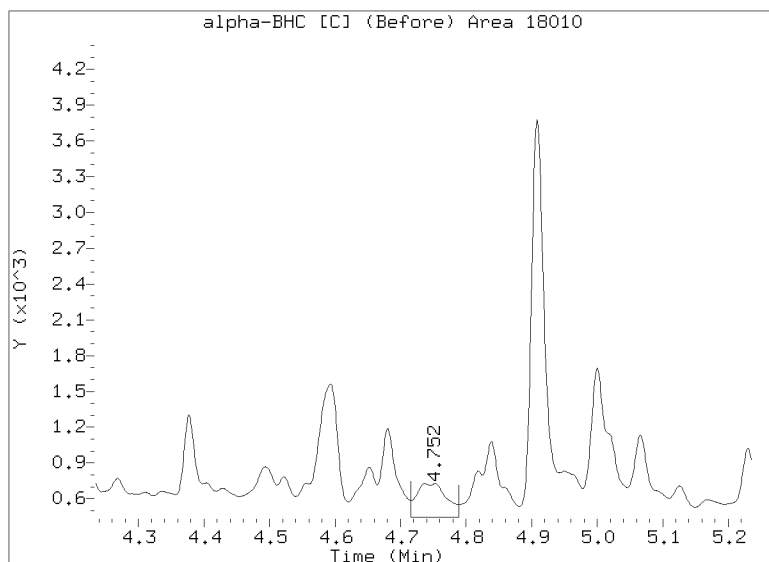


Manual Peak Adjustment Report, CLP-2

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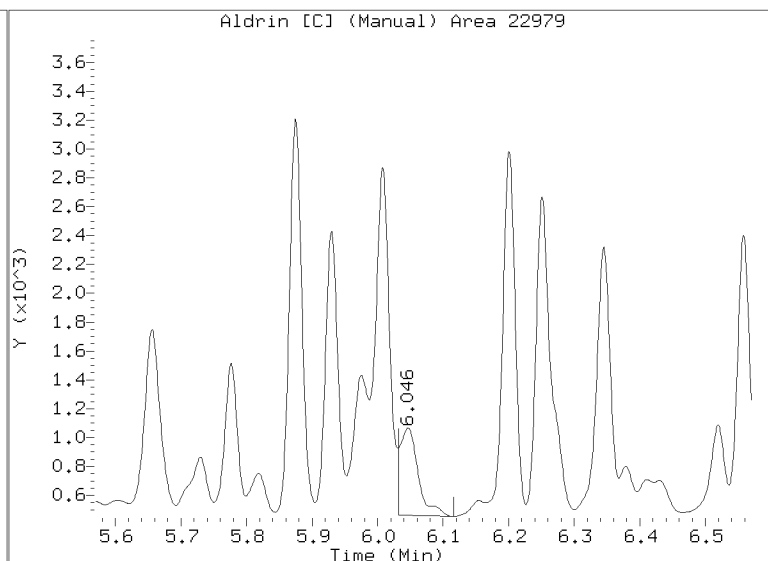
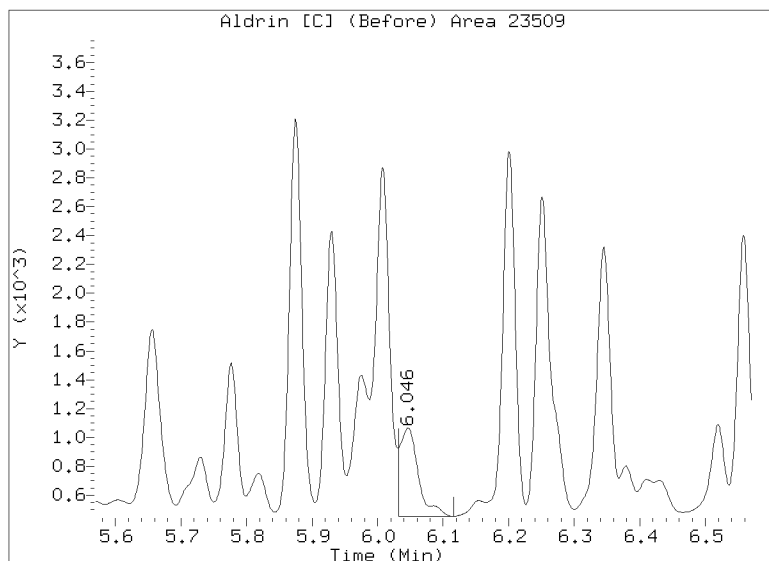
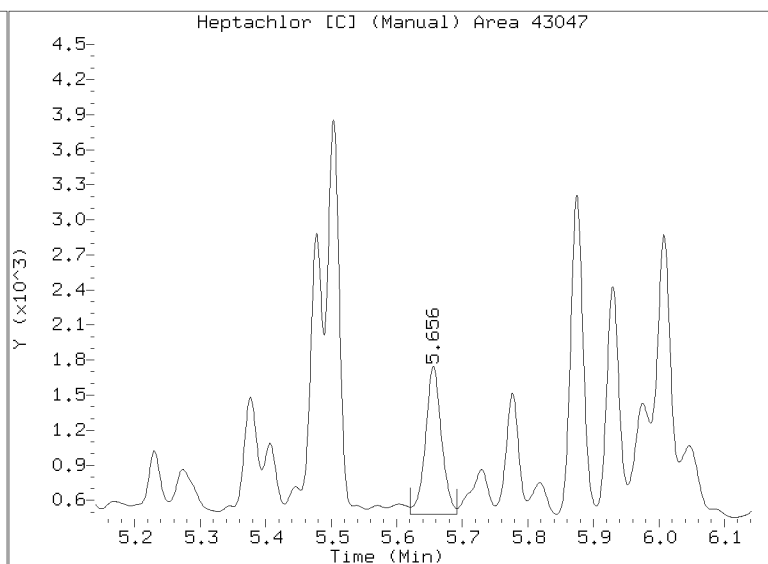
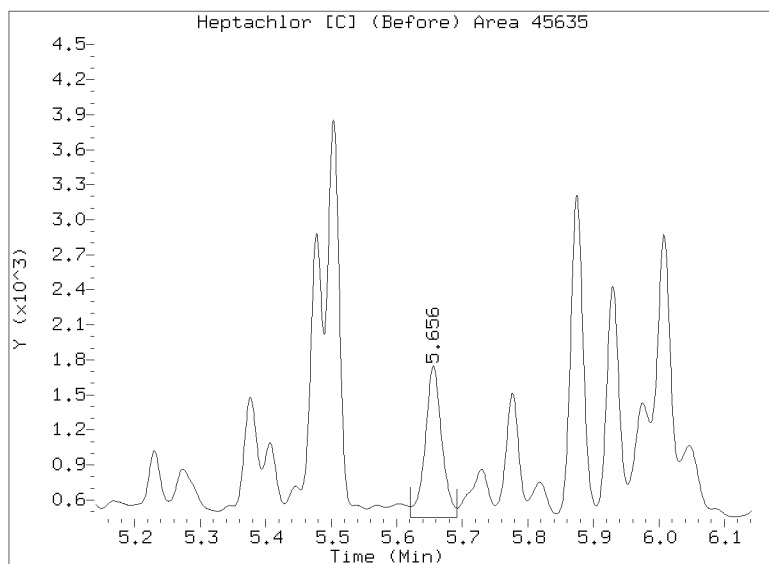
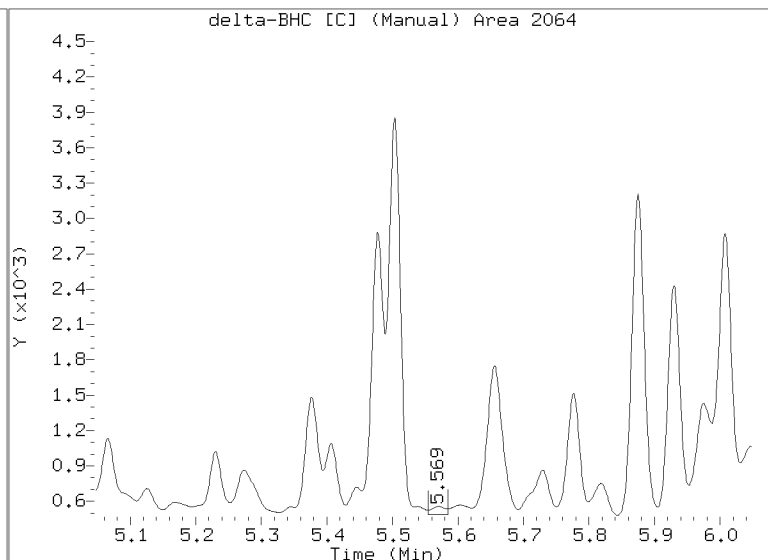
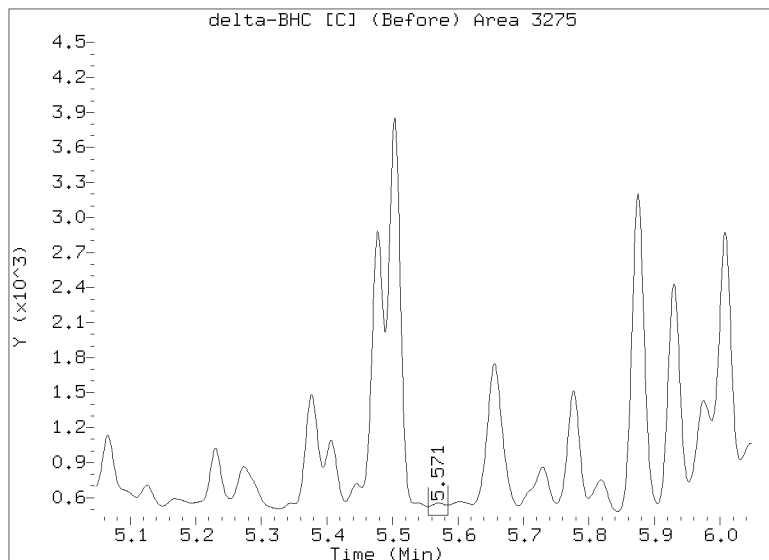


Manual Peak Adjustment Report, CLP-2

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Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

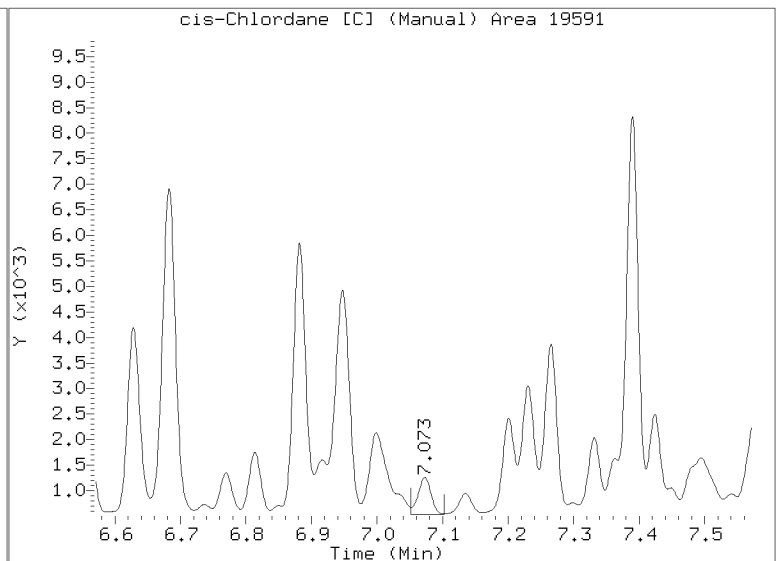
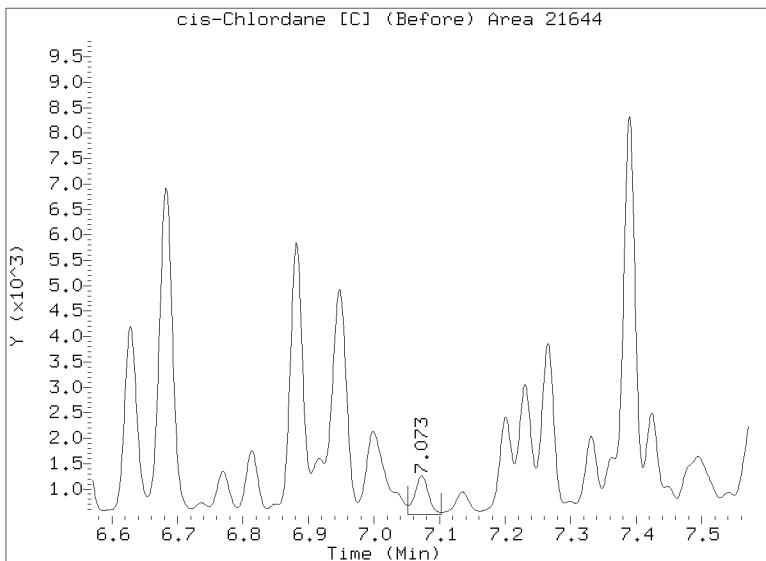
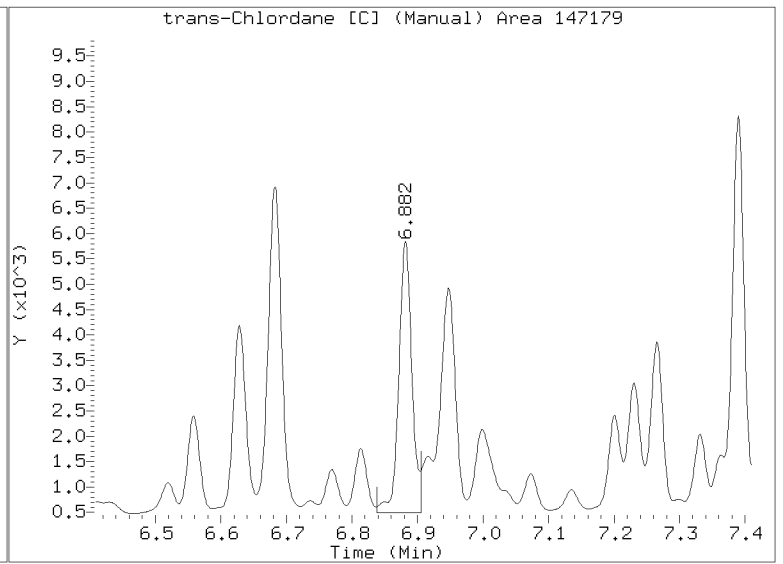
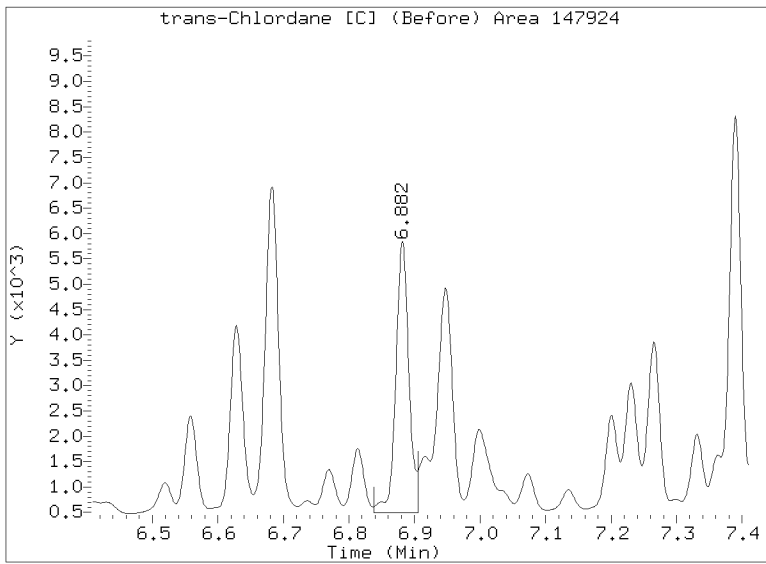
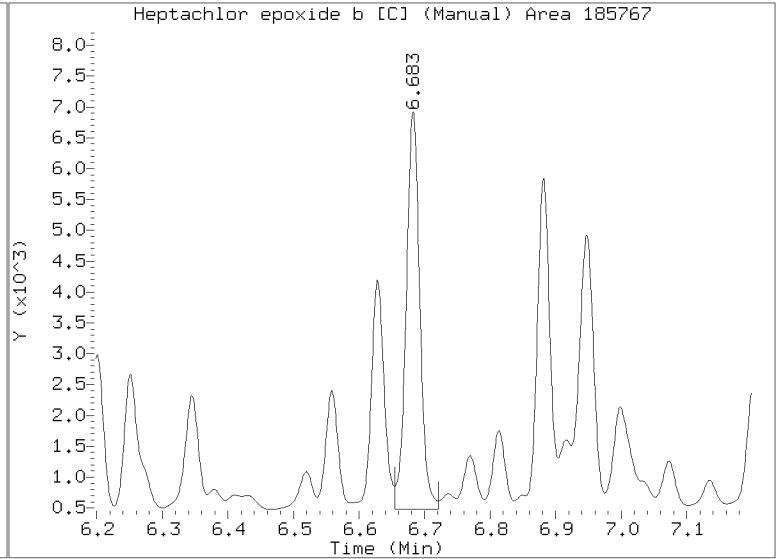
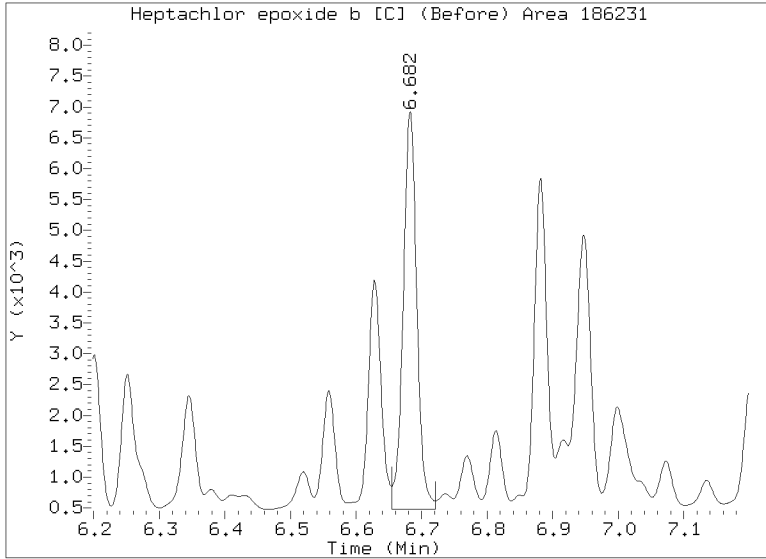


Manual Peak Adjustment Report, CLP-2

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Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

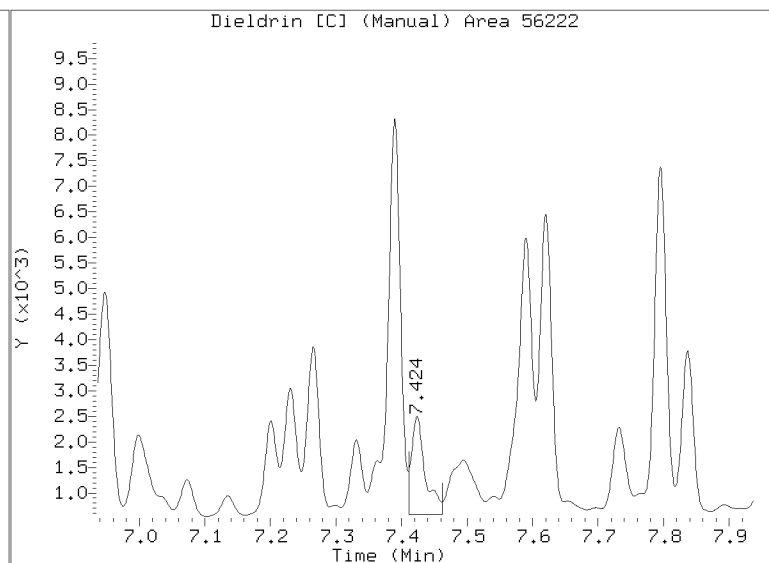
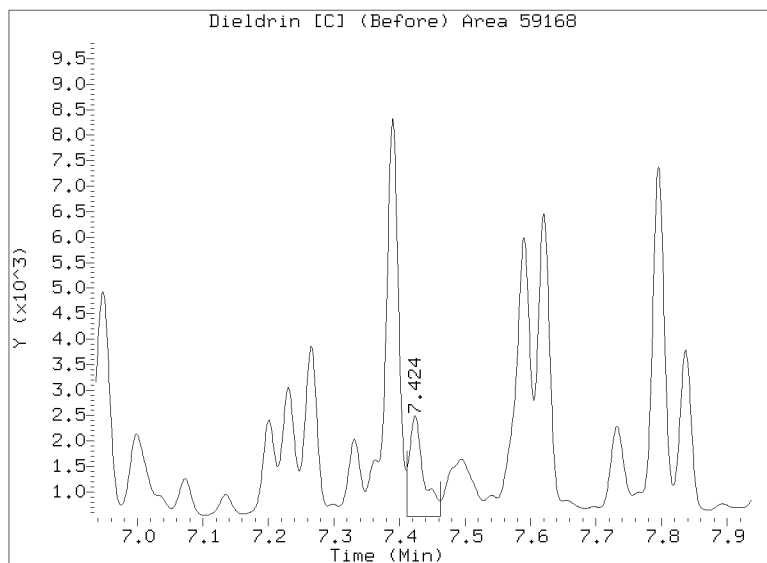
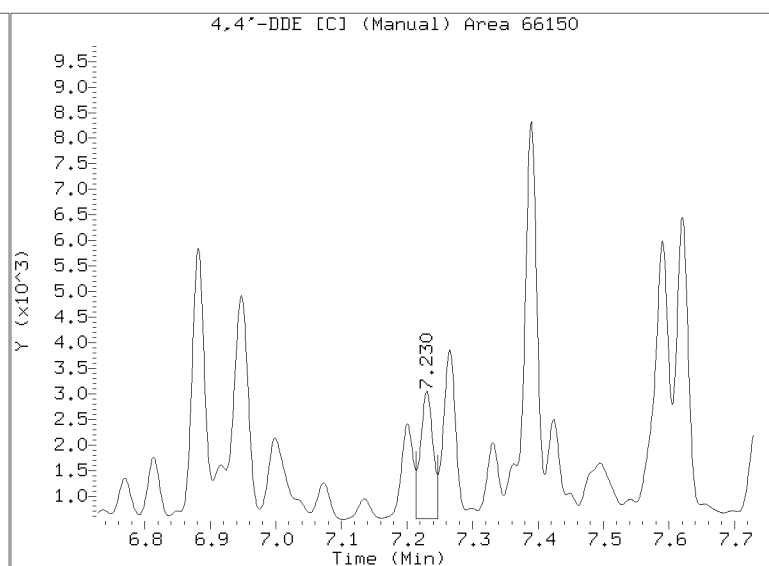
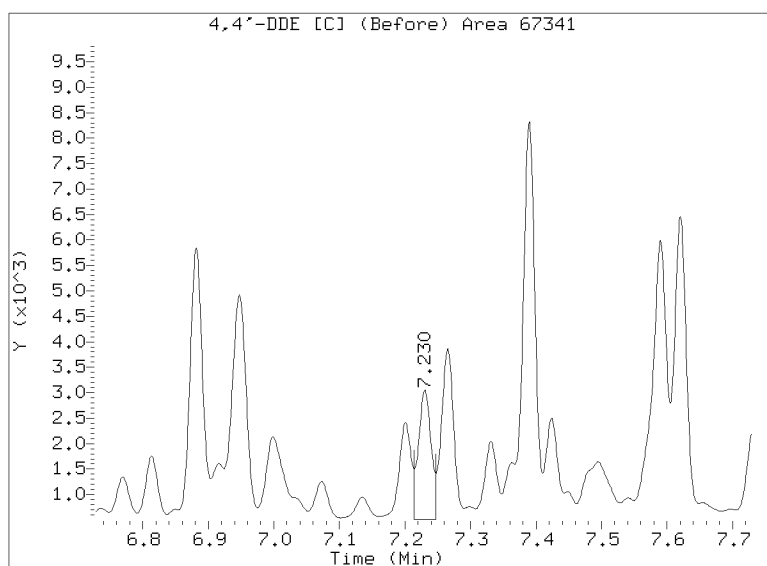
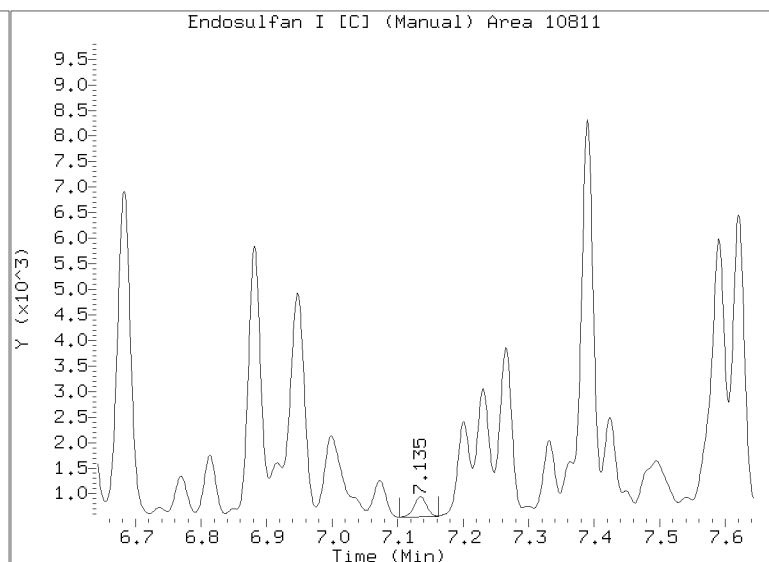
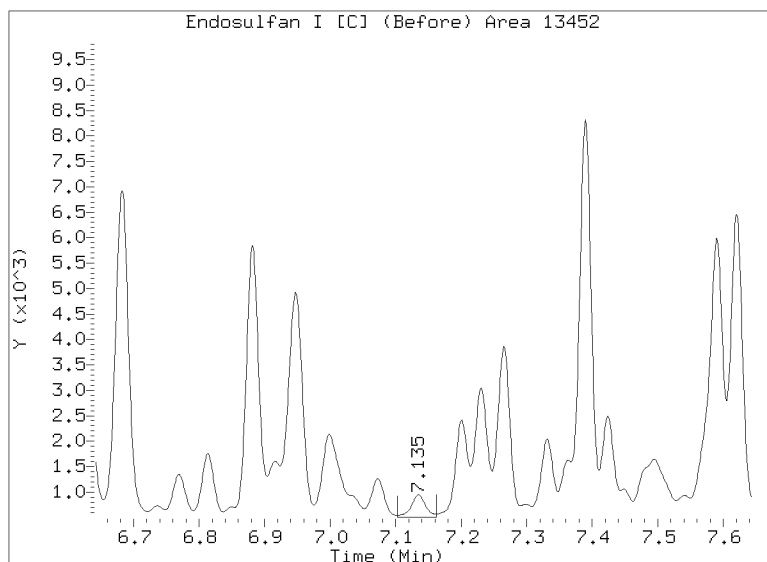


Manual Peak Adjustment Report, CLP-2

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Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

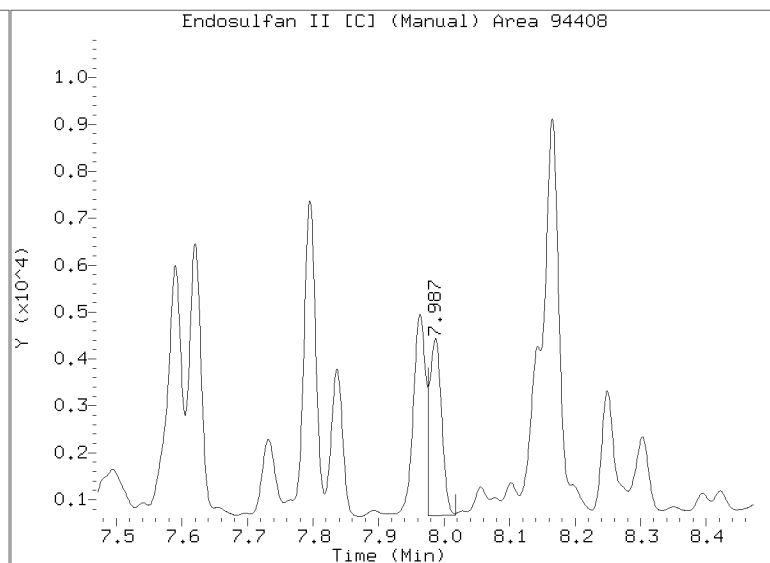
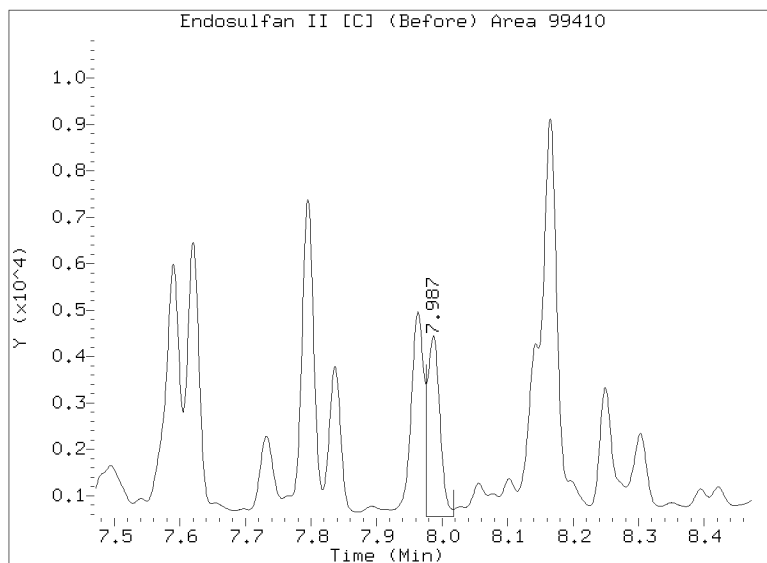
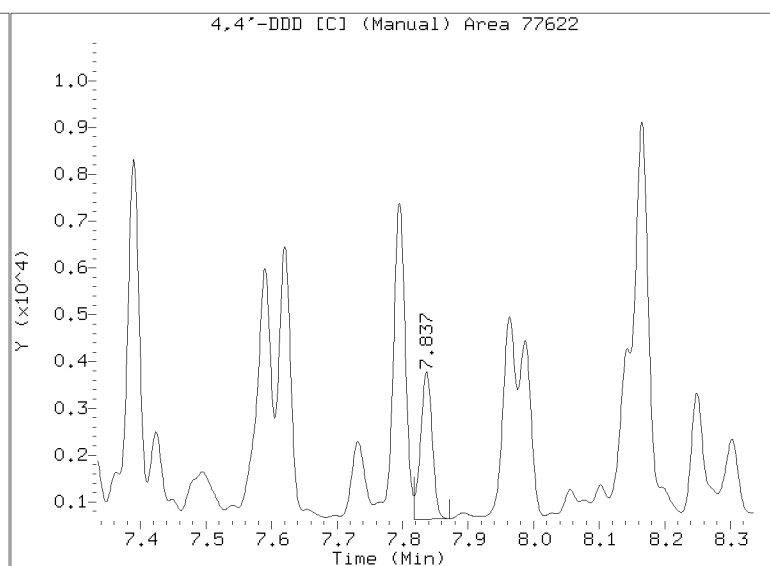
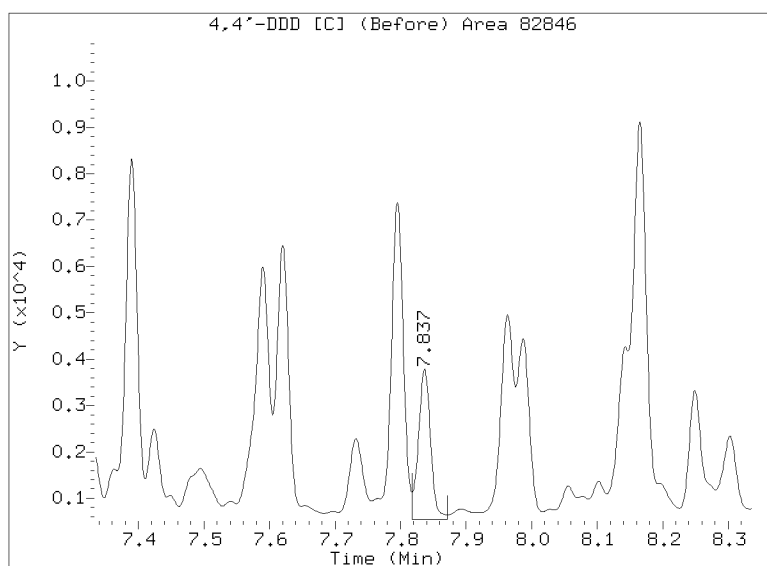
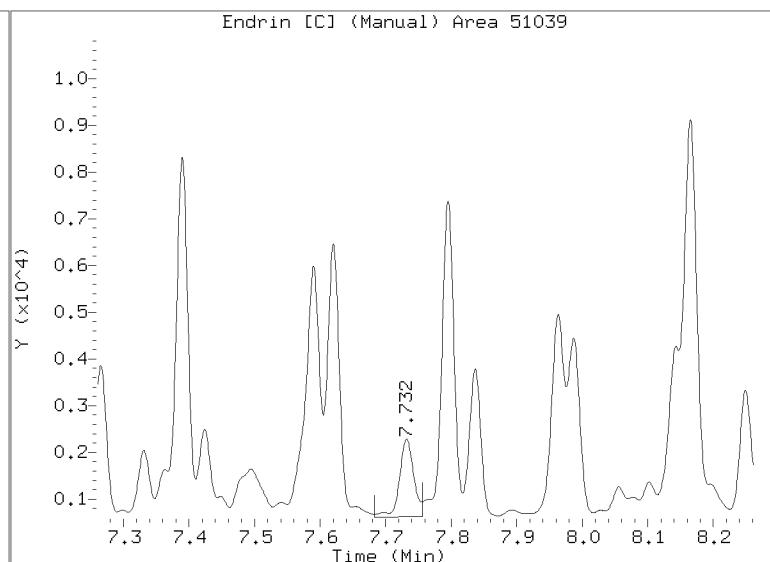
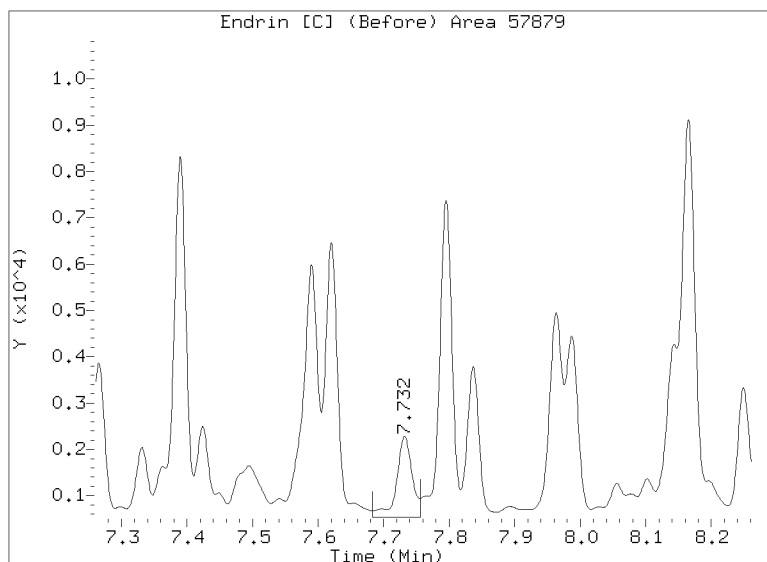


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051317.D

Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

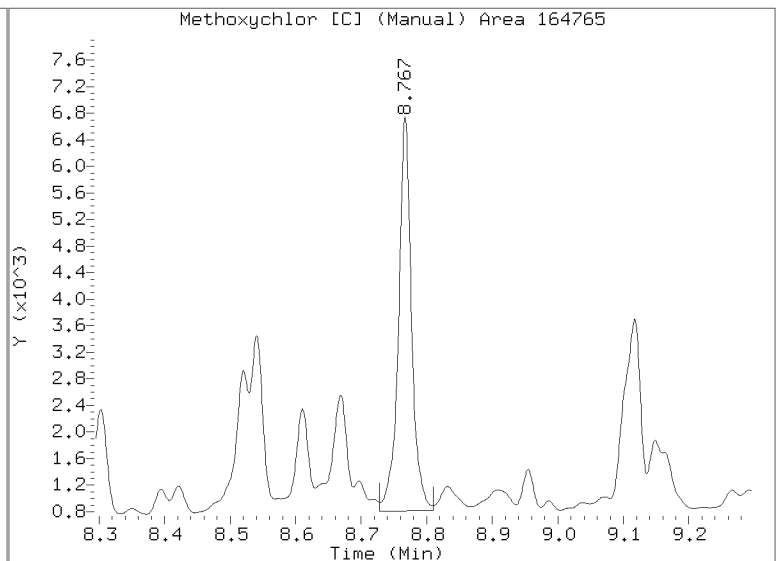
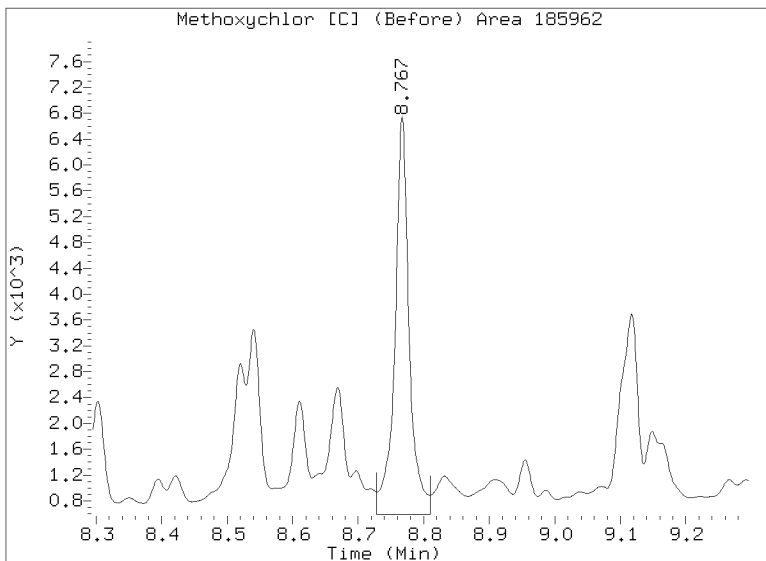
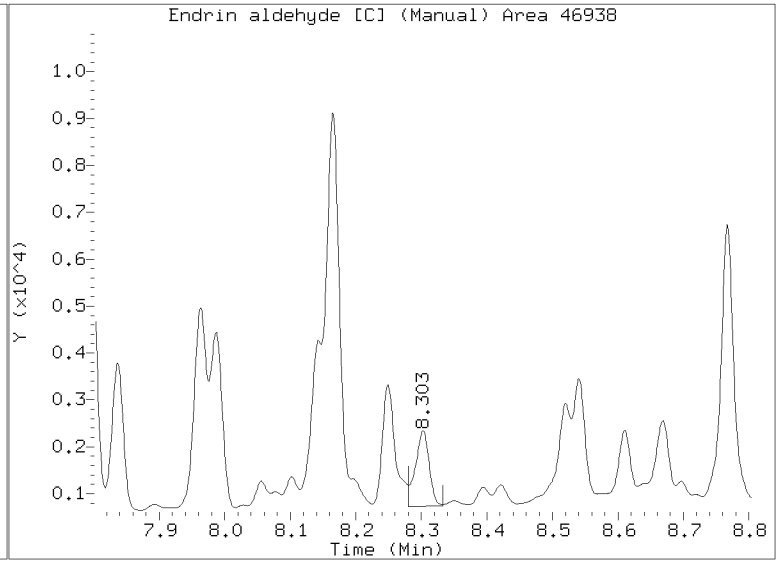
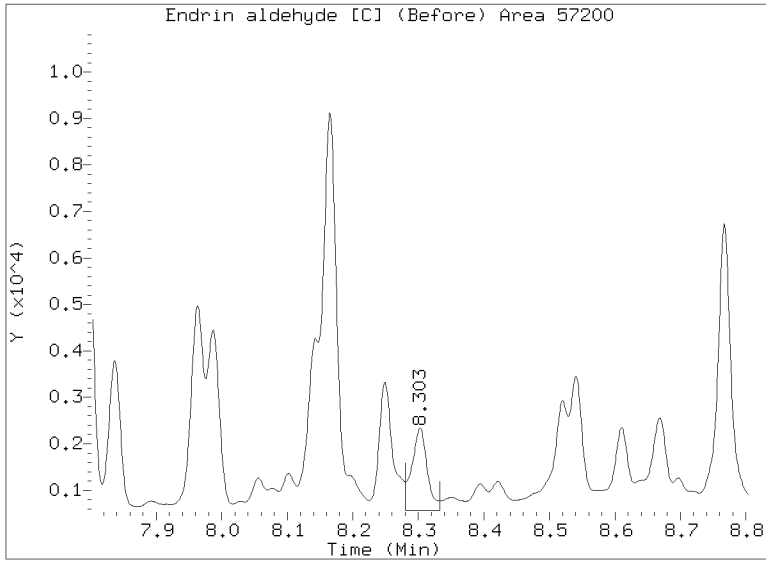
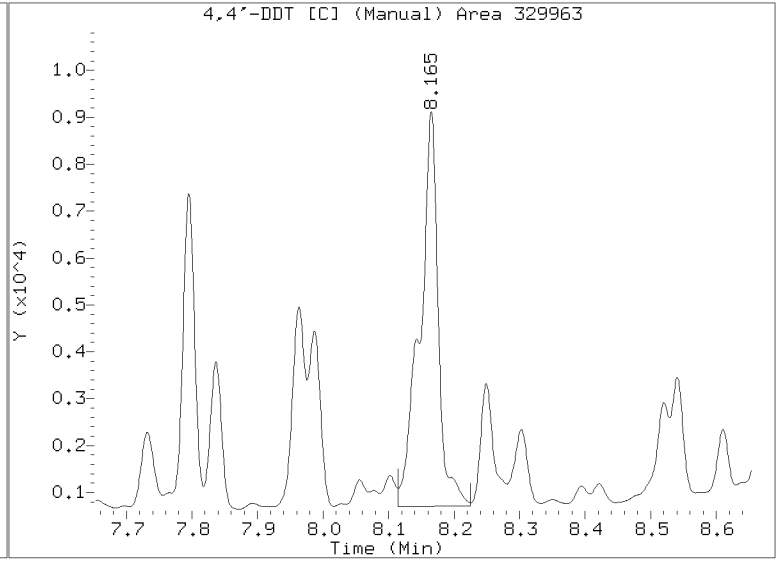
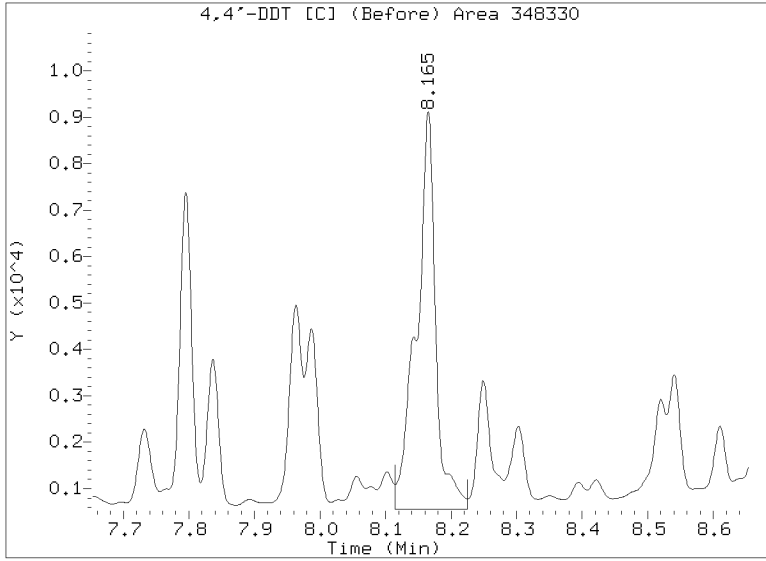


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051317.D

Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:

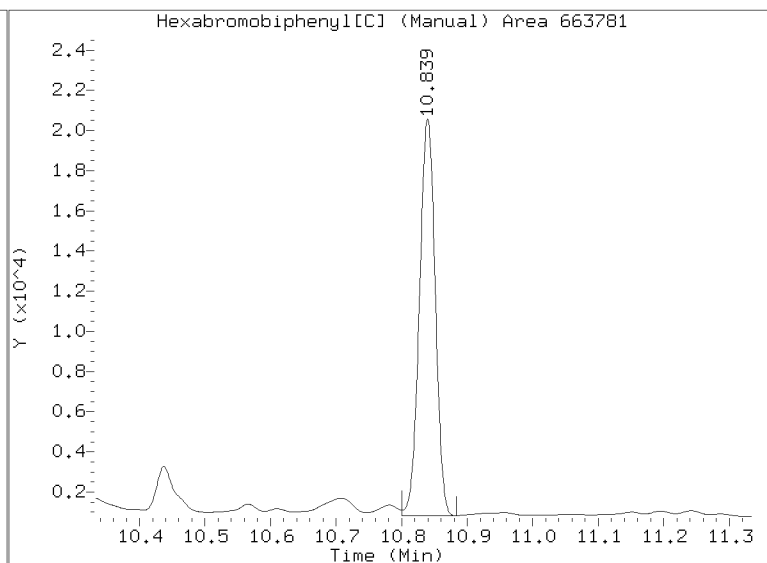
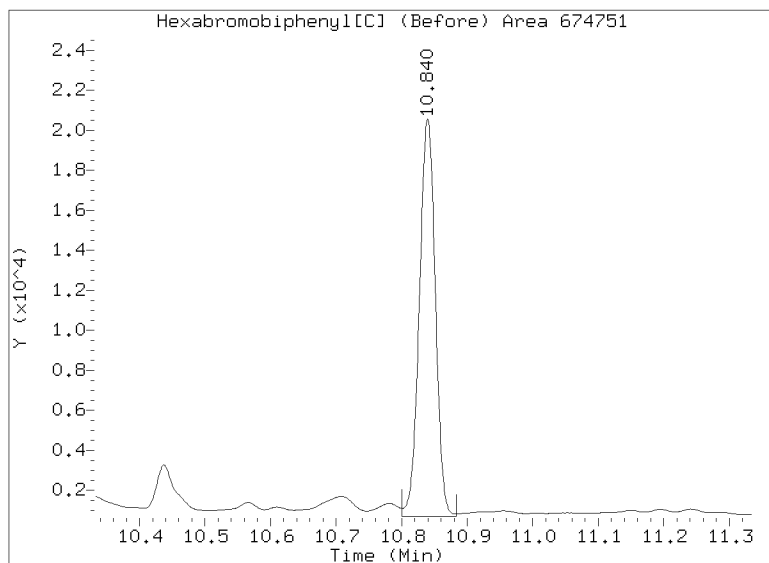
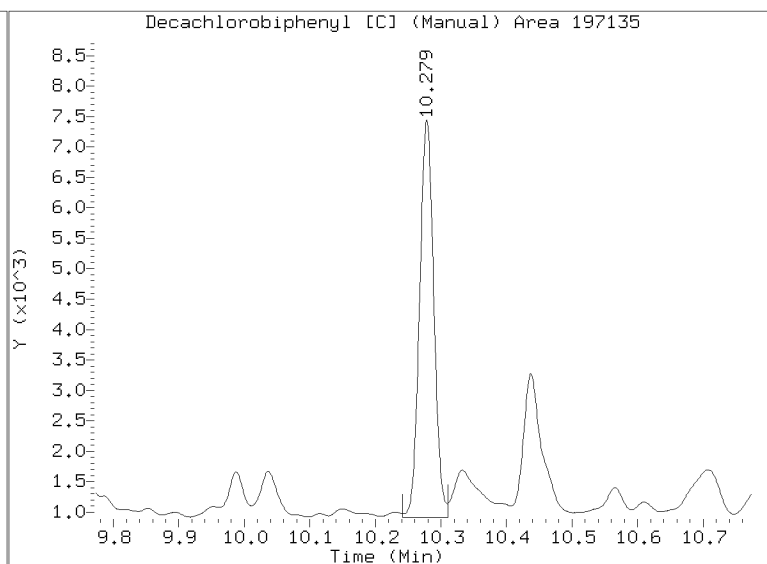
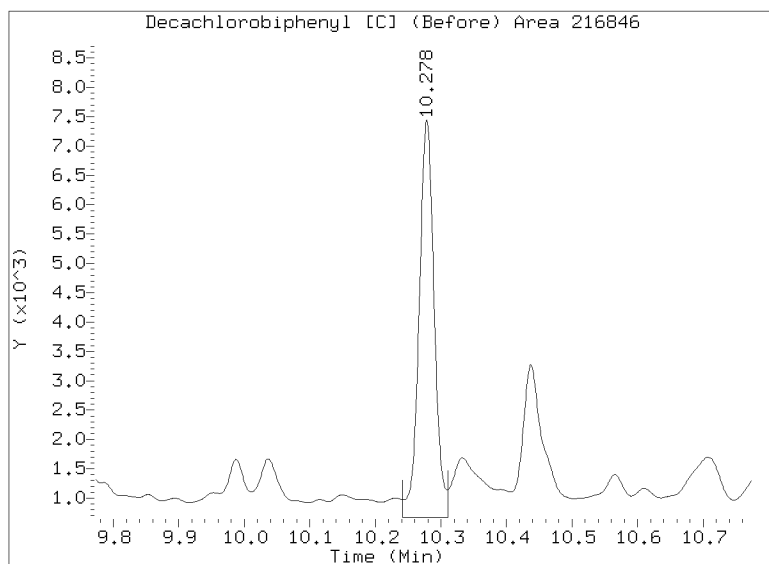
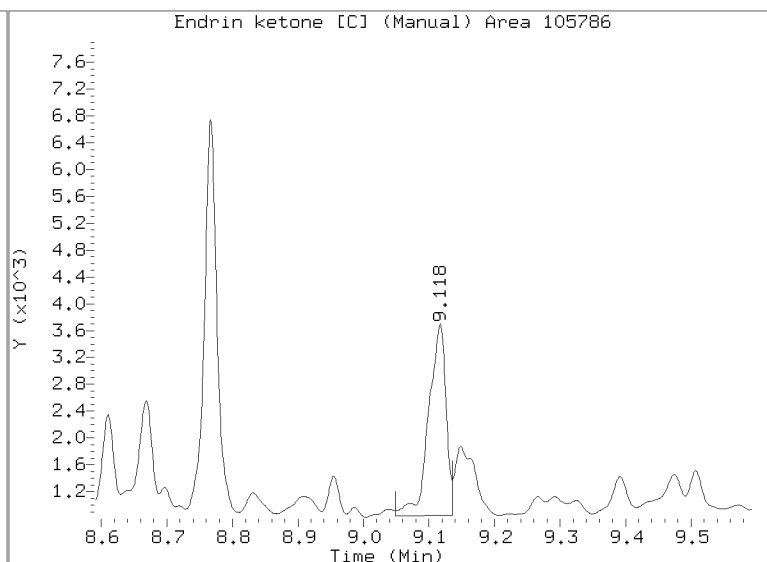
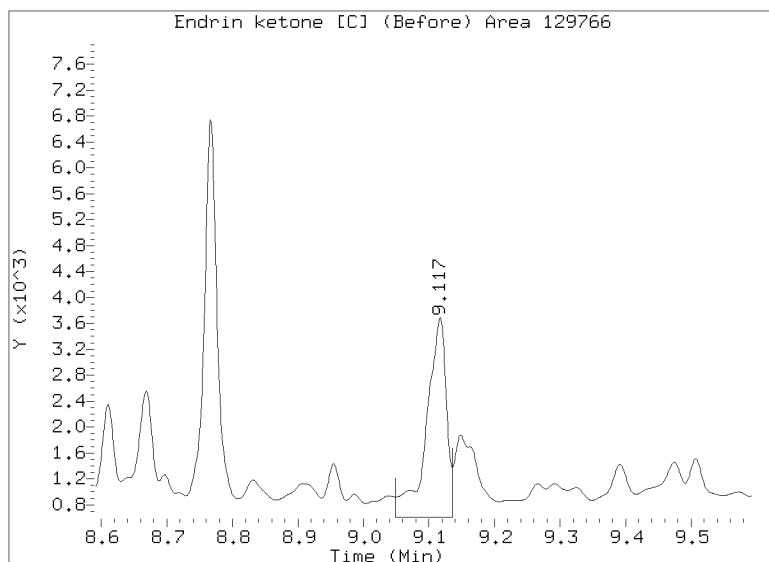


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051317.D

Injection Date: 13-MAY-2023 20:32

Lab ID:23D0396-03 Client ID:





Batch: BLD0606

Prepared using: EPA 3546 (Microwave)

8081B Pest (PSDDA) in Solid (Version: HCB Only)

Matrix: Solid

Date Prepared: 04/25/23

Balance ID: B146462614

Set Up By: CSB 4/21/23

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
62	Toxaphene
44	WND
QLS 10	QLS Spike

Analysis: 8081B Pest (PSDDA)

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC (1:1)	(Yes/No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL Ethyl Acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual							
23D0394-01 A	46.4	(26.96)	26.96	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-02 A	76.2	(16.41)	16.47	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-04 A	76.8	(16.28)	16.31	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-06 A	90.3	(13.84)	13.85	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-08 A	78.3	(15.96)	15.97	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-11 A	77.4	(16.15)	16.16	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0394-12 A	80.4	(15.55)	15.61	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0396-01 A	43.0	(29.06)	29.08	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23D0396-03 A	43.9	(28.49)	28.53	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC (1:1)	(Yes/No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL Ethyl Acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual							
BLD0606-BLK1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0606-BS1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0606-BSD1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLD0606-MS1	76.2	(16.41)	16.47	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23D0394-02
BLD0606-MSD1	76.2	(16.41)	16.47	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23D0394-02

Client verified By: [Signature] 04/25/23

Date

Preparation Reviewed By: [Signature] 05/12/23

Date

Extraction/Date and Time: 04/25/23 11:56



Batch: BLD0606

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments
23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36.K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36.K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																					
Microwave 1 2 3 4/25/23 Analyst/Date	Station/Reagent Microwave Analyst: J/CT Date: 4/25/23	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>N L003667</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">J</td> </tr> <tr> <td>2µg/mL</td> <td>Exp Date: 7/21/2023</td> <td></td> </tr> <tr> <td>Spike (Freezer)</td> <td>3 L003590</td> <td>100µL</td> <td rowspan="2">CT</td> <td rowspan="2">J</td> </tr> <tr> <td>0.5/1.5µg/mL</td> <td>Exp Date: 10/5/2023</td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	N L003667	50µL	CT	J	2µg/mL	Exp Date: 7/21/2023		Spike (Freezer)	3 L003590	100µL	CT	J	0.5/1.5µg/mL	Exp Date: 10/5/2023	
	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness																		
Surrogate	N L003667	50µL	CT	J																			
2µg/mL	Exp Date: 7/21/2023																						
Spike (Freezer)	3 L003590	100µL	CT	J																			
0.5/1.5µg/mL	Exp Date: 10/5/2023																						
Pre GPC KD 100°C (No Exchange) 3 4 5 6 1/26/23 Analyst/Date	80:20 Hexane/Acetone L0041957 1:1 Hexane/Acetone L004477 Neutral Glass Wool L002037 Anhydrous Sodium Sulfate L003875 Pre GPC KD Analyst: U Date: 1/26/23																						
	TurboVap Pre GPC 1 2 3 4 5 5/9/23 Analyst/Date	Hexane L003500 Anhydrous Sodium Sulfate 05/12/23 L3697 Neutral Glass Wool 05/12/23 L333992 GPC Filter Prep Analyst: AKK Date: 5/8/23																					
Post GPC KD 80 - 85°C Hexane Exchange (2 X 20 mL) 100°C 1 3 4 5 6 9/11/23 Analyst/Date	Methylene Chloride L004175 GPC Filter L001799 GPC Analyst: CO Date: 5/9/23																						
	TurboVap Pre-Cleanups 1 2 3 4 5 5/12/23 Analyst/Date	Post GPC KD Analyst: CO Date: 5/11/23 Methylene Chloride L004175 Hexane L003500																					
TurboVap Post-Cleanups 1 2 3 4 5 05/12/23 Analyst/Date	Vialing Analyst: R Date: 05/12/23 Hexane L3500 Sulfuric Acid L1033 Ethyl Acetate R/R																						
	Vialing Tetrabutylammonium hydrogensulfate (TBAS) L3024 Sodium Sulfite L2437																						

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).



Batch: BLD0606

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Analyst/Date	Silica Gel (SPE) Darts
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Batch: BLD0606

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Prep Instructions

SPECIAL INSTRUCTIONS:

1. Weigh into beakers-lightly dry with Sodium Sulfate.
2. Transfer to microwave vessels.
3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization).
4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples.
6. After microwave-re-homogenize while hot then let cool 15 min in cold water. Re-homogenize while cool.
7. Decant 1:1 Hex/ACE into Erlenmeyer flask using a funnel containing neutral glasswool.
8. Rinse with Hexane.
9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization).
10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane.
11. KD to 5mL at 100°C. (NO HEXANE EXCHANGE).
12. TurboVap
13. GPC
14. After GPC: KD at 80 - 85°C
15. Exchange to Hexane at 100°C 2 x 20 mL).
16. TurboVap.
17. Cleanups, If Acid cleaning do not add Ethyl Acetate for Sulfur Clean. Do Not Acid Clean if Acid liable compounds are requested.
18. Vial in Hexane.

A. Need Total Solids Y N

B. Archive/Freeze Y N



Extraction Parameter: PEST Extraction Batch BLD0606

Total Solids Batch: BLD0431 Work Order(s): 23D0394

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>01-13</u>	<u>R 4/18/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>01-05, 07-13</u>	<u>R 4/18/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = <u>01-13</u>	<u>R 4/18/23</u>
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	<u>R 4/18/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	<u>R 4/18/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: PEST Extraction Batch BLP0606

Total Solids Batch: BLP0432 Work Order(s): 2320396

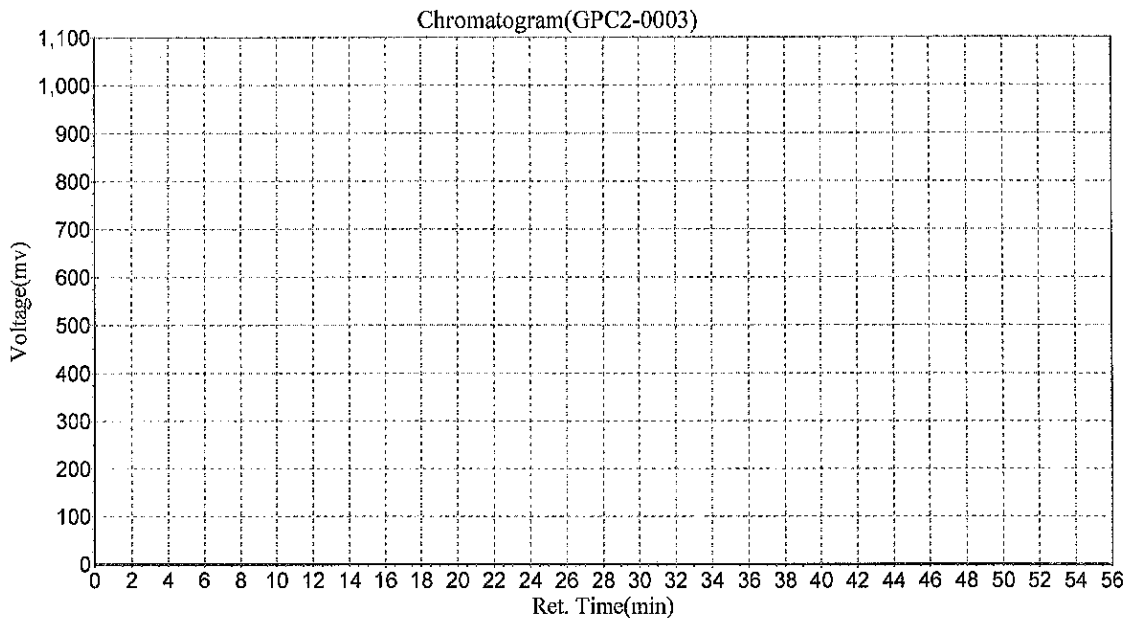
Screens: Soil/Sediment/Solid/Other:	Analyst/Date
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<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = <u>01-04</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/ <u>(N)</u>	<u>CR 4/18/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/ <u>(N)</u>	<u>CR 4/18/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

BLK 1

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,2:00:07 PM
Data File:c:\n2000\data\gpc2\050923\GPC2-0003
Method File:E:\GPC2_InHouse.mtd

Analyst:f°CTO
Date/Time:2023-05-09,2:00:07 PM



Ingredient Table

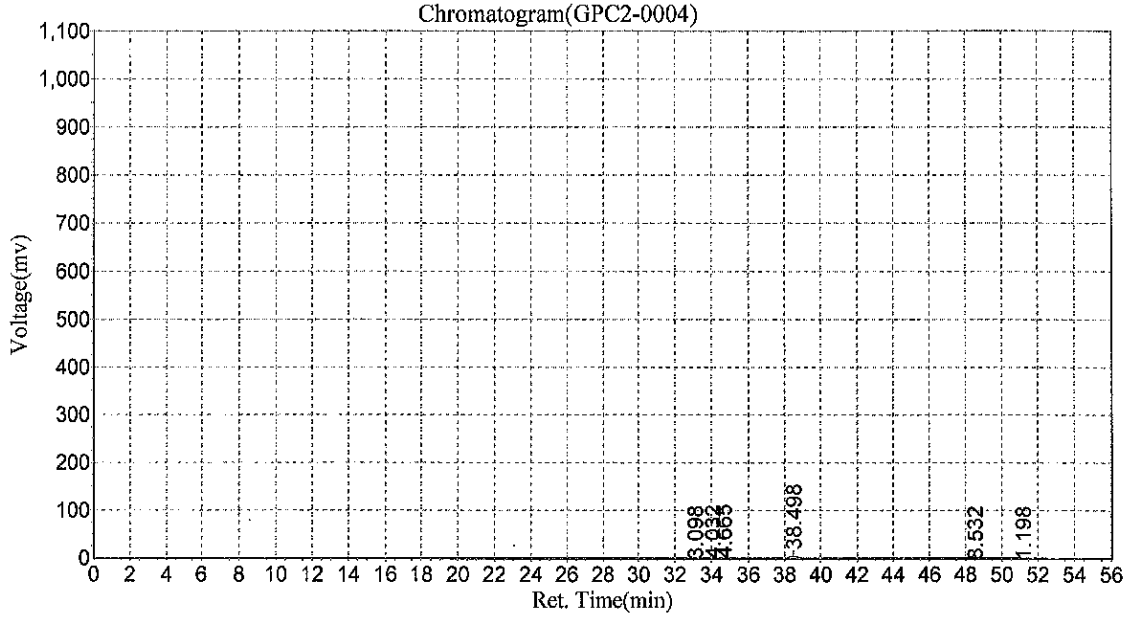
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

B351

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,2:57:48 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0004
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,2:57:49 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		33.098	3646.571	185069.047	1.8852
2		34.032	4077.758	104444.461	1.0639
3		34.665	5667.100	204792.313	2.0861
4		38.498	46662.797	9083747.000	92.5318
5		48.532	1426.308	124259.641	1.2658
6		51.198	1533.103	114581.891	1.1672
Total			63013.636	9816894.352	100.000

Ingredient Table

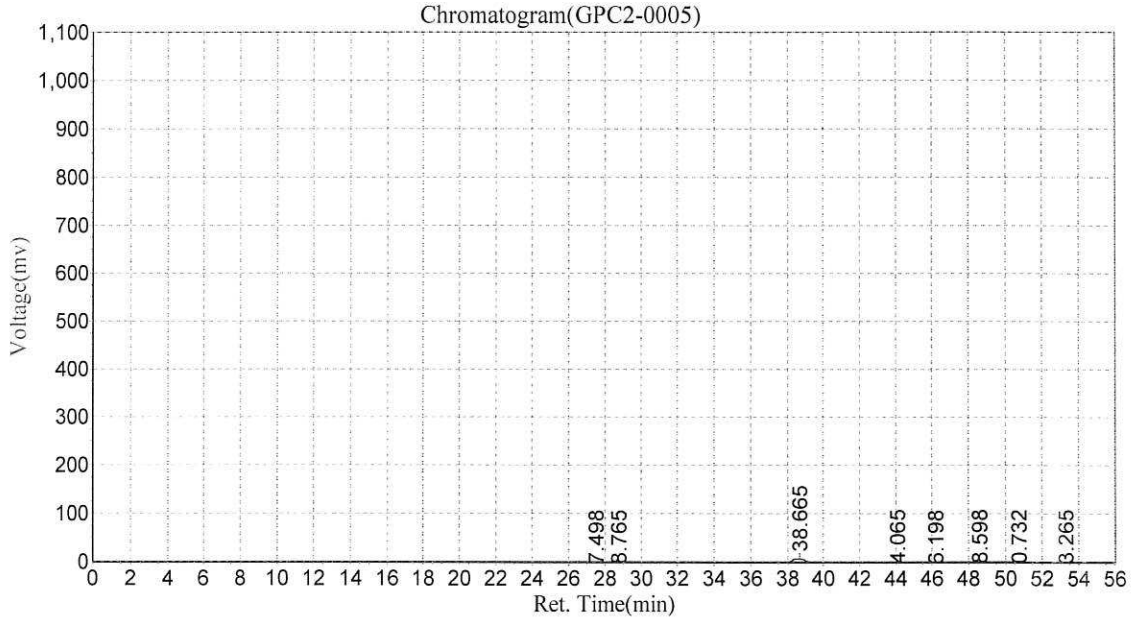
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BSD 1

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,3:55:32 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0005
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,3:55:33 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		27.498	2423.213	118877.695	0.8775
2		28.765	2671.962	146220.359	1.0793
3		38.665	52837.691	12293811.000	90.7421
4		44.065	2352.436	235049.766	1.7349
5		46.198	1950.889	121026.570	0.8933
6		48.598	2254.775	292197.125	2.1567
7		50.732	2479.229	235767.875	1.7402
8		53.265	1823.330	105130.445	0.7760
Total			68793.525	13548080.836	100.000

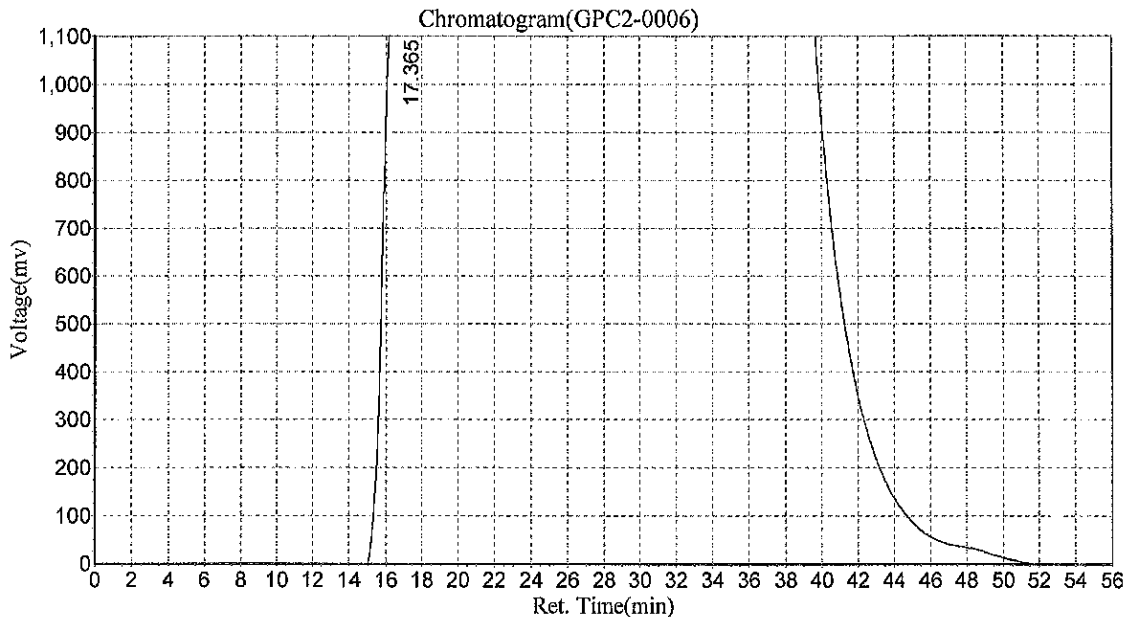
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,4:53:14 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0006
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Analyst:CTO
 Date/Time:2023-05-09,4:53:14 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.365	1292387.875	1956088960.000	100.0000
Total			1292387.875	1956088960.000	100.000

Ingredient Table

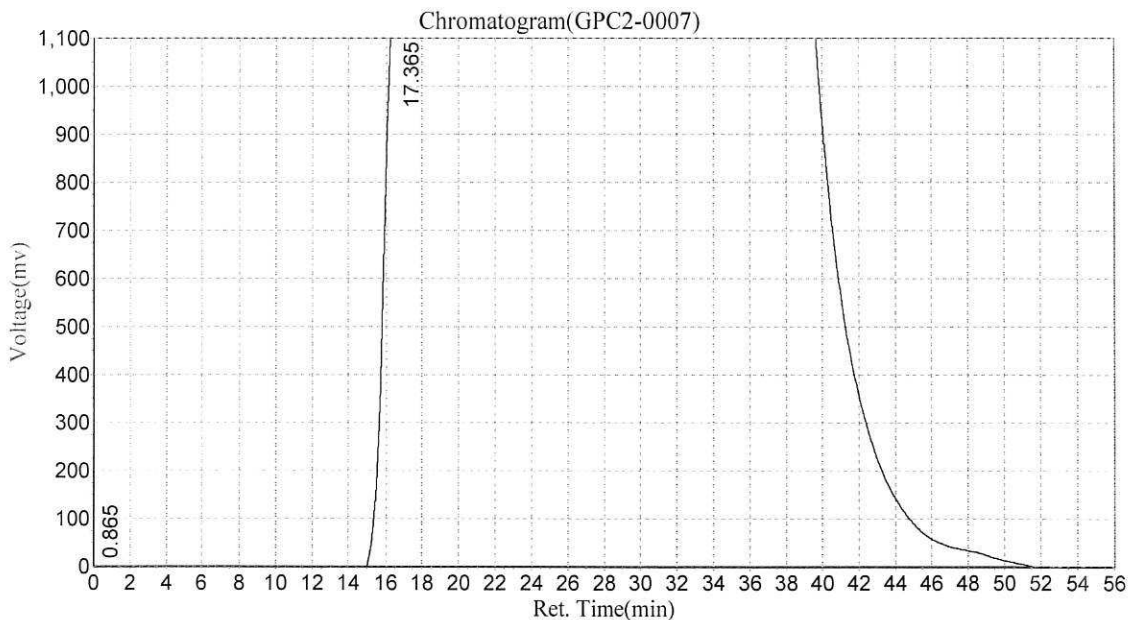
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

MSD 1

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,5:50:57 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0007
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,5:50:58 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.865	2240.688	127553.820	0.0065
2		17.365	1278426.625	1969615104.000	99.9935
Total			1280667.313	1969742657.820	100.000

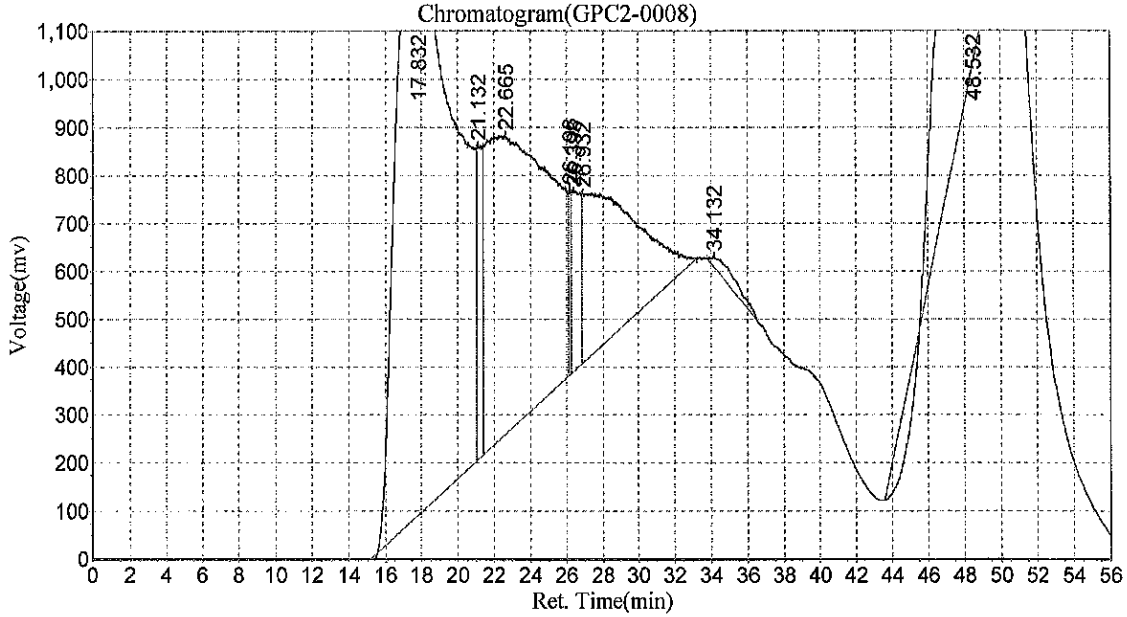
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,6:48:38 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0008
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,6:48:38 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	1163062.125	270537408.000	46.2195
2		21.132	653181.063	12976774.000	2.2170
3		22.665	621836.500	153199776.000	26.1732
4		26.198	382309.469	3056564.250	0.5222
5		26.398	375332.844	13241696.000	2.2623
6		26.932	356126.438	68359024.000	11.6787
7		34.132	18021.533	3238852.500	0.5533
8		48.532	221694.500	60721120.000	10.3738
Total			3791564.471	585331214.750	100.000

Ingredient Table

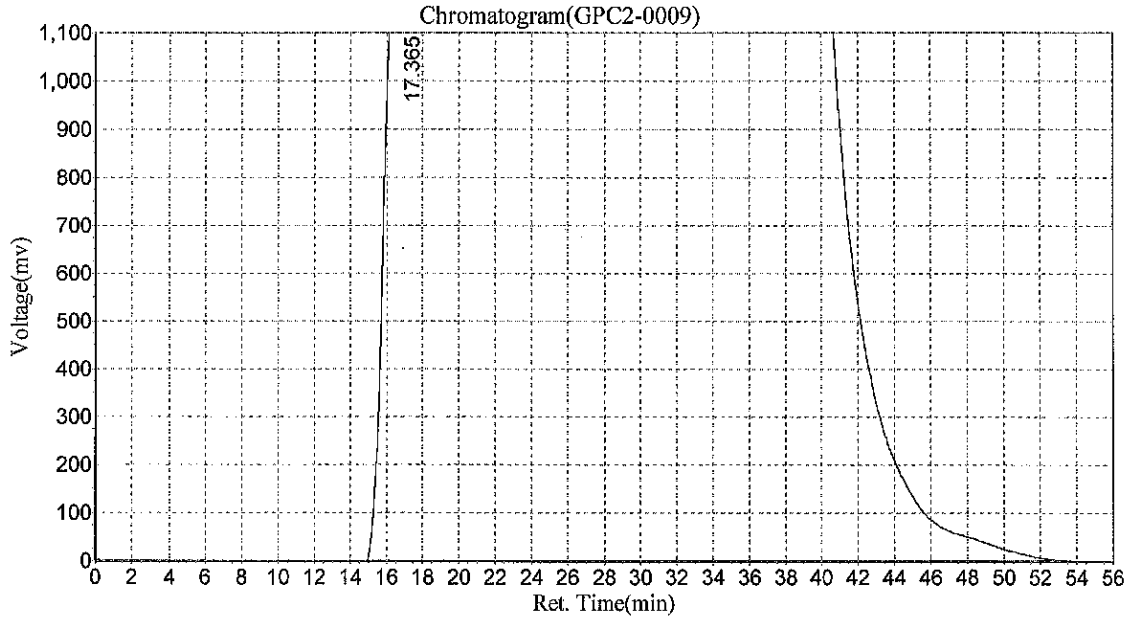
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

02

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,7:46:22 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0009
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,7:46:22 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.365	1282038.625	2036482688.000	100.0000
Total			1282038.625	2036482688.000	100.000

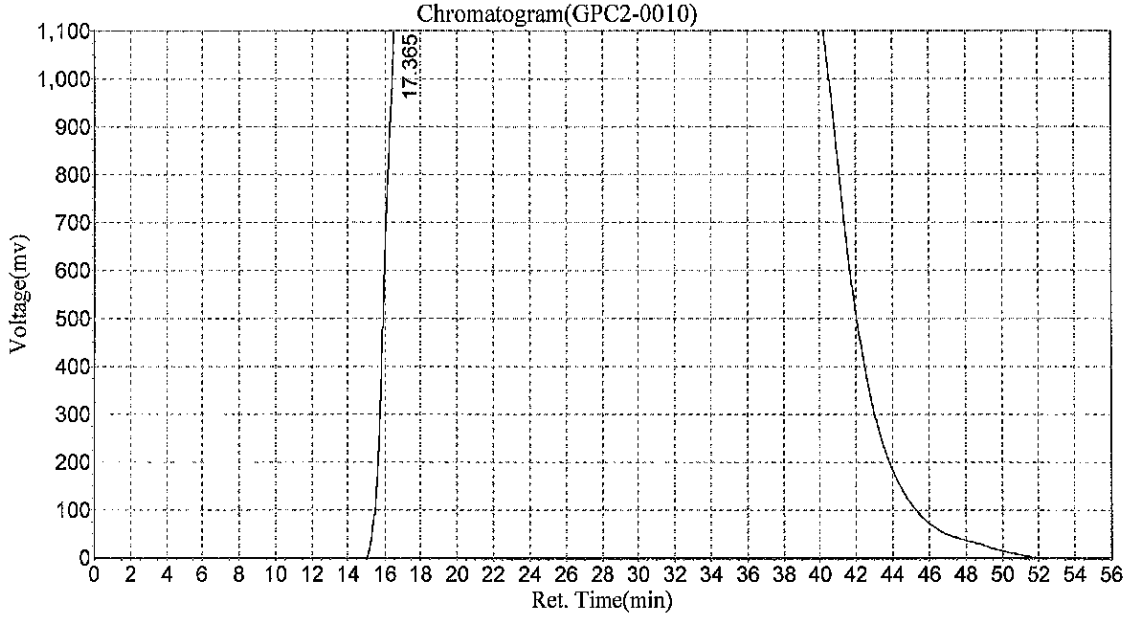
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,8:44:04 PM
Data File:c:\n2000\data\gpc2\050923\GPC2-0010
Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
Date/Time:2023-05-09,8:44:04 PM



Results

Table with 6 columns: Peak No., Peak ID, Ret Time, Height, Area, Conc. Row 1: 1, 17.365, 1272844.875, 1998246400.000, 100.0000. Total row: 1272844.875, 1998246400.000, 100.000

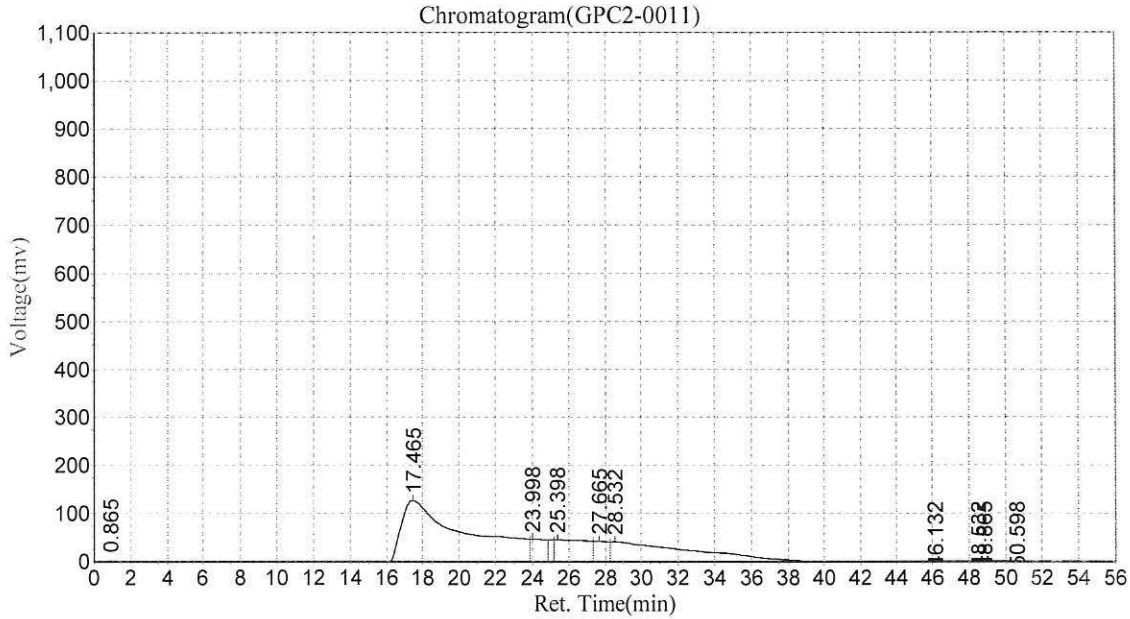
Ingredient Table

Table with 7 columns: No, Peak ID, Ret Time, Peak Width, Factor1, Factor2, ISTD Wt. Rows: 1 Collect Pest 29.000 0.010 0.00E+000 0.00E+000 0.0000; 2 Dump Pest 46.000 0.010 0.00E+000 0.00E+000 0.0000; 3 Dump BAN 48.000 0.010 0.00E+000 0.00E+000 0.0000; 4 Collect BAN 24.000 0.010 0.00E+000 0.00E+000 0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,9:41:47 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0011
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,9:41:48 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.865	2448.325	187757.031	0.1978
2		17.465	150049.125	42203876.000	44.4613
3	Collect BAN	23.998	70788.344	4214752.500	4.4402
4		25.398	69841.961	8773068.000	9.2423
5		27.665	67600.914	3749772.750	3.9503
6		28.532	66692.250	35172904.000	37.0542
7		46.132	2519.600	170954.484	0.1801
8		48.532	3209.375	102681.250	0.1082
9		48.865	2959.427	171383.984	0.1806
10		50.598	2352.098	175632.984	0.1850
Total			438461.419	94922782.984	100.000

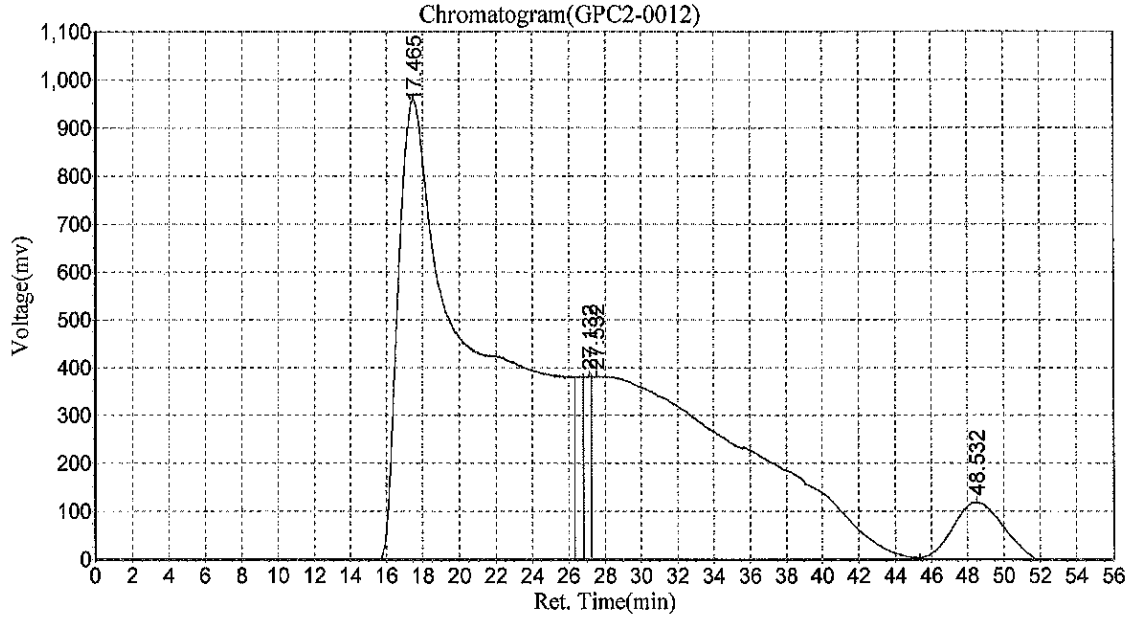
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-09,10:39:29 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0012
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-09,10:39:29 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.465	992388.438	325540416.000	51.6830
2		27.132	410535.000	11475483.000	1.8219
3		27.532	411267.750	258042448.000	40.9670
4		48.532	144131.719	34821008.000	5.5282
Total			1958322.906	629879355.000	100.000

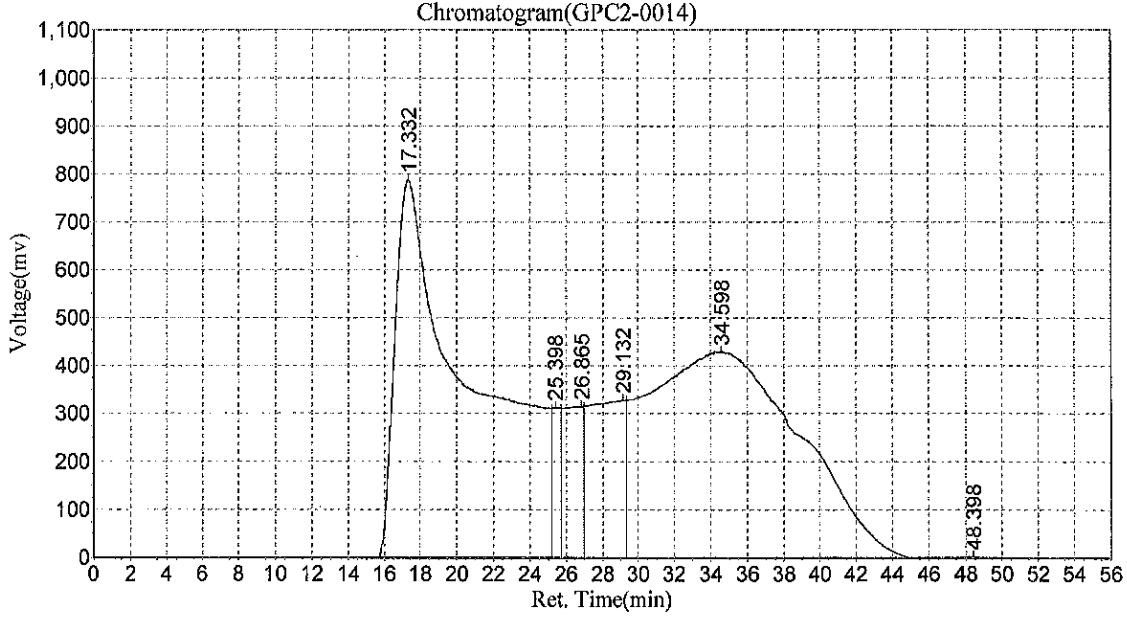
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-10,1:47:45 PM
Data File:c:\n2000\data\gpc2\050923\GPC2-0014
Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
Date/Time:2023-05-10,1:47:46 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.332	818565.625	246446240.000	39.6160
2		25.398	343675.438	10987068.000	1.7662
3		26.865	346251.688	26185908.000	4.2094
4		29.132	360511.531	49473236.000	7.9528
5		34.598	460220.719	280427680.000	45.0785
6		48.398	33572.633	8566798.000	1.3771
Total			2362797.633	622086930.000	100.000

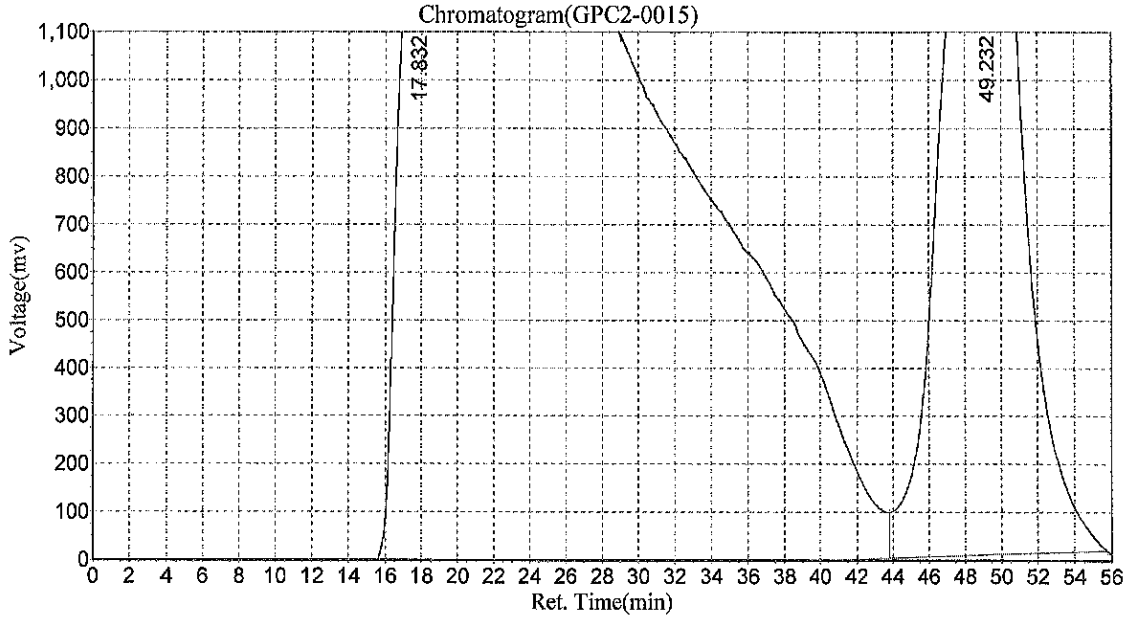
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-10,2:45:29 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0015
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-10,2:45:29 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	1281607.875	1466659584.000	77.0817
2		49.232	1238442.375	436074592.000	22.9183
Total			2520050.250	1902734176.000	100.000

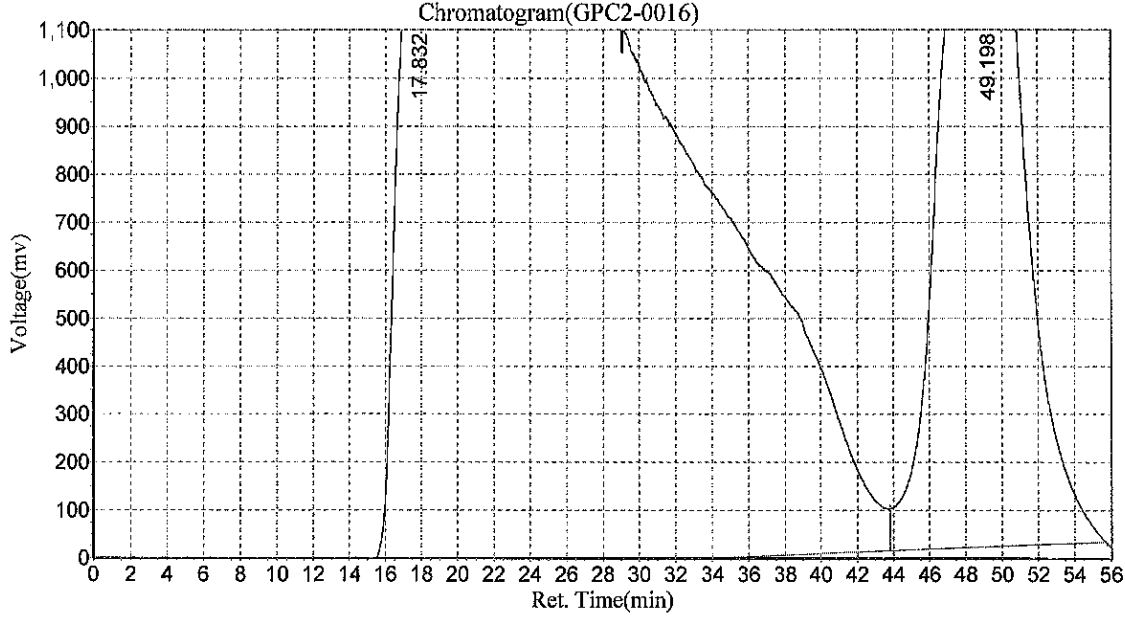
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-10,3:43:10 PM
Data File:c:\n2000\data\gpc2\050923\GPC2-0016
Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
Date/Time:2023-05-10,3:43:11 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	1279264.500	1474341120.000	77.0639
2		49.198	1227167.875	438799584.000	22.9361
Total			2506432.375	1913140704.000	100.000

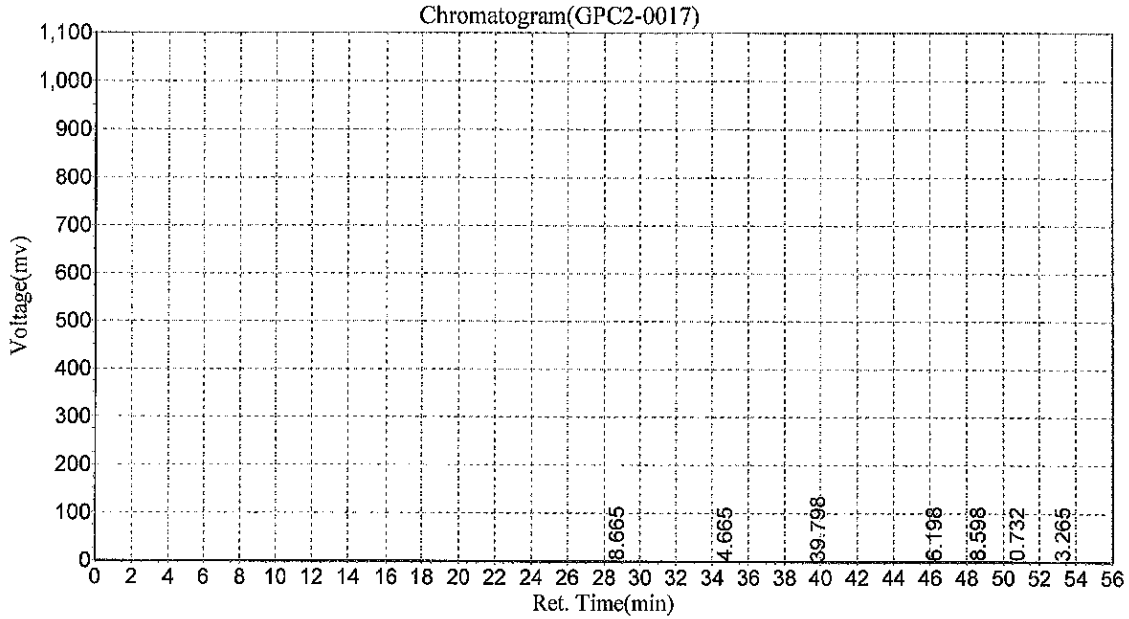
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLD0176/606/616 23E0100/D394/396/457 SVOA/PEST/SIM

Date:2023-05-10,4:40:53 PM
 Data File:c:\n2000\data\gpc2\050923\GPC2-0017
 Method File:E:\GPC2_InHouse.mtd

Analyst:CTO
 Date/Time:2023-05-10,4:40:54 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		28.665	1833.803	101611.023	1.3457
2		34.665	2610.052	163277.984	2.1625
3		39.798	25555.131	6421017.500	85.0403
4		46.198	2342.400	154326.078	2.0439
5		48.598	2520.126	315062.531	4.1727
6		50.732	2537.549	253040.234	3.3513
7		53.265	1857.926	142221.984	1.8836
Total			39256.985	7550557.336	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000



Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0141

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01	23051316.D	05/12/2023	
Blank	BLD0606-BLK1	23051304.D	05/12/2023	
LCS	BLD0606-BS1	23051305.D	05/12/2023	
LCS Dup	BLD0606-BSD1	23051306.D	05/12/2023	
LDW23-SS1802	23D0396-03	23051317.D	05/12/2023	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0142

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01	23051316.D	05/12/2023	
Blank	BLD0606-BLK1	23051304.D	05/12/2023	
LCS Dup	BLD0606-BSD1	23051306.D	05/12/2023	
LCS	BLD0606-BS1	23051305.D	05/12/2023	
LDW23-SS1802	23D0396-03	23051317.D	05/12/2023	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0143

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLD0606-BSD1	23051306.D	05/12/2023	
Blank	BLD0606-BLK1	23051304.D	05/12/2023	
LCS	BLD0606-BS1	23051305.D	05/12/2023	
LDW23-SS1802	23D0396-03	23051317.D	05/12/2023	
LDW23-SS1801	23D0396-01	23051316.D	05/12/2023	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0144

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLD0606-BSD1	23051306.D	05/12/2023	
Blank	BLD0606-BLK1	23051304.D	05/12/2023	
LCS	BLD0606-BS1	23051305.D	05/12/2023	
LDW23-SS1801	23D0396-01	23051316.D	05/12/2023	
LDW23-SS1802	23D0396-03	23051317.D	05/12/2023	



Form I
METHOD BLANK DATA SHEET
EPA 8081B

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0606-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/25/23 11:56</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0606</u>	Sequence:	<u>SLE0423</u>
Instrument:	<u>ECD6</u>	Column:	<u>STX-CLP</u>
		File ID:	<u>23051304.D</u>
		Analyzed:	<u>05/13/23 16:30</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>GD00035</u>
		Cleanups:	<u>GPC, Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
118-74-1	Hexachlorobenzene	1	0.20	J	0.15	0.50
SURROGATES		ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl		8.0000	4.91	61.4	30 - 160	
Decachlorobiphenyl [2C]		8.0000	5.23	65.4	30 - 160	
Tetrachlorometaxylene		8.0000	4.65	58.1	30 - 160	
Tetrachlorometaxylene [2C]		8.0000	4.61	57.6	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051304.D
Data file 2: /20230513.b/B20230513.b/23051304.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0606-BLK1
Client ID:
Injection Date: 13-MAY-2023 16:30
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag			
4.309	-0.002	24364	----	1.30	0.00	---	alpha-BHC			
----	----	----	----	0.00	0.00	---	beta-BHC			
4.880	0.002	8026	----	0.47	0.00	---	delta-BHC			
----	----	----	----	0.00	0.00	---	gamma-BHC (Lindane)			
----	----	----	5.646	0.005	4733	---	Heptachlor			
----	----	----	6.046	0.008	18740	---	Aldrin			
----	----	----	----	0.00	0.00	---	Heptachlor epoxide b			
----	----	----	----	0.00	0.00	---	Endosulfan I			
----	----	----	----	0.00	0.00	---	Dieldrin			
----	----	----	----	0.00	0.00	---	4,4'-DDE			
----	----	----	----	0.00	0.00	---	Endrin			
----	----	----	----	0.00	0.00	---	Endosulfan II			
----	----	----	----	0.00	0.00	---	4,4'-DDD			
----	----	----	----	0.00	0.00	---	Endosulfan sulfate			
----	----	----	----	0.00	0.00	---	4,4'-DDT			
----	----	----	----	0.00	0.00	---	Methoxychlor			
8.426	0.000	2851	----	0.22	0.00	---	Endrin ketone			
----	----	----	----	0.00	0.00	---	Endrin aldehyde			
----	----	----	----	0.00	0.00	---	trans-Chlordane			
----	----	----	----	0.00	0.00	---	cis-Chlordane			
2.293	-0.001	17323	----	0.90	0.00	---	Hexachlorobutadiene			
4.153	-0.000	16409	----	0.99	0.00	---	Hexachlorobenzene			
3.799	0.000	278020	4.113	-0.000	245750	23.26	23.05	0.9	Tetrachloro-m-xylene	M
9.342	-0.000	212021	10.274	0.000	157949	24.56	26.16	6.3	Decachlorobiphenyl	

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

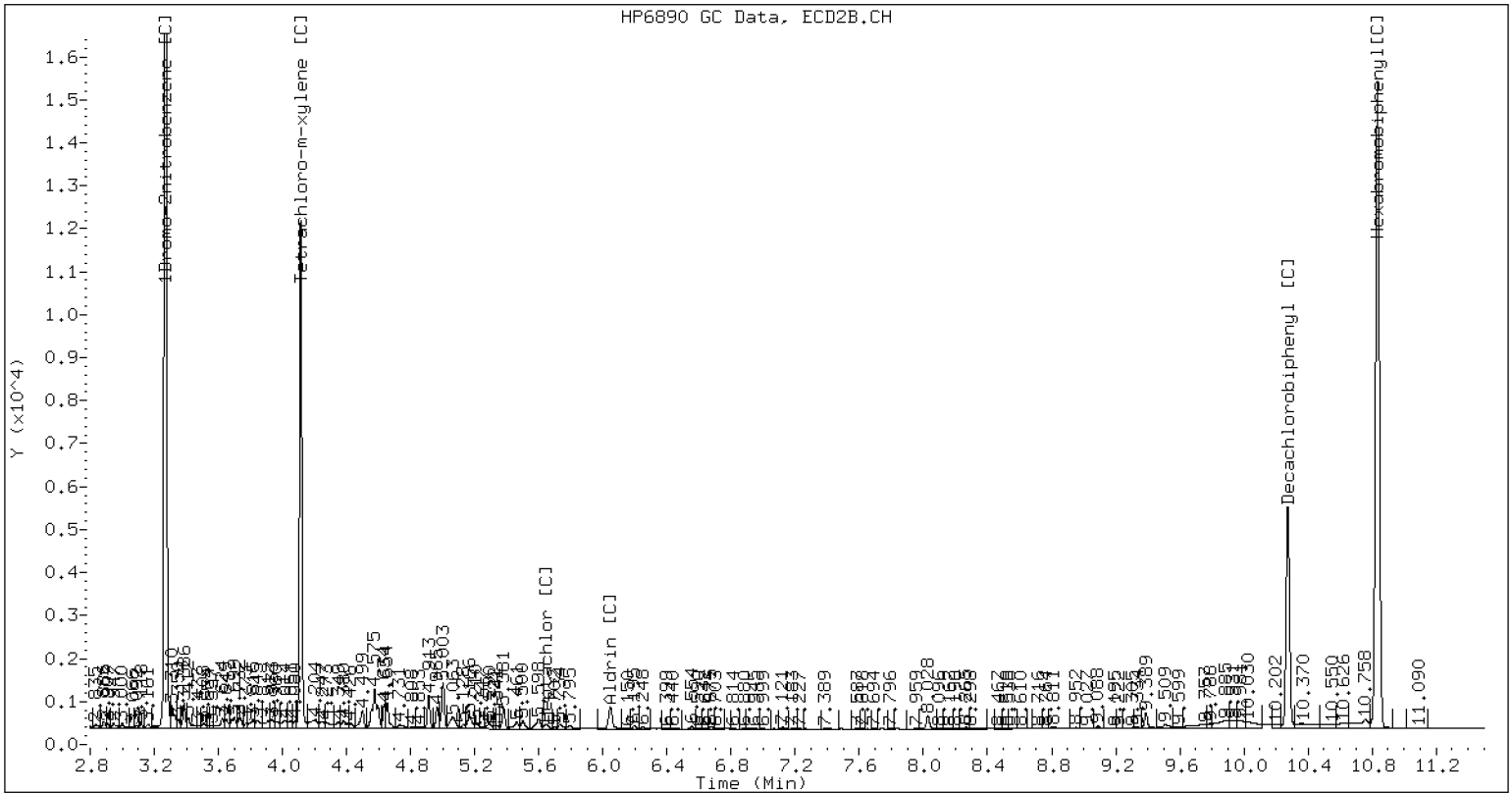
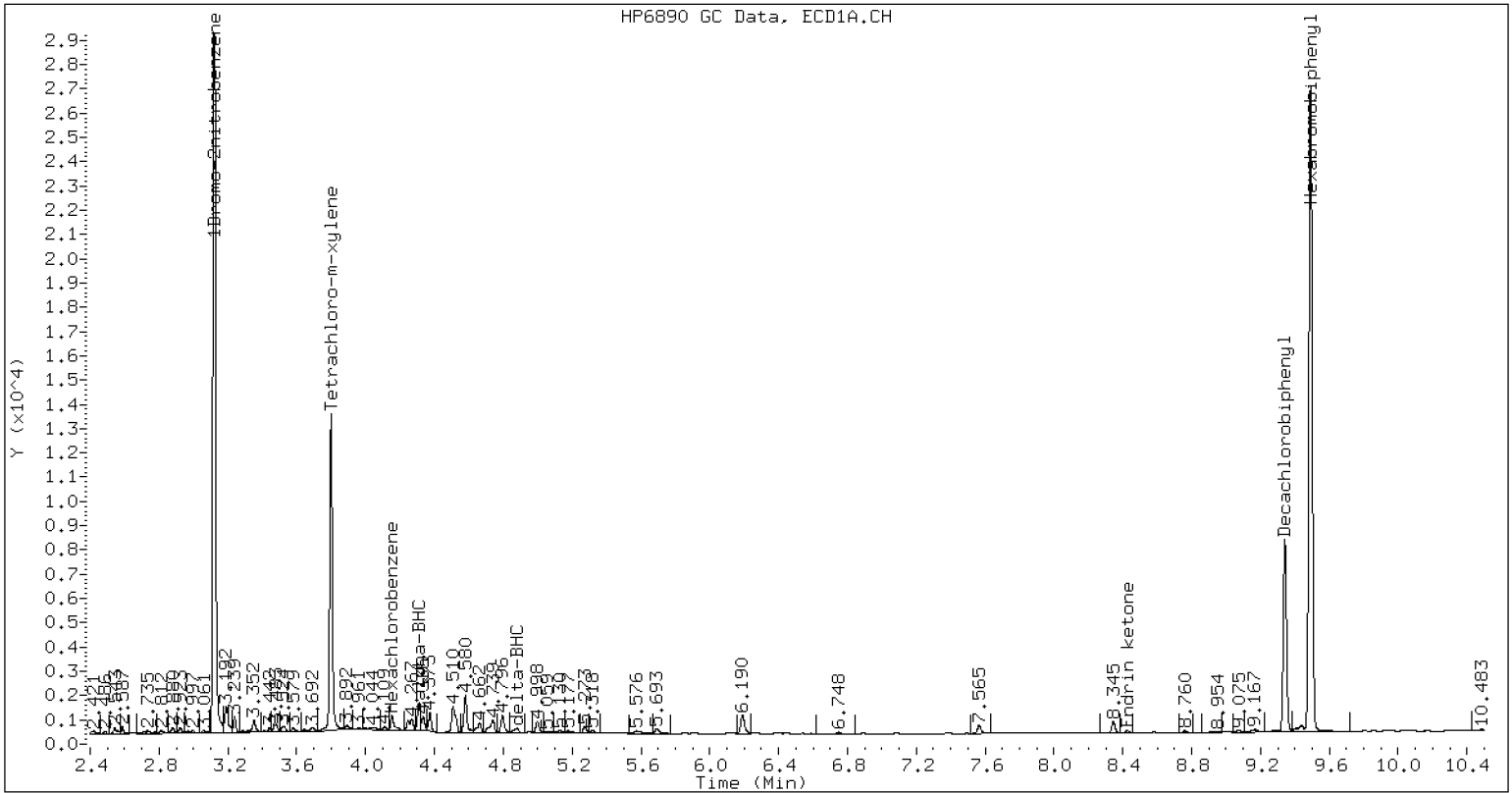
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	854265	-8.4
Hexabromobiphenyl	745426	731936	-1.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	775487	-37.9
Hexabromobiphenyl	754634	500266	-33.7

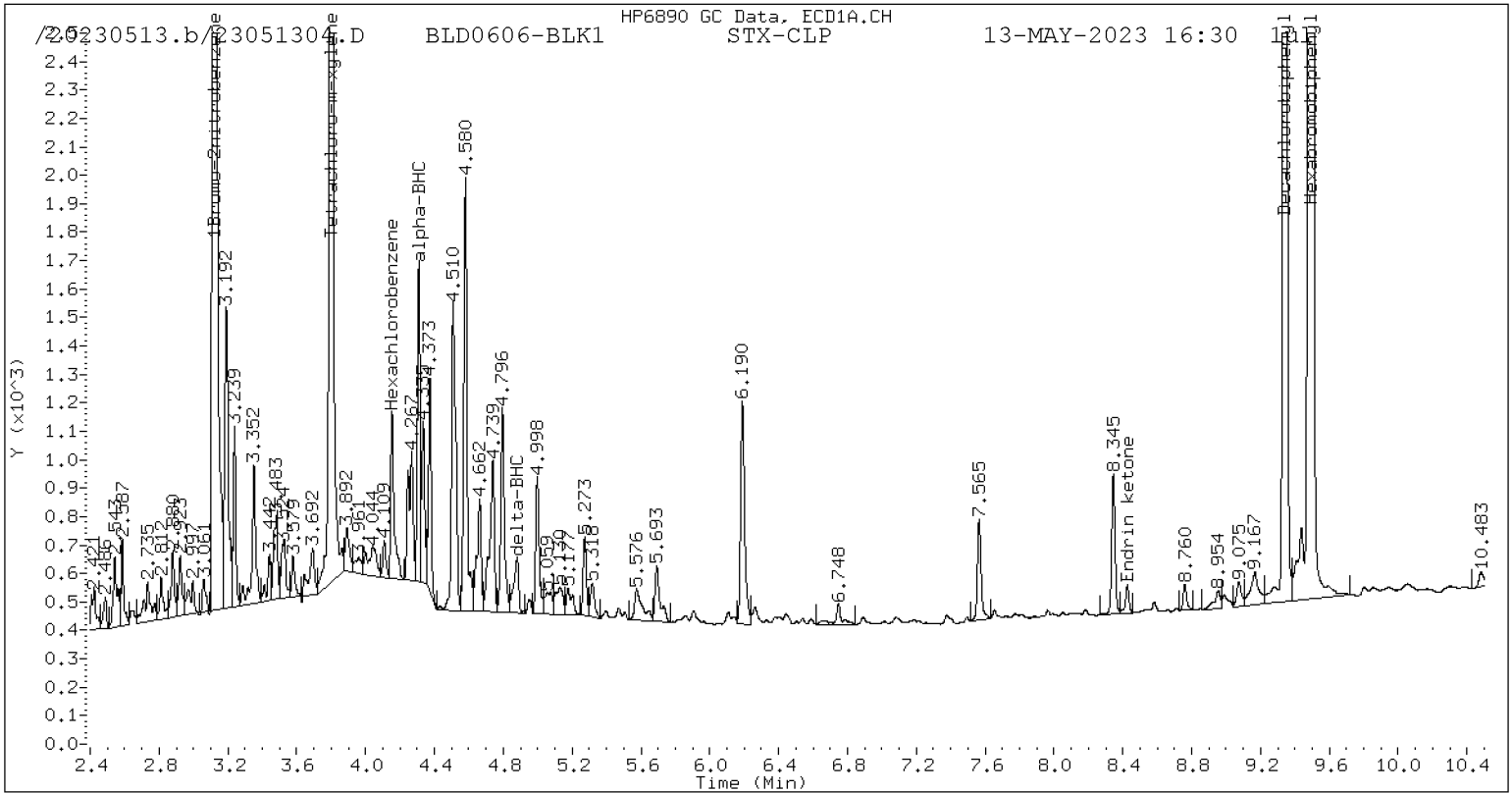
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

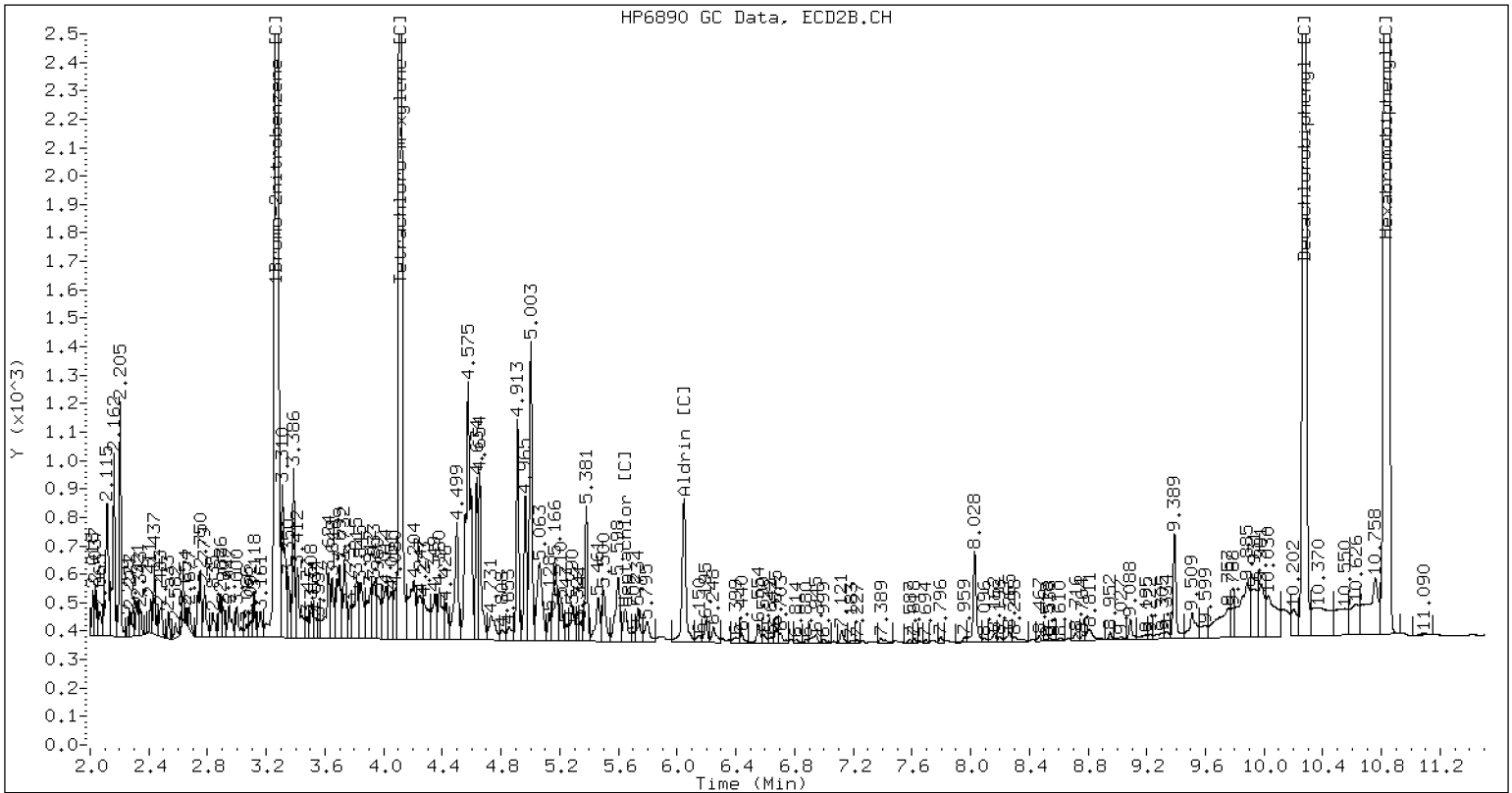


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

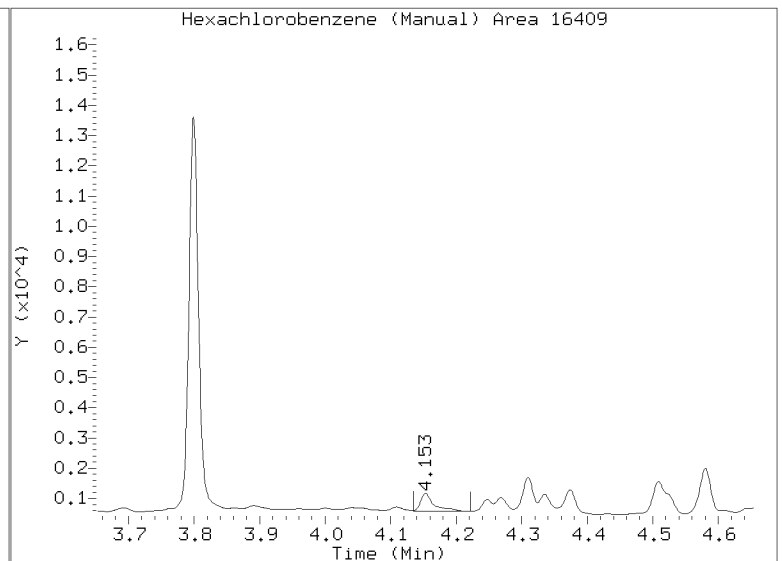
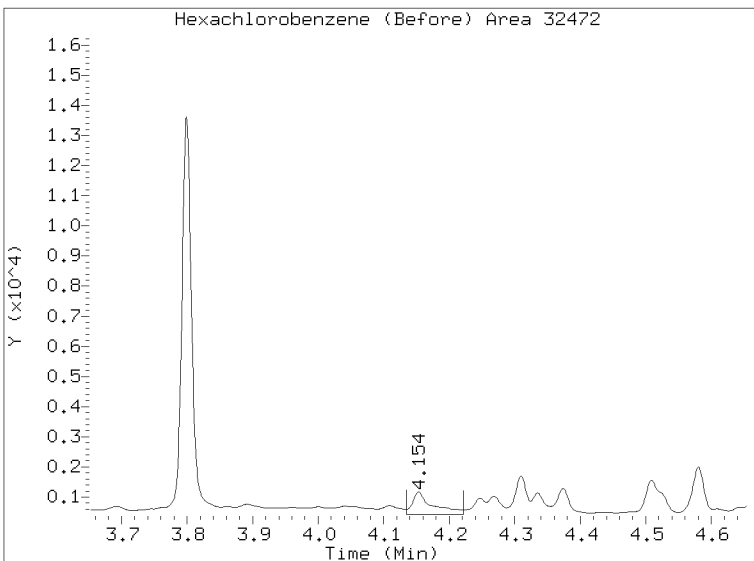
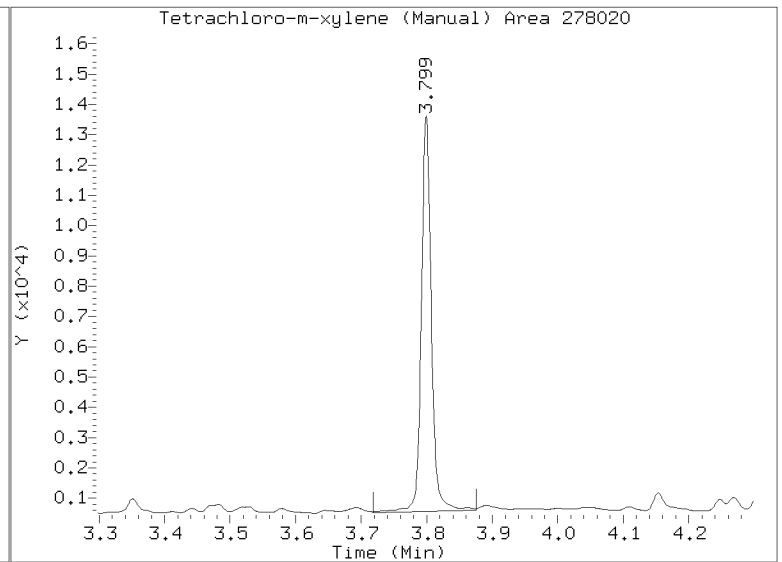
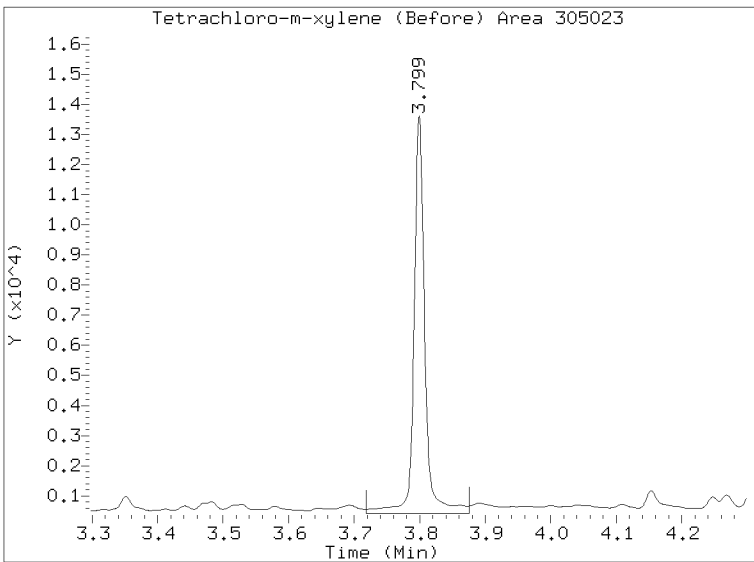
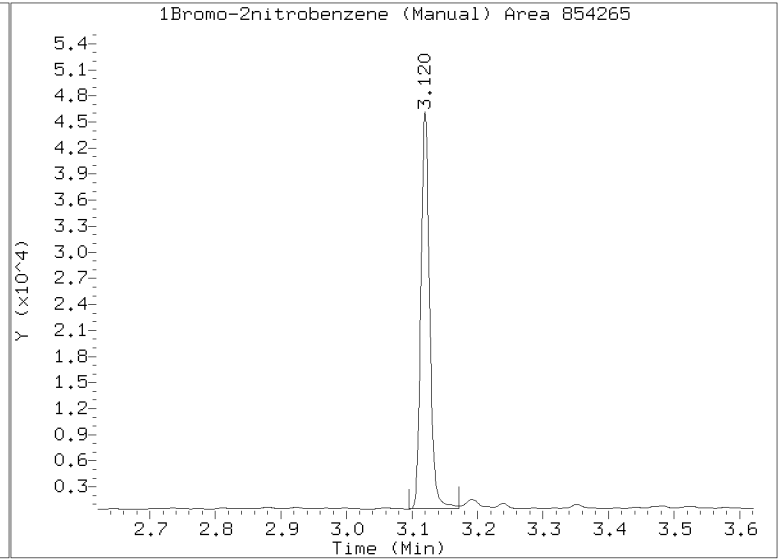
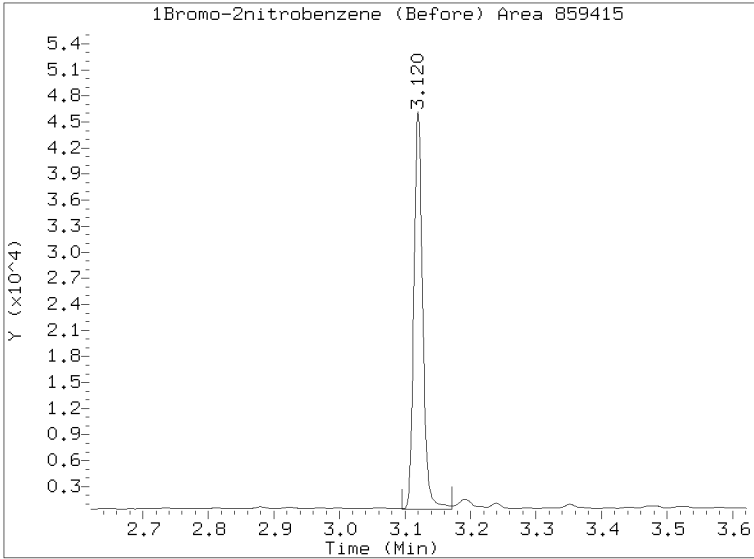
/20230513.b/B20230513.b/23051304.D BLD0606-BLK1 CLP2



CLP-2 Manual Integration: NO

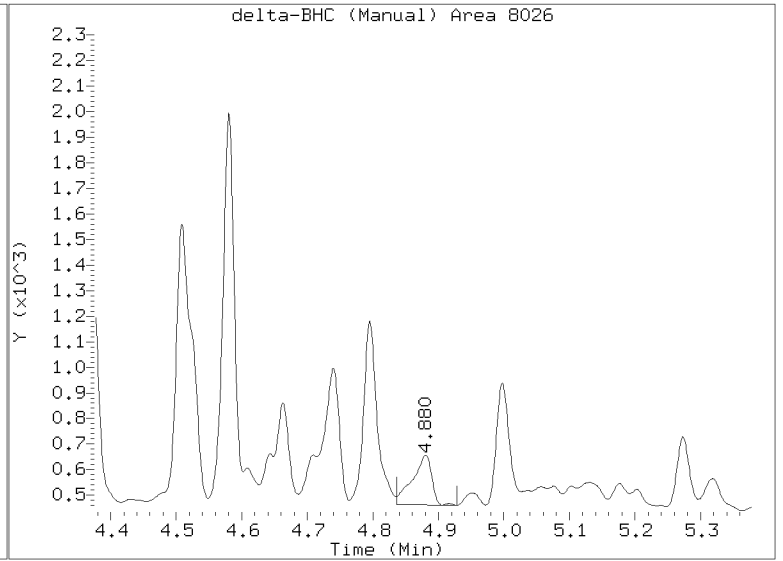
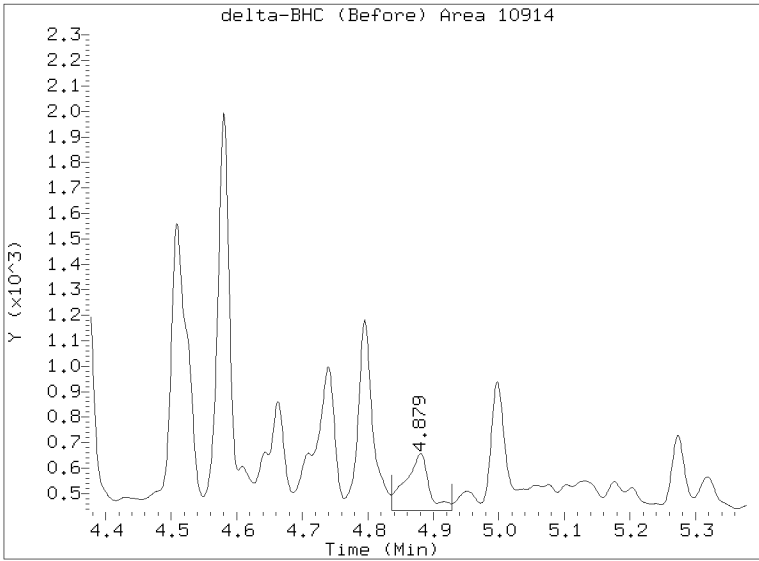
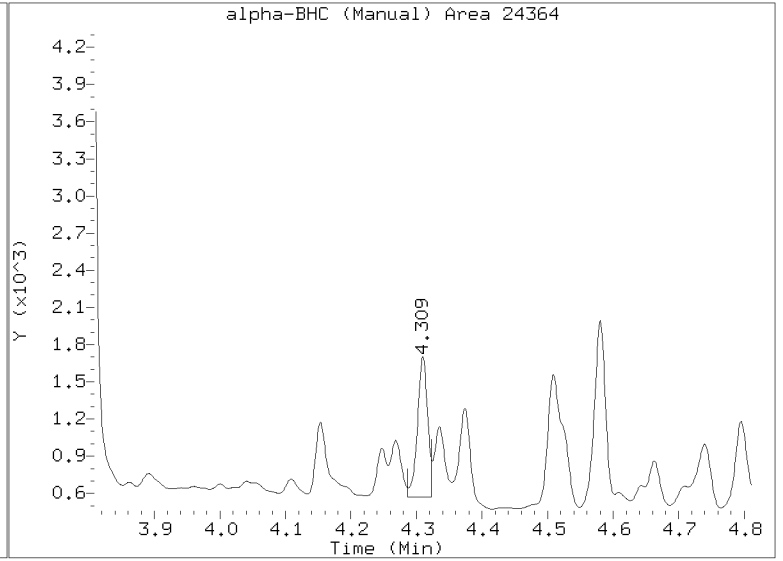
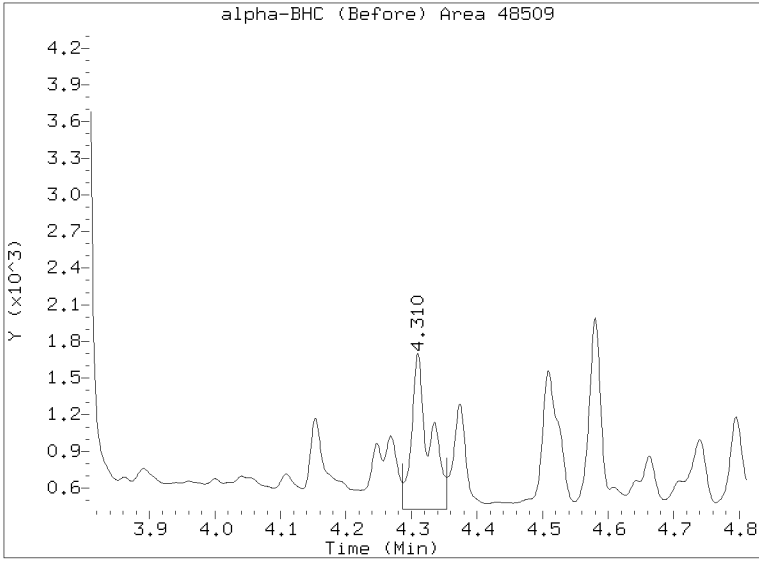
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230513.b/23051304.D
Injection Date: 13-MAY-2023 16:30
Lab ID:BLD0606-BLK1 Client ID:
Report Date: 05/25/2023 19:14



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230513.b/23051304.D
Injection Date: 13-MAY-2023 16:30
Lab ID:BLD0606-BLK1 Client ID:
Report Date: 05/25/2023 19:14

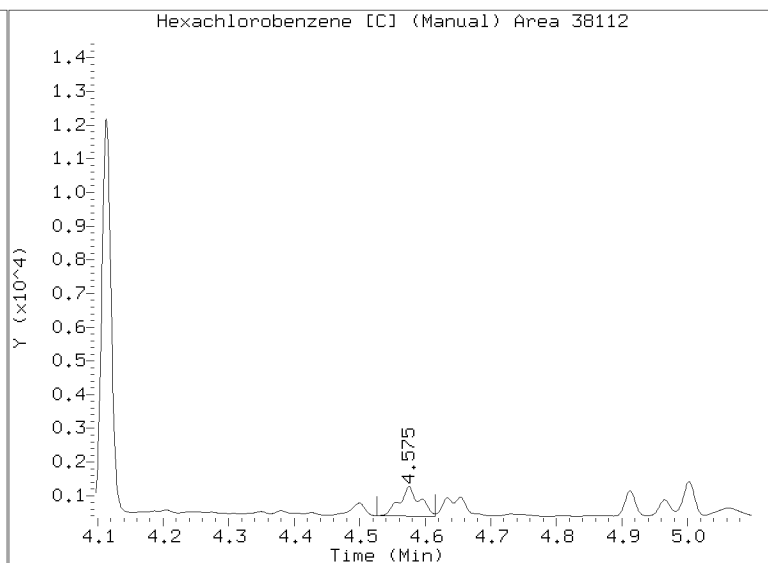
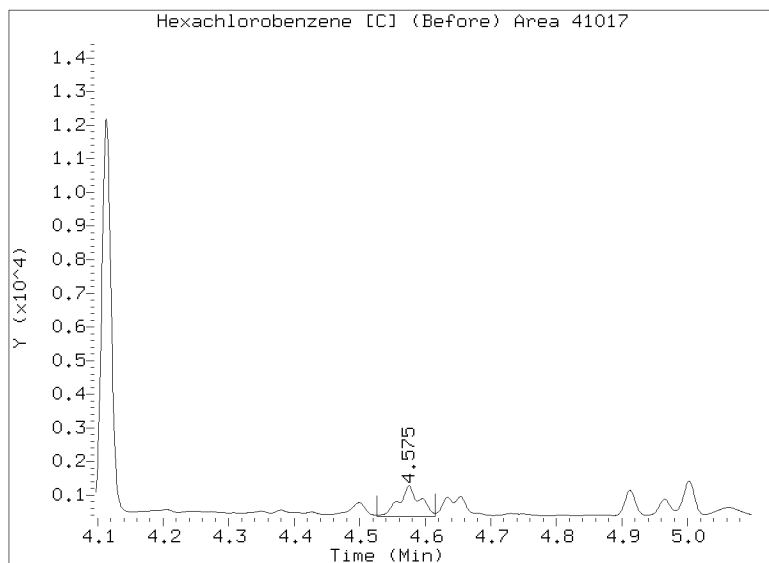
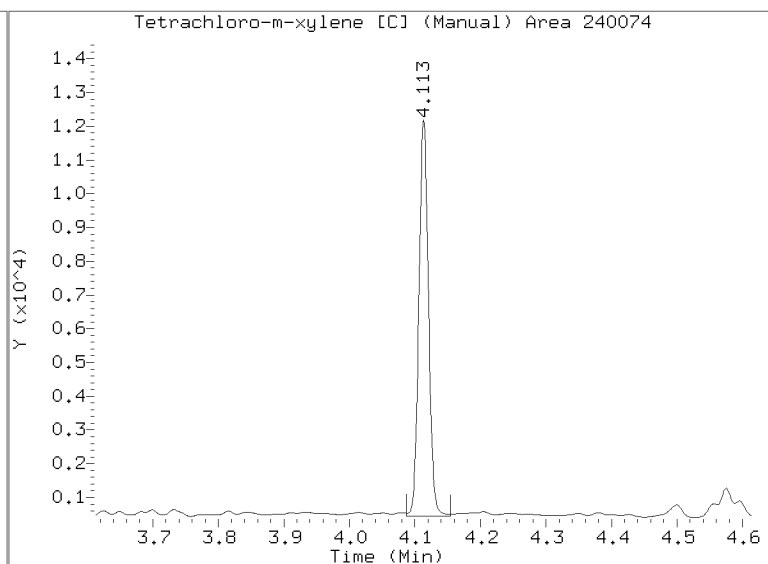
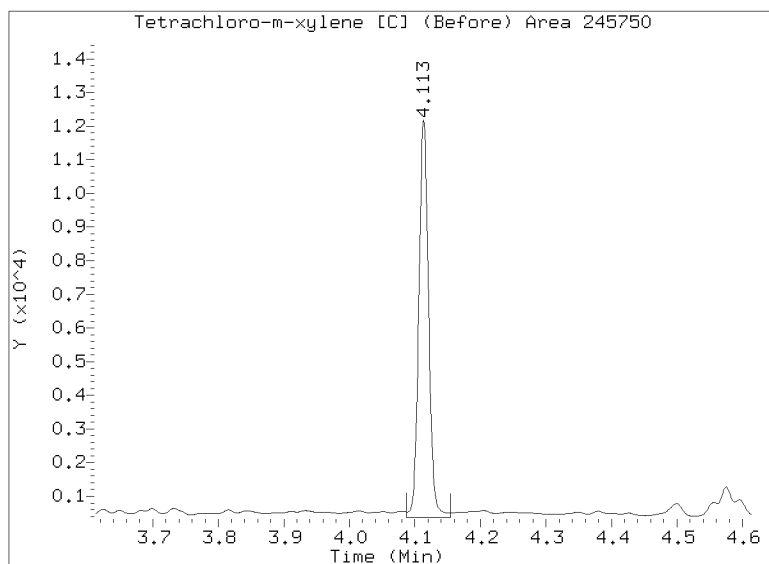
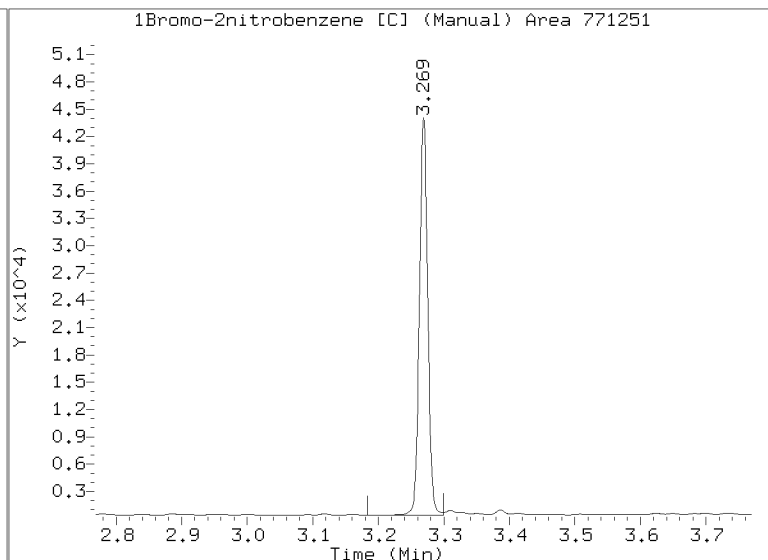
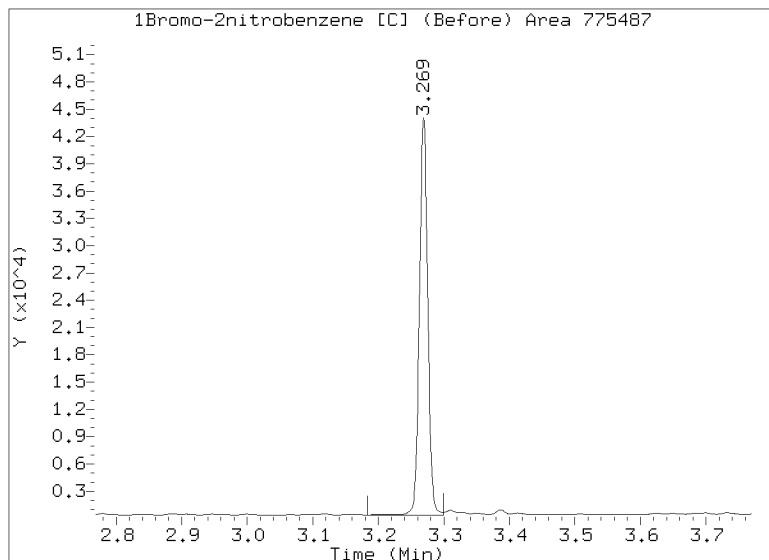


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051304.D

Injection Date: 13-MAY-2023 16:30

Lab ID:BLD0606-BLK1 Client ID:

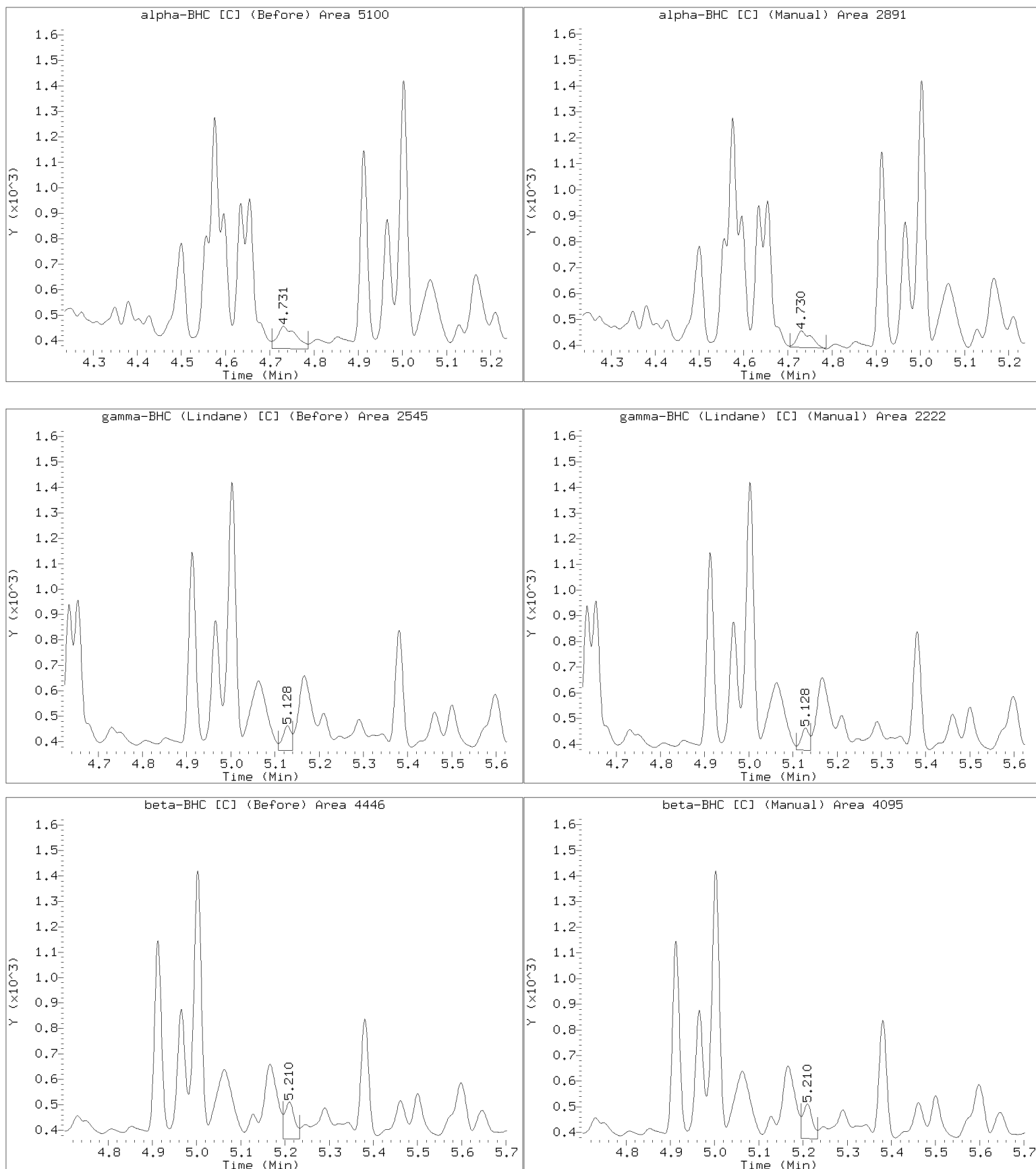


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051304.D

Injection Date: 13-MAY-2023 16:30

Lab ID:BLD0606-BLK1 Client ID:

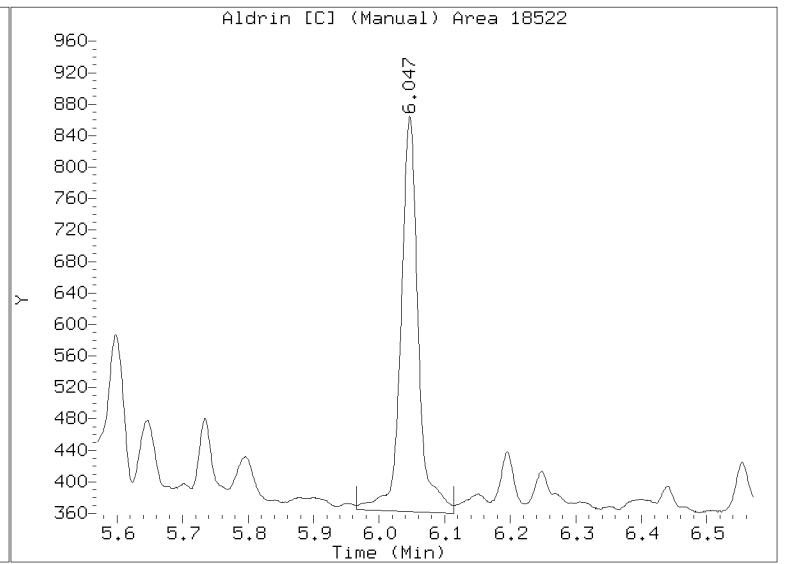
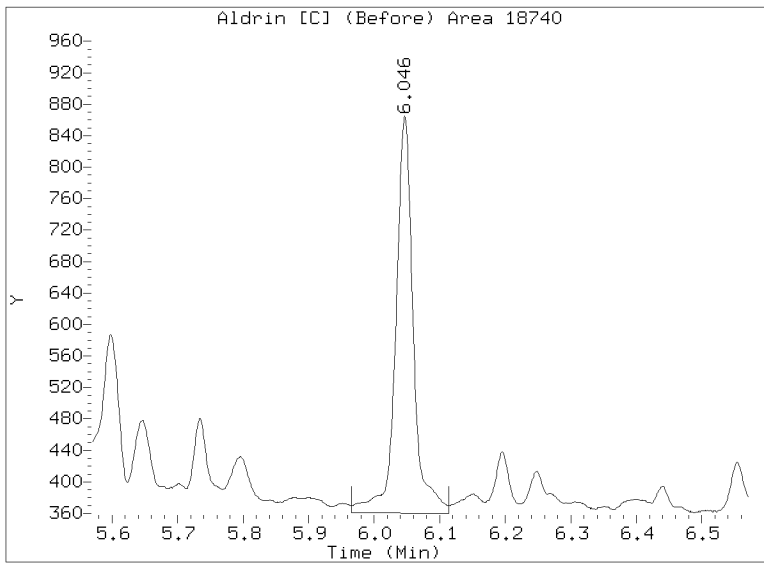
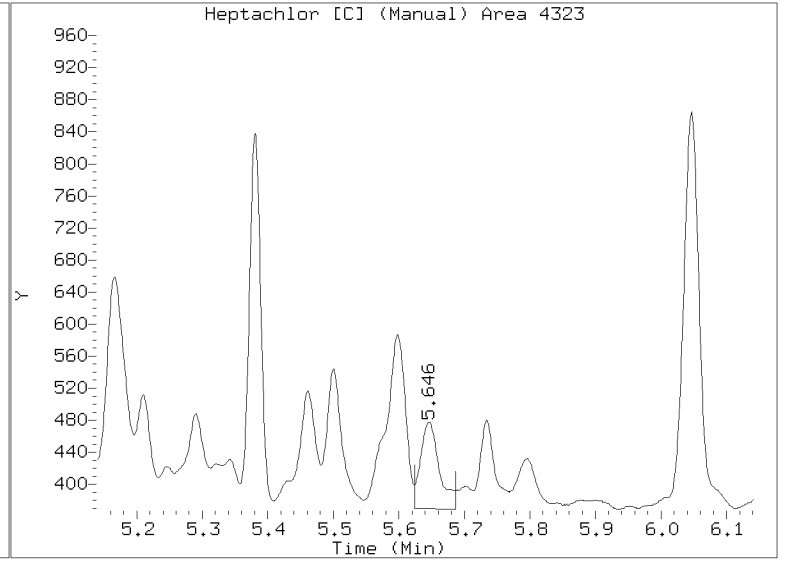
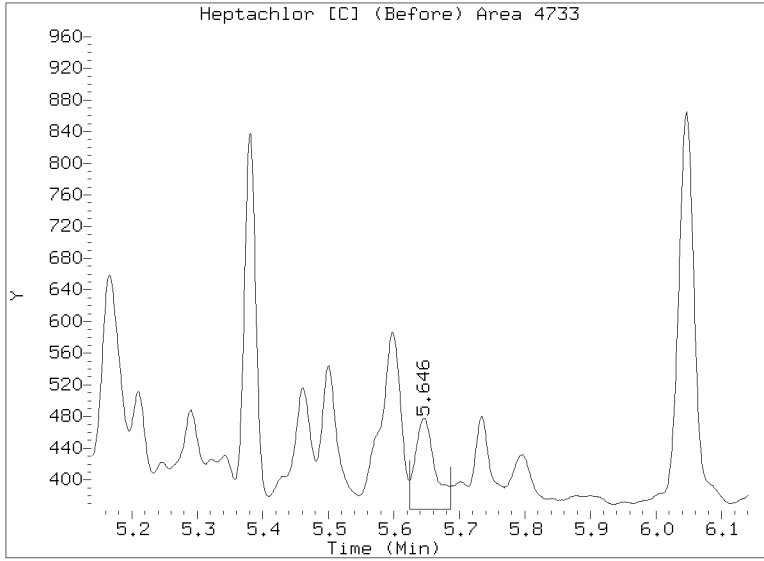


Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051304.D

Injection Date: 13-MAY-2023 16:30

Lab ID:BLD0606-BLK1 Client ID:





LCS / LCS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/13/23 16:48</u>
Batch:	<u>BLD0606</u>	Laboratory ID:	<u>BLD0606-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Hexachlorobenzene [2C]	4.00	2.58		64.5	26 - 128

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Hexachlorobenzene [2C]	4.00	2.51		62.7	2.80	30	26 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051305.D
Data file 2: /20230513.b/B20230513.b/23051305.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0606-BS1
Client ID:
Injection Date: 13-MAY-2023 16:48
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.311	0.000	245725	4.736	0.000	192592	13.79	11.99	14.0	alpha-BHC
4.695	0.000	103707	5.203	0.000	80458	14.58	12.61	14.5	beta-BHC
4.878	-0.000	215214	5.549	0.000	184329	13.34	12.89	3.4	delta-BHC
4.614	0.000	220667	5.124	-0.001	174282	14.09	12.34	13.3	gamma-BHC (Lindane)
5.100	0.000	186994	5.642	0.001	155390	12.90	12.55	2.8	Heptachlor
5.423	0.000	186653	6.039	0.001	134816	12.66	10.49	18.8	Aldrin
6.098	0.001	188622	6.699	0.000	159558	14.18	14.10	0.6	Heptachlor epoxide b
6.541	0.000	254218	7.143	-0.000	208786	21.43	21.65	1.0	Endosulfan I
----			7.409	-0.028	2099	0.00	0.20	---	Dieldrin
6.464	-0.000	333343	7.229	-0.000	272943	28.16	27.13	3.8	4,4'-DDE
----			7.771	0.010	1308	0.00	0.13	---	Endrin
7.288	0.000	117162	7.973	0.000	90039	10.55	9.59	9.5	Endosulfan II
7.112	0.000	285500	7.835	-0.000	235696	26.81	25.94	3.3	4,4'-DDD
8.152	0.000	234685	8.571	0.000	186644	22.41	21.58	3.7	Endosulfan sulfate
7.407	0.000	302415	8.154	0.000	239371	26.37	26.11	1.0	4,4'-DDT
7.896	0.000	57839	8.796	0.000	47686	11.77	12.13	3.0	Methoxychlor
8.427	0.001	292963	9.093	0.001	161384	24.51	17.09	35.7	Endrin ketone
7.718	0.000	39427	8.304	0.000	32334	4.65	4.76	2.4	Endrin aldehyde
6.240	0.000	178185	6.911	0.001	144563	13.69	13.32	2.7	trans-Chlordane
6.387	0.000	176419	7.071	0.000	140744	13.50	13.17	2.5	cis-Chlordane
2.293	-0.001	198570	2.437	-0.001	152537	10.80	10.46	3.3	Hexachlorobutadiene
4.154	-0.000	190394	4.598	-0.000	180950	12.07	12.90	6.6	Hexachlorobenzene
3.800	0.001	304990	4.114	-0.000	264588	26.75	25.41	5.1	Tetrachloro-m-xylene
9.343	0.001	225736	10.275	0.001	173802	27.88	29.15	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

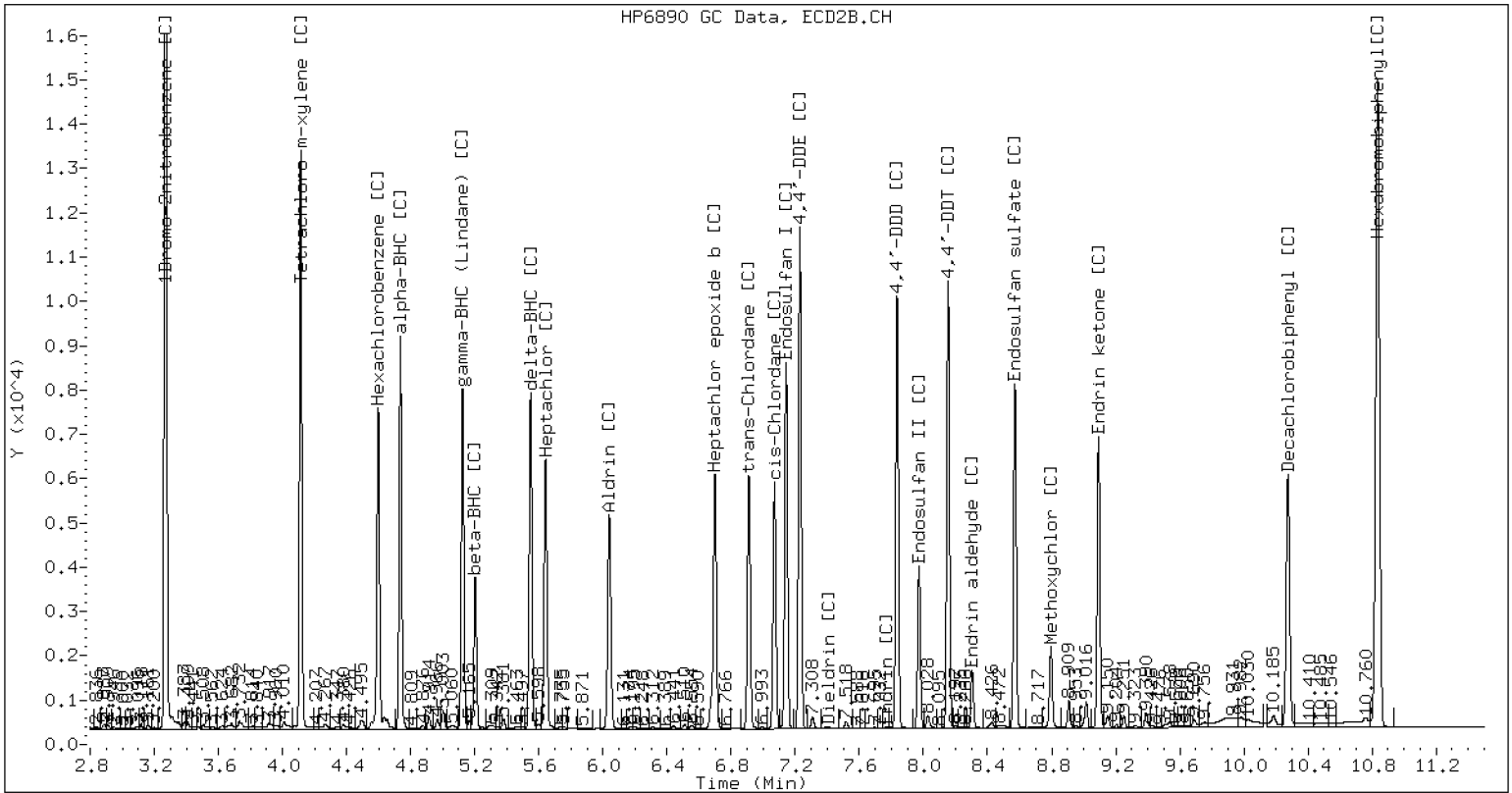
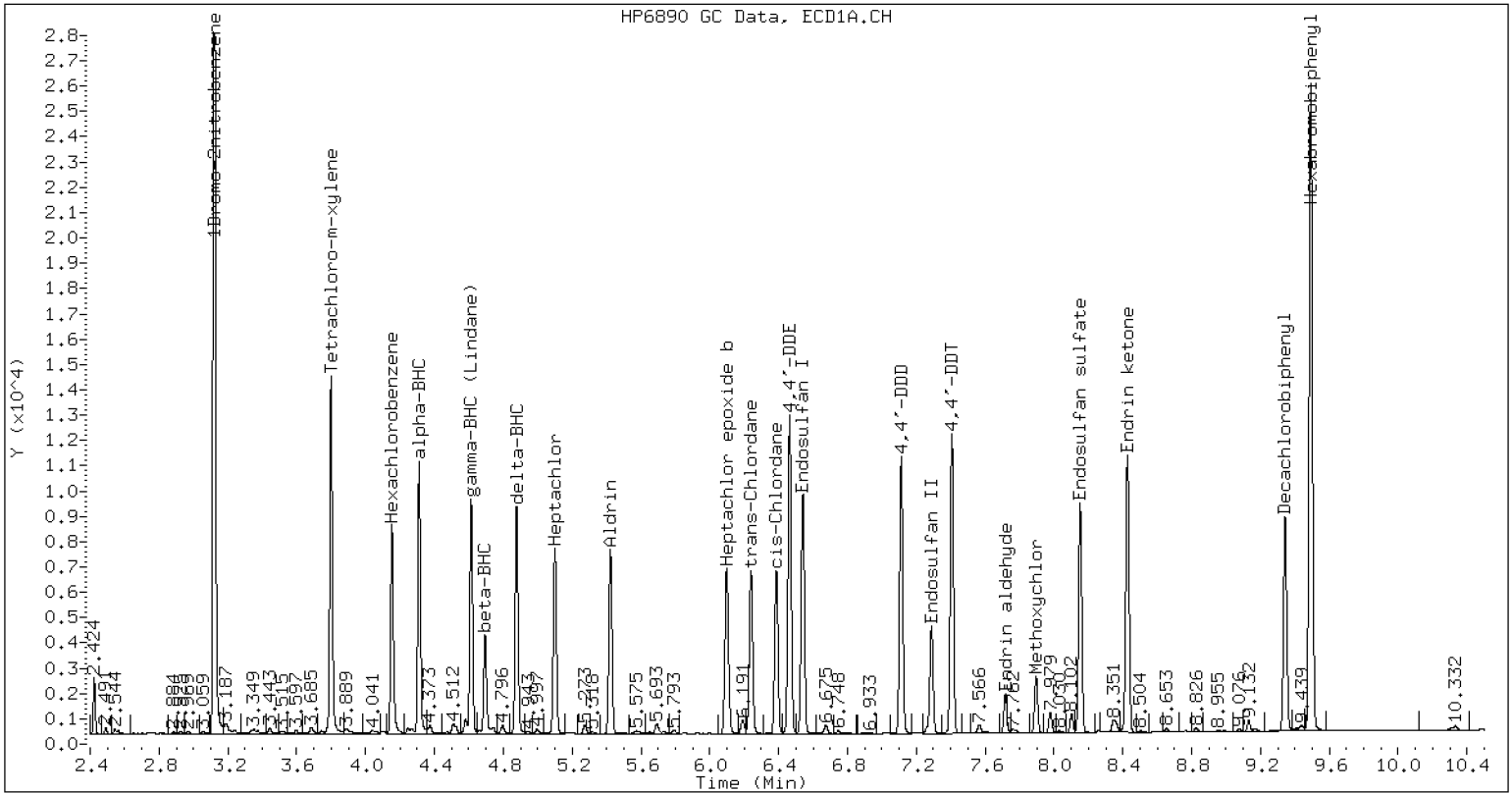
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	814875	-12.6
Hexabromobiphenyl	745426	686460	-7.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	757251	-39.4
Hexabromobiphenyl	754634	493938	-34.5

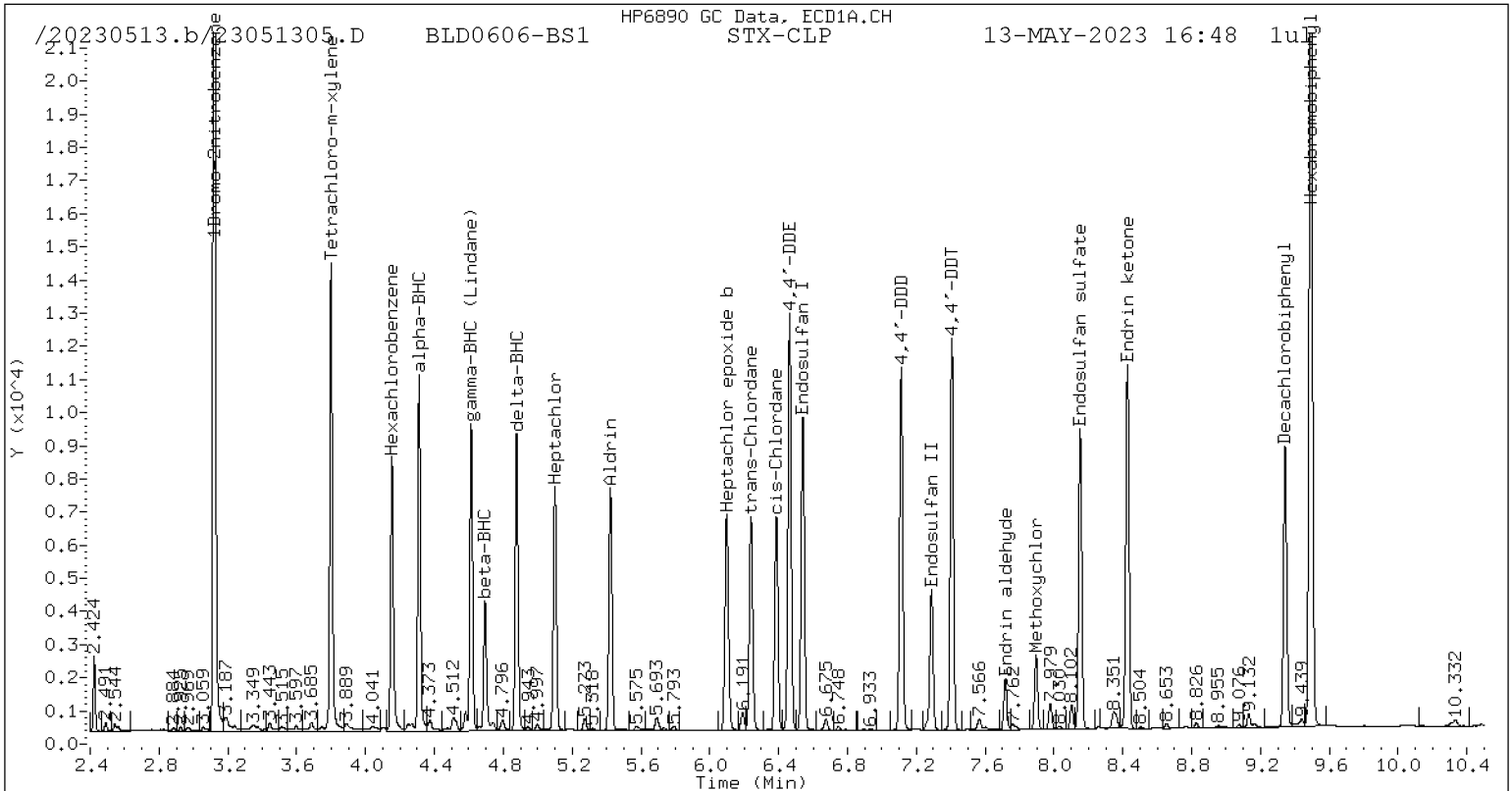
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

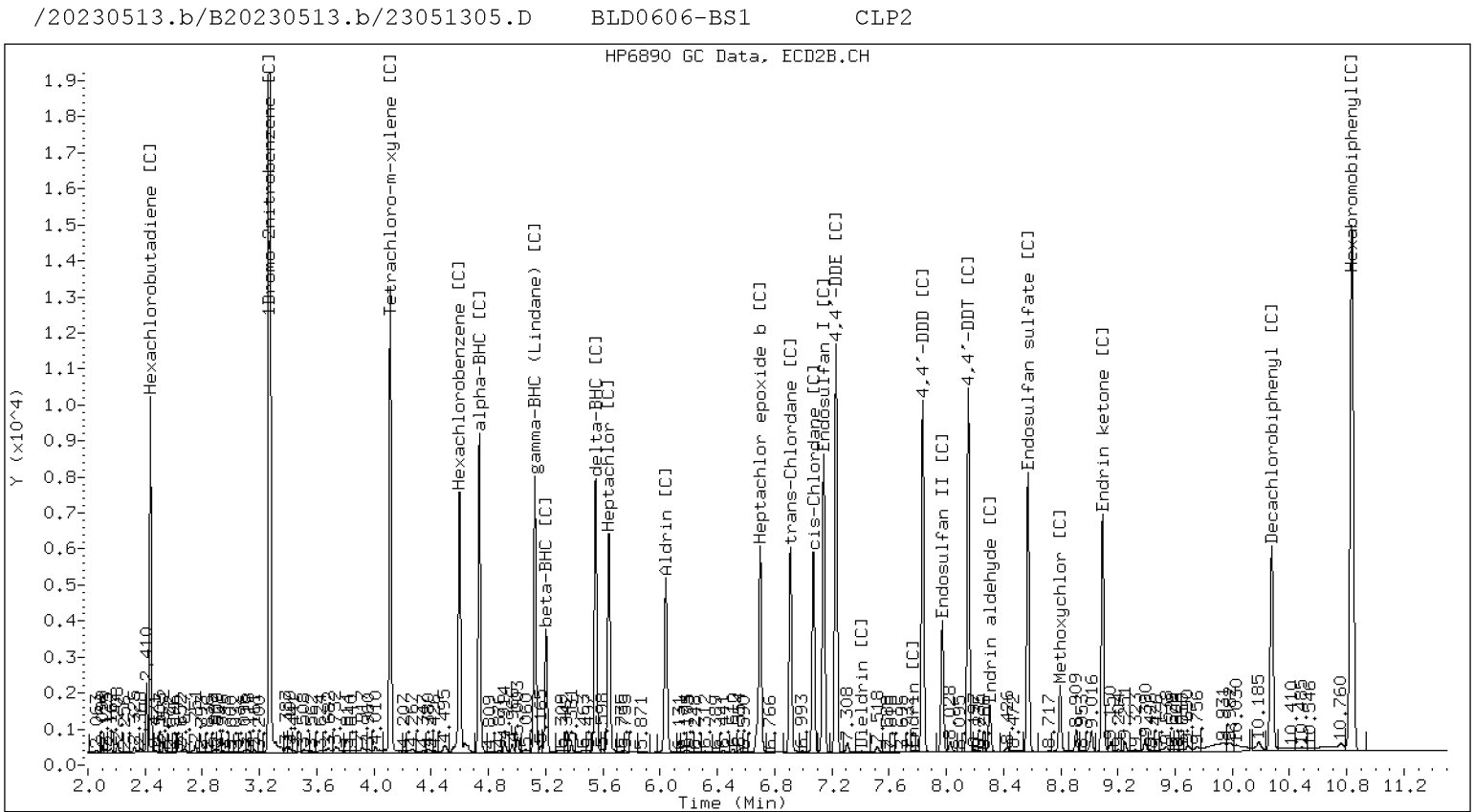
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051306.D
Data file 2: /20230513.b/B20230513.b/23051306.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BLD0606-BSD1
Client ID:
Injection Date: 13-MAY-2023 17:07
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.311	-0.000	251540	4.735	-0.001	208426	13.92	12.75	8.8	alpha-BHC
4.694	-0.000	106572	5.202	-0.000	86480	14.77	13.32	10.4	beta-BHC
4.877	-0.000	230710	5.548	-0.001	201235	14.11	13.83	2.0	delta-BHC
4.614	-0.000	227079	5.123	-0.002	188171	14.30	13.09	8.8	gamma-BHC (Lindane)
5.100	-0.000	200156	5.641	-0.000	168798	13.62	13.39	1.7	Heptachlor
5.423	0.000	200132	6.039	-0.000	146096	13.39	11.17	18.1	Aldrin
6.098	0.000	180700	6.699	-0.000	155748	13.40	13.52	0.9	Heptachlor epoxide b
6.540	-0.000	242702	7.143	-0.000	201020	20.18	20.49	1.5	Endosulfan I
6.802	0.001	3698	7.438	0.000	3337	0.29	0.31	6.5	Dieldrin
6.464	-0.001	353667	7.229	-0.000	293410	29.48	28.66	2.8	4,4'-DDE
----			7.768	0.007	2190	0.00	0.22	---	Endrin
7.288	0.000	181905	7.972	0.000	144670	16.53	15.14	8.8	Endosulfan II
7.112	-0.000	302547	7.835	-0.000	252571	28.69	27.31	4.9	4,4'-DDD
8.152	0.000	264955	8.571	0.000	214097	25.54	24.33	4.9	Endosulfan sulfate
7.406	0.000	318300	8.154	-0.000	254773	28.02	27.30	2.6	4,4'-DDT
7.896	0.001	132100	8.795	-0.000	106430	27.15	26.60	2.0	Methoxychlor
8.427	0.000	420563	9.093	0.000	228619	35.53	23.79	39.6	Endrin ketone
7.717	-0.000	61933	8.304	-0.000	51922	7.38	7.51	1.8	Endrin aldehyde
6.240	0.000	187280	6.910	0.000	153463	14.19	13.90	2.1	trans-Chlordane
6.387	-0.000	186953	7.071	-0.001	151494	14.11	13.93	1.3	cis-Chlordane
2.293	-0.001	208188	2.437	-0.001	161258	11.17	10.87	2.8	Hexachlorobutadiene
4.153	-0.000	199779	4.597	-0.001	179050	12.50	12.54	0.4	Hexachlorobenzene
3.799	0.000	299580	4.113	-0.000	266474	25.92	25.15	3.0	Tetrachloro-m-xylene
9.343	0.000	231908	10.275	0.001	173593	28.92	28.61	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

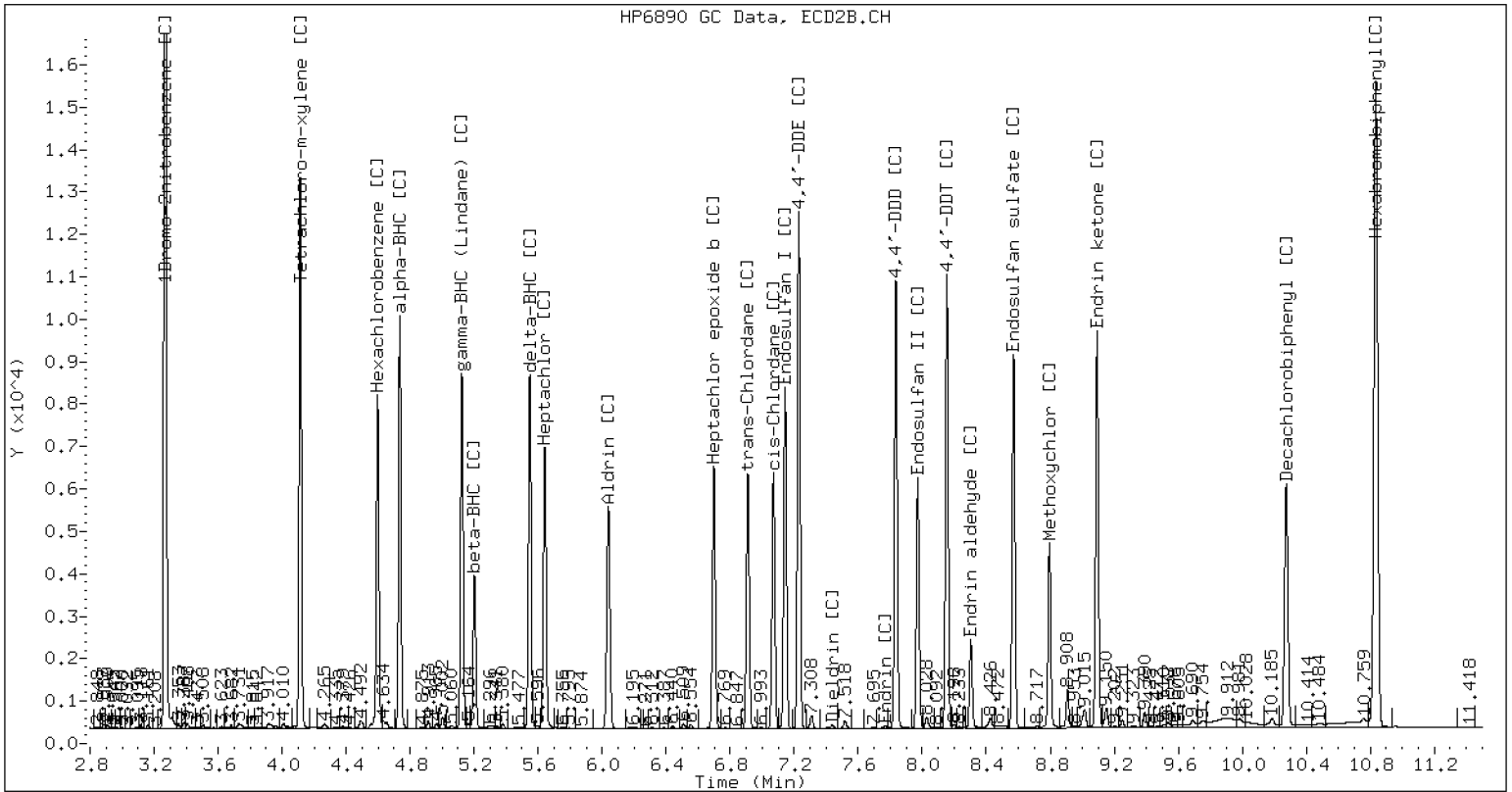
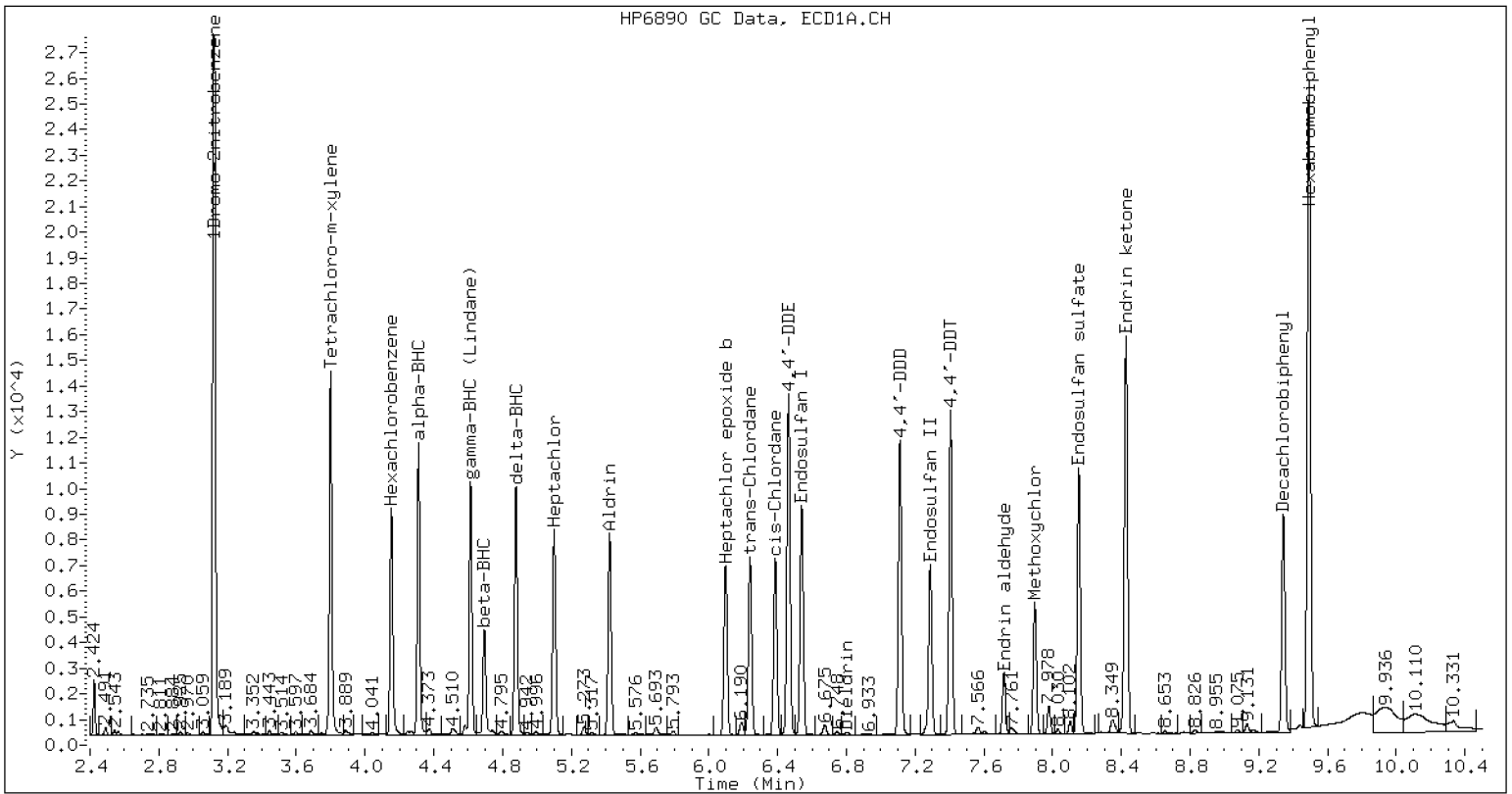
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	826105	-11.4
Hexabromobiphenyl	745426	679915	-8.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	770564	-38.3
Hexabromobiphenyl	754634	502713	-33.4

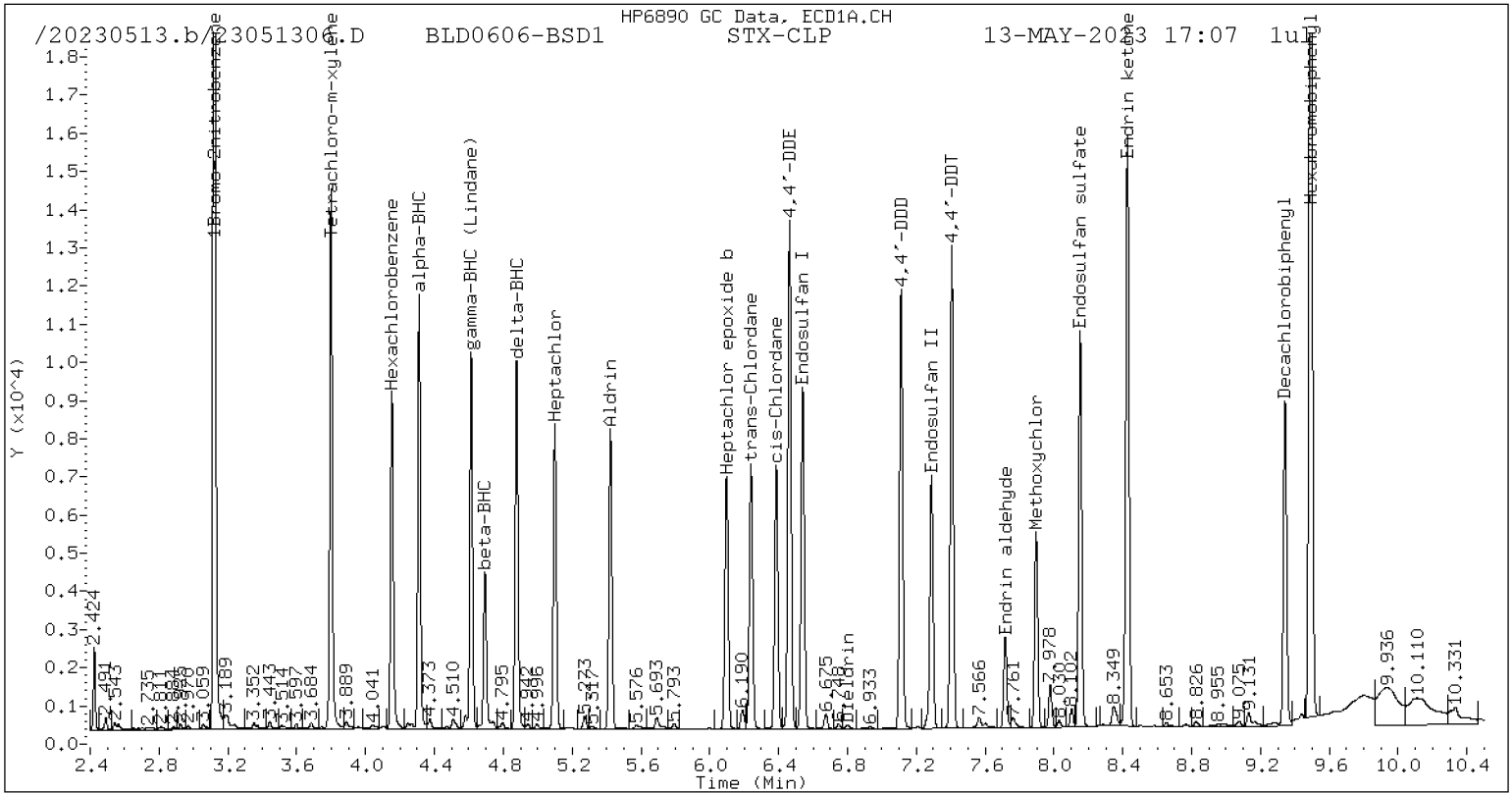
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

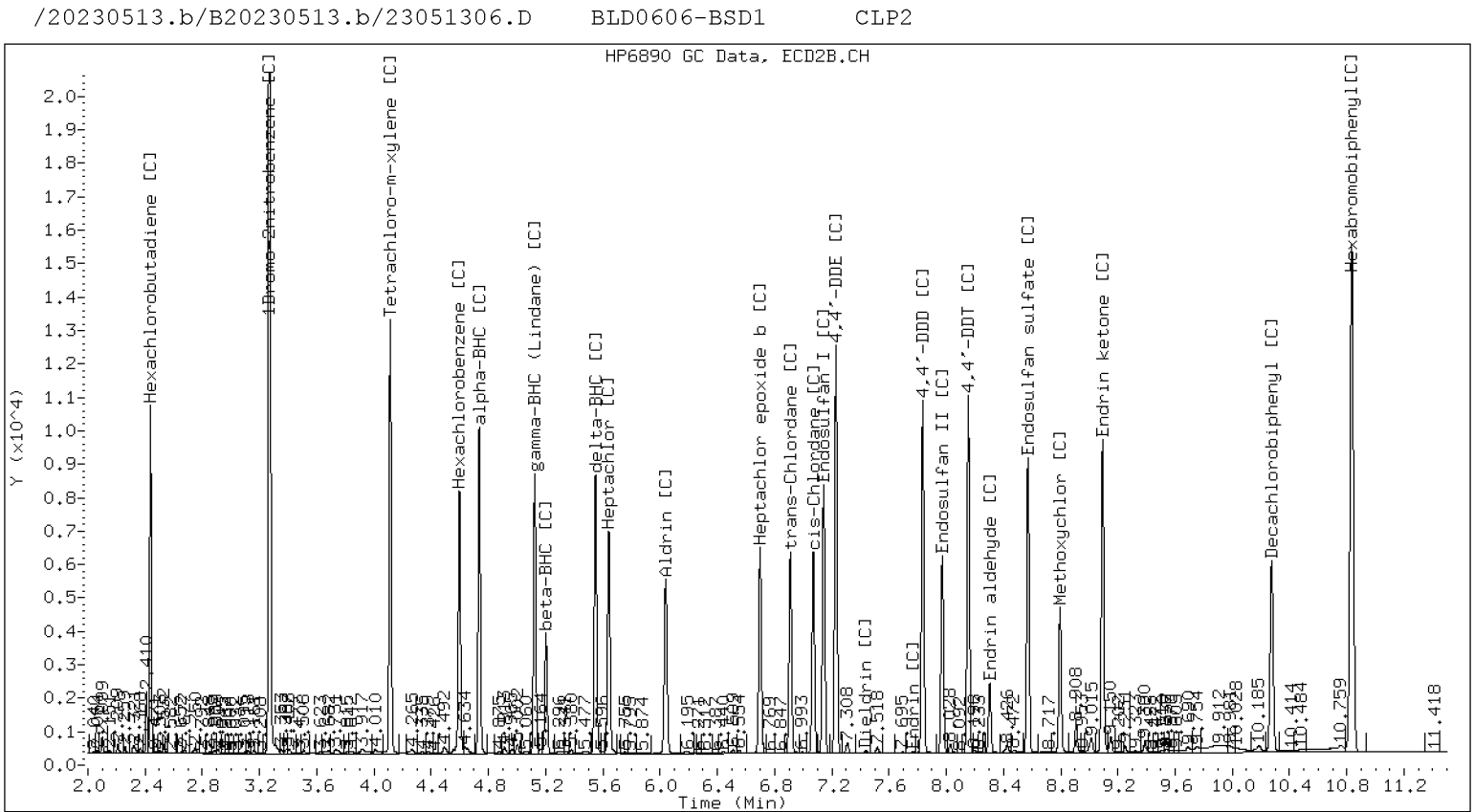
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



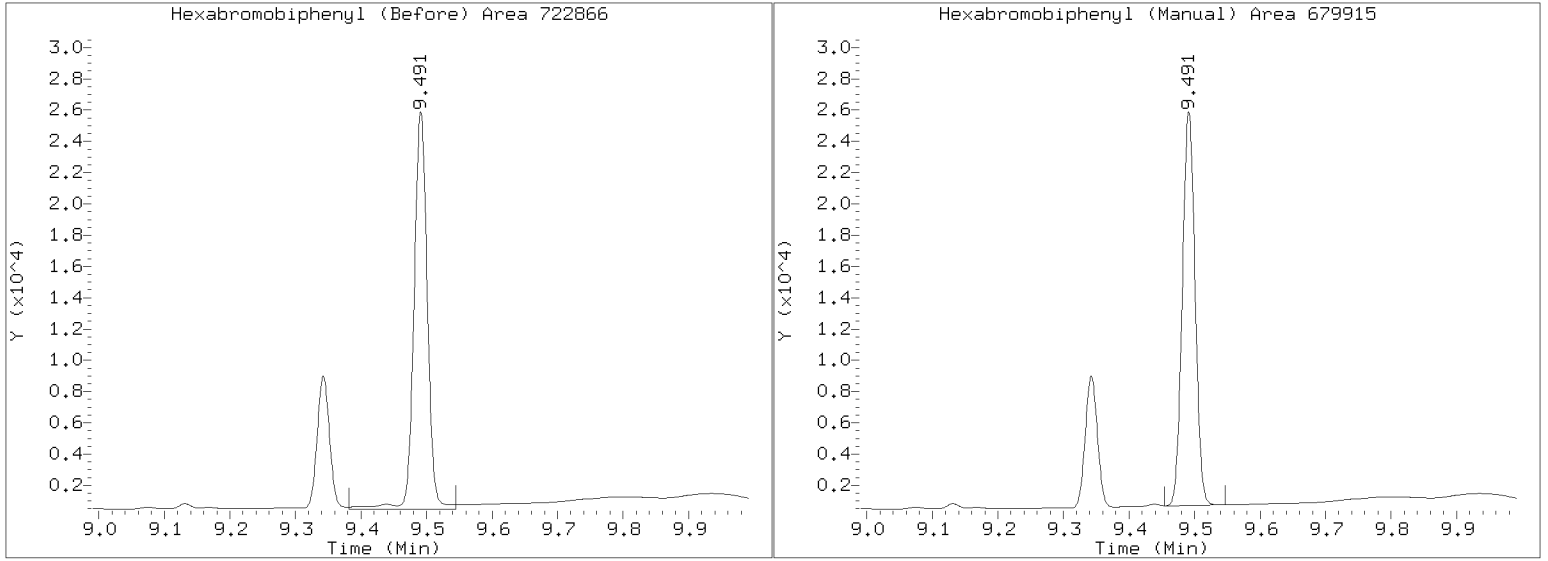
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, STX-CLP

Datafile: /20230513.b/23051306.D
Injection Date: 13-MAY-2023 17:07
Lab ID:BLD0606-BSD1 Client ID:
Report Date: 05/25/2023 19:14





INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (1):	STX-CLP

Calibration Comments: PEST

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc		Conc		Conc		Conc		Conc		Conc	



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (2):	STX-CLPII

Calibration Comments: PEST

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Hexachlorobenzene [2C]	1.25	1.637651	2.5	1.581918	5	1.532249	10	1.523234	20	1.427207	40	1.378405
Decachlorobiphenyl [2C]	2.5	1.110954	5	1.069191	10	1.031738	20	0.9714922	40	0.8913407	80	0.8617554
Tetrachlorometaxylene [2C]	2.5	1.21095	5	1.18796	10	1.162806	20	1.152165	40	1.062725	80	1.003709



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (2):	STX-CLPII

Calibration Comments: PEST

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Hexachlorobenzene [2C]	80	1.294186										
Decachlorobiphenyl [2C]	160	0.8227871										
Tetrachlorometaxylene [2C]	160	0.9200768										



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00035	Instrument:	ECD6
Calibration Date:	04/12/2023	Column (2):	STX-CLPII
Calibration Comments:	PEST		

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Hexachlorobenzene [2C]	1.482121	8.1			RSD ()	
Decachlorobiphenyl [2C]	0.9656083	11.4			RSD ()	
Tetrachlorometaxylene [2C]	1.100056	9.8			RSD ()	



ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-PEM1	QC		1		L002116	L000844		
SLD0187-CAL1	QC		2		L003348	L000844		
SLD0187-CAL2	QC		3		L003347	L000844		
SLD0187-CAL3	QC		4		L003346	L000844		
SLD0187-CAL4	QC		5		L003345	L000844		
SLD0187-CAL5	QC		6		L003344	L000844		
SLD0187-CAL6	QC		7		L003343	L000844		
SLD0187-CAL7	QC		8		L000560	L000844		
SLD0187-CAL8	QC		9		L003342	L000844		
SLD0187-CAL9	QC		10		L003341	L000844		
SLD0187-CALA	QC		11		L003340	L000844		
SLD0187-CALB	QC		12		L003339	L000844		
SLD0187-CALC	QC		13		L003338	L000844		
SLD0187-CALD	QC		14		L003337	L000844		
SLD0187-CALE	QC		15		L000377	L000844		
SLD0187-CALF	QC		16		L003398	L000844		
SLD0187-CALG	QC		17		L003397	L000844		
SLD0187-CALH	QC		18		L003396	L000844		
SLD0187-CALI	QC		19		L003395	L000844		
SLD0187-CALJ	QC		20		L003394	L000844		
SLD0187-CALK	QC		21		L003393	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-CALL	QC		22		L000559	L000844		
SLD0187-SCV1	QC		23		L003155	L000844		
SLD0187-SCV2	QC		24		L003156	L000844		
SLD0187-PEM2	QC		25		L002116	L000844		
SLD0187-ICV1	QC		26		L003344	L000844		
SLD0187-ICV2	QC		27		L003338	L000844		
BLD0075-BLK1	QC		28			L000844		
BLD0075-BS1	QC		29			L000844		
BLD0075-MRL1	QC		30			L000844		
23D0028-01	8081B Pest	E 01	31			L000844	Associated Earth Sciences, Inc	
SLD0187-PEM3	QC		32		L002116	L000844		
SLD0187-CCV1	QC		33		L003344	L000844		
SLD0187-CCV2	QC		34		L003338	L000844		
BLD0009-BLK1	QC		35			L000844		
BLD0009-BS1	QC		36			L000844		
BLD0009-BSD1	QC		37			L000844		
BLD0009-MS1	QC		38			L000844		
BLD0009-MSD1	QC		39			L000844		
23C0752-01	8081B Pest (PSDDA)	A 03	40			L000844	Anchor QEA, LLC	
23C0752-02	8081B Pest (PSDDA)	A 03	41			L000844	Anchor QEA, LLC	
23C0752-03	8081B Pest (PSDDA)	A 03	42			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	12-APR-2023	14:57	23041202.D	1	SEQ-IB	
2	12-APR-2023	15:16	23041203.D	1	SEQ-PEM1	
3	12-APR-2023	15:34	23041204.D	1	SEQ-CAL1	
4	12-APR-2023	15:53	23041205.D	1	SEQ-CAL2	
5	12-APR-2023	16:11	23041206.D	1	SEQ-CAL3	
6	12-APR-2023	16:30	23041207.D	1	SEQ-CAL5	
7	12-APR-2023	16:48	23041208.D	1	SEQ-CAL4	
8	12-APR-2023	17:06	23041209.D	1	SEQ-CAL6	
9	12-APR-2023	17:25	23041210.D	1	SEQ-CAL7	
10	12-APR-2023	17:43	23041211.D	1	SEQ-CAL8	
11	12-APR-2023	18:02	23041212.D	1	SEQ-CAL9	
12	12-APR-2023	18:20	23041213.D	1	SEQ-CALA	
13	12-APR-2023	18:38	23041214.D	1	SEQ-CALB	
14	12-APR-2023	18:57	23041215.D	1	SEQ-CALC	
15	12-APR-2023	19:15	23041216.D	1	SEQ-CALD	
16	12-APR-2023	19:34	23041217.D	1	SEQ-CALE	
17	12-APR-2023	19:52	23041218.D	1	SEQ-CALF	
18	12-APR-2023	20:10	23041219.D	1	SEQ-CALG	
19	12-APR-2023	20:29	23041220.D	1	SEQ-CALH	
20	12-APR-2023	20:47	23041221.D	1	SEQ-CALI	
21	12-APR-2023	21:05	23041222.D	1	SEQ-CALJ	
22	12-APR-2023	21:24	23041223.D	1	SEQ-CALK	
23	12-APR-2023	21:42	23041224.D	1	SEQ-CALL	
24	12-APR-2023	22:00	23041225.D	1	SEQ-SCV1	
25	12-APR-2023	22:19	23041226.D	1	SEQ-SCV2	
26	12-APR-2023	22:37	23041227.D	1	SEQ-PEM2	
27	12-APR-2023	22:55	23041228.D	1	SEQ-ICV1	
28	12-APR-2023	23:14	23041229.D	1	SEQ-ICV2	
29	12-APR-2023	23:32	23041230.D	1	BLD0075-BLK1	
30	12-APR-2023	23:50	23041231.D	1	BLD0075-BS1	
31	13-APR-2023	00:09	23041232.D	1	BLD0075-MRL1	
32	13-APR-2023	00:27	23041233.D	1	23D0028-01	
33	13-APR-2023	00:45	23041234.D	1	SEQ-PEM3	
34	13-APR-2023	01:04	23041235.D	1	SEQ-CCV1	
35	13-APR-2023	01:22	23041236.D	1	SEQ-CCV2	
36	13-APR-2023	01:40	23041237.D	1	BLD0009-BLK1	
37	13-APR-2023	01:59	23041238.D	1	BLD0009-BS1	
38	13-APR-2023	02:17	23041239.D	1	BLD0009-BSD1	
39	13-APR-2023	02:35	23041240.D	1	BLD0009-MS1	
40	13-APR-2023	02:53	23041241.D	1	BLD0009-MSD1	
41	13-APR-2023	03:12	23041242.D	1	23C0752-01	
42	13-APR-2023	03:30	23041243.D	1	23C0752-02	
43	13-APR-2023	03:48	23041244.D	1	23C0752-03	
44	13-APR-2023	04:07	23041245.D	1	23C0752-04	
45	13-APR-2023	04:25	23041246.D	1	23C0752-06	
46	13-APR-2023	04:43	23041247.D	1	SEQ-PEM4	
47	13-APR-2023	05:02	23041248.D	1	SEQ-CCV3	
48	13-APR-2023	05:20	23041249.D	1	SEQ-CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 12-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1457	23041202.D	SEQ-IB		1	NO MANUAL INTEGRATION
1516	23041203.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
1534	23041204.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1553	23041205.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
1611	23041206.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
1630	23041207.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
1648	23041208.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
1706	23041209.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1725	23041210.D	SEQ-CAL7		1	alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorob
1743	23041211.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1802	23041212.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
1820	23041213.D	SEQ-CALA		1	NO MANUAL INTEGRATION
1838	23041214.D	SEQ-CALB		1	NO MANUAL INTEGRATION
1857	23041215.D	SEQ-CALC		1	NO MANUAL INTEGRATION
1915	23041216.D	SEQ-CALD		1	NO MANUAL INTEGRATION
1934	23041217.D	SEQ-CALE		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1952	23041218.D	SEQ-CALF		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2010	23041219.D	SEQ-CALG	1		NO MANUAL INTEGRATION
2029	23041220.D	SEQ-CALH	1		NO MANUAL INTEGRATION
2047	23041221.D	SEQ-CALI	1		NO MANUAL INTEGRATION
2105	23041222.D	SEQ-CALJ	1		NO MANUAL INTEGRATION
2124	23041223.D	SEQ-CALK	1		NO MANUAL INTEGRATION
2142	23041224.D	SEQ-CALL	1		NO MANUAL INTEGRATION
2200	23041225.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
2219	23041226.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
2237	23041227.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
2255	23041228.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
2314	23041229.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
2332	23041230.D	BLD0075-BLK1	1		NO MANUAL INTEGRATION
2350	23041231.D	BLD0075-BS1	1		NO MANUAL INTEGRATION
0009	23041232.D	BLD0075-MRL1	1		NO MANUAL INTEGRATION
0027	23041233.D	23D0028-01	1		NO MANUAL INTEGRATION
0045	23041234.D	SEQ-PEM3	1		Endrin, 4,4'-DDD,
0104	23041235.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
0122	23041236.D	SEQ-CCV2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0140	23041237.D	BLD0009-BLK1		1	NO MANUAL INTEGRATION
0159	23041238.D	BLD0009-BS1		1	NO MANUAL INTEGRATION
0217	23041239.D	BLD0009-BSD1		1	NO MANUAL INTEGRATION
0235	23041240.D	BLD0009-MS1		1	Endrin, 4,4'-DDD, 4,4'-DDT,
0253	23041241.D	BLD0009-MSD1		1	Aldrin,
0312	23041242.D	23C0752-01		1	delta-BHC, gamma-BHC (Lindane), Endrin, 4,4'-DDD, 4,4'-DDT, Endrin aldehyde, Toxaphene, cis-Nonachlor,
0330	23041243.D	23C0752-02		1	Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0348	23041244.D	23C0752-03		1	Dieldrin, 4,4'-DDD, cis-Chlordane, Hexachlorobenzene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0407	23041245.D	23C0752-04		1	delta-BHC, Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0425	23041246.D	23C0752-06		1	Endrin, 4,4'-DDT, cis-Chlordane, Toxaphene, cis-Nonachlor, Mirex, Chlordane (NOS),
0443	23041247.D	SEQ-PEM4		1	Endrin, 4,4'-DDD,
0502	23041248.D	SEQ-CCV3		1	Hexabromobiphenyl,
0520	23041249.D	SEQ-CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 14-Apr-2023 08:24

23041202.D	Data Locked	yev, 14-
23041203.D	Data Locked	yev, 14-
23041204.D	Data Locked	yev, 14-
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23041209.D	Data Locked	yev, 14-
23041210.D	Data Locked	yev, 14-
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23041212.D	Data Locked	yev, 14-
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23041216.D	Data Locked	yev, 14-
23041217.D	Data Locked	yev, 14-
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23041222.D	Data Locked	yev, 14-
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23041224.D	Data Locked	yev, 14-
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23041245.D	Data Locked	yev, 14-
23041246.D	Data Locked	yev, 14-
23041247.D	Data Locked	yev, 14-
23041248.D	Data Locked	yev, 14-
23041249.D	Data Locked	yev, 14-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	23041204	23041205	23041206	23041207	23041208	23041209	23041210
INJ. DATE:	12-APR-2023	12-APR-2023	12-APR-2023	12-APR-2023	12-APR-2023	12-APR-2023	12-APR-2023
INJ. TIME:	15:34	15:53	16:11	16:30	16:48	17:06	17:25

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.308	2.308	2.308	2.309	2.308	2.309	2.309	2.308	2.278-2.338	2.308	0.000
* 2 1Bromo-2nitrobenzene	3.137	3.138	3.138	3.138	3.138	3.138	3.138	3.137	3.107-3.167	3.138	0.000
* 3 Hexabromobiphenyl	9.516	9.516	9.516	9.515	9.515	9.516	9.516	9.516	9.486-9.546	9.516	0.000
\$ 4 Tetrachloro-m-xylene	3.819	3.820	3.819	3.819	3.819	3.819	3.819	3.819	3.789-3.849	3.819	0.000
5 Hexachlorobenzene	4.175	4.175	4.175	4.175	4.175	4.175	4.175	4.175	4.145-4.205	4.175	0.000
6 alpha-BHC	4.333	4.334	4.333	4.334	4.333	4.333	4.333	4.333	4.303-4.363	4.333	0.000
7 gamma-BHC (Lindane)	4.637	4.637	4.637	4.637	4.637	4.637	4.637	4.637	4.607-4.667	4.637	0.000
8 beta-BHC	4.718	4.718	4.717	4.717	4.717	4.717	4.717	4.718	4.688-4.748	4.717	0.001
9 delta-BHC	4.902	4.902	4.902	4.902	4.901	4.901	4.901	4.902	4.873-4.933	4.902	0.001
10 Heptachlor	5.125	5.125	5.125	5.125	5.125	5.125	5.124	5.125	5.095-5.155	5.125	0.000
11 Aldrin	5.449	5.449	5.449	5.449	5.449	5.448	5.448	5.449	5.419-5.479	5.449	0.000
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.597-13.657	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.839-10.899	+++++	+++++
14 Heptachlor epoxide b	6.127	6.125	6.125	6.125	6.125	6.125	6.125	6.127	6.097-6.157	6.125	0.001
15 cis-Chlordane	6.414	6.414	6.414	6.413	6.413	6.414	6.413	6.414	6.384-6.444	6.414	0.000
16 trans-Chlordane	6.267	6.267	6.267	6.267	6.267	6.266	6.266	6.267	6.237-6.297	6.267	0.000
17 Endosulfan I	6.568	6.567	6.567	6.568	6.567	6.567	6.567	6.568	6.538-6.598	6.567	0.000

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Batch File: \\target\share\chem4\ecd6.i\20230412.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	6.491	6.490	6.489	6.490	6.490	6.489	6.489	6.491	6.461-6.521	6.490	0.001
19 Dieldrin	6.828	6.828	6.828	6.828	6.828	6.829	6.828	6.828	6.798-6.858	6.828	0.000
20 Endrin	7.079	7.079	7.078	7.078	7.078	7.078	7.078	7.079	7.049-7.109	7.078	0.000
21 4,4'-DDD	7.138	7.138	7.137	7.137	7.137	7.137	7.136	7.138	7.108-7.168	7.137	0.001
22 Endosulfan II	7.315	7.315	7.315	7.315	7.314	7.314	7.314	7.315	7.285-7.345	7.315	0.000
23 4,4'-DDT	7.431	7.431	7.431	7.431	7.431	7.431	7.431	7.431	7.401-7.461	7.431	0.000
24 Endrin aldehyde	7.744	7.743	7.743	7.743	7.743	7.743	7.743	7.744	7.714-7.774	7.743	0.000
25 Methoxychlor	7.920	7.920	7.919	7.920	7.920	7.920	7.920	7.920	7.890-7.950	7.920	0.000
26 Endosulfan sulfate	8.178	8.178	8.177	8.177	8.178	8.178	8.177	8.178	8.148-8.208	8.178	0.000
27 Endrin ketone	8.453	8.453	8.452	8.452	8.452	8.452	8.452	8.453	8.423-8.482	8.452	0.000
28 Decachlorobiphenyl	9.367	9.367	9.366	9.366	9.366	9.367	9.366	9.367	9.337-9.397	9.366	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.430	7.400-7.460	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.682	6.652-6.712	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.959	6.929-6.989	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.010	5.980-6.040	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.396	6.366-6.426	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.086	8.056-8.116	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and standard deviations.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.828	6.798-6.858	+++++	+++++
20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.078	7.048-7.108	+++++	+++++
21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.136	7.106-7.166	+++++	+++++
22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.314	7.284-7.344	+++++	+++++
23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.431	7.401-7.461	+++++	+++++
24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.743	7.713-7.773	+++++	+++++
25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.920	7.890-7.950	+++++	+++++
26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.177	8.147-8.207	+++++	+++++
27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.452	8.422-8.482	+++++	+++++
28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.366	9.336-9.396	+++++	+++++
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.430	7.400-7.460	+++++	+++++
39 2,4-DDE	+++++	6.106	6.106	6.106	6.106	6.106	6.105	6.106	6.076-6.136	6.106	0.001

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	6.682	6.682	6.682	6.681	6.681	6.681	6.682	6.652-6.712	6.681	0.000
41 2,4-DDT	+++++	6.959	6.959	6.960	6.959	6.958	6.959	6.959	6.929-6.989	6.959	0.000
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	6.010	6.009	6.010	6.010	6.010	6.009	6.010	5.980-6.040	6.010	0.000
44 trans-Nonachlor	+++++	6.396	6.396	6.396	6.396	6.395	6.395	6.396	6.366-6.426	6.395	0.000
45 cis-Nonachlor	+++++	7.112	7.112	7.112	7.112	7.112	7.112	7.112	7.082-7.142	7.112	0.000
46 Mirex	+++++	8.086	8.086	8.086	8.086	8.086	8.086	8.086	8.056-8.116	8.086	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and standard deviations.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	7.257	7.257	7.257	7.257	7.257	7.257	7.257	7.257	7.227-7.287	7.257	0.000
19 Dieldrin [C]	7.466	7.466	7.465	7.466	7.466	7.466	7.466	7.466	7.436-7.496	7.466	0.000
20 Endrin [C]	7.789	7.790	7.789	7.790	7.789	7.790	7.790	7.790	7.760-7.820	7.790	0.000
21 4,4'-DDD [C]	7.862	7.862	7.862	7.862	7.862	7.862	7.862	7.862	7.832-7.892	7.862	0.000
22 Endosulfan II [C]	8.001	8.000	8.000	8.000	8.000	8.001	8.001	8.001	7.971-8.031	8.000	0.000
23 4,4'-DDT [C]	8.180	8.180	8.180	8.180	8.181	8.181	8.181	8.181	8.151-8.211	8.180	0.000
24 Endrin aldehyde [C]	8.331	8.331	8.330	8.331	8.331	8.332	8.331	8.331	8.301-8.361	8.331	0.000
25 Endosulfan sulfate [C]	8.598	8.598	8.597	8.598	8.598	8.598	8.598	8.598	8.568-8.628	8.598	0.000
26 Methoxychlor [C]	8.820	8.821	8.820	8.821	8.821	8.821	8.822	8.822	8.792-8.852	8.821	0.001
27 Endrin ketone [C]	9.119	9.119	9.119	9.119	9.119	9.120	9.119	9.119	9.089-9.149	9.119	0.000
28 Decachlorobiphenyl [C]	10.306	10.306	10.305	10.305	10.306	10.306	10.306	10.306	10.276-10.336	10.306	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.440	7.410-7.470	+++++	+++++
39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.921	6.891-6.951	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.477	7.447-7.507	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.799	7.769-7.829	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.624	6.594-6.654	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.039	7.009-7.069	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.859	7.829-7.889	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.101	9.071-9.131	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and associated values.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.257	7.227-7.287	+++++	+++++
19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.466	7.436-7.496	+++++	+++++
20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.790	7.760-7.820	+++++	+++++
21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.862	7.832-7.892	+++++	+++++
22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.001	7.971-8.031	+++++	+++++
23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.181	8.151-8.211	+++++	+++++
24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.331	8.301-8.361	+++++	+++++
25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.598	8.568-8.628	+++++	+++++
26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.822	8.792-8.852	+++++	+++++
27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.119	9.089-9.149	+++++	+++++
28 Decachlorobiphenyl [C]	+++++	+++++	+++++	10.309	10.309	10.309	10.308	10.306	10.276-10.336	10.309	0.001
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.440	7.410-7.470	+++++	+++++
39 2,4-DDE [C]	6.922	6.921	6.921	6.922	6.921	6.921	6.921	6.921	6.891-6.951	6.921	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	7.477	7.477	7.477	7.476	7.476	7.476	7.477	7.477	7.447-7.507	7.476	0.000
41 2,4-DDT [C]	7.799	7.798	7.799	7.799	7.799	7.798	7.799	7.799	7.769-7.829	7.799	0.000
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	6.624	6.624	6.624	6.624	6.624	6.624	6.624	6.624	6.594-6.654	6.624	0.000
44 trans-Nonachlor [C]	7.039	7.038	7.039	7.039	7.039	7.039	7.039	7.039	7.009-7.069	7.039	0.000
45 cis-Nonachlor [C]	7.859	7.858	7.859	7.859	7.859	7.858	7.859	7.859	7.829-7.889	7.859	0.000
46 Mirex [C]	9.102	9.101	9.101	9.101	9.101	9.101	9.101	9.101	9.071-9.131	9.101	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20230412.b\23041218.D
 Level 2: \\target\share\chem4\ecd6.i\20230412.b\23041219.D
 Level 3: \\target\share\chem4\ecd6.i\20230412.b\23041220.D
 Level 4: \\target\share\chem4\ecd6.i\20230412.b\23041221.D
 Level 5: \\target\share\chem4\ecd6.i\20230412.b\23041222.D
 Level 6: \\target\share\chem4\ecd6.i\20230412.b\23041223.D
 Level 7: \\target\share\chem4\ecd6.i\20230412.b\23041224.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene	2.06676 1.55088	1.98551	1.84558	1.81938	1.70622	1.65553	1.80426	10.110
5 Hexachlorobenzene	1.76245 1.31954	1.68993	1.60717	1.57099	1.46814	1.41798	1.54803	10.064
6 alpha-BHC	1.75845 1.62244	1.79303	1.78792	1.82015	1.74640	1.71680	1.74931	3.739
7 gamma-BHC (Lindane)	1.55969 1.40784	1.58392	1.58235	1.59868	1.52927	1.49902	1.53725	4.344
8 beta-BHC	0.78879 0.60902	0.75698	0.71551	0.70150	0.66783	0.65017	0.69854	8.893
9 delta-BHC	1.59762 1.45446	1.62693	1.62475	1.65308	1.58886	1.54105	1.58382	4.244
10 Heptachlor	1.55444 1.19276	1.53135	1.49709	1.48384	1.38462	1.31527	1.42277	9.267
11 Aldrin	1.52950 1.25612	1.52030	1.51102	1.51498	1.42775	1.37062	1.44718	7.111

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b	1.77461 1.03248	1.35433	1.32261	1.30465	1.21044	1.14473	1.30626	18.012
15 cis-Chlordane	1.38132 1.12534	1.35475	1.32741	1.32583	1.25243	1.21449	1.28308	7.051
16 trans-Chlordane	1.35410 1.13926	1.33073	1.31479	1.32467	1.25766	1.22594	1.27816	5.931
17 Endosulfan I	1.28039 0.97393	1.25168	1.22150	1.21676	1.13336	1.07368	1.16447	9.443
18 4,4'-DDE	1.24170 0.98378	1.24927	1.22317	1.21706	1.13776	1.08081	1.16194	8.584
19 Dieldrin	1.34743 1.02037	1.34643	1.30489	1.29164	1.19395	1.12151	1.23232	10.143
20 Endrin	1.57568 1.12944	1.51238	1.45431	1.42357	1.32589	1.25651	1.38254	11.211
21 4,4'-DDD	1.35634 1.04973	1.32763	1.29400	1.28872	1.20844	1.16122	1.24087	8.699
22 Endosulfan II	1.47728 1.04873	1.43199	1.36585	1.33268	1.23064	1.17531	1.29464	11.695

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT	1.46240 1.14081	1.43318	1.38952	1.37913	1.29284	1.25728	1.33645	8.438
24 Endrin aldehyde	1.14396 0.81008	1.08101	1.04038	1.00916	0.93237	0.89937	0.98805	11.597
25 Methoxychlor	0.70887 0.47085	0.65387	0.60096	0.56348	0.51256	0.49735	0.57256	15.240
26 Endosulfan sulfate	1.38827 1.00702	1.35363	1.28002	1.24749	1.15302	1.11454	1.22057	11.169
27 Endrin ketone	1.70062 1.13023	1.57515	1.43531	1.38817	1.27796	1.24181	1.39275	14.203
29 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

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 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(6)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

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 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m
 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Toxaphene(1)	0.02964 0.02076	0.03226	0.03521	0.03252	0.03126	0.02556	0.02960	16.566
(2)	0.04237 0.02651	0.04244	0.04595	0.04487	0.04047	0.03477	0.03962	17.214
(3)	0.05862 0.03584	0.05791	0.06487	0.06029	0.05391	0.04678	0.05403	18.141
(4)	0.04172 0.03028	0.04045	0.05069	0.04873	0.04618	0.04013	0.04260	16.014
(5)	0.02406 0.01877	0.02417	0.03063	0.02984	0.02781	0.02427	0.02565	15.995

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
39 2,4-DDE	80.000 Level 7	0.96271	0.96579	0.91868	0.86843	0.79752	0.87025	11.664
40 2,4-DDD	0.67816	0.88281	0.89873	0.85426	0.81245	0.75323	0.81327	10.387
41 2,4-DDT	0.81933	1.07731	1.07494	1.02816	0.97817	0.90679	0.98078	10.395
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	1.02406	1.26894	1.32532	1.26543	1.20607	1.12176	1.20193	9.252
44 trans-Nonachlor	1.23122	1.54141	1.51800	1.46473	1.41186	1.32985	1.41618	8.360
45 cis-Nonachlor	1.29610	1.59233	1.57870	1.52677	1.47421	1.39620	1.47739	7.740
46 Mirex	0.78527	0.99781	0.99695	0.94201	0.89770	0.84639	0.91102	9.320
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Chlordane (NOS) (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 13:06 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(3)	++++	++++	++++	++++	++++	++++		++++	++++
49 Trifluralin	++++	++++	++++	++++	++++	++++		++++	++++
50 Dacthal	++++	++++	++++	++++	++++	++++		++++	++++
51 Oxadiazon	++++	++++	++++	++++	++++	++++		++++	++++
52 Kelthane	++++	++++	++++	++++	++++	++++		++++	++++
53 Chlorpyrifos	++++	++++	++++	++++	++++	++++		++++	++++
54 Methyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
55 Ethyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
56 Kepone	++++	++++	++++	++++	++++	++++		++++	++++
57 1-Chloropyrene	++++	++++	++++	++++	++++	++++		++++	++++
4 Tetrachloro-m-xylene	1.25566 0.92513	1.22780	1.18265	1.15804	1.07105	1.01536		1.11939	10.740

ARI Labs, Inc.

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 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
\$ 28 Decachlorobiphenyl	1.22265	1.12837	0.97683	0.90966	0.82714	0.80277	0.94360	18.860
	0.73776							

ARI Labs, Inc.

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 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041218.D
 Level 2: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041219.D
 Level 3: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041220.D
 Level 4: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041221.D
 Level 5: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041222.D
 Level 6: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041223.D
 Level 7: \\target\share\chem4\ecd6.i\20230412.b\B20230412.b\23041224.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene [C]	1.68175 1.33902	1.59096	1.60748	1.61038	1.49696	1.45925	1.54083	7.539
5 Hexachlorobenzene [C]	1.63765 1.29419	1.58192	1.53225	1.52323	1.42721	1.37840	1.48212	8.145
6 alpha-BHC [C]	1.63462 1.64801	1.67867	1.71056	1.77219	1.71975	1.71612	1.69713	2.779
7 gamma-BHC (Lindane) [C]	1.48009 1.41985	1.48711	1.51015	1.55733	1.49836	1.49181	1.49210	2.737
8 beta-BHC [C]	0.74714 0.60839	0.70583	0.68405	0.68422	0.64813	0.64123	0.67414	6.802
9 delta-BHC [C]	1.48755 1.44063	1.49763	1.52471	1.57911	1.52554	1.52030	1.51078	2.809
10 Heptachlor [C]	1.37389 1.15202	1.35320	1.35361	1.37453	1.29676	1.25563	1.30852	6.247
11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Aldrin [C]	1.39523 1.22309	1.38135	1.39556	1.42793	1.36125	1.32392	1.35833	4.993
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b [C]	1.56323 0.99933	1.20249	1.18929	1.19890	1.12726	1.08936	1.19569	14.872
15 cis-Chlordane [C]	1.19498 1.02977	1.16010	1.15172	1.16525	1.10932	1.09197	1.12902	4.952
16 trans-Chlordane [C]	1.19368 1.05677	1.16300	1.16384	1.18747	1.13804	1.12279	1.14651	4.085
17 Endosulfan I [C]	1.08731 0.89638	1.05822	1.05274	1.06193	1.00305	0.97183	1.01878	6.548
18 4,4'-DDE [C]	1.12212 0.90867	1.12143	1.12052	1.12760	1.04668	0.99351	1.06293	7.992
19 Dieldrin [C]	1.19866 0.96463	1.18503	1.16992	1.16774	1.08900	1.04163	1.11666	7.871
20 Endrin [C]	1.78067 1.36399	1.74471	1.68317	1.66518	1.56413	1.46925	1.61016	9.423
21 4,4'-DDD [C]	1.57958 1.31906	1.54965	1.50467	1.51523	1.44353	1.39149	1.47189	6.277
22 Endosulfan II [C]	1.67704 1.33218	1.62917	1.57040	1.56415	1.47191	1.40267	1.52108	8.159

ARI Labs, Inc.

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 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT [C]	1.60092 1.34107	1.55757	1.51411	1.52351	1.44879	1.40898	1.48499	6.076
24 Endrin aldehyde [C]	1.25337 0.95076	1.18287	1.12863	1.11827	1.05217	1.01258	1.09981	9.372
25 Endosulfan sulfate [C]	1.55683 1.23196	1.49557	1.43410	1.42713	1.35325	1.30546	1.40062	7.982
26 Methoxychlor [C]	0.75597 0.56181	0.70472	0.65874	0.63180	0.58097	0.56318	0.63674	11.732
27 Endrin ketone [C]	1.75477 1.32623	1.67216	1.56779	1.54355	1.44756	1.39441	1.52949	9.953
29 Aroclor-1016(1)	++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++	++++	++++	++++	++++	++++	++++	++++
(4)	++++	++++	++++	++++	++++	++++	++++	++++
(5)	++++	++++	++++	++++	++++	++++	++++	++++
30 Aroclor-1221(1)	++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

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 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
37 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
38 Toxaphene [C] (1)	0.02960 0.01995	0.02897	0.02869	0.02664	0.02372	0.02271		0.02576	14.316
(2)	0.08918 0.05881	0.08648	0.08486	0.07864	0.06865	0.06553		0.07602	15.453
(3)	0.06792 0.04648	0.06646	0.06603	0.06172	0.05457	0.05229		0.05935	13.972
(4)	0.07276 0.05156	0.07135	0.06974	0.06542	0.05866	0.05671		0.06374	12.837
(5)	0.03882 0.02918	0.03832	0.03789	0.03573	0.03246	0.03203		0.03492	10.684
39 2,4-DDE [C]	0.75845 0.53401	0.72899	0.70778	0.69440	0.65651	0.59759		0.66825	11.787

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

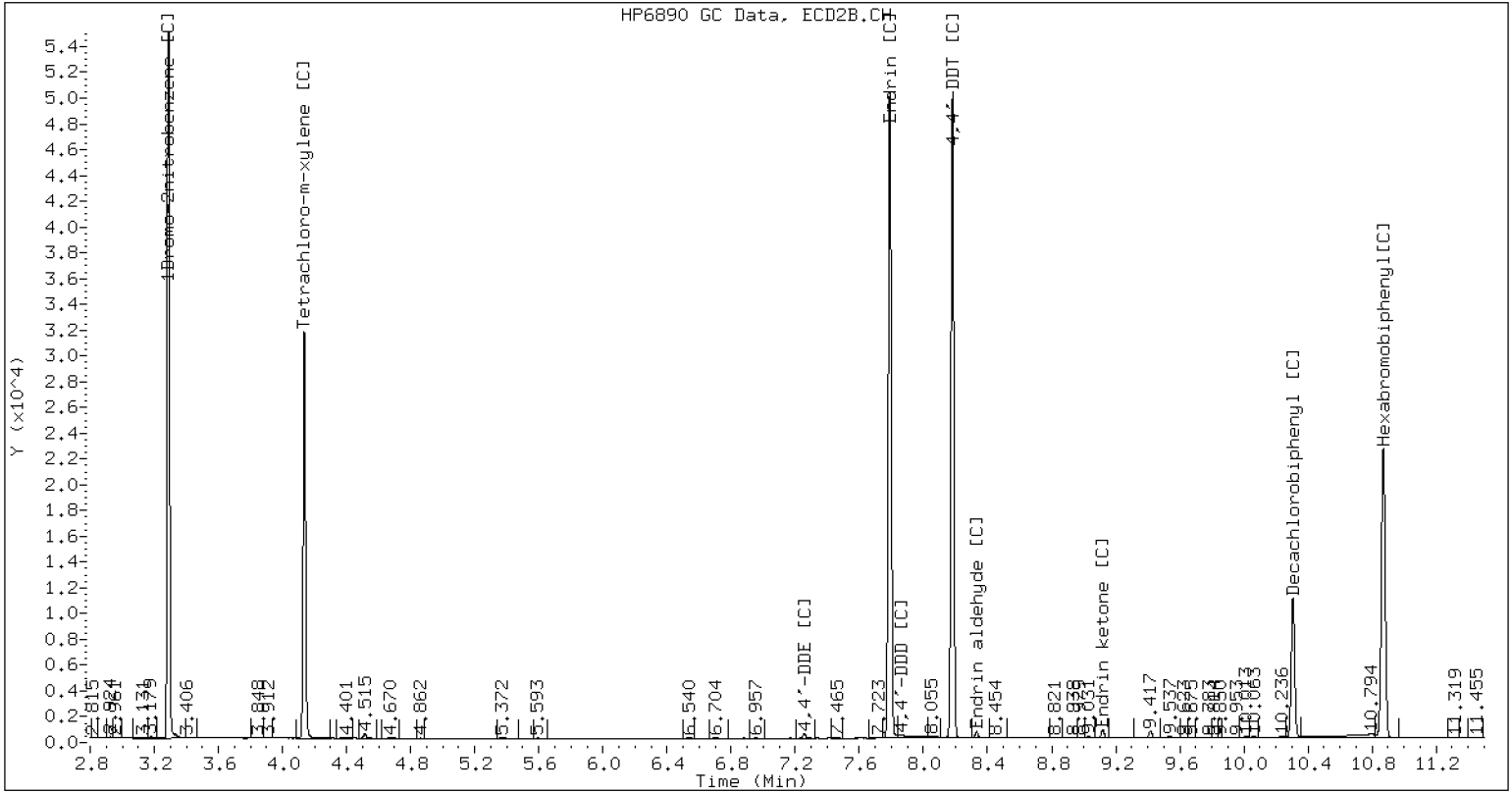
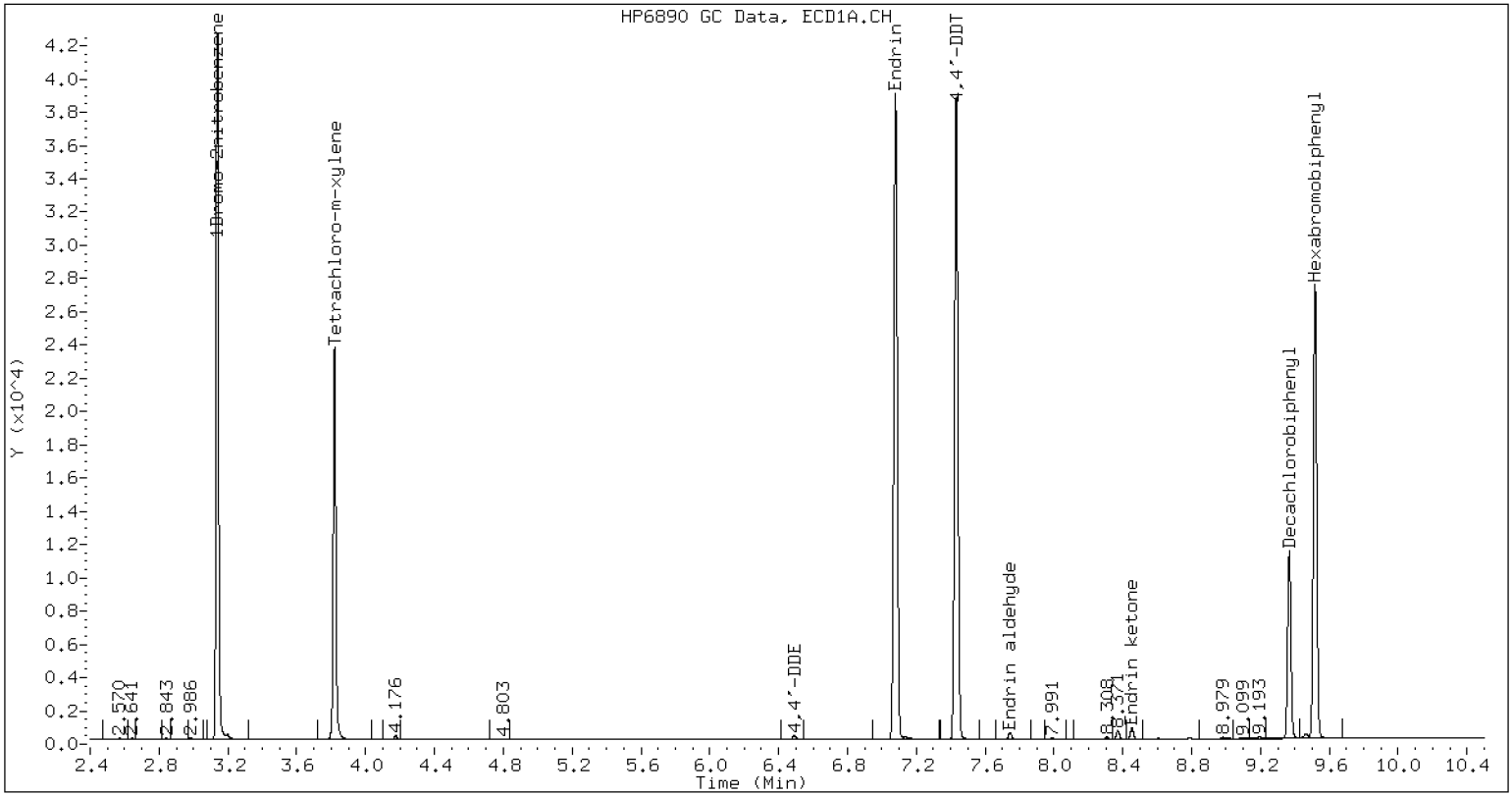
Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
40 2,4-DDD [C]	1.12937 0.84627	1.06142	1.05101	1.01695	0.98327	0.92485	1.00188	9.375
41 2,4-DDT [C]	1.28576 0.96934	1.20894	1.19812	1.16271	1.12721	1.06684	1.14556	9.038
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordan [C]	0.99553 0.78529	0.97475	0.94837	0.94350	0.90717	0.84779	0.91463	8.155
44 trans-Nonachlor [C]	1.85055 1.46338	1.66441	1.77907	1.73821	1.69126	1.60386	1.68439	7.480
45 cis-Nonachlor [C]	1.87416 1.53301	1.79479	1.80526	1.78076	1.73947	1.66348	1.74156	6.446
46 Mirex [C]	1.14525 0.87240	1.09368	1.04777	0.99189	0.96224	0.92321	1.00520	9.580
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Chlordane (NOS) [C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2023 15:34
 End Cal Date : 12-APR-2023 21:42
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20230412.b\PEST.m\PESTB.m
 Last Edit : 13-Apr-2023 12:43 ecd6.i
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
49 Trifluralin	++++	++++	++++	++++	++++	++++		++++	++++
50 Dacthal	++++	++++	++++	++++	++++	++++		++++	++++
51 Oxadiazon	++++	++++	++++	++++	++++	++++		++++	++++
52 Kelthane	++++	++++	++++	++++	++++	++++		++++	++++
53 Chlorpyrifos	++++	++++	++++	++++	++++	++++		++++	++++
54 Methyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
55 Ethyl Parathion	++++	++++	++++	++++	++++	++++		++++	++++
56 Kepone [C]	++++	++++	++++	++++	++++	++++		++++	++++
57 1-Chloropyrene	++++	++++	++++	++++	++++	++++		++++	++++
\$ 4 Tetrachloro-m-xylene [C]	1.21095|	1.18796|	1.16281|	1.15216|	1.06273|	1.00371|		1.10006|	9.801|
\$ 28 Decachlorobiphenyl [C]	1.11095|	1.06919|	1.03174|	0.97149|	0.89134|	0.86176|		0.96561|	11.420|



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041204.D
Data file 2: /20230412.b/B20230412.b/23041204.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 12-APR-2023 15:34
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.333	0.000	25454	4.761	-0.001	31321	1.26	1.20	4.3	alpha-BHC
4.718	0.000	11418	5.230	-0.000	14316	1.41	1.39	1.9	beta-BHC
4.902	0.000	23126	5.578	0.001	28503	1.26	1.23	2.4	delta-BHC
4.637	0.000	22577	5.152	-0.000	28360	1.27	1.24	2.3	gamma-BHC (Lindane)
5.125	0.000	22501	5.671	0.000	26325	1.37	1.31	4.0	Heptachlor
5.449	0.000	22140	6.070	-0.001	26734	1.32	1.28	2.9	Aldrin
6.127	0.000	25688	6.728	-0.001	29953	1.70	1.63	3.8	Heptachlor epoxide b
6.568	0.000	18534	7.172	0.000	20834	1.37	1.33	3.0	Endosulfan I
6.828	0.000	39009	7.466	0.000	45935	2.73	2.68	1.8	Dieldrin
6.491	0.000	35948	7.257	-0.000	43002	2.67	2.64	1.2	4,4'-DDE
7.079	0.000	36220	7.789	-0.001	40635	2.85	2.76	3.0	Endrin
7.315	0.000	33958	8.001	-0.000	38270	2.85	2.76	3.4	Endosulfan II
7.138	0.000	31178	7.862	0.000	36046	2.73	2.68	1.8	4,4'-DDD
8.178	0.000	31912	8.598	0.000	35527	2.84	2.78	2.3	Endosulfan sulfate
7.431	0.000	33616	8.180	-0.001	36533	2.74	2.70	1.5	4,4'-DDT
7.920	0.000	81474	8.820	-0.002	86256	15.48	14.84	4.2	Methoxychlor
8.453	0.000	39092	9.119	0.000	40044	3.05	2.87	6.2	Endrin ketone
7.744	0.000	26296	8.331	0.000	28602	2.89	2.85	1.6	Endrin aldehyde
6.267	0.000	19601	6.939	0.000	22872	1.32	1.30	1.7	trans-Chlordane
6.414	0.000	19995	7.099	-0.001	22897	1.35	1.32	1.7	cis-Chlordane
2.308	0.000	29917	2.452	-0.001	32224	1.43	1.36	4.8	Hexachlorobutadiene
4.175	0.000	25512	4.622	0.000	31379	1.42	1.38	3.0	Hexachlorobenzene
3.819	0.000	36352	4.136	-0.000	46406	2.80	2.75	1.9	Tetrachloro-m-xylene
9.367	0.000	28105	10.307	0.000	25352	3.24	2.88	11.9	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

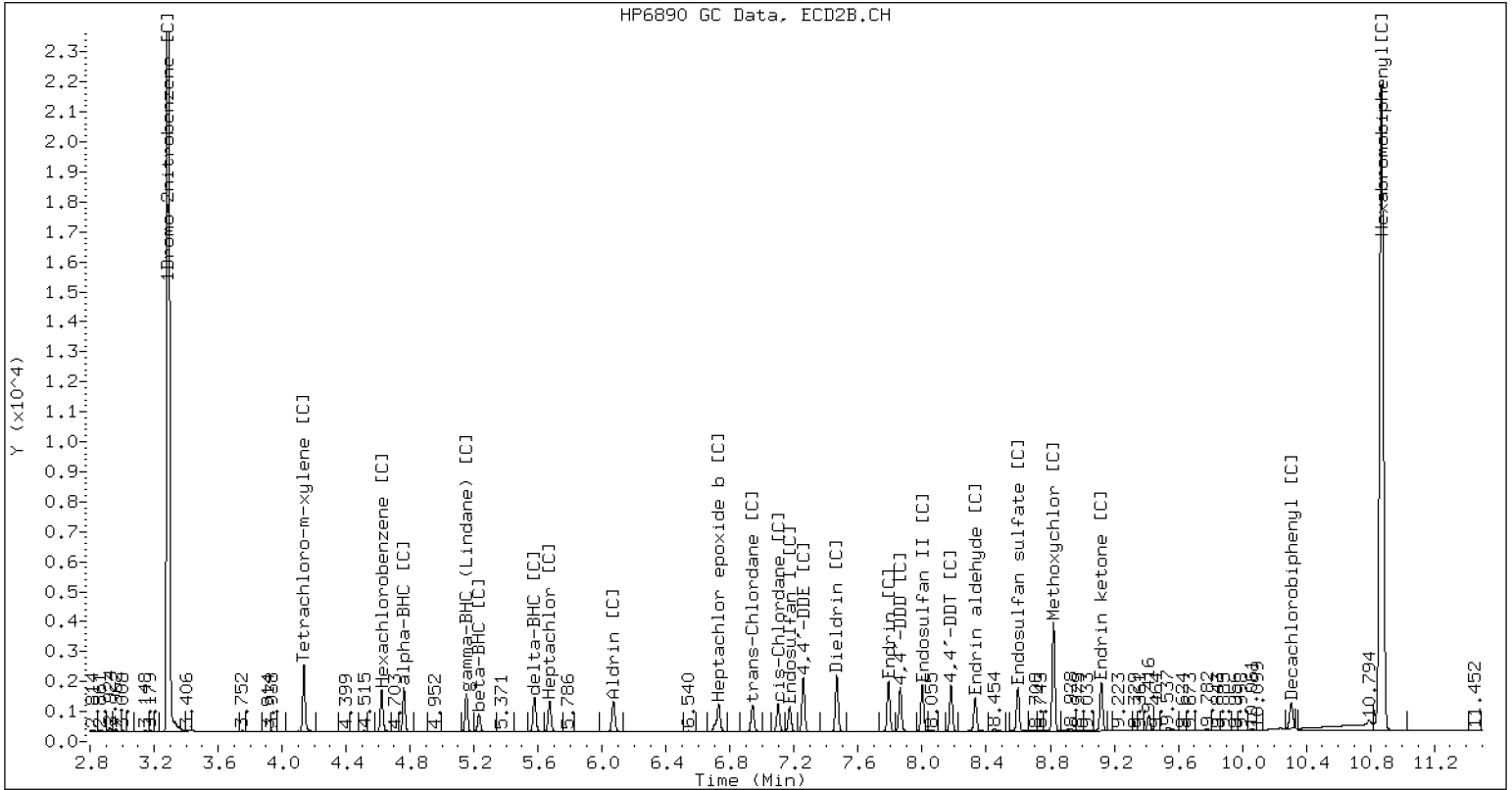
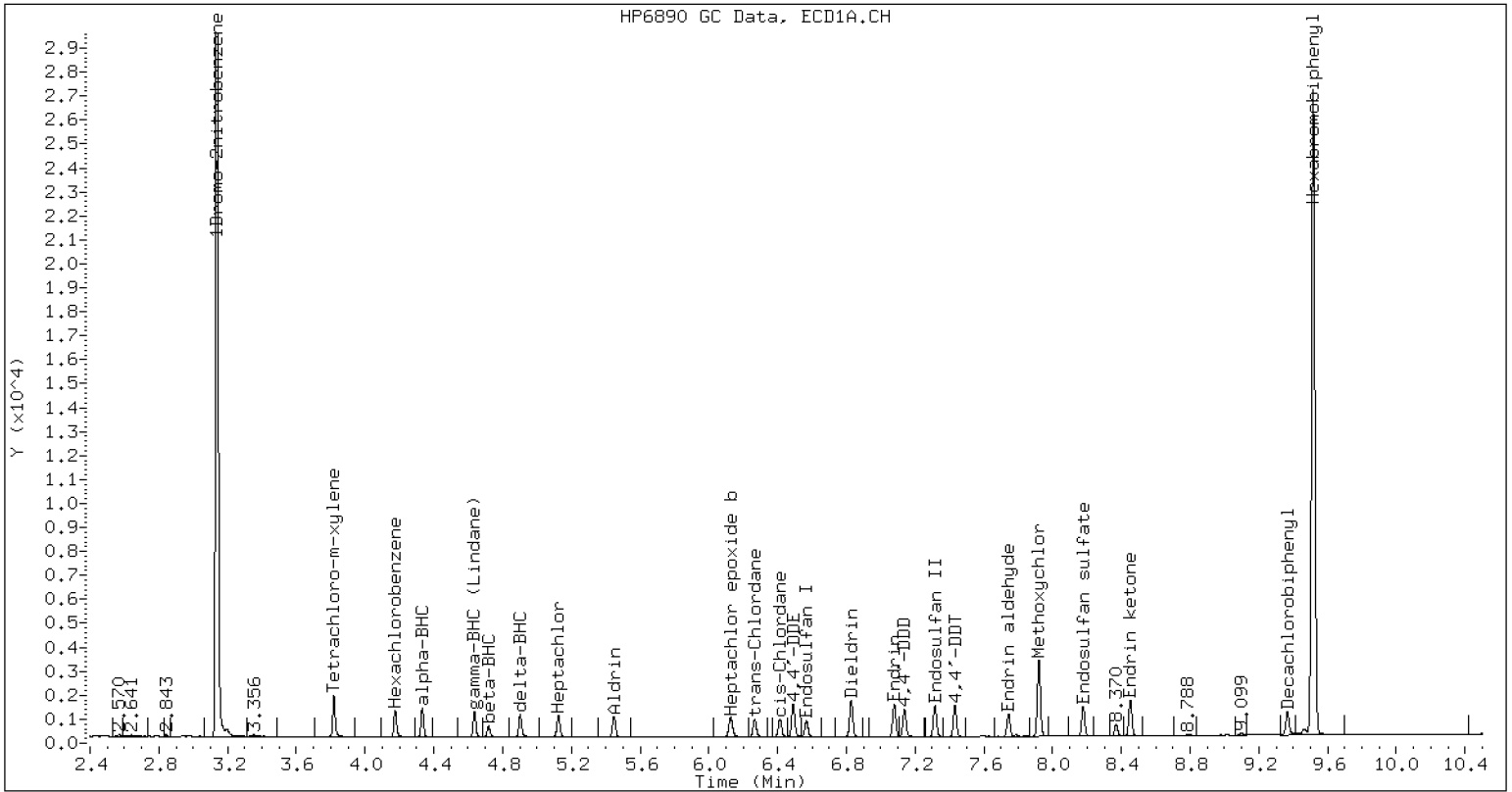
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	926418	7.2
Hexabromobiphenyl	663237	735580	10.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1226303	-17.2
Hexabromobiphenyl	870561	730241	-16.1

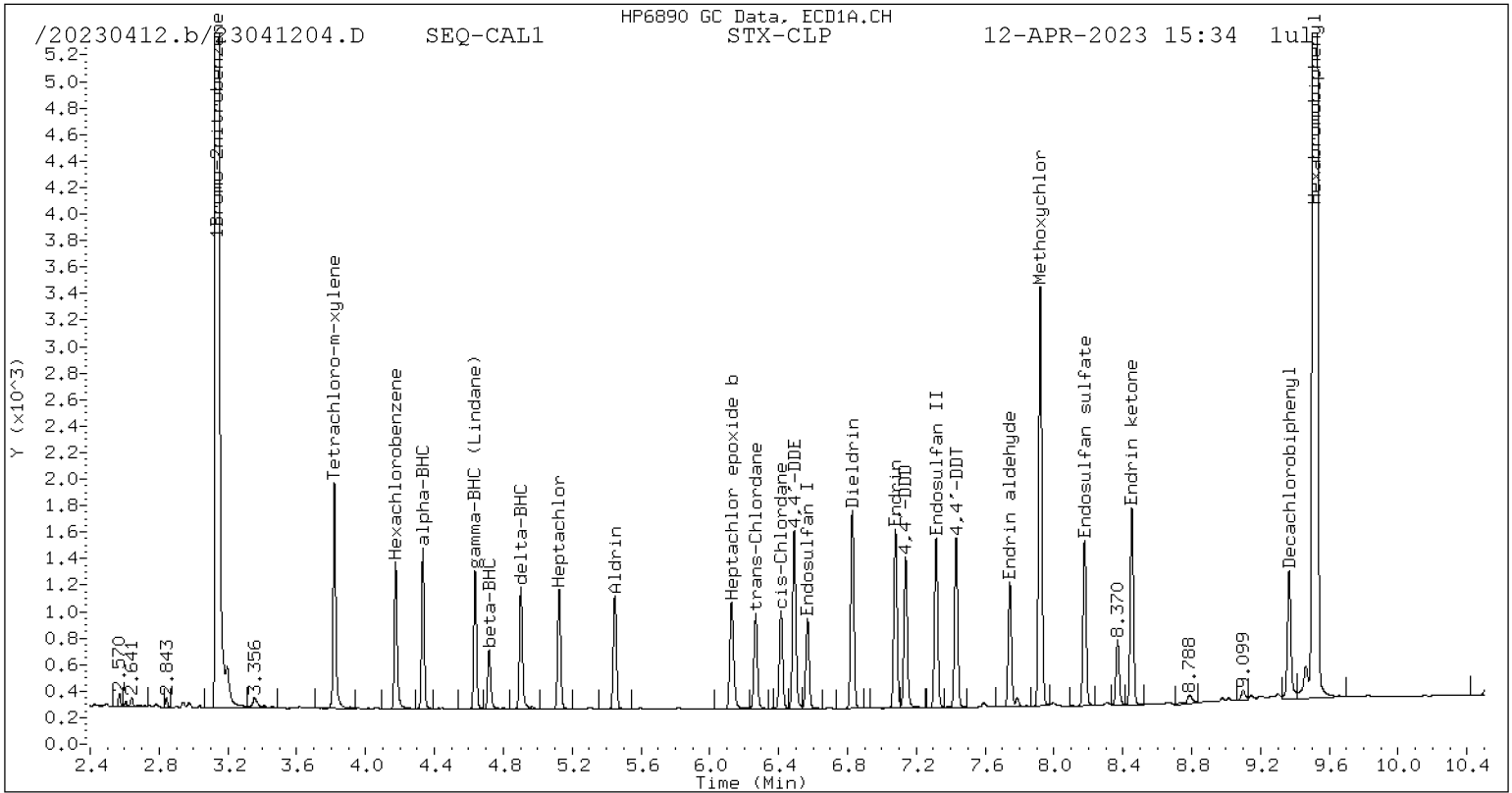
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

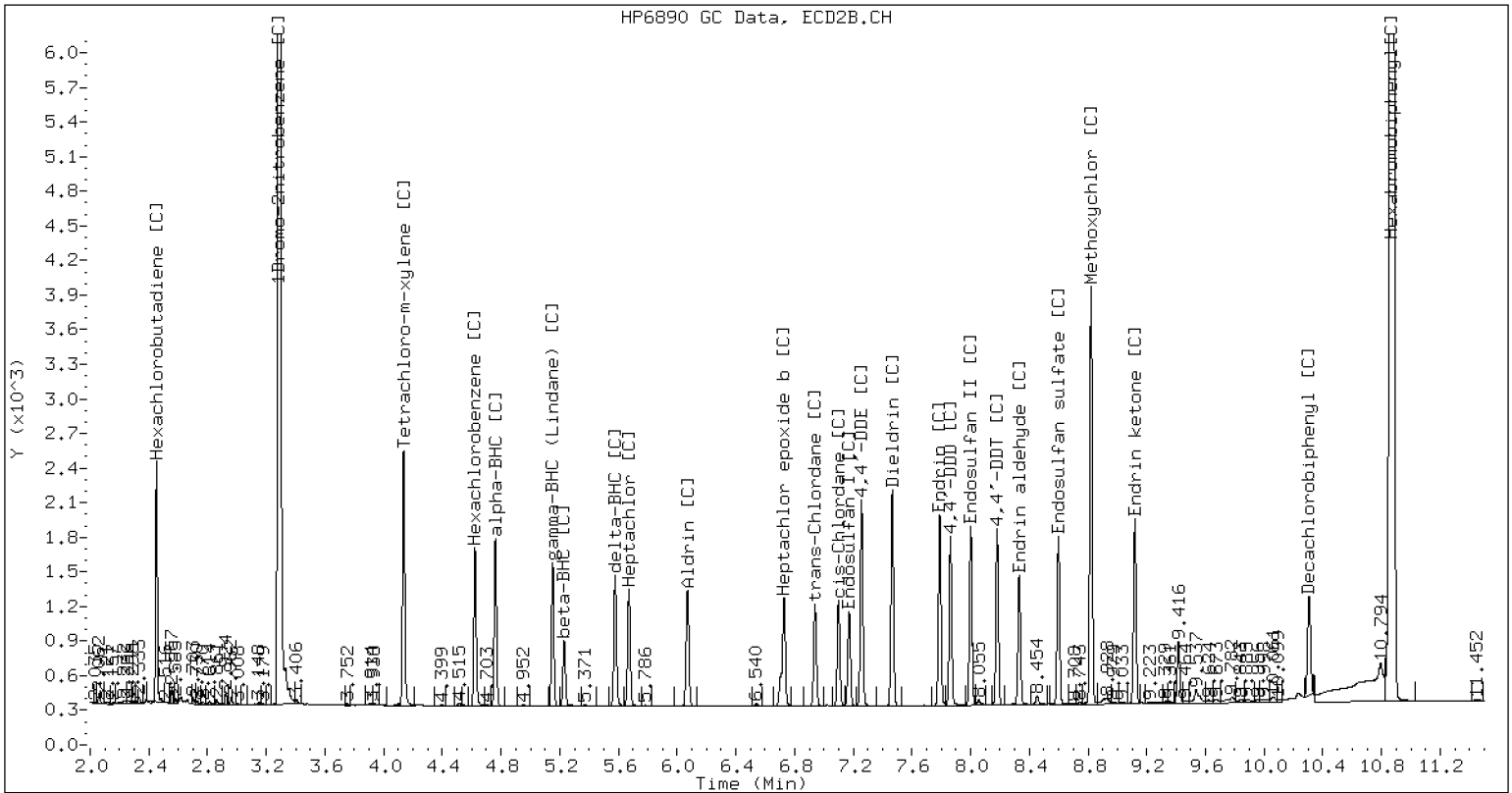


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

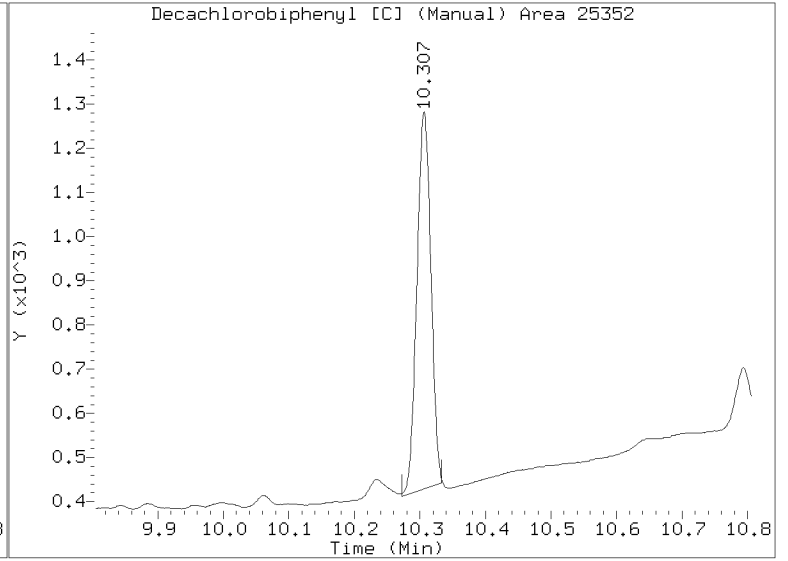
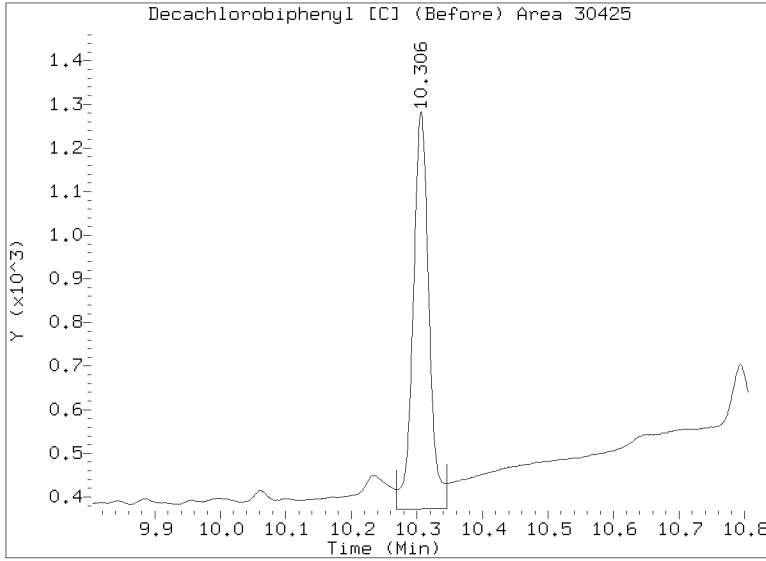
/20230412.b/B20230412.b/23041204.D SEQ-CAL1 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041204.D
Injection Date: 12-APR-2023 15:34
Lab ID:SEQ-CAL1 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041205.D
Data file 2: /20230412.b/B20230412.b/23041205.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 12-APR-2023 15:53
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.334	0.000	51739	4.762	-0.000	64823	2.56	2.47	3.6	alpha-BHC
4.718	-0.000	21843	5.230	-0.000	27256	2.71	2.62	3.4	beta-BHC
4.902	-0.001	46946	5.577	0.000	57832	2.57	2.48	3.6	delta-BHC
4.637	0.000	45705	5.152	-0.000	57426	2.58	2.49	3.3	gamma-BHC (Lindane)
5.125	0.000	44188	5.671	0.000	52255	2.69	2.59	4.0	Heptachlor
5.449	-0.000	43869	6.070	-0.001	53342	2.63	2.54	3.2	Aldrin
6.125	-0.002	39080	6.728	-0.001	46435	2.59	2.51	3.0	Heptachlor epoxide b
6.567	-0.001	36118	7.172	0.000	40864	2.69	2.60	3.4	Endosulfan I
6.828	-0.000	77704	7.466	0.000	91522	5.46	5.31	2.9	Dieldrin
6.490	-0.001	72097	7.257	0.000	86610	5.38	5.28	1.9	4,4'-DDE
7.079	-0.000	69966	7.790	-0.000	80652	5.47	5.42	1.0	Endrin
7.315	-0.000	66247	8.000	-0.001	75311	5.53	5.36	3.2	Endosulfan II
7.138	-0.000	61419	7.862	-0.000	71635	5.35	5.26	1.6	4,4'-DDD
8.178	0.000	62622	8.598	0.000	69135	5.55	5.34	3.8	Endosulfan sulfate
7.431	-0.000	66302	8.180	-0.001	72001	5.36	5.24	2.2	4,4'-DDT
7.920	-0.000	151246	8.821	-0.001	162884	28.55	27.67	3.1	Methoxychlor
8.453	0.000	72870	9.119	0.000	77298	5.65	5.47	3.4	Endrin ketone
7.743	-0.000	50010	8.331	0.000	54680	5.47	5.38	1.7	Endrin aldehyde
6.267	-0.000	38399	6.940	0.001	44910	2.60	2.54	2.6	trans-Chlordane
6.414	0.000	39092	7.100	-0.000	44798	2.64	2.57	2.7	cis-Chlordane
2.308	0.000	57293	2.452	-0.001	61436	2.75	2.58	6.4	Hexachlorobutadiene
4.175	-0.000	48764	4.622	0.000	61087	2.73	2.67	2.3	Hexachlorobenzene
3.820	0.000	70858	4.136	0.000	91748	5.48	5.40	1.6	Tetrachloro-m-xylene
9.367	-0.000	52201	10.306	-0.000	49425	5.98	5.54	7.7	Decachlorobiphenyl N

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

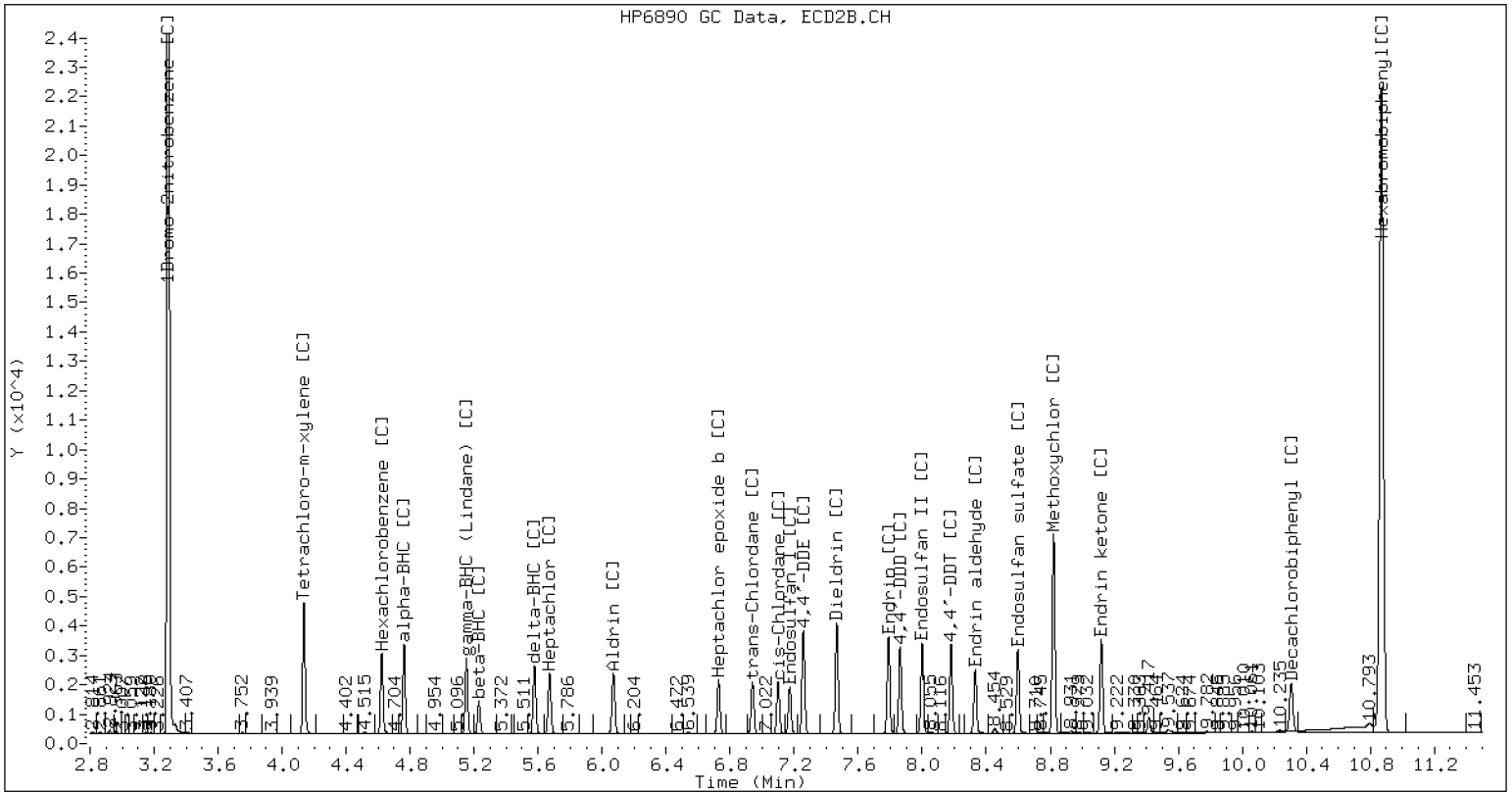
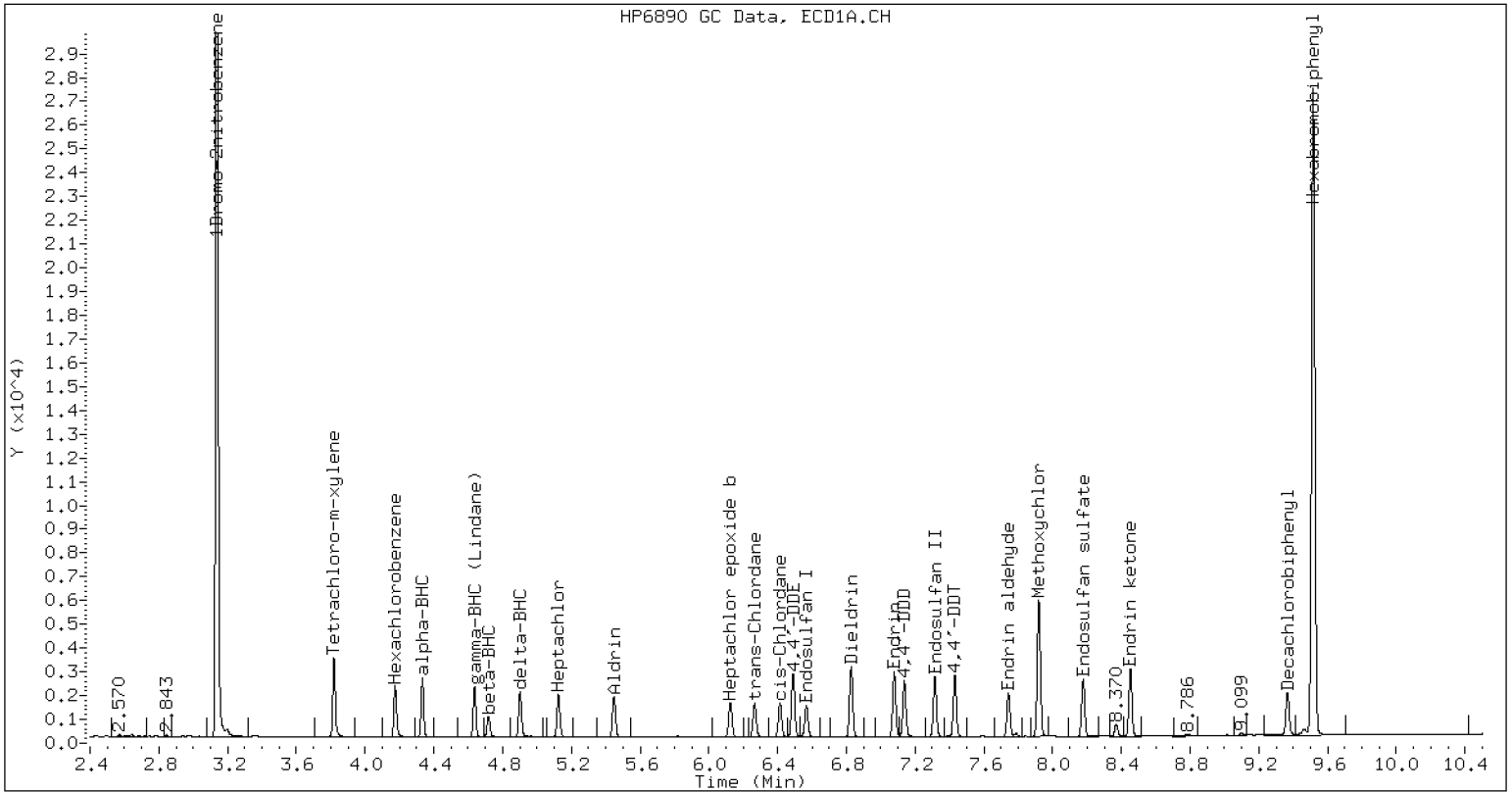
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	923378	6.8
Hexabromobiphenyl	663237	740194	11.6

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1235705	-16.6
Hexabromobiphenyl	870561	739625	-15.0

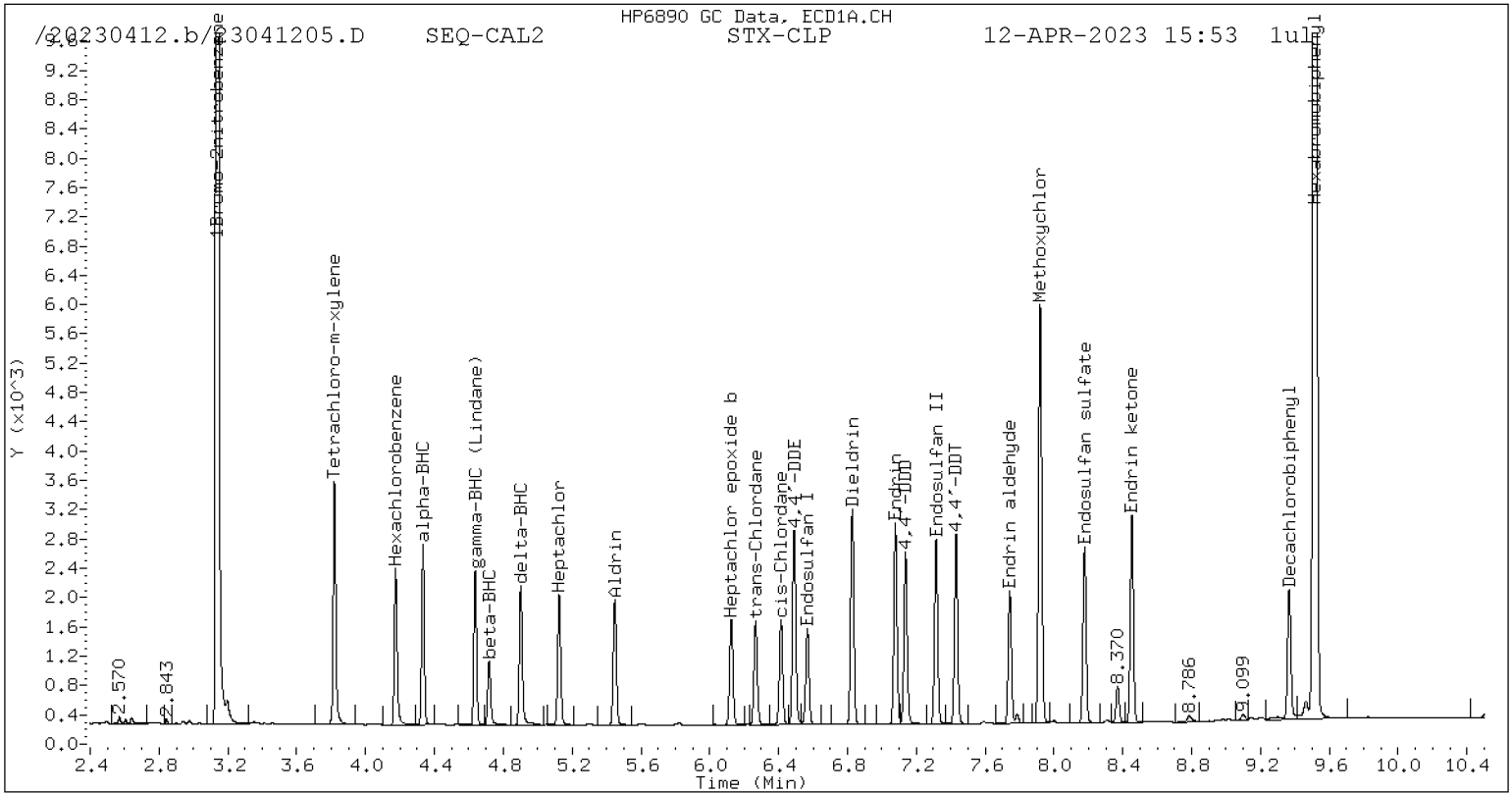
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

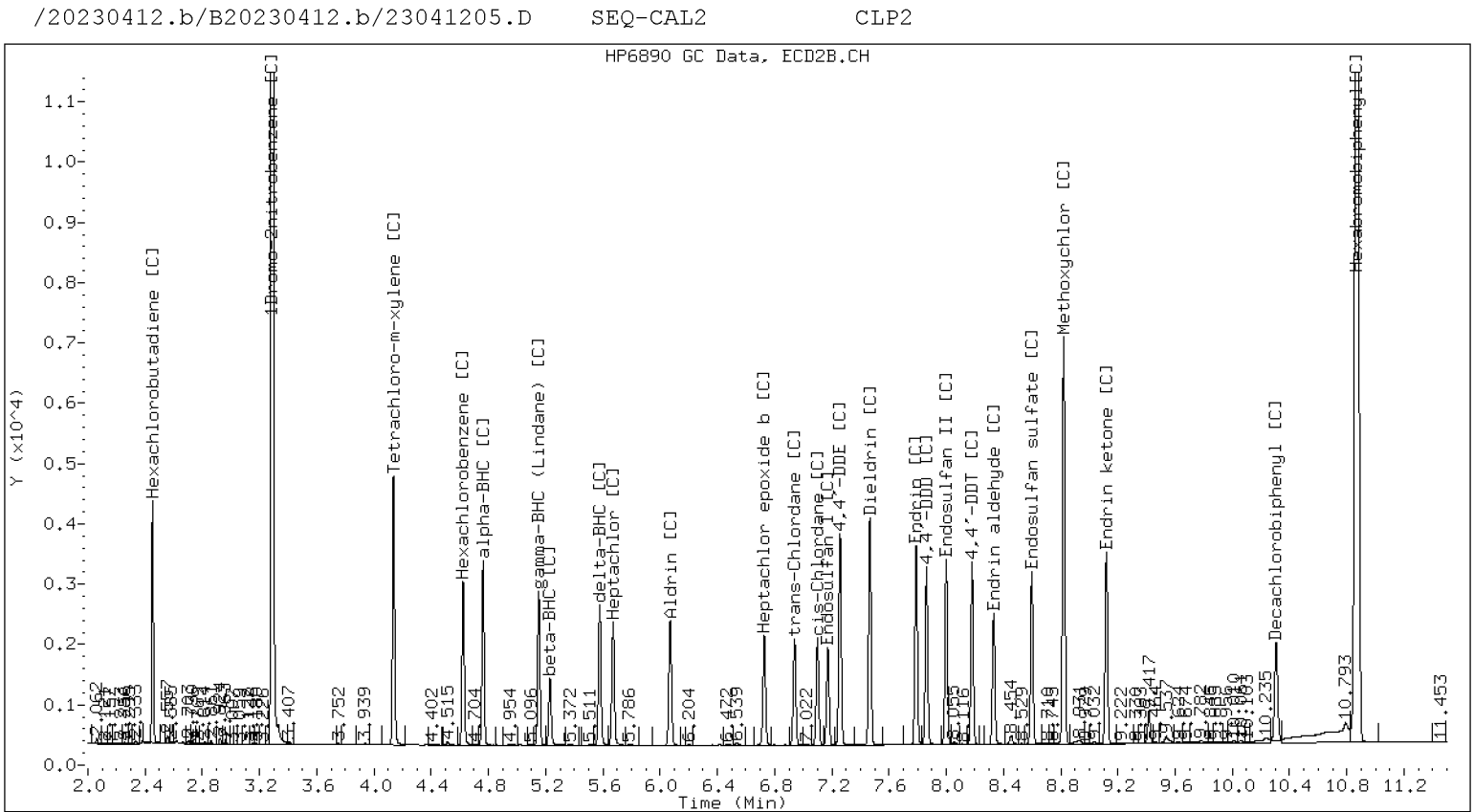
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



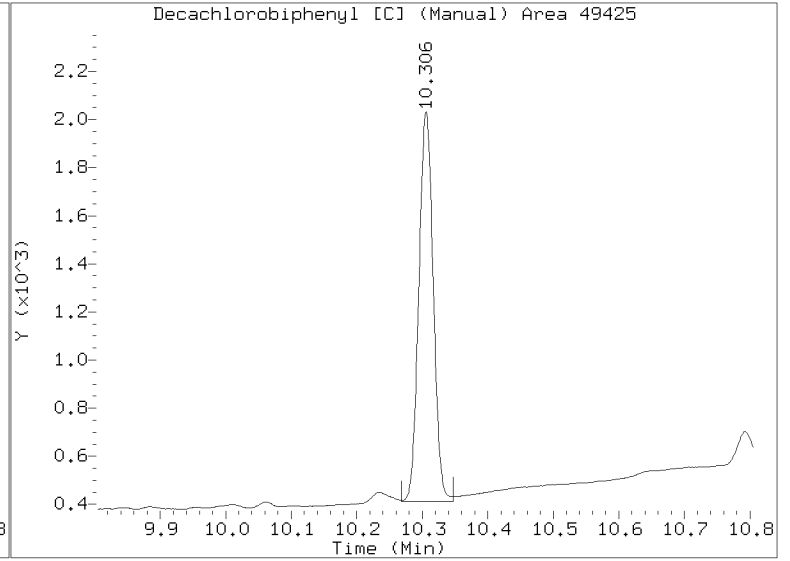
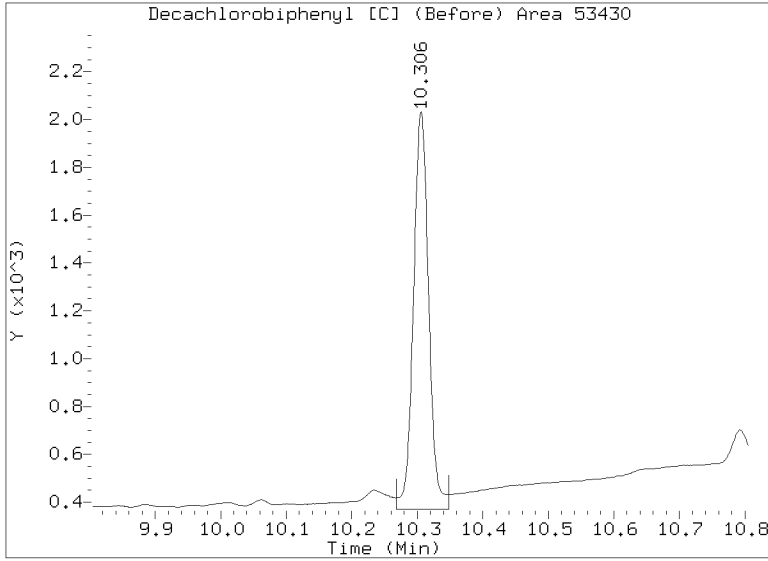
CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041205.D

Injection Date: 12-APR-2023 15:53

Lab ID:SEQ-CAL2 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041206.D
Data file 2: /20230412.b/B20230412.b/23041206.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 12-APR-2023 16:11
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.333	0.000	103568	4.761	-0.001	131810	5.11	5.04	1.4	alpha-BHC
4.717	-0.001	41447	5.229	-0.001	52711	5.12	5.07	0.9	beta-BHC
4.902	-0.001	94116	5.576	-0.001	117489	5.13	5.05	1.6	delta-BHC
4.637	0.000	91660	5.151	-0.001	116367	5.15	5.06	1.7	gamma-BHC (Lindane)
5.125	-0.000	86721	5.670	-0.001	104305	5.26	5.17	1.7	Heptachlor
5.449	-0.000	87528	6.070	-0.001	107537	5.22	5.14	1.6	Aldrin
6.125	-0.002	76614	6.728	-0.001	91643	5.06	4.97	1.8	Heptachlor epoxide b
6.567	-0.001	70757	7.171	-0.001	81121	5.24	5.17	1.5	Endosulfan I
6.828	-0.000	151176	7.465	-0.001	180300	10.59	10.48	1.1	Dieldrin
6.489	-0.001	141708	7.257	-0.000	172687	10.53	10.54	0.1	4,4'-DDE
7.078	-0.001	135408	7.789	-0.001	157942	10.52	10.45	0.6	Endrin
7.315	-0.001	127172	8.000	-0.001	147360	10.55	10.32	2.2	Endosulfan II
7.137	-0.001	120482	7.862	-0.000	141192	10.43	10.22	2.0	4,4'-DDD
8.177	-0.001	119181	8.597	-0.001	134570	10.49	10.24	2.4	Endosulfan sulfate
7.431	-0.001	129376	8.180	-0.001	142078	10.40	10.20	2.0	4,4'-DDT
7.919	-0.001	279773	8.820	-0.002	309068	52.48	51.73	1.4	Methoxychlor
8.452	-0.000	133639	9.119	-0.000	147115	10.31	10.25	0.5	Endrin ketone
7.743	-0.001	96868	8.330	-0.001	105906	10.53	10.26	2.6	Endrin aldehyde
6.267	-0.000	76161	6.939	-0.000	89682	5.14	5.08	1.3	trans-Chlordane
6.414	-0.000	76892	7.099	-0.001	88748	5.17	5.10	1.4	cis-Chlordane
2.308	0.000	106908	2.452	-0.001	123867	5.11	5.22	2.0	Hexachlorobutadiene
4.175	-0.000	93098	4.622	-0.000	118070	5.19	5.17	0.4	Hexachlorobenzene
3.819	-0.000	137014	4.136	-0.000	179204	10.57	10.57	0.0	Tetrachloro-m-xylene
9.366	-0.001	90951	10.305	-0.001	96814	10.35	10.68	3.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	926824	7.2
Hexabromobiphenyl	663237	744867	12.3

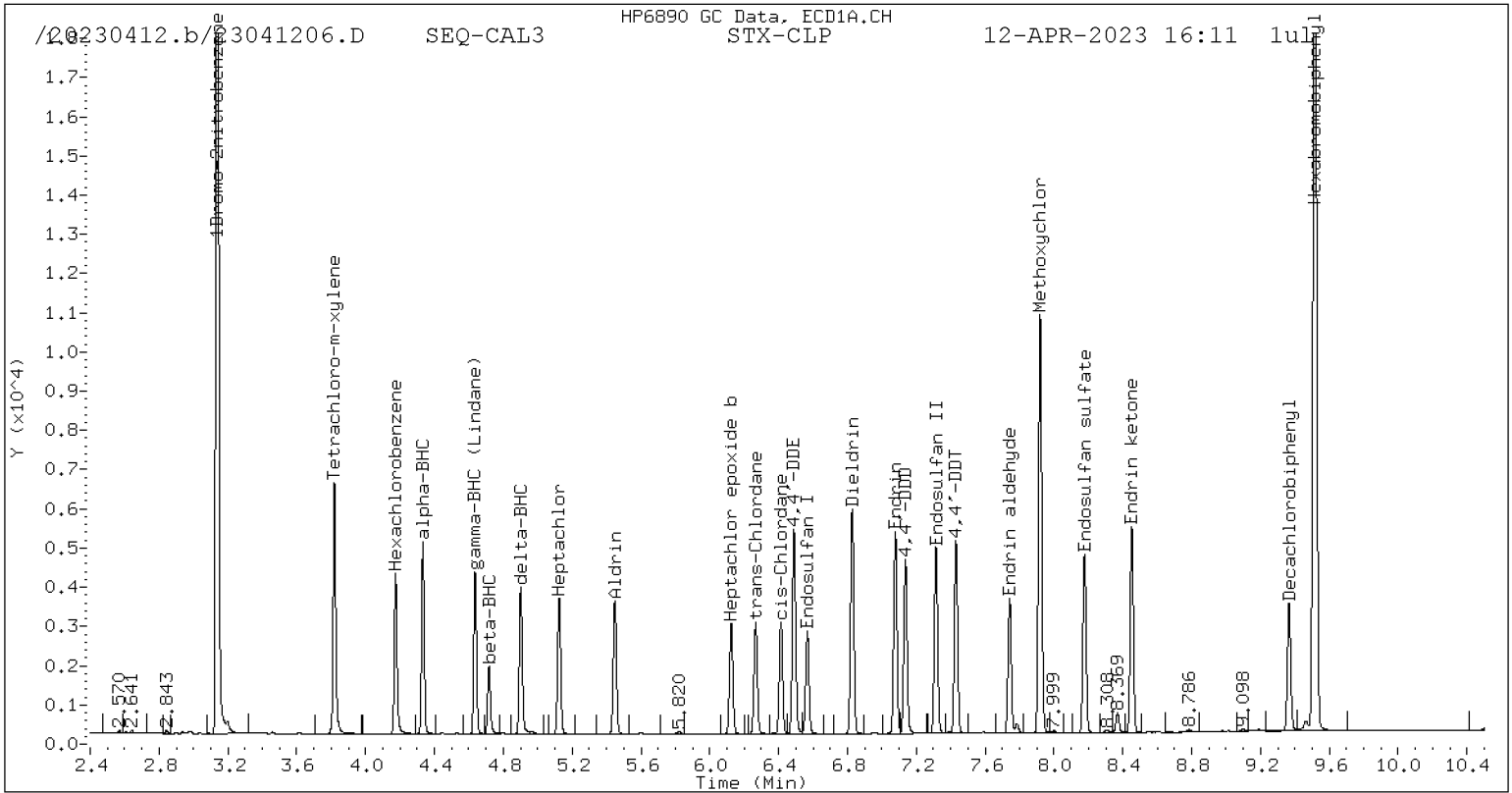
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1232907	-16.7
Hexabromobiphenyl	870561	750687	-13.8

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

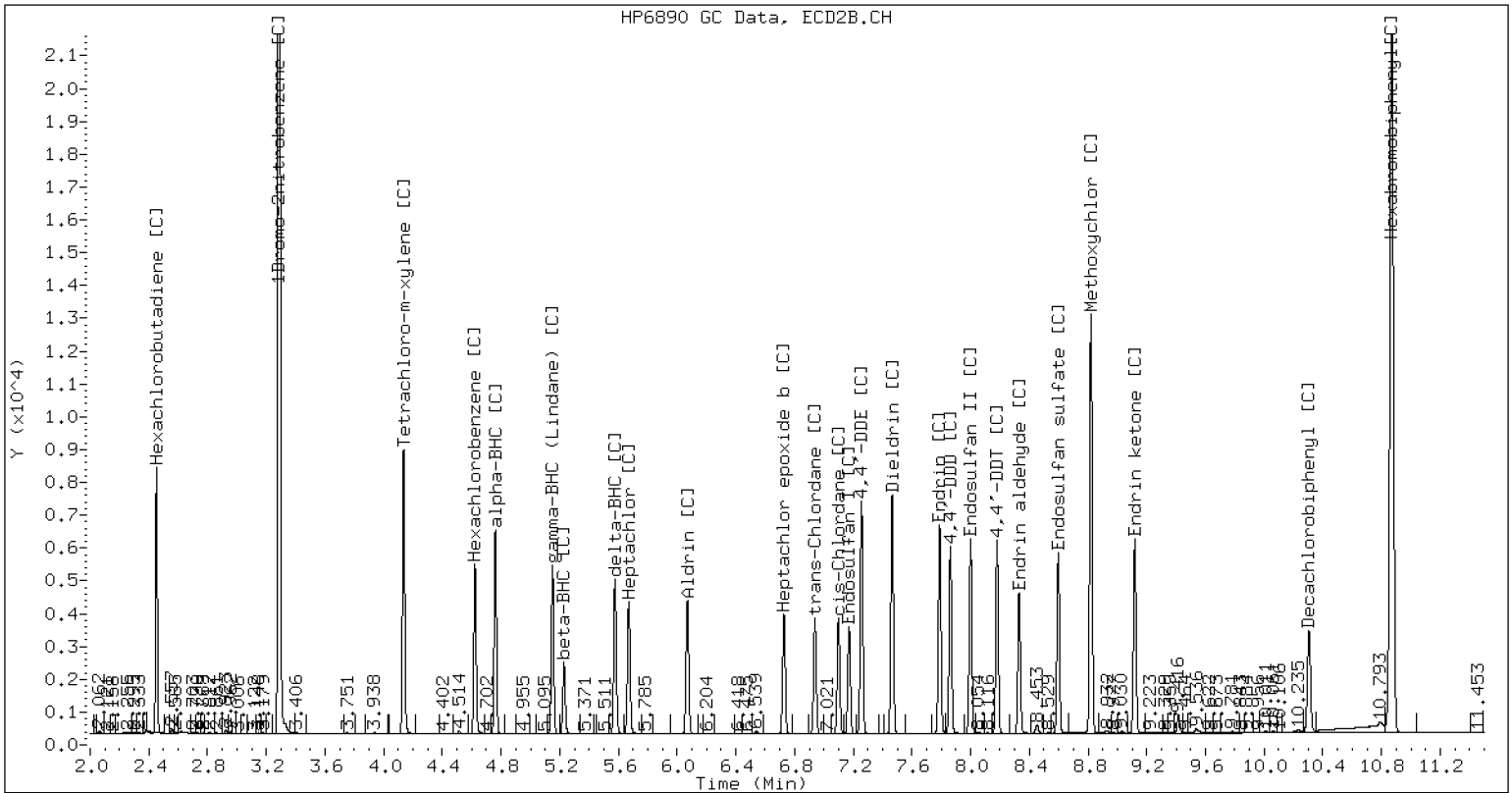
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041206.D SEQ-CAL3 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041207.D
Data file 2: /20230412.b/B20230412.b/23041207.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 12-APR-2023 16:30
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.334	0.001	407241	4.762	0.000	536848	19.97	20.27	1.5	alpha-BHC
4.717	-0.001	155730	5.230	-0.000	202325	19.12	19.23	0.6	beta-BHC
4.902	-0.001	370506	5.577	-0.000	476223	20.06	20.20	0.7	delta-BHC
4.637	0.000	356610	5.152	-0.000	467736	19.90	20.08	0.9	gamma-BHC (Lindane)
5.125	0.000	322878	5.671	-0.000	404806	19.46	19.82	1.8	Heptachlor
5.449	0.000	332937	6.070	-0.001	424935	19.73	20.04	1.6	Aldrin
6.125	-0.002	282261	6.728	-0.001	351893	18.53	18.86	1.7	Heptachlor epoxide b
6.568	-0.000	264288	7.172	-0.000	313117	19.47	19.69	1.2	Endosulfan I
6.828	0.000	556831	7.466	-0.000	679897	38.75	39.01	0.7	Dieldrin
6.490	-0.001	530626	7.257	-0.000	653476	39.17	39.39	0.6	4,4'-DDE
7.078	-0.000	494177	7.790	-0.000	590171	38.36	38.86	1.3	Endrin
7.315	-0.001	458674	8.000	-0.001	555378	38.02	38.71	1.8	Endosulfan II
7.137	-0.001	450400	7.862	0.000	544668	38.95	39.23	0.7	4,4'-DDD
8.177	-0.001	429746	8.598	-0.000	510603	37.79	38.65	2.3	Endosulfan sulfate
7.431	-0.000	481860	8.180	-0.001	546653	38.69	39.02	0.8	4,4'-DDT
7.920	-0.001	955187	8.821	-0.001	1096057	179.04	182.48	1.9	Methoxychlor
8.452	-0.000	476313	9.119	-0.000	546190	36.70	37.86	3.1	Endrin ketone
7.743	-0.000	347507	8.331	0.000	397001	37.75	38.27	1.4	Endrin aldehyde
6.267	-0.000	293273	6.939	0.000	355259	19.68	19.85	0.9	trans-Chlordane
6.413	-0.001	292054	7.099	-0.001	346293	19.52	19.65	0.7	cis-Chlordane
2.309	0.001	397872	2.452	-0.001	467299	18.91	19.43	2.7	Hexachlorobutadiene
4.175	0.000	342355	4.623	0.001	445526	18.97	19.26	1.5	Hexachlorobenzene
3.819	0.000	499517	4.136	0.000	663494	38.27	38.64	1.0	Tetrachloro-m-xylene
9.366	-0.001	308287	10.305	-0.001	336318	35.06	36.92	5.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

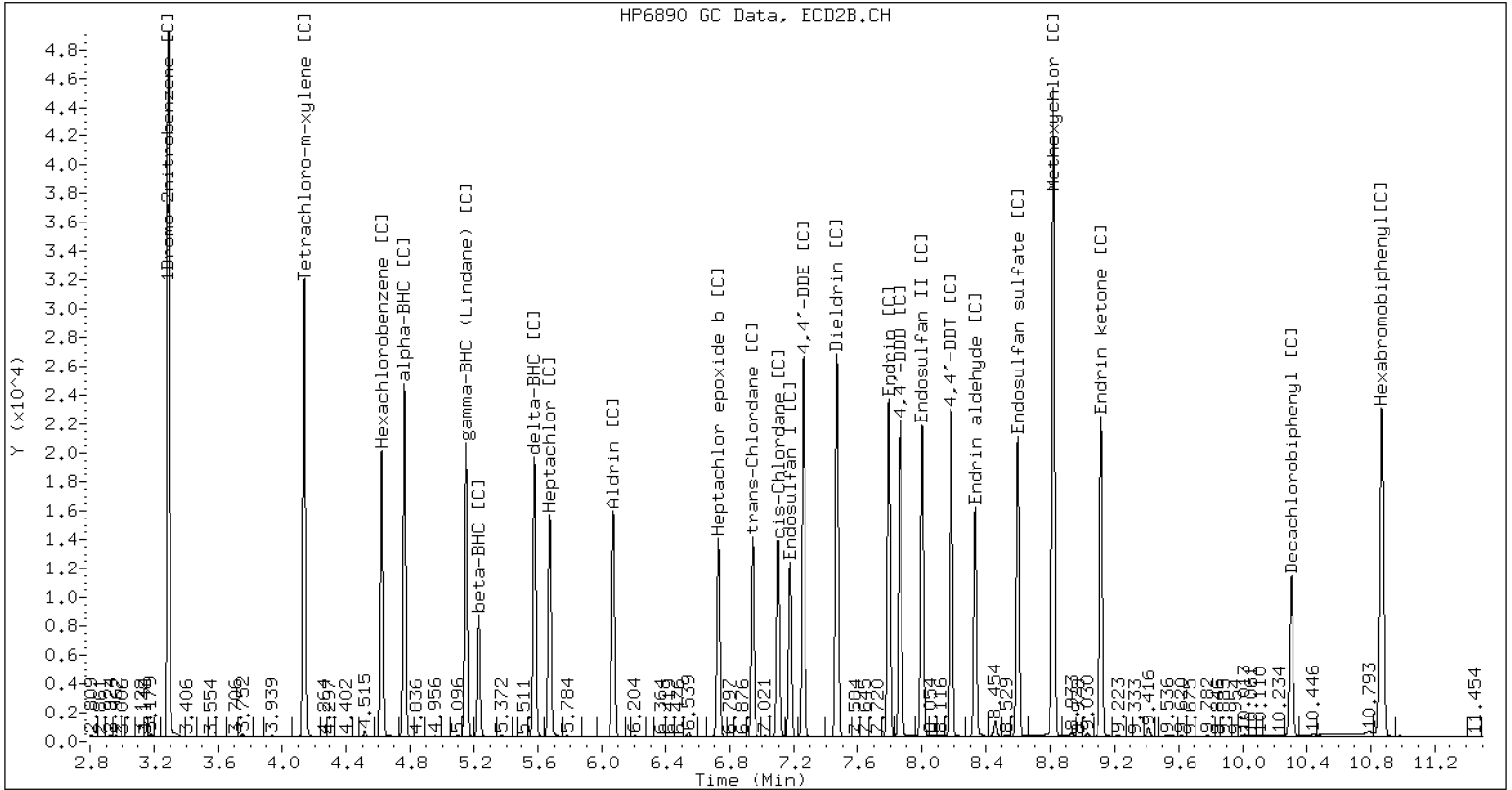
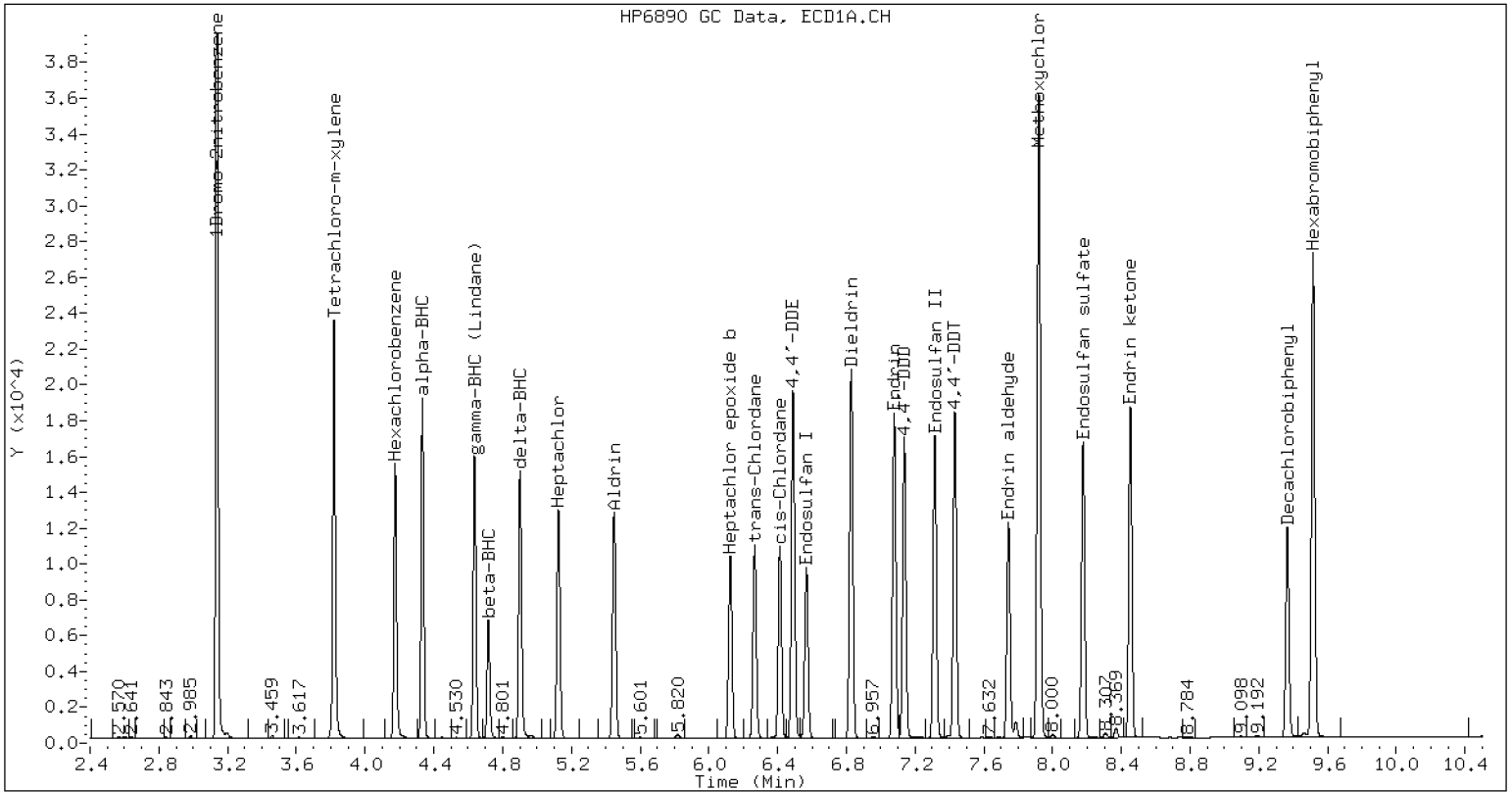
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	932757	7.9
Hexabromobiphenyl	663237	745426	12.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1248665	-15.7
Hexabromobiphenyl	870561	754634	-13.3

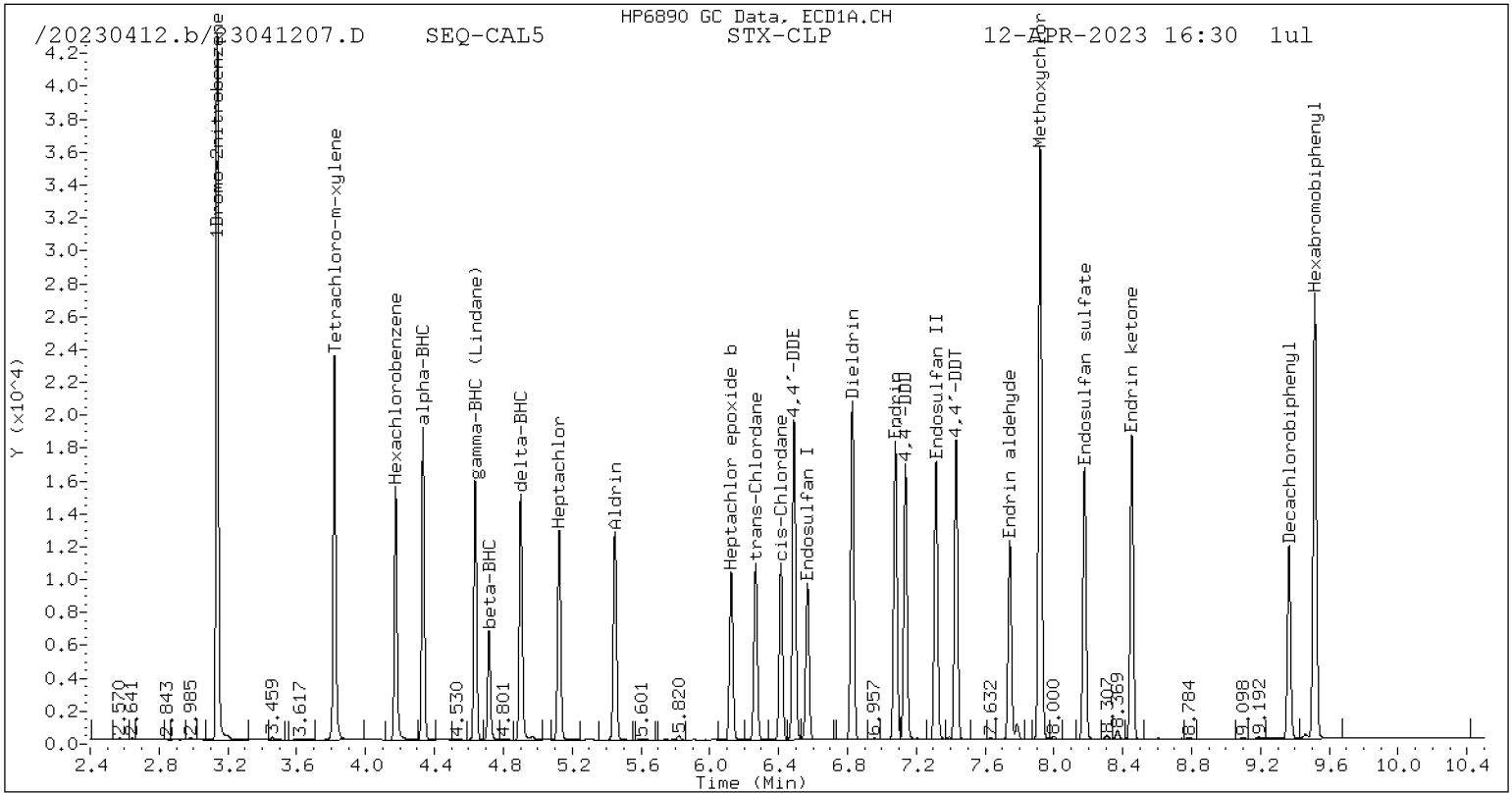
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

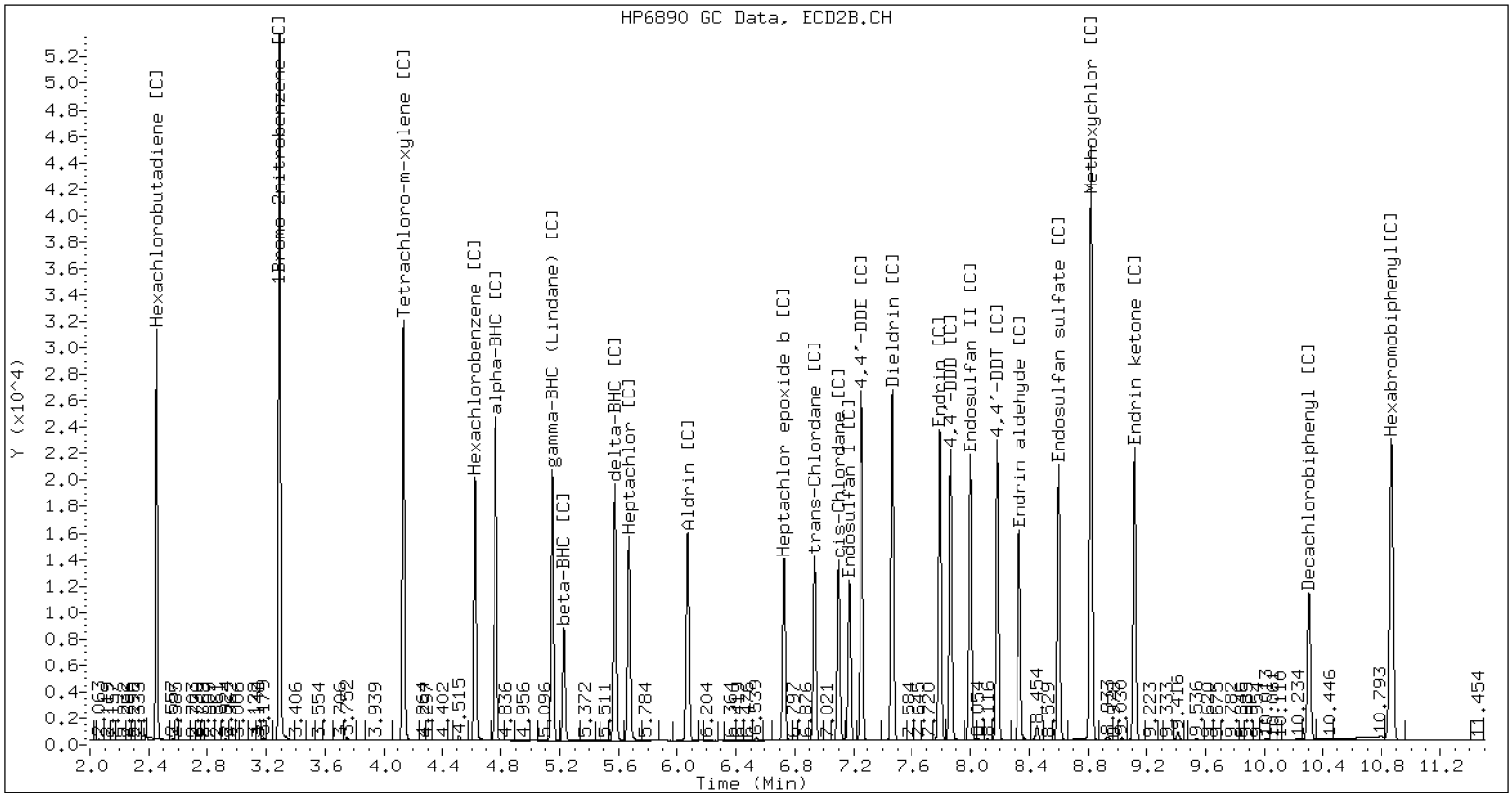


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041207.D SEQ-CAL5 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041208.D
Data file 2: /20230412.b/B20230412.b/23041208.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 12-APR-2023 16:48
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.333	0.000	207054	4.762	-0.000	269032	10.40	10.44	0.4	alpha-BHC
4.717	-0.001	79800	5.230	-0.000	103870	10.04	10.15	1.1	beta-BHC
4.901	-0.001	188049	5.577	0.000	239720	10.44	10.45	0.1	delta-BHC
4.637	0.000	181860	5.152	-0.000	236414	10.40	10.44	0.4	gamma-BHC (Lindane)
5.125	0.000	168797	5.672	0.001	208664	10.43	10.50	0.7	Heptachlor
5.449	0.000	172339	6.070	-0.001	216770	10.47	10.51	0.4	Aldrin
6.125	-0.002	148413	6.728	-0.001	182002	9.99	10.03	0.4	Heptachlor epoxide b
6.567	-0.001	138415	7.172	0.000	161209	10.45	10.42	0.2	Endosulfan I
6.828	-0.000	293866	7.466	0.000	354543	20.96	20.91	0.2	Dieldrin
6.490	-0.001	276898	7.257	0.000	342356	20.95	21.22	1.3	4,4'-DDE
7.078	-0.001	260570	7.789	-0.001	308995	20.59	20.68	0.4	Endrin
7.314	-0.001	243933	8.000	-0.001	290249	20.59	20.57	0.1	Endosulfan II
7.137	-0.001	235887	7.862	0.000	281171	20.77	20.59	0.9	4,4'-DDD
8.178	-0.000	228340	8.598	-0.000	264823	20.44	20.38	0.3	Endosulfan sulfate
7.431	-0.001	252435	8.181	-0.000	282707	20.64	20.52	0.6	4,4'-DDT
7.920	-0.000	515694	8.821	-0.001	586198	98.41	99.22	0.8	Methoxychlor
8.452	-0.000	254090	9.119	-0.000	286425	19.93	20.18	1.2	Endrin ketone
7.743	-0.001	184716	8.331	0.000	207509	20.43	20.34	0.4	Endrin aldehyde
6.267	-0.000	150690	6.939	0.000	180266	10.36	10.36	0.1	trans-Chlordane
6.413	-0.001	150822	7.100	-0.000	176894	10.33	10.32	0.1	cis-Chlordane
2.308	0.000	206966	2.452	-0.001	244467	10.08	10.45	3.6	Hexachlorobutadiene
4.175	-0.000	178711	4.622	-0.000	231238	10.15	10.28	1.3	Hexachlorobenzene
3.819	0.000	263469	4.136	-0.000	349814	20.69	20.95	1.2	Tetrachloro-m-xylene
9.366	-0.001	166503	10.306	-0.000	180273	19.28	20.12	4.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

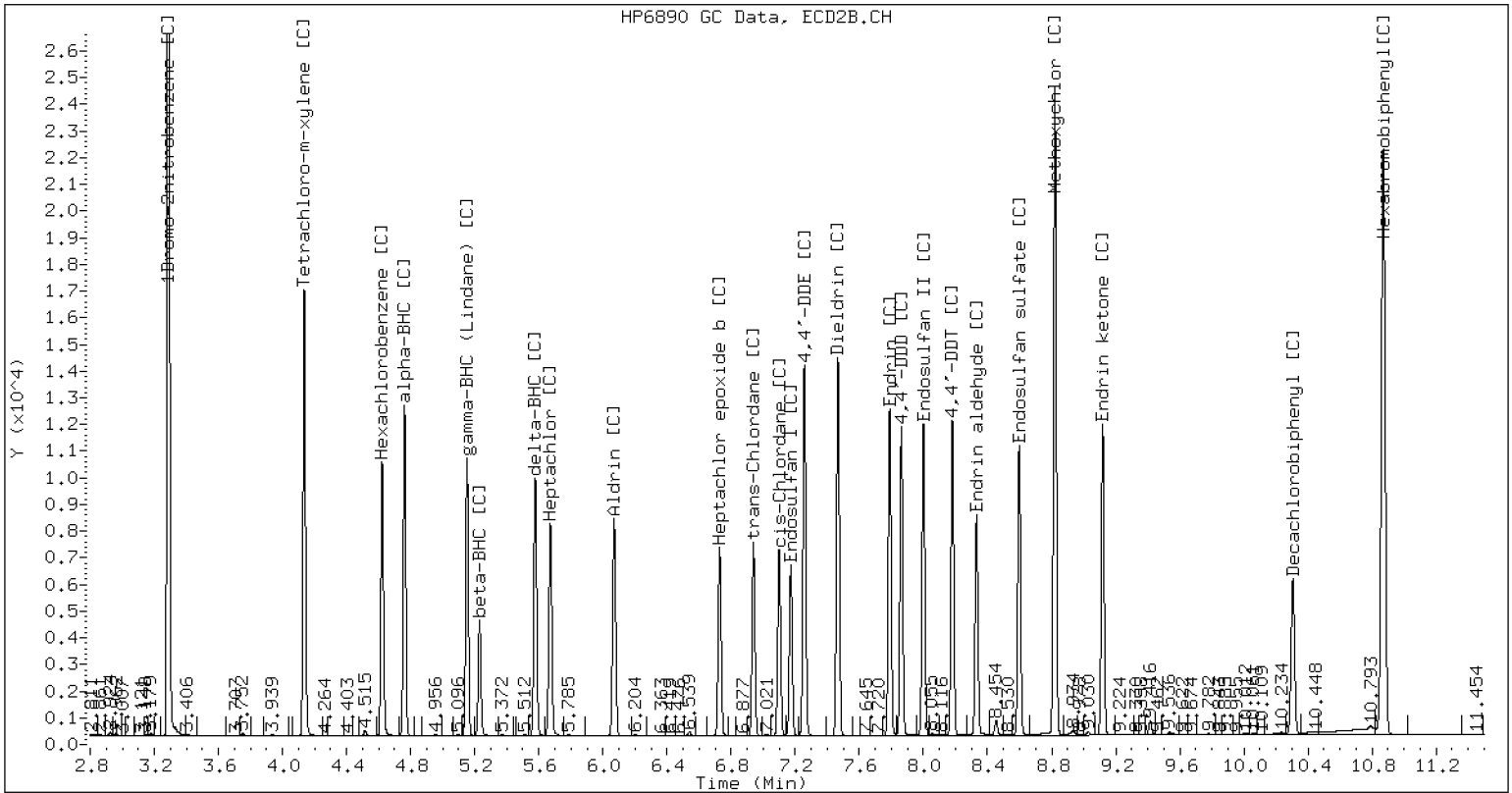
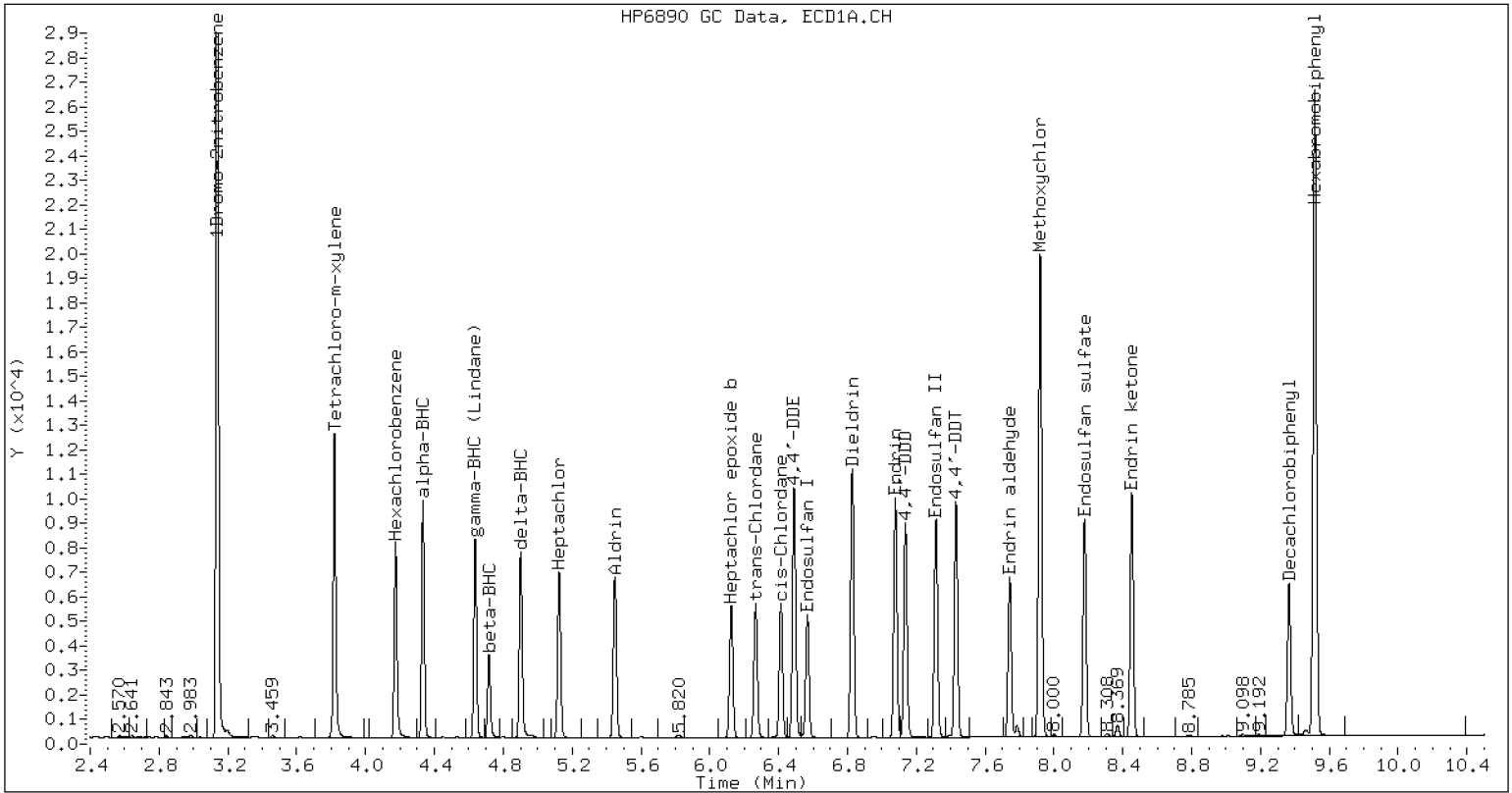
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	910053	5.3
Hexabromobiphenyl	663237	732158	10.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1214458	-18.0
Hexabromobiphenyl	870561	742252	-14.7

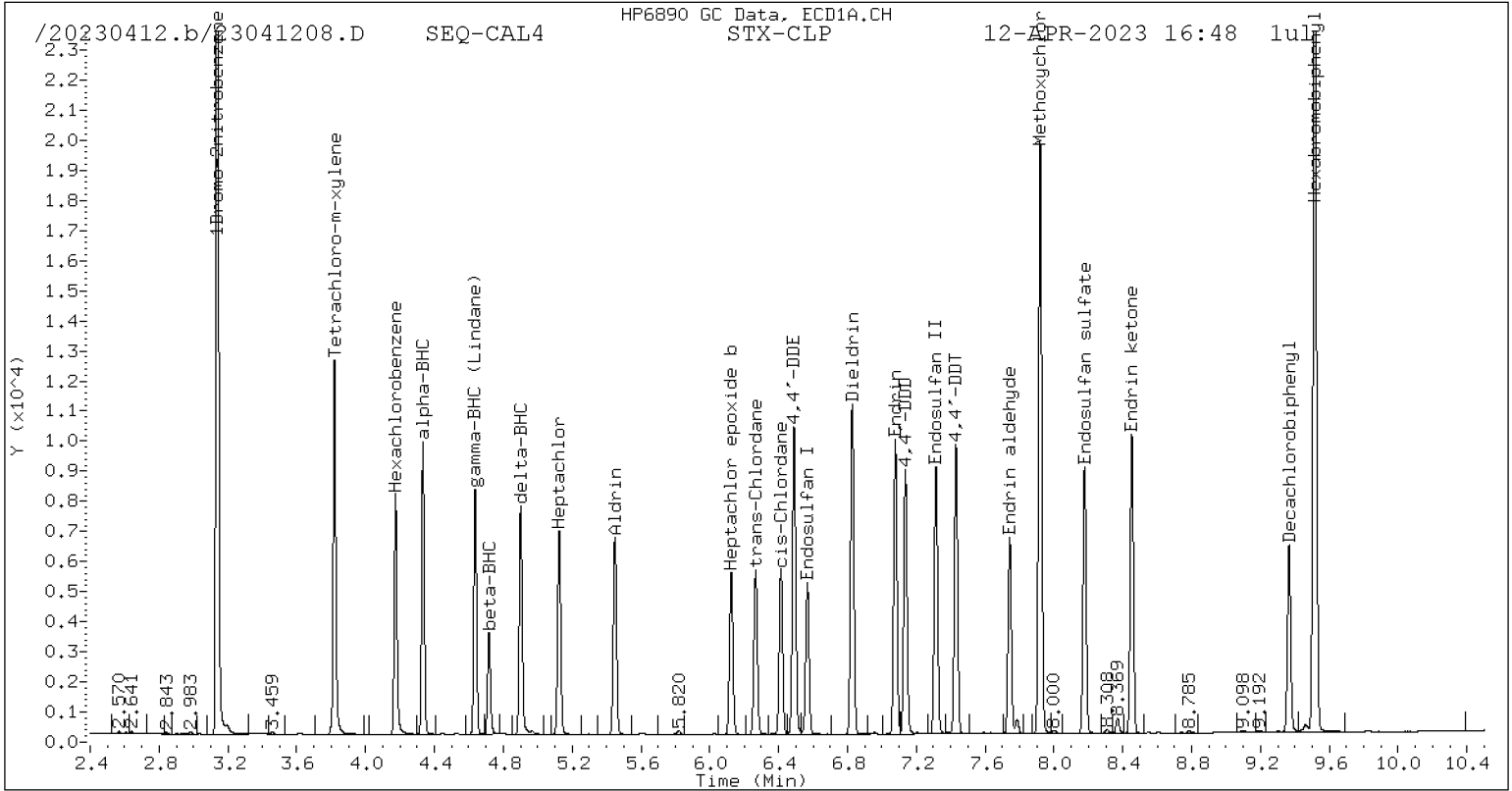
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

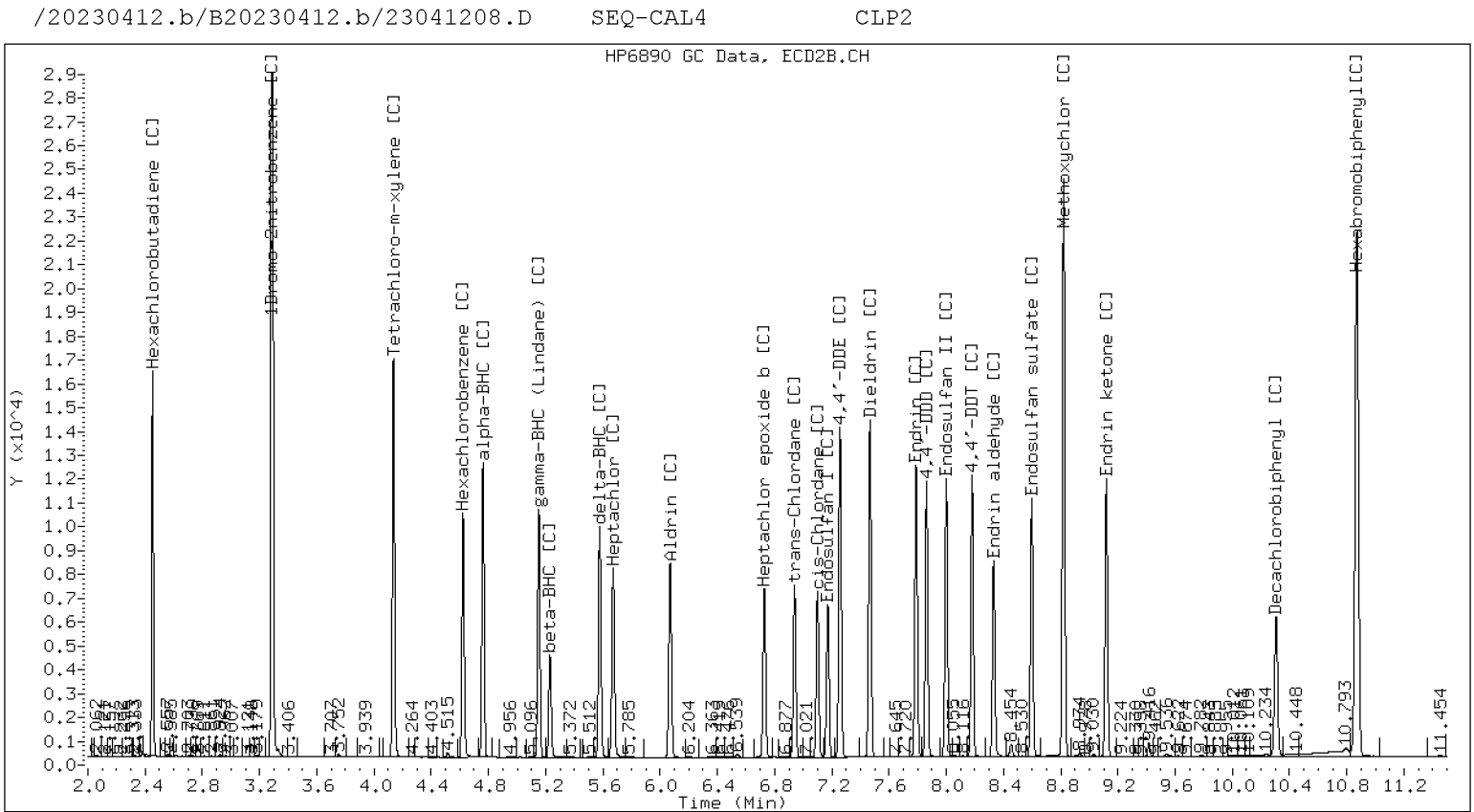
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041209.D
Data file 2: /20230412.b/B20230412.b/23041209.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6
Client ID:
Injection Date: 12-APR-2023 17:06
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.333	0.000	789082	4.762	0.000	1053745	39.26	40.45	3.0	alpha-BHC
4.717	-0.001	298836	5.230	-0.000	393735	37.23	38.05	2.2	beta-BHC
4.901	-0.001	708304	5.577	0.000	933504	38.92	40.25	3.4	delta-BHC
4.637	0.000	688986	5.152	-0.000	916016	39.01	39.99	2.5	gamma-BHC (Lindane)
5.125	-0.000	604529	5.671	0.000	770994	36.98	38.38	3.7	Heptachlor
5.448	-0.000	629969	6.071	-0.000	812922	37.88	38.99	2.9	Aldrin
6.125	-0.002	526148	6.729	-0.000	668897	35.05	36.44	3.9	Heptachlor epoxide b
6.567	-0.001	493488	7.173	0.001	596729	36.88	38.16	3.4	Endosulfan I
6.829	0.000	1030944	7.466	0.000	1279184	72.81	74.62	2.5	Dieldrin
6.489	-0.001	993535	7.257	0.000	1220084	74.41	74.77	0.5	4,4'-DDE
7.078	-0.001	907557	7.790	-0.000	1098211	72.71	73.00	0.4	Endrin
7.314	-0.001	848911	8.001	-0.000	1048450	72.63	73.77	1.6	Endosulfan II
7.137	-0.001	838729	7.862	0.000	1040087	74.86	75.63	1.0	4,4'-DDD
8.178	-0.000	805013	8.598	0.000	975785	73.05	74.56	2.1	Endosulfan sulfate
7.431	-0.000	908115	8.181	0.000	1053162	75.26	75.90	0.9	4,4'-DDT
7.920	-0.001	1796134	8.821	-0.001	2104774	347.45	353.79	1.8	Methoxychlor
8.452	-0.000	896939	9.120	0.001	1042272	71.33	72.93	2.2	Endrin ketone
7.743	-0.001	649599	8.332	0.001	756869	72.82	73.66	1.1	Endrin aldehyde
6.266	-0.000	563470	6.940	0.001	689422	38.37	39.17	2.1	trans-Chlordane
6.414	-0.000	558211	7.100	-0.000	670499	37.86	38.69	2.2	cis-Chlordane
2.309	0.001	760920	2.453	-0.000	896023	36.70	37.88	3.2	Hexachlorobutadiene
4.175	-0.000	651738	4.623	0.001	846379	36.64	37.20	1.5	Hexachlorobenzene
3.819	-0.000	933369	4.136	0.000	1232611	72.57	72.99	0.6	Tetrachloro-m-xylene
9.367	0.000	579829	10.306	0.000	644132	68.06	71.40	4.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

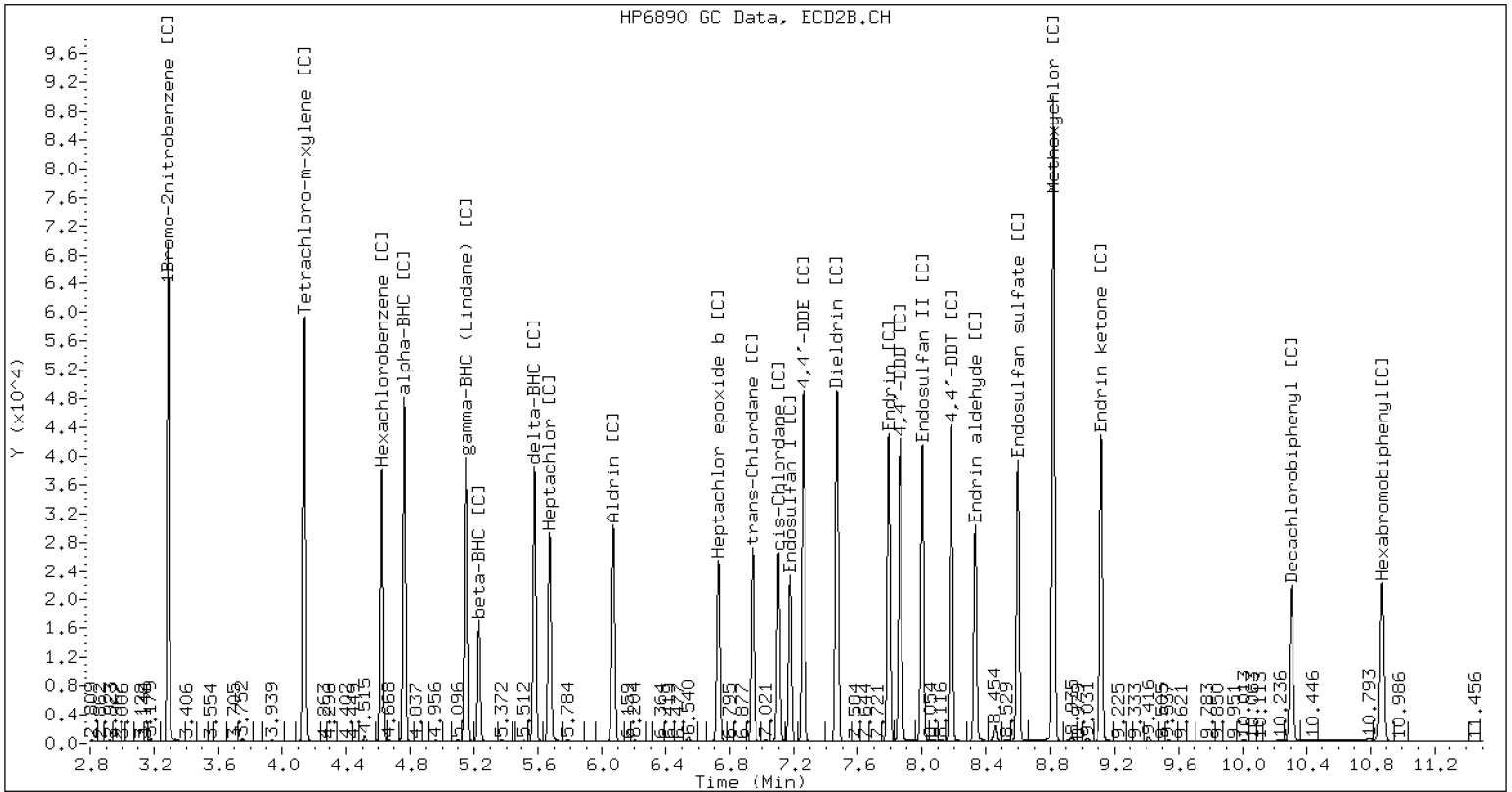
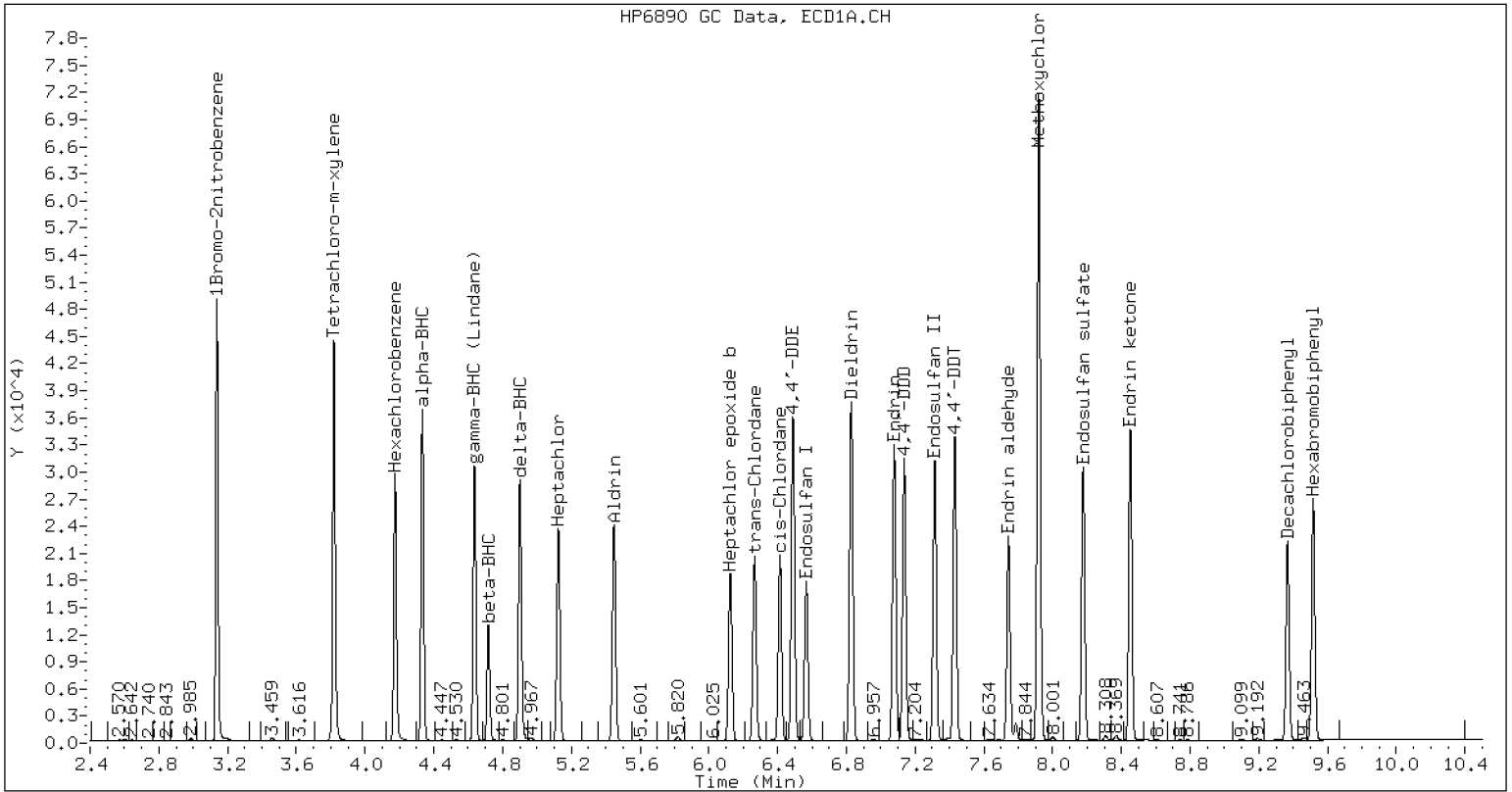
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	919249	6.4
Hexabromobiphenyl	663237	722285	8.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1228056	-17.1
Hexabromobiphenyl	870561	747465	-14.1

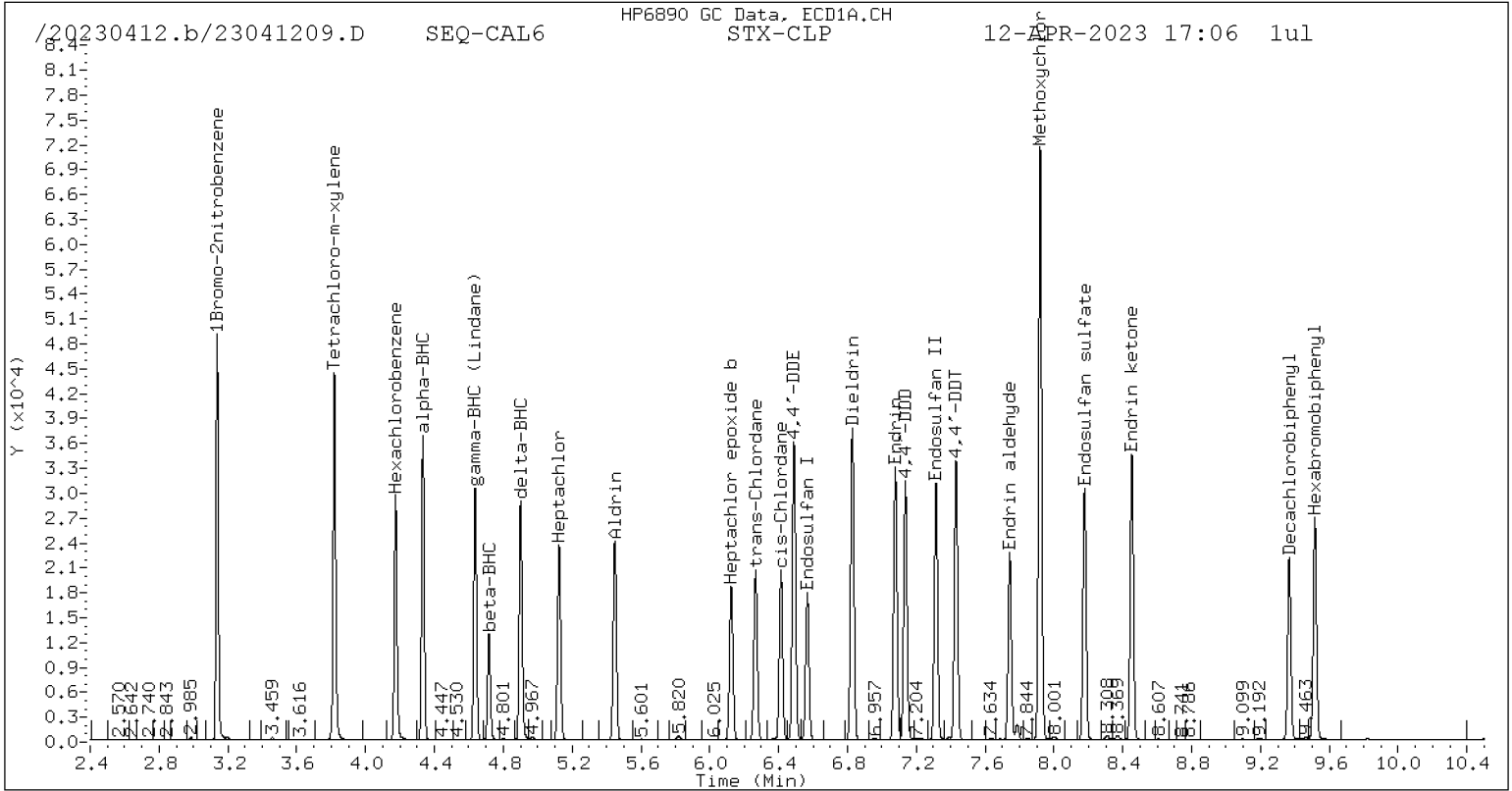
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

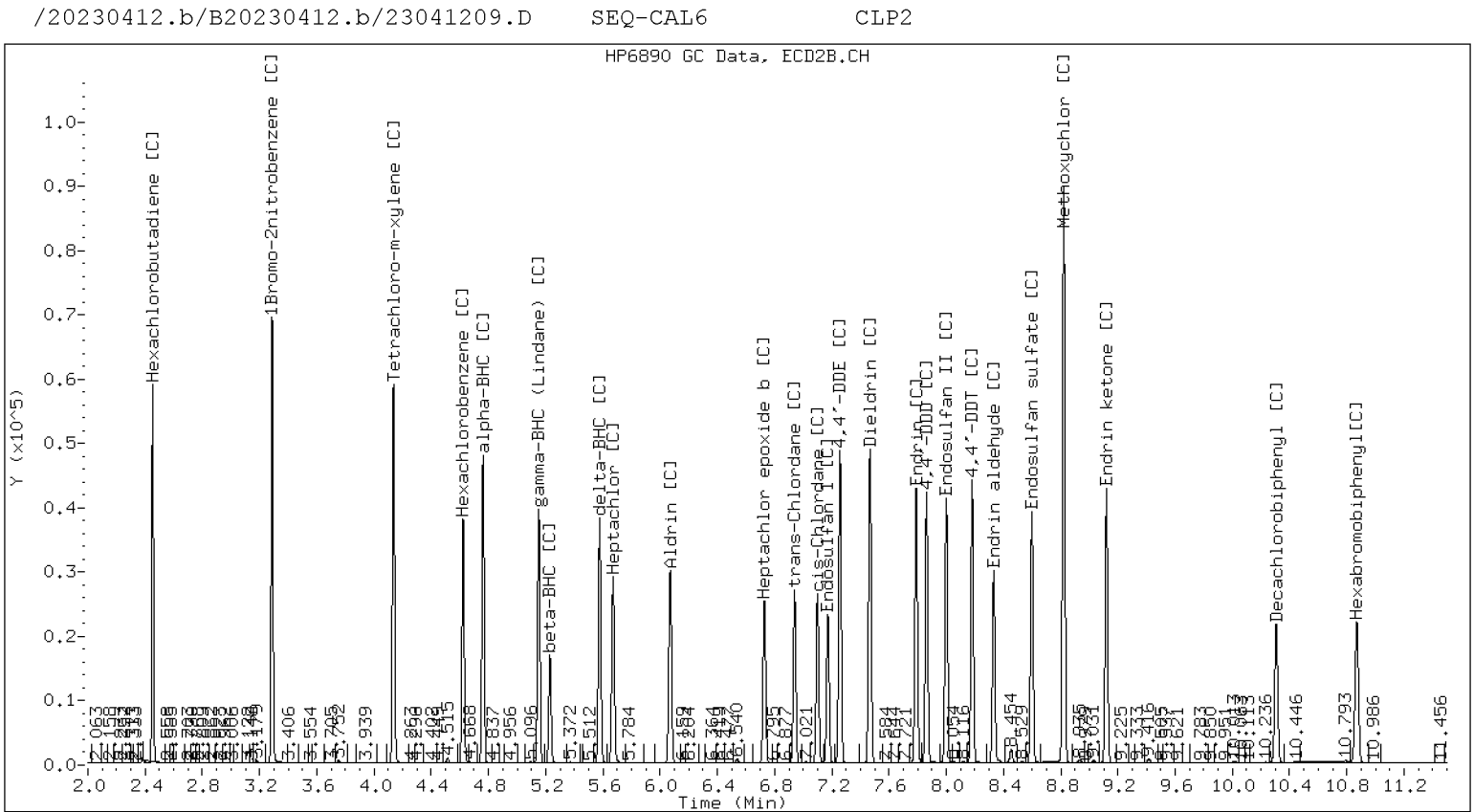
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041210.D
Data file 2: /20230412.b/B20230412.b/23041210.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 12-APR-2023 17:25
Report Date: 04/13/2023 12:57
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift	Response	RT	CLP2 Col Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.333	0.000	1504143	4.762	0.000	2036495	74.20	77.68	4.6	alpha-BHC M
4.717	-0.001	564613	5.230	-0.000	751802	69.75	72.20	3.5	beta-BHC M
4.901	-0.002	1348410	5.577	-0.000	1780227	73.47	76.29	3.8	delta-BHC M
4.637	-0.000	1305188	5.152	-0.000	1754548	73.27	76.13	3.8	gamma-BHC (Lindane) M
5.124	-0.001	1105791	5.671	-0.000	1423580	67.07	70.43	4.9	Heptachlor M
5.448	-0.000	1164527	6.071	-0.000	1511414	69.44	72.04	3.7	Aldrin M
6.125	-0.002	957195	6.729	-0.000	1234899	63.23	66.86	5.6	Heptachlor epoxide b M
6.567	-0.001	902920	7.172	0.000	1107682	66.91	70.39	5.1	Endosulfan I M
6.828	-0.000	1891941	7.466	0.000	2384054	132.48	138.22	4.2	Dieldrin M
6.489	-0.001	1824093	7.257	0.000	2245750	135.47	136.78	1.0	4,4'-DDE M
7.078	-0.001	1667189	7.790	0.000	2038096	130.71	135.54	3.6	Endrin M
7.314	-0.001	1548044	8.001	-0.000	1990565	129.61	140.13	7.8	Endosulfan II M
7.136	-0.002	1549529	7.862	0.000	1970951	135.35	143.39	5.8	4,4'-DDD M
8.177	-0.001	1486482	8.598	-0.000	1840819	132.01	140.73	6.4	Endosulfan sulfate M
7.431	-0.001	1683975	8.181	-0.000	2003848	136.58	144.49	5.6	4,4'-DDT M
7.920	-0.000	3475120	8.822	-0.000	4197295	657.88	705.85	7.0	Methoxychlor M
8.452	-0.001	1668350	9.119	0.000	1981664	129.84	138.74	6.6	Endrin ketone M
7.743	-0.001	1195780	8.331	0.000	1420645	131.18	138.32	5.3	Endrin aldehyde M
6.266	-0.001	1056187	6.939	0.000	1305882	71.31	73.74	3.4	trans-Chlordane M
6.413	-0.001	1043284	7.100	-0.000	1272519	70.16	72.97	3.9	cis-Chlordane M
2.309	0.001	1437797	2.453	0.000	1654665	68.77	69.52	1.1	Hexachlorobutadiene
4.175	-0.001	1223325	4.622	0.000	1599265	68.19	69.86	2.4	Hexachlorobenzene M
3.819	0.000	1715340	4.136	0.000	2273933	132.23	133.82	1.2	Tetrachloro-m-xylene M
9.366	-0.000	1089026	10.306	-0.000	1229420	125.10	136.33	8.6	Decachlorobiphenyl M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

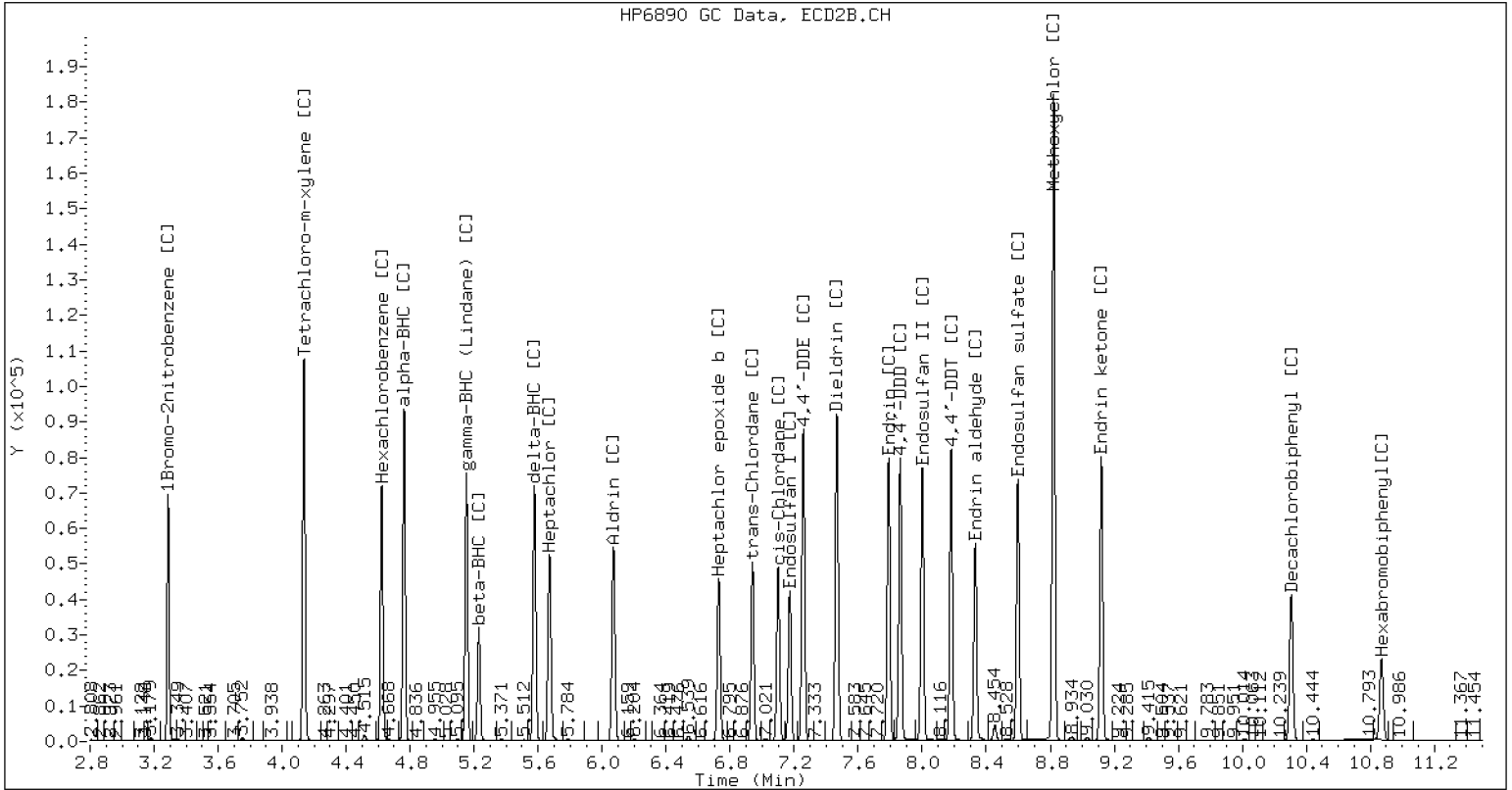
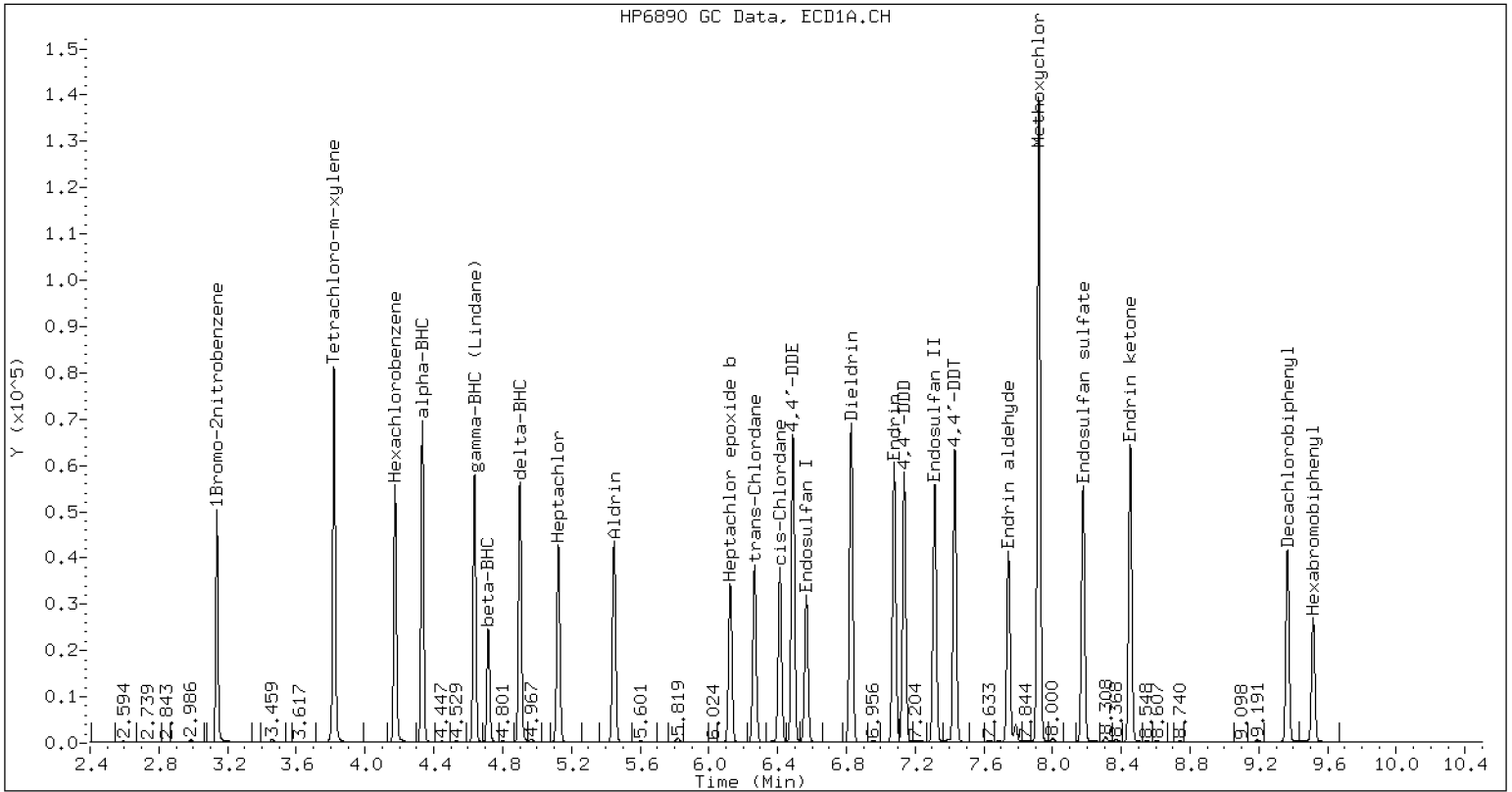
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	927085	7.3
Hexabromobiphenyl	663237	738060	11.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1235730	-16.6
Hexabromobiphenyl	870561	747107	-14.2

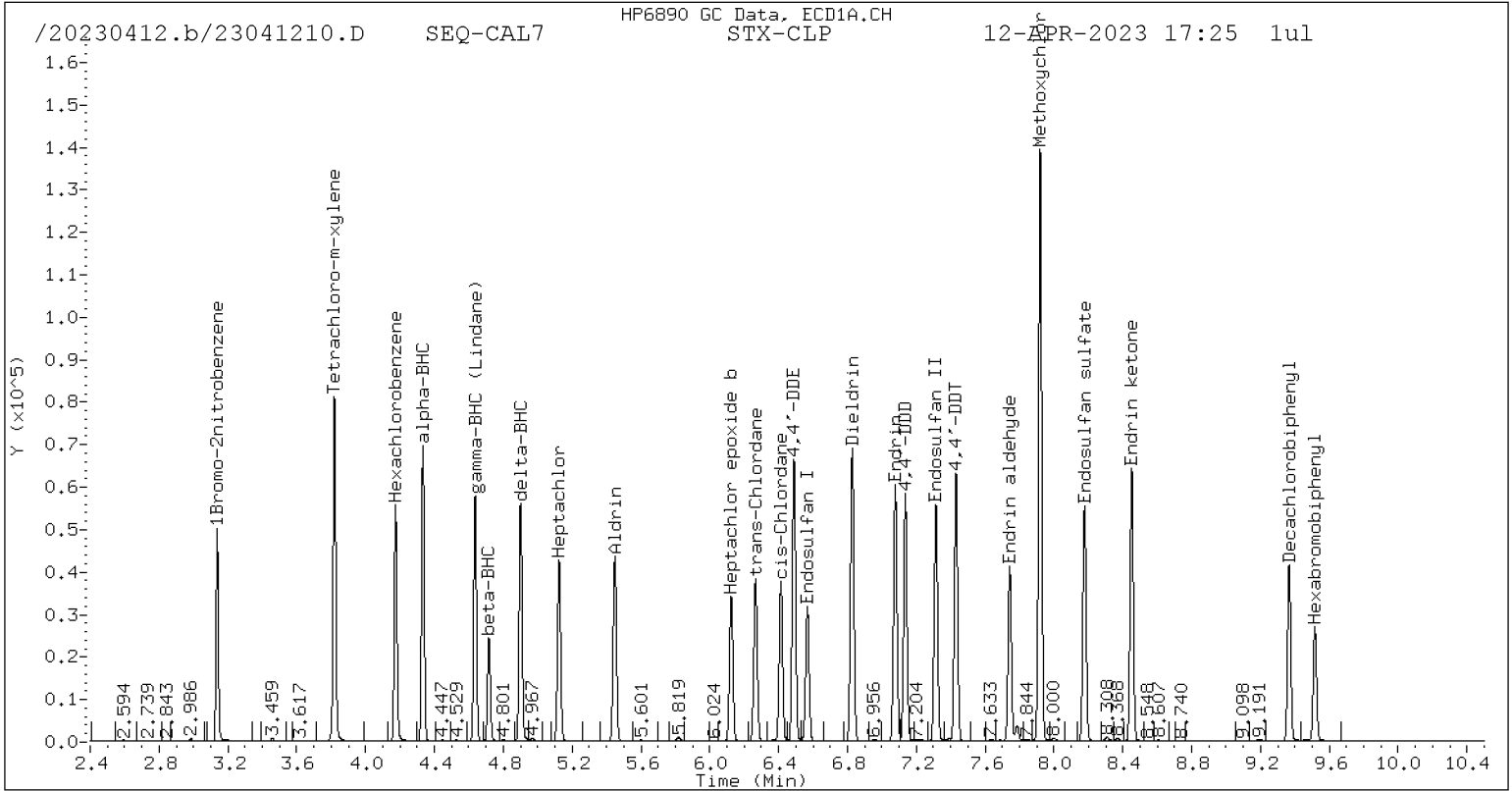
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

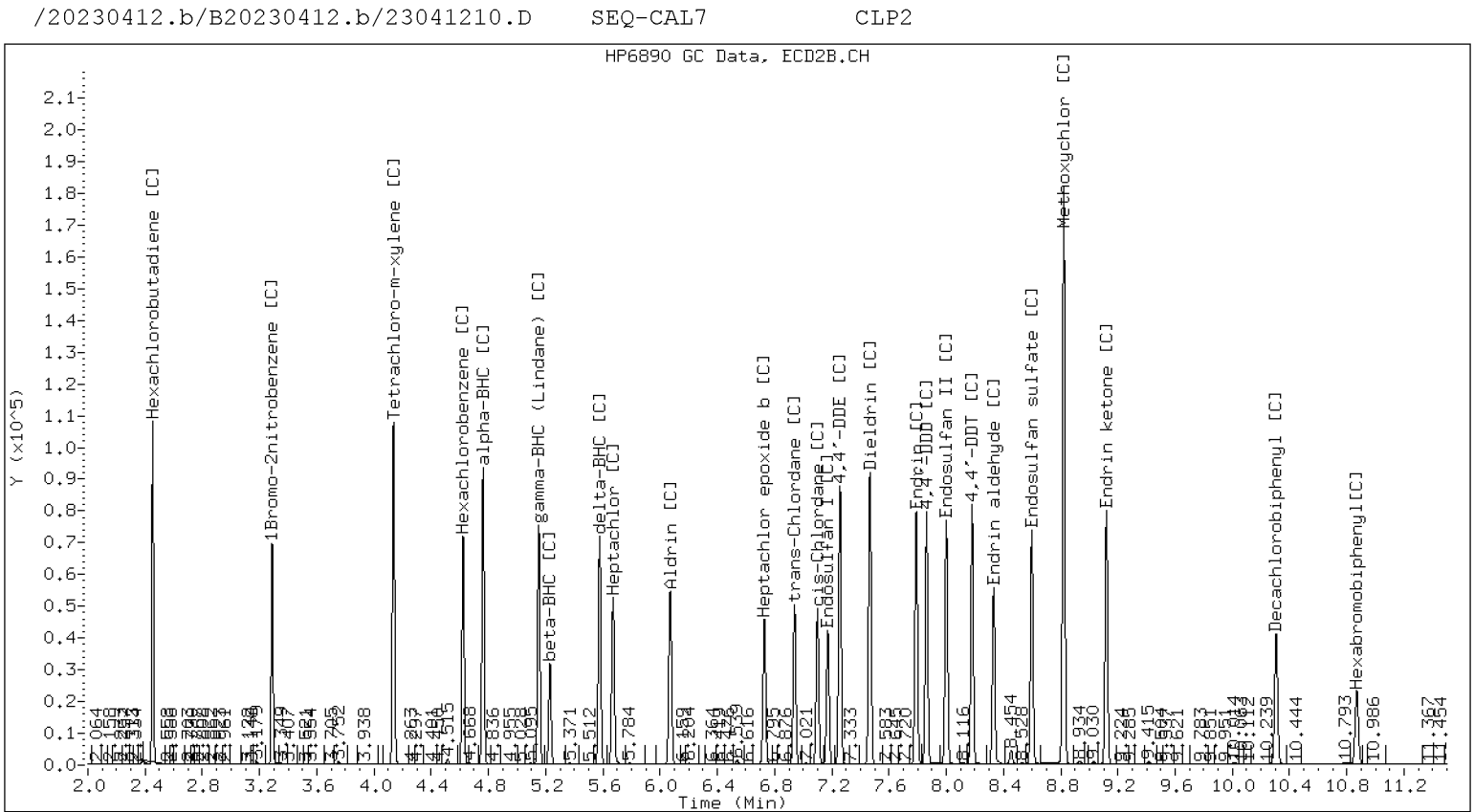
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



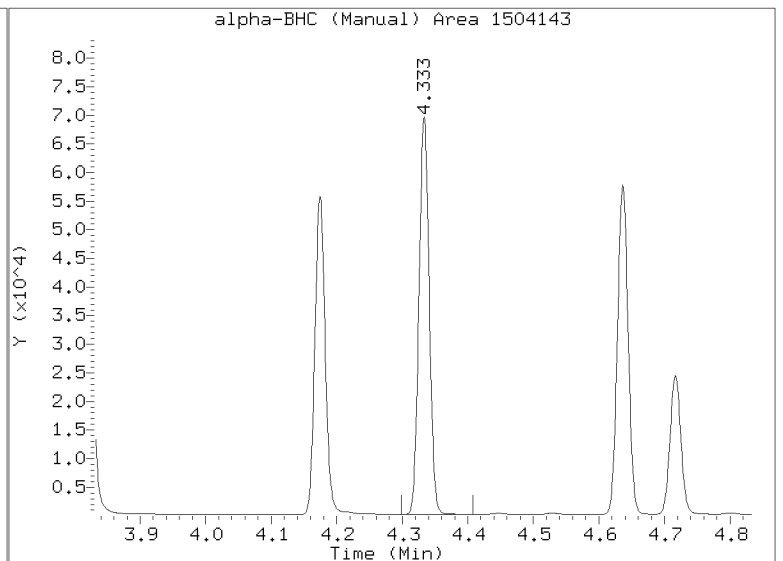
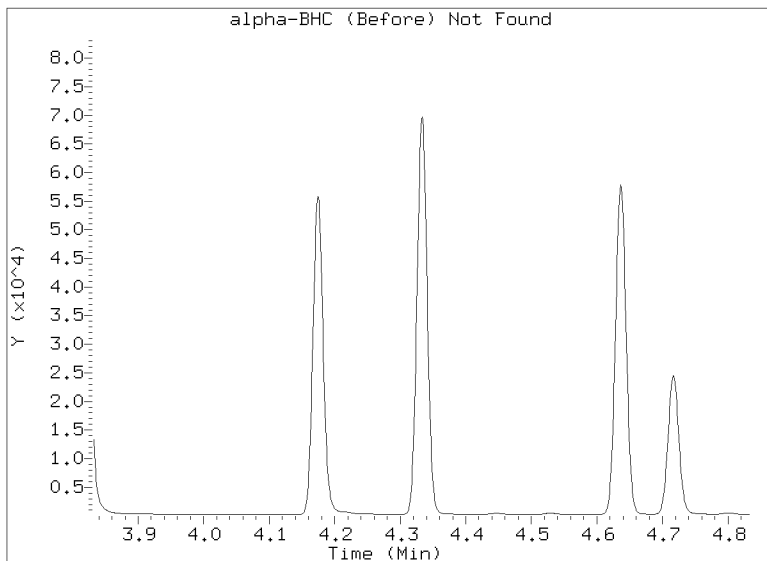
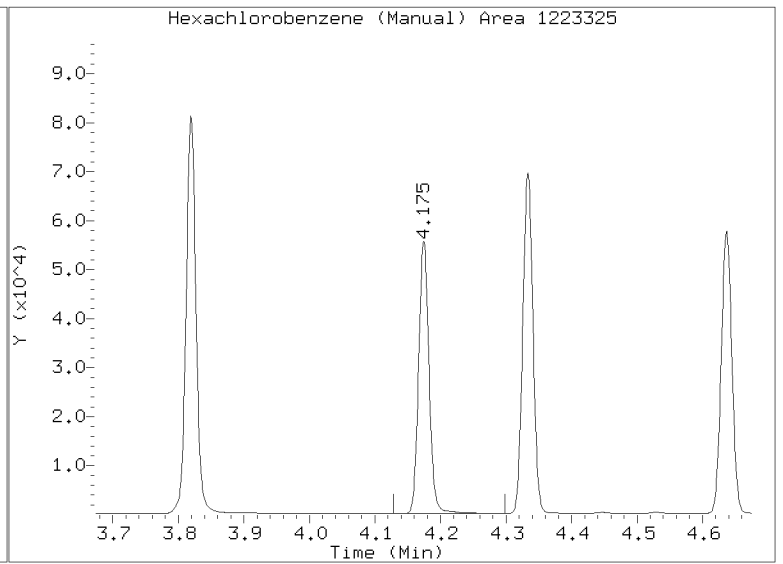
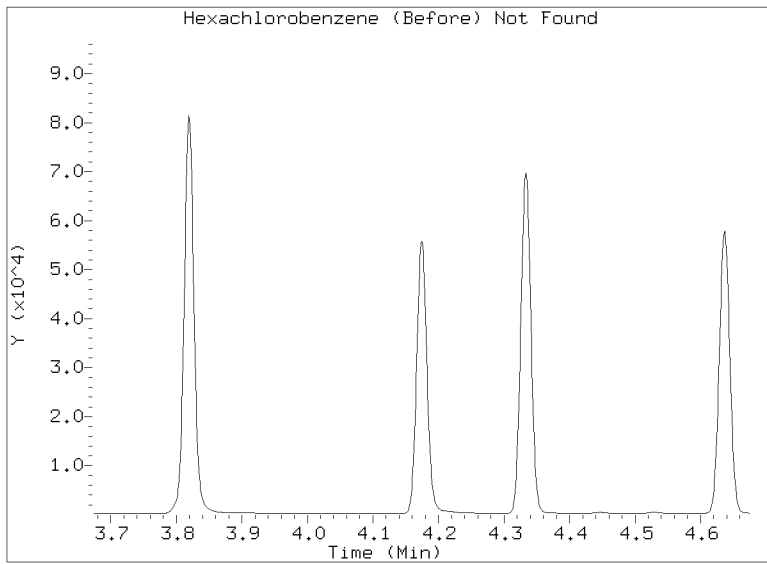
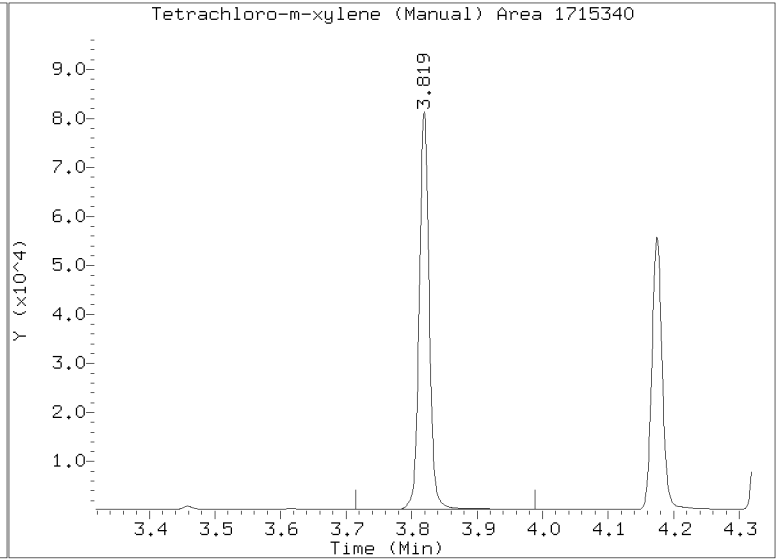
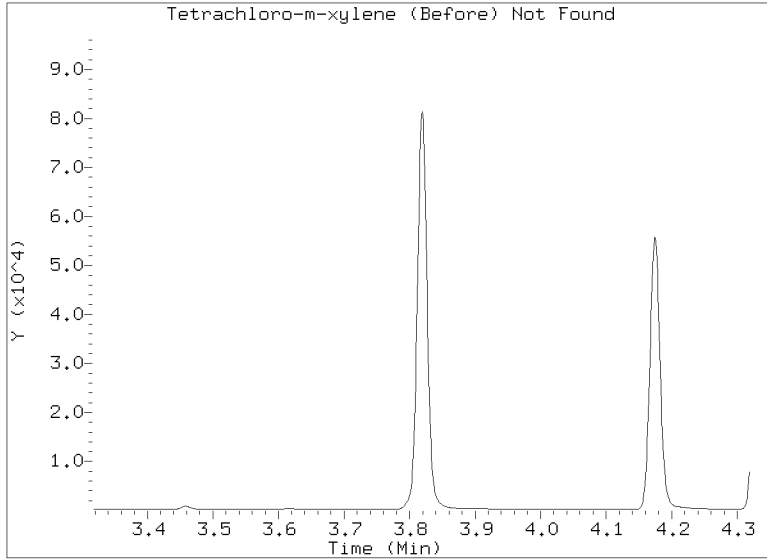
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: YES

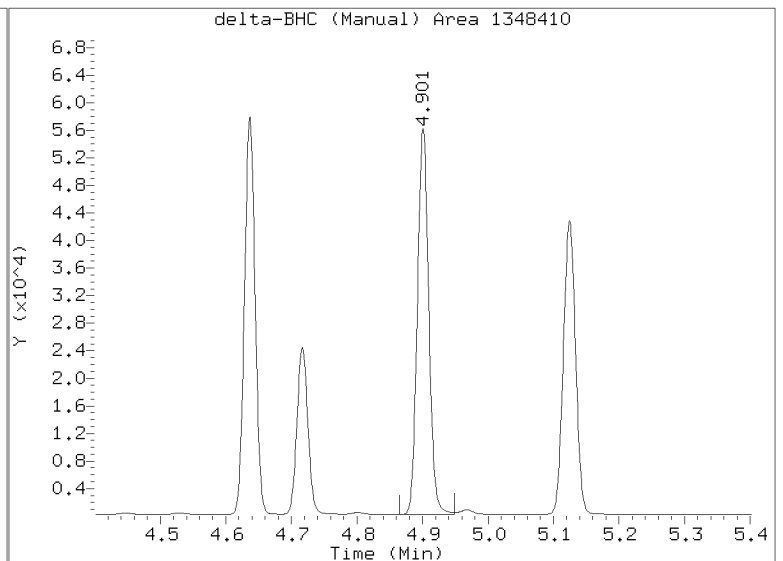
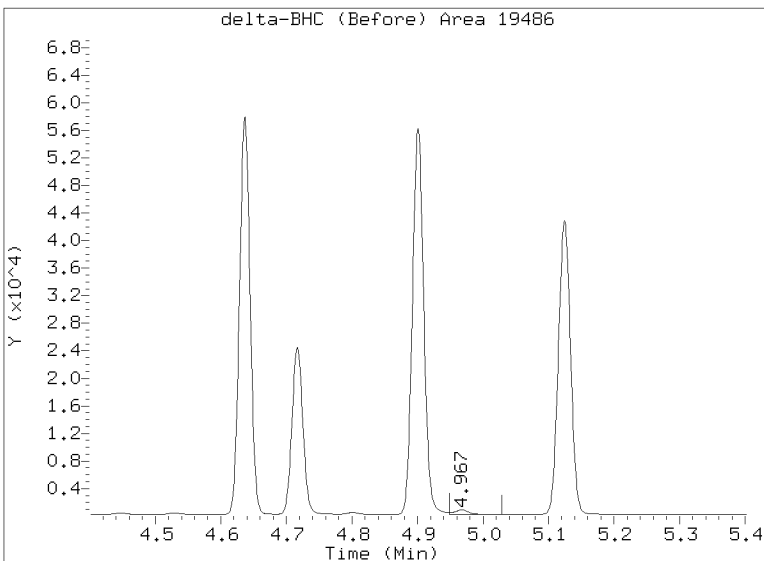
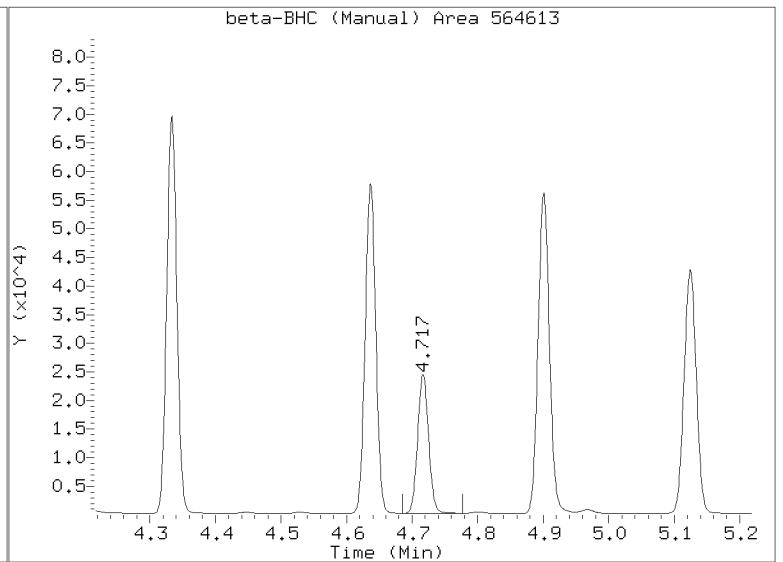
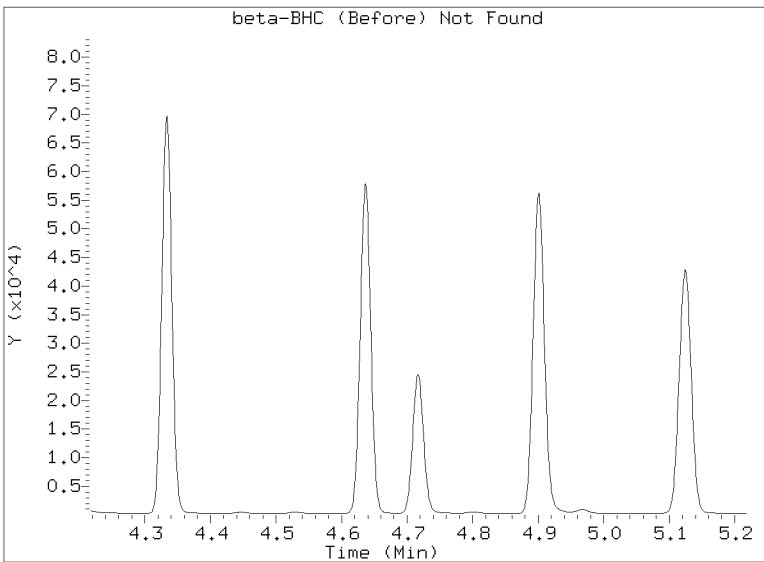
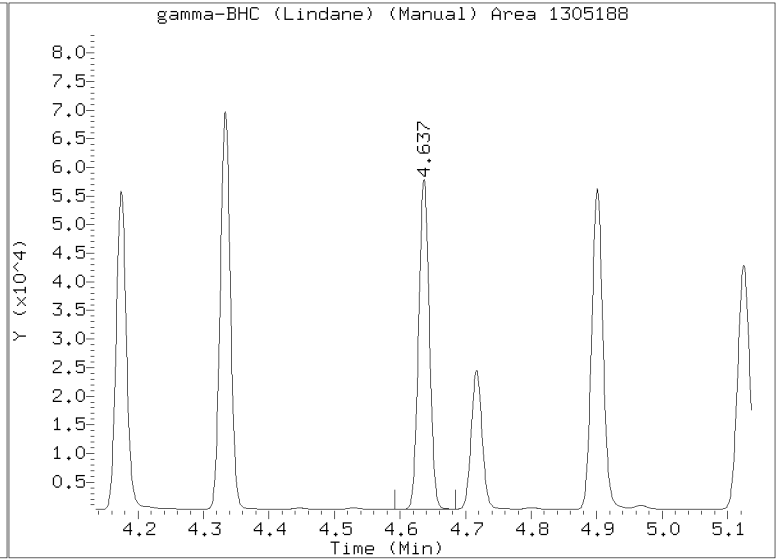
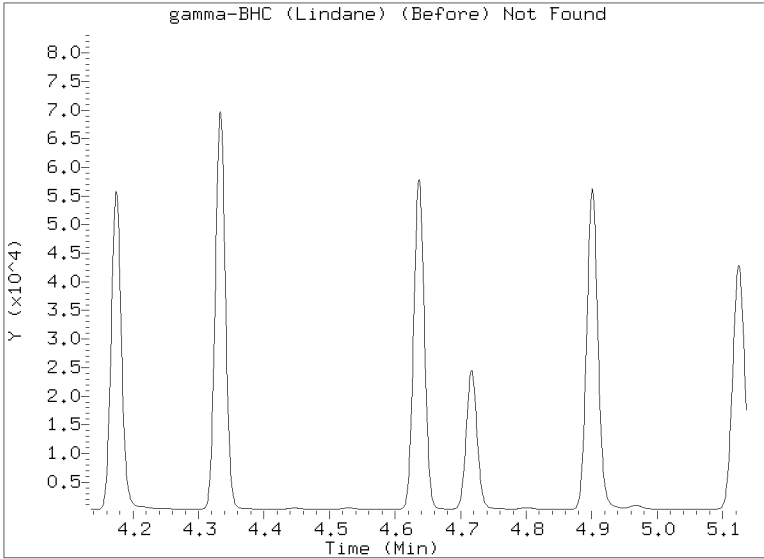
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



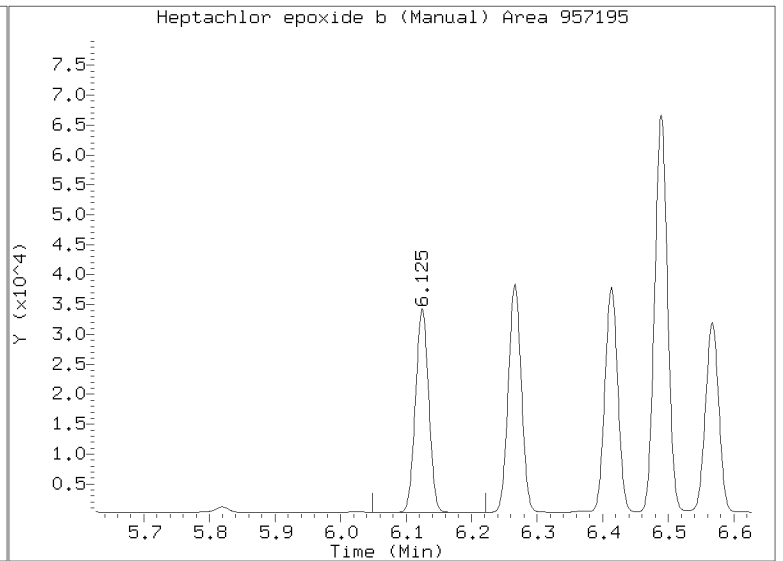
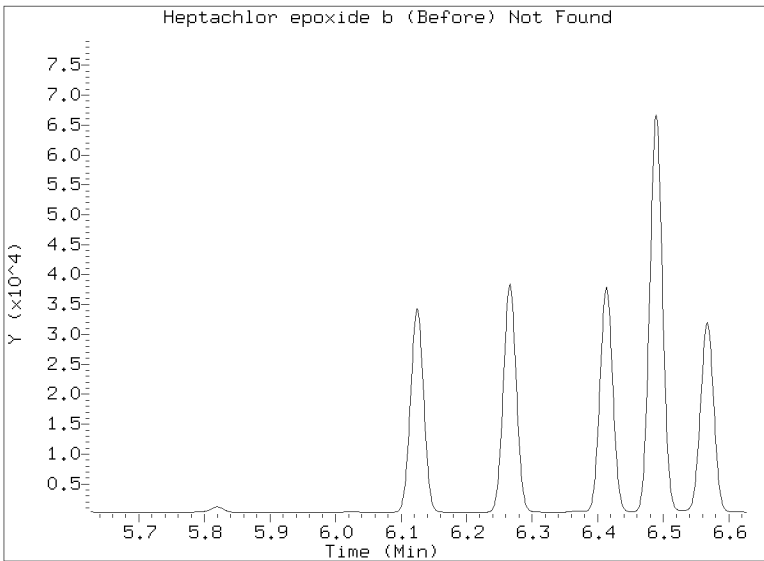
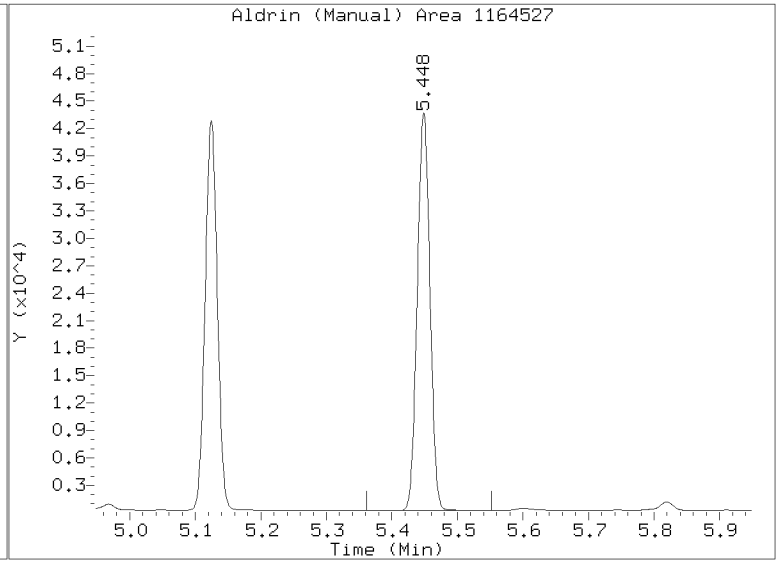
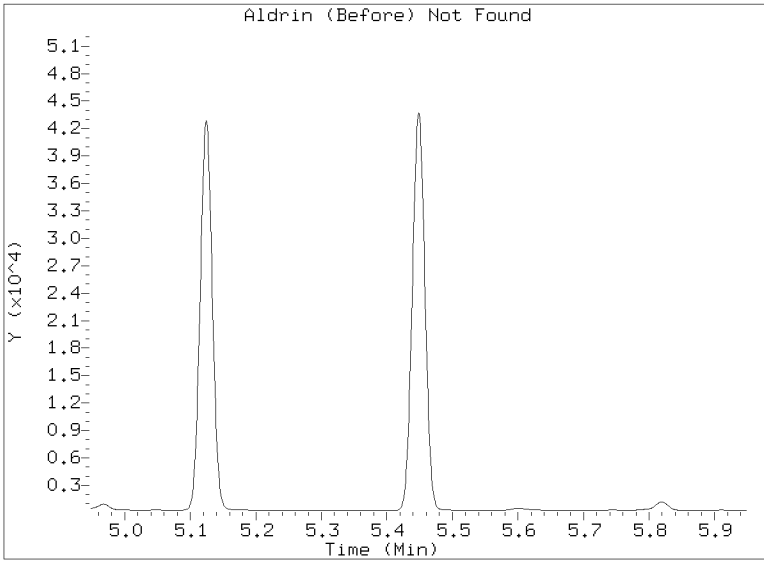
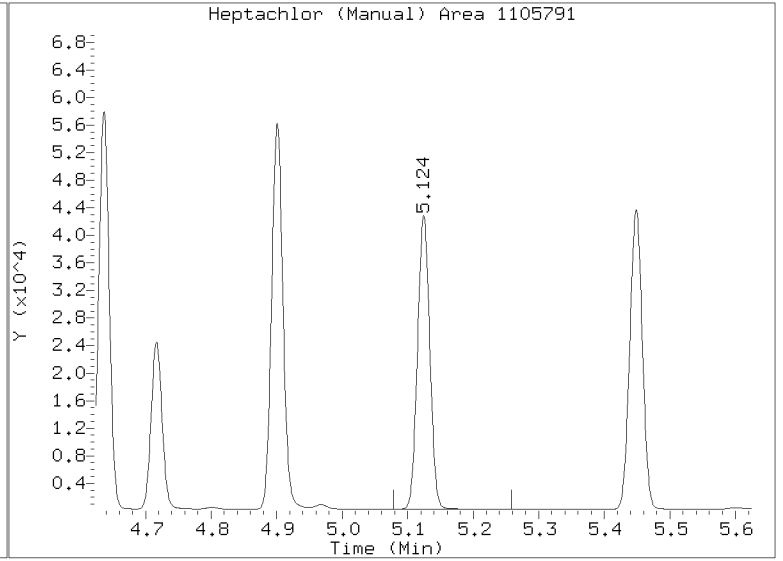
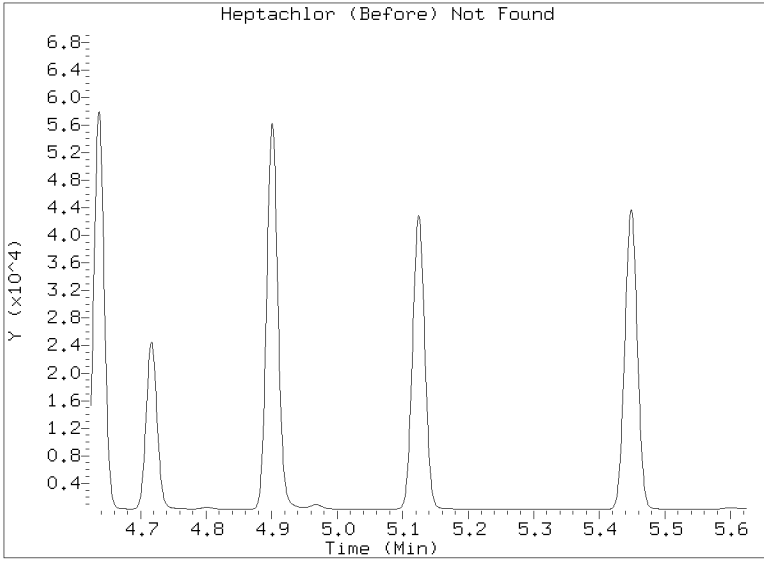
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



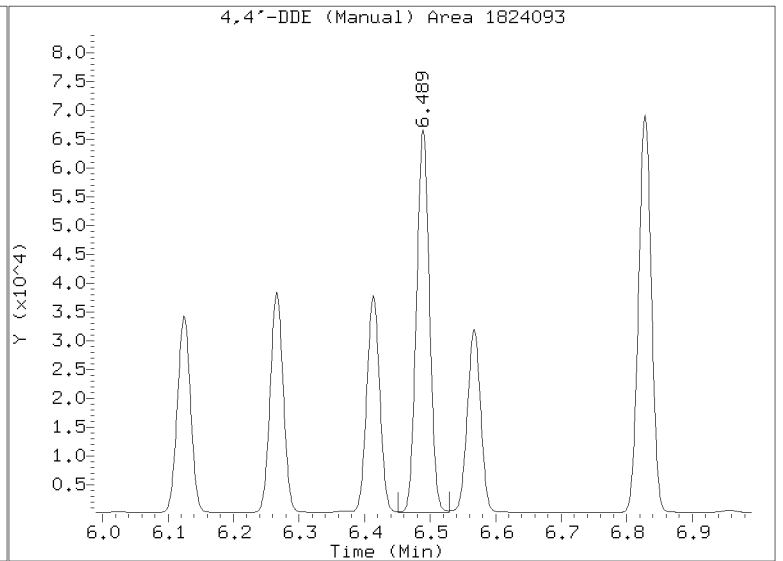
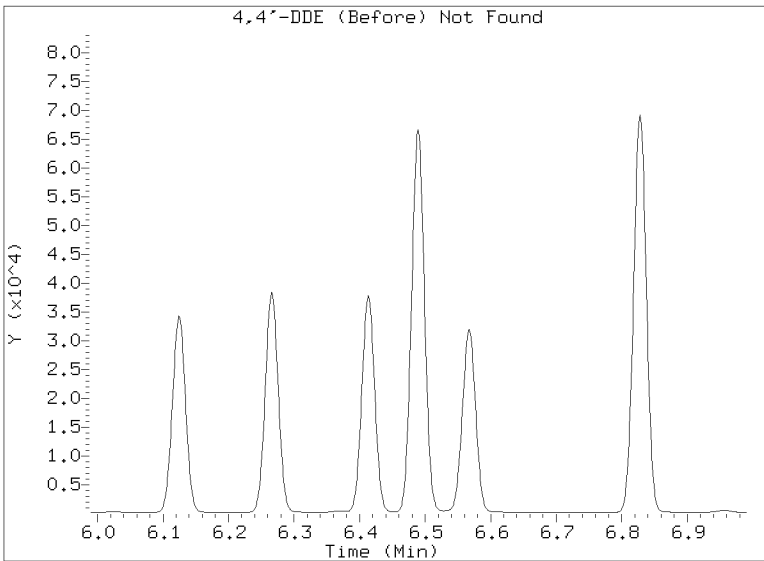
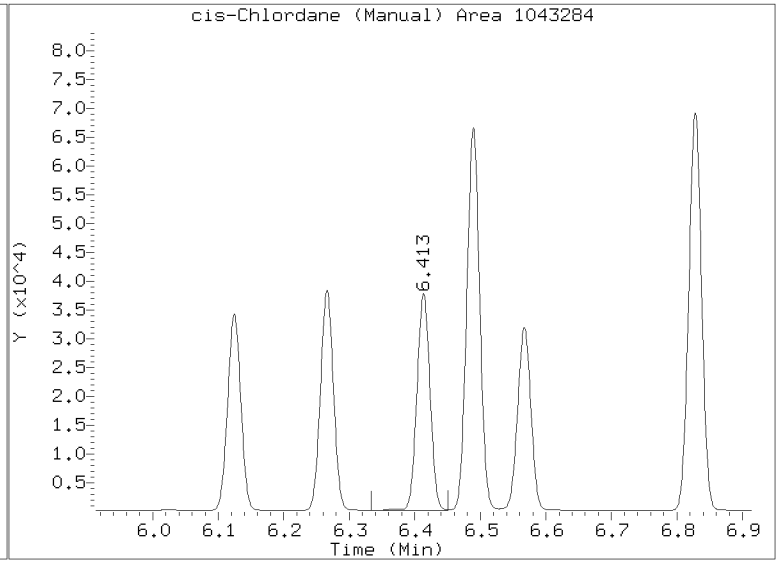
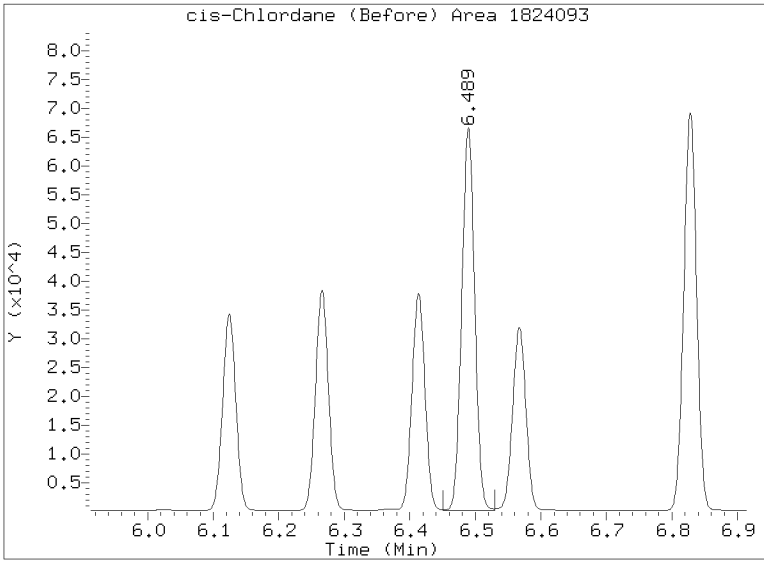
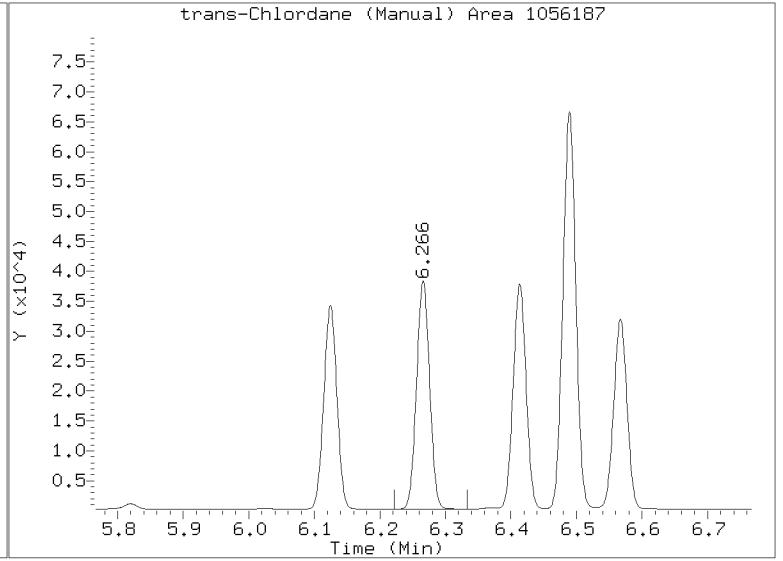
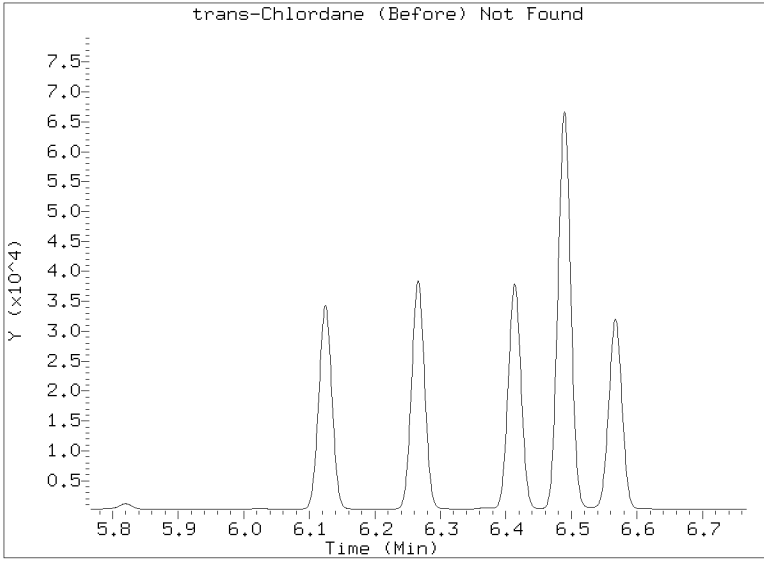
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



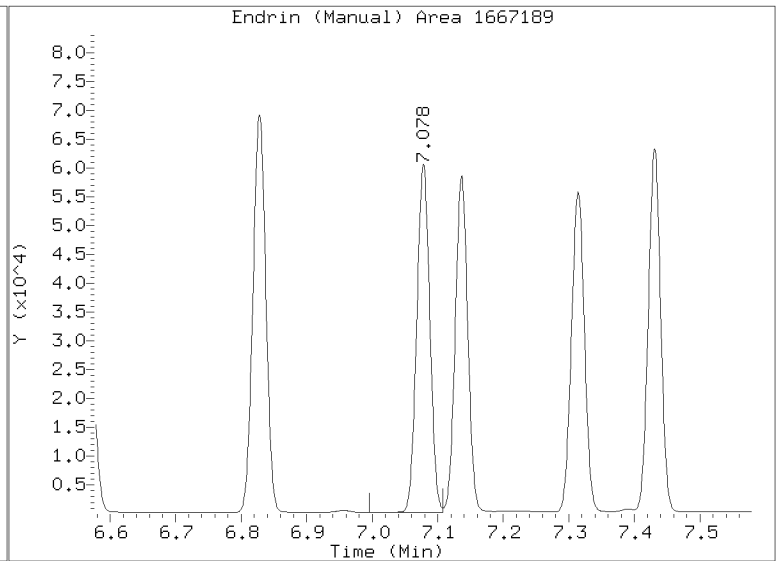
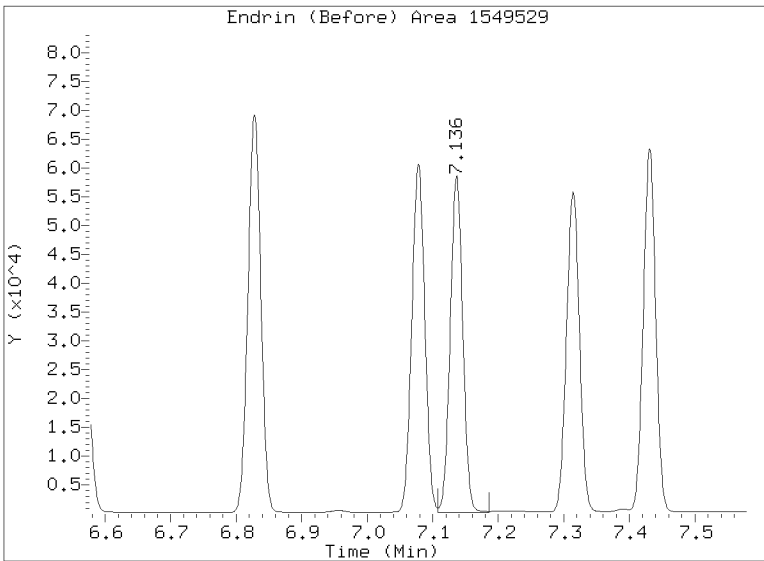
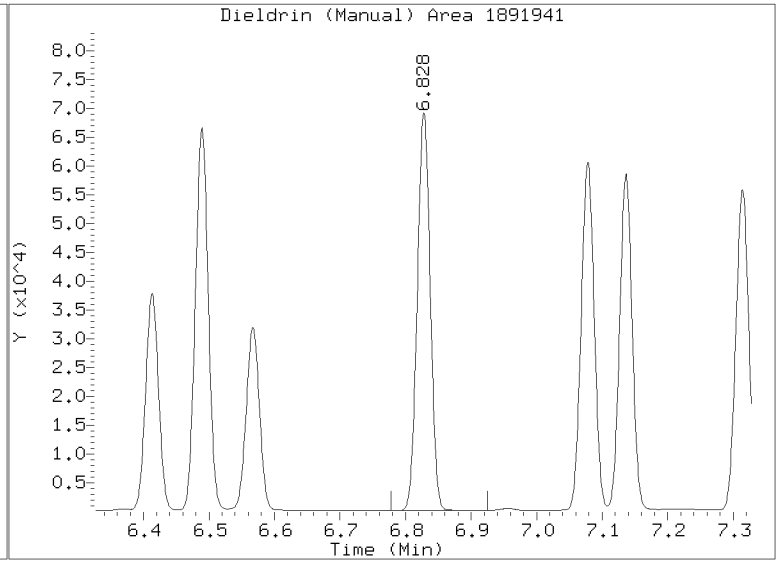
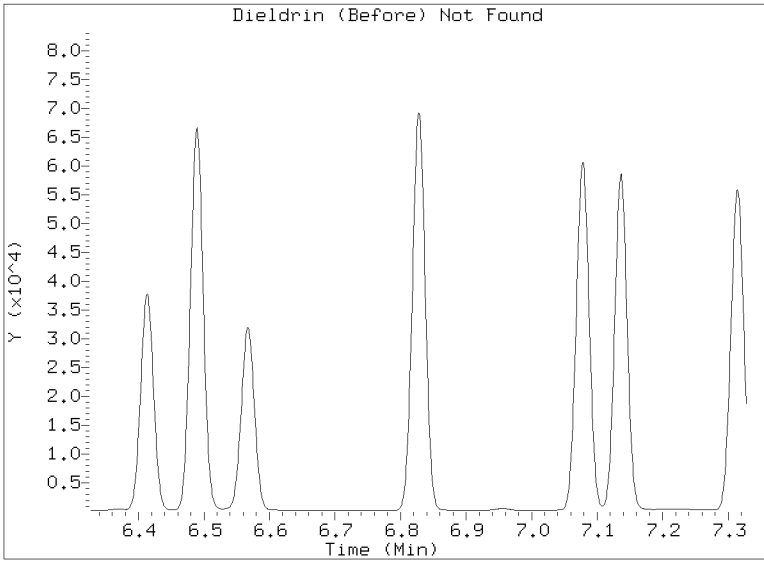
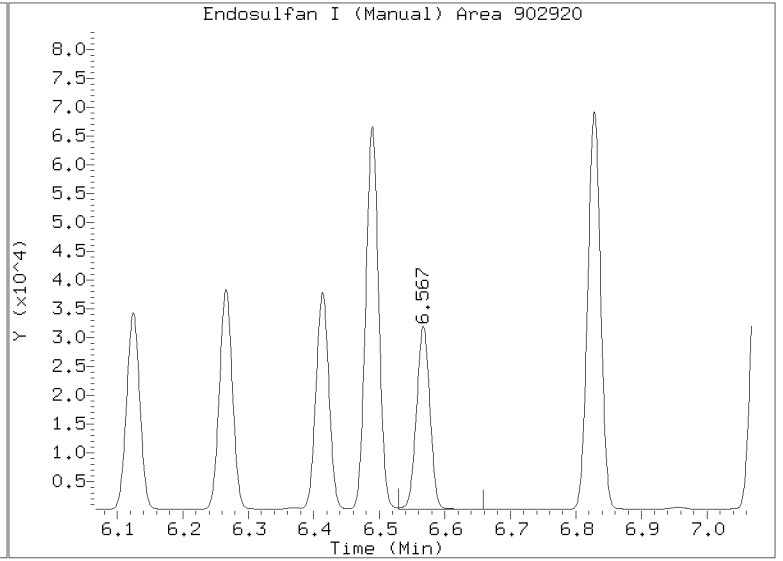
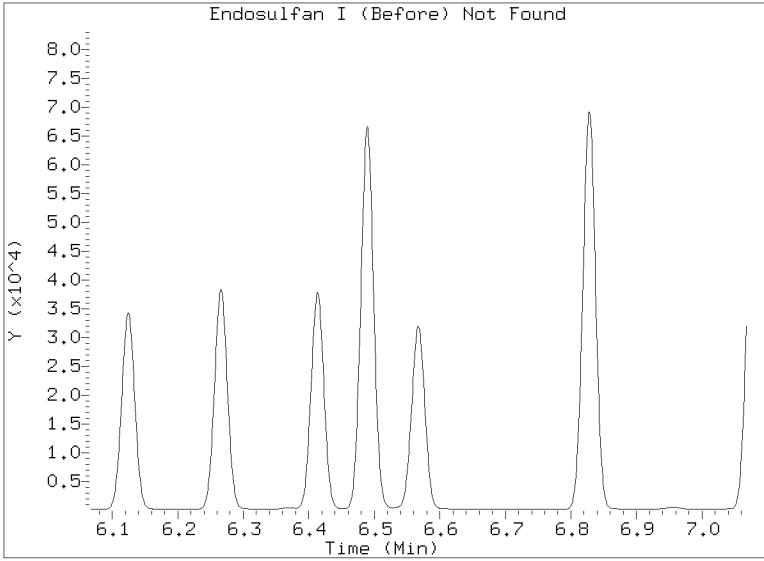
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



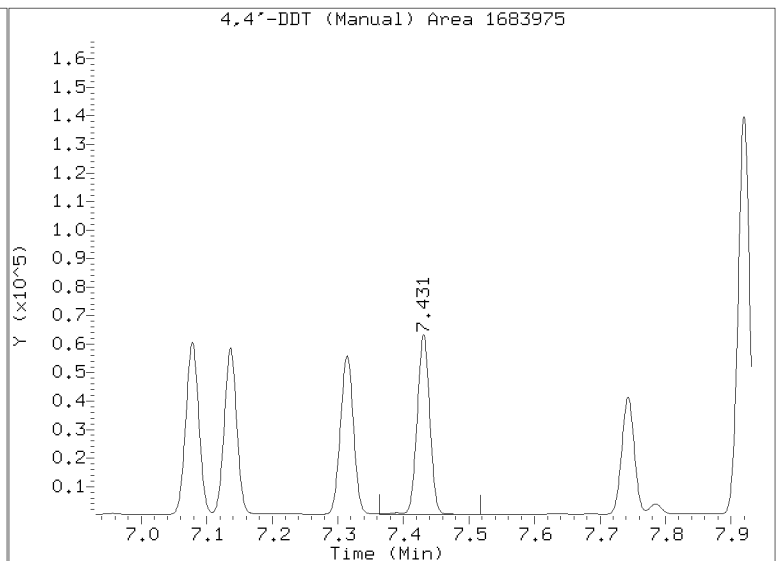
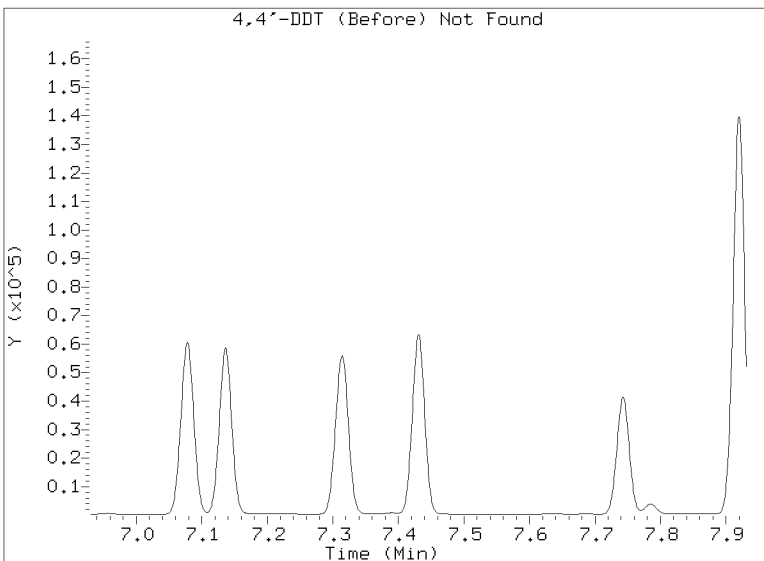
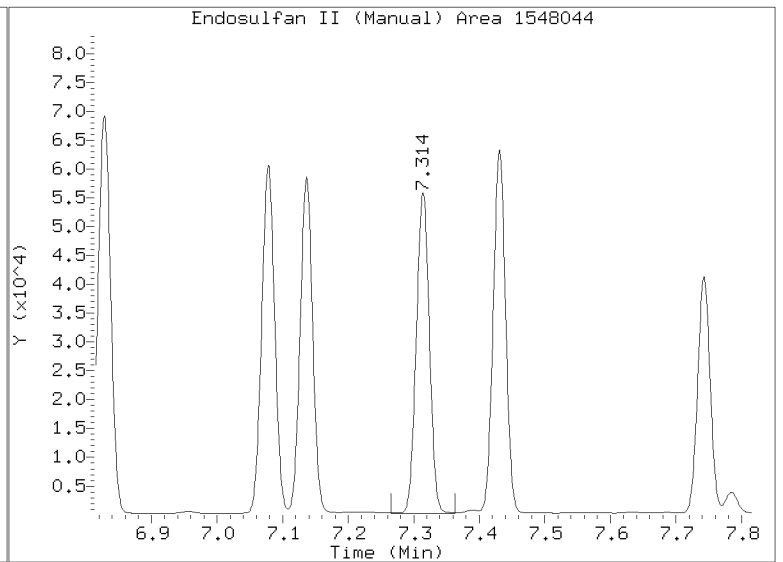
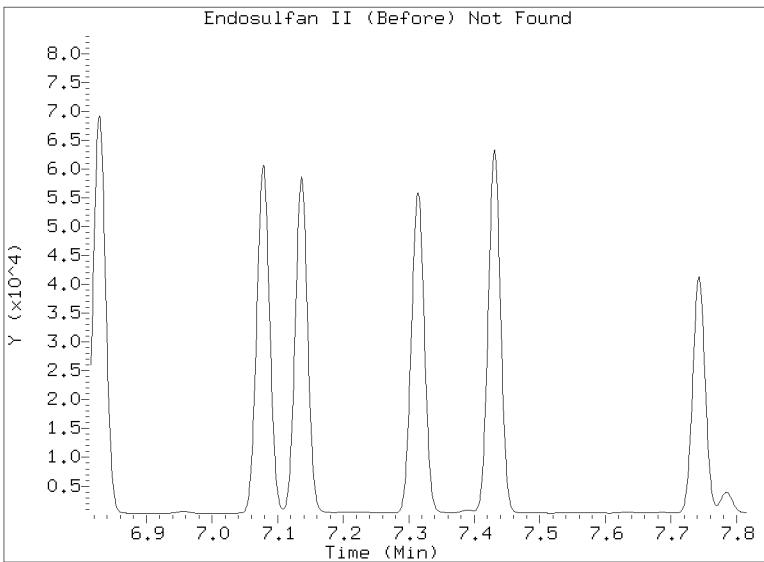
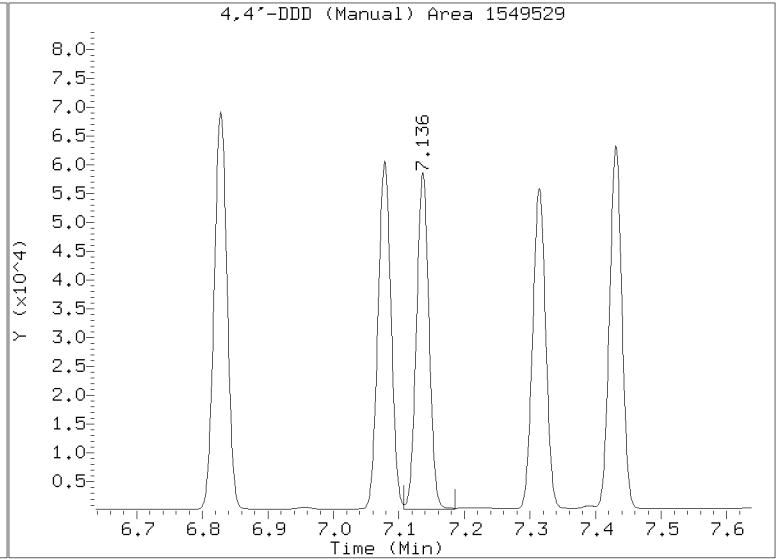
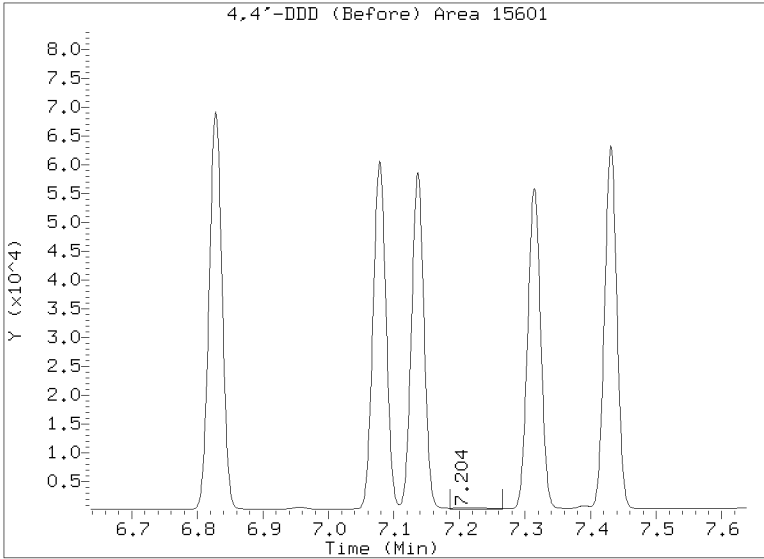
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



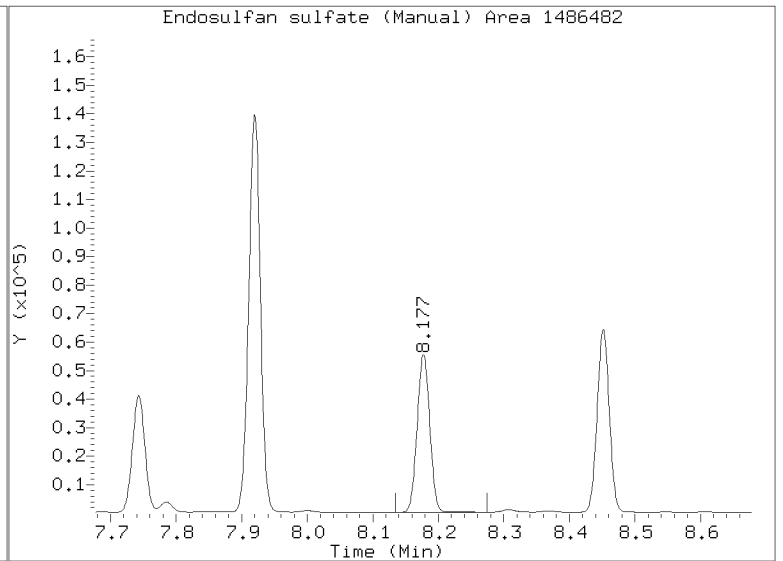
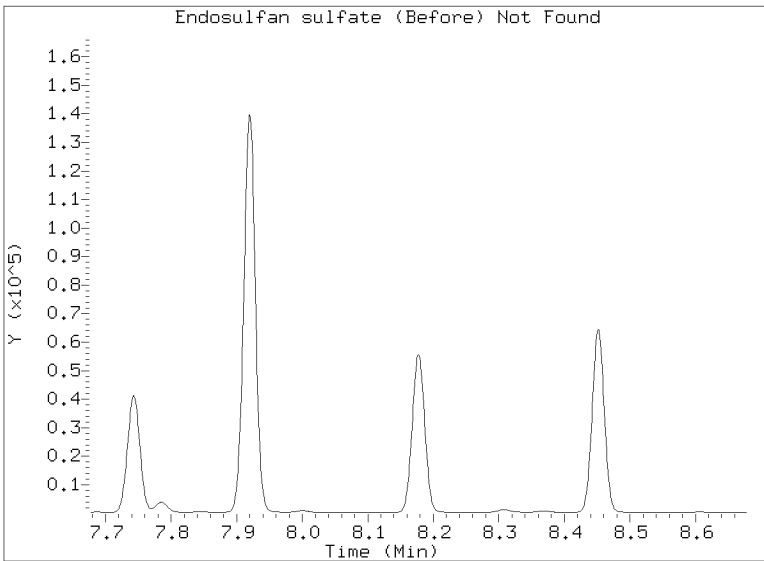
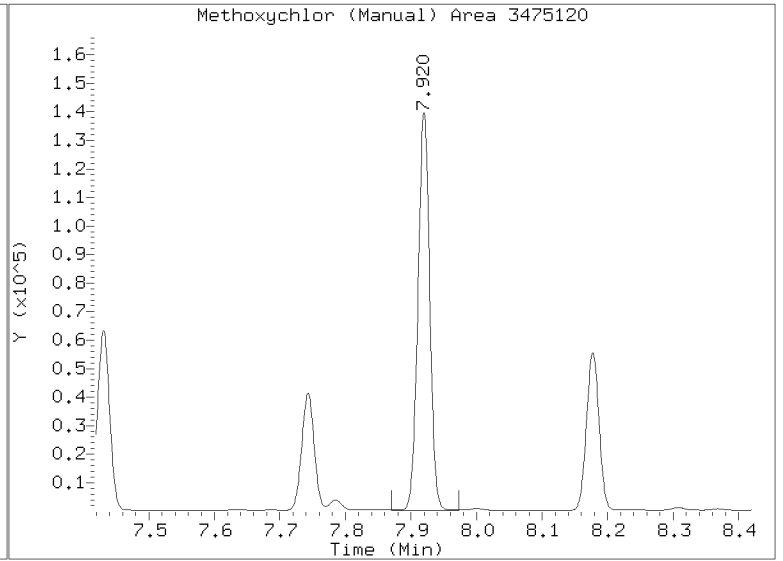
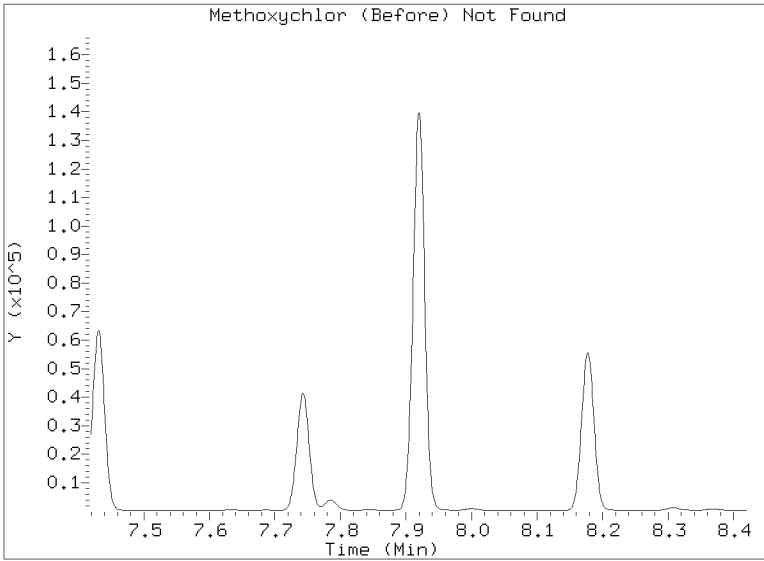
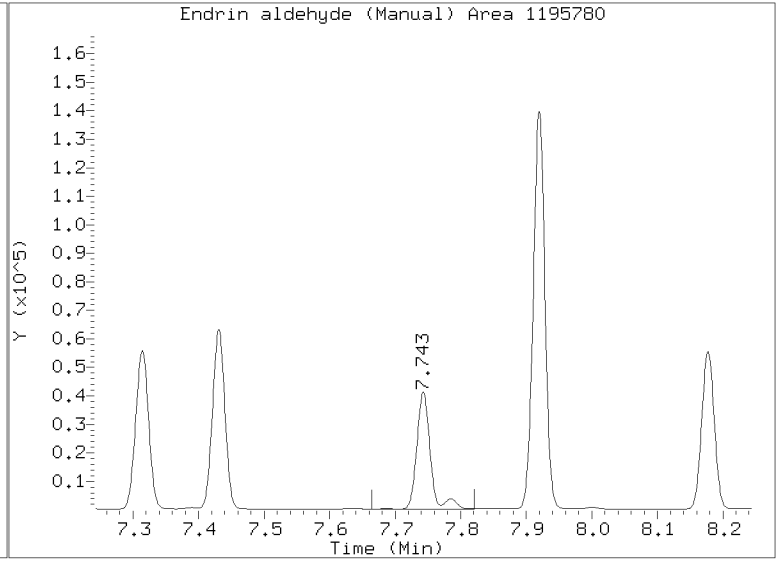
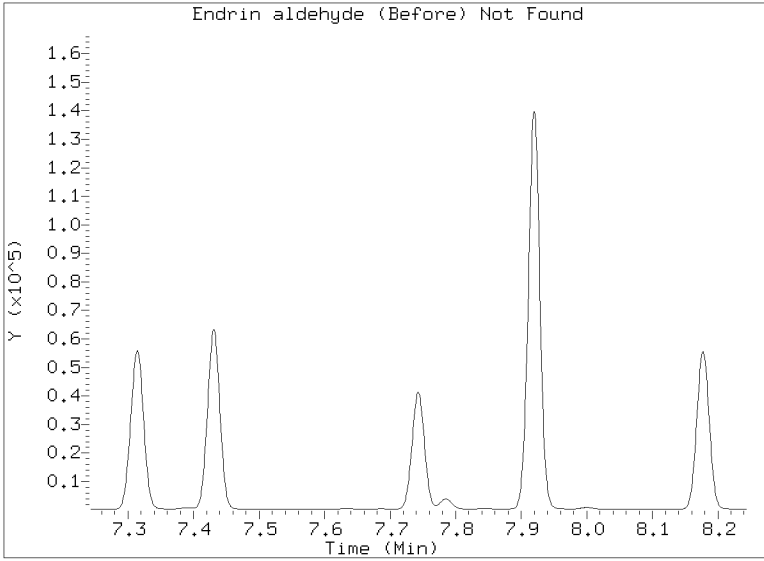
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



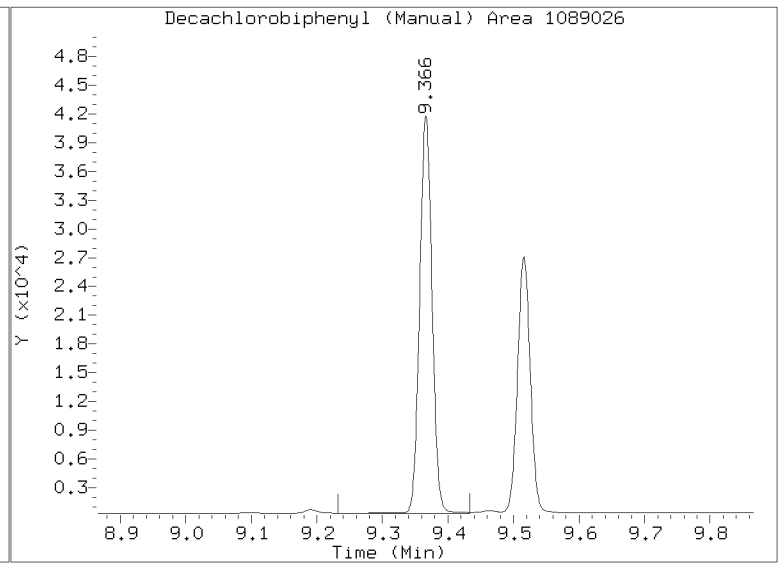
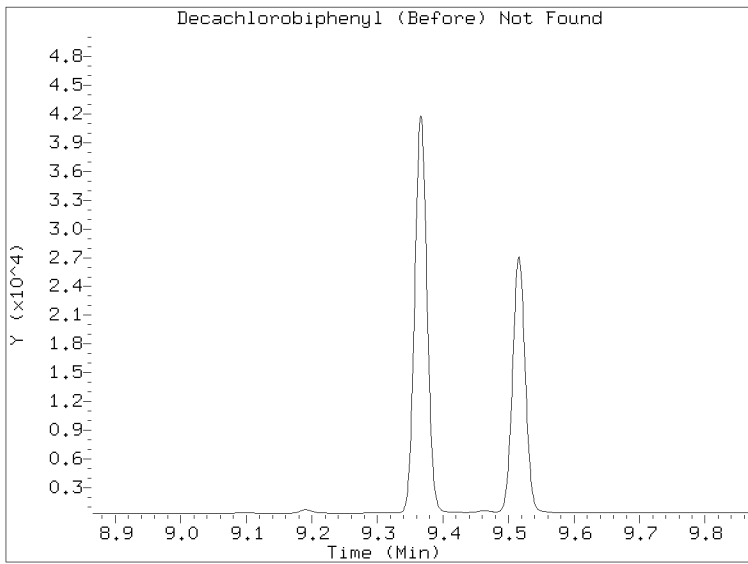
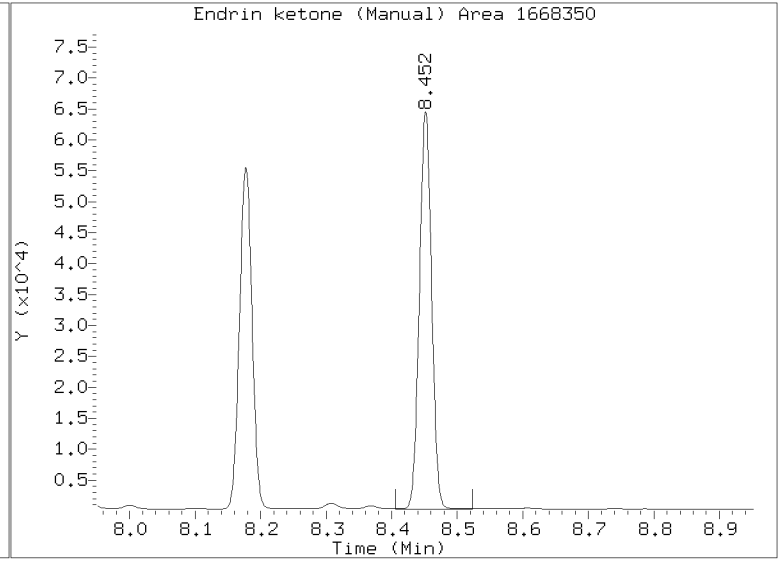
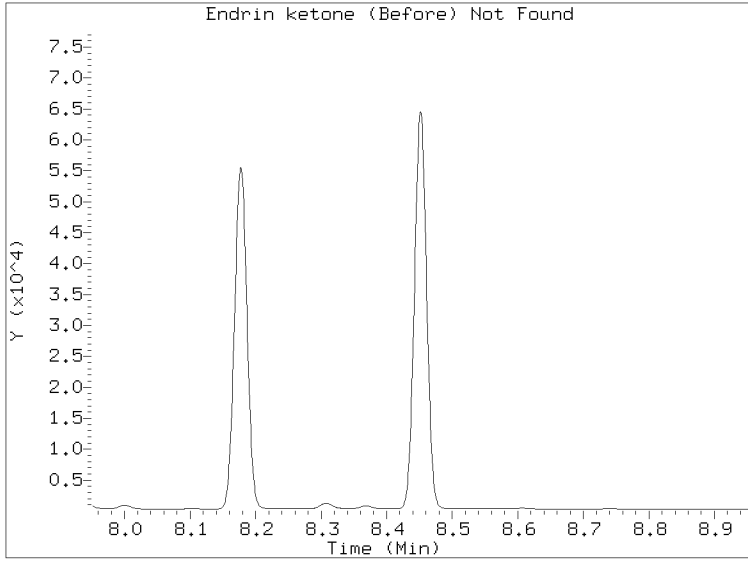
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



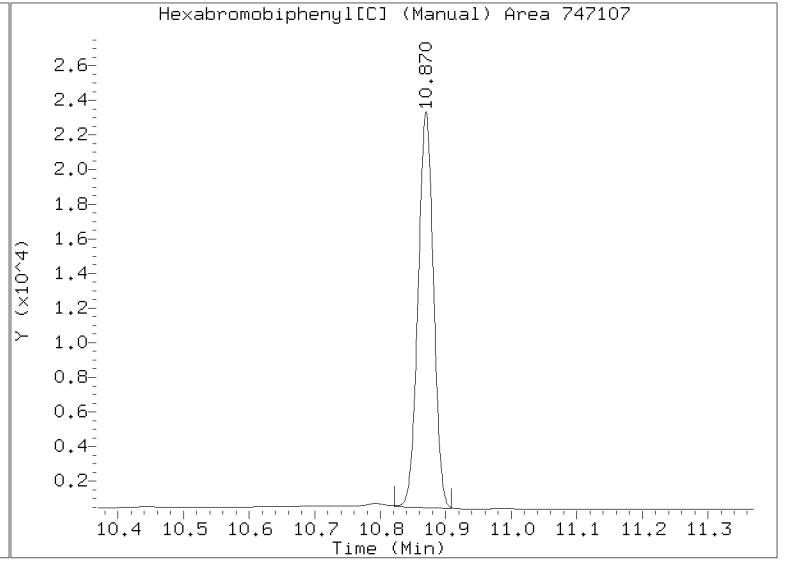
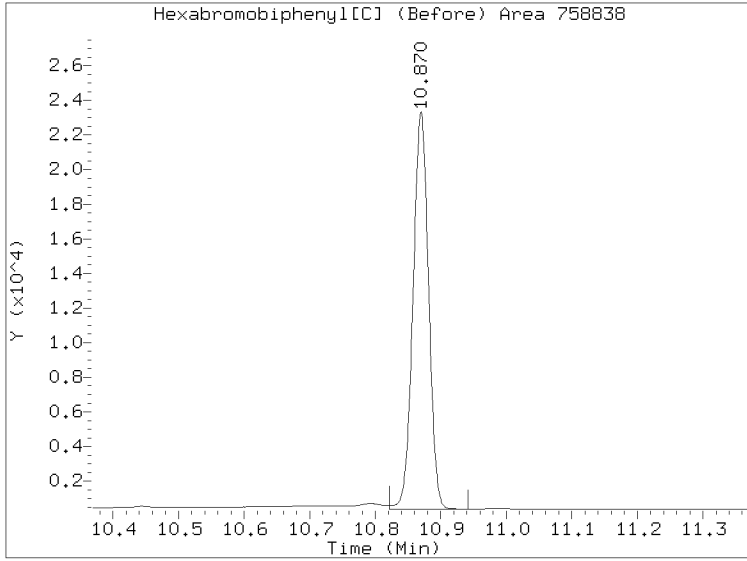
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:
Report Date: 04/13/2023 12:57



Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041210.D
Injection Date: 12-APR-2023 17:25
Lab ID:SEQ-CAL7 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041211.D
 Data file 2: /20230412.b/B20230412.b/23041211.D
 Method: \20230412.b\PEST.m
 Compound Sublist: WND.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CAL8
 Client ID:
 Injection Date: 12-APR-2023 17:43
 Report Date: 04/14/2023 09:40
 Units: ng/mL
 Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 32738	6.624 -0.000 38532	6.624	2.95	2.72	8.2	Oxychlorthane
6.106	0.001 23612	6.922 0.001 29356	6.922	2.94	2.84	3.6	2,4-DDE
6.396	0.001 37432	7.039 -0.000 43568	7.039	2.87	2.75	4.3	trans-Nonachlor
6.682	0.001 21548	7.477 -0.000 26589	7.477	2.87	2.82	2.0	2,4-DDD
6.959	0.001 26208	7.799 -0.000 30271	7.799	2.90	2.81	3.2	2,4-DDT
7.112	0.001 38299	7.859 -0.000 44124	7.859	2.81	2.69	4.4	cis-Nonachlor
8.086	0.001 25731	9.101 0.000 26963	9.101	3.06	2.85	7.3	Mirex N
----		----		0.00	0.00	---	Tetrachloro-m-xylene
----		----		0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

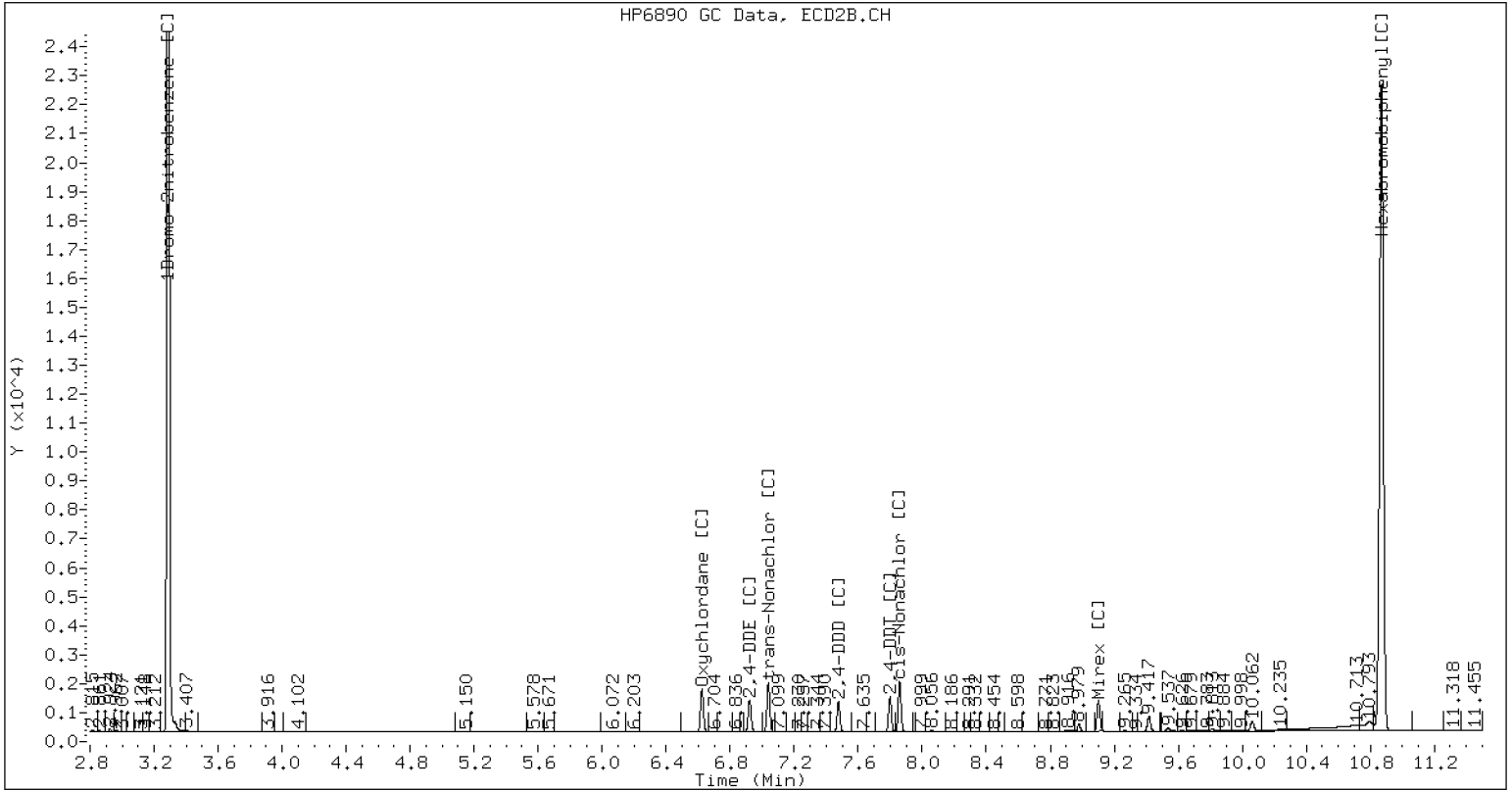
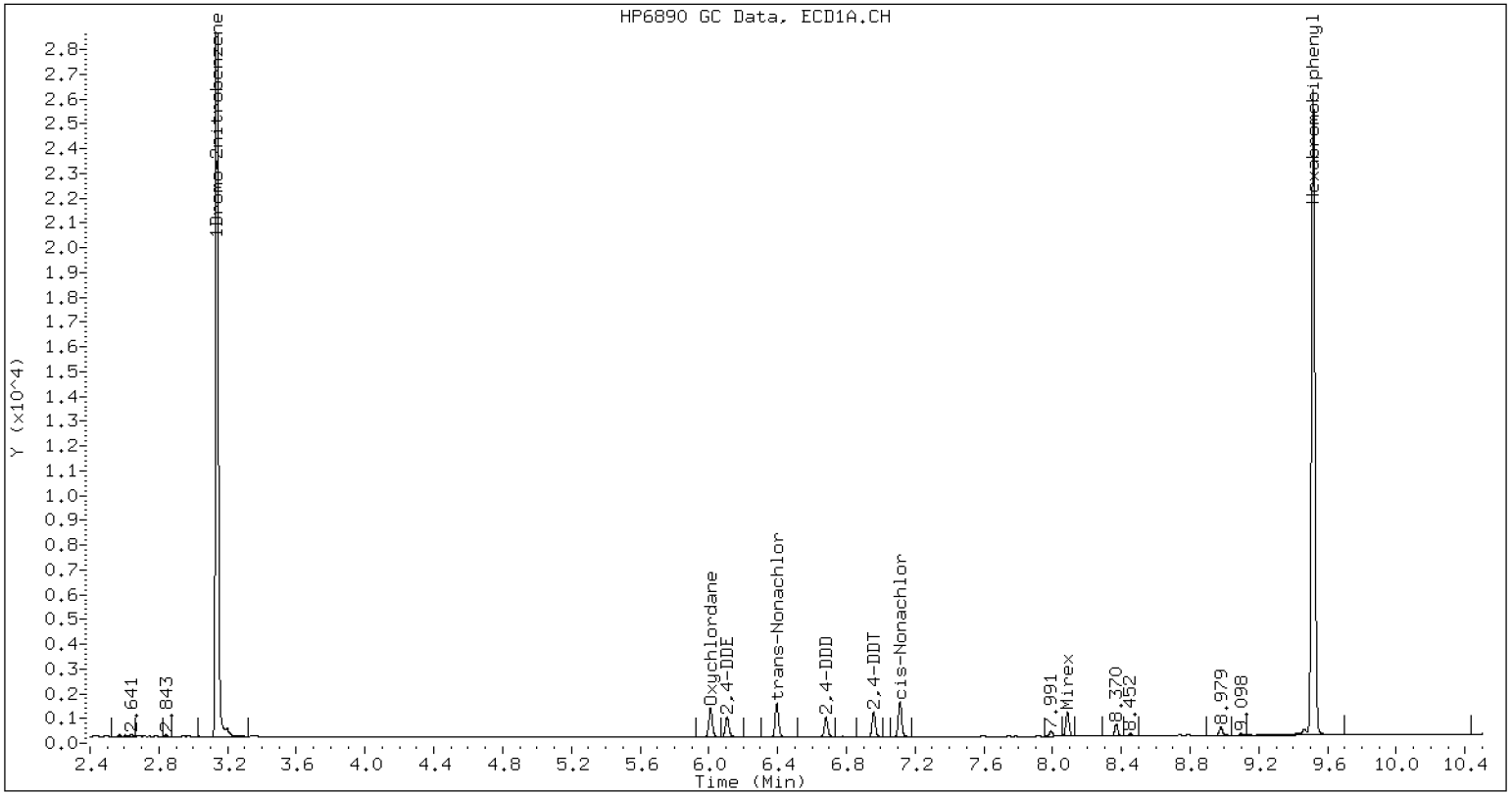
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	913523	5.7
Hexabromobiphenyl	663237	737594	11.2

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1238562	-16.4
Hexabromobiphenyl	870561	753386	-13.5

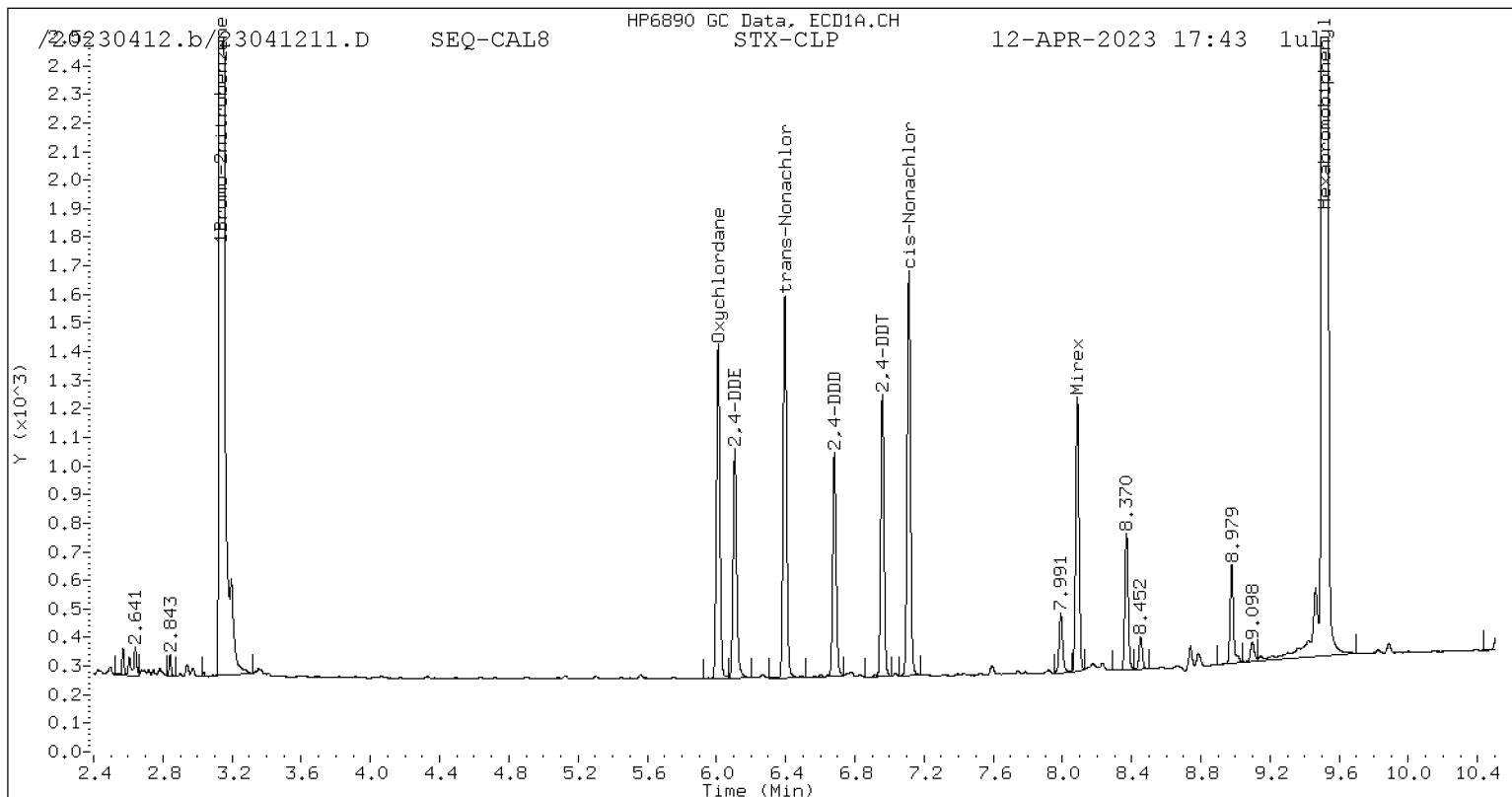
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

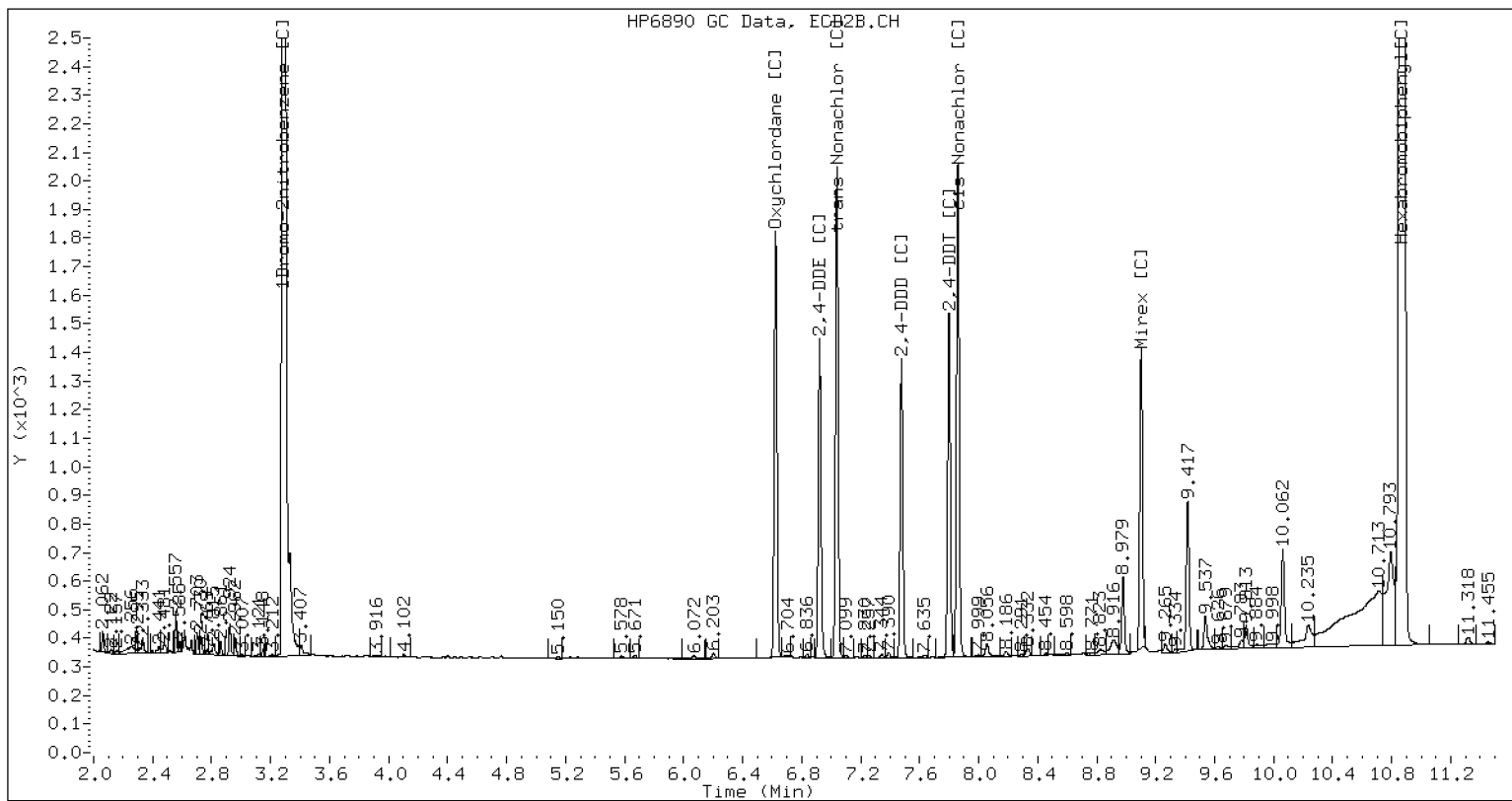


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

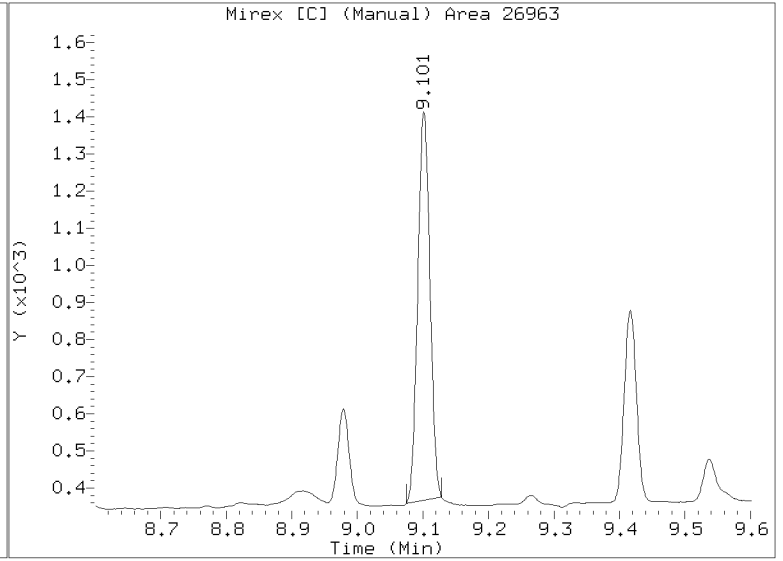
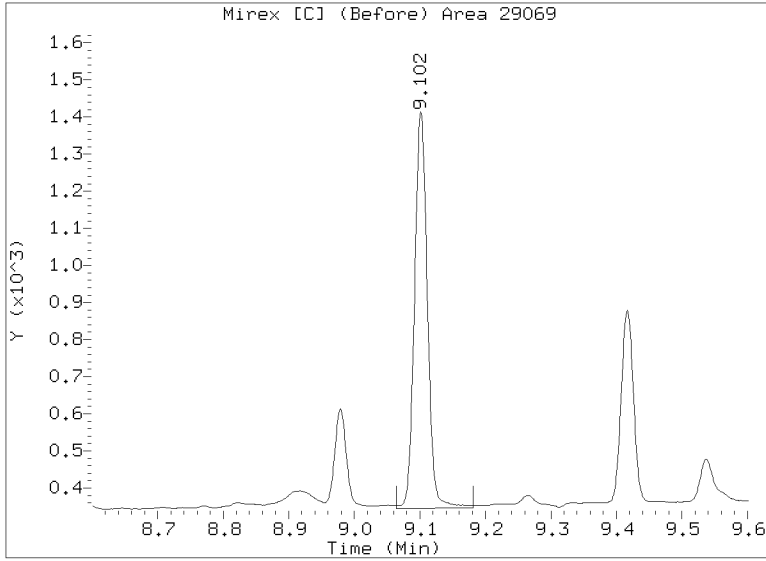
/20230412.b/B20230412.b/23041211.D SEQ-CAL8 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041211.D
Injection Date: 12-APR-2023 17:43
Lab ID:SEQ-CAL8 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041212.D
Data file 2: /20230412.b/B20230412.b/23041212.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 12-APR-2023 18:02
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 60226	6.624 -0.000	77029	5.15	5.33	3.5	Oxychlorane
6.106	0.001 45692	6.921 0.000	57608	5.39	5.45	1.1	2,4-DDE
6.396	0.001 73158	7.038 -0.001	81213	5.33	4.94	7.6	trans-Nonachlor
6.682	0.001 41900	7.477 -0.000	51791	5.31	5.30	0.3	2,4-DDD
6.959	0.000 51131	7.798 -0.001	58989	5.37	5.28	1.8	2,4-DDT
7.112	0.000 75575	7.858 -0.001	87575	5.29	5.15	2.7	cis-Nonachlor
8.086	0.001 47358	9.101 0.000	53365	5.31	5.44	2.5	Mirex
----		----		0.00	0.00	---	Tetrachloro-m-xylene
----		----		0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

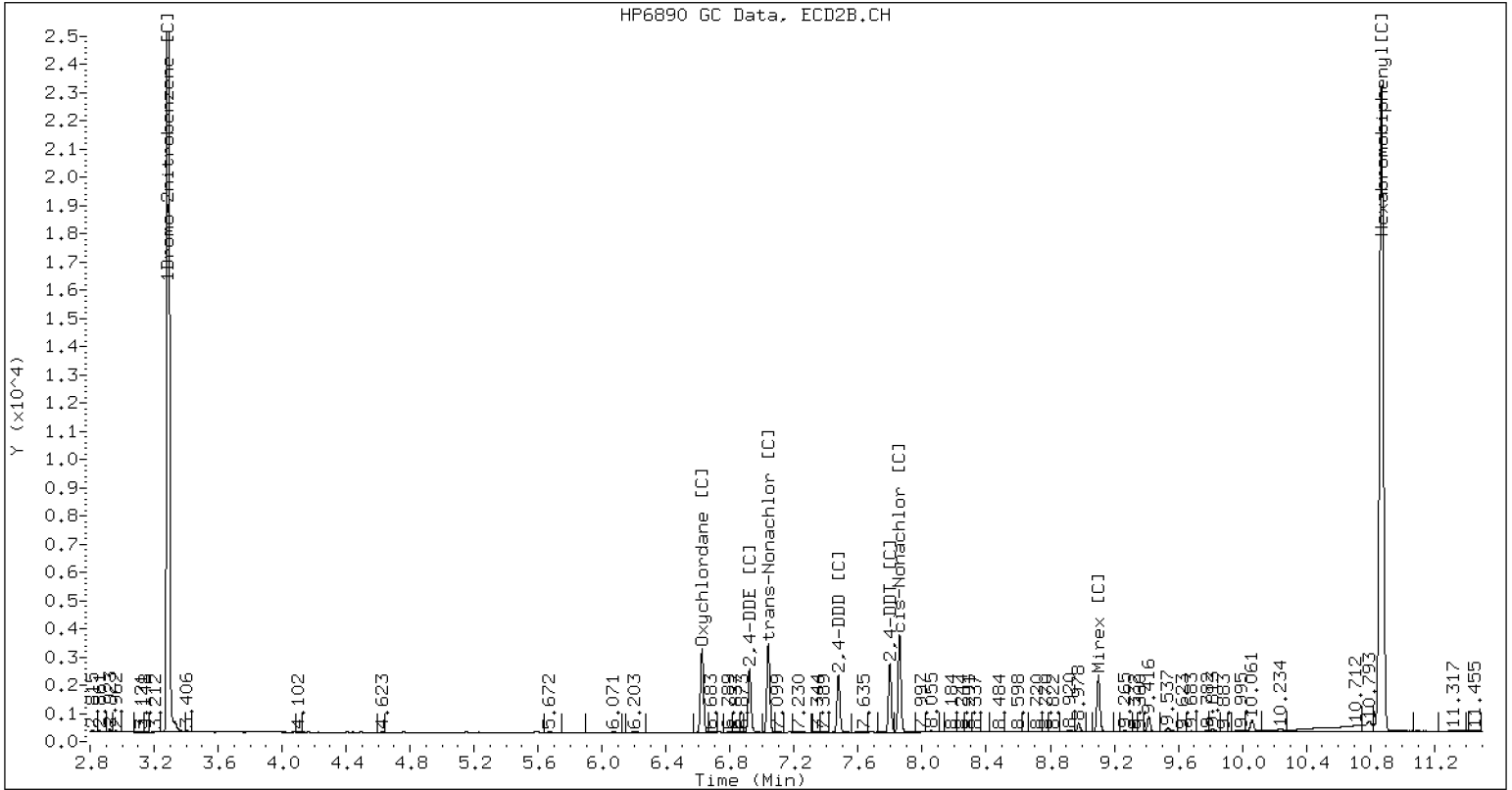
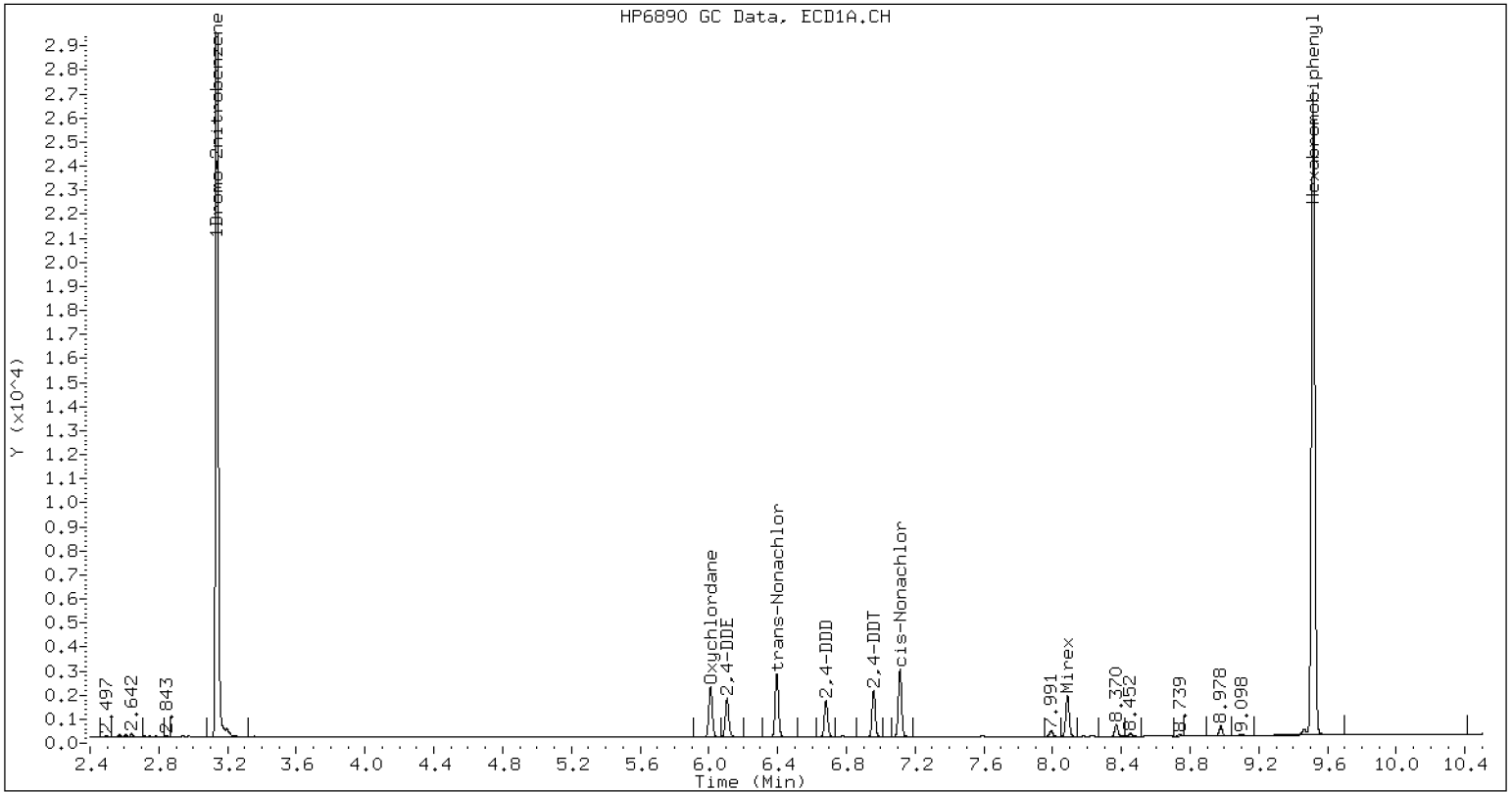
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	930904	7.7
Hexabromobiphenyl	663237	759389	14.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1264392	-14.6
Hexabromobiphenyl	870561	780703	-10.3

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041213.D
Data file 2: /20230412.b/B20230412.b/23041213.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 12-APR-2023 18:20
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag		
6.009	-0.000	123278	6.624	0.000	151270	10.75	10.37	3.6	Oxychlorthane
6.106	0.001	89835	6.921	0.000	112895	10.82	10.59	2.2	2,4-DDE
6.396	0.001	141201	7.039	-0.000	170866	10.50	10.56	0.6	trans-Nonachlor
6.682	0.001	83598	7.477	-0.000	100942	10.82	10.49	3.1	2,4-DDD
6.959	0.000	99988	7.799	-0.000	115070	10.72	10.46	2.4	2,4-DDT
7.112	0.000	146847	7.859	0.000	173382	10.50	10.37	1.3	cis-Nonachlor
8.086	0.001	92734	9.101	0.000	100630	10.60	10.42	1.7	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

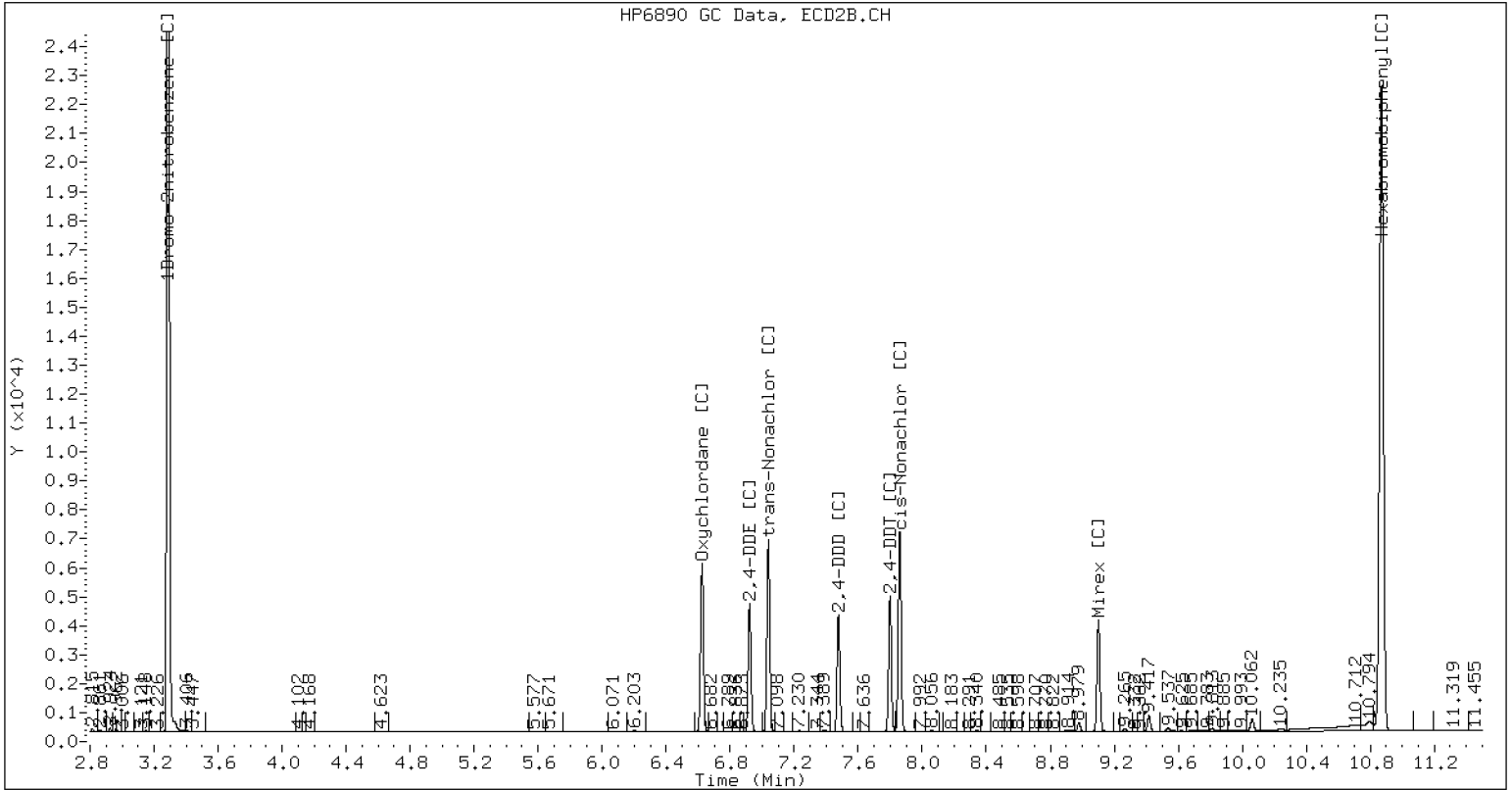
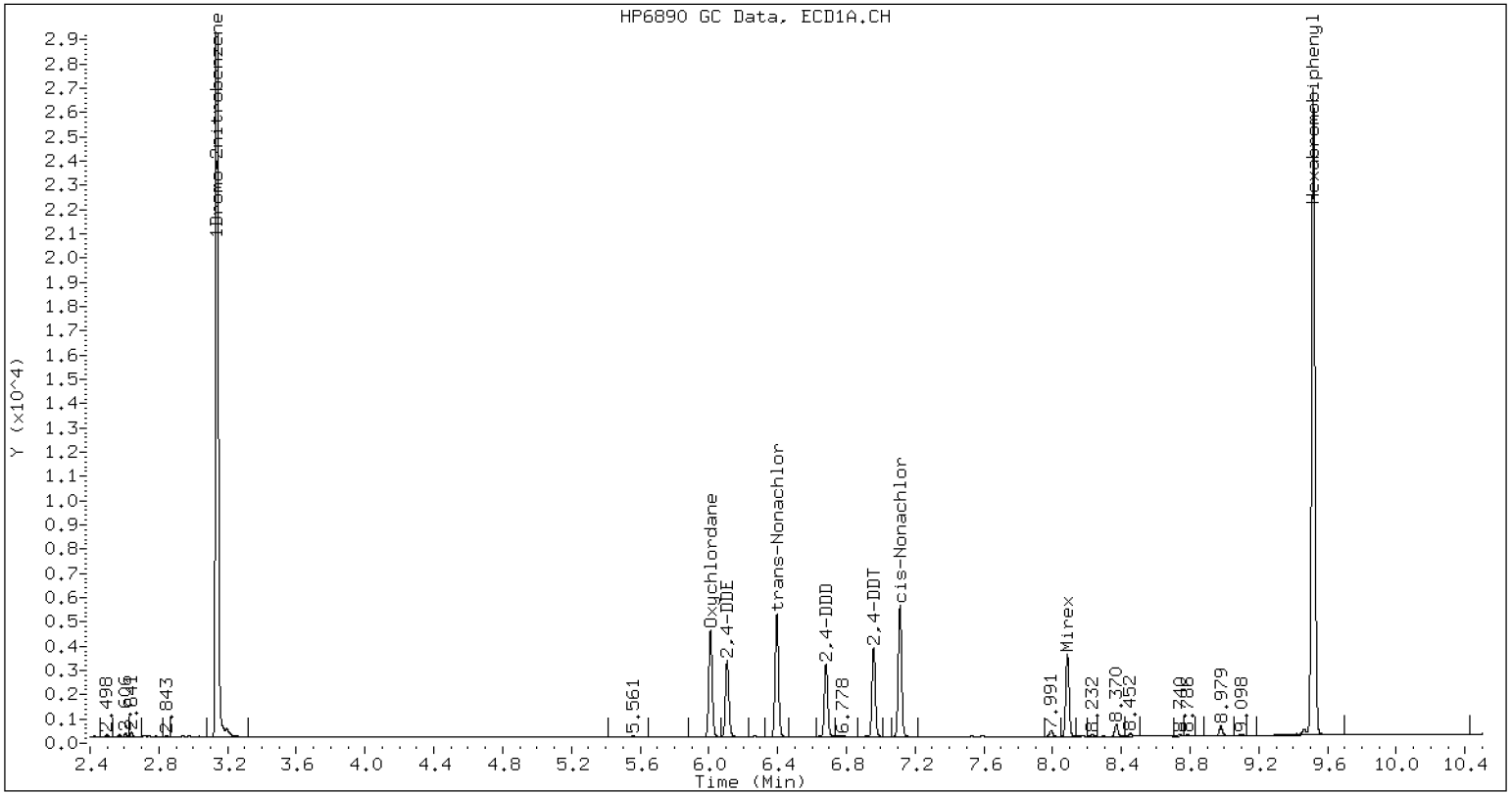
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	924798	7.0
Hexabromobiphenyl	663237	744140	12.2

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1276044	-13.8
Hexabromobiphenyl	870561	768340	-11.7

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041214.D
Data file 2: /20230412.b/B20230412.b/23041214.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 12-APR-2023 18:38
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.000 234579	6.624 0.000 293794	6.624	20.52	20.63	0.5	Oxychlorane
6.106	0.001 170299	6.922 0.001 216226	6.922	20.59	20.78	0.9	2,4-DDE
6.396	0.001 271524	7.039 0.000 333381	7.039	20.26	20.64	1.8	trans-Nonachlor
6.682	0.000 158357	7.476 -0.001 195047	7.476	20.57	20.30	1.3	2,4-DDD
6.960	0.001 190595	7.799 -0.000 223003	7.799	20.50	20.30	1.0	2,4-DDT
7.112	0.001 283023	7.859 0.000 341543	7.859	20.31	20.45	0.7	cis-Nonachlor
8.086	0.000 174624	9.101 0.000 190241	9.101	20.04	19.74	1.5	Mirex
----		----	----	0.00	0.00	---	Tetrachloro-m-xylene
----		10.309 0.003 2954	10.309	0.00	0.32	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

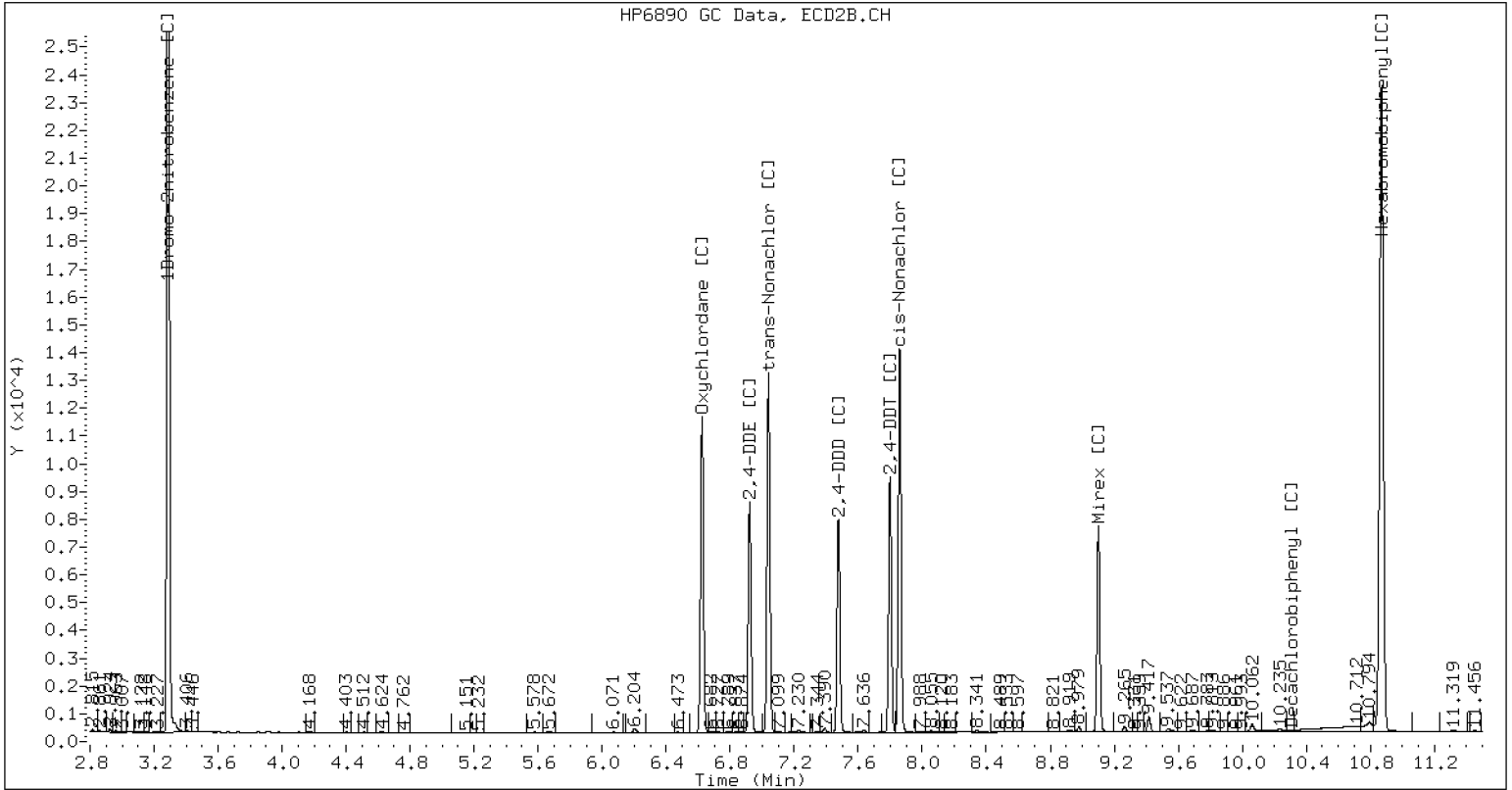
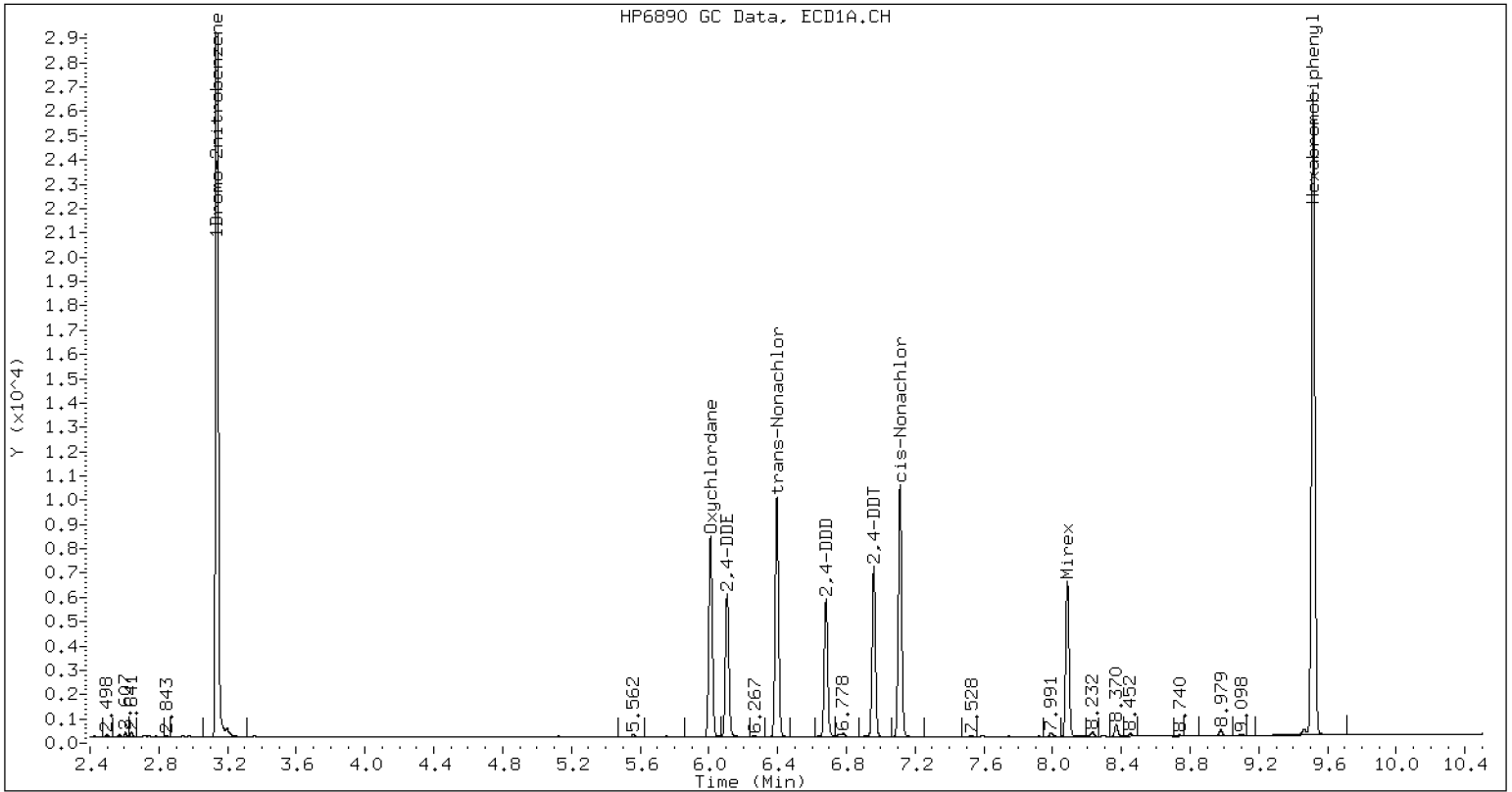
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	899601	4.1
Hexabromobiphenyl	663237	741497	11.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1245547	-15.9
Hexabromobiphenyl	870561	767183	-11.9

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041215.D
Data file 2: /20230412.b/B20230412.b/23041215.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALC
Client ID:
Injection Date: 12-APR-2023 18:57
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.010	0.001 441791	6.624 0.000 561341	39.12	39.67	1.4	Oxychlorthane		
6.106	0.001 318110	6.921 0.000 406232	38.93	39.30	0.9	2,4-DDE		
6.396	0.001 517172	7.039 -0.000 640936	39.06	40.16	2.8	trans-Nonachlor		
6.681	-0.000 297604	7.476 -0.001 372629	39.12	39.26	0.3	2,4-DDD		
6.959	0.001 358310	7.799 -0.000 427178	39.01	39.36	0.9	2,4-DDT		
7.112	0.000 540011	7.859 -0.000 659204	39.22	39.95	1.9	cis-Nonachlor		
8.086	0.000 328833	9.101 -0.000 364657	38.19	38.29	0.3	Mirex		
----		----	0.00	0.00	---	Tetrachloro-m-xylene		
----		|10.309 0.003 2755	0.00	0.30	---	Decachlorobiphenyl		

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

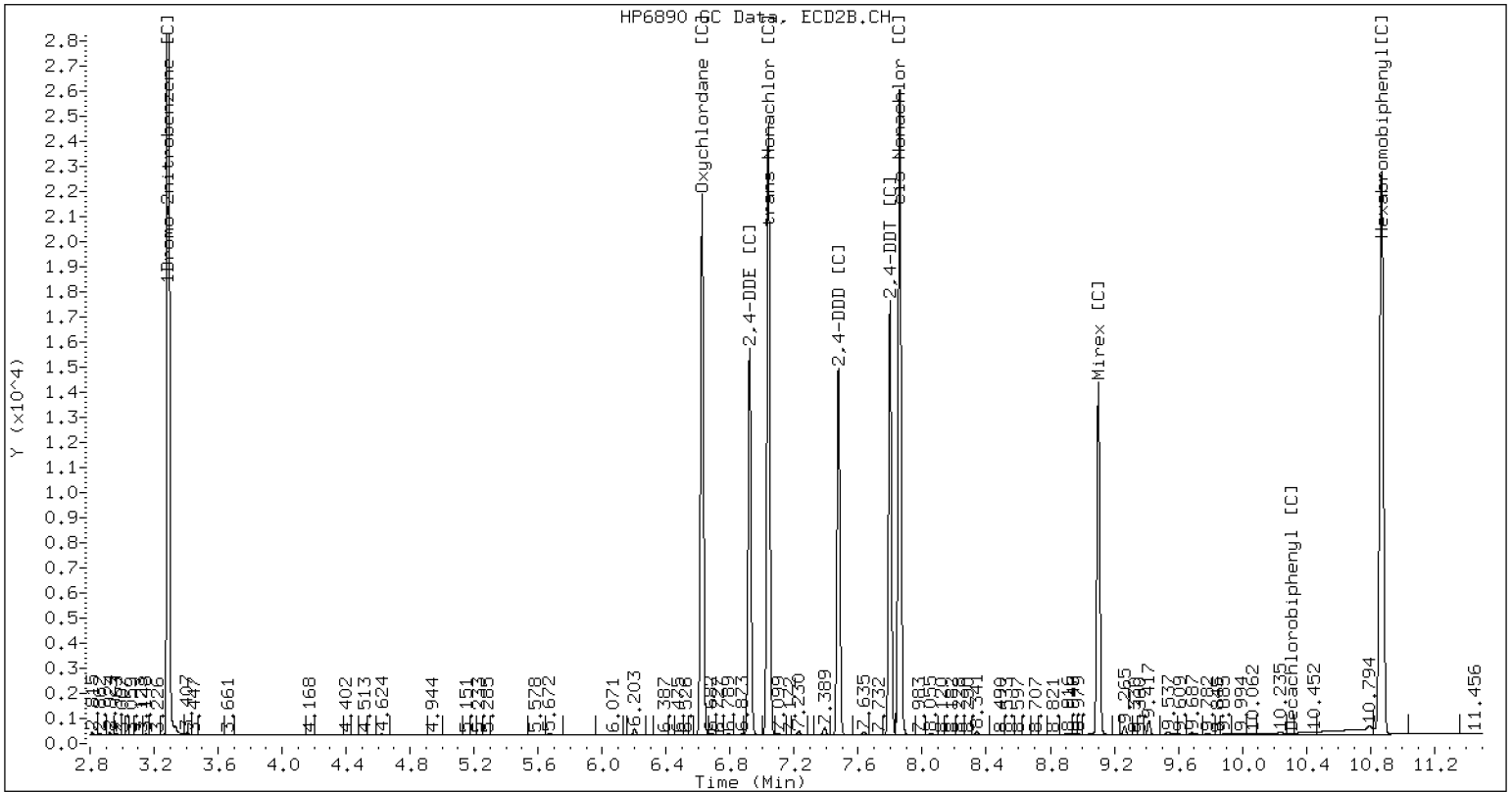
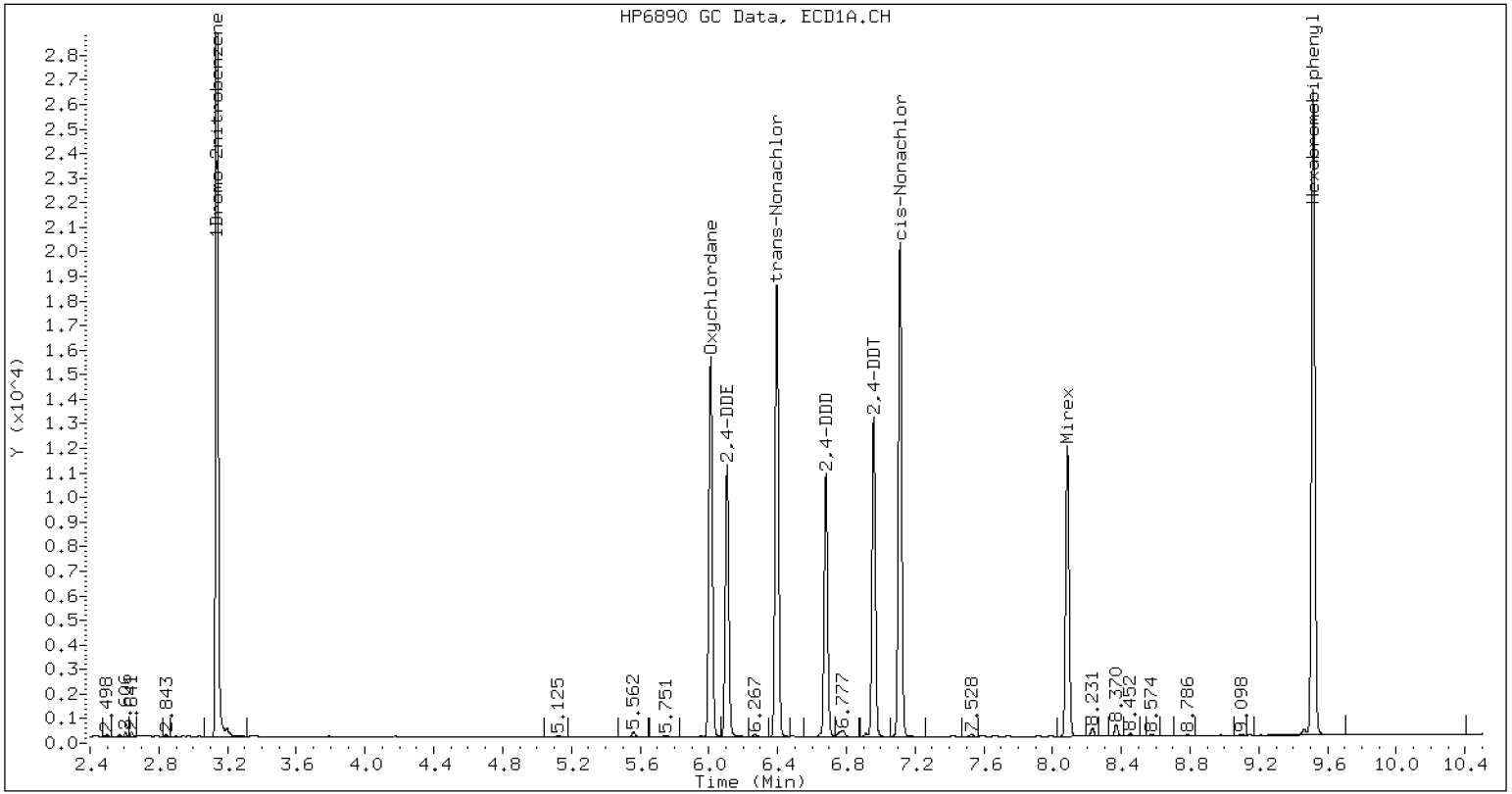
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	887506	2.7
Hexabromobiphenyl	663237	732612	10.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1237559	-16.4
Hexabromobiphenyl	870561	757937	-12.9

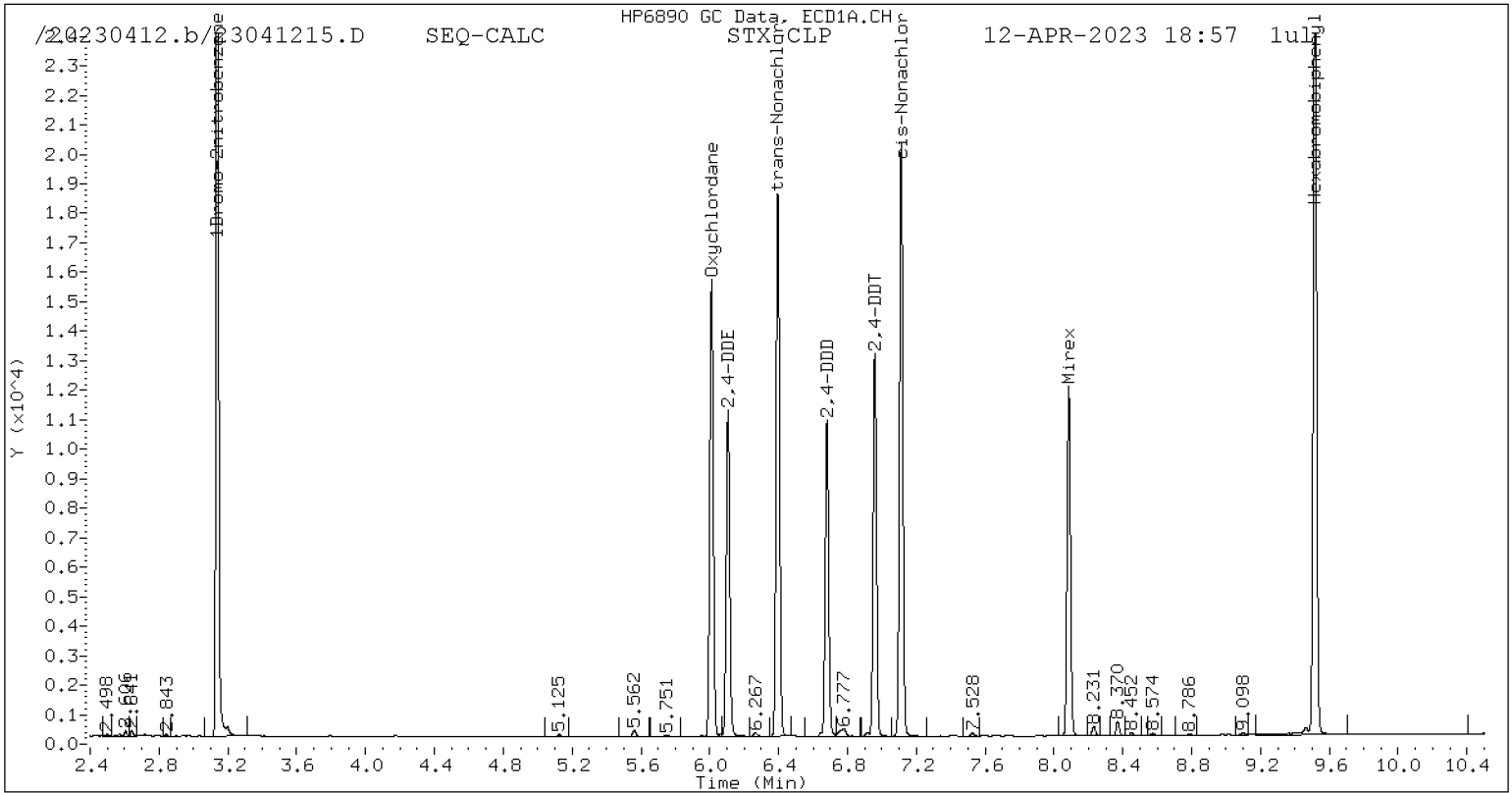
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

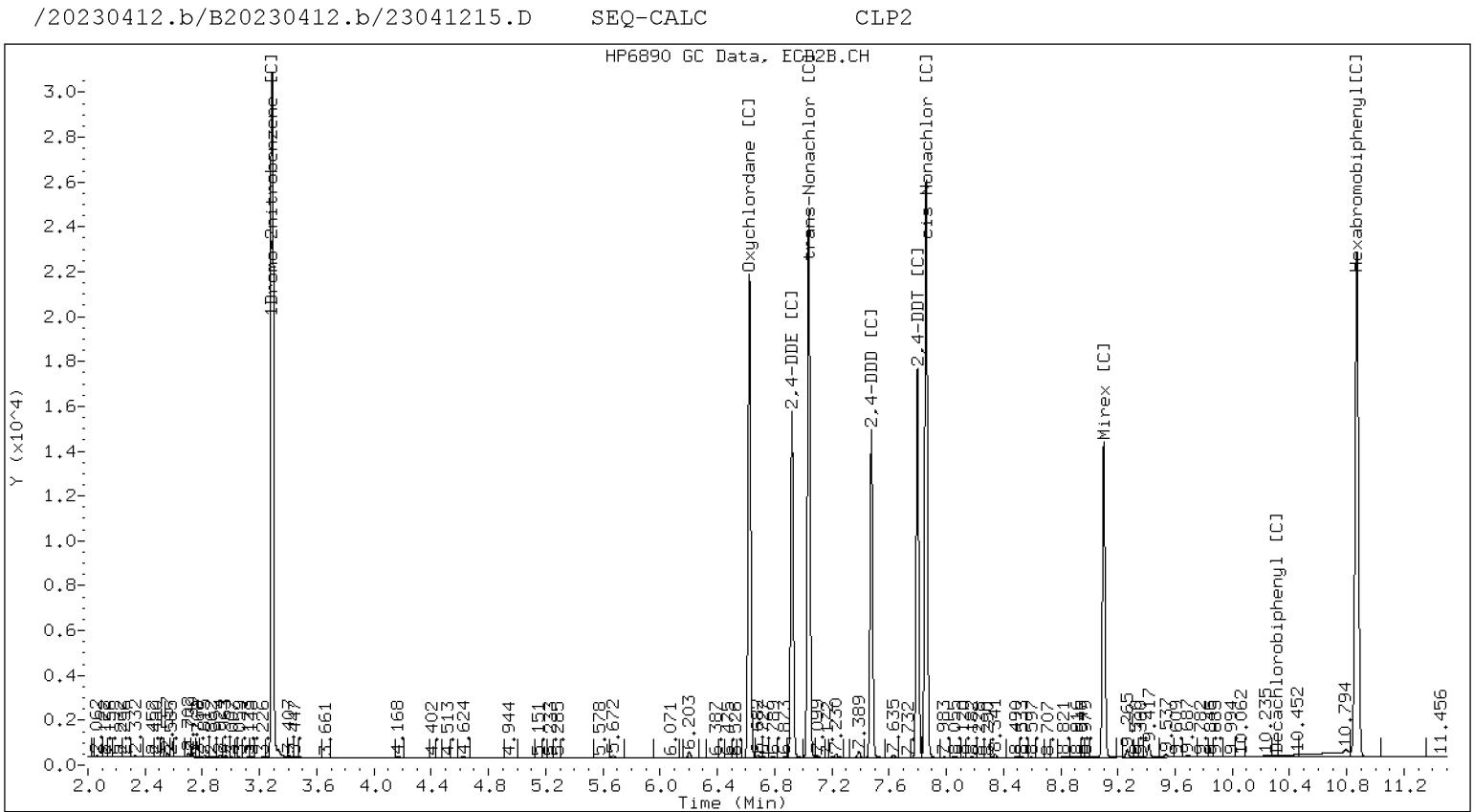
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041216.D
Data file 2: /20230412.b/B20230412.b/23041216.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALD
Client ID:
Injection Date: 12-APR-2023 19:15
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.010	0.000	817171	6.624	-0.000	1054911	72.77	74.15	1.9	Oxychlorthane
6.106	0.001	580973	6.921	-0.000	743589	71.50	71.54	0.1	2,4-DDE
6.395	0.001	968759	7.039	-0.001	1211298	73.58	76.18	3.5	trans-Nonachlor
6.681	-0.000	548708	7.476	-0.001	698482	72.54	73.85	1.8	2,4-DDD
6.958	-0.000	660572	7.798	-0.001	805720	72.32	74.50	3.0	2,4-DDT
7.112	-0.000	1017099	7.858	-0.001	1256322	74.28	76.41	2.8	cis-Nonachlor
8.086	0.000	616577	9.101	0.000	697240	72.01	73.47	2.0	Mirex
----			4.135	-0.001	186	0.00	0.01	---	Tetrachloro-m-xylene
----			10.309	0.003	3002	0.00	0.33	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	901377	4.3
Hexabromobiphenyl	663237	728475	9.8

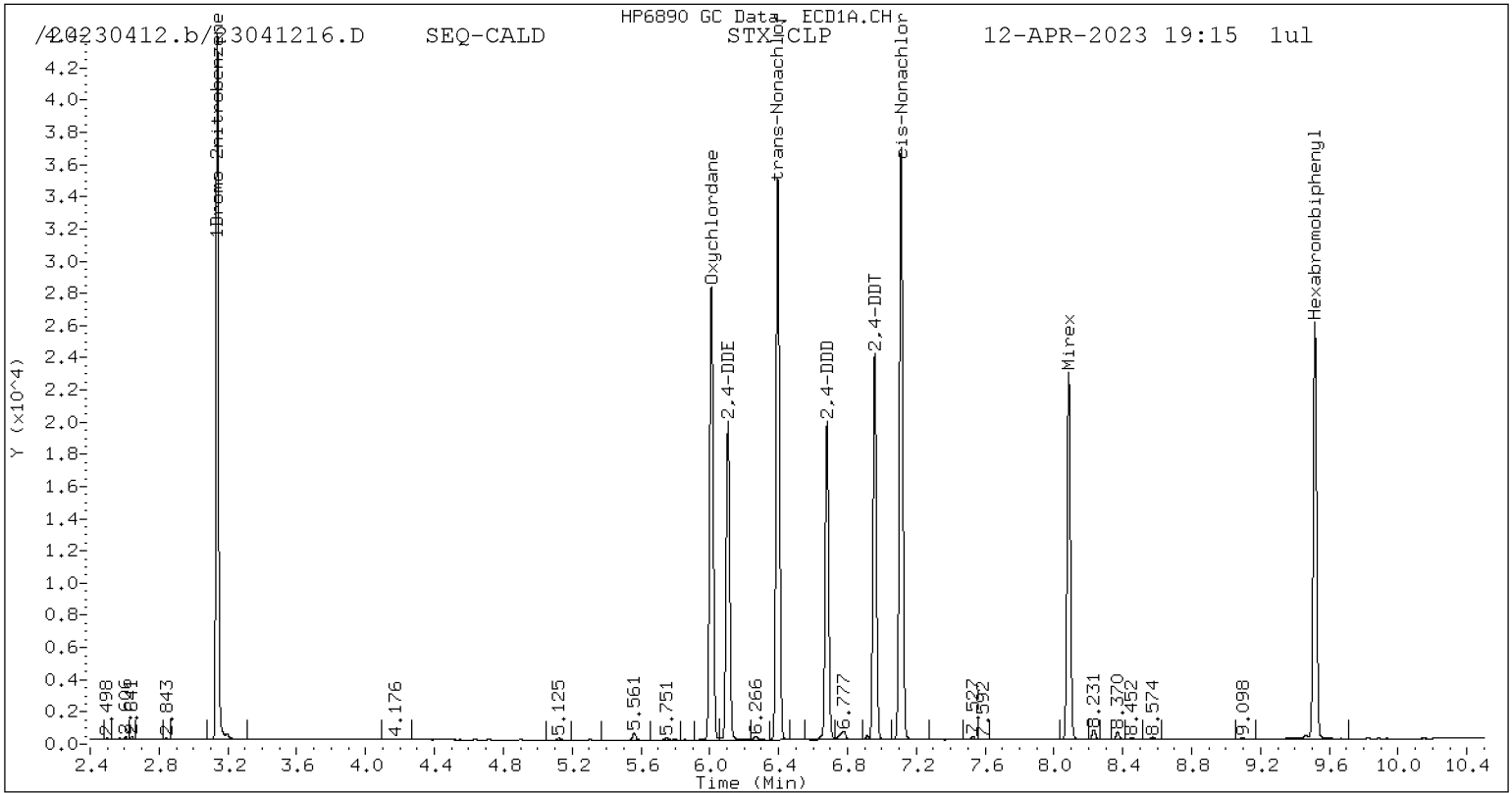
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1244306	-16.0
Hexabromobiphenyl	870561	755238	-13.2

* Standard Areas taken from Initial Cal Level 5

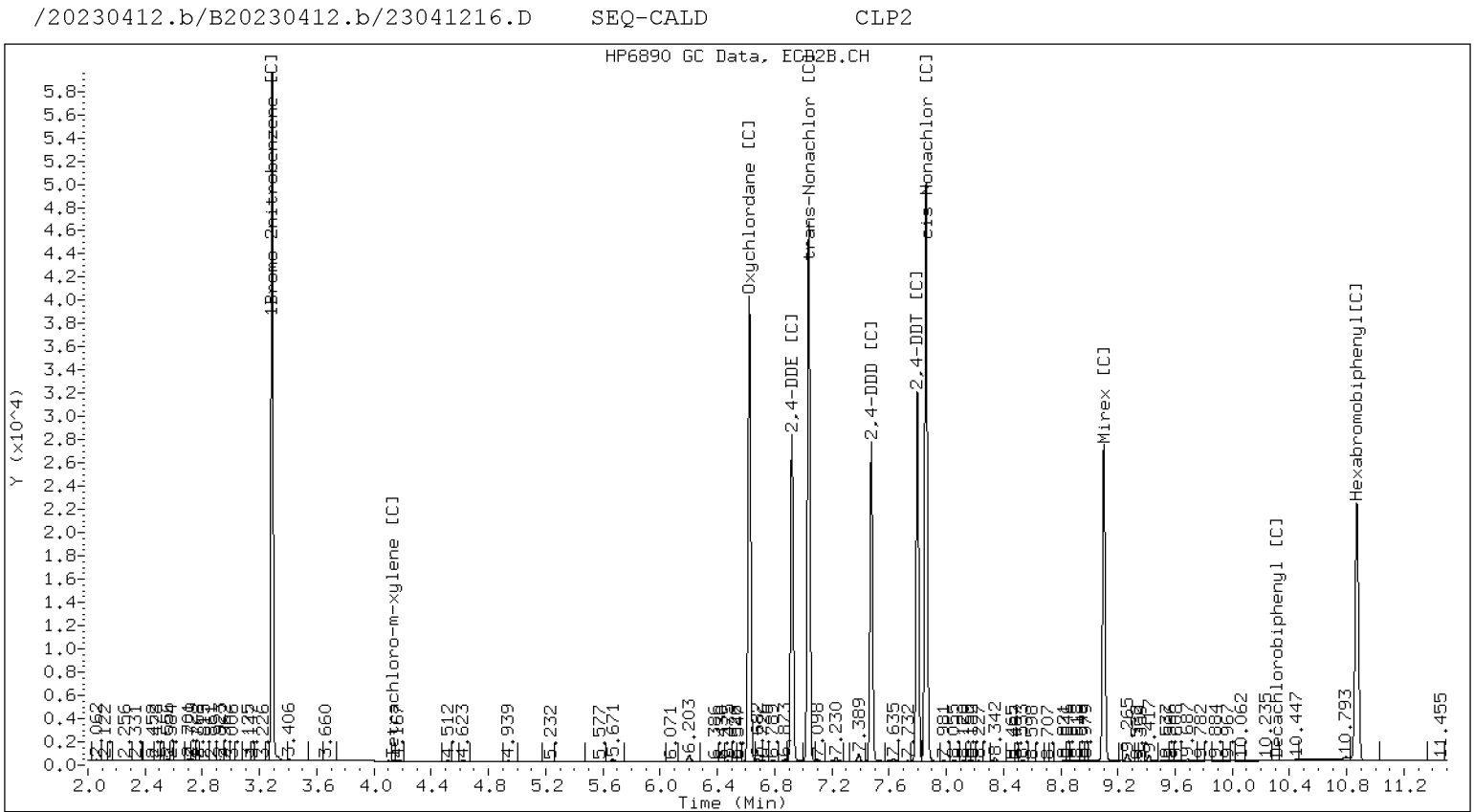
Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041217.D
Data file 2: /20230412.b/B20230412.b/23041217.D
Method: \20230412.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 12-APR-2023 19:34
Report Date: 04/14/2023 09:40
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.009	0.000 1520737	6.624 -0.000 1976637	6.624	132.87	137.37	3.3	Oxychlorane M
6.105	-0.000 1051945	6.921 -0.000 1344143	6.921	127.02	127.86	0.7	2,4-DDE M
6.395	0.000 1828376	7.039 -0.000 2280597	7.039	136.25	139.01	2.0	trans-Nonachlor M
6.681	0.000 1007071	7.477 -0.000 1318871	7.477	130.63	135.15	3.4	2,4-DDD M
6.959	0.000 1216718	7.799 -0.000 1510661	7.799	130.69	135.39	3.5	2,4-DDT M
7.112	0.000 1924725	7.859 0.000 2389114	7.859	137.91	140.84	2.1	cis-Nonachlor M
8.086	0.000 1166143	9.101 0.000 1359594	9.101	133.61	138.86	3.9	Mirex M
----		4.136 0.000 307	4.136	0.00	0.02	---	Tetrachloro-m-xylene
----		10.308 0.002 3667	10.308	0.00	0.39	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	923493	6.8
Hexabromobiphenyl	663237	742507	12.0

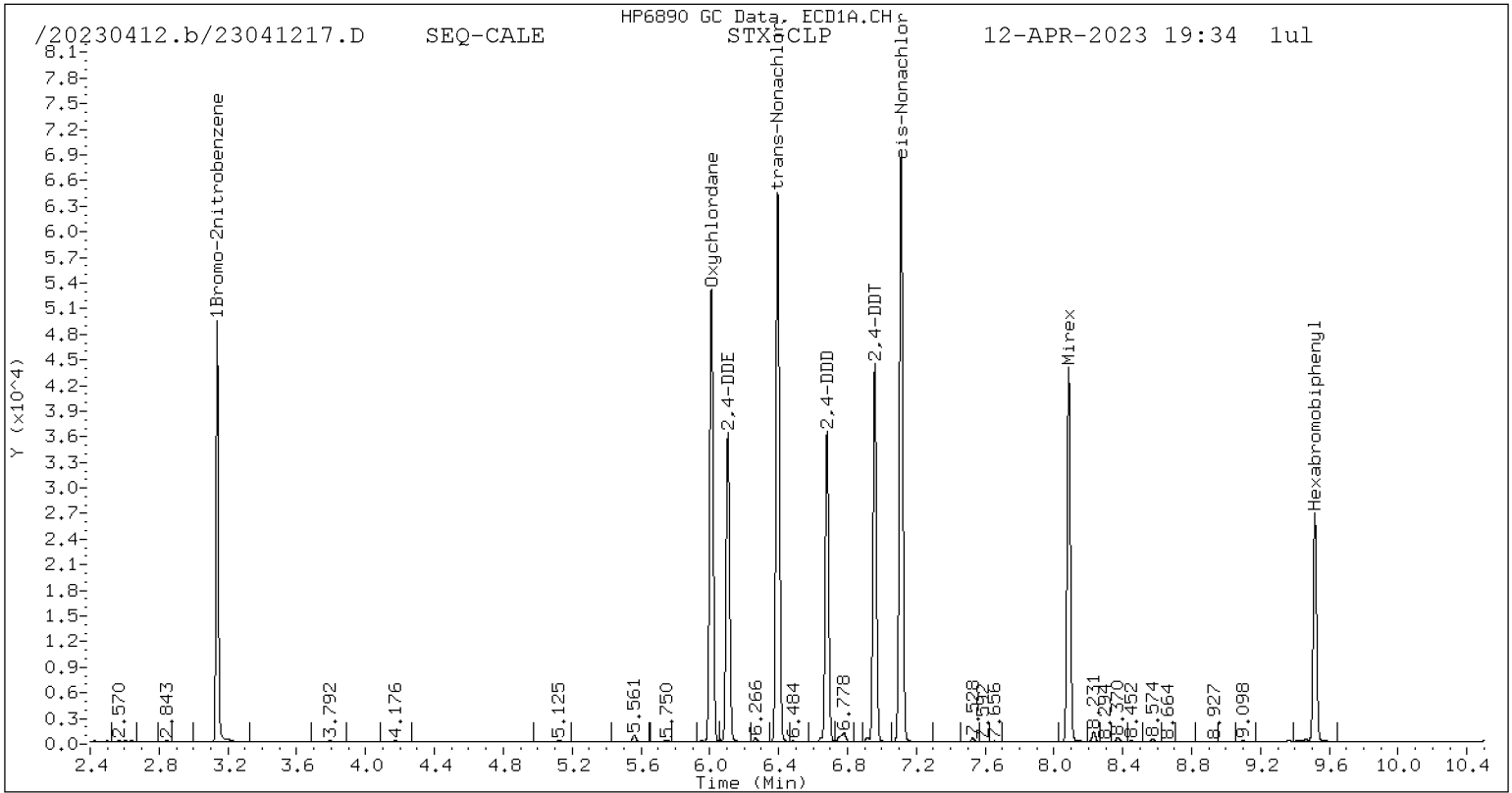
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1258546	-15.0
Hexabromobiphenyl	870561	779225	-10.5

* Standard Areas taken from Initial Cal Level 5

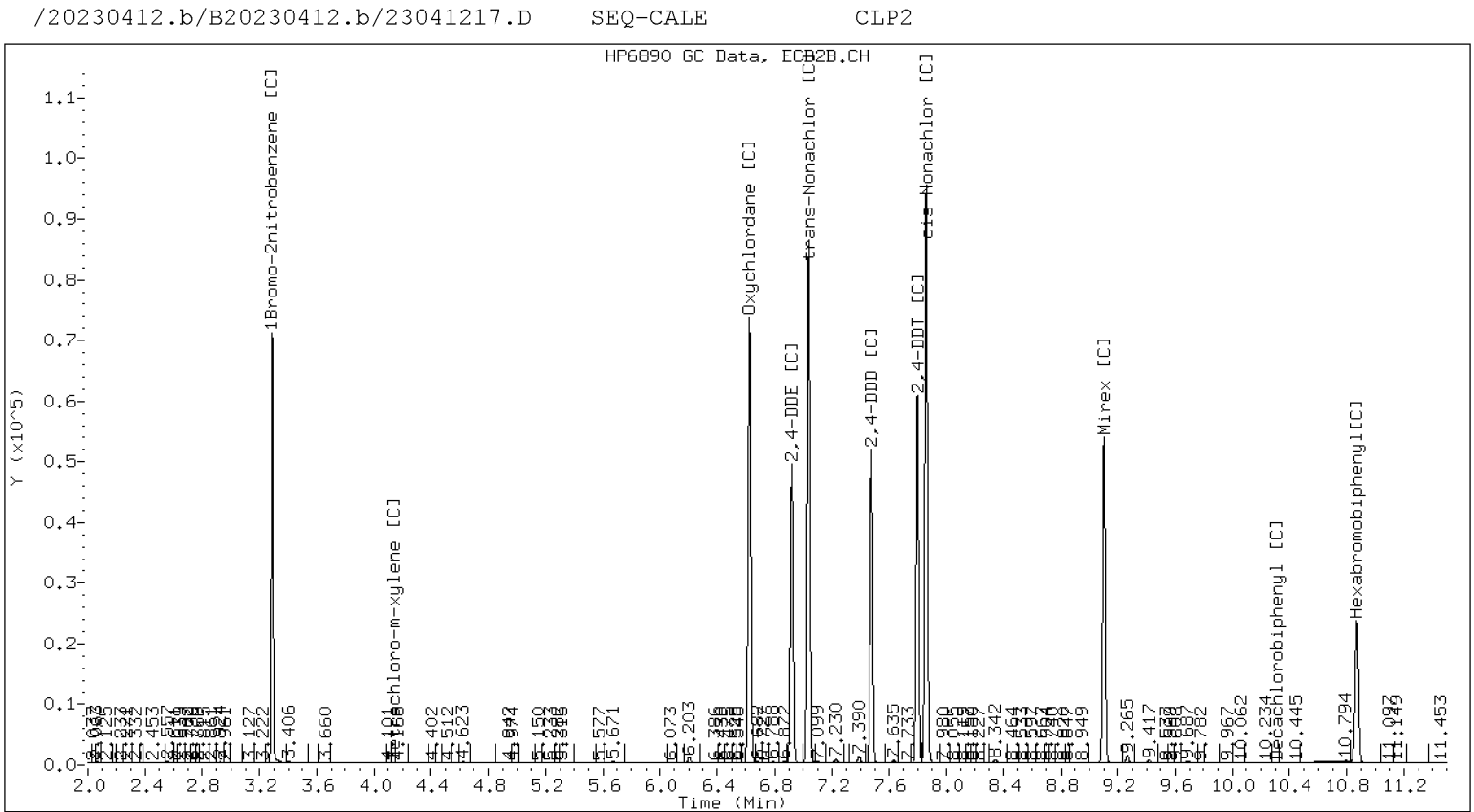
Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



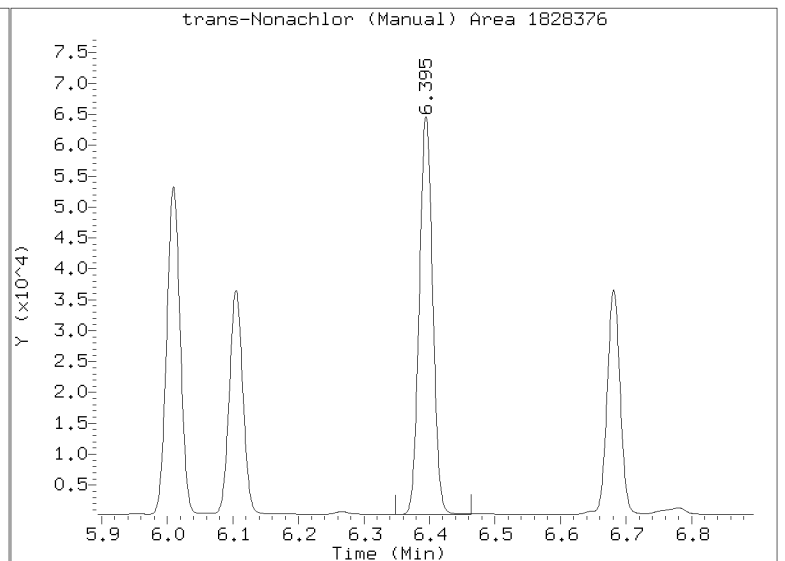
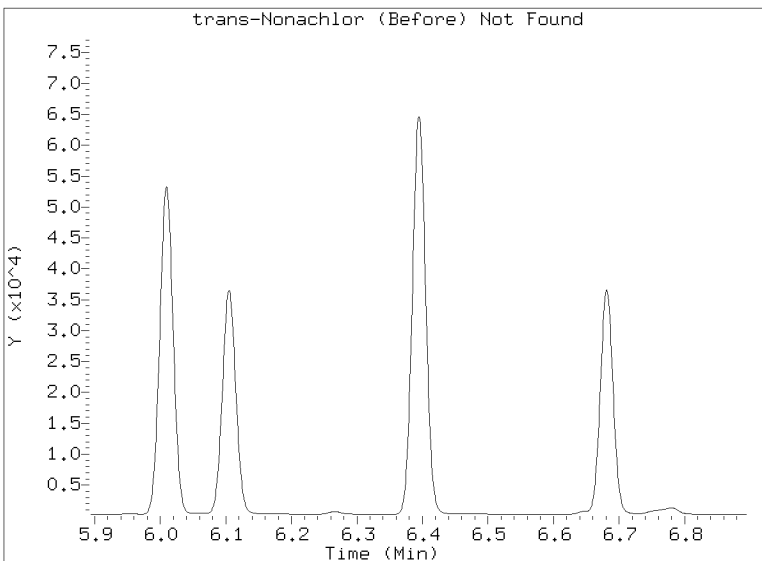
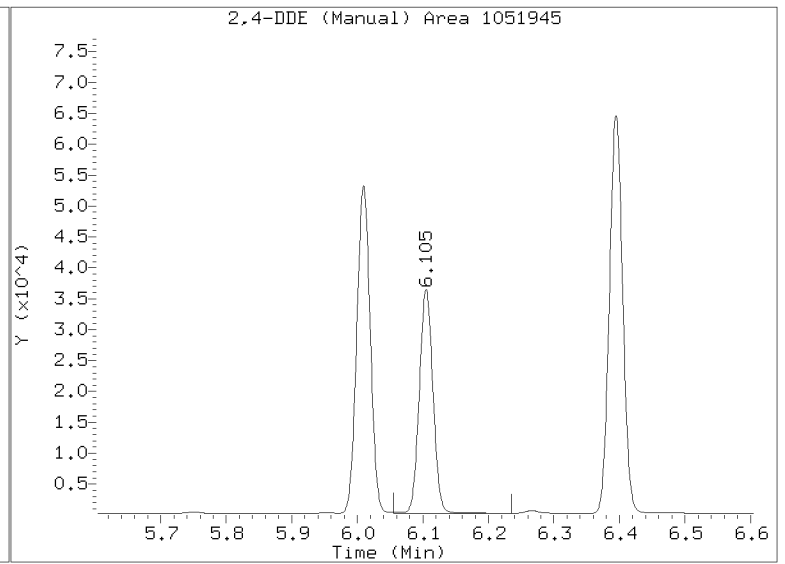
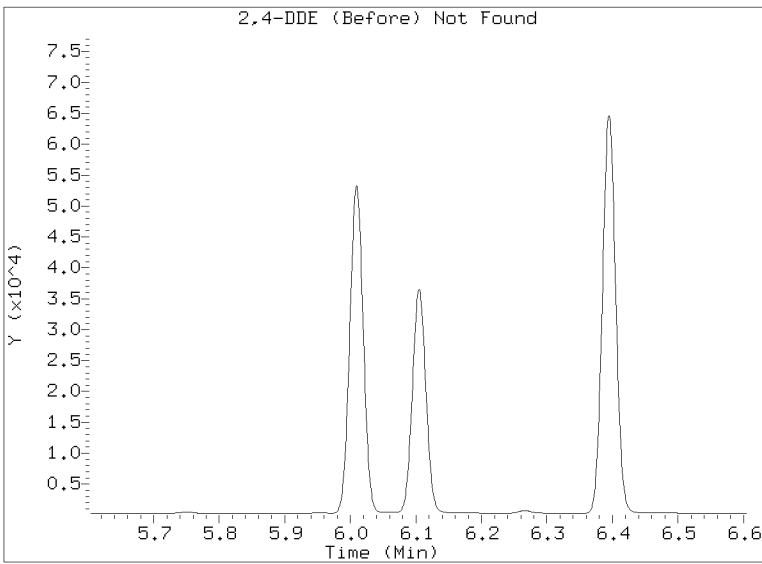
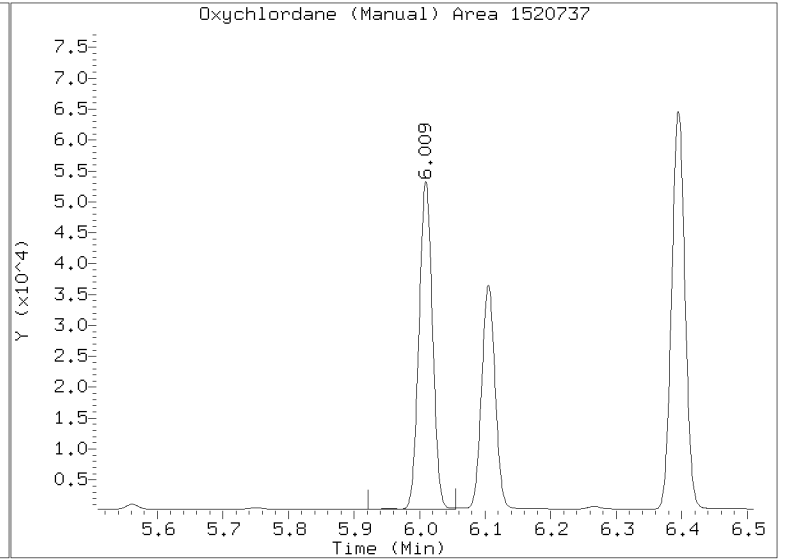
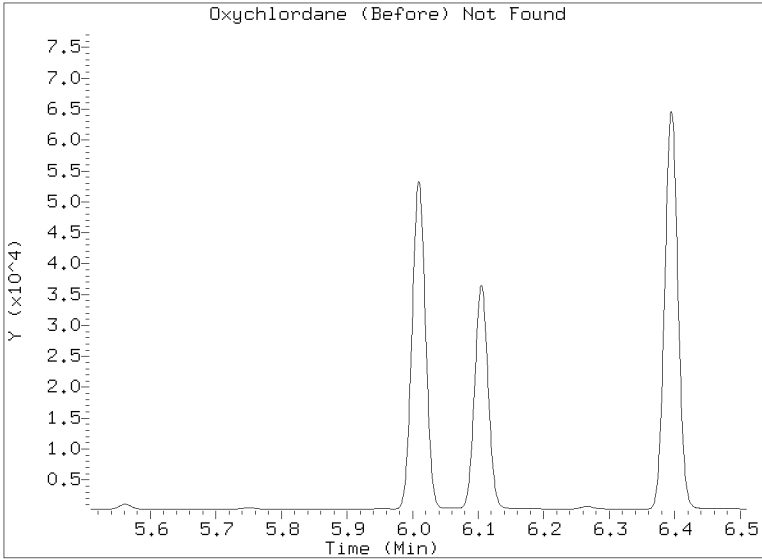
STX-CLP Manual Integration: YES



CLP-2 Manual Integration: NO

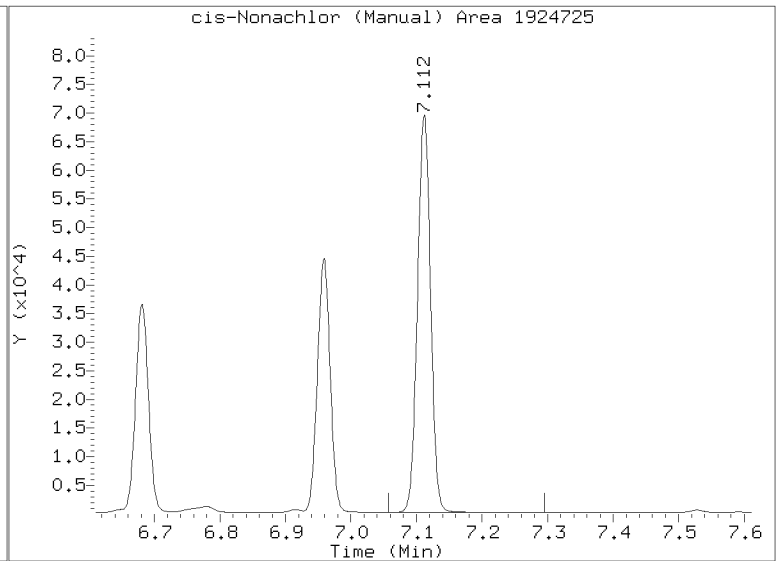
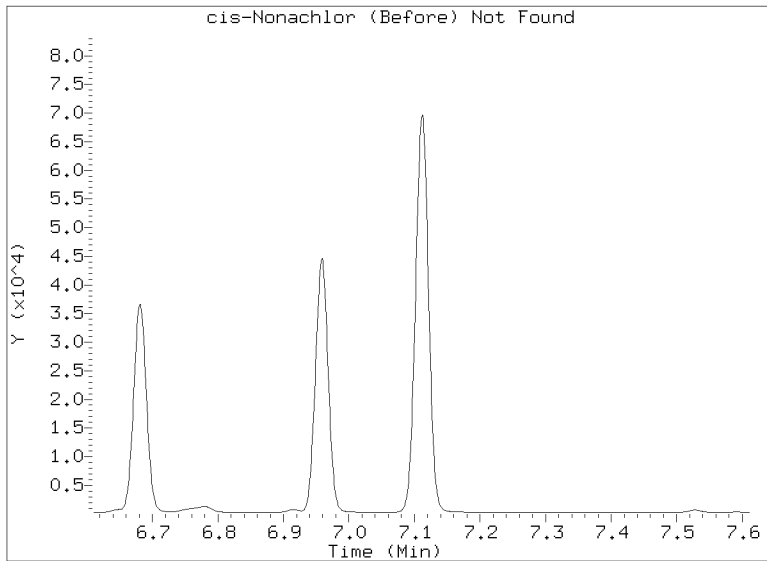
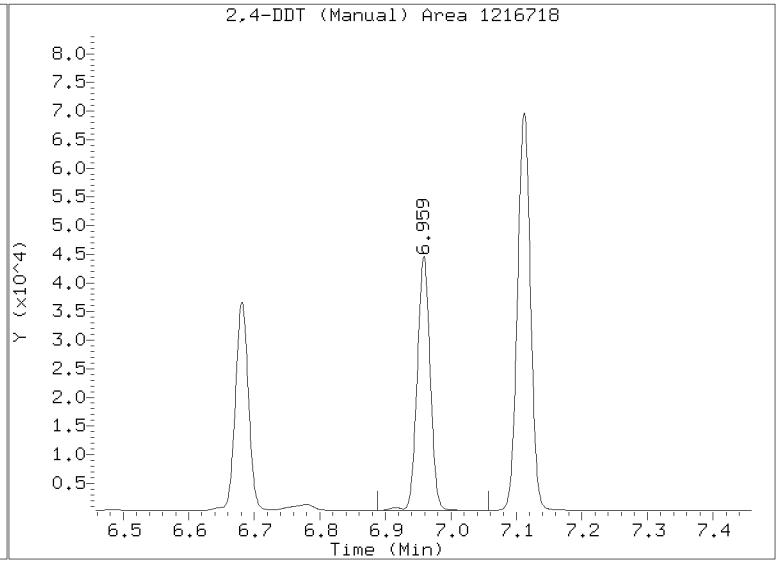
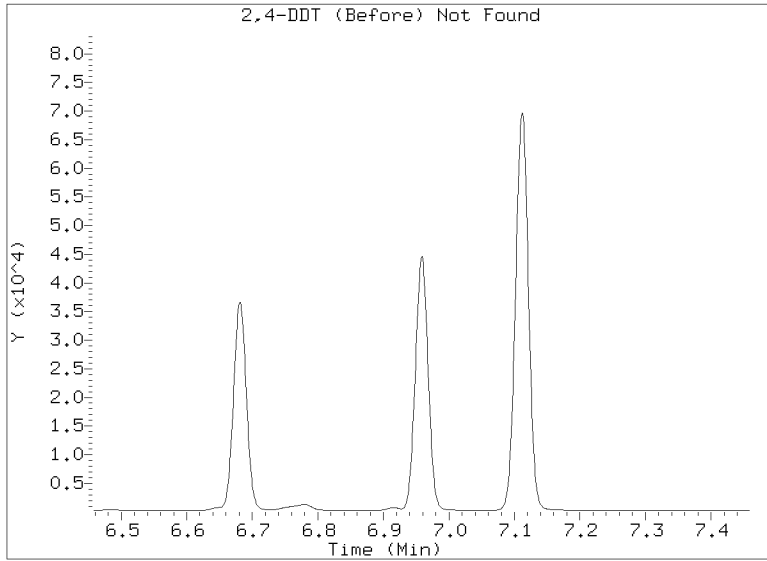
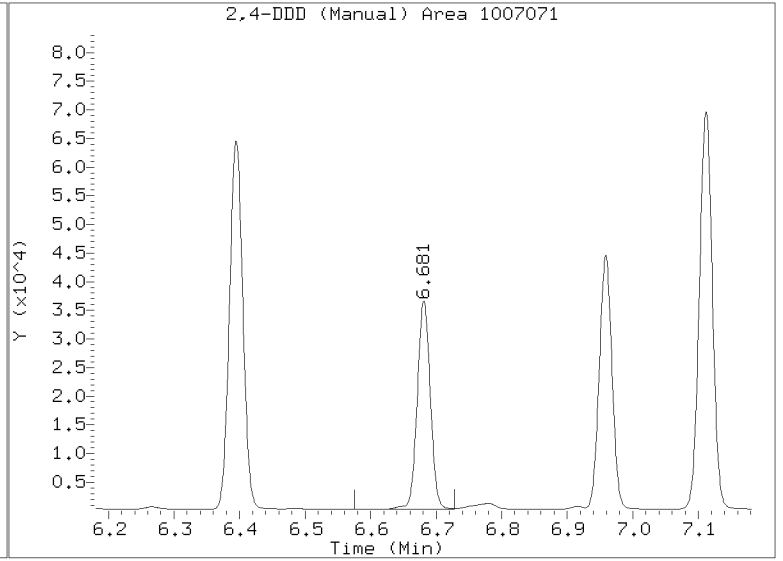
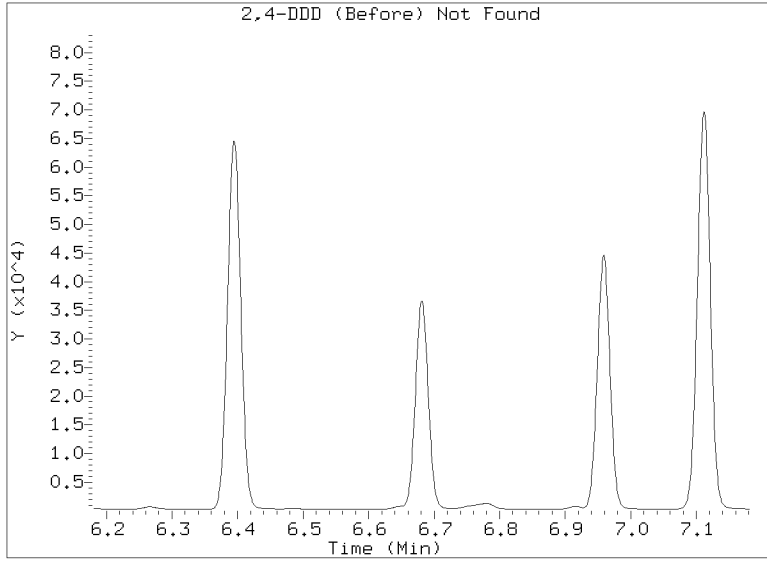
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40



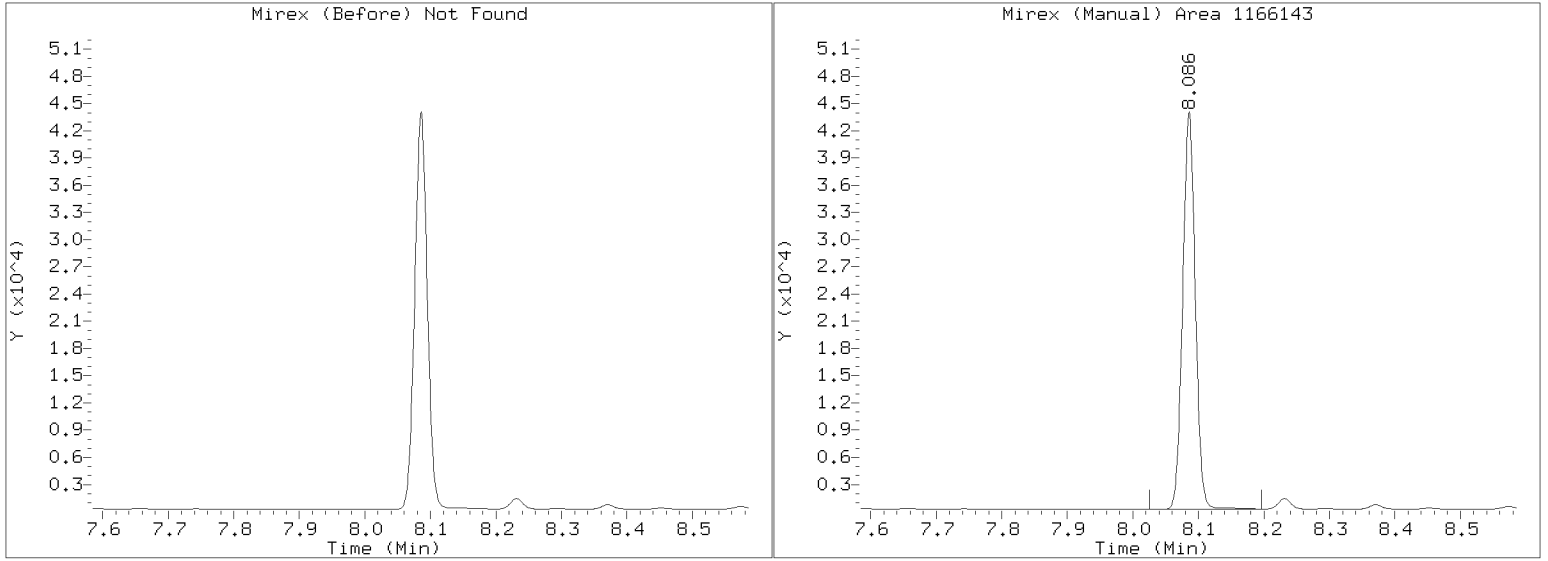
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230412.b/23041217.D
Injection Date: 12-APR-2023 19:34
Lab ID:SEQ-CALE Client ID:
Report Date: 04/14/2023 09:40

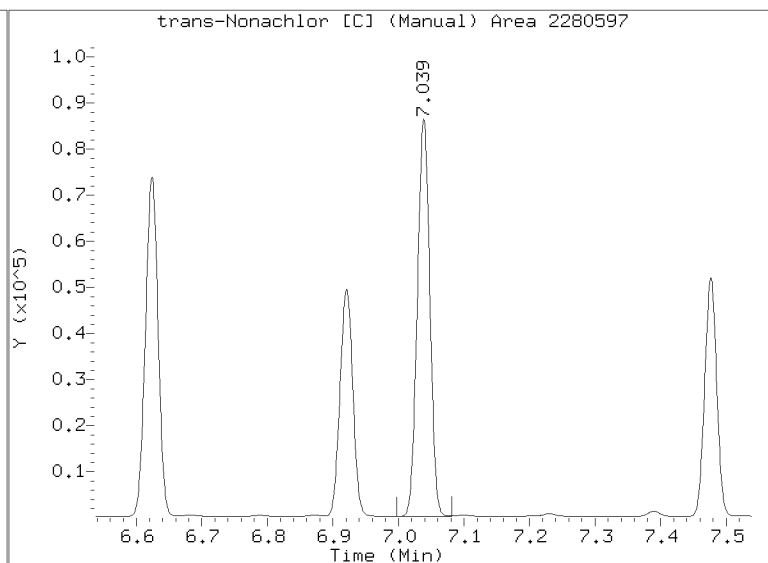
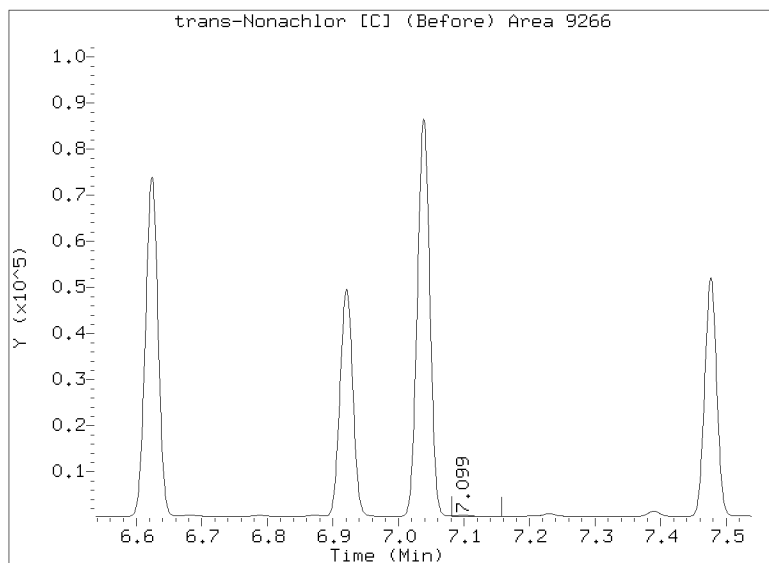
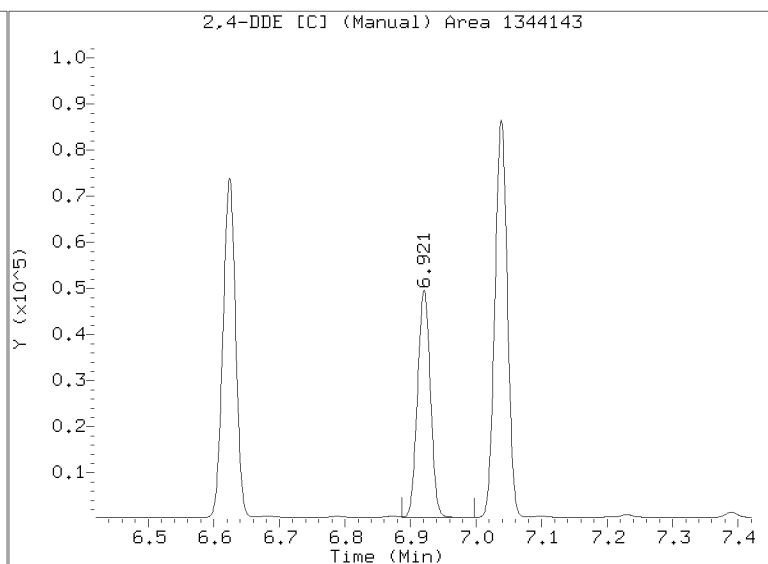
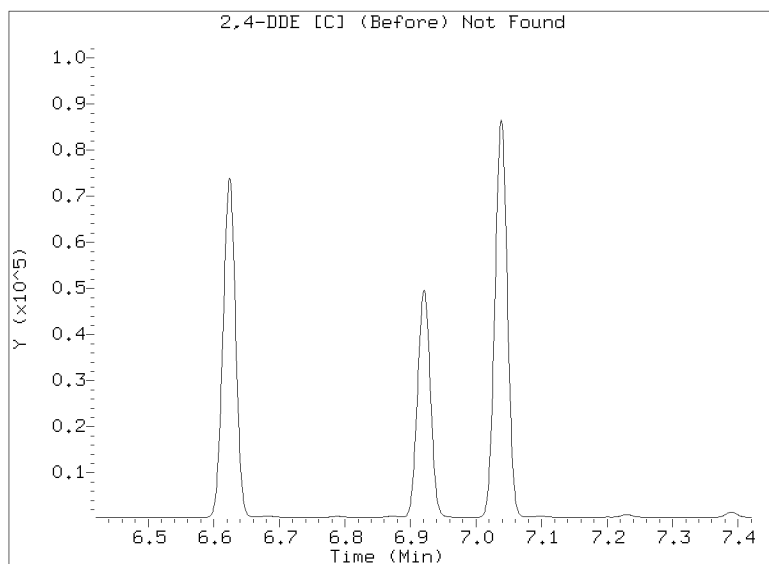
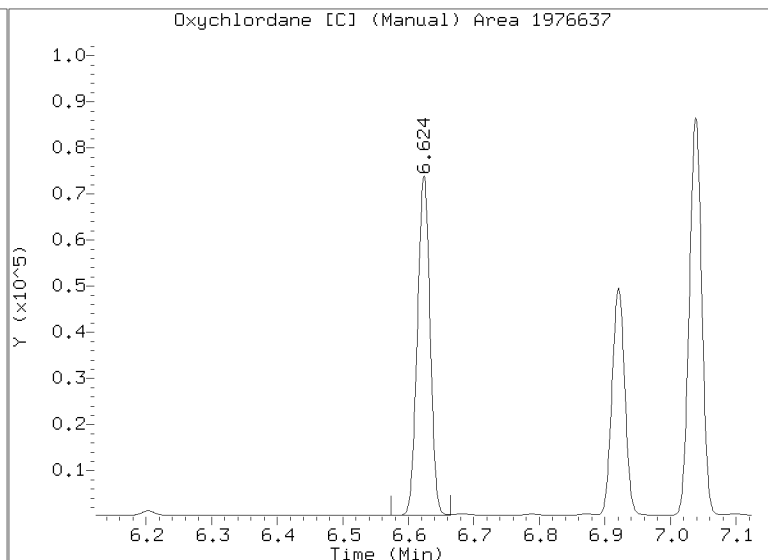
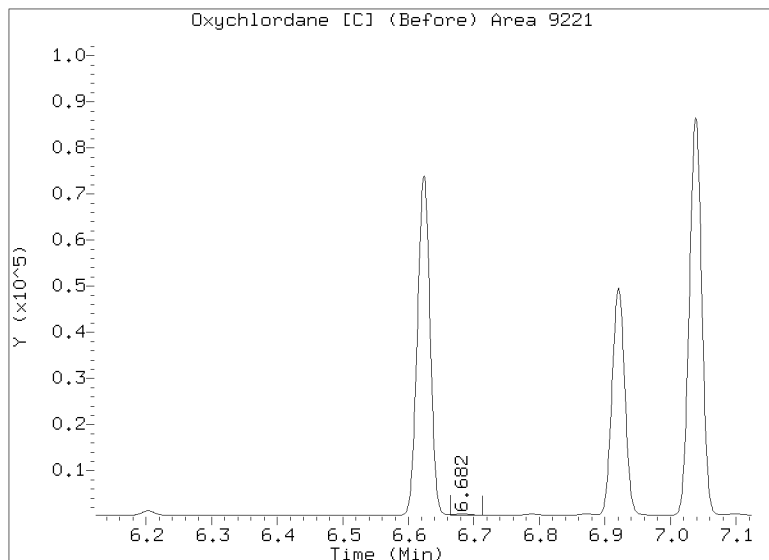


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:

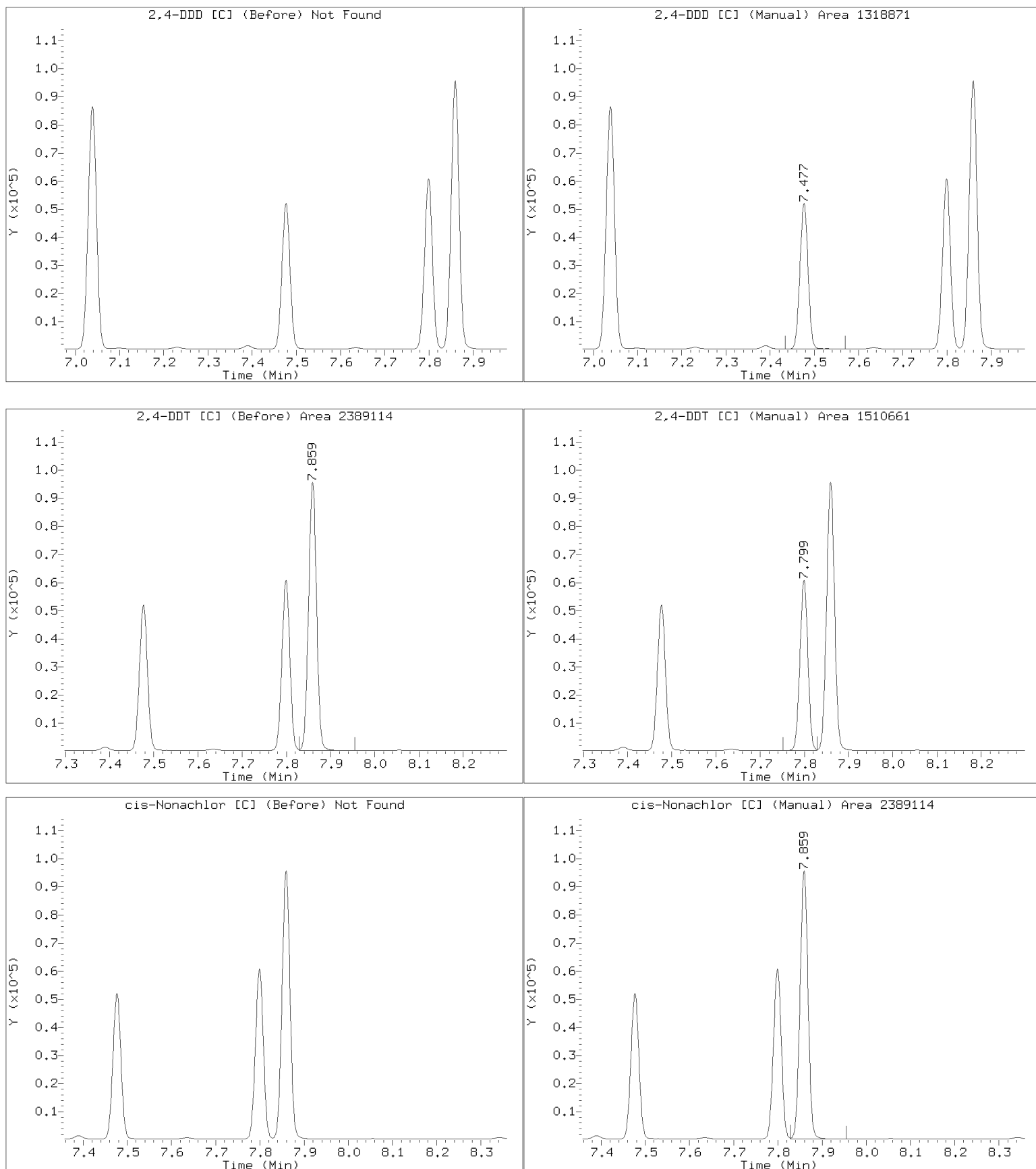


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:

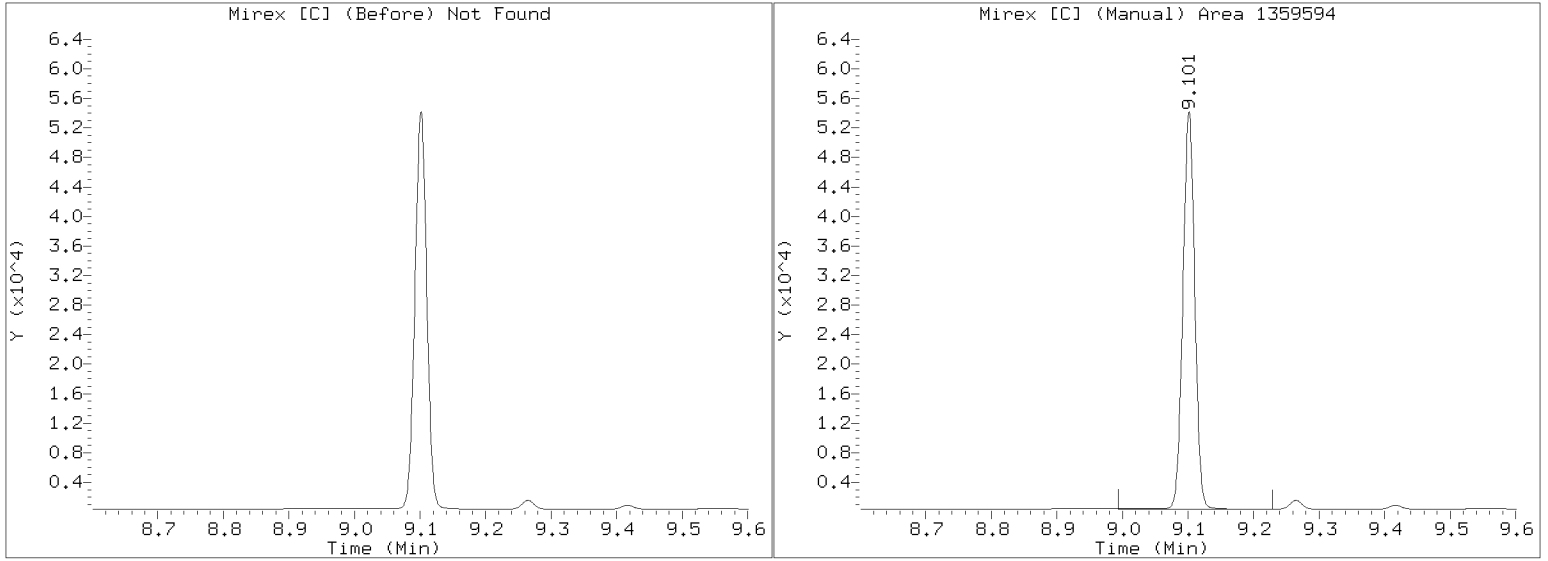


Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041217.D

Injection Date: 12-APR-2023 19:34

Lab ID:SEQ-CALE Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041218.D
Data file 2: /20230412.b/B20230412.b/23041218.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALF
Client ID:
Injection Date: 12-APR-2023 19:52
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.820	0.001 13904	4.136 0.000 18748	4.136	0.000 18748	1.09	1.07	1.1	Tetrachloro-m-xylene
9.367	0.001 24477	10.306 -0.000 31773	10.306	-0.000 31773	2.82	3.41	19.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

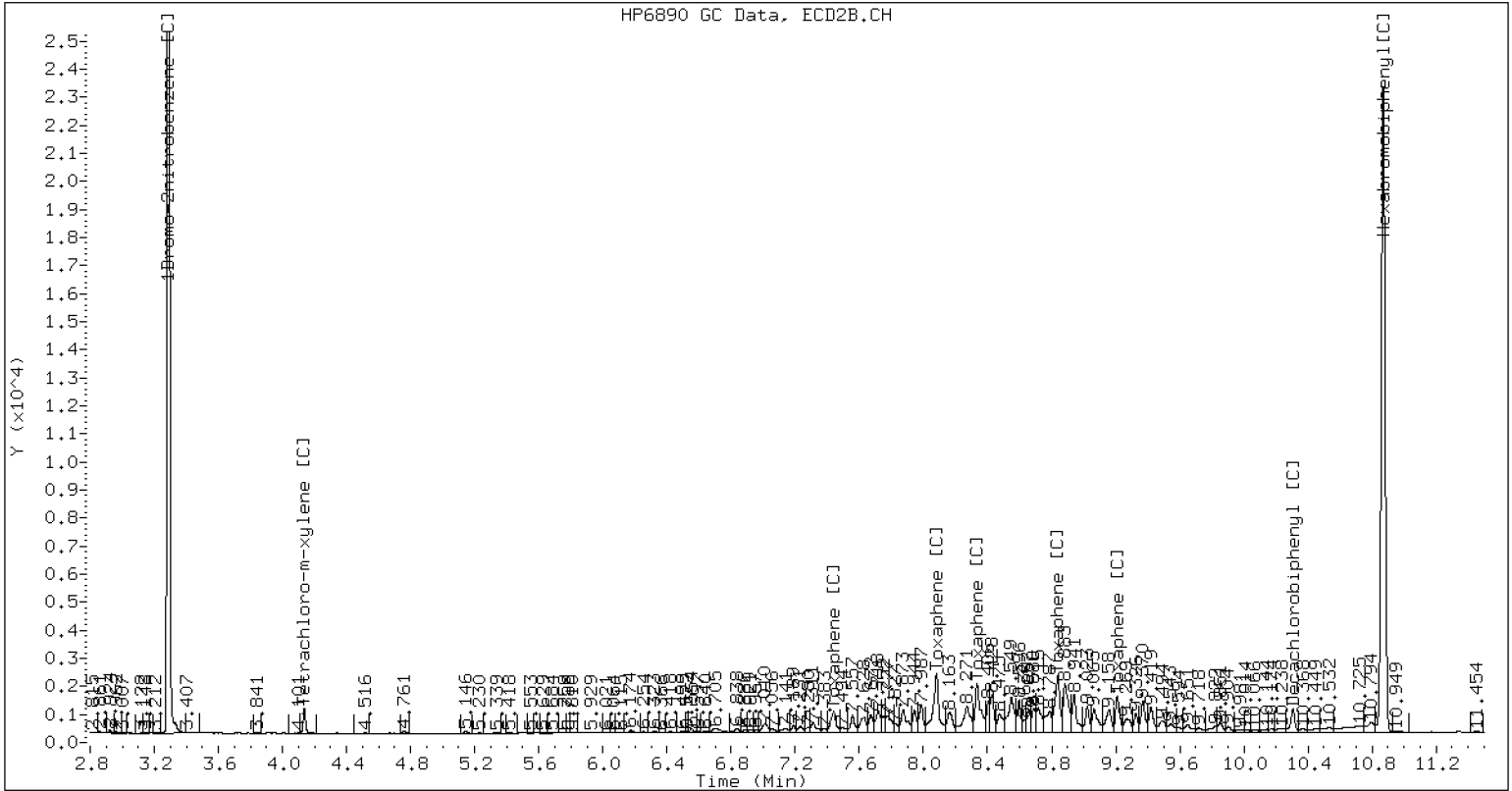
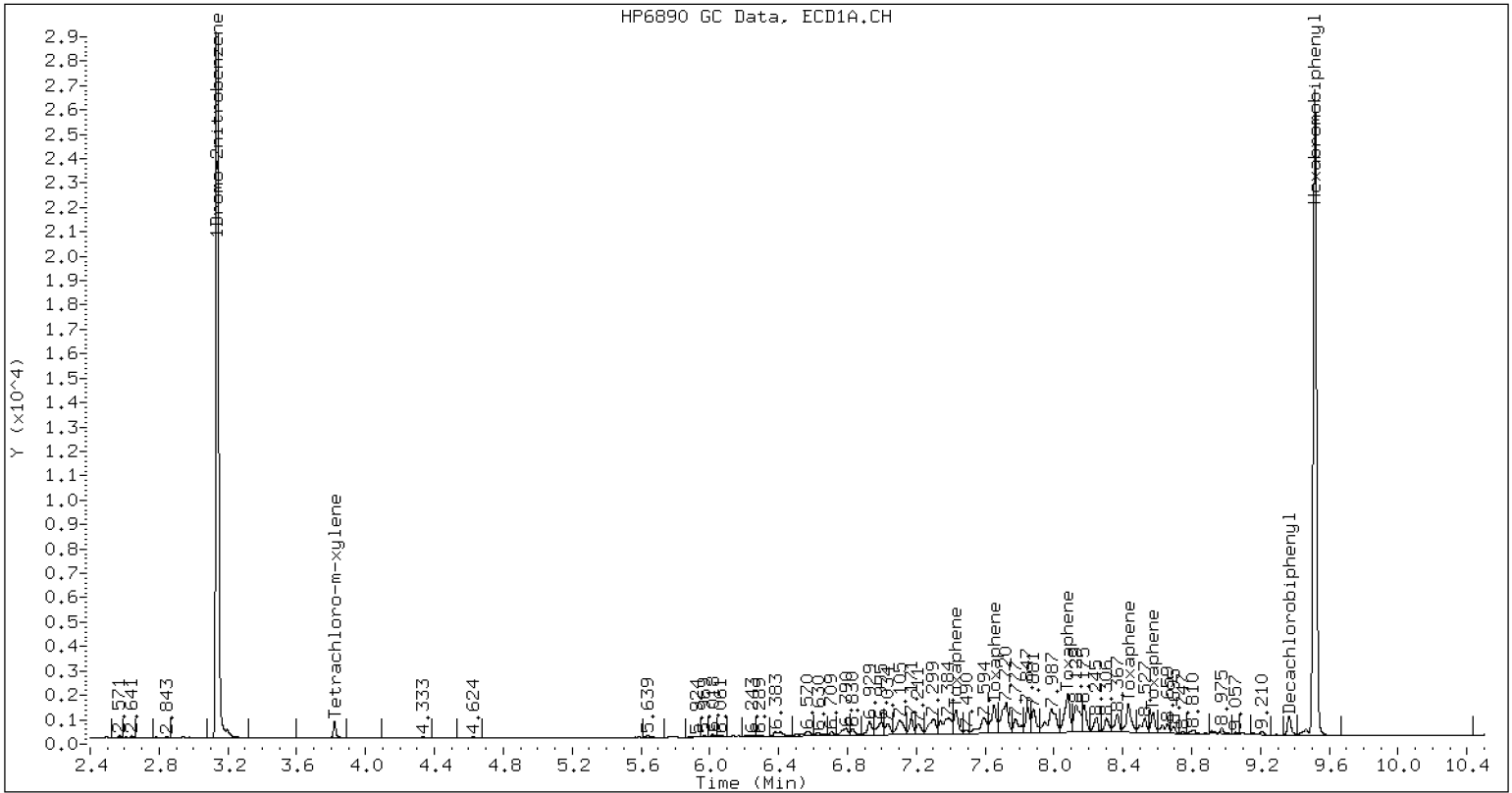
INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	914711	5.8
Hexabromobiphenyl	663237	736746	11.1

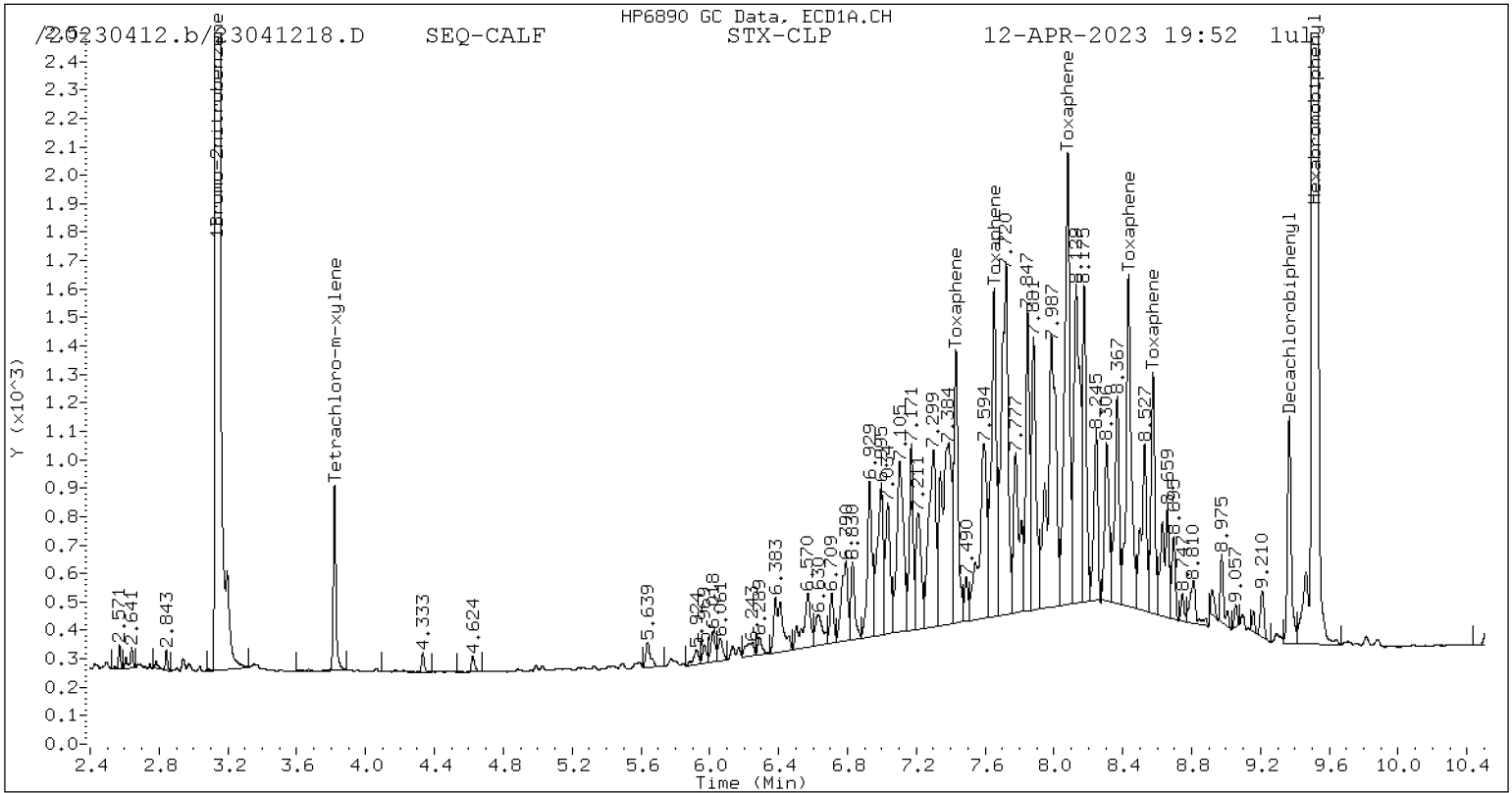
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1268733	-14.3
Hexabromobiphenyl	870561	770830	-11.5

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.430	-0.000	34115	125.1	1	7.440	0.000	35652	143.7		
Toxaphene	2	7.652	-0.001	48770	133.6	2	8.082	-0.001	107411	146.6		
Toxaphene	3	8.080	0.000	67485	135.6	3	8.335	-0.001	81808	143.0		
Toxaphene	4	8.433	0.000	48028	122.4	4	8.838	-0.001	87639	142.7		
Toxaphene	5	8.575	-0.000	27697	117.3	5	9.209	-0.001	46750	139.0		
Total STX-CLPAve (5 peaks):					126.820	Total CLP2Ave (5 peaks):					142.998	RPD = 12
Corrected Ave (5 peaks):					126.820	Corrected Ave (5 peaks):					142.998	RPD = 12

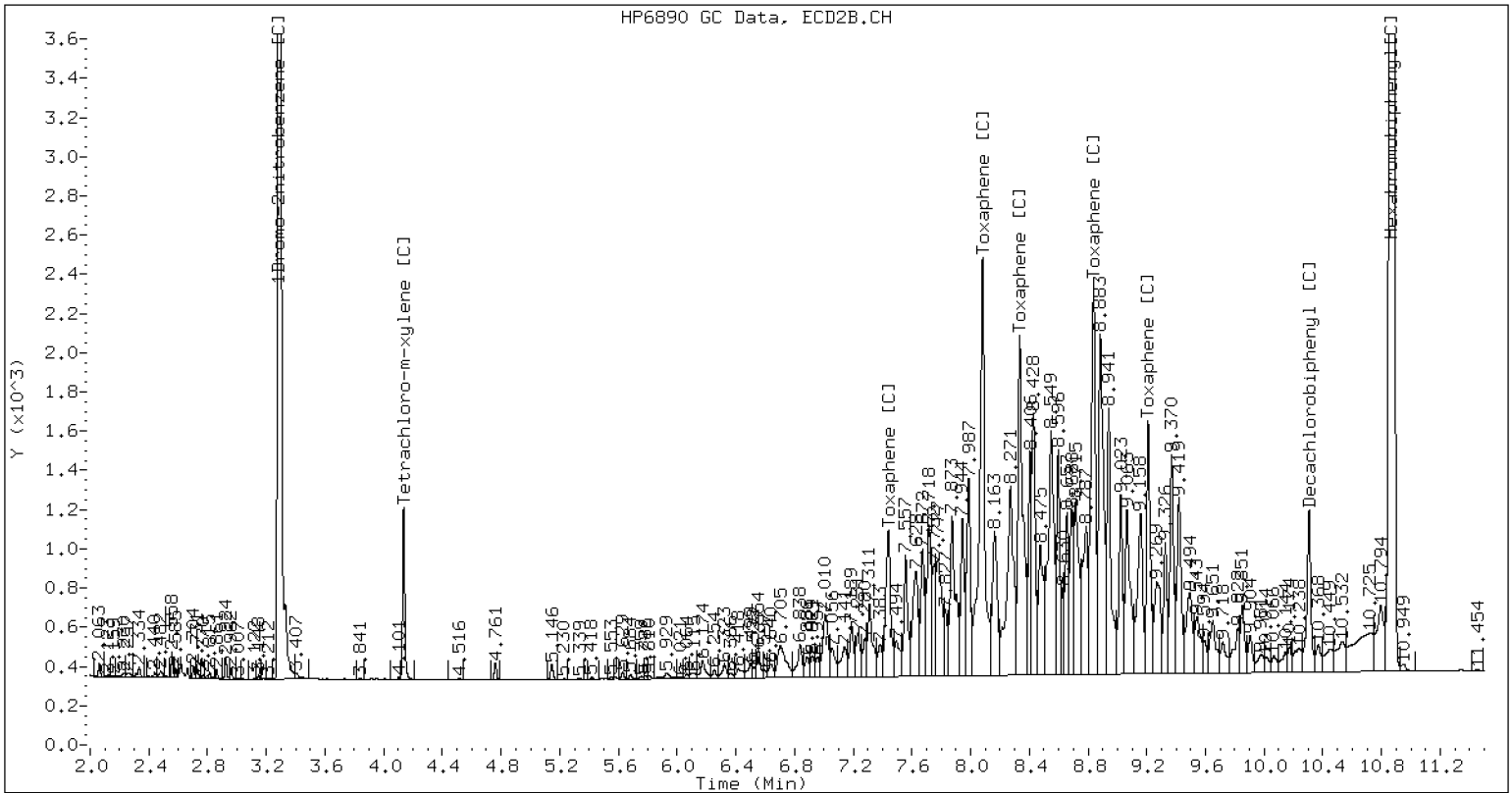


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041218.D SEQ-CALF CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041219.D
 Data file 2: /20230412.b/B20230412.b/23041219.D
 Method: \20230412.b\PEST.m
 Compound Sublist: TOXAPH.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CALG
 Client ID:
 Injection Date: 12-APR-2023 20:10
 Report Date: 04/13/2023 13:06
 Units: ng/mL
 Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.820	0.001	27648	4.136	0.000	36736	2.17	2.11	2.6	Tetrachloro-m-xylene
9.367	0.001	43538	10.306	-0.000	56135	5.17	6.10	16.5	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

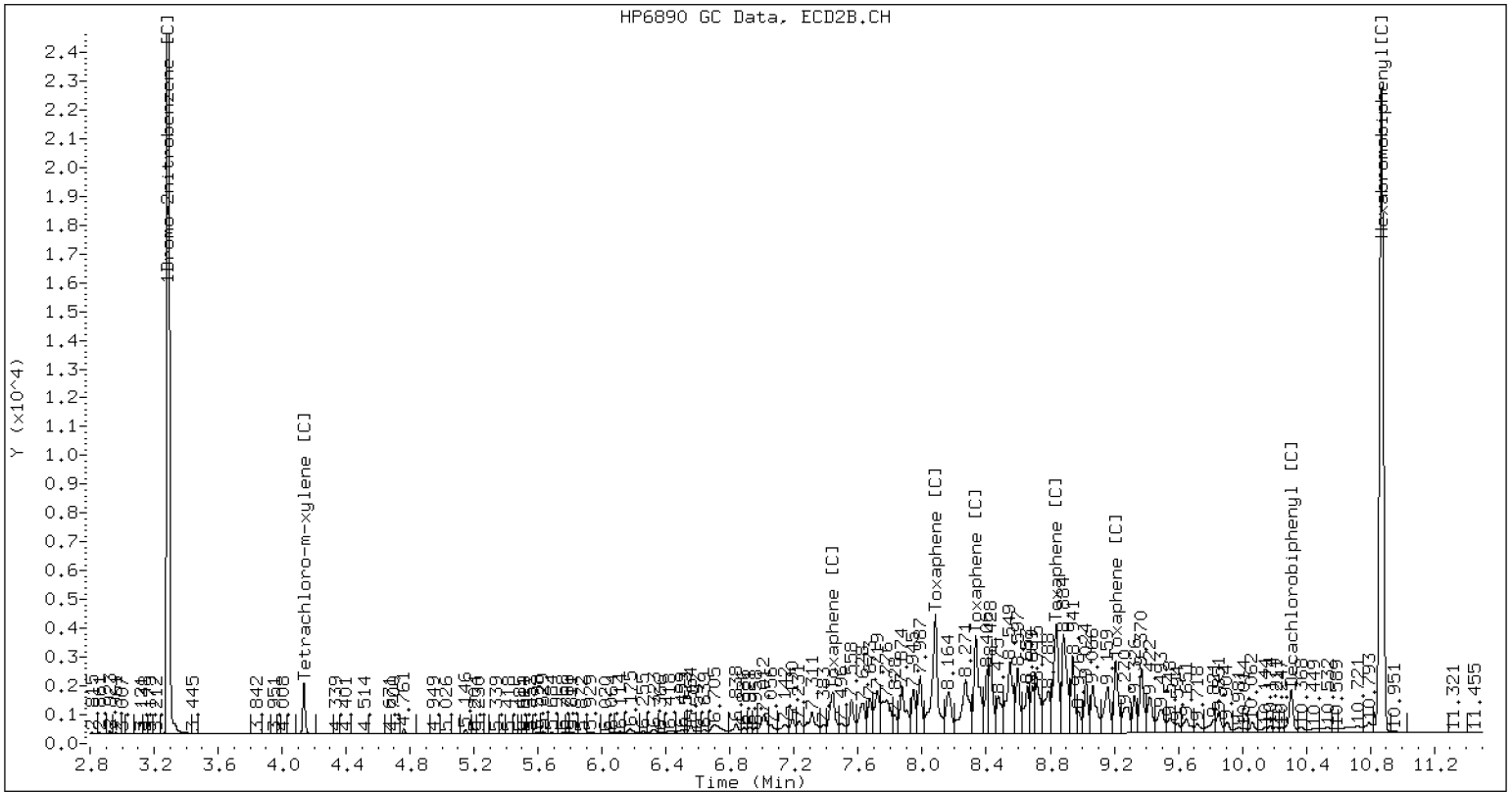
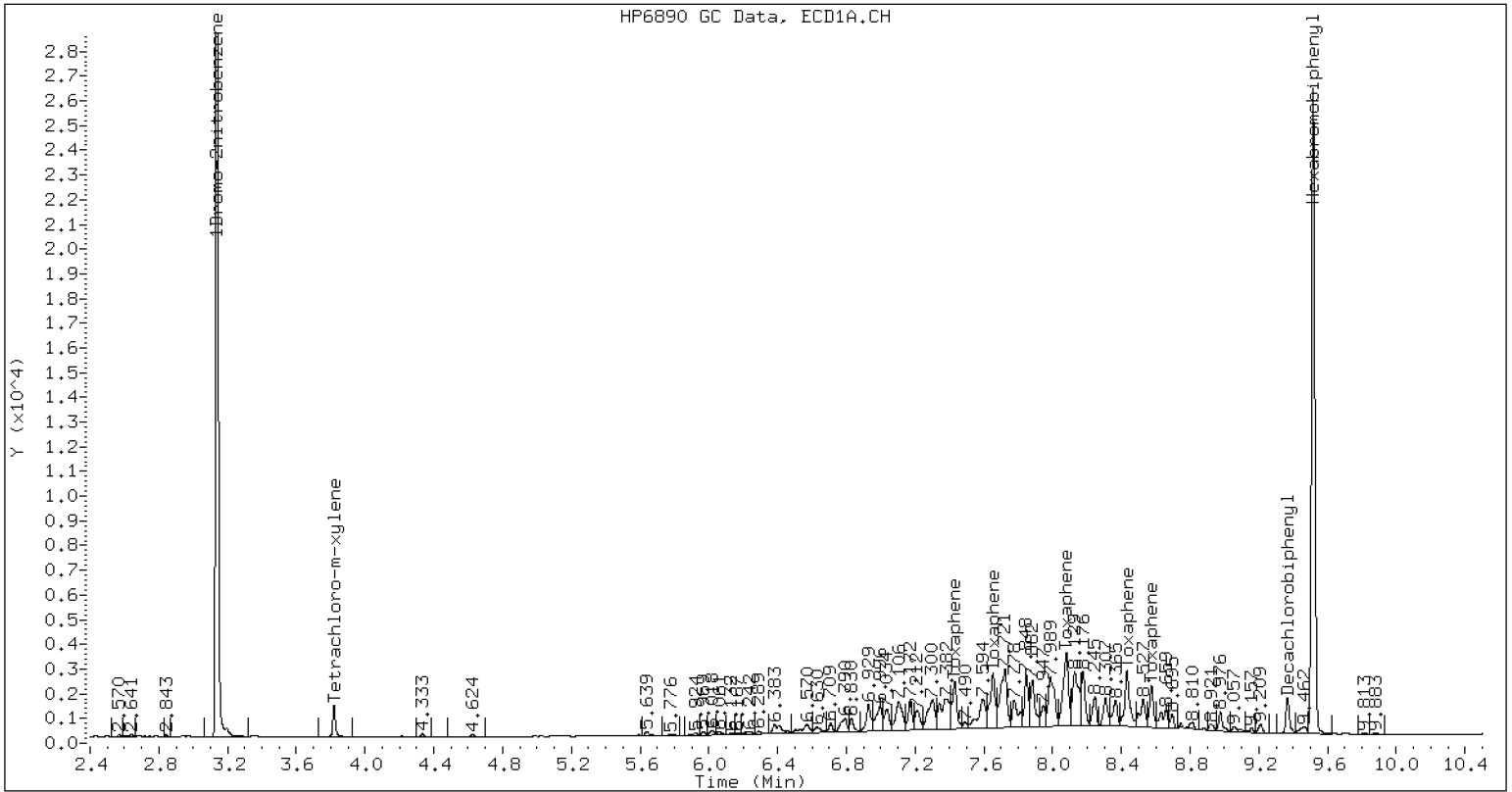
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	911122	5.4
Hexabromobiphenyl	663237	714377	7.7

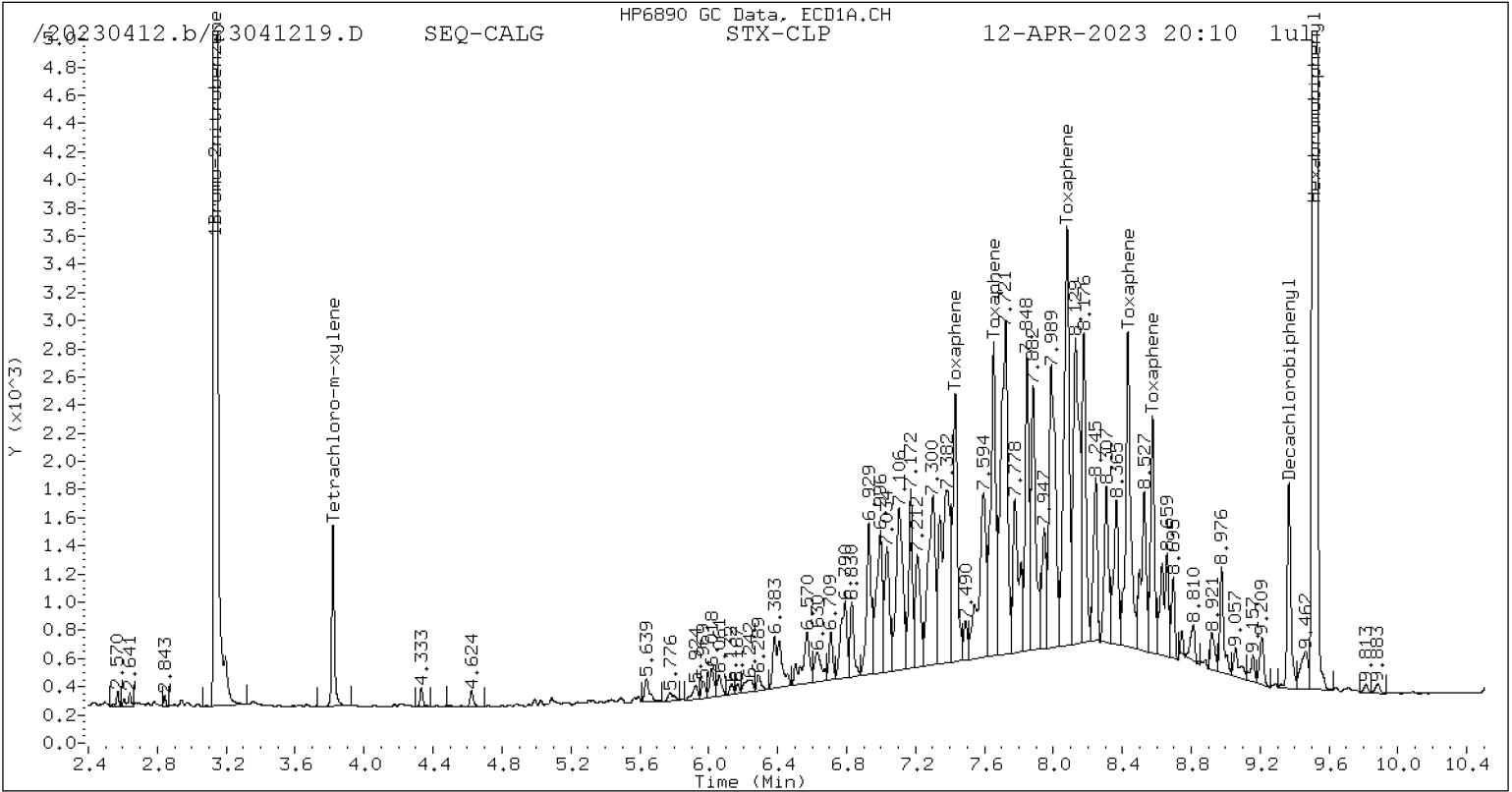
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1263997	-14.6
Hexabromobiphenyl	870561	762676	-12.4

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col			Amount
			Shift	Height	Amount			Shift	Height	Amount	
Toxaphene	1	7.430	0.000	72029	272.5	1	7.440	0.000	69042	281.2	
Toxaphene	2	7.653	0.000	94737	267.7	2	8.082	-0.001	206105	284.4	
Toxaphene	3	8.079	0.000	129282	268.0	3	8.335	-0.001	158407	279.9	
Toxaphene	4	8.433	0.000	90301	237.4	4	8.838	-0.001	170052	279.8	
Toxaphene	5	8.575	0.000	53948	235.5	5	9.209	-0.001	91320	274.3	
Total STX-CLPAve (5 peaks): 256.226					Total CLP2Ave (5 peaks): 279.934					RPD = 9	
Corrected Ave (5 peaks): 256.226					Corrected Ave (5 peaks): 279.934					RPD = 9	

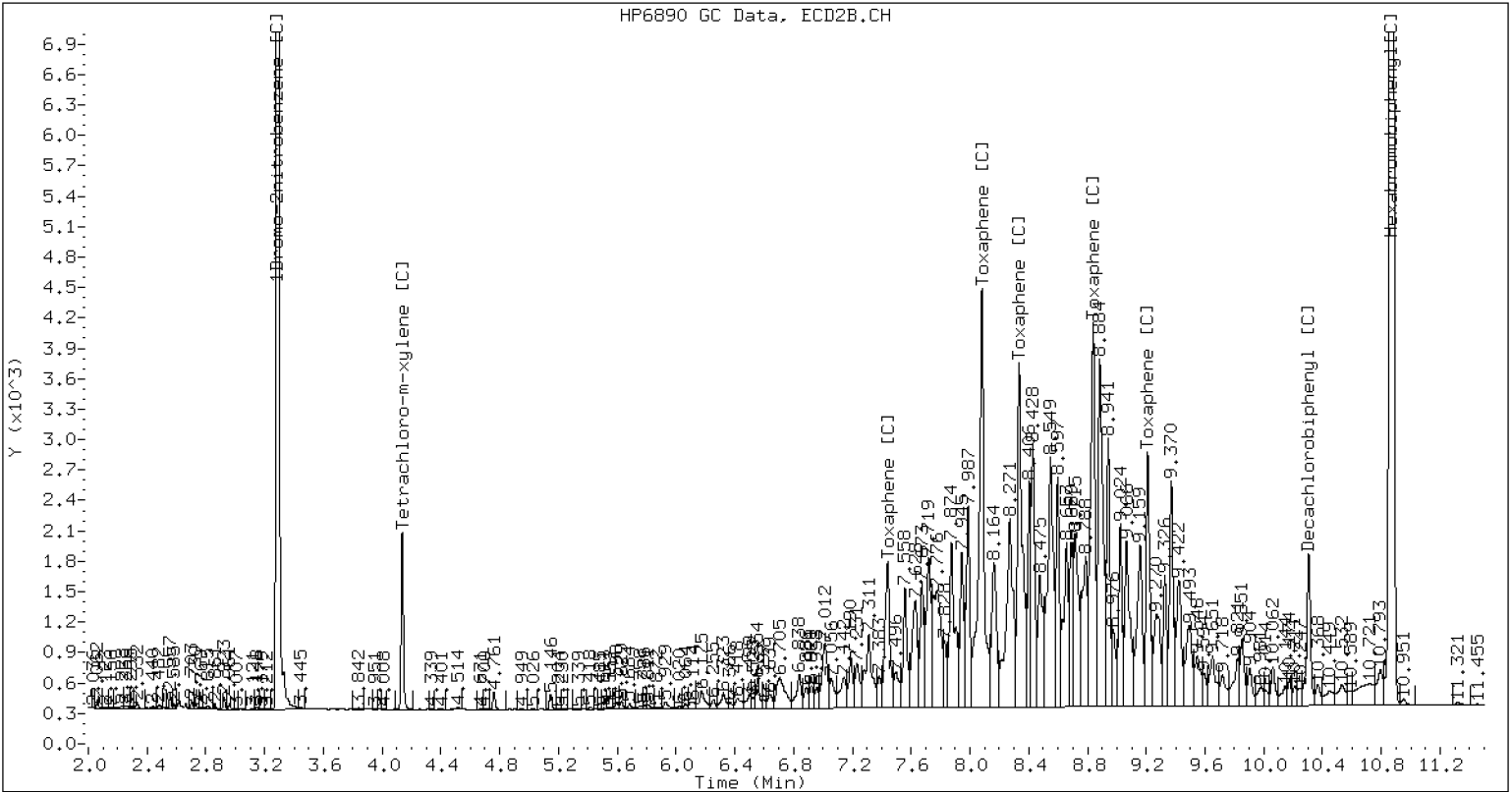


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041219.D SEQ-CALG CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041220.D
Data file 2: /20230412.b/B20230412.b/23041220.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALH
Client ID:
Injection Date: 12-APR-2023 20:29
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	54190	4.136	-0.000	72947	4.30	4.19	2.4	Tetrachloro-m-xylene
9.367	0.001	84057	10.306	-0.000	112592	9.95	12.27	20.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

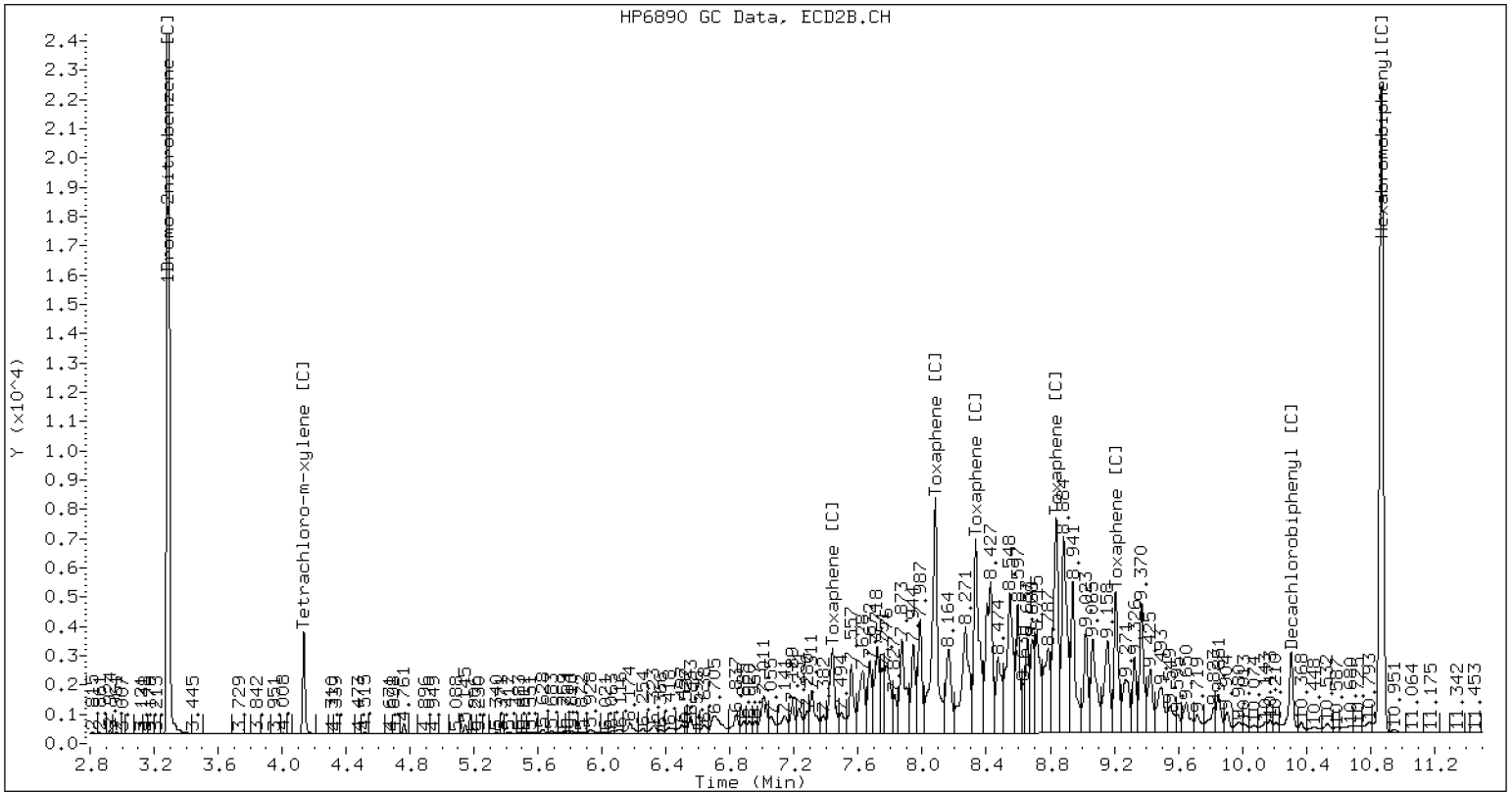
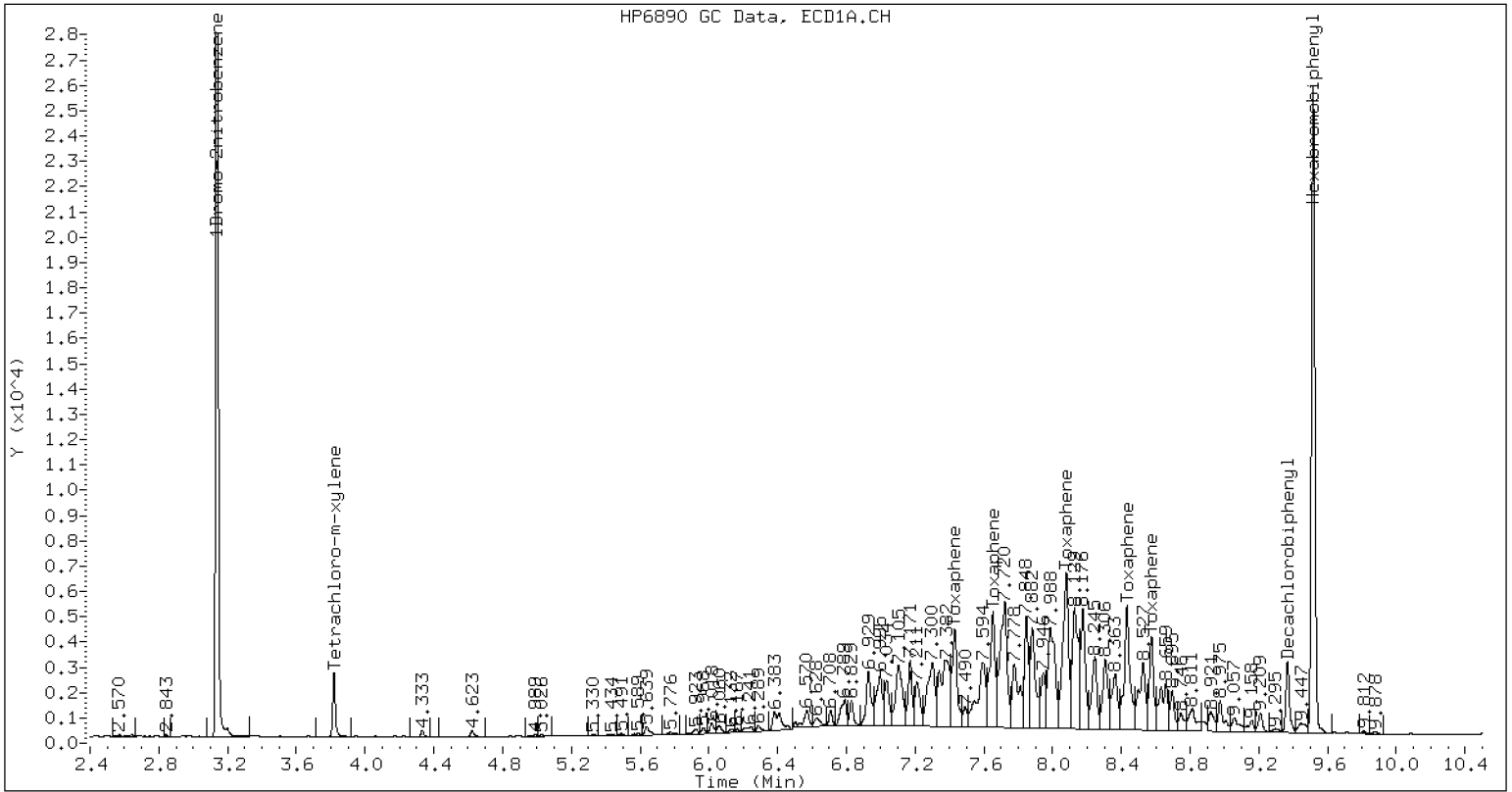
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	901082	4.3
Hexabromobiphenyl	663237	716024	8.0

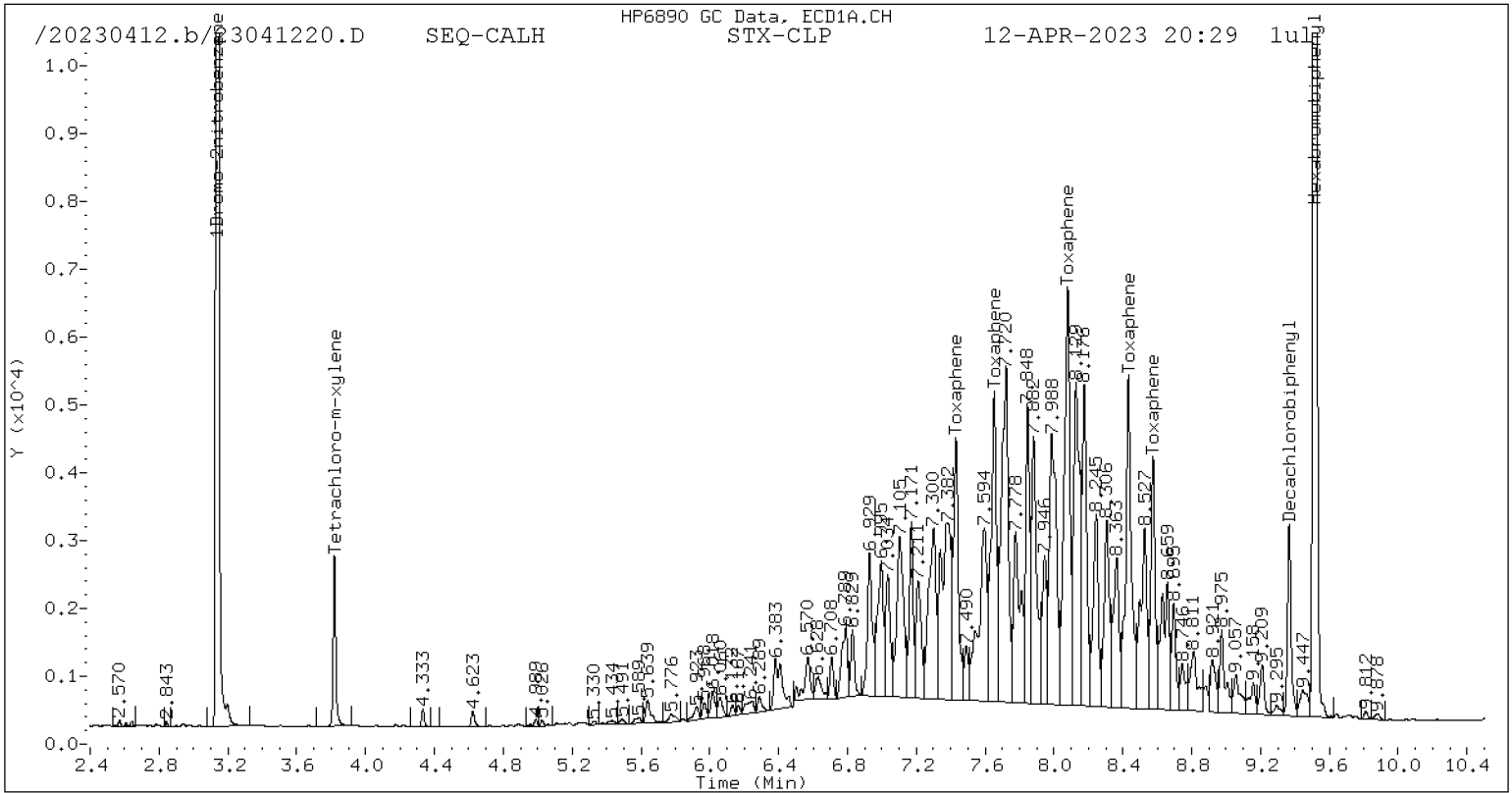
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1264745	-14.6
Hexabromobiphenyl	870561	760374	-12.7

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.430	0.000	157592	594.8	1	7.440	-0.000	136366	557.1		
Toxaphene	2	7.652	-0.001	205637	579.8	2	8.082	-0.001	403294	558.1		
Toxaphene	3	8.079	-0.000	290301	600.3	3	8.334	-0.002	313799	556.2		
Toxaphene	4	8.433	-0.000	226845	595.0	4	8.838	-0.001	331417	547.0		
Toxaphene	5	8.575	-0.000	137082	597.1	5	9.209	-0.001	180073	542.6		
Total STX-CLPAve (5 peaks):					593.415	Total CLP2Ave (5 peaks):					552.208	RPD = 7
Corrected Ave (5 peaks):					593.415	Corrected Ave (5 peaks):					552.208	RPD = 7

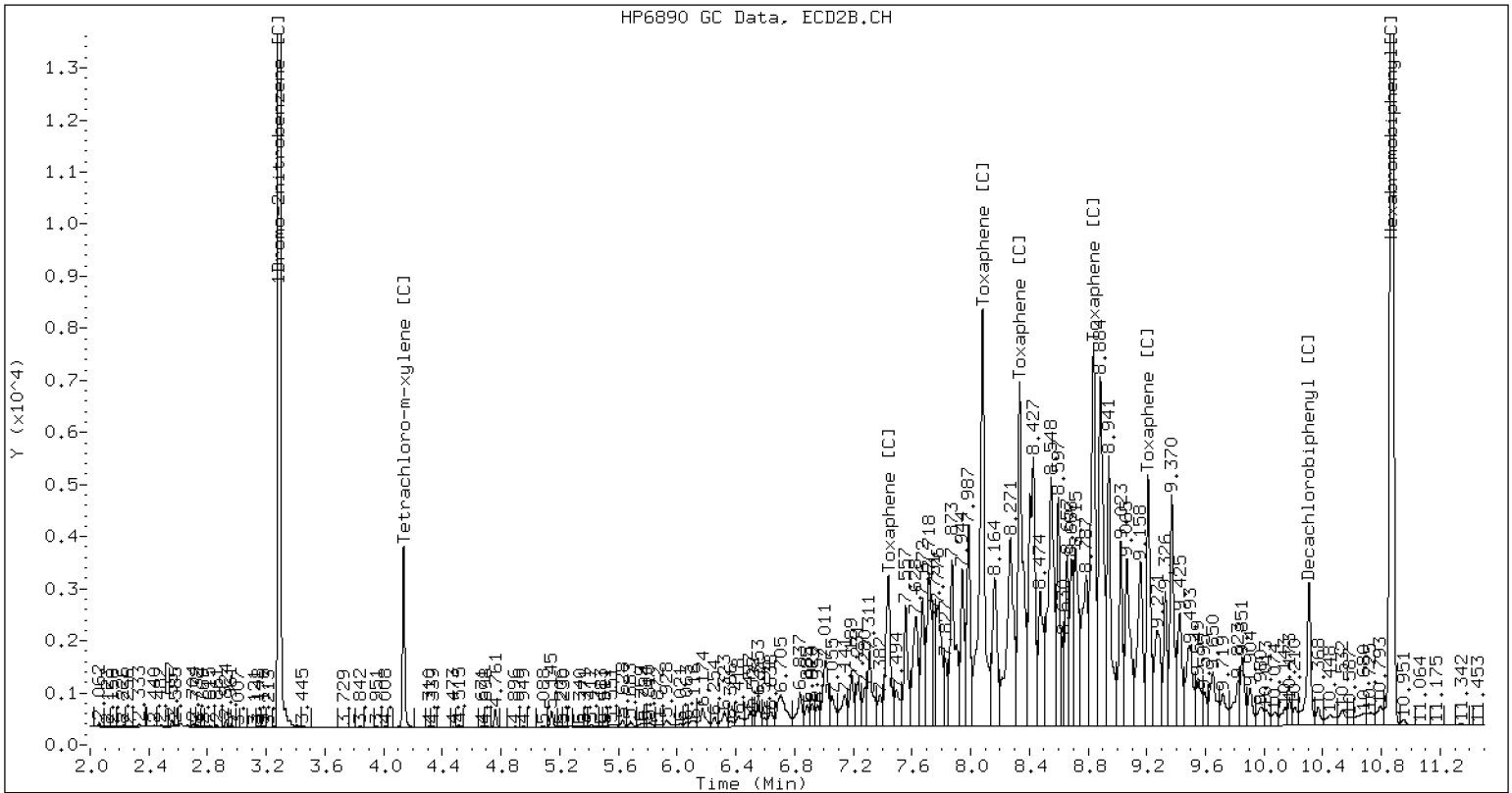


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041220.D SEQ-CALH CLP2



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041221.D
Data file 2: /20230412.b/B20230412.b/23041221.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALI
Client ID:
Injection Date: 12-APR-2023 20:47
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	105882	4.136	-0.000	143630	8.24	8.18	0.8	Tetrachloro-m-xylene
9.367	0.001	153784	10.306	0.000	209053	17.55	21.94	22.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

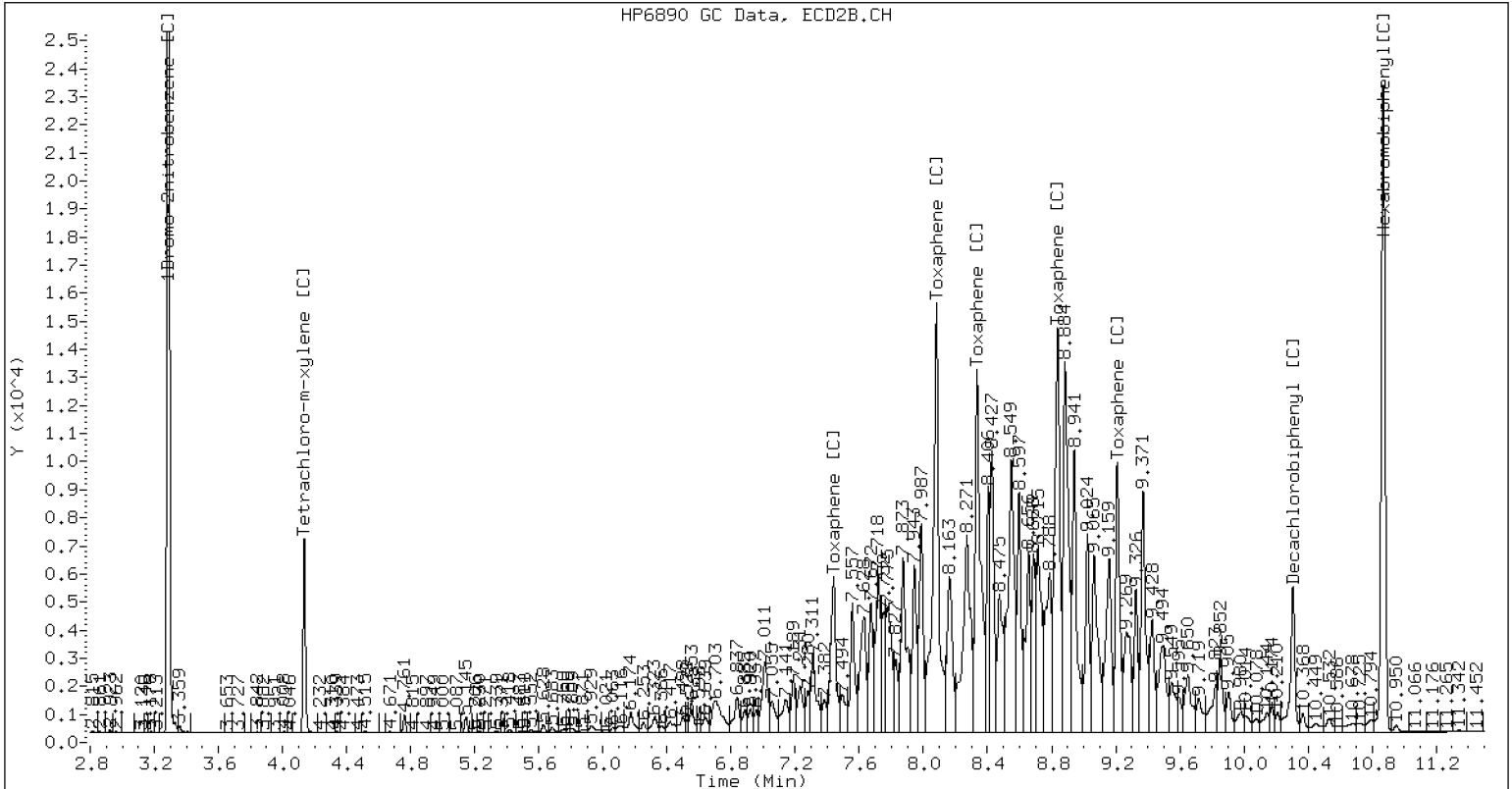
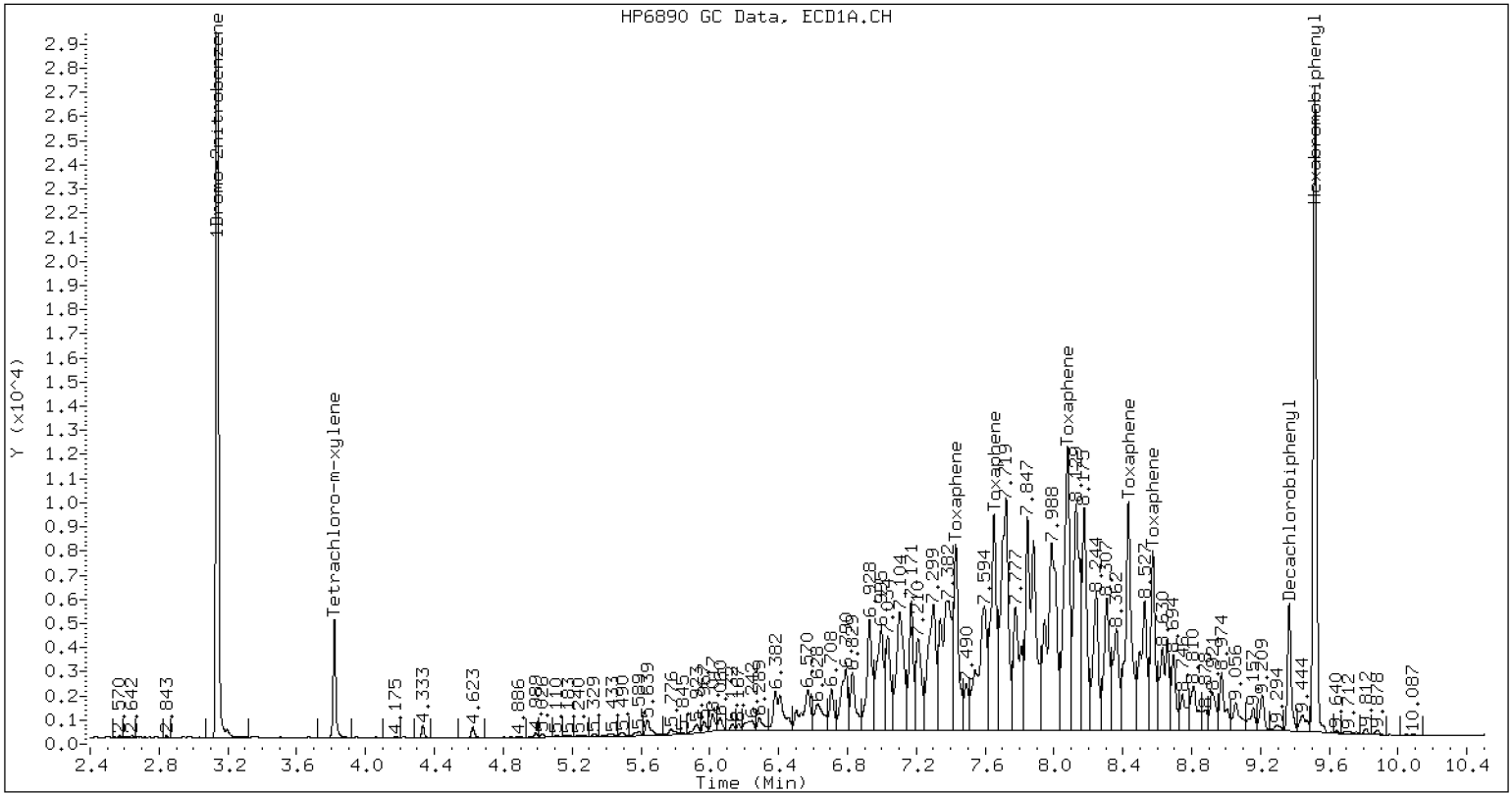
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	918194	6.2
Hexabromobiphenyl	663237	742986	12.0

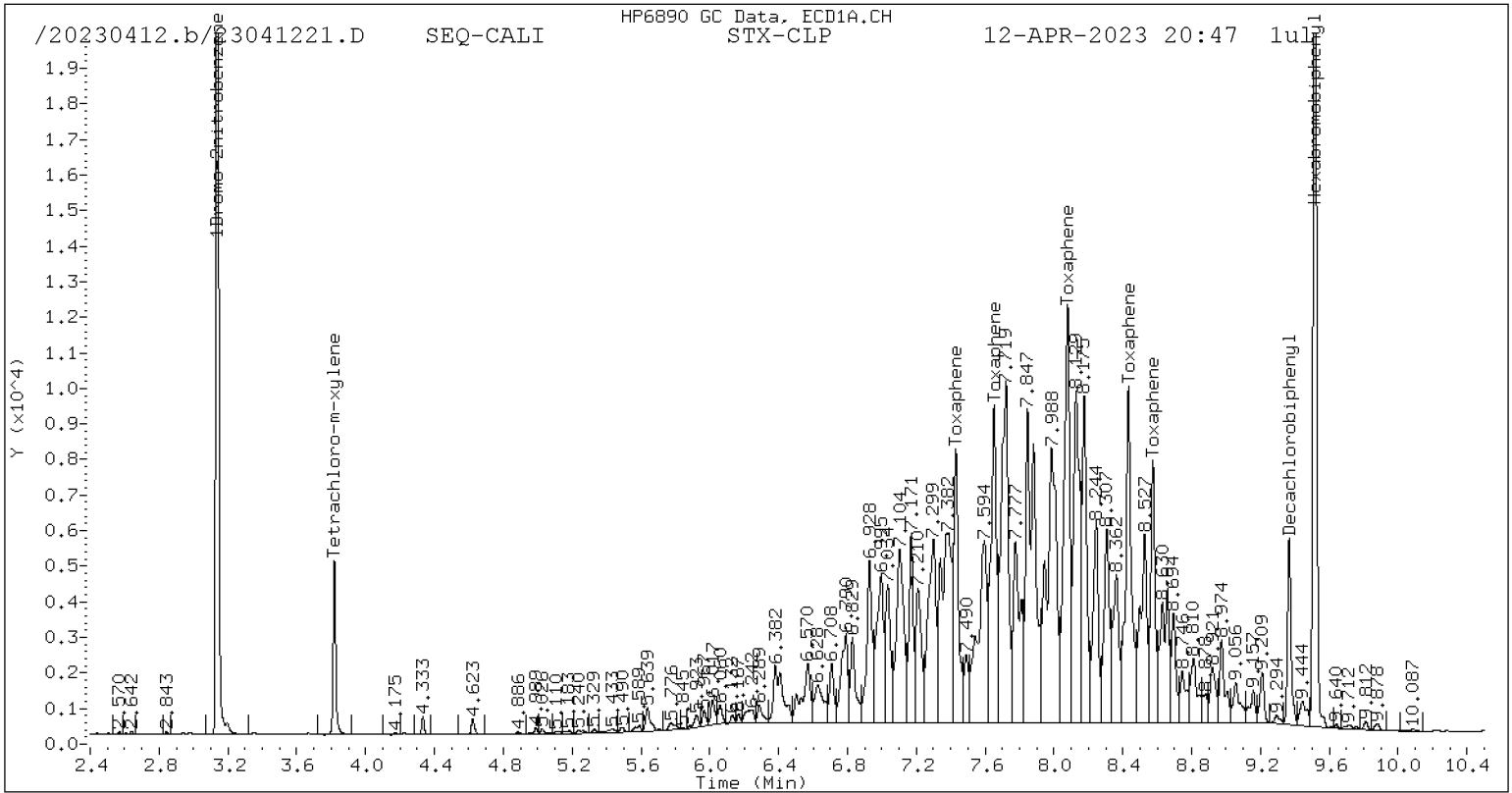
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1277652	-13.7
Hexabromobiphenyl	870561	789338	-9.3

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

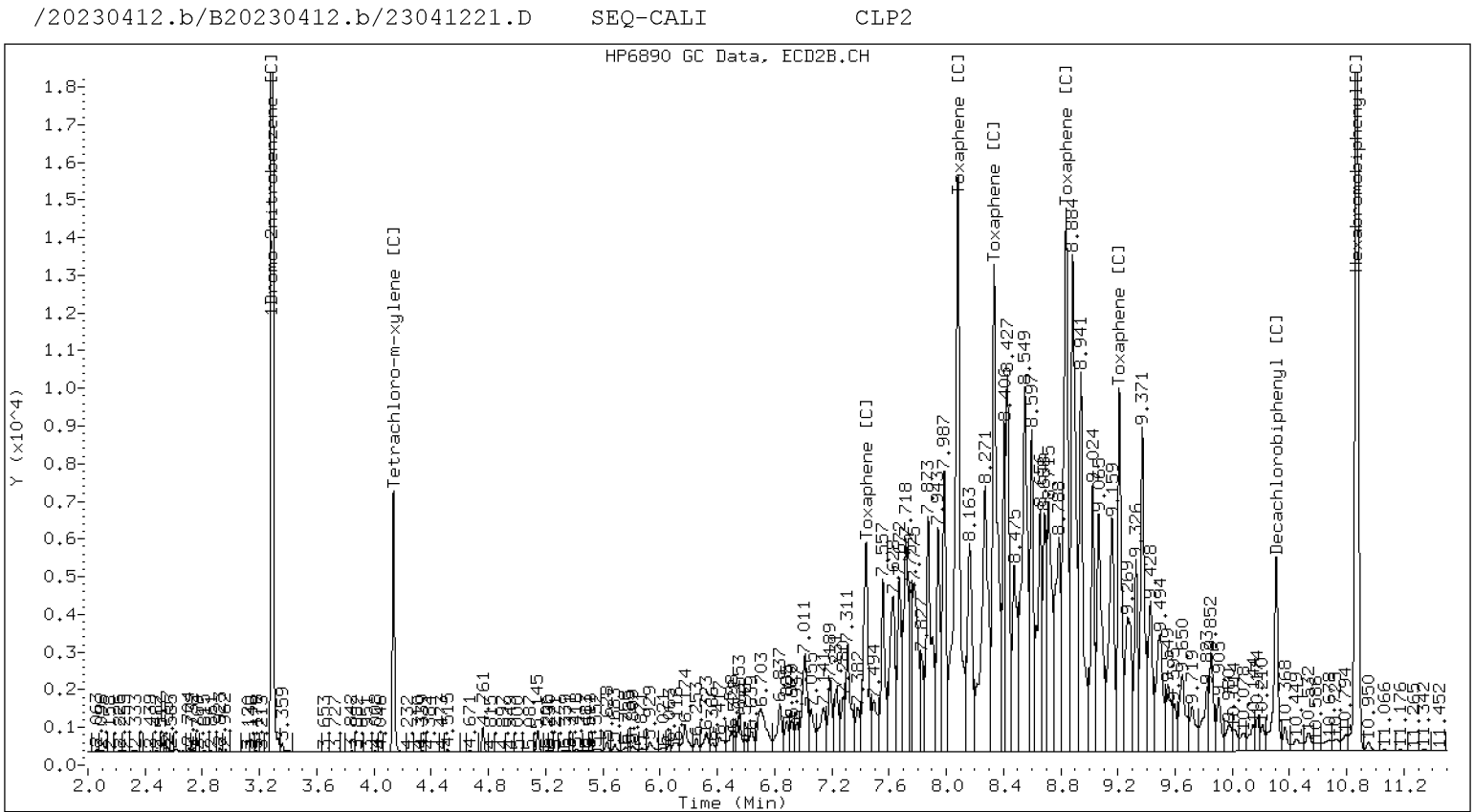
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	301979	1098.4	1	7.440	-0.000	262813	1034.2		
Toxaphene	2	7.652	-0.001	416680	1132.3	2	8.081	-0.002	775904	1034.4		
Toxaphene	3	8.078	-0.001	559891	1115.8	3	8.335	-0.001	609018	1039.9		
Toxaphene	4	8.433	-0.000	452584	1144.0	4	8.838	-0.001	645519	1026.4		
Toxaphene	5	8.574	-0.001	277122	1163.4	5	9.210	-0.000	352517	1023.2		
Total STX-CLPAve (5 peaks):					1130.762	Total CLP2Ave (5 peaks):					1031.622	RPD = 9
Corrected Ave (5 peaks):					1130.762	Corrected Ave (5 peaks):					1031.622	RPD = 9



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041222.D
Data file 2: /20230412.b/B20230412.b/23041222.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALJ
Client ID:
Injection Date: 12-APR-2023 21:05
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	252501	4.136	-0.000	349014	19.37	19.72	1.8	Tetrachloro-m-xylene
9.367	0.001	411141	10.306	-0.000	491352	42.72	47.90	11.4	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

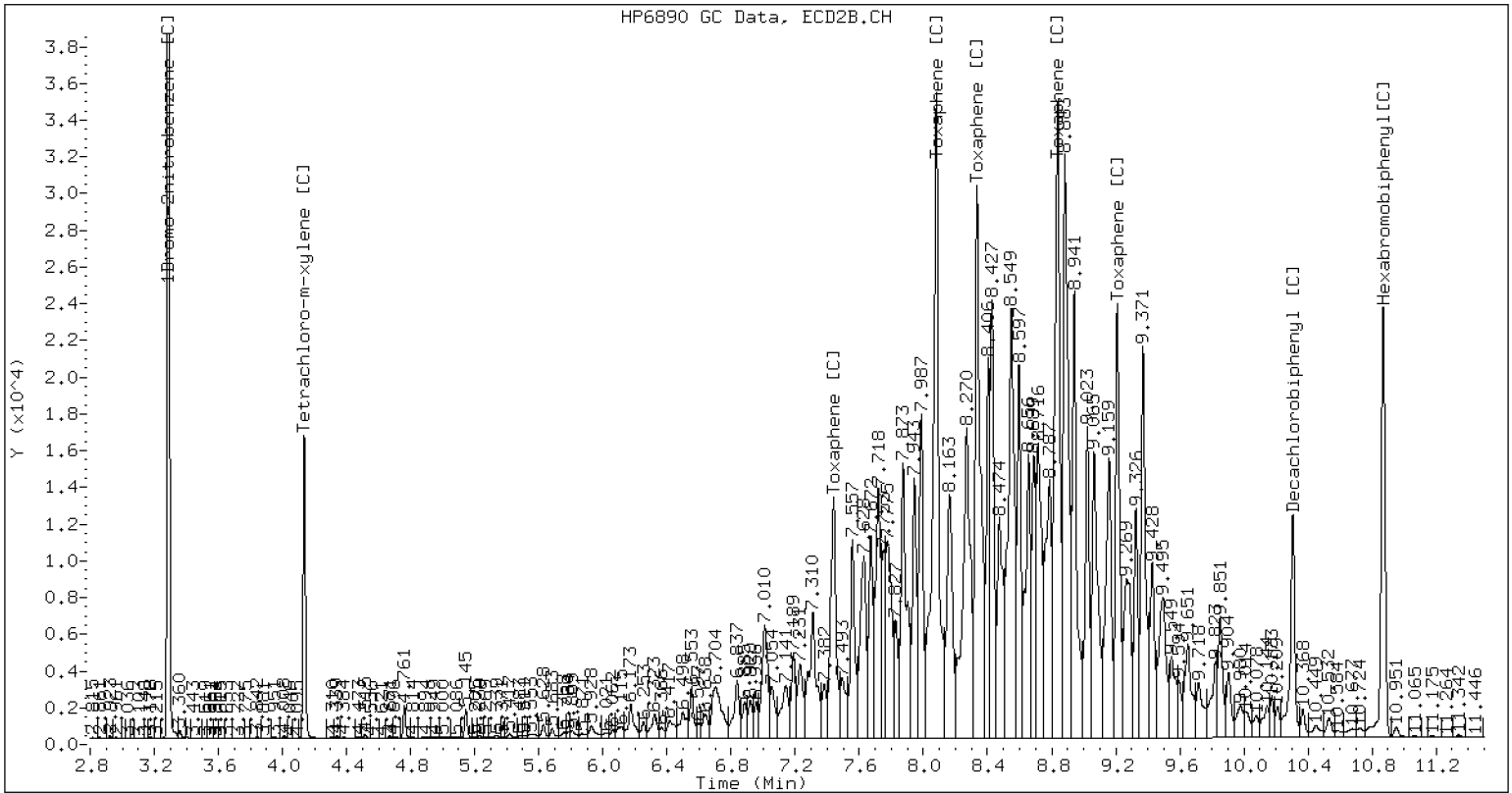
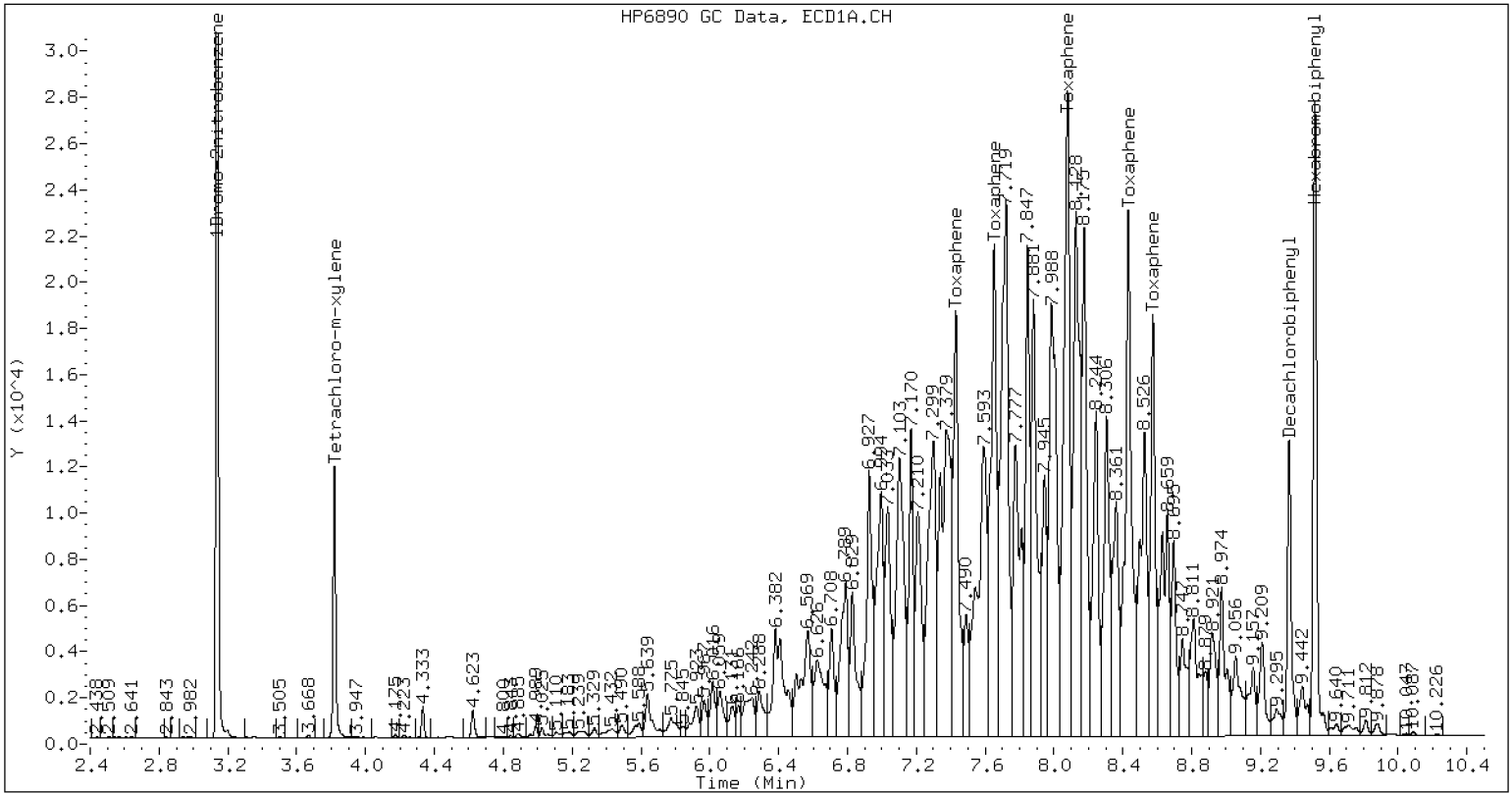
INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	864333	931444	7.8
Hexabromobiphenyl	663237	816041	23.0

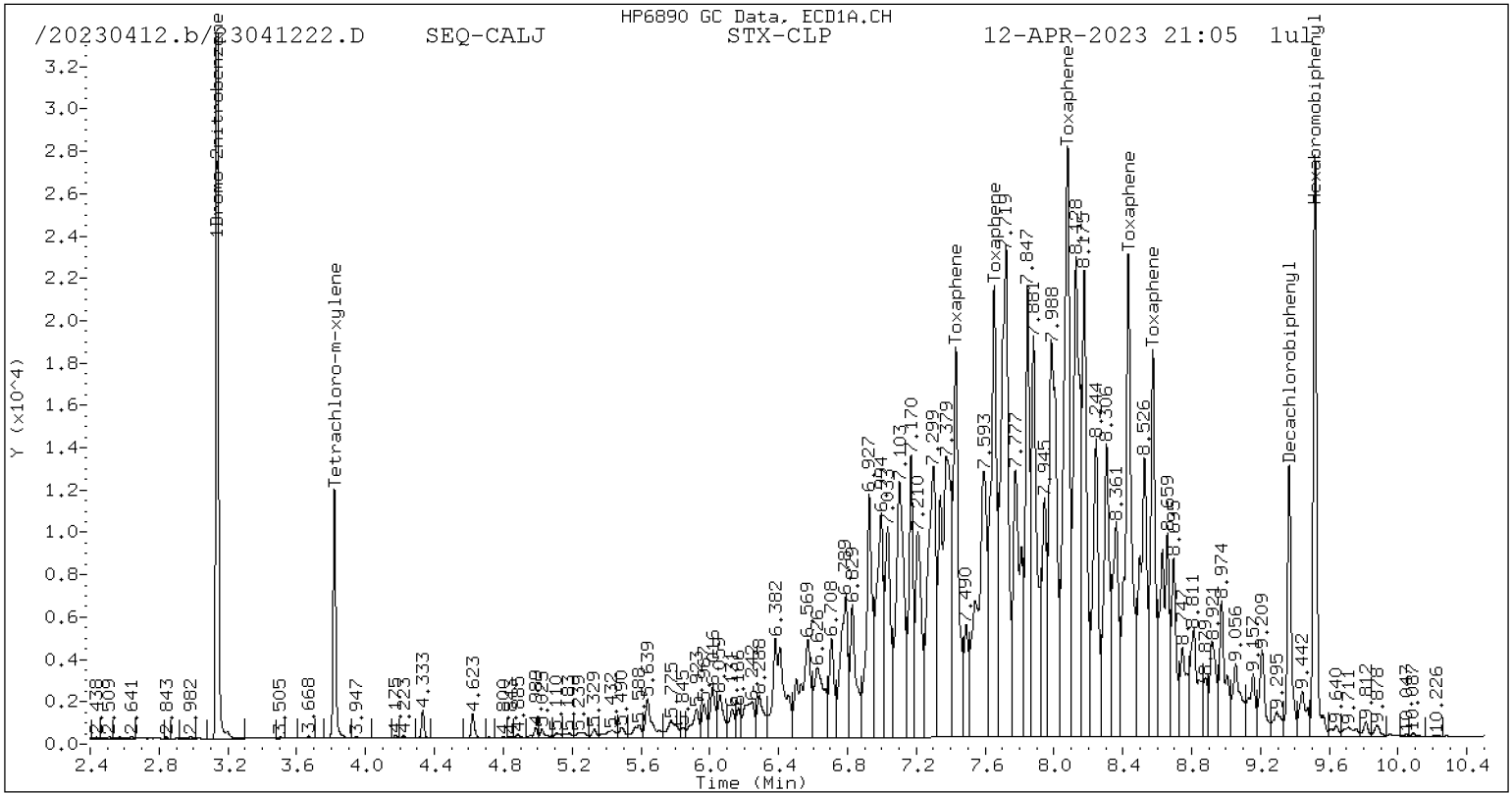
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1480846	1287009	-13.1
Hexabromobiphenyl	870561	849848	-2.4

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

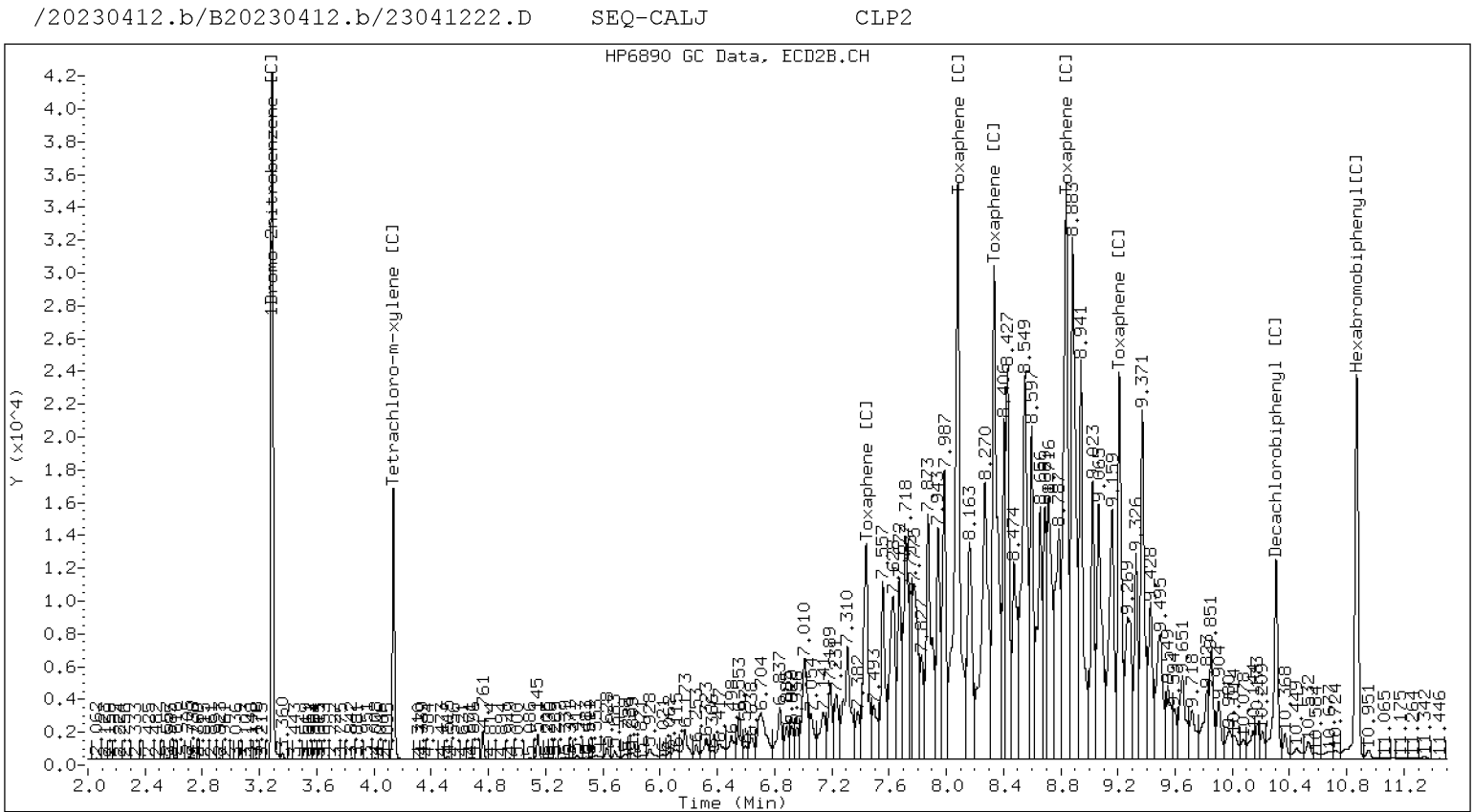
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	797088	2639.8	1	7.440	-0.000	629948	2302.4		
Toxaphene	2	7.652	-0.001	1032073	2553.4	2	8.081	-0.002	1823289	2257.7		
Toxaphene	3	8.078	-0.001	1374882	2494.6	3	8.335	-0.001	1449258	2298.5		
Toxaphene	4	8.432	-0.001	1177736	2710.5	4	8.838	-0.001	1557874	2300.6		
Toxaphene	5	8.575	-0.001	709132	2710.4	5	9.210	-0.001	862039	2324.0		
Total STX-CLPAve (5 peaks):					2621.744	Total CLP2Ave (5 peaks):					2296.637	RPD = 13
Corrected Ave (5 peaks):					2621.744	Corrected Ave (5 peaks):					2296.637	RPD = 13



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041223.D
Data file 2: /20230412.b/B20230412.b/23041223.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALK
Client ID:
Injection Date: 12-APR-2023 21:24
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.820	0.001	478616	4.136	-0.000	664045	37.29	37.94	1.7	Tetrachloro-m-xylene
9.367	0.001	786481	10.307	0.001	944710	75.08	93.37	21.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

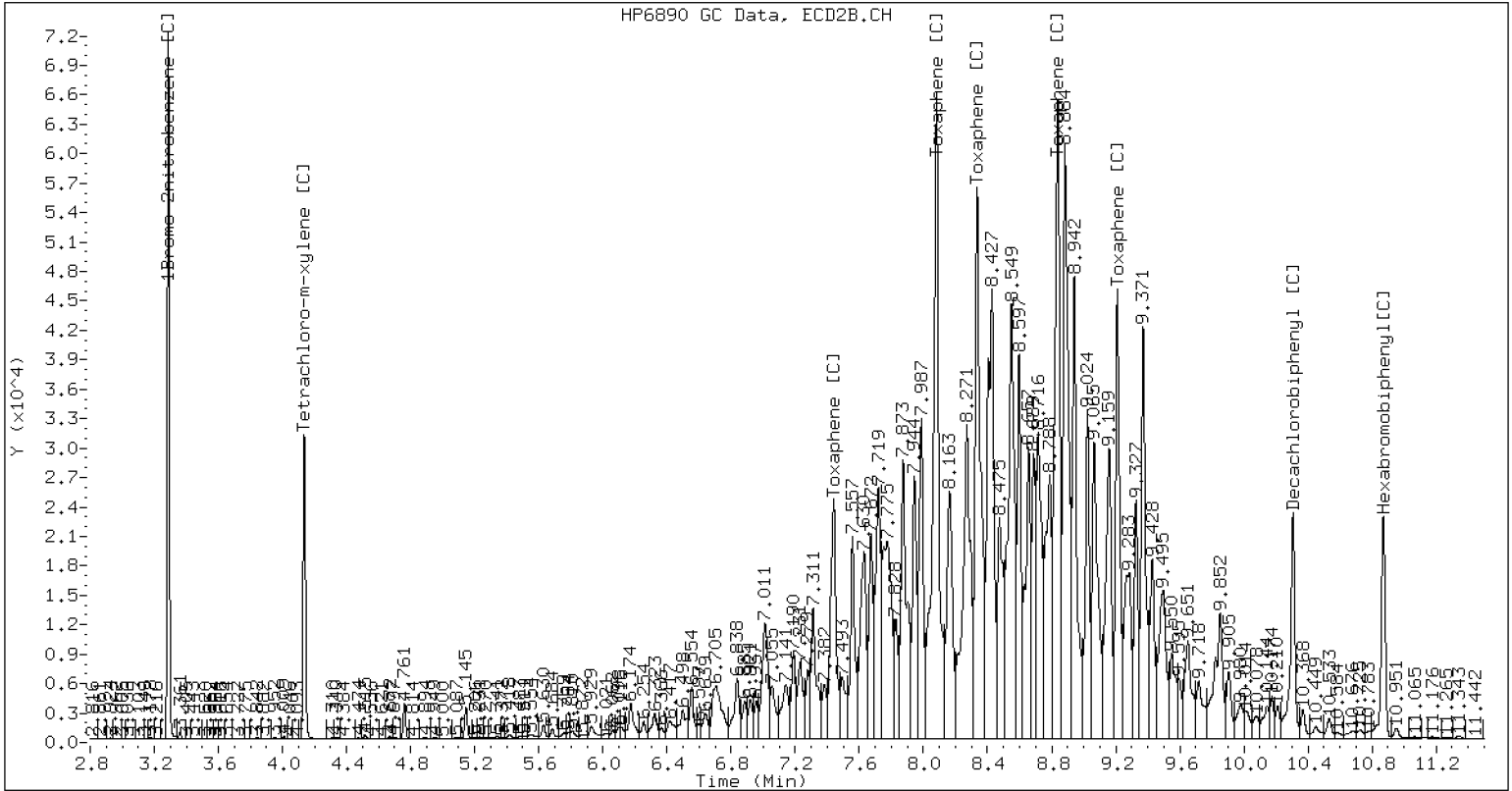
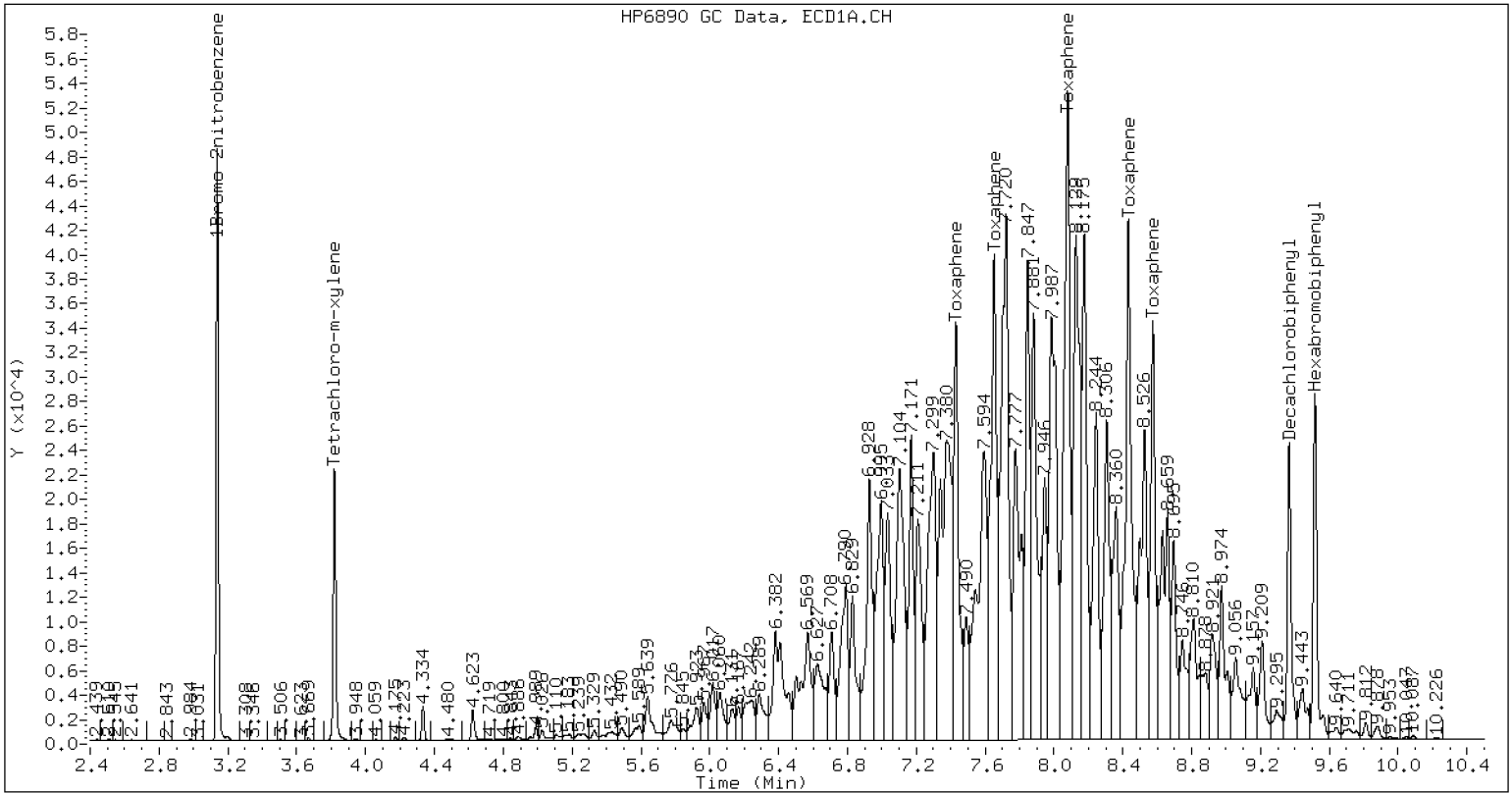
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	917226	6.1
Hexabromobiphenyl	663237	888107	33.9

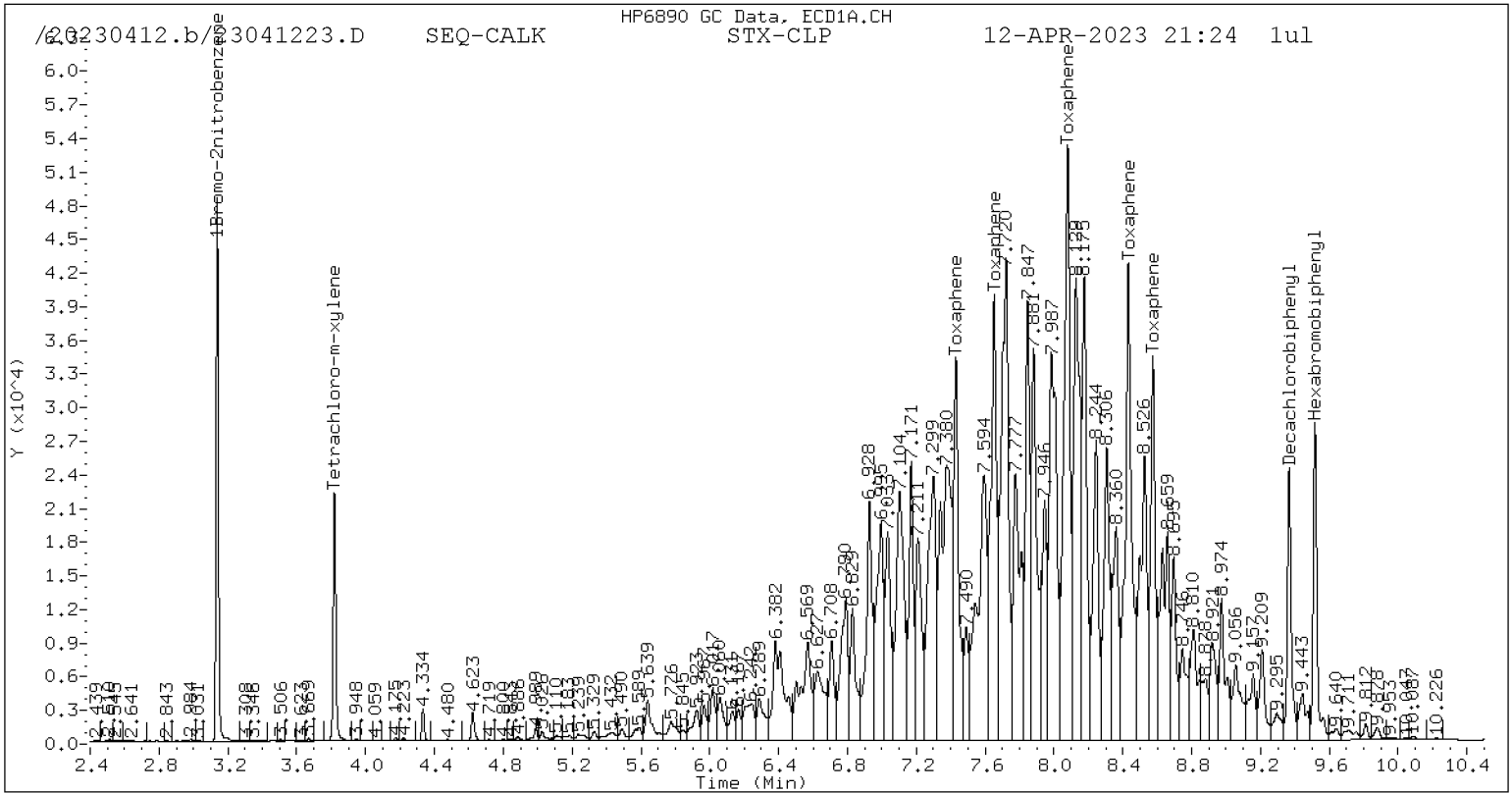
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1272946	-14.0
Hexabromobiphenyl	870561	838283	-3.7

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.429	-0.001	1418710	4317.2	1	7.440	0.000	1190021	4409.5		
Toxaphene	2	7.652	-0.001	1929987	4387.5	2	8.082	-0.001	3433292	4309.9		
Toxaphene	3	8.079	-0.000	2596396	4328.7	3	8.335	-0.001	2739705	4405.0		
Toxaphene	4	8.432	-0.000	2227368	4710.1	4	8.839	-0.000	2971015	4448.0		
Toxaphene	5	8.575	-0.001	1346952	4730.5	5	9.210	-0.000	1678180	4586.6		
Total STX-CLPAve (5 peaks):					4494.806	Total CLP2Ave (5 peaks):					4431.818	RPD = 1
Corrected Ave (5 peaks):					4494.806	Corrected Ave (5 peaks):					4431.818	RPD = 1

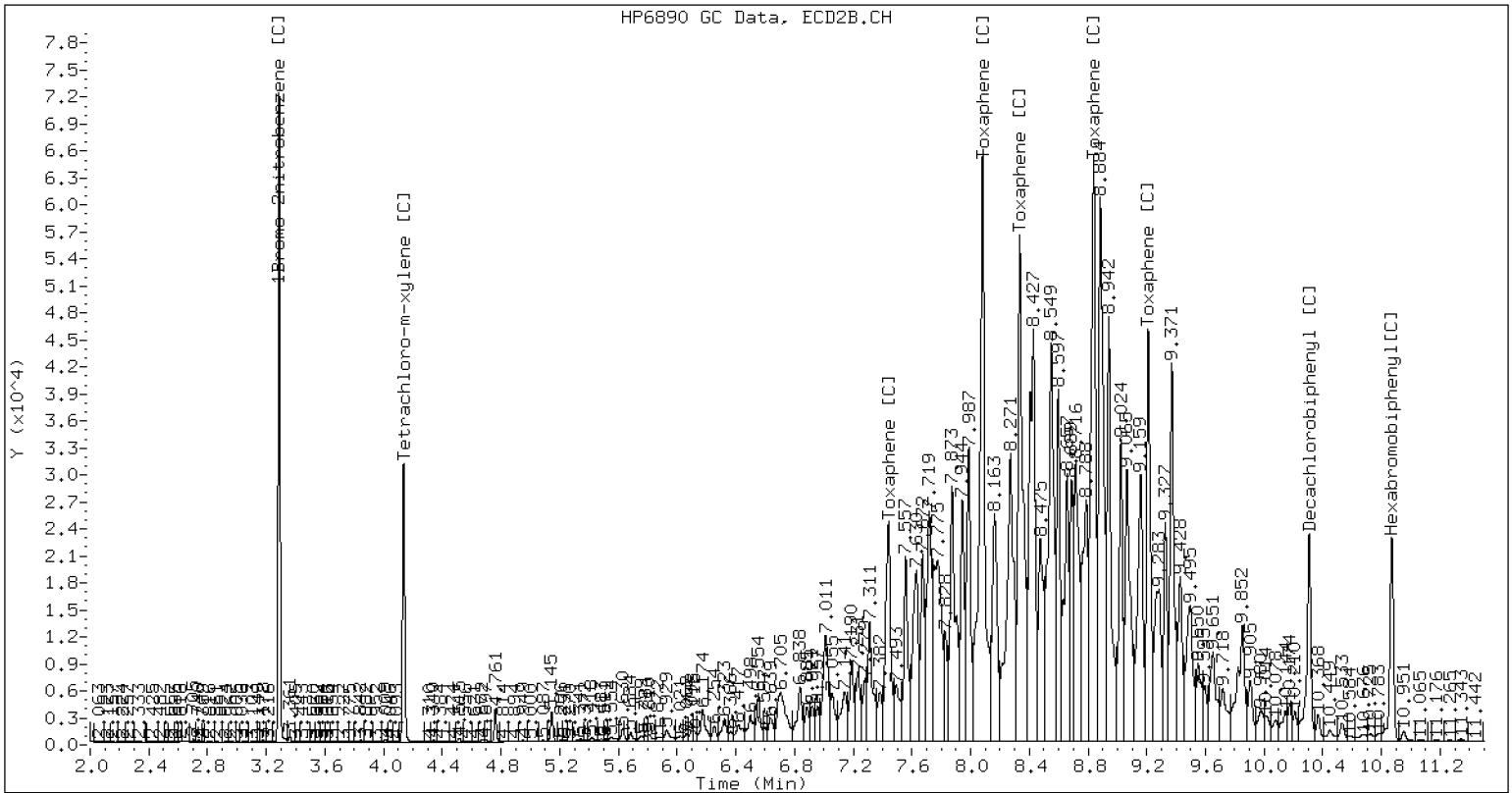


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041223.D SEQ-CALK CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041224.D
Data file 2: /20230412.b/B20230412.b/23041224.D
Method: \20230412.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALL
Client ID:
Injection Date: 12-APR-2023 21:42
Report Date: 04/13/2023 13:06
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.819	0.000	895380	4.136	-0.000	1216061	70.47	70.31	0.2	Tetrachloro-m-xylene
9.366	0.000	1481211	10.306	-0.000	1790917	116.97	168.24	36.0	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

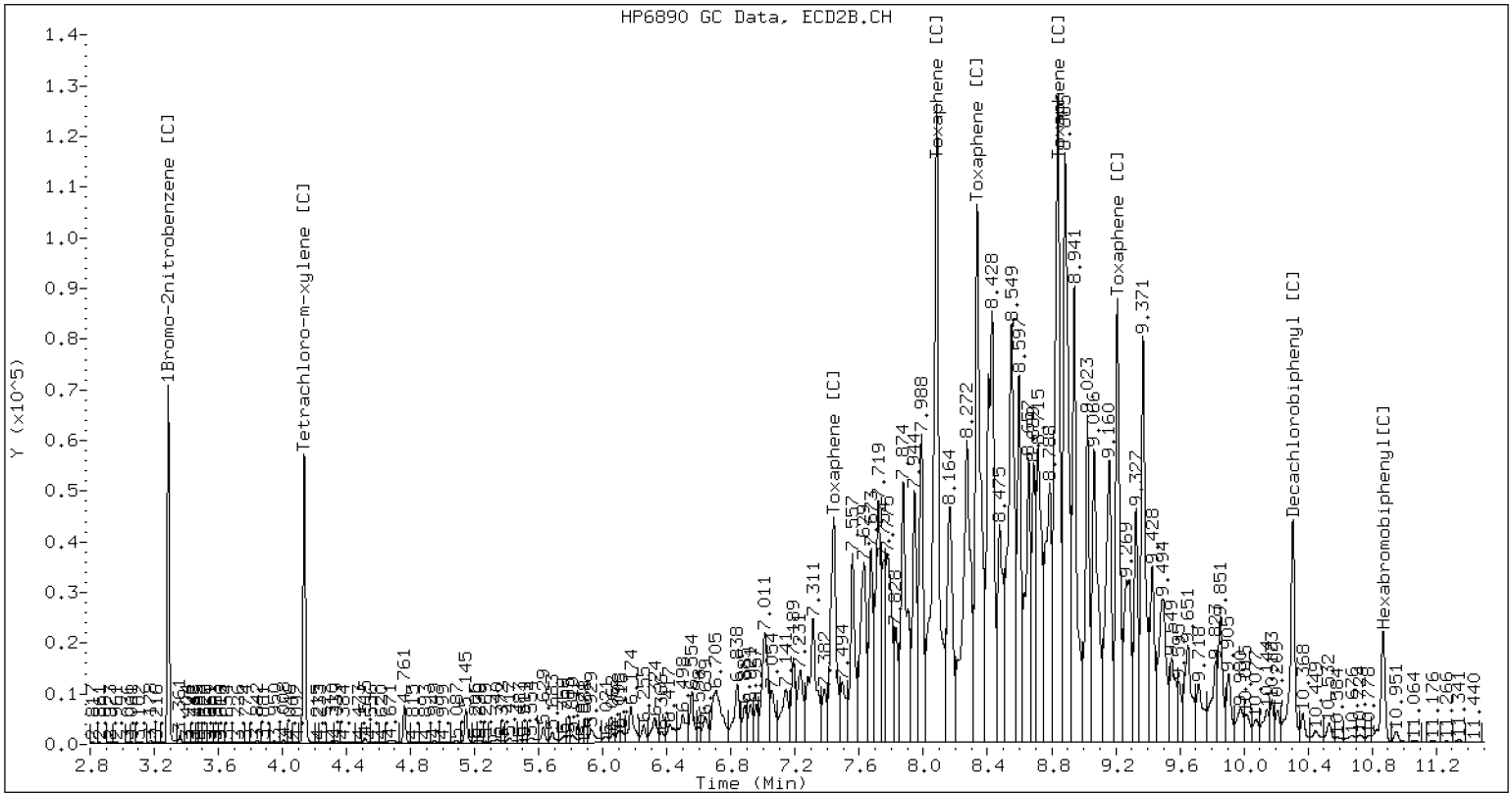
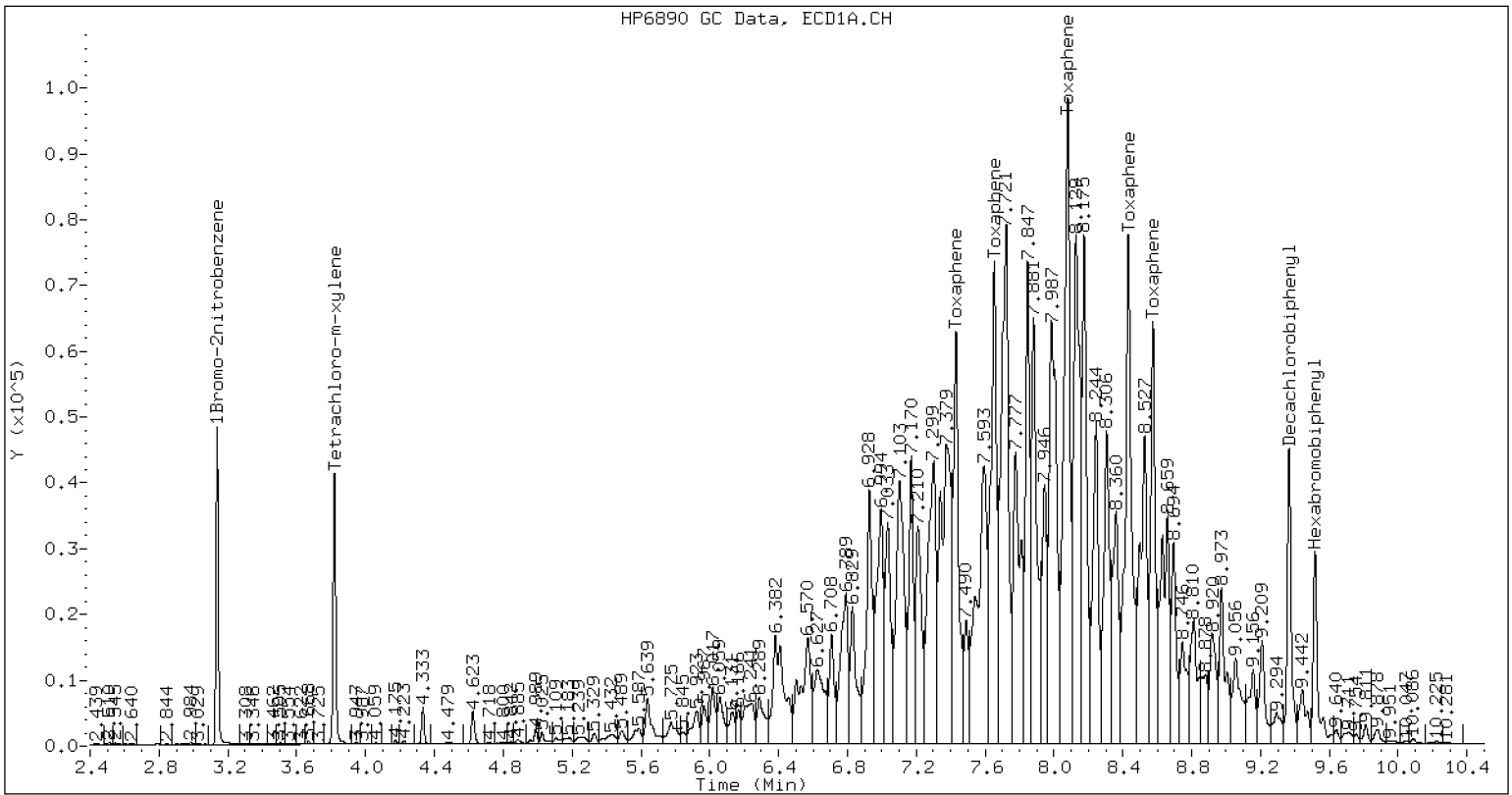
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	908010	5.1
Hexabromobiphenyl	663237	1073617	61.9

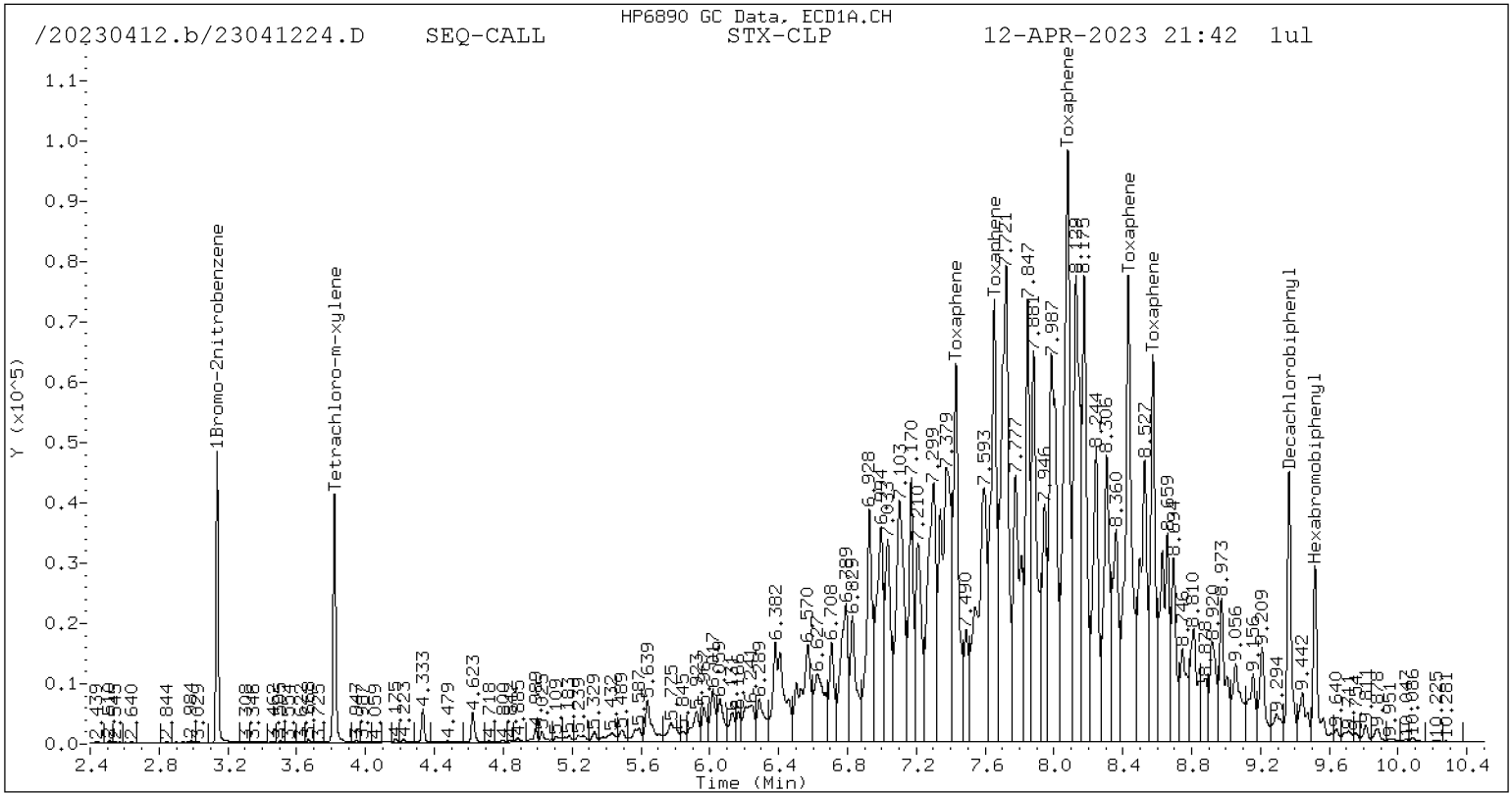
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	1257770	-15.1
Hexabromobiphenyl	870561	881950	1.3

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 12-APR-2023
 <- Indicates standard response outside Limits (-50 to +100%)

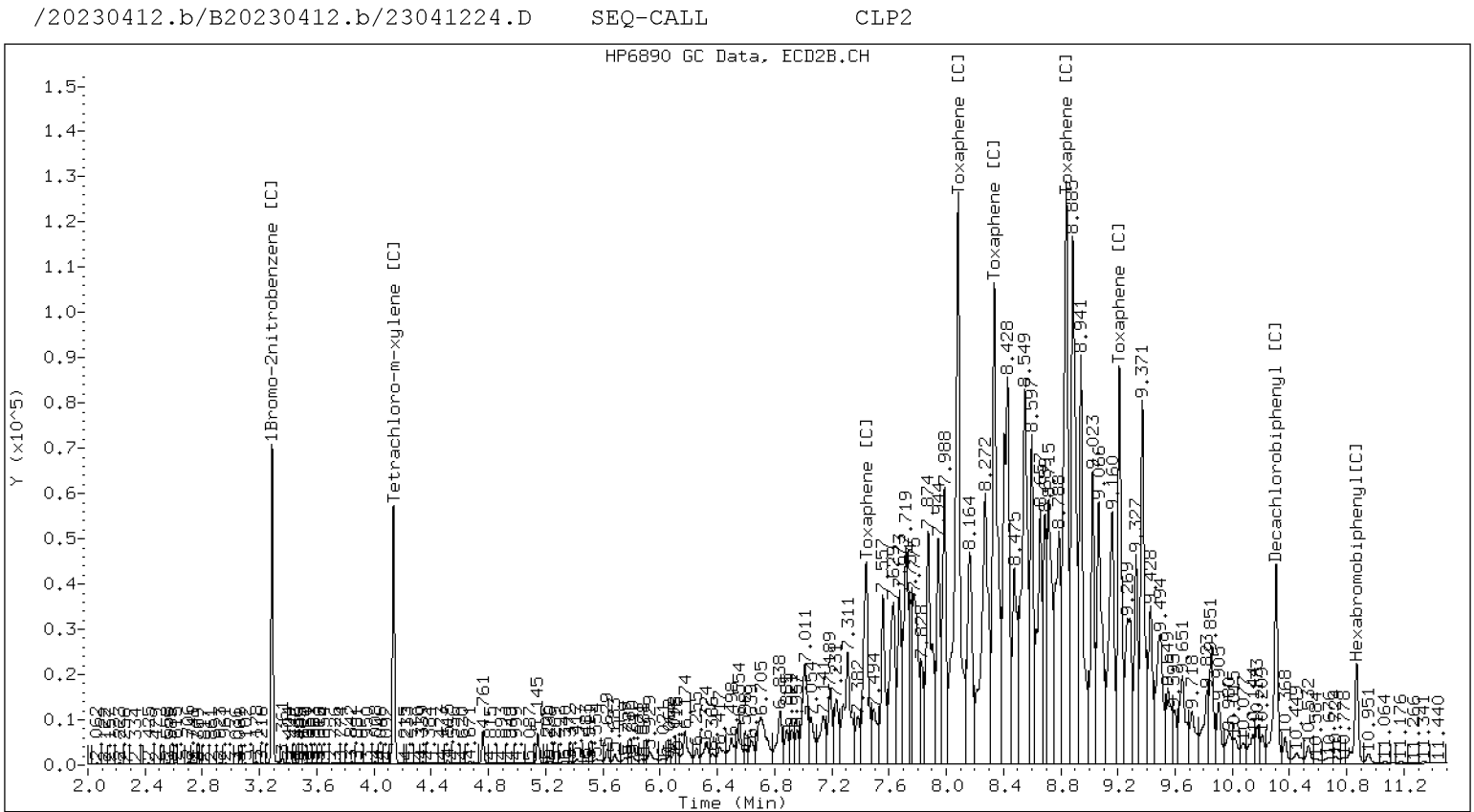
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	7.430	-0.000	2786527	7014.4	1	7.440	0.000	2199872	7747.7		
Toxaphene	2	7.652	-0.001	3557899	6690.7	2	8.083	0.000	6483577	7736.1		
Toxaphene	3	8.079	-0.000	4809205	6632.4	3	8.336	-0.000	5124179	7830.9		
Toxaphene	4	8.432	-0.001	4063530	7108.2	4	8.839	0.000	5684314	8088.9		
Toxaphene	5	8.575	-0.001	2519164	7318.6	5	9.210	0.000	3217244	8357.7		
Total STX-CLPAve (5 peaks):					6952.870	Total CLP2Ave (5 peaks):					7952.272	RPD = 13
Corrected Ave (5 peaks):					6952.870	Corrected Ave (5 peaks):					7952.272	RPD = 13



Pesticide Dual Column Chromatograms



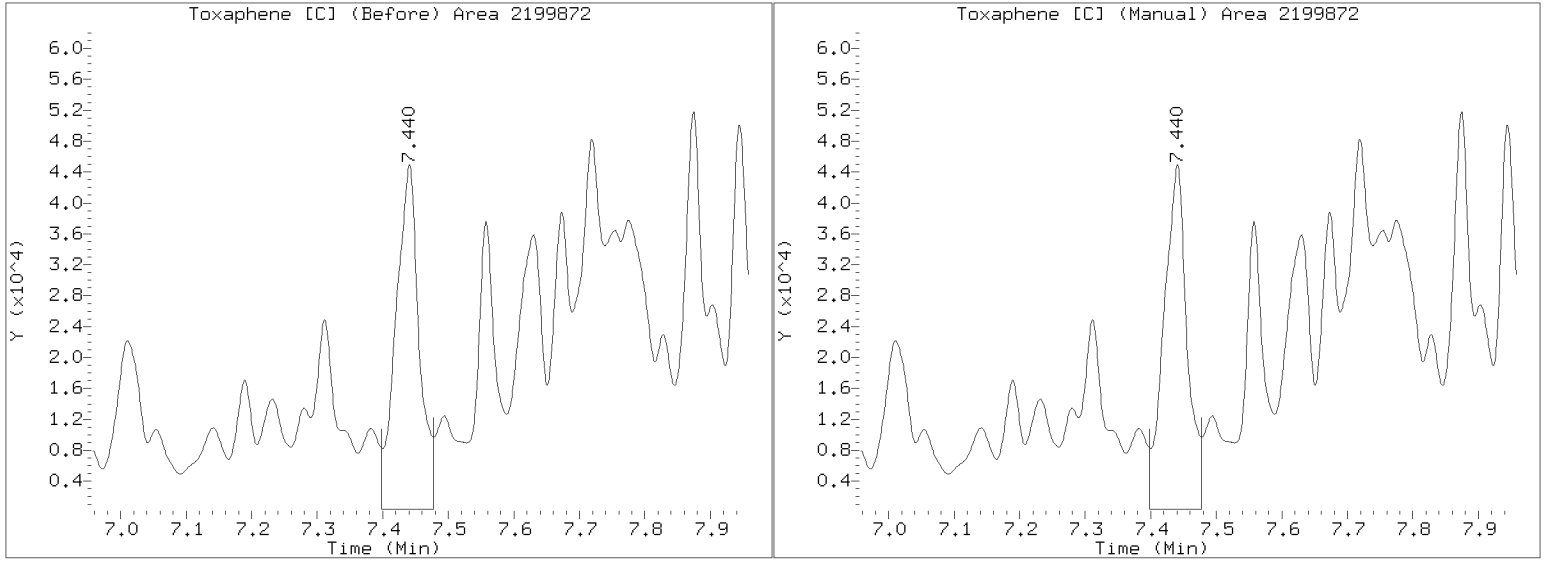
STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230412.b/B20230412.b/23041224.D
Injection Date: 12-APR-2023 21:42
Lab ID:SEQ-CALL Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041228.D
Data file 2: /20230412.b/B20230412.b/23041228.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-ICV1
Client ID:
Injection Date: 12-APR-2023 22:55
Report Date: 04/14/2023 08:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.334	0.001	207474	4.761	-0.001	284638	17.97	18.02	0.3	alpha-BHC
4.718	0.001	79749	5.229	-0.001	108826	17.30	17.35	0.3	beta-BHC
4.902	0.001	188168	5.577	-0.000	236979	18.00	16.85	6.6	delta-BHC
4.637	0.000	181942	5.151	-0.001	248772	17.93	17.92	0.1	gamma-BHC (Lindane)
5.125	0.001	169303	5.671	-0.000	221956	18.03	18.23	1.1	Heptachlor
5.449	0.001	171374	6.070	-0.001	227085	17.94	17.96	0.1	Aldrin
6.125	0.000	147922	6.728	-0.001	191017	17.16	17.17	0.0	Heptachlor epoxide b
6.568	0.001	138197	7.172	-0.000	168955	17.98	17.82	0.9	Endosulfan I
6.828	0.000	292815	7.466	0.000	372477	36.01	35.84	0.5	Dieldrin
6.490	0.001	275927	7.257	0.000	356702	35.98	36.06	0.2	4,4'-DDE
7.079	0.001	245544	7.789	-0.001	306841	33.13	32.56	1.7	Endrin
7.314	0.000	244805	8.000	-0.001	303230	35.28	34.06	3.5	Endosulfan II
7.137	0.001	235742	7.862	-0.000	294896	35.44	34.23	3.5	4,4'-DDD
8.178	0.001	226658	8.597	-0.001	277723	34.64	33.88	2.2	Endosulfan sulfate
7.431	0.000	252763	8.180	-0.001	301143	35.28	34.65	1.8	4,4'-DDT
7.920	-0.000	503445	8.820	-0.002	607472	164.03	163.00	0.6	Methoxychlor
8.452	0.000	256795	9.119	-0.000	304196	34.40	33.98	1.2	Endrin ketone
7.743	-0.000	185676	8.331	-0.000	217531	35.06	33.79	3.7	Endrin aldehyde
6.267	0.001	150498	6.939	0.000	188905	17.84	17.70	0.8	trans-Chlordane
6.414	0.001	150678	7.099	-0.001	185516	17.79	17.66	0.8	cis-Chlordane
2.309	-0.000	207080	2.453	-0.000	181778	17.39	12.68	31.4	Hexachlorobutadiene
4.175	0.000	180316	4.622	0.000	242905	17.65	17.61	0.2	Hexachlorobenzene
3.820	0.001	261785	4.136	-0.000	366112	35.44	35.76	0.9	Tetrachloro-m-xylene
9.366	0.000	161464	10.306	0.000	189508	31.92	33.53	4.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

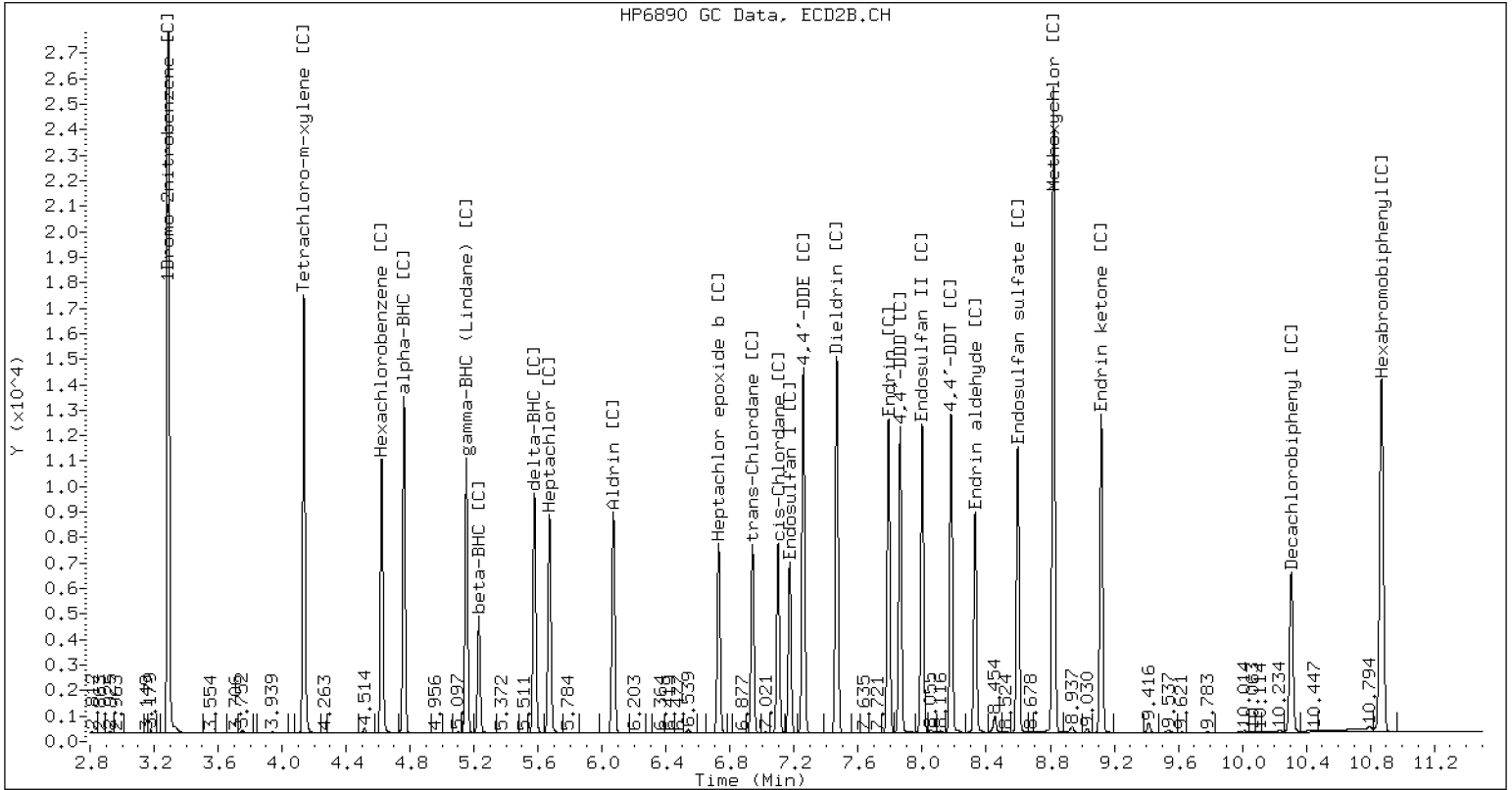
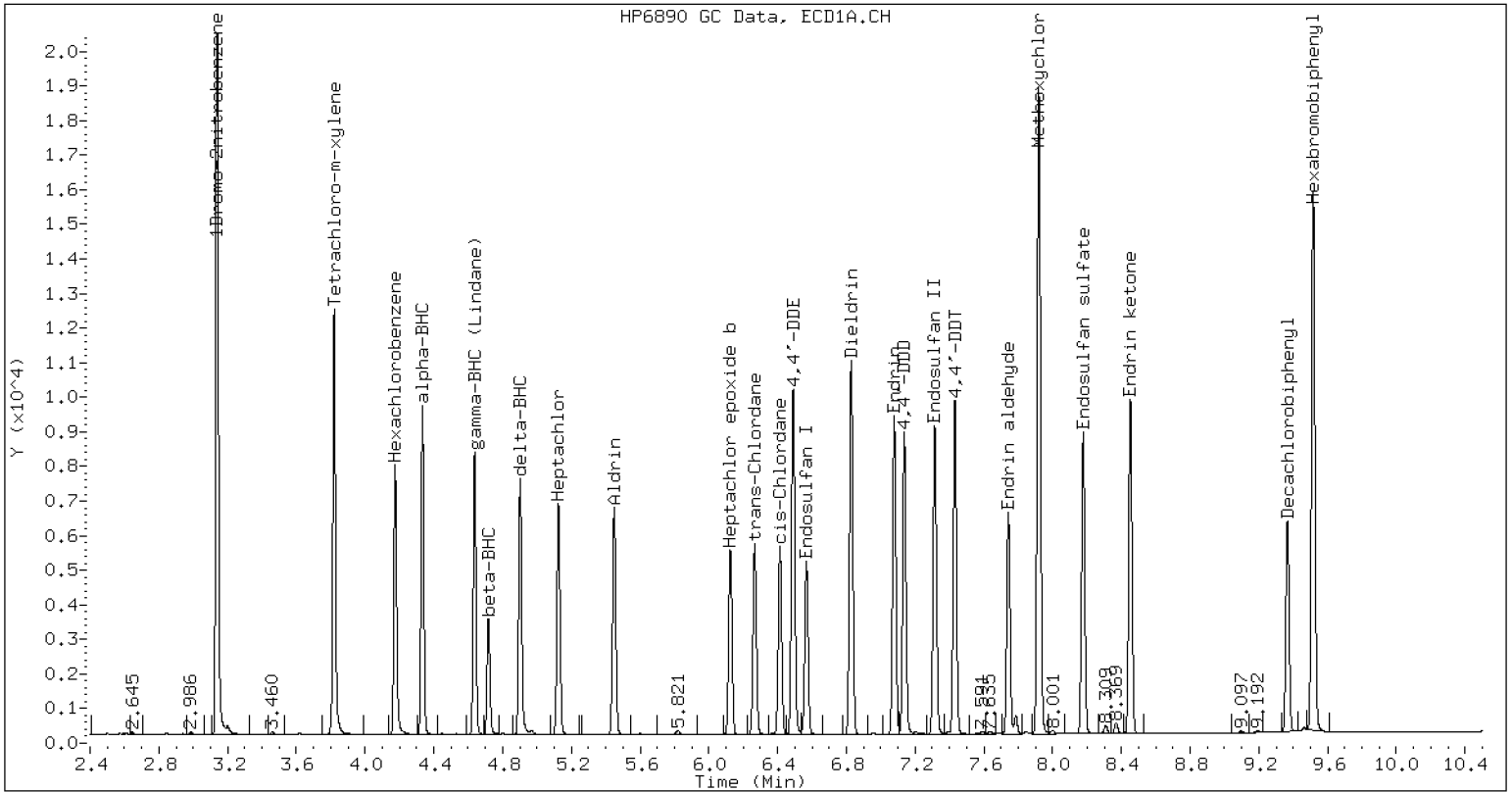
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	527944	-38.9
Hexabromobiphenyl	663237	428829	-35.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	744512	-49.7
Hexabromobiphenyl	870561	468235	-46.2

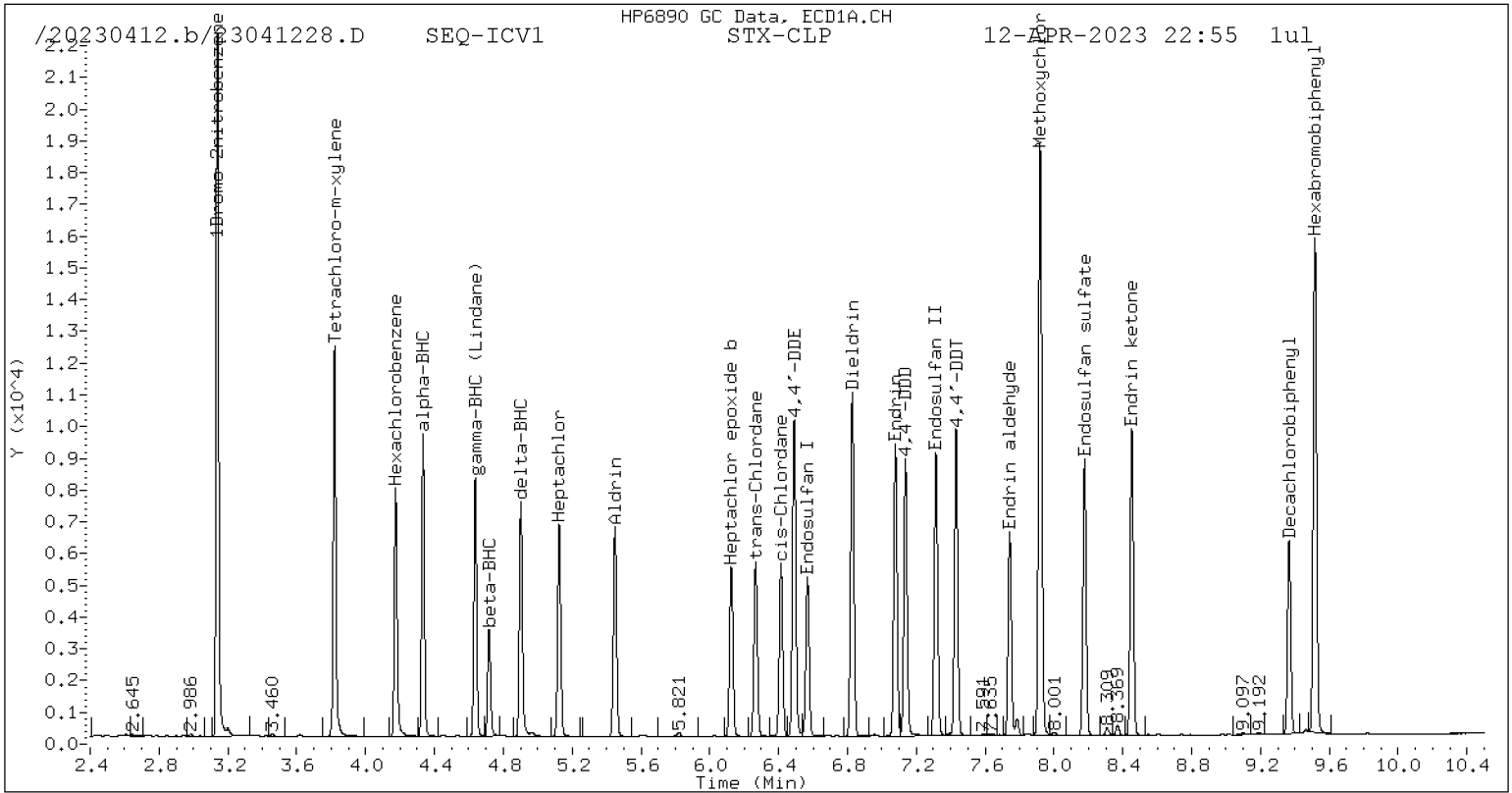
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

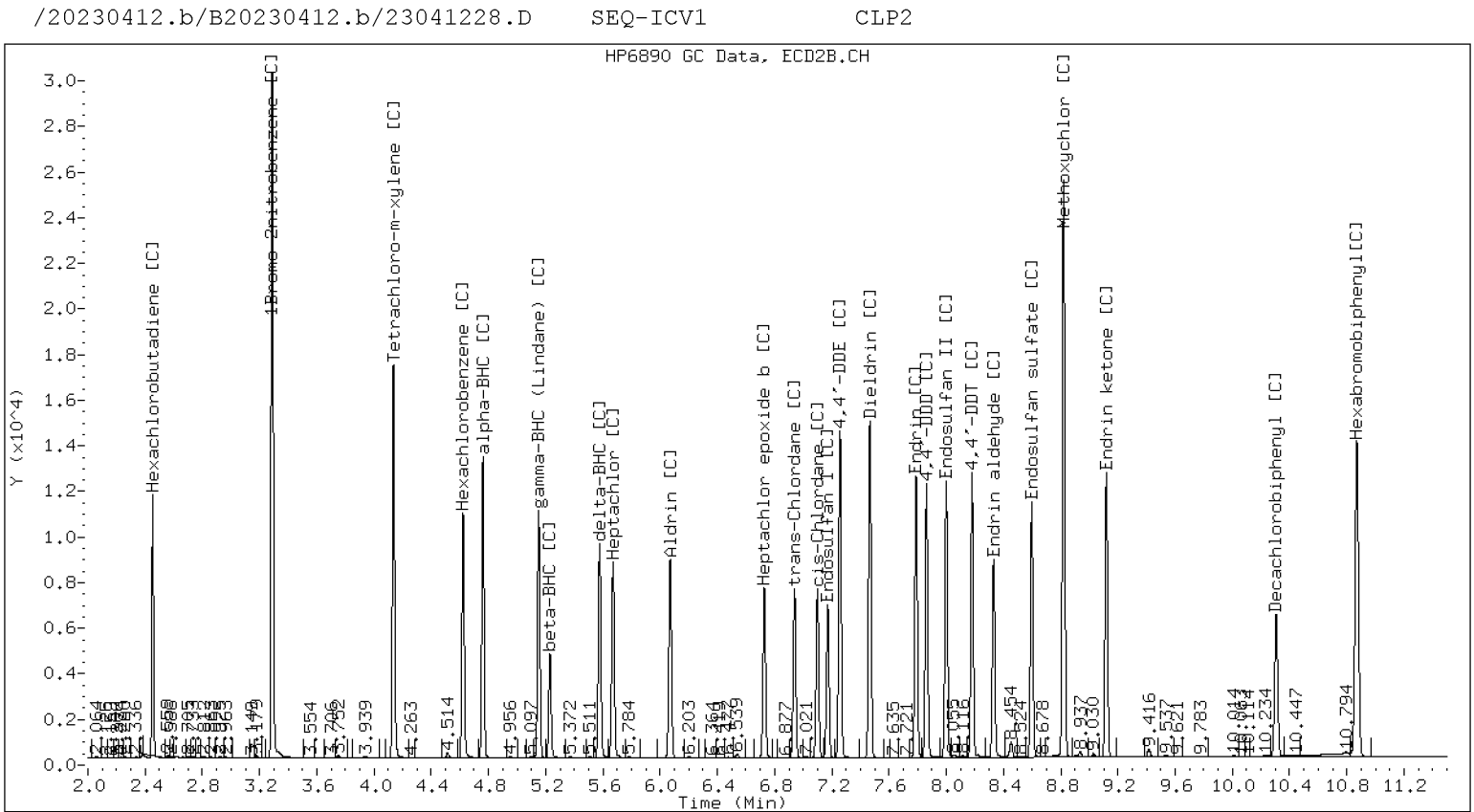
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051303.D
Data file 2: /20230513.b/B20230513.b/23051303.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SLE0423-ICV1
Client ID:
Injection Date: 13-MAY-2023 16:11
Report Date: 05/25/2023 19:14
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.311	0.000	308653	4.736	0.000	265740	18.91	19.56	3.3	alpha-BHC
4.694	0.000	118143	5.202	0.000	102072	18.13	18.91	4.2	beta-BHC
4.878	0.000	272698	5.549	0.000	134046	18.45	11.08	49.9*	delta-BHC
4.614	0.000	268745	5.125	0.000	230509	18.74	19.29	2.9	gamma-BHC (Lindane)
5.100	0.000	249767	5.641	0.000	210605	18.82	20.10	6.6	Heptachlor
5.423	0.000	254135	6.039	0.000	213949	18.82	19.67	4.4	Aldrin
6.097	0.000	217811	6.699	0.000	179833	17.87	18.78	5.0	Heptachlor epoxide b
6.540	0.000	203825	7.143	0.000	158888	18.76	19.48	3.7	Endosulfan I
6.801	0.000	431492	7.437	0.000	349433	37.53	39.08	4.1	Dieldrin
6.464	0.000	411916	7.229	0.000	335467	38.00	39.42	3.7	4,4'-DDE
7.052	0.000	380226	7.761	0.000	301554	34.90	35.27	1.0	Endrin
7.288	0.000	352875	7.972	0.000	281800	34.59	34.89	0.9	Endosulfan II
7.112	0.000	349500	7.835	0.000	276141	35.74	35.33	1.2	4,4'-DDD
8.152	0.000	325684	8.571	0.000	256028	33.86	34.42	1.6	Endosulfan sulfate
7.406	0.000	354951	8.154	0.000	274314	33.71	34.79	3.2	4,4'-DDT
7.896	0.000	744334	8.795	0.000	576200	164.98	170.41	3.2	Methoxychlor
8.426	0.000	345530	9.092	0.000	273731	31.48	33.70	6.8	Endrin ketone
7.717	0.000	263282	8.304	0.000	197882	33.82	33.88	0.2	Endrin aldehyde
6.240	0.000	221546	6.910	0.000	177890	18.58	19.38	4.2	trans-Chlordane
6.387	0.000	221078	7.071	0.000	176076	18.47	19.48	5.3	cis-Chlordane
2.294	0.000	279067	2.438	0.000	116787	16.58	9.47	54.6*	Hexachlorobutadiene
4.154	0.000	262917	4.598	0.000	228556	18.20	19.26	5.6	Hexachlorobenzene
3.799	0.000	333906	4.114	0.000	344379	31.97	39.10	20.1	Tetrachloro-m-xylene
9.342	0.000	245457	10.274	0.000	186853	33.01	36.44	9.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

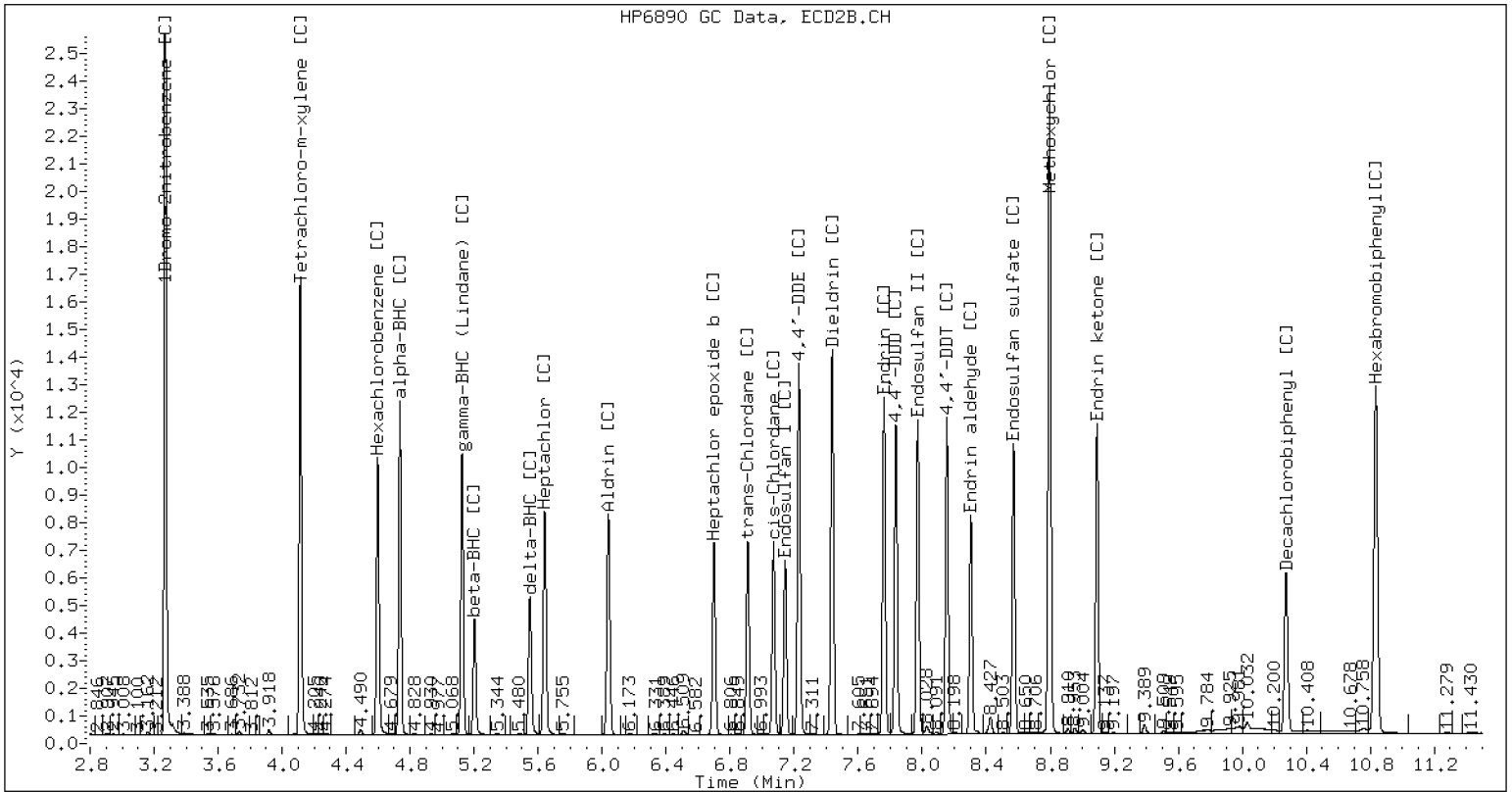
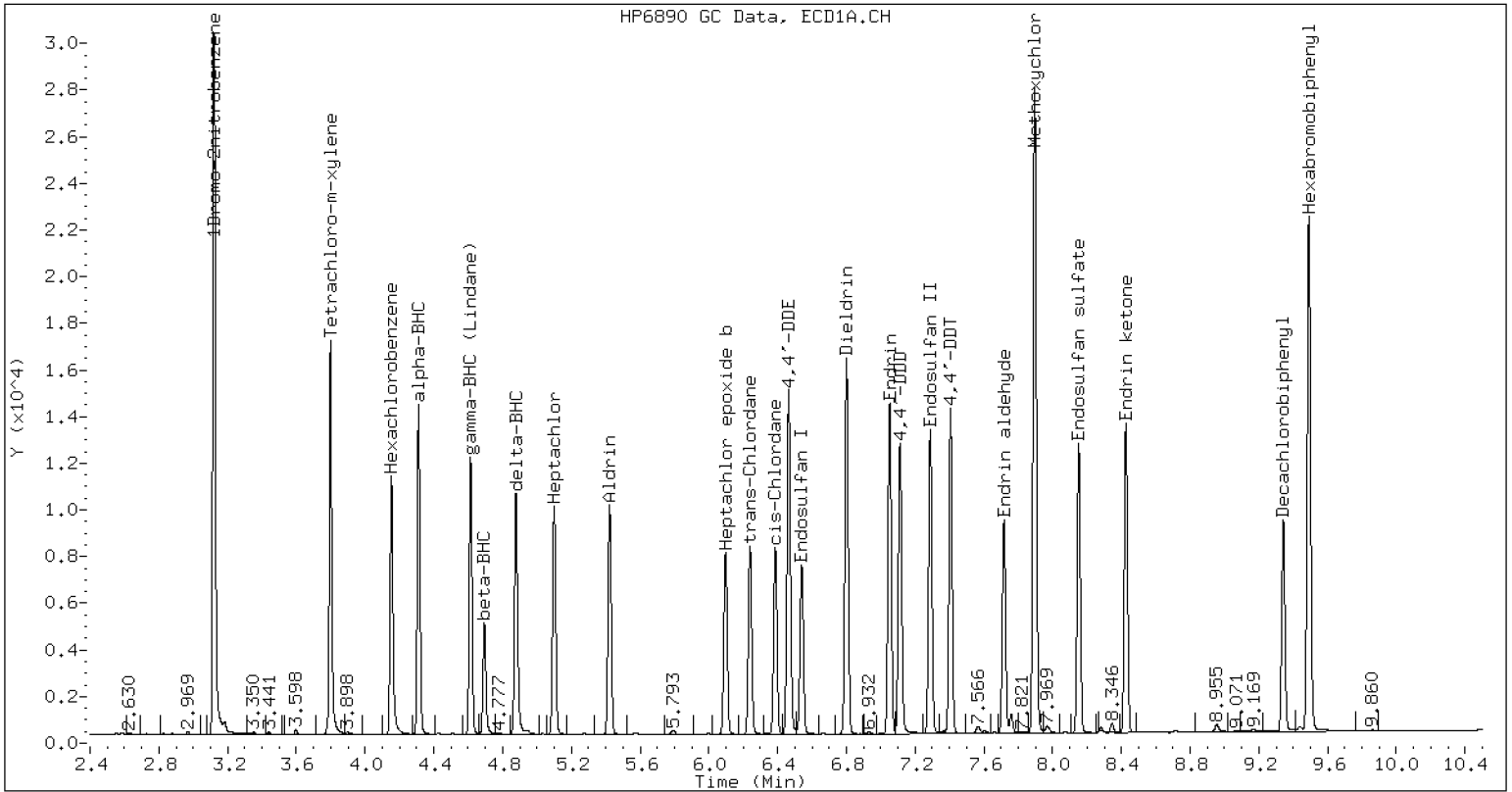
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	746402	-20.0
Hexabromobiphenyl	745426	630375	-15.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	640575	-48.7
Hexabromobiphenyl	754634	424817	-43.7

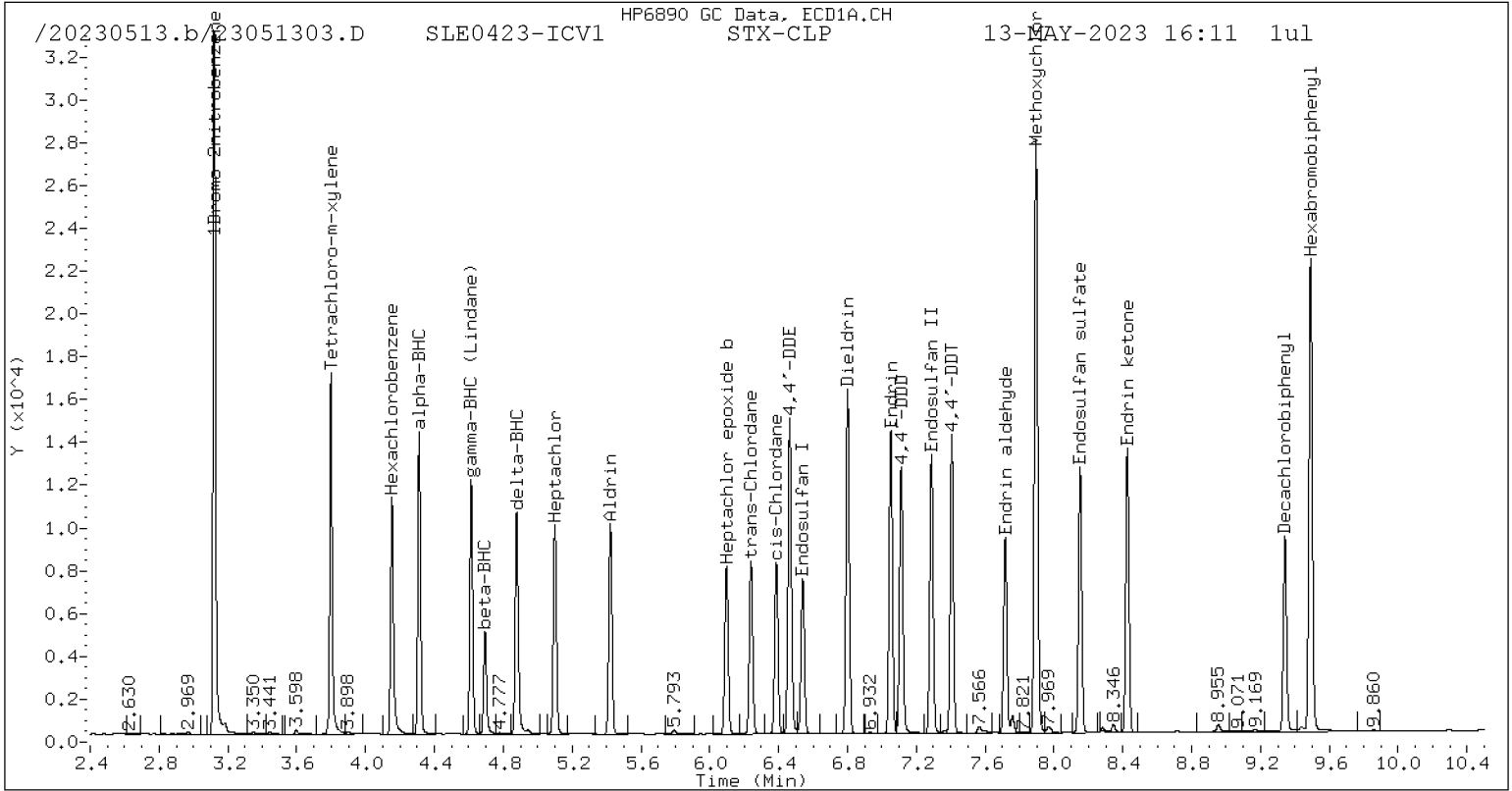
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

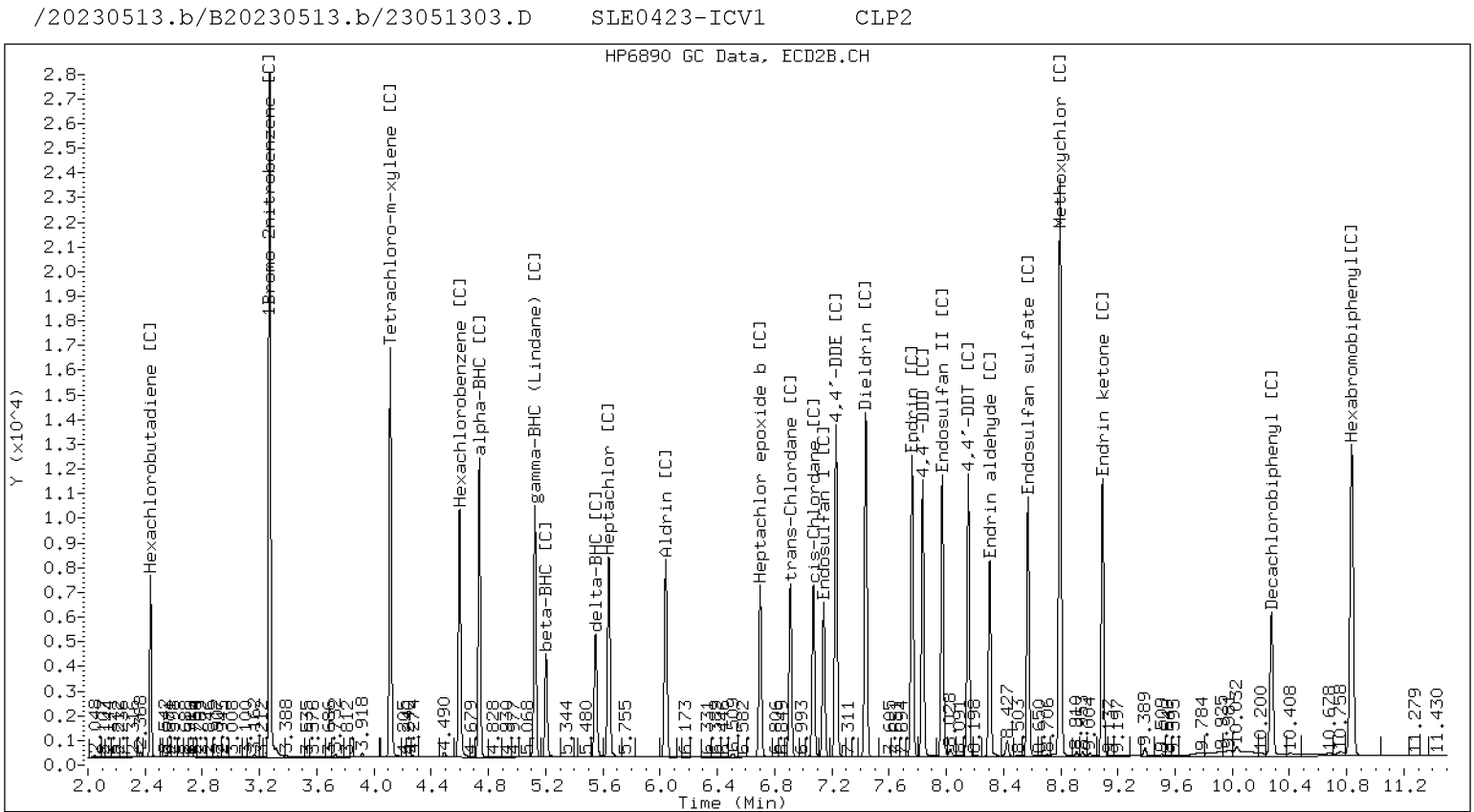
<- Indicates standard response outside Limits (-50 to +100%)



Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230412.b/23041235.D
Data file 2: /20230412.b/B20230412.b/23041235.D
Method: \20230412.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CCV1
Client ID:
Injection Date: 13-APR-2023 01:04
Report Date: 04/14/2023 08:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.333	0.000	208008	4.761	-0.001	287888	18.06	18.02	0.2	alpha-BHC
4.717	0.000	79862	5.229	-0.001	109669	17.36	17.28	0.5	beta-BHC
4.902	0.001	188433	5.576	-0.001	237187	18.07	16.67	8.0	delta-BHC
4.636	-0.001	182247	5.151	-0.001	252117	18.00	17.94	0.3	gamma-BHC (Lindane)
5.124	0.000	169287	5.670	-0.001	224742	18.07	18.24	0.9	Heptachlor
5.448	0.000	171419	6.070	-0.001	229274	17.99	17.93	0.3	Aldrin
6.124	-0.001	148660	6.728	-0.001	192857	17.28	17.13	0.9	Heptachlor epoxide b
6.566	-0.001	138285	7.171	-0.001	170414	18.03	17.76	1.5	Endosulfan I
6.827	-0.001	293527	7.465	-0.001	375070	36.17	35.67	1.4	Dieldrin
6.489	-0.000	275619	7.256	-0.001	359780	36.02	35.95	0.2	4,4'-DDE
7.078	-0.000	245317	7.788	-0.002	307967	32.47	32.73	0.8	Endrin
7.313	-0.001	244401	7.999	-0.002	305137	34.55	34.32	0.6	Endosulfan II
7.136	0.000	235703	7.861	-0.001	297615	34.76	34.60	0.5	4,4'-DDD
8.177	-0.000	226454	8.596	-0.002	280518	33.95	34.27	0.9	Endosulfan sulfate
7.430	-0.001	252702	8.179	-0.002	304879	34.60	35.13	1.5	4,4'-DDT
7.918	-0.002	503978	8.819	-0.003	618699	161.08	166.25	3.2	Methoxychlor
8.451	-0.001	257108	9.118	-0.001	308074	33.78	34.46	2.0	Endrin ketone
7.742	-0.001	185692	8.330	-0.001	219950	34.39	34.22	0.5	Endrin aldehyde
6.266	-0.000	150597	6.938	-0.001	190549	17.89	17.65	1.4	trans-Chlordane
6.413	-0.000	150637	7.099	-0.001	186807	17.83	17.57	1.4	cis-Chlordane
2.309	-0.000	206970	2.453	-0.000	178864	17.42	12.33	34.2	Hexachlorobutadiene
4.175	-0.000	180515	4.622	-0.000	245593	17.71	17.60	0.6	Hexachlorobenzene
3.820	0.001	261546	4.136	-0.000	369268	35.48	35.65	0.5	Tetrachloro-m-xylene
9.366	-0.000	162565	10.304	-0.002	190132	31.53	33.69	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

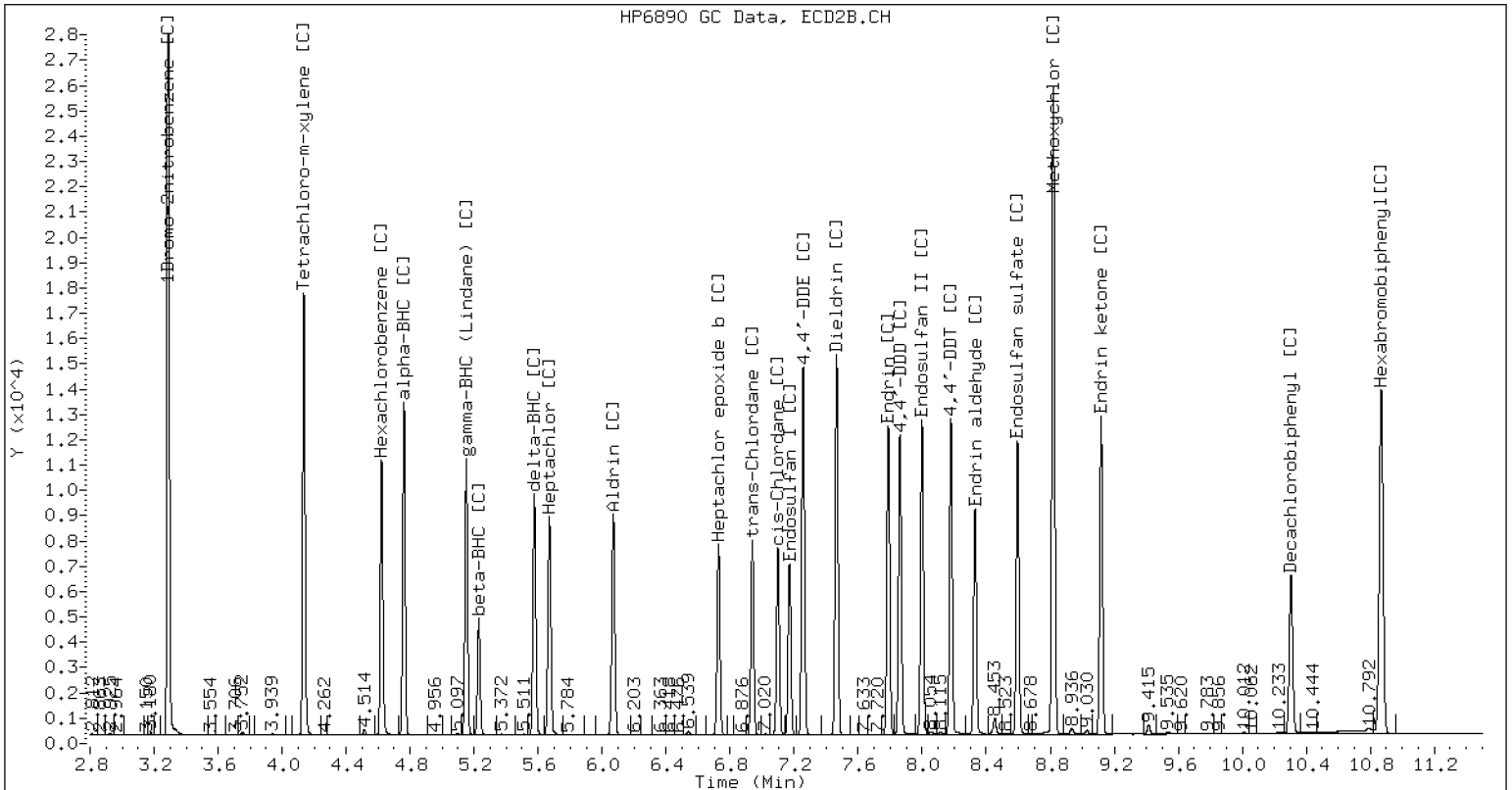
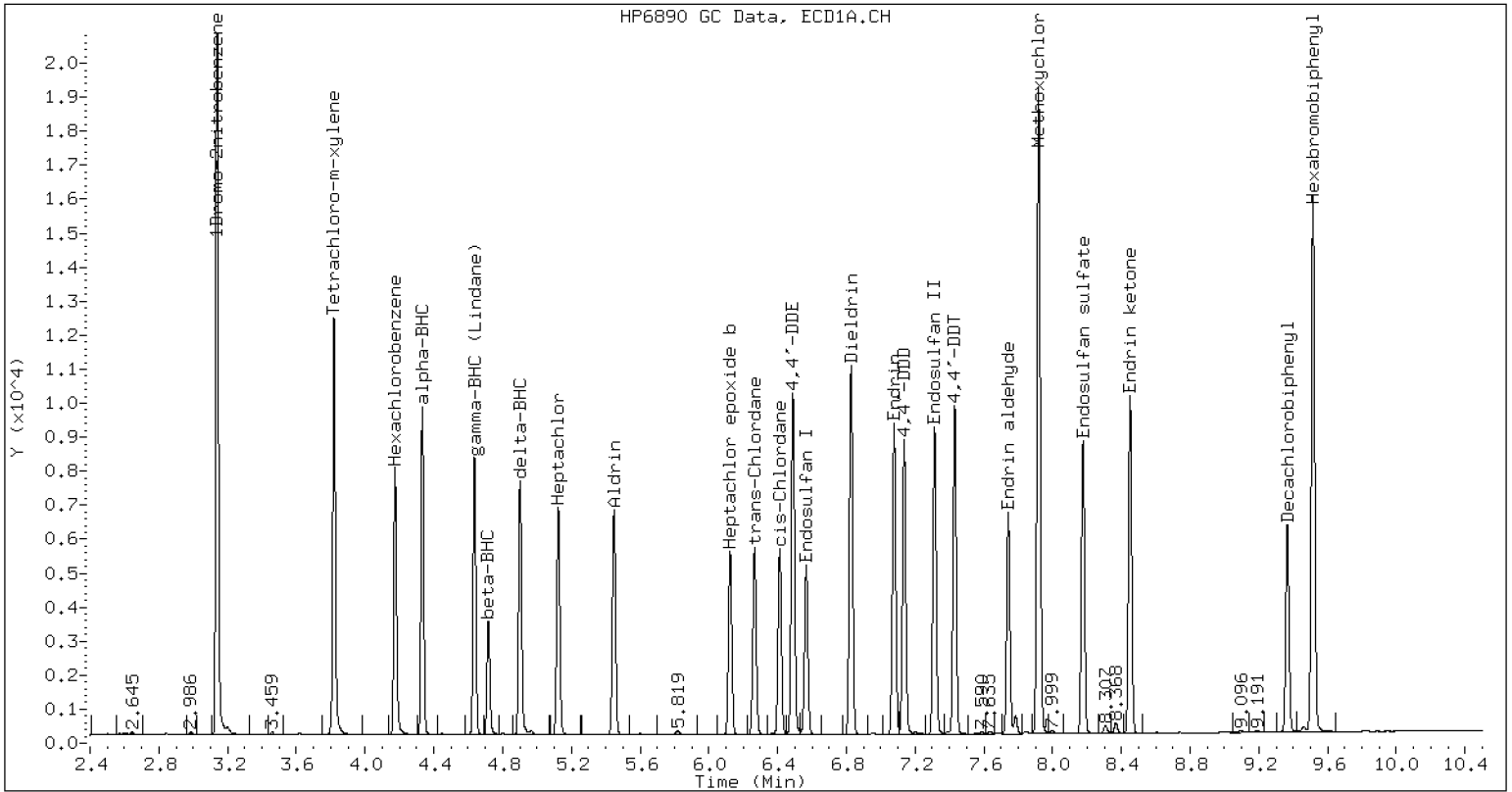
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	864333	526824	-39.0
Hexabromobiphenyl	663237	437155	-34.1

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1480846	753276	-49.1
Hexabromobiphenyl	870561	467562	-46.3

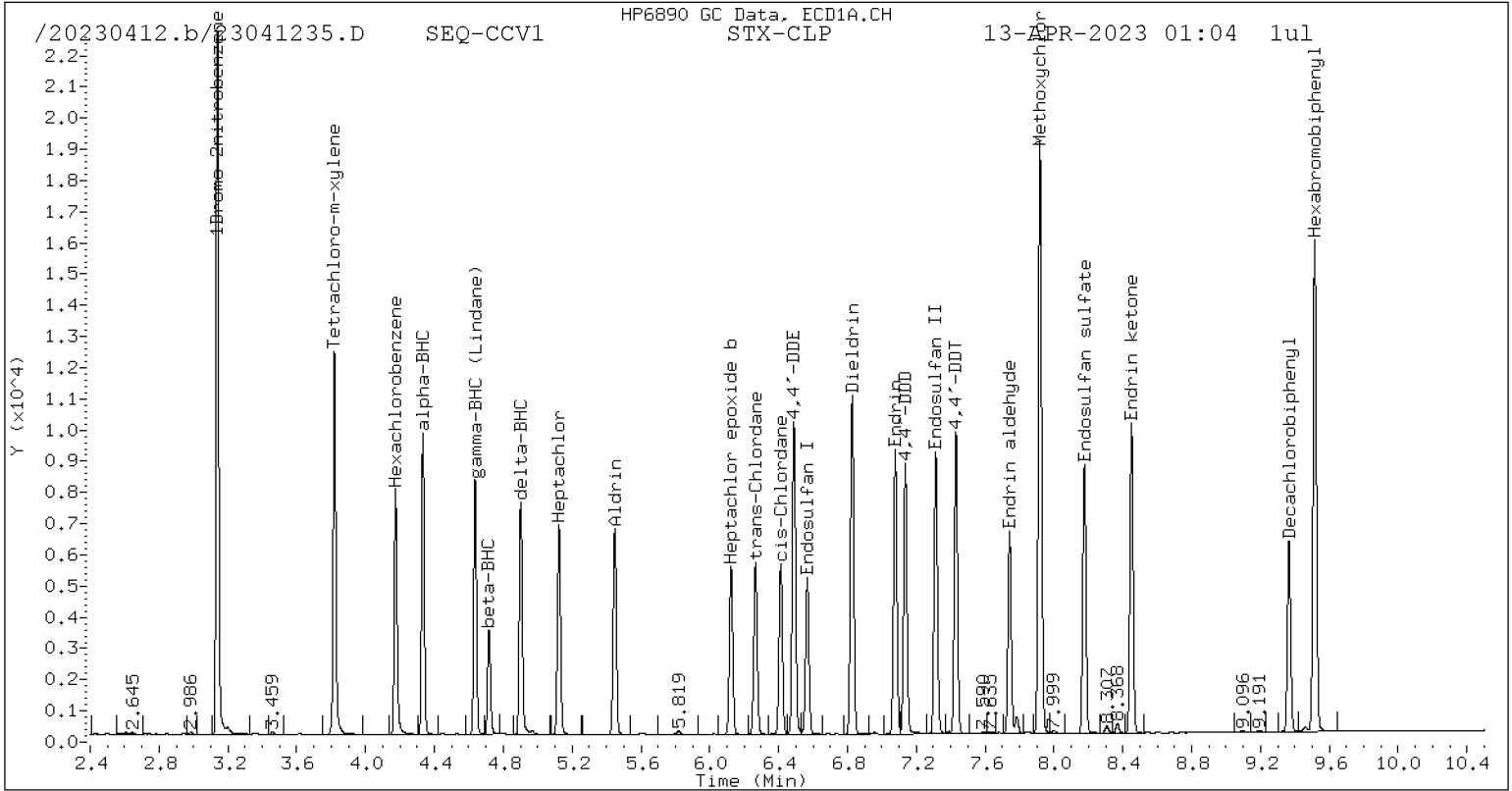
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

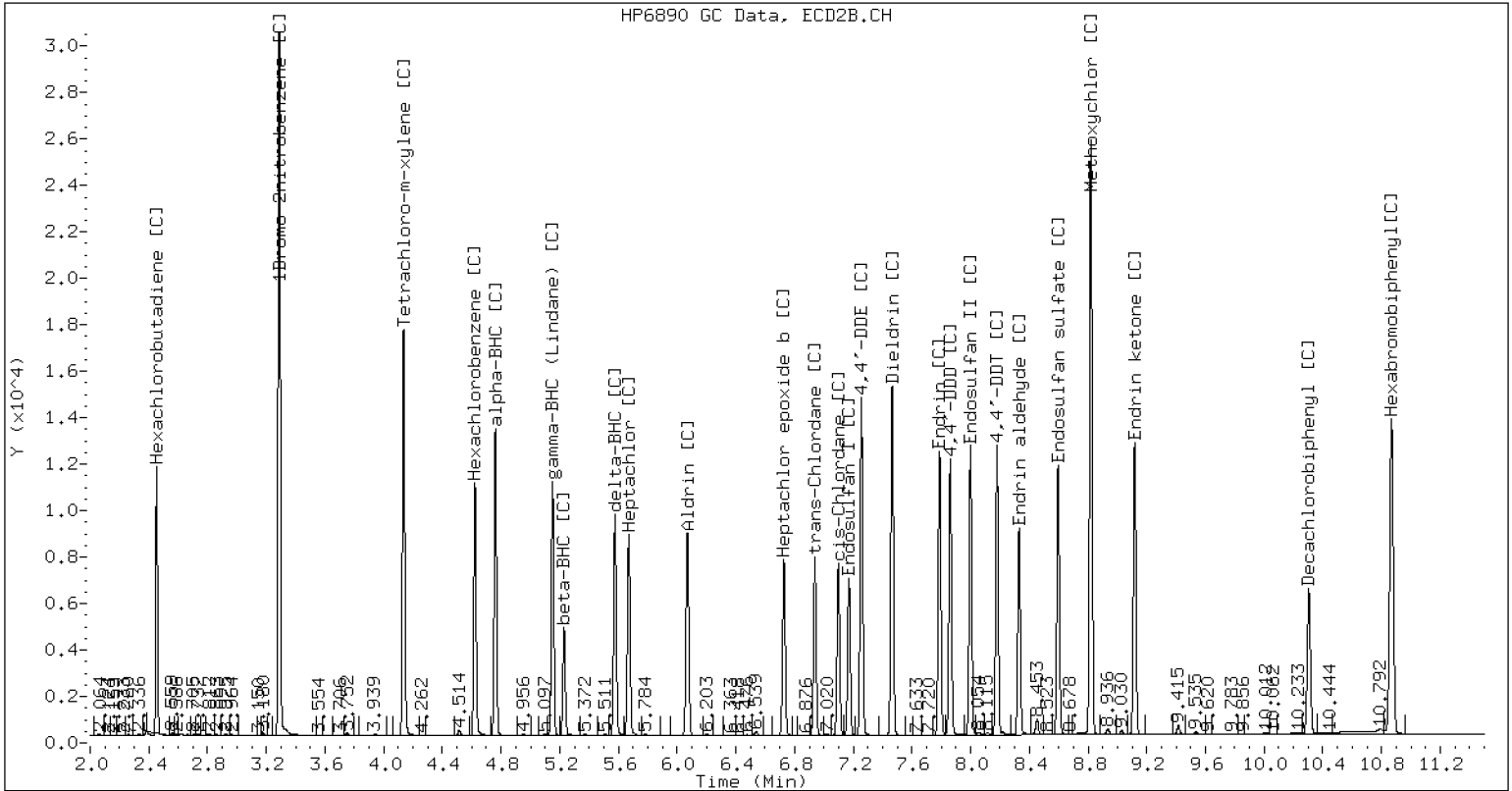


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230412.b/B20230412.b/23041235.D SEQ-CCV1 CLP2



CLP-2 Manual Integration: NO



**CONTINUING CALIBRATION CHECK
EPA 8081B**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>GD00035</u>
Lab File ID:	<u>23051319.D</u>	Calibration Date:	<u>04/12/2023</u>
Sequence:	<u>SLE0423</u>	Injection Date:	<u>05/13/23</u>
Lab Sample ID:	<u>SLE0423-CCV1</u>	Injection Time:	<u>21:10</u>
Sequence Name:	<u>INDA</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	17.7	1.5480310	1.3671320		-11.7	+/-20
Hexachlorobenzene [2C]	A	20.000	18.0	1.4821210	1.3375800		-9.8	+/-20
Decachlorobiphenyl	A	40.000	32.6	0.9435985	0.7686068		-18.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	35.5	0.9656083	0.8569593		-11.3	+/-20
Tetrachlorometaxylene	A	40.000	32.1	1.1193850	0.8984622		-19.7	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.4	1.1000560	1.0286160		-6.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230513.b/23051319.D
Data file 2: /20230513.b/B20230513.b/23051319.D
Method: \20230513.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SLE0423-CCV1
Client ID:
Injection Date: 13-MAY-2023 21:10
Report Date: 05/25/2023 19:15
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.312	0.001	260291	4.737	0.001	245934	18.35	18.23	0.7	alpha-BHC
4.695	0.001	98407	5.204	0.001	94848	17.37	17.70	1.9	beta-BHC
4.879	0.001	231771	5.550	0.002	132596	18.04	11.04	48.2*	delta-BHC
4.614	0.001	227040	5.125	0.000	215853	18.21	18.20	0.1	gamma-BHC (Lindane)
5.101	0.001	211728	5.643	0.002	196392	18.35	18.88	2.8	Heptachlor
5.424	0.001	208636	6.040	0.002	192935	17.77	17.86	0.5	Aldrin
6.099	0.002	177135	6.700	0.001	155378	16.72	16.34	2.3	Heptachlor epoxide b
6.542	0.001	158862	7.144	0.001	128831	16.82	15.91	5.6	Endosulfan I
6.803	0.002	337407	7.439	0.002	264433	33.76	29.78	12.5	Dieldrin
6.465	0.001	325292	7.231	0.001	262463	34.52	31.06	10.6	4,4'-DDE
7.053	0.001	292765	7.763	0.002	224653	39.42	32.89	18.1	Endrin
7.290	0.002	261220	7.974	0.002	208746	37.56	32.35	14.9	Endosulfan II
7.113	0.001	264463	7.837	0.001	202369	39.68	32.41	20.2	4,4'-DDD
8.153	0.001	229776	8.572	0.002	187019	35.05	31.47	10.7	Endosulfan sulfate
7.408	0.001	265614	8.155	0.001	205331	37.00	32.59	12.7	4,4'-DDT
7.897	0.002	583382	8.797	0.001	455513	189.68	168.63	11.7	Methoxychlor
8.428	0.002	258616	9.094	0.001	220523	34.57	33.99	1.7	Endrin ketone
7.718	0.001	192298	8.305	0.001	148474	36.23	31.82	13.0	Endrin aldehyde
6.241	0.001	175876	6.912	0.001	148840	16.97	16.33	3.8	trans-Chlordane
6.389	0.002	173505	7.072	0.001	144181	16.67	16.06	3.7	cis-Chlordane
2.294	0.000	244947	2.438	0.000	116317	16.74	9.49	55.2*	Hexachlorobutadiene
4.154	0.001	221770	4.598	0.001	212693	17.66	18.05	2.2	Hexachlorobenzene
3.799	0.000	291489	4.115	0.001	327127	32.11	37.40	15.2	Tetrachloro-m-xylene
9.344	0.002	165149	10.276	0.002	145420	32.58	35.50	8.6	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

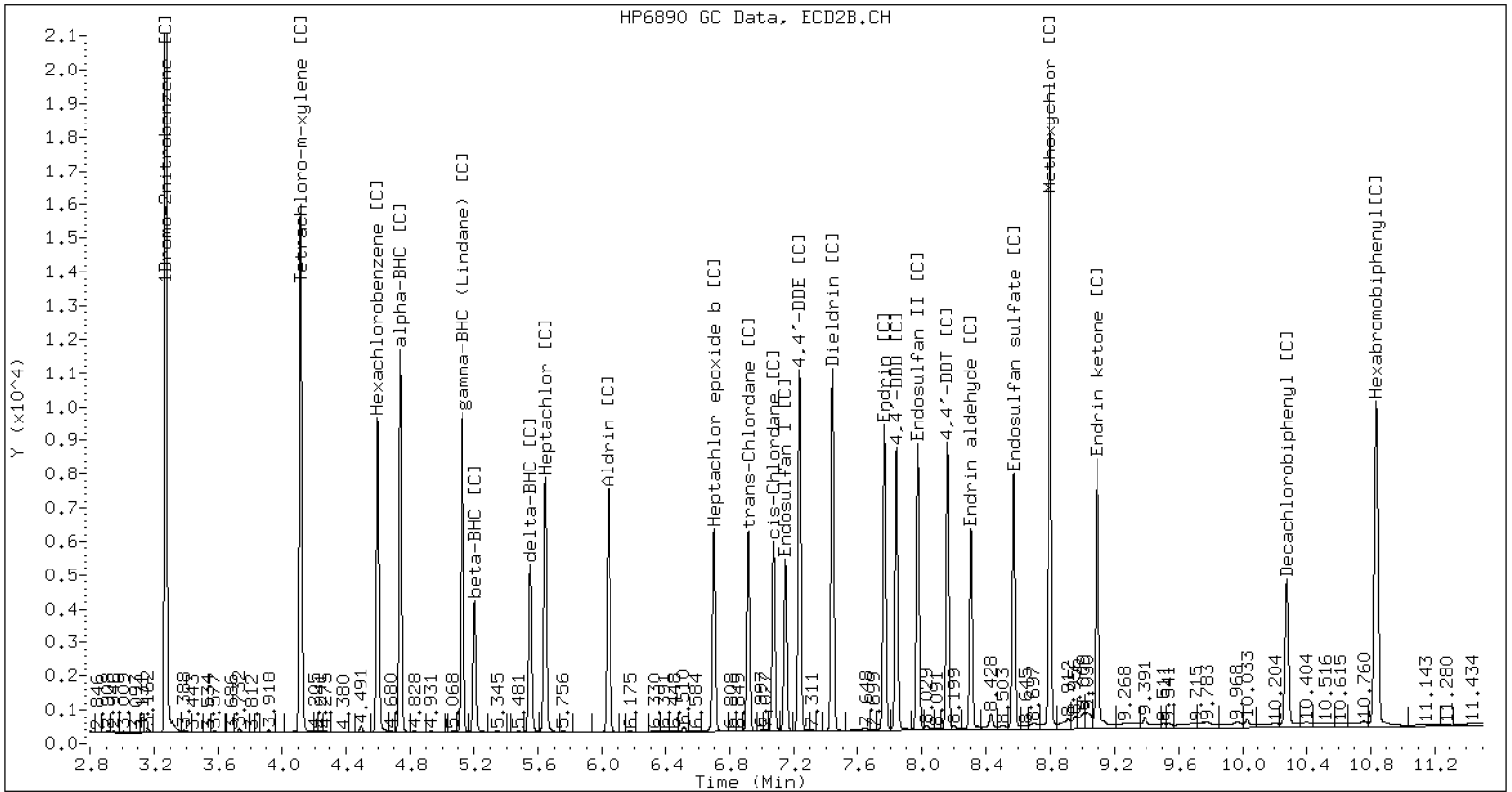
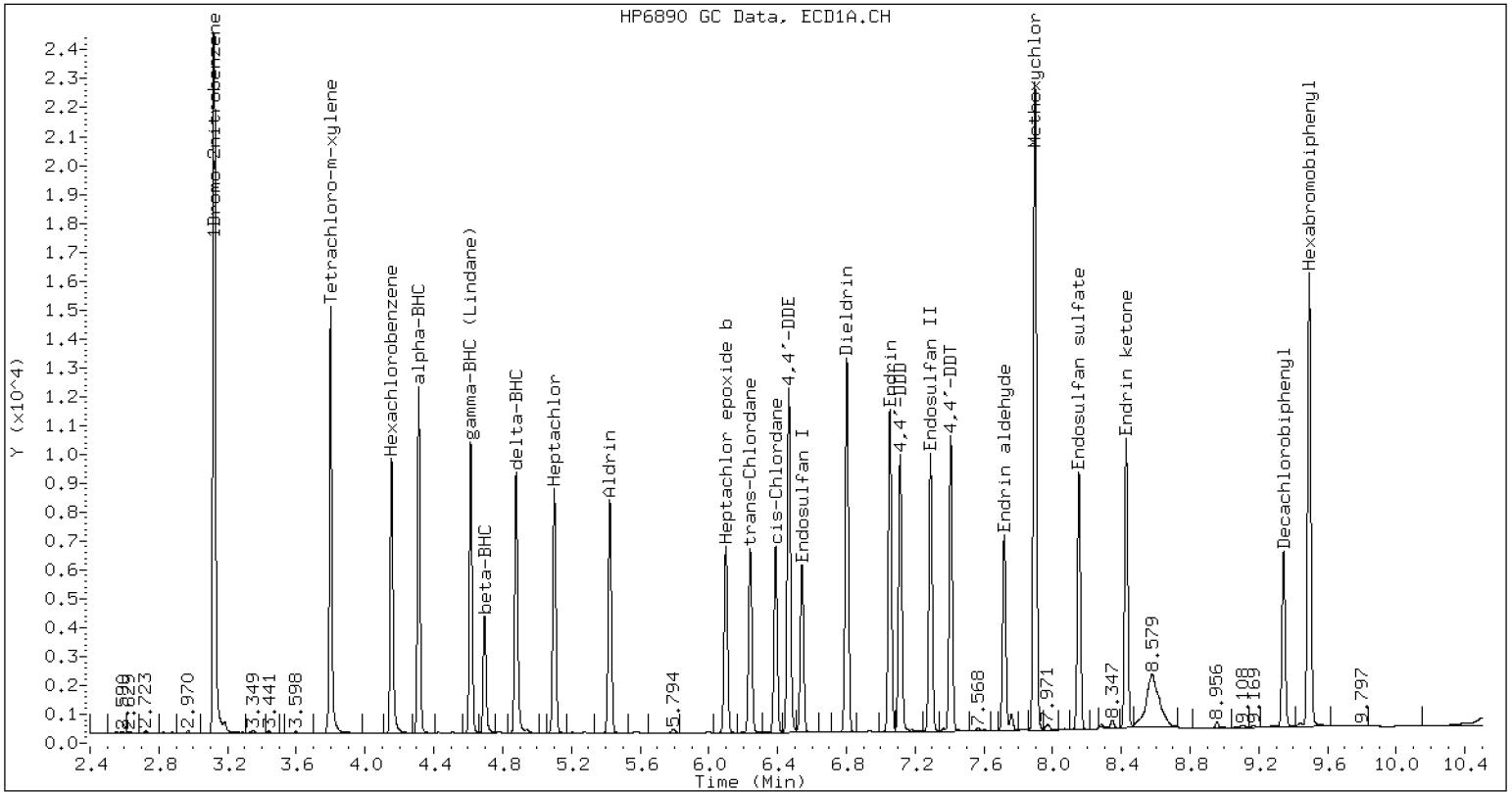
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	932757	648862	-30.4
Hexabromobiphenyl	745426	429736	-42.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1248665	636053	-49.1
Hexabromobiphenyl	754634	339386	-55.0 <-

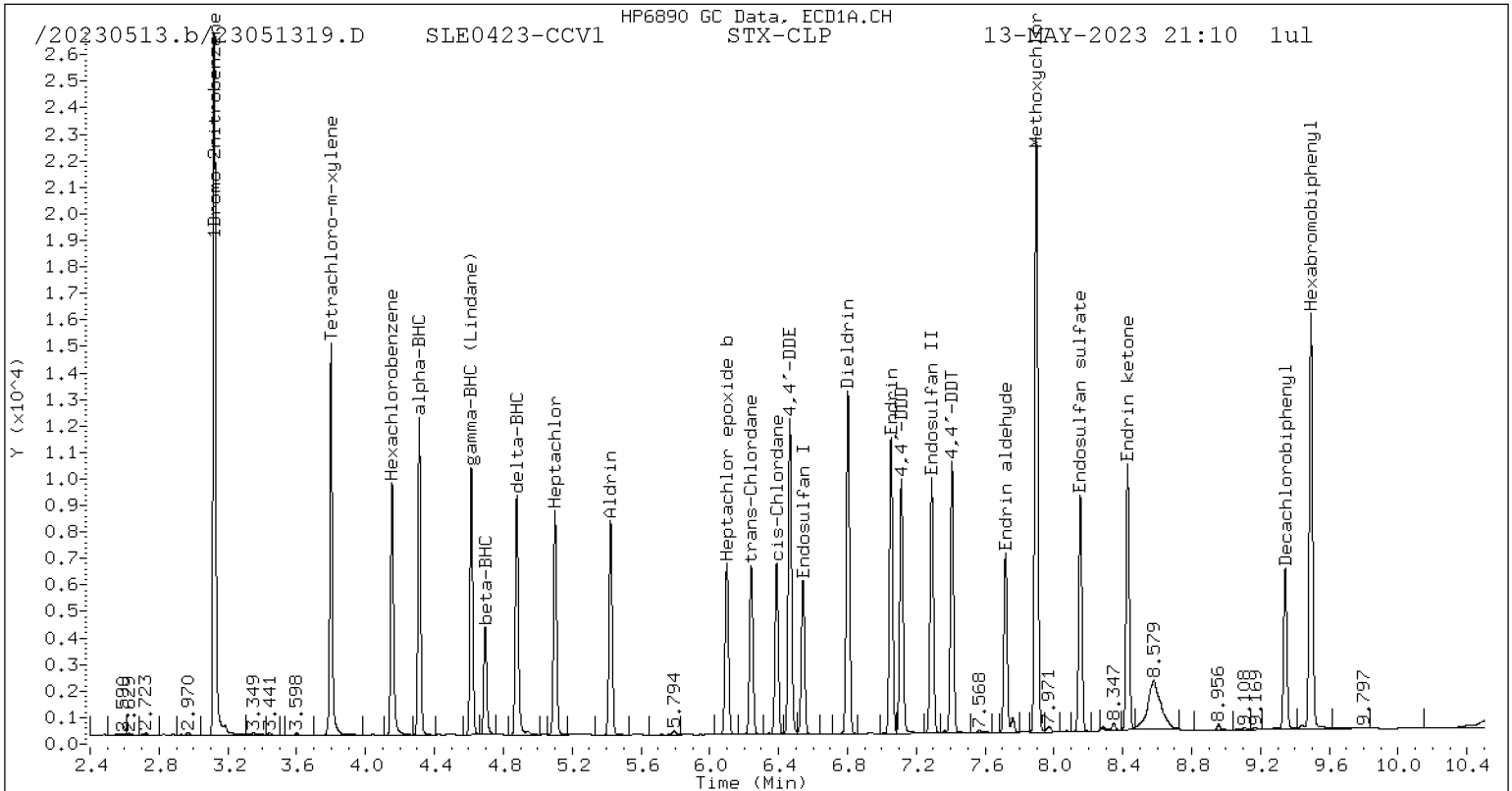
* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 12-APR-2023

<- Indicates standard response outside Limits (-50 to +100%)

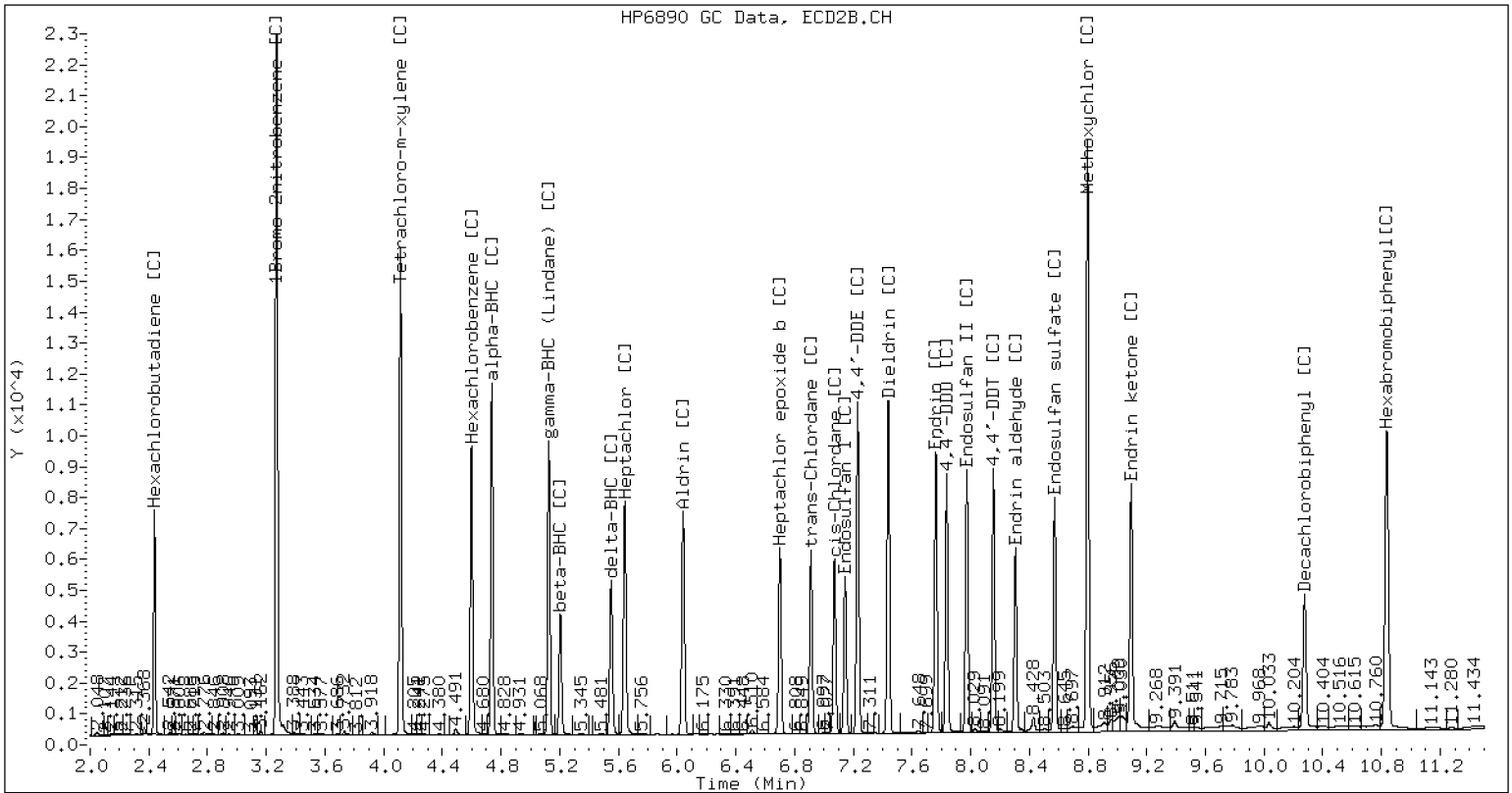


Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230513.b/B20230513.b/23051319.D SLE0423-CCV1 CLP2



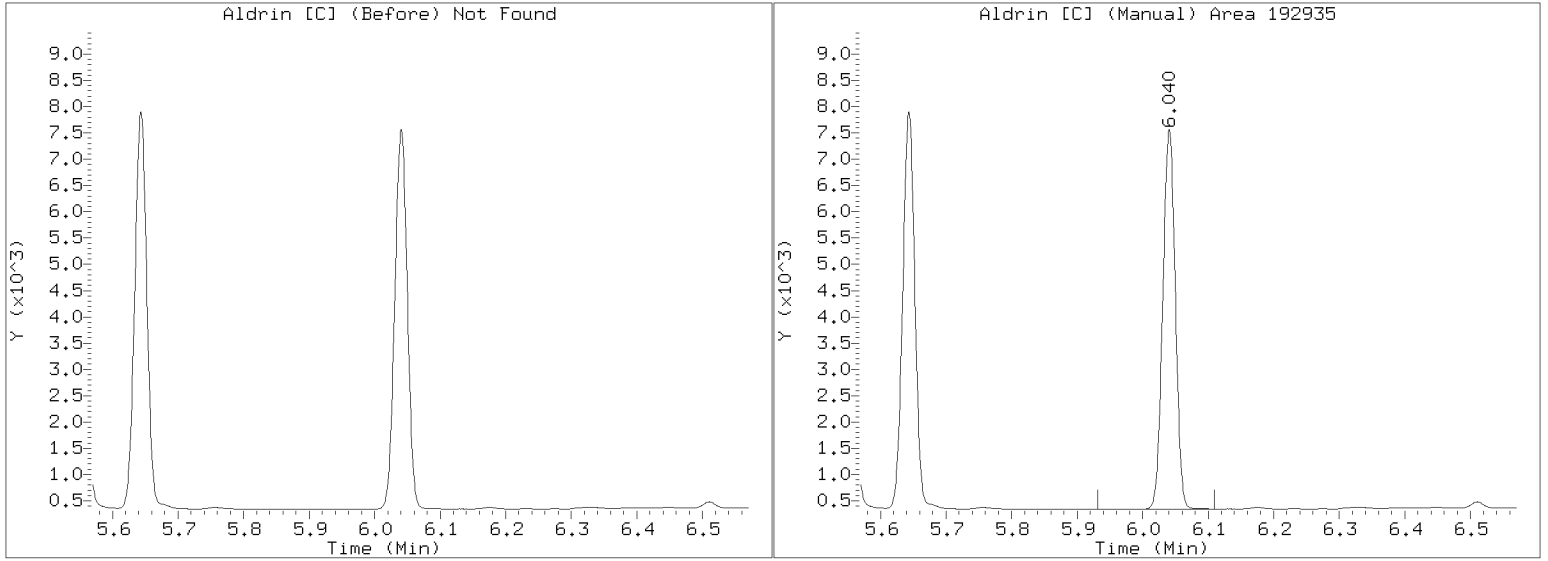
CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230513.b/B20230513.b/23051319.D

Injection Date: 13-MAY-2023 21:10

Lab ID:SEQ-CCV1 Client ID:





ANALYSIS SEQUENCE

SLD0187

Instrument: ECD6
Calibration ID: UNASSIGNED

Printed: 4/14/2023 8:38:57AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLD0187-PEM1	QC		1		L002116	L000844		
SLD0187-CAL1	QC		2		L003348	L000844		
SLD0187-CAL2	QC		3		L003347	L000844		
SLD0187-CAL3	QC		4		L003346	L000844		
SLD0187-CAL4	QC		5		L003345	L000844		
SLD0187-CAL5	QC		6		L003344	L000844		
SLD0187-CAL6	QC		7		L003343	L000844		
SLD0187-CAL7	QC		8		L000560	L000844		
SLD0187-CAL8	QC		9		L003342	L000844		
SLD0187-CAL9	QC		10		L003341	L000844		
SLD0187-CALA	QC		11		L003340	L000844		
SLD0187-CALB	QC		12		L003339	L000844		
SLD0187-CALC	QC		13		L003338	L000844		
SLD0187-CALD	QC		14		L003337	L000844		
SLD0187-CALE	QC		15		L000377	L000844		
SLD0187-CALF	QC		16		L003398	L000844		
SLD0187-CALG	QC		17		L003397	L000844		
SLD0187-CALH	QC		18		L003396	L000844		
SLD0187-CALI	QC		19		L003395	L000844		
SLD0187-CALJ	QC		20		L003394	L000844		
SLD0187-CALK	QC		21		L003393	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	12-APR-2023	14:57	23041202.D	1	SEQ-IB	
2	12-APR-2023	15:16	23041203.D	1	SEQ-PEM1	
3	12-APR-2023	15:34	23041204.D	1	SEQ-CAL1	
4	12-APR-2023	15:53	23041205.D	1	SEQ-CAL2	
5	12-APR-2023	16:11	23041206.D	1	SEQ-CAL3	
6	12-APR-2023	16:30	23041207.D	1	SEQ-CAL5	
7	12-APR-2023	16:48	23041208.D	1	SEQ-CAL4	
8	12-APR-2023	17:06	23041209.D	1	SEQ-CAL6	
9	12-APR-2023	17:25	23041210.D	1	SEQ-CAL7	
10	12-APR-2023	17:43	23041211.D	1	SEQ-CAL8	
11	12-APR-2023	18:02	23041212.D	1	SEQ-CAL9	
12	12-APR-2023	18:20	23041213.D	1	SEQ-CALA	
13	12-APR-2023	18:38	23041214.D	1	SEQ-CALB	
14	12-APR-2023	18:57	23041215.D	1	SEQ-CALC	
15	12-APR-2023	19:15	23041216.D	1	SEQ-CALD	
16	12-APR-2023	19:34	23041217.D	1	SEQ-CALE	
17	12-APR-2023	19:52	23041218.D	1	SEQ-CALF	
18	12-APR-2023	20:10	23041219.D	1	SEQ-CALG	
19	12-APR-2023	20:29	23041220.D	1	SEQ-CALH	
20	12-APR-2023	20:47	23041221.D	1	SEQ-CALI	
21	12-APR-2023	21:05	23041222.D	1	SEQ-CALJ	
22	12-APR-2023	21:24	23041223.D	1	SEQ-CALK	
23	12-APR-2023	21:42	23041224.D	1	SEQ-CALL	
24	12-APR-2023	22:00	23041225.D	1	SEQ-SCV1	
25	12-APR-2023	22:19	23041226.D	1	SEQ-SCV2	
26	12-APR-2023	22:37	23041227.D	1	SEQ-PEM2	
27	12-APR-2023	22:55	23041228.D	1	SEQ-ICV1	
28	12-APR-2023	23:14	23041229.D	1	SEQ-ICV2	
29	12-APR-2023	23:32	23041230.D	1	BLD0075-BLK1	
30	12-APR-2023	23:50	23041231.D	1	BLD0075-BS1	
31	13-APR-2023	00:09	23041232.D	1	BLD0075-MRL1	
32	13-APR-2023	00:27	23041233.D	1	23D0028-01	
33	13-APR-2023	00:45	23041234.D	1	SEQ-PEM3	
34	13-APR-2023	01:04	23041235.D	1	SEQ-CCV1	
35	13-APR-2023	01:22	23041236.D	1	SEQ-CCV2	
36	13-APR-2023	01:40	23041237.D	1	BLD0009-BLK1	
37	13-APR-2023	01:59	23041238.D	1	BLD0009-BS1	
38	13-APR-2023	02:17	23041239.D	1	BLD0009-BSD1	
39	13-APR-2023	02:35	23041240.D	1	BLD0009-MS1	
40	13-APR-2023	02:53	23041241.D	1	BLD0009-MSD1	
41	13-APR-2023	03:12	23041242.D	1	23C0752-01	
42	13-APR-2023	03:30	23041243.D	1	23C0752-02	
43	13-APR-2023	03:48	23041244.D	1	23C0752-03	
44	13-APR-2023	04:07	23041245.D	1	23C0752-04	
45	13-APR-2023	04:25	23041246.D	1	23C0752-06	
46	13-APR-2023	04:43	23041247.D	1	SEQ-PEM4	
47	13-APR-2023	05:02	23041248.D	1	SEQ-CCV3	
48	13-APR-2023	05:20	23041249.D	1	SEQ-CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 12-APR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1457	23041202.D	SEQ-IB		1	NO MANUAL INTEGRATION
1516	23041203.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
1534	23041204.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1553	23041205.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
1611	23041206.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
1630	23041207.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
1648	23041208.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
1706	23041209.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1725	23041210.D	SEQ-CAL7		1	alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorob
1743	23041211.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1802	23041212.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
1820	23041213.D	SEQ-CALA		1	NO MANUAL INTEGRATION
1838	23041214.D	SEQ-CALB		1	NO MANUAL INTEGRATION
1857	23041215.D	SEQ-CALC		1	NO MANUAL INTEGRATION
1915	23041216.D	SEQ-CALD		1	NO MANUAL INTEGRATION
1934	23041217.D	SEQ-CALE		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1952	23041218.D	SEQ-CALF		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2010	23041219.D	SEQ-CALG	1		NO MANUAL INTEGRATION
2029	23041220.D	SEQ-CALH	1		NO MANUAL INTEGRATION
2047	23041221.D	SEQ-CALI	1		NO MANUAL INTEGRATION
2105	23041222.D	SEQ-CALJ	1		NO MANUAL INTEGRATION
2124	23041223.D	SEQ-CALK	1		NO MANUAL INTEGRATION
2142	23041224.D	SEQ-CALL	1		NO MANUAL INTEGRATION
2200	23041225.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
2219	23041226.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
2237	23041227.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
2255	23041228.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
2314	23041229.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
2332	23041230.D	BLD0075-BLK1	1		NO MANUAL INTEGRATION
2350	23041231.D	BLD0075-BS1	1		NO MANUAL INTEGRATION
0009	23041232.D	BLD0075-MRL1	1		NO MANUAL INTEGRATION
0027	23041233.D	23D0028-01	1		NO MANUAL INTEGRATION
0045	23041234.D	SEQ-PEM3	1		Endrin, 4,4'-DDD,
0104	23041235.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
0122	23041236.D	SEQ-CCV2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230412.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0140	23041237.D	BLD0009-BLK1		1	NO MANUAL INTEGRATION
0159	23041238.D	BLD0009-BS1		1	NO MANUAL INTEGRATION
0217	23041239.D	BLD0009-BSD1		1	NO MANUAL INTEGRATION
0235	23041240.D	BLD0009-MS1		1	Endrin, 4,4'-DDD, 4,4'-DDT,
0253	23041241.D	BLD0009-MSD1		1	Aldrin,
0312	23041242.D	23C0752-01		1	delta-BHC, gamma-BHC (Lindane), Endrin, 4,4'-DDD, 4,4'-DDT, Endrin aldehyde, Toxaphene, cis-Nonachlor,
0330	23041243.D	23C0752-02		1	Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0348	23041244.D	23C0752-03		1	Dieldrin, 4,4'-DDD, cis-Chlordane, Hexachlorobenzene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0407	23041245.D	23C0752-04		1	delta-BHC, Endrin, 4,4'-DDD, 4,4'-DDT, trans-Chlordane, cis-Chlordane, Toxaphene, trans-Nonachlor, cis-Nonachlor, Chlordane (NOS),
0425	23041246.D	23C0752-06		1	Endrin, 4,4'-DDT, cis-Chlordane, Toxaphene, cis-Nonachlor, Mirex, Chlordane (NOS),
0443	23041247.D	SEQ-PEM4		1	Endrin, 4,4'-DDD,
0502	23041248.D	SEQ-CCV3		1	Hexabromobiphenyl,
0520	23041249.D	SEQ-CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 14-Apr-2023 08:24

23041202.D	Data Locked	yev, 14-
23041203.D	Data Locked	yev, 14-
23041204.D	Data Locked	yev, 14-
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23041244.D	Data Locked	yev, 14-
23041245.D	Data Locked	yev, 14-
23041246.D	Data Locked	yev, 14-
23041247.D	Data Locked	yev, 14-
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23041249.D	Data Locked	yev, 14-



ANALYSIS SEQUENCE

SLE0423

Instrument: ECD6
Calibration ID: GD00035

Printed: 5/25/2023 7:26:56PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0423-PEM1	QC		1		L002116	L000844		
SLE0423-ICV1	QC		2		L003344	L000844		
BLD0606-BLK1	QC		3			L000844		
BLD0606-BS1	QC		4			L000844		
BLD0606-BSD1	QC		5			L000844		
BLD0606-MS1	QC		6			L000844		
BLD0606-MSD1	QC		7			L000844		
23D0394-01	8081B Pest (PSDDA)	A 01	8			L000844	Anchor QEA, LLC	
23D0394-02	8081B Pest (PSDDA)	A 01	9			L000844	Anchor QEA, LLC	
23D0394-04	8081B Pest (PSDDA)	A 01	10			L000844	Anchor QEA, LLC	
23D0394-06	8081B Pest (PSDDA)	A 01	11			L000844	Anchor QEA, LLC	
23D0394-08	8081B Pest (PSDDA)	A 01	12			L000844	Anchor QEA, LLC	
23D0394-11	8081B Pest (PSDDA)	A 01	13			L000844	Anchor QEA, LLC	
23D0394-12	8081B Pest (PSDDA)	A 01	14			L000844	Anchor QEA, LLC	
23D0396-01	8081B Pest (PSDDA)	A 01	15			L000844	Anchor QEA, LLC	
23D0396-03	8081B Pest (PSDDA)	A 01	16			L000844	Anchor QEA, LLC	
SLE0423-PEM2	QC		17		L002116	L000844		
SLE0423-CCV1	QC		18		L003344	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230519.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	19-MAY-2023	12:32	23051902.D	1	SEQ-PEM1	
2	19-MAY-2023	12:51	23051903.D	1	SEQ-INDA1	
3	19-MAY-2023	13:09	23051904.D	1	SEQ-WNDA1	
4	19-MAY-2023	13:28	23051905.D	1	SEQ-TOXA1	
5	19-MAY-2023	13:47	23051906.D	1	SEQ-TECH1	
6	19-MAY-2023	14:05	23051907.D	1	BLE0314-BLK1	
7	19-MAY-2023	14:24	23051908.D	1	BLE0314-BS1	
8	19-MAY-2023	14:43	23051909.D	1	BLE0314-BS2	
9	19-MAY-2023	15:01	23051910.D	1	BLE0314-BS3	
10	19-MAY-2023	15:20	23051911.D	1	23D0671-07	
11	19-MAY-2023	15:39	23051912.D	1	23D0671-07RE1	10
12	19-MAY-2023	15:57	23051913.D	1	23D0671-07RE	100
13	19-MAY-2023	16:16	23051914.D	1	23D0671-08	
14	19-MAY-2023	16:35	23051915.D	1	23D0671-08RE1	10
15	19-MAY-2023	16:54	23051916.D	1	23D0671-08RE	100
16	19-MAY-2023	17:12	23051917.D	1	23D0671-09	
17	19-MAY-2023	17:31	23051918.D	1	23D0671-09RE1	10
18	19-MAY-2023	17:50	23051919.D	1	23D0671-09RE	100
19	19-MAY-2023	18:08	23051920.D	1	SEQ-PEM2	
20	19-MAY-2023	18:27	23051921.D	1	SEQ-INDA2	
21	19-MAY-2023	18:46	23051922.D	1	SEQ-WNDA2	
22	19-MAY-2023	19:04	23051923.D	1	SEQ-TOXA2	
23	19-MAY-2023	19:23	23051924.D	1	SEQ-TECH2	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230519.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 19-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1232	23051902.D	SEQ-PEM1		1	Endrin, 4,4'-DDD,
1251	23051903.D	SEQ-INDA1		1	Hexabromobiphenyl,
1309	23051904.D	SEQ-WNDA1		1	Hexabromobiphenyl,
1328	23051905.D	SEQ-TOXA1		1	NO MANUAL INTEGRATION
1347	23051906.D	SEQ-TECH1		1	NO MANUAL INTEGRATION
1405	23051907.D	BLE0314-BLK1		1	NO MANUAL INTEGRATION
1424	23051908.D	BLE0314-BS1		1	NO MANUAL INTEGRATION
1443	23051909.D	BLE0314-BS2		1	NO MANUAL INTEGRATION
1501	23051910.D	BLE0314-BS3		1	NO MANUAL INTEGRATION
1520	23051911.D	23D0671-07		1	NO MANUAL INTEGRATION
1539	23051912.D	23D0671-07RE1	10	1	NO MANUAL INTEGRATION
1557	23051913.D	23D0671-07RE	100	1	NO MANUAL INTEGRATION
1616	23051914.D	23D0671-08		1	NO MANUAL INTEGRATION
1635	23051915.D	23D0671-08RE1	10	1	NO MANUAL INTEGRATION
1654	23051916.D	23D0671-08RE	100	1	NO MANUAL INTEGRATION
1712	23051917.D	23D0671-09		1	NO MANUAL INTEGRATION
1731	23051918.D	23D0671-09RE1	10	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230519.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1750	23051919.D	23D0671-09RE	100	1	NO MANUAL INTEGRATION
1808	23051920.D	SEQ-PEM2		1	NO MANUAL INTEGRATION
1827	23051921.D	SEQ-INDA2		1	NO MANUAL INTEGRATION
1846	23051922.D	SEQ-WNDA2		1	NO MANUAL INTEGRATION
1904	23051923.D	SEQ-TOXA2		1	NO MANUAL INTEGRATION
1923	23051924.D	SEQ-TECH2		1	NO MANUAL INTEGRATION

Security Status Report

Date: 25-May-2023 19:15

23051902.D	Data Locked	yev, 25-
23051903.D	Data Locked	yev, 25-
23051904.D	Data Locked	yev, 25-
23051905.D	Data Locked	yev, 25-
23051906.D	Data Locked	yev, 25-
23051907.D	Data Locked	yev, 25-
23051908.D	Data Locked	yev, 25-
23051909.D	Data Locked	yev, 25-
23051910.D	Data Locked	yev, 25-
23051911.D	Data Locked	yev, 25-
23051912.D	Data Locked	yev, 25-
23051913.D	Data Locked	yev, 25-
23051914.D	Data Locked	yev, 25-
23051915.D	Data Locked	yev, 25-
23051916.D	Data Locked	yev, 25-
23051917.D	Data Locked	yev, 25-
23051918.D	Data Locked	yev, 25-
23051919.D	Data Locked	yev, 25-
23051920.D	Data Locked	yev, 25-
23051921.D	Data Locked	yev, 25-
23051922.D	Data Locked	yev, 25-
23051923.D	Data Locked	yev, 25-
23051924.D	Data Locked	yev, 25-



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23D0396</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLD0187</u>	Instrument:	<u>ECD6</u>
Calibration:	<u>GD00035</u>	Calibration Date:	<u>04/12/2023</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLD0187-ICV1 (Solid)			Lab File ID: 23041228.D			Analyzed: 04/12/23 22:55		
Decachlorobiphenyl	40.000	79.8	80 - 120	9.366	9.365571	0.0004	+/-0.1	*
Decachlorobiphenyl [2C]	40.000	83.8	80 - 120	10.306	10.30529	0.0007	+/-0.1	
Tetrachlorometaxylene	40.000	88.6	80 - 120	3.82	3.819	0.0010	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.4	80 - 120	4.135	4.135572	-0.0006	+/-0.1	
SLD0187-CCV1 (Solid)			Lab File ID: 23041235.D			Analyzed: 04/13/23 01:04		
Decachlorobiphenyl	40.000	78.8	80 - 120	9.365	9.365571	-0.0006	+/-0.1	*
Decachlorobiphenyl [2C]	40.000	84.2	80 - 120	10.304	10.30529	-0.0013	+/-0.1	
Tetrachlorometaxylene	40.000	88.7	80 - 120	3.819	3.819	0.0000	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.1	80 - 120	4.135	4.135572	-0.0006	+/-0.1	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0423
Calibration: GD00035

SDG/WO: 23D0396
Project: AOC5 MR Phase 1
Instrument: ECD6
Calibration Date: 04/12/2023

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLE0423-ICV1 (Solid) Lab File ID: 23051303.D Analyzed: 05/13/23 16:11								
Decachlorobiphenyl	40.000	82.5	80 - 120	9.342	9.365571	-0.0236	+/-0.1	
Decachlorobiphenyl [2C]	40.000	91.0	80 - 120	10.273	10.30529	-0.0323	+/-0.1	
Tetrachlorometaxylene	40.000	80.0	80 - 120	3.798	3.819	-0.0210	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	97.8	80 - 120	4.113	4.135572	-0.0226	+/-0.1	
BLD0606-BLK1 (Solid) Lab File ID: 23051304.D Analyzed: 05/13/23 16:30								
Decachlorobiphenyl	8.0000	61.4	30 - 160	9.341	9.365571	-0.0246	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	65.4	30 - 160	10.274	10.30529	-0.0313	+/-0.1	
Tetrachlorometaxylene	8.0000	58.1	30 - 160	3.799	3.819	-0.0200	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	57.6	30 - 160	4.113	4.135572	-0.0226	+/-0.1	
BLD0606-BS1 (Solid) Lab File ID: 23051305.D Analyzed: 05/13/23 16:48								
Decachlorobiphenyl	8.0000	69.7	30 - 160	9.342	9.365571	-0.0236	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	72.9	30 - 160	10.275	10.30529	-0.0303	+/-0.1	
Tetrachlorometaxylene	8.0000	66.9	30 - 160	3.799	3.819	-0.0200	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	63.5	30 - 160	4.113	4.135572	-0.0226	+/-0.1	
BLD0606-BSD1 (Solid) Lab File ID: 23051306.D Analyzed: 05/13/23 17:07								
Decachlorobiphenyl	8.0000	72.3	30 - 160	9.342	9.365571	-0.0236	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	71.5	30 - 160	10.274	10.30529	-0.0313	+/-0.1	
Tetrachlorometaxylene	8.0000	64.8	30 - 160	3.799	3.819	-0.0200	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	62.9	30 - 160	4.113	4.135572	-0.0226	+/-0.1	
23D0396-01 (Solid) Lab File ID: 23051316.D Analyzed: 05/13/23 20:14								
Decachlorobiphenyl	7.9953	60.8	30 - 160	9.347	9.365571	-0.0186	+/-0.1	
Decachlorobiphenyl [2C]	7.9953	63.0	30 - 160	10.278	10.30529	-0.0273	+/-0.1	
Tetrachlorometaxylene	7.9953	52.3	30 - 160	3.798	3.819	-0.0210	+/-0.1	
Tetrachlorometaxylene [2C]	7.9953	53.3	30 - 160	4.113	4.135572	-0.0226	+/-0.1	
23D0396-03 (Solid) Lab File ID: 23051317.D Analyzed: 05/13/23 20:32								
Decachlorobiphenyl	7.9879	59.0	30 - 160	9.346	9.365571	-0.0196	+/-0.1	
Decachlorobiphenyl [2C]	7.9879	61.5	30 - 160	10.278	10.30529	-0.0273	+/-0.1	
Tetrachlorometaxylene	7.9879	52.8	30 - 160	3.798	3.819	-0.0210	+/-0.1	
Tetrachlorometaxylene [2C]	7.9879	55.6	30 - 160	4.113	4.135572	-0.0226	+/-0.1	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLD0187

Instrument: ECD6

Calibration: GD00035

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLD0187-ICV1)		(Solid)	Lab File ID: 23041228.D			Analyzed: 04/12/23 22:55			
1-Bromo-2-Nitrobenzene	527944	3.138	527944	3.138	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	428829	9.515	428829	9.515	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	744512	3.287	744512	3.287	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	468235	10.869	468235	10.869	100	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0423

Instrument: ECD6

Calibration: GD00035

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0423-ICV1)		(Solid)	Lab File ID: 23051303.D			Analyzed: 05/13/23 16:11			
1-Bromo-2-Nitrobenzene	746402	3.12	746402	3.12	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	630375	9.491	630375	9.491	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	640575	3.269	640575	3.269	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	424817	10.834	424817	10.834	100	50 - 200	0.000	+/-0.50	
Blank (BLD0606-BLK1)		(Solid)	Lab File ID: 23051304.D			Analyzed: 05/13/23 16:30			
1-Bromo-2-Nitrobenzene	854265	3.12	746402	3.12	114	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	731936	9.49	630375	9.491	116	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	775487	3.269	640575	3.269	121	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	500266	10.833	424817	10.834	118	50 - 200	-0.001	+/-0.50	
LCS (BLD0606-BS1)		(Solid)	Lab File ID: 23051305.D			Analyzed: 05/13/23 16:48			
1-Bromo-2-Nitrobenzene	814875	3.12	746402	3.12	109	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	686460	9.491	630375	9.491	109	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	757251	3.269	640575	3.269	118	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	493938	10.834	424817	10.834	116	50 - 200	0.000	+/-0.50	
LCS Dup (BLD0606-BSD1)		(Solid)	Lab File ID: 23051306.D			Analyzed: 05/13/23 17:07			
1-Bromo-2-Nitrobenzene	826105	3.12	746402	3.12	111	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	679915	9.491	630375	9.491	108	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	770564	3.269	640575	3.269	120	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	502713	10.834	424817	10.834	118	50 - 200	0.000	+/-0.50	
LDW23-SS1801 (23D0396-01)		(Solid)	Lab File ID: 23051316.D			Analyzed: 05/13/23 20:14			
1-Bromo-2-Nitrobenzene	1399601	3.119	746402	3.12	188	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	876824	9.497	630375	9.491	139	50 - 200	0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1313494	3.268	640575	3.269	205	50 - 200	-0.001	+/-0.50	*
Hexabromobiphenyl [2C]	644626	10.839	424817	10.834	152	50 - 200	0.005	+/-0.50	
LDW23-SS1802 (23D0396-03)		(Solid)	Lab File ID: 23051317.D			Analyzed: 05/13/23 20:32			
1-Bromo-2-Nitrobenzene	1410491	3.119	746402	3.12	189	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	884703	9.497	630375	9.491	140	50 - 200	0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1283782	3.268	640575	3.269	200	50 - 200	-0.001	+/-0.50	*
Hexabromobiphenyl [2C]	663781	10.839	424817	10.834	156	50 - 200	0.005	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/25/23 11:56	13	14	05/13/23 20:14	18	40	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/25/23 11:56	12	14	05/13/23 20:32	18	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD6

Analyte	MDL	RL	Units
Hexachlorobenzene	0.15	0.50	ug/kg
Hexachlorobenzene [2C]	0.15	0.50	ug/kg

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

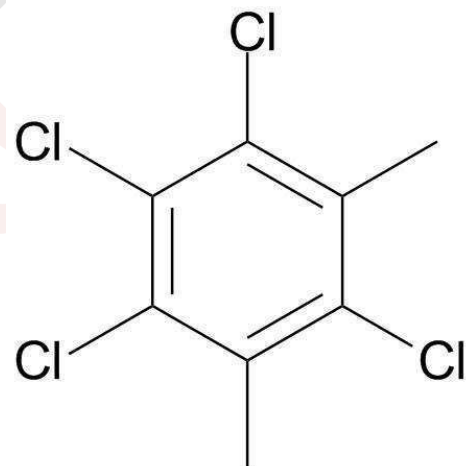
Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is $\pm 2.4\%$. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

CERTIFICATE OF ANALYSIS

Catalog No: APP-9-112-D-20X
Description: Hexachlorobenzene in Dichloromethane
Lot: 219051389
Solvent: Dichloromethane
Hazards: Refer to SDS for complete safety information

Date Certified: May 13, 2019
Expiration: May 13, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobenzene	118-74-1	99.0	2002	1982



J006504

Hexachlorobenzene
Solvent / Lot: Dichloromethane
Prep: 6/21/2021 by YZ
Exp: 5/13/2029
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this

4 Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32292 **Lot No.:** A0185477

Description : Organochlorine Pesticide Mix AB # 2
Organochlorine Pesticide Mix AB # 2 8-80 µg/mL, Hexane/Toluene(1:1), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	alpha-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12307600)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
2	gamma-BHC (Lindane)	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 13087200)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
3	beta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-85-7 (Lot 0588007-4)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
4	delta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-86-8 (Lot 13112400)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
5	Heptachlor	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 76-44-8 (Lot 803759)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
6	Aldrin	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 309-00-2 (Lot 12983100)		+/-	0.3702	µg/mL	Unstressed
	Purity 96%		+/-	0.5323	µg/mL	Stressed
7	Heptachlor epoxide (isomer B)	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 1024-57-3 (Lot 13168200)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed

8	trans-Chlordane CAS # 5103-74-2 Purity 98%	(Lot 32943)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	cis-Chlordane CAS # 5103-71-9 Purity 98%	(Lot 31766)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Endosulfan I CAS # 959-98-8 Purity 99%	(Lot BCCF4060)	8.0 µg/mL	+/- 0.0654 +/- 0.3672 +/- 0.5281	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	4,4'-DDE CAS # 72-55-9 Purity 99%	(Lot GHYQG)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Dieldrin CAS # 60-57-1 Purity 98%	(Lot 11129900)	16.1 µg/mL	+/- 0.1320 +/- 0.7408 +/- 1.0653	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Endrin CAS # 72-20-8 Purity 99%	(Lot 13157400)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	4,4'-DDD CAS # 72-54-8 Purity 99%	(Lot HAN02)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Endosulfan II CAS # 33213-65-9 Purity 99%	(Lot 12448900)	16.0 µg/mL	+/- 0.1309 +/- 0.7345 +/- 1.0562	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	4,4'-DDT CAS # 50-29-3 Purity 98%	(Lot 220428JLM)	16.1 µg/mL	+/- 0.1315 +/- 0.7378 +/- 1.0610	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Endrin aldehyde CAS # 7421-93-4 Purity 99%	(Lot 30720)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Endosulfan sulfate CAS # 1031-07-8 Purity 99%	(Lot BCCB0424)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Methoxychlor CAS # 72-43-5 Purity 98%	(Lot 13027000)	80.2 µg/mL	+/- 0.5781 +/- 3.6697 +/- 5.2871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Endrin ketone CAS # 53494-70-5 Purity 99%	(Lot 13026800)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

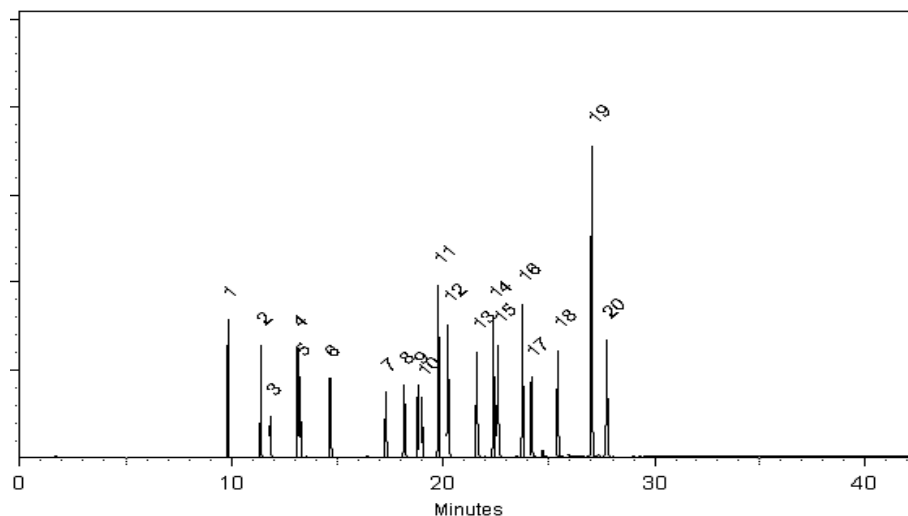
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C


Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Morgan Craighead - Mix Technician

Date Mixed: 19-May-2022 **Balance:** B442140311


Fang-Yun Lo - GC Analyst

Date Passed: 26-May-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X
Description: Hexachlorobutadiene
Lot: 222031188
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022
Expiration: Apr 11, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

2. Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.

7. Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X

Description: Hexachlorobutadiene

Lot: 222031188

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022

Expiration: Apr 11, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

K011468

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



Dual Column

LDW23-SS1801

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: 23D0396-01 A

File ID: 05102332ECD7.D

Sampled: 04/12/23 09:56

Prepared: 04/25/23 16:03

Analyzed: 05/10/23 19:27

% Solids: 43.01

Preparation: EPA 3546 (Microwave)

Initial/Final: 29.1 g Wet / 2.5 mL

Batch: BLD0608

Sequence: SLE0165

Calibration: GE00022

Instrument: ECD7

Column 1: ZB5

Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.0	7.8	20.0	U, D
11104-28-2	Aroclor 1221	1	5	20.0	7.8	20.0	U, D
11141-16-5	Aroclor 1232	1	5	20.0	7.8	20.0	U, D
53469-21-9	Aroclor 1242	1	5	20.0	7.8	20.0	U, D
12672-29-6	Aroclor 1248	1	5	56.2	7.8	20.0	D
11097-69-1	Aroclor 1254	1	5	80.6	7.8	20.0	D
11096-82-5	Aroclor 1260	2	5	71.4	2.9	20.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9898	7.91	99.0	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9898	5.89	73.7	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9898	7.10	88.8	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9898	6.54	81.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102332ECD7.D
Data file 2: /230510.b/230510.b/05102332ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0396-01RE1
Client ID:
Injection Date: 10-MAY-2023 19:27
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.740	-0.002	56605	5.625 -0.005	34063	5.9	6.5	10.4	Tetrachloro-m-xylene
13.830	-0.010	52668	14.061 -0.008	45355	7.9	7.1	10.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	637325	6.0
Hexabromobiphenyl	876625	665891	-24.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	378214	8.3
Hexabromobiphenyl	652984	449569	-31.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.003	9072	55.8	1	8.251	-0.009	8952	49.8	
Aroclor-1248	2	8.512	-0.011	14034	33.2	2	8.657	-0.010	7855	41.3	
Aroclor-1248	3	8.931	-0.011	34131	42.0	3	9.094	-0.025	12960	58.2	
Aroclor-1248	4	9.234	-0.005	39053	94.2	4	9.513	-0.033	12909	48.3	
Total CollAve (4 peaks):				56.3	Total Col2Ave (4 peaks):				49.4	RPD = 13	
Corrected Ave (3 peaks):				43.6	Corrected Ave (3 peaks):				46.5	RPD = 6	
Aroclor-1254	1	9.234	-0.010	39053	59.6	1	9.390	-0.012	22038	76.7	
Aroclor-1254	2	9.310	-0.012	16803	57.1	2	9.487	-0.011	9307	54.5	
Aroclor-1254	3	9.607	-0.006	34362	81.3	3	9.909	-0.014	13510	58.0	
Aroclor-1254	4	9.734	-0.017	55257	66.7	4	10.059	-0.018	38174	75.1	
Aroclor-1254	5	10.068	-0.046	69503	138.9	5	10.304	-0.022	47572	94.3	
Total CollAve (5 peaks):				80.7	Total Col2Ave (5 peaks):				71.7	RPD = 12	
Corrected Ave (4 peaks):				66.2	Corrected Ave (4 peaks):				66.1	RPD = 0	
Aroclor-1260	1	10.980	-0.012	20392	57.9	1	11.594	-0.011	19769	82.8	
Aroclor-1260	2	11.295	-0.014	19489	56.1	2	11.855	-0.016	33368	53.4	
Aroclor-1260	3	11.666	-0.019	49310	56.7	3	12.373	-0.015	14103	91.1	
Aroclor-1260	4	12.068	-0.022	23535	55.2	4	12.439	-0.016	24367	58.4	
Aroclor-1260	5	12.184	-0.009	13126	70.6	NS	---			----	
Total CollAve (5 peaks):				59.3	Total Col2Ave (4 peaks):				71.4	RPD = 19	
Corrected Ave (4 peaks):				56.5	Corrected Ave (3 peaks):				64.9	RPD = 14	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.842 - 13.741) = 1094604 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 689047 Col2 Total PCB = 0.2 ppm*

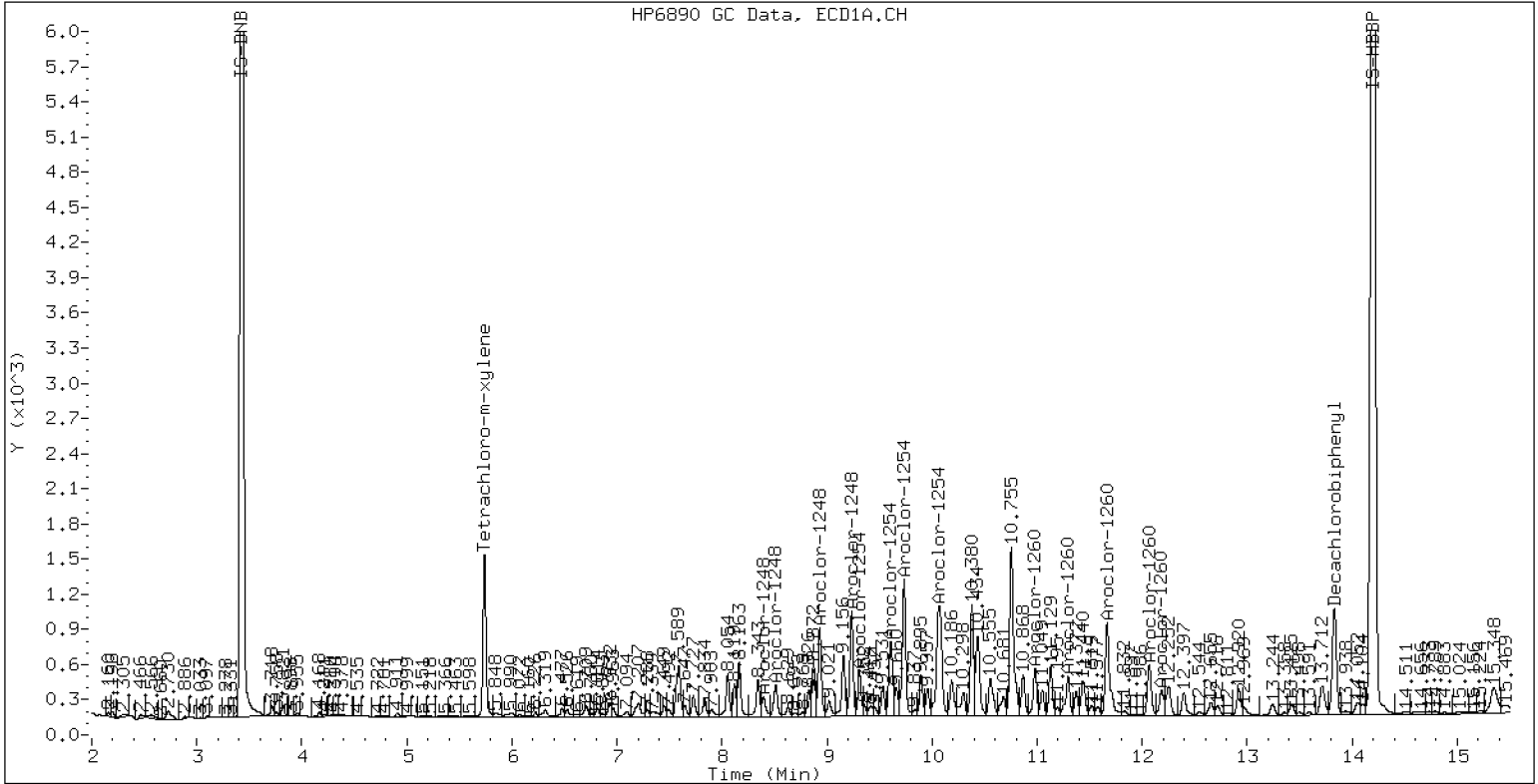
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0396-01RE1

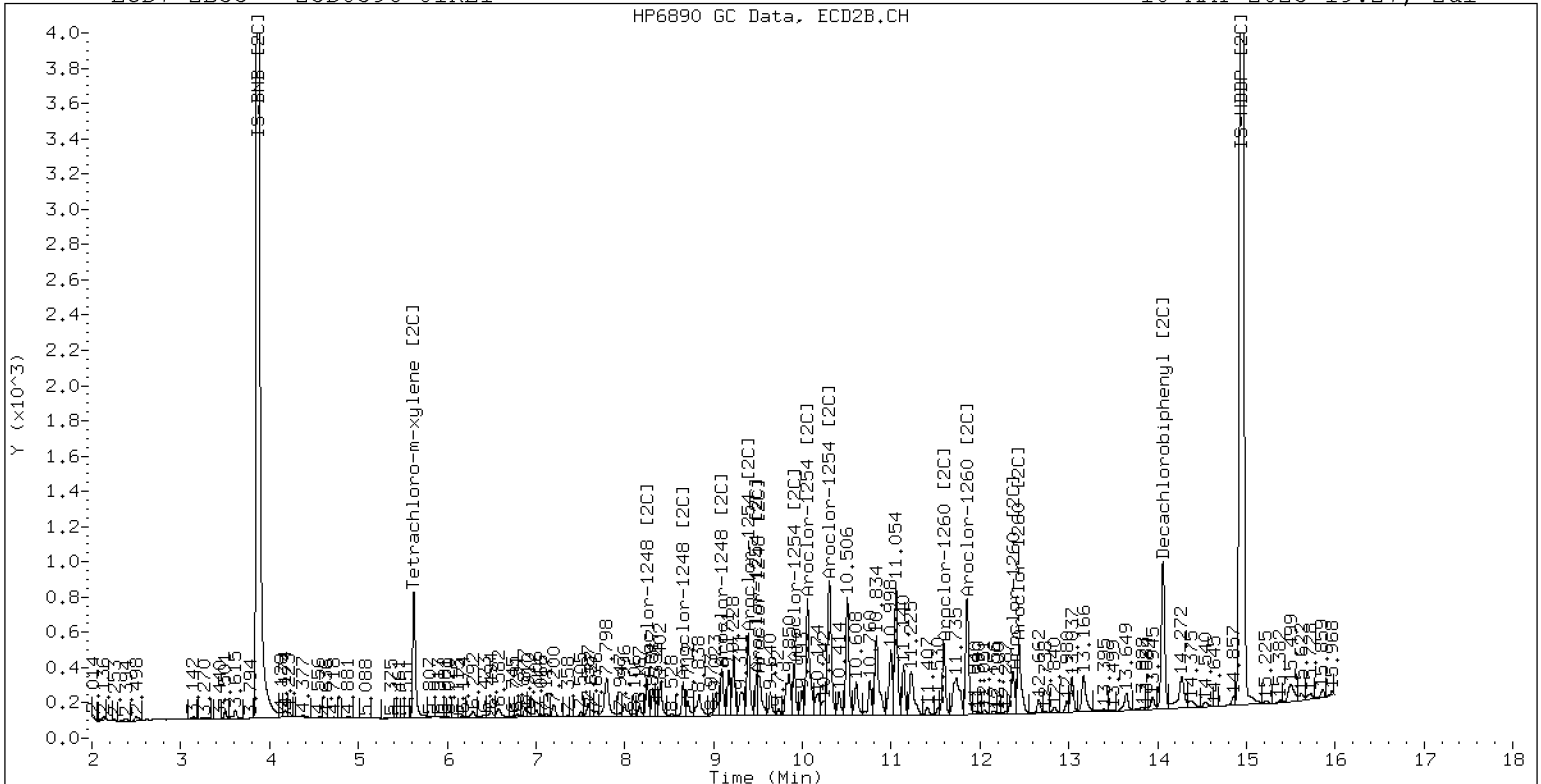
10-MAY-2023 19:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23D0396-01RE1

10-MAY-2023 19:27, 2ul

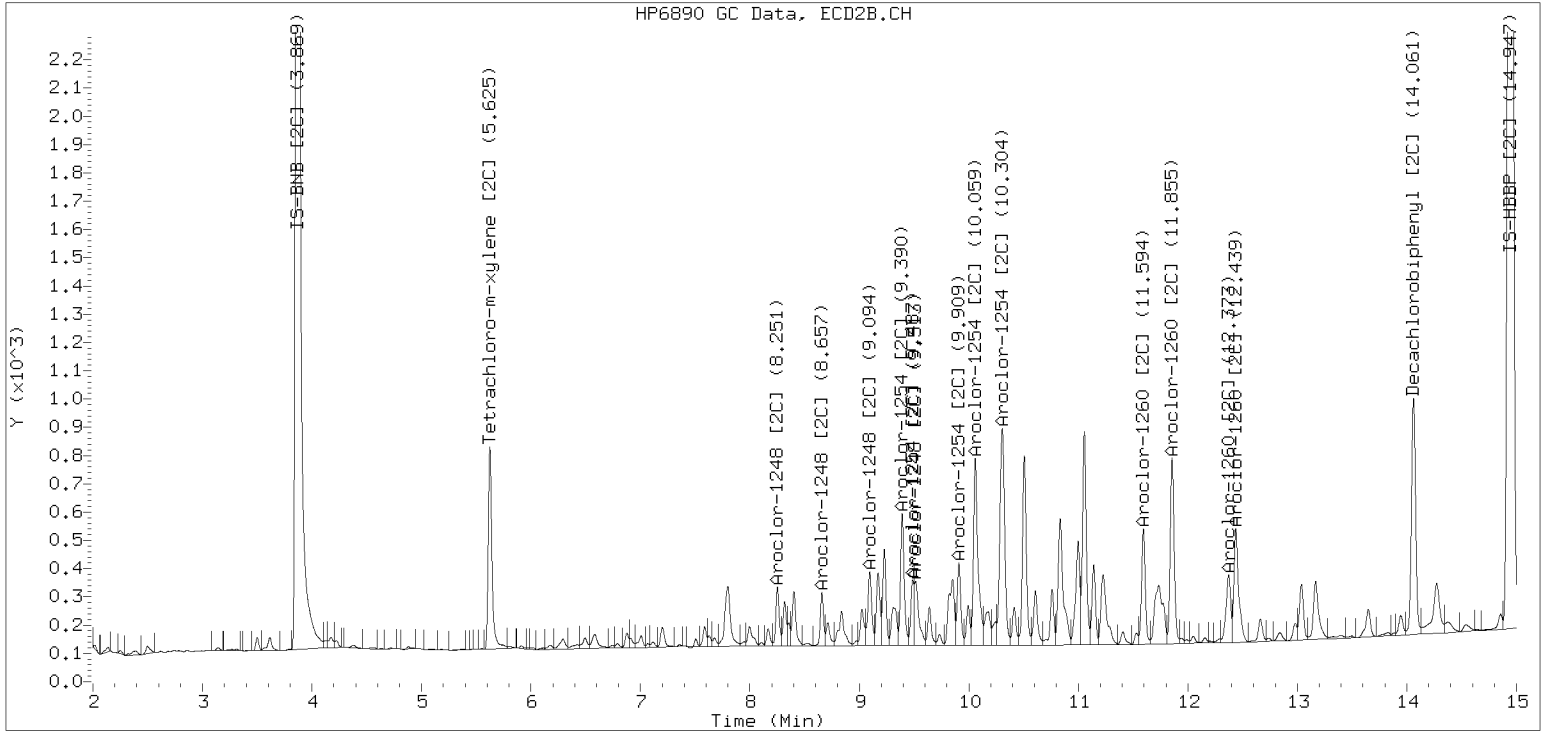


ZB-35 Manual Integration: YES

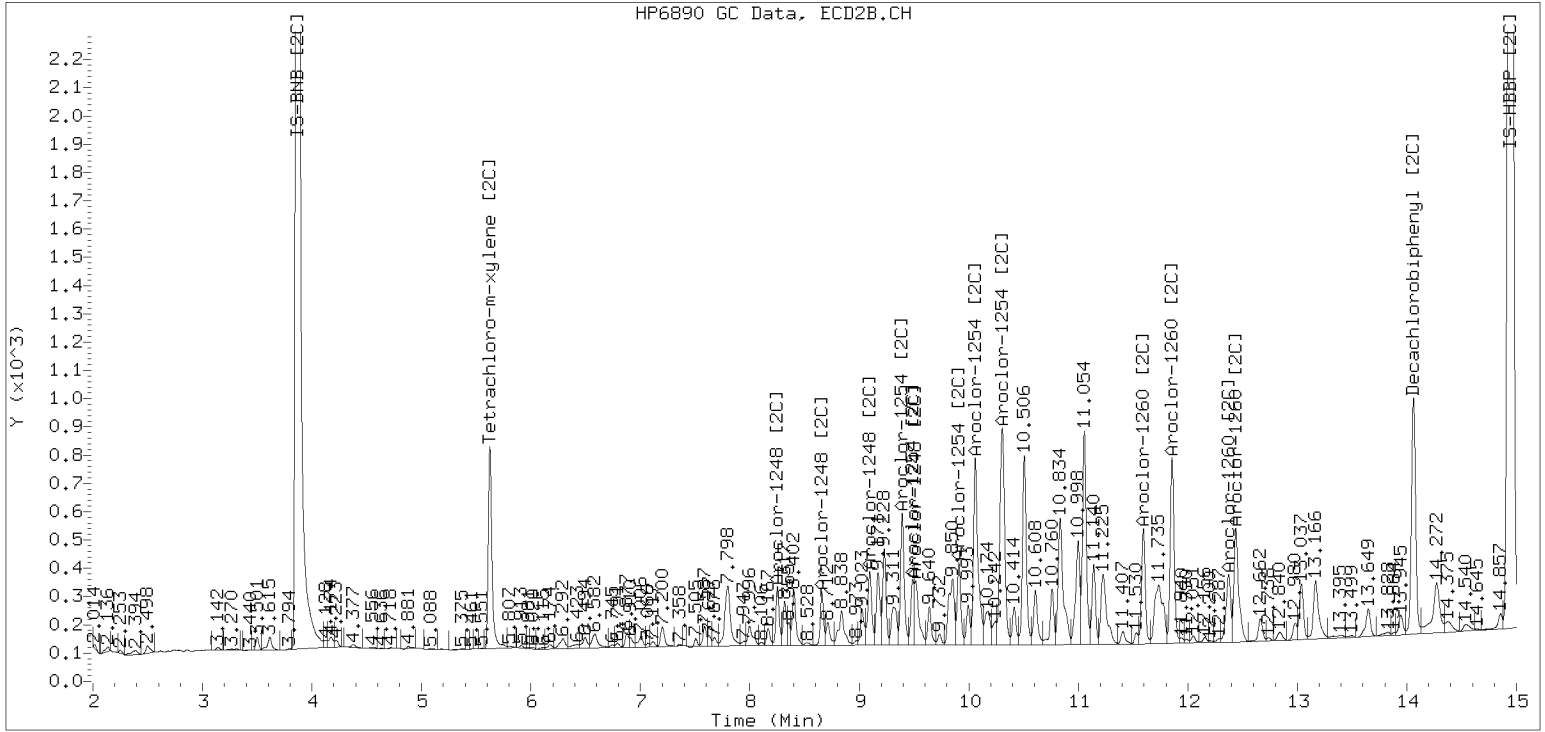
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230510.b/230510.b/05102332ECD7.D Injection Date: 10-MAY-2023

Manual Integration (After)



Processed Integration (Before)





Dual Column

**ORGANIC ANALYSIS DATA SHEET
EPA 8082A**

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0396</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC5 MR Phase 1</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>23D0396-02 A</u>	File ID: <u>05102333ECD7.D</u>
Sampled: <u>04/12/23 10:15</u>	Prepared: <u>04/25/23 16:03</u>	Analyzed: <u>05/10/23 19:47</u>
% Solids: <u>48.93</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>25.29 g Wet / 2.5 mL</u>
Batch: <u>BLD0608</u>	Sequence: <u>SLE0165</u>	Calibration: <u>GE00022</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.2	7.9	20.2	U, D
11104-28-2	Aroclor 1221	1	5	20.2	7.9	20.2	U, D
11141-16-5	Aroclor 1232	1	5	20.2	7.9	20.2	U, D
53469-21-9	Aroclor 1242	1	5	20.2	7.9	20.2	D, U
12672-29-6	Aroclor 1248	1	5	52.1	7.9	20.2	D
11097-69-1	Aroclor 1254	2	5	64.9	7.9	20.2	D
11096-82-5	Aroclor 1260	2	5	75.3	3.0	20.2	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	8.0812	7.71	95.4	40 - 126	
<i>Tetrachlorometaxylene</i>	1	8.0812	5.55	68.7	44 - 120	
<i>Decachlorobiphenyl</i>	2	8.0812	7.13	88.2	40 - 126	
<i>Tetrachlorometaxylene</i>	2	8.0812	6.01	74.4	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102333ECD7.D
Data file 2: /230510.b/230510.b/05102333ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0396-02RE1
Client ID:
Injection Date: 10-MAY-2023 19:47
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.740	-0.002	54179	5.625 -0.005	31612	5.5	6.0	7.9	Tetrachloro-m-xylene
13.832	-0.008	49518	14.062 -0.008	43676	7.6	7.1	7.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	654584	8.8
Hexabromobiphenyl	876625	649213	-25.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	386188	10.6
Hexabromobiphenyl	652984	436013	-33.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.396	-0.002	8556	51.2	1	8.251	-0.008	8598	46.8
Aroclor-1248	2	8.513	-0.011	13356	30.8	2	8.658	-0.010	7640	39.4
Aroclor-1248	3	8.932	-0.010	33112	39.7	3	9.095	-0.025	11693	51.4
Aroclor-1248	4	9.234	-0.004	35964	84.5	4	9.513	-0.033	12037	44.1
Total CollAve (4 peaks):				51.5	Total Col2Ave (4 peaks):				45.4	RPD = 13
Corrected Ave (3 peaks):				40.5	Corrected Ave (3 peaks):				43.4	RPD = 7
Aroclor-1254	1	9.234	-0.010	35964	53.5	1	9.391	-0.011	20062	68.4
Aroclor-1254	2	9.311	-0.011	18302	60.5	2	9.486	-0.011	8843	50.7
Aroclor-1254	3	9.608	-0.005	29543	68.0	3	9.909	-0.014	11362	47.8
Aroclor-1254	4	9.735	-0.017	50172	59.0	4	10.058	-0.018	35373	68.2
Aroclor-1254	5	10.064	-0.050	65055	126.6	5	10.306	-0.020	44297	86.0
Total CollAve (5 peaks):				75.5	Total Col2Ave (5 peaks):				64.2	RPD = 14
Corrected Ave (4 peaks):				60.3	Corrected Ave (4 peaks):				58.8	RPD = 3
Aroclor-1260	1	10.981	-0.012	21085	61.4	1	11.594	-0.011	19462	84.0
Aroclor-1260	2	11.296	-0.014	16771	49.5	2	11.856	-0.015	34564	57.1
Aroclor-1260	3	11.667	-0.018	48473	57.1	3	12.373	-0.015	14323	95.4
Aroclor-1260	4	12.067	-0.022	24968	60.1	4	12.439	-0.016	24890	61.5
Aroclor-1260	5	12.182	-0.011	11586	63.9	NS	---			---
Total CollAve (5 peaks):				58.4	Total Col2Ave (4 peaks):				74.5	RPD = 24
Corrected Ave (4 peaks):				57.0	Corrected Ave (3 peaks):				67.5	RPD = 17
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.842 - 13.741) = 1046051 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 673973 Col2 Total PCB = 0.1 ppm*

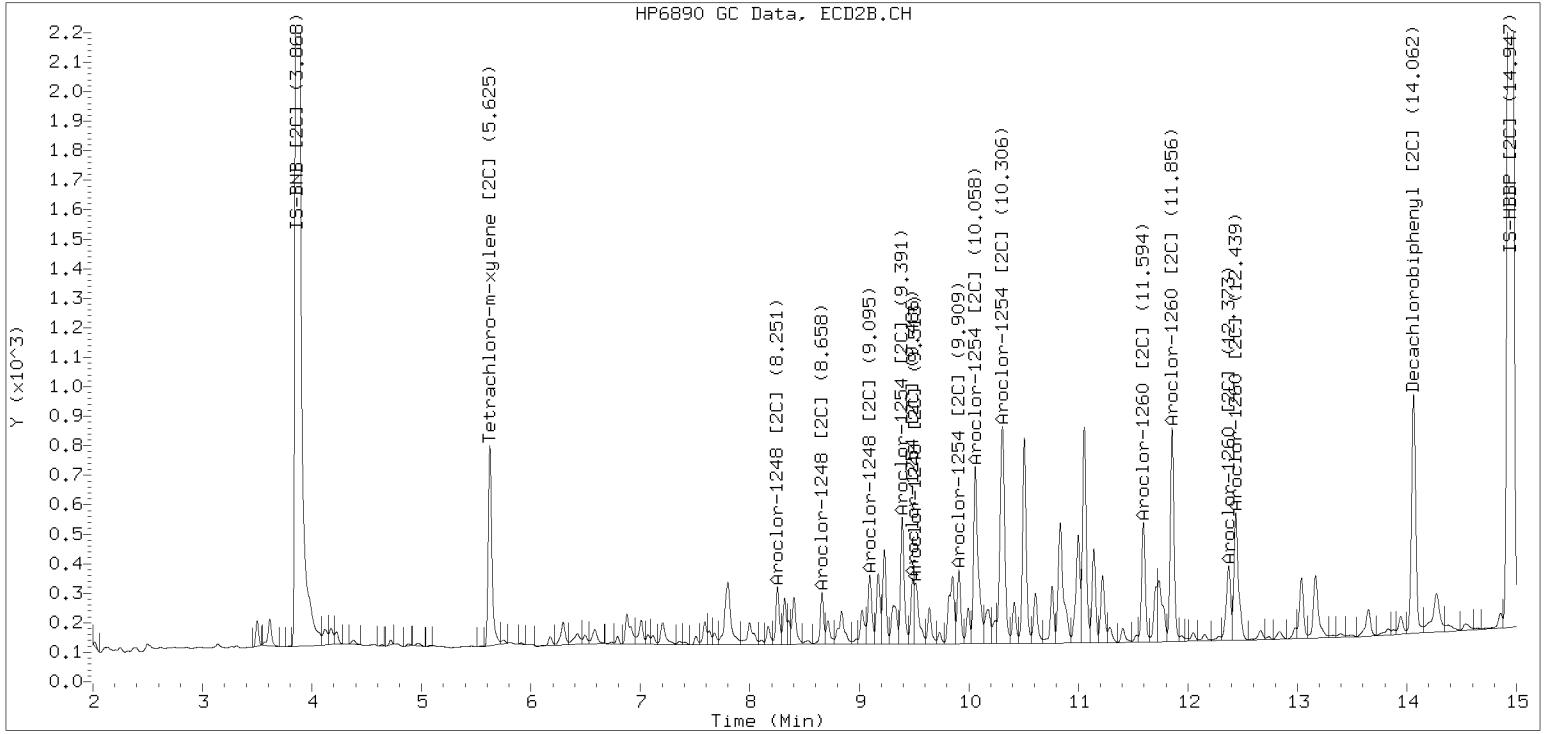
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

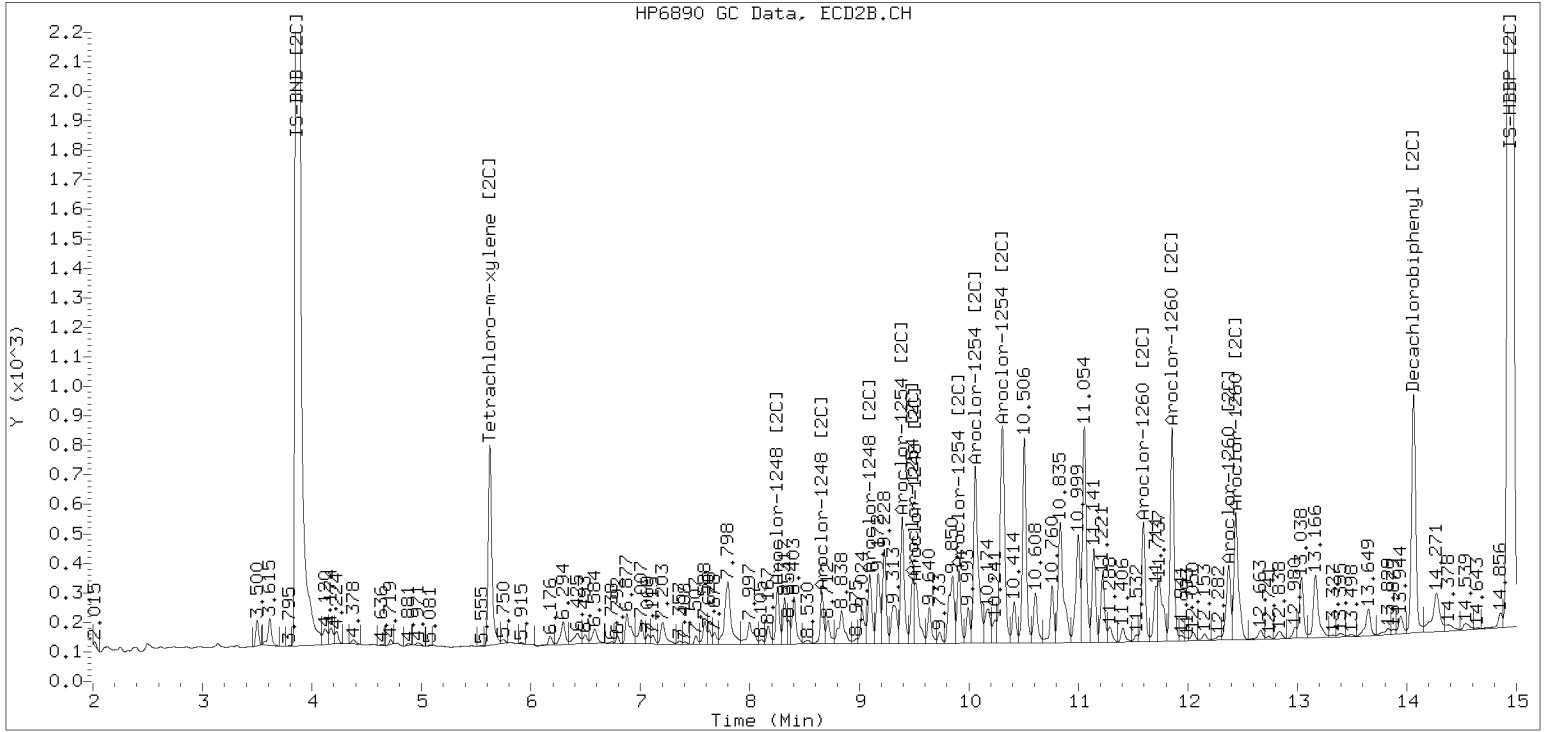
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230510.b/230510.b/05102333ECD7.D Injection Date: 10-MAY-2023

Manual Integration (After)



Processed Integration (Before)





Dual Column

LDW23-SS1802

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0396</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23D0396-03 A</u>
Sampled: <u>04/12/23 15:03</u>	Prepared: <u>04/25/23 16:03</u>
% Solids: <u>43.88</u>	Preparation: <u>EPA 3546 (Microwave)</u>
Batch: <u>BLD0608</u>	Sequence: <u>SLE0165</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	Column 2: <u>ZB35</u>
	File ID: <u>05102334ECD7.D</u>
	Analyzed: <u>05/10/23 20:08</u>
	Initial/Final: <u>28.49 g Wet / 2.5 mL</u>
	Calibration: <u>GE00022</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.0	7.8	20.0	D, U
11104-28-2	Aroclor 1221	1	5	20.0	7.8	20.0	D, U
11141-16-5	Aroclor 1232	1	5	20.0	7.8	20.0	D, U
53469-21-9	Aroclor 1242	1	5	20.0	7.8	20.0	D, U
12672-29-6	Aroclor 1248	1	5	50.7	7.8	20.0	D
11097-69-1	Aroclor 1254	1	5	73.0	7.8	20.0	D
11096-82-5	Aroclor 1260	2	5	77.5	2.9	20.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9991	7.65	95.6	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9991	5.59	69.9	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9991	6.98	87.3	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9991	6.36	79.5	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102334ECD7.D
Data file 2: /230510.b/230510.b/05102334ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0396-03RE1
Client ID:
Injection Date: 10-MAY-2023 20:08
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.740	-0.002	54002	5.625	-0.005	32591	5.6	6.4	12.8	Tetrachloro-m-xylene
13.832	-0.009	49780	14.063	-0.006	43542	7.7	7.0	9.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	641188	6.6
Hexabromobiphenyl	876625	651283	-25.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	372581	6.7
Hexabromobiphenyl	652984	438974	-32.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.003	8301	50.7	1	8.251	-0.009	8639	48.7	
Aroclor-1248	2	8.513	-0.010	12549	29.5	2	8.658	-0.010	7616	40.7	
Aroclor-1248	3	8.932	-0.010	30739	37.6	3	9.094	-0.025	12109	55.2	
Aroclor-1248	4	9.234	-0.004	35463	85.1	4	9.514	-0.032	11917	45.3	
Total CollAve (4 peaks):				50.7	Total Col2Ave (4 peaks):				47.5	RPD = 7	
Corrected Ave (3 peaks):				39.3	Corrected Ave (3 peaks):				44.9	RPD = 13	
Aroclor-1254	1	9.234	-0.010	35463	53.8	1	9.391	-0.011	20923	73.9	
Aroclor-1254	2	9.310	-0.011	14673	49.6	2	9.488	-0.010	8537	50.8	
Aroclor-1254	3	9.607	-0.006	30692	72.1	3	9.909	-0.013	11910	51.9	
Aroclor-1254	4	9.735	-0.016	50870	61.0	4	10.059	-0.018	35040	70.0	
Aroclor-1254	5	10.069	-0.045	64554	128.3	5	10.305	-0.021	44041	88.7	
Total CollAve (5 peaks):				73.0	Total Col2Ave (5 peaks):				67.0	RPD = 8	
Corrected Ave (4 peaks):				59.1	Corrected Ave (4 peaks):				61.6	RPD = 4	
Aroclor-1260	1	10.981	-0.012	20266	58.8	1	11.595	-0.011	19367	83.1	
Aroclor-1260	2	11.296	-0.014	16987	50.0	2	11.856	-0.015	34248	56.2	
Aroclor-1260	3	11.667	-0.018	52861	62.1	3	12.372	-0.016	16845	111.5	
Aroclor-1260	4	12.068	-0.021	23542	56.5	4	12.438	-0.017	24117	59.2	
Aroclor-1260	5	12.181	-0.012	11389	62.6	NS	---			---	
Total CollAve (5 peaks):				58.0	Total Col2Ave (4 peaks):				77.5	RPD = 29	
Corrected Ave (4 peaks):				56.8	Corrected Ave (3 peaks):				66.1	RPD = 15	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.842 - 13.741) = 1020586 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.730 - 13.969) = 664880 Col2 Total PCB = 0.1 ppm*

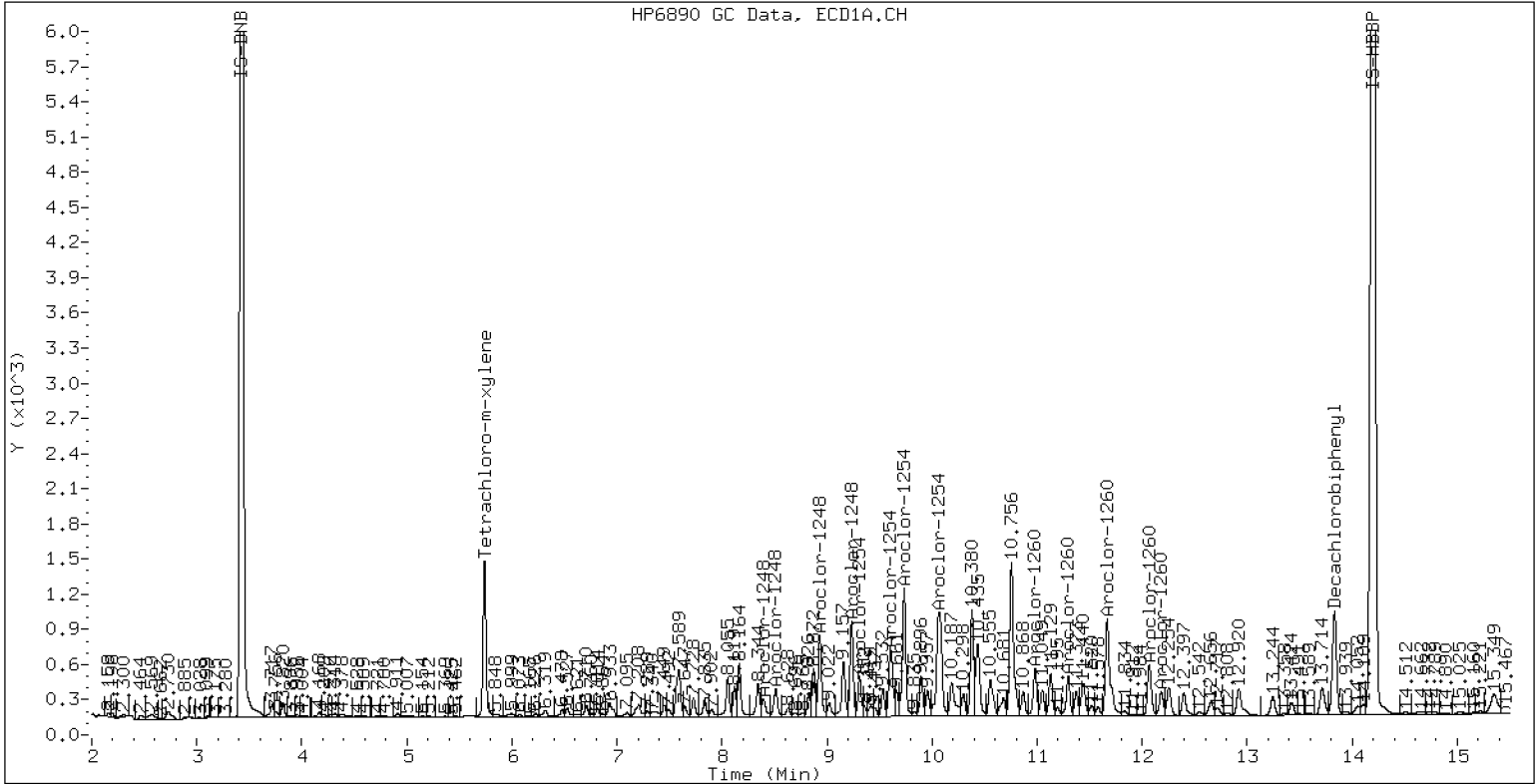
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0396-03RE1

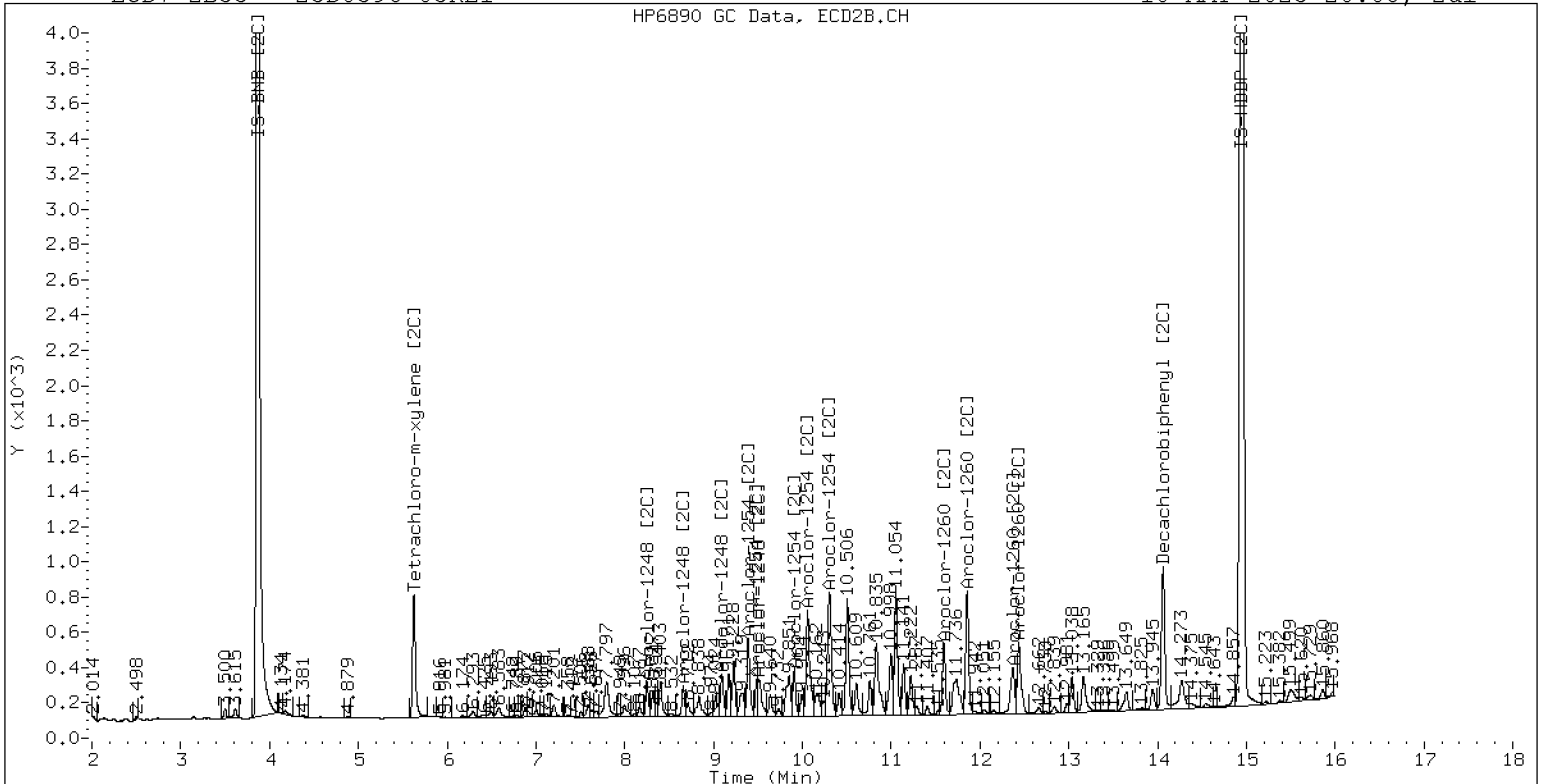
10-MAY-2023 20:08, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23D0396-03RE1

10-MAY-2023 20:08, 2ul

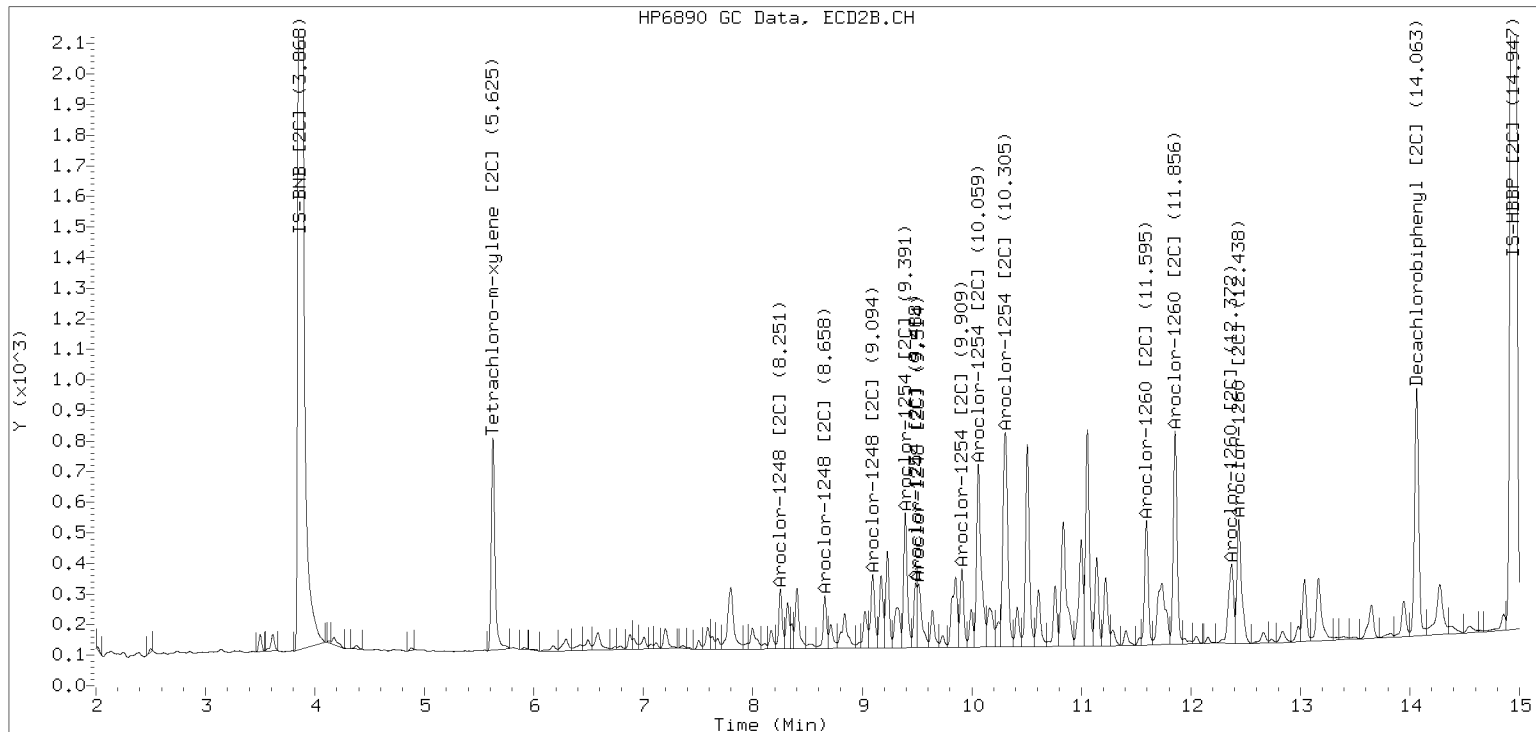


ZB-35 Manual Integration: YES

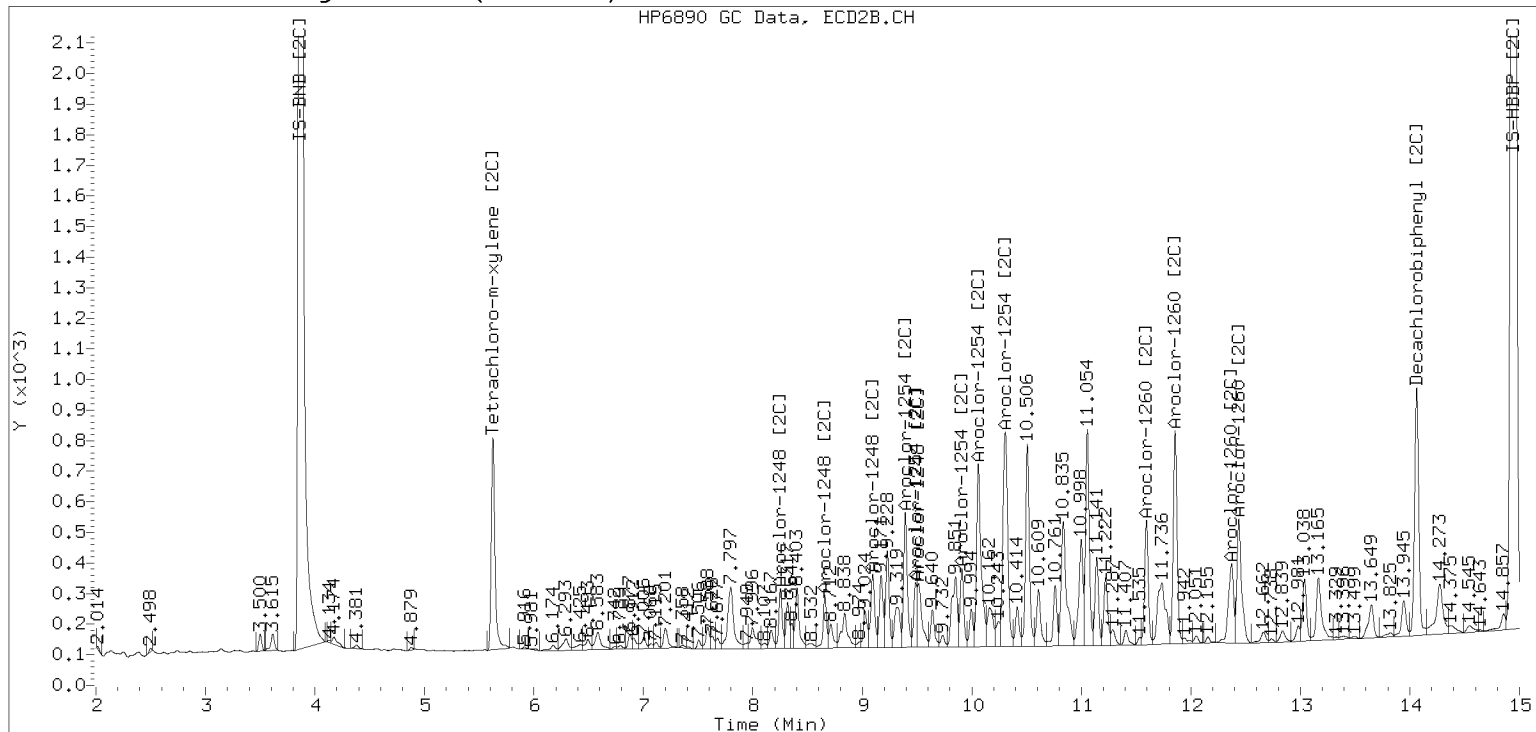
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230510.b/230510.b/05102334ECD7.D Injection Date: 10-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102335ECD7.D
Data file 2: /230510.b/230510.b/05102335ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23D0396-04RE1
Client ID:
Injection Date: 10-MAY-2023 20:29
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.739	-0.003	57417	5.624 -0.006	33152	5.8	6.4	8.4	Tetrachloro-m-xylene
13.832	-0.009	48545	14.063 -0.007	42977	7.5	7.0	7.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	652278	8.4
Hexabromobiphenyl	876625	646909	-26.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	378979	8.5
Hexabromobiphenyl	652984	435374	-33.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.003	6424	38.6	1	8.251	-0.009	8268	45.9	
Aroclor-1248	2	8.512	-0.011	10286	23.8	2	8.658	-0.010	6937	36.4	
Aroclor-1248	3	8.932	-0.011	29973	36.0	3	9.095	-0.024	10673	47.8	
Aroclor-1248	4	9.234	-0.005	34230	80.7	4	9.504	-0.041	10064	37.6	
Total CollAve (4 peaks):				44.8	Total Col2Ave (4 peaks):				41.9	RPD = 7	
Corrected Ave (3 peaks):				32.8	Corrected Ave (3 peaks):				40.0	RPD = 20	
Aroclor-1254	1	9.234	-0.010	34230	51.1	1	9.391	-0.011	19784	68.7	
Aroclor-1254	2	9.310	-0.012	16854	56.0	2	9.484	-0.013	9684	56.6	
Aroclor-1254	3	9.608	-0.005	28640	66.2	3	9.909	-0.013	10811	46.3	
Aroclor-1254	4	9.734	-0.017	48674	57.4	4	10.059	-0.018	34690	68.1	
Aroclor-1254	5	10.064	-0.050	62829	122.7	5	10.306	-0.020	43794	86.7	
Total CollAve (5 peaks):				70.7	Total Col2Ave (5 peaks):				65.3	RPD = 8	
Corrected Ave (4 peaks):				57.7	Corrected Ave (4 peaks):				59.9	RPD = 4	
Aroclor-1260	1	10.981	-0.012	19929	58.3	1	11.594	-0.011	19099	82.6	
Aroclor-1260	2	11.295	-0.014	15258	45.2	2	11.855	-0.016	34510	57.1	
Aroclor-1260	3	11.666	-0.019	44899	53.1	3	12.373	-0.014	14031	93.6	
Aroclor-1260	4	12.067	-0.022	23663	57.1	4	12.439	-0.016	25230	62.5	
Aroclor-1260	5	12.181	-0.012	11038	61.1	NS	---			---	
Total CollAve (5 peaks):				55.0	Total Col2Ave (4 peaks):				73.9	RPD = 29	
Corrected Ave (4 peaks):				53.4	Corrected Ave (3 peaks):				67.4	RPD = 23	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.842 - 13.741) = 947548 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.730 - 13.969) = 666240 Col2 Total PCB = 0.1 ppm*

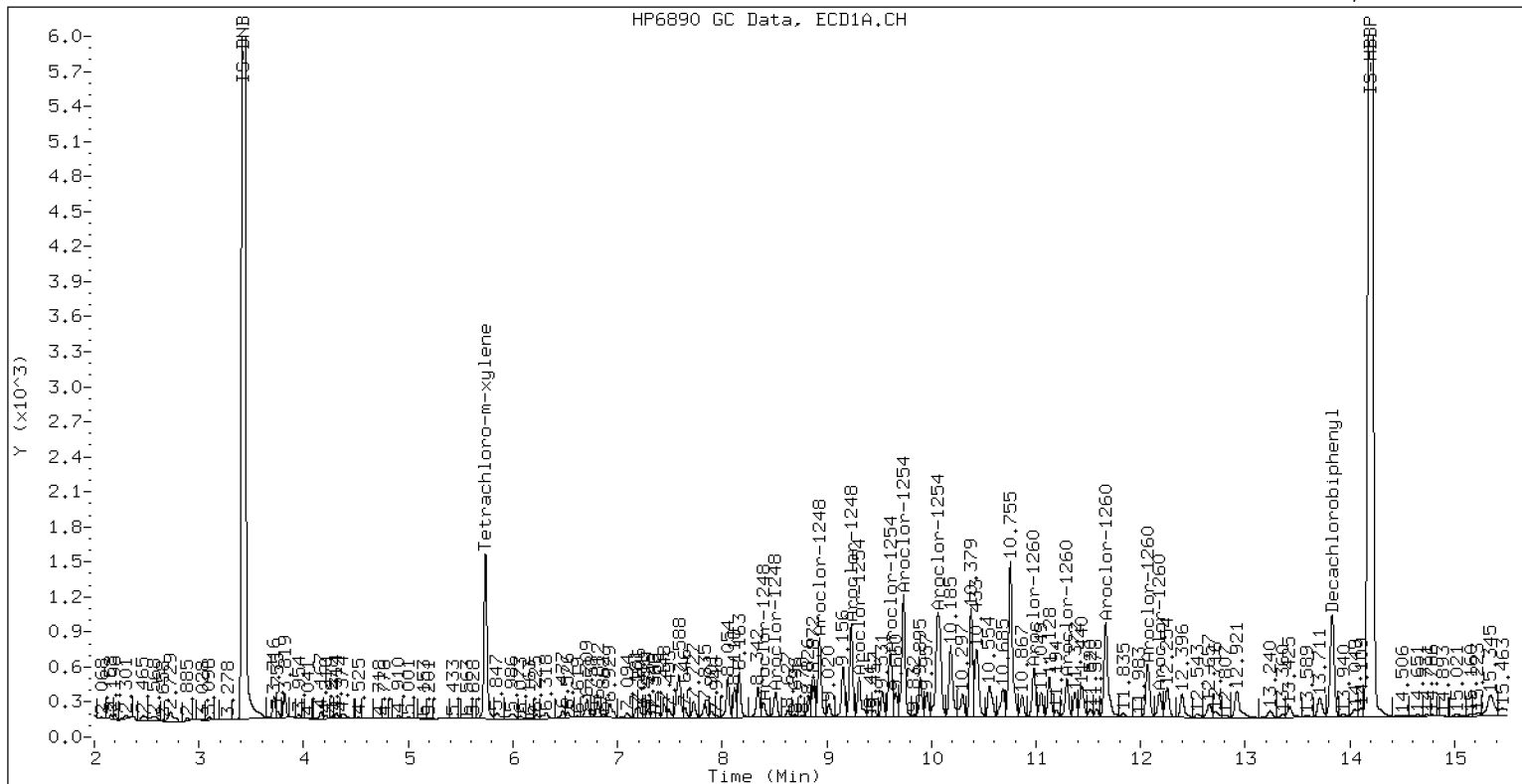
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23D0396-04RE1

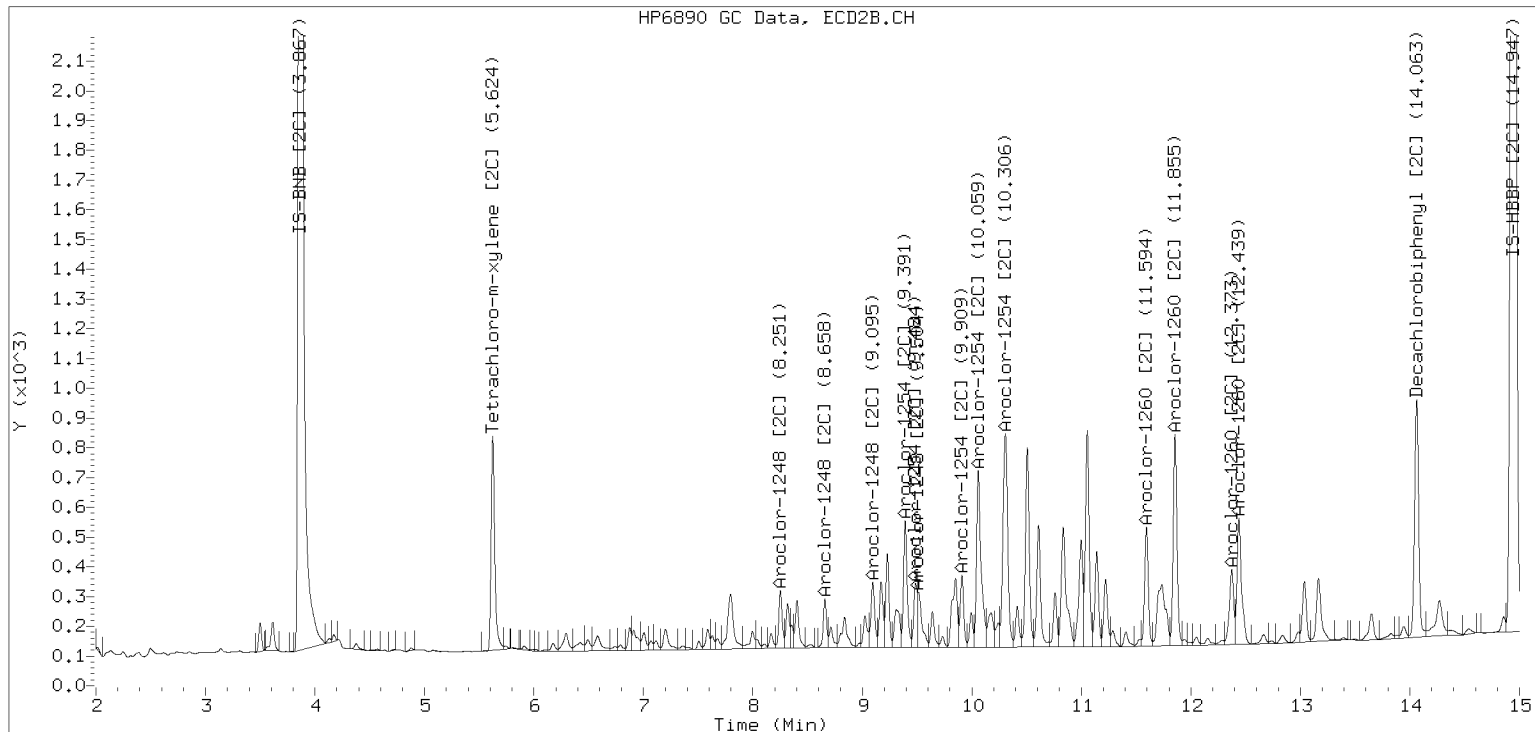
10-MAY-2023 20:29, 2ul



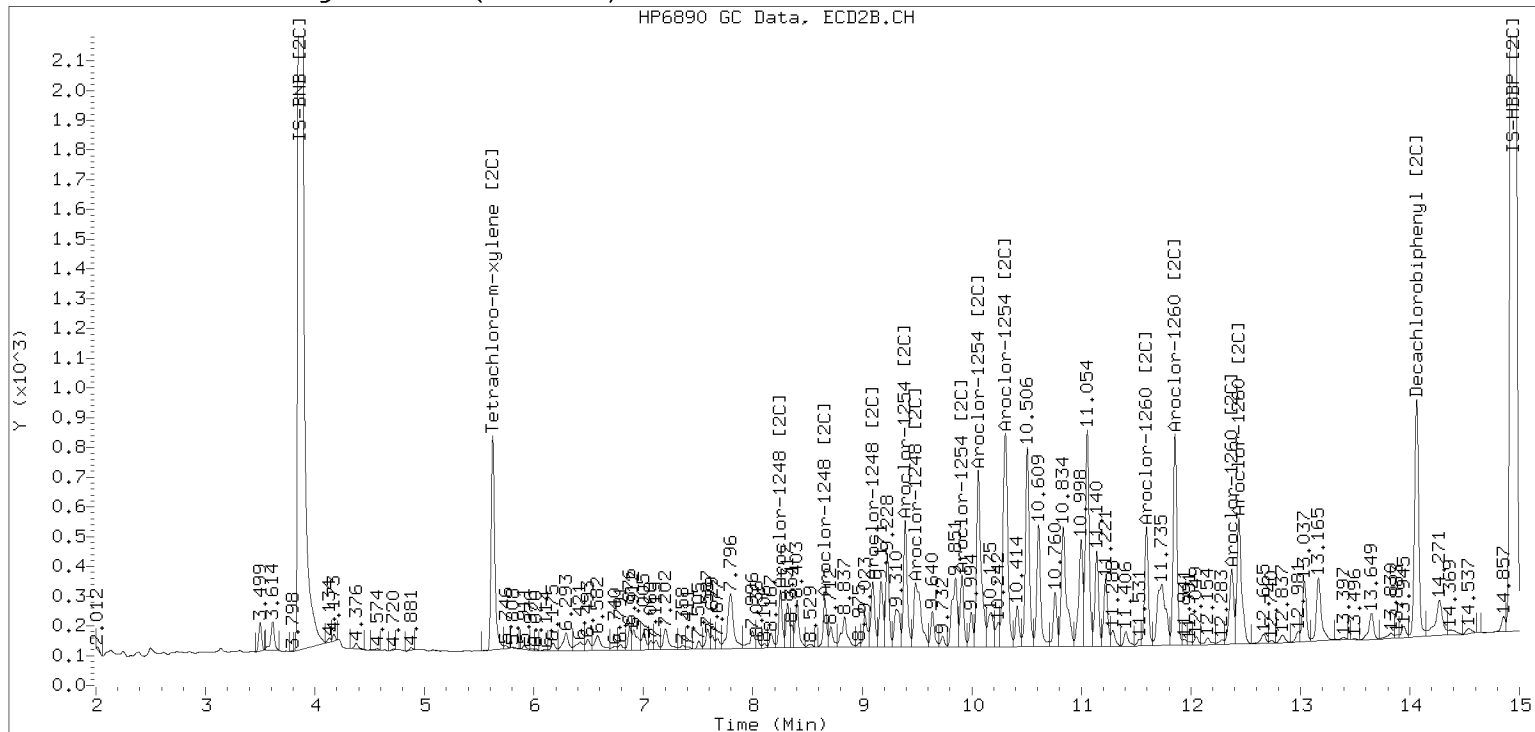
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230510.b/230510.b/05102335ECD7.D Injection Date: 10-MAY-2023

Manual Integration (After)



Processed Integration (Before)





Batch: BLD0608

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid Date Prepared: 04/25/23 Balance ID: B146462614 Set Up By: CJD 4/21/23

WO Comments

23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
23D0394-01 A	46.4	(26.96)	26.96	5mL	5mL	2mL	2.5	1.0	
23D0394-02 A	76.2	(16.41)	16.45	5mL	5mL	2mL	2.5	1.0	
23D0394-03 A	75.5	(16.57)	16.59	5mL	5mL	2mL	2.5	1.0	
23D0394-04 A	76.8	(16.28)	16.28	5mL	5mL	2mL	2.5	1.0	
23D0394-05 A	56.7	(22.04)	22.04	5mL	5mL	2mL	2.5	1.0	
23D0394-06 A	90.3	(13.84)	13.85	5mL	5mL	2mL	2.5	1.0	
23D0394-07 A	87.2	(14.34)	14.36	5mL	5mL	2mL	2.5	1.0	
23D0394-08 A	78.3	(15.96)	15.97	5mL	5mL	2mL	2.5	1.0	
23D0394-09 A	79.4	(15.75)	15.75	5mL	5mL	2mL	2.5	1.0	
23D0394-10 A	78.0	(16.03)	16.03	5mL	5mL	2mL	2.5	1.0	
23D0394-11 A	77.4	(16.15)	16.15	5mL	5mL	2mL	2.5	1.0	
23D0394-12 A	80.4	(15.55)	15.58	5mL	5mL	2mL	2.5	1.0	
23D0394-13 A	76.5	(16.35)	16.39	5mL	5mL	2mL	2.5	1.0	
23D0396-01 A	43.0	(29.06)	29.14	5mL	5mL	2mL	2.5	1.0	
23D0396-02 A	48.9	(25.55)	25.29	5mL	5mL	2mL	2.5	1.0	
23D0396-03 A	43.9	(28.49)	28.49	5mL	5mL	2mL	2.5	1.0	
23D0396-04 A	49.0	(25.50)	25.55	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
BLD0608-BLK1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0608-BS1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0608-BSD1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLD0608-MS1	90.3	(13.84)	13.84	5mL	5mL	2mL	2.5	1.0	Use 23D0394-06
BLD0608-MSD1	90.3	(13.84)	13.84	5mL	5mL	2mL	2.5	1.0	Use 23D0394-06
BLD0608-SRM1	100.0	(12.50)	2.50	5mL	5mL	2mL	2.5	1.0	Use K003528

+1g DI WATER

Client ID verified By: [Signature] Date: 04/25/23 Preparation Reviewed By: [Signature] Date: 5/3/23 Extraction Date and Time: 04/25/23 16:03



Batch: BLD0608

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
23D0394: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)
23D0396: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR L001273-1275, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Standard ID	Surrogates & Spike Standards Used				
Microwave ① 2 3 ① 4/26/23 Analyst/Date	Station/Reagent Microwave Analyst: CTM Date: 4/26/23		Type Surrogate	Vial ID / Standard ID N L003667	Vol uL 50µL	Analyst CT	Witness M
	Neutral Glass Wool	L002037	2µg/mL	Exp Date: 7/21/2423			
	1:1 Hexane/Acetone	L002246	Spike	1 L001587	63µL	CT	M
	Hexane	L001957	20µg/mL	Exp Date: 8/13/23			
	Anhydrous Sodium Sulfate	L003875	MANUALLY ENTER EXPIRATION DATES!				
	KD Analyst: CTD Date: 5/4/23		(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.				
	Anhydrous Sodium Sulfate	N/A	If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).				
KD 100°C Hexane Exchange (2 X 20 mL) ① 2 3 ④ 6 CTD 5/2/23 Analyst/Date	Hexane	L003580					
	Vialing Analyst: MRS Date: 5/3/23						
	Hexane	L003500					
	Concentrated Sulfuric Acid	L001033					
TurboVap Pre Cleanups 1 2 3 ④ 5 MRS 5/3/23 Analyst/Date	Silica Gel (SPE) Darts	L003133					
	Sodium Sulfite	L002437					
	Tetrabutylammonium hydrogensulfate (TBAS)	L002029					
TurboVap Post Cleanups 1 2 3 ④ 5 MRS 5/3/23 Analyst/Date							
Vialing MRS 5/3/23 Analyst/Date							



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0043

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLD0608-BSD1	05102311ECD7.D	05/03/2023	
LDW23-SC1801	23D0396-02	05102333ECD7.D	05/03/2023	
LCS	BLD0608-BS1	05102310ECD7.D	05/03/2023	
Blank	BLD0608-BLK1	05102309ECD7.D	05/03/2023	
LDW23-SS1802	23D0396-03	05102334ECD7.D	05/03/2023	
LDW23-SS1801	23D0396-01	05102332ECD7.D	05/03/2023	
LDW23-SC1802	23D0396-04	05102335ECD7.D	05/03/2023	
Reference	BLD0608-SRM1	05102312ECD7.D	05/03/2023	



CLEANUP BENCH SHEET

CLE0043

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL Printed: 5/3/2023 2:55:27PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0394-01	A	LDW23-SS1098	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-03	A	LDW23-IT1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-05	A	LDW23-IT1067	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-07	A	LDW23-IT1087	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-09	A	LDW23-IT1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-10	A	LDW23-IT1050	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-13	A	LDW23-IT1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-02	A	LDW23-SC1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-04	A	LDW23-SC1802	A 01	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
BLD0608-BLK1	-	Blank	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BS1	-	LCS	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BSD1	-	LCS Dup	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MS1	-	Matrix Spike	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/3/2023	NRB	



CLEANUP BENCH SHEET

CLE0043

Matrix: Solid

Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 5/3/2023 2:55:27PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLD0608-SRM1	-	Reference	-	2.5	2.5	-	5/3/2023	NRB	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0044

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1802	23D0396-04	05102335ECD7.D	05/03/2023	
Reference	BLD0608-SRM1	05102312ECD7.D	05/03/2023	
LCS	BLD0608-BS1	05102310ECD7.D	05/03/2023	
LDW23-SS1801	23D0396-01	05102332ECD7.D	05/03/2023	
LDW23-SS1802	23D0396-03	05102334ECD7.D	05/03/2023	
LDW23-SC1801	23D0396-02	05102333ECD7.D	05/03/2023	
Blank	BLD0608-BLK1	05102309ECD7.D	05/03/2023	
LCS Dup	BLD0608-BSD1	05102311ECD7.D	05/03/2023	



CLEANUP BENCH SHEET

CLE0044

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 5/3/2023 2:56:12PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0394-01	A	LDW23-SS1098	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-03	A	LDW23-IT1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-05	A	LDW23-IT1067	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-07	A	LDW23-IT1087	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-09	A	LDW23-IT1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-10	A	LDW23-IT1050	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-13	A	LDW23-IT1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-02	A	LDW23-SC1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-04	A	LDW23-SC1802	A 01	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
BLD0608-BLK1	-	Blank	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BS1	-	LCS	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BSD1	-	LCS Dup	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MS1	-	Matrix Spike	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/3/2023	NRB	



CLEANUP BENCH SHEET

CLE0044

Matrix: Solid Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL Printed: 5/3/2023 2:56:12PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLD0608-SRM1	-	Reference	-	2.5	2.5	-	5/3/2023	NRB	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLE0045

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1802	23D0396-03	05102334ECD7.D	05/03/2023	
LDW23-SC1802	23D0396-04	05102335ECD7.D	05/03/2023	
LDW23-SC1801	23D0396-02	05102333ECD7.D	05/03/2023	
Blank	BLD0608-BLK1	05102309ECD7.D	05/03/2023	
LCS	BLD0608-BS1	05102310ECD7.D	05/03/2023	
LCS Dup	BLD0608-BSD1	05102311ECD7.D	05/03/2023	
Reference	BLD0608-SRM1	05102312ECD7.D	05/03/2023	
LDW23-SS1801	23D0396-01	05102332ECD7.D	05/03/2023	



CLEANUP BENCH SHEET

CLE0045

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL

Printed: 5/3/2023 2:56:47PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23D0394-01	A	LDW23-SS1098	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-02	A	LDW23-SS1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-03	A	LDW23-IT1071	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-04	A	LDW23-SS1078	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-05	A	LDW23-IT1067	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-06	A	LDW23-SS1807	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-07	A	LDW23-IT1087	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-08	A	LDW23-SS1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-09	A	LDW23-IT1055	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-10	A	LDW23-IT1050	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-11	A	LDW23-SS1034	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-12	A	LDW23-SS1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0394-13	A	LDW23-IT1806	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-01	A	LDW23-SS1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-02	A	LDW23-SC1801	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-03	A	LDW23-SS1802	A 04	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
23D0396-04	A	LDW23-SC1802	A 01	2.5	2.5	8082A PCB Solid 4	5/3/2023	NRB	
BLD0608-BLK1	-	Blank	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BS1	-	LCS	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-BSD1	-	LCS Dup	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MS1	-	Matrix Spike	-	2.5	2.5	-	5/3/2023	NRB	
BLD0608-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	5/3/2023	NRB	



CLEANUP BENCH SHEET

CLE0045

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL

Printed: 5/3/2023 2:56:47PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLD0608-SRM1	-	Reference	-	2.5	2.5	-	5/3/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8082A

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLD0608-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/25/23 16:03</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLD0608</u>	Sequence:	<u>SLE0165</u>
Instrument:	<u>ECD7</u>	Column:	<u>ZB5</u>
		File ID:	<u>05102309ECD7.D</u>
		Analyzed:	<u>05/10/23 11:27</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>GE00022</u>
		Cleanups:	<u>Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	7.60	95.0	40 - 126	
Tetrachlorometaxylene	8.0000	6.53	81.6	44 - 120	
Decachlorobiphenyl [2C]	8.0000	8.11	101	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	6.41	80.1	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102309ECD7.D
Data file 2: /230510.b/230510.b/05102309ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0608-BLK1
Client ID:
Injection Date: 10-MAY-2023 11:27
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.001	300573	5.629	-0.002	156871	32.6	32.1	1.8	Tetrachloro-m-xylene
13.839	-0.002	333383	14.067	-0.003	335488	38.0	40.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	611383	1.6
Hexabromobiphenyl	876625	878062	0.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	355732	1.8
Hexabromobiphenyl	652984	582943	-10.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Coll (5.842 - 13.741) = 197206

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 18174 Col2 Total PCB = 0.0 ppm*

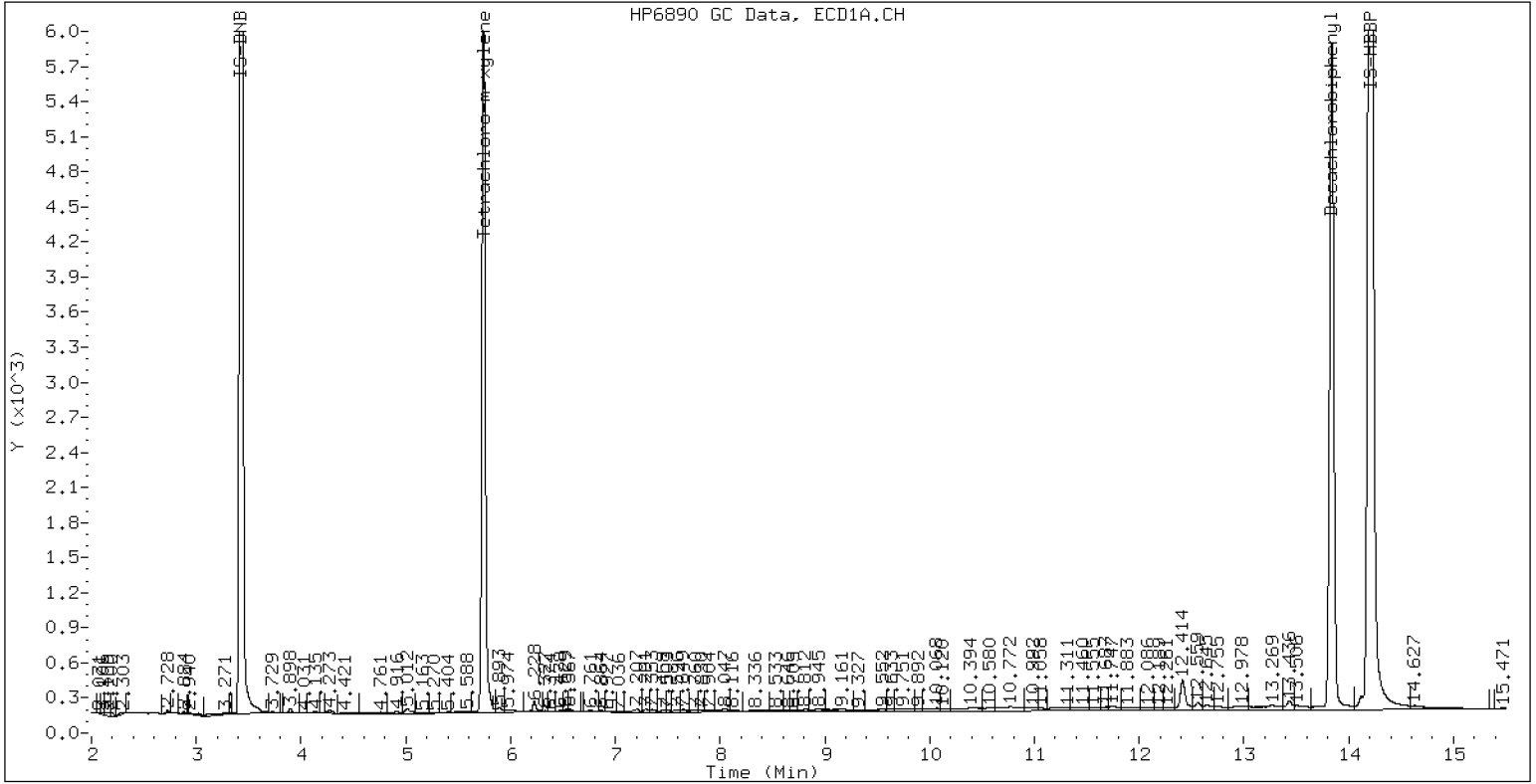
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0608-BLK1

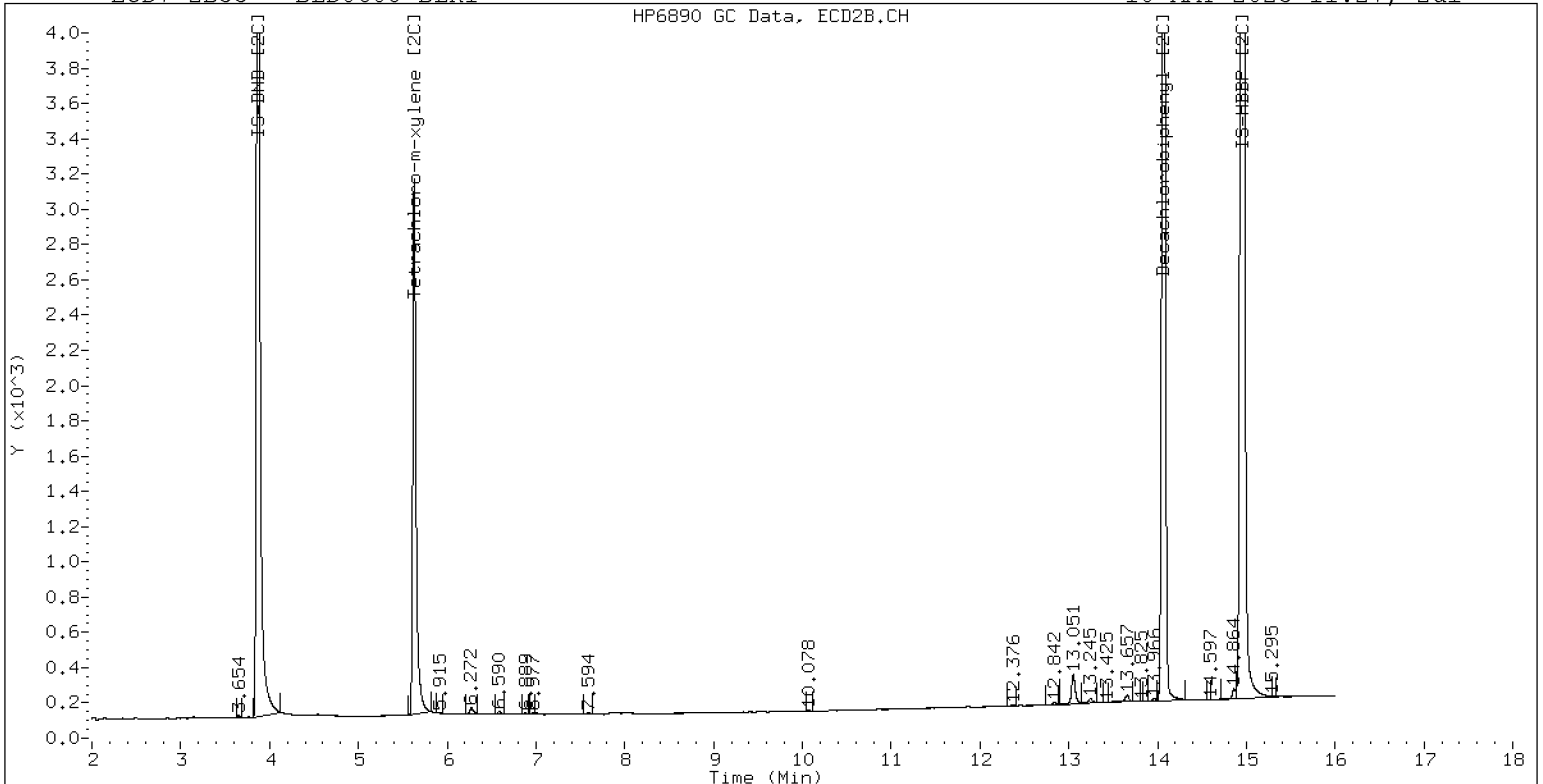
10-MAY-2023 11:27, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0608-BLK1

10-MAY-2023 11:27, 2u1



ZB-35 Manual Integration: NO



LCS / LCS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/10/23 11:48</u>
Batch:	<u>BLD0608</u>	Laboratory ID:	<u>BLD0608-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	101	84.1		83.4	56 - 120
Aroclor 1260 [2C]	101	103		103	58 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	84.1		83.4	0.00709	30	56 - 120
Aroclor 1260 [2C]	101	102		101	1.09	30	58 - 120

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102310ECD7.D
Data file 2: /230510.b/230510.b/05102310ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0608-BS1
Client ID:
Injection Date: 10-MAY-2023 11:48
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.742	0.000	322118	5.628 -0.002	168874	34.6	33.0	4.7	Tetrachloro-m-xylene
13.838	-0.003	350566	14.068 -0.001	369085	38.4	42.8	10.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	617689	2.7
Hexabromobiphenyl	876625	913056	4.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	371575	6.4
Hexabromobiphenyl	652984	606968	-7.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	-0.001	98106	410.2	1	7.203	-0.001	80985	385.0
Aroclor-1016	2	7.592	-0.001	338489	452.6	2	7.803	-0.007	190447	424.9
Aroclor-1016	3	7.732	-0.001	140056	405.1	3	8.002	-0.006	78312	396.1
Aroclor-1016	4	8.396	-0.002	59067	414.1	4	8.256	-0.005	59487	378.8
Total CollAve (4 peaks):				420.5	Total Col2Ave (4 peaks):				396.2	RPD = 6
Corrected Ave (3 peaks):				409.8	Corrected Ave (3 peaks):				386.6	RPD = 6
Aroclor-1221	1	4.664	0.001	1822	41.9	1	4.894	-0.000	247	9.0
Aroclor-1221	2	6.068	-0.002	11833	135.8	2	6.244	-0.001	7785	137.1
Aroclor-1221	3	6.320	-0.001	61313	296.2	3	6.569	-0.003	35583	398.3
Total CollAve (3 peaks):				158.0	Total Col2Ave (3 peaks):				181.4	RPD = 14
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.664	0.001	1822	63.0	1	4.894	0.000	247	17.1
Aroclor-1232	2	6.068	-0.002	11833	196.5	2	7.203	-0.002	80985	981.6
Aroclor-1232	3	7.592	-0.003	338489	1180.0	3	7.803	-0.011	190447	1149.2
Aroclor-1232	4	8.521	-0.006	130089	1059.5	4	8.663	-0.006	60500	1260.5
Total CollAve (4 peaks):				624.8	Total Col2Ave (4 peaks):				852.1	RPD = 31
Corrected Ave (3 peaks):				439.7	Corrected Ave (3 peaks):				716.0	RPD = 48*
Aroclor-1242	1	7.212	-0.000	98106	504.1	1	7.203	-0.002	80985	487.7
Aroclor-1242	2	7.592	-0.003	338489	548.8	2	7.803	-0.006	190447	539.1
Aroclor-1242	3	8.396	-0.002	59067	495.1	3	9.109	-0.011	10617	93.7
Aroclor-1242	4	8.521	-0.004	130089	471.2	4	9.533	-0.017	4477	32.8
Total CollAve (4 peaks):				504.8	Total Col2Ave (4 peaks):				288.3	RPD = 55*
Corrected Ave (3 peaks):				490.1	Corrected Ave (3 peaks):				204.7	RPD = 82*
Aroclor-1248	1	8.396	-0.002	59067	374.6	1	8.256	-0.004	59487	336.5
Aroclor-1248	2	8.521	-0.002	130089	317.5	2	8.663	-0.005	60500	324.0
Aroclor-1248	3	8.938	-0.004	104022	132.0	3	9.109	-0.011	10617	48.5
Aroclor-1248	4	9.243	0.004	105499	262.7	4	9.533	-0.013	4477	17.1
Total CollAve (4 peaks):				271.7	Total Col2Ave (4 peaks):				181.5	RPD = 40
Corrected Ave (3 peaks):				237.4	Corrected Ave (3 peaks):				129.9	RPD = 59*
Aroclor-1254	1	9.243	-0.002	105499	166.2	1	9.399	-0.003	53821	190.6
Aroclor-1254	2	---			0.0	2	9.487	-0.010	1527	9.1
Aroclor-1254	3	9.610	-0.002	21380	52.2	3	9.920	-0.003	12127	53.0
Aroclor-1254	4	9.747	-0.005	61350	76.4	4	10.096	0.019	123261	246.8
Aroclor-1254	5	10.065	-0.049	285045	587.9	5	10.320	-0.006	158132	319.2
Total CollAve (4 peaks):				220.7	Total Col2Ave (5 peaks):				163.8	RPD = 30
Corrected Ave (3 peaks):				98.3	Corrected Ave (4 peaks):				124.9	RPD = 24
Aroclor-1260	1	10.990	-0.003	221353	458.5	1	11.602	-0.004	163908	508.5
Aroclor-1260	2	11.306	-0.004	225504	473.3	2	11.867	-0.004	419890	498.0
Aroclor-1260	3	11.679	-0.006	564218	472.8	3	12.385	-0.003	115585	553.2
Aroclor-1260	4	12.083	-0.007	285661	488.7	4	12.450	-0.005	285508	506.9
Aroclor-1260	5	12.190	-0.004	115084	451.6	NS	---			----
Total CollAve (5 peaks):				469.0	Total Col2Ave (4 peaks):				516.6	RPD = 10
Corrected Ave (4 peaks):				464.0	Corrected Ave (3 peaks):				504.5	RPD = 8
Aroclor-1262	1	10.770	-0.009	448514	1085.8	1	11.149	-0.004	153458	312.0
Aroclor-1262	2	12.190	-0.005	115084	198.1	2	11.602	-0.003	163908	395.2
Aroclor-1262	3	12.264	-0.005	138215	221.3	3	12.385	-0.001	115585	255.0
Aroclor-1262	4	12.931	-0.008	122402	240.5	4	12.450	-0.006	285508	386.5
Total CollAve (4 peaks):				436.5	Total Col2Ave (4 peaks):				337.2	RPD = 26
Corrected Ave (3 peaks):				220.0	Corrected Ave (3 peaks):				317.8	RPD = 36
Aroclor-1268	1	12.190	-0.006	115084	79.0	1	12.385	-0.000	115585	100.6
Aroclor-1268	2	12.264	-0.004	138215	95.6	2	12.450	-0.003	285508	231.2
Aroclor-1268	3	12.668	0.020	61037	52.5	3	12.840	-0.003	7613	7.2
Aroclor-1268	4	13.433	-0.004	39533	11.9	4	13.658	-0.005	33830	10.0
Total CollAve (4 peaks):				59.7	Total Col2Ave (4 peaks):				87.3	RPD = 37

Corrected Ave (3 peaks): 47.8 Corrected Ave (3 peaks): 39.3 RPD = 20

Total PCB Area Col1 (5.842 - 13.741) = 6123040 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 3804886 Col2 Total PCB = 0.9 ppm*

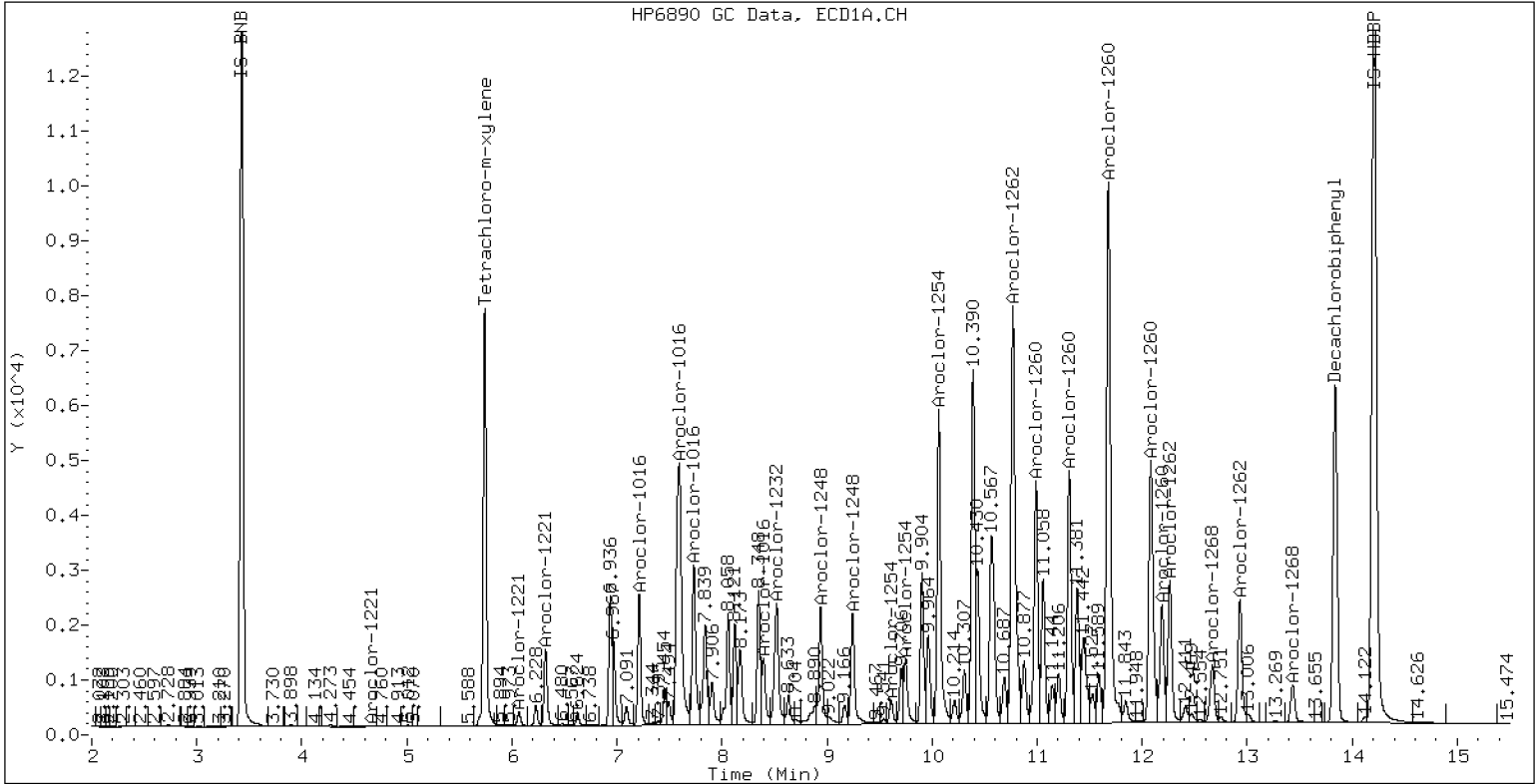
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0608-BS1

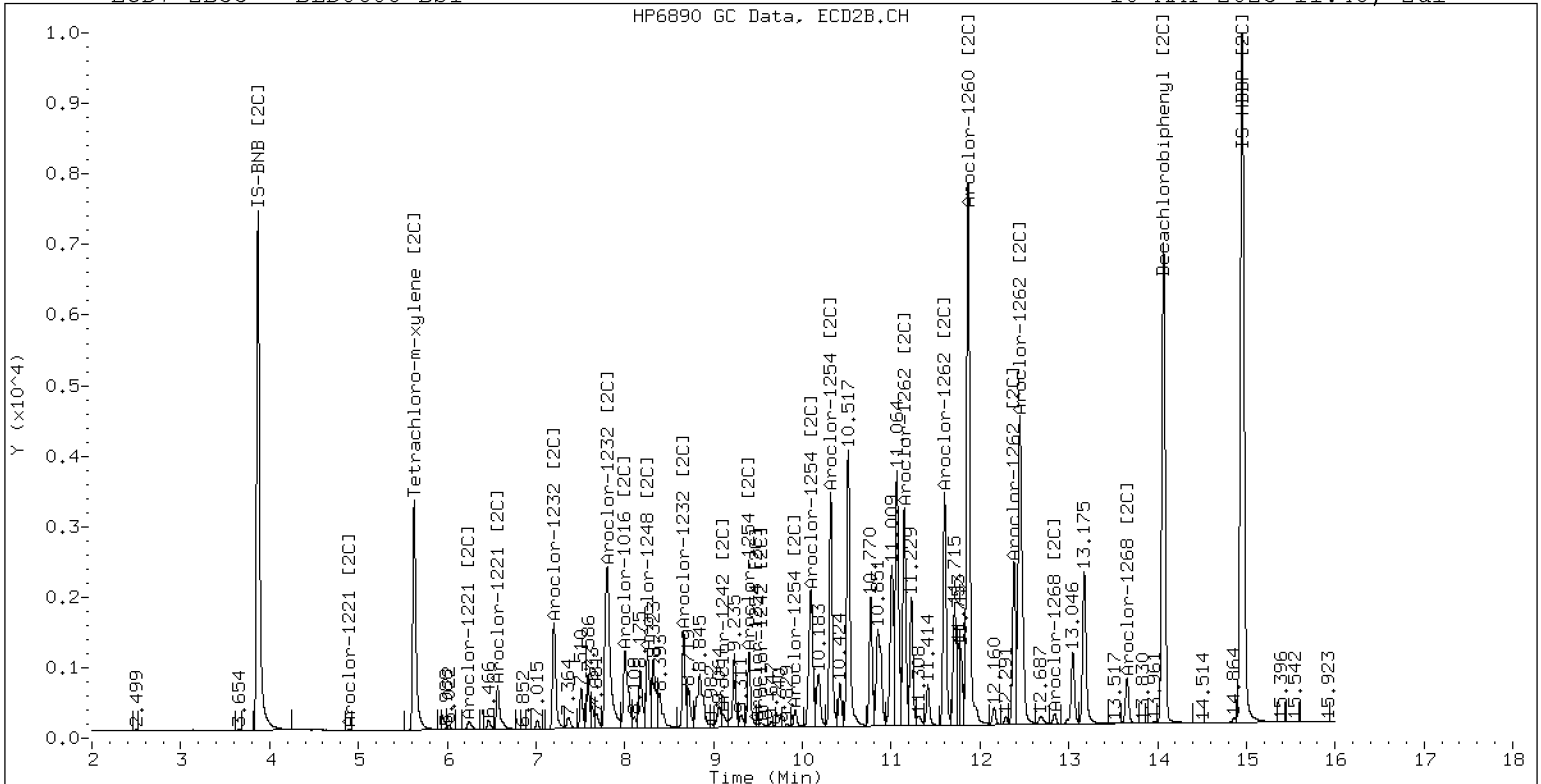
10-MAY-2023 11:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0608-BS1

10-MAY-2023 11:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102311ECD7.D
Data file 2: /230510.b/230510.b/05102311ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0608-BSD1
Client ID:
Injection Date: 10-MAY-2023 12:09
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.742	-0.000	324358	5.628	-0.003	169452	34.3	34.2	0.3	Tetrachloro-m-xylene
13.839	-0.002	356405	14.068	-0.001	368280	38.0	41.8	9.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	628555	4.5
Hexabromobiphenyl	876625	938712	7.1
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	360652	3.3
Hexabromobiphenyl	652984	620639	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	-0.001	100060	411.1	1	7.203	-0.001	81816	400.8
Aroclor-1016	2	7.593	0.000	346652	455.5	2	7.804	-0.007	194468	447.0
Aroclor-1016	3	7.732	-0.001	143100	406.7	3	8.003	-0.006	78857	410.9
Aroclor-1016	4	8.396	-0.002	59292	408.5	4	8.257	-0.003	58164	381.6
Total CollAve (4 peaks):				420.5		Total Col2Ave (4 peaks):				410.1 RPD = 3
Corrected Ave (3 peaks):				408.8		Corrected Ave (3 peaks):				397.8 RPD = 3
Aroclor-1221	1	4.664	0.000	1863	42.1	1	---			0.0
Aroclor-1221	2	6.068	-0.002	11119	125.4	2	6.246	0.001	7394	134.1
Aroclor-1221	3	6.319	-0.001	62055	294.6	3	6.569	-0.003	36289	418.5
Total CollAve (3 peaks):				154.0		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.664	0.000	1863	63.3	1	---			0.0
Aroclor-1232	2	6.068	-0.002	11119	181.5	2	7.203	-0.002	81816	1021.7
Aroclor-1232	3	7.593	-0.001	346652	1187.6	3	7.804	-0.011	194468	1209.0
Aroclor-1232	4	8.520	-0.006	133568	1069.1	4	8.664	-0.005	59773	1283.1
Total CollAve (4 peaks):				625.3		Total Col2Ave (3 peaks):				1171.3 RPD = 61*
Corrected Ave (3 peaks):				437.9		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.212	-0.000	100060	505.2	1	7.203	-0.002	81816	507.6
Aroclor-1242	2	7.593	-0.001	346652	552.3	2	7.804	-0.005	194468	567.1
Aroclor-1242	3	8.396	-0.002	59292	488.4	3	9.110	-0.010	10173	92.5
Aroclor-1242	4	8.520	-0.004	133568	475.4	4	9.534	-0.016	4472	33.8
Total CollAve (4 peaks):				505.4		Total Col2Ave (4 peaks):				300.3 RPD = 51*
Corrected Ave (3 peaks):				489.7		Corrected Ave (3 peaks):				211.3 RPD = 79*
Aroclor-1248	1	8.396	-0.002	59292	369.6	1	8.257	-0.003	58164	339.0
Aroclor-1248	2	8.520	-0.003	133568	320.4	2	8.664	-0.004	59773	329.8
Aroclor-1248	3	8.938	-0.004	136017	169.6	3	9.110	-0.009	10173	47.9
Aroclor-1248	4	9.243	0.004	97537	238.6	4	9.534	-0.012	4472	17.6
Total CollAve (4 peaks):				274.6		Total Col2Ave (4 peaks):				183.6 RPD = 40
Corrected Ave (3 peaks):				242.9		Corrected Ave (3 peaks):				131.8 RPD = 59*
Aroclor-1254	1	9.243	-0.002	97537	151.0	1	9.400	-0.002	55512	202.6
Aroclor-1254	2	---			0.0	2	9.534	0.036	4472	27.5
Aroclor-1254	3	9.610	-0.002	22914	54.9	3	9.921	-0.002	12199	54.9
Aroclor-1254	4	9.748	-0.004	64120	78.5	4	10.096	0.019	124553	257.0
Aroclor-1254	5	10.065	-0.049	292840	593.6	5	10.320	-0.006	155788	324.0
Total CollAve (4 peaks):				219.5		Total Col2Ave (5 peaks):				173.2 RPD = 24
Corrected Ave (3 peaks):				94.8		Corrected Ave (4 peaks):				135.5 RPD = 35
Aroclor-1260	1	10.989	-0.003	227427	458.2	1	11.603	-0.003	164437	498.9
Aroclor-1260	2	11.306	-0.004	229988	469.5	2	11.868	-0.003	401678	465.9
Aroclor-1260	3	11.679	-0.005	593553	483.8	3	12.385	-0.002	124158	581.1
Aroclor-1260	4	12.083	-0.006	287955	479.2	4	12.450	-0.005	286981	498.3
Aroclor-1260	5	12.190	-0.003	119487	456.0	NS	---			----
Total CollAve (5 peaks):				469.3		Total Col2Ave (4 peaks):				511.1 RPD = 9
Corrected Ave (4 peaks):				465.7		Corrected Ave (3 peaks):				487.7 RPD = 5
Aroclor-1262	1	10.768	-0.010	456353	1074.6	1	11.149	-0.004	151860	302.0
Aroclor-1262	2	12.190	-0.004	119487	200.1	2	11.603	-0.002	164437	387.7
Aroclor-1262	3	12.265	-0.005	144659	225.3	3	12.385	-0.001	124158	267.9
Aroclor-1262	4	12.932	-0.007	134880	257.8	4	12.450	-0.006	286981	379.9
Total CollAve (4 peaks):				439.5		Total Col2Ave (4 peaks):				334.4 RPD = 27
Corrected Ave (3 peaks):				227.7		Corrected Ave (3 peaks):				316.6 RPD = 33
Aroclor-1268	1	12.190	-0.005	119487	79.8	1	12.385	0.000	124158	105.7
Aroclor-1268	2	12.265	-0.003	144659	97.3	2	12.450	-0.002	286981	227.3
Aroclor-1268	3	12.669	0.021	66294	55.4	3	12.842	-0.001	7808	7.2
Aroclor-1268	4	13.434	-0.003	49895	14.6	4	13.658	-0.006	39438	11.4
Total CollAve (4 peaks):				61.8		Total Col2Ave (4 peaks):				87.9 RPD = 35
Corrected Ave (3 peaks):				50.0		Corrected Ave (3 peaks):				41.4 RPD = 19

Total PCB Area Col1 (5.842 - 13.741) = 6358891 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 3814914 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



STANDARD REFERENCE MATERIAL RECOVERY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0608-SRM1

Batch: BLD0608

Initial/Final: 2.5 g / 2.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 05/10/2023 12:30

Standard ID: K003528

Expires: 04/12/2023

Standard Lot#: PSRM0151

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	97.5	2.9	20.0		90.3	38 - 167
Aroclor 1260 [2C]	108.00	119	2.9	20.0		110	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102312ECD7.D
Data file 2: /230510.b/230510.b/05102312ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLD0608-SRM1
Client ID:
Injection Date: 10-MAY-2023 12:30
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.740	-0.001	275312	5.626	-0.005	151909	28.3	30.6	7.7	Tetrachloro-m-xylene
13.834	-0.006	262273	14.064	-0.006	247573	33.2	33.1	0.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	645892	7.4
Hexabromobiphenyl	876625	790119	-9.9

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361093	3.4
Hexabromobiphenyl	652984	526637	-19.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.181	-0.031	13236	52.9	1	7.210	0.005	7247	35.5	
Aroclor-1016	2	7.590	-0.003	9720	12.4	2	7.801	-0.010	12949	29.7	
Aroclor-1016	3	7.736	0.003	4603	12.7	3	7.998	-0.010	1924	10.0	
Aroclor-1016	4	8.395	-0.003	3110	20.9	4	8.253	-0.007	7321	48.0	
Total CollAve (4 peaks):				24.7	Total Col2Ave (4 peaks):				30.8	RPD = 22	
Corrected Ave (3 peaks):				15.3	Corrected Ave (3 peaks):				25.1	RPD = 48*	
Aroclor-1221	1	4.587	-0.076	108	2.4	1	4.879	-0.016	715	26.8	
Aroclor-1221	2	5.977	-0.092	5730	62.9	2	6.292	0.047	10292	186.4	
Aroclor-1221	3	6.331	0.010	2125	9.8	3	6.583	0.011	4577	52.7	
Total CollAve (3 peaks):				25.0	Total Col2Ave (3 peaks):				88.7	RPD = 112*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.587	-0.076	108	3.6	1	4.879	-0.015	715	51.1	
Aroclor-1232	2	5.977	-0.092	5730	91.0	2	7.210	0.005	7247	90.4	
Aroclor-1232	3	7.590	-0.005	9720	32.4	3	7.801	-0.014	12949	80.4	
Aroclor-1232	4	8.515	-0.012	6252	48.7	4	8.659	-0.010	5712	122.5	
Total CollAve (4 peaks):				43.9	Total Col2Ave (4 peaks):				86.1	RPD = 65*	
Corrected Ave (3 peaks):				28.2	Corrected Ave (3 peaks):				74.0	RPD = 90*	
Aroclor-1242	1	7.181	-0.031	13236	65.0	1	7.210	0.005	7247	44.9	
Aroclor-1242	2	7.590	-0.005	9720	15.1	2	7.801	-0.008	12949	37.7	
Aroclor-1242	3	8.395	-0.004	3110	24.9	3	9.098	-0.021	7172	65.2	
Aroclor-1242	4	8.515	-0.010	6252	21.7	4	9.488	-0.062	12223	92.1	
Total CollAve (4 peaks):				31.7	Total Col2Ave (4 peaks):				60.0	RPD = 62*	
Corrected Ave (3 peaks):				20.6	Corrected Ave (3 peaks):				49.3	RPD = 82*	
Aroclor-1248	1	8.395	-0.004	3110	18.9	1	8.253	-0.007	7321	42.6	
Aroclor-1248	2	8.515	-0.008	6252	14.6	2	8.659	-0.008	5712	31.5	
Aroclor-1248	3	8.936	-0.006	23989	29.1	3	9.098	-0.021	7172	33.7	
Aroclor-1248	4	9.237	-0.002	32830	78.2	4	9.488	-0.057	12223	47.9	
Total CollAve (4 peaks):				35.2	Total Col2Ave (4 peaks):				38.9	RPD = 10	
Corrected Ave (3 peaks):				20.9	Corrected Ave (3 peaks):				35.9	RPD = 53*	
Aroclor-1254	1	9.237	-0.007	32830	49.5	1	9.394	-0.008	20158	73.5	
Aroclor-1254	2	9.312	-0.009	12222	41.0	2	9.488	-0.009	12223	75.0	
Aroclor-1254	3	9.607	-0.006	21254	49.6	3	9.912	-0.011	10035	45.1	
Aroclor-1254	4	9.737	-0.014	47407	56.5	4	10.064	-0.013	37900	78.1	
Aroclor-1254	5	10.061	-0.053	74859	147.7	5	10.313	-0.013	48970	101.7	
Total CollAve (5 peaks):				68.8	Total Col2Ave (5 peaks):				74.7	RPD = 8	
Corrected Ave (4 peaks):				49.1	Corrected Ave (4 peaks):				67.9	RPD = 32	
Aroclor-1260	1	10.983	-0.009	41680	99.8	1	11.597	-0.009	34866	124.7	
Aroclor-1260	2	11.296	-0.014	33748	81.8	2	11.859	-0.012	77238	105.6	
Aroclor-1260	3	11.669	-0.016	103816	100.5	3	12.377	-0.011	25865	142.7	
Aroclor-1260	4	12.070	-0.019	54928	108.6	4	12.442	-0.013	49842	102.0	
Aroclor-1260	5	12.183	-0.010	21315	96.6	NS	---			----	
Total CollAve (5 peaks):				97.5	Total Col2Ave (4 peaks):				118.7	RPD = 20	
Corrected Ave (4 peaks):				94.7	Corrected Ave (3 peaks):				110.7	RPD = 16	
Aroclor-1262	1	10.758	-0.021	98036	274.3	1	11.144	-0.010	30533	71.6	
Aroclor-1262	2	12.183	-0.012	21315	42.4	2	11.597	-0.008	34866	96.9	
Aroclor-1262	3	12.257	-0.013	25987	48.1	3	12.377	-0.010	25865	65.8	
Aroclor-1262	4	12.922	-0.017	27841	63.2	4	12.442	-0.014	49842	77.8	
Total CollAve (4 peaks):				107.0	Total Col2Ave (4 peaks):				78.0	RPD = 31	
Corrected Ave (3 peaks):				51.2	Corrected Ave (3 peaks):				71.7	RPD = 33	
Aroclor-1268	1	12.183	-0.012	21315	16.9	1	12.377	-0.008	25865	26.0	
Aroclor-1268	2	12.257	-0.011	25987	20.8	2	12.442	-0.010	49842	46.5	
Aroclor-1268	3	12.660	0.012	13396	13.3	3	12.838	-0.005	2295	2.5	
Aroclor-1268	4	13.427	-0.010	7054	2.5	4	13.651	-0.012	9698	3.3	
Total CollAve (4 peaks):				13.4	Total Col2Ave (4 peaks):				19.6	RPD = 38	

Corrected Ave (3 peaks): 10.9 Corrected Ave (3 peaks): 10.6 RPD = 3

Total PCB Area Col1 (5.842 - 13.741) = 1248973 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 895126 Col2 Total PCB = 0.2 ppm*

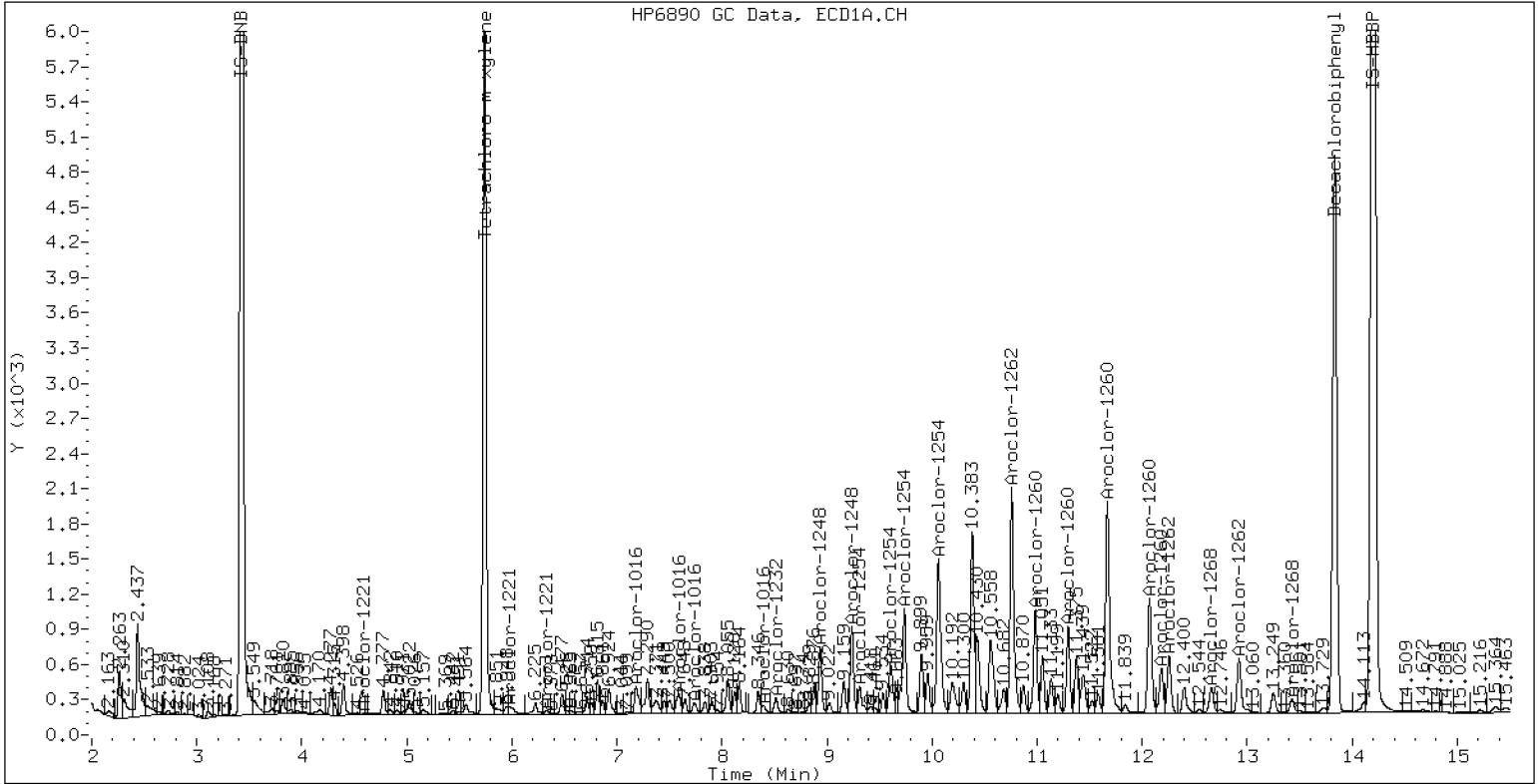
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLD0608-SRM1

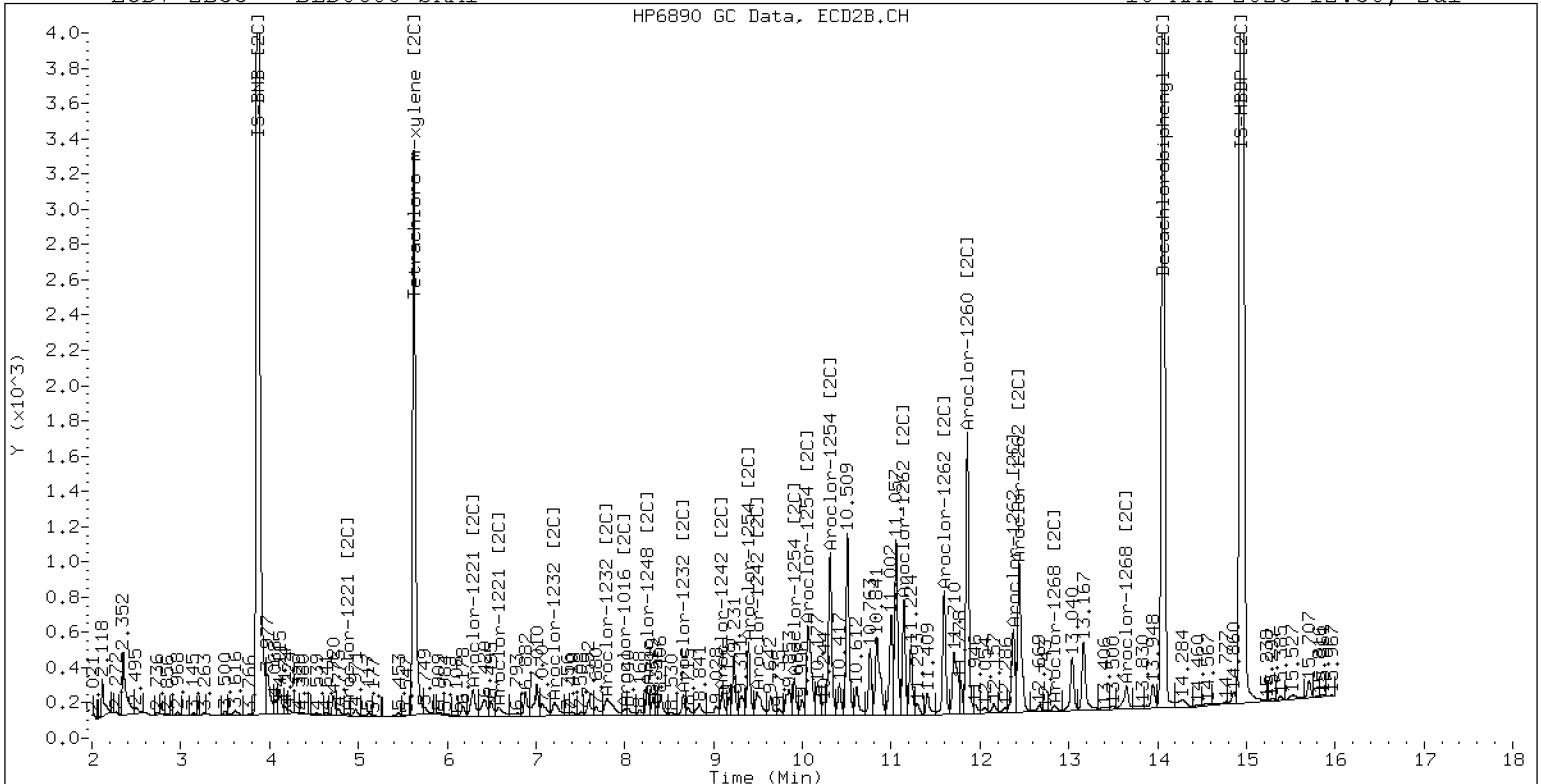
10-MAY-2023 12:30, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLD0608-SRM1

10-MAY-2023 12:30, 2u1



ZB-35 Manual Integration: NO



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00022	Instrument:	ECD7
Calibration Date:	05/05/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	0.0477728	7.1			RSD (20)	
Aroclor-1016 (1)	3.097636E-02	9.9			RSD (20)	
Aroclor-1016 (2)	9.686107E-02	6.7			RSD (20)	
Aroclor-1016 (3)	4.477928E-02	10.1			RSD (20)	
Aroclor-1016 (4)	1.847448E-02	9.4			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	
Aroclor 1260	5.243062E-02	6.1			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00022	Instrument:	ECD7
Calibration Date:	05/05/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1)	4.230311E-02	6.5			RSD (20)	
Aroclor-1260 (2)	4.174934E-02	5.6			RSD (20)	
Aroclor-1260 (3)	0.1045597	6.2			RSD (20)	
Aroclor-1260 (4)	5.121039E-02	5.4			RSD (20)	
Aroclor-1260 (5)	2.233053E-02	8.3			RSD (20)	
Aroclor 1262		0.0			RSD (20)	
Aroclor-1262 (1)		0.0			RSD (20)	
Aroclor-1262 (2)		0.0			RSD (20)	
Aroclor-1262 (3)		0.0			RSD (20)	
Aroclor-1262 (4)		0.0			RSD (20)	
Aroclor 1268		0.0			RSD (20)	
Aroclor-1268 (1)		0.0			RSD (20)	
Aroclor-1268 (2)		0.0			RSD (20)	
Aroclor-1268 (3)		0.0			RSD (20)	
Aroclor-1268 (4)		0.0			RSD (20)	
Decachlorobiphenyl	0.7991406	9.4			RSD (20)	
Tetrachlorometaxylene	1.204823	4.6			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00022	Instrument:	ECD7
Calibration Date:	05/05/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	5.454348E-02	6.8			RSD (20)	
Aroclor-1016 (1) [2C]	4.528611E-02	10.9			RSD (20)	
Aroclor-1016 (2) [2C]	9.650798E-02	4.0			RSD (20)	
Aroclor-1016 (3) [2C]	4.256612E-02	7.0			RSD (20)	
Aroclor-1016 (4) [2C]	0.0338137	11.4			RSD (20)	
Aroclor 1221 [2C]		0.0			RSD (20)	
Aroclor-1221 (1) [2C]		0.0			RSD (20)	
Aroclor-1221 (2) [2C]		0.0			RSD (20)	
Aroclor-1221 (3) [2C]		0.0			RSD (20)	
Aroclor 1232 [2C]		0.0			RSD (20)	
Aroclor-1232 (1) [2C]		0.0			RSD (20)	
Aroclor-1232 (2) [2C]		0.0			RSD (20)	
Aroclor-1232 (3) [2C]		0.0			RSD (20)	
Aroclor-1232 (4) [2C]		0.0			RSD (20)	
Aroclor 1242 [2C]		0.0			RSD (20)	
Aroclor-1242 (1) [2C]		0.0			RSD (20)	
Aroclor-1242 (2) [2C]		0.0			RSD (20)	
Aroclor-1242 (3) [2C]		0.0			RSD (20)	
Aroclor-1242 (4) [2C]		0.0			RSD (20)	
Aroclor 1248 [2C]		0.0			RSD (20)	
Aroclor-1248 (1) [2C]		0.0			RSD (20)	
Aroclor-1248 (2) [2C]		0.0			RSD (20)	
Aroclor-1248 (3) [2C]		0.0			RSD (20)	
Aroclor-1248 (4) [2C]		0.0			RSD (20)	
Aroclor 1254 [2C]		0.0			RSD (20)	
Aroclor-1254 (1) [2C]		0.0			RSD (20)	
Aroclor-1254 (2) [2C]		0.0			RSD (20)	
Aroclor-1254 (3) [2C]		0.0			RSD (20)	
Aroclor-1254 (4) [2C]		0.0			RSD (20)	
Aroclor-1254 (5) [2C]		0.0			RSD (20)	
Aroclor 1260 [2C]	6.384707E-02	4.8			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23D0396
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GE00022	Instrument:	ECD7
Calibration Date:	05/05/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	4.248675E-02	6.4			RSD (20)	
Aroclor-1260 (2) [2C]	0.1111292	5.2			RSD (20)	
Aroclor-1260 (3) [2C]	2.753919E-02	1.9			RSD (20)	
Aroclor-1260 (4) [2C]	7.423309E-02	5.0			RSD (20)	
Aroclor 1262 [2C]		0.0			RSD (20)	
Aroclor-1262 (1) [2C]		0.0			RSD (20)	
Aroclor-1262 (2) [2C]		0.0			RSD (20)	
Aroclor-1262 (3) [2C]		0.0			RSD (20)	
Aroclor-1262 (4) [2C]		0.0			RSD (20)	
Aroclor 1268 [2C]		0.0			RSD (20)	
Aroclor-1268 (1) [2C]		0.0			RSD (20)	
Aroclor-1268 (2) [2C]		0.0			RSD (20)	
Aroclor-1268 (3) [2C]		0.0			RSD (20)	
Aroclor-1268 (4) [2C]		0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.136014	5.9			RSD (20)	
Tetrachlorometaxylene [2C]	1.100547	4.4			RSD (20)	



ANALYSIS SEQUENCE

SLE0079

Instrument: ECD7
Calibration ID: GE00022

Printed: 5/6/2023 11:44:56AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0079-CAL1	QC		1		L000856	L000844		
SLE0079-CAL2	QC		2		L000859	L000844		
SLE0079-CAL3	QC		3		L000858	L000844		
SLE0079-CAL4	QC		4		L000731	L000844		
SLE0079-CAL5	QC		5		L000857	L000844		
SLE0079-CAL6	QC		6		L000855	L000844		
SLE0079-CAL7	QC		7		L000860	L000844		
SLE0079-CAL8	QC		8		L000861	L000844		
SLE0079-CAL9	QC		9		L000862	L000844		
SLE0079-CALA	QC		10		L004996	L000844		
SLE0079-CALB	QC		11		L004997	L000844		
SLE0079-SCV1	QC		12		L002065	L000844		
SLE0079-SCV2	QC		13		L003970	L000844		
SLE0079-SCV3	QC		14		L002066	L000844		
SLE0079-SCV4	QC		15		L002067	L000844		
SLE0079-SCV5	QC		16		L002068	L000844		
SLE0079-SCV6	QC		17		L002069	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	05-MAY-2023	23:06	05052320ECD7.D	1	IB	
2	05-MAY-2023	23:26	05052321ECD7.D	1	0.25PPMAR1660	
3	05-MAY-2023	23:47	05052322ECD7.D	1	0.02PPMAR1660	
4	06-MAY-2023	00:08	05052323ECD7.D	1	0.05PPMAR1660	
5	06-MAY-2023	00:29	05052324ECD7.D	1	1.0PPMAR1660	
6	06-MAY-2023	00:50	05052325ECD7.D	1	0.1PPMAR1660	
7	06-MAY-2023	01:11	05052326ECD7.D	1	0.5PPMAR1660	
8	06-MAY-2023	01:31	05052327ECD7.D	1	0.25PPMAR1242	
9	06-MAY-2023	01:52	05052328ECD7.D	1	0.25PPMAR1248	
10	06-MAY-2023	02:13	05052329ECD7.D	1	0.25PPMAR1254	
11	06-MAY-2023	02:34	05052330ECD7.D	1	0.25PPMAR2162	
12	06-MAY-2023	02:55	05052331ECD7.D	1	0.25PPMAR3268	
13	06-MAY-2023	03:16	05052332ECD7.D	1	AR1660SCV	
14	06-MAY-2023	03:36	05052333ECD7.D	1	AR1242SCV	
15	06-MAY-2023	03:57	05052334ECD7.D	1	AR1248SCV	
16	06-MAY-2023	04:18	05052335ECD7.D	1	AR1254SCV	
17	06-MAY-2023	04:39	05052336ECD7.D	1	AR2162SCV	
18	06-MAY-2023	05:00	05052337ECD7.D	1	AR3268SCV	
19	06-MAY-2023	05:21	05052338ECD7.D	1	DDTS	
20	06-MAY-2023	05:41	05052339ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

ARI Job No.: Method: PCB.m Instrument: ecd7.i Date: 05-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1548	05052301ECD7.D			1	NO MANUAL INTEGRATION
1609	05052302ECD7.D			1	NO MANUAL INTEGRATION
1711	05052303ECD7.D			1	NO MANUAL INTEGRATION
1732	05052304ECD7.D			1	NO MANUAL INTEGRATION
1753	05052305ECD7.D			1	NO MANUAL INTEGRATION
1814	05052306ECD7.D			1	NO MANUAL INTEGRATION
1835	05052307ECD7.D			1	NO MANUAL INTEGRATION
1856	05052308ECD7.D			1	NO MANUAL INTEGRATION
1916	05052309ECD7.D			1	NO MANUAL INTEGRATION
1937	05052310ECD7.D			1	NO MANUAL INTEGRATION
1958	05052311ECD7.D			1	NO MANUAL INTEGRATION
2019	05052312ECD7.D			1	NO MANUAL INTEGRATION
2040	05052313ECD7.D			1	NO MANUAL INTEGRATION
2101	05052314ECD7.D			1	NO MANUAL INTEGRATION
2121	05052315ECD7.D			1	NO MANUAL INTEGRATION
2142	05052316ECD7.D			1	NO MANUAL INTEGRATION
2203	05052317ECD7.D			1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2224	05052318ECD7.D			1	NO MANUAL INTEGRATION
2245	05052319ECD7.D			1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
0008	05052323ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0131	05052327ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
0336	05052333ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1548	05052301ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1609	05052302ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1711	05052303ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1732	05052304ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1753	05052305ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1814	05052306ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1835	05052307ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1856	05052308ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1916	05052309ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1937	05052310ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1958	05052311ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2019	05052312ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2040	05052313ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2101	05052314ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2121	05052315ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2142	05052316ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2203	05052317ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2224	05052318ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2245	05052319ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	Aroclor-1016 [2C],
0008	05052323ECD7.D	0.05PPMAR1660		1	Aroclor-1016 [2C],
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	Aroclor-1016 [2C],
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0132	05052327ECD7.D	0.25PPMAR1242		1	Aroclor-1242 [2C],
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0336	05052333ECD7.D	AR1242SCV		1	Aroclor-1242 [2C],
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 06-May-2023 09:12

05052320ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052321ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052322ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052323ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052324ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052325ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052326ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052327ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052328ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052329ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052330ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052331ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052332ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052333ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052334ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052335ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052336ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052337ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052338ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052339ECD7.D	Data Locked	richardl, 06-May-2023 09:12

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230505.b\05052322ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230505.b\05052323ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230505.b\05052325ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230505.b\05052321ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230505.b\05052326ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230505.b\05052324ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230505.b\05052331ECD7.D
 Level 8: \\target\share\chem4\ecd7.i\230505.b\05052338ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00563	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01129	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02681	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02521	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07988	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01545	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03576	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00375	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	0.00780	0.000e+00					0.00780	0.000
(3)	0.03715						0.03715	0.000
(4)	0.01590						0.01590	0.000
7 Aroclor-1016(1)	0.03259	0.03226	0.03462	0.03138	0.02909	0.02592	0.03098	9.876
(2)	0.08782	0.09418	0.10520	0.10209	0.09934	0.09254	0.09686	6.702
(3)	0.04375	0.04849	0.05094	0.04519	0.04205	0.03826	0.04478	10.130
(4)	0.01716	0.01921	0.02127	0.01901	0.01783	0.01637	0.01847	9.437
6 Aroclor-1248(1)	0.02042						0.02042	0.000
(2)	0.05306						0.05306	0.000
(3)	0.10205						0.10205	0.000
(4)	0.05202						0.05202	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 (1)	0.08222	0.000e+00					0.08222	0.000
(2)	0.03694						0.03694	0.000
(3)	0.05308						0.05308	0.000
(4)	0.10397						0.10397	0.000
(5)	0.06279						0.06279	0.000
9 Aroclor-1260 (1)	0.04580	0.04187	0.04489	0.04230	0.04061	0.03834	0.04230	6.490
(2)	0.04434	0.04115	0.04438	0.04189	0.04043	0.03831	0.04175	5.623
(3)	0.11170	0.10434	0.11116	0.10510	0.10043	0.09464	0.10456	6.204
(4)	0.05460	0.05000	0.05382	0.05169	0.04996	0.04720	0.05121	5.355
(5)	0.02498	0.02246	0.02370	0.02202	0.02100	0.01982	0.02233	8.279
10 Aroclor-1262 (1)	0.03619						0.03619	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	++++ 0.05090	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.05090	0.000
(3)	++++ 0.05471	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.05471	0.000
(4)	++++ 0.04459	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.04459	0.000
11 Aroclor-1268(1)	++++ 0.12759	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.12759	0.000
(2)	++++ 0.12671	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.12671	0.000
(3)	++++ 0.10191	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.10191	0.000
(4)	++++ 0.29098	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.29098	0.000
42 2,4-DDE	++++ ++++	++++ 636	++++ ++++	++++ ++++	++++ ++++	++++ ++++	636	0.000
43 2,4-DDD	++++ ++++	++++ 1208	++++ ++++	++++ ++++	++++ ++++	++++ ++++	1208	0.000
44 2,4-DDT	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++	++++
46 4,4-DDE	++++ ++++	++++ 1492	++++ ++++	++++ ++++	++++ ++++	++++ ++++	1492	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
47 4,4-DDD	+++++	+++++ 708	+++++	+++++	+++++	+++++	708	0.000
48 4,4-DDT	+++++	+++++ 630	+++++	+++++	+++++	+++++	630	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
1 Tetrachloro-m-xylene	1.21049	1.18252	1.29993	1.22669	1.16878	1.14053	1.20482	4.619
13 Decachlorobiphenyl	0.89752	0.83715	0.84851	0.77945	0.72713	0.70508	0.79914	9.361

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052322ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052323ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052325ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052321ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052326ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052324ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052331ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
1 Aroclor-1221 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00590	0.000
(2)	0.01223						0.01223	0.000
(3)	0.01924						0.01924	0.000
4 Aroclor-1232 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00310	0.000
(2)	0.01776						0.01776	0.000
(3)	0.03568						0.03568	0.000
(4)	0.01033						0.01033	0.000
3 Aroclor-1242 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03575	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07606	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02438	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02939	0.000
6 Aroclor-1248 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03806	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04020	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04712	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05651	0.000
7 Aroclor-1016 [2C] (1)	0.05158	0.04743	0.04866	0.04443	0.04159	0.03802	0.04529	10.942
(2)	0.09850	0.09560	0.10183	0.09745	0.09528	0.09038	0.09651	3.959
(3)	0.04379	0.04462	0.04622	0.04230	0.04046	0.03801	0.04257	6.991
(4)	0.03635	0.03727	0.03735	0.03308	0.03084	0.02798	0.03381	11.400

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 [2C] (1)	++++ 0.06078	++++	++++	++++	++++	++++	0.06078	0.000
(2)	++++ 0.03611	++++	++++	++++	++++	++++	0.03611	0.000
(3)	++++ 0.04927	++++	++++	++++	++++	++++	0.04927	0.000
(4)	++++ 0.10751	++++	++++	++++	++++	++++	0.10751	0.000
(5)	++++ 0.10667	++++	++++	++++	++++	++++	0.10667	0.000
10 Aroclor-1262 [2C] (1)	++++ 0.06482	++++	++++	++++	++++	++++	0.06482	0.000
(2)	++++ 0.05467	++++	++++	++++	++++	++++	0.05467	0.000
(3)	++++ 0.05974	++++	++++	++++	++++	++++	0.05974	0.000
(4)	++++ 0.09737	++++	++++	++++	++++	++++	0.09737	0.000
9 Aroclor-1260 [2C] (1)	0.04544 ++++	0.04273	0.04504	0.04279	0.04076	0.03816	0.04249	6.408
(2)	0.11282 ++++	0.11085	0.11919	0.11378	0.10815	0.10199	0.11113	5.208

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	Level 7	RRF	% RSD
(3)	0.02783	0.02652	0.02791	0.02780	0.02775	0.02743		0.02754	1.918
(4)	0.07670	0.07341	0.07861	0.07586	0.07265	0.06817		0.07423	4.962
11 Aroclor-1268 [2C] (1)	0.15139							0.15139	0.000
(2)	0.16276							0.16276	0.000
(3)	0.13938							0.13938	0.000
(4)	0.44675							0.44675	0.000
41 2,4-DDE [2C]									
42 2,4-DDD [2C]									
44 4,4-DDE [2C]									
45 4,4-DDD/2,4-DDT [2C]									
46 4,4-DDT [2C]									

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 2 Tetrachloro-m-xylene [2C]	1.09077	1.07641	1.18129	1.13054	1.07870	1.04559	1.10055	4.376
\$ 13 Decachlorobiphenyl [2C]	1.04434	1.07403	1.22005	1.18343	1.16419	1.13004	1.13601	5.890

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230505.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
FILENAME: 05052321ECD7 05052322ECD7 05052323ECD7 05052324ECD7 05052325ECD7 05052326ECD7
INJ. DATE: 05-MAY-2023 05-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023
INJ. TIME: 23:26 23:47 00:08 00:29 00:50 01:11

Table with 11 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, Aroclor-1242, Aroclor-1232, Aroclor-1016, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, Decachlorobiphenyl, IS-HBBP, 2,4-DDE, 2,4-DDD, 2,4-DDT, 4,4-DDE.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Batch File: \\target\share\chem4\ecd7.i\230505.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.243	10.143-10.343	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.706	10.606-10.806	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230505.b\230505.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 05052320ECD7 05052321ECD7 05052322ECD7 05052323ECD7 05052324ECD7 05052325ECD7 05052326ECD7
INJ. DATE: 05-MAY-2023 05-MAY-2023 05-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023
INJ. TIME: 23:06 23:26 23:47 00:08 00:29 00:50 01:11

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Batch File: \\target\share\chem4\ecd7.i\230505.b\230505.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.046	10.946-11.146	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052320ECD7.D
Data file 2: /230505.b/230505.b/05052320ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 05-MAY-2023 23:06
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	296285	5.629	0.001	163258	35.5	37.4	5.3	Tetrachloro-m-xylene
13.841	0.001	288612	14.070	0.002	318424	35.7	37.3	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	554412	-7.8
Hexabromobiphenyl	876625	809662	-7.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	317324	-9.2
Hexabromobiphenyl	652984	600612	-8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.272	0.027	1585	32.7
Aroclor-1221	3	---			0.0	3	6.588	0.017	408	5.3
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	10.995	0.002	1624	3.8	1	---			0.0
Aroclor-1260	2	11.305	-0.005	1450	3.4	2	---			0.0
Aroclor-1260	3	11.770	0.084	3781	3.6	3	---			0.0
Aroclor-1260	4	12.138	0.048	1272	2.5	4	---			0.0
Aroclor-1260	5	12.271	0.078	413	1.8	NS	---			----
Total CollAve (5 peaks):					3.0	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	10.800	0.021	2445	6.7	1	---			0.0
Aroclor-1262	2	12.271	0.077	413	0.8	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	12.989	0.050	944	2.1	4	---			0.0
Total CollAve (3 peaks):					3.2	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	12.271	0.076	413	0.3	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	2092	2.0	3	12.847	0.004	632	0.6
Aroclor-1268	4	13.443	0.006	5651	1.9	4	13.663	-0.001	2018	0.6
Total CollAve (3 peaks):					1.4	Col2Ave: <3 Quant Peaks				
Total PCB Area Coll1 (5.842 - 13.740) =					65805	Coll1 Total PCB = 0.0 ppm*				

Total PCB Area Col2 (5.728 - 13.968) = 16664 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052321ECD7.D
Data file 2: /230505.b/230505.b/05052321ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 05-MAY-2023 23:26
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368910	5.629	0.000	197442	40.7	41.1	0.9	Tetrachloro-m-xylene
13.841	0.001	341641	14.070	0.002	386381	39.0	41.7	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	601474	0.0
Hexabromobiphenyl	876625	876625	0.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	349289	0.0
Hexabromobiphenyl	652984	652984	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.001	58979	253.2	1	7.204	-0.000	48493	245.3	
Aroclor-1016	2	7.595	0.001	191892	263.5	2	7.811	0.003	106372	252.4	
Aroclor-1016	3	7.735	0.002	84934	252.3	3	8.010	0.004	46169	248.4	
Aroclor-1016	4	8.399	0.001	35727	257.2	4	8.260	0.001	36109	244.6	
Total CollAve (4 peaks):				256.6		Total Col2Ave (4 peaks):				247.7	RPD = 4
Corrected Ave (3 peaks):				254.2		Corrected Ave (3 peaks):				246.1	RPD = 3

CalAmt %D: 2.6

CalAmt %D: -0.9

Aroclor-1260	1	10.995	0.002	115872	250.0	1	11.605	-0.000	87314	251.8	
Aroclor-1260	2	11.312	0.002	114768	250.9	2	11.872	-0.000	232184	256.0	
Aroclor-1260	3	11.687	0.001	287920	251.3	3	12.389	0.001	56725	252.4	
Aroclor-1260	4	12.091	0.002	141607	252.3	4	12.456	0.000	154797	255.5	
Aroclor-1260	5	12.195	0.002	60315	246.5	NS	---			----	
Total CollAve (5 peaks):				250.2		Total Col2Ave (4 peaks):				253.9	RPD = 1
Corrected Ave (4 peaks):				249.7		Corrected Ave (3 peaks):				253.2	RPD = 1

CalAmt %D: 0.1

CalAmt %D: 1.6

Total PCB Area Coll (5.842 - 13.740) = 3355836 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2087295 Col2 Total PCB = 0.5 ppm*

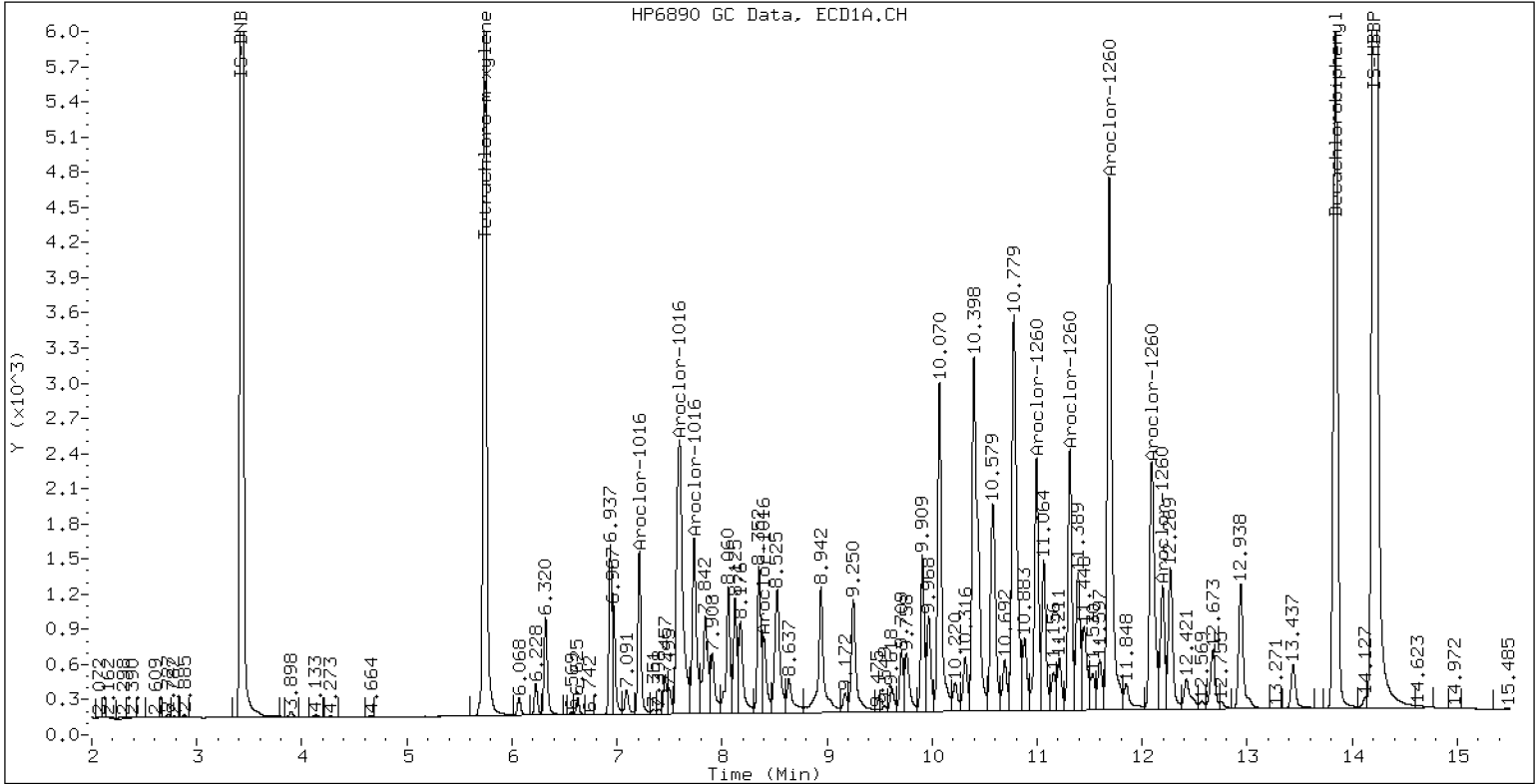
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660

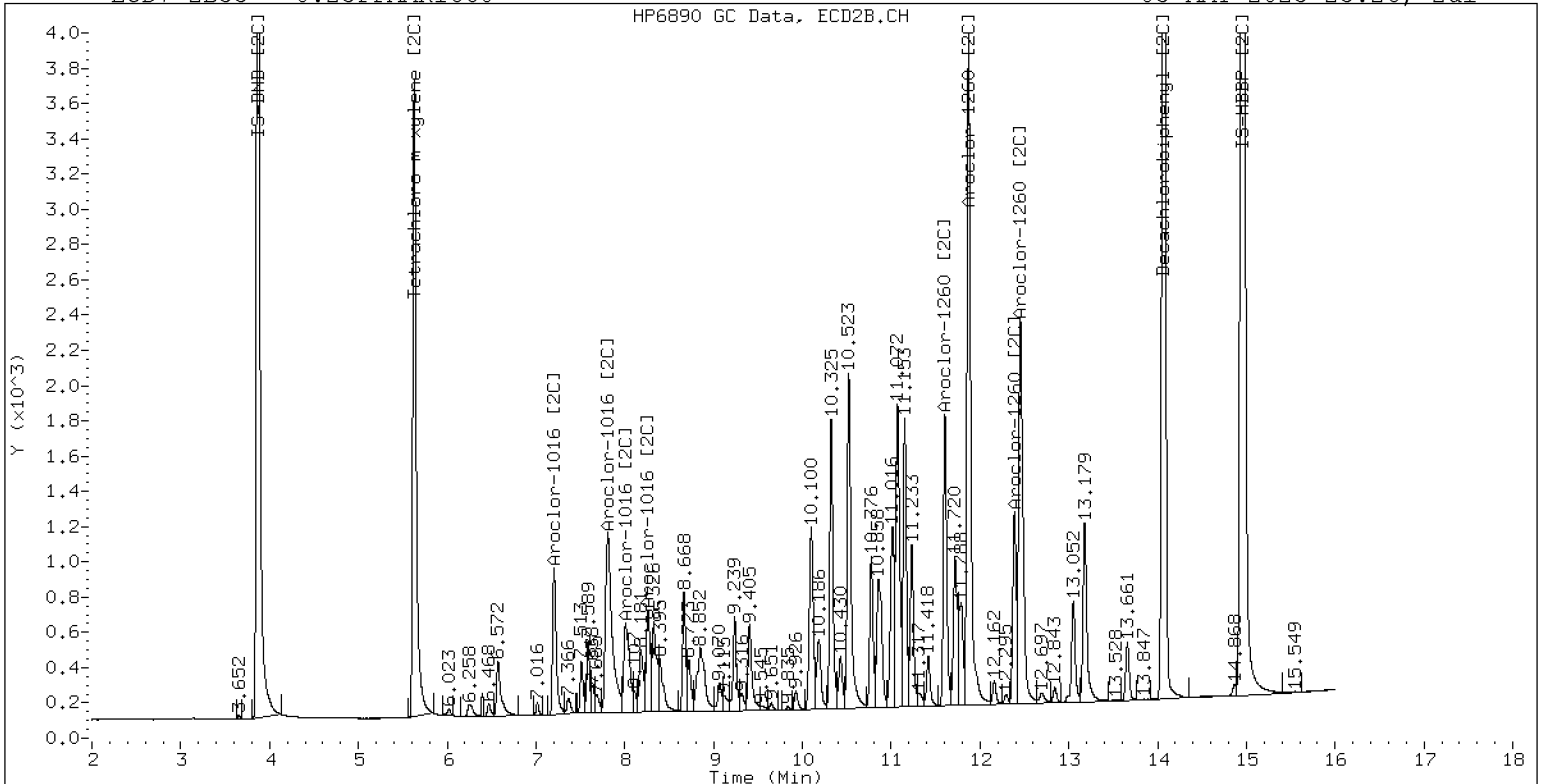
05-MAY-2023 23:26, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660

05-MAY-2023 23:26, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052322ECD7.D
Data file 2: /230505.b/230505.b/05052322ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 05-MAY-2023 23:47
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	28836	5.630	0.002	14779	3.2	3.2	1.4	Tetrachloro-m-xylene
13.843	0.002	31610	14.071	0.002	27131	3.6	2.9	20.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	595544	-1.0
Hexabromobiphenyl	876625	880480	0.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	338730	-3.0
Hexabromobiphenyl	652984	649475	-0.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.001	4852	21.0	1	7.206	0.002	4368	22.8	
Aroclor-1016	2	7.595	0.001	13075	18.1	2	7.819	0.012	8341	20.4	
Aroclor-1016	3	7.737	0.004	6514	19.5	3	8.043	0.038	3708	20.6	
Aroclor-1016	4	8.400	0.002	2555	18.6	4	8.261	0.002	3078	21.5	
Total CollAve (4 peaks):				19.3	Total Col2Ave (4 peaks):				21.3	RPD = 10	
Corrected Ave (3 peaks):				18.8	Corrected Ave (3 peaks):				20.8	RPD = 10	

CalAmt %D: -3.4 CalAmt %D: 6.6

Aroclor-1260	1	10.998	0.005	10082	21.7	1	11.610	0.004	7378	21.4	
Aroclor-1260	2	11.316	0.006	9760	21.2	2	11.878	0.006	18318	20.3	
Aroclor-1260	3	11.694	0.008	24587	21.4	3	12.392	0.004	4519	20.2	
Aroclor-1260	4	12.098	0.008	12018	21.3	4	12.461	0.006	12454	20.7	
Aroclor-1260	5	12.198	0.005	5499	22.4	NS	---			----	
Total CollAve (5 peaks):				21.6	Total Col2Ave (4 peaks):				20.6	RPD = 4	
Corrected Ave (4 peaks):				21.4	Corrected Ave (3 peaks):				20.4	RPD = 5	

CalAmt %D: 8.0 CalAmt %D: 3.2

Total PCB Area Coll (5.842 - 13.740) = 294199 Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 173796 Col2 Total PCB = 0.0 ppm*

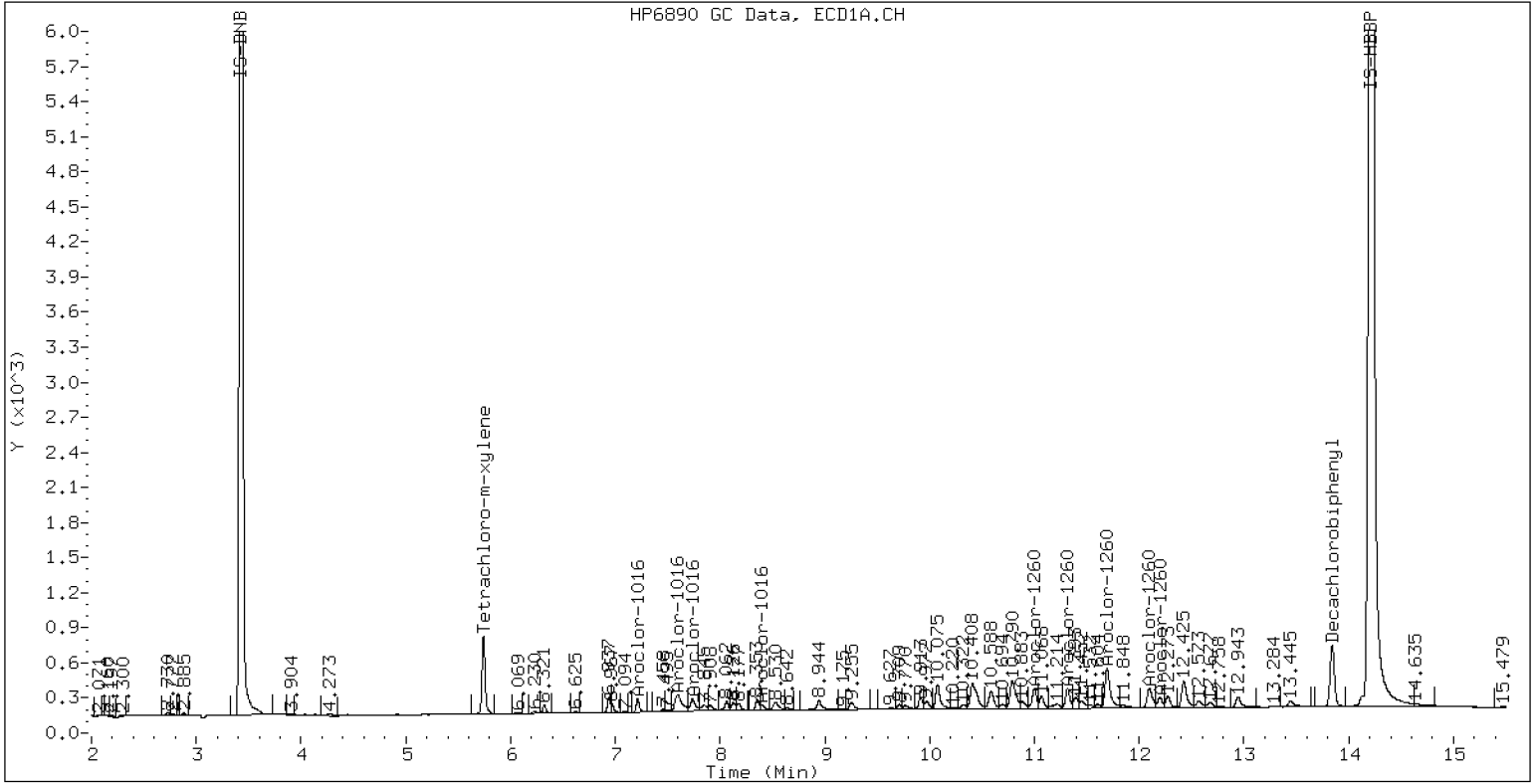
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660

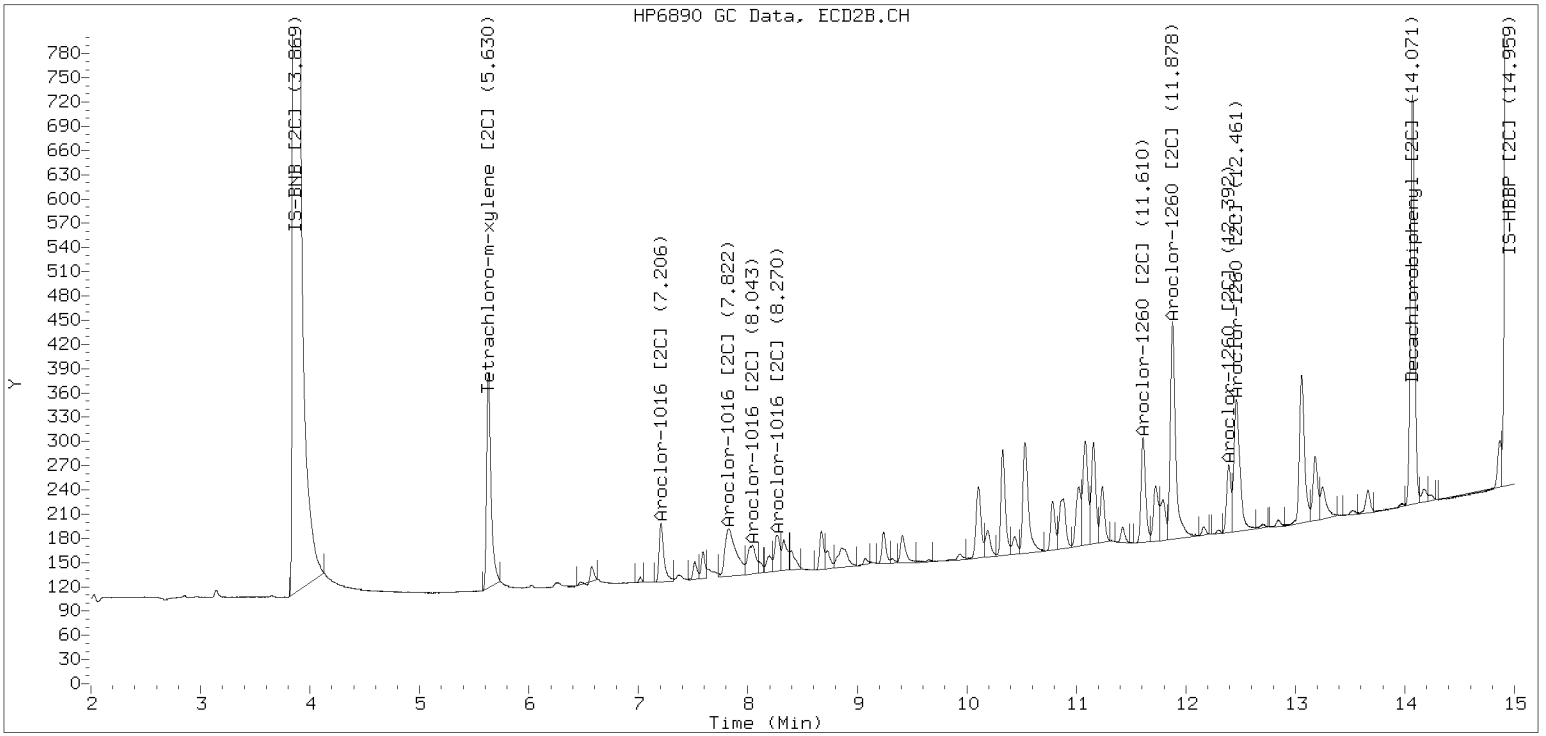
05-MAY-2023 23:47, 2ul



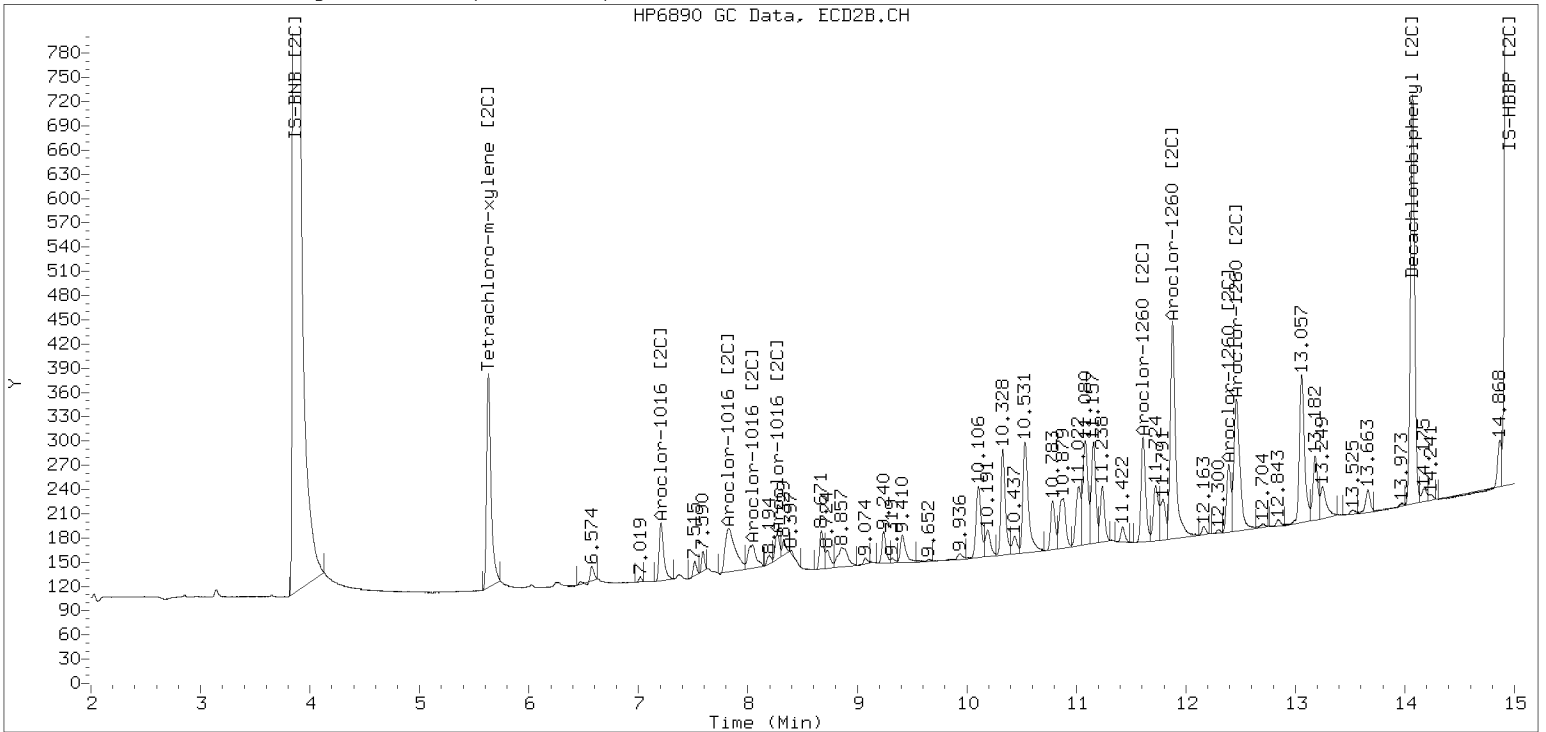
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052322ECD7.D Injection Date: 05-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052323ECD7.D
 Data file 2: /230505.b/230505.b/05052323ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
 Client ID:
 Injection Date: 06-MAY-2023 00:08
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	72149	5.630	0.001	37778	7.9	7.8	0.3	Tetrachloro-m-xylene
13.843	0.002	75564	14.070	0.002	71601	8.4	7.6	10.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	610127	1.4
Hexabromobiphenyl	876625	902634	3.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	350964	0.5
Hexabromobiphenyl	652984	666660	2.1

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.214	0.001	12303	52.1	1	7.205	0.001	10404	52.4	
Aroclor-1016	2	7.595	0.000	35912	48.6	2	7.821	0.013	20971	49.5	
Aroclor-1016	3	7.736	0.003	18491	54.1	3	8.016	0.010	9788	52.4	
Aroclor-1016	4	8.400	0.002	7326	52.0	4	8.264	0.005	8176	55.1	
Total CollAve (4 peaks):				51.7	Total Col2Ave (4 peaks):				52.4	RPD = 1	
Corrected Ave (3 peaks):				50.9	Corrected Ave (3 peaks):				51.4	RPD = 1	
CalAmt %D:				3.4	CalAmt %D:				4.7		
Aroclor-1260	1	10.998	0.005	23619	49.5	1	11.609	0.003	17805	50.3	
Aroclor-1260	2	11.316	0.006	23213	49.3	2	11.876	0.004	46188	49.9	
Aroclor-1260	3	11.693	0.007	58862	49.9	3	12.391	0.003	11048	48.1	
Aroclor-1260	4	12.096	0.006	28206	48.8	4	12.460	0.004	30586	49.4	
Aroclor-1260	5	12.197	0.004	12672	50.3	NS	---			----	
Total CollAve (5 peaks):				49.6	Total Col2Ave (4 peaks):				49.4	RPD = 0	
Corrected Ave (4 peaks):				49.4	Corrected Ave (3 peaks):				49.2	RPD = 0	
CalAmt %D:				-0.9	CalAmt %D:				-1.1		

Total PCB Area Coll (5.842 - 13.740) = 697433 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 429325 Col2 Total PCB = 0.1 ppm*

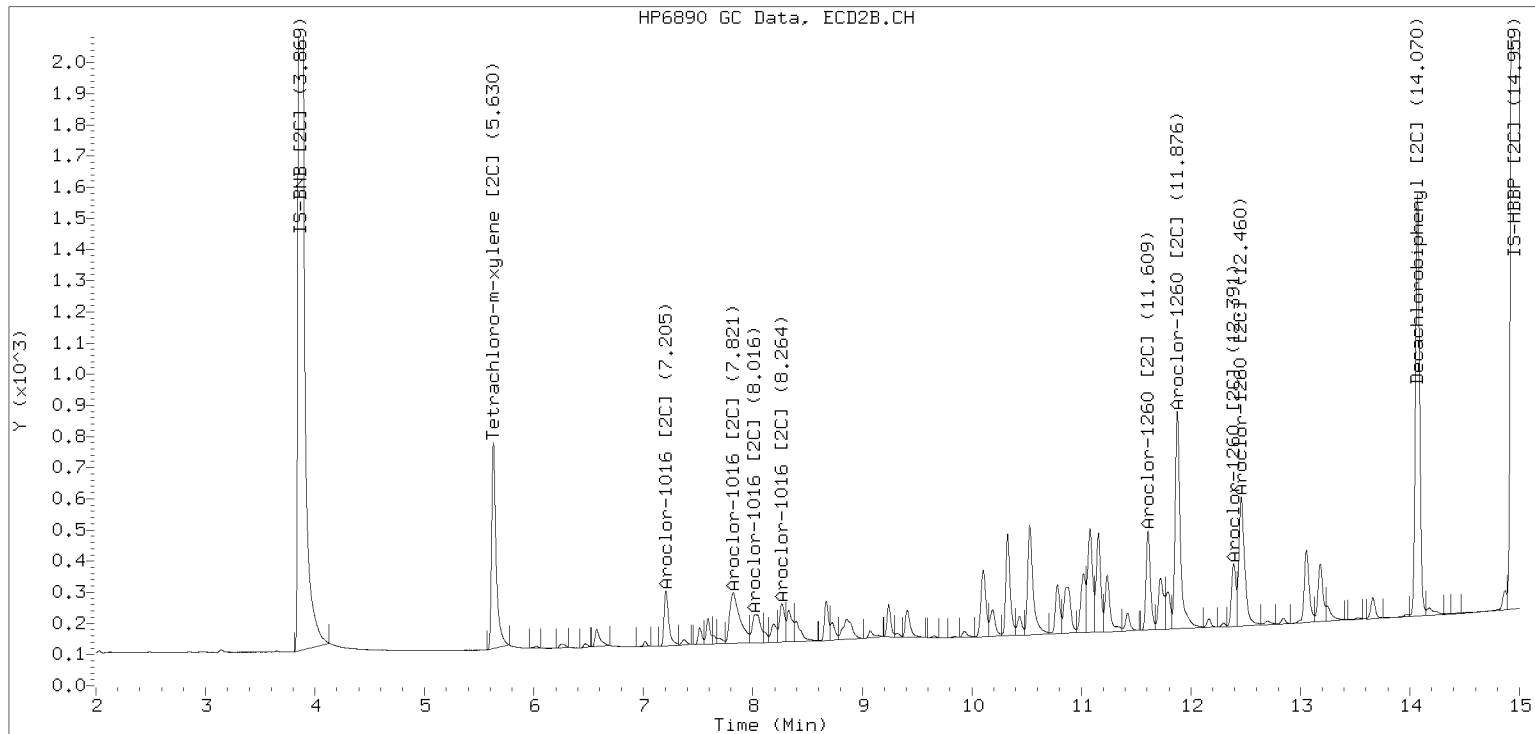
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

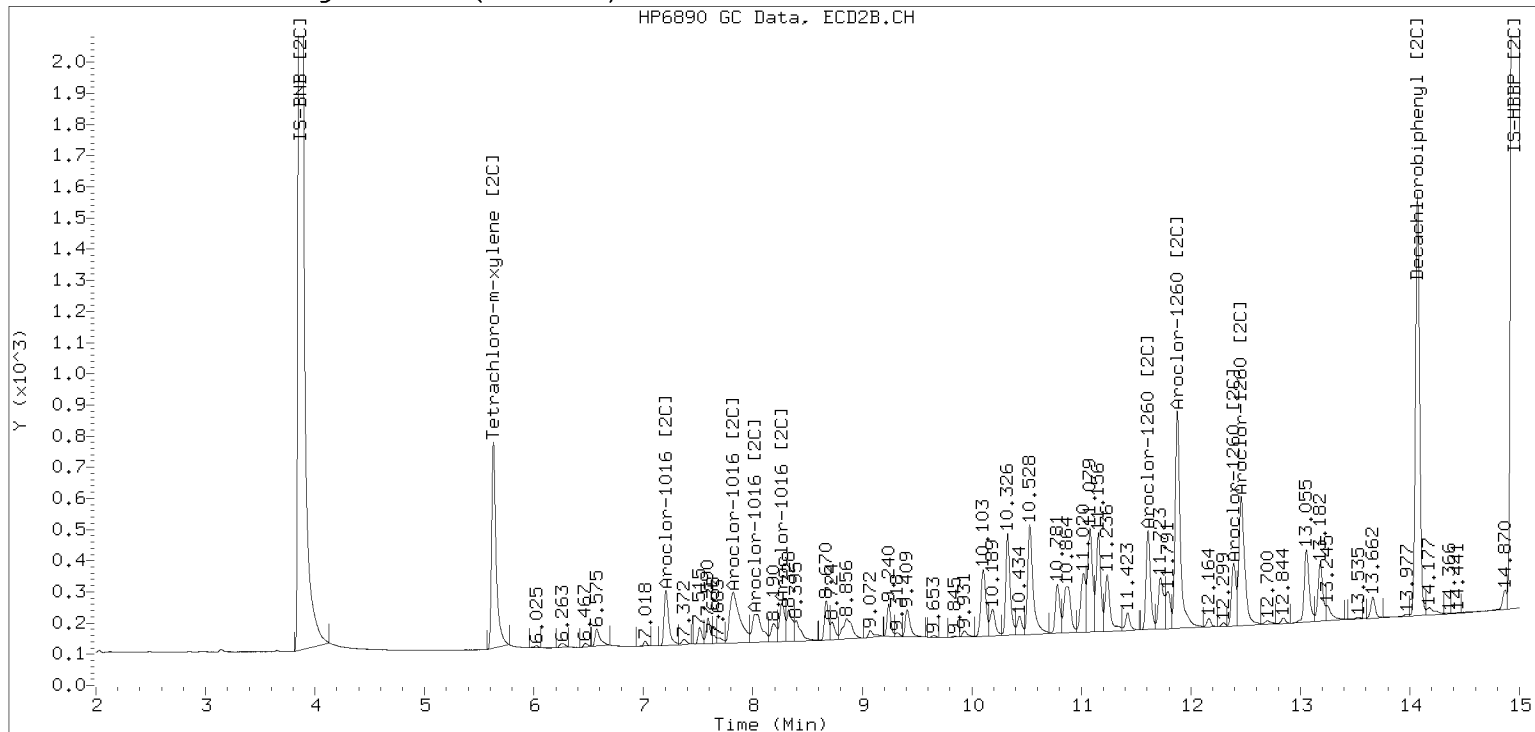
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052323ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052324ECD7.D
Data file 2: /230505.b/230505.b/05052324ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 06-MAY-2023 00:29
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.746	0.004	1354956	5.627	-0.001	709704	151.5	152.0	0.4	Tetrachloro-m-xylene
13.842	0.002	1208957	14.071	0.002	1442827	141.2	159.2	12.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	594005	-1.2
Hexabromobiphenyl	876625	857318	-2.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	339380	-2.8
Hexabromobiphenyl	652984	638394	-2.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	192466	836.8	1	7.203	-0.001	161296	839.6
Aroclor-1016	2	7.595	0.000	687116	955.4	2	7.804	-0.003	383432	936.5
Aroclor-1016	3	7.732	-0.000	284089	854.4	3	8.002	-0.003	161269	893.1
Aroclor-1016	4	8.397	-0.001	121539	886.0	4	8.257	-0.002	118708	827.5
Total CollAve (4 peaks):				883.2		Total Col2Ave (4 peaks):				874.2 RPD = 1
Corrected Ave (3 peaks):				859.1		Corrected Ave (3 peaks):				853.4 RPD = 1
CalAmt %D:				-11.7		CalAmt %D:				-12.6
Aroclor-1260	1	10.992	-0.001	410905	906.4	1	11.604	-0.002	304531	898.2
Aroclor-1260	2	11.309	-0.001	410553	917.6	2	11.869	-0.003	813835	917.7
Aroclor-1260	3	11.683	-0.003	1014157	905.1	3	12.387	-0.001	218887	996.0
Aroclor-1260	4	12.087	-0.003	505824	921.7	4	12.453	-0.003	543988	918.3
Aroclor-1260	5	12.193	-0.001	212396	887.6	NS	---			----
Total CollAve (5 peaks):				907.7		Total Col2Ave (4 peaks):				932.6 RPD = 3
Corrected Ave (4 peaks):				904.2		Corrected Ave (3 peaks):				911.4 RPD = 1
CalAmt %D:				-9.2		CalAmt %D:				-6.7

Total PCB Area Col1 (5.842 - 13.740) = 11665793 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 7382788 Col2 Total PCB = 1.8 ppm*

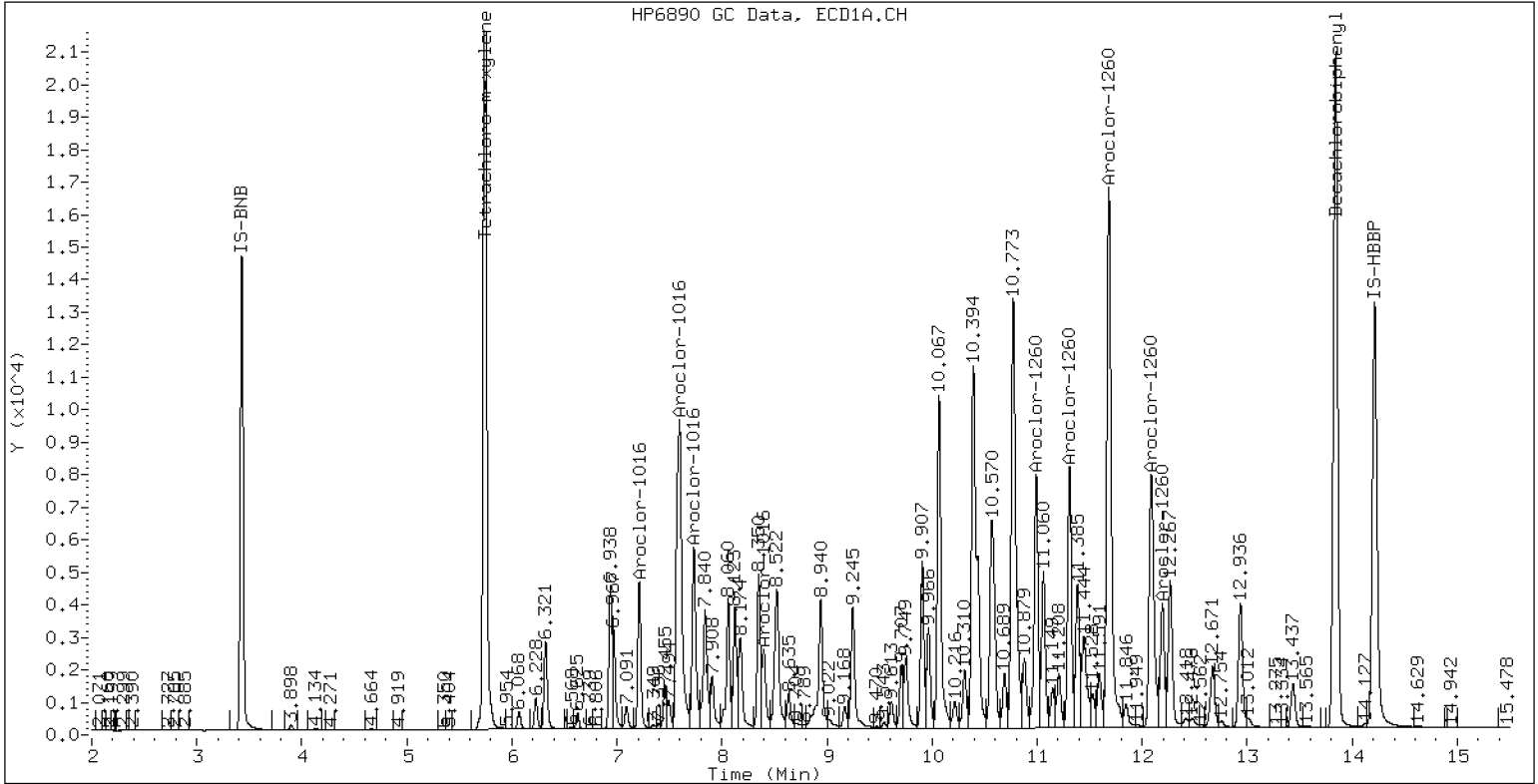
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660

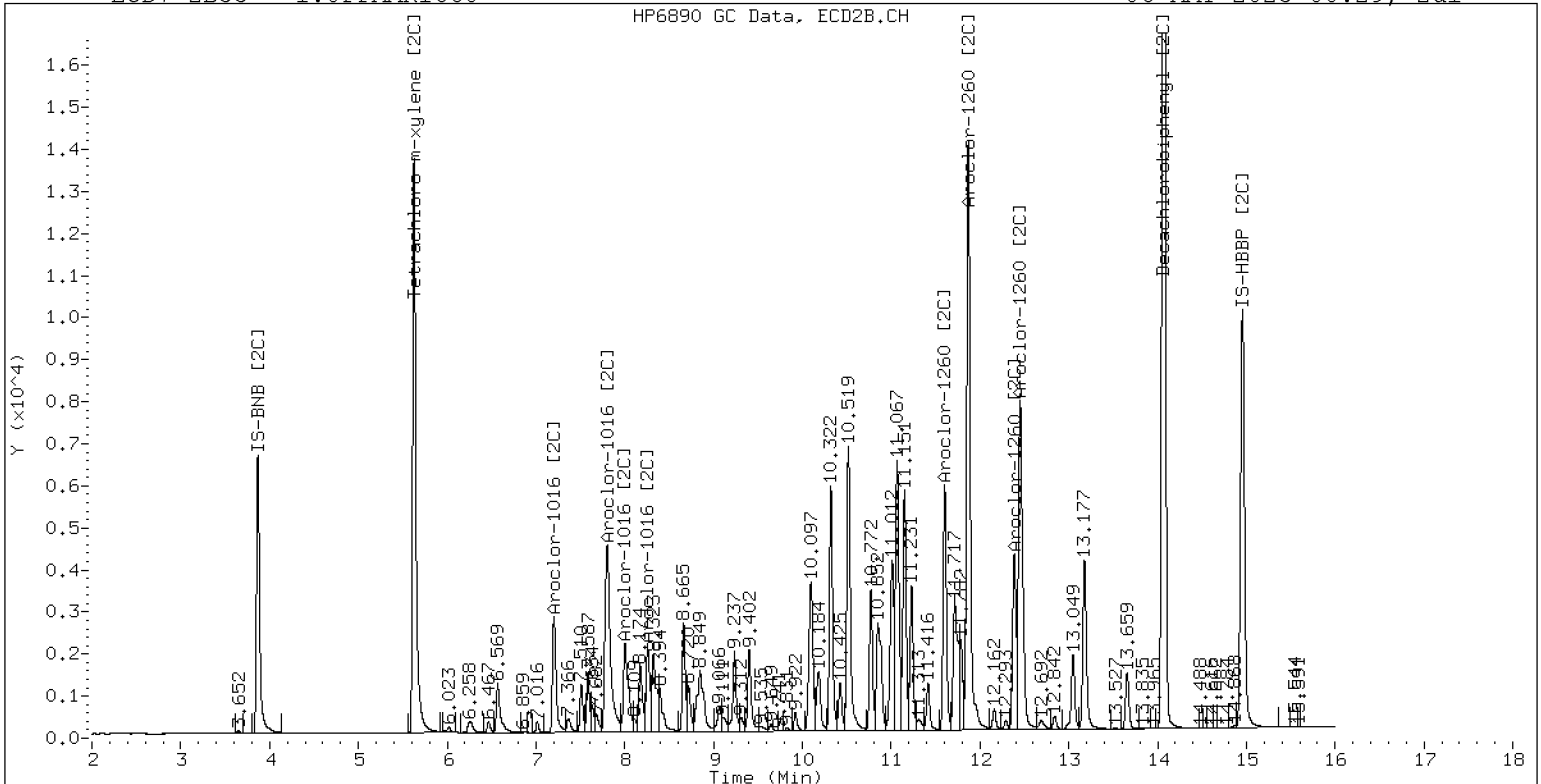
06-MAY-2023 00:29, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660

06-MAY-2023 00:29, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052325ECD7.D
Data file 2: /230505.b/230505.b/05052325ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 06-MAY-2023 00:50
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	166260	5.629	0.000	87721	17.3	17.2	0.5	Tetrachloro-m-xylene
13.841	0.000	162151	14.069	0.001	170994	17.0	17.2	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	639496	6.3
Hexabromobiphenyl	876625	955499	9.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	371294	6.3
Hexabromobiphenyl	652984	700767	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	-0.000	27672	111.8	1	7.204	0.000	22585	107.5
Aroclor-1016	2	7.595	0.000	84096	108.6	2	7.815	0.008	47261	105.5
Aroclor-1016	3	7.735	0.002	40718	113.8	3	8.012	0.007	21450	108.6
Aroclor-1016	4	8.399	0.001	17000	115.1	4	8.262	0.003	17337	110.5
Total CollAve (4 peaks):				112.3		Total Col2Ave (4 peaks):				108.0 RPD = 4
Corrected Ave (3 peaks):				111.4		Corrected Ave (3 peaks):				107.2 RPD = 4
CalAmt %D:				12.3		CalAmt %D:				8.0
Aroclor-1260	1	10.995	0.002	53621	106.1	1	11.608	0.002	39451	106.0
Aroclor-1260	2	11.313	0.003	53001	106.3	2	11.874	0.002	104406	107.3
Aroclor-1260	3	11.690	0.004	132765	106.3	3	12.391	0.003	24449	101.4
Aroclor-1260	4	12.093	0.003	64276	105.1	4	12.457	0.002	68859	105.9
Aroclor-1260	5	12.196	0.003	28307	106.1	NS	---			----
Total CollAve (5 peaks):				106.0		Total Col2Ave (4 peaks):				105.1 RPD = 1
Corrected Ave (4 peaks):				105.9		Corrected Ave (3 peaks):				104.4 RPD = 1
CalAmt %D:				6.0		CalAmt %D:				5.1

Total PCB Area Coll (5.842 - 13.740) = 1580756 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 950746 Col2 Total PCB = 0.2 ppm*

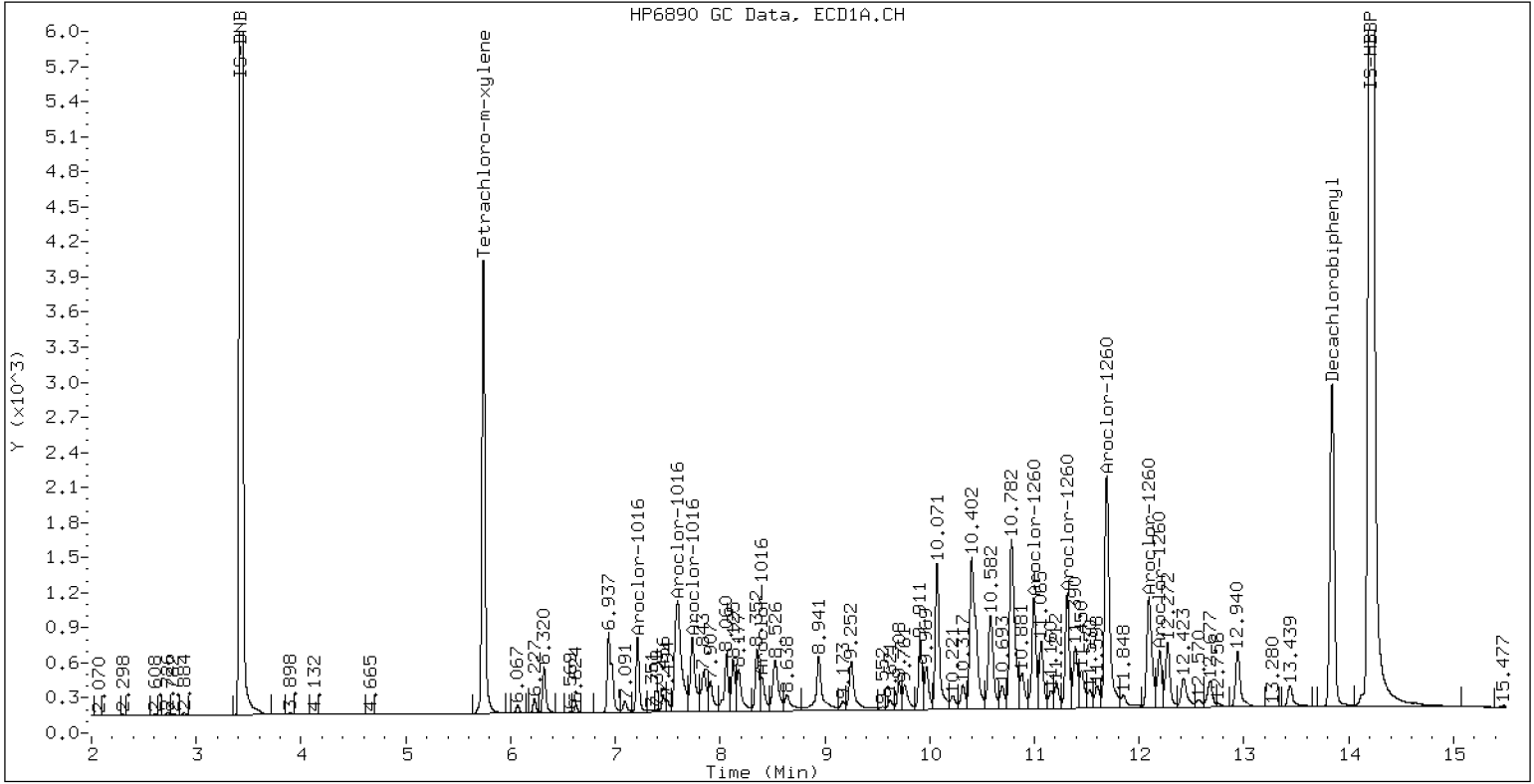
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660

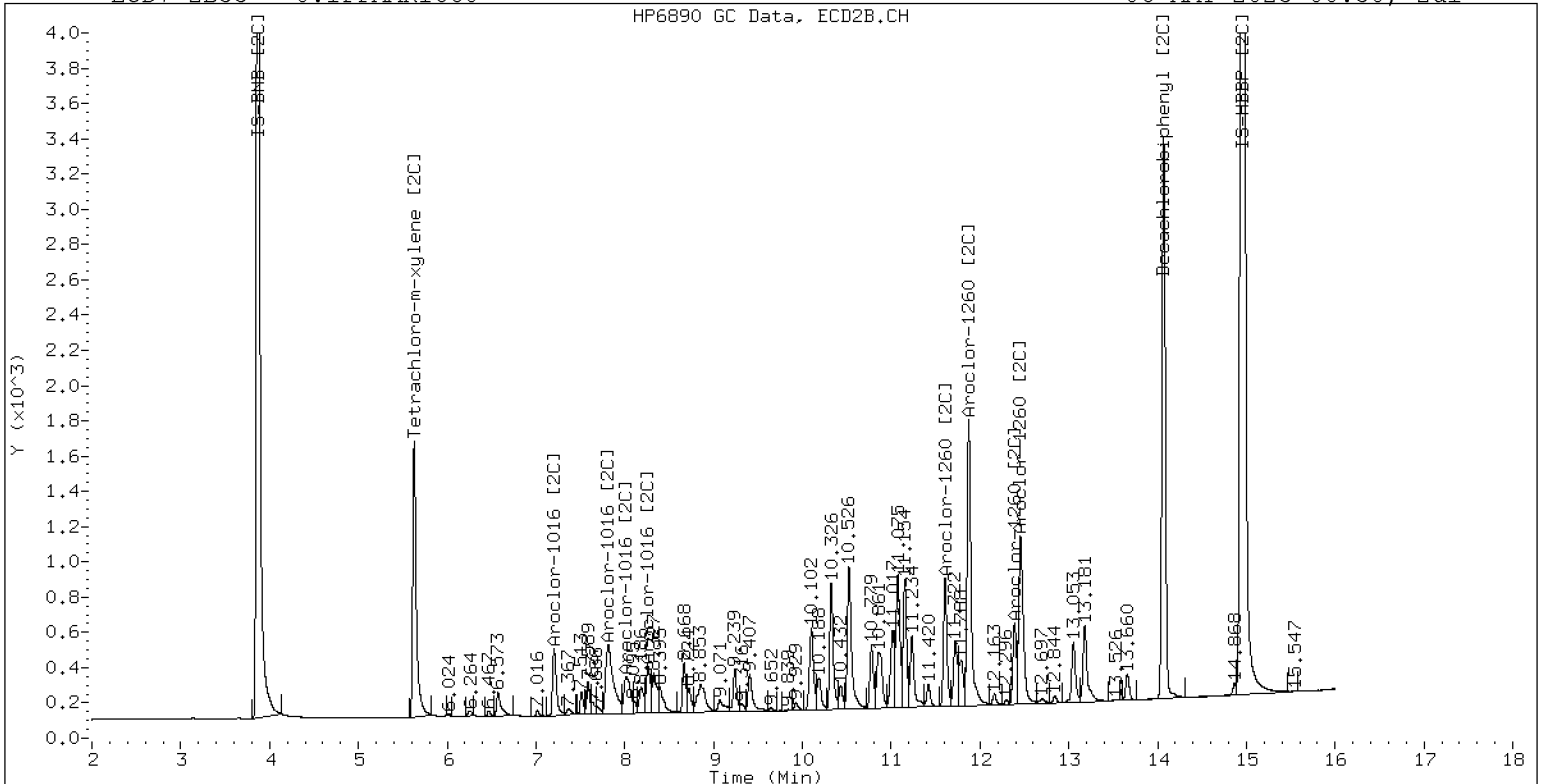
06-MAY-2023 00:50, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660

06-MAY-2023 00:50, 2ul

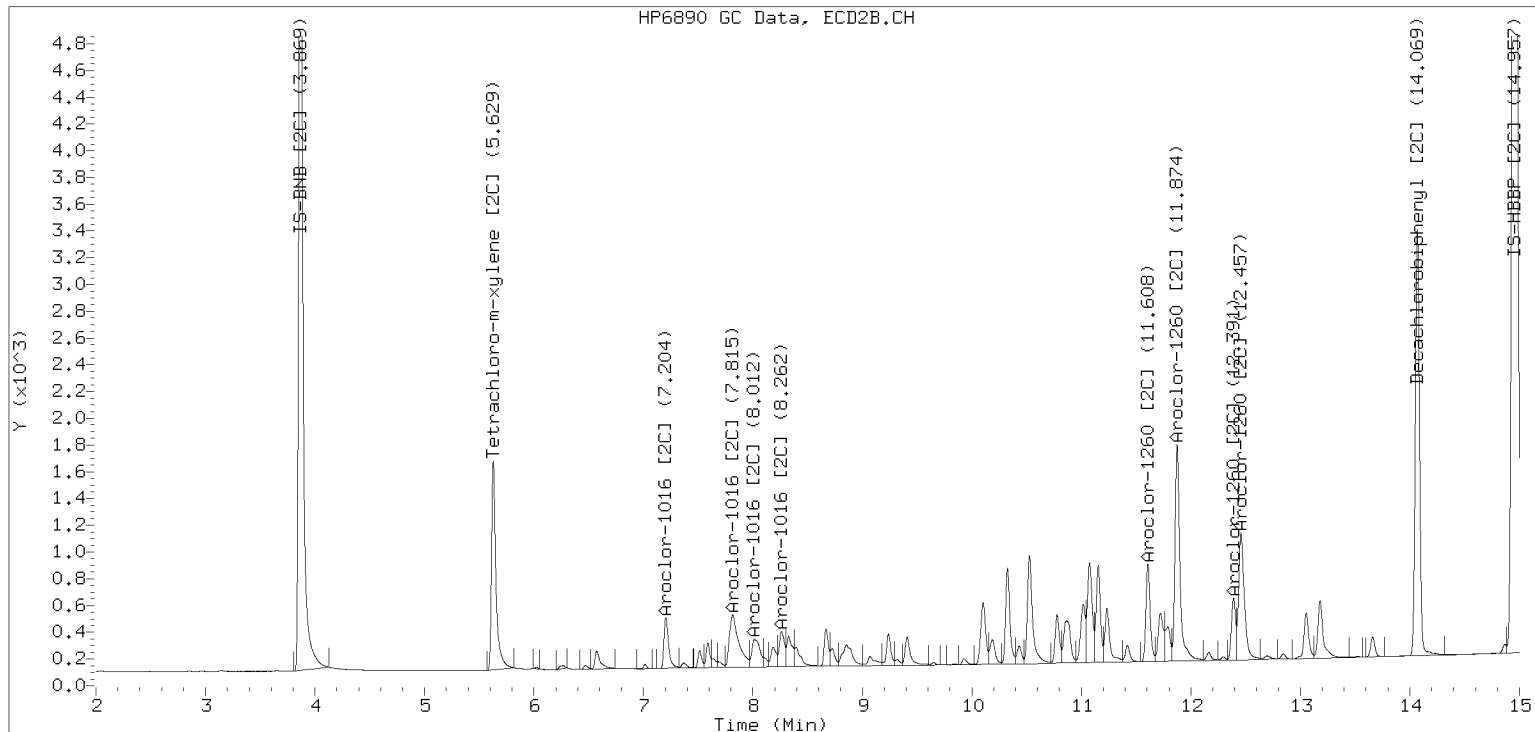


ZB-35 Manual Integration: YES

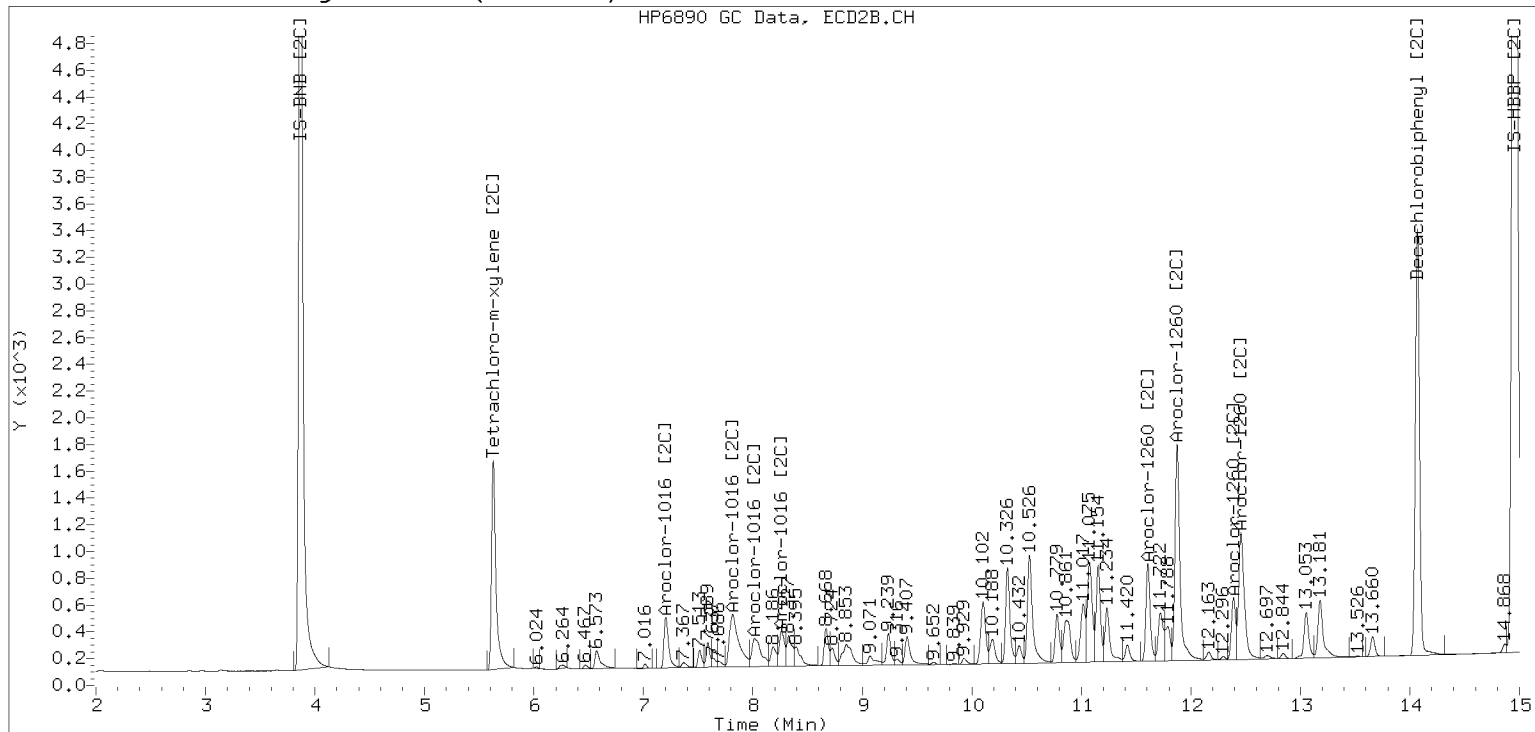
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052325ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052326ECD7.D
 Data file 2: /230505.b/230505.b/05052326ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
 Client ID:
 Injection Date: 06-MAY-2023 01:11
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	726106	5.629	0.000	386361	77.6	78.4	1.0	Tetrachloro-m-xylene
13.842	0.002	662159	14.070	0.002	782852	72.8	82.0	11.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	621250	3.3
Hexabromobiphenyl	876625	910647	3.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	358174	2.5
Hexabromobiphenyl	652984	672444	3.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	112948	469.5	1	7.204	0.000	93114	459.2
Aroclor-1016	2	7.594	0.000	385708	512.8	2	7.808	0.000	213293	493.6
Aroclor-1016	3	7.733	0.000	163263	469.5	3	8.006	0.000	90569	475.2
Aroclor-1016	4	8.398	0.000	69235	482.6	4	8.259	0.000	69045	456.1
Total CollAve (4 peaks):				483.6		Total Col2Ave (4 peaks):				471.0 RPD = 3
Corrected Ave (3 peaks):				473.9		Corrected Ave (3 peaks):				463.5 RPD = 2

CalAmt %D: -3.3

CalAmt %D: -5.8

Aroclor-1260	1	10.993	0.000	231157	480.0	1	11.606	0.000	171304	479.7
Aroclor-1260	2	11.310	0.000	230103	484.2	2	11.872	0.000	454515	486.6
Aroclor-1260	3	11.686	0.000	571583	480.2	3	12.388	0.000	116621	503.8
Aroclor-1260	4	12.090	0.000	284345	487.8	4	12.455	0.000	305334	489.3
Aroclor-1260	5	12.193	0.000	119534	470.3	NS	---			----
Total CollAve (5 peaks):				480.5		Total Col2Ave (4 peaks):				489.8 RPD = 2
Corrected Ave (4 peaks):				478.7		Corrected Ave (3 peaks):				485.2 RPD = 1

CalAmt %D: -3.9

CalAmt %D: -2.0

Total PCB Area Coll (5.842 - 13.740) = 6615607 Coll Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 4121423 Col2 Total PCB = 1.0 ppm*

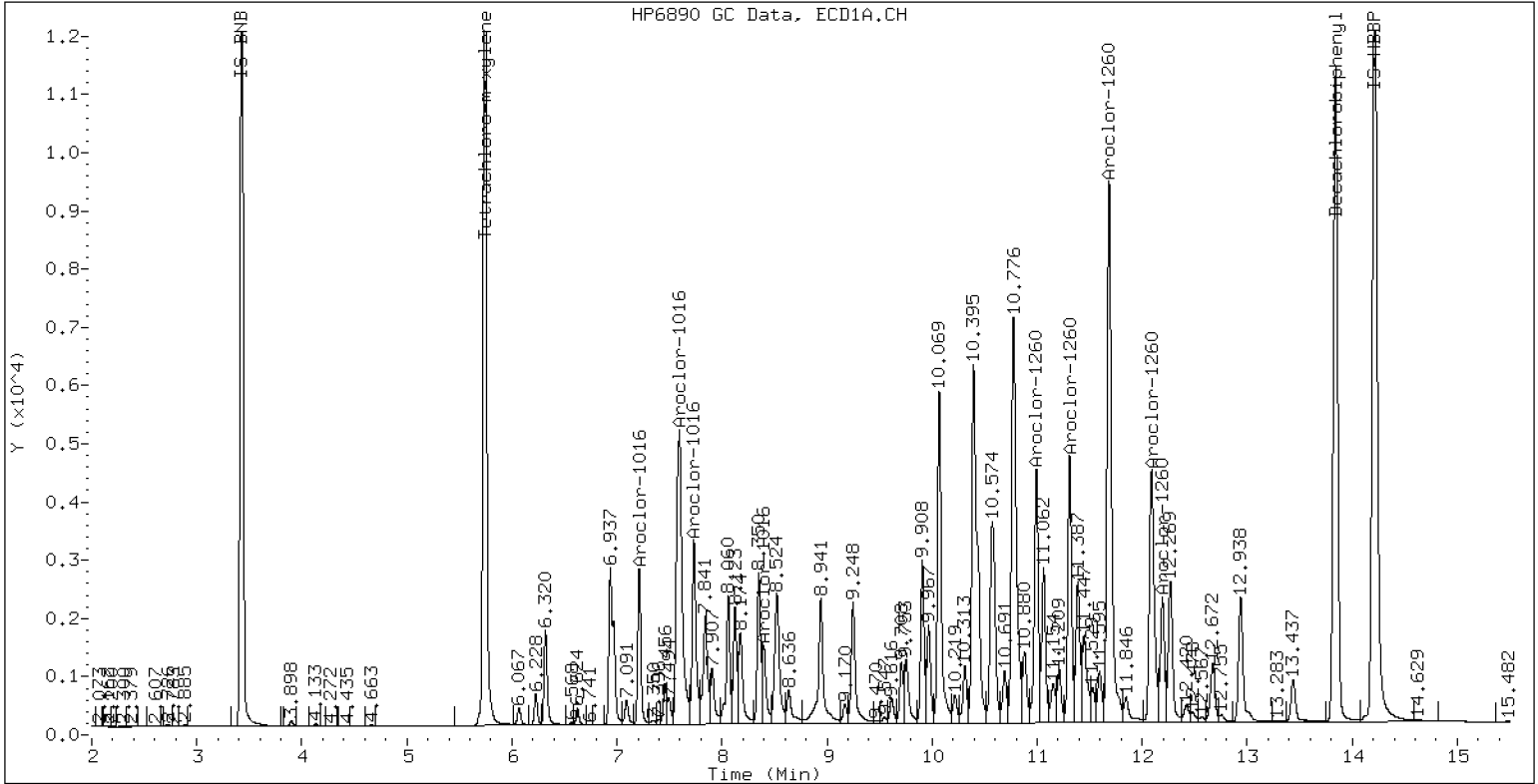
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660

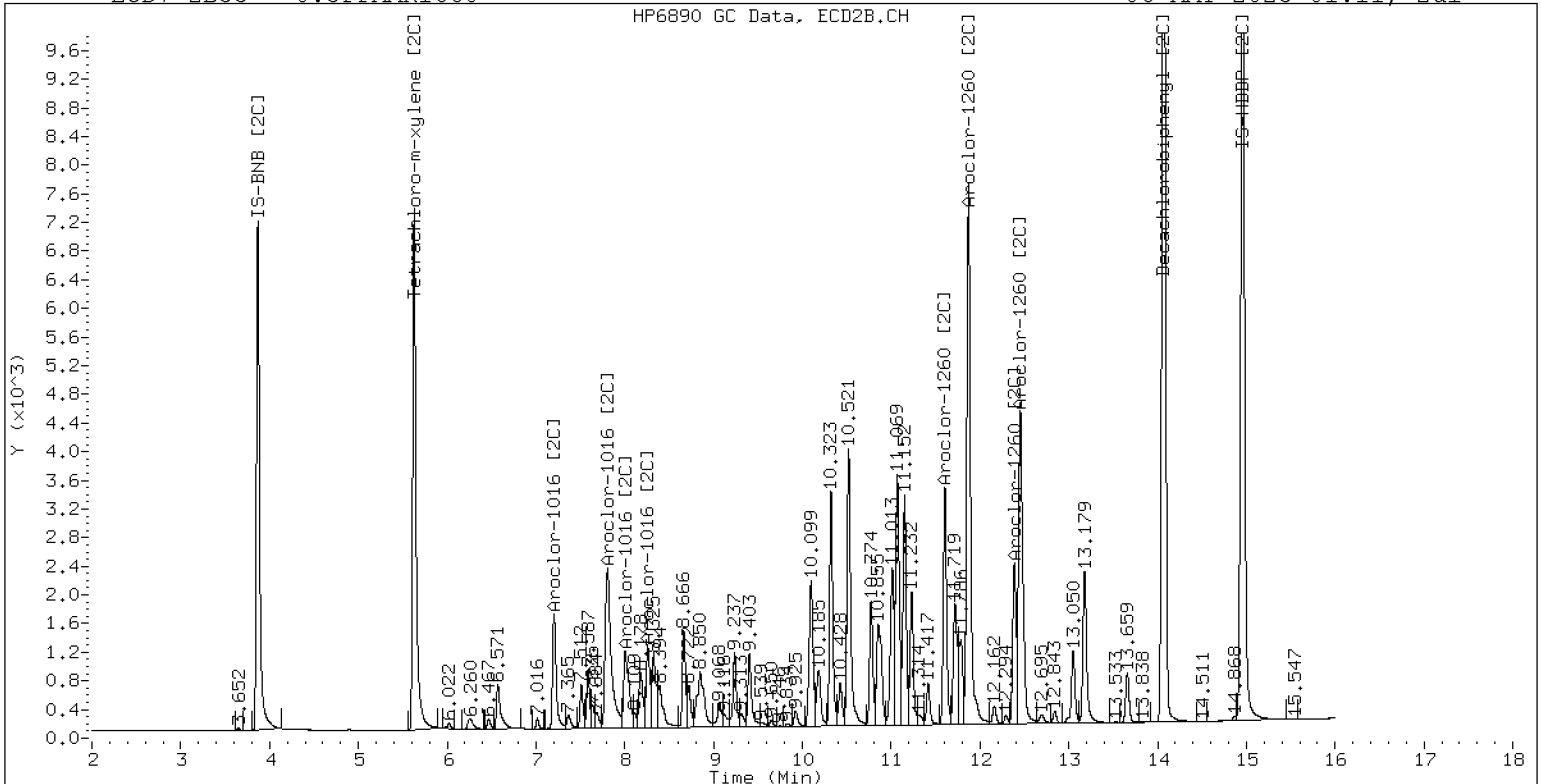
06-MAY-2023 01:11, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660

06-MAY-2023 01:11, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052327ECD7.D ARI ID: 0.25PPMAR1242
Data file 2: /230505.b/230505.b/05052327ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m Injection Date: 06-MAY-2023 01:31
Compound Sublist: AR1242.sub Report Date: 05/06/2023 11:30
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	447397	5.627	-0.001	235808	47.5	47.6	0.3	Tetrachloro-m-xylene
13.842	0.001	336070	14.068	0.000	375985	36.4	38.8	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	625349	4.0
Hexabromobiphenyl	876625	923197	5.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359808	3.0
Hexabromobiphenyl	652984	683116	4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.212	0.000	49262	250.0	1	7.203	0.000	40200	250.0
Aroclor-1242	2	7.595	0.000	156103	250.0	2	7.812	0.000	85524	250.0
Aroclor-1242	3	8.398	0.000	30193	250.0	3	9.123	0.000	27418	250.0
Aroclor-1242	4	8.525	0.000	69876	250.0	4	9.550	0.000	33043	250.0
Total CollAve (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 1203666 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 643088 Col2 Total PCB = 0.1 ppm*

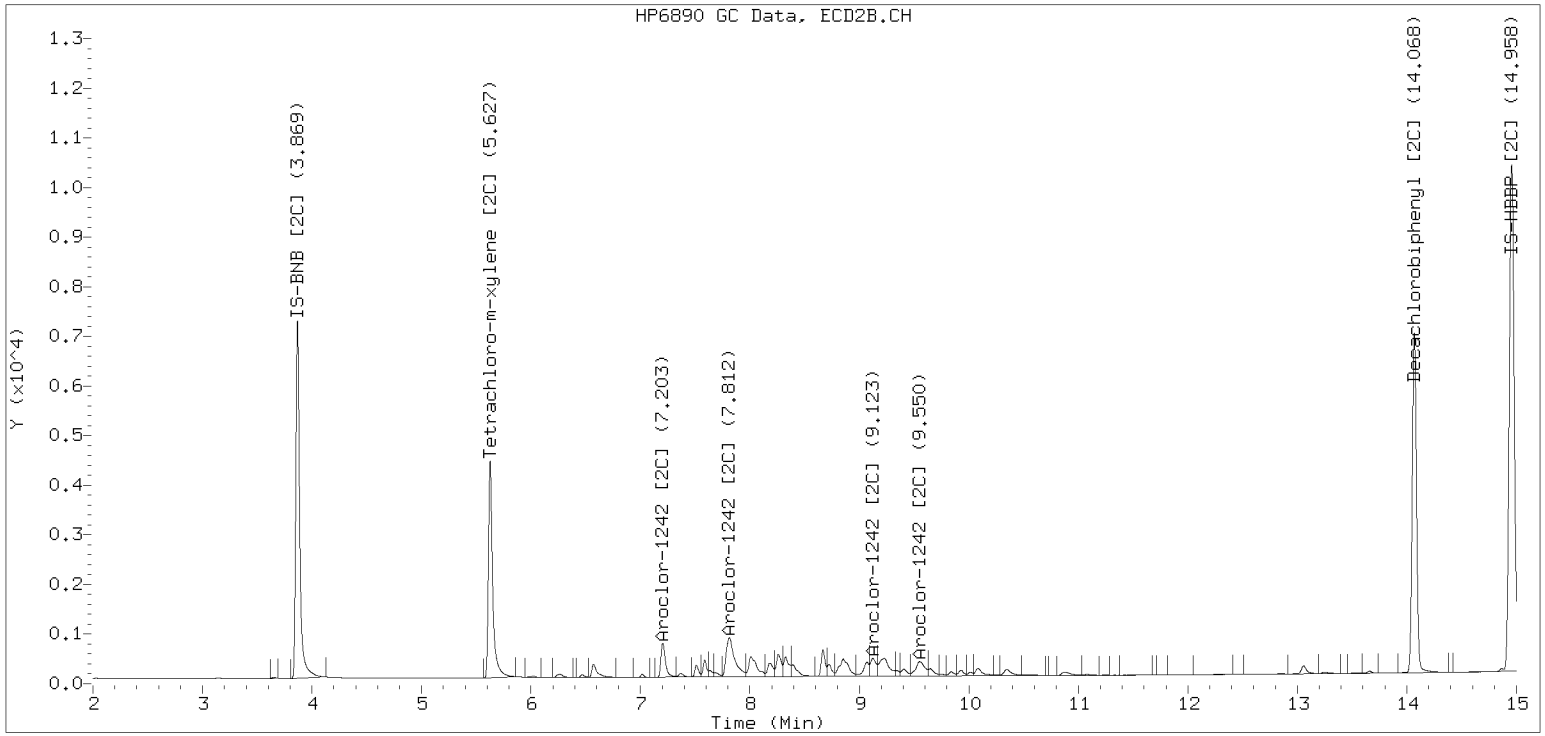
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

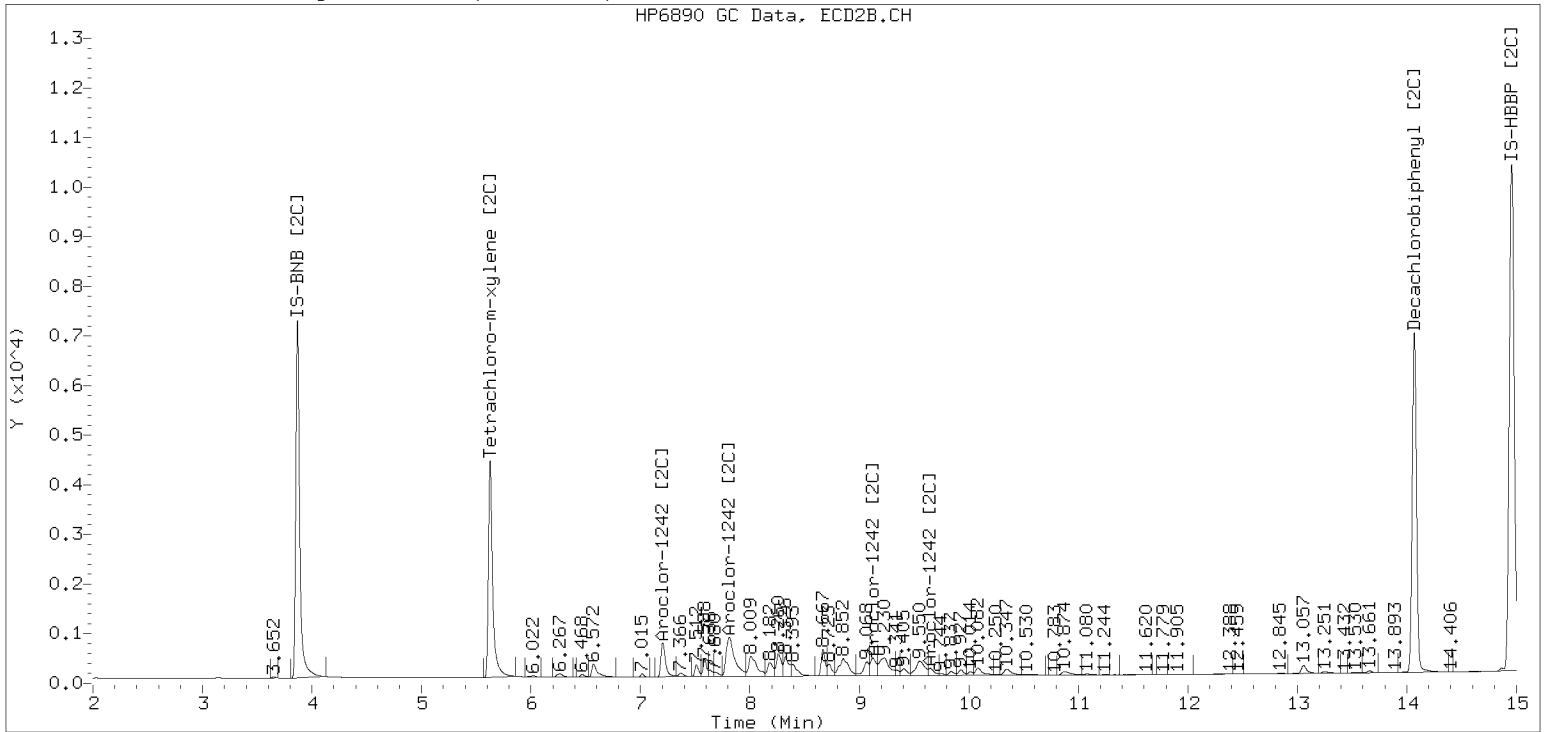
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052327ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052328ECD7.D
Data file 2: /230505.b/230505.b/05052328ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 06-MAY-2023 01:52
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.741	-0.001	363354	5.628	-0.000	193087	38.8	39.5	1.9	Tetrachloro-m-xylene
13.843	0.003	347513	14.070	0.002	386262	38.0	40.3	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	621905	3.4
Hexabromobiphenyl	876625	915805	4.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354920	1.6
Hexabromobiphenyl	652984	674778	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.399	0.000	39684	250.0	1	8.260	0.000	42211	250.0
Aroclor-1248	2	8.524	0.000	103126	250.0	2	8.667	0.000	44588	250.0
Aroclor-1248	3	8.944	0.000	198327	250.0	3	9.120	0.000	52266	250.0
Aroclor-1248	4	9.243	0.000	101099	250.0	4	9.546	0.000	62674	250.0
Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (5.842 - 13.740) = 1607435 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 866525 Col2 Total PCB = 0.2 ppm*

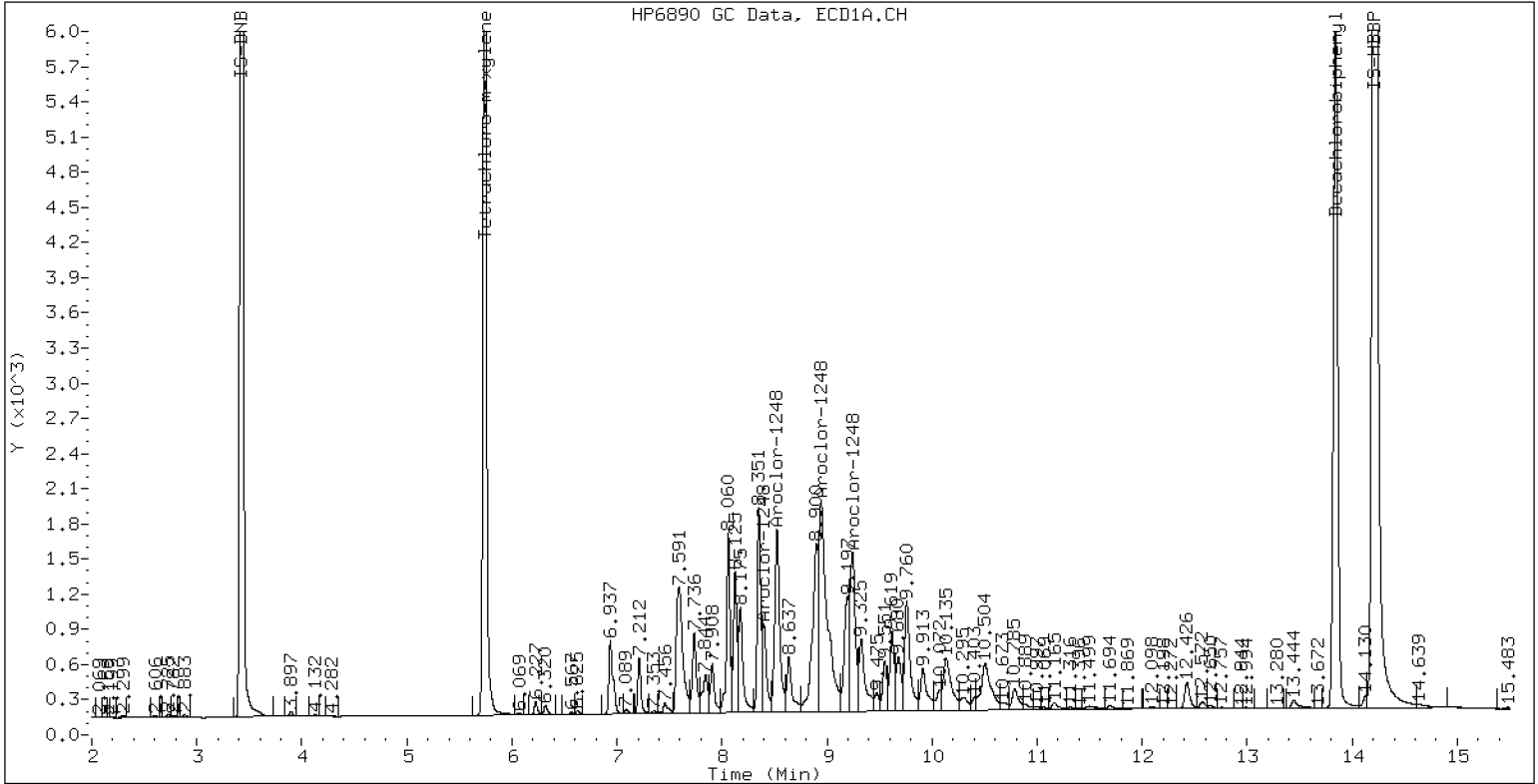
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248

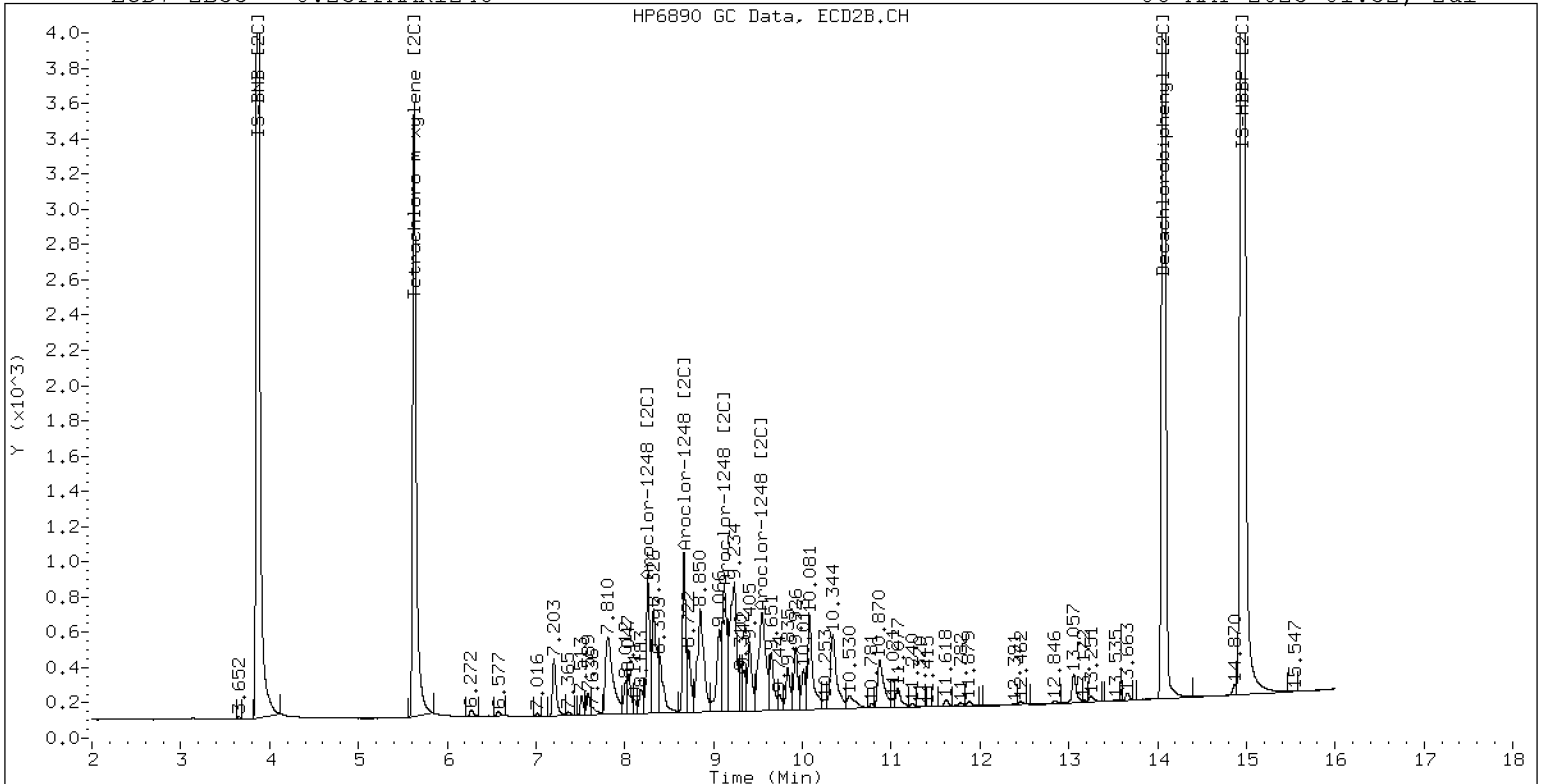
06-MAY-2023 01:52, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248

06-MAY-2023 01:52, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052329ECD7.D
Data file 2: /230505.b/230505.b/05052329ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 06-MAY-2023 02:13
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	357984	5.629	0.001	190255	37.8	38.5	1.8	Tetrachloro-m-xylene
13.842	0.002	347079	14.071	0.002	385540	37.4	39.8	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	628765	4.5
Hexabromobiphenyl	876625	929076	6.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359470	2.9
Hexabromobiphenyl	652984	682882	4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.246	0.000	161557	250.0	1	9.404	0.000	68278	250.0
Aroclor-1254	2	9.325	0.000	72588	250.0	2	9.499	0.000	40561	250.0
Aroclor-1254	3	9.618	0.000	104295	250.0	3	9.924	0.000	55343	250.0
Aroclor-1254	4	9.756	0.000	204288	250.0	4	10.078	0.000	120775	250.0
Aroclor-1254	5	10.126	0.000	123377	250.0	5	10.328	0.000	119827	250.0
Total CollAve (5 peaks):				250.0		Total Col2Ave (5 peaks):				250.0 RPD = 0
Corrected Ave (4 peaks):				250.0		Corrected Ave (4 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 2115446 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1173654 Col2 Total PCB = 0.3 ppm*

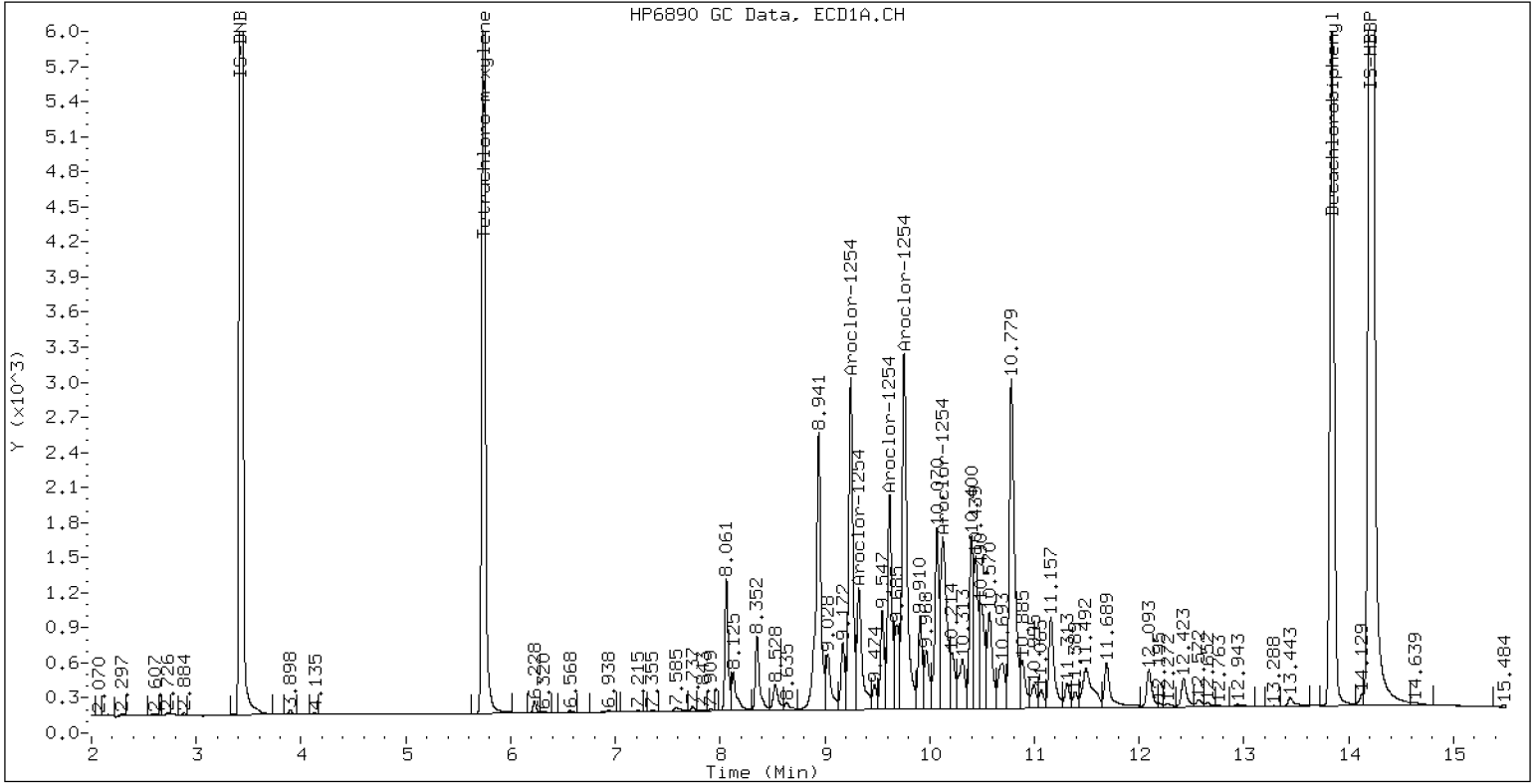
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254

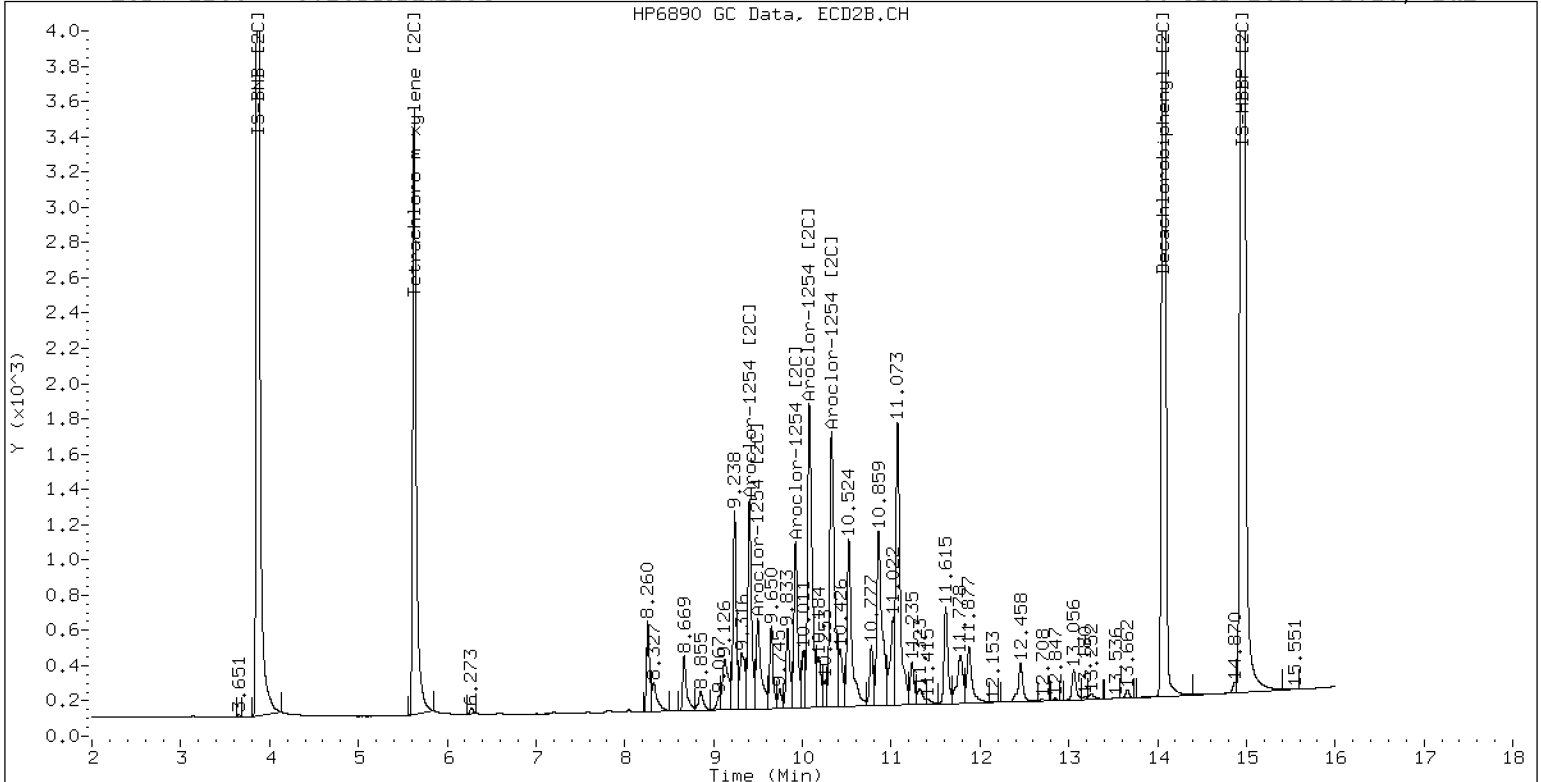
06-MAY-2023 02:13, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254

06-MAY-2023 02:13, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052330ECD7.D ARI ID: 0.25PPMAR2162
Data file 2: /230505.b/230505.b/05052330ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m Injection Date: 06-MAY-2023 02:34
Compound Sublist: AR2162.sub Report Date: 05/06/2023 11:30
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	379099	5.628	0.000	200082	39.7	40.8	2.7	Tetrachloro-m-xylene
13.842	0.001	358012	14.071	0.003	396142	38.1	40.5	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	634497	5.5
Hexabromobiphenyl	876625	940541	7.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	356713	2.1
Hexabromobiphenyl	652984	688599	5.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	4.663	0.000	11156	250.0	1	4.894	0.000	6578	250.0
Aroclor-1221	2	6.069	0.000	22382	250.0	2	6.245	0.000	13633	250.0
Aroclor-1221	3	6.321	0.000	53161	250.0	3	6.572	0.000	21443	250.0
Total CollAve (3 peaks):				250.0		Total Col2Ave (3 peaks):				250.0 RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Aroclor-1262	1	10.779	0.000	106373	250.0	1	11.153	0.000	139491	250.0
Aroclor-1262	2	12.195	0.000	149596	250.0	2	11.605	0.000	117643	250.0
Aroclor-1262	3	12.269	0.000	160810	250.0	3	12.386	0.000	128556	250.0
Aroclor-1262	4	12.939	0.000	131044	250.0	4	12.456	0.000	209520	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 2742242 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1852573 Col2 Total PCB = 0.4 ppm*

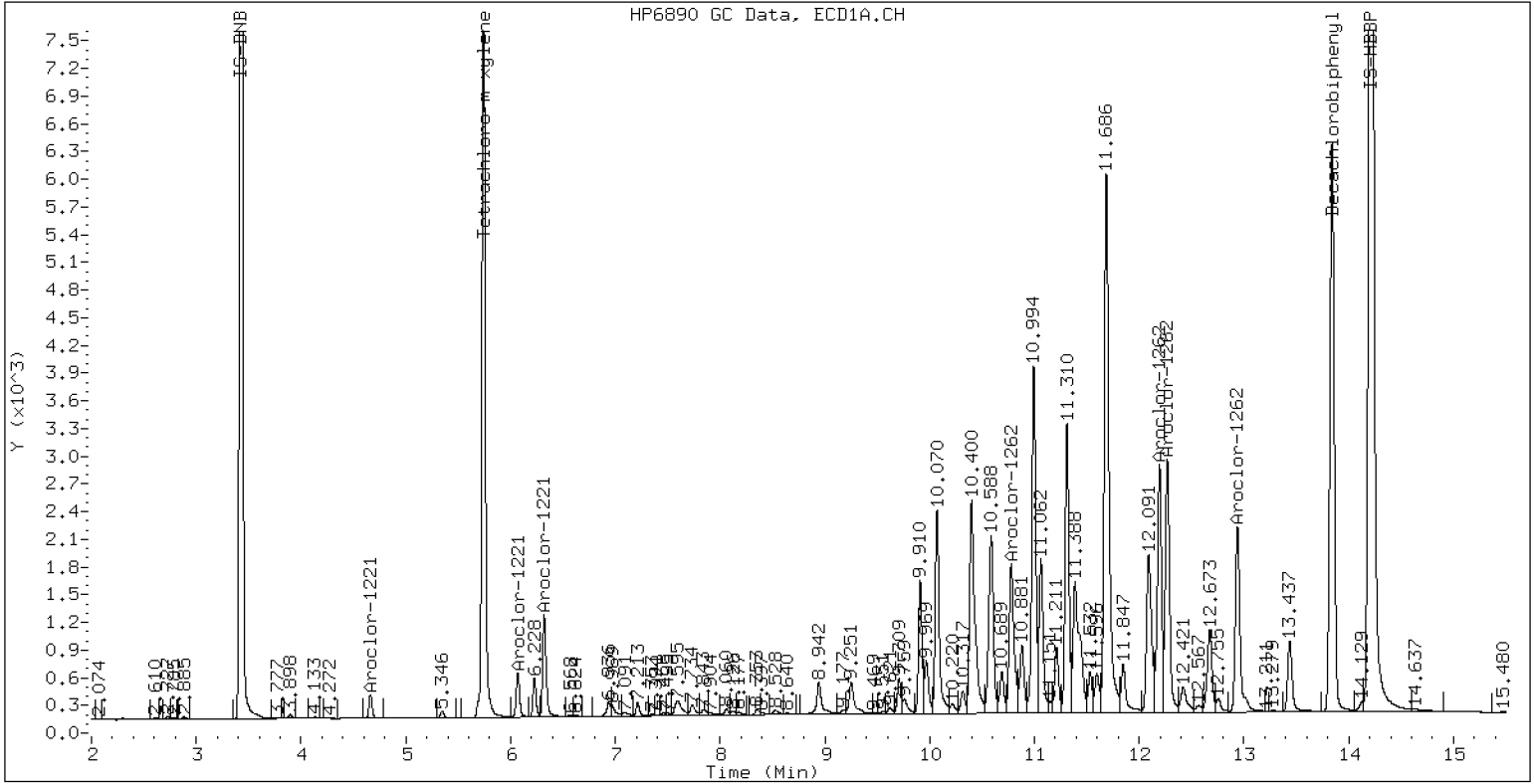
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2162

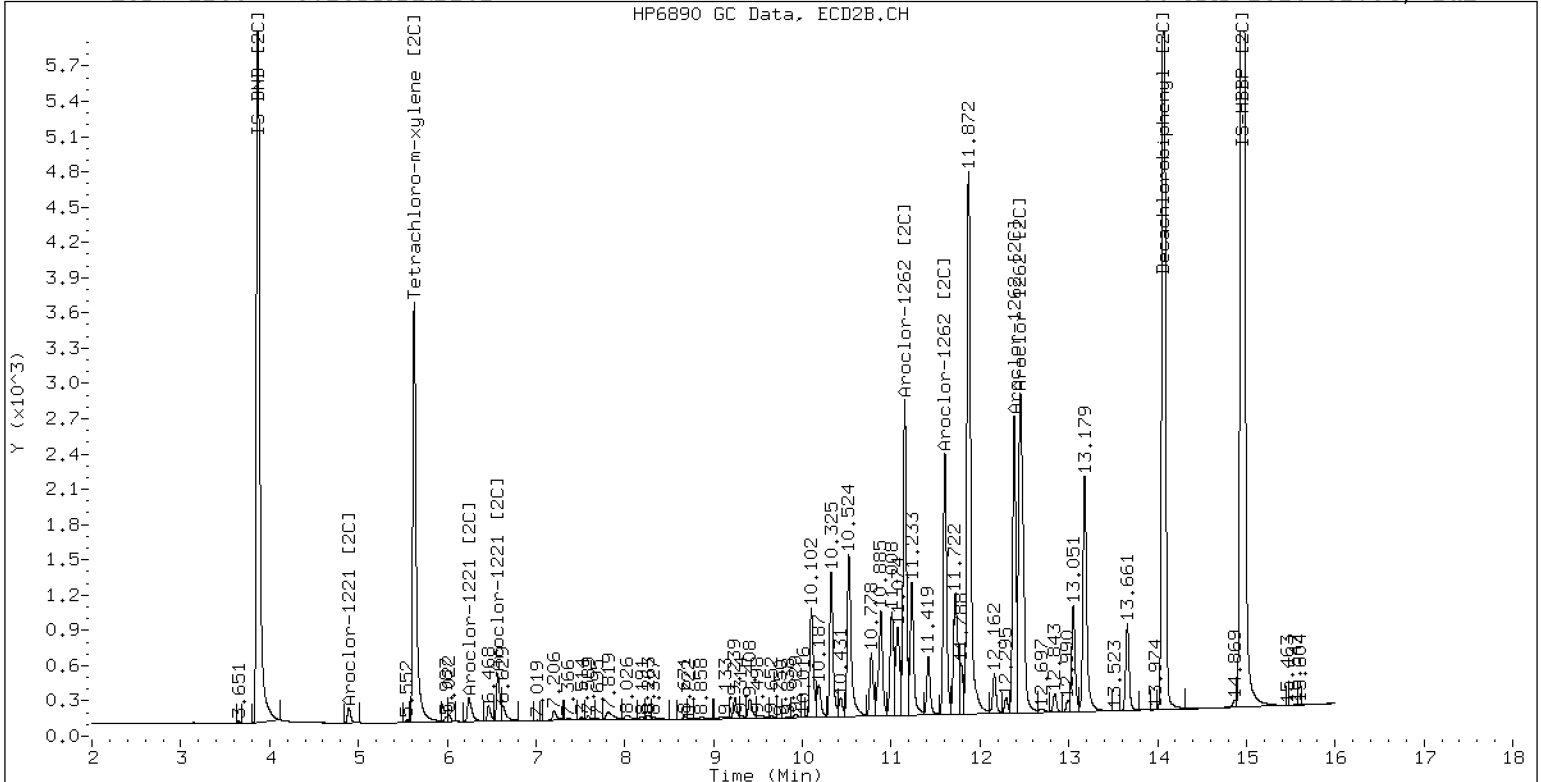
06-MAY-2023 02:34, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2162

06-MAY-2023 02:34, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052331ECD7.D
Data file 2: /230505.b/230505.b/05052331ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 06-MAY-2023 02:55
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	378314	5.628	0.000	200538	38.9	40.3	3.4	Tetrachloro-m-xylene
13.840	0.000	502472	14.068	0.000	573501	52.2	57.3	9.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	644974	7.2
Hexabromobiphenyl	876625	963091	9.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361821	3.6
Hexabromobiphenyl	652984	704753	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.664	0.000	7554	250.0	1	4.894	0.000	3508	250.0
Aroclor-1232	2	6.069	0.000	15718	250.0	2	7.205	0.000	20084	250.0
Aroclor-1232	3	7.595	0.000	74881	250.0	3	7.815	0.000	40344	250.0
Aroclor-1232	4	8.527	0.000	32051	250.0	4	8.669	0.000	11684	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.196	0.000	384005	250.0	1	12.385	0.000	333421	250.0
Aroclor-1268	2	12.268	0.000	381367	250.0	2	12.452	0.000	358458	250.0
Aroclor-1268	3	12.648	0.000	306717	250.0	3	12.843	0.000	306959	250.0
Aroclor-1268	4	13.437	0.000	875751	250.0	4	13.663	0.000	983908	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 3124318 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2731202 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052332ECD7.D
Data file 2: /230505.b/230505.b/05052332ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 06-MAY-2023 03:16
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	356595	9.840	-0.028	300	36.9	0.0	----	Tetrachloro-m-xylene
13.842	0.002	347188	9.537	0.045	1824	36.9	0.0	----	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	642284	6.8
Hexabromobiphenyl	876625	941356	7.4
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361711	3.6
Hexabromobiphenyl	652984	690563	5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	61654	247.9	1	7.205	0.001	50106	244.7
Aroclor-1016	2	7.594	-0.001	199228	256.2	2	7.811	0.003	109839	251.7
Aroclor-1016	3	7.734	0.001	89643	249.3	3	8.009	0.004	48594	252.5
Aroclor-1016	4	8.399	0.001	38714	261.0	4	8.260	0.001	36878	241.2
Total CollAve (4 peaks):				253.6		Total Col2Ave (4 peaks):				247.5 RPD = 2
Corrected Ave (3 peaks):				251.1		Corrected Ave (3 peaks):				245.9 RPD = 2
Aroclor-1221	1	4.663	-0.000	436	9.7	1	---			0.0
Aroclor-1221	2	6.068	-0.001	8521	94.0	2	6.251	0.005	5766	104.3
Aroclor-1221	3	6.320	-0.001	41973	195.0	3	6.572	0.000	23212	266.9
Total CollAve (3 peaks):				99.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.663	-0.000	436	14.5	1	---			0.0
Aroclor-1232	2	6.068	-0.002	8521	136.1	2	7.205	0.000	50106	623.9
Aroclor-1232	3	7.594	-0.001	199228	667.9	3	7.811	-0.004	109839	680.8
Aroclor-1232	4	8.526	-0.001	85985	673.5	4	8.667	-0.003	34670	742.1
Total CollAve (4 peaks):				373.0		Total Col2Ave (3 peaks):				682.3 RPD = 59*
Corrected Ave (3 peaks):				272.8		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	61654	304.6	1	7.205	0.001	50106	310.0
Aroclor-1242	2	7.594	-0.001	199228	310.7	2	7.811	-0.002	109839	319.4
Aroclor-1242	3	8.399	0.000	38714	312.1	3	9.069	-0.054	21513	195.1
Aroclor-1242	4	8.526	0.001	85985	299.5	4	9.650	0.100	1501	11.3
Total CollAve (4 peaks):				306.7		Total Col2Ave (4 peaks):				208.9 RPD = 38
Corrected Ave (3 peaks):				304.9		Corrected Ave (3 peaks):				172.1 RPD = 56*
Aroclor-1248	1	8.399	-0.000	38714	236.2	1	8.260	0.000	36878	214.3
Aroclor-1248	2	8.526	0.001	85985	201.8	2	8.667	-0.001	34670	190.7
Aroclor-1248	3	8.941	-0.003	81615	99.6	3	9.069	-0.051	21513	101.0
Aroclor-1248	4	9.249	0.006	52526	125.8	4	9.537	-0.008	1824	7.1
Total CollAve (4 peaks):				165.8		Total Col2Ave (4 peaks):				128.3 RPD = 26
Corrected Ave (3 peaks):				142.4		Corrected Ave (3 peaks):				99.6 RPD = 35
Aroclor-1254	1	9.249	0.003	52526	79.6	1	9.405	0.001	24726	90.0
Aroclor-1254	2	---			0.0	2	9.537	0.038	1824	11.2
Aroclor-1254	3	9.619	0.001	7081	16.6	3	9.926	0.002	3128	14.0
Aroclor-1254	4	9.756	0.001	21856	26.2	4	10.101	0.023	62581	128.7
Aroclor-1254	5	10.069	-0.057	159796	317.0	5	10.324	-0.004	85433	177.1
Total CollAve (4 peaks):				109.8		Total Col2Ave (5 peaks):				84.2 RPD = 26
Corrected Ave (3 peaks):				40.8		Corrected Ave (4 peaks):				61.0 RPD = 40
Aroclor-1260	1	10.995	0.001	145767	292.8	1	11.605	-0.000	99761	272.0
Aroclor-1260	2	11.311	0.001	142028	289.1	2	11.872	0.000	273505	285.1
Aroclor-1260	3	11.686	0.000	354468	288.1	3	12.389	0.001	70545	296.8
Aroclor-1260	4	12.092	0.002	161281	267.6	4	12.455	-0.000	180783	282.1
Aroclor-1260	5	12.194	0.001	76105	289.6	NS	---			----
Total CollAve (5 peaks):				285.5		Total Col2Ave (4 peaks):				284.0 RPD = 1
Corrected Ave (4 peaks):				283.6		Corrected Ave (3 peaks):				279.8 RPD = 1
Aroclor-1262	1	10.777	-0.001	215850	506.9	1	11.153	-0.001	104059	186.0
Aroclor-1262	2	12.194	-0.000	76105	127.1	2	11.605	0.001	99761	211.4
Aroclor-1262	3	12.271	0.001	94628	147.0	3	12.389	0.003	70545	136.8
Aroclor-1262	4	12.939	-0.000	78852	150.3	4	12.455	-0.001	180783	215.1
Total CollAve (4 peaks):				232.8		Total Col2Ave (4 peaks):				187.3 RPD = 22
Corrected Ave (3 peaks):				141.5		Corrected Ave (3 peaks):				178.1 RPD = 23
Aroclor-1268	1	12.194	-0.001	76105	50.7	1	12.389	0.004	70545	54.0
Aroclor-1268	2	12.271	0.003	94628	63.5	2	12.455	0.003	180783	128.7
Aroclor-1268	3	12.675	0.026	38830	32.4	3	12.844	0.001	3082	2.6
Aroclor-1268	4	13.440	0.003	19986	5.8	4	13.661	-0.002	14882	3.9
Total CollAve (4 peaks):				38.1		Total Col2Ave (4 peaks):				47.3 RPD = 21
Corrected Ave (3 peaks):				29.6		Corrected Ave (3 peaks):				20.1 RPD = 38

Total PCB Area Col1 (5.842 - 13.740) = 3657118 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.842 - 13.740) = 2240312 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052333ECD7.D
Data file 2: /230505.b/230505.b/05052333ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 06-MAY-2023 03:36
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag
RT	Shift Response	RT	Shift Response	on col	on col		
5.744	0.002 319899	9.837	-0.030 6399	32.8	0.0	----	Tetrachloro-m-xylene
13.842	0.002 398699	----		40.9	0.0	----	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	648004	7.7
Hexabromobiphenyl	876625	976327	11.4

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	365379	4.6
Hexabromobiphenyl	652984	695394	6.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.001	47446	189.1	1	7.205	0.001	36469	176.3
Aroclor-1016	2	7.594	-0.000	147684	188.2	2	7.814	0.007	77885	176.7
Aroclor-1016	3	7.735	0.002	67175	185.2	3	8.012	0.006	38400	197.5
Aroclor-1016	4	8.398	0.000	30565	204.3	4	8.261	0.002	27551	178.4
Total CollAve (4 peaks):				191.7		Total Col2Ave (4 peaks):				182.2 RPD = 5
Corrected Ave (3 peaks):				187.5		Corrected Ave (3 peaks):				177.1 RPD = 6
Aroclor-1221	1	4.666	0.002	870	19.1	1	---			0.0
Aroclor-1221	2	6.069	0.000	7118	77.8	2	6.257	0.011	4359	78.0
Aroclor-1221	3	6.322	0.001	32969	151.8	3	6.573	0.001	16609	189.0
Total CollAve (3 peaks):				82.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.666	0.002	870	28.7	1	---			0.0
Aroclor-1232	2	6.069	0.000	7118	112.7	2	7.205	-0.000	36469	449.5
Aroclor-1232	3	7.594	-0.001	147684	490.8	3	7.814	-0.001	77885	477.9
Aroclor-1232	4	8.526	-0.000	70601	548.1	4	8.668	-0.001	25417	538.5
Total CollAve (4 peaks):				295.1		Total Col2Ave (3 peaks):				488.7 RPD = 49*
Corrected Ave (3 peaks):				210.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	47446	232.4	1	7.205	0.001	36469	223.3
Aroclor-1242	2	7.594	-0.000	147684	228.2	2	7.814	0.002	77885	224.2
Aroclor-1242	3	8.398	0.000	30565	244.2	3	9.124	0.001	25864	232.2
Aroclor-1242	4	8.526	0.002	70601	243.8	4	9.552	0.001	32437	241.7
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				230.4 RPD = 3
Corrected Ave (3 peaks):				234.8		Corrected Ave (3 peaks):				226.6 RPD = 4
Aroclor-1248	1	8.398	-0.001	30565	184.8	1	8.261	0.001	27551	158.5
Aroclor-1248	2	8.526	0.002	70601	164.3	2	8.668	0.001	25417	138.4
Aroclor-1248	3	8.946	0.002	172847	209.1	3	9.124	0.004	25864	120.2
Aroclor-1248	4	9.243	-0.001	87363	207.3	4	9.552	0.006	32437	125.7
Total CollAve (4 peaks):				191.4		Total Col2Ave (4 peaks):				135.7 RPD = 34
Corrected Ave (3 peaks):				185.5		Corrected Ave (3 peaks):				128.1 RPD = 37
Aroclor-1254	1	9.243	-0.004	87363	131.2	1	9.406	0.002	13247	47.7
Aroclor-1254	2	9.326	0.001	28949	96.7	2	9.552	0.053	32437	196.7
Aroclor-1254	3	9.622	0.004	20780	48.3	3	9.927	0.003	10002	44.5
Aroclor-1254	4	9.762	0.006	35470	42.1	4	10.082	0.005	19933	40.6
Aroclor-1254	5	10.140	0.015	28075	55.2	5	10.341	0.013	19432	39.9
Total CollAve (5 peaks):				74.7		Total Col2Ave (5 peaks):				73.9 RPD = 1
Corrected Ave (4 peaks):				60.6		Corrected Ave (4 peaks):				43.2 RPD = 34
Aroclor-1260	1	10.998	0.005	3609	7.0	1	11.618	0.012	2137	5.8
Aroclor-1260	2	11.317	0.007	3837	7.5	2	11.879	0.007	1437	1.5
Aroclor-1260	3	11.765	0.080	33905	26.6	3	12.382	-0.006	12460	52.1
Aroclor-1260	4	12.097	0.007	9099	14.6	4	---			0.0
Aroclor-1260	5	12.272	0.079	2060	7.6	NS	---			---
Total CollAve (5 peaks):				12.6		Total Col2Ave (3 peaks):				19.8 RPD = 44*
Corrected Ave (4 peaks):				9.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.787	0.009	24040	54.4	1	11.078	-0.075	7864	14.0
Aroclor-1262	2	12.272	0.077	2060	3.3	2	11.618	0.013	2137	4.5
Aroclor-1262	3	---			0.0	3	12.382	-0.004	12460	24.0
Aroclor-1262	4	12.937	-0.002	16041	29.5	4	---			0.0
Total CollAve (3 peaks):				29.1		Total Col2Ave (3 peaks):				14.1 RPD = 69*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.272	0.076	2060	1.3	1	12.382	-0.003	12460	9.5
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	4324	3.5	3	12.845	0.002	951	0.8
Aroclor-1268	4	13.442	0.005	15801	4.4	4	13.628	-0.035	6512	1.7
Total CollAve (3 peaks):				3.1		Total Col2Ave (3 peaks):				4.0 RPD = 25
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.842 - 13.740) = 1489022 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.842 - 13.740) = 667658 Col2 Total PCB = 0.2 ppm*

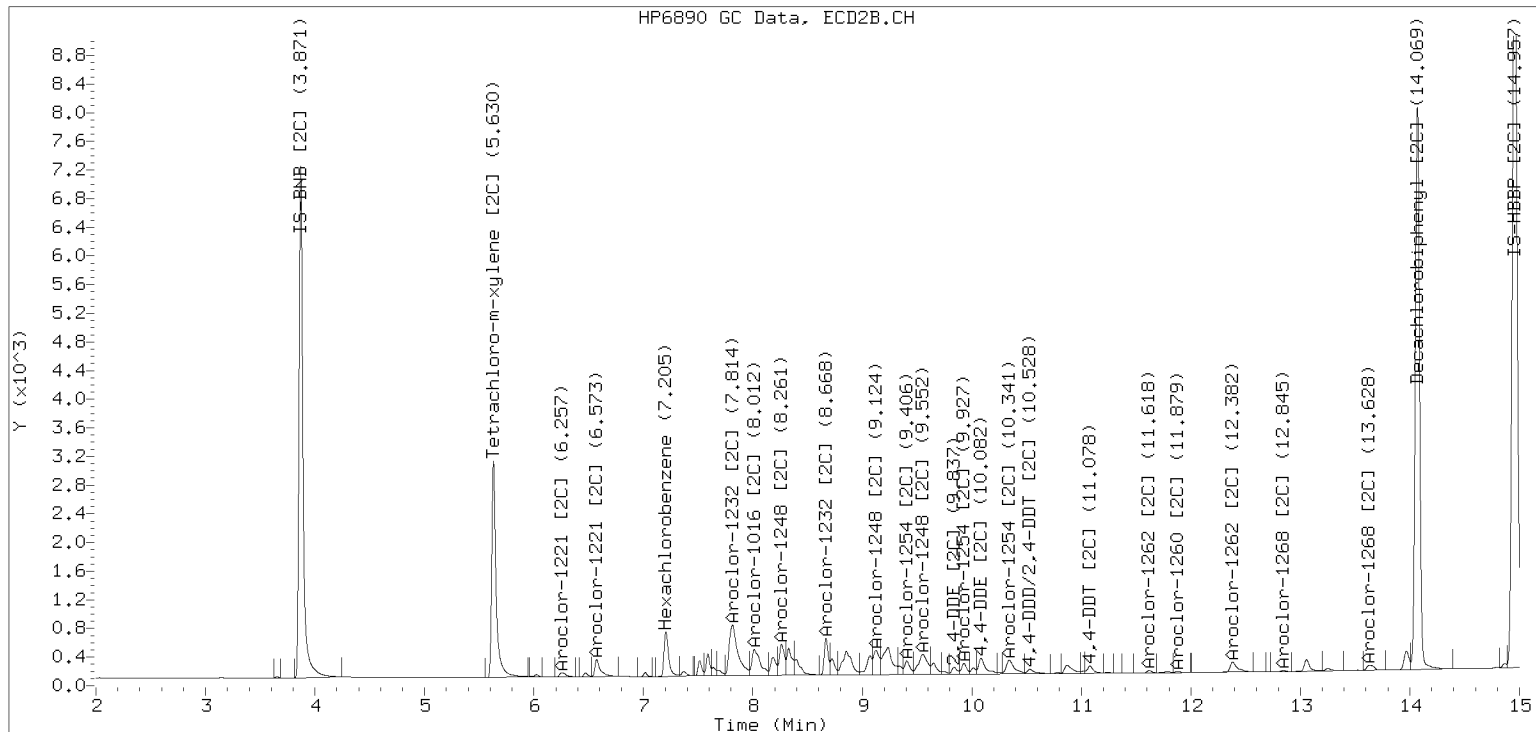
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

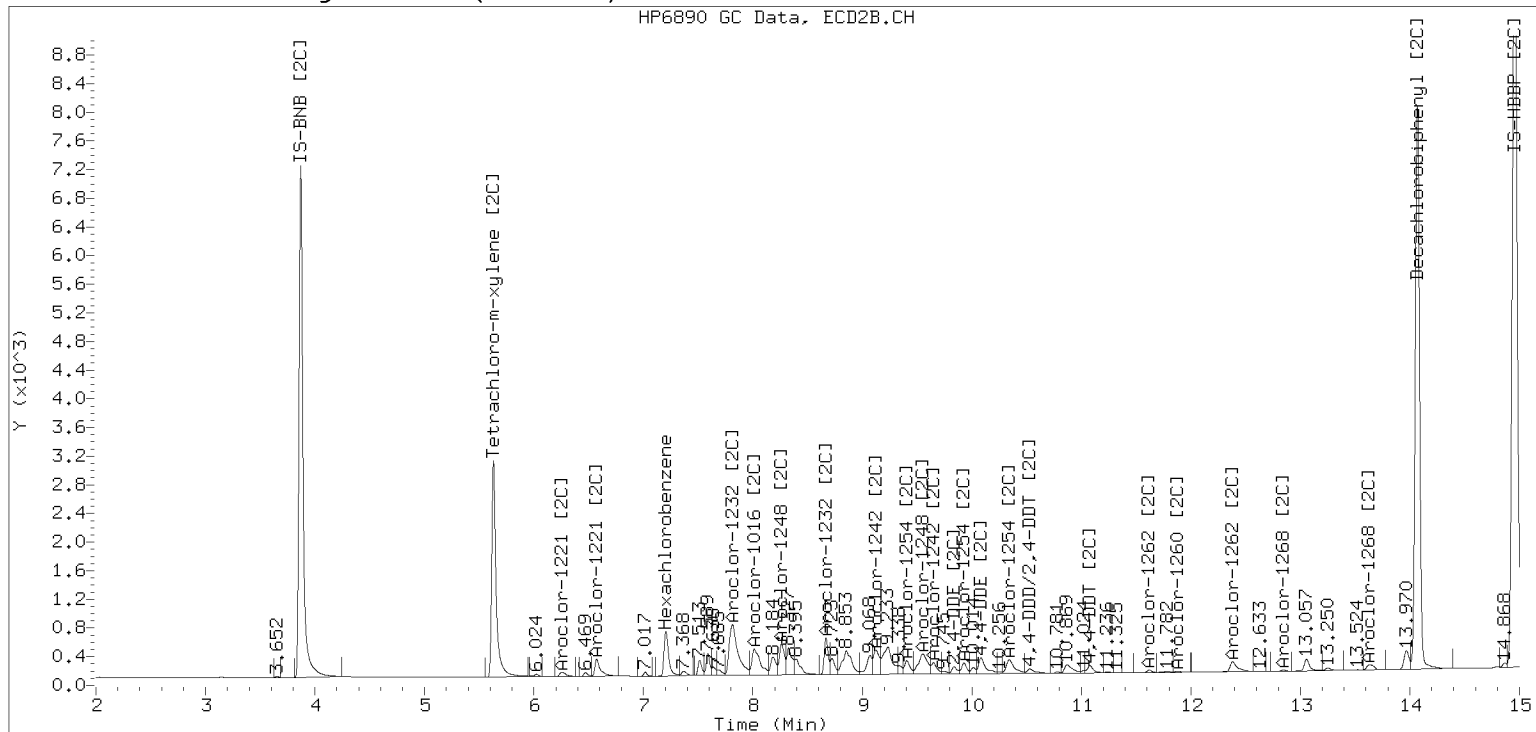
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052333ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052334ECD7.D
Data file 2: /230505.b/230505.b/05052334ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 06-MAY-2023 03:57
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
5.741	-0.001	356328	9.834	-0.033	15805	36.8	0.0	----	Tetrachloro-m-xylene
13.842	0.001	339452	----			35.7	0.0	----	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	643038	6.9
Hexabromobiphenyl	876625	952051	8.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359604	3.0
Hexabromobiphenyl	652984	692982	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	19871	79.8	1	7.203	-0.001	18843	92.6
Aroclor-1016	2	7.589	-0.006	95111	122.2	2	7.812	0.005	52352	120.7
Aroclor-1016	3	7.736	0.003	37565	104.4	3	8.012	0.006	8263	43.2
Aroclor-1016	4	8.399	0.002	41542	279.7	4	8.260	0.001	42833	281.8
Total CollAve (4 peaks):				146.5		Total Col2Ave (4 peaks):				134.6 RPD = 9
Corrected Ave (3 peaks):				102.1		Corrected Ave (3 peaks):				85.5 RPD = 18
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.066	-0.003	351	3.9	2	6.275	0.029	1573	28.6
Aroclor-1221	3	6.320	-0.001	3509	16.3	3	6.576	0.004	967	11.2
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.066	-0.003	351	5.6	2	7.203	-0.001	18843	236.0
Aroclor-1232	3	7.589	-0.006	95111	318.5	3	7.812	-0.002	52352	326.4
Aroclor-1232	4	8.524	-0.002	105782	827.6	4	8.667	-0.002	44962	968.0
Total CollAve (3 peaks):				383.9		Total Col2Ave (3 peaks):				510.1 RPD = 28
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.212	0.000	19871	98.1	1	7.203	-0.000	18843	117.2
Aroclor-1242	2	7.589	-0.006	95111	148.1	2	7.812	-0.000	52352	153.1
Aroclor-1242	3	8.399	0.001	41542	334.5	3	9.120	-0.003	52681	480.6
Aroclor-1242	4	8.524	-0.000	105782	368.1	4	9.650	0.100	23342	176.7
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				231.9 RPD = 2
Corrected Ave (3 peaks):				193.6		Corrected Ave (3 peaks):				149.0 RPD = 26
Aroclor-1248	1	8.399	0.001	41542	253.1	1	8.260	-0.001	42833	250.4
Aroclor-1248	2	8.524	-0.000	105782	248.0	2	8.667	0.000	44962	248.8
Aroclor-1248	3	8.944	-0.000	206928	252.3	3	9.120	-0.000	52681	248.7
Aroclor-1248	4	9.242	-0.001	105227	251.7	4	9.548	0.002	63343	249.4
Total CollAve (4 peaks):				251.3		Total Col2Ave (4 peaks):				249.3 RPD = 1
Corrected Ave (3 peaks):				250.6		Corrected Ave (3 peaks):				249.0 RPD = 1
Aroclor-1254	1	9.242	-0.004	105227	159.2	1	9.404	0.000	25835	94.6
Aroclor-1254	2	9.324	-0.001	51326	172.8	2	9.548	0.049	63343	390.3
Aroclor-1254	3	9.619	0.001	41394	97.0	3	9.925	0.001	22609	102.1
Aroclor-1254	4	9.759	0.003	72223	86.4	4	10.079	0.001	43816	90.7
Aroclor-1254	5	10.135	0.010	49936	98.9	5	10.345	0.016	42513	88.7
Total CollAve (5 peaks):				122.9		Total Col2Ave (5 peaks):				153.3 RPD = 22
Corrected Ave (4 peaks):				110.4		Corrected Ave (4 peaks):				94.0 RPD = 16
Aroclor-1260	1	10.998	0.005	1863	3.7	1	11.617	0.011	2599	7.1
Aroclor-1260	2	11.314	0.004	1152	2.3	2	11.877	0.005	1951	2.0
Aroclor-1260	3	11.695	0.009	1829	1.5	3	12.389	0.001	857	3.6
Aroclor-1260	4	12.097	0.007	1266	2.1	4	12.458	0.003	1302	2.0
Aroclor-1260	5	12.195	0.002	464	1.7	NS	---			----
Total CollAve (5 peaks):				2.3		Total Col2Ave (4 peaks):				3.7 RPD = 48*
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				2.5 RPD = 29
Aroclor-1262	1	10.784	0.005	15405	35.8	1	11.077	-0.077	9003	16.0
Aroclor-1262	2	12.195	0.000	464	0.8	2	11.617	0.012	2599	5.5
Aroclor-1262	3	12.271	0.002	489	0.8	3	12.389	0.003	857	1.7
Aroclor-1262	4	12.940	0.001	1638	3.1	4	12.458	0.002	1302	1.5
Total CollAve (4 peaks):				10.1		Total Col2Ave (4 peaks):				6.2 RPD = 48*
Corrected Ave (3 peaks):				1.5		Corrected Ave (3 peaks):				2.9 RPD = 61*
Aroclor-1268	1	12.195	-0.001	464	0.3	1	12.389	0.004	857	0.7
Aroclor-1268	2	12.271	0.003	489	0.3	2	12.458	0.006	1302	0.9
Aroclor-1268	3	12.649	0.001	1831	1.5	3	12.845	0.002	676	0.6
Aroclor-1268	4	13.443	0.006	5387	1.6	4	13.661	-0.003	2707	0.7
Total CollAve (4 peaks):				0.9		Total Col2Ave (4 peaks):				0.7 RPD = 26
Corrected Ave (3 peaks):				0.7		Corrected Ave (3 peaks):				0.6 RPD = 11

Total PCB Area Col1 (5.842 - 13.740) = 1634238 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.842 - 13.740) = 874053 Col2 Total PCB = 0.2 ppm*

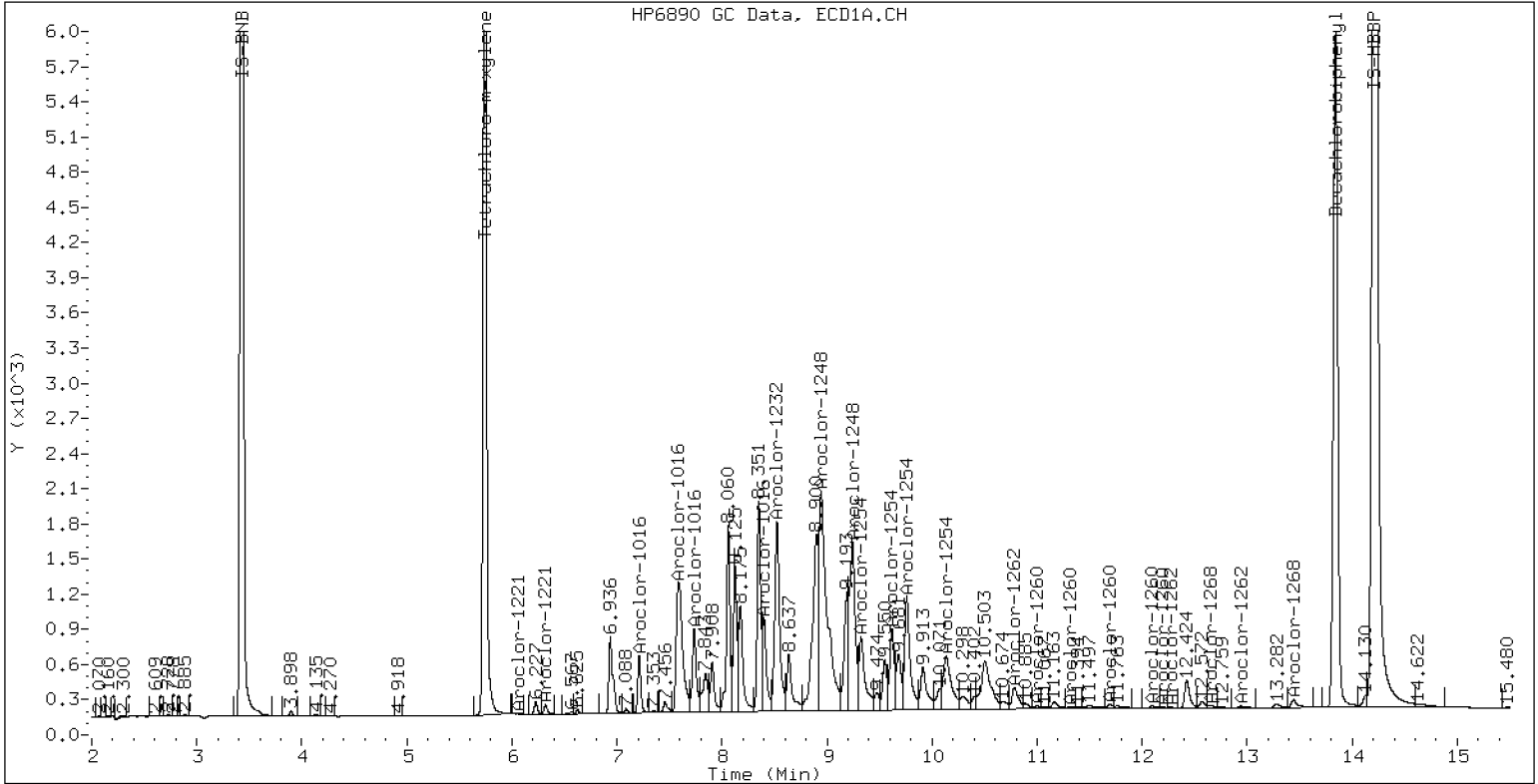
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV

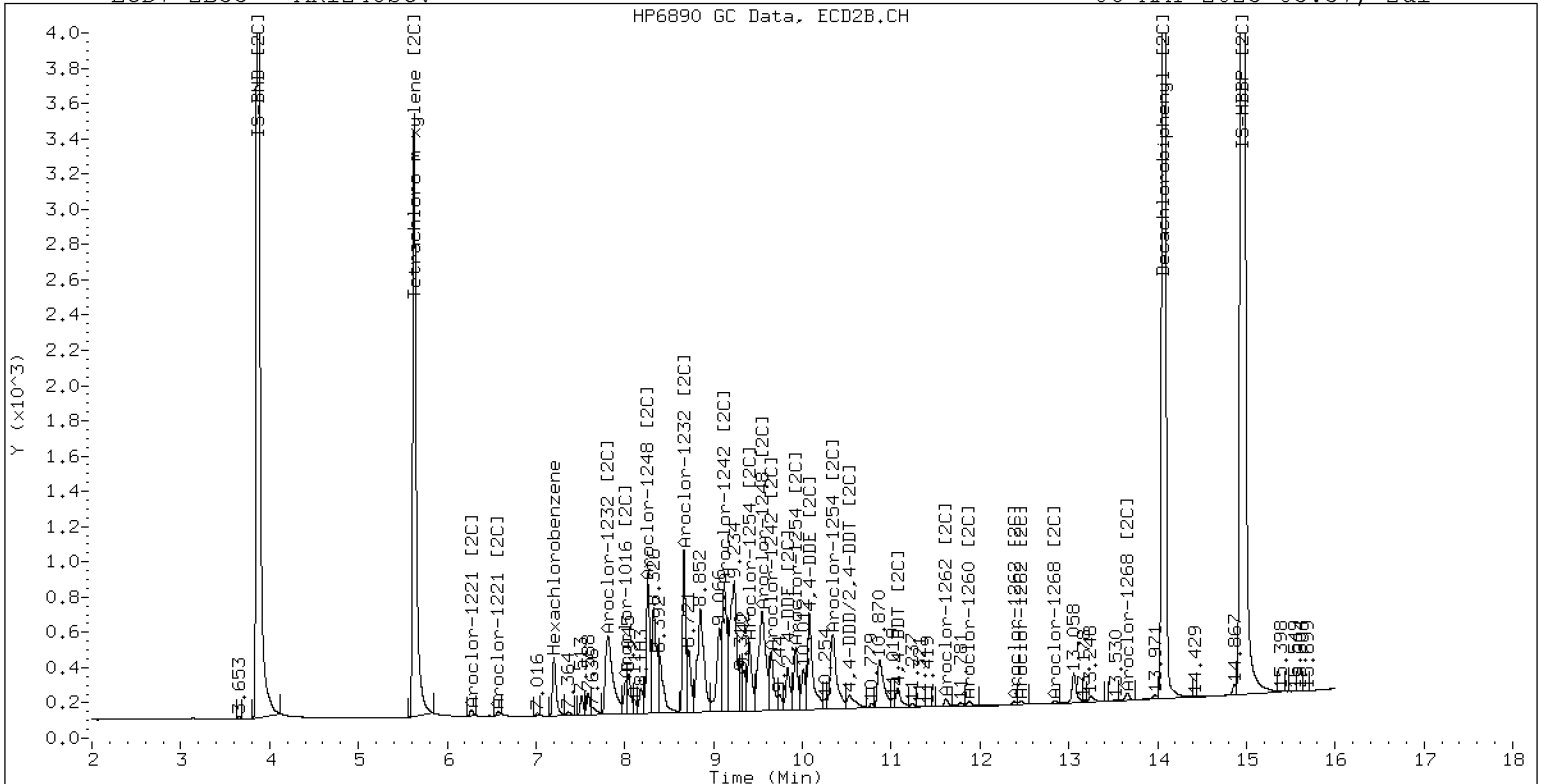
06-MAY-2023 03:57, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248SCV

06-MAY-2023 03:57, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052335ECD7.D
Data file 2: /230505.b/230505.b/05052335ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 06-MAY-2023 04:18
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368022	5.631	0.002	192033	37.6	38.3	2.0	Tetrachloro-m-xylene
13.843	0.002	352066	14.070	0.002	385384	36.0	38.5	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	650234	8.1
Hexabromobiphenyl	876625	980276	11.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	364142	4.3
Hexabromobiphenyl	652984	705291	8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.002	635	2.5	1	---			0.0
Aroclor-1016	2	7.590	-0.004	2512	3.2	2	---			0.0
Aroclor-1016	3	7.738	0.005	1594	4.4	3	---			0.0
Aroclor-1016	4	8.351	-0.047	31774	211.6	4	---			0.0
Total CollAve (4 peaks):				55.4		Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.052	-0.018	242	2.6	2	---			0.0
Aroclor-1221	3	6.322	0.001	427	2.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.052	-0.018	242	3.8	2	---			0.0
Aroclor-1232	3	7.590	-0.005	2512	8.3	3	---			0.0
Aroclor-1232	4	8.528	0.001	13950	107.9	4	---			0.0
Total CollAve (3 peaks):				40.0		Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.214	0.002	635	3.1	1	---			0.0
Aroclor-1242	2	7.590	-0.005	2512	3.9	2	---			0.0
Aroclor-1242	3	8.351	-0.047	31774	253.0	3	9.125	0.002	23963	215.9
Aroclor-1242	4	8.528	0.004	13950	48.0	4	9.649	0.099	23982	179.3
Total CollAve (4 peaks):				77.0		Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.351	-0.048	31774	191.4	1	8.260	-0.000	23490	135.6
Aroclor-1248	2	8.528	0.004	13950	32.3	2	8.669	0.002	16693	91.2
Aroclor-1248	3	8.941	-0.003	154338	186.1	3	9.125	0.005	23963	111.7
Aroclor-1248	4	9.246	0.003	158369	374.6	4	9.499	-0.047	38716	150.5
Total CollAve (4 peaks):				196.1		Total Col2Ave (4 peaks): 122.3 RPD = 46*				
Corrected Ave (3 peaks):				136.6		Corrected Ave (3 peaks): 112.8 RPD = 19				
Aroclor-1254	1	9.246	-0.001	158369	237.0	1	9.404	0.000	67493	244.0
Aroclor-1254	2	9.325	-0.000	72386	241.1	2	9.499	-0.000	38716	235.6
Aroclor-1254	3	9.617	-0.001	103602	240.1	3	9.925	0.001	53972	240.7
Aroclor-1254	4	9.756	0.000	201259	238.2	4	10.079	0.001	116950	239.0
Aroclor-1254	5	10.127	0.001	122207	239.5	5	10.327	-0.001	118439	243.9
Total CollAve (5 peaks):				239.2		Total Col2Ave (5 peaks): 240.6 RPD = 1				
Corrected Ave (4 peaks):				238.7		Corrected Ave (4 peaks): 239.8 RPD = 0				
Aroclor-1260	1	10.994	0.001	13538	26.1	1	11.615	0.009	33465	89.3
Aroclor-1260	2	11.313	0.003	13900	27.2	2	11.876	0.004	25534	26.1
Aroclor-1260	3	11.689	0.004	32548	25.4	3	12.404	0.016	1811	7.5
Aroclor-1260	4	12.093	0.003	25285	40.3	4	12.458	0.002	14842	22.7
Aroclor-1260	5	12.273	0.079	2534	9.3	NS	---			---
Total CollAve (5 peaks):				25.6		Total Col2Ave (4 peaks): 36.4 RPD = 35				
Corrected Ave (4 peaks):				22.0		Corrected Ave (3 peaks): 18.7 RPD = 16				
Aroclor-1262	1	10.779	0.000	210018	473.6	1	11.073	-0.081	114323	200.0
Aroclor-1262	2	12.273	0.078	2534	4.1	2	11.615	0.010	33465	69.4
Aroclor-1262	3	---			0.0	3	12.404	0.018	1811	3.4
Aroclor-1262	4	12.939	0.001	1830	3.3	4	12.458	0.002	14842	17.3
Total CollAve (3 peaks):				160.3		Total Col2Ave (4 peaks): 72.6 RPD = 75*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 30.1				
Aroclor-1268	1	12.273	0.077	2534	1.6	1	12.404	0.019	1811	1.4
Aroclor-1268	2	---			0.0	2	12.458	0.005	14842	10.3
Aroclor-1268	3	12.654	0.006	2669	2.1	3	12.847	0.004	835	0.7
Aroclor-1268	4	13.442	0.004	6266	1.8	4	13.662	-0.001	2350	0.6
Total CollAve (3 peaks):				1.8		Total Col2Ave (4 peaks): 3.2 RPD = 55*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 0.9				

Total PCB Area Col1 (5.842 - 13.740) = 2123119 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 1146487 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052336ECD7.D
Data file 2: /230505.b/230505.b/05052336ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 06-MAY-2023 04:39
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	358254	5.628	-0.000	183759	37.8	39.1	3.3	Tetrachloro-m-xylene
13.842	0.002	344347	14.070	0.002	373300	37.1	38.8	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	629547	4.7
Hexabromobiphenyl	876625	929713	6.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	341980	-2.1
Hexabromobiphenyl	652984	678097	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.000	6601	27.1	1	7.207	0.003	3935	20.3	
Aroclor-1016	2	7.595	0.000	13419	17.6	2	7.821	0.013	6146	14.9	
Aroclor-1016	3	7.735	0.003	7114	20.2	3	8.027	0.021	3201	17.6	
Aroclor-1016	4	8.353	-0.045	3916	26.9	4	8.262	0.003	2131	14.7	
Total CollAve (4 peaks):				23.0	Total Col2Ave (4 peaks):				16.9	RPD = 30	
Corrected Ave (3 peaks):				21.6	Corrected Ave (3 peaks):				15.7	RPD = 31	
Aroclor-1221	1	4.663	-0.001	13184	297.8	1	4.893	-0.001	7253	287.5	
Aroclor-1221	2	6.070	0.000	25527	287.4	2	6.244	-0.001	14853	284.1	
Aroclor-1221	3	6.321	0.000	59985	284.3	3	6.571	-0.001	24083	292.9	
Total CollAve (3 peaks):				289.8	Total Col2Ave (3 peaks):				288.2	RPD = 1	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.663	-0.001	13184	447.0	1	4.893	-0.001	7253	546.9	
Aroclor-1232	2	6.070	0.000	25527	416.0	2	7.207	0.002	3935	51.8	
Aroclor-1232	3	7.595	-0.000	13419	45.9	3	7.821	0.006	6146	40.3	
Aroclor-1232	4	8.528	0.001	2679	21.4	4	8.671	0.002	1120	25.4	
Total CollAve (4 peaks):				232.6	Total Col2Ave (4 peaks):				166.1	RPD = 33	
Corrected Ave (3 peaks):				161.1	Corrected Ave (3 peaks):				39.2	RPD = 122*	
Aroclor-1242	1	7.213	0.001	6601	33.3	1	7.207	0.004	3935	25.7	
Aroclor-1242	2	7.595	-0.000	13419	21.3	2	7.821	0.008	6146	18.9	
Aroclor-1242	3	8.353	-0.045	3916	32.2	3	9.133	0.010	881	8.5	
Aroclor-1242	4	8.528	0.003	2679	9.5	4	9.651	0.101	516	4.1	
Total CollAve (4 peaks):				24.1	Total Col2Ave (4 peaks):				14.3	RPD = 51*	
Corrected Ave (3 peaks):				21.0	Corrected Ave (3 peaks):				10.5	RPD = 67*	
Aroclor-1248	1	8.353	-0.046	3916	24.4	1	8.262	0.002	2131	13.1	
Aroclor-1248	2	8.528	0.003	2679	6.4	2	8.671	0.004	1120	6.5	
Aroclor-1248	3	8.942	-0.002	25144	31.3	3	9.133	0.013	881	4.4	
Aroclor-1248	4	9.251	0.008	25583	62.5	4	9.500	-0.045	335	1.4	
Total CollAve (4 peaks):				31.1	Total Col2Ave (4 peaks):				6.3	RPD = 132*	
Corrected Ave (3 peaks):				20.7	Corrected Ave (3 peaks):				4.1	RPD = 134*	
Aroclor-1254	1	9.251	0.005	25583	39.5	1	9.408	0.004	9719	37.4	
Aroclor-1254	2	---			0.0	2	9.500	0.001	335	2.2	
Aroclor-1254	3	9.620	0.002	4245	10.2	3	9.928	0.004	2055	9.8	
Aroclor-1254	4	9.758	0.003	11050	13.5	4	10.100	0.022	55162	120.0	
Aroclor-1254	5	10.071	-0.055	129151	261.4	5	10.325	-0.004	68421	150.1	
Total CollAve (4 peaks):				81.1	Total Col2Ave (5 peaks):				63.9	RPD = 24	
Corrected Ave (3 peaks):				21.1	Corrected Ave (4 peaks):				42.3	RPD = 67*	
Aroclor-1260	1	10.995	0.002	206643	420.3	1	11.605	-0.001	119902	332.9	
Aroclor-1260	2	11.311	0.001	167443	345.1	2	11.872	0.000	293746	311.8	
Aroclor-1260	3	11.687	0.001	390491	321.4	3	12.386	-0.002	131462	563.2	
Aroclor-1260	4	12.091	0.001	120118	201.8	4	12.456	0.000	212898	338.4	
Aroclor-1260	5	12.195	0.002	155588	599.5	NS	---			----	
Total CollAve (5 peaks):				377.6	Total Col2Ave (4 peaks):				386.6	RPD = 2	
Corrected Ave (4 peaks):				322.2	Corrected Ave (3 peaks):				327.7	RPD = 2	
Aroclor-1262	1	10.777	-0.001	114050	271.2	1	11.153	0.000	141861	258.2	
Aroclor-1262	2	12.195	0.001	155588	263.0	2	11.605	0.000	119902	258.7	
Aroclor-1262	3	12.269	0.000	167998	264.2	3	12.386	-0.000	131462	259.6	
Aroclor-1262	4	12.938	-0.001	136019	262.5	4	12.456	0.000	212898	258.0	
Total CollAve (4 peaks):				265.2	Total Col2Ave (4 peaks):				258.6	RPD = 3	
Corrected Ave (3 peaks):				263.3	Corrected Ave (3 peaks):				258.3	RPD = 2	
Aroclor-1268	1	12.195	-0.000	155588	104.9	1	12.386	0.001	131462	102.4	
Aroclor-1268	2	12.269	0.001	167998	114.1	2	12.456	0.003	212898	154.3	
Aroclor-1268	3	12.675	0.027	60611	51.2	3	12.843	-0.000	8393	7.1	
Aroclor-1268	4	13.439	0.001	49821	14.7	4	13.661	-0.002	39480	10.4	
Total CollAve (4 peaks):				71.2	Total Col2Ave (4 peaks):				68.6	RPD = 4	

Corrected Ave (3 peaks): 56.9 Corrected Ave (3 peaks): 40.0 RPD = 35

Total PCB Area Col1 (5.842 - 13.740) = 2870829 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1885829 Col2 Total PCB = 0.5 ppm*

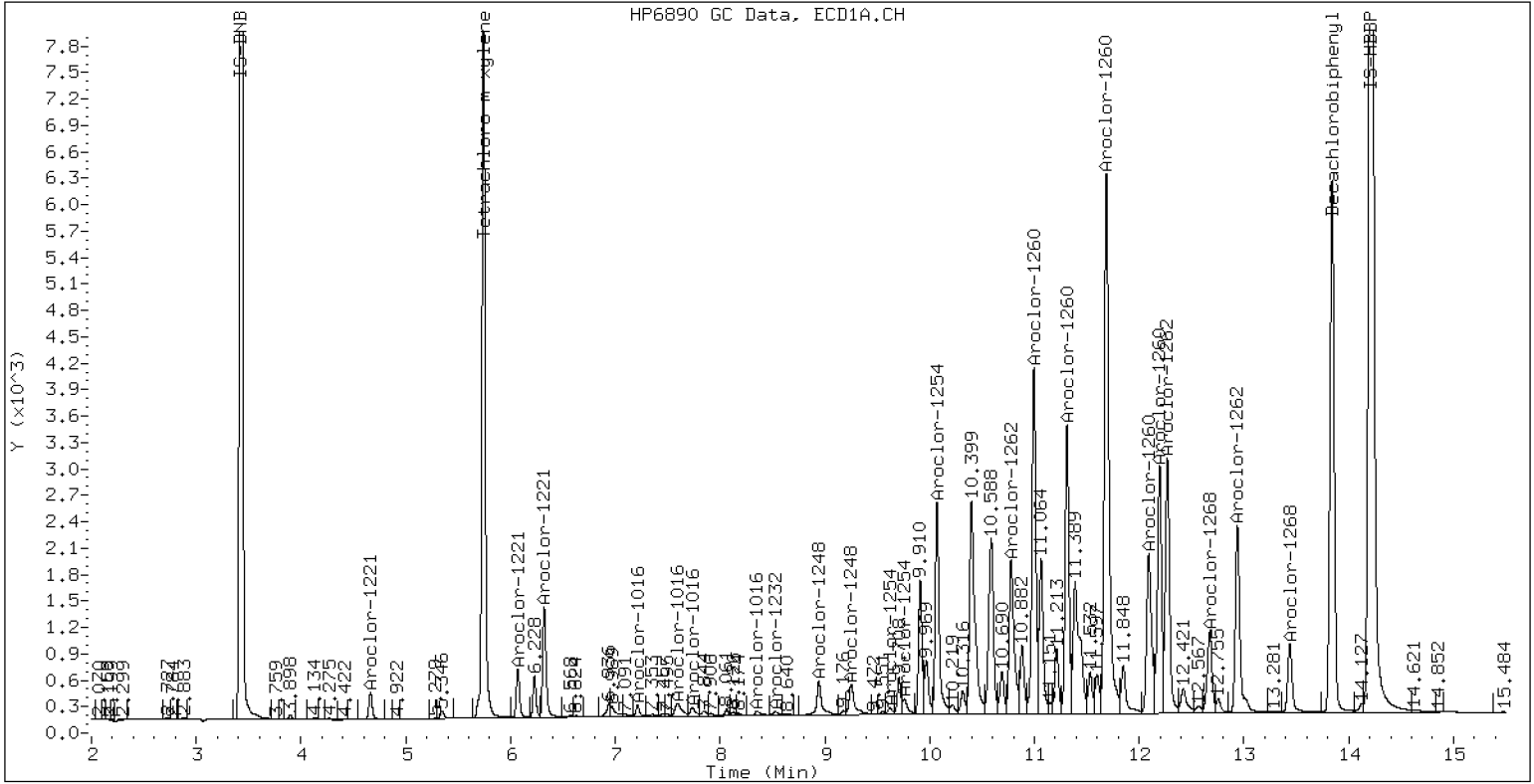
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

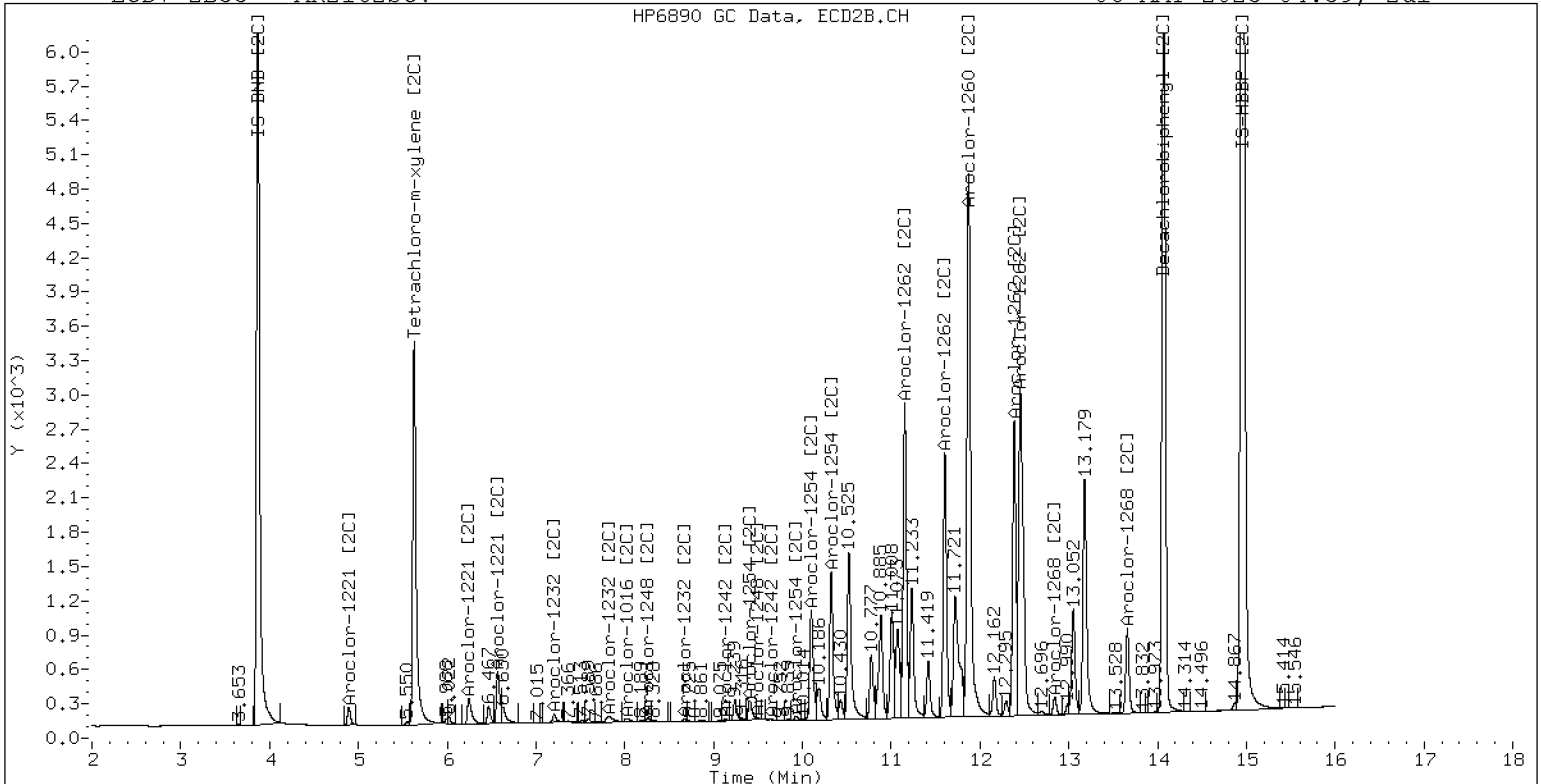
06-MAY-2023 04:39, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

06-MAY-2023 04:39, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052337ECD7.D
Data file 2: /230505.b/230505.b/05052337ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 06-MAY-2023 05:00
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	373749	5.629	0.001	196946	38.4	40.4	5.2	Tetrachloro-m-xylene
13.842	0.002	525409	14.069	0.001	586548	55.1	59.3	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	646456	7.5
Hexabromobiphenyl	876625	954969	8.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354120	1.4
Hexabromobiphenyl	652984	696139	6.6

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.001	28623	114.3	1	7.205	0.002	23124	115.4
Aroclor-1016	2	7.597	0.002	85721	109.5	2	7.815	0.007	47496	111.2
Aroclor-1016	3	7.735	0.002	41343	114.3	3	8.014	0.008	24029	127.5
Aroclor-1016	4	8.400	0.002	16653	111.6	4	8.262	0.003	15421	103.0
Total CollAve (4 peaks):				112.4		Total Col2Ave (4 peaks):				114.3 RPD = 2
Corrected Ave (3 peaks):				111.8		Corrected Ave (3 peaks):				109.9 RPD = 2
Aroclor-1221	1	4.664	0.001	7272	159.9	1	4.895	0.000	4045	154.9
Aroclor-1221	2	6.070	0.001	13478	147.8	2	6.246	0.000	9235	170.6
Aroclor-1221	3	6.321	0.001	43831	202.3	3	6.572	0.000	24300	285.4
Total CollAve (3 peaks):				170.0		Total Col2Ave (3 peaks):				203.6 RPD = 18
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.664	0.001	7272	240.1	1	4.895	0.001	4045	294.5
Aroclor-1232	2	6.070	0.001	13478	213.9	2	7.205	0.001	23124	294.1
Aroclor-1232	3	7.597	0.002	85721	285.5	3	7.815	0.000	47496	300.7
Aroclor-1232	4	8.527	0.000	36809	286.5	4	8.669	-0.000	14324	313.2
Total CollAve (4 peaks):				256.5		Total Col2Ave (4 peaks):				300.6 RPD = 16
Corrected Ave (3 peaks):				246.5		Corrected Ave (3 peaks):				296.5 RPD = 18
Aroclor-1242	1	7.214	0.002	28623	140.5	1	7.205	0.002	23124	146.1
Aroclor-1242	2	7.597	0.002	85721	132.8	2	7.815	0.002	47496	141.1
Aroclor-1242	3	8.400	0.002	16653	133.4	3	9.128	0.005	14403	133.4
Aroclor-1242	4	8.527	0.003	36809	127.4	4	9.648	0.098	5512	42.4
Total CollAve (4 peaks):				133.5		Total Col2Ave (4 peaks):				115.7 RPD = 14
Corrected Ave (3 peaks):				131.2		Corrected Ave (3 peaks):				105.6 RPD = 22
Aroclor-1248	1	8.400	0.001	16653	100.9	1	8.262	0.002	15421	91.5
Aroclor-1248	2	8.527	0.003	36809	85.8	2	8.669	0.002	14324	80.5
Aroclor-1248	3	8.944	0.000	89377	108.4	3	9.128	0.008	14403	69.0
Aroclor-1248	4	9.238	-0.005	41570	98.9	4	9.560	0.015	17331	69.3
Total CollAve (4 peaks):				98.5		Total Col2Ave (4 peaks):				77.6 RPD = 24
Corrected Ave (3 peaks):				95.2		Corrected Ave (3 peaks):				72.9 RPD = 26
Aroclor-1254	1	9.238	-0.008	41570	62.6	1	9.407	0.003	5487	20.4
Aroclor-1254	2	9.326	0.001	12640	42.3	2	9.560	0.061	17331	108.4
Aroclor-1254	3	9.624	0.006	7232	16.9	3	9.929	0.005	3481	16.0
Aroclor-1254	4	9.764	0.008	11671	13.9	4	10.086	0.009	7259	15.3
Aroclor-1254	5	10.139	0.014	7544	14.9	5	10.345	0.017	6610	14.0
Total CollAve (5 peaks):				30.1		Total Col2Ave (5 peaks):				34.8 RPD = 14
Corrected Ave (4 peaks):				22.0		Corrected Ave (4 peaks):				16.4 RPD = 29
Aroclor-1260	1	10.998	0.005	85093	168.5	1	11.598	-0.008	75237	203.5
Aroclor-1260	2	11.313	0.003	6363	12.8	2	11.873	0.001	33655	34.8
Aroclor-1260	3	11.688	0.002	47857	38.3	3	12.384	-0.004	346138	1444.4
Aroclor-1260	4	12.094	0.004	1291	2.1	4	12.453	-0.002	373218	577.8
Aroclor-1260	5	12.195	0.001	406211	1523.9	NS	---			----
Total CollAve (5 peaks):				349.1		Total Col2Ave (4 peaks):				565.1 RPD = 47*
Corrected Ave (4 peaks):				55.4		Corrected Ave (3 peaks):				272.0 RPD = 132*
Aroclor-1262	1	10.785	0.006	4006	9.3	1	11.156	0.002	52531	93.1
Aroclor-1262	2	12.195	0.000	406211	668.6	2	11.598	-0.007	75237	158.2
Aroclor-1262	3	12.268	-0.002	403730	618.2	3	12.384	-0.002	346138	665.8
Aroclor-1262	4	12.937	-0.002	145536	273.5	4	12.453	-0.002	373218	440.5
Total CollAve (4 peaks):				392.4		Total Col2Ave (4 peaks):				339.4 RPD = 14
Corrected Ave (3 peaks):				300.3		Corrected Ave (3 peaks):				230.6 RPD = 26
Aroclor-1268	1	12.195	-0.001	406211	266.7	1	12.384	-0.001	346138	262.7
Aroclor-1268	2	12.268	-0.000	403730	266.9	2	12.453	0.001	373218	263.5
Aroclor-1268	3	12.648	-0.000	323568	266.0	3	12.844	0.001	316122	260.6
Aroclor-1268	4	13.439	0.002	920777	265.1	4	13.663	0.000	1029335	264.8
Total CollAve (4 peaks):				266.2		Total Col2Ave (4 peaks):				262.9 RPD = 1

Corrected Ave (3 peaks): 265.9 Corrected Ave (3 peaks): 262.3 RPD = 1

Total PCB Area Col1 (5.842 - 13.740) = 3325332 Col1 Total PCB = 0.5 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 2876097 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230505.b/05052338ECD7.D

ARI ID: DDTS

RT	ZB5 Col Shift Response	ZB35 Col Shift Response	RT	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.206	0.000	428189	9.867	0.100	0.000	----	2,4-DDE
0.000	-10.293	0	10.625	0.000	0.000#	----	2,4-DDT
9.635	0.000	1004111	10.165	0.100	0.000	----	4,4-DDE
10.243	0.000	476377	10.625	0.100	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230505.b/05052339ECD7.D

ARI ID: DDT BD

RT	ZB5 Col Shift Response	ZB35 Col Shift Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag			
9.158	-0.049	12021	9.884	0.017	17091	0.002	0.000	----	2,4-DDE
0.000	-10.293	0	10.633	0.008	326807	0.000	0.000#	----	2,4-DDT
9.644	0.009	16770	10.190	0.025	488	0.001	0.000	----	4,4-DDE
10.216	-0.028	403865	10.633	0.008	326807	0.068	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%



ANALYSIS SEQUENCE

SLE0079

Instrument: ECD7
Calibration ID: GE00022

Printed: 5/6/2023 11:44:56AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0079-CAL1	QC		1		L000856	L000844		
SLE0079-CAL2	QC		2		L000859	L000844		
SLE0079-CAL3	QC		3		L000858	L000844		
SLE0079-CAL4	QC		4		L000731	L000844		
SLE0079-CAL5	QC		5		L000857	L000844		
SLE0079-CAL6	QC		6		L000855	L000844		
SLE0079-CAL7	QC		7		L000860	L000844		
SLE0079-CAL8	QC		8		L000861	L000844		
SLE0079-CAL9	QC		9		L000862	L000844		
SLE0079-CALA	QC		10		L004996	L000844		
SLE0079-CALB	QC		11		L004997	L000844		
SLE0079-SCV1	QC		12		L002065	L000844		
SLE0079-SCV2	QC		13		L003970	L000844		
SLE0079-SCV3	QC		14		L002066	L000844		
SLE0079-SCV4	QC		15		L002067	L000844		
SLE0079-SCV5	QC		16		L002068	L000844		
SLE0079-SCV6	QC		17		L002069	L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	05-MAY-2023	23:06	05052320ECD7.D	1	IB	
2	05-MAY-2023	23:26	05052321ECD7.D	1	0.25PPMAR1660	
3	05-MAY-2023	23:47	05052322ECD7.D	1	0.02PPMAR1660	
4	06-MAY-2023	00:08	05052323ECD7.D	1	0.05PPMAR1660	
5	06-MAY-2023	00:29	05052324ECD7.D	1	1.0PPMAR1660	
6	06-MAY-2023	00:50	05052325ECD7.D	1	0.1PPMAR1660	
7	06-MAY-2023	01:11	05052326ECD7.D	1	0.5PPMAR1660	
8	06-MAY-2023	01:31	05052327ECD7.D	1	0.25PPMAR1242	
9	06-MAY-2023	01:52	05052328ECD7.D	1	0.25PPMAR1248	
10	06-MAY-2023	02:13	05052329ECD7.D	1	0.25PPMAR1254	
11	06-MAY-2023	02:34	05052330ECD7.D	1	0.25PPMAR2162	
12	06-MAY-2023	02:55	05052331ECD7.D	1	0.25PPMAR3268	
13	06-MAY-2023	03:16	05052332ECD7.D	1	AR1660SCV	
14	06-MAY-2023	03:36	05052333ECD7.D	1	AR1242SCV	
15	06-MAY-2023	03:57	05052334ECD7.D	1	AR1248SCV	
16	06-MAY-2023	04:18	05052335ECD7.D	1	AR1254SCV	
17	06-MAY-2023	04:39	05052336ECD7.D	1	AR2162SCV	
18	06-MAY-2023	05:00	05052337ECD7.D	1	AR3268SCV	
19	06-MAY-2023	05:21	05052338ECD7.D	1	DDTS	
20	06-MAY-2023	05:41	05052339ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

ARI Job No.: Method: PCB.m Instrument: ecd7.i Date: 05-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1548	05052301ECD7.D			1	NO MANUAL INTEGRATION
1609	05052302ECD7.D			1	NO MANUAL INTEGRATION
1711	05052303ECD7.D			1	NO MANUAL INTEGRATION
1732	05052304ECD7.D			1	NO MANUAL INTEGRATION
1753	05052305ECD7.D			1	NO MANUAL INTEGRATION
1814	05052306ECD7.D			1	NO MANUAL INTEGRATION
1835	05052307ECD7.D			1	NO MANUAL INTEGRATION
1856	05052308ECD7.D			1	NO MANUAL INTEGRATION
1916	05052309ECD7.D			1	NO MANUAL INTEGRATION
1937	05052310ECD7.D			1	NO MANUAL INTEGRATION
1958	05052311ECD7.D			1	NO MANUAL INTEGRATION
2019	05052312ECD7.D			1	NO MANUAL INTEGRATION
2040	05052313ECD7.D			1	NO MANUAL INTEGRATION
2101	05052314ECD7.D			1	NO MANUAL INTEGRATION
2121	05052315ECD7.D			1	NO MANUAL INTEGRATION
2142	05052316ECD7.D			1	NO MANUAL INTEGRATION
2203	05052317ECD7.D			1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2224	05052318ECD7.D			1	NO MANUAL INTEGRATION
2245	05052319ECD7.D			1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
0008	05052323ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0131	05052327ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
0336	05052333ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1548	05052301ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1609	05052302ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1711	05052303ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1732	05052304ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1753	05052305ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1814	05052306ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1835	05052307ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1856	05052308ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1916	05052309ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1937	05052310ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1958	05052311ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2019	05052312ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2040	05052313ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2101	05052314ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2121	05052315ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2142	05052316ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2203	05052317ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2224	05052318ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2245	05052319ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	Aroclor-1016 [2C],
0008	05052323ECD7.D	0.05PPMAR1660		1	Aroclor-1016 [2C],
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	Aroclor-1016 [2C],
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0132	05052327ECD7.D	0.25PPMAR1242		1	Aroclor-1242 [2C],
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0336	05052333ECD7.D	AR1242SCV		1	Aroclor-1242 [2C],
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 06-May-2023 09:12

05052320ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052321ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052322ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052323ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052324ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052325ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052326ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052327ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052328ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052329ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052330ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052331ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052332ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052333ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052334ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052335ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052336ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052337ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052338ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052339ECD7.D	Data Locked	richardl, 06-May-2023 09:12

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230505.b\05052322ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230505.b\05052323ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230505.b\05052325ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230505.b\05052321ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230505.b\05052326ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230505.b\05052324ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230505.b\05052331ECD7.D
 Level 8: \\target\share\chem4\ecd7.i\230505.b\05052338ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Aroclor-1221(1)	0.00563	0.000e+00					0.00563	0.000
(2)	0.01129						0.01129	0.000
(3)	0.02681						0.02681	0.000
3 Aroclor-1242(1)	0.02521						0.02521	0.000
(2)	0.07988						0.07988	0.000
(3)	0.01545						0.01545	0.000
(4)	0.03576						0.03576	0.000
4 Aroclor-1232(1)	0.00375						0.00375	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	++++ 0.00780	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.00780	0.000
(3)	++++ 0.03715	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.03715	0.000
(4)	++++ 0.01590	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.01590	0.000
7 Aroclor-1016(1)	0.03259 ++++	0.03226 ++++	0.03462	0.03138	0.02909	0.02592	0.03098	9.876
(2)	0.08782 ++++	0.09418 ++++	0.10520	0.10209	0.09934	0.09254	0.09686	6.702
(3)	0.04375 ++++	0.04849 ++++	0.05094	0.04519	0.04205	0.03826	0.04478	10.130
(4)	0.01716 ++++	0.01921 ++++	0.02127	0.01901	0.01783	0.01637	0.01847	9.437
6 Aroclor-1248(1)	++++ 0.02042	++++ ++++	++++	++++	++++	++++	0.02042	0.000
(2)	++++ 0.05306	++++ ++++	++++	++++	++++	++++	0.05306	0.000
(3)	++++ 0.10205	++++ ++++	++++	++++	++++	++++	0.10205	0.000
(4)	++++ 0.05202	++++ ++++	++++	++++	++++	++++	0.05202	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 (1)	0.08222	0.000e+00					0.08222	0.000
(2)	0.03694						0.03694	0.000
(3)	0.05308						0.05308	0.000
(4)	0.10397						0.10397	0.000
(5)	0.06279						0.06279	0.000
9 Aroclor-1260 (1)	0.04580	0.04187	0.04489	0.04230	0.04061	0.03834	0.04230	6.490
(2)	0.04434	0.04115	0.04438	0.04189	0.04043	0.03831	0.04175	5.623
(3)	0.11170	0.10434	0.11116	0.10510	0.10043	0.09464	0.10456	6.204
(4)	0.05460	0.05000	0.05382	0.05169	0.04996	0.04720	0.05121	5.355
(5)	0.02498	0.02246	0.02370	0.02202	0.02100	0.01982	0.02233	8.279
10 Aroclor-1262 (1)	0.03619						0.03619	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	++++ 0.05090	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.05090	0.000
(3)	++++ 0.05471	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.05471	0.000
(4)	++++ 0.04459	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.04459	0.000
11 Aroclor-1268(1)	++++ 0.12759	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.12759	0.000
(2)	++++ 0.12671	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.12671	0.000
(3)	++++ 0.10191	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.10191	0.000
(4)	++++ 0.29098	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	0.29098	0.000
42 2,4-DDE	++++ ++++	++++ 636	++++ ++++	++++ ++++	++++ ++++	++++ ++++	636	0.000
43 2,4-DDD	++++ ++++	++++ 1208	++++ ++++	++++ ++++	++++ ++++	++++ ++++	1208	0.000
44 2,4-DDT	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++	++++
46 4,4-DDE	++++ ++++	++++ 1492	++++ ++++	++++ ++++	++++ ++++	++++ ++++	1492	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 05:21
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Last Edit : 06-May-2023 09:04 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
47 4,4-DDD	+++++	+++++ 708	+++++	+++++	+++++	+++++	708	0.000
48 4,4-DDT	+++++	+++++ 630	+++++	+++++	+++++	+++++	630	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
1 Tetrachloro-m-xylene	1.21049	1.18252	1.29993	1.22669	1.16878	1.14053	1.20482	4.619
13 Decachlorobiphenyl	0.89752	0.83715	0.84851	0.77945	0.72713	0.70508	0.79914	9.361

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052322ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052323ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052325ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052321ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052326ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052324ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230505.b\230505.b\05052331ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
1 Aroclor-1221 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00590	0.000
(2)	0.01223						0.01223	0.000
(3)	0.01924						0.01924	0.000
4 Aroclor-1232 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00310	0.000
(2)	0.01776						0.01776	0.000
(3)	0.03568						0.03568	0.000
(4)	0.01033						0.01033	0.000
3 Aroclor-1242 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03575	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07606	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02438	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02939	0.000
6 Aroclor-1248 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03806	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04020	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04712	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05651	0.000
7 Aroclor-1016 [2C] (1)	0.05158	0.04743	0.04866	0.04443	0.04159	0.03802	0.04529	10.942
(2)	0.09850	0.09560	0.10183	0.09745	0.09528	0.09038	0.09651	3.959
(3)	0.04379	0.04462	0.04622	0.04230	0.04046	0.03801	0.04257	6.991
(4)	0.03635	0.03727	0.03735	0.03308	0.03084	0.02798	0.03381	11.400

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 [2C] (1)	++++ 0.06078	++++	++++	++++	++++	++++	0.06078	0.000
(2)	++++ 0.03611	++++	++++	++++	++++	++++	0.03611	0.000
(3)	++++ 0.04927	++++	++++	++++	++++	++++	0.04927	0.000
(4)	++++ 0.10751	++++	++++	++++	++++	++++	0.10751	0.000
(5)	++++ 0.10667	++++	++++	++++	++++	++++	0.10667	0.000
10 Aroclor-1262 [2C] (1)	++++ 0.06482	++++	++++	++++	++++	++++	0.06482	0.000
(2)	++++ 0.05467	++++	++++	++++	++++	++++	0.05467	0.000
(3)	++++ 0.05974	++++	++++	++++	++++	++++	0.05974	0.000
(4)	++++ 0.09737	++++	++++	++++	++++	++++	0.09737	0.000
9 Aroclor-1260 [2C] (1)	0.04544 ++++	0.04273	0.04504	0.04279	0.04076	0.03816	0.04249	6.408
(2)	0.11282 ++++	0.11085	0.11919	0.11378	0.10815	0.10199	0.11113	5.208

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(3)	0.02783 +++++	0.02652	0.02791	0.02780	0.02775	0.02743	0.02754	1.918
(4)	0.07670 +++++	0.07341	0.07861	0.07586	0.07265	0.06817	0.07423	4.962
11 Aroclor-1268 [2C] (1)	+++++ 0.15139	+++++	+++++	+++++	+++++	+++++	0.15139	0.000
(2)	+++++ 0.16276	+++++	+++++	+++++	+++++	+++++	0.16276	0.000
(3)	+++++ 0.13938	+++++	+++++	+++++	+++++	+++++	0.13938	0.000
(4)	+++++ 0.44675	+++++	+++++	+++++	+++++	+++++	0.44675	0.000
41 2,4-DDE [2C]	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 2,4-DDD [2C]	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 4,4-DDE [2C]	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 4,4-DDT [2C]	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2023 23:26
 End Cal Date : 06-MAY-2023 02:55
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Last Edit : 06-May-2023 11:14 ecd7.i
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 2 Tetrachloro-m-xylene [2C]	1.09077	1.07641	1.18129	1.13054	1.07870	1.04559	1.10055	4.376
\$ 13 Decachlorobiphenyl [2C]	1.04434	1.07403	1.22005	1.18343	1.16419	1.13004	1.13601	5.890

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230505.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
FILENAME: 05052321ECD7 05052322ECD7 05052323ECD7 05052324ECD7 05052325ECD7 05052326ECD7
INJ. DATE: 05-MAY-2023 05-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023
INJ. TIME: 23:26 23:47 00:08 00:29 00:50 01:11

Table with 11 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Batch File: \\target\share\chem4\ecd7.i\230505.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.243	10.143-10.343	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.706	10.606-10.806	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230505.b\230505.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 05052320ECD7 05052321ECD7 05052322ECD7 05052323ECD7 05052324ECD7 05052325ECD7 05052326ECD7
INJ. DATE: 05-MAY-2023 05-MAY-2023 05-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023 06-MAY-2023
INJ. TIME: 23:06 23:26 23:47 00:08 00:29 00:50 01:11

Table with 12 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, etc.

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230505.b\PCB.m\PCB2.m
 Batch File: \\target\share\chem4\ecd7.i\230505.b\230505.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.046	10.946-11.146	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052320ECD7.D ARI ID: IB
Data file 2: /230505.b/230505.b/05052320ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m Injection Date: 05-MAY-2023 23:06
Compound Sublist: PCB.sub Report Date: 05/06/2023 11:30
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	296285	5.629	0.001	163258	35.5	37.4	5.3	Tetrachloro-m-xylene
13.841	0.001	288612	14.070	0.002	318424	35.7	37.3	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	554412	-7.8
Hexabromobiphenyl	876625	809662	-7.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	317324	-9.2
Hexabromobiphenyl	652984	600612	-8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.272	0.027	1585	32.7
Aroclor-1221	3	---			0.0	3	6.588	0.017	408	5.3
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	10.995	0.002	1624	3.8	1	---			0.0
Aroclor-1260	2	11.305	-0.005	1450	3.4	2	---			0.0
Aroclor-1260	3	11.770	0.084	3781	3.6	3	---			0.0
Aroclor-1260	4	12.138	0.048	1272	2.5	4	---			0.0
Aroclor-1260	5	12.271	0.078	413	1.8	NS	---			----
Total CollAve (5 peaks):					3.0	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	10.800	0.021	2445	6.7	1	---			0.0
Aroclor-1262	2	12.271	0.077	413	0.8	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	12.989	0.050	944	2.1	4	---			0.0
Total CollAve (3 peaks):					3.2	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	12.271	0.076	413	0.3	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	2092	2.0	3	12.847	0.004	632	0.6
Aroclor-1268	4	13.443	0.006	5651	1.9	4	13.663	-0.001	2018	0.6
Total CollAve (3 peaks):					1.4	Col2Ave: <3 Quant Peaks				
Total PCB Area Coll1 (5.842 - 13.740) =					65805	Coll1 Total PCB = 0.0 ppm*				

Total PCB Area Col2 (5.728 - 13.968) = 16664 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052321ECD7.D
 Data file 2: /230505.b/230505.b/05052321ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
 Client ID:
 Injection Date: 05-MAY-2023 23:26
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368910	5.629	0.000	197442	40.7	41.1	0.9	Tetrachloro-m-xylene
13.841	0.001	341641	14.070	0.002	386381	39.0	41.7	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	601474	0.0
Hexabromobiphenyl	876625	876625	0.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	349289	0.0
Hexabromobiphenyl	652984	652984	0.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.001	58979	253.2	1	7.204	-0.000	48493	245.3	
Aroclor-1016	2	7.595	0.001	191892	263.5	2	7.811	0.003	106372	252.4	
Aroclor-1016	3	7.735	0.002	84934	252.3	3	8.010	0.004	46169	248.4	
Aroclor-1016	4	8.399	0.001	35727	257.2	4	8.260	0.001	36109	244.6	
Total CollAve (4 peaks):				256.6		Total Col2Ave (4 peaks):				247.7	RPD = 4
Corrected Ave (3 peaks):				254.2		Corrected Ave (3 peaks):				246.1	RPD = 3

CalAmt %D: 2.6

CalAmt %D: -0.9

Aroclor-1260	1	10.995	0.002	115872	250.0	1	11.605	-0.000	87314	251.8	
Aroclor-1260	2	11.312	0.002	114768	250.9	2	11.872	-0.000	232184	256.0	
Aroclor-1260	3	11.687	0.001	287920	251.3	3	12.389	0.001	56725	252.4	
Aroclor-1260	4	12.091	0.002	141607	252.3	4	12.456	0.000	154797	255.5	
Aroclor-1260	5	12.195	0.002	60315	246.5	NS	---			----	
Total CollAve (5 peaks):				250.2		Total Col2Ave (4 peaks):				253.9	RPD = 1
Corrected Ave (4 peaks):				249.7		Corrected Ave (3 peaks):				253.2	RPD = 1

CalAmt %D: 0.1

CalAmt %D: 1.6

Total PCB Area Coll (5.842 - 13.740) = 3355836 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2087295 Col2 Total PCB = 0.5 ppm*

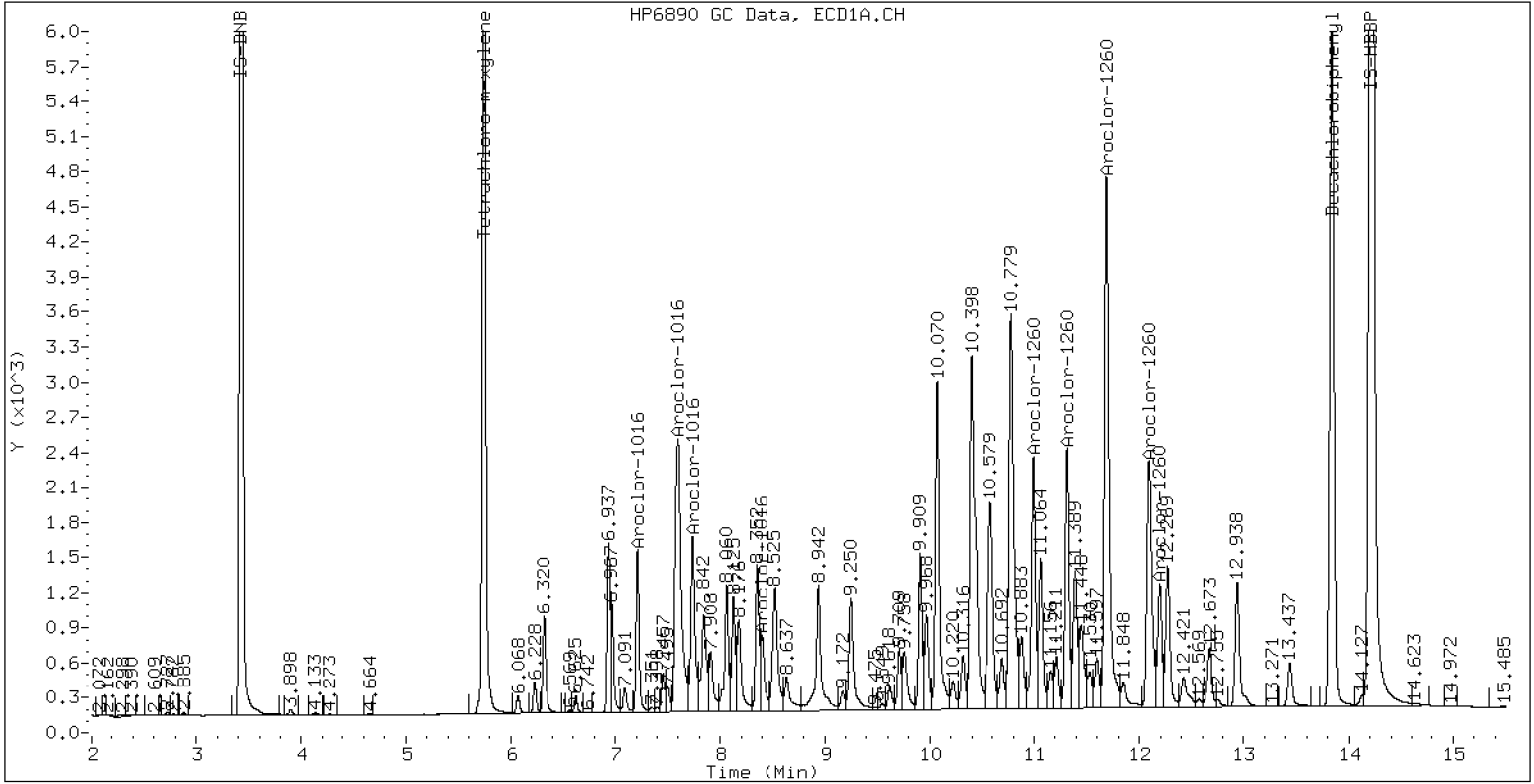
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660

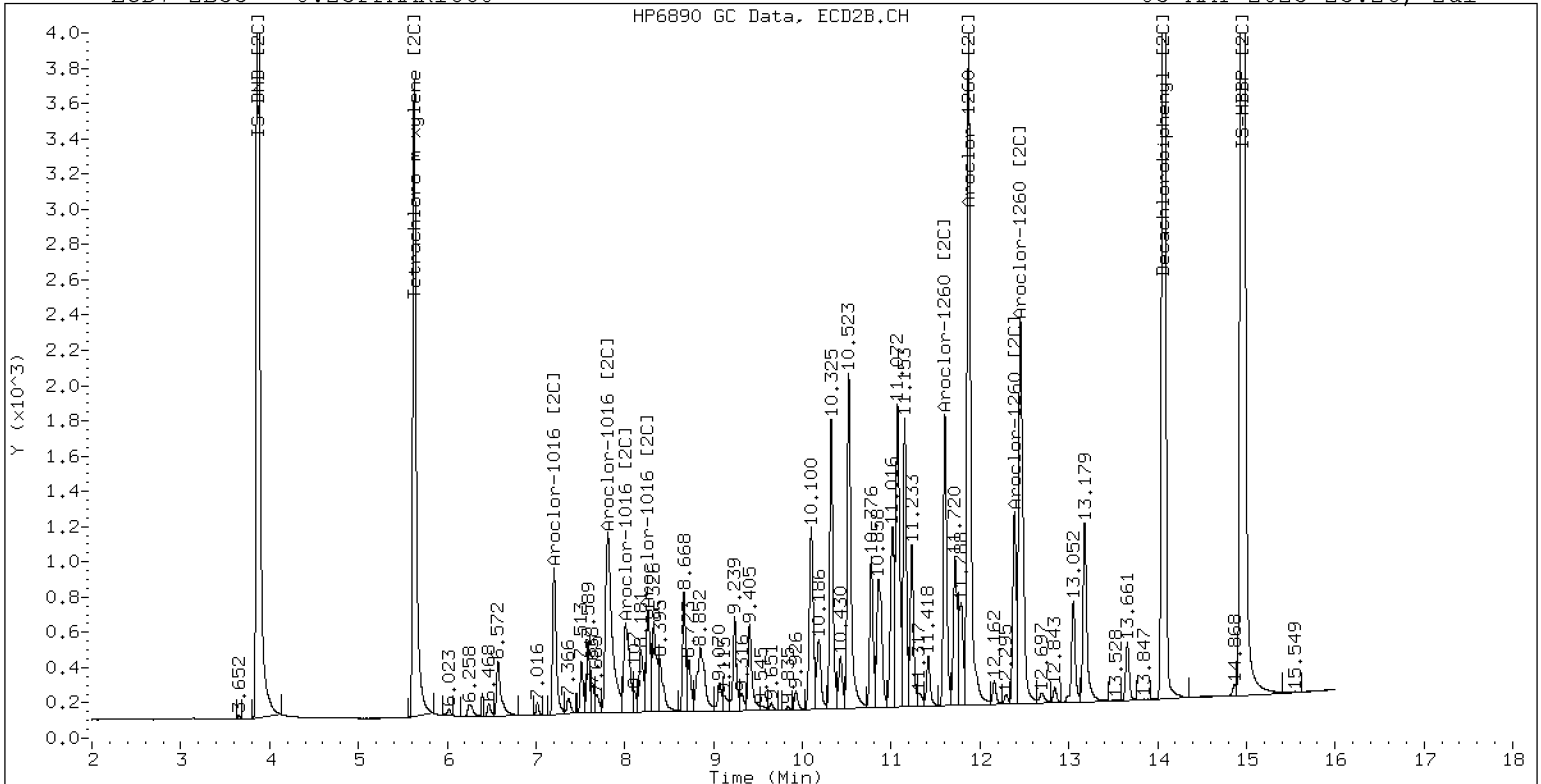
05-MAY-2023 23:26, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660

05-MAY-2023 23:26, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052322ECD7.D
 Data file 2: /230505.b/230505.b/05052322ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
 Client ID:
 Injection Date: 05-MAY-2023 23:47
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	28836	5.630	0.002	14779	3.2	3.2	1.4	Tetrachloro-m-xylene
13.843	0.002	31610	14.071	0.002	27131	3.6	2.9	20.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	595544	-1.0
Hexabromobiphenyl	876625	880480	0.4
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	338730	-3.0
Hexabromobiphenyl	652984	649475	-0.5

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.001	4852	21.0	1	7.206	0.002	4368	22.8	
Aroclor-1016	2	7.595	0.001	13075	18.1	2	7.819	0.012	8341	20.4	
Aroclor-1016	3	7.737	0.004	6514	19.5	3	8.043	0.038	3708	20.6	
Aroclor-1016	4	8.400	0.002	2555	18.6	4	8.261	0.002	3078	21.5	
Total CollAve (4 peaks):				19.3		Total Col2Ave (4 peaks):				21.3	RPD = 10
Corrected Ave (3 peaks):				18.8		Corrected Ave (3 peaks):				20.8	RPD = 10
CalAmt %D:				-3.4		CalAmt %D:				6.6	
Aroclor-1260	1	10.998	0.005	10082	21.7	1	11.610	0.004	7378	21.4	
Aroclor-1260	2	11.316	0.006	9760	21.2	2	11.878	0.006	18318	20.3	
Aroclor-1260	3	11.694	0.008	24587	21.4	3	12.392	0.004	4519	20.2	
Aroclor-1260	4	12.098	0.008	12018	21.3	4	12.461	0.006	12454	20.7	
Aroclor-1260	5	12.198	0.005	5499	22.4	NS	---			----	
Total CollAve (5 peaks):				21.6		Total Col2Ave (4 peaks):				20.6	RPD = 4
Corrected Ave (4 peaks):				21.4		Corrected Ave (3 peaks):				20.4	RPD = 5
CalAmt %D:				8.0		CalAmt %D:				3.2	

Total PCB Area Coll (5.842 - 13.740) = 294199 Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 173796 Col2 Total PCB = 0.0 ppm*

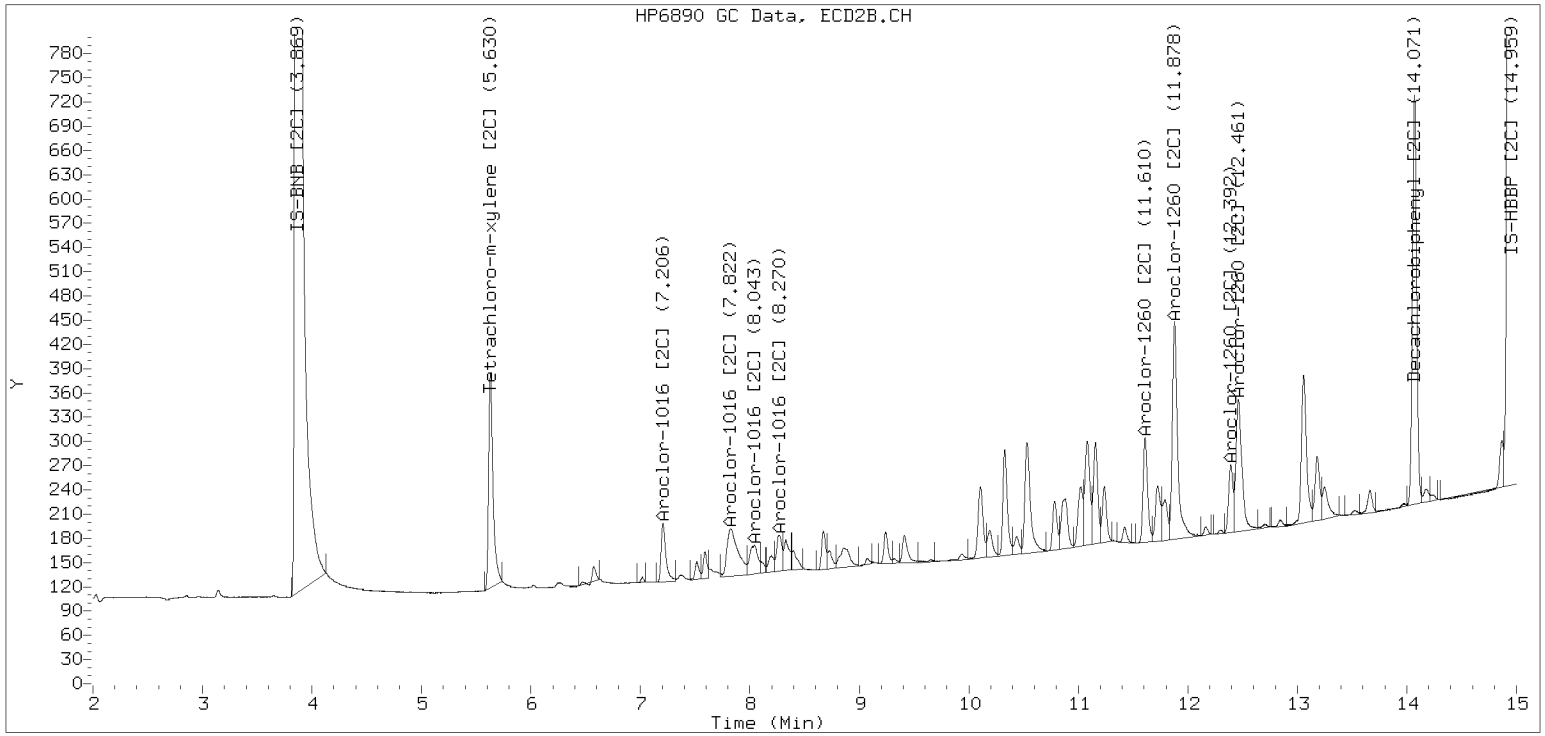
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

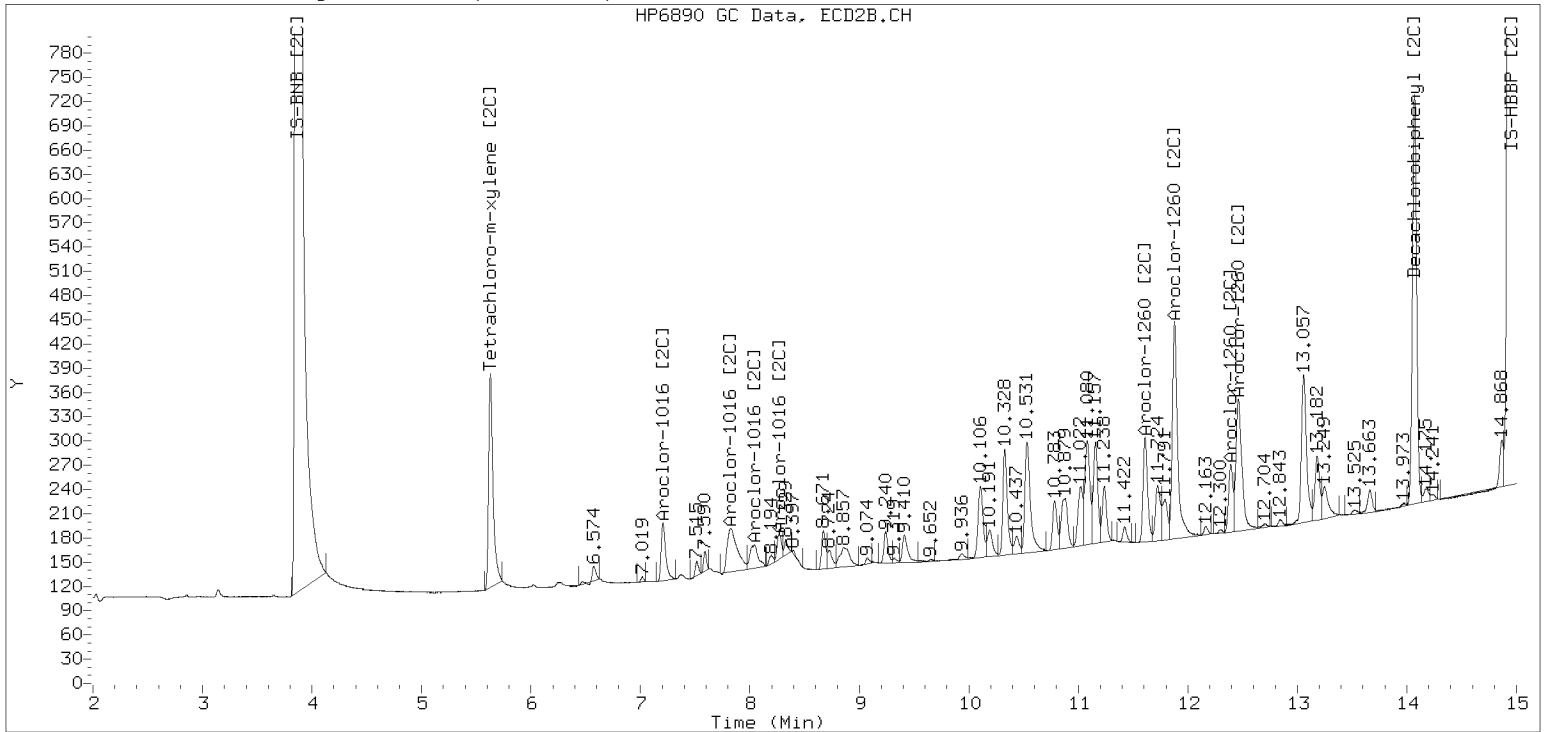
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052322ECD7.D Injection Date: 05-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052323ECD7.D ARI ID: 0.05PPMAR1660
Data file 2: /230505.b/230505.b/05052323ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m Injection Date: 06-MAY-2023 00:08
Compound Sublist: AR1660.sub Report Date: 05/06/2023 11:30
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	72149	5.630	0.001	37778	7.9	7.8	0.3	Tetrachloro-m-xylene
13.843	0.002	75564	14.070	0.002	71601	8.4	7.6	10.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	610127	1.4
Hexabromobiphenyl	876625	902634	3.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	350964	0.5
Hexabromobiphenyl	652984	666660	2.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.214	0.001	12303	52.1	1	7.205	0.001	10404	52.4	
Aroclor-1016	2	7.595	0.000	35912	48.6	2	7.821	0.013	20971	49.5	
Aroclor-1016	3	7.736	0.003	18491	54.1	3	8.016	0.010	9788	52.4	
Aroclor-1016	4	8.400	0.002	7326	52.0	4	8.264	0.005	8176	55.1	
Total CollAve (4 peaks):				51.7	Total Col2Ave (4 peaks):				52.4	RPD = 1	
Corrected Ave (3 peaks):				50.9	Corrected Ave (3 peaks):				51.4	RPD = 1	
CalAmt %D:				3.4	CalAmt %D:				4.7		
Aroclor-1260	1	10.998	0.005	23619	49.5	1	11.609	0.003	17805	50.3	
Aroclor-1260	2	11.316	0.006	23213	49.3	2	11.876	0.004	46188	49.9	
Aroclor-1260	3	11.693	0.007	58862	49.9	3	12.391	0.003	11048	48.1	
Aroclor-1260	4	12.096	0.006	28206	48.8	4	12.460	0.004	30586	49.4	
Aroclor-1260	5	12.197	0.004	12672	50.3	NS	---			----	
Total CollAve (5 peaks):				49.6	Total Col2Ave (4 peaks):				49.4	RPD = 0	
Corrected Ave (4 peaks):				49.4	Corrected Ave (3 peaks):				49.2	RPD = 0	
CalAmt %D:				-0.9	CalAmt %D:				-1.1		

Total PCB Area Coll (5.842 - 13.740) = 697433 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 429325 Col2 Total PCB = 0.1 ppm*

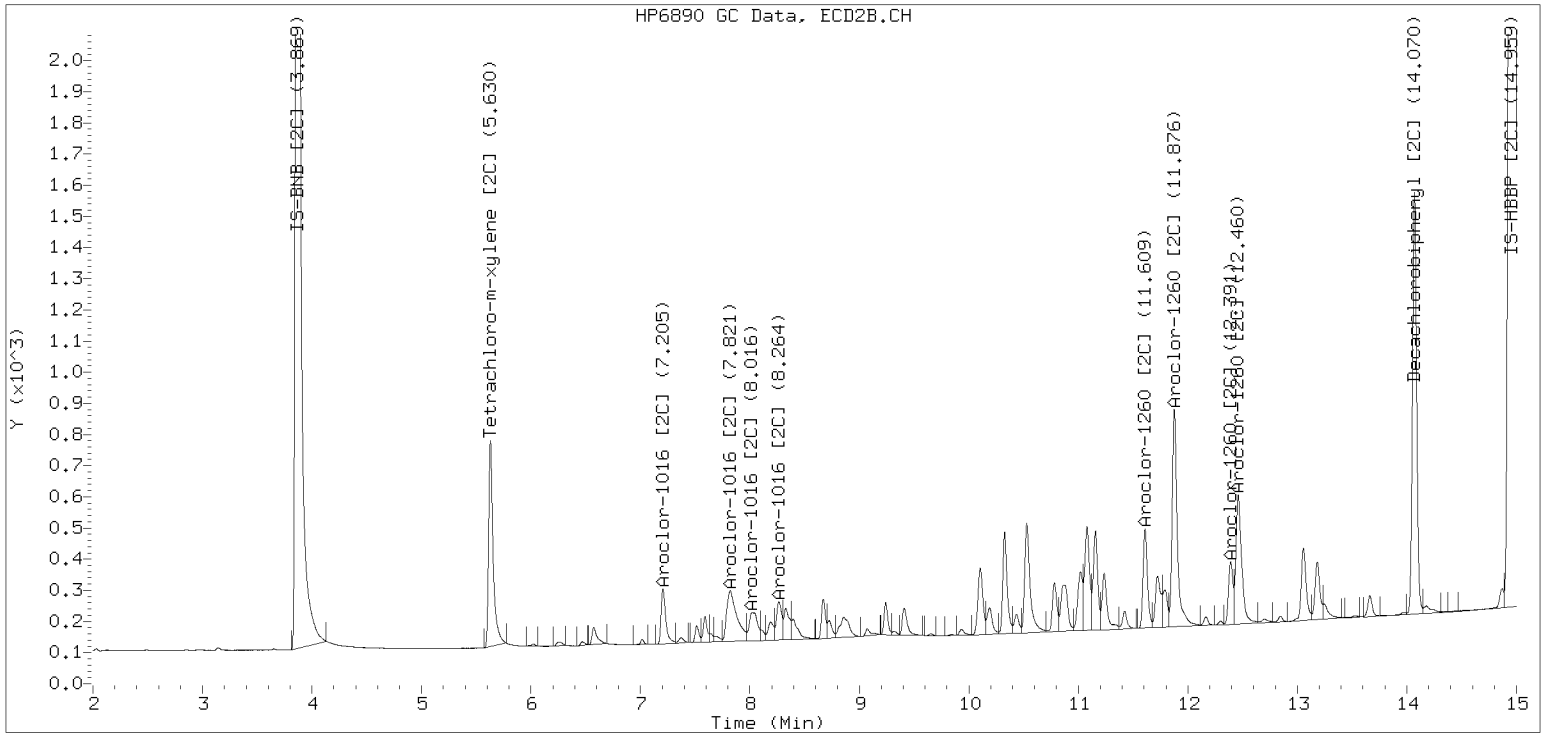
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

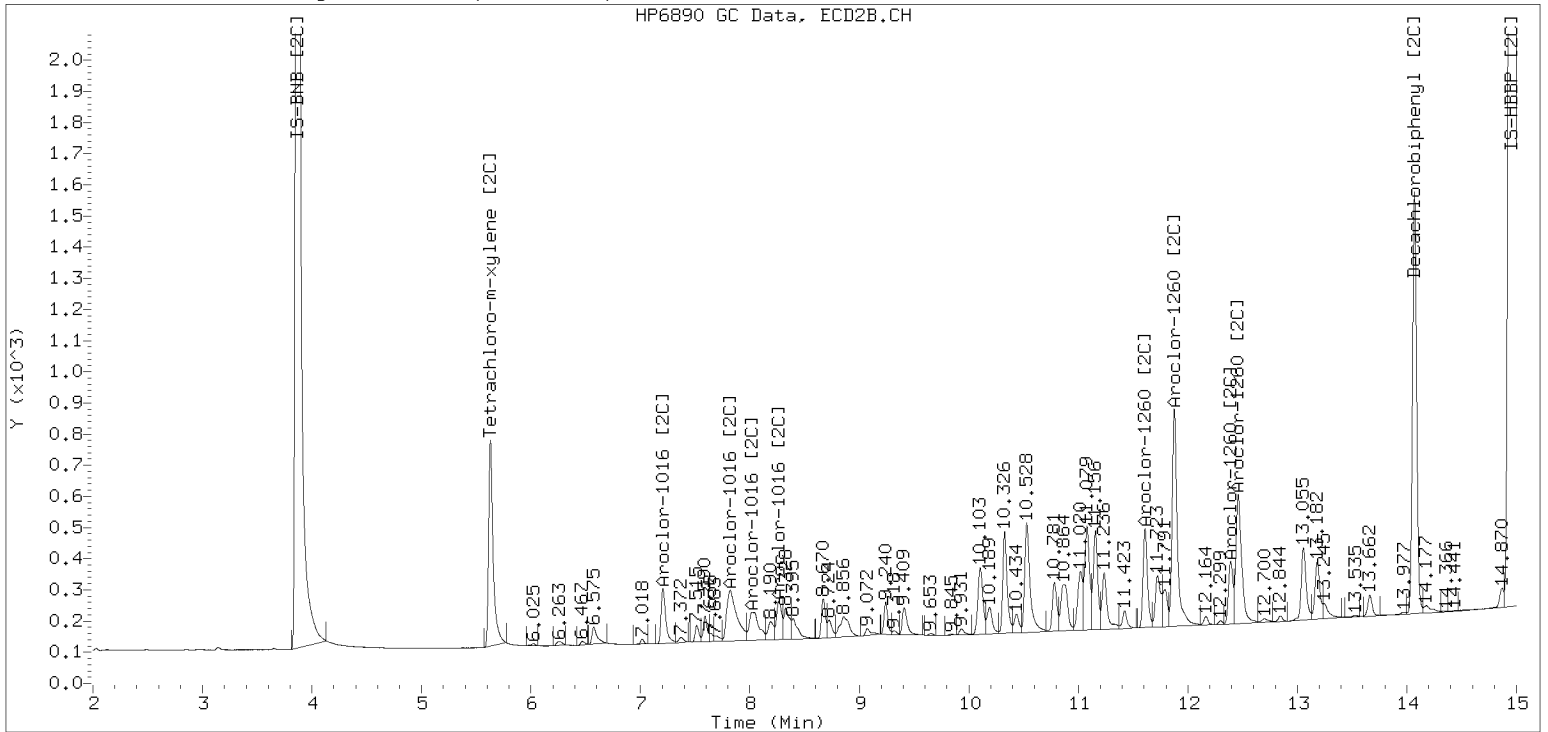
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052323ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052324ECD7.D
Data file 2: /230505.b/230505.b/05052324ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 06-MAY-2023 00:29
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.746	0.004	1354956	5.627	-0.001	709704	151.5	152.0	0.4	Tetrachloro-m-xylene
13.842	0.002	1208957	14.071	0.002	1442827	141.2	159.2	12.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	594005	-1.2
Hexabromobiphenyl	876625	857318	-2.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	339380	-2.8
Hexabromobiphenyl	652984	638394	-2.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	192466	836.8	1	7.203	-0.001	161296	839.6
Aroclor-1016	2	7.595	0.000	687116	955.4	2	7.804	-0.003	383432	936.5
Aroclor-1016	3	7.732	-0.000	284089	854.4	3	8.002	-0.003	161269	893.1
Aroclor-1016	4	8.397	-0.001	121539	886.0	4	8.257	-0.002	118708	827.5
Total CollAve (4 peaks):				883.2		Total Col2Ave (4 peaks):				874.2 RPD = 1
Corrected Ave (3 peaks):				859.1		Corrected Ave (3 peaks):				853.4 RPD = 1
CalAmt %D:				-11.7		CalAmt %D:				-12.6
Aroclor-1260	1	10.992	-0.001	410905	906.4	1	11.604	-0.002	304531	898.2
Aroclor-1260	2	11.309	-0.001	410553	917.6	2	11.869	-0.003	813835	917.7
Aroclor-1260	3	11.683	-0.003	1014157	905.1	3	12.387	-0.001	218887	996.0
Aroclor-1260	4	12.087	-0.003	505824	921.7	4	12.453	-0.003	543988	918.3
Aroclor-1260	5	12.193	-0.001	212396	887.6	NS	---			----
Total CollAve (5 peaks):				907.7		Total Col2Ave (4 peaks):				932.6 RPD = 3
Corrected Ave (4 peaks):				904.2		Corrected Ave (3 peaks):				911.4 RPD = 1
CalAmt %D:				-9.2		CalAmt %D:				-6.7

Total PCB Area Coll (5.842 - 13.740) = 11665793 Coll Total PCB = 1.8 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 7382788 Col2 Total PCB = 1.8 ppm*

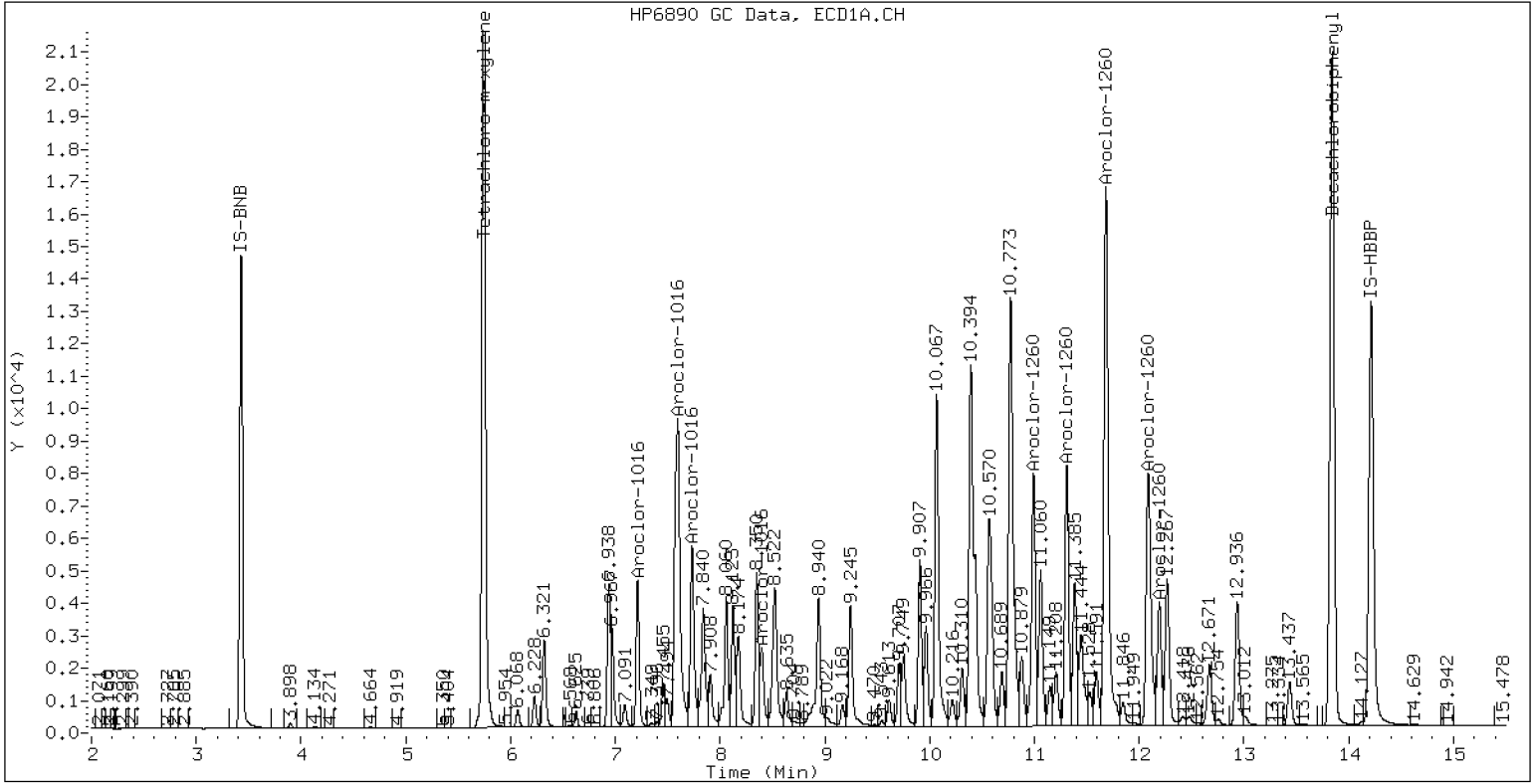
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660

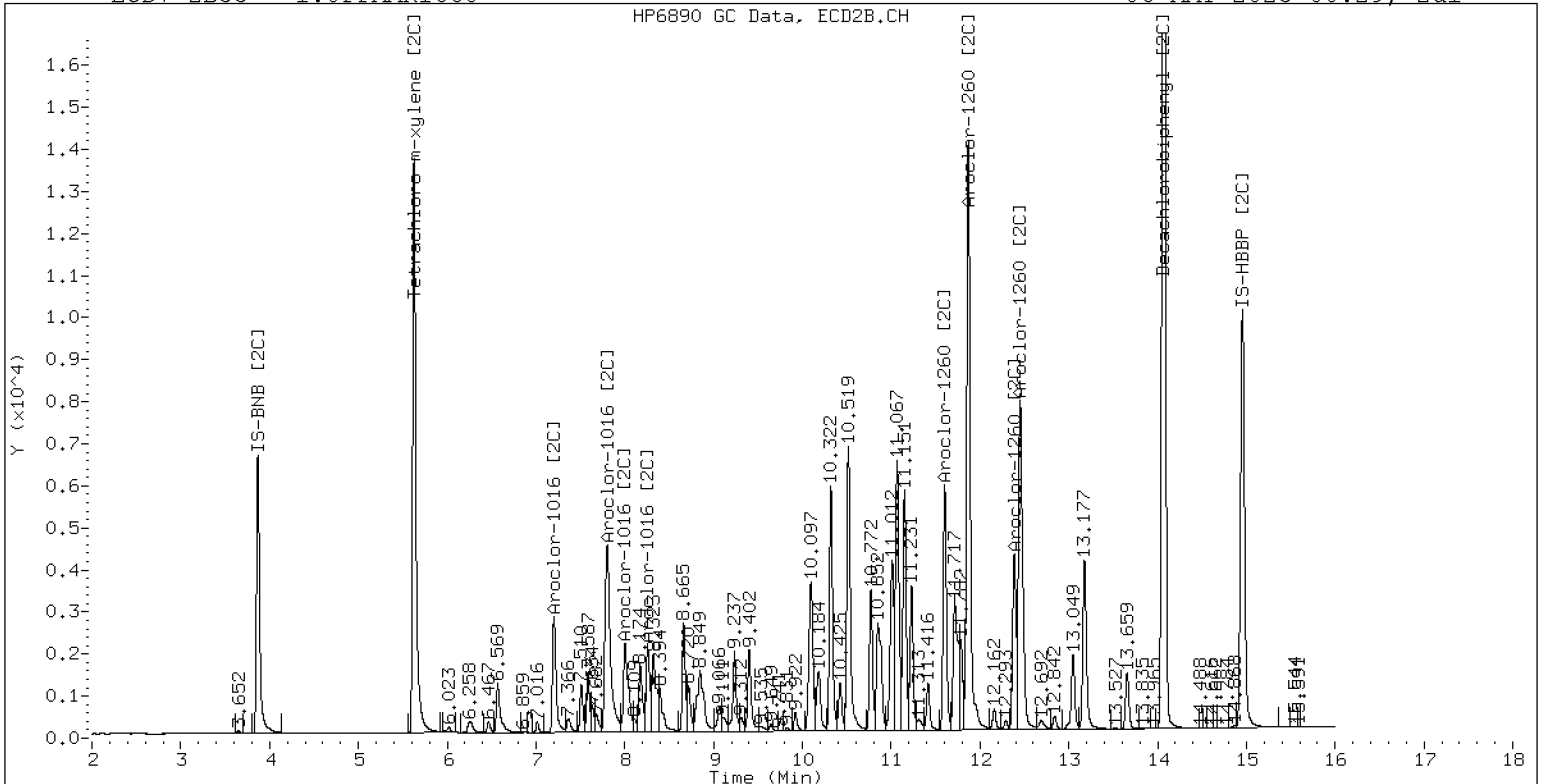
06-MAY-2023 00:29, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660

06-MAY-2023 00:29, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052325ECD7.D
Data file 2: /230505.b/230505.b/05052325ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 06-MAY-2023 00:50
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	166260	5.629	0.000	87721	17.3	17.2	0.5	Tetrachloro-m-xylene
13.841	0.000	162151	14.069	0.001	170994	17.0	17.2	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	639496	6.3
Hexabromobiphenyl	876625	955499	9.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	371294	6.3
Hexabromobiphenyl	652984	700767	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	-0.000	27672	111.8	1	7.204	0.000	22585	107.5
Aroclor-1016	2	7.595	0.000	84096	108.6	2	7.815	0.008	47261	105.5
Aroclor-1016	3	7.735	0.002	40718	113.8	3	8.012	0.007	21450	108.6
Aroclor-1016	4	8.399	0.001	17000	115.1	4	8.262	0.003	17337	110.5
Total CollAve (4 peaks):				112.3		Total Col2Ave (4 peaks):				108.0 RPD = 4
Corrected Ave (3 peaks):				111.4		Corrected Ave (3 peaks):				107.2 RPD = 4
CalAmt %D:				12.3		CalAmt %D:				8.0
Aroclor-1260	1	10.995	0.002	53621	106.1	1	11.608	0.002	39451	106.0
Aroclor-1260	2	11.313	0.003	53001	106.3	2	11.874	0.002	104406	107.3
Aroclor-1260	3	11.690	0.004	132765	106.3	3	12.391	0.003	24449	101.4
Aroclor-1260	4	12.093	0.003	64276	105.1	4	12.457	0.002	68859	105.9
Aroclor-1260	5	12.196	0.003	28307	106.1	NS	---			----
Total CollAve (5 peaks):				106.0		Total Col2Ave (4 peaks):				105.1 RPD = 1
Corrected Ave (4 peaks):				105.9		Corrected Ave (3 peaks):				104.4 RPD = 1
CalAmt %D:				6.0		CalAmt %D:				5.1

Total PCB Area Coll (5.842 - 13.740) = 1580756 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 950746 Col2 Total PCB = 0.2 ppm*

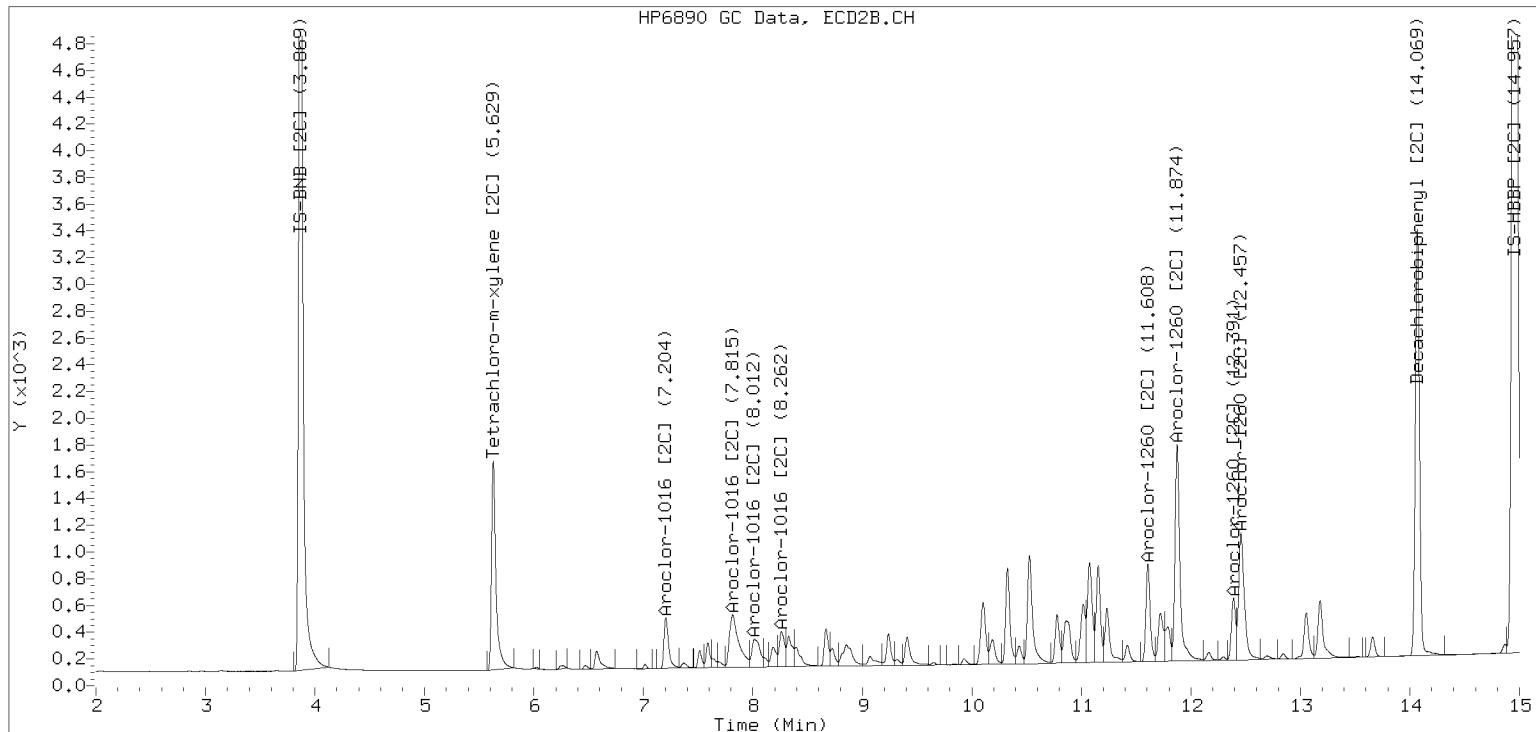
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

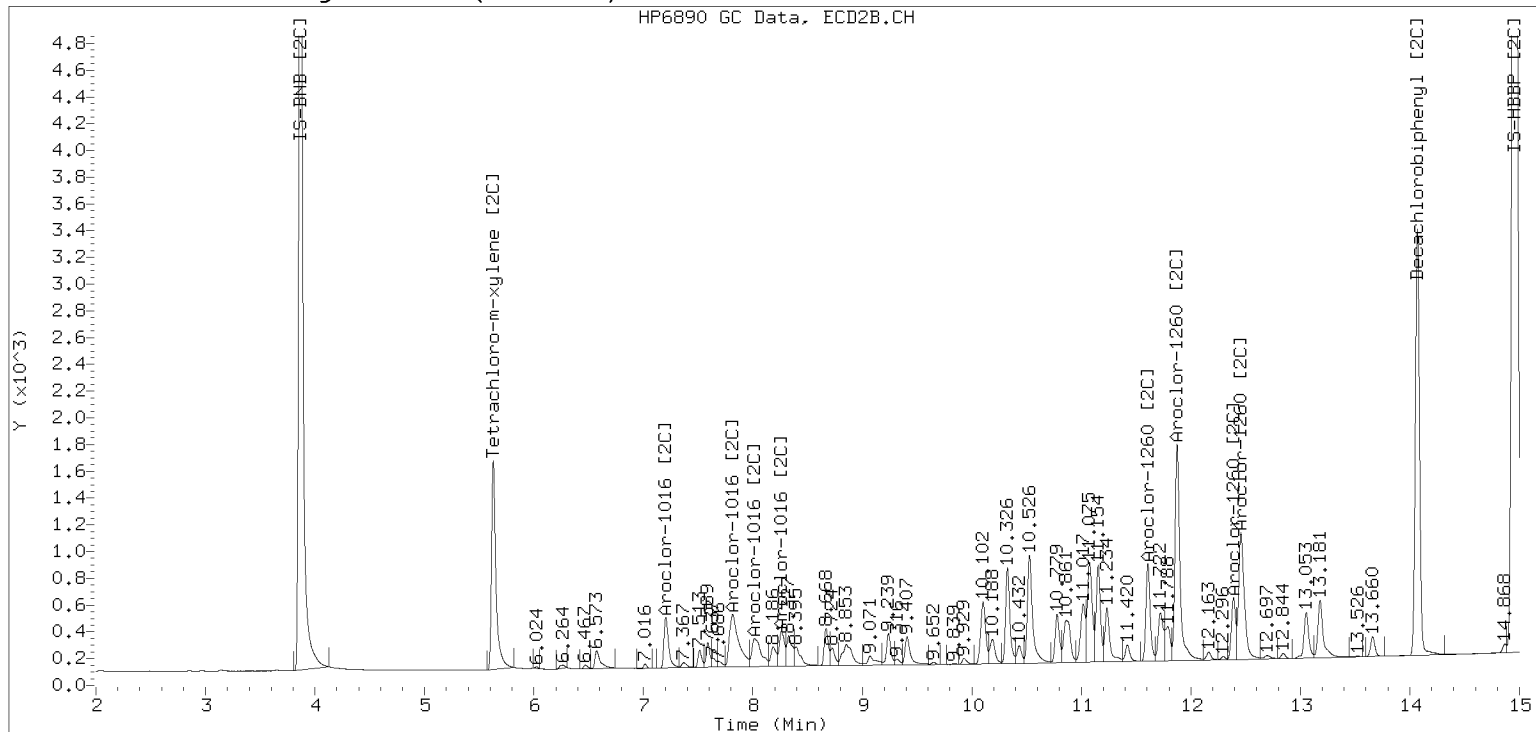
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052325ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052326ECD7.D
 Data file 2: /230505.b/230505.b/05052326ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
 Client ID:
 Injection Date: 06-MAY-2023 01:11
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	726106	5.629	0.000	386361	77.6	78.4	1.0	Tetrachloro-m-xylene
13.842	0.002	662159	14.070	0.002	782852	72.8	82.0	11.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	621250	3.3
Hexabromobiphenyl	876625	910647	3.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	358174	2.5
Hexabromobiphenyl	652984	672444	3.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	112948	469.5	1	7.204	0.000	93114	459.2
Aroclor-1016	2	7.594	0.000	385708	512.8	2	7.808	0.000	213293	493.6
Aroclor-1016	3	7.733	0.000	163263	469.5	3	8.006	0.000	90569	475.2
Aroclor-1016	4	8.398	0.000	69235	482.6	4	8.259	0.000	69045	456.1
Total CollAve (4 peaks):				483.6		Total Col2Ave (4 peaks):				471.0 RPD = 3
Corrected Ave (3 peaks):				473.9		Corrected Ave (3 peaks):				463.5 RPD = 2

CalAmt %D: -3.3

CalAmt %D: -5.8

Aroclor-1260	1	10.993	0.000	231157	480.0	1	11.606	0.000	171304	479.7
Aroclor-1260	2	11.310	0.000	230103	484.2	2	11.872	0.000	454515	486.6
Aroclor-1260	3	11.686	0.000	571583	480.2	3	12.388	0.000	116621	503.8
Aroclor-1260	4	12.090	0.000	284345	487.8	4	12.455	0.000	305334	489.3
Aroclor-1260	5	12.193	0.000	119534	470.3	NS	---			----
Total CollAve (5 peaks):				480.5		Total Col2Ave (4 peaks):				489.8 RPD = 2
Corrected Ave (4 peaks):				478.7		Corrected Ave (3 peaks):				485.2 RPD = 1

CalAmt %D: -3.9

CalAmt %D: -2.0

Total PCB Area Coll (5.842 - 13.740) = 6615607 Coll Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 4121423 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052327ECD7.D ARI ID: 0.25PPMAR1242
Data file 2: /230505.b/230505.b/05052327ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m Injection Date: 06-MAY-2023 01:31
Compound Sublist: AR1242.sub Report Date: 05/06/2023 11:30
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	447397	5.627	-0.001	235808	47.5	47.6	0.3	Tetrachloro-m-xylene
13.842	0.001	336070	14.068	0.000	375985	36.4	38.8	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

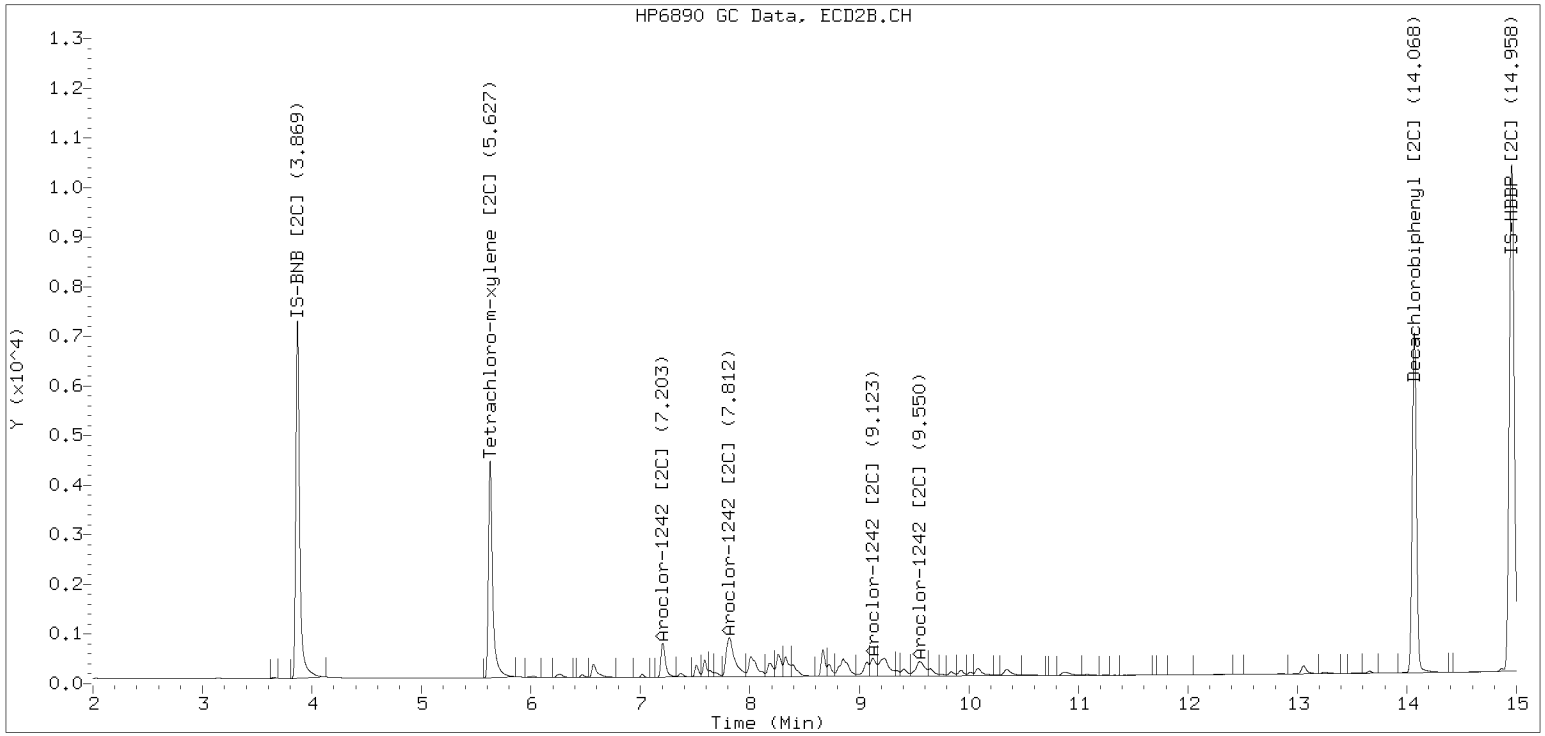
Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	625349	4.0
Hexabromobiphenyl	876625	923197	5.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359808	3.0
Hexabromobiphenyl	652984	683116	4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

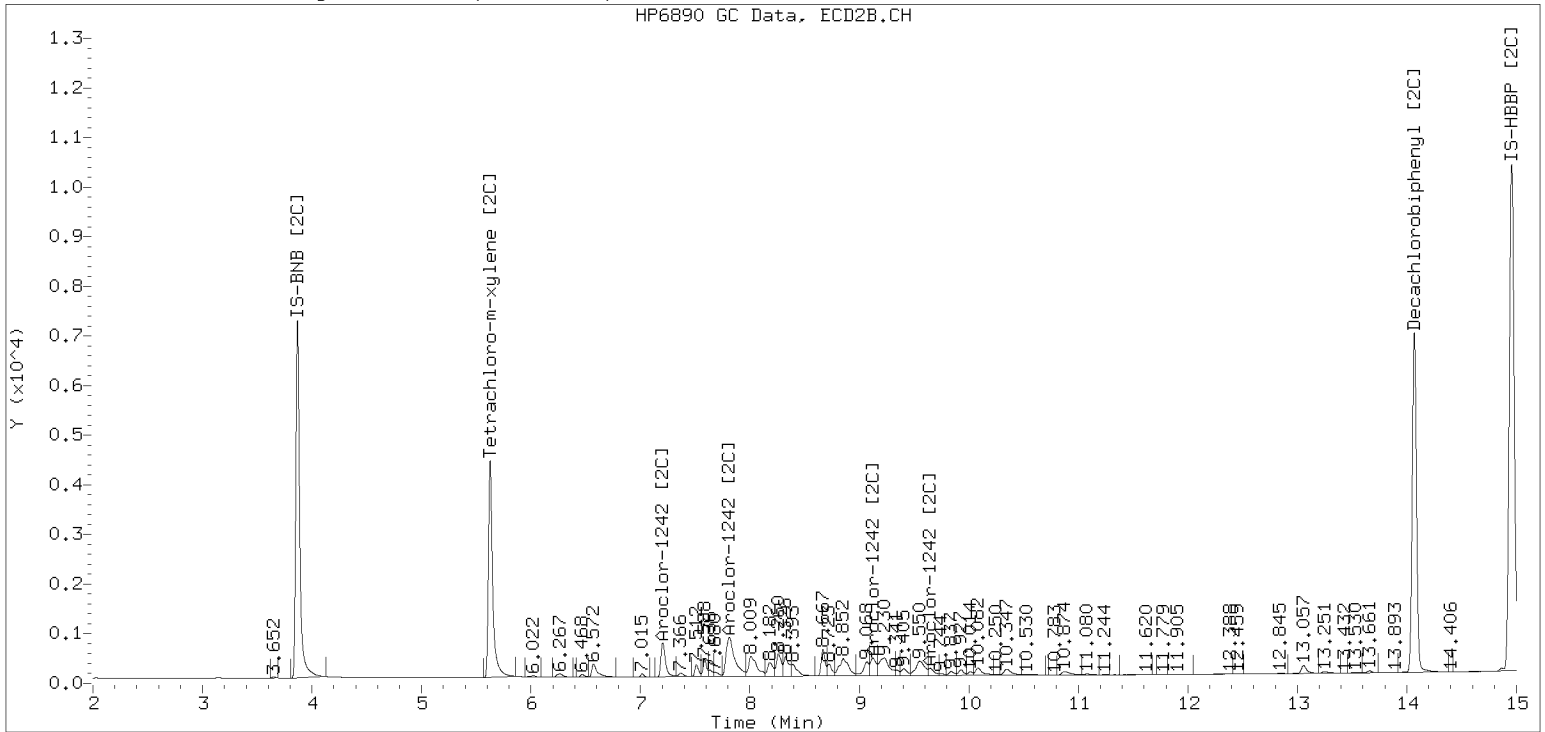
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052327ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052328ECD7.D
Data file 2: /230505.b/230505.b/05052328ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 06-MAY-2023 01:52
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	363354	5.628	-0.000	193087	38.8	39.5	1.9	Tetrachloro-m-xylene
13.843	0.003	347513	14.070	0.002	386262	38.0	40.3	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	621905	3.4
Hexabromobiphenyl	876625	915805	4.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354920	1.6
Hexabromobiphenyl	652984	674778	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.399	0.000	39684	250.0	1	8.260	0.000	42211	250.0
Aroclor-1248	2	8.524	0.000	103126	250.0	2	8.667	0.000	44588	250.0
Aroclor-1248	3	8.944	0.000	198327	250.0	3	9.120	0.000	52266	250.0
Aroclor-1248	4	9.243	0.000	101099	250.0	4	9.546	0.000	62674	250.0
Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (5.842 - 13.740) = 1607435 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 866525 Col2 Total PCB = 0.2 ppm*

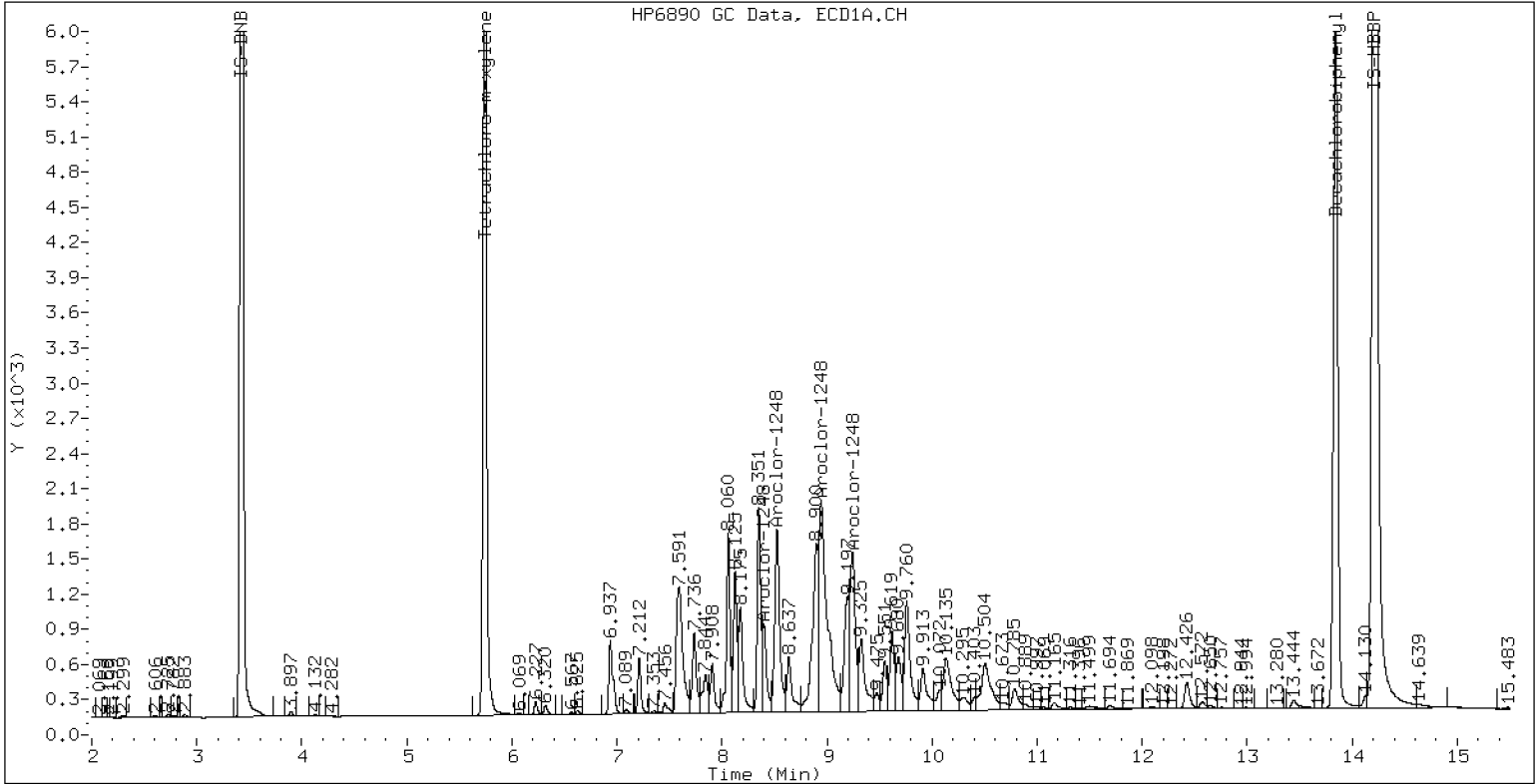
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248

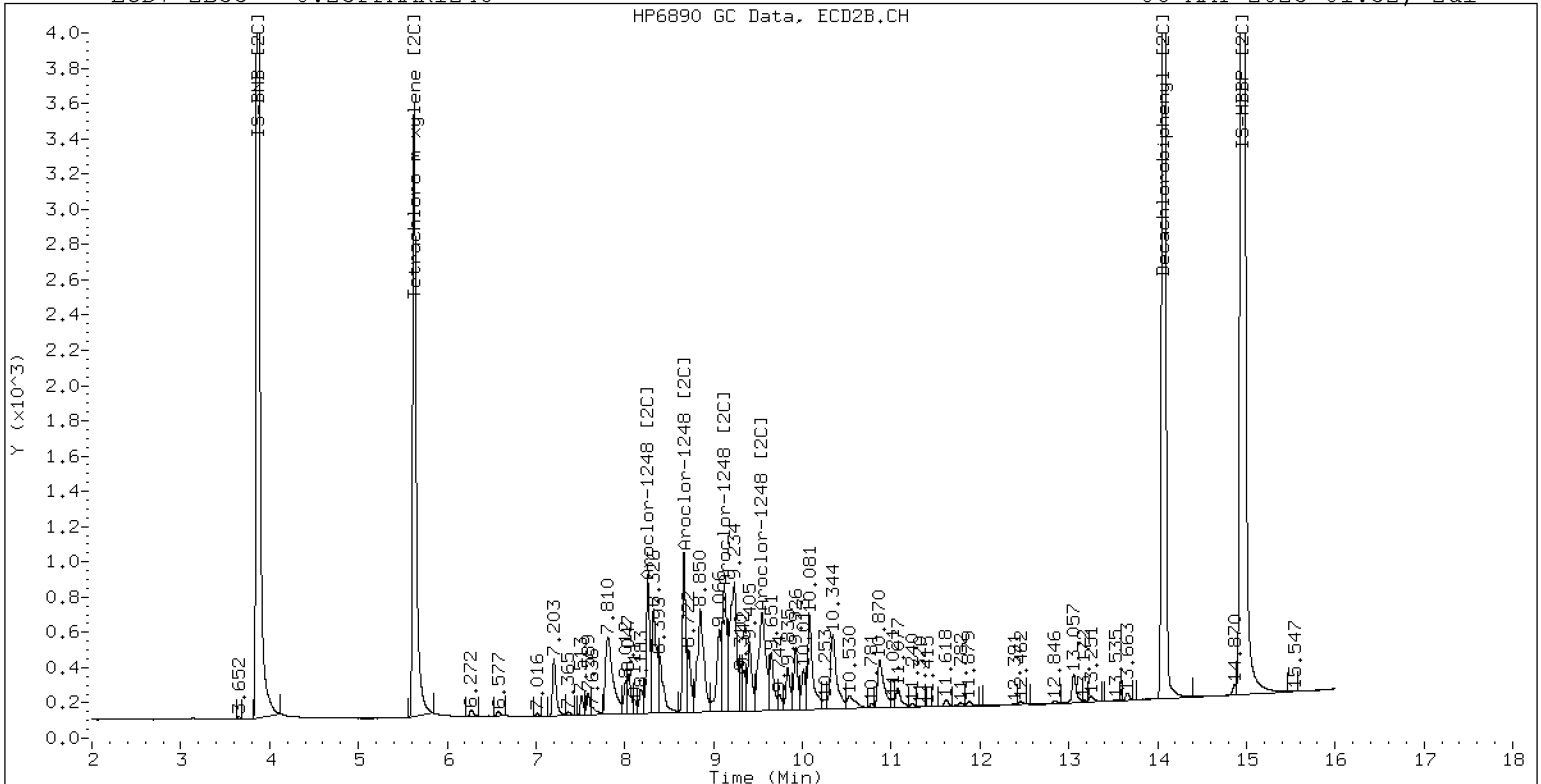
06-MAY-2023 01:52, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248

06-MAY-2023 01:52, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052329ECD7.D
Data file 2: /230505.b/230505.b/05052329ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 06-MAY-2023 02:13
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	357984	5.629	0.001	190255	37.8	38.5	1.8	Tetrachloro-m-xylene
13.842	0.002	347079	14.071	0.002	385540	37.4	39.8	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	628765	4.5
Hexabromobiphenyl	876625	929076	6.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359470	2.9
Hexabromobiphenyl	652984	682882	4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.246	0.000	161557	250.0	1	9.404	0.000	68278	250.0	
Aroclor-1254	2	9.325	0.000	72588	250.0	2	9.499	0.000	40561	250.0	
Aroclor-1254	3	9.618	0.000	104295	250.0	3	9.924	0.000	55343	250.0	
Aroclor-1254	4	9.756	0.000	204288	250.0	4	10.078	0.000	120775	250.0	
Aroclor-1254	5	10.126	0.000	123377	250.0	5	10.328	0.000	119827	250.0	
Total CollAve (5 peaks):				250.0		Total Col2Ave (5 peaks):				250.0	RPD = 0
Corrected Ave (4 peaks):				250.0		Corrected Ave (4 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 2115446 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1173654 Col2 Total PCB = 0.3 ppm*

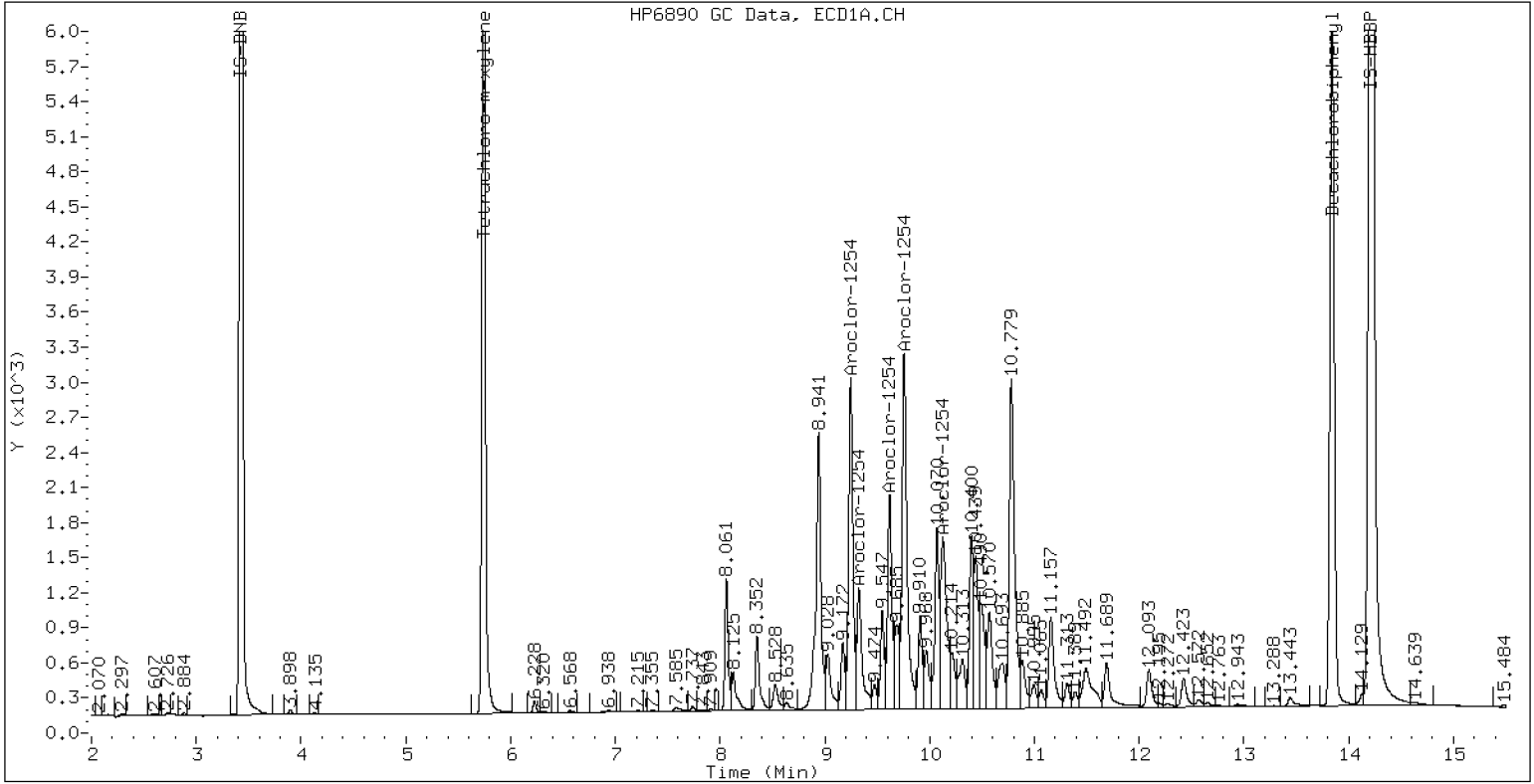
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254

06-MAY-2023 02:13, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052330ECD7.D
Data file 2: /230505.b/230505.b/05052330ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2162
Client ID:
Injection Date: 06-MAY-2023 02:34
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	379099	5.628	0.000	200082	39.7	40.8	2.7	Tetrachloro-m-xylene
13.842	0.001	358012	14.071	0.003	396142	38.1	40.5	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	634497	5.5
Hexabromobiphenyl	876625	940541	7.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	356713	2.1
Hexabromobiphenyl	652984	688599	5.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	4.663	0.000	11156	250.0	1	4.894	0.000	6578	250.0	
Aroclor-1221	2	6.069	0.000	22382	250.0	2	6.245	0.000	13633	250.0	
Aroclor-1221	3	6.321	0.000	53161	250.0	3	6.572	0.000	21443	250.0	
Total CollAve (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0	RPD = 0	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Aroclor-1262	1	10.779	0.000	106373	250.0	1	11.153	0.000	139491	250.0	
Aroclor-1262	2	12.195	0.000	149596	250.0	2	11.605	0.000	117643	250.0	
Aroclor-1262	3	12.269	0.000	160810	250.0	3	12.386	0.000	128556	250.0	
Aroclor-1262	4	12.939	0.000	131044	250.0	4	12.456	0.000	209520	250.0	
Total CollAve (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0	
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0	

Total PCB Area Coll (5.842 - 13.740) = 2742242 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1852573 Col2 Total PCB = 0.4 ppm*

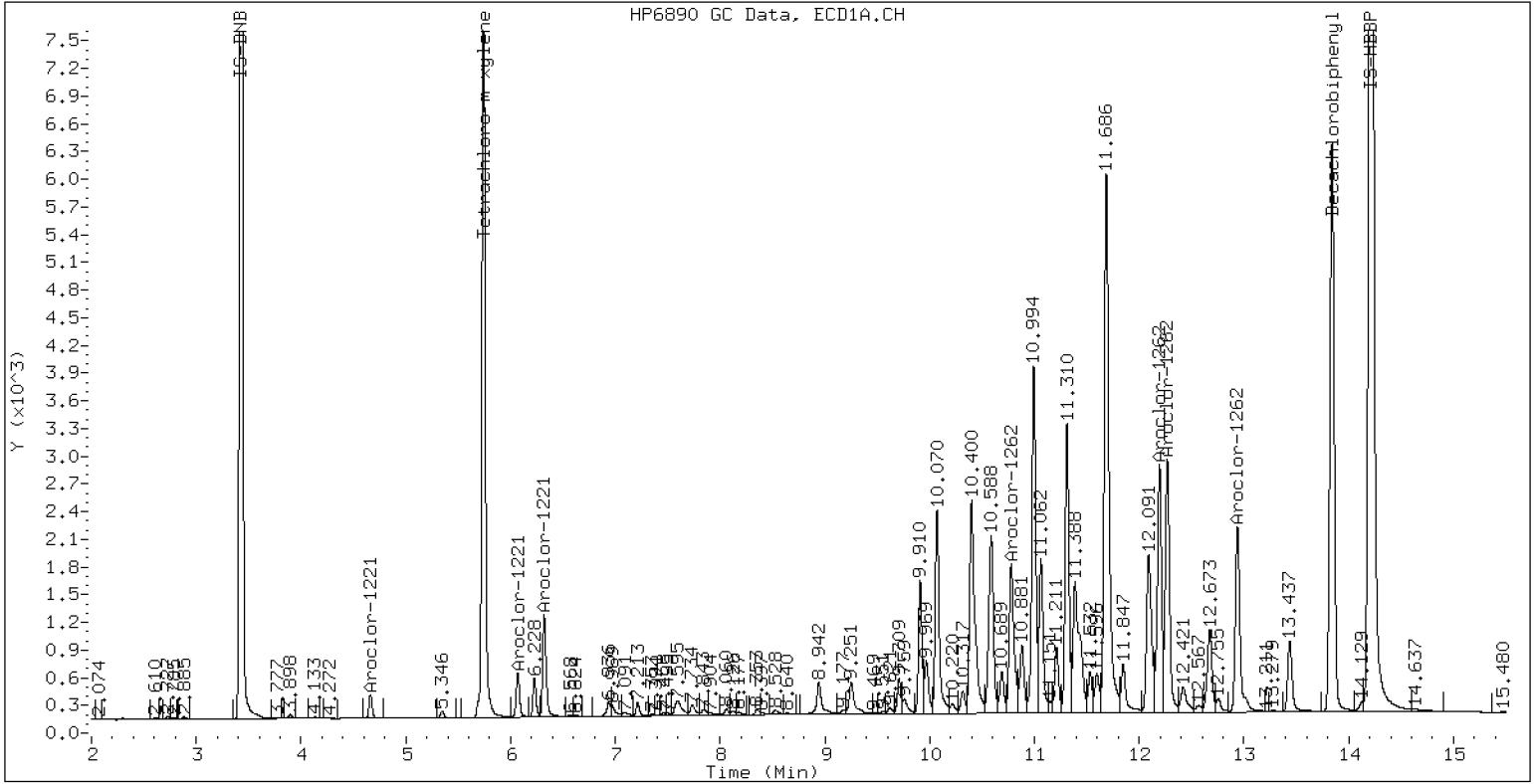
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2162

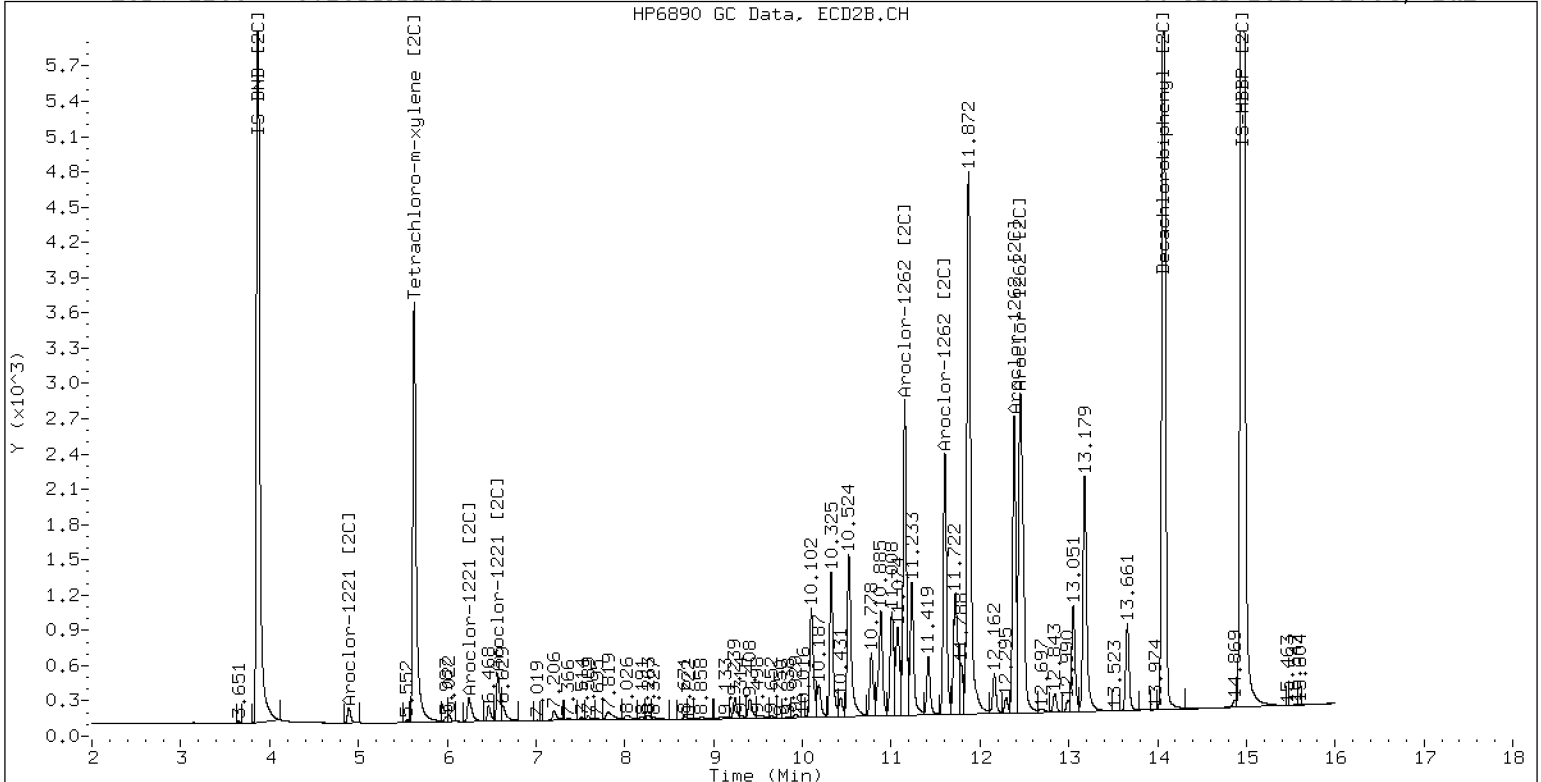
06-MAY-2023 02:34, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2162

06-MAY-2023 02:34, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052331ECD7.D
Data file 2: /230505.b/230505.b/05052331ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 06-MAY-2023 02:55
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	378314	5.628	0.000	200538	38.9	40.3	3.4	Tetrachloro-m-xylene
13.840	0.000	502472	14.068	0.000	573501	52.2	57.3	9.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	644974	7.2
Hexabromobiphenyl	876625	963091	9.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361821	3.6
Hexabromobiphenyl	652984	704753	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.664	0.000	7554	250.0	1	4.894	0.000	3508	250.0
Aroclor-1232	2	6.069	0.000	15718	250.0	2	7.205	0.000	20084	250.0
Aroclor-1232	3	7.595	0.000	74881	250.0	3	7.815	0.000	40344	250.0
Aroclor-1232	4	8.527	0.000	32051	250.0	4	8.669	0.000	11684	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.196	0.000	384005	250.0	1	12.385	0.000	333421	250.0
Aroclor-1268	2	12.268	0.000	381367	250.0	2	12.452	0.000	358458	250.0
Aroclor-1268	3	12.648	0.000	306717	250.0	3	12.843	0.000	306959	250.0
Aroclor-1268	4	13.437	0.000	875751	250.0	4	13.663	0.000	983908	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.842 - 13.740) = 3124318 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2731202 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052332ECD7.D
Data file 2: /230505.b/230505.b/05052332ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 06-MAY-2023 03:16
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	356595	5.629	0.000	185340	36.9	37.2	1.0	Tetrachloro-m-xylene
13.842	0.002	347188	14.070	0.002	384711	36.9	39.2	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	642284	6.8
Hexabromobiphenyl	876625	941356	7.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361711	3.6
Hexabromobiphenyl	652984	690563	5.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	61654	247.9	1	7.205	0.001	50106	244.7
Aroclor-1016	2	7.594	-0.001	199228	256.2	2	7.811	0.003	109839	251.7
Aroclor-1016	3	7.734	0.001	89643	249.3	3	8.009	0.004	48594	252.5
Aroclor-1016	4	8.399	0.001	38714	261.0	4	8.260	0.001	36878	241.2
Total CollAve (4 peaks):				253.6		Total Col2Ave (4 peaks):				247.5 RPD = 2
Corrected Ave (3 peaks):				251.1		Corrected Ave (3 peaks):				245.9 RPD = 2
Aroclor-1221	1	4.663	-0.000	436	9.7	1	---			0.0
Aroclor-1221	2	6.068	-0.001	8521	94.0	2	6.251	0.005	5766	104.3
Aroclor-1221	3	6.320	-0.001	41973	195.0	3	6.572	0.000	23212	266.9
Total CollAve (3 peaks):				99.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.663	-0.000	436	14.5	1	---			0.0
Aroclor-1232	2	6.068	-0.002	8521	136.1	2	7.205	0.000	50106	623.9
Aroclor-1232	3	7.594	-0.001	199228	667.9	3	7.811	-0.004	109839	680.8
Aroclor-1232	4	8.526	-0.001	85985	673.5	4	8.667	-0.003	34670	742.1
Total CollAve (4 peaks):				373.0		Total Col2Ave (3 peaks):				682.3 RPD = 59*
Corrected Ave (3 peaks):				272.8		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	61654	304.6	1	7.205	0.001	50106	310.0
Aroclor-1242	2	7.594	-0.001	199228	310.7	2	7.811	-0.002	109839	319.4
Aroclor-1242	3	8.399	0.000	38714	312.1	3	9.069	-0.054	21513	195.1
Aroclor-1242	4	8.526	0.001	85985	299.5	4	9.537	-0.013	1824	13.7
Total CollAve (4 peaks):				306.7		Total Col2Ave (4 peaks):				209.6 RPD = 38
Corrected Ave (3 peaks):				304.9		Corrected Ave (3 peaks):				172.9 RPD = 55*
Aroclor-1248	1	8.399	-0.000	38714	236.2	1	8.260	0.000	36878	214.3
Aroclor-1248	2	8.526	0.001	85985	201.8	2	8.667	-0.001	34670	190.7
Aroclor-1248	3	8.941	-0.003	81615	99.6	3	9.069	-0.051	21513	101.0
Aroclor-1248	4	9.249	0.006	52526	125.8	4	9.537	-0.008	1824	7.1
Total CollAve (4 peaks):				165.8		Total Col2Ave (4 peaks):				128.3 RPD = 26
Corrected Ave (3 peaks):				142.4		Corrected Ave (3 peaks):				99.6 RPD = 35
Aroclor-1254	1	9.249	0.003	52526	79.6	1	9.405	0.001	24726	90.0
Aroclor-1254	2	---			0.0	2	9.537	0.038	1824	11.2
Aroclor-1254	3	9.619	0.001	7081	16.6	3	9.926	0.002	3128	14.0
Aroclor-1254	4	9.756	0.001	21856	26.2	4	10.101	0.023	62581	128.7
Aroclor-1254	5	10.069	-0.057	159796	317.0	5	10.324	-0.004	85433	177.1
Total CollAve (4 peaks):				109.8		Total Col2Ave (5 peaks):				84.2 RPD = 26
Corrected Ave (3 peaks):				40.8		Corrected Ave (4 peaks):				61.0 RPD = 40
Aroclor-1260	1	10.995	0.001	145767	292.8	1	11.605	-0.000	99761	272.0
Aroclor-1260	2	11.311	0.001	142028	289.1	2	11.872	0.000	273505	285.1
Aroclor-1260	3	11.686	0.000	354468	288.1	3	12.389	0.001	70545	296.8
Aroclor-1260	4	12.092	0.002	161281	267.6	4	12.455	-0.000	180783	282.1
Aroclor-1260	5	12.194	0.001	76105	289.6	NS	---			----
Total CollAve (5 peaks):				285.5		Total Col2Ave (4 peaks):				284.0 RPD = 1
Corrected Ave (4 peaks):				283.6		Corrected Ave (3 peaks):				279.8 RPD = 1
Aroclor-1262	1	10.777	-0.001	215850	506.9	1	11.153	-0.001	104059	186.0
Aroclor-1262	2	12.194	-0.000	76105	127.1	2	11.605	0.001	99761	211.4
Aroclor-1262	3	12.271	0.001	94628	147.0	3	12.389	0.003	70545	136.8
Aroclor-1262	4	12.939	-0.000	78852	150.3	4	12.455	-0.001	180783	215.1
Total CollAve (4 peaks):				232.8		Total Col2Ave (4 peaks):				187.3 RPD = 22
Corrected Ave (3 peaks):				141.5		Corrected Ave (3 peaks):				178.1 RPD = 23
Aroclor-1268	1	12.194	-0.001	76105	50.7	1	12.389	0.004	70545	54.0
Aroclor-1268	2	12.271	0.003	94628	63.5	2	12.455	0.003	180783	128.7
Aroclor-1268	3	12.675	0.026	38830	32.4	3	12.844	0.001	3082	2.6
Aroclor-1268	4	13.440	0.003	19986	5.8	4	13.661	-0.002	14882	3.9
Total CollAve (4 peaks):				38.1		Total Col2Ave (4 peaks):				47.3 RPD = 21
Corrected Ave (3 peaks):				29.6		Corrected Ave (3 peaks):				20.1 RPD = 38

Total PCB Area Col1 (5.842 - 13.740) = 3657118 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2255286 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052333ECD7.D
Data file 2: /230505.b/230505.b/05052333ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 06-MAY-2023 03:36
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.744	0.002	319899	5.630	0.002	167866	32.8	33.4	1.9	Tetrachloro-m-xylene
13.842	0.002	398699	14.069	0.001	434332	40.9	44.0	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	648004	7.7
Hexabromobiphenyl	876625	976327	11.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	365379	4.6
Hexabromobiphenyl	652984	695394	6.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.001	47446	189.1	1	7.205	0.001	36469	176.3
Aroclor-1016	2	7.594	-0.000	147684	188.2	2	7.814	0.007	77885	176.7
Aroclor-1016	3	7.735	0.002	67175	185.2	3	8.012	0.006	38400	197.5
Aroclor-1016	4	8.398	0.000	30565	204.3	4	8.261	0.002	27551	178.4
Total CollAve (4 peaks):				191.7		Total Col2Ave (4 peaks):				182.2 RPD = 5
Corrected Ave (3 peaks):				187.5		Corrected Ave (3 peaks):				177.1 RPD = 6
Aroclor-1221	1	4.666	0.002	870	19.1	1	---			0.0
Aroclor-1221	2	6.069	0.000	7118	77.8	2	6.257	0.011	4359	78.0
Aroclor-1221	3	6.322	0.001	32969	151.8	3	6.573	0.001	16609	189.0
Total CollAve (3 peaks):				82.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.666	0.002	870	28.7	1	---			0.0
Aroclor-1232	2	6.069	0.000	7118	112.7	2	7.205	-0.000	36469	449.5
Aroclor-1232	3	7.594	-0.001	147684	490.8	3	7.814	-0.001	77885	477.9
Aroclor-1232	4	8.526	-0.000	70601	548.1	4	8.668	-0.001	25417	538.5
Total CollAve (4 peaks):				295.1		Total Col2Ave (3 peaks):				488.7 RPD = 49*
Corrected Ave (3 peaks):				210.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	47446	232.4	1	7.205	0.001	36469	223.3
Aroclor-1242	2	7.594	-0.000	147684	228.2	2	7.814	0.002	77885	224.2
Aroclor-1242	3	8.398	0.000	30565	244.2	3	9.124	0.001	25864	232.2
Aroclor-1242	4	8.526	0.002	70601	243.8	4	9.552	0.001	32437	241.7
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				230.4 RPD = 3
Corrected Ave (3 peaks):				234.8		Corrected Ave (3 peaks):				226.6 RPD = 4
Aroclor-1248	1	8.398	-0.001	30565	184.8	1	8.261	0.001	27551	158.5
Aroclor-1248	2	8.526	0.002	70601	164.3	2	8.668	0.001	25417	138.4
Aroclor-1248	3	8.946	0.002	172847	209.1	3	9.124	0.004	25864	120.2
Aroclor-1248	4	9.243	-0.001	87363	207.3	4	9.552	0.006	32437	125.7
Total CollAve (4 peaks):				191.4		Total Col2Ave (4 peaks):				135.7 RPD = 34
Corrected Ave (3 peaks):				185.5		Corrected Ave (3 peaks):				128.1 RPD = 37
Aroclor-1254	1	9.243	-0.004	87363	131.2	1	9.406	0.002	13247	47.7
Aroclor-1254	2	9.326	0.001	28949	96.7	2	9.552	0.053	32437	196.7
Aroclor-1254	3	9.622	0.004	20780	48.3	3	9.927	0.003	10002	44.5
Aroclor-1254	4	9.762	0.006	35470	42.1	4	10.082	0.005	19933	40.6
Aroclor-1254	5	10.140	0.015	28075	55.2	5	10.341	0.013	19432	39.9
Total CollAve (5 peaks):				74.7		Total Col2Ave (5 peaks):				73.9 RPD = 1
Corrected Ave (4 peaks):				60.6		Corrected Ave (4 peaks):				43.2 RPD = 34
Aroclor-1260	1	10.998	0.005	3609	7.0	1	11.618	0.012	2137	5.8
Aroclor-1260	2	11.317	0.007	3837	7.5	2	11.879	0.007	1437	1.5
Aroclor-1260	3	11.765	0.080	33905	26.6	3	12.382	-0.006	12460	52.1
Aroclor-1260	4	12.097	0.007	9099	14.6	4	---			0.0
Aroclor-1260	5	12.272	0.079	2060	7.6	NS	---			----
Total CollAve (5 peaks):				12.6		Total Col2Ave (3 peaks):				19.8 RPD = 44*
Corrected Ave (4 peaks):				9.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.787	0.009	24040	54.4	1	11.078	-0.075	7864	14.0
Aroclor-1262	2	12.272	0.077	2060	3.3	2	11.618	0.013	2137	4.5
Aroclor-1262	3	---			0.0	3	12.382	-0.004	12460	24.0
Aroclor-1262	4	12.937	-0.002	16041	29.5	4	---			0.0
Total CollAve (3 peaks):				29.1		Total Col2Ave (3 peaks):				14.1 RPD = 69*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.272	0.076	2060	1.3	1	12.382	-0.003	12460	9.5
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	4324	3.5	3	12.845	0.002	951	0.8
Aroclor-1268	4	13.442	0.005	15801	4.4	4	13.628	-0.035	6512	1.7
Total CollAve (3 peaks):				3.1		Total Col2Ave (3 peaks):				4.0 RPD = 25
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.842 - 13.740) = 1489022 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 667658 Col2 Total PCB = 0.2 ppm*

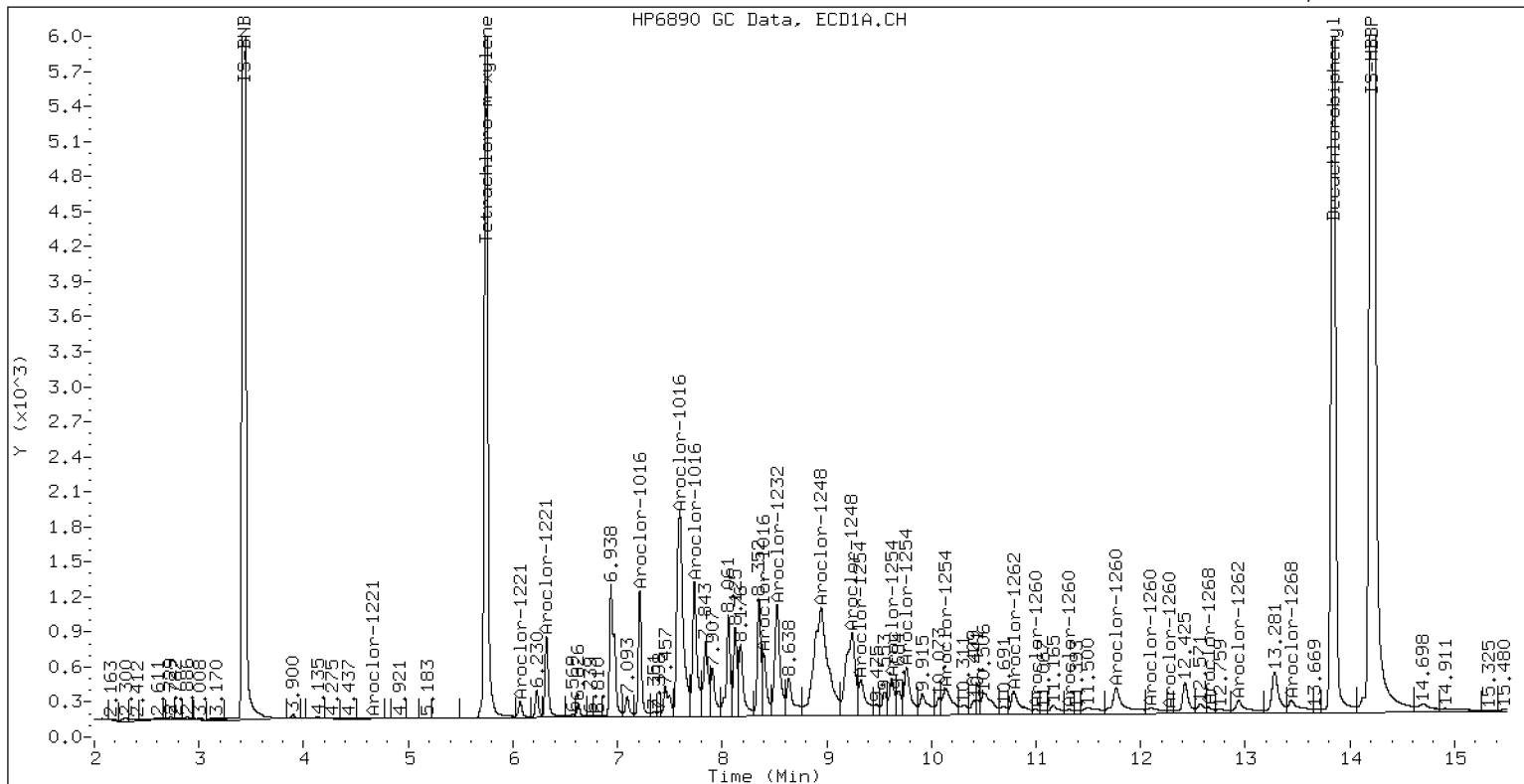
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV

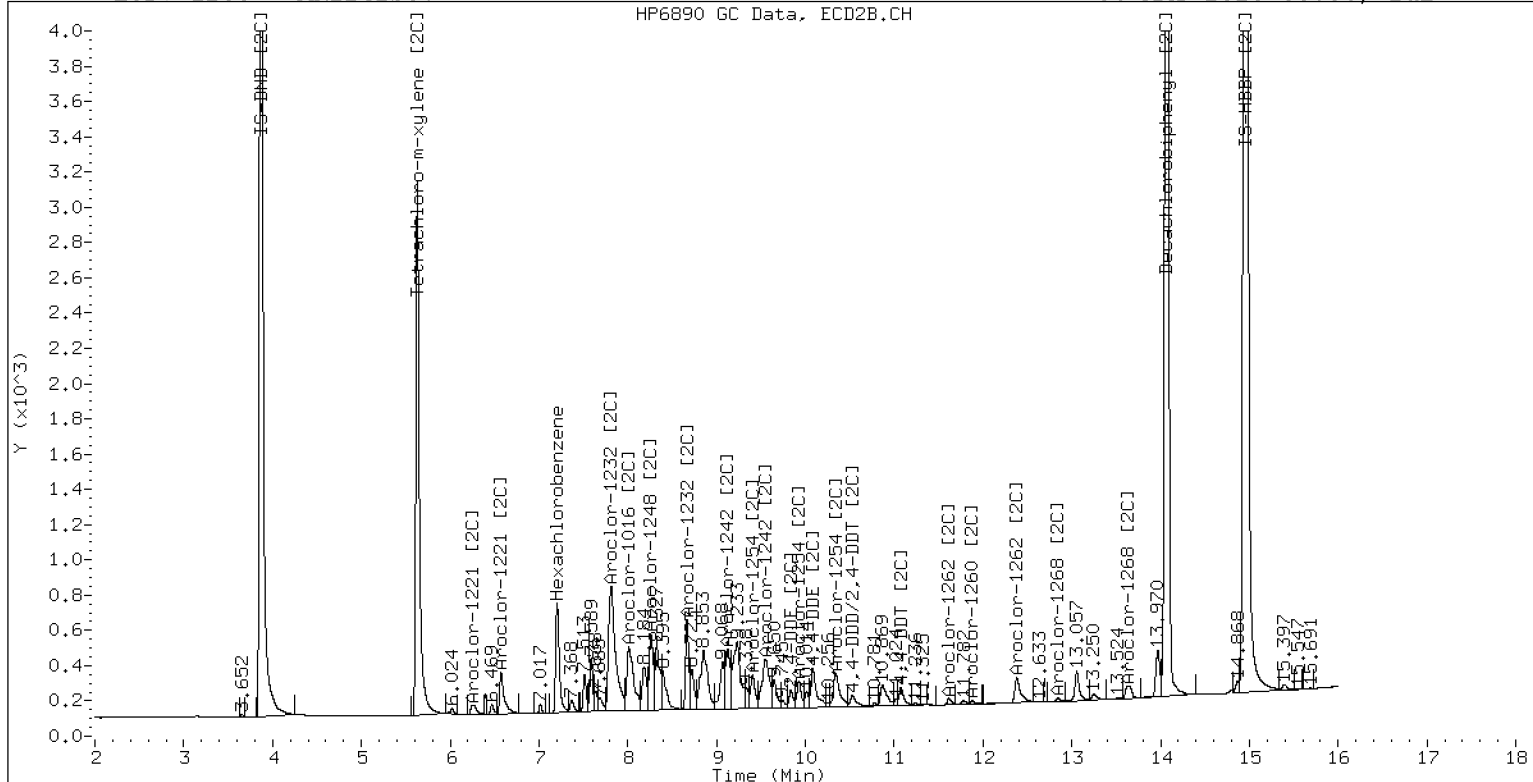
06-MAY-2023 03:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV

06-MAY-2023 03:36, 2ul

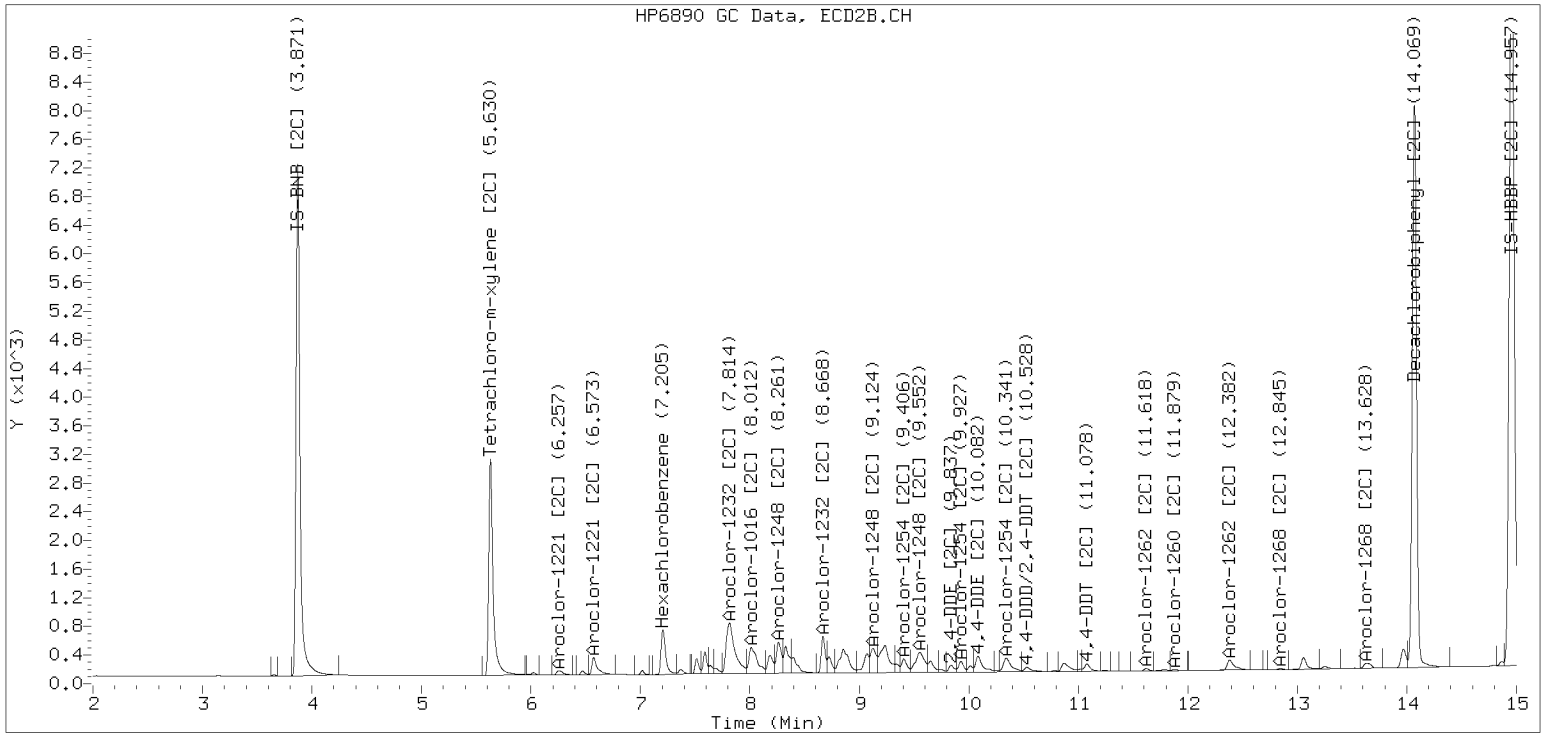


ZB-35 Manual Integration: NO

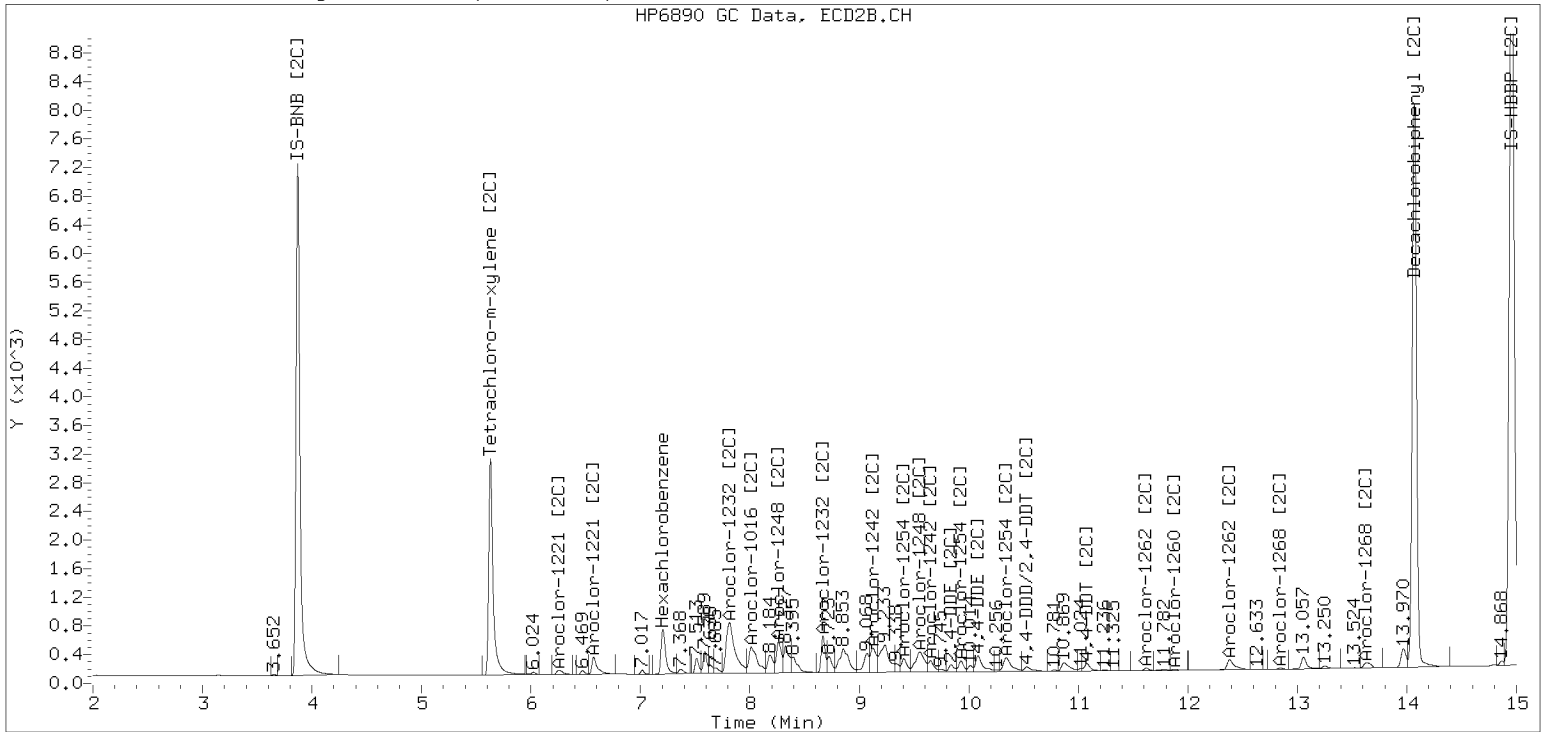
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052333ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052334ECD7.D
Data file 2: /230505.b/230505.b/05052334ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 06-MAY-2023 03:57
Report Date: 05/06/2023 12:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.741	-0.001	356328	5.629	0.000	186552	36.8	37.7	2.5	Tetrachloro-m-xylene
13.842	0.001	339452	14.070	0.002	373861	35.7	38.0	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	643038	6.9
Hexabromobiphenyl	876625	952051	8.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359604	3.0
Hexabromobiphenyl	652984	692982	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	19871	79.8	1	7.203	-0.001	18843	92.6
Aroclor-1016	2	7.589	-0.006	95111	122.2	2	7.812	0.005	52352	120.7
Aroclor-1016	3	7.736	0.003	37565	104.4	3	8.012	0.006	8263	43.2
Aroclor-1016	4	8.399	0.002	41542	279.7	4	8.260	0.001	42833	281.8
Total CollAve (4 peaks):				146.5		Total Col2Ave (4 peaks):				134.6 RPD = 9
Corrected Ave (3 peaks):				102.1		Corrected Ave (3 peaks):				85.5 RPD = 18
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.066	-0.003	351	3.9	2	6.275	0.029	1573	28.6
Aroclor-1221	3	6.320	-0.001	3509	16.3	3	6.576	0.004	967	11.2
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.066	-0.003	351	5.6	2	7.203	-0.001	18843	236.0
Aroclor-1232	3	7.589	-0.006	95111	318.5	3	7.812	-0.002	52352	326.4
Aroclor-1232	4	8.524	-0.002	105782	827.6	4	8.667	-0.002	44962	968.0
Total CollAve (3 peaks):				383.9		Total Col2Ave (3 peaks):				510.1 RPD = 28
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.212	0.000	19871	98.1	1	7.203	-0.000	18843	117.2
Aroclor-1242	2	7.589	-0.006	95111	148.1	2	7.812	-0.000	52352	153.1
Aroclor-1242	3	8.399	0.001	41542	334.5	3	9.120	-0.003	52681	480.6
Aroclor-1242	4	8.524	-0.000	105782	368.1	4	9.548	-0.002	63343	479.5
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				307.6 RPD = 26
Corrected Ave (3 peaks):				193.6		Corrected Ave (3 peaks):				250.0 RPD = 25
Aroclor-1248	1	8.399	0.001	41542	253.1	1	8.260	-0.001	42833	250.4
Aroclor-1248	2	8.524	-0.000	105782	248.0	2	8.667	0.000	44962	248.8
Aroclor-1248	3	8.944	-0.000	206928	252.3	3	9.120	-0.000	52681	248.7
Aroclor-1248	4	9.242	-0.001	105227	251.7	4	9.548	0.002	63343	249.4
Total CollAve (4 peaks):				251.3		Total Col2Ave (4 peaks):				249.3 RPD = 1
Corrected Ave (3 peaks):				250.6		Corrected Ave (3 peaks):				249.0 RPD = 1
Aroclor-1254	1	9.242	-0.004	105227	159.2	1	9.404	0.000	25835	94.6
Aroclor-1254	2	9.324	-0.001	51326	172.8	2	9.548	0.049	63343	390.3
Aroclor-1254	3	9.619	0.001	41394	97.0	3	9.925	0.001	22609	102.1
Aroclor-1254	4	9.759	0.003	72223	86.4	4	10.079	0.001	43816	90.7
Aroclor-1254	5	10.135	0.010	49936	98.9	5	10.345	0.016	42513	88.7
Total CollAve (5 peaks):				122.9		Total Col2Ave (5 peaks):				153.3 RPD = 22
Corrected Ave (4 peaks):				110.4		Corrected Ave (4 peaks):				94.0 RPD = 16
Aroclor-1260	1	10.998	0.005	1863	3.7	1	11.617	0.011	2599	7.1
Aroclor-1260	2	11.314	0.004	1152	2.3	2	11.877	0.005	1951	2.0
Aroclor-1260	3	11.695	0.009	1829	1.5	3	12.389	0.001	857	3.6
Aroclor-1260	4	12.097	0.007	1266	2.1	4	12.458	0.003	1302	2.0
Aroclor-1260	5	12.195	0.002	464	1.7	NS	---			----
Total CollAve (5 peaks):				2.3		Total Col2Ave (4 peaks):				3.7 RPD = 48*
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				2.5 RPD = 29
Aroclor-1262	1	10.784	0.005	15405	35.8	1	11.077	-0.077	9003	16.0
Aroclor-1262	2	12.195	0.000	464	0.8	2	11.617	0.012	2599	5.5
Aroclor-1262	3	12.271	0.002	489	0.8	3	12.389	0.003	857	1.7
Aroclor-1262	4	12.940	0.001	1638	3.1	4	12.458	0.002	1302	1.5
Total CollAve (4 peaks):				10.1		Total Col2Ave (4 peaks):				6.2 RPD = 48*
Corrected Ave (3 peaks):				1.5		Corrected Ave (3 peaks):				2.9 RPD = 61*
Aroclor-1268	1	12.195	-0.001	464	0.3	1	12.389	0.004	857	0.7
Aroclor-1268	2	12.271	0.003	489	0.3	2	12.458	0.006	1302	0.9
Aroclor-1268	3	12.649	0.001	1831	1.5	3	12.845	0.002	676	0.6
Aroclor-1268	4	13.443	0.006	5387	1.6	4	13.661	-0.003	2707	0.7
Total CollAve (4 peaks):				0.9		Total Col2Ave (4 peaks):				0.7 RPD = 26
Corrected Ave (3 peaks):				0.7		Corrected Ave (3 peaks):				0.6 RPD = 11

Total PCB Area Col1 (5.842 - 13.740) = 1634238 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 876760 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052335ECD7.D
 Data file 2: /230505.b/230505.b/05052335ECD7.D
 Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1254SCV
 Client ID:
 Injection Date: 06-MAY-2023 04:18
 Report Date: 05/06/2023 11:30
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368022	5.631	0.002	192033	37.6	38.3	2.0	Tetrachloro-m-xylene
13.843	0.002	352066	14.070	0.002	385384	36.0	38.5	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	650234	8.1
Hexabromobiphenyl	876625	980276	11.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	364142	4.3
Hexabromobiphenyl	652984	705291	8.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 05-MAY-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.002	635	2.5	1	---			0.0
Aroclor-1016	2	7.590	-0.004	2512	3.2	2	---			0.0
Aroclor-1016	3	7.738	0.005	1594	4.4	3	---			0.0
Aroclor-1016	4	8.351	-0.047	31774	211.6	4	---			0.0
Total CollAve (4 peaks):				55.4		Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.052	-0.018	242	2.6	2	---			0.0
Aroclor-1221	3	6.322	0.001	427	2.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.052	-0.018	242	3.8	2	---			0.0
Aroclor-1232	3	7.590	-0.005	2512	8.3	3	---			0.0
Aroclor-1232	4	8.528	0.001	13950	107.9	4	---			0.0
Total CollAve (3 peaks):				40.0		Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.214	0.002	635	3.1	1	---			0.0
Aroclor-1242	2	7.590	-0.005	2512	3.9	2	---			0.0
Aroclor-1242	3	8.351	-0.047	31774	253.0	3	9.125	0.002	23963	215.9
Aroclor-1242	4	8.528	0.004	13950	48.0	4	9.649	0.099	23982	179.3
Total CollAve (4 peaks):				77.0		Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.351	-0.048	31774	191.4	1	8.260	-0.000	23490	135.6
Aroclor-1248	2	8.528	0.004	13950	32.3	2	8.669	0.002	16693	91.2
Aroclor-1248	3	8.941	-0.003	154338	186.1	3	9.125	0.005	23963	111.7
Aroclor-1248	4	9.246	0.003	158369	374.6	4	9.499	-0.047	38716	150.5
Total CollAve (4 peaks):				196.1		Total Col2Ave (4 peaks): 122.3 RPD = 46*				
Corrected Ave (3 peaks):				136.6		Corrected Ave (3 peaks): 112.8 RPD = 19				
Aroclor-1254	1	9.246	-0.001	158369	237.0	1	9.404	0.000	67493	244.0
Aroclor-1254	2	9.325	-0.000	72386	241.1	2	9.499	-0.000	38716	235.6
Aroclor-1254	3	9.617	-0.001	103602	240.1	3	9.925	0.001	53972	240.7
Aroclor-1254	4	9.756	0.000	201259	238.2	4	10.079	0.001	116950	239.0
Aroclor-1254	5	10.127	0.001	122207	239.5	5	10.327	-0.001	118439	243.9
Total CollAve (5 peaks):				239.2		Total Col2Ave (5 peaks): 240.6 RPD = 1				
Corrected Ave (4 peaks):				238.7		Corrected Ave (4 peaks): 239.8 RPD = 0				
Aroclor-1260	1	10.994	0.001	13538	26.1	1	11.615	0.009	33465	89.3
Aroclor-1260	2	11.313	0.003	13900	27.2	2	11.876	0.004	25534	26.1
Aroclor-1260	3	11.689	0.004	32548	25.4	3	12.404	0.016	1811	7.5
Aroclor-1260	4	12.093	0.003	25285	40.3	4	12.458	0.002	14842	22.7
Aroclor-1260	5	12.273	0.079	2534	9.3	NS	---			---
Total CollAve (5 peaks):				25.6		Total Col2Ave (4 peaks): 36.4 RPD = 35				
Corrected Ave (4 peaks):				22.0		Corrected Ave (3 peaks): 18.7 RPD = 16				
Aroclor-1262	1	10.779	0.000	210018	473.6	1	11.073	-0.081	114323	200.0
Aroclor-1262	2	12.273	0.078	2534	4.1	2	11.615	0.010	33465	69.4
Aroclor-1262	3	---			0.0	3	12.404	0.018	1811	3.4
Aroclor-1262	4	12.939	0.001	1830	3.3	4	12.458	0.002	14842	17.3
Total CollAve (3 peaks):				160.3		Total Col2Ave (4 peaks): 72.6 RPD = 75*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 30.1				
Aroclor-1268	1	12.273	0.077	2534	1.6	1	12.404	0.019	1811	1.4
Aroclor-1268	2	---			0.0	2	12.458	0.005	14842	10.3
Aroclor-1268	3	12.654	0.006	2669	2.1	3	12.847	0.004	835	0.7
Aroclor-1268	4	13.442	0.004	6266	1.8	4	13.662	-0.001	2350	0.6
Total CollAve (3 peaks):				1.8		Total Col2Ave (4 peaks): 3.2 RPD = 55*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 0.9				

Total PCB Area Col1 (5.842 - 13.740) = 2123119 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 1146487 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052336ECD7.D
Data file 2: /230505.b/230505.b/05052336ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 06-MAY-2023 04:39
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	358254	5.628	-0.000	183759	37.8	39.1	3.3	Tetrachloro-m-xylene
13.842	0.002	344347	14.070	0.002	373300	37.1	38.8	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	629547	4.7
Hexabromobiphenyl	876625	929713	6.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	341980	-2.1
Hexabromobiphenyl	652984	678097	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.000	6601	27.1	1	7.207	0.003	3935	20.3	
Aroclor-1016	2	7.595	0.000	13419	17.6	2	7.821	0.013	6146	14.9	
Aroclor-1016	3	7.735	0.003	7114	20.2	3	8.027	0.021	3201	17.6	
Aroclor-1016	4	8.353	-0.045	3916	26.9	4	8.262	0.003	2131	14.7	
Total CollAve (4 peaks):				23.0	Total Col2Ave (4 peaks):				16.9	RPD = 30	
Corrected Ave (3 peaks):				21.6	Corrected Ave (3 peaks):				15.7	RPD = 31	
Aroclor-1221	1	4.663	-0.001	13184	297.8	1	4.893	-0.001	7253	287.5	
Aroclor-1221	2	6.070	0.000	25527	287.4	2	6.244	-0.001	14853	284.1	
Aroclor-1221	3	6.321	0.000	59985	284.3	3	6.571	-0.001	24083	292.9	
Total CollAve (3 peaks):				289.8	Total Col2Ave (3 peaks):				288.2	RPD = 1	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.663	-0.001	13184	447.0	1	4.893	-0.001	7253	546.9	
Aroclor-1232	2	6.070	0.000	25527	416.0	2	7.207	0.002	3935	51.8	
Aroclor-1232	3	7.595	-0.000	13419	45.9	3	7.821	0.006	6146	40.3	
Aroclor-1232	4	8.528	0.001	2679	21.4	4	8.671	0.002	1120	25.4	
Total CollAve (4 peaks):				232.6	Total Col2Ave (4 peaks):				166.1	RPD = 33	
Corrected Ave (3 peaks):				161.1	Corrected Ave (3 peaks):				39.2	RPD = 122*	
Aroclor-1242	1	7.213	0.001	6601	33.3	1	7.207	0.004	3935	25.7	
Aroclor-1242	2	7.595	-0.000	13419	21.3	2	7.821	0.008	6146	18.9	
Aroclor-1242	3	8.353	-0.045	3916	32.2	3	9.133	0.010	881	8.5	
Aroclor-1242	4	8.528	0.003	2679	9.5	4	9.651	0.101	516	4.1	
Total CollAve (4 peaks):				24.1	Total Col2Ave (4 peaks):				14.3	RPD = 51*	
Corrected Ave (3 peaks):				21.0	Corrected Ave (3 peaks):				10.5	RPD = 67*	
Aroclor-1248	1	8.353	-0.046	3916	24.4	1	8.262	0.002	2131	13.1	
Aroclor-1248	2	8.528	0.003	2679	6.4	2	8.671	0.004	1120	6.5	
Aroclor-1248	3	8.942	-0.002	25144	31.3	3	9.133	0.013	881	4.4	
Aroclor-1248	4	9.251	0.008	25583	62.5	4	9.500	-0.045	335	1.4	
Total CollAve (4 peaks):				31.1	Total Col2Ave (4 peaks):				6.3	RPD = 132*	
Corrected Ave (3 peaks):				20.7	Corrected Ave (3 peaks):				4.1	RPD = 134*	
Aroclor-1254	1	9.251	0.005	25583	39.5	1	9.408	0.004	9719	37.4	
Aroclor-1254	2	---			0.0	2	9.500	0.001	335	2.2	
Aroclor-1254	3	9.620	0.002	4245	10.2	3	9.928	0.004	2055	9.8	
Aroclor-1254	4	9.758	0.003	11050	13.5	4	10.100	0.022	55162	120.0	
Aroclor-1254	5	10.071	-0.055	129151	261.4	5	10.325	-0.004	68421	150.1	
Total CollAve (4 peaks):				81.1	Total Col2Ave (5 peaks):				63.9	RPD = 24	
Corrected Ave (3 peaks):				21.1	Corrected Ave (4 peaks):				42.3	RPD = 67*	
Aroclor-1260	1	10.995	0.002	206643	420.3	1	11.605	-0.001	119902	332.9	
Aroclor-1260	2	11.311	0.001	167443	345.1	2	11.872	0.000	293746	311.8	
Aroclor-1260	3	11.687	0.001	390491	321.4	3	12.386	-0.002	131462	563.2	
Aroclor-1260	4	12.091	0.001	120118	201.8	4	12.456	0.000	212898	338.4	
Aroclor-1260	5	12.195	0.002	155588	599.5	NS	---			----	
Total CollAve (5 peaks):				377.6	Total Col2Ave (4 peaks):				386.6	RPD = 2	
Corrected Ave (4 peaks):				322.2	Corrected Ave (3 peaks):				327.7	RPD = 2	
Aroclor-1262	1	10.777	-0.001	114050	271.2	1	11.153	0.000	141861	258.2	
Aroclor-1262	2	12.195	0.001	155588	263.0	2	11.605	0.000	119902	258.7	
Aroclor-1262	3	12.269	0.000	167998	264.2	3	12.386	-0.000	131462	259.6	
Aroclor-1262	4	12.938	-0.001	136019	262.5	4	12.456	0.000	212898	258.0	
Total CollAve (4 peaks):				265.2	Total Col2Ave (4 peaks):				258.6	RPD = 3	
Corrected Ave (3 peaks):				263.3	Corrected Ave (3 peaks):				258.3	RPD = 2	
Aroclor-1268	1	12.195	-0.000	155588	104.9	1	12.386	0.001	131462	102.4	
Aroclor-1268	2	12.269	0.001	167998	114.1	2	12.456	0.003	212898	154.3	
Aroclor-1268	3	12.675	0.027	60611	51.2	3	12.843	-0.000	8393	7.1	
Aroclor-1268	4	13.439	0.001	49821	14.7	4	13.661	-0.002	39480	10.4	
Total CollAve (4 peaks):				71.2	Total Col2Ave (4 peaks):				68.6	RPD = 4	

Corrected Ave (3 peaks): 56.9 Corrected Ave (3 peaks): 40.0 RPD = 35

Total PCB Area Col1 (5.842 - 13.740) = 2870829 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1885829 Col2 Total PCB = 0.5 ppm*

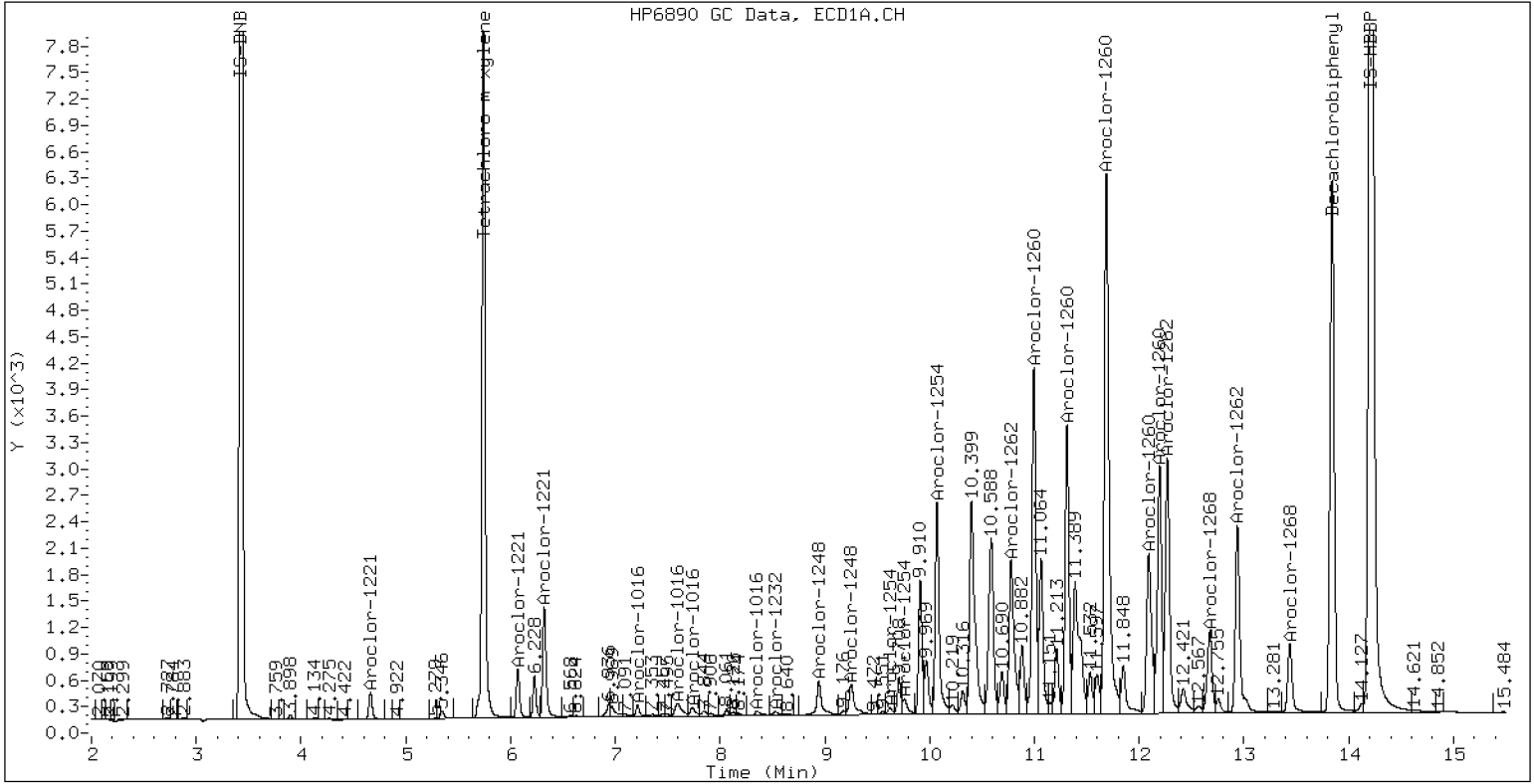
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

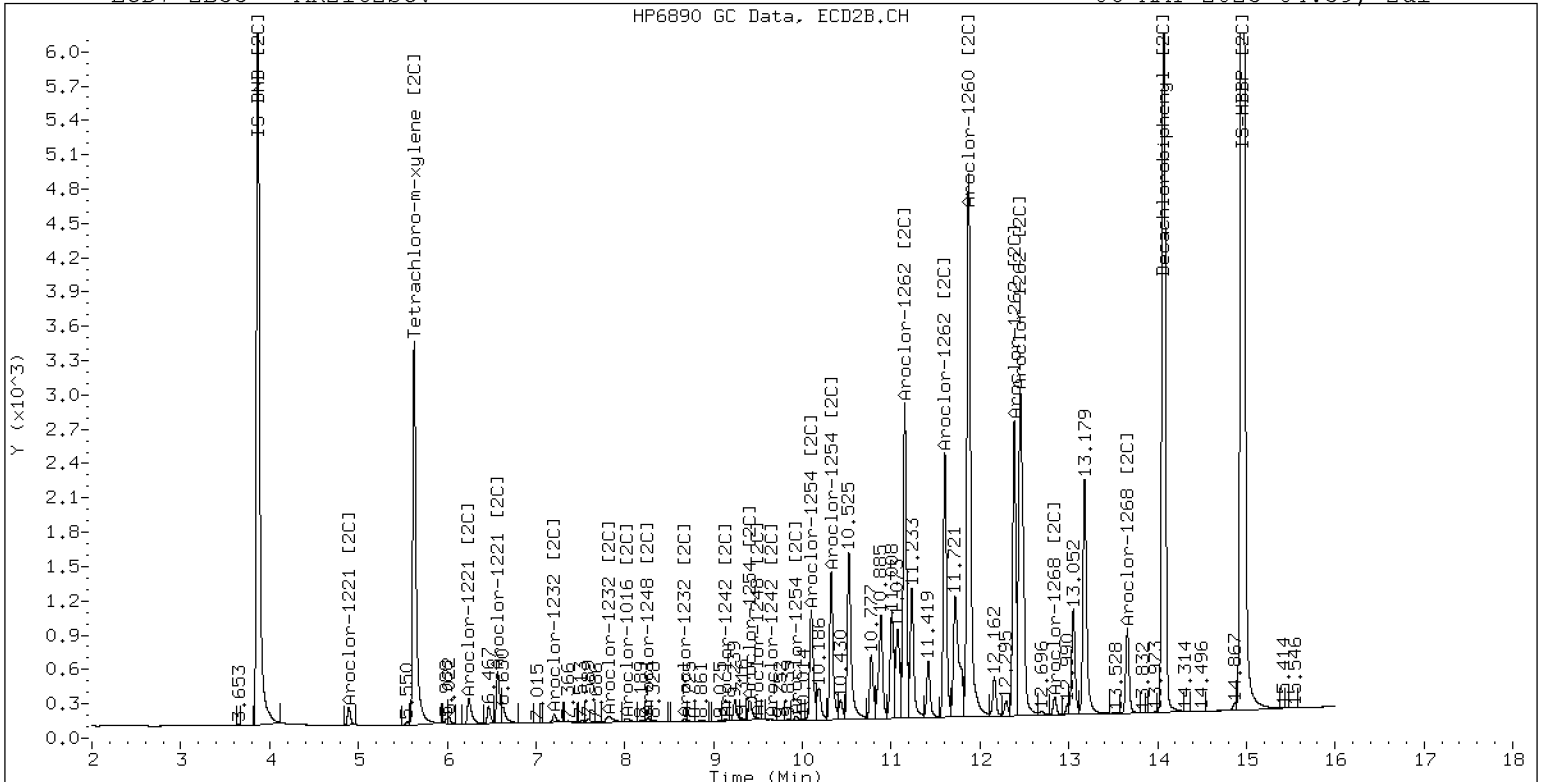
06-MAY-2023 04:39, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

06-MAY-2023 04:39, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052337ECD7.D
Data file 2: /230505.b/230505.b/05052337ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 06-MAY-2023 05:00
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	373749	5.629	0.001	196946	38.4	40.4	5.2	Tetrachloro-m-xylene
13.842	0.002	525409	14.069	0.001	586548	55.1	59.3	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	646456	7.5
Hexabromobiphenyl	876625	954969	8.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354120	1.4
Hexabromobiphenyl	652984	696139	6.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.001	28623	114.3	1	7.205	0.002	23124	115.4
Aroclor-1016	2	7.597	0.002	85721	109.5	2	7.815	0.007	47496	111.2
Aroclor-1016	3	7.735	0.002	41343	114.3	3	8.014	0.008	24029	127.5
Aroclor-1016	4	8.400	0.002	16653	111.6	4	8.262	0.003	15421	103.0
Total CollAve (4 peaks):				112.4		Total Col2Ave (4 peaks):				114.3 RPD = 2
Corrected Ave (3 peaks):				111.8		Corrected Ave (3 peaks):				109.9 RPD = 2
Aroclor-1221	1	4.664	0.001	7272	159.9	1	4.895	0.000	4045	154.9
Aroclor-1221	2	6.070	0.001	13478	147.8	2	6.246	0.000	9235	170.6
Aroclor-1221	3	6.321	0.001	43831	202.3	3	6.572	0.000	24300	285.4
Total CollAve (3 peaks):				170.0		Total Col2Ave (3 peaks):				203.6 RPD = 18
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.664	0.001	7272	240.1	1	4.895	0.001	4045	294.5
Aroclor-1232	2	6.070	0.001	13478	213.9	2	7.205	0.001	23124	294.1
Aroclor-1232	3	7.597	0.002	85721	285.5	3	7.815	0.000	47496	300.7
Aroclor-1232	4	8.527	0.000	36809	286.5	4	8.669	-0.000	14324	313.2
Total CollAve (4 peaks):				256.5		Total Col2Ave (4 peaks):				300.6 RPD = 16
Corrected Ave (3 peaks):				246.5		Corrected Ave (3 peaks):				296.5 RPD = 18
Aroclor-1242	1	7.214	0.002	28623	140.5	1	7.205	0.002	23124	146.1
Aroclor-1242	2	7.597	0.002	85721	132.8	2	7.815	0.002	47496	141.1
Aroclor-1242	3	8.400	0.002	16653	133.4	3	9.128	0.005	14403	133.4
Aroclor-1242	4	8.527	0.003	36809	127.4	4	9.648	0.098	5512	42.4
Total CollAve (4 peaks):				133.5		Total Col2Ave (4 peaks):				115.7 RPD = 14
Corrected Ave (3 peaks):				131.2		Corrected Ave (3 peaks):				105.6 RPD = 22
Aroclor-1248	1	8.400	0.001	16653	100.9	1	8.262	0.002	15421	91.5
Aroclor-1248	2	8.527	0.003	36809	85.8	2	8.669	0.002	14324	80.5
Aroclor-1248	3	8.944	0.000	89377	108.4	3	9.128	0.008	14403	69.0
Aroclor-1248	4	9.238	-0.005	41570	98.9	4	9.560	0.015	17331	69.3
Total CollAve (4 peaks):				98.5		Total Col2Ave (4 peaks):				77.6 RPD = 24
Corrected Ave (3 peaks):				95.2		Corrected Ave (3 peaks):				72.9 RPD = 26
Aroclor-1254	1	9.238	-0.008	41570	62.6	1	9.407	0.003	5487	20.4
Aroclor-1254	2	9.326	0.001	12640	42.3	2	9.560	0.061	17331	108.4
Aroclor-1254	3	9.624	0.006	7232	16.9	3	9.929	0.005	3481	16.0
Aroclor-1254	4	9.764	0.008	11671	13.9	4	10.086	0.009	7259	15.3
Aroclor-1254	5	10.139	0.014	7544	14.9	5	10.345	0.017	6610	14.0
Total CollAve (5 peaks):				30.1		Total Col2Ave (5 peaks):				34.8 RPD = 14
Corrected Ave (4 peaks):				22.0		Corrected Ave (4 peaks):				16.4 RPD = 29
Aroclor-1260	1	10.998	0.005	85093	168.5	1	11.598	-0.008	75237	203.5
Aroclor-1260	2	11.313	0.003	6363	12.8	2	11.873	0.001	33655	34.8
Aroclor-1260	3	11.688	0.002	47857	38.3	3	12.384	-0.004	346138	1444.4
Aroclor-1260	4	12.094	0.004	1291	2.1	4	12.453	-0.002	373218	577.8
Aroclor-1260	5	12.195	0.001	406211	1523.9	NS	---			----
Total CollAve (5 peaks):				349.1		Total Col2Ave (4 peaks):				565.1 RPD = 47*
Corrected Ave (4 peaks):				55.4		Corrected Ave (3 peaks):				272.0 RPD = 132*
Aroclor-1262	1	10.785	0.006	4006	9.3	1	11.156	0.002	52531	93.1
Aroclor-1262	2	12.195	0.000	406211	668.6	2	11.598	-0.007	75237	158.2
Aroclor-1262	3	12.268	-0.002	403730	618.2	3	12.384	-0.002	346138	665.8
Aroclor-1262	4	12.937	-0.002	145536	273.5	4	12.453	-0.002	373218	440.5
Total CollAve (4 peaks):				392.4		Total Col2Ave (4 peaks):				339.4 RPD = 14
Corrected Ave (3 peaks):				300.3		Corrected Ave (3 peaks):				230.6 RPD = 26
Aroclor-1268	1	12.195	-0.001	406211	266.7	1	12.384	-0.001	346138	262.7
Aroclor-1268	2	12.268	-0.000	403730	266.9	2	12.453	0.001	373218	263.5
Aroclor-1268	3	12.648	-0.000	323568	266.0	3	12.844	0.001	316122	260.6
Aroclor-1268	4	13.439	0.002	920777	265.1	4	13.663	0.000	1029335	264.8
Total CollAve (4 peaks):				266.2		Total Col2Ave (4 peaks):				262.9 RPD = 1

Corrected Ave (3 peaks): 265.9 Corrected Ave (3 peaks): 262.3 RPD = 1

Total PCB Area Col1 (5.842 - 13.740) = 3325332 Col1 Total PCB = 0.5 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 2876097 Col2 Total PCB = 0.7 ppm*

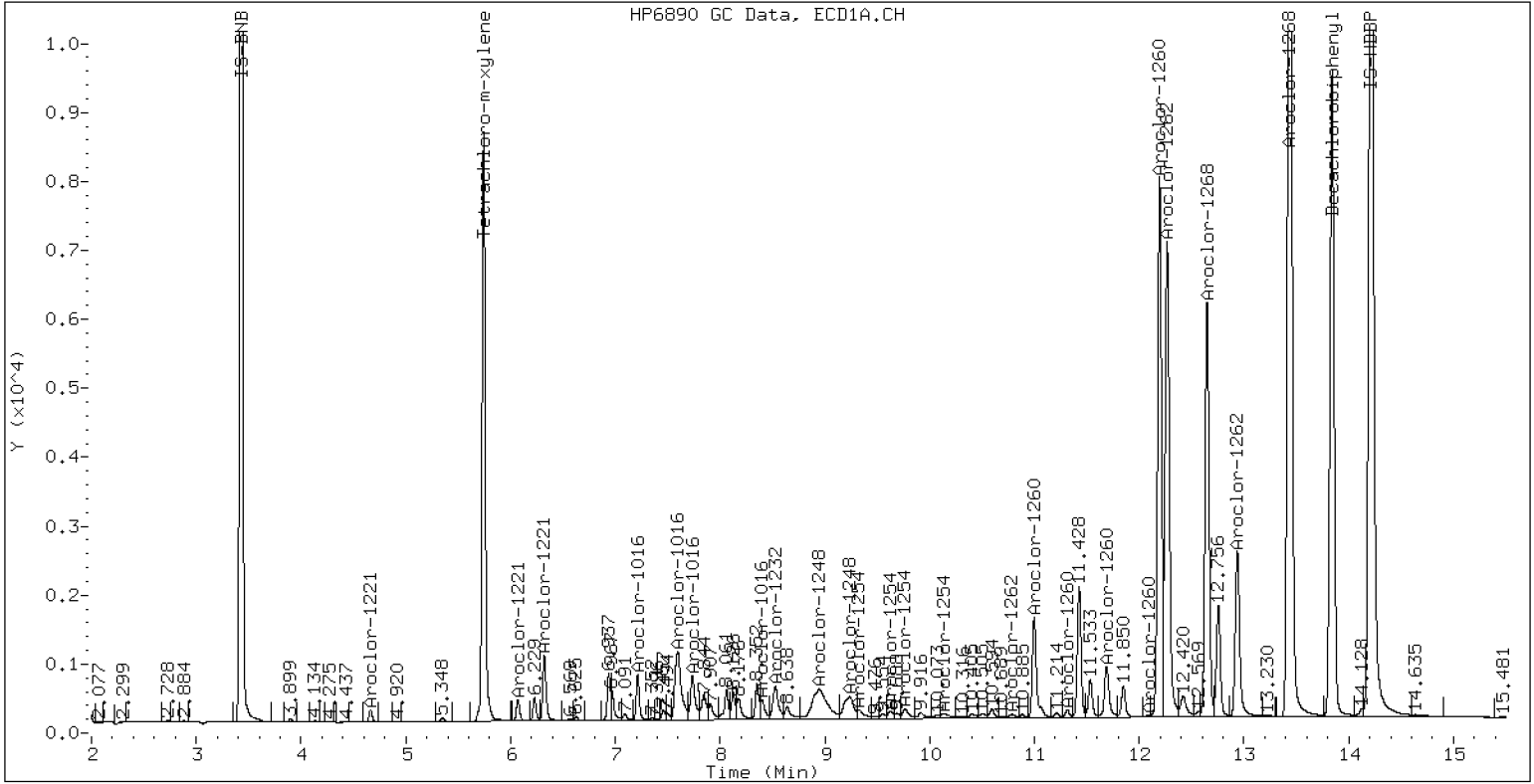
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

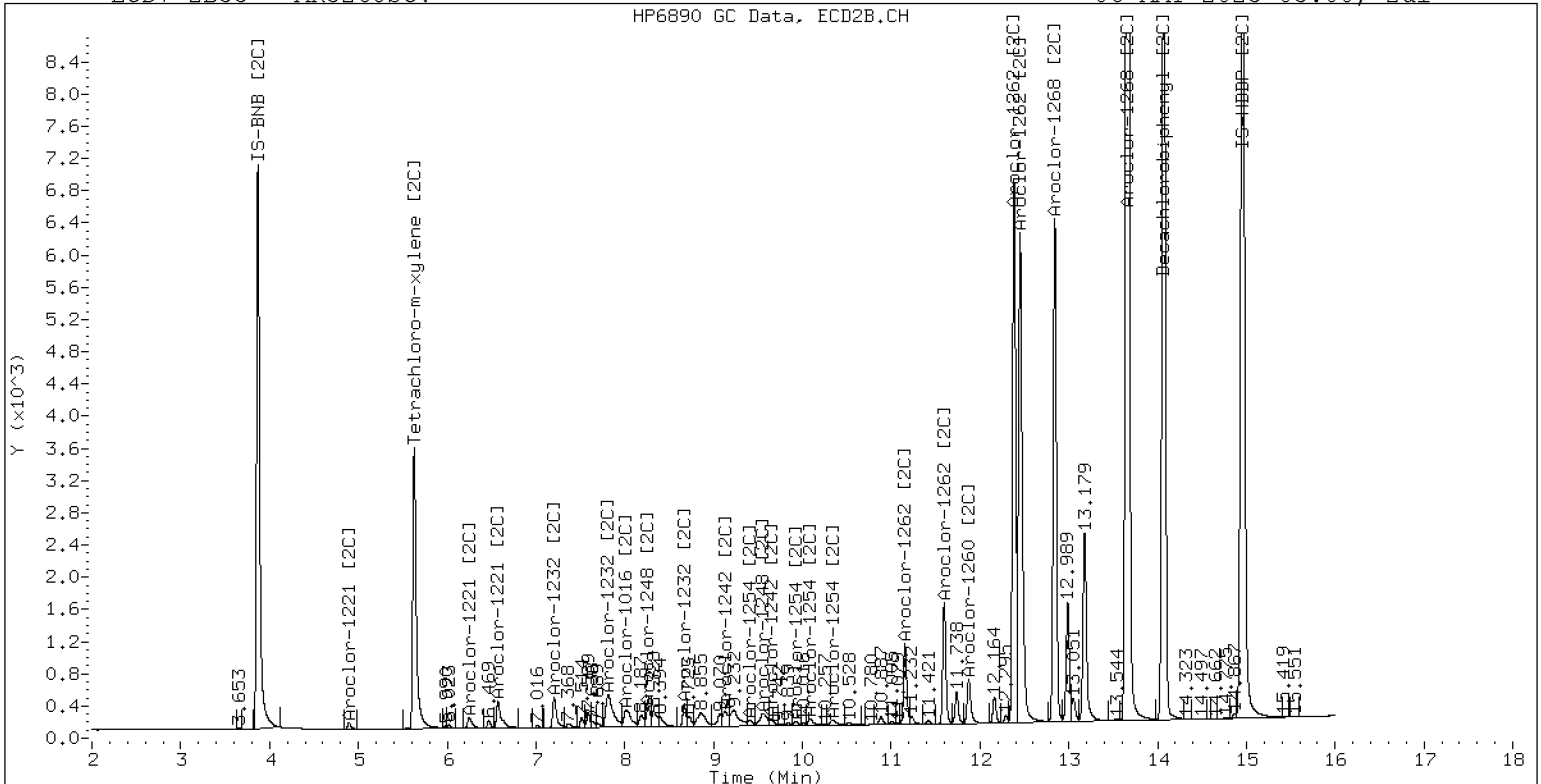
06-MAY-2023 05:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

06-MAY-2023 05:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230505.b/05052338ECD7.D

ARI ID: DDTS

RT	ZB5 Col Shift Response	ZB35 Col Shift Response	RT	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.206	0.000 428189	0.000 428008	9.867	0.100	0.000	----	2,4-DDE
0.000	-10.293 0	0.000 621468	10.625	0.000	0.000#	----	2,4-DDT
9.635	0.000 1004111	0.000 369270	10.165	0.100	0.000	----	4,4-DDE
10.243	0.000 476377	0.000 621468	10.625	0.100	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230505.b/05052339ECD7.D

ARI ID: DDT BD

RT	ZB5 Col Shift Response	ZB35 Col Shift Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.158	-0.049 12021|	9.884 0.017 17091|	0.002	0.000	----	2,4-DDE
0.000	-10.293 0|	10.633 0.008 326807|	0.000	0.000#	----	2,4-DDT
9.644	0.009 16770|	10.190 0.025 488|	0.001	0.000	----	4,4-DDE
10.216	-0.028 403865|	10.633 0.008 326807|	0.068	0.000#	----	4,4-DDD

Indicates value is from co-eluting peaks

* Indicates RPD > 40%



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV1

Sequence: SLE0079

Sequence Name: AR1660SCV1

Standard ID: L002065

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	254	1.4	20.00
Aroclor 1016 [2C]	250.00	248	-1.0	20.00
Aroclor 1260	250.00	285	14.2	20.00
Aroclor 1260 [2C]	250.00	284	13.6	20.00
Decachlorobiphenyl	40.000	36.9	-7.7	20.00
Tetrachlorometaxylene	40.000	36.9	-7.8	20.00
Decachlorobiphenyl [2C]	40.000	39.2	-1.9	20.00
Tetrachlorometaxylene [2C]	40.000	37.2	-6.9	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052332ECD7.D
Data file 2: /230505.b/230505.b/05052332ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 06-MAY-2023 03:16
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.742	-0.000	356595	5.629	0.000	185340	36.9	37.2	1.0	Tetrachloro-m-xylene
13.842	0.002	347188	14.070	0.002	384711	36.9	39.2	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	642284	6.8
Hexabromobiphenyl	876625	941356	7.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361711	3.6
Hexabromobiphenyl	652984	690563	5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	61654	247.9	1	7.205	0.001	50106	244.7
Aroclor-1016	2	7.594	-0.001	199228	256.2	2	7.811	0.003	109839	251.7
Aroclor-1016	3	7.734	0.001	89643	249.3	3	8.009	0.004	48594	252.5
Aroclor-1016	4	8.399	0.001	38714	261.0	4	8.260	0.001	36878	241.2
Total CollAve (4 peaks):				253.6		Total Col2Ave (4 peaks):				247.5 RPD = 2
Corrected Ave (3 peaks):				251.1		Corrected Ave (3 peaks):				245.9 RPD = 2
Aroclor-1221	1	4.663	-0.000	436	9.7	1	---			0.0
Aroclor-1221	2	6.068	-0.001	8521	94.0	2	6.251	0.005	5766	104.3
Aroclor-1221	3	6.320	-0.001	41973	195.0	3	6.572	0.000	23212	266.9
Total CollAve (3 peaks):				99.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.663	-0.000	436	14.5	1	---			0.0
Aroclor-1232	2	6.068	-0.002	8521	136.1	2	7.205	0.000	50106	623.9
Aroclor-1232	3	7.594	-0.001	199228	667.9	3	7.811	-0.004	109839	680.8
Aroclor-1232	4	8.526	-0.001	85985	673.5	4	8.667	-0.003	34670	742.1
Total CollAve (4 peaks):				373.0		Total Col2Ave (3 peaks):				682.3 RPD = 59*
Corrected Ave (3 peaks):				272.8		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	61654	304.6	1	7.205	0.001	50106	310.0
Aroclor-1242	2	7.594	-0.001	199228	310.7	2	7.811	-0.002	109839	319.4
Aroclor-1242	3	8.399	0.000	38714	312.1	3	9.069	-0.054	21513	195.1
Aroclor-1242	4	8.526	0.001	85985	299.5	4	9.537	-0.013	1824	13.7
Total CollAve (4 peaks):				306.7		Total Col2Ave (4 peaks):				209.6 RPD = 38
Corrected Ave (3 peaks):				304.9		Corrected Ave (3 peaks):				172.9 RPD = 55*
Aroclor-1248	1	8.399	-0.000	38714	236.2	1	8.260	0.000	36878	214.3
Aroclor-1248	2	8.526	0.001	85985	201.8	2	8.667	-0.001	34670	190.7
Aroclor-1248	3	8.941	-0.003	81615	99.6	3	9.069	-0.051	21513	101.0
Aroclor-1248	4	9.249	0.006	52526	125.8	4	9.537	-0.008	1824	7.1
Total CollAve (4 peaks):				165.8		Total Col2Ave (4 peaks):				128.3 RPD = 26
Corrected Ave (3 peaks):				142.4		Corrected Ave (3 peaks):				99.6 RPD = 35
Aroclor-1254	1	9.249	0.003	52526	79.6	1	9.405	0.001	24726	90.0
Aroclor-1254	2	---			0.0	2	9.537	0.038	1824	11.2
Aroclor-1254	3	9.619	0.001	7081	16.6	3	9.926	0.002	3128	14.0
Aroclor-1254	4	9.756	0.001	21856	26.2	4	10.101	0.023	62581	128.7
Aroclor-1254	5	10.069	-0.057	159796	317.0	5	10.324	-0.004	85433	177.1
Total CollAve (4 peaks):				109.8		Total Col2Ave (5 peaks):				84.2 RPD = 26
Corrected Ave (3 peaks):				40.8		Corrected Ave (4 peaks):				61.0 RPD = 40
Aroclor-1260	1	10.995	0.001	145767	292.8	1	11.605	-0.000	99761	272.0
Aroclor-1260	2	11.311	0.001	142028	289.1	2	11.872	0.000	273505	285.1
Aroclor-1260	3	11.686	0.000	354468	288.1	3	12.389	0.001	70545	296.8
Aroclor-1260	4	12.092	0.002	161281	267.6	4	12.455	-0.000	180783	282.1
Aroclor-1260	5	12.194	0.001	76105	289.6	NS	---			----
Total CollAve (5 peaks):				285.5		Total Col2Ave (4 peaks):				284.0 RPD = 1
Corrected Ave (4 peaks):				283.6		Corrected Ave (3 peaks):				279.8 RPD = 1
Aroclor-1262	1	10.777	-0.001	215850	506.9	1	11.153	-0.001	104059	186.0
Aroclor-1262	2	12.194	-0.000	76105	127.1	2	11.605	0.001	99761	211.4
Aroclor-1262	3	12.271	0.001	94628	147.0	3	12.389	0.003	70545	136.8
Aroclor-1262	4	12.939	-0.000	78852	150.3	4	12.455	-0.001	180783	215.1
Total CollAve (4 peaks):				232.8		Total Col2Ave (4 peaks):				187.3 RPD = 22
Corrected Ave (3 peaks):				141.5		Corrected Ave (3 peaks):				178.1 RPD = 23
Aroclor-1268	1	12.194	-0.001	76105	50.7	1	12.389	0.004	70545	54.0
Aroclor-1268	2	12.271	0.003	94628	63.5	2	12.455	0.003	180783	128.7
Aroclor-1268	3	12.675	0.026	38830	32.4	3	12.844	0.001	3082	2.6
Aroclor-1268	4	13.440	0.003	19986	5.8	4	13.661	-0.002	14882	3.9
Total CollAve (4 peaks):				38.1		Total Col2Ave (4 peaks):				47.3 RPD = 21
Corrected Ave (3 peaks):				29.6		Corrected Ave (3 peaks):				20.1 RPD = 38

Total PCB Area Col1 (5.842 - 13.740) = 3657118 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2255286 Col2 Total PCB = 0.5 ppm*

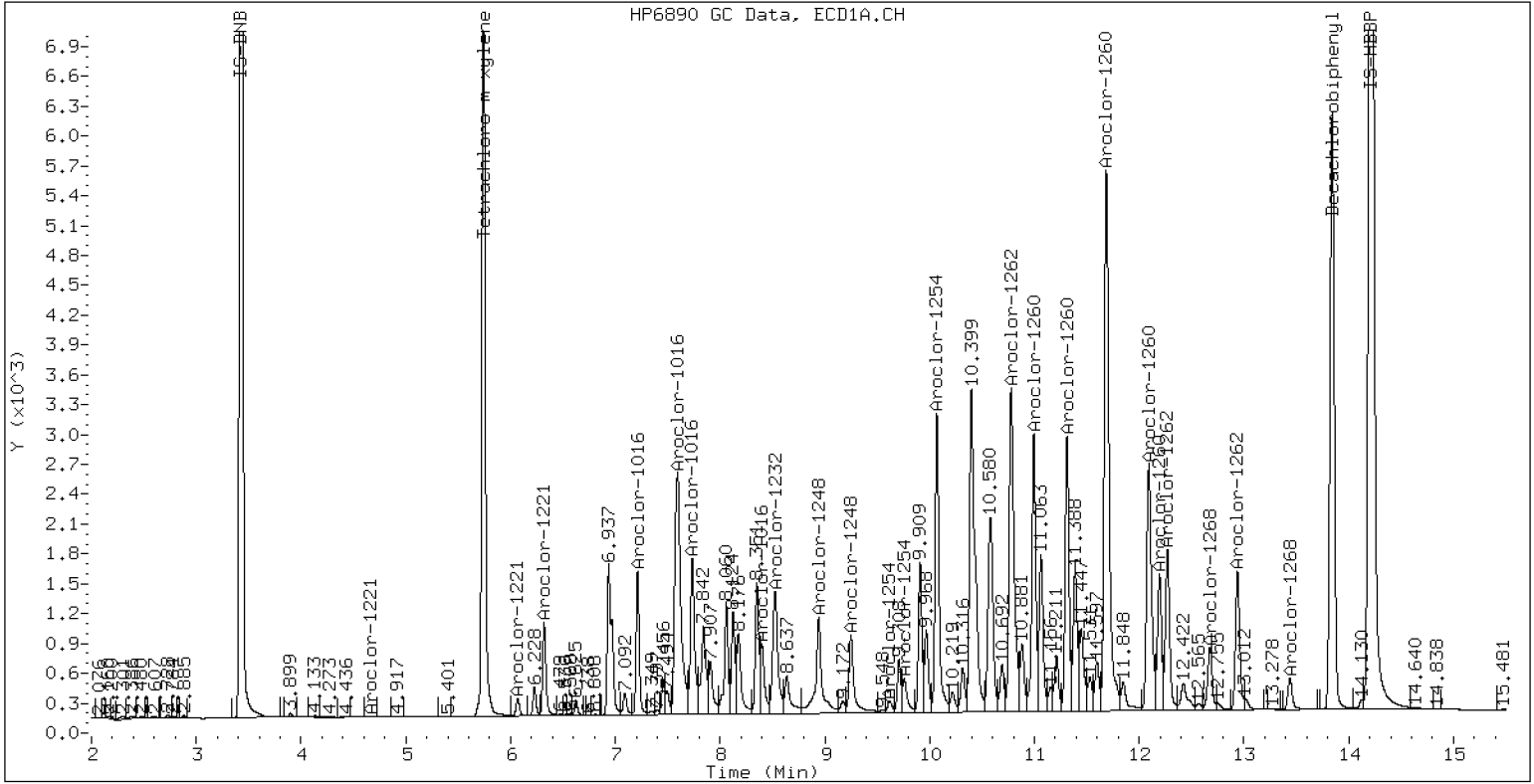
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV

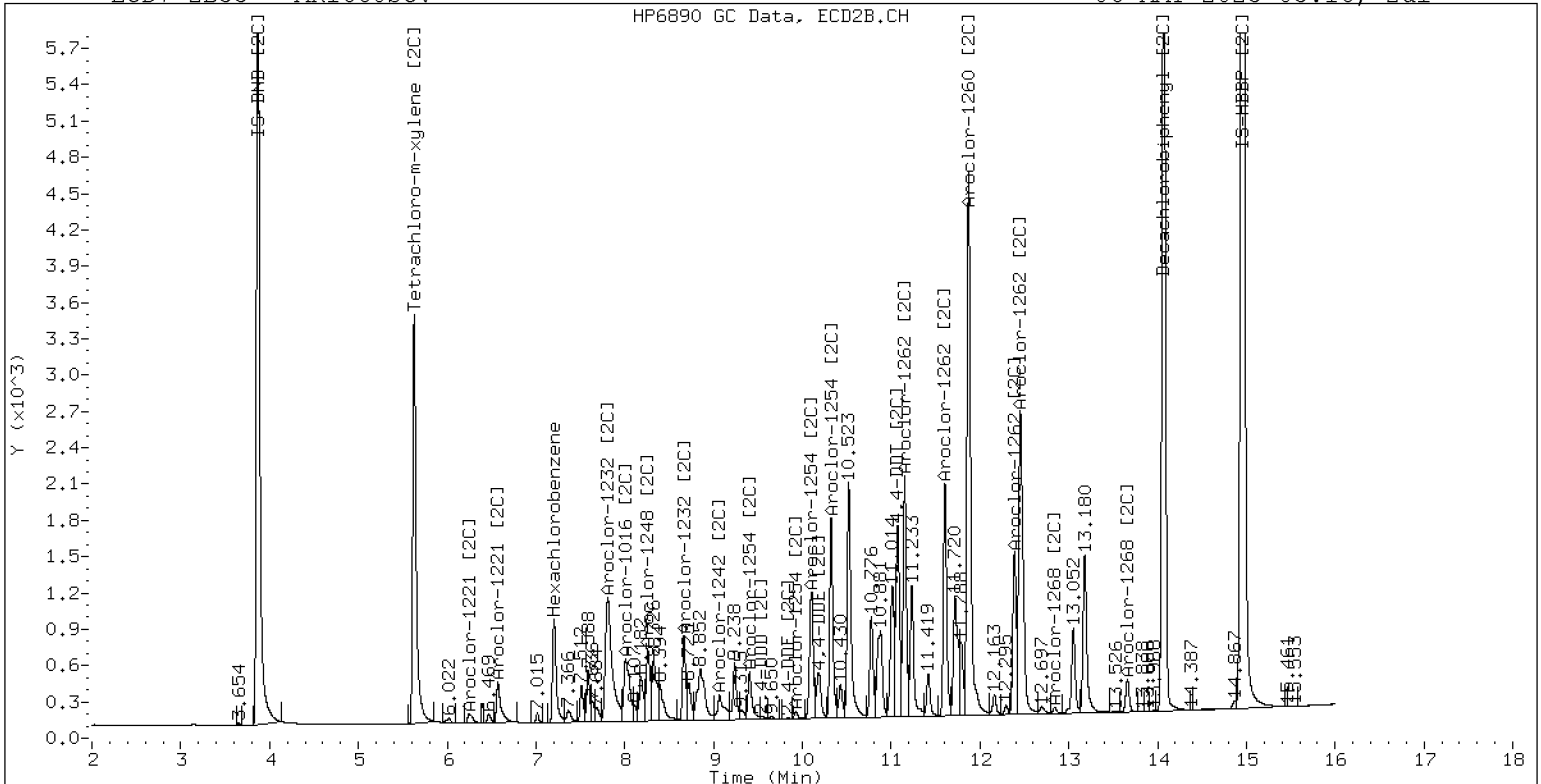
06-MAY-2023 03:16, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV

06-MAY-2023 03:16, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV2

Sequence: SLE0079

Sequence Name: AR1242SCV2

Standard ID: L003970

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	237	-5.1	20.00
Aroclor 1242 [2C]	250.00	230	-7.9	20.00
Decachlorobiphenyl	40.000	40.9	2.2	20.00
Tetrachlorometaxylene	40.000	32.8	-18.1	20.00
Decachlorobiphenyl [2C]	40.000	44.0	10.0	20.00
Tetrachlorometaxylene [2C]	40.000	33.4	-16.5	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052333ECD7.D
Data file 2: /230505.b/230505.b/05052333ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 06-MAY-2023 03:36
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.744	0.002	319899	5.630	0.002	167866	32.8	33.4	1.9	Tetrachloro-m-xylene
13.842	0.002	398699	14.069	0.001	434332	40.9	44.0	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	648004	7.7
Hexabromobiphenyl	876625	976327	11.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	365379	4.6
Hexabromobiphenyl	652984	695394	6.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.001	47446	189.1	1	7.205	0.001	36469	176.3
Aroclor-1016	2	7.594	-0.000	147684	188.2	2	7.814	0.007	77885	176.7
Aroclor-1016	3	7.735	0.002	67175	185.2	3	8.012	0.006	38400	197.5
Aroclor-1016	4	8.398	0.000	30565	204.3	4	8.261	0.002	27551	178.4
Total CollAve (4 peaks):				191.7		Total Col2Ave (4 peaks):				182.2 RPD = 5
Corrected Ave (3 peaks):				187.5		Corrected Ave (3 peaks):				177.1 RPD = 6
Aroclor-1221	1	4.666	0.002	870	19.1	1	---			0.0
Aroclor-1221	2	6.069	0.000	7118	77.8	2	6.257	0.011	4359	78.0
Aroclor-1221	3	6.322	0.001	32969	151.8	3	6.573	0.001	16609	189.0
Total CollAve (3 peaks):				82.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.666	0.002	870	28.7	1	---			0.0
Aroclor-1232	2	6.069	0.000	7118	112.7	2	7.205	-0.000	36469	449.5
Aroclor-1232	3	7.594	-0.001	147684	490.8	3	7.814	-0.001	77885	477.9
Aroclor-1232	4	8.526	-0.000	70601	548.1	4	8.668	-0.001	25417	538.5
Total CollAve (4 peaks):				295.1		Total Col2Ave (3 peaks):				488.7 RPD = 49*
Corrected Ave (3 peaks):				210.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	47446	232.4	1	7.205	0.001	36469	223.3
Aroclor-1242	2	7.594	-0.000	147684	228.2	2	7.814	0.002	77885	224.2
Aroclor-1242	3	8.398	0.000	30565	244.2	3	9.124	0.001	25864	232.2
Aroclor-1242	4	8.526	0.002	70601	243.8	4	9.552	0.001	32437	241.7
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				230.4 RPD = 3
Corrected Ave (3 peaks):				234.8		Corrected Ave (3 peaks):				226.6 RPD = 4
Aroclor-1248	1	8.398	-0.001	30565	184.8	1	8.261	0.001	27551	158.5
Aroclor-1248	2	8.526	0.002	70601	164.3	2	8.668	0.001	25417	138.4
Aroclor-1248	3	8.946	0.002	172847	209.1	3	9.124	0.004	25864	120.2
Aroclor-1248	4	9.243	-0.001	87363	207.3	4	9.552	0.006	32437	125.7
Total CollAve (4 peaks):				191.4		Total Col2Ave (4 peaks):				135.7 RPD = 34
Corrected Ave (3 peaks):				185.5		Corrected Ave (3 peaks):				128.1 RPD = 37
Aroclor-1254	1	9.243	-0.004	87363	131.2	1	9.406	0.002	13247	47.7
Aroclor-1254	2	9.326	0.001	28949	96.7	2	9.552	0.053	32437	196.7
Aroclor-1254	3	9.622	0.004	20780	48.3	3	9.927	0.003	10002	44.5
Aroclor-1254	4	9.762	0.006	35470	42.1	4	10.082	0.005	19933	40.6
Aroclor-1254	5	10.140	0.015	28075	55.2	5	10.341	0.013	19432	39.9
Total CollAve (5 peaks):				74.7		Total Col2Ave (5 peaks):				73.9 RPD = 1
Corrected Ave (4 peaks):				60.6		Corrected Ave (4 peaks):				43.2 RPD = 34
Aroclor-1260	1	10.998	0.005	3609	7.0	1	11.618	0.012	2137	5.8
Aroclor-1260	2	11.317	0.007	3837	7.5	2	11.879	0.007	1437	1.5
Aroclor-1260	3	11.765	0.080	33905	26.6	3	12.382	-0.006	12460	52.1
Aroclor-1260	4	12.097	0.007	9099	14.6	4	---			0.0
Aroclor-1260	5	12.272	0.079	2060	7.6	NS	---			---
Total CollAve (5 peaks):				12.6		Total Col2Ave (3 peaks):				19.8 RPD = 44*
Corrected Ave (4 peaks):				9.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.787	0.009	24040	54.4	1	11.078	-0.075	7864	14.0
Aroclor-1262	2	12.272	0.077	2060	3.3	2	11.618	0.013	2137	4.5
Aroclor-1262	3	---			0.0	3	12.382	-0.004	12460	24.0
Aroclor-1262	4	12.937	-0.002	16041	29.5	4	---			0.0
Total CollAve (3 peaks):				29.1		Total Col2Ave (3 peaks):				14.1 RPD = 69*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.272	0.076	2060	1.3	1	12.382	-0.003	12460	9.5
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	4324	3.5	3	12.845	0.002	951	0.8
Aroclor-1268	4	13.442	0.005	15801	4.4	4	13.628	-0.035	6512	1.7
Total CollAve (3 peaks):				3.1		Total Col2Ave (3 peaks):				4.0 RPD = 25
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.842 - 13.740) = 1489022 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 667658 Col2 Total PCB = 0.2 ppm*

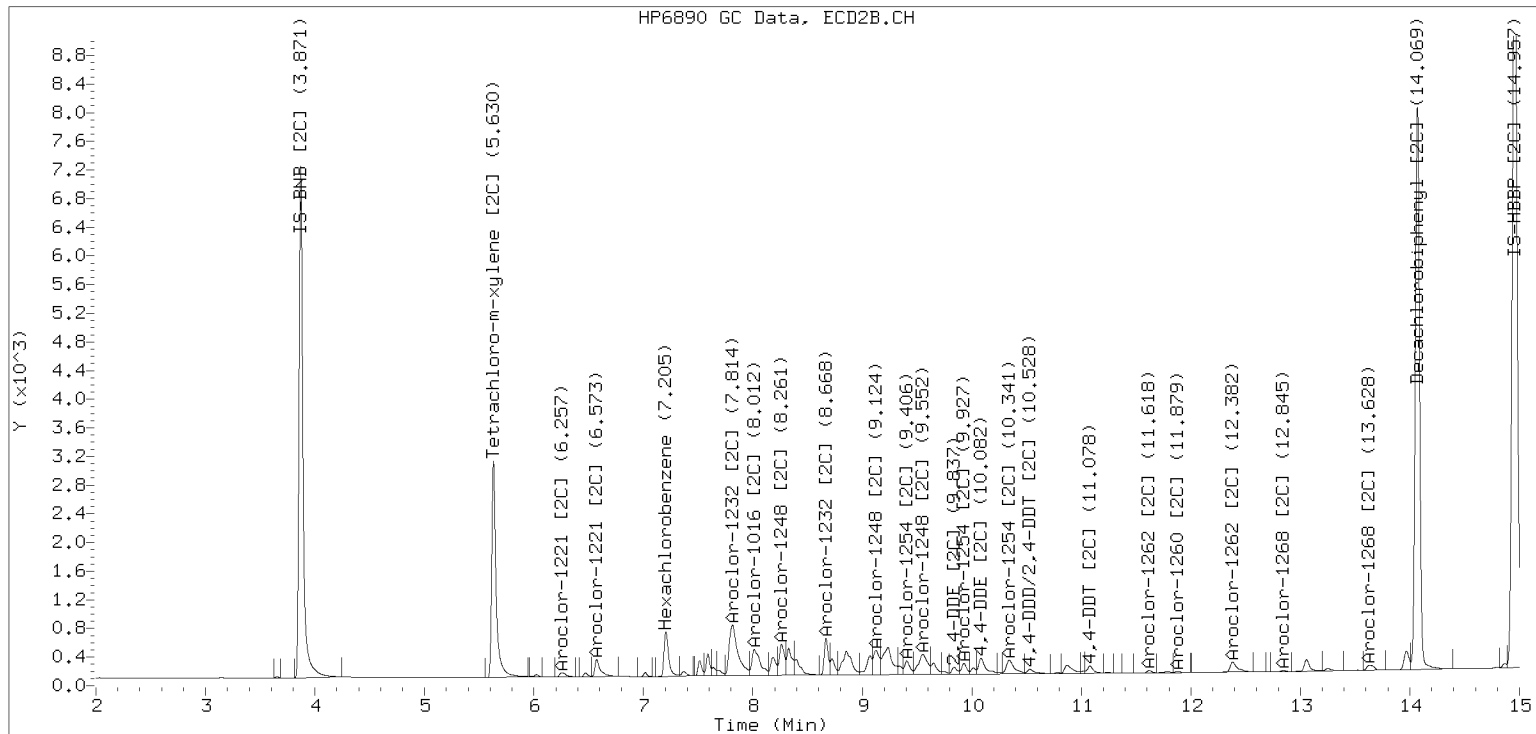
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

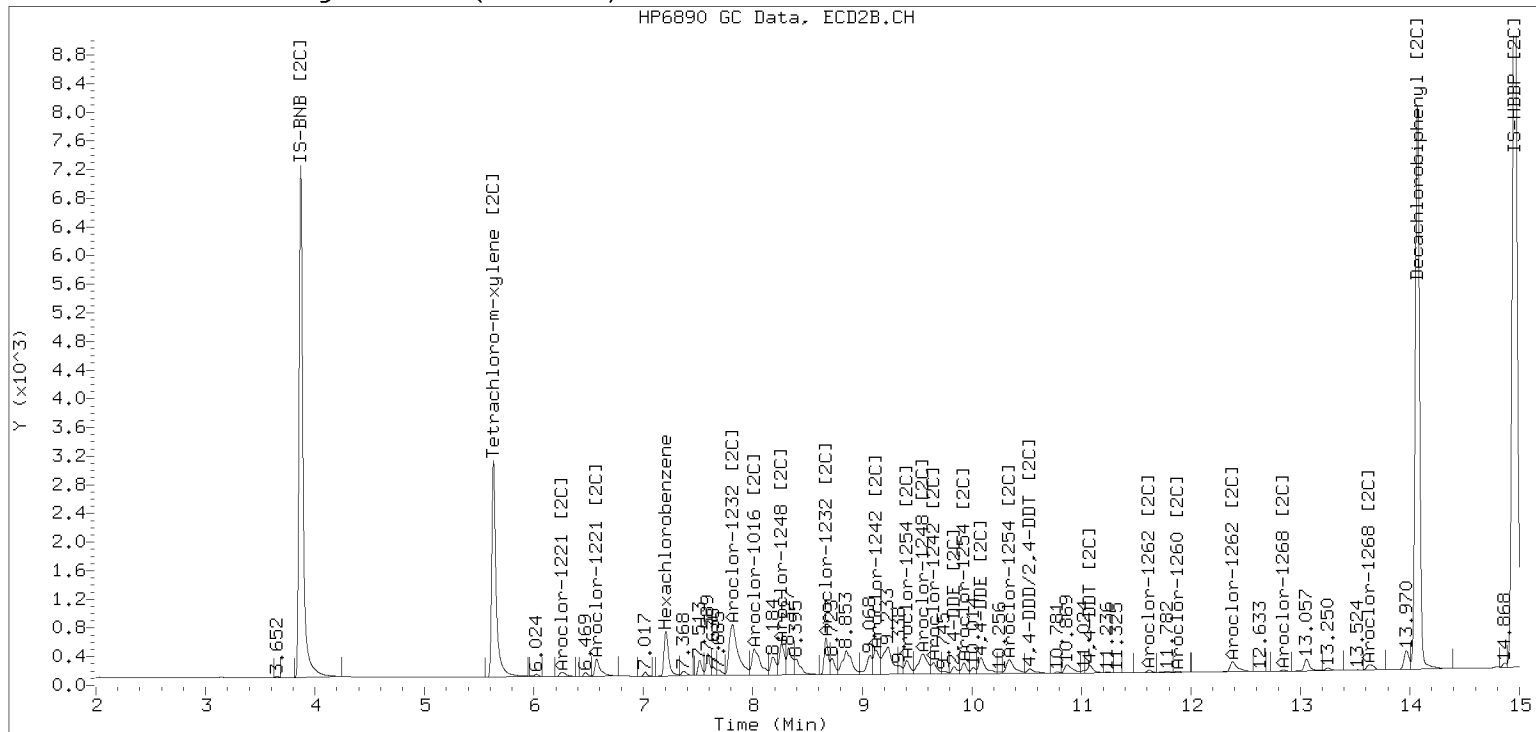
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052333ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV3

Sequence: SLE0079

Sequence Name: AR1248SCV3

Standard ID: L002066

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	251	0.5	20.00
Aroclor 1248 [2C]	250.00	249	-0.3	20.00
Decachlorobiphenyl	40.000	35.7	-10.8	20.00
Tetrachlorometaxylene	40.000	36.8	-8.0	20.00
Decachlorobiphenyl [2C]	40.000	38.0	-5.0	20.00
Tetrachlorometaxylene [2C]	40.000	37.7	-5.7	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052334ECD7.D
Data file 2: /230505.b/230505.b/05052334ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 06-MAY-2023 03:57
Report Date: 05/06/2023 12:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	-0.001	356328	5.629	0.000	186552	36.8	37.7	2.5	Tetrachloro-m-xylene
13.842	0.001	339452	14.070	0.002	373861	35.7	38.0	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	643038	6.9
Hexabromobiphenyl	876625	952051	8.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359604	3.0
Hexabromobiphenyl	652984	692982	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	19871	79.8	1	7.203	-0.001	18843	92.6
Aroclor-1016	2	7.589	-0.006	95111	122.2	2	7.812	0.005	52352	120.7
Aroclor-1016	3	7.736	0.003	37565	104.4	3	8.012	0.006	8263	43.2
Aroclor-1016	4	8.399	0.002	41542	279.7	4	8.260	0.001	42833	281.8
Total CollAve (4 peaks):				146.5		Total Col2Ave (4 peaks):				134.6 RPD = 9
Corrected Ave (3 peaks):				102.1		Corrected Ave (3 peaks):				85.5 RPD = 18
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.066	-0.003	351	3.9	2	6.275	0.029	1573	28.6
Aroclor-1221	3	6.320	-0.001	3509	16.3	3	6.576	0.004	967	11.2
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.066	-0.003	351	5.6	2	7.203	-0.001	18843	236.0
Aroclor-1232	3	7.589	-0.006	95111	318.5	3	7.812	-0.002	52352	326.4
Aroclor-1232	4	8.524	-0.002	105782	827.6	4	8.667	-0.002	44962	968.0
Total CollAve (3 peaks):				383.9		Total Col2Ave (3 peaks):				510.1 RPD = 28
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.212	0.000	19871	98.1	1	7.203	-0.000	18843	117.2
Aroclor-1242	2	7.589	-0.006	95111	148.1	2	7.812	-0.000	52352	153.1
Aroclor-1242	3	8.399	0.001	41542	334.5	3	9.120	-0.003	52681	480.6
Aroclor-1242	4	8.524	-0.000	105782	368.1	4	9.548	-0.002	63343	479.5
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				307.6 RPD = 26
Corrected Ave (3 peaks):				193.6		Corrected Ave (3 peaks):				250.0 RPD = 25
Aroclor-1248	1	8.399	0.001	41542	253.1	1	8.260	-0.001	42833	250.4
Aroclor-1248	2	8.524	-0.000	105782	248.0	2	8.667	0.000	44962	248.8
Aroclor-1248	3	8.944	-0.000	206928	252.3	3	9.120	-0.000	52681	248.7
Aroclor-1248	4	9.242	-0.001	105227	251.7	4	9.548	0.002	63343	249.4
Total CollAve (4 peaks):				251.3		Total Col2Ave (4 peaks):				249.3 RPD = 1
Corrected Ave (3 peaks):				250.6		Corrected Ave (3 peaks):				249.0 RPD = 1
Aroclor-1254	1	9.242	-0.004	105227	159.2	1	9.404	0.000	25835	94.6
Aroclor-1254	2	9.324	-0.001	51326	172.8	2	9.548	0.049	63343	390.3
Aroclor-1254	3	9.619	0.001	41394	97.0	3	9.925	0.001	22609	102.1
Aroclor-1254	4	9.759	0.003	72223	86.4	4	10.079	0.001	43816	90.7
Aroclor-1254	5	10.135	0.010	49936	98.9	5	10.345	0.016	42513	88.7
Total CollAve (5 peaks):				122.9		Total Col2Ave (5 peaks):				153.3 RPD = 22
Corrected Ave (4 peaks):				110.4		Corrected Ave (4 peaks):				94.0 RPD = 16
Aroclor-1260	1	10.998	0.005	1863	3.7	1	11.617	0.011	2599	7.1
Aroclor-1260	2	11.314	0.004	1152	2.3	2	11.877	0.005	1951	2.0
Aroclor-1260	3	11.695	0.009	1829	1.5	3	12.389	0.001	857	3.6
Aroclor-1260	4	12.097	0.007	1266	2.1	4	12.458	0.003	1302	2.0
Aroclor-1260	5	12.195	0.002	464	1.7	NS	---			----
Total CollAve (5 peaks):				2.3		Total Col2Ave (4 peaks):				3.7 RPD = 48*
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				2.5 RPD = 29
Aroclor-1262	1	10.784	0.005	15405	35.8	1	11.077	-0.077	9003	16.0
Aroclor-1262	2	12.195	0.000	464	0.8	2	11.617	0.012	2599	5.5
Aroclor-1262	3	12.271	0.002	489	0.8	3	12.389	0.003	857	1.7
Aroclor-1262	4	12.940	0.001	1638	3.1	4	12.458	0.002	1302	1.5
Total CollAve (4 peaks):				10.1		Total Col2Ave (4 peaks):				6.2 RPD = 48*
Corrected Ave (3 peaks):				1.5		Corrected Ave (3 peaks):				2.9 RPD = 61*
Aroclor-1268	1	12.195	-0.001	464	0.3	1	12.389	0.004	857	0.7
Aroclor-1268	2	12.271	0.003	489	0.3	2	12.458	0.006	1302	0.9
Aroclor-1268	3	12.649	0.001	1831	1.5	3	12.845	0.002	676	0.6
Aroclor-1268	4	13.443	0.006	5387	1.6	4	13.661	-0.003	2707	0.7
Total CollAve (4 peaks):				0.9		Total Col2Ave (4 peaks):				0.7 RPD = 26
Corrected Ave (3 peaks):				0.7		Corrected Ave (3 peaks):				0.6 RPD = 11

Total PCB Area Col1 (5.842 - 13.740) = 1634238 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 876760 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV4

Sequence: SLE0079

Sequence Name: AR1254SCV4

Standard ID: L002067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	239	-4.3	20.00
Aroclor 1254 [2C]	250.00	241	-3.8	20.00
Decachlorobiphenyl	40.000	36.0	-10.1	20.00
Tetrachlorometaxylene	40.000	37.6	-6.0	20.00
Decachlorobiphenyl [2C]	40.000	38.5	-3.8	20.00
Tetrachlorometaxylene [2C]	40.000	38.3	-4.2	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052335ECD7.D
Data file 2: /230505.b/230505.b/05052335ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 06-MAY-2023 04:18
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368022	5.631	0.002	192033	37.6	38.3	2.0	Tetrachloro-m-xylene
13.843	0.002	352066	14.070	0.002	385384	36.0	38.5	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	650234	8.1
Hexabromobiphenyl	876625	980276	11.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	364142	4.3
Hexabromobiphenyl	652984	705291	8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.002	635	2.5	1	---			0.0
Aroclor-1016	2	7.590	-0.004	2512	3.2	2	---			0.0
Aroclor-1016	3	7.738	0.005	1594	4.4	3	---			0.0
Aroclor-1016	4	8.351	-0.047	31774	211.6	4	---			0.0
Total CollAve (4 peaks):				55.4		Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.052	-0.018	242	2.6	2	---			0.0
Aroclor-1221	3	6.322	0.001	427	2.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.052	-0.018	242	3.8	2	---			0.0
Aroclor-1232	3	7.590	-0.005	2512	8.3	3	---			0.0
Aroclor-1232	4	8.528	0.001	13950	107.9	4	---			0.0
Total CollAve (3 peaks):				40.0		Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.214	0.002	635	3.1	1	---			0.0
Aroclor-1242	2	7.590	-0.005	2512	3.9	2	---			0.0
Aroclor-1242	3	8.351	-0.047	31774	253.0	3	9.125	0.002	23963	215.9
Aroclor-1242	4	8.528	0.004	13950	48.0	4	9.649	0.099	23982	179.3
Total CollAve (4 peaks):				77.0		Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.351	-0.048	31774	191.4	1	8.260	-0.000	23490	135.6
Aroclor-1248	2	8.528	0.004	13950	32.3	2	8.669	0.002	16693	91.2
Aroclor-1248	3	8.941	-0.003	154338	186.1	3	9.125	0.005	23963	111.7
Aroclor-1248	4	9.246	0.003	158369	374.6	4	9.499	-0.047	38716	150.5
Total CollAve (4 peaks):				196.1		Total Col2Ave (4 peaks): 122.3 RPD = 46*				
Corrected Ave (3 peaks):				136.6		Corrected Ave (3 peaks): 112.8 RPD = 19				
Aroclor-1254	1	9.246	-0.001	158369	237.0	1	9.404	0.000	67493	244.0
Aroclor-1254	2	9.325	-0.000	72386	241.1	2	9.499	-0.000	38716	235.6
Aroclor-1254	3	9.617	-0.001	103602	240.1	3	9.925	0.001	53972	240.7
Aroclor-1254	4	9.756	0.000	201259	238.2	4	10.079	0.001	116950	239.0
Aroclor-1254	5	10.127	0.001	122207	239.5	5	10.327	-0.001	118439	243.9
Total CollAve (5 peaks):				239.2		Total Col2Ave (5 peaks): 240.6 RPD = 1				
Corrected Ave (4 peaks):				238.7		Corrected Ave (4 peaks): 239.8 RPD = 0				
Aroclor-1260	1	10.994	0.001	13538	26.1	1	11.615	0.009	33465	89.3
Aroclor-1260	2	11.313	0.003	13900	27.2	2	11.876	0.004	25534	26.1
Aroclor-1260	3	11.689	0.004	32548	25.4	3	12.404	0.016	1811	7.5
Aroclor-1260	4	12.093	0.003	25285	40.3	4	12.458	0.002	14842	22.7
Aroclor-1260	5	12.273	0.079	2534	9.3	NS	---			---
Total CollAve (5 peaks):				25.6		Total Col2Ave (4 peaks): 36.4 RPD = 35				
Corrected Ave (4 peaks):				22.0		Corrected Ave (3 peaks): 18.7 RPD = 16				
Aroclor-1262	1	10.779	0.000	210018	473.6	1	11.073	-0.081	114323	200.0
Aroclor-1262	2	12.273	0.078	2534	4.1	2	11.615	0.010	33465	69.4
Aroclor-1262	3	---			0.0	3	12.404	0.018	1811	3.4
Aroclor-1262	4	12.939	0.001	1830	3.3	4	12.458	0.002	14842	17.3
Total CollAve (3 peaks):				160.3		Total Col2Ave (4 peaks): 72.6 RPD = 75*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 30.1				
Aroclor-1268	1	12.273	0.077	2534	1.6	1	12.404	0.019	1811	1.4
Aroclor-1268	2	---			0.0	2	12.458	0.005	14842	10.3
Aroclor-1268	3	12.654	0.006	2669	2.1	3	12.847	0.004	835	0.7
Aroclor-1268	4	13.442	0.004	6266	1.8	4	13.662	-0.001	2350	0.6
Total CollAve (3 peaks):				1.8		Total Col2Ave (4 peaks): 3.2 RPD = 55*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 0.9				

Total PCB Area Col1 (5.842 - 13.740) = 2123119 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 1146487 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV5

Sequence: SLE0079

Sequence Name: AR2162SCV5

Standard ID: L002068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	290	15.9	20.00
Aroclor 1221 [2C]	250.00	288	15.3	20.00
Aroclor 1262	250.00	265	6.1	20.00
Aroclor 1262 [2C]	250.00	259	3.5	20.00
Decachlorobiphenyl	40.000	37.1	-7.3	20.00
Tetrachlorometaxylene	40.000	37.8	-5.5	20.00
Decachlorobiphenyl [2C]	40.000	38.8	-3.1	20.00
Tetrachlorometaxylene [2C]	40.000	39.1	-2.4	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052336ECD7.D
Data file 2: /230505.b/230505.b/05052336ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 06-MAY-2023 04:39
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	358254	5.628	-0.000	183759	37.8	39.1	3.3	Tetrachloro-m-xylene
13.842	0.002	344347	14.070	0.002	373300	37.1	38.8	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	629547	4.7
Hexabromobiphenyl	876625	929713	6.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	341980	-2.1
Hexabromobiphenyl	652984	678097	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.000	6601	27.1	1	7.207	0.003	3935	20.3	
Aroclor-1016	2	7.595	0.000	13419	17.6	2	7.821	0.013	6146	14.9	
Aroclor-1016	3	7.735	0.003	7114	20.2	3	8.027	0.021	3201	17.6	
Aroclor-1016	4	8.353	-0.045	3916	26.9	4	8.262	0.003	2131	14.7	
Total CollAve (4 peaks):				23.0	Total Col2Ave (4 peaks):				16.9	RPD = 30	
Corrected Ave (3 peaks):				21.6	Corrected Ave (3 peaks):				15.7	RPD = 31	
Aroclor-1221	1	4.663	-0.001	13184	297.8	1	4.893	-0.001	7253	287.5	
Aroclor-1221	2	6.070	0.000	25527	287.4	2	6.244	-0.001	14853	284.1	
Aroclor-1221	3	6.321	0.000	59985	284.3	3	6.571	-0.001	24083	292.9	
Total CollAve (3 peaks):				289.8	Total Col2Ave (3 peaks):				288.2	RPD = 1	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.663	-0.001	13184	447.0	1	4.893	-0.001	7253	546.9	
Aroclor-1232	2	6.070	0.000	25527	416.0	2	7.207	0.002	3935	51.8	
Aroclor-1232	3	7.595	-0.000	13419	45.9	3	7.821	0.006	6146	40.3	
Aroclor-1232	4	8.528	0.001	2679	21.4	4	8.671	0.002	1120	25.4	
Total CollAve (4 peaks):				232.6	Total Col2Ave (4 peaks):				166.1	RPD = 33	
Corrected Ave (3 peaks):				161.1	Corrected Ave (3 peaks):				39.2	RPD = 122*	
Aroclor-1242	1	7.213	0.001	6601	33.3	1	7.207	0.004	3935	25.7	
Aroclor-1242	2	7.595	-0.000	13419	21.3	2	7.821	0.008	6146	18.9	
Aroclor-1242	3	8.353	-0.045	3916	32.2	3	9.133	0.010	881	8.5	
Aroclor-1242	4	8.528	0.003	2679	9.5	4	9.651	0.101	516	4.1	
Total CollAve (4 peaks):				24.1	Total Col2Ave (4 peaks):				14.3	RPD = 51*	
Corrected Ave (3 peaks):				21.0	Corrected Ave (3 peaks):				10.5	RPD = 67*	
Aroclor-1248	1	8.353	-0.046	3916	24.4	1	8.262	0.002	2131	13.1	
Aroclor-1248	2	8.528	0.003	2679	6.4	2	8.671	0.004	1120	6.5	
Aroclor-1248	3	8.942	-0.002	25144	31.3	3	9.133	0.013	881	4.4	
Aroclor-1248	4	9.251	0.008	25583	62.5	4	9.500	-0.045	335	1.4	
Total CollAve (4 peaks):				31.1	Total Col2Ave (4 peaks):				6.3	RPD = 132*	
Corrected Ave (3 peaks):				20.7	Corrected Ave (3 peaks):				4.1	RPD = 134*	
Aroclor-1254	1	9.251	0.005	25583	39.5	1	9.408	0.004	9719	37.4	
Aroclor-1254	2	---			0.0	2	9.500	0.001	335	2.2	
Aroclor-1254	3	9.620	0.002	4245	10.2	3	9.928	0.004	2055	9.8	
Aroclor-1254	4	9.758	0.003	11050	13.5	4	10.100	0.022	55162	120.0	
Aroclor-1254	5	10.071	-0.055	129151	261.4	5	10.325	-0.004	68421	150.1	
Total CollAve (4 peaks):				81.1	Total Col2Ave (5 peaks):				63.9	RPD = 24	
Corrected Ave (3 peaks):				21.1	Corrected Ave (4 peaks):				42.3	RPD = 67*	
Aroclor-1260	1	10.995	0.002	206643	420.3	1	11.605	-0.001	119902	332.9	
Aroclor-1260	2	11.311	0.001	167443	345.1	2	11.872	0.000	293746	311.8	
Aroclor-1260	3	11.687	0.001	390491	321.4	3	12.386	-0.002	131462	563.2	
Aroclor-1260	4	12.091	0.001	120118	201.8	4	12.456	0.000	212898	338.4	
Aroclor-1260	5	12.195	0.002	155588	599.5	NS	---			----	
Total CollAve (5 peaks):				377.6	Total Col2Ave (4 peaks):				386.6	RPD = 2	
Corrected Ave (4 peaks):				322.2	Corrected Ave (3 peaks):				327.7	RPD = 2	
Aroclor-1262	1	10.777	-0.001	114050	271.2	1	11.153	0.000	141861	258.2	
Aroclor-1262	2	12.195	0.001	155588	263.0	2	11.605	0.000	119902	258.7	
Aroclor-1262	3	12.269	0.000	167998	264.2	3	12.386	-0.000	131462	259.6	
Aroclor-1262	4	12.938	-0.001	136019	262.5	4	12.456	0.000	212898	258.0	
Total CollAve (4 peaks):				265.2	Total Col2Ave (4 peaks):				258.6	RPD = 3	
Corrected Ave (3 peaks):				263.3	Corrected Ave (3 peaks):				258.3	RPD = 2	
Aroclor-1268	1	12.195	-0.000	155588	104.9	1	12.386	0.001	131462	102.4	
Aroclor-1268	2	12.269	0.001	167998	114.1	2	12.456	0.003	212898	154.3	
Aroclor-1268	3	12.675	0.027	60611	51.2	3	12.843	-0.000	8393	7.1	
Aroclor-1268	4	13.439	0.001	49821	14.7	4	13.661	-0.002	39480	10.4	
Total CollAve (4 peaks):				71.2	Total Col2Ave (4 peaks):				68.6	RPD = 4	

Corrected Ave (3 peaks): 56.9 Corrected Ave (3 peaks): 40.0 RPD = 35

Total PCB Area Col1 (5.842 - 13.740) = 2870829 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1885829 Col2 Total PCB = 0.5 ppm*

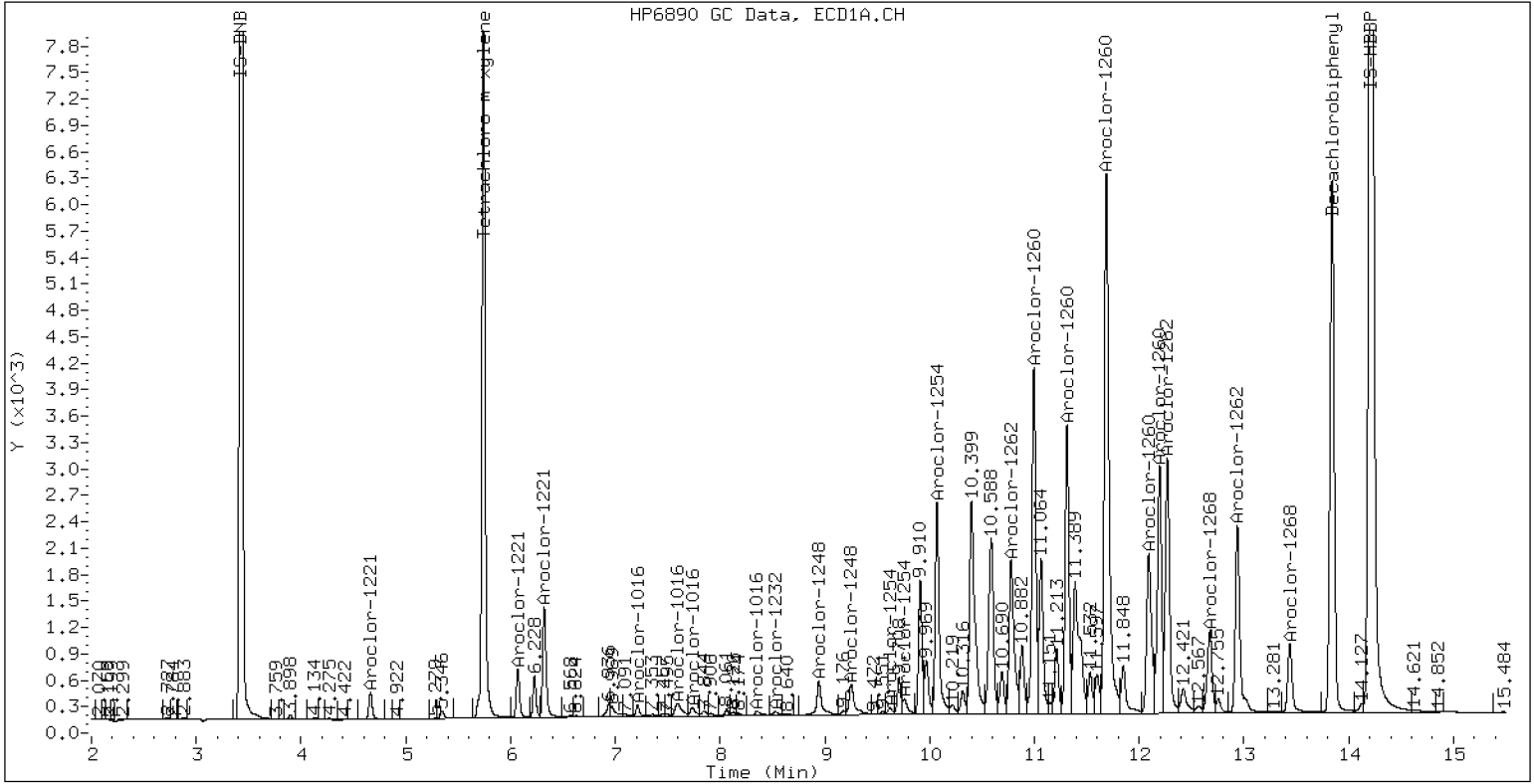
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

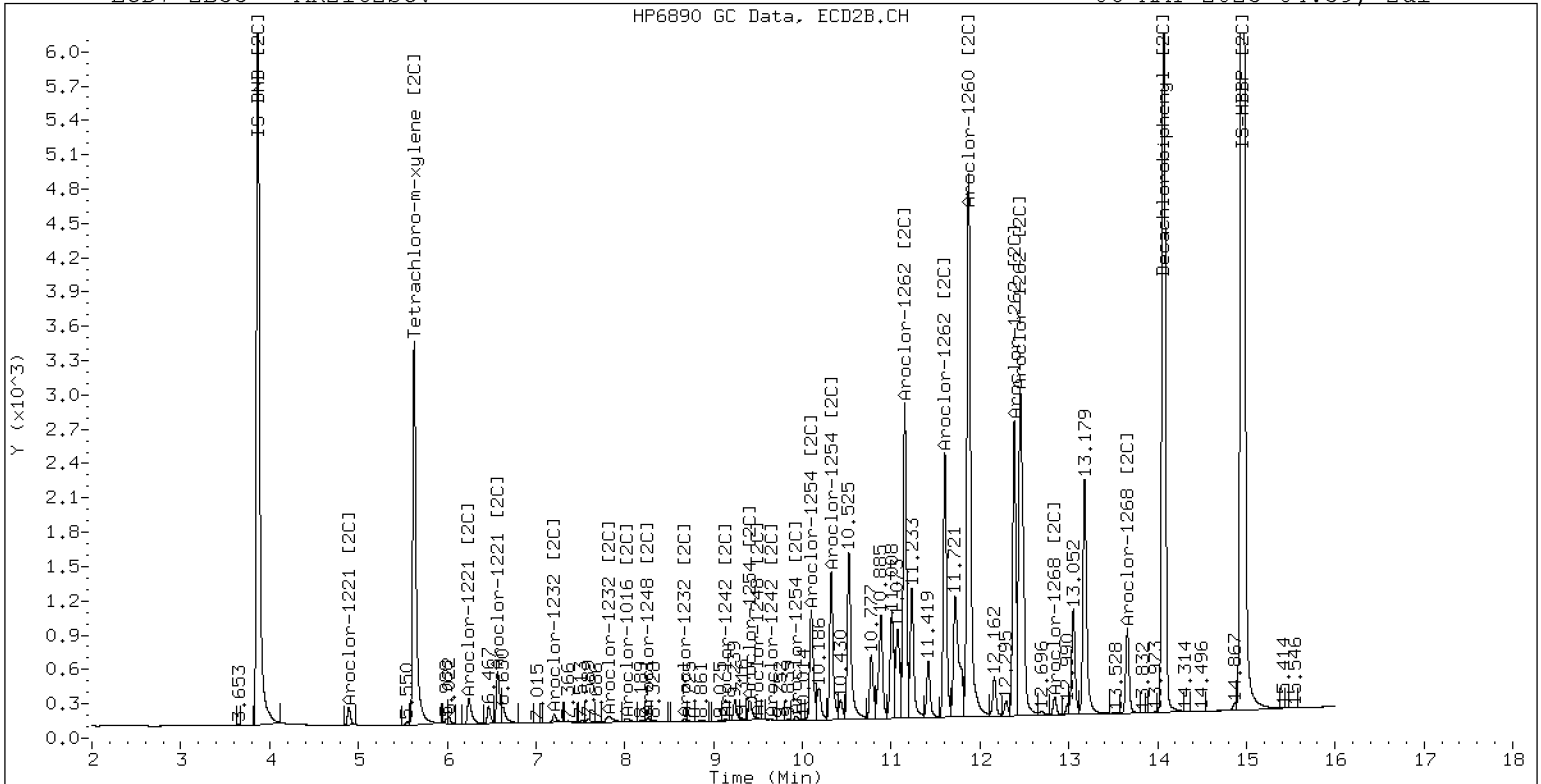
06-MAY-2023 04:39, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

06-MAY-2023 04:39, 2u1



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00022

Laboratory ID: SLE0079-SCV6

Sequence: SLE0079

Sequence Name: AR3268SCV6

Standard ID: L002069

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	256	2.6	20.00
Aroclor 1232 [2C]	250.00	301	20.3	20.00
Aroclor 1268	250.00	266	6.5	20.00
Aroclor 1268 [2C]	250.00	263	5.2	20.00
Decachlorobiphenyl	40.000	55.1	37.7	20.00
Tetrachlorometaxylene	40.000	38.4	-4.0	20.00
Decachlorobiphenyl [2C]	40.000	59.3	48.3	20.00
Tetrachlorometaxylene [2C]	40.000	40.4	1.1	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052337ECD7.D
Data file 2: /230505.b/230505.b/05052337ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 06-MAY-2023 05:00
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	373749	5.629	0.001	196946	38.4	40.4	5.2	Tetrachloro-m-xylene
13.842	0.002	525409	14.069	0.001	586548	55.1	59.3	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	646456	7.5
Hexabromobiphenyl	876625	954969	8.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354120	1.4
Hexabromobiphenyl	652984	696139	6.6

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.214	0.001	28623	114.3	1	7.205	0.002	23124	115.4	
Aroclor-1016	2	7.597	0.002	85721	109.5	2	7.815	0.007	47496	111.2	
Aroclor-1016	3	7.735	0.002	41343	114.3	3	8.014	0.008	24029	127.5	
Aroclor-1016	4	8.400	0.002	16653	111.6	4	8.262	0.003	15421	103.0	
Total CollAve (4 peaks):				112.4	Total Col2Ave (4 peaks):				114.3	RPD = 2	
Corrected Ave (3 peaks):				111.8	Corrected Ave (3 peaks):				109.9	RPD = 2	
Aroclor-1221	1	4.664	0.001	7272	159.9	1	4.895	0.000	4045	154.9	
Aroclor-1221	2	6.070	0.001	13478	147.8	2	6.246	0.000	9235	170.6	
Aroclor-1221	3	6.321	0.001	43831	202.3	3	6.572	0.000	24300	285.4	
Total CollAve (3 peaks):				170.0	Total Col2Ave (3 peaks):				203.6	RPD = 18	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.664	0.001	7272	240.1	1	4.895	0.001	4045	294.5	
Aroclor-1232	2	6.070	0.001	13478	213.9	2	7.205	0.001	23124	294.1	
Aroclor-1232	3	7.597	0.002	85721	285.5	3	7.815	0.000	47496	300.7	
Aroclor-1232	4	8.527	0.000	36809	286.5	4	8.669	-0.000	14324	313.2	
Total CollAve (4 peaks):				256.5	Total Col2Ave (4 peaks):				300.6	RPD = 16	
Corrected Ave (3 peaks):				246.5	Corrected Ave (3 peaks):				296.5	RPD = 18	
Aroclor-1242	1	7.214	0.002	28623	140.5	1	7.205	0.002	23124	146.1	
Aroclor-1242	2	7.597	0.002	85721	132.8	2	7.815	0.002	47496	141.1	
Aroclor-1242	3	8.400	0.002	16653	133.4	3	9.128	0.005	14403	133.4	
Aroclor-1242	4	8.527	0.003	36809	127.4	4	9.648	0.098	5512	42.4	
Total CollAve (4 peaks):				133.5	Total Col2Ave (4 peaks):				115.7	RPD = 14	
Corrected Ave (3 peaks):				131.2	Corrected Ave (3 peaks):				105.6	RPD = 22	
Aroclor-1248	1	8.400	0.001	16653	100.9	1	8.262	0.002	15421	91.5	
Aroclor-1248	2	8.527	0.003	36809	85.8	2	8.669	0.002	14324	80.5	
Aroclor-1248	3	8.944	0.000	89377	108.4	3	9.128	0.008	14403	69.0	
Aroclor-1248	4	9.238	-0.005	41570	98.9	4	9.560	0.015	17331	69.3	
Total CollAve (4 peaks):				98.5	Total Col2Ave (4 peaks):				77.6	RPD = 24	
Corrected Ave (3 peaks):				95.2	Corrected Ave (3 peaks):				72.9	RPD = 26	
Aroclor-1254	1	9.238	-0.008	41570	62.6	1	9.407	0.003	5487	20.4	
Aroclor-1254	2	9.326	0.001	12640	42.3	2	9.560	0.061	17331	108.4	
Aroclor-1254	3	9.624	0.006	7232	16.9	3	9.929	0.005	3481	16.0	
Aroclor-1254	4	9.764	0.008	11671	13.9	4	10.086	0.009	7259	15.3	
Aroclor-1254	5	10.139	0.014	7544	14.9	5	10.345	0.017	6610	14.0	
Total CollAve (5 peaks):				30.1	Total Col2Ave (5 peaks):				34.8	RPD = 14	
Corrected Ave (4 peaks):				22.0	Corrected Ave (4 peaks):				16.4	RPD = 29	
Aroclor-1260	1	10.998	0.005	85093	168.5	1	11.598	-0.008	75237	203.5	
Aroclor-1260	2	11.313	0.003	6363	12.8	2	11.873	0.001	33655	34.8	
Aroclor-1260	3	11.688	0.002	47857	38.3	3	12.384	-0.004	346138	1444.4	
Aroclor-1260	4	12.094	0.004	1291	2.1	4	12.453	-0.002	373218	577.8	
Aroclor-1260	5	12.195	0.001	406211	1523.9	NS	---			----	
Total CollAve (5 peaks):				349.1	Total Col2Ave (4 peaks):				565.1	RPD = 47*	
Corrected Ave (4 peaks):				55.4	Corrected Ave (3 peaks):				272.0	RPD = 132*	
Aroclor-1262	1	10.785	0.006	4006	9.3	1	11.156	0.002	52531	93.1	
Aroclor-1262	2	12.195	0.000	406211	668.6	2	11.598	-0.007	75237	158.2	
Aroclor-1262	3	12.268	-0.002	403730	618.2	3	12.384	-0.002	346138	665.8	
Aroclor-1262	4	12.937	-0.002	145536	273.5	4	12.453	-0.002	373218	440.5	
Total CollAve (4 peaks):				392.4	Total Col2Ave (4 peaks):				339.4	RPD = 14	
Corrected Ave (3 peaks):				300.3	Corrected Ave (3 peaks):				230.6	RPD = 26	
Aroclor-1268	1	12.195	-0.001	406211	266.7	1	12.384	-0.001	346138	262.7	
Aroclor-1268	2	12.268	-0.000	403730	266.9	2	12.453	0.001	373218	263.5	
Aroclor-1268	3	12.648	-0.000	323568	266.0	3	12.844	0.001	316122	260.6	
Aroclor-1268	4	13.439	0.002	920777	265.1	4	13.663	0.000	1029335	264.8	
Total CollAve (4 peaks):				266.2	Total Col2Ave (4 peaks):				262.9	RPD = 1	

Corrected Ave (3 peaks): 265.9 Corrected Ave (3 peaks): 262.3 RPD = 1

Total PCB Area Col1 (5.842 - 13.740) = 3325332 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2876097 Col2 Total PCB = 0.7 ppm*

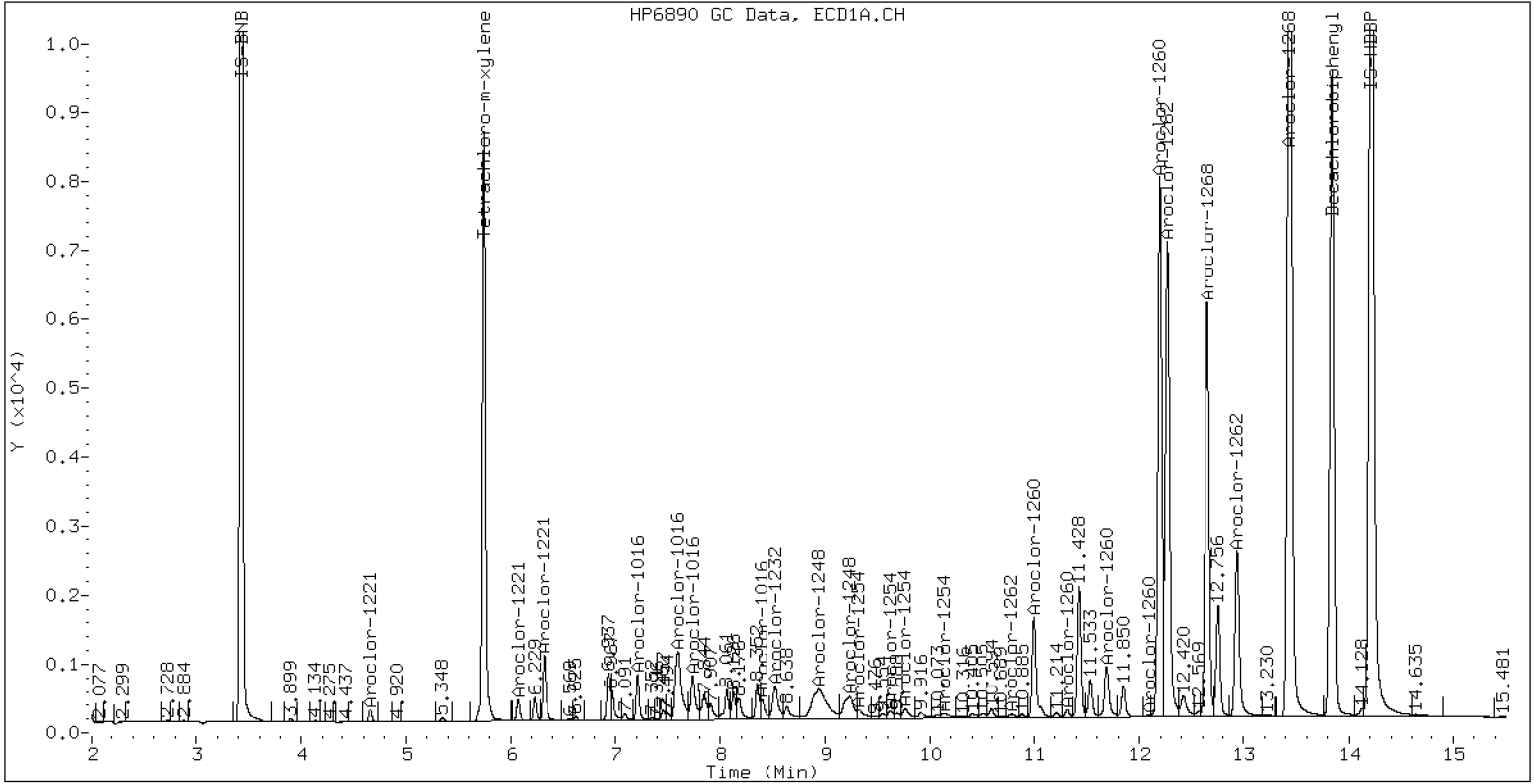
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

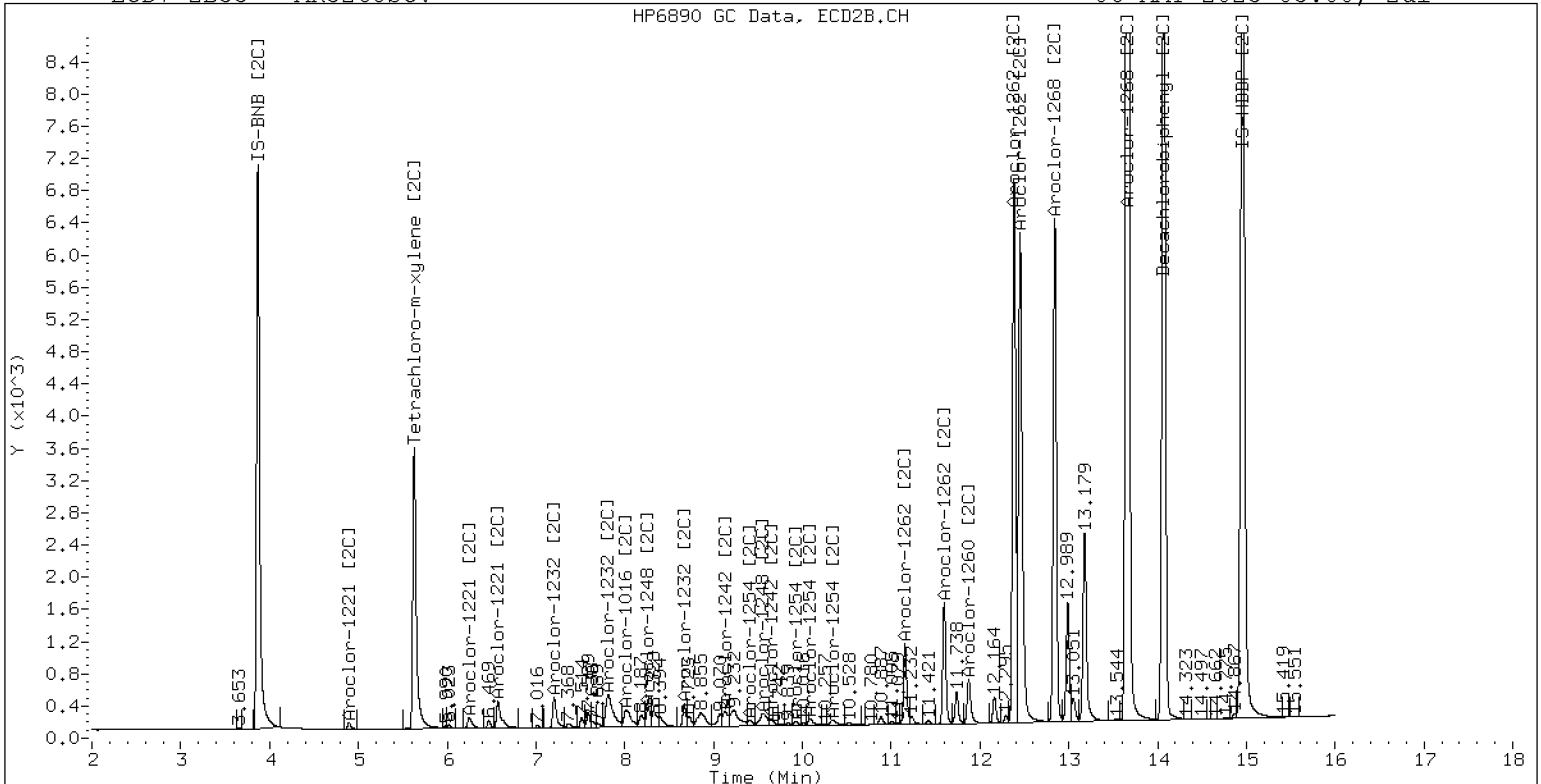
06-MAY-2023 05:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

06-MAY-2023 05:00, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GE00022

Lab File ID: 05102302ECD7.D

Calibration Date: 05/05/2023

Sequence: SLE0165

Injection Date: 05/10/23

Lab Sample ID: SLE0165-ICV1

Injection Time: 09:01

Sequence Name: AR1254ICV1

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	248	0.0678007	0.0673034		-0.9	+/-20
Aroclor-1254 (1)	A	250.00	220	0.0822219	0.0722310			
Aroclor-1254 (2)	A	250.00	240	0.0369425	0.0355417			
Aroclor-1254 (3)	A	250.00	255	0.0530793	0.0542044			
Aroclor-1254 (4)	A	250.00	260	0.1039691	0.1082194			
Aroclor-1254 (5)	A	250.00	264	0.0627908	0.0663203			
Aroclor 1254 [2C]	A	250.00	248	0.0720677	0.0717254		-0.7	+/-20
Aroclor-1254 (1) [2C]	A	250.00	253	0.0607810	0.0615324			
Aroclor-1254 (2) [2C]	A	250.00	242	0.0361074	0.0348829			
Aroclor-1254 (3) [2C]	A	250.00	249	0.0492663	0.0490441			
Aroclor-1254 (4) [2C]	A	250.00	251	0.1075138	0.1080675			
Aroclor-1254 (5) [2C]	A	250.00	246	0.1066699	0.1051002			
Decachlorobiphenyl	A	40.000	45.4	0.7991406	0.9081228		13.5	+/-20
Tetrachlorometaxylene	A	40.000	38.2	1.2048230	1.1514950		-4.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	43.7	1.1360140	1.2413210		9.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.5	1.1005470	1.0864580		-1.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102302ECD7.D
Data file 2: /230510.b/230510.b/05102302ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 10-MAY-2023 09:01
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368741	5.628	-0.003	202518	38.2	39.5	3.2	Tetrachloro-m-xylene
13.842	0.001	340843	14.068	-0.002	350219	45.5	43.7	3.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	640456	6.5
Hexabromobiphenyl	876625	750654	-14.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	372804	6.7
Hexabromobiphenyl	652984	564268	-13.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.244	0.000	144565	219.6	1	9.400	-0.003	71686	253.1	
Aroclor-1254	2	9.321	0.000	71134	240.5	2	9.494	-0.004	40639	241.5	
Aroclor-1254	3	9.613	0.000	108486	255.3	3	9.920	-0.003	57137	248.9	
Aroclor-1254	4	9.751	0.000	216593	260.2	4	10.071	-0.005	125900	251.3	
Aroclor-1254	5	10.114	0.000	132735	264.1	5	10.322	-0.004	122443	246.3	
Total CollAve (5 peaks):				247.9		Total Col2Ave (5 peaks):				248.2	RPD = 0
Corrected Ave (4 peaks):				243.9		Corrected Ave (4 peaks):				247.0	RPD = 1
CalAmt %D:				-0.8		CalAmt %D:				-0.7	

Total PCB Area Col1 (5.842 - 13.741) = 2182891 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1203060 Col2 Total PCB = 0.3 ppm*

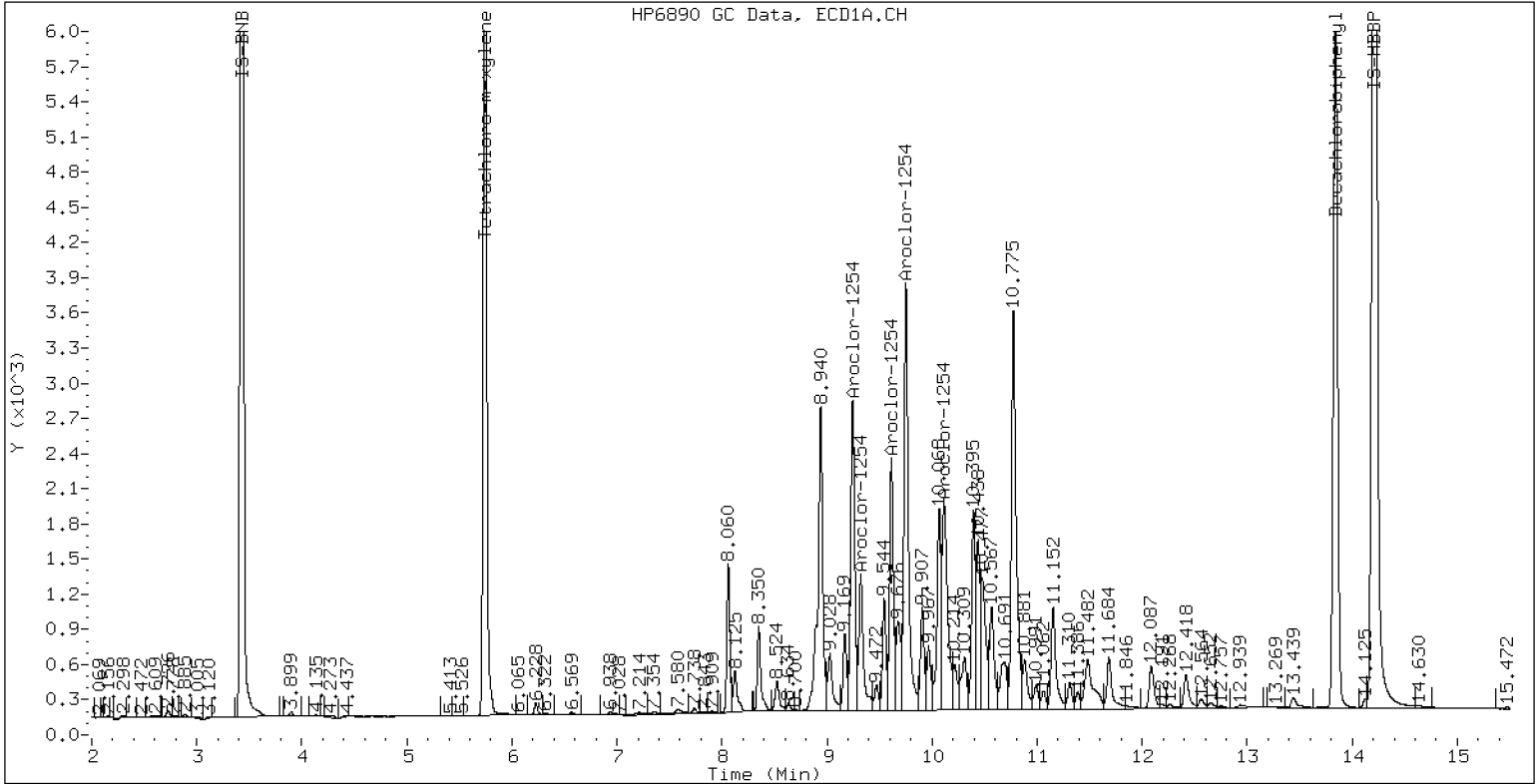
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

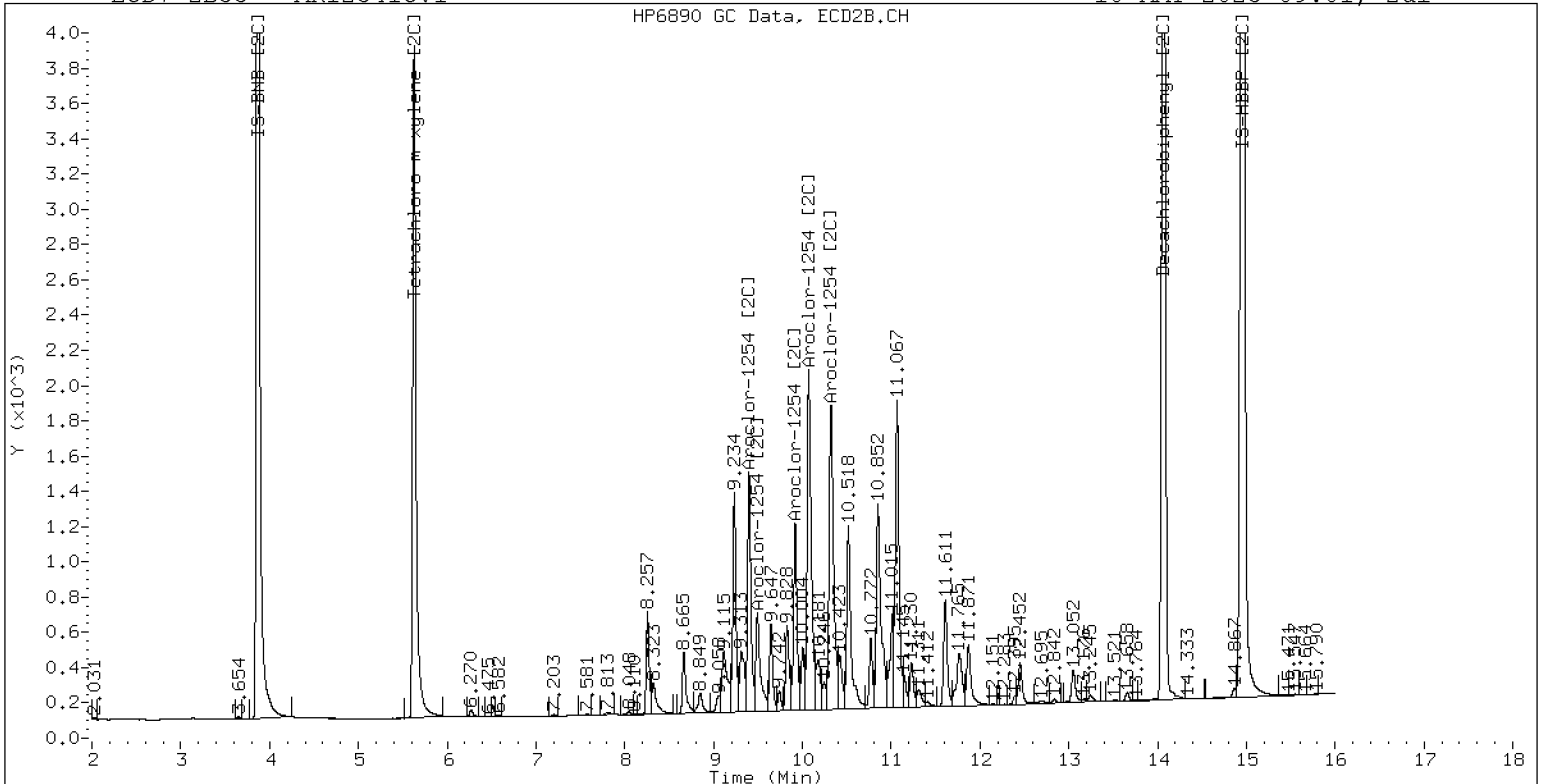
10-MAY-2023 09:01, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

10-MAY-2023 09:01, 2ul



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0396</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Instrument ID: <u>ECD7</u>	Calibration: <u>GE00022</u>
Lab File ID: <u>05102303ECD7.D</u>	Calibration Date: <u>05/05/2023</u>
Sequence: <u>SLE0165</u>	Injection Date: <u>05/10/23</u>
Lab Sample ID: <u>SLE0165-ICV2</u>	Injection Time: <u>09:22</u>
Sequence Name: <u>AR1660ICV2</u>	

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	246	0.0477728	0.0479263		-1.5	+/-20
Aroclor-1016 (1)	A	250.00	236	0.0309764	0.0291996		-5.6	
Aroclor-1016 (2)	A	250.00	260	0.0968611	0.1007684		4.0	
Aroclor-1016 (3)	A	250.00	244	0.0447793	0.0436373		-2.4	
Aroclor-1016 (4)	A	250.00	245	0.0184745	0.0180998		-2.0	
Aroclor 1016 [2C]	A	250.00	245	0.0545435	0.0555499		-2.0	+/-20
Aroclor-1016 (1) [2C]	A	250.00	222	0.0452861	0.0402854		-11.2	
Aroclor-1016 (2) [2C]	A	250.00	285	0.0965080	0.1099961		14.0	
Aroclor-1016 (3) [2C]	A	250.00	229	0.0425661	0.0389816		-8.4	
Aroclor-1016 (4) [2C]	A	250.00	244	0.0338137	0.0329365		-2.4	
Aroclor 1260	A	250.00	271	0.0524306	0.0571015		8.5	+/-20
Aroclor-1260 (1)	A	250.00	270	0.0423031	0.0456787		8.0	
Aroclor-1260 (2)	A	250.00	271	0.0417493	0.0451941		8.4	
Aroclor-1260 (3)	A	250.00	276	0.1045597	0.1154902		10.4	
Aroclor-1260 (4)	A	250.00	268	0.0512104	0.0549340		7.2	
Aroclor-1260 (5)	A	250.00	271	0.0223305	0.0242106		8.4	
Aroclor 1260 [2C]	A	250.00	260	0.0638471	0.0663217		3.8	+/-20
Aroclor-1260 (1) [2C]	A	250.00	255	0.0424868	0.0432898		2.0	
Aroclor-1260 (2) [2C]	A	250.00	261	0.1111292	0.1160156		4.4	
Aroclor-1260 (3) [2C]	A	250.00	262	0.0275392	0.0288179		4.8	
Aroclor-1260 (4) [2C]	A	250.00	260	0.0742331	0.0771634		4.0	
Decachlorobiphenyl	A	40.000	41.7	0.7991406	0.8328288		4.3	+/-20
Tetrachlorometaxylene	A	40.000	39.5	1.2048230	1.1903900		-1.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	43.1	1.1360140	1.2237580		7.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	45.5	1.1005470	1.2524740		13.8	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102303ECD7.D
Data file 2: /230510.b/230510.b/05102303ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 10-MAY-2023 09:22
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag		
RT	Shift	Response	RT	Shift	Response				
5.743	0.001	331514	5.628	-0.002	182292	39.5	45.5	14.1	Tetrachloro-m-xylene
13.841	0.001	332479	14.069	-0.001	294260	41.7	43.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	556984	-7.4
Hexabromobiphenyl	876625	798433	-8.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	291091	-16.7
Hexabromobiphenyl	652984	480912	-26.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.001	50824	235.7	1	7.203	-0.001	36646	222.4
Aroclor-1016	2	7.594	0.001	175395	260.1	2	7.807	-0.004	100059	284.9
Aroclor-1016	3	7.733	0.000	75954	243.6	3	8.006	-0.003	35460	228.9
Aroclor-1016	4	8.397	-0.001	31504	244.9	4	8.259	-0.002	29961	243.5
Total CollAve (4 peaks):				246.1		Total Col2Ave (4 peaks):				244.9 RPD = 0
Corrected Ave (3 peaks):				241.4		Corrected Ave (3 peaks):				231.6 RPD = 4

CalAmt %D: -1.6

CalAmt %D: -2.0

Aroclor-1260	1	10.992	-0.000	113973	269.9	1	11.604	-0.002	65058	254.7
Aroclor-1260	2	11.309	-0.001	112764	270.6	2	11.870	-0.001	174354	261.0
Aroclor-1260	3	11.683	-0.002	288160	276.1	3	12.387	-0.001	43309	261.6
Aroclor-1260	4	12.088	-0.001	137066	268.2	4	12.454	-0.001	115965	259.9
Aroclor-1260	5	12.193	-0.000	60408	271.0	NS	---			----
Total CollAve (5 peaks):				271.2		Total Col2Ave (4 peaks):				259.3 RPD = 4
Corrected Ave (4 peaks):				270.0		Corrected Ave (3 peaks):				258.5 RPD = 4

CalAmt %D: 8.5

CalAmt %D: 3.7

Total PCB Area Coll (5.842 - 13.741) = 3155736 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1655620 Col2 Total PCB = 0.5 ppm*

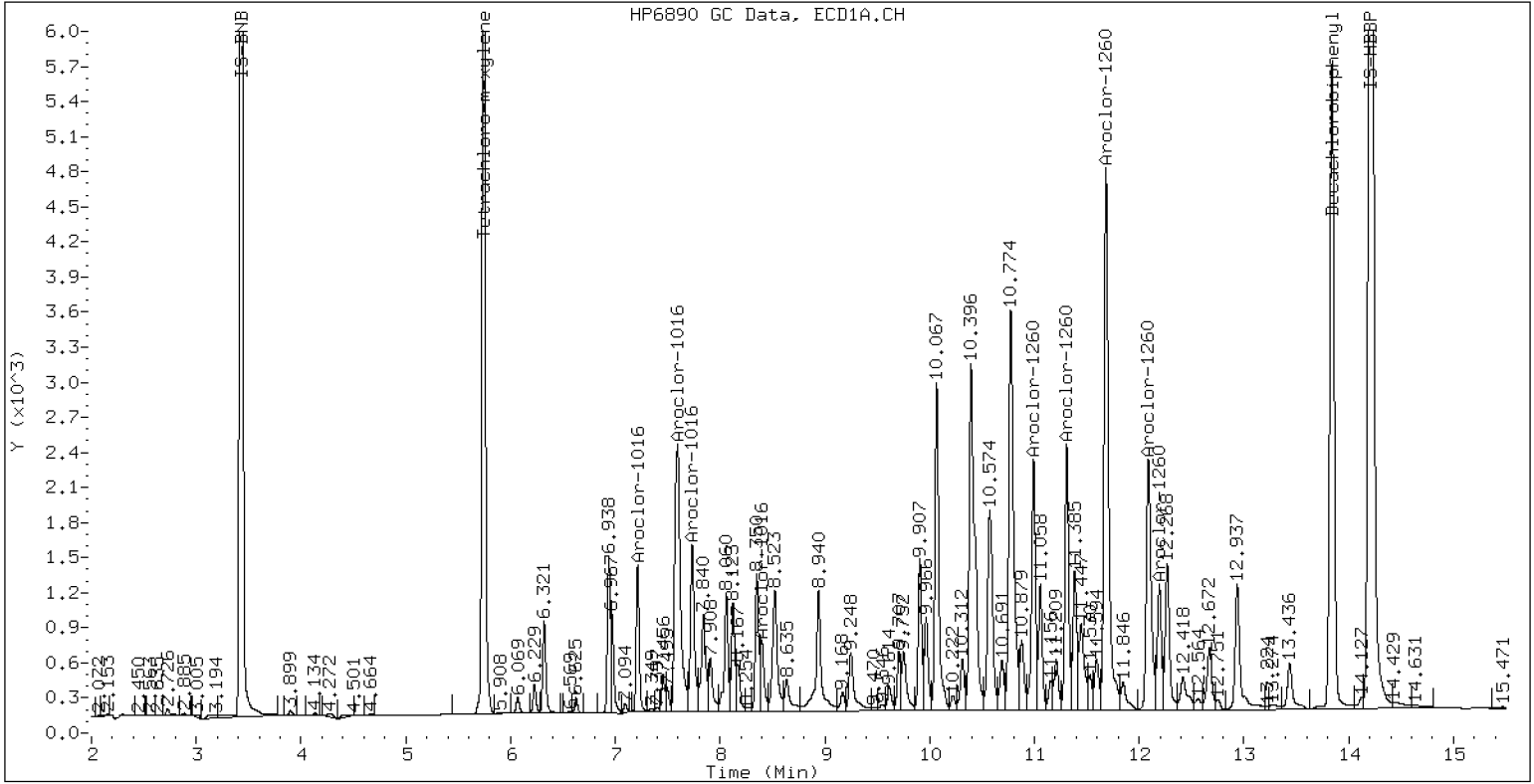
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2

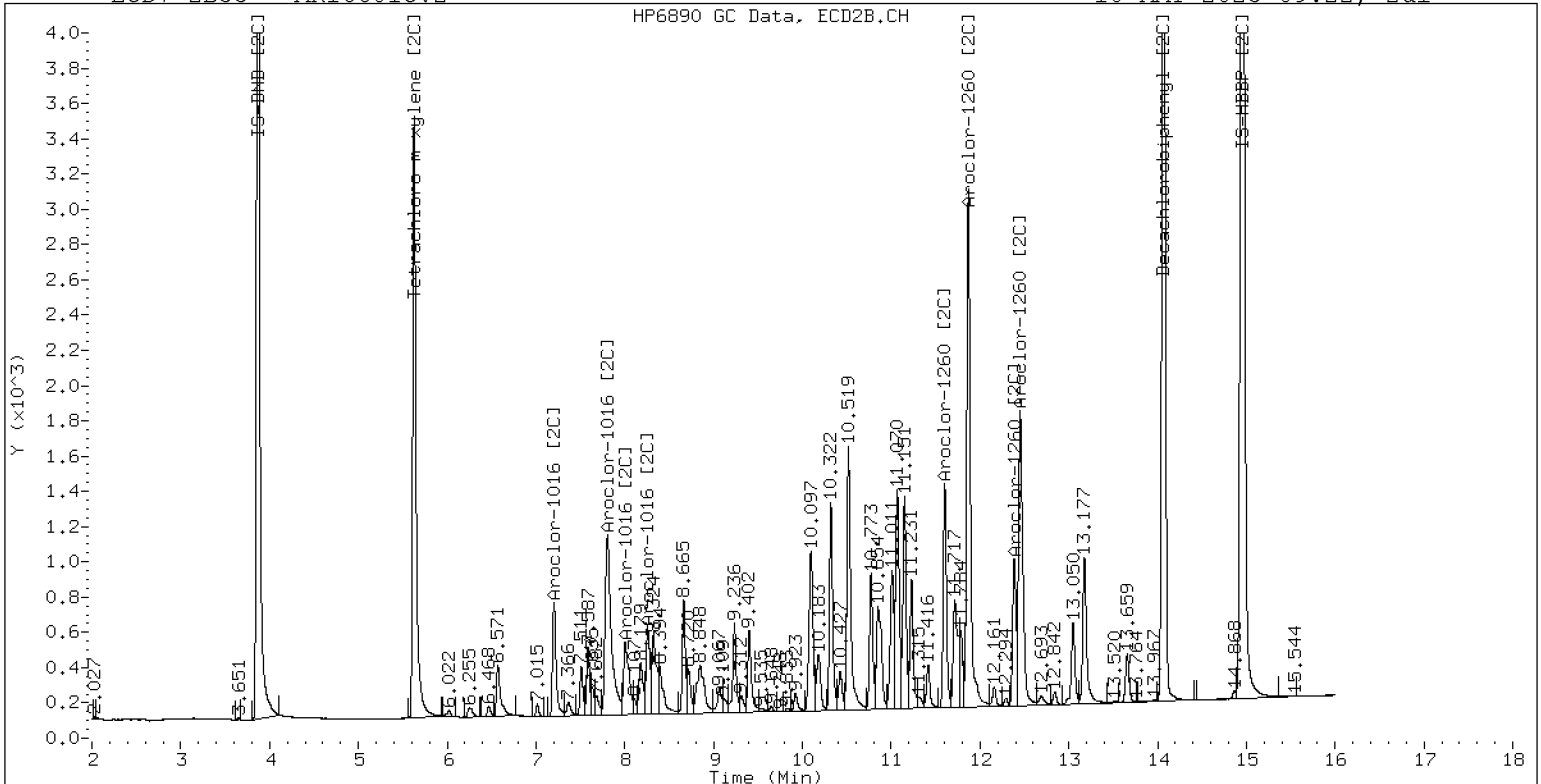
10-MAY-2023 09:22, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660ICV2

10-MAY-2023 09:22, 2u1



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052332ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV1</u>	Injection Time:	<u>03:16</u>
Sequence Name:	<u>AR1660SCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	254	0.0477728	0.0484819		1.4	+/-20
Aroclor 1016 [2C]	A	250.00	248	0.0545435	0.0542791		-1.0	+/-20
Aroclor 1260	A	250.00	285	0.0524306	0.0598047		14.2	+/-20
Aroclor 1260 [2C]	A	250.00	284	0.0638471	0.0723577		13.6	+/-20
Decachlorobiphenyl	A	40.000	36.9	0.7991406	0.7376338		-7.7	+/-20
Tetrachlorometaxylene	A	40.000	36.9	1.2048230	1.1103970		-7.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.2	1.1360140	1.1141950		-1.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.2	1.1005470	1.0247960		-6.9	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052332ECD7.D
Data file 2: /230505.b/230505.b/05052332ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 06-MAY-2023 03:16
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	356595	5.629	0.000	185340	36.9	37.2	1.0	Tetrachloro-m-xylene
13.842	0.002	347188	14.070	0.002	384711	36.9	39.2	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	642284	6.8
Hexabromobiphenyl	876625	941356	7.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	361711	3.6
Hexabromobiphenyl	652984	690563	5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	61654	247.9	1	7.205	0.001	50106	244.7
Aroclor-1016	2	7.594	-0.001	199228	256.2	2	7.811	0.003	109839	251.7
Aroclor-1016	3	7.734	0.001	89643	249.3	3	8.009	0.004	48594	252.5
Aroclor-1016	4	8.399	0.001	38714	261.0	4	8.260	0.001	36878	241.2
Total CollAve (4 peaks):				253.6		Total Col2Ave (4 peaks):				247.5 RPD = 2
Corrected Ave (3 peaks):				251.1		Corrected Ave (3 peaks):				245.9 RPD = 2
Aroclor-1221	1	4.663	-0.000	436	9.7	1	---			0.0
Aroclor-1221	2	6.068	-0.001	8521	94.0	2	6.251	0.005	5766	104.3
Aroclor-1221	3	6.320	-0.001	41973	195.0	3	6.572	0.000	23212	266.9
Total CollAve (3 peaks):				99.6		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.663	-0.000	436	14.5	1	---			0.0
Aroclor-1232	2	6.068	-0.002	8521	136.1	2	7.205	0.000	50106	623.9
Aroclor-1232	3	7.594	-0.001	199228	667.9	3	7.811	-0.004	109839	680.8
Aroclor-1232	4	8.526	-0.001	85985	673.5	4	8.667	-0.003	34670	742.1
Total CollAve (4 peaks):				373.0		Total Col2Ave (3 peaks):				682.3 RPD = 59*
Corrected Ave (3 peaks):				272.8		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	61654	304.6	1	7.205	0.001	50106	310.0
Aroclor-1242	2	7.594	-0.001	199228	310.7	2	7.811	-0.002	109839	319.4
Aroclor-1242	3	8.399	0.000	38714	312.1	3	9.069	-0.054	21513	195.1
Aroclor-1242	4	8.526	0.001	85985	299.5	4	9.537	-0.013	1824	13.7
Total CollAve (4 peaks):				306.7		Total Col2Ave (4 peaks):				209.6 RPD = 38
Corrected Ave (3 peaks):				304.9		Corrected Ave (3 peaks):				172.9 RPD = 55*
Aroclor-1248	1	8.399	-0.000	38714	236.2	1	8.260	0.000	36878	214.3
Aroclor-1248	2	8.526	0.001	85985	201.8	2	8.667	-0.001	34670	190.7
Aroclor-1248	3	8.941	-0.003	81615	99.6	3	9.069	-0.051	21513	101.0
Aroclor-1248	4	9.249	0.006	52526	125.8	4	9.537	-0.008	1824	7.1
Total CollAve (4 peaks):				165.8		Total Col2Ave (4 peaks):				128.3 RPD = 26
Corrected Ave (3 peaks):				142.4		Corrected Ave (3 peaks):				99.6 RPD = 35
Aroclor-1254	1	9.249	0.003	52526	79.6	1	9.405	0.001	24726	90.0
Aroclor-1254	2	---			0.0	2	9.537	0.038	1824	11.2
Aroclor-1254	3	9.619	0.001	7081	16.6	3	9.926	0.002	3128	14.0
Aroclor-1254	4	9.756	0.001	21856	26.2	4	10.101	0.023	62581	128.7
Aroclor-1254	5	10.069	-0.057	159796	317.0	5	10.324	-0.004	85433	177.1
Total CollAve (4 peaks):				109.8		Total Col2Ave (5 peaks):				84.2 RPD = 26
Corrected Ave (3 peaks):				40.8		Corrected Ave (4 peaks):				61.0 RPD = 40
Aroclor-1260	1	10.995	0.001	145767	292.8	1	11.605	-0.000	99761	272.0
Aroclor-1260	2	11.311	0.001	142028	289.1	2	11.872	0.000	273505	285.1
Aroclor-1260	3	11.686	0.000	354468	288.1	3	12.389	0.001	70545	296.8
Aroclor-1260	4	12.092	0.002	161281	267.6	4	12.455	-0.000	180783	282.1
Aroclor-1260	5	12.194	0.001	76105	289.6	NS	---			----
Total CollAve (5 peaks):				285.5		Total Col2Ave (4 peaks):				284.0 RPD = 1
Corrected Ave (4 peaks):				283.6		Corrected Ave (3 peaks):				279.8 RPD = 1
Aroclor-1262	1	10.777	-0.001	215850	506.9	1	11.153	-0.001	104059	186.0
Aroclor-1262	2	12.194	-0.000	76105	127.1	2	11.605	0.001	99761	211.4
Aroclor-1262	3	12.271	0.001	94628	147.0	3	12.389	0.003	70545	136.8
Aroclor-1262	4	12.939	-0.000	78852	150.3	4	12.455	-0.001	180783	215.1
Total CollAve (4 peaks):				232.8		Total Col2Ave (4 peaks):				187.3 RPD = 22
Corrected Ave (3 peaks):				141.5		Corrected Ave (3 peaks):				178.1 RPD = 23
Aroclor-1268	1	12.194	-0.001	76105	50.7	1	12.389	0.004	70545	54.0
Aroclor-1268	2	12.271	0.003	94628	63.5	2	12.455	0.003	180783	128.7
Aroclor-1268	3	12.675	0.026	38830	32.4	3	12.844	0.001	3082	2.6
Aroclor-1268	4	13.440	0.003	19986	5.8	4	13.661	-0.002	14882	3.9
Total CollAve (4 peaks):				38.1		Total Col2Ave (4 peaks):				47.3 RPD = 21
Corrected Ave (3 peaks):				29.6		Corrected Ave (3 peaks):				20.1 RPD = 38

Total PCB Area Col1 (5.842 - 13.740) = 3657118 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2255286 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052333ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV2</u>	Injection Time:	<u>03:36</u>
Sequence Name:	<u>AR1242SCV2</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	237	0.0390737	0.0365795		-5.1	+/-20
Aroclor 1242 [2C]	A	250.00	230	0.0413965	0.0378029		-7.9	+/-20
Decachlorobiphenyl	A	40.000	40.9	0.7991406	0.8167325		2.2	+/-20
Tetrachlorometaxylene	A	40.000	32.8	1.2048230	0.9873365		-18.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	44.0	1.1360140	1.2491680		10.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	33.4	1.1005470	0.9188596		-16.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052333ECD7.D
Data file 2: /230505.b/230505.b/05052333ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 06-MAY-2023 03:36
Report Date: 05/06/2023 12:06
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.744	0.002	319899	5.630	0.002	167866	32.8	33.4	1.9	Tetrachloro-m-xylene
13.842	0.002	398699	14.069	0.001	434332	40.9	44.0	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	648004	7.7
Hexabromobiphenyl	876625	976327	11.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	365379	4.6
Hexabromobiphenyl	652984	695394	6.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.001	47446	189.1	1	7.205	0.001	36469	176.3
Aroclor-1016	2	7.594	-0.000	147684	188.2	2	7.814	0.007	77885	176.7
Aroclor-1016	3	7.735	0.002	67175	185.2	3	8.012	0.006	38400	197.5
Aroclor-1016	4	8.398	0.000	30565	204.3	4	8.261	0.002	27551	178.4
Total CollAve (4 peaks):				191.7		Total Col2Ave (4 peaks):				182.2 RPD = 5
Corrected Ave (3 peaks):				187.5		Corrected Ave (3 peaks):				177.1 RPD = 6
Aroclor-1221	1	4.666	0.002	870	19.1	1	---			0.0
Aroclor-1221	2	6.069	0.000	7118	77.8	2	6.257	0.011	4359	78.0
Aroclor-1221	3	6.322	0.001	32969	151.8	3	6.573	0.001	16609	189.0
Total CollAve (3 peaks):				82.9		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.666	0.002	870	28.7	1	---			0.0
Aroclor-1232	2	6.069	0.000	7118	112.7	2	7.205	-0.000	36469	449.5
Aroclor-1232	3	7.594	-0.001	147684	490.8	3	7.814	-0.001	77885	477.9
Aroclor-1232	4	8.526	-0.000	70601	548.1	4	8.668	-0.001	25417	538.5
Total CollAve (4 peaks):				295.1		Total Col2Ave (3 peaks):				488.7 RPD = 49*
Corrected Ave (3 peaks):				210.7		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.213	0.001	47446	232.4	1	7.205	0.001	36469	223.3
Aroclor-1242	2	7.594	-0.000	147684	228.2	2	7.814	0.002	77885	224.2
Aroclor-1242	3	8.398	0.000	30565	244.2	3	9.124	0.001	25864	232.2
Aroclor-1242	4	8.526	0.002	70601	243.8	4	9.552	0.001	32437	241.7
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				230.4 RPD = 3
Corrected Ave (3 peaks):				234.8		Corrected Ave (3 peaks):				226.6 RPD = 4
Aroclor-1248	1	8.398	-0.001	30565	184.8	1	8.261	0.001	27551	158.5
Aroclor-1248	2	8.526	0.002	70601	164.3	2	8.668	0.001	25417	138.4
Aroclor-1248	3	8.946	0.002	172847	209.1	3	9.124	0.004	25864	120.2
Aroclor-1248	4	9.243	-0.001	87363	207.3	4	9.552	0.006	32437	125.7
Total CollAve (4 peaks):				191.4		Total Col2Ave (4 peaks):				135.7 RPD = 34
Corrected Ave (3 peaks):				185.5		Corrected Ave (3 peaks):				128.1 RPD = 37
Aroclor-1254	1	9.243	-0.004	87363	131.2	1	9.406	0.002	13247	47.7
Aroclor-1254	2	9.326	0.001	28949	96.7	2	9.552	0.053	32437	196.7
Aroclor-1254	3	9.622	0.004	20780	48.3	3	9.927	0.003	10002	44.5
Aroclor-1254	4	9.762	0.006	35470	42.1	4	10.082	0.005	19933	40.6
Aroclor-1254	5	10.140	0.015	28075	55.2	5	10.341	0.013	19432	39.9
Total CollAve (5 peaks):				74.7		Total Col2Ave (5 peaks):				73.9 RPD = 1
Corrected Ave (4 peaks):				60.6		Corrected Ave (4 peaks):				43.2 RPD = 34
Aroclor-1260	1	10.998	0.005	3609	7.0	1	11.618	0.012	2137	5.8
Aroclor-1260	2	11.317	0.007	3837	7.5	2	11.879	0.007	1437	1.5
Aroclor-1260	3	11.765	0.080	33905	26.6	3	12.382	-0.006	12460	52.1
Aroclor-1260	4	12.097	0.007	9099	14.6	4	---			0.0
Aroclor-1260	5	12.272	0.079	2060	7.6	NS	---			---
Total CollAve (5 peaks):				12.6		Total Col2Ave (3 peaks):				19.8 RPD = 44*
Corrected Ave (4 peaks):				9.2		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.787	0.009	24040	54.4	1	11.078	-0.075	7864	14.0
Aroclor-1262	2	12.272	0.077	2060	3.3	2	11.618	0.013	2137	4.5
Aroclor-1262	3	---			0.0	3	12.382	-0.004	12460	24.0
Aroclor-1262	4	12.937	-0.002	16041	29.5	4	---			0.0
Total CollAve (3 peaks):				29.1		Total Col2Ave (3 peaks):				14.1 RPD = 69*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.272	0.076	2060	1.3	1	12.382	-0.003	12460	9.5
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.649	0.001	4324	3.5	3	12.845	0.002	951	0.8
Aroclor-1268	4	13.442	0.005	15801	4.4	4	13.628	-0.035	6512	1.7
Total CollAve (3 peaks):				3.1		Total Col2Ave (3 peaks):				4.0 RPD = 25
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.842 - 13.740) = 1489022 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 667658 Col2 Total PCB = 0.2 ppm*

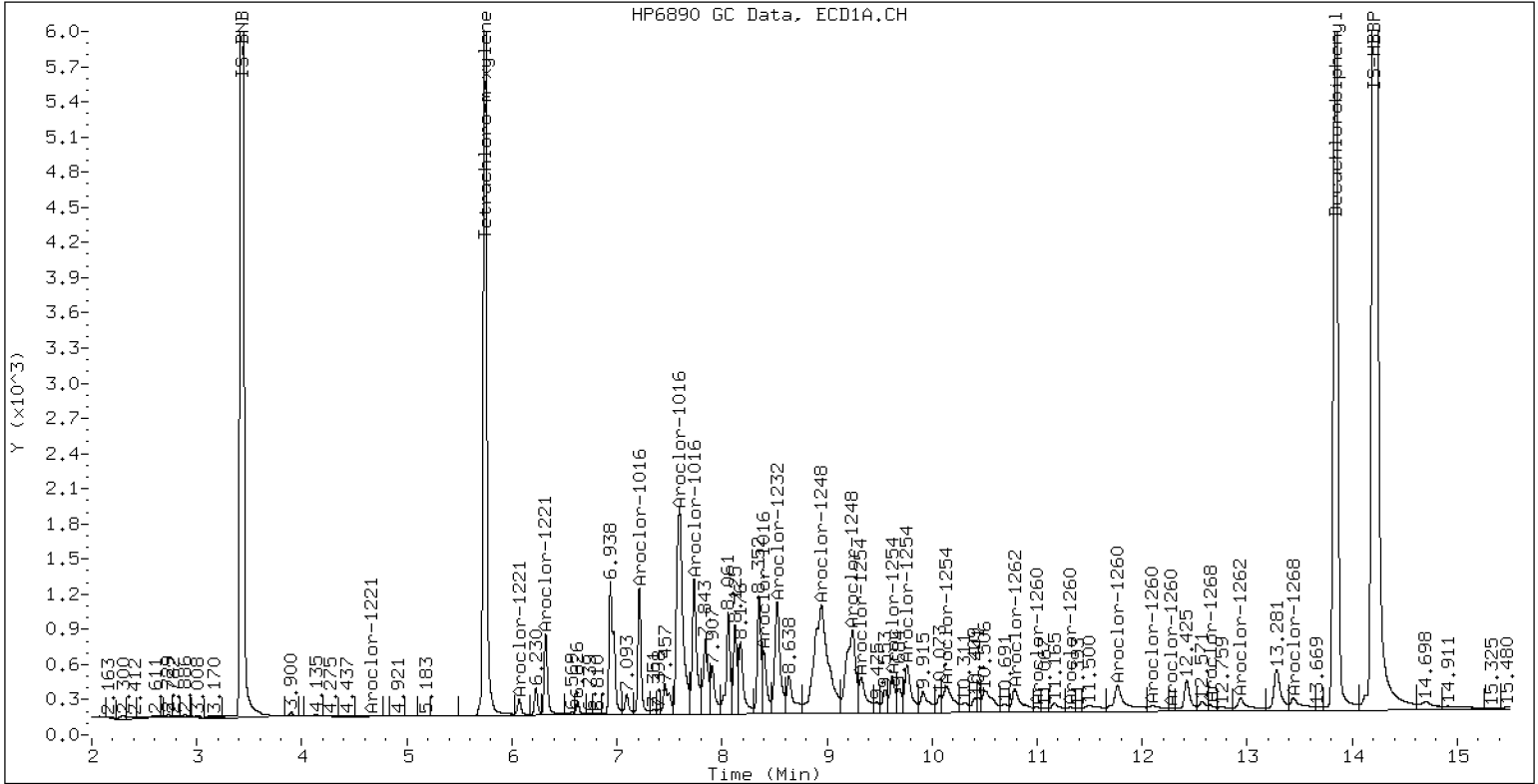
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV

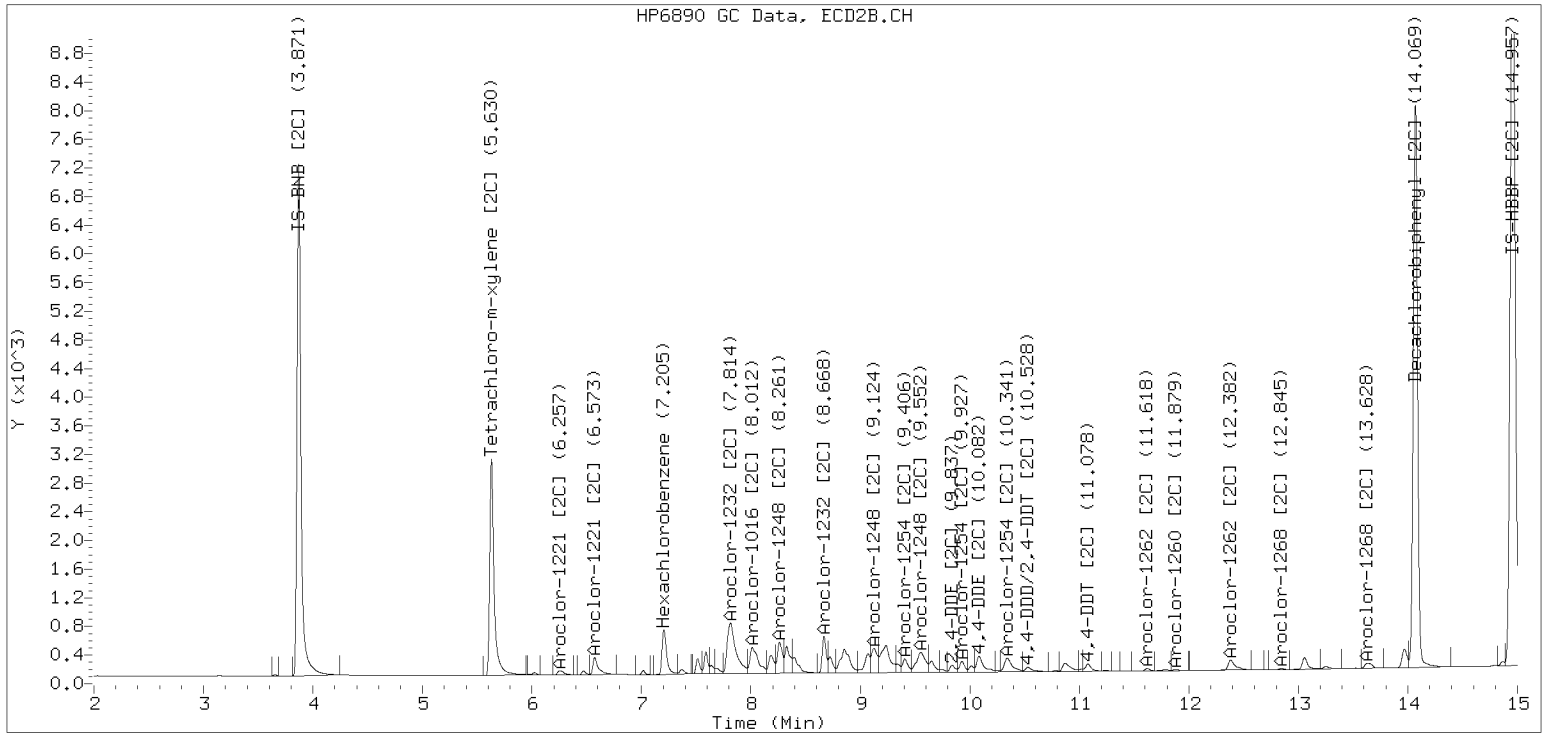
06-MAY-2023 03:36, 2ul



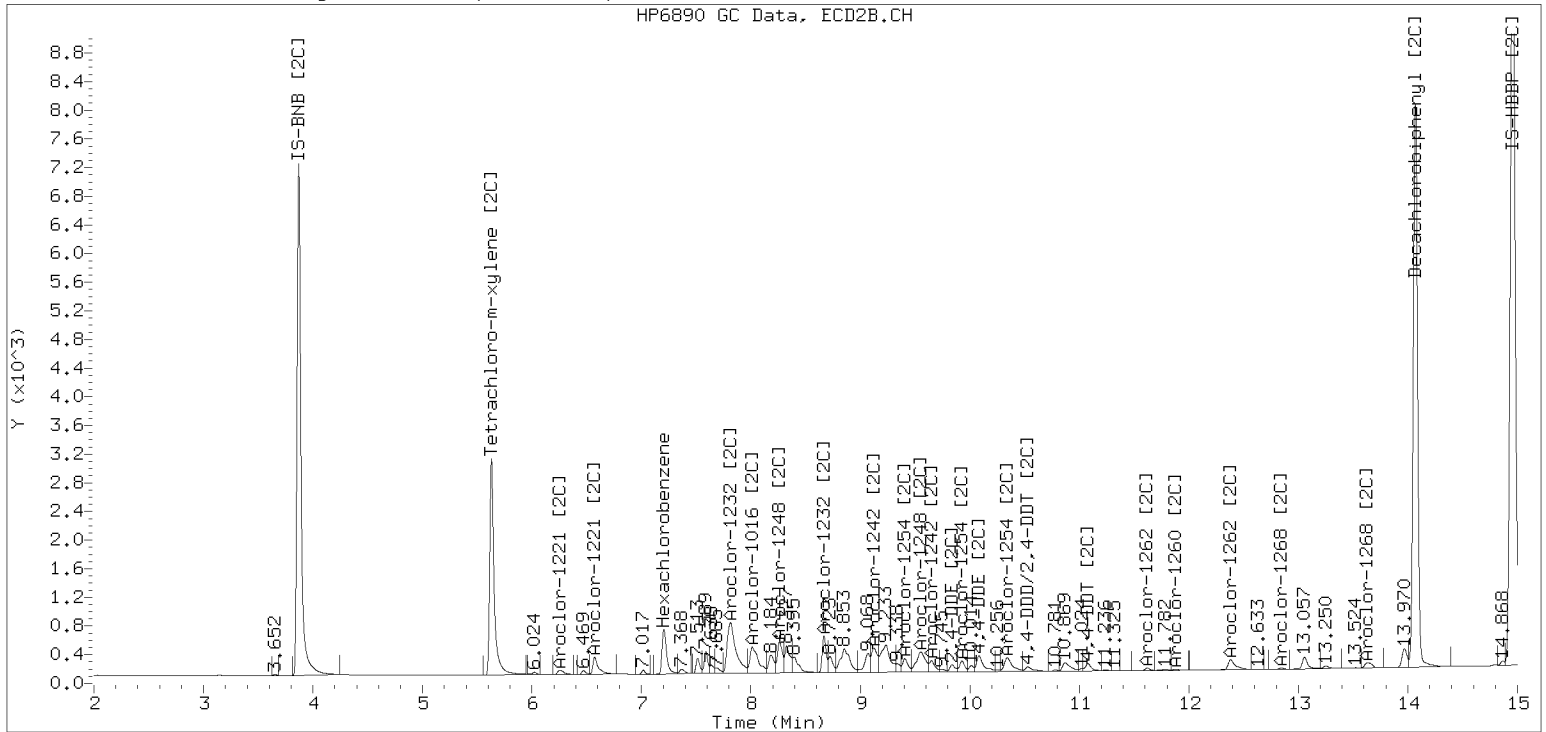
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230505.b/230505.b/05052333ECD7.D Injection Date: 06-MAY-2023

Manual Integration (After)



Processed Integration (Before)





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052334ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV3</u>	Injection Time:	<u>03:57</u>
Sequence Name:	<u>AR1248SCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	251	0.0568879	0.0571636		0.5	+/-20
Aroclor 1248 [2C]	A	250.00	249	0.0454726	0.0453430		-0.3	+/-20
Decachlorobiphenyl	A	40.000	35.7	0.7991406	0.7130963		-10.8	+/-20
Tetrachlorometaxylene	A	40.000	36.8	1.2048230	1.1082640		-8.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.0	1.1360140	1.0789920		-5.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.7	1.1005470	1.0375410		-5.7	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052334ECD7.D
Data file 2: /230505.b/230505.b/05052334ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 06-MAY-2023 03:57
Report Date: 05/06/2023 12:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response		
5.741	-0.001	356328	5.629	0.000	186552	2.5	Tetrachloro-m-xylene
13.842	0.001	339452	14.070	0.002	373861	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	643038	6.9
Hexabromobiphenyl	876625	952051	8.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	359604	3.0
Hexabromobiphenyl	652984	692982	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.212	0.000	19871	79.8	1	7.203	-0.001	18843	92.6
Aroclor-1016	2	7.589	-0.006	95111	122.2	2	7.812	0.005	52352	120.7
Aroclor-1016	3	7.736	0.003	37565	104.4	3	8.012	0.006	8263	43.2
Aroclor-1016	4	8.399	0.002	41542	279.7	4	8.260	0.001	42833	281.8
Total CollAve (4 peaks):				146.5		Total Col2Ave (4 peaks):				134.6 RPD = 9
Corrected Ave (3 peaks):				102.1		Corrected Ave (3 peaks):				85.5 RPD = 18
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.066	-0.003	351	3.9	2	6.275	0.029	1573	28.6
Aroclor-1221	3	6.320	-0.001	3509	16.3	3	6.576	0.004	967	11.2
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.066	-0.003	351	5.6	2	7.203	-0.001	18843	236.0
Aroclor-1232	3	7.589	-0.006	95111	318.5	3	7.812	-0.002	52352	326.4
Aroclor-1232	4	8.524	-0.002	105782	827.6	4	8.667	-0.002	44962	968.0
Total CollAve (3 peaks):				383.9		Total Col2Ave (3 peaks):				510.1 RPD = 28
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.212	0.000	19871	98.1	1	7.203	-0.000	18843	117.2
Aroclor-1242	2	7.589	-0.006	95111	148.1	2	7.812	-0.000	52352	153.1
Aroclor-1242	3	8.399	0.001	41542	334.5	3	9.120	-0.003	52681	480.6
Aroclor-1242	4	8.524	-0.000	105782	368.1	4	9.548	-0.002	63343	479.5
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				307.6 RPD = 26
Corrected Ave (3 peaks):				193.6		Corrected Ave (3 peaks):				250.0 RPD = 25
Aroclor-1248	1	8.399	0.001	41542	253.1	1	8.260	-0.001	42833	250.4
Aroclor-1248	2	8.524	-0.000	105782	248.0	2	8.667	0.000	44962	248.8
Aroclor-1248	3	8.944	-0.000	206928	252.3	3	9.120	-0.000	52681	248.7
Aroclor-1248	4	9.242	-0.001	105227	251.7	4	9.548	0.002	63343	249.4
Total CollAve (4 peaks):				251.3		Total Col2Ave (4 peaks):				249.3 RPD = 1
Corrected Ave (3 peaks):				250.6		Corrected Ave (3 peaks):				249.0 RPD = 1
Aroclor-1254	1	9.242	-0.004	105227	159.2	1	9.404	0.000	25835	94.6
Aroclor-1254	2	9.324	-0.001	51326	172.8	2	9.548	0.049	63343	390.3
Aroclor-1254	3	9.619	0.001	41394	97.0	3	9.925	0.001	22609	102.1
Aroclor-1254	4	9.759	0.003	72223	86.4	4	10.079	0.001	43816	90.7
Aroclor-1254	5	10.135	0.010	49936	98.9	5	10.345	0.016	42513	88.7
Total CollAve (5 peaks):				122.9		Total Col2Ave (5 peaks):				153.3 RPD = 22
Corrected Ave (4 peaks):				110.4		Corrected Ave (4 peaks):				94.0 RPD = 16
Aroclor-1260	1	10.998	0.005	1863	3.7	1	11.617	0.011	2599	7.1
Aroclor-1260	2	11.314	0.004	1152	2.3	2	11.877	0.005	1951	2.0
Aroclor-1260	3	11.695	0.009	1829	1.5	3	12.389	0.001	857	3.6
Aroclor-1260	4	12.097	0.007	1266	2.1	4	12.458	0.003	1302	2.0
Aroclor-1260	5	12.195	0.002	464	1.7	NS	---			----
Total CollAve (5 peaks):				2.3		Total Col2Ave (4 peaks):				3.7 RPD = 48*
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				2.5 RPD = 29
Aroclor-1262	1	10.784	0.005	15405	35.8	1	11.077	-0.077	9003	16.0
Aroclor-1262	2	12.195	0.000	464	0.8	2	11.617	0.012	2599	5.5
Aroclor-1262	3	12.271	0.002	489	0.8	3	12.389	0.003	857	1.7
Aroclor-1262	4	12.940	0.001	1638	3.1	4	12.458	0.002	1302	1.5
Total CollAve (4 peaks):				10.1		Total Col2Ave (4 peaks):				6.2 RPD = 48*
Corrected Ave (3 peaks):				1.5		Corrected Ave (3 peaks):				2.9 RPD = 61*
Aroclor-1268	1	12.195	-0.001	464	0.3	1	12.389	0.004	857	0.7
Aroclor-1268	2	12.271	0.003	489	0.3	2	12.458	0.006	1302	0.9
Aroclor-1268	3	12.649	0.001	1831	1.5	3	12.845	0.002	676	0.6
Aroclor-1268	4	13.443	0.006	5387	1.6	4	13.661	-0.003	2707	0.7
Total CollAve (4 peaks):				0.9		Total Col2Ave (4 peaks):				0.7 RPD = 26
Corrected Ave (3 peaks):				0.7		Corrected Ave (3 peaks):				0.6 RPD = 11

Total PCB Area Col1 (5.842 - 13.740) = 1634238 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 876760 Col2 Total PCB = 0.2 ppm*

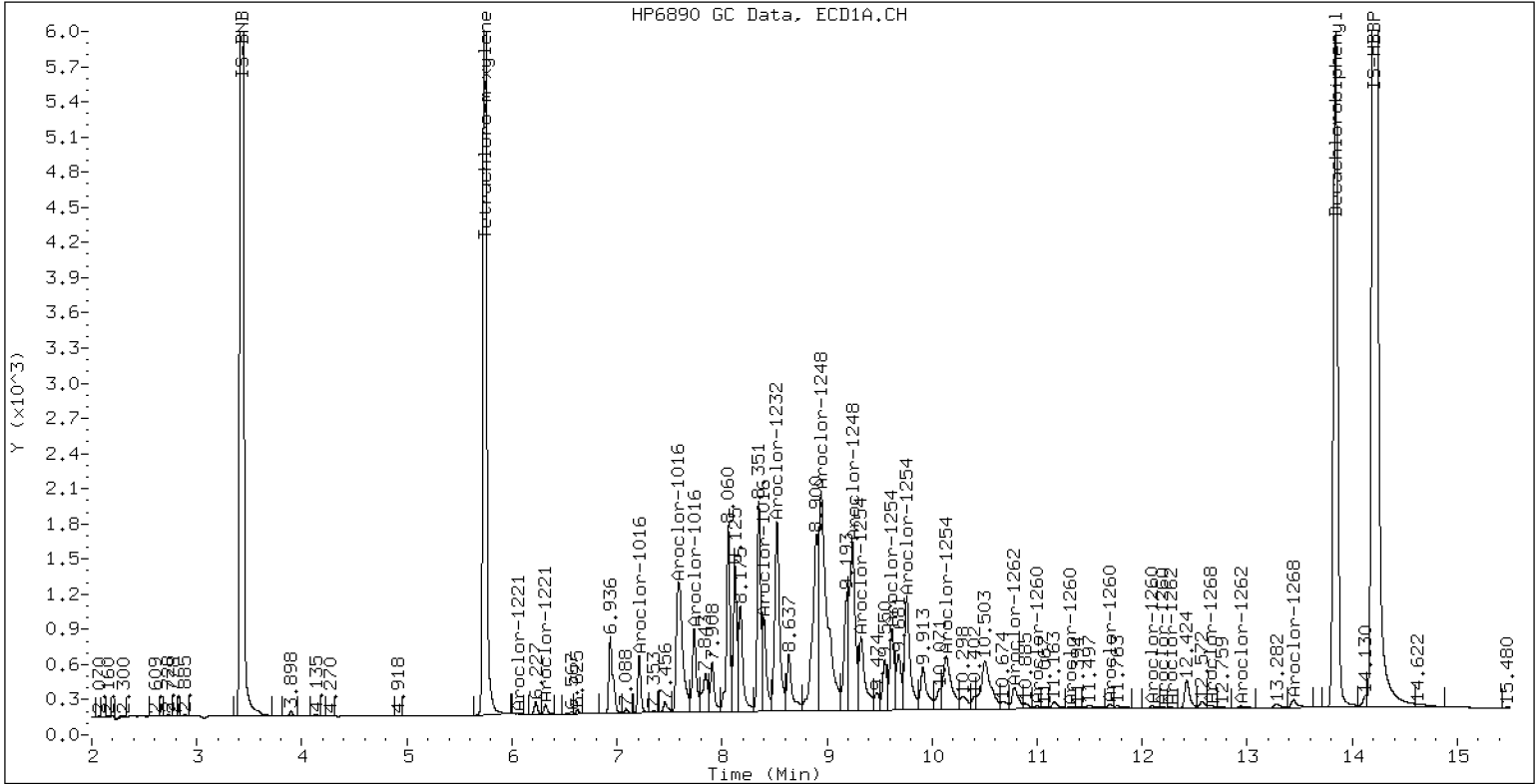
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV

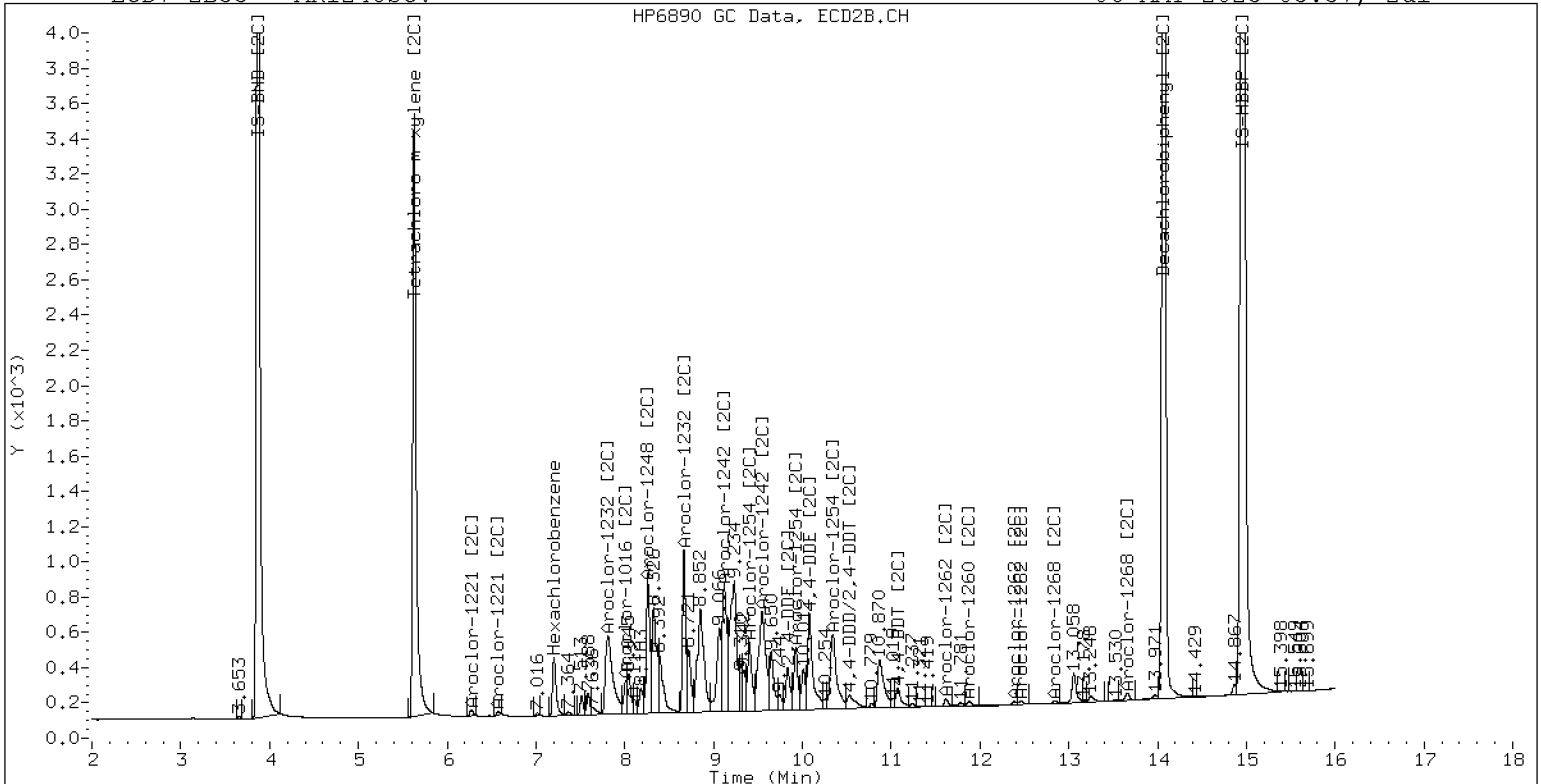
06-MAY-2023 03:57, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248SCV

06-MAY-2023 03:57, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052335ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV4</u>	Injection Time:	<u>04:18</u>
Sequence Name:	<u>AR1254SCV4</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	239	0.0678007	0.0647470		-4.3	+/-20
Aroclor 1254 [2C]	A	250.00	241	0.0720677	0.0695237		-3.8	+/-20
Decachlorobiphenyl	A	40.000	36.0	0.7991406	0.7182997		-10.1	+/-20
Tetrachlorometaxylene	A	40.000	37.6	1.2048230	1.1319680		-6.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.5	1.1360140	1.0928370		-3.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.3	1.1005470	1.0547150		-4.2	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052335ECD7.D
Data file 2: /230505.b/230505.b/05052335ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 06-MAY-2023 04:18
Report Date: 05/06/2023 11:30
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	368022	5.631	0.002	192033	37.6	38.3	2.0	Tetrachloro-m-xylene
13.843	0.002	352066	14.070	0.002	385384	36.0	38.5	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	650234	8.1
Hexabromobiphenyl	876625	980276	11.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	364142	4.3
Hexabromobiphenyl	652984	705291	8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.002	635	2.5	1	---			0.0
Aroclor-1016	2	7.590	-0.004	2512	3.2	2	---			0.0
Aroclor-1016	3	7.738	0.005	1594	4.4	3	---			0.0
Aroclor-1016	4	8.351	-0.047	31774	211.6	4	---			0.0
Total CollAve (4 peaks):				55.4		Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.052	-0.018	242	2.6	2	---			0.0
Aroclor-1221	3	6.322	0.001	427	2.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.052	-0.018	242	3.8	2	---			0.0
Aroclor-1232	3	7.590	-0.005	2512	8.3	3	---			0.0
Aroclor-1232	4	8.528	0.001	13950	107.9	4	---			0.0
Total CollAve (3 peaks):				40.0		Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.214	0.002	635	3.1	1	---			0.0
Aroclor-1242	2	7.590	-0.005	2512	3.9	2	---			0.0
Aroclor-1242	3	8.351	-0.047	31774	253.0	3	9.125	0.002	23963	215.9
Aroclor-1242	4	8.528	0.004	13950	48.0	4	9.649	0.099	23982	179.3
Total CollAve (4 peaks):				77.0		Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.351	-0.048	31774	191.4	1	8.260	-0.000	23490	135.6
Aroclor-1248	2	8.528	0.004	13950	32.3	2	8.669	0.002	16693	91.2
Aroclor-1248	3	8.941	-0.003	154338	186.1	3	9.125	0.005	23963	111.7
Aroclor-1248	4	9.246	0.003	158369	374.6	4	9.499	-0.047	38716	150.5
Total CollAve (4 peaks):				196.1		Total Col2Ave (4 peaks): 122.3 RPD = 46*				
Corrected Ave (3 peaks):				136.6		Corrected Ave (3 peaks): 112.8 RPD = 19				
Aroclor-1254	1	9.246	-0.001	158369	237.0	1	9.404	0.000	67493	244.0
Aroclor-1254	2	9.325	-0.000	72386	241.1	2	9.499	-0.000	38716	235.6
Aroclor-1254	3	9.617	-0.001	103602	240.1	3	9.925	0.001	53972	240.7
Aroclor-1254	4	9.756	0.000	201259	238.2	4	10.079	0.001	116950	239.0
Aroclor-1254	5	10.127	0.001	122207	239.5	5	10.327	-0.001	118439	243.9
Total CollAve (5 peaks):				239.2		Total Col2Ave (5 peaks): 240.6 RPD = 1				
Corrected Ave (4 peaks):				238.7		Corrected Ave (4 peaks): 239.8 RPD = 0				
Aroclor-1260	1	10.994	0.001	13538	26.1	1	11.615	0.009	33465	89.3
Aroclor-1260	2	11.313	0.003	13900	27.2	2	11.876	0.004	25534	26.1
Aroclor-1260	3	11.689	0.004	32548	25.4	3	12.404	0.016	1811	7.5
Aroclor-1260	4	12.093	0.003	25285	40.3	4	12.458	0.002	14842	22.7
Aroclor-1260	5	12.273	0.079	2534	9.3	NS	---			---
Total CollAve (5 peaks):				25.6		Total Col2Ave (4 peaks): 36.4 RPD = 35				
Corrected Ave (4 peaks):				22.0		Corrected Ave (3 peaks): 18.7 RPD = 16				
Aroclor-1262	1	10.779	0.000	210018	473.6	1	11.073	-0.081	114323	200.0
Aroclor-1262	2	12.273	0.078	2534	4.1	2	11.615	0.010	33465	69.4
Aroclor-1262	3	---			0.0	3	12.404	0.018	1811	3.4
Aroclor-1262	4	12.939	0.001	1830	3.3	4	12.458	0.002	14842	17.3
Total CollAve (3 peaks):				160.3		Total Col2Ave (4 peaks): 72.6 RPD = 75*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 30.1				
Aroclor-1268	1	12.273	0.077	2534	1.6	1	12.404	0.019	1811	1.4
Aroclor-1268	2	---			0.0	2	12.458	0.005	14842	10.3
Aroclor-1268	3	12.654	0.006	2669	2.1	3	12.847	0.004	835	0.7
Aroclor-1268	4	13.442	0.004	6266	1.8	4	13.662	-0.001	2350	0.6
Total CollAve (3 peaks):				1.8		Total Col2Ave (4 peaks): 3.2 RPD = 55*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 0.9				

Total PCB Area Col1 (5.842 - 13.740) = 2123119 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.728 - 13.968) = 1146487 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052336ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV5</u>	Injection Time:	<u>04:39</u>
Sequence Name:	<u>AR2162SCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	290	0.0145752	0.0167225		15.9	+/-20
Aroclor 1221 [2C]	A	250.00	288	0.0124557	0.0144068		15.3	+/-20
Aroclor 1262	A	250.00	265	0.0465964	0.0493619		6.1	+/-20
Aroclor 1262 [2C]	A	250.00	259	0.0691503	0.0715087		3.5	+/-20
Decachlorobiphenyl	A	40.000	37.1	0.7991406	0.7407598		-7.3	+/-20
Tetrachlorometaxylene	A	40.000	37.8	1.2048230	1.1381330		-5.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.8	1.1360140	1.1010220		-3.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.1	1.1005470	1.0746770		-2.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052336ECD7.D
Data file 2: /230505.b/230505.b/05052336ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 06-MAY-2023 04:39
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	358254	5.628	-0.000	183759	37.8	39.1	3.3	Tetrachloro-m-xylene
13.842	0.002	344347	14.070	0.002	373300	37.1	38.8	4.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	629547	4.7
Hexabromobiphenyl	876625	929713	6.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	341980	-2.1
Hexabromobiphenyl	652984	678097	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.000	6601	27.1	1	7.207	0.003	3935	20.3	
Aroclor-1016	2	7.595	0.000	13419	17.6	2	7.821	0.013	6146	14.9	
Aroclor-1016	3	7.735	0.003	7114	20.2	3	8.027	0.021	3201	17.6	
Aroclor-1016	4	8.353	-0.045	3916	26.9	4	8.262	0.003	2131	14.7	
Total CollAve (4 peaks):				23.0	Total Col2Ave (4 peaks):				16.9	RPD = 30	
Corrected Ave (3 peaks):				21.6	Corrected Ave (3 peaks):				15.7	RPD = 31	
Aroclor-1221	1	4.663	-0.001	13184	297.8	1	4.893	-0.001	7253	287.5	
Aroclor-1221	2	6.070	0.000	25527	287.4	2	6.244	-0.001	14853	284.1	
Aroclor-1221	3	6.321	0.000	59985	284.3	3	6.571	-0.001	24083	292.9	
Total CollAve (3 peaks):				289.8	Total Col2Ave (3 peaks):				288.2	RPD = 1	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.663	-0.001	13184	447.0	1	4.893	-0.001	7253	546.9	
Aroclor-1232	2	6.070	0.000	25527	416.0	2	7.207	0.002	3935	51.8	
Aroclor-1232	3	7.595	-0.000	13419	45.9	3	7.821	0.006	6146	40.3	
Aroclor-1232	4	8.528	0.001	2679	21.4	4	8.671	0.002	1120	25.4	
Total CollAve (4 peaks):				232.6	Total Col2Ave (4 peaks):				166.1	RPD = 33	
Corrected Ave (3 peaks):				161.1	Corrected Ave (3 peaks):				39.2	RPD = 122*	
Aroclor-1242	1	7.213	0.001	6601	33.3	1	7.207	0.004	3935	25.7	
Aroclor-1242	2	7.595	-0.000	13419	21.3	2	7.821	0.008	6146	18.9	
Aroclor-1242	3	8.353	-0.045	3916	32.2	3	9.133	0.010	881	8.5	
Aroclor-1242	4	8.528	0.003	2679	9.5	4	9.651	0.101	516	4.1	
Total CollAve (4 peaks):				24.1	Total Col2Ave (4 peaks):				14.3	RPD = 51*	
Corrected Ave (3 peaks):				21.0	Corrected Ave (3 peaks):				10.5	RPD = 67*	
Aroclor-1248	1	8.353	-0.046	3916	24.4	1	8.262	0.002	2131	13.1	
Aroclor-1248	2	8.528	0.003	2679	6.4	2	8.671	0.004	1120	6.5	
Aroclor-1248	3	8.942	-0.002	25144	31.3	3	9.133	0.013	881	4.4	
Aroclor-1248	4	9.251	0.008	25583	62.5	4	9.500	-0.045	335	1.4	
Total CollAve (4 peaks):				31.1	Total Col2Ave (4 peaks):				6.3	RPD = 132*	
Corrected Ave (3 peaks):				20.7	Corrected Ave (3 peaks):				4.1	RPD = 134*	
Aroclor-1254	1	9.251	0.005	25583	39.5	1	9.408	0.004	9719	37.4	
Aroclor-1254	2	---			0.0	2	9.500	0.001	335	2.2	
Aroclor-1254	3	9.620	0.002	4245	10.2	3	9.928	0.004	2055	9.8	
Aroclor-1254	4	9.758	0.003	11050	13.5	4	10.100	0.022	55162	120.0	
Aroclor-1254	5	10.071	-0.055	129151	261.4	5	10.325	-0.004	68421	150.1	
Total CollAve (4 peaks):				81.1	Total Col2Ave (5 peaks):				63.9	RPD = 24	
Corrected Ave (3 peaks):				21.1	Corrected Ave (4 peaks):				42.3	RPD = 67*	
Aroclor-1260	1	10.995	0.002	206643	420.3	1	11.605	-0.001	119902	332.9	
Aroclor-1260	2	11.311	0.001	167443	345.1	2	11.872	0.000	293746	311.8	
Aroclor-1260	3	11.687	0.001	390491	321.4	3	12.386	-0.002	131462	563.2	
Aroclor-1260	4	12.091	0.001	120118	201.8	4	12.456	0.000	212898	338.4	
Aroclor-1260	5	12.195	0.002	155588	599.5	NS	---			----	
Total CollAve (5 peaks):				377.6	Total Col2Ave (4 peaks):				386.6	RPD = 2	
Corrected Ave (4 peaks):				322.2	Corrected Ave (3 peaks):				327.7	RPD = 2	
Aroclor-1262	1	10.777	-0.001	114050	271.2	1	11.153	0.000	141861	258.2	
Aroclor-1262	2	12.195	0.001	155588	263.0	2	11.605	0.000	119902	258.7	
Aroclor-1262	3	12.269	0.000	167998	264.2	3	12.386	-0.000	131462	259.6	
Aroclor-1262	4	12.938	-0.001	136019	262.5	4	12.456	0.000	212898	258.0	
Total CollAve (4 peaks):				265.2	Total Col2Ave (4 peaks):				258.6	RPD = 3	
Corrected Ave (3 peaks):				263.3	Corrected Ave (3 peaks):				258.3	RPD = 2	
Aroclor-1268	1	12.195	-0.000	155588	104.9	1	12.386	0.001	131462	102.4	
Aroclor-1268	2	12.269	0.001	167998	114.1	2	12.456	0.003	212898	154.3	
Aroclor-1268	3	12.675	0.027	60611	51.2	3	12.843	-0.000	8393	7.1	
Aroclor-1268	4	13.439	0.001	49821	14.7	4	13.661	-0.002	39480	10.4	
Total CollAve (4 peaks):				71.2	Total Col2Ave (4 peaks):				68.6	RPD = 4	

Corrected Ave (3 peaks): 56.9 Corrected Ave (3 peaks): 40.0 RPD = 35

Total PCB Area Col1 (5.842 - 13.740) = 2870829 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 1885829 Col2 Total PCB = 0.5 ppm*

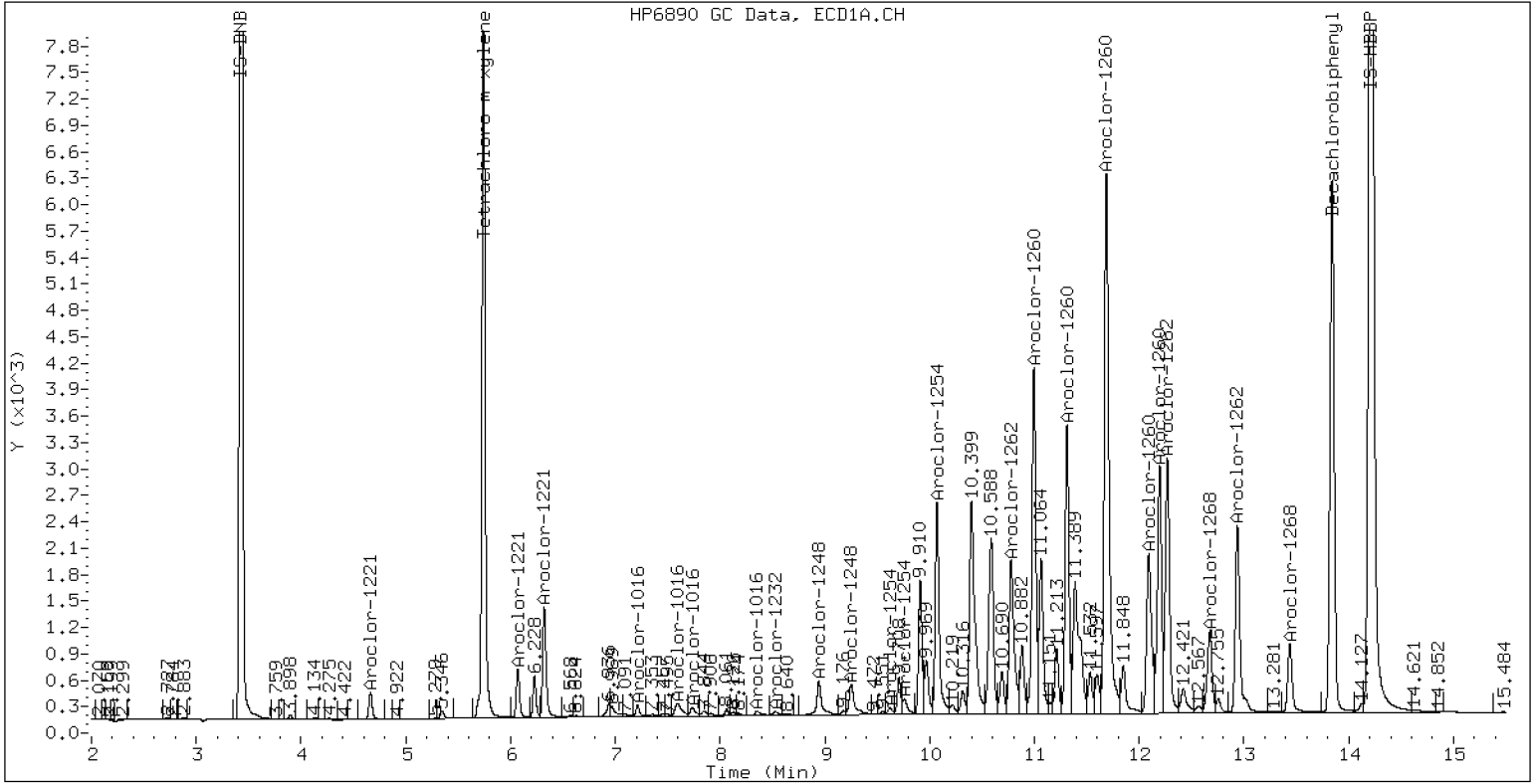
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV

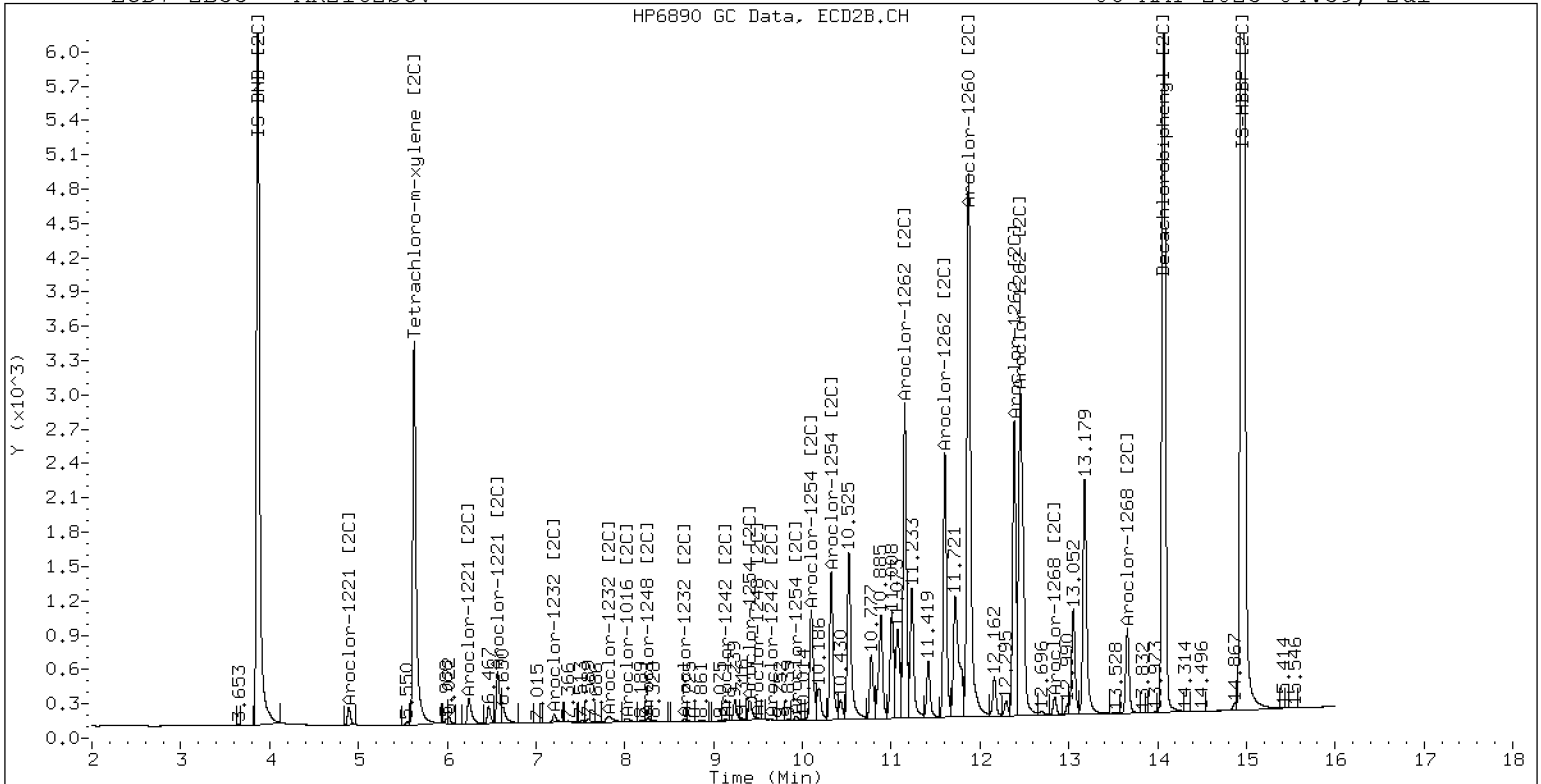
06-MAY-2023 04:39, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV

06-MAY-2023 04:39, 2u1



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05052337ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0079</u>	Injection Date:	<u>05/06/23</u>
Lab Sample ID:	<u>SLE0079-SCV6</u>	Injection Time:	<u>05:00</u>
Sequence Name:	<u>AR3268SCV6</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	256	0.0161500	0.0177311		2.6	+/-20
Aroclor 1232 [2C]	A	250.00	301	0.0167199	0.0201037		20.3	+/-20
Aroclor 1268	A	250.00	266	0.1617990	0.1720924		6.5	+/-20
Aroclor 1268 [2C]	A	250.00	263	0.2250713	0.2372875		5.2	+/-20
Decachlorobiphenyl	A	40.000	55.1	0.7991406	1.1003690		37.7	+/-20
Tetrachlorometaxylene	A	40.000	38.4	1.2048230	1.1563010		-4.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	59.3	1.1360140	1.6851460		48.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.4	1.1005470	1.1123120		1.1	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230505.b/05052337ECD7.D
Data file 2: /230505.b/230505.b/05052337ECD7.D
Method: \\target\share\chem4\ecd7.i\230505.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 06-MAY-2023 05:00
Report Date: 05/06/2023 11:31
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.001	373749	5.629	0.001	196946	38.4	40.4	5.2	Tetrachloro-m-xylene
13.842	0.002	525409	14.069	0.001	586548	55.1	59.3	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	646456	7.5
Hexabromobiphenyl	876625	954969	8.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354120	1.4
Hexabromobiphenyl	652984	696139	6.6

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.214	0.001	28623	114.3	1	7.205	0.002	23124	115.4
Aroclor-1016	2	7.597	0.002	85721	109.5	2	7.815	0.007	47496	111.2
Aroclor-1016	3	7.735	0.002	41343	114.3	3	8.014	0.008	24029	127.5
Aroclor-1016	4	8.400	0.002	16653	111.6	4	8.262	0.003	15421	103.0
Total CollAve (4 peaks):				112.4		Total Col2Ave (4 peaks):				114.3 RPD = 2
Corrected Ave (3 peaks):				111.8		Corrected Ave (3 peaks):				109.9 RPD = 2
Aroclor-1221	1	4.664	0.001	7272	159.9	1	4.895	0.000	4045	154.9
Aroclor-1221	2	6.070	0.001	13478	147.8	2	6.246	0.000	9235	170.6
Aroclor-1221	3	6.321	0.001	43831	202.3	3	6.572	0.000	24300	285.4
Total CollAve (3 peaks):				170.0		Total Col2Ave (3 peaks):				203.6 RPD = 18
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.664	0.001	7272	240.1	1	4.895	0.001	4045	294.5
Aroclor-1232	2	6.070	0.001	13478	213.9	2	7.205	0.001	23124	294.1
Aroclor-1232	3	7.597	0.002	85721	285.5	3	7.815	0.000	47496	300.7
Aroclor-1232	4	8.527	0.000	36809	286.5	4	8.669	-0.000	14324	313.2
Total CollAve (4 peaks):				256.5		Total Col2Ave (4 peaks):				300.6 RPD = 16
Corrected Ave (3 peaks):				246.5		Corrected Ave (3 peaks):				296.5 RPD = 18
Aroclor-1242	1	7.214	0.002	28623	140.5	1	7.205	0.002	23124	146.1
Aroclor-1242	2	7.597	0.002	85721	132.8	2	7.815	0.002	47496	141.1
Aroclor-1242	3	8.400	0.002	16653	133.4	3	9.128	0.005	14403	133.4
Aroclor-1242	4	8.527	0.003	36809	127.4	4	9.648	0.098	5512	42.4
Total CollAve (4 peaks):				133.5		Total Col2Ave (4 peaks):				115.7 RPD = 14
Corrected Ave (3 peaks):				131.2		Corrected Ave (3 peaks):				105.6 RPD = 22
Aroclor-1248	1	8.400	0.001	16653	100.9	1	8.262	0.002	15421	91.5
Aroclor-1248	2	8.527	0.003	36809	85.8	2	8.669	0.002	14324	80.5
Aroclor-1248	3	8.944	0.000	89377	108.4	3	9.128	0.008	14403	69.0
Aroclor-1248	4	9.238	-0.005	41570	98.9	4	9.560	0.015	17331	69.3
Total CollAve (4 peaks):				98.5		Total Col2Ave (4 peaks):				77.6 RPD = 24
Corrected Ave (3 peaks):				95.2		Corrected Ave (3 peaks):				72.9 RPD = 26
Aroclor-1254	1	9.238	-0.008	41570	62.6	1	9.407	0.003	5487	20.4
Aroclor-1254	2	9.326	0.001	12640	42.3	2	9.560	0.061	17331	108.4
Aroclor-1254	3	9.624	0.006	7232	16.9	3	9.929	0.005	3481	16.0
Aroclor-1254	4	9.764	0.008	11671	13.9	4	10.086	0.009	7259	15.3
Aroclor-1254	5	10.139	0.014	7544	14.9	5	10.345	0.017	6610	14.0
Total CollAve (5 peaks):				30.1		Total Col2Ave (5 peaks):				34.8 RPD = 14
Corrected Ave (4 peaks):				22.0		Corrected Ave (4 peaks):				16.4 RPD = 29
Aroclor-1260	1	10.998	0.005	85093	168.5	1	11.598	-0.008	75237	203.5
Aroclor-1260	2	11.313	0.003	6363	12.8	2	11.873	0.001	33655	34.8
Aroclor-1260	3	11.688	0.002	47857	38.3	3	12.384	-0.004	346138	1444.4
Aroclor-1260	4	12.094	0.004	1291	2.1	4	12.453	-0.002	373218	577.8
Aroclor-1260	5	12.195	0.001	406211	1523.9	NS	---			----
Total CollAve (5 peaks):				349.1		Total Col2Ave (4 peaks):				565.1 RPD = 47*
Corrected Ave (4 peaks):				55.4		Corrected Ave (3 peaks):				272.0 RPD = 132*
Aroclor-1262	1	10.785	0.006	4006	9.3	1	11.156	0.002	52531	93.1
Aroclor-1262	2	12.195	0.000	406211	668.6	2	11.598	-0.007	75237	158.2
Aroclor-1262	3	12.268	-0.002	403730	618.2	3	12.384	-0.002	346138	665.8
Aroclor-1262	4	12.937	-0.002	145536	273.5	4	12.453	-0.002	373218	440.5
Total CollAve (4 peaks):				392.4		Total Col2Ave (4 peaks):				339.4 RPD = 14
Corrected Ave (3 peaks):				300.3		Corrected Ave (3 peaks):				230.6 RPD = 26
Aroclor-1268	1	12.195	-0.001	406211	266.7	1	12.384	-0.001	346138	262.7
Aroclor-1268	2	12.268	-0.000	403730	266.9	2	12.453	0.001	373218	263.5
Aroclor-1268	3	12.648	-0.000	323568	266.0	3	12.844	0.001	316122	260.6
Aroclor-1268	4	13.439	0.002	920777	265.1	4	13.663	0.000	1029335	264.8
Total CollAve (4 peaks):				266.2		Total Col2Ave (4 peaks):				262.9 RPD = 1

Corrected Ave (3 peaks): 265.9 Corrected Ave (3 peaks): 262.3 RPD = 1

Total PCB Area Col1 (5.842 - 13.740) = 3325332 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.728 - 13.968) = 2876097 Col2 Total PCB = 0.7 ppm*

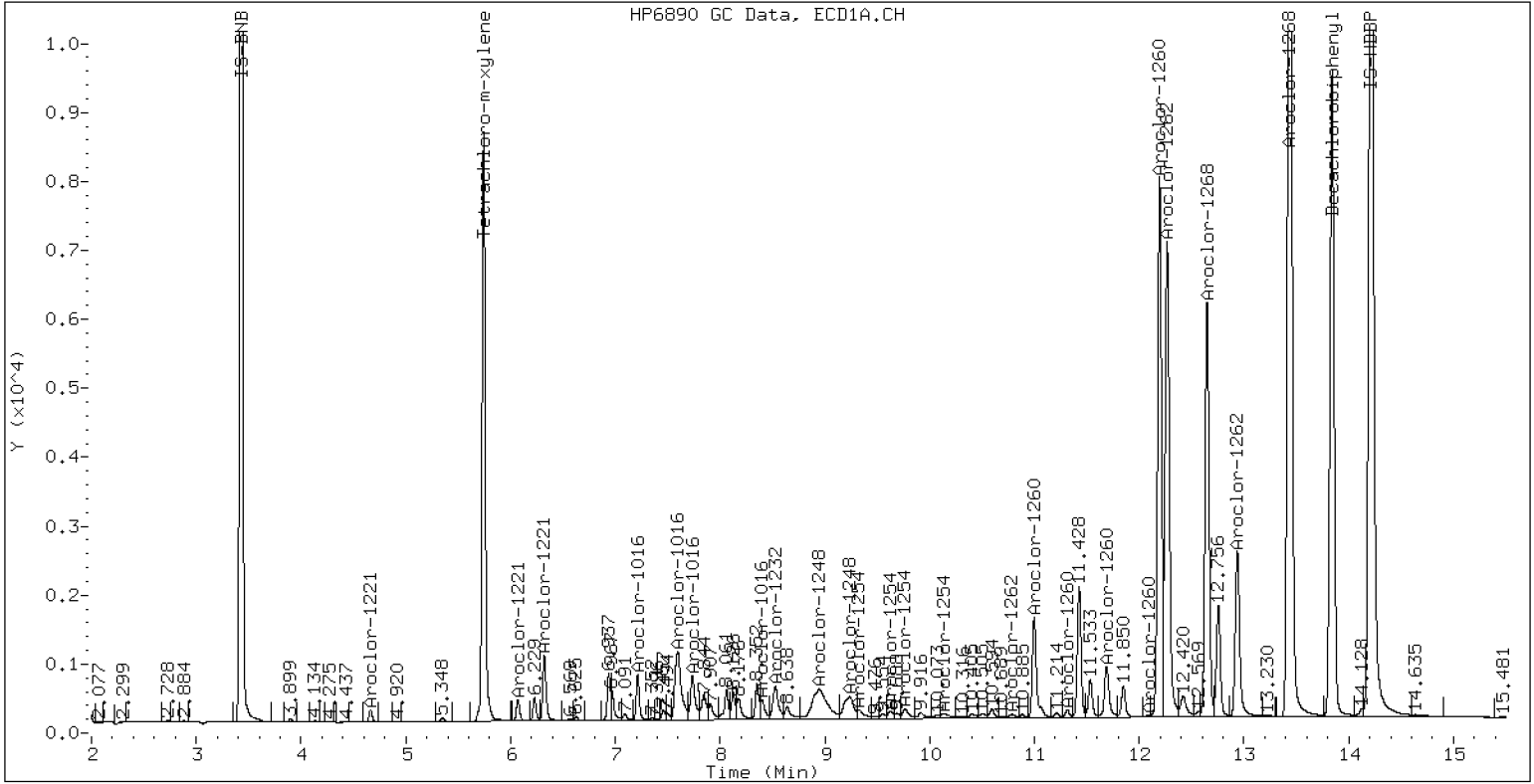
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV

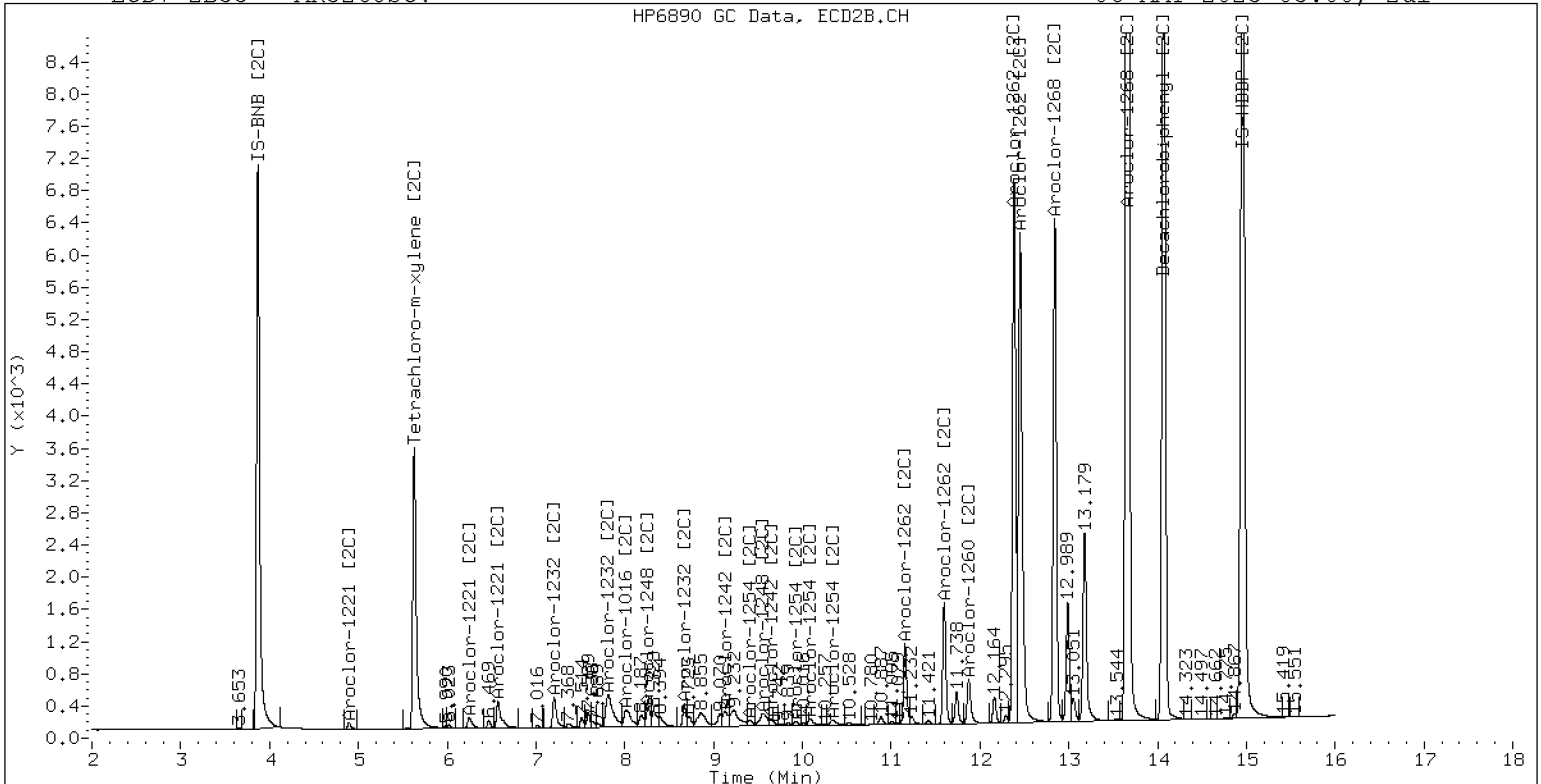
06-MAY-2023 05:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV

06-MAY-2023 05:00, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05102307ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0165</u>	Injection Date:	<u>05/10/23</u>
Lab Sample ID:	<u>SLE0165-CCV1</u>	Injection Time:	<u>10:46</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	243	0.0568879	0.0552389		-3.0	+/-20
Aroclor-1248 (1)	A	250.00	251		0.0205264			
Aroclor-1248 (2)	A	250.00	254		0.0539123			
Aroclor-1248 (3)	A	250.00	249		0.1015087			
Aroclor-1248 (4)	A	250.00	216		0.0450081			
Aroclor 1248 [2C]	A	250.00	254	0.0454726	0.0462148		1.5	+/-20
Aroclor-1248 (1) [2C]	A	250.00	248		0.0377656			
Aroclor-1248 (2) [2C]	A	250.00	255		0.0410380			
Aroclor-1248 (3) [2C]	A	250.00	256		0.0482138			
Aroclor-1248 (4) [2C]	A	250.00	256		0.0578420			
Decachlorobiphenyl	A	40.000	39.1	0.7991406	0.7820268		-2.3	+/-20
Tetrachlorometaxylene	A	40.000	38.6	1.2048230	1.1613990		-3.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	44.5	1.1360140	1.2648350		11.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.1	1.1005470	1.1024910		0.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102307ECD7.D
Data file 2: /230510.b/230510.b/05102307ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 10-MAY-2023 10:46
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	-0.000	341169	5.628	-0.002	189311	38.6	40.1	3.8	Tetrachloro-m-xylene
13.841	0.000	339445	14.070	0.000	360325	39.1	44.5	12.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	587514	-2.3
Hexabromobiphenyl	876625	868116	-1.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	343424	-1.7
Hexabromobiphenyl	652984	569758	-12.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.398	0.000	37686	251.3	1	8.258	-0.001	40530	248.1	
Aroclor-1248	2	8.523	0.000	98982	254.0	2	8.665	-0.002	44042	255.2	
Aroclor-1248	3	8.942	0.000	186368	248.7	3	9.118	-0.002	51743	255.8	
Aroclor-1248	4	9.239	0.000	82634	216.3	4	9.540	-0.005	62076	255.9	
Total CollAve (4 peaks):				242.6		Total Col2Ave (4 peaks):				253.7	RPD = 5
Corrected Ave (3 peaks):				238.8		Corrected Ave (3 peaks):				253.0	RPD = 6
CalAmt %D:				-3.0		CalAmt %D:				1.5	

Total PCB Area Col1 (5.842 - 13.741) = 1514350 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 833806 Col2 Total PCB = 0.2 ppm*

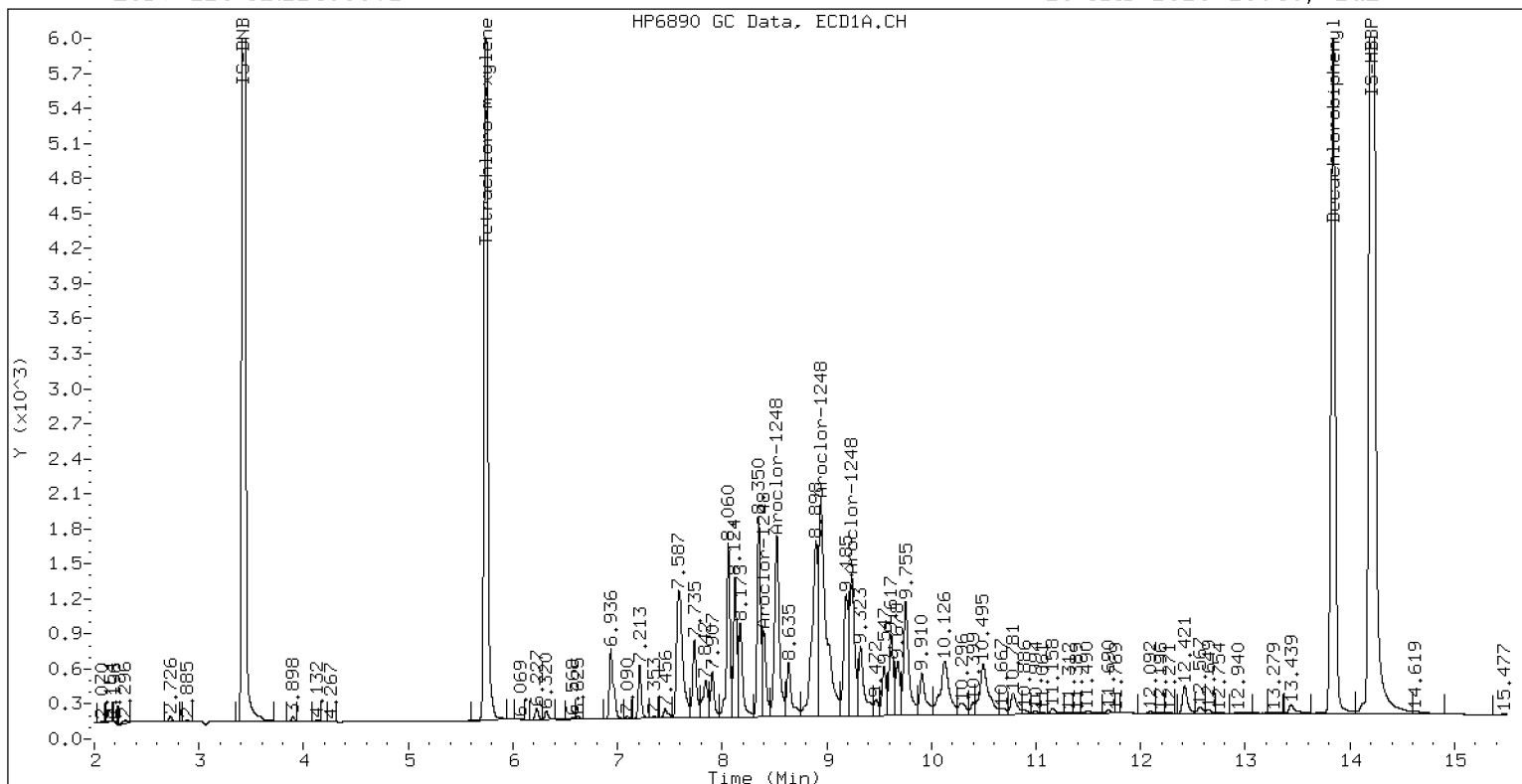
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

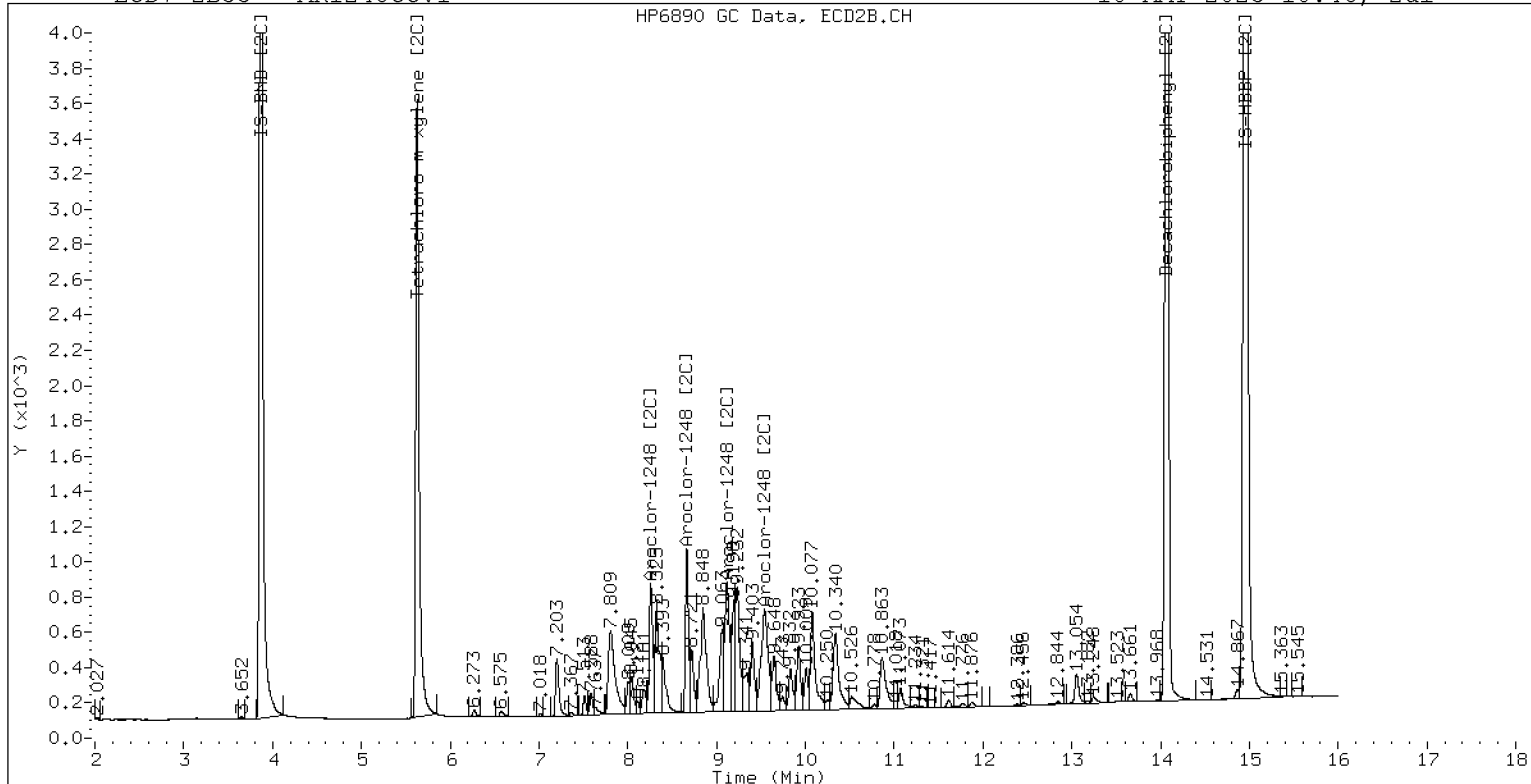
10-MAY-2023 10:46, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV1

10-MAY-2023 10:46, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102308ECD7.D
Data file 2: /230510.b/230510.b/05102308ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 10-MAY-2023 11:06
Report Date: 05/11/2023 17:14
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	318878	5.628	-0.002	176431	39.1	45.4	14.9	Tetrachloro-m-xylene
13.841	0.000	325824	14.069	-0.000	295625	41.2	42.8	3.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	541423	-10.0
Hexabromobiphenyl	876625	791379	-9.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	282331	-19.2
Hexabromobiphenyl	652984	486850	-25.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.213	0.000	51236	244.4	1	7.204	0.000	35512	222.2	
Aroclor-1016	2	7.593	0.000	171007	260.9	2	7.808	-0.003	96059	282.0	
Aroclor-1016	3	7.733	0.000	75207	248.2	3	8.007	-0.002	34757	231.4	
Aroclor-1016	4	8.398	0.000	31407	251.2	4	8.260	-0.000	27585	231.2	
Total CollAve (4 peaks):				251.2		Total Col2Ave (4 peaks):				241.7	RPD = 4
Corrected Ave (3 peaks):				247.9		Corrected Ave (3 peaks):				228.2	RPD = 8

CalAmt %D: 0.5

CalAmt %D: -3.3

Aroclor-1260	1	10.993	0.000	109954	262.8	1	11.606	0.000	65301	252.6	
Aroclor-1260	2	11.310	0.000	108718	263.2	2	11.872	0.001	167770	248.1	
Aroclor-1260	3	11.685	0.000	279523	270.2	3	12.389	0.001	42451	253.3	
Aroclor-1260	4	12.089	0.000	130469	257.5	4	12.456	0.001	112956	250.0	
Aroclor-1260	5	12.193	0.000	58493	264.8	NS	---			----	
Total CollAve (5 peaks):				263.7		Total Col2Ave (4 peaks):				251.0	RPD = 5
Corrected Ave (4 peaks):				262.1		Corrected Ave (3 peaks):				250.2	RPD = 5

CalAmt %D: 5.5

CalAmt %D: 0.4

Total PCB Area Col1 (5.842 - 13.741) = 3094370 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1600865 Col2 Total PCB = 0.5 ppm*

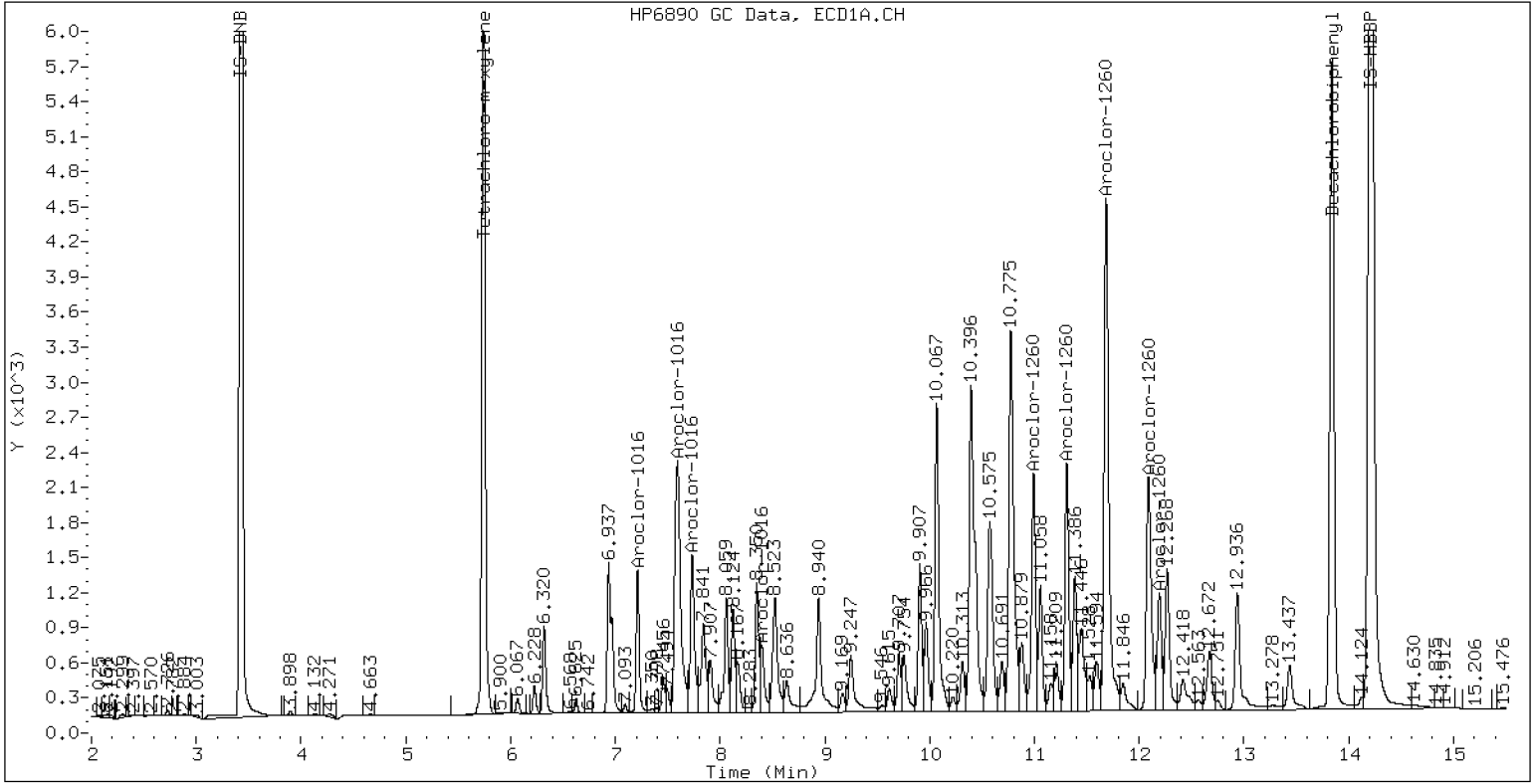
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2

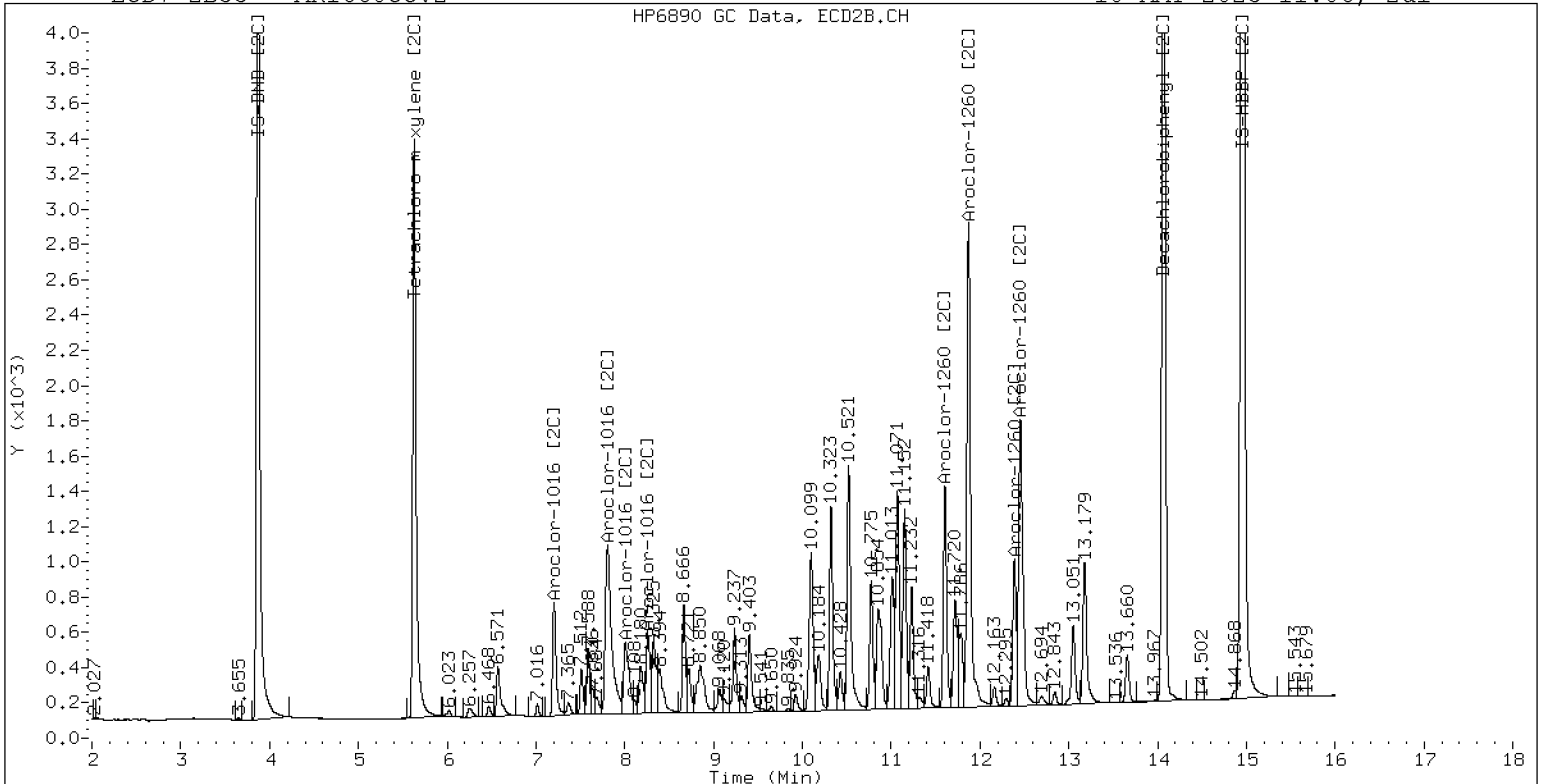
10-MAY-2023 11:06, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV2

10-MAY-2023 11:06, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05102325ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0165</u>	Injection Date:	<u>05/10/23</u>
Lab Sample ID:	<u>SLE0165-CCV3</u>	Injection Time:	<u>17:01</u>
Sequence Name:	<u>AR1242CCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	249	0.0390737	0.0392643		-0.6	+/-20
Aroclor-1242 (1)	A	250.00	249		0.0251471			
Aroclor-1242 (2)	A	250.00	254		0.0811931			
Aroclor-1242 (3)	A	250.00	240		0.0148044			
Aroclor-1242 (4)	A	250.00	251		0.0359127			
Aroclor 1242 [2C]	A	250.00	256	0.0413965	0.0424919		2.2	+/-20
Aroclor-1242 (1) [2C]	A	250.00	252		0.0360875			
Aroclor-1242 (2) [2C]	A	250.00	260		0.0789723			
Aroclor-1242 (3) [2C]	A	250.00	254		0.0247711			
Aroclor-1242 (4) [2C]	A	250.00	256		0.0301368			
Decachlorobiphenyl	A	40.000	38.0	0.7991406	0.7592616		-5.0	+/-20
Tetrachlorometaxylene	A	40.000	47.2	1.2048230	1.4202340		18.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.5	1.1360140	1.1794330		3.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	47.6	1.1005470	1.3104800		19.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102325ECD7.D
Data file 2: /230510.b/230510.b/05102325ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 10-MAY-2023 17:01
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.741	-0.000	423442	5.628	-0.003	232276	47.2	47.6	1.0	Tetrachloro-m-xylene
13.841	0.001	276670	14.070	0.000	282568	38.0	41.5	8.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	596299	-0.9
Hexabromobiphenyl	876625	728787	-16.9

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354490	1.5
Hexabromobiphenyl	652984	479159	-26.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.212	0.000	46860	249.4	1	7.205	0.000	39977	252.3	
Aroclor-1242	2	7.594	-0.001	151298	254.1	2	7.809	0.000	87484	259.6	
Aroclor-1242	3	8.399	0.000	27587	239.6	3	9.119	0.000	27441	254.0	
Aroclor-1242	4	8.525	0.000	66921	251.1	4	9.550	0.000	33385	256.4	
Total CollAve (4 peaks):				248.5		Total Col2Ave (4 peaks):				255.6	RPD = 3
Corrected Ave (3 peaks):				246.7		Corrected Ave (3 peaks):				254.2	RPD = 3
CalAmt %D:				-0.6		CalAmt %D:				2.2	

Total PCB Area Col1 (5.842 - 13.741) = 1146511 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 639271 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GE00022

Lab File ID: 05102326ECD7.D

Calibration Date: 05/05/2023

Sequence: SLE0165

Injection Date: 05/10/23

Lab Sample ID: SLE0165-CCV4

Injection Time: 17:22

Sequence Name: AR1660CCV4

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	260	0.0477728	0.0501101		4.1	+/-20
Aroclor-1016 (1)	A	250.00	256	0.0309764	0.0317617		2.4	
Aroclor-1016 (2)	A	250.00	266	0.0968611	0.1029834		6.4	
Aroclor-1016 (3)	A	250.00	260	0.0447793	0.0465233		4.0	
Aroclor-1016 (4)	A	250.00	259	0.0184745	0.0191721		3.6	
Aroclor 1016 [2C]	A	250.00	259	0.0545435	0.0587274		3.6	+/-20
Aroclor-1016 (1) [2C]	A	250.00	241	0.0452861	0.0436619		-3.6	
Aroclor-1016 (2) [2C]	A	250.00	298	0.0965080	0.1149455		19.2	
Aroclor-1016 (3) [2C]	A	250.00	258	0.0425661	0.0439787		3.2	
Aroclor-1016 (4) [2C]	A	250.00	239	0.0338137	0.0323234		-4.4	
Aroclor 1260	A	250.00	268	0.0524306	0.0562864		7.2	+/-20
Aroclor-1260 (1)	A	250.00	273	0.0423031	0.0462502		9.2	
Aroclor-1260 (2)	A	250.00	269	0.0417493	0.0449790		7.6	
Aroclor-1260 (3)	A	250.00	271	0.1045597	0.1132467		8.4	
Aroclor-1260 (4)	A	250.00	259	0.0512104	0.0530088		3.6	
Aroclor-1260 (5)	A	250.00	268	0.0223305	0.0239471		7.2	
Aroclor 1260 [2C]	A	250.00	267	0.0638471	0.0675047		6.7	+/-20
Aroclor-1260 (1) [2C]	A	250.00	274	0.0424868	0.0465217		9.6	
Aroclor-1260 (2) [2C]	A	250.00	260	0.1111292	0.1155846		4.0	
Aroclor-1260 (3) [2C]	A	250.00	270	0.0275392	0.0297642		8.0	
Aroclor-1260 (4) [2C]	A	250.00	263	0.0742331	0.0781483		5.2	
Decachlorobiphenyl	A	40.000	41.9	0.7991406	0.8370921		4.8	+/-20
Tetrachlorometaxylene	A	40.000	39.5	1.2048230	1.1906450		-1.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	42.3	1.1360140	1.2005180		5.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	46.6	1.1005470	1.2834480		16.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102326ECD7.D
Data file 2: /230510.b/230510.b/05102326ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 10-MAY-2023 17:22
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.000	325380	5.629	-0.002	178285	39.5	46.6	16.5	Tetrachloro-m-xylene
13.841	0.000	314295	14.069	-0.000	274951	41.9	42.3	0.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	546561	-9.1
Hexabromobiphenyl	876625	750921	-14.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	277822	-20.5
Hexabromobiphenyl	652984	458054	-29.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	54249	256.3	1	7.204	-0.001	37907	241.0
Aroclor-1016	2	7.594	0.000	175896	265.8	2	7.809	-0.002	99795	297.8
Aroclor-1016	3	7.734	0.001	79462	259.7	3	8.008	-0.000	38182	258.3
Aroclor-1016	4	8.398	0.000	32746	259.4	4	8.260	-0.001	28063	239.0
Total CollAve (4 peaks):				260.3		Total Col2Ave (4 peaks):				259.0 RPD = 1
Corrected Ave (3 peaks):				258.5		Corrected Ave (3 peaks):				246.1 RPD = 5
CalAmt %D:				4.1		CalAmt %D:				3.6
Aroclor-1260	1	10.993	0.001	108532	273.3	1	11.606	-0.000	66592	273.7
Aroclor-1260	2	11.310	0.000	105549	269.3	2	11.871	-0.000	165450	260.0
Aroclor-1260	3	11.686	0.001	265748	270.8	3	12.388	0.000	42605	270.2
Aroclor-1260	4	12.090	0.001	124392	258.8	4	12.454	-0.000	111863	263.2
Aroclor-1260	5	12.194	0.001	56195	268.1	NS	---			----
Total CollAve (5 peaks):				268.1		Total Col2Ave (4 peaks):				266.8 RPD = 0
Corrected Ave (4 peaks):				266.7		Corrected Ave (3 peaks):				264.5 RPD = 1
CalAmt %D:				7.2		CalAmt %D:				6.7

Total PCB Area Coll (5.842 - 13.741) = 3172858 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1633678 Col2 Total PCB = 0.5 ppm*

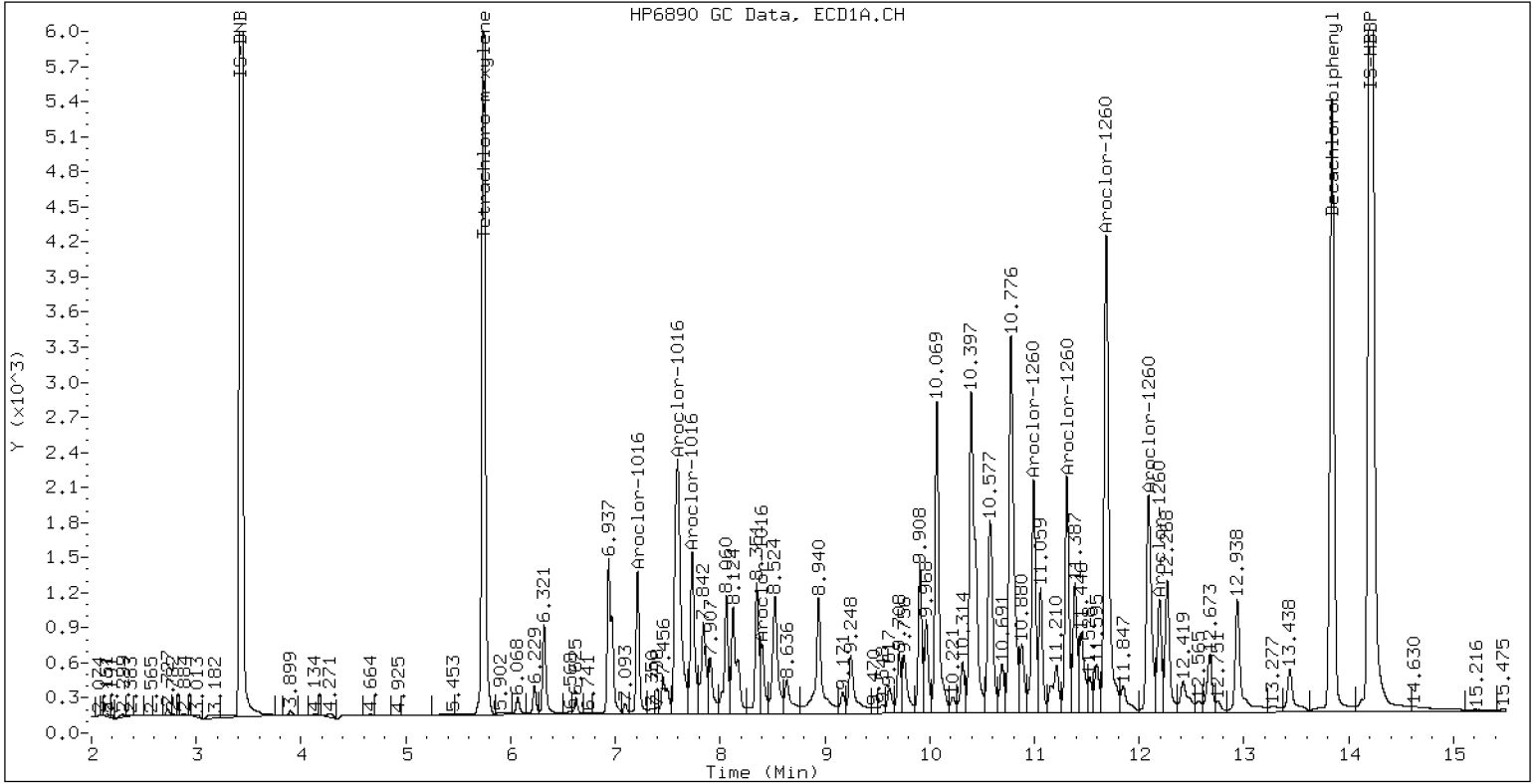
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

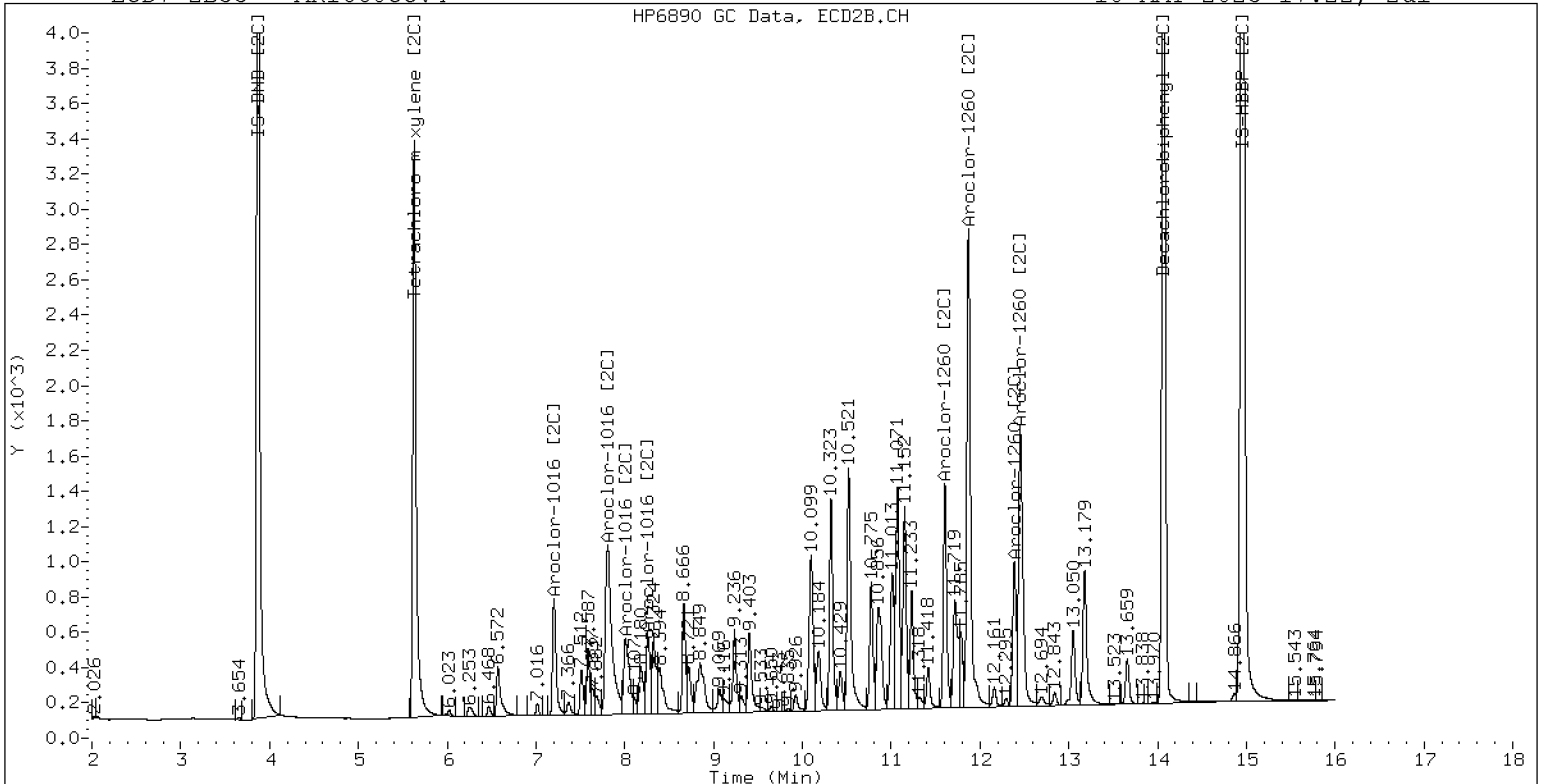
10-MAY-2023 17:22, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4

10-MAY-2023 17:22, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102336ECD7.D
Data file 2: /230510.b/230510.b/05102336ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 10-MAY-2023 20:50
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
5.741	-0.001	360850	5.628	-0.003	198579	37.1	39.3	5.8	Tetrachloro-m-xylene
13.841	0.001	311846	14.070	0.001	319645	38.0	42.7	11.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	646373	7.5
Hexabromobiphenyl	876625	821804	-6.3

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	367300	5.2
Hexabromobiphenyl	652984	527469	-19.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.244	-0.000	142892	215.1	1	9.402	0.000	70407	252.3	
Aroclor-1254	2	9.324	0.003	69923	234.3	2	9.497	0.000	41446	250.0	
Aroclor-1254	3	9.615	0.002	101999	237.8	3	9.922	0.000	55583	245.7	
Aroclor-1254	4	9.754	0.002	200593	238.8	4	10.077	0.000	122060	247.3	
Aroclor-1254	5	10.121	0.007	126979	250.3	5	10.326	0.000	120333	245.7	
Total CollAve (5 peaks):				235.3		Total Col2Ave (5 peaks):				248.2	RPD = 5
Corrected Ave (4 peaks):				231.5		Corrected Ave (4 peaks):				247.2	RPD = 7
CalAmt %D:				-5.9		CalAmt %D:				-0.7	

Total PCB Area Col1 (5.842 - 13.741) = 2045329 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1168317 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05102337ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0165</u>	Injection Date:	<u>05/10/23</u>
Lab Sample ID:	<u>SLE0165-CCV6</u>	Injection Time:	<u>21:11</u>
Sequence Name:	<u>AR1660CCV6</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	251	0.0477728	0.0485512		0.3	+/-20
Aroclor-1016 (1)	A	250.00	242	0.0309764	0.0300026		-3.2	
Aroclor-1016 (2)	A	250.00	261	0.0968611	0.1010940		4.4	
Aroclor-1016 (3)	A	250.00	248	0.0447793	0.0445000		-0.8	
Aroclor-1016 (4)	A	250.00	252	0.0184745	0.0186080		0.8	
Aroclor 1016 [2C]	A	250.00	258	0.0545435	0.0586371		3.2	+/-20
Aroclor-1016 (1) [2C]	A	250.00	242	0.0452861	0.0439023		-3.2	
Aroclor-1016 (2) [2C]	A	250.00	297	0.0965080	0.1148068		18.8	
Aroclor-1016 (3) [2C]	A	250.00	260	0.0425661	0.0443377		4.0	
Aroclor-1016 (4) [2C]	A	250.00	233	0.0338137	0.0315016		-6.8	
Aroclor 1260	A	250.00	267	0.0524306	0.0563908		7.0	+/-20
Aroclor-1260 (1)	A	250.00	273	0.0423031	0.0461339		9.2	
Aroclor-1260 (2)	A	250.00	270	0.0417493	0.0450187		8.0	
Aroclor-1260 (3)	A	250.00	275	0.1045597	0.1150104		10.0	
Aroclor-1260 (4)	A	250.00	254	0.0512104	0.0521395		1.6	
Aroclor-1260 (5)	A	250.00	265	0.0223305	0.0236514		6.0	
Aroclor 1260 [2C]	A	250.00	262	0.0638471	0.0663838		4.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	271	0.0424868	0.0461151		8.4	
Aroclor-1260 (2) [2C]	A	250.00	256	0.1111292	0.1136372		2.4	
Aroclor-1260 (3) [2C]	A	250.00	264	0.0275392	0.0290519		5.6	
Aroclor-1260 (4) [2C]	A	250.00	258	0.0742331	0.0767311		3.2	
Decachlorobiphenyl	A	40.000	41.1	0.7991406	0.8208640		2.8	+/-20
Tetrachlorometaxylene	A	40.000	38.9	1.2048230	1.1726340		-2.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	43.0	1.1360140	1.2218700		7.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	46.2	1.1005470	1.2715930		15.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102337ECD7.D
Data file 2: /230510.b/230510.b/05102337ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 10-MAY-2023 21:11
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.001	331373	5.629	-0.001	179425	38.9	46.2	17.1	Tetrachloro-m-xylene
13.840	-0.001	318109	14.069	0.000	287591	41.1	43.0	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	565177	-6.0
Hexabromobiphenyl	876625	775059	-11.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	282205	-19.2
Hexabromobiphenyl	652984	470739	-27.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	52990	242.1	1	7.203	-0.001	38717	242.4
Aroclor-1016	2	7.593	-0.000	178550	260.9	2	7.811	0.000	101247	297.4
Aroclor-1016	3	7.734	0.001	78595	248.4	3	8.008	-0.001	39101	260.4
Aroclor-1016	4	8.398	0.000	32865	251.8	4	8.260	-0.000	27781	232.9
Total CollAve (4 peaks):				250.8		Total Col2Ave (4 peaks):				258.3 RPD = 3
Corrected Ave (3 peaks):				247.5		Corrected Ave (3 peaks):				245.2 RPD = 1
CalAmt %D:				0.3		CalAmt %D:				3.3
Aroclor-1260	1	10.994	0.001	111739	272.6	1	11.605	-0.001	67838	271.3
Aroclor-1260	2	11.311	0.001	109038	269.6	2	11.872	0.001	167167	255.6
Aroclor-1260	3	11.686	0.001	278562	275.0	3	12.388	0.000	42737	263.7
Aroclor-1260	4	12.090	0.001	126285	254.5	4	12.455	-0.000	112876	258.4
Aroclor-1260	5	12.194	0.001	57285	264.8	NS	---			----
Total CollAve (5 peaks):				267.3		Total Col2Ave (4 peaks):				262.3 RPD = 2
Corrected Ave (4 peaks):				265.4		Corrected Ave (3 peaks):				259.3 RPD = 2
CalAmt %D:				6.9		CalAmt %D:				4.9

Total PCB Area Coll (5.842 - 13.741) = 3135055 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1651387 Col2 Total PCB = 0.5 ppm*

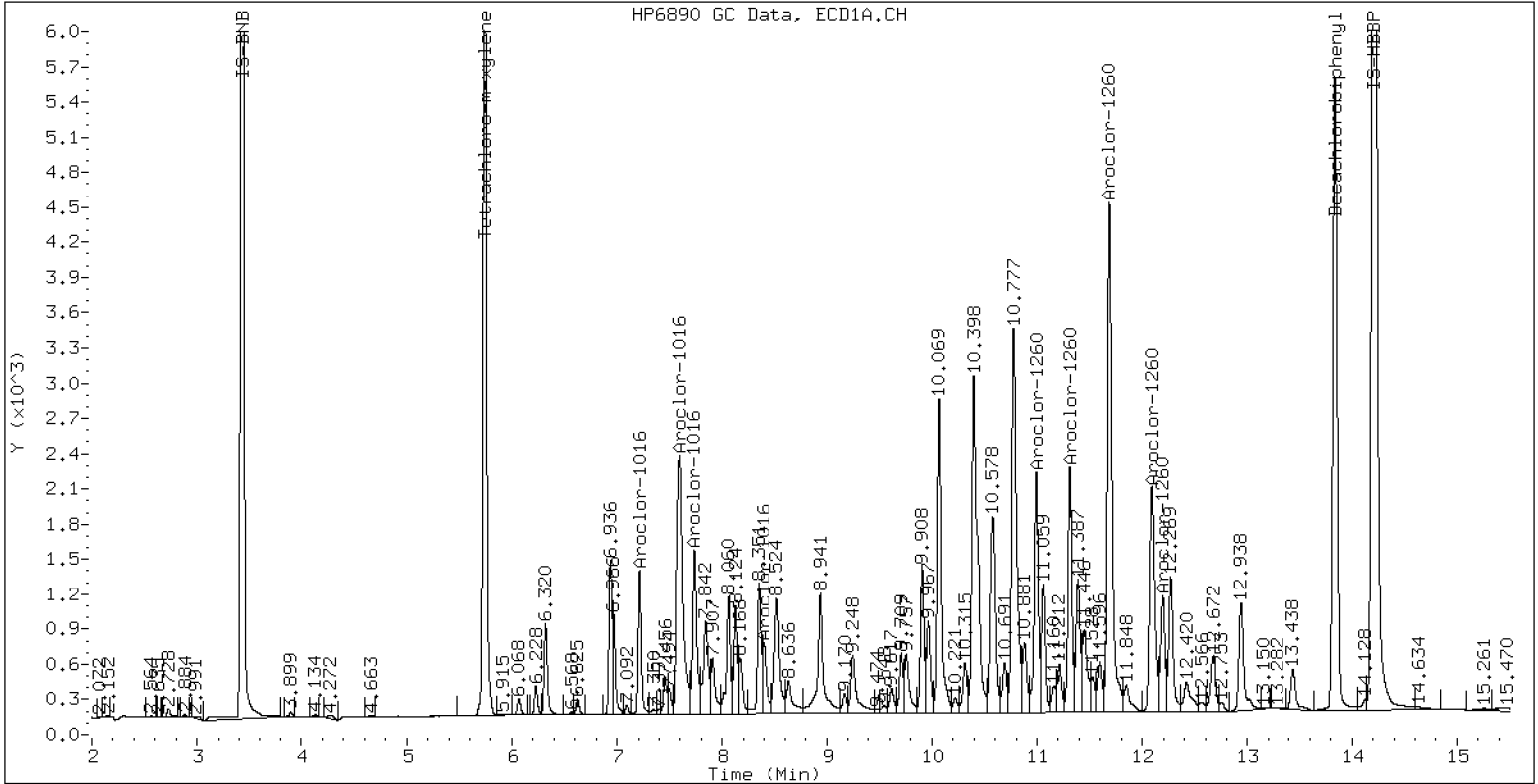
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

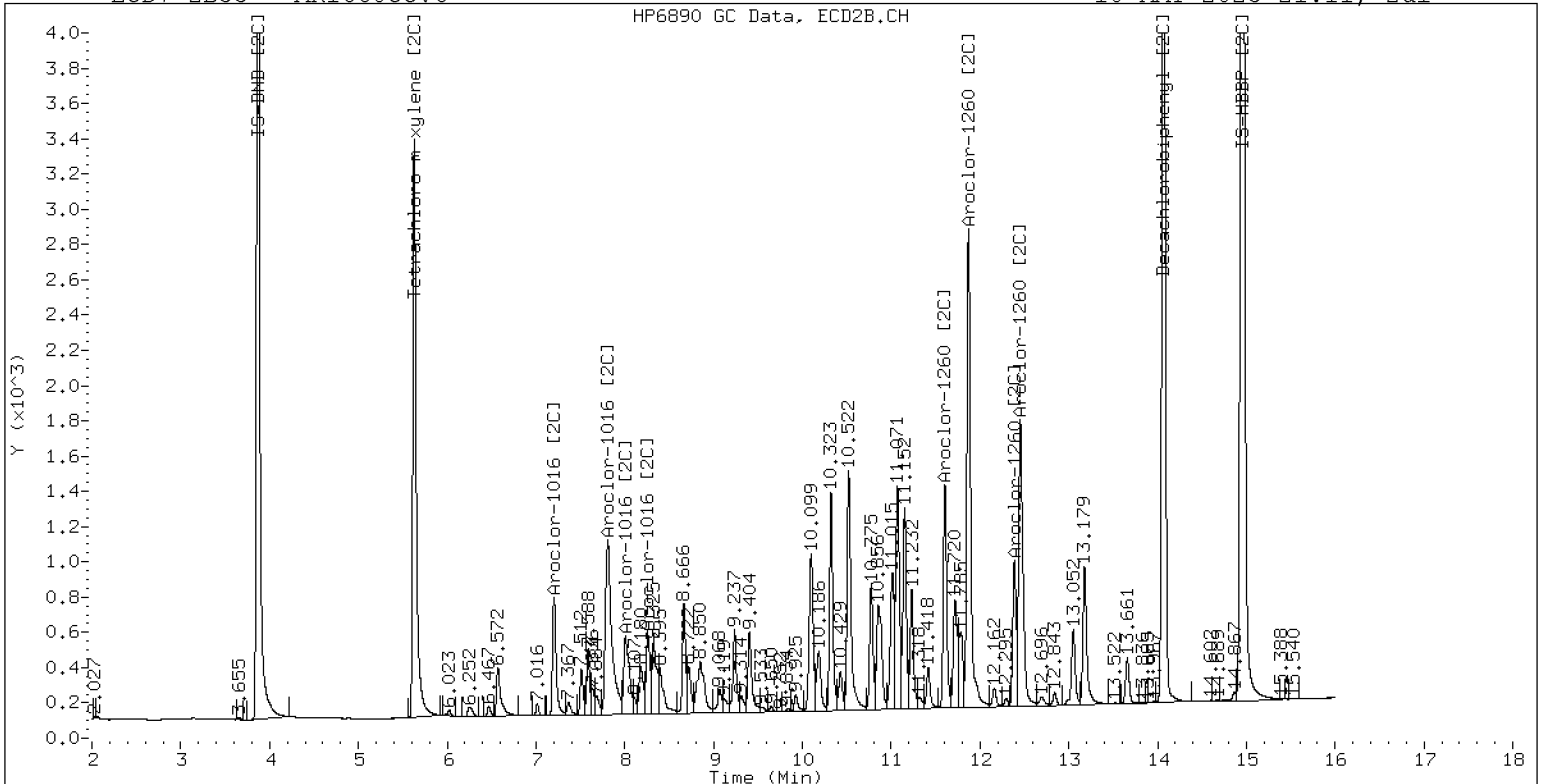
10-MAY-2023 21:11, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6

10-MAY-2023 21:11, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GE00022</u>
Lab File ID:	<u>05102353ECD7.D</u>	Calibration Date:	<u>05/05/2023</u>
Sequence:	<u>SLE0165</u>	Injection Date:	<u>05/11/23</u>
Lab Sample ID:	<u>SLE0165-CCV7</u>	Injection Time:	<u>02:44</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	243	0.0568879	0.0554996		-2.9	+/-20
Aroclor-1248 (1)	A	250.00	250		0.0204518			
Aroclor-1248 (2)	A	250.00	253		0.0537266			
Aroclor-1248 (3)	A	250.00	253		0.1031349			
Aroclor-1248 (4)	A	250.00	215		0.0446848			
Aroclor 1248 [2C]	A	250.00	255	0.0454726	0.0463830		1.9	+/-20
Aroclor-1248 (1) [2C]	A	250.00	250		0.0379869			
Aroclor-1248 (2) [2C]	A	250.00	257		0.0413609			
Aroclor-1248 (3) [2C]	A	250.00	255		0.0481007			
Aroclor-1248 (4) [2C]	A	250.00	257		0.0580837			
Decachlorobiphenyl	A	40.000	39.1	0.7991406	0.7805295		-2.3	+/-20
Tetrachlorometaxylene	A	40.000	38.7	1.2048230	1.1647230		-3.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	43.1	1.1360140	1.2236380		7.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.2	1.1005470	1.1053460		0.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102353ECD7.D
Data file 2: /230510.b/230510.b/05102353ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 11-MAY-2023 02:44
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.002	357716	5.631	0.000	196042	38.7	40.2	3.8	Tetrachloro-m-xylene
13.842	0.001	313358	14.070	0.000	321320	39.1	43.1	9.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	614251	2.1
Hexabromobiphenyl	876625	802937	-8.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	354716	1.6
Hexabromobiphenyl	652984	525188	-19.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.400	0.002	39258	250.4	1	8.260	0.000	42108	249.5	
Aroclor-1248	2	8.525	0.002	103130	253.1	2	8.668	0.000	45848	257.2	
Aroclor-1248	3	8.945	0.003	197971	252.7	3	9.119	0.000	53319	255.2	
Aroclor-1248	4	9.240	0.001	85774	214.7	4	9.546	0.000	64385	257.0	
Total CollAve (4 peaks):				242.7	Total Col2Ave (4 peaks):				254.7	RPD = 5	
Corrected Ave (3 peaks):				239.3	Corrected Ave (3 peaks):				253.9	RPD = 6	
CalAmt %D:				-2.9	CalAmt %D:				1.9		

Total PCB Area Col1 (5.842 - 13.741) = 1589356 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 869443 Col2 Total PCB = 0.2 ppm*

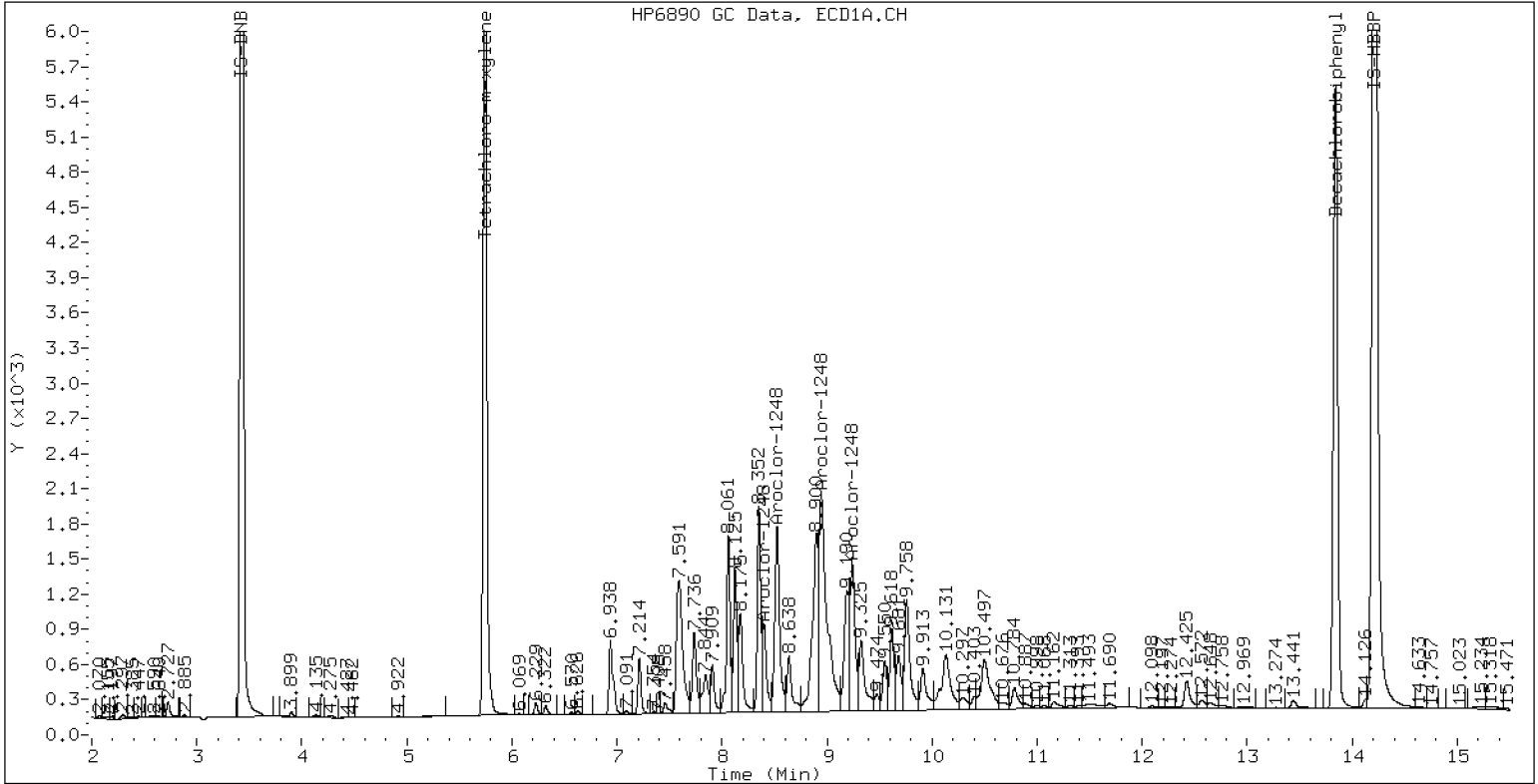
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

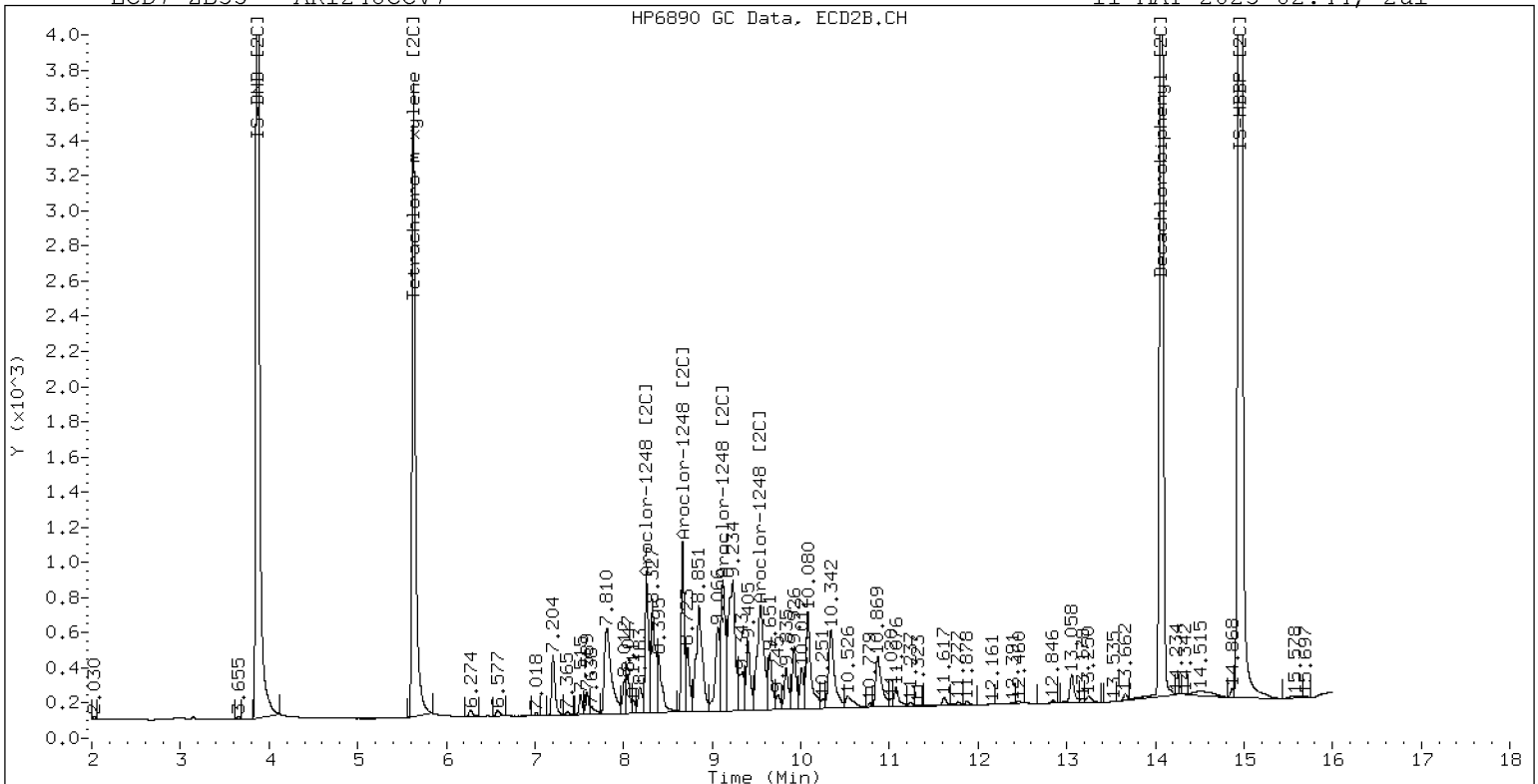
11-MAY-2023 02:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV7

11-MAY-2023 02:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230510.b/05102354ECD7.D
Data file 2: /230510.b/230510.b/05102354ECD7.D
Method: \\target\share\chem4\ecd7.i\230510.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 11-MAY-2023 03:05
Report Date: 05/11/2023 17:17
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.743	0.002	335691	5.630	0.000	181314	40.2	47.4	16.6	Tetrachloro-m-xylene
13.840	-0.000	322047	14.069	0.000	286847	41.3	41.9	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	601474	555090	-7.7
Hexabromobiphenyl	876625	779726	-11.1
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	349289	278046	-20.4
Hexabromobiphenyl	652984	482402	-26.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-MAY-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.213	0.000	53710	249.9	1	7.204	0.000	38295	243.3
Aroclor-1016	2	7.595	0.002	181966	270.7	2	7.811	0.000	100897	300.8
Aroclor-1016	3	7.734	0.001	80619	259.5	3	8.008	0.000	38503	260.3
Aroclor-1016	4	8.399	0.001	33478	261.2	4	8.260	0.000	27724	235.9
Total CollAve (4 peaks):				260.3		Total Col2Ave (4 peaks):				260.1 RPD = 0
Corrected Ave (3 peaks):				256.8		Corrected Ave (3 peaks):				246.5 RPD = 4
CalAmt %D:				4.1		CalAmt %D:				4.0
Aroclor-1260	1	10.994	0.001	113747	275.9	1	11.606	0.000	68243	266.4
Aroclor-1260	2	11.311	0.001	111165	273.2	2	11.871	0.000	168466	251.4
Aroclor-1260	3	11.685	0.000	282970	277.7	3	12.388	0.000	43524	262.1
Aroclor-1260	4	12.091	0.002	128712	257.9	4	12.455	0.000	113601	253.8
Aroclor-1260	5	12.193	0.000	58190	267.4	NS	---			----
Total CollAve (5 peaks):				270.4		Total Col2Ave (4 peaks):				258.4 RPD = 5
Corrected Ave (4 peaks):				268.6		Corrected Ave (3 peaks):				255.8 RPD = 5
CalAmt %D:				8.2		CalAmt %D:				3.4

Total PCB Area Coll (5.842 - 13.741) = 3208791 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.730 - 13.969) = 1653405 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	05-MAY-2023	23:06	05052320ECD7.D	1	IB	
2	05-MAY-2023	23:26	05052321ECD7.D	1	0.25PPMAR1660	
3	05-MAY-2023	23:47	05052322ECD7.D	1	0.02PPMAR1660	
4	06-MAY-2023	00:08	05052323ECD7.D	1	0.05PPMAR1660	
5	06-MAY-2023	00:29	05052324ECD7.D	1	1.0PPMAR1660	
6	06-MAY-2023	00:50	05052325ECD7.D	1	0.1PPMAR1660	
7	06-MAY-2023	01:11	05052326ECD7.D	1	0.5PPMAR1660	
8	06-MAY-2023	01:31	05052327ECD7.D	1	0.25PPMAR1242	
9	06-MAY-2023	01:52	05052328ECD7.D	1	0.25PPMAR1248	
10	06-MAY-2023	02:13	05052329ECD7.D	1	0.25PPMAR1254	
11	06-MAY-2023	02:34	05052330ECD7.D	1	0.25PPMAR2162	
12	06-MAY-2023	02:55	05052331ECD7.D	1	0.25PPMAR3268	
13	06-MAY-2023	03:16	05052332ECD7.D	1	AR1660SCV	
14	06-MAY-2023	03:36	05052333ECD7.D	1	AR1242SCV	
15	06-MAY-2023	03:57	05052334ECD7.D	1	AR1248SCV	
16	06-MAY-2023	04:18	05052335ECD7.D	1	AR1254SCV	
17	06-MAY-2023	04:39	05052336ECD7.D	1	AR2162SCV	
18	06-MAY-2023	05:00	05052337ECD7.D	1	AR3268SCV	
19	06-MAY-2023	05:21	05052338ECD7.D	1	DDTS	
20	06-MAY-2023	05:41	05052339ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

ARI Job No.: Method: PCB.m Instrument: ecd7.i Date: 05-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1548	05052301ECD7.D			1	NO MANUAL INTEGRATION
1609	05052302ECD7.D			1	NO MANUAL INTEGRATION
1711	05052303ECD7.D			1	NO MANUAL INTEGRATION
1732	05052304ECD7.D			1	NO MANUAL INTEGRATION
1753	05052305ECD7.D			1	NO MANUAL INTEGRATION
1814	05052306ECD7.D			1	NO MANUAL INTEGRATION
1835	05052307ECD7.D			1	NO MANUAL INTEGRATION
1856	05052308ECD7.D			1	NO MANUAL INTEGRATION
1916	05052309ECD7.D			1	NO MANUAL INTEGRATION
1937	05052310ECD7.D			1	NO MANUAL INTEGRATION
1958	05052311ECD7.D			1	NO MANUAL INTEGRATION
2019	05052312ECD7.D			1	NO MANUAL INTEGRATION
2040	05052313ECD7.D			1	NO MANUAL INTEGRATION
2101	05052314ECD7.D			1	NO MANUAL INTEGRATION
2121	05052315ECD7.D			1	NO MANUAL INTEGRATION
2142	05052316ECD7.D			1	NO MANUAL INTEGRATION
2203	05052317ECD7.D			1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2224	05052318ECD7.D			1	NO MANUAL INTEGRATION
2245	05052319ECD7.D			1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
0008	05052323ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0131	05052327ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
0336	05052333ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1548	05052301ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1609	05052302ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1711	05052303ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1732	05052304ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1753	05052305ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1814	05052306ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1835	05052307ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1856	05052308ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
1916	05052309ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1937	05052310ECD7.D	RINSE		1	NO MANUAL INTEGRATION
1958	05052311ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2019	05052312ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2040	05052313ECD7.D	RINSE		1	NO MANUAL INTEGRATION
2101	05052314ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2121	05052315ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2142	05052316ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2203	05052317ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2224	05052318ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2245	05052319ECD7.D	HEX RINSE		1	NO MANUAL INTEGRATION
2306	05052320ECD7.D	IB		1	NO MANUAL INTEGRATION
2326	05052321ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2347	05052322ECD7.D	0.02PPMAR1660		1	Aroclor-1016 [2C],
0008	05052323ECD7.D	0.05PPMAR1660		1	Aroclor-1016 [2C],
0029	05052324ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
0050	05052325ECD7.D	0.1PPMAR1660		1	Aroclor-1016 [2C],
0111	05052326ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
0132	05052327ECD7.D	0.25PPMAR1242		1	Aroclor-1242 [2C],
0152	05052328ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
0213	05052329ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
0234	05052330ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
0255	05052331ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
0316	05052332ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230505.b\230505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0336	05052333ECD7.D	AR1242SCV		1	Aroclor-1242 [2C],
0357	05052334ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
0418	05052335ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
0439	05052336ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
0500	05052337ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
0521	05052338ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0541	05052339ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 06-May-2023 09:12

05052320ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052321ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052322ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052323ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052324ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052325ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052326ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052327ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052328ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052329ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052330ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052331ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052332ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052333ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052334ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052335ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052336ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052337ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052338ECD7.D	Data Locked	richardl, 06-May-2023 09:12
05052339ECD7.D	Data Locked	richardl, 06-May-2023 09:12



ANALYSIS SEQUENCE

SLE0165

Instrument: ECD7
Calibration ID: GE00022

Printed: 5/11/2023 5:26:08PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLE0165-ICV1	QC		1		L000862	L000844		
SLE0165-ICV2	QC		2		L000856	L000844		
BLE0164-BLK1	QC		3			L000844		
BLE0164-BS1	QC		4			L000844		
23E0020-01	8.3 PCBs 0.01 ug/L or 20 ug/	A 01	5			L000844	Nucor Steel Corporation	
SLE0165-CCV1	QC		6		L000861	L000844		
SLE0165-CCV2	QC		7		L000856	L000844		
BLD0608-BLK1	QC		8			L000844		
BLD0608-BS1	QC		9			L000844		
BLD0608-BSD1	QC		10			L000844		
BLD0608-SRM1	QC		11			L000844		
23D0394-01	8082A PCB Solid 4	A 04	12			L000844	Anchor QEA, LLC	
23D0394-03	8082A PCB Solid 4	A 04	13			L000844	Anchor QEA, LLC	
23D0394-04	8082A PCB Solid 4	A 04	14			L000844	Anchor QEA, LLC	
23D0394-06	8082A PCB Solid 4	A 04	15			L000844	Anchor QEA, LLC	
BLD0608-MS1	QC		16			L000844		
BLD0608-MSD1	QC		17			L000844		
23D0394-07	8082A PCB Solid 4	A 04	18			L000844	Anchor QEA, LLC	
23D0394-08	8082A PCB Solid 4	A 04	19			L000844	Anchor QEA, LLC	
23D0394-09	8082A PCB Solid 4	A 04	20			L000844	Anchor QEA, LLC	
23D0394-10	8082A PCB Solid 4	A 04	21			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	10-MAY-2023	08:41	05102301ECD7.D	1	DDTS	
2	10-MAY-2023	09:01	05102302ECD7.D	1	AR1254ICV1	
3	10-MAY-2023	09:22	05102303ECD7.D	1	AR1660ICV2	
4	10-MAY-2023	09:43	05102304ECD7.D	1	BLE0164-BLK1	
5	10-MAY-2023	10:04	05102305ECD7.D	1	BLE0164-BS1	
6	10-MAY-2023	10:25	05102306ECD7.D	1	23E0020-01	
7	10-MAY-2023	10:46	05102307ECD7.D	1	AR1248CCV1	
8	10-MAY-2023	11:06	05102308ECD7.D	1	AR1660CCV2	
9	10-MAY-2023	11:27	05102309ECD7.D	1	BLD0608-BLK1	
10	10-MAY-2023	11:48	05102310ECD7.D	1	BLD0608-BS1	
11	10-MAY-2023	12:09	05102311ECD7.D	1	BLD0608-BS1	
12	10-MAY-2023	12:30	05102312ECD7.D	1	BLD0608-SRM1	
13	10-MAY-2023	12:51	05102313ECD7.D	1	23D0394-01	
14	10-MAY-2023	13:12	05102314ECD7.D	5	23D0394-02RE1	
15	10-MAY-2023	13:32	05102315ECD7.D	5	23D0394-03RE1	
16	10-MAY-2023	13:53	05102316ECD7.D	5	23D0394-04RE1	
17	10-MAY-2023	14:14	05102317ECD7.D	100	23D0394-05RE	
18	10-MAY-2023	14:35	05102318ECD7.D	5	23D0394-06RE1	
19	10-MAY-2023	14:56	05102319ECD7.D	5	BLD0608-MS1RE1	
20	10-MAY-2023	15:17	05102320ECD7.D	5	BLD0608-MSD1RE	
21	10-MAY-2023	15:37	05102321ECD7.D	5	23D0394-07RE1	
22	10-MAY-2023	15:58	05102322ECD7.D	5	23D0394-08RE1	
23	10-MAY-2023	16:19	05102323ECD7.D	5	23D0394-09RE1	
24	10-MAY-2023	16:40	05102324ECD7.D	5	23D0394-10RE1	
25	10-MAY-2023	17:01	05102325ECD7.D	1	AR1242CCV3	
26	10-MAY-2023	17:22	05102326ECD7.D	1	AR1660CCV4	
27	10-MAY-2023	17:43	05102327ECD7.D	25	23D0394-02RE2	
28	10-MAY-2023	18:03	05102328ECD7.D	500	23D0394-05RE	
29	10-MAY-2023	18:24	05102329ECD7.D	5	23D0394-11RE1	
30	10-MAY-2023	18:45	05102330ECD7.D	5	23D0394-12RE1	
31	10-MAY-2023	19:06	05102331ECD7.D	5	23D0394-13RE1	
32	10-MAY-2023	19:27	05102332ECD7.D	5	23D0396-01RE1	
33	10-MAY-2023	19:47	05102333ECD7.D	5	23D0396-02RE1	
34	10-MAY-2023	20:08	05102334ECD7.D	5	23D0396-03RE1	
35	10-MAY-2023	20:29	05102335ECD7.D	5	23D0396-04RE1	
36	10-MAY-2023	20:50	05102336ECD7.D	1	AR1254CCV5	
37	10-MAY-2023	21:11	05102337ECD7.D	1	AR1660CCV6	
38	10-MAY-2023	21:32	05102338ECD7.D	1	BLD0712-BLK1	
39	10-MAY-2023	21:52	05102339ECD7.D	1	BLD0712-BS1	
40	10-MAY-2023	22:13	05102340ECD7.D	1	BLD0712-BS1	
41	10-MAY-2023	22:34	05102341ECD7.D	1	23D0563-01	
42	10-MAY-2023	22:55	05102342ECD7.D	1	23D0563-02	
43	10-MAY-2023	23:16	05102343ECD7.D	1	23D0563-03	
44	10-MAY-2023	23:36	05102344ECD7.D	1	23D0563-04	
45	10-MAY-2023	23:57	05102345ECD7.D	1	BLD0712-MS1	
46	11-MAY-2023	00:18	05102346ECD7.D	1	BLD0712-MSD1	
47	11-MAY-2023	00:39	05102347ECD7.D	1	23D0563-05	
48	11-MAY-2023	01:00	05102348ECD7.D	1	23D0563-06	
49	11-MAY-2023	01:21	05102349ECD7.D	1	23D0563-07	
50	11-MAY-2023	01:41	05102350ECD7.D	1	23D0563-08	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	11-MAY-2023	02:02	05102351ECD7.D	1	23D0571-01	
52	11-MAY-2023	02:23	05102352ECD7.D	1	23D0571-02	
53	11-MAY-2023	02:44	05102353ECD7.D	1	AR1248CCV7	
54	11-MAY-2023	03:05	05102354ECD7.D	1	AR1660CCV8	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b

ARI Job No.: DDTs Method: PCB.m Instrument: ecd7.i Date: 10-MAY-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0841	05102301ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0901	05102302ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
0922	05102303ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
0943	05102304ECD7.D	BLE0164-BLK1		1	NO MANUAL INTEGRATION
1004	05102305ECD7.D	BLE0164-BS1		1	NO MANUAL INTEGRATION
1025	05102306ECD7.D	23E0020-01		1	NO MANUAL INTEGRATION
1046	05102307ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1106	05102308ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1127	05102309ECD7.D	BLD0608-BLK1		1	NO MANUAL INTEGRATION
1148	05102310ECD7.D	BLD0608-BS1		1	NO MANUAL INTEGRATION
1209	05102311ECD7.D	BLD0608-BSD1		1	NO MANUAL INTEGRATION
1230	05102312ECD7.D	BLD0608-SRML		1	NO MANUAL INTEGRATION
1251	05102313ECD7.D	23D0394-01		1	NO MANUAL INTEGRATION
1312	05102314ECD7.D	23D0394-02RE1		5	NO MANUAL INTEGRATION
1332	05102315ECD7.D	23D0394-03RE1		5	NO MANUAL INTEGRATION
1353	05102316ECD7.D	23D0394-04RE1		5	NO MANUAL INTEGRATION
1414	05102317ECD7.D	23D0394-05RE		100	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	05102318ECD7.D	23D0394-06RE1		5	NO MANUAL INTEGRATION
1456	05102319ECD7.D	BLD0608-MS1RE1		5	NO MANUAL INTEGRATION
1517	05102320ECD7.D	BLD0608-MSD1RE		5	NO MANUAL INTEGRATION
1537	05102321ECD7.D	23D0394-07RE1		5	NO MANUAL INTEGRATION
1558	05102322ECD7.D	23D0394-08RE1		5	NO MANUAL INTEGRATION
1619	05102323ECD7.D	23D0394-09RE1		5	NO MANUAL INTEGRATION
1640	05102324ECD7.D	23D0394-10RE1		5	NO MANUAL INTEGRATION
1701	05102325ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1722	05102326ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1743	05102327ECD7.D	23D0394-02RE2		25	NO MANUAL INTEGRATION
1803	05102328ECD7.D	23D0394-05RE		500	NO MANUAL INTEGRATION
1824	05102329ECD7.D	23D0394-11RE1		5	NO MANUAL INTEGRATION
1845	05102330ECD7.D	23D0394-12RE1		5	NO MANUAL INTEGRATION
1906	05102331ECD7.D	23D0394-13RE1		5	NO MANUAL INTEGRATION
1927	05102332ECD7.D	23D0396-01RE1		5	NO MANUAL INTEGRATION
1947	05102333ECD7.D	23D0396-02RE1		5	NO MANUAL INTEGRATION
2008	05102334ECD7.D	23D0396-03RE1		5	NO MANUAL INTEGRATION
2029	05102335ECD7.D	23D0396-04RE1		5	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2050	05102336ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2111	05102337ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2132	05102338ECD7.D	BLD0712-BLK1		1	NO MANUAL INTEGRATION
2152	05102339ECD7.D	BLD0712-BS1		1	NO MANUAL INTEGRATION
2213	05102340ECD7.D	BLD0712-BSD1		1	NO MANUAL INTEGRATION
2234	05102341ECD7.D	23D0563-01		1	NO MANUAL INTEGRATION
2255	05102342ECD7.D	23D0563-02		1	NO MANUAL INTEGRATION
2316	05102343ECD7.D	23D0563-03		1	NO MANUAL INTEGRATION
2336	05102344ECD7.D	23D0563-04		1	NO MANUAL INTEGRATION
2357	05102345ECD7.D	BLD0712-MS1		1	NO MANUAL INTEGRATION
0018	05102346ECD7.D	BLD0712-MSD1		1	NO MANUAL INTEGRATION
0039	05102347ECD7.D	23D0563-05		1	NO MANUAL INTEGRATION
0100	05102348ECD7.D	23D0563-06		1	NO MANUAL INTEGRATION
0121	05102349ECD7.D	23D0563-07		1	NO MANUAL INTEGRATION
0141	05102350ECD7.D	23D0563-08		1	NO MANUAL INTEGRATION
0202	05102351ECD7.D	23D0571-01		1	NO MANUAL INTEGRATION
0223	05102352ECD7.D	23D0571-02		1	NO MANUAL INTEGRATION
0244	05102353ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0305	05102354ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
0841	05102301ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0901	05102302ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
0922	05102303ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
0943	05102304ECD7.D	BLE0164-BLK1		1	NO MANUAL INTEGRATION
1004	05102305ECD7.D	BLE0164-BS1		1	NO MANUAL INTEGRATION
1025	05102306ECD7.D	23E0020-01		1	NO MANUAL INTEGRATION
1046	05102307ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1106	05102308ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1127	05102309ECD7.D	BLD0608-BLK1		1	NO MANUAL INTEGRATION
1148	05102310ECD7.D	BLD0608-BS1		1	NO MANUAL INTEGRATION
1209	05102311ECD7.D	BLD0608-BSD1		1	NO MANUAL INTEGRATION
1230	05102312ECD7.D	BLD0608-SRMI		1	NO MANUAL INTEGRATION
1251	05102313ECD7.D	23D0394-01		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
1312	05102314ECD7.D	23D0394-02RE1		5	Aroclor-1248 [2C],
1332	05102315ECD7.D	23D0394-03RE1		5	Aroclor-1248 [2C],
1353	05102316ECD7.D	23D0394-04RE1		5	Aroclor-1248 [2C], Tetrachloro-m-xylene [2C],
1414	05102317ECD7.D	23D0394-05RE		100	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1435	05102318ECD7.D	23D0394-06RE1		5	Aroclor-1248 [2C], Tetrachloro-m-xylene [2C],
1456	05102319ECD7.D	BLD0608-MS1RE1		5	NO MANUAL INTEGRATION
1517	05102320ECD7.D	BLD0608-MSD1RE		5	NO MANUAL INTEGRATION
1537	05102321ECD7.D	23D0394-07RE1		5	Aroclor-1254 [2C],
1558	05102322ECD7.D	23D0394-08RE1		5	NO MANUAL INTEGRATION
1619	05102323ECD7.D	23D0394-09RE1		5	NO MANUAL INTEGRATION
1640	05102324ECD7.D	23D0394-10RE1		5	Aroclor-1248 [2C],
1701	05102325ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1722	05102326ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1743	05102327ECD7.D	23D0394-02RE2		25	Aroclor-1248 [2C], Aroclor-1254 [2C], Tetrachloro-m-xylene [2C],
1803	05102328ECD7.D	23D0394-05RE		500	NO MANUAL INTEGRATION
1824	05102329ECD7.D	23D0394-11RE1		5	Aroclor-1248 [2C], Aroclor-1254 [2C],
1845	05102330ECD7.D	23D0394-12RE1		5	Aroclor-1248 [2C],
1906	05102331ECD7.D	23D0394-13RE1		5	Aroclor-1248 [2C],
1927	05102332ECD7.D	23D0396-01RE1		5	Aroclor-1248 [2C],
1947	05102333ECD7.D	23D0396-02RE1		5	Aroclor-1248 [2C],
2008	05102334ECD7.D	23D0396-03RE1		5	Aroclor-1248 [2C],
2029	05102335ECD7.D	23D0396-04RE1		5	Aroclor-1248 [2C], Aroclor-1254 [2C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2050	05102336ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2111	05102337ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2132	05102338ECD7.D	BLD0712-BLK1		1	NO MANUAL INTEGRATION
2152	05102339ECD7.D	BLD0712-BS1		1	NO MANUAL INTEGRATION
2213	05102340ECD7.D	BLD0712-BSD1		1	NO MANUAL INTEGRATION
2234	05102341ECD7.D	23D0563-01		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
2255	05102342ECD7.D	23D0563-02		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
2316	05102343ECD7.D	23D0563-03		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
2336	05102344ECD7.D	23D0563-04		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
2357	05102345ECD7.D	BLD0712-MS1		1	NO MANUAL INTEGRATION
0018	05102346ECD7.D	BLD0712-MSD1		1	NO MANUAL INTEGRATION
0039	05102347ECD7.D	23D0563-05		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
0100	05102348ECD7.D	23D0563-06		1	Aroclor-1248 [2C],
0121	05102349ECD7.D	23D0563-07		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
0141	05102350ECD7.D	23D0563-08		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
0202	05102351ECD7.D	23D0571-01		1	Aroclor-1248 [2C], Aroclor-1254 [2C],
0223	05102352ECD7.D	23D0571-02		1	NO MANUAL INTEGRATION
0244	05102353ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230510.b\230510.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0305	05102354ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION

Security Status Report

Date: 11-May-2023 17:24

05102301ECD7.D	Data Locked	richardl, 11-May-2023 17:24
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05102308ECD7.D	Data Locked	richardl, 11-May-2023 17:24
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05102312ECD7.D	Data Locked	richardl, 11-May-2023 17:24
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05102333ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102334ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102335ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102336ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102337ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102338ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102339ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102340ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102341ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102342ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102343ECD7.D	Data Locked	richardl, 11-May-2023 17:24
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05102345ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102346ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102347ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102348ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102349ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102350ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102351ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102352ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102353ECD7.D	Data Locked	richardl, 11-May-2023 17:24
05102354ECD7.D	Data Locked	richardl, 11-May-2023 17:24



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0165
Calibration: GE00022

SDG/WO: 23D0396
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 05/06/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLD0608-BSD1 (Solid) Lab File ID: 05102311ECD7.D Analyzed: 05/10/23 12:09								
Decachlorobiphenyl	8.0000	95.0	40 - 126	13.838	13.8415	-0.0035	N/A	
Tetrachlorometaxylene	8.0000	85.7	44 - 120	5.741	5.742	-0.0010	N/A	
Decachlorobiphenyl [2C]	8.0000	104	40 - 126	14.067	14.06967	-0.0027	N/A	
Tetrachlorometaxylene [2C]	8.0000	85.4	44 - 120	5.627	5.628167	-0.0012	N/A	
BLD0608-SRM1 (Solid) Lab File ID: 05102312ECD7.D Analyzed: 05/10/23 12:30								
Decachlorobiphenyl	40.000	83.1	40 - 126	13.834	13.8415	-0.0075	N/A	
Tetrachlorometaxylene	40.000	70.8	44 - 120	5.74	5.742	-0.0020	N/A	
Decachlorobiphenyl [2C]	40.000	82.8	40 - 126	14.063	14.06967	-0.0067	N/A	
Tetrachlorometaxylene [2C]	40.000	76.5	44 - 120	5.625	5.628167	-0.0032	N/A	
SLE0165-CCV3 (Solid) Lab File ID: 05102325ECD7.D Analyzed: 05/10/23 17:01								
Decachlorobiphenyl	40.000	95.0	80 - 120	13.841	13.8415	-0.0005	N/A	
Tetrachlorometaxylene	40.000	118	80 - 120	5.741	5.742	-0.0010	N/A	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	14.069	14.06967	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	119	80 - 120	5.627	5.628167	-0.0012	N/A	
SLE0165-CCV4 (Solid) Lab File ID: 05102326ECD7.D Analyzed: 05/10/23 17:22								
Decachlorobiphenyl	40.000	105	80 - 120	13.84	13.8415	-0.0015	N/A	
Tetrachlorometaxylene	40.000	98.8	80 - 120	5.742	5.742	0.0000	N/A	
Decachlorobiphenyl [2C]	40.000	106	80 - 120	14.068	14.06967	-0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	117	80 - 120	5.628	5.628167	-0.0002	N/A	
23D0396-01 (Solid) Lab File ID: 05102332ECD7.D Analyzed: 05/10/23 19:27								
Decachlorobiphenyl	7.9898	99.0	40 - 126	13.83	13.8415	-0.0115	N/A	
Tetrachlorometaxylene	7.9898	73.7	44 - 120	5.739	5.742	-0.0030	N/A	
Decachlorobiphenyl [2C]	7.9898	88.8	40 - 126	14.061	14.06967	-0.0087	N/A	
Tetrachlorometaxylene [2C]	7.9898	81.8	44 - 120	5.624	5.628167	-0.0042	N/A	
23D0396-02 (Solid) Lab File ID: 05102333ECD7.D Analyzed: 05/10/23 19:47								
Decachlorobiphenyl	8.0812	95.4	40 - 126	13.832	13.8415	-0.0095	N/A	
Tetrachlorometaxylene	8.0812	68.7	44 - 120	5.739	5.742	-0.0030	N/A	
Decachlorobiphenyl [2C]	8.0812	88.2	40 - 126	14.061	14.06967	-0.0087	N/A	
Tetrachlorometaxylene [2C]	8.0812	74.4	44 - 120	5.625	5.628167	-0.0032	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0165
Calibration: GE00022

SDG/WO: 23D0396
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 05/06/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23D0396-03 (Solid) Lab File ID: 05102334ECD7.D Analyzed: 05/10/23 20:08								
Decachlorobiphenyl	7.9991	95.6	40 - 126	13.831	13.8415	-0.0105	N/A	
Tetrachlorometaxylene	7.9991	69.9	44 - 120	5.739	5.742	-0.0030	N/A	
Decachlorobiphenyl [2C]	7.9991	87.3	40 - 126	14.062	14.06967	-0.0077	N/A	
Tetrachlorometaxylene [2C]	7.9991	79.5	44 - 120	5.625	5.628167	-0.0032	N/A	
23D0396-04 (Solid) Lab File ID: 05102335ECD7.D Analyzed: 05/10/23 20:29								
Decachlorobiphenyl	7.9827	93.9	40 - 126	13.831	13.8415	-0.0105	N/A	
Tetrachlorometaxylene	7.9827	73.1	44 - 120	5.738	5.742	-0.0040	N/A	
Decachlorobiphenyl [2C]	7.9827	86.9	40 - 126	14.062	14.06967	-0.0077	N/A	
Tetrachlorometaxylene [2C]	7.9827	79.5	44 - 120	5.624	5.628167	-0.0042	N/A	
SLE0165-CCV5 (Solid) Lab File ID: 05102336ECD7.D Analyzed: 05/10/23 20:50								
Decachlorobiphenyl	40.000	95.0	80 - 120	13.841	13.8415	-0.0005	N/A	
Tetrachlorometaxylene	40.000	92.8	80 - 120	5.741	5.742	-0.0010	N/A	
Decachlorobiphenyl [2C]	40.000	107	80 - 120	14.069	14.06967	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	98.3	80 - 120	5.627	5.628167	-0.0012	N/A	
SLE0165-CCV6 (Solid) Lab File ID: 05102337ECD7.D Analyzed: 05/10/23 21:11								
Decachlorobiphenyl	40.000	103	80 - 120	13.839	13.8415	-0.0025	N/A	
Tetrachlorometaxylene	40.000	97.3	80 - 120	5.742	5.742	0.0000	N/A	
Decachlorobiphenyl [2C]	40.000	108	80 - 120	14.069	14.06967	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	116	80 - 120	5.629	5.628167	0.0008	N/A	
SLE0165-CCV7 (Solid) Lab File ID: 05102353ECD7.D Analyzed: 05/11/23 02:44								
Decachlorobiphenyl	40.000	97.8	80 - 120	13.841	13.8415	-0.0005	N/A	
Tetrachlorometaxylene	40.000	96.8	80 - 120	5.743	5.742	0.0010	N/A	
Decachlorobiphenyl [2C]	40.000	108	80 - 120	14.069	14.06967	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.63	5.628167	0.0018	N/A	
SLE0165-CCV8 (Solid) Lab File ID: 05102354ECD7.D Analyzed: 05/11/23 03:05								
Decachlorobiphenyl	40.000	103	80 - 120	13.84	13.8415	-0.0015	N/A	
Tetrachlorometaxylene	40.000	101	80 - 120	5.743	5.742	0.0010	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.069	14.06967	-0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	119	80 - 120	5.63	5.628167	0.0018	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0079

Instrument: ECD7

Calibration: GE00022

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLE0079-SCV1)		(Water)	Lab File ID: 05052332ECD7.D			Analyzed: 05/06/23 03:16			
1-Bromo-2-Nitrobenzene	642284	3.428	601474	3.428	107	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	941356	14.215	876625	14.215	107	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	361711	3.868	349289	3.869	104	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	690563	14.957	652984	14.956	106	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLE0079-SCV2)		(Water)	Lab File ID: 05052333ECD7.D			Analyzed: 05/06/23 03:36			
1-Bromo-2-Nitrobenzene	648004	3.43	601474	3.428	108	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	976327	14.214	876625	14.215	111	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	365379	3.87	349289	3.869	105	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	695394	14.957	652984	14.956	106	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLE0079-SCV3)		(Water)	Lab File ID: 05052334ECD7.D			Analyzed: 05/06/23 03:57			
1-Bromo-2-Nitrobenzene	643038	3.428	601474	3.428	107	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	952051	14.215	876625	14.215	109	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	359604	3.868	349289	3.869	103	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	692982	14.957	652984	14.956	106	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLE0079-SCV4)		(Water)	Lab File ID: 05052335ECD7.D			Analyzed: 05/06/23 04:18			
1-Bromo-2-Nitrobenzene	650234	3.43	601474	3.428	108	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	980276	14.214	876625	14.215	112	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	364142	3.87	349289	3.869	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	705291	14.957	652984	14.956	108	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLE0079-SCV5)		(Water)	Lab File ID: 05052336ECD7.D			Analyzed: 05/06/23 04:39			
1-Bromo-2-Nitrobenzene	629547	3.428	601474	3.428	105	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	929713	14.214	876625	14.215	106	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	341980	3.868	349289	3.869	98	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	678097	14.957	652984	14.956	104	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLE0079-SCV6)		(Water)	Lab File ID: 05052337ECD7.D			Analyzed: 05/06/23 05:00			
1-Bromo-2-Nitrobenzene	646456	3.429	601474	3.428	107	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	954969	14.213	876625	14.215	109	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	354120	3.869	349289	3.869	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	696139	14.957	652984	14.956	107	50 - 200	0.001	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLE0165

SDG: 23D0396
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GE00022

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLE0165-ICV1)		(Solid)	Lab File ID: 05102302ECD7.D			Analyzed: 05/10/23 09:01			
1-Bromo-2-Nitrobenzene	640456	3.429	640456	3.429	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	750654	14.211	750654	14.211	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	372804	3.869	372804	3.869	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	564268	14.956	564268	14.956	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLE0165-ICV2)		(Solid)	Lab File ID: 05102303ECD7.D			Analyzed: 05/10/23 09:22			
1-Bromo-2-Nitrobenzene	556984	3.429	556984	3.429	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	798433	14.214	798433	14.214	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	291091	3.868	291091	3.868	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	480912	14.954	480912	14.954	100	50 - 200	0.000	+/-0.50	
Blank (BLD0608-BLK1)		(Solid)	Lab File ID: 05102309ECD7.D			Analyzed: 05/10/23 11:27			
1-Bromo-2-Nitrobenzene	611383	3.428	556984	3.429	110	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	878062	14.208	798433	14.214	110	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	355732	3.87	291091	3.868	122	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	582943	14.954	480912	14.954	121	50 - 200	0.000	+/-0.50	
LCS (BLD0608-BS1)		(Solid)	Lab File ID: 05102310ECD7.D			Analyzed: 05/10/23 11:48			
1-Bromo-2-Nitrobenzene	617689	3.428	556984	3.429	111	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	913056	14.209	798433	14.214	114	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	371575	3.87	291091	3.868	128	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	606968	14.953	480912	14.954	126	50 - 200	-0.001	+/-0.50	
LCS Dup (BLD0608-BSD1)		(Solid)	Lab File ID: 05102311ECD7.D			Analyzed: 05/10/23 12:09			
1-Bromo-2-Nitrobenzene	628555	3.428	556984	3.429	113	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	938712	14.208	798433	14.214	118	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	360652	3.869	291091	3.868	124	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	620639	14.955	480912	14.954	129	50 - 200	0.001	+/-0.50	
Reference (BLD0608-SRM1)		(Solid)	Lab File ID: 05102312ECD7.D			Analyzed: 05/10/23 12:30			
1-Bromo-2-Nitrobenzene	645892	3.427	556984	3.429	116	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	790119	14.2	798433	14.214	99	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	361093	3.868	291091	3.868	124	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	526637	14.95	480912	14.954	110	50 - 200	-0.004	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0165

Instrument: ECD7

Calibration: GE00022

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SS1801 (23D0396-01)		(Solid)	Lab File ID: 05102332ECD7.D			Analyzed: 05/10/23 19:27			
1-Bromo-2-Nitrobenzene	637325	3.428	556984	3.429	114	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	665891	14.198	798433	14.214	83	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	378214	3.868	291091	3.868	130	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	449569	14.946	480912	14.954	93	50 - 200	-0.008	+/-0.50	
LDW23-SC1801 (23D0396-02)		(Solid)	Lab File ID: 05102333ECD7.D			Analyzed: 05/10/23 19:47			
1-Bromo-2-Nitrobenzene	654584	3.428	556984	3.429	118	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	649213	14.198	798433	14.214	81	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	386188	3.867	291091	3.868	133	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	436013	14.947	480912	14.954	91	50 - 200	-0.007	+/-0.50	
LDW23-SS1802 (23D0396-03)		(Solid)	Lab File ID: 05102334ECD7.D			Analyzed: 05/10/23 20:08			
1-Bromo-2-Nitrobenzene	641188	3.427	556984	3.429	115	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	651283	14.198	798433	14.214	82	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	372581	3.867	291091	3.868	128	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	438974	14.947	480912	14.954	91	50 - 200	-0.007	+/-0.50	
LDW23-SC1802 (23D0396-04)		(Solid)	Lab File ID: 05102335ECD7.D			Analyzed: 05/10/23 20:29			
1-Bromo-2-Nitrobenzene	652278	3.427	556984	3.429	117	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	646909	14.197	798433	14.214	81	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	378979	3.866	291091	3.868	130	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	435374	14.947	480912	14.954	91	50 - 200	-0.007	+/-0.50	



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory: Analytical Resources, LLC SDG: 23D0396
 Client: Anchor OEA, LLC Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-01 File ID: 05102332ECD7.D
 Sampled: 04/12/23 09:56 Prepared: 04/25/23 16:03 Analyzed: 05/10/23 19:27
 Solids: 43.01 Preparation: EPA 3546 (Microwave) Instrument: ECD7
 Batch: BLD0608 Sequence: SLE0165
 GC Column(1): ZB5 GC Column(2): ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.395	8.398	0.003	24072.5	56.2	13.1
	2	8.25	8.26	0.01	10669	49.3	
Aroclor 1254	* 1	9.233	9.246	0.013	42995.6	80.6	11.8
	2	9.39	9.403	0.013	26120.2	71.6	
Aroclor 1260	1	10.98	10.99483	0.0148	25170.4	59.2	18.7
	* 2	11.594	11.60617	0.0122	22901.75	71.4	

* Column used for quantitation



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>23D0396-03</u>
Sampled:	<u>04/12/23 15:03</u>	File ID:	<u>05102334ECD7.D</u>
Solids:	<u>43.88</u>	Prepared:	<u>04/25/23 16:03</u>
Batch:	<u>BLD0608</u>	Analyzed:	<u>05/10/23 20:08</u>
		Preparation:	<u>EPA 3546 (Microwave)</u>
		Instrument:	<u>ECD7</u>
		Sequence:	<u>SLE0165</u>
GC Column(1):	<u>ZB5</u>	GC Column(2):	<u>ZB35</u>

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.395	8.398	0.003	21763	50.7	6.5
	2	8.251	8.26	0.009	10070.25	47.5	
Aroclor 1254	* 1	9.234	9.246	0.012	39250.4	73.0	8.6
	2	9.391	9.403	0.012	24090.2	67.0	
Aroclor 1260	1	10.981	10.99483	0.0138	25009	58.0	28.8
	* 2	11.594	11.60617	0.0122	23644.25	77.5	

* Column used for quantitation



HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/25/23 16:03	13	14	05/10/23 19:27	15	40	
LDW23-SC1801 23D0396-02	04/12/23 10:15	04/12/23 16:32	04/25/23 16:03	13	14	05/10/23 19:47	15	40	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/25/23 16:03	13	14	05/10/23 20:08	15	40	
LDW23-SC1802 23D0396-04	04/12/23 15:40	04/12/23 16:32	04/25/23 16:03	13	14	05/10/23 20:29	15	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD7

Analyte	MDL	RL	Units
Aroclor 1016	1.6	4.0	ug/kg
Aroclor 1016 [2C]	1.6	4.0	ug/kg
Aroclor 1221	1.6	4.0	ug/kg
Aroclor 1221 [2C]	1.6	4.0	ug/kg
Aroclor 1232	1.6	4.0	ug/kg
Aroclor 1232 [2C]	1.6	4.0	ug/kg
Aroclor 1242	1.6	4.0	ug/kg
Aroclor 1242 [2C]	1.6	4.0	ug/kg
Aroclor 1248	1.6	4.0	ug/kg
Aroclor 1248 [2C]	1.6	4.0	ug/kg
Aroclor 1254	1.6	4.0	ug/kg
Aroclor 1254 [2C]	1.6	4.0	ug/kg
Aroclor 1260	0.6	4.0	ug/kg
Aroclor 1260 [2C]	0.6	4.0	ug/kg

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

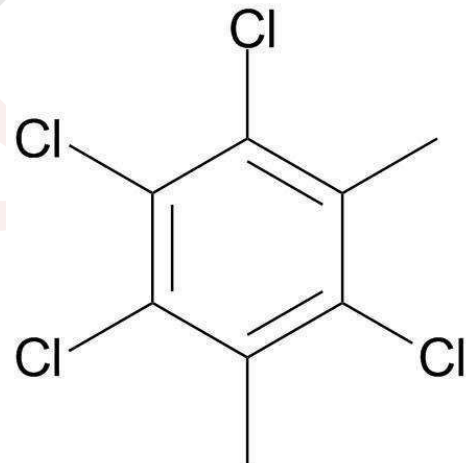
Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

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Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101461

Lot Number: CL13053

Description: Aroclor 1254

Certification Date: November 29, 2018

Storage: 4 °C

Expiration Date: November 30, 2026

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1254	11097-69-1	1000	± 0.246%

I 09808
Recd. *JP*
02/24/20



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101468

Lot Number: CL14017

Description: Aroclor 1221

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1221	11104-28-2	1000	± 0.553%

J006466
Recd of
06/18/21



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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

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² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Catalog No.: AL0-101469

Lot Number: CL14914

Description: Aroclor 1232

Certification Date: January 31, 2020

Storage: 4 °C

Expiration Date: January 31, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1232	11141-16-5	1000	± 0.738%

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06/18/21



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2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
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$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

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References:

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- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Catalog No.: AL0-101470

Lot Number: CL14018

Description: Aroclor 1242

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1242	53469-21-9	1000	± 0.553%

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06/18/21



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$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
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⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Catalog No.: AL0-101471

Lot Number: CL15384

Description: Aroclor 1248

Certification Date: June 19, 2020

Storage: 4 °C

Expiration Date: June 30, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1248	12672-29-6	1000	± 0.520%

*# J006469
Reed, JR
06/18/21*



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- 5. Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
- 6. Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
- 7. Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
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$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
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- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



phenova[®]
Certified Reference Materials

A Phenomenex
Company

Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Certificate of Analysis

Aroclor 1016 Solution

Product Number: PP-282

Page: 1 of 1

Lot Number: CR-0761

Lot Issue Date: 28-Feb-2017

Expiration Date: 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

*K1254
Recd JP
02/05/17*

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1260 Standard

Product Number: PP-362-1

Lot Issue Date: 20-Jan-2021

Lot Number: 0006582048

Expiration Date: 28-Feb-2025

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1260	011096-82-5	NT01023	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

K 1255

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois

QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: Aroclor 1248 Standard **Lot Number:** 0006626997
Product Number: PP-342-1 **Lot Issue Date:** 17-Aug-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 30-Sep-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
Aroclor 1248	100.3	± 0.5 µg/mL		012672-29-6	NT01582

Matrix: isooctane (2,2,4-trimethylpentane)

K1257

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Certificate of Analysis

Aroclor 1254 Solution

Product Number: PP-352

Page: 1 of 1

Lot Number: CS-2321

Lot Issue Date: 04-May-2018

Expiration Date: 31-May-2026

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

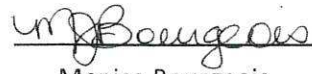
K-1250

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.


John Russo
President


Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1221 Standard

Product Number: PP-292-1

Lot Issue Date: 28-Apr-2020

Lot Number: 0006535333

Expiration Date: 31-May-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1221	011104-28-2	RM04278	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1259

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO 17034

Aroclor 1262 Standard

Product Number: PP-372-1

Page: 1 of 1

Lot Number: 0006499800

Lot Issue Date: 04-Nov-2019

Expiration Date: 30-Nov-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	RM14263	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1260

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO 17025 Cert No.
AT-1937



Certificate of Analysis ISO 17034

Aroclor 1232 Standard

Product Number: PP-302-1

Page: 1 of 1

Lot Number: CF-2197A

Lot Issue Date: 05-Jul-2016

Expiration Date: 31-Aug-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1261

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937



Certificate of Analysis

Product Name: Aroclor 1268 Standard

Product Number: PP-382-1

Lot Issue Date: 09-Feb-2021

Lot Number: 0006587800

Expiration Date: 31-Mar-2029

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration \pm Uncertainty
Aroclor 1268	011100-14-4	RM00937	100.0 \pm 0.5 μ g/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1262

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

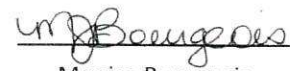
Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:


Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ISO 17025 Cert
No. AT-1937

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15350

Order Number: CB014765

Date Shipped: 4/11/2022

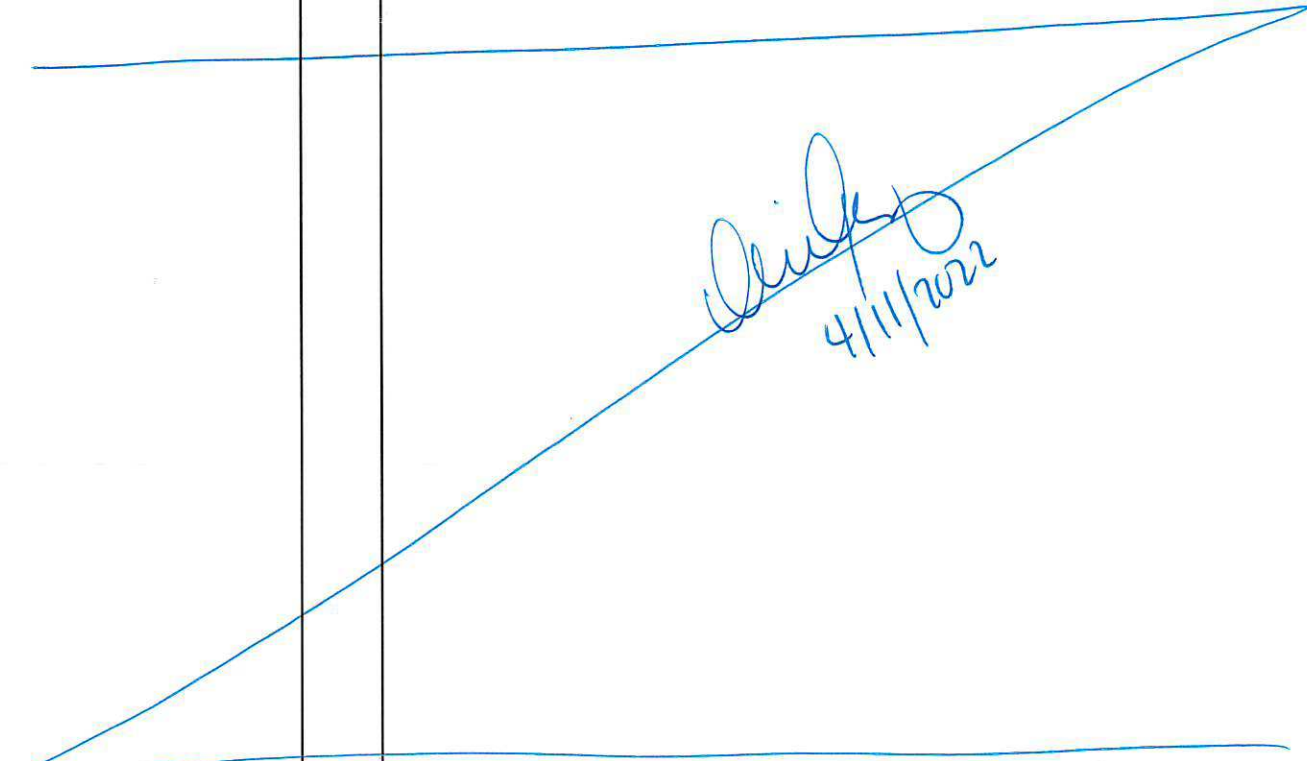
AirBill No(s):

From: QATS LABORATORY
 2700 CHANDLER AVENUE, BLDG. B
 LAS VEGAS, NV 89120
 PHONE: 1-702-895-8712

To: Kelly Bottem
 Analytical Resources, Inc.
 4611 S. 134th Place SUITE 100
 Tukwila WA 98168
 206-695-6211

519204140444

K003525 7
K003528

Sample ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0148	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0149	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0150	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0151	1	PUGET SOUND SEDIMENT RM	PS-SRM
			
		BOEING PLANT 2	

Boitem
 4/11/2022

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time <i>1400</i> <i>4/11/2022</i>	Received by: (Signature) <i>[Signature]</i>	Date/Time <i>0955</i> <i>04/12/22</i>
Custody Seal(s): Present/Absent <i>PRESENT</i>	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time



**PUGET SOUND SEDIMENT REFERENCE MATERIAL
QATS LABORATORY INSTRUCTIONS FOR
HRGC/HRMS CDD/CDF/CB CONGENER AND GC/ECD AROCLOR ANALYSIS**

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocols or your contract, disregard these instructions.

APPLICATION: For the analysis of CDD/CDF and CB Congener analytes using project-specified HRGC/HRMS methods, and Aroclors using project-specified GC/ECD methods.

CAUTION: Read instructions carefully before opening bottles and proceeding with the analyses.

Contains CDD/CDF, CB Congener, and/or Aroclors
HAZARDOUS MATERIAL
Safety Data Sheets
Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a Puget Sound (Washington State) Sediment Reference Material (SRM) set for chlorinated dibenzo-p-dioxins/chlorinated dibenzofurans (CDD/CDF), and/or chlorinated biphenyl (CB) congener analysis using project-specified high resolution gas chromatography/ high resolution mass spectrometry (HRGC/HRMS) methods. This SRM is also suitable for Aroclors analysis using project-specified gas chromatography/electron capture detection (GC/ECD) methods. This set consists of one (1) or more bottles, each with approximately 30 grams of Puget Sound SRM containing CDD/CDF, CB Congener, and/or Aroclor analytes. Check the chain-of-custody record to determine the number of bottles provided for CDD/CDF, CB Congener, and/or Aroclor analysis. None of the bottles are to be opened until SRM preparation/analysis is to occur.

CAUTION: The SRM could contain compounds that are light sensitive and should be protected from light during storage. Store the SRM at $\leq 6^{\circ}\text{C}$, preferably at $< 0^{\circ}\text{C}$, until SRM preparation and analysis is to occur. Allow the bottle(s) to reach ambient temperature before opening.

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Refer to the enclosed chain-of-custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120



(C) ANALYSIS REQUIREMENTS

The SRM is to be analyzed as described in the project-specified methods employed for the analysis of CDD/CDF and/or CB Congener analytes using HRGC/HRMS instrumentation and/or Aroclors using GC/ECD instrumentation. These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the project-specified methods, or your contract, disregard these instructions.

(D) SAMPLE ANALYSIS

General Instructions

The SRM contains CDD/CDF, CB Congener, and Aroclor analytes which are known or suspected to have severe health effects. Employing appropriate safety precautions, this SRM is to be handled, prepared, and analyzed exactly as you would process samples received from a known or suspected hazardous waste site. The SRM should be handled only by trained and experienced analysts in facilities expressly designed to handle such materials. When calculating the concentrations of analytes, use 0% as the soil moisture content.

Allow the bottle(s) to reach ambient temperature before opening and removing gravimetric amounts for sample preparation. To begin the extraction and analysis procedure, break the seal and open the bottle carefully. Weigh out the appropriate aliquot for extraction and analysis as prescribed in the project-specified methods (typically 10 grams for HRGC/HRMS methods and 30 grams for GC/ECD methods), or in accordance with your contract.

Proceed immediately with the extraction and analysis as described in the project-specified methods or your contract.

(E) REPORTING

Report the results for the prepared SRM as received.

Report the analytical results for the SRM to EPA or other appropriate Agency, using the format and other instructions for submission of data packages as specified in your contract.

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101467

Lot Number: CL12975

Description: Aroclor 1016

Certification Date: November 19, 2018

Storage: 4 °C

Expiration Date: October 31, 2026

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.553%

12975



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



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Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.

³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL111063_US

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL18021

Description: Aroclor 1260

Certification Date: February 14, 2022

Storage: 4 °C

Expiration Date: February 28, 2030

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

K005830



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



Page 2 of 2

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101283

Lot Number: CL18942

Description: Aroclor 1268 Standard

Certification Date: September 7, 2022

Storage: 4 °C

Expiration Date: August 31, 2030

Provided As: 1 mL in 2 mL Ampoule in Hexane



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1268	11100-14-4	100	± 0.561%

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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

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Reference Material Producer
Certificate No. 2427.02



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Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101282 **Lot Number:** CL19082
Description: Aroclor 1262 Standard **Certification Date:** October 18, 2022
Storage: 4 °C **Expiration Date:** September 30, 2030
Provided As: 1 mL in 2 mL Ampoule in Hexane



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1262	37324-23-5	100	± 0.665%

Certificate of Analysis

Produced by Phenova

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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

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Reference Material Producer
Certificate No. 2427.02



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Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-SS1801

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-01 C SDG: 23D0396
 Sampled: 04/12/23 09:56 Prepared: 04/27/23 15:14 File ID: SMM 05-01-23-064
 % Solids: 48.05 Preparation: SMM EPA 7471B Analyzed: 05/01/23 14:50
 Batch: BLD0688 Sequence: SLE0012 Initial/Final: 0.221 g Wet / 50 mL
 Instrument: HYDRA Calibration: GE00003

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.221	1	0.00989	0.0471	



Form I
INORGANIC ANALYSIS DATA SHEET

LDW23-SS1802

EPA 7471B

Total Metals

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-03 C

SDG: 23D0396

Sampled: 04/12/23 15:03

Prepared: 04/27/23 15:14

File ID: SMM 05-01-23-065

% Solids: 47.50

Preparation: SMM EPA 7471B

Analyzed: 05/01/23 14:52

Batch: BLD0688

Sequence: SLE0012

Initial/Final: 0.205 g Wet / 50 mL

Instrument: HYDRA

Calibration: GE00003

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.174	1	0.0108	0.0513	



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SM Balance ID: B4210 Matrix: soil
 Analyst: AR Block ID: 9 Date: 04/27/23
 Bath Temp: 99C Start Time: 1418 End Time: 1514

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO4 Aliquots	CLP	Comments
23D136-01	C	|	0.205	50	1		
↓ -03	B	|	0.209				
23D394-01	C	|	0.219				
↓ -02	B	|	0.204				
↓ -04	C	|	0.258				
↓ -06		|	0.258				
↓ -08		|	0.255				
↓ -11		|	0.288				
↓ -12		|	0.254				
23D396-01		|	0.221				
↓ -03	↓	|	0.205				23D394-01
BDL688-blk	-	|	-				
↓ -05	-	|	-				
↓ -dup	-	|	0.219				
↓ -MS	-	|	0.215				
↓ -MSD	-	|	0.218				
23D37-02	D	|	0.211				
↓ -04	↓	|	0.221				
MC 04/27/23							

Chemical/Reagent ID:
 HNO₃: L4188 H₂SO₄: L923 HCl: -
 5% K₂S₂O₈: K3350 5% KMnO₄: K11727 Digest Tube Lot: 2210117



Form I
METHOD BLANK DATA SHEET
EPA 7471B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0688

Laboratory ID: BLD0688-BLK1

Prepared: 04/27/23 15:14

Matrix: Solid

Preparation: SMM EPA 7471B

Analyzed: 05/01/23 14:03

Sequence: SLE0012

Calibration: GE00003

Instrument: HYDRA

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.00525	0.0250	U



INITIAL CALIBRATION DATA

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00003

Instrument: HYDRA

Calibration Date: 05/01/2023 15:11

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Mercury	0	0	0.0001	6280000	0.0005	5844000	0.001	5860000	0.002	5878000	0.005	5719400

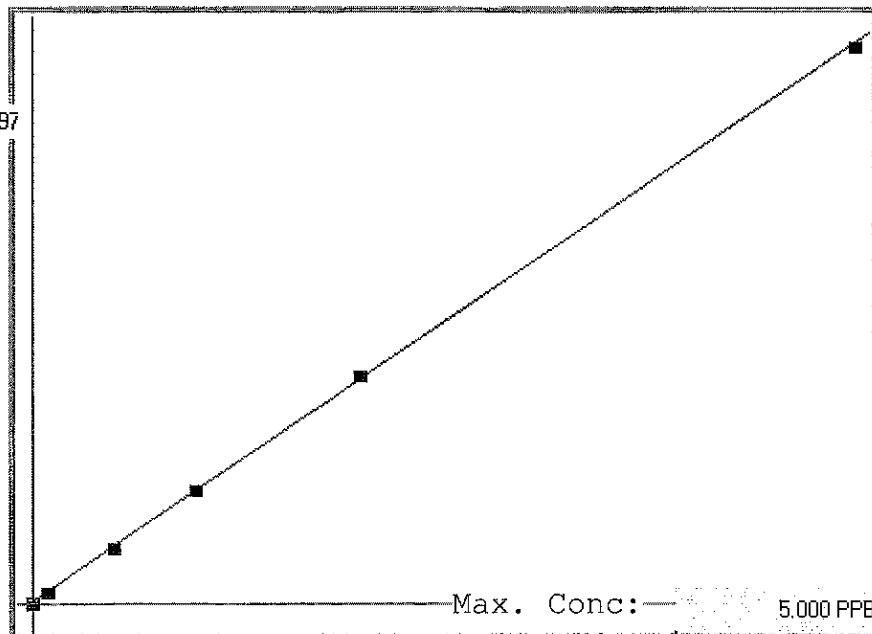
Sample ID	Mean	Units	Date	Method
SEQ-CAL1	-6	PPB	01 May 2023 10:51:23	ARI 5 ppb (NO 0.05)
SEQ-CAL2	628	PPB	01 May 2023 10:53:44	ARI 5 ppb (NO 0.05)
SEQ-CAL3	2922	PPB	01 May 2023 10:56:05	ARI 5 ppb (NO 0.05)
SEQ-CAL4	5860	PPB	01 May 2023 10:58:26	ARI 5 ppb (NO 0.05)
SEQ-CAL5	11756	PPB	01 May 2023 11:00:46	ARI 5 ppb (NO 0.05)
SEQ-CAL6	28597	PPB	01 May 2023 11:03:06	ARI 5 ppb (NO 0.05)
SEQ-ICV	101.8% 4.0705	PPB ✓	01 May 2023 11:30:14	ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0184	PPB ✓	01 May 2023 11:32:33	ARI 5 ppb (NO 0.05)
SEQ-CRL	93.7% 0.0937	PPB ✓	01 May 2023 11:34:55	ARI 5 ppb (NO 0.05)
SEQ-CCV	102.3% 4.0916	PPB ✓	01 May 2023 11:37:16	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 11:39:34	ARI 5 ppb (NO 0.05)
SEQ-CCV	100.6% 4.0257	PPB ✓	01 May 2023 11:41:56	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0198	PPB ✓	01 May 2023 11:44:15	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.5% 4.0604	PPB ✓	01 May 2023 12:53:53	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0176	PPB ✓	01 May 2023 12:56:11	ARI 5 ppb (NO 0.05)
BLD0668-BLK1	-0.0112	PPB	01 May 2023 12:58:33	ARI 5 ppb (NO 0.05)
BLD0668-BS1	1.7744	PPB ✓	01 May 2023 13:00:52	ARI 5 ppb (NO 0.05)
23D0420-01	0.0689	PPB	01 May 2023 13:03:11	ARI 5 ppb (NO 0.05)
BLD0668-DUP1	0.0696	PPB	01 May 2023 13:05:30	ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.6552	PPB x del	01 May 2023 13:07:49	ARI 5 ppb (NO 0.05)
23D0297-01	0.1601	PPB	01 May 2023 13:10:08	ARI 5 ppb (NO 0.05)
23D0297-02	0.0801	PPB	01 May 2023 13:12:27	ARI 5 ppb (NO 0.05)
23D0297-03	0.1859	PPB	01 May 2023 13:14:47	ARI 5 ppb (NO 0.05)
23D0297-04	0.2936	PPB	01 May 2023 13:17:06	ARI 5 ppb (NO 0.05)
23D0297-05	0.0732	PPB	01 May 2023 13:19:26	ARI 5 ppb (NO 0.05)
SEQ-CCV	102.4% 4.0960	PPB ✓	01 May 2023 13:21:47	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0186	PPB ✓	01 May 2023 13:24:05	ARI 5 ppb (NO 0.05)
23D0297-06	0.0398	PPB	01 May 2023 13:26:26	ARI 5 ppb (NO 0.05)
23D0297-07	0.0703	PPB	01 May 2023 13:28:47	ARI 5 ppb (NO 0.05)
23D0297-08	0.0831	PPB	01 May 2023 13:31:07	ARI 5 ppb (NO 0.05)
23D0303-01	0.3177	PPB	01 May 2023 13:33:26	ARI 5 ppb (NO 0.05)
23D0303-02	0.1133	PPB	01 May 2023 13:35:45	ARI 5 ppb (NO 0.05)
23D0383-01	0.6445	PPB	01 May 2023 13:38:04	ARI 5 ppb (NO 0.05)
23D0384-01	0.5203	PPB	01 May 2023 13:40:23	ARI 5 ppb (NO 0.05)
23D0421-01	0.2459	PPB	01 May 2023 13:42:42	ARI 5 ppb (NO 0.05)
23D0437-01	0.1558	PPB	01 May 2023 13:45:01	ARI 5 ppb (NO 0.05)
23D0437-02	0.1899	PPB	01 May 2023 13:47:20	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.7% 4.0674	PPB ✓	01 May 2023 13:49:40	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0209	PPB ✓	01 May 2023 13:51:58	ARI 5 ppb (NO 0.05)
23D0544-01	0.0877	PPB	01 May 2023 13:54:20	ARI 5 ppb (NO 0.05)
23D0544-02	0.0209	PPB	01 May 2023 13:56:40	ARI 5 ppb (NO 0.05)
23D0579-01	0.0805	PPB	01 May 2023 13:59:01	ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.8611	PPB ✓	01 May 2023 14:01:22	ARI 5 ppb (NO 0.05)
BLD0688-BLK1	-0.0117	PPB	01 May 2023 14:03:42	ARI 5 ppb (NO 0.05)
BLD0688-BS1	1.7632	PPB ✓	01 May 2023 14:06:01	ARI 5 ppb (NO 0.05)
23D0394-01	0.3509	PPB	01 May 2023 14:08:21	ARI 5 ppb (NO 0.05)
BLD0688-DUP1	0.2577	PPB	01 May 2023 14:10:40	ARI 5 ppb (NO 0.05)
BLD0688-MS1	1.3034	PPB ✓	01 May 2023 14:13:00	ARI 5 ppb (NO 0.05)
BLD0688-MSD1	1.2637	PPB ✓	01 May 2023 14:15:19	ARI 5 ppb (NO 0.05)
SEQ-CCV	100.2% 4.0078	PPB ✓	01 May 2023 14:17:38	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 14:19:56	ARI 5 ppb (NO 0.05)
23D0037-02	0.3471	PPB	01 May 2023 14:22:18	ARI 5 ppb (NO 0.05)
23D0037-04	0.3311	PPB	01 May 2023 14:24:37	ARI 5 ppb (NO 0.05)
23D0136-01	0.6340	PPB	01 May 2023 14:26:58	ARI 5 ppb (NO 0.05)
23D0136-03	0.4205	PPB	01 May 2023 14:29:17	ARI 5 ppb (NO 0.05)
23D0394-02	0.0943	PPB	01 May 2023 14:31:38	ARI 5 ppb (NO 0.05)
23D0394-04	0.1059	PPB	01 May 2023 14:33:58	ARI 5 ppb (NO 0.05)
23D0394-06	0.0143	PPB	01 May 2023 14:36:20	ARI 5 ppb (NO 0.05)
23D0394-08	0.2875	PPB	01 May 2023 14:38:39	ARI 5 ppb (NO 0.05)
23D0394-11	0.8730	PPB	01 May 2023 14:40:58	ARI 5 ppb (NO 0.05)

ARI 5 ppb (NO 0.05)

Linear

μ Abs.:

28597



A= 0.0000e+000

B= 1.7483e-004

C= -1.6511e-002

Rho= 0.9999378

Accept=Accepted

Accepted Date=

05/01/23 11:29

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	-0.018	-0.018	-5	3.399	-9	-1	-7		
SEQ-CAL2 - 0.1 PPB	0.100	0.093	-0.007	628	0.2 %	629	629	627		
SEQ-CAL3 - 0.5 PPB	0.500	0.494	-0.006	2921	0.5 %	2903	2929	2933		
SEQ-CAL4 - 1.0 PPB	1.000	1.008	0.008	5859	1.5 %	5735	5938	5906		
SEQ-CAL5 - 2.0 PPB	2.000	2.039	0.039	11755	1.0 %	11615	11914	11738		
SEQ-CAL6 - 5.0 PPB	5.000	4.983	-0.017	28597	1.1 %	29018	28454	28319		

Mercury Analysis Log

Analyst: ML
 Instrument: HYDRA

05/01/23
 Date: 5/12
 Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ -C011	Smm	1X		
-C012				
-C013				
-C014				
-C015				
-C016				
-ICV			✓ 4.07	
-ICB			✓ -0.018	
-CRL			✓ 0.93	
-CCV			✓ 4.09	
-CCB			✓ -0.018	
-CCV			✓ 4.02	
-CCB			✓ -0.019	
-CCV			✓ 4.06	
↓ -CCB			✓ -0.017	
BLD0668 -B1K1				
↓ -B31			✓ 1.774	88.7% R
23D0420 -01				
BLD0668 -DUP1				RPD = 1.01
↓ -M51			✓ 0.655	58.6% R ; Del
23D0297 -01				
↓ -02				
-03				
↓ -04				
-05				
SEQ -CCV			✓ 4.09	
↓ -CCB			✓ -0.018	
23D0297 -06				
↓ -07				
↓ -08				

Chemical/Reagent ID:
 10% SnCl₂: L4336

14% NH₂OH/NaCl: L4337

Standard ID:
 Standard: L4785-L4790

ICV/CCV: L4782

Sample ID	Mean	Units	Date/Method
SEQ-CAL1	-6	PPB	01 May 2023 10:51:23ARI 5 ppb (NO 0.05)
SEQ-CAL2	628	PPB	01 May 2023 10:53:44ARI 5 ppb (NO 0.05)
SEQ-CAL3	2922	PPB	01 May 2023 10:56:05ARI 5 ppb (NO 0.05)
SEQ-CAL4	5860	PPB	01 May 2023 10:58:26ARI 5 ppb (NO 0.05)
SEQ-CAL5	11756	PPB	01 May 2023 11:00:46ARI 5 ppb (NO 0.05)
SEQ-CAL6	28597	PPB	01 May 2023 11:03:06ARI 5 ppb (NO 0.05)
SEQ-ICV	101.8% 4.0705	PPB ✓	01 May 2023 11:30:14ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0184	PPB ✓	01 May 2023 11:32:33ARI 5 ppb (NO 0.05)
SEQ-CRL	93.7% 0.0937	PPB ✓	01 May 2023 11:34:55ARI 5 ppb (NO 0.05)
SEQ-CCV	102.3% 4.0916	PPB ✓	01 May 2023 11:37:16ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 11:39:34ARI 5 ppb (NO 0.05)
SEQ-CCV	100.6% 4.0257	PPB ✓	01 May 2023 11:41:56ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0198	PPB ✓	01 May 2023 11:44:15ARI 5 ppb (NO 0.05)
SEQ-CCV	101.5% 4.0604	PPB ✓	01 May 2023 12:53:53ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0176	PPB ✓	01 May 2023 12:56:11ARI 5 ppb (NO 0.05)
BLD0668-BLK1	-0.0112	PPB	01 May 2023 12:58:33ARI 5 ppb (NO 0.05)
BLD0668-BS1	1.7744	PPB ✓	01 May 2023 13:00:52ARI 5 ppb (NO 0.05)
23D0420-01	0.0689	PPB	01 May 2023 13:03:11ARI 5 ppb (NO 0.05)
BLD0668-DUP1	0.0696	PPB	01 May 2023 13:05:30ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.6552	PPB x del	01 May 2023 13:07:49ARI 5 ppb (NO 0.05)
23D0297-01	0.1601	PPB	01 May 2023 13:10:08ARI 5 ppb (NO 0.05)
23D0297-02	0.0801	PPB	01 May 2023 13:12:27ARI 5 ppb (NO 0.05)
23D0297-03	0.1859	PPB	01 May 2023 13:14:47ARI 5 ppb (NO 0.05)
23D0297-04	0.2936	PPB	01 May 2023 13:17:06ARI 5 ppb (NO 0.05)
23D0297-05	0.0732	PPB	01 May 2023 13:19:26ARI 5 ppb (NO 0.05)
SEQ-CCV	102.4% 4.0960	PPB ✓	01 May 2023 13:21:47ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0186	PPB ✓	01 May 2023 13:24:05ARI 5 ppb (NO 0.05)
23D0297-06	0.0398	PPB	01 May 2023 13:26:26ARI 5 ppb (NO 0.05)
23D0297-07	0.0703	PPB	01 May 2023 13:28:47ARI 5 ppb (NO 0.05)
23D0297-08	0.0831	PPB	01 May 2023 13:31:07ARI 5 ppb (NO 0.05)
23D0303-01	0.3177	PPB	01 May 2023 13:33:26ARI 5 ppb (NO 0.05)
23D0303-02	0.1133	PPB	01 May 2023 13:35:45ARI 5 ppb (NO 0.05)
23D0383-01	0.6445	PPB	01 May 2023 13:38:04ARI 5 ppb (NO 0.05)
23D0384-01	0.5203	PPB	01 May 2023 13:40:23ARI 5 ppb (NO 0.05)
23D0421-01	0.2459	PPB	01 May 2023 13:42:42ARI 5 ppb (NO 0.05)
23D0437-01	0.1558	PPB	01 May 2023 13:45:01ARI 5 ppb (NO 0.05)
23D0437-02	0.1899	PPB	01 May 2023 13:47:20ARI 5 ppb (NO 0.05)
SEQ-CCV	101.7% 4.0674	PPB ✓	01 May 2023 13:49:40ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0209	PPB ✓	01 May 2023 13:51:58ARI 5 ppb (NO 0.05)
23D0544-01	0.0877	PPB	01 May 2023 13:54:20ARI 5 ppb (NO 0.05)
23D0544-02	0.0209	PPB	01 May 2023 13:56:40ARI 5 ppb (NO 0.05)
23D0579-01	0.0805	PPB	01 May 2023 13:59:01ARI 5 ppb (NO 0.05)
BLD0668-MS1	0.8611	PPB ✓	01 May 2023 14:01:22ARI 5 ppb (NO 0.05)
BLD0688-BLK1	-0.0117	PPB	01 May 2023 14:03:42ARI 5 ppb (NO 0.05)
BLD0688-BS1	1.7632	PPB ✓	01 May 2023 14:06:01ARI 5 ppb (NO 0.05)
23D0394-01	0.3509	PPB	01 May 2023 14:08:21ARI 5 ppb (NO 0.05)
BLD0688-DUP1	0.2577	PPB	01 May 2023 14:10:40ARI 5 ppb (NO 0.05)
BLD0688-MS1	1.3034	PPB ✓	01 May 2023 14:13:00ARI 5 ppb (NO 0.05)
BLD0688-MSD1	1.2637	PPB ✓	01 May 2023 14:15:19ARI 5 ppb (NO 0.05)
SEQ-CCV	100.2% 4.0078	PPB ✓	01 May 2023 14:17:38ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0184	PPB ✓	01 May 2023 14:19:56ARI 5 ppb (NO 0.05)
23D0037-02	0.3471	PPB	01 May 2023 14:22:18ARI 5 ppb (NO 0.05)
23D0037-04	0.3311	PPB	01 May 2023 14:24:37ARI 5 ppb (NO 0.05)
23D0136-01	0.6340	PPB	01 May 2023 14:26:58ARI 5 ppb (NO 0.05)
23D0136-03	0.4205	PPB	01 May 2023 14:29:17ARI 5 ppb (NO 0.05)
23D0394-02	0.0943	PPB	01 May 2023 14:31:38ARI 5 ppb (NO 0.05)
23D0394-04	0.1059	PPB	01 May 2023 14:33:58ARI 5 ppb (NO 0.05)
23D0394-06	0.0143	PPB	01 May 2023 14:36:20ARI 5 ppb (NO 0.05)
23D0394-08	0.2875	PPB	01 May 2023 14:38:39ARI 5 ppb (NO 0.05)
23D0394-11	0.8730	PPB	01 May 2023 14:40:58ARI 5 ppb (NO 0.05)

SMM 05-01-23

Method: ARI 5 ppb (NO 0.05)

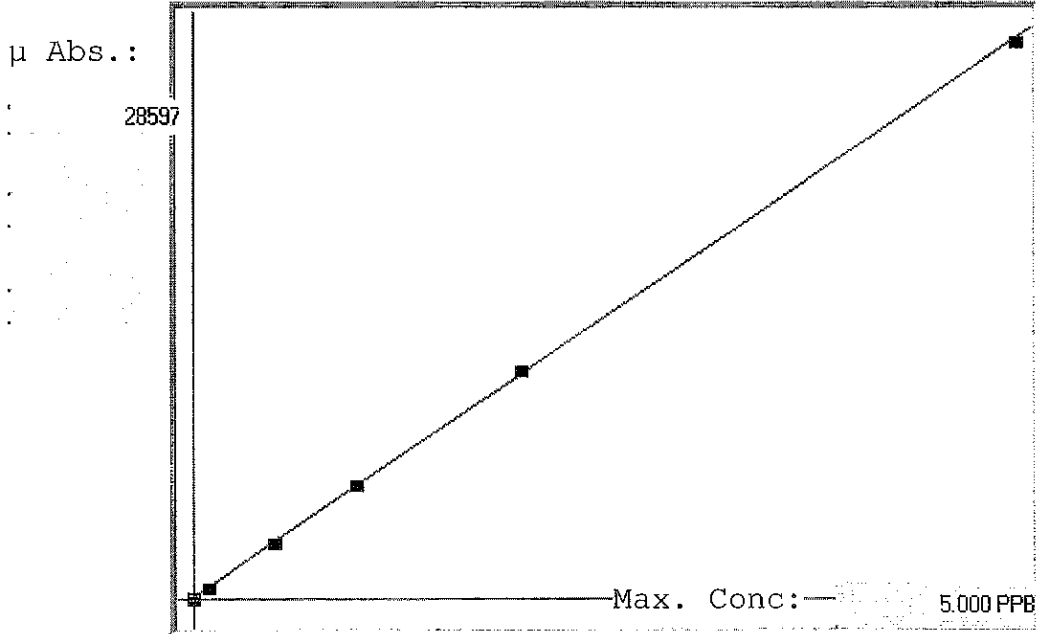
Operator: Admin

Date of Analysis: 01 May 2023 10:50:09

Sample ID	Mean	Units	Date	Method
23D0394-12	0.1077	PPB	01 May 2023 14:43:18	ARI 5 ppb (NO 0.05)
SEQ-CCV	96.4% 3.8556	PPB ✓	01 May 2023 14:45:37	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0205	PPB ✓	01 May 2023 14:47:56	ARI 5 ppb (NO 0.05)
23D0396-01	0.4693	PPB	01 May 2023 14:50:18	ARI 5 ppb (NO 0.05)
23D0396-03	0.3397	PPB	01 May 2023 14:52:38	ARI 5 ppb (NO 0.05)
SEQ-CCV	98.1% 3.9221	PPB ✓	01 May 2023 14:54:57	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0201	PPB ✓	01 May 2023 14:57:16	ARI 5 ppb (NO 0.05)

ARI 5 ppb (NO 0.05)

Linear



A= 0.0000e+000

B= 1.7483e-004

C= -1.6511e-002

Rho= 0.9999378

Accept=Accepted

Accepted Date=

05/01/23 11:29

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	-0.018	-0.018	-5	3.399	-9	-1	-7		
SEQ-CAL2 - 0.1 PPB	0.100	0.093	-0.007	628	0.2 %	629	629	627		
SEQ-CAL3 - 0.5 PPB	0.500	0.494	-0.006	2921	0.5 %	2903	2929	2933		
SEQ-CAL4 - 1.0 PPB	1.000	1.008	0.008	5859	1.5 %	5735	5938	5906		
SEQ-CAL5 - 2.0 PPB	2.000	2.039	0.039	11755	1.0 %	11615	11914	11738		
SEQ-CAL6 - 5.0 PPB	5.000	4.983	-0.017	28597	1.1 %	29018	28454	28319		

Mercury Analysis Log

Analyst: ML
 Instrument: HYDRA

05/01/23
 Date: 05/12
 Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ -C011	3mm	1X		
-C012				
-C013				
-C014				
-C015				
-C016				
-1CV			✓ 4.07	
-1CB			✓ -0.018	
-C02L			✓ 0.93	
-CCV			✓ 4.09	
-CCB			✓ -0.018	
-CCV			✓ 4.02	
-CCB			✓ -0.019	
-CCV			✓ 4.06	
↓ -CCB			✓ -0.017	
BLD0668 -B1K1				
↓ -B31			✓ 1.774	88.7% R
23D0420 -01				
BLD0668 -DUP1				RFD = 1.01
↓ -MS1			✓ 0.655	58.6% R ; Del
23D0297 -01				
↓ -02				
↓ -03				
↓ -04				
↓ -05				
SEQ -CCV			✓ 4.09	
↓ -CCB			✓ -0.018	
23D0297 -06				
↓ -07				
↓ -08				

Chemical/Reagent ID:
 10% SnCl₂: L4336

14% NH₂OH/NaCl: L4337

Standard ID:
 Standard: L4785-L4790

ICV/CCV: L4782

Mercury Analysis Log

Analyst:

Date:

Instrument:

Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
23D0303 -01				
↓ -02				
23D0383 -01				
23D0384 -01				
23D0421 -01				
23D0437 -01				
↓ -02				
SEA -CCV			√4.06	
↓ -CB3			√-0.02	
23D0544 -01				
↓ -02				
23D0579 -01				
BLD0688 -MSI			√0.861	79.2 1/R
BLD0688 -BSI				
↓ -BSI			√1.763	88.1 1/R
23D0394 -01				
BLD0688 -DUP1				NO RPD
↓ -MSI			√1.303	95.2 1/R
↓ -MSD1			√1.263	91.2 1/R
SEA -CCV			√4.00	
↓ -CB3			√-0.018	
23D0037 -02				
↓ -04				
23D0136 -01				
↓ -03				
23D0394 -02				
-04				
-06				
-08				
-11				

Chemical/Reagent ID:
10% SnCl₂:

14% NH₂OH/NaCl:

Standard ID:
Standard:

ICV/CCV:

Mercury Analysis Log

Analyst: _____
Instrument: _____

Date: _____
Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
↓ -12				
SEA -COV			√ 3.85	
↓ -CCB			√ -0.02	
23D0396 -01				
↓ -03				
SEA -COV			√ 3.92	
↓ -CCB	↓	↓	√ -0.02	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(-45deg); display: flex; align-items: center; justify-content: center;"> <div style="text-align: left; padding-left: 20px;"> M 05/01/03 </div> </div>				

Chemical/Reagent ID:
10% SnCl₂: _____

14% NH₂OH/NaCl: _____

Standard ID:
Standard: _____

ICV/CCV: _____



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 7471B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Control Limit: +/- 20.00%

Sequence: SLE0012

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0012-ICV1	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLE0012-CCV1	Mercury	0.0040000	0.00409	102	mg/L	EPA 7471B
SLE0012-CCV2	Mercury	0.0040000	0.00403	101	mg/L	EPA 7471B
SLE0012-CCV3	Mercury	0.0040000	0.00406	102	mg/L	EPA 7471B
SLE0012-CCV4	Mercury	0.0040000	0.00410	102	mg/L	EPA 7471B
SLE0012-CCV5	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLE0012-CCV6	Mercury	0.0040000	0.00401	100	mg/L	EPA 7471B
SLE0012-CCV7	Mercury	0.0040000	0.00386	96.4	mg/L	EPA 7471B
SLE0012-CCV8	Mercury	0.0040000	0.00392	98.1	mg/L	EPA 7471B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Sequence: SLE0012

Date Analyzed: 05/01/23 11:32

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0012-ICB1	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB1	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB2	Mercury	-0.000020	0.000021	0.000100	mg/L	
SLE0012-CCB3	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB4	Mercury	-0.000019	0.000021	0.000100	mg/L	
SLE0012-CCB5	Mercury	-0.000021	0.000021	0.000100	mg/L	
SLE0012-CCB6	Mercury	-0.000018	0.000021	0.000100	mg/L	
SLE0012-CCB7	Mercury	-0.000021	0.000021	0.000100	mg/L	
SLE0012-CCB8	Mercury	-0.000020	0.000021	0.000100	mg/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0012

Instrument: HYDRA

Calibration: GE00003

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SLE0012-CAL1	SMM 05-01-23-001	NA	05/01/23 10:51
Cal Standard	SLE0012-CAL2	SMM 05-01-23-002	NA	05/01/23 10:53
Cal Standard	SLE0012-CAL3	SMM 05-01-23-003	NA	05/01/23 10:56
Cal Standard	SLE0012-CAL4	SMM 05-01-23-004	NA	05/01/23 10:58
Cal Standard	SLE0012-CAL5	SMM 05-01-23-005	NA	05/01/23 11:00
Cal Standard	SLE0012-CAL6	SMM 05-01-23-006	NA	05/01/23 11:03
Initial Cal Check	SLE0012-ICV1	SMM 05-01-23-007	NA	05/01/23 11:30
Initial Cal Blank	SLE0012-ICB1	SMM 05-01-23-008	NA	05/01/23 11:32
Instrument RL Check	SLE0012-CRL1	SMM 05-01-23-009	NA	05/01/23 11:34
Calibration Check	SLE0012-CCV1	SMM 05-01-23-010	NA	05/01/23 11:37
Calibration Blank	SLE0012-CCB1	SMM 05-01-23-011	NA	05/01/23 11:39
Calibration Check	SLE0012-CCV2	SMM 05-01-23-012	NA	05/01/23 11:41
Calibration Blank	SLE0012-CCB2	SMM 05-01-23-013	NA	05/01/23 11:44
Calibration Check	SLE0012-CCV3	SMM 05-01-23-014	NA	05/01/23 12:53
Calibration Blank	SLE0012-CCB3	SMM 05-01-23-015	NA	05/01/23 12:56
Calibration Check	SLE0012-CCV4	SMM 05-01-23-026	NA	05/01/23 13:21
Calibration Blank	SLE0012-CCB4	SMM 05-01-23-027	NA	05/01/23 13:24
Calibration Check	SLE0012-CCV5	SMM 05-01-23-038	NA	05/01/23 13:49
Calibration Blank	SLE0012-CCB5	SMM 05-01-23-039	NA	05/01/23 13:51
Blank	BLD0688-BLK1	SMM 05-01-23-044	Solid	05/01/23 14:03
LCS	BLD0688-BS1	SMM 05-01-23-045	Solid	05/01/23 14:06
Calibration Check	SLE0012-CCV6	SMM 05-01-23-050	NA	05/01/23 14:17
Calibration Blank	SLE0012-CCB6	SMM 05-01-23-051	NA	05/01/23 14:19
Calibration Check	SLE0012-CCV7	SMM 05-01-23-062	NA	05/01/23 14:45
Calibration Blank	SLE0012-CCB7	SMM 05-01-23-063	NA	05/01/23 14:47
LDW23-SS1801	23D0396-01	SMM 05-01-23-064	Solid	05/01/23 14:50
LDW23-SS1802	23D0396-03	SMM 05-01-23-065	Solid	05/01/23 14:52
Calibration Check	SLE0012-CCV8	SMM 05-01-23-066	NA	05/01/23 14:54
Calibration Blank	SLE0012-CCB8	SMM 05-01-23-067	NA	05/01/23 14:57



DETECTION LEVEL STANDARD
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GE00003

Sequence: SLE0012

Lab Sample ID: SLE0012-CRL1

Analyte	True	Found	%R	Units	QC Limits
Mercury	0.000100	0.000094	93.7	mg/L	70 - 130

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/27/23 15:14	15	28	05/01/23 14:50	19	28	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/27/23 15:14	15	28	05/01/23 14:52	19	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

**METHOD DETECTION
AND REPORTING LIMITS**

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: HYDRA

Analyte	MDL	RL	Units
Mercury	0.00525	0.0250	mg/kg

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGHG1
Lot Number: S2-HG711246
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Mercury
Starting Material: Hg Metal
Starting Material Lot#: 1959
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	1004 ± 6 µg/mL ICP Assay NIST SRM 3133 Lot Number: 160921
Assay Method #2	998 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000210	M Eu < 0.000210	O Na < 0.000626	M Se < 0.008100	M Zn < 0.000810
M Al < 0.000161	O Fe < 0.001600	M Nb < 0.000410	O Si < 0.000626	M Zr < 0.000410
M As < 0.002500	M Ga < 0.000210	M Nd < 0.000210	M Sm < 0.000210	
O Au < 0.001700	M Gd < 0.000210	O Ni < 0.001400	M Sn < 0.000410	
M B < 0.008500	M Ge < 0.000410	M Os < 0.003900	O Sr < 0.000110	
M Ba < 0.000210	M Hf < 0.000210	O P < 0.029000	M Ta < 0.000210	
O Be < 0.000110	s Hg < 0.000210	M Pb < 0.000210	M Tb < 0.000210	
M Bi < 0.001100	M Ho < 0.000210	M Pd < 0.003500	M Te < 0.005700	
O Ca < 0.004754	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	O Ti < 0.000430	
M Ce < 0.000210	O K < 0.000731	M Rb < 0.000210	O Tl < 0.005400	
M Co < 0.000210	M La < 0.000210	M Re < 0.000210	M Tm < 0.000210	
O Cr < 0.003300	O Li < 0.000110	M Rh < 0.001100	M U < 0.000410	
M Cs < 0.000410	M Lu < 0.000210	M Ru < 0.000810	M V < 0.000210	
M Cu < 0.000810	O Mg < 0.000104	O S < 0.022000	M W < 0.001100	
M Dy < 0.000210	O Mn < 0.000430	M Sb < 0.000210	M Y < 0.000210	
M Er < 0.000210	M Mo < 0.000210	M Sc < 0.000210	M Yb < 0.000210	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO₃. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: QCP-QCS-4
 Lot Number: R2-MEB695951
 Matrix: 7% (v/v) HNO3
 Value / Analyte(s): 5 µg/mL ea:
 Mercury

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Mercury, Hg	5.011 ± 0.023 µg/mL		

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum(w_i)^2(u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 20, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 20, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SS1801

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-01 D SDG: 23D0396
 Sampled: 04/12/23 09:56 Prepared: 04/17/23 15:18 File ID:
 % Solids: 48.05 Preparation: No Prep Wet Chem Analyzed: 04/17/23 15:20
 Batch: BLD0445 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	48.05	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1801

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0396-02 D SDG: 23D0396

Sampled: 04/12/23 10:15 Prepared: 04/17/23 15:18 File ID:

% Solids: 50.19 Preparation: No Prep Wet Chem Analyzed: 04/17/23 15:20

Batch: BLD0445 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	50.19	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SS1802

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0396-03 D SDG: 23D0396

Sampled: 04/12/23 15:03 Prepared: 04/17/23 15:18 File ID:

% Solids: 47.50 Preparation: No Prep Wet Chem Analyzed: 04/17/23 15:20

Batch: BLD0445 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	47.50	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1802

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0396-04 D SDG: 23D0396

Sampled: 04/12/23 15:40 Prepared: 04/17/23 15:18 File ID:

% Solids: 49.45 Preparation: No Prep Wet Chem Analyzed: 04/17/23 15:20

Batch: BLD0445 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	49.45	1	0.04	0.04	



PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, LLC SDG: 23D0396
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Batch: BLD0445 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01		04/17/23 15:18	
LDW23-SC1801	23D0396-02		04/17/23 15:18	
LDW23-SS1802	23D0396-03		04/17/23 15:18	
LDW23-SC1802	23D0396-04		04/17/23 15:18	
Blank	BLD0445-BLK1		04/17/23 15:18	
LDW23-SS1801	BLD0445-DUP1		04/17/23 15:18	
LDW23-SS1801	BLD0445-DUP2		04/17/23 15:18	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples											Batch: BLD0445					
Method: PSEP 1986, SM2540, EPA 160.1											Date: 4/17/2023 15:20					
(dry at 104 (12-24 hr) then combust at 550 (30 min))											Analyst: UW					
Instrumentation			Drying Ovens: 12			Analytical Balance: BAL2			Muffle Furnace: 2							
Batch drying time			TS (%) calculated as:			Oven Temps, °C			TVS (mg/kg dry wt) calculated as:							
record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)			Start Temp 105			Final ash wt (g) = (min ash wt - tare wt)							
date/time in oven: 4/17/2023 15:33			TS = (Final Dry Wt)/ (grams Sample-Tare)			Dry Cycle 1 102			TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000							
date/time out: 4/18/2023 9:30						Dry Cycle 2			if ash wt > dry wt, "Chk for Err"							
elapsed hrs = 18.0 OK						Dry Cycle 3			if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000"							
Balance Calibration Check																
Record weights to 4 places											CV-02					
Cal Weight ID:		CV-02	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02	CV-02				
Date & Time:		4/17/23 15:20	4/17/23 15:25	4/18/23 10:00												
Cal Wt (g):		10.0000	9.9999	9.9999	10.0000											
		Cal OK!	Cal OK!	Cal OK!												
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes
				1	2	3				1	2	3		(mg/kg)	(%)	
BLD0445-BLK1	46	0.8221	0.0000	0.8220			-0.0001	0.01%								
23D0357-01	47	0.8364	4.1473	1.5401			0.7037	21.25%								
23D0393-09	48	0.7919	6.1285	5.3751			4.5832	85.88%								
23D0396-01	49	0.7861	7.3163	3.9241			3.1380	48.05%								
BLD0445-DUP1	50	0.8326	8.2171	4.4042			3.5716	48.37%	RPD=0.6							
BLD0445-DUP2	51	0.7889	7.6960	4.1375			3.3486	48.48%	RSD=0.5							
23D0396-02	52	0.8364	7.4042	4.1327			3.2963	50.19%								
23D0396-03	53	0.7865	7.4981	3.9747			3.1882	47.50%								
23D0396-04	54	0.8217	6.0102	3.3874			2.5657	49.45%								

NOTE: Do not enter data in blue shaded cells as they are calculated fields. Green shaded cells MAY be altered if a reweigh is called for.

TOTAL SOLIDS (TS) BENCHSHEET for Solid samples						Batch:	BLD0746		
Method: Total Solids, Metals Correction						Date:	4/28/2023 15:50		
dry at 104°C (12-24 hr)						Analyst:	ml		
Instrumentation		Drying Oven:	7		Analytical Balance:	10			
Batch drying time				TS (%) calculated as: Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt)/ (grams Sample-Tare)					
record times as mm/dd/yy hh:mm									
date/time in oven:	4/27/2023 16:50		Temp in:					104 °C	
date/time out:	4/28/2023 15:47		Temp out:					106 °C	
elapsed hrs =	22.9	OK							
Sample ID	Tare Weight (g)	Tare + Sample Weight (g)	Tare + Sample Dry Weight @ 104°C (g)			dry Wt (g)	TS (%)	Notes	
			1	2	3				
23D0136-01	1.0050	10.0040	5.3750			4.3700	48.56%		
23D0136-03	1.0220	10.0560	5.4950			4.4730	49.51%		
23D0394-01	1.0160	10.0960	5.2190			4.2030	46.29%		
23D0394-02	1.0210	10.0190	7.5620			6.5410	72.69%		
23D0394-03	1.0200	10.0520	7.4960			6.4760	71.70%		
23D0394-04	1.0040	10.0360	7.5750			6.5710	72.75%		
23D0394-05	1.0230	10.0090	5.4400			4.4170	49.15%		
23D0394-06	1.0160	10.0650	9.2290			8.2130	90.76%		
23D0394-07	1.0080	10.0700	8.8200			7.8120	86.21%		
23D0394-08	1.0000	10.0720	7.9530			6.9530	76.64%		
23D0394-09	0.9850	10.0430	8.2160			7.2310	79.83%		
23D0394-10	1.0250	10.0890	8.0580			7.0330	77.59%		
23D0394-11	1.0030	10.0130	7.5760			6.5730	72.95%		
23D0394-12	0.9980	10.0480	7.9510			6.9530	76.83%		
23D0394-13	0.9850	10.0730	7.6270			6.6420	73.09%		
23D0396-01	1.0090	10.0260	5.3790			4.3700	48.46%		
23D0396-03	0.9860	10.0260	5.2990			4.3130	47.71%		
23D0420-01	1.0060	10.0250	9.8650			8.8590	98.23%		
23D0421-01	1.0210	10.0060	9.9270			8.9060	99.12%		



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0445

Laboratory ID: BLD0445-BLK1

Prepared: 04/17/23 15:18

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 04/17/23 15:20

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0445-DUP1

Batch: BLD0445

Lab Source ID: 23D0396-01

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW23-SS1801

% Solids: 48.05

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	48.05	48.37	0.648	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLD0445-DUP2

Batch: BLD0445

Lab Source ID: 23D0396-01

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW23-SS1801

% Solids: 48.05

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	48.05	48.48	0.884	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/17/23 15:18	5	28	04/17/23 15:20	5	28	
LDW23-SC1801 23D0396-02	04/12/23 10:15	04/12/23 16:32	04/17/23 15:18	5	28	04/17/23 15:20	5	28	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/17/23 15:18	5	28	04/17/23 15:20	5	28	
LDW23-SC1802 23D0396-04	04/12/23 15:40	04/12/23 16:32	04/17/23 15:18	4	28	04/17/23 15:20	5	28	
Duplicate BLD0445-DUP1	04/12/23 09:56	04/12/23 16:32	04/17/23 15:18	5	28	04/17/23 15:20	5	28	
Duplicate BLD0445-DUP2	04/12/23 09:56	04/12/23 16:32	04/17/23 15:18	5	28	04/17/23 15:20	5	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%



Form I
INORGANIC ANALYSIS DATA SHEET

LDW23-SS1801

EPA 6020B

Total Metals

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23D0396-01 C

SDG: 23D0396

Sampled: 04/12/23 09:56

Prepared: 04/28/23 15:38

File ID: XDT_m1230511-127

% Solids: 48.05

Preparation: SWN EPA 3050B

Analyzed: 05/11/23 22:44

Batch: BLD0687

Sequence: SLE0209

Initial/Final: 1.033 g Wet / 50 mL

Instrument: ICPMS1

Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	28.8	20	0.52	1.01	
7439-92-1	Lead	30.4	20	0.10	0.20	
7440-22-4	Silver	0.32	20	0.04	0.40	J



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SS1802

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-03 C SDG: 23D0396
 Sampled: 04/12/23 15:03 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-128
 % Solids: 47.50 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:48
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.02 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	28.9	20	0.54	1.03	
7439-92-1	Lead	28.8	20	0.11	0.21	
7440-22-4	Silver	0.28	20	0.05	0.41	J



Digestion Log

Analyst: AR Date: 04/28/23 Time: 1016-1538 Balance ID: 3AL10
Matrix: soil Block ID: 16 Block Temp: 96C Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWW</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23D136-01	C	|	1.003	50			
↓ -03	↓	|	1.002				
23D394-01	↓	|	1.018				
↓ -02	B	|	1.051				
↓ -03	↓	|	1.058				
↓ -04	C	|	1.065				
↓ -05		|	1.012				
↓ -06		|	1.074				
↓ -07		|	1.019				
↓ -08		|	1.039				
↓ -09		|	1.018				
↓ -10		|	1.036				
↓ -11	↓	|	1.033				
↓ -12	B	|	1.008				
↓ -13	C	|	1.087				
23D394-01	↓	|	1.033				
↓ -03	↓	|	1.020				
BLD087-blk	-	|	-				23D394-01
↓ -bs	-	|	-				↓
↓ -dup	-	|	1.016				
↓ -MS	-	|	1.019				
↓ -MSD	-	|	1.014				
23D37-02	D	|	1.063				
↓ -04	↓	|	1.012	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO₃: L4188 1:1 HNO₃: L4206 HCl: — H₂O₂: K1056
Tube Lot#: 221017 Boiling Chip Lot#: — (DoD Only)



Form I
METHOD BLANK DATA SHEET
EPA 6020B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK1

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/09/23 21:43

Sequence: SLE0163

Calibration: GE00034

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	20	0.26	0.50	U
7439-92-1	Lead-208	ND	20	0.05	0.10	U



Form I
METHOD BLANK DATA SHEET
EPA 6020B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK2

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/10/23 17:54

Sequence: SLE0204

Calibration: GE00040

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver-107	ND	20	0.02	0.20	U



LCS / LCS DUPLICATE RECOVERY

EPA 6020B

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/09/23 21:48</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52	25.0	25.6		102	80 - 120
Lead-208	25.0	27.6		110	80 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY

EPA 6020B

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/10/23 18:05</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Silver-107	25.0	25.1		101	80 - 120

* Indicates values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-ICV1	Chromium-52	50.000	49.9	99.8	ug/L	EPA 6020B
	Chromium-53	50.000	51.3	103	ug/L	EPA 6020B
	Lead-208	50.000	51.5	103	ug/L	EPA 6020B
	Silver-107	50.000	51.7	103	ug/L	EPA 6020B
SLE0163-CCV1	Chromium-52	50.000	49.1	98.2	ug/L	EPA 6020B
	Chromium-53	50.000	51.6	103	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
	Silver-107	50.000	50.0	100	ug/L	EPA 6020B
SLE0163-CCV2	Chromium-52	50.000	48.9	97.9	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	47.4	94.7	ug/L	EPA 6020B
SLE0163-CCV3	Chromium-52	50.000	48.4	96.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	53.8	108	ug/L	EPA 6020B
	Silver-107	50.000	45.0	90.0	ug/L	EPA 6020B
SLE0163-CCV4	Chromium-52	50.000	48.4	96.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	52.1	104	ug/L	EPA 6020B
	Silver-107	50.000	45.3	90.7	ug/L	EPA 6020B
SLE0163-CCV5	Chromium-52	50.000	48.2	96.4	ug/L	EPA 6020B
	Chromium-53	50.000	49.7	99.5	ug/L	EPA 6020B
	Lead-208	50.000	53.1	106	ug/L	EPA 6020B
	Silver-107	50.000	45.2	90.4	ug/L	EPA 6020B
SLE0163-CCV6	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.3	101	ug/L	EPA 6020B
	Lead-208	50.000	53.0	106	ug/L	EPA 6020B
	Silver-107	50.000	47.0	94.1	ug/L	EPA 6020B
SLE0163-CCV7	Chromium-52	50.000	48.4	96.9	ug/L	EPA 6020B
	Chromium-53	50.000	50.5	101	ug/L	EPA 6020B
	Lead-208	50.000	51.0	102	ug/L	EPA 6020B
SLE0163-CCV8	Chromium-52	50.000	48.7	97.5	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	52.6	105	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV9	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	52.4	105	ug/L	EPA 6020B
SLE0163-CCVA	Chromium-52	50.000	48.9	97.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	51.3	103	ug/L	EPA 6020B
SLE0163-CCVB	Chromium-52	50.000	49.1	98.3	ug/L	EPA 6020B
	Chromium-53	50.000	51.1	102	ug/L	EPA 6020B
	Lead-208	50.000	52.3	105	ug/L	EPA 6020B
SLE0163-CCVC	Chromium-52	50.000	48.3	96.6	ug/L	EPA 6020B
	Chromium-53	50.000	49.9	99.7	ug/L	EPA 6020B
	Lead-208	50.000	56.3	113	ug/L	EPA 6020B
SLE0163-CCVD	Chromium-52	50.000	48.0	96.0	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	53.8	108	ug/L	EPA 6020B
SLE0163-CCVE	Chromium-52	50.000	48.6	97.3	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	54.9	110	ug/L	EPA 6020B
SLE0163-CCVF	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	54.3	109	ug/L	EPA 6020B

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-ICV1	Chromium-52	50.000	52.9	106	ug/L	EPA 6020B
	Chromium-53	50.000	51.3	103	ug/L	EPA 6020B
	Lead-208	50.000	52.6	105	ug/L	EPA 6020B
	Silver-107	50.000	50.8	102	ug/L	EPA 6020B
SLE0204-CCV1	Chromium-52	50.000	51.5	103	ug/L	EPA 6020B
	Chromium-53	50.000	50.5	101	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	50.1	100	ug/L	EPA 6020B
SLE0204-CCV2	Chromium-52	50.000	49.6	99.2	ug/L	EPA 6020B
	Chromium-53	50.000	49.3	98.6	ug/L	EPA 6020B
	Lead-208	50.000	50.8	102	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
SLE0204-CCV3	Chromium-52	50.000	50.1	100	ug/L	EPA 6020B
	Chromium-53	50.000	49.4	98.7	ug/L	EPA 6020B
	Lead-208	50.000	50.4	101	ug/L	EPA 6020B
	Silver-107	50.000	49.2	98.5	ug/L	EPA 6020B
SLE0204-CCV4	Chromium-52	50.000	50.6	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.0	ug/L	EPA 6020B
	Lead-208	50.000	51.7	103	ug/L	EPA 6020B
	Silver-107	50.000	49.8	99.6	ug/L	EPA 6020B
SLE0204-CCV5	Chromium-52	50.000	51.1	102	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	98.9	ug/L	EPA 6020B
	Lead-208	50.000	52.8	106	ug/L	EPA 6020B
	Silver-107	50.000	48.1	96.2	ug/L	EPA 6020B
SLE0204-CCV6	Chromium-52	50.000	49.2	98.3	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	49.6	99.2	ug/L	EPA 6020B
	Silver-107	50.000	47.6	95.1	ug/L	EPA 6020B
SLE0204-CCV7	Chromium-52	50.000	49.7	99.4	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.8	ug/L	EPA 6020B
	Lead-208	50.000	50.5	101	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B
SLE0204-CCV8	Chromium-52	50.000	50.7	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.7	99.4	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV8	Lead-208	50.000	50.1	100	ug/L	EPA 6020B
	Silver-107	50.000	49.5	99.1	ug/L	EPA 6020B
SLE0204-CCV9	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.8	ug/L	EPA 6020B
	Lead-208	50.000	52.2	104	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
SLE0204-CCVA	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
	Chromium-53	50.000	49.4	98.7	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	48.9	97.9	ug/L	EPA 6020B
SLE0204-CCVB	Chromium-52	50.000	50.3	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.0	98.1	ug/L	EPA 6020B
	Lead-208	50.000	51.7	103	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
SLE0204-CCVC	Chromium-52	50.000	49.0	98.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.7	ug/L	EPA 6020B
	Lead-208	50.000	51.2	102	ug/L	EPA 6020B
	Silver-107	50.000	48.1	96.2	ug/L	EPA 6020B
SLE0204-CCVD	Chromium-52	50.000	49.9	99.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.9	97.8	ug/L	EPA 6020B
	Lead-208	50.000	53.3	107	ug/L	EPA 6020B
	Silver-107	50.000	46.0	92.1	ug/L	EPA 6020B
SLE0204-CCVE	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.3	ug/L	EPA 6020B
	Lead-208	50.000	54.9	110	ug/L	EPA 6020B
	Silver-107	50.000	46.3	92.6	ug/L	EPA 6020B
SLE0204-CCVF	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
	Chromium-53	50.000	47.7	95.4	ug/L	EPA 6020B
	Lead-208	50.000	55.3	111	ug/L	EPA 6020B
	Silver-107	50.000	45.7	91.5	ug/L	EPA 6020B
SLE0204-CCVG	Chromium-52	50.000	49.5	99.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.8	97.5	ug/L	EPA 6020B
	Lead-208	50.000	55.0	110	ug/L	EPA 6020B
	Silver-107	50.000	46.7	93.3	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCVH	Chromium-52	50.000	49.5	99.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.7	ug/L	EPA 6020B
	Lead-208	50.000	55.5	111	ug/L	EPA 6020B
	Silver-107	50.000	46.7	93.4	ug/L	EPA 6020B
SLE0204-CCVI	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.6	ug/L	EPA 6020B
	Lead-208	50.000	54.3	109	ug/L	EPA 6020B
	Silver-107	50.000	46.8	93.5	ug/L	EPA 6020B
SLE0204-CCVJ	Chromium-52	50.000	49.8	99.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.3	98.5	ug/L	EPA 6020B
	Lead-208	50.000	55.8	112	ug/L	EPA 6020B
	Silver-107	50.000	45.7	91.4	ug/L	EPA 6020B

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-ICV1	Chromium-52	50.000	51.3	103	ug/L	EPA 6020B
	Chromium-53	50.000	51.2	102	ug/L	EPA 6020B
	Lead-208	50.000	51.4	103	ug/L	EPA 6020B
	Silver-107	50.000	51.0	102	ug/L	EPA 6020B
SLE0209-CCV1	Chromium-52	50.000	49.3	98.5	ug/L	EPA 6020B
	Chromium-53	50.000	48.7	97.4	ug/L	EPA 6020B
	Lead-208	50.000	49.4	98.9	ug/L	EPA 6020B
	Silver-107	50.000	50.0	100	ug/L	EPA 6020B
SLE0209-CCV2	Chromium-52	50.000	48.9	97.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.9	97.8	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.8	ug/L	EPA 6020B
	Silver-107	50.000	49.9	99.9	ug/L	EPA 6020B
SLE0209-CCV3	Chromium-52	50.000	48.7	97.4	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.0	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.3	ug/L	EPA 6020B
	Silver-107	50.000	51.2	102	ug/L	EPA 6020B
SLE0209-CCV4	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.7	ug/L	EPA 6020B
	Silver-107	50.000	50.2	100	ug/L	EPA 6020B
SLE0209-CCV5	Lead-208	50.000	50.9	102	ug/L	EPA 6020B
SLE0209-CCV6	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
SLE0209-CCV7	Chromium-52	50.000	46.9	93.7	ug/L	EPA 6020B
	Chromium-53	50.000	47.4	94.9	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.1	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.5	ug/L	EPA 6020B
SLE0209-CCV8	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.7	97.5	ug/L	EPA 6020B
	Lead-208	50.000	49.5	99.0	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
SLE0209-CCVA	Chromium-52	50.000	47.9	95.8	ug/L	EPA 6020B
	Chromium-53	50.000	48.3	96.6	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.0	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVB	Chromium-52	50.000	47.8	95.6	ug/L	EPA 6020B
	Chromium-53	50.000	47.8	95.6	ug/L	EPA 6020B
	Lead-208	50.000	49.0	97.9	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B
SLE0209-CCVC	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	48.9	97.7	ug/L	EPA 6020B
	Lead-208	50.000	48.5	96.9	ug/L	EPA 6020B
	Silver-107	50.000	49.2	98.4	ug/L	EPA 6020B
SLE0209-CCVD	Chromium-52	50.000	47.5	95.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.0	96.0	ug/L	EPA 6020B
	Lead-208	50.000	49.1	98.2	ug/L	EPA 6020B
	Silver-107	50.000	50.4	101	ug/L	EPA 6020B
SLE0209-CCVE	Chromium-52	50.000	48.6	97.2	ug/L	EPA 6020B
	Chromium-53	50.000	48.2	96.3	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.0	ug/L	EPA 6020B
SLE0209-CCVF	Chromium-52	50.000	48.5	97.0	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	97.0	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B
SLE0209-CCVG	Chromium-52	50.000	48.0	96.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.3	ug/L	EPA 6020B
	Lead-208	50.000	49.5	98.9	ug/L	EPA 6020B
	Silver-107	50.000	48.9	97.8	ug/L	EPA 6020B
SLE0209-CCVH	Chromium-52	50.000	48.0	95.9	ug/L	EPA 6020B
	Chromium-53	50.000	47.9	95.8	ug/L	EPA 6020B
	Lead-208	50.000	50.7	101	ug/L	EPA 6020B
	Silver-107	50.000	49.5	99.1	ug/L	EPA 6020B
SLE0209-CCVI	Chromium-52	50.000	48.5	97.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.1	ug/L	EPA 6020B
	Lead-208	50.000	50.7	101	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.4	ug/L	EPA 6020B
SLE0209-CCVJ	Chromium-52	50.000	48.2	96.4	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	96.9	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVJ	Lead-208	50.000	51.3	103	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.3	ug/L	EPA 6020B
SLE0209-CCVK	Chromium-52	50.000	47.3	94.7	ug/L	EPA 6020B
	Chromium-53	50.000	47.1	94.3	ug/L	EPA 6020B
	Lead-208	50.000	52.1	104	ug/L	EPA 6020B
SLE0209-CCVL	Silver-107	50.000	47.2	94.4	ug/L	EPA 6020B
	Chromium-52	50.000	46.5	92.9	ug/L	EPA 6020B
SLE0209-CCVL	Chromium-53	50.000	46.7	93.3	ug/L	EPA 6020B
	Lead-208	50.000	53.3	107	ug/L	EPA 6020B
	Silver-107	50.000	47.2	94.4	ug/L	EPA 6020B
	Chromium-52	50.000	46.3	92.7	ug/L	EPA 6020B
SLE0209-CCVM	Chromium-53	50.000	46.3	92.5	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	48.4	96.7	ug/L	EPA 6020B
	Chromium-52	50.000	43.3	86.6	ug/L	EPA 6020B
SLE0209-CCVN	Chromium-53	50.000	42.9	85.8	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
	Chromium-52	50.000	43.1	86.1	ug/L	EPA 6020B
SLE0209-CCVO	Chromium-53	50.000	42.5	85.1	ug/L	EPA 6020B
	Lead-208	50.000	52.0	104	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.0	ug/L	EPA 6020B
	Chromium-52	50.000	43.1	86.3	ug/L	EPA 6020B
SLE0209-CCVP	Chromium-53	50.000	42.5	85.1	ug/L	EPA 6020B
	Lead-208	50.000	55.5	111	ug/L	EPA 6020B
	Silver-107	50.000	48.3	96.5	ug/L	EPA 6020B
	Chromium-52	50.000	43.1	86.3	ug/L	EPA 6020B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 15:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL1	Chromium-52	0.00200	0.26	0.500	ug/L	
SLE0163-IBL1	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-IBL1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL1	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0163-ICB1	Chromium-52	-0.0120	0.26	0.500	ug/L	
SLE0163-ICB1	Chromium-53	-0.0200	0.239	0.500	ug/L	
SLE0163-ICB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-ICB1	Silver-107	0.00	0.022	0.200	ug/L	
SLE0163-CCB1	Chromium-52	0.00100	0.26	0.500	ug/L	
SLE0163-CCB1	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLE0163-CCB1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-CCB1	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-IBL2	Chromium-52	-0.0300	0.26	0.500	ug/L	
SLE0163-IBL2	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0163-IBL2	Lead-208	0.00700	0.0513	0.100	ug/L	
SLE0163-IBL2	Silver-107	0.0110	0.022	0.200	ug/L	
SLE0163-IBL3	Chromium-52	-0.0100	0.26	0.500	ug/L	
SLE0163-IBL3	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0163-IBL3	Lead-208	0.00500	0.0513	0.100	ug/L	
SLE0163-IBL3	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0163-CCB2	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0163-CCB2	Chromium-53	-0.0290	0.239	0.500	ug/L	
SLE0163-CCB2	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-CCB2	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0163-IBL4	Chromium-52	0.139	0.26	0.500	ug/L	
SLE0163-IBL4	Chromium-53	-0.0230	0.239	0.500	ug/L	
SLE0163-IBL4	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL4	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0163-IBL5	Chromium-52	-0.0380	0.26	0.500	ug/L	
SLE0163-IBL5	Chromium-53	-0.0340	0.239	0.500	ug/L	
SLE0163-IBL5	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL5	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0163-CCB3	Chromium-52	-0.0300	0.26	0.500	ug/L	
SLE0163-CCB3	Chromium-53	-0.0480	0.239	0.500	ug/L	
SLE0163-CCB3	Lead-208	0.00400	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 18:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCB3	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-CCB4	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-CCB4	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0163-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-IBL6	Chromium-52	0.186	0.26	0.500	ug/L	
SLE0163-IBL6	Chromium-53	0.0140	0.239	0.500	ug/L	
SLE0163-IBL6	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBL6	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-CCB5	Chromium-52	-0.0110	0.26	0.500	ug/L	
SLE0163-CCB5	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0163-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB5	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0163-IBL7	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0163-IBL7	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0163-IBL7	Lead-208	0.00500	0.0513	0.100	ug/L	
SLE0163-IBL7	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0163-CCB6	Chromium-52	0.00700	0.26	0.500	ug/L	
SLE0163-CCB6	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLE0163-CCB6	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0163-CCB6	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0163-CCB7	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0163-CCB7	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0163-CCB7	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL8	Chromium-52	0.0840	0.26	0.500	ug/L	
SLE0163-IBL8	Chromium-53	0.0180	0.239	0.500	ug/L	
SLE0163-IBL8	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCB8	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-CCB8	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0163-CCB8	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBL9	Chromium-52	0.0680	0.26	0.500	ug/L	
SLE0163-IBL9	Chromium-53	0.0370	0.239	0.500	ug/L	
SLE0163-IBL9	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-CCB9	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0163-CCB9	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0163-CCB9	Lead-208	0.00200	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 00:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBLA	Chromium-52	0.00500	0.26	0.500	ug/L	
SLE0163-IBLA	Chromium-53	0.0140	0.239	0.500	ug/L	
SLE0163-IBLA	Lead-208	0.0190	0.0513	0.100	ug/L	
SLE0163-CCBA	Chromium-52	0.0260	0.26	0.500	ug/L	
SLE0163-CCBA	Chromium-53	0.0110	0.239	0.500	ug/L	
SLE0163-CCBA	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-IBLB	Chromium-52	-0.00800	0.26	0.500	ug/L	
SLE0163-IBLB	Chromium-53	0.00	0.239	0.500	ug/L	
SLE0163-IBLB	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0163-CCBB	Chromium-52	0.0720	0.26	0.500	ug/L	
SLE0163-CCBB	Chromium-53	0.0430	0.239	0.500	ug/L	
SLE0163-CCBB	Lead-208	0.0710	0.0513	0.100	ug/L	
SLE0163-IBLC	Chromium-52	0.0480	0.26	0.500	ug/L	
SLE0163-IBLC	Chromium-53	0.0230	0.239	0.500	ug/L	
SLE0163-IBLC	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-IBLD	Chromium-52	0.106	0.26	0.500	ug/L	
SLE0163-IBLD	Chromium-53	0.0450	0.239	0.500	ug/L	
SLE0163-IBLD	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCBC	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0163-CCBC	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0163-CCBC	Lead-208	0.00600	0.0513	0.100	ug/L	
SLE0163-IBLE	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0163-IBLE	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0163-IBLE	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-IBLF	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0163-IBLF	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-IBLF	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0163-CCBD	Chromium-52	-0.00900	0.26	0.500	ug/L	
SLE0163-CCBD	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0163-CCBD	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBLG	Chromium-52	0.0120	0.26	0.500	ug/L	
SLE0163-IBLG	Chromium-53	0.0150	0.239	0.500	ug/L	
SLE0163-IBLG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0163-IBLH	Chromium-52	0.0300	0.26	0.500	ug/L	
SLE0163-IBLH	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0163-IBLH	Lead-208	0.00	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 04:07

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBE	Chromium-52	0.0280	0.26	0.500	ug/L	
SLE0163-CCBE	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0163-CCBE	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0163-IBLI	Chromium-52	0.0200	0.26	0.500	ug/L	
SLE0163-IBLI	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0163-IBLI	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0163-CCBF	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0163-CCBF	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0163-CCBF	Lead-208	0.00200	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 16:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL1	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0204-IBL1	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0204-IBL1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-IBL1	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0204-ICB1	Chromium-52	0.0170	0.26	0.500	ug/L	
SLE0204-ICB1	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0204-ICB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-ICB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB1	Chromium-52	0.00600	0.26	0.500	ug/L	
SLE0204-CCB1	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-CCB1	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-CCB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBL2	Chromium-52	0.0130	0.26	0.500	ug/L	
SLE0204-IBL2	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0204-IBL2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0204-IBL2	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0204-CCB2	Chromium-52	0.0230	0.26	0.500	ug/L	
SLE0204-CCB2	Chromium-53	0.0280	0.239	0.500	ug/L	
SLE0204-CCB2	Lead-208	0.0300	0.0513	0.100	ug/L	
SLE0204-CCB2	Silver-107	0.0300	0.022	0.200	ug/L	
SLE0204-CCB3	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0204-CCB3	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCB3	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-CCB3	Silver-107	0.00600	0.022	0.200	ug/L	
SLE0204-IBL3	Chromium-52	-0.0220	0.26	0.500	ug/L	
SLE0204-IBL3	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLE0204-IBL3	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-IBL3	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCB4	Chromium-52	-0.0320	0.26	0.500	ug/L	
SLE0204-CCB4	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0204-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBL4	Chromium-52	-0.00700	0.26	0.500	ug/L	
SLE0204-IBL4	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0204-IBL4	Lead-208	0.00400	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 19:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL4	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-IBL5	Chromium-52	0.0360	0.26	0.500	ug/L	
SLE0204-IBL5	Chromium-53	0.0240	0.239	0.500	ug/L	
SLE0204-IBL5	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0204-IBL5	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCB5	Chromium-52	-0.0410	0.26	0.500	ug/L	
SLE0204-CCB5	Chromium-53	-0.0180	0.239	0.500	ug/L	
SLE0204-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB5	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCB6	Chromium-52	-0.0280	0.26	0.500	ug/L	
SLE0204-CCB6	Chromium-53	-0.0190	0.239	0.500	ug/L	
SLE0204-CCB6	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB6	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0204-IBL6	Chromium-52	-0.0170	0.26	0.500	ug/L	
SLE0204-IBL6	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0204-IBL6	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBL6	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB7	Chromium-52	-0.00900	0.26	0.500	ug/L	
SLE0204-CCB7	Chromium-53	0.0110	0.239	0.500	ug/L	
SLE0204-CCB7	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCB7	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBL7	Chromium-52	-0.0510	0.26	0.500	ug/L	
SLE0204-IBL7	Chromium-53	-0.0130	0.239	0.500	ug/L	
SLE0204-IBL7	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBL7	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-CCB8	Chromium-52	-0.0260	0.26	0.500	ug/L	
SLE0204-CCB8	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-CCB8	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-CCB8	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBL8	Chromium-52	0.0300	0.26	0.500	ug/L	
SLE0204-IBL8	Chromium-53	0.0250	0.239	0.500	ug/L	
SLE0204-IBL8	Lead-208	0.275	0.0513	0.100	ug/L	
SLE0204-IBL8	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0204-CCB9	Chromium-52	-0.0280	0.26	0.500	ug/L	
SLE0204-CCB9	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLE0204-CCB9	Lead-208	0.00700	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 23:28

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB9	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBL9	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0204-IBL9	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-IBL9	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-IBL9	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBA	Chromium-52	-0.0330	0.26	0.500	ug/L	
SLE0204-CCBA	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBA	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0204-CCBA	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBLA	Chromium-52	-0.0310	0.26	0.500	ug/L	
SLE0204-IBLA	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0204-IBLA	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0204-IBLA	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBB	Chromium-52	-0.0160	0.26	0.500	ug/L	
SLE0204-CCBB	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLE0204-CCBB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCBB	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCBC	Chromium-52	0.0180	0.26	0.500	ug/L	
SLE0204-CCBC	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0204-CCBC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0204-CCBC	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-IBLB	Chromium-52	-0.0440	0.26	0.500	ug/L	
SLE0204-IBLB	Chromium-53	0.00800	0.239	0.500	ug/L	
SLE0204-IBLB	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBLB	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBD	Chromium-52	-0.0360	0.26	0.500	ug/L	
SLE0204-CCBD	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBD	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBD	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLC	Chromium-52	0.0230	0.26	0.500	ug/L	
SLE0204-IBLC	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-IBLC	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0204-IBLC	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-IBLD	Chromium-52	-0.0450	0.26	0.500	ug/L	
SLE0204-IBLD	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0204-IBLD	Lead-208	-0.00100	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 03:20

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLD	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBE	Chromium-52	-0.0500	0.26	0.500	ug/L	
SLE0204-CCBE	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLE0204-CCBE	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0204-CCBE	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0204-IBLE	Chromium-52	-0.0460	0.26	0.500	ug/L	
SLE0204-IBLE	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0204-IBLE	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLE	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-IBLF	Chromium-52	-0.0490	0.26	0.500	ug/L	
SLE0204-IBLF	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLE0204-IBLF	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0204-CCBF	Chromium-52	-0.0610	0.26	0.500	ug/L	
SLE0204-CCBF	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0204-CCBF	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBF	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-CCBG	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0204-CCBG	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0204-CCBG	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBG	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLG	Chromium-52	0.0210	0.26	0.500	ug/L	
SLE0204-IBLG	Chromium-53	0.00400	0.239	0.500	ug/L	
SLE0204-IBLG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0204-IBLG	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0204-CCBH	Chromium-52	-0.00600	0.26	0.500	ug/L	
SLE0204-CCBH	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0204-CCBH	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBH	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLH	Chromium-52	0.0130	0.26	0.500	ug/L	
SLE0204-IBLH	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0204-IBLH	Lead-208	-0.00400	0.0513	0.100	ug/L	
SLE0204-IBLH	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBI	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0204-CCBI	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0204-CCBI	Lead-208	-0.00300	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 06:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBI	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0204-IBLI	Chromium-52	0.0160	0.26	0.500	ug/L	
SLE0204-IBLI	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0204-IBLI	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLI	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-IBLJ	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0204-IBLJ	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0204-IBLJ	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-IBLJ	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0204-CCBJ	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0204-CCBJ	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0204-CCBJ	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0204-CCBJ	Silver-107	0.00100	0.022	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 14:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL1	Chromium-52	0.0410	0.26	0.500	ug/L	
SLE0209-IBL1	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0209-IBL1	Lead-208	0.0180	0.0513	0.100	ug/L	
SLE0209-IBL1	Silver-107	0.0350	0.022	0.200	ug/L	
SLE0209-ICB1	Chromium-52	0.0310	0.26	0.500	ug/L	
SLE0209-ICB1	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLE0209-ICB1	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-ICB1	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0209-CCB1	Chromium-52	0.00200	0.26	0.500	ug/L	
SLE0209-CCB1	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0209-CCB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB1	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0209-IBL2	Chromium-52	0.0290	0.26	0.500	ug/L	
SLE0209-IBL2	Chromium-53	0.0330	0.239	0.500	ug/L	
SLE0209-IBL2	Lead-208	0.00700	0.0513	0.100	ug/L	
SLE0209-IBL2	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0209-IBL3	Chromium-52	0.0330	0.26	0.500	ug/L	
SLE0209-IBL3	Chromium-53	0.0220	0.239	0.500	ug/L	
SLE0209-IBL3	Lead-208	0.00600	0.0513	0.100	ug/L	
SLE0209-IBL3	Silver-107	0.00300	0.022	0.200	ug/L	
SLE0209-CCB2	Chromium-52	0.0150	0.26	0.500	ug/L	
SLE0209-CCB2	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0209-CCB2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-CCB2	Silver-107	0.00400	0.022	0.200	ug/L	
SLE0209-CCB3	Chromium-52	-0.0180	0.26	0.500	ug/L	
SLE0209-CCB3	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0209-CCB3	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB3	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBL4	Chromium-52	0.140	0.26	0.500	ug/L	
SLE0209-IBL4	Chromium-53	0.0650	0.239	0.500	ug/L	
SLE0209-IBL4	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-IBL4	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBL5	Chromium-52	0.100	0.26	0.500	ug/L	
SLE0209-IBL5	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0209-IBL5	Lead-208	0.00300	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 17:21

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL5	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCB4	Chromium-52	0.00300	0.26	0.500	ug/L	
SLE0209-CCB4	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLE0209-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBL6	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBL7	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL8	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCB6	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL9	Chromium-52	0.0410	0.26	0.500	ug/L	
SLE0209-IBL9	Chromium-53	0.00600	0.239	0.500	ug/L	
SLE0209-IBL9	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBL9	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-IBLA	Chromium-52	0.0520	0.26	0.500	ug/L	
SLE0209-IBLA	Chromium-53	0.125	0.239	0.500	ug/L	
SLE0209-IBLA	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLA	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCB7	Chromium-52	0.0560	0.26	0.500	ug/L	
SLE0209-CCB7	Chromium-53	0.0220	0.239	0.500	ug/L	
SLE0209-CCB7	Lead-208	0.0110	0.0513	0.100	ug/L	
SLE0209-CCB7	Silver-107	0.0100	0.022	0.200	ug/L	
SLE0209-CCB8	Chromium-52	-0.0190	0.26	0.500	ug/L	
SLE0209-CCB8	Chromium-53	-0.0160	0.239	0.500	ug/L	
SLE0209-CCB8	Lead-208	0.0100	0.0513	0.100	ug/L	
SLE0209-CCB8	Silver-107	0.00800	0.022	0.200	ug/L	
SLE0209-CCBA	Chromium-52	0.00900	0.26	0.500	ug/L	
SLE0209-CCBA	Chromium-53	0.0230	0.239	0.500	ug/L	
SLE0209-CCBA	Lead-208	0.0170	0.0513	0.100	ug/L	
SLE0209-CCBA	Silver-107	0.0220	0.022	0.200	ug/L	
SLE0209-IBLC	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0209-IBLC	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-IBLC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLC	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLD	Chromium-52	-0.0200	0.26	0.500	ug/L	
SLE0209-IBLD	Chromium-53	-0.00800	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 20:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLD	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-IBLD	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBB	Chromium-52	0.00	0.26	0.500	ug/L	
SLE0209-CCBB	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0209-CCBB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBB	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLE	Chromium-52	-0.0100	0.26	0.500	ug/L	
SLE0209-IBLE	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLE0209-IBLE	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-IBLE	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLF	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0209-IBLF	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLE0209-IBLF	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBC	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0209-CCBC	Chromium-53	-0.0200	0.239	0.500	ug/L	
SLE0209-CCBC	Lead-208	0.00300	0.0513	0.100	ug/L	
SLE0209-CCBC	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBD	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBD	Chromium-53	0.00700	0.239	0.500	ug/L	
SLE0209-CCBD	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBD	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLG	Chromium-52	0.0110	0.26	0.500	ug/L	
SLE0209-IBLG	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLE0209-IBLG	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLG	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBE	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBE	Chromium-53	0.00	0.239	0.500	ug/L	
SLE0209-CCBE	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBE	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLH	Chromium-52	0.00400	0.26	0.500	ug/L	
SLE0209-IBLH	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLE0209-IBLH	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLH	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBF	Chromium-52	0.00100	0.26	0.500	ug/L	
SLE0209-CCBF	Chromium-53	0.00	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 00:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBF	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBF	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLI	Chromium-52	0.0220	0.26	0.500	ug/L	
SLE0209-IBLI	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLE0209-IBLI	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-IBLI	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBG	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLE0209-CCBG	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLE0209-CCBG	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBG	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLJ	Chromium-52	0.00300	0.26	0.500	ug/L	
SLE0209-IBLJ	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLE0209-IBLJ	Lead-208	0.00200	0.0513	0.100	ug/L	
SLE0209-IBLJ	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBH	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0209-CCBH	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-CCBH	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBH	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLK	Chromium-52	0.00700	0.26	0.500	ug/L	
SLE0209-IBLK	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLE0209-IBLK	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-IBLK	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLL	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLE0209-IBLL	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0209-IBLL	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLL	Silver-107	-0.00200	0.022	0.200	ug/L	
SLE0209-CCBI	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLE0209-CCBI	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLE0209-CCBI	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBI	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBJ	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLE0209-CCBJ	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLE0209-CCBJ	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBJ	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLM	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLE0209-IBLM	Chromium-53	-0.00600	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 03:46

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLM	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLM	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-IBLN	Chromium-52	0.0370	0.26	0.500	ug/L	
SLE0209-IBLN	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0209-IBLN	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLN	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-CCBK	Chromium-52	-0.00600	0.26	0.500	ug/L	
SLE0209-CCBK	Chromium-53	0.00200	0.239	0.500	ug/L	
SLE0209-CCBK	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBK	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLO	Chromium-52	0.0140	0.26	0.500	ug/L	
SLE0209-IBLO	Chromium-53	0.00500	0.239	0.500	ug/L	
SLE0209-IBLO	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLO	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBL	Chromium-52	-0.0270	0.26	0.500	ug/L	
SLE0209-CCBL	Chromium-53	0.00100	0.239	0.500	ug/L	
SLE0209-CCBL	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBL	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBLP	Chromium-52	0.0420	0.26	0.500	ug/L	
SLE0209-IBLP	Chromium-53	0.566	0.239	0.500	ug/L	
SLE0209-IBLP	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-IBLP	Silver-107	0.00	0.022	0.200	ug/L	
SLE0209-CCBM	Chromium-52	-0.0220	0.26	0.500	ug/L	
SLE0209-CCBM	Chromium-53	0.321	0.239	0.500	ug/L	
SLE0209-CCBM	Lead-208	0.00100	0.0513	0.100	ug/L	
SLE0209-CCBM	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-IBLQ	Chromium-52	-0.0420	0.26	0.500	ug/L	
SLE0209-IBLQ	Chromium-53	0.192	0.239	0.500	ug/L	
SLE0209-IBLQ	Lead-208	-0.00200	0.0513	0.100	ug/L	
SLE0209-IBLQ	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-IBLR	Chromium-52	0.0530	0.26	0.500	ug/L	
SLE0209-IBLR	Chromium-53	0.841	0.239	0.500	ug/L	
SLE0209-IBLR	Lead-208	0.00400	0.0513	0.100	ug/L	
SLE0209-IBLR	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-CCBN	Chromium-52	-0.0620	0.26	0.500	ug/L	
SLE0209-CCBN	Chromium-53	0.364	0.239	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 07:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBN	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBN	Silver-107	0.00200	0.022	0.200	ug/L	
SLE0209-CCBO	Chromium-52	-0.00500	0.26	0.500	ug/L	
SLE0209-CCBO	Chromium-53	-0.0460	0.239	0.500	ug/L	
SLE0209-CCBO	Lead-208	0.00	0.0513	0.100	ug/L	
SLE0209-CCBO	Silver-107	0.00100	0.022	0.200	ug/L	
SLE0209-IBLS	Chromium-52	-0.0170	0.26	0.500	ug/L	
SLE0209-IBLS	Chromium-53	-0.157	0.239	0.500	ug/L	
SLE0209-IBLS	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLE0209-IBLS	Silver-107	-0.00100	0.022	0.200	ug/L	
SLE0209-CCBP	Chromium-52	-0.0330	0.26	0.500	ug/L	
SLE0209-CCBP	Chromium-53	-0.183	0.239	0.500	ug/L	
SLE0209-CCBP	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLE0209-CCBP	Silver-107	0.00	0.022	0.200	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0163-CAL1	XDT_m1230509a-001	NA	05/09/23 15:21
CAL 1 - LOW CHECK	SLE0163-CAL2	XDT_m1230509a-002	NA	05/09/23 15:26
CAL 2	SLE0163-CAL3	XDT_m1230509a-003	NA	05/09/23 15:30
CAL 3	SLE0163-CAL4	XDT_m1230509a-004	NA	05/09/23 15:36
CAL 4	SLE0163-CAL5	XDT_m1230509a-005	NA	05/09/23 15:41
CAL 5	SLE0163-CAL6	XDT_m1230509a-006	NA	05/09/23 15:48
RINSE	SLE0163-IBL1	XDT_m1230509a-007	NA	05/09/23 15:55
Initial Cal Check	SLE0163-ICV1	XDT_m1230509a-009	NA	05/09/23 16:02
Initial Cal Blank	SLE0163-ICB1	XDT_m1230509a-011	NA	05/09/23 16:14
Calibration Check	SLE0163-CCV1	XDT_m1230509a-012	NA	05/09/23 16:20
Calibration Blank	SLE0163-CCB1	XDT_m1230509a-014	NA	05/09/23 16:32
Instrument RL Check	SLE0163-CRL1	XDT_m1230509a-015	NA	05/09/23 16:39
Interference Check B	SLE0163-IFB1	XDT_m1230509a-017	NA	05/09/23 16:49
Interference Check A	SLE0163-IFA1	XDT_m1230509a-018	NA	05/09/23 16:54
LR300	SLE0163-HCV2	XDT_m1230509a-020	NA	05/09/23 17:04
LR200	SLE0163-HCV1	XDT_m1230509a-021	NA	05/09/23 17:11
Instrument Blank	SLE0163-IBL2	XDT_m1230509a-022	NA	05/09/23 17:16
Instrument Blank	SLE0163-IBL3	XDT_m1230509a-023	NA	05/09/23 17:23
Calibration Check	SLE0163-CCV2	XDT_m1230509a-024	NA	05/09/23 17:29
Calibration Blank	SLE0163-CCB2	XDT_m1230509a-025	NA	05/09/23 17:36
ZZZZZ	BLE0256-BLK1	XDT_m1230509a-026	Water	05/09/23 17:44
ZZZZZ	BLE0256-BS1	XDT_m1230509a-027	Water	05/09/23 17:49
Instrument Blank	SLE0163-IBL4	XDT_m1230509a-033	NA	05/09/23 18:24
Instrument Blank	SLE0163-IBL5	XDT_m1230509a-035	NA	05/09/23 18:35
Calibration Check	SLE0163-CCV3	XDT_m1230509a-036	NA	05/09/23 18:40
Calibration Blank	SLE0163-CCB3	XDT_m1230509a-037	NA	05/09/23 18:47
Calibration Check	SLE0163-CCV4	XDT_m1230509a-039	NA	05/09/23 18:59
Calibration Blank	SLE0163-CCB4	XDT_m1230509a-040	NA	05/09/23 19:06
ZZZZZ	23D0297-08	XDT_m1230509a-046	Solid	05/09/23 19:39



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0420-07	XDT_m1230509a-047	Solid	05/09/23 19:44
Instrument Blank	SLE0163-IBL6	XDT_m1230509a-050	NA	05/09/23 19:57
Calibration Check	SLE0163-CCV5	XDT_m1230509a-051	NA	05/09/23 20:01
Calibration Blank	SLE0163-CCB5	XDT_m1230509a-052	NA	05/09/23 20:09
ZZZZZ	23C0715-02	XDT_m1230509a-053	Water	05/09/23 20:15
ZZZZZ	23C0715-04	XDT_m1230509a-054	Water	05/09/23 20:23
ZZZZZ	23C0690-08	XDT_m1230509a-055	Water	05/09/23 20:27
ZZZZZ	23C0690-10	XDT_m1230509a-056	Water	05/09/23 20:32
ZZZZZ	23C0690-04	XDT_m1230509a-057	Water	05/09/23 20:37
Instrument Blank	SLE0163-IBL7	XDT_m1230509a-062	NA	05/09/23 21:00
Calibration Check	SLE0163-CCV6	XDT_m1230509a-063	NA	05/09/23 21:05
Calibration Blank	SLE0163-CCB6	XDT_m1230509a-064	NA	05/09/23 21:12
Calibration Check	SLE0163-CCV7	XDT_m1230509a-067	NA	05/09/23 21:32
Calibration Blank	SLE0163-CCB7	XDT_m1230509a-068	NA	05/09/23 21:39
Blank	BLD0687-BLK1	XDT_m1230509a-069	Solid	05/09/23 21:43
LCS	BLD0687-BS1	XDT_m1230509a-070	Solid	05/09/23 21:48
Instrument Blank	SLE0163-IBL8	XDT_m1230509a-078	NA	05/09/23 22:22
Calibration Check	SLE0163-CCV8	XDT_m1230509a-079	NA	05/09/23 22:26
Calibration Blank	SLE0163-CCB8	XDT_m1230509a-080	NA	05/09/23 22:33
Instrument Blank	SLE0163-IBL9	XDT_m1230509a-090	NA	05/09/23 23:17
Calibration Check	SLE0163-CCV9	XDT_m1230509a-091	NA	05/09/23 23:21
Calibration Blank	SLE0163-CCB9	XDT_m1230509a-092	NA	05/09/23 23:28
Instrument Blank	SLE0163-IBLA	XDT_m1230509a-102	NA	05/10/23 00:11
Calibration Check	SLE0163-CCVA	XDT_m1230509a-103	NA	05/10/23 00:15
Calibration Blank	SLE0163-CCBA	XDT_m1230509a-104	NA	05/10/23 00:23
Instrument Blank	SLE0163-IBLB	XDT_m1230509a-114	NA	05/10/23 01:06
Calibration Check	SLE0163-CCVB	XDT_m1230509a-115	NA	05/10/23 01:10
Calibration Blank	SLE0163-CCBB	XDT_m1230509a-116	NA	05/10/23 01:17
Instrument Blank	SLE0163-IBLC	XDT_m1230509a-122	NA	05/10/23 01:43



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0163-IBLD	XDT_m1230509a-126	NA	05/10/23 02:01
Calibration Check	SLE0163-CCVC	XDT_m1230509a-127	NA	05/10/23 02:05
Calibration Blank	SLE0163-CCBC	XDT_m1230509a-128	NA	05/10/23 02:12
Instrument Blank	SLE0163-IBLE	XDT_m1230509a-133	NA	05/10/23 02:36
Instrument Blank	SLE0163-IBLF	XDT_m1230509a-138	NA	05/10/23 02:59
Calibration Check	SLE0163-CCVD	XDT_m1230509a-139	NA	05/10/23 03:04
Calibration Blank	SLE0163-CCBD	XDT_m1230509a-140	NA	05/10/23 03:11
Instrument Blank	SLE0163-IBLG	XDT_m1230509a-145	NA	05/10/23 03:34
Instrument Blank	SLE0163-IBLH	XDT_m1230509a-150	NA	05/10/23 03:55
Calibration Check	SLE0163-CCVE	XDT_m1230509a-151	NA	05/10/23 04:00
Calibration Blank	SLE0163-CCBE	XDT_m1230509a-152	NA	05/10/23 04:07
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	BLE0077-DUP1	XDT_m1230509a-159	Water	05/10/23 04:37
ZZZZZ	BLE0077-MS1	XDT_m1230509a-160	Water	05/10/23 04:41
ZZZZZ	BLE0077-MSD1	XDT_m1230509a-161	Water	05/10/23 04:47
Instrument Blank	SLE0163-IBLI	XDT_m1230509a-162	NA	05/10/23 04:51
Calibration Check	SLE0163-CCVF	XDT_m1230509a-163	NA	05/10/23 04:56
Calibration Blank	SLE0163-CCBF	XDT_m1230509a-164	NA	05/10/23 05:03



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0204-CAL1	XDT_m1230510A-008	NA	05/10/23 15:47
CAL 1 - LOW CHECK	SLE0204-CAL2	XDT_m1230510A-009	NA	05/10/23 15:51
CAL 2	SLE0204-CAL3	XDT_m1230510A-010	NA	05/10/23 15:56
CAL 3	SLE0204-CAL4	XDT_m1230510A-011	NA	05/10/23 16:01
CAL 4	SLE0204-CAL5	XDT_m1230510A-012	NA	05/10/23 16:05
CAL 5	SLE0204-CAL6	XDT_m1230510A-013	NA	05/10/23 16:12
RINSE	SLE0204-IBL1	XDT_m1230510A-014	NA	05/10/23 16:19
Initial Cal Check	SLE0204-ICV1	XDT_m1230510A-016	NA	05/10/23 16:25
Initial Cal Blank	SLE0204-ICB1	XDT_m1230510A-017	NA	05/10/23 16:32
Calibration Check	SLE0204-CCV1	XDT_m1230510A-018	NA	05/10/23 16:37
Calibration Blank	SLE0204-CCB1	XDT_m1230510A-019	NA	05/10/23 16:44
Instrument RL Check	SLE0204-CRL1	XDT_m1230510A-020	NA	05/10/23 16:49
Interference Check A	SLE0204-IFA1	XDT_m1230510A-021	NA	05/10/23 16:56
Interference Check B	SLE0204-IFB1	XDT_m1230510A-022	NA	05/10/23 17:00
LR200	SLE0204-HCV1	XDT_m1230510A-023	NA	05/10/23 17:06
LR300	SLE0204-HCV2	XDT_m1230510A-024	NA	05/10/23 17:11
Instrument Blank	SLE0204-IBL2	XDT_m1230510A-025	NA	05/10/23 17:18
Calibration Check	SLE0204-CCV2	XDT_m1230510A-026	NA	05/10/23 17:24
Calibration Blank	SLE0204-CCB2	XDT_m1230510A-027	NA	05/10/23 17:32
Calibration Check	SLE0204-CCV3	XDT_m1230510A-029	NA	05/10/23 17:41
Calibration Blank	SLE0204-CCB3	XDT_m1230510A-030	NA	05/10/23 17:49
Blank	BLD0687-BLK2	XDT_m1230510A-031	Solid	05/10/23 17:54
LCS	BLD0687-BS2	XDT_m1230510A-033	Solid	05/10/23 18:05
ZZZZZ	BLE0298-BLK1	XDT_m1230510A-034	Water	05/10/23 18:11
ZZZZZ	BLE0298-BS1	XDT_m1230510A-035	Water	05/10/23 18:15
ZZZZZ	23D0297-01	XDT_m1230510A-037	Solid	05/10/23 18:27
ZZZZZ	23D0297-01	XDT_m1230510A-037	Solid	05/10/23 18:27
ZZZZZ	BLD0728-DUP2	XDT_m1230510A-038	Solid	05/10/23 18:32
Instrument Blank	SLE0204-IBL3	XDT_m1230510A-040	NA	05/10/23 18:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLE0204-CCV4	XDT_m1230510A-041	NA	05/10/23 18:45
Calibration Blank	SLE0204-CCB4	XDT_m1230510A-042	NA	05/10/23 18:53
ZZZZZ	BLE0143-BLK1	XDT_m1230510A-045	Solid	05/10/23 19:07
ZZZZZ	BLE0143-BS1	XDT_m1230510A-047	Solid	05/10/23 19:19
ZZZZZ	BLD0728-MS2	XDT_m1230510A-048	Solid	05/10/23 19:23
Instrument Blank	SLE0204-IBL4	XDT_m1230510A-050	NA	05/10/23 19:33
Instrument Blank	SLE0204-IBL5	XDT_m1230510A-052	NA	05/10/23 19:44
Calibration Check	SLE0204-CCV5	XDT_m1230510A-053	NA	05/10/23 19:48
Calibration Blank	SLE0204-CCB5	XDT_m1230510A-054	NA	05/10/23 19:56
Calibration Check	SLE0204-CCV6	XDT_m1230510A-057	NA	05/10/23 20:30
Calibration Blank	SLE0204-CCB6	XDT_m1230510A-058	NA	05/10/23 20:37
ZZZZZ	BLD0578-BLK1	XDT_m1230510A-059	Solid	05/10/23 20:44
ZZZZZ	BLD0578-BS1	XDT_m1230510A-060	Solid	05/10/23 20:48
ZZZZZ	BLE0072-BLK1	XDT_m1230510A-061	Solid	05/10/23 20:53
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
Instrument Blank	SLE0204-IBL6	XDT_m1230510A-068	NA	05/10/23 21:25
Calibration Check	SLE0204-CCV7	XDT_m1230510A-069	NA	05/10/23 21:29
Calibration Blank	SLE0204-CCB7	XDT_m1230510A-070	NA	05/10/23 21:37
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	BLD0578-DUP1	XDT_m1230510A-076	Solid	05/10/23 22:03
ZZZZZ	BLD0578-MS1	XDT_m1230510A-077	Solid	05/10/23 22:08
ZZZZZ	BLD0578-MSD1	XDT_m1230510A-078	Solid	05/10/23 22:12
ZZZZZ	BLD0578-PS1	XDT_m1230510A-079	Solid	05/10/23 22:16
Instrument Blank	SLE0204-IBL7	XDT_m1230510A-080	NA	05/10/23 22:21
Calibration Check	SLE0204-CCV8	XDT_m1230510A-081	NA	05/10/23 22:25
Calibration Blank	SLE0204-CCB8	XDT_m1230510A-082	NA	05/10/23 22:32
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23D0393-04	XDT_m1230510A-087	Solid	05/10/23 22:54
ZZZZZ	BLE0072-DUP1	XDT_m1230510A-088	Solid	05/10/23 22:59
ZZZZZ	BLE0072-MS1	XDT_m1230510A-089	Solid	05/10/23 23:03
ZZZZZ	BLE0072-MSD1	XDT_m1230510A-090	Solid	05/10/23 23:08
Instrument Blank	SLE0204-IBL8	XDT_m1230510A-092	NA	05/10/23 23:16
Calibration Check	SLE0204-CCV9	XDT_m1230510A-093	NA	05/10/23 23:21
Calibration Blank	SLE0204-CCB9	XDT_m1230510A-094	NA	05/10/23 23:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
Instrument Blank	SLE0204-IBL9	XDT_m1230510A-104	NA	05/11/23 00:12
Calibration Check	SLE0204-CCVA	XDT_m1230510A-105	NA	05/11/23 00:16
Calibration Blank	SLE0204-CCBA	XDT_m1230510A-106	NA	05/11/23 00:24
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0204</u>	Instrument:	<u>ICPMS1</u>
		Calibration:	<u>GE00040</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
Instrument Blank	SLE0204-IBLA	XDT_m1230510A-116	NA	05/11/23 01:08
Calibration Check	SLE0204-CCVB	XDT_m1230510A-117	NA	05/11/23 01:12
Calibration Blank	SLE0204-CCBB	XDT_m1230510A-118	NA	05/11/23 01:19
Calibration Check	SLE0204-CCVC	XDT_m1230510A-120	NA	05/11/23 01:28
Calibration Blank	SLE0204-CCBC	XDT_m1230510A-121	NA	05/11/23 01:35
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
Instrument Blank	SLE0204-IBLB	XDT_m1230510A-131	NA	05/11/23 02:21
Calibration Check	SLE0204-CCVD	XDT_m1230510A-132	NA	05/11/23 02:26
Calibration Blank	SLE0204-CCBD	XDT_m1230510A-133	NA	05/11/23 02:33
Instrument Blank	SLE0204-IBLC	XDT_m1230510A-138	NA	05/11/23 02:57
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
Instrument Blank	SLE0204-IBLD	XDT_m1230510A-143	NA	05/11/23 03:20
Calibration Check	SLE0204-CCVE	XDT_m1230510A-144	NA	05/11/23 03:24
Calibration Blank	SLE0204-CCBE	XDT_m1230510A-145	NA	05/11/23 03:31
Instrument Blank	SLE0204-IBLE	XDT_m1230510A-150	NA	05/11/23 03:57
Instrument Blank	SLE0204-IBLF	XDT_m1230510A-155	NA	05/11/23 04:21
Calibration Check	SLE0204-CCVF	XDT_m1230510A-156	NA	05/11/23 04:26
Calibration Blank	SLE0204-CCBF	XDT_m1230510A-157	NA	05/11/23 04:33
Calibration Check	SLE0204-CCVG	XDT_m1230510A-159	NA	05/11/23 04:42
Calibration Blank	SLE0204-CCBG	XDT_m1230510A-160	NA	05/11/23 04:49
Instrument Blank	SLE0204-IBLG	XDT_m1230510A-170	NA	05/11/23 05:33
Calibration Check	SLE0204-CCVH	XDT_m1230510A-171	NA	05/11/23 05:38
Calibration Blank	SLE0204-CCBH	XDT_m1230510A-172	NA	05/11/23 05:45
Instrument Blank	SLE0204-IBLH	XDT_m1230510A-182	NA	05/11/23 06:31
Calibration Check	SLE0204-CCVI	XDT_m1230510A-183	NA	05/11/23 06:35
Calibration Blank	SLE0204-CCBI	XDT_m1230510A-184	NA	05/11/23 06:42
Instrument Blank	SLE0204-IBLI	XDT_m1230510A-189	NA	05/11/23 07:05
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	BLE0298-DUP1	XDT_m1230510A-191	Water	05/11/23 07:14
ZZZZZ	BLE0298-MS1	XDT_m1230510A-192	Water	05/11/23 07:19
ZZZZZ	BLE0298-MSD1	XDT_m1230510A-193	Water	05/11/23 07:25
Instrument Blank	SLE0204-IBLJ	XDT_m1230510A-194	NA	05/11/23 07:29
Calibration Check	SLE0204-CCVJ	XDT_m1230510A-195	NA	05/11/23 07:34



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23D0396</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Sequence: <u>SLE0204</u>	Instrument: <u>ICPMS1</u>
	Calibration: <u>GE00040</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0204-CCBJ	XDT_m1230510A-196	NA	05/11/23 07:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0209-CAL1	XDT_m1230511-006	NA	05/11/23 13:56
CAL 1 - LOW CHECK	SLE0209-CAL2	XDT_m1230511-007	NA	05/11/23 14:00
CAL 2	SLE0209-CAL3	XDT_m1230511-008	NA	05/11/23 14:05
CAL 3	SLE0209-CAL4	XDT_m1230511-009	NA	05/11/23 14:10
CAL 4	SLE0209-CAL5	XDT_m1230511-010	NA	05/11/23 14:15
CAL 5	SLE0209-CAL6	XDT_m1230511-011	NA	05/11/23 14:21
RINSE	SLE0209-IBL1	XDT_m1230511-012	NA	05/11/23 14:29
Initial Cal Check	SLE0209-ICV1	XDT_m1230511-014	NA	05/11/23 14:34
Initial Cal Blank	SLE0209-ICB1	XDT_m1230511-015	NA	05/11/23 14:42
Calibration Check	SLE0209-CCV1	XDT_m1230511-019	NA	05/11/23 15:06
Calibration Blank	SLE0209-CCB1	XDT_m1230511-020	NA	05/11/23 15:13
Instrument RL Check	SLE0209-CRL1	XDT_m1230511-021	NA	05/11/23 15:18
Interference Check A	SLE0209-IFA1	XDT_m1230511-022	NA	05/11/23 15:23
Interference Check B	SLE0209-IFB1	XDT_m1230511-023	NA	05/11/23 15:28
LR200	SLE0209-HCV1	XDT_m1230511-024	NA	05/11/23 15:32
LR300	SLE0209-HCV2	XDT_m1230511-025	NA	05/11/23 15:37
Instrument Blank	SLE0209-IBL2	XDT_m1230511-026	NA	05/11/23 15:50
Instrument Blank	SLE0209-IBL3	XDT_m1230511-027	NA	05/11/23 15:56
Calibration Check	SLE0209-CCV2	XDT_m1230511-028	NA	05/11/23 16:02
Calibration Blank	SLE0209-CCB2	XDT_m1230511-029	NA	05/11/23 16:09
Calibration Check	SLE0209-CCV3	XDT_m1230511-031	NA	05/11/23 16:19
Calibration Blank	SLE0209-CCB3	XDT_m1230511-032	NA	05/11/23 16:27
ZZZZZ	BLE0072-BS2	XDT_m1230511-033	Solid	05/11/23 16:37
ZZZZZ	BLE0342-BLK1	XDT_m1230511-034	Water	05/11/23 16:42
ZZZZZ	BLE0342-BS1	XDT_m1230511-035	Water	05/11/23 16:46
Instrument Blank	SLE0209-IBL4	XDT_m1230511-040	NA	05/11/23 17:10
Instrument Blank	SLE0209-IBL5	XDT_m1230511-042	NA	05/11/23 17:21
Calibration Check	SLE0209-CCV4	XDT_m1230511-043	NA	05/11/23 17:25
Calibration Blank	SLE0209-CCB4	XDT_m1230511-044	NA	05/11/23 17:32



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-04	XDT_m1230511-045	Water	05/11/23 17:42
ZZZZZ	23D0477-08	XDT_m1230511-046	Water	05/11/23 17:43
ZZZZZ	23D0477-10	XDT_m1230511-047	Water	05/11/23 17:44
ZZZZZ	23D0477-12	XDT_m1230511-048	Water	05/11/23 17:46
ZZZZZ	23D0477-18	XDT_m1230511-049	Water	05/11/23 17:47
ZZZZZ	23D0477-20	XDT_m1230511-050	Water	05/11/23 17:48
Instrument Blank	SLE0209-IBL6	XDT_m1230511-054	NA	05/11/23 17:54
Calibration Check	SLE0209-CCV5	XDT_m1230511-055	NA	05/11/23 17:55
Calibration Blank	SLE0209-CCB5	XDT_m1230511-056	NA	05/11/23 17:59
ZZZZZ	23D0477-01	XDT_m1230511-057	Water	05/11/23 18:02
ZZZZZ	23D0477-07	XDT_m1230511-058	Water	05/11/23 18:03
ZZZZZ	23D0477-09	XDT_m1230511-059	Water	05/11/23 18:05
Instrument Blank	SLE0209-IBL7	XDT_m1230511-061	NA	05/11/23 18:08
ZZZZZ	23D0477-02	XDT_m1230511-062	Water	05/11/23 18:09
ZZZZZ	23D0477-03	XDT_m1230511-063	Water	05/11/23 18:10
ZZZZZ	23D0477-06	XDT_m1230511-064	Water	05/11/23 18:12
ZZZZZ	23D0477-11	XDT_m1230511-065	Water	05/11/23 18:13
Instrument Blank	SLE0209-IBL8	XDT_m1230511-066	NA	05/11/23 18:15
Calibration Check	SLE0209-CCV6	XDT_m1230511-067	NA	05/11/23 18:16
Calibration Blank	SLE0209-CCB6	XDT_m1230511-068	NA	05/11/23 18:20
ZZZZZ	23D0477-13	XDT_m1230511-069	Water	05/11/23 18:24
ZZZZZ	23D0477-14	XDT_m1230511-070	Water	05/11/23 18:25
ZZZZZ	23D0477-16	XDT_m1230511-071	Water	05/11/23 18:26
ZZZZZ	23D0477-15	XDT_m1230511-072	Water	05/11/23 18:28
Instrument Blank	SLE0209-IBL9	XDT_m1230511-073	NA	05/11/23 18:29
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	BLE0342-DUP1	XDT_m1230511-075	Water	05/11/23 18:40



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0342-MS1	XDT_m1230511-076	Water	05/11/23 18:45
ZZZZZ	BLE0342-MSD1	XDT_m1230511-077	Water	05/11/23 18:50
Instrument Blank	SLE0209-IBLA	XDT_m1230511-078	NA	05/11/23 18:55
Calibration Check	SLE0209-CCV7	XDT_m1230511-079	NA	05/11/23 18:59
Calibration Blank	SLE0209-CCB7	XDT_m1230511-080	NA	05/11/23 19:07
Calibration Check	SLE0209-CCV8	XDT_m1230511-082	NA	05/11/23 19:18
Calibration Blank	SLE0209-CCB8	XDT_m1230511-083	NA	05/11/23 19:25
Calibration Check	SLE0209-CCVA	XDT_m1230511-094	NA	05/11/23 19:55
Calibration Blank	SLE0209-CCBA	XDT_m1230511-095	NA	05/11/23 20:00
ZZZZZ	23D0636-01	XDT_m1230511-096	Water	05/11/23 20:07
ZZZZZ	23D0636-01	XDT_m1230511-096	Water	05/11/23 20:07
ZZZZZ	BLE0298-DUP2	XDT_m1230511-097	Water	05/11/23 20:11
ZZZZZ	BLE0298-MS2	XDT_m1230511-098	Water	05/11/23 20:16
ZZZZZ	BLE0298-MSD2	XDT_m1230511-099	Water	05/11/23 20:20
Instrument Blank	SLE0209-IBLC	XDT_m1230511-100	NA	05/11/23 20:25
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	BLE0143-DUP1	XDT_m1230511-102	Solid	05/11/23 20:35
ZZZZZ	BLE0143-MS1	XDT_m1230511-103	Solid	05/11/23 20:40
ZZZZZ	BLE0143-MSD1	XDT_m1230511-104	Solid	05/11/23 20:44
Instrument Blank	SLE0209-IBLD	XDT_m1230511-105	NA	05/11/23 20:49
Calibration Check	SLE0209-CCVB	XDT_m1230511-106	NA	05/11/23 20:53
Calibration Blank	SLE0209-CCBB	XDT_m1230511-107	NA	05/11/23 21:00
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
Instrument Blank	SLE0209-IBL E	XDT_m1230511-114	NA	05/11/23 21:34
Instrument Blank	SLE0209-IBL F	XDT_m1230511-116	NA	05/11/23 21:46
Calibration Check	SLE0209-CCVC	XDT_m1230511-117	NA	05/11/23 21:50
Calibration Blank	SLE0209-CCBC	XDT_m1230511-118	NA	05/11/23 21:58
Calibration Check	SLE0209-CCVD	XDT_m1230511-120	NA	05/11/23 22:08
Calibration Blank	SLE0209-CCBD	XDT_m1230511-121	NA	05/11/23 22:15
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23A0467-03	XDT_m1230511-122	Solid	05/11/23 22:22
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23C0071-03	XDT_m1230511-123	Solid	05/11/23 22:27
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
ZZZZZ	23D0008-01	XDT_m1230511-124	Solid	05/11/23 22:31
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
Instrument Blank	SLE0209-IBLG	XDT_m1230511-131	NA	05/11/23 23:02
Calibration Check	SLE0209-CCVE	XDT_m1230511-132	NA	05/11/23 23:07
Calibration Blank	SLE0209-CCBE	XDT_m1230511-133	NA	05/11/23 23:14
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
Instrument Blank	SLE0209-IBLH	XDT_m1230511-143	NA	05/11/23 23:58
Calibration Check	SLE0209-CCVF	XDT_m1230511-144	NA	05/12/23 00:02
Calibration Blank	SLE0209-CCBF	XDT_m1230511-145	NA	05/12/23 00:09
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
Instrument Blank	SLE0209-IBLI	XDT_m1230511-155	NA	05/12/23 00:56
Calibration Check	SLE0209-CCVG	XDT_m1230511-156	NA	05/12/23 01:00
Calibration Blank	SLE0209-CCBG	XDT_m1230511-157	NA	05/12/23 01:07
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	BLE0072-DUP2	XDT_m1230511-163	Solid	05/12/23 01:34
ZZZZZ	BLE0072-MS2	XDT_m1230511-164	Solid	05/12/23 01:38
ZZZZZ	BLE0072-MSD2	XDT_m1230511-165	Solid	05/12/23 01:43
ZZZZZ	BLE0072-PS2	XDT_m1230511-166	Solid	05/12/23 01:49
Instrument Blank	SLE0209-IBLJ	XDT_m1230511-167	NA	05/12/23 01:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLE0209-CCVH	XDT_m1230511-168	NA	05/12/23 01:58
Calibration Blank	SLE0209-CCBH	XDT_m1230511-169	NA	05/12/23 02:05
ZZZZZ	23D0568-03RE1	XDT_m1230511-170	Solid	05/12/23 02:09
ZZZZZ	23D0568-07RE1	XDT_m1230511-171	Solid	05/12/23 02:14
ZZZZZ	23D0568-07RE1	XDT_m1230511-171	Solid	05/12/23 02:14
ZZZZZ	23D0568-08RE1	XDT_m1230511-172	Solid	05/12/23 02:18
ZZZZZ	BLE0143-DUP2	XDT_m1230511-173	Solid	05/12/23 02:22
ZZZZZ	BLE0143-MS2	XDT_m1230511-174	Solid	05/12/23 02:27
ZZZZZ	BLE0143-MSD2	XDT_m1230511-175	Solid	05/12/23 02:31
Instrument Blank	SLE0209-IBLK	XDT_m1230511-176	NA	05/12/23 02:36
Instrument Blank	SLE0209-IBLL	XDT_m1230511-179	NA	05/12/23 02:56
Calibration Check	SLE0209-CCVI	XDT_m1230511-180	NA	05/12/23 03:00
Calibration Blank	SLE0209-CCBI	XDT_m1230511-181	NA	05/12/23 03:07
Calibration Check	SLE0209-CCVJ	XDT_m1230511-183	NA	05/12/23 03:16
Calibration Blank	SLE0209-CCBJ	XDT_m1230511-184	NA	05/12/23 03:23
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
Instrument Blank	SLE0209-IBLM	XDT_m1230511-188	NA	05/12/23 03:46
Instrument Blank	SLE0209-IBLN	XDT_m1230511-194	NA	05/12/23 04:12
Calibration Check	SLE0209-CCVK	XDT_m1230511-195	NA	05/12/23 04:17
Calibration Blank	SLE0209-CCBK	XDT_m1230511-196	NA	05/12/23 04:24
Instrument Blank	SLE0209-IBLO	XDT_m1230511-206	NA	05/12/23 05:08
Calibration Check	SLE0209-CCVL	XDT_m1230511-207	NA	05/12/23 05:12
Calibration Blank	SLE0209-CCBL	XDT_m1230511-208	NA	05/12/23 05:19
ZZZZZ	23D0598-06	XDT_m1230511-214	Water	05/12/23 05:47
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
Instrument Blank	SLE0209-IBLP	XDT_m1230511-218	NA	05/12/23 06:04
Calibration Check	SLE0209-CCVM	XDT_m1230511-219	NA	05/12/23 06:09
Calibration Blank	SLE0209-CCBM	XDT_m1230511-220	NA	05/12/23 06:16
Instrument Blank	SLE0209-IBLQ	XDT_m1230511-225	NA	05/12/23 06:37
Instrument Blank	SLE0209-IBLR	XDT_m1230511-230	NA	05/12/23 07:00
Calibration Check	SLE0209-CCVN	XDT_m1230511-231	NA	05/12/23 07:04
Calibration Blank	SLE0209-CCBN	XDT_m1230511-232	NA	05/12/23 07:11
Calibration Check	SLE0209-CCVO	XDT_m1230511-234	NA	05/12/23 07:20
Calibration Blank	SLE0209-CCBO	XDT_m1230511-235	NA	05/12/23 07:27
Instrument Blank	SLE0209-IBLS	XDT_m1230511-245	NA	05/12/23 08:11
Calibration Check	SLE0209-CCVP	XDT_m1230511-246	NA	05/12/23 08:15
Calibration Blank	SLE0209-CCBP	XDT_m1230511-247	NA	05/12/23 08:22



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFA1	Chromium-52	0	0.6100		ug/L
	Chromium-53	0	3.6380		ug/L
	Lead-208	0	0.0240		ug/L
	Silver-107	0	0.0030		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFB1	Chromium-52	20.000	19.239	96.2	ug/L
	Chromium-53	20.000	22.578	113	ug/L
	Lead-208	0	0.0160		ug/L
	Silver-107	20.000	16.458	82.3	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFA1	Chromium-52	0	0.6610		ug/L
	Chromium-53	0	1.7410		ug/L
	Lead-208	0	0.0270		ug/L
	Silver-107	0	0.0050		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFB1	Chromium-52	20.000	20.186	101	ug/L
	Chromium-53	20.000	21.276	106	ug/L
	Lead-208	0	0.0180		ug/L
	Silver-107	20.000	18.002	90.0	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFA1	Chromium-52	0	0.6190		ug/L
	Chromium-53	0	1.6910		ug/L
	Lead-208	0	0.0170		ug/L
	Silver-107	0	0.0040		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFB1	Chromium-52	20.000	19.309	96.5	ug/L
	Chromium-53	20.000	20.701	104	ug/L
	Lead-208	0	0.0190		ug/L
	Silver-107	20.000	18.557	92.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Lab Sample ID: SLE0163-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.488	97.6	ug/L	50 - 150
Chromium-53	0.50000	0.510	102	ug/L	50 - 150
Lead-208	0.10000	0.104	104	ug/L	50 - 150
Silver-107	0.20000	0.217	109	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Lab Sample ID: SLE0204-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.523	105	ug/L	50 - 150
Chromium-53	0.50000	0.501	100	ug/L	50 - 150
Lead-208	0.10000	0.107	107	ug/L	50 - 150
Silver-107	0.20000	0.202	101	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Lab Sample ID: SLE0209-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.497	99.4	ug/L	50 - 150
Chromium-53	0.50000	0.480	96.0	ug/L	50 - 150
Lead-208	0.10000	0.113	113	ug/L	50 - 150
Silver-107	0.20000	0.206	103	ug/L	50 - 150

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV1

Sequence: SLE0163

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	196	-2.0	10.00
Chromium-53	200.00	194	-3.0	10.00
Lead-208	200.00	205	2.4	10.00
Silver-107	200.00	183	-8.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV2

Sequence: SLE0163

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	304	1.2	10.00
Chromium-53	300.00	303	1.0	10.00
Lead-208	300.00	310	3.3	10.00
Silver-107	300.00	286	-4.8	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV1

Sequence: SLE0204

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	198	-0.8	10.00
Chromium-53	200.00	195	-2.5	10.00
Lead-208	200.00	200	0.004	10.00
Silver-107	200.00	194	-3.2	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV2

Sequence: SLE0204

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	306	1.9	10.00
Chromium-53	300.00	295	-1.7	10.00
Lead-208	300.00	317	5.5	10.00
Silver-107	300.00	311	3.6	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV1

Sequence: SLE0209

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	193	-3.3	10.00
Chromium-53	200.00	190	-5.1	10.00
Lead-208	200.00	195	-2.3	10.00
Silver-107	200.00	201	0.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV2

Sequence: SLE0209

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	305	1.7	10.00
Chromium-53	300.00	292	-2.8	10.00
Lead-208	300.00	300	-0.02	10.00
Silver-107	300.00	295	-1.5	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/28/23 15:38	16	180	05/11/23 22:44	30	180	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/28/23 15:38	16	180	05/11/23 22:48	29	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg
Chromium-53	0.24	0.50	mg/kg
Lead-208	0.05	0.10	mg/kg
Silver-107	0.02	0.20	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCU10
Lot Number: P2-CU682108
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Copper
Starting Material: Cu Metal
Starting Material Lot#: 2095
Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9977 ± 50 µg/mL ICP Assay NIST SRM 3114 Lot Number: 121207
Assay Method #2	10024 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10007 ± 46 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh < 0.000942	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu < 0.000942	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGZN10
 Lot Number: S2-ZN711249
 Matrix: 2% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Zinc
 Starting Material: Zinc Metal
 Starting Material Lot#: 2349
 Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M	Eu <	0.000373	O Na	0.013654	s	Se <		O Zn	0.002374
M Al	0.004450	M	Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868	
O As <	0.022040	M	Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373			
M Au <	0.000373	M	Gd <	0.000373	O Ni	0.001843	M Sn	0.000847			
O B <	0.007714	M	Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121			
M Ba <	0.001495	M	Hf <	0.000373	O P <	0.022040	M Ta <	0.000373			
M Be <	0.001495	M	Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353			
M Bi <	0.000373	M	Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707			
O Ca	0.006530	M	In <	0.000373	M Pr <	0.001495	M Th <	0.002990			
M Cd	0.001165	M	Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363			
M Ce <	0.000373	O	K	0.001999	M Rb <	0.001868	M Tl	0.008584			
M Co <	0.000373	M	La <	0.001121	M Re <	0.000373	M Tm <	0.000373			
M Cr	0.002861	O	Li	0.000062	M Rh <	0.000373	M U <	0.000373			
M Cs <	0.001121	M	Lu <	0.000373	M Ru <	0.001493	M V <	0.000747			
M Cu <	0.000747	O	Mg	0.001156	O S	0.024591	M W <	0.002242			
M Dy <	0.000373	M	Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373			
M Er <	0.000373	O	Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃,H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.000300	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i^2)(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag < 0.003200	O Eu < 0.002500	O Na < 0.005499	M Se < 0.005700	O Zn < 0.001100
O Al < 0.008903	O Fe < 0.000602	M Nb < 0.000400	O Si < 0.016758	O Zr < 0.002600
M As < 0.003600	M Ga < 0.001200	M Nd < 0.000800	M Sm < 0.000400	
M Au < 0.000810	M Gd < 0.000400	M Ni < 0.003600	M Sn < 0.003200	
O B < 0.004189	O Ge < 0.012000	M Os < 0.000810	O Sr < 0.000330	
M Ba < 0.002400	M Hf < 0.000400	O P < 0.022000	M Ta < 0.000800	
M Be < 0.000400	M Hg < 0.001700	M Pb < 0.002400	M Tb < 0.000400	
M Bi < 0.000400	M Ho < 0.000400	M Pd < 0.001200	M Te < 0.008000	
O Ca < 0.011259	O In < 0.013000	M Pr < 0.000400	M Th < 0.000400	
s Cd < 0.000400	M Ir < 0.000410	M Pt < 0.000400	O Ti < 0.000602	
M Ce < 0.000400	O K < 0.005237	M Rb < 0.004400	M Tl < 0.000523	
M Co < 0.000400	M La < 0.000400	M Re < 0.000400	M Tm < 0.000400	
O Cr < 0.005100	O Li < 0.000054	M Rh < 0.000400	M U < 0.000400	
M Cs < 0.002400	M Lu < 0.000400	M Ru < 0.002500	M V < 0.002000	
O Cu < 0.004800	O Mg < 0.000288	O S < 0.022000	M W < 0.000400	
M Dy < 0.000400	O Mn < 0.000860	O Sb < 0.018000	M Y < 0.000400	
M Er < 0.000400	M Mo < 0.001600	O Sc < 0.000430	M Yb < 0.000400	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)₃⁺ and Cd(OH)₂(aq)

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C4H4O6-1

Chemical Compatibility - Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO3 as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO3 / LDPE container.

Sb Containing Samples (Preparation and Solution) - Metal and alloys (Soluble in H2O / HF / HNO3 mixture); Oxides (Soluble in HCl and tartaric acid or H2O / HF / HNO3 mixtures); Ores (fusion with Na2CO3 in Pt0 followed by dissolving the fuseate in a H2O / HF / HNO3 mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.003200	M Eu <	0.000530	O Na	0.032544	M Se <	0.006300	O Zn	0.001952
M Al	0.007593	O Fe	0.001475	O Nb <	0.012000	O Si	0.238658	O Zr <	0.004100
s As <		M Ga <	0.000530	M Nd <	0.000530	M Sm <	0.000530		
M Au <	0.003100	M Gd <	0.000530	M Ni <	0.002100	M Sn <	0.000530		
M B	0.026035	M Ge <	0.001600	M Os <	0.000520	M Sr <	0.000530		
M Ba <	0.000530	M Hf <	0.000530	O P <	0.043000	M Ta <	0.000530		
O Be <	0.000360	M Hg <	0.001600	M Pb <	0.002100	M Tb <	0.000530		
M Bi <	0.000530	M Ho <	0.000530	M Pd <	0.001100	M Te <	0.004700		
O Ca	0.004339	M In <	0.023000	M Pr <	0.005300	M Th <	0.000530		
M Cd <	0.001100	M Ir <	0.000520	M Pt <	0.000530	O Ti <	0.002300		
M Ce <	0.000530	O K	0.002061	M Rb <	0.000530	M Tl <	0.000530		
M Co <	0.000530	M La <	0.001100	M Re <	0.000530	M Tm <	0.000530		
O Cr <	0.001800	O Li <	0.000120	M Rh <	0.000530	M U <	0.000530		
M Cs <	0.005300	M Lu <	0.000530	M Ru <	0.000520	M V <	0.002700		
M Cu <	0.001600	O Mg	0.000154	O S	0.028205	M W <	0.012000		
M Dy <	0.000530	O Mn	0.000154	M Sb <	0.000530	M Y <	0.000530		
M Er <	0.000530	M Mo <	0.000530	O Sc <	0.001700	M Yb <	0.000530		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBA10
 Lot Number: R2-BA692576
 Matrix: 2% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Barium
 Starting Material: Barium Nitrate
 Starting Material Lot#: 1969
 Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na < 0.004610	M Se < 0.003700	O Zn < 0.000658
M Al < 0.003100	O Fe < 0.015707	M Nb < 0.000210	O Si < 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr < 0.003850	
s Ba < 0.000320	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca < 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K < 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg < 0.000861	O S < 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBE10
Lot Number: R2-BE692992
Matrix: 6% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Beryllium
Starting Material: Beryllium Acetate
Starting Material Lot#: 2281
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10042 ± 67 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 090514

Assay Method #2 **10025 ± 51 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO10
 Lot Number: R2-CO695285
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10031 ± 67 µg/mL ICP Assay NIST SRM 3113 Lot Number: 190630
Assay Method #2	10019 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10000 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆2+

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Ag <		M	Eu <	0.000260	O	Na	0.003811	M	Se <	0.003900	O	Zn	0.048146
M	Al	0.002688	O	Fe	0.006419	M	Nb <	0.000260	O	Si	0.005215	M	Zr <	0.000260
M	As <	0.001100	M	Ga <	0.000260	M	Nd <	0.000260	M	Sm <	0.000260			
M	Au <	0.000260	M	Gd <	0.000260	O	Ni	0.001765	M	Sn	0.020060			
O	B <	0.004300	M	Ge <	0.002300	M	Os <	0.001100	O	Sr <	0.000110			
M	Ba <	0.000520	M	Hf <	0.000260	O	P <	0.017000	M	Ta <	0.000260			
O	Be <	0.001100	M	Hg <	0.000770	M	Pb <	0.003600	M	Tb <	0.000260			
M	Bi	0.004814	M	Ho <	0.000260	M	Pd	0.044134	M	Te <	0.009000			
O	Ca	0.005215	M	In	0.003691	M	Pr <	0.000260	M	Th <	0.000260			
M	Cd <	0.000260	M	Ir <	0.000520	M	Pt <	0.001100	O	Ti <	0.000440			
M	Ce <	0.002100	O	K <	0.008700	M	Rb <	0.001100	M	Tl <	0.004100			
O	Co <	0.000330	M	La <	0.000260	M	Re <	0.000260	M	Tm <	0.000260			
O	Cr <	0.002500	O	Li <	0.000110	M	Rh <	0.000520	M	U <	0.000260			
M	Cs <	0.002600	M	Lu <	0.000260	M	Ru <	0.000260	M	V <	0.000260			
O	Cu	0.357085	O	Mg	0.001203	O	S <	0.017000	M	W <	0.000260			
M	Dy <	0.000260	O	Mn <	0.000220	M	Sb <	0.014000	M	Y <	0.000260			
M	Er <	0.000260	M	Mo <	0.000260	O	Sc <	0.000220	M	Yb <	0.000260			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆⁺
Chemical Compatibility - Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) - Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr³⁺ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGNI10
 Lot Number: P2-NI686384
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Nickel
 Starting Material: Ni Metal
 Starting Material Lot#: 2277 and 2282
 Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9971 ± 54 µg/mL ICP Assay NIST SRM 3136 Lot Number: 120619
Assay Method #2	9970 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	9993 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈4-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002100	M Eu < 0.002100	O Na 0.352819	M Se < 0.005200	M Zn 0.006018
s Al < 0.002100	O Fe 0.074714	M Nb < 0.000520	O Si 0.017848	O Zr 0.004358
M As 0.008716	O Ga 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr 0.000518	
O Ba 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb 0.002282	M Tb < 0.000520	
M Bi 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti 0.001930	
M Ce < 0.001100	O K 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr 0.006018	O Li 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V 0.001286	
O Cu < 0.008300	O Mg 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGMG10
 Lot Number: S2-MG704239
 Matrix: 2% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Magnesium
 Starting Material: Magnesium Metal
 Starting Material Lot#: 2168
 Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
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inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001200	M Eu < 0.001200	O Na < 0.006112	M Se < 0.024000	M Zn < 0.005362
M Al < 0.065419	O Fe < 0.009115	M Nb < 0.001200	O Si < 0.139417	O Zr < 0.006700
O As < 0.013000	M Ga < 0.015000	M Nd < 0.020000	M Sm < 0.001200	
M Au < 0.017000	M Gd < 0.004800	O Ni < 0.000793	M Sn < 0.003600	
O B < 0.001179	M Ge < 0.003600	M Os < 0.001200	M Sr < 0.081505	
O Ba < 0.002788	M Hf < 0.001200	O P < 0.041000	M Ta < 0.001200	
O Be < 0.000410	M Hg < 0.004800	M Pb < 0.001608	M Tb < 0.001200	
M Bi < 0.001608	M Ho < 0.001200	M Pd < 0.001200	M Te < 0.003600	
s Ca <	M In < 0.001200	M Pr < 0.000257	M Th < 0.001200	
O Cd < 0.001300	M Ir < 0.001200	M Pt < 0.003600	O Ti < 0.001900	
M Ce < 0.001029	O K < 0.009759	M Rb < 0.001200	M Tl < 0.001200	
O Co < 0.000418	M La < 0.001823	M Re < 0.001200	M Tm < 0.001200	
O Cr < 0.003324	O Li < 0.007300	M Rh < 0.001200	M U < 0.002144	
M Cs < 0.007399	M Lu < 0.000128	M Ru < 0.001200	M V < 0.001286	
O Cu < 0.011000	M Mg < 1.286934	O S < 0.055767	O W < 0.024000	
M Dy < 0.002400	O Mn < 0.004611	M Sb < 0.009600	O Y < 0.000536	
M Er < 0.002400	M Mo < 0.003539	O Sc < 0.001400	M Yb < 0.001200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O ² 12C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000930	M Eu < 0.000930	s Na < 0.000930	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i^2)(u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P <	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U <	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S <	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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 Christiansburg, VA 24073 USA
 inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO3	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/(u_{\text{char } j}^2)))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO3
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

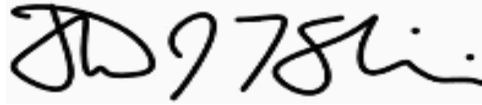
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-SS1801

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-01 C SDG: 23D0396
 Sampled: 04/12/23 09:56 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-127
 % Solids: 48.05 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:44
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.033 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	14.3	20	0.08	0.40	
7440-43-9	Cadmium	0.39	20	0.06	0.20	
7440-50-8	Copper	77.2	20	0.35	1.01	
7440-66-6	Zinc	143	20	5.9	12.1	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-SS1802

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-03 C SDG: 23D0396
 Sampled: 04/12/23 15:03 Prepared: 04/28/23 15:38 File ID: XDT_m1230511-128
 % Solids: 47.50 Preparation: SWN EPA 3050B Analyzed: 05/11/23 22:48
 Batch: BLD0687 Sequence: SLE0209 Initial/Final: 1.02 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GE00042

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	13.0	20	0.08	0.41	
7440-43-9	Cadmium	0.40	20	0.06	0.21	
7440-50-8	Copper	71.3	20	0.36	1.03	
7440-66-6	Zinc	137	20	6.0	12.4	



Digestion Log

Analyst: AR Date: 04/28/23 Time: 1016-1538 Balance ID: 3AL10
Matrix: soil Block ID: 16 Block Temp: 96C Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SWW</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23D136-01	C	|	1.003	50			
↓ -03	↓	|	1.002				
23D394-01	↓	|	1.018				
↓ -02	B	|	1.051				
↓ -03	↓	|	1.058				
↓ -04	C	|	1.065				
↓ -05		|	1.012				
↓ -06		|	1.074				
↓ -07		|	1.019				
↓ -08		|	1.039				
↓ -09		|	1.018				
↓ -10		|	1.036				
↓ -11	↓	|	1.033				
↓ -12	B	|	1.008				
↓ -13	C	|	1.087				
23D394-01	↓	|	1.033				
↓ -03	↓	|	1.020				
BLD087-blk	-	|	-				23D394-01
↓ -bs	-	|	-				↓
↓ -dup	-	|	1.016				
↓ -MS	-	|	1.019				
↓ -MSD	-	|	1.014				
23D37-02	D	|	1.063				
↓ -04	↓	|	1.012	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO₃: L4188 1:1 HNO₃: L4206 HCl: — H₂O₂: K1056
Tube Lot#: 221017 Boiling Chip Lot#: — (DoD Only)



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK1

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/09/23 21:43

Sequence: SLE0163

Calibration: GE00034

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	20	0.04	0.20	U
7440-43-9	Cadmium-111	ND	20	0.03	0.10	U
7440-50-8	Copper-63	ND	20	0.17	0.50	U



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLD0687

Laboratory ID: BLD0687-BLK2

Prepared: 04/28/23 15:38

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 05/10/23 17:54

Sequence: SLE0204

Calibration: GE00040

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-66-6	Zinc-66	ND	20	2.9	6.0	U



LCS / LCS DUPLICATE RECOVERY

EPA 6020B UCT-KED

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/09/23 21:48</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a	25.0	24.9		99.6	80 - 120
Cadmium-111	25.0	25.7		103	80 - 120
Copper-63	25.0	28.5		114	80 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY

EPA 6020B UCT-KED

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/10/23 18:05</u>
Batch:	<u>BLD0687</u>	Laboratory ID:	<u>BLD0687-BS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Zinc-66	80.0	81.1		101	80 - 120

* Indicates values outside of QC limits



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Instrument: ICPMS1

Calibration Date: 05/09/2023 15:21

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	15550	10	15277.5	20	14954	50	14450.62	100	14213.3
Chromium-52	0	0	0.5	52696	10	25665.6	20	24896	50	23824.18	100	24100.37
Chromium-53	0	0	0.5	3292	10	2783.5	20	2747.15	50	2666.92	100	2605
Lead-208	0	0	0.1	92440	10	87764.4	20	87636.2	50	89109.48	100	87067.5



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00034

Calibration Date: 5/9/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	12407.57	49.2	0.9998		0.998	
Chromium-52	25197.03	66.3	0.9999		0.998	
Chromium-53	2349.095	50.1	0.9998		0.998	
Lead-208	74002.93	49.1	0.9999		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Instrument: ICPMS1

Calibration Date: 05/09/2023 15:21

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	320	10	322.8	20	320.65	50	311.22	100	307.61
Cadmium-111	0	0	0.1	410	10	339.5	20	330.1	50	318.02	100	310.93
Cadmium-114	0	0	0.1	710	10	853.7	20	856.85	50	805.66	100	787.91
Copper-63	0	0	0.5	5830	10	4715.1	20	4670.7	50	4392.22	100	4224.14
Copper-65	0	0	0.5	3004	10	2368.8	20	2341.65	50	2245.14	100	2145.83
Zinc-66	0	0	6	643.5	10	673.3	20	638.85	50	607.58	100	582.37
Zinc-67	0	0	6	96.83334	10	106.1	20	105.2	50	97.46	100	97.08



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Calibration: GE00034

Instrument: ICPMS1
Calibration Date: 5/9/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	263.7133	49.0	0.9999		0.998	
Cadmium-111	284.7583	50.6	0.9998		0.998	
Cadmium-114	669.02	49.6	0.9996		0.998	
Copper-63	3972.027	51.0	0.9994		0.998	
Copper-65	2017.57	51.2	0.9993		0.998	
Zinc-66	524.2667	49.4	0.9994		0.998	
Zinc-67	83.77889	49.2	0.9997		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: SLEΦ163 Cal: GEΦΦΦ34

All corrections made by analyst unless otherwise noted. MB 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	L5224		
		CAL2	L5225		
		-CAL3	L5226		
		-CAL4	L5227		
		-CAL5	L5228		
		-CAL6	L5229		
		-IBL1	—		
		-ICV1	L3575		
	✓	-ICB1	—		Std Made noisy
		-ICB1	L5224		
		-CCV1	L5228		
	✓	-CCB1	—		Std Made noisy
		-CCB1	L5224		
		-CRL1	L5225		
	✓	-IFA1	—		Std Made noisy
		-IFB1	L4689		
		-IFA1	L4688		C _r 53↑
	✓	-HCV1	—		Ba ¹³⁷ ↓
		-HCV2	L4781		
		-HCV1	L4780		
		-IBL2	—		
		-IBL3	—		
		-CCV2			
		✓ -CCB2			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ256-BLK1	REN		
		↓ -BS1	↓		Ge noisy: %R, Values + Analytes OK
		23EΦ192-Φ1		5	
		23EΦ179-Φ1		2	Sc, In, Tb noisy: %R + Analytes OK
		23EΦ141-Φ1		5	
		23EΦΦ96-Φ1		2	
		230Φ453-Φ1	↓	↓	Ge, In ↓ Cd, Cu, Ni, Zn NR
		SEQ-IBL4			
		230Φ595-Φ1	REN	20	Zn ↑ Zn NR
		SEQ-IBL5			
		↓ -CCV3			Be 137 ↓ - Not needed
		-CCB3			
✓		-CAL1			Al, Co, Mo, Se Removed
		-CCV4			Be 137 ↓
		↓ -CCB4			
		BLEΦ119-BLK1	REN		
✓		↓ -BS1	↓		Ge noisy
		↓ -BS1	↓		
		BLEΦ134-BLK2			As, Cd, Cr, Ni, Pb only
		↓ -BS2	↓		↓
		230Φ297-Φ8	SWN	100	Cr only
		23AΦ42Φ-Φ7	↓	↓	↓
		230Φ595-Φ1RE1	REN	↓	Zn only
		230Φ453-Φ1RE1	↓	10	Cd, Cu, Ni, Zn only



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/19/23 Analyst: MB Sequence: Cal:

All corrections made by analyst unless otherwise noted. MB 5/19/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEC2IBLG			
		↓ -CCV5			Ba ¹³⁷ ↓
		↓ -CCB5			
		23CΦ715-Φ2	REN	5	Cr only
		↓ -Φ4		50	
		23CΦ69Φ-Φ8		↓	
		↓ -1Φ		20	
		↓ -Φ4		10	
		230Φ514-Φ5		5	Sc↑/Mn↑ Ag, Ca, Ni only
		BLEΦΦ78-DPZ		↓	Ge noisy - %R + Analytes OK/Values match parent.
		↓ -MSZ		↓	Ag %R ↓
		↓ -MSOZ		↓	
		SEC-IBL7			
		↓ -CCV6			
		↓ -CCB6			
✓		↓ -CALI			Sc, Tb noisy
✓		↓ -CCV7CALI			Ag, Ba, Mn Removed
		↓ -CCV7			
		↓ -CCB7			
		BLCΦ687-BLK1	SWN	20	Zn↑(35.926) - Re-run to confirm (32.762) No Zn
		↓ -BSI	↓	↓	↓
		BLEΦ202-BLK1	REN		Cu only
		↓ -BSI	↓		↓
		↓ -SRL1	↓	5	↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ242-Φ5RE1	REN		Sc↑ - Not Needed Cu only
		BLEΦ2Φ8 - DUPI	↓		↓
		↓ -MS1	↓		↓
		↓ -PS1	↓		CoDown / K4709 ↓
		SEQ-IBL8			
		↓ -CCV8			
		↓ -CCB8			
		BLEΦ125-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		230Φ233-Φ7RE1	REN		Cu only
		230Φ234-Φ7RE1	↓		↓
		230Φ241-Φ2RE1	↓		Sc↑ - Not Needed
		↓ -Φ4RE1	↓		↓ ↓
		230Φ242-Φ2RE1	↓		↓
		↓ -Φ4RE1	↓		Sc↑ - Not Needed
		230Φ3Φ6-Φ1	↓	2	Cr only
		SEQ-IBL9			
		↓ -CCV9			
		↓ -CCB9			
		230Φ393-Φ9	SWN	20	Sc↑ - Not Needed
		↓ -13	↓	↓	
		↓ -14	↓	↓	
		↓ -2Φ	↓	↓	Sc↑ - Not Needed
		↓ -Φ7	↓	↓	↓ ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ125-DUPI	SWN	20	Sc↑ - Not Needed
		↓ -MS1	↓	↓	↓ ↓ /As STL
		↓ -MSD1	↓	↓	↓ ↓
		↓ -PS1	↓	↓	60ml K7409 ↓ ↓
		SEQ-IBLA			
		↓ -CCVA			
		↓ -CCBA			
		230Φ393-21	SWN	20	Sc↑ - Not Needed
		↓ -23	↓	↓	↓ ↓
		230Φ394-Φ3			
		↓ -Φ5			↓
		↓ -Φ1			
		BLDΦ687-DUPI			No Cr, Pb, Zn
		↓ -MS1	↓	↓	↓
		↓ -MSD1	↓	↓	↓
		↓ -PS1	↓	↓	60ml K7409 / Sc↑ ↓
		SEQ-IBLB			
		↓ -CCVB			
		↓ -CCBB			Pb noisy
✓		230Φ394-Φ7	SWN	20	Sc↑ - Not Needed
		↓ -Φ9	↓	↓	↓ ↓
		↓ -1Φ	↓	↓	
✓		↓ -13	↓	↓	
		230Φ348-Φ1	REN	↓	No Pb



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBLC			
		230φ376-φ1	REN	100	Cr only
		230φ424-φ1	↓	5	Zn only
		230φ374-φ3	↓	2	Cd, Cr only
		SEQ-IBLD			
		↓ -CCVC			Pb?
		↓ -CCBC			
		230φ513-φ3	REN		
		230φ452-φ1	↓	2	No Pb
		230φ462-φ1	↓	↓	↓
		230φ48φ-φ1	↓	↓	Cr, In ⁻¹ ↓ Cr only
		SEQ-IBLE			
		230φ442-φ2	REN	20	Cr only
		BLEφφ54-DUP3	↓	↓	↓
		↓ -MS3	↓	↓	
		↓ -MSD3	↓	↓	
		SEQ-IBLF			
		↓ -CCVD			
		↓ -CCBD			
		230φ537-φ5	REN	Sc ↑	No Cr
		BLEφ12φ-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	
		↓ -MSD2	↓	↓	
		SEQ-IBLG			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/9/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/9/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ464-Φ2	REN	20	Pb only
		↓ -Φ1	↓		↓
		230Φ516-Φ1			Sc ↑ - Not Needed
		↓ -Φ2	↓		↓ ↓ ↓
		SEQ-IBLH			
		↓ -CCVE			
		↓ -CCBE			
		230Φ463-Φ1	REN		Pb only
		↓ -Φ2	↓		Sc ↑ - Not Needed
		↓ -Φ3	↓		↓
		230Φ477-Φ5		5	
		↓ -17		2	
		↓ -19			
		BLEΦΦ77-OLP1			
OK ✓		↓ -MS1	↓	↓	Genoisy Pb only
		↓ -MS01	↓	↓	
		SEQ-IBLI			
		↓ -CCVF			
		↓ -CCBF			
					Remaining CV tubes empty - End of usable data
<u>MS 5/9/23</u>					

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Tuesday, May 09, 2023 12:18:16

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.134

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		9586.5		9586.549		68.777		0.7	Standard	
In	114.9		71985.5		71985.472		993.919		1.4	Standard	
U	238.1		96089.6		96089.638		954.703		1.0	Standard	
[	CeO	155.9		2059.6		0.020		0.000		2.4	Standard
|>	Ce	139.9		102412.2		102412.184		475.304		0.5	Standard
[	Ce++	70.0		977.8		0.010		0.000		2.3	Standard
	Bkgd	220.0		0.5		0.467		0.183		39.1	Standard

Current Conditions File Data

Current Value	Description
0.91	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.91	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Tuesday, May 09, 2023 12:20:20

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/9/2023 12:18:11 PM

End Time: 5/9/2023 12:24:32 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 9586.55

Obtained Intensity (In 115): 71985.47

Obtained Intensity (U 238): 96089.64

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / ce 140): 0.010 (=977.83 / 102412.18)

Obtained Formula (CeO 156 / ce 140): 0.020 (=2059.62 / 102412.18)

Obtained RSD (Be 9): 0.0072

Obtained RSD (In 115): 0.0138

Obtained RSD (U 238): 0.0099

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/9/2023 12:18:11 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9586.55
Obtained Intensity (In 115): 71985.47
Obtained Intensity (U 238): 96089.64
Obtained Intensity (Bkgd 220): 0.47
Obtained Formula (Ce++ 70 / Ce 140): 0.010 (=977.83 / 102412.18)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=2059.62 / 102412.18)
Obtained RSD (Be 9): 0.0072
Obtained RSD (In 115): 0.0138
Obtained RSD (U 238): 0.0099

[Passed] Optimum value(s): N/A

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

[Cancelled]

End Time: 5/9/2023 12:24:32 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Tuesday, May 09, 2023 12:31:48

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.141

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		11009.8		11009.842		178.493		1.6	Standard	
In	114.9		77649.3		77649.347		893.969		1.2	Standard	
U	238.1		102175.4		102175.448		1799.462		1.8	Standard	
[	CeO	155.9		2593.5		0.024		0.000		2.1	Standard
|>	Ce	139.9		110114.7		110114.713		947.804		0.9	Standard
[	Ce++	70.0		1356.3		0.012		0.000		1.9	Standard
	Bkgd	220.0		0.5		0.467		0.139		29.9	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Tuesday, May 09, 2023 12:33:52

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/9/2023 12:24:37 PM

End Time: 5/9/2023 12:33:53 PM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.78 mm	0.99 mm	75718.13

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.92

Obtained Intensity (In 115): 85176.17

Obtained Formula (CeO 156 / Ce 140): 0.0219 (=2374.20 / 108222.38)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.691)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.693)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -14.40

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.995; Intercept = -13.81

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 11009.84

Obtained Intensity (In 115): 77649.35

Obtained Intensity (U 238): 102175.45

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1356.26 / 110114.71)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2593.50 / 110114.71)

Obtained RSD (Be 9): 0.0162

Obtained RSD (In 115): 0.0115

Obtained RSD (U 238): 0.0176

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/9/2023 12:24:37 PM

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.78 mm	0.99 mm	75718.13

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 0.89/0.96/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 85176.17
Obtained Formula (CeO 156 / Ce 140): 0.0219 (=2374.20 / 108222.38)

[Passed] optimum value(s): 0.92

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.693)

[Passed] optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -14.40

Analyte	Mass	Points	DAC	MaxIntensity
---------	------	--------	-----	--------------

Li	7	41	-14.5	55363.1
Mg	24	41	-14.5	53532.1
In	115	41	-13	82332.6
Ce	140	41	-12	113235
Pb	208	41	-11	58262.6
U	238	41	-11.5	105395

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.995; Intercept = -13.81

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-14	37068
Mg	24	41	-14	57523.6
In	115	41	-12	121119
Ce	140	41	-11	119203
Pb	208	41	-10.5	54174.5
U	238	41	-10.5	126490

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 5

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

RSD Criterion: Be 9.0122 < 0.05

RSD Criterion: In 114.904 < 0.05

RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 11009.84

Obtained Intensity (In 115): 77649.35

Obtained Intensity (U 238): 102175.45

Obtained Intensity (Bkgd 220): 0.47

Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1356.26 / 110114.71)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2593.50 / 110114.71)

Obtained RSD (Be 9): 0.0162

Obtained RSD (In 115): 0.0115

Obtained RSD (U 238): 0.0176

[Passed] Optimum value(s): N/A

End Time: 5/9/2023 12:33:53 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:21:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L				41563	2	Standard
> Sc	45	ug/L				330809	3	Standard
| Al	27	ug/L				2334	3	Standard
| Cr	52	ug/L				13927	3	Standard
| Cr	53	ug/L				305	13	Standard
| Mn	55	ug/L				504	10	Standard
> Ge	72	ug/L				39846	0	KED
| Co	59	ug/L				61	115	KED
| Ni	60	ug/L				59	45	KED
| Ni	62	ug/L				10	61	KED
| Cu	63	ug/L				67	77	KED
| Cu	65	ug/L				26	67	KED
| Zn	66	ug/L				22	39	KED
| Zn	67	ug/L				3	91	KED
| As	75	ug/L				5	52	KED
| Se	78	ug/L				11	15	KED
| Kr	83	ug/L				53	4	Standard
> In-1	115	ug/L				9311	3	KED
| Mo	98	ug/L				10	35	KED
| Cd	111	ug/L				2	24	KED
| Cd	114	ug/L				8	36	KED
> In	115	ug/L				399419	5	Standard
| Ag	107	ug/L				46	27	Standard
| Ba	135	ug/L				15	25	Standard
| Ba	137	ug/L				37	10	Standard
> Tb	159	ug/L				173053	2	Standard
| Pb	208	ug/L				201	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:26:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42798	0	Standard
> Sc	45		ug/L			330809	347123	0	Standard
| Al	27	20.000	ug/L	0.473	2	2334	510670	1	Standard
| Cr	52	0.500	ug/L	0.011	2	13927	26348	0	Standard
| Cr	53	0.500	ug/L	0.027	5	305	1646	5	Standard
| Mn	55	0.500	ug/L	0.008	1	504	17661	0	Standard
> Ge	72		ug/L			39846	39869	1	KED
| Co	59	0.200	ug/L	0.010	4	61	1193	4	KED
| Ni	60	0.500	ug/L	0.020	4	59	852	4	KED
| Ni	62	0.500	ug/L	0.017	3	10	130	3	KED
| Cu	63	0.500	ug/L	0.007	1	67	2915	2	KED
| Cu	65	0.500	ug/L	0.011	2	26	1502	1	KED
| Zn	66	6.000	ug/L	0.234	3	22	3861	3	KED
| Zn	67	6.000	ug/L	0.179	2	3	581	2	KED
| As	75	0.200	ug/L	0.025	12	5	64	11	KED
| Se	78	0.500	ug/L	0.078	15	11	24	7	KED
| Kr	83		ug/L			53	56	5	Standard
> In-1	115		ug/L			9311	9467	1	KED
| Mo	98	0.200	ug/L	0.005	2	10	301	2	KED
| Cd	111	0.100	ug/L	0.019	19	2	41	19	KED
| Cd	114	0.100	ug/L	0.010	9	8	71	7	KED
> In	115		ug/L			399419	418159	0	Standard
| Ag	107	0.200	ug/L	0.001	0	46	3110	0	Standard
| Ba	135	0.500	ug/L	0.026	5	15	2765	4	Standard
| Ba	137	0.500	ug/L	0.011	2	37	5223	1	Standard
> Tb	159		ug/L			173053	178365	0	Standard
| Pb	208	0.100	ug/L	0.001	0	201	9244	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:30:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	45757	1	Standard
> Sc	45		ug/L			330809	352525	1	Standard
| Al	27	1000.010	ug/L	30.286	3	2334	26468702	2	Standard
| Cr	52	10.000	ug/L	0.380	3	13927	256656	2	Standard
| Cr	53	10.001	ug/L	0.246	2	305	27835	1	Standard
| Mn	55	10.000	ug/L	0.200	1	504	354551	1	Standard
> Ge	72		ug/L			39846	40554	1	KED
| Co	59	10.000	ug/L	0.201	2	61	57570	1	KED
| Ni	60	10.001	ug/L	0.381	3	59	17107	2	KED
| Ni	62	10.001	ug/L	0.245	2	10	2591	1	KED
| Cu	63	9.994	ug/L	0.252	2	67	47151	1	KED
| Cu	65	9.993	ug/L	0.097	0	26	23688	0	KED
| Zn	66	10.081	ug/L	0.410	4	22	6733	2	KED
| Zn	67	10.198	ug/L	0.331	3	3	1061	2	KED
| As	75	10.000	ug/L	0.232	2	5	3228	0	KED
| Se	78	10.004	ug/L	0.511	5	11	324	4	KED
| Kr	83		ug/L			53	57	8	Standard
> In-1	115		ug/L			9311	9322	2	KED
| Mo	98	10.000	ug/L	0.399	3	10	15075	1	KED
| Cd	111	10.000	ug/L	0.264	2	2	3395	1	KED
| Cd	114	10.000	ug/L	0.282	2	8	8537	1	KED
> In	115		ug/L			399419	423194	2	Standard
| Ag	107	10.000	ug/L	0.180	1	46	152775	1	Standard
| Ba	135	10.000	ug/L	0.335	3	15	54787	0	Standard
| Ba	137	10.000	ug/L	0.179	1	37	104428	1	Standard
> Tb	159		ug/L			173053	183421	0	Standard
| Pb	208	10.000	ug/L	0.099	0	201	877644	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:36:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	47595	3	Standard
[> Sc	45		ug/L			330809	351739	1	Standard
| Al	27	2000.805	ug/L	34.694	1	2334	52926238	1	Standard
| Cr	52	20.004	ug/L	0.381	1	13927	497920	1	Standard
| Cr	53	19.979	ug/L	0.398	1	305	54943	1	Standard
| Mn	55	20.010	ug/L	0.446	2	504	708686	1	Standard
[> Ge	72		ug/L			39846	40958	0	KED
| Co	59	19.897	ug/L	0.485	2	61	113307	1	KED
| Ni	60	19.844	ug/L	0.317	1	59	33205	0	KED
| Ni	62	20.073	ug/L	0.428	2	10	5320	2	KED
| Cu	63	19.922	ug/L	0.288	1	67	93414	0	KED
| Cu	65	19.913	ug/L	0.369	1	26	46833	1	KED
| Zn	66	19.726	ug/L	0.119	0	22	12777	1	KED
| Zn	67	20.012	ug/L	0.361	1	3	2104	1	KED
| As	75	19.936	ug/L	0.225	1	5	6413	0	KED
[Se	78	20.063	ug/L	0.208	1	11	653	0	KED
| Kr	83		ug/L			53	40	50	Standard
[> In-1	115		ug/L			9311	9471	1	KED
| Mo	98	19.891	ug/L	0.453	2	10	29817	0	KED
| Cd	111	19.822	ug/L	0.606	3	2	6602	2	KED
| Cd	114	19.951	ug/L	0.173	0	8	17137	1	KED
[> In	115		ug/L			399419	429169	0	Standard
| Ag	107	19.856	ug/L	0.529	2	46	299080	2	Standard
| Ba	135	20.009	ug/L	0.126	0	15	111436	0	Standard
[Ba	137	19.925	ug/L	0.122	0	37	207952	0	Standard
[> Tb	159		ug/L			173053	183959	0	Standard
[Pb	208	19.983	ug/L	0.203	1	201	1752724	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:41:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			41563	44736	2	Standard
> Sc	45	ug/L			330809	349834	2	Standard
| Al	27	5002.670	85.281	1	2334	131936826	0	Standard
| Cr	52	49.828	0.750	1	13927	1191209	1	Standard
| Cr	53	49.818	0.724	1	305	133346	1	Standard
| Mn	55	49.804	0.314	0	504	1720189	2	Standard
> Ge	72				39846	38077	3	KED
| Co	59	50.393	1.802	3	61	277406	0	KED
| Ni	60	50.261	1.344	2	59	80152	1	KED
| Ni	62	50.388	1.324	2	10	12894	2	KED
| Cu	63	50.072	1.547	3	67	219611	0	KED
| Cu	65	50.227	1.888	3	26	112257	1	KED
| Zn	66	50.095	1.624	3	22	30379	0	KED
| Zn	67	49.990	3.682	7	3	4873	5	KED
| As	75	50.336	1.209	2	5	15561	1	KED
| Se	78	50.148	0.560	1	11	1525	3	KED
| Kr	83				53	56	3	Standard
> In-1	115				9311	9162	4	KED
| Mo	98	50.124	2.310	4	10	73507	0	KED
| Cd	111	49.897	1.611	3	2	15901	0	KED
| Cd	114	49.751	2.030	4	8	40283	0	KED
> In	115				399419	409733	3	Standard
| Ag	107	50.048	1.939	3	46	722531	0	Standard
| Ba	135	50.484	2.046	4	15	281808	1	Standard
| Ba	137	50.201	1.586	3	37	510053	0	Standard
> Tb	159				173053	182863	1	Standard
| Pb	208	50.182	0.587	1	201	4455474	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:48:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	47319	1	Standard
> Sc	45		ug/L			330809	347968	1	Standard
| Al	27	9993.856	ug/L	146.775	1	2334	261673101	0	Standard
| Cr	52	100.449	ug/L	0.719	0	13927	2410037	0	Standard
| Cr	53	99.516	ug/L	1.213	1	305	260500	2	Standard
| Mn	55	100.210	ug/L	1.155	1	504	3466669	2	Standard
> Ge	72		ug/L			39846	38576	1	KED
| Co	59	99.502	ug/L	0.924	0	61	546242	1	KED
| Ni	60	99.028	ug/L	1.562	1	59	154979	0	KED
| Ni	62	98.838	ug/L	3.763	3	10	24662	2	KED
| Cu	63	98.803	ug/L	1.257	1	67	422414	1	KED
| Cu	65	98.726	ug/L	1.132	1	26	214583	1	KED
| Zn	66	98.730	ug/L	1.593	1	22	58237	0	KED
| Zn	67	99.578	ug/L	0.802	0	3	9708	0	KED
| As	75	99.575	ug/L	1.193	1	5	30761	0	KED
| Se	78	98.973	ug/L	1.063	1	11	2939	2	KED
| Kr	83		ug/L			53	64	15	Standard
> In-1	115		ug/L			9311	9233	2	KED
| Mo	98	99.424	ug/L	2.178	2	10	144285	0	KED
| Cd	111	99.240	ug/L	2.879	2	2	31093	0	KED
| Cd	114	99.174	ug/L	2.885	2	8	78791	0	KED
> In	115		ug/L			399419	407313	4	Standard
| Ag	107	99.778	ug/L	3.274	3	46	1421330	1	Standard
| Ba	135	98.997	ug/L	2.050	2	15	531703	2	Standard
| Ba	137	99.876	ug/L	2.237	2	37	1004628	2	Standard
> Tb	159		ug/L			173053	182429	0	Standard
| Pb	208	99.600	ug/L	2.205	2	201	8706750	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 15:55:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			41563	41474	0	Standard	
[>	Sc	45	ug/L			330809	337191	2	Standard	
|	Al	27	0.037	ug/L	0.020	52	2334	3320	16	Standard
|	Cr	52	0.002	ug/L	0.012	558	13927	14239	1	Standard
|	Cr	53	-0.012	ug/L	0.005	43	305	281	2	Standard
|	Mn	55	0.002	ug/L	0.001	48	504	571	2	Standard
[>	Ge	72	ug/L			39846	39354	1	KED	
|	Co	59	-0.008	ug/L	0.002	27	61	13	90	KED
|	Ni	60	-0.015	ug/L	0.003	20	59	34	14	KED
|	Ni	62	-0.007	ug/L	0.016	225	10	8	44	KED
|	Cu	63	-0.009	ug/L	0.001	16	67	29	19	KED
|	Cu	65	-0.001	ug/L	0.001	144	26	23	12	KED
|	Zn	66	0.027	ug/L	0.014	50	22	38	21	KED
|	Zn	67	0.000	ug/L	0.011	3252	3	3	34	KED
|	As	75	0.004	ug/L	0.004	97	5	7	17	KED
|	Se	78	-0.002	ug/L	0.198	8521	11	11	55	KED
|	Kr	83		ug/L			53	52	24	Standard
[>	In-1	115		ug/L			9311	9513	2	KED
|	Mo	98	0.026	ug/L	0.006	22	10	50	18	KED
|	Cd	111	0.017	ug/L	0.006	33	2	7	25	KED
|	Cd	114	0.003	ug/L	0.004	121	8	10	26	KED
[>	In	115		ug/L			399419	403042	1	Standard
|	Ag	107	0.003	ug/L	0.000	13	46	90	5	Standard
|	Ba	135	0.002	ug/L	0.001	27	15	25	11	Standard
|	Ba	137	0.001	ug/L	0.001	70	37	49	16	Standard
[>	Tb	159		ug/L			173053	176176	0	Standard
|	Pb	208	0.002	ug/L	0.000	13	201	379	5	Standard

Sample Information

Sample Date/Time: Tuesday, May 09, 2023 15:48:11

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Sc	45							
Al	27	1.0000	0.075	20.00	1000	2000	5000	10000
Cr	52	1.0000	0.069	0.50	10	20	50	100
Cr	53	1.0000	0.008	0.50	10	20	50	100
Mn	55	1.0000	0.099	0.50	10	20	50	100
Ge	72							
Co	59	0.9999	0.142	0.20	10	20	50	100
Ni	60	0.9998	0.041	0.50	10	20	50	100
Ni	62	0.9997	0.006	0.50	10	20	50	100
Cu	63	0.9998	0.111	0.50	10	20	50	100
Cu	65	0.9997	0.056	0.50	10	20	50	100
Zn	66	0.9997	0.015	6.00	10	20	50	100
Zn	67	1.0000	0.003	6.00	10	20	50	100
As	75	0.9999	0.008	0.20	10	20	50	100
Se	78	0.9998	0.001	0.50	10	20	50	100
Kr	83							
In-1	115							
Mo	98	0.9999	0.157	0.20	10	20	50	100
Cd	111	0.9999	0.034	0.10	10	20	50	100
Cd	114	0.9999	0.086	0.10	10	20	50	100
In	115							
Ag	107	1.0000	0.035	0.20	10	20	50	100
Ba	135	0.9998	0.013	0.50	10	20	50	100
Ba	137	1.0000	0.025	0.50	10	20	50	100
Tb	159							
Pb	208	1.0000	0.479	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:02:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	51030	0	Standard
> Sc	45		ug/L			330809	348289	1	Standard
| Al	27	5055.142	ug/L	67.080	1	2334	132481604	0	Standard
| Cr	52	49.900	ug/L	0.534	1	13927	1205645	0	Standard
| Cr	53	51.349	ug/L	1.082	2	305	134661	1	Standard
| Mn	55	50.670	ug/L	0.765	1	504	1754341	0	Standard
> Ge	72		ug/L			39846	39763	1	KED
| Co	59	49.745	ug/L	0.122	0	61	281520	0	KED
| Ni	60	51.058	ug/L	1.053	2	59	82393	1	KED
| Ni	62	51.063	ug/L	1.423	2	10	13140	1	KED
| Cu	63	51.738	ug/L	0.675	1	67	228017	0	KED
| Cu	65	51.510	ug/L	0.653	1	26	115416	1	KED
| Zn	66	49.322	ug/L	0.636	1	22	30000	0	KED
| Zn	67	50.105	ug/L	1.472	2	3	5037	2	KED
| As	75	47.612	ug/L	0.736	1	5	15163	0	KED
| Se	78	79.129	ug/L	2.195	2	11	2424	3	KED
| Kr	83		ug/L			53	51	7	Standard
> In-1	115		ug/L			9311	9456	2	KED
| Mo	98	48.824	ug/L	0.912	1	10	72575	0	KED
| Cd	111	50.002	ug/L	1.123	2	2	16048	0	KED
| Cd	114	49.630	ug/L	0.920	1	8	40393	0	KED
> In	115		ug/L			399419	407713	2	Standard
| Ag	107	51.697	ug/L	1.768	3	46	737324	0	Standard
| Ba	135	51.629	ug/L	2.097	4	15	277557	2	Standard
| Ba	137	51.335	ug/L	2.490	4	37	516748	2	Standard
> Tb	159		ug/L			173053	182624	0	Standard
| Pb	208	51.461	ug/L	0.294	0	201	4503392	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:09:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41853	1	Standard
> Sc	45		ug/L			330809	321169	12	Standard
Al	27	0.024	ug/L	0.010	40	2334	2819	4	Standard
Cr	52	0.036	ug/L	0.071	199	13927	14178	2	Standard
Cr	53	-0.007	ug/L	0.015	200	305	276	5	Standard
Mn	55	0.002	ug/L	0.002	129	504	540	1	Standard
> Ge	72		ug/L			39846	39840	0	KED
Co	59	-0.009	ug/L	0.001	11	61	12	48	KED
Ni	60	-0.012	ug/L	0.005	38	59	39	20	KED
Ni	62	-0.010	ug/L	0.019	189	10	8	58	KED
Cu	63	-0.008	ug/L	0.003	39	67	29	48	KED
Cu	65	-0.004	ug/L	0.002	59	26	17	26	KED
Zn	66	0.007	ug/L	0.005	72	22	26	12	KED
Zn	67	0.025	ug/L	0.051	199	3	5	88	KED
As	75	-0.005	ug/L	0.003	59	5	4	22	KED
Se	78	0.006	ug/L	0.055	989	11	11	14	KED
Kr	83		ug/L			53	43	15	Standard
> In-1	115		ug/L			9311	9420	1	KED
Mo	98	0.013	ug/L	0.007	52	10	30	32	KED
Cd	111	0.011	ug/L	0.003	25	2	5	16	KED
Cd	114	-0.002	ug/L	0.011	680	8	6	129	KED
> In	115		ug/L			399419	373010	11	Standard
Ag	107	0.003	ug/L	0.002	70	46	77	24	Standard
Ba	135	0.001	ug/L	0.001	70	15	20	30	Standard
Ba	137	0.002	ug/L	0.001	24	37	55	3	Standard
> Tb	159		ug/L			173053	162830	8	Standard
Pb	208	0.002	ug/L	0.000	19	201	343	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:14:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41843	0	Standard
[>	Sc	45	ug/L			330809	342999	1	Standard
|	Al	27	ug/L	0.005	88	2334	2271	5	Standard
|	Cr	52	ug/L	0.017	146	13927	14160	2	Standard
|	Cr	53	ug/L	0.007	35	305	265	6	Standard
|	Mn	55	ug/L	0.000	71	504	500	3	Standard
[>	Ge	72	ug/L			39846	39973	1	KED
|	Co	59	ug/L	0.000	3	61	9	20	KED
|	Ni	60	ug/L	0.004	27	59	33	21	KED
|	Ni	62	ug/L	0.015	101	10	14	27	KED
|	Cu	63	ug/L	0.001	13	67	22	30	KED
|	Cu	65	ug/L	0.003	91	26	18	39	KED
|	Zn	66	ug/L	0.014	65	22	35	24	KED
|	Zn	67	ug/L	0.030	232	3	4	65	KED
|	As	75	ug/L	0.002	19	5	2	32	KED
|	Se	78	ug/L	0.077	669	11	10	21	KED
|	Kr	83	ug/L			53	49	13	Standard
[>	In-1	115	ug/L			9311	9338	1	KED
|	Mo	98	ug/L	0.006	351	10	13	66	KED
|	Cd	111	ug/L	0.006	52	2	5	33	KED
|	Cd	114	ug/L	0.001	18	8	2	45	KED
[>	In	115	ug/L			399419	407275	1	Standard
|	Ag	107	ug/L	0.001	2365	46	47	20	Standard
|	Ba	135	ug/L	0.001	77	15	24	27	Standard
|	Ba	137	ug/L	0.001	91	37	47	18	Standard
[>	Tb	159	ug/L			173053	175538	1	Standard
|	Pb	208	ug/L	0.000	31	201	287	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:20:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43825	1	Standard
> Sc	45		ug/L			330809	351713	1	Standard
| Al	27	5017.324	ug/L	66.831	1	2334	132780299	1	Standard
| Cr	52	49.123	ug/L	1.476	3	13927	1198689	2	Standard
| Cr	53	51.619	ug/L	0.692	1	305	136698	0	Standard
| Mn	55	49.606	ug/L	0.908	1	504	1734249	0	Standard
> Ge	72		ug/L			39846	40000	1	KED
| Co	59	48.873	ug/L	1.174	2	61	278172	0	KED
| Ni	60	49.785	ug/L	0.823	1	59	80817	0	KED
| Ni	62	50.064	ug/L	1.069	2	10	12960	0	KED
| Cu	63	50.263	ug/L	1.422	2	67	222822	2	KED
| Cu	65	50.231	ug/L	0.497	0	26	113218	1	KED
| Zn	66	50.271	ug/L	0.721	1	22	30759	0	KED
| Zn	67	50.586	ug/L	2.193	4	3	5113	2	KED
| As	75	49.273	ug/L	0.700	1	5	15785	0	KED
| Se	78	50.457	ug/L	1.106	2	11	1558	1	KED
| Kr	83		ug/L			53	58	29	Standard
> In-1	115		ug/L			9311	9554	1	KED
| Mo	98	49.118	ug/L	0.330	0	10	73793	0	KED
| Cd	111	49.809	ug/L	0.460	0	2	16157	0	KED
| Cd	114	49.890	ug/L	0.661	1	8	41037	0	KED
> In	115		ug/L			399419	420946	0	Standard
| Ag	107	50.017	ug/L	0.387	0	46	737019	0	Standard
| Ba	135	48.935	ug/L	1.070	2	15	271777	1	Standard
| Ba	137	49.517	ug/L	1.055	2	37	515090	1	Standard
> Tb	159		ug/L			173053	183933	0	Standard
| Pb	208	50.246	ug/L	0.471	0	201	4428518	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:27:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41468	2	Standard
> Sc	45		ug/L			330809	325907	10	Standard
| Al	27	0.264	ug/L	0.444	168	2334	9241	128	Standard
| Cr	52	0.030	ug/L	0.049	165	13927	14310	3	Standard
| Cr	53	-0.010	ug/L	0.013	124	305	274	11	Standard
| Mn	55	0.006	ug/L	0.007	122	504	687	40	Standard
> Ge	72		ug/L			39846	40680	0	KED
| Co	59	-0.009	ug/L	0.001	7	61	9	40	KED
| Ni	60	-0.013	ug/L	0.007	54	59	39	29	KED
| Ni	62	-0.013	ug/L	0.019	150	10	7	66	KED
| Cu	63	-0.004	ug/L	0.004	88	67	48	35	KED
| Cu	65	-0.004	ug/L	0.002	54	26	17	29	KED
| Zn	66	0.026	ug/L	0.022	85	22	38	35	KED
| Zn	67	0.030	ug/L	0.039	127	3	6	62	KED
| As	75	-0.004	ug/L	0.010	258	5	4	65	KED
| Se	78	-0.004	ug/L	0.091	2092	11	11	24	KED
| Kr	83		ug/L			53	49	13	Standard
> In-1	115		ug/L			9311	9519	3	KED
| Mo	98	0.010	ug/L	0.009	89	10	26	51	KED
| Cd	111	0.012	ug/L	0.004	37	2	6	24	KED
| Cd	114	-0.006	ug/L	0.004	58	8	3	96	KED
> In	115		ug/L			399419	387542	11	Standard
| Ag	107	0.005	ug/L	0.006	116	46	119	77	Standard
| Ba	135	0.007	ug/L	0.007	102	15	52	79	Standard
| Ba	137	0.005	ug/L	0.005	98	37	85	61	Standard
> Tb	159		ug/L			173053	167051	11	Standard
| Pb	208	0.005	ug/L	0.005	89	201	624	67	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:32:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42147	0	Standard
> Sc	45		ug/L			330809	340888	1	Standard
| Al	27	0.003	ug/L	0.003	86	2334	2482	3	Standard
| Cr	52	0.001	ug/L	0.004	592	13927	14368	1	Standard
| Cr	53	-0.015	ug/L	0.016	108	305	277	16	Standard
| Mn	55	-0.001	ug/L	0.001	104	504	493	6	Standard
> Ge	72		ug/L			39846	39995	1	KED
| Co	59	-0.010	ug/L	0.000	3	61	6	31	KED
| Ni	60	-0.010	ug/L	0.005	52	59	43	17	KED
| Ni	62	-0.020	ug/L	0.015	76	10	5	66	KED
| Cu	63	-0.007	ug/L	0.001	7	67	37	5	KED
| Cu	65	-0.005	ug/L	0.001	21	26	15	13	KED
| Zn	66	0.027	ug/L	0.006	23	22	38	11	KED
| Zn	67	0.013	ug/L	0.022	175	3	4	49	KED
| As	75	-0.007	ug/L	0.002	33	5	3	19	KED
| Se	78	-0.007	ug/L	0.036	517	11	11	8	KED
| Kr	83		ug/L			53	47	17	Standard
> In-1	115		ug/L			9311	9242	1	KED
| Mo	98	0.002	ug/L	0.003	138	10	14	32	KED
| Cd	111	0.005	ug/L	0.013	258	2	3	108	KED
| Cd	114	-0.005	ug/L	0.004	78	8	3	90	KED
> In	115		ug/L			399419	405205	1	Standard
| Ag	107	-0.001	ug/L	0.001	120	46	38	27	Standard
| Ba	135	0.001	ug/L	0.000	19	15	22	4	Standard
| Ba	137	0.001	ug/L	0.001	81	37	48	17	Standard
> Tb	159		ug/L			173053	174170	1	Standard
| Pb	208	0.002	ug/L	0.000	9	201	391	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:39:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	41773	0	Standard
> Sc	45		ug/L			330809	348291	1	Standard
| Al	27	19.792	ug/L	0.092	0	2334	521196	1	Standard
| Cr	52	0.488	ug/L	0.018	3	13927	26303	0	Standard
| Cr	53	0.510	ug/L	0.011	2	305	1655	1	Standard
| Mn	55	0.502	ug/L	0.005	1	504	17922	1	Standard
> Ge	72		ug/L			39846	41006	0	KED
| Co	59	0.194	ug/L	0.005	2	61	1194	1	KED
| Ni	60	0.477	ug/L	0.028	5	59	853	4	KED
| Ni	62	0.513	ug/L	0.020	3	10	147	4	KED
| Cu	63	0.703	ug/L	0.023	3	67	3265	2	KED
| Cu	65	0.709	ug/L	0.009	1	26	1665	1	KED
| Zn	66	6.199	ug/L	0.134	2	22	3908	2	KED
| Zn	67	5.777	ug/L	0.453	7	3	601	7	KED
| As	75	0.206	ug/L	0.027	12	5	73	12	KED
| Se	78	0.565	ug/L	0.190	33	11	29	19	KED
| Kr	83		ug/L			53	41	25	Standard
> In-1	115		ug/L			9311	9695	0	KED
| Mo	98	0.185	ug/L	0.019	10	10	293	9	KED
| Cd	111	0.097	ug/L	0.026	26	2	34	24	KED
| Cd	114	0.095	ug/L	0.013	13	8	87	11	KED
> In	115		ug/L			399419	413454	3	Standard
| Ag	107	0.217	ug/L	0.002	0	46	3192	3	Standard
| Ba	135	0.520	ug/L	0.027	5	15	2854	5	Standard
| Ba	137	0.516	ug/L	0.032	6	37	5303	3	Standard
> Tb	159		ug/L			173053	178882	0	Standard
| Pb	208	0.104	ug/L	0.000	0	201	9154	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

DEL

Sample Date/Time: Tuesday, May 09, 2023 16:44:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	178413	0	Standard
> Sc	45		ug/L			330809	319836	10	Standard
Al	27	20673.419	ug/L	2512.933	12	2334	493384416	1	Standard
Cr	52	0.693	ug/L	0.143	20	13927	28445	0	Standard
Cr	53	3.584	ug/L	0.380	10	305	8844	1	Standard
Mn	55	0.198	ug/L	0.027	13	504	6708	2	Standard
> Ge	72		ug/L			39846	35200	1	KED
Co	59	0.022	ug/L	0.003	14	61	163	8	KED
Ni	60	0.094	ug/L	0.008	8	59	186	6	KED
Ni	62	0.150	ug/L	0.028	18	10	43	15	KED
Cu	63	0.031	ug/L	0.005	16	67	180	11	KED
Cu	65	0.039	ug/L	0.004	11	26	100	9	KED
Zn	66	0.280	ug/L	0.050	17	22	170	14	KED
Zn	67	0.311	ug/L	0.033	10	3	30	10	KED
As	75	0.024	ug/L	0.012	51	5	12	28	KED
Se	78	-0.058	ug/L	0.060	103	11	8	20	KED
Kr	83		ug/L			53	127	5	Standard
> In-1	115		ug/L			9311	8388	2	KED
Mo	98	393.408	ug/L	9.298	2	10	518636	0	KED
Cd	111	0.089	ug/L	0.013	14	2	27	11	KED
Cd	114	0.053	ug/L	0.011	20	8	45	18	KED
> In	115		ug/L			399419	421531	9	Standard
Ag	107	0.004	ug/L	0.001	34	46	110	8	Standard
Ba	135	0.106	ug/L	0.002	2	15	606	7	Standard
Ba	137	0.105	ug/L	0.014	13	37	1120	4	Standard
> Tb	159		ug/L			173053	165411	10	Standard
Pb	208	0.025	ug/L	0.003	14	201	2125	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:49:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	175638	0	Standard
[> Sc	45		ug/L			330809	339423	1	Standard
| Al	27	18992.057	ug/L	45.740	0	2334	485118632	1	Standard
| Cr	52	19.239	ug/L	0.158	0	13927	461816	0	Standard
| Cr	53	22.578	ug/L	0.085	0	305	57886	0	Standard
| Mn	55	19.193	ug/L	0.108	0	504	647999	0	Standard
[> Ge	72		ug/L			39846	34003	1	KED
| Co	59	20.391	ug/L	0.289	1	61	98695	0	KED
| Ni	60	20.684	ug/L	0.321	1	59	28576	2	KED
| Ni	62	20.454	ug/L	0.331	1	10	4507	2	KED
| Cu	63	20.310	ug/L	0.427	2	67	76567	1	KED
| Cu	65	20.188	ug/L	0.219	1	26	38689	0	KED
| Zn	66	19.206	ug/L	0.248	1	22	10000	0	KED
| Zn	67	17.986	ug/L	0.386	2	3	1548	2	KED
| As	75	18.983	ug/L	0.260	1	5	5172	0	KED
[Se	78	0.069	ug/L	0.056	82	11	11	14	KED
| Kr	83		ug/L			53	140	2	Standard
[> In-1	115		ug/L			9311	7800	2	KED
| Mo	98	406.780	ug/L	8.263	2	10	498752	0	KED
| Cd	111	19.887	ug/L	0.241	1	2	5267	0	KED
[Cd	114	19.859	ug/L	0.698	3	8	13335	1	KED
[> In	115		ug/L			399419	458230	2	Standard
| Ag	107	16.458	ug/L	0.235	1	46	263970	0	Standard
| Ba	135	0.100	ug/L	0.006	6	15	619	4	Standard
[Ba	137	0.091	ug/L	0.002	2	37	1078	4	Standard
[> Tb	159		ug/L			173053	175568	1	Standard
[Pb	208	0.016	ug/L	0.001	3	201	1560	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:54:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	170222	1	Standard
> Sc	45		ug/L			330809	324648	2	Standard
| Al	27	19352.192	ug/L	285.516	1	2334	472726211	1	Standard
| Cr	52	0.610	ug/L	0.011	1	13927	27229	1	Standard
| Cr	53	3.638	ug/L	0.057	1	305	9175	3	Standard
| Mn	55	0.176	ug/L	0.003	1	504	6185	2	Standard
> Ge	72		ug/L			39846	33021	1	KED
| Co	59	0.025	ug/L	0.003	14	61	168	11	KED
| Ni	60	0.098	ug/L	0.011	10	59	179	9	KED
| Ni	62	0.139	ug/L	0.007	5	10	38	5	KED
| Cu	63	0.035	ug/L	0.007	21	67	182	15	KED
| Cu	65	0.042	ug/L	0.008	19	26	99	13	KED
| Zn	66	0.318	ug/L	0.021	6	22	179	7	KED
| Zn	67	0.197	ug/L	0.069	34	3	19	30	KED
| As	75	0.021	ug/L	0.011	52	5	10	28	KED
| Se	78	-0.010	ug/L	0.158	1561	11	9	42	KED
| Kr	83		ug/L			53	132	13	Standard
> In-1	115		ug/L			9311	7621	0	KED
| Mo	98	403.581	ug/L	2.915	0	10	483596	0	KED
| Cd	111	0.083	ug/L	0.014	16	2	23	15	KED
| Cd	114	0.072	ug/L	0.022	30	8	53	27	KED
> In	115		ug/L			399419	454995	0	Standard
| Ag	107	0.003	ug/L	0.001	32	46	105	16	Standard
| Ba	135	0.108	ug/L	0.008	7	15	662	7	Standard
| Ba	137	0.100	ug/L	0.002	2	37	1167	2	Standard
> Tb	159		ug/L			173053	173976	1	Standard
| Pb	208	0.024	ug/L	0.002	7	201	2168	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 16:59:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	48313	0	Standard
> Sc	45		ug/L			330809	322847	0	Standard
Al	27	19741.425	ug/L	71.368	0	2334	479639166	1	Standard
Cr	52	198.542	ug/L	3.145	1	13927	4406890	2	Standard
Cr	53	196.647	ug/L	0.344	0	305	477271	1	Standard
Mn	55	201.779	ug/L	1.576	0	504	6475346	1	Standard
> Ge	72		ug/L			39846	32623	0	KED
Co	59	201.561	ug/L	1.970	0	61	935703	0	KED
Ni	60	199.185	ug/L	3.001	1	59	263614	1	KED
Ni	62	199.266	ug/L	1.436	0	10	42052	0	KED
Cu	63	197.593	ug/L	2.018	1	67	714373	1	KED
Cu	65	197.712	ug/L	1.492	0	26	363393	0	KED
Zn	66	193.134	ug/L	0.267	0	22	96338	0	KED
Zn	67	190.315	ug/L	4.102	2	3	15690	2	KED
As	75	193.494	ug/L	1.405	0	5	50549	0	KED
Se	78	191.006	ug/L	1.616	0	11	4787	1	KED
Kr	83		ug/L			53	150	19	Standard
> In-1	115		ug/L			9311	7778	1	KED
Mo	98	201.948	ug/L	3.842	1	10	246930	0	KED
Cd	111	194.681	ug/L	4.559	2	2	51396	0	KED
Cd	114	197.729	ug/L	3.254	1	8	132379	0	KED
> In	115		ug/L			399419	428093	2	Standard
Ag	107	182.281	ug/L	4.583	2	46	2730498	1	Standard
Ba	135	183.680	ug/L	3.486	1	15	1037101	1	Standard
Ba	137	179.582	ug/L	3.813	2	37	1899009	0	Standard
> Tb	159		ug/L			173053	172141	1	Standard
Pb	208	205.647	ug/L	3.213	1	201	16960392	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:04:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	52276	0	Standard
> Sc	45		ug/L			330809	313429	3	Standard
| Al	27	31005.746	ug/L	562.243	1	2334	731037211	1	Standard
| Cr	52	303.658	ug/L	3.359	1	13927	6535199	2	Standard
| Cr	53	303.033	ug/L	4.581	1	305	713647	1	Standard
| Mn	55	306.141	ug/L	5.471	1	504	9533969	1	Standard
> Ge	72		ug/L			39846	32028	0	KED
| Co	59	307.176	ug/L	0.922	0	61	1399949	0	KED
| Ni	60	303.679	ug/L	2.108	0	59	394535	0	KED
| Ni	62	300.015	ug/L	3.229	1	10	62152	0	KED
| Cu	63	298.175	ug/L	1.109	0	67	1058290	0	KED
| Cu	65	292.324	ug/L	4.504	1	26	527452	1	KED
| Zn	66	287.385	ug/L	1.986	0	22	140723	0	KED
| Zn	67	280.785	ug/L	2.491	0	3	22725	0	KED
| As	75	294.201	ug/L	0.913	0	5	75455	0	KED
| Se	78	286.480	ug/L	2.751	0	11	7045	1	KED
| Kr	83		ug/L			53	203	8	Standard
> In-1	115		ug/L			9311	7480	1	KED
| Mo	98	317.999	ug/L	6.026	1	10	373953	1	KED
| Cd	111	295.955	ug/L	4.835	1	2	75149	0	KED
| Cd	114	297.848	ug/L	4.774	1	8	191772	0	KED
> In	115		ug/L			399419	399361	1	Standard
| Ag	107	285.536	ug/L	7.252	2	46	3990262	0	Standard
| Ba	135	286.739	ug/L	3.966	1	15	1510698	1	Standard
| Ba	137	298.906	ug/L	2.154	0	37	2949511	1	Standard
> Tb	159		ug/L			173053	165043	0	Standard
| Pb	208	309.892	ug/L	1.883	0	201	24508496	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:11:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	49173	1	Standard
> Sc	45		ug/L			330809	326774	2	Standard
| Al	27	19953.876	ug/L	257.214	1	2334	490586538	1	Standard
| Cr	52	196.013	ug/L	1.902	0	13927	4403434	2	Standard
| Cr	53	194.069	ug/L	4.740	2	305	476559	0	Standard
| Mn	55	196.114	ug/L	1.447	0	504	6370172	2	Standard
> Ge	72		ug/L			39846	33834	1	KED
| Co	59	199.526	ug/L	1.362	0	61	960591	0	KED
| Ni	60	198.863	ug/L	2.970	1	59	272911	0	KED
| Ni	62	198.206	ug/L	3.678	1	10	43374	0	KED
| Cu	63	197.328	ug/L	2.319	1	67	739866	1	KED
| Cu	65	196.798	ug/L	0.431	0	26	375141	1	KED
| Zn	66	194.119	ug/L	3.134	1	22	100408	0	KED
| Zn	67	193.033	ug/L	3.419	1	3	16502	0	KED
| As	75	195.521	ug/L	2.148	1	5	52970	0	KED
| Se	78	192.073	ug/L	3.589	1	11	4992	0	KED
| Kr	83		ug/L			53	131	13	Standard
> In-1	115		ug/L			9311	7916	0	KED
| Mo	98	205.102	ug/L	2.356	1	10	255288	0	KED
| Cd	111	198.168	ug/L	0.577	0	2	53261	0	KED
| Cd	114	200.016	ug/L	0.351	0	8	136315	0	KED
> In	115		ug/L			399419	410271	3	Standard
| Ag	107	183.336	ug/L	2.976	1	46	2632172	2	Standard
| Ba	135	191.519	ug/L	5.381	2	15	1036079	1	Standard
| Ba	137	186.709	ug/L	2.306	1	37	1892433	2	Standard
> Tb	159		ug/L			173053	169948	1	Standard
| Pb	208	204.831	ug/L	0.905	0	201	16680119	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:16:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			41563	44220	1	Standard	
[>	Sc	45	ug/L			330809	328384	0	Standard	
|	Al	27	0.139	ug/L	0.019	13	2334	5739	7	Standard
|	Cr	52	-0.030	ug/L	0.010	33	13927	13160	1	Standard
|	Cr	53	-0.005	ug/L	0.004	92	305	291	2	Standard
|	Mn	55	0.016	ug/L	0.001	3	504	1019	2	Standard
[>	Ge	72		ug/L			39846	35764	0	KED
|	Co	59	0.079	ug/L	0.076	96	61	453	84	KED
|	Ni	60	0.073	ug/L	0.069	93	59	158	61	KED
|	Ni	62	0.071	ug/L	0.062	87	10	26	53	KED
|	Cu	63	0.089	ug/L	0.075	84	67	411	71	KED
|	Cu	65	0.086	ug/L	0.066	77	26	195	67	KED
|	Zn	66	0.158	ug/L	0.082	52	22	106	41	KED
|	Zn	67	0.222	ug/L	0.171	76	3	22	66	KED
|	As	75	0.088	ug/L	0.068	76	5	30	62	KED
|	Se	78	0.026	ug/L	0.017	67	11	10	3	KED
|	Kr	83		ug/L			53	41	5	Standard
[>	In-1	115		ug/L			9311	8209	1	KED
|	Mo	98	0.064	ug/L	0.014	22	10	92	20	KED
|	Cd	111	0.010	ug/L	0.007	66	2	4	40	KED
|	Cd	114	0.008	ug/L	0.004	55	8	12	23	KED
[>	In	115		ug/L			399419	436393	1	Standard
|	Ag	107	0.011	ug/L	0.001	10	46	213	7	Standard
|	Ba	135	0.020	ug/L	0.001	2	15	131	2	Standard
|	Ba	137	0.017	ug/L	0.002	14	37	224	10	Standard
[>	Tb	159		ug/L			173053	168280	0	Standard
|	Pb	208	0.007	ug/L	0.000	4	201	748	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:23:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	44378	0	Standard
> Sc	45		ug/L			330809	331508	1	Standard
| Al	27	0.125	ug/L	0.088	70	2334	5461	41	Standard
| Cr	52	-0.010	ug/L	0.011	112	13927	13730	2	Standard
| Cr	53	-0.011	ug/L	0.002	18	305	277	3	Standard
| Mn	55	0.013	ug/L	0.001	8	504	932	4	Standard
> Ge	72		ug/L			39846	36934	1	KED
| Co	59	-0.007	ug/L	0.002	21	61	19	40	KED
| Ni	60	-0.009	ug/L	0.004	41	59	41	13	KED
| Ni	62	0.001	ug/L	0.017	2500	10	10	39	KED
| Cu	63	-0.001	ug/L	0.003	366	67	59	23	KED
| Cu	65	0.006	ug/L	0.005	98	26	35	30	KED
| Zn	66	0.084	ug/L	0.022	26	22	67	18	KED
| Zn	67	0.132	ug/L	0.035	26	3	15	21	KED
| As	75	0.001	ug/L	0.001	44	5	5	4	KED
| Se	78	-0.057	ug/L	0.054	96	11	8	18	KED
| Kr	83		ug/L			53	42	13	Standard
> In-1	115		ug/L			9311	8509	1	KED
| Mo	98	0.039	ug/L	0.032	80	10	62	68	KED
| Cd	111	0.023	ug/L	0.034	151	2	8	115	KED
| Cd	114	0.004	ug/L	0.005	119	8	10	36	KED
> In	115		ug/L			399419	429063	4	Standard
| Ag	107	0.004	ug/L	0.001	19	46	102	10	Standard
| Ba	135	0.019	ug/L	0.001	6	15	122	8	Standard
| Ba	137	0.015	ug/L	0.001	7	37	200	7	Standard
> Tb	159		ug/L			173053	170125	1	Standard
| Pb	208	0.005	ug/L	0.001	23	201	606	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:29:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	44583	1	Standard
> Sc	45		ug/L			330809	339834	1	Standard
| Al	27	5030.884	ug/L	56.550	1	2334	128648322	0	Standard
| Cr	52	48.940	ug/L	0.467	0	13927	1154071	0	Standard
| Cr	53	51.004	ug/L	1.079	2	305	130528	2	Standard
| Mn	55	49.483	ug/L	0.497	1	504	1671832	1	Standard
> Ge	72		ug/L			39846	36604	0	KED
| Co	59	50.587	ug/L	0.991	1	61	263538	1	KED
| Ni	60	51.447	ug/L	0.418	0	59	76431	0	KED
| Ni	62	51.192	ug/L	0.463	0	10	12129	1	KED
| Cu	63	52.315	ug/L	0.490	0	67	212254	0	KED
| Cu	65	52.209	ug/L	0.649	1	26	107694	1	KED
| Zn	66	51.627	ug/L	1.298	2	22	28906	1	KED
| Zn	67	51.769	ug/L	1.778	3	3	4790	3	KED
| As	75	49.425	ug/L	0.419	0	5	14491	0	KED
| Se	78	49.963	ug/L	1.840	3	11	1412	2	KED
| Kr	83		ug/L			53	38	33	Standard
> In-1	115		ug/L			9311	8386	2	KED
| Mo	98	51.538	ug/L	0.722	1	10	67950	0	KED
| Cd	111	52.327	ug/L	0.646	1	2	14897	1	KED
| Cd	114	52.728	ug/L	1.376	2	8	38058	0	KED
> In	115		ug/L			399419	427513	2	Standard
| Ag	107	47.359	ug/L	0.435	0	46	708747	2	Standard
| Ba	135	48.344	ug/L	0.506	1	15	272667	2	Standard
| Ba	137	48.160	ug/L	0.598	1	37	508704	1	Standard
> Tb	159		ug/L			173053	176247	1	Standard
| Pb	208	51.551	ug/L	1.150	2	201	4353163	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 17:36:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			41563	42969	1	Standard	
[>	Sc	45	ug/L			330809	334273	0	Standard	
|	Al	27	0.053	ug/L	0.005	8	2334	3696	2	Standard
|	Cr	52	-0.024	ug/L	0.013	53	13927	13523	2	Standard
|	Cr	53	-0.029	ug/L	0.005	15	305	236	5	Standard
|	Mn	55	0.001	ug/L	0.001	41	504	554	3	Standard
[>	Ge	72		ug/L			39846	37744	0	KED
|	Co	59	-0.008	ug/L	0.001	9	61	16	24	KED
|	Ni	60	-0.025	ug/L	0.002	8	59	17	19	KED
|	Ni	62	-0.019	ug/L	0.021	110	10	5	88	KED
|	Cu	63	-0.007	ug/L	0.001	12	67	36	9	KED
|	Cu	65	0.000	ug/L	0.001	158	26	25	4	KED
|	Zn	66	0.013	ug/L	0.025	191	22	28	50	KED
|	Zn	67	0.042	ug/L	0.011	26	3	6	15	KED
|	As	75	-0.006	ug/L	0.003	47	5	3	21	KED
|	Se	78	-0.078	ug/L	0.107	136	11	8	36	KED
|	Kr	83		ug/L			53	50	35	Standard
[>	In-1	115		ug/L			9311	8708	3	KED
|	Mo	98	0.027	ug/L	0.015	54	10	47	43	KED
|	Cd	111	0.016	ug/L	0.027	162	2	6	114	KED
|	Cd	114	0.004	ug/L	0.012	298	8	10	84	KED
[>	In	115		ug/L			399419	429969	3	Standard
|	Ag	107	0.004	ug/L	0.000	7	46	106	3	Standard
|	Ba	135	0.003	ug/L	0.001	20	15	35	13	Standard
|	Ba	137	0.002	ug/L	0.001	79	37	59	23	Standard
[>	Tb	159		ug/L			173053	170863	1	Standard
|	Pb	208	0.004	ug/L	0.001	14	201	521	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0256-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:44:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	61493	1	Standard
> Sc	45		ug/L			330809	344234	0	Standard
| Al	27	0.907	ug/L	0.001	0	2334	25925	0	Standard
| Cr	52	0.021	ug/L	0.012	59	13927	14984	1	Standard
| Cr	53	-0.000	ug/L	0.006	2089	305	317	4	Standard
| Mn	55	0.032	ug/L	0.001	3	504	1619	2	Standard
> Ge	72		ug/L			39846	38337	1	KED
| Co	59	-0.008	ug/L	0.001	18	61	16	48	KED
| Ni	60	-0.017	ug/L	0.008	46	59	29	40	KED
| Ni	62	-0.029	ug/L	0.005	15	10	3	34	KED
| Cu	63	0.071	ug/L	0.008	10	67	368	9	KED
| Cu	65	0.070	ug/L	0.006	8	26	175	6	KED
| Zn	66	0.477	ug/L	0.030	6	22	300	7	KED
| Zn	67	0.473	ug/L	0.074	15	3	48	14	KED
| As	75	-0.008	ug/L	0.006	76	5	3	51	KED
| Se	78	-0.068	ug/L	0.087	128	11	8	29	KED
| Kr	83		ug/L			53	48	13	Standard
> In-1	115		ug/L			9311	9099	2	KED
| Mo	98	0.021	ug/L	0.007	31	10	40	22	KED
| Cd	111	0.007	ug/L	0.007	98	2	4	49	KED
| Cd	114	-0.001	ug/L	0.007	550	8	6	79	KED
> In	115		ug/L			399419	433020	0	Standard
| Ag	107	0.000	ug/L	0.000	154	46	53	10	Standard
| Ba	135	0.039	ug/L	0.004	10	15	237	8	Standard
| Ba	137	0.036	ug/L	0.004	9	37	426	8	Standard
> Tb	159		ug/L			173053	175697	0	Standard
| Pb	208	0.002	ug/L	0.000	16	201	345	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0256-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:49:13**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	68216	0	Standard
> Sc	45		ug/L			330809	346232	1	Standard
| Al	27	5121.085	ug/L	60.412	1	2334	133433342	2	Standard
| Cr	52	24.481	ug/L	0.104	0	13927	595482	1	Standard
| Cr	53	25.383	ug/L	0.167	0	305	66347	1	Standard
| Mn	55	24.899	ug/L	0.150	0	504	857407	2	Standard
> Ge	72		ug/L			39846	35317	8	KED
| Co	59	26.753	ug/L	2.525	9	61	133789	1	KED
| Ni	60	26.926	ug/L	2.427	9	59	38426	0	KED
| Ni	62	27.390	ug/L	2.719	9	10	6231	1	KED
| Cu	63	27.216	ug/L	2.442	8	67	106032	0	KED
| Cu	65	26.994	ug/L	2.474	9	26	53454	0	KED
| Zn	66	85.006	ug/L	8.681	10	22	45650	1	KED
| Zn	67	81.130	ug/L	7.965	9	3	7203	1	KED
| As	75	25.961	ug/L	2.582	9	5	7305	1	KED
| Se	78	82.535	ug/L	7.381	8	11	2234	2	KED
| Kr	83		ug/L			53	55	18	Standard
> In-1	115		ug/L			9311	8647	2	KED
| Mo	98	26.090	ug/L	0.866	3	10	35465	1	KED
| Cd	111	25.295	ug/L	0.424	1	2	7427	2	KED
| Cd	114	25.797	ug/L	0.357	1	8	19210	2	KED
> In	115		ug/L			399419	436102	2	Standard
| Ag	107	23.945	ug/L	0.432	1	46	365595	3	Standard
| Ba	135	24.901	ug/L	0.238	0	15	143271	1	Standard
| Ba	137	23.729	ug/L	0.674	2	37	255658	1	Standard
> Tb	159		ug/L			173053	175809	0	Standard
| Pb	208	25.404	ug/L	0.092	0	201	2140350	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0192-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 17:55:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	189824	1	Standard
> Sc	45		ug/L			330809	331540	2	Standard
Al	27	1.055	ug/L	0.051	4	2334	28633	1	Standard
Cr	52	0.905	ug/L	0.025	2	13927	34507	1	Standard
Cr	53	0.670	ug/L	0.031	4	305	1973	3	Standard
Mn	55	83.790	ug/L	1.019	1	504	2760980	1	Standard
> Ge	72		ug/L			39846	33686	0	KED
Co	59	0.190	ug/L	0.009	4	61	961	3	KED
Ni	60	1.186	ug/L	0.027	2	59	1669	2	KED
Ni	62	1.168	ug/L	0.008	0	10	263	0	KED
Cu	63	0.028	ug/L	0.009	31	67	162	19	KED
Cu	65	0.045	ug/L	0.012	26	26	106	20	KED
Zn	66	0.648	ug/L	0.106	16	22	352	14	KED
Zn	67	1.110	ug/L	0.041	3	3	97	3	KED
As	75	0.062	ug/L	0.008	13	5	21	9	KED
Se	78	0.005	ug/L	0.117	2564	11	9	32	KED
Kr	83		ug/L			53	47	30	Standard
> In-1	115		ug/L			9311	7843	0	KED
Mo	98	0.839	ug/L	0.052	6	10	1043	6	KED
Cd	111	0.016	ug/L	0.006	35	2	6	24	KED
Cd	114	-0.001	ug/L	0.004	341	8	5	47	KED
> In	115		ug/L			399419	438145	3	Standard
Ag	107	0.001	ug/L	0.000	41	46	69	14	Standard
Ba	135	6.922	ug/L	0.227	3	15	40002	0	Standard
Ba	137	6.605	ug/L	0.216	3	37	71503	0	Standard
> Tb	159		ug/L			173053	165981	0	Standard
Pb	208	0.004	ug/L	0.000	7	201	493	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0179-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:01:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	60398	0	Standard
> Sc	45		ug/L			330809	328186	8	Standard
| Al	27	15.112	ug/L	1.215	8	2334	373789	1	Standard
| Cr	52	0.283	ug/L	0.081	28	13927	20086	1	Standard
| Cr	53	0.263	ug/L	0.031	11	305	948	5	Standard
| Mn	55	9.726	ug/L	0.747	7	504	316375	2	Standard
> Ge	72		ug/L			39846	35095	2	KED
| Co	59	0.116	ug/L	0.007	6	61	632	3	KED
| Ni	60	0.381	ug/L	0.037	9	59	593	7	KED
| Ni	62	0.392	ug/L	0.060	15	10	98	11	KED
| Cu	63	3.614	ug/L	0.039	1	67	14113	1	KED
| Cu	65	3.598	ug/L	0.074	2	26	7135	1	KED
| Zn	66	260.001	ug/L	4.512	1	22	139476	0	KED
| Zn	67	244.228	ug/L	2.847	1	3	21657	1	KED
| As	75	0.349	ug/L	0.016	4	5	103	2	KED
| Se	78	-0.032	ug/L	0.066	205	11	9	21	KED
| Kr	83		ug/L			53	47	17	Standard
> In-1	115		ug/L			9311	8284	0	KED
| Mo	98	0.221	ug/L	0.015	6	10	297	6	KED
| Cd	111	0.689	ug/L	0.039	5	2	195	5	KED
| Cd	114	0.647	ug/L	0.053	8	8	468	8	KED
> In	115		ug/L			399419	432019	9	Standard
| Ag	107	0.002	ug/L	0.002	76	46	81	26	Standard
| Ba	135	8.602	ug/L	1.029	11	15	48689	2	Standard
| Ba	137	8.317	ug/L	0.889	10	37	88242	0	Standard
> Tb	159		ug/L			173053	161522	8	Standard
| Pb	208	0.219	ug/L	0.019	8	201	17064	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0141-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:07:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	52924	1	Standard
> Sc	45		ug/L			330809	341461	2	Standard
| Al	27	61.633	ug/L	1.682	2	2334	1585403	0	Standard
| Cr	52	2.785	ug/L	0.117	4	13927	79499	1	Standard
| Cr	53	2.701	ug/L	0.043	1	305	7244	2	Standard
| Mn	55	3.301	ug/L	0.051	1	504	112539	2	Standard
> Ge	72		ug/L			39846	34352	1	KED
| Co	59	0.006	ug/L	0.004	72	61	82	24	KED
| Ni	60	0.135	ug/L	0.008	5	59	239	3	KED
| Ni	62	0.155	ug/L	0.036	23	10	43	19	KED
| Cu	63	1.180	ug/L	0.018	1	67	4549	0	KED
| Cu	65	1.199	ug/L	0.041	3	26	2342	1	KED
| Zn	66	0.794	ug/L	0.103	12	22	436	12	KED
| Zn	67	0.657	ug/L	0.150	22	3	59	21	KED
| As	75	0.014	ug/L	0.019	138	5	8	57	KED
| Se	78	0.006	ug/L	0.095	1513	11	9	24	KED
| Kr	83		ug/L			53	48	27	Standard
> In-1	115		ug/L			9311	7763	1	KED
| Mo	98	1.043	ug/L	0.034	3	10	1281	1	KED
| Cd	111	0.004	ug/L	0.011	283	2	2	100	KED
| Cd	114	-0.004	ug/L	0.002	41	8	4	25	KED
> In	115		ug/L			399419	447020	2	Standard
| Ag	107	-0.001	ug/L	0.000	28	46	34	15	Standard
| Ba	135	0.241	ug/L	0.009	3	15	1436	4	Standard
| Ba	137	0.222	ug/L	0.010	4	37	2487	2	Standard
> Tb	159		ug/L			173053	169100	0	Standard
| Pb	208	0.006	ug/L	0.000	3	201	680	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0096-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:13:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	470063	1	Standard
> Sc	45		ug/L			330809	323722	3	Standard
Al	27	6.095	ug/L	0.160	2	2334	150693	1	Standard
Cr	52	2.267	ug/L	0.039	1	13927	63915	1	Standard
Cr	53	1.877	ug/L	0.044	2	305	4863	0	Standard
Mn	55	12.516	ug/L	0.179	1	504	403110	1	Standard
> Ge	72		ug/L			39846	30290	0	KED
Co	59	0.238	ug/L	0.021	8	61	1072	9	KED
Ni	60	4.271	ug/L	0.073	1	59	5291	0	KED
Ni	62	4.169	ug/L	<u>0.409</u>	9	10	825	10	KED
Cu	63	3.098	ug/L	0.034	1	67	10448	0	KED
Cu	65	3.043	ug/L	0.049	1	26	5211	1	KED
Zn	66	4.701	ug/L	0.224	4	22	2193	4	KED
Zn	67	6.665	ug/L	0.386	5	3	512	4	KED
As	75	0.085	ug/L	0.012	14	5	25	12	KED
Se	78	0.085	ug/L	0.229	269	11	10	49	KED
Kr	83		ug/L			53	56	8	Standard
> In-1	115		ug/L			9311	7086	1	KED
Mo	98	3.459	ug/L	0.034	0	10	3862	2	KED
Cd	111	0.063	ug/L	0.020	31	2	16	28	KED
Cd	114	0.043	ug/L	0.002	5	8	32	6	KED
> In	115		ug/L			399419	439580	3	Standard
Ag	107	-0.001	ug/L	0.001	44	46	31	24	Standard
Ba	135	43.924	ug/L	1.330	3	15	254601	0	Standard
Ba	137	41.233	ug/L	1.244	3	37	447652	0	Standard
> Tb	159		ug/L			173053	163713	1	Standard
Pb	208	0.049	ug/L	0.001	2	201	4006	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0453-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:19:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	467188	1	Standard
> Sc	45		ug/L			330809	264702	2	Standard
Al	27	1.789	ug/L	0.065	3	2334	37484	1	Standard
Cr	52	2.326	ug/L	0.014	0	13927	53347	2	Standard
Cr	53	2.016	ug/L	0.029	1	305	4253	2	Standard
Mn	55	90.714	ug/L	0.679	0	504	2386795	2	Standard
> Ge	72		ug/L			39846	23335	1	KED
Co	59	0.924	ug/L	0.015	1	61	3103	0	KED
Ni	60	8.803	ug/L	0.077	0	59	8367	2	KED
Ni	62	8.517	ug/L	0.394	4	10	1291	4	KED
Cu	63	1.575	ug/L	0.058	3	67	4113	5	KED
Cu	65	1.629	ug/L	0.015	0	26	2156	1	KED
Zn	66	9.219	ug/L	0.134	1	22	3301	1	KED
Zn	67	9.015	ug/L	0.346	3	3	533	3	KED
As	75	0.181	ug/L	0.019	10	5	37	10	KED
Se	78	0.030	ug/L	0.197	666	11	7	49	KED
Kr	83		ug/L			53	76	7	Standard
> In-1	115		ug/L			9311	5637	1	KED
Mo	98	4.020	ug/L	0.093	2	10	3568	1	KED
Cd	111	0.129	ug/L	0.025	18	2	26	16	KED
Cd	114	0.086	ug/L	0.024	28	8	46	23	KED
> In	115		ug/L			399419	364153	1	Standard
Ag	107	0.001	ug/L	0.000	42	46	53	8	Standard
Ba	135	14.760	ug/L	0.168	1	15	70933	2	Standard
Ba	137	13.836	ug/L	0.067	0	37	124533	0	Standard
> Tb	159		ug/L			173053	145714	0	Standard
Pb	208	0.013	ug/L	0.001	4	201	1095	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:24:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	45606	1	Standard
[> Sc	45		ug/L			330809	307255	2	Standard
| Al	27	0.016	ug/L	0.004	26	2334	2527	0	Standard
| Cr	52	0.139	ug/L	0.010	7	13927	15868	2	Standard
| Cr	53	-0.023	ug/L	0.004	18	305	231	4	Standard
| Mn	55	0.002	ug/L	0.000	20	504	536	2	Standard
[> Ge	72		ug/L			39846	32401	1	KED
| Co	59	-0.010	ug/L	0.000	4	61	5	33	KED
| Ni	60	-0.024	ug/L	0.004	14	59	15	30	KED
| Ni	62	-0.024	ug/L	0.015	65	10	3	86	KED
| Cu	63	-0.005	ug/L	0.004	73	67	35	38	KED
| Cu	65	-0.001	ug/L	0.002	291	26	19	20	KED
| Zn	66	0.145	ug/L	0.025	17	22	90	15	KED
| Zn	67	0.239	ug/L	0.165	69	3	22	62	KED
| As	75	-0.010	ug/L	0.002	19	5	2	26	KED
[Se	78	-0.061	ug/L	0.128	208	11	7	42	KED
| Kr	83		ug/L			53	37	26	Standard
[> In-1	115		ug/L			9311	7506	1	KED
| Mo	98	-0.004	ug/L	0.001	22	10	3	29	KED
| Cd	111	0.007	ug/L	0.004	64	2	3	31	KED
| Cd	114	-0.004	ug/L	0.009	259	8	4	142	KED
[> In	115		ug/L			399419	444777	1	Standard
| Ag	107	-0.002	ug/L	0.000	21	46	19	36	Standard
| Ba	135	0.007	ug/L	0.002	33	15	57	21	Standard
[Ba	137	0.006	ug/L	0.002	29	37	109	18	Standard
[> Tb	159		ug/L			173053	162882	2	Standard
[Pb	208	0.004	ug/L	0.001	11	201	540	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0595-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 18:29:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	217510	1	Standard
> Sc	45		ug/L			330809	342435	1	Standard
Al	27	31.824	ug/L	0.499	1	2334	822422	1	Standard
Cr	52	19.730	ug/L	0.247	1	13927	477459	2	Standard
Cr	53	20.893	ug/L	0.184	0	305	54064	0	Standard
Mn	55	39.455	ug/L	0.383	0	504	1343286	0	Standard
> Ge	72		ug/L			39846	33867	0	KED
Co	59	0.242	ug/L	0.009	3	61	1217	3	KED
Ni	60	9.441	ug/L	0.159	1	59	13019	1	KED
Ni	62	9.301	ug/L	0.119	1	10	2046	1	KED
Cu	63	2.664	ug/L	0.025	0	67	10056	0	KED
Cu	65	2.573	ug/L	0.048	1	26	4931	1	KED
Zn	66	312.435	ug/L	5.661	1	22	161764	1	KED
Zn	67	290.044	ug/L	0.893	0	3	24823	0	KED
As	75	0.016	ug/L	0.004	23	5	9	10	KED
Se	78	-0.141	ug/L	0.058	41	11	5	25	KED
Kr	83		ug/L			53	42	15	Standard
> In-1	115		ug/L			9311	7696	1	KED
Mo	98	0.158	ug/L	0.016	9	10	200	7	KED
Cd	111	0.702	ug/L	0.030	4	2	185	4	KED
Cd	114	0.730	ug/L	0.032	4	8	490	4	KED
> In	115		ug/L			399419	472892	1	Standard
Ag	107	-0.000	ug/L	0.001	454	46	52	21	Standard
Ba	135	3.767	ug/L	0.076	2	15	23519	0	Standard
Ba	137	3.536	ug/L	0.078	2	37	41354	1	Standard
> Tb	159		ug/L			173053	170648	0	Standard
Pb	208	0.155	ug/L	0.004	2	201	12854	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:35:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43564	2	Standard
> Sc	45		ug/L			330809	314941	1	Standard
| Al	27	0.014	ug/L	0.003	20	2334	2549	2	Standard
| Cr	52	-0.038	ug/L	0.007	18	13927	12445	1	Standard
| Cr	53	-0.034	ug/L	0.006	16	305	210	7	Standard
| Mn	55	0.001	ug/L	0.001	215	504	500	8	Standard
> Ge	72		ug/L			39846	34168	1	KED
| Co	59	-0.010	ug/L	0.000	3	61	3	50	KED
| Ni	60	-0.024	ug/L	0.004	17	59	17	33	KED
| Ni	62	-0.025	ug/L	0.000	0	10	3	0	KED
| Cu	63	-0.006	ug/L	0.001	11	67	35	6	KED
| Cu	65	0.001	ug/L	0.004	374	26	24	27	KED
| Zn	66	0.158	ug/L	0.027	17	22	101	13	KED
| Zn	67	0.093	ug/L	0.033	35	3	10	26	KED
| As	75	-0.012	ug/L	0.005	45	5	1	83	KED
| Se	78	-0.051	ug/L	0.024	48	11	8	8	KED
| Kr	83		ug/L			53	38	19	Standard
> In-1	115		ug/L			9311	7896	0	KED
| Mo	98	-0.004	ug/L	0.003	73	10	4	71	KED
| Cd	111	0.007	ug/L	0.007	98	2	3	50	KED
| Cd	114	-0.006	ug/L	0.003	59	8	3	72	KED
> In	115		ug/L			399419	463464	1	Standard
| Ag	107	-0.002	ug/L	0.001	28	46	24	35	Standard
| Ba	135	0.007	ug/L	0.003	35	15	61	24	Standard
| Ba	137	0.006	ug/L	0.001	14	37	113	9	Standard
> Tb	159		ug/L			173053	165309	0	Standard
| Pb	208	0.004	ug/L	0.000	9	201	539	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:40:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	43588	1	Standard
> Sc	45		ug/L			330809	337577	3	Standard
Al	27	4990.853	ug/L	138.174	2	2334	126726667	1	Standard
Cr	52	48.378	ug/L	1.262	2	13927	1132847	0	Standard
Cr	53	50.449	ug/L	0.708	1	305	128222	1	Standard
Mn	55	50.233	ug/L	0.526	1	504	1685718	2	Standard
> Ge	72		ug/L			39846	34741	1	KED
Co	59	50.848	ug/L	0.098	0	61	251423	1	KED
Ni	60	51.512	ug/L	0.883	1	59	72624	0	KED
Ni	62	51.601	ug/L	0.648	1	10	11602	1	KED
Cu	63	52.642	ug/L	0.697	1	67	202695	0	KED
Cu	65	52.433	ug/L	0.794	1	26	102631	0	KED
Zn	66	52.649	ug/L	0.949	1	22	27976	0	KED
Zn	67	52.513	ug/L	2.147	4	3	4611	3	KED
As	75	49.237	ug/L	1.014	2	5	13699	1	KED
Se	78	50.234	ug/L	0.652	1	11	1348	0	KED
Kr	83		ug/L			53	49	7	Standard
> In-1	115		ug/L			9311	8141	0	KED
Mo	98	50.976	ug/L	0.810	1	10	65258	1	KED
Cd	111	51.337	ug/L	0.106	0	2	14190	0	KED
Cd	114	51.796	ug/L	0.528	1	8	36304	0	KED
> In	115		ug/L			399419	465743	0	Standard
Ag	107	44.992	ug/L	0.986	2	46	733544	2	Standard
Ba	135	45.534	ug/L	0.929	2	15	279803	1	Standard
Ba	137	43.749	ug/L	0.819	1	37	503512	1	Standard
> Tb	159		ug/L			173053	175419	0	Standard
Pb	208	53.785	ug/L	0.549	1	201	4520944	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:47:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			41563	42485	0	Standard
> Sc	45		ug/L			330809	312260	3	Standard
| Al	27	0.043	ug/L	0.006	14	2334	3217	5	Standard
| Cr	52	-0.030	ug/L	0.019	62	13927	12501	1	Standard
| Cr	53	-0.048	ug/L	0.004	8	305	175	7	Standard
| Mn	55	-0.000	ug/L	0.000	67	504	470	3	Standard
> Ge	72		ug/L			39846	35618	1	KED
| Co	59	-0.010	ug/L	0.001	8	61	6	62	KED
| Ni	60	-0.026	ug/L	0.005	19	59	15	45	KED
| Ni	62	-0.028	ug/L	0.010	33	10	3	69	KED
| Cu	63	-0.009	ug/L	0.001	11	67	24	15	KED
| Cu	65	-0.003	ug/L	0.004	136	26	17	44	KED
| Zn	66	0.035	ug/L	0.006	17	22	38	10	KED
| Zn	67	0.068	ug/L	0.086	126	3	8	86	KED
| As	75	-0.006	ug/L	0.005	85	5	3	37	KED
| Se	78	-0.035	ug/L	0.092	264	11	9	29	KED
| Kr	83		ug/L			53	46	2	Standard
> In-1	115		ug/L			9311	8219	2	KED
| Mo	98	0.010	ug/L	0.006	62	10	22	37	KED
| Cd	111	0.008	ug/L	0.014	179	2	4	93	KED
| Cd	114	-0.005	ug/L	0.006	112	8	3	106	KED
> In	115		ug/L			399419	435446	4	Standard
| Ag	107	0.001	ug/L	0.000	63	46	60	12	Standard
| Ba	135	0.001	ug/L	0.002	149	15	23	44	Standard
| Ba	137	0.001	ug/L	0.001	78	37	50	13	Standard
> Tb	159		ug/L			173053	162511	4	Standard
| Pb	208	0.004	ug/L	0.000	11	201	514	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:54:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				42090	0	Standard
[>	Sc	45	ug/L				332961	2	Standard
|	Cr	52	ug/L				12895	2	Standard
|	Cr	53	ug/L				187	6	Standard
|	Mn	55	ug/L				424	3	Standard
[>	Ge	72	ug/L				35628	1	KED
|	Ni	60	ug/L				10	26	KED
|	Ni	62	ug/L				2	86	KED
|	Cu	63	ug/L				12	37	KED
|	Cu	65	ug/L				10	47	KED
|	Zn	66	ug/L				20	39	KED
|	Zn	67	ug/L				2	43	KED
|	As	75	ug/L				3	34	KED
|	Kr	83	ug/L				45	4	Standard
[>	In-1	115	ug/L				8466	3	KED
|	Cd	111	ug/L				1	34	KED
|	Cd	114	ug/L				3	52	KED
[>	In	115	ug/L				448865	1	Standard
|	Ag	107	ug/L				40	9	Standard
|	Ba	135	ug/L				11	44	Standard
|	Ba	137	ug/L				19	5	Standard
[>	Tb	159	ug/L				168501	1	Standard
|	Pb	208	ug/L				172	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 18:59:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	42861	2	Standard
>	Sc	45	ug/L			332961	342352	1	Standard
|	Cr	52	48.393	ug/L	0.603	12895	1148797	2	Standard
|	Cr	53	50.240	ug/L	0.892	187	129428	2	Standard
|	Mn	55	49.914	ug/L	0.939	424	1698864	2	Standard
>	Ge	72		ug/L		35628	36455	0	KED
|	Ni	60	51.317	ug/L	0.584	10	75887	0	KED
|	Ni	62	52.179	ug/L	0.556	2	12304	0	KED
|	Cu	63	52.820	ug/L	0.430	12	213390	0	KED
|	Cu	65	52.452	ug/L	0.162	10	107736	0	KED
|	Zn	66	51.454	ug/L	0.954	20	28694	1	KED
|	Zn	67	50.889	ug/L	0.102	2	4690	0	KED
|	As	75	49.075	ug/L	0.432	3	14328	0	KED
|	Kr	83		ug/L		45	52	24	Standard
>	In-1	115		ug/L		8466	8452	1	KED
|	Cd	111	50.990	ug/L	0.707	1	14631	0	KED
|	Cd	114	51.137	ug/L	0.782	3	37206	0	KED
>	In	115		ug/L		448865	462302	1	Standard
|	Ag	107	45.329	ug/L	0.211	40	733525	1	Standard
|	Ba	135	46.066	ug/L	1.132	11	280911	0	Standard
|	Ba	137	44.112	ug/L	0.954	19	503821	0	Standard
>	Tb	159		ug/L		168501	176683	1	Standard
|	Pb	208	52.096	ug/L	0.628	172	4410480	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:06:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	43305	0	Standard
> Sc	45		ug/L			332961	328091	3	Standard
| Cr	52	-0.003	ug/L	0.021	824	12895	12638	1	Standard
| Cr	53	-0.002	ug/L	0.007	364	187	180	8	Standard
| Mn	55	-0.001	ug/L	0.001	97	424	396	8	Standard
> Ge	72		ug/L			35628	37144	2	KED
| Ni	60	-0.002	ug/L	0.004	246	10	8	61	KED
| Ni	62	0.005	ug/L	0.008	160	2	3	50	KED
| Cu	63	0.003	ug/L	0.001	56	12	24	24	KED
| Cu	65	-0.001	ug/L	0.003	373	10	8	75	KED
| Zn	66	-0.004	ug/L	0.013	353	20	19	36	KED
| Zn	67	0.032	ug/L	0.034	104	2	5	57	KED
| As	75	-0.001	ug/L	0.002	223	3	3	24	KED
| Kr	83		ug/L			45	29	30	Standard
> In-1	115		ug/L			8466	8638	2	KED
| Cd	111	<u>0.033</u>	ug/L	<u>0.059</u>	176	1	11	152	KED
| Cd	114	<u>0.034</u>	ug/L	<u>0.046</u>	136	3	29	119	KED
> In	115		ug/L			448865	441677	2	Standard
| Ag	107	0.001	ug/L	0.001	73	40	62	24	Standard
| Ba	135	-0.001	ug/L	0.000	54	11	7	25	Standard
| Ba	137	0.000	ug/L	0.001	328	19	20	24	Standard
> Tb	159		ug/L			168501	167164	1	Standard
| Pb	208	0.001	ug/L	0.000	34	172	233	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0119-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:14:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	69068	0	Standard
>	Sc	45	ug/L			332961	339062	1	Standard
|	Cr	52	ug/L	0.004	2	12895	17337	1	Standard
|	Cr	53	ug/L	0.005	2	187	589	3	Standard
|	Mn	55	ug/L	0.001	0	424	5314	1	Standard
>	Ge	72	ug/L			35628	37186	1	KED
|	Ni	60	ug/L	0.004	26	10	34	16	KED
|	Ni	62	ug/L	0.012	162	2	4	65	KED
|	Cu	63	ug/L	0.007	8	12	342	9	KED
|	Cu	65	ug/L	0.013	15	10	182	13	KED
|	Zn	66	ug/L	0.033	1	20	1268	0	KED
|	Zn	67	ug/L	0.311	12	2	229	11	KED
|	As	75	ug/L	0.004	142	3	2	52	KED
|	Kr	83	ug/L			45	41	18	Standard
>	In-1	115	ug/L			8466	8759	2	KED
|	Cd	111	ug/L	0.006	59	1	4	40	KED
|	Cd	114	ug/L	0.003	80	3	6	34	KED
>	In	115	ug/L			448865	455179	2	Standard
|	Ag	107	ug/L	0.001	1022	40	41	18	Standard
|	Ba	135	ug/L	0.010	18	11	354	15	Standard
|	Ba	137	ug/L	0.001	1	19	593	4	Standard
>	Tb	159	ug/L			168501	172687	0	Standard
|	Pb	208	ug/L	0.001	4	172	1316	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-BS1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:18:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	65913	0	Standard
> Sc	45		ug/L			332961	337655	1	Standard
| Cr	52	24.707	ug/L	0.281	1	12895	584791	1	Standard
| Cr	53	25.988	ug/L	0.282	1	187	66120	2	Standard
| Mn	55	25.988	ug/L	0.313	1	424	872658	2	Standard
> Ge	72		ug/L			35628	34015	11	KED
| Ni	60	28.928	ug/L	3.451	11	10	39543	0	KED
| Ni	62	28.971	ug/L	3.148	10	2	6321	1	KED
| Cu	63	29.976	ug/L	3.547	11	12	111942	0	KED
| Cu	65	29.702	ug/L	3.366	11	10	56417	1	KED
| Zn	66	92.071	ug/L	10.538	11	20	47464	1	KED
| Zn	67	86.466	ug/L	8.847	10	2	7373	2	KED
| As	75	26.430	ug/L	3.010	11	3	7137	1	KED
| Kr	83		ug/L			45	52	18	Standard
> In-1	115		ug/L			8466	8450	2	KED
| Cd	111	26.183	ug/L	0.785	2	1	7513	4	KED
| Cd	114	25.912	ug/L	0.660	2	3	18853	3	KED
> In	115		ug/L			448865	445725	2	Standard
| Ag	107	24.031	ug/L	0.079	0	40	374977	2	Standard
| Ba	135	24.589	ug/L	0.460	1	11	144563	0	Standard
| Ba	137	23.305	ug/L	0.435	1	19	256642	1	Standard
> Tb	159		ug/L			168501	171848	1	Standard
| Pb	208	27.383	ug/L	0.294	1	172	2254912	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0119-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:24:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	66007	3	Standard
> Sc	45		ug/L			332961	335680	0	Standard
| Cr	52	25.125	ug/L	0.269	1	12895	590992	0	Standard
| Cr	53	26.262	ug/L	0.360	1	187	66416	0	Standard
| Mn	55	26.567	ug/L	0.430	1	424	886840	2	Standard
> Ge	72		ug/L			35628	36217	1	KED
| Ni	60	26.843	ug/L	0.265	0	10	39440	1	KED
| Ni	62	26.232	ug/L	0.186	0	2	6147	2	KED
| Cu	63	28.057	ug/L	0.145	0	12	112608	1	KED
| Cu	65	27.702	ug/L	0.192	0	10	56528	0	KED
| Zn	66	87.024	ug/L	0.889	1	20	48202	1	KED
| Zn	67	80.670	ug/L	1.801	2	2	7384	2	KED
| As	75	24.830	ug/L	0.352	1	3	7202	0	KED
| Kr	83		ug/L			45	45	24	Standard
> In-1	115		ug/L			8466	8619	2	KED
| Cd	111	26.006	ug/L	0.880	3	1	7607	1	KED
| Cd	114	25.666	ug/L	0.481	1	3	19046	3	KED
> In	115		ug/L			448865	461265	1	Standard
| Ag	107	23.687	ug/L	0.621	2	40	382366	1	Standard
| Ba	135	23.848	ug/L	0.457	1	11	145107	0	Standard
| Ba	137	22.774	ug/L	0.436	1	19	259535	0	Standard
> Tb	159		ug/L			168501	172071	1	Standard
| Pb	208	27.496	ug/L	0.504	1	172	2266962	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-BLK2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:29:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	64759	1	Standard
> Sc	45		ug/L			332961	333825	0	Standard
| Cr	52	0.150	ug/L	0.017	11	12895	16368	1	Standard
| Cr	53	0.098	ug/L	0.001	1	187	433	0	Standard
| Mn	55	0.382	ug/L	0.007	1	424	13092	1	Standard
> Ge	72		ug/L			35628	36493	0	KED
| Ni	60	0.011	ug/L	0.004	34	10	27	21	KED
| Ni	62	0.021	ug/L	0.014	65	2	7	43	KED
| Cu	63	0.061	ug/L	0.004	6	12	257	6	KED
| Cu	65	0.057	ug/L	0.004	6	10	127	6	KED
| Zn	66	0.632	ug/L	0.030	4	20	373	5	KED
| Zn	67	0.674	ug/L	0.051	7	2	64	7	KED
| As	75	-0.001	ug/L	0.002	115	3	2	16	KED
| Kr	83		ug/L			45	43	15	Standard
> In-1	115		ug/L			8466	8432	2	KED
| Cd	111	0.006	ug/L	0.005	95	1	3	45	KED
| Cd	114	-0.002	ug/L	0.001	63	3	2	52	KED
> In	115		ug/L			448865	446651	1	Standard
| Ag	107	0.002	ug/L	0.001	22	40	76	11	Standard
| Ba	135	0.135	ug/L	0.003	2	11	808	2	Standard
| Ba	137	0.138	ug/L	0.008	6	19	1536	4	Standard
> Tb	159		ug/L			168501	170397	0	Standard
| Pb	208	0.014	ug/L	0.000	2	172	1323	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-BS2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:33:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	71232	1	Standard
> Sc	45		ug/L			332961	346017	4	Standard
| Cr	52	26.359	ug/L	0.539	2	12895	638177	2	Standard
| Cr	53	26.857	ug/L	0.944	3	187	69946	1	Standard
| Mn	55	27.397	ug/L	0.898	3	424	941818	0	Standard
> Ge	72		ug/L			35628	37051	0	KED
| Ni	60	27.210	ug/L	0.160	0	10	40901	0	KED
| Ni	62	27.077	ug/L	0.546	2	2	6490	1	KED
| Cu	63	27.661	ug/L	0.364	1	12	113578	1	KED
| Cu	65	27.335	ug/L	0.171	0	10	57069	0	KED
| Zn	66	87.930	ug/L	2.293	2	20	49824	2	KED
| Zn	67	84.630	ug/L	1.547	1	2	7925	1	KED
| As	75	26.088	ug/L	0.110	0	3	7743	0	KED
| Kr	83		ug/L			45	43	19	Standard
> In-1	115		ug/L			8466	8673	1	KED
| Cd	111	26.748	ug/L	0.446	1	1	7876	1	KED
| Cd	114	26.501	ug/L	0.294	1	3	19788	0	KED
> In	115		ug/L			448865	446416	4	Standard
| Ag	107	24.717	ug/L	0.883	3	40	385850	1	Standard
| Ba	135	25.657	ug/L	1.120	4	11	150929	0	Standard
| Ba	137	24.866	ug/L	1.144	4	19	273928	0	Standard
> Tb	159		ug/L			168501	174613	1	Standard
| Pb	208	27.396	ug/L	0.538	1	172	2291862	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0297-08**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:39:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	63336	1	Standard
[>	Sc	45		ug/L			332961	361093	0	Standard
|	Cr	52	2.659	ug/L	0.037	1	12895	79801	1	Standard
|	Cr	53	2.804	ug/L	0.029	1	187	7809	0	Standard
[	Mn	55	20.060	ug/L	0.199	0	424	720449	1	Standard
[>	Ge	72		ug/L			35628	38084	1	KED
|	Ni	60	1.908	ug/L	0.071	3	10	2957	1	KED
|	Ni	62	2.012	ug/L	0.197	9	2	497	8	KED
|	Cu	63	8.245	ug/L	0.289	3	12	34803	3	KED
|	Cu	65	8.023	ug/L	0.246	3	10	17218	1	KED
|	Zn	66	58.360	ug/L	0.766	1	20	33994	1	KED
|	Zn	67	54.364	ug/L	0.893	1	2	5234	2	KED
[	As	75	0.298	ug/L	0.021	6	3	94	8	KED
	Kr	83		ug/L			45	36	10	Standard
[>	In-1	115		ug/L			8466	9035	0	KED
|	Cd	111	0.142	ug/L	0.014	10	1	45	10	KED
[	Cd	114	0.127	ug/L	0.014	10	3	103	11	KED
[>	In	115		ug/L			448865	454440	2	Standard
|	Ag	107	0.016	ug/L	0.001	3	40	297	5	Standard
|	Ba	135	34.910	ug/L	0.298	0	11	209327	2	Standard
[	Ba	137	33.851	ug/L	0.731	2	19	380014	0	Standard
[>	Tb	159		ug/L			168501	176044	2	Standard
[	Pb	208	1.550	ug/L	0.017	1	172	130891	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0420-07**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:44:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	57200	1	Standard
[>	Sc	45		ug/L			332961	394052	1	Standard
|	Cr	52	3.550	ug/L	0.045	1	12895	111142	1	Standard
|	Cr	53	3.770	ug/L	0.025	0	187	11382	0	Standard
[	Mn	55	35.202	ug/L	0.529	1	424	1379290	2	Standard
[>	Ge	72		ug/L			35628	38427	0	KED
|	Ni	60	3.195	ug/L	0.048	1	10	4990	0	KED
|	Ni	62	3.067	ug/L	0.150	4	2	765	5	KED
|	Cu	63	8.997	ug/L	0.227	2	12	38323	2	KED
|	Cu	65	8.861	ug/L	0.055	0	10	19193	1	KED
|	Zn	66	16.189	ug/L	0.177	1	20	9531	0	KED
|	Zn	67	15.504	ug/L	0.281	1	2	1508	1	KED
[	As	75	1.747	ug/L	0.039	2	3	540	1	KED
	Kr	83		ug/L			45	50	20	Standard
[>	In-1	115		ug/L			8466	8966	2	KED
|	Cd	111	0.058	ug/L	0.022	38	1	19	32	KED
[	Cd	114	0.056	ug/L	0.025	43	3	47	41	KED
[>	In	115		ug/L			448865	451130	0	Standard
|	Ag	107	0.045	ug/L	0.001	1	40	747	1	Standard
|	Ba	135	9.899	ug/L	0.110	1	11	58931	0	Standard
[	Ba	137	9.514	ug/L	0.045	0	19	106082	0	Standard
[>	Tb	159		ug/L			168501	182935	0	Standard
[	Pb	208	4.120	ug/L	0.046	1	172	361352	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0595-01RE1**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:48:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	86976	0	Standard
> Sc	45		ug/L			332961	350786	1	Standard
| Cr	52	4.243	ug/L	0.071	1	12895	115582	0	Standard
| Cr	53	4.406	ug/L	0.060	1	187	11808	1	Standard
| Mn	55	8.323	ug/L	0.022	0	424	290623	1	Standard
> Ge	72		ug/L			35628	38226	1	KED
| Ni	60	1.962	ug/L	0.009	0	10	3053	1	KED
| Ni	62	1.984	ug/L	0.144	7	2	493	8	KED
| Cu	63	0.540	ug/L	0.014	2	12	2302	1	KED
| Cu	65	0.534	ug/L	0.015	2	10	1160	1	KED
| Zn	66	64.841	ug/L	1.522	2	20	37905	1	KED
| Zn	67	59.897	ug/L	1.863	3	2	5787	2	KED
| As	75	0.002	ug/L	0.003	188	3	3	27	KED
| Kr	83		ug/L			45	49	16	Standard
> In-1	115		ug/L			8466	8893	0	KED
| Cd	111	0.149	ug/L	0.010	6	1	46	6	KED
| Cd	114	0.141	ug/L	0.008	5	3	111	5	KED
> In	115		ug/L			448865	460930	2	Standard
| Ag	107	-0.000	ug/L	0.000	44	40	33	11	Standard
| Ba	135	0.814	ug/L	0.043	5	11	4957	2	Standard
| Ba	137	0.775	ug/L	0.018	2	19	8846	1	Standard
> Tb	159		ug/L			168501	173712	0	Standard
| Pb	208	0.058	ug/L	0.001	0	172	4972	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0453-01RE1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 19:53:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			42090	160873	1	Standard	
>	Sc	45	ug/L			332961	319215	1	Standard	
|	Cr	52	0.694	ug/L	0.020	12895	27543	2	Standard	
|	Cr	53	0.492	ug/L	0.016	187	1358	3	Standard	
|	Mn	55	18.991	ug/L	0.252	424	602918	1	Standard	
>	Ge	72		ug/L		35628	31894	0	KED	
|	Ni	60	1.833	ug/L	0.037	10	2380	1	KED	
|	Ni	62	1.692	ug/L	0.259	2	351	14	KED	
|	Cu	63	0.341	ug/L	0.012	12	1217	2	KED	
|	Cu	65	0.349	ug/L	0.005	10	636	0	KED	
|	Zn	66	2.228	ug/L	0.061	20	1104	2	KED	
|	Zn	67	2.398	ug/L	0.051	2	195	2	KED	
|	As	75	0.037	ug/L	0.011	3	12	22	KED	
|	Kr	83		ug/L		45	40	17	Standard	
>	In-1	115		ug/L		8466	7512	1	KED	
|	Cd	111	0.034	ug/L	0.009	1	10	23	KED	
|	Cd	114	0.030	ug/L	0.017	3	22	47	KED	
>	In	115		ug/L		448865	434309	1	Standard	
|	Ag	107	-0.000	ug/L	0.000	230	40	38	5	Standard
|	Ba	135	2.900	ug/L	0.038	1	11	16628	0	Standard
|	Ba	137	2.774	ug/L	0.007	0	19	29791	2	Standard
>	Tb	159		ug/L		168501	164060	1	Standard	
|	Pb	208	0.028	ug/L	0.001	2	172	2397	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 19:57:28

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			42090	45612	0	Standard	
[>	Sc	45	ug/L			332961	316987	2	Standard	
|	Cr	52	0.186	ug/L	0.031	12895	16303	2	Standard	
|	Cr	53	0.014	ug/L	0.005	187	211	6	Standard	
|	Mn	55	0.006	ug/L	0.000	424	589	1	Standard	
[>	Ge	72	ug/L			35628	34677	0	KED	
|	Ni	60	0.000	ug/L	0.002	764	10	20	KED	
|	Ni	62	0.000	ug/L	0.005	1626	2	43	KED	
|	Cu	63	0.008	ug/L	0.001	19	12	41	14	KED
|	Cu	65	0.006	ug/L	0.003	60	10	20	32	KED
|	Zn	66	0.131	ug/L	0.024	18	20	89	14	KED
|	Zn	67	0.117	ug/L	0.026	22	2	12	17	KED
|	As	75	-0.001	ug/L	0.002	147	3	2	20	KED
|	Kr	83		ug/L		45	43	0	Standard	
[>	In-1	115	ug/L			8466	7845	2	KED	
|	Cd	111	0.008	ug/L	0.008	101	1	3	56	KED
|	Cd	114	0.001	ug/L	0.004	302	3	4	65	KED
[>	In	115	ug/L			448865	441414	2	Standard	
|	Ag	107	-0.001	ug/L	0.000	85	40	31	24	Standard
|	Ba	135	0.007	ug/L	0.002	33	11	54	28	Standard
|	Ba	137	0.008	ug/L	0.002	21	19	106	15	Standard
[>	Tb	159	ug/L			168501	161328	1	Standard	
|	Pb	208	0.004	ug/L	0.000	5	172	499	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 20:01:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	43287	1	Standard
> Sc	45		ug/L			332961	331897	2	Standard
| Cr	52	48.217	ug/L	0.398	0	12895	1109511	1	Standard
| Cr	53	49.743	ug/L	0.721	1	187	124207	1	Standard
| Mn	55	49.306	ug/L	0.636	1	424	1626734	1	Standard
> Ge	72		ug/L			35628	34508	1	KED
| Ni	60	52.467	ug/L	0.830	1	10	73432	0	KED
| Ni	62	52.382	ug/L	0.571	1	2	11691	0	KED
| Cu	63	53.232	ug/L	1.745	3	12	203489	1	KED
| Cu	65	52.855	ug/L	1.433	2	10	102731	0	KED
| Zn	66	53.194	ug/L	1.136	2	20	28074	0	KED
| Zn	67	51.354	ug/L	2.201	4	2	4478	2	KED
| As	75	49.582	ug/L	1.327	2	3	13699	0	KED
| Kr	83		ug/L			45	50	9	Standard
> In-1	115		ug/L			8466	7968	2	KED
| Cd	111	52.053	ug/L	1.431	2	1	14075	0	KED
| Cd	114	52.906	ug/L	0.442	0	3	36290	2	KED
> In	115		ug/L			448865	449953	3	Standard
| Ag	107	45.191	ug/L	1.998	4	40	711151	1	Standard
| Ba	135	45.689	ug/L	0.752	1	11	271161	2	Standard
| Ba	137	44.108	ug/L	1.306	2	19	490120	0	Standard
> Tb	159		ug/L			168501	169763	1	Standard
| Pb	208	53.053	ug/L	0.593	1	172	4315405	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 20:09:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	42299	1	Standard
>	Sc	45	ug/L			332961	324014	2	Standard
|	Cr	52	-0.011	0.004	35	12895	12291	2	Standard
|	Cr	53	-0.006	0.010	156	187	166	11	Standard
|	Mn	55	-0.001	0.000	1	424	384	2	Standard
>	Ge	72	ug/L			35628	36283	0	KED
|	Ni	60	0.000	0.003	1217	10	11	44	KED
|	Ni	62	0.003	0.013	488	2	3	91	KED
|	Cu	63	0.004	0.002	63	12	27	34	KED
|	Cu	65	0.002	0.005	258	10	13	67	KED
|	Zn	66	0.001	0.015	2913	20	20	39	KED
|	Zn	67	0.020	0.031	156	2	4	65	KED
|	As	75	-0.000	0.005	2146	3	3	43	KED
|	Kr	83	ug/L			45	43	4	Standard
>	In-1	115	ug/L			8466	8302	2	KED
|	Cd	111	0.009	0.005	52	1	4	35	KED
|	Cd	114	0.001	0.004	386	3	4	67	KED
>	In	115	ug/L			448865	450959	3	Standard
|	Ag	107	0.001	0.001	136	40	56	41	Standard
|	Ba	135	0.001	0.001	132	11	14	30	Standard
|	Ba	137	0.000	0.000	91	19	24	15	Standard
>	Tb	159	ug/L			168501	165161	1	Standard
|	Pb	208	0.001	0.000	16	172	229	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0715-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:15:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	52300	1	Standard
>	Sc	45	ug/L			332961	356794	1	Standard
|	Cr	52	ug/L	0.013	2	12895	28735	2	Standard
|	Cr	53	ug/L	0.100	3	187	7208	4	Standard
|	Mn	55	ug/L	0.003	2	424	4680	1	Standard
>	Ge	72	ug/L			35628	32041	0	KED
|	Ni	60	ug/L	0.036	5	10	816	5	KED
|	Ni	62	ug/L	0.002	0	2	143	0	KED
|	Cu	63	ug/L	0.009	4	12	675	4	KED
|	Cu	65	ug/L	0.014	6	10	361	6	KED
|	Zn	66	ug/L	0.062	19	20	172	17	KED
|	Zn	67	ug/L	0.156	16	2	78	15	KED
|	As	75	ug/L	0.129	0	3	5162	1	KED
|	Kr	83	ug/L			45	33	25	Standard
>	In-1	115	ug/L			8466	7504	1	KED
|	Cd	111	ug/L	0.007	29	1	7	25	KED
|	Cd	114	ug/L	0.003	30	3	10	21	KED
>	In	115	ug/L			448865	419320	1	Standard
|	Ag	107	ug/L	0.001	239	40	41	25	Standard
|	Ba	135	ug/L	0.105	1	11	39531	0	Standard
|	Ba	137	ug/L	0.169	2	19	70067	1	Standard
>	Tb	159	ug/L			168501	155378	0	Standard
|	Pb	208	ug/L	0.001	10	172	637	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0715-04**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:23:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	48545	1	Standard
[>	Sc	45		ug/L			332961	320770	1	Standard
|	Cr	52	7.376	ug/L	0.083	1	12895	174567	0	Standard
|	Cr	53	8.209	ug/L	0.082	1	187	19964	2	Standard
|	Mn	55	0.300	ug/L	0.005	1	424	9974	2	Standard
[>	Ge	72		ug/L			35628	34764	0	KED
|	Ni	60	0.364	ug/L	0.010	2	10	524	3	KED
|	Ni	62	0.364	ug/L	0.020	5	2	84	5	KED
|	Cu	63	0.030	ug/L	0.004	13	12	128	12	KED
|	Cu	65	0.036	ug/L	0.009	25	10	80	21	KED
|	Zn	66	0.094	ug/L	0.026	27	20	69	19	KED
|	Zn	67	0.102	ug/L	0.076	74	2	11	57	KED
|	As	75	1.011	ug/L	0.056	5	3	284	5	KED
|	Kr	83		ug/L			45	40	4	Standard
[>	In-1	115		ug/L			8466	8083	1	KED
|	Cd	111	0.008	ug/L	0.000	2	1	3	0	KED
|	Cd	114	0.000	ug/L	0.000	23	3	3	2	KED
[>	In	115		ug/L			448865	426257	1	Standard
|	Ag	107	-0.001	ug/L	0.001	51	40	19	52	Standard
|	Ba	135	0.338	ug/L	0.007	1	11	1913	2	Standard
|	Ba	137	0.319	ug/L	0.005	1	19	3376	2	Standard
[>	Tb	159		ug/L			168501	162748	1	Standard
|	Pb	208	0.001	ug/L	0.000	13	172	264	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-08**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:27:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	48889	1	Standard
[>	Sc	45	ug/L			332961	325697	0	Standard
|	Cr	5.646	ug/L	0.053	0	12895	138635	0	Standard
|	Cr	53	ug/L	0.037	0	187	15387	0	Standard
|	Mn	55	ug/L	0.000	4	424	722	2	Standard
[>	Ge	72	ug/L			35628	34543	0	KED
|	Ni	60	ug/L	0.015	6	10	356	6	KED
|	Ni	62	ug/L	0.027	10	2	59	9	KED
|	Cu	63	ug/L	0.003	8	12	129	7	KED
|	Cu	65	ug/L	0.007	18	10	76	16	KED
|	Zn	66	ug/L	0.030	6	20	269	5	KED
|	Zn	67	ug/L	0.078	19	2	36	18	KED
|	As	75	ug/L	0.061	5	3	305	5	KED
|	Kr	83	ug/L			45	38	19	Standard
[>	In-1	115	ug/L			8466	7880	0	KED
|	Cd	111	ug/L	0.002	501	1	1	34	KED
|	Cd	114	ug/L	0.001	104	3	2	41	KED
[>	In	115	ug/L			448865	433236	2	Standard
|	Ag	107	ug/L	0.000	26	40	25	11	Standard
|	Ba	135	ug/L	0.006	2	11	1597	0	Standard
|	Ba	137	ug/L	0.009	3	19	2877	1	Standard
[>	Tb	159	ug/L			168501	161495	0	Standard
|	Pb	208	ug/L	0.000	2	172	500	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:32:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	47524	1	Standard
> Sc	45		ug/L			332961	327851	2	Standard
| Cr	52	2.057	ug/L	0.062	3	12895	58899	1	Standard
| Cr	53	3.096	ug/L	0.066	2	187	7809	1	Standard
| Mn	55	0.375	ug/L	0.013	3	424	12638	3	Standard
> Ge	72		ug/L			35628	32720	2	KED
| Ni	60	0.102	ug/L	0.017	16	10	145	13	KED
| Ni	62	0.122	ug/L	0.049	40	2	27	34	KED
| Cu	63	0.081	ug/L	0.005	5	12	304	6	KED
| Cu	65	0.086	ug/L	0.006	6	10	166	4	KED
| Zn	66	0.078	ug/L	0.008	9	20	57	6	KED
| Zn	67	0.210	ug/L	0.060	28	2	19	24	KED
| As	75	7.798	ug/L	0.153	1	3	2045	2	KED
| Kr	83		ug/L			45	38	12	Standard
> In-1	115		ug/L			8466	7701	0	KED
| Cd	111	0.018	ug/L	0.014	78	1	6	59	KED
| Cd	114	0.007	ug/L	0.006	81	3	8	48	KED
> In	115		ug/L			448865	425752	0	Standard
| Ag	107	-0.001	ug/L	0.001	115	40	27	41	Standard
| Ba	135	0.619	ug/L	0.016	2	11	3489	3	Standard
| Ba	137	0.571	ug/L	0.009	1	19	6025	1	Standard
> Tb	159		ug/L			168501	159571	1	Standard
| Pb	208	0.006	ug/L	0.000	4	172	584	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0690-04**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:37:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	47730	1	Standard
> Sc	45		ug/L			332961	327913	2	Standard
Cr	52	0.625	ug/L	0.030	4	12895	26739	0	Standard
Cr	53	2.347	ug/L	0.050	2	187	5966	3	Standard
Mn	55	0.064	ug/L	0.001	1	424	2507	2	Standard
> Ge	72		ug/L			35628	30481	2	KED
Ni	60	0.190	ug/L	0.027	14	10	245	15	KED
Ni	62	0.215	ug/L	0.035	16	2	44	13	KED
Cu	63	0.079	ug/L	0.008	10	12	278	8	KED
Cu	65	0.077	ug/L	0.014	17	10	140	17	KED
Zn	66	0.143	ug/L	0.030	21	20	83	14	KED
Zn	67	0.377	ug/L	0.049	12	2	31	9	KED
As	75	2.965	ug/L	0.089	3	3	726	3	KED
Kr	83		ug/L			45	68	7	Standard
> In-1	115		ug/L			8466	7063	2	KED
Cd	111	0.012	ug/L	0.005	42	1	4	26	KED
Cd	114	0.001	ug/L	0.000	15	3	3	0	KED
> In	115		ug/L			448865	407878	1	Standard
Ag	107	-0.002	ug/L	0.000	24	40	14	37	Standard
Ba	135	2.081	ug/L	0.047	2	11	11205	0	Standard
Ba	137	1.954	ug/L	0.041	2	19	19707	1	Standard
> Tb	159		ug/L			168501	153180	1	Standard
Pb	208	0.002	ug/L	0.000	6	172	267	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:42:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			42090	70596	2	Standard
>	Sc	45	ug/L			332961	437667	1	Standard
|	Cr	-0.067	ug/L	0.002	3	12895	14927	1	Standard
|	Cr	53	ug/L	0.010	7	187	658	6	Standard
|	Mn	55	ug/L	6.931	1	424	22107272	2	Standard
>	Ge	72	ug/L			35628	33171	0	KED
|	Ni	60	ug/L	0.040	3	10	1505	3	KED
|	Ni	62	ug/L	0.061	5	2	252	5	KED
|	Cu	63	ug/L	0.008	15	12	207	14	KED
|	Cu	65	ug/L	0.012	22	10	112	20	KED
|	Zn	66	ug/L	0.015	7	20	124	6	KED
|	Zn	67	ug/L	0.126	21	2	51	20	KED
|	As	75	ug/L	0.042	9	3	123	8	KED
|	Kr	83	ug/L			45	57	10	Standard
>	In-1	115	ug/L			8466	7545	2	KED
|	Cd	111	ug/L	0.010	68	1	5	47	KED
|	Cd	114	ug/L	0.002	330	3	2	36	KED
>	In	115	ug/L			448865	437788	1	Standard
|	Ag	107	ug/L	0.000	35	40	27	15	Standard
|	Ba	135	ug/L	0.072	1	11	32620	1	Standard
|	Ba	137	ug/L	0.108	2	19	57759	0	Standard
>	Tb	159	ug/L			168501	165429	0	Standard
|	Pb	208	ug/L	0.000	8	172	477	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-DUP2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:47:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	71387	0	Standard
> Sc	45		ug/L			332961	443812	1	Standard
Cr	52	-0.068	ug/L	0.006	9	12895	15110	1	Standard
Cr	53	0.117	ug/L	0.002	1	187	640	0	Standard
Mn	55	521.770	ug/L	5.051	0	424	23018673	2	Standard
> Ge	72		ug/L			35628	32218	13	KED
Ni	60	1.192	ug/L	0.116	9	10	1553	4	KED
Ni	62	1.176	ug/L	0.166	14	2	244	5	KED
Cu	63	0.030	ug/L	0.002	5	12	119	17	KED
Cu	65	0.037	ug/L	0.003	9	10	75	12	KED
Zn	66	0.227	ug/L	0.034	15	20	129	15	KED
Zn	67	0.514	ug/L	0.190	37	2	43	37	KED
As	75	0.518	ug/L	0.057	10	3	135	5	KED
Kr	83		ug/L			45	65	23	Standard
> In-1	115		ug/L			8466	7883	4	KED
Cd	111	0.002	ug/L	0.000	21	1	1		KED
Cd	114	-0.003	ug/L	0.003	99	3	1	124	KED
> In	115		ug/L			448865	434051	3	Standard
Ag	107	-0.000	ug/L	0.001	1373	40	38	30	Standard
Ba	135	5.771	ug/L	0.180	3	11	33038	1	Standard
Ba	137	5.561	ug/L	0.151	2	19	59628	0	Standard
> Tb	159		ug/L			168501	165671	0	Standard
Pb	208	0.003	ug/L	0.000	4	172	405	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-MS2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:51:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	72202	0	Standard
> Sc	45		ug/L			332961	462187	1	Standard
Cr	52	3.572	ug/L	0.061	1	12895	131028	1	Standard
Cr	53	3.915	ug/L	0.032	0	187	13852	0	Standard
Mn	55	509.984	ug/L	8.970	1	424	23427369	1	Standard
> Ge	72		ug/L			35628	34548	1	KED
Ni	60	6.410	ug/L	0.118	1	10	8991	1	KED
Ni	62	6.161	ug/L	0.106	1	2	1379	2	KED
Cu	63	5.418	ug/L	0.103	1	12	20754	2	KED
Cu	65	5.288	ug/L	0.074	1	10	10300	0	KED
Zn	66	17.741	ug/L	0.543	3	20	9387	2	KED
Zn	67	16.561	ug/L	0.933	5	2	1447	4	KED
As	75	5.669	ug/L	0.046	0	3	1571	2	KED
Kr	83		ug/L			45	64	16	Standard
> In-1	115		ug/L			8466	7940	1	KED
Cd	111	5.395	ug/L	0.103	1	1	1455	2	KED
Cd	114	5.263	ug/L	0.142	2	3	3600	2	KED
> In	115		ug/L			448865	446477	3	Standard
Ag	107	2.929	ug/L	0.027	0	40	45802	2	Standard
Ba	135	10.484	ug/L	0.341	3	11	61719	0	Standard
Ba	137	10.141	ug/L	0.316	3	19	111820	1	Standard
> Tb	159		ug/L			168501	170696	0	Standard
Pb	208	5.338	ug/L	0.085	1	172	436800	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0078-MSD2**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 20:56:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	95606	1	Standard
> Sc	45		ug/L			332961	450474	3	Standard
Cr	52	3.727	ug/L	0.114	3	12895	132425	1	Standard
Cr	53	4.039	ug/L	0.051	1	187	13919	2	Standard
Mn	55	510.734	ug/L	12.728	2	424	22856765	1	Standard
> Ge	72		ug/L			35628	34841	0	KED
Ni	60	6.663	ug/L	0.158	2	10	9425	2	KED
Ni	62	6.766	ug/L	0.218	3	2	1527	3	KED
Cu	63	5.651	ug/L	0.050	0	12	21828	0	KED
Cu	65	5.542	ug/L	0.130	2	10	10886	2	KED
Zn	66	17.477	ug/L	0.397	2	20	9328	2	KED
Zn	67	17.318	ug/L	0.369	2	2	1527	1	KED
As	75	5.815	ug/L	0.052	0	3	1625	0	KED
Kr	83		ug/L			45	65	37	Standard
> In-1	115		ug/L			8466	7886	1	KED
Cd	111	5.500	ug/L	0.161	2	1	1473	2	KED
Cd	114	5.709	ug/L	0.102	1	3	3879	1	KED
> In	115		ug/L			448865	426508	2	Standard
Ag	107	3.413	ug/L	0.035	1	40	50989	2	Standard
Ba	135	10.864	ug/L	0.031	0	11	61145	2	Standard
Ba	137	10.452	ug/L	0.155	1	19	110153	1	Standard
> Tb	159		ug/L			168501	165456	0	Standard
Pb	208	5.581	ug/L	0.042	0	172	442650	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:00:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			42090	53251	0	Standard
[>	Sc	45		ug/L			332961	325225	2	Standard
|	Cr	52	0.004	ug/L	0.007	166	12895	12687	1	Standard
|	Cr	53	-0.004	ug/L	0.008	195	187	173	12	Standard
|	Mn	55	0.009	ug/L	0.001	10	424	720	6	Standard
[>	Ge	72		ug/L			35628	35314	0	KED
|	Ni	60	0.000	ug/L	0.004	6081	10	10	56	KED
|	Ni	62	0.011	ug/L	0.013	114	2	5	57	KED
|	Cu	63	0.006	ug/L	0.003	45	12	36	29	KED
|	Cu	65	0.003	ug/L	0.002	62	10	16	24	KED
|	Zn	66	0.166	ug/L	0.016	9	20	109	7	KED
|	Zn	67	0.085	ug/L	0.032	37	2	10	28	KED
|	As	75	-0.004	ug/L	0.004	113	3	2	58	KED
	Kr	83		ug/L			45	40	40	Standard
[>	In-1	115		ug/L			8466	7995	3	KED
|	Cd	111	0.013	ug/L	0.004	33	1	5	21	KED
|	Cd	114	0.001	ug/L	0.003	252	3	4	49	KED
[>	In	115		ug/L			448865	437984	1	Standard
|	Ag	107	-0.001	ug/L	0.000	33	40	29	9	Standard
|	Ba	135	0.010	ug/L	0.002	24	11	66	18	Standard
|	Ba	137	0.010	ug/L	0.001	12	19	126	12	Standard
[>	Tb	159		ug/L			168501	163101	0	Standard
|	Pb	208	0.005	ug/L	0.000	5	172	530	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:05:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42090	47786	2	Standard
[>	Sc	45	ug/L			332961	334412	2	Standard
|	Cr	52	48.035	ug/L	0.975	12895	1113580	0	Standard
|	Cr	53	50.321	ug/L	1.009	187	126584	0	Standard
|	Mn	55	49.267	ug/L	0.882	424	1637587	0	Standard
[>	Ge	72		ug/L		35628	36436	0	KED
|	Ni	60	50.588	ug/L	0.832	10	74766	1	KED
|	Ni	62	50.542	ug/L	0.700	2	11912	0	KED
|	Cu	63	51.479	ug/L	0.931	12	207845	1	KED
|	Cu	65	51.241	ug/L	0.707	10	105191	1	KED
|	Zn	66	51.907	ug/L	1.181	20	28931	1	KED
|	Zn	67	52.131	ug/L	1.746	2	4801	2	KED
|	As	75	48.479	ug/L	0.486	3	14147	1	KED
|	Kr	83		ug/L		45	43	31	Standard
[>	In-1	115		ug/L		8466	8246	2	KED
|	Cd	111	51.464	ug/L	0.597	1	14408	2	KED
|	Cd	114	52.063	ug/L	1.573	3	36945	0	KED
[>	In	115		ug/L		448865	426451	2	Standard
|	Ag	107	47.034	ug/L	1.428	40	701805	1	Standard
|	Ba	135	48.092	ug/L	1.046	11	270504	0	Standard
|	Ba	137	46.543	ug/L	1.325	2	490268	0	Standard
[>	Tb	159		ug/L		168501	167617	1	Standard
|	Pb	208	52.950	ug/L	1.170	172	4252260	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:12:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			42090	45868	1	Standard	
>	Sc	45	ug/L			332961	332999	0	Standard	
|	Cr	52	0.007	ug/L	0.018	12895	13047	2	Standard	
|	Cr	53	-0.010	ug/L	0.003	187	163	4	Standard	
|	Mn	55	0.004	ug/L	0.001	424	545	4	Standard	
>	Ge	72		ug/L		35628	37183	1	KED	
|	Ni	60	-0.002	ug/L	0.002	10	8	32	KED	
|	Ni	62	-0.001	ug/L	0.009	1712	2	86	KED	
|	Cu	63	0.004	ug/L	0.003	75	27	39	KED	
|	Cu	65	0.000	ug/L	0.000	534	10	10	KED	
|	Zn	66	-0.005	ug/L	0.013	255	18	39	KED	
|	Zn	67	0.006	ug/L	0.031	537	2	3	91	KED
|	As	75	-0.000	ug/L	0.003	721	3	3	31	KED
|	Kr	83		ug/L		45	42	21	Standard	
>	In-1	115		ug/L		8466	8876	1	KED	
|	Cd	111	0.005	ug/L	0.007	132	1	3	62	KED
|	Cd	114	-0.003	ug/L	0.002	44	3	1	93	KED
>	In	115		ug/L		448865	446461	1	Standard	
|	Ag	107	0.002	ug/L	0.001	68	40	64	25	Standard
|	Ba	135	-0.000	ug/L	0.001	453	11	10	54	Standard
|	Ba	137	0.000	ug/L	0.001	266	19	24	50	Standard
>	Tb	159		ug/L		168501	163711	0	Standard	
|	Pb	208	0.001	ug/L	0.001	43	172	267	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:22:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				44394	1	Standard
[>	Sc	45	ug/L				294037	11	Standard
|	Cr	52	ug/L				13085	5	Standard
|	Cr	53	ug/L				150	10	Standard
[>	Ge	72	ug/L				37522	1	KED
|	Ni	60	ug/L				6	45	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				27	10	KED
|	Cu	65	ug/L				9	34	KED
|	Zn	66	ug/L				19	10	KED
|	Zn	67	ug/L				3	50	KED
|	As	75	ug/L				1	33	KED
|	Kr	83	ug/L				56	7	Standard
[>	In-1	115	ug/L				8889	0	KED
|	Cd	111	ug/L				5	16	KED
|	Cd	114	ug/L				5	22	KED
[>	Tb	159	ug/L				151668	11	Standard
|	Pb	208	ug/L				135	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:28:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				43915	1	Standard
[>	Sc	45	ug/L				332530	1	Standard
|	Cr	52	ug/L				13137	2	Standard
|	Cr	53	ug/L				163	8	Standard
[>	Ge	72	ug/L				37776	1	KED
|	Ni	60	ug/L				3	100	KED
|	Ni	62	ug/L				0	173	KED
|	Cu	63	ug/L				18	23	KED
|	Cu	65	ug/L				6	41	KED
|	Zn	66	ug/L				19	14	KED
|	Zn	67	ug/L				3	50	KED
|	As	75	ug/L				3	27	KED
|	Kr	83	ug/L				41	37	Standard
[>	In-1	115	ug/L				8842	2	KED
|	Cd	111	ug/L				3	56	KED
|	Cd	114	ug/L				3	52	KED
[>	Tb	159	ug/L				167464	1	Standard
|	Pb	208	ug/L				168	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:32:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	44013	1	Standard
[> Sc	45		ug/L			332530	345315	1	Standard
| Cr	52	48.430	ug/L	0.364	0	13137	1159781	1	Standard
| Cr	53	50.466	ug/L	0.276	0	163	131090	0	Standard
[> Ge	72		ug/L			37776	37535	1	KED
| Ni	60	51.615	ug/L	0.193	0	3	78581	1	KED
| Ni	62	51.720	ug/L	1.419	2	0	12552	1	KED
| Cu	63	51.953	ug/L	1.352	2	18	216053	1	KED
| Cu	65	51.914	ug/L	0.930	1	6	109764	0	KED
| Zn	66	52.174	ug/L	0.673	1	19	29953	0	KED
| Zn	67	51.599	ug/L	1.919	3	3	4896	2	KED
| As	75	49.265	ug/L	1.350	2	3	14806	1	KED
Kr	83		ug/L			41	43	35	Standard
[> In-1	115		ug/L			8842	8388	3	KED
| Cd	111	53.409	ug/L	1.286	2	3	15204	0	KED
| Cd	114	53.226	ug/L	1.663	3	3	38412	1	KED
[> Tb	159		ug/L			167464	178280	0	Standard
| Pb	208	51.042	ug/L	0.222	0	168	4360458	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 21:39:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43824	1	Standard
[>	Sc	45	ug/L			332530	333583	3	Standard
|	Cr	52	ug/L	0.015	167	13137	13372	1	Standard
|	Cr	53	ug/L	0.004	49	163	181	8	Standard
[>	Ge	72	ug/L			37776	38104	1	KED
|	Ni	60	ug/L	0.004	55	3	14	39	KED
|	Ni	62	ug/L	0.004	28	0	4	24	KED
|	Cu	63	ug/L	0.002	79	18	29	29	KED
|	Cu	65	ug/L	0.002	38	6	17	22	KED
|	Zn	66	ug/L	0.020	72	19	35	32	KED
|	Zn	67	ug/L	0.063	196	3	6	87	KED
|	As	75	ug/L	0.005	196	3	4	34	KED
	Kr	83	ug/L			41	38	46	Standard
[>	In-1	115	ug/L			8842	8742	2	KED
|	Cd	111	ug/L	0.002	190	3	3	17	KED
|	Cd	114	ug/L	0.003	316	3	3	71	KED
[>	Tb	159	ug/L			167464	166881	2	Standard
|	Pb	208	ug/L	0.000	19	168	325	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:43:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	62037	1	Standard
[> Sc	45		ug/L			332530	347080	2	Standard
| Cr	52	0.031	ug/L	0.005	16	13137	14448	1	Standard
| Cr	53	0.005	ug/L	0.010	215	163	181	12	Standard
[> Ge	72		ug/L			37776	38309	1	KED
| Ni	60	0.007	ug/L	0.004	59	3	13	41	KED
| Ni	62	0.013	ug/L	0.008	61	0	3	50	KED
| Cu	63	0.125	ug/L	0.012	9	18	551	10	KED
| Cu	65	0.115	ug/L	0.014	12	6	255	12	KED
| Zn	66	33.926	ug/L	0.792	2	19	19883	0	KED
| Zn	67	32.362	ug/L	1.440	4	3	3136	4	KED
| As	75	0.006	ug/L	0.004	59	3	5	19	KED
Kr	83		ug/L			41	43	11	Standard
[> In-1	115		ug/L			8842	8684	1	KED
| Cd	111	0.007	ug/L	0.002	28	3	5	10	KED
| Cd	114	0.002	ug/L	0.004	194	3	5	61	KED
[> Tb	159		ug/L			167464	175053	1	Standard
| Pb	208	0.018	ug/L	0.000	2	168	1720	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:48:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	55964	1	Standard
[> Sc	45		ug/L			332530	348781	1	Standard
| Cr	52	25.581	ug/L	0.308	1	13137	625219	0	Standard
| Cr	53	26.533	ug/L	0.436	1	163	69689	0	Standard
[> Ge	72		ug/L			37776	37596	1	KED
| Ni	60	27.129	ug/L	0.800	2	3	41364	2	KED
| Ni	62	27.295	ug/L	0.314	1	0	6637	0	KED
| Cu	63	28.464	ug/L	0.375	1	18	118589	0	KED
| Cu	65	27.649	ug/L	0.309	1	6	58563	0	KED
| Zn	66	83.613	ug/L	1.820	2	19	48068	1	KED
| Zn	67	79.563	ug/L	0.952	1	3	7561	0	KED
| As	75	24.908	ug/L	0.390	1	3	7501	0	KED
| Kr	83		ug/L			41	52	11	Standard
[> In-1	115		ug/L			8842	8766	3	KED
| Cd	111	25.724	ug/L	1.511	5	3	7649	3	KED
| Cd	114	25.913	ug/L	1.096	4	3	19540	1	KED
[> Tb	159		ug/L			167464	175745	2	Standard
| Pb	208	27.587	ug/L	0.599	2	168	2322573	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:52:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	68316	0	Standard
[>	Sc	45	ug/L			332530	346906	0	Standard
|	Cr	52	ug/L	0.013	8	13137	17663	1	Standard
|	Cr	53	ug/L	0.011	6	163	600	5	Standard
[>	Ge	72	ug/L			37776	38158	1	KED
|	Ni	60	ug/L	0.002	8	3	36	7	KED
|	Ni	62	ug/L	0.019	61	0	8	58	KED
|	Cu	63	ug/L	0.006	9	18	292	10	KED
|	Cu	65	ug/L	0.012	16	6	165	14	KED
|	Zn	66	ug/L	0.018	2	19	486	2	KED
|	Zn	67	ug/L	0.024	3	3	67	1	KED
|	As	75	ug/L	0.001	70	3	4	11	KED
	Kr	83	ug/L			41	37	25	Standard
[>	In-1	115	ug/L			8842	8908	1	KED
|	Cd	111	ug/L	0.008	128	3	5	44	KED
|	Cd	114	ug/L	0.003	342	3	4	54	KED
[>	Tb	159	ug/L			167464	175571	0	Standard
|	Pb	208	ug/L	0.000	0	168	1534	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 21:56:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	70513	1	Standard
[> Sc	45		ug/L			332530	340977	0	Standard
| Cr	52	26.792	ug/L	0.741	2	13137	639498	2	Standard
| Cr	53	27.440	ug/L	0.720	2	163	70453	1	Standard
[> Ge	72		ug/L			37776	37350	0	KED
| Ni	60	27.844	ug/L	0.715	2	3	42182	2	KED
| Ni	62	27.618	ug/L	0.845	3	0	6672	2	KED
| Cu	63	29.062	ug/L	0.250	0	18	120299	0	KED
| Cu	65	28.942	ug/L	0.654	2	6	60904	2	KED
| Zn	66	85.225	ug/L	0.981	1	19	48680	0	KED
| Zn	67	81.664	ug/L	1.825	2	3	7710	2	KED
| As	75	24.868	ug/L	0.445	1	3	7440	1	KED
| Kr	83		ug/L			41	46	13	Standard
[> In-1	115		ug/L			8842	8589	0	KED
| Cd	111	27.026	ug/L	0.307	1	3	7884	1	KED
| Cd	114	27.268	ug/L	0.351	1	3	20164	0	KED
[> Tb	159		ug/L			167464	174528	2	Standard
| Pb	208	28.417	ug/L	0.753	2	168	2375611	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-SRL1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:00:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	56294	2	Standard
[> Sc	45		ug/L			332530	364897	2	Standard
| Cr	52	0.034	ug/L	0.015	42	13137	15263	0	Standard
| Cr	53	0.110	ug/L	0.011	10	163	479	5	Standard
[> Ge	72		ug/L			37776	38320	0	KED
| Ni	60	0.053	ug/L	0.010	18	3	86	17	KED
| Ni	62	0.084	ug/L	0.004	4	0	21	5	KED
| Cu	63	0.222	ug/L	0.008	3	18	960	3	KED
| Cu	65	0.205	ug/L	0.030	14	6	449	14	KED
| Zn	66	3.738	ug/L	0.074	1	19	2209	2	KED
| Zn	67	3.704	ug/L	0.267	7	3	362	7	KED
| As	75	0.048	ug/L	0.004	8	3	18	6	KED
| Kr	83		ug/L			41	52	4	Standard
[> In-1	115		ug/L			8842	8883	2	KED
| Cd	111	0.003	ug/L	0.003	109	3	4	24	KED
| Cd	114	0.001	ug/L	0.003	188	3	4	43	KED
[> Tb	159		ug/L			167464	176441	0	Standard
| Pb	208	0.039	ug/L	0.001	3	168	3494	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-05RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:05:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76912	1	Standard
[>	Sc	45		ug/L			332530	444365	1	Standard
|	Cr	52	0.100	ug/L	0.010	10	13137	20587	0	Standard
|	Cr	53	0.437	ug/L	0.013	2	163	1677	3	Standard
[>	Ge	72		ug/L			37776	36973	1	KED
|	Ni	60	0.239	ug/L	0.021	8	3	362	7	KED
|	Ni	62	0.228	ug/L	0.014	6	0	55	6	KED
|	Cu	63	1.050	ug/L	0.032	3	18	4317	2	KED
|	Cu	65	1.030	ug/L	0.044	4	6	2152	4	KED
|	Zn	66	17.774	ug/L	0.160	0	19	10065	1	KED
|	Zn	67	16.568	ug/L	0.542	3	3	1551	2	KED
|	As	75	0.226	ug/L	0.025	11	3	70	10	KED
	Kr	83		ug/L			41	36	32	Standard
[>	In-1	115		ug/L			8842	8602	0	KED
|	Cd	111	0.022	ug/L	0.012	55	3	9	36	KED
|	Cd	114	0.018	ug/L	0.009	51	3	16	41	KED
[>	Tb	159		ug/L			167464	174508	0	Standard
|	Pb	208	0.062	ug/L	0.002	3	168	5375	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:09:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76857	1	Standard
[>	Sc	45		ug/L			332530	437824	3	Standard
|	Cr	52	0.059	ug/L	0.022	37	13137	19067	1	Standard
|	Cr	53	0.387	ug/L	0.008	2	163	1488	2	Standard
[>	Ge	72		ug/L			37776	37707	0	KED
|	Ni	60	0.227	ug/L	0.013	5	3	351	6	KED
|	Ni	62	0.203	ug/L	0.038	18	0	50	19	KED
|	Cu	63	0.998	ug/L	0.019	1	18	4186	1	KED
|	Cu	65	0.977	ug/L	0.025	2	6	2082	2	KED
|	Zn	66	16.419	ug/L	0.148	0	19	9484	1	KED
|	Zn	67	15.015	ug/L	0.185	1	3	1434	1	KED
|	As	75	0.223	ug/L	0.018	8	3	70	7	KED
	Kr	83		ug/L			41	32	11	Standard
[>	In-1	115		ug/L			8842	8683	4	KED
|	Cd	111	0.023	ug/L	0.017	71	3	10	44	KED
|	Cd	114	0.016	ug/L	0.005	28	3	15	19	KED
[>	Tb	159		ug/L			167464	174167	0	Standard
|	Pb	208	0.066	ug/L	0.001	0	168	5688	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:13:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	75146	1	Standard
[>	Sc	45		ug/L			332530	449351	2	Standard
|	Cr	52	19.623	ug/L	0.227	1	13137	621972	1	Standard
|	Cr	53	20.787	ug/L	0.318	1	163	70380	1	Standard
[>	Ge	72		ug/L			37776	36643	1	KED
|	Ni	60	27.907	ug/L	0.176	0	3	41481	1	KED
|	Ni	62	27.534	ug/L	0.652	2	0	6524	1	KED
|	Cu	63	29.770	ug/L	0.496	1	18	120886	0	KED
|	Cu	65	29.215	ug/L	0.054	0	6	60316	1	KED
|	Zn	66	102.880	ug/L	2.940	2	19	57638	2	KED
|	Zn	67	97.201	ug/L	3.698	3	3	9000	2	KED
|	As	75	26.102	ug/L	0.599	2	3	7661	1	KED
	Kr	83		ug/L			41	53	25	Standard
[>	In-1	115		ug/L			8842	8348	3	KED
|	Cd	111	27.232	ug/L	1.149	4	3	7713	0	KED
|	Cd	114	26.870	ug/L	1.264	4	3	19293	1	KED
[>	Tb	159		ug/L			167464	174115	1	Standard
|	Pb	208	27.929	ug/L	0.331	1	168	2330062	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0208-PS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:18:13**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	74500	2	Standard
[>	Sc	45		ug/L			332530	448428	2	Standard
|	Cr	52	18.411	ug/L	0.505	2	13137	583315	0	Standard
|	Cr	53	19.610	ug/L	0.368	1	163	66270	1	Standard
[>	Ge	72		ug/L			37776	36582	0	KED
|	Ni	60	26.321	ug/L	0.770	2	3	39050	2	KED
|	Ni	62	26.246	ug/L	0.679	2	0	6209	1	KED
|	Cu	63	28.038	ug/L	0.651	2	18	113662	1	KED
|	Cu	65	27.689	ug/L	0.520	1	6	57068	1	KED
|	Zn	66	97.332	ug/L	0.474	0	19	54451	1	KED
|	Zn	67	91.477	ug/L	0.614	0	3	8459	0	KED
|	As	75	24.170	ug/L	0.230	0	3	7083	1	KED
	Kr	83		ug/L			41	48	25	Standard
[>	In-1	115		ug/L			8842	8407	1	KED
|	Cd	111	25.243	ug/L	0.734	2	3	7204	0	KED
|	Cd	114	25.620	ug/L	0.330	1	3	18542	1	KED
[>	Tb	159		ug/L			167464	173813	0	Standard
|	Pb	208	26.463	ug/L	0.021	0	168	2204193	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:22:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	43198	1	Standard
[> Sc	45		ug/L			332530	330611	1	Standard
| Cr	52	0.084	ug/L	0.003	3	13137	14960	1	Standard
| Cr	53	0.018	ug/L	0.007	39	163	206	8	Standard
[> Ge	72		ug/L			37776	35888	2	KED
| Ni	60	0.004	ug/L	0.004	113	3	8	65	KED
| Ni	62	0.017	ug/L	0.005	28	0	4	24	KED
| Cu	63	0.003	ug/L	0.002	62	18	27	21	KED
| Cu	65	0.005	ug/L	0.002	49	6	16	29	KED
| Zn	66	0.026	ug/L	0.011	44	19	33	20	KED
| Zn	67	0.002	ug/L	0.054	3569	3	3	132	KED
| As	75	-0.004	ug/L	0.003	74	3	2	34	KED
| Kr	83		ug/L			41	43	15	Standard
[> In-1	115		ug/L			8842	8399	0	KED
| Cd	111	0.012	ug/L	0.012	100	3	6	49	KED
| Cd	114	0.013	ug/L	0.003	26	3	12	17	KED
[> Tb	159		ug/L			167464	167100	1	Standard
| Pb	208	0.003	ug/L	0.000	6	168	383	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:26:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	43520	1	Standard
[> Sc	45		ug/L			332530	335932	2	Standard
| Cr	52	48.728	ug/L	0.629	1	13137	1135038	1	Standard
| Cr	53	50.393	ug/L	0.986	1	163	127316	1	Standard
[> Ge	72		ug/L			37776	36161	1	KED
| Ni	60	51.453	ug/L	0.476	0	3	75462	1	KED
| Ni	62	52.383	ug/L	1.697	3	0	12247	1	KED
| Cu	63	52.881	ug/L	0.742	1	18	211893	1	KED
| Cu	65	51.554	ug/L	1.263	2	6	105019	2	KED
| Zn	66	51.978	ug/L	0.717	1	19	28748	0	KED
| Zn	67	52.618	ug/L	2.696	5	3	4808	3	KED
| As	75	50.206	ug/L	1.150	2	3	14536	0	KED
Kr	83		ug/L			41	57	27	Standard
[> In-1	115		ug/L			8842	8530	2	KED
| Cd	111	51.308	ug/L	1.633	3	3	14855	1	KED
| Cd	114	50.964	ug/L	1.073	2	3	37415	0	KED
[> Tb	159		ug/L			167464	172417	0	Standard
| Pb	208	52.646	ug/L	0.174	0	168	4349601	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 22:33:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	42389	1	Standard
[>	Sc	45	ug/L			332530	334806	3	Standard
|	Cr	-0.003	ug/L	0.020	624	13137	13145	0	Standard
|	Cr	0.005	ug/L	0.003	61	163	178	6	Standard
[>	Ge	72	ug/L			37776	37571	1	KED
|	Ni	60	ug/L	0.004	59	3	13	43	KED
|	Ni	62	ug/L	0.005	43	0	3	34	KED
|	Cu	63	ug/L	0.002	31	18	41	18	KED
|	Cu	65	ug/L	0.003	58	6	19	36	KED
|	Zn	66	ug/L	0.019	33	19	52	19	KED
|	Zn	67	ug/L	0.054	132	3	7	66	KED
|	As	75	ug/L	0.001	66	3	4	11	KED
	Kr	83	ug/L			41	43	14	Standard
[>	In-1	115	ug/L			8842	9047	1	KED
|	Cd	111	ug/L	0.005	138	3	4	34	KED
|	Cd	114	ug/L	0.002	1193	3	3	52	KED
[>	Tb	159	ug/L			167464	169661	1	Standard
|	Pb	208	ug/L	0.000	21	168	344	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:38:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	62547	1	Standard
[>	Sc	45	ug/L			332530	345150	2	Standard
|	Cr	52	0.028	0.015	52	13137	14297	0	Standard
|	Cr	53	0.007	0.007	98	163	187	7	Standard
[>	Ge	72	ug/L			37776	37095	0	KED
|	Ni	60	0.006	0.003	43	3	12	31	KED
|	Ni	62	0.008	0.009	114	0	2	86	KED
|	Cu	63	0.109	0.004	3	18	464	3	KED
|	Cu	65	0.107	0.015	14	6	231	14	KED
|	Zn	66	0.297	0.047	15	19	187	13	KED
|	Zn	67	0.211	0.030	14	3	23	12	KED
|	As	75	0.003	0.006	196	3	4	37	KED
	Kr	83	ug/L			41	41	36	Standard
[>	In-1	115	ug/L			8842	8524	0	KED
|	Cd	111	0.005	0.011	237	3	4	69	KED
|	Cd	114	0.002	0.007	292	3	5	95	KED
[>	Tb	159	ug/L			167464	174714	0	Standard
|	Pb	208	0.034	0.001	1	168	3057	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:42:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	56862	0	Standard
[>	Sc	45	ug/L			332530	340124	0	Standard
|	Cr	25.906	ug/L	0.166	0	13137	617323	0	Standard
|	Cr	26.617	ug/L	0.150	0	163	68182	0	Standard
[>	Ge	72	ug/L			37776	36992	2	KED
|	Ni	26.317	ug/L	0.848	3	3	39471	2	KED
|	Ni	26.449	ug/L	0.618	2	0	6326	1	KED
|	Cu	27.689	ug/L	0.479	1	18	113488	1	KED
|	Cu	27.446	ug/L	0.903	3	6	57177	2	KED
|	Zn	81.047	ug/L	2.298	2	19	45827	0	KED
|	Zn	76.525	ug/L	4.022	5	3	7149	2	KED
|	As	24.424	ug/L	0.752	3	3	7233	0	KED
	Kr	83	ug/L			41	50	10	Standard
[>	In-1	115	ug/L			8842	8795	2	KED
|	Cd	25.001	ug/L	0.805	3	3	7464	1	KED
|	Cd	25.248	ug/L	0.671	2	3	19110	0	KED
[>	Tb	159	ug/L			167464	173556	1	Standard
|	Pb	28.160	ug/L	0.718	2	168	2341304	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0233-07RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:46:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	74224	1	Standard
[> Sc	45		ug/L			332530	399147	1	Standard
| Cr	52	0.093	ug/L	0.012	13	13137	18319	1	Standard
| Cr	53	0.364	ug/L	0.026	7	163	1287	6	Standard
[> Ge	72		ug/L			37776	36948	1	KED
| Ni	60	0.228	ug/L	0.012	5	3	345	6	KED
| Ni	62	0.217	ug/L	0.059	27	0	52	28	KED
| Cu	63	1.061	ug/L	0.005	0	18	4363	1	KED
| Cu	65	1.099	ug/L	0.031	2	6	2293	1	KED
| Zn	66	30.820	ug/L	0.640	2	19	17427	2	KED
| Zn	67	28.194	ug/L	0.428	1	3	2635	1	KED
| As	75	0.269	ug/L	0.030	11	3	83	9	KED
| Kr	83		ug/L			41	38	18	Standard
[> In-1	115		ug/L			8842	8589	2	KED
| Cd	111	0.015	ug/L	0.009	61	3	7	33	KED
| Cd	114	0.014	ug/L	0.007	46	3	14	34	KED
[> Tb	159		ug/L			167464	172580	0	Standard
| Pb	208	0.164	ug/L	0.008	4	168	13754	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0234-07RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:51:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	76777	0	Standard
[>	Sc	45	ug/L			332530	345129	2	Standard
|	Cr	52	0.326	0.023	7	13137	21331	0	Standard
|	Cr	53	0.321	0.013	4	163	1001	2	Standard
[>	Ge	72	ug/L			37776	37771	0	KED
|	Ni	60	0.357	0.033	9	3	550	9	KED
|	Ni	62	0.416	0.050	12	0	102	11	KED
|	Cu	63	2.900	0.056	1	18	12154	1	KED
|	Cu	65	2.763	0.059	2	6	5886	2	KED
|	Zn	66	40.410	0.822	2	19	23353	1	KED
|	Zn	67	37.762	1.072	2	3	3608	3	KED
|	As	75	0.132	0.005	4	3	43	3	KED
	Kr	83	ug/L			41	40	12	Standard
[>	In-1	115	ug/L			8842	8686	2	KED
|	Cd	111	0.066	0.004	6	3	22	7	KED
|	Cd	114	0.062	0.008	13	3	50	14	KED
[>	Tb	159	ug/L			167464	173154	0	Standard
|	Pb	208	0.203	0.003	1	168	17028	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0241-02RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:55:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	74576	1	Standard
[>	Sc	45	ug/L			332530	443077	2	Standard
|	Cr	0.039	ug/L	0.009	23	13137	18677	1	Standard
|	Cr	53	ug/L	0.023	2	163	3929	4	Standard
[>	Ge	72	ug/L			37776	36516	1	KED
|	Ni	60	ug/L	0.009	5	3	251	5	KED
|	Ni	62	ug/L	0.012	6	0	43	6	KED
|	Cu	63	ug/L	0.035	5	18	2774	4	KED
|	Cu	65	ug/L	0.030	4	6	1396	3	KED
|	Zn	66	ug/L	0.076	1	19	3042	0	KED
|	Zn	67	ug/L	0.418	7	3	509	8	KED
|	As	75	ug/L	0.017	9	3	55	9	KED
|	Kr	83	ug/L			41	43	30	Standard
[>	In-1	115	ug/L			8842	8398	0	KED
|	Cd	111	ug/L	0.010	42	3	10	28	KED
|	Cd	114	ug/L	0.006	17	3	29	15	KED
[>	Tb	159	ug/L			167464	172232	0	Standard
|	Pb	208	ug/L	0.002	3	168	4934	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0241-04RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 22:59:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			43915	75881	0	Standard	
[>	Sc	45	ug/L			332530	435318	0	Standard	
|	Cr	52	0.044	ug/L	0.004	9	13137	18495	0	Standard
|	Cr	53	0.549	ug/L	0.027	4	163	2008	4	Standard
[>	Ge	72		ug/L			37776	35980	0	KED
|	Ni	60	0.261	ug/L	0.012	4	3	384	4	KED
|	Ni	62	0.300	ug/L	0.033	10	0	70	10	KED
|	Cu	63	0.431	ug/L	0.014	3	18	1737	3	KED
|	Cu	65	0.428	ug/L	0.017	3	6	873	4	KED
|	Zn	66	3.432	ug/L	0.061	1	19	1906	2	KED
|	Zn	67	3.158	ug/L	0.385	12	3	290	12	KED
|	As	75	0.239	ug/L	0.013	5	3	72	5	KED
	Kr	83		ug/L			41	41	27	Standard
[>	In-1	115		ug/L			8842	8470	1	KED
|	Cd	111	0.005	ug/L	0.003	67	3	4	20	KED
|	Cd	114	0.009	ug/L	0.008	86	3	10	56	KED
[>	Tb	159		ug/L			167464	170221	2	Standard
|	Pb	208	0.071	ug/L	0.004	6	168	5945	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-02RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:04:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	70929	2	Standard
[> Sc	45		ug/L			332530	366663	3	Standard
| Cr	52	0.141	ug/L	0.016	11	13137	18034	3	Standard
| Cr	53	0.261	ug/L	0.017	6	163	898	2	Standard
[> Ge	72		ug/L			37776	36506	0	KED
| Ni	60	0.169	ug/L	0.018	10	3	253	11	KED
| Ni	62	0.180	ug/L	0.075	41	0	43	41	KED
| Cu	63	1.181	ug/L	0.045	3	18	4795	4	KED
| Cu	65	1.190	ug/L	0.005	0	6	2454	0	KED
| Zn	66	5.681	ug/L	0.043	0	19	3189	0	KED
| Zn	67	5.523	ug/L	0.413	7	3	513	6	KED
| As	75	0.155	ug/L	0.008	5	3	48	4	KED
| Kr	83		ug/L			41	33	27	Standard
[> In-1	115		ug/L			8842	8459	2	KED
| Cd	111	0.022	ug/L	0.014	63	3	9	43	KED
| Cd	114	0.016	ug/L	0.006	38	3	15	27	KED
[> Tb	159		ug/L			167464	167584	2	Standard
| Pb	208	0.158	ug/L	0.004	2	168	12822	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0242-04RE1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:08:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	72229	0	Standard
[>	Sc	45		ug/L			332530	450211	1	Standard
|	Cr	52	-0.003	ug/L	0.008	263	13137	17686	0	Standard
|	Cr	53	0.381	ug/L	0.016	4	163	1508	5	Standard
[>	Ge	72		ug/L			37776	36744	1	KED
|	Ni	60	0.197	ug/L	0.028	14	3	296	13	KED
|	Ni	62	0.195	ug/L	0.022	11	0	46	10	KED
|	Cu	63	0.921	ug/L	0.020	2	18	3769	1	KED
|	Cu	65	0.905	ug/L	0.032	3	6	1880	2	KED
|	Zn	66	11.312	ug/L	0.078	0	19	6372	0	KED
|	Zn	67	10.795	ug/L	0.912	8	3	1005	8	KED
|	As	75	0.215	ug/L	0.017	7	3	66	8	KED
	Kr	83		ug/L			41	40	7	Standard
[>	In-1	115		ug/L			8842	8332	0	KED
|	Cd	111	0.014	ug/L	0.002	13	3	7	7	KED
|	Cd	114	0.010	ug/L	0.010	93	3	10	63	KED
[>	Tb	159		ug/L			167464	171471	0	Standard
|	Pb	208	0.051	ug/L	0.001	2	168	4341	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0306-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:12:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	62149	0	Standard
[>	Sc	45	ug/L			332530	399512	0	Standard
|	Cr	0.879	ug/L	0.013	1	13137	39849	0	Standard
|	Cr	53	ug/L	0.060	3	163	5110	3	Standard
[>	Ge	72	ug/L			37776	36585	0	KED
|	Ni	60	ug/L	0.023	4	3	800	3	KED
|	Ni	62	ug/L	0.071	12	0	133	12	KED
|	Cu	63	ug/L	0.117	1	18	25016	1	KED
|	Cu	65	ug/L	0.118	1	6	12561	1	KED
|	Zn	66	ug/L	0.201	3	19	3651	2	KED
|	Zn	67	ug/L	0.388	6	3	549	6	KED
|	As	75	ug/L	0.016	7	3	69	7	KED
|	Kr	83	ug/L			41	40	40	Standard
[>	In-1	115	ug/L			8842	8487	1	KED
|	Cd	111	ug/L	0.002	56	3	4	12	KED
|	Cd	114	ug/L	0.006	104	3	7	54	KED
[>	Tb	159	ug/L			167464	171494	1	Standard
|	Pb	208	ug/L	0.002	2	168	7332	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:17:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	42974	0	Standard
[>	Sc	45	ug/L			332530	330444	2	Standard
|	Cr	52	0.068	0.016	23	13137	14596	0	Standard
|	Cr	53	0.037	0.003	9	163	254	4	Standard
[>	Ge	72	ug/L			37776	36594	1	KED
|	Ni	60	0.005	0.003	68	3	10	44	KED
|	Ni	62	0.005	0.008	146	0	1	100	KED
|	Cu	63	0.001	0.001	131	18	22	24	KED
|	Cu	65	0.004	0.003	76	6	14	39	KED
|	Zn	66	0.009	0.006	61	19	24	12	KED
|	Zn	67	0.015	0.043	287	3	5	78	KED
|	As	75	-0.002	0.004	178	3	2	44	KED
	Kr	83	ug/L			41	39	15	Standard
[>	In-1	115	ug/L			8842	8511	3	KED
|	Cd	111	0.005	0.006	127	3	4	40	KED
|	Cd	114	-0.003	0.001	42	3	1	90	KED
[>	Tb	159	ug/L			167464	168885	1	Standard
|	Pb	208	0.002	0.001	23	168	344	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:21:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	42548	1	Standard
[> Sc	45		ug/L			332530	333394	2	Standard
| Cr	52	49.412	ug/L	0.917	1	13137	1141947	1	Standard
| Cr	53	50.587	ug/L	0.712	1	163	126853	1	Standard
[> Ge	72		ug/L			37776	37567	0	KED
| Ni	60	49.823	ug/L	0.826	1	3	75911	0	KED
| Ni	62	50.531	ug/L	0.964	1	0	12277	1	KED
| Cu	63	51.458	ug/L	1.137	2	18	214201	1	KED
| Cu	65	51.146	ug/L	1.094	2	6	108239	1	KED
| Zn	66	50.488	ug/L	1.536	3	19	29009	2	KED
| Zn	67	49.685	ug/L	1.143	2	3	4719	1	KED
| As	75	48.971	ug/L	0.794	1	3	14733	0	KED
Kr	83		ug/L			41	43	14	Standard
[> In-1	115		ug/L			8842	8531	1	KED
| Cd	111	51.024	ug/L	0.924	1	3	14778	0	KED
| Cd	114	50.921	ug/L	0.679	1	3	37395	0	KED
[> Tb	159		ug/L			167464	173325	0	Standard
| Pb	208	52.418	ug/L	0.476	0	168	4353637	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, May 09, 2023 23:28:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	42388	1	Standard
[>	Sc	45	ug/L			332530	329230	2	Standard
|	Cr	52	0.004	0.006	174	13137	13086	2	Standard
|	Cr	53	0.006	0.003	52	163	176	5	Standard
[>	Ge	72	ug/L			37776	38020	2	KED
|	Ni	60	0.004	0.002	60	3	10	39	KED
|	Ni	62	0.003	0.004	174	0	1	86	KED
|	Cu	63	0.004	0.001	29	18	37	15	KED
|	Cu	65	0.004	0.002	58	6	15	33	KED
|	Zn	66	0.044	0.003	6	19	45	2	KED
|	Zn	67	0.020	0.001	6	3	5	0	KED
|	As	75	0.002	0.007	353	3	4	50	KED
	Kr	83	ug/L			41	41	5	Standard
[>	In-1	115	ug/L			8842	8830	2	KED
|	Cd	111	0.003	0.004	125	3	4	24	KED
|	Cd	114	0.004	0.007	191	3	6	85	KED
[>	Tb	159	ug/L			167464	166899	0	Standard
|	Pb	208	0.002	0.000	13	168	336	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:32:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	66723	0	Standard
[>	Sc	45	ug/L			332530	436323	1	Standard
|	Cr	10.898	ug/L	0.175	1	13137	343071	1	Standard
|	Cr	11.531	ug/L	0.217	1	163	38005	0	Standard
[>	Ge	72	ug/L			37776	39265	0	KED
|	Ni	11.220	ug/L	0.408	3	3	17874	4	KED
|	Ni	11.389	ug/L	0.583	5	0	2892	4	KED
|	Cu	83.576	ug/L	1.813	2	18	363650	1	KED
|	Cu	82.672	ug/L	2.864	3	6	182875	3	KED
|	Zn	51.989	ug/L	1.551	2	19	31225	2	KED
|	Zn	50.028	ug/L	2.582	5	3	4967	5	KED
|	As	2.691	ug/L	0.095	3	3	849	4	KED
	Kr	83	ug/L			41	62	14	Standard
[>	In-1	115	ug/L			8842	8921	0	KED
|	Cd	0.048	ug/L	0.024	48	3	18	39	KED
|	Cd	0.047	ug/L	0.005	10	3	39	8	KED
[>	Tb	159	ug/L			167464	202039	1	Standard
|	Pb	21.218	ug/L	0.173	0	168	2054225	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-13**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:37:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	67326	1	Standard
[>	Sc	45		ug/L			332530	405383	0	Standard
|	Cr	52	5.534	ug/L	0.041	0	13137	169760	1	Standard
|	Cr	53	5.823	ug/L	0.096	1	163	17933	1	Standard
[>	Ge	72		ug/L			37776	38501	0	KED
|	Ni	60	5.198	ug/L	0.138	2	3	8120	2	KED
|	Ni	62	5.389	ug/L	0.284	5	0	1342	5	KED
|	Cu	63	7.733	ug/L	0.211	2	18	33013	2	KED
|	Cu	65	7.764	ug/L	0.132	1	6	16845	0	KED
|	Zn	66	16.565	ug/L	0.256	1	19	9770	2	KED
|	Zn	67	16.270	ug/L	0.176	1	3	1586	1	KED
|	As	75	2.005	ug/L	0.035	1	3	621	2	KED
	Kr	83		ug/L			41	60	15	Standard
[>	In-1	115		ug/L			8842	9013	2	KED
|	Cd	111	0.029	ug/L	0.012	41	3	12	27	KED
|	Cd	114	0.025	ug/L	0.008	33	3	22	29	KED
[>	Tb	159		ug/L			167464	191409	1	Standard
|	Pb	208	1.651	ug/L	0.012	0	168	151611	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-14**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:41:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	62010	0	Standard
[>	Sc	45		ug/L			332530	396910	2	Standard
|	Cr	52	5.907	ug/L	0.107	1	13137	176332	2	Standard
|	Cr	53	6.271	ug/L	0.177	2	163	18885	0	Standard
[>	Ge	72		ug/L			37776	38078	2	KED
|	Ni	60	6.273	ug/L	0.129	2	3	9688	0	KED
|	Ni	62	6.519	ug/L	0.094	1	0	1605	1	KED
|	Cu	63	8.704	ug/L	0.147	1	18	36737	0	KED
|	Cu	65	8.597	ug/L	0.126	1	6	18448	1	KED
|	Zn	66	21.517	ug/L	0.621	2	19	12540	1	KED
|	Zn	67	20.880	ug/L	1.103	5	3	2012	4	KED
|	As	75	2.029	ug/L	0.067	3	3	622	2	KED
	Kr	83		ug/L			41	55	1	Standard
[>	In-1	115		ug/L			8842	8871	1	KED
|	Cd	111	0.026	ug/L	0.000	1	3	11	0	KED
|	Cd	114	0.026	ug/L	0.008	31	3	23	25	KED
[>	Tb	159		ug/L			167464	195670	1	Standard
|	Pb	208	4.908	ug/L	0.084	1	168	460307	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-20**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:45:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	66438	0	Standard
[>	Sc	45		ug/L			332530	462113	1	Standard
|	Cr	52	20.411	ug/L	0.220	1	13137	664650	1	Standard
|	Cr	53	21.236	ug/L	0.219	1	163	73949	1	Standard
[>	Ge	72		ug/L			37776	38097	0	KED
|	Ni	60	31.446	ug/L	0.215	0	3	48594	0	KED
|	Ni	62	32.287	ug/L	0.803	2	0	7955	1	KED
|	Cu	63	88.628	ug/L	1.675	1	18	374155	1	KED
|	Cu	65	87.028	ug/L	0.493	0	6	186790	0	KED
|	Zn	66	154.491	ug/L	2.342	1	19	89996	1	KED
|	Zn	67	147.083	ug/L	1.849	1	3	14162	1	KED
|	As	75	33.201	ug/L	0.342	1	3	10131	0	KED
	Kr	83		ug/L			41	73	18	Standard
[>	In-1	115		ug/L			8842	9033	3	KED
|	Cd	111	0.156	ug/L	0.019	11	3	51	11	KED
|	Cd	114	0.165	ug/L	0.016	9	3	132	8	KED
[>	Tb	159		ug/L			167464	202074	1	Standard
|	Pb	208	260.681	ug/L	4.402	1	168	25237660	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:50:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68568	0	Standard
[>	Sc	45		ug/L			332530	474461	3	Standard
|	Cr	52	17.106	ug/L	0.112	0	13137	574925	2	Standard
|	Cr	53	17.591	ug/L	0.457	2	163	62903	0	Standard
[>	Ge	72		ug/L			37776	38147	0	KED
|	Ni	60	21.266	ug/L	0.193	0	3	32905	0	KED
|	Ni	62	22.907	ug/L	0.399	1	0	5651	1	KED
|	Cu	63	283.918	ug/L	0.854	0	18	1200179	0	KED
|	Cu	65	280.972	ug/L	5.354	1	6	603841	1	KED
|	Zn	66	750.180	ug/L	6.407	0	19	437502	1	KED
|	Zn	67	699.606	ug/L	13.303	1	3	67440	2	KED
|	As	75	108.894	ug/L	0.491	0	3	33265	0	KED
	Kr	83		ug/L			41	81	21	Standard
[>	In-1	115		ug/L			8842	9882	2	KED
|	Cd	111	0.450	ug/L	0.020	4	3	154	6	KED
|	Cd	114	0.431	ug/L	0.009	2	3	370	4	KED
[>	Tb	159		ug/L			167464	201624	1	Standard
|	Pb	208	91.183	ug/L	0.525	0	168	8809198	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:54:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68640	0	Standard
[>	Sc	45		ug/L			332530	441223	2	Standard
|	Cr	52	14.020	ug/L	0.106	0	13137	441331	1	Standard
|	Cr	53	14.729	ug/L	0.347	2	163	49025	1	Standard
[>	Ge	72		ug/L			37776	38819	0	KED
|	Ni	60	18.959	ug/L	0.127	0	3	29854	0	KED
|	Ni	62	19.834	ug/L	0.297	1	0	4979	0	KED
|	Cu	63	170.114	ug/L	2.552	1	18	731747	0	KED
|	Cu	65	167.923	ug/L	2.713	1	6	367221	0	KED
|	Zn	66	521.315	ug/L	7.460	1	19	309368	0	KED
|	Zn	67	479.525	ug/L	5.573	1	3	47039	1	KED
|	As	75	90.023	ug/L	0.504	0	3	27985	0	KED
	Kr	83		ug/L			41	69	19	Standard
[>	In-1	115		ug/L			8842	9782	0	KED
|	Cd	111	0.370	ug/L	0.040	10	3	126	10	KED
|	Cd	114	0.339	ug/L	0.021	6	3	289	6	KED
[>	Tb	159		ug/L			167464	192460	0	Standard
|	Pb	208	74.707	ug/L	0.688	0	168	6889594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, May 09, 2023 23:58:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	64979	0	Standard
[>	Sc	45		ug/L			332530	443054	3	Standard
|	Cr	52	32.752	ug/L	0.884	2	13137	1011590	2	Standard
|	Cr	53	33.634	ug/L	0.732	2	163	112139	2	Standard
[>	Ge	72		ug/L			37776	38076	1	KED
|	Ni	60	44.611	ug/L	0.566	1	3	68892	0	KED
|	Ni	62	45.904	ug/L	0.710	1	0	11303	0	KED
|	Cu	63	226.950	ug/L	2.733	1	18	957497	0	KED
|	Cu	65	224.794	ug/L	3.385	1	6	482181	1	KED
|	Zn	66	727.010	ug/L	6.400	0	19	423174	0	KED
|	Zn	67	674.445	ug/L	9.860	1	3	64885	0	KED
|	As	75	118.812	ug/L	1.379	1	3	36224	0	KED
	Kr	83		ug/L			41	88	18	Standard
[>	In-1	115		ug/L			8842	10027	2	KED
|	Cd	111	22.076	ug/L	0.252	1	3	7517	1	KED
|	Cd	114	22.305	ug/L	0.731	3	3	19247	1	KED
[>	Tb	159		ug/L			167464	202859	0	Standard
|	Pb	208	106.766	ug/L	1.718	1	168	10378358	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0125-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:03:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	63821	1	Standard
[>	Sc	45		ug/L			332530	482519	1	Standard
|	Cr	52	33.598	ug/L	0.237	0	13137	1130057	1	Standard
|	Cr	53	35.142	ug/L	0.527	1	163	127615	0	Standard
[>	Ge	72		ug/L			37776	38241	2	KED
|	Ni	60	45.464	ug/L	0.909	1	3	70499	0	KED
|	Ni	62	46.724	ug/L	1.626	3	0	11550	1	KED
|	Cu	63	272.207	ug/L	4.578	1	18	1153275	1	KED
|	Cu	65	270.487	ug/L	6.941	2	6	582520	0	KED
|	Zn	66	906.004	ug/L	32.281	3	19	529409	1	KED
|	Zn	67	853.472	ug/L	20.287	2	3	82443	0	KED
|	As	75	127.779	ug/L	3.747	2	3	39113	0	KED
	Kr	83		ug/L			41	79	9	Standard
[>	In-1	115		ug/L			8842	9965	1	KED
|	Cd	111	22.310	ug/L	0.461	2	3	7550	0	KED
|	Cd	114	22.403	ug/L	0.312	1	3	19220	0	KED
[>	Tb	159		ug/L			167464	204527	2	Standard
|	Pb	208	118.630	ug/L	2.493	2	168	11623211	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0125-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:07:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	69915	1	Standard
[>	Sc	45		ug/L			332530	466397	0	Standard
|	Cr	52	35.260	ug/L	0.668	1	13137	1145388	1	Standard
|	Cr	53	37.223	ug/L	0.861	2	163	130646	1	Standard
[>	Ge	72		ug/L			37776	37837	1	KED
|	Ni	60	47.571	ug/L	0.927	1	3	72998	0	KED
|	Ni	62	48.020	ug/L	1.262	2	0	11749	1	KED
|	Cu	63	307.495	ug/L	3.938	1	18	1289200	0	KED
|	Cu	65	307.168	ug/L	4.154	1	6	654744	1	KED
|	Zn	66	835.974	ug/L	8.518	1	19	483546	0	KED
|	Zn	67	772.877	ug/L	9.960	1	3	73894	1	KED
|	As	75	133.851	ug/L	1.174	0	3	40555	0	KED
	Kr	83		ug/L			41	90	25	Standard
[>	In-1	115		ug/L			8842	9966	3	KED
|	Cd	111	22.228	ug/L	1.367	6	3	7513	2	KED
|	Cd	114	22.249	ug/L	0.602	2	3	19082	2	KED
[>	Tb	159		ug/L			167464	199422	3	Standard
|	Pb	208	116.825	ug/L	3.030	2	168	11157835	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:11:39

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	44297	1	Standard
[> Sc	45		ug/L			332530	334004	1	Standard
| Cr	52	0.005	ug/L	0.004	84	13137	13312	1	Standard
| Cr	53	0.014	ug/L	0.009	62	163	199	12	Standard
[> Ge	72		ug/L			37776	38577	0	KED
| Ni	60	0.032	ug/L	0.004	12	3	54	11	KED
| Ni	62	0.025	ug/L	0.005	17	0	6	15	KED
| Cu	63	0.024	ug/L	0.006	24	18	121	19	KED
| Cu	65	0.022	ug/L	0.010	48	6	53	41	KED
| Zn	66	0.090	ug/L	0.006	6	19	73	5	KED
| Zn	67	0.019	ug/L	0.039	209	3	5	66	KED
| As	75	0.004	ug/L	0.001	21	3	4	5	KED
| Kr	83		ug/L			41	45	32	Standard
[> In-1	115		ug/L			8842	8526	2	KED
| Cd	111	-0.004	ug/L	0.004	93	3	2	49	KED
| Cd	114	0.003	ug/L	0.007	262	3	5	91	KED
[> Tb	159		ug/L			167464	166472	0	Standard
| Pb	208	0.019	ug/L	0.023	120	168	1661	107	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:15:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	43932	1	Standard
[>	Sc	45		ug/L			332530	338852	2	Standard
|	Cr	52	48.884	ug/L	0.354	0	13137	1148454	2	Standard
|	Cr	53	50.640	ug/L	0.774	1	163	129058	2	Standard
[>	Ge	72		ug/L			37776	37996	0	KED
|	Ni	60	50.320	ug/L	0.691	1	3	77551	1	KED
|	Ni	62	51.453	ug/L	0.796	1	0	12644	1	KED
|	Cu	63	51.393	ug/L	1.258	2	18	216406	2	KED
|	Cu	65	50.813	ug/L	0.763	1	6	108779	1	KED
|	Zn	66	50.104	ug/L	1.662	3	19	29124	3	KED
|	Zn	67	50.777	ug/L	2.174	4	3	4878	4	KED
|	As	75	48.552	ug/L	0.783	1	3	14775	1	KED
	Kr	83		ug/L			41	53	17	Standard
[>	In-1	115		ug/L			8842	8658	0	KED
|	Cd	111	51.235	ug/L	0.583	1	3	15064	1	KED
|	Cd	114	51.309	ug/L	0.946	1	3	38248	1	KED
[>	Tb	159		ug/L			167464	175902	1	Standard
|	Pb	208	51.253	ug/L	0.598	1	168	4320031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 00:23:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43964	2	Standard
[>	Sc	45	ug/L			332530	334079	0	Standard
|	Cr	52	0.026	0.013	49	13137	13799	1	Standard
|	Cr	53	0.011	0.002	22	163	191	2	Standard
[>	Ge	72	ug/L			37776	39048	1	KED
|	Ni	60	0.032	0.005	16	3	54	16	KED
|	Ni	62	0.032	0.011	34	0	8	32	KED
|	Cu	63	0.008	0.001	13	18	55	10	KED
|	Cu	65	0.013	0.002	18	6	36	13	KED
|	Zn	66	0.047	0.010	21	19	48	12	KED
|	Zn	67	0.018	0.020	111	3	5	33	KED
|	As	75	0.006	0.006	109	3	5	34	KED
	Kr	83	ug/L			41	43	17	Standard
[>	In-1	115	ug/L			8842	9015	1	KED
|	Cd	111	0.011	0.008	67	3	6	31	KED
|	Cd	114	-0.001	0.004	368	3	3	99	KED
[>	Tb	159	ug/L			167464	166890	0	Standard
|	Pb	208	0.004	0.003	63	168	490	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-21**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:27:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	76459	0	Standard
[>	Sc	45		ug/L			332530	461439	0	Standard
|	Cr	52	12.189	ug/L	0.295	2	13137	403683	2	Standard
|	Cr	53	12.803	ug/L	0.219	1	163	44609	1	Standard
[>	Ge	72		ug/L			37776	37976	1	KED
|	Ni	60	16.382	ug/L	0.209	1	3	25233	0	KED
|	Ni	62	16.220	ug/L	0.083	0	0	3984	1	KED
|	Cu	63	36.293	ug/L	0.522	1	18	152726	0	KED
|	Cu	65	36.329	ug/L	0.560	1	6	77721	0	KED
|	Zn	66	45.816	ug/L	0.248	0	19	26617	0	KED
|	Zn	67	47.056	ug/L	0.705	1	3	4518	1	KED
|	As	75	4.690	ug/L	0.109	2	3	1429	1	KED
	Kr	83		ug/L			41	73	17	Standard
[>	In-1	115		ug/L			8842	8736	1	KED
|	Cd	111	0.189	ug/L	0.005	2	3	59	0	KED
|	Cd	114	0.181	ug/L	0.021	11	3	139	9	KED
[>	Tb	159		ug/L			167464	199366	0	Standard
|	Pb	208	41.556	ug/L	0.032	0	168	3970092	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-23**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:31:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13			ug/L			43915	74830	0	Standard
[>	Sc	45			ug/L			332530	441642	1	Standard
|	Cr	52	36.623		ug/L	0.591	1	13137	1125730	0	Standard
|	Cr	53	38.064		ug/L	0.664	1	163	126487	0	Standard
[>	Ge	72			ug/L			37776	37988	1	KED
|	Ni	60	12.386		ug/L	0.114	0	3	19086	0	KED
|	Ni	62	12.278		ug/L	0.158	1	0	3017	2	KED
|	Cu	63	18.922		ug/L	0.137	0	18	79667	0	KED
|	Cu	65	18.771		ug/L	0.346	1	6	40175	1	KED
|	Zn	66	76.354		ug/L	1.903	2	19	44354	1	KED
|	Zn	67	70.776		ug/L	1.377	1	3	6798	3	KED
|	As	75	4.424		ug/L	0.039	0	3	1349	1	KED
	Kr	83			ug/L			41	60	15	Standard
[>	In-1	115			ug/L			8842	8705	0	KED
|	Cd	111	0.056		ug/L	0.012	21	3	20	17	KED
|	Cd	114	0.056		ug/L	0.016	29	3	45	26	KED
[>	Tb	159			ug/L			167464	202711	1	Standard
|	Pb	208	19.184		ug/L	0.279	1	168	1863408	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:36:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13			ug/L			43915	81204	1	Standard
[>	Sc	45			ug/L			332530	472048	1	Standard
|	Cr	52	12.545		ug/L	0.284	2	13137	424433	1	Standard
|	Cr	53	13.034		ug/L	0.074	0	163	46453	1	Standard
[>	Ge	72			ug/L			37776	36942	2	KED
|	Ni	60	18.823		ug/L	0.885	4	3	28185	2	KED
|	Ni	62	19.288		ug/L	0.654	3	0	4607	2	KED
|	Cu	63	24.315		ug/L	0.458	1	18	99529	1	KED
|	Cu	65	23.991		ug/L	0.649	2	6	49914	0	KED
|	Zn	66	53.439		ug/L	1.514	2	19	30186	1	KED
|	Zn	67	51.980		ug/L	2.300	4	3	4852	1	KED
|	As	75	5.112		ug/L	0.171	3	3	1514	0	KED
	Kr	83			ug/L			41	81	9	Standard
[>	In-1	115			ug/L			8842	8543	1	KED
|	Cd	111	0.058		ug/L	0.018	31	3	20	25	KED
|	Cd	114	0.050		ug/L	0.025	50	3	40	44	KED
[>	Tb	159			ug/L			167464	199198	1	Standard
|	Pb	208	17.282		ug/L	0.244	1	168	1649623	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:40:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	104122	1	Standard
[>	Sc	45		ug/L			332530	515038	2	Standard
|	Cr	52	42.055	ug/L	0.636	1	13137	1504361	1	Standard
|	Cr	53	43.668	ug/L	1.081	2	163	169139	0	Standard
[>	Ge	72		ug/L			37776	37168	0	KED
|	Ni	60	29.403	ug/L	0.197	0	3	44330	1	KED
|	Ni	62	29.969	ug/L	0.413	1	0	7204	1	KED
|	Cu	63	111.651	ug/L	0.972	0	18	459853	0	KED
|	Cu	65	110.342	ug/L	1.453	1	6	231057	1	KED
|	Zn	66	254.634	ug/L	4.479	1	19	144692	1	KED
|	Zn	67	247.089	ug/L	3.927	1	3	23208	1	KED
|	As	75	12.428	ug/L	0.299	2	3	3701	1	KED
	Kr	83		ug/L			41	103	14	Standard
[>	In-1	115		ug/L			8842	8430	0	KED
|	Cd	111	4.208	ug/L	0.169	4	3	1207	4	KED
|	Cd	114	4.054	ug/L	0.070	1	3	2945	1	KED
[>	Tb	159		ug/L			167464	200896	0	Standard
|	Pb	208	408.445	ug/L	5.918	1	168	39318569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:44:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	80379	2	Standard
[>	Sc	45		ug/L			332530	492398	2	Standard
|	Cr	52	9.571	ug/L	0.119	1	13137	342383	1	Standard
|	Cr	53	10.237	ug/L	0.247	2	163	38095	0	Standard
[>	Ge	72		ug/L			37776	37178	0	KED
|	Ni	60	11.606	ug/L	0.109	0	3	17504	1	KED
|	Ni	62	11.670	ug/L	0.022	0	0	2806	0	KED
|	Cu	63	26.298	ug/L	0.073	0	18	108361	0	KED
|	Cu	65	26.251	ug/L	0.059	0	6	54988	0	KED
|	Zn	66	53.995	ug/L	0.132	0	19	30707	0	KED
|	Zn	67	52.139	ug/L	1.110	2	3	4901	2	KED
|	As	75	5.517	ug/L	0.126	2	3	1646	2	KED
	Kr	83		ug/L			41	83	25	Standard
[>	In-1	115		ug/L			8842	8301	0	KED
|	Cd	111	0.156	ug/L	0.022	13	3	47	13	KED
|	Cd	114	0.115	ug/L	0.022	19	3	85	18	KED
[>	Tb	159		ug/L			167464	199826	1	Standard
|	Pb	208	9.842	ug/L	0.134	1	168	942472	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:48:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	82668	1	Standard
[>	Sc	45		ug/L			332530	494273	1	Standard
|	Cr	52	9.506	ug/L	0.087	0	13137	341547	2	Standard
|	Cr	53	9.949	ug/L	0.082	0	163	37186	1	Standard
[>	Ge	72		ug/L			37776	36431	1	KED
|	Ni	60	11.662	ug/L	0.255	2	3	17233	1	KED
|	Ni	62	11.870	ug/L	0.391	3	0	2797	2	KED
|	Cu	63	26.350	ug/L	0.347	1	18	106385	1	KED
|	Cu	65	26.538	ug/L	0.453	1	6	54465	0	KED
|	Zn	66	53.674	ug/L	0.468	0	19	29910	0	KED
|	Zn	67	52.192	ug/L	2.084	3	3	4806	2	KED
|	As	75	5.362	ug/L	0.201	3	3	1567	2	KED
	Kr	83		ug/L			41	81	25	Standard
[>	In-1	115		ug/L			8842	8368	0	KED
|	Cd	111	0.161	ug/L	0.036	22	3	48	19	KED
|	Cd	114	0.156	ug/L	0.027	17	3	115	16	KED
[>	Tb	159		ug/L			167464	199076	0	Standard
|	Pb	208	9.259	ug/L	0.108	1	168	883390	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:53:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	71590	0	Standard
[>	Sc	45		ug/L			332530	503058	1	Standard
|	Cr	52	25.876	ug/L	0.129	0	13137	912014	2	Standard
|	Cr	53	26.979	ug/L	0.634	2	163	102192	1	Standard
[>	Ge	72		ug/L			37776	36318	1	KED
|	Ni	60	37.848	ug/L	0.892	2	3	55740	0	KED
|	Ni	62	38.324	ug/L	1.404	3	0	8998	1	KED
|	Cu	63	53.461	ug/L	0.892	1	18	215132	0	KED
|	Cu	65	53.011	ug/L	0.820	1	6	108451	0	KED
|	Zn	66	132.730	ug/L	2.404	1	19	73694	0	KED
|	Zn	67	126.505	ug/L	4.423	3	3	11609	2	KED
|	As	75	29.176	ug/L	0.295	1	3	8487	0	KED
	Kr	83		ug/L			41	84	10	Standard
[>	In-1	115		ug/L			8842	8355	3	KED
|	Cd	111	25.260	ug/L	1.145	4	3	7160	0	KED
|	Cd	114	25.612	ug/L	1.387	5	3	18402	2	KED
[>	Tb	159		ug/L			167464	196213	0	Standard
|	Pb	208	32.065	ug/L	0.358	1	168	3014752	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 00:57:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	68041	1	Standard
[>	Sc	45		ug/L			332530	482139	3	Standard
|	Cr	52	26.101	ug/L	0.795	3	13137	880882	0	Standard
|	Cr	53	27.226	ug/L	0.886	3	163	98786	1	Standard
[>	Ge	72		ug/L			37776	36287	1	KED
|	Ni	60	36.992	ug/L	0.610	1	3	54440	1	KED
|	Ni	62	37.272	ug/L	0.787	2	0	8748	2	KED
|	Cu	63	51.809	ug/L	0.821	1	18	208314	0	KED
|	Cu	65	51.139	ug/L	0.883	1	6	104533	0	KED
|	Zn	66	131.098	ug/L	2.376	1	19	72730	0	KED
|	Zn	67	126.543	ug/L	2.352	1	3	11604	0	KED
|	As	75	28.833	ug/L	0.529	1	3	8379	0	KED
	Kr	83		ug/L			41	90	18	Standard
[>	In-1	115		ug/L			8842	8417	1	KED
|	Cd	111	24.845	ug/L	0.751	3	3	7100	1	KED
|	Cd	114	24.876	ug/L	0.405	1	3	18025	1	KED
[>	Tb	159		ug/L			167464	196091	0	Standard
|	Pb	208	31.674	ug/L	0.256	0	168	2976369	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0687-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:01:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	79982	0	Standard
[>	Sc	45		ug/L			332530	491748	1	Standard
|	Cr	52	26.095	ug/L	0.043	0	13137	898859	1	Standard
|	Cr	53	27.271	ug/L	0.408	1	163	100981	0	Standard
[>	Ge	72		ug/L			37776	36127	0	KED
|	Ni	60	37.312	ug/L	0.492	1	3	54672	0	KED
|	Ni	62	38.098	ug/L	1.551	4	0	8900	3	KED
|	Cu	63	53.233	ug/L	0.315	0	18	213124	0	KED
|	Cu	65	52.745	ug/L	1.040	1	6	107347	1	KED
|	Zn	66	133.882	ug/L	2.016	1	19	73958	1	KED
|	Zn	67	128.460	ug/L	2.300	1	3	11729	1	KED
|	As	75	29.795	ug/L	0.468	1	3	8622	1	KED
	Kr	83		ug/L			41	88	20	Standard
[>	In-1	115		ug/L			8842	8361	0	KED
|	Cd	111	24.504	ug/L	0.453	1	3	6957	1	KED
|	Cd	114	25.134	ug/L	0.476	1	3	18091	1	KED
[>	Tb	159		ug/L			167464	198248	0	Standard
|	Pb	208	32.328	ug/L	0.284	0	168	3071107	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:06:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43677	2	Standard
[>	Sc	45	ug/L			332530	326255	1	Standard
|	Cr	52	ug/L	0.011	131	13137	12707	1	Standard
|	Cr	53	ug/L	0.006	1816	163	159	10	Standard
[>	Ge	72	ug/L			37776	36578	0	KED
|	Ni	60	ug/L	0.006	28	3	35	24	KED
|	Ni	62	ug/L	0.012	65	0	5	57	KED
|	Cu	63	ug/L	0.002	27	18	47	17	KED
|	Cu	65	ug/L	0.002	28	6	20	19	KED
|	Zn	66	ug/L	0.011	67	19	28	23	KED
|	Zn	67	ug/L	0.023	292	3	4	49	KED
|	As	75	ug/L	0.004	57	3	5	20	KED
	Kr	83	ug/L			41	45	12	Standard
[>	In-1	115	ug/L			8842	8279	3	KED
|	Cd	111	ug/L	0.004	190	3	3	25	KED
|	Cd	114	ug/L	0.003	429	3	3	68	KED
[>	Tb	159	ug/L			167464	169477	0	Standard
|	Pb	208	ug/L	0.000	6	168	502	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:10:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	44281	0	Standard
[> Sc	45		ug/L			332530	327572	1	Standard
| Cr	52	49.143	ug/L	0.606	1	13137	1116097	1	Standard
| Cr	53	51.123	ug/L	0.652	1	163	125962	1	Standard
[> Ge	72		ug/L			37776	36951	1	KED
| Ni	60	50.058	ug/L	0.801	1	3	75018	0	KED
| Ni	62	51.286	ug/L	1.408	2	0	12254	1	KED
| Cu	63	52.089	ug/L	0.729	1	18	213286	0	KED
| Cu	65	50.905	ug/L	0.828	1	6	105966	0	KED
| Zn	66	51.112	ug/L	0.820	1	19	28888	0	KED
| Zn	67	50.082	ug/L	1.029	2	3	4679	1	KED
| As	75	49.036	ug/L	0.301	0	3	14511	0	KED
| Kr	83		ug/L			41	42	26	Standard
[> In-1	115		ug/L			8842	8166	2	KED
| Cd	111	52.272	ug/L	2.000	3	3	14484	1	KED
| Cd	114	52.871	ug/L	1.570	2	3	37150	1	KED
[> Tb	159		ug/L			167464	170308	1	Standard
| Pb	208	52.307	ug/L	0.701	1	168	4268418	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:17:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	43109	0	Standard
[>	Sc	45	ug/L			332530	325612	2	Standard
|	Cr	52	0.072	0.081	113	13137	14450	11	Standard
|	Cr	53	0.043	0.073	167	163	263	65	Standard
[>	Ge	72	ug/L			37776	37436	0	KED
|	Ni	60	0.022	0.001	4	3	36	2	KED
|	Ni	62	0.034	0.012	35	0	8	32	KED
|	Cu	63	0.002	0.001	62	18	26	18	KED
|	Cu	65	0.007	0.003	40	6	21	28	KED
|	Zn	66	0.055	0.008	14	19	50	9	KED
|	Zn	67	0.061	0.061	100	3	9	60	KED
|	As	75	0.002	0.002	137	3	4	17	KED
	Kr	83	ug/L			41	46	36	Standard
[>	In-1	115	ug/L			8842	8597	1	KED
|	Cd	111	0.004	0.002	57	3	4	12	KED
|	Cd	114	0.001	0.004	434	3	4	65	KED
[>	Tb	159	ug/L			167464	166649	0	Standard
|	Pb	208	0.071	0.117	165	168	5784	160	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-07**

Sample Dil Factor: **20**

DEL

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:21:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	70476	0	Standard
[>	Sc	45		ug/L			332530	454088	3	Standard
|	Cr	52	9.274	ug/L	0.428	4	13137	306227	1	Standard
|	Cr	53	9.649	ug/L	0.149	1	163	33129	2	Standard
[>	Ge	72		ug/L			37776	36804	1	KED
|	Ni	60	22.087	ug/L	0.339	1	3	32971	1	KED
|	Ni	62	22.142	ug/L	0.760	3	0	5269	2	KED
|	Cu	63	19.212	ug/L	0.292	1	18	78360	0	KED
|	Cu	65	19.361	ug/L	0.221	1	6	40153	2	KED
|	Zn	66	37.347	ug/L	0.956	2	19	21027	1	KED
|	Zn	67	37.471	ug/L	1.236	3	3	3487	2	KED
|	As	75	8.119	ug/L	0.110	1	3	2396	1	KED
	Kr	83		ug/L			41	63	4	Standard
[>	In-1	115		ug/L			8842	8379	0	KED
|	Cd	111	0.037	ug/L	0.005	13	3	13	10	KED
|	Cd	114	0.036	ug/L	0.007	18	3	29	16	KED
[>	Tb	159		ug/L			167464	196394	1	Standard
|	Pb	208	2.250	ug/L	0.026	1	168	211933	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:26:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	72031	1	Standard
[>	Sc	45		ug/L			332530	442093	2	Standard
|	Cr	52	71.717	ug/L	0.932	1	13137	2189974	1	Standard
|	Cr	53	71.999	ug/L	1.413	1	163	239287	0	Standard
[>	Ge	72		ug/L			37776	36891	1	KED
|	Ni	60	97.415	ug/L	0.453	0	3	145757	1	KED
|	Ni	62	97.295	ug/L	2.058	2	0	23211	1	KED
|	Cu	63	88.365	ug/L	1.177	1	18	361204	0	KED
|	Cu	65	86.840	ug/L	0.681	0	6	180475	0	KED
|	Zn	66	74.426	ug/L	0.937	1	19	41987	0	KED
|	Zn	67	70.743	ug/L	2.634	3	3	6595	2	KED
|	As	75	6.223	ug/L	0.215	3	3	1841	2	KED
	Kr	83		ug/L			41	67	18	Standard
[>	In-1	115		ug/L			8842	8311	1	KED
|	Cd	111	0.162	ug/L	0.034	20	3	48	18	KED
|	Cd	114	0.159	ug/L	0.028	17	3	117	15	KED
[>	Tb	159		ug/L			167464	187180	0	Standard
|	Pb	208	62.709	ug/L	0.140	0	168	5624709	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:30:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	77713	0	Standard
[>	Sc	45		ug/L			332530	463736	2	Standard
|	Cr	52	18.360	ug/L	0.384	2	13137	601715	1	Standard
|	Cr	53	18.974	ug/L	0.106	0	163	66328	1	Standard
[>	Ge	72		ug/L			37776	36456	0	KED
|	Ni	60	36.857	ug/L	0.266	0	3	54500	0	KED
|	Ni	62	38.090	ug/L	0.927	2	0	8981	2	KED
|	Cu	63	45.515	ug/L	0.433	0	18	183884	0	KED
|	Cu	65	44.346	ug/L	0.798	1	6	91082	1	KED
|	Zn	66	212.240	ug/L	1.662	0	19	118305	1	KED
|	Zn	67	201.442	ug/L	2.984	1	3	18559	1	KED
|	As	75	4.068	ug/L	0.084	2	3	1191	2	KED
	Kr	83		ug/L			41	99	5	Standard
[>	In-1	115		ug/L			8842	8237	0	KED
|	Cd	111	0.439	ug/L	0.063	14	3	126	13	KED
|	Cd	114	0.369	ug/L	0.075	20	3	264	19	KED
[>	Tb	159		ug/L			167464	194681	0	Standard
|	Pb	208	83.272	ug/L	1.545	1	168	7767545	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-13**

Sample Dil Factor: **20**

Comments:

DEL

Sample Date/Time: **Wednesday, May 10, 2023 01:34:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	61975	2	Standard
[> Sc	45		ug/L			332530	412337	2	Standard
| Cr	52	10.299	ug/L	0.174	1	13137	307251	1	Standard
| Cr	53	10.905	ug/L	0.163	1	163	33978	1	Standard
[> Ge	72		ug/L			37776	36196	0	KED
| Ni	60	12.289	ug/L	0.209	1	3	18043	1	KED
| Ni	62	12.165	ug/L	0.203	1	0	2848	2	KED
| Cu	63	34.043	ug/L	0.303	0	18	136557	0	KED
| Cu	65	33.882	ug/L	0.449	1	6	69094	0	KED
| Zn	66	71.033	ug/L	0.609	0	19	39323	1	KED
| Zn	67	68.352	ug/L	1.054	1	3	6254	0	KED
| As	75	4.810	ug/L	0.056	1	3	1397	1	KED
| Kr	83		ug/L			41	69	32	Standard
[> In-1	115		ug/L			8842	8353	2	KED
| Cd	111	0.114	ug/L	0.028	24	3	35	20	KED
| Cd	114	0.130	ug/L	0.026	20	3	97	18	KED
[> Tb	159		ug/L			167464	189703	2	Standard
| Pb	208	32.329	ug/L	0.882	2	168	2937649	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0348-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:39:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	61599	1	Standard
[>	Sc	45	ug/L			332530	286969	2	Standard
|	Cr	0.441	ug/L	0.019	4	13137	20001	3	Standard
|	Cr	1.624	ug/L	0.010	0	163	3641	3	Standard
[>	Ge	72	ug/L			37776	28084	0	KED
|	Ni	1.437	ug/L	0.031	2	3	1640	2	KED
|	Ni	1.427	ug/L	0.124	8	0	259	8	KED
|	Cu	1.953	ug/L	0.018	0	18	6090	1	KED
|	Cu	1.982	ug/L	0.015	0	6	3141	0	KED
|	Zn	17.083	ug/L	0.234	1	19	7349	1	KED
|	Zn	16.172	ug/L	0.402	2	3	1150	3	KED
|	As	1.246	ug/L	0.040	3	3	283	3	KED
	Kr	83	ug/L			41	55	5	Standard
[>	In-1	115	ug/L			8842	6511	3	KED
|	Cd	111	ug/L	0.011	53	3	6	31	KED
|	Cd	114	ug/L	0.004	42	3	7	26	KED
[>	Tb	159	ug/L			167464	148231	2	Standard
|	Pb	208	ug/L	0.003	2	168	8997	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 01:43:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	39153	1	Standard
[>	Sc	45	ug/L			332530	310974	3	Standard
|	Cr	52	0.048	0.020	42	13137	13306	0	Standard
|	Cr	53	0.023	0.006	25	163	206	3	Standard
[>	Ge	72	ug/L			37776	32860	0	KED
|	Ni	60	0.018	0.008	43	3	26	37	KED
|	Ni	62	0.024	0.009	36	0	5	33	KED
|	Cu	63	0.014	0.003	20	18	66	15	KED
|	Cu	65	0.016	0.001	8	6	34	6	KED
|	Zn	66	0.015	0.025	162	19	24	50	KED
|	Zn	67	0.029	0.022	77	3	5	33	KED
|	As	75	-0.004	0.003	63	3	2	35	KED
	Kr	83	ug/L			41	39	22	Standard
[>	In-1	115	ug/L			8842	7552	1	KED
|	Cd	111	-0.000	0.004	857	3	2	33	KED
|	Cd	114	-0.001	0.005	387	3	2	122	KED
[>	Tb	159	ug/L			167464	163041	1	Standard
|	Pb	208	0.003	0.001	31	168	389	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0376-01**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:48:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	54293	2	Standard
[>	Sc	45	ug/L			332530	314660	0	Standard
|	Cr	18.960	ug/L	0.231	1	13137	421315	1	Standard
|	Cr	53	ug/L	0.106	0	163	46650	0	Standard
[>	Ge	72	ug/L			37776	34247	1	KED
|	Ni	60	ug/L	0.027	10	3	344	11	KED
|	Ni	62	ug/L	0.071	23	0	67	22	KED
|	Cu	63	ug/L	0.010	3	18	1295	2	KED
|	Cu	65	ug/L	0.027	8	6	657	6	KED
|	Zn	66	ug/L	0.273	1	19	8326	0	KED
|	Zn	67	ug/L	0.867	6	3	1252	7	KED
|	As	75	ug/L	0.005	13	3	13	11	KED
|	Kr	83	ug/L			41	38	35	Standard
[>	In-1	115	ug/L			8842	7536	0	KED
|	Cd	111	ug/L	0.034	24	3	38	22	KED
|	Cd	114	ug/L	0.007	5	3	89	5	KED
[>	Tb	159	ug/L			167464	161968	1	Standard
|	Pb	208	ug/L	0.001	3	168	2419	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0424-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:52:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	52553	2	Standard
[>	Sc	45	ug/L			332530	344015	2	Standard
|	Cr	0.601	ug/L	0.021	3	13137	27749	1	Standard
|	Cr	0.738	ug/L	0.008	1	163	2076	3	Standard
[>	Ge	72	ug/L			37776	33048	1	KED
|	Ni	0.694	ug/L	0.028	4	3	933	2	KED
|	Ni	0.734	ug/L	0.055	7	0	157	6	KED
|	Cu	2.449	ug/L	0.069	2	18	8982	1	KED
|	Cu	2.435	ug/L	0.057	2	6	4539	0	KED
|	Zn	96.648	ug/L	0.645	0	19	48842	1	KED
|	Zn	67	ug/L	1.689	1	3	7497	2	KED
|	As	0.583	ug/L	0.052	8	3	157	7	KED
	Kr	83	ug/L			41	44	8	Standard
[>	In-1	115	ug/L			8842	7616	0	KED
|	Cd	0.101	ug/L	0.009	9	3	29	8	KED
|	Cd	0.098	ug/L	0.028	28	3	67	26	KED
[>	Tb	159	ug/L			167464	163481	0	Standard
|	Pb	0.576	ug/L	0.008	1	168	45305	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0374-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 01:57:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	61358	1	Standard
[>	Sc	45	ug/L			332530	298471	1	Standard
|	Cr	52	1.328	0.021	1	13137	38953	2	Standard
|	Cr	53	2.563	0.053	2	163	5892	2	Standard
[>	Ge	72	ug/L			37776	27150	0	KED
|	Ni	60	1.039	0.074	7	3	1146	7	KED
|	Ni	62	1.053	0.117	11	0	185	10	KED
|	Cu	63	1.883	0.021	1	18	5678	0	KED
|	Cu	65	1.814	0.030	1	6	2779	0	KED
|	Zn	66	1.534	0.015	0	19	650	1	KED
|	Zn	67	2.394	0.039	1	3	166	0	KED
|	As	75	0.708	0.026	3	3	156	4	KED
	Kr	83	ug/L			41	41	34	Standard
[>	In-1	115	ug/L			8842	6456	0	KED
|	Cd	111	0.016	0.005	32	3	6	18	KED
|	Cd	114	0.015	0.021	144	3	10	107	KED
[>	Tb	159	ug/L			167464	147508	0	Standard
|	Pb	208	0.111	0.002	1	168	8025	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:01:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	38378	2	Standard
[> Sc	45		ug/L			332530	289398	3	Standard
| Cr	52	0.106	ug/L	0.021	19	13137	13531	0	Standard
| Cr	53	0.045	ug/L	0.009	19	163	240	10	Standard
[> Ge	72		ug/L			37776	31531	0	KED
| Ni	60	0.007	ug/L	0.002	31	3	12	22	KED
| Ni	62	0.016	ug/L	0.009	58	0	3	50	KED
| Cu	63	0.003	ug/L	0.002	70	18	25	28	KED
| Cu	65	0.004	ug/L	0.004	102	6	13	57	KED
| Zn	66	0.007	ug/L	0.006	94	19	19	14	KED
| Zn	67	0.024	ug/L	0.028	115	3	5	43	KED
| As	75	-0.004	ug/L	0.003	75	3	2	35	KED
Kr	83		ug/L			41	43	4	Standard
[> In-1	115		ug/L			8842	6362	13	KED
| Cd	111	-0.005	ug/L	0.004	68	3	1	43	KED
| Cd	114	0.001	ug/L	0.006	471	3	3	102	KED
[> Tb	159		ug/L			167464	151430	1	Standard
| Pb	208	0.003	ug/L	0.000	7	168	375	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:05:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	38042	0	Standard
[> Sc	45		ug/L			332530	295762	1	Standard
| Cr	52	48.297	ug/L	0.492	1	13137	990587	1	Standard
| Cr	53	49.856	ug/L	0.557	1	163	110910	0	Standard
[> Ge	72		ug/L			37776	30706	0	KED
| Ni	60	52.052	ug/L	0.958	1	3	64831	2	KED
| Ni	62	52.337	ug/L	0.771	1	0	10394	1	KED
| Cu	63	53.747	ug/L	0.463	0	18	182888	0	KED
| Cu	65	53.307	ug/L	0.946	1	6	92214	1	KED
| Zn	66	52.519	ug/L	0.263	0	19	24668	0	KED
| Zn	67	52.163	ug/L	1.222	2	3	4050	3	KED
| As	75	49.513	ug/L	0.209	0	3	12176	0	KED
| Kr	83		ug/L			41	48	23	Standard
[> In-1	115		ug/L			8842	6949	0	KED
| Cd	111	53.499	ug/L	0.617	1	3	12624	1	KED
| Cd	114	53.285	ug/L	0.173	0	3	31879	0	KED
[> Tb	159		ug/L			167464	157054	0	Standard
| Pb	208	56.321	ug/L	0.244	0	168	4238669	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:12:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	38212	1	Standard
[>	Sc	45	ug/L			332530	292625	2	Standard
|	Cr	52	ug/L	0.006	23	13137	11014	1	Standard
|	Cr	53	ug/L	0.004	176	163	138	5	Standard
[>	Ge	72	ug/L			37776	31710	0	KED
|	Ni	60	ug/L	0.003	21	3	20	18	KED
|	Ni	62	ug/L	0.021	219	0	2	173	KED
|	Cu	63	ug/L	0.004	80	18	33	43	KED
|	Cu	65	ug/L	0.005	54	6	21	39	KED
|	Zn	66	ug/L	0.029	76	19	34	40	KED
|	Zn	67	ug/L	0.063	113	3	7	66	KED
|	As	75	ug/L	0.005	111	3	4	29	KED
	Kr	83	ug/L			41	36	2	Standard
[>	In-1	115	ug/L			8842	7448	0	KED
|	Cd	111	ug/L	0.002	49	3	4	13	KED
|	Cd	114	ug/L	0.005	704	3	3	94	KED
[>	Tb	159	ug/L			167464	154637	1	Standard
|	Pb	208	ug/L	0.005	91	168	587	66	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0513-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:17:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	76459	2	Standard
[>	Sc	45	ug/L			332530	347951	1	Standard
|	Cr	52	0.493	0.017	3	13137	25506	1	Standard
|	Cr	53	0.822	0.022	2	163	2319	1	Standard
[>	Ge	72	ug/L			37776	31974	0	KED
|	Ni	60	1.158	0.038	3	3	1504	2	KED
|	Ni	62	1.220	0.067	5	0	252	4	KED
|	Cu	63	10.068	0.063	0	18	35687	1	KED
|	Cu	65	10.009	0.326	3	6	18033	2	KED
|	Zn	66	37.583	0.607	1	19	18387	1	KED
|	Zn	67	34.815	0.410	1	3	2816	1	KED
|	As	75	0.241	0.029	11	3	64	10	KED
	Kr	83	ug/L			41	45	12	Standard
[>	In-1	115	ug/L			8842	7250	1	KED
|	Cd	111	0.044	0.013	30	3	13	24	KED
|	Cd	114	-0.002	0.043	1995	3	1	1511	KED
[>	Tb	159	ug/L			167464	159305	0	Standard
|	Pb	208	0.255	0.004	1	168	19634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0452-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:21:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	265955	1	Standard
[>	Sc	45	ug/L			332530	286954	2	Standard
|	Cr	52	ug/L	0.054	2	13137	57271	1	Standard
|	Cr	53	ug/L	0.013	0	163	4814	3	Standard
[>	Ge	72	ug/L			37776	27762	1	KED
|	Ni	60	ug/L	0.085	2	3	4540	0	KED
|	Ni	62	ug/L	0.167	4	0	738	5	KED
|	Cu	63	ug/L	0.019	3	18	1490	5	KED
|	Cu	65	ug/L	0.024	5	6	727	6	KED
|	Zn	66	ug/L	0.105	3	19	1318	1	KED
|	Zn	67	ug/L	0.461	14	3	220	14	KED
|	As	75	ug/L	0.004	2	3	38	3	KED
	Kr	83	ug/L			41	52	31	Standard
[>	In-1	115	ug/L			8842	6337	1	KED
|	Cd	111	ug/L	0.007	26	3	8	17	KED
|	Cd	114	ug/L	0.009	49	3	12	40	KED
[>	Tb	159	ug/L			167464	146445	0	Standard
|	Pb	208	ug/L	0.000	0	168	3531	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0462-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:25:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	57550	0	Standard
[>	Sc	45	ug/L			332530	362170	3	Standard
|	Cr	0.024	ug/L	0.004	14	13137	14910	2	Standard
|	Cr	0.805	ug/L	0.026	3	163	2367	1	Standard
[>	Ge	72	ug/L			37776	30582	0	KED
|	Ni	1.767	ug/L	0.052	2	3	2194	2	KED
|	Ni	1.654	ug/L	0.208	12	0	327	12	KED
|	Cu	0.327	ug/L	0.003	1	18	1123	0	KED
|	Cu	0.340	ug/L	0.017	4	6	591	4	KED
|	Zn	1.162	ug/L	0.024	2	19	559	1	KED
|	Zn	1.521	ug/L	0.207	13	3	120	13	KED
|	As	0.307	ug/L	0.014	4	3	78	4	KED
	Kr	83	ug/L			41	46	46	Standard
[>	In-1	115	ug/L			8842	6969	1	KED
|	Cd	0.021	ug/L	0.011	51	3	7	33	KED
|	Cd	0.012	ug/L	0.007	57	3	9	39	KED
[>	Tb	159	ug/L			167464	154961	1	Standard
|	Pb	208	ug/L	0.001	3	168	2438	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:31:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	293918	1	Standard
> Sc	45		ug/L			332530	245721	3	Standard
| Cr	52	16.818	ug/L	0.337	2	13137	292820	1	Standard
| Cr	53	17.000	ug/L	0.117	0	163	31500	2	Standard
> Ge	72		ug/L			37776	21688	0	KED
| Ni	60	4.067	ug/L	0.112	2	3	3579	2	KED
| Ni	62	4.411	ug/L	0.111	2	0	619	1	KED
| Cu	63	0.280	ug/L	0.014	5	18	684	5	KED
| Cu	65	0.280	ug/L	0.045	15	6	346	15	KED
| Zn	66	26.903	ug/L	0.577	2	19	8929	1	KED
| Zn	67	24.123	ug/L	0.949	3	3	1323	3	KED
| As	75	0.097	ug/L	0.016	16	3	18	14	KED
| Kr	83		ug/L			41	84	10	Standard
> In-1	115		ug/L			8842	5227	2	KED
| Cd	111	0.457	ug/L	0.043	9	3	83	10	KED
| Cd	114	0.436	ug/L	0.073	16	3	198	14	KED
> Tb	159		ug/L			167464	133894	1	Standard
| Pb	208	0.061	ug/L	0.001	1	168	4043	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:36:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	41033	1	Standard
[>	Sc	45	ug/L			332530	288885	0	Standard
|	Cr	52	0.021	0.013	59	13137	11833	1	Standard
|	Cr	53	-0.008	0.005	66	163	124	8	Standard
[>	Ge	72	ug/L			37776	30510	0	KED
|	Ni	60	0.016	0.007	44	3	22	38	KED
|	Ni	62	0.043	0.024	57	0	8	53	KED
|	Cu	63	0.016	0.005	29	18	67	21	KED
|	Cu	65	0.015	0.002	10	6	31	9	KED
|	Zn	66	0.046	0.035	76	19	37	44	KED
|	Zn	67	0.059	0.001	1	3	7	0	KED
|	As	75	0.000	0.006	2166	3	3	48	KED
	Kr	83	ug/L			41	41	16	Standard
[>	In-1	115	ug/L			8842	7030	1	KED
|	Cd	111	0.007	0.011	164	3	4	61	KED
|	Cd	114	-0.001	0.005	494	3	2	120	KED
[>	Tb	159	ug/L			167464	155077	0	Standard
|	Pb	208	0.003	0.000	15	168	360	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:40:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	47786	1	Standard
[>	Sc	45	ug/L			332530	320614	2	Standard
|	Cr	-0.047	ug/L	0.009	20	13137	11634	0	Standard
|	Cr	0.036	ug/L	0.011	29	163	243	10	Standard
[>	Ge	72	ug/L			37776	31329	0	KED
|	Ni	60	ug/L	0.016	55	3	39	51	KED
|	Ni	62	ug/L	0.027	65	0	8	61	KED
|	Cu	63	ug/L	0.004	17	18	90	15	KED
|	Cu	65	ug/L	0.006	34	6	38	28	KED
|	Zn	66	ug/L	0.010	11	19	55	8	KED
|	Zn	67	ug/L	0.061	125	3	6	68	KED
|	As	75	ug/L	0.014	2	3	124	3	KED
	Kr	83	ug/L			41	34	20	Standard
[>	In-1	115	ug/L			8842	7187	0	KED
|	Cd	111	ug/L	0.006	497	3	2	57	KED
|	Cd	114	ug/L	0.002	172	3	2	45	KED
[>	Tb	159	ug/L			167464	158377	0	Standard
|	Pb	208	ug/L	0.000	3	168	288	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-DUP3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:45:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	48580	1	Standard
[>	Sc	45	ug/L			332530	319845	2	Standard
|	Cr	-0.036	ug/L	0.017	48	13137	11846	0	Standard
|	Cr	0.043	ug/L	0.001	1	163	260	2	Standard
[>	Ge	72	ug/L			37776	31872	1	KED
|	Ni	60	ug/L	0.006	21	3	36	21	KED
|	Ni	62	ug/L	0.035	111	0	6	103	KED
|	Cu	63	ug/L	0.005	42	18	59	29	KED
|	Cu	65	ug/L	0.001	17	6	19	11	KED
|	Zn	66	ug/L	0.014	32	19	38	17	KED
|	Zn	67	ug/L	0.061	59	3	11	44	KED
|	As	75	ug/L	0.027	5	3	125	6	KED
	Kr	83	ug/L			41	37	10	Standard
[>	In-1	115	ug/L			8842	7282	4	KED
|	Cd	111	ug/L	0.006	260	3	2	65	KED
|	Cd	114	ug/L	0.009	330	3	4	119	KED
[>	Tb	159	ug/L			167464	159075	1	Standard
|	Pb	208	ug/L	0.000	56	168	194	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-MS3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:49:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	48650	0	Standard
[>	Sc	45		ug/L			332530	325593	1	Standard
|	Cr	52	1.193	ug/L	0.022	1	13137	39485	2	Standard
|	Cr	53	1.337	ug/L	0.017	1	163	3429	2	Standard
[>	Ge	72		ug/L			37776	32790	0	KED
|	Ni	60	1.435	ug/L	0.050	3	3	1911	3	KED
|	Ni	62	1.465	ug/L	0.096	6	0	311	6	KED
|	Cu	63	1.500	ug/L	0.023	1	18	5464	1	KED
|	Cu	65	1.465	ug/L	0.049	3	6	2711	3	KED
|	Zn	66	4.740	ug/L	0.030	0	19	2393	1	KED
|	Zn	67	4.520	ug/L	0.268	5	3	377	5	KED
|	As	75	1.824	ug/L	0.010	0	3	482	0	KED
	Kr	83		ug/L			41	33	23	Standard
[>	In-1	115		ug/L			8842	7441	1	KED
|	Cd	111	1.426	ug/L	0.024	1	3	363	0	KED
|	Cd	114	1.443	ug/L	0.006	0	3	927	1	KED
[>	Tb	159		ug/L			167464	160535	1	Standard
|	Pb	208	1.474	ug/L	0.013	0	168	113578	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0054-MSD3**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 02:55:28**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	48789	0	Standard
[>	Sc	45		ug/L			332530	331932	2	Standard
|	Cr	52	1.181	ug/L	0.058	4	13137	39951	0	Standard
|	Cr	53	1.291	ug/L	0.018	1	163	3380	1	Standard
[>	Ge	72		ug/L			37776	33311	0	KED
|	Ni	60	1.423	ug/L	0.054	3	3	1926	3	KED
|	Ni	62	1.530	ug/L	0.057	3	0	330	4	KED
|	Cu	63	1.462	ug/L	0.039	2	18	5412	2	KED
|	Cu	65	1.474	ug/L	0.006	0	6	2771	0	KED
|	Zn	66	4.603	ug/L	0.074	1	19	2361	2	KED
|	Zn	67	4.744	ug/L	0.403	8	3	402	7	KED
|	As	75	1.748	ug/L	0.053	3	3	469	3	KED
	Kr	83		ug/L			41	36	20	Standard
[>	In-1	115		ug/L			8842	7697	1	KED
|	Cd	111	1.404	ug/L	0.108	7	3	369	7	KED
|	Cd	114	1.441	ug/L	0.078	5	3	958	6	KED
[>	Tb	159		ug/L			167464	161131	0	Standard
|	Pb	208	1.477	ug/L	0.014	0	168	114240	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 02:59:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	39941	0	Standard
[>	Sc	45	ug/L			332530	297917	1	Standard
|	Cr	52	ug/L	0.006	189	13137	11703	1	Standard
|	Cr	53	ug/L	0.005	40	163	119	10	Standard
[>	Ge	72	ug/L			37776	32565	0	KED
|	Ni	60	ug/L	0.001	9	3	15	6	KED
|	Ni	62	ug/L	0.019	101	0	4	89	KED
|	Cu	63	ug/L	0.002	77	18	24	27	KED
|	Cu	65	ug/L	0.003	68	6	13	37	KED
|	Zn	66	ug/L	0.010	74	19	23	20	KED
|	Zn	67	ug/L	0.035	58	3	8	35	KED
|	As	75	ug/L	0.004	107	3	2	44	KED
	Kr	83	ug/L			41	43	11	Standard
[>	In-1	115	ug/L			8842	7480	1	KED
|	Cd	111	ug/L	0.011	675	3	2	108	KED
|	Cd	114	ug/L	0.000	17	3	3	1	KED
[>	Tb	159	ug/L			167464	156350	1	Standard
|	Pb	208	ug/L	0.000	2	168	356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:04:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41313	1	Standard
[>	Sc	45		ug/L			332530	307356	1	Standard
|	Cr	52	47.979	ug/L	0.793	1	13137	1022914	2	Standard
|	Cr	53	50.150	ug/L	0.721	1	163	115964	2	Standard
[>	Ge	72		ug/L			37776	32572	0	KED
|	Ni	60	51.583	ug/L	0.408	0	3	68147	0	KED
|	Ni	62	52.891	ug/L	0.595	1	0	11142	0	KED
|	Cu	63	53.300	ug/L	0.755	1	18	192386	0	KED
|	Cu	65	52.686	ug/L	0.416	0	6	96684	0	KED
|	Zn	66	52.944	ug/L	0.643	1	19	26378	0	KED
|	Zn	67	52.503	ug/L	2.007	3	3	4324	3	KED
|	As	75	50.119	ug/L	0.059	0	3	13074	0	KED
	Kr	83		ug/L			41	54	13	Standard
[>	In-1	115		ug/L			8842	7538	0	KED
|	Cd	111	51.519	ug/L	0.413	0	3	13188	0	KED
|	Cd	114	51.630	ug/L	0.578	1	3	33508	0	KED
[>	Tb	159		ug/L			167464	162469	1	Standard
|	Pb	208	53.772	ug/L	1.113	2	168	4185920	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:11:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40689	0	Standard
[>	Sc	45	ug/L			332530	303870	2	Standard
|	Cr	52	ug/L	0.004	40	13137	11822	2	Standard
|	Cr	53	ug/L	0.004	28	163	121	8	Standard
[>	Ge	72	ug/L			37776	33588	2	KED
|	Ni	60	ug/L	0.002	21	3	13	14	KED
|	Ni	62	ug/L	0.010	85	0	3	69	KED
|	Cu	63	ug/L	0.001	27	18	36	13	KED
|	Cu	65	ug/L	0.002	42	6	17	29	KED
|	Zn	66	ug/L	0.022	41	19	44	23	KED
|	Zn	67	ug/L	0.046	1477	3	3	124	KED
|	As	75	ug/L	0.002	33	3	4	11	KED
	Kr	83	ug/L			41	41	16	Standard
[>	In-1	115	ug/L			8842	7761	2	KED
|	Cd	111	ug/L	0.007	1066	3	2	66	KED
|	Cd	114	ug/L	0.002	559	3	3	34	KED
[>	Tb	159	ug/L			167464	158746	0	Standard
|	Pb	208	ug/L	0.000	8	168	313	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:15:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	85852	1	Standard
[>	Sc	45	ug/L			332530	667261	4	Standard
|	Cr	0.012	ug/L	0.014	110	13137	26909	2	Standard
|	Cr	0.491	ug/L	0.004	0	163	2787	4	Standard
[>	Ge	72	ug/L			37776	29764	0	KED
|	Ni	0.700	ug/L	0.025	3	3	848	3	KED
|	Ni	0.779	ug/L	0.053	6	0	150	6	KED
|	Cu	0.380	ug/L	0.028	7	18	1267	7	KED
|	Cu	0.401	ug/L	0.019	4	6	678	4	KED
|	Zn	1.572	ug/L	0.120	7	19	730	8	KED
|	Zn	2.408	ug/L	0.032	1	3	184	1	KED
|	As	4.400	ug/L	0.049	1	3	1051	0	KED
	Kr	83	ug/L			41	50	20	Standard
[>	In-1	115	ug/L			8842	6861	1	KED
|	Cd	0.014	ug/L	0.005	34	3	6	18	KED
|	Cd	0.002	ug/L	0.005	244	3	4	71	KED
[>	Tb	159	ug/L			167464	156691	1	Standard
|	Pb	0.035	ug/L	0.002	5	168	2756	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-DUP2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:19:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	86976	0	Standard
[>	Sc	45		ug/L			332530	644087	3	Standard
|	Cr	52	0.052	ug/L	0.024	46	13137	27696	0	Standard
|	Cr	53	0.524	ug/L	0.027	5	163	2851	1	Standard
[>	Ge	72		ug/L			37776	30041	0	KED
|	Ni	60	0.766	ug/L	0.024	3	3	935	2	KED
|	Ni	62	0.814	ug/L	0.105	12	0	158	12	KED
|	Cu	63	0.224	ug/L	0.002	1	18	761	0	KED
|	Cu	65	0.234	ug/L	0.016	6	6	401	6	KED
|	Zn	66	1.462	ug/L	0.170	11	19	687	11	KED
|	Zn	67	2.310	ug/L	0.089	3	3	178	4	KED
|	As	75	4.454	ug/L	0.057	1	3	1074	0	KED
	Kr	83		ug/L			41	44	39	Standard
[>	In-1	115		ug/L			8842	6849	1	KED
|	Cd	111	0.011	ug/L	0.015	131	3	5	66	KED
|	Cd	114	-0.002	ug/L	0.000	2	3	1	3	KED
[>	Tb	159		ug/L			167464	153022	1	Standard
|	Pb	208	0.027	ug/L	0.001	4	168	2098	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MS2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:24:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	86232	1	Standard
[>	Sc	45	ug/L			332530	621648	2	Standard
|	Cr	11.436	ug/L	0.224	1	13137	511653	0	Standard
|	Cr	12.330	ug/L	0.162	1	163	57879	1	Standard
[>	Ge	72	ug/L			37776	29580	0	KED
|	Ni	26.864	ug/L	0.309	1	3	32230	0	KED
|	Ni	26.764	ug/L	0.540	2	0	5120	1	KED
|	Cu	25.690	ug/L	0.096	0	18	84222	0	KED
|	Cu	25.571	ug/L	0.335	1	6	42617	1	KED
|	Zn	76.056	ug/L	0.605	0	19	34406	0	KED
|	Zn	72.263	ug/L	1.184	1	3	5403	0	KED
|	As	28.724	ug/L	0.258	0	3	6806	0	KED
	Kr	83	ug/L			41	73	31	Standard
[>	In-1	115	ug/L			8842	6837	2	KED
|	Cd	24.223	ug/L	0.549	2	3	5623	1	KED
|	Cd	25.016	ug/L	0.566	2	3	14721	1	KED
[>	Tb	159	ug/L			167464	155552	0	Standard
|	Pb	25.119	ug/L	0.471	1	168	1872259	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MSD2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:30:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	85695	0	Standard
[>	Sc	45	ug/L			332530	641390	2	Standard
|	Cr	52	ug/L	0.212	1	13137	531914	1	Standard
|	Cr	53	ug/L	0.132	1	163	59819	2	Standard
[>	Ge	72	ug/L			37776	30276	0	KED
|	Ni	60	ug/L	0.428	1	3	33583	1	KED
|	Ni	62	ug/L	0.121	0	0	5408	0	KED
|	Cu	63	ug/L	0.503	1	18	88073	1	KED
|	Cu	65	ug/L	0.339	1	6	44631	1	KED
|	Zn	66	ug/L	1.231	1	19	35874	1	KED
|	Zn	67	ug/L	0.256	0	3	5700	0	KED
|	As	75	ug/L	0.019	0	3	7117	0	KED
	Kr	83	ug/L			41	64	18	Standard
[>	In-1	115	ug/L			8842	6798	1	KED
|	Cd	111	ug/L	0.121	0	3	5980	0	KED
|	Cd	114	ug/L	0.289	1	3	15173	1	KED
[>	Tb	159	ug/L			167464	154708	1	Standard
|	Pb	208	ug/L	0.468	1	168	1908435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:34:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	41894	1	Standard
[>	Sc	45	ug/L			332530	306227	1	Standard
|	Cr	52	0.012	0.006	50	13137	12358	1	Standard
|	Cr	53	0.015	0.003	19	163	184	4	Standard
[>	Ge	72	ug/L			37776	34308	1	KED
|	Ni	60	0.016	0.006	35	3	26	29	KED
|	Ni	62	0.026	0.005	20	0	6	17	KED
|	Cu	63	0.001	0.002	166	18	20	32	KED
|	Cu	65	0.004	0.004	117	6	13	62	KED
|	Zn	66	-0.007	0.009	118	19	13	31	KED
|	Zn	67	-0.003	0.013	406	3	3	34	KED
|	As	75	0.002	0.004	156	3	3	24	KED
	Kr	83	ug/L			41	44	39	Standard
[>	In-1	115	ug/L			8842	7536	1	KED
|	Cd	111	0.005	0.010	209	3	4	58	KED
|	Cd	114	-0.003	0.002	51	3	1	94	KED
[>	Tb	159	ug/L			167464	162505	1	Standard
|	Pb	208	0.000	0.000	37	168	188	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0464-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:38:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	49663	1	Standard
[>	Sc	45		ug/L			332530	311893	0	Standard
|	Cr	52	0.095	ug/L	0.008	8	13137	14357	0	Standard
|	Cr	53	0.047	ug/L	0.007	13	163	263	5	Standard
[>	Ge	72		ug/L			37776	33466	0	KED
|	Ni	60	1.346	ug/L	0.049	3	3	1829	3	KED
|	Ni	62	1.370	ug/L	0.010	0	0	297	0	KED
|	Cu	63	0.376	ug/L	0.020	5	18	1412	5	KED
|	Cu	65	0.360	ug/L	0.036	10	6	684	9	KED
|	Zn	66	3.781	ug/L	0.068	1	19	1951	2	KED
|	Zn	67	3.721	ug/L	0.411	11	3	318	11	KED
|	As	75	0.029	ug/L	0.009	31	3	10	22	KED
	Kr	83		ug/L			41	43	4	Standard
[>	In-1	115		ug/L			8842	7513	0	KED
|	Cd	111	0.033	ug/L	0.004	11	3	11	8	KED
|	Cd	114	0.033	ug/L	0.018	54	3	24	48	KED
[>	Tb	159		ug/L			167464	161396	0	Standard
|	Pb	208	22.116	ug/L	0.149	0	168	1710473	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0464-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:42:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	82109	1	Standard
[>	Sc	45		ug/L			332530	353902	2	Standard
|	Cr	52	0.475	ug/L	0.001	0	13137	25491	2	Standard
|	Cr	53	0.635	ug/L	0.016	2	163	1860	0	Standard
[>	Ge	72		ug/L			37776	33788	1	KED
|	Ni	60	1.118	ug/L	0.053	4	3	1535	4	KED
|	Ni	62	1.148	ug/L	0.044	3	0	251	5	KED
|	Cu	63	2.887	ug/L	0.089	3	18	10821	1	KED
|	Cu	65	2.885	ug/L	0.137	4	6	5495	3	KED
|	Zn	66	37.145	ug/L	0.817	2	19	19199	0	KED
|	Zn	67	34.845	ug/L	2.256	6	3	2976	5	KED
|	As	75	0.417	ug/L	0.030	7	3	116	7	KED
	Kr	83		ug/L			41	37	16	Standard
[>	In-1	115		ug/L			8842	7633	2	KED
|	Cd	111	0.024	ug/L	0.003	14	3	9	11	KED
|	Cd	114	0.009	ug/L	0.010	111	3	9	72	KED
[>	Tb	159		ug/L			167464	160202	1	Standard
|	Pb	208	0.318	ug/L	0.001	0	168	24536	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0516-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:47:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	78090	1	Standard
[>	Sc	45		ug/L			332530	495888	2	Standard
|	Cr	52	-0.047	ug/L	0.009	18	13137	17972	0	Standard
|	Cr	53	0.242	ug/L	0.009	3	163	1144	5	Standard
[>	Ge	72		ug/L			37776	32026	0	KED
|	Ni	60	0.573	ug/L	0.048	8	3	747	8	KED
|	Ni	62	0.638	ug/L	0.028	4	0	132	5	KED
|	Cu	63	8.279	ug/L	0.030	0	18	29395	0	KED
|	Cu	65	8.201	ug/L	0.059	0	6	14802	0	KED
|	Zn	66	10.896	ug/L	0.392	3	19	5350	3	KED
|	Zn	67	11.156	ug/L	0.398	3	3	906	3	KED
|	As	75	0.462	ug/L	0.037	8	3	121	8	KED
	Kr	83		ug/L			41	36	32	Standard
[>	In-1	115		ug/L			8842	7235	1	KED
|	Cd	111	0.015	ug/L	0.011	74	3	6	42	KED
|	Cd	114	0.010	ug/L	0.003	26	3	9	19	KED
[>	Tb	159		ug/L			167464	158033	0	Standard
|	Pb	208	0.138	ug/L	0.002	1	168	10624	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0516-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 03:51:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	77753	0	Standard
[>	Sc	45		ug/L			332530	473153	1	Standard
|	Cr	52	-0.039	ug/L	0.012	31	13137	17412	2	Standard
|	Cr	53	0.211	ug/L	0.016	7	163	982	4	Standard
[>	Ge	72		ug/L			37776	31704	1	KED
|	Ni	60	0.545	ug/L	0.007	1	3	704	0	KED
|	Ni	62	0.552	ug/L	0.012	2	0	113	0	KED
|	Cu	63	8.586	ug/L	0.051	0	18	30181	1	KED
|	Cu	65	8.449	ug/L	0.052	0	6	15095	1	KED
|	Zn	66	11.587	ug/L	0.188	1	19	5631	0	KED
|	Zn	67	11.038	ug/L	0.629	5	3	887	6	KED
|	As	75	0.474	ug/L	0.036	7	3	123	6	KED
	Kr	83		ug/L			41	43	2	Standard
[>	In-1	115		ug/L			8842	6965	3	KED
|	Cd	111	0.014	ug/L	0.002	17	3	6	9	KED
|	Cd	114	0.015	ug/L	0.007	47	3	12	37	KED
[>	Tb	159		ug/L			167464	156180	1	Standard
|	Pb	208	0.146	ug/L	0.003	1	168	11068	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 03:55:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	41383	0	Standard
[>	Sc	45	ug/L			332530	298913	1	Standard
|	Cr	52	0.030	0.006	19	13137	12422	1	Standard
|	Cr	53	0.004	0.008	169	163	156	11	Standard
[>	Ge	72	ug/L			37776	32004	1	KED
|	Ni	60	0.029	0.007	23	3	40	22	KED
|	Ni	62	0.037	0.005	13	0	8	13	KED
|	Cu	63	0.002	0.002	108	18	22	32	KED
|	Cu	65	0.005	0.001	24	6	14	15	KED
|	Zn	66	-0.011	0.010	93	19	11	44	KED
|	Zn	67	-0.024	0.014	55	3	1	86	KED
|	As	75	-0.004	0.003	69	3	2	35	KED
	Kr	83	ug/L			41	36	13	Standard
[>	In-1	115	ug/L			8842	7289	1	KED
|	Cd	111	0.000	0.010	201378	3	2	88	KED
|	Cd	114	-0.001	0.002	166	3	2	47	KED
[>	Tb	159	ug/L			167464	153715	0	Standard
|	Pb	208	-0.000	0.000	28	168	122	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:00:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40791	1	Standard
[>	Sc	45	ug/L			332530	294234	0	Standard
|	Cr	52	ug/L	0.411	0	13137	992252	0	Standard
|	Cr	53	ug/L	0.306	0	163	111136	0	Standard
[>	Ge	72	ug/L			37776	32220	0	KED
|	Ni	60	ug/L	0.887	1	3	67431	1	KED
|	Ni	62	ug/L	0.502	0	0	10865	1	KED
|	Cu	63	ug/L	0.882	1	18	188520	1	KED
|	Cu	65	ug/L	0.669	1	6	95724	1	KED
|	Zn	66	ug/L	0.419	0	19	25482	0	KED
|	Zn	67	ug/L	1.347	2	3	4183	2	KED
|	As	75	ug/L	0.584	1	3	12847	0	KED
	Kr	83	ug/L			41	40	19	Standard
[>	In-1	115	ug/L			8842	7370	0	KED
|	Cd	111	ug/L	0.976	1	3	12672	2	KED
|	Cd	114	ug/L	0.932	1	3	32766	1	KED
[>	Tb	159	ug/L			167464	155724	0	Standard
|	Pb	208	ug/L	0.496	0	168	4096616	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:07:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40961	2	Standard
[>	Sc	45	ug/L			332530	290438	2	Standard
|	Cr	0.028	ug/L	0.012	43	13137	12031	2	Standard
|	Cr	0.001	ug/L	0.005	383	163	145	4	Standard
[>	Ge	72	ug/L			37776	32490	1	KED
|	Ni	0.036	ug/L	0.006	15	3	50	13	KED
|	Ni	0.046	ug/L	0.023	51	0	10	47	KED
|	Cu	0.006	ug/L	0.003	59	18	36	34	KED
|	Cu	0.009	ug/L	0.005	61	6	21	43	KED
|	Zn	0.045	ug/L	0.012	27	19	39	14	KED
|	Zn	0.045	ug/L	0.013	27	3	6	15	KED
|	As	0.006	ug/L	0.005	80	3	4	26	KED
	Kr	83	ug/L			41	46	4	Standard
[>	In-1	115	ug/L			8842	7601	1	KED
|	Cd	0.004	ug/L	0.015	341	3	4	93	KED
|	Cd	0.008	ug/L	0.006	72	3	8	46	KED
[>	Tb	159	ug/L			167464	151027	3	Standard
|	Pb	0.002	ug/L	0.001	29	168	323	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:11:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	83717	2	Standard
[>	Sc	45		ug/L			332530	363338	2	Standard
|	Cr	52	0.327	ug/L	0.009	2	13137	22486	1	Standard
|	Cr	53	1.216	ug/L	0.059	4	163	3495	2	Standard
[>	Ge	72		ug/L			37776	31225	0	KED
|	Ni	60	0.744	ug/L	0.043	5	3	944	5	KED
|	Ni	62	0.865	ug/L	0.063	7	0	175	7	KED
|	Cu	63	2.413	ug/L	0.019	0	18	8366	1	KED
|	Cu	65	2.401	ug/L	0.079	3	6	4229	2	KED
|	Zn	66	8.259	ug/L	0.099	1	19	3958	0	KED
|	Zn	67	8.006	ug/L	0.381	4	3	634	5	KED
|	As	75	0.493	ug/L	0.018	3	3	126	3	KED
	Kr	83		ug/L			41	39	31	Standard
[>	In-1	115		ug/L			8842	7314	1	KED
|	Cd	111	0.013	ug/L	0.008	64	3	6	32	KED
|	Cd	114	0.009	ug/L	0.002	22	3	8	13	KED
[>	Tb	159		ug/L			167464	157428	1	Standard
|	Pb	208	0.237	ug/L	0.002	0	168	18050	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:15:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	81905	0	Standard
[>	Sc	45	ug/L			332530	438260	0	Standard
|	Cr	0.154	ug/L	0.016	10	13137	21930	1	Standard
|	Cr	0.939	ug/L	0.009	0	163	3306	1	Standard
[>	Ge	72	ug/L			37776	30901	1	KED
|	Ni	1.108	ug/L	0.010	0	3	1391	0	KED
|	Ni	1.131	ug/L	0.030	2	0	226	3	KED
|	Cu	1.257	ug/L	0.005	0	18	4320	1	KED
|	Cu	1.229	ug/L	0.020	1	6	2145	1	KED
|	Zn	4.583	ug/L	0.167	3	19	2181	3	KED
|	Zn	4.549	ug/L	0.448	9	3	358	8	KED
|	As	2.164	ug/L	0.026	1	3	538	1	KED
	Kr	83	ug/L			41	35	20	Standard
[>	In-1	115	ug/L			8842	7163	1	KED
|	Cd	0.009	ug/L	0.010	108	3	5	47	KED
|	Cd	0.013	ug/L	0.006	48	3	10	35	KED
[>	Tb	159	ug/L			167464	155570	0	Standard
|	Pb	208	ug/L	0.001	0	168	20812	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0463-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:20:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	78076	0	Standard
[>	Sc	45	ug/L			332530	379664	0	Standard
|	Cr	52	ug/L	0.004	1	13137	23406	0	Standard
|	Cr	53	ug/L	0.026	2	163	3685	1	Standard
[>	Ge	72	ug/L			37776	31456	1	KED
|	Ni	60	ug/L	0.036	3	3	1285	3	KED
|	Ni	62	ug/L	0.085	8	0	200	9	KED
|	Cu	63	ug/L	0.058	2	18	8222	1	KED
|	Cu	65	ug/L	0.021	0	6	4120	1	KED
|	Zn	66	ug/L	0.335	2	19	7286	1	KED
|	Zn	67	ug/L	0.042	0	3	1115	1	KED
|	As	75	ug/L	0.082	9	3	223	9	KED
	Kr	83	ug/L			41	37	17	Standard
[>	In-1	115	ug/L			8842	6933	0	KED
|	Cd	111	ug/L	0.006	53	3	5	26	KED
|	Cd	114	ug/L	0.008	44	3	14	35	KED
[>	Tb	159	ug/L			167464	156437	1	Standard
|	Pb	208	ug/L	0.010	1	168	42773	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:24:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	51217	3	Standard
[>	Sc	45	ug/L			332530	369725	1	Standard
|	Cr	52	ug/L	0.013	0	13137	92552	1	Standard
|	Cr	53	ug/L	0.057	1	163	9610	2	Standard
[>	Ge	72	ug/L			37776	32054	0	KED
|	Ni	60	ug/L	0.075	1	3	5918	2	KED
|	Ni	62	ug/L	0.062	1	0	968	2	KED
|	Cu	63	ug/L	0.575	2	18	71932	2	KED
|	Cu	65	ug/L	0.086	0	6	36874	0	KED
|	Zn	66	ug/L	0.106	0	19	15455	1	KED
|	Zn	67	ug/L	0.839	2	3	2409	2	KED
|	As	75	ug/L	0.330	3	3	2459	2	KED
	Kr	83	ug/L			41	34	3	Standard
[>	In-1	115	ug/L			8842	7221	0	KED
|	Cd	111	ug/L	0.059	11	3	131	11	KED
|	Cd	114	ug/L	0.044	7	3	366	8	KED
[>	Tb	159	ug/L			167464	159535	0	Standard
|	Pb	208	ug/L	0.144	2	168	488338	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-17**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:28:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			43915	57372	2	Standard
[> Sc	45		ug/L			332530	336010	2	Standard
| Cr	52	0.833	ug/L	0.009	1	13137	32452	3	Standard
| Cr	53	1.024	ug/L	0.024	2	163	2749	1	Standard
[> Ge	72		ug/L			37776	32424	0	KED
| Ni	60	1.213	ug/L	0.078	6	3	1598	7	KED
| Ni	62	1.203	ug/L	0.071	5	0	252	5	KED
| Cu	63	3.894	ug/L	0.086	2	18	14007	2	KED
| Cu	65	3.853	ug/L	0.105	2	6	7043	2	KED
| Zn	66	18.808	ug/L	0.275	1	19	9338	0	KED
| Zn	67	18.352	ug/L	0.434	2	3	1506	1	KED
| As	75	1.022	ug/L	0.029	2	3	268	3	KED
| Kr	83		ug/L			41	37	5	Standard
[> In-1	115		ug/L			8842	7196	2	KED
| Cd	111	0.008	ug/L	0.006	82	3	4	34	KED
| Cd	114	0.013	ug/L	0.009	70	3	11	52	KED
[> Tb	159		ug/L			167464	158062	0	Standard
| Pb	208	0.378	ug/L	0.005	1	168	28792	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-19**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:32:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	59659	1	Standard
[>	Sc	45	ug/L			332530	351435	2	Standard
|	Cr	52	0.489	0.018	3	13137	25644	0	Standard
|	Cr	53	0.593	0.031	5	163	1738	5	Standard
[>	Ge	72	ug/L			37776	32751	0	KED
|	Ni	60	1.387	0.087	6	3	1845	6	KED
|	Ni	62	1.664	0.083	4	0	353	4	KED
|	Cu	63	4.561	0.022	0	18	16568	0	KED
|	Cu	65	4.677	0.064	1	6	8635	1	KED
|	Zn	66	1.677	0.094	5	19	856	5	KED
|	Zn	67	1.932	0.086	4	3	163	4	KED
|	As	75	1.329	0.071	5	3	351	4	KED
	Kr	83	ug/L			41	33	21	Standard
[>	In-1	115	ug/L			8842	7377	0	KED
|	Cd	111	0.006	0.015	249	3	4	86	KED
|	Cd	114	0.003	0.006	226	3	4	80	KED
[>	Tb	159	ug/L			167464	157325	0	Standard
|	Pb	208	0.214	0.001	0	168	16290	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:37:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	59738	0	Standard
[>	Sc	45	ug/L			332530	352960	1	Standard
|	Cr	52	0.552	0.015	2	13137	27295	2	Standard
|	Cr	53	0.668	0.027	4	163	1945	4	Standard
[>	Ge	72	ug/L			37776	32935	1	KED
|	Ni	60	1.370	0.064	4	3	1833	3	KED
|	Ni	62	1.362	0.202	14	0	290	13	KED
|	Cu	63	4.578	0.125	2	18	16719	1	KED
|	Cu	65	4.461	0.134	3	6	8279	1	KED
|	Zn	66	1.727	0.029	1	19	886	0	KED
|	Zn	67	1.951	0.004	0	3	165	1	KED
|	As	75	1.306	0.059	4	3	347	5	KED
	Kr	83	ug/L			41	43	11	Standard
[>	In-1	115	ug/L			8842	7237	0	KED
|	Cd	111	0.003	0.002	87	3	3	15	KED
|	Cd	114	0.005	0.005	92	3	6	46	KED
[>	Tb	159	ug/L			167464	159690	0	Standard
|	Pb	208	0.210	0.002	0	168	16248	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:41:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	60127	1	Standard
[>	Sc	45	ug/L			332530	360257	0	Standard
|	Cr	52	ug/L	0.162	1	13137	295102	1	Standard
|	Cr	53	ug/L	0.259	2	163	32122	2	Standard
[>	Ge	72	ug/L			37776	30101	12	KED
|	Ni	60	ug/L	2.330	13	3	20103	0	KED
|	Ni	62	ug/L	2.307	13	0	3297	0	KED
|	Cu	63	ug/L	2.960	14	18	68850	1	KED
|	Cu	65	ug/L	2.501	12	6	34877	1	KED
|	Zn	66	ug/L	6.159	12	19	22725	2	KED
|	Zn	67	ug/L	7.462	15	3	3565	2	KED
|	As	75	ug/L	2.287	14	3	3661	1	KED
	Kr	83	ug/L			41	32	21	Standard
[>	In-1	115	ug/L			8842	7505	4	KED
|	Cd	111	ug/L	0.587	4	3	3408	0	KED
|	Cd	114	ug/L	0.889	6	3	8787	2	KED
[>	Tb	159	ug/L			167464	160575	0	Standard
|	Pb	208	ug/L	0.216	1	168	1100714	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MSD1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 04:47:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	58395	1	Standard
[>	Sc	45		ug/L			332530	355338	1	Standard
|	Cr	52	11.009	ug/L	0.575	5	13137	282155	5	Standard
|	Cr	53	11.525	ug/L	0.625	5	163	30949	6	Standard
[>	Ge	72		ug/L			37776	33018	0	KED
|	Ni	60	15.045	ug/L	0.157	1	3	20151	0	KED
|	Ni	62	14.924	ug/L	0.333	2	0	3187	2	KED
|	Cu	63	19.087	ug/L	0.317	1	18	69854	2	KED
|	Cu	65	18.751	ug/L	0.012	0	6	34885	0	KED
|	Zn	66	45.054	ug/L	0.034	0	19	22758	0	KED
|	Zn	67	43.555	ug/L	0.609	1	3	3637	1	KED
|	As	75	14.007	ug/L	0.196	1	3	3706	1	KED
	Kr	83		ug/L			41	52	12	Standard
[>	In-1	115		ug/L			8842	7573	0	KED
|	Cd	111	13.397	ug/L	0.223	1	3	3447	1	KED
|	Cd	114	13.597	ug/L	0.059	0	3	8867	0	KED
[>	Tb	159		ug/L			167464	160670	0	Standard
|	Pb	208	13.927	ug/L	0.657	4	168	1072141	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:51:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	40799	2	Standard
[>	Sc	45		ug/L			332530	296429	3	Standard
|	Cr	52	0.020	ug/L	0.017	87	13137	12102	0	Standard
|	Cr	53	0.001	ug/L	0.007	1019	163	146	7	Standard
[>	Ge	72		ug/L			37776	32321	0	KED
|	Ni	60	0.034	ug/L	0.010	28	3	48	26	KED
|	Ni	62	0.040	ug/L	0.006	13	0	8	12	KED
|	Cu	63	0.002	ug/L	0.000	18	18	21	5	KED
|	Cu	65	0.004	ug/L	0.001	31	6	12	17	KED
|	Zn	66	0.001	ug/L	0.004	619	19	17	11	KED
|	Zn	67	-0.009	ug/L	0.014	157	3	2	43	KED
|	As	75	-0.002	ug/L	0.001	44	3	2	10	KED
	Kr	83		ug/L			41	40	8	Standard
[>	In-1	115		ug/L			8842	7345	1	KED
|	Cd	111	0.010	ug/L	0.008	80	3	5	36	KED
|	Cd	114	0.004	ug/L	0.006	147	3	5	66	KED
[>	Tb	159		ug/L			167464	154332	0	Standard
|	Pb	208	0.000	ug/L	0.000	67	168	190	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 04:56:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			43915	41620	1	Standard
[>	Sc	45		ug/L			332530	296349	2	Standard
|	Cr	52	48.679	ug/L	1.034	2	13137	1000116	1	Standard
|	Cr	53	51.001	ug/L	1.433	2	163	113664	2	Standard
[>	Ge	72		ug/L			37776	32571	1	KED
|	Ni	60	51.432	ug/L	1.177	2	3	67930	0	KED
|	Ni	62	52.709	ug/L	0.110	0	0	11103	1	KED
|	Cu	63	52.502	ug/L	0.434	0	18	189495	0	KED
|	Cu	65	53.198	ug/L	0.347	0	6	97619	1	KED
|	Zn	66	52.597	ug/L	0.263	0	19	26204	1	KED
|	Zn	67	52.705	ug/L	1.710	3	3	4339	2	KED
|	As	75	49.987	ug/L	0.631	1	3	13039	1	KED
	Kr	83		ug/L			41	48	6	Standard
[>	In-1	115		ug/L			8842	7424	3	KED
|	Cd	111	51.648	ug/L	2.278	4	3	13005	0	KED
|	Cd	114	51.934	ug/L	1.496	2	3	33167	0	KED
[>	Tb	159		ug/L			167464	158559	1	Standard
|	Pb	208	54.279	ug/L	0.484	0	168	4123875	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 05:03:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\050923a_B.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			43915	40643	2	Standard
[>	Sc	45	ug/L			332530	291714	0	Standard
|	Cr	0.021	ug/L	0.010	49	13137	11943	2	Standard
|	Cr	-0.003	ug/L	0.008	256	163	136	13	Standard
[>	Ge	72	ug/L			37776	33501	1	KED
|	Ni	0.036	ug/L	0.004	12	3	52	11	KED
|	Ni	0.044	ug/L	0.018	40	0	10	39	KED
|	Cu	0.007	ug/L	0.002	24	18	42	13	KED
|	Cu	0.006	ug/L	0.005	70	6	18	46	KED
|	Zn	0.057	ug/L	0.013	22	19	46	12	KED
|	Zn	0.073	ug/L	0.047	64	3	9	40	KED
|	As	-0.000	ug/L	0.006	3391	3	3	48	KED
	Kr	83	ug/L			41	37	22	Standard
[>	In-1	115	ug/L			8842	7698	0	KED
|	Cd	-0.002	ug/L	0.004	219	3	2	43	KED
|	Cd	0.001	ug/L	0.003	472	3	3	51	KED
[>	Tb	159	ug/L			167464	151940	1	Standard
|	Pb	0.002	ug/L	0.000	17	168	331	8	Standard



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Instrument: ICPMS1

Calibration Date: 05/10/2023 15:47

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	15570	10	16140.9	20	15789.15	50	15195.72	100	15002.63
Chromium-52	0	0	0.5	31020	10	15441.1	20	15000.05	50	14462.12	100	14509.21
Chromium-53	0	0	0.5	1694	10	1654.9	20	1689.3	50	1689.16	100	1684.98
Lead-208	0	0	0.1	90610	10	90331.7	20	89339.2	50	87570.58	100	84871.84



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00040

Calibration Date: 5/10/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	12949.73	49.1	0.9999		0.998	
Chromium-52	15072.08	65.2	1.0000		0.998	
Chromium-53	1402.057	49.0	1.0000		0.998	
Lead-208	73787.22	49.1	0.9997		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Instrument: ICPMS1

Calibration Date: 05/10/2023 15:47

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	245	10	247.9	20	243.5	50	239.7	100	242.13
Cadmium-111	0	0	0.1	210	10	235.4	20	233.45	50	230.1	100	233.47
Cadmium-114	0	0	0.1	700	10	607.9	20	614.8	50	592.84	100	599.85
Copper-63	0	0	0.5	5004	10	4375	20	4306.25	50	4084.54	100	4030.52
Copper-65	0	0	0.5	2594	10	2169.7	20	2190.8	50	2078.94	100	2074.73
Zinc-66	0	0	6	522.8333	10	539	20	516.55	50	492.7	100	498.85
Zinc-67	0	0	6	86.16666	10	89.3	20	86.65	50	79.74	100	81.23



INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00040

Calibration Date: 5/10/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	203.0383	49.0	1.0000		0.998	
Cadmium-111	190.4033	49.2	0.9999		0.998	
Cadmium-114	519.2317	49.6	0.9999		0.998	
Copper-63	3633.385	49.9	0.9998		0.998	
Copper-65	1851.362	50.1	0.9999		0.998	
Zinc-66	428.3222	49.1	0.9998		0.998	
Zinc-67	70.51444	49.3	0.9996		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: SLEΦ2Φ4 Cal: GEΦΦΦ4Φ

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ-CAL1	—		
	✓	↓ -CAL2	—		
	✓	↓ -CAL3	—		S _{Cl} ↑ (New cones)
		SEQ-CAL1	LS276		
		↓ -CAL2	LS225		
		↓ -CAL3	LS226		
		↓ -CAL4	LS227		
		↓ -CAL5	LS228		
		↓ -CAL6	LS229		
		↓ -IBL1	—		
		↓ -ICV1	L3575		
		↓ -ICB1	LS276		
		↓ -CCV1	LS228		
		↓ -CCB1	LS276		
		↓ -CRL1	LS226		
		↓ -IFA1	L4688		C _r ^{S3} ↑
		↓ -IFB1	L4689		
		↓ -HCV1	L478Φ		D _n ⁻¹ noisy - Cd < 100
		↓ -HCV2	L4781		
		↓ -IBL2	—		
		↓ -CCV2			
		↓ -CCB2			
	✓	↓ -CAL1			
		↓ -CCV3			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB3			
		BLOΦ687-BLK2	SWN	20	Ag, Zn only
	✓	↓ -BS2	↓	↓	STD Mode noisy ↓
E→D		↓ -BS2	↓	↓	
		BLEΦ298-BLK1	REN		
		↓ -BS1	↓		
		BLEΦΦ77-MS2		2	As, Co, Zn only
		230Φ297-Φ1	SWN	100	Ba, Cr only
		BLOΦ728-DUP2			Ba, Cr RPD↑
	✓	↓ -MS2	↓	↓	STD Mode noisy ↓
		SEQ-IBL3			
		↓ -CCV4			
		↓ -CCB4			
		BLEΦ3Φ1-BLK1	REN		
		↓ -BS1	↓		
		BLEΦ143-BLK1	SWN	20	
	✓	↓ -BS1	↓	↓	Std Mode noisy
		↓ -BS1	↓	↓	
		BLOΦ728-MS2		100	Ba, Cr, R↑ Ba, Cr only
		230Φ348-Φ1	REN	20	Pb only
		SEQ-IBL4			
		230Φ374-Φ3	REN	2	Pb only
		SEQ-IBL5			
		↓ -CCV5			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBS			
	✓	Rinse			Break in Analysis - Flushed Sample Intro
	✓	SEQ-CALI			Be Removed
		↓ -CCV6			
		↓ -CCBG			
		BLDΦ578-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		BLEΦΦ72-BLK1			
		↓ -BS1			Std Mode no. 34
		23DΦ394-Φ1			No Ag, Cr, Pb Ag, Cr, Pb, Zn only
		BLDΦ687-DUP2			
		↓ -MS2			
		↓ -MSD2			Ag % R ↓
		↓ -PS2	↓	↓	60ul K7409
		SEQ-IBLG			
		↓ -CCV7			
		↓ -CCB7			
		23AΦ467-Φ2	SWN	20	
		↓ -Φ3	↓	↓	Std Mode no. 34
		↓ -Φ4			No Ag, Cr, Pb
		↓ -Φ5			
		↓ -Φ1			
		BLDΦ578-DUP1			
		↓ -MS1	↓	↓	Ag % R ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLOΦ578-MSD1	SWN	20	
		↓ -PSI	↓	↓	60ml K7409
		SEQ-IBL7			
		↓ -CCV8			
		↓ -CCB8			
		23AΦ467-Φ6	SWN	20	
		↓ -Φ7	↓	↓	
		↓ -Φ8	↓	↓	
		↓ -Φ9	↓	↓	
		230Φ392-Φ4			In ⁺ , Dn ⁺ / As, Cu, Pb, Zn ⁺ / Cr only
		BLEΦΦ72-DUP1			
		↓ -MS1	↓	↓	
		↓ -MSD1	↓	↓	
		↓ -PSI	↓	↓	60ml K7409
		SEQ-IBL8			
		↓ -CCV9			
		↓ -CCB9			
		23CΦΦ71-Φ1	SWN	20	
		↓ -Φ2	↓	↓	
		↓ -Φ3	↓	↓	Std made noisy
		↓ -Φ4	↓	↓	No Ag, Cr, Pb
		↓ -Φ5	↓	↓	
		↓ -Φ6	↓	↓	
		23CΦ1Φ9-Φ2	↓	↓	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23CΦ1Φ9-Φ3	SWN	20	
		23CΦ1Φ8-Φ2	↓	↓	
		SEQ-IBL9			
		↓ -CCVA			
		↓ -CCBA			
		23CΦ1Φ8-Φ6	SWN	20	
		↓ -Φ7	↓	↓	
		↓ -Φ8	↓	↓	
		↓ -Φ9	↓	↓	
		230ΦΦ8-Φ1			Std Mode no. 74
		↓ -Φ3			No Ag, Cr, Pb
		230ΦΦ37-Φ1			
		↓ -Φ3			
		↓ -Φ2	↓	↓	
		SEQ-IBLA			
		↓ -CCVB			
		↓ -CCBB			
	✓	↓ -CALI			
		↓ -CCVC			
		↓ -CCBC			
		230ΦΦ37-Φ4	SWN	20	
		230ΦΦ63-Φ1	↓	↓	
		↓ -Φ3	↓	↓	
		230Φ452-Φ1	REN	2	Pb only



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ462-Φ1	REN	2	Pb only
		23EΦ135-Φ1	↓		
		↓ -Φ2	↓		
		↓ -Φ3	↓		
		↓ -Φ4	↓		
		SEQ IBLB			
		↓ -CCVD			
		↓ -CCBD			
		23EΦ138-Φ1	REN	2	
		23EΦ139-Φ1	↓	↓	
		↓ -Φ2	↓	↓	
		↓ -Φ3	↓	↓	
		SEQ IBLC			
		23EΦ136-Φ1	REN		
		23EΦ137-Φ1	↓		
		230Φ477-21	↓		
		↓ -22	↓		
		SEQ-IBLD			
		↓ -CCVE			
		↓ -CCBE			
		230Φ477-11	REN	2	No Pb
		↓ -13	↓	↓	↓
		↓ -Φ2	↓		
		230Φ48Φ-Φ1	↓	5	↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MS Sequence: Cal:

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBLE			
		230φ537-φ5	REN	5	Cr only
		BLEφ12φ-DUP3	↓	↓	↓
		-MS3	↓	↓	↓
		-MS03	↓	↓	↓
		SEQ-IBLF			
		-CCVF			Pb↑
		-CCBF			
	✓	-CALI			
		-CCVG			
		-CCBG			
		230φ477-φ4	REN		No Pb
		-φ6	↓		↓
		-φ8	↓		↓
		-φ	↓		↓
		-12	↓		↓
		-2φ	↓		↓
		BLEφ1φφ-DUP1			
		-MS1	↓		↓
		-MS01	↓		↓
		SEQ-IBLG			
		-CCVH			Pb↑
		-CCBH			
		230φ477-14	REN		No Pb



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/10/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ477-16	REN		No Pb
		↓ -18	↓		↓
		↓ -Φ1			
		↓ -Φ3			
		↓ -Φ7			
		↓ -Φ9			
		↓ -15			
		230Φ487-Φ2	↓	5	
		SEQ-IBLH			
		↓ -CCVI			
		↓ -CCBI			
		230Φ487-Φ6	REN	2	
		↓ -Φ5	↓	↓	
		↓ -Φ4			
		↓ -Φ3	↓		
		SEQ-IBLI			
		230Φ636-Φ1	REN	10	No Pb
		BLEΦ298-DUPI	↓	↓	↓
		↓ -MSI			
		↓ -MSO1	↓	↓	
		SEQ-IBLJ			
		↓ -CCVJ			Pb↑
		↓ -CCBJ			
		Rinse/DI			

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, May 10, 2023 14:43:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.149

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		5723.5		5723.480		56.895		1.0	Standard	
In	114.9		69596.5		-341751.511		924.539		0.3	Standard	
U	238.1		90402.3		90402.284		679.988		0.8	Standard	
[	CeO	155.9		1526.9		0.017		0.000		1.7	Standard
|>	Ce	139.9		87807.4		87807.445		764.748		0.9	Standard
[	Ce++	70.0		422.3		0.005		0.000		1.5	Standard
	Bkgd	220.0		6.3		6.300		3.351		53.2	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, May 10, 2023 14:45:50

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:43:45 PM

End Time: 5/10/2023 2:52:33 PM

STD Performance Check - [Failed]

Obtained Intensity (Be 9): 5723.48

Obtained Intensity (In 115): 69596.54

Obtained Intensity (U 238): 90402.28

Obtained Intensity (Bkgd 220): 6.30 - <Target not achieved>

Obtained Formula (Ce++ 70 / Ce 140): 0.005 (=422.34 / 87807.44)

Obtained Formula (CeO 156 / Ce 140): 0.017 (=1526.95 / 87807.44)

Obtained RSD (Be 9): 0.0099

Obtained RSD (In 115): 0.0027

Obtained RSD (U 238): 0.0075

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.90 mm	0.96 mm	88181.32

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.92

Obtained Intensity (In 115): 84673.19

Obtained Formula (CeO 156 / Ce 140): 0.0203 (=2063.15 / 101494.26)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)

Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.701)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -15.80

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.987; Intercept = -15.94

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:43:45 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 5723.48
Obtained Intensity (In 115): 69596.54
Obtained Intensity (U 238): 90402.28
Obtained Intensity (Bkgd 220): 6.30 - <Target not achieved>
Obtained Formula (Ce++ 70 / Ce 140): 0.005 (=422.34 / 87807.44)
Obtained Formula (CeO 156 / Ce 140): 0.017 (=1526.95 / 87807.44)
Obtained RSD (Be 9): 0.0099
Obtained RSD (In 115): 0.0027
Obtained RSD (U 238): 0.0075

[Failed]

[Failed]

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.90 mm	0.96 mm	88181.32

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 0.89/0.96/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 84673.19
Obtained Formula (CeO 156 / Ce 140): 0.0203 (=2063.15 / 101494.26)

[Passed] optimum value(s): 0.92

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.663) - <Target not achieved>
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.695)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.684)
[Failed]

Retry 1

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.701)

[Passed] Optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -15.80

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	46294.9
Mg	24	41	-16	32452.8
In	115	41	-13	86971.9
Ce	140	41	-12	102732
Pb	208	41	-11.5	62146.9
U	238	41	-11.5	114360

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.987; Intercept = -15.94

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	37509.2
Mg	24	41	-15.5	70742.7
In	115	41	-13	125291
Ce	140	41	-11.5	108660
Pb	208	41	-11	62379.9

U 238 41 -10.5 141719

End Time: 5/10/2023 2:52:33 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:52:35 PM

End Time: 5/10/2023 2:53:50 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.998; Intercept = -16.07

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:52:35 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.998; Intercept = -16.07

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	38908.9
Mg	24	41	-15.5	65678.6
In	115	41	-12.5	124315
Ce	140	41	-11.5	108152
Pb	208	41	-11	62408
U	238	41	-11	146831

End Time: 5/10/2023 2:53:50 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, May 10, 2023 14:53:54

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.157

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		6511.5		6511.484		145.377		2.2	Standard	
In	114.9		81325.5		81325.516		897.738		1.1	Standard	
U	238.1		113291.7		113291.661		1664.283		1.5	Standard	
[	CeO	155.9		1966.6		0.020		0.000		2.4	Standard
|>	Ce	139.9		98993.0		98993.030		999.094		1.0	Standard
[	Ce++	70.0		668.1		0.007		0.000		3.1	Standard
	Bkgd	220.0		1.1		1.133		0.650		57.3	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, May 10, 2023 14:55:58

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/10/2023 2:53:54 PM

End Time: 5/10/2023 2:55:58 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 6511.48

Obtained Intensity (In 115): 81325.52

Obtained Intensity (U 238): 113291.66

Obtained Intensity (Bkgd 220): 1.13

Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=668.15 / 98993.03)

Obtained Formula (CeO 156 / Ce 140): 0.020 (=1966.60 / 98993.03)

Obtained RSD (Be 9): 0.0223

Obtained RSD (In 115): 0.0110

Obtained RSD (U 238): 0.0147

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/10/2023 2:53:54 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6511.48
Obtained Intensity (In 115): 81325.52
Obtained Intensity (U 238): 113291.66
Obtained Intensity (Bkgd 220): 1.13
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=668.15 / 98993.03)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=1966.60 / 98993.03)
Obtained RSD (Be 9): 0.0223
Obtained RSD (In 115): 0.0110
Obtained RSD (U 238): 0.0147

[Passed] Optimum value(s): N/A

End Time: 5/10/2023 2:55:58 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:28:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				24207	2	Standard
[>	Sc	45	ug/L				474403	0	Standard
|	Cr	52	ug/L				8456	1	Standard
|	Cr	53	ug/L				81	14	Standard
[>	Ge	72	ug/L				28967	4	KED
|	Ni	60	ug/L				19	10	KED
|	Ni	62	ug/L				5	78	KED
|	Cu	63	ug/L				43	9	KED
|	Cu	65	ug/L				24	15	KED
|	Zn	66	ug/L				19	22	KED
|	Zn	67	ug/L				2	173	KED
|	As	75	ug/L				1	33	KED
|	Y	89	ug/L				49674	0	Standard
|	Kr	83	ug/L				32	42	Standard
[>	In-1	115	ug/L				6259	5	KED
|	Cd	111	ug/L				0	100	KED
|	Cd	114	ug/L				0	206	KED
[>	In	115	ug/L				474692	1	Standard
|	Ag	107	ug/L				12	31	Standard
|	Ba	135	ug/L				15	25	Standard
|	Ba	137	ug/L				31	30	Standard
[>	Tb	159	ug/L				170775	0	Standard
|	Pb	208	ug/L				201	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:32:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			24207	25883	2	Standard	
[>	Sc	45	ug/L			474403	523902	3	Standard	
|	Cr	52	0.500	ug/L	0.021	4	8456	15234	1	Standard
|	Cr	53	0.500	ug/L	0.020	4	81	873	1	Standard
[>	Ge	72		ug/L			28967	29195	0	KED
|	Ni	60	0.500	ug/L	0.034	6	19	780	6	KED
|	Ni	62	0.500	ug/L	0.050	10	5	116	9	KED
|	Cu	63	0.500	ug/L	0.026	5	43	2412	4	KED
|	Cu	65	0.500	ug/L	0.034	6	24	1190	5	KED
|	Zn	66	6.000	ug/L	0.090	1	19	3153	0	KED
|	Zn	67	6.000	ug/L	0.211	3	2	498	3	KED
|	As	75	0.200	ug/L	0.040	19	1	51	18	KED
|	Y	89		ug/L			49674	50949	1	Standard
|	Kr	83		ug/L			32	51	16	Standard
[>	In-1	115		ug/L			6259	6039	1	KED
|	Cd	111	0.100	ug/L	0.020	19	0	23	18	KED
|	Cd	114	0.100	ug/L	0.009	9	0	63	7	KED
[>	In	115		ug/L			474692	480250	1	Standard
|	Ag	107	0.200	ug/L	0.005	2	12	3172	2	Standard
|	Ba	135	0.500	ug/L	0.016	3	15	2622	4	Standard
|	Ba	137	0.500	ug/L	0.009	1	31	4621	2	Standard
[>	Tb	159		ug/L			170775	172878	1	Standard
|	Pb	208	0.100	ug/L	0.002	2	201	9324	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:37:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			24207	29617	2	Standard
[>	Sc	45		ug/L			474403	621120	0	Standard
|	Cr	52	10.000	ug/L	0.223	2	8456	152564	2	Standard
|	Cr	53	9.997	ug/L	0.230	2	81	16498	2	Standard
[>	Ge	72		ug/L			28967	29364	0	KED
|	Ni	60	9.999	ug/L	0.134	1	19	14840	1	KED
|	Ni	62	10.001	ug/L	0.349	3	5	2328	3	KED
|	Cu	63	9.997	ug/L	0.249	2	43	42394	2	KED
|	Cu	65	9.998	ug/L	0.087	0	24	21761	0	KED
|	Zn	66	9.987	ug/L	0.291	2	19	5247	2	KED
|	Zn	67	10.157	ug/L	0.430	4	2	885	3	KED
|	As	75	10.000	ug/L	0.358	3	1	2452	3	KED
	Y	89		ug/L			49674	52739	0	Standard
	Kr	83		ug/L			32	46	26	Standard
[>	In-1	115		ug/L			6259	6173	3	KED
|	Cd	111	10.000	ug/L	0.443	4	0	2332	4	KED
|	Cd	114	10.000	ug/L	0.345	3	0	6021	3	KED
[>	In	115		ug/L			474692	482786	2	Standard
|	Ag	107	10.000	ug/L	0.201	2	12	164963	1	Standard
|	Ba	135	10.001	ug/L	0.476	4	15	53839	2	Standard
|	Ba	137	10.001	ug/L	0.260	2	31	95966	0	Standard
[>	Tb	159		ug/L			170775	178874	0	Standard
|	Pb	208	10.000	ug/L	0.139	1	201	905833	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:47:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				23729	0	Standard
>	Sc	45	ug/L				509000	1	Standard
|	Cr	52	ug/L				8828	1	Standard
|	Cr	53	ug/L				74	13	Standard
>	Ge	72	ug/L				29303	1	KED
|	Ni	60	ug/L				5	21	KED
|	Ni	62	ug/L				1	100	KED
|	Cu	63	ug/L				34	20	KED
|	Cu	65	ug/L				19	27	KED
|	Zn	66	ug/L				23	32	KED
|	Zn	67	ug/L				5	0	KED
|	As	75	ug/L				3	9	KED
|	Y	89	ug/L				48310	2	Standard
|	Kr	83	ug/L				47	34	Standard
>	In-1	115	ug/L				6273	3	KED
|	Cd	111	ug/L				2	49	KED
|	Cd	114	ug/L				4	66	KED
>	In	115	ug/L				463649	3	Standard
|	Ag	107	ug/L				35	3	Standard
|	Ba	135	ug/L				24	20	Standard
|	Ba	137	ug/L				33	18	Standard
>	Tb	159	ug/L				169186	2	Standard
|	Pb	208	ug/L				224	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:51:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	25525	0	Standard
[> Sc	45		ug/L			509000	512472	1	Standard
| Cr	52	0.500	ug/L	0.020	4	8828	15510	0	Standard
| Cr	53	0.500	ug/L	0.011	2	74	847	3	Standard
[> Ge	72		ug/L			29303	29478	0	KED
| Ni	60	0.500	ug/L	0.012	2	5	719	3	KED
| Ni	62	0.500	ug/L	0.073	14	1	114	13	KED
| Cu	63	0.500	ug/L	0.023	4	34	2502	5	KED
| Cu	65	0.500	ug/L	0.009	1	19	1297	1	KED
| Zn	66	6.000	ug/L	0.034	0	23	3137	0	KED
| Zn	67	6.000	ug/L	0.410	6	5	517	5	KED
| As	75	0.200	ug/L	0.016	8	3	49	7	KED
| Y	89		ug/L			48310	49051	0	Standard
| Kr	83		ug/L			47	36	14	Standard
[> In-1	115		ug/L			6273	6139	4	KED
| Cd	111	0.100	ug/L	0.032	31	2	21	31	KED
| Cd	114	0.100	ug/L	0.017	16	4	70	16	KED
[> In	115		ug/L			463649	458533	2	Standard
| Ag	107	0.200	ug/L	0.006	3	35	3114	1	Standard
| Ba	135	0.500	ug/L	0.031	6	24	2588	4	Standard
| Ba	137	0.500	ug/L	0.021	4	33	4565	3	Standard
[> Tb	159		ug/L			169186	175328	1	Standard
| Pb	208	0.100	ug/L	0.002	2	224	9061	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 15:56:19

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28227	5	Standard
[>	Sc	45	ug/L			509000	547188	1	Standard
|	Cr	52	10.001	ug/L	0.180	8828	154411	2	Standard
|	Cr	53	10.000	ug/L	0.148	74	16549	0	Standard
[>	Ge	72		ug/L		29303	30268	1	KED
|	Ni	60	10.001	ug/L	0.091	5	15465	0	KED
|	Ni	62	10.001	ug/L	0.274	1	2447	1	KED
|	Cu	63	9.996	ug/L	0.164	34	43750	0	KED
|	Cu	65	9.995	ug/L	0.109	19	21697	1	KED
|	Zn	66	10.019	ug/L	0.157	23	5390	0	KED
|	Zn	67	10.037	ug/L	0.375	5	893	2	KED
|	As	75	10.000	ug/L	0.098	3	2479	0	KED
|	Y	89		ug/L		48310	52333	3	Standard
|	Kr	83		ug/L		47	35	29	Standard
[>	In-1	115		ug/L		6273	6321	4	KED
|	Cd	111	10.000	ug/L	0.361	2	2354	2	KED
|	Cd	114	10.000	ug/L	0.490	4	6079	0	KED
[>	In	115		ug/L		463649	495399	2	Standard
|	Ag	107	10.000	ug/L	0.327	35	161409	1	Standard
|	Ba	135	10.000	ug/L	0.202	24	54582	0	Standard
|	Ba	137	9.999	ug/L	0.141	33	95918	1	Standard
[>	Tb	159		ug/L		169186	178590	0	Standard
|	Pb	208	10.000	ug/L	0.024	224	903317	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:01:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29878	4	Standard
[> Sc	45		ug/L			509000	545359	2	Standard
| Cr	52	20.025	ug/L	0.642	3	8828	300001	2	Standard
| Cr	53	20.105	ug/L	0.478	2	74	33786	1	Standard
[> Ge	72		ug/L			29303	30442	0	KED
| Ni	60	19.876	ug/L	0.260	1	5	30161	1	KED
| Ni	62	20.030	ug/L	0.349	1	1	4958	1	KED
| Cu	63	19.912	ug/L	0.144	0	34	86125	1	KED
| Cu	65	20.015	ug/L	0.243	1	19	43816	1	KED
| Zn	66	19.772	ug/L	0.229	1	23	10331	1	KED
| Zn	67	19.846	ug/L	0.513	2	5	1733	2	KED
| As	75	19.906	ug/L	0.056	0	3	4870	0	KED
Y	89		ug/L			48310	53094	1	Standard
Kr	83		ug/L			47	41	20	Standard
[> In-1	115		ug/L			6273	6343	2	KED
| Cd	111	19.953	ug/L	0.881	4	2	4669	3	KED
| Cd	114	20.027	ug/L	0.435	2	4	12296	1	KED
[> In	115		ug/L			463649	489391	1	Standard
| Ag	107	19.959	ug/L	0.325	1	35	315783	3	Standard
| Ba	135	19.968	ug/L	0.582	2	24	106955	1	Standard
| Ba	137	20.045	ug/L	0.402	2	33	191641	0	Standard
[> Tb	159		ug/L			169186	179464	1	Standard
| Pb	208	19.937	ug/L	0.237	1	224	1786784	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:05:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	25400	2	Standard
[> Sc	45		ug/L			509000	558473	1	Standard
| Cr	52	49.655	ug/L	0.911	1	8828	723106	2	Standard
| Cr	53	49.854	ug/L	0.903	1	74	84458	2	Standard
[> Ge	72		ug/L			29303	30015	2	KED
| Ni	60	49.697	ug/L	0.680	1	5	72172	3	KED
| Ni	62	49.505	ug/L	0.762	1	1	11513	2	KED
| Cu	63	49.635	ug/L	1.321	2	34	204227	4	KED
| Cu	65	49.687	ug/L	0.309	0	19	103947	1	KED
| Zn	66	49.611	ug/L	1.423	2	23	24635	4	KED
| Zn	67	49.320	ug/L	1.429	2	5	3987	4	KED
| As	75	49.951	ug/L	0.505	1	3	11985	2	KED
Y	89		ug/L			48310	50964	0	Standard
Kr	83		ug/L			47	54	10	Standard
[> In-1	115		ug/L			6273	6292	0	KED
| Cd	111	49.924	ug/L	0.530	1	2	11505	0	KED
| Cd	114	49.773	ug/L	0.306	0	4	29642	0	KED
[> In	115		ug/L			463649	482571	0	Standard
| Ag	107	49.781	ug/L	0.756	1	35	759786	0	Standard
| Ba	135	49.982	ug/L	0.497	0	24	263565	1	Standard
| Ba	137	50.029	ug/L	0.399	0	33	473061	0	Standard
[> Tb	159		ug/L			169186	178836	0	Standard
| Pb	208	49.835	ug/L	0.541	1	224	4378529	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:12:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28122	4	Standard
[> Sc	45		ug/L			509000	558930	1	Standard
| Cr	52	100.051	ug/L	0.647	0	8828	1450921	2	Standard
| Cr	53	99.871	ug/L	2.158	2	74	168498	0	Standard
[> Ge	72		ug/L			29303	30158	2	KED
| Ni	60	99.810	ug/L	1.688	1	5	144647	0	KED
| Ni	62	99.827	ug/L	1.638	1	1	23190	3	KED
| Cu	63	99.425	ug/L	2.145	2	34	403052	1	KED
| Cu	65	99.706	ug/L	2.344	2	19	207473	1	KED
| Zn	66	100.020	ug/L	2.199	2	23	49885	1	KED
| Zn	67	100.026	ug/L	1.801	1	5	8123	2	KED
| As	75	100.105	ug/L	1.080	1	3	24213	1	KED
Y	89		ug/L			48310	51944	4	Standard
Kr	83		ug/L			47	57	13	Standard
[> In-1	115		ug/L			6273	6458	1	KED
| Cd	111	99.701	ug/L	0.430	0	2	23347	1	KED
| Cd	114	99.566	ug/L	0.654	0	4	59985	0	KED
[> In	115		ug/L			463649	450932	0	Standard
| Ag	107	101.152	ug/L	1.685	1	35	1500263	1	Standard
| Ba	135	101.705	ug/L	0.844	0	24	531312	1	Standard
| Ba	137	101.623	ug/L	2.092	2	33	949210	1	Standard
[> Tb	159		ug/L			169186	178763	1	Standard
| Pb	208	99.203	ug/L	0.769	0	224	8487184	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:19:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	24581	4	Standard
[> Sc	45		ug/L			509000	533088	2	Standard
| Cr	52	0.011	ug/L	0.014	123	8828	9404	4	Standard
| Cr	53	0.004	ug/L	0.001	25	74	84	4	Standard
[> Ge	72		ug/L			29303	30002	0	KED
| Ni	60	0.000	ug/L	0.001	370	5	5	33	KED
| Ni	62	-0.000	ug/L	0.008	4930	1	1	100	KED
| Cu	63	0.003	ug/L	0.000	18	34	46	4	KED
| Cu	65	0.001	ug/L	0.006	428	19	22	50	KED
| Zn	66	0.007	ug/L	0.022	332	23	27	39	KED
| Zn	67	-0.025	ug/L	0.062	245	5	3	132	KED
| As	75	0.004	ug/L	0.003	71	3	4	17	KED
Y	89		ug/L			48310	48443	1	Standard
Kr	83		ug/L			47	46	13	Standard
[> In-1	115		ug/L			6273	6574	1	KED
| Cd	111	-0.006	ug/L	0.004	71	2	0	100	KED
| Cd	114	-0.002	ug/L	0.005	343	4	3	89	KED
[> In	115		ug/L			463649	469846	4	Standard
| Ag	107	0.004	ug/L	0.001	32	35	105	21	Standard
| Ba	135	-0.001	ug/L	0.000	15	24	19	0	Standard
| Ba	137	0.000	ug/L	0.001	351	33	37	31	Standard
[> Tb	159		ug/L			169186	173731	3	Standard
| Pb	208	0.001	ug/L	0.000	37	224	311	8	Standard

Sample Information

Sample Date/Time: Wednesday, May 10, 2023 16:12:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Sc	45							
Cr	52	1.0000	0.026	0.50	10	20	50	100
Cr	53	1.0000	0.003	0.50	10	20	50	100
Ge	72							
Ni	60	1.0000	0.048	0.50	10	20	50	100
Ni	62	0.9999	0.008	0.50	10	20	50	100
Cu	63	0.9999	0.134	0.50	10	20	50	100
Cu	65	1.0000	0.069	0.50	10	20	50	100
Zn	66	1.0000	0.017	6.00	10	20	50	100
Zn	67	0.9999	0.003	6.00	10	20	50	100
As	75	1.0000	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	1.0000	0.036	0.10	10	20	50	100
Cd	114	1.0000	0.093	0.10	10	20	50	100
In	115							
Ag	107	0.9998	0.033	0.20	10	20	50	100
Ba	135	0.9995	0.012	0.50	10	20	50	100
Ba	137	0.9996	0.021	0.50	10	20	50	100
Tb	159							
Pb	208	0.9999	0.479	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:25:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29797	4	Standard
[> Sc	45		ug/L			509000	564850	0	Standard
| Cr	52	52.907	ug/L	1.586	2	8828	780016	3	Standard
| Cr	53	51.308	ug/L	1.827	3	74	87546	3	Standard
[> Ge	72		ug/L			29303	31782	0	KED
| Ni	60	50.903	ug/L	0.178	0	5	77766	0	KED
| Ni	62	51.012	ug/L	1.334	2	1	12489	2	KED
| Cu	63	52.299	ug/L	0.986	1	34	223527	2	KED
| Cu	65	51.383	ug/L	1.337	2	19	112722	2	KED
| Zn	66	50.838	ug/L	0.626	1	23	26741	1	KED
| Zn	67	50.580	ug/L	0.623	1	5	4332	0	KED
| As	75	48.181	ug/L	0.178	0	3	12285	0	KED
Y	89		ug/L			48310	52288	1	Standard
Kr	83		ug/L			47	44	15	Standard
[> In-1	115		ug/L			6273	6677	2	KED
| Cd	111	51.665	ug/L	1.744	3	2	12504	2	KED
| Cd	114	51.793	ug/L	1.375	2	4	32251	0	KED
[> In	115		ug/L			463649	478187	2	Standard
| Ag	107	50.790	ug/L	1.892	3	35	798375	1	Standard
| Ba	135	49.978	ug/L	0.851	1	24	276825	1	Standard
| Ba	137	50.115	ug/L	0.177	0	33	496417	2	Standard
[> Tb	159		ug/L			169186	183312	0	Standard
| Pb	208	52.638	ug/L	1.364	2	224	4617664	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:32:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26356	3	Standard
[> Sc	45		ug/L			509000	539338	1	Standard
| Cr	52	0.017	ug/L	0.016	94	8828	9587	1	Standard
| Cr	53	-0.002	ug/L	0.002	123	74	75	6	Standard
[> Ge	72		ug/L			29303	30568	2	KED
| Ni	60	0.001	ug/L	0.003	424	5	6	69	KED
| Ni	62	0.005	ug/L	0.012	239	1	3	91	KED
| Cu	63	0.005	ug/L	0.004	81	34	57	30	KED
| Cu	65	0.004	ug/L	0.005	126	19	28	37	KED
| Zn	66	0.020	ug/L	0.026	126	23	34	38	KED
| Zn	67	-0.003	ug/L	0.045	1369	5	5	66	KED
| As	75	0.007	ug/L	0.008	127	3	4	43	KED
Y	89		ug/L			48310	50406	2	Standard
Kr	83		ug/L			47	43	11	Standard
[> In-1	115		ug/L			6273	6493	1	KED
| Cd	111	-0.002	ug/L	0.004	232	2	1	50	KED
| Cd	114	-0.006	ug/L	0.004	65	4	1	176	KED
[> In	115		ug/L			463649	465713	1	Standard
| Ag	107	0.002	ug/L	0.001	51	35	73	26	Standard
| Ba	135	-0.001	ug/L	0.001	199	24	21	28	Standard
| Ba	137	0.000	ug/L	0.001	389	33	36	31	Standard
[> Tb	159		ug/L			169186	175668	1	Standard
| Pb	208	0.001	ug/L	0.000	62	224	286	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:37:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26594	2	Standard
[>	Sc	45	ug/L			509000	564599	1	Standard
|	Cr	52	51.471	0.725	1	8828	758784	2	Standard
|	Cr	53	50.536	0.353	0	74	86184	1	Standard
[>	Ge	72	ug/L			29303	32146	1	KED
|	Ni	60	49.546	1.173	2	5	76549	1	KED
|	Ni	62	49.050	0.276	0	1	12146	1	KED
|	Cu	63	49.725	0.346	0	34	214938	0	KED
|	Cu	65	49.566	1.054	2	19	109970	1	KED
|	Zn	66	49.855	1.259	2	23	26518	1	KED
|	Zn	67	50.337	1.507	2	5	4360	2	KED
|	As	75	49.689	1.019	2	3	12812	1	KED
|	Y	89	ug/L			48310	53576	2	Standard
|	Kr	83	ug/L			47	42	34	Standard
[>	In-1	115	ug/L			6273	6756	1	KED
|	Cd	111	49.652	0.968	1	2	12162	1	KED
|	Cd	114	50.647	0.242	0	4	31925	1	KED
[>	In	115	ug/L			463649	482029	1	Standard
|	Ag	107	50.096	0.827	1	35	794203	0	Standard
|	Ba	135	49.631	0.673	1	24	277141	0	Standard
|	Ba	137	49.270	0.397	0	33	491965	0	Standard
[>	Tb	159	ug/L			169186	185684	1	Standard
|	Pb	208	50.279	0.957	1	224	4467825	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:44:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			23729	26575	3	Standard	
[>	Sc	45	ug/L			509000	541589	1	Standard	
|	Cr	52	0.006	ug/L	0.013	8828	9483	2	Standard	
|	Cr	53	-0.005	ug/L	0.004	74	70	11	Standard	
[>	Ge	72		ug/L		29303	32305	1	KED	
|	Ni	60	0.002	ug/L	0.001	5	8	13	KED	
|	Ni	62	-0.001	ug/L	0.013	2070	1	173	KED	
|	Cu	63	0.001	ug/L	0.001	105	34	41	9	KED
|	Cu	65	-0.005	ug/L	0.001	17	19	11	16	KED
|	Zn	66	0.005	ug/L	0.012	245	23	28	24	KED
|	Zn	67	0.023	ug/L	0.035	153	5	8	35	KED
|	As	75	0.004	ug/L	0.006	144	3	4	37	KED
|	Y	89		ug/L		48310	50243	2	Standard	
|	Kr	83		ug/L		47	43	16	Standard	
[>	In-1	115		ug/L		6273	6862	1	KED	
|	Cd	111	0.003	ug/L	0.002	70	2	3	17	KED
|	Cd	114	-0.002	ug/L	0.003	174	4	3	50	KED
[>	In	115		ug/L		463649	462636	4	Standard	
|	Ag	107	0.002	ug/L	0.001	43	35	67	20	Standard
|	Ba	135	0.000	ug/L	0.001	237	24	26	15	Standard
|	Ba	137	-0.000	ug/L	0.001	187	33	29	26	Standard
[>	Tb	159		ug/L		169186	175175	2	Standard	
|	Pb	208	0.000	ug/L	0.000	67	224	267	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:49:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29745	3	Standard
[> Sc	45		ug/L			509000	544043	0	Standard
| Cr	52	0.523	ug/L	0.009	1	8828	16764	1	Standard
| Cr	53	0.501	ug/L	0.008	1	74	901	2	Standard
[> Ge	72		ug/L			29303	32168	0	KED
| Ni	60	0.493	ug/L	0.024	4	5	767	4	KED
| Ni	62	0.476	ug/L	0.072	15	1	120	14	KED
| Cu	63	0.708	ug/L	0.010	1	34	3101	2	KED
| Cu	65	0.727	ug/L	0.032	4	19	1635	3	KED
| Zn	66	6.250	ug/L	0.152	2	23	3349	2	KED
| Zn	67	6.111	ug/L	0.086	1	5	535	0	KED
| As	75	0.213	ug/L	0.006	2	3	58	3	KED
Y	89		ug/L			48310	50496	2	Standard
Kr	83		ug/L			47	45	12	Standard
[> In-1	115		ug/L			6273	6541	2	KED
| Cd	111	0.113	ug/L	0.021	18	2	29	16	KED
| Cd	114	0.097	ug/L	0.023	23	4	64	22	KED
[> In	115		ug/L			463649	478093	1	Standard
| Ag	107	0.202	ug/L	0.006	2	35	3206	1	Standard
| Ba	135	0.482	ug/L	0.013	2	24	2696	3	Standard
| Ba	137	0.483	ug/L	0.017	3	33	4821	3	Standard
[> Tb	159		ug/L			169186	178239	1	Standard
| Pb	208	0.107	ug/L	0.004	4	224	9331	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 16:56:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	82148	4	Standard
[>	Sc	45	ug/L			509000	540030	1	Standard
|	Cr	52	ug/L	0.017	2	8828	18570	2	Standard
|	Cr	53	ug/L	0.086	4	74	2916	6	Standard
[>	Ge	72	ug/L			29303	28977	0	KED
|	Ni	60	ug/L	0.017	15	5	154	13	KED
|	Ni	62	ug/L	0.014	11	1	28	11	KED
|	Cu	63	ug/L	0.002	5	34	186	5	KED
|	Cu	65	ug/L	0.012	37	19	84	28	KED
|	Zn	66	ug/L	0.053	17	23	172	13	KED
|	Zn	67	ug/L	0.085	31	5	26	25	KED
|	As	75	ug/L	0.012	45	3	9	31	KED
|	Y	89	ug/L			48310	49648	3	Standard
|	Kr	83	ug/L			47	65	18	Standard
[>	In-1	115	ug/L			6273	5999	0	KED
|	Cd	111	ug/L	0.020	45	2	11	38	KED
|	Cd	114	ug/L	0.012	42	4	19	34	KED
[>	In	115	ug/L			463649	441167	0	Standard
|	Ag	107	ug/L	0.000	7	35	104	5	Standard
|	Ba	135	ug/L	0.007	5	24	599	5	Standard
|	Ba	137	ug/L	0.005	4	33	1070	4	Standard
[>	Tb	159	ug/L			169186	167906	0	Standard
|	Pb	208	ug/L	0.000	0	224	2394	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:00:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	80778	1	Standard
[> Sc	45		ug/L			509000	530617	1	Standard
| Cr	52	20.186	ug/L	0.671	3	8828	285340	4	Standard
| Cr	53	21.276	ug/L	0.553	2	74	34155	4	Standard
[> Ge	72		ug/L			29303	27650	1	KED
| Ni	60	20.512	ug/L	0.872	4	5	27258	3	KED
| Ni	62	20.858	ug/L	0.487	2	1	4443	1	KED
| Cu	63	20.580	ug/L	0.468	2	34	76522	1	KED
| Cu	65	20.103	ug/L	0.651	3	19	38370	2	KED
| Zn	66	19.662	ug/L	0.585	2	23	9009	2	KED
| Zn	67	17.951	ug/L	1.720	9	5	1340	8	KED
| As	75	19.651	ug/L	0.451	2	3	4360	1	KED
Y	89		ug/L			48310	48740	2	Standard
Kr	83		ug/L			47	74	13	Standard
[> In-1	115		ug/L			6273	6028	0	KED
| Cd	111	18.519	ug/L	0.593	3	2	4049	2	KED
| Cd	114	18.365	ug/L	0.516	2	4	10330	2	KED
[> In	115		ug/L			463649	447152	1	Standard
| Ag	107	18.002	ug/L	0.130	0	35	264803	2	Standard
| Ba	135	0.109	ug/L	0.010	9	24	587	6	Standard
| Ba	137	0.104	ug/L	0.002	1	33	994	1	Standard
[> Tb	159		ug/L			169186	168627	2	Standard
| Pb	208	0.018	ug/L	0.001	2	224	1705	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:06:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	26329	2	Standard
> Sc	45		ug/L			509000	556001	2	Standard
| Cr	52	198.368	ug/L	1.458	0	8828	2851709	2	Standard
| Cr	53	195.087	ug/L	0.307	0	74	327408	2	Standard
> Ge	72		ug/L			29303	29227	1	KED
| Ni	60	191.945	ug/L	3.999	2	5	269634	1	KED
| Ni	62	186.640	ug/L	4.629	2	1	42024	3	KED
| Cu	63	187.668	ug/L	2.643	1	34	737510	2	KED
| Cu	65	185.711	ug/L	3.770	2	19	374570	1	KED
| Zn	66	189.266	ug/L	0.834	0	23	91483	1	KED
| Zn	67	186.660	ug/L	4.772	2	5	14685	1	KED
| As	75	193.838	ug/L	1.289	0	3	45439	0	KED
Y	89		ug/L			48310	49992	1	Standard
Kr	83		ug/L			47	83	11	Standard
> In-1	115		ug/L			6273	5371	18	KED
| Cd	111	219.502	ug/L	43.976	20	2	41729	4	KED
| Cd	114	220.074	ug/L	39.817	18	4	107921	4	KED
> In	115		ug/L			463649	435715	1	Standard
| Ag	107	193.623	ug/L	0.562	0	35	2774950	2	Standard
| Ba	135	193.128	ug/L	4.604	2	24	974609	1	Standard
| Ba	137	193.380	ug/L	2.785	1	33	1745084	0	Standard
> Tb	159		ug/L			169186	171188	2	Standard
| Pb	208	200.008	ug/L	5.919	2	224	16378774	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:11:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	29606	4	Standard
[> Sc	45		ug/L			509000	552654	1	Standard
| Cr	52	305.580	ug/L	3.631	1	8828	4362199	2	Standard
| Cr	53	294.803	ug/L	0.531	0	74	491755	1	Standard
[> Ge	72		ug/L			29303	28899	0	KED
| Ni	60	290.897	ug/L	5.116	1	5	404100	2	KED
| Ni	62	288.363	ug/L	1.622	0	1	64187	0	KED
| Cu	63	287.043	ug/L	2.289	0	34	1115281	0	KED
| Cu	65	287.453	ug/L	2.535	0	19	573363	1	KED
| Zn	66	285.291	ug/L	2.722	0	23	136335	0	KED
| Zn	67	287.574	ug/L	3.024	1	5	22370	1	KED
| As	75	305.011	ug/L	1.315	0	3	70699	0	KED
Y	89		ug/L			48310	49758	1	Standard
Kr	83		ug/L			47	116	11	Standard
[> In-1	115		ug/L			6273	6204	3	KED
| Cd	111	292.818	ug/L	9.764	3	2	65819	0	KED
| Cd	114	294.321	ug/L	10.877	3	4	170207	1	KED
[> In	115		ug/L			463649	405906	0	Standard
| Ag	107	310.853	ug/L	5.576	1	35	4149787	1	Standard
| Ba	135	294.858	ug/L	8.523	2	24	1386297	2	Standard
| Ba	137	299.321	ug/L	3.477	1	33	2516816	1	Standard
[> Tb	159		ug/L			169186	154666	1	Standard
| Pb	208	316.508	ug/L	5.627	1	224	23425103	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:18:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28126	2	Standard
[> Sc	45		ug/L			509000	570158	2	Standard
| Cr	52	0.013	ug/L	0.019	142	8828	10078	2	Standard
| Cr	53	0.006	ug/L	0.004	67	74	93	8	Standard
[> Ge	72		ug/L			29303	34258	1	KED
| Ni	60	0.006	ug/L	0.003	41	5	15	27	KED
| Ni	62	0.004	ug/L	0.015	410	1	3	124	KED
| Cu	63	0.003	ug/L	0.003	95	34	54	23	KED
| Cu	65	0.003	ug/L	0.001	51	19	29	9	KED
| Zn	66	0.019	ug/L	0.018	97	23	38	26	KED
| Zn	67	0.031	ug/L	0.055	177	5	9	52	KED
| As	75	0.013	ug/L	0.005	36	3	7	17	KED
| Y	89		ug/L			48310	52547	0	Standard
| Kr	83		ug/L			47	52	20	Standard
[> In-1	115		ug/L			6273	7246	0	KED
| Cd	111	-0.000	ug/L	0.008	8315	2	2	78	KED
| Cd	114	-0.000	ug/L	0.003	1197	4	4	43	KED
[> In	115		ug/L			463649	497647	2	Standard
| Ag	107	0.008	ug/L	0.002	18	35	175	12	Standard
| Ba	135	0.002	ug/L	0.001	54	24	40	19	Standard
| Ba	137	0.004	ug/L	0.002	44	33	80	23	Standard
[> Tb	159		ug/L			169186	187495	1	Standard
| Pb	208	0.002	ug/L	0.000	19	224	437	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:24:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23729	28216	2	Standard
[> Sc	45		ug/L			509000	614310	2	Standard
| Cr	52	49.614	ug/L	0.154	0	8828	796164	2	Standard
| Cr	53	49.306	ug/L	0.655	1	74	91479	1	Standard
[> Ge	72		ug/L			29303	33882	0	KED
| Ni	60	48.761	ug/L	0.591	1	5	79418	1	KED
| Ni	62	49.065	ug/L	1.020	2	1	12807	2	KED
| Cu	63	50.335	ug/L	0.792	1	34	229335	1	KED
| Cu	65	49.788	ug/L	0.248	0	19	116447	0	KED
| Zn	66	49.118	ug/L	1.011	2	23	27541	1	KED
| Zn	67	51.803	ug/L	0.793	1	5	4730	2	KED
| As	75	50.107	ug/L	0.465	0	3	13619	0	KED
Y	89		ug/L			48310	55027	0	Standard
Kr	83		ug/L			47	46	15	Standard
[> In-1	115		ug/L			6273	7119	3	KED
| Cd	111	50.184	ug/L	1.227	2	2	12949	0	KED
| Cd	114	50.175	ug/L	0.566	1	4	33318	2	KED
[> In	115		ug/L			463649	504029	0	Standard
| Ag	107	48.797	ug/L	0.760	1	35	808976	1	Standard
| Ba	135	49.515	ug/L	0.138	0	24	289131	0	Standard
| Ba	137	49.043	ug/L	0.770	1	33	512033	0	Standard
[> Tb	159		ug/L			169186	194827	2	Standard
| Pb	208	50.847	ug/L	1.120	2	224	4739539	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:32:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			23729	27340	2	Standard	
[>	Sc	45	ug/L			509000	580003	1	Standard	
|	Cr	52	0.023	ug/L	0.039	8828	10405	7	Standard	
|	Cr	53	0.028	ug/L	0.037	74	133	50	Standard	
[>	Ge	72		ug/L		29303	34295	1	KED	
|	Ni	60	0.001	ug/L	0.003	5	7	66	KED	
|	Ni	62	-0.004	ug/L	0.008	1	1	173	KED	
|	Cu	63	0.000	ug/L	0.002	34	41	15	KED	
|	Cu	65	-0.000	ug/L	0.005	8359	19	22	46	KED
|	Zn	66	0.009	ug/L	0.009	100	23	32	15	KED
|	Zn	67	-0.004	ug/L	0.023	606	5	6	34	KED
|	As	75	0.008	ug/L	0.012	144	3	5	54	KED
|	Y	89		ug/L		48310	53554	1	Standard	
|	Kr	83		ug/L		47	59	14	Standard	
[>	In-1	115		ug/L		6273	7121	2	KED	
|	Cd	111	-0.001	ug/L	0.002	159	2	2	24	KED
|	Cd	114	-0.001	ug/L	0.001	145	4	4	24	KED
[>	In	115		ug/L		463649	495495	2	Standard	
|	Ag	107	0.030	ug/L	0.033	110	35	527	103	Standard
|	Ba	135	0.024	ug/L	0.030	120	24	169	102	Standard
|	Ba	137	0.026	ug/L	0.031	123	33	303	108	Standard
[>	Tb	159		ug/L		169186	184923	3	Standard	
|	Pb	208	0.030	ug/L	0.029	98	224	2932	93	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:37:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				26311	4	Standard
[>	Sc	45	ug/L				566891	1	Standard
|	Cr	52	ug/L				10103	1	Standard
|	Cr	53	ug/L				90	11	Standard
[>	Ge	72	ug/L				32698	0	KED
|	Ni	60	ug/L				3	50	KED
|	Ni	62	ug/L				3	34	KED
|	Cu	63	ug/L				24	19	KED
|	Cu	65	ug/L				17	11	KED
|	Zn	66	ug/L				20	48	KED
|	Zn	67	ug/L				3	132	KED
|	As	75	ug/L				3	45	KED
	Y	89	ug/L				53020	2	Standard
	Kr	83	ug/L				39	12	Standard
[>	In-1	115	ug/L				7060	1	KED
|	Cd	111	ug/L				2	89	KED
|	Cd	114	ug/L				3	68	KED
[>	In	115	ug/L				494263	2	Standard
|	Ag	107	ug/L				53	2	Standard
|	Ba	135	ug/L				15	33	Standard
|	Ba	137	ug/L				16	52	Standard
[>	Tb	159	ug/L				184968	0	Standard
|	Pb	208	ug/L				252	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:41:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27086	4	Standard
[>	Sc	45	ug/L			566891	602734	1	Standard
|	Cr	52	50.087	0.634	1	10103	788886	3	Standard
|	Cr	53	49.352	0.393	0	90	89874	2	Standard
[>	Ge	72	ug/L			32698	34111	1	KED
|	Ni	60	48.892	0.532	1	3	80169	1	KED
|	Ni	62	49.253	0.220	0	3	12944	1	KED
|	Cu	63	49.622	1.349	2	24	227559	1	KED
|	Cu	65	48.368	0.349	0	17	113892	1	KED
|	Zn	66	50.735	0.721	1	20	28634	1	KED
|	Zn	67	50.136	0.936	1	3	4607	3	KED
|	As	75	49.751	0.619	1	3	13613	0	KED
|	Y	89	ug/L			53020	55757	1	Standard
|	Kr	83	ug/L			39	41	29	Standard
[>	In-1	115	ug/L			7060	7062	1	KED
|	Cd	111	50.589	1.752	3	2	12950	2	KED
|	Cd	114	50.362	0.801	1	3	33178	2	KED
[>	In	115	ug/L			494263	496605	2	Standard
|	Ag	107	49.227	0.708	1	53	803963	0	Standard
|	Ba	135	50.459	2.381	4	15	290080	2	Standard
|	Ba	137	50.527	1.528	3	16	519526	0	Standard
[>	Tb	159	ug/L			184968	193060	1	Standard
|	Pb	208	50.413	1.135	2	252	4657369	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:49:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	26387	1	Standard
>	Sc	45	ug/L			566891	577127	1	Standard
|	Cr	52	ug/L	0.010	47	10103	9985	2	Standard
|	Cr	53	ug/L	0.004	53	90	78	9	Standard
>	Ge	72	ug/L			32698	34100	1	KED
|	Ni	60	ug/L	0.001	33	3	0	173	KED
|	Ni	62	ug/L	0.007	131	3	1	100	KED
|	Cu	63	ug/L	0.001	191	24	26	12	KED
|	Cu	65	ug/L	0.001	121	17	15	21	KED
|	Zn	66	ug/L	0.003	512	20	22	9	KED
|	Zn	67	ug/L	0.020	89	3	1	100	KED
|	As	75	ug/L	0.005	4102	3	3	37	KED
|	Y	89	ug/L			53020	51769	1	Standard
|	Kr	83	ug/L			39	35	17	Standard
>	In-1	115	ug/L			7060	7354	2	KED
|	Cd	111	ug/L	0.014	201	2	4	87	KED
|	Cd	114	ug/L	0.026	94	3	22	82	KED
>	In	115	ug/L			494263	493687	2	Standard
|	Ag	107	ug/L	0.006	98	53	153	65	Standard
|	Ba	135	ug/L	0.007	220	15	33	118	Standard
|	Ba	137	ug/L	0.006	151	16	60	111	Standard
>	Tb	159	ug/L			184968	186545	0	Standard
|	Pb	208	ug/L	0.006	143	252	643	86	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-BLK2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 17:54:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	37670	3	Standard
> Sc	45		ug/L			566891	603363	1	Standard
| Cr	52	-0.001	ug/L	0.027	4639	10103	10740	2	Standard
| Cr	53	0.001	ug/L	0.013	1768	90	97	22	Standard
> Ge	72		ug/L			32698	33573	2	KED
| Ni	60	0.004	ug/L	0.004	101	3	10	66	KED
| Ni	62	-0.003	ug/L	0.011	368	3	2	114	KED
| Cu	63	0.070	ug/L	0.006	8	24	340	8	KED
| Cu	65	0.065	ug/L	0.006	9	17	166	7	KED
| Zn	66	0.172	ug/L	0.045	25	20	116	21	KED
| Zn	67	0.168	ug/L	0.041	24	3	19	17	KED
| As	75	-0.003	ug/L	0.006	226	3	2	60	KED
| Y	89		ug/L			53020	54713	1	Standard
| Kr	83		ug/L			39	42	18	Standard
> In-1	115		ug/L			7060	7281	1	KED
| Cd	111	0.005	ug/L	0.002	48	2	3	15	KED
| Cd	114	-0.001	ug/L	0.004	367	3	2	121	KED
> In	115		ug/L			494263	517690	1	Standard
| Ag	107	-0.000	ug/L	0.000	105	53	50	14	Standard
| Ba	135	0.005	ug/L	0.000	6	15	45	2	Standard
| Ba	137	0.008	ug/L	0.001	16	16	98	12	Standard
> Tb	159		ug/L			184968	194843	1	Standard
| Pb	208	0.008	ug/L	0.001	9	252	1056	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0687-BS2

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 17:58:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	33195	2	Standard
[> Sc	45		ug/L			566891	555862	11	Standard
| Cr	52	27.319	ug/L	2.314	8	10103	398623	3	Standard
| Cr	53	27.123	ug/L	2.036	7	90	45316	4	Standard
[> Ge	72		ug/L			32698	34536	1	KED
| Ni	60	26.277	ug/L	0.423	1	3	43618	0	KED
| Ni	62	25.531	ug/L	0.733	2	3	6793	1	KED
| Cu	63	26.428	ug/L	0.996	3	24	122696	2	KED
| Cu	65	26.366	ug/L	0.643	2	17	62849	1	KED
| Zn	66	81.431	ug/L	3.435	4	20	46502	2	KED
| Zn	67	77.856	ug/L	1.691	2	3	7239	2	KED
| As	75	24.595	ug/L	0.132	0	3	6815	0	KED
Y	89		ug/L			53020	50937	11	Standard
Kr	83		ug/L			39	43	2	Standard
[> In-1	115		ug/L			7060	7171	0	KED
| Cd	111	25.205	ug/L	0.178	0	2	6555	0	KED
| Cd	114	25.527	ug/L	0.381	1	3	17079	1	KED
[> In	115		ug/L			494263	475075	13	Standard
| Ag	107	26.777	ug/L	2.851	10	53	414464	4	Standard
| Ba	135	26.576	ug/L	2.759	10	15	144886	4	Standard
| Ba	137	26.205	ug/L	2.206	8	16	255882	5	Standard
[> Tb	159		ug/L			184968	178000	9	Standard
| Pb	208	27.358	ug/L	1.891	6	252	2320134	3	Standard

BLD

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0687-BS2

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:05:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			26311	33167	3	Standard
[> Sc	45			ug/L			566891	617917	1	Standard
| Cr	52	26.566		ug/L	0.336	1	10103	434021	0	Standard
| Cr	53	25.839		ug/L	0.203	0	90	48285	2	Standard
[> Ge	72			ug/L			32698	35114	0	KED
| Ni	60	26.149		ug/L	0.318	1	3	44138	1	KED
| Ni	62	26.557		ug/L	0.236	0	3	7185	1	KED
| Cu	63	26.719		ug/L	0.111	0	24	126165	0	KED
| Cu	65	26.523		ug/L	0.868	3	17	64298	3	KED
| Zn	66	81.101		ug/L	0.657	0	20	47108	0	KED
| Zn	67	79.743		ug/L	2.633	3	3	7539	3	KED
| As	75	25.028		ug/L	0.475	1	3	7052	1	KED
| Y	89			ug/L			53020	54777	2	Standard
| Kr	83			ug/L			39	56	25	Standard
[> In-1	115			ug/L			7060	7190	2	KED
| Cd	111	25.907		ug/L	1.333	5	2	6749	2	KED
| Cd	114	25.906		ug/L	0.432	1	3	17376	2	KED
[> In	115			ug/L			494263	529323	0	Standard
| Ag	107	25.138		ug/L	0.889	3	53	437657	3	Standard
| Ba	135	25.018		ug/L	0.513	2	15	153411	1	Standard
| Ba	137	25.193		ug/L	0.818	3	16	276243	3	Standard
[> Tb	159			ug/L			184968	195659	1	Standard
| Pb	208	26.664		ug/L	0.249	0	252	2496863	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:11:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	38063	2	Standard
[> Sc	45		ug/L			566891	597496	2	Standard
[Cr	52	-0.003	ug/L	0.011	446	10103	10607	1	Standard
[Cr	53	0.015	ug/L	0.002	15	90	121	5	Standard
[> Ge	72		ug/L			32698	34566	1	KED
[Ni	60	0.005	ug/L	0.001	13	3	12	9	KED
[Ni	62	0.002	ug/L	0.007	416	3	3	50	KED
[Cu	63	0.028	ug/L	0.004	15	24	154	12	KED
[Cu	65	0.030	ug/L	0.004	12	17	90	10	KED
[Zn	66	0.367	ug/L	0.046	12	20	231	10	KED
[Zn	67	0.380	ug/L	0.094	24	3	39	22	KED
[As	75	-0.002	ug/L	0.003	112	3	2	26	KED
Y	89		ug/L			53020	53718	2	Standard
Kr	83		ug/L			39	38	21	Standard
[> In-1	115		ug/L			7060	7412	2	KED
[Cd	111	-0.002	ug/L	0.004	224	2	1	50	KED
[Cd	114	-0.001	ug/L	0.002	306	3	2	38	KED
[> In	115		ug/L			494263	508864	4	Standard
[Ag	107	0.001	ug/L	0.001	103	53	76	30	Standard
[Ba	135	0.044	ug/L	0.001	3	15	276	7	Standard
[Ba	137	0.041	ug/L	0.002	5	16	448	2	Standard
[> Tb	159		ug/L			184968	189447	1	Standard
[Pb	208	0.003	ug/L	0.001	15	252	551	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:15:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	41219	2	Standard
> Sc	45		ug/L			566891	595237	2	Standard
| Cr	52	26.019	ug/L	0.637	2	10103	409724	2	Standard
| Cr	53	25.701	ug/L	0.388	1	90	46253	0	Standard
> Ge	72		ug/L			32698	33724	2	KED
| Ni	60	26.223	ug/L	0.188	0	3	42515	3	KED
| Ni	62	25.826	ug/L	0.457	1	3	6712	3	KED
| Cu	63	27.023	ug/L	0.029	0	24	122552	2	KED
| Cu	65	26.364	ug/L	0.662	2	17	61404	4	KED
| Zn	66	84.748	ug/L	0.880	1	20	47269	1	KED
| Zn	67	82.421	ug/L	2.653	3	3	7480	1	KED
| As	75	25.246	ug/L	0.327	1	3	6830	1	KED
Y	89		ug/L			53020	55215	3	Standard
Kr	83		ug/L			39	61	32	Standard
> In-1	115		ug/L			7060	7117	3	KED
| Cd	111	26.003	ug/L	0.830	3	2	6706	1	KED
| Cd	114	25.869	ug/L	1.271	4	3	17159	2	KED
> In	115		ug/L			494263	501527	1	Standard
| Ag	107	25.380	ug/L	0.349	1	53	418726	1	Standard
| Ba	135	25.446	ug/L	0.398	1	15	147835	0	Standard
| Ba	137	25.147	ug/L	0.112	0	16	261267	1	Standard
> Tb	159		ug/L			184968	192205	0	Standard
| Pb	208	25.898	ug/L	0.210	0	252	2382531	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0077-MS2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:21:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	40376	1	Standard
[> Sc	45		ug/L			566891	644293	2	Standard
| Cr	52	13.646	ug/L	0.334	2	10103	237982	1	Standard
| Cr	53	13.650	ug/L	0.413	3	90	26636	3	Standard
[> Ge	72		ug/L			32698	35599	1	KED
| Ni	60	14.278	ug/L	0.608	4	3	24427	3	KED
| Ni	62	14.855	ug/L	0.778	5	3	4078	6	KED
| Cu	63	17.856	ug/L	0.146	0	24	85486	1	KED
| Cu	65	17.890	ug/L	0.181	1	17	43971	1	KED
| Zn	66	44.470	ug/L	0.482	1	20	26195	0	KED
| Zn	67	44.109	ug/L	0.983	2	3	4229	1	KED
| As	75	14.390	ug/L	0.229	1	3	4111	0	KED
| Y	89		ug/L			53020	82049	1	Standard
| Kr	83		ug/L			39	44	35	Standard
[> In-1	115		ug/L			7060	7585	1	KED
| Cd	111	13.396	ug/L	0.268	2	2	3686	3	KED
| Cd	114	12.937	ug/L	0.159	1	3	9156	1	KED
[> In	115		ug/L			494263	520828	1	Standard
| Ag	107	13.168	ug/L	0.834	6	53	225463	4	Standard
| Ba	135	18.146	ug/L	0.439	2	15	109466	0	Standard
| Ba	137	18.016	ug/L	0.372	2	16	194342	1	Standard
[> Tb	159		ug/L			184968	198562	2	Standard
| Pb	208	13.622	ug/L	0.430	3	252	1294148	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0297-01**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:27:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	43660	3	Standard
> Sc	45		ug/L			566891	632000	0	Standard
| Cr	52	2.036	ug/L	0.025	1	10103	44431	0	Standard
| Cr	53	2.030	ug/L	0.034	1	90	3972	1	Standard
> Ge	72		ug/L			32698	35701	1	KED
| Ni	60	2.054	ug/L	0.066	3	3	3527	2	KED
| Ni	62	2.148	ug/L	0.146	6	3	593	4	KED
| Cu	63	3.160	ug/L	0.088	2	24	15197	4	KED
| Cu	65	3.168	ug/L	0.115	3	17	7823	3	KED
| Zn	66	13.507	ug/L	0.376	2	20	7993	1	KED
| Zn	67	13.075	ug/L	0.153	1	3	1260	2	KED
| As	75	0.552	ug/L	0.034	6	3	161	7	KED
Y	89		ug/L			53020	79010	1	Standard
Kr	83		ug/L			39	41	17	Standard
> In-1	115		ug/L			7060	7693	2	KED
| Cd	111	0.040	ug/L	0.009	23	2	13	17	KED
| Cd	114	0.048	ug/L	0.010	21	3	37	18	KED
> In	115		ug/L			494263	523935	1	Standard
| Ag	107	0.024	ug/L	0.002	7	53	473	6	Standard
| Ba	135	6.728	ug/L	0.172	2	15	40843	2	Standard
| Ba	137	6.775	ug/L	0.223	3	16	73515	1	Standard
> Tb	159		ug/L			184968	202392	1	Standard
| Pb	208	12.755	ug/L	0.082	0	252	1235605	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0728-DUP2**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:32:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	44324	2	Standard
> Sc	45		ug/L			566891	616246	1	Standard
Cr	52	3.859	ug/L	0.104	2	10103	72247	0	Standard
Cr	53	3.763	ug/L	0.033	0	90	7097	1	Standard
> Ge	72		ug/L			32698	35016	1	KED
Ni	60	3.217	ug/L	0.049	1	3	5417	1	KED
Ni	62	3.072	ug/L	0.041	1	3	831	0	KED
Cu	63	5.765	ug/L	0.101	1	24	27162	1	KED
Cu	65	5.632	ug/L	0.198	3	17	13623	1	KED
Zn	66	25.143	ug/L	0.668	2	20	14575	1	KED
Zn	67	24.719	ug/L	0.461	1	3	2332	0	KED
As	75	0.890	ug/L	0.054	6	3	253	5	KED
Y	89		ug/L			53020	86822	2	Standard
Kr	83		ug/L			39	38	5	Standard
> In-1	115		ug/L			7060	7818	1	KED
Cd	111	0.092	ug/L	0.014	15	2	28	15	KED
Cd	114	0.078	ug/L	0.020	25	3	60	24	KED
> In	115		ug/L			494263	505786	3	Standard
Ag	107	0.019	ug/L	0.001	7	53	378	3	Standard
Ba	135	12.943	ug/L	0.471	3	15	75798	1	Standard
Ba	137	12.936	ug/L	0.581	4	16	135424	1	Standard
> Tb	159		ug/L			184968	196469	1	Standard
Pb	208	25.694	ug/L	0.107	0	252	2416204	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0728-MS2

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:36:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	43287	3	Standard
[> Sc	45		ug/L			566891	591647	10	Standard
| Cr	52	9.452	ug/L	0.588	6	10103	154071	5	Standard
| Cr	53	9.291	ug/L	0.725	7	90	16595	2	Standard
[> Ge	72		ug/L			32698	35179	0	KED
| Ni	60	8.374	ug/L	0.172	2	3	14163	1	KED
| Ni	62	8.570	ug/L	0.258	3	3	2325	3	KED
| Cu	63	10.707	ug/L	0.135	1	24	50663	1	KED
| Cu	65	10.695	ug/L	0.305	2	17	25987	3	KED
| Zn	66	41.005	ug/L	0.450	1	20	23871	0	KED
| Zn	67	43.282	ug/L	1.509	3	3	4102	4	KED
| As	75	5.955	ug/L	0.067	1	3	1683	0	KED
Y	89		ug/L			53020	82678	9	Standard
Kr	83		ug/L			39	48	26	Standard
[> In-1	115		ug/L			7060	7566	2	KED
| Cd	111	5.358	ug/L	0.095	1	2	1472	2	KED
| Cd	114	5.303	ug/L	0.159	2	3	3745	3	KED
[> In	115		ug/L			494263	487343	10	Standard
| Ag	107	4.919	ug/L	0.394	8	53	78463	4	Standard
| Ba	135	79.346	ug/L	6.937	8	15	445104	2	Standard
| Ba	137	79.361	ug/L	5.203	6	16	797381	4	Standard
[> Tb	159		ug/L			184968	188193	8	Standard
| Pb	208	31.645	ug/L	1.866	5	252	2841204	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:41:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	28394	4	Standard
[> Sc	45		ug/L			566891	585732	2	Standard
| Cr	52	-0.022	ug/L	0.003	13	10103	10113	1	Standard
| Cr	53	-0.017	ug/L	0.007	42	90	63	22	Standard
[> Ge	72		ug/L			32698	33367	0	KED
| Ni	60	0.004	ug/L	0.002	58	3	9	34	KED
| Ni	62	0.007	ug/L	0.028	390	3	5	141	KED
| Cu	63	0.007	ug/L	0.006	84	24	54	46	KED
| Cu	65	0.001	ug/L	0.006	513	17	20	71	KED
| Zn	66	0.082	ug/L	0.030	36	20	66	24	KED
| Zn	67	0.049	ug/L	0.088	181	3	8	96	KED
| As	75	-0.002	ug/L	0.004	182	3	2	36	KED
Y	89		ug/L			53020	53017	1	Standard
Kr	83		ug/L			39	46	26	Standard
[> In-1	115		ug/L			7060	7227	2	KED
| Cd	111	-0.004	ug/L	0.006	150	2	1	114	KED
| Cd	114	-0.002	ug/L	0.000	5	3	1	4	KED
[> In	115		ug/L			494263	495365	1	Standard
| Ag	107	-0.001	ug/L	0.001	81	53	38	35	Standard
| Ba	135	0.002	ug/L	0.002	109	15	27	49	Standard
| Ba	137	0.005	ug/L	0.001	12	16	66	8	Standard
[> Tb	159		ug/L			184968	186655	1	Standard
| Pb	208	0.004	ug/L	0.000	3	252	641	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:45:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	28727	4	Standard
[> Sc	45		ug/L			566891	609014	3	Standard
| Cr	52	50.570	ug/L	0.762	1	10103	804391	2	Standard
| Cr	53	49.489	ug/L	1.195	2	90	91015	1	Standard
[> Ge	72		ug/L			32698	34132	2	KED
| Ni	60	50.592	ug/L	1.395	2	3	82971	0	KED
| Ni	62	50.224	ug/L	3.628	7	3	13194	5	KED
| Cu	63	50.541	ug/L	1.378	2	24	231886	1	KED
| Cu	65	49.221	ug/L	0.899	1	17	115932	0	KED
| Zn	66	51.252	ug/L	1.016	1	20	28936	0	KED
| Zn	67	52.016	ug/L	2.220	4	3	4779	2	KED
| As	75	50.828	ug/L	0.713	1	3	13915	1	KED
Y	89		ug/L			53020	56257	1	Standard
Kr	83		ug/L			39	47	10	Standard
[> In-1	115		ug/L			7060	7295	0	KED
| Cd	111	50.371	ug/L	0.324	0	2	13324	0	KED
| Cd	114	51.434	ug/L	0.839	1	3	35003	1	KED
[> In	115		ug/L			494263	503811	3	Standard
| Ag	107	49.821	ug/L	1.108	2	53	825169	1	Standard
| Ba	135	50.659	ug/L	2.522	4	15	295308	1	Standard
| Ba	137	49.729	ug/L	1.869	3	16	518499	0	Standard
[> Tb	159		ug/L			184968	191232	2	Standard
| Pb	208	51.742	ug/L	0.772	1	252	4734666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 18:53:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27100	6	Standard
[> Sc	45		ug/L			566891	604751	2	Standard
| Cr	52	-0.032	ug/L	0.003	8	10103	10287	2	Standard
| Cr	53	-0.011	ug/L	0.003	28	90	76	7	Standard
[> Ge	72		ug/L			32698	35074	2	KED
| Ni	60	-0.000	ug/L	0.000	30	3	3	0	KED
| Ni	62	-0.008	ug/L	0.008	107	3	1	173	KED
| Cu	63	0.006	ug/L	0.002	32	24	52	14	KED
| Cu	65	0.002	ug/L	0.002	76	17	24	19	KED
| Zn	66	-0.002	ug/L	0.009	530	20	21	25	KED
| Zn	67	0.004	ug/L	0.011	296	3	4	24	KED
| As	75	-0.001	ug/L	0.002	282	3	3	17	KED
Y	89		ug/L			53020	52811	0	Standard
Kr	83		ug/L			39	43	26	Standard
[> In-1	115		ug/L			7060	7273	3	KED
| Cd	111	0.001	ug/L	0.005	577	2	2	57	KED
| Cd	114	0.001	ug/L	0.006	392	3	4	91	KED
[> In	115		ug/L			494263	514317	0	Standard
| Ag	107	0.001	ug/L	0.001	153	53	64	20	Standard
| Ba	135	-0.000	ug/L	0.001	153	15	13	28	Standard
| Ba	137	0.001	ug/L	0.001	65	16	26	22	Standard
[> Tb	159		ug/L			184968	191895	0	Standard
| Pb	208	0.001	ug/L	0.000	16	252	332	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0301-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 18:57:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	36132	2	Standard
> Sc	45		ug/L			566891	602137	1	Standard
| Cr	52	0.039	ug/L	0.002	4	10103	11333	1	Standard
| Cr	53	0.041	ug/L	0.004	11	90	170	5	Standard
> Ge	72		ug/L			32698	35755	1	KED
| Ni	60	0.009	ug/L	0.006	72	3	19	55	KED
| Ni	62	-0.006	ug/L	0.012	205	3	1	173	KED
| Cu	63	0.054	ug/L	0.004	7	24	286	5	KED
| Cu	65	0.049	ug/L	0.005	11	17	139	8	KED
| Zn	66	0.501	ug/L	0.016	3	20	318	1	KED
| Zn	67	0.537	ug/L	0.123	22	3	55	21	KED
| As	75	-0.004	ug/L	0.005	131	3	2	60	KED
Y	89		ug/L			53020	53484	1	Standard
Kr	83		ug/L			39	42	9	Standard
> In-1	115		ug/L			7060	7514	4	KED
| Cd	111	-0.003	ug/L	0.004	162	2	1	69	KED
| Cd	114	0.001	ug/L	0.007	593	3	4	120	KED
> In	115		ug/L			494263	515717	1	Standard
| Ag	107	-0.001	ug/L	0.001	165	53	41	59	Standard
| Ba	135	0.032	ug/L	0.003	7	15	208	8	Standard
| Ba	137	0.034	ug/L	0.005	15	16	380	13	Standard
> Tb	159		ug/L			184968	188567	0	Standard
| Pb	208	0.013	ug/L	0.001	6	252	1422	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0301-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:02:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	39347	2	Standard
> Sc	45		ug/L			566891	602736	1	Standard
| Cr	52	25.728	ug/L	0.632	2	10103	410293	1	Standard
| Cr	53	25.069	ug/L	0.544	2	90	45686	0	Standard
> Ge	72		ug/L			32698	35760	0	KED
| Ni	60	24.931	ug/L	0.329	1	3	42859	2	KED
| Ni	62	25.470	ug/L	0.338	1	3	7019	2	KED
| Cu	63	26.115	ug/L	0.703	2	24	125575	2	KED
| Cu	65	25.523	ug/L	0.337	1	17	63008	1	KED
| Zn	66	81.836	ug/L	1.535	1	20	48404	0	KED
| Zn	67	77.435	ug/L	1.924	2	3	7455	1	KED
| As	75	24.221	ug/L	0.419	1	3	6951	2	KED
Y	89		ug/L			53020	55246	3	Standard
Kr	83		ug/L			39	38	17	Standard
> In-1	115		ug/L			7060	7223	4	KED
| Cd	111	25.786	ug/L	0.757	2	2	6750	1	KED
| Cd	114	25.761	ug/L	0.217	0	3	17358	3	KED
> In	115		ug/L			494263	502123	3	Standard
| Ag	107	25.046	ug/L	0.929	3	53	413450	2	Standard
| Ba	135	25.125	ug/L	0.881	3	15	146049	0	Standard
| Ba	137	24.829	ug/L	0.821	3	16	258081	0	Standard
> Tb	159		ug/L			184968	192140	0	Standard
| Pb	208	26.135	ug/L	0.277	1	252	2403344	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:07:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	33143	1	Standard
[> Sc	45		ug/L			566891	616779	2	Standard
[Cr	52	-0.028	ug/L	0.019	69	10103	10547	0	Standard
[Cr	53	-0.006	ug/L	0.003	40	90	86	4	Standard
[> Ge	72		ug/L			32698	34454	0	KED
[Ni	60	0.008	ug/L	0.004	46	3	16	35	KED
[Ni	62	-0.003	ug/L	0.008	272	3	2	86	KED
[Cu	63	0.012	ug/L	0.003	29	24	79	20	KED
[Cu	65	0.008	ug/L	0.007	86	17	36	43	KED
[Zn	66	0.171	ug/L	0.019	11	20	119	8	KED
[Zn	67	0.203	ug/L	0.083	40	3	22	33	KED
[As	75	-0.003	ug/L	0.003	91	3	2	28	KED
Y	89		ug/L			53020	56743	3	Standard
Kr	83		ug/L			39	53	27	Standard
[> In-1	115		ug/L			7060	7418	0	KED
[Cd	111	-0.004	ug/L	0.002	51	2	1	43	KED
[Cd	114	-0.001	ug/L	0.004	676	3	2	100	KED
[> In	115		ug/L			494263	513562	2	Standard
[Ag	107	0.001	ug/L	0.001	216	53	66	31	Standard
[Ba	135	0.034	ug/L	0.003	9	15	215	6	Standard
[Ba	137	0.034	ug/L	0.001	1	16	377	3	Standard
[> Tb	159		ug/L			184968	193668	0	Standard
[Pb	208	0.007	ug/L	0.000	3	252	869	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0143-BS1

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:11:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	31606	2	Standard
[>	Sc	45	ug/L			566891	583965	(11)	Standard
|	Cr	52	ug/L	2.680	9	10103	422084	3	Standard
|	Cr	53	ug/L	2.342	8	90	48042	3	Standard
[>	Ge	72	ug/L			32698	33602	2	KED
|	Ni	60	ug/L	0.960	3	3	42975	0	KED
|	Ni	62	ug/L	0.969	3	3	6985	1	KED
|	Cu	63	ug/L	0.763	2	24	122630	0	KED
|	Cu	65	ug/L	0.624	2	17	62066	0	KED
|	Zn	66	ug/L	2.082	2	20	45718	0	KED
|	Zn	67	ug/L	1.406	1	3	7124	0	KED
|	As	75	ug/L	0.969	3	3	6756	1	KED
|	Y	89	ug/L			53020	52675	13	Standard
|	Kr	83	ug/L			39	52	36	Standard
[>	In-1	115	ug/L			7060	7562	3	KED
|	Cd	111	ug/L	0.283	1	2	6850	1	KED
|	Cd	114	ug/L	0.916	3	3	17500	0	KED
[>	In	115	ug/L			494263	489071	(10)	Standard
|	Ag	107	ug/L	1.759	6	53	428268	4	Standard
|	Ba	135	ug/L	2.670	9	15	154205	1	Standard
|	Ba	137	ug/L	2.617	9	16	273527	2	Standard
[>	Tb	159	ug/L			184968	184312	(10)	Standard
|	Pb	208	ug/L	2.382	8	252	2477210	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:19:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	30379	2	Standard
> Sc	45		ug/L			566891	608076	1	Standard
| Cr	52	26.503	ug/L	0.345	1	10103	426187	2	Standard
| Cr	53	26.098	ug/L	0.180	0	90	47989	1	Standard
> Ge	72		ug/L			32698	35900	1	KED
| Ni	60	25.767	ug/L	0.436	1	3	44460	0	KED
| Ni	62	26.190	ug/L	0.532	2	3	7243	0	KED
| Cu	63	27.050	ug/L	0.206	0	24	130578	1	KED
| Cu	65	26.509	ug/L	0.178	0	17	65696	1	KED
| Zn	66	81.108	ug/L	0.527	0	20	48170	2	KED
| Zn	67	77.729	ug/L	0.535	0	3	7513	1	KED
| As	75	24.804	ug/L	0.297	1	3	7144	1	KED
Y	89		ug/L			53020	55160	3	Standard
Kr	83		ug/L			39	68	12	Standard
> In-1	115		ug/L			7060	7460	2	KED
| Cd	111	25.512	ug/L	0.374	1	2	6904	3	KED
| Cd	114	24.977	ug/L	0.596	2	3	17384	2	KED
> In	115		ug/L			494263	513378	4	Standard
| Ag	107	26.260	ug/L	0.377	1	53	443361	3	Standard
| Ba	135	26.060	ug/L	1.712	6	15	154721	2	Standard
| Ba	137	25.388	ug/L	1.063	4	16	269741	2	Standard
> Tb	159		ug/L			184968	194271	3	Standard
| Pb	208	26.682	ug/L	0.951	3	252	2478789	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0728-MS2**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:23:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	32572	2	Standard
> Sc	45		ug/L			566891	634781	1	Standard
| Cr	52	8.923	ug/L	0.181	2	10103	157301	3	Standard
| Cr	53	8.784	ug/L	0.118	1	90	16931	2	Standard
> Ge	72		ug/L			32698	35227	2	KED
| Ni	60	7.934	ug/L	0.171	2	3	13433	0	KED
| Ni	62	8.105	ug/L	0.290	3	3	2202	3	KED
| Cu	63	10.173	ug/L	0.317	3	24	48187	1	KED
| Cu	65	10.080	ug/L	0.557	5	17	24508	3	KED
| Zn	66	38.423	ug/L	0.769	2	20	22395	0	KED
| Zn	67	40.690	ug/L	1.664	4	3	3860	3	KED
| As	75	5.570	ug/L	0.174	3	3	1576	1	KED
Y	89		ug/L			53020	85393	1	Standard
Kr	83		ug/L			39	44	27	Standard
> In-1	115		ug/L			7060	7444	0	KED
| Cd	111	5.163	ug/L	0.104	2	2	1395	1	KED
| Cd	114	5.160	ug/L	0.024	0	3	3586	0	KED
> In	115		ug/L			494263	516165	3	Standard
| Ag	107	4.702	ug/L	0.128	2	53	79838	0	Standard
| Ba	135	76.355	ug/L	3.843	5	15	456151	2	Standard
| Ba	137	75.875	ug/L	3.822	5	16	810591	3	Standard
> Tb	159		ug/L			184968	202938	1	Standard
| Pb	208	30.231	ug/L	0.583	1	252	2935613	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0348-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:28:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26311	25448	5	Standard
[>	Sc	45	ug/L			566891	529281	3	Standard
|	Cr	52	0.440	0.008	1	10103	15429	3	Standard
|	Cr	53	1.137	0.039	3	90	1900	3	Standard
[>	Ge	72	ug/L			32698	27739	0	KED
|	Ni	60	1.356	0.067	4	3	1811	5	KED
|	Ni	62	1.314	0.157	11	3	283	10	KED
|	Cu	63	1.848	0.018	0	24	6912	0	KED
|	Cu	65	1.781	0.011	0	17	3424	0	KED
|	Zn	66	16.919	0.501	2	20	7776	2	KED
|	Zn	67	15.634	0.215	1	3	1170	0	KED
|	As	75	1.258	0.034	2	3	282	3	KED
	Y	89	ug/L			53020	48610	0	Standard
	Kr	83	ug/L			39	43	19	Standard
[>	In-1	115	ug/L			7060	5801	2	KED
|	Cd	111	0.005	0.004	92	2	2	33	KED
|	Cd	114	0.010	0.009	90	3	7	62	KED
[>	In	115	ug/L			494263	443792	0	Standard
|	Ag	107	0.001	0.001	64	53	62	14	Standard
|	Ba	135	0.370	0.025	6	15	1916	6	Standard
|	Ba	137	0.371	0.010	2	16	3427	3	Standard
[>	Tb	159	ug/L			184968	173759	1	Standard
|	Pb	208	0.116	0.001	1	252	9874	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:33:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24223	2	Standard
[> Sc	45		ug/L			566891	575088	3	Standard
| Cr	52	-0.007	ug/L	0.012	171	10103	10143	3	Standard
| Cr	53	0.005	ug/L	0.011	218	90	100	18	Standard
[> Ge	72		ug/L			32698	30306	11	KED
| Ni	60	0.002	ug/L	0.002	106	3	6	56	KED
| Ni	62	-0.008	ug/L	0.004	58	3	1	86	KED
| Cu	63	0.004	ug/L	0.003	73	24	36	26	KED
| Cu	65	0.003	ug/L	0.003	113	17	21	26	KED
| Zn	66	0.070	ug/L	0.009	13	20	54	19	KED
| Zn	67	0.035	ug/L	0.010	28	3	6	17	KED
| As	75	-0.004	ug/L	0.002	52	3	1	25	KED
| Y	89		ug/L			53020	52486	2	Standard
| Kr	83		ug/L			39	40	9	Standard
[> In-1	115		ug/L			7060	6912	1	KED
| Cd	111	-0.006	ug/L	0.002	35	2	0	86	KED
| Cd	114	-0.002	ug/L	0.003	164	3	1	103	KED
[> In	115		ug/L			494263	502957	1	Standard
| Ag	107	-0.001	ug/L	0.001	187	53	45	43	Standard
| Ba	135	0.001	ug/L	0.001	180	15	19	34	Standard
| Ba	137	0.003	ug/L	0.001	33	16	49	21	Standard
[> Tb	159		ug/L			184968	186751	0	Standard
| Pb	208	0.004	ug/L	0.000	10	252	622	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0374-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 19:40:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	27470	2	Standard
> Sc	45		ug/L			566891	535366	2	Standard
| Cr	52	1.485	ug/L	0.027	1	10103	30025	1	Standard
| Cr	53	2.427	ug/L	0.053	2	90	4007	4	Standard
> Ge	72		ug/L			32698	26716	2	KED
| Ni	60	0.991	ug/L	0.067	6	3	1276	8	KED
| Ni	62	0.904	ug/L	0.041	4	3	188	2	KED
| Cu	63	1.735	ug/L	0.003	0	24	6252	2	KED
| Cu	65	1.743	ug/L	0.055	3	17	3228	5	KED
| Zn	66	1.685	ug/L	0.077	4	20	761	6	KED
| Zn	67	2.401	ug/L	0.167	6	3	175	8	KED
| As	75	0.727	ug/L	0.067	9	3	158	8	KED
| Y	89		ug/L			53020	49651	1	Standard
| Kr	83		ug/L			39	38	15	Standard
> In-1	115		ug/L			7060	5871	1	KED
| Cd	111	0.008	ug/L	0.007	86	2	3	41	KED
| Cd	114	0.009	ug/L	0.009	96	3	7	63	KED
> In	115		ug/L			494263	457235	0	Standard
| Ag	107	-0.000	ug/L	0.001	375	53	46	22	Standard
| Ba	135	19.449	ug/L	0.234	1	15	103026	0	Standard
| Ba	137	19.409	ug/L	0.370	1	16	183823	1	Standard
> Tb	159		ug/L			184968	175956	0	Standard
| Pb	208	0.110	ug/L	0.002	1	252	9480	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:44:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24303	5	Standard
[> Sc	45		ug/L			566891	576791	3	Standard
| Cr	52	0.036	ug/L	0.027	76	10103	10807	3	Standard
| Cr	53	0.024	ug/L	0.004	15	90	133	5	Standard
[> Ge	72		ug/L			32698	33136	1	KED
| Ni	60	0.001	ug/L	0.002	203	3	5	66	KED
| Ni	62	-0.000	ug/L	0.009	6668	3	3	69	KED
| Cu	63	-0.001	ug/L	0.001	138	24	20	24	KED
| Cu	65	-0.001	ug/L	0.003	284	17	15	37	KED
| Zn	66	0.053	ug/L	0.010	18	20	50	9	KED
| Zn	67	0.042	ug/L	0.022	52	3	7	25	KED
| As	75	-0.004	ug/L	0.006	153	3	2	68	KED
Y	89		ug/L			53020	52970	2	Standard
Kr	83		ug/L			39	34	8	Standard
[> In-1	115		ug/L			7060	6842	2	KED
| Cd	111	-0.005	ug/L	0.007	143	2	0	173	KED
| Cd	114	-0.003	ug/L	0.002	57	3	1	90	KED
[> In	115		ug/L			494263	506336	1	Standard
| Ag	107	-0.001	ug/L	0.000	21	53	30	18	Standard
| Ba	135	0.002	ug/L	0.001	49	15	26	21	Standard
| Ba	137	0.003	ug/L	0.001	35	16	48	23	Standard
[> Tb	159		ug/L			184968	187814	2	Standard
| Pb	208	0.003	ug/L	0.000	5	252	556	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:48:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	24269	4	Standard
[> Sc	45		ug/L			566891	590553	1	Standard
| Cr	52	51.066	ug/L	0.308	0	10103	787666	1	Standard
| Cr	53	49.455	ug/L	0.522	1	90	88228	1	Standard
[> Ge	72		ug/L			32698	33288	2	KED
| Ni	60	49.520	ug/L	1.070	2	3	79212	1	KED
| Ni	62	50.158	ug/L	1.195	2	3	12858	0	KED
| Cu	63	50.304	ug/L	2.007	3	24	225023	1	KED
| Cu	65	50.399	ug/L	1.418	2	17	115756	1	KED
| Zn	66	51.639	ug/L	1.107	2	20	28433	1	KED
| Zn	67	50.767	ug/L	0.397	0	3	4551	1	KED
| As	75	49.807	ug/L	1.104	2	3	13296	0	KED
Y	89		ug/L			53020	54784	0	Standard
Kr	83		ug/L			39	47	4	Standard
[> In-1	115		ug/L			7060	6811	3	KED
| Cd	111	51.475	ug/L	1.428	2	2	12706	0	KED
| Cd	114	51.093	ug/L	1.398	2	3	32450	1	KED
[> In	115		ug/L			494263	508399	2	Standard
| Ag	107	48.081	ug/L	1.462	3	53	803607	0	Standard
| Ba	135	48.411	ug/L	0.773	1	15	285047	1	Standard
| Ba	137	48.840	ug/L	0.572	1	16	514273	2	Standard
[> Tb	159		ug/L			184968	194510	1	Standard
| Pb	208	52.796	ug/L	1.254	2	252	4913375	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 19:56:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	23676	7	Standard
[>	Sc	45	ug/L			566891	595773	0	Standard
|	Cr	52	ug/L	0.018	43	10103	9984	3	Standard
|	Cr	53	ug/L	0.005	27	90	63	14	Standard
[>	Ge	72	ug/L			32698	32613	1	KED
|	Ni	60	ug/L	0.001	345	3	4	49	KED
|	Ni	62	ug/L	0.005	5394	3	3	34	KED
|	Cu	63	ug/L	0.003	144	24	33	39	KED
|	Cu	65	ug/L	0.002	574	17	16	24	KED
|	Zn	66	ug/L	0.002	15	20	12	8	KED
|	Zn	67	ug/L	0.045	306	3	5	78	KED
|	As	75	ug/L	0.004	298	3	2	33	KED
|	Y	89	ug/L			53020	54754	2	Standard
|	Kr	83	ug/L			39	36	18	Standard
[>	In-1	115	ug/L			7060	7291	3	KED
|	Cd	111	ug/L	0.009	818	2	2	94	KED
|	Cd	114	ug/L	0.001	91	3	4	26	KED
[>	In	115	ug/L			494263	530983	2	Standard
|	Ag	107	ug/L	0.001	69	53	74	16	Standard
|	Ba	135	ug/L	0.001	164	15	12	45	Standard
|	Ba	137	ug/L	0.001	103	16	31	44	Standard
[>	Tb	159	ug/L			184968	189359	0	Standard
|	Pb	208	ug/L	0.000	20	252	351	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:21:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26311	30742	2	Standard
[> Sc	45		ug/L			566891	624857	1	Standard
| Cr	52	0.084	ug/L	0.034	40	10103	12489	5	Standard
| Cr	53	0.132	ug/L	0.039	29	90	350	22	Standard
[> Ge	72		ug/L			32698	35356	3	KED
| Ni	60	0.546	ug/L	0.226	41	3	922	37	KED
| Ni	62	0.552	ug/L	0.142	25	3	153	22	KED
| Cu	63	0.023	ug/L	0.003	11	24	133	9	KED
| Cu	65	0.022	ug/L	0.011	48	17	72	36	KED
| Zn	66	0.601	ug/L	0.108	17	20	372	12	KED
| Zn	67	0.587	ug/L	0.108	18	3	59	13	KED
| As	75	-0.003	ug/L	0.003	102	3	2	26	KED
Y	89		ug/L			53020	55653	0	Standard
Kr	83		ug/L			39	54	22	Standard
[> In-1	115		ug/L			7060	7908	3	KED
| Cd	111	-0.003	ug/L	0.007	242	2	1	124	KED
| Cd	114	0.001	ug/L	0.004	386	3	4	68	KED
[> In	115		ug/L			494263	523603	3	Standard
| Ag	107	0.000	ug/L	0.001	196	53	64	19	Standard
| Ba	135	0.121	ug/L	0.027	22	15	751	23	Standard
| Ba	137	0.118	ug/L	0.013	11	16	1298	13	Standard
[> Tb	159		ug/L			184968	191054	1	Standard
| Pb	208	0.005	ug/L	0.000	7	252	724	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:26:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				27881	1	Standard
[>	Sc	45	ug/L				600447	1	Standard
|	Cr	52	ug/L				10860	1	Standard
|	Cr	53	ug/L				113	5	Standard
[>	Ge	72	ug/L				35776	2	KED
|	Ni	60	ug/L				145	17	KED
|	Ni	62	ug/L				28	29	KED
|	Cu	63	ug/L				53	12	KED
|	Cu	65	ug/L				29	13	KED
|	Zn	66	ug/L				87	12	KED
|	Zn	67	ug/L				19	11	KED
|	As	75	ug/L				2	44	KED
	Y	89	ug/L				55660	0	Standard
	Kr	83	ug/L				44	13	Standard
[>	In-1	115	ug/L				7587	4	KED
|	Cd	111	ug/L				4	13	KED
|	Cd	114	ug/L				1	106	KED
[>	In	115	ug/L				519229	3	Standard
|	Ag	107	ug/L				33	13	Standard
[>	Tb	159	ug/L				190542	1	Standard
|	Pb	208	ug/L				524	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:30:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	29050	1	Standard
[> Sc	45		ug/L			600447	626146	0	Standard
| Cr	52	49.167	ug/L	0.927	1	10860	804779	2	Standard
| Cr	53	49.187	ug/L	0.914	1	113	93067	2	Standard
[> Ge	72		ug/L			35776	35306	0	KED
| Ni	60	48.708	ug/L	1.092	2	145	82805	2	KED
| Ni	62	48.519	ug/L	1.369	2	28	13221	2	KED
| Cu	63	49.493	ug/L	0.730	1	53	234973	1	KED
| Cu	65	49.388	ug/L	0.330	0	29	120371	1	KED
| Zn	66	50.574	ug/L	1.281	2	87	29610	2	KED
| Zn	67	50.034	ug/L	0.468	0	19	4773	1	KED
| As	75	49.621	ug/L	0.526	1	2	14052	0	KED
Y	89		ug/L			55660	56069	3	Standard
Kr	83		ug/L			44	62	6	Standard
[> In-1	115		ug/L			7587	7367	0	KED
| Cd	111	50.587	ug/L	0.561	1	4	13516	1	KED
| Cd	114	50.851	ug/L	0.642	1	1	34948	1	KED
[> In	115		ug/L			519229	515799	3	Standard
| Ag	107	47.565	ug/L	1.435	3	33	806664	2	Standard
[> Tb	159		ug/L			190542	197846	0	Standard
| Pb	208	49.588	ug/L	0.492	0	524	4695653	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 20:37:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	30403	3	Standard
[>	Sc	45	ug/L			600447	612688	0	Standard
|	Cr	52	-0.028	0.012	42	10860	10643	1	Standard
|	Cr	53	-0.019	0.007	33	113	80	16	Standard
[>	Ge	72	ug/L			35776	35407	2	KED
|	Ni	60	-0.008	0.005	61	145	130	8	KED
|	Ni	62	-0.052	0.015	29	28	13	28	KED
|	Cu	63	0.002	0.001	24	53	64	6	KED
|	Cu	65	-0.001	0.004	251	29	25	35	KED
|	Zn	66	-0.024	0.007	30	87	72	4	KED
|	Zn	67	-0.091	0.043	47	19	10	36	KED
|	As	75	0.010	0.003	36	2	4	22	KED
	Y	89	ug/L			55660	55266	2	Standard
	Kr	83	ug/L			44	45	19	Standard
[>	In-1	115	ug/L			7587	7638	0	KED
|	Cd	111	-0.008	0.000	0	4	1		KED
|	Cd	114	0.002	0.001	80	1	3	34	KED
[>	In	115	ug/L			519229	538099	1	Standard
|	Ag	107	0.004	0.001	16	33	101	10	Standard
[>	Tb	159	ug/L			190542	193312	1	Standard
|	Pb	208	0.001	0.000	34	524	610	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:44:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40138	4	Standard
[> Sc	45		ug/L			600447	621245	1	Standard
[Cr	52	0.003	ug/L	0.001	45	10860	11280	1	Standard
[Cr	53	0.007	ug/L	0.004	47	113	131	4	Standard
[> Ge	72		ug/L			35776	35226	1	KED
[Ni	60	0.016	ug/L	0.020	127	145	170	19	KED
[Ni	62	0.011	ug/L	0.039	354	28	31	33	KED
[Cu	63	0.003	ug/L	0.003	102	53	67	23	KED
[Cu	65	0.007	ug/L	0.002	30	29	46	11	KED
[Zn	66	0.068	ug/L	0.015	22	87	125	6	KED
[Zn	67	0.057	ug/L	0.101	177	19	24	38	KED
[As	75	-0.003	ug/L	0.003	105	2	1	78	KED
Y	89		ug/L			55660	55969	0	Standard
Kr	83		ug/L			44	39	14	Standard
[> In-1	115		ug/L			7587	7906	1	KED
[Cd	111	-0.007	ug/L	0.008	103	4	2	98	KED
[Cd	114	0.002	ug/L	0.005	193	1	3	93	KED
[> In	115		ug/L			519229	537592	1	Standard
[Ag	107	0.005	ug/L	0.004	76	33	119	54	Standard
[> Tb	159		ug/L			190542	199925	0	Standard
[Pb	208	0.006	ug/L	0.005	84	524	1100	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:48:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37980	2	Standard
[> Sc	45		ug/L			600447	626934	1	Standard
[Cr	52	25.864	ug/L	0.160	0	10860	429230	1	Standard
[Cr	53	25.501	ug/L	0.209	0	113	48367	2	Standard
[> Ge	72		ug/L			35776	35083	0	KED
[Ni	60	26.314	ug/L	0.807	3	145	44509	2	KED
[Ni	62	25.633	ug/L	0.562	2	28	6954	1	KED
[Cu	63	27.020	ug/L	0.634	2	53	127486	1	KED
[Cu	65	27.020	ug/L	0.828	3	29	65447	2	KED
[Zn	66	81.453	ug/L	3.084	3	87	47326	3	KED
[Zn	67	77.935	ug/L	0.929	1	19	7377	0	KED
[As	75	24.974	ug/L	0.394	1	2	7029	1	KED
Y	89		ug/L			55660	56955	1	Standard
Kr	83		ug/L			44	48	19	Standard
[> In-1	115		ug/L			7587	7518	2	KED
[Cd	111	25.173	ug/L	0.343	1	4	6865	2	KED
[Cd	114	25.138	ug/L	0.825	3	1	17623	1	KED
[> In	115		ug/L			519229	527783	1	Standard
[Ag	107	25.955	ug/L	0.935	3	33	450479	2	Standard
[> Tb	159		ug/L			190542	197638	2	Standard
[Pb	208	26.529	ug/L	0.826	3	524	2508791	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:53:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37385	3	Standard
[> Sc	45		ug/L			600447	615099	2	Standard
[Cr	52	0.015	ug/L	0.013	88	10860	11362	1	Standard
[Cr	53	0.002	ug/L	0.005	210	113	120	5	Standard
[> Ge	72		ug/L			35776	34993	1	KED
[Ni	60	0.065	ug/L	0.008	12	145	250	4	KED
[Ni	62	0.021	ug/L	0.042	200	28	33	34	KED
[Cu	63	0.010	ug/L	0.004	39	53	97	17	KED
[Cu	65	0.009	ug/L	0.003	34	29	51	16	KED
[Zn	66	0.232	ug/L	0.032	13	87	219	8	KED
[Zn	67	0.207	ug/L	0.030	14	19	38	7	KED
[As	75	0.001	ug/L	0.009	1125	2	2	105	KED
Y	89		ug/L			55660	55904	3	Standard
Kr	83		ug/L			44	43	15	Standard
[> In-1	115		ug/L			7587	7454	2	KED
[Cd	111	-0.002	ug/L	0.002	84	4	3	15	KED
[Cd	114	0.003	ug/L	0.002	75	1	3	40	KED
[> In	115		ug/L			519229	537278	1	Standard
[Ag	107	0.005	ug/L	0.002	53	33	116	35	Standard
[> Tb	159		ug/L			190542	195405	3	Standard
[Pb	208	0.006	ug/L	0.001	16	524	1060	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 20:57:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36094	2	Standard
[> Sc	45		ug/L			600447	572755	(10)	Standard
| Cr	52	27.852	ug/L	2.315	8	10860	419085	4	Standard
| Cr	53	27.110	ug/L	1.969	7	113	46728	4	Standard
[> Ge	72		ug/L			35776	35198	0	KED
| Ni	60	25.504	ug/L	0.222	0	145	43291	1	KED
| Ni	62	25.791	ug/L	0.614	2	28	7019	1	KED
| Cu	63	26.575	ug/L	0.425	1	53	125806	1	KED
| Cu	65	26.358	ug/L	0.294	1	29	64056	1	KED
| Zn	66	79.691	ug/L	1.477	1	87	46463	1	KED
| Zn	67	76.937	ug/L	1.501	1	19	7307	2	KED
| As	75	24.014	ug/L	0.245	1	2	6781	0	KED
Y	89		ug/L			55660	53298	9	Standard
Kr	83		ug/L			44	53	40	Standard
[> In-1	115		ug/L			7587	7340	4	KED
| Cd	111	25.290	ug/L	0.565	2	4	6730	1	KED
| Cd	114	25.211	ug/L	0.729	2	1	17251	1	KED
[> In	115		ug/L			519229	495969	(9)	Standard
| Ag	107	26.638	ug/L	2.172	8	33	432404	2	Standard
[> Tb	159		ug/L			190542	186305	(10)	Standard
| Pb	208	27.713	ug/L	2.476	8	524	2455977	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:02:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	49327	2	Standard
[> Sc	45		ug/L			600447	731706	2	Standard
[Cr	52	12.124	ug/L	0.147	1	10860	241826	1	Standard
[Cr	53	12.156	ug/L	0.116	0	113	26975	1	Standard
[> Ge	72		ug/L			35776	34902	1	KED
[Ni	60	10.919	ug/L	0.231	2	145	18456	0	KED
[Ni	62	10.987	ug/L	0.493	4	28	2979	2	KED
[Cu	63	24.875	ug/L	0.831	3	53	116737	1	KED
[Cu	65	24.816	ug/L	0.603	2	29	59790	0	KED
[Zn	66	53.146	ug/L	1.002	1	87	30749	0	KED
[Zn	67	51.278	ug/L	1.131	2	19	4834	0	KED
[As	75	5.436	ug/L	0.145	2	2	1523	2	KED
[Y	89		ug/L			55660	260380	0	Standard
[Kr	83		ug/L			44	76	23	Standard
[> In-1	115		ug/L			7587	7321	2	KED
[Cd	111	0.108	ug/L	0.008	7	4	32	8	KED
[Cd	114	0.152	ug/L	0.016	10	1	105	10	KED
[> In	115		ug/L			519229	519189	4	Standard
[Ag	107	0.100	ug/L	0.001	0	33	1748	4	Standard
[> Tb	159		ug/L			190542	217094	0	Standard
[Pb	208	9.840	ug/L	0.276	2	524	1022869	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-DUP2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:07:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	48948	3	Standard
> Sc	45		ug/L			600447	717992	2	Standard
| Cr	52	12.278	ug/L	0.108	0	10860	240147	1	Standard
| Cr	53	12.202	ug/L	0.281	2	113	26574	3	Standard
> Ge	72		ug/L			35776	34652	1	KED
| Ni	60	11.215	ug/L	0.148	1	145	18817	0	KED
| Ni	62	10.981	ug/L	0.055	0	28	2958	1	KED
| Cu	63	24.789	ug/L	0.125	0	53	115536	1	KED
| Cu	65	25.011	ug/L	0.663	2	29	59828	1	KED
| Zn	66	52.626	ug/L	0.823	1	87	30233	1	KED
| Zn	67	51.295	ug/L	1.023	1	19	4802	2	KED
| As	75	5.303	ug/L	0.187	3	2	1475	2	KED
Y	89		ug/L			55660	264619	1	Standard
Kr	83		ug/L			44	89	9	Standard
> In-1	115		ug/L			7587	7338	4	KED
| Cd	111	0.127	ug/L	0.015	11	4	37	6	KED
| Cd	114	0.124	ug/L	0.007	5	1	86	9	KED
> In	115		ug/L			519229	507795	1	Standard
| Ag	107	0.096	ug/L	0.003	3	33	1642	4	Standard
> Tb	159		ug/L			190542	217783	1	Standard
| Pb	208	9.267	ug/L	0.055	0	524	966473	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:12:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	43798	4	Standard
[> Sc	45		ug/L			600447	712380	2	Standard
[Cr	52	33.848	ug/L	0.696	2	10860	634231	2	Standard
[Cr	53	33.218	ug/L	0.454	1	113	71537	1	Standard
[> Ge	72		ug/L			35776	34769	1	KED
[Ni	60	35.480	ug/L	0.262	0	145	59435	1	KED
[Ni	62	35.792	ug/L	0.375	1	28	9613	2	KED
[Cu	63	49.044	ug/L	0.181	0	53	229305	0	KED
[Cu	65	49.587	ug/L	0.401	0	29	119023	1	KED
[Zn	66	127.164	ug/L	1.063	0	87	73182	0	KED
[Zn	67	123.226	ug/L	4.628	3	19	11545	2	KED
[As	75	28.650	ug/L	0.300	1	2	7990	0	KED
[Y	89		ug/L			55660	263207	0	Standard
[Kr	83		ug/L			44	70	9	Standard
[> In-1	115		ug/L			7587	7271	0	KED
[Cd	111	24.050	ug/L	0.279	1	4	6344	0	KED
[Cd	114	24.062	ug/L	0.530	2	1	16324	2	KED
[> In	115		ug/L			519229	498952	2	Standard
[Ag	107	20.136	ug/L	0.422	2	33	330380	0	Standard
[> Tb	159		ug/L			190542	217190	0	Standard
[Pb	208	31.824	ug/L	0.401	1	524	3308209	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-MSD2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:16:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42886	5	Standard
[> Sc	45		ug/L			600447	713189	2	Standard
[Cr	52	32.799	ug/L	0.728	2	10860	615560	1	Standard
[Cr	53	32.872	ug/L	0.464	1	113	70870	1	Standard
[> Ge	72		ug/L			35776	34920	2	KED
[Ni	60	34.594	ug/L	0.175	0	145	58202	1	KED
[Ni	62	34.631	ug/L	1.105	3	28	9337	1	KED
[Cu	63	47.676	ug/L	1.144	2	53	223798	0	KED
[Cu	65	47.132	ug/L	2.056	4	29	113539	2	KED
[Zn	66	125.287	ug/L	2.668	2	87	72401	1	KED
[Zn	67	124.246	ug/L	1.881	1	19	11692	1	KED
[As	75	27.961	ug/L	0.434	1	2	7831	1	KED
[Y	89		ug/L			55660	247812	1	Standard
[Kr	83		ug/L			44	69	20	Standard
[> In-1	115		ug/L			7587	7305	2	KED
[Cd	111	24.552	ug/L	0.448	1	4	6504	0	KED
[Cd	114	24.586	ug/L	1.060	4	1	16749	3	KED
[> In	115		ug/L			519229	504337	3	Standard
[Ag	107	17.259	ug/L	0.157	0	33	286300	2	Standard
[> Tb	159		ug/L			190542	221250	1	Standard
[Pb	208	30.874	ug/L	0.352	1	524	3269435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0687-PS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:21:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27881	48757	4	Standard
[>	Sc	45		ug/L			600447	729719	3	Standard
|	Cr	52	33.107	ug/L	0.489	1	10860	635718	2	Standard
|	Cr	53	32.943	ug/L	0.273	0	113	72672	2	Standard
[>	Ge	72		ug/L			35776	34959	1	KED
|	Ni	60	36.373	ug/L	0.157	0	145	61261	1	KED
|	Ni	62	36.640	ug/L	0.186	0	28	9894	1	KED
|	Cu	63	49.754	ug/L	0.930	1	53	233872	1	KED
|	Cu	65	49.585	ug/L	0.881	1	29	119664	2	KED
|	Zn	66	132.457	ug/L	3.739	2	87	76640	2	KED
|	Zn	67	126.800	ug/L	2.433	1	19	11947	1	KED
|	As	75	30.260	ug/L	0.577	1	2	8485	0	KED
	Y	89		ug/L			55660	274282	1	Standard
	Kr	83		ug/L			44	81	11	Standard
[>	In-1	115		ug/L			7587	7422	1	KED
|	Cd	111	25.084	ug/L	0.224	0	4	6753	0	KED
|	Cd	114	25.290	ug/L	0.359	1	1	17510	0	KED
[>	In	115		ug/L			519229	501845	2	Standard
|	Ag	107	24.345	ug/L	0.418	1	33	401777	1	Standard
[>	Tb	159		ug/L			190542	220281	1	Standard
|	Pb	208	32.333	ug/L	0.276	0	524	3409321	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:25:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	28733	3	Standard
[> Sc	45		ug/L			600447	603287	2	Standard
| Cr	52	-0.017	ug/L	0.014	80	10860	10646	3	Standard
| Cr	53	0.002	ug/L	0.010	424	113	118	17	Standard
[> Ge	72		ug/L			35776	35096	0	KED
| Ni	60	0.102	ug/L	0.008	7	145	314	4	KED
| Ni	62	0.112	ug/L	0.027	23	28	58	12	KED
| Cu	63	0.004	ug/L	0.001	33	53	71	8	KED
| Cu	65	0.005	ug/L	0.009	160	29	41	51	KED
| Zn	66	0.017	ug/L	0.010	60	87	95	6	KED
| Zn	67	-0.043	ug/L	0.035	81	19	15	21	KED
| As	75	0.000	ug/L	0.003	2492	2	2	44	KED
Y	89		ug/L			55660	53844	3	Standard
Kr	83		ug/L			44	50	7	Standard
[> In-1	115		ug/L			7587	7525	0	KED
| Cd	111	-0.003	ug/L	0.002	62	4	3	17	KED
| Cd	114	0.004	ug/L	0.006	149	1	4	90	KED
[> In	115		ug/L			519229	512731	3	Standard
| Ag	107	0.002	ug/L	0.000	11	33	68	8	Standard
[> Tb	159		ug/L			190542	193475	1	Standard
| Pb	208	0.000	ug/L	0.000	135	524	539	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:29:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27927	5	Standard
[> Sc	45		ug/L			600447	636370	1	Standard
| Cr	52	49.675	ug/L	0.721	1	10860	826310	2	Standard
| Cr	53	48.401	ug/L	0.534	1	113	93080	2	Standard
[> Ge	72		ug/L			35776	34775	2	KED
| Ni	60	49.673	ug/L	0.162	0	145	83169	2	KED
| Ni	62	50.020	ug/L	0.731	1	28	13424	2	KED
| Cu	63	50.381	ug/L	1.600	3	53	235511	1	KED
| Cu	65	49.220	ug/L	1.166	2	29	118121	0	KED
| Zn	66	51.392	ug/L	1.224	2	87	29629	2	KED
| Zn	67	52.114	ug/L	1.313	2	19	4897	4	KED
| As	75	50.182	ug/L	0.760	1	2	13995	0	KED
Y	89		ug/L			55660	56443	3	Standard
Kr	83		ug/L			44	49	15	Standard
[> In-1	115		ug/L			7587	7362	1	KED
| Cd	111	49.881	ug/L	1.210	2	4	13314	1	KED
| Cd	114	50.034	ug/L	1.724	3	1	34349	1	KED
[> In	115		ug/L			519229	514927	3	Standard
| Ag	107	48.588	ug/L	2.233	4	33	822157	2	Standard
[> Tb	159		ug/L			190542	200300	2	Standard
| Pb	208	50.450	ug/L	1.358	2	524	4835024	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 21:37:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	26930	5	Standard
[> Sc	45		ug/L			600447	613915	1	Standard
| Cr	52	-0.009	ug/L	0.004	42	10860	10962	2	Standard
| Cr	53	0.011	ug/L	0.007	64	113	135	7	Standard
[> Ge	72		ug/L			35776	34316	3	KED
| Ni	60	0.071	ug/L	0.027	37	145	257	19	KED
| Ni	62	0.060	ug/L	0.053	89	28	43	33	KED
| Cu	63	0.023	ug/L	0.025	111	53	158	76	KED
| Cu	65	0.023	ug/L	0.027	118	29	82	79	KED
| Zn	66	-0.028	ug/L	0.029	104	87	68	26	KED
| Zn	67	-0.033	ug/L	0.051	155	19	15	30	KED
| As	75	0.014	ug/L	0.024	172	2	6	112	KED
Y	89		ug/L			55660	54932	0	Standard
Kr	83		ug/L			44	48	18	Standard
[> In-1	115		ug/L			7587	7637	1	KED
| Cd	111	-0.009	ug/L	0.007	75	4	1	124	KED
| Cd	114	-0.000	ug/L	0.003	3557	1	1	113	KED
[> In	115		ug/L			519229	519681	1	Standard
| Ag	107	0.003	ug/L	0.000	6	33	78	5	Standard
[> Tb	159		ug/L			190542	193231	0	Standard
| Pb	208	0.001	ug/L	0.000	30	524	613	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:41:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45032	3	Standard
> Sc	45		ug/L			600447	742114	2	Standard
| Cr	52	15.234	ug/L	0.188	1	10860	304818	3	Standard
| Cr	53	14.955	ug/L	0.198	1	113	33634	2	Standard
> Ge	72		ug/L			35776	34523	2	KED
| Ni	60	13.744	ug/L	0.476	3	145	22932	0	KED
| Ni	62	13.777	ug/L	0.715	5	28	3687	2	KED
| Cu	63	35.145	ug/L	1.144	3	53	163083	1	KED
| Cu	65	34.406	ug/L	1.355	3	29	81948	1	KED
| Zn	66	67.279	ug/L	2.612	3	87	38459	1	KED
| Zn	67	66.917	ug/L	3.870	5	19	6229	3	KED
| As	75	7.207	ug/L	0.238	3	2	1996	1	KED
Y	89		ug/L			55660	305809	2	Standard
Kr	83		ug/L			44	67	10	Standard
> In-1	115		ug/L			7587	7350	2	KED
| Cd	111	0.179	ug/L	0.026	14	4	51	12	KED
| Cd	114	0.231	ug/L	0.005	2	1	160	4	KED
> In	115		ug/L			519229	505016	3	Standard
| Ag	107	0.154	ug/L	0.013	8	33	2584	4	Standard
> Tb	159		ug/L			190542	223968	1	Standard
| Pb	208	14.203	ug/L	0.190	1	524	1522706	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:45:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42622	4	Standard
[> Sc	45		ug/L			600447	690566	8	Standard
| Cr	52	15.019	ug/L	0.756	5	10860	279010	4	Standard
| Cr	53	14.873	ug/L	0.661	4	113	31049	4	Standard
[> Ge	72		ug/L			35776	34971	0	KED
| Ni	60	12.825	ug/L	0.224	1	145	21699	1	KED
| Ni	62	13.074	ug/L	0.636	4	28	3549	5	KED
| Cu	63	30.875	ug/L	0.469	1	53	145218	1	KED
| Cu	65	31.639	ug/L	0.368	1	29	76384	0	KED
| Zn	66	60.680	ug/L	0.755	1	87	35170	1	KED
| Zn	67	58.931	ug/L	1.790	3	19	5565	3	KED
| As	75	6.862	ug/L	0.217	3	2	1927	3	KED
| Y	89		ug/L			55660	279514	1	Standard
| Kr	83		ug/L			44	93	4	Standard
[> In-1	115		ug/L			7587	7541	3	KED
| Cd	111	0.206	ug/L	0.031	15	4	60	12	KED
| Cd	114	0.210	ug/L	0.029	13	1	149	12	KED
[> In	115		ug/L			519229	467677	10	Standard
| Ag	107	0.158	ug/L	0.011	6	33	2457	6	Standard
[> Tb	159		ug/L			190542	208844	7	Standard
| Pb	208	14.122	ug/L	0.952	6	524	1406990	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:50:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42039	1	Standard
[> Sc	45		ug/L			600447	722307	1	Standard
| Cr	52	15.403	ug/L	0.058	0	10860	299782	1	Standard
| Cr	53	15.134	ug/L	0.260	1	113	33122	1	Standard
[> Ge	72		ug/L			35776	34398	1	KED
| Ni	60	13.305	ug/L	0.513	3	145	22132	2	KED
| Ni	62	13.397	ug/L	0.866	6	28	3575	5	KED
| Cu	63	36.367	ug/L	0.976	2	53	168193	1	KED
| Cu	65	36.194	ug/L	1.342	3	29	85923	2	KED
| Zn	66	67.215	ug/L	1.956	2	87	38301	1	KED
| Zn	67	67.347	ug/L	2.218	3	19	6251	2	KED
| As	75	8.338	ug/L	0.373	4	2	2301	3	KED
Y	89		ug/L			55660	280878	1	Standard
Kr	83		ug/L			44	83	13	Standard
[> In-1	115		ug/L			7587	7122	1	KED
| Cd	111	0.253	ug/L	0.034	13	4	69	11	KED
| Cd	114	0.270	ug/L	0.039	14	1	180	15	KED
[> In	115		ug/L			519229	504674	3	Standard
| Ag	107	0.171	ug/L	0.006	3	33	2876	3	Standard
[> Tb	159		ug/L			190542	219689	1	Standard
| Pb	208	16.464	ug/L	0.545	3	524	1730980	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:54:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42806	1	Standard
[> Sc	45		ug/L			600447	716286	1	Standard
[Cr	52	14.519	ug/L	0.159	1	10860	281010	2	Standard
[Cr	53	14.343	ug/L	0.209	1	113	31134	0	Standard
[> Ge	72		ug/L			35776	35309	1	KED
[Ni	60	11.887	ug/L	0.160	1	145	20315	0	KED
[Ni	62	12.515	ug/L	0.232	1	28	3432	3	KED
[Cu	63	30.686	ug/L	0.194	0	53	145729	2	KED
[Cu	65	30.856	ug/L	0.789	2	29	75198	0	KED
[Zn	66	59.607	ug/L	0.519	0	87	34885	2	KED
[Zn	67	59.174	ug/L	0.672	1	19	5643	3	KED
[As	75	6.641	ug/L	0.158	2	2	1883	3	KED
Y	89		ug/L			55660	284193	1	Standard
Kr	83		ug/L			44	70	37	Standard
[> In-1	115		ug/L			7587	7365	0	KED
[Cd	111	0.162	ug/L	0.039	24	4	47	21	KED
[Cd	114	0.184	ug/L	0.024	12	1	128	12	KED
[> In	115		ug/L			519229	495838	1	Standard
[Ag	107	0.144	ug/L	0.007	4	33	2379	5	Standard
[> Tb	159		ug/L			190542	222154	1	Standard
[Pb	208	13.638	ug/L	0.162	1	524	1450648	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 21:59:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44599	4	Standard
[> Sc	45		ug/L			600447	731713	0	Standard
[Cr	52	14.739	ug/L	0.210	1	10860	291190	1	Standard
[Cr	53	14.638	ug/L	0.276	1	113	32460	2	Standard
[> Ge	72		ug/L			35776	35401	1	KED
[Ni	60	12.912	ug/L	0.463	3	145	22105	1	KED
[Ni	62	13.360	ug/L	0.173	1	28	3671	2	KED
[Cu	63	30.949	ug/L	0.224	0	53	147347	1	KED
[Cu	65	30.919	ug/L	0.887	2	29	75545	1	KED
[Zn	66	59.526	ug/L	1.559	2	87	34920	1	KED
[Zn	67	58.622	ug/L	1.849	3	19	5602	1	KED
[As	75	6.546	ug/L	0.025	0	2	1860	2	KED
Y	89		ug/L			55660	287110	1	Standard
Kr	83		ug/L			44	80	8	Standard
[> In-1	115		ug/L			7587	7523	1	KED
[Cd	111	0.226	ug/L	0.023	10	4	65	8	KED
[Cd	114	0.271	ug/L	<u>0.051</u>	18	1	192	19	KED
[> In	115		ug/L			519229	509267	1	Standard
[Ag	107	0.139	ug/L	0.004	2	33	2357	2	Standard
[> Tb	159		ug/L			190542	226516	2	Standard
[Pb	208	13.207	ug/L	0.260	1	524	1431982	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:03:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45160	2	Standard
[> Sc	45		ug/L			600447	709676	1	Standard
[Cr	52	15.013	ug/L	0.150	0	10860	287439	2	Standard
[Cr	53	14.978	ug/L	0.160	1	113	32210	0	Standard
[> Ge	72		ug/L			35776	35230	1	KED
[Ni	60	13.396	ug/L	0.331	2	145	22823	1	KED
[Ni	62	13.330	ug/L	0.172	1	28	3645	2	KED
[Cu	63	30.968	ug/L	0.110	0	53	146728	1	KED
[Cu	65	31.310	ug/L	0.657	2	29	76161	2	KED
[Zn	66	63.015	ug/L	0.738	1	87	36788	0	KED
[Zn	67	62.204	ug/L	1.138	1	19	5916	2	KED
[As	75	6.961	ug/L	0.186	2	2	1968	1	KED
Y	89		ug/L			55660	283560	1	Standard
Kr	83		ug/L			44	85	22	Standard
[> In-1	115		ug/L			7587	7404	1	KED
[Cd	111	0.232	ug/L	0.043	18	4	66	17	KED
[Cd	114	0.233	ug/L	0.017	7	1	162	8	KED
[> In	115		ug/L			519229	492481	0	Standard
[Ag	107	0.145	ug/L	0.004	2	33	2386	3	Standard
[> Tb	159		ug/L			190542	220224	3	Standard
[Pb	208	13.158	ug/L	0.300	2	524	1386701	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:08:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41520	3	Standard
> Sc	45		ug/L			600447	717446	3	Standard
| Cr	52	33.556	ug/L	0.650	1	10860	633326	3	Standard
| Cr	53	33.648	ug/L	0.689	2	113	72972	2	Standard
> Ge	72		ug/L			35776	35212	3	KED
| Ni	60	35.184	ug/L	2.100	5	145	59616	2	KED
| Ni	62	34.676	ug/L	1.662	4	28	9422	1	KED
| Cu	63	52.193	ug/L	2.020	3	53	246942	1	KED
| Cu	65	52.053	ug/L	2.137	4	29	126415	1	KED
| Zn	66	126.817	ug/L	6.484	5	87	73838	2	KED
| Zn	67	124.720	ug/L	2.442	1	19	11832	1	KED
| As	75	27.696	ug/L	0.850	3	2	7818	0	KED
Y	89		ug/L			55660	271396	0	Standard
Kr	83		ug/L			44	100	14	Standard
> In-1	115		ug/L			7587	7455	2	KED
| Cd	111	22.716	ug/L	0.408	1	4	6142	1	KED
| Cd	114	22.248	ug/L	0.741	3	1	15469	2	KED
> In	115		ug/L			519229	514419	4	Standard
| Ag	107	18.205	ug/L	0.801	4	33	307640	0	Standard
> Tb	159		ug/L			190542	221393	0	Standard
| Pb	208	33.456	ug/L	0.468	1	524	3545238	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:12:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44015	3	Standard
[> Sc	45		ug/L			600447	721052	3	Standard
[Cr	52	36.977	ug/L	0.616	1	10860	700011	2	Standard
[Cr	53	37.171	ug/L	1.010	2	113	80983	2	Standard
[> Ge	72		ug/L			35776	34237	2	KED
[Ni	60	39.106	ug/L	0.914	2	145	64469	0	KED
[Ni	62	38.644	ug/L	0.795	2	28	10214	0	KED
[Cu	63	57.815	ug/L	0.699	1	53	266134	1	KED
[Cu	65	57.115	ug/L	0.664	1	29	134960	1	KED
[Zn	66	142.699	ug/L	4.197	2	87	80822	0	KED
[Zn	67	135.117	ug/L	3.802	2	19	12463	1	KED
[As	75	30.878	ug/L	0.621	2	2	8478	0	KED
[Y	89		ug/L			55660	287252	1	Standard
[Kr	83		ug/L			44	95	12	Standard
[> In-1	115		ug/L			7587	7377	2	KED
[Cd	111	25.360	ug/L	0.541	2	4	6784	0	KED
[Cd	114	25.469	ug/L	0.366	1	1	17530	3	KED
[> In	115		ug/L			519229	497333	1	Standard
[Ag	107	19.764	ug/L	0.913	4	33	323142	2	Standard
[> Tb	159		ug/L			190542	219212	0	Standard
[Pb	208	37.388	ug/L	0.368	0	524	3923097	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLD0578-PS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:16:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	45372	6	Standard
[> Sc	45		ug/L			600447	718540	2	Standard
| Cr	52	36.741	ug/L	0.599	1	10860	693185	1	Standard
| Cr	53	36.056	ug/L	0.837	2	113	78288	0	Standard
[> Ge	72		ug/L			35776	34859	1	KED
| Ni	60	37.401	ug/L	0.136	0	145	62811	1	KED
| Ni	62	38.589	ug/L	0.944	2	28	10387	2	KED
| Cu	63	56.121	ug/L	0.896	1	53	263033	0	KED
| Cu	65	55.252	ug/L	1.012	1	29	132930	0	KED
| Zn	66	138.618	ug/L	1.496	1	87	79980	1	KED
| Zn	67	132.100	ug/L	4.039	3	19	12408	2	KED
| As	75	30.730	ug/L	0.687	2	2	8591	0	KED
Y	89		ug/L			55660	288018	2	Standard
Kr	83		ug/L			44	80	8	Standard
[> In-1	115		ug/L			7587	7491	3	KED
| Cd	111	24.290	ug/L	0.743	3	4	6597	1	KED
| Cd	114	24.183	ug/L	0.272	1	1	16899	2	KED
[> In	115		ug/L			519229	508102	0	Standard
| Ag	107	24.891	ug/L	0.312	1	33	416033	1	Standard
[> Tb	159		ug/L			190542	220946	1	Standard
| Pb	208	37.236	ug/L	0.193	0	524	3937864	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:21:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	27642	4	Standard
[>	Sc	45	ug/L			600447	603813	2	Standard
|	Cr	52	ug/L	0.021	41	10860	10122	2	Standard
|	Cr	53	ug/L	0.005	41	113	90	8	Standard
[>	Ge	72	ug/L			35776	35433	2	KED
|	Ni	60	ug/L	0.007	33	145	179	6	KED
|	Ni	62	ug/L	0.030	63	28	41	20	KED
|	Cu	63	ug/L	0.002	110	53	62	15	KED
|	Cu	65	ug/L	0.001	43	29	34	5	KED
|	Zn	66	ug/L	0.015	32	87	60	13	KED
|	Zn	67	ug/L	0.078	84	19	10	71	KED
|	As	75	ug/L	0.004	850	2	2	48	KED
	Y	89	ug/L			55660	56192	1	Standard
	Kr	83	ug/L			44	38	7	Standard
[>	In-1	115	ug/L			7587	7673	1	KED
|	Cd	111	ug/L	0.003	40	4	1	50	KED
|	Cd	114	ug/L	0.005	205	1	3	104	KED
[>	In	115	ug/L			519229	511235	2	Standard
|	Ag	107	ug/L	0.000	5	33	62	0	Standard
[>	Tb	159	ug/L			190542	202248	1	Standard
|	Pb	208	ug/L	0.000	102	524	535	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:25:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27192	3	Standard
[> Sc	45		ug/L			600447	608622	1	Standard
| Cr	52	50.684	ug/L	0.378	0	10860	805976	1	Standard
| Cr	53	49.678	ug/L	1.026	2	113	91340	1	Standard
[> Ge	72		ug/L			35776	35568	0	KED
| Ni	60	48.330	ug/L	0.870	1	145	82768	1	KED
| Ni	62	48.442	ug/L	0.639	1	28	13298	1	KED
| Cu	63	49.417	ug/L	0.579	1	53	236363	1	KED
| Cu	65	48.231	ug/L	1.469	3	29	118414	2	KED
| Zn	66	49.608	ug/L	0.551	1	87	29261	1	KED
| Zn	67	49.324	ug/L	1.186	2	19	4740	2	KED
| As	75	49.969	ug/L	0.076	0	2	14256	0	KED
Y	89		ug/L			55660	56809	4	Standard
Kr	83		ug/L			44	47	18	Standard
[> In-1	115		ug/L			7587	7389	1	KED
| Cd	111	49.546	ug/L	1.061	2	4	13275	1	KED
| Cd	114	49.494	ug/L	0.422	0	1	34117	1	KED
[> In	115		ug/L			519229	506372	2	Standard
| Ag	107	49.532	ug/L	0.924	1	33	824893	2	Standard
[> Tb	159		ug/L			190542	201346	2	Standard
| Pb	208	50.146	ug/L	1.169	2	524	4830970	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 22:32:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27637	6	Standard
[> Sc	45		ug/L			600447	601964	1	Standard
| Cr	52	-0.026	ug/L	0.016	62	10860	10474	1	Standard
| Cr	53	-0.005	ug/L	0.003	63	113	103	4	Standard
[> Ge	72		ug/L			35776	36137	1	KED
| Ni	60	0.016	ug/L	0.012	73	145	174	12	KED
| Ni	62	-0.044	ug/L	0.014	32	28	16	24	KED
| Cu	63	0.002	ug/L	0.003	112	53	66	21	KED
| Cu	65	0.002	ug/L	0.001	67	29	33	8	KED
| Zn	66	-0.036	ug/L	0.015	41	87	66	12	KED
| Zn	67	-0.081	ug/L	0.028	34	19	12	24	KED
| As	75	0.003	ug/L	0.007	258	2	3	65	KED
Y	89		ug/L			55660	54450	2	Standard
Kr	83		ug/L			44	43	21	Standard
[> In-1	115		ug/L			7587	7720	2	KED
| Cd	111	-0.009	ug/L	0.005	57	4	1	91	KED
| Cd	114	0.002	ug/L	0.003	180	1	2	70	KED
[> In	115		ug/L			519229	507656	1	Standard
| Ag	107	0.002	ug/L	0.001	25	33	67	14	Standard
[> Tb	159		ug/L			190542	194063	1	Standard
| Pb	208	0.000	ug/L	0.000	133	524	566	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:37:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44112	4	Standard
> Sc	45		ug/L			600447	709054	2	Standard
| Cr	52	13.866	ug/L	0.406	2	10860	266055	0	Standard
| Cr	53	14.000	ug/L	0.297	2	113	30081	1	Standard
> Ge	72		ug/L			35776	34999	2	KED
| Ni	60	11.928	ug/L	0.327	2	145	20201	1	KED
| Ni	62	11.602	ug/L	0.091	0	28	3155	1	KED
| Cu	63	30.347	ug/L	0.908	2	53	142788	1	KED
| Cu	65	29.640	ug/L	1.166	3	29	71581	1	KED
| Zn	66	67.932	ug/L	2.944	4	87	39370	2	KED
| Zn	67	65.305	ug/L	2.153	3	19	6167	1	KED
| As	75	7.893	ug/L	0.118	1	2	2217	1	KED
Y	89		ug/L			55660	269034	2	Standard
Kr	83		ug/L			44	83	10	Standard
> In-1	115		ug/L			7587	7517	0	KED
| Cd	111	0.202	ug/L	0.025	12	4	59	11	KED
| Cd	114	0.197	ug/L	0.029	14	1	139	14	KED
> In	115		ug/L			519229	510602	1	Standard
| Ag	107	0.120	ug/L	0.002	1	33	2052	2	Standard
> Tb	159		ug/L			190542	219802	3	Standard
| Pb	208	11.171	ug/L	0.325	2	524	1174869	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:41:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42440	3	Standard
[> Sc	45		ug/L			600447	715357	1	Standard
[Cr	52	12.859	ug/L	0.040	0	10860	250000	1	Standard
[Cr	53	13.009	ug/L	0.357	2	113	28218	3	Standard
[> Ge	72		ug/L			35776	34864	1	KED
[Ni	60	13.775	ug/L	0.257	1	145	23223	1	KED
[Ni	62	13.798	ug/L	0.584	4	28	3734	5	KED
[Cu	63	24.510	ug/L	0.357	1	53	114927	0	KED
[Cu	65	24.470	ug/L	0.195	0	29	58904	0	KED
[Zn	66	53.122	ug/L	1.279	2	87	30701	1	KED
[Zn	67	53.087	ug/L	0.536	1	19	4999	0	KED
[As	75	6.441	ug/L	0.043	0	2	1803	0	KED
[Y	89		ug/L			55660	266859	1	Standard
[Kr	83		ug/L			44	73	3	Standard
[> In-1	115		ug/L			7587	7219	2	KED
[Cd	111	0.125	ug/L	0.023	18	4	36	14	KED
[Cd	114	0.155	ug/L	0.036	23	1	106	25	KED
[> In	115		ug/L			519229	505027	1	Standard
[Ag	107	0.096	ug/L	0.002	2	33	1635	3	Standard
[> Tb	159		ug/L			190542	222110	1	Standard
[Pb	208	9.491	ug/L	0.215	2	524	1009179	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:46:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42216	5	Standard
[> Sc	45		ug/L			600447	737126	2	Standard
[Cr	52	15.985	ug/L	0.581	3	10860	316818	1	Standard
[Cr	53	15.684	ug/L	0.237	1	113	35018	1	Standard
[> Ge	72		ug/L			35776	34661	1	KED
[Ni	60	13.792	ug/L	0.237	1	145	23115	0	KED
[Ni	62	13.986	ug/L	0.109	0	28	3761	1	KED
[Cu	63	36.202	ug/L	0.537	1	53	168737	0	KED
[Cu	65	36.196	ug/L	0.297	0	29	86607	0	KED
[Zn	66	68.237	ug/L	0.710	1	87	39187	0	KED
[Zn	67	64.700	ug/L	1.108	1	19	6053	0	KED
[As	75	7.814	ug/L	0.160	2	2	2174	0	KED
Y	89		ug/L			55660	305716	1	Standard
Kr	83		ug/L			44	94	9	Standard
[> In-1	115		ug/L			7587	7387	3	KED
[Cd	111	0.230	ug/L	0.034	14	4	65	10	KED
[Cd	114	0.189	ug/L	0.020	10	1	132	12	KED
[> In	115		ug/L			519229	504320	1	Standard
[Ag	107	0.173	ug/L	0.003	1	33	2906	2	Standard
[> Tb	159		ug/L			190542	220823	3	Standard
[Pb	208	16.723	ug/L	0.540	3	524	1766569	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:50:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36941	3	Standard
> Sc	45		ug/L			600447	707482	1	Standard
| Cr	52	13.403	ug/L	0.125	0	10860	257172	1	Standard
| Cr	53	12.977	ug/L	0.121	0	113	27843	2	Standard
> Ge	72		ug/L			35776	35020	0	KED
| Ni	60	12.070	ug/L	0.218	1	145	20458	1	KED
| Ni	62	12.224	ug/L	0.385	3	28	3325	3	KED
| Cu	63	25.027	ug/L	0.373	1	53	117881	1	KED
| Cu	65	24.754	ug/L	0.415	1	29	59854	1	KED
| Zn	66	60.844	ug/L	0.755	1	87	35314	0	KED
| Zn	67	108.303	ug/L	2.395	2	19	10225	1	KED
| As	75	5.746	ug/L	0.088	1	2	1616	1	KED
Y	89		ug/L			55660	254580	0	Standard
Kr	83		ug/L			44	77	7	Standard
> In-1	115		ug/L			7587	7416	2	KED
| Cd	111	0.125	ug/L	0.025	19	4	37	19	KED
| Cd	114	0.136	ug/L	0.011	7	1	95	8	KED
> In	115		ug/L			519229	494495	1	Standard
| Ag	107	0.103	ug/L	0.004	3	33	1702	2	Standard
> Tb	159		ug/L			190542	218399	1	Standard
| Pb	208	11.623	ug/L	0.140	1	524	1215246	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:54:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	28956	0	Standard
> Sc	45		ug/L			600447	632927	2	Standard
| Cr	52	83.030	ug/L	1.894	2	10860	1365955	3	Standard
| Cr	53	82.553	ug/L	2.117	2	113	157762	1	Standard
> Ge	72		ug/L			35776	31287	1	KED
| Ni	60	23.659	ug/L	0.556	2	145	35697	0	KED
| Ni	62	27.194	ug/L	0.581	2	28	6576	0	KED
| Cu	63	2498.049	ug/L	48.349	1	53	10506397	1	KED
| Cu	65	2569.123	ug/L	57.301	2	29	5546287	0	KED
| Zn	66	7354.329	ug/L	288.789	3	87	3803532	3	KED
| Zn	67	6774.525	ug/L	131.191	1	19	570411	2	KED
| As	75	1054.444	ug/L	16.893	1	2	264562	0	KED
| Y	89		ug/L			55660	282337	3	Standard
| Kr	83		ug/L			44	108	15	Standard
> In-1	115		ug/L			7587	16696	0	KED
| Cd	111	2.127	ug/L	0.026	1	4	1296	1	KED
| Cd	114	2.036	ug/L	0.022	1	1	3175	0	KED
> In	115		ug/L			519229	910777	0	Standard
| Ag	107	0.753	ug/L	0.018	2	33	22621	2	Standard
> Tb	159		ug/L			190542	158646	1	Standard
| Pb	208	1211.380	ug/L	38.633	3	524	91952848	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 22:59:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	30314	5	Standard
> Sc	45		ug/L			600447	626535	3	Standard
| Cr	52	85.240	ug/L	2.397	2	10860	1386839	0	Standard
| Cr	53	84.038	ug/L	2.060	2	113	158948	2	Standard
> Ge	72		ug/L			35776	30534	0	KED
| Ni	60	24.774	ug/L	0.555	2	145	36484	2	KED
| Ni	62	29.303	ug/L	0.311	1	28	6915	0	KED
| Cu	63	2817.731	ug/L	58.540	2	53	11567687	2	KED
| Cu	65	2764.990	ug/L	27.962	1	29	5826764	0	KED
| Zn	66	7637.721	ug/L	56.656	0	87	3856088	0	KED
| Zn	67	7060.766	ug/L	69.114	0	19	580207	0	KED
| As	75	1082.369	ug/L	5.384	0	2	265078	0	KED
| Y	89		ug/L			55660	316457	1	Standard
| Kr	83		ug/L			44	93	15	Standard
> In-1	115		ug/L			7587	15962	1	KED
| Cd	111	2.478	ug/L	0.072	2	4	1442	3	KED
| Cd	114	2.439	ug/L	0.022	0	1	3635	0	KED
> In	115		ug/L			519229	899865	0	Standard
| Ag	107	0.832	ug/L	0.021	2	33	24686	1	Standard
> Tb	159		ug/L			190542	160807	0	Standard
| Pb	208	1201.329	ug/L	19.280	1	524	92444349	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:03:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27291	5	Standard
> Sc	45		ug/L			600447	608593	1	Standard
| Cr	52	110.095	ug/L	3.295	2	10860	1737242	1	Standard
| Cr	53	108.219	ug/L	1.529	1	113	198841	0	Standard
> Ge	72		ug/L			35776	29436	2	KED
| Ni	60	48.982	ug/L	1.875	3	145	69379	1	KED
| Ni	62	54.981	ug/L	2.524	4	28	12479	1	KED
| Cu	63	3042.849	ug/L	134.473	4	53	12033133	1	KED
| Cu	65	3048.235	ug/L	86.303	2	29	6189784	1	KED
| Zn	66	7993.790	ug/L	257.905	3	87	3888434	0	KED
| Zn	67	7334.042	ug/L	256.573	3	19	580633	0	KED
| As	75	1176.119	ug/L	32.073	2	2	277546	0	KED
| Y	89		ug/L			55660	297960	0	Standard
| Kr	83		ug/L			44	105	19	Standard
> In-1	115		ug/L			7587	15976	1	KED
| Cd	111	10.853	ug/L	0.123	1	4	6294	0	KED
| Cd	114	10.994	ug/L	0.247	2	1	16388	2	KED
> In	115		ug/L			519229	904235	1	Standard
| Ag	107	4.491	ug/L	0.132	2	33	133599	1	Standard
> Tb	159		ug/L			190542	157324	0	Standard
| Pb	208	1280.635	ug/L	22.743	1	524	96414758	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:08:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	26877	3	Standard
> Sc	45		ug/L			600447	611441	1	Standard
| Cr	52	111.436	ug/L	3.976	3	10860	1766516	2	Standard
| Cr	53	110.105	ug/L	4.573	4	113	203202	2	Standard
> Ge	72		ug/L			35776	29152	0	KED
| Ni	60	48.618	ug/L	0.881	1	145	68250	2	KED
| Ni	62	51.789	ug/L	1.011	1	28	11653	2	KED
| Cu	63	2806.959	ug/L	37.381	1	53	11000916	0	KED
| Cu	65	2816.731	ug/L	71.420	2	29	5666231	1	KED
| Zn	66	8265.905	ug/L	136.269	1	87	3984176	1	KED
| Zn	67	7616.692	ug/L	44.699	0	19	597534	0	KED
| As	75	1296.431	ug/L	11.821	0	2	303108	0	KED
| Y	89		ug/L			55660	289686	0	Standard
| Kr	83		ug/L			44	106	18	Standard
> In-1	115		ug/L			7587	16333	1	KED
| Cd	111	11.000	ug/L	0.211	1	4	6521	0	KED
| Cd	114	10.726	ug/L	0.114	1	1	16343	0	KED
> In	115		ug/L			519229	951207	3	Standard
| Ag	107	4.378	ug/L	0.114	2	33	136944	1	Standard
> Tb	159		ug/L			190542	157453	1	Standard
| Pb	208	1380.771	ug/L	20.785	1	524	104030860	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0072-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:12:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	27119	1	Standard
> Sc	45		ug/L			600447	605688	1	Standard
| Cr	52	107.946	ug/L	4.648	4	10860	1695312	3	Standard
| Cr	53	105.056	ug/L	2.621	2	113	192093	1	Standard
> Ge	72		ug/L			35776	29173	1	KED
| Ni	60	48.441	ug/L	1.072	2	145	68035	1	KED
| Ni	62	51.887	ug/L	1.933	3	28	11679	2	KED
| Cu	63	2659.663	ug/L	25.993	0	53	10431378	0	KED
| Cu	65	2674.653	ug/L	89.805	3	29	5383864	2	KED
| Zn	66	7740.478	ug/L	41.895	0	87	3733813	1	KED
| Zn	67	7109.067	ug/L	112.602	1	19	558068	0	KED
| As	75	1097.144	ug/L	7.742	0	2	256700	0	KED
| Y	89		ug/L			55660	287334	1	Standard
| Kr	83		ug/L			44	88	2	Standard
> In-1	115		ug/L			7587	15754	1	KED
| Cd	111	11.382	ug/L	0.376	3	4	6507	1	KED
| Cd	114	11.428	ug/L	0.447	3	1	16790	2	KED
> In	115		ug/L			519229	924163	2	Standard
| Ag	107	11.450	ug/L	0.297	2	33	347999	1	Standard
> Tb	159		ug/L			190542	158980	1	Standard
| Pb	208	1253.989	ug/L	4.849	0	524	95406487	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:16:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	22829	2	Standard
[> Sc	45		ug/L			600447	564251	0	Standard
| Cr	52	0.030	ug/L	0.034	113	10860	10641	4	Standard
| Cr	53	0.025	ug/L	0.031	125	113	148	35	Standard
[> Ge	72		ug/L			35776	31647	0	KED
| Ni	60	0.041	ug/L	0.020	47	145	190	15	KED
| Ni	62	0.027	ug/L	0.012	44	28	31	9	KED
| Cu	63	0.082	ug/L	0.007	8	53	398	7	KED
| Cu	65	0.082	ug/L	0.013	15	29	205	13	KED
| Zn	66	0.206	ug/L	0.036	17	87	185	10	KED
| Zn	67	0.094	ug/L	0.046	48	19	25	15	KED
| As	75	0.075	ug/L	0.010	13	2	20	12	KED
Y	89		ug/L			55660	54412	1	Standard
Kr	83		ug/L			44	53	15	Standard
[> In-1	115		ug/L			7587	6568	3	KED
| Cd	111	-0.012	ug/L	0.002	18	4	0	86	KED
| Cd	114	0.002	ug/L	0.001	26	1	2	8	KED
[> In	115		ug/L			519229	523168	3	Standard
| Ag	107	0.008	ug/L	0.008	104	33	168	86	Standard
[> Tb	159		ug/L			190542	194825	1	Standard
| Pb	208	0.275	ug/L	0.271	98	524	25917	95	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:21:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24653	5	Standard
[> Sc	45		ug/L			600447	591563	1	Standard
| Cr	52	49.379	ug/L	0.755	1	10860	763476	1	Standard
| Cr	53	48.410	ug/L	0.314	0	113	86533	1	Standard
[> Ge	72		ug/L			35776	32024	1	KED
| Ni	60	49.999	ug/L	0.359	0	145	77097	2	KED
| Ni	62	50.338	ug/L	0.599	1	28	12440	0	KED
| Cu	63	50.853	ug/L	0.479	0	53	218983	1	KED
| Cu	65	50.279	ug/L	0.509	1	29	111154	1	KED
| Zn	66	50.970	ug/L	0.590	1	87	27069	2	KED
| Zn	67	51.946	ug/L	1.180	2	19	4493	1	KED
| As	75	50.153	ug/L	1.115	2	2	12882	1	KED
Y	89		ug/L			55660	54346	3	Standard
Kr	83		ug/L			44	41	30	Standard
[> In-1	115		ug/L			7587	6872	2	KED
| Cd	111	49.954	ug/L	1.477	2	4	12444	0	KED
| Cd	114	50.060	ug/L	0.658	1	1	32090	1	KED
[> In	115		ug/L			519229	500870	0	Standard
| Ag	107	48.812	ug/L	0.335	0	33	804173	0	Standard
[> Tb	159		ug/L			190542	196347	1	Standard
| Pb	208	52.229	ug/L	0.704	1	524	4907728	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, May 10, 2023 23:28:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24509	6	Standard
[> Sc	45		ug/L			600447	583759	2	Standard
| Cr	52	-0.028	ug/L	0.018	66	10860	10137	2	Standard
| Cr	53	-0.011	ug/L	0.006	52	113	90	13	Standard
[> Ge	72		ug/L			35776	33371	3	KED
| Ni	60	-0.006	ug/L	0.007	114	145	125	11	KED
| Ni	62	-0.014	ug/L	0.022	152	28	22	22	KED
| Cu	63	0.016	ug/L	0.007	43	53	120	27	KED
| Cu	65	0.018	ug/L	0.005	27	29	69	15	KED
| Zn	66	0.001	ug/L	0.018	3110	87	81	10	KED
| Zn	67	-0.063	ug/L	0.009	14	19	12	8	KED
| As	75	0.023	ug/L	0.007	31	2	8	20	KED
Y	89		ug/L			55660	54110	1	Standard
Kr	83		ug/L			44	46	13	Standard
[> In-1	115		ug/L			7587	6862	2	KED
| Cd	111	-0.002	ug/L	0.004	201	4	3	34	KED
| Cd	114	0.002	ug/L	0.004	180	1	2	81	KED
[> In	115		ug/L			519229	515794	3	Standard
| Ag	107	0.003	ug/L	0.001	26	33	82	17	Standard
[> Tb	159		ug/L			190542	195697	2	Standard
| Pb	208	0.007	ug/L	0.000	1	524	1220	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:33:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41800	4	Standard
> Sc	45		ug/L			600447	694893	1	Standard
| Cr	52	14.760	ug/L	0.330	2	10860	276862	1	Standard
| Cr	53	14.749	ug/L	0.355	2	113	31060	2	Standard
> Ge	72		ug/L			35776	33387	1	KED
| Ni	60	12.096	ug/L	0.354	2	145	19540	1	KED
| Ni	62	12.236	ug/L	0.141	1	28	3173	2	KED
| Cu	63	34.440	ug/L	0.616	1	53	154616	0	KED
| Cu	65	33.554	ug/L	0.420	1	29	77335	1	KED
| Zn	66	61.897	ug/L	0.534	0	87	34249	1	KED
| Zn	67	60.911	ug/L	2.396	3	19	5489	2	KED
| As	75	7.068	ug/L	0.157	2	2	1894	2	KED
Y	89		ug/L			55660	279345	1	Standard
Kr	83		ug/L			44	90	13	Standard
> In-1	115		ug/L			7587	6934	2	KED
| Cd	111	0.195	ug/L	0.047	24	4	52	21	KED
| Cd	114	0.219	ug/L	0.014	6	1	143	8	KED
> In	115		ug/L			519229	517494	0	Standard
| Ag	107	0.165	ug/L	0.003	1	33	2844	1	Standard
> Tb	159		ug/L			190542	224144	0	Standard
| Pb	208	14.987	ug/L	0.095	0	524	1608279	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:37:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41920	5	Standard
[> Sc	45		ug/L			600447	707279	1	Standard
[Cr	52	13.606	ug/L	0.173	1	10860	260824	2	Standard
[Cr	53	13.450	ug/L	0.128	0	113	28839	1	Standard
[> Ge	72		ug/L			35776	33813	2	KED
[Ni	60	12.474	ug/L	0.318	2	145	20402	0	KED
[Ni	62	12.568	ug/L	0.337	2	28	3298	0	KED
[Cu	63	27.102	ug/L	0.625	2	53	123211	0	KED
[Cu	65	26.633	ug/L	0.700	2	29	62154	0	KED
[Zn	66	53.856	ug/L	2.290	4	87	30171	1	KED
[Zn	67	53.534	ug/L	0.966	1	19	4890	3	KED
[As	75	6.504	ug/L	0.322	4	2	1764	2	KED
Y	89		ug/L			55660	279415	2	Standard
Kr	83		ug/L			44	85	14	Standard
[> In-1	115		ug/L			7587	7109	2	KED
[Cd	111	0.169	ug/L	0.030	17	4	47	16	KED
[Cd	114	0.154	ug/L	0.036	23	1	103	20	KED
[> In	115		ug/L			519229	506285	1	Standard
[Ag	107	0.112	ug/L	0.003	2	33	1899	2	Standard
[> Tb	159		ug/L			190542	221252	0	Standard
[Pb	208	10.941	ug/L	0.016	0	524	1159070	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:41:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41624	4	Standard
[> Sc	45		ug/L			600447	641883	(18)	Standard
| Cr	52	16.175	ug/L	2.585	15	10860	274088	4	Standard
| Cr	53	16.107	ug/L	2.732	16	113	30688	3	Standard
[> Ge	72		ug/L			35776	33460	0	KED
| Ni	60	13.007	ug/L	0.126	0	145	21054	1	KED
| Ni	62	12.937	ug/L	0.251	1	28	3360	1	KED
| Cu	63	34.231	ug/L	0.569	1	53	154049	2	KED
| Cu	65	33.408	ug/L	0.682	2	29	77167	1	KED
| Zn	66	66.941	ug/L	2.382	3	87	37107	2	KED
| Zn	67	64.779	ug/L	1.290	1	19	5850	1	KED
| As	75	7.501	ug/L	0.124	1	2	2015	1	KED
| Y	89		ug/L			55660	272445	5	Standard
| Kr	83		ug/L			44	93	25	Standard
[> In-1	115		ug/L			7587	7083	2	KED
| Cd	111	0.206	ug/L	0.024	11	4	56	9	KED
| Cd	114	0.231	ug/L	0.024	10	1	153	9	KED
[> In	115		ug/L			519229	441955	(19)	Standard
| Ag	107	0.171	ug/L	0.035	20	33	2452	1	Standard
[> Tb	159		ug/L			190542	205536	(15)	Standard
| Pb	208	15.984	ug/L	2.361	14	524	1548517	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:46:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41611	5	Standard
> Sc	45		ug/L			600447	699791	2	Standard
| Cr	52	14.261	ug/L	0.110	0	10860	269809	2	Standard
| Cr	53	14.245	ug/L	0.285	2	113	30206	1	Standard
> Ge	72		ug/L			35776	33878	0	KED
| Ni	60	12.340	ug/L	0.198	1	145	20233	1	KED
| Ni	62	11.929	ug/L	0.375	3	28	3139	2	KED
| Cu	63	32.200	ug/L	0.998	3	53	146699	2	KED
| Cu	65	31.622	ug/L	0.386	1	29	73963	1	KED
| Zn	66	61.960	ug/L	0.332	0	87	34789	0	KED
| Zn	67	62.225	ug/L	1.387	2	19	5691	1	KED
| As	75	7.169	ug/L	0.232	3	2	1949	2	KED
Y	89		ug/L			55660	273102	1	Standard
Kr	83		ug/L			44	73	25	Standard
> In-1	115		ug/L			7587	6963	1	KED
| Cd	111	0.182	ug/L	0.016	8	4	49	9	KED
| Cd	114	0.260	ug/L	0.013	4	1	170	3	KED
> In	115		ug/L			519229	502263	0	Standard
| Ag	107	0.134	ug/L	0.006	4	33	2247	4	Standard
> Tb	159		ug/L			190542	223559	0	Standard
| Pb	208	13.661	ug/L	0.263	1	524	1462194	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:50:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40115	3	Standard
[> Sc	45		ug/L			600447	696541	1	Standard
[Cr	52	13.972	ug/L	0.171	1	10860	263366	0	Standard
[Cr	53	14.084	ug/L	0.546	3	113	29722	2	Standard
[> Ge	72		ug/L			35776	34063	0	KED
[Ni	60	12.153	ug/L	0.004	0	145	20035	0	KED
[Ni	62	12.203	ug/L	0.252	2	28	3228	2	KED
[Cu	63	30.621	ug/L	0.182	0	53	140286	1	KED
[Cu	65	30.888	ug/L	0.529	1	29	72636	1	KED
[Zn	66	61.152	ug/L	1.552	2	87	34527	3	KED
[Zn	67	60.193	ug/L	0.541	0	19	5536	0	KED
[As	75	6.442	ug/L	0.173	2	2	1761	2	KED
[Y	89		ug/L			55660	267558	1	Standard
[Kr	83		ug/L			44	67	5	Standard
[> In-1	115		ug/L			7587	7095	0	KED
[Cd	111	0.200	ug/L	0.033	16	4	55	15	KED
[Cd	114	0.229	ug/L	0.041	17	1	153	18	KED
[> In	115		ug/L			519229	499273	1	Standard
[Ag	107	0.139	ug/L	0.012	8	33	2310	7	Standard
[> Tb	159		ug/L			190542	219835	0	Standard
[Pb	208	14.358	ug/L	0.249	1	524	1511199	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:55:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40341	3	Standard
[> Sc	45		ug/L			600447	679727	1	Standard
[Cr	52	13.576	ug/L	0.280	2	10860	250134	2	Standard
[Cr	53	13.642	ug/L	0.301	2	113	28109	1	Standard
[> Ge	72		ug/L			35776	33903	1	KED
[Ni	60	11.924	ug/L	0.282	2	145	19565	1	KED
[Ni	62	11.936	ug/L	0.534	4	28	3142	3	KED
[Cu	63	27.743	ug/L	0.140	0	53	126506	1	KED
[Cu	65	27.736	ug/L	0.201	0	29	64920	1	KED
[Zn	66	58.405	ug/L	1.496	2	87	32817	2	KED
[Zn	67	57.184	ug/L	1.965	3	19	5233	1	KED
[As	75	5.879	ug/L	0.200	3	2	1600	2	KED
[Y	89		ug/L			55660	253187	1	Standard
[Kr	83		ug/L			44	62	15	Standard
[> In-1	115		ug/L			7587	7134	2	KED
[Cd	111	0.173	ug/L	0.033	19	4	48	16	KED
[Cd	114	0.200	ug/L	0.032	15	1	134	17	KED
[> In	115		ug/L			519229	507129	2	Standard
[Ag	107	0.133	ug/L	0.005	4	33	2255	2	Standard
[> Tb	159		ug/L			190542	221170	1	Standard
[Pb	208	19.884	ug/L	0.450	2	524	2104767	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0109-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, May 10, 2023 23:59:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	41351	4	Standard
[> Sc	45		ug/L			600447	689065	1	Standard
[Cr	52	13.277	ug/L	0.115	0	10860	248242	1	Standard
[Cr	53	13.127	ug/L	0.146	1	113	27430	2	Standard
[> Ge	72		ug/L			35776	33601	1	KED
[Ni	60	10.961	ug/L	0.105	0	145	17839	1	KED
[Ni	62	10.953	ug/L	0.166	1	28	2861	0	KED
[Cu	63	37.403	ug/L	0.776	2	53	169002	1	KED
[Cu	65	37.230	ug/L	1.137	3	29	86342	1	KED
[Zn	66	54.195	ug/L	0.498	0	87	30188	0	KED
[Zn	67	51.947	ug/L	1.758	3	19	4714	2	KED
[As	75	8.383	ug/L	0.093	1	2	2260	0	KED
Y	89		ug/L			55660	253081	2	Standard
Kr	83		ug/L			44	70	4	Standard
[> In-1	115		ug/L			7587	7085	2	KED
[Cd	111	0.178	ug/L	0.018	10	4	49	8	KED
[Cd	114	0.173	ug/L	0.014	7	1	116	9	KED
[> In	115		ug/L			519229	506436	3	Standard
[Ag	107	0.140	ug/L	0.009	6	33	2360	2	Standard
[> Tb	159		ug/L			190542	218914	0	Standard
[Pb	208	13.032	ug/L	0.026	0	524	1365955	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0109-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:03:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	44730	2	Standard
> Sc	45		ug/L			600447	695996	0	Standard
| Cr	52	13.163	ug/L	0.197	1	10860	248690	1	Standard
| Cr	53	12.957	ug/L	0.368	2	113	27345	2	Standard
> Ge	72		ug/L			35776	33265	1	KED
| Ni	60	11.039	ug/L	0.401	3	145	17780	2	KED
| Ni	62	11.096	ug/L	0.292	2	28	2868	1	KED
| Cu	63	33.534	ug/L	0.794	2	53	150033	2	KED
| Cu	65	33.030	ug/L	0.499	1	29	75849	0	KED
| Zn	66	55.322	ug/L	0.971	1	87	30504	0	KED
| Zn	67	55.166	ug/L	1.585	2	19	4957	3	KED
| As	75	8.674	ug/L	0.314	3	2	2315	2	KED
Y	89		ug/L			55660	251821	1	Standard
Kr	83		ug/L			44	67	20	Standard
> In-1	115		ug/L			7587	6853	1	KED
| Cd	111	0.200	ug/L	0.020	10	4	53	7	KED
| Cd	114	0.185	ug/L	0.031	16	1	119	14	KED
> In	115		ug/L			519229	504230	4	Standard
| Ag	107	0.143	ug/L	0.009	6	33	2395	1	Standard
> Tb	159		ug/L			190542	215455	1	Standard
| Pb	208	13.720	ug/L	0.338	2	524	1415046	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:08:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	43300	5	Standard
[> Sc	45		ug/L			600447	713310	1	Standard
[Cr	52	16.422	ug/L	0.161	0	10860	314787	1	Standard
[Cr	53	16.361	ug/L	0.435	2	113	35354	3	Standard
[> Ge	72		ug/L			35776	32638	0	KED
[Ni	60	15.409	ug/L	0.351	2	145	24305	2	KED
[Ni	62	15.069	ug/L	0.298	1	28	3813	1	KED
[Cu	63	38.928	ug/L	0.502	1	53	170861	0	KED
[Cu	65	39.033	ug/L	0.216	0	29	87953	1	KED
[Zn	66	75.753	ug/L	0.903	1	87	40958	1	KED
[Zn	67	73.795	ug/L	1.061	1	19	6499	1	KED
[As	75	8.223	ug/L	0.084	1	2	2154	0	KED
[Y	89		ug/L			55660	331620	1	Standard
[Kr	83		ug/L			44	85	5	Standard
[> In-1	115		ug/L			7587	7151	0	KED
[Cd	111	0.175	ug/L	0.028	15	4	49	14	KED
[Cd	114	0.189	ug/L	0.041	21	1	127	20	KED
[> In	115		ug/L			519229	494671	2	Standard
[Ag	107	0.155	ug/L	0.005	3	33	2553	5	Standard
[> Tb	159		ug/L			190542	226865	1	Standard
[Pb	208	15.700	ug/L	0.343	2	524	1704869	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:12:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	26146	3	Standard
[> Sc	45		ug/L			600447	573930	1	Standard
| Cr	52	-0.020	ug/L	0.012	58	10860	10084	3	Standard
| Cr	53	-0.009	ug/L	0.008	84	113	92	15	Standard
[> Ge	72		ug/L			35776	32582	1	KED
| Ni	60	0.015	ug/L	0.010	68	145	155	11	KED
| Ni	62	0.005	ug/L	0.030	607	28	27	28	KED
| Cu	63	0.014	ug/L	0.002	14	53	111	6	KED
| Cu	65	0.010	ug/L	0.005	55	29	48	25	KED
| Zn	66	-0.030	ug/L	0.021	69	87	63	16	KED
| Zn	67	-0.067	ug/L	0.011	16	19	12	9	KED
| As	75	0.003	ug/L	0.005	152	2	2	44	KED
Y	89		ug/L			55660	54155	0	Standard
Kr	83		ug/L			44	38	2	Standard
[> In-1	115		ug/L			7587	6900	0	KED
| Cd	111	-0.012	ug/L	0.002	17	4	0	86	KED
| Cd	114	-0.002	ug/L	0.002	101	1	0	207	KED
[> In	115		ug/L			519229	511559	0	Standard
| Ag	107	-0.001	ug/L	0.000	5	33	10	10	Standard
[> Tb	159		ug/L			190542	194216	1	Standard
| Pb	208	0.001	ug/L	0.000	31	524	634	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:16:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	25538	4	Standard
[> Sc	45		ug/L			600447	594963	3	Standard
| Cr	52	50.178	ug/L	0.793	1	10860	779879	1	Standard
| Cr	53	49.353	ug/L	1.384	2	113	88670	0	Standard
[> Ge	72		ug/L			35776	34074	1	KED
| Ni	60	48.680	ug/L	0.968	1	145	79858	2	KED
| Ni	62	47.611	ug/L	0.229	0	28	12521	1	KED
| Cu	63	49.180	ug/L	0.308	0	53	225338	1	KED
| Cu	65	48.634	ug/L	0.916	1	29	114372	0	KED
| Zn	66	48.427	ug/L	0.650	1	87	27362	1	KED
| Zn	67	50.458	ug/L	2.031	4	19	4643	2	KED
| As	75	49.054	ug/L	1.109	2	2	13404	0	KED
Y	89		ug/L			55660	54653	1	Standard
Kr	83		ug/L			44	55	9	Standard
[> In-1	115		ug/L			7587	7138	3	KED
| Cd	111	49.973	ug/L	2.395	4	4	12921	0	KED
| Cd	114	49.890	ug/L	1.571	3	1	33197	1	KED
[> In	115		ug/L			519229	506488	1	Standard
| Ag	107	48.935	ug/L	1.204	2	33	815045	1	Standard
[> Tb	159		ug/L			190542	196385	0	Standard
| Pb	208	51.586	ug/L	0.606	1	524	4848875	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 00:24:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27881	25562	4	Standard
[>	Sc	45	ug/L			600447	584484	0	Standard
|	Cr	52	ug/L	0.013	38	10860	10071	2	Standard
|	Cr	53	ug/L	0.004	52	113	96	8	Standard
[>	Ge	72	ug/L			35776	33932	0	KED
|	Ni	60	ug/L	0.007	39	145	109	9	KED
|	Ni	62	ug/L	0.030	96	28	19	40	KED
|	Cu	63	ug/L	0.001	48	53	64	10	KED
|	Cu	65	ug/L	0.003	56	29	38	15	KED
|	Zn	66	ug/L	0.002	3	87	50	2	KED
|	Zn	67	ug/L	0.031	23	19	6	45	KED
|	As	75	ug/L	0.004	63	2	3	30	KED
	Y	89	ug/L			55660	54405	2	Standard
	Kr	83	ug/L			44	37	28	Standard
[>	In-1	115	ug/L			7587	7340	1	KED
|	Cd	111	ug/L	0.006	81	4	1	86	KED
|	Cd	114	ug/L	0.002	175	1	2	47	KED
[>	In	115	ug/L			519229	506728	1	Standard
|	Ag	107	ug/L	0.001	46	33	59	22	Standard
[>	Tb	159	ug/L			190542	195679	1	Standard
|	Pb	208	ug/L	0.000	5	524	691	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:28:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42152	3	Standard
> Sc	45		ug/L			600447	701617	2	Standard
| Cr	52	13.784	ug/L	0.159	1	10860	261945	2	Standard
| Cr	53	13.824	ug/L	0.149	1	113	29404	2	Standard
> Ge	72		ug/L			35776	33631	1	KED
| Ni	60	11.683	ug/L	0.169	1	145	19022	2	KED
| Ni	62	11.656	ug/L	0.112	0	28	3046	0	KED
| Cu	63	32.720	ug/L	0.427	1	53	147993	1	KED
| Cu	65	32.727	ug/L	0.710	2	29	75985	2	KED
| Zn	66	58.096	ug/L	1.862	3	87	32377	1	KED
| Zn	67	57.353	ug/L	1.009	1	19	5208	1	KED
| As	75	8.068	ug/L	0.212	2	2	2178	2	KED
Y	89		ug/L			55660	268399	1	Standard
Kr	83		ug/L			44	84	7	Standard
> In-1	115		ug/L			7587	7254	0	KED
| Cd	111	0.183	ug/L	0.012	6	4	52	5	KED
| Cd	114	0.196	ug/L	0.027	13	1	134	13	KED
> In	115		ug/L			519229	505482	0	Standard
| Ag	107	0.143	ug/L	0.008	5	33	2409	6	Standard
> Tb	159		ug/L			190542	222718	0	Standard
| Pb	208	13.876	ug/L	0.125	0	524	1479618	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:32:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	40027	8	Standard
[> Sc	45		ug/L			600447	698775	1	Standard
[Cr	52	14.213	ug/L	0.080	0	10860	268577	1	Standard
[Cr	53	14.164	ug/L	0.155	1	113	30003	2	Standard
[> Ge	72		ug/L			35776	33832	0	KED
[Ni	60	11.465	ug/L	0.137	1	145	18781	0	KED
[Ni	62	11.563	ug/L	0.199	1	28	3040	2	KED
[Cu	63	33.675	ug/L	0.564	1	53	153215	1	KED
[Cu	65	32.656	ug/L	0.151	0	29	76276	0	KED
[Zn	66	57.957	ug/L	1.470	2	87	32501	2	KED
[Zn	67	55.816	ug/L	1.269	2	19	5099	1	KED
[As	75	8.291	ug/L	0.137	1	2	2251	1	KED
[Y	89		ug/L			55660	265350	3	Standard
[Kr	83		ug/L			44	74	5	Standard
[> In-1	115		ug/L			7587	7022	2	KED
[Cd	111	0.241	ug/L	<u>0.056</u>	23	4	65	23	KED
[Cd	114	0.248	ug/L	<u>0.041</u>	16	1	163	15	KED
[> In	115		ug/L			519229	507693	0	Standard
[Ag	107	0.154	ug/L	0.006	3	33	2596	4	Standard
[> Tb	159		ug/L			190542	218126	0	Standard
[Pb	208	14.843	ug/L	0.185	1	524	1550062	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:37:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	38717	0	Standard
> Sc	45		ug/L			600447	703681	1	Standard
| Cr	52	13.446	ug/L	0.155	1	10860	256553	0	Standard
| Cr	53	13.362	ug/L	0.125	0	113	28507	1	Standard
> Ge	72		ug/L			35776	33183	1	KED
| Ni	60	12.093	ug/L	0.381	3	145	19417	2	KED
| Ni	62	12.156	ug/L	0.093	0	28	3133	2	KED
| Cu	63	28.972	ug/L	0.594	2	53	129274	0	KED
| Cu	65	28.921	ug/L	0.252	0	29	66254	0	KED
| Zn	66	56.544	ug/L	1.297	2	87	31099	1	KED
| Zn	67	56.684	ug/L	1.162	2	19	5079	1	KED
| As	75	6.999	ug/L	0.103	1	2	1864	1	KED
Y	89		ug/L			55660	267168	0	Standard
Kr	83		ug/L			44	76	8	Standard
> In-1	115		ug/L			7587	6892	3	KED
| Cd	111	0.172	ug/L	0.019	11	4	46	9	KED
| Cd	114	0.224	ug/L	0.026	11	1	145	14	KED
> In	115		ug/L			519229	502886	1	Standard
| Ag	107	0.124	ug/L	0.000	0	33	2079	1	Standard
> Tb	159		ug/L			190542	220269	0	Standard
| Pb	208	11.496	ug/L	0.252	2	524	1212380	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0108-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:41:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36163	3	Standard
> Sc	45		ug/L			600447	675390	2	Standard
| Cr	52	11.612	ug/L	0.348	2	10860	214261	1	Standard
| Cr	53	11.687	ug/L	0.277	2	113	23940	1	Standard
> Ge	72		ug/L			35776	33264	0	KED
| Ni	60	9.904	ug/L	0.159	1	145	15969	1	KED
| Ni	62	9.757	ug/L	0.454	4	28	2526	4	KED
| Cu	63	26.785	ug/L	0.607	2	53	119830	1	KED
| Cu	65	26.312	ug/L	0.547	2	29	60427	1	KED
| Zn	66	52.519	ug/L	0.742	1	87	28964	0	KED
| Zn	67	51.518	ug/L	2.705	5	19	4630	5	KED
| As	75	6.060	ug/L	0.120	1	2	1618	1	KED
Y	89		ug/L			55660	234210	0	Standard
Kr	83		ug/L			44	67	25	Standard
> In-1	115		ug/L			7587	7065	1	KED
| Cd	111	0.155	ug/L	0.017	10	4	43	10	KED
| Cd	114	0.153	ug/L	0.016	10	1	102	11	KED
> In	115		ug/L			519229	505119	2	Standard
| Ag	107	0.108	ug/L	0.003	3	33	1821	3	Standard
> Tb	159		ug/L			190542	217502	2	Standard
| Pb	208	10.645	ug/L	0.144	1	524	1108469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:46:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	36904	6	Standard
[> Sc	45		ug/L			600447	658482	(8)	Standard
| Cr	52	13.364	ug/L	1.275	9	10860	237528	1	Standard
| Cr	53	13.224	ug/L	1.165	8	113	26285	3	Standard
[> Ge	72		ug/L			35776	33385	1	KED
| Ni	60	11.756	ug/L	0.301	2	145	18995	0	KED
| Ni	62	11.718	ug/L	0.482	4	28	3038	2	KED
| Cu	63	26.959	ug/L	0.285	1	53	121042	0	KED
| Cu	65	26.749	ug/L	0.537	2	29	61646	0	KED
| Zn	66	95.776	ug/L	0.264	0	87	52948	1	KED
| Zn	67	93.257	ug/L	3.356	3	19	8393	2	KED
| As	75	5.155	ug/L	0.087	1	2	1382	0	KED
Y	89		ug/L			55660	267607	3	Standard
Kr	83		ug/L			44	82	18	Standard
[> In-1	115		ug/L			7587	7025	1	KED
| Cd	111	0.159	ug/L	0.028	17	4	44	17	KED
| Cd	114	0.164	ug/L	0.003	1	1	109	1	KED
[> In	115		ug/L			519229	476583	(10)	Standard
| Ag	107	0.109	ug/L	0.012	10	33	1730	1	Standard
[> Tb	159		ug/L			190542	212482	(8)	Standard
| Pb	208	11.065	ug/L	1.013	9	524	1119922	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:50:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	35181	3	Standard
> Sc	45		ug/L			600447	694840	0	Standard
| Cr	52	12.759	ug/L	0.166	1	10860	241055	1	Standard
| Cr	53	12.803	ug/L	0.260	2	113	26979	2	Standard
> Ge	72		ug/L			35776	32911	1	KED
| Ni	60	11.463	ug/L	0.048	0	145	18267	0	KED
| Ni	62	11.716	ug/L	0.618	5	28	2995	5	KED
| Cu	63	30.419	ug/L	0.228	0	53	134653	1	KED
| Cu	65	30.125	ug/L	0.324	1	29	68448	1	KED
| Zn	66	63.456	ug/L	1.666	2	87	34603	1	KED
| Zn	67	61.360	ug/L	1.215	1	19	5452	2	KED
| As	75	6.807	ug/L	0.171	2	2	1798	1	KED
Y	89		ug/L			55660	270124	3	Standard
Kr	83		ug/L			44	94	9	Standard
> In-1	115		ug/L			7587	7021	2	KED
| Cd	111	0.179	ug/L	0.037	20	4	49	17	KED
| Cd	114	0.173	ug/L	0.024	14	1	114	16	KED
> In	115		ug/L			519229	499685	2	Standard
| Ag	107	0.116	ug/L	0.008	6	33	1932	4	Standard
> Tb	159		ug/L			190542	221804	0	Standard
| Pb	208	11.749	ug/L	0.083	0	524	1247680	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:54:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37636	5	Standard
[> Sc	45		ug/L			600447	685486	0	Standard
[Cr	52	16.521	ug/L	0.526	3	10860	304236	2	Standard
[Cr	53	16.594	ug/L	0.435	2	113	34456	2	Standard
[> Ge	72		ug/L			35776	32742	0	KED
[Ni	60	12.901	ug/L	0.250	1	145	20434	1	KED
[Ni	62	12.820	ug/L	0.316	2	28	3258	1	KED
[Cu	63	32.180	ug/L	0.702	2	53	141691	1	KED
[Cu	65	32.801	ug/L	0.389	1	29	74144	0	KED
[Zn	66	71.544	ug/L	1.069	1	87	38808	0	KED
[Zn	67	69.189	ug/L	1.002	1	19	6114	2	KED
[As	75	7.614	ug/L	0.071	0	2	2001	1	KED
Y	89		ug/L			55660	259985	1	Standard
Kr	83		ug/L			44	85	9	Standard
[> In-1	115		ug/L			7587	7023	1	KED
[Cd	111	0.137	ug/L	0.009	6	4	38	7	KED
[Cd	114	0.144	ug/L	0.012	8	1	95	6	KED
[> In	115		ug/L			519229	496722	1	Standard
[Ag	107	0.113	ug/L	0.004	3	33	1883	2	Standard
[> Tb	159		ug/L			190542	218818	0	Standard
[Pb	208	17.415	ug/L	0.324	1	524	1824272	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 00:59:18**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	37582	3	Standard
> Sc	45		ug/L			600447	669281	2	Standard
| Cr	52	22.029	ug/L	0.384	1	10860	392004	2	Standard
| Cr	53	21.690	ug/L	0.339	1	113	43926	1	Standard
> Ge	72		ug/L			35776	32667	2	KED
| Ni	60	18.945	ug/L	0.600	3	145	29864	0	KED
| Ni	62	18.494	ug/L	0.363	1	28	4678	1	KED
| Cu	63	103.407	ug/L	2.883	2	53	454006	0	KED
| Cu	65	102.730	ug/L	1.556	1	29	231623	2	KED
| Zn	66	178.533	ug/L	4.616	2	87	96485	2	KED
| Zn	67	170.011	ug/L	2.949	1	19	14964	3	KED
| As	75	16.375	ug/L	0.240	1	2	4291	1	KED
Y	89		ug/L			55660	241132	1	Standard
Kr	83		ug/L			44	73	26	Standard
> In-1	115		ug/L			7587	6780	0	KED
| Cd	111	0.418	ug/L	<u>0.049</u>	11	4	106	10	KED
| Cd	114	0.454	ug/L	<u>0.060</u>	13	1	288	12	KED
> In	115		ug/L			519229	502468	3	Standard
| Ag	107	0.118	ug/L	0.002	1	33	1979	1	Standard
> Tb	159		ug/L			190542	213368	0	Standard
| Pb	208	48.910	ug/L	0.730	1	524	4994590	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:03:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	42891	2	Standard
[> Sc	45		ug/L			600447	690386	1	Standard
| Cr	52	15.879	ug/L	0.081	0	10860	295013	1	Standard
| Cr	53	15.797	ug/L	0.231	1	113	33044	2	Standard
[> Ge	72		ug/L			35776	32570	1	KED
| Ni	60	15.329	ug/L	0.559	3	145	24120	2	KED
| Ni	62	15.503	ug/L	0.390	2	28	3914	1	KED
| Cu	63	35.760	ug/L	0.959	2	53	156594	1	KED
| Cu	65	34.988	ug/L	0.447	1	29	78674	2	KED
| Zn	66	81.273	ug/L	1.022	1	87	43842	1	KED
| Zn	67	78.630	ug/L	2.118	2	19	6908	1	KED
| As	75	6.077	ug/L	0.117	1	2	1589	0	KED
| Y	89		ug/L			55660	293531	0	Standard
| Kr	83		ug/L			44	81	11	Standard
[> In-1	115		ug/L			7587	6877	0	KED
| Cd	111	0.163	ug/L	0.024	14	4	44	14	KED
| Cd	114	0.184	ug/L	0.033	18	1	119	17	KED
[> In	115		ug/L			519229	497287	2	Standard
| Ag	107	0.123	ug/L	0.006	4	33	2042	6	Standard
[> Tb	159		ug/L			190542	220337	0	Standard
| Pb	208	18.272	ug/L	0.349	1	524	1927197	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:08:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24843	3	Standard
[> Sc	45		ug/L			600447	570538	2	Standard
| Cr	52	-0.031	ug/L	0.013	43	10860	9866	1	Standard
| Cr	53	-0.012	ug/L	0.015	128	113	86	27	Standard
[> Ge	72		ug/L			35776	32250	0	KED
| Ni	60	0.020	ug/L	0.011	56	145	161	10	KED
| Ni	62	0.016	ug/L	0.016	99	28	29	13	KED
| Cu	63	0.008	ug/L	0.002	30	53	81	12	KED
| Cu	65	0.004	ug/L	0.004	103	29	34	24	KED
| Zn	66	-0.028	ug/L	0.030	106	87	64	25	KED
| Zn	67	-0.109	ug/L	0.034	30	19	8	35	KED
| As	75	0.001	ug/L	0.002	122	2	2	20	KED
Y	89		ug/L			55660	53022	1	Standard
Kr	83		ug/L			44	46	24	Standard
[> In-1	115		ug/L			7587	6858	1	KED
| Cd	111	-0.010	ug/L	0.009	88	4	1	173	KED
| Cd	114	0.000	ug/L	0.003	915	1	1	106	KED
[> In	115		ug/L			519229	507926	2	Standard
| Ag	107	-0.001	ug/L	0.000	23	33	12	37	Standard
[> Tb	159		ug/L			190542	192482	2	Standard
| Pb	208	0.004	ug/L	0.004	126	524	860	50	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:12:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24688	5	Standard
[> Sc	45		ug/L			600447	587821	1	Standard
| Cr	52	50.267	ug/L	0.836	1	10860	772260	3	Standard
| Cr	53	49.039	ug/L	1.119	2	113	87116	3	Standard
[> Ge	72		ug/L			35776	33250	0	KED
| Ni	60	48.819	ug/L	0.971	1	145	78156	1	KED
| Ni	62	48.209	ug/L	1.520	3	28	12372	2	KED
| Cu	63	49.620	ug/L	0.752	1	53	221871	1	KED
| Cu	65	48.668	ug/L	0.371	0	29	111709	0	KED
| Zn	66	50.023	ug/L	1.122	2	87	27580	1	KED
| Zn	67	49.741	ug/L	2.604	5	19	4468	4	KED
| As	75	49.558	ug/L	0.239	0	2	13218	0	KED
Y	89		ug/L			55660	53986	1	Standard
Kr	83		ug/L			44	40	28	Standard
[> In-1	115		ug/L			7587	7116	3	KED
| Cd	111	48.527	ug/L	2.801	5	4	12510	3	KED
| Cd	114	48.916	ug/L	3.450	7	1	32427	4	KED
[> In	115		ug/L			519229	497812	2	Standard
| Ag	107	48.787	ug/L	0.812	1	33	798652	0	Standard
[> Tb	159		ug/L			190542	199063	0	Standard
| Pb	208	51.680	ug/L	0.781	1	524	4923450	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:19:44

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27881	24490	0	Standard
[> Sc	45		ug/L			600447	572095	1	Standard
| Cr	52	-0.016	ug/L	0.007	47	10860	10114	2	Standard
| Cr	53	-0.010	ug/L	0.005	52	113	90	10	Standard
[> Ge	72		ug/L			35776	33107	1	KED
| Ni	60	-0.019	ug/L	0.017	93	145	104	25	KED
| Ni	62	-0.036	ug/L	0.021	57	28	17	29	KED
| Cu	63	0.007	ug/L	0.003	36	53	81	14	KED
| Cu	65	0.011	ug/L	0.011	102	29	50	46	KED
| Zn	66	-0.055	ug/L	0.037	66	87	50	38	KED
| Zn	67	-0.111	ug/L	0.077	68	19	8	81	KED
| As	75	0.006	ug/L	0.002	30	2	3	15	KED
Y	89		ug/L			55660	53252	4	Standard
Kr	83		ug/L			44	46	16	Standard
[> In-1	115		ug/L			7587	7049	3	KED
| Cd	111	-0.011	ug/L	0.007	58	4	0	173	KED
| Cd	114	-0.001	ug/L	0.002	226	1	1	94	KED
[> In	115		ug/L			519229	500651	2	Standard
| Ag	107	0.001	ug/L	0.001	50	33	55	22	Standard
[> Tb	159		ug/L			190542	194761	1	Standard
| Pb	208	0.001	ug/L	0.000	22	524	665	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:24:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				23951	1	Standard
[>	Sc	45	ug/L				579638	2	Standard
|	Cr	52	ug/L				10138	1	Standard
|	Cr	53	ug/L				92	13	Standard
[>	Ge	72	ug/L				33052	2	KED
|	Ni	60	ug/L				97	25	KED
|	Ni	62	ug/L				15	49	KED
|	Cu	63	ug/L				198	57	KED
|	Cu	65	ug/L				107	77	KED
|	Zn	66	ug/L				67	36	KED
|	Zn	67	ug/L				15	13	KED
|	As	75	ug/L				4	114	KED
	Y	89	ug/L				53627	1	Standard
	Kr	83	ug/L				34	20	Standard
[>	In-1	115	ug/L				7114	5	KED
|	Cd	111	ug/L				2	24	KED
|	Cd	114	ug/L				0	293	KED
[>	In	115	ug/L				522018	2	Standard
|	Ag	107	ug/L				24	23	Standard
[>	Tb	159	ug/L				194588	1	Standard
|	Pb	208	ug/L				589	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:28:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	24643	4	Standard
[> Sc	45		ug/L			579638	604497	1	Standard
| Cr	52	48.978	ug/L	0.531	1	10138	773644	2	Standard
| Cr	53	48.354	ug/L	0.493	1	92	88313	2	Standard
[> Ge	72		ug/L			33052	33370	0	KED
| Ni	60	49.324	ug/L	1.040	2	97	79207	1	KED
| Ni	62	47.977	ug/L	1.281	2	15	12345	1	KED
| Cu	63	49.978	ug/L	1.244	2	198	224398	1	KED
| Cu	65	48.605	ug/L	0.688	1	107	112041	0	KED
| Zn	66	50.089	ug/L	0.902	1	67	27704	1	KED
| Zn	67	50.597	ug/L	2.408	4	15	4559	4	KED
| As	75	49.659	ug/L	1.424	2	4	13295	2	KED
Y	89		ug/L			53627	55035	2	Standard
Kr	83		ug/L			34	50	21	Standard
[> In-1	115		ug/L			7114	7142	0	KED
| Cd	111	49.790	ug/L	0.467	0	2	12894	1	KED
| Cd	114	49.917	ug/L	0.583	1	0	33256	1	KED
[> In	115		ug/L			522018	505738	4	Standard
| Ag	107	48.105	ug/L	1.906	3	24	799289	0	Standard
[> Tb	159		ug/L			194588	199862	1	Standard
| Pb	208	51.228	ug/L	1.038	2	589	4900055	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 01:35:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	24390	5	Standard
[>	Sc	45	ug/L			579638	570057	2	Standard
|	Cr	52	0.018	0.030	170	10138	10227	2	Standard
|	Cr	53	-0.003	0.005	170	92	86	11	Standard
[>	Ge	72	ug/L			33052	34200	3	KED
|	Ni	60	0.005	0.011	211	97	109	18	KED
|	Ni	62	-0.016	0.016	101	15	12	32	KED
|	Cu	63	-0.017	0.005	27	198	128	14	KED
|	Cu	65	-0.024	0.005	19	107	55	15	KED
|	Zn	66	-0.023	0.025	111	67	57	28	KED
|	Zn	67	-0.062	0.046	74	15	10	40	KED
|	As	75	-0.005	0.005	104	4	3	37	KED
	Y	89	ug/L			53627	53691	4	Standard
	Kr	83	ug/L			34	40	9	Standard
[>	In-1	115	ug/L			7114	7219	0	KED
|	Cd	111	-0.004	0.006	147	2	1	114	KED
|	Cd	114	0.000	0.002	907	0	0	218	KED
[>	In	115	ug/L			522018	508569	2	Standard
|	Ag	107	0.003	0.001	30	24	77	18	Standard
[>	Tb	159	ug/L			194588	192635	1	Standard
|	Pb	208	0.001	0.001	55	589	699	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0037-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:40:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	37083	2	Standard
[> Sc	45		ug/L			579638	666315	2	Standard
| Cr	52	14.778	ug/L	0.414	2	10138	265352	2	Standard
| Cr	53	14.846	ug/L	0.408	2	92	29949	2	Standard
[> Ge	72		ug/L			33052	33256	2	KED
| Ni	60	13.070	ug/L	0.294	2	97	20983	0	KED
| Ni	62	13.519	ug/L	0.640	4	15	3476	2	KED
| Cu	63	33.896	ug/L	0.667	1	198	151715	0	KED
| Cu	65	34.294	ug/L	1.367	3	107	78776	1	KED
| Zn	66	78.001	ug/L	1.335	1	67	42946	0	KED
| Zn	67	76.310	ug/L	3.075	4	15	6841	2	KED
| As	75	7.516	ug/L	0.211	2	4	2008	1	KED
| Y	89		ug/L			53627	253479	2	Standard
| Kr	83		ug/L			34	67	14	Standard
[> In-1	115		ug/L			7114	7022	2	KED
| Cd	111	0.173	ug/L	0.026	14	2	46	15	KED
| Cd	114	0.168	ug/L	0.032	19	0	110	19	KED
[> In	115		ug/L			522018	501570	2	Standard
| Ag	107	0.124	ug/L	0.008	6	24	2072	3	Standard
[> Tb	159		ug/L			194588	216254	2	Standard
| Pb	208	24.655	ug/L	0.542	2	589	2551303	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0063-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:44:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	36093	5	Standard
> Sc	45		ug/L			579638	675816	1	Standard
| Cr	52	12.093	ug/L	0.292	2	10138	222478	3	Standard
| Cr	53	11.925	ug/L	0.087	0	92	24429	1	Standard
> Ge	72		ug/L			33052	32692	0	KED
| Ni	60	10.569	ug/L	0.056	0	97	16704	0	KED
| Ni	62	10.693	ug/L	0.267	2	15	2708	2	KED
| Cu	63	28.415	ug/L	0.362	1	198	125086	0	KED
| Cu	65	27.586	ug/L	0.411	1	107	62347	1	KED
| Zn	66	54.295	ug/L	1.764	3	67	29412	2	KED
| Zn	67	54.009	ug/L	0.750	1	15	4767	0	KED
| As	75	6.145	ug/L	0.125	2	4	1615	1	KED
Y	89		ug/L			53627	247657	1	Standard
Kr	83		ug/L			34	70	10	Standard
> In-1	115		ug/L			7114	6869	3	KED
| Cd	111	0.128	ug/L	0.034	26	2	33	26	KED
| Cd	114	0.143	ug/L	0.032	22	0	91	23	KED
> In	115		ug/L			522018	498017	1	Standard
| Ag	107	0.114	ug/L	0.004	3	24	1886	1	Standard
> Tb	159		ug/L			194588	218860	2	Standard
| Pb	208	11.885	ug/L	0.301	2	589	1244967	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0063-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:49:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	35499	1	Standard
[> Sc	45		ug/L			579638	667168	1	Standard
[Cr	52	12.476	ug/L	0.197	1	10138	226180	1	Standard
[Cr	53	12.216	ug/L	0.084	0	92	24701	1	Standard
[> Ge	72		ug/L			33052	32239	3	KED
[Ni	60	10.330	ug/L	0.214	2	97	16096	1	KED
[Ni	62	10.576	ug/L	0.168	1	15	2640	2	KED
[Cu	63	29.293	ug/L	0.285	0	198	127139	2	KED
[Cu	65	28.863	ug/L	0.751	2	107	64290	0	KED
[Zn	66	56.772	ug/L	2.696	4	67	30296	1	KED
[Zn	67	55.840	ug/L	3.137	5	15	4854	2	KED
[As	75	7.812	ug/L	0.264	3	4	2022	1	KED
[Y	89		ug/L			53627	245815	2	Standard
[Kr	83		ug/L			34	64	9	Standard
[> In-1	115		ug/L			7114	6861	2	KED
[Cd	111	0.175	ug/L	0.040	22	2	45	19	KED
[Cd	114	0.161	ug/L	0.030	18	0	103	17	KED
[> In	115		ug/L			522018	506848	1	Standard
[Ag	107	0.117	ug/L	0.005	4	24	1968	5	Standard
[> Tb	159		ug/L			194588	214654	2	Standard
[Pb	208	11.626	ug/L	0.374	3	589	1194319	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0452-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:53:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	105848	5	Standard
[>	Sc	45	ug/L			579638	461044	2	Standard
|	Cr	52	ug/L	0.016	0	10138	38630	2	Standard
|	Cr	53	ug/L	0.084	3	92	3048	1	Standard
[>	Ge	72	ug/L			33052	25757	1	KED
|	Ni	60	ug/L	0.094	2	97	4995	2	KED
|	Ni	62	ug/L	0.157	3	15	800	4	KED
|	Cu	63	ug/L	0.004	1	198	1539	0	KED
|	Cu	65	ug/L	0.035	8	107	780	7	KED
|	Zn	66	ug/L	0.241	8	67	1243	8	KED
|	Zn	67	ug/L	0.296	10	15	205	9	KED
|	As	75	ug/L	0.017	12	4	31	10	KED
	Y	89	ug/L			53627	44123	1	Standard
	Kr	83	ug/L			34	34	27	Standard
[>	In-1	115	ug/L			7114	5449	7	KED
|	Cd	111	ug/L	0.004	11	2	8	13	KED
|	Cd	114	ug/L	0.009	35	0	13	39	KED
[>	In	115	ug/L			522018	421633	1	Standard
|	Ag	107	ug/L	0.005	111	24	76	82	Standard
[>	Tb	159	ug/L			194588	165473	1	Standard
|	Pb	208	ug/L	0.001	1	589	3659	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0462-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 01:58:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	27229	5	Standard
[>	Sc	45	ug/L			579638	536374	1	Standard
|	Cr	52	ug/L	0.034	26	10138	11176	4	Standard
|	Cr	53	ug/L	0.027	6	92	725	7	Standard
[>	Ge	72	ug/L			33052	27488	2	KED
|	Ni	60	ug/L	0.028	1	97	2301	2	KED
|	Ni	62	ug/L	0.045	2	15	370	1	KED
|	Cu	63	ug/L	0.032	5	198	2311	3	KED
|	Cu	65	ug/L	0.036	6	107	1158	5	KED
|	Zn	66	ug/L	0.101	8	67	591	5	KED
|	Zn	67	ug/L	0.261	13	15	156	14	KED
|	As	75	ug/L	0.010	2	4	83	0	KED
	Y	89	ug/L			53627	49793	3	Standard
	Kr	83	ug/L			34	47	16	Standard
[>	In-1	115	ug/L			7114	5876	2	KED
|	Cd	111	ug/L	0.008	49	2	5	28	KED
|	Cd	114	ug/L	0.008	42	0	10	38	KED
[>	In	115	ug/L			522018	482911	0	Standard
|	Ag	107	ug/L	0.000	276	24	24	20	Standard
[>	Tb	159	ug/L			194588	180457	1	Standard
|	Pb	208	ug/L	0.001	2	589	3029	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:03:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	37969	3	Standard
[> Sc	45		ug/L			579638	547722	2	Standard
| Cr	52	0.714	ug/L	0.028	3	10138	19664	2	Standard
| Cr	53	0.678	ug/L	0.015	2	92	1207	0	Standard
[> Ge	72		ug/L			33052	30087	2	KED
| Ni	60	0.612	ug/L	0.033	5	97	975	6	KED
| Ni	62	0.639	ug/L	0.038	5	15	162	7	KED
| Cu	63	5.288	ug/L	0.088	1	198	21568	0	KED
| Cu	65	5.255	ug/L	0.116	2	107	11007	0	KED
| Zn	66	140.941	ug/L	1.920	1	67	70163	1	KED
| Zn	67	133.083	ug/L	3.879	2	15	10786	2	KED
| As	75	1.106	ug/L	0.012	1	4	270	1	KED
| Y	89		ug/L			53627	51171	1	Standard
| Kr	83		ug/L			34	71	15	Standard
[> In-1	115		ug/L			7114	6329	1	KED
| Cd	111	0.112	ug/L	0.013	12	2	27	12	KED
| Cd	114	0.097	ug/L	0.002	2	0	57	2	KED
[> In	115		ug/L			522018	493757	1	Standard
| Ag	107	0.009	ug/L	0.001	7	24	170	6	Standard
[> Tb	159		ug/L			194588	185755	1	Standard
| Pb	208	0.563	ug/L	0.020	3	589	50598	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:08:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	36538	6	Standard
[> Sc	45		ug/L			579638	578838	2	Standard
| Cr	52	0.519	ug/L	0.007	1	10138	17866	2	Standard
| Cr	53	0.988	ug/L	0.059	5	92	1818	5	Standard
[> Ge	72		ug/L			33052	29808	1	KED
| Ni	60	0.569	ug/L	0.017	2	97	904	3	KED
| Ni	62	0.530	ug/L	0.027	5	15	135	3	KED
| Cu	63	3.554	ug/L	0.126	3	198	14417	2	KED
| Cu	65	3.585	ug/L	0.056	1	107	7470	0	KED
| Zn	66	2.359	ug/L	0.068	2	67	1222	1	KED
| Zn	67	2.363	ug/L	0.363	15	15	203	14	KED
| As	75	1.123	ug/L	0.031	2	4	272	1	KED
Y	89		ug/L			53627	59933	0	Standard
Kr	83		ug/L			34	63	13	Standard
[> In-1	115		ug/L			7114	6300	2	KED
| Cd	111	0.004	ug/L	0.009	216	2	2	66	KED
| Cd	114	0.010	ug/L	0.002	17	0	6	16	KED
[> In	115		ug/L			522018	486907	0	Standard
| Ag	107	0.007	ug/L	0.000	2	24	141	1	Standard
[> Tb	159		ug/L			194588	189476	1	Standard
| Pb	208	0.205	ug/L	0.005	2	589	19197	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:12:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38119	4	Standard
[> Sc	45		ug/L			579638	558704	1	Standard
| Cr	52	0.554	ug/L	0.023	4	10138	17750	3	Standard
| Cr	53	0.562	ug/L	0.027	4	92	1036	4	Standard
[> Ge	72		ug/L			33052	30571	1	KED
| Ni	60	0.746	ug/L	0.032	4	97	1186	2	KED
| Ni	62	0.744	ug/L	0.118	15	15	189	14	KED
| Cu	63	5.766	ug/L	0.128	2	198	23876	0	KED
| Cu	65	5.570	ug/L	0.189	3	107	11848	2	KED
| Zn	66	60.188	ug/L	2.507	4	67	30468	2	KED
| Zn	67	58.288	ug/L	1.458	2	15	4810	3	KED
| As	75	0.270	ug/L	0.016	6	4	70	6	KED
Y	89		ug/L			53627	54774	3	Standard
Kr	83		ug/L			34	70	10	Standard
[> In-1	115		ug/L			7114	6555	0	KED
| Cd	111	0.049	ug/L	0.020	40	2	13	34	KED
| Cd	114	0.048	ug/L	0.005	9	0	29	9	KED
[> In	115		ug/L			522018	515795	2	Standard
| Ag	107	0.008	ug/L	0.001	14	24	168	11	Standard
[> Tb	159		ug/L			194588	191287	1	Standard
| Pb	208	0.846	ug/L	0.012	1	589	78051	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0135-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:17:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38665	4	Standard
[> Sc	45		ug/L			579638	566861	1	Standard
| Cr	52	0.728	ug/L	0.010	1	10138	20546	2	Standard
| Cr	53	0.803	ug/L	0.062	7	92	1465	8	Standard
[> Ge	72		ug/L			33052	31153	1	KED
| Ni	60	1.149	ug/L	0.046	3	97	1813	4	KED
| Ni	62	1.105	ug/L	0.081	7	15	280	5	KED
| Cu	63	6.771	ug/L	0.129	1	198	28541	0	KED
| Cu	65	6.596	ug/L	0.167	2	107	14285	3	KED
| Zn	66	65.082	ug/L	0.876	1	67	33581	0	KED
| Zn	67	61.094	ug/L	4.276	6	15	5132	5	KED
| As	75	0.523	ug/L	0.041	7	4	134	6	KED
Y	89		ug/L			53627	59942	1	Standard
Kr	83		ug/L			34	76	13	Standard
[> In-1	115		ug/L			7114	6559	2	KED
| Cd	111	0.061	ug/L	0.030	48	2	16	42	KED
| Cd	114	0.056	ug/L	0.002	4	0	34	6	KED
[> In	115		ug/L			522018	504265	0	Standard
| Ag	107	0.008	ug/L	0.001	12	24	164	11	Standard
[> Tb	159		ug/L			194588	192160	1	Standard
| Pb	208	2.595	ug/L	0.038	1	589	239201	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:21:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	21544	3	Standard
[>	Sc	45	ug/L			579638	545161	2	Standard
|	Cr	52	-0.044	0.022	49	10138	8919	2	Standard
|	Cr	53	0.008	0.003	39	92	100	4	Standard
[>	Ge	72	ug/L			33052	30281	2	KED
|	Ni	60	0.028	0.008	27	97	130	5	KED
|	Ni	62	0.036	0.016	46	15	22	16	KED
|	Cu	63	0.014	0.008	60	198	236	11	KED
|	Cu	65	0.010	0.009	99	107	118	16	KED
|	Zn	66	-0.013	0.015	120	67	55	13	KED
|	Zn	67	-0.085	0.021	24	15	7	25	KED
|	As	75	-0.007	0.006	79	4	2	60	KED
	Y	89	ug/L			53627	50064	2	Standard
	Kr	83	ug/L			34	67	16	Standard
[>	In-1	115	ug/L			7114	6136	0	KED
|	Cd	111	-0.004	0.007	168	2	0	173	KED
|	Cd	114	-0.001	0.000	12	0	0	50	KED
[>	In	115	ug/L			522018	493408	1	Standard
|	Ag	107	-0.001	0.000	30	24	7	66	Standard
[>	Tb	159	ug/L			194588	186807	0	Standard
|	Pb	208	-0.000	0.000	396	589	558	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:26:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21516	4	Standard
[> Sc	45		ug/L			579638	550260	3	Standard
| Cr	52	49.898	ug/L	0.736	1	10138	717062	2	Standard
| Cr	53	48.905	ug/L	0.774	1	92	81286	2	Standard
[> Ge	72		ug/L			33052	30601	1	KED
| Ni	60	49.258	ug/L	1.105	2	97	72531	1	KED
| Ni	62	49.062	ug/L	0.777	1	15	11579	2	KED
| Cu	63	50.423	ug/L	1.755	3	198	207598	2	KED
| Cu	65	50.155	ug/L	0.422	0	107	106033	2	KED
| Zn	66	51.110	ug/L	1.440	2	67	25916	1	KED
| Zn	67	50.481	ug/L	0.741	1	15	4171	0	KED
| As	75	49.333	ug/L	0.457	0	4	12111	0	KED
Y	89		ug/L			53627	51421	2	Standard
Kr	83		ug/L			34	50	35	Standard
[> In-1	115		ug/L			7114	6373	2	KED
| Cd	111	51.144	ug/L	0.617	1	2	11817	1	KED
| Cd	114	51.111	ug/L	1.372	2	0	30374	0	KED
[> In	115		ug/L			522018	491126	0	Standard
| Ag	107	46.025	ug/L	0.868	1	24	743507	2	Standard
[> Tb	159		ug/L			194588	193039	1	Standard
| Pb	208	53.346	ug/L	0.719	1	589	4928316	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:33:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	20958	3	Standard
[> Sc	45		ug/L			579638	544844	3	Standard
| Cr	52	-0.036	ug/L	0.007	18	10138	9030	2	Standard
| Cr	53	-0.008	ug/L	0.008	108	92	73	17	Standard
[> Ge	72		ug/L			33052	30925	2	KED
| Ni	60	0.009	ug/L	0.032	345	97	106	47	KED
| Ni	62	0.017	ug/L	0.041	236	15	19	51	KED
| Cu	63	0.011	ug/L	0.031	286	198	232	57	KED
| Cu	65	0.003	ug/L	0.019	572	107	108	39	KED
| Zn	66	-0.038	ug/L	0.026	68	67	43	32	KED
| Zn	67	-0.087	ug/L	0.023	26	15	7	25	KED
| As	75	0.012	ug/L	0.013	106	4	7	46	KED
Y	89		ug/L			53627	51661	1	Standard
Kr	83		ug/L			34	57	21	Standard
[> In-1	115		ug/L			7114	6496	1	KED
| Cd	111	-0.003	ug/L	0.006	191	2	1	114	KED
| Cd	114	-0.001	ug/L	0.000	5	0	0	21	KED
[> In	115		ug/L			522018	495425	0	Standard
| Ag	107	0.001	ug/L	0.000	9	24	44	4	Standard
[> Tb	159		ug/L			194588	187990	1	Standard
| Pb	208	-0.003	ug/L	0.000	9	589	317	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0138-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:37:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26731	3	Standard
[> Sc	45		ug/L			579638	510919	2	Standard
[Cr	52	3.536	ug/L	0.053	1	10138	55491	1	Standard
[Cr	53	3.450	ug/L	0.048	1	92	5401	3	Standard
[> Ge	72		ug/L			33052	27574	0	KED
[Ni	60	0.373	ug/L	0.022	5	97	576	5	KED
[Ni	62	0.368	ug/L	0.037	9	15	91	8	KED
[Cu	63	2.632	ug/L	0.032	1	198	9922	1	KED
[Cu	65	2.576	ug/L	0.005	0	107	4991	0	KED
[Zn	66	1.731	ug/L	0.144	8	67	845	6	KED
[Zn	67	1.654	ug/L	0.275	16	15	135	14	KED
[As	75	0.040	ug/L	0.010	23	4	12	17	KED
Y	89		ug/L			53627	46957	1	Standard
Kr	83		ug/L			34	50	22	Standard
[> In-1	115		ug/L			7114	5630	4	KED
[Cd	111	0.012	ug/L	0.007	62	2	4	35	KED
[Cd	114	0.005	ug/L	0.002	32	0	2	32	KED
[> In	115		ug/L			522018	454440	3	Standard
[Ag	107	0.001	ug/L	0.001	86	24	35	32	Standard
[> Tb	159		ug/L			194588	177445	0	Standard
[Pb	208	0.009	ug/L	0.000	4	589	1292	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:42:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	25305	6	Standard
[> Sc	45		ug/L			579638	495840	2	Standard
[Cr	52	6.970	ug/L	0.074	1	10138	97727	1	Standard
[Cr	53	6.889	ug/L	0.140	2	92	10389	3	Standard
[> Ge	72		ug/L			33052	26357	0	KED
[Ni	60	0.396	ug/L	0.027	6	97	579	5	KED
[Ni	62	0.351	ug/L	0.046	13	15	83	10	KED
[Cu	63	2.634	ug/L	0.022	0	198	9492	0	KED
[Cu	65	2.580	ug/L	0.023	0	107	4779	1	KED
[Zn	66	1.552	ug/L	0.050	3	67	730	2	KED
[Zn	67	1.324	ug/L	0.279	21	15	106	19	KED
[As	75	0.037	ug/L	0.004	10	4	11	7	KED
Y	89		ug/L			53627	45441	0	Standard
Kr	83		ug/L			34	40	33	Standard
[> In-1	115		ug/L			7114	5374	2	KED
[Cd	111	0.009	ug/L	0.014	150	2	3	78	KED
[Cd	114	0.027	ug/L	0.012	46	0	13	43	KED
[> In	115		ug/L			522018	432964	3	Standard
[Ag	107	0.001	ug/L	0.000	45	24	31	12	Standard
[> Tb	159		ug/L			194588	174764	1	Standard
[Pb	208	0.034	ug/L	0.001	1	589	3409	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:47:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	26683	4	Standard
[>	Sc	45	ug/L			579638	489659	3	Standard
|	Cr	52	ug/L	0.073	1	10138	55912	1	Standard
|	Cr	53	ug/L	0.018	0	92	5636	2	Standard
[>	Ge	72	ug/L			33052	26552	0	KED
|	Ni	60	ug/L	0.018	4	97	549	4	KED
|	Ni	62	ug/L	0.078	22	15	83	18	KED
|	Cu	63	ug/L	0.028	1	198	9120	0	KED
|	Cu	65	ug/L	0.067	2	107	4546	3	KED
|	Zn	66	ug/L	0.028	2	67	529	2	KED
|	Zn	67	ug/L	0.129	15	15	71	12	KED
|	As	75	ug/L	0.011	29	4	11	19	KED
	Y	89	ug/L			53627	46118	3	Standard
	Kr	83	ug/L			34	36	7	Standard
[>	In-1	115	ug/L			7114	5389	1	KED
|	Cd	111	ug/L	0.006	33	2	5	21	KED
|	Cd	114	ug/L	0.007	70	0	5	65	KED
[>	In	115	ug/L			522018	441133	2	Standard
|	Ag	107	ug/L	0.000	46	24	12	31	Standard
[>	Tb	159	ug/L			194588	175179	1	Standard
|	Pb	208	ug/L	0.001	12	589	1111	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0139-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 02:53:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26767	4	Standard
[> Sc	45		ug/L			579638	504015	1	Standard
[Cr	52	3.513	ug/L	0.093	2	10138	54463	4	Standard
[Cr	53	3.463	ug/L	0.043	1	92	5348	3	Standard
[> Ge	72		ug/L			33052	26771	0	KED
[Ni	60	0.451	ug/L	0.023	5	97	659	4	KED
[Ni	62	0.489	ug/L	0.039	8	15	113	6	KED
[Cu	63	2.660	ug/L	0.052	1	198	9732	0	KED
[Cu	65	2.699	ug/L	0.079	2	107	5073	1	KED
[Zn	66	1.768	ug/L	0.133	7	67	836	6	KED
[Zn	67	1.750	ug/L	0.245	13	15	139	13	KED
[As	75	0.035	ug/L	0.007	21	4	11	15	KED
Y	89		ug/L			53627	46971	2	Standard
Kr	83		ug/L			34	48	12	Standard
[> In-1	115		ug/L			7114	5586	1	KED
[Cd	111	0.010	ug/L	0.005	47	2	3	25	KED
[Cd	114	0.010	ug/L	0.004	41	0	5	37	KED
[> In	115		ug/L			522018	433798	0	Standard
[Ag	107	0.002	ug/L	0.001	54	24	53	34	Standard
[> Tb	159		ug/L			194588	175484	1	Standard
[Pb	208	0.014	ug/L	0.001	5	589	1719	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 02:57:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	20581	4	Standard
[> Sc	45		ug/L			579638	514460	2	Standard
| Cr	52	0.023	ug/L	0.028	121	10138	9300	1	Standard
| Cr	53	-0.009	ug/L	0.001	15	92	67	3	Standard
[> Ge	72		ug/L			33052	29561	0	KED
| Ni	60	0.037	ug/L	0.010	28	97	139	10	KED
| Ni	62	0.010	ug/L	0.040	389	15	16	54	KED
| Cu	63	-0.030	ug/L	0.002	8	198	57	16	KED
| Cu	65	-0.036	ug/L	0.003	6	107	22	22	KED
| Zn	66	-0.017	ug/L	0.016	93	67	52	15	KED
| Zn	67	-0.107	ug/L	0.041	38	15	5	57	KED
| As	75	-0.007	ug/L	0.005	67	4	2	53	KED
Y	89		ug/L			53627	48791	1	Standard
Kr	83		ug/L			34	54	43	Standard
[> In-1	115		ug/L			7114	6083	2	KED
| Cd	111	-0.002	ug/L	0.005	315	2	1	69	KED
| Cd	114	0.002	ug/L	0.002	123	0	1	90	KED
[> In	115		ug/L			522018	488801	1	Standard
| Ag	107	-0.000	ug/L	0.000	49	24	18	11	Standard
[> Tb	159		ug/L			194588	184314	1	Standard
| Pb	208	-0.001	ug/L	0.000	30	589	479	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0136-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:02:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	32770	3	Standard
[> Sc	45		ug/L			579638	557739	0	Standard
| Cr	52	67.274	ug/L	2.653	3	10138	976668	3	Standard
| Cr	53	66.446	ug/L	0.652	0	92	111934	1	Standard
[> Ge	72		ug/L			33052	29236	0	KED
| Ni	60	1.121	ug/L	0.050	4	97	1661	3	KED
| Ni	62	1.234	ug/L	0.177	14	15	292	14	KED
| Cu	63	7.027	ug/L	0.005	0	198	27797	0	KED
| Cu	65	6.877	ug/L	0.141	2	107	13973	2	KED
| Zn	66	6.382	ug/L	0.084	1	67	3144	1	KED
| Zn	67	6.911	ug/L	0.750	10	15	557	9	KED
| As	75	2.137	ug/L	0.056	2	4	504	2	KED
Y	89		ug/L			53627	87368	1	Standard
Kr	83		ug/L			34	57	10	Standard
[> In-1	115		ug/L			7114	6172	2	KED
| Cd	111	0.003	ug/L	0.007	235	2	2	57	KED
| Cd	114	0.015	ug/L	0.010	69	0	8	65	KED
[> In	115		ug/L			522018	485517	3	Standard
| Ag	107	0.011	ug/L	0.000	2	24	199	4	Standard
[> Tb	159		ug/L			194588	194873	2	Standard
| Pb	208	1.553	ug/L	0.050	3	589	145383	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0137-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:06:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	35755	6	Standard
[>	Sc	45	ug/L			579638	535473	2	Standard
|	Cr	52	ug/L	0.032	9	10138	14033	5	Standard
|	Cr	53	ug/L	0.012	3	92	639	4	Standard
[>	Ge	72	ug/L			33052	29985	1	KED
|	Ni	60	ug/L	0.028	10	97	484	6	KED
|	Ni	62	ug/L	0.052	18	15	80	14	KED
|	Cu	63	ug/L	0.041	0	198	19250	1	KED
|	Cu	65	ug/L	0.101	2	107	9738	2	KED
|	Zn	66	ug/L	0.593	1	67	22489	2	KED
|	Zn	67	ug/L	1.352	3	15	3456	3	KED
|	As	75	ug/L	0.015	8	4	45	9	KED
	Y	89	ug/L			53627	51488	2	Standard
	Kr	83	ug/L			34	48	35	Standard
[>	In-1	115	ug/L			7114	6231	1	KED
|	Cd	111	ug/L	0.011	39	2	7	30	KED
|	Cd	114	ug/L	0.007	16	0	23	17	KED
[>	In	115	ug/L			522018	499250	1	Standard
|	Ag	107	ug/L	0.001	15	24	86	10	Standard
[>	Tb	159	ug/L			194588	189397	1	Standard
|	Pb	208	ug/L	0.023	2	589	71873	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-21**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:11:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33248	2	Standard
[> Sc	45		ug/L			579638	537208	1	Standard
| Cr	52	0.097	ug/L	0.020	20	10138	10742	2	Standard
| Cr	53	0.104	ug/L	0.004	3	92	253	3	Standard
[> Ge	72		ug/L			33052	29942	2	KED
| Ni	60	0.000	ug/L	0.010	5753	97	88	17	KED
| Ni	62	0.026	ug/L	0.014	53	15	20	14	KED
| Cu	63	0.081	ug/L	0.008	9	198	505	6	KED
| Cu	65	0.080	ug/L	0.008	10	107	262	4	KED
| Zn	66	0.867	ug/L	0.118	13	67	490	11	KED
| Zn	67	0.698	ug/L	0.164	23	15	70	16	KED
| As	75	0.000	ug/L	0.007	1825	4	4	43	KED
| Y	89		ug/L			53627	50819	1	Standard
| Kr	83		ug/L			34	50	11	Standard
[> In-1	115		ug/L			7114	6279	2	KED
| Cd	111	0.005	ug/L	0.002	39	2	3	17	KED
| Cd	114	0.004	ug/L	0.002	46	0	2	39	KED
[> In	115		ug/L			522018	507431	1	Standard
| Ag	107	-0.000	ug/L	0.001	2064	24	23	46	Standard
[> Tb	159		ug/L			194588	187192	0	Standard
| Pb	208	0.021	ug/L	0.001	6	589	2460	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-22**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:15:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33216	5	Standard
[> Sc	45		ug/L			579638	540455	2	Standard
| Cr	52	0.193	ug/L	0.007	3	10138	12141	2	Standard
| Cr	53	0.213	ug/L	0.006	2	92	432	1	Standard
[> Ge	72		ug/L			33052	29934	2	KED
| Ni	60	-0.016	ug/L	0.007	43	97	65	13	KED
| Ni	62	-0.013	ug/L	0.015	121	15	11	28	KED
| Cu	63	0.144	ug/L	0.010	6	198	760	2	KED
| Cu	65	0.145	ug/L	0.007	4	107	398	4	KED
| Zn	66	0.558	ug/L	0.016	2	67	337	2	KED
| Zn	67	0.635	ug/L	0.206	32	15	65	24	KED
| As	75	-0.008	ug/L	0.004	48	4	2	48	KED
| Y	89		ug/L			53627	51381	1	Standard
| Kr	83		ug/L			34	43	45	Standard
[> In-1	115		ug/L			7114	6475	1	KED
| Cd	111	-0.005	ug/L	0.004	87	2	0	100	KED
| Cd	114	-0.001	ug/L	0.000	18	0	0	91	KED
[> In	115		ug/L			522018	506450	0	Standard
| Ag	107	-0.000	ug/L	0.000	27	24	15	13	Standard
[> Tb	159		ug/L			194588	190548	0	Standard
| Pb	208	0.003	ug/L	0.001	18	589	829	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:20:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21935	7	Standard
[> Sc	45		ug/L			579638	534807	2	Standard
| Cr	52	-0.045	ug/L	0.003	6	10138	8736	2	Standard
| Cr	53	-0.006	ug/L	0.004	69	92	75	6	Standard
[> Ge	72		ug/L			33052	29971	2	KED
| Ni	60	0.025	ug/L	0.011	45	97	123	11	KED
| Ni	62	0.043	ug/L	0.040	95	15	24	37	KED
| Cu	63	-0.031	ug/L	0.002	6	198	53	16	KED
| Cu	65	-0.033	ug/L	0.009	26	107	29	59	KED
| Zn	66	-0.013	ug/L	0.015	121	67	54	12	KED
| Zn	67	-0.060	ug/L	0.096	158	15	9	80	KED
| As	75	-0.009	ug/L	0.009	99	4	1	108	KED
Y	89		ug/L			53627	51479	1	Standard
Kr	83		ug/L			34	55	15	Standard
[> In-1	115		ug/L			7114	6208	1	KED
| Cd	111	-0.000	ug/L	0.004	3385	2	1	50	KED
| Cd	114	0.001	ug/L	0.004	255	0	1	184	KED
[> In	115		ug/L			522018	496396	1	Standard
| Ag	107	-0.001	ug/L	0.000	8	24	8	12	Standard
[> Tb	159		ug/L			194588	186482	2	Standard
| Pb	208	-0.001	ug/L	0.000	16	589	459	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:24:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	22807	7	Standard
[> Sc	45		ug/L			579638	556000	2	Standard
| Cr	52	48.851	ug/L	0.760	1	10138	709575	1	Standard
| Cr	53	48.141	ug/L	0.705	1	92	80877	3	Standard
[> Ge	72		ug/L			33052	29925	0	KED
| Ni	60	50.748	ug/L	0.354	0	97	73083	1	KED
| Ni	62	50.531	ug/L	1.699	3	15	11660	3	KED
| Cu	63	51.681	ug/L	0.769	1	198	208097	1	KED
| Cu	65	50.635	ug/L	1.471	2	107	104669	2	KED
| Zn	66	51.834	ug/L	0.857	1	67	25705	1	KED
| Zn	67	50.952	ug/L	0.559	1	15	4117	0	KED
| As	75	50.274	ug/L	0.907	1	4	12069	1	KED
Y	89		ug/L			53627	50922	0	Standard
Kr	83		ug/L			34	59	6	Standard
[> In-1	115		ug/L			7114	6455	1	KED
| Cd	111	50.608	ug/L	1.004	1	2	11844	0	KED
| Cd	114	51.083	ug/L	1.456	2	0	30752	1	KED
[> In	115		ug/L			522018	489404	3	Standard
| Ag	107	46.320	ug/L	1.660	3	24	744936	0	Standard
[> Tb	159		ug/L			194588	189215	1	Standard
| Pb	208	54.914	ug/L	0.055	0	589	4973228	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:31:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	22233	3	Standard
[> Sc	45		ug/L			579638	549986	1	Standard
| Cr	52	-0.050	ug/L	0.020	40	10138	8905	3	Standard
| Cr	53	-0.014	ug/L	0.005	36	92	64	12	Standard
[> Ge	72		ug/L			33052	30190	2	KED
| Ni	60	-0.022	ug/L	0.003	15	97	57	10	KED
| Ni	62	-0.005	ug/L	0.013	257	15	13	24	KED
| Cu	63	-0.035	ug/L	0.004	12	198	38	45	KED
| Cu	65	-0.040	ug/L	0.002	6	107	15	30	KED
| Zn	66	-0.071	ug/L	0.013	18	67	26	23	KED
| Zn	67	-0.155	ug/L	0.024	15	15	1	100	KED
| As	75	-0.006	ug/L	0.006	114	4	2	56	KED
Y	89		ug/L			53627	49886	1	Standard
Kr	83		ug/L			34	40	18	Standard
[> In-1	115		ug/L			7114	6635	3	KED
| Cd	111	-0.001	ug/L	0.000	41	2	1		KED
| Cd	114	0.004	ug/L	0.002	42	0	3	37	KED
[> In	115		ug/L			522018	502273	1	Standard
| Ag	107	0.002	ug/L	0.002	86	24	62	52	Standard
[> Tb	159		ug/L			194588	186108	1	Standard
| Pb	208	-0.002	ug/L	0.002	146	589	411	53	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-11**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:36:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	31765	4	Standard
[> Sc	45		ug/L			579638	563677	2	Standard
| Cr	52	0.516	ug/L	0.028	5	10138	17347	1	Standard
| Cr	53	0.528	ug/L	0.028	5	92	987	7	Standard
[> Ge	72		ug/L			33052	31098	3	KED
| Ni	60	0.485	ug/L	0.004	0	97	817	3	KED
| Ni	62	0.513	ug/L	0.019	3	15	137	2	KED
| Cu	63	4.141	ug/L	0.127	3	198	17492	1	KED
| Cu	65	4.064	ug/L	0.150	3	107	8818	0	KED
| Zn	66	14.845	ug/L	0.550	3	67	7690	1	KED
| Zn	67	13.795	ug/L	1.052	7	15	1168	6	KED
| As	75	0.979	ug/L	0.034	3	4	248	1	KED
Y	89		ug/L			53627	58044	1	Standard
Kr	83		ug/L			34	40	45	Standard
[> In-1	115		ug/L			7114	6522	1	KED
| Cd	111	0.010	ug/L	0.015	148	2	4	81	KED
| Cd	114	0.024	ug/L	0.022	92	0	15	90	KED
[> In	115		ug/L			522018	517383	2	Standard
| Ag	107	0.005	ug/L	0.001	12	24	112	7	Standard
[> Tb	159		ug/L			194588	192288	0	Standard
| Pb	208	0.297	ug/L	0.004	1	589	27902	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-13**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:40:42**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	33420	6	Standard
[> Sc	45		ug/L			579638	597184	2	Standard
| Cr	52	0.086	ug/L	0.003	3	10138	11761	2	Standard
| Cr	53	0.672	ug/L	0.020	3	92	1306	5	Standard
[> Ge	72		ug/L			33052	29672	0	KED
| Ni	60	0.873	ug/L	0.063	7	97	1333	7	KED
| Ni	62	0.796	ug/L	0.037	4	15	196	3	KED
| Cu	63	2.671	ug/L	0.041	1	198	10832	1	KED
| Cu	65	2.604	ug/L	0.067	2	107	5428	2	KED
| Zn	66	4.566	ug/L	0.064	1	67	2300	0	KED
| Zn	67	4.512	ug/L	0.361	8	15	374	8	KED
| As	75	8.446	ug/L	0.070	0	4	2013	0	KED
Y	89		ug/L			53627	52902	3	Standard
Kr	83		ug/L			34	40	29	Standard
[> In-1	115		ug/L			7114	6338	3	KED
| Cd	111	0.044	ug/L	0.017	39	2	12	35	KED
| Cd	114	0.047	ug/L	0.021	45	0	28	48	KED
[> In	115		ug/L			522018	485458	1	Standard
| Ag	107	0.007	ug/L	0.001	11	24	130	8	Standard
[> Tb	159		ug/L			194588	190390	1	Standard
| Pb	208	0.116	ug/L	0.005	4	589	11107	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:45:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	38314	4	Standard
[> Sc	45		ug/L			579638	646981	2	Standard
| Cr	52	0.888	ug/L	0.023	2	10138	26120	2	Standard
| Cr	53	1.076	ug/L	0.017	1	92	2203	2	Standard
[> Ge	72		ug/L			33052	29945	1	KED
| Ni	60	1.543	ug/L	0.011	0	97	2310	0	KED
| Ni	62	1.604	ug/L	0.107	6	15	384	5	KED
| Cu	63	8.861	ug/L	0.062	0	198	35851	0	KED
| Cu	65	8.710	ug/L	0.233	2	107	18094	1	KED
| Zn	66	59.363	ug/L	1.858	3	67	29443	1	KED
| Zn	67	55.640	ug/L	1.116	2	15	4497	2	KED
| As	75	13.552	ug/L	0.241	1	4	3258	0	KED
Y	89		ug/L			53627	53454	1	Standard
Kr	83		ug/L			34	42	31	Standard
[> In-1	115		ug/L			7114	6255	2	KED
| Cd	111	0.095	ug/L	0.028	29	2	23	26	KED
| Cd	114	0.094	ug/L	0.028	29	0	55	31	KED
[> In	115		ug/L			522018	483384	2	Standard
| Ag	107	0.020	ug/L	0.003	14	24	338	11	Standard
[> Tb	159		ug/L			194588	187521	0	Standard
| Pb	208	0.498	ug/L	0.005	1	589	45223	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 03:49:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	70854	3	Standard
[> Sc	45		ug/L			579638	449320	6	Standard
| Cr	52	7.887	ug/L	0.328	4	10138	99022	2	Standard
| Cr	53	7.426	ug/L	0.154	2	92	10131	4	Standard
[> Ge	72		ug/L			33052	25478	2	KED
| Ni	60	1.547	ug/L	0.066	4	97	1969	4	KED
| Ni	62	1.644	ug/L	0.112	6	15	334	4	KED
| Cu	63	0.100	ug/L	0.014	13	198	497	9	KED
| Cu	65	0.093	ug/L	0.018	19	107	246	10	KED
| Zn	66	11.574	ug/L	0.487	4	67	4924	2	KED
| Zn	67	10.735	ug/L	0.983	9	15	747	6	KED
| As	75	0.044	ug/L	0.003	6	4	12	3	KED
Y	89		ug/L			53627	44728	0	Standard
Kr	83		ug/L			34	46	9	Standard
[> In-1	115		ug/L			7114	5192	0	KED
| Cd	111	0.170	ug/L	0.024	13	2	33	13	KED
| Cd	114	0.224	ug/L	0.028	12	0	108	11	KED
[> In	115		ug/L			522018	411063	1	Standard
| Ag	107	0.000	ug/L	0.000	143	24	23	26	Standard
[> Tb	159		ug/L			194588	163966	1	Standard
| Pb	208	0.025	ug/L	0.001	5	589	2473	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 03:57:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	20319	5	Standard
[> Sc	45		ug/L			579638	499605	1	Standard
| Cr	52	-0.046	ug/L	0.012	25	10138	8150	1	Standard
| Cr	53	-0.005	ug/L	0.004	73	92	71	6	Standard
[> Ge	72		ug/L			33052	27777	0	KED
| Ni	60	-0.024	ug/L	0.014	58	97	50	38	KED
| Ni	62	-0.003	ug/L	0.031	991	15	12	52	KED
| Cu	63	-0.034	ug/L	0.004	10	198	38	34	KED
| Cu	65	-0.036	ug/L	0.001	2	107	20	9	KED
| Zn	66	-0.045	ug/L	0.043	96	67	36	55	KED
| Zn	67	-0.059	ug/L	0.097	163	15	8	81	KED
| As	75	-0.008	ug/L	0.004	52	4	1	50	KED
Y	89		ug/L			53627	46991	0	Standard
Kr	83		ug/L			34	40	50	Standard
[> In-1	115		ug/L			7114	5646	3	KED
| Cd	111	-0.005	ug/L	0.003	50	2	0	86	KED
| Cd	114	0.004	ug/L	0.006	134	0	2	115	KED
[> In	115		ug/L			522018	478274	1	Standard
| Ag	107	-0.000	ug/L	0.001	134	24	15	56	Standard
[> Tb	159		ug/L			194588	177490	1	Standard
| Pb	208	-0.003	ug/L	0.000	8	589	291	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:02:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	25567	1	Standard
> Sc	45		ug/L			579638	570472	2	Standard
| Cr	52	0.037	ug/L	0.013	34	10138	10522	1	Standard
| Cr	53	0.161	ug/L	0.007	4	92	368	5	Standard
> Ge	72		ug/L			33052	27813	1	KED
| Ni	60	0.117	ug/L	0.020	17	97	238	9	KED
| Ni	62	0.157	ug/L	0.051	32	15	46	23	KED
| Cu	63	0.061	ug/L	0.008	13	198	394	9	KED
| Cu	65	0.056	ug/L	0.007	12	107	198	5	KED
| Zn	66	0.314	ug/L	0.053	16	67	201	13	KED
| Zn	67	0.544	ug/L	0.135	24	15	53	17	KED
| As	75	0.881	ug/L	0.057	6	4	200	5	KED
Y	89		ug/L			53627	51535	1	Standard
Kr	83		ug/L			34	35	18	Standard
> In-1	115		ug/L			7114	5808	1	KED
| Cd	111	-0.003	ug/L	0.003	97	2	1	43	KED
| Cd	114	0.003	ug/L	0.006	216	0	1	180	KED
> In	115		ug/L			522018	466235	0	Standard
| Ag	107	0.000	ug/L	0.001	647	24	23	38	Standard
> Tb	159		ug/L			194588	184807	1	Standard
| Pb	208	0.009	ug/L	0.001	10	589	1353	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-DUP3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:06:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	25921	4	Standard
[>	Sc	45	ug/L			579638	571398	1	Standard
|	Cr	52	ug/L	0.018	67	10138	10378	1	Standard
|	Cr	53	ug/L	0.014	8	92	378	6	Standard
[>	Ge	72	ug/L			33052	27769	2	KED
|	Ni	60	ug/L	0.011	7	97	276	3	KED
|	Ni	62	ug/L	0.050	49	15	34	30	KED
|	Cu	63	ug/L	0.017	97	198	231	27	KED
|	Cu	65	ug/L	0.008	62	107	114	13	KED
|	Zn	66	ug/L	0.064	17	67	220	12	KED
|	Zn	67	ug/L	0.103	23	15	46	14	KED
|	As	75	ug/L	0.075	7	4	213	5	KED
	Y	89	ug/L			53627	51598	1	Standard
	Kr	83	ug/L			34	38	23	Standard
[>	In-1	115	ug/L			7114	5735	1	KED
|	Cd	111	ug/L	0.003	39	2	3	17	KED
|	Cd	114	ug/L	0.004	80	0	2	73	KED
[>	In	115	ug/L			522018	473625	1	Standard
|	Ag	107	ug/L	0.000	51	24	15	25	Standard
[>	Tb	159	ug/L			194588	184642	1	Standard
|	Pb	208	ug/L	0.000	7	589	1104	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MS3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:11:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26225	3	Standard
[> Sc	45		ug/L			579638	578116	3	Standard
[Cr	52	4.784	ug/L	0.234	4	10138	81350	3	Standard
[Cr	53	4.812	ug/L	0.226	4	92	8479	1	Standard
[> Ge	72		ug/L			33052	28372	0	KED
[Ni	60	5.500	ug/L	0.057	1	97	7584	1	KED
[Ni	62	5.488	ug/L	0.209	3	15	1212	2	KED
[Cu	63	5.297	ug/L	0.107	2	198	20376	2	KED
[Cu	65	5.293	ug/L	0.035	0	107	10457	1	KED
[Zn	66	17.411	ug/L	0.199	1	67	8225	1	KED
[Zn	67	16.806	ug/L	0.629	3	15	1296	2	KED
[As	75	6.246	ug/L	0.164	2	4	1424	1	KED
Y	89		ug/L			53627	53132	2	Standard
Kr	83		ug/L			34	51	45	Standard
[> In-1	115		ug/L			7114	5936	1	KED
[Cd	111	5.302	ug/L	0.017	0	2	1142	1	KED
[Cd	114	5.212	ug/L	0.091	1	0	2887	3	KED
[> In	115		ug/L			522018	478703	2	Standard
[Ag	107	4.852	ug/L	0.119	2	24	76442	4	Standard
[> Tb	159		ug/L			194588	185283	0	Standard
[Pb	208	5.696	ug/L	0.049	0	589	505647	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0120-MSD3**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:17:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	26543	2	Standard
> Sc	45		ug/L			579638	587593	2	Standard
| Cr	52	4.909	ug/L	0.087	1	10138	84614	2	Standard
| Cr	53	4.941	ug/L	0.054	1	92	8855	2	Standard
> Ge	72		ug/L			33052	29168	1	KED
| Ni	60	5.411	ug/L	0.139	2	97	7671	2	KED
| Ni	62	5.517	ug/L	0.086	1	15	1253	1	KED
| Cu	63	5.427	ug/L	0.106	1	198	21457	1	KED
| Cu	65	5.392	ug/L	0.133	2	107	10947	1	KED
| Zn	66	17.608	ug/L	0.518	2	67	8549	1	KED
| Zn	67	16.790	ug/L	0.367	2	15	1332	3	KED
| As	75	6.344	ug/L	0.141	2	4	1487	0	KED
Y	89		ug/L			53627	54403	3	Standard
Kr	83		ug/L			34	43	19	Standard
> In-1	115		ug/L			7114	6065	1	KED
| Cd	111	5.441	ug/L	0.071	1	2	1198	1	KED
| Cd	114	5.437	ug/L	0.220	4	0	3075	2	KED
> In	115		ug/L			522018	480828	1	Standard
| Ag	107	4.983	ug/L	0.032	0	24	78821	0	Standard
> Tb	159		ug/L			194588	183019	2	Standard
| Pb	208	5.992	ug/L	0.152	2	589	525164	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:21:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	21528	5	Standard
[>	Sc	45	ug/L			579638	504587	2	Standard
|	Cr	52	ug/L	0.013	26	10138	8189	4	Standard
|	Cr	53	ug/L	0.010	914	92	78	20	Standard
[>	Ge	72	ug/L			33052	29052	2	KED
|	Ni	60	ug/L	0.002	9	97	48	6	KED
|	Ni	62	ug/L	0.008	39	15	9	20	KED
|	Cu	63	ug/L	0.001	4	198	38	13	KED
|	Cu	65	ug/L	0.002	5	107	12	31	KED
|	Zn	66	ug/L	0.013	20	67	28	24	KED
|	Zn	67	ug/L	0.028	22	15	4	49	KED
|	As	75	ug/L	0.008	108	4	2	81	KED
	Y	89	ug/L			53627	49637	1	Standard
	Kr	83	ug/L			34	38	20	Standard
[>	In-1	115	ug/L			7114	6027	1	KED
|	Cd	111	ug/L	0.007	226	2	1	114	KED
|	Cd	114	ug/L	0.002	394	0	0	180	KED
[>	In	115	ug/L			522018	479515	1	Standard
|	Ag	107	ug/L	0.000	299	24	20	32	Standard
[>	Tb	159	ug/L			194588	179966	0	Standard
|	Pb	208	ug/L	0.000	6	589	288	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:26:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23951	21819	4	Standard
[> Sc	45		ug/L			579638	537241	1	Standard
| Cr	52	48.713	ug/L	0.418	0	10138	683894	1	Standard
| Cr	53	47.716	ug/L	0.941	1	92	77447	2	Standard
[> Ge	72		ug/L			33052	28563	3	KED
| Ni	60	50.357	ug/L	1.050	2	97	69185	1	KED
| Ni	62	49.360	ug/L	2.641	5	15	10859	2	KED
| Cu	63	50.236	ug/L	1.591	3	198	192937	0	KED
| Cu	65	49.314	ug/L	2.387	4	107	97191	1	KED
| Zn	66	51.840	ug/L	1.972	3	67	24518	1	KED
| Zn	67	50.726	ug/L	2.388	4	15	3909	3	KED
| As	75	49.845	ug/L	2.221	4	4	11411	2	KED
Y	89		ug/L			53627	50469	1	Standard
Kr	83		ug/L			34	51	9	Standard
[> In-1	115		ug/L			7114	6035	1	KED
| Cd	111	50.348	ug/L	1.040	2	2	11017	1	KED
| Cd	114	49.801	ug/L	1.740	3	0	28030	2	KED
[> In	115		ug/L			522018	483754	2	Standard
| Ag	107	45.747	ug/L	1.559	3	24	727585	1	Standard
[> Tb	159		ug/L			194588	186391	1	Standard
| Pb	208	55.271	ug/L	0.646	1	589	4930661	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:33:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23951	21106	1	Standard
[>	Sc	45	ug/L			579638	522344	0	Standard
|	Cr	52	ug/L	0.019	31	10138	8310	2	Standard
|	Cr	53	ug/L	0.004	59	92	73	8	Standard
[>	Ge	72	ug/L			33052	29478	2	KED
|	Ni	60	ug/L	0.009	77	97	69	16	KED
|	Ni	62	ug/L	0.010	201	15	15	12	KED
|	Cu	63	ug/L	0.002	5	198	30	27	KED
|	Cu	65	ug/L	0.004	9	107	18	41	KED
|	Zn	66	ug/L	0.007	9	67	26	15	KED
|	Zn	67	ug/L	0.025	19	15	3	50	KED
|	As	75	ug/L	0.003	62	4	2	26	KED
	Y	89	ug/L			53627	49249	1	Standard
	Kr	83	ug/L			34	43	24	Standard
[>	In-1	115	ug/L			7114	6244	2	KED
|	Cd	111	ug/L	0.009	593	2	1	124	KED
|	Cd	114	ug/L	0.004	251	0	1	184	KED
[>	In	115	ug/L			522018	496790	2	Standard
|	Ag	107	ug/L	0.001	101	24	40	40	Standard
[>	Tb	159	ug/L			194588	181353	2	Standard
|	Pb	208	ug/L	0.000	9	589	283	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:37:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				21210	4	Standard
[>	Sc	45	ug/L				512571	4	Standard
|	Cr	52	ug/L				7952	2	Standard
|	Cr	53	ug/L				75	19	Standard
[>	Ge	72	ug/L				28784	1	KED
|	Ni	60	ug/L				75	11	KED
|	Ni	62	ug/L				12	56	KED
|	Cu	63	ug/L				53	8	KED
|	Cu	65	ug/L				25	37	KED
|	Zn	66	ug/L				52	8	KED
|	Zn	67	ug/L				8	13	KED
|	As	75	ug/L				3	33	KED
	Y	89	ug/L				50088	0	Standard
	Kr	83	ug/L				44	32	Standard
[>	In-1	115	ug/L				6034	0	KED
|	Cd	111	ug/L				1	34	KED
|	Cd	114	ug/L				1	102	KED
[>	In	115	ug/L				486697	0	Standard
|	Ag	107	ug/L				29	39	Standard
[>	Tb	159	ug/L				178618	1	Standard
|	Pb	208	ug/L				534	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:42:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	22837	2	Standard
[> Sc	45		ug/L			512571	535240	2	Standard
| Cr	52	49.491	ug/L	0.986	1	7952	690998	3	Standard
| Cr	53	48.754	ug/L	0.390	0	75	78819	1	Standard
[> Ge	72		ug/L			28784	29525	1	KED
| Ni	60	50.055	ug/L	0.415	0	75	71110	0	KED
| Ni	62	49.979	ug/L	1.344	2	12	11377	1	KED
| Cu	63	50.840	ug/L	1.123	2	53	201840	1	KED
| Cu	65	49.659	ug/L	0.970	1	25	101204	1	KED
| Zn	66	50.552	ug/L	0.931	1	52	24728	0	KED
| Zn	67	49.626	ug/L	2.134	4	8	3950	3	KED
| As	75	48.478	ug/L	0.311	0	3	11483	0	KED
Y	89		ug/L			50088	50850	3	Standard
Kr	83		ug/L			44	46	16	Standard
[> In-1	115		ug/L			6034	6252	1	KED
| Cd	111	49.549	ug/L	0.377	0	1	11233	2	KED
| Cd	114	50.157	ug/L	0.178	0	1	29252	1	KED
[> In	115		ug/L			486697	479759	2	Standard
| Ag	107	46.667	ug/L	0.707	1	29	736349	2	Standard
[> Tb	159		ug/L			178618	186665	1	Standard
| Pb	208	55.001	ug/L	1.042	1	534	4913677	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 04:49:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	21997	3	Standard
[> Sc	45		ug/L			512571	533122	1	Standard
| Cr	52	0.014	ug/L	0.006	43	7952	8458	2	Standard
| Cr	53	-0.009	ug/L	0.006	71	75	64	15	Standard
[> Ge	72		ug/L			28784	29712	0	KED
| Ni	60	-0.021	ug/L	0.008	39	75	48	24	KED
| Ni	62	-0.024	ug/L	0.000	0	12	7	0	KED
| Cu	63	-0.005	ug/L	0.001	17	53	36	9	KED
| Cu	65	-0.004	ug/L	0.002	41	25	17	22	KED
| Zn	66	-0.068	ug/L	0.025	37	52	20	59	KED
| Zn	67	-0.059	ug/L	0.041	70	8	3	86	KED
| As	75	-0.003	ug/L	0.005	212	3	3	37	KED
Y	89		ug/L			50088	49727	2	Standard
Kr	83		ug/L			44	43	24	Standard
[> In-1	115		ug/L			6034	6050	0	KED
| Cd	111	-0.004	ug/L	0.003	57	1	0	86	KED
| Cd	114	0.000	ug/L	0.004	6243	1	1	192	KED
[> In	115		ug/L			486697	490182	1	Standard
| Ag	107	0.001	ug/L	0.001	61	29	45	23	Standard
[> Tb	159		ug/L			178618	181329	1	Standard
| Pb	208	-0.003	ug/L	0.001	22	534	307	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:53:59**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41125	4	Standard
[> Sc	45		ug/L			512571	553406	2	Standard
| Cr	52	0.370	ug/L	0.014	3	7952	13862	0	Standard
| Cr	53	0.421	ug/L	0.015	3	75	784	3	Standard
[> Ge	72		ug/L			28784	29957	1	KED
| Ni	60	0.870	ug/L	0.040	4	75	1330	3	KED
| Ni	62	0.872	ug/L	0.054	6	12	214	6	KED
| Cu	63	2.805	ug/L	0.089	3	53	11350	2	KED
| Cu	65	2.680	ug/L	0.062	2	25	5568	2	KED
| Zn	66	10.735	ug/L	0.292	2	52	5370	1	KED
| Zn	67	10.167	ug/L	0.647	6	8	827	5	KED
| As	75	1.857	ug/L	0.005	0	3	450	1	KED
Y	89		ug/L			50088	52074	0	Standard
Kr	83		ug/L			44	43	2	Standard
[> In-1	115		ug/L			6034	6279	0	KED
| Cd	111	0.015	ug/L	0.005	32	1	5	21	KED
| Cd	114	0.018	ug/L	0.004	21	1	11	19	KED
[> In	115		ug/L			486697	500655	1	Standard
| Ag	107	0.002	ug/L	0.001	40	29	55	19	Standard
[> Tb	159		ug/L			178618	186090	1	Standard
| Pb	208	0.043	ug/L	0.002	3	534	4388	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 04:58:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	37818	3	Standard
[> Sc	45		ug/L			512571	620959	3	Standard
| Cr	52	0.750	ug/L	0.035	4	7952	21630	0	Standard
| Cr	53	0.850	ug/L	0.037	4	75	1682	2	Standard
[> Ge	72		ug/L			28784	28362	2	KED
| Ni	60	1.873	ug/L	0.124	6	75	2627	7	KED
| Ni	62	2.080	ug/L	0.104	5	12	466	2	KED
| Cu	63	6.207	ug/L	0.041	0	53	23720	1	KED
| Cu	65	5.944	ug/L	0.210	3	25	11654	1	KED
| Zn	66	13.939	ug/L	0.181	1	52	6588	1	KED
| Zn	67	13.056	ug/L	0.606	4	8	1005	6	KED
| As	75	13.044	ug/L	0.191	1	3	2970	0	KED
Y	89		ug/L			50088	52960	3	Standard
Kr	83		ug/L			44	37	12	Standard
[> In-1	115		ug/L			6034	5947	1	KED
| Cd	111	0.186	ug/L	0.014	7	1	41	5	KED
| Cd	114	0.208	ug/L	0.016	7	1	116	6	KED
[> In	115		ug/L			486697	479901	1	Standard
| Ag	107	0.012	ug/L	0.001	8	29	218	5	Standard
[> Tb	159		ug/L			178618	184864	1	Standard
| Pb	208	0.644	ug/L	0.011	1	534	57486	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:02:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35079	4	Standard
[> Sc	45		ug/L			512571	617244	2	Standard
| Cr	52	0.125	ug/L	0.020	15	7952	11566	2	Standard
| Cr	53	0.244	ug/L	0.006	2	75	546	4	Standard
[> Ge	72		ug/L			28784	27855	1	KED
| Ni	60	0.829	ug/L	0.066	7	75	1181	6	KED
| Ni	62	0.946	ug/L	0.098	10	12	215	9	KED
| Cu	63	3.890	ug/L	0.068	1	53	14619	1	KED
| Cu	65	3.923	ug/L	0.106	2	25	7565	1	KED
| Zn	66	3.697	ug/L	0.051	1	52	1753	2	KED
| Zn	67	3.953	ug/L	0.258	6	8	304	5	KED
| As	75	20.959	ug/L	0.676	3	3	4684	1	KED
Y	89		ug/L			50088	50382	1	Standard
Kr	83		ug/L			44	40	12	Standard
[> In-1	115		ug/L			6034	5808	2	KED
| Cd	111	0.055	ug/L	0.019	34	1	13	27	KED
| Cd	114	0.072	ug/L	0.029	40	1	40	39	KED
[> In	115		ug/L			486697	470446	1	Standard
| Ag	107	0.006	ug/L	0.000	7	29	123	6	Standard
[> Tb	159		ug/L			178618	183524	1	Standard
| Pb	208	0.140	ug/L	0.003	1	534	12872	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:07:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	36815	5	Standard
[> Sc	45		ug/L			512571	612003	2	Standard
| Cr	52	0.190	ug/L	0.013	7	7952	12489	1	Standard
| Cr	53	0.324	ug/L	0.013	4	75	687	5	Standard
[> Ge	72		ug/L			28784	27936	0	KED
| Ni	60	0.814	ug/L	0.060	7	75	1165	6	KED
| Ni	62	0.884	ug/L	0.083	9	12	202	8	KED
| Cu	63	3.939	ug/L	0.170	4	53	14843	3	KED
| Cu	65	3.916	ug/L	0.044	1	25	7575	0	KED
| Zn	66	4.135	ug/L	0.215	5	52	1961	5	KED
| Zn	67	4.277	ug/L	0.228	5	8	329	4	KED
| As	75	20.891	ug/L	0.311	1	3	4684	0	KED
Y	89		ug/L			50088	50782	1	Standard
Kr	83		ug/L			44	56	10	Standard
[> In-1	115		ug/L			6034	5897	1	KED
| Cd	111	0.072	ug/L	0.012	16	1	16	14	KED
| Cd	114	0.084	ug/L	0.026	31	1	47	31	KED
[> In	115		ug/L			486697	476512	1	Standard
| Ag	107	0.005	ug/L	0.001	21	29	111	17	Standard
[> Tb	159		ug/L			178618	184815	0	Standard
| Pb	208	0.113	ug/L	0.001	0	534	10555	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:11:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	37614	3	Standard
[> Sc	45		ug/L			512571	541924	1	Standard
| Cr	52	0.444	ug/L	0.005	1	7952	14603	1	Standard
| Cr	53	0.458	ug/L	0.009	2	75	828	2	Standard
[> Ge	72		ug/L			28784	29366	1	KED
| Ni	60	0.438	ug/L	0.038	8	75	694	6	KED
| Ni	62	0.467	ug/L	0.046	9	12	118	9	KED
| Cu	63	4.007	ug/L	0.099	2	53	15872	0	KED
| Cu	65	3.821	ug/L	0.120	3	25	7768	2	KED
| Zn	66	15.485	ug/L	0.769	4	52	7568	3	KED
| Zn	67	14.598	ug/L	0.300	2	8	1161	2	KED
| As	75	1.412	ug/L	0.061	4	3	336	5	KED
Y	89		ug/L			50088	54650	2	Standard
Kr	83		ug/L			44	40	21	Standard
[> In-1	115		ug/L			6034	6075	2	KED
| Cd	111	0.006	ug/L	0.008	134	1	2	57	KED
| Cd	114	0.005	ug/L	0.010	194	1	4	138	KED
[> In	115		ug/L			486697	485971	1	Standard
| Ag	107	0.001	ug/L	0.001	66	29	45	23	Standard
[> Tb	159		ug/L			178618	187970	2	Standard
| Pb	208	0.026	ug/L	0.001	3	534	2930	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-20**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:16:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	40097	3	Standard
[> Sc	45		ug/L			512571	603458	1	Standard
| Cr	52	0.809	ug/L	0.013	1	7952	21936	1	Standard
| Cr	53	0.815	ug/L	0.006	0	75	1573	2	Standard
[> Ge	72		ug/L			28784	28977	2	KED
| Ni	60	1.925	ug/L	0.145	7	75	2754	5	KED
| Ni	62	1.888	ug/L	0.139	7	12	433	5	KED
| Cu	63	8.198	ug/L	0.187	2	53	31985	1	KED
| Cu	65	8.011	ug/L	0.219	2	25	16040	1	KED
| Zn	66	2.547	ug/L	0.146	5	52	1273	5	KED
| Zn	67	2.986	ug/L	0.210	7	8	241	8	KED
| As	75	2.558	ug/L	0.105	4	3	598	5	KED
Y	89		ug/L			50088	93417	2	Standard
Kr	83		ug/L			44	48	4	Standard
[> In-1	115		ug/L			6034	6056	1	KED
| Cd	111	0.001	ug/L	0.004	303	1	1	50	KED
| Cd	114	0.013	ug/L	0.008	56	1	8	49	KED
[> In	115		ug/L			486697	499578	1	Standard
| Ag	107	0.009	ug/L	0.001	8	29	184	6	Standard
[> Tb	159		ug/L			178618	188351	0	Standard
| Pb	208	0.237	ug/L	0.005	1	534	21965	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:20:30**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41033	4	Standard
[> Sc	45		ug/L			512571	600732	2	Standard
| Cr	52	0.798	ug/L	0.026	3	7952	21676	3	Standard
| Cr	53	0.812	ug/L	0.040	4	75	1561	6	Standard
[> Ge	72		ug/L			28784	29419	1	KED
| Ni	60	1.815	ug/L	0.049	2	75	2643	0	KED
| Ni	62	1.980	ug/L	0.134	6	12	461	6	KED
| Cu	63	8.139	ug/L	0.123	1	53	32242	0	KED
| Cu	65	8.017	ug/L	0.020	0	25	16304	1	KED
| Zn	66	2.465	ug/L	0.142	5	52	1252	4	KED
| Zn	67	2.747	ug/L	0.140	5	8	226	6	KED
| As	75	2.471	ug/L	0.116	4	3	586	2	KED
Y	89		ug/L			50088	90128	3	Standard
Kr	83		ug/L			44	61	25	Standard
[> In-1	115		ug/L			6034	6203	0	KED
| Cd	111	0.010	ug/L	0.007	76	1	3	43	KED
| Cd	114	0.008	ug/L	0.004	42	1	6	34	KED
[> In	115		ug/L			486697	491241	1	Standard
| Ag	107	0.008	ug/L	0.001	9	29	165	7	Standard
[> Tb	159		ug/L			178618	190226	0	Standard
| Pb	208	0.240	ug/L	0.006	2	534	22402	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:24:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	39760	3	Standard
[> Sc	45		ug/L			512571	584445	1	Standard
| Cr	52	24.504	ug/L	0.768	3	7952	378151	3	Standard
| Cr	53	24.330	ug/L	0.333	1	75	42999	2	Standard
[> Ge	72		ug/L			28784	29130	0	KED
| Ni	60	29.233	ug/L	0.300	1	75	41006	0	KED
| Ni	62	28.687	ug/L	1.279	4	12	6447	3	KED
| Cu	63	35.588	ug/L	0.038	0	53	139434	0	KED
| Cu	65	35.292	ug/L	0.441	1	25	70972	0	KED
| Zn	66	85.618	ug/L	1.238	1	52	41287	0	KED
| Zn	67	85.737	ug/L	1.395	1	8	6729	1	KED
| As	75	28.239	ug/L	0.482	1	3	6601	0	KED
Y	89		ug/L			50088	90513	2	Standard
Kr	83		ug/L			44	48	20	Standard
[> In-1	115		ug/L			6034	6109	2	KED
| Cd	111	26.780	ug/L	0.465	1	1	5932	0	KED
| Cd	114	26.945	ug/L	0.773	2	1	15357	3	KED
[> In	115		ug/L			486697	492130	1	Standard
| Ag	107	24.738	ug/L	0.495	2	29	400420	2	Standard
[> Tl	159		ug/L			178618	191727	1	Standard
| Pb	208	29.314	ug/L	0.364	1	534	2689958	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MSD1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:29:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	38779	2	Standard
[> Sc	45		ug/L			512571	593612	0	Standard
| Cr	52	24.128	ug/L	0.502	2	7952	378325	1	Standard
| Cr	53	23.584	ug/L	0.272	1	75	42336	1	Standard
[> Ge	72		ug/L			28784	29134	1	KED
| Ni	60	28.208	ug/L	0.262	0	75	39574	1	KED
| Ni	62	28.944	ug/L	0.377	1	12	6506	1	KED
| Cu	63	35.573	ug/L	0.102	0	53	139393	1	KED
| Cu	65	35.339	ug/L	0.595	1	25	71081	2	KED
| Zn	66	89.540	ug/L	0.536	0	52	43185	2	KED
| Zn	67	85.104	ug/L	1.844	2	8	6679	0	KED
| As	75	27.745	ug/L	0.236	0	3	6486	1	KED
Y	89		ug/L			50088	91556	2	Standard
Kr	83		ug/L			44	59	21	Standard
[> In-1	115		ug/L			6034	6041	2	KED
| Cd	111	26.686	ug/L	0.564	2	1	5845	0	KED
| Cd	114	26.924	ug/L	1.283	4	1	15164	2	KED
[> In	115		ug/L			486697	492919	2	Standard
| Ag	107	24.337	ug/L	1.058	4	29	394333	2	Standard
[> Tb	159		ug/L			178618	189477	1	Standard
| Pb	208	29.445	ug/L	0.796	2	534	2669694	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:33:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	23042	4	Standard
[>	Sc	45	ug/L			512571	504065	2	Standard
|	Cr	52	0.021	0.003	14	7952	8096	2	Standard
|	Cr	53	0.004	0.004	98	75	80	8	Standard
[>	Ge	72	ug/L			28784	29215	1	KED
|	Ni	60	-0.017	0.006	36	75	52	16	KED
|	Ni	62	-0.032	0.022	68	12	5	88	KED
|	Cu	63	-0.004	0.002	43	53	40	17	KED
|	Cu	65	-0.002	0.004	230	25	22	39	KED
|	Zn	66	-0.055	0.018	32	52	26	31	KED
|	Zn	67	-0.018	0.028	158	8	6	31	KED
|	As	75	-0.007	0.001	16	3	2	12	KED
	Y	89	ug/L			50088	47701	0	Standard
	Kr	83	ug/L			44	36	21	Standard
[>	In-1	115	ug/L			6034	6006	0	KED
|	Cd	111	0.001	0.009	596	1	1	100	KED
|	Cd	114	0.002	0.005	220	1	2	118	KED
[>	In	115	ug/L			486697	485981	4	Standard
|	Ag	107	0.003	0.002	91	29	71	52	Standard
[>	Tb	159	ug/L			178618	179589	0	Standard
|	Pb	208	0.000	0.006	1138	534	580	82	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:38:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23250	6	Standard
[> Sc	45		ug/L			512571	528228	1	Standard
| Cr	52	49.500	ug/L	0.901	1	7952	681993	1	Standard
| Cr	53	48.349	ug/L	0.150	0	75	77149	1	Standard
[> Ge	72		ug/L			28784	30008	0	KED
| Ni	60	48.196	ug/L	0.665	1	75	69599	1	KED
| Ni	62	47.638	ug/L	0.836	1	12	11023	1	KED
| Cu	63	48.752	ug/L	0.851	1	53	196743	1	KED
| Cu	65	49.349	ug/L	0.352	0	25	102234	1	KED
| Zn	66	49.407	ug/L	0.678	1	52	24567	0	KED
| Zn	67	49.504	ug/L	0.874	1	8	4006	1	KED
| As	75	48.304	ug/L	0.703	1	3	11630	1	KED
Y	89		ug/L			50088	50276	3	Standard
Kr	83		ug/L			44	66	8	Standard
[> In-1	115		ug/L			6034	6120	0	KED
| Cd	111	51.184	ug/L	0.659	1	1	11358	0	KED
| Cd	114	51.083	ug/L	0.638	1	1	29165	1	KED
[> In	115		ug/L			486697	478764	0	Standard
| Ag	107	46.724	ug/L	0.422	0	29	735777	0	Standard
[> Tb	159		ug/L			178618	184982	1	Standard
| Pb	208	55.526	ug/L	1.157	2	534	4914953	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 05:45:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21210	22826	1	Standard
[>	Sc	45		ug/L			512571	514605	2	Standard
|	Cr	52	-0.006	ug/L	0.008	138	7952	7911	3	Standard
|	Cr	53	-0.008	ug/L	0.004	46	75	63	11	Standard
[>	Ge	72		ug/L			28784	29448	0	KED
|	Ni	60	-0.017	ug/L	0.016	91	75	53	40	KED
|	Ni	62	-0.007	ug/L	0.017	238	12	11	33	KED
|	Cu	63	-0.004	ug/L	0.007	195	53	40	68	KED
|	Cu	65	-0.003	ug/L	0.001	21	25	20	5	KED
|	Zn	66	-0.051	ug/L	0.018	36	52	29	30	KED
|	Zn	67	-0.082	ug/L	0.024	29	8	1	100	KED
|	As	75	0.006	ug/L	0.006	98	3	5	26	KED
	Y	89		ug/L			50088	48607	1	Standard
	Kr	83		ug/L			44	52	12	Standard
[>	In-1	115		ug/L			6034	6091	2	KED
|	Cd	111	-0.003	ug/L	0.004	139	1	0	100	KED
|	Cd	114	0.002	ug/L	0.002	90	1	2	45	KED
[>	In	115		ug/L			486697	473300	0	Standard
|	Ag	107	0.001	ug/L	0.000	11	29	50	5	Standard
[>	Tb	159		ug/L			178618	179990	0	Standard
|	Pb	208	-0.003	ug/L	0.001	15	534	251	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-14**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:50:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	40592	5	Standard
[> Sc	45		ug/L			512571	625583	3	Standard
| Cr	52	0.332	ug/L	0.007	1	7952	15056	3	Standard
| Cr	53	1.924	ug/L	0.015	0	75	3723	3	Standard
[> Ge	72		ug/L			28784	28463	2	KED
| Ni	60	1.957	ug/L	0.061	3	75	2750	1	KED
| Ni	62	2.020	ug/L	0.030	1	12	455	1	KED
| Cu	63	9.385	ug/L	0.272	2	53	35960	2	KED
| Cu	65	9.404	ug/L	0.188	2	25	18493	0	KED
| Zn	66	10.817	ug/L	0.187	1	52	5141	1	KED
| Zn	67	11.789	ug/L	0.263	2	8	911	2	KED
| As	75	20.812	ug/L	0.559	2	3	4753	0	KED
Y	89		ug/L			50088	53972	1	Standard
Kr	83		ug/L			44	42	15	Standard
[> In-1	115		ug/L			6034	6071	0	KED
| Cd	111	0.141	ug/L	0.013	8	1	32	8	KED
| Cd	114	0.100	ug/L	0.004	4	1	57	5	KED
[> In	115		ug/L			486697	454002	2	Standard
| Ag	107	0.026	ug/L	0.002	7	29	414	5	Standard
[> Tb	159		ug/L			178618	181226	2	Standard
| Pb	208	0.990	ug/L	0.014	1	534	86358	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-16**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:54:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	43420	6	Standard
[> Sc	45		ug/L			512571	546125	1	Standard
| Cr	52	0.647	ug/L	0.033	5	7952	17577	4	Standard
| Cr	53	0.675	ug/L	0.033	4	75	1193	4	Standard
[> Ge	72		ug/L			28784	30240	0	KED
| Ni	60	0.675	ug/L	0.035	5	75	1059	4	KED
| Ni	62	0.602	ug/L	0.023	3	12	153	3	KED
| Cu	63	5.711	ug/L	0.106	1	53	23274	1	KED
| Cu	65	5.569	ug/L	0.142	2	25	11649	2	KED
| Zn	66	29.892	ug/L	0.254	0	52	15000	0	KED
| Zn	67	28.725	ug/L	0.734	2	8	2346	2	KED
[As	75	3.914	ug/L	0.061	1	3	953	1	KED
Y	89		ug/L			50088	54733	0	Standard
Kr	83		ug/L			44	45	8	Standard
[> In-1	115		ug/L			6034	6139	2	KED
| Cd	111	0.037	ug/L	0.002	5	1	9	5	KED
| Cd	114	0.014	ug/L	0.004	28	1	8	22	KED
[> In	115		ug/L			486697	497849	1	Standard
| Ag	107	0.003	ug/L	0.001	25	29	85	15	Standard
[> Tb	159		ug/L			178618	190840	1	Standard
[Pb	208	0.300	ug/L	0.005	1	534	27994	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-18**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 05:58:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	41506	5	Standard
[> Sc	45		ug/L			512571	563971	1	Standard
| Cr	52	0.879	ug/L	0.056	6	7952	21514	2	Standard
| Cr	53	0.921	ug/L	0.009	1	75	1650	1	Standard
[> Ge	72		ug/L			28784	29591	0	KED
| Ni	60	0.841	ug/L	0.034	4	75	1274	4	KED
| Ni	62	0.988	ug/L	0.174	17	12	238	16	KED
| Cu	63	3.718	ug/L	0.097	2	53	14845	2	KED
| Cu	65	3.603	ug/L	0.056	1	25	7384	1	KED
| Zn	66	16.875	ug/L	0.347	2	52	8310	1	KED
| Zn	67	16.131	ug/L	1.579	9	8	1292	9	KED
| As	75	1.797	ug/L	0.041	2	3	430	1	KED
Y	89		ug/L			50088	56214	2	Standard
Kr	83		ug/L			44	30	21	Standard
[> In-1	115		ug/L			6034	6314	4	KED
| Cd	111	0.008	ug/L	0.006	69	1	3	31	KED
| Cd	114	0.011	ug/L	0.006	60	1	7	52	KED
[> In	115		ug/L			486697	482029	1	Standard
| Ag	107	0.005	ug/L	0.001	24	29	115	18	Standard
[> Tb	159		ug/L			178618	192728	0	Standard
| Pb	208	0.200	ug/L	0.003	1	534	19033	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:03:17**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35873	2	Standard
[> Sc	45		ug/L			512571	619987	1	Standard
| Cr	52	1.104	ug/L	0.004	0	7952	27252	2	Standard
| Cr	53	1.258	ug/L	0.032	2	75	2444	3	Standard
[> Ge	72		ug/L			28784	29585	1	KED
| Ni	60	1.906	ug/L	0.066	3	75	2788	4	KED
| Ni	62	1.874	ug/L	0.068	3	12	440	2	KED
| Cu	63	11.407	ug/L	0.361	3	53	45418	2	KED
| Cu	65	10.967	ug/L	0.111	1	25	22416	0	KED
| Zn	66	60.525	ug/L	0.205	0	52	29659	1	KED
| Zn	67	58.668	ug/L	1.256	2	8	4678	1	KED
| As	75	14.694	ug/L	0.332	2	3	3490	1	KED
Y	89		ug/L			50088	54055	0	Standard
Kr	83		ug/L			44	48	13	Standard
[> In-1	115		ug/L			6034	6021	0	KED
| Cd	111	0.100	ug/L	0.018	17	1	23	16	KED
| Cd	114	0.090	ug/L	0.014	15	1	51	15	KED
[> In	115		ug/L			486697	482814	0	Standard
| Ag	107	0.034	ug/L	0.002	6	29	575	6	Standard
[> Tb	159		ug/L			178618	185868	0	Standard
| Pb	208	1.077	ug/L	0.010	0	534	96390	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:07:42**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	43263	3	Standard
[> Sc	45		ug/L			512571	531042	1	Standard
| Cr	52	0.707	ug/L	0.019	2	7952	17913	1	Standard
| Cr	53	0.767	ug/L	0.021	2	75	1306	3	Standard
[> Ge	72		ug/L			28784	29609	0	KED
| Ni	60	0.786	ug/L	0.054	6	75	1195	5	KED
| Ni	62	0.839	ug/L	0.050	5	12	204	5	KED
| Cu	63	5.822	ug/L	0.067	1	53	23229	0	KED
| Cu	65	5.535	ug/L	0.116	2	25	11336	1	KED
| Zn	66	13.078	ug/L	0.235	1	52	6456	0	KED
| Zn	67	12.540	ug/L	0.549	4	8	1007	4	KED
| As	75	1.716	ug/L	0.082	4	3	411	5	KED
Y	89		ug/L			50088	53989	0	Standard
Kr	83		ug/L			44	57	29	Standard
[> In-1	115		ug/L			6034	6197	2	KED
| Cd	111	0.015	ug/L	0.005	29	1	5	21	KED
| Cd	114	0.014	ug/L	0.014	94	1	9	80	KED
[> In	115		ug/L			486697	493755	1	Standard
| Ag	107	0.089	ug/L	0.007	7	29	1466	6	Standard
[> Tb	159		ug/L			178618	188017	0	Standard
| Pb	208	0.305	ug/L	0.004	1	534	28030	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:12:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	36616	2	Standard
[> Sc	45		ug/L			512571	609800	2	Standard
| Cr	52	0.487	ug/L	0.028	5	7952	17107	3	Standard
| Cr	53	0.596	ug/L	0.001	0	75	1187	2	Standard
[> Ge	72		ug/L			28784	28812	2	KED
| Ni	60	1.347	ug/L	0.050	3	75	1939	0	KED
| Ni	62	1.268	ug/L	0.098	7	12	293	6	KED
| Cu	63	10.734	ug/L	0.298	2	53	41615	0	KED
| Cu	65	10.264	ug/L	0.203	1	25	20429	0	KED
| Zn	66	7.755	ug/L	0.118	1	52	3746	1	KED
| Zn	67	8.262	ug/L	0.482	5	8	648	3	KED
| As	75	27.631	ug/L	0.581	2	3	6386	0	KED
Y	89		ug/L			50088	52863	1	Standard
Kr	83		ug/L			44	45	7	Standard
[> In-1	115		ug/L			6034	5973	0	KED
| Cd	111	0.142	ug/L	0.021	14	1	32	13	KED
| Cd	114	0.136	ug/L	0.023	17	1	76	16	KED
[> In	115		ug/L			486697	471762	1	Standard
| Ag	107	0.032	ug/L	0.001	3	29	520	5	Standard
[> Tb	159		ug/L			178618	184829	1	Standard
| Pb	208	2.682	ug/L	0.056	2	534	237695	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:16:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35157	5	Standard
[> Sc	45		ug/L			512571	618826	2	Standard
| Cr	52	0.520	ug/L	0.025	4	7952	17896	2	Standard
| Cr	53	0.627	ug/L	0.026	4	75	1260	3	Standard
[> Ge	72		ug/L			28784	28728	0	KED
| Ni	60	1.391	ug/L	0.040	2	75	1996	3	KED
| Ni	62	1.401	ug/L	0.054	3	12	322	2	KED
| Cu	63	10.972	ug/L	0.175	1	53	42431	1	KED
| Cu	65	10.761	ug/L	0.087	0	25	21361	0	KED
| Zn	66	7.901	ug/L	0.123	1	52	3805	2	KED
| Zn	67	8.117	ug/L	0.560	6	8	635	6	KED
| As	75	29.103	ug/L	0.478	1	3	6709	1	KED
Y	89		ug/L			50088	55720	3	Standard
Kr	83		ug/L			44	47	21	Standard
[> In-1	115		ug/L			6034	6067	2	KED
| Cd	111	0.152	ug/L	0.036	23	1	35	24	KED
| Cd	114	0.154	ug/L	0.026	16	1	88	18	KED
[> In	115		ug/L			486697	464844	1	Standard
| Ag	107	0.031	ug/L	0.002	7	29	503	6	Standard
[> Tb	159		ug/L			178618	185300	1	Standard
| Pb	208	2.712	ug/L	0.064	2	534	240965	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:20:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	39624	4	Standard
[> Sc	45			ug/L			512571	537265	2	Standard
| Cr	52	1.179		ug/L	0.044	3	7952	24668	3	Standard
| Cr	53	1.177		ug/L	0.016	1	75	1987	3	Standard
[> Ge	72			ug/L			28784	29689	1	KED
| Ni	60	1.227		ug/L	0.038	3	75	1828	1	KED
| Ni	62	1.280		ug/L	0.124	9	12	306	10	KED
| Cu	63	25.781		ug/L	1.054	4	53	102918	2	KED
| Cu	65	25.054		ug/L	0.251	1	25	51356	0	KED
| Zn	66	49.987		ug/L	1.395	2	52	24584	1	KED
| Zn	67	48.808		ug/L	1.051	2	8	3907	0	KED
| As	75	7.808		ug/L	0.282	3	3	1862	2	KED
| Y	89			ug/L			50088	56736	3	Standard
| Kr	83			ug/L			44	47	12	Standard
[> In-1	115			ug/L			6034	6201	2	KED
| Cd	111	0.093		ug/L	0.012	13	1	22	9	KED
| Cd	114	0.076		ug/L	0.022	28	1	44	25	KED
[> In	115			ug/L			486697	493967	0	Standard
| Ag	107	0.082		ug/L	0.002	2	29	1368	2	Standard
[> Tb	159			ug/L			178618	190178	2	Standard
| Pb	208	5.513		ug/L	0.179	3	534	502033	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:26:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	35825	0	Standard
[> Sc	45		ug/L			512571	562560	1	Standard
| Cr	52	1.220	ug/L	0.017	1	7952	26415	1	Standard
| Cr	53	1.264	ug/L	0.015	1	75	2229	1	Standard
[> Ge	72		ug/L			28784	29752	1	KED
| Ni	60	6.548	ug/L	0.096	1	75	9441	0	KED
| Ni	62	6.686	ug/L	0.384	5	12	1544	5	KED
| Cu	63	0.176	ug/L	0.010	5	53	761	4	KED
| Cu	65	0.180	ug/L	0.017	9	25	395	8	KED
| Zn	66	0.527	ug/L	0.056	10	52	313	7	KED
| Zn	67	0.901	ug/L	0.142	15	8	80	13	KED
| As	75	15.233	ug/L	0.237	1	3	3638	1	KED
| Y	89		ug/L			50088	79316	0	Standard
| Kr	83		ug/L			44	40	4	Standard
[> In-1	115		ug/L			6034	6266	0	KED
| Cd	111	0.003	ug/L	0.013	536	1	2	137	KED
| Cd	114	0.004	ug/L	0.000	0	1	3	0	KED
[> In	115		ug/L			486697	468178	0	Standard
| Ag	107	0.005	ug/L	0.000	7	29	112	6	Standard
[> Tb	159		ug/L			178618	187920	2	Standard
| Pb	208	0.034	ug/L	0.001	3	534	3577	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:31:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23115	4	Standard
[> Sc	45		ug/L			512571	517740	2	Standard
| Cr	52	0.013	ug/L	0.006	48	7952	8202	1	Standard
| Cr	53	0.001	ug/L	0.008	1453	75	77	19	Standard
[> Ge	72		ug/L			28784	29261	1	KED
| Ni	60	-0.015	ug/L	0.011	73	75	55	29	KED
| Ni	62	-0.018	ug/L	0.018	103	12	8	44	KED
| Cu	63	-0.005	ug/L	0.001	27	53	33	17	KED
| Cu	65	-0.001	ug/L	0.005	613	25	24	43	KED
| Zn	66	-0.060	ug/L	0.017	28	52	24	33	KED
| Zn	67	-0.082	ug/L	0.000	0	8	1		KED
| As	75	-0.004	ug/L	0.009	212	3	2	72	KED
Y	89		ug/L			50088	49988	1	Standard
Kr	83		ug/L			44	55	15	Standard
[> In-1	115		ug/L			6034	6137	0	KED
| Cd	111	-0.003	ug/L	0.004	144	1	0	100	KED
| Cd	114	-0.001	ug/L	0.002	176	1	0	180	KED
[> In	115		ug/L			486697	486698	2	Standard
| Ag	107	-0.001	ug/L	0.001	57	29	12	77	Standard
[> Tb	159		ug/L			178618	183514	1	Standard
| Pb	208	-0.004	ug/L	0.000	3	534	240	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:35:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23784	6	Standard
[> Sc	45		ug/L			512571	524165	1	Standard
| Cr	52	50.223	ug/L	1.690	3	7952	686346	2	Standard
| Cr	53	48.285	ug/L	0.163	0	75	76453	1	Standard
[> Ge	72		ug/L			28784	29553	1	KED
| Ni	60	49.754	ug/L	0.656	1	75	70745	0	KED
| Ni	62	50.882	ug/L	3.005	5	12	11590	4	KED
| Cu	63	50.319	ug/L	1.412	2	53	199933	1	KED
| Cu	65	49.530	ug/L	0.589	1	25	101036	0	KED
| Zn	66	50.795	ug/L	1.374	2	52	24867	1	KED
| Zn	67	50.525	ug/L	1.241	2	8	4025	1	KED
| As	75	50.135	ug/L	0.843	1	3	11885	1	KED
Y	89		ug/L			50088	50673	2	Standard
Kr	83		ug/L			44	55	21	Standard
[> In-1	115		ug/L			6034	6213	2	KED
| Cd	111	49.407	ug/L	1.725	3	1	11124	0	KED
| Cd	114	50.485	ug/L	1.873	3	1	29245	1	KED
[> In	115		ug/L			486697	478603	2	Standard
| Ag	107	46.759	ug/L	0.518	1	29	736095	2	Standard
[> Tb	159		ug/L			178618	187493	1	Standard
| Pb	208	54.257	ug/L	1.080	1	534	4867949	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 06:42:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	22705	3	Standard
[> Sc	45		ug/L			512571	510222	2	Standard
| Cr	52	0.004	ug/L	0.015	349	7952	7968	2	Standard
| Cr	53	0.001	ug/L	0.003	207	75	77	6	Standard
[> Ge	72		ug/L			28784	29563	0	KED
| Ni	60	-0.021	ug/L	0.008	38	75	48	23	KED
| Ni	62	-0.021	ug/L	0.032	151	12	8	87	KED
| Cu	63	-0.005	ug/L	0.002	42	53	33	27	KED
| Cu	65	-0.003	ug/L	0.004	155	25	20	43	KED
| Zn	66	-0.064	ug/L	0.010	15	52	22	22	KED
| Zn	67	-0.051	ug/L	0.060	118	8	4	107	KED
| As	75	0.002	ug/L	0.007	315	3	4	37	KED
Y	89		ug/L			50088	49119	4	Standard
Kr	83		ug/L			44	40	5	Standard
[> In-1	115		ug/L			6034	6359	0	KED
| Cd	111	0.004	ug/L	0.005	126	1	2	43	KED
| Cd	114	0.002	ug/L	0.004	182	1	2	92	KED
[> In	115		ug/L			486697	484923	2	Standard
| Ag	107	0.001	ug/L	0.002	141	29	45	50	Standard
[> Tb	159		ug/L			178618	182782	1	Standard
| Pb	208	-0.003	ug/L	0.000	6	534	264	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:47:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	32134	4	Standard
[> Sc	45		ug/L			512571	622588	1	Standard
| Cr	52	0.373	ug/L	0.016	4	7952	15647	2	Standard
| Cr	53	0.480	ug/L	0.009	1	75	994	3	Standard
[> Ge	72		ug/L			28784	28304	2	KED
| Ni	60	1.014	ug/L	0.054	5	75	1452	2	KED
| Ni	62	1.030	ug/L	0.099	9	12	236	7	KED
| Cu	63	0.040	ug/L	0.006	14	53	205	8	KED
| Cu	65	0.036	ug/L	0.013	35	25	94	23	KED
| Zn	66	0.740	ug/L	0.013	1	52	398	4	KED
| Zn	67	1.054	ug/L	0.107	10	8	88	6	KED
[As	75	19.230	ug/L	0.660	3	3	4366	1	KED
Y	89		ug/L			50088	69538	3	Standard
Kr	83		ug/L			44	30	16	Standard
[> In-1	115		ug/L			6034	5855	1	KED
| Cd	111	0.005	ug/L	0.005	108	1	2	43	KED
| Cd	114	0.001	ug/L	0.003	349	1	1	112	KED
[> In	115		ug/L			486697	442888	2	Standard
| Ag	107	0.002	ug/L	0.000	14	29	52	5	Standard
[> Tb	159		ug/L			178618	176146	1	Standard
[Pb	208	0.007	ug/L	0.000	4	534	1141	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-05**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:51:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	32551	2	Standard
[> Sc	45		ug/L			512571	622587	2	Standard
| Cr	52	0.412	ug/L	0.016	3	7952	16267	3	Standard
| Cr	53	0.486	ug/L	0.013	2	75	1004	5	Standard
[> Ge	72		ug/L			28784	27718	2	KED
| Ni	60	1.154	ug/L	0.065	5	75	1610	4	KED
| Ni	62	1.189	ug/L	0.121	10	12	266	10	KED
| Cu	63	0.037	ug/L	0.001	3	53	189	3	KED
| Cu	65	0.039	ug/L	0.008	21	25	99	15	KED
| Zn	66	0.454	ug/L	0.039	8	52	259	7	KED
| Zn	67	0.737	ug/L	0.045	6	8	62	3	KED
| As	75	17.452	ug/L	0.167	0	3	3882	1	KED
Y	89		ug/L			50088	70299	3	Standard
Kr	83		ug/L			44	43	23	Standard
[> In-1	115		ug/L			6034	5780	1	KED
| Cd	111	0.008	ug/L	0.010	120	1	3	62	KED
| Cd	114	0.001	ug/L	0.004	267	1	1	106	KED
[> In	115		ug/L			486697	454628	1	Standard
| Ag	107	0.001	ug/L	0.000	19	29	44	6	Standard
[> Tb	159		ug/L			178618	178896	0	Standard
| Pb	208	0.003	ug/L	0.001	20	534	808	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 06:55:54**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	43951	2	Standard
[> Sc	45			ug/L			512571	611223	0	Standard
| Cr	52	0.674		ug/L	0.028	4	7952	20103	2	Standard
| Cr	53	0.801		ug/L	0.030	3	75	1567	4	Standard
[> Ge	72			ug/L			28784	27657	2	KED
| Ni	60	4.379		ug/L	0.108	2	75	5891	1	KED
| Ni	62	4.412		ug/L	0.139	3	12	951	2	KED
| Cu	63	5.152		ug/L	0.035	0	53	19209	2	KED
| Cu	65	5.031		ug/L	0.155	3	25	9622	1	KED
| Zn	66	9.989		ug/L	0.373	3	52	4615	1	KED
| Zn	67	10.437		ug/L	0.353	3	8	784	4	KED
| As	75	4.605		ug/L	0.101	2	3	1024	1	KED
| Y	89			ug/L			50088	69977	3	Standard
| Kr	83			ug/L			44	36	15	Standard
[> In-1	115			ug/L			6034	5721	3	KED
| Cd	111	0.307		ug/L	0.017	5	1	65	3	KED
| Cd	114	0.269		ug/L	0.048	17	1	143	14	KED
[> In	115			ug/L			486697	463308	0	Standard
| Ag	107	0.017		ug/L	0.002	11	29	289	9	Standard
[> Tb	159			ug/L			178618	184294	0	Standard
| Pb	208	0.306		ug/L	0.004	1	534	27565	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0487-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:00:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc.	Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13			ug/L			21210	34930	6	Standard
[> Sc	45			ug/L			512571	627875	1	Standard
| Cr	52	0.380		ug/L	0.019	5	7952	15891	1	Standard
| Cr	53	0.553		ug/L	0.025	4	75	1139	4	Standard
[> Ge	72			ug/L			28784	27514	0	KED
| Ni	60	2.436		ug/L	0.075	3	75	3293	3	KED
| Ni	62	2.256		ug/L	0.038	1	12	490	1	KED
| Cu	63	1.485		ug/L	0.027	1	53	5545	1	KED
| Cu	65	1.415		ug/L	0.035	2	25	2711	2	KED
| Zn	66	1.359		ug/L	0.066	4	52	668	4	KED
| Zn	67	1.908		ug/L	0.317	16	8	149	15	KED
| As	75	1.535		ug/L	0.082	5	3	342	5	KED
| Y	89			ug/L			50088	68173	1	Standard
| Kr	83			ug/L			44	43	9	Standard
[> In-1	115			ug/L			6034	5812	3	KED
| Cd	111	0.046		ug/L	0.015	32	1	11	24	KED
| Cd	114	0.042		ug/L	0.011	26	1	23	25	KED
[> In	115			ug/L			486697	461876	0	Standard
| Ag	107	0.004		ug/L	0.000	2	29	84	1	Standard
[> Tb	159			ug/L			178618	183150	1	Standard
| Pb	208	0.017		ug/L	0.001	6	534	2074	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:05:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	24777	4	Standard
[> Sc	45		ug/L			512571	495765	2	Standard
| Cr	52	0.016	ug/L	0.006	40	7952	7890	2	Standard
| Cr	53	0.005	ug/L	0.003	57	75	79	6	Standard
[> Ge	72		ug/L			28784	28451	2	KED
| Ni	60	-0.016	ug/L	0.012	71	75	52	29	KED
| Ni	62	-0.014	ug/L	0.001	8	12	9	0	KED
| Cu	63	-0.005	ug/L	0.002	38	53	34	20	KED
| Cu	65	-0.005	ug/L	0.002	41	25	15	25	KED
| Zn	66	-0.054	ug/L	0.016	29	52	26	25	KED
| Zn	67	-0.064	ug/L	0.039	60	8	3	91	KED
| As	75	-0.005	ug/L	0.004	96	3	2	36	KED
Y	89		ug/L			50088	48564	3	Standard
Kr	83		ug/L			44	48	37	Standard
[> In-1	115		ug/L			6034	5785	2	KED
| Cd	111	0.003	ug/L	0.007	204	1	2	65	KED
| Cd	114	0.000	ug/L	0.002	881	1	1	94	KED
[> In	115		ug/L			486697	478635	2	Standard
| Ag	107	-0.001	ug/L	0.000	34	29	12	45	Standard
[> Tb	159		ug/L			178618	179215	1	Standard
| Pb	208	-0.003	ug/L	0.000	11	534	261	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0636-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:09:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	27281	2	Standard
[>	Sc	45	ug/L			512571	527974	2	Standard
|	Cr	52	ug/L	0.004	0	7952	15415	2	Standard
|	Cr	53	ug/L	0.057	10	75	962	8	Standard
[>	Ge	72	ug/L			28784	27707	0	KED
|	Ni	60	ug/L	0.030	3	75	1400	2	KED
|	Ni	62	ug/L	0.145	14	12	219	14	KED
|	Cu	63	ug/L	0.041	2	53	6275	1	KED
|	Cu	65	ug/L	0.063	3	25	3263	3	KED
|	Zn	66	ug/L	0.013	0	52	1827	0	KED
|	Zn	67	ug/L	0.276	7	8	280	6	KED
|	As	75	ug/L	0.028	5	3	120	4	KED
	Y	89	ug/L			50088	65167	0	Standard
	Kr	83	ug/L			44	40	24	Standard
[>	In-1	115	ug/L			6034	5801	4	KED
|	Cd	111	ug/L	0.006	1388	1	1	69	KED
|	Cd	114	ug/L	0.004	74	1	3	50	KED
[>	In	115	ug/L			486697	473435	2	Standard
|	Ag	107	ug/L	0.000	28	29	48	9	Standard
[>	Tb	159	ug/L			178618	186385	0	Standard
|	Pb	208	ug/L	0.012	1	534	66913	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-DUP1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:14:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	28530	3	Standard
[> Sc	45		ug/L			512571	538334	0	Standard
[Cr	52	0.537	ug/L	0.030	5	7952	15807	2	Standard
[Cr	53	0.592	ug/L	0.045	7	75	1040	6	Standard
[> Ge	72		ug/L			28784	28724	0	KED
[Ni	60	0.998	ug/L	0.070	6	75	1452	6	KED
[Ni	62	1.102	ug/L	0.076	6	12	256	6	KED
[Cu	63	1.729	ug/L	0.041	2	53	6729	2	KED
[Cu	65	1.667	ug/L	0.038	2	25	3329	1	KED
[Zn	66	4.091	ug/L	0.104	2	52	1995	2	KED
[Zn	67	4.288	ug/L	0.718	16	8	339	16	KED
[As	75	0.560	ug/L	0.031	5	3	132	5	KED
Y	89		ug/L			50088	65772	1	Standard
Kr	83		ug/L			44	57	36	Standard
[> In-1	115		ug/L			6034	6012	3	KED
[Cd	111	0.014	ug/L	0.018	129	1	4	81	KED
[Cd	114	0.010	ug/L	0.002	16	1	6	16	KED
[> In	115		ug/L			486697	480605	1	Standard
[Ag	107	0.001	ug/L	0.000	42	29	38	10	Standard
[> Tb	159		ug/L			178618	189596	0	Standard
[Pb	208	0.754	ug/L	0.014	1	534	68955	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MS1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:19:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	27955	5	Standard
[> Sc	45		ug/L			512571	525581	2	Standard
[Cr	52	2.936	ug/L	0.034	1	7952	47911	2	Standard
[Cr	53	2.885	ug/L	0.053	1	75	4653	3	Standard
[> Ge	72		ug/L			28784	28593	2	KED
[Ni	60	3.498	ug/L	0.051	1	75	4881	1	KED
[Ni	62	3.654	ug/L	0.214	5	12	816	3	KED
[Cu	63	4.341	ug/L	0.156	3	53	16732	0	KED
[Cu	65	4.320	ug/L	0.187	4	25	8544	2	KED
[Zn	66	12.514	ug/L	0.258	2	52	5966	0	KED
[Zn	67	11.781	ug/L	0.398	3	8	914	5	KED
[As	75	3.033	ug/L	0.163	5	3	698	2	KED
Y	89		ug/L			50088	67142	3	Standard
Kr	83		ug/L			44	37	12	Standard
[> In-1	115		ug/L			6034	5883	2	KED
[Cd	111	2.582	ug/L	0.073	2	1	552	1	KED
[Cd	114	2.689	ug/L	0.054	2	1	1476	1	KED
[> In	115		ug/L			486697	479355	0	Standard
[Ag	107	2.061	ug/L	0.025	1	29	32527	1	Standard
[> Tb	159		ug/L			178618	182686	0	Standard
[Pb	208	3.600	ug/L	0.075	2	534	315263	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MSD1**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 07:25:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	28749	4	Standard
[>	Sc	45	ug/L			512571	530124	2	Standard
|	Cr	52	ug/L	0.034	1	7952	46777	2	Standard
|	Cr	53	ug/L	0.057	2	75	4491	1	Standard
[>	Ge	72	ug/L			28784	28834	0	KED
|	Ni	60	ug/L	0.040	1	75	4878	1	KED
|	Ni	62	ug/L	0.068	2	12	738	2	KED
|	Cu	63	ug/L	0.095	2	53	16242	2	KED
|	Cu	65	ug/L	0.061	1	25	8358	1	KED
|	Zn	66	ug/L	0.301	2	52	5792	2	KED
|	Zn	67	ug/L	0.700	6	8	890	6	KED
|	As	75	ug/L	0.065	2	3	687	1	KED
	Y	89	ug/L			50088	66898	0	Standard
	Kr	83	ug/L			44	43	18	Standard
[>	In-1	115	ug/L			6034	6008	3	KED
|	Cd	111	ug/L	0.153	6	1	524	3	KED
|	Cd	114	ug/L	0.086	3	1	1378	4	KED
[>	In	115	ug/L			486697	486503	2	Standard
|	Ag	107	ug/L	0.032	1	29	32695	0	Standard
[>	Tb	159	ug/L			178618	185233	0	Standard
|	Pb	208	ug/L	0.010	0	534	302959	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:29:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23093	3	Standard
[> Sc	45		ug/L			512571	491451	2	Standard
| Cr	52	0.009	ug/L	0.012	138	7952	7733	3	Standard
| Cr	53	-0.002	ug/L	0.007	369	75	69	16	Standard
[> Ge	72		ug/L			28784	28042	0	KED
| Ni	60	-0.015	ug/L	0.005	33	75	53	12	KED
| Ni	62	-0.007	ug/L	0.014	191	12	10	26	KED
| Cu	63	-0.006	ug/L	0.002	28	53	28	24	KED
| Cu	65	-0.003	ug/L	0.002	74	25	19	20	KED
| Zn	66	-0.049	ug/L	0.032	65	52	28	52	KED
| Zn	67	-0.031	ug/L	0.025	81	8	5	33	KED
| As	75	-0.007	ug/L	0.005	79	3	2	53	KED
Y	89		ug/L			50088	47507	2	Standard
Kr	83		ug/L			44	39	2	Standard
[> In-1	115		ug/L			6034	5851	3	KED
| Cd	111	0.002	ug/L	0.005	256	1	1	50	KED
| Cd	114	-0.001	ug/L	0.002	208	1	0	188	KED
[> In	115		ug/L			486697	482259	2	Standard
| Ag	107	-0.001	ug/L	0.000	48	29	13	55	Standard
[> Tb	159		ug/L			178618	176757	2	Standard
| Pb	208	-0.003	ug/L	0.000	11	534	247	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:34:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23085	4	Standard
[> Sc	45		ug/L			512571	510290	2	Standard
| Cr	52	49.845	ug/L	0.659	1	7952	663306	1	Standard
| Cr	53	49.254	ug/L	0.241	0	75	75919	1	Standard
[> Ge	72		ug/L			28784	28502	0	KED
| Ni	60	49.022	ug/L	0.991	2	75	67228	1	KED
| Ni	62	49.233	ug/L	0.674	1	12	10820	1	KED
| Cu	63	51.028	ug/L	1.049	2	53	195577	1	KED
| Cu	65	50.266	ug/L	0.362	0	25	98899	0	KED
| Zn	66	50.246	ug/L	1.428	2	52	23728	2	KED
| Zn	67	49.533	ug/L	0.241	0	8	3807	0	KED
| As	75	49.156	ug/L	0.750	1	3	11240	1	KED
Y	89		ug/L			50088	49783	0	Standard
Kr	83		ug/L			44	61	7	Standard
[> In-1	115		ug/L			6034	6026	1	KED
| Cd	111	50.412	ug/L	0.446	0	1	11014	0	KED
| Cd	114	50.125	ug/L	0.823	1	1	28176	2	KED
[> In	115		ug/L			486697	469523	3	Standard
| Ag	107	45.677	ug/L	1.580	3	29	704992	1	Standard
[> Tb	159		ug/L			178618	183887	1	Standard
| Pb	208	55.762	ug/L	1.321	2	534	4906643	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:41:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	23317	1	Standard
[>	Sc	45	ug/L			512571	498254	1	Standard
|	Cr	52	0.014	0.004	27	7952	7906	0	Standard
|	Cr	53	-0.003	0.007	202	75	68	15	Standard
[>	Ge	72	ug/L			28784	28666	1	KED
|	Ni	60	0.001	0.015	3020	75	76	29	KED
|	Ni	62	-0.014	0.037	258	12	9	87	KED
|	Cu	63	0.008	0.019	252	53	83	90	KED
|	Cu	65	0.012	0.028	241	25	48	116	KED
|	Zn	66	-0.042	0.036	85	52	33	53	KED
|	Zn	67	-0.033	0.041	123	8	5	57	KED
|	As	75	0.007	0.018	259	3	5	77	KED
	Y	89	ug/L			50088	47888	0	Standard
	Kr	83	ug/L			44	58	21	Standard
[>	In-1	115	ug/L			6034	5978	1	KED
|	Cd	111	0.003	0.005	168	1	2	49	KED
|	Cd	114	0.000	0.002	2472	1	1	86	KED
[>	In	115	ug/L			486697	472919	2	Standard
|	Ag	107	0.001	0.001	115	29	41	35	Standard
[>	Tb	159	ug/L			178618	178659	0	Standard
|	Pb	208	-0.003	0.000	7	534	267	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:45:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			21210	25958	3	Standard
[>	Sc	45	ug/L			512571	564678	1	Standard
|	Cr	52	ug/L	0.014	382	7952	8811	1	Standard
|	Cr	53	ug/L	0.004	53	75	70	7	Standard
[>	Ge	72	ug/L			28784	28993	1	KED
|	Ni	60	ug/L	0.008	60	75	58	17	KED
|	Ni	62	ug/L	0.009	37	12	7	25	KED
|	Cu	63	ug/L	0.001	50	53	43	14	KED
|	Cu	65	ug/L	0.003	109	25	20	24	KED
|	Zn	66	ug/L	0.013	81	52	45	14	KED
|	Zn	67	ug/L	0.052	15913	8	8	48	KED
|	As	75	ug/L	0.008	108	3	2	96	KED
	Y	89	ug/L			50088	54349	1	Standard
	Kr	83	ug/L			44	48	48	Standard
[>	In-1	115	ug/L			6034	6353	3	KED
|	Cd	111	ug/L	0.005	1172	1	1	69	KED
|	Cd	114	ug/L	0.002	166	1	0	205	KED
[>	In	115	ug/L			486697	523133	3	Standard
|	Ag	107	ug/L	0.001	200	29	36	26	Standard
[>	Tb	159	ug/L			178618	196229	1	Standard
|	Pb	208	ug/L	0.000	12	534	414	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:50:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	26612	5	Standard
[> Sc	45		ug/L			512571	549525	3	Standard
| Cr	52	0.023	ug/L	0.007	31	7952	8850	1	Standard
| Cr	53	-0.003	ug/L	0.001	43	75	75	5	Standard
[> Ge	72		ug/L			28784	29286	2	KED
| Ni	60	-0.020	ug/L	0.016	81	75	48	43	KED
| Ni	62	-0.013	ug/L	0.024	188	12	10	54	KED
| Cu	63	-0.003	ug/L	0.003	86	53	43	25	KED
| Cu	65	-0.003	ug/L	0.002	53	25	19	14	KED
| Zn	66	-0.008	ug/L	0.028	351	52	49	25	KED
| Zn	67	-0.001	ug/L	0.051	3767	8	8	48	KED
| As	75	-0.011	ug/L	0.003	28	3	1	57	KED
Y	89		ug/L			50088	54172	0	Standard
Kr	83		ug/L			44	42	13	Standard
[> In-1	115		ug/L			6034	6173	0	KED
| Cd	111	0.001	ug/L	0.004	340	1	1	50	KED
| Cd	114	0.001	ug/L	0.004	339	1	1	115	KED
[> In	115		ug/L			486697	514395	3	Standard
| Ag	107	0.000	ug/L	0.000	1870	29	31	18	Standard
[> Tb	159		ug/L			178618	194120	0	Standard
| Pb	208	-0.002	ug/L	0.000	15	534	381	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:54:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	25778	3	Standard
[> Sc	45		ug/L			512571	553078	2	Standard
| Cr	52	0.011	ug/L	0.009	77	7952	8737	2	Standard
| Cr	53	0.005	ug/L	0.006	133	75	89	11	Standard
[> Ge	72		ug/L			28784	29423	0	KED
| Ni	60	-0.011	ug/L	0.006	56	75	60	14	KED
| Ni	62	-0.004	ug/L	0.027	647	12	12	50	KED
| Cu	63	-0.006	ug/L	0.002	29	53	32	21	KED
| Cu	65	-0.005	ug/L	0.002	36	25	15	25	KED
| Zn	66	-0.005	ug/L	0.045	918	52	51	42	KED
| Zn	67	-0.018	ug/L	0.037	204	8	6	41	KED
| As	75	-0.010	ug/L	0.002	19	3	1	33	KED
Y	89		ug/L			50088	54582	3	Standard
Kr	83		ug/L			44	37	19	Standard
[> In-1	115		ug/L			6034	6229	3	KED
| Cd	111	-0.003	ug/L	0.004	129	1	0	100	KED
| Cd	114	-0.000	ug/L	0.002	1785	1	1	98	KED
[> In	115		ug/L			486697	520624	1	Standard
| Ag	107	-0.001	ug/L	0.000	61	29	22	26	Standard
[> Tb	159		ug/L			178618	196970	0	Standard
| Pb	208	-0.002	ug/L	0.000	7	534	358	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 07:59:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23586	4	Standard
[> Sc	45		ug/L			512571	467022	2	Standard
| Cr	52	0.007	ug/L	0.015	218	7952	7326	2	Standard
| Cr	53	-0.002	ug/L	0.004	211	75	65	11	Standard
[> Ge	72		ug/L			28784	27849	0	KED
| Ni	60	-0.039	ug/L	0.002	6	75	20	15	KED
| Ni	62	-0.040	ug/L	0.018	44	12	3	100	KED
| Cu	63	-0.009	ug/L	0.001	14	53	19	26	KED
| Cu	65	-0.009	ug/L	0.004	40	25	6	103	KED
| Zn	66	-0.064	ug/L	0.006	9	52	21	13	KED
| Zn	67	-0.090	ug/L	0.029	32	8	1	173	KED
| As	75	-0.004	ug/L	0.006	157	3	2	44	KED
Y	89		ug/L			50088	45718	0	Standard
Kr	83		ug/L			44	45	4	Standard
[> In-1	115		ug/L			6034	5676	2	KED
| Cd	111	-0.001	ug/L	0.011	1009	1	1	173	KED
| Cd	114	0.000	ug/L	0.002	909	1	1	90	KED
[> In	115		ug/L			486697	443034	2	Standard
| Ag	107	-0.001	ug/L	0.000	30	29	8	66	Standard
[> Tb	159		ug/L			178618	170677	0	Standard
| Pb	208	-0.005	ug/L	0.000	5	534	131	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 08:03:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23858	2	Standard
[> Sc	45		ug/L			512571	471059	2	Standard
| Cr	52	0.009	ug/L	0.006	67	7952	7422	1	Standard
| Cr	53	-0.006	ug/L	0.006	86	75	60	12	Standard
[> Ge	72		ug/L			28784	28025	1	KED
| Ni	60	-0.034	ug/L	0.005	13	75	27	22	KED
| Ni	62	-0.022	ug/L	0.015	70	12	7	43	KED
| Cu	63	-0.007	ug/L	0.001	15	53	25	17	KED
| Cu	65	-0.009	ug/L	0.004	40	25	6	103	KED
| Zn	66	-0.072	ug/L	0.014	19	52	17	34	KED
| Zn	67	-0.090	ug/L	0.015	16	8	1	86	KED
| As	75	-0.003	ug/L	0.005	147	3	3	32	KED
Y	89		ug/L			50088	46999	2	Standard
Kr	83		ug/L			44	50	21	Standard
[> In-1	115		ug/L			6034	5675	3	KED
| Cd	111	-0.001	ug/L	0.011	1342	1	1	173	KED
| Cd	114	0.004	ug/L	0.002	47	1	3	33	KED
[> In	115		ug/L			486697	453748	1	Standard
| Ag	107	-0.001	ug/L	0.000	9	29	5	33	Standard
[> Tb	159		ug/L			178618	170230	0	Standard
| Pb	208	-0.005	ug/L	0.000	5	534	110	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 08:08:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051023_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21210	23298	4	Standard
[> Sc	45		ug/L			512571	476857	3	Standard
| Cr	52	0.009	ug/L	0.007	78	7952	7511	2	Standard
| Cr	53	-0.004	ug/L	0.002	35	75	63	0	Standard
[> Ge	72		ug/L			28784	27968	1	KED
| Ni	60	-0.032	ug/L	0.007	20	75	30	28	KED
| Ni	62	-0.031	ug/L	0.017	56	12	5	66	KED
| Cu	63	-0.009	ug/L	0.001	9	53	17	19	KED
| Cu	65	-0.008	ug/L	0.002	24	25	9	40	KED
| Zn	66	-0.050	ug/L	0.005	10	52	27	7	KED
| Zn	67	-0.073	ug/L	0.015	20	8	2	43	KED
| As	75	-0.008	ug/L	0.004	46	3	1	43	KED
Y	89		ug/L			50088	46307	0	Standard
Kr	83		ug/L			44	41	18	Standard
[> In-1	115		ug/L			6034	5740	3	KED
| Cd	111	0.007	ug/L	0.012	183	1	2	88	KED
| Cd	114	-0.002	ug/L	0.000	8	1	0	124	KED
[> In	115		ug/L			486697	464061	3	Standard
| Ag	107	-0.001	ug/L	0.000	23	29	10	43	Standard
[> Tb	159		ug/L			178618	172358	0	Standard
| Pb	208	-0.005	ug/L	0.000	2	534	118	7	Standard



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Instrument: ICPMS1

Calibration Date: 05/11/2023 13:56

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	14605	10	14850.5	20	14243.6	50	13620.14	100	13175.56
Chromium-52	0	0	0.5	31826	10	14601.9	20	13940.65	50	12586.68	100	12285.63
Chromium-53	0	0	0.5	1730	10	1565.3	20	1561.7	50	1453.62	100	1404.46
Lead-208	0	0	0.1	90790	10	90159.3	20	88189.75	50	84692.68	100	81042.75



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GE00042

Calibration Date: 5/11/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	11749.13	49.3	0.9995		0.998	
Chromium-52	14206.81	71.7	0.9995		0.998	
Chromium-53	1285.847	49.8	0.9994		0.998	
Lead-208	72479.08	49.2	0.9993		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Instrument: ICPMS1

Calibration Date: 05/11/2023 13:56

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	260	10	254.7	20	249.25	50	236.26	100	229.57
Cadmium-111	0	0	0.1	210	10	239.4	20	229.7	50	220.12	100	211.69
Cadmium-114	0	0	0.1	650	10	611.2	20	584.95	50	559.7	100	540.5
Copper-63	0	0	0.5	4706	10	4491.6	20	4340.5	50	3994.12	100	3756.22
Copper-65	0	0	0.5	2382	10	2215.3	20	2202.9	50	1984.34	100	1919.1
Zinc-66	0	0	6	543.5	10	545.3	20	526.4	50	490.02	100	469.18
Zinc-67	0	0	6	80.33334	10	86.7	20	87.1	50	81.8	100	76.06



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Calibration: GE00042

Instrument: ICPMS1
Calibration Date: 5/11/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	204.9633	49.3	0.9996		0.998	
Cadmium-111	185.1517	49.4	0.9994		0.998	
Cadmium-114	491.0583	49.6	0.9995		0.998	
Copper-63	3548.073	49.9	0.9984		0.998	
Copper-65	1783.94	49.9	0.9990		0.998	
Zinc-66	429.0667	49.5	0.9993		0.998	
Zinc-67	68.66556	49.4	0.9983		0.998	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: SLEΦ2Φ9 Cal: GEΦΦΦ42

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQR-CAL1	L5316		
		-CAL2	L5225		
		-CAL3	L5226		
		-CAL4	L5227		In-1 st noisy - %R & Analytes OK
		-CAL5	L5317		
		-CAL6	L5229		
		-IBL1	—		
		-ICV1	L3575		
		-ICB1	L5316		
	✓	-CAL1	—		
	✓	-CAL1	—		
	✓	-CCV1	—		Std Mode St. noisy
		-CCV1	L5317		
		-CCB1	L5316		
		-CRL1	L5225		
		-JFA1	L5318		C _r 53 ↑
		-JFB1	L5319		
		-MCV1	L4780		
		-MCV2	L4781		
		-IBL2	—		(Cd ↑ / Cd noisy)
		-IBL3	—		
		-CCV2			
		-CCB2			
	✓	↓ -CAL1			



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV3			
		↓ -CCB3			
		BLEΦΦ72-BSS2	SWN	20	Ag, Cr, Pb only
		BLEΦ342-BLK1	REN		
		↓ -BS1			
	✓	BS TEST OLD SPIKE			TEST ONLY
	✓	↓ NEW SPIKE			↓
		23EΦ271-Φ1		5	
		23EΦ239-Φ1		2	
		SEQ-IBL4			
		23DΦΦ74-13	REN	100	Mn only
		SEQ-IBL5			
		↓ -CCM4			
		↓ -CCB4			
		23DΦ477-Φ4	REN		Pb only
		↓ -Φ8			
		↓ -1Φ			
		↓ -12			
		↓ -18			
		↓ -2Φ		2	
		BLEΦ1Φ6-DUP2			
		↓ -MS2			
		↓ -MSO2			
		SEQ-IBL6			TUBE Empty



Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV5			
		↓ -CCB5			
		230φ477-φ1	REN	5	Pb only
		↓ -φ7	↓	↓	↓
		↓ -φ9	↓	↓	↓
		230φ48φ-φ1	↓	↓	↓
		SEQ-IBL7			
		230φ477-φ2	REN	2	Pb only
		↓ -φ3	↓	↓	↓
		↓ -φ6	↓	↓	↓
		↓ -11	↓	↓	↓
		SEQ-IBL8			
		↓ -CCV6			
		↓ -CCB6			
		230φ477-13	REN	2	Pb only
		↓ -14	↓	↓	↓
		↓ -16	↓	↓	↓
		↓ -15	↓	10	↓
		SEQ-IBL9			
		230φ7φ2-φ4	REN		
		BLEφ342-DUPI	↓		
		↓ -MS1	↓		
		↓ -MSD1	↓		
		SEQ-IBLA			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV7			
		↓ -CCB7			
	✓	↓ -CAL1			
		↓ -CCV8			
		↓ ✓ -CCB8			
	✓	230Φ171-Φ1	REN	20	ScT Mn only
		↓ -Φ2	↓	↓	↓
		↓ -1Φ	↓	↓	↓
		↓ -11	↓	100	↓
		↓ -12	↓	↓	↓
		↓ -Φ6	↓	50	↓
		SEQ-IBLB			
		↓ -CCV9			ScT
		↓ -CCB9			
	✓	↓ -CAL1			
		↓ -CCVA			
		↓ ✓ -CCBA			
		230Φ636-Φ1	REN	10	Be, Pb only
		BLEΦ298-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓
		↓ -MS02	↓	↓	↓
		SEQ-IBLC			
		230Φ568-Φ8	SWN	20	Cr NR
		BLEΦ143-DUP1	↓	↓	As, Pb RPT ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ143-MS1	SWN	20	Pb%R↓ Cr NR
		↓ -MS01	↓	↓	Se↑/As%R↓/Sr ↓
		SEQ-IBLD			(Ge noisy)
		↓ -CCVB			
		↓ -CCBB			
		230Φ568-Φ2	SWN	20	
		↓ -Φ3	↓	↓	Pb↑ Pb NR
		↓ -Φ4	↓	↓	
		↓ -Φ5	↓	↓	
		↓ -Φ6	↓	↓	
		↓ -Φ7	↓	↓	Se, Tb↑ Cr, Pb NR
		SEQ-IBLE			
	✓	BLEΦ143-MS01	SWN	20	Se, Tb↑
		SEQ-IBLF			
		↓ -CCVC			
		↓ -CCBC			
	✓	↓ -CAL1			Ba, Mn, Ni Removed
		↓ -CCVD			
		↓ -CCBD			
		23AΦ467-Φ3	SWN	20	Ag, Cr, Pb only
		23CΦΦ71-Φ3	↓	↓	↓
		230ΦΦΦ8-Φ1	↓	↓	
		230Φ136-Φ1	↓	↓	
		↓ -Φ3	↓	↓	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230φ396-φ1	SWN	20	
		↓ -φ3	↓	↓	
		230φ394-φ2	↓	↓	
		↓ -φ4	↓	↓	
		SEQ-IBLG			
		↓ -CCVE			
		↓ -CCBE			
		230φ394-φ6	SWN	20	
		↓ -φ7	↓	↓	
		↓ -φ8	↓	↓	
		↓ -11	↓	↓	Zn ↑ / Cd noisy No Cd, Zn
		↓ -12	↓	↓	
		↓ -13	↓	↓	
		230φ393-24			
		↓ -28	↓	↓	
		↓ -29	↓	↓	
		SEQ-IBLH			
		↓ -CCVF			
		↓ -CCBF			
		230φ393-1φ	SWN	20	
		↓ -11	↓	↓	
		↓ -12	↓	↓	In-1st noisy for Ge + Analytes OK / noisy No As, Cu, Zn
		↓ -15	↓	↓	
		↓ -16	↓	↓	



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/14/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230φ393-17	SWN	20	
		↓ -18	↓	↓	
		↓ -19	↓	↓	
		↓ -22	↓	↓	Cu↑ No Cu
		SEQ-IBLI			
		↓ -CCVG			
		↓ -CCBG			
		230φ393-φ4RE1	SWN	2000	Cu, Zn only
		BLEφφ72-DUP3	↓	↓	↓
		↓ -MS3	↓	↓	Cu, Zn STL
		↓ -MS03	↓	↓	↓
		230φ393-φ4		200	Cu, Zn↑ Ag, As, Cd, Pb only / Cu, Zn NR
		BLEφφ72-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓ / Ag, Pb STL
		↓ -MS02	↓	↓	↓
		↓ -PS2	↓	↓	↓ / 160.04 / 167409
		SEQ-IBLJ			
		↓ -CCVH			
		↓ -CCBH			
		230φ568-φ3RE1	SWN	200	Pb only
		230φ568-φ7RE1	↓	50	Cr, Pb only
		↓ -φ8RE1	↓	↓	Cr only
		BLEφ143-DUP2	↓	↓	↓
		↓ -MS2	↓	↓	↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/11/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLEΦ143-MSDZ	SWN	50	Cr only
		SEQ-IBLK			
	✓	230Φ393-Φ2	SWN	200	Re-run @ 20x
	✓	↓ -Φ3	↓	↓	↓
		SEQ-IBLL			
		↓ -CCVI			
		↓ -CCBI			
	✓	↓ -CALI			
		↓ -CCVJ			
		↓ -CCBJ			
		230Φ393-Φ5	SWN	200	Zn ↑ ^{Not} Needed <u>No Zn</u>
		↓ -Φ6	↓	↓	
	✓	↓ -Φ8	↓	↓	Re-run @ 20x
		SEQ-IBLM			
		230Φ412-Φ2	REN		
		↓ -Φ3	↓		
		↓ -Φ4	↓		
		↓ -Φ5	↓		
		↓ -Φ6	↓		
		SEQ-IBLN			
		↓ -CCVK			
		↓ -CCBK			
		230Φ412-Φ7	REN		
		↓ -Φ8	↓		



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		230Φ412-Φ9	REN		
		↓ -10	↓		
		-11			
		-12			
		-13			
		-14			
		↓ -15	↓		
		SEQ-IBLO			
		↓ -CCVL			
		↓ -CCBL			
		230Φ442-Φ3	REN		Sc↑ - Not Needed
		↓ -Φ4	↓		
	✓	↓ -Φ5			Sc↑ - Not Needed / Ge noisy
		↓ -Φ6			↓ ↓
	✓	230Φ598-Φ4			Sc, Ge, In ↓ In, Tb ↓
		↓ -Φ6			Ge, In, In, Tb ↓
		↓ -Φ8			Sc↑ Cr only
		↓ -10			No Cr ↓
		↓ -12	↓		
		SEQ-IBLP			(Cr ⁵³ ↑)
		↓ -CCVM			
		↓ -CCBM			
		230Φ514-Φ2	REN		Sc↑ - Not Needed
		↓ -Φ3	↓		↓ ↓



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		2300514-04	REN		Sc↑ - Not Needed
		↓ -06	↓		
		SEQ-IBLR			
✓		2300598-02	REN		Int. STDs ↓
	↓	BLE0119-DUPI	↓		↓
		↓ -MS1			
	↓	↓ -MS01	↓		↓
		SEQ-IBLR			(Sc, Ge↑ / Cr ⁵³ ↑)
		↓ -CCVN			Cr ↓
		↓ -CCBN			
✓		↓ -CALI			
		↓ -CCVO			Cr ↓
		↓ -CCBO			
		2300537-02	REN	2	
		↓ -03	↓	↓	
		↓ -04			Sc↑ - Not Needed
		2300494-01			
		↓ -02			
		↓ -03			Sc↑ - Not Needed
		↓ -04			
		↓ -05			
		↓ -06	↓		
		SEQ-IBLS			
		↓ -CCVP			Cr ↓ / PGT



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 5/11/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBP			
		2300494-07	REN		
	✓	↓ -08	↓		As noisy
		↓ -09	↓		
		↓ -10	↓		
		↓ -11	↓		
		2300578-02		25	As only
		BLE0134-00P1		↓	↓
		↓ -MS1	↓		
	✓	↓ -MS01	↓	↓	Ge noisy
		SEQ-IBLT			
		↓ -CCVQ			
		↓ -CCBQ			
		2300588-01	REN		
		↓ -03	↓		
		↓ -05	↓		
		↓ -07	↓		
		↓ -09	↓		
		↓ -11	↓		
		↓ -13	↓		
		↓ -15	↓		
		2300587-03			
		SEQ-IBLU			
		↓ -CCVR			



ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 5/11/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBR			
		230φ587-φ2	REN	2	
		↓ -φ4	↓	5	
		↓ -φ5	↓	↓	
		230φ578-φ7		↓	
		↓ -φ8	↓	↓	
		↓ -φ4	↓	2	
		↓ -φ6	↓	↓	
		↓ -φ3	↓		
		↓ -φ5	↓		
		SEQ-IBLV			
		↓ -CCVS			
		↓ -CCBS			
		Rinse/DF			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(-45deg); opacity: 0.5;"></div>					
			MB	5/11/23	

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Thursday, May 11, 2023 12:49:24

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.159

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0		6461.2		6461.194	108.647	1.7	Standard
In	114.9		67625.0		67624.969	851.616	1.3	Standard
U	238.1		94250.1		94250.125	1957.526	2.1	Standard
[	CeO	155.9	1249.3		0.013	0.000	1.9	Standard
|>	Ce	139.9	93503.0		93502.957	927.845	1.0	Standard
[	Ce++	70.0	612.9		0.007	0.000	6.9	Standard
	Bkgd	220.0	1.7		1.667	0.264	15.8	Standard

Current Conditions File Data

Current Value	Description
0.92	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.92	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Thursday, May 11, 2023 12:51:29

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/11/2023 12:49:13 PM

End Time: 5/11/2023 12:54:25 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 6461.19

Obtained Intensity (In 115): 67624.97

Obtained Intensity (U 238): 94250.13

Obtained Intensity (Bkgd 220): 1.67

Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=612.88 / 93502.96)

Obtained Formula (CeO 156 / Ce 140): 0.013 (=1249.32 / 93502.96)

Obtained RSD (Be 9): 0.0168

Obtained RSD (In 115): 0.0126

Obtained RSD (U 238): 0.0208

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.14 mm	1.04 mm	76323.34

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.93

Obtained Intensity (In 115): 79740.93

Obtained Formula (CeO 156 / Ce 140): 0.0170 (=1741.11 / 102470.19)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.713)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.675)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.680)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/11/2023 12:49:13 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6461.19
Obtained Intensity (In 115): 67624.97
Obtained Intensity (U 238): 94250.13
Obtained Intensity (Bkgd 220): 1.67
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=612.88 / 93502.96)
Obtained Formula (CeO 156 / Ce 140): 0.013 (=1249.32 / 93502.96)
Obtained RSD (Be 9): 0.0168
Obtained RSD (In 115): 0.0126
Obtained RSD (U 238): 0.0208

[Passed] Optimum value(s): N/A

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	1.14 mm	1.04 mm	76323.34

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 0.91/0.93/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 79740.93
Obtained Formula (CeO 156 / Ce 140): 0.0170 (=1741.11 / 102470.19)

[Passed] Optimum value(s): 0.93

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.713)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.675)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.680)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)

[Passed] Optimum value(s): N/A

End Time: 5/11/2023 12:54:25 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Thursday, May 11, 2023 12:59:23

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.167

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		7408.7		7408.655		153.896		2.1	Standard	
In	114.9		77950.1		77950.141		1370.420		1.8	Standard	
U	238.1		111916.6		111916.599		2616.965		2.3	Standard	
[	CeO	155.9		1830.2		0.018		0.001		3.8	Standard
|>	Ce	139.9		104042.3		104042.336		1986.057		1.9	Standard
[	Ce++	70.0		670.5		0.006		0.000		3.2	Standard
	Bkgd	220.0		1.6		1.633		0.701		42.9	Standard

Current Conditions File Data

Current Value	Description
0.93	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.93	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Thursday, May 11, 2023 13:01:27

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 5/11/2023 12:54:40 PM

End Time: 5/11/2023 1:01:27 PM

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.93

Obtained Intensity (In 115): 84178.28

Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1892.13 / 104805.04)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.687)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.694)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -15.68

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.996; Intercept = -14.78

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 7408.65

Obtained Intensity (In 115): 77950.14

Obtained Intensity (U 238): 111916.60

Obtained Intensity (Bkgd 220): 1.63

Obtained Formula (Ce++ 70 / Ce 140): 0.006 (=670.55 / 104042.34)

Obtained Formula (CeO 156 / Ce 140): 0.018 (=1830.18 / 104042.34)

Obtained RSD (Be 9): 0.0208

Obtained RSD (In 115): 0.0176

Obtained RSD (U 238): 0.0234

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 5/11/2023 12:54:40 PM

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.

Initial Try - Start/End/Step: 0.93/0.96/0.01.

Intensity Criterion: In 115 Maximum

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 84178.28

Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1892.13 / 104805.04)

[Passed] Optimum value(s): 0.93

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.687)

Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.694)

[Passed] Optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -15.68

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-16	50196
Mg	24	41	-16.5	36699.1
In	115	41	-13	81861.9
Ce	140	41	-12.5	103929
Pb	208	41	-11.5	62620.9
U	238	41	-11.5	115279

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.996; Intercept = -14.78

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-15	35371.7
Mg	24	41	-15	56081.9
In	115	41	-12.5	122297
Ce	140	41	-11.5	105528
Pb	208	41	-11	58326.8
U	238	41	-10.5	137434

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 5

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

RSD Criterion: Be 9.0122 < 0.05

RSD Criterion: In 114.904 < 0.05

RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 7408.65

Obtained Intensity (In 115): 77950.14

Obtained Intensity (U 238): 111916.60

Obtained Intensity (Bkgd 220): 1.63

Obtained Formula (Ce++ 70 / Ce 140): 0.006 (=670.55 / 104042.34)

Obtained Formula (CeO 156 / Ce 140): 0.018 (=1830.18 / 104042.34)

Obtained RSD (Be 9): 0.0208

Obtained RSD (In 115): 0.0176

Obtained RSD (U 238): 0.0234

[Passed] Optimum value(s): N/A

End Time: 5/11/2023 1:01:27 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 13:56:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				29450	1	Standard
	Cl	37	ug/L				2929441	2	Standard
[>	Sc	45	ug/L				500966	2	Standard
|	Cr	52	ug/L				9079	1	Standard
|	Cr	53	ug/L				93	12	Standard
|	Mn	55	ug/L				264	2	Standard
[>	Ge	72	ug/L				31052	2	KED
|	Ni	60	ug/L				26	31	KED
|	Ni	62	ug/L				6	62	KED
|	Cu	63	ug/L				43	5	KED
|	Cu	65	ug/L				30	21	KED
|	Zn	66	ug/L				36	31	KED
|	Zn	67	ug/L				6	31	KED
|	As	75	ug/L				3	18	KED
	Y	89	ug/L				40261	2	Standard
	Kr	83	ug/L				50	4	Standard
[>	In-1	115	ug/L				6674	2	KED
|	Cd	111	ug/L				2	115	KED
|	Cd	114	ug/L				3	72	KED
[>	In	115	ug/L				458892	1	Standard
|	Ag	107	ug/L				13	24	Standard
|	Ba	135	ug/L				43	11	Standard
|	Ba	137	ug/L				78	10	Standard
[>	Tb	159	ug/L				181387	1	Standard
|	Pb	208	ug/L				323	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:00:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	31832	4	Standard
Cl	37		ug/L			2929441	2839755	4	Standard
[> Sc	45		ug/L			500966	496983	3	Standard
| Cr	52	0.500	ug/L	0.014	2	9079	15913	2	Standard
| Cr	53	0.500	ug/L	0.035	6	93	865	3	Standard
| Mn	55	0.500	ug/L	0.011	2	264	9923	5	Standard
[> Ge	72		ug/L			31052	31441	1	KED
| Ni	60	0.500	ug/L	0.026	5	26	775	5	KED
| Ni	62	0.500	ug/L	0.077	15	6	130	13	KED
| Cu	63	0.500	ug/L	0.006	1	43	2353	0	KED
| Cu	65	0.500	ug/L	0.019	3	30	1191	4	KED
| Zn	66	6.000	ug/L	0.188	3	36	3261	4	KED
| Zn	67	6.000	ug/L	0.586	9	6	482	8	KED
[As	75	0.200	ug/L	0.018	8	3	52	9	KED
Y	89		ug/L			40261	40194	3	Standard
Kr	83		ug/L			50	41	23	Standard
[> In-1	115		ug/L			6674	6464	1	KED
| Cd	111	0.100	ug/L	0.023	22	2	21	18	KED
[Cd	114	0.100	ug/L	0.011	10	3	65	9	KED
[> In	115		ug/L			458892	444022	3	Standard
| Ag	107	0.200	ug/L	0.003	1	13	2921	2	Standard
| Ba	135	0.500	ug/L	0.038	7	43	2729	4	Standard
[Ba	137	0.500	ug/L	0.011	2	78	4854	3	Standard
[> Tb	159		ug/L			181387	179115	3	Standard
[Pb	208	0.100	ug/L	0.003	3	323	9079	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:05:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	38615	2	Standard
Cl	37		ug/L			2929441	2965976	5	Standard
[> Sc	45		ug/L			500966	492932	2	Standard
| Cr	52	10.000	ug/L	0.241	2	9079	146019	1	Standard
| Cr	53	10.000	ug/L	0.340	3	93	15653	2	Standard
| Mn	55	10.001	ug/L	0.292	2	264	199231	2	Standard
[> Ge	72		ug/L			31052	30729	2	KED
| Ni	60	10.001	ug/L	0.207	2	26	15213	1	KED
| Ni	62	10.000	ug/L	0.242	2	6	2455	1	KED
| Cu	63	10.000	ug/L	0.230	2	43	44916	3	KED
| Cu	65	9.999	ug/L	0.275	2	30	22153	0	KED
| Zn	66	10.082	ug/L	0.165	1	36	5453	1	KED
| Zn	67	10.273	ug/L	0.327	3	6	867	2	KED
[As	75	10.000	ug/L	0.240	2	3	2547	0	KED
Y	89		ug/L			40261	41417	3	Standard
Kr	83		ug/L			50	38	27	Standard
[> In-1	115		ug/L			6674	6340	1	KED
| Cd	111	10.000	ug/L	0.152	1	2	2394	2	KED
| Cd	114	10.000	ug/L	0.216	2	3	6112	2	KED
[> In	115		ug/L			458892	456528	2	Standard
| Ag	107	10.000	ug/L	0.035	0	13	148505	2	Standard
| Ba	135	10.000	ug/L	0.120	1	43	55666	1	Standard
| Ba	137	10.000	ug/L	0.049	0	78	97151	2	Standard
[> Tb	159		ug/L			181387	182174	3	Standard
[Pb	208	10.000	ug/L	0.225	2	323	901593	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:10:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	37598	5	Standard
Cl	37		ug/L			2929441	3016985	5	Standard
[> Sc	45		ug/L			500966	495356	3	Standard
| Cr	52	19.915	ug/L	0.230	1	9079	278813	3	Standard
| Cr	53	19.982	ug/L	0.307	1	93	31234	2	Standard
| Mn	55	19.853	ug/L	0.270	1	264	385814	2	Standard
[> Ge	72		ug/L			31052	31142	1	KED
| Ni	60	19.875	ug/L	0.193	0	26	29873	1	KED
| Ni	62	19.829	ug/L	0.427	2	6	4767	2	KED
| Cu	63	19.810	ug/L	0.617	3	43	86810	1	KED
| Cu	65	19.924	ug/L	0.406	2	30	44058	2	KED
| Zn	66	19.808	ug/L	0.324	1	36	10528	1	KED
| Zn	67	20.108	ug/L	0.353	1	6	1742	0	KED
[As	75	19.858	ug/L	0.037	0	3	4985	1	KED
Y	89		ug/L			40261	40956	0	Standard
Kr	83		ug/L			50	36	10	Standard
[> In-1	115		ug/L			6674	6162	6	KED
| Cd	111	19.961	ug/L	1.156	5	2	4594	0	KED
[Cd	114	19.948	ug/L	1.052	5	3	11699	1	KED
[> In	115		ug/L			458892	442261	2	Standard
| Ag	107	19.961	ug/L	0.488	2	13	284872	2	Standard
| Ba	135	19.961	ug/L	0.460	2	43	106756	1	Standard
[Ba	137	20.053	ug/L	0.424	2	78	190616	0	Standard
[> Tb	159		ug/L			181387	182067	1	Standard
[Pb	208	19.912	ug/L	0.188	0	323	1763795	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:15:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27882	6	Standard
Cl	37		ug/L			2929441	3034849	2	Standard
[> Sc	45		ug/L			500966	458587	1	Standard
| Cr	52	49.922	ug/L	1.876	3	9079	629334	1	Standard
| Cr	53	50.053	ug/L	0.603	1	93	72681	0	Standard
| Mn	55	49.996	ug/L	0.842	1	264	898883	1	Standard
[> Ge	72		ug/L			31052	29579	0	KED
| Ni	60	49.802	ug/L	0.895	1	26	69689	2	KED
| Ni	62	49.780	ug/L	1.236	2	6	11116	3	KED
| Cu	63	49.652	ug/L	0.326	0	43	199706	1	KED
| Cu	65	49.521	ug/L	0.703	1	30	99217	1	KED
| Zn	66	49.752	ug/L	0.177	0	36	24501	0	KED
| Zn	67	49.966	ug/L	1.333	2	6	4090	1	KED
[As	75	49.927	ug/L	0.338	0	3	11813	0	KED
Y	89		ug/L			40261	39593	0	Standard
Kr	83		ug/L			50	45	19	Standard
[> In-1	115		ug/L			6674	6012	0	KED
| Cd	111	49.812	ug/L	0.438	0	2	11006	1	KED
[Cd	114	49.795	ug/L	0.668	1	3	27985	0	KED
[> In	115		ug/L			458892	422438	0	Standard
| Ag	107	49.993	ug/L	1.404	2	13	681007	2	Standard
| Ba	135	49.990	ug/L	0.567	1	43	255103	0	Standard
[Ba	137	49.864	ug/L	1.049	2	78	446649	1	Standard
[> Tb	159		ug/L			181387	174003	0	Standard
[Pb	208	50.004	ug/L	0.350	0	323	4234634	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:21:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	34721	5	Standard
Cl	37		ug/L			2929441	3166160	3	Standard
[> Sc	45		ug/L			500966	449933	0	Standard
| Cr	52	99.986	ug/L	2.146	2	9079	1228563	2	Standard
| Cr	53	99.676	ug/L	2.337	2	93	140446	3	Standard
| Mn	55	100.252	ug/L	0.264	0	264	1783305	0	Standard
[> Ge	72		ug/L			31052	28460	0	KED
| Ni	60	100.032	ug/L	0.974	0	26	134792	1	KED
| Ni	62	99.699	ug/L	0.385	0	6	21199	0	KED
| Cu	63	99.310	ug/L	1.347	1	43	375622	0	KED
| Cu	65	99.902	ug/L	1.609	1	30	191910	0	KED
| Zn	66	99.787	ug/L	2.048	2	36	46918	1	KED
| Zn	67	99.193	ug/L	0.682	0	6	7606	0	KED
[As	75	100.196	ug/L	1.478	1	3	22957	0	KED
Y	89		ug/L			40261	38715	1	Standard
Kr	83		ug/L			50	53	10	Standard
[> In-1	115		ug/L			6674	5881	2	KED
| Cd	111	99.523	ug/L	0.347	0	2	21169	2	KED
| Cd	114	99.612	ug/L	1.244	1	3	54050	1	KED
[> In	115		ug/L			458892	403500	0	Standard
| Ag	107	100.284	ug/L	0.965	0	13	1317556	1	Standard
| Ba	135	100.098	ug/L	1.034	1	43	489484	0	Standard
| Ba	137	100.577	ug/L	1.052	1	78	877436	1	Standard
[> Tb	159		ug/L			181387	168275	2	Standard
[Pb	208	99.769	ug/L	2.754	2	323	8104275	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:29:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27815	3	Standard
Cl	37		ug/L			2929441	2895451	4	Standard
[> Sc	45		ug/L			500966	437362	3	Standard
| Cr	52	0.041	ug/L	0.030	72	9079	8419	7	Standard
| Cr	53	0.006	ug/L	0.037	599	93	91	59	Standard
| Mn	55	0.029	ug/L	0.051	179	264	743	124	Standard
[> Ge	72		ug/L			31052	28653	0	KED
| Ni	60	0.002	ug/L	0.010	401	26	27	47	KED
| Ni	62	0.005	ug/L	0.005	97	6	6	15	KED
| Cu	63	0.002	ug/L	0.004	188	43	48	34	KED
| Cu	65	-0.004	ug/L	0.002	37	30	20	14	KED
| Zn	66	-0.016	ug/L	0.023	147	36	26	41	KED
| Zn	67	-0.034	ug/L	0.025	72	6	3	50	KED
[As	75	0.011	ug/L	0.009	76	3	5	36	KED
Y	89		ug/L			40261	37510	2	Standard
Kr	83		ug/L			50	50	13	Standard
[> In-1	115		ug/L			6674	5933	1	KED
| Cd	111	0.006	ug/L	0.015	259	2	3	86	KED
[Cd	114	0.001	ug/L	0.002	367	3	3	35	KED
[> In	115		ug/L			458892	409881	3	Standard
| Ag	107	0.035	ug/L	0.051	145	13	488	142	Standard
| Ba	135	0.021	ug/L	0.038	176	43	145	130	Standard
[Ba	137	0.022	ug/L	0.042	189	78	267	139	Standard
[> Tb	159		ug/L			181387	165152	2	Standard
[Pb	208	0.018	ug/L	0.032	172	323	1800	144	Standard

Sample Information

Sample Date/Time: Thursday, May 11, 2023 14:21:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m

Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	1.0000	0.027	0.50	10	20	50	100
Cr	53	1.0000	0.003	0.50	10	20	50	100
Mn	55	1.0000	0.040	0.50	10	20	50	100
Ge	72							
Ni	60	1.0000	0.047	0.50	10	20	50	100
Ni	62	1.0000	0.007	0.50	10	20	50	100
Cu	63	0.9999	0.133	0.50	10	20	50	100
Cu	65	0.9999	0.067	0.50	10	20	50	100
Zn	66	1.0000	0.017	6.00	10	20	50	100
Zn	67	0.9999	0.003	6.00	10	20	50	100
As	75	1.0000	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	1.0000	0.036	0.10	10	20	50	100
Cd	114	1.0000	0.092	0.10	10	20	50	100
In	115							
Ag	107	1.0000	0.033	0.20	10	20	50	100
Ba	135	1.0000	0.012	0.50	10	20	50	100
Ba	137	0.9999	0.022	0.50	10	20	50	100
Tb	159							
Pb	208	1.0000	0.483	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:34:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	32734	2	Standard
Cl	37		ug/L			2929441	3121402	2	Standard
[> Sc	45		ug/L			500966	460267	1	Standard
| Cr	52	51.318	ug/L	0.712	1	9079	649020	0	Standard
| Cr	53	51.236	ug/L	0.611	1	93	73879	0	Standard
| Mn	55	51.172	ug/L	0.995	1	264	931167	1	Standard
[> Ge	72		ug/L			31052	29525	1	KED
| Ni	60	52.057	ug/L	0.958	1	26	72781	1	KED
| Ni	62	52.067	ug/L	1.276	2	6	11487	2	KED
| Cu	63	52.782	ug/L	0.236	0	43	207145	1	KED
| Cu	65	51.949	ug/L	0.255	0	30	103549	1	KED
| Zn	66	50.602	ug/L	1.227	2	36	24700	2	KED
| Zn	67	50.874	ug/L	<u>3.016</u>	5	6	4052	6	KED
| As	75	48.312	ug/L	0.218	0	3	11486	1	KED
Y	89		ug/L			40261	39977	0	Standard
Kr	83		ug/L			50	42	20	Standard
[> In-1	115		ug/L			6674	6124	0	KED
| Cd	111	50.931	ug/L	1.126	2	2	11283	2	KED
| Cd	114	50.926	ug/L	1.309	2	3	28780	2	KED
[> In	115		ug/L			458892	418731	1	Standard
| Ag	107	51.018	ug/L	0.913	1	13	695521	1	Standard
| Ba	135	50.635	ug/L	0.899	1	43	256949	0	Standard
| Ba	137	51.005	ug/L	0.239	0	78	461777	0	Standard
[> Tb	159		ug/L			181387	173193	1	Standard
| Pb	208	51.355	ug/L	1.100	2	323	4294627	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:42:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			29450	27252	2	Standard
Cl	37		ug/L			2929441	2901324	2	Standard
[> Sc	45		ug/L			500966	435323	2	Standard
| Cr	52	0.031	ug/L	0.014	45	9079	8249	2	Standard
| Cr	53	-0.007	ug/L	0.002	27	93	71	0	Standard
| Mn	55	-0.001	ug/L	0.001	81	264	219	2	Standard
[> Ge	72		ug/L			31052	29290	1	KED
| Ni	60	-0.000	ug/L	0.004	1473	26	24	20	KED
| Ni	62	0.019	ug/L	0.014	72	6	10	28	KED
| Cu	63	-0.004	ug/L	0.001	17	43	24	12	KED
| Cu	65	-0.008	ug/L	0.000	1	30	13	0	KED
| Zn	66	0.000	ug/L	0.009	2333	36	34	11	KED
| Zn	67	-0.051	ug/L	0.014	28	6	2	43	KED
[As	75	0.002	ug/L	0.005	257	3	3	37	KED
Y	89		ug/L			40261	37372	2	Standard
Kr	83		ug/L			50	38	10	Standard
[> In-1	115		ug/L			6674	6114	0	KED
| Cd	111	0.004	ug/L	0.015	382	2	3	95	KED
[Cd	114	0.000	ug/L	0.002	438	3	3	34	KED
[> In	115		ug/L			458892	415249	2	Standard
| Ag	107	0.004	ug/L	0.000	8	13	63	9	Standard
| Ba	135	-0.001	ug/L	0.003	537	43	36	37	Standard
[Ba	137	-0.001	ug/L	0.001	158	78	62	18	Standard
[> Tb	159		ug/L			181387	163951	1	Standard
[Pb	208	-0.001	ug/L	0.001	113	323	249	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:46:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				27246	4	Standard
	Cl	37	ug/L				2837394	3	Standard
[>	Sc	45	ug/L				433133	1	Standard
|	Cr	52	ug/L				8166	2	Standard
|	Cr	53	ug/L				76	12	Standard
|	Mn	55	ug/L				206	7	Standard
[>	Ge	72	ug/L				28633	1	KED
|	Ni	60	ug/L				24	13	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				24	19	KED
|	Cu	65	ug/L				15	33	KED
|	Zn	66	ug/L				23	32	KED
|	Zn	67	ug/L				6	124	KED
|	As	75	ug/L				1	78	KED
	Y	89	ug/L				37407	4	Standard
	Kr	83	ug/L				39	7	Standard
[>	In-1	115	ug/L				6039	1	KED
|	Cd	111	ug/L				2	145	KED
|	Cd	114	ug/L				2	117	KED
[>	In	115	ug/L				409433	1	Standard
|	Ag	107	ug/L				34	22	Standard
|	Ba	135	ug/L				38	7	Standard
|	Ba	137	ug/L				64	17	Standard
[>	Tb	159	ug/L				161761	1	Standard
|	Pb	208	ug/L				227	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:54:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				27289	5	Standard
>	Sc	45	ug/L				453480	1	Standard
|	Cr	52	ug/L				8256	1	Standard
|	Cr	53	ug/L				77	3	Standard
|	Mn	55	ug/L				193	3	Standard
>	Ge	72	ug/L				28304	1	KED
|	Ni	60	ug/L				22	14	KED
|	Ni	62	ug/L				1	86	KED
|	Cu	63	ug/L				24	44	KED
|	Cu	65	ug/L				12	18	KED
|	Zn	66	ug/L				26	18	KED
|	Zn	67	ug/L				5	0	KED
|	As	75	ug/L				2	10	KED
|	Y	89	ug/L				38013	1	Standard
|	Kr	83	ug/L				36	13	Standard
>	In-1	115	ug/L				5725	0	KED
|	Cd	111	ug/L				4	70	KED
|	Cd	114	ug/L				3	87	KED
>	In	115	ug/L				411490	1	Standard
|	Ag	107	ug/L				27	3	Standard
|	Ba	135	ug/L				32	0	Standard
|	Ba	137	ug/L				62	16	Standard
>	Tb	159	ug/L				164240	3	Standard
|	Pb	208	ug/L				214	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 14:59:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27062	2	Standard
> Sc	45		ug/L			453480	440161	7	Standard
Cr	52	50.337	ug/L	3.140	6	8256	607294	2	Standard
Cr	53	51.443	ug/L	3.485	6	77	70699	1	Standard
Mn	55	50.441	ug/L	2.492	4	193	875712	2	Standard
> Ge	72		ug/L			28304	29116	2	KED
Ni	60	50.025	ug/L	0.415	0	22	68966	2	KED
Ni	62	50.660	ug/L	1.091	2	1	11014	1	KED
Cu	63	50.669	ug/L	0.680	1	24	196030	1	KED
Cu	65	50.092	ug/L	1.903	3	12	98378	1	KED
Zn	66	50.553	ug/L	1.736	3	26	24313	1	KED
Zn	67	51.938	ug/L	2.526	4	5	4074	3	KED
As	75	49.544	ug/L	1.372	2	2	11609	0	KED
Y	89		ug/L			38013	37634	8	Standard
Kr	83		ug/L			36	52	23	Standard
> In-1	115		ug/L			5725	6030	2	KED
Cd	111	50.347	ug/L	1.224	2	4	10979	0	KED
Cd	114	50.833	ug/L	1.154	2	3	28277	0	KED
> In	115		ug/L			411490	395011	7	Standard
Ag	107	51.162	ug/L	2.079	4	27	656715	3	Standard
Ba	135	51.093	ug/L	2.849	5	32	243997	3	Standard
Ba	137	50.478	ug/L	3.171	6	62	429804	1	Standard
> Tb	159		ug/L			164240	165110	7	Standard
Pb	208	51.095	ug/L	3.200	6	214	4061166	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:06:40

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	28083	4	Standard
> Sc	45		ug/L			453480	460376	2	Standard
| Cr	52	49.268	ug/L	0.237	0	8256	623624	2	Standard
| Cr	53	48.687	ug/L	0.344	0	77	70224	2	Standard
| Mn	55	49.182	ug/L	0.910	1	193	895012	1	Standard
> Ge	72		ug/L			28304	29239	2	KED
| Ni	60	50.169	ug/L	0.848	1	22	69473	3	KED
| Ni	62	50.974	ug/L	1.193	2	1	11133	3	KED
| Cu	63	50.018	ug/L	0.409	0	24	194361	1	KED
| Cu	65	49.969	ug/L	0.555	1	12	98612	1	KED
| Zn	66	50.950	ug/L	0.867	1	26	24617	0	KED
| Zn	67	50.684	ug/L	0.714	1	5	3994	0	KED
| As	75	49.714	ug/L	0.612	1	2	11702	0	KED
Y	89		ug/L			38013	39217	2	Standard
Kr	83		ug/L			36	42	25	Standard
> In-1	115		ug/L			5725	6156	1	KED
| Cd	111	50.268	ug/L	0.769	1	4	11197	1	KED
| Cd	114	49.967	ug/L	0.817	1	3	28389	1	KED
> In	115		ug/L			411490	411382	1	Standard
| Ag	107	50.038	ug/L	0.943	1	27	670246	2	Standard
| Ba	135	48.789	ug/L	1.142	2	32	243298	3	Standard
| Ba	137	49.603	ug/L	0.657	1	62	441251	2	Standard
> Tb	159		ug/L			164240	172225	2	Standard
| Pb	208	49.434	ug/L	0.951	1	214	4111011	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:13:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27314	3	Standard
>	Sc	45	ug/L			453480	456632	1	Standard
|	Cr	52	0.002	0.009	627	8256	8331	1	Standard
|	Cr	53	-0.012	0.007	63	77	61	18	Standard
|	Mn	55	0.002	0.001	58	193	228	9	Standard
>	Ge	72	ug/L			28304	29402	1	KED
|	Ni	60	0.001	0.009	676	22	25	45	KED
|	Ni	62	0.017	0.019	107	1	5	78	KED
|	Cu	63	0.003	0.001	47	24	36	16	KED
|	Cu	65	0.002	0.003	167	12	16	40	KED
|	Zn	66	0.011	0.007	64	26	32	11	KED
|	Zn	67	0.005	0.015	286	5	6	17	KED
|	As	75	0.008	0.002	26	2	4	11	KED
|	Y	89	ug/L			38013	38102	2	Standard
|	Kr	83	ug/L			36	40	26	Standard
>	In-1	115	ug/L			5725	6168	0	KED
|	Cd	111	-0.013	0.007	51	4	1	91	KED
|	Cd	114	-0.004	0.003	89	3	1	103	KED
>	In	115	ug/L			411490	415787	1	Standard
|	Ag	107	0.003	0.000	15	27	70	9	Standard
|	Ba	135	0.002	0.002	81	32	43	20	Standard
|	Ba	137	0.001	0.001	97	62	74	14	Standard
>	Tb	159	ug/L			164240	164798	2	Standard
|	Pb	208	0.001	0.000	46	214	285	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:18:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	31340	3	Standard
> Sc	45		ug/L			453480	457759	1	Standard
| Cr	52	0.497	ug/L	0.030	6	8256	14505	1	Standard
| Cr	53	0.480	ug/L	0.006	1	77	766	2	Standard
| Mn	55	0.503	ug/L	0.008	1	193	9302	0	Standard
> Ge	72		ug/L			28304	29147	0	KED
| Ni	60	0.526	ug/L	0.038	7	22	749	6	KED
| Ni	62	0.510	ug/L	0.024	4	1	112	5	KED
| Cu	63	0.700	ug/L	0.033	4	24	2736	4	KED
| Cu	65	0.654	ug/L	0.037	5	12	1299	5	KED
| Zn	66	6.516	ug/L	0.092	1	26	3162	1	KED
| Zn	67	5.954	ug/L	0.279	4	5	473	4	KED
| As	75	0.199	ug/L	0.021	10	2	49	9	KED
Y	89		ug/L			38013	38127	2	Standard
Kr	83		ug/L			36	44	40	Standard
> In-1	115		ug/L			5725	5964	0	KED
| Cd	111	0.083	ug/L	0.014	16	4	22	13	KED
| Cd	114	0.085	ug/L	0.020	23	3	50	21	KED
> In	115		ug/L			411490	416552	1	Standard
| Ag	107	0.206	ug/L	0.010	4	27	2817	4	Standard
| Ba	135	0.486	ug/L	0.006	1	32	2485	1	Standard
| Ba	137	0.497	ug/L	0.008	1	62	4542	2	Standard
> Tb	159		ug/L			164240	163726	0	Standard
| Pb	208	0.113	ug/L	0.001	0	214	9144	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:23:30

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	97217	3	Standard
> Sc	45		ug/L			453480	450990	1	Standard
| Cr	52	0.619	ug/L	0.009	1	8256	15784	2	Standard
| Cr	53	1.691	ug/L	0.026	1	77	2463	3	Standard
| Mn	55	0.128	ug/L	0.002	1	193	2482	1	Standard
> Ge	72		ug/L			28304	27762	1	KED
| Ni	60	0.098	ug/L	0.014	14	22	151	12	KED
| Ni	62	0.126	ug/L	0.038	30	1	27	28	KED
| Cu	63	0.045	ug/L	0.008	17	24	189	14	KED
| Cu	65	0.054	ug/L	0.007	13	12	112	11	KED
| Zn	66	0.231	ug/L	0.023	10	26	131	7	KED
| Zn	67	0.163	ug/L	0.041	25	5	17	16	KED
| As	75	0.021	ug/L	0.011	52	2	7	35	KED
| Y	89		ug/L			38013	38861	1	Standard
| Kr	83		ug/L			36	71	17	Standard
> In-1	115		ug/L			5725	5764	1	KED
| Cd	111	0.047	ug/L	0.016	33	4	13	21	KED
| Cd	114	0.044	ug/L	0.005	11	3	27	8	KED
> In	115		ug/L			411490	393779	0	Standard
| Ag	107	0.004	ug/L	0.002	42	27	79	28	Standard
| Ba	135	0.107	ug/L	0.010	9	32	544	9	Standard
| Ba	137	0.101	ug/L	0.006	6	62	920	6	Standard
> Tb	159		ug/L			164240	161181	0	Standard
| Pb	208	0.017	ug/L	0.001	6	214	1535	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:28:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	95582	3	Standard
> Sc	45		ug/L			453480	451501	3	Standard
| Cr	52	19.309	ug/L	0.190	0	8256	244658	2	Standard
| Cr	53	20.701	ug/L	0.085	0	77	29324	3	Standard
| Mn	55	19.005	ug/L	0.376	1	193	339259	1	Standard
> Ge	72		ug/L			28304	27187	1	KED
| Ni	60	20.096	ug/L	0.486	2	22	25881	1	KED
| Ni	62	20.993	ug/L	0.239	1	1	4264	1	KED
| Cu	63	20.032	ug/L	0.187	0	24	72395	1	KED
| Cu	65	20.081	ug/L	0.166	0	12	36858	1	KED
| Zn	66	19.222	ug/L	0.170	0	26	8652	0	KED
| Zn	67	18.232	ug/L	0.644	3	5	1339	3	KED
| As	75	19.554	ug/L	0.554	2	2	4280	1	KED
| Y	89		ug/L			38013	38083	1	Standard
| Kr	83		ug/L			36	75	20	Standard
> In-1	115		ug/L			5725	5656	2	KED
| Cd	111	18.852	ug/L	0.493	2	4	3859	1	KED
| Cd	114	18.980	ug/L	0.824	4	3	9903	2	KED
> In	115		ug/L			411490	394438	3	Standard
| Ag	107	18.557	ug/L	0.095	0	27	238342	3	Standard
| Ba	135	0.109	ug/L	0.004	3	32	553	6	Standard
| Ba	137	0.103	ug/L	0.003	3	62	939	2	Standard
> Tb	159		ug/L			164240	161935	2	Standard
| Pb	208	0.019	ug/L	0.001	6	214	1687	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:32:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	31805	1	Standard
>	Sc	45	ug/L			453480	454340	1	Standard
|	Cr	52	193.447	1.846	0	8256	2392229	0	Standard
|	Cr	53	189.875	3.302	1	77	269997	0	Standard
|	Mn	55	197.868	1.246	0	193	3553689	1	Standard
>	Ge	72	ug/L			28304	27450	1	KED
|	Ni	60	192.267	5.856	3	22	249819	2	KED
|	Ni	62	196.530	4.033	2	1	40290	0	KED
|	Cu	63	191.286	3.025	1	24	697752	0	KED
|	Cu	65	190.234	3.652	1	12	352415	0	KED
|	Zn	66	192.981	3.879	2	26	87475	0	KED
|	Zn	67	189.380	2.775	1	5	14001	1	KED
|	As	75	197.010	2.672	1	2	43533	0	KED
|	Y	89	ug/L			38013	39134	3	Standard
|	Kr	83	ug/L			36	62	16	Standard
>	In-1	115	ug/L			5725	5844	2	KED
|	Cd	111	192.594	5.941	3	4	40691	1	KED
|	Cd	114	193.758	8.282	4	3	104415	1	KED
>	In	115	ug/L			411490	380931	1	Standard
|	Ag	107	200.601	2.547	1	27	2487769	0	Standard
|	Ba	135	198.373	1.293	0	32	915840	2	Standard
|	Ba	137	195.380	0.838	0	62	1609046	1	Standard
>	Tb	159	ug/L			164240	163550	1	Standard
|	Pb	208	195.400	2.950	1	214	15432200	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:37:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	33722	4	Standard
> Sc	45		ug/L			453480	441731	1	Standard
| Cr	52	305.091	ug/L	5.565	1	8256	3663729	2	Standard
| Cr	53	291.524	ug/L	3.403	1	77	403107	2	Standard
| Mn	55	309.118	ug/L	3.307	1	193	5397400	0	Standard
> Ge	72		ug/L			28304	27437	2	KED
| Ni	60	286.248	ug/L	4.261	1	22	371797	2	KED
| Ni	62	294.176	ug/L	9.832	3	1	60269	2	KED
| Cu	63	283.486	ug/L	4.433	1	24	1033499	1	KED
| Cu	65	282.457	ug/L	3.737	1	12	522986	0	KED
| Zn	66	280.790	ug/L	3.654	1	26	127206	1	KED
| Zn	67	275.224	ug/L	2.531	0	5	20333	1	KED
| As	75	296.499	ug/L	4.791	1	2	65477	0	KED
Y	89		ug/L			38013	36418	0	Standard
Kr	83		ug/L			36	125	5	Standard
> In-1	115		ug/L			5725	5693	1	KED
| Cd	111	284.581	ug/L	0.587	0	4	58604	1	KED
| Cd	114	287.279	ug/L	2.990	1	3	150943	2	KED
> In	115		ug/L			411490	368922	1	Standard
| Ag	107	295.425	ug/L	4.404	1	27	3548209	0	Standard
| Ba	135	285.410	ug/L	2.244	0	32	1275959	0	Standard
| Ba	137	297.174	ug/L	7.652	2	62	2369613	1	Standard
> Tb	159		ug/L			164240	153395	0	Standard
| Pb	208	299.935	ug/L	6.119	2	214	22217572	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:50:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	32080	5	Standard
> Sc	45		ug/L			453480	462017	3	Standard
| Cr	52	0.029	ug/L	0.011	37	8256	8782	4	Standard
| Cr	53	0.033	ug/L	0.009	27	77	126	12	Standard
| Mn	55	0.008	ug/L	0.000	4	193	346	5	Standard
> Ge	72		ug/L			28304	31188	2	KED
| Ni	60	0.010	ug/L	0.003	31	22	40	12	KED
| Ni	62	0.018	ug/L	0.028	152	1	5	115	KED
| Cu	63	0.005	ug/L	0.002	33	24	46	14	KED
| Cu	65	0.008	ug/L	0.004	50	12	31	30	KED
| Zn	66	0.067	ug/L	0.033	48	26	63	27	KED
| Zn	67	0.030	ug/L	0.033	107	5	8	32	KED
| As	75	0.035	ug/L	0.003	8	2	11	8	KED
| Y	89		ug/L			38013	37074	2	Standard
| Kr	83		ug/L			36	41	16	Standard
> In-1	115		ug/L			5725	6678	0	KED
| Cd	111	0.344	ug/L	0.610	177	4	88	167	KED
| Cd	114	0.415	ug/L	0.712	171	3	260	168	KED
> In	115		ug/L			411490	405907	5	Standard
| Ag	107	0.008	ug/L	0.000	4	27	138	3	Standard
| Ba	135	0.011	ug/L	0.002	15	32	84	9	Standard
| Ba	137	0.012	ug/L	0.001	10	62	166	9	Standard
> Tb	159		ug/L			164240	165413	2	Standard
| Pb	208	0.007	ug/L	0.001	7	214	765	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 15:56:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	32817	6	Standard
> Sc	45		ug/L			453480	465595	0	Standard
| Cr	52	0.033	ug/L	0.029	89	8256	8891	4	Standard
| Cr	53	0.022	ug/L	0.008	36	77	112	10	Standard
| Mn	55	0.007	ug/L	0.001	16	193	324	6	Standard
> Ge	72		ug/L			28304	30609	0	KED
| Ni	60	0.006	ug/L	0.004	63	22	33	16	KED
| Ni	62	0.022	ug/L	0.005	21	1	6	17	KED
| Cu	63	0.007	ug/L	0.001	12	24	53	7	KED
| Cu	65	0.006	ug/L	0.002	42	12	24	20	KED
| Zn	66	0.061	ug/L	0.030	49	26	59	25	KED
| Zn	67	0.110	ug/L	0.022	20	5	15	12	KED
| As	75	0.017	ug/L	0.009	50	2	6	30	KED
Y	89		ug/L			38013	37828	1	Standard
Kr	83		ug/L			36	46	19	Standard
> In-1	115		ug/L			5725	6380	1	KED
| Cd	111	-0.006	ug/L	0.009	141	4	3	62	KED
| Cd	114	-0.002	ug/L	0.004	208	3	3	71	KED
> In	115		ug/L			411490	411081	2	Standard
| Ag	107	0.003	ug/L	0.001	38	27	61	18	Standard
| Ba	135	0.009	ug/L	0.000	2	32	76	1	Standard
| Ba	137	0.008	ug/L	0.001	19	62	129	8	Standard
> Tb	159		ug/L			164240	168060	0	Standard
| Pb	208	0.006	ug/L	0.000	6	214	699	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:02:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	28875	4	Standard
> Sc	45		ug/L			453480	482814	0	Standard
| Cr	52	48.915	ug/L	1.071	2	8256	649472	2	Standard
| Cr	53	48.922	ug/L	0.840	1	77	74007	2	Standard
| Mn	55	48.618	ug/L	1.178	2	193	928265	3	Standard
> Ge	72		ug/L			28304	31467	1	KED
| Ni	60	47.900	ug/L	0.847	1	22	71376	2	KED
| Ni	62	48.879	ug/L	1.757	3	1	11486	2	KED
| Cu	63	48.723	ug/L	0.352	0	24	203768	0	KED
| Cu	65	48.305	ug/L	0.286	0	12	102604	1	KED
| Zn	66	49.318	ug/L	0.810	1	26	25649	1	KED
| Zn	67	49.869	ug/L	0.085	0	5	4231	1	KED
| As	75	48.603	ug/L	0.330	0	2	12314	0	KED
Y	89		ug/L			38013	39328	2	Standard
Kr	83		ug/L			36	48	6	Standard
> In-1	115		ug/L			5725	6414	1	KED
| Cd	111	48.597	ug/L	0.674	1	4	11277	0	KED
| Cd	114	47.948	ug/L	0.913	1	3	28379	0	KED
> In	115		ug/L			411490	417201	1	Standard
| Ag	107	49.941	ug/L	0.254	0	27	678388	1	Standard
| Ba	135	50.373	ug/L	0.671	1	32	254680	0	Standard
| Ba	137	50.599	ug/L	0.533	1	62	456395	1	Standard
> Tb	159		ug/L			164240	175544	1	Standard
| Pb	208	48.892	ug/L	0.986	2	214	4144705	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:09:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27289	27823	4	Standard
> Sc	45		ug/L			453480	465227	3	Standard
| Cr	52	0.015	ug/L	0.021	141	8256	8652	0	Standard
| Cr	53	0.001	ug/L	0.006	536	77	81	8	Standard
| Mn	55	0.002	ug/L	0.001	58	193	232	8	Standard
> Ge	72		ug/L			28304	30317	1	KED
| Ni	60	0.002	ug/L	0.007	437	22	26	35	KED
| Ni	62	0.016	ug/L	0.005	30	1	5	21	KED
| Cu	63	0.002	ug/L	0.001	88	24	32	17	KED
| Cu	65	0.005	ug/L	0.002	42	12	22	17	KED
| Zn	66	0.047	ug/L	0.018	38	26	51	18	KED
| Zn	67	0.057	ug/L	0.047	82	5	10	36	KED
| As	75	0.016	ug/L	0.005	33	2	6	18	KED
Y	89		ug/L			38013	37122	1	Standard
Kr	83		ug/L			36	37	32	Standard
> In-1	115		ug/L			5725	6495	4	KED
| Cd	111	-0.005	ug/L	0.006	118	4	3	41	KED
| Cd	114	-0.003	ug/L	0.002	61	3	2	45	KED
> In	115		ug/L			411490	406741	3	Standard
| Ag	107	0.004	ug/L	0.001	22	27	74	16	Standard
| Ba	135	0.003	ug/L	0.001	26	32	47	6	Standard
| Ba	137	0.001	ug/L	0.000	28	62	73	1	Standard
> Tb	159		ug/L			164240	165879	2	Standard
| Pb	208	0.002	ug/L	0.000	24	214	357	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:15:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L				27225	3	Standard
[>	Sc	45		ug/L				460122	1	Standard
|	Cr	52		ug/L				8551	1	Standard
|	Cr	53		ug/L				93	7	Standard
|	Mn	55		ug/L				219	2	Standard
[>	Ge	72		ug/L				30494	0	KED
|	Ni	60		ug/L				28	24	KED
|	Ni	62		ug/L				3	0	KED
|	Cu	63		ug/L				26	37	KED
|	Cu	65		ug/L				10	54	KED
|	Zn	66		ug/L				19	49	KED
|	Zn	67		ug/L				3	91	KED
|	As	75		ug/L				2	57	KED
	Y	89		ug/L				38927	1	Standard
	Kr	83		ug/L				46	28	Standard
[>	In-1	115		ug/L				6386	0	KED
|	Cd	111		ug/L				4	135	KED
|	Cd	114		ug/L				13	137	KED
[>	In	115		ug/L				414575	1	Standard
|	Ag	107		ug/L				42	6	Standard
|	Ba	135		ug/L				38	10	Standard
|	Ba	137		ug/L				52	20	Standard
[>	Tb	159		ug/L				165965	0	Standard
|	Pb	208		ug/L				210	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:19:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	28719	3	Standard
> Sc	45		ug/L			460122	479980	1	Standard
| Cr	52	48.714	ug/L	0.892	1	8551	643070	0	Standard
| Cr	53	49.494	ug/L	0.747	1	93	74427	0	Standard
| Mn	55	49.581	ug/L	1.295	2	219	940735	1	Standard
> Ge	72		ug/L			30494	30799	1	KED
| Ni	60	49.076	ug/L	0.404	0	28	71585	1	KED
| Ni	62	50.137	ug/L	0.582	1	3	11536	0	KED
| Cu	63	49.653	ug/L	0.328	0	26	203267	1	KED
| Cu	65	49.757	ug/L	0.853	1	10	103428	0	KED
| Zn	66	51.089	ug/L	0.637	1	19	25996	0	KED
| Zn	67	49.790	ug/L	0.492	0	3	4132	2	KED
| As	75	49.584	ug/L	0.515	1	2	12295	0	KED
Y	89		ug/L			38927	40383	1	Standard
Kr	83		ug/L			46	45	18	Standard
> In-1	115		ug/L			6386	6468	3	KED
| Cd	111	48.415	ug/L	0.738	1	4	11326	1	KED
| Cd	114	48.721	ug/L	0.964	1	13	29080	1	KED
> In	115		ug/L			414575	414534	0	Standard
| Ag	107	51.238	ug/L	1.337	2	42	691635	2	Standard
| Ba	135	50.227	ug/L	0.731	1	38	252349	1	Standard
| Ba	137	50.308	ug/L	0.936	1	52	450887	1	Standard
> Tb	159		ug/L			165965	174759	1	Standard
| Pb	208	48.648	ug/L	1.114	2	210	4105611	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:27:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	27300	2	Standard
>	Sc	45	ug/L			460122	470436	2	Standard
|	Cr	52	-0.018	ug/L	0.009	8551	8514	4	Standard
|	Cr	53	-0.003	ug/L	0.004	93	90	5	Standard
|	Mn	55	-0.000	ug/L	0.002	219	220	13	Standard
>	Ge	72		ug/L		30494	30726	0	KED
|	Ni	60	-0.001	ug/L	0.005	28	27	24	KED
|	Ni	62	0.008	ug/L	0.029	3	5	115	KED
|	Cu	63	0.001	ug/L	0.001	26	32	15	KED
|	Cu	65	0.004	ug/L	0.001	10	17	16	KED
|	Zn	66	-0.005	ug/L	0.008	19	17	22	KED
|	Zn	67	0.007	ug/L	0.023	3	3	50	KED
|	As	75	0.006	ug/L	0.006	2	4	33	KED
|	Y	89		ug/L		38927	38371	2	Standard
|	Kr	83		ug/L		46	50	12	Standard
>	In-1	115		ug/L		6386	6581	0	KED
|	Cd	111	-0.011	ug/L	0.005	4	1	69	KED
|	Cd	114	-0.018	ug/L	0.004	13	2	74	KED
>	In	115		ug/L		414575	415511	1	Standard
|	Ag	107	0.002	ug/L	0.001	42	74	17	Standard
|	Ba	135	0.004	ug/L	0.002	38	56	14	Standard
|	Ba	137	0.002	ug/L	0.001	52	67	5	Standard
>	Tb	159		ug/L		165965	170390	1	Standard
|	Pb	208	0.001	ug/L	0.000	210	278	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-BS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:37:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	36179	3	Standard
> Sc	45		ug/L			460122	489899	1	Standard
Cr	52	24.960	ug/L	0.316	1	8551	340780	0	Standard
Cr	53	25.380	ug/L	0.338	1	93	39004	0	Standard
Mn	55	25.393	ug/L	0.561	2	219	491901	0	Standard
> Ge	72		ug/L			30494	32242	1	KED
Ni	60	25.240	ug/L	0.314	1	28	38550	1	KED
Ni	62	25.783	ug/L	0.109	0	3	6213	1	KED
Cu	63	26.359	ug/L	0.566	2	26	112958	1	KED
Cu	65	25.384	ug/L	0.481	1	10	55248	2	KED
Zn	66	79.567	ug/L	1.920	2	19	42370	1	KED
Zn	67	75.736	ug/L	2.160	2	3	6576	1	KED
As	75	24.433	ug/L	0.538	2	2	6343	1	KED
Y	89		ug/L			38927	40159	1	Standard
Kr	83		ug/L			46	43	4	Standard
> In-1	115		ug/L			6386	6957	2	KED
Cd	111	23.957	ug/L	0.603	2	4	6030	1	KED
Cd	114	24.072	ug/L	0.683	2	13	15459	0	KED
> In	115		ug/L			414575	431799	0	Standard
Ag	107	26.127	ug/L	0.824	3	42	367351	3	Standard
Ba	135	25.404	ug/L	0.211	0	38	132968	0	Standard
Ba	137	25.330	ug/L	0.211	0	52	236512	1	Standard
> Tb	159		ug/L			165965	174231	1	Standard
Pb	208	25.433	ug/L	0.192	0	210	2140092	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:42:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40021	2	Standard
> Sc	45		ug/L			460122	473873	0	Standard
| Cr	52	0.097	ug/L	0.010	10	8551	10051	0	Standard
| Cr	53	0.105	ug/L	0.018	17	93	251	9	Standard
| Mn	55	0.033	ug/L	0.002	5	219	837	3	Standard
> Ge	72		ug/L			30494	31264	2	KED
| Ni	60	0.022	ug/L	0.015	70	28	60	35	KED
| Ni	62	0.016	ug/L	0.016	103	3	7	50	KED
| Cu	63	0.049	ug/L	0.014	29	26	232	24	KED
| Cu	65	0.056	ug/L	0.016	28	10	128	24	KED
| Zn	66	0.470	ug/L	0.069	14	19	262	12	KED
| Zn	67	0.497	ug/L	0.014	2	3	45	4	KED
| As	75	0.015	ug/L	0.027	177	2	6	98	KED
| Y	89		ug/L			38927	39917	0	Standard
| Kr	83		ug/L			46	39	7	Standard
> In-1	115		ug/L			6386	6540	1	KED
| Cd	111	-0.002	ug/L	0.012	633	4	3	75	KED
| Cd	114	-0.006	ug/L	0.013	209	13	9	77	KED
> In	115		ug/L			414575	415543	1	Standard
| Ag	107	0.003	ug/L	0.000	11	42	83	6	Standard
| Ba	135	0.026	ug/L	0.003	12	38	171	9	Standard
| Ba	137	0.029	ug/L	0.003	9	52	314	6	Standard
> Tb	159		ug/L			165965	169922	1	Standard
| Pb	208	0.006	ug/L	0.001	14	210	718	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 16:46:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	39027	2	Standard
> Sc	45		ug/L			460122	461654	2	Standard
| Cr	52	25.238	ug/L	0.287	1	8551	324601	2	Standard
| Cr	53	25.440	ug/L	0.296	1	93	36851	3	Standard
| Mn	55	25.373	ug/L	0.120	0	219	463229	2	Standard
> Ge	72		ug/L			30494	30211	2	KED
| Ni	60	26.185	ug/L	0.273	1	28	37483	3	KED
| Ni	62	26.338	ug/L	0.301	1	3	5947	3	KED
| Cu	63	27.433	ug/L	0.170	0	26	110164	2	KED
| Cu	65	26.596	ug/L	0.313	1	10	54234	2	KED
| Zn	66	83.932	ug/L	1.655	1	19	41884	3	KED
| Zn	67	80.250	ug/L	2.169	2	3	6529	3	KED
| As	75	25.370	ug/L	0.056	0	2	6172	2	KED
Y	89		ug/L			38927	38192	1	Standard
Kr	83		ug/L			46	52	11	Standard
> In-1	115		ug/L			6386	6501	3	KED
| Cd	111	25.134	ug/L	1.192	4	4	5907	1	KED
| Cd	114	25.194	ug/L	0.793	3	13	15119	1	KED
> In	115		ug/L			414575	410527	2	Standard
| Ag	107	25.608	ug/L	0.856	3	42	342138	0	Standard
| Ba	135	25.741	ug/L	0.306	1	38	128095	2	Standard
| Ba	137	25.254	ug/L	0.068	0	52	224183	2	Standard
> Tb	159		ug/L			165965	165111	0	Standard
| Pb	208	25.619	ug/L	0.557	2	210	2043320	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BS TEST OLD SPIKE

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:51:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40627	4	Standard
> Sc	45		ug/L			460122	458950	2	Standard
| Cr	52	<u>26.766</u>	ug/L	0.345	1	8551	341750	2	Standard
| Cr	53	<u>26.847</u>	ug/L	0.458	1	93	38641	0	Standard
| Mn	55	<u>27.372</u>	ug/L	0.430	1	219	496744	2	Standard
> Ge	72		ug/L			30494	30230	0	KED
| Ni	60	<u>27.633</u>	ug/L	0.426	1	28	39570	1	KED
| Ni	62	<u>28.064</u>	ug/L	0.431	1	3	6340	1	KED
| Cu	63	<u>29.127</u>	ug/L	0.178	0	26	117038	0	KED
| Cu	65	<u>28.454</u>	ug/L	0.497	1	10	58061	1	KED
| Zn	66	<u>89.908</u>	ug/L	0.386	0	19	44892	0	KED
| Zn	67	<u>86.177</u>	ug/L	1.866	2	3	7016	1	KED
| As	75	<u>27.188</u>	ug/L	0.020	0	2	6619	0	KED
Y	89		ug/L			38927	38692	1	Standard
Kr	83		ug/L			46	45	39	Standard
> In-1	115		ug/L			6386	6224	1	KED
| Cd	111	<u>27.062</u>	ug/L	0.623	2	4	6094	0	KED
| Cd	114	<u>27.613</u>	ug/L	0.405	1	13	15870	0	KED
> In	115		ug/L			414575	412256	1	Standard
| Ag	107	<u>27.469</u>	ug/L	0.347	1	42	368710	1	Standard
| Ba	135	<u>26.960</u>	ug/L	0.678	2	38	134694	1	Standard
| Ba	137	<u>26.753</u>	ug/L	0.291	1	52	238470	1	Standard
> Tb	159		ug/L			165965	167858	1	Standard
| Pb	208	<u>26.566</u>	ug/L	0.294	1	210	2153961	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BS TEST NEW SPIKE

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 16:55:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	38854	7	Standard
>	Sc	45	ug/L			460122	468192	3	Standard
|	Cr	52	23.853	0.197	0	8551	311663	3	Standard
|	Cr	53	23.892	0.082	0	93	35097	3	Standard
|	Mn	55	24.567	0.042	0	219	454908	3	Standard
>	Ge	72	ug/L			30494	30816	1	KED
|	Ni	60	24.684	0.484	1	28	36037	2	KED
|	Ni	62	24.520	0.523	2	3	5646	1	KED
|	Cu	63	25.318	0.217	0	26	103704	1	KED
|	Cu	65	25.251	0.532	2	10	52519	1	KED
|	Zn	66	78.571	1.426	1	19	39990	1	KED
|	Zn	67	74.287	2.241	3	3	6164	1	KED
|	As	75	23.647	0.271	1	2	5868	0	KED
|	Y	89	ug/L			38927	39003	4	Standard
|	Kr	83	ug/L			46	53	14	Standard
>	In-1	115	ug/L			6386	6281	2	KED
|	Cd	111	24.475	0.467	1	4	5562	0	KED
|	Cd	114	24.380	0.860	3	13	14138	1	KED
>	In	115	ug/L			414575	423587	2	Standard
|	Ag	107	24.883	0.677	2	42	343351	4	Standard
|	Ba	135	23.986	0.495	2	38	123196	3	Standard
|	Ba	137	23.662	0.444	1	52	216790	3	Standard
>	Tb	159	ug/L			165965	168602	1	Standard
|	Pb	208	24.317	0.313	1	210	1980323	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0271-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:00:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	142251	4	Standard
> Sc	45		ug/L			460122	446369	1	Standard
| Cr	52	1.076	ug/L	0.027	2	8551	21317	1	Standard
| Cr	53	0.715	ug/L	0.034	4	93	1087	3	Standard
| Mn	55	5.426	ug/L	0.020	0	219	95958	1	Standard
> Ge	72		ug/L			30494	28103	0	KED
| Ni	60	0.941	ug/L	0.024	2	28	1278	2	KED
| Ni	62	0.875	ug/L	0.099	11	3	187	11	KED
| Cu	63	0.069	ug/L	0.007	9	26	280	9	KED
| Cu	65	0.063	ug/L	0.007	11	10	128	10	KED
| Zn	66	0.679	ug/L	0.039	5	19	333	5	KED
| Zn	67	1.086	ug/L	0.037	3	3	85	3	KED
| As	75	0.096	ug/L	0.026	26	2	24	23	KED
| Y	89		ug/L			38927	39499	0	Standard
| Kr	83		ug/L			46	41	20	Standard
> In-1	115		ug/L			6386	5644	1	KED
| Cd	111	-0.006	ug/L	0.010	172	4	2	78	KED
| Cd	114	-0.012	ug/L	0.008	67	13	5	79	KED
> In	115		ug/L			414575	389922	0	Standard
| Ag	107	0.003	ug/L	0.001	22	42	83	12	Standard
| Ba	135	5.108	ug/L	0.029	0	38	24174	1	Standard
| Ba	137	5.077	ug/L	0.055	1	52	42850	1	Standard
> Tb	159		ug/L			165965	163179	1	Standard
| Pb	208	0.011	ug/L	0.001	10	210	1069	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23E0239-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:05:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	40361	4	Standard
> Sc	45		ug/L			460122	468394	2	Standard
| Cr	52	100.505	ug/L	1.370	1	8551	1285499	0	Standard
| Cr	53	102.580	ug/L	0.852	0	93	150438	1	Standard
| Mn	55	1.875	ug/L	0.033	1	219	34923	0	Standard
> Ge	72		ug/L			30494	28568	2	KED
| Ni	60	1.933	ug/L	0.084	4	28	2638	2	KED
| Ni	62	1.986	ug/L	0.028	1	3	427	1	KED
| Cu	63	15.980	ug/L	0.165	1	26	60693	2	KED
| Cu	65	15.923	ug/L	0.257	1	10	30705	0	KED
| Zn	66	12.253	ug/L	0.340	2	19	5796	1	KED
| Zn	67	11.501	ug/L	0.878	7	3	888	9	KED
| As	75	0.246	ug/L	0.030	12	2	59	9	KED
| Y	89		ug/L			38927	38347	2	Standard
| Kr	83		ug/L			46	35	17	Standard
> In-1	115		ug/L			6386	5914	2	KED
| Cd	111	0.242	ug/L	0.044	18	4	55	17	KED
| Cd	114	0.250	ug/L	0.010	3	13	148	5	KED
> In	115		ug/L			414575	390354	0	Standard
| Ag	107	0.013	ug/L	0.003	21	42	200	17	Standard
| Ba	135	1.685	ug/L	0.029	1	38	8004	1	Standard
| Ba	137	1.639	ug/L	0.020	1	52	13878	1	Standard
> Tb	159		ug/L			165965	163119	1	Standard
| Pb	208	0.270	ug/L	0.002	0	210	21458	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:10:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	31547	4	Standard
> Sc	45		ug/L			460122	443747	2	Standard
| Cr	52	0.140	ug/L	0.050	35	8551	9920	3	Standard
| Cr	53	0.065	ug/L	0.038	58	93	179	27	Standard
| Mn	55	0.003	ug/L	0.001	34	219	256	5	Standard
> Ge	72		ug/L			30494	28983	0	KED
| Ni	60	0.007	ug/L	0.004	57	28	36	13	KED
| Ni	62	0.018	ug/L	0.023	126	3	7	66	KED
| Cu	63	0.004	ug/L	0.002	61	26	39	22	KED
| Cu	65	0.008	ug/L	0.004	47	10	25	30	KED
| Zn	66	0.104	ug/L	0.017	16	19	68	12	KED
| Zn	67	0.124	ug/L	0.038	30	3	12	22	KED
| As	75	0.003	ug/L	0.008	231	2	3	51	KED
Y	89		ug/L			38927	38028	2	Standard
Kr	83		ug/L			46	40	21	Standard
> In-1	115		ug/L			6386	5864	1	KED
| Cd	111	-0.010	ug/L	0.005	48	4	1	69	KED
| Cd	114	-0.013	ug/L	0.004	30	13	4	44	KED
> In	115		ug/L			414575	408589	0	Standard
| Ag	107	-0.001	ug/L	0.000	68	42	33	16	Standard
| Ba	135	0.006	ug/L	0.003	56	38	67	24	Standard
| Ba	137	0.010	ug/L	0.002	18	52	135	11	Standard
> Tb	159		ug/L			165965	162358	0	Standard
| Pb	208	0.003	ug/L	0.000	3	210	469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0074-13**

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:16:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	49095	3	Standard
>	Sc	45	ug/L			460122	458570	1	Standard
|	Cr	52	0.121	0.004	3	8551	10023	0	Standard
|	Cr	53	0.117	0.006	5	93	260	3	Standard
|	Mn	55	62.290	0.696	1	219	1129343	1	Standard
>	Ge	72	ug/L			30494	29462	1	KED
|	Ni	60	0.271	0.028	10	28	405	10	KED
|	Ni	62	0.312	0.043	13	3	72	14	KED
|	Cu	63	0.012	0.004	34	26	73	23	KED
|	Cu	65	0.017	0.007	38	10	43	30	KED
|	Zn	66	0.253	0.025	9	19	142	7	KED
|	Zn	67	0.330	0.119	36	3	29	32	KED
|	As	75	0.024	0.006	23	2	8	17	KED
	Y	89	ug/L			38927	38051	5	Standard
	Kr	83	ug/L			46	41	4	Standard
>	In-1	115	ug/L			6386	6228	4	KED
|	Cd	111	-0.002	0.003	106	4	3	15	KED
|	Cd	114	-0.017	0.004	21	13	3	72	KED
>	In	115	ug/L			414575	414433	0	Standard
|	Ag	107	-0.001	0.001	51	42	29	22	Standard
|	Ba	135	1.303	0.021	1	38	6583	1	Standard
|	Ba	137	1.275	0.021	1	52	11471	1	Standard
>	Tb	159	ug/L			165965	164391	0	Standard
|	Pb	208	0.001	0.000	15	210	306	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:21:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			27225	32250	3	Standard	
[>	Sc	45	ug/L			460122	448029	3	Standard	
|	Cr	52	0.100	ug/L	0.015	14	8551	9535	1	Standard
|	Cr	53	0.007	ug/L	0.002	32	93	99	4	Standard
|	Mn	55	0.003	ug/L	0.000	15	219	269	6	Standard
[>	Ge	72	ug/L			30494	29530	2	KED	
|	Ni	60	0.005	ug/L	0.004	76	28	34	14	KED
|	Ni	62	0.015	ug/L	0.026	175	3	6	83	KED
|	Cu	63	0.007	ug/L	0.002	31	26	53	15	KED
|	Cu	65	0.009	ug/L	0.006	67	10	27	45	KED
|	Zn	66	0.101	ug/L	0.022	21	19	68	16	KED
|	Zn	67	0.145	ug/L	0.017	11	3	14	7	KED
|	As	75	-0.006	ug/L	0.000	2	2	1	0	KED
|	Y	89		ug/L		38927	37386	3	Standard	
|	Kr	83		ug/L		46	36	27	Standard	
[>	In-1	115	ug/L			6386	6171	1	KED	
|	Cd	111	-0.011	ug/L	0.002	22	4	1	34	KED
|	Cd	114	-0.019	ug/L	0.003	17	13	1	107	KED
[>	In	115	ug/L			414575	410481	2	Standard	
|	Ag	107	-0.002	ug/L	0.001	39	42	17	53	Standard
|	Ba	135	0.009	ug/L	0.001	12	38	81	8	Standard
|	Ba	137	0.010	ug/L	0.002	16	52	140	7	Standard
[>	Tb	159	ug/L			165965	159373	2	Standard	
|	Pb	208	0.003	ug/L	0.000	6	210	454	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:25:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	28398	4	Standard
> Sc	45		ug/L			460122	469913	2	Standard
| Cr	52	48.856	ug/L	0.643	1	8551	631392	1	Standard
| Cr	53	49.223	ug/L	1.281	2	93	72464	2	Standard
| Mn	55	49.560	ug/L	1.224	2	219	920566	1	Standard
> Ge	72		ug/L			30494	30063	1	KED
| Ni	60	49.867	ug/L	0.782	1	28	70999	2	KED
| Ni	62	50.197	ug/L	0.689	1	3	11275	1	KED
| Cu	63	50.159	ug/L	0.576	1	26	200413	0	KED
| Cu	65	48.899	ug/L	0.492	1	10	99227	1	KED
| Zn	66	51.739	ug/L	1.386	2	19	25699	2	KED
| Zn	67	50.185	ug/L	0.498	0	3	4065	2	KED
| As	75	50.172	ug/L	0.623	1	2	12145	1	KED
Y	89		ug/L			38927	39969	1	Standard
Kr	83		ug/L			46	45	37	Standard
> In-1	115		ug/L			6386	6279	1	KED
| Cd	111	49.539	ug/L	0.842	1	4	11251	0	KED
| Cd	114	49.229	ug/L	0.544	1	13	28533	0	KED
> In	115		ug/L			414575	411972	1	Standard
| Ag	107	50.177	ug/L	0.802	1	42	673041	1	Standard
| Ba	135	49.679	ug/L	1.413	2	38	248006	1	Standard
| Ba	137	49.119	ug/L	1.140	2	52	437442	1	Standard
> Tb	159		ug/L			165965	171214	1	Standard
| Pb	208	49.862	ug/L	0.645	1	210	4122760	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:32:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	27717	4	Standard
> Sc	45		ug/L			460122	450724	2	Standard
| Cr	52	0.003	ug/L	0.014	418	8551	8421	4	Standard
| Cr	53	-0.005	ug/L	0.009	182	93	84	12	Standard
| Mn	55	-0.001	ug/L	0.000	23	219	200	3	Standard
> Ge	72		ug/L			30494	29445	3	KED
| Ni	60	0.006	ug/L	0.005	79	28	35	15	KED
| Ni	62	0.012	ug/L	0.036	300	3	6	124	KED
| Cu	63	0.001	ug/L	0.002	144	26	31	23	KED
| Cu	65	0.003	ug/L	0.005	179	10	15	62	KED
| Zn	66	0.011	ug/L	0.008	78	19	24	16	KED
| Zn	67	0.002	ug/L	0.029	1588	3	3	69	KED
| As	75	-0.000	ug/L	0.001	460	2	2	10	KED
| Y	89		ug/L			38927	37726	1	Standard
| Kr	83		ug/L			46	40	4	Standard
> In-1	115		ug/L			6386	6165	2	KED
| Cd	111	-0.004	ug/L	0.003	78	4	3	17	KED
| Cd	114	-0.017	ug/L	0.002	11	13	3	35	KED
> In	115		ug/L			414575	396753	2	Standard
| Ag	107	0.001	ug/L	0.000	50	42	48	9	Standard
| Ba	135	0.002	ug/L	0.002	114	38	46	26	Standard
| Ba	137	0.004	ug/L	0.001	13	52	86	5	Standard
> Tb	159		ug/L			165965	158887	2	Standard
| Pb	208	0.001	ug/L	0.000	54	210	264	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-04**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:42:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	61757	0	Standard
Kr	83		ug/L			46	46	14	Standard
[> Tb	159		ug/L			165965	165213	1	Standard
[Pb	208	0.043	ug/L	0.001	1	210	3630	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-08**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:43:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	58213	2	Standard
Kr	83		ug/L			46	52	9	Standard
[> Tb	159		ug/L			165965	164898	0	Standard
[Pb	208	0.131	ug/L	0.002	1	210	10648	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-10**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:44:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	58428	1	Standard
Kr	83		ug/L			46	45	11	Standard
[> Tb	159		ug/L			165965	163874	1	Standard
[Pb	208	0.109	ug/L	0.003	2	210	8815	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-12**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:46:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	61012	1	Standard
Kr	83		ug/L			46	47	28	Standard
[> Tb	159		ug/L			165965	164973	2	Standard
[Pb	208	0.029	ug/L	0.001	3	210	2478	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-18**

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:47:34

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	61398	0	Standard
Kr	83	ug/L			46	51	16	Standard
[> Tb	159	ug/L			165965	165020	0	Standard
[Pb	208	ug/L	0.005	2	210	15939	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-20**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:48:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50771	1	Standard
Kr	83		ug/L			46	48	13	Standard
[> Tb	159		ug/L			165965	171143	0	Standard
[Pb	208	0.113	ug/L	0.002	1	210	9556	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-DUP2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:50:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	49235	1	Standard
Kr	83	ug/L			46	48	43	Standard
[> Tb	159	ug/L			165965	167068	1	Standard
[Pb	208	ug/L	0.001	1	210	9571	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MS2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 17:51:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	49614	2	Standard
Kr	83		ug/L			46	50	9	Standard
[> Tb	159		ug/L			165965	170031	2	Standard
[Pb	208	13.734	ug/L	0.344	2	210	1127528	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0106-MSD2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:53:01

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	48805	2	Standard
Kr	83	ug/L			46	50	14	Standard
[> Tb	159	ug/L			165965	167377	0	Standard
[Pb	208	13.869	0.177	1	210	1121192	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:54:24

TUBE EMPTY

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	27210	4	Standard
	Kr	83	ug/L			46	144	17	Standard
[>	Tb	159	ug/L			165965	327175	4	Standard
[	Pb	208	ug/L	0.000	9	210	260	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:55:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	34810	2	Standard
Kr	83	ug/L			46	52	17	Standard
[> Tb	159	ug/L			165965	161330	1	Standard
[Pb	208	50.918	1.253	2	210	3966283	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 17:59:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	34296	0	Standard
Kr	83		ug/L			46	49	26	Standard
[> Tb	159		ug/L			165965	159481	1	Standard
[Pb	208	0.001	ug/L	0.000	24	210	259	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:02:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	44018	1	Standard
Kr	83	ug/L			46	46	26	Standard
[> Tb	159	ug/L			165965	161506	3	Standard
[Pb	208	0.215	0.005	2	210	16953	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-07**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:03:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	44977	1	Standard
Kr	83		ug/L			46	49	3	Standard
[> Tb	159		ug/L			165965	163185	2	Standard
[Pb	208	0.528	ug/L	0.010	1	210	41772	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-09**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:05:07

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	44276	1	Standard
Kr	83	ug/L			46	57	30	Standard
[> Tb	159	ug/L			165965	165180	0	Standard
[Pb	208	0.532	0.007	1	210	42672	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0480-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:06:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	122185	1	Standard
Kr	83	ug/L			46	67	9	Standard
[> Tb	159	ug/L			165965	154453	0	Standard
[Pb	208	0.031	0.001	2	210	2487	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:08:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	38187	0	Standard
Kr	83		ug/L			46	53	19	Standard
[> Tb	159		ug/L			165965	155231	2	Standard
[Pb	208	-0.000	ug/L	0.000	290	210	190	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:09:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	49595	1	Standard
Kr	83	ug/L			46	44	8	Standard
[> Tb	159	ug/L			165965	163100	0	Standard
[Pb	208	0.240	0.001	0	210	19113	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:10:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	51006	1	Standard
Kr	83	ug/L			46	44	6	Standard
[> Tb	159	ug/L			165965	164539	0	Standard
[Pb	208	ug/L	0.002	1	210	11808	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:12:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50541	0	Standard
Kr	83		ug/L			46	42	6	Standard
[> Tb	159		ug/L			165965	165015	2	Standard
[Pb	208	0.314	ug/L	0.005	1	210	25260	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-11**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:13:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	49047	2	Standard
Kr	83	ug/L			46	53	25	Standard
[> Tb	159	ug/L			165965	163377	0	Standard
[Pb	208	ug/L	0.003	1	210	22689	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:15:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13	ug/L			27225	39344	0	Standard	
Kr	83	ug/L			46	51	14	Standard	
[> Tb	159	ug/L			165965	155831	1	Standard	
[Pb	208	0.000	ug/L	0.000	3427	210	198	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:16:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	36226	0	Standard
Kr	83		ug/L			46	58	6	Standard
[> Tb	159		ug/L			165965	164187	0	Standard
[Pb	208	50.229	ug/L	0.094	0	210	3982976	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:20:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			27225	34920	2	Standard
	Kr	83	ug/L			46	49	10	Standard
[>	Tb	159	ug/L			165965	158492	1	Standard
[	Pb	208	ug/L	0.000	129	210	228	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-13**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:24:04

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	51951	0	Standard
Kr	83	ug/L			46	52	12	Standard
[> Tb	159	ug/L			165965	160838	0	Standard
[Pb	208	0.115	0.000	0	210	9164	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0477-14

Sample Dil Factor: 2

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:25:26

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	53936	0	Standard
Kr	83	ug/L			46	53	22	Standard
Tb	159	ug/L			165965	160287	1	Standard
Pb	208	ug/L	0.007	1	210	37574	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0477-16

Sample Dil Factor: 2

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:26:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	56772	2	Standard
Kr	83		ug/L			46	48	8	Standard
Tb	159		ug/L			165965	163973	0	Standard
Pb	208	0.145	ug/L	0.004	2	210	11656	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0477-15**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:28:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_pb only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			27225	42521	0	Standard
Kr	83	ug/L			46	53	16	Standard
[> Tb	159	ug/L			165965	161089	0	Standard
[Pb	208	ug/L	0.003	0	210	43096	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:29:33

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	33768	5	Standard
>	Sc	45	ug/L			460122	479753	3	Standard
|	Cr	52	0.041	ug/L	0.014	8551	9448	2	Standard
|	Cr	53	0.006	ug/L	0.009	93	106	16	Standard
|	Mn	55	-0.001	ug/L	0.000	219	206	4	Standard
>	Ge	72		ug/L		30494	30106	2	KED
|	Ni	60	0.011	ug/L	0.003	28	43	11	KED
|	Ni	62	0.012	ug/L	0.028	3	6	96	KED
|	Cu	63	0.002	ug/L	0.002	26	33	23	KED
|	Cu	65	0.002	ug/L	0.002	10	13	28	KED
|	Zn	66	0.035	ug/L	0.003	19	36	2	KED
|	Zn	67	0.040	ug/L	0.015	3	6	17	KED
|	As	75	-0.006	ug/L	0.009	2	1	145	KED
|	Y	89		ug/L		38927	40722	4	Standard
|	Kr	83		ug/L		46	36	13	Standard
>	In-1	115		ug/L		6386	7035	3	KED
|	Cd	111	-0.005	ug/L	0.002	4	3	17	KED
|	Cd	114	-0.015	ug/L	0.005	13	5	58	KED
>	In	115		ug/L		414575	426936	2	Standard
|	Ag	107	-0.002	ug/L	0.001	42	20	47	Standard
|	Ba	135	0.004	ug/L	0.002	38	58	21	Standard
|	Ba	137	0.003	ug/L	0.002	52	85	23	Standard
>	Tb	159		ug/L		165965	162029	1	Standard
|	Pb	208	0.000	ug/L	0.000	210	219	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0702-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:34:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50071	6	Standard
> Sc	45		ug/L			460122	559108	3	Standard
| Cr	52	2.801	ug/L	0.106	3	8551	52852	2	Standard
| Cr	53	5.604	ug/L	0.159	2	93	9911	0	Standard
| Mn	55	89.383	ug/L	2.391	2	219	1974612	1	Standard
> Ge	72		ug/L			30494	29308	1	KED
| Ni	60	4.352	ug/L	0.054	1	28	6064	1	KED
| Ni	62	4.366	ug/L	0.070	1	3	959	1	KED
| Cu	63	2.289	ug/L	0.036	1	26	8941	1	KED
| Cu	65	2.249	ug/L	0.100	4	10	4457	3	KED
| Zn	66	3.039	ug/L	0.133	4	19	1489	4	KED
| Zn	67	3.825	ug/L	0.302	7	3	304	7	KED
| As	75	10.055	ug/L	0.105	1	2	2374	0	KED
Y	89		ug/L			38927	89604	2	Standard
Kr	83		ug/L			46	51	9	Standard
> In-1	115		ug/L			6386	6158	1	KED
| Cd	111	0.002	ug/L	0.017	872	4	4	86	KED
| Cd	114	-0.004	ug/L	0.009	233	13	10	49	KED
> In	115		ug/L			414575	377047	1	Standard
| Ag	107	0.011	ug/L	0.002	21	42	168	14	Standard
| Ba	135	15.590	ug/L	0.479	3	38	71246	1	Standard
| Ba	137	15.628	ug/L	0.167	1	52	127422	0	Standard
> Tb	159		ug/L			165965	170609	1	Standard
| Pb	208	0.223	ug/L	0.005	2	210	18620	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:40:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	51084	4	Standard
> Sc	45		ug/L			460122	568350	2	Standard
| Cr	52	2.833	ug/L	0.035	1	8551	54242	2	Standard
| Cr	53	5.610	ug/L	0.098	1	93	10090	2	Standard
| Mn	55	89.613	ug/L	3.327	3	219	2014004	5	Standard
> Ge	72		ug/L			30494	28802	0	KED
| Ni	60	4.291	ug/L	0.110	2	28	5876	2	KED
| Ni	62	4.641	ug/L	0.202	4	3	1001	3	KED
| Cu	63	2.274	ug/L	0.042	1	26	8728	1	KED
| Cu	65	2.249	ug/L	0.100	4	10	4381	4	KED
| Zn	66	2.824	ug/L	0.077	2	19	1361	2	KED
| Zn	67	3.785	ug/L	0.579	15	3	296	15	KED
| As	75	10.016	ug/L	0.092	0	2	2324	0	KED
Y	89		ug/L			38927	89267	1	Standard
Kr	83		ug/L			46	47	8	Standard
> In-1	115		ug/L			6386	5985	1	KED
| Cd	111	0.003	ug/L	0.009	346	4	4	44	KED
| Cd	114	-0.007	ug/L	0.003	51	13	8	22	KED
> In	115		ug/L			414575	388034	3	Standard
| Ag	107	0.011	ug/L	0.001	6	42	176	8	Standard
| Ba	135	15.387	ug/L	0.337	2	38	72354	1	Standard
| Ba	137	15.411	ug/L	0.319	2	52	129265	1	Standard
> Tb	159		ug/L			165965	172113	0	Standard
| Pb	208	0.238	ug/L	0.003	1	210	20000	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:45:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	51186	5	Standard
> Sc	45		ug/L			460122	570416	2	Standard
| Cr	52	21.874	ug/L	0.296	1	8551	349015	1	Standard
| Cr	53	24.410	ug/L	0.481	1	93	43677	0	Standard
| Mn	55	112.129	ug/L	1.042	0	219	2528412	1	Standard
> Ge	72		ug/L			30494	29271	0	KED
| Ni	60	27.840	ug/L	0.280	1	28	38602	0	KED
| Ni	62	27.779	ug/L	0.122	0	3	6076	0	KED
| Cu	63	25.033	ug/L	0.213	0	26	97401	0	KED
| Cu	65	25.046	ug/L	0.184	0	10	49488	0	KED
| Zn	66	72.190	ug/L	1.687	2	19	34903	1	KED
| Zn	67	69.774	ug/L	2.572	3	3	5500	3	KED
| As	75	33.963	ug/L	0.148	0	2	8005	0	KED
Y	89		ug/L			38927	86850	1	Standard
Kr	83		ug/L			46	47	10	Standard
> In-1	115		ug/L			6386	5917	3	KED
| Cd	111	22.714	ug/L	1.260	5	4	4858	2	KED
| Cd	114	22.672	ug/L	0.714	3	13	12384	2	KED
> In	115		ug/L			414575	385596	1	Standard
| Ag	107	21.779	ug/L	0.668	3	42	273430	2	Standard
| Ba	135	41.119	ug/L	0.845	2	38	192158	1	Standard
| Ba	137	40.806	ug/L	0.502	1	52	340176	0	Standard
> Tb	159		ug/L			165965	173214	0	Standard
| Pb	208	21.567	ug/L	0.124	0	210	1804350	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0342-MSD1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Thursday, May 11, 2023 18:50:55**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	50121	5	Standard
> Sc	45		ug/L			460122	566649	2	Standard
| Cr	52	21.819	ug/L	0.163	0	8551	345942	3	Standard
| Cr	53	24.581	ug/L	0.115	0	93	43704	2	Standard
| Mn	55	110.088	ug/L	0.947	0	219	2466602	3	Standard
> Ge	72		ug/L			30494	28743	0	KED
| Ni	60	27.761	ug/L	0.348	1	28	37800	1	KED
| Ni	62	28.514	ug/L	0.618	2	3	6125	1	KED
| Cu	63	25.533	ug/L	0.214	0	26	97557	1	KED
| Cu	65	25.563	ug/L	0.514	2	10	49604	2	KED
| Zn	66	73.567	ug/L	1.366	1	19	34930	1	KED
| Zn	67	71.696	ug/L	1.628	2	3	5550	2	KED
| As	75	34.650	ug/L	0.590	1	2	8020	1	KED
Y	89		ug/L			38927	87094	1	Standard
Kr	83		ug/L			46	47	4	Standard
> In-1	115		ug/L			6386	5969	3	KED
| Cd	111	22.427	ug/L	0.921	4	4	4840	0	KED
| Cd	114	22.421	ug/L	0.824	3	13	12352	1	KED
> In	115		ug/L			414575	377052	2	Standard
| Ag	107	21.519	ug/L	0.480	2	42	264134	1	Standard
| Ba	135	41.712	ug/L	0.827	1	38	190601	2	Standard
| Ba	137	41.496	ug/L	0.365	0	52	338248	1	Standard
> Tb	159		ug/L			165965	171228	0	Standard
| Pb	208	21.433	ug/L	0.437	2	210	1772521	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:55:21

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27225	32104	2	Standard
> Sc	45		ug/L			460122	484185	0	Standard
| Cr	52	0.052	ug/L	0.019	37	8551	9682	2	Standard
| Cr	53	0.125	ug/L	0.020	16	93	287	10	Standard
| Mn	55	0.003	ug/L	0.001	20	219	288	4	Standard
> Ge	72		ug/L			30494	31140	1	KED
| Ni	60	0.002	ug/L	0.008	354	28	32	35	KED
| Ni	62	0.008	ug/L	0.022	275	3	5	88	KED
| Cu	63	0.004	ug/L	0.000	10	26	44	4	KED
| Cu	65	0.005	ug/L	0.002	32	10	20	15	KED
| Zn	66	0.050	ug/L	0.004	8	19	45	4	KED
| Zn	67	0.007	ug/L	0.022	337	3	3	50	KED
| As	75	-0.005	ug/L	0.001	23	2	1	15	KED
Y	89		ug/L			38927	38904	1	Standard
Kr	83		ug/L			46	44	25	Standard
> In-1	115		ug/L			6386	6374	1	KED
| Cd	111	-0.008	ug/L	0.002	27	4	2	24	KED
| Cd	114	-0.018	ug/L	0.002	11	13	2	47	KED
> In	115		ug/L			414575	414400	0	Standard
| Ag	107	-0.000	ug/L	0.000	199	42	39	16	Standard
| Ba	135	0.005	ug/L	0.002	36	38	62	13	Standard
| Ba	137	0.005	ug/L	0.000	5	52	99	3	Standard
> Tb	159		ug/L			165965	170024	1	Standard
| Pb	208	0.001	ug/L	0.000	22	210	321	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 18:59:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27225	29882	5	Standard
[>	Sc	45		ug/L			460122	492719	1	Standard
|	Cr	52	46.862	ug/L	0.898	1	8551	635602	3	Standard
|	Cr	53	47.446	ug/L	0.957	2	93	73242	0	Standard
|	Mn	55	47.412	ug/L	0.375	0	219	923706	1	Standard
[>	Ge	72		ug/L			30494	31679	0	KED
|	Ni	60	49.451	ug/L	0.657	1	28	74185	0	KED
|	Ni	62	50.710	ug/L	1.000	1	3	12004	2	KED
|	Cu	63	50.219	ug/L	0.881	1	26	211426	0	KED
|	Cu	65	49.462	ug/L	0.399	0	10	105774	1	KED
|	Zn	66	51.028	ug/L	0.143	0	19	26710	1	KED
|	Zn	67	51.839	ug/L	0.935	1	3	4424	2	KED
|	As	75	49.952	ug/L	0.538	1	2	12741	0	KED
	Y	89		ug/L			38927	39628	2	Standard
	Kr	83		ug/L			46	42	9	Standard
[>	In-1	115		ug/L			6386	6648	0	KED
|	Cd	111	49.226	ug/L	1.079	2	4	11839	1	KED
|	Cd	114	49.147	ug/L	0.723	1	13	30162	0	KED
[>	In	115		ug/L			414575	414854	2	Standard
|	Ag	107	48.728	ug/L	1.030	2	42	657999	1	Standard
|	Ba	135	49.989	ug/L	0.737	1	38	251298	1	Standard
|	Ba	137	49.163	ug/L	1.103	2	52	440803	0	Standard
[>	Tb	159		ug/L			165965	172287	1	Standard
|	Pb	208	49.027	ug/L	0.734	1	210	4078768	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:07:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
C	13		ug/L			27225	44107	2	Standard	
>	Sc	45	ug/L			460122	467848	1	Standard	
|	Cr	52	0.056	ug/L	0.025	44	8551	9400	1	Standard
|	Cr	53	0.022	ug/L	0.020	92	93	126	21	Standard
|	Mn	55	0.009	ug/L	0.013	149	219	383	61	Standard
>	Ge	72	ug/L			30494	30626	1	KED	
|	Ni	60	0.009	ug/L	0.002	19	28	41	4	KED
|	Ni	62	0.042	ug/L	0.017	41	3	13	28	KED
|	Cu	63	0.003	ug/L	0.003	87	26	39	26	KED
|	Cu	65	0.007	ug/L	0.002	31	10	24	16	KED
|	Zn	66	0.020	ug/L	0.005	25	19	29	9	KED
|	Zn	67	0.023	ug/L	0.059	256	3	5	94	KED
|	As	75	0.004	ug/L	0.005	127	2	3	33	KED
|	Y	89	ug/L			38927	37362	2	Standard	
|	Kr	83	ug/L			46	31	27	Standard	
>	In-1	115	ug/L			6386	6407	3	KED	
|	Cd	111	-0.012	ug/L	0.002	17	4	1	43	KED
|	Cd	114	-0.019	ug/L	0.003	17	13	1	100	KED
>	In	115	ug/L			414575	406141	1	Standard	
|	Ag	107	0.010	ug/L	0.015	155	42	172	116	Standard
|	Ba	135	0.014	ug/L	0.019	129	38	107	83	Standard
|	Ba	137	0.014	ug/L	0.017	117	52	173	82	Standard
>	Tb	159	ug/L			165965	163351	3	Standard	
|	Pb	208	0.011	ug/L	0.016	144	210	1026	113	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:14:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				35375	4	Standard
[>	Sc	45	ug/L				473417	1	Standard
|	Cr	52	ug/L				9091	2	Standard
|	Cr	53	ug/L				128	3	Standard
[	Mn	55	ug/L				216	3	Standard
[>	Ge	72	ug/L				31041	1	KED
|	Ni	60	ug/L				38	41	KED
|	Ni	62	ug/L				3	50	KED
|	Cu	63	ug/L				33	3	KED
|	Cu	65	ug/L				13	78	KED
|	Zn	66	ug/L				24	7	KED
|	Zn	67	ug/L				5	141	KED
[	As	75	ug/L				2	52	KED
	Y	89	ug/L				39379	3	Standard
	Kr	83	ug/L				33	20	Standard
[>	In-1	115	ug/L				6479	2	KED
|	Cd	111	ug/L				0	173	KED
[	Cd	114	ug/L				3	50	KED
[>	In	115	ug/L				411466	2	Standard
|	Ag	107	ug/L				26	25	Standard
|	Ba	135	ug/L				57	20	Standard
[	Ba	137	ug/L				109	19	Standard
[>	Tb	159	ug/L				168748	1	Standard
[	Pb	208	ug/L				245	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:18:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	31956	3	Standard
> Sc	45		ug/L			473417	483579	1	Standard
| Cr	52	48.033	ug/L	1.112	2	9091	639308	1	Standard
| Cr	53	48.743	ug/L	0.741	1	128	73885	0	Standard
| Mn	55	48.910	ug/L	0.430	0	216	935147	1	Standard
> Ge	72		ug/L			31041	31531	2	KED
| Ni	60	48.774	ug/L	2.327	4	38	72774	1	KED
| Ni	62	49.943	ug/L	0.902	1	3	11762	1	KED
| Cu	63	49.777	ug/L	1.894	3	33	208463	0	KED
| Cu	65	48.767	ug/L	1.443	2	13	103739	0	KED
| Zn	66	50.712	ug/L	1.224	2	24	26415	1	KED
| Zn	67	51.263	ug/L	0.826	1	5	4356	3	KED
| As	75	49.678	ug/L	1.461	2	2	12605	0	KED
Y	89		ug/L			39379	39569	1	Standard
Kr	83		ug/L			33	34	25	Standard
> In-1	115		ug/L			6479	6461	1	KED
| Cd	111	49.132	ug/L	0.667	1	0	11482	2	KED
| Cd	114	48.849	ug/L	0.955	1	3	29126	2	KED
> In	115		ug/L			411466	414070	2	Standard
| Ag	107	49.450	ug/L	1.680	3	26	666438	2	Standard
| Ba	135	49.266	ug/L	1.389	2	57	247159	0	Standard
| Ba	137	49.289	ug/L	1.165	2	109	441153	0	Standard
> Tb	159		ug/L			168748	170066	1	Standard
| Pb	208	49.517	ug/L	0.438	0	245	4066889	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:25:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35375	30742	2	Standard
[>	Sc	45		ug/L			473417	484633	4	Standard
|	Cr	52	-0.019	ug/L	0.032	173	9091	9049	1	Standard
|	Cr	53	-0.016	ug/L	0.017	102	128	106	19	Standard
|	Mn	55	0.008	ug/L	0.014	178	216	363	67	Standard
[>	Ge	72		ug/L			31041	31356	0	KED
|	Ni	60	-0.004	ug/L	0.011	291	38	33	46	KED
|	Ni	62	0.035	ug/L	0.013	36	3	12	24	KED
|	Cu	63	0.001	ug/L	0.002	267	33	36	20	KED
|	Cu	65	-0.001	ug/L	0.002	192	13	11	44	KED
|	Zn	66	-0.008	ug/L	0.003	44	24	20	9	KED
|	Zn	67	-0.008	ug/L	0.047	590	5	4	89	KED
|	As	75	0.003	ug/L	0.004	130	2	3	31	KED
	Y	89		ug/L			39379	40092	3	Standard
	Kr	83		ug/L			33	52	21	Standard
[>	In-1	115		ug/L			6479	6545	2	KED
|	Cd	111	0.003	ug/L	0.004	149	0	0	100	KED
|	Cd	114	-0.001	ug/L	0.003	271	3	3	71	KED
[>	In	115		ug/L			411466	418771	3	Standard
|	Ag	107	0.008	ug/L	0.012	139	26	137	111	Standard
|	Ba	135	0.007	ug/L	0.013	191	57	92	69	Standard
|	Ba	137	0.005	ug/L	0.013	257	109	154	70	Standard
[>	Tb	159		ug/L			168748	167031	2	Standard
|	Pb	208	0.010	ug/L	0.016	161	245	1004	121	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-01

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:33:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	40750	2	Standard
[> Sc	45		ug/L			473417	593182	1	Standard
[Mn	55	83.233	ug/L	1.216	1	216	1952262	3	Standard
Kr	83		ug/L			33	43	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-02

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:35:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	42093	1	Standard
[>	Sc	45	ug/L			473417	615694	3	Standard
[	Mn	55	78.026	0.148	0	216	1899382	3	Standard
	Kr	83	ug/L			33	39	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-10

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:37:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	43142	3	Standard
[>	Sc	45	ug/L			473417	601761	2	Standard
[	Mn	55	232.522	2.348	1	216	5531685	3	Standard
	Kr	83	ug/L			33	54	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-11

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:38:35

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			35375	39783	0	Standard	
[>	Sc	45	ug/L			473417	599154	0	Standard	
[Mn	55	79.755	ug/L	2.106	2	216	1889365	3	Standard
	Kr	83	ug/L			33	48	29	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-12

Sample Dil Factor: 100

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:39:56

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	40719	0	Standard
[> Sc	45		ug/L			473417	604640	2	Standard
[Mn	55	76.016	ug/L	1.025	1	216	1817530	3	Standard
Kr	83		ug/L			33	45	31	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0171-06

Sample Dil Factor: 50

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:41:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35375	40463	2	Standard
[> Sc	45		ug/L			473417	603703	4	Standard
[Mn	55	56.639	ug/L	1.334	2	216	1351242	3	Standard
Kr	83		ug/L			33	48	33	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:42:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	40240	2	Standard
[>	Sc	45	ug/L			473417	591422	1	Standard
[	Mn	55	0.004 ug/L	0.001	27	216	365	5	Standard
	Kr	83	ug/L			33	42	41	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:44:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	36689	1	Standard
[>	Sc	45	ug/L			473417	610131	2	Standard
[	Mn	55	ug/L	0.619	1	216	1103017	3	Standard
	Kr	83	ug/L			33	55	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:48:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_mn only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35375	35587	0	Standard
[>	Sc	45	ug/L			473417	576301	3	Standard
[	Mn	55	ug/L	0.001	46	216	287	2	Standard
	Kr	83	ug/L			33	41	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:51:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				30125	1	Standard
> Sc	45		ug/L				488451	2	Standard
| Cr	52		ug/L				8929	3	Standard
| Cr	53		ug/L				95	11	Standard
| Mn	55		ug/L				208	10	Standard
> Ge	72		ug/L				31094	1	KED
| Ni	60		ug/L				36	9	KED
| Ni	62		ug/L				5	78	KED
| Cu	63		ug/L				24	13	KED
| Cu	65		ug/L				18	36	KED
| Zn	66		ug/L				23	23	KED
| Zn	67		ug/L				4	49	KED
| As	75		ug/L				2	68	KED
Y	89		ug/L				40140	3	Standard
Kr	83		ug/L				40	38	Standard
> In-1	115		ug/L				6950	2	KED
| Cd	111		ug/L				3	56	KED
| Cd	114		ug/L				0	180	KED
> In	115		ug/L				429431	3	Standard
| Ag	107		ug/L				24	13	Standard
| Ba	135		ug/L				46	4	Standard
| Ba	137		ug/L				85	12	Standard
> Tb	159		ug/L				166755	2	Standard
| Pb	208		ug/L				213	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 19:55:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	31068	6	Standard
>	Sc	45	ug/L			488451	496953	2	Standard
|	Cr	52	47.887	0.305	0	8929	654584	1	Standard
|	Cr	53	48.282	0.759	1	95	75177	2	Standard
|	Mn	55	48.329	0.366	0	208	949563	1	Standard
>	Ge	72	ug/L			31094	31335	1	KED
|	Ni	60	49.504	1.097	2	36	73453	0	KED
|	Ni	62	50.840	1.958	3	5	11900	2	KED
|	Cu	63	49.902	1.103	2	24	207822	2	KED
|	Cu	65	49.025	0.755	1	18	103691	0	KED
|	Zn	66	51.257	1.113	2	23	26540	2	KED
|	Zn	67	51.830	2.221	4	4	4375	3	KED
|	As	75	50.761	0.849	1	2	12805	0	KED
	Y	89	ug/L			40140	41623	2	Standard
	Kr	83	ug/L			40	43	15	Standard
>	In-1	115	ug/L			6950	6586	1	KED
|	Cd	111	48.710	0.857	1	3	11605	0	KED
|	Cd	114	49.769	0.997	2	0	30244	0	KED
>	In	115	ug/L			429431	422607	0	Standard
|	Ag	107	50.288	1.632	3	24	691847	2	Standard
|	Ba	135	48.585	0.946	1	46	248842	1	Standard
|	Ba	137	48.718	0.733	1	85	445176	1	Standard
>	Tb	159	ug/L			166755	174363	1	Standard
|	Pb	208	48.985	1.030	2	213	4124375	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:00:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29186	4	Standard
> Sc	45		ug/L			488451	490772	1	Standard
| Cr	52	0.009	ug/L	0.042	453	8929	9089	4	Standard
| Cr	53	0.023	ug/L	0.036	157	95	130	41	Standard
| Mn	55	0.019	ug/L	0.031	161	208	581	102	Standard
> Ge	72		ug/L			31094	31384	2	KED
| Ni	60	-0.004	ug/L	0.004	106	36	31	18	KED
| Ni	62	-0.000	ug/L	0.012	3657	5	5	57	KED
| Cu	63	0.003	ug/L	0.002	59	24	38	20	KED
| Cu	65	0.001	ug/L	0.002	433	18	19	24	KED
| Zn	66	0.010	ug/L	0.020	208	23	28	35	KED
| Zn	67	0.022	ug/L	0.034	155	4	6	45	KED
| As	75	0.003	ug/L	0.003	90	2	3	24	KED
Y	89		ug/L			40140	40666	1	Standard
Kr	83		ug/L			40	40	25	Standard
> In-1	115		ug/L			6950	6471	0	KED
| Cd	111	0.001	ug/L	0.002	220	3	3	15	KED
| Cd	114	0.008	ug/L	0.004	50	0	5	43	KED
> In	115		ug/L			429431	430476	1	Standard
| Ag	107	0.022	ug/L	0.034	155	24	335	144	Standard
| Ba	135	0.015	ug/L	0.027	179	46	126	113	Standard
| Ba	137	0.014	ug/L	0.023	164	85	219	101	Standard
> Tb	159		ug/L			166755	169298	1	Standard
| Pb	208	0.017	ug/L	0.027	157	213	1621	137	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0636-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:07:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	37533	4	Standard
[>	Sc	45	ug/L			488451	529062	2	Standard
|	Cr	52	0.541	0.003	0	8929	17434	2	Standard
|	Cr	53	0.601	0.008	1	95	1098	1	Standard
|	Mn	55	88.376	0.740	0	208	1848790	3	Standard
[>	Ge	72	ug/L			31094	31864	2	KED
|	Ni	60	0.988	0.024	2	36	1526	2	KED
|	Ni	62	1.021	0.115	11	5	247	8	KED
|	Cu	63	1.647	0.021	1	24	6997	1	KED
|	Cu	65	1.686	0.054	3	18	3643	1	KED
|	Zn	66	4.041	0.149	3	23	2151	6	KED
|	Zn	67	3.780	0.373	9	4	328	7	KED
|	As	75	0.565	0.012	2	2	147	4	KED
	Y	89	ug/L			40140	56560	3	Standard
	Kr	83	ug/L			40	39	14	Standard
[>	In-1	115	ug/L			6950	6868	0	KED
|	Cd	111	0.005	0.015	289	3	4	80	KED
|	Cd	114	0.012	0.004	30	0	8	28	KED
[>	In	115	ug/L			429431	448110	1	Standard
|	Ag	107	0.004	0.001	29	24	85	19	Standard
|	Ba	135	2.679	0.043	1	46	14596	2	Standard
|	Ba	137	2.633	0.026	0	85	25592	1	Standard
[>	Tb	159	ug/L			166755	178597	0	Standard
|	Pb	208	0.679	0.008	1	213	58760	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-DUP2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:11:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37041	3	Standard
> Sc	45		ug/L			488451	517410	0	Standard
| Cr	52	0.555	ug/L	0.014	2	8929	17251	1	Standard
| Cr	53	0.620	ug/L	0.016	2	95	1105	2	Standard
| Mn	55	90.495	ug/L	1.649	1	208	1851260	2	Standard
> Ge	72		ug/L			31094	31715	1	KED
| Ni	60	0.992	ug/L	0.041	4	36	1525	2	KED
| Ni	62	1.008	ug/L	0.067	6	5	243	5	KED
| Cu	63	1.724	ug/L	0.022	1	24	7293	2	KED
| Cu	65	1.698	ug/L	0.014	0	18	3653	1	KED
| Zn	66	4.083	ug/L	0.167	4	23	2161	2	KED
| Zn	67	3.985	ug/L	0.154	3	4	344	3	KED
| As	75	0.571	ug/L	0.021	3	2	147	2	KED
| Y	89		ug/L			40140	56345	3	Standard
| Kr	83		ug/L			40	34	11	Standard
> In-1	115		ug/L			6950	6841	0	KED
| Cd	111	-0.004	ug/L	0.006	159	3	2	57	KED
| Cd	114	0.007	ug/L	0.001	21	0	4	19	KED
> In	115		ug/L			429431	437724	2	Standard
| Ag	107	0.002	ug/L	0.001	47	24	54	24	Standard
| Ba	135	2.795	ug/L	0.102	3	46	14868	1	Standard
| Ba	137	2.763	ug/L	0.058	2	85	26229	0	Standard
> Tb	159		ug/L			166755	175911	0	Standard
| Pb	208	0.692	ug/L	0.006	0	213	59009	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MS2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:16:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37834	4	Standard
[> Sc	45		ug/L			488451	509796	3	Standard
| Cr	52	2.928	ug/L	0.050	1	8929	49799	3	Standard
| Cr	53	3.034	ug/L	0.078	2	95	4936	1	Standard
| Mn	55	95.427	ug/L	2.392	2	208	1922397	2	Standard
[> Ge	72		ug/L			31094	32404	0	KED
| Ni	60	3.516	ug/L	0.048	1	36	5431	1	KED
| Ni	62	3.710	ug/L	0.182	4	5	902	3	KED
| Cu	63	4.318	ug/L	0.048	1	24	18621	0	KED
| Cu	65	4.255	ug/L	0.153	3	18	9322	2	KED
| Zn	66	12.225	ug/L	0.290	2	23	6564	1	KED
| Zn	67	11.985	ug/L	0.075	0	4	1050	1	KED
| As	75	3.013	ug/L	0.134	4	2	788	5	KED
| Y	89		ug/L			40140	57255	3	Standard
| Kr	83		ug/L			40	37	36	Standard
[> In-1	115		ug/L			6950	6696	3	KED
| Cd	111	2.447	ug/L	0.099	4	3	595	4	KED
| Cd	114	2.438	ug/L	0.131	5	0	1507	7	KED
[> In	115		ug/L			429431	437727	1	Standard
| Ag	107	2.205	ug/L	0.040	1	24	31452	3	Standard
| Ba	135	5.278	ug/L	0.058	1	46	28043	1	Standard
| Ba	137	5.274	ug/L	0.063	1	85	49996	1	Standard
[> Tb	159		ug/L			166755	177766	1	Standard
| Pb	208	3.166	ug/L	0.042	1	213	272094	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0298-MSD2**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:20:33**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	36979	2	Standard
>	Sc	45	ug/L			488451	525686	2	Standard
|	Cr	52	2.854	0.078	2	8929	50302	2	Standard
|	Cr	53	2.930	0.007	0	95	4922	2	Standard
|	Mn	55	91.394	1.596	1	208	1899162	2	Standard
>	Ge	72	ug/L			31094	31781	0	KED
|	Ni	60	3.555	0.073	2	36	5384	1	KED
|	Ni	62	3.613	0.131	3	5	862	3	KED
|	Cu	63	4.211	0.090	2	24	17809	2	KED
|	Cu	65	4.197	0.110	2	18	9021	2	KED
|	Zn	66	12.756	0.172	1	23	6717	0	KED
|	Zn	67	12.102	0.236	1	4	1040	2	KED
|	As	75	3.007	0.093	3	2	771	2	KED
|	Y	89	ug/L			40140	58514	3	Standard
|	Kr	83	ug/L			40	45	23	Standard
>	In-1	115	ug/L			6950	6582	3	KED
|	Cd	111	2.475	0.049	1	3	592	2	KED
|	Cd	114	2.509	0.189	7	0	1521	3	KED
>	In	115	ug/L			429431	439755	2	Standard
|	Ag	107	2.234	0.064	2	24	32023	5	Standard
|	Ba	135	5.335	0.152	2	46	28465	0	Standard
|	Ba	137	5.240	0.130	2	85	49891	1	Standard
>	Tb	159	ug/L			166755	179008	1	Standard
|	Pb	208	3.173	0.034	1	213	274515	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:25:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	32810	3	Standard
[>	Sc	45	ug/L			488451	483754	2	Standard
|	Cr	52	0.011	0.007	59	8929	8990	3	Standard
|	Cr	53	0.002	0.003	137	95	97	4	Standard
|	Mn	55	0.004	0.001	24	208	274	5	Standard
[>	Ge	72	ug/L			31094	32249	0	KED
|	Ni	60	-0.003	0.008	290	36	33	38	KED
|	Ni	62	0.012	0.017	133	5	8	48	KED
|	Cu	63	0.003	0.002	58	24	39	20	KED
|	Cu	65	-0.000	0.001	410	18	18	15	KED
|	Zn	66	0.043	0.009	20	23	46	9	KED
|	Zn	67	0.086	0.054	63	4	12	39	KED
|	As	75	-0.003	0.002	78	2	1	34	KED
	Y	89	ug/L			40140	40596	0	Standard
	Kr	83	ug/L			40	33	8	Standard
[>	In-1	115	ug/L			6950	6409	1	KED
|	Cd	111	-0.000	0.002	1237	3	3	17	KED
|	Cd	114	0.005	0.003	59	0	3	51	KED
[>	In	115	ug/L			429431	430809	3	Standard
|	Ag	107	-0.000	0.000	73	24	20	15	Standard
|	Ba	135	0.001	0.002	228	46	50	17	Standard
|	Ba	137	0.001	0.001	53	85	95	2	Standard
[>	Tb	159	ug/L			166755	168692	2	Standard
|	Pb	208	0.001	0.000	26	213	286	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:30:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	37172	2	Standard
> Sc	45		ug/L			488451	585054	3	Standard
| Cr	52	19.035	ug/L	0.241	1	8929	312715	2	Standard
| Cr	53	19.184	ug/L	0.461	2	95	35219	0	Standard
| Mn	55	408.963	ug/L	6.469	1	208	9455468	1	Standard
> Ge	72		ug/L			31094	29441	1	KED
| Ni	60	49.353	ug/L	1.005	2	36	68810	1	KED
| Ni	62	50.923	ug/L	1.247	2	5	11201	1	KED
| Cu	63	159.251	ug/L	4.042	2	24	623033	2	KED
| Cu	65	156.890	ug/L	1.546	0	18	311752	0	KED
| Zn	66	74.362	ug/L	1.528	2	23	36163	1	KED
| Zn	67	68.154	ug/L	1.445	2	4	5407	3	KED
| As	75	2.157	ug/L	0.080	3	2	513	3	KED
| Y	89		ug/L			40140	317948	1	Standard
| Kr	83		ug/L			40	200	9	Standard
> In-1	115		ug/L			6950	6095	0	KED
| Cd	111	0.136	ug/L	0.011	8	3	33	7	KED
| Cd	114	0.132	ug/L	0.037	28	0	74	28	KED
> In	115		ug/L			429431	379319	1	Standard
| Ag	107	0.141	ug/L	0.009	6	24	1757	6	Standard
| Ba	135	13.381	ug/L	0.231	1	46	61552	2	Standard
| Ba	137	13.256	ug/L	0.124	0	85	108769	0	Standard
> Tb	159		ug/L			166755	185408	1	Standard
| Pb	208	11.928	ug/L	0.058	0	213	1068245	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:35:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	38308	4	Standard
> Sc	45		ug/L			488451	581455	1	Standard
| Cr	52	18.454	ug/L	0.322	1	8929	301660	0	Standard
| Cr	53	18.605	ug/L	0.072	0	95	33968	1	Standard
| Mn	55	351.407	ug/L	4.276	1	208	8077094	1	Standard
> Ge	72		ug/L			31094	29946	1	KED
| Ni	60	41.402	ug/L	0.644	1	36	58719	0	KED
| Ni	62	42.603	ug/L	1.363	3	5	9532	2	KED
| Cu	63	160.484	ug/L	4.473	2	24	638555	1	KED
| Cu	65	157.043	ug/L	1.660	1	18	317422	1	KED
| Zn	66	72.547	ug/L	1.040	1	23	35889	1	KED
| Zn	67	70.143	ug/L	1.933	2	4	5659	3	KED
| As	75	3.128	ug/L	0.080	2	2	756	1	KED
| Y	89		ug/L			40140	333817	0	Standard
| Kr	83		ug/L			40	213	3	Standard
> In-1	115		ug/L			6950	6142	2	KED
| Cd	111	0.193	ug/L	0.048	24	3	46	22	KED
| Cd	114	0.180	ug/L	0.019	10	0	102	9	KED
> In	115		ug/L			429431	386154	1	Standard
| Ag	107	0.157	ug/L	0.005	3	24	2002	4	Standard
| Ba	135	13.196	ug/L	0.309	2	46	61784	1	Standard
| Ba	137	12.810	ug/L	0.121	0	85	107005	0	Standard
> Tb	159		ug/L			166755	190251	0	Standard
| Pb	208	15.187	ug/L	0.119	0	213	1395652	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:40:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	35682	6	Standard
> Sc	45		ug/L			488451	602861	3	Standard
| Cr	52	40.501	ug/L	0.519	1	8929	673139	2	Standard
| Cr	53	40.134	ug/L	0.661	1	95	75801	2	Standard
| Mn	55	403.696	ug/L	9.605	2	208	9614903	1	Standard
> Ge	72		ug/L			31094	29627	2	KED
| Ni	60	71.332	ug/L	2.031	2	36	100046	1	KED
| Ni	62	72.084	ug/L	1.289	1	5	15953	1	KED
| Cu	63	178.612	ug/L	3.276	1	24	703091	0	KED
| Cu	65	175.823	ug/L	4.358	2	18	351477	0	KED
| Zn	66	139.753	ug/L	1.404	1	23	68375	1	KED
| Zn	67	133.587	ug/L	5.323	3	4	10654	2	KED
| As	75	22.806	ug/L	0.374	1	2	5440	2	KED
| Y	89		ug/L			40140	354871	3	Standard
| Kr	83		ug/L			40	207	16	Standard
> In-1	115		ug/L			6950	6155	1	KED
| Cd	111	24.652	ug/L	0.177	0	3	5491	2	KED
| Cd	114	24.512	ug/L	0.441	1	0	13920	0	KED
> In	115		ug/L			429431	386831	1	Standard
| Ag	107	24.681	ug/L	0.253	1	24	310888	2	Standard
| Ba	135	34.380	ug/L	0.768	2	46	161198	2	Standard
| Ba	137	33.167	ug/L	0.625	1	85	277407	1	Standard
> Tb	159		ug/L			166755	193863	2	Standard
| Pb	208	30.586	ug/L	0.566	1	213	2863025	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 20:44:34**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	36215	3	Standard
> Sc	45		ug/L			488451	614737	1	Standard
Cr	52	38.157	ug/L	0.751	1	8929	647469	1	Standard
Cr	53	38.387	ug/L	0.645	1	95	73963	1	Standard
Mn	55	373.236	ug/L	6.598	1	208	9069303	1	Standard
> Ge	72		ug/L			31094	30940	0	KED
Ni	60	64.989	ug/L	0.830	1	36	95219	1	KED
Ni	62	66.779	ug/L	0.835	1	5	15436	0	KED
Cu STL	63	158.301	ug/L	0.895	0	24	650906	0	KED
Cu	65	158.710	ug/L	3.040	1	18	331427	1	KED
Zn	66	144.837	ug/L	0.207	0	23	74011	0	KED
Zn	67	137.610	ug/L	0.372	0	4	11466	0	KED
As	75	20.547	ug/L	0.227	1	2	5119	0	KED
Y	89		ug/L			40140	374892	2	Standard
Kr	83		ug/L			40	194	15	Standard
> In-1	115		ug/L			6950	6616	2	KED
Cd	111	23.308	ug/L	0.995	4	3	5576	1	KED
Cd	114	23.131	ug/L	0.515	2	0	14117	1	KED
> In	115		ug/L			429431	390014	1	Standard
Ag	107	25.024	ug/L	0.651	2	24	317728	1	Standard
Ba	135	34.183	ug/L	0.292	0	46	161600	1	Standard
Ba	137	33.671	ug/L	0.711	2	85	283919	0	Standard
> Tb	159		ug/L			166755	198813	0	Standard
Pb	208	31.952	ug/L	0.481	1	213	3067852	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:49:06

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	33486	2	Standard
[>	Sc	45	ug/L			488451	492138	0	Standard
|	Cr	52	ug/L	0.018	90	8929	8729	3	Standard
|	Cr	53	ug/L	0.003	44	95	84	6	Standard
|	Mn	55	ug/L	0.004	23	208	536	13	Standard
[>	Ge	72	ug/L			31094	29224	18	KED
|	Ni	60	ug/L	0.010	275	36	37	15	KED
|	Ni	62	ug/L	0.024	1900	5	5	114	KED
|	Cu	63	ug/L	0.004	28	24	81	4	KED
|	Cu	65	ug/L	0.004	44	18	33	3	KED
|	Zn	66	ug/L	0.014	23	23	49	7	KED
|	Zn	67	ug/L	0.103	128	4	9	60	KED
|	As	75	ug/L	0.005	91	2	3	43	KED
	Y	89	ug/L			40140	40341	2	Standard
	Kr	83	ug/L			40	39	12	Standard
[>	In-1	115	ug/L			6950	6607	3	KED
|	Cd	111	ug/L	0.050	94	3	15	75	KED
|	Cd	114	ug/L	0.050	88	0	34	86	KED
[>	In	115	ug/L			429431	424681	1	Standard
|	Ag	107	ug/L	0.001	61	24	47	28	Standard
|	Ba	135	ug/L	0.003	304	46	51	29	Standard
|	Ba	137	ug/L	0.001	35	85	102	5	Standard
[>	Tb	159	ug/L			166755	172906	0	Standard
|	Pb	208	ug/L	0.000	18	213	376	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 20:53:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	30349	2	Standard
>	Sc	45	ug/L			488451	500151	1	Standard
|	Cr	52	47.797	0.682	1	8929	657554	0	Standard
|	Cr	53	47.780	0.772	1	95	74890	2	Standard
|	Mn	55	48.138	0.695	1	208	951850	0	Standard
>	Ge	72	ug/L			31094	31557	1	KED
|	Ni	60	49.111	0.948	1	36	73390	1	KED
|	Ni	62	50.092	1.814	3	5	11808	2	KED
|	Cu	63	50.292	0.819	1	24	210903	0	KED
|	Cu	65	49.462	0.808	1	18	105355	1	KED
|	Zn	66	50.887	0.866	1	23	26532	0	KED
|	Zn	67	50.159	1.636	3	4	4266	4	KED
|	As	75	50.279	1.185	2	2	12772	0	KED
|	Y	89	ug/L			40140	41165	1	Standard
|	Kr	83	ug/L			40	45	19	Standard
>	In-1	115	ug/L			6950	6605	2	KED
|	Cd	111	48.346	0.954	1	3	11548	0	KED
|	Cd	114	49.017	1.180	2	0	29865	0	KED
>	In	115	ug/L			429431	430018	0	Standard
|	Ag	107	48.606	0.839	1	24	680582	1	Standard
|	Ba	135	48.913	0.978	2	46	254944	2	Standard
|	Ba	137	48.708	0.267	0	85	452897	0	Standard
>	Tb	159	ug/L			166755	176847	0	Standard
|	Pb	208	48.974	0.478	0	213	4182898	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:00:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29643	3	Standard
> Sc	45		ug/L			488451	487286	0	Standard
| Cr	52	0.000	ug/L	0.006	21725	8929	8908	0	Standard
| Cr	53	-0.004	ug/L	0.005	120	95	89	7	Standard
| Mn	55	0.002	ug/L	0.000	12	208	253	2	Standard
> Ge	72		ug/L			31094	32611	0	KED
| Ni	60	-0.003	ug/L	0.006	214	36	33	27	KED
| Ni	62	0.009	ug/L	0.020	219	5	7	66	KED
| Cu	63	0.004	ug/L	0.002	51	24	41	19	KED
| Cu	65	-0.001	ug/L	0.003	424	18	17	37	KED
| Zn	66	0.020	ug/L	0.002	9	23	35	3	KED
| Zn	67	0.041	ug/L	0.013	31	4	8	13	KED
| As	75	0.003	ug/L	0.008	234	2	3	62	KED
Y	89		ug/L			40140	39383	1	Standard
Kr	83		ug/L			40	33	18	Standard
> In-1	115		ug/L			6950	6576	2	KED
| Cd	111	-0.004	ug/L	0.005	105	3	2	49	KED
| Cd	114	0.008	ug/L	0.008	97	0	5	88	KED
> In	115		ug/L			429431	427806	1	Standard
| Ag	107	0.002	ug/L	0.001	35	24	45	14	Standard
| Ba	135	0.000	ug/L	0.003	825	46	48	25	Standard
| Ba	137	0.000	ug/L	0.003	817	85	88	26	Standard
> Tb	159		ug/L			166755	168082	0	Standard
| Pb	208	0.001	ug/L	0.000	33	213	311	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:06:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	46985	4	Standard
> Sc	45		ug/L			488451	534721	1	Standard
| Cr	52	27.742	ug/L	0.720	2	8929	412240	3	Standard
| Cr	53	28.038	ug/L	0.287	1	95	47020	1	Standard
| Mn	55	1064.142	ug/L	28.598	2	208	22494749	3	Standard
> Ge	72		ug/L			31094	32051	1	KED
| Ni	60	15.678	ug/L	0.036	0	36	23824	1	KED
| Ni	62	16.233	ug/L	0.031	0	5	3891	1	KED
| Cu	63	46.517	ug/L	0.453	0	24	198148	0	KED
| Cu	65	45.801	ug/L	0.802	1	18	99088	1	KED
| Zn	66	173.657	ug/L	4.375	2	23	91903	1	KED
| Zn	67	165.252	ug/L	1.668	1	4	14262	0	KED
| As	75	12.925	ug/L	0.220	1	2	3336	0	KED
| Y	89		ug/L			40140	142103	1	Standard
| Kr	83		ug/L			40	71	10	Standard
> In-1	115		ug/L			6950	6885	2	KED
| Cd	111	0.414	ug/L	0.001	0	3	106	2	KED
| Cd	114	0.366	ug/L	0.022	5	0	233	4	KED
> In	115		ug/L			429431	393324	2	Standard
| Ag	107	0.162	ug/L	0.006	3	24	2101	6	Standard
| Ba	135	31.697	ug/L	0.823	2	46	151057	0	Standard
| Ba	137	30.637	ug/L	0.149	0	85	260595	2	Standard
> Tb	159		ug/L			166755	168476	0	Standard
| Pb	208	151.589	ug/L	2.471	1	213	12335180	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:11:12**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	46502	4	Standard
> Sc	45		ug/L			488451	543996	2	Standard
| Cr	52	30.867	ug/L	0.240	0	8929	465460	2	Standard
| Cr	53	31.076	ug/L	0.581	1	95	53005	2	Standard
| Mn	55	455.053	ug/L	4.939	1	208	9786918	3	Standard
> Ge	72		ug/L			31094	30784	1	KED
| Ni	60	15.099	ug/L	0.155	1	36	22037	1	KED
| Ni	62	14.992	ug/L	0.644	4	5	3451	3	KED
| Cu	63	131.128	ug/L	5.499	4	24	536254	2	KED
| Cu	65	131.305	ug/L	2.284	1	18	272796	0	KED
| Zn	66	169.823	ug/L	4.654	2	23	86314	1	KED
| Zn	67	157.006	ug/L	1.585	1	4	13016	1	KED
| As	75	18.607	ug/L	0.104	0	2	4613	1	KED
| Y	89		ug/L			40140	155497	1	Standard
| Kr	83		ug/L			40	89	14	Standard
> In-1	115		ug/L			6950	6472	1	KED
| Cd	111	12.622	ug/L	0.366	2	3	2957	2	KED
| Cd	114	12.499	ug/L	0.041	0	0	7466	1	KED
> In	115		ug/L			429431	414369	2	Standard
| Ag	107	0.148	ug/L	0.002	1	24	2024	3	Standard
| Ba	135	21.870	ug/L	0.587	2	46	109854	2	Standard
| Ba	137	21.381	ug/L	0.340	1	85	191573	1	Standard
> Tb	159		ug/L			166755	179904	3	Standard
| Pb	208	745.655	ug/L	14.614	1	213	64757164	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:15:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	49445	4	Standard
> Sc	45		ug/L			488451	557144	2	Standard
| Cr	52	21.947	ug/L	0.141	0	8929	341879	2	Standard
| Cr	53	22.190	ug/L	0.381	1	95	38788	2	Standard
| Mn	55	329.777	ug/L	2.960	0	208	7262106	1	Standard
> Ge	72		ug/L			31094	31410	1	KED
| Ni	60	12.193	ug/L	0.133	1	36	18167	1	KED
| Ni	62	12.756	ug/L	0.087	0	5	2997	0	KED
| Cu	63	87.915	ug/L	0.516	0	24	366988	0	KED
| Cu	65	86.966	ug/L	1.593	1	18	184386	2	KED
| Zn	66	133.428	ug/L	1.490	1	23	69214	0	KED
| Zn	67	126.587	ug/L	0.681	0	4	10708	0	KED
| As	75	6.938	ug/L	0.154	2	2	1756	1	KED
| Y	89		ug/L			40140	162765	0	Standard
| Kr	83		ug/L			40	78	14	Standard
> In-1	115		ug/L			6950	6408	2	KED
| Cd	111	0.222	ug/L	0.004	1	3	54	1	KED
| Cd	114	0.192	ug/L	0.008	4	0	114	6	KED
> In	115		ug/L			429431	423474	3	Standard
| Ag	107	0.121	ug/L	0.012	9	24	1683	6	Standard
| Ba	135	23.608	ug/L	0.725	3	46	121113	0	Standard
| Ba	137	23.286	ug/L	0.661	2	85	213135	1	Standard
> Tb	159		ug/L			166755	190018	1	Standard
| Pb	208	268.236	ug/L	5.726	2	213	24611827	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:20:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	43125	3	Standard
> Sc	45		ug/L			488451	568425	3	Standard
| Cr	52	11.128	ug/L	0.256	2	8929	181902	1	Standard
| Cr	53	11.274	ug/L	0.144	1	95	20167	3	Standard
| Mn	55	78.112	ug/L	0.641	0	208	1755331	3	Standard
> Ge	72		ug/L			31094	31370	1	KED
| Ni	60	8.987	ug/L	0.100	1	36	13381	1	KED
| Ni	62	9.507	ug/L	0.203	2	5	2232	1	KED
| Cu	63	15.324	ug/L	0.349	2	24	63896	0	KED
| Cu	65	15.022	ug/L	0.351	2	18	31818	1	KED
| Zn	66	62.987	ug/L	1.489	2	23	32641	1	KED
| Zn	67	62.205	ug/L	0.150	0	4	5258	1	KED
| As	75	4.223	ug/L	0.106	2	2	1068	2	KED
| Y	89		ug/L			40140	164869	4	Standard
| Kr	83		ug/L			40	59	23	Standard
> In-1	115		ug/L			6950	6674	2	KED
| Cd	111	0.164	ug/L	0.029	17	3	42	13	KED
| Cd	114	0.184	ug/L	0.005	2	0	113	1	KED
> In	115		ug/L			429431	436073	0	Standard
| Ag	107	0.055	ug/L	0.004	7	24	800	8	Standard
| Ba	135	31.748	ug/L	0.181	0	46	167824	1	Standard
| Ba	137	31.695	ug/L	0.503	1	85	298917	2	Standard
> Tb	159		ug/L			166755	198717	1	Standard
| Pb	208	11.851	ug/L	0.067	0	213	1137514	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:24:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	52682	5	Standard
> Sc	45		ug/L			488451	588362	2	Standard
| Cr	52	9.639	ug/L	0.081	0	8929	164582	2	Standard
| Cr	53	9.847	ug/L	0.196	1	95	18240	1	Standard
| Mn	55	236.529	ug/L	1.621	0	208	5500825	2	Standard
> Ge	72		ug/L			31094	33225	0	KED
| Ni	60	8.532	ug/L	0.131	1	36	13457	1	KED
| Ni	62	8.750	ug/L	0.263	3	5	2176	2	KED
| Cu	63	18.273	ug/L	0.399	2	24	80703	1	KED
| Cu	65	18.279	ug/L	0.790	4	18	41002	3	KED
| Zn	66	78.244	ug/L	1.706	2	23	42943	1	KED
| Zn	67	75.675	ug/L	1.756	2	4	6773	2	KED
| As	75	5.178	ug/L	0.031	0	2	1387	0	KED
| Y	89		ug/L			40140	155868	1	Standard
| Kr	83		ug/L			40	63	14	Standard
> In-1	115		ug/L			6950	6990	1	KED
| Cd	111	0.159	ug/L	<u>0.055</u>	34	3	43	32	KED
| Cd	114	0.216	ug/L	0.010	4	0	139	5	KED
> In	115		ug/L			429431	457253	0	Standard
| Ag	107	0.098	ug/L	0.004	3	24	1487	3	Standard
| Ba	135	26.043	ug/L	0.215	0	46	144364	1	Standard
| Ba	137	26.184	ug/L	0.847	3	85	258950	3	Standard
> Tb	159		ug/L			166755	203335	0	Standard
| Pb	208	44.443	ug/L	0.772	1	213	4364411	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 21:29:16**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	50602	3	Standard
> Sc	45		ug/L			488451	631146	5	Standard
Cr	52	15.659	ug/L	0.589	3	8929	279291	2	Standard
Cr	53	15.823	ug/L	0.301	1	95	31355	3	Standard
Mn	55	235.921	ug/L	3.276	1	208	5884205	4	Standard
> Ge	72		ug/L			31094	33332	1	KED
Ni	60	19.230	ug/L	0.351	1	36	30377	0	KED
Ni	62	19.008	ug/L	0.180	0	5	4737	1	KED
Cu	63	54.270	ug/L	0.333	0	24	240431	1	KED
Cu	65	54.135	ug/L	0.602	1	18	121818	2	KED
Zn	66	194.999	ug/L	3.341	1	23	107329	1	KED
Zn	67	185.832	ug/L	0.783	0	4	16680	1	KED
As	75	5.114	ug/L	0.095	1	2	1374	1	KED
Y	89		ug/L			40140	233218	3	Standard
Kr	83		ug/L			40	90	12	Standard
> In-1	115		ug/L			6950	6868	1	KED
Cd	111	0.418	ug/L	0.031	7	3	107	5	KED
Cd	114	0.429	ug/L	0.029	6	0	272	6	KED
> In	115		ug/L			429431	446354	3	Standard
Ag	107	0.123	ug/L	0.002	1	24	1805	2	Standard
Ba	135	34.836	ug/L	0.436	1	46	188478	3	Standard
Ba	137	34.431	ug/L	0.869	2	85	332185	2	Standard
> Tb	159		ug/L			166755	209030	2	Standard
Pb	208	24.530	ug/L	0.094	0	213	2476421	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:34:12

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	33902	4	Standard
[>	Sc	45	ug/L			488451	509317	2	Standard
|	Cr	52	ug/L	0.003	34	8929	9169	1	Standard
|	Cr	53	ug/L	0.004	29	95	76	10	Standard
|	Mn	55	ug/L	0.002	25	208	392	11	Standard
[>	Ge	72	ug/L			31094	33105	3	KED
|	Ni	60	ug/L	0.004	40	36	23	28	KED
|	Ni	62	ug/L	0.000	1	5	1		KED
|	Cu	63	ug/L	0.002	25	24	58	14	KED
|	Cu	65	ug/L	0.004	80	18	30	28	KED
|	Zn	66	ug/L	0.022	68	23	42	29	KED
|	Zn	67	ug/L	0.054	88	4	10	47	KED
|	As	75	ug/L	0.002	98	2	1	31	KED
	Y	89	ug/L			40140	40283	2	Standard
	Kr	83	ug/L			40	36	9	Standard
[>	In-1	115	ug/L			6950	6626	2	KED
|	Cd	111	ug/L	0.002	66	3	2	21	KED
|	Cd	114	ug/L	0.003	40	0	5	35	KED
[>	In	115	ug/L			429431	437233	1	Standard
|	Ag	107	ug/L	0.000	21	24	14	15	Standard
|	Ba	135	ug/L	0.000	64	46	44	6	Standard
|	Ba	137	ug/L	0.001	198	85	91	7	Standard
[>	Tb	159	ug/L			166755	178936	1	Standard
|	Pb	208	ug/L	0.000	6	213	482	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0143-MSD1

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:40:52

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			30125	38182	4	Standard
>	Sc	45	ug/L			488451	677388	3	Standard
|	Cr	52	ug/L	0.685	1	8929	711624	1	Standard
|	Cr	53	ug/L	1.470	3	95	82170	1	Standard
|	Mn	55	ug/L	7.490	2	208	9996495	1	Standard
>	Ge	72	ug/L			31094	32777	1	KED
|	Ni	60	ug/L	2.386	3	36	103242	2	KED
|	Ni	62	ug/L	1.345	2	5	16448	2	KED
|	Cu	63	ug/L	1.190	0	24	720130	1	KED
|	Cu	65	ug/L	2.411	1	18	362734	0	KED
|	Zn	66	ug/L	3.061	2	23	80352	0	KED
|	Zn	67	ug/L	2.921	2	4	12472	0	KED
|	As	75	ug/L	0.453	2	2	5548	0	KED
	Y	89	ug/L			40140	388292	2	Standard
	Kr	83	ug/L			40	179	8	Standard
>	In-1	115	ug/L			6950	6715	2	KED
|	Cd	111	ug/L	0.693	2	3	5952	1	KED
|	Cd	114	ug/L	0.380	1	0	15034	0	KED
>	In	115	ug/L			429431	410418	2	Standard
|	Ag	107	ug/L	0.270	1	24	332055	1	Standard
|	Ba	135	ug/L	0.499	1	46	174462	2	Standard
|	Ba	137	ug/L	0.449	1	85	298697	3	Standard
>	Tb	159	ug/L			166755	214273	1	Standard
|	Pb	208	ug/L	0.787	2	213	3210544	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:46:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	34214	5	Standard
> Sc	45		ug/L			488451	519979	1	Standard
| Cr	52	-0.024	ug/L	0.004	16	8929	9169	2	Standard
| Cr	53	-0.017	ug/L	0.004	24	95	73	11	Standard
| Mn	55	0.005	ug/L	0.001	25	208	320	5	Standard
> Ge	72		ug/L			31094	33035	3	KED
| Ni	60	0.061	ug/L	0.059	95	36	132	68	KED
| Ni	62	0.033	ug/L	0.048	144	5	13	86	KED
| Cu	63	0.179	ug/L	0.156	87	24	801	85	KED
| Cu	65	0.164	ug/L	0.157	95	18	382	91	KED
| Zn	66	0.164	ug/L	0.147	89	23	113	69	KED
| Zn	67	0.135	ug/L	0.173	128	4	16	93	KED
| As	75	0.029	ug/L	0.026	86	2	10	67	KED
Y	89		ug/L			40140	40195	1	Standard
Kr	83		ug/L			40	44	19	Standard
> In-1	115		ug/L			6950	6917	1	KED
| Cd	111	0.001	ug/L	0.004	291	3	3	25	KED
| Cd	114	0.005	ug/L	0.003	61	0	3	51	KED
> In	115		ug/L			429431	432133	1	Standard
| Ag	107	0.000	ug/L	0.001	905	24	26	37	Standard
| Ba	135	-0.001	ug/L	0.002	129	46	40	21	Standard
| Ba	137	-0.003	ug/L	0.001	43	85	56	21	Standard
> Tb	159		ug/L			166755	179540	0	Standard
| Pb	208	0.001	ug/L	0.000	44	213	278	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:50:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	31361	3	Standard
> Sc	45		ug/L			488451	510631	1	Standard
| Cr	52	48.852	ug/L	1.102	2	8929	685926	1	Standard
| Cr	53	48.864	ug/L	0.948	1	95	78172	1	Standard
| Mn	55	48.790	ug/L	1.863	3	208	984808	2	Standard
> Ge	72		ug/L			31094	33139	0	KED
| Ni	60	49.000	ug/L	0.527	1	36	76909	1	KED
| Ni	62	49.629	ug/L	0.936	1	5	12290	2	KED
| Cu	63	49.216	ug/L	0.050	0	24	216780	0	KED
| Cu	65	48.963	ug/L	0.852	1	18	109532	1	KED
| Zn	66	51.210	ug/L	1.079	2	23	28043	1	KED
| Zn	67	50.210	ug/L	0.199	0	4	4484	0	KED
| As	75	49.346	ug/L	0.471	0	2	13167	1	KED
Y	89		ug/L			40140	40043	0	Standard
Kr	83		ug/L			40	41	15	Standard
> In-1	115		ug/L			6950	6706	1	KED
| Cd	111	49.190	ug/L	1.141	2	3	11934	2	KED
| Cd	114	48.845	ug/L	0.837	1	0	30229	2	KED
> In	115		ug/L			429431	427274	0	Standard
| Ag	107	49.191	ug/L	1.107	2	24	684390	2	Standard
| Ba	135	50.763	ug/L	0.378	0	46	262894	0	Standard
| Ba	137	50.712	ug/L	1.304	2	85	468482	2	Standard
> Tb	159		ug/L			166755	182549	2	Standard
| Pb	208	48.451	ug/L	0.915	1	213	4270718	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 21:58:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			30125	29097	5	Standard
> Sc	45		ug/L			488451	490683	2	Standard
| Cr	52	-0.027	ug/L	0.016	57	8929	8604	2	Standard
| Cr	53	-0.020	ug/L	0.005	26	95	65	10	Standard
| Mn	55	0.003	ug/L	0.001	42	208	264	6	Standard
> Ge	72		ug/L			31094	31437	2	KED
| Ni	60	-0.003	ug/L	0.004	119	36	31	21	KED
| Ni	62	0.002	ug/L	0.001	26	5	5	0	KED
| Cu	63	0.007	ug/L	0.001	7	24	54	4	KED
| Cu	65	0.006	ug/L	0.004	71	18	31	30	KED
| Zn	66	0.027	ug/L	0.015	56	23	38	22	KED
| Zn	67	0.007	ug/L	0.012	172	4	5	21	KED
| As	75	0.007	ug/L	0.006	88	2	3	36	KED
| Y	89		ug/L			40140	39951	3	Standard
| Kr	83		ug/L			40	38	10	Standard
> In-1	115		ug/L			6950	6671	1	KED
| Cd	111	-0.005	ug/L	0.004	94	3	2	49	KED
| Cd	114	0.007	ug/L	0.004	50	0	4	45	KED
> In	115		ug/L			429431	425844	1	Standard
| Ag	107	0.002	ug/L	0.001	42	24	47	20	Standard
| Ba	135	0.002	ug/L	0.002	99	46	59	19	Standard
| Ba	137	-0.002	ug/L	0.000	17	85	68	2	Standard
> Tb	159		ug/L			166755	170214	1	Standard
| Pb	208	0.003	ug/L	0.000	17	213	433	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:03:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				28285	5	Standard
[>	Sc	45	ug/L				489773	1	Standard
|	Cr	52	ug/L				8505	2	Standard
|	Cr	53	ug/L				60	5	Standard
[>	Ge	72	ug/L				31037	2	KED
|	Cu	63	ug/L				42	18	KED
|	Cu	65	ug/L				15	79	KED
|	Zn	66	ug/L				22	36	KED
|	Zn	67	ug/L				4	65	KED
|	As	75	ug/L				3	34	KED
	Y	89	ug/L				38706	2	Standard
	Kr	83	ug/L				31	34	Standard
[>	In-1	115	ug/L				6431	1	KED
|	Cd	111	ug/L				3	75	KED
|	Cd	114	ug/L				0	208	KED
[>	In	115	ug/L				415168	1	Standard
|	Ag	107	ug/L				37	32	Standard
[>	Tb	159	ug/L				170846	0	Standard
|	Pb	208	ug/L				364	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:08:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29789	4	Standard
[> Sc	45		ug/L			489773	492820	1	Standard
| Cr	52	47.526	ug/L	0.881	1	8505	643953	2	Standard
| Cr	53	48.003	ug/L	0.353	0	60	74096	1	Standard
[> Ge	72		ug/L			31037	31517	1	KED
| Cu	63	48.957	ug/L	0.528	1	42	205076	0	KED
| Cu	65	48.445	ug/L	0.610	1	15	103059	1	KED
| Zn	66	50.910	ug/L	0.274	0	22	26515	1	KED
| Zn	67	49.932	ug/L	2.398	4	4	4240	4	KED
| As	75	49.739	ug/L	0.385	0	3	12622	0	KED
Y	89		ug/L			38706	39760	2	Standard
Kr	83		ug/L			31	36	10	Standard
[> In-1	115		ug/L			6431	6548	0	KED
| Cd	111	48.693	ug/L	0.226	0	3	11534	0	KED
| Cd	114	49.288	ug/L	0.311	0	0	29781	0	KED
[> In	115		ug/L			415168	405853	1	Standard
| Ag	107	50.361	ug/L	1.548	3	37	665305	1	Standard
[> Tb	159		ug/L			170846	174104	1	Standard
| Pb	208	49.105	ug/L	0.386	0	364	4128822	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 22:15:13

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	28697	2	Standard
[>	Sc	45	ug/L			489773	484962	1	Standard
|	Cr	52	-0.004	0.008	205	8505	8370	2	Standard
|	Cr	53	0.007	0.006	90	60	70	14	Standard
[>	Ge	72	ug/L			31037	31012	0	KED
|	Cu	63	0.002	0.002	78	42	52	14	KED
|	Cu	65	0.006	0.005	87	15	27	37	KED
|	Zn	66	0.030	0.010	32	22	38	13	KED
|	Zn	67	0.023	0.095	417	4	6	124	KED
|	As	75	-0.001	0.002	343	3	3	18	KED
	Y	89	ug/L			38706	38893	2	Standard
	Kr	83	ug/L			31	50	28	Standard
[>	In-1	115	ug/L			6431	6579	1	KED
|	Cd	111	-0.004	0.006	138	3	2	65	KED
|	Cd	114	0.001	0.002	190	0	1	99	KED
[>	In	115	ug/L			415168	423463	0	Standard
|	Ag	107	0.000	0.001	205	37	43	26	Standard
[>	Tb	159	ug/L			170846	170623	0	Standard
|	Pb	208	0.000	0.001	203	364	394	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0467-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:22:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	48851	3	Standard
[> Sc	45		ug/L			489773	577049	3	Standard
| Cr	52	13.738	ug/L	0.110	0	8505	225029	3	Standard
| Cr	53	13.944	ug/L	0.189	1	60	25244	2	Standard
[> Ge	72		ug/L			31037	31520	0	KED
| Cu	63	31.485	ug/L	1.089	3	42	131942	3	KED
| Cu	65	31.317	ug/L	0.931	2	15	66646	3	KED
| Zn	66	59.634	ug/L	0.617	1	22	31058	1	KED
| Zn	67	56.517	ug/L	1.374	2	4	4800	2	KED
| As	75	6.809	ug/L	0.157	2	3	1731	2	KED
Y	89		ug/L			38706	202589	3	Standard
Kr	83		ug/L			31	67	21	Standard
[> In-1	115		ug/L			6431	6849	3	KED
| Cd	111	0.194	ug/L	0.034	17	3	51	16	KED
| Cd	114	0.228	ug/L	0.029	12	0	143	9	KED
[> In	115		ug/L			415168	425958	2	Standard
| Ag	107	0.147	ug/L	0.007	4	37	2083	5	Standard
[> Tb	159		ug/L			170846	199303	2	Standard
| Pb	208	12.702	ug/L	0.088	0	364	1223123	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0071-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:27:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	52612	4	Standard
[>	Sc	45		ug/L			489773	588040	1	Standard
|	Cr	52	14.298	ug/L	0.054	0	8505	238304	2	Standard
|	Cr	53	14.269	ug/L	0.142	0	60	26330	2	Standard
[>	Ge	72		ug/L			31037	31325	1	KED
|	Cu	63	34.136	ug/L	0.313	0	42	142137	0	KED
|	Cu	65	33.400	ug/L	0.799	2	15	70615	0	KED
|	Zn	66	65.895	ug/L	1.586	2	22	34095	0	KED
|	Zn	67	65.267	ug/L	0.838	1	4	5508	1	KED
|	As	75	7.587	ug/L	0.122	1	3	1916	1	KED
	Y	89		ug/L			38706	205508	0	Standard
	Kr	83		ug/L			31	71	24	Standard
[>	In-1	115		ug/L			6431	6667	2	KED
|	Cd	111	0.243	ug/L	0.027	11	3	61	9	KED
|	Cd	114	0.225	ug/L	0.042	18	0	138	16	KED
[>	In	115		ug/L			415168	427225	1	Standard
|	Ag	107	0.148	ug/L	0.004	2	37	2103	1	Standard
[>	Tb	159		ug/L			170846	203411	2	Standard
|	Pb	208	13.736	ug/L	0.326	2	364	1349193	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0008-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:31:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	47376	4	Standard
[> Sc	45		ug/L			489773	581887	0	Standard
| Cr	52	12.314	ug/L	0.033	0	8505	204488	0	Standard
| Cr	53	12.138	ug/L	0.153	1	60	22175	2	Standard
[> Ge	72		ug/L			31037	30368	4	KED
| Cu	63	27.278	ug/L	0.612	2	42	110055	2	KED
| Cu	65	26.800	ug/L	0.990	3	15	54888	1	KED
| Zn	66	96.499	ug/L	2.661	2	22	48366	1	KED
| Zn	67	93.435	ug/L	1.571	1	4	7639	2	KED
| As	75	5.151	ug/L	0.287	5	3	1260	1	KED
Y	89		ug/L			38706	199023	1	Standard
Kr	83		ug/L			31	67	18	Standard
[> In-1	115		ug/L			6431	6421	1	KED
| Cd	111	0.175	ug/L	0.034	19	3	43	19	KED
| Cd	114	0.155	ug/L	0.039	24	0	91	22	KED
[> In	115		ug/L			415168	421474	3	Standard
| Ag	107	0.108	ug/L	0.006	5	37	1521	2	Standard
[> Tb	159		ug/L			170846	200348	1	Standard
| Pb	208	10.076	ug/L	0.105	1	364	975298	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0136-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:35:50**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	53073	3	Standard
[>	Sc	45		ug/L			489773	576636	1	Standard
|	Cr	52	14.019	ug/L	0.167	1	8505	229281	1	Standard
|	Cr	53	14.292	ug/L	0.280	1	60	25856	1	Standard
[>	Ge	72		ug/L			31037	30759	0	KED
|	Cu	63	37.943	ug/L	0.461	1	42	155136	0	KED
|	Cu	65	37.261	ug/L	0.388	1	15	77367	0	KED
|	Zn	66	84.809	ug/L	1.417	1	22	43090	1	KED
|	Zn	67	82.483	ug/L	1.771	2	4	6834	2	KED
|	As	75	9.140	ug/L	0.287	3	3	2266	2	KED
	Y	89		ug/L			38706	203759	0	Standard
	Kr	83		ug/L			31	71	15	Standard
[>	In-1	115		ug/L			6431	6435	0	KED
|	Cd	111	0.194	ug/L	0.021	10	3	48	10	KED
|	Cd	114	0.249	ug/L	0.007	2	0	148	3	KED
[>	In	115		ug/L			415168	422509	1	Standard
|	Ag	107	0.157	ug/L	0.006	3	37	2198	4	Standard
[>	Tb	159		ug/L			170846	198005	0	Standard
|	Pb	208	15.362	ug/L	0.160	1	364	1469423	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0136-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:40:11**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	50849	3	Standard
[> Sc	45		ug/L			489773	582688	1	Standard
| Cr	52	14.489	ug/L	0.118	0	8505	239127	1	Standard
| Cr	53	14.675	ug/L	0.275	1	60	26833	3	Standard
[> Ge	72		ug/L			31037	31484	1	KED
| Cu	63	35.162	ug/L	0.415	1	42	147153	0	KED
| Cu	65	34.804	ug/L	0.505	1	15	73971	1	KED
| Zn	66	65.580	ug/L	0.825	1	22	34111	0	KED
| Zn	67	63.513	ug/L	0.902	1	4	5387	1	KED
| As	75	8.323	ug/L	0.120	1	3	2112	0	KED
Y	89		ug/L			38706	200945	1	Standard
Kr	83		ug/L			31	82	5	Standard
[> In-1	115		ug/L			6431	6536	1	KED
| Cd	111	0.233	ug/L	0.021	8	3	58	8	KED
| Cd	114	0.235	ug/L	0.013	5	0	142	4	KED
[> In	115		ug/L			415168	431832	2	Standard
| Ag	107	0.161	ug/L	0.009	5	37	2299	3	Standard
[> Tb	159		ug/L			170846	200028	1	Standard
| Pb	208	14.745	ug/L	0.110	0	364	1424758	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0396-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:44:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	55864	5	Standard
[> Sc	45		ug/L			489773	589497	0	Standard
[Cr	52	14.311	ug/L	0.130	0	8505	239086	0	Standard
[Cr	53	14.650	ug/L	0.191	1	60	27097	0	Standard
[> Ge	72		ug/L			31037	31122	1	KED
[Cu	63	38.316	ug/L	0.293	0	42	158513	1	KED
[Cu	65	38.064	ug/L	0.356	0	15	79961	1	KED
[Zn	66	71.053	ug/L	1.084	1	22	36536	2	KED
[Zn	67	67.339	ug/L	2.040	3	4	5646	3	KED
[As	75	7.097	ug/L	0.133	1	3	1781	3	KED
Y	89		ug/L			38706	215059	2	Standard
Kr	83		ug/L			31	78	33	Standard
[> In-1	115		ug/L			6431	6493	3	KED
[Cd	111	0.193	ug/L	<u>0.054</u>	27	3	48	21	KED
[Cd	114	0.220	ug/L	0.020	9	0	132	8	KED
[> In	115		ug/L			415168	424926	1	Standard
[Ag	107	0.157	ug/L	0.006	4	37	2216	3	Standard
[> Tb	159		ug/L			170846	201951	1	Standard
[Pb	208	15.085	ug/L	0.363	2	364	1471359	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0396-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:48:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	55777	3	Standard
[> Sc	45		ug/L			489773	572796	2	Standard
[Cr	52	14.013	ug/L	0.199	1	8505	227627	1	Standard
[Cr	53	14.110	ug/L	0.283	2	60	25353	1	Standard
[> Ge	72		ug/L			31037	31260	0	KED
[Cu	63	34.557	ug/L	0.140	0	42	143608	1	KED
[Cu	65	34.753	ug/L	0.496	1	15	73336	1	KED
[Zn	66	66.426	ug/L	0.936	1	22	34305	1	KED
[Zn	67	63.224	ug/L	1.361	2	4	5325	2	KED
[As	75	6.306	ug/L	0.132	2	3	1589	1	KED
Y	89		ug/L			38706	202469	0	Standard
Kr	83		ug/L			31	66	5	Standard
[> In-1	115		ug/L			6431	6464	0	KED
[Cd	111	0.194	ug/L	0.009	4	3	48	5	KED
[Cd	114	0.184	ug/L	0.007	3	0	110	3	KED
[> In	115		ug/L			415168	425206	0	Standard
[Ag	107	0.138	ug/L	0.002	1	37	1953	0	Standard
[> Tb	159		ug/L			170846	197182	1	Standard
[Pb	208	13.939	ug/L	0.210	1	364	1327642	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:53:14**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46448	5	Standard
[> Sc	45		ug/L			489773	549846	2	Standard
[Cr	52	17.371	ug/L	0.291	1	8505	268634	2	Standard
[Cr	53	17.651	ug/L	0.219	1	60	30439	3	Standard
[> Ge	72		ug/L			31037	31365	0	KED
[Cu	63	25.021	ug/L	0.154	0	42	104333	0	KED
[Cu	65	24.851	ug/L	0.217	0	15	52626	1	KED
[Zn	66	57.690	ug/L	0.363	0	22	29897	0	KED
[Zn	67	56.329	ug/L	3.259	5	4	4759	4	KED
[As	75	5.835	ug/L	0.052	0	3	1476	1	KED
Y	89		ug/L			38706	164691	2	Standard
Kr	83		ug/L			31	52	18	Standard
[> In-1	115		ug/L			6431	6493	1	KED
[Cd	111	0.078	ug/L	0.024	30	3	21	24	KED
[Cd	114	0.080	ug/L	0.018	22	0	48	20	KED
[> In	115		ug/L			415168	421529	1	Standard
[Ag	107	0.242	ug/L	0.008	3	37	3355	4	Standard
[> Tb	159		ug/L			170846	194334	0	Standard
[Pb	208	11.882	ug/L	0.325	2	364	1115373	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 22:57:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43461	2	Standard
[> Sc	45		ug/L			489773	545974	1	Standard
[Cr	52	17.152	ug/L	0.276	1	8505	263488	1	Standard
[Cr	53	16.985	ug/L	0.153	0	60	29086	0	Standard
[> Ge	72		ug/L			31037	31095	0	KED
[Cu	63	43.419	ug/L	1.078	2	42	179456	2	KED
[Cu	65	43.123	ug/L	0.628	1	15	90515	0	KED
[Zn	66	109.906	ug/L	1.583	1	22	56445	0	KED
[Zn	67	104.388	ug/L	2.835	2	4	8742	2	KED
[As	75	4.796	ug/L	0.203	4	3	1203	3	KED
Y	89		ug/L			38706	160463	1	Standard
Kr	83		ug/L			31	53	15	Standard
[> In-1	115		ug/L			6431	6538	2	KED
[Cd	111	0.076	ug/L	0.028	37	3	21	33	KED
[Cd	114	0.090	ug/L	0.014	15	0	54	13	KED
[> In	115		ug/L			415168	418749	2	Standard
[Ag	107	0.052	ug/L	0.003	6	37	748	3	Standard
[> Tb	159		ug/L			170846	193022	1	Standard
[Pb	208	23.659	ug/L	0.416	1	364	2205491	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:02:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31345	5	Standard
[>	Sc	45	ug/L			489773	473998	2	Standard
|	Cr	52	0.011	0.017	149	8505	8374	2	Standard
|	Cr	53	-0.002	0.001	62	60	55	5	Standard
[>	Ge	72	ug/L			31037	31201	1	KED
|	Cu	63	0.014	0.023	158	42	101	91	KED
|	Cu	65	0.017	0.023	134	15	51	91	KED
|	Zn	66	0.030	0.050	168	22	38	66	KED
|	Zn	67	0.030	0.048	159	4	6	56	KED
|	As	75	-0.008	0.003	38	3	1	57	KED
	Y	89	ug/L			38706	39592	4	Standard
	Kr	83	ug/L			31	40	23	Standard
[>	In-1	115	ug/L			6431	6544	1	KED
|	Cd	111	0.001	0.003	223	3	3	15	KED
|	Cd	114	-0.000	0.002	7103	0	0	209	KED
[>	In	115	ug/L			415168	422329	2	Standard
|	Ag	107	-0.002	0.000	17	37	15	25	Standard
[>	Tb	159	ug/L			170846	170875	1	Standard
|	Pb	208	-0.002	0.000	17	364	216	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:07:02

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28899	5	Standard
[> Sc	45		ug/L			489773	482605	1	Standard
| Cr	52	48.592	ug/L	0.483	0	8505	644491	1	Standard
| Cr	53	48.168	ug/L	0.910	1	60	72792	0	Standard
[> Ge	72		ug/L			31037	31124	2	KED
| Cu	63	49.252	ug/L	0.912	1	42	203714	1	KED
| Cu	65	49.051	ug/L	1.631	3	15	103007	1	KED
| Zn	66	50.122	ug/L	1.329	2	22	25769	0	KED
| Zn	67	50.418	ug/L	2.174	4	4	4226	2	KED
| As	75	49.790	ug/L	1.321	2	3	12473	0	KED
Y	89		ug/L			38706	40740	2	Standard
Kr	83		ug/L			31	43	13	Standard
[> In-1	115		ug/L			6431	6726	3	KED
| Cd	111	48.091	ug/L	1.867	3	3	11693	1	KED
| Cd	114	48.760	ug/L	1.508	3	0	30247	0	KED
[> In	115		ug/L			415168	420228	3	Standard
| Ag	107	49.016	ug/L	1.974	4	37	670195	1	Standard
[> Tb	159		ug/L			170846	175745	2	Standard
| Pb	208	49.189	ug/L	0.972	1	364	4174139	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:14:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28266	3	Standard
[> Sc	45		ug/L			489773	475445	3	Standard
| Cr	52	-0.004	ug/L	0.009	207	8505	8197	2	Standard
| Cr	53	-0.000	ug/L	0.005	7964	60	58	11	Standard
[> Ge	72		ug/L			31037	31118	1	KED
| Cu	63	0.002	ug/L	0.001	39	42	50	5	KED
| Cu	65	0.007	ug/L	0.005	67	15	31	33	KED
| Zn	66	0.026	ug/L	0.007	27	22	36	9	KED
| Zn	67	0.038	ug/L	0.047	122	4	7	50	KED
| As	75	0.001	ug/L	0.005	385	3	3	34	KED
Y	89		ug/L			38706	38769	1	Standard
Kr	83		ug/L			31	29	43	Standard
[> In-1	115		ug/L			6431	6283	2	KED
| Cd	111	-0.001	ug/L	0.011	917	3	2	88	KED
| Cd	114	0.006	ug/L	0.003	54	0	3	49	KED
[> In	115		ug/L			415168	422915	1	Standard
| Ag	107	-0.000	ug/L	0.001	294	37	35	24	Standard
[> Tb	159		ug/L			170846	169400	1	Standard
| Pb	208	-0.000	ug/L	0.000	639	364	356	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:18:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	38997	5	Standard
[> Sc	45		ug/L			489773	553643	1	Standard
[Cr	52	9.316	ug/L	0.259	2	8505	149520	2	Standard
[Cr	53	9.373	ug/L	0.208	2	60	16308	2	Standard
[> Ge	72		ug/L			31037	31627	2	KED
[Cu	63	29.984	ug/L	0.541	1	42	126045	0	KED
[Cu	65	29.430	ug/L	0.324	1	15	62837	2	KED
[Zn	66	52.353	ug/L	1.686	3	22	27351	1	KED
[Zn	67	52.332	ug/L	1.242	2	4	4459	0	KED
[As	75	3.039	ug/L	0.073	2	3	777	3	KED
Y	89		ug/L			38706	164478	3	Standard
Kr	83		ug/L			31	56	15	Standard
[> In-1	115		ug/L			6431	6291	1	KED
[Cd	111	0.028	ug/L	0.007	25	3	9	17	KED
[Cd	114	0.043	ug/L	0.005	11	0	25	12	KED
[> In	115		ug/L			415168	427999	3	Standard
[Ag	107	0.030	ug/L	0.002	8	37	455	11	Standard
[> Tb	159		ug/L			170846	198983	0	Standard
[Pb	208	3.822	ug/L	0.050	1	364	367686	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:23:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	38286	3	Standard
[> Sc	45		ug/L			489773	519453	1	Standard
| Cr	52	7.712	ug/L	0.073	0	8505	117692	1	Standard
| Cr	53	7.871	ug/L	0.226	2	60	12861	4	Standard
[> Ge	72		ug/L			31037	31448	2	KED
| Cu	63	14.996	ug/L	0.166	1	42	62705	1	KED
| Cu	65	14.792	ug/L	0.208	1	15	31405	0	KED
| Zn	66	25.340	ug/L	0.850	3	22	13173	1	KED
| Zn	67	26.232	ug/L	0.411	1	4	2224	0	KED
| As	75	2.215	ug/L	0.093	4	3	563	1	KED
Y	89		ug/L			38706	152163	1	Standard
Kr	83		ug/L			31	47	22	Standard
[> In-1	115		ug/L			6431	6420	1	KED
| Cd	111	0.030	ug/L	0.016	53	3	10	35	KED
| Cd	114	0.035	ug/L	0.004	11	0	21	11	KED
[> In	115		ug/L			415168	430376	2	Standard
| Ag	107	0.025	ug/L	0.002	8	37	391	7	Standard
[> Tb	159		ug/L			170846	195224	1	Standard
| Pb	208	1.547	ug/L	0.006	0	364	146221	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:27:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	42020	3	Standard
[> Sc	45		ug/L			489773	531122	1	Standard
[Cr	52	41.170	ug/L	0.332	0	8505	602419	2	Standard
[Cr	53	40.854	ug/L	0.232	0	60	67969	1	Standard
[> Ge	72		ug/L			31037	31204	0	KED
[Cu	63	64.749	ug/L	0.743	1	42	268545	1	KED
[Cu	65	63.857	ug/L	0.789	1	15	134517	2	KED
[Zn	66	98.107	ug/L	1.480	1	22	50571	2	KED
[Zn	67	104.940	ug/L	1.572	1	4	8819	1	KED
[As	75	7.411	ug/L	0.058	0	3	1865	1	KED
Y	89		ug/L			38706	146162	2	Standard
Kr	83		ug/L			31	64	15	Standard
[> In-1	115		ug/L			6431	6268	1	KED
[Cd	111	0.233	ug/L	0.047	19	3	55	17	KED
[Cd	114	0.227	ug/L	0.012	5	0	131	5	KED
[> In	115		ug/L			415168	410437	2	Standard
[Ag	107	0.161	ug/L	0.004	2	37	2188	3	Standard
[> Tb	159		ug/L			170846	186241	1	Standard
[Pb	208	49.354	ug/L	0.874	1	364	4438659	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:31:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46824	4	Standard
[> Sc	45		ug/L			489773	553481	1	Standard
[Cr	52	16.703	ug/L	0.354	2	8505	260343	0	Standard
[Cr	53	16.901	ug/L	0.438	2	60	29335	1	Standard
[> Ge	72		ug/L			31037	31314	1	KED
[Cu	63	117.753	ug/L	1.729	1	42	490034	0	KED
[Cu	65	115.655	ug/L	2.577	2	15	244431	1	KED
[Zn	66	370.231	ug/L	7.694	2	22	191412	1	KED
[Zn	67	351.821	ug/L	4.197	1	4	29662	0	KED
[As	75	11.920	ug/L	0.103	0	3	3008	0	KED
[Y	89		ug/L			38706	209610	2	Standard
[Kr	83		ug/L			31	71	24	Standard
[> In-1	115		ug/L			6431	6464	4	KED
[Cd	111	0.784	ug/L	0.104	13	3	185	8	KED
[Cd	114	0.780	ug/L	0.055	7	0	466	11	KED
[> In	115		ug/L			415168	414094	1	Standard
[Ag	107	0.213	ug/L	0.008	3	37	2914	5	Standard
[> Tb	159		ug/L			170846	199232	1	Standard
[Pb	208	155.646	ug/L	2.153	1	364	14974835	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-12**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:36:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	43502	3	Standard
[>	Sc	45	ug/L			489773	536443	1	Standard
|	Cr	15.990	ug/L	0.351	2	8505	241957	1	Standard
|	Cr	16.015	ug/L	0.115	0	60	26951	1	Standard
[>	Ge	72	ug/L			31037	31252	0	KED
|	Cu	23.396	ug/L	0.365	1	42	97218	2	KED
|	Cu	23.203	ug/L	0.190	0	15	48957	0	KED
|	Zn	55.790	ug/L	0.407	0	22	28810	0	KED
|	Zn	53.318	ug/L	1.275	2	4	4490	1	KED
|	As	5.847	ug/L	0.035	0	3	1474	0	KED
	Y	89	ug/L			38706	147591	2	Standard
	Kr	83	ug/L			31	50	12	Standard
[>	In-1	115	ug/L			6431	6546	2	KED
|	Cd	0.077	ug/L	0.019	24	3	21	21	KED
|	Cd	0.058	ug/L	0.020	33	0	36	35	KED
[>	In	115	ug/L			415168	418793	1	Standard
|	Ag	0.049	ug/L	0.002	5	37	704	4	Standard
[>	Tb	159	ug/L			170846	192806	0	Standard
|	Pb	23.560	ug/L	0.293	1	364	2194229	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0394-13**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:40:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	40353	3	Standard
[>	Sc	45		ug/L			489773	529737	1	Standard
|	Cr	52	14.653	ug/L	0.363	2	8505	219719	1	Standard
|	Cr	53	14.593	ug/L	0.216	1	60	24257	2	Standard
[>	Ge	72		ug/L			31037	31322	0	KED
|	Cu	63	21.651	ug/L	0.262	1	42	90163	0	KED
|	Cu	65	21.097	ug/L	0.151	0	15	44614	0	KED
|	Zn	66	67.677	ug/L	0.813	1	22	35021	1	KED
|	Zn	67	66.149	ug/L	2.076	3	4	5582	2	KED
|	As	75	4.939	ug/L	0.116	2	3	1248	2	KED
	Y	89		ug/L			38706	148354	1	Standard
	Kr	83		ug/L			31	45	0	Standard
[>	In-1	115		ug/L			6431	6500	1	KED
|	Cd	111	0.116	ug/L	0.022	19	3	30	16	KED
|	Cd	114	0.122	ug/L	0.045	37	0	73	36	KED
[>	In	115		ug/L			415168	418029	0	Standard
|	Ag	107	0.073	ug/L	0.002	2	37	1027	1	Standard
[>	Tb	159		ug/L			170846	195302	0	Standard
|	Pb	208	32.536	ug/L	0.079	0	364	3069165	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-24**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:44:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	46655	4	Standard
[>	Sc	45		ug/L			489773	577415	1	Standard
|	Cr	52	15.546	ug/L	0.231	1	8505	253510	1	Standard
|	Cr	53	15.712	ug/L	0.183	1	60	28460	1	Standard
[>	Ge	72		ug/L			31037	30637	0	KED
|	Cu	63	39.182	ug/L	0.791	2	42	159565	1	KED
|	Cu	65	38.956	ug/L	0.839	2	15	80566	1	KED
|	Zn	66	72.613	ug/L	0.513	0	22	36752	0	KED
|	Zn	67	72.912	ug/L	3.167	4	4	6017	4	KED
|	As	75	7.143	ug/L	0.074	1	3	1764	1	KED
	Y	89		ug/L			38706	212682	1	Standard
	Kr	83		ug/L			31	72	9	Standard
[>	In-1	115		ug/L			6431	6400	2	KED
|	Cd	111	0.210	ug/L	0.016	7	3	51	8	KED
|	Cd	114	0.220	ug/L	0.010	4	0	130	7	KED
[>	In	115		ug/L			415168	420678	0	Standard
|	Ag	107	0.179	ug/L	0.003	1	37	2485	1	Standard
[>	Tb	159		ug/L			170846	202518	1	Standard
|	Pb	208	17.818	ug/L	0.280	1	364	1742837	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-28**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:49:08**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	51881	3	Standard
[>	Sc	45		ug/L			489773	566930	1	Standard
|	Cr	52	14.201	ug/L	0.102	0	8505	228254	1	Standard
|	Cr	53	14.083	ug/L	0.278	1	60	25058	2	Standard
[>	Ge	72		ug/L			31037	30561	1	KED
|	Cu	63	28.446	ug/L	0.330	1	42	115562	1	KED
|	Cu	65	28.645	ug/L	0.218	0	15	59097	1	KED
|	Zn	66	56.512	ug/L	0.566	1	22	28538	2	KED
|	Zn	67	53.910	ug/L	1.956	3	4	4438	1	KED
|	As	75	7.179	ug/L	0.024	0	3	1769	1	KED
	Y	89		ug/L			38706	208995	2	Standard
	Kr	83		ug/L			31	51	20	Standard
[>	In-1	115		ug/L			6431	6279	2	KED
|	Cd	111	0.182	ug/L	0.035	19	3	44	19	KED
|	Cd	114	0.199	ug/L	0.017	8	0	115	9	KED
[>	In	115		ug/L			415168	417569	1	Standard
|	Ag	107	0.138	ug/L	0.006	4	37	1912	4	Standard
[>	Tb	159		ug/L			170846	201351	0	Standard
|	Pb	208	10.669	ug/L	0.139	1	364	1037851	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-29**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Thursday, May 11, 2023 23:53:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	49899	2	Standard
[> Sc	45		ug/L			489773	567089	0	Standard
[Cr	52	12.901	ug/L	0.140	1	8505	208311	1	Standard
[Cr	53	13.083	ug/L	0.127	0	60	23287	1	Standard
[> Ge	72		ug/L			31037	30821	0	KED
[Cu	63	28.687	ug/L	0.561	1	42	117542	2	KED
[Cu	65	28.326	ug/L	0.191	0	15	58942	1	KED
[Zn	66	52.330	ug/L	0.021	0	22	26652	0	KED
[Zn	67	50.585	ug/L	1.246	2	4	4201	1	KED
[As	75	6.717	ug/L	0.081	1	3	1669	1	KED
Y	89		ug/L			38706	187086	0	Standard
Kr	83		ug/L			31	66	7	Standard
[> In-1	115		ug/L			6431	6311	1	KED
[Cd	111	0.155	ug/L	0.022	13	3	38	12	KED
[Cd	114	0.143	ug/L	0.032	22	0	83	22	KED
[> In	115		ug/L			415168	420809	2	Standard
[Ag	107	0.143	ug/L	0.009	6	37	1999	6	Standard
[> Tb	159		ug/L			170846	200244	0	Standard
[Pb	208	11.420	ug/L	0.084	0	364	1104767	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, May 11, 2023 23:58:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31832	0	Standard
[>	Sc	45	ug/L			489773	467299	0	Standard
|	Cr	52	0.004	0.018	499	8505	8160	2	Standard
|	Cr	53	-0.009	0.006	64	60	44	20	Standard
[>	Ge	72	ug/L			31037	29981	2	KED
|	Cu	63	0.002	0.004	215	42	47	28	KED
|	Cu	65	0.005	0.001	11	15	25	4	KED
|	Zn	66	-0.004	0.003	85	22	20	5	KED
|	Zn	67	-0.014	0.036	251	4	3	91	KED
|	As	75	-0.004	0.003	67	3	2	35	KED
	Y	89	ug/L			38706	38062	2	Standard
	Kr	83	ug/L			31	41	19	Standard
[>	In-1	115	ug/L			6431	6328	1	KED
|	Cd	111	-0.003	0.006	254	3	2	57	KED
|	Cd	114	0.003	0.002	61	0	2	47	KED
[>	In	115	ug/L			415168	418180	1	Standard
|	Ag	107	-0.002	0.000	12	37	9	34	Standard
[>	Tb	159	ug/L			170846	168893	0	Standard
|	Pb	208	-0.002	0.000	3	364	226	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:02:30

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29659	3	Standard
[> Sc	45		ug/L			489773	480703	0	Standard
| Cr	52	48.479	ug/L	0.498	1	8505	640524	1	Standard
| Cr	53	48.514	ug/L	0.954	1	60	73036	1	Standard
[> Ge	72		ug/L			31037	31103	1	KED
| Cu	63	49.409	ug/L	1.022	2	42	204227	0	KED
| Cu	65	48.614	ug/L	0.529	1	15	102058	0	KED
| Zn	66	49.228	ug/L	0.915	1	22	25297	0	KED
| Zn	67	50.442	ug/L	1.345	2	4	4227	1	KED
| As	75	49.437	ug/L	0.931	1	3	12379	0	KED
Y	89		ug/L			38706	40704	0	Standard
Kr	83		ug/L			31	31	3	Standard
[> In-1	115		ug/L			6431	6305	2	KED
| Cd	111	48.641	ug/L	1.833	3	3	11089	1	KED
| Cd	114	49.361	ug/L	0.357	0	0	28717	1	KED
[> In	115		ug/L			415168	414363	1	Standard
| Ag	107	50.273	ug/L	1.203	2	37	678201	1	Standard
[> Tb	159		ug/L			170846	177904	0	Standard
| Pb	208	49.193	ug/L	0.355	0	364	4226831	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:09:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	27567	4	Standard
[>	Sc	45		ug/L			489773	470683	3	Standard
|	Cr	52	0.001	ug/L	0.013	1520	8505	8184	3	Standard
|	Cr	53	0.000	ug/L	0.001	1858	60	58	6	Standard
[>	Ge	72		ug/L			31037	30027	1	KED
|	Cu	63	0.001	ug/L	0.005	399	42	45	40	KED
|	Cu	65	0.006	ug/L	0.003	57	15	27	26	KED
|	Zn	66	0.016	ug/L	0.003	20	22	29	3	KED
|	Zn	67	0.057	ug/L	0.076	132	4	8	68	KED
|	As	75	0.002	ug/L	0.004	183	3	3	30	KED
	Y	89		ug/L			38706	39448	2	Standard
	Kr	83		ug/L			31	39	18	Standard
[>	In-1	115		ug/L			6431	6410	1	KED
|	Cd	111	-0.010	ug/L	0.000	0	3	0		KED
|	Cd	114	0.007	ug/L	0.007	103	0	4	91	KED
[>	In	115		ug/L			415168	414592	2	Standard
|	Ag	107	0.000	ug/L	0.001	12572	37	37	36	Standard
[>	Tb	159		ug/L			170846	169619	2	Standard
|	Pb	208	-0.000	ug/L	0.000	58	364	342	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:14:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	41192	3	Standard
[>	Sc	45		ug/L			489773	537924	1	Standard
|	Cr	52	17.195	ug/L	0.038	0	8505	260259	1	Standard
|	Cr	53	17.114	ug/L	0.108	0	60	28878	1	Standard
[>	Ge	72		ug/L			31037	30751	1	KED
|	Cu	63	32.218	ug/L	0.519	1	42	131679	0	KED
|	Cu	65	32.308	ug/L	0.742	2	15	67054	1	KED
|	Zn	66	103.263	ug/L	1.686	1	22	52440	0	KED
|	Zn	67	99.525	ug/L	3.246	3	4	8240	1	KED
|	As	75	24.542	ug/L	0.621	2	3	6077	1	KED
	Y	89		ug/L			38706	170292	1	Standard
	Kr	83		ug/L			31	60	10	Standard
[>	In-1	115		ug/L			6431	6331	1	KED
|	Cd	111	0.161	ug/L	0.013	7	3	40	8	KED
|	Cd	114	0.152	ug/L	0.010	6	0	89	5	KED
[>	In	115		ug/L			415168	437202	2	Standard
|	Ag	107	0.058	ug/L	0.004	6	37	866	3	Standard
[>	Tb	159		ug/L			170846	199684	1	Standard
|	Pb	208	42.091	ug/L	0.667	1	364	4059151	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:19:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	46899	1	Standard
[> Sc	45		ug/L			489773	576312	1	Standard
[Cr	52	13.207	ug/L	0.143	1	8505	216473	1	Standard
[Cr	53	13.305	ug/L	0.255	1	60	24062	1	Standard
[> Ge	72		ug/L			31037	30903	1	KED
[Cu	63	26.300	ug/L	0.203	0	42	108053	1	KED
[Cu	65	26.266	ug/L	0.263	0	15	54801	1	KED
[Zn	66	67.223	ug/L	1.562	2	22	34315	1	KED
[Zn	67	64.105	ug/L	1.911	2	4	5338	3	KED
[As	75	7.939	ug/L	0.077	0	3	1978	2	KED
Y	89		ug/L			38706	227750	2	Standard
Kr	83		ug/L			31	74	23	Standard
[> In-1	115		ug/L			6431	6240	1	KED
[Cd	111	0.262	ug/L	0.029	11	3	62	11	KED
[Cd	114	0.272	ug/L	0.019	6	0	157	8	KED
[> In	115		ug/L			415168	425917	1	Standard
[Ag	107	0.191	ug/L	0.006	3	37	2691	2	Standard
[> Tb	159		ug/L			170846	202880	0	Standard
[Pb	208	11.807	ug/L	0.091	0	364	1157220	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-12**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:23:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	41484	3	Standard
[> Sc	45		ug/L			489773	546627	3	Standard
[Cr	52	9.010	ug/L	0.019	0	8505	143092	3	Standard
[Cr	53	9.160	ug/L	0.059	0	60	15738	3	Standard
[> Ge	72		ug/L			31037	28599	12	KED
[Cu	63	14.960	ug/L	1.707	11	42	56374	1	KED
[Cu	65	14.786	ug/L	1.491	10	15	28324	2	KED
[Zn	66	34.869	ug/L	3.250	9	22	16363	3	KED
[Zn	67	33.803	ug/L	2.720	8	4	2591	6	KED
[As	75	2.476	ug/L	0.217	8	3	569	6	KED
Y	89		ug/L			38706	154862	1	Standard
Kr	83		ug/L			31	59	6	Standard
[> In-1	115		ug/L			6431	6434	6	KED
[Cd	111	0.075	ug/L	0.026	34	3	20	23	KED
[Cd	114	0.103	ug/L	0.042	40	0	60	33	KED
[> In	115		ug/L			415168	445756	1	Standard
[Ag	107	0.045	ug/L	0.002	4	37	696	3	Standard
[> Tb	159		ug/L			170846	199553	2	Standard
[Pb	208	5.418	ug/L	0.046	0	364	522497	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-15**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:27:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	42224	2	Standard
[> Sc	45		ug/L			489773	535637	0	Standard
| Cr	52	9.457	ug/L	0.202	2	8505	146712	2	Standard
| Cr	53	9.378	ug/L	0.119	1	60	15786	1	Standard
[> Ge	72		ug/L			31037	31058	1	KED
| Cu	63	75.439	ug/L	1.685	2	42	311361	1	KED
| Cu	65	74.439	ug/L	0.979	1	15	156046	1	KED
| Zn	66	43.994	ug/L	0.484	1	22	22580	0	KED
| Zn	67	42.128	ug/L	0.370	0	4	3526	0	KED
| As	75	8.261	ug/L	0.192	2	3	2069	3	KED
Y	89		ug/L			38706	139700	1	Standard
Kr	83		ug/L			31	55	3	Standard
[> In-1	115		ug/L			6431	6514	2	KED
| Cd	111	0.032	ug/L	0.007	22	3	10	13	KED
| Cd	114	0.043	ug/L	0.012	28	0	26	28	KED
[> In	115		ug/L			415168	444508	1	Standard
| Ag	107	0.042	ug/L	0.001	2	37	654	2	Standard
[> Tb	159		ug/L			170846	195982	1	Standard
| Pb	208	28.410	ug/L	0.566	1	364	2689074	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-16**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:34:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43330	4	Standard
[> Sc	45		ug/L			489773	543847	1	Standard
[Cr	52	14.647	ug/L	0.188	1	8505	225535	2	Standard
[Cr	53	14.718	ug/L	0.010	0	60	25116	1	Standard
[> Ge	72		ug/L			31037	30556	0	KED
[Cu	63	14.442	ug/L	0.034	0	42	58689	0	KED
[Cu	65	14.013	ug/L	0.412	2	15	28913	2	KED
[Zn	66	41.095	ug/L	0.502	1	22	20756	1	KED
[Zn	67	40.225	ug/L	0.124	0	4	3313	0	KED
[As	75	2.709	ug/L	0.046	1	3	669	1	KED
Y	89		ug/L			38706	151607	1	Standard
Kr	83		ug/L			31	50	19	Standard
[> In-1	115		ug/L			6431	6526	3	KED
[Cd	111	0.069	ug/L	0.014	20	3	19	15	KED
[Cd	114	0.034	ug/L	0.006	16	0	21	19	KED
[> In	115		ug/L			415168	430357	1	Standard
[Ag	107	0.046	ug/L	0.005	11	37	678	8	Standard
[> Tb	159		ug/L			170846	196157	0	Standard
[Pb	208	8.682	ug/L	0.035	0	364	822876	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-17**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:38:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	39815	5	Standard
[> Sc	45		ug/L			489773	532303	1	Standard
[Cr	52	12.534	ug/L	0.232	1	8505	190251	2	Standard
[Cr	53	12.561	ug/L	0.168	1	60	20988	1	Standard
[> Ge	72		ug/L			31037	30796	1	KED
[Cu	63	14.010	ug/L	0.306	2	42	57374	1	KED
[Cu	65	13.817	ug/L	0.060	0	15	28734	0	KED
[Zn	66	45.726	ug/L	0.267	0	22	23273	1	KED
[Zn	67	44.094	ug/L	1.961	4	4	3659	3	KED
[As	75	3.287	ug/L	0.027	0	3	818	0	KED
Y	89		ug/L			38706	134234	3	Standard
Kr	83		ug/L			31	50	15	Standard
[> In-1	115		ug/L			6431	6444	1	KED
[Cd	111	0.048	ug/L	0.004	9	3	14	6	KED
[Cd	114	0.053	ug/L	0.005	9	0	32	9	KED
[> In	115		ug/L			415168	439159	1	Standard
[Ag	107	0.041	ug/L	0.002	5	37	619	4	Standard
[> Tb	159		ug/L			170846	196027	0	Standard
[Pb	208	19.957	ug/L	0.049	0	364	1889730	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-18**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:43:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	50409	2	Standard
[> Sc	45		ug/L			489773	544792	1	Standard
[Cr	52	7.985	ug/L	0.015	0	8505	127459	1	Standard
[Cr	53	8.110	ug/L	0.084	1	60	13892	1	Standard
[> Ge	72		ug/L			31037	30737	1	KED
[Cu	63	15.977	ug/L	0.152	0	42	65303	0	KED
[Cu	65	16.043	ug/L	0.241	1	15	33296	0	KED
[Zn	66	16.443	ug/L	0.313	1	22	8366	0	KED
[Zn	67	16.934	ug/L	0.147	0	4	1405	1	KED
[As	75	3.950	ug/L	0.069	1	3	980	0	KED
Y	89		ug/L			38706	126181	1	Standard
Kr	83		ug/L			31	52	5	Standard
[> In-1	115		ug/L			6431	6406	2	KED
[Cd	111	0.022	ug/L	0.018	80	3	8	48	KED
[Cd	114	0.022	ug/L	0.003	15	0	13	15	KED
[> In	115		ug/L			415168	442957	1	Standard
[Ag	107	0.047	ug/L	0.000	0	37	723	1	Standard
[> Tb	159		ug/L			170846	195223	1	Standard
[Pb	208	4.130	ug/L	0.011	0	364	389818	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-19**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:47:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	37159	5	Standard
[> Sc	45		ug/L			489773	548709	2	Standard
[Cr	52	15.393	ug/L	0.345	2	8505	238573	0	Standard
[Cr	53	15.508	ug/L	0.188	1	60	26691	1	Standard
[> Ge	72		ug/L			31037	30172	1	KED
[Cu	63	48.799	ug/L	0.476	0	42	195698	0	KED
[Cu	65	48.099	ug/L	0.245	0	15	97965	1	KED
[Zn	66	140.370	ug/L	0.622	0	22	69950	1	KED
[Zn	67	133.546	ug/L	3.576	2	4	10852	3	KED
[As	75	15.238	ug/L	0.247	1	3	3703	0	KED
Y	89		ug/L			38706	186543	3	Standard
Kr	83		ug/L			31	55	5	Standard
[> In-1	115		ug/L			6431	6548	1	KED
[Cd	111	0.120	ug/L	0.036	30	3	31	27	KED
[Cd	114	0.071	ug/L	0.012	16	0	43	16	KED
[> In	115		ug/L			415168	438647	1	Standard
[Ag	107	0.043	ug/L	0.002	5	37	652	6	Standard
[> Tb	159		ug/L			170846	199150	1	Standard
[Pb	208	28.845	ug/L	0.420	1	364	2774307	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-22**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Friday, May 12, 2023 00:51:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	43064	3	Standard
[> Sc	45		ug/L			489773	558439	1	Standard
[Cr	52	44.150	ug/L	0.302	0	8505	678482	0	Standard
[Cr	53	43.988	ug/L	0.585	1	60	76948	2	Standard
[> Ge	72		ug/L			31037	30590	0	KED
[Cu	63	595.340	ug/L	7.490	1	42	2420198	1	KED
[Cu	65	551.170	ug/L	3.704	0	15	1137954	0	KED
[Zn	66	207.307	ug/L	3.398	1	22	104721	1	KED
[Zn	67	197.681	ug/L	3.122	1	4	16283	1	KED
[As	75	8.626	ug/L	0.068	0	3	2127	1	KED
Y	89		ug/L			38706	220432	1	Standard
Kr	83		ug/L			31	66	9	Standard
[> In-1	115		ug/L			6431	6200	1	KED
[Cd	111	0.300	ug/L	0.036	12	3	70	10	KED
[Cd	114	0.328	ug/L	0.046	14	0	188	15	KED
[> In	115		ug/L			415168	414710	1	Standard
[Ag	107	0.141	ug/L	0.008	5	37	1944	7	Standard
[> Tb	159		ug/L			170846	198068	1	Standard
[Pb	208	104.657	ug/L	2.616	2	364	10008661	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 00:56:10

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31692	4	Standard
[>	Sc	45	ug/L			489773	462144	1	Standard
|	Cr	52	ug/L	0.008	38	8505	8304	2	Standard
|	Cr	53	ug/L	0.003	82	60	52	6	Standard
[>	Ge	72	ug/L			31037	30135	0	KED
|	Cu	63	ug/L	0.005	9	42	253	7	KED
|	Cu	65	ug/L	0.004	7	15	137	6	KED
|	Zn	66	ug/L	0.016	49	22	38	20	KED
|	Zn	67	ug/L	0.076	300	4	6	96	KED
|	As	75	ug/L	0.002	185	3	3	14	KED
	Y	89	ug/L			38706	38668	3	Standard
	Kr	83	ug/L			31	33	37	Standard
[>	In-1	115	ug/L			6431	6204	1	KED
|	Cd	111	ug/L	0.002	29	3	1	43	KED
|	Cd	114	ug/L	0.002	38	0	2	32	KED
[>	In	115	ug/L			415168	416951	4	Standard
|	Ag	107	ug/L	0.000	21	37	13	34	Standard
[>	Tb	159	ug/L			170846	171074	0	Standard
|	Pb	208	ug/L	0.000	20	364	461	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:00:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28687	6	Standard
[> Sc	45		ug/L			489773	479894	2	Standard
| Cr	52	48.044	ug/L	0.832	1	8505	633573	1	Standard
| Cr	53	48.145	ug/L	0.311	0	60	72354	2	Standard
[> Ge	72		ug/L			31037	30420	1	KED
| Cu	63	50.248	ug/L	1.371	2	42	203123	1	KED
| Cu	65	49.783	ug/L	0.973	1	15	102219	1	KED
| Zn	66	50.436	ug/L	1.595	3	22	25347	2	KED
| Zn	67	52.050	ug/L	1.297	2	4	4266	0	KED
| As	75	49.192	ug/L	0.767	1	3	12048	0	KED
Y	89		ug/L			38706	39850	1	Standard
Kr	83		ug/L			31	45	7	Standard
[> In-1	115		ug/L			6431	6340	1	KED
| Cd	111	48.689	ug/L	0.297	0	3	11168	1	KED
| Cd	114	49.469	ug/L	1.021	2	0	28938	0	KED
[> In	115		ug/L			415168	415978	1	Standard
| Ag	107	48.907	ug/L	0.542	1	37	662378	1	Standard
[> Tb	159		ug/L			170846	177816	0	Standard
| Pb	208	49.451	ug/L	0.721	1	364	4246608	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:07:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	27566	2	Standard
[>	Sc	45	ug/L			489773	475006	1	Standard
|	Cr	52	ug/L	0.008	216	8505	8199	2	Standard
|	Cr	53	ug/L	0.008	92	60	46	26	Standard
[>	Ge	72	ug/L			31037	29889	0	KED
|	Cu	63	ug/L	0.007	50	42	95	28	KED
|	Cu	65	ug/L	0.004	21	15	53	15	KED
|	Zn	66	ug/L	0.017	125	22	28	29	KED
|	Zn	67	ug/L	0.037	360	4	5	57	KED
|	As	75	ug/L	0.006	1348	3	3	48	KED
	Y	89	ug/L			38706	38925	1	Standard
	Kr	83	ug/L			31	48	8	Standard
[>	In-1	115	ug/L			6431	6244	0	KED
|	Cd	111	ug/L	0.010	161	3	4	49	KED
|	Cd	114	ug/L	0.002	185	0	1	102	KED
[>	In	115	ug/L			415168	430066	1	Standard
|	Ag	107	ug/L	0.001	220	37	32	45	Standard
[>	Tb	159	ug/L			170846	168062	0	Standard
|	Pb	208	ug/L	0.000	17	364	328	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04RE1**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:12:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	30551	4	Standard
[>	Sc	45	ug/L			489773	472324	2	Standard
|	Cr	52	ug/L	0.022	2	8505	21019	2	Standard
|	Cr	53	ug/L	0.006	0	60	1541	1	Standard
[>	Ge	72	ug/L			31037	30398	2	KED
|	Cu	63	ug/L	0.761	2	42	116874	0	KED
|	Cu	65	ug/L	0.186	0	15	60048	3	KED
|	Zn	66	ug/L	1.525	1	22	43982	1	KED
|	Zn	67	ug/L	1.102	1	4	6870	1	KED
|	As	75	ug/L	0.373	3	3	2915	1	KED
	Y	89	ug/L			38706	41079	3	Standard
	Kr	83	ug/L			31	46	31	Standard
[>	In-1	115	ug/L			6431	6427	0	KED
|	Cd	111	ug/L	0.014	23	3	16	18	KED
|	Cd	114	ug/L	0.014	20	0	41	20	KED
[>	In	115	ug/L			415168	427647	2	Standard
|	Ag	107	ug/L	0.002	9	37	274	10	Standard
[>	Tb	159	ug/L			170846	174643	0	Standard
|	Pb	208	ug/L	0.110	0	364	968692	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:16:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30898	3	Standard
[> Sc	45		ug/L			489773	488984	1	Standard
| Cr	52	0.958	ug/L	0.014	1	8505	21205	2	Standard
| Cr	53	0.982	ug/L	0.028	2	60	1564	3	Standard
[> Ge	72		ug/L			31037	31407	0	KED
| Cu	63	31.207	ug/L	0.191	0	42	130300	1	KED
| Cu	65	30.125	ug/L	0.377	1	15	63877	1	KED
| Zn	66	86.830	ug/L	0.595	0	22	45047	0	KED
| Zn	67	84.346	ug/L	1.688	2	4	7135	1	KED
| As	75	11.642	ug/L	0.015	0	3	2946	0	KED
Y	89		ug/L			38706	43238	2	Standard
Kr	83		ug/L			31	40	2	Standard
[> In-1	115		ug/L			6431	6515	3	KED
| Cd	111	0.052	ug/L	0.019	36	3	15	30	KED
| Cd	114	0.078	ug/L	0.002	2	0	47	1	KED
[> In	115		ug/L			415168	444475	1	Standard
| Ag	107	0.016	ug/L	0.002	10	37	276	7	Standard
[> Tb	159		ug/L			170846	175642	1	Standard
| Pb	208	11.306	ug/L	0.135	1	364	959316	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:20:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30807	4	Standard
[> Sc	45		ug/L			489773	490648	1	Standard
| Cr	52	1.258	ug/L	0.023	1	8505	25260	2	Standard
| Cr	53	1.264	ug/L	0.044	3	60	2001	3	Standard
[> Ge	72		ug/L			31037	31055	2	KED
| Cu STL	63	33.693	ug/L	0.891	2	42	139054	2	KED
| Cu	65	33.044	ug/L	0.837	2	15	69247	0	KED
| Zn STL	66	94.281	ug/L	1.711	1	22	48349	0	KED
| Zn	67	86.973	ug/L	1.658	1	4	7273	0	KED
| As	75	12.936	ug/L	0.137	1	3	3237	2	KED
Y	89		ug/L			38706	42287	1	Standard
Kr	83		ug/L			31	35	18	Standard
[> In-1	115		ug/L			6431	6456	2	KED
| Cd	111	0.280	ug/L	0.068	24	3	68	24	KED
| Cd	114	0.306	ug/L	0.047	15	0	182	13	KED
[> In	115		ug/L			415168	450507	2	Standard
| Ag	107	0.101	ug/L	0.002	2	37	1523	3	Standard
[> Tb	159		ug/L			170846	179202	1	Standard
| Pb	208	11.787	ug/L	0.139	1	364	1020315	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD3**

Sample Dil Factor: **2000**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:25:04**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30391	3	Standard
[> Sc	45		ug/L			489773	486050	0	Standard
| Cr	52	1.289	ug/L	0.016	1	8505	25435	0	Standard
| Cr	53	1.272	ug/L	0.034	2	60	1995	2	Standard
[> Ge	72		ug/L			31037	30597	0	KED
| Cu STL	63	31.232	ug/L	0.304	0	42	127032	0	KED
| Cu	65	30.820	ug/L	0.571	1	15	63657	1	KED
| Zn STL	66	95.342	ug/L	2.089	2	22	48183	1	KED
| Zn	67	92.251	ug/L	0.612	0	4	7603	0	KED
| As	75	14.360	ug/L	0.327	2	3	3539	1	KED
Y	89		ug/L			38706	43671	3	Standard
Kr	83		ug/L			31	26	14	Standard
[> In-1	115		ug/L			6431	6440	1	KED
| Cd	111	0.295	ug/L	0.047	15	3	71	14	KED
| Cd	114	0.338	ug/L	0.041	12	0	201	11	KED
[> In	115		ug/L			415168	449398	1	Standard
| Ag	107	0.102	ug/L	0.001	1	37	1530	2	Standard
[> Tb	159		ug/L			170846	179486	1	Standard
| Pb	208	12.545	ug/L	0.158	1	364	1087663	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-04**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:29:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30631	5	Standard
[> Sc	45		ug/L			489773	493335	3	Standard
| Cr	52	9.547	ug/L	0.169	1	8505	136286	1	Standard
| Cr	53	9.509	ug/L	0.285	2	60	14734	2	Standard
[> Ge	72		ug/L			31037	31482	0	KED
| Cu	63	281.221	ug/L	1.937	0	42	1176615	0	KED
| Cu	65	277.319	ug/L	2.161	0	15	589274	0	KED
| Zn	66	852.097	ug/L	9.023	1	22	442931	1	KED
| Zn	67	803.366	ug/L	16.409	2	4	68094	2	KED
| As	75	115.076	ug/L	0.981	0	3	29167	0	KED
Y	89		ug/L			38706	61146	0	Standard
Kr	83		ug/L			31	47	8	Standard
[> In-1	115		ug/L			6431	7352	1	KED
| Cd	111	0.508	ug/L	0.035	6	3	138	5	KED
| Cd	114	0.493	ug/L	0.037	7	0	334	6	KED
[> In	115		ug/L			415168	503740	1	Standard
| Ag	107	0.156	ug/L	0.005	3	37	2600	2	Standard
[> Tb	159		ug/L			170846	182208	1	Standard
| Pb	208	115.229	ug/L	1.114	0	364	10140173	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-DUP2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:34:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30139	3	Standard
[> Sc	45		ug/L			489773	482233	0	Standard
| Cr	52	9.224	ug/L	0.039	0	8505	129036	0	Standard
| Cr	53	9.294	ug/L	0.107	1	60	14085	0	Standard
[> Ge	72		ug/L			31037	31019	0	KED
| Cu	63	296.799	ug/L	8.170	2	42	1223536	2	KED
| Cu	65	290.840	ug/L	4.591	1	15	608916	1	KED
| Zn	66	837.327	ug/L	7.595	0	22	428850	0	KED
| Zn	67	797.723	ug/L	16.671	2	4	66622	2	KED
| As	75	113.575	ug/L	1.088	0	3	28363	0	KED
| Y	89		ug/L			38706	62481	1	Standard
| Kr	83		ug/L			31	47	6	Standard
[> In-1	115		ug/L			6431	7466	2	KED
| Cd	111	0.597	ug/L	0.075	12	3	164	11	KED
| Cd	114	0.556	ug/L	0.063	11	0	384	12	KED
[> In	115		ug/L			415168	489865	2	Standard
| Ag	107	0.164	ug/L	0.005	3	37	2658	4	Standard
[> Tb	159		ug/L			170846	177530	2	Standard
| Pb	208	114.260	ug/L	2.317	2	364	9793943	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MS2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:38:51**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29199	3	Standard
[> Sc	45		ug/L			489773	481935	1	Standard
[Cr	52	12.086	ug/L	0.171	1	8505	166389	2	Standard
[Cr	53	12.337	ug/L	0.230	1	60	18663	1	Standard
[> Ge	72		ug/L			31037	30385	2	KED
[Cu	63	324.911	ug/L	8.767	2	42	1311520	1	KED
[Cu	65	320.907	ug/L	4.283	1	15	657992	1	KED
[Zn	66	913.322	ug/L	20.769	2	22	458051	0	KED
[Zn	67	843.494	ug/L	16.438	1	4	68983	0	KED
[As STL	75	126.687	ug/L	2.649	2	3	30981	0	KED
[Y	89		ug/L			38706	60811	5	Standard
[Kr	83		ug/L			31	49	7	Standard
[> In-1	115		ug/L			6431	7279	1	KED
[Cd	111	2.577	ug/L	0.147	5	3	681	4	KED
[Cd	114	2.545	ug/L	0.104	4	0	1709	2	KED
[> In	115		ug/L			415168	491629	0	Standard
[Ag	107	0.914	ug/L	0.033	3	37	14672	3	Standard
[> Tb	159		ug/L			170846	175848	2	Standard
[Pb STL	208	123.651	ug/L	2.529	2	364	10499446	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-MSD2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:43:36**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29253	2	Standard
[> Sc	45		ug/L			489773	478491	1	Standard
[Cr	52	12.000	ug/L	0.155	1	8505	164058	1	Standard
[Cr	53	12.342	ug/L	0.018	0	60	18540	1	Standard
[> Ge	72		ug/L			31037	29516	1	KED
[Cu	63	298.398	ug/L	6.261	2	42	1170402	1	KED
[Cu	65	299.647	ug/L	9.493	3	15	596840	2	KED
[Zn	66	934.941	ug/L	10.807	1	22	455607	0	KED
[Zn	67	876.581	ug/L	20.255	2	4	69647	1	KED
[As STL	75	139.598	ug/L	2.184	1	3	33169	0	KED
[Y	89		ug/L			38706	61352	0	Standard
[Kr	83		ug/L			31	49	0	Standard
[> In-1	115		ug/L			6431	7369	0	KED
[Cd	111	2.591	ug/L	0.172	6	3	694	6	KED
[Cd	114	2.626	ug/L	0.197	7	0	1786	8	KED
[> In	115		ug/L			415168	485755	2	Standard
[Ag	107	0.915	ug/L	0.014	1	37	14513	1	Standard
[> Tb	159		ug/L			170846	177756	1	Standard
[Pb STL	208	127.749	ug/L	2.128	1	364	10965682	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0072-PS2**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 01:49:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30713	3	Standard
[> Sc	45		ug/L			489773	480926	2	Standard
| Cr	52	33.128	ug/L	0.619	1	8505	440421	1	Standard
| Cr	53	33.458	ug/L	0.662	1	60	50398	0	Standard
[> Ge	72		ug/L			31037	29561	0	KED
| Cu	63	308.592	ug/L	4.739	1	42	1212252	0	KED
| Cu	65	304.340	ug/L	5.202	1	15	607177	0	KED
| Zn	66	946.721	ug/L	8.030	0	22	462068	0	KED
| Zn	67	878.577	ug/L	8.175	0	4	69928	1	KED
| As	75	140.870	ug/L	1.866	1	3	33524	0	KED
Y	89		ug/L			38706	65298	1	Standard
Kr	83		ug/L			31	56	10	Standard
[> In-1	115		ug/L			6431	6960	1	KED
| Cd	111	22.267	ug/L	0.592	2	3	5608	2	KED
| Cd	114	22.783	ug/L	0.148	0	0	14632	0	KED
[> In	115		ug/L			415168	488552	0	Standard
| Ag	107	22.205	ug/L	0.197	0	37	353249	0	Standard
[> Tb	159		ug/L			170846	174800	0	Standard
| Pb	208	146.960	ug/L	0.816	0	364	12406204	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:54:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	29657	1	Standard
[> Sc	45		ug/L			489773	453739	1	Standard
| Cr	52	0.003	ug/L	0.008	251	8505	7919	1	Standard
| Cr	53	-0.012	ug/L	0.002	16	60	39	6	Standard
[> Ge	72		ug/L			31037	28655	1	KED
| Cu	63	0.053	ug/L	0.003	5	42	242	5	KED
| Cu	65	0.049	ug/L	0.002	4	15	109	2	KED
| Zn	66	0.043	ug/L	0.013	29	22	41	14	KED
| Zn	67	0.013	ug/L	0.029	227	4	5	43	KED
| As	75	0.018	ug/L	0.009	50	3	7	29	KED
Y	89		ug/L			38706	39024	2	Standard
Kr	83		ug/L			31	44	19	Standard
[> In-1	115		ug/L			6431	6089	2	KED
| Cd	111	-0.002	ug/L	0.005	222	3	2	43	KED
| Cd	114	0.009	ug/L	0.015	166	0	5	151	KED
[> In	115		ug/L			415168	420505	1	Standard
| Ag	107	0.000	ug/L	0.001	261	37	40	17	Standard
[> Tb	159		ug/L			170846	168070	1	Standard
| Pb	208	0.002	ug/L	0.000	11	364	556	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 01:58:24

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	28472	1	Standard
[> Sc	45		ug/L			489773	474949	1	Standard
| Cr	52	47.965	ug/L	0.470	0	8505	626152	1	Standard
| Cr	53	47.875	ug/L	0.742	1	60	71220	2	Standard
[> Ge	72		ug/L			31037	29215	0	KED
| Cu	63	50.335	ug/L	0.996	1	42	195466	1	KED
| Cu	65	50.159	ug/L	1.239	2	15	98918	2	KED
| Zn	66	49.688	ug/L	0.599	1	22	23989	1	KED
| Zn	67	50.926	ug/L	2.453	4	4	4010	5	KED
| As	75	50.121	ug/L	0.499	0	3	11791	0	KED
Y	89		ug/L			38706	40881	2	Standard
Kr	83		ug/L			31	43	18	Standard
[> In-1	115		ug/L			6431	6076	4	KED
| Cd	111	49.124	ug/L	0.705	1	3	10793	3	KED
| Cd	114	49.453	ug/L	1.521	3	0	27702	1	KED
[> In	115		ug/L			415168	418925	2	Standard
| Ag	107	49.536	ug/L	1.188	2	37	675500	1	Standard
[> Tb	159		ug/L			170846	174901	0	Standard
| Pb	208	50.663	ug/L	0.504	0	364	4279485	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:05:31

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	26731	1	Standard
[> Sc	45		ug/L			489773	453624	3	Standard
| Cr	52	0.014	ug/L	0.017	125	8505	8044	1	Standard
| Cr	53	0.002	ug/L	0.005	261	60	59	11	Standard
[> Ge	72		ug/L			31037	29444	1	KED
| Cu	63	0.032	ug/L	0.005	15	42	165	12	KED
| Cu	65	0.029	ug/L	0.003	11	15	71	9	KED
| Zn	66	0.025	ug/L	0.016	65	22	33	23	KED
| Zn	67	-0.021	ug/L	0.036	168	4	2	114	KED
| As	75	-0.001	ug/L	0.004	330	3	2	36	KED
Y	89		ug/L			38706	38946	2	Standard
Kr	83		ug/L			31	37	32	Standard
[> In-1	115		ug/L			6431	6118	1	KED
| Cd	111	-0.002	ug/L	0.007	303	3	2	57	KED
| Cd	114	0.004	ug/L	0.002	39	0	2	34	KED
[> In	115		ug/L			415168	413830	2	Standard
| Ag	107	0.000	ug/L	0.001	422	37	39	21	Standard
[> Tb	159		ug/L			170846	164294	1	Standard
| Pb	208	0.001	ug/L	0.000	30	364	455	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-03RE1**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:09:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	30624	3	Standard
[> Sc	45		ug/L			489773	487192	2	Standard
| Cr	52	3.273	ug/L	0.129	3	8505	51694	1	Standard
| Cr	53	3.350	ug/L	0.083	2	60	5165	0	Standard
[> Ge	72		ug/L			31037	29906	1	KED
| Cu	63	13.945	ug/L	0.345	2	42	55451	1	KED
| Cu	65	13.640	ug/L	0.160	1	15	27545	0	KED
| Zn	66	18.522	ug/L	0.095	0	22	9167	0	KED
| Zn	67	17.125	ug/L	0.234	1	4	1382	0	KED
| As	75	1.939	ug/L	0.093	4	3	470	5	KED
Y	89		ug/L			38706	51426	1	Standard
Kr	83		ug/L			31	39	7	Standard
[> In-1	115		ug/L			6431	6213	2	KED
| Cd	111	1.349	ug/L	0.021	1	3	306	3	KED
| Cd	114	1.338	ug/L	0.052	3	0	767	4	KED
[> In	115		ug/L			415168	433493	2	Standard
| Ag	107	0.013	ug/L	0.001	7	37	228	4	Standard
[> Tb	159		ug/L			170846	176763	1	Standard
| Pb	208	78.292	ug/L	0.952	1	364	6682947	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-07RE1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:14:09**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	35262	3	Standard
[> Sc	45		ug/L			489773	498833	2	Standard
| Cr	52	6.919	ug/L	0.161	2	8505	102262	1	Standard
| Cr	53	7.160	ug/L	0.284	3	60	11232	1	Standard
[> Ge	72		ug/L			31037	29425	2	KED
| Cu	63	21.746	ug/L	0.149	0	42	85074	2	KED
| Cu	65	21.605	ug/L	0.331	1	15	42917	2	KED
| Zn	66	78.657	ug/L	1.499	1	22	38225	0	KED
| Zn	67	75.072	ug/L	3.238	4	4	5947	1	KED
| As	75	2.013	ug/L	0.032	1	3	479	1	KED
Y	89		ug/L			38706	110324	2	Standard
Kr	83		ug/L			31	43	5	Standard
[> In-1	115		ug/L			6431	6245	0	KED
| Cd	111	0.158	ug/L	0.056	35	3	38	31	KED
| Cd	114	0.213	ug/L	0.003	1	0	122	2	KED
[> In	115		ug/L			415168	417940	1	Standard
| Ag	107	0.054	ug/L	0.002	3	37	767	1	Standard
[> Tb	159		ug/L			170846	184577	1	Standard
| Pb	208	10.989	ug/L	0.080	0	364	979909	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0568-08RE1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:18:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	31596	3	Standard
[>	Sc	45	ug/L			489773	517960	2	Standard
|	Cr	8.543	ug/L	0.115	1	8505	129008	2	Standard
|	Cr	8.743	ug/L	0.132	1	60	14233	2	Standard
[>	Ge	72	ug/L			31037	29166	1	KED
|	Cu	65.938	ug/L	0.910	1	42	255577	0	KED
|	Cu	66.039	ug/L	2.091	3	15	129965	1	KED
|	Zn	30.904	ug/L	1.722	5	22	14892	3	KED
|	Zn	29.801	ug/L	1.213	4	4	2343	2	KED
|	As	0.908	ug/L	0.052	5	3	216	3	KED
	Y	89	ug/L			38706	155291	2	Standard
	Kr	83	ug/L			31	84	7	Standard
[>	In-1	115	ug/L			6431	5942	1	KED
|	Cd	0.044	ug/L	0.019	43	3	12	33	KED
|	Cd	0.065	ug/L	0.016	24	0	35	23	KED
[>	In	115	ug/L			415168	407971	1	Standard
|	Ag	0.050	ug/L	0.006	11	37	695	10	Standard
[>	Tb	159	ug/L			170846	188018	3	Standard
|	Pb	5.214	ug/L	0.135	2	364	473576	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-DUP2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:22:46**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	32188	4	Standard
[> Sc	45		ug/L			489773	514224	0	Standard
| Cr	52	8.460	ug/L	0.137	1	8505	126940	1	Standard
| Cr	53	8.562	ug/L	0.143	1	60	13842	1	Standard
[> Ge	72		ug/L			31037	28889	0	KED
| Cu	63	67.265	ug/L	0.792	1	42	258273	0	KED
| Cu	65	68.236	ug/L	0.153	0	15	133063	0	KED
| Zn	66	31.600	ug/L	0.647	2	22	15092	1	KED
| Zn	67	30.536	ug/L	1.112	3	4	2379	3	KED
| As	75	1.361	ug/L	0.052	3	3	319	3	KED
Y	89		ug/L			38706	163418	3	Standard
Kr	83		ug/L			31	85	25	Standard
[> In-1	115		ug/L			6431	5786	1	KED
| Cd	111	0.070	ug/L	0.027	38	3	17	33	KED
| Cd	114	0.068	ug/L	0.017	25	0	36	26	KED
[> In	115		ug/L			415168	413285	2	Standard
| Ag	107	0.063	ug/L	0.006	9	37	889	6	Standard
[> Tb	159		ug/L			170846	188901	1	Standard
| Pb	208	6.697	ug/L	0.064	0	364	611329	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MS2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:27:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	31313	3	Standard
[> Sc	45		ug/L			489773	510684	2	Standard
| Cr	52	18.655	ug/L	0.323	1	8505	267255	1	Standard
| Cr	53	18.746	ug/L	0.348	1	60	30022	2	Standard
[> Ge	72		ug/L			31037	28790	1	KED
| Cu	63	76.495	ug/L	0.327	0	42	292713	1	KED
| Cu	65	76.368	ug/L	0.858	1	15	148397	0	KED
| Zn	66	60.624	ug/L	0.247	0	22	28838	1	KED
| Zn	67	56.389	ug/L	2.283	4	4	4375	4	KED
| As	75	9.360	ug/L	0.068	0	3	2172	0	KED
Y	89		ug/L			38706	166225	3	Standard
Kr	83		ug/L			31	65	24	Standard
[> In-1	115		ug/L			6431	5934	1	KED
| Cd	111	10.090	ug/L	0.243	2	3	2168	2	KED
| Cd	114	10.347	ug/L	0.182	1	0	5666	1	KED
[> In	115		ug/L			415168	407600	1	Standard
| Ag	107	9.938	ug/L	0.212	2	37	131911	1	Standard
[> Tb	159		ug/L			170846	186852	1	Standard
| Pb	208	13.748	ug/L	0.170	1	364	1240887	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0143-MSD2**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Friday, May 12, 2023 02:31:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			28285	31044	4	Standard
[>	Sc	45		ug/L			489773	518699	1	Standard
|	Cr	52	17.572	ug/L	0.147	0	8505	256239	1	Standard
|	Cr	53	17.644	ug/L	0.164	0	60	28701	1	Standard
[>	Ge	72		ug/L			31037	29185	0	KED
|	Cu	63	69.683	ug/L	0.325	0	42	270307	0	KED
|	Cu	65	68.472	ug/L	1.336	1	15	134892	2	KED
|	Zn	66	64.007	ug/L	1.086	1	22	30862	1	KED
|	Zn	67	63.315	ug/L	1.110	1	4	4978	1	KED
|	As	75	8.715	ug/L	0.136	1	3	2050	1	KED
	Y	89		ug/L			38706	175850	1	Standard
	Kr	83		ug/L			31	71	8	Standard
[>	In-1	115		ug/L			6431	6045	1	KED
|	Cd	111	10.400	ug/L	0.308	2	3	2276	1	KED
|	Cd	114	10.110	ug/L	0.094	0	0	5640	2	KED
[>	In	115		ug/L			415168	412014	1	Standard
|	Ag	107	9.935	ug/L	0.244	2	37	133316	2	Standard
[>	Tb	159		ug/L			170846	191323	0	Standard
|	Pb	208	14.236	ug/L	0.104	0	364	1315763	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:36:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	30359	5	Standard
[>	Sc	45	ug/L			489773	453998	1	Standard
|	Cr	52	0.007	0.007	104	8505	7970	1	Standard
|	Cr	53	-0.007	0.007	105	60	46	21	Standard
[>	Ge	72	ug/L			31037	28893	1	KED
|	Cu	63	0.016	0.002	12	42	100	8	KED
|	Cu	65	0.013	0.004	30	15	40	17	KED
|	Zn	66	0.014	0.009	66	22	27	14	KED
|	Zn	67	0.037	0.077	206	4	6	83	KED
|	As	75	-0.006	0.006	96	3	1	100	KED
	Y	89	ug/L			38706	38306	2	Standard
	Kr	83	ug/L			31	40	33	Standard
[>	In-1	115	ug/L			6431	5811	3	KED
|	Cd	111	-0.002	0.003	193	3	2	21	KED
|	Cd	114	0.001	0.004	309	0	1	188	KED
[>	In	115	ug/L			415168	413827	1	Standard
|	Ag	107	-0.001	0.001	151	37	29	43	Standard
[>	Tb	159	ug/L			170846	166016	1	Standard
|	Pb	208	-0.000	0.000	68	364	330	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-02

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 02:40:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	45434	2	Standard
[> Sc	45		ug/L			489773	482968	3	Standard
| Cr	52	2.353	ug/L	0.019	0	8505	39210	2	Standard
| Cr	53	2.336	ug/L	0.038	1	60	3590	3	Standard
[> Ge	72		ug/L			31037	29490	1	KED
| Cu	63	7.628	ug/L	0.205	2	42	29929	1	KED
| Cu	65	7.670	ug/L	0.201	2	15	15279	2	KED
| Zn	66	15.420	ug/L	0.323	2	22	7528	0	KED
| Zn	67	15.652	ug/L	0.735	4	4	1247	5	KED
| As	75	2.343	ug/L	0.048	2	3	559	1	KED
Y	89		ug/L			38706	70245	4	Standard
Kr	83		ug/L			31	35	3	Standard
[> In-1	115		ug/L			6431	6169	1	KED
| Cd	111	0.026	ug/L	0.011	43	3	8	26	KED
| Cd	114	0.028	ug/L	0.007	26	0	16	23	KED
[> In	115		ug/L			415168	420907	1	Standard
| Ag	107	0.034	ug/L	0.002	6	37	505	5	Standard
[> Tb	159		ug/L			170846	177257	1	Standard
| Pb	208	2.067	ug/L	0.021	0	364	177307	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-03

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 02:48:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	33604	1	Standard
[> Sc	45		ug/L			489773	487278	2	Standard
| Cr	52	2.160	ug/L	0.027	1	8505	37006	1	Standard
| Cr	53	2.152	ug/L	0.038	1	60	3341	1	Standard
[> Ge	72		ug/L			31037	30046	1	KED
| Cu	63	8.181	ug/L	0.073	0	42	32709	1	KED
| Cu	65	8.188	ug/L	0.175	2	15	16622	3	KED
| Zn	66	14.978	ug/L	0.559	3	22	7450	2	KED
| Zn	67	15.756	ug/L	0.427	2	4	1278	2	KED
| As	75	1.829	ug/L	0.095	5	3	445	6	KED
Y	89		ug/L			38706	83285	1	Standard
Kr	83		ug/L			31	36	10	Standard
[> In-1	115		ug/L			6431	6234	1	KED
| Cd	111	0.016	ug/L	0.008	48	3	6	24	KED
| Cd	114	0.021	ug/L	0.012	57	0	12	54	KED
[> In	115		ug/L			415168	418765	2	Standard
| Ag	107	0.023	ug/L	0.001	3	37	356	0	Standard
[> Tb	159		ug/L			170846	178718	0	Standard
| Pb	208	2.555	ug/L	0.004	0	364	220947	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 02:56:03

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			28285	30836	3	Standard
[>	Sc	45	ug/L			489773	469752	4	Standard
|	Cr	52	ug/L	0.010	348	8505	8120	3	Standard
|	Cr	53	ug/L	0.004	62	60	49	15	Standard
[>	Ge	72	ug/L			31037	29085	0	KED
|	Cu	63	ug/L	0.003	17	42	104	10	KED
|	Cu	65	ug/L	0.002	8	15	52	5	KED
|	Zn	66	ug/L	0.002	14	22	27	3	KED
|	Zn	67	ug/L	0.014	68	4	2	43	KED
|	As	75	ug/L	0.003	42	3	1	57	KED
	Y	89	ug/L			38706	40136	2	Standard
	Kr	83	ug/L			31	29	24	Standard
[>	In-1	115	ug/L			6431	6211	3	KED
|	Cd	111	ug/L	0.012	1346	3	2	88	KED
|	Cd	114	ug/L	0.002	61	0	2	47	KED
[>	In	115	ug/L			415168	424538	4	Standard
|	Ag	107	ug/L	0.000	9	37	17	11	Standard
[>	Tb	159	ug/L			170846	172024	1	Standard
|	Pb	208	ug/L	0.000	19	364	267	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:00:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	27412	4	Standard
[> Sc	45		ug/L			489773	472142	2	Standard
| Cr	52	48.525	ug/L	0.359	0	8505	629678	2	Standard
| Cr	53	48.055	ug/L	0.480	0	60	71053	1	Standard
[> Ge	72		ug/L			31037	29986	0	KED
| Cu	63	49.546	ug/L	0.423	0	42	197473	0	KED
| Cu	65	49.314	ug/L	0.707	1	15	99822	1	KED
| Zn	66	49.844	ug/L	0.989	1	22	24698	1	KED
| Zn	67	50.845	ug/L	1.890	3	4	4108	3	KED
| As	75	49.357	ug/L	0.317	0	3	11917	0	KED
Y	89		ug/L			38706	40632	1	Standard
Kr	83		ug/L			31	43	11	Standard
[> In-1	115		ug/L			6431	6181	2	KED
| Cd	111	48.743	ug/L	1.451	2	3	10895	1	KED
| Cd	114	49.281	ug/L	1.152	2	0	28100	0	KED
[> In	115		ug/L			415168	420245	0	Standard
| Ag	107	48.692	ug/L	0.848	1	37	666249	1	Standard
[> Tb	159		ug/L			170846	174791	1	Standard
| Pb	208	50.739	ug/L	1.441	2	364	4282243	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:07:55

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			28285	27232	4	Standard
[> Sc	45		ug/L			489773	460997	2	Standard
| Cr	52	-0.015	ug/L	0.013	86	8505	7820	2	Standard
| Cr	53	-0.006	ug/L	0.003	56	60	48	8	Standard
[> Ge	72		ug/L			31037	28836	1	KED
| Cu	63	0.004	ug/L	0.005	138	42	53	37	KED
| Cu	65	0.005	ug/L	0.005	102	15	23	37	KED
| Zn	66	0.056	ug/L	0.019	33	22	47	17	KED
| Zn	67	0.004	ug/L	0.015	360	4	4	24	KED
| As	75	-0.005	ug/L	0.004	88	3	1	50	KED
Y	89		ug/L			38706	38610	2	Standard
Kr	83		ug/L			31	39	48	Standard
[> In-1	115		ug/L			6431	6029	4	KED
| Cd	111	-0.003	ug/L	0.011	312	3	2	107	KED
| Cd	114	0.001	ug/L	0.004	370	0	1	205	KED
[> In	115		ug/L			415168	414487	1	Standard
| Ag	107	0.000	ug/L	0.000	275	37	38	5	Standard
[> Tb	159		ug/L			170846	165442	0	Standard
| Pb	208	0.001	ug/L	0.000	87	364	398	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:12:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				26244	0	Standard
[>	Sc	45	ug/L				448237	0	Standard
|	Cr	52	ug/L				8038	0	Standard
|	Cr	53	ug/L				50	7	Standard
[>	Ge	72	ug/L				28647	1	KED
|	Cu	63	ug/L				51	22	KED
|	Cu	65	ug/L				25	22	KED
|	Zn	66	ug/L				36	18	KED
|	Zn	67	ug/L				6	15	KED
|	As	75	ug/L				2	21	KED
	Y	89	ug/L				38752	1	Standard
	Kr	83	ug/L				40	21	Standard
[>	In-1	115	ug/L				6124	1	KED
|	Cd	111	ug/L				4	48	KED
|	Cd	114	ug/L				3	51	KED
[>	In	115	ug/L				412702	0	Standard
|	Ag	107	ug/L				17	19	Standard
[>	Tb	159	ug/L				165777	0	Standard
|	Pb	208	ug/L				350	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:16:39

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	27528	3	Standard
[> Sc	45		ug/L			448237	465302	1	Standard
| Cr	52	48.195	ug/L	1.071	2	8038	616725	3	Standard
| Cr	53	48.451	ug/L	1.053	2	50	70619	3	Standard
[> Ge	72		ug/L			28647	29088	1	KED
| Cu	63	49.523	ug/L	0.747	1	51	191468	0	KED
| Cu	65	49.587	ug/L	0.811	1	25	97364	0	KED
| Zn	66	50.764	ug/L	1.787	3	36	24410	2	KED
| Zn	67	51.486	ug/L	0.785	1	6	4038	0	KED
| As	75	49.815	ug/L	0.738	1	2	11666	0	KED
Y	89		ug/L			38752	39682	1	Standard
Kr	83		ug/L			40	38	10	Standard
[> In-1	115		ug/L			6124	5986	1	KED
| Cd	111	50.165	ug/L	0.768	1	4	10864	0	KED
| Cd	114	50.376	ug/L	0.553	1	3	27830	1	KED
[> In	115		ug/L			412702	414779	3	Standard
| Ag	107	48.657	ug/L	0.166	0	17	657183	3	Standard
[> Tb	159		ug/L			165777	173047	1	Standard
| Pb	208	51.251	ug/L	0.610	1	350	4282878	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:23:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	27346	3	Standard
[>	Sc	45	ug/L			448237	461077	0	Standard
|	Cr	52	ug/L	0.006	22	8038	7967	1	Standard
|	Cr	53	ug/L	0.003	107	50	47	11	Standard
[>	Ge	72	ug/L			28647	29348	3	KED
|	Cu	63	ug/L	0.002	94	51	45	18	KED
|	Cu	65	ug/L	0.005	131	25	33	27	KED
|	Zn	66	ug/L	0.009	130	36	34	9	KED
|	Zn	67	ug/L	0.016	161	6	6	17	KED
|	As	75	ug/L	0.005	1211	2	2	44	KED
	Y	89	ug/L			38752	38899	0	Standard
	Kr	83	ug/L			40	36	32	Standard
[>	In-1	115	ug/L			6124	6057	3	KED
|	Cd	111	ug/L	0.007	242	4	3	41	KED
|	Cd	114	ug/L	0.003	104	3	1	101	KED
[>	In	115	ug/L			412702	421771	1	Standard
|	Ag	107	ug/L	0.001	50	17	44	31	Standard
[>	Tb	159	ug/L			165777	166182	0	Standard
|	Pb	208	ug/L	0.001	74	350	409	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-05**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:28:07**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	28967	3	Standard
[> Sc	45		ug/L			448237	473662	1	Standard
| Cr	52	6.951	ug/L	0.009	0	8038	97812	1	Standard
| Cr	53	7.122	ug/L	0.149	2	50	10613	3	Standard
[> Ge	72		ug/L			28647	29878	1	KED
| Cu	63	140.074	ug/L	4.444	3	51	556090	2	KED
| Cu	65	137.686	ug/L	3.184	2	25	277626	1	KED
| Zn	66	432.085	ug/L	1.353	0	36	213184	1	KED
| Zn	67	396.702	ug/L	8.330	2	6	31911	1	KED
| As	75	58.904	ug/L	1.212	2	2	14168	1	KED
Y	89		ug/L			38752	55902	2	Standard
Kr	83		ug/L			40	50	26	Standard
[> In-1	115		ug/L			6124	6550	1	KED
| Cd	111	0.239	ug/L	0.038	15	4	60	13	KED
| Cd	114	0.272	ug/L	0.015	5	3	168	6	KED
[> In	115		ug/L			412702	459125	2	Standard
| Ag	107	0.090	ug/L	0.003	3	17	1366	3	Standard
[> Tb	159		ug/L			165777	177424	1	Standard
| Pb	208	56.336	ug/L	1.570	2	350	4826184	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0393-06**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:32:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	30367	2	Standard
[> Sc	45		ug/L			448237	479266	1	Standard
[Cr	52	3.211	ug/L	0.045	1	8038	50334	0	Standard
[Cr	53	3.248	ug/L	0.092	2	50	4923	1	Standard
[> Ge	72		ug/L			28647	30135	1	KED
[Cu	63	50.976	ug/L	0.858	1	51	204186	1	KED
[Cu	65	49.940	ug/L	0.275	0	25	101598	1	KED
[Zn	66	188.164	ug/L	2.067	1	36	93651	0	KED
[Zn	67	176.994	ug/L	2.872	1	6	14365	1	KED
[As	75	26.612	ug/L	0.314	1	2	6457	0	KED
Y	89		ug/L			38752	53142	2	Standard
Kr	83		ug/L			40	43	19	Standard
[> In-1	115		ug/L			6124	6312	2	KED
[Cd	111	0.085	ug/L	0.040	46	4	23	38	KED
[Cd	114	0.093	ug/L	0.015	16	3	58	17	KED
[> In	115		ug/L			412702	435687	2	Standard
[Ag	107	0.036	ug/L	0.001	3	17	523	2	Standard
[> Tb	159		ug/L			165777	175550	0	Standard
[Pb	208	25.843	ug/L	0.460	1	350	2191176	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0393-08

Sample Dil Factor: 200

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 03:40:38

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	31181	3	Standard
[> Sc	45		ug/L			448237	478509	1	Standard
| Cr	52	1.220	ug/L	0.043	3	8038	24407	0	Standard
| Cr	53	1.282	ug/L	0.063	4	50	1973	3	Standard
[> Ge	72		ug/L			28647	30151	1	KED
| Cu	63	6.754	ug/L	0.133	1	51	27113	1	KED
| Cu	65	6.604	ug/L	0.067	1	25	13465	0	KED
| Zn	66	6.390	ug/L	0.314	4	36	3218	3	KED
| Zn	67	6.099	ug/L	0.366	5	6	502	5	KED
| As	75	0.351	ug/L	0.020	5	2	87	6	KED
Y	89		ug/L			38752	50471	3	Standard
Kr	83		ug/L			40	45	8	Standard
[> In-1	115		ug/L			6124	6249	2	KED
| Cd	111	0.001	ug/L	0.007	618	4	4	32	KED
| Cd	114	0.004	ug/L	0.004	79	3	6	34	KED
[> In	115		ug/L			412702	436235	1	Standard
| Ag	107	0.007	ug/L	0.001	18	17	115	17	Standard
[> Tb	159		ug/L			165777	178703	0	Standard
| Pb	208	2.526	ug/L	0.011	0	350	218384	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 03:46:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	30527	5	Standard
[> Sc	45		ug/L			448237	458442	0	Standard
| Cr	52	-0.015	ug/L	0.025	167	8038	8039	3	Standard
| Cr	53	-0.006	ug/L	0.005	93	50	43	18	Standard
[> Ge	72		ug/L			28647	29142	1	KED
| Cu	63	-0.001	ug/L	0.001	98	51	48	8	KED
| Cu	65	-0.002	ug/L	0.002	84	25	22	13	KED
| Zn	66	-0.020	ug/L	0.026	134	36	27	43	KED
| Zn	67	-0.058	ug/L	0.037	63	6	2	114	KED
| As	75	0.000	ug/L	0.004	856	2	2	36	KED
Y	89		ug/L			38752	38600	1	Standard
Kr	83		ug/L			40	36	5	Standard
[> In-1	115		ug/L			6124	6084	3	KED
| Cd	111	-0.001	ug/L	0.005	392	4	3	25	KED
| Cd	114	0.002	ug/L	0.010	432	3	4	111	KED
[> In	115		ug/L			412702	419892	1	Standard
| Ag	107	-0.000	ug/L	0.000	154	17	13	49	Standard
[> Tb	159		ug/L			165777	169399	0	Standard
| Pb	208	-0.001	ug/L	0.001	83	350	293	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:50:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	42650	4	Standard
[>	Sc	45	ug/L			448237	530401	2	Standard
|	Cr	52	ug/L	0.007	5	8038	11239	1	Standard
|	Cr	53	ug/L	0.007	1	50	846	3	Standard
[>	Ge	72	ug/L			28647	28591	0	KED
|	Cu	63	ug/L	0.027	2	51	4951	1	KED
|	Cu	65	ug/L	0.021	1	25	2536	0	KED
|	Zn	66	ug/L	0.052	4	36	645	4	KED
|	Zn	67	ug/L	0.137	9	6	123	8	KED
|	As	75	ug/L	0.024	5	2	114	4	KED
	Y	89	ug/L			38752	47886	3	Standard
	Kr	83	ug/L			40	40	23	Standard
[>	In-1	115	ug/L			6124	5788	1	KED
|	Cd	111	ug/L	0.007	62	4	6	22	KED
|	Cd	114	ug/L	0.004	20	3	12	17	KED
[>	In	115	ug/L			412702	424716	1	Standard
|	Ag	107	ug/L	0.001	132	17	27	48	Standard
[>	Tb	159	ug/L			165777	173082	0	Standard
|	Pb	208	ug/L	0.000	7	350	953	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:55:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36089	1	Standard
[> Sc	45		ug/L			448237	508981	1	Standard
| Cr	52	0.007	ug/L	0.014	208	8038	9222	2	Standard
| Cr	53	0.471	ug/L	0.036	7	50	807	7	Standard
[> Ge	72		ug/L			28647	27519	2	KED
| Cu	63	0.413	ug/L	0.017	4	51	1558	1	KED
| Cu	65	0.399	ug/L	0.054	13	25	765	12	KED
| Zn	66	1.670	ug/L	0.134	8	36	793	6	KED
| Zn	67	1.816	ug/L	0.419	23	6	140	20	KED
| As	75	0.386	ug/L	0.025	6	2	87	3	KED
Y	89		ug/L			38752	41667	3	Standard
Kr	83		ug/L			40	36	7	Standard
[> In-1	115		ug/L			6124	5550	0	KED
| Cd	111	-0.004	ug/L	0.010	220	4	2	66	KED
| Cd	114	0.006	ug/L	0.002	38	3	6	17	KED
[> In	115		ug/L			412702	419007	2	Standard
| Ag	107	0.001	ug/L	0.000	74	17	25	24	Standard
[> Tb	159		ug/L			165777	168327	2	Standard
| Pb	208	0.011	ug/L	0.000	2	350	1228	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 03:59:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36160	3	Standard
[> Sc	45		ug/L			448237	501329	0	Standard
| Cr	52	0.098	ug/L	0.027	27	8038	10320	3	Standard
| Cr	53	0.469	ug/L	0.026	5	50	792	5	Standard
[> Ge	72		ug/L			28647	26746	0	KED
| Cu	63	0.693	ug/L	0.024	3	51	2510	3	KED
| Cu	65	0.676	ug/L	0.022	3	25	1245	3	KED
| Zn	66	1.511	ug/L	0.056	3	36	701	2	KED
| Zn	67	1.478	ug/L	0.150	10	6	113	10	KED
| As	75	0.114	ug/L	0.017	14	2	26	14	KED
Y	89		ug/L			38752	40879	1	Standard
Kr	83		ug/L			40	35	26	Standard
[> In-1	115		ug/L			6124	5352	2	KED
| Cd	111	0.006	ug/L	0.010	170	4	4	40	KED
| Cd	114	-0.003	ug/L	0.004	126	3	1	112	KED
[> In	115		ug/L			412702	403498	1	Standard
| Ag	107	0.001	ug/L	0.001	116	17	24	35	Standard
[> Tb	159		ug/L			165777	165184	1	Standard
| Pb	208	0.005	ug/L	0.001	11	350	784	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:03:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	42590	6	Standard
[> Sc	45		ug/L			448237	522766	2	Standard
| Cr	52	0.344	ug/L	0.007	1	8038	14260	2	Standard
| Cr	53	0.595	ug/L	0.019	3	50	1031	1	Standard
[> Ge	72		ug/L			28647	26398	0	KED
| Cu	63	0.272	ug/L	0.019	6	51	1002	6	KED
| Cu	65	0.264	ug/L	0.020	7	25	493	6	KED
| Zn	66	1.455	ug/L	0.138	9	36	667	8	KED
| Zn	67	1.581	ug/L	0.242	15	6	118	14	KED
| As	75	1.568	ug/L	0.081	5	2	335	4	KED
Y	89		ug/L			38752	48893	0	Standard
Kr	83		ug/L			40	33	31	Standard
[> In-1	115		ug/L			6124	5519	2	KED
| Cd	111	-0.006	ug/L	0.007	120	4	2	57	KED
| Cd	114	0.007	ug/L	0.006	83	3	6	41	KED
[> In	115		ug/L			412702	410491	1	Standard
| Ag	107	0.000	ug/L	0.001	299	17	20	48	Standard
[> Tb	159		ug/L			165777	168884	2	Standard
| Pb	208	0.014	ug/L	0.001	3	350	1517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:08:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	37374	6	Standard
[>	Sc	45	ug/L			448237	543142	1	Standard
|	Cr	52	0.110	0.011	10	8038	11359	1	Standard
|	Cr	53	0.280	0.014	5	50	536	4	Standard
[>	Ge	72	ug/L			28647	26365	1	KED
|	Cu	63	0.140	0.007	5	51	536	4	KED
|	Cu	65	0.131	0.015	11	25	256	9	KED
|	Zn	66	2.253	0.100	4	36	1014	2	KED
|	Zn	67	2.603	0.114	4	6	191	3	KED
|	As	75	1.190	0.034	2	2	255	4	KED
	Y	89	ug/L			38752	41959	1	Standard
	Kr	83	ug/L			40	33	26	Standard
[>	In-1	115	ug/L			6124	5401	2	KED
|	Cd	111	-0.004	0.005	117	4	2	33	KED
|	Cd	114	0.003	0.006	180	3	4	57	KED
[>	In	115	ug/L			412702	406534	2	Standard
|	Ag	107	0.000	0.000	39	17	22	8	Standard
[>	Tb	159	ug/L			165777	172296	2	Standard
|	Pb	208	0.006	0.001	14	350	834	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:12:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	27561	3	Standard
[> Sc	45		ug/L			448237	445679	2	Standard
| Cr	52	0.037	ug/L	0.012	31	8038	8433	2	Standard
| Cr	53	0.005	ug/L	0.007	155	50	56	17	Standard
[> Ge	72		ug/L			28647	28593	1	KED
| Cu	63	-0.004	ug/L	0.002	44	51	36	18	KED
| Cu	65	-0.007	ug/L	0.003	53	25	12	52	KED
| Zn	66	-0.023	ug/L	0.019	82	36	26	32	KED
| Zn	67	-0.033	ug/L	0.028	86	6	4	49	KED
| As	75	-0.001	ug/L	0.009	1538	2	2	87	KED
Y	89		ug/L			38752	38260	2	Standard
Kr	83		ug/L			40	36	13	Standard
[> In-1	115		ug/L			6124	5663	2	KED
| Cd	111	-0.009	ug/L	0.005	50	4	1	50	KED
| Cd	114	-0.003	ug/L	0.004	117	3	1	104	KED
[> In	115		ug/L			412702	414879	1	Standard
| Ag	107	-0.001	ug/L	0.000	41	17	10	28	Standard
[> Tb	159		ug/L			165777	167727	0	Standard
| Pb	208	-0.001	ug/L	0.000	30	350	254	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:17:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25817	5	Standard
[> Sc	45		ug/L			448237	458964	2	Standard
| Cr	52	47.339	ug/L	0.616	1	8038	597481	1	Standard
| Cr	53	47.127	ug/L	1.094	2	50	67723	2	Standard
[> Ge	72		ug/L			28647	28285	1	KED
| Cu	63	49.769	ug/L	1.510	3	51	187053	1	KED
| Cu	65	49.726	ug/L	1.311	2	25	94927	1	KED
| Zn	66	50.171	ug/L	1.805	3	36	23455	1	KED
| Zn	67	50.152	ug/L	1.339	2	6	3824	1	KED
| As	75	49.459	ug/L	1.582	3	2	11259	1	KED
Y	89		ug/L			38752	39627	0	Standard
Kr	83		ug/L			40	34	16	Standard
[> In-1	115		ug/L			6124	5651	4	KED
| Cd	111	51.104	ug/L	1.817	3	4	10440	2	KED
| Cd	114	51.219	ug/L	2.169	4	3	26683	1	KED
[> In	115		ug/L			412702	416361	1	Standard
| Ag	107	47.224	ug/L	1.028	2	17	640079	0	Standard
[> Tb	159		ug/L			165777	173175	2	Standard
| Pb	208	52.054	ug/L	1.042	2	350	4352693	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBK

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 04:24:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25999	3	Standard
[> Sc	45		ug/L			448237	447350	1	Standard
| Cr	52	-0.006	ug/L	0.013	225	8038	7953	3	Standard
| Cr	53	0.002	ug/L	0.004	191	50	53	11	Standard
[> Ge	72		ug/L			28647	28109	1	KED
| Cu	63	-0.005	ug/L	0.001	14	51	31	9	KED
| Cu	65	-0.003	ug/L	0.002	88	25	19	22	KED
| Zn	66	-0.022	ug/L	0.005	22	36	26	8	KED
| Zn	67	0.010	ug/L	0.090	914	6	7	90	KED
| As	75	0.000	ug/L	0.004	1855	2	2	39	KED
Y	89		ug/L			38752	38816	1	Standard
Kr	83		ug/L			40	33	28	Standard
[> In-1	115		ug/L			6124	5534	2	KED
| Cd	111	-0.012	ug/L	0.007	57	4	1	114	KED
| Cd	114	0.006	ug/L	0.002	36	3	6	17	KED
[> In	115		ug/L			412702	422383	1	Standard
| Ag	107	0.002	ug/L	0.001	36	17	43	21	Standard
[> Tb	159		ug/L			165777	167282	0	Standard
| Pb	208	0.001	ug/L	0.000	62	350	417	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:28:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	34980	4	Standard
[>	Sc	45		ug/L			448237	507391	2	Standard
|	Cr	52	-0.000	ug/L	0.011	2810	8038	9093	2	Standard
|	Cr	53	0.283	ug/L	0.019	6	50	507	7	Standard
[>	Ge	72		ug/L			28647	26697	1	KED
|	Cu	63	0.111	ug/L	0.003	3	51	440	2	KED
|	Cu	65	0.116	ug/L	0.014	11	25	232	10	KED
|	Zn	66	1.554	ug/L	0.157	10	36	718	8	KED
|	Zn	67	2.143	ug/L	0.179	8	6	160	8	KED
|	As	75	0.679	ug/L	0.053	7	2	148	7	KED
	Y	89		ug/L			38752	40544	3	Standard
	Kr	83		ug/L			40	34	14	Standard
[>	In-1	115		ug/L			6124	5355	3	KED
|	Cd	111	-0.009	ug/L	0.000	3	4	1		KED
|	Cd	114	0.002	ug/L	0.010	458	3	4	111	KED
[>	In	115		ug/L			412702	406592	2	Standard
|	Ag	107	0.001	ug/L	0.001	121	17	26	42	Standard
[>	Tb	159		ug/L			165777	167561	1	Standard
|	Pb	208	0.011	ug/L	0.001	4	350	1221	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:32:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	34708	3	Standard
[> Sc	45		ug/L			448237	521894	3	Standard
| Cr	52	0.034	ug/L	0.013	37	8038	9842	3	Standard
| Cr	53	0.532	ug/L	0.008	1	50	927	4	Standard
[> Ge	72		ug/L			28647	25650	1	KED
| Cu	63	0.549	ug/L	0.013	2	51	1918	2	KED
| Cu	65	0.549	ug/L	0.010	1	25	972	1	KED
| Zn	66	2.235	ug/L	0.080	3	36	979	4	KED
| Zn	67	2.713	ug/L	0.101	3	6	193	4	KED
| As	75	0.376	ug/L	0.019	4	2	80	4	KED
Y	89		ug/L			38752	42727	2	Standard
Kr	83		ug/L			40	34	20	Standard
[> In-1	115		ug/L			6124	5228	2	KED
| Cd	111	0.018	ug/L	0.002	12	4	6	7	KED
| Cd	114	0.023	ug/L	0.005	23	3	14	20	KED
[> In	115		ug/L			412702	418045	2	Standard
| Ag	107	-0.000	ug/L	0.001	3271	17	17	50	Standard
[> Tb	159		ug/L			165777	167064	0	Standard
| Pb	208	0.012	ug/L	0.001	5	350	1348	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:37:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	39008	4	Standard
[>	Sc	45	ug/L			448237	523709	2	Standard
|	Cr	52	ug/L	0.009	298	8038	9348	1	Standard
|	Cr	53	ug/L	0.025	5	50	751	3	Standard
[>	Ge	72	ug/L			28647	25094	2	KED
|	Cu	63	ug/L	0.033	2	51	4065	1	KED
|	Cu	65	ug/L	0.034	2	25	2071	0	KED
|	Zn	66	ug/L	0.124	5	36	925	5	KED
|	Zn	67	ug/L	0.633	22	6	194	19	KED
|	As	75	ug/L	0.019	5	2	78	4	KED
	Y	89	ug/L			38752	56516	3	Standard
	Kr	83	ug/L			40	35	24	Standard
[>	In-1	115	ug/L			6124	5268	2	KED
|	Cd	111	ug/L	0.012	21	4	14	17	KED
|	Cd	114	ug/L	0.008	16	3	27	16	KED
[>	In	115	ug/L			412702	413918	1	Standard
|	Ag	107	ug/L	0.000	24	17	24	7	Standard
[>	Tb	159	ug/L			165777	165395	1	Standard
|	Pb	208	ug/L	0.001	10	350	1075	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:41:41**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	37328	5	Standard
[>	Sc	45	ug/L			448237	514346	2	Standard
|	Cr	52	0.138	0.014	10	8038	11152	3	Standard
|	Cr	53	1.128	0.011	1	50	1873	1	Standard
[>	Ge	72	ug/L			28647	25872	0	KED
|	Cu	63	0.438	0.009	1	51	1551	1	KED
|	Cu	65	0.422	0.030	7	25	759	7	KED
|	Zn	66	3.277	0.134	4	36	1433	3	KED
|	Zn	67	3.610	0.275	7	6	257	7	KED
|	As	75	0.154	0.008	5	2	34	4	KED
	Y	89	ug/L			38752	45722	0	Standard
	Kr	83	ug/L			40	34	14	Standard
[>	In-1	115	ug/L			6124	5294	3	KED
|	Cd	111	0.013	0.010	77	4	6	32	KED
|	Cd	114	0.008	0.007	88	3	7	52	KED
[>	In	115	ug/L			412702	418437	1	Standard
|	Ag	107	-0.000	0.000	74	17	13	24	Standard
[>	Tb	159	ug/L			165777	172510	1	Standard
|	Pb	208	0.005	0.000	6	350	793	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:46:02**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	36551	3	Standard
[> Sc	45		ug/L			448237	478649	2	Standard
| Cr	52	0.539	ug/L	0.040	7	8038	15579	1	Standard
| Cr	53	0.643	ug/L	0.009	1	50	1016	1	Standard
[> Ge	72		ug/L			28647	27659	0	KED
| Cu	63	0.716	ug/L	0.012	1	51	2680	1	KED
| Cu	65	0.697	ug/L	0.024	3	25	1325	3	KED
| Zn	66	1.435	ug/L	0.052	3	36	690	3	KED
| Zn	67	1.726	ug/L	0.266	15	6	135	14	KED
| As	75	0.107	ug/L	0.004	3	2	26	3	KED
Y	89		ug/L			38752	44581	2	Standard
Kr	83		ug/L			40	34	14	Standard
[> In-1	115		ug/L			6124	5619	1	KED
| Cd	111	-0.006	ug/L	0.006	90	4	2	43	KED
| Cd	114	-0.003	ug/L	0.004	104	3	1	115	KED
[> In	115		ug/L			412702	423122	1	Standard
| Ag	107	-0.000	ug/L	0.000	42	17	12	18	Standard
[> Tb	159		ug/L			165777	172262	1	Standard
| Pb	208	0.007	ug/L	0.001	17	350	942	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:50:23**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	37463	6	Standard
[> Sc	45		ug/L			448237	481580	2	Standard
| Cr	52	0.475	ug/L	0.016	3	8038	14843	2	Standard
| Cr	53	0.571	ug/L	0.031	5	50	914	3	Standard
[> Ge	72		ug/L			28647	27543	0	KED
| Cu	63	0.659	ug/L	0.006	0	51	2462	1	KED
| Cu	65	0.637	ug/L	0.030	4	25	1208	3	KED
| Zn	66	1.718	ug/L	0.054	3	36	816	3	KED
| Zn	67	1.809	ug/L	0.237	13	6	140	13	KED
| As	75	0.103	ug/L	0.014	13	2	25	11	KED
Y	89		ug/L			38752	44952	0	Standard
Kr	83		ug/L			40	34	14	Standard
[> In-1	115		ug/L			6124	5573	3	KED
| Cd	111	-0.014	ug/L	0.005	35	4	0	100	KED
| Cd	114	0.004	ug/L	0.010	228	3	5	91	KED
[> In	115		ug/L			412702	425006	2	Standard
| Ag	107	-0.000	ug/L	0.001	511	17	15	54	Standard
[> Tb	159		ug/L			165777	174747	2	Standard
| Pb	208	0.006	ug/L	0.001	11	350	860	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-13**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:54:45**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	50151	4	Standard
[>	Sc	45	ug/L			448237	515471	4	Standard
|	Cr	52	ug/L	0.051	4	8038	23717	2	Standard
|	Cr	53	ug/L	0.031	2	50	1932	2	Standard
[>	Ge	72	ug/L			28647	26794	2	KED
|	Cu	63	ug/L	0.126	2	51	16238	1	KED
|	Cu	65	ug/L	0.140	3	25	7976	1	KED
|	Zn	66	ug/L	0.087	4	36	845	3	KED
|	Zn	67	ug/L	0.334	12	6	203	10	KED
|	As	75	ug/L	0.023	6	2	81	4	KED
	Y	89	ug/L			38752	55318	0	Standard
	Kr	83	ug/L			40	29	7	Standard
[>	In-1	115	ug/L			6124	5465	4	KED
|	Cd	111	ug/L	0.014	128	4	5	44	KED
|	Cd	114	ug/L	0.015	119	3	9	74	KED
[>	In	115	ug/L			412702	417323	2	Standard
|	Ag	107	ug/L	0.000	11	17	34	3	Standard
[>	Tb	159	ug/L			165777	171029	1	Standard
|	Pb	208	ug/L	0.000	4	350	1292	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-14**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 04:59:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	60913	5	Standard
[> Sc	45		ug/L			448237	519319	2	Standard
| Cr	52	0.917	ug/L	0.019	2	8038	22240	3	Standard
| Cr	53	1.086	ug/L	0.010	0	50	1823	2	Standard
[> Ge	72		ug/L			28647	26673	0	KED
| Cu	63	12.597	ug/L	0.095	0	51	44697	0	KED
| Cu	65	12.583	ug/L	0.156	1	25	22674	0	KED
| Zn	66	1.341	ug/L	0.039	2	36	624	3	KED
| Zn	67	1.414	ug/L	0.270	19	6	107	17	KED
| As	75	54.959	ug/L	0.366	0	2	11803	1	KED
Y	89		ug/L			38752	51441	2	Standard
Kr	83		ug/L			40	36	7	Standard
[> In-1	115		ug/L			6124	5208	1	KED
| Cd	111	0.064	ug/L	0.017	26	4	15	19	KED
| Cd	114	0.052	ug/L	0.025	47	3	28	41	KED
[> In	115		ug/L			412702	399894	2	Standard
| Ag	107	0.021	ug/L	0.001	6	17	295	7	Standard
[> Tb	159		ug/L			165777	171823	1	Standard
| Pb	208	3.243	ug/L	0.018	0	350	269471	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0412-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:03:46**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	35421	4	Standard
[>	Sc	45	ug/L			448237	497187	2	Standard
|	Cr	52	ug/L	0.021	2	8038	22430	1	Standard
|	Cr	53	ug/L	0.046	4	50	1815	5	Standard
[>	Ge	72	ug/L			28647	27665	0	KED
|	Cu	63	ug/L	0.005	1	51	1126	2	KED
|	Cu	65	ug/L	0.011	3	25	603	2	KED
|	Zn	66	ug/L	0.088	6	36	702	5	KED
|	Zn	67	ug/L	0.353	22	6	125	20	KED
|	As	75	ug/L	0.005	2	2	41	2	KED
	Y	89	ug/L			38752	41465	0	Standard
	Kr	83	ug/L			40	33	34	Standard
[>	In-1	115	ug/L			6124	5424	0	KED
|	Cd	111	ug/L	0.008	61	4	0	173	KED
|	Cd	114	ug/L	0.006	102	3	6	47	KED
[>	In	115	ug/L			412702	422790	3	Standard
|	Ag	107	ug/L	0.000	186	17	14	41	Standard
[>	Tb	159	ug/L			165777	173661	1	Standard
|	Pb	208	ug/L	0.000	8	350	790	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:08:08

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	26979	3	Standard
[> Sc	45		ug/L			448237	446006	2	Standard
| Cr	52	0.014	ug/L	0.020	146	8038	8160	1	Standard
| Cr	53	0.005	ug/L	0.008	143	50	57	16	Standard
[> Ge	72		ug/L			28647	27330	2	KED
| Cu	63	-0.008	ug/L	0.001	10	51	19	14	KED
| Cu	65	-0.008	ug/L	0.002	27	25	8	44	KED
| Zn	66	-0.033	ug/L	0.006	18	36	20	14	KED
| Zn	67	-0.004	ug/L	0.041	1039	6	6	45	KED
| As	75	-0.003	ug/L	0.005	169	2	1	62	KED
Y	89		ug/L			38752	39183	1	Standard
Kr	83		ug/L			40	40	37	Standard
[> In-1	115		ug/L			6124	5504	2	KED
| Cd	111	-0.012	ug/L	0.005	44	4	1	86	KED
| Cd	114	-0.003	ug/L	0.004	123	3	1	100	KED
[> In	115		ug/L			412702	427851	2	Standard
| Ag	107	-0.000	ug/L	0.000	45	17	10	26	Standard
[> Tb	159		ug/L			165777	170202	0	Standard
| Pb	208	-0.001	ug/L	0.000	15	350	252	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:12:29

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	24982	6	Standard
[> Sc	45		ug/L			448237	453215	3	Standard
| Cr	52	46.451	ug/L	0.802	1	8038	579315	4	Standard
| Cr	53	46.660	ug/L	1.299	2	50	66213	3	Standard
[> Ge	72		ug/L			28647	27759	1	KED
| Cu	63	50.342	ug/L	0.608	1	51	185775	2	KED
| Cu	65	49.546	ug/L	0.295	0	25	92845	0	KED
| Zn	66	51.625	ug/L	0.166	0	36	23695	1	KED
| Zn	67	50.095	ug/L	1.491	2	6	3749	2	KED
| As	75	49.557	ug/L	0.556	1	2	11076	1	KED
Y	89		ug/L			38752	39500	1	Standard
Kr	83		ug/L			40	34	16	Standard
[> In-1	115		ug/L			6124	5581	2	KED
| Cd	111	50.088	ug/L	2.172	4	4	10108	2	KED
| Cd	114	50.711	ug/L	2.220	4	3	26104	1	KED
[> In	115		ug/L			412702	408762	1	Standard
| Ag	107	47.187	ug/L	0.917	1	17	628146	3	Standard
[> Tb	159		ug/L			165777	170367	0	Standard
| Pb	208	53.286	ug/L	0.162	0	350	4384594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBL

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 05:19:36

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	24546	5	Standard
[>	Sc	45	ug/L			448237	439611	0	Standard
|	Cr	52	-0.027	0.003	10	8038	7559	0	Standard
|	Cr	53	0.001	0.003	232	50	51	6	Standard
[>	Ge	72	ug/L			28647	27443	2	KED
|	Cu	63	0.019	0.029	156	51	119	93	KED
|	Cu	65	0.012	0.026	220	25	46	106	KED
|	Zn	66	0.036	0.050	137	36	52	46	KED
|	Zn	67	-0.023	0.051	227	6	5	78	KED
|	As	75	0.028	0.028	101	2	8	75	KED
	Y	89	ug/L			38752	38324	0	Standard
	Kr	83	ug/L			40	34	39	Standard
[>	In-1	115	ug/L			6124	5670	1	KED
|	Cd	111	-0.011	0.005	48	4	1	69	KED
|	Cd	114	0.002	0.004	225	3	4	49	KED
[>	In	115	ug/L			412702	412049	0	Standard
|	Ag	107	0.001	0.000	8	17	31	3	Standard
[>	Tb	159	ug/L			165777	164866	1	Standard
|	Pb	208	0.001	0.000	67	350	402	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:23:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	40373	7	Standard
[>	Sc	45		ug/L			448237	599787	2	Standard
|	Cr	52	0.551	ug/L	0.022	3	8038	19717	3	Standard
|	Cr	53	0.814	ug/L	0.039	4	50	1596	5	Standard
[>	Ge	72		ug/L			28647	24092	0	KED
|	Cu	63	0.283	ug/L	0.020	7	51	950	7	KED
|	Cu	65	0.276	ug/L	0.023	8	25	469	7	KED
|	Zn	66	1.464	ug/L	0.041	2	36	613	1	KED
|	Zn	67	2.906	ug/L	0.225	7	6	194	6	KED
|	As	75	12.475	ug/L	0.185	1	2	2421	0	KED
	Y	89		ug/L			38752	68837	1	Standard
	Kr	83		ug/L			40	35	8	Standard
[>	In-1	115		ug/L			6124	4859	2	KED
|	Cd	111	0.005	ug/L	0.013	259	4	4	53	KED
|	Cd	114	0.007	ug/L	0.007	88	3	6	45	KED
[>	In	115		ug/L			412702	328354	3	Standard
|	Ag	107	0.010	ug/L	0.002	20	17	118	19	Standard
[>	Tb	159		ug/L			165777	138260	3	Standard
|	Pb	208	0.026	ug/L	0.001	3	350	2038	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:28:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	34260	5	Standard
[> Sc	45		ug/L			448237	526058	2	Standard
| Cr	52	0.649	ug/L	0.021	3	8038	18686	2	Standard
| Cr	53	0.860	ug/L	0.041	4	50	1475	7	Standard
[> Ge	72		ug/L			28647	24934	2	KED
| Cu	63	3.118	ug/L	0.123	3	51	10370	2	KED
| Cu	65	3.010	ug/L	0.078	2	25	5085	2	KED
| Zn	66	8.387	ug/L	0.245	2	36	3483	1	KED
| Zn	67	8.270	ug/L	0.453	5	6	561	5	KED
| As	75	1.589	ug/L	0.068	4	2	320	2	KED
Y	89		ug/L			38752	57215	1	Standard
Kr	83		ug/L			40	37	25	Standard
[> In-1	115		ug/L			6124	4993	2	KED
| Cd	111	0.004	ug/L	0.011	258	4	4	48	KED
| Cd	114	0.009	ug/L	0.013	140	3	7	80	KED
[> In	115		ug/L			412702	389749	2	Standard
| Ag	107	0.011	ug/L	0.001	7	17	161	4	Standard
[> Tb	159		ug/L			165777	166152	1	Standard
| Pb	208	0.068	ug/L	0.002	2	350	5824	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0442-05

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 05:32:40

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	33105	5	Standard
[>	Sc	45		ug/L			448237	607600	1	Standard
|	Cr	52	0.733	ug/L	0.031	4	8038	22967	0	Standard
|	Cr	53	0.959	ug/L	0.018	1	50	1891	0	Standard
[>	Ge	72		ug/L			28647	21788	15	KED
|	Cu	63	0.125	ug/L	0.022	17	51	395	4	KED
|	Cu	65	0.137	ug/L	0.035	25	25	215	6	KED
|	Zn	66	1.022	ug/L	0.258	25	36	386	6	KED
|	Zn	67	2.284	ug/L	0.788	34	6	134	15	KED
|	As	75	21.548	ug/L	2.498	11	2	3736	4	KED
	Y	89		ug/L			38752	64840	2	Standard
	Kr	83		ug/L			40	35	15	Standard
[>	In-1	115		ug/L			6124	4804	2	KED
|	Cd	111	-0.008	ug/L	0.005	70	4	1	50	KED
|	Cd	114	-0.005	ug/L	0.002	45	3	0	135	KED
[>	In	115		ug/L			412702	373853	1	Standard
|	Ag	107	0.005	ug/L	0.001	14	17	74	11	Standard
[>	Tb	159		ug/L			165777	159311	2	Standard
|	Pb	208	0.019	ug/L	0.001	5	350	1763	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0442-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:36:56**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	38801	5	Standard
[>	Sc	45		ug/L			448237	625527	2	Standard
|	Cr	52	0.747	ug/L	0.006	0	8038	23900	2	Standard
|	Cr	53	1.077	ug/L	0.007	0	50	2178	2	Standard
[>	Ge	72		ug/L			28647	23769	0	KED
|	Cu	63	0.058	ug/L	0.006	9	51	226	7	KED
|	Cu	65	0.058	ug/L	0.007	12	25	113	10	KED
|	Zn	66	0.539	ug/L	0.030	5	36	241	4	KED
|	Zn	67	2.082	ug/L	0.155	7	6	139	7	KED
|	As	75	5.811	ug/L	0.095	1	2	1114	1	KED
	Y	89		ug/L			38752	67879	0	Standard
	Kr	83		ug/L			40	35	17	Standard
[>	In-1	115		ug/L			6124	4815	3	KED
|	Cd	111	0.005	ug/L	0.009	175	4	4	35	KED
|	Cd	114	-0.002	ug/L	0.005	305	3	2	101	KED
[>	In	115		ug/L			412702	358808	1	Standard
|	Ag	107	0.004	ug/L	0.000	10	17	57	8	Standard
[>	Tb	159		ug/L			165777	152290	1	Standard
|	Pb	208	0.009	ug/L	0.000	2	350	1012	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0598-04

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 05:42:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	17761	6	Standard
[>	Sc	45	ug/L			448237	231078	5	Standard
|	Cr	52	ug/L	0.026	3	8038	8673	3	Standard
|	Cr	53	ug/L	0.345	0	50	37759	4	Standard
[>	Ge	72	ug/L			28647	8352	0	KED
|	Cu	63	ug/L	0.059	3	51	1729	4	KED
|	Cu	65	ug/L	0.122	7	25	908	6	KED
|	Zn	66	ug/L	0.767	8	36	1201	7	KED
|	Zn	67	ug/L	1.169	11	6	238	10	KED
|	As	75	ug/L	0.043	3	2	83	4	KED
	Y	89	ug/L			38752	19425	4	Standard
	Kr	83	ug/L			40	1582	3	Standard
[>	In-1	115	ug/L			6124	1935	1	KED
|	Cd	111	ug/L	0.063	58	4	8	50	KED
|	Cd	114	ug/L	0.012	21	3	11	17	KED
[>	In	115	ug/L			412702	116852	4	Standard
|	Ag	107	ug/L	0.000	3	17	48	6	Standard
[>	Tb	159	ug/L			165777	51852	3	Standard
|	Pb	208	ug/L	0.000	1	350	647	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:47:03**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	30698	5	Standard
[> Sc	45		ug/L			448237	363422	3	Standard
[Cr	52	0.375	ug/L	0.020	5	8038	10218	3	Standard
[Cr	53	22.456	ug/L	0.436	1	50	25575	3	Standard
[> Ge	72		ug/L			28647	15417	1	KED
[Cu	63	0.551	ug/L	0.018	3	51	1156	3	KED
[Cu	65	0.543	ug/L	0.028	5	25	578	4	KED
[Zn	66	2.326	ug/L	0.100	4	36	612	5	KED
[Zn	67	5.124	ug/L	0.163	3	6	216	4	KED
[As	75	1.788	ug/L	0.044	2	2	223	3	KED
[Y	89		ug/L			38752	26993	4	Standard
[Kr	83		ug/L			40	332	6	Standard
[> In-1	115		ug/L			6124	3207	1	KED
[Cd	111	0.058	ug/L	0.013	22	4	8	16	KED
[Cd	114	0.042	ug/L	0.010	23	3	14	20	KED
[> In	115		ug/L			412702	197126	2	Standard
[Ag	107	0.003	ug/L	0.002	58	17	24	38	Standard
[> Tb	159		ug/L			165777	90869	2	Standard
[Pb	208	0.018	ug/L	0.000	1	350	984	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-08**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:51:24**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	59809	4	Standard
[>	Sc	45	ug/L			448237	608571	1	Standard
|	Cr	52	ug/L	0.027	3	8038	24593	1	Standard
|	Cr	53	ug/L	0.074	1	50	10796	2	Standard
[>	Ge	72	ug/L			28647	31934	0	KED
|	Cu	63	ug/L	0.072	2	51	13944	1	KED
|	Cu	65	ug/L	0.081	2	25	6849	2	KED
|	Zn	66	ug/L	0.007	0	36	474	0	KED
|	Zn	67	ug/L	0.073	9	6	76	7	KED
|	As	75	ug/L	0.088	5	2	395	5	KED
	Y	89	ug/L			38752	57187	1	Standard
	Kr	83	ug/L			40	43	11	Standard
[>	In-1	115	ug/L			6124	6343	2	KED
|	Cd	111	ug/L	0.012	1465	4	4	70	KED
|	Cd	114	ug/L	0.005	539	3	3	98	KED
[>	In	115	ug/L			412702	392034	3	Standard
|	Ag	107	ug/L	0.001	70	17	25	22	Standard
[>	Tb	159	ug/L			165777	178669	0	Standard
|	Pb	208	ug/L	0.000	3	350	1605	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 05:55:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	58330	4	Standard
[> Sc	45		ug/L			448237	572775	1	Standard
| Cr	52	0.948	ug/L	0.041	4	8038	24998	1	Standard
| Cr	53	4.323	ug/L	0.041	0	50	7812	1	Standard
[> Ge	72		ug/L			28647	30641	1	KED
| Cu	63	3.485	ug/L	0.041	1	51	14244	0	KED
| Cu	65	3.457	ug/L	0.077	2	25	7174	0	KED
| Zn	66	1.100	ug/L	0.065	5	36	595	5	KED
| Zn	67	0.972	ug/L	0.110	11	6	87	9	KED
| As	75	1.541	ug/L	<u>0.122</u>	7	2	382	6	KED
Y	89		ug/L			38752	53861	2	Standard
Kr	83		ug/L			40	51	25	Standard
[> In-1	115		ug/L			6124	6056	1	KED
| Cd	111	-0.006	ug/L	0.011	196	4	2	88	KED
| Cd	114	-0.002	ug/L	0.005	286	3	2	110	KED
[> In	115		ug/L			412702	378024	1	Standard
| Ag	107	0.002	ug/L	0.001	49	17	37	28	Standard
[> Tb	159		ug/L			165777	174038	1	Standard
| Pb	208	0.022	ug/L	0.001	4	350	2214	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0598-12**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:00:25**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	46185	4	Standard
[> Sc	45		ug/L			448237	544548	1	Standard
| Cr	52	0.246	ug/L	0.027	10	8038	13403	2	Standard
| Cr	53	0.968	ug/L	0.041	4	50	1710	3	Standard
[> Ge	72		ug/L			28647	33646	1	KED
| Cu	63	0.532	ug/L	0.002	0	51	2440	1	KED
| Cu	65	0.517	ug/L	0.033	6	25	1203	7	KED
| Zn	66	0.649	ug/L	0.047	7	36	403	5	KED
| Zn	67	0.792	ug/L	0.115	14	6	80	13	KED
| As	75	0.001	ug/L	0.003	384	2	3	22	KED
Y	89		ug/L			38752	38286	3	Standard
Kr	83		ug/L			40	50	30	Standard
[> In-1	115		ug/L			6124	6661	2	KED
| Cd	111	-0.011	ug/L	0.004	38	4	1	50	KED
| Cd	114	0.000	ug/L	0.005	4473	3	4	70	KED
[> In	115		ug/L			412702	424435	1	Standard
| Ag	107	-0.000	ug/L	0.000	66	17	15	12	Standard
[> Tb	159		ug/L			165777	183413	1	Standard
| Pb	208	0.008	ug/L	0.001	7	350	1083	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:04:47

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	31558	2	Standard
[> Sc	45		ug/L			448237	504623	2	Standard
| Cr	52	0.042	ug/L	0.026	61	8038	9628	4	Standard
| Cr	53	0.566	ug/L	0.015	2	50	950	3	Standard
[> Ge	72		ug/L			28647	32567	3	KED
| Cu	63	-0.006	ug/L	0.001	11	51	33	6	KED
| Cu	65	-0.007	ug/L	0.003	43	25	13	51	KED
| Zn	66	-0.011	ug/L	0.005	47	36	36	10	KED
| Zn	67	-0.040	ug/L	0.032	79	6	4	65	KED
| As	75	-0.000	ug/L	0.006	8494	2	2	50	KED
Y	89		ug/L			38752	36421	2	Standard
Kr	83		ug/L			40	50	28	Standard
[> In-1	115		ug/L			6124	6465	1	KED
| Cd	111	0.002	ug/L	0.008	469	4	4	40	KED
| Cd	114	-0.005	ug/L	0.002	39	3	1	94	KED
[> In	115		ug/L			412702	404097	3	Standard
| Ag	107	-0.000	ug/L	0.000	250	17	14	41	Standard
[> Tb	159		ug/L			165777	173806	2	Standard
| Pb	208	-0.001	ug/L	0.000	62	350	307	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:09:09

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	28089	4	Standard
[> Sc	45		ug/L			448237	500238	2	Standard
| Cr	52	46.342	ug/L	1.666	3	8038	637635	2	Standard
| Cr	53	46.258	ug/L	1.384	2	50	72443	1	Standard
[> Ge	72		ug/L			28647	31798	1	KED
| Cu	63	49.989	ug/L	0.628	1	51	211286	0	KED
| Cu	65	48.835	ug/L	0.757	1	25	104828	1	KED
| Zn	66	50.384	ug/L	0.727	1	36	26491	1	KED
| Zn	67	50.846	ug/L	1.716	3	6	4360	2	KED
| As	75	49.456	ug/L	0.873	1	2	12661	0	KED
Y	89		ug/L			38752	36596	0	Standard
Kr	83		ug/L			40	48	17	Standard
[> In-1	115		ug/L			6124	6257	4	KED
| Cd	111	48.679	ug/L	2.211	4	4	11005	0	KED
| Cd	114	50.875	ug/L	1.485	2	3	29353	1	KED
[> In	115		ug/L			412702	394200	1	Standard
| Ag	107	48.362	ug/L	1.578	3	17	620685	3	Standard
[> Tb	159		ug/L			165777	177982	1	Standard
| Pb	208	50.250	ug/L	0.383	0	350	4319833	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBM

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:16:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	26594	2	Standard
[>	Sc	45	ug/L			448237	488958	3	Standard
|	Cr	52	-0.022	0.004	18	8038	8484	4	Standard
|	Cr	53	<u>0.321</u>	0.023	7	50	546	9	Standard
[>	Ge	72	ug/L			28647	31070	2	KED
|	Cu	63	-0.007	0.004	62	51	27	64	KED
|	Cu	65	-0.007	0.004	59	25	12	67	KED
|	Zn	66	-0.017	0.001	5	36	31	3	KED
|	Zn	67	0.024	0.024	103	6	9	20	KED
|	As	75	0.007	0.003	34	2	4	11	KED
	Y	89	ug/L			38752	37149	2	Standard
	Kr	83	ug/L			40	43	15	Standard
[>	In-1	115	ug/L			6124	6245	1	KED
|	Cd	111	-0.003	0.007	207	4	3	41	KED
|	Cd	114	0.001	0.004	412	3	4	50	KED
[>	In	115	ug/L			412702	405028	1	Standard
|	Ag	107	0.002	0.001	23	17	45	15	Standard
[>	Tb	159	ug/L			165777	173523	1	Standard
|	Pb	208	0.001	0.000	7	350	428	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:20:37**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	42525	2	Standard
[>	Sc	45		ug/L			448237	694230	1	Standard
|	Cr	52	0.236	ug/L	0.020	8	8038	16904	2	Standard
|	Cr	53	0.703	ug/L	0.020	2	50	1605	2	Standard
[>	Ge	72		ug/L			28647	28128	1	KED
|	Cu	63	0.138	ug/L	0.007	4	51	566	5	KED
|	Cu	65	0.147	ug/L	0.014	9	25	304	8	KED
|	Zn	66	1.017	ug/L	0.040	3	36	508	4	KED
|	Zn	67	1.370	ug/L	0.197	14	6	110	11	KED
|	As	75	2.219	ug/L	0.058	2	2	504	2	KED
	Y	89		ug/L			38752	47039	3	Standard
	Kr	83		ug/L			40	53	30	Standard
[>	In-1	115		ug/L			6124	5687	4	KED
|	Cd	111	0.017	ug/L	0.012	70	4	7	32	KED
|	Cd	114	0.015	ug/L	0.010	62	3	11	43	KED
[>	In	115		ug/L			412702	371523	1	Standard
|	Ag	107	0.004	ug/L	0.002	47	17	64	35	Standard
[>	Tb	159		ug/L			165777	163663	1	Standard
|	Pb	208	0.071	ug/L	0.003	3	350	5976	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:24:58**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	49735	5	Standard
[>	Sc	45		ug/L			448237	570785	3	Standard
|	Cr	52	0.511	ug/L	0.020	3	8038	18141	1	Standard
|	Cr	53	0.873	ug/L	0.037	4	50	1624	5	Standard
[>	Ge	72		ug/L			28647	29362	0	KED
|	Cu	63	5.258	ug/L	0.024	0	51	20569	0	KED
|	Cu	65	5.291	ug/L	0.056	1	25	10511	1	KED
|	Zn	66	11.958	ug/L	0.123	1	36	5834	1	KED
|	Zn	67	11.733	ug/L	0.504	4	6	934	4	KED
|	As	75	1.838	ug/L	0.059	3	2	437	3	KED
	Y	89		ug/L			38752	48599	3	Standard
	Kr	83		ug/L			40	41	23	Standard
[>	In-1	115		ug/L			6124	5717	3	KED
|	Cd	111	0.126	ug/L	0.016	12	4	29	10	KED
|	Cd	114	0.101	ug/L	0.030	29	3	56	26	KED
[>	In	115		ug/L			412702	403369	0	Standard
|	Ag	107	0.016	ug/L	0.003	21	17	224	20	Standard
[>	Tb	159		ug/L			165777	178062	0	Standard
|	Pb	208	0.305	ug/L	0.006	1	350	26620	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:29:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26244	41883	1	Standard
[>	Sc	45		ug/L			448237	685666	2	Standard
|	Cr	52	0.283	ug/L	0.016	5	8038	17558	2	Standard
|	Cr	53	0.708	ug/L	0.006	0	50	1596	2	Standard
[>	Ge	72		ug/L			28647	26983	1	KED
|	Cu	63	0.137	ug/L	0.006	4	51	539	5	KED
|	Cu	65	0.142	ug/L	0.007	4	25	282	5	KED
|	Zn	66	1.440	ug/L	0.092	6	36	676	6	KED
|	Zn	67	2.462	ug/L	0.159	6	6	185	5	KED
|	As	75	1.745	ug/L	0.086	4	2	381	5	KED
	Y	89		ug/L			38752	46722	1	Standard
	Kr	83		ug/L			40	34	22	Standard
[>	In-1	115		ug/L			6124	5415	3	KED
|	Cd	111	-0.004	ug/L	0.010	231	4	2	66	KED
|	Cd	114	0.008	ug/L	0.004	45	3	7	28	KED
[>	In	115		ug/L			412702	366298	3	Standard
|	Ag	107	0.002	ug/L	0.000	23	17	34	15	Standard
[>	Tb	159		ug/L			165777	159318	1	Standard
|	Pb	208	0.019	ug/L	0.001	5	350	1767	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0514-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 06:33:35**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	47810	6	Standard
[>	Sc	45	ug/L			448237	543763	2	Standard
|	Cr	52	ug/L	0.029	3	8038	21986	1	Standard
|	Cr	53	ug/L	0.010	0	50	1935	3	Standard
[>	Ge	72	ug/L			28647	26460	0	KED
|	Cu	63	ug/L	0.030	1	51	7677	1	KED
|	Cu	65	ug/L	0.035	1	25	3775	1	KED
|	Zn	66	ug/L	0.169	5	36	1323	5	KED
|	Zn	67	ug/L	0.336	9	6	250	9	KED
|	As	75	ug/L	0.074	2	2	709	1	KED
	Y	89	ug/L			38752	45453	1	Standard
	Kr	83	ug/L			40	45	17	Standard
[>	In-1	115	ug/L			6124	5459	3	KED
|	Cd	111	ug/L	0.006	15	4	11	9	KED
|	Cd	114	ug/L	0.023	37	3	34	30	KED
[>	In	115	ug/L			412702	373404	1	Standard
|	Ag	107	ug/L	0.002	16	17	153	14	Standard
[>	Tb	159	ug/L			165777	163816	0	Standard
|	Pb	208	ug/L	0.004	3	350	11014	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 06:37:58

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	27742	3	Standard
[>	Sc	45	ug/L			448237	457309	2	Standard
|	Cr	52	-0.042	0.020	48	8038	7672	2	Standard
|	Cr	53	0.192	0.011	5	50	326	6	Standard
[>	Ge	72	ug/L			28647	28109	0	KED
|	Cu	63	-0.007	0.001	15	51	24	16	KED
|	Cu	65	-0.002	0.001	60	25	20	14	KED
|	Zn	66	-0.045	0.011	24	36	15	33	KED
|	Zn	67	-0.049	0.014	29	6	3	34	KED
|	As	75	-0.002	0.004	227	2	2	48	KED
	Y	89	ug/L			38752	36044	2	Standard
	Kr	83	ug/L			40	33	13	Standard
[>	In-1	115	ug/L			6124	5782	2	KED
|	Cd	111	-0.014	0.004	31	4	0	100	KED
|	Cd	114	-0.002	0.002	92	3	2	46	KED
[>	In	115	ug/L			412702	400011	1	Standard
|	Ag	107	-0.001	0.000	79	17	8	68	Standard
[>	Tb	159	ug/L			165777	168328	1	Standard
|	Pb	208	-0.002	0.000	1	350	154	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0598-02

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:42:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	17383	7	Standard
[>	Sc	45	ug/L			448237	262738	5	Standard
|	Cr	52	ug/L	0.041	2	8038	17357	4	Standard
|	Cr	53	ug/L	0.623	2	50	23306	5	Standard
[>	Ge	72	ug/L			28647	9849	3	KED
|	Cu	63	ug/L	0.041	3	51	1695	4	KED
|	Cu	65	ug/L	0.020	1	25	880	3	KED
|	Zn	66	ug/L	0.203	14	36	245	10	KED
|	Zn	67	ug/L	0.094	4	6	59	6	KED
|	As	75	ug/L	0.049	6	2	64	9	KED
	Y	89	ug/L			38752	21862	3	Standard
	Kr	83	ug/L			40	427	11	Standard
[>	In-1	115	ug/L			6124	2264	3	KED
|	Cd	111	ug/L	0.012	24	4	5	20	KED
|	Cd	114	ug/L	0.011	33	3	7	26	KED
[>	In	115	ug/L			412702	153829	2	Standard
|	Ag	107	ug/L	0.001	7	17	50	5	Standard
[>	Tb	159	ug/L			165777	69804	1	Standard
|	Pb	208	ug/L	0.002	7	350	878	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-DUP1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:46:41

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	19225	8	Standard
> Sc	45		ug/L			448237	275105	4	Standard
| Cr	52	1.762	ug/L	0.046	2	8038	18085	5	Standard
| Cr	53	26.406	ug/L	0.418	1	50	22755	3	Standard
> Ge	72		ug/L			28647	10607	1	KED
| Cu	63	1.177	ug/L	0.025	2	51	1678	2	KED
| Cu	65	1.181	ug/L	0.074	6	25	855	7	KED
| Zn	66	1.257	ug/L	0.109	8	36	233	7	KED
| Zn	67	2.666	ug/L	0.397	14	6	78	14	KED
| As	75	0.734	ug/L	0.064	8	2	63	9	KED
Y	89		ug/L			38752	21868	3	Standard
Kr	83		ug/L			40	403	11	Standard
> In-1	115		ug/L			6124	2247	3	KED
| Cd	111	0.021	ug/L	0.029	137	4	3	69	KED
| Cd	114	0.031	ug/L	0.036	115	3	8	98	KED
> In	115		ug/L			412702	153606	3	Standard
| Ag	107	0.008	ug/L	0.002	22	17	47	17	Standard
> Tb	159		ug/L			165777	70087	1	Standard
| Pb	208	0.022	ug/L	0.001	4	350	903	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-MS1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:50:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	19786	7	Standard
> Sc	45		ug/L			448237	271230	3	Standard
Cr	52	22.694	ug/L	0.111	0	8038	171840	3	Standard
Cr	53	48.152	ug/L	0.772	1	50	40887	1	Standard
> Ge	72		ug/L			28647	10203	0	KED
Cu	63	23.880	ug/L	0.347	1	51	32394	0	KED
Cu	65	23.525	ug/L	0.285	1	25	16209	1	KED
Zn	66	54.684	ug/L	1.607	2	36	9223	2	KED
Zn	67	52.527	ug/L	1.653	3	6	1445	2	KED
As	75	22.030	ug/L	0.207	0	2	1810	0	KED
Y	89		ug/L			38752	21673	2	Standard
Kr	83		ug/L			40	396	7	Standard
> In-1	115		ug/L			6124	2158	4	KED
Cd	111	18.081	ug/L	0.659	3	4	1411	0	KED
Cd	114	18.159	ug/L	1.307	7	3	3610	2	KED
> In	115		ug/L			412702	146661	2	Standard
Ag	107	19.086	ug/L	0.043	0	17	91147	2	Standard
> Tb	159		ug/L			165777	68582	0	Standard
Pb	208	18.976	ug/L	0.354	1	350	628618	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0119-MSD1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 06:55:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	18283	7	Standard
> Sc	45		ug/L			448237	267654	4	Standard
| Cr	52	22.434	ug/L	0.131	0	8038	167669	3	Standard
| Cr	53	47.760	ug/L	1.118	2	50	40059	6	Standard
> Ge	72		ug/L			28647	9434	10	KED
| Cu	63	25.810	ug/L	2.584	10	51	32147	1	KED
| Cu	65	25.541	ug/L	2.840	11	25	16143	1	KED
| Zn	66	58.973	ug/L	6.566	11	36	9126	2	KED
| Zn	67	59.017	ug/L	7.534	12	6	1487	2	KED
| As	75	24.201	ug/L	2.608	10	2	1824	0	KED
Y	89		ug/L			38752	21695	2	Standard
Kr	83		ug/L			40	455	15	Standard
> In-1	115		ug/L			6124	2156	4	KED
| Cd	111	17.767	ug/L	1.089	6	4	1384	3	KED
| Cd	114	18.136	ug/L	1.419	7	3	3601	3	KED
> In	115		ug/L			412702	143050	1	Standard
| Ag	107	19.186	ug/L	0.138	0	17	89372	2	Standard
> Tb	159		ug/L			165777	67422	1	Standard
| Pb	208	19.372	ug/L	0.410	2	350	630859	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:00:05

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			26244	31830	1	Standard
[>	Sc	45	ug/L			448237	567342	1	Standard
|	Cr	52	0.053	0.016	29	8038	10997	3	Standard
|	Cr	53	0.841	0.029	3	50	1557	4	Standard
[>	Ge	72	ug/L			28647	36154	0	KED
|	Cu	63	-0.003	0.001	21	51	51	6	KED
|	Cu	65	-0.005	0.001	13	25	19	10	KED
|	Zn	66	-0.003	0.012	356	36	44	16	KED
|	Zn	67	-0.013	0.051	408	6	7	66	KED
|	As	75	0.000	0.009	1846	2	3	75	KED
	Y	89	ug/L			38752	37108	4	Standard
	Kr	83	ug/L			40	24	7	Standard
[>	In-1	115	ug/L			6124	6953	2	KED
|	Cd	111	-0.001	0.009	836	4	4	53	KED
|	Cd	114	0.000	0.002	3619	3	4	26	KED
[>	In	115	ug/L			412702	402007	1	Standard
|	Ag	107	0.001	0.000	28	17	25	11	Standard
[>	Tb	159	ug/L			165777	180143	0	Standard
|	Pb	208	0.004	0.001	16	350	743	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:04:27

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	25754	4	Standard
[> Sc	45		ug/L			448237	474757	2	Standard
| Cr	52	43.291	ug/L	1.489	3	8038	565734	1	Standard
| Cr	53	42.910	ug/L	1.575	3	50	63770	1	Standard
[> Ge	72		ug/L			28647	30689	1	KED
| Cu	63	49.123	ug/L	1.272	2	51	200344	1	KED
| Cu	65	49.656	ug/L	1.766	3	25	102847	2	KED
| Zn	66	50.650	ug/L	1.285	2	36	25703	2	KED
| Zn	67	49.862	ug/L	0.427	0	6	4127	2	KED
| As	75	50.245	ug/L	1.001	1	2	12413	0	KED
Y	89		ug/L			38752	35167	1	Standard
Kr	83		ug/L			40	36	24	Standard
[> In-1	115		ug/L			6124	5715	1	KED
| Cd	111	51.094	ug/L	0.347	0	4	10567	2	KED
| Cd	114	52.390	ug/L	0.384	0	3	27634	1	KED
[> In	115		ug/L			412702	369882	1	Standard
| Ag	107	49.464	ug/L	1.593	3	17	595465	1	Standard
[> Tb	159		ug/L			165777	164981	1	Standard
| Pb	208	51.634	ug/L	0.630	1	350	4113891	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBN

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:11:32

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26244	23764	2	Standard
[> Sc	45		ug/L			448237	443773	0	Standard
| Cr	52	-0.062	ug/L	0.026	41	8038	7214	3	Standard
| Cr	53	<u>0.364</u>	ug/L	0.031	8	50	554	7	Standard
[> Ge	72		ug/L			28647	28900	2	KED
| Cu	63	-0.004	ug/L	0.003	71	51	36	32	KED
| Cu	65	-0.006	ug/L	0.001	16	25	13	15	KED
| Zn	66	-0.024	ug/L	0.036	153	36	26	67	KED
| Zn	67	-0.009	ug/L	0.016	184	6	6	17	KED
| As	75	0.009	ug/L	0.003	36	2	4	15	KED
Y	89		ug/L			38752	34249	3	Standard
Kr	83		ug/L			40	29	24	Standard
[> In-1	115		ug/L			6124	5750	0	KED
| Cd	111	-0.002	ug/L	0.009	511	4	3	56	KED
| Cd	114	0.001	ug/L	0.007	1391	3	3	102	KED
[> In	115		ug/L			412702	368942	2	Standard
| Ag	107	0.002	ug/L	0.001	58	17	40	37	Standard
[> Tb	159		ug/L			165777	159010	0	Standard
| Pb	208	0.000	ug/L	0.000	89	350	368	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:15:54

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				23953	4	Standard
[>	Sc	45	ug/L				443281	1	Standard
|	Cr	52	ug/L				7163	2	Standard
|	Cr	53	ug/L				487	7	Standard
[>	Ge	72	ug/L				28284	0	KED
|	Cu	63	ug/L				33	17	KED
|	Cu	65	ug/L				11	60	KED
|	Zn	66	ug/L				33	8	KED
|	Zn	67	ug/L				6	62	KED
|	As	75	ug/L				2	0	KED
	Y	89	ug/L				34497	2	Standard
	Kr	83	ug/L				33	8	Standard
[>	In-1	115	ug/L				5536	3	KED
|	Cd	111	ug/L				4	107	KED
|	Cd	114	ug/L				6	129	KED
[>	In	115	ug/L				370942	2	Standard
|	Ag	107	ug/L				18	51	Standard
[>	Tb	159	ug/L				161944	3	Standard
|	Pb	208	ug/L				380	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:20:16

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23823	6	Standard
[> Sc	45		ug/L			443281	457972	4	Standard
| Cr	52	43.059	ug/L	0.364	0	7163	542248	3	Standard
| Cr	53	42.527	ug/L	0.121	0	487	61452	4	Standard
[> Ge	72		ug/L			28284	28052	2	KED
| Cu	63	49.368	ug/L	1.094	2	33	184033	2	KED
| Cu	65	47.907	ug/L	1.398	2	11	90672	0	KED
| Zn	66	49.389	ug/L	0.984	1	33	22904	2	KED
| Zn	67	49.684	ug/L	1.707	3	6	3756	1	KED
| As	75	49.256	ug/L	1.063	2	2	11121	0	KED
Y	89		ug/L			34497	36275	2	Standard
Kr	83		ug/L			33	35	34	Standard
[> In-1	115		ug/L			5536	5491	2	KED
| Cd	111	49.085	ug/L	1.079	2	4	9749	1	KED
| Cd	114	50.502	ug/L	0.827	1	6	25592	1	KED
[> In	115		ug/L			370942	367831	2	Standard
| Ag	107	49.011	ug/L	1.052	2	18	586941	2	Standard
[> Tb	159		ug/L			161944	163763	1	Standard
| Pb	208	51.969	ug/L	0.843	1	380	4110823	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBO

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 07:27:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23985	3	Standard
[> Sc	45		ug/L			443281	435790	1	Standard
| Cr	52	-0.005	ug/L	0.004	87	7163	6989	2	Standard
| Cr	53	-0.046	ug/L	0.015	31	487	416	5	Standard
[> Ge	72		ug/L			28284	28183	2	KED
| Cu	63	0.001	ug/L	0.002	135	33	37	17	KED
| Cu	65	0.001	ug/L	0.005	440	11	13	65	KED
| Zn	66	-0.005	ug/L	0.007	128	33	31	12	KED
| Zn	67	0.066	ug/L	0.087	133	6	11	60	KED
| As	75	0.006	ug/L	0.008	120	2	3	45	KED
Y	89		ug/L			34497	34563	2	Standard
Kr	83		ug/L			33	38	18	Standard
[> In-1	115		ug/L			5536	5562	2	KED
| Cd	111	-0.006	ug/L	0.008	121	4	3	45	KED
| Cd	114	-0.010	ug/L	0.004	38	6	1	105	KED
[> In	115		ug/L			370942	361618	3	Standard
| Ag	107	0.001	ug/L	0.001	57	18	34	28	Standard
[> Tb	159		ug/L			161944	156559	2	Standard
| Pb	208	-0.000	ug/L	0.000	322	380	358	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:31:44**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32368	2	Standard
[> Sc	45		ug/L			443281	546623	2	Standard
| Cr	52	0.360	ug/L	0.012	3	7163	14164	2	Standard
| Cr	53	0.388	ug/L	0.008	2	487	1265	1	Standard
[> Ge	72		ug/L			28284	26609	2	KED
| Cu	63	0.390	ug/L	0.026	6	33	1410	7	KED
| Cu	65	0.375	ug/L	0.008	2	11	683	1	KED
| Zn	66	4.759	ug/L	0.218	4	33	2121	2	KED
| Zn	67	5.219	ug/L	0.327	6	6	379	5	KED
| As	75	0.789	ug/L	0.033	4	2	171	4	KED
Y	89		ug/L			34497	42005	1	Standard
Kr	83		ug/L			33	32	21	Standard
[> In-1	115		ug/L			5536	5208	2	KED
| Cd	111	0.033	ug/L	0.036	106	4	10	63	KED
| Cd	114	0.041	ug/L	0.052	126	6	26	94	KED
[> In	115		ug/L			370942	353505	0	Standard
| Ag	107	0.005	ug/L	0.001	15	18	74	12	Standard
[> Tb	159		ug/L			161944	154792	1	Standard
| Pb	208	0.225	ug/L	0.004	1	380	17208	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:36:05**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	34681	2	Standard
[>	Sc	45	ug/L			443281	547793	2	Standard
|	Cr	52	0.346	0.018	5	7163	13991	1	Standard
|	Cr	53	0.376	0.020	5	487	1246	2	Standard
[>	Ge	72	ug/L			28284	26586	0	KED
|	Cu	63	0.085	0.008	9	33	332	7	KED
|	Cu	65	0.093	0.008	8	11	177	7	KED
|	Zn	66	0.616	0.002	0	33	302	0	KED
|	Zn	67	0.972	0.185	19	6	75	17	KED
|	As	75	40.903	0.639	1	2	8755	0	KED
	Y	89	ug/L			34497	56833	3	Standard
	Kr	83	ug/L			33	43	31	Standard
[>	In-1	115	ug/L			5536	5061	1	KED
|	Cd	111	0.023	0.047	204	4	8	103	KED
|	Cd	114	0.016	0.038	236	6	13	128	KED
[>	In	115	ug/L			370942	354300	2	Standard
|	Ag	107	0.006	0.003	61	18	81	49	Standard
[>	Tb	159	ug/L			161944	154731	1	Standard
|	Pb	208	0.019	0.004	22	380	1782	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0537-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:40:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	38975	5	Standard
[>	Sc	45		ug/L			443281	600053	3	Standard
|	Cr	52	0.158	ug/L	0.011	7	7163	12262	2	Standard
|	Cr	53	0.223	ug/L	0.010	4	487	1079	3	Standard
[>	Ge	72		ug/L			28284	25951	1	KED
|	Cu	63	0.081	ug/L	0.011	13	33	309	12	KED
|	Cu	65	0.076	ug/L	0.015	19	11	143	19	KED
|	Zn	66	0.845	ug/L	0.080	9	33	393	9	KED
|	Zn	67	1.434	ug/L	0.338	23	6	106	22	KED
|	As	75	1.392	ug/L	0.082	5	2	293	6	KED
	Y	89		ug/L			34497	41556	1	Standard
	Kr	83		ug/L			33	31	27	Standard
[>	In-1	115		ug/L			5536	5022	3	KED
|	Cd	111	-0.005	ug/L	0.006	137	4	3	34	KED
|	Cd	114	-0.007	ug/L	0.006	80	6	2	94	KED
[>	In	115		ug/L			370942	343665	0	Standard
|	Ag	107	0.001	ug/L	0.000	58	18	22	14	Standard
[>	Tb	159		ug/L			161944	152798	1	Standard
|	Pb	208	0.005	ug/L	0.000	4	380	755	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:45:06**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32947	4	Standard
[> Sc	45		ug/L			443281	523130	1	Standard
| Cr	52	3.049	ug/L	0.019	0	7163	51723	0	Standard
| Cr	53	2.997	ug/L	0.101	3	487	5480	1	Standard
[> Ge	72		ug/L			28284	26198	1	KED
| Cu	63	0.207	ug/L	0.013	6	33	751	6	KED
| Cu	65	0.197	ug/L	0.016	8	11	359	6	KED
| Zn	66	0.798	ug/L	0.056	6	33	376	6	KED
| Zn	67	1.112	ug/L	0.183	16	6	84	16	KED
| As	75	1.668	ug/L	0.095	5	2	353	6	KED
Y	89		ug/L			34497	35978	1	Standard
Kr	83		ug/L			33	37	20	Standard
[> In-1	115		ug/L			5536	5284	2	KED
| Cd	111	-0.007	ug/L	0.009	119	4	2	57	KED
| Cd	114	-0.010	ug/L	0.004	37	6	1	126	KED
[> In	115		ug/L			370942	365163	1	Standard
| Ag	107	0.000	ug/L	0.000	264	18	20	28	Standard
[> Tb	159		ug/L			161944	158726	1	Standard
| Pb	208	0.012	ug/L	0.001	7	380	1262	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:49:27**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	34191	0	Standard
[>	Sc	45		ug/L			443281	516002	2	Standard
|	Cr	52	-0.006	ug/L	0.011	179	7163	8248	1	Standard
|	Cr	53	0.032	ug/L	0.005	15	487	619	2	Standard
[>	Ge	72		ug/L			28284	25749	0	KED
|	Cu	63	0.378	ug/L	0.009	2	33	1324	2	KED
|	Cu	65	0.373	ug/L	0.016	4	11	659	4	KED
|	Zn	66	1.026	ug/L	0.143	13	33	467	13	KED
|	Zn	67	1.694	ug/L	0.044	2	6	123	2	KED
|	As	75	1.550	ug/L	0.094	6	2	323	5	KED
	Y	89		ug/L			34497	36548	0	Standard
	Kr	83		ug/L			33	38	5	Standard
[>	In-1	115		ug/L			5536	4911	2	KED
|	Cd	111	0.028	ug/L	0.014	50	4	8	26	KED
|	Cd	114	0.011	ug/L	0.005	42	6	10	17	KED
[>	In	115		ug/L			370942	370348	2	Standard
|	Ag	107	0.000	ug/L	0.001	579	18	19	39	Standard
[>	Tb	159		ug/L			161944	160625	1	Standard
|	Pb	208	0.026	ug/L	0.003	9	380	2387	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:53:49**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	35272	2	Standard
[>	Sc	45		ug/L			443281	555008	1	Standard
|	Cr	52	1.088	ug/L	0.016	1	7163	25353	2	Standard
|	Cr	53	1.102	ug/L	0.017	1	487	2524	0	Standard
[>	Ge	72		ug/L			28284	26216	2	KED
|	Cu	63	0.672	ug/L	0.029	4	33	2370	3	KED
|	Cu	65	0.645	ug/L	0.018	2	11	1151	2	KED
|	Zn	66	1.342	ug/L	0.058	4	33	612	4	KED
|	Zn	67	2.072	ug/L	0.217	10	6	152	12	KED
|	As	75	1.109	ug/L	0.036	3	2	236	1	KED
	Y	89		ug/L			34497	35884	0	Standard
	Kr	83		ug/L			33	29	39	Standard
[>	In-1	115		ug/L			5536	5217	0	KED
|	Cd	111	0.001	ug/L	0.015	1144	4	4	65	KED
|	Cd	114	-0.005	ug/L	0.006	113	6	4	72	KED
[>	In	115		ug/L			370942	366141	1	Standard
|	Ag	107	0.008	ug/L	0.001	9	18	116	8	Standard
[>	Tb	159		ug/L			161944	158946	1	Standard
|	Pb	208	0.018	ug/L	0.001	3	380	1760	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 07:58:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	36798	3	Standard
[> Sc	45		ug/L			443281	544050	2	Standard
| Cr	52	-0.054	ug/L	0.011	20	7163	7999	2	Standard
| Cr	53	-0.025	ug/L	0.011	43	487	556	6	Standard
[> Ge	72		ug/L			28284	26708	0	KED
| Cu	63	0.838	ug/L	0.016	1	33	3003	0	KED
| Cu	65	0.846	ug/L	0.014	1	11	1535	1	KED
| Zn	66	0.633	ug/L	0.066	10	33	311	10	KED
| Zn	67	1.047	ug/L	0.035	3	6	81	2	KED
| As	75	1.910	ug/L	0.048	2	2	412	1	KED
Y	89		ug/L			34497	36725	2	Standard
Kr	83		ug/L			33	29	3	Standard
[> In-1	115		ug/L			5536	5148	2	KED
| Cd	111	-0.002	ug/L	0.006	341	4	3	25	KED
| Cd	114	-0.004	ug/L	0.004	117	6	4	46	KED
[> In	115		ug/L			370942	365824	4	Standard
| Ag	107	0.000	ug/L	0.001	338	18	22	71	Standard
[> Tb	159		ug/L			161944	160908	1	Standard
| Pb	208	0.007	ug/L	0.001	14	380	956	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:02:31**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	33011	2	Standard
[> Sc	45		ug/L			443281	509288	2	Standard
| Cr	52	-0.004	ug/L	0.002	69	7163	8181	2	Standard
| Cr	53	-0.019	ug/L	0.020	105	487	530	8	Standard
[> Ge	72		ug/L			28284	26402	2	KED
| Cu	63	0.237	ug/L	0.027	11	33	859	8	KED
| Cu	65	0.242	ug/L	0.021	8	11	441	10	KED
| Zn	66	1.050	ug/L	0.024	2	33	488	0	KED
| Zn	67	1.334	ug/L	0.162	12	6	100	14	KED
| As	75	4.736	ug/L	0.192	4	2	1007	1	KED
Y	89		ug/L			34497	35818	2	Standard
Kr	83		ug/L			33	32	10	Standard
[> In-1	115		ug/L			5536	5114	2	KED
| Cd	111	-0.003	ug/L	0.006	162	4	3	31	KED
| Cd	114	-0.006	ug/L	0.000	1	6	3	1	KED
[> In	115		ug/L			370942	371382	2	Standard
| Ag	107	-0.000	ug/L	0.001	185	18	14	52	Standard
[> Tb	159		ug/L			161944	160844	0	Standard
| Pb	208	0.022	ug/L	0.000	0	380	2106	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-06**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:06:53**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	33260	5	Standard
[> Sc	45		ug/L			443281	520994	3	Standard
| Cr	52	0.001	ug/L	0.021	4047	7163	8419	0	Standard
| Cr	53	-0.004	ug/L	0.018	446	487	566	7	Standard
[> Ge	72		ug/L			28284	25960	2	KED
| Cu	63	0.316	ug/L	0.022	7	33	1118	5	KED
| Cu	65	0.311	ug/L	0.013	4	11	554	4	KED
| Zn	66	0.932	ug/L	0.103	11	33	430	10	KED
| Zn	67	1.015	ug/L	0.185	18	6	76	17	KED
| As	75	12.863	ug/L	0.161	1	2	2690	1	KED
Y	89		ug/L			34497	35627	1	Standard
Kr	83		ug/L			33	32	15	Standard
[> In-1	115		ug/L			5536	5174	1	KED
| Cd	111	-0.007	ug/L	0.005	78	4	2	33	KED
| Cd	114	0.000	ug/L	0.012	3000	6	6	86	KED
[> In	115		ug/L			370942	378984	3	Standard
| Ag	107	0.001	ug/L	0.001	67	18	36	33	Standard
[> Tb	159		ug/L			161944	157933	1	Standard
| Pb	208	0.008	ug/L	0.000	1	380	960	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:11:15

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24312	3	Standard
[>	Sc	45	ug/L			443281	423709	1	Standard
|	Cr	52	ug/L	0.018	103	7163	6650	4	Standard
|	Cr	53	ug/L	0.017	11	487	257	9	Standard
[>	Ge	72	ug/L			28284	26243	0	KED
|	Cu	63	ug/L	0.004	200	33	24	55	KED
|	Cu	65	ug/L	0.001	43	11	15	12	KED
|	Zn	66	ug/L	0.003	8	33	17	6	KED
|	Zn	67	ug/L	0.071	236	6	3	132	KED
|	As	75	ug/L	0.002	271	2	2	20	KED
	Y	89	ug/L			34497	34766	2	Standard
	Kr	83	ug/L			33	34	8	Standard
[>	In-1	115	ug/L			5536	5110	2	KED
|	Cd	111	ug/L	0.010	146	4	2	66	KED
|	Cd	114	ug/L	0.006	72	6	2	125	KED
[>	In	115	ug/L			370942	363346	3	Standard
|	Ag	107	ug/L	0.000	31	18	7	43	Standard
[>	Tb	159	ug/L			161944	156921	0	Standard
|	Pb	208	ug/L	0.000	5	380	127	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:15:37

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23131	6	Standard
[> Sc	45		ug/L			443281	429452	4	Standard
| Cr	52	43.137	ug/L	1.283	2	7163	509091	2	Standard
| Cr	53	42.532	ug/L	1.016	2	487	57617	4	Standard
[> Ge	72		ug/L			28284	26845	1	KED
| Cu	63	48.586	ug/L	1.204	2	33	173318	0	KED
| Cu	65	47.759	ug/L	1.161	2	11	86522	1	KED
| Zn	66	48.700	ug/L	0.829	1	33	21613	1	KED
| Zn	67	49.974	ug/L	1.175	2	6	3617	2	KED
| As	75	48.187	ug/L	0.497	1	2	10414	0	KED
Y	89		ug/L			34497	35680	2	Standard
Kr	83		ug/L			33	40	7	Standard
[> In-1	115		ug/L			5536	5483	1	KED
| Cd	111	47.087	ug/L	0.889	1	4	9340	0	KED
| Cd	114	47.831	ug/L	1.184	2	6	24201	0	KED
[> In	115		ug/L			370942	373329	1	Standard
| Ag	107	48.273	ug/L	0.181	0	18	586801	1	Standard
[> Tb	159		ug/L			161944	157225	4	Standard
| Pb	208	55.524	ug/L	1.115	2	380	4214059	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBP

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 08:22:42

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\051123_A.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	23153	6	Standard
[>	Sc	45	ug/L			443281	426749	1	Standard
|	Cr	52	ug/L	0.016	49	7163	6515	2	Standard
|	Cr	53	ug/L	0.014	7	487	225	9	Standard
[>	Ge	72	ug/L			28284	27054	1	KED
|	Cu	63	ug/L	0.001	206	33	33	13	KED
|	Cu	65	ug/L	0.001	59	11	12	8	KED
|	Zn	66	ug/L	0.016	53	33	19	36	KED
|	Zn	67	ug/L	0.031	226	6	5	43	KED
|	As	75	ug/L	0.006	51	2	4	26	KED
	Y	89	ug/L			34497	35176	3	Standard
	Kr	83	ug/L			33	33	28	Standard
[>	In-1	115	ug/L			5536	5166	3	KED
|	Cd	111	ug/L	0.006	81	4	2	33	KED
|	Cd	114	ug/L	0.006	72	6	2	122	KED
[>	In	115	ug/L			370942	374701	4	Standard
|	Ag	107	ug/L	0.001	150	18	24	35	Standard
[>	Tb	159	ug/L			161944	156776	3	Standard
|	Pb	208	ug/L	0.000	60	380	318	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:27:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30709	1	Standard
[>	Ge	72	ug/L			28284	26538	1	KED
[	As	75	ug/L	0.226	1	2	2660	2	KED
	Y	89	ug/L			34497	36716	2	Standard
	Kr	83	ug/L			33	37	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0494-08

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 08:30:59

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	32393	0	Standard
Ge	72		ug/L			28284	25720	1	KED
As	75	1.257	ug/L	0.241	19	2	262	17	KED
Y	89		ug/L			34497	35640	3	Standard
Kr	83		ug/L			33	45	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:34:26**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	38746	1	Standard
[>	Ge	72	ug/L			28284	25415	1	KED
[	As	1.516	ug/L	0.073	4	2	312	4	KED
	Y	89	ug/L			34497	36620	0	Standard
	Kr	83	ug/L			33	33	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-10**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:37:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	57220	3	Standard
[>	Ge	72	ug/L			28284	25650	1	KED
[	As	75	ug/L	0.033	0	2	697	0	KED
	Y	89	ug/L			34497	44371	2	Standard
	Kr	83	ug/L			33	36	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0494-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:41:40**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	39588	3	Standard
[>	Ge	72	ug/L			28284	26578	1	KED
[	As	75	ug/L	0.072	5	2	287	5	KED
	Y	89	ug/L			34497	37588	2	Standard
	Kr	83	ug/L			33	37	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-02**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:46:32**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25866	1	Standard
[>	Ge	72	ug/L			28284	25532	1	KED
[	As	75	ug/L	0.082	3	2	468	4	KED
	Y	89	ug/L			34497	41271	3	Standard
	Kr	83	ug/L			33	34	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-DUP1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:50:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25448	0	Standard
[>	Ge	72	ug/L			28284	25336	0	KED
[	As	75	ug/L	0.019	0	2	465	1	KED
	Y	89	ug/L			34497	40019	5	Standard
	Kr	83	ug/L			33	24	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLE0134-MS1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 08:53:22**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25656	2	Standard
[>	Ge	72	ug/L			28284	25138	0	KED
[	As	75	ug/L	0.068	0	2	1525	0	KED
	Y	89	ug/L			34497	40825	2	Standard
	Kr	83	ug/L			33	40	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLE0134-MSD1

Sample Dil Factor: 5

DEL

Comments:

Sample Date/Time: Friday, May 12, 2023 08:57:14

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	25165	4	Standard
[> Ge	72		ug/L			28284	22831	11	KED
[As	75	8.315	ug/L	0.579	6	2	1523	6	KED
Y	89		ug/L			34497	41090	2	Standard
Kr	83		ug/L			33	44	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLT

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:00:43

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21044	3	Standard
[>	Ge	72	ug/L			28284	25195	1	KED
[	As	75	0.005	0.005	97	2	3	31	KED
	Y	89	ug/L			34497	36387	4	Standard
	Kr	83	ug/L			33	32	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:04:11

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	19365	3	Standard
Ge	72		ug/L			28284	25866	2	KED
As	75	48.718	ug/L	1.079	2	2	10142	0	KED
Y	89		ug/L			34497	35732	3	Standard
Kr	83		ug/L			33	40	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBQ

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:10:23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	19521	6	Standard
[> Ge	72		ug/L			28284	26236	1	KED
[As	75	0.004	ug/L	0.007	188	2	3	50	KED
Y	89		ug/L			34497	36358	4	Standard
Kr	83		ug/L			33	42	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:13:52**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	32027	1	Standard
[>	Ge	72	ug/L			28284	26007	1	KED
[	As	75	ug/L	0.049	5	2	188	4	KED
	Y	89	ug/L			34497	40247	1	Standard
	Kr	83	ug/L			33	39	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:17:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30397	2	Standard
[>	Ge	72	ug/L			28284	25458	1	KED
[	As	75	ug/L	0.006	0	2	177	2	KED
	Y	89	ug/L			34497	38663	1	Standard
	Kr	83	ug/L			33	40	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:20:47**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31369	1	Standard
[>	Ge	72	ug/L			28284	25256	1	KED
[	As	75	ug/L	0.013	1	2	139	3	KED
	Y	89	ug/L			34497	37846	4	Standard
	Kr	83	ug/L			33	38	31	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:24:15**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31068	2	Standard
[>	Ge	72	ug/L			28284	25354	1	KED
[	As	75	ug/L	0.024	2	2	169	3	KED
	Y	89	ug/L			34497	38519	3	Standard
	Kr	83	ug/L			33	41	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:27:43**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	28545	3	Standard
[>	Ge	72	ug/L			28284	25863	0	KED
[	As	75	ug/L	0.085	6	2	286	5	KED
	Y	89	ug/L			34497	41558	3	Standard
	Kr	83	ug/L			33	36	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:31:10**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	30064	0	Standard
[>	Ge	72	ug/L			28284	25241	1	KED
[	As	75	ug/L	0.091	9	2	200	8	KED
	Y	89	ug/L			34497	41326	4	Standard
	Kr	83	ug/L			33	38	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-13**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:34:38**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	34038	1	Standard
[>	Ge	72	ug/L			28284	25584	0	KED
[	As	75	ug/L	0.040	9	2	90	8	KED
	Y	89	ug/L			34497	37964	2	Standard
	Kr	83	ug/L			33	34	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0588-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:38:00**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31176	2	Standard
[>	Ge	72	ug/L			28284	25211	1	KED
[	As	75	ug/L	0.064	6	2	199	5	KED
	Y	89	ug/L			34497	38058	1	Standard
	Kr	83	ug/L			33	44	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-03**

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:41:51

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	29462	1	Standard
[>	Ge	72	ug/L			28284	26481	1	KED
[	As	75	ug/L	0.002	158	2	1	25	KED
	Y	89	ug/L			34497	37168	0	Standard
	Kr	83	ug/L			33	33	43	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLU

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:45:20

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21654	1	Standard
[>	Ge	72	ug/L			28284	25096	1	KED
[	As	75	0.007	0.007	97	2	3	39	KED
	Y	89	ug/L			34497	35617	3	Standard
	Kr	83	ug/L			33	26	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:48:48

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	20136	4	Standard
[>	Ge	72	ug/L			28284	25943	0	KED
[	As	75	48.782	0.808	1	2	10190	1	KED
	Y	89	ug/L			34497	35774	1	Standard
	Kr	83	ug/L			33	40	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBR

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 09:55:00

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	20341	2	Standard
[>	Ge	72		ug/L			28284	26117	1	KED
[	As	75	0.002	ug/L	0.009	576	2	2	75	KED
	Y	89		ug/L			34497	36037	3	Standard
	Kr	83		ug/L			33	38	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 09:58:29**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25634	2	Standard
[>	Ge	72	ug/L			28284	25170	1	KED
[	As	75	ug/L	0.067	3	2	386	1	KED
	Y	89	ug/L			34497	47569	1	Standard
	Kr	83	ug/L			33	41	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-04**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:01:57**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	23088	1	Standard
[> Ge	72		ug/L			28284	25083	0	KED
[As	75	2.690	ug/L	0.083	3	2	545	3	KED
Y	89		ug/L			34497	39491	2	Standard
Kr	83		ug/L			33	38	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0587-05**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:05:19**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24086	2	Standard
[>	Ge	72	ug/L			28284	25297	0	KED
[	As	75	ug/L	0.061	2	2	547	2	KED
	Y	89	ug/L			34497	39866	2	Standard
	Kr	83	ug/L			33	38	43	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-07**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:09:11**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	28092	1	Standard
[>	Ge	72	ug/L			28284	24265	2	KED
[	As	75	ug/L	0.045	1	2	714	2	KED
	Y	89	ug/L			34497	36517	3	Standard
	Kr	83	ug/L			33	48	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-08**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:12:39**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24129	1	Standard
[>	Ge	72	ug/L			28284	24842	1	KED
[	As	75	ug/L	0.065	3	2	391	2	KED
	Y	89	ug/L			34497	39994	1	Standard
	Kr	83	ug/L			33	40	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-04**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:16:01**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	27316	1	Standard
[>	Ge	72	ug/L			28284	25745	2	KED
[	As	75	ug/L	0.064	6	2	193	4	KED
	Y	89	ug/L			34497	51126	1	Standard
	Kr	83	ug/L			33	34	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-06**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:19:28**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			23953	26836	1	Standard
[> Ge	72		ug/L			28284	24007	0	KED
[As	75	3.754	ug/L	0.071	1	2	727	2	KED
Y	89		ug/L			34497	40963	1	Standard
Kr	83		ug/L			33	40	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:23:20**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	29306	2	Standard
[>	Ge	72	ug/L			28284	25776	3	KED
[	As	75	ug/L	0.005	71	2	3	27	KED
	Y	89	ug/L			34497	36300	2	Standard
	Kr	83	ug/L			33	45	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23D0578-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Friday, May 12, 2023 10:26:48**

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	31168	1	Standard
[>	Ge	72	ug/L			28284	23049	3	KED
[	As	75	ug/L	0.459	3	2	2270	1	KED
	Y	89	ug/L			34497	42422	0	Standard
	Kr	83	ug/L			33	52	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLV

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:30:17

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	22595	1	Standard
[>	Ge	72	ug/L			28284	25718	0	KED
[	As	75	ug/L	0.001	291	2	2	13	KED
	Y	89	ug/L			34497	35195	5	Standard
	Kr	83	ug/L			33	40	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:33:45

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	20551	1	Standard
[>	Ge	72	ug/L			28284	24988	0	KED
[	As	75	50.067	1.149	2	2	10073	2	KED
	Y	89	ug/L			34497	35581	2	Standard
	Kr	83	ug/L			33	49	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBS

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:39:57

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	20489	2	Standard
[>	Ge	72	ug/L			28284	25090	0	KED
[	As	75	0.002	0.006	279	2	2	47	KED
	Y	89	ug/L			34497	35714	2	Standard
	Kr	83	ug/L			33	38	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:43:25

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode	
	C	13	ug/L			23953	25632	2	Standard	
[>	Ge	72	ug/L			28284	26454	1	KED	
[As	75	0.006	ug/L	0.010	169	2	3	61	KED
	Y	89	ug/L			34497	41214	3	Standard	
	Kr	83	ug/L			33	38	24	Standard	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:46:53

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	24859	4	Standard
[>	Ge	72	ug/L			28284	26414	1	KED
[	As	75	0.000	0.005	9977	2	2	49	KED
	Y	89	ug/L			34497	38257	2	Standard
	Kr	83	ug/L			33	41	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:50:22

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	25074	4	Standard
[>	Ge	72	ug/L			28284	25856	5	KED
[	As	75	0.004	0.009	256	2	3	71	KED
	Y	89	ug/L			34497	40670	1	Standard
	Kr	83	ug/L			33	42	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:53:49

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			23953	21544	0	Standard
[>	Ge	72		ug/L			28284	24979	2	KED
[	As	75	-0.004	ug/L	0.001	29	2	1	21	KED
	Y	89		ug/L			34497	33632	2	Standard
	Kr	83		ug/L			33	40	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 10:57:18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21498	3	Standard
[>	Ge	72	ug/L			28284	24196	2	KED
[	As	75	0.000	0.004	2080	2	2	35	KED
	Y	89	ug/L			34497	33753	1	Standard
	Kr	83	ug/L			33	36	26	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Friday, May 12, 2023 11:00:46

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_dailymethod_ked_uct_as only.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File:

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			23953	21398	1	Standard
[>	Ge	72	ug/L			28284	25308	0	KED
[	As	75	0.000	0.010	2112	2	2	89	KED
	Y	89	ug/L			34497	34273	1	Standard
	Kr	83	ug/L			33	34	14	Standard



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-ICV1	Arsenic-75a	50.000	47.6	95.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0163-CCV1	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0163-CCV2	Arsenic-75a	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0163-CCV3	Arsenic-75a	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.5	105	ug/L	PA 6020B UCT-KE
SLE0163-CCV4	Arsenic-75a	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.5	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV4	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0163-CCV5	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.4	103	ug/L	PA 6020B UCT-KE
SLE0163-CCV6	Arsenic-75a	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLE0163-CCV7	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	53.4	107	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.0	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLE0163-CCV8	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.0	104	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.6	105	ug/L	PA 6020B UCT-KE
SLE0163-CCV9	Arsenic-75a	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.1	102	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCV9	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
SLE0163-CCVA	Arsenic-75a	50.000	48.6	97.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0163-CCVB	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0163-CCVC	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	53.5	107	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	53.7	107	ug/L	PA 6020B UCT-KE
SLE0163-CCVD	Copper-65	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.2	104	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLE0163-CCVE	Copper-63	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.9	106	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0163-CCVE	Cadmium-114	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Control Limit: +/- 10.00%

Sequence: SLE0163

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0163-CCVE	Copper-65	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.3	103	ug/L	PA 6020B UCT-KE
SLE0163-CCVF	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.7	105	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-ICV1	Arsenic-75a	50.000	48.2	96.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0204-CCV1	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLE0204-CCV2	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV3	Arsenic-75a	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.4	96.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0204-CCV4	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV4	Zinc-67	50.000	52.0	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV5	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
SLE0204-CCV6	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLE0204-CCV7	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLE0204-CCV8	Arsenic-75a	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.2	96.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
SLE0204-CCV9	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.3	101	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCV9	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.9	104	ug/L	PA 6020B UCT-KE
SLE0204-CCVA	Arsenic-75a	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.6	97.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.4	96.9	ug/L	PA 6020B UCT-KE
SLE0204-CCVB	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.5	97.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.7	97.3	ug/L	PA 6020B UCT-KE
SLE0204-CCVC	Zinc-66	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLE0204-CCVD	Copper-65	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
SLE0204-CCVE	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLE0204-CCVE	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method	
SLE0204-CCVE	Copper-65	50.000	50.6	101	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	51.8	104	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	51.0	102	ug/L	PA 6020B UCT-KE	
SLE0204-CCVF	Arsenic-75a	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE	
	Cadmium-111	50.000	50.3	101	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	51.8	104	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.7	101	ug/L	PA 6020B UCT-KE	
	SLE0204-CCVG	Arsenic-75a	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	50.8	102	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE	
	SLE0204-CCVH	Arsenic-75a	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	51.1	102	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE	
	SLE0204-CCVI	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.5	101	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE	
	SLE0204-CCVJ	Arsenic-75a	50.000	49.2	98.3	ug/L	PA 6020B UCT-KE
		Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.1	100	ug/L	PA 6020B UCT-KE	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Control Limit: +/- 10.00%

Sequence: SLE0204

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0204-CCVJ	Copper-63	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-ICV1	Arsenic-75a	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0209-CCV1	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.7	101	ug/L	PA 6020B UCT-KE
SLE0209-CCV2	Arsenic-75a	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	47.9	95.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
SLE0209-CCV3	Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.4	96.8	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
SLE0209-CCV4	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCV4	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCV7	Arsenic-75a	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0209-CCV8	Arsenic-75a	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.3	103	ug/L	PA 6020B UCT-KE
SLE0209-CCVA	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.8	104	ug/L	PA 6020B UCT-KE
SLE0209-CCVB	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.3	96.7	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCVC	Arsenic-75a	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVC	Zinc-66	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLE0209-CCVD	Arsenic-75a	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.4	96.9	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0209-CCVE	Zinc-67	50.000	49.9	99.9	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.1	96.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.4	101	ug/L	PA 6020B UCT-KE
SLE0209-CCVF	Arsenic-75a	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.6	97.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.4	101	ug/L	PA 6020B UCT-KE
SLE0209-CCVG	Arsenic-75a	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
SLE0209-CCVH	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVH	Copper-65	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLE0209-CCVI	Arsenic-75a	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
SLE0209-CCVJ	Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
SLE0209-CCVK	Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Arsenic-75a	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
SLE0209-CCVL	Cadmium-111	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.1	100	ug/L	PA 6020B UCT-KE
SLE0209-CCVM	Arsenic-75a	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Control Limit: +/- 10.00%

Sequence: SLE0209

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0209-CCVM	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.8	97.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
SLE0209-CCVN	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.7	ug/L	PA 6020B UCT-KE
	SLE0209-CCVO	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
SLE0209-CCVP	Cadmium-111	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	SLE0209-CCVQ	Arsenic-75a	50.000	48.2	96.4	ug/L	PA 6020B UCT-KE
SLE0209-CCVR	Cadmium-111	50.000	47.1	94.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	47.8	95.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.6	97.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.8	95.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	SLE0209-CCVQ	Arsenic-75a	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
SLE0209-CCVR	Arsenic-75a	50.000	48.8	97.6	ug/L	PA 6020B UCT-KE
SLE0209-CCVS	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 15:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-IBL1	Cadmium-111	0.0170	0.03	0.100	ug/L	
SLE0163-IBL1	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0163-IBL1	Copper-63	-0.00900	0.173	0.500	ug/L	
SLE0163-IBL1	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-IBL1	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-IBL1	Zinc-67	0.00	0.94	6.00	ug/L	
SLE0163-ICB1	Arsenic-75a	-0.0110	0.0373	0.200	ug/L	
SLE0163-ICB1	Cadmium-111	0.0110	0.03	0.100	ug/L	
SLE0163-ICB1	Cadmium-114	-0.00700	0.04	0.100	ug/L	
SLE0163-ICB1	Copper-63	-0.0100	0.173	0.500	ug/L	
SLE0163-ICB1	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0163-ICB1	Zinc-66	0.0220	2.92	6.00	ug/L	
SLE0163-ICB1	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0163-CCB1	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0163-CCB1	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCB1	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0163-CCB1	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0163-CCB1	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0163-CCB1	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-CCB1	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0163-IBL2	Arsenic-75a	0.0880	0.0373	0.200	ug/L	
SLE0163-IBL2	Cadmium-111	0.0100	0.03	0.100	ug/L	
SLE0163-IBL2	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0163-IBL2	Copper-63	0.0890	0.173	0.500	ug/L	
SLE0163-IBL2	Copper-65	0.0860	0.35	0.500	ug/L	
SLE0163-IBL2	Zinc-66	0.158	2.92	6.00	ug/L	
SLE0163-IBL2	Zinc-67	0.222	0.94	6.00	ug/L	
SLE0163-IBL3	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0163-IBL3	Cadmium-111	0.0230	0.03	0.100	ug/L	
SLE0163-IBL3	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-IBL3	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0163-IBL3	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-IBL3	Zinc-66	0.0840	2.92	6.00	ug/L	
SLE0163-IBL3	Zinc-67	0.132	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 17:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCB2	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0163-CCB2	Cadmium-111	0.0160	0.03	0.100	ug/L	
SLE0163-CCB2	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-CCB2	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0163-CCB2	Copper-65	0.00	0.35	0.500	ug/L	
SLE0163-CCB2	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0163-CCB2	Zinc-67	0.0420	0.94	6.00	ug/L	
SLE0163-IBL4	Arsenic-75a	-0.0100	0.0373	0.200	ug/L	
SLE0163-IBL4	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL4	Cadmium-114	-0.00400	0.04	0.100	ug/L	
SLE0163-IBL4	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0163-IBL4	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-IBL4	Zinc-66	0.145	2.92	6.00	ug/L	
SLE0163-IBL4	Zinc-67	0.239	0.94	6.00	ug/L	
SLE0163-IBL5	Arsenic-75a	-0.0120	0.0373	0.200	ug/L	
SLE0163-IBL5	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL5	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLE0163-IBL5	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0163-IBL5	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0163-IBL5	Zinc-66	0.158	2.92	6.00	ug/L	
SLE0163-IBL5	Zinc-67	0.0930	0.94	6.00	ug/L	
SLE0163-CCB3	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0163-CCB3	Cadmium-111	0.00800	0.03	0.100	ug/L	
SLE0163-CCB3	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0163-CCB3	Copper-63	-0.00900	0.173	0.500	ug/L	
SLE0163-CCB3	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0163-CCB3	Zinc-66	0.0350	2.92	6.00	ug/L	
SLE0163-CCB3	Zinc-67	0.0680	0.94	6.00	ug/L	
SLE0163-CCB4	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0163-CCB4	Cadmium-111	0.0330	0.03	0.100	ug/L	
SLE0163-CCB4	Cadmium-114	0.0340	0.04	0.100	ug/L	
SLE0163-CCB4	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-CCB4	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0163-CCB4	Zinc-66	-0.0040	2.92	6.00	ug/L	
SLE0163-CCB4	Zinc-67	0.0320	0.94	6.00	ug/L	
SLE0163-IBL6	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 19:57

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL6	Cadmium-111	0.00800	0.03	0.100	ug/L	
SLE0163-IBL6	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBL6	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0163-IBL6	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-IBL6	Zinc-66	0.131	2.92	6.00	ug/L	
SLE0163-IBL6	Zinc-67	0.117	0.94	6.00	ug/L	
SLE0163-CCB5	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCB5	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLE0163-CCB5	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCB5	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB5	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0163-CCB5	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0163-CCB5	Zinc-67	0.0200	0.94	6.00	ug/L	
SLE0163-IBL7	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBL7	Cadmium-111	0.0130	0.03	0.100	ug/L	
SLE0163-IBL7	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBL7	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-IBL7	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0163-IBL7	Zinc-66	0.166	2.92	6.00	ug/L	
SLE0163-IBL7	Zinc-67	0.0850	0.94	6.00	ug/L	
SLE0163-CCB6	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCB6	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCB6	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-CCB6	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB6	Copper-65	0.00	0.35	0.500	ug/L	
SLE0163-CCB6	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0163-CCB6	Zinc-67	0.0060	0.94	6.00	ug/L	
SLE0163-CCB7	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB7	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0163-CCB7	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-CCB7	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-CCB7	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0163-CCB7	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0163-CCB7	Zinc-67	0.0320	0.94	6.00	ug/L	
SLE0163-IBL8	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBL8	Cadmium-111	0.0120	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/09/23 22:22

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBL8	Cadmium-114	0.0130	0.04	0.100	ug/L	
SLE0163-IBL8	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-IBL8	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0163-IBL8	Zinc-66	0.0260	2.92	6.00	ug/L	
SLE0163-IBL8	Zinc-67	0.0020	0.94	6.00	ug/L	
SLE0163-CCB8	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB8	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCB8	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0163-CCB8	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-CCB8	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCB8	Zinc-66	0.0580	2.92	6.00	ug/L	
SLE0163-CCB8	Zinc-67	0.0410	0.94	6.00	ug/L	
SLE0163-IBL9	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0163-IBL9	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-IBL9	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-IBL9	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0163-IBL9	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBL9	Zinc-66	0.0090	2.92	6.00	ug/L	
SLE0163-IBL9	Zinc-67	0.0150	0.94	6.00	ug/L	
SLE0163-CCB9	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCB9	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0163-CCB9	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-CCB9	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0163-CCB9	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-CCB9	Zinc-66	0.0440	2.92	6.00	ug/L	
SLE0163-CCB9	Zinc-67	0.0200	0.94	6.00	ug/L	
SLE0163-IBLA	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-IBLA	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0163-IBLA	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0163-IBLA	Copper-63	0.0240	0.173	0.500	ug/L	
SLE0163-IBLA	Copper-65	0.0220	0.35	0.500	ug/L	
SLE0163-IBLA	Zinc-66	0.0900	2.92	6.00	ug/L	
SLE0163-IBLA	Zinc-67	0.0190	0.94	6.00	ug/L	
SLE0163-CCBA	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-CCBA	Cadmium-111	0.0110	0.03	0.100	ug/L	
SLE0163-CCBA	Cadmium-114	-0.00100	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 00:23

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBA	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0163-CCBA	Copper-65	0.0130	0.35	0.500	ug/L	
SLE0163-CCBA	Zinc-66	0.0470	2.92	6.00	ug/L	
SLE0163-CCBA	Zinc-67	0.0180	0.94	6.00	ug/L	
SLE0163-IBLB	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-IBLB	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0163-IBLB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLB	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0163-IBLB	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0163-IBLB	Zinc-66	0.0170	2.92	6.00	ug/L	
SLE0163-IBLB	Zinc-67	0.0080	0.94	6.00	ug/L	
SLE0163-CCBB	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-CCBB	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCBB	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBB	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-CCBB	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0163-CCBB	Zinc-66	0.0550	2.92	6.00	ug/L	
SLE0163-CCBB	Zinc-67	0.0610	0.94	6.00	ug/L	
SLE0163-IBLC	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLC	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0163-IBLC	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLC	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0163-IBLC	Copper-65	0.0160	0.35	0.500	ug/L	
SLE0163-IBLC	Zinc-66	0.0150	2.92	6.00	ug/L	
SLE0163-IBLC	Zinc-67	0.0290	0.94	6.00	ug/L	
SLE0163-IBLD	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLD	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0163-IBLD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBLD	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0163-IBLD	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLD	Zinc-66	0.0070	2.92	6.00	ug/L	
SLE0163-IBLD	Zinc-67	0.0240	0.94	6.00	ug/L	
SLE0163-CCBC	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0163-CCBC	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-CCBC	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBC	Copper-63	0.00500	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 02:12

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-CCBC	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0163-CCBC	Zinc-66	0.0380	2.92	6.00	ug/L	
SLE0163-CCBC	Zinc-67	0.0550	0.94	6.00	ug/L	
SLE0163-IBL	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-IBL	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0163-IBL	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBL	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0163-IBL	Copper-65	0.0150	0.35	0.500	ug/L	
SLE0163-IBL	Zinc-66	0.0460	2.92	6.00	ug/L	
SLE0163-IBL	Zinc-67	0.0590	0.94	6.00	ug/L	
SLE0163-IBLF	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0163-IBLF	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-IBLF	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLF	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLF	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0163-IBLF	Zinc-67	0.0600	0.94	6.00	ug/L	
SLE0163-CCBD	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLE0163-CCBD	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0163-CCBD	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0163-CCBD	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0163-CCBD	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCBD	Zinc-66	0.0530	2.92	6.00	ug/L	
SLE0163-CCBD	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0163-IBLG	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0163-IBLG	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLE0163-IBLG	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0163-IBLG	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0163-IBLG	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLG	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLE0163-IBLG	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0163-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0163-IBLH	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0163-IBLH	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0163-IBLH	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLH	Copper-65	0.00500	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Date Analyzed: 05/10/23 03:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0163-IBLH	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLE0163-IBLH	Zinc-67	-0.0240	0.94	6.00	ug/L	
SLE0163-CCBE	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0163-CCBE	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0163-CCBE	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0163-CCBE	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0163-CCBE	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0163-CCBE	Zinc-66	0.0450	2.92	6.00	ug/L	
SLE0163-CCBE	Zinc-67	0.0450	0.94	6.00	ug/L	
SLE0163-IBLI	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0163-IBLI	Cadmium-111	0.0100	0.03	0.100	ug/L	
SLE0163-IBLI	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0163-IBLI	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0163-IBLI	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0163-IBLI	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0163-IBLI	Zinc-67	-0.0090	0.94	6.00	ug/L	
SLE0163-CCBF	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0163-CCBF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0163-CCBF	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0163-CCBF	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0163-CCBF	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0163-CCBF	Zinc-66	0.0570	2.92	6.00	ug/L	
SLE0163-CCBF	Zinc-67	0.0730	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 16:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBL1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0204-IBL1	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0204-IBL1	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL1	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-IBL1	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0204-IBL1	Zinc-66	0.0070	2.92	6.00	ug/L	
SLE0204-IBL1	Zinc-67	-0.0250	0.94	6.00	ug/L	
SLE0204-ICB1	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-ICB1	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-ICB1	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLE0204-ICB1	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0204-ICB1	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-ICB1	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0204-ICB1	Zinc-67	-0.0030	0.94	6.00	ug/L	
SLE0204-CCB1	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0204-CCB1	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-CCB1	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-CCB1	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0204-CCB1	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0204-CCB1	Zinc-66	0.0050	2.92	6.00	ug/L	
SLE0204-CCB1	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0204-IBL2	Arsenic-75a	0.0130	0.0373	0.200	ug/L	
SLE0204-IBL2	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0204-IBL2	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBL2	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-IBL2	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-IBL2	Zinc-66	0.0190	2.92	6.00	ug/L	
SLE0204-IBL2	Zinc-67	0.0310	0.94	6.00	ug/L	
SLE0204-CCB2	Arsenic-75a	0.00800	0.0373	0.200	ug/L	
SLE0204-CCB2	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0204-CCB2	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCB2	Copper-63	0.00	0.173	0.500	ug/L	
SLE0204-CCB2	Copper-65	0.00	0.35	0.500	ug/L	
SLE0204-CCB2	Zinc-66	0.0090	2.92	6.00	ug/L	
SLE0204-CCB2	Zinc-67	-0.0040	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 17:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB3	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-CCB3	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLE0204-CCB3	Cadmium-114	0.0270	0.04	0.100	ug/L	
SLE0204-CCB3	Copper-63	0.00	0.173	0.500	ug/L	
SLE0204-CCB3	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-CCB3	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0204-CCB3	Zinc-67	-0.0230	0.94	6.00	ug/L	
SLE0204-IBL3	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0204-IBL3	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-IBL3	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL3	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0204-IBL3	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0204-IBL3	Zinc-66	0.0820	2.92	6.00	ug/L	
SLE0204-IBL3	Zinc-67	0.0490	0.94	6.00	ug/L	
SLE0204-CCB4	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0204-CCB4	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-CCB4	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-CCB4	Copper-63	0.00600	0.173	0.500	ug/L	
SLE0204-CCB4	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-CCB4	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLE0204-CCB4	Zinc-67	0.0040	0.94	6.00	ug/L	
SLE0204-IBL4	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBL4	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0204-IBL4	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL4	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0204-IBL4	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-IBL4	Zinc-66	0.0700	2.92	6.00	ug/L	
SLE0204-IBL4	Zinc-67	0.0350	0.94	6.00	ug/L	
SLE0204-IBL5	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBL5	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0204-IBL5	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0204-IBL5	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0204-IBL5	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-IBL5	Zinc-66	0.0530	2.92	6.00	ug/L	
SLE0204-IBL5	Zinc-67	0.0420	0.94	6.00	ug/L	
SLE0204-CCB5	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 19:56

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB5	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-CCB5	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB5	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB5	Copper-65	0.00	0.35	0.500	ug/L	
SLE0204-CCB5	Zinc-66	-0.0150	2.92	6.00	ug/L	
SLE0204-CCB5	Zinc-67	0.0150	0.94	6.00	ug/L	
SLE0204-CCB6	Arsenic-75a	0.0100	0.0373	0.200	ug/L	
SLE0204-CCB6	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-CCB6	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB6	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB6	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-CCB6	Zinc-66	-0.0240	2.92	6.00	ug/L	
SLE0204-CCB6	Zinc-67	-0.0910	0.94	6.00	ug/L	
SLE0204-IBL6	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-IBL6	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBL6	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-IBL6	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0204-IBL6	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0204-IBL6	Zinc-66	0.0170	2.92	6.00	ug/L	
SLE0204-IBL6	Zinc-67	-0.0430	0.94	6.00	ug/L	
SLE0204-CCB7	Arsenic-75a	0.0140	0.0373	0.200	ug/L	
SLE0204-CCB7	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLE0204-CCB7	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCB7	Copper-63	0.0230	0.173	0.500	ug/L	
SLE0204-CCB7	Copper-65	0.0230	0.35	0.500	ug/L	
SLE0204-CCB7	Zinc-66	-0.0280	2.92	6.00	ug/L	
SLE0204-CCB7	Zinc-67	-0.0330	0.94	6.00	ug/L	
SLE0204-IBL7	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0204-IBL7	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-IBL7	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0204-IBL7	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-IBL7	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-IBL7	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0204-IBL7	Zinc-67	-0.0920	0.94	6.00	ug/L	
SLE0204-CCB8	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0204-CCB8	Cadmium-111	-0.00900	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/10/23 22:32

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCB8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB8	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0204-CCB8	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0204-CCB8	Zinc-66	-0.0360	2.92	6.00	ug/L	
SLE0204-CCB8	Zinc-67	-0.0810	0.94	6.00	ug/L	
SLE0204-IBL8	Arsenic-75a	0.0750	0.0373	0.200	ug/L	
SLE0204-IBL8	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0204-IBL8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBL8	Copper-63	0.0820	0.173	0.500	ug/L	
SLE0204-IBL8	Copper-65	0.0820	0.35	0.500	ug/L	
SLE0204-IBL8	Zinc-66	0.206	2.92	6.00	ug/L	
SLE0204-IBL8	Zinc-67	0.0940	0.94	6.00	ug/L	
SLE0204-CCB9	Arsenic-75a	0.0230	0.0373	0.200	ug/L	
SLE0204-CCB9	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-CCB9	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCB9	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0204-CCB9	Copper-65	0.0180	0.35	0.500	ug/L	
SLE0204-CCB9	Zinc-66	0.0010	2.92	6.00	ug/L	
SLE0204-CCB9	Zinc-67	-0.0630	0.94	6.00	ug/L	
SLE0204-IBL9	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0204-IBL9	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0204-IBL9	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0204-IBL9	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0204-IBL9	Copper-65	0.0100	0.35	0.500	ug/L	
SLE0204-IBL9	Zinc-66	-0.0300	2.92	6.00	ug/L	
SLE0204-IBL9	Zinc-67	-0.0670	0.94	6.00	ug/L	
SLE0204-CCBA	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-CCBA	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0204-CCBA	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-CCBA	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0204-CCBA	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-CCBA	Zinc-66	-0.0580	2.92	6.00	ug/L	
SLE0204-CCBA	Zinc-67	-0.135	0.94	6.00	ug/L	
SLE0204-IBLA	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0204-IBLA	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0204-IBLA	Cadmium-114	0.00	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 01:08

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLA	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0204-IBLA	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0204-IBLA	Zinc-66	-0.0280	2.92	6.00	ug/L	
SLE0204-IBLA	Zinc-67	-0.109	0.94	6.00	ug/L	
SLE0204-CCBB	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0204-CCBB	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0204-CCBB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCBB	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0204-CCBB	Copper-65	0.0110	0.35	0.500	ug/L	
SLE0204-CCBB	Zinc-66	-0.0550	2.92	6.00	ug/L	
SLE0204-CCBB	Zinc-67	-0.111	0.94	6.00	ug/L	
SLE0204-CCBC	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-CCBC	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-CCBC	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBC	Copper-63	-0.0170	0.173	0.500	ug/L	
SLE0204-CCBC	Copper-65	-0.0240	0.35	0.500	ug/L	
SLE0204-CCBC	Zinc-66	-0.0230	2.92	6.00	ug/L	
SLE0204-CCBC	Zinc-67	-0.0620	0.94	6.00	ug/L	
SLE0204-IBLB	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLB	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-IBLB	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLB	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0204-IBLB	Copper-65	0.0100	0.35	0.500	ug/L	
SLE0204-IBLB	Zinc-66	-0.0130	2.92	6.00	ug/L	
SLE0204-IBLB	Zinc-67	-0.0850	0.94	6.00	ug/L	
SLE0204-CCBD	Arsenic-75a	0.0120	0.0373	0.200	ug/L	
SLE0204-CCBD	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-CCBD	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-CCBD	Copper-63	0.0110	0.173	0.500	ug/L	
SLE0204-CCBD	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0204-CCBD	Zinc-66	-0.0380	2.92	6.00	ug/L	
SLE0204-CCBD	Zinc-67	-0.0870	0.94	6.00	ug/L	
SLE0204-IBLC	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLC	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-IBLC	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBLC	Copper-63	-0.0300	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 02:57

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-IBLC	Copper-65	-0.0360	0.35	0.500	ug/L	
SLE0204-IBLC	Zinc-66	-0.0170	2.92	6.00	ug/L	
SLE0204-IBLC	Zinc-67	-0.107	0.94	6.00	ug/L	
SLE0204-IBLD	Arsenic-75a	-0.00900	0.0373	0.200	ug/L	
SLE0204-IBLD	Cadmium-111	0.00	0.03	0.100	ug/L	
SLE0204-IBLD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0204-IBLD	Copper-63	-0.0310	0.173	0.500	ug/L	
SLE0204-IBLD	Copper-65	-0.0330	0.35	0.500	ug/L	
SLE0204-IBLD	Zinc-66	-0.0130	2.92	6.00	ug/L	
SLE0204-IBLD	Zinc-67	-0.0600	0.94	6.00	ug/L	
SLE0204-CCBE	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0204-CCBE	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0204-CCBE	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-CCBE	Copper-63	-0.0350	0.173	0.500	ug/L	
SLE0204-CCBE	Copper-65	-0.0400	0.35	0.500	ug/L	
SLE0204-CCBE	Zinc-66	-0.0710	2.92	6.00	ug/L	
SLE0204-CCBE	Zinc-67	-0.155	0.94	6.00	ug/L	
SLE0204-IBLE	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLE0204-IBLE	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0204-IBLE	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0204-IBLE	Copper-63	-0.0340	0.173	0.500	ug/L	
SLE0204-IBLE	Copper-65	-0.0360	0.35	0.500	ug/L	
SLE0204-IBLE	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0204-IBLE	Zinc-67	-0.0590	0.94	6.00	ug/L	
SLE0204-IBLF	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLF	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBLF	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBLF	Copper-63	-0.0350	0.173	0.500	ug/L	
SLE0204-IBLF	Copper-65	-0.0410	0.35	0.500	ug/L	
SLE0204-IBLF	Zinc-66	-0.0640	2.92	6.00	ug/L	
SLE0204-IBLF	Zinc-67	-0.122	0.94	6.00	ug/L	
SLE0204-CCBF	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-CCBF	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0204-CCBF	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBF	Copper-63	-0.0370	0.173	0.500	ug/L	
SLE0204-CCBF	Copper-65	-0.0380	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 04:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBF	Zinc-66	-0.0700	2.92	6.00	ug/L	
SLE0204-CCBF	Zinc-67	-0.130	0.94	6.00	ug/L	
SLE0204-CCBG	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0204-CCBG	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0204-CCBG	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBG	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-CCBG	Copper-65	-0.00400	0.35	0.500	ug/L	
SLE0204-CCBG	Zinc-66	-0.0680	2.92	6.00	ug/L	
SLE0204-CCBG	Zinc-67	-0.0590	0.94	6.00	ug/L	
SLE0204-IBLG	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLG	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0204-IBLG	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-IBLG	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0204-IBLG	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0204-IBLG	Zinc-66	-0.0550	2.92	6.00	ug/L	
SLE0204-IBLG	Zinc-67	-0.0180	0.94	6.00	ug/L	
SLE0204-CCBH	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0204-CCBH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-CCBH	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBH	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0204-CCBH	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-CCBH	Zinc-66	-0.0510	2.92	6.00	ug/L	
SLE0204-CCBH	Zinc-67	-0.0820	0.94	6.00	ug/L	
SLE0204-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0204-IBLH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0204-IBLH	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLH	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-IBLH	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0204-IBLH	Zinc-66	-0.0600	2.92	6.00	ug/L	
SLE0204-IBLH	Zinc-67	-0.0820	0.94	6.00	ug/L	
SLE0204-CCBI	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0204-CCBI	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0204-CCBI	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0204-CCBI	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-CCBI	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-CCBI	Zinc-66	-0.0640	2.92	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Date Analyzed: 05/11/23 06:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0204-CCBI	Zinc-67	-0.0510	0.94	6.00	ug/L	
SLE0204-IBLI	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0204-IBLI	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-IBLI	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-IBLI	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0204-IBLI	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0204-IBLI	Zinc-66	-0.0540	2.92	6.00	ug/L	
SLE0204-IBLI	Zinc-67	-0.0640	0.94	6.00	ug/L	
SLE0204-IBLJ	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0204-IBLJ	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0204-IBLJ	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0204-IBLJ	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0204-IBLJ	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0204-IBLJ	Zinc-66	-0.0490	2.92	6.00	ug/L	
SLE0204-IBLJ	Zinc-67	-0.0310	0.94	6.00	ug/L	
SLE0204-CCBJ	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0204-CCBJ	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0204-CCBJ	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0204-CCBJ	Copper-63	0.00800	0.173	0.500	ug/L	
SLE0204-CCBJ	Copper-65	0.0120	0.35	0.500	ug/L	
SLE0204-CCBJ	Zinc-66	-0.0420	2.92	6.00	ug/L	
SLE0204-CCBJ	Zinc-67	-0.0330	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 14:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL1	Arsenic-75a	0.0110	0.0373	0.200	ug/L	
SLE0209-IBL1	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLE0209-IBL1	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-IBL1	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBL1	Copper-65	-0.00400	0.35	0.500	ug/L	
SLE0209-IBL1	Zinc-66	-0.0160	2.92	6.00	ug/L	
SLE0209-IBL1	Zinc-67	-0.0340	0.94	6.00	ug/L	
SLE0209-ICB1	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-ICB1	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLE0209-ICB1	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-ICB1	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-ICB1	Copper-65	-0.00800	0.35	0.500	ug/L	
SLE0209-ICB1	Zinc-66	0.00	2.92	6.00	ug/L	
SLE0209-ICB1	Zinc-67	-0.0510	0.94	6.00	ug/L	
SLE0209-CCB1	Arsenic-75a	0.00800	0.0373	0.200	ug/L	
SLE0209-CCB1	Cadmium-111	-0.0130	0.03	0.100	ug/L	
SLE0209-CCB1	Cadmium-114	-0.00400	0.04	0.100	ug/L	
SLE0209-CCB1	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCB1	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0209-CCB1	Zinc-66	0.0110	2.92	6.00	ug/L	
SLE0209-CCB1	Zinc-67	0.0050	0.94	6.00	ug/L	
SLE0209-IBL2	Arsenic-75a	0.0350	0.0373	0.200	ug/L	
SLE0209-IBL2	Cadmium-111	0.344	0.03	0.100	ug/L	
SLE0209-IBL2	Cadmium-114	0.415	0.04	0.100	ug/L	
SLE0209-IBL2	Copper-63	0.00500	0.173	0.500	ug/L	
SLE0209-IBL2	Copper-65	0.00800	0.35	0.500	ug/L	
SLE0209-IBL2	Zinc-66	0.0670	2.92	6.00	ug/L	
SLE0209-IBL2	Zinc-67	0.0300	0.94	6.00	ug/L	
SLE0209-IBL3	Arsenic-75a	0.0170	0.0373	0.200	ug/L	
SLE0209-IBL3	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0209-IBL3	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0209-IBL3	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBL3	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-IBL3	Zinc-66	0.0610	2.92	6.00	ug/L	
SLE0209-IBL3	Zinc-67	0.110	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 16:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCB2	Arsenic-75a	0.0160	0.0373	0.200	ug/L	
SLE0209-CCB2	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-CCB2	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-CCB2	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCB2	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-CCB2	Zinc-66	0.0470	2.92	6.00	ug/L	
SLE0209-CCB2	Zinc-67	0.0570	0.94	6.00	ug/L	
SLE0209-CCB3	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-CCB3	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-CCB3	Cadmium-114	-0.0180	0.04	0.100	ug/L	
SLE0209-CCB3	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB3	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0209-CCB3	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0209-CCB3	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-IBL4	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-IBL4	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0209-IBL4	Cadmium-114	-0.0130	0.04	0.100	ug/L	
SLE0209-IBL4	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-IBL4	Copper-65	0.00800	0.35	0.500	ug/L	
SLE0209-IBL4	Zinc-66	0.104	2.92	6.00	ug/L	
SLE0209-IBL4	Zinc-67	0.124	0.94	6.00	ug/L	
SLE0209-IBL5	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0209-IBL5	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-IBL5	Cadmium-114	-0.0190	0.04	0.100	ug/L	
SLE0209-IBL5	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBL5	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0209-IBL5	Zinc-66	0.101	2.92	6.00	ug/L	
SLE0209-IBL5	Zinc-67	0.145	0.94	6.00	ug/L	
SLE0209-CCB4	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCB4	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCB4	Cadmium-114	-0.0170	0.04	0.100	ug/L	
SLE0209-CCB4	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB4	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0209-CCB4	Zinc-66	0.0110	2.92	6.00	ug/L	
SLE0209-CCB4	Zinc-67	0.0020	0.94	6.00	ug/L	
SLE0209-IBL9	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 18:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBL9	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-IBL9	Cadmium-114	-0.0150	0.04	0.100	ug/L	
SLE0209-IBL9	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBL9	Copper-65	0.00200	0.35	0.500	ug/L	
SLE0209-IBL9	Zinc-66	0.0350	2.92	6.00	ug/L	
SLE0209-IBL9	Zinc-67	0.0400	0.94	6.00	ug/L	
SLE0209-IBLA	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0209-IBLA	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0209-IBLA	Cadmium-114	-0.0180	0.04	0.100	ug/L	
SLE0209-IBLA	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-IBLA	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLA	Zinc-66	0.0500	2.92	6.00	ug/L	
SLE0209-IBLA	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-CCB7	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0209-CCB7	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-CCB7	Cadmium-114	-0.0190	0.04	0.100	ug/L	
SLE0209-CCB7	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCB7	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0209-CCB7	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0209-CCB7	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0209-CCB8	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCB8	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLE0209-CCB8	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLE0209-CCB8	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCB8	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0209-CCB8	Zinc-66	-0.0080	2.92	6.00	ug/L	
SLE0209-CCB8	Zinc-67	-0.0080	0.94	6.00	ug/L	
SLE0209-CCBA	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCBA	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-CCBA	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-CCBA	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-CCBA	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBA	Zinc-66	0.0100	2.92	6.00	ug/L	
SLE0209-CCBA	Zinc-67	0.0220	0.94	6.00	ug/L	
SLE0209-IBLC	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0209-IBLC	Cadmium-111	0.00	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 20:25

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLC	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLE0209-IBLC	Copper-63	0.00300	0.173	0.500	ug/L	
SLE0209-IBLC	Copper-65	0.00	0.35	0.500	ug/L	
SLE0209-IBLC	Zinc-66	0.0430	2.92	6.00	ug/L	
SLE0209-IBLC	Zinc-67	0.0860	0.94	6.00	ug/L	
SLE0209-IBLD	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-IBLD	Cadmium-111	0.0530	0.03	0.100	ug/L	
SLE0209-IBLD	Cadmium-114	0.0570	0.04	0.100	ug/L	
SLE0209-IBLD	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0209-IBLD	Copper-65	0.00900	0.35	0.500	ug/L	
SLE0209-IBLD	Zinc-66	0.0580	2.92	6.00	ug/L	
SLE0209-IBLD	Zinc-67	0.0800	0.94	6.00	ug/L	
SLE0209-CCBB	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLE0209-CCBB	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCBB	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-CCBB	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-CCBB	Copper-65	-0.00100	0.35	0.500	ug/L	
SLE0209-CCBB	Zinc-66	0.0200	2.92	6.00	ug/L	
SLE0209-CCBB	Zinc-67	0.0410	0.94	6.00	ug/L	
SLE0209-IBLE	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0209-IBLE	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-IBLE	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLE0209-IBLE	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-IBLE	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLE	Zinc-66	0.0320	2.92	6.00	ug/L	
SLE0209-IBLE	Zinc-67	0.0610	0.94	6.00	ug/L	
SLE0209-IBLF	Arsenic-75a	0.0290	0.0373	0.200	ug/L	
SLE0209-IBLF	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-IBLF	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLE0209-IBLF	Copper-63	0.179	0.173	0.500	ug/L	
SLE0209-IBLF	Copper-65	0.164	0.35	0.500	ug/L	
SLE0209-IBLF	Zinc-66	0.164	2.92	6.00	ug/L	
SLE0209-IBLF	Zinc-67	0.135	0.94	6.00	ug/L	
SLE0209-CCBC	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBC	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLE0209-CCBC	Cadmium-114	0.00700	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/11/23 21:58

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBC	Copper-63	0.00700	0.173	0.500	ug/L	
SLE0209-CCBC	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBC	Zinc-66	0.0270	2.92	6.00	ug/L	
SLE0209-CCBC	Zinc-67	0.0070	0.94	6.00	ug/L	
SLE0209-CCBD	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-CCBD	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLE0209-CCBD	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBD	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCBD	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBD	Zinc-66	0.0300	2.92	6.00	ug/L	
SLE0209-CCBD	Zinc-67	0.0230	0.94	6.00	ug/L	
SLE0209-IBLG	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLE0209-IBLG	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLE0209-IBLG	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-IBLG	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0209-IBLG	Copper-65	0.0170	0.35	0.500	ug/L	
SLE0209-IBLG	Zinc-66	0.0300	2.92	6.00	ug/L	
SLE0209-IBLG	Zinc-67	0.0300	0.94	6.00	ug/L	
SLE0209-CCBE	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-CCBE	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-CCBE	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLE0209-CCBE	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-CCBE	Copper-65	0.00700	0.35	0.500	ug/L	
SLE0209-CCBE	Zinc-66	0.0260	2.92	6.00	ug/L	
SLE0209-CCBE	Zinc-67	0.0380	0.94	6.00	ug/L	
SLE0209-IBLH	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLE0209-IBLH	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-IBLH	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0209-IBLH	Copper-63	0.00200	0.173	0.500	ug/L	
SLE0209-IBLH	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-IBLH	Zinc-66	-0.0040	2.92	6.00	ug/L	
SLE0209-IBLH	Zinc-67	-0.0140	0.94	6.00	ug/L	
SLE0209-CCBF	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-CCBF	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLE0209-CCBF	Cadmium-114	0.00700	0.04	0.100	ug/L	
SLE0209-CCBF	Copper-63	0.00100	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 00:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBF	Copper-65	0.00600	0.35	0.500	ug/L	
SLE0209-CCBF	Zinc-66	0.0160	2.92	6.00	ug/L	
SLE0209-CCBF	Zinc-67	0.0570	0.94	6.00	ug/L	
SLE0209-IBLI	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-IBLI	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLE0209-IBLI	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0209-IBLI	Copper-63	0.0530	0.173	0.500	ug/L	
SLE0209-IBLI	Copper-65	0.0600	0.35	0.500	ug/L	
SLE0209-IBLI	Zinc-66	0.0320	2.92	6.00	ug/L	
SLE0209-IBLI	Zinc-67	0.0250	0.94	6.00	ug/L	
SLE0209-CCBG	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBG	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLE0209-CCBG	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBG	Copper-63	0.0140	0.173	0.500	ug/L	
SLE0209-CCBG	Copper-65	0.0190	0.35	0.500	ug/L	
SLE0209-CCBG	Zinc-66	0.0130	2.92	6.00	ug/L	
SLE0209-CCBG	Zinc-67	0.0100	0.94	6.00	ug/L	
SLE0209-IBLJ	Arsenic-75a	0.0180	0.0373	0.200	ug/L	
SLE0209-IBLJ	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-IBLJ	Cadmium-114	0.00900	0.04	0.100	ug/L	
SLE0209-IBLJ	Copper-63	0.0530	0.173	0.500	ug/L	
SLE0209-IBLJ	Copper-65	0.0490	0.35	0.500	ug/L	
SLE0209-IBLJ	Zinc-66	0.0430	2.92	6.00	ug/L	
SLE0209-IBLJ	Zinc-67	0.0130	0.94	6.00	ug/L	
SLE0209-CCBH	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-CCBH	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-CCBH	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLE0209-CCBH	Copper-63	0.0320	0.173	0.500	ug/L	
SLE0209-CCBH	Copper-65	0.0290	0.35	0.500	ug/L	
SLE0209-CCBH	Zinc-66	0.0250	2.92	6.00	ug/L	
SLE0209-CCBH	Zinc-67	-0.0210	0.94	6.00	ug/L	
SLE0209-IBLK	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLE0209-IBLK	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-IBLK	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-IBLK	Copper-63	0.0160	0.173	0.500	ug/L	
SLE0209-IBLK	Copper-65	0.0130	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 02:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLK	Zinc-66	0.0140	2.92	6.00	ug/L	
SLE0209-IBLK	Zinc-67	0.0370	0.94	6.00	ug/L	
SLE0209-IBLL	Arsenic-75a	-0.00700	0.0373	0.200	ug/L	
SLE0209-IBLL	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLL	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLE0209-IBLL	Copper-63	0.0170	0.173	0.500	ug/L	
SLE0209-IBLL	Copper-65	0.0190	0.35	0.500	ug/L	
SLE0209-IBLL	Zinc-66	0.0140	2.92	6.00	ug/L	
SLE0209-IBLL	Zinc-67	-0.0210	0.94	6.00	ug/L	
SLE0209-CCBI	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLE0209-CCBI	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBI	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBI	Copper-63	0.00400	0.173	0.500	ug/L	
SLE0209-CCBI	Copper-65	0.00500	0.35	0.500	ug/L	
SLE0209-CCBI	Zinc-66	0.0560	2.92	6.00	ug/L	
SLE0209-CCBI	Zinc-67	0.0040	0.94	6.00	ug/L	
SLE0209-CCBJ	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBJ	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBJ	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-CCBJ	Copper-63	-0.00200	0.173	0.500	ug/L	
SLE0209-CCBJ	Copper-65	0.00400	0.35	0.500	ug/L	
SLE0209-CCBJ	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLE0209-CCBJ	Zinc-67	-0.0100	0.94	6.00	ug/L	
SLE0209-IBLM	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLM	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLM	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0209-IBLM	Copper-63	-0.00100	0.173	0.500	ug/L	
SLE0209-IBLM	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0209-IBLM	Zinc-66	-0.0200	2.92	6.00	ug/L	
SLE0209-IBLM	Zinc-67	-0.0580	0.94	6.00	ug/L	
SLE0209-IBLN	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLE0209-IBLN	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLE0209-IBLN	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-IBLN	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-IBLN	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-IBLN	Zinc-66	-0.0230	2.92	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 04:12

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLN	Zinc-67	-0.0330	0.94	6.00	ug/L	
SLE0209-CCBK	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBK	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-CCBK	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLE0209-CCBK	Copper-63	-0.00500	0.173	0.500	ug/L	
SLE0209-CCBK	Copper-65	-0.00300	0.35	0.500	ug/L	
SLE0209-CCBK	Zinc-66	-0.0220	2.92	6.00	ug/L	
SLE0209-CCBK	Zinc-67	0.0100	0.94	6.00	ug/L	
SLE0209-IBLO	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLE0209-IBLO	Cadmium-111	-0.0120	0.03	0.100	ug/L	
SLE0209-IBLO	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLE0209-IBLO	Copper-63	-0.00800	0.173	0.500	ug/L	
SLE0209-IBLO	Copper-65	-0.00800	0.35	0.500	ug/L	
SLE0209-IBLO	Zinc-66	-0.0330	2.92	6.00	ug/L	
SLE0209-IBLO	Zinc-67	-0.0040	0.94	6.00	ug/L	
SLE0209-CCBL	Arsenic-75a	0.0280	0.0373	0.200	ug/L	
SLE0209-CCBL	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLE0209-CCBL	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLE0209-CCBL	Copper-63	0.0190	0.173	0.500	ug/L	
SLE0209-CCBL	Copper-65	0.0120	0.35	0.500	ug/L	
SLE0209-CCBL	Zinc-66	0.0360	2.92	6.00	ug/L	
SLE0209-CCBL	Zinc-67	-0.0230	0.94	6.00	ug/L	
SLE0209-IBLP	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLP	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLE0209-IBLP	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLE0209-IBLP	Copper-63	-0.00600	0.173	0.500	ug/L	
SLE0209-IBLP	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-IBLP	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLE0209-IBLP	Zinc-67	-0.0400	0.94	6.00	ug/L	
SLE0209-CCBM	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBM	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLE0209-CCBM	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBM	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0209-CCBM	Copper-65	-0.00700	0.35	0.500	ug/L	
SLE0209-CCBM	Zinc-66	-0.0170	2.92	6.00	ug/L	
SLE0209-CCBM	Zinc-67	0.0240	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 06:37

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-IBLQ	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLE0209-IBLQ	Cadmium-111	-0.0140	0.03	0.100	ug/L	
SLE0209-IBLQ	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLE0209-IBLQ	Copper-63	-0.00700	0.173	0.500	ug/L	
SLE0209-IBLQ	Copper-65	-0.00200	0.35	0.500	ug/L	
SLE0209-IBLQ	Zinc-66	-0.0450	2.92	6.00	ug/L	
SLE0209-IBLQ	Zinc-67	-0.0490	0.94	6.00	ug/L	
SLE0209-IBLR	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-IBLR	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLE0209-IBLR	Cadmium-114	0.00	0.04	0.100	ug/L	
SLE0209-IBLR	Copper-63	-0.00300	0.173	0.500	ug/L	
SLE0209-IBLR	Copper-65	-0.00500	0.35	0.500	ug/L	
SLE0209-IBLR	Zinc-66	-0.0030	2.92	6.00	ug/L	
SLE0209-IBLR	Zinc-67	-0.0130	0.94	6.00	ug/L	
SLE0209-CCBN	Arsenic-75a	0.00900	0.0373	0.200	ug/L	
SLE0209-CCBN	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLE0209-CCBN	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLE0209-CCBN	Copper-63	-0.00400	0.173	0.500	ug/L	
SLE0209-CCBN	Copper-65	-0.00600	0.35	0.500	ug/L	
SLE0209-CCBN	Zinc-66	-0.0240	2.92	6.00	ug/L	
SLE0209-CCBN	Zinc-67	-0.0090	0.94	6.00	ug/L	
SLE0209-CCBO	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLE0209-CCBO	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLE0209-CCBO	Cadmium-114	-0.0100	0.04	0.100	ug/L	
SLE0209-CCBO	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCBO	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBO	Zinc-66	-0.0050	2.92	6.00	ug/L	
SLE0209-CCBO	Zinc-67	0.0660	0.94	6.00	ug/L	
SLE0209-IBLS	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLE0209-IBLS	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLE0209-IBLS	Cadmium-114	-0.00900	0.04	0.100	ug/L	
SLE0209-IBLS	Copper-63	-0.00200	0.173	0.500	ug/L	
SLE0209-IBLS	Copper-65	0.00300	0.35	0.500	ug/L	
SLE0209-IBLS	Zinc-66	-0.0310	2.92	6.00	ug/L	
SLE0209-IBLS	Zinc-67	-0.0300	0.94	6.00	ug/L	
SLE0209-CCBP	Arsenic-75a	0.0110	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Date Analyzed: 05/12/23 08:22

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0209-CCBP	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLE0209-CCBP	Cadmium-114	-0.00800	0.04	0.100	ug/L	
SLE0209-CCBP	Copper-63	0.00100	0.173	0.500	ug/L	
SLE0209-CCBP	Copper-65	0.00100	0.35	0.500	ug/L	
SLE0209-CCBP	Zinc-66	-0.0290	2.92	6.00	ug/L	
SLE0209-CCBP	Zinc-67	-0.0140	0.94	6.00	ug/L	
SLE0209-IBLT	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLE0209-CCBQ	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLE0209-IBLU	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLE0209-CCBR	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLE0209-IBLV	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLE0209-CCBS	Arsenic-75a	0.00200	0.0373	0.200	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0163</u>	Instrument:	<u>ICPMS1</u>
		Calibration:	<u>GE00034</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0163-CAL1	XDT_m1230509a-001	NA	05/09/23 15:21
CAL 1 - LOW CHECK	SLE0163-CAL2	XDT_m1230509a-002	NA	05/09/23 15:26
CAL 2	SLE0163-CAL3	XDT_m1230509a-003	NA	05/09/23 15:30
CAL 3	SLE0163-CAL4	XDT_m1230509a-004	NA	05/09/23 15:36
CAL 4	SLE0163-CAL5	XDT_m1230509a-005	NA	05/09/23 15:41
CAL 5	SLE0163-CAL6	XDT_m1230509a-006	NA	05/09/23 15:48
RINSE	SLE0163-IBL1	XDT_m1230509a-007	NA	05/09/23 15:55
Initial Cal Check	SLE0163-ICV1	XDT_m1230509a-009	NA	05/09/23 16:02
Initial Cal Blank	SLE0163-ICB1	XDT_m1230509a-011	NA	05/09/23 16:14
Calibration Check	SLE0163-CCV1	XDT_m1230509a-012	NA	05/09/23 16:20
Calibration Blank	SLE0163-CCB1	XDT_m1230509a-014	NA	05/09/23 16:32
Instrument RL Check	SLE0163-CRL1	XDT_m1230509a-015	NA	05/09/23 16:39
Interference Check B	SLE0163-IFB1	XDT_m1230509a-017	NA	05/09/23 16:49
Interference Check A	SLE0163-IFA1	XDT_m1230509a-018	NA	05/09/23 16:54
LR300	SLE0163-HCV2	XDT_m1230509a-020	NA	05/09/23 17:04
LR200	SLE0163-HCV1	XDT_m1230509a-021	NA	05/09/23 17:11
Instrument Blank	SLE0163-IBL2	XDT_m1230509a-022	NA	05/09/23 17:16
Instrument Blank	SLE0163-IBL3	XDT_m1230509a-023	NA	05/09/23 17:23
Calibration Check	SLE0163-CCV2	XDT_m1230509a-024	NA	05/09/23 17:29
Calibration Blank	SLE0163-CCB2	XDT_m1230509a-025	NA	05/09/23 17:36
ZZZZZ	BLE0256-BLK1	XDT_m1230509a-026	Water	05/09/23 17:44
ZZZZZ	BLE0256-BS1	XDT_m1230509a-027	Water	05/09/23 17:49
Instrument Blank	SLE0163-IBL4	XDT_m1230509a-033	NA	05/09/23 18:24
Instrument Blank	SLE0163-IBL5	XDT_m1230509a-035	NA	05/09/23 18:35
Calibration Check	SLE0163-CCV3	XDT_m1230509a-036	NA	05/09/23 18:40
Calibration Blank	SLE0163-CCB3	XDT_m1230509a-037	NA	05/09/23 18:47
Calibration Check	SLE0163-CCV4	XDT_m1230509a-039	NA	05/09/23 18:59
Calibration Blank	SLE0163-CCB4	XDT_m1230509a-040	NA	05/09/23 19:06
ZZZZZ	BLE0134-BLK2	XDT_m1230509a-044	Water	05/09/23 19:29



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0134-BS2	XDT_m1230509a-045	Water	05/09/23 19:33
Instrument Blank	SLE0163-IBL6	XDT_m1230509a-050	NA	05/09/23 19:57
Calibration Check	SLE0163-CCV5	XDT_m1230509a-051	NA	05/09/23 20:01
Calibration Blank	SLE0163-CCB5	XDT_m1230509a-052	NA	05/09/23 20:09
Instrument Blank	SLE0163-IBL7	XDT_m1230509a-062	NA	05/09/23 21:00
Calibration Check	SLE0163-CCV6	XDT_m1230509a-063	NA	05/09/23 21:05
Calibration Blank	SLE0163-CCB6	XDT_m1230509a-064	NA	05/09/23 21:12
Calibration Check	SLE0163-CCV7	XDT_m1230509a-067	NA	05/09/23 21:32
Calibration Blank	SLE0163-CCB7	XDT_m1230509a-068	NA	05/09/23 21:39
Blank	BLD0687-BLK1	XDT_m1230509a-069	Solid	05/09/23 21:43
LCS	BLD0687-BS1	XDT_m1230509a-070	Solid	05/09/23 21:48
Instrument Blank	SLE0163-IBL8	XDT_m1230509a-078	NA	05/09/23 22:22
Calibration Check	SLE0163-CCV8	XDT_m1230509a-079	NA	05/09/23 22:26
Calibration Blank	SLE0163-CCB8	XDT_m1230509a-080	NA	05/09/23 22:33
ZZZZZ	BLE0125-BLK1	XDT_m1230509a-081	Solid	05/09/23 22:38
ZZZZZ	BLE0125-BS1	XDT_m1230509a-082	Solid	05/09/23 22:42
Instrument Blank	SLE0163-IBL9	XDT_m1230509a-090	NA	05/09/23 23:17
Calibration Check	SLE0163-CCV9	XDT_m1230509a-091	NA	05/09/23 23:21
Calibration Blank	SLE0163-CCB9	XDT_m1230509a-092	NA	05/09/23 23:28
ZZZZZ	23D0393-09	XDT_m1230509a-093	Solid	05/09/23 23:32
ZZZZZ	23D0393-13	XDT_m1230509a-094	Solid	05/09/23 23:37
ZZZZZ	23D0393-14	XDT_m1230509a-095	Solid	05/09/23 23:41
ZZZZZ	23D0393-20	XDT_m1230509a-096	Solid	05/09/23 23:45
ZZZZZ	23D0393-07	XDT_m1230509a-097	Solid	05/09/23 23:50
ZZZZZ	BLE0125-DUP1	XDT_m1230509a-098	Solid	05/09/23 23:54
ZZZZZ	BLE0125-MS1	XDT_m1230509a-099	Solid	05/09/23 23:58
ZZZZZ	BLE0125-MSD1	XDT_m1230509a-100	Solid	05/10/23 00:03
Instrument Blank	SLE0163-IBLA	XDT_m1230509a-102	NA	05/10/23 00:11
Calibration Check	SLE0163-CCVA	XDT_m1230509a-103	NA	05/10/23 00:15



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0163-CCBA	XDT_m1230509a-104	NA	05/10/23 00:23
ZZZZZ	23D0393-21	XDT_m1230509a-105	Solid	05/10/23 00:27
ZZZZZ	23D0393-23	XDT_m1230509a-106	Solid	05/10/23 00:31
ZZZZZ	23D0394-03	XDT_m1230509a-107	Solid	05/10/23 00:36
ZZZZZ	23D0394-05	XDT_m1230509a-108	Solid	05/10/23 00:40
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
ZZZZZ	23D0394-01	XDT_m1230509a-109	Solid	05/10/23 00:44
Instrument Blank	SLE0163-IBLB	XDT_m1230509a-114	NA	05/10/23 01:06
Calibration Check	SLE0163-CCVB	XDT_m1230509a-115	NA	05/10/23 01:10
Calibration Blank	SLE0163-CCBB	XDT_m1230509a-116	NA	05/10/23 01:17
ZZZZZ	23D0394-09	XDT_m1230509a-118	Solid	05/10/23 01:26
ZZZZZ	23D0394-10	XDT_m1230509a-119	Solid	05/10/23 01:30
Instrument Blank	SLE0163-IBLC	XDT_m1230509a-122	NA	05/10/23 01:43
Instrument Blank	SLE0163-IBLD	XDT_m1230509a-126	NA	05/10/23 02:01
Calibration Check	SLE0163-CCVC	XDT_m1230509a-127	NA	05/10/23 02:05
Calibration Blank	SLE0163-CCBC	XDT_m1230509a-128	NA	05/10/23 02:12
Instrument Blank	SLE0163-IBLE	XDT_m1230509a-133	NA	05/10/23 02:36
Instrument Blank	SLE0163-IBLF	XDT_m1230509a-138	NA	05/10/23 02:59
Calibration Check	SLE0163-CCVD	XDT_m1230509a-139	NA	05/10/23 03:04
Calibration Blank	SLE0163-CCBD	XDT_m1230509a-140	NA	05/10/23 03:11
ZZZZZ	23D0537-05	XDT_m1230509a-141	Water	05/10/23 03:15
ZZZZZ	BLE0120-DUP2	XDT_m1230509a-142	Water	05/10/23 03:19
ZZZZZ	BLE0120-MS2	XDT_m1230509a-143	Water	05/10/23 03:24
ZZZZZ	BLE0120-MSD2	XDT_m1230509a-144	Water	05/10/23 03:30
Instrument Blank	SLE0163-IBLG	XDT_m1230509a-145	NA	05/10/23 03:34
Instrument Blank	SLE0163-IBLH	XDT_m1230509a-150	NA	05/10/23 03:55
Calibration Check	SLE0163-CCVE	XDT_m1230509a-151	NA	05/10/23 04:00
Calibration Blank	SLE0163-CCBE	XDT_m1230509a-152	NA	05/10/23 04:07



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0163

Instrument: ICPMS1

Calibration: GE00034

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-05	XDT_m1230509a-156	Water	05/10/23 04:24
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-17	XDT_m1230509a-157	Water	05/10/23 04:28
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	23D0477-19	XDT_m1230509a-158	Water	05/10/23 04:32
ZZZZZ	BLE0077-DUP1	XDT_m1230509a-159	Water	05/10/23 04:37
ZZZZZ	BLE0077-MSD1	XDT_m1230509a-161	Water	05/10/23 04:47
Instrument Blank	SLE0163-IBLI	XDT_m1230509a-162	NA	05/10/23 04:51
Calibration Check	SLE0163-CCVF	XDT_m1230509a-163	NA	05/10/23 04:56
Calibration Blank	SLE0163-CCBF	XDT_m1230509a-164	NA	05/10/23 05:03



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0204</u>	Instrument:	<u>ICPMS1</u>
		Calibration:	<u>GE00040</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0204-CAL1	XDT_m1230510A-008	NA	05/10/23 15:47
CAL 1 - LOW CHECK	SLE0204-CAL2	XDT_m1230510A-009	NA	05/10/23 15:51
CAL 2	SLE0204-CAL3	XDT_m1230510A-010	NA	05/10/23 15:56
CAL 3	SLE0204-CAL4	XDT_m1230510A-011	NA	05/10/23 16:01
CAL 4	SLE0204-CAL5	XDT_m1230510A-012	NA	05/10/23 16:05
CAL 5	SLE0204-CAL6	XDT_m1230510A-013	NA	05/10/23 16:12
RINSE	SLE0204-IBL1	XDT_m1230510A-014	NA	05/10/23 16:19
Initial Cal Check	SLE0204-ICV1	XDT_m1230510A-016	NA	05/10/23 16:25
Initial Cal Blank	SLE0204-ICB1	XDT_m1230510A-017	NA	05/10/23 16:32
Calibration Check	SLE0204-CCV1	XDT_m1230510A-018	NA	05/10/23 16:37
Calibration Blank	SLE0204-CCB1	XDT_m1230510A-019	NA	05/10/23 16:44
Instrument RL Check	SLE0204-CRL1	XDT_m1230510A-020	NA	05/10/23 16:49
Interference Check A	SLE0204-IFA1	XDT_m1230510A-021	NA	05/10/23 16:56
Interference Check B	SLE0204-IFB1	XDT_m1230510A-022	NA	05/10/23 17:00
LR200	SLE0204-HCV1	XDT_m1230510A-023	NA	05/10/23 17:06
LR300	SLE0204-HCV2	XDT_m1230510A-024	NA	05/10/23 17:11
Instrument Blank	SLE0204-IBL2	XDT_m1230510A-025	NA	05/10/23 17:18
Calibration Check	SLE0204-CCV2	XDT_m1230510A-026	NA	05/10/23 17:24
Calibration Blank	SLE0204-CCB2	XDT_m1230510A-027	NA	05/10/23 17:32
Calibration Check	SLE0204-CCV3	XDT_m1230510A-029	NA	05/10/23 17:41
Calibration Blank	SLE0204-CCB3	XDT_m1230510A-030	NA	05/10/23 17:49
Blank	BLD0687-BLK2	XDT_m1230510A-031	Solid	05/10/23 17:54
LCS	BLD0687-BS2	XDT_m1230510A-033	Solid	05/10/23 18:05
ZZZZZ	BLE0298-BLK1	XDT_m1230510A-034	Water	05/10/23 18:11
ZZZZZ	BLE0298-BS1	XDT_m1230510A-035	Water	05/10/23 18:15
ZZZZZ	BLE0077-MS2	XDT_m1230510A-036	Water	05/10/23 18:21
Instrument Blank	SLE0204-IBL3	XDT_m1230510A-040	NA	05/10/23 18:41
Calibration Check	SLE0204-CCV4	XDT_m1230510A-041	NA	05/10/23 18:45
Calibration Blank	SLE0204-CCB4	XDT_m1230510A-042	NA	05/10/23 18:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLE0143-BLK1	XDT_m1230510A-045	Solid	05/10/23 19:07
ZZZZZ	BLE0143-BS1	XDT_m1230510A-047	Solid	05/10/23 19:19
Instrument Blank	SLE0204-IBL4	XDT_m1230510A-050	NA	05/10/23 19:33
Instrument Blank	SLE0204-IBL5	XDT_m1230510A-052	NA	05/10/23 19:44
Calibration Check	SLE0204-CCV5	XDT_m1230510A-053	NA	05/10/23 19:48
Calibration Blank	SLE0204-CCB5	XDT_m1230510A-054	NA	05/10/23 19:56
Calibration Check	SLE0204-CCV6	XDT_m1230510A-057	NA	05/10/23 20:30
Calibration Blank	SLE0204-CCB6	XDT_m1230510A-058	NA	05/10/23 20:37
ZZZZZ	BLD0578-BLK1	XDT_m1230510A-059	Solid	05/10/23 20:44
ZZZZZ	BLD0578-BS1	XDT_m1230510A-060	Solid	05/10/23 20:48
ZZZZZ	BLE0072-BLK1	XDT_m1230510A-061	Solid	05/10/23 20:53
ZZZZZ	BLE0072-BS1	XDT_m1230510A-062	Solid	05/10/23 20:57
ZZZZZ	23D0394-01	XDT_m1230510A-063	Solid	05/10/23 21:02
Instrument Blank	SLE0204-IBL6	XDT_m1230510A-068	NA	05/10/23 21:25
Calibration Check	SLE0204-CCV7	XDT_m1230510A-069	NA	05/10/23 21:29
Calibration Blank	SLE0204-CCB7	XDT_m1230510A-070	NA	05/10/23 21:37
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-02	XDT_m1230510A-071	Solid	05/10/23 21:41
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-03	XDT_m1230510A-072	Solid	05/10/23 21:45
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-04	XDT_m1230510A-073	Solid	05/10/23 21:50
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-05	XDT_m1230510A-074	Solid	05/10/23 21:54
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	23A0467-01	XDT_m1230510A-075	Solid	05/10/23 21:59
ZZZZZ	BLD0578-DUP1	XDT_m1230510A-076	Solid	05/10/23 22:03
ZZZZZ	BLD0578-MS1	XDT_m1230510A-077	Solid	05/10/23 22:08
ZZZZZ	BLD0578-MSD1	XDT_m1230510A-078	Solid	05/10/23 22:12
Instrument Blank	SLE0204-IBL7	XDT_m1230510A-080	NA	05/10/23 22:21
Calibration Check	SLE0204-CCV8	XDT_m1230510A-081	NA	05/10/23 22:25
Calibration Blank	SLE0204-CCB8	XDT_m1230510A-082	NA	05/10/23 22:32
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-06	XDT_m1230510A-083	Solid	05/10/23 22:37
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-07	XDT_m1230510A-084	Solid	05/10/23 22:41
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-08	XDT_m1230510A-085	Solid	05/10/23 22:46
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50
ZZZZZ	23A0467-09	XDT_m1230510A-086	Solid	05/10/23 22:50



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0204-IBL8	XDT_m1230510A-092	NA	05/10/23 23:16
Calibration Check	SLE0204-CCV9	XDT_m1230510A-093	NA	05/10/23 23:21
Calibration Blank	SLE0204-CCB9	XDT_m1230510A-094	NA	05/10/23 23:28
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-01	XDT_m1230510A-095	Solid	05/10/23 23:33
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-02	XDT_m1230510A-096	Solid	05/10/23 23:37
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-03	XDT_m1230510A-097	Solid	05/10/23 23:41
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-04	XDT_m1230510A-098	Solid	05/10/23 23:46
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-05	XDT_m1230510A-099	Solid	05/10/23 23:50
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0071-06	XDT_m1230510A-100	Solid	05/10/23 23:55
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0204</u>	Instrument:	<u>ICPMS1</u>
		Calibration:	<u>GE00040</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-02	XDT_m1230510A-101	Solid	05/10/23 23:59
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0109-03	XDT_m1230510A-102	Solid	05/11/23 00:03
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
ZZZZZ	23C0108-02	XDT_m1230510A-103	Solid	05/11/23 00:08
Instrument Blank	SLE0204-IBL9	XDT_m1230510A-104	NA	05/11/23 00:12
Calibration Check	SLE0204-CCVA	XDT_m1230510A-105	NA	05/11/23 00:16
Calibration Blank	SLE0204-CCBA	XDT_m1230510A-106	NA	05/11/23 00:24
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-06	XDT_m1230510A-107	Solid	05/11/23 00:28
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-07	XDT_m1230510A-108	Solid	05/11/23 00:32
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-08	XDT_m1230510A-109	Solid	05/11/23 00:37
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41
ZZZZZ	23C0108-09	XDT_m1230510A-110	Solid	05/11/23 00:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-01	XDT_m1230510A-111	Solid	05/11/23 00:46
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0008-03	XDT_m1230510A-112	Solid	05/11/23 00:50
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-01	XDT_m1230510A-113	Solid	05/11/23 00:54
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-03	XDT_m1230510A-114	Solid	05/11/23 00:59
ZZZZZ	23D0037-02	XDT_m1230510A-115	Solid	05/11/23 01:03
Instrument Blank	SLE0204-IBLA	XDT_m1230510A-116	NA	05/11/23 01:08
Calibration Check	SLE0204-CCVB	XDT_m1230510A-117	NA	05/11/23 01:12
Calibration Blank	SLE0204-CCBB	XDT_m1230510A-118	NA	05/11/23 01:19
Calibration Check	SLE0204-CCVC	XDT_m1230510A-120	NA	05/11/23 01:28
Calibration Blank	SLE0204-CCBC	XDT_m1230510A-121	NA	05/11/23 01:35
ZZZZZ	23D0037-04	XDT_m1230510A-122	Solid	05/11/23 01:40
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-01	XDT_m1230510A-123	Solid	05/11/23 01:44
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
ZZZZZ	23D0063-03	XDT_m1230510A-124	Solid	05/11/23 01:49
Instrument Blank	SLE0204-IBLB	XDT_m1230510A-131	NA	05/11/23 02:21
Calibration Check	SLE0204-CCVD	XDT_m1230510A-132	NA	05/11/23 02:26
Calibration Blank	SLE0204-CCBD	XDT_m1230510A-133	NA	05/11/23 02:33
Instrument Blank	SLE0204-IBLC	XDT_m1230510A-138	NA	05/11/23 02:57
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-21	XDT_m1230510A-141	Water	05/11/23 03:11
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
ZZZZZ	23D0477-22	XDT_m1230510A-142	Water	05/11/23 03:15
Instrument Blank	SLE0204-IBLD	XDT_m1230510A-143	NA	05/11/23 03:20
Calibration Check	SLE0204-CCVE	XDT_m1230510A-144	NA	05/11/23 03:24
Calibration Blank	SLE0204-CCBE	XDT_m1230510A-145	NA	05/11/23 03:31
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-11	XDT_m1230510A-146	Water	05/11/23 03:36
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-13	XDT_m1230510A-147	Water	05/11/23 03:40
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
ZZZZZ	23D0477-02	XDT_m1230510A-148	Water	05/11/23 03:45
Instrument Blank	SLE0204-IBLE	XDT_m1230510A-150	NA	05/11/23 03:57
Instrument Blank	SLE0204-IBLF	XDT_m1230510A-155	NA	05/11/23 04:21
Calibration Check	SLE0204-CCVF	XDT_m1230510A-156	NA	05/11/23 04:26
Calibration Blank	SLE0204-CCBF	XDT_m1230510A-157	NA	05/11/23 04:33
Calibration Check	SLE0204-CCVG	XDT_m1230510A-159	NA	05/11/23 04:42



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0204-CCBG	XDT_m1230510A-160	NA	05/11/23 04:49
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-04	XDT_m1230510A-161	Water	05/11/23 04:53
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-06	XDT_m1230510A-162	Water	05/11/23 04:58
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-08	XDT_m1230510A-163	Water	05/11/23 05:02
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-10	XDT_m1230510A-164	Water	05/11/23 05:07
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-12	XDT_m1230510A-165	Water	05/11/23 05:11
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
ZZZZZ	23D0477-20	XDT_m1230510A-166	Water	05/11/23 05:16
Instrument Blank	SLE0204-IBLG	XDT_m1230510A-170	NA	05/11/23 05:33
Calibration Check	SLE0204-CCVH	XDT_m1230510A-171	NA	05/11/23 05:38
Calibration Blank	SLE0204-CCBH	XDT_m1230510A-172	NA	05/11/23 05:45
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-14	XDT_m1230510A-173	Water	05/11/23 05:50
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-16	XDT_m1230510A-174	Water	05/11/23 05:54
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58
ZZZZZ	23D0477-18	XDT_m1230510A-175	Water	05/11/23 05:58
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-01	XDT_m1230510A-176	Water	05/11/23 06:03
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-03	XDT_m1230510A-177	Water	05/11/23 06:07
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-07	XDT_m1230510A-178	Water	05/11/23 06:12
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-09	XDT_m1230510A-179	Water	05/11/23 06:16
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0477-15	XDT_m1230510A-180	Water	05/11/23 06:20
ZZZZZ	23D0487-02	XDT_m1230510A-181	Water	05/11/23 06:26
Instrument Blank	SLE0204-IBLH	XDT_m1230510A-182	NA	05/11/23 06:31
Calibration Check	SLE0204-CCVI	XDT_m1230510A-183	NA	05/11/23 06:35
Calibration Blank	SLE0204-CCBI	XDT_m1230510A-184	NA	05/11/23 06:42
ZZZZZ	23D0487-06	XDT_m1230510A-185	Water	05/11/23 06:47
ZZZZZ	23D0487-05	XDT_m1230510A-186	Water	05/11/23 06:51
ZZZZZ	23D0487-04	XDT_m1230510A-187	Water	05/11/23 06:55
ZZZZZ	23D0487-03	XDT_m1230510A-188	Water	05/11/23 07:00
Instrument Blank	SLE0204-IBLI	XDT_m1230510A-189	NA	05/11/23 07:05
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0204

Instrument: ICPMS1

Calibration: GE00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0636-01	XDT_m1230510A-190	Water	05/11/23 07:09
ZZZZZ	BLE0298-DUP1	XDT_m1230510A-191	Water	05/11/23 07:14
ZZZZZ	BLE0298-MS1	XDT_m1230510A-192	Water	05/11/23 07:19
ZZZZZ	BLE0298-MSD1	XDT_m1230510A-193	Water	05/11/23 07:25
Instrument Blank	SLE0204-IBLJ	XDT_m1230510A-194	NA	05/11/23 07:29
Calibration Check	SLE0204-CCVJ	XDT_m1230510A-195	NA	05/11/23 07:34
Calibration Blank	SLE0204-CCBJ	XDT_m1230510A-196	NA	05/11/23 07:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLE0209-CAL1	XDT_m1230511-006	NA	05/11/23 13:56
CAL 1 - LOW CHECK	SLE0209-CAL2	XDT_m1230511-007	NA	05/11/23 14:00
CAL 2	SLE0209-CAL3	XDT_m1230511-008	NA	05/11/23 14:05
CAL 3	SLE0209-CAL4	XDT_m1230511-009	NA	05/11/23 14:10
CAL 4	SLE0209-CAL5	XDT_m1230511-010	NA	05/11/23 14:15
CAL 5	SLE0209-CAL6	XDT_m1230511-011	NA	05/11/23 14:21
RINSE	SLE0209-IBL1	XDT_m1230511-012	NA	05/11/23 14:29
Initial Cal Check	SLE0209-ICV1	XDT_m1230511-014	NA	05/11/23 14:34
Initial Cal Blank	SLE0209-ICB1	XDT_m1230511-015	NA	05/11/23 14:42
Calibration Check	SLE0209-CCV1	XDT_m1230511-019	NA	05/11/23 15:06
Calibration Blank	SLE0209-CCB1	XDT_m1230511-020	NA	05/11/23 15:13
Instrument RL Check	SLE0209-CRL1	XDT_m1230511-021	NA	05/11/23 15:18
Interference Check A	SLE0209-IFA1	XDT_m1230511-022	NA	05/11/23 15:23
Interference Check B	SLE0209-IFB1	XDT_m1230511-023	NA	05/11/23 15:28
LR200	SLE0209-HCV1	XDT_m1230511-024	NA	05/11/23 15:32
LR300	SLE0209-HCV2	XDT_m1230511-025	NA	05/11/23 15:37
Instrument Blank	SLE0209-IBL2	XDT_m1230511-026	NA	05/11/23 15:50
Instrument Blank	SLE0209-IBL3	XDT_m1230511-027	NA	05/11/23 15:56
Calibration Check	SLE0209-CCV2	XDT_m1230511-028	NA	05/11/23 16:02
Calibration Blank	SLE0209-CCB2	XDT_m1230511-029	NA	05/11/23 16:09
Calibration Check	SLE0209-CCV3	XDT_m1230511-031	NA	05/11/23 16:19
Calibration Blank	SLE0209-CCB3	XDT_m1230511-032	NA	05/11/23 16:27
ZZZZZ	BLE0342-BLK1	XDT_m1230511-034	Water	05/11/23 16:42
ZZZZZ	BLE0342-BS1	XDT_m1230511-035	Water	05/11/23 16:46
Instrument Blank	SLE0209-IBL4	XDT_m1230511-040	NA	05/11/23 17:10
Instrument Blank	SLE0209-IBL5	XDT_m1230511-042	NA	05/11/23 17:21
Calibration Check	SLE0209-CCV4	XDT_m1230511-043	NA	05/11/23 17:25
Calibration Blank	SLE0209-CCB4	XDT_m1230511-044	NA	05/11/23 17:32
Instrument Blank	SLE0209-IBL9	XDT_m1230511-073	NA	05/11/23 18:29



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	23D0702-04	XDT_m1230511-074	Water	05/11/23 18:34
ZZZZZ	BLE0342-DUP1	XDT_m1230511-075	Water	05/11/23 18:40
ZZZZZ	BLE0342-MS1	XDT_m1230511-076	Water	05/11/23 18:45
ZZZZZ	BLE0342-MSD1	XDT_m1230511-077	Water	05/11/23 18:50
Instrument Blank	SLE0209-IBLA	XDT_m1230511-078	NA	05/11/23 18:55
Calibration Check	SLE0209-CCV7	XDT_m1230511-079	NA	05/11/23 18:59
Calibration Blank	SLE0209-CCB7	XDT_m1230511-080	NA	05/11/23 19:07
Calibration Check	SLE0209-CCV8	XDT_m1230511-082	NA	05/11/23 19:18
Calibration Blank	SLE0209-CCB8	XDT_m1230511-083	NA	05/11/23 19:25
Calibration Check	SLE0209-CCVA	XDT_m1230511-094	NA	05/11/23 19:55
Calibration Blank	SLE0209-CCBA	XDT_m1230511-095	NA	05/11/23 20:00
Instrument Blank	SLE0209-IBLC	XDT_m1230511-100	NA	05/11/23 20:25
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	23D0568-08	XDT_m1230511-101	Solid	05/11/23 20:30
ZZZZZ	BLE0143-DUP1	XDT_m1230511-102	Solid	05/11/23 20:35
ZZZZZ	BLE0143-MS1	XDT_m1230511-103	Solid	05/11/23 20:40
ZZZZZ	BLE0143-MSD1	XDT_m1230511-104	Solid	05/11/23 20:44
Instrument Blank	SLE0209-IBLD	XDT_m1230511-105	NA	05/11/23 20:49
Calibration Check	SLE0209-CCVB	XDT_m1230511-106	NA	05/11/23 20:53
Calibration Blank	SLE0209-CCBB	XDT_m1230511-107	NA	05/11/23 21:00
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06
ZZZZZ	23D0568-02	XDT_m1230511-108	Solid	05/11/23 21:06



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-03	XDT_m1230511-109	Solid	05/11/23 21:11
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-04	XDT_m1230511-110	Solid	05/11/23 21:15
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-05	XDT_m1230511-111	Solid	05/11/23 21:20
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-06	XDT_m1230511-112	Solid	05/11/23 21:24
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
ZZZZZ	23D0568-07	XDT_m1230511-113	Solid	05/11/23 21:29
Instrument Blank	SLE0209-IBL E	XDT_m1230511-114	NA	05/11/23 21:34
Instrument Blank	SLE0209-IBL F	XDT_m1230511-116	NA	05/11/23 21:46
Calibration Check	SLE0209-CCVC	XDT_m1230511-117	NA	05/11/23 21:50
Calibration Blank	SLE0209-CCBC	XDT_m1230511-118	NA	05/11/23 21:58
Calibration Check	SLE0209-CCVD	XDT_m1230511-120	NA	05/11/23 22:08
Calibration Blank	SLE0209-CCBD	XDT_m1230511-121	NA	05/11/23 22:15
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0136-01	XDT_m1230511-125	Solid	05/11/23 22:35
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
ZZZZZ	23D0136-03	XDT_m1230511-126	Solid	05/11/23 22:40
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1801	23D0396-01	XDT_m1230511-127	Solid	05/11/23 22:44
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
LDW23-SS1802	23D0396-03	XDT_m1230511-128	Solid	05/11/23 22:48
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-02	XDT_m1230511-129	Solid	05/11/23 22:53
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
ZZZZZ	23D0394-04	XDT_m1230511-130	Solid	05/11/23 22:57
Instrument Blank	SLE0209-IBLG	XDT_m1230511-131	NA	05/11/23 23:02
Calibration Check	SLE0209-CCVE	XDT_m1230511-132	NA	05/11/23 23:07
Calibration Blank	SLE0209-CCBE	XDT_m1230511-133	NA	05/11/23 23:14
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-06	XDT_m1230511-134	Solid	05/11/23 23:18
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-07	XDT_m1230511-135	Solid	05/11/23 23:23
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-08	XDT_m1230511-136	Solid	05/11/23 23:27
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-11	XDT_m1230511-137	Solid	05/11/23 23:31
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-12	XDT_m1230511-138	Solid	05/11/23 23:36
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0394-13	XDT_m1230511-139	Solid	05/11/23 23:40
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-24	XDT_m1230511-140	Solid	05/11/23 23:44
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-28	XDT_m1230511-141	Solid	05/11/23 23:49
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53
ZZZZZ	23D0393-29	XDT_m1230511-142	Solid	05/11/23 23:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0209-IBLH	XDT_m1230511-143	NA	05/11/23 23:58
Calibration Check	SLE0209-CCVF	XDT_m1230511-144	NA	05/12/23 00:02
Calibration Blank	SLE0209-CCBF	XDT_m1230511-145	NA	05/12/23 00:09
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-10	XDT_m1230511-146	Solid	05/12/23 00:14
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-11	XDT_m1230511-147	Solid	05/12/23 00:19
ZZZZZ	23D0393-12	XDT_m1230511-148	Solid	05/12/23 00:23
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-15	XDT_m1230511-149	Solid	05/12/23 00:27
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-16	XDT_m1230511-150	Solid	05/12/23 00:34
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-17	XDT_m1230511-151	Solid	05/12/23 00:38
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-18	XDT_m1230511-152	Solid	05/12/23 00:43
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-19	XDT_m1230511-153	Solid	05/12/23 00:47
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
ZZZZZ	23D0393-22	XDT_m1230511-154	Solid	05/12/23 00:51
Instrument Blank	SLE0209-IBLI	XDT_m1230511-155	NA	05/12/23 00:56
Calibration Check	SLE0209-CCVG	XDT_m1230511-156	NA	05/12/23 01:00
Calibration Blank	SLE0209-CCBG	XDT_m1230511-157	NA	05/12/23 01:07
ZZZZZ	23D0393-04RE1	XDT_m1230511-158	Solid	05/12/23 01:12
ZZZZZ	23D0393-04RE1	XDT_m1230511-158	Solid	05/12/23 01:12
ZZZZZ	BLE0072-DUP3	XDT_m1230511-159	Solid	05/12/23 01:16
ZZZZZ	BLE0072-MS3	XDT_m1230511-160	Solid	05/12/23 01:20
ZZZZZ	BLE0072-MSD3	XDT_m1230511-161	Solid	05/12/23 01:25
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	23D0393-04	XDT_m1230511-162	Solid	05/12/23 01:29
ZZZZZ	BLE0072-DUP2	XDT_m1230511-163	Solid	05/12/23 01:34
ZZZZZ	BLE0072-MS2	XDT_m1230511-164	Solid	05/12/23 01:38
ZZZZZ	BLE0072-MSD2	XDT_m1230511-165	Solid	05/12/23 01:43
Instrument Blank	SLE0209-IBLJ	XDT_m1230511-167	NA	05/12/23 01:54
Calibration Check	SLE0209-CCVH	XDT_m1230511-168	NA	05/12/23 01:58
Calibration Blank	SLE0209-CCBH	XDT_m1230511-169	NA	05/12/23 02:05
Instrument Blank	SLE0209-IBLK	XDT_m1230511-176	NA	05/12/23 02:36
Instrument Blank	SLE0209-IBLL	XDT_m1230511-179	NA	05/12/23 02:56
Calibration Check	SLE0209-CCVI	XDT_m1230511-180	NA	05/12/23 03:00
Calibration Blank	SLE0209-CCBI	XDT_m1230511-181	NA	05/12/23 03:07
Calibration Check	SLE0209-CCVJ	XDT_m1230511-183	NA	05/12/23 03:16



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLE0209-CCBJ	XDT_m1230511-184	NA	05/12/23 03:23
ZZZZZ	23D0393-05	XDT_m1230511-185	Solid	05/12/23 03:28
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
ZZZZZ	23D0393-06	XDT_m1230511-186	Solid	05/12/23 03:32
Instrument Blank	SLE0209-IBLM	XDT_m1230511-188	NA	05/12/23 03:46
ZZZZZ	23D0412-02	XDT_m1230511-189	Water	05/12/23 03:50
ZZZZZ	23D0412-03	XDT_m1230511-190	Water	05/12/23 03:55
ZZZZZ	23D0412-04	XDT_m1230511-191	Water	05/12/23 03:59
ZZZZZ	23D0412-05	XDT_m1230511-192	Water	05/12/23 04:03
ZZZZZ	23D0412-06	XDT_m1230511-193	Water	05/12/23 04:08
Instrument Blank	SLE0209-IBLN	XDT_m1230511-194	NA	05/12/23 04:12
Calibration Check	SLE0209-CCVK	XDT_m1230511-195	NA	05/12/23 04:17
Calibration Blank	SLE0209-CCBK	XDT_m1230511-196	NA	05/12/23 04:24
ZZZZZ	23D0412-07	XDT_m1230511-197	Water	05/12/23 04:28
ZZZZZ	23D0412-08	XDT_m1230511-198	Water	05/12/23 04:32
ZZZZZ	23D0412-09	XDT_m1230511-199	Water	05/12/23 04:37
ZZZZZ	23D0412-10	XDT_m1230511-200	Water	05/12/23 04:41
ZZZZZ	23D0412-11	XDT_m1230511-201	Water	05/12/23 04:46
ZZZZZ	23D0412-12	XDT_m1230511-202	Water	05/12/23 04:50
ZZZZZ	23D0412-13	XDT_m1230511-203	Water	05/12/23 04:54
ZZZZZ	23D0412-14	XDT_m1230511-204	Water	05/12/23 04:59
ZZZZZ	23D0412-15	XDT_m1230511-205	Water	05/12/23 05:03
Instrument Blank	SLE0209-IBLO	XDT_m1230511-206	NA	05/12/23 05:08
Calibration Check	SLE0209-CCVL	XDT_m1230511-207	NA	05/12/23 05:12
Calibration Blank	SLE0209-CCBL	XDT_m1230511-208	NA	05/12/23 05:19
ZZZZZ	23D0442-03	XDT_m1230511-209	Water	05/12/23 05:23
ZZZZZ	23D0442-04	XDT_m1230511-210	Water	05/12/23 05:28



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0442-06	XDT_m1230511-212	Water	05/12/23 05:36
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-08	XDT_m1230511-215	Water	05/12/23 05:51
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-10	XDT_m1230511-216	Water	05/12/23 05:55
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
ZZZZZ	23D0598-12	XDT_m1230511-217	Water	05/12/23 06:00
Instrument Blank	SLE0209-IBLP	XDT_m1230511-218	NA	05/12/23 06:04
Calibration Check	SLE0209-CCVM	XDT_m1230511-219	NA	05/12/23 06:09
Calibration Blank	SLE0209-CCBM	XDT_m1230511-220	NA	05/12/23 06:16
ZZZZZ	23D0514-02	XDT_m1230511-221	Water	05/12/23 06:20
ZZZZZ	23D0514-03	XDT_m1230511-222	Water	05/12/23 06:24
ZZZZZ	23D0514-04	XDT_m1230511-223	Water	05/12/23 06:29
ZZZZZ	23D0514-06	XDT_m1230511-224	Water	05/12/23 06:33
Instrument Blank	SLE0209-IBLQ	XDT_m1230511-225	NA	05/12/23 06:37
Instrument Blank	SLE0209-IBLR	XDT_m1230511-230	NA	05/12/23 07:00
Calibration Check	SLE0209-CCVN	XDT_m1230511-231	NA	05/12/23 07:04
Calibration Blank	SLE0209-CCBN	XDT_m1230511-232	NA	05/12/23 07:11
Calibration Check	SLE0209-CCVO	XDT_m1230511-234	NA	05/12/23 07:20
Calibration Blank	SLE0209-CCBO	XDT_m1230511-235	NA	05/12/23 07:27
ZZZZZ	23D0537-02	XDT_m1230511-236	Water	05/12/23 07:31
ZZZZZ	23D0537-03	XDT_m1230511-237	Water	05/12/23 07:36
ZZZZZ	23D0537-04	XDT_m1230511-238	Water	05/12/23 07:40



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0209

Instrument: ICPMS1

Calibration: GE00042

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLE0209-IBLS	XDT_m1230511-245	NA	05/12/23 08:11
Calibration Check	SLE0209-CCVP	XDT_m1230511-246	NA	05/12/23 08:15
Calibration Blank	SLE0209-CCBP	XDT_m1230511-247	NA	05/12/23 08:22
ZZZZZ	23D0578-02	XDT_m1230511-253	Water	05/12/23 08:46
ZZZZZ	BLE0134-DUP1	XDT_m1230511-254	Water	05/12/23 08:50
ZZZZZ	BLE0134-MS1	XDT_m1230511-255	Water	05/12/23 08:53
Instrument Blank	SLE0209-IBLT	XDT_m1230511-257	NA	05/12/23 09:00
Calibration Check	SLE0209-CCVQ	XDT_m1230511-258	NA	05/12/23 09:04
Calibration Blank	SLE0209-CCBQ	XDT_m1230511-259	NA	05/12/23 09:10
ZZZZZ	23D0587-03	XDT_m1230511-268	Water	05/12/23 09:41
Instrument Blank	SLE0209-IBLU	XDT_m1230511-269	NA	05/12/23 09:45
Calibration Check	SLE0209-CCVR	XDT_m1230511-270	NA	05/12/23 09:48
Calibration Blank	SLE0209-CCBR	XDT_m1230511-271	NA	05/12/23 09:55
ZZZZZ	23D0587-02	XDT_m1230511-272	Water	05/12/23 09:58
ZZZZZ	23D0587-04	XDT_m1230511-273	Water	05/12/23 10:01
ZZZZZ	23D0587-05	XDT_m1230511-274	Water	05/12/23 10:05
ZZZZZ	23D0578-07	XDT_m1230511-275	Water	05/12/23 10:09
ZZZZZ	23D0578-08	XDT_m1230511-276	Water	05/12/23 10:12
ZZZZZ	23D0578-04	XDT_m1230511-277	Water	05/12/23 10:16
ZZZZZ	23D0578-06	XDT_m1230511-278	Water	05/12/23 10:19
ZZZZZ	23D0578-03	XDT_m1230511-279	Water	05/12/23 10:23
ZZZZZ	23D0578-05	XDT_m1230511-280	Water	05/12/23 10:26
Instrument Blank	SLE0209-IBLV	XDT_m1230511-281	NA	05/12/23 10:30
Calibration Check	SLE0209-CCVS	XDT_m1230511-282	NA	05/12/23 10:33
Calibration Blank	SLE0209-CCBS	XDT_m1230511-283	NA	05/12/23 10:39



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFA1	Arsenic-75a	0	0.0210		ug/L
	Cadmium-111	0	0.0830		ug/L
	Cadmium-114	0	0.0720		ug/L
	Copper-63	0	0.0350		ug/L
	Copper-65	0	0.0420		ug/L
	Zinc-66	0	0.3180		ug/L
	Zinc-67	0	0.1970		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0163-IFB1	Arsenic-75a	20.000	18.983	94.9	ug/L
	Cadmium-111	20.000	19.887	99.4	ug/L
	Cadmium-114	20.000	19.859	99.3	ug/L
	Copper-63	20.000	20.310	102	ug/L
	Copper-65	20.000	20.188	101	ug/L
	Zinc-66	20.000	19.206	96.0	ug/L
	Zinc-67	20.000	17.986	89.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFA1	Arsenic-75a	0	0.0260		ug/L
	Cadmium-111	0	0.0430		ug/L
	Cadmium-114	0	0.0270		ug/L
	Copper-63	0	0.0390		ug/L
	Copper-65	0	0.0330		ug/L
	Zinc-66	0	0.3120		ug/L
	Zinc-67	0	0.2690		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Standard ID: L004688

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0204-IFB1	Arsenic-75a	20.000	19.651	98.3	ug/L
	Cadmium-111	20.000	18.519	92.6	ug/L
	Cadmium-114	20.000	18.365	91.8	ug/L
	Copper-63	20.000	20.580	103	ug/L
	Copper-65	20.000	20.103	101	ug/L
	Zinc-66	20.000	19.662	98.3	ug/L
	Zinc-67	20.000	17.951	89.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFA1	Arsenic-75a	0	0.0210		ug/L
	Cadmium-111	0	0.0470		ug/L
	Cadmium-114	0	0.0440		ug/L
	Copper-63	0	0.0450		ug/L
	Copper-65	0	0.0540		ug/L
	Zinc-66	0	0.2310		ug/L
	Zinc-67	0	0.1630		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Standard ID: L005318

Lab Sample ID	Analyte	True	Found	%R	Units
SLE0209-IFB1	Arsenic-75a	20.000	19.554	97.8	ug/L
	Cadmium-111	20.000	18.852	94.3	ug/L
	Cadmium-114	20.000	18.980	94.9	ug/L
	Copper-63	20.000	20.032	100	ug/L
	Copper-65	20.000	20.081	100	ug/L
	Zinc-66	20.000	19.222	96.1	ug/L
	Zinc-67	20.000	18.232	91.2	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00034

Sequence: SLE0163

Lab Sample ID: SLE0163-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.206	103	ug/L	50 - 150
Cadmium-111	0.10000	0.0970	97.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0950	95.0	ug/L	50 - 150
Copper-63	0.50000	0.703	141	ug/L	50 - 150
Copper-65	0.50000	0.709	142	ug/L	50 - 150
Zinc-66	6.0000	6.20	103	ug/L	50 - 150
Zinc-67	6.0000	5.78	96.3	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00040

Sequence: SLE0204

Lab Sample ID: SLE0204-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.213	107	ug/L	50 - 150
Cadmium-111	0.10000	0.113	113	ug/L	50 - 150
Cadmium-114	0.10000	0.0970	97.0	ug/L	50 - 150
Copper-63	0.50000	0.708	142	ug/L	50 - 150
Copper-65	0.50000	0.727	145	ug/L	50 - 150
Zinc-66	6.0000	6.25	104	ug/L	50 - 150
Zinc-67	6.0000	6.11	102	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GE00042

Sequence: SLE0209

Lab Sample ID: SLE0209-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.199	99.5	ug/L	50 - 150
Cadmium-111	0.10000	0.0830	83.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0850	85.0	ug/L	50 - 150
Copper-63	0.50000	0.700	140	ug/L	50 - 150
Copper-65	0.50000	0.654	131	ug/L	50 - 150
Zinc-66	6.0000	6.52	109	ug/L	50 - 150
Zinc-67	6.0000	5.95	99.2	ug/L	50 - 150

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV1

Sequence: SLE0163

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	196	-2.2	10.00
Cadmium-111	200.00	198	-0.9	10.00
Cadmium-114	200.00	200	0.008	10.00
Copper-63	200.00	197	-1.3	10.00
Copper-65	200.00	197	-1.6	10.00
Zinc-66	200.00	194	-2.9	10.00
Zinc-67	200.00	193	-3.5	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00034

Laboratory ID: SLE0163-HCV2

Sequence: SLE0163

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	294	-1.9	10.00
Cadmium-111	300.00	296	-1.3	10.00
Cadmium-114	300.00	298	-0.7	10.00
Copper-63	300.00	298	-0.6	10.00
Copper-65	300.00	292	-2.6	10.00
Zinc-66	300.00	287	-4.2	10.00
Zinc-67	300.00	281	-6.4	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV1

Sequence: SLE0204

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	194	-3.1	10.00
Cadmium-111	200.00	220	9.8	10.00
Cadmium-114	200.00	220	10.0	10.00
Copper-63	200.00	188	-6.2	10.00
Copper-65	200.00	186	-7.1	10.00
Zinc-66	200.00	189	-5.4	10.00
Zinc-67	200.00	187	-6.7	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00040

Laboratory ID: SLE0204-HCV2

Sequence: SLE0204

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	305	1.7	10.00
Cadmium-111	300.00	293	-2.4	10.00
Cadmium-114	300.00	294	-1.9	10.00
Copper-63	300.00	287	-4.3	10.00
Copper-65	300.00	287	-4.2	10.00
Zinc-66	300.00	285	-4.9	10.00
Zinc-67	300.00	288	-4.1	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV1

Sequence: SLE0209

Standard ID: L004780

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	197	-1.5	10.00
Cadmium-111	200.00	193	-3.7	10.00
Cadmium-114	200.00	194	-3.1	10.00
Copper-63	200.00	191	-4.4	10.00
Copper-65	200.00	190	-4.9	10.00
Zinc-66	200.00	193	-3.5	10.00
Zinc-67	200.00	189	-5.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00042

Laboratory ID: SLE0209-HCV2

Sequence: SLE0209

Standard ID: L004781

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	296	-1.2	10.00
Cadmium-111	300.00	285	-5.1	10.00
Cadmium-114	300.00	287	-4.2	10.00
Copper-63	300.00	283	-5.5	10.00
Copper-65	300.00	282	-5.8	10.00
Zinc-66	300.00	281	-6.4	10.00
Zinc-67	300.00	275	-8.3	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	04/28/23 15:38	16	180	05/11/23 22:44	30	180	
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	04/28/23 15:38	16	180	05/11/23 22:48	29	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Arsenic-75a	0.04	0.20	mg/kg
Cadmium-111	0.03	0.10	mg/kg
Cadmium-114	0.04	0.10	mg/kg
Copper-63	0.17	0.50	mg/kg
Copper-65	0.35	0.50	mg/kg
Zinc-66	2.9	6.0	mg/kg
Zinc-67	0.9	6.0	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCU10
 Lot Number: P2-CU682108
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Copper
 Starting Material: Cu Metal
 Starting Material Lot#: 2095
 Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9977 ± 50 µg/mL ICP Assay NIST SRM 3114 Lot Number: 121207
Assay Method #2	10024 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10007 ± 46 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh <	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu <	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGZN10
Lot Number: S2-ZN711249
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Zinc
Starting Material: Zinc Metal
Starting Material Lot#: 2349
Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M	Eu <	0.000373	O Na	0.013654	s	Se <		O Zn	0.002374
M Al	0.004450	M	Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868	
O As <	0.022040	M	Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373			
M Au <	0.000373	M	Gd <	0.000373	O Ni	0.001843	M Sn	0.000847			
O B <	0.007714	M	Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121			
M Ba <	0.001495	M	Hf <	0.000373	O P <	0.022040	M Ta <	0.000373			
M Be <	0.001495	M	Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353			
M Bi <	0.000373	M	Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707			
O Ca	0.006530	M	In <	0.000373	M Pr <	0.001495	M Th <	0.002990			
M Cd	0.001165	M	Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363			
M Ce <	0.000373	O	K	0.001999	M Rb <	0.001868	M Tl	0.008584			
M Co <	0.000373	M	La <	0.001121	M Re <	0.000373	M Tm <	0.000373			
M Cr	0.002861	O	Li	0.000062	M Rh <	0.000373	M U <	0.000373			
M Cs <	0.001121	M	Lu <	0.000373	M Ru <	0.001493	M V <	0.000747			
M Cu <	0.000747	O	Mg	0.001156	O S	0.024591	M W <	0.002242			
M Dy <	0.000373	M	Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373			
M Er <	0.000373	O	Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃,H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.001200	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 60,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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P: 800-669-6799/540-585-3030
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag < 0.003200	O Eu < 0.002500	O Na < 0.005499	M Se < 0.005700	O Zn < 0.001100
O Al < 0.008903	O Fe < 0.000602	M Nb < 0.000400	O Si < 0.016758	O Zr < 0.002600
M As < 0.003600	M Ga < 0.001200	M Nd < 0.000800	M Sm < 0.000400	
M Au < 0.000810	M Gd < 0.000400	M Ni < 0.003600	M Sn < 0.003200	
O B < 0.004189	O Ge < 0.012000	M Os < 0.000810	O Sr < 0.000330	
M Ba < 0.002400	M Hf < 0.000400	O P < 0.022000	M Ta < 0.000800	
M Be < 0.000400	M Hg < 0.001700	M Pb < 0.002400	M Tb < 0.000400	
M Bi < 0.000400	M Ho < 0.000400	M Pd < 0.001200	M Te < 0.008000	
O Ca < 0.011259	O In < 0.013000	M Pr < 0.000400	M Th < 0.000400	
s Cd < 0.000400	M Ir < 0.000410	M Pt < 0.000400	O Ti < 0.000602	
M Ce < 0.000400	O K < 0.005237	M Rb < 0.004400	M Tl < 0.000523	
M Co < 0.000400	M La < 0.000400	M Re < 0.000400	M Tm < 0.000400	
O Cr < 0.005100	O Li < 0.000054	M Rh < 0.000400	M U < 0.000400	
M Cs < 0.002400	M Lu < 0.000400	M Ru < 0.002500	M V < 0.002000	
O Cu < 0.004800	O Mg < 0.000288	O S < 0.022000	M W < 0.000400	
M Dy < 0.000400	O Mn < 0.000860	O Sb < 0.018000	M Y < 0.000400	
M Er < 0.000400	M Mo < 0.001600	O Sc < 0.000430	M Yb < 0.000400	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)(aq)₃₊ and Cd(OH)(aq)

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char j}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C₄H₄O₆-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO₃ as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO₃ / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H₂O / HF / HNO₃ mixture); Oxides (Soluble in HCl and tartaric acid or H₂O / HF / HNO₃ mixtures); Ores (fusion with Na₂CO₃ in PtO followed by dissolving the fuseate in a H₂O / HF / HNO₃ mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.003200	M Eu <	0.000530	O Na	0.032544	M Se <	0.006300	O Zn	0.001952
M Al	0.007593	O Fe	0.001475	O Nb <	0.012000	O Si	0.238658	O Zr <	0.004100
s As <		M Ga <	0.000530	M Nd <	0.000530	M Sm <	0.000530		
M Au <	0.003100	M Gd <	0.000530	M Ni <	0.002100	M Sn <	0.000530		
M B	0.026035	M Ge <	0.001600	M Os <	0.000520	M Sr <	0.000530		
M Ba <	0.000530	M Hf <	0.000530	O P <	0.043000	M Ta <	0.000530		
O Be <	0.000360	M Hg <	0.001600	M Pb <	0.002100	M Tb <	0.000530		
M Bi <	0.000530	M Ho <	0.000530	M Pd <	0.001100	M Te <	0.004700		
O Ca	0.004339	M In <	0.023000	M Pr <	0.005300	M Th <	0.000530		
M Cd <	0.001100	M Ir <	0.000520	M Pt <	0.000530	O Ti <	0.002300		
M Ce <	0.000530	O K	0.002061	M Rb <	0.000530	M Tl <	0.000530		
M Co <	0.000530	M La <	0.001100	M Re <	0.000530	M Tm <	0.000530		
O Cr <	0.001800	O Li <	0.000120	M Rh <	0.000530	M U <	0.000530		
M Cs <	0.005300	M Lu <	0.000530	M Ru <	0.000520	M V <	0.002700		
M Cu <	0.001600	O Mg	0.000154	O S	0.028205	M W <	0.012000		
M Dy <	0.000530	O Mn	0.000154	M Sb <	0.000530	M Y <	0.000530		
M Er <	0.000530	M Mo <	0.000530	O Sc <	0.001700	M Yb <	0.000530		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBA10
 Lot Number: R2-BA692576
 Matrix: 2% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Barium
 Starting Material: Barium Nitrate
 Starting Material Lot#: 1969
 Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na < 0.004610	M Se < 0.003700	O Zn < 0.000658
M Al < 0.003100	O Fe < 0.015707	M Nb < 0.000210	O Si < 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr < 0.003850	
s Ba < 0.000320	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca < 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K < 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg < 0.000861	O S < 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBE10
 Lot Number: R2-BE692992
 Matrix: 6% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Beryllium
 Starting Material: Beryllium Acetate
 Starting Material Lot#: 2281
 Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10042 ± 67 µg/mL ICP Assay NIST SRM 3105a Lot Number: 090514
Assay Method #2	10025 ± 51 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO10
 Lot Number: R2-CO695285
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

- Assay Method #1** **10031 ± 67 µg/mL**
 ICP Assay NIST SRM 3113 Lot Number: 190630

- Assay Method #2** **10019 ± 32 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

- Assay Method #3** **10000 ± 35 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) X_i$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆²⁺

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

s Ag <	M Eu <	0.000260	O Na	0.003811	M Se <	0.003900	O Zn	0.048146	
M Al	0.002688	O Fe	0.006419	M Nb <	0.000260	O Si	0.005215	M Zr <	0.000260
M As <	0.001100	M Ga <	0.000260	M Nd <	0.000260	M Sm <	0.000260		
M Au <	0.000260	M Gd <	0.000260	O Ni	0.001765	M Sn	0.020060		
O B <	0.004300	M Ge <	0.002300	M Os <	0.001100	O Sr <	0.000110		
M Ba <	0.000520	M Hf <	0.000260	O P <	0.017000	M Ta <	0.000260		
O Be <	0.001100	M Hg <	0.000770	M Pb <	0.003600	M Tb <	0.000260		
M Bi	0.004814	M Ho <	0.000260	M Pd	0.044134	M Te <	0.009000		
O Ca	0.005215	M In	0.003691	M Pr <	0.000260	M Th <	0.000260		
M Cd <	0.000260	M Ir <	0.000520	M Pt <	0.001100	O Ti <	0.000440		
M Ce <	0.002100	O K <	0.008700	M Rb <	0.001100	M Tl <	0.004100		
O Co <	0.000330	M La <	0.000260	M Re <	0.000260	M Tm <	0.000260		
O Cr <	0.002500	O Li <	0.000110	M Rh <	0.000520	M U <	0.000260		
M Cs <	0.002600	M Lu <	0.000260	M Ru <	0.000260	M V <	0.000260		
O Cu	0.357085	O Mg	0.001203	O S <	0.017000	M W <	0.000260		
M Dy <	0.000260	O Mn <	0.000220	M Sb <	0.014000	M Y <	0.000260		
M Er <	0.000260	M Mo <	0.000260	O Sc <	0.000220	M Yb <	0.000260		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆+
Chemical Compatibility -Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with
 $u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char\ a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr₃ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNI10
Lot Number: P2-NI686384
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Nickel
Starting Material: Ni Metal
Starting Material Lot#: 2277 and 2282
Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9971 ± 54 µg/mL ICP Assay NIST SRM 3136 Lot Number: 120619
Assay Method #2	9970 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	9993 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002100	M Eu < 0.002100	O Na 0.352819	M Se < 0.005200	M Zn 0.006018
s Al < 0.002100	O Fe 0.074714	M Nb < 0.000520	O Si 0.017848	O Zr 0.004358
M As 0.008716	O Ga 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr 0.000518	
O Ba 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb 0.002282	M Tb < 0.000520	
M Bi 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti 0.001930	
M Ce < 0.001100	O K 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr 0.006018	O Li 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V 0.001286	
O Cu < 0.008300	O Mg 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001200	M Eu < 0.001200	O Na < 0.006112	M Se < 0.024000	M Zn < 0.005362
M Al < 0.065419	O Fe < 0.009115	M Nb < 0.001200	O Si < 0.139417	O Zr < 0.006700
O As < 0.013000	M Ga < 0.015000	M Nd < 0.020000	M Sm < 0.001200	
M Au < 0.017000	M Gd < 0.004800	O Ni < 0.000793	M Sn < 0.003600	
O B < 0.001179	M Ge < 0.003600	M Os < 0.001200	M Sr < 0.081505	
O Ba < 0.002788	M Hf < 0.001200	O P < 0.041000	M Ta < 0.001200	
O Be < 0.000410	M Hg < 0.004800	M Pb < 0.001608	M Tb < 0.001200	
M Bi < 0.001608	M Ho < 0.001200	M Pd < 0.001200	M Te < 0.003600	
s Ca <	M In < 0.001200	M Pr < 0.000257	M Th < 0.001200	
O Cd < 0.001300	M Ir < 0.001200	M Pt < 0.003600	O Ti < 0.001900	
M Ce < 0.001029	O K < 0.009759	M Rb < 0.001200	M Tl < 0.001200	
O Co < 0.000418	M La < 0.001823	M Re < 0.001200	M Tm < 0.001200	
O Cr < 0.003324	O Li < 0.007300	M Rh < 0.001200	M U < 0.002144	
M Cs < 0.007399	M Lu < 0.000128	M Ru < 0.001200	M V < 0.001286	
O Cu < 0.011000	M Mg < 1.286934	O S < 0.055767	O W < 0.024000	
M Dy < 0.002400	O Mn < 0.004611	M Sb < 0.009600	O Y < 0.000536	
M Er < 0.002400	M Mo < 0.003539	O Sc < 0.001400	M Yb < 0.001200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O ² 12C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000930	M Eu < 0.000930	s Na <	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P <	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U <	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S <	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO3	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/(u_{\text{char } j})^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

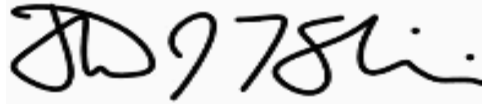
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO3
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

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4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

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- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

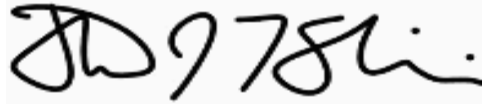
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SS1801

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0396-01 A SDG: 23D0396

Sampled: 04/12/23 09:56 Prepared: 05/13/23 14:02 File ID: CubeData_05222023@1029-066

% Solids: 48.05 Preparation: No Prep Wet Chem Analyzed: 05/20/23 21:14

Batch: BLE0415 Sequence: SLE0228 Initial/Final: 0.4197 g Wet / 0.4197 g

Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.61	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1801

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-02 A SDG: 23D0396
 Sampled: 04/12/23 10:15 Prepared: 05/13/23 14:02 File ID: CubeData_05222023@1029-067
 % Solids: 50.19 Preparation: No Prep Wet Chem Analyzed: 05/20/23 21:44
 Batch: BLE0415 Sequence: SLE0228 Initial/Final: 0.5175 g Wet / 0.5175 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.76	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SS1802

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23D0396-03 A SDG: 23D0396

Sampled: 04/12/23 15:03 Prepared: 05/13/23 14:02 File ID: CubeData_05222023@1029-068

% Solids: 47.50 Preparation: No Prep Wet Chem Analyzed: 05/20/23 22:15

Batch: BLE0415 Sequence: SLE0228 Initial/Final: 0.4422 g Wet / 0.4422 g

Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.88	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1802

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23D0396-04 A SDG: 23D0396
 Sampled: 04/12/23 15:40 Prepared: 05/13/23 14:02 File ID: CubeData_05222023@1029-069
 % Solids: 49.45 Preparation: No Prep Wet Chem Analyzed: 05/20/23 22:45
 Batch: BLE0415 Sequence: SLE0228 Initial/Final: 0.4218 g Wet / 0.4218 g
 Instrument: TOC Cube Calibration: GE00052

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.75	1	0.02	0.02	



PREPARATION BATCH SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC SDG: 23D0396
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLE0415 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SS1801	23D0396-01	eData_05222023@1029-	05/13/23 14:02	
LDW23-SC1801	23D0396-02	eData_05222023@1029-	05/13/23 14:02	
LDW23-SS1802	23D0396-03	eData_05222023@1029-	05/13/23 14:02	
LDW23-SC1802	23D0396-04	eData_05222023@1029-	05/13/23 14:02	
Blank	BLE0415-BLK1	eData_05222023@1029-	05/13/23 14:02	
LCS	BLE0415-BS1	eData_05222023@1029-	05/13/23 14:02	
MRL Check	BLE0415-MRL1	eData_05222023@1029-	05/13/23 14:02	
Reference	BLE0415-SRM1	eData_05222023@1029-	05/13/23 14:02	



Form I
METHOD BLANK DATA SHEET
EPA 9060A m
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLE0415

Laboratory ID: BLE0415-BLK1

Prepared: 05/13/23 14:02

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 05/19/23 15:36

Sequence: SLE0228

Calibration: GE00052

Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U



LCS / LCS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>05/19/23 16:37</u>
Batch:	<u>BLE0415</u>	Laboratory ID:	<u>BLE0415-BS1</u>
Preparation:	<u>No Prep Wet Chem</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.0209 g / 0.0209 g</u>		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	44.0		99.0	80 - 120

* Indicates values outside of QC limits



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLE0228

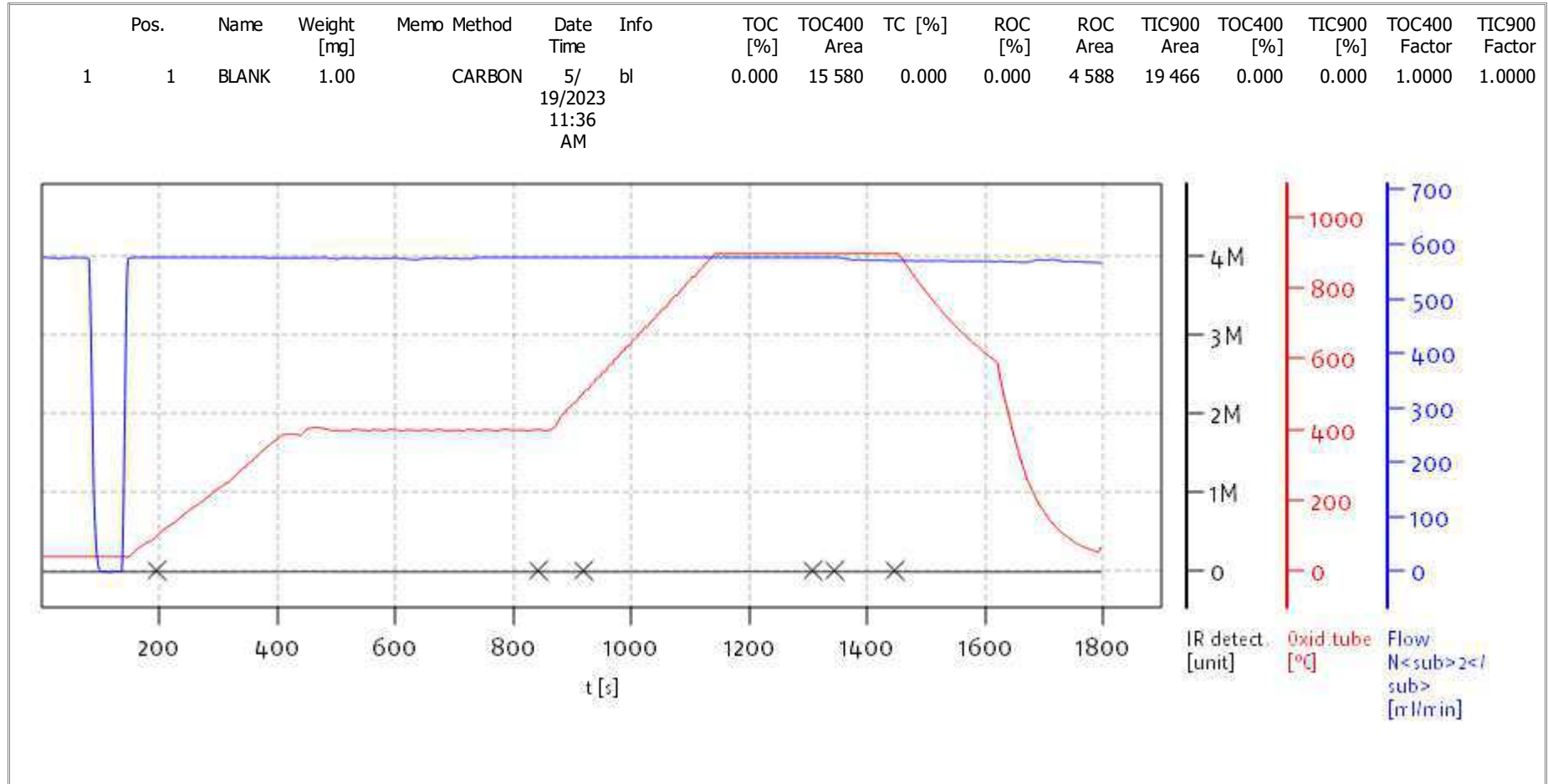
Instrument: TOC Cube

Calibration: GE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLE0228-ICV1	CubeData_05222023@1029-003	NA	05/19/23 13:06
Initial Cal Blank	SLE0228-ICB1	CubeData_05222023@1029-004	NA	05/19/23 13:36
MRL Check	BLE0415-MRL1	CubeData_05222023@1029-006	Solid	05/19/23 14:36
Blank	BLE0415-BLK1	CubeData_05222023@1029-008	Solid	05/19/23 15:36
LCS	BLE0415-BS1	CubeData_05222023@1029-010	Solid	05/19/23 16:37
Reference	BLE0415-SRM1	CubeData_05222023@1029-012	Solid	05/19/23 17:37
Calibration Check	SLE0228-CCV1	CubeData_05222023@1029-015	NA	05/19/23 19:07
Calibration Blank	SLE0228-CCB1	CubeData_05222023@1029-016	NA	05/19/23 19:37
Calibration Check	SLE0228-CCV2	CubeData_05222023@1029-027	NA	05/20/23 01:09
Calibration Blank	SLE0228-CCB2	CubeData_05222023@1029-028	NA	05/20/23 01:39
Calibration Check	SLE0228-CCV3	CubeData_05222023@1029-039	NA	05/20/23 07:10
Calibration Blank	SLE0228-CCB3	CubeData_05222023@1029-040	NA	05/20/23 07:40
Calibration Check	SLE0228-CCV4	CubeData_05222023@1029-050	NA	05/20/23 13:12
Calibration Blank	SLE0228-CCB4	CubeData_05222023@1029-051	NA	05/20/23 13:42
Calibration Check	SLE0228-CCV5	CubeData_05222023@1029-062	NA	05/20/23 19:14
Calibration Blank	SLE0228-CCB5	CubeData_05222023@1029-063	NA	05/20/23 19:44
LDW23-SS1801	23D0396-01	CubeData_05222023@1029-066	Solid	05/20/23 21:14
LDW23-SC1801	23D0396-02	CubeData_05222023@1029-067	Solid	05/20/23 21:44
LDW23-SS1802	23D0396-03	CubeData_05222023@1029-068	Solid	05/20/23 22:15
LDW23-SC1802	23D0396-04	CubeData_05222023@1029-069	Solid	05/20/23 22:45
Calibration Blank	SLE0228-CCB6	CubeData_05222023@1029-073	NA	05/21/23 12:48
Calibration Check	SLE0228-CCV6	CubeData_05222023@1029-074	NA	05/21/23 13:20



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

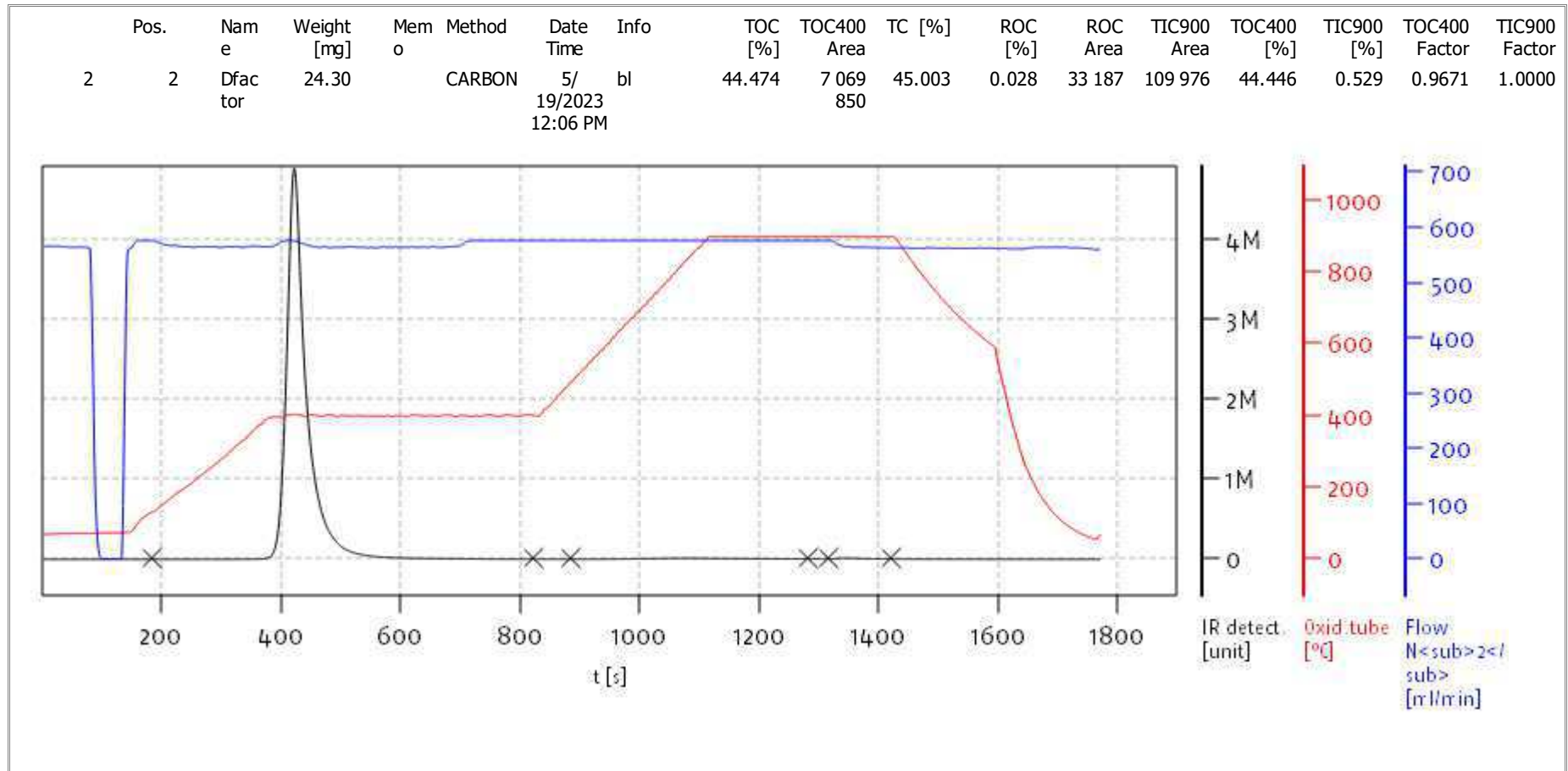
Date: Mon May 22 10:19:17 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

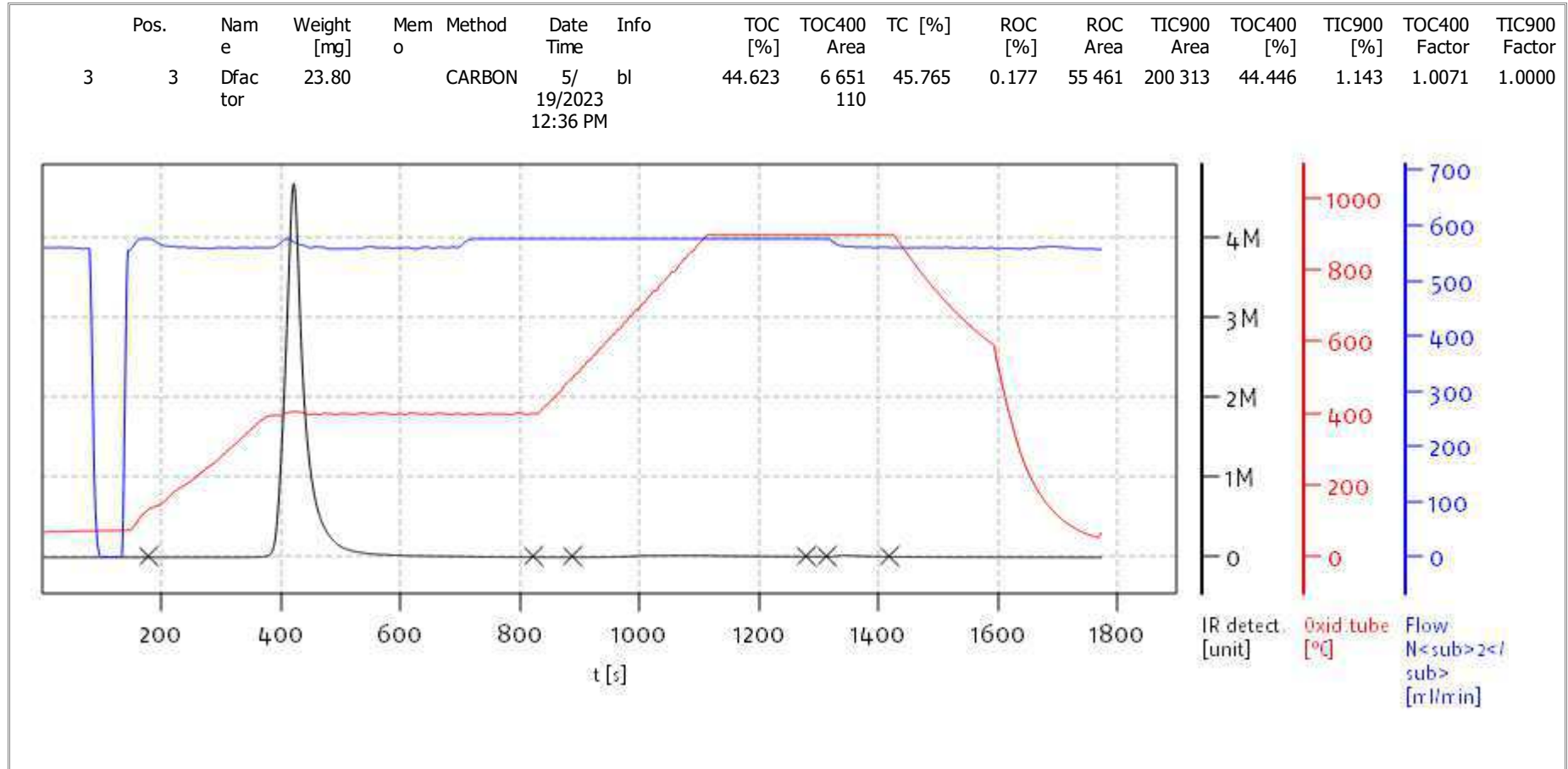
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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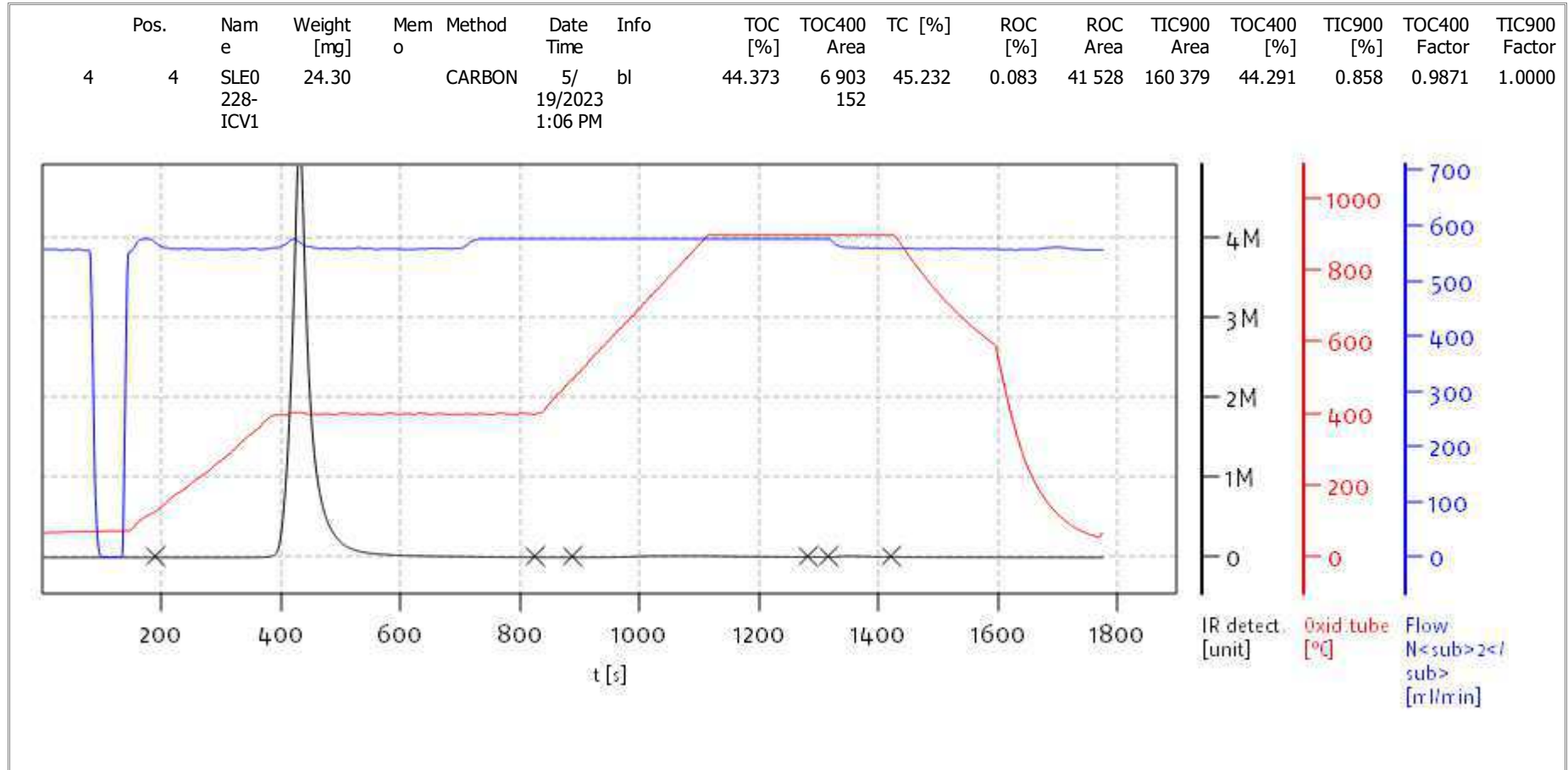
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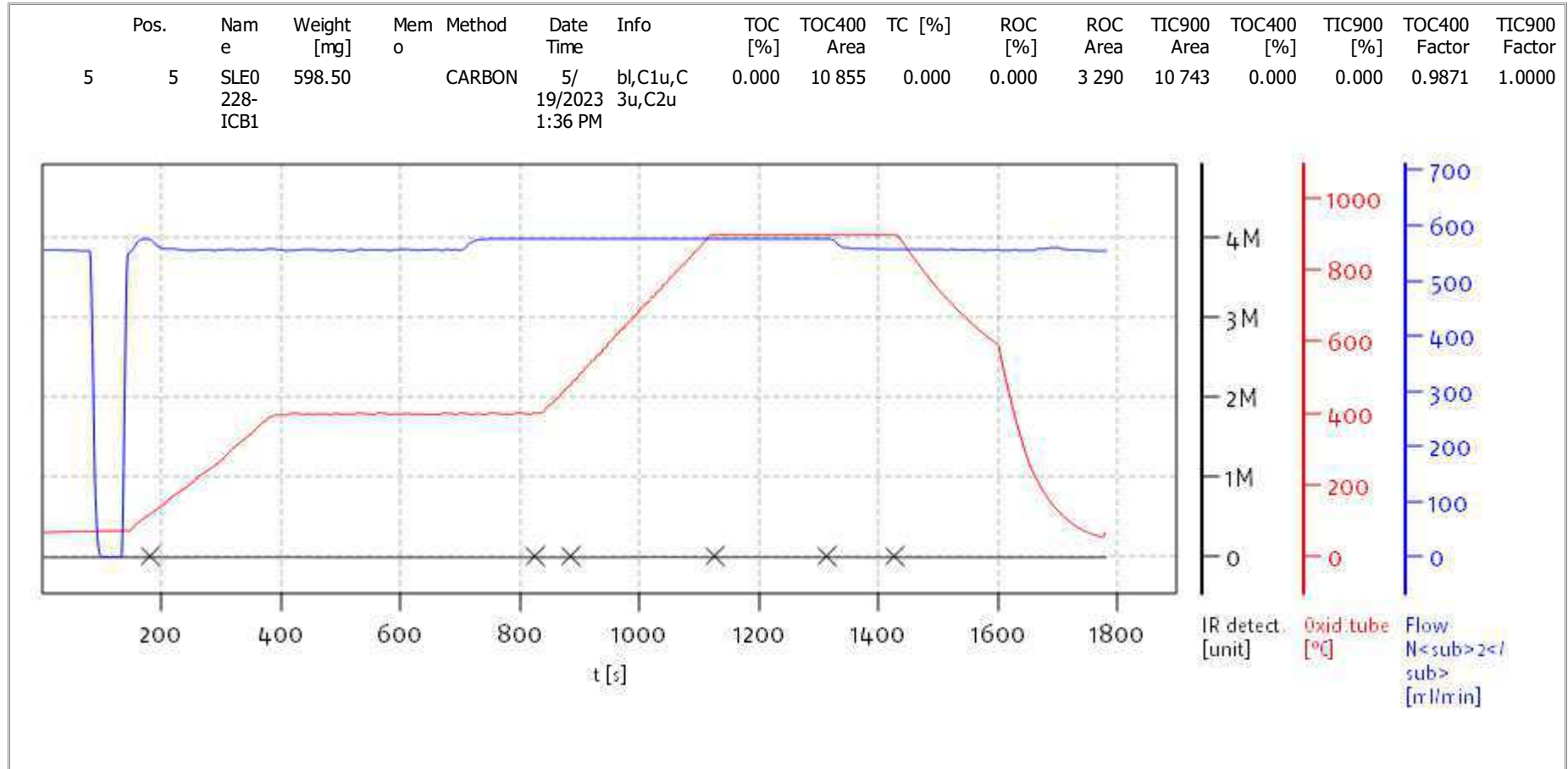
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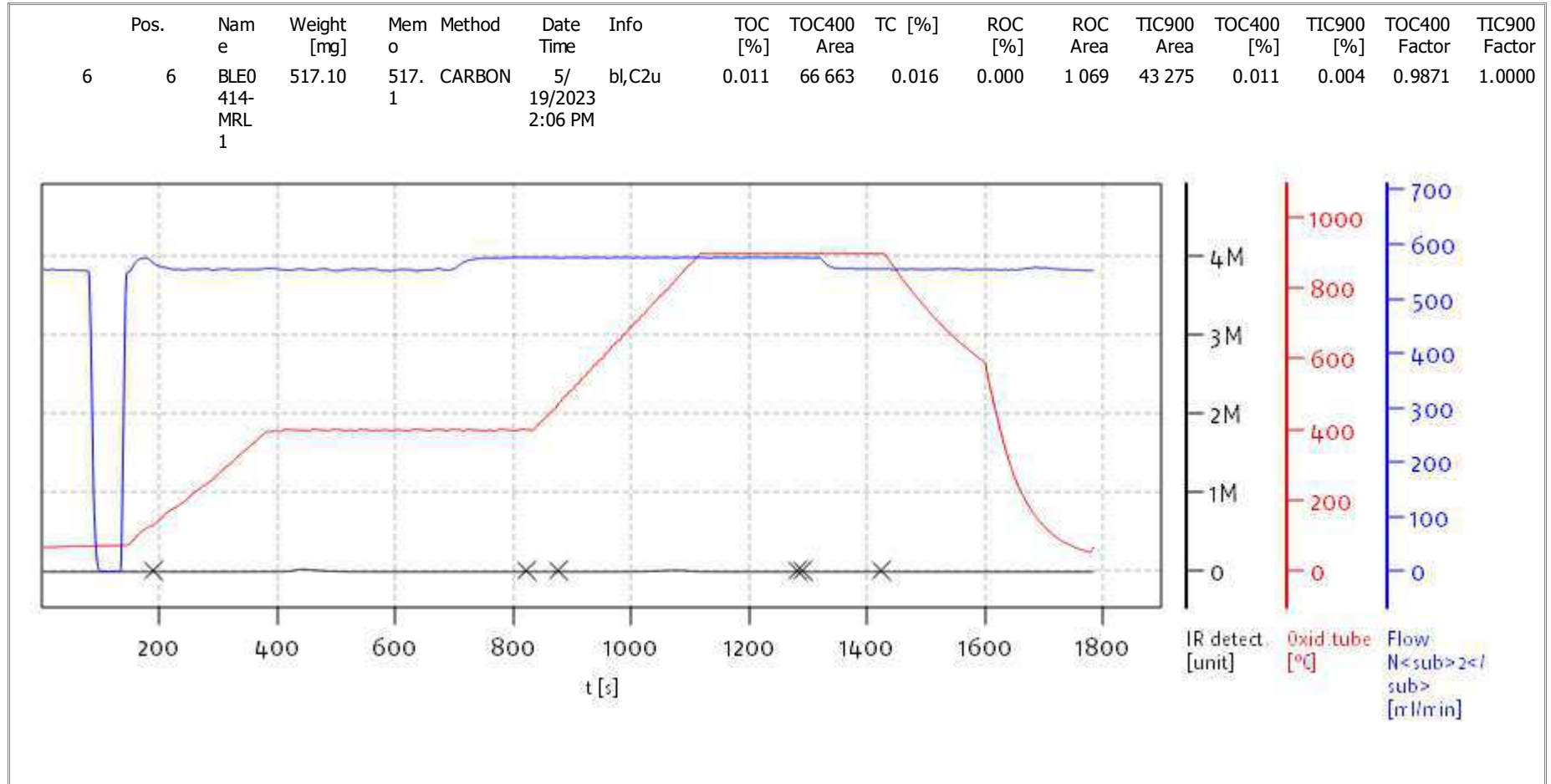
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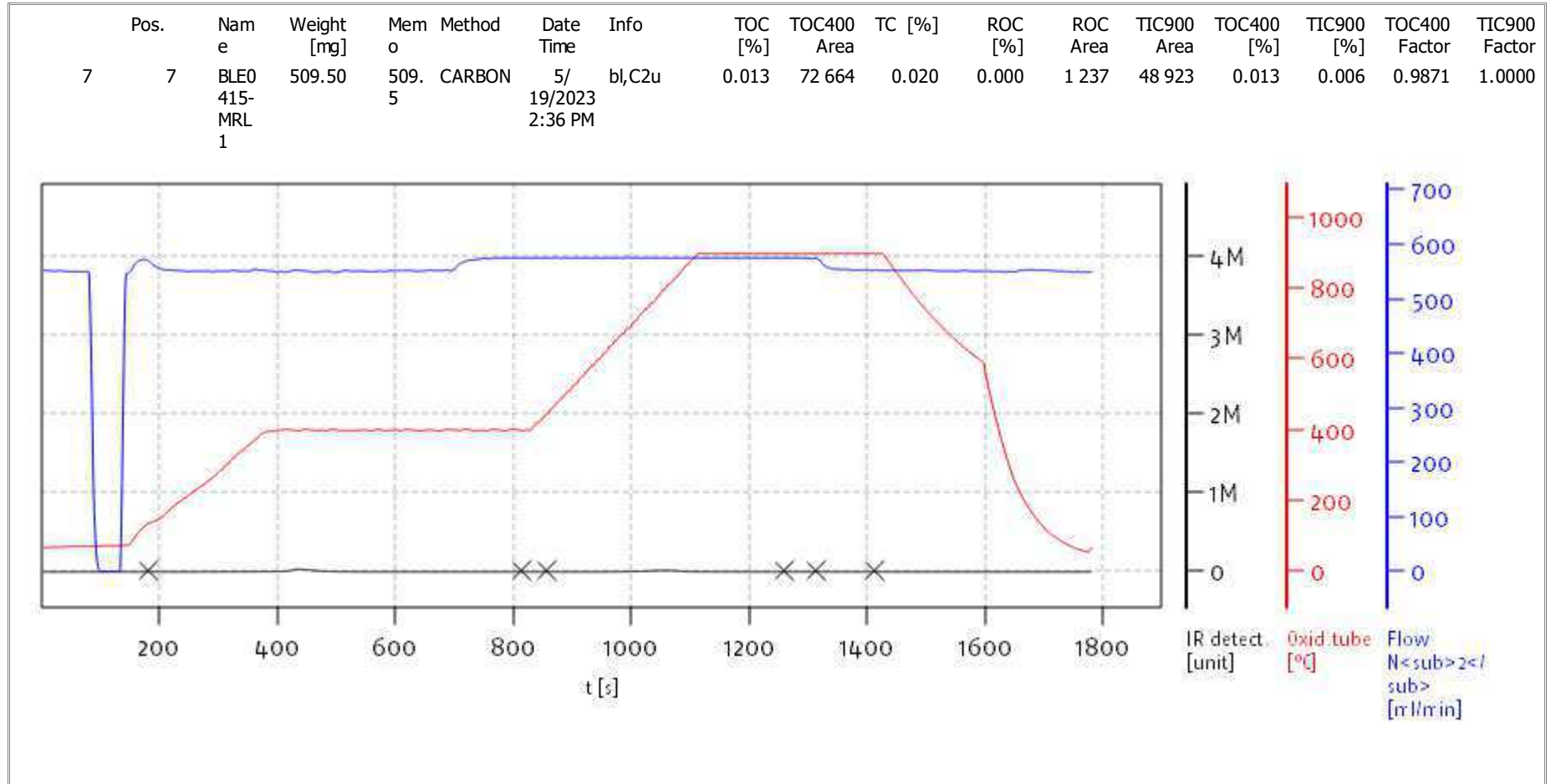
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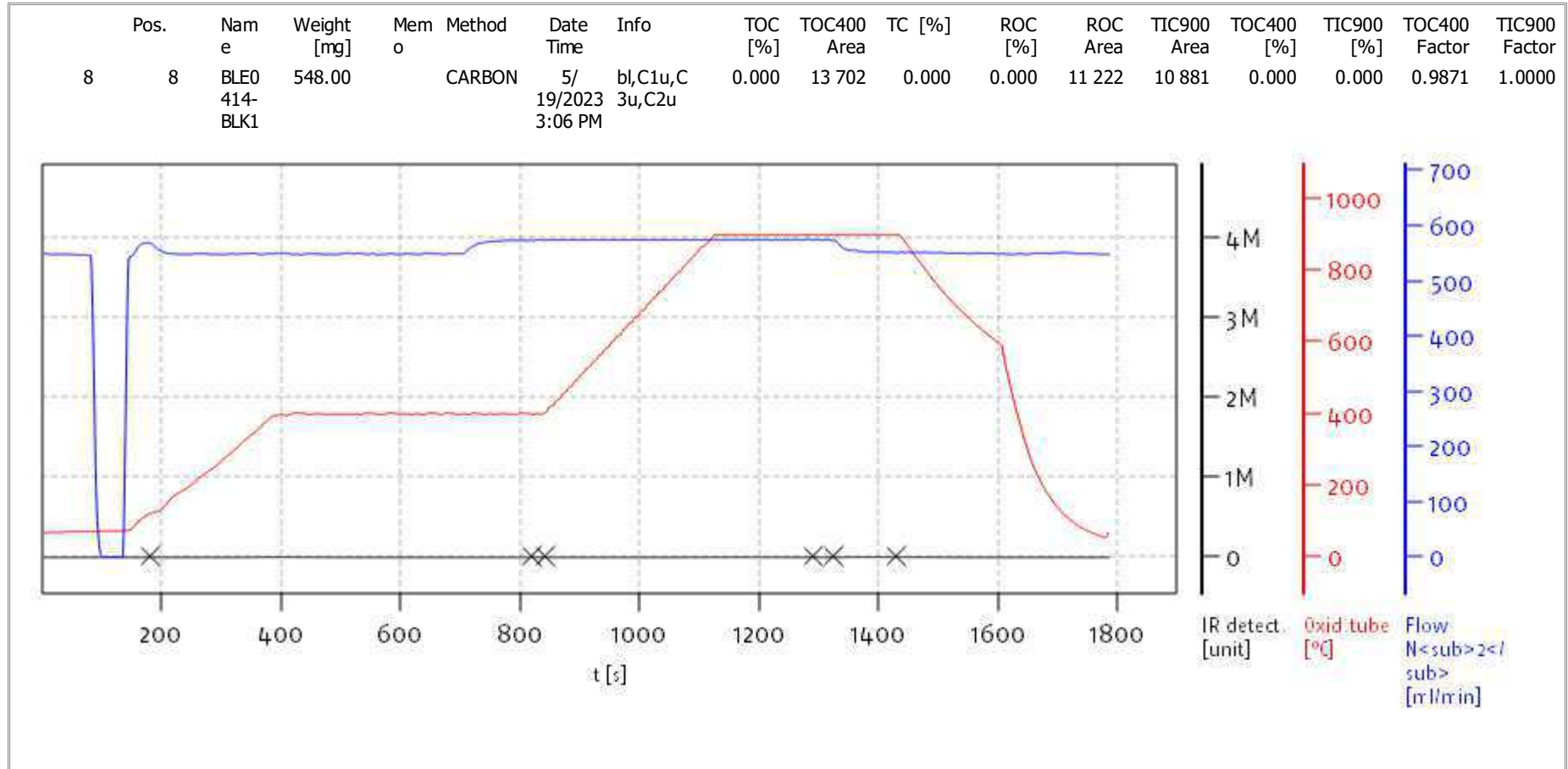
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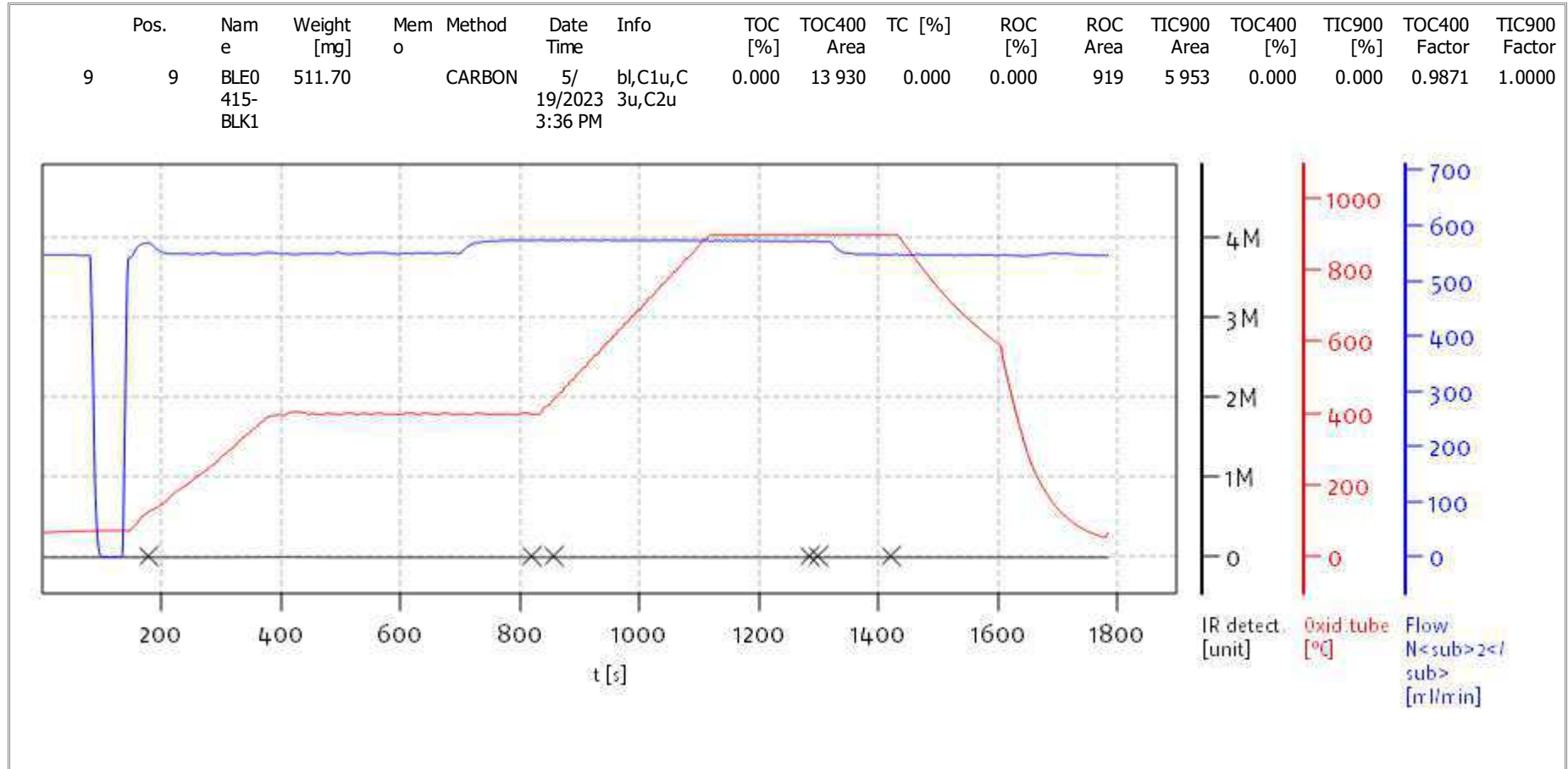
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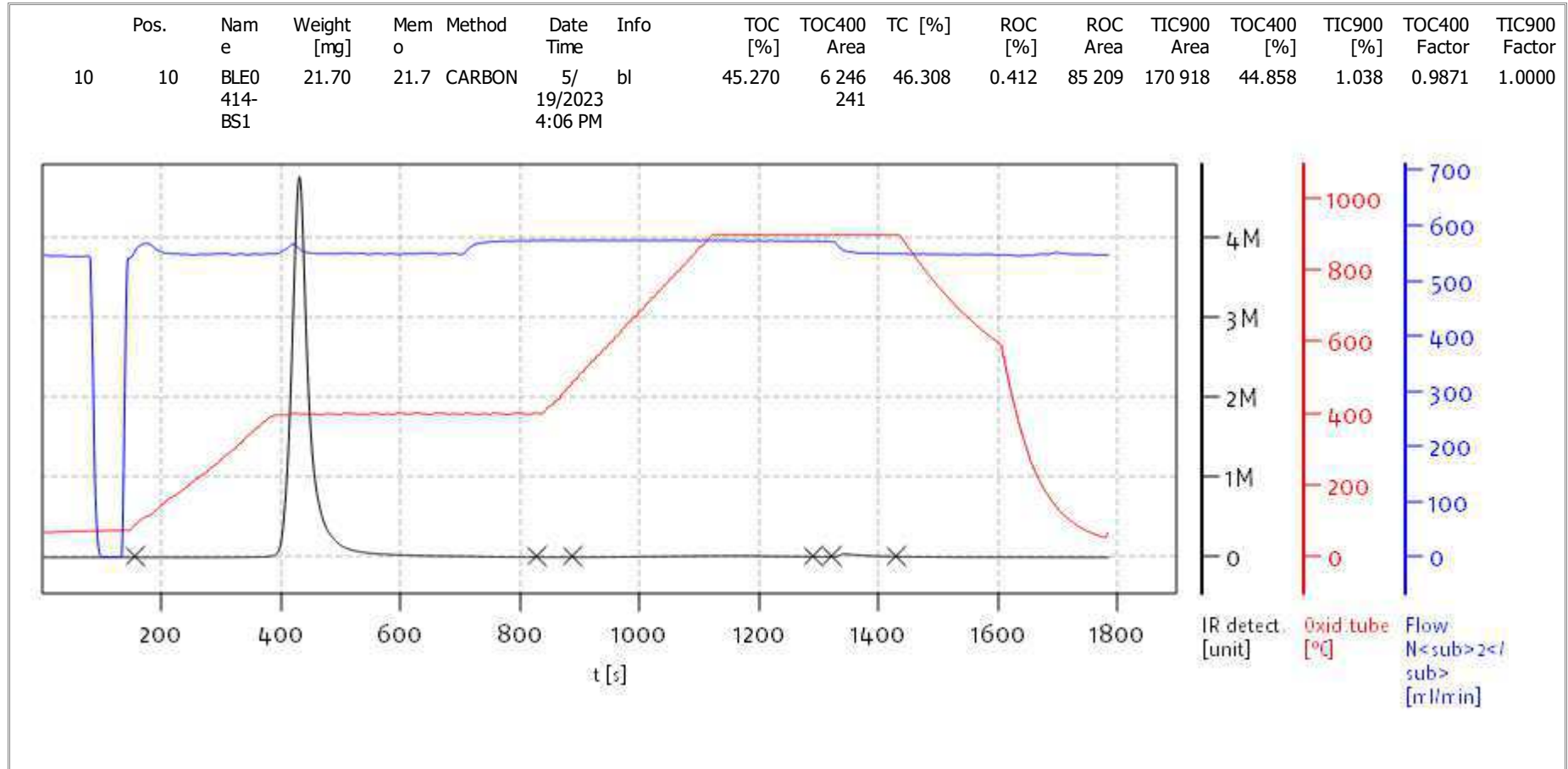
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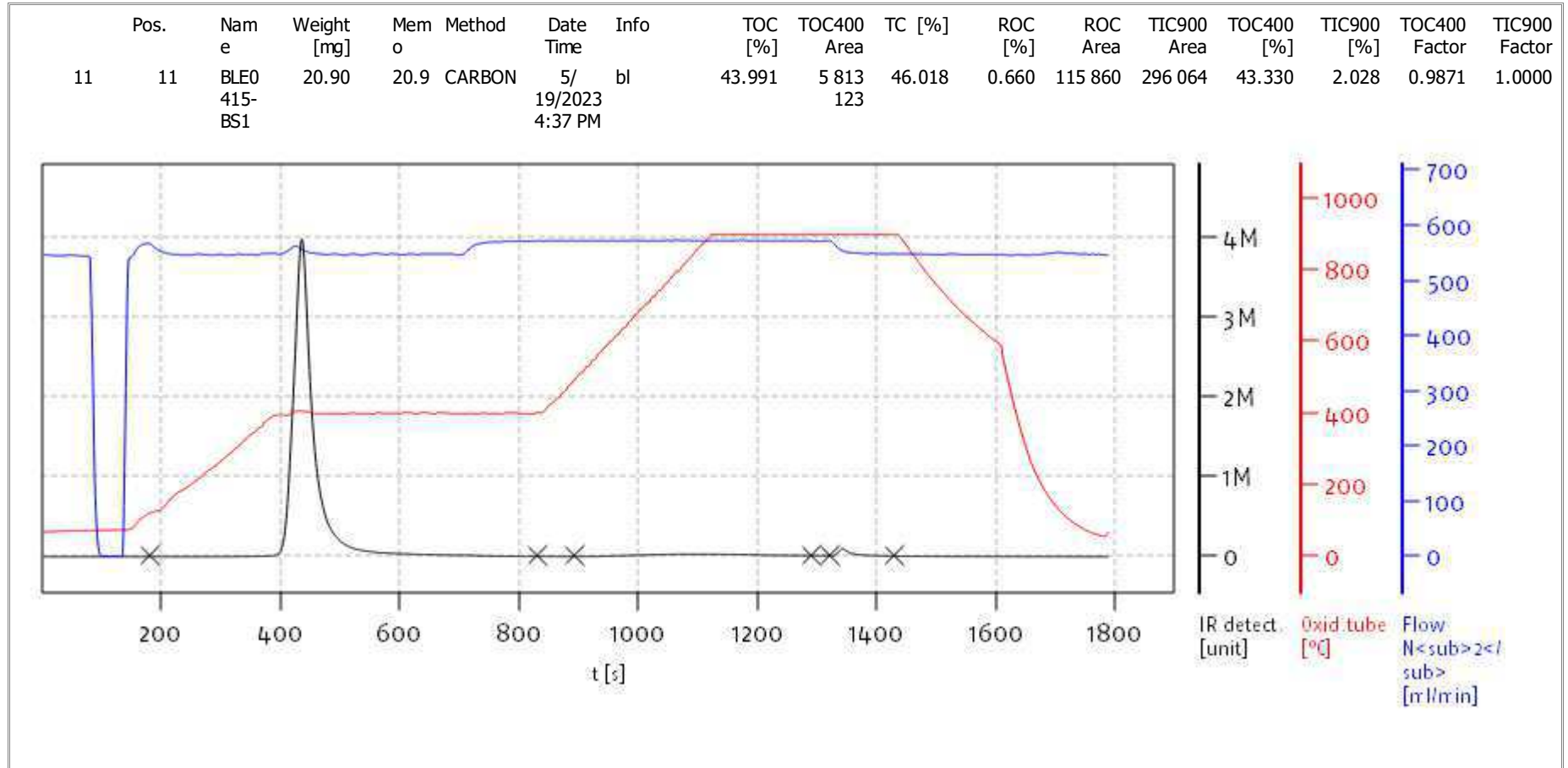
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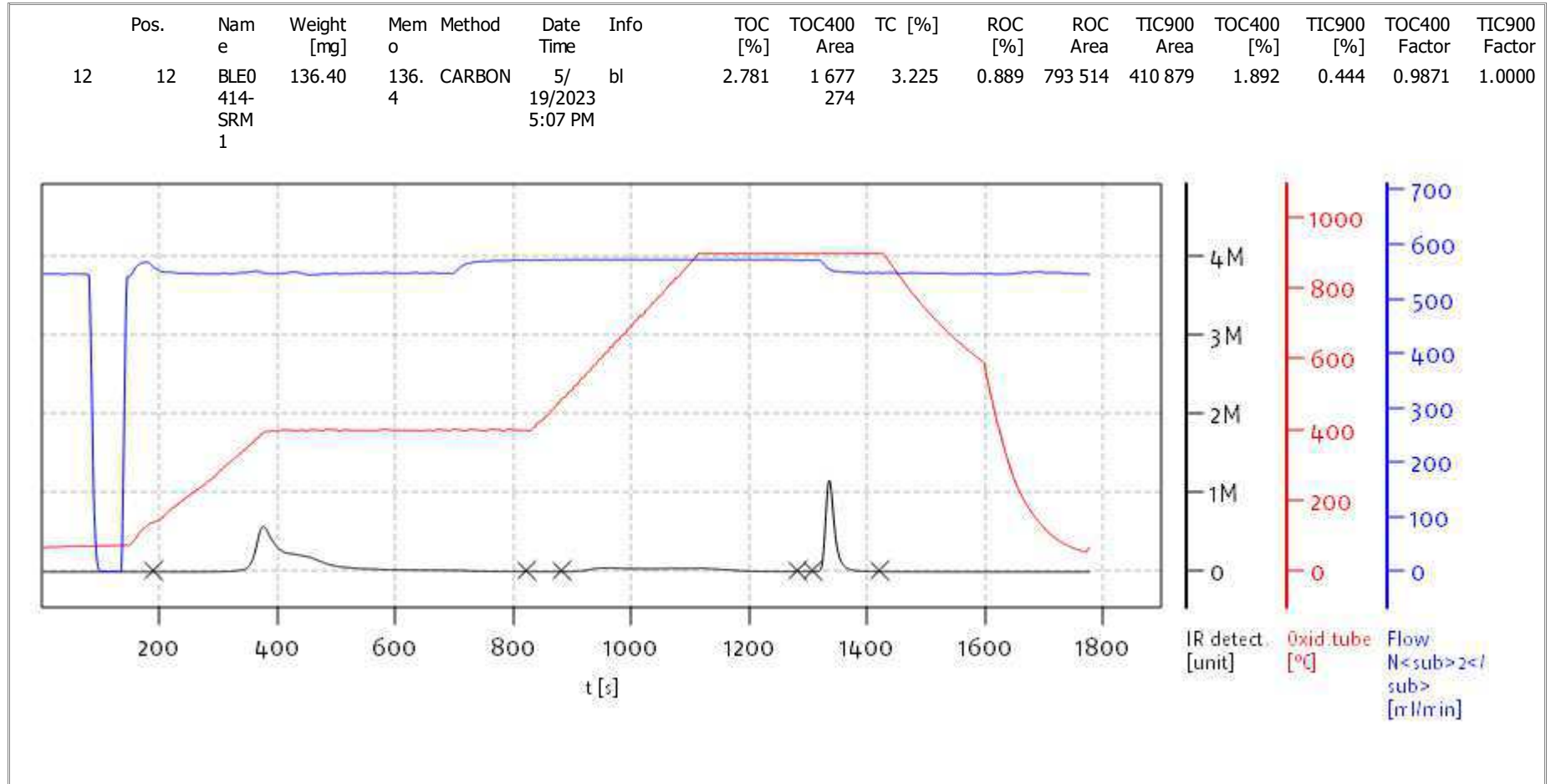
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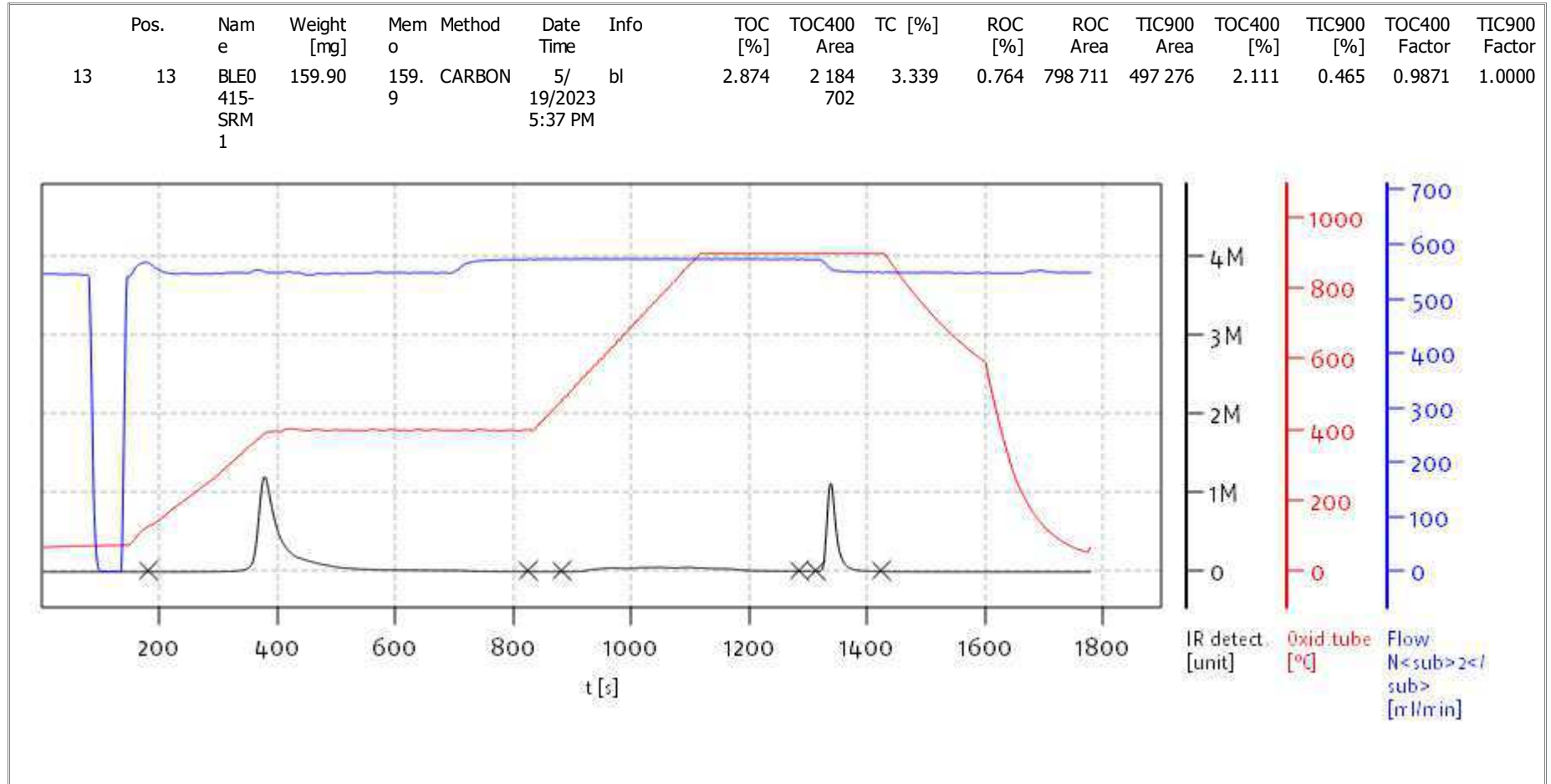
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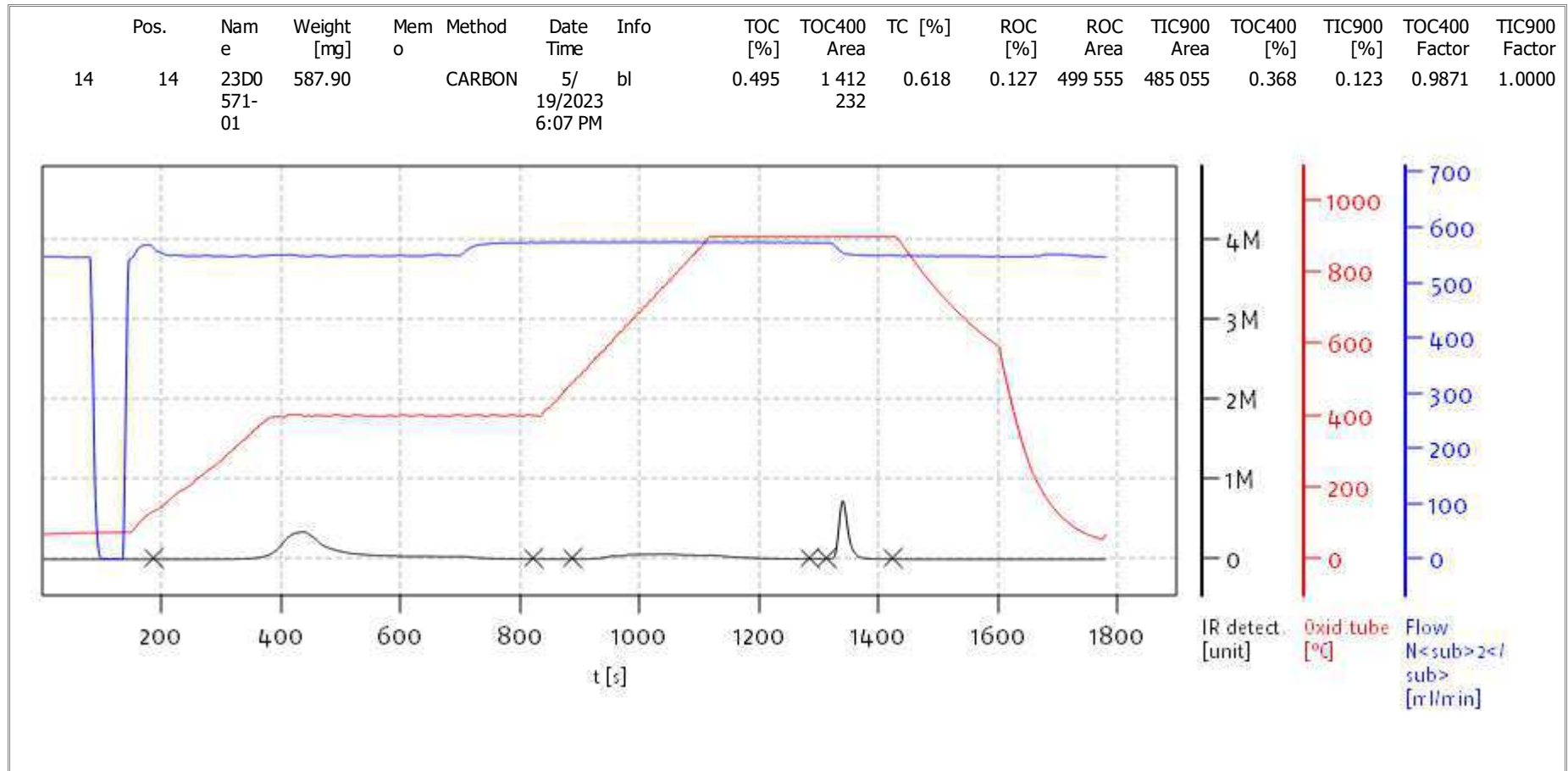
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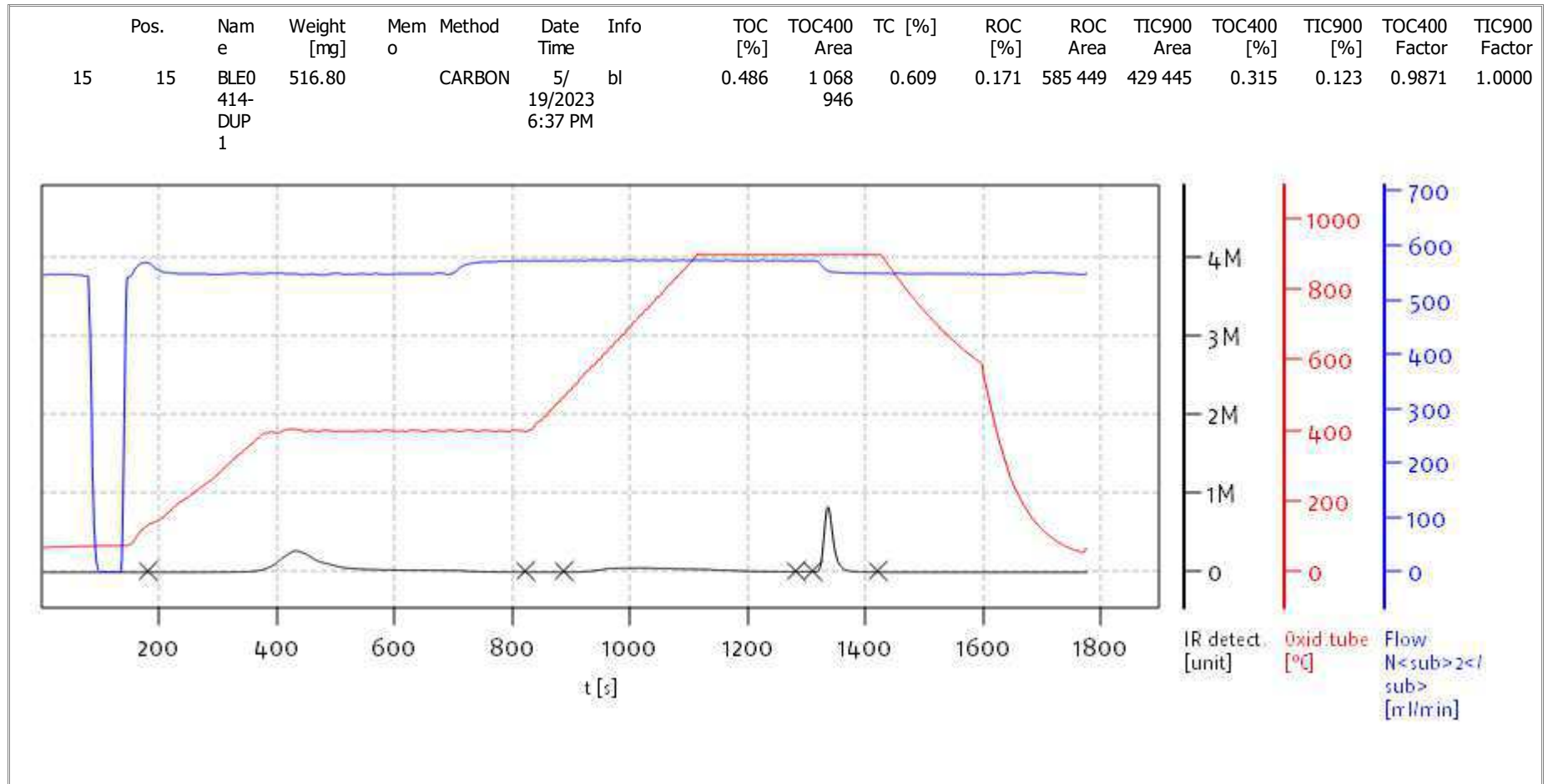
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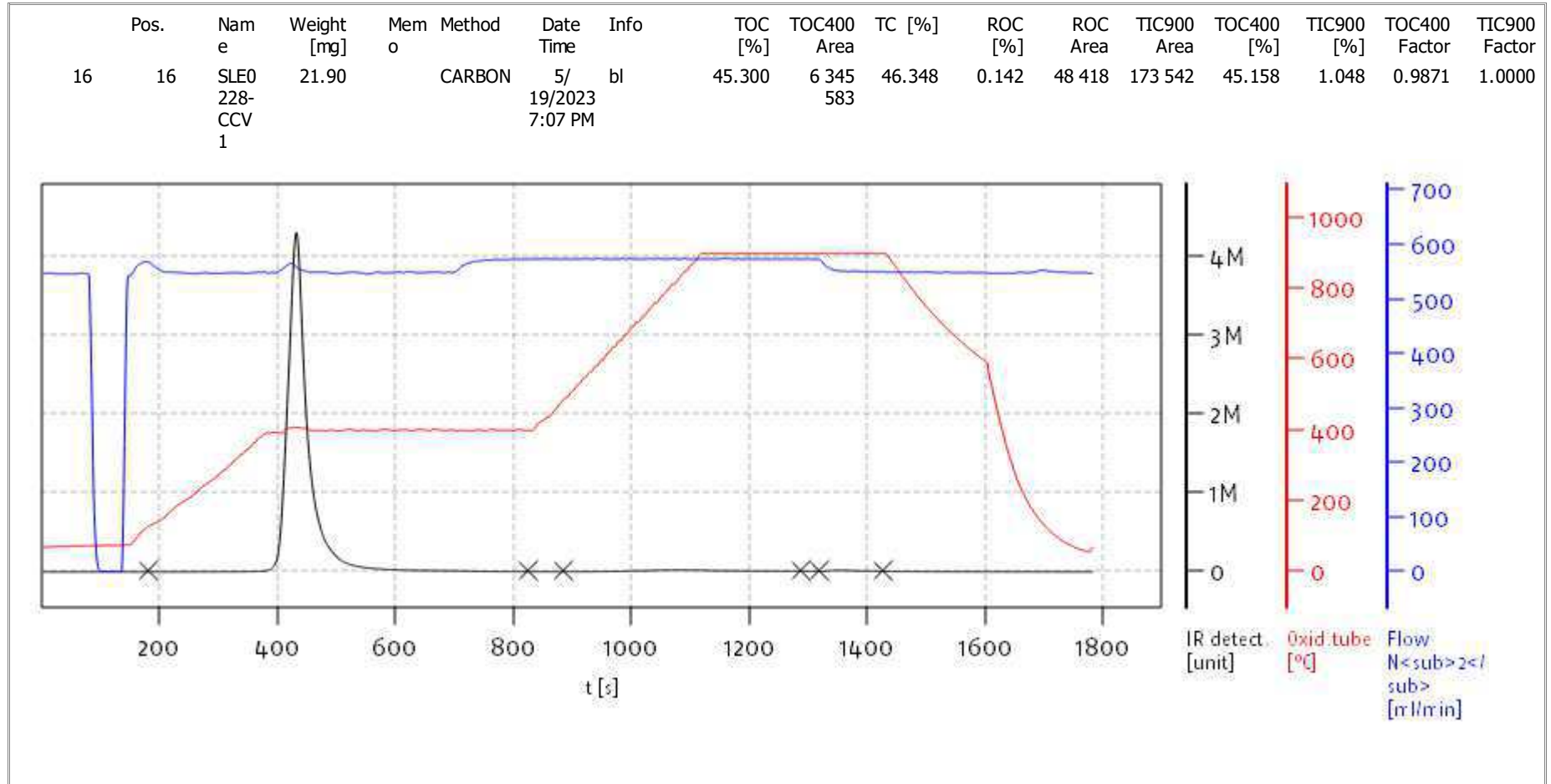
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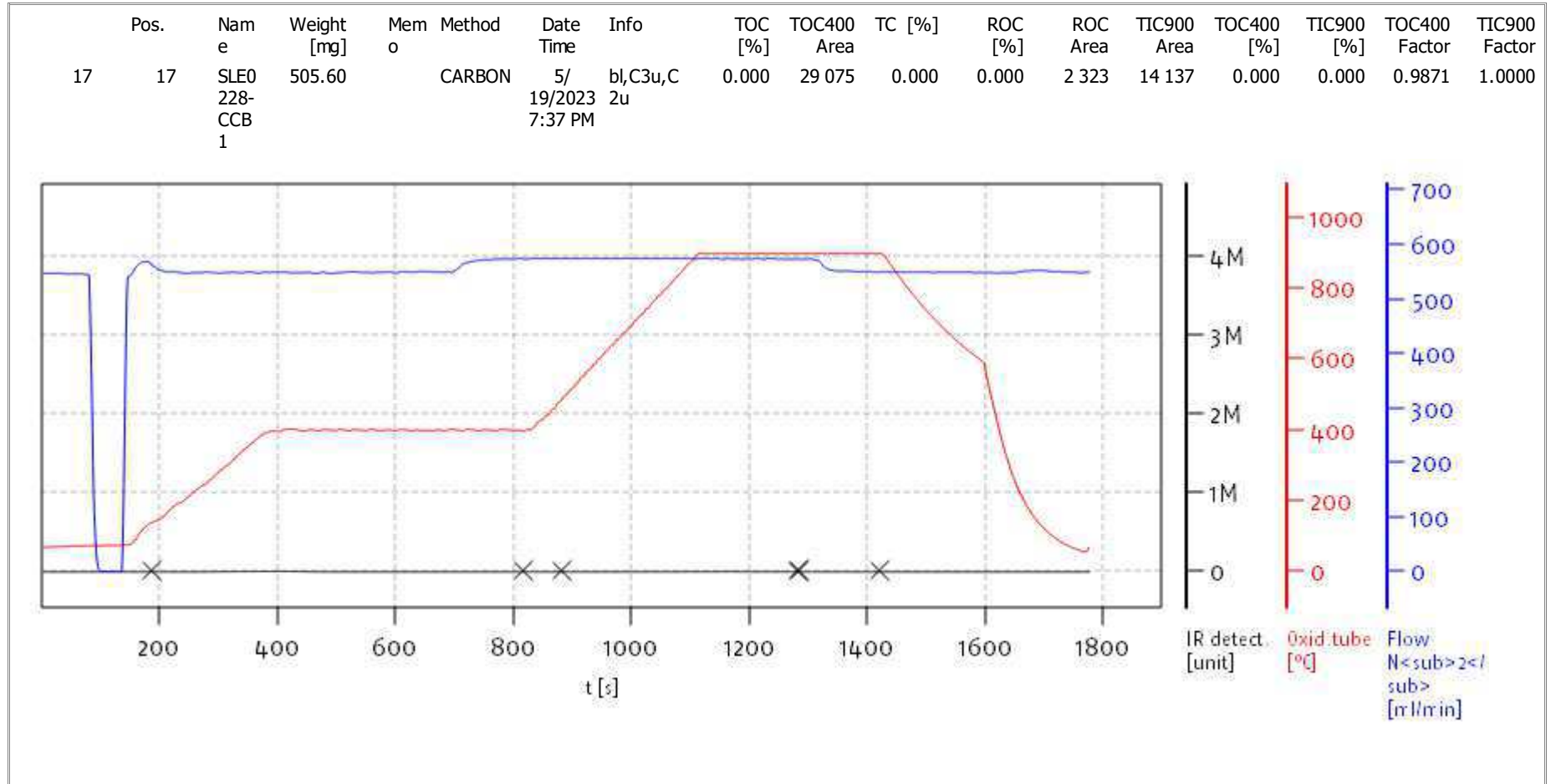
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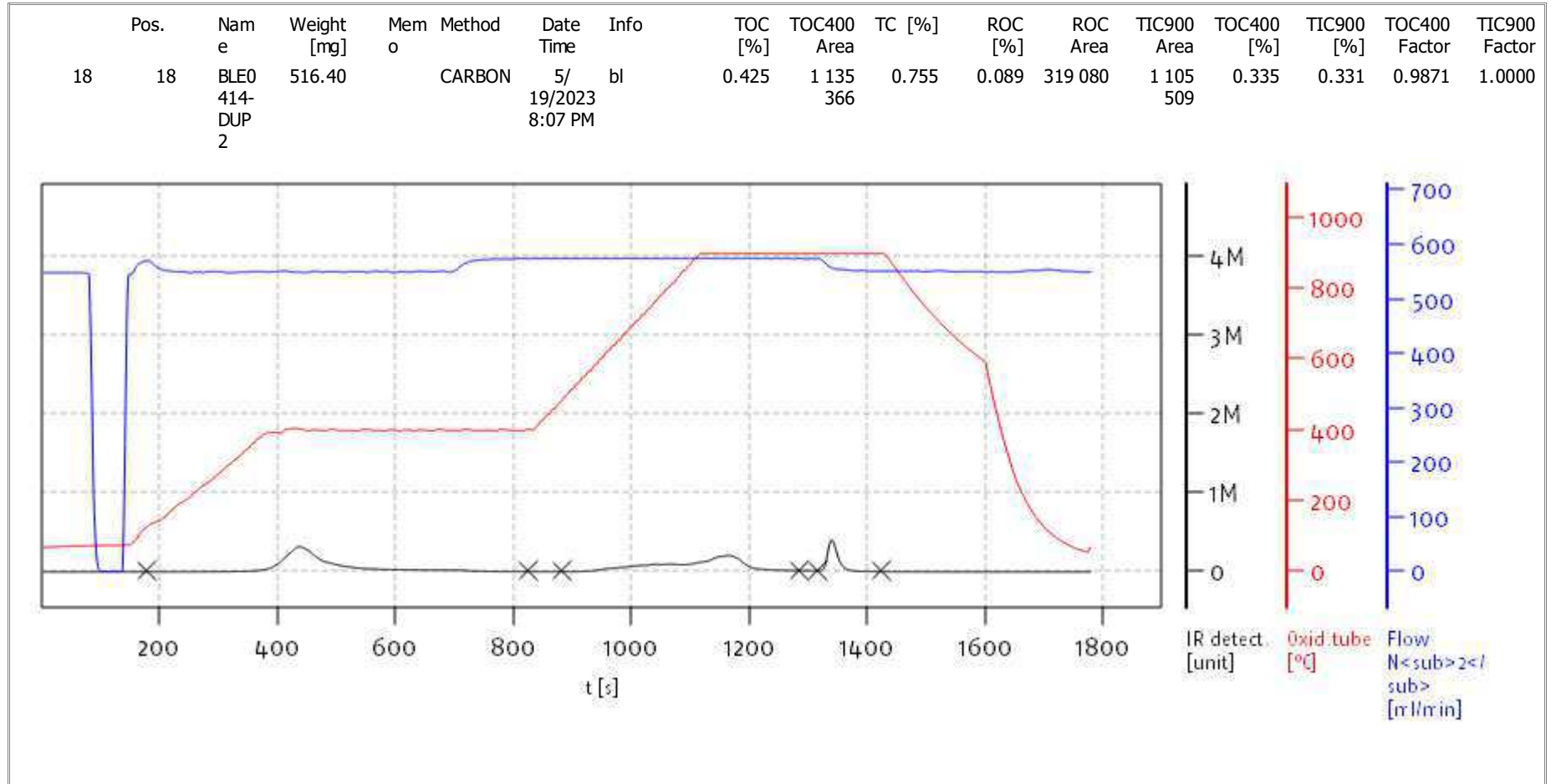
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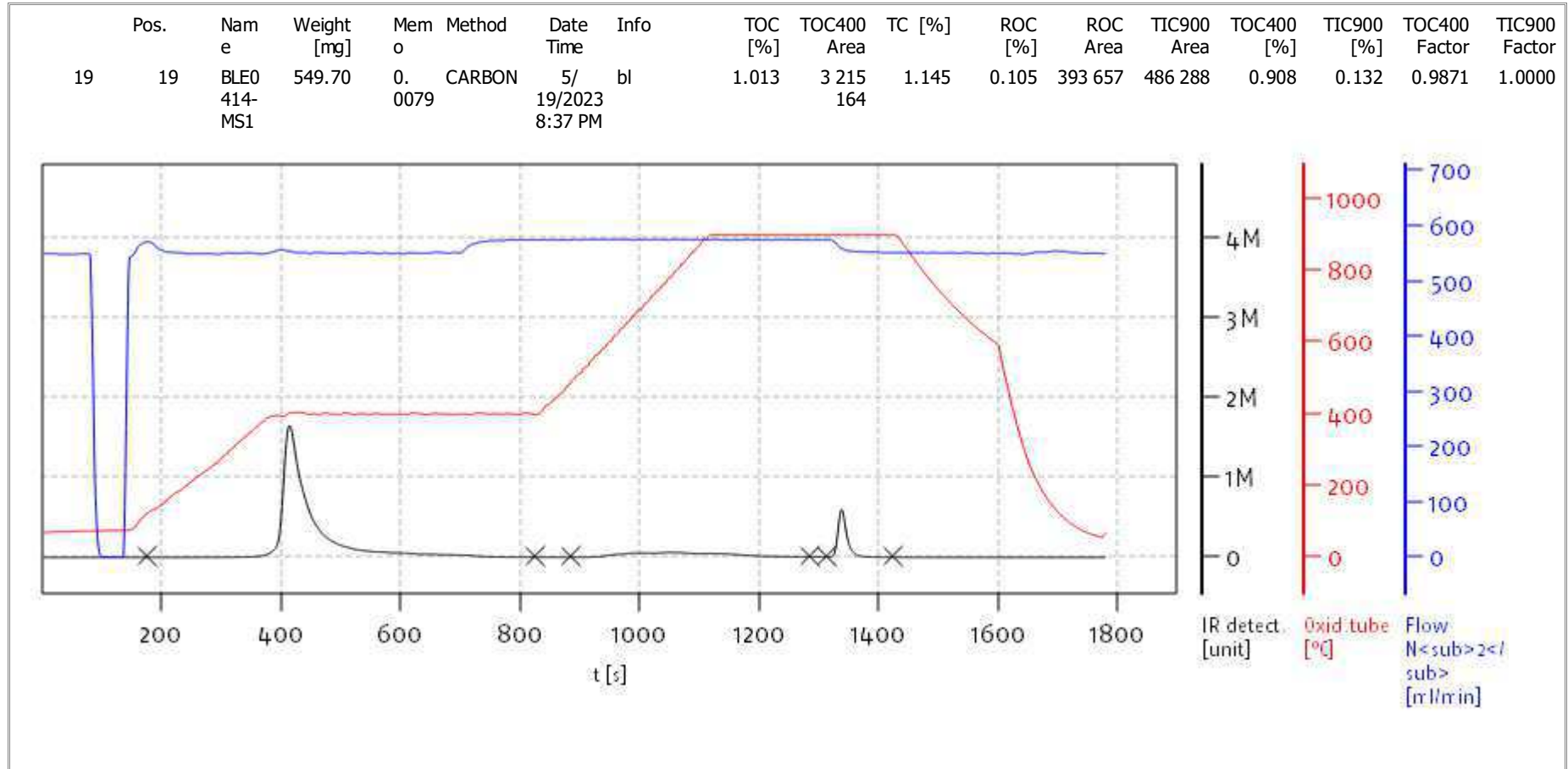
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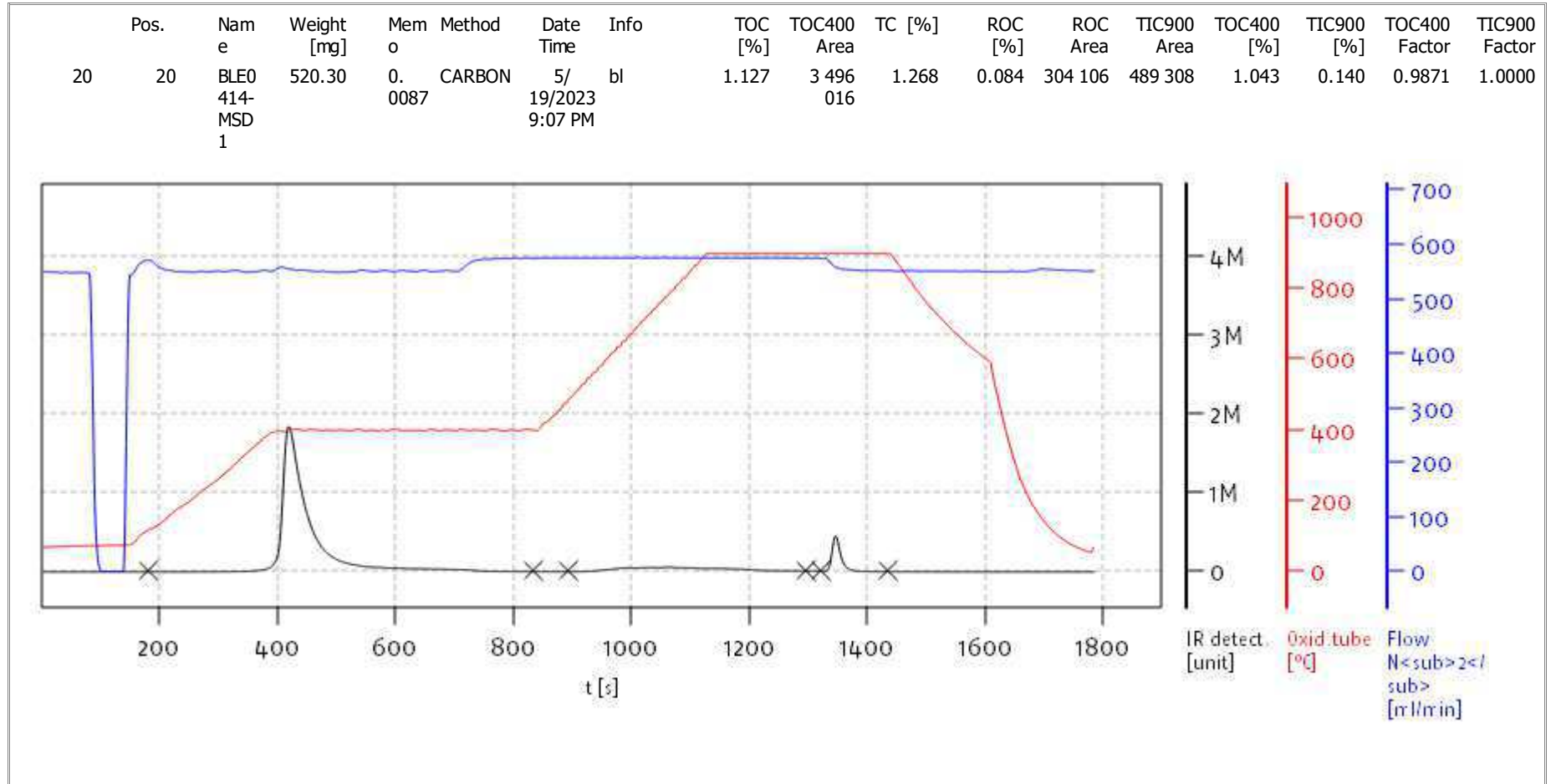
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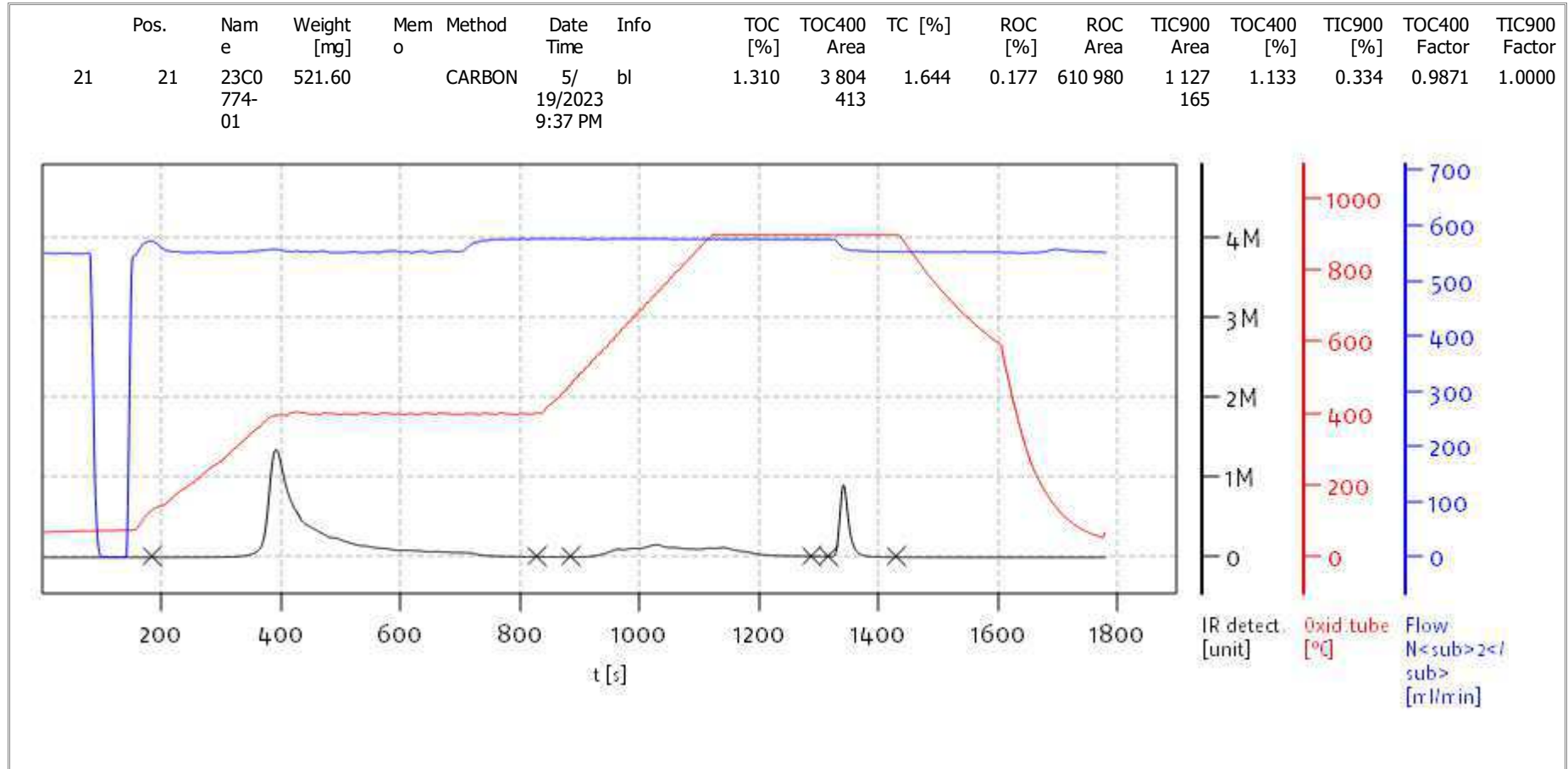
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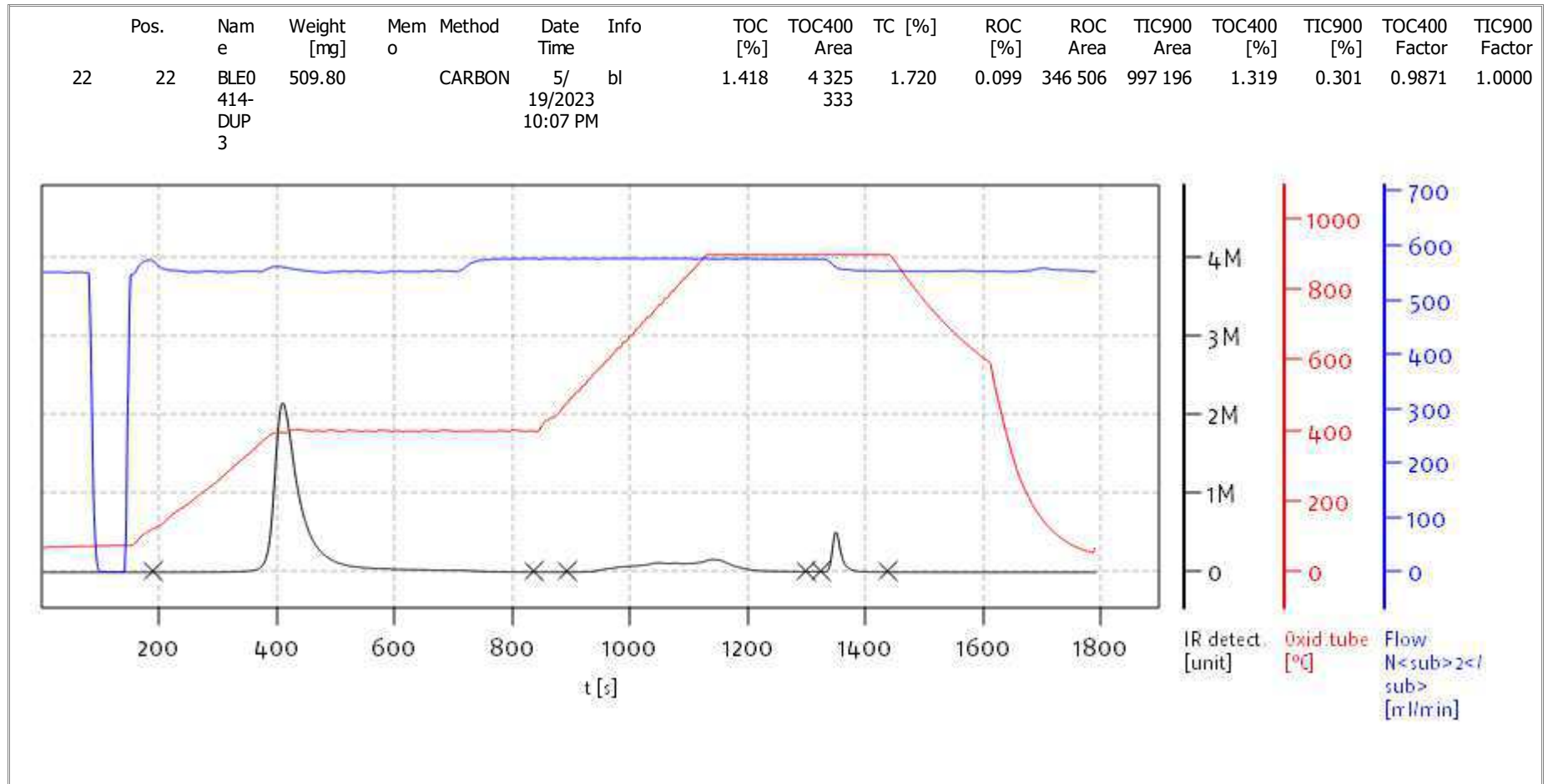
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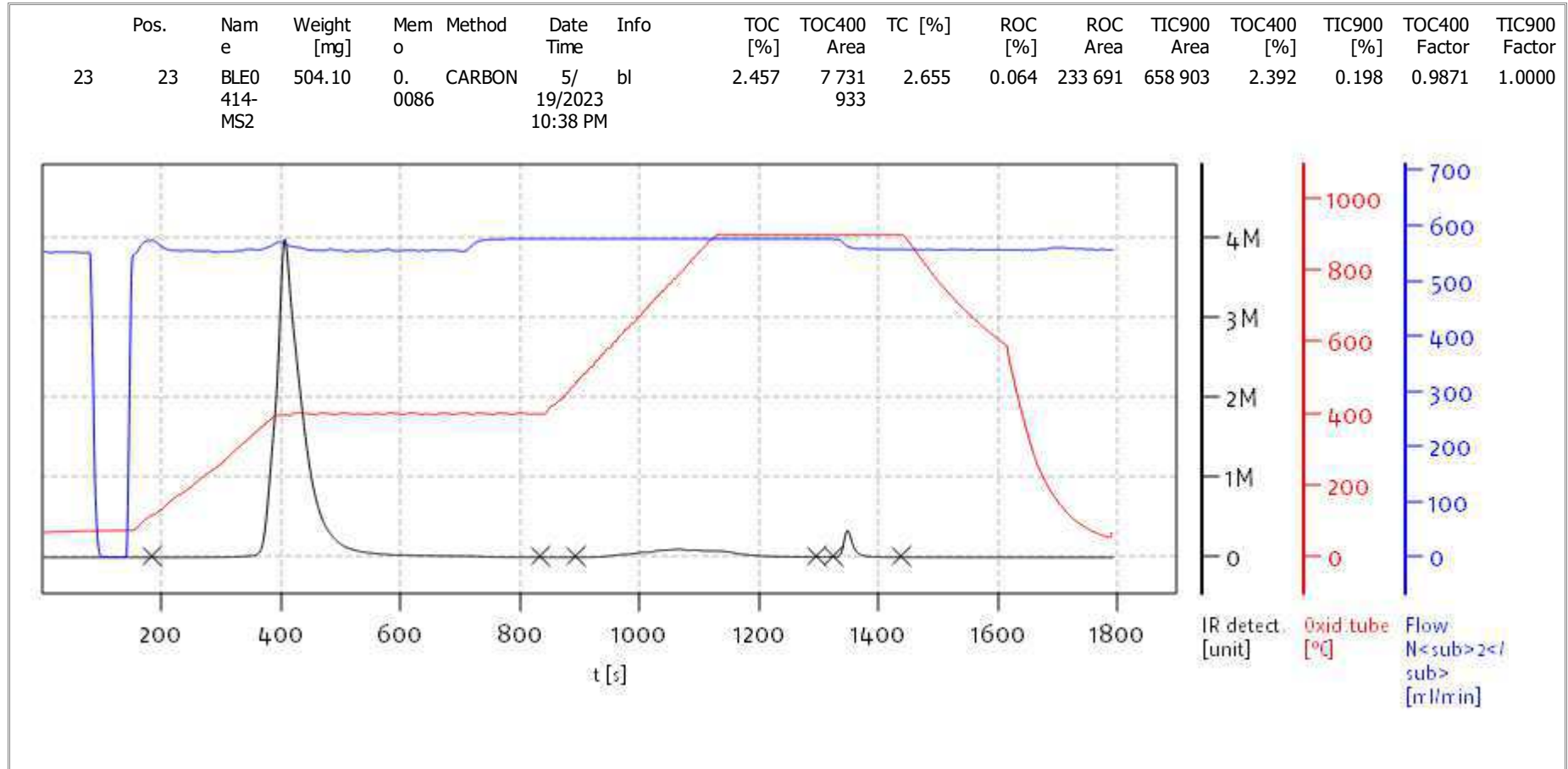
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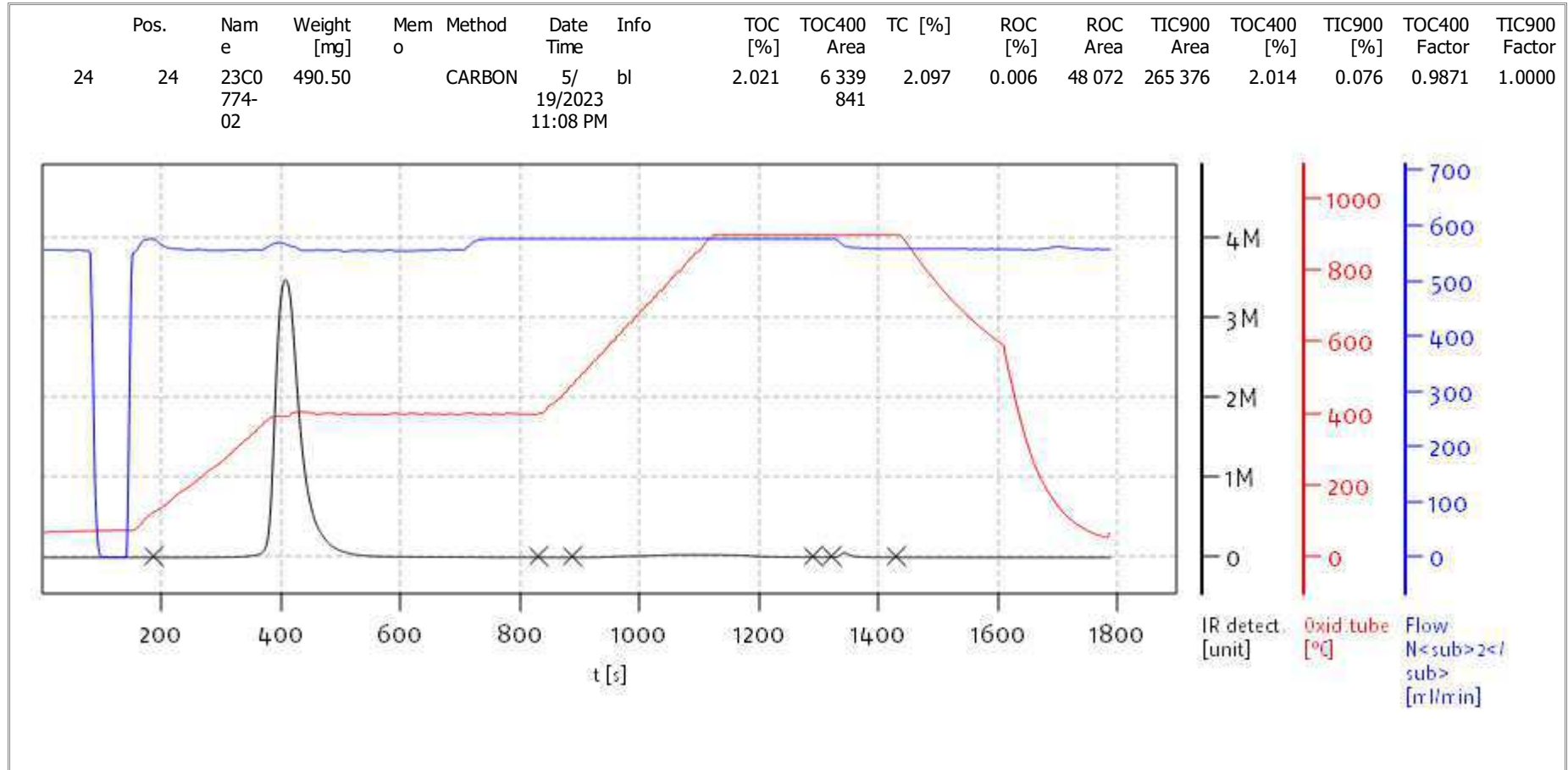
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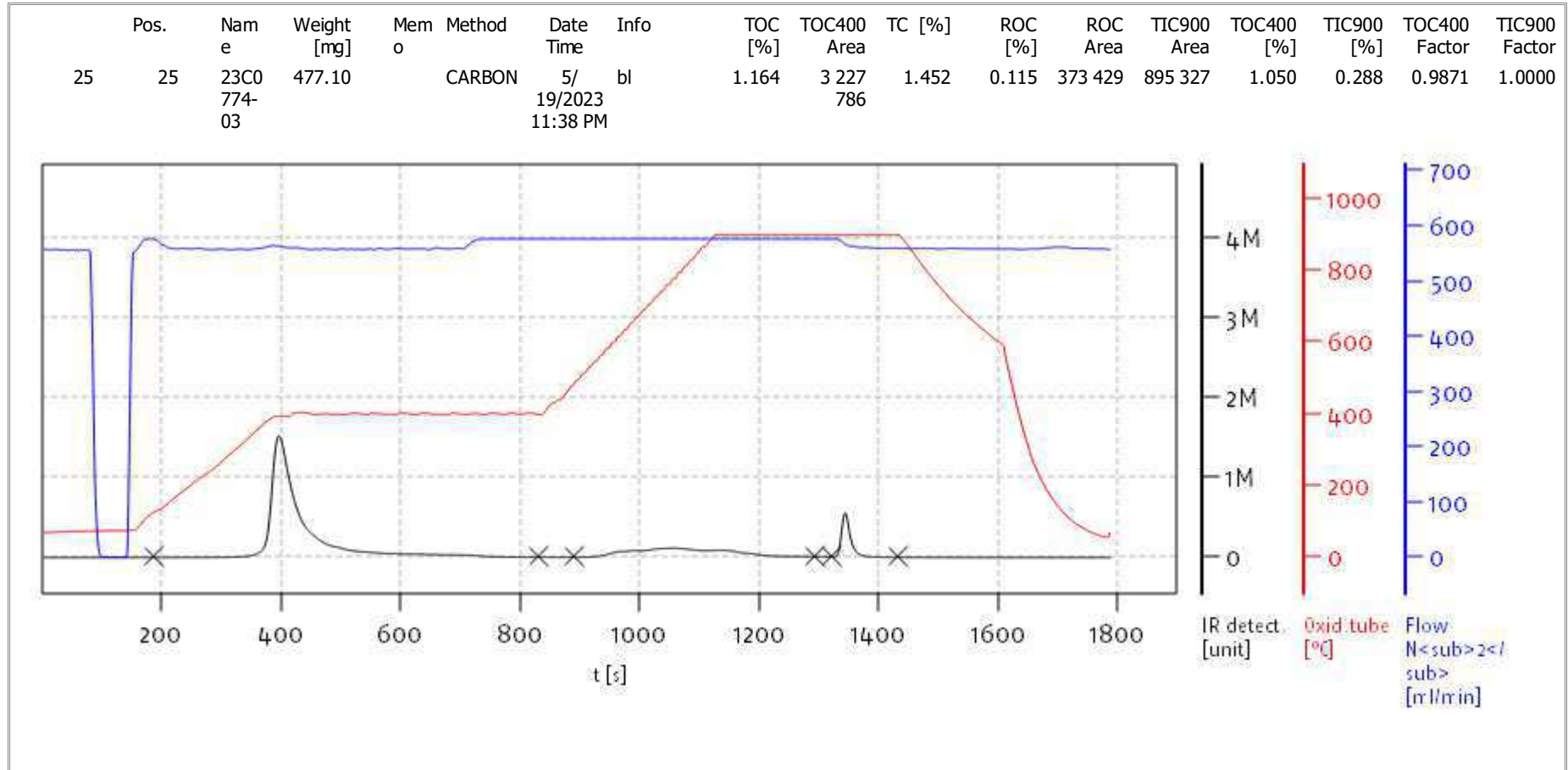
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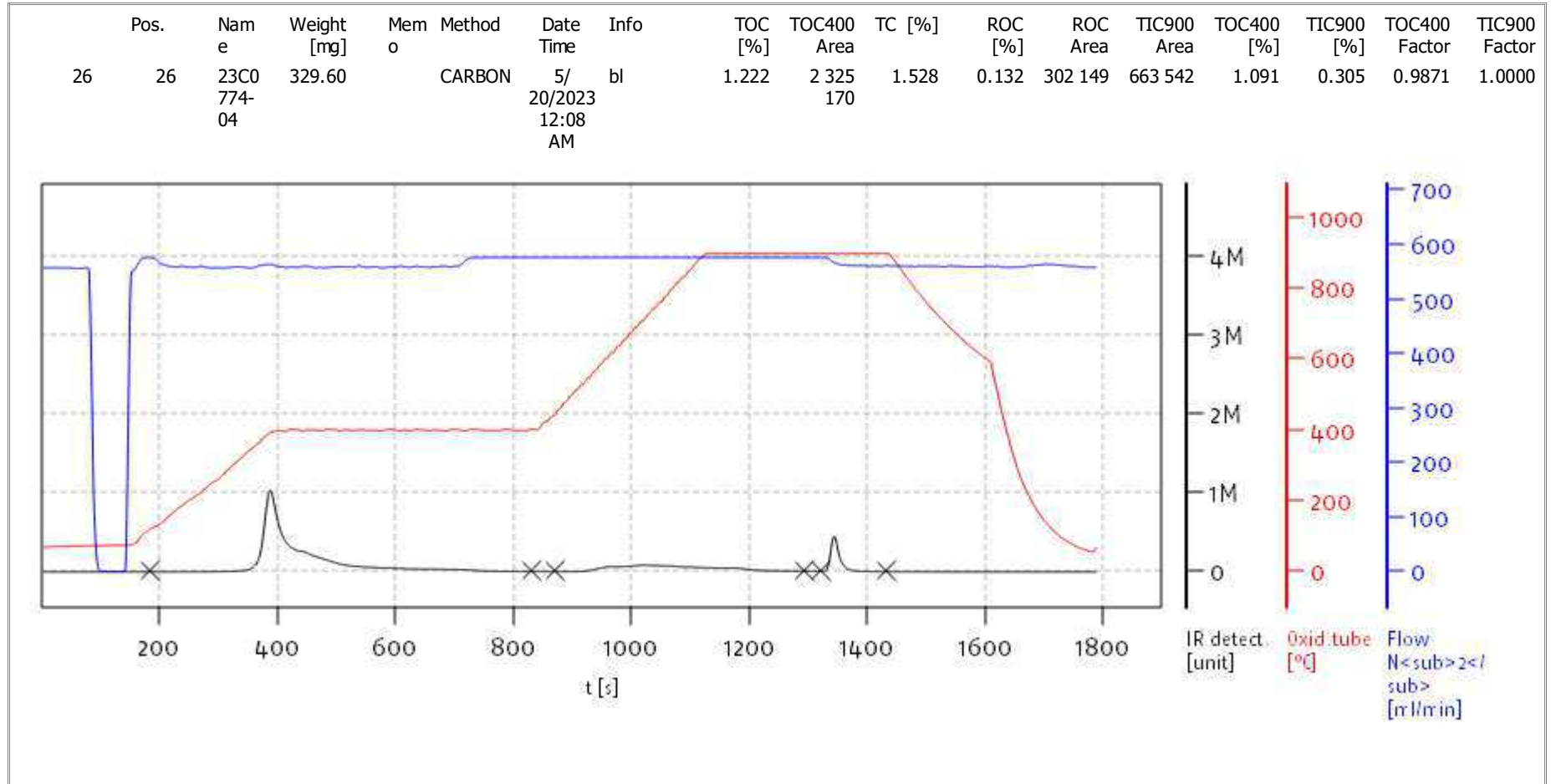
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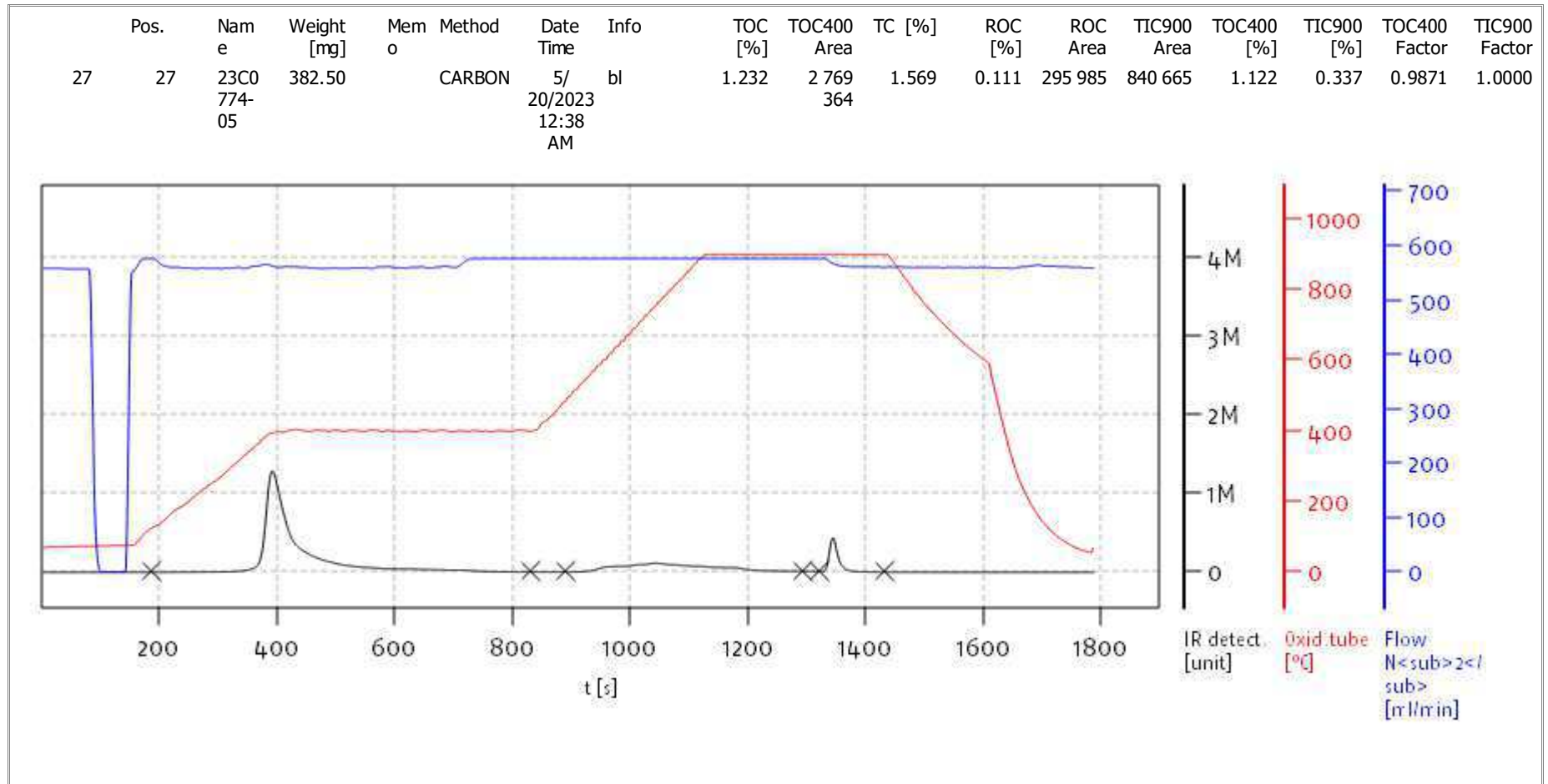
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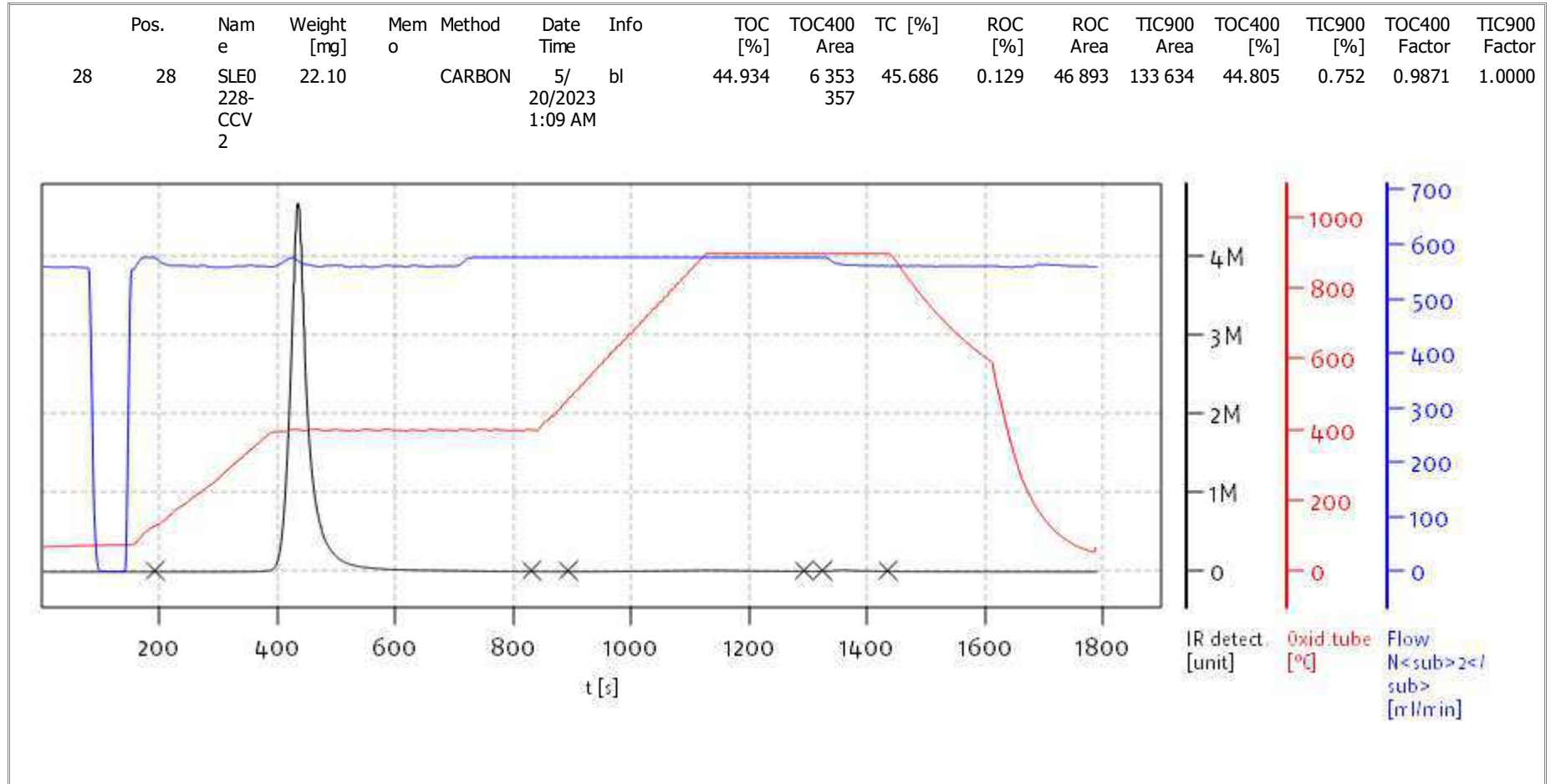
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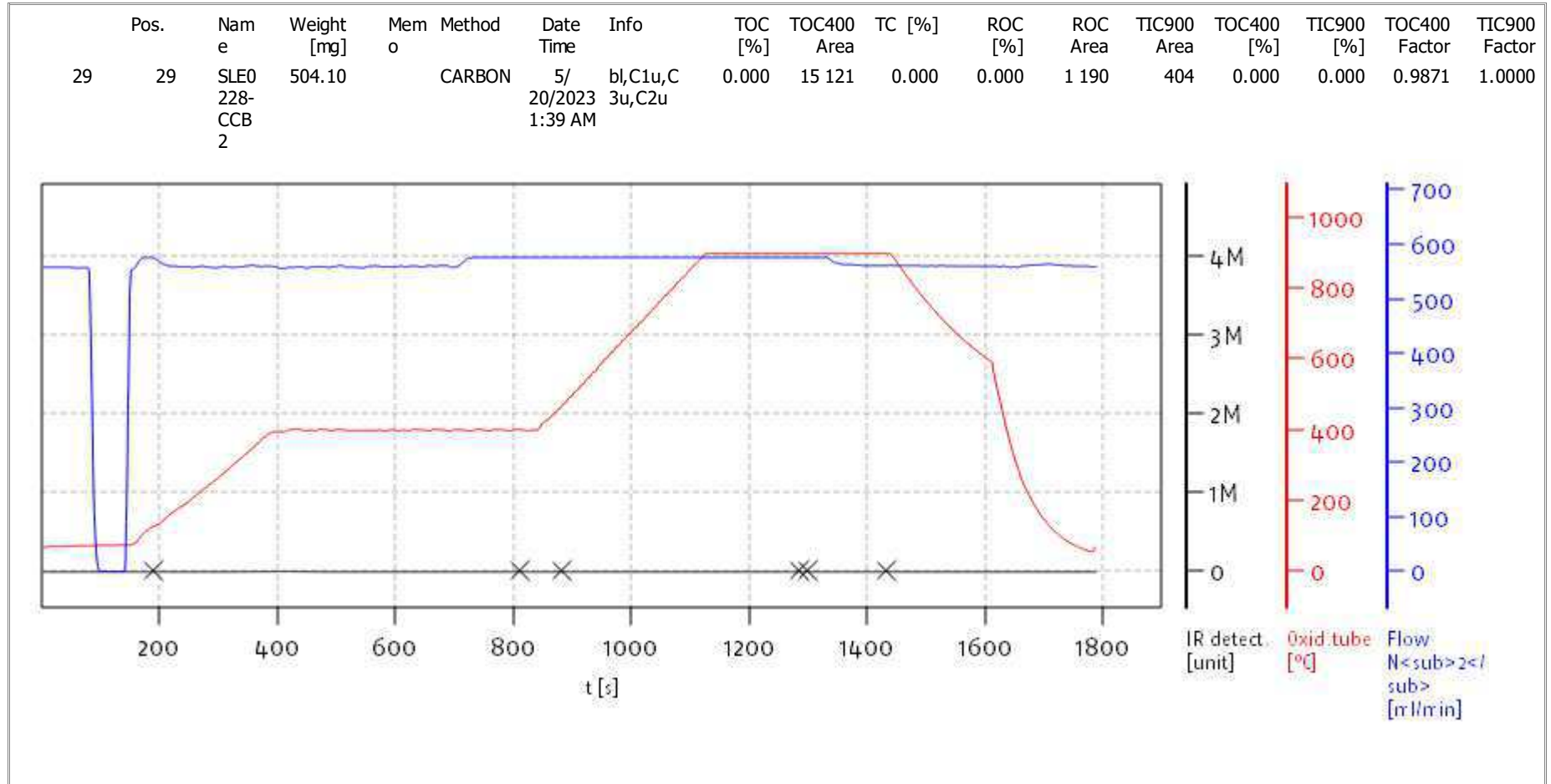
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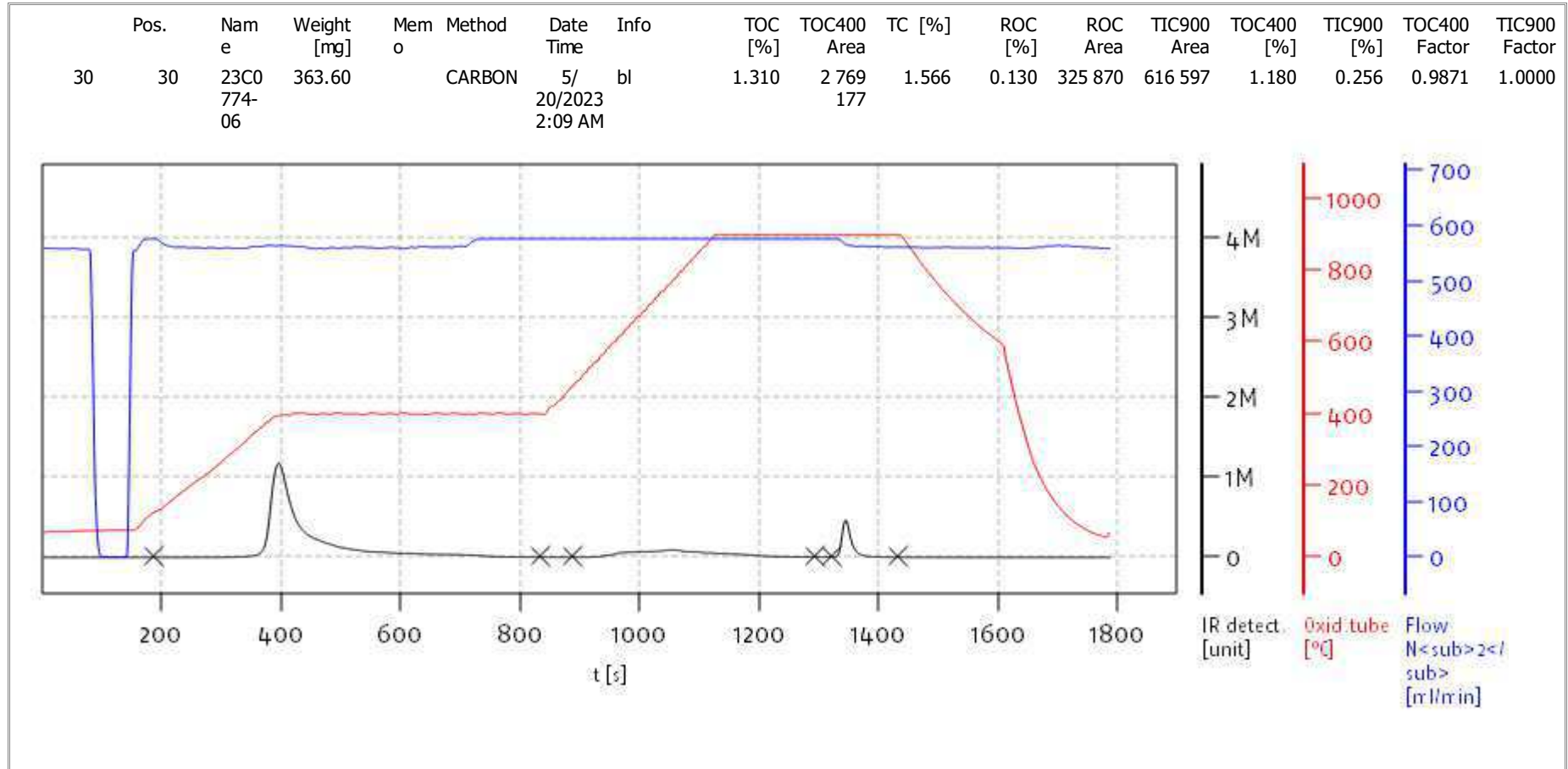
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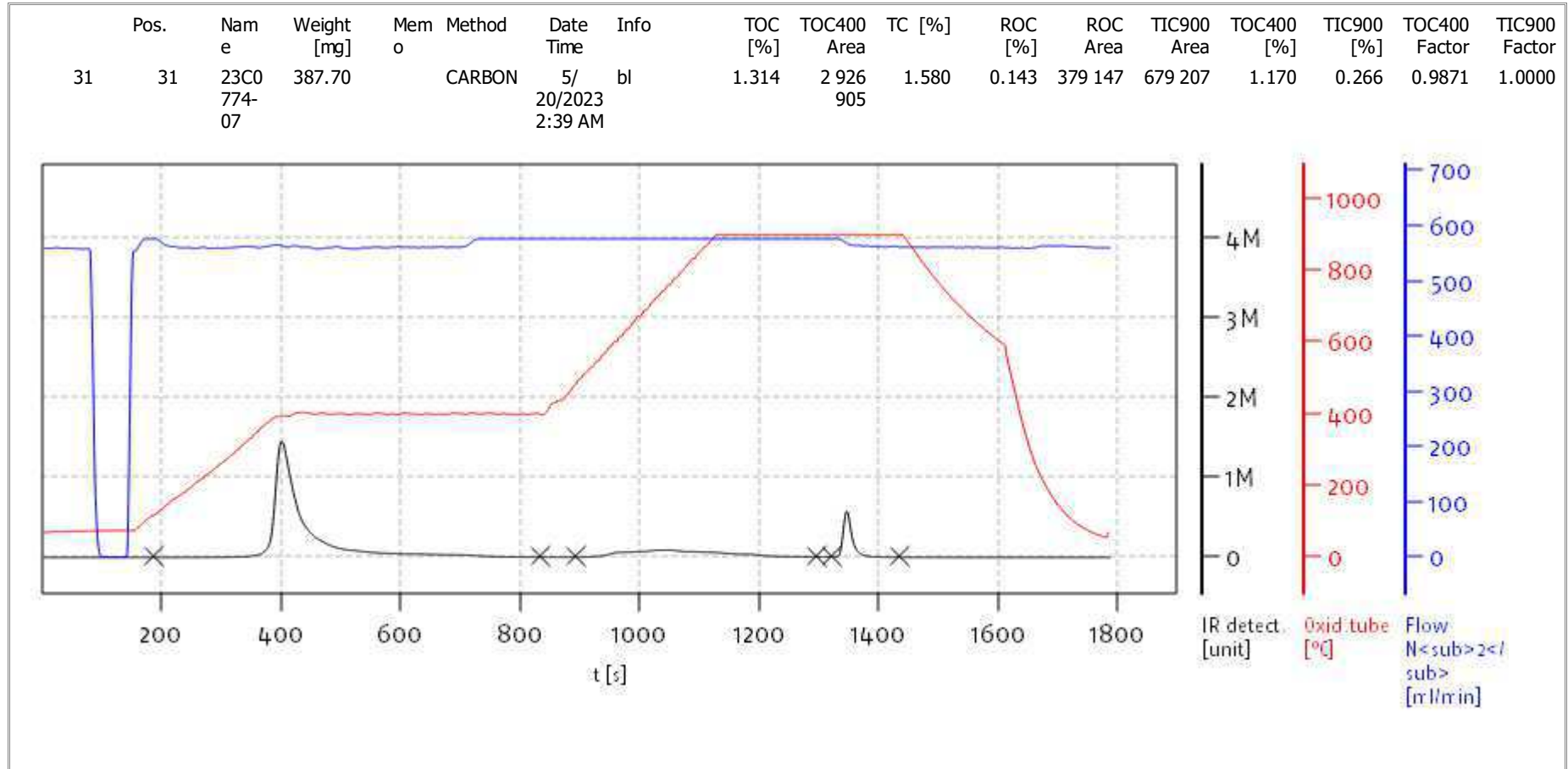
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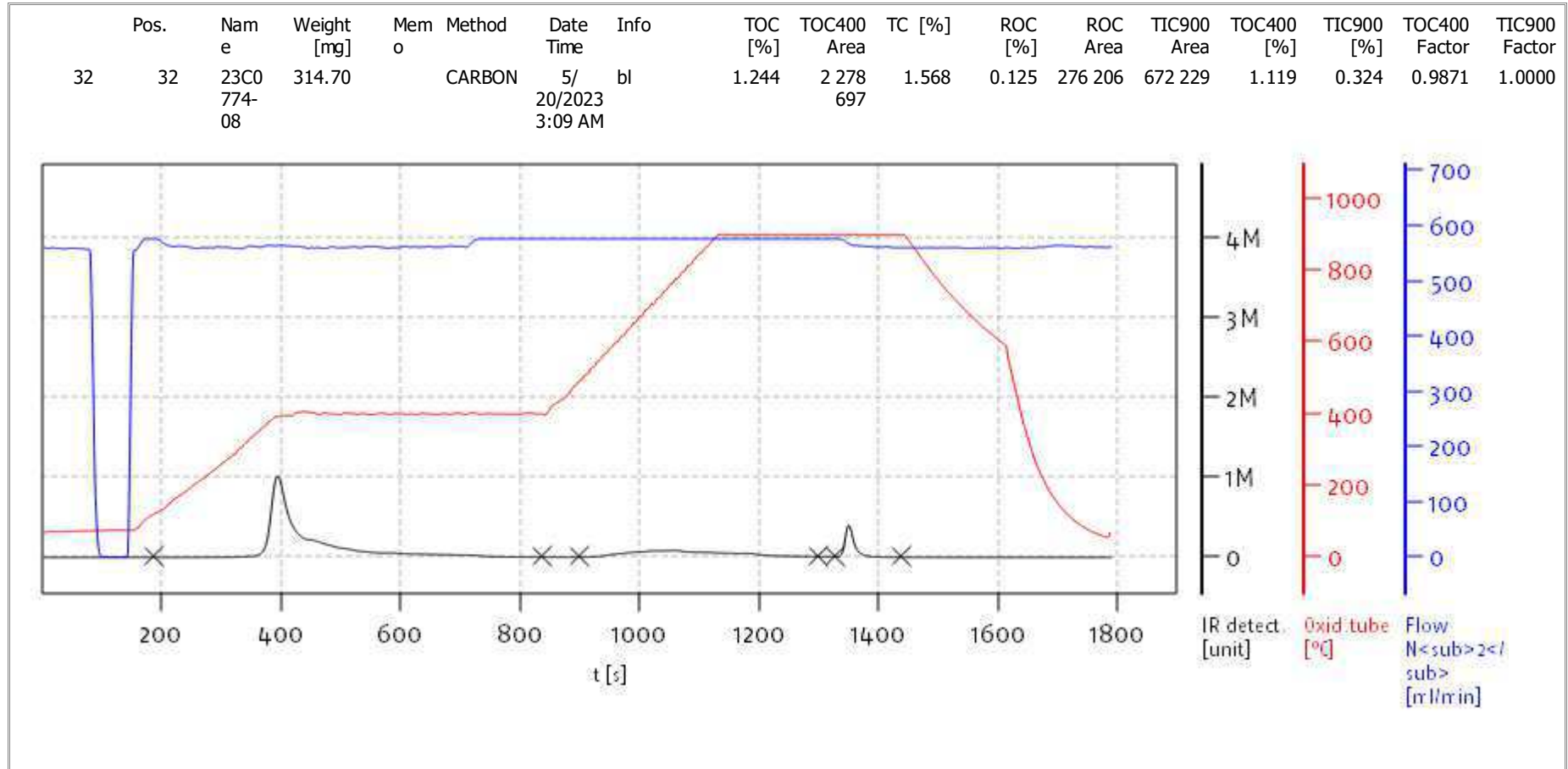
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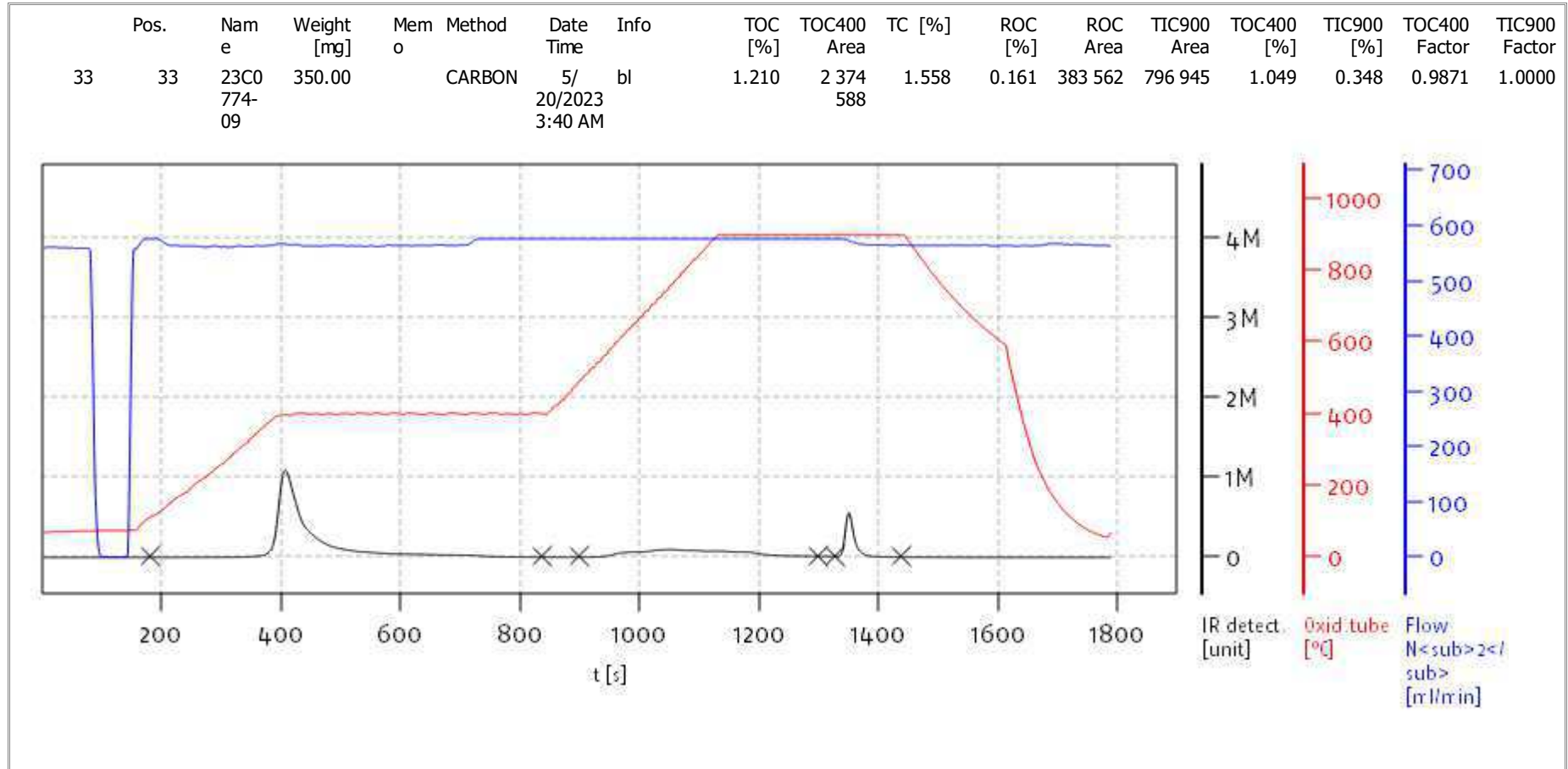
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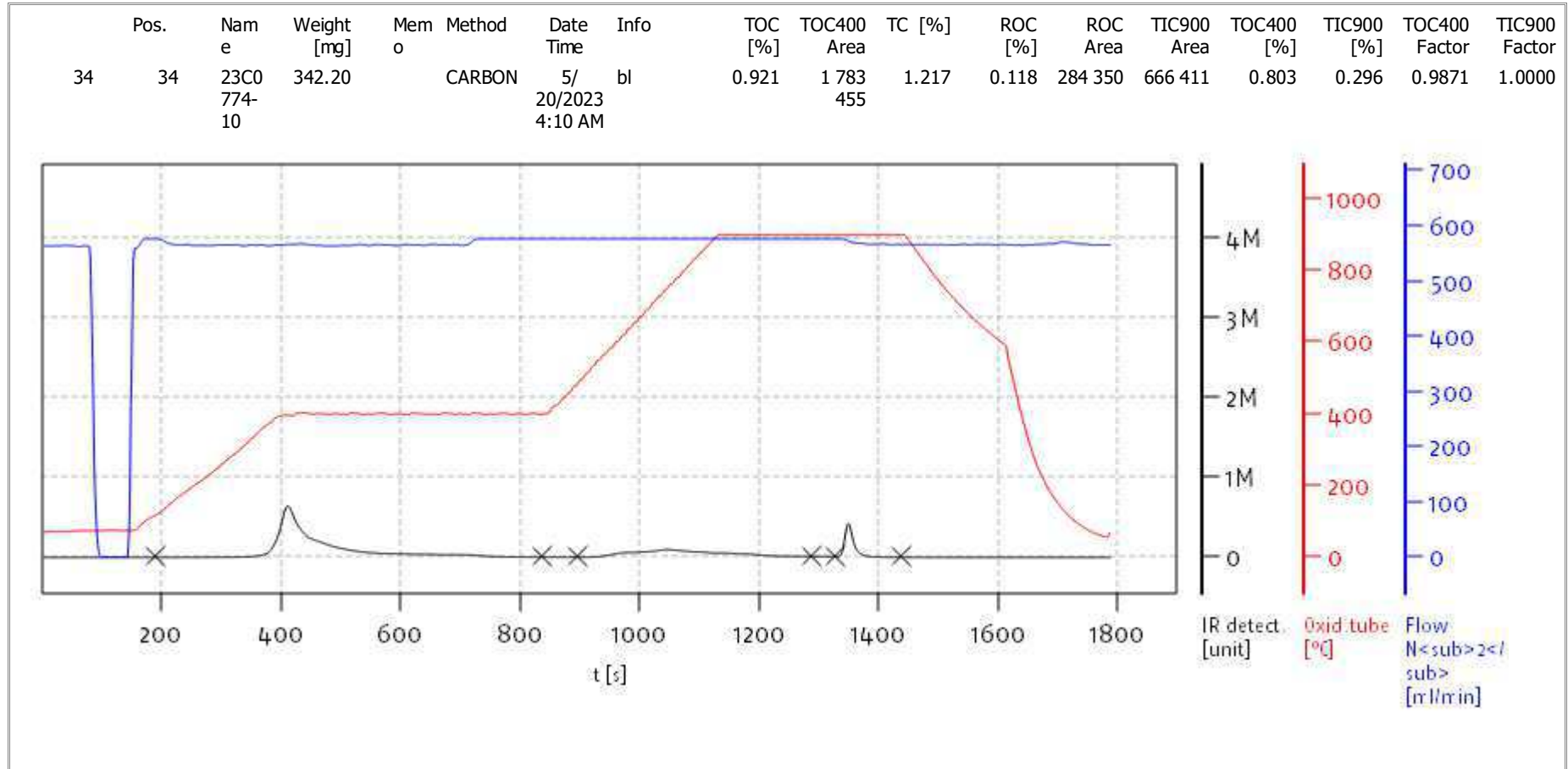
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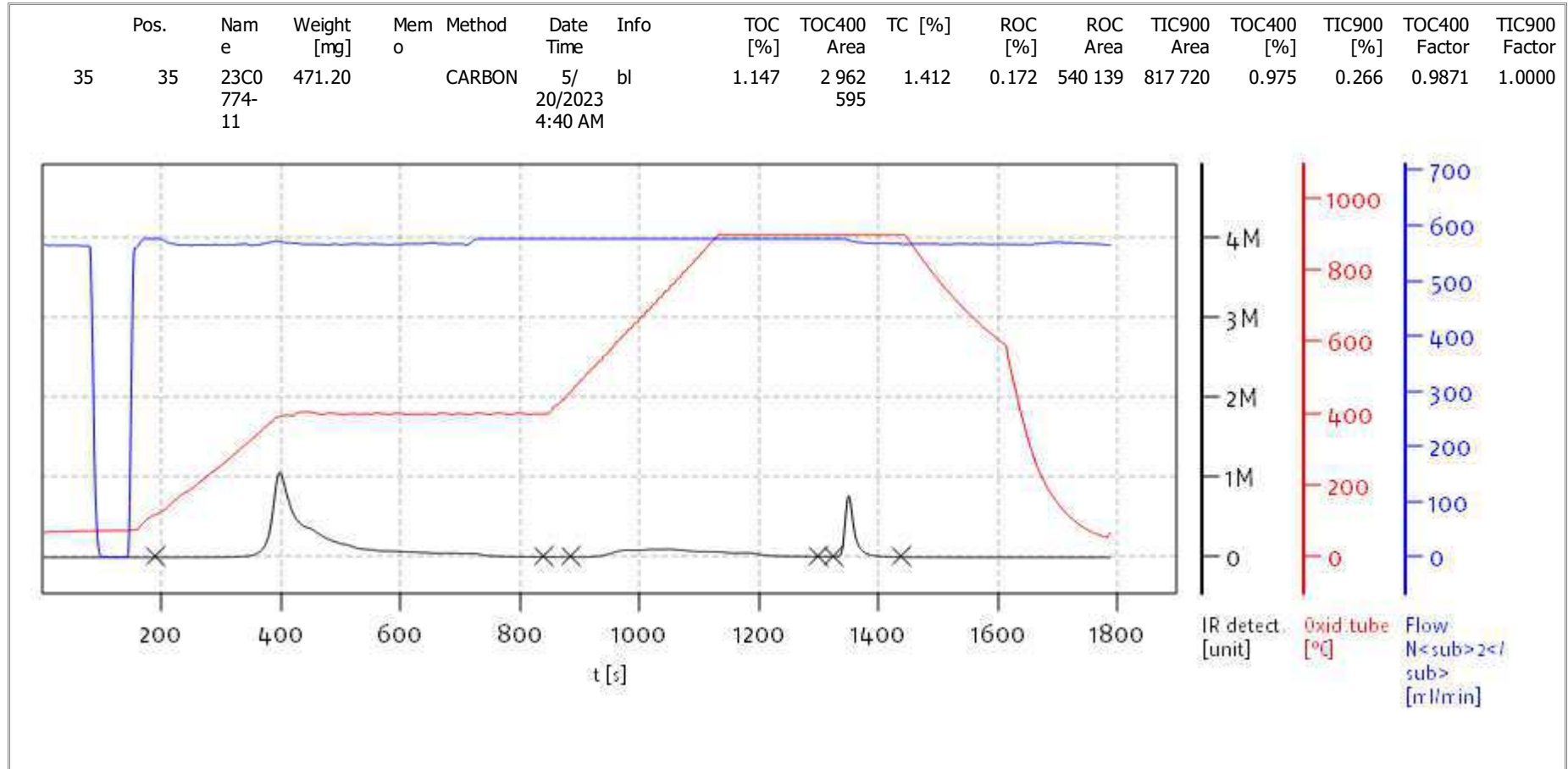
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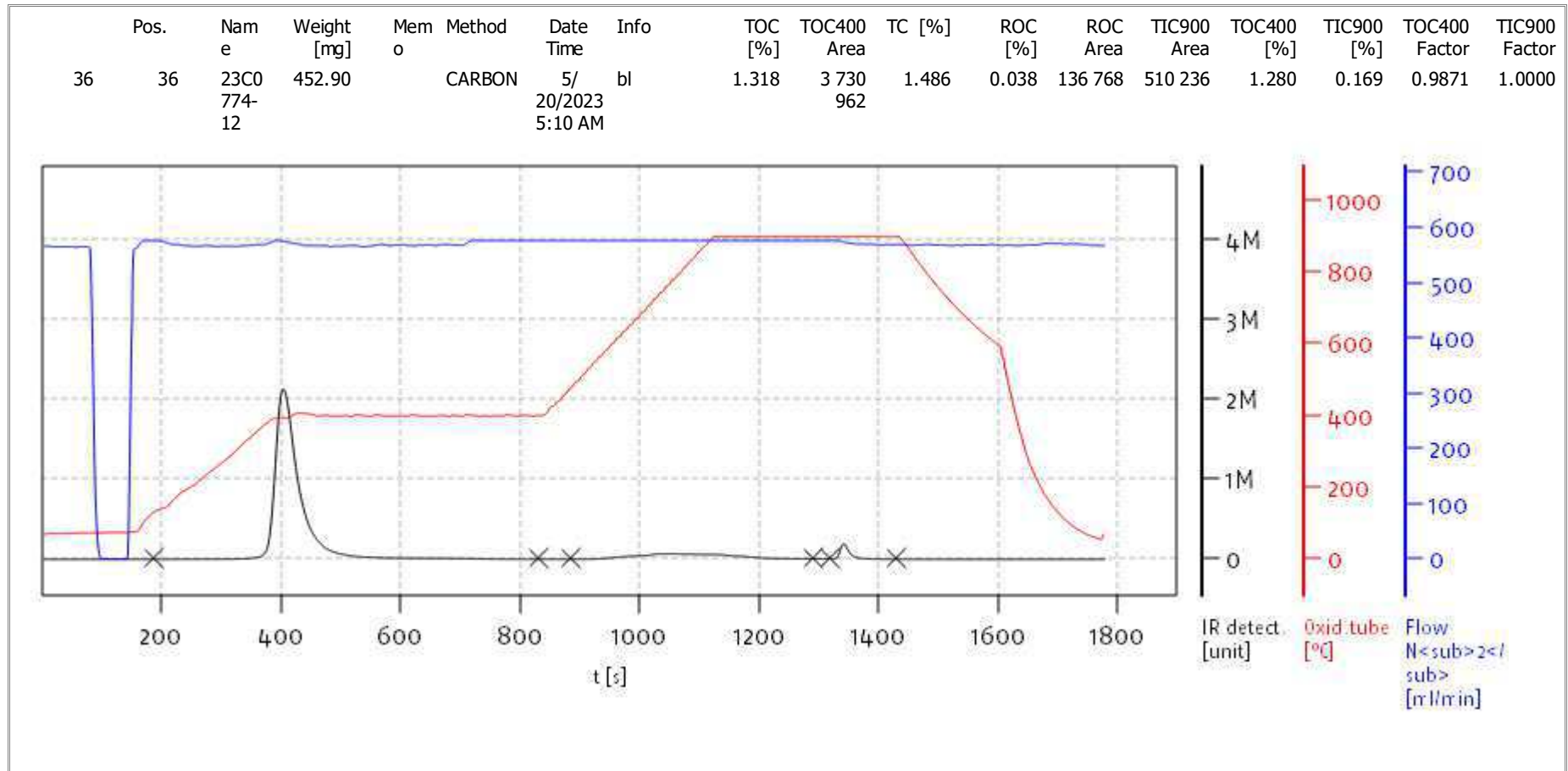
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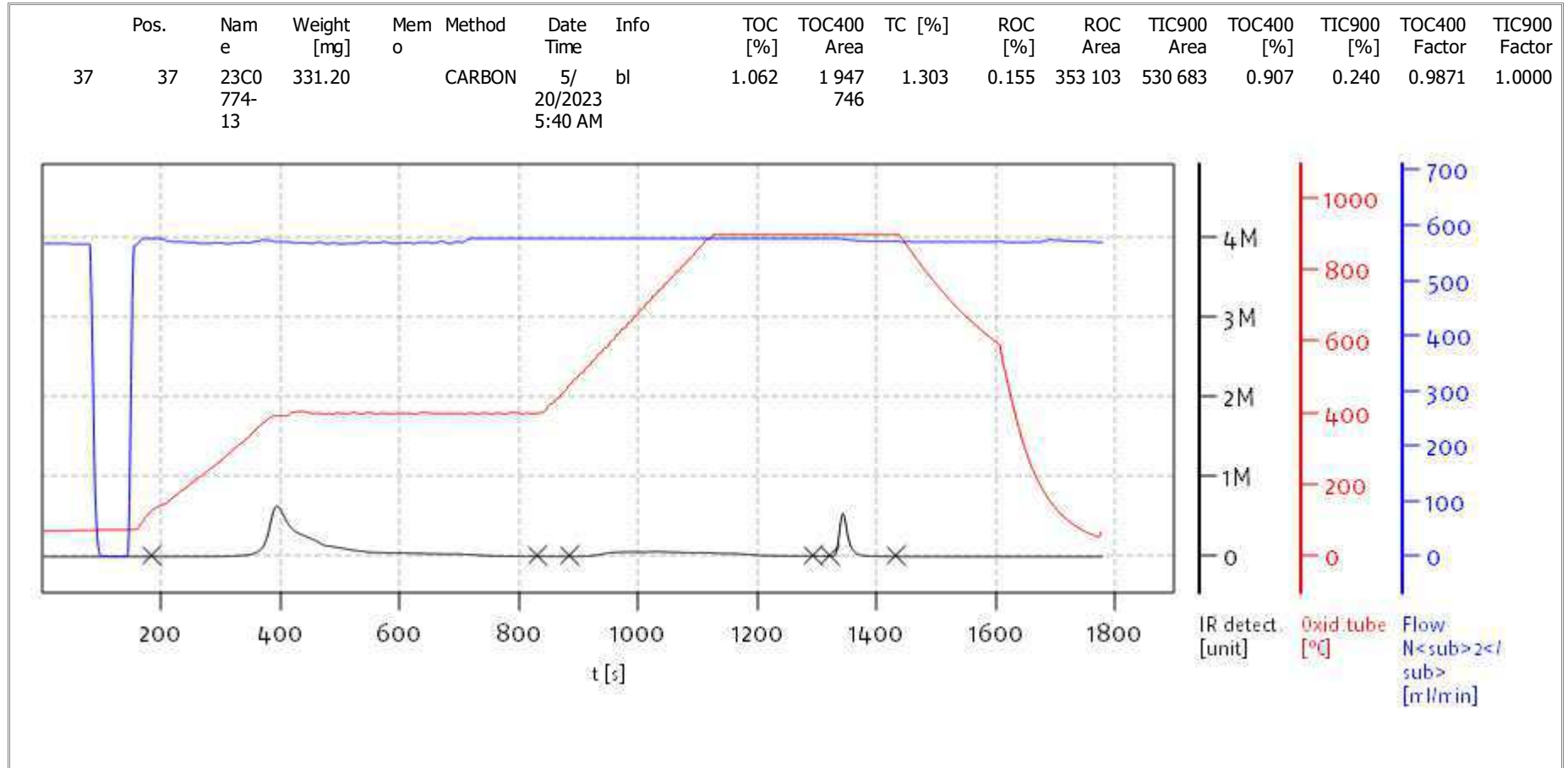
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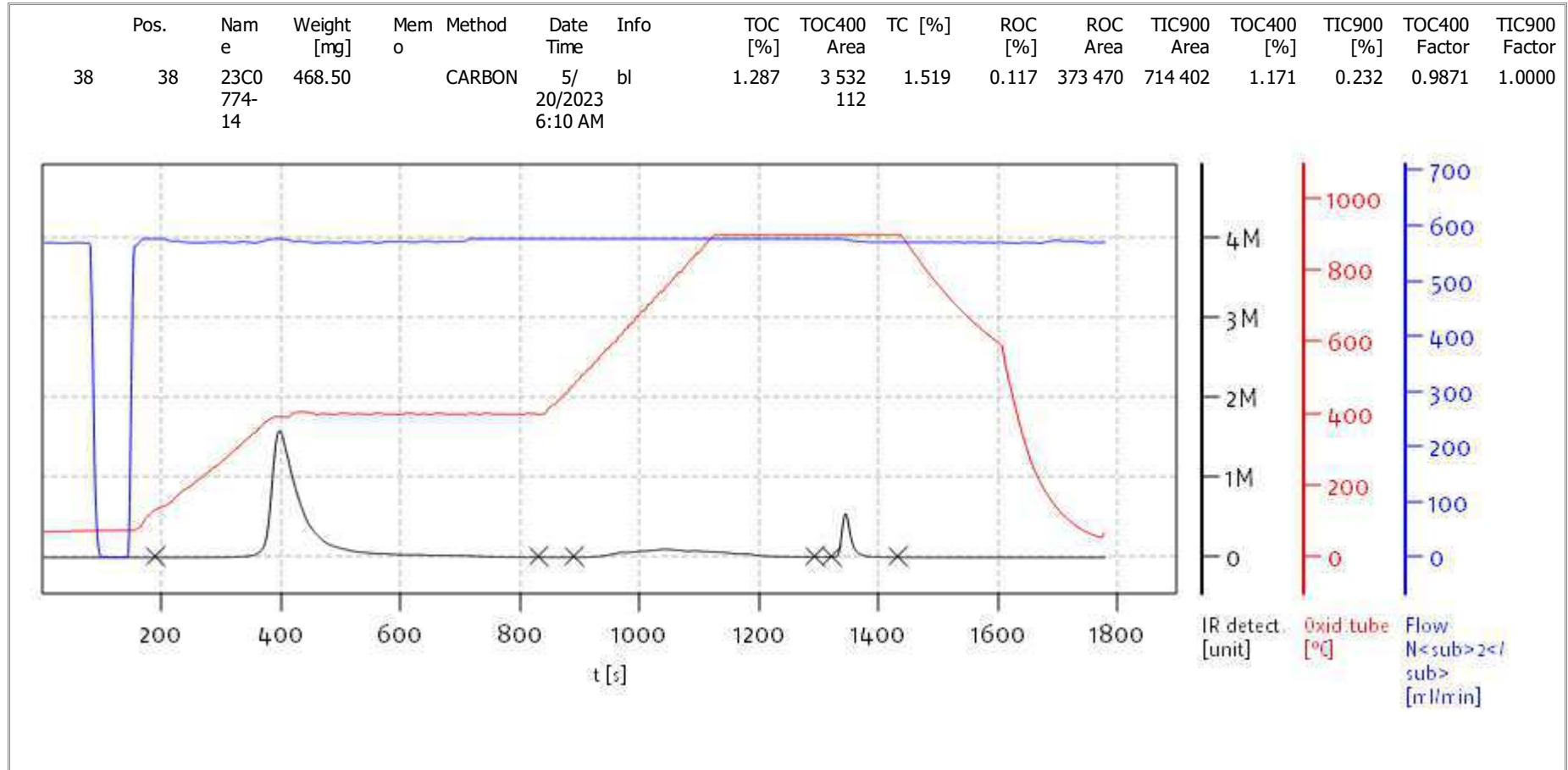
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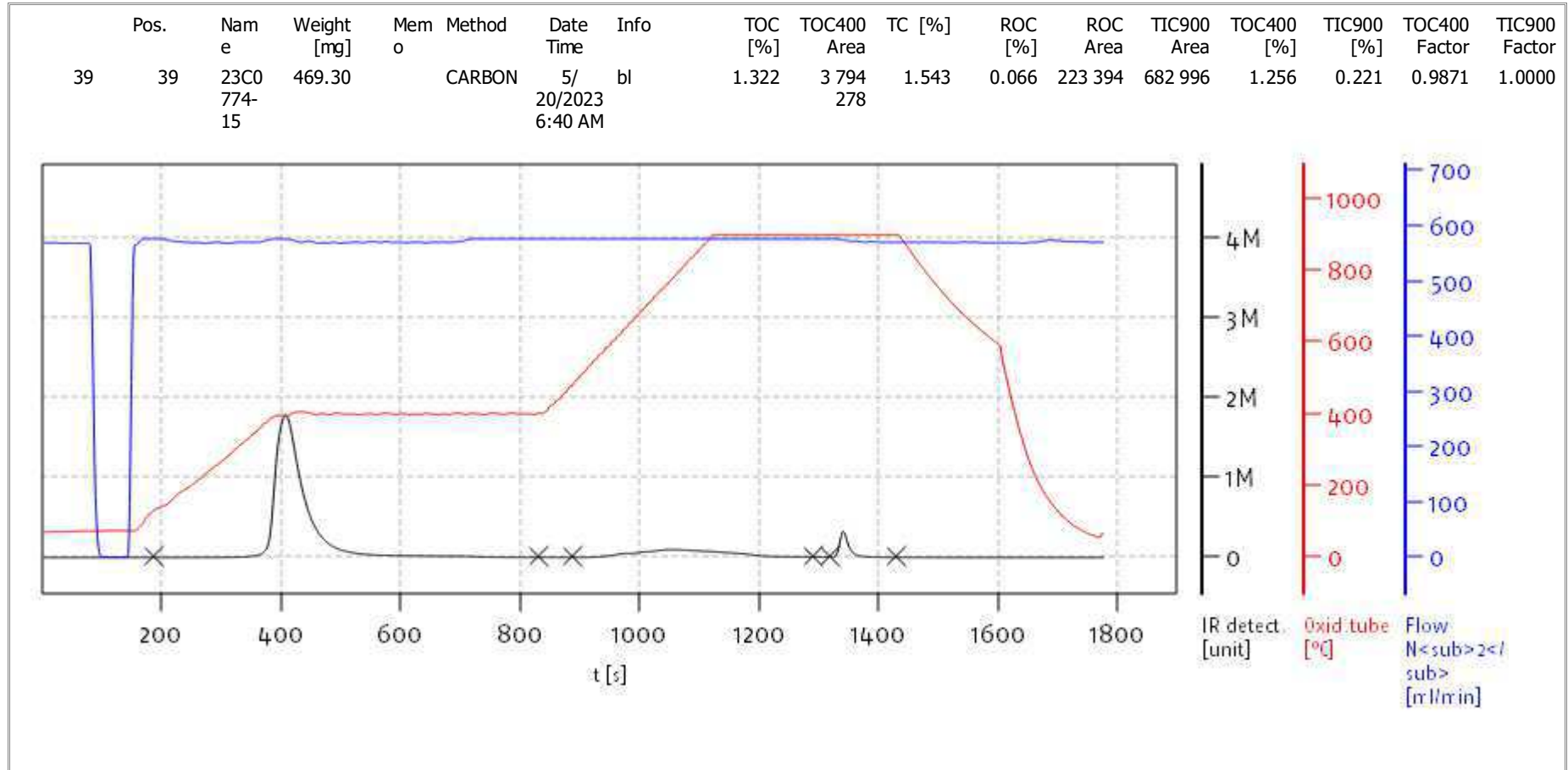
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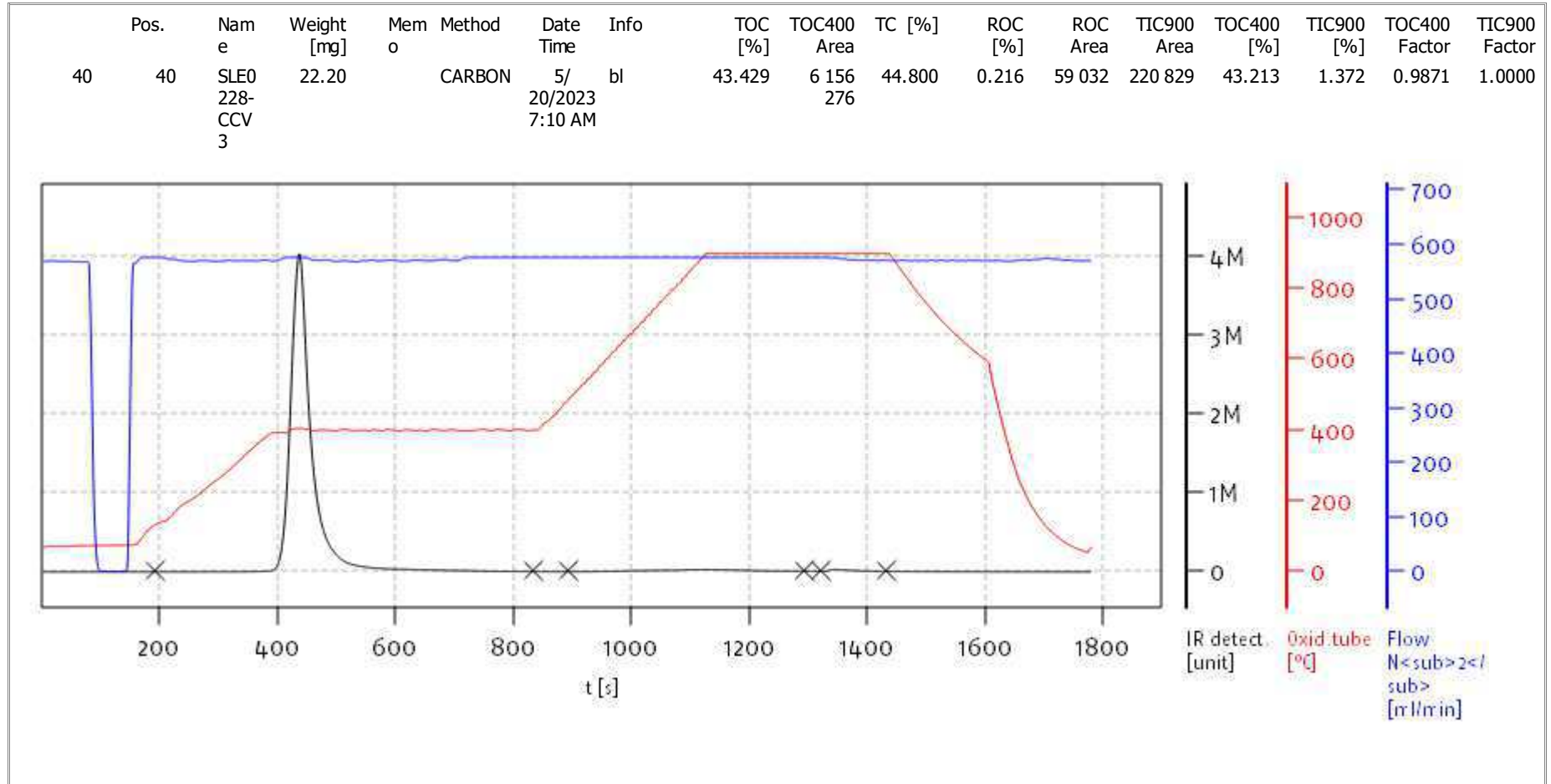
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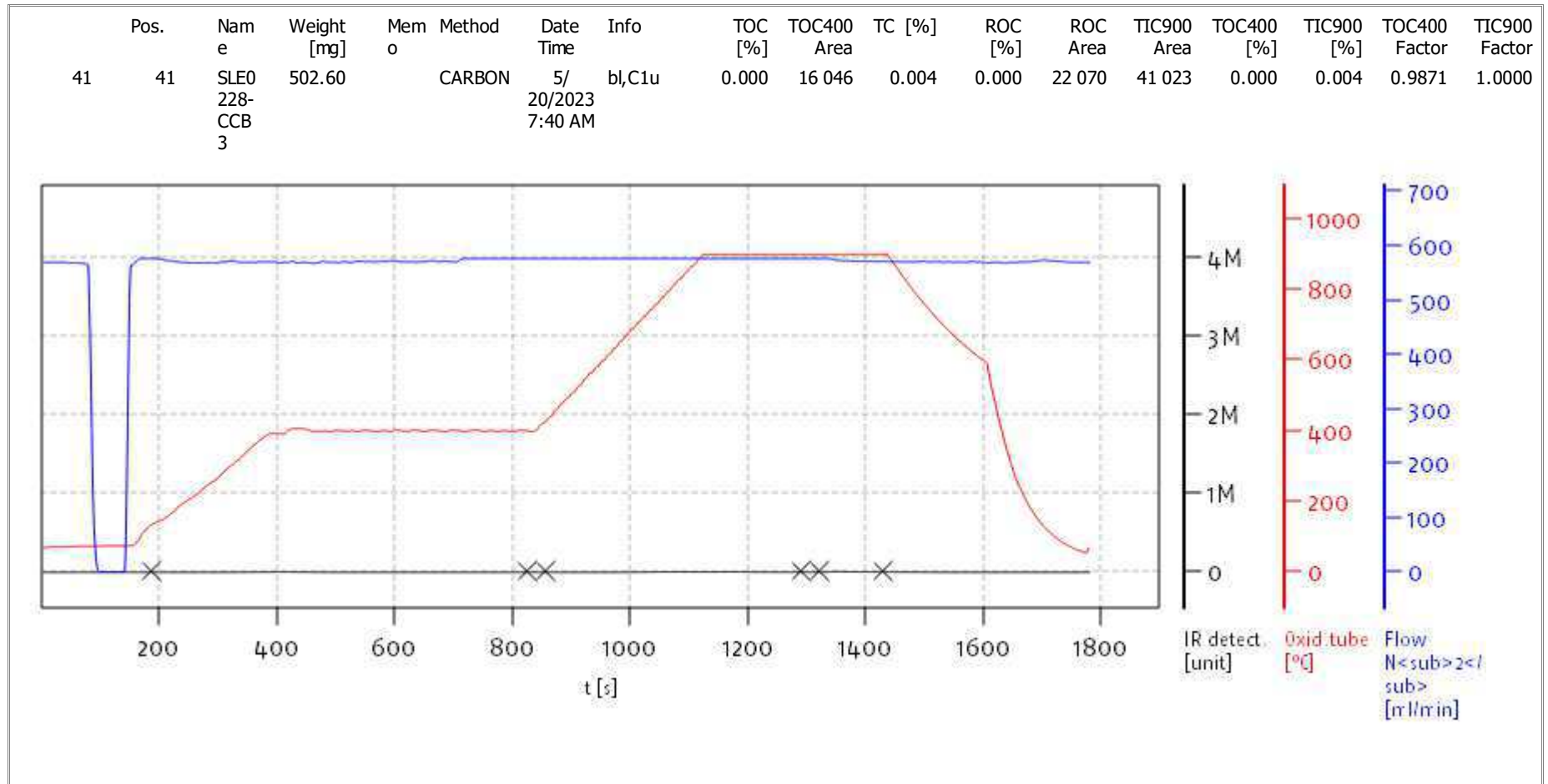
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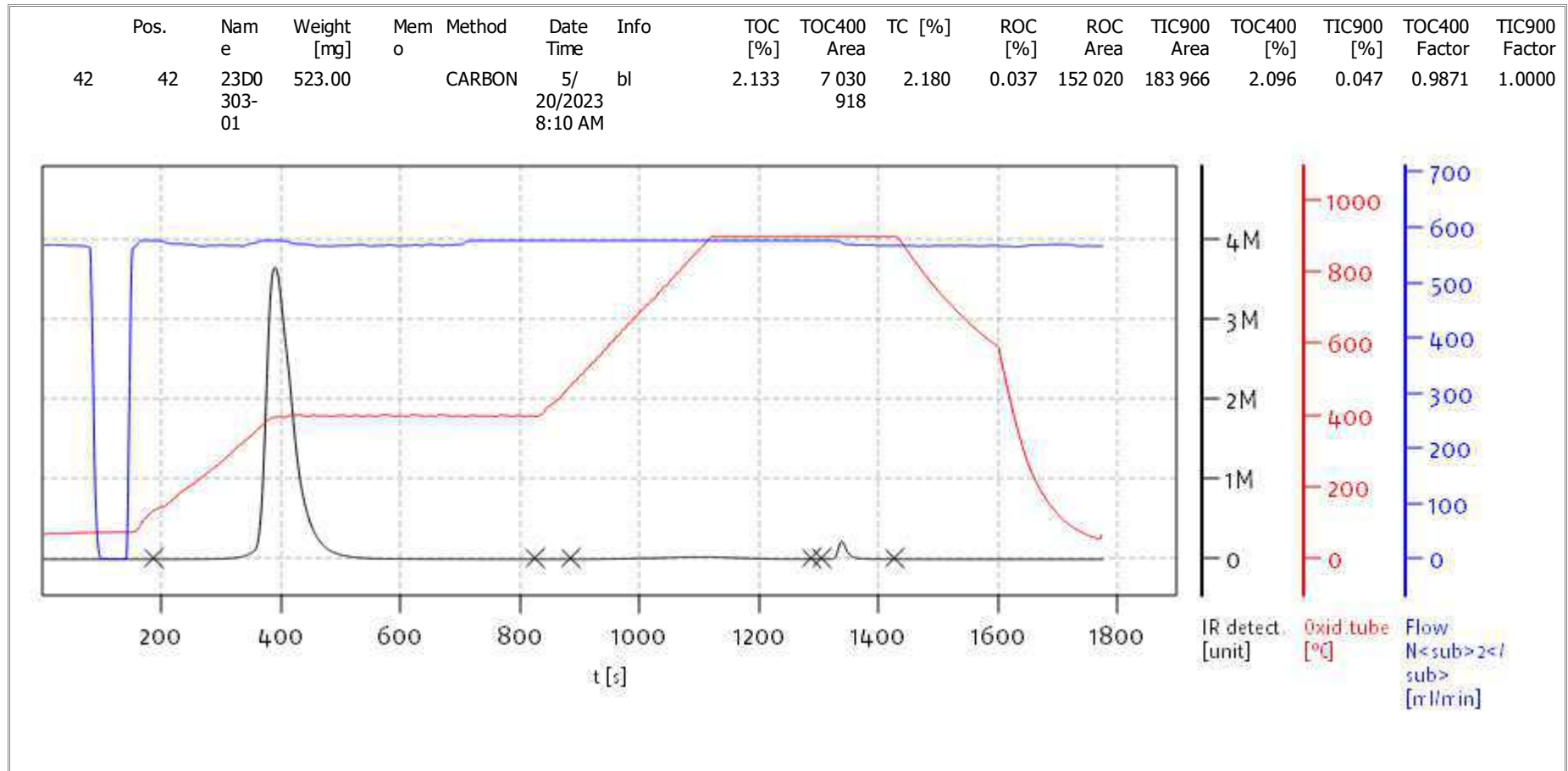
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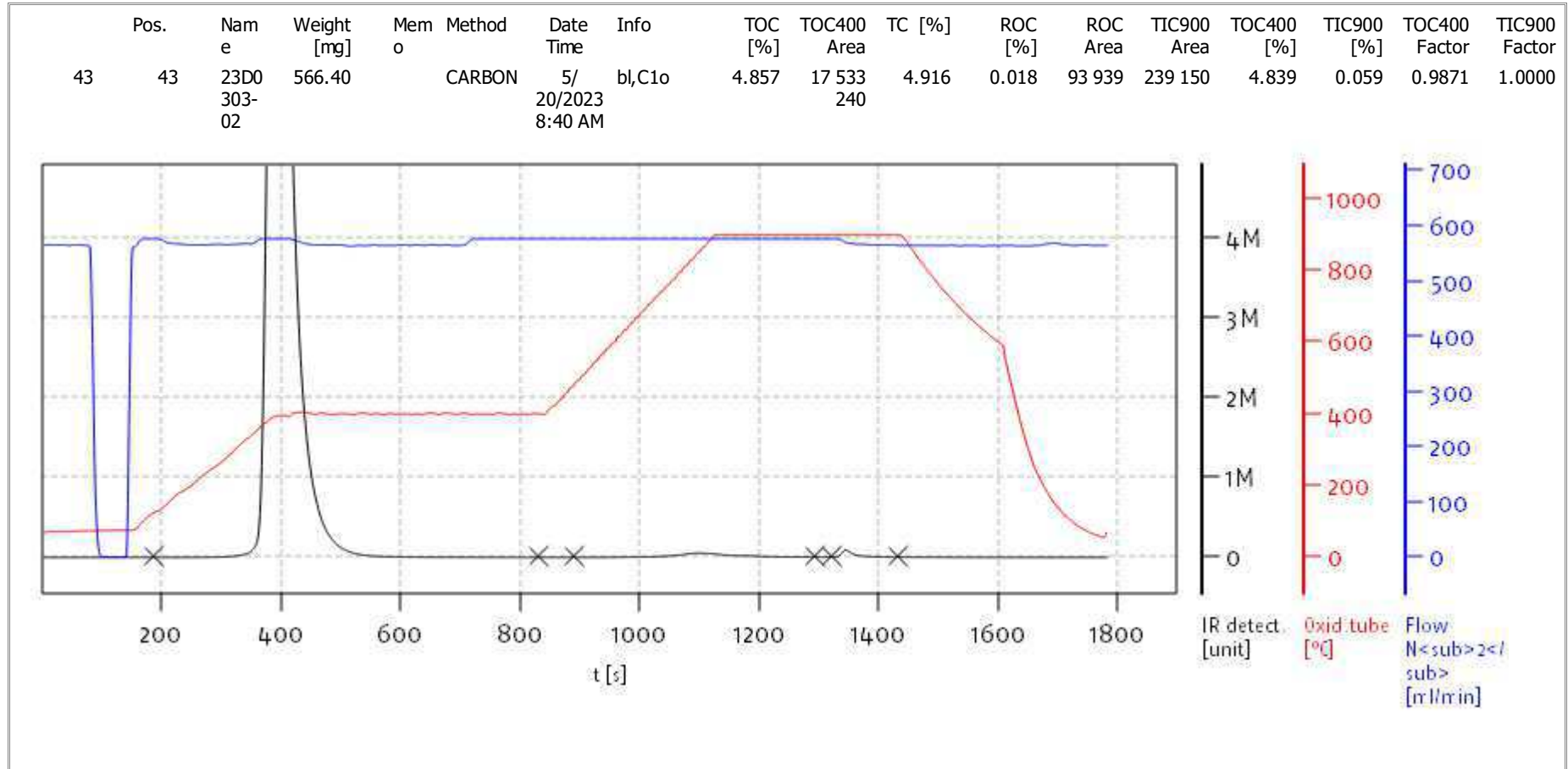
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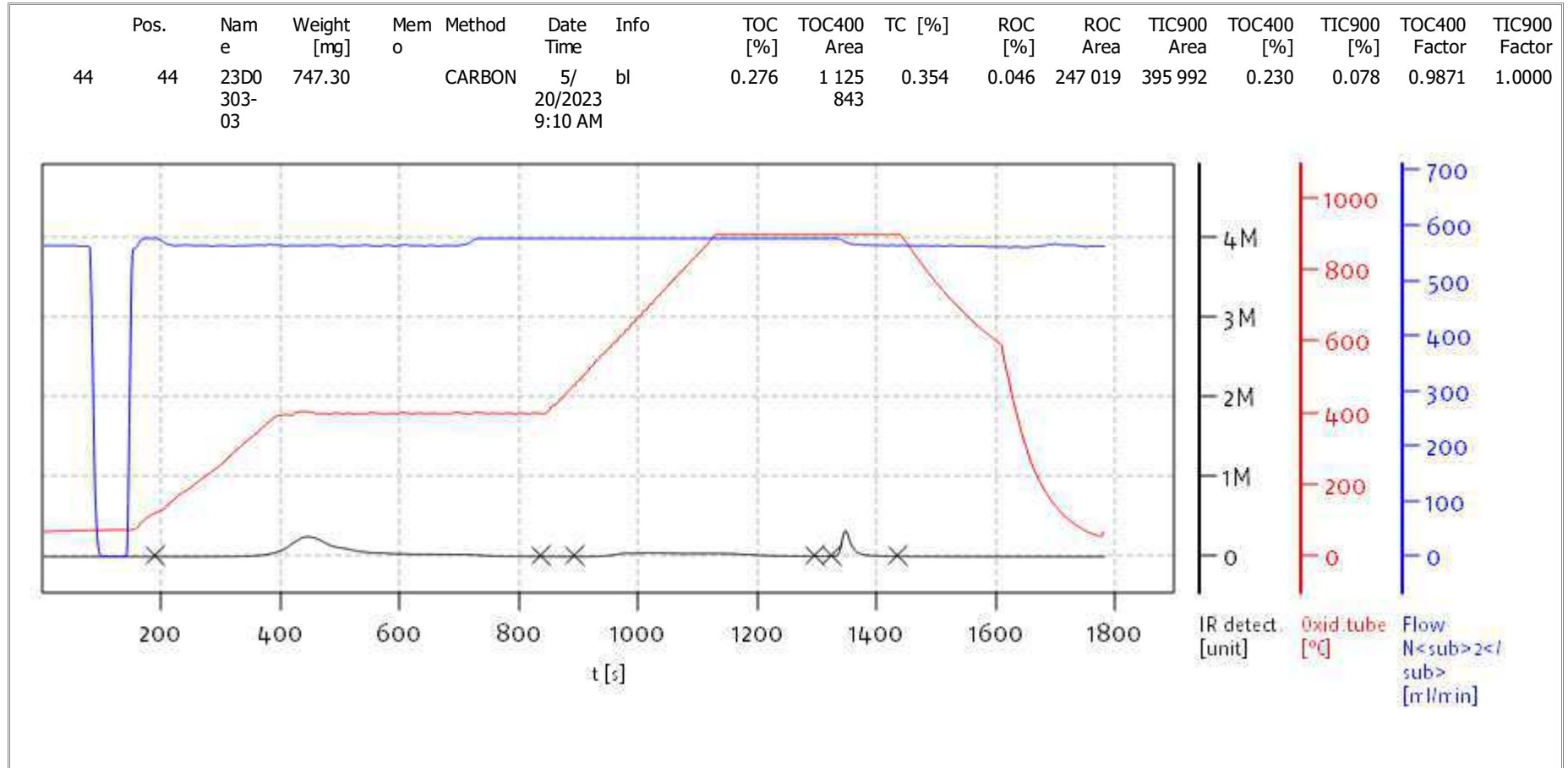
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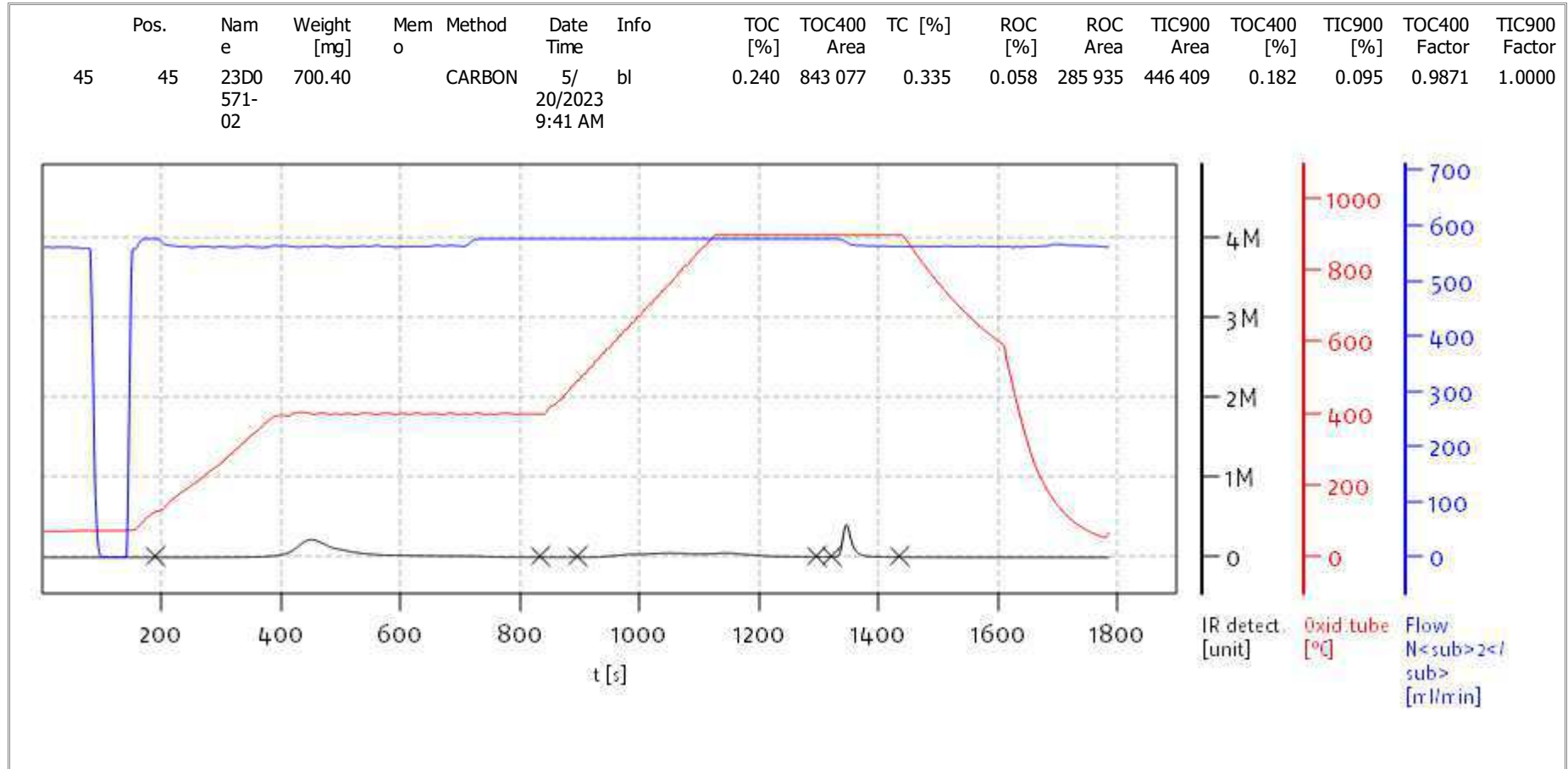
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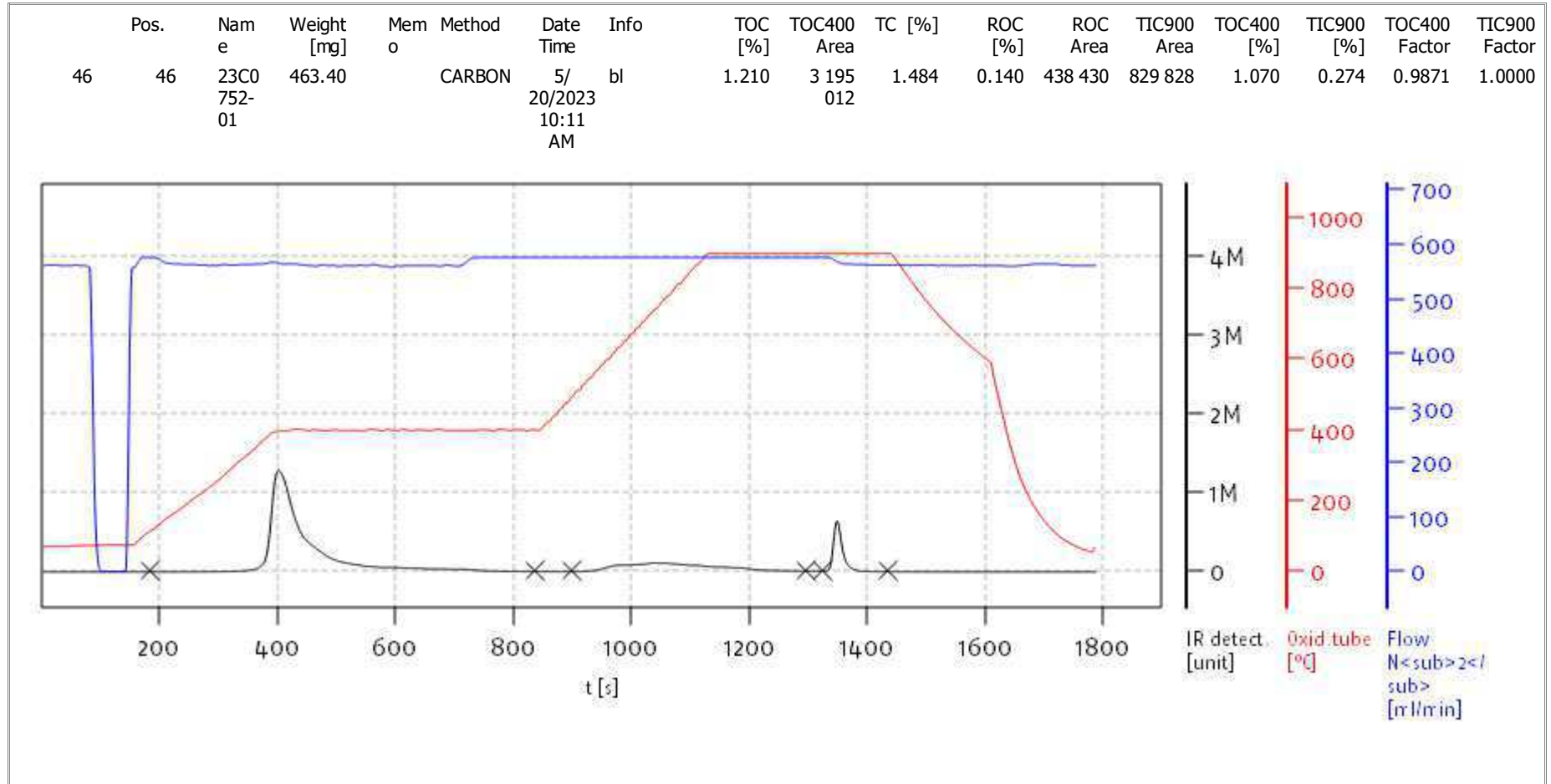
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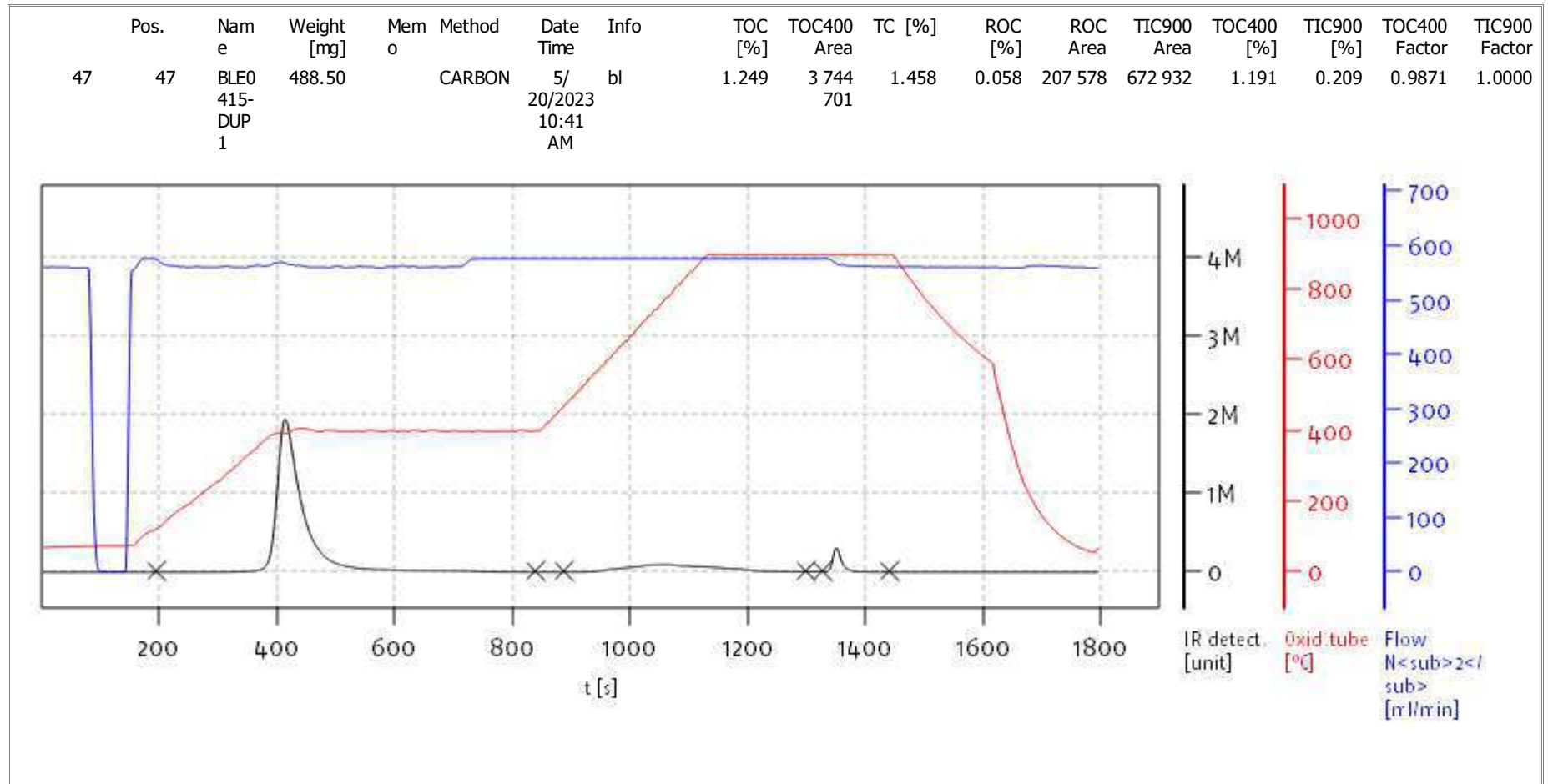
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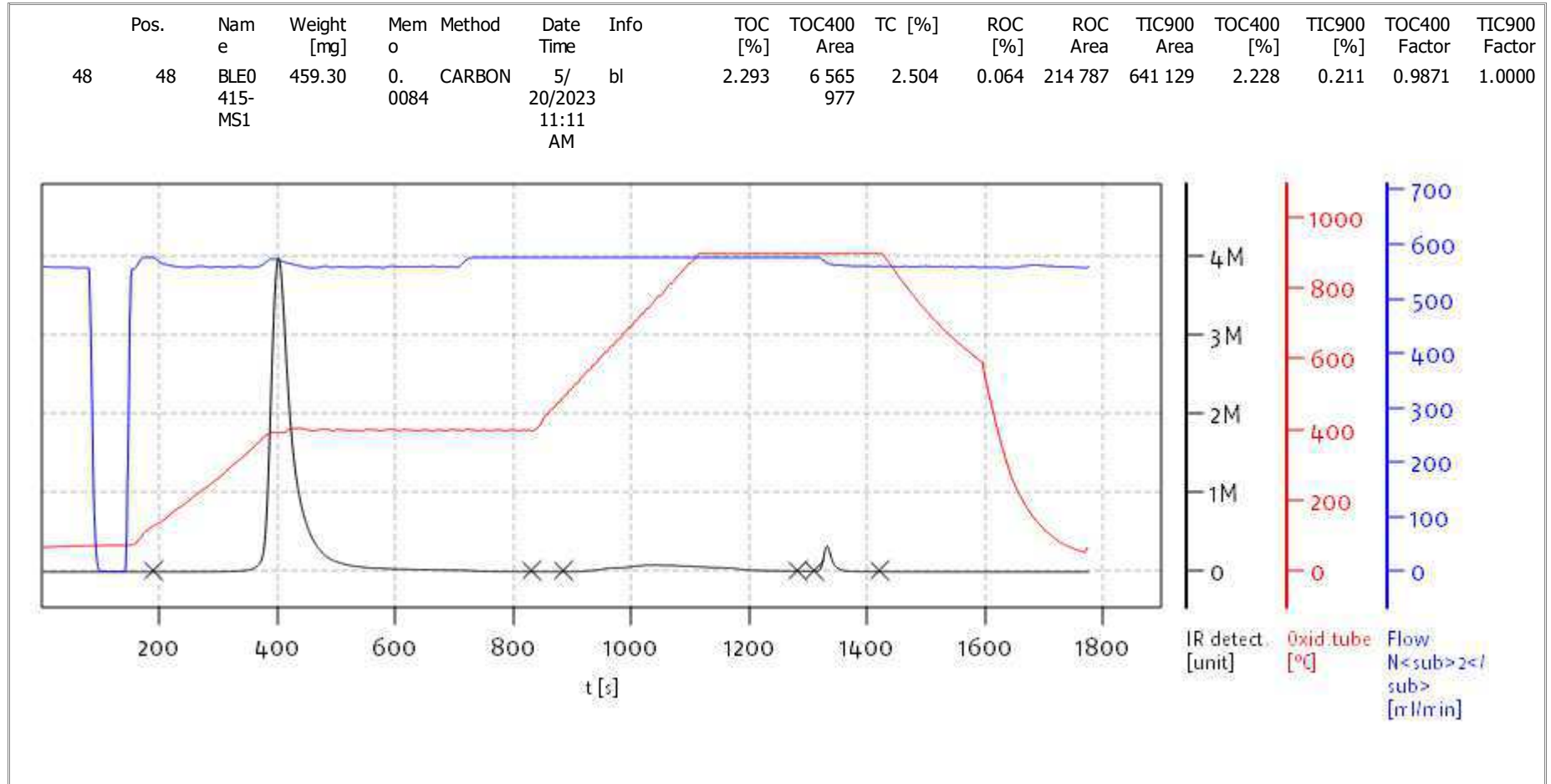
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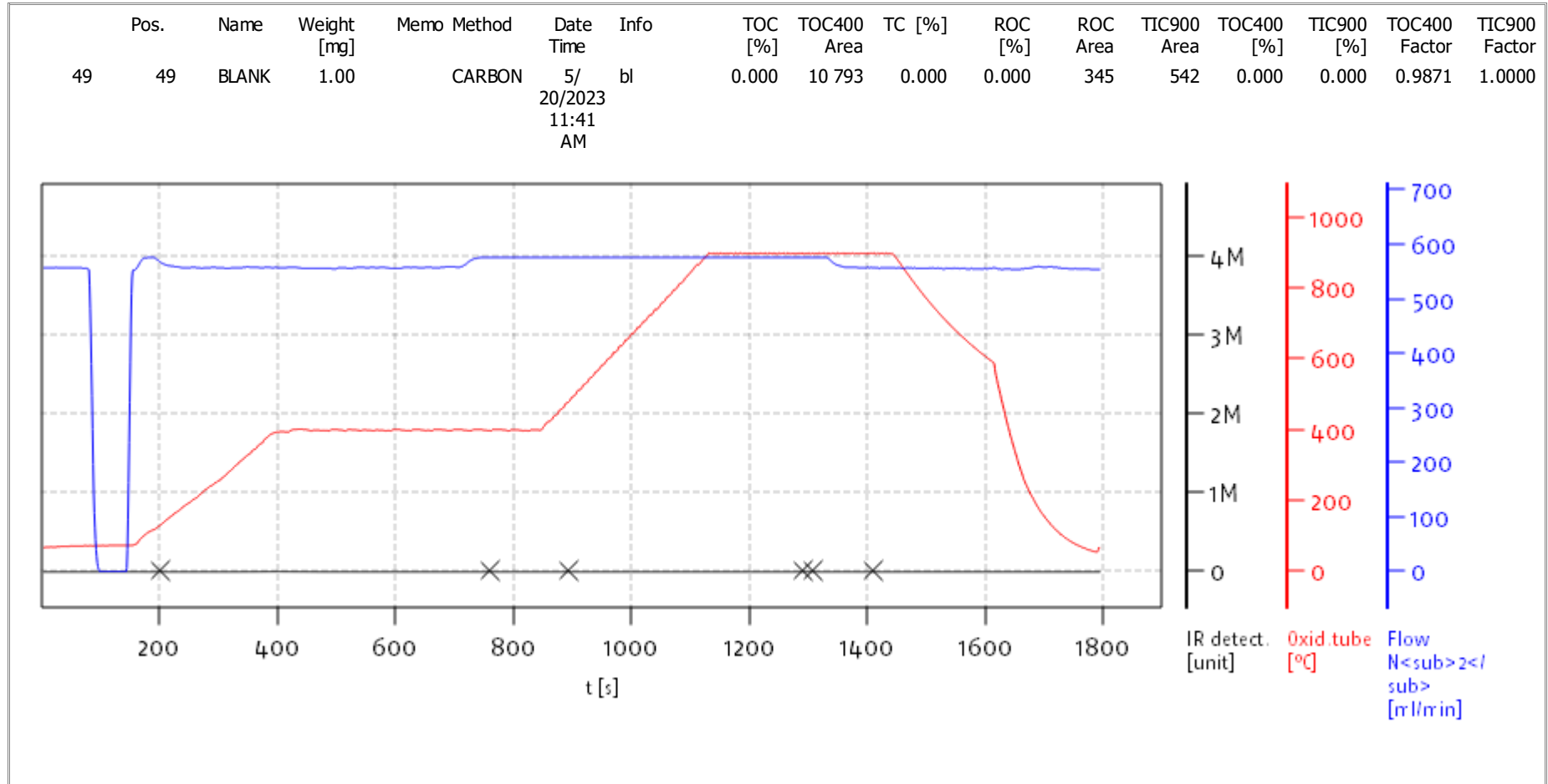
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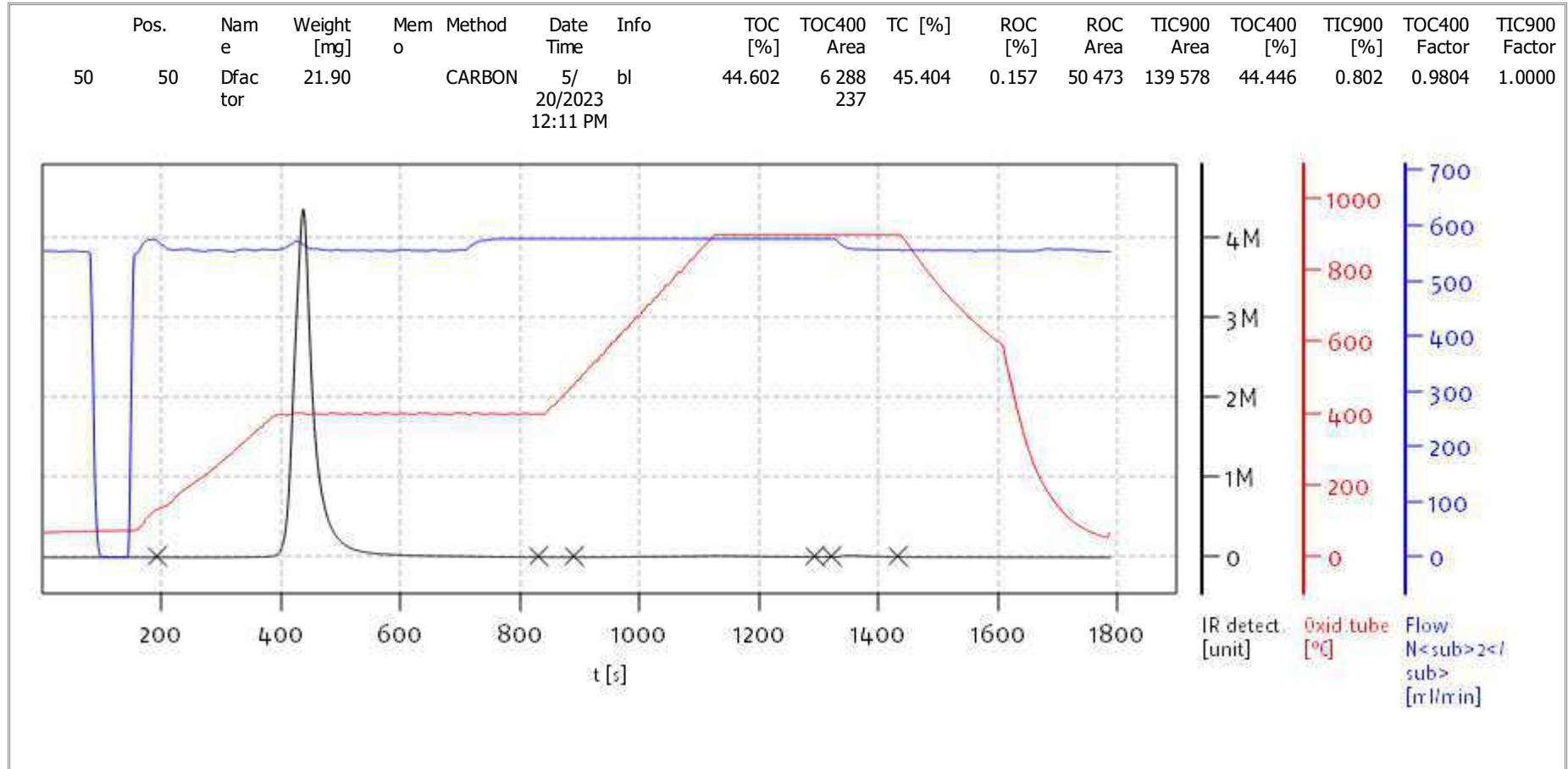
Date: Mon May 22 10:19:17 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

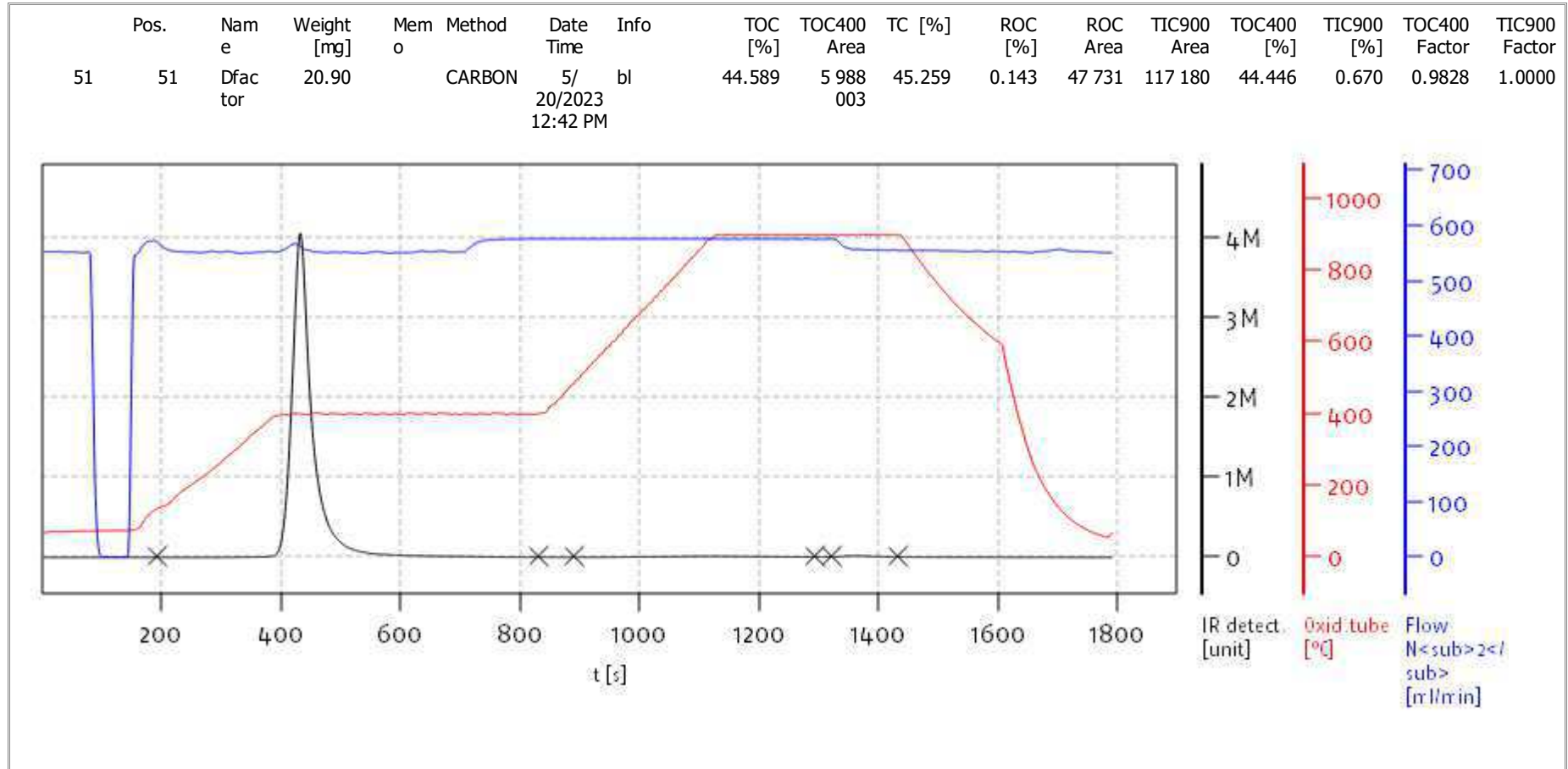
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

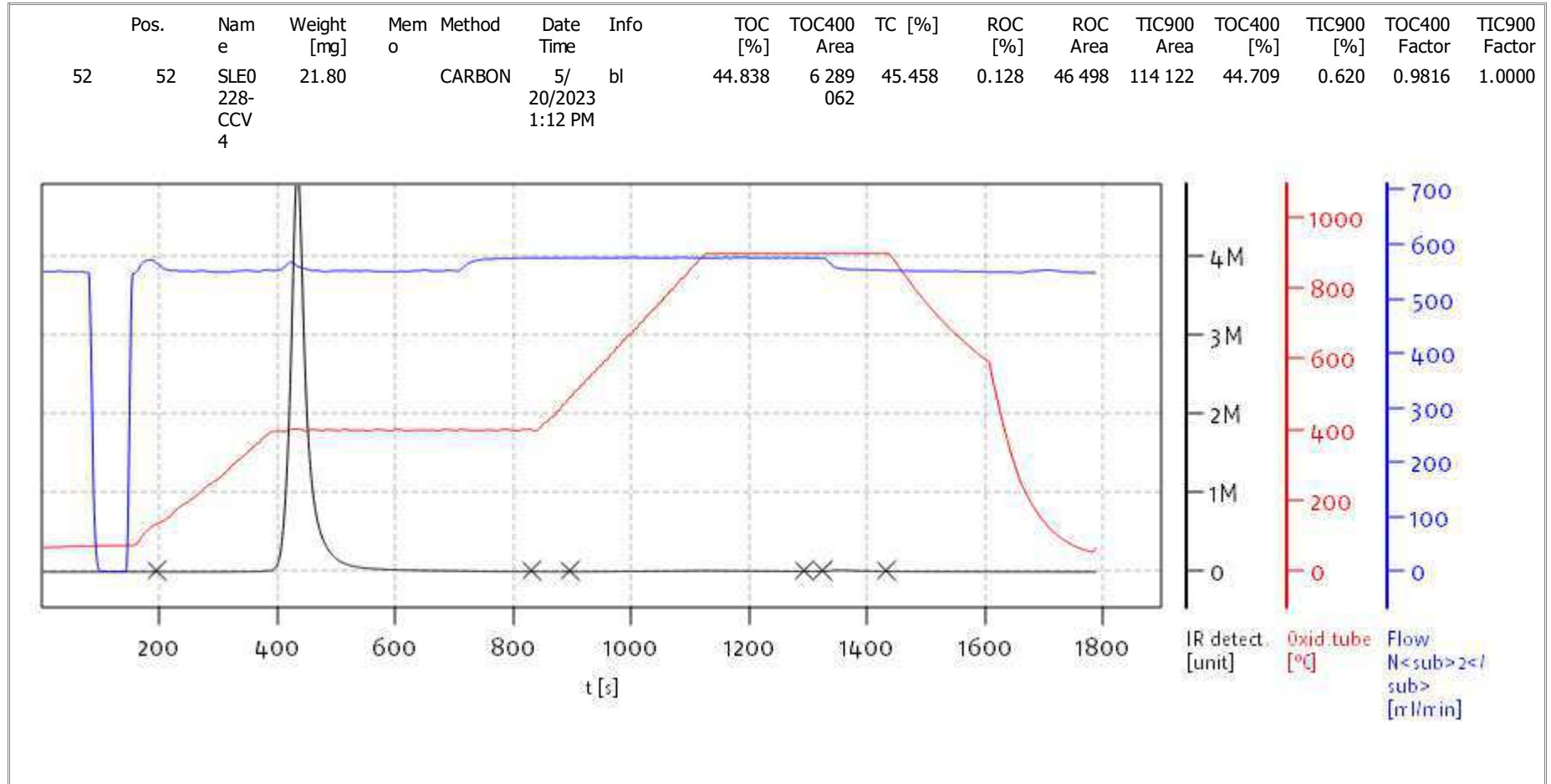
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

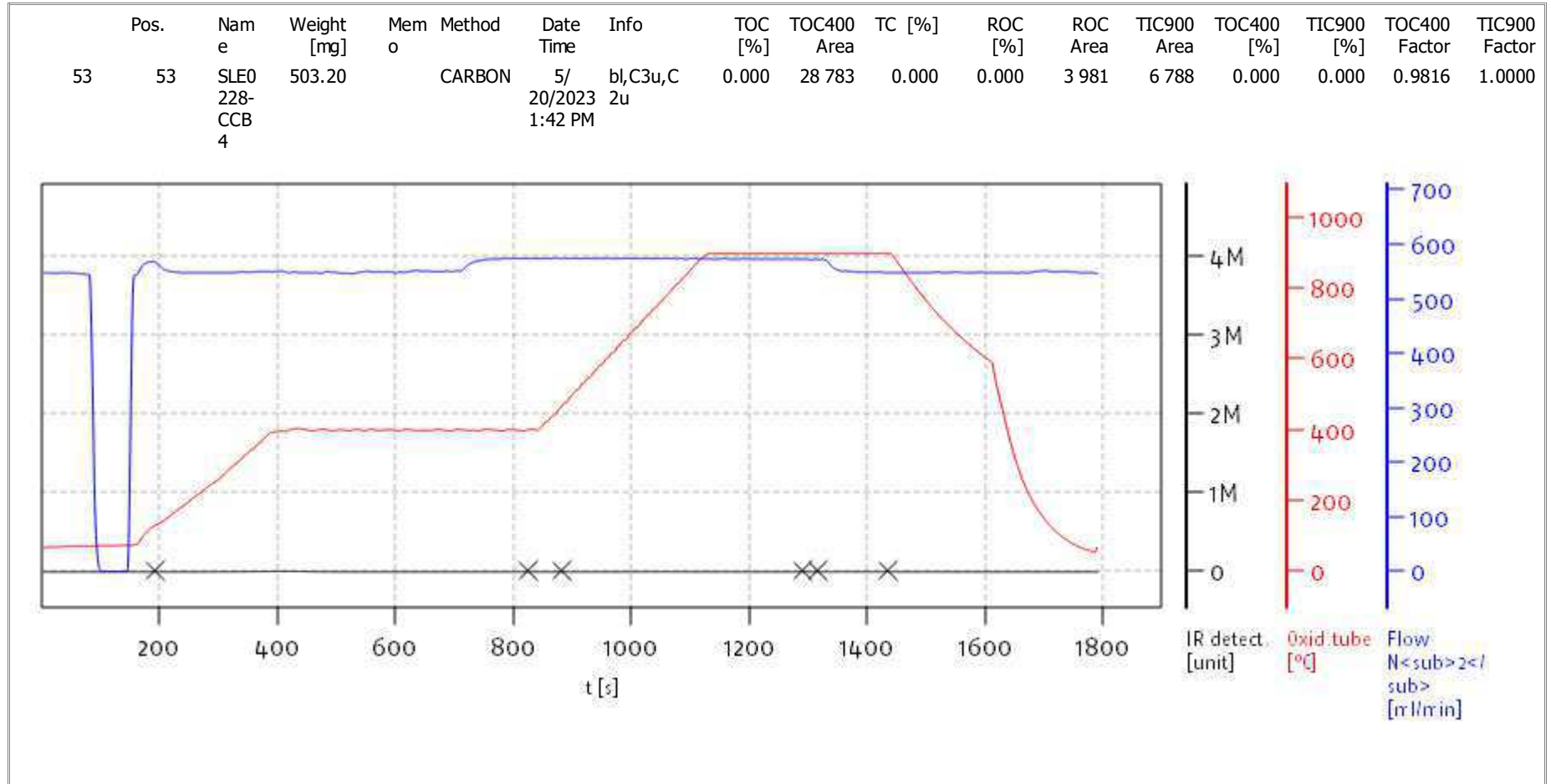
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

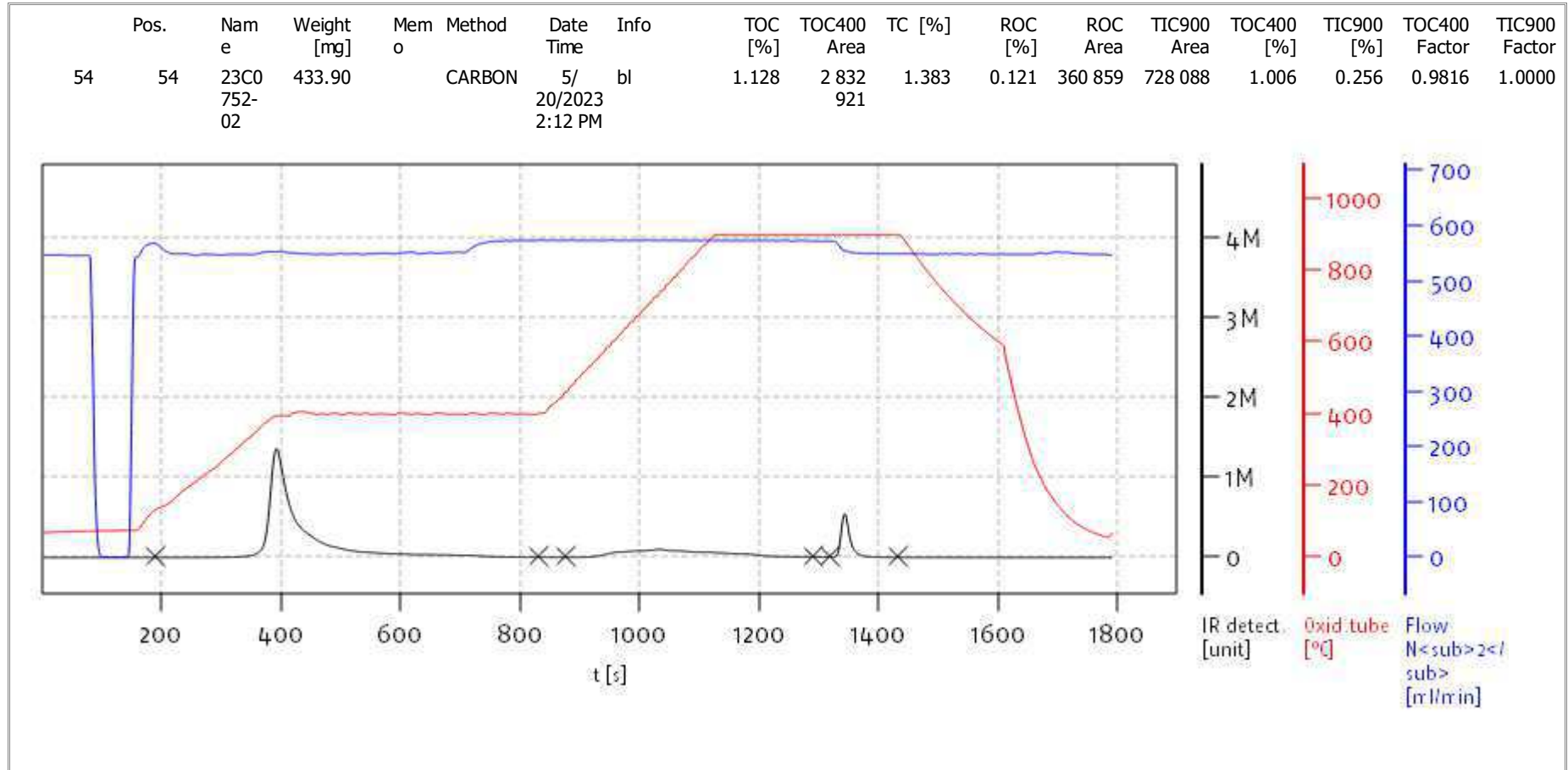
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

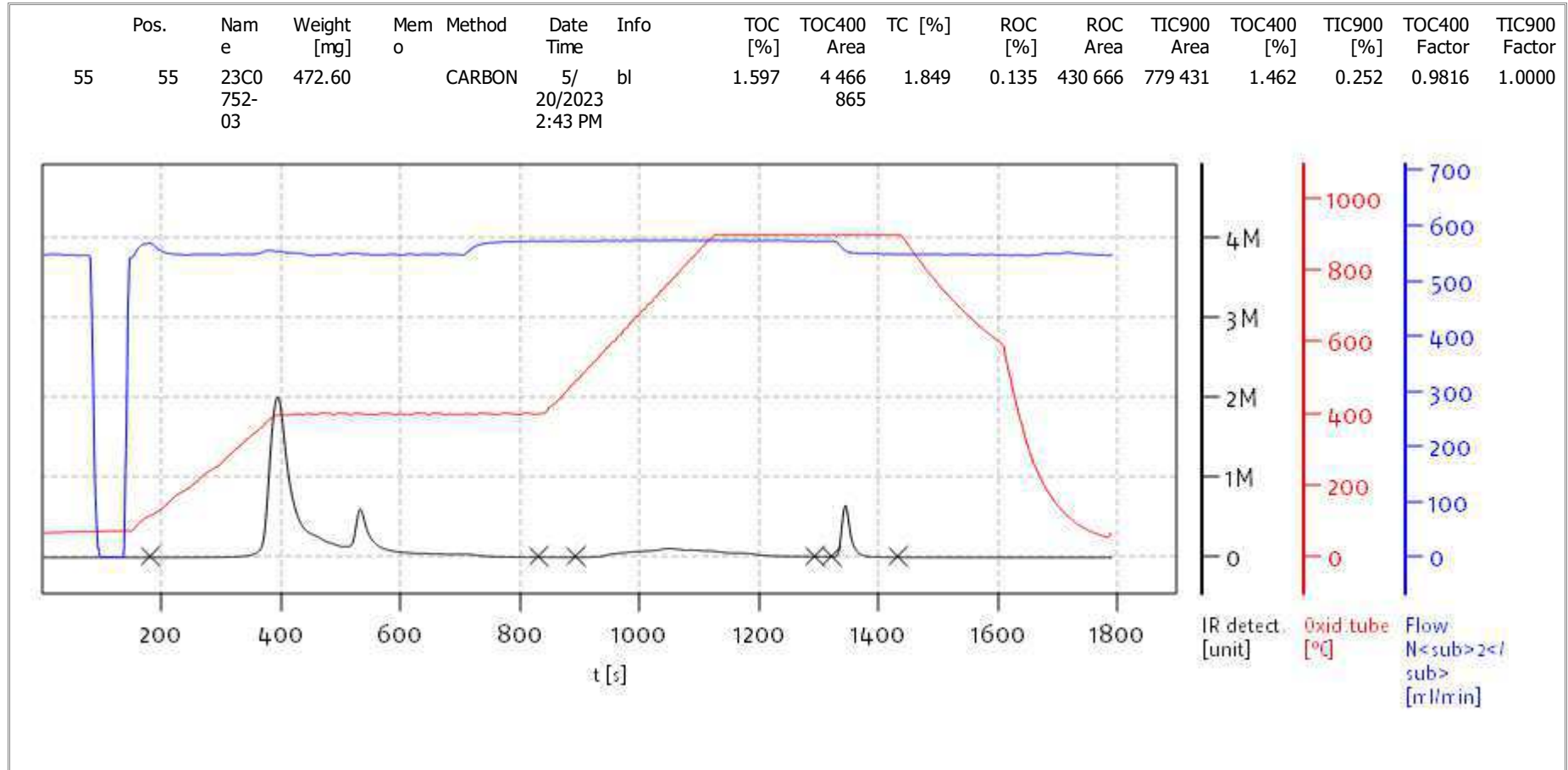
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

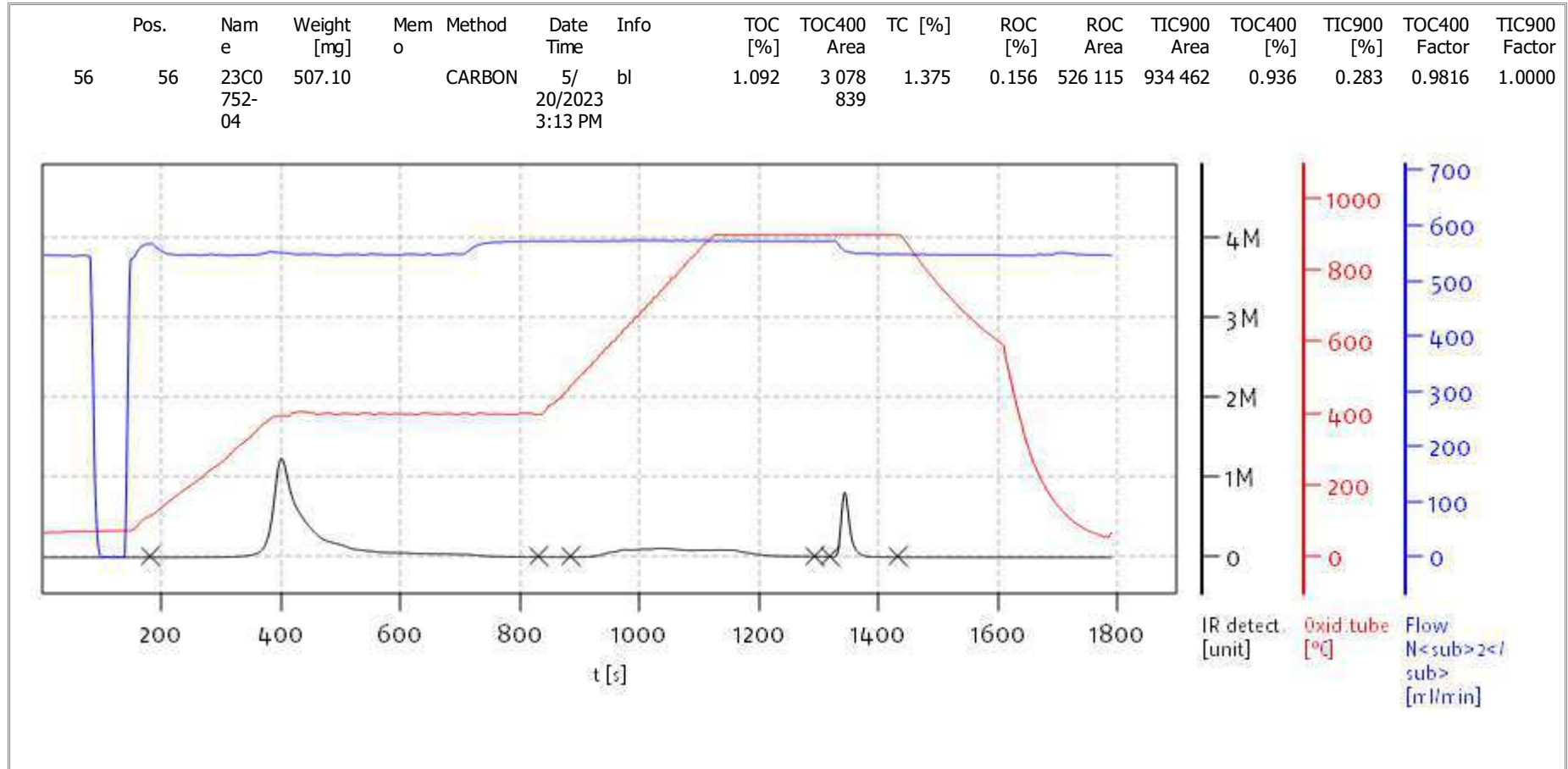
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Soli TOC Cube, Carbon
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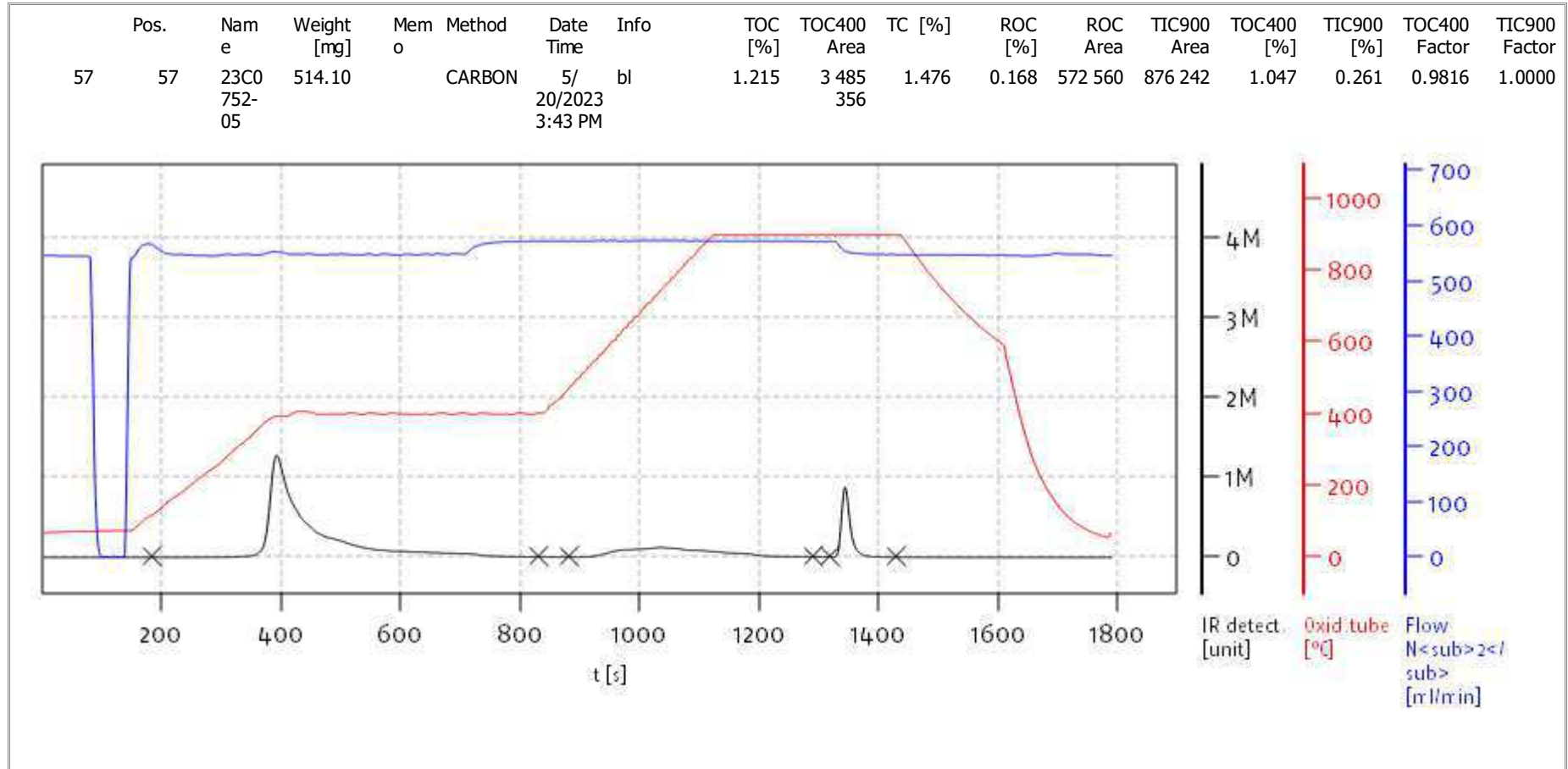
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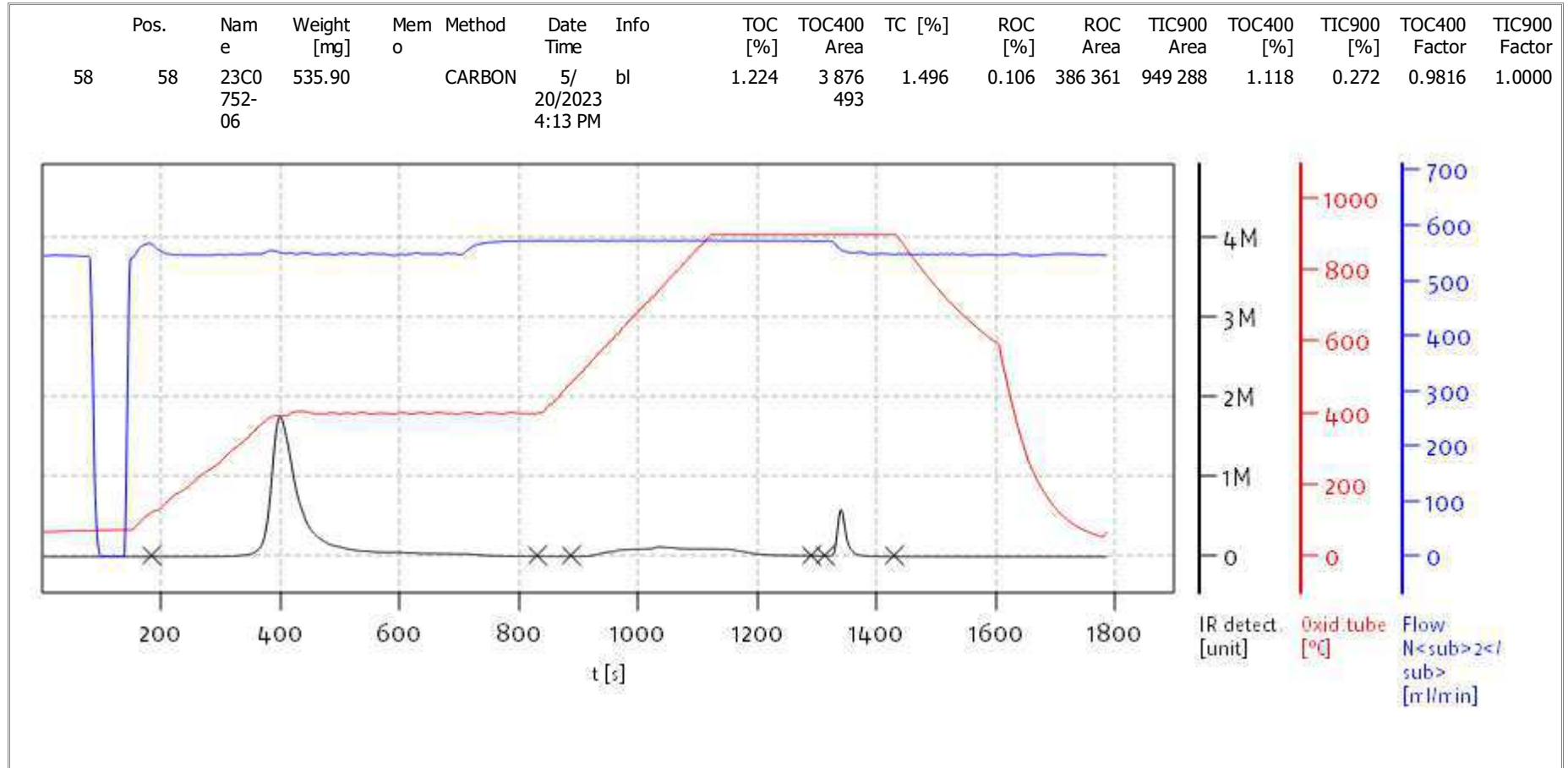
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Balance: BAL3
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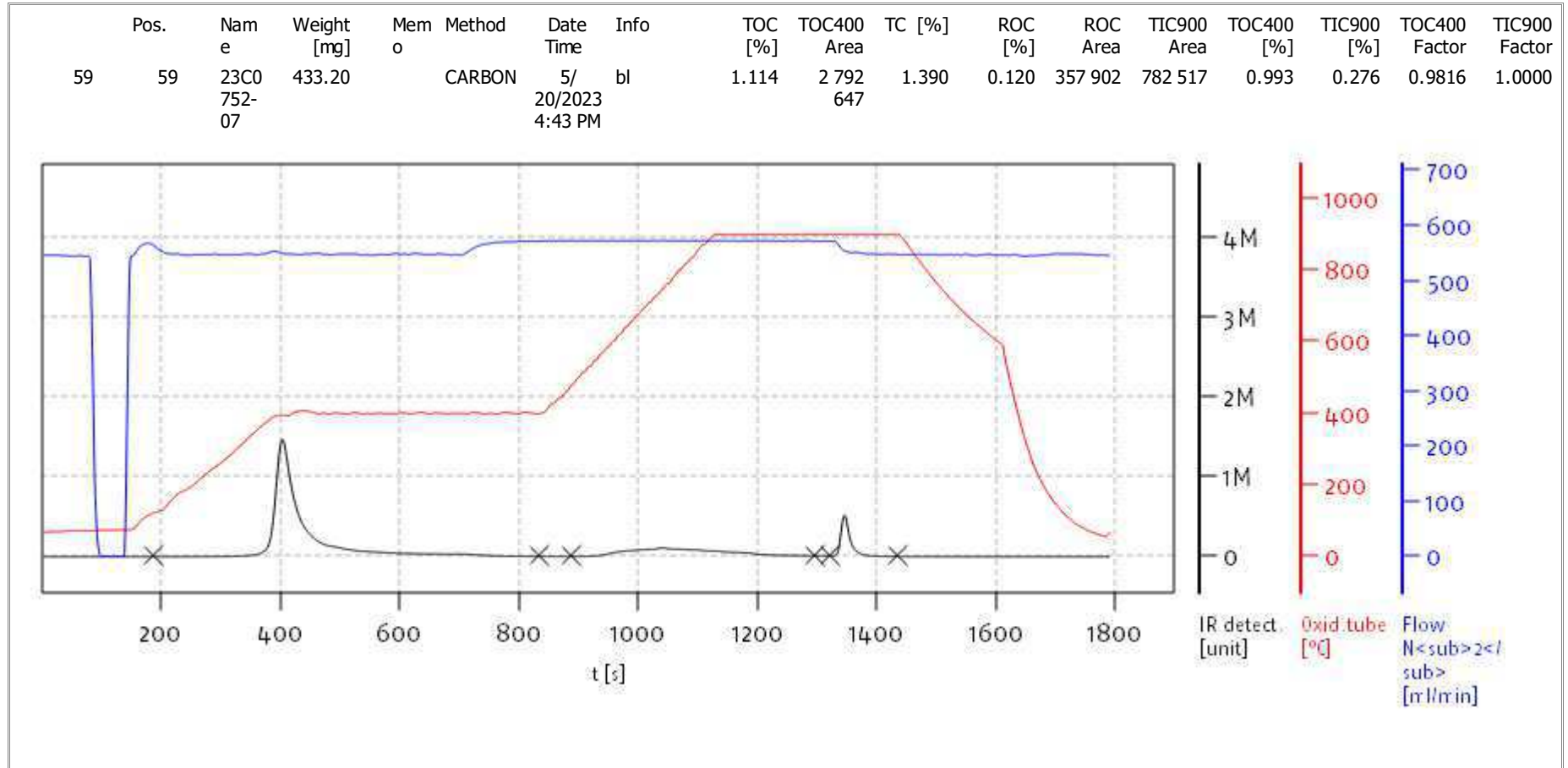
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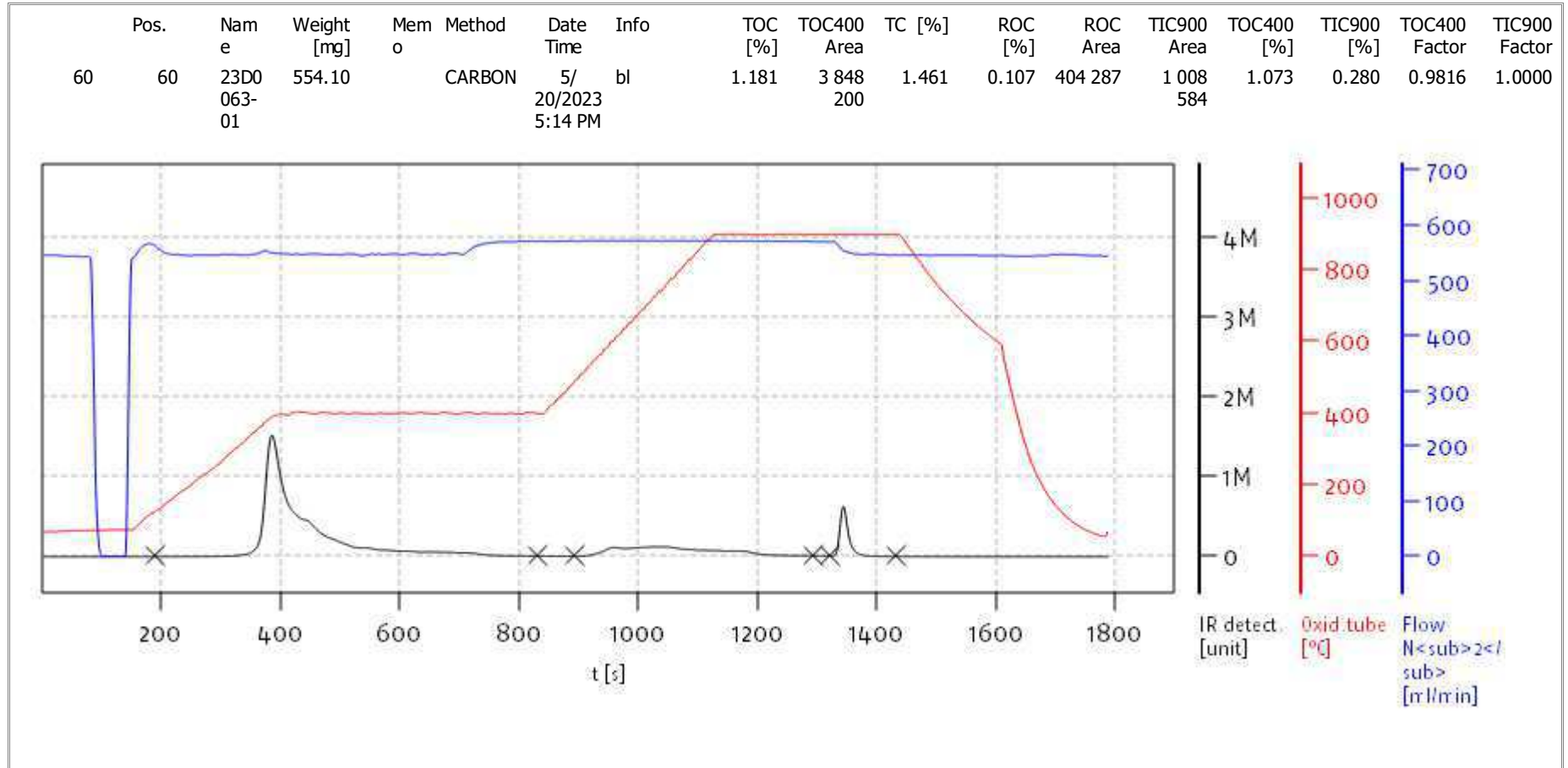
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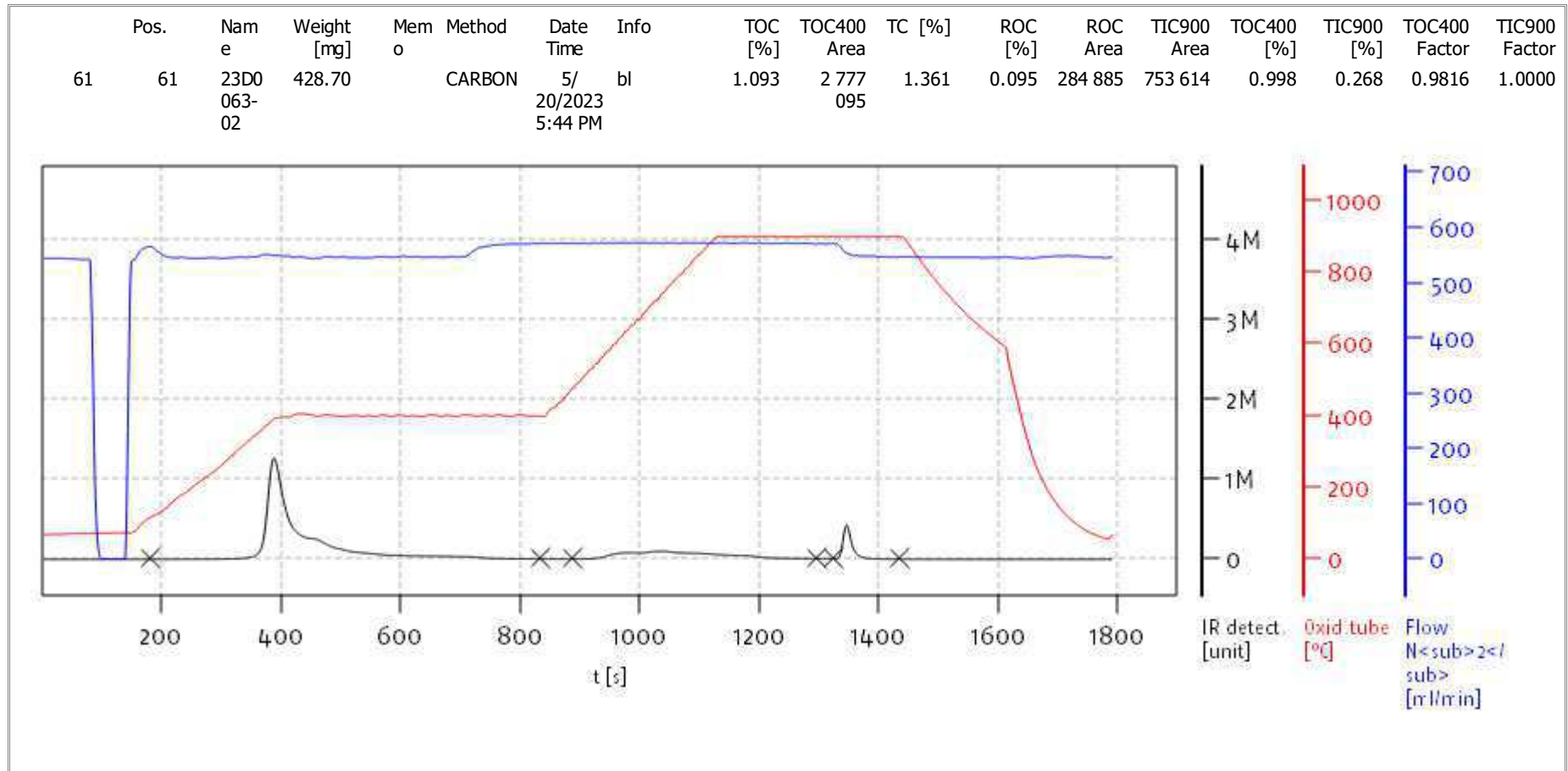
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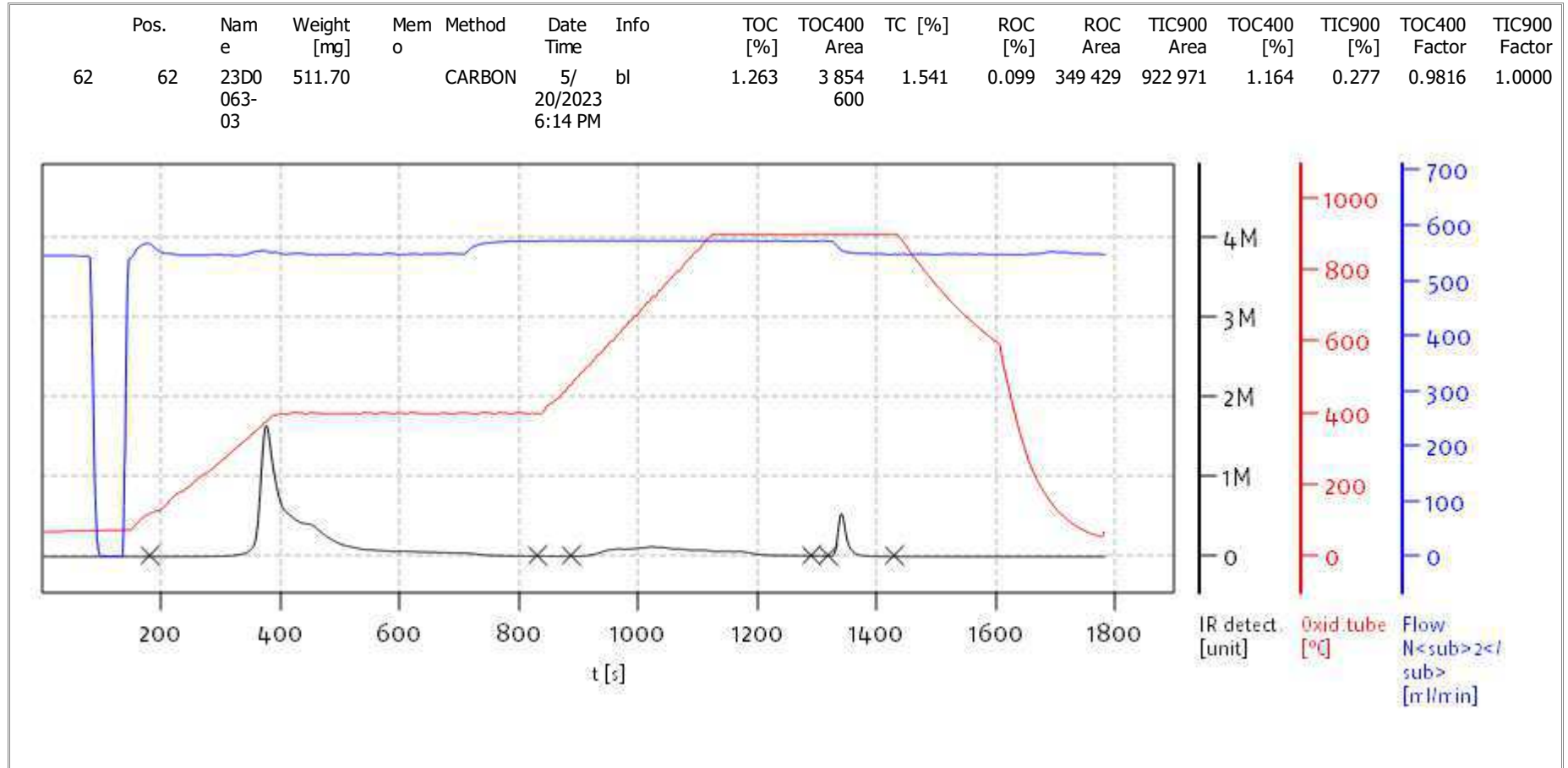
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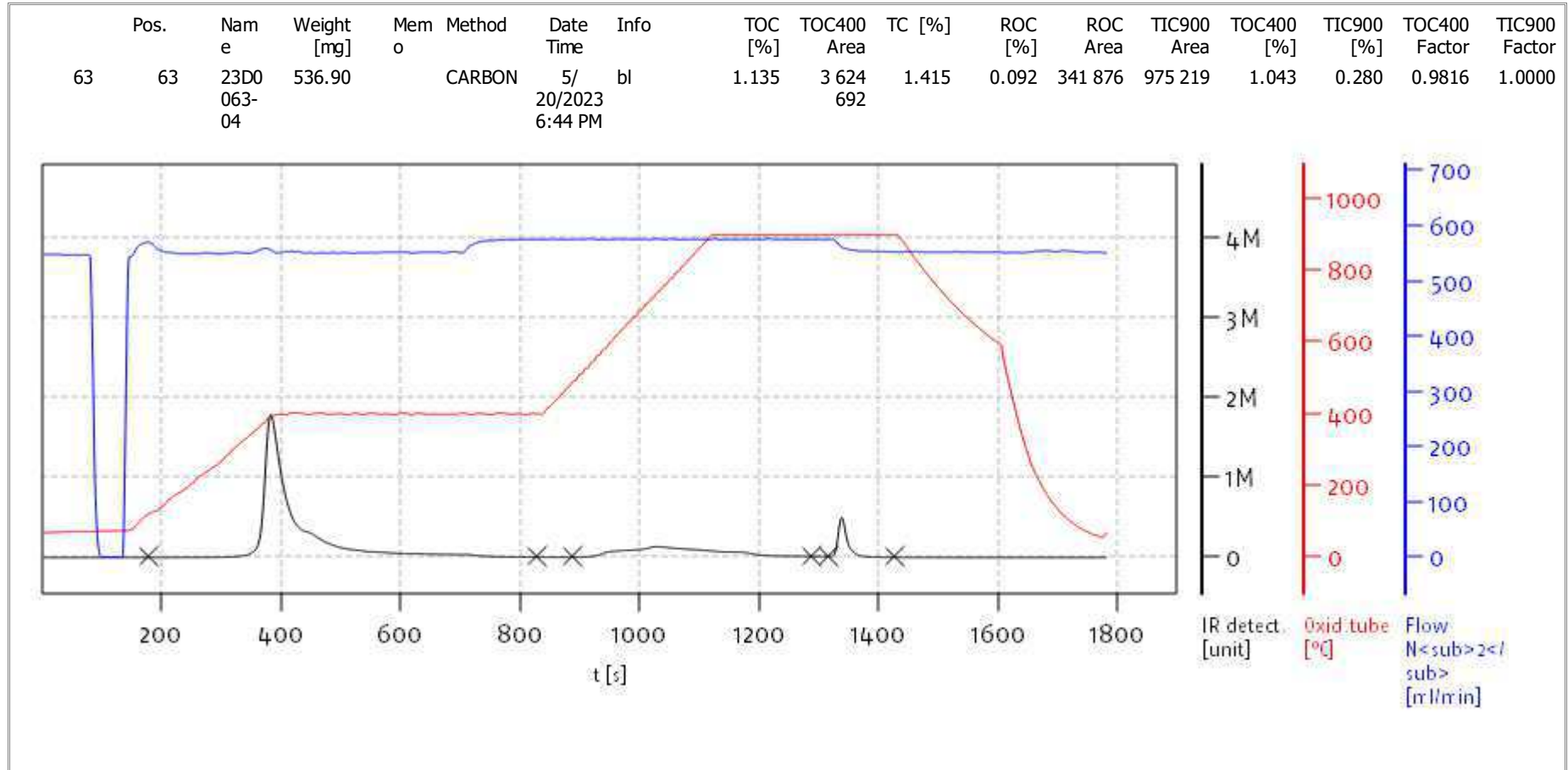
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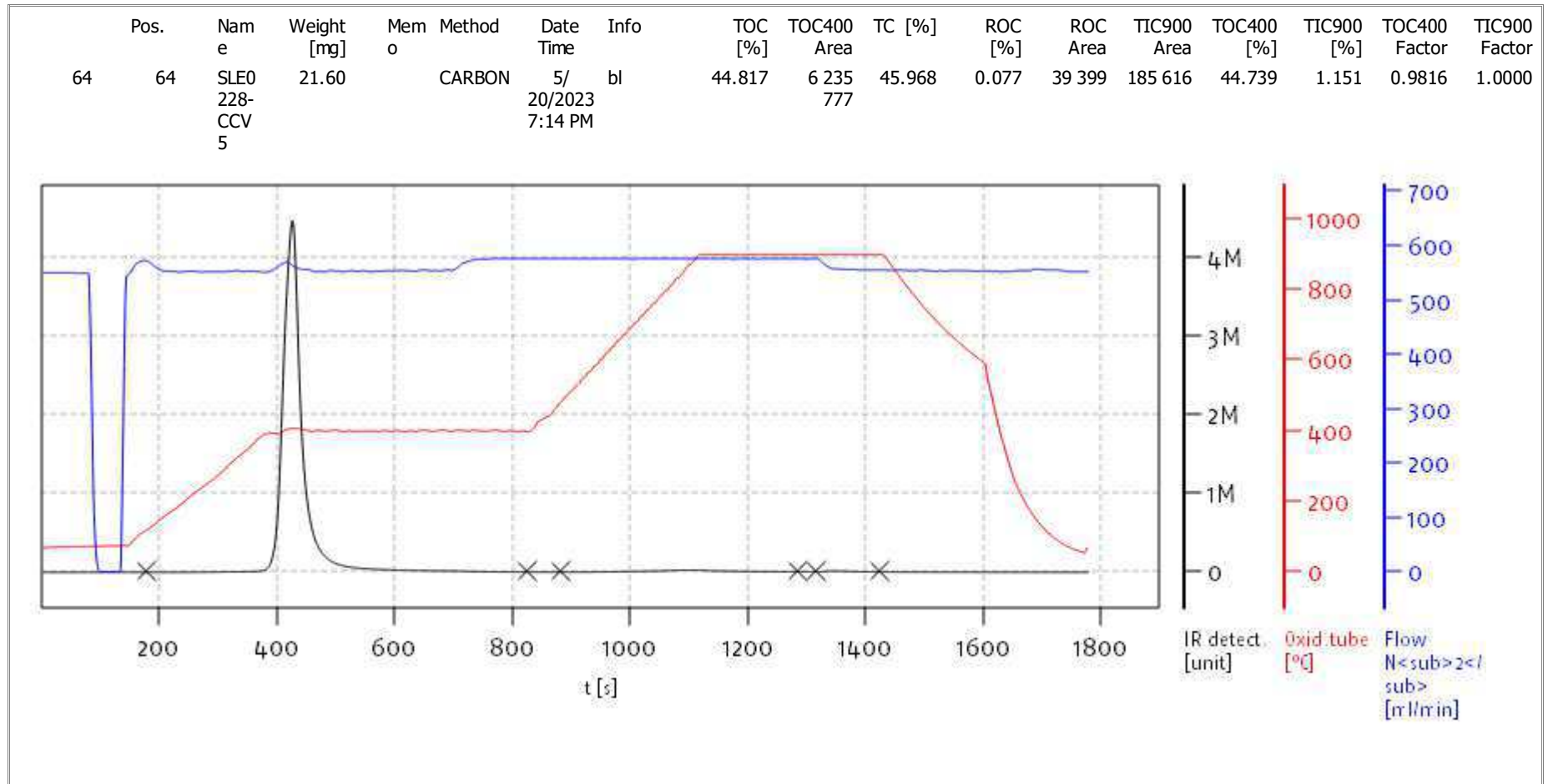
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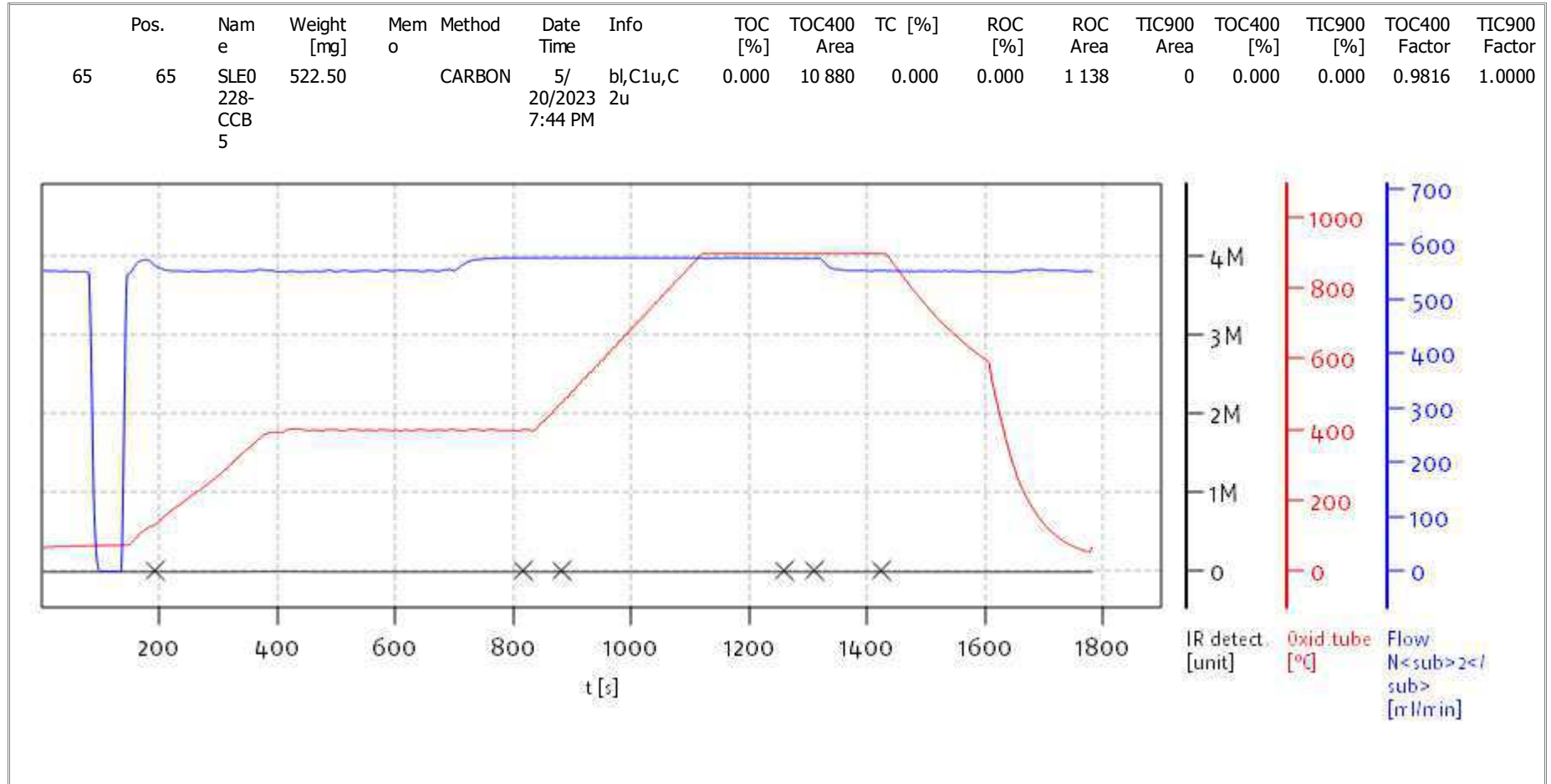
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Mode CCC



Soli TOC Cube, Carbon
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Analyst: CDE



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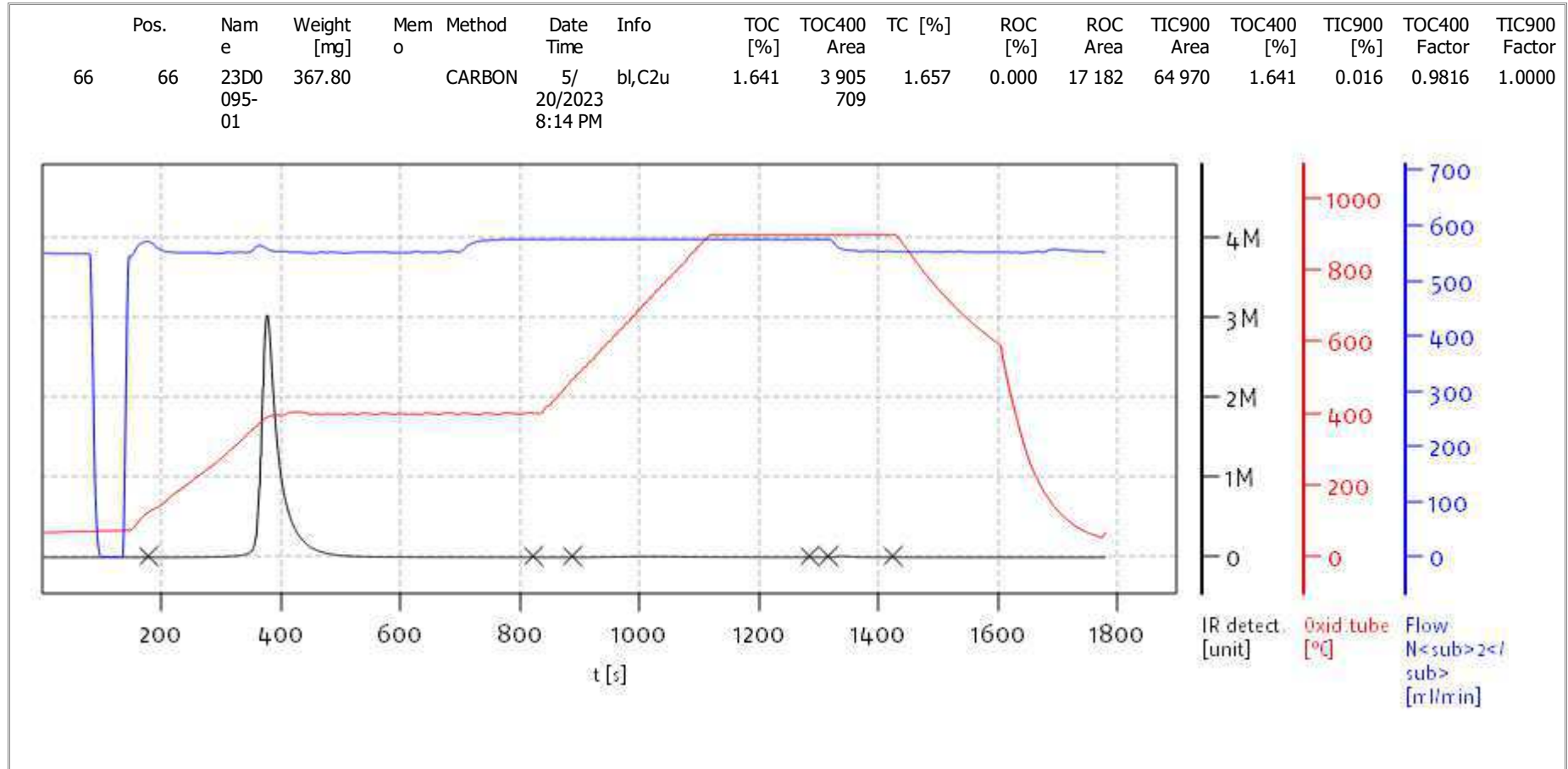
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Balance: BAL3
Analyst: CDE



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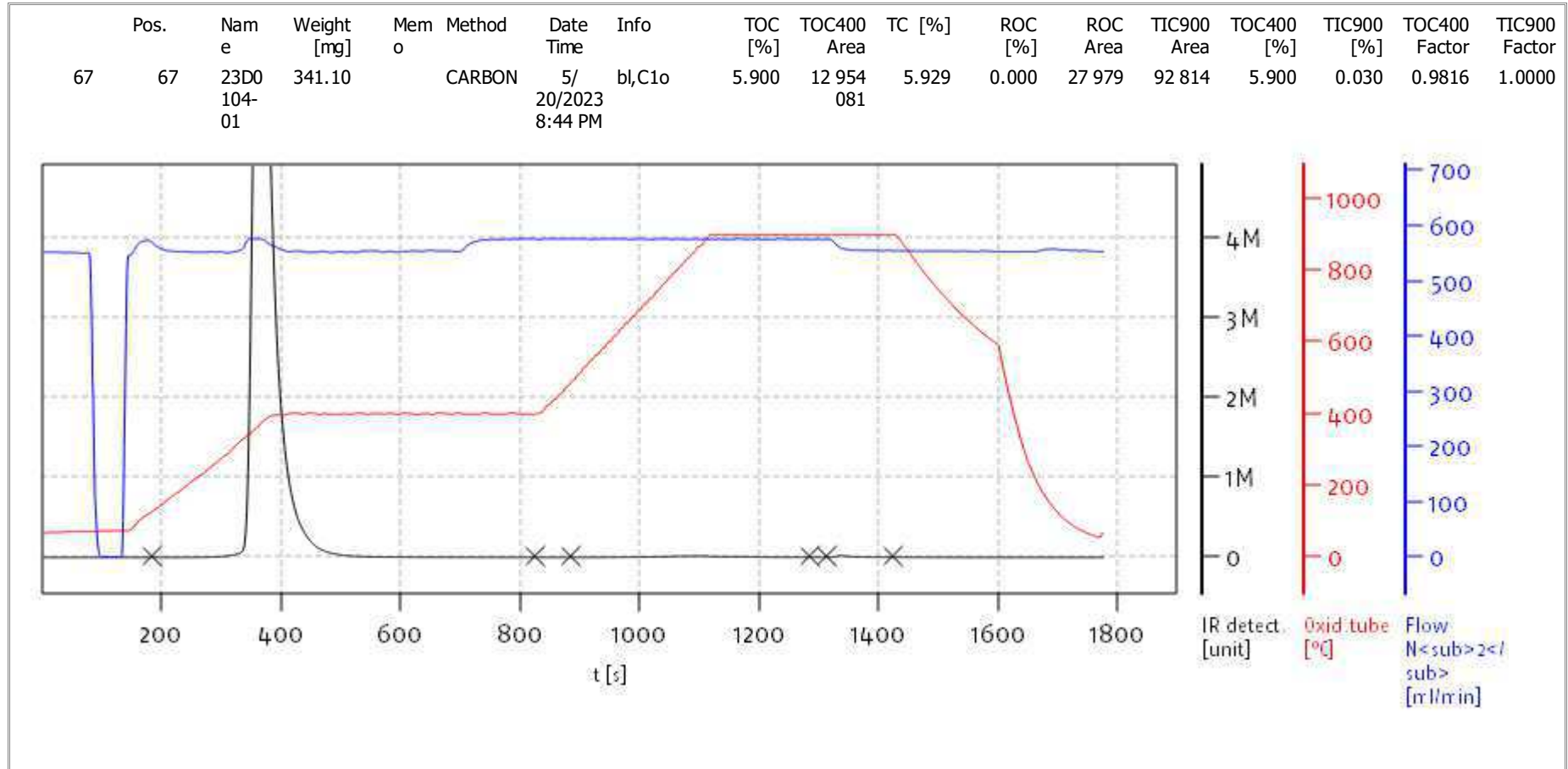
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Balance: BAL3
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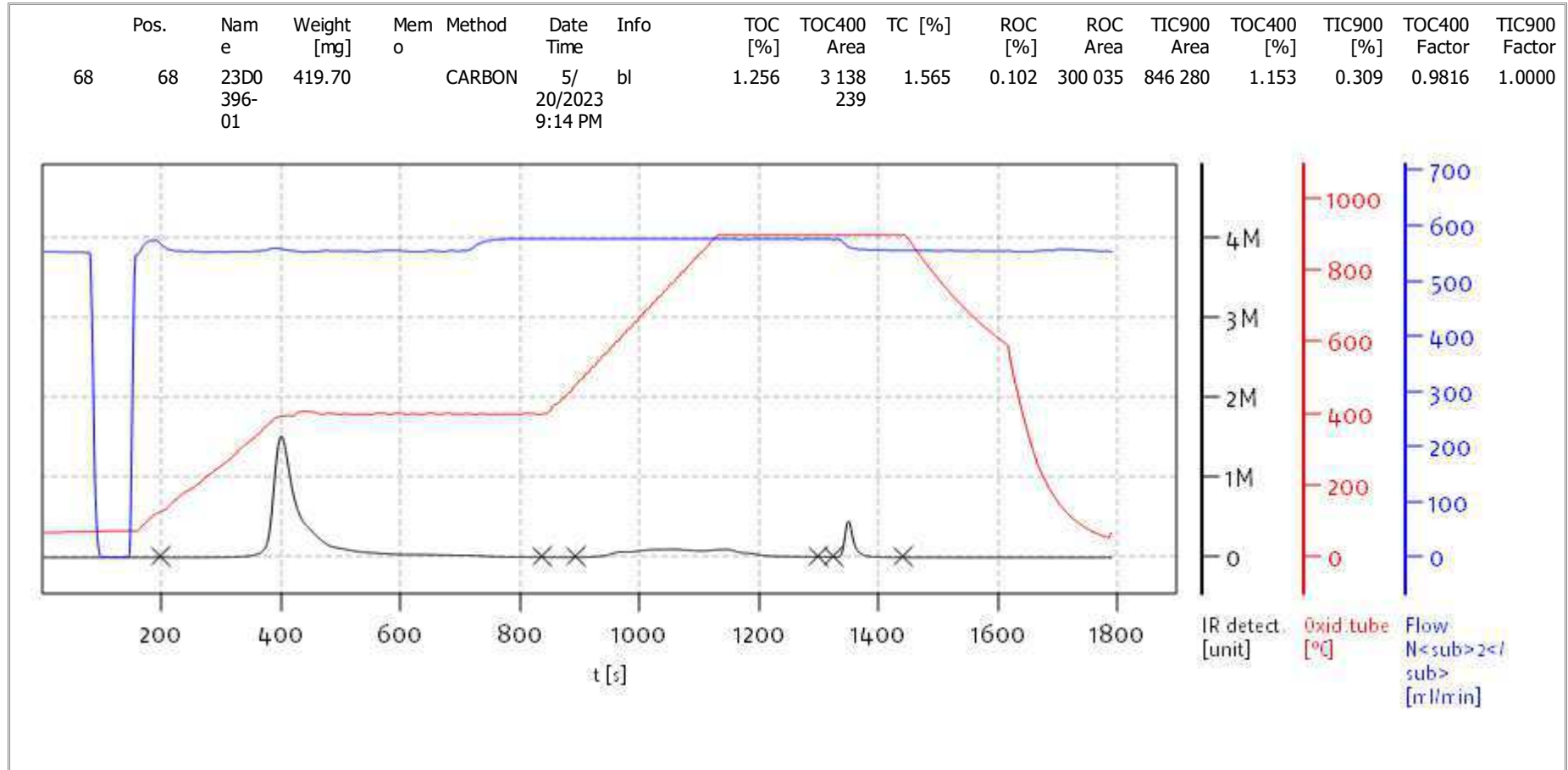
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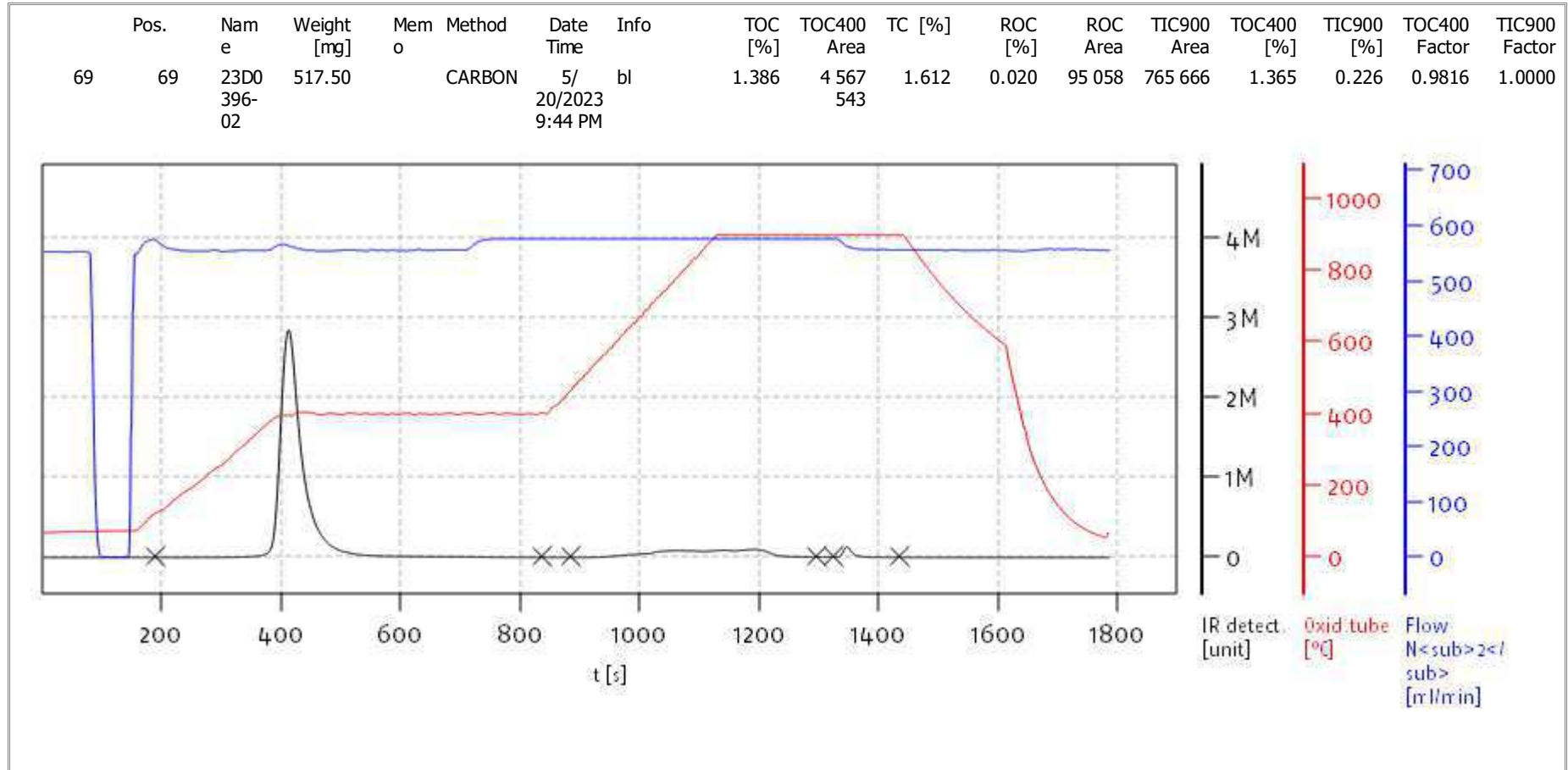
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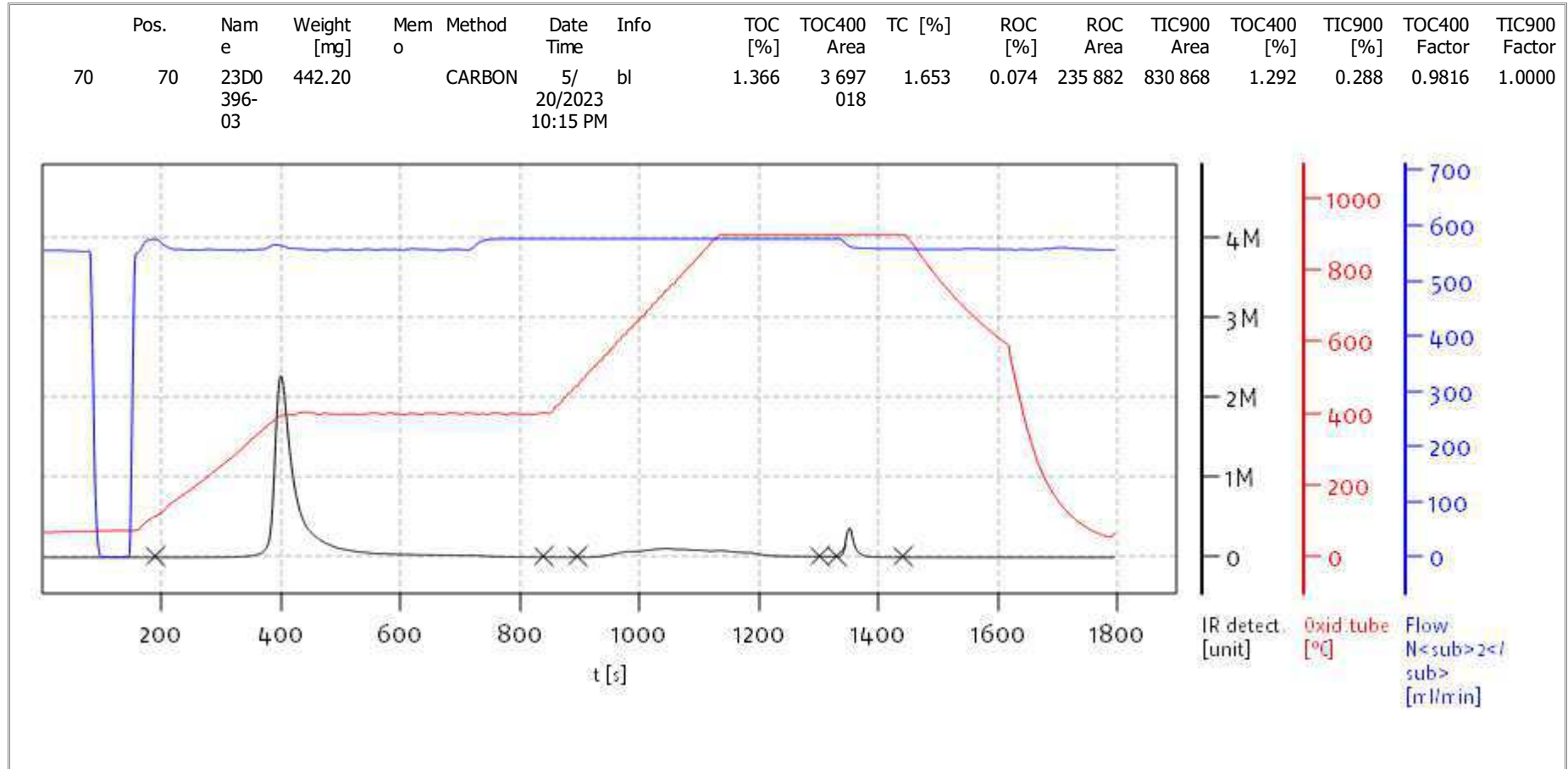
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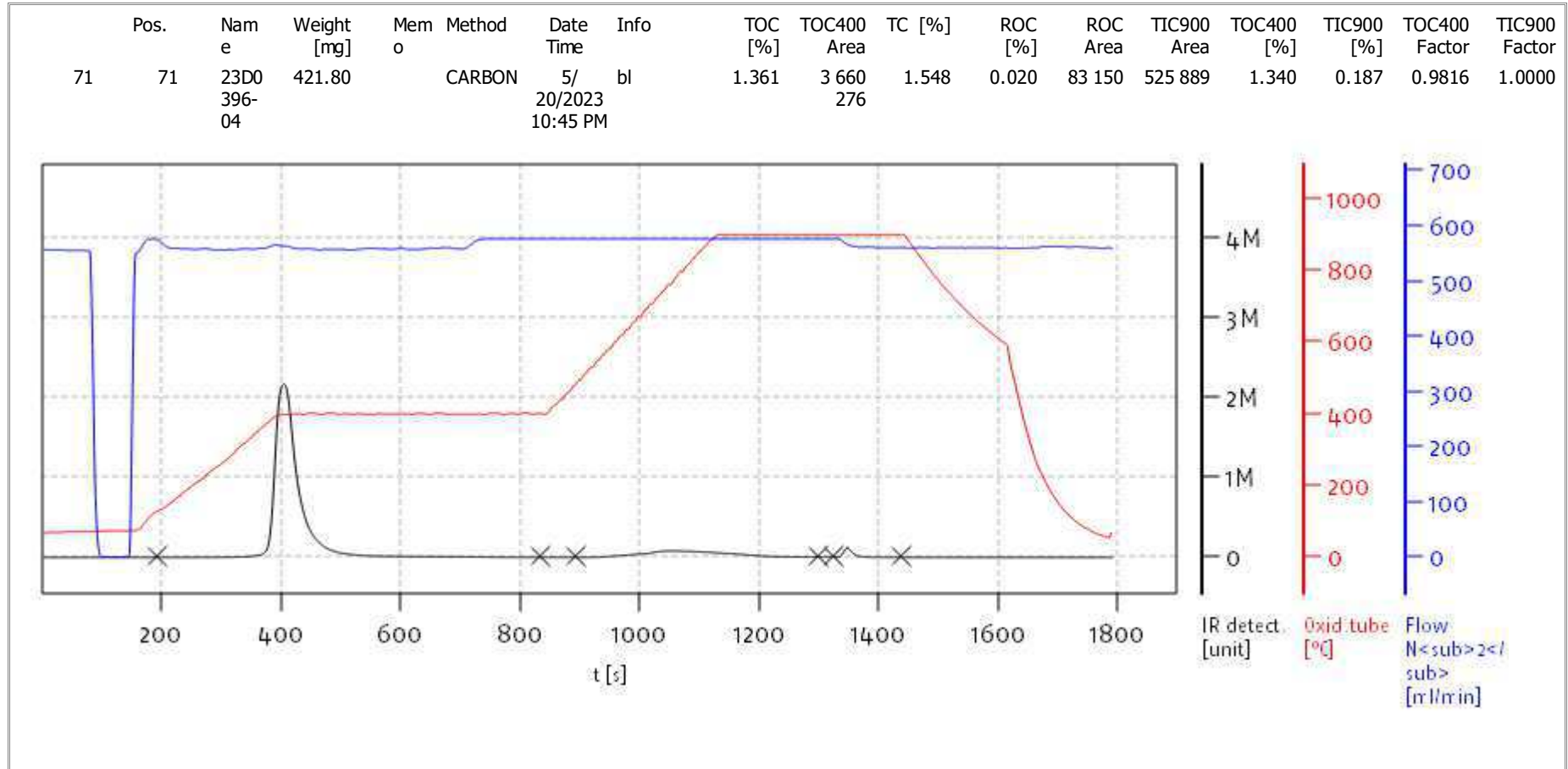
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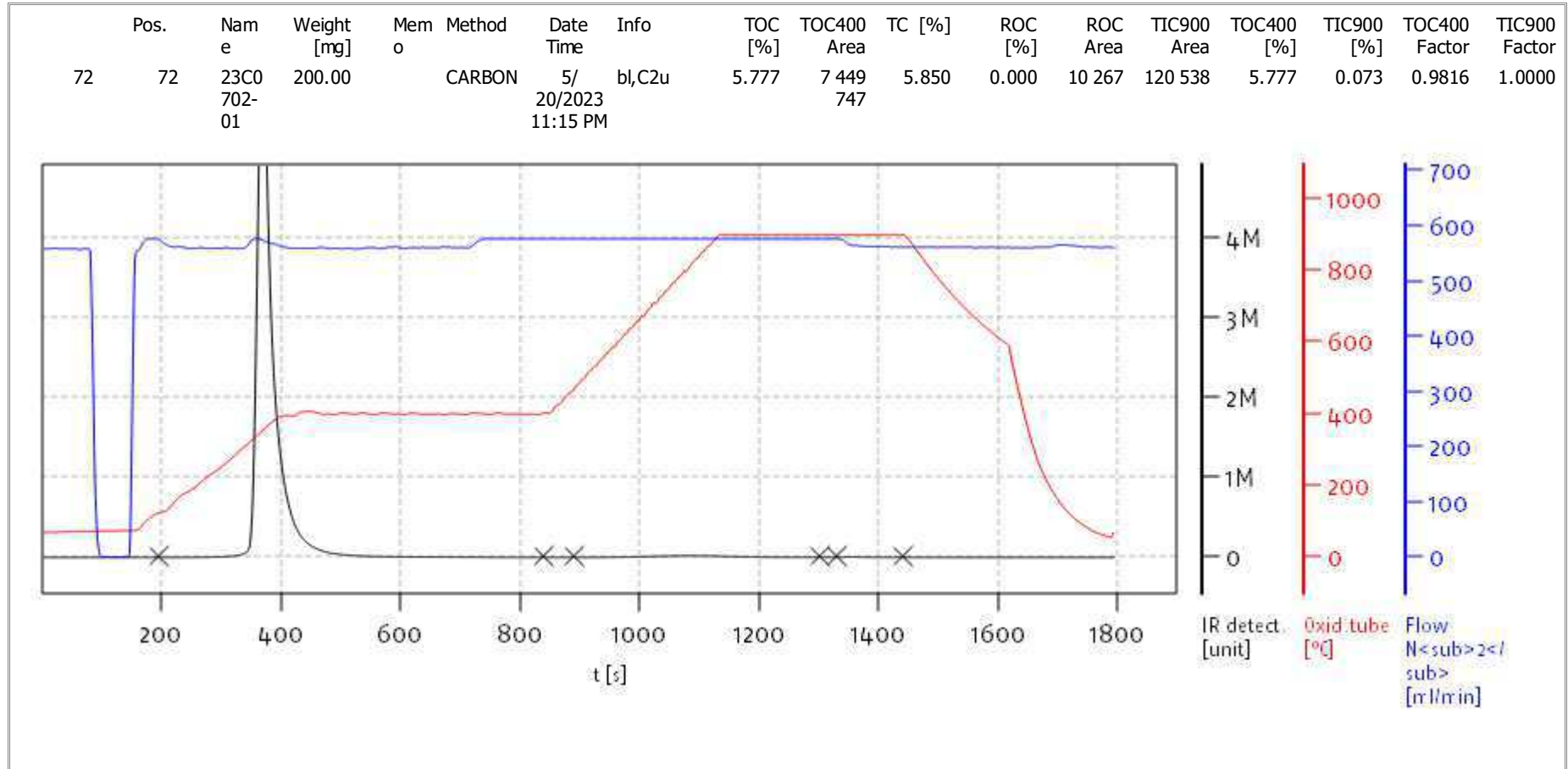
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Soli TOC Cube, Carbon
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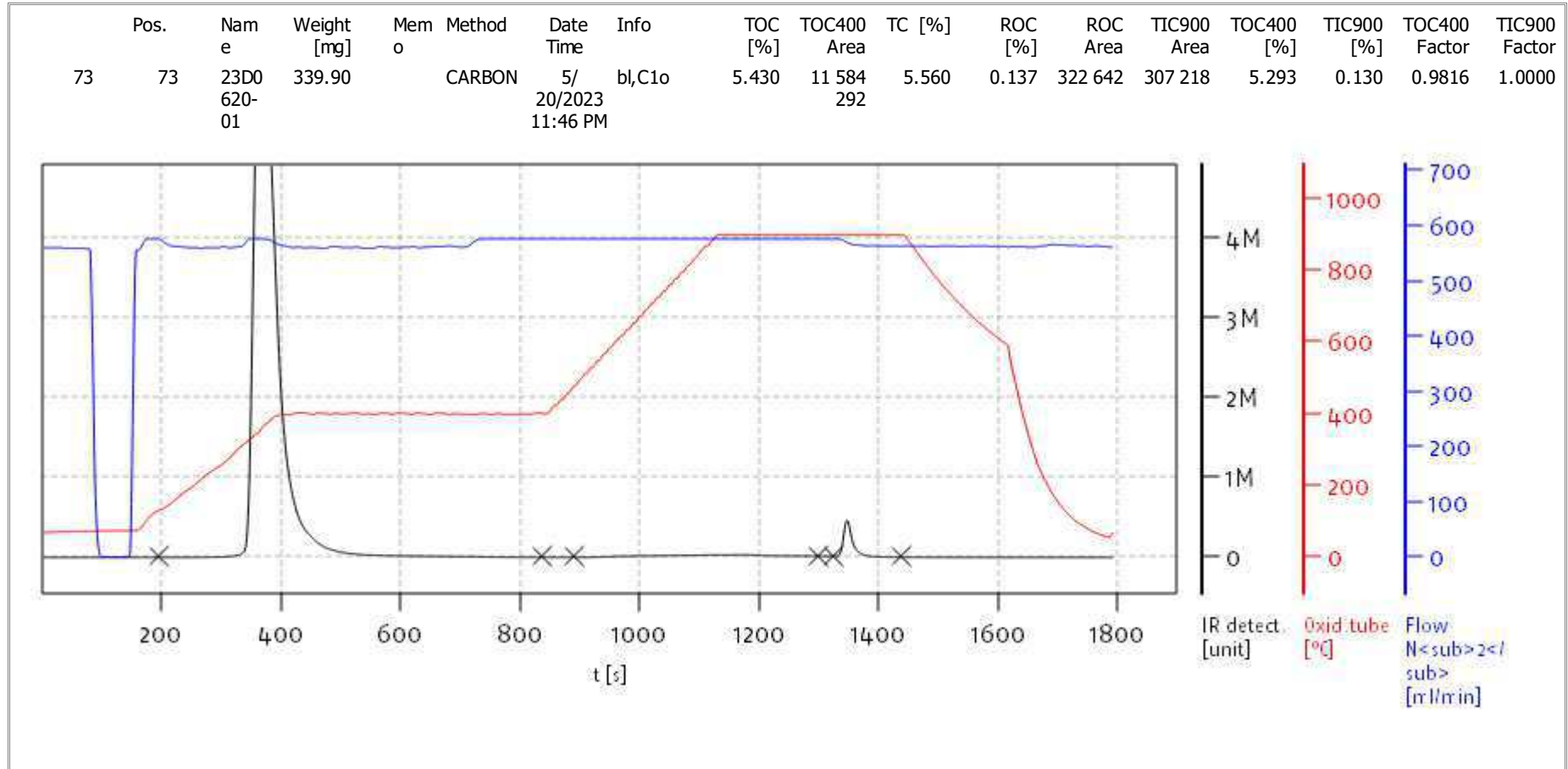
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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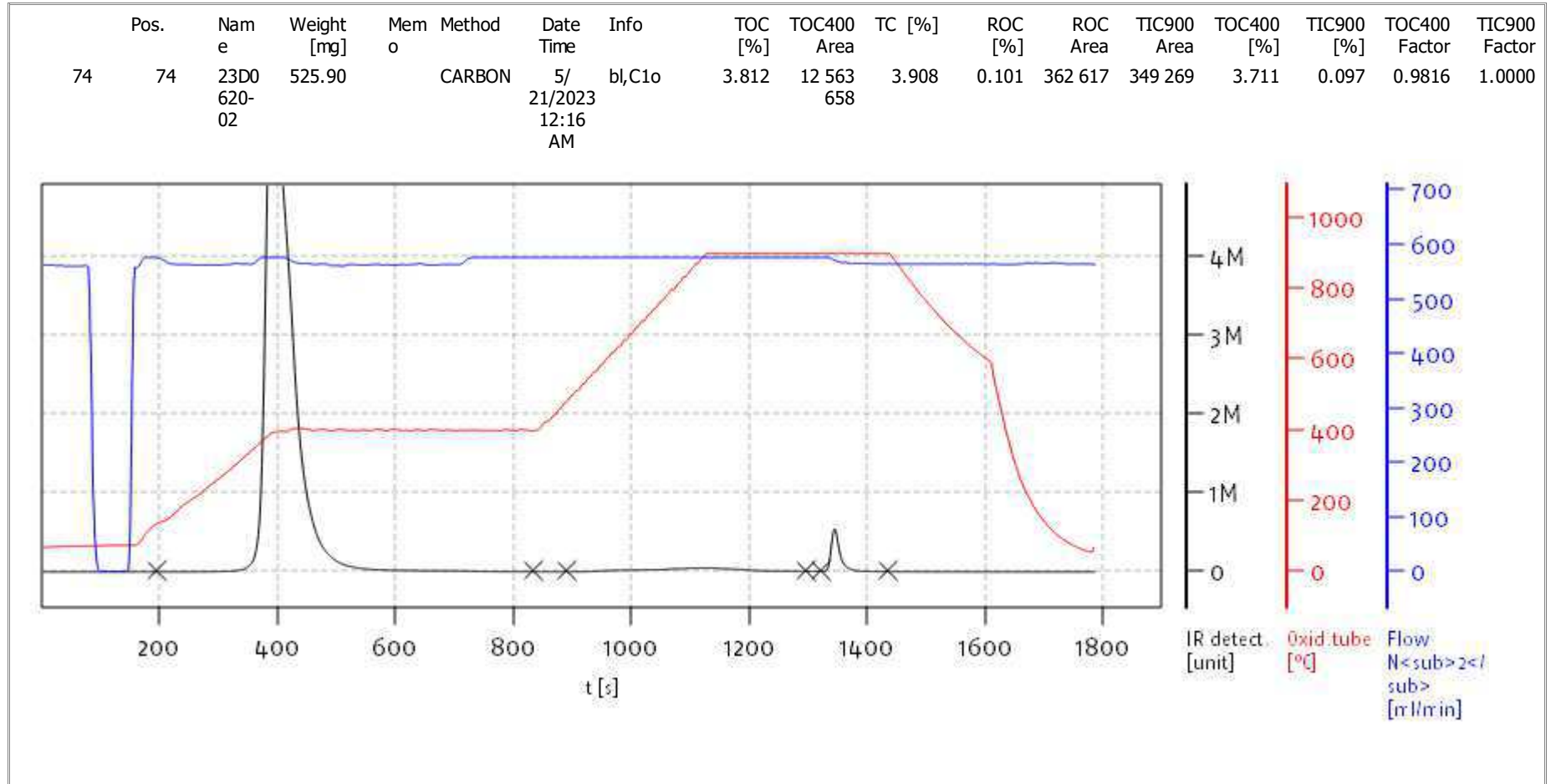
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

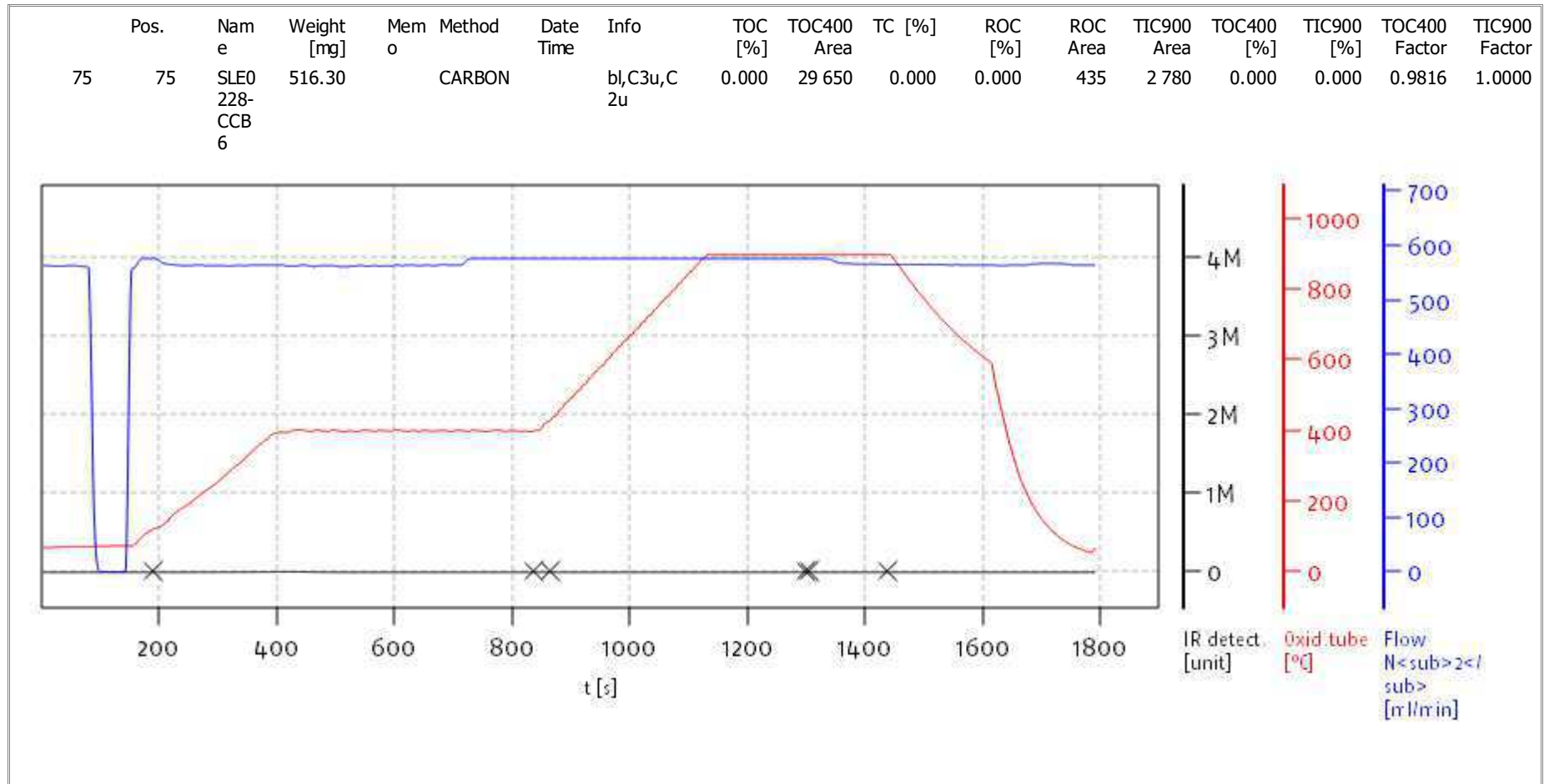
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

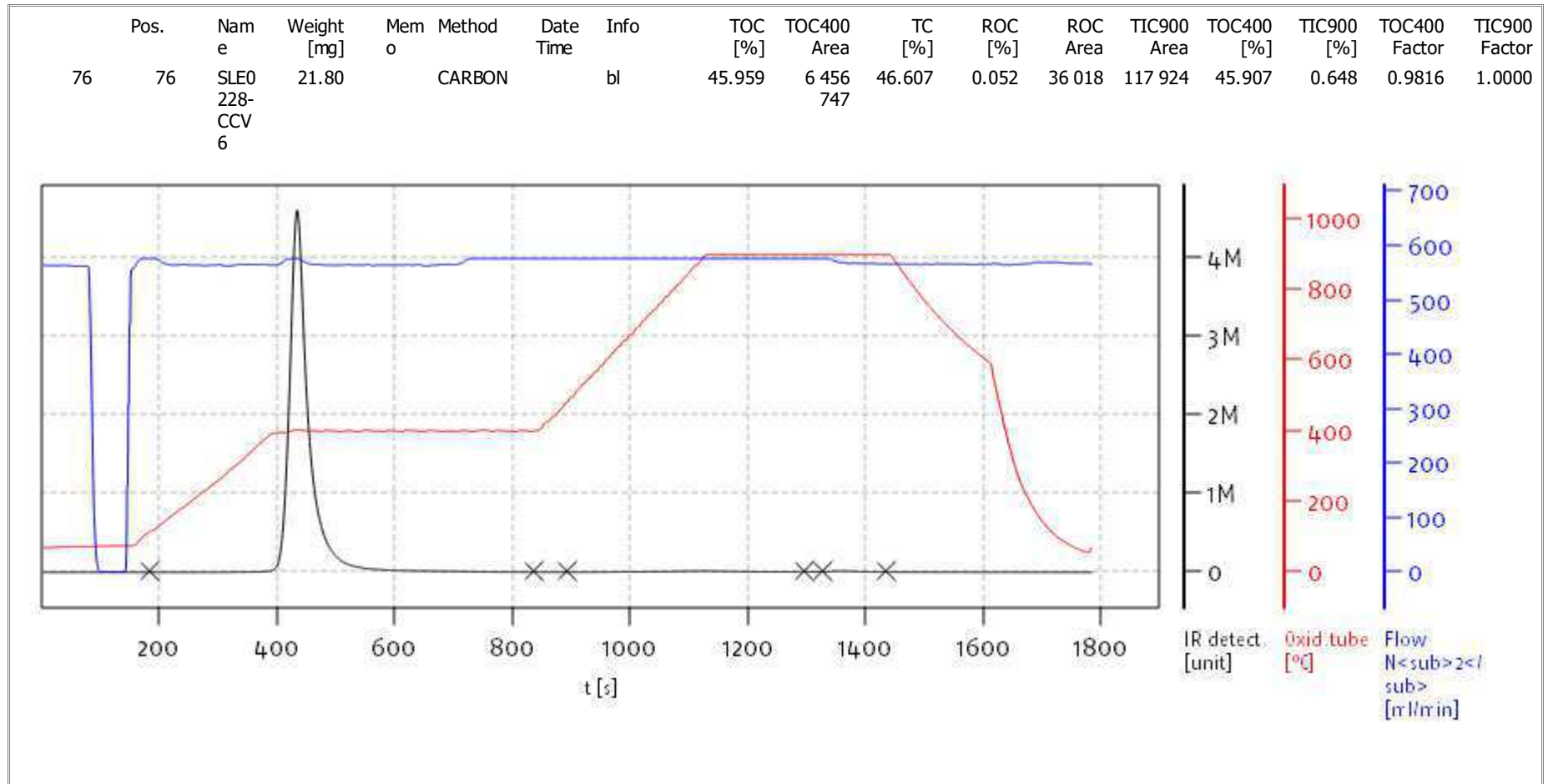
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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Date: Mon May 22 10:19:17 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



ANALYSIS BATCH (SEQUENCE) SUMMARY

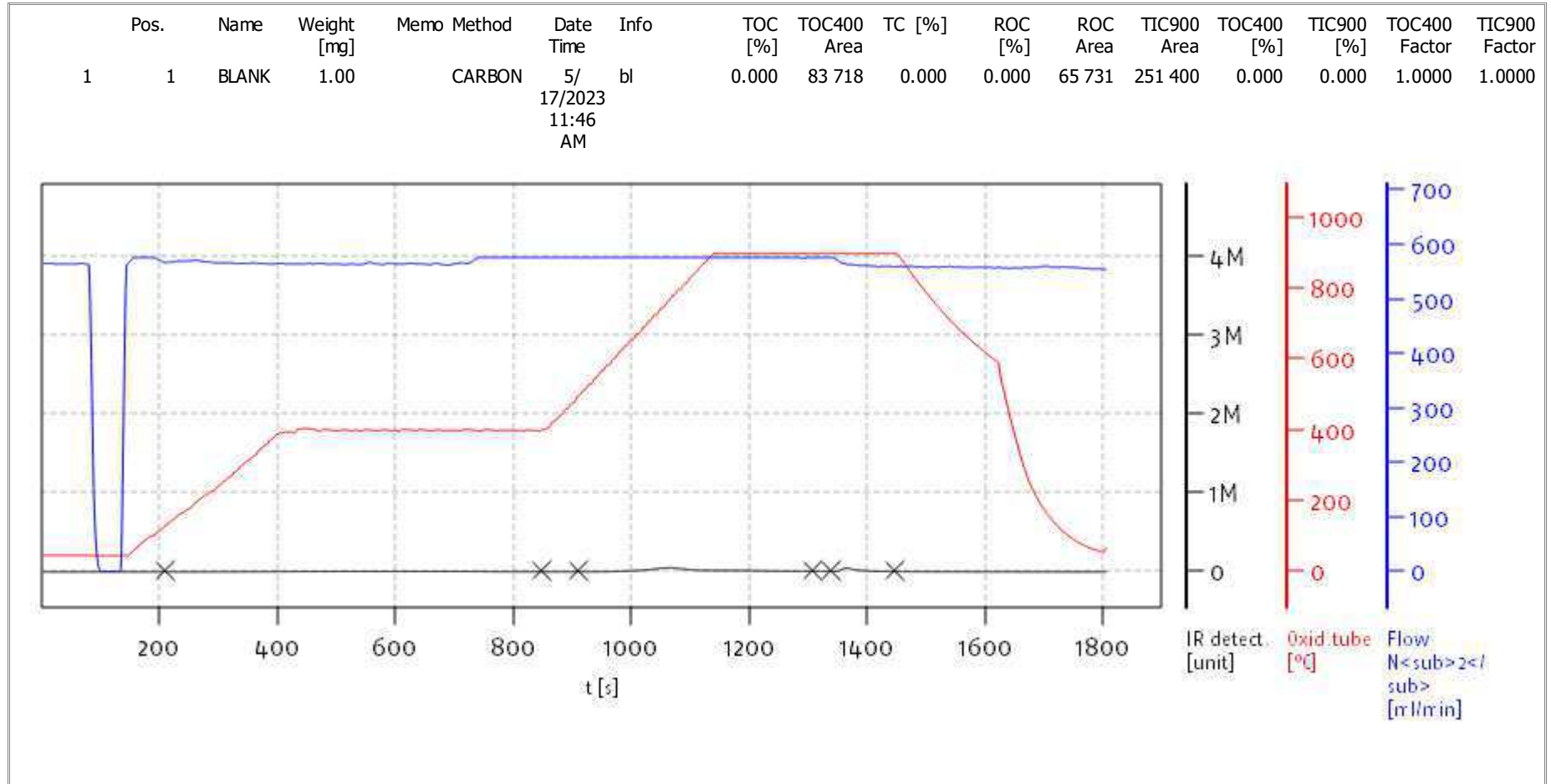
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23D0396</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLE0270</u>	Instrument:	<u>TOC Cube</u>
		Calibration:	<u>GE00052</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
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Cal Standard	SLE0270-CAL2	CubeData_05182023@1024b-102	NA	05/17/23 13:16
Cal Standard	SLE0270-CAL3	CubeData_05182023@1024b-103	NA	05/17/23 13:46
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Cal Standard	SLE0270-CAL6	CubeData_05182023@1024b-106	NA	05/17/23 15:17
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Cal Standard	SLE0270-CALJ	CubeData_05182023@1024b-119	NA	05/17/23 21:49
Cal Standard	SLE0270-CALK	CubeData_05182023@1024b-120	NA	05/17/23 22:19
Initial Cal Check	SLE0270-ICV1	CubeData_05182023@1024b-128	NA	05/18/23 02:21
Initial Cal Blank	SLE0270-ICB1	CubeData_05182023@1024b-127	NA	05/18/23 02:51
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

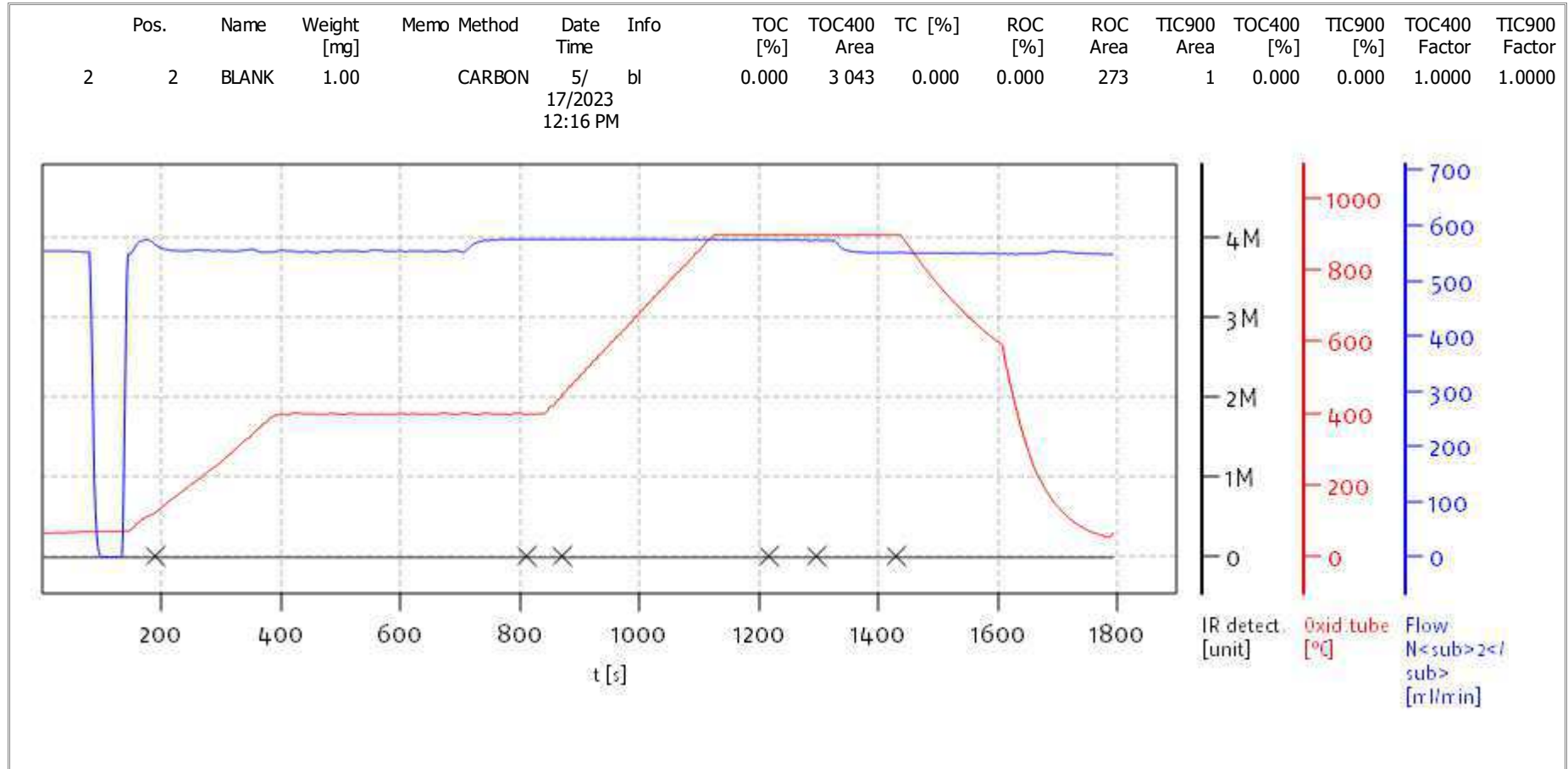
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

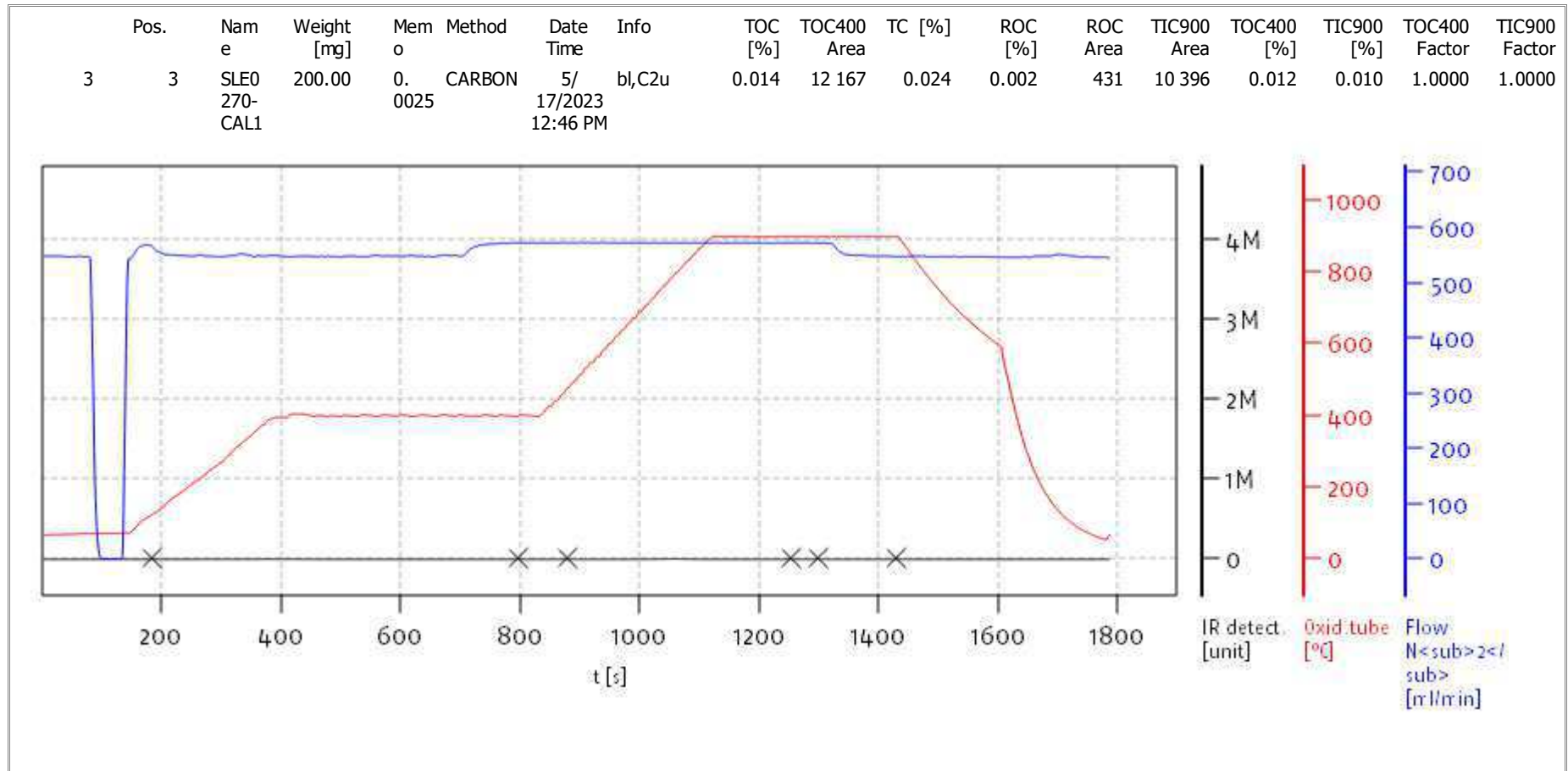
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Soli TOC Cube, Carbon
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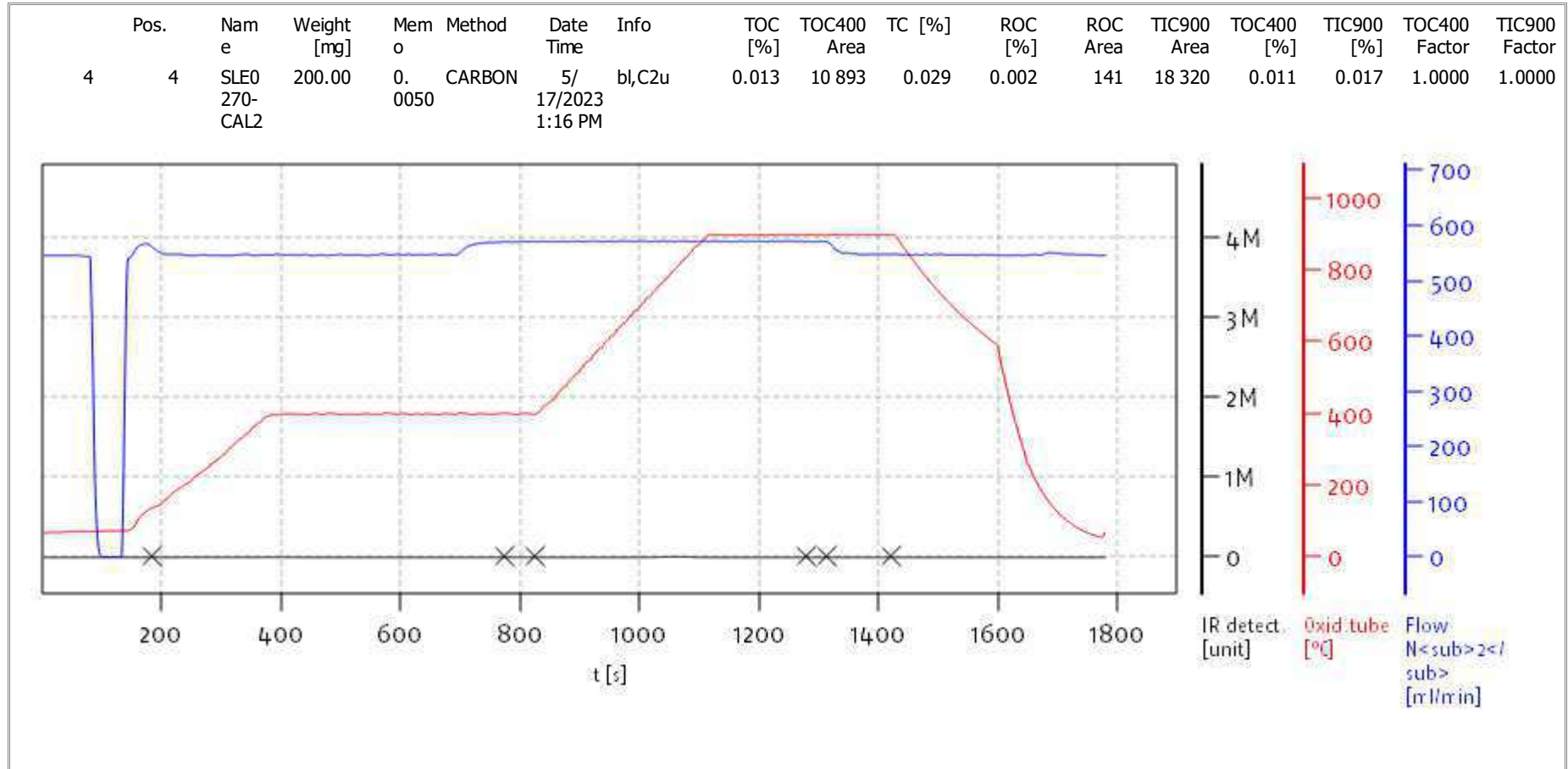
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Soli TOC Cube, Carbon
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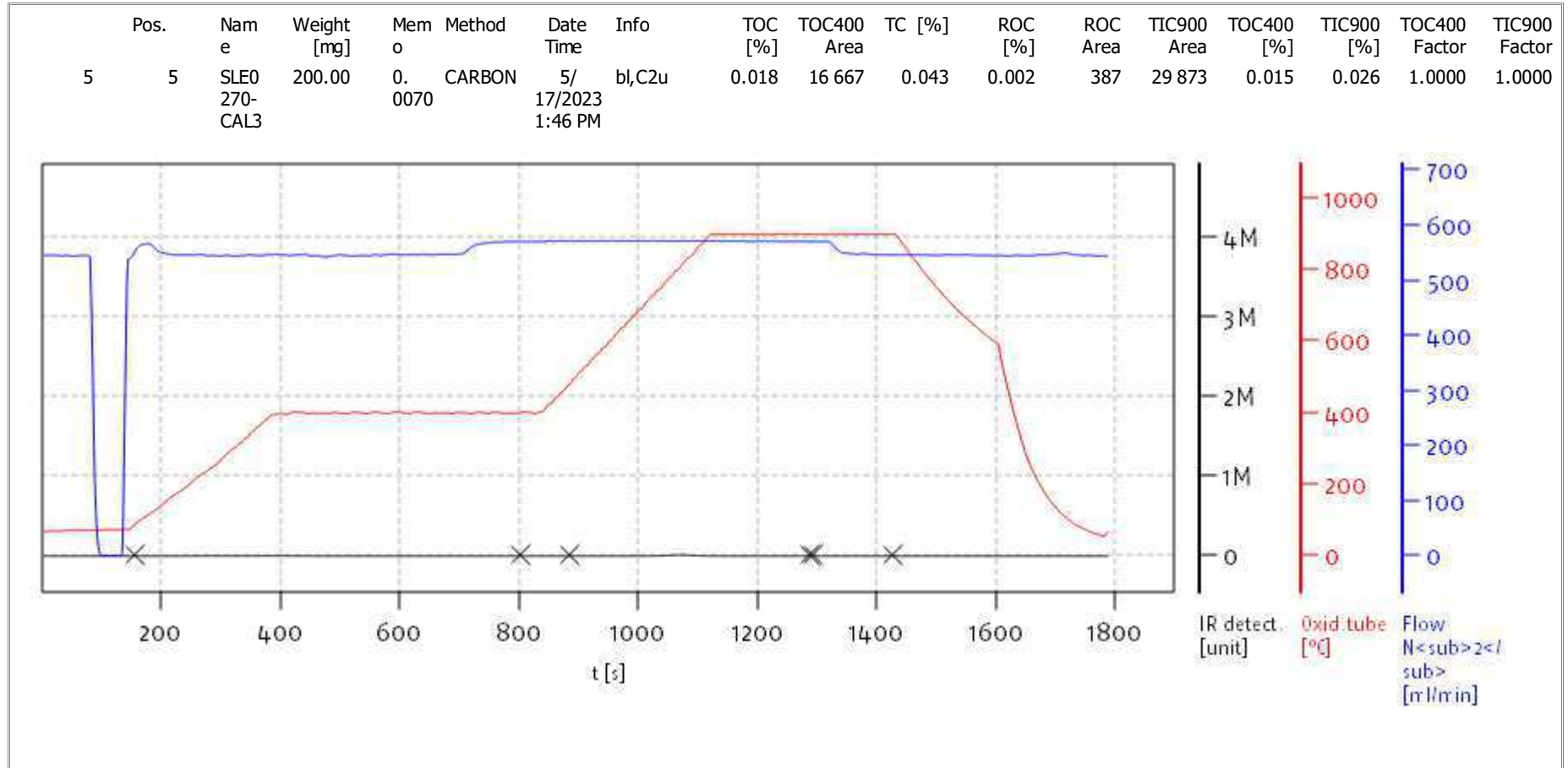
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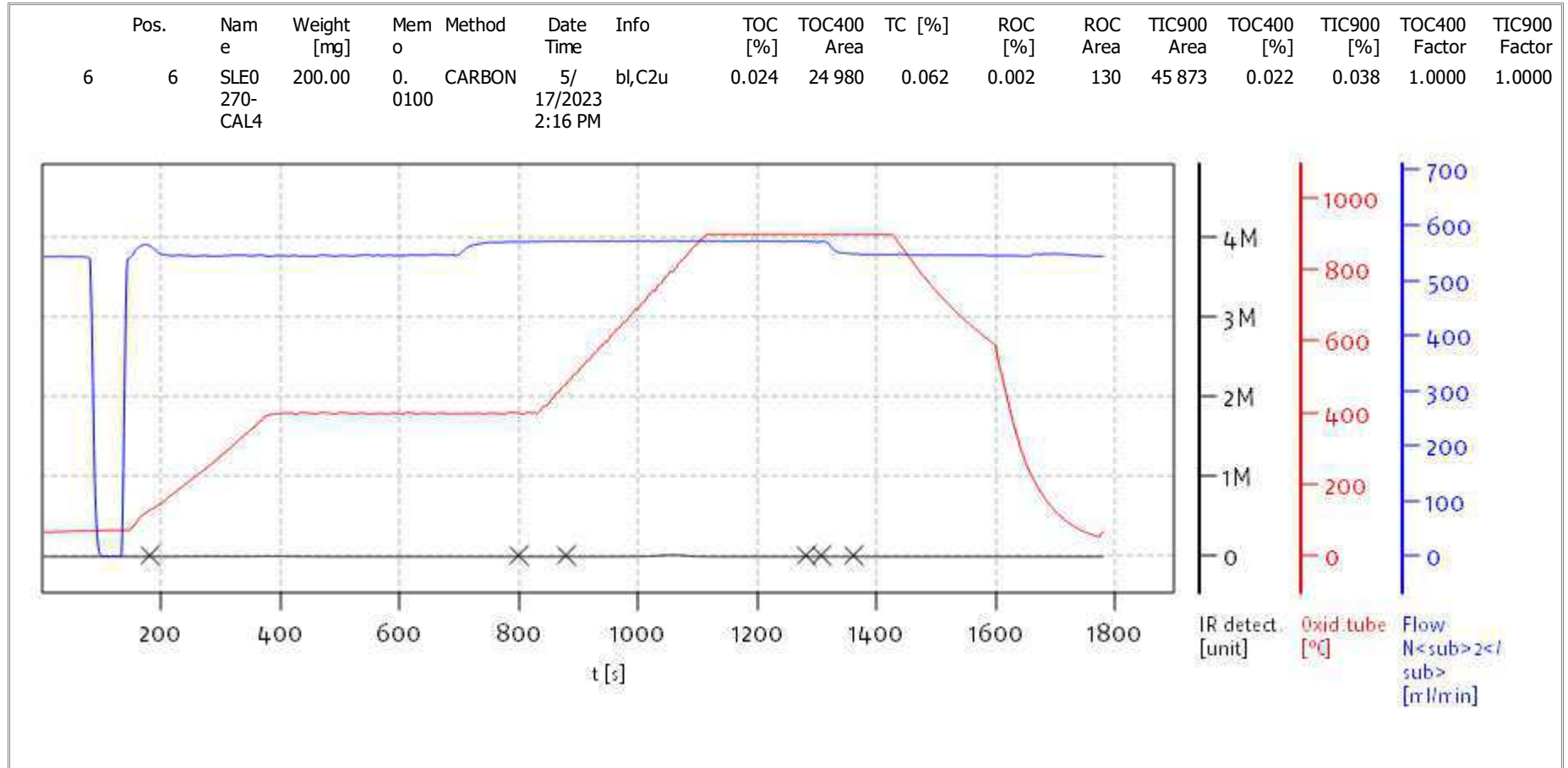
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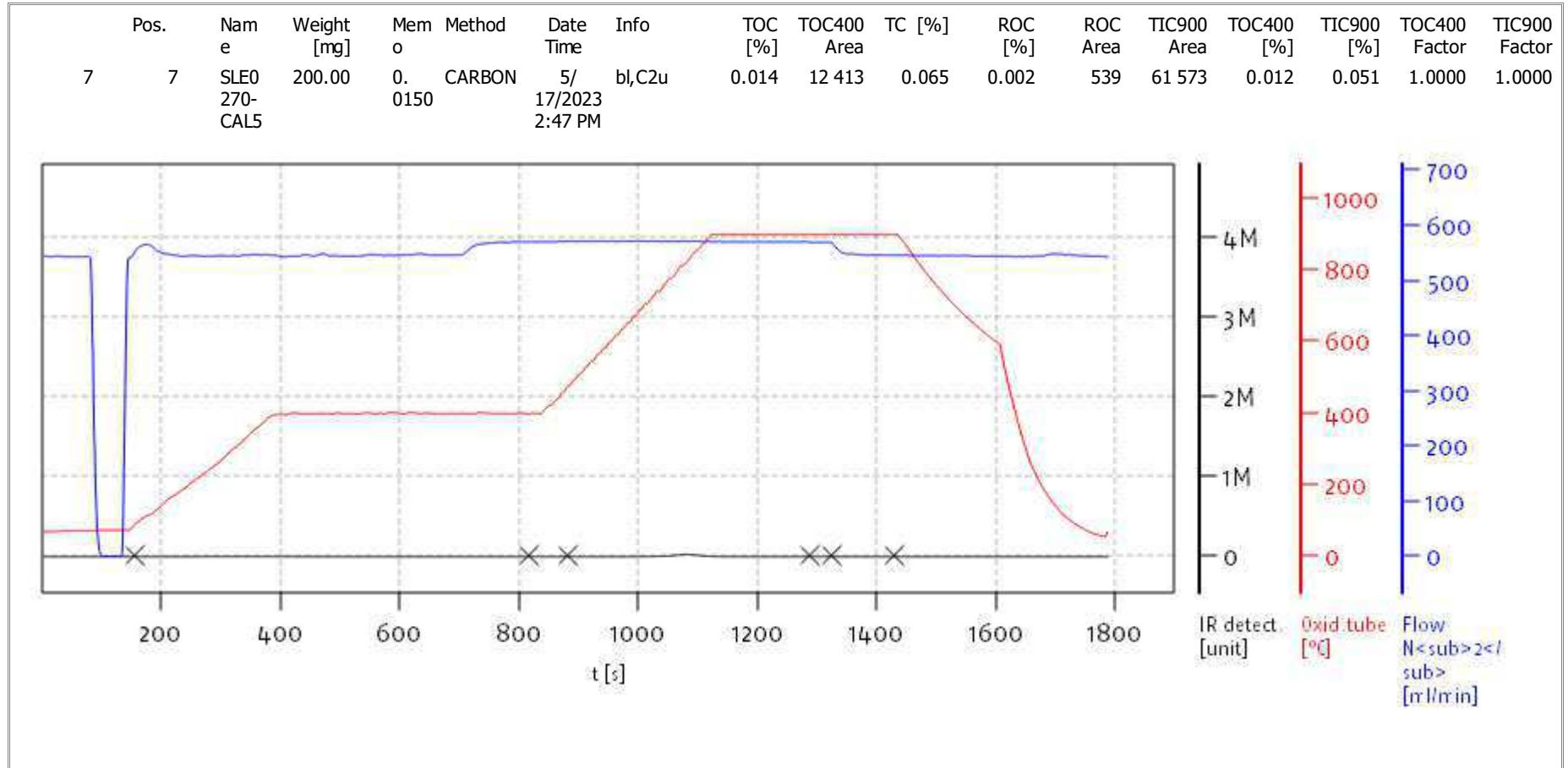
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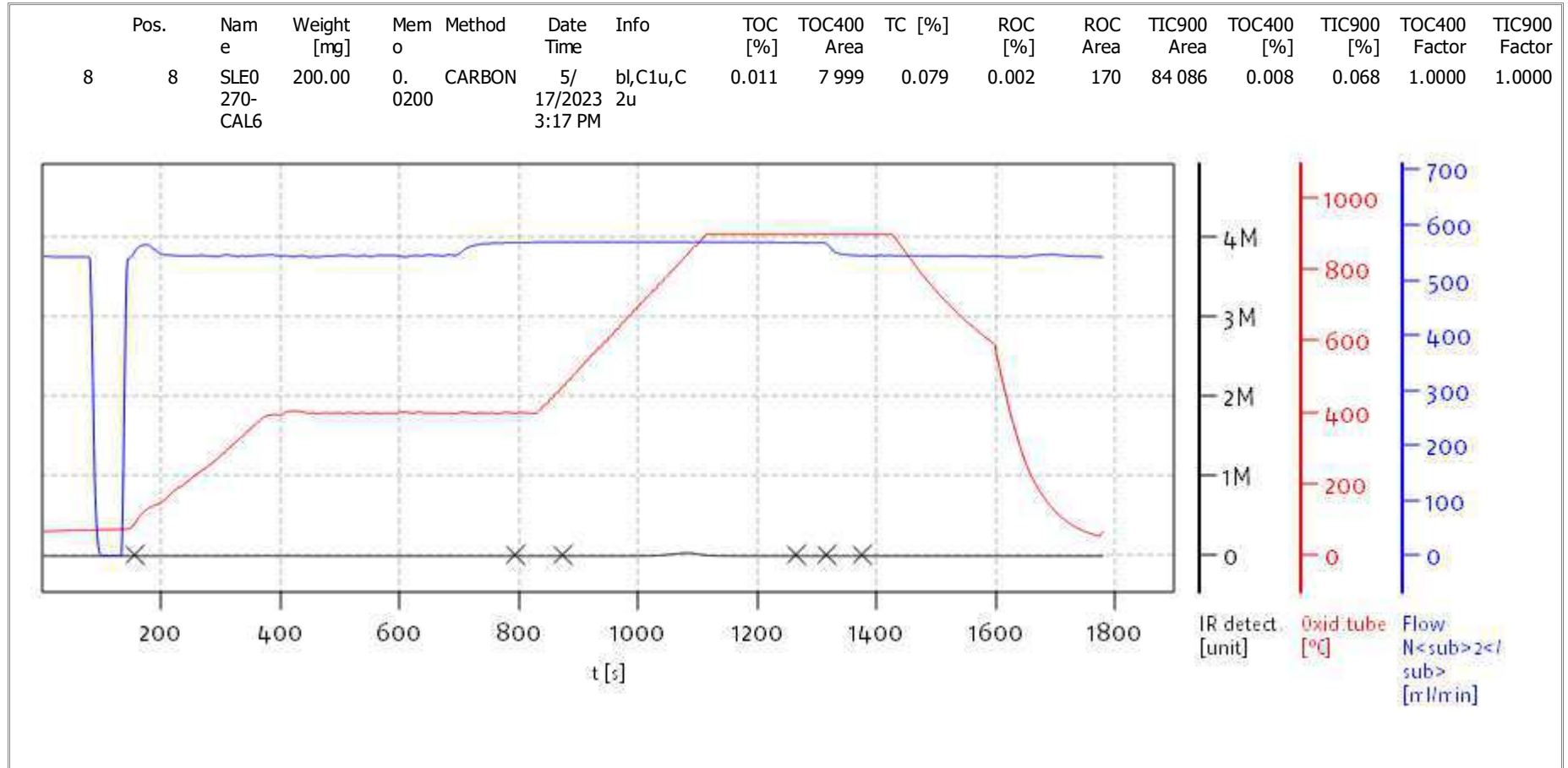
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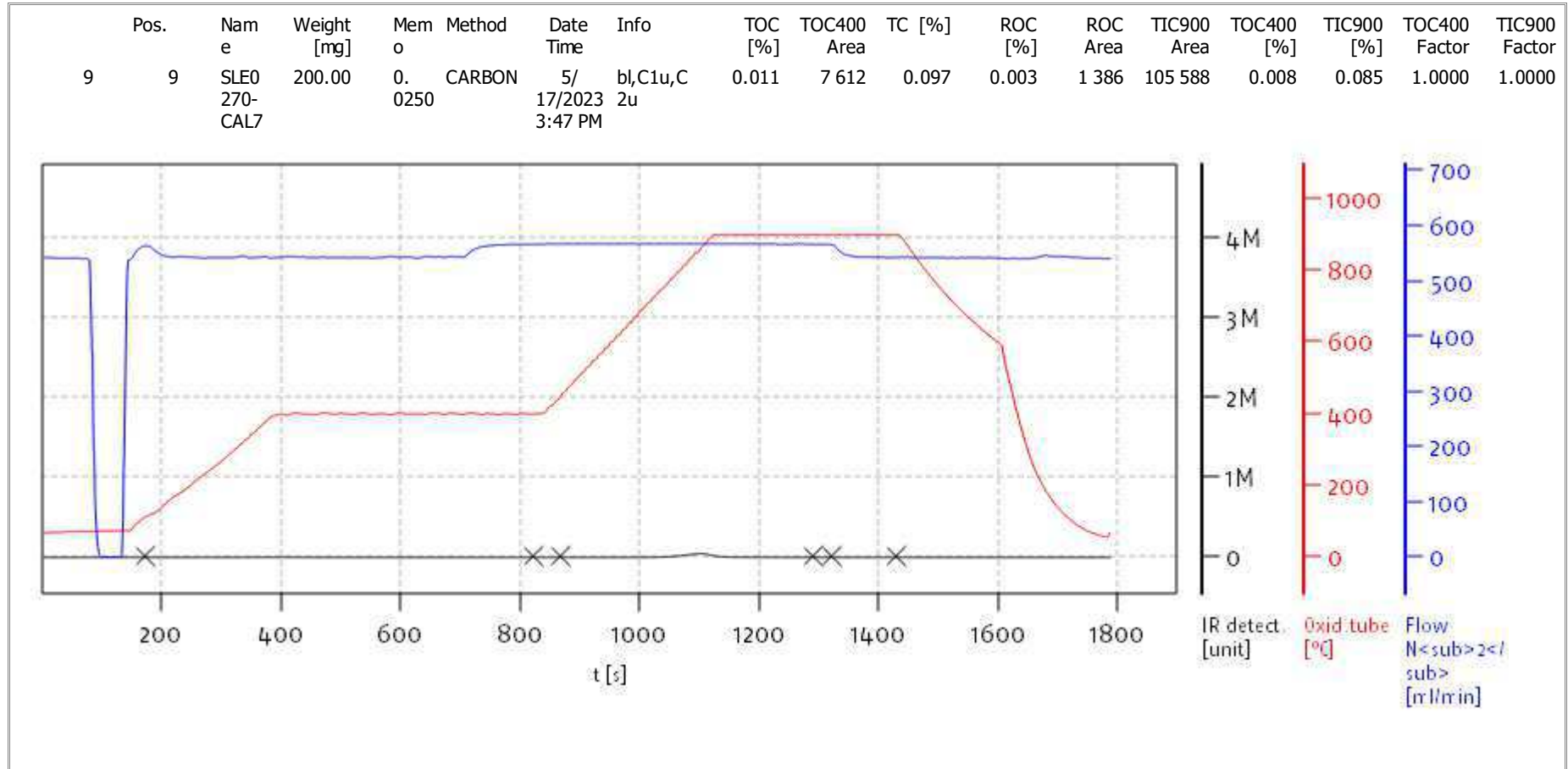
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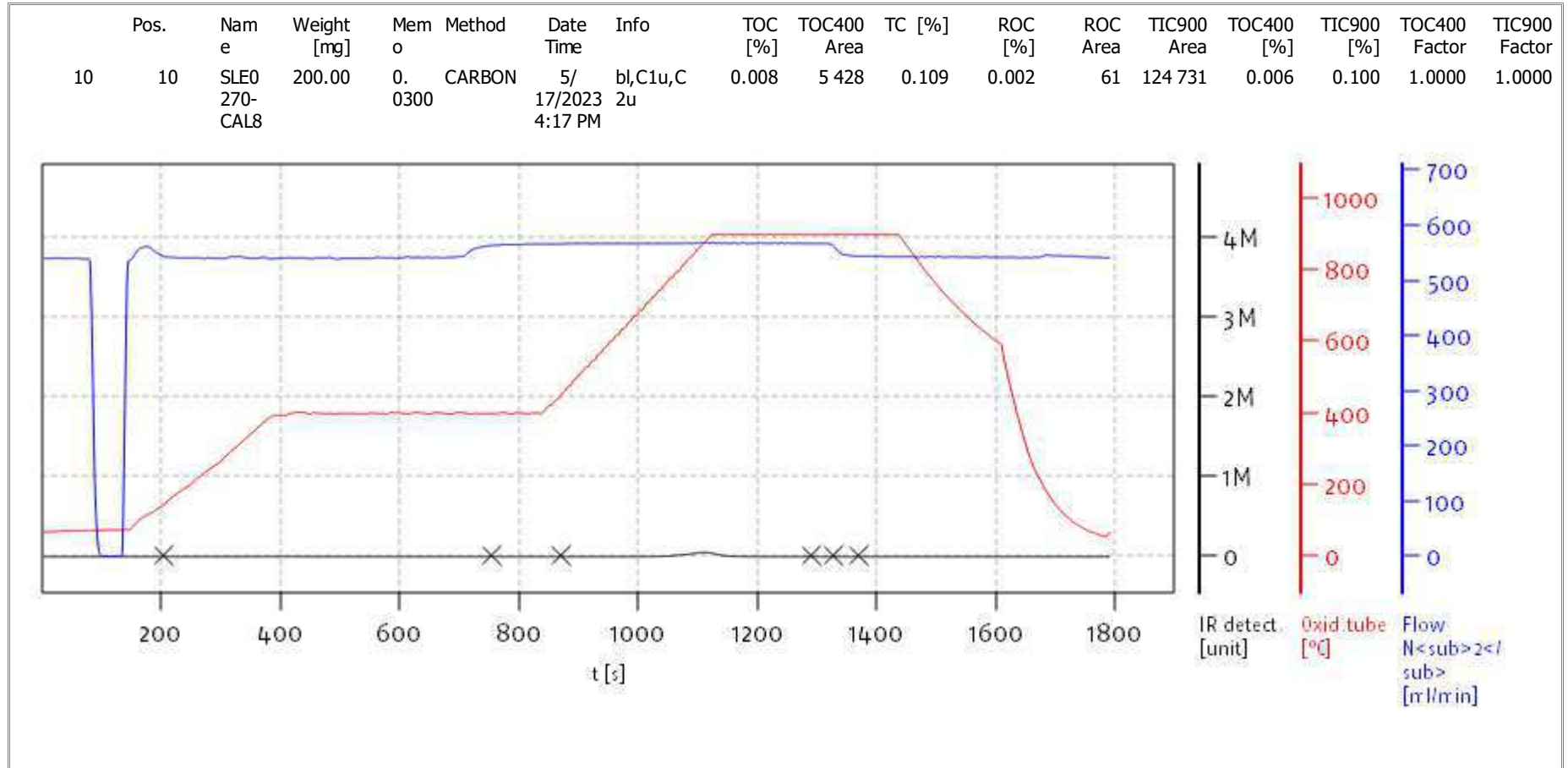
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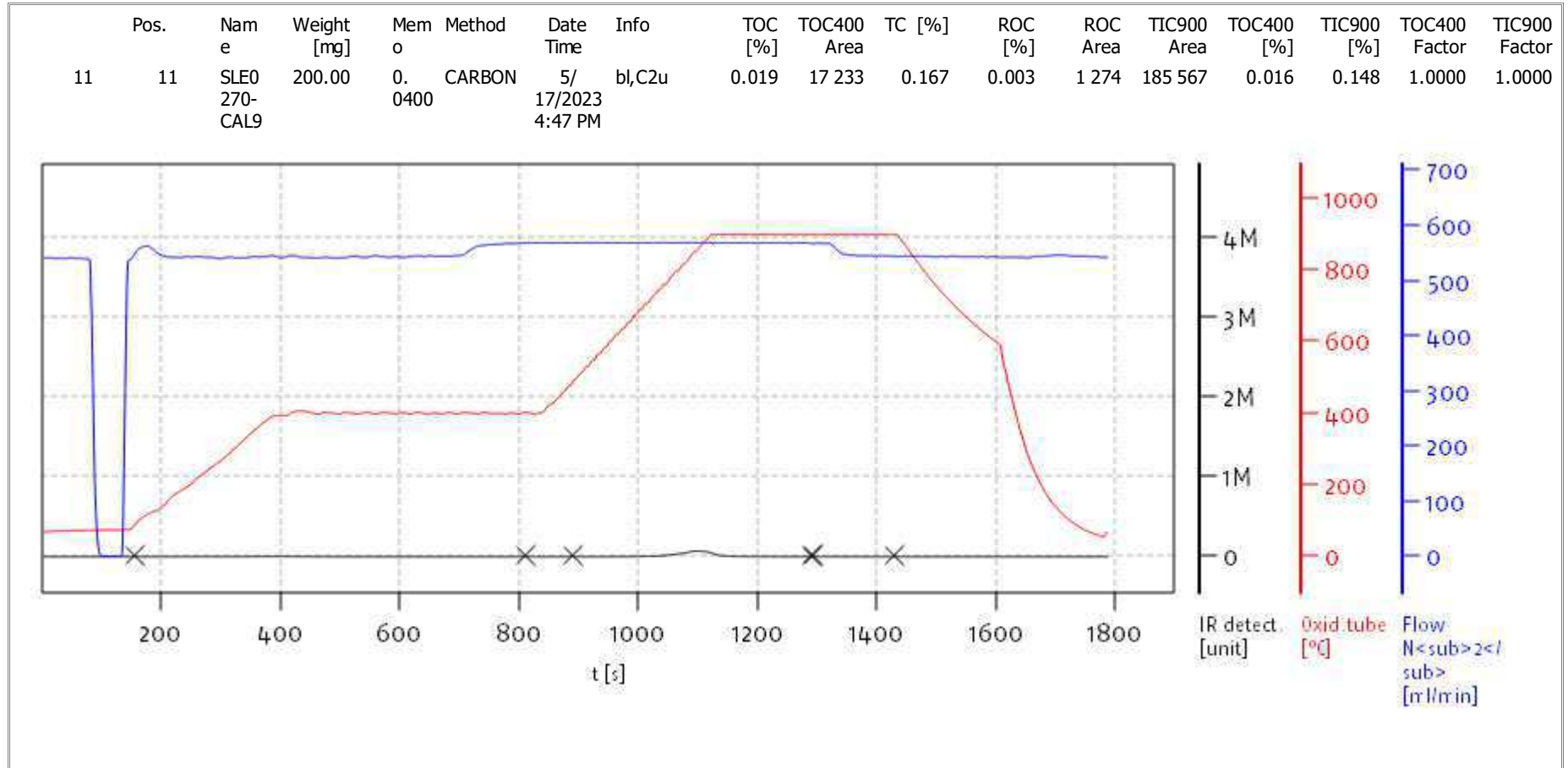
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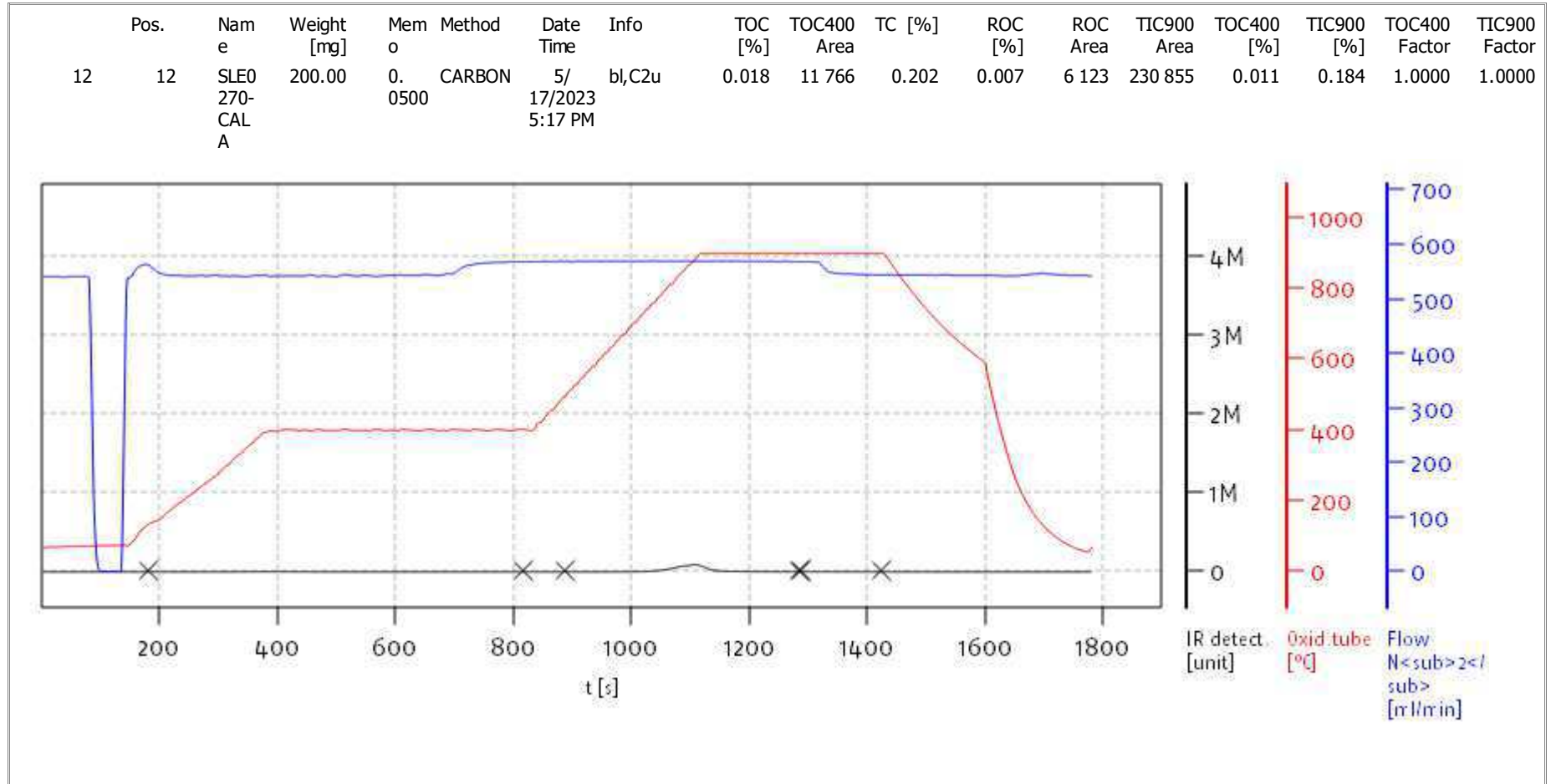
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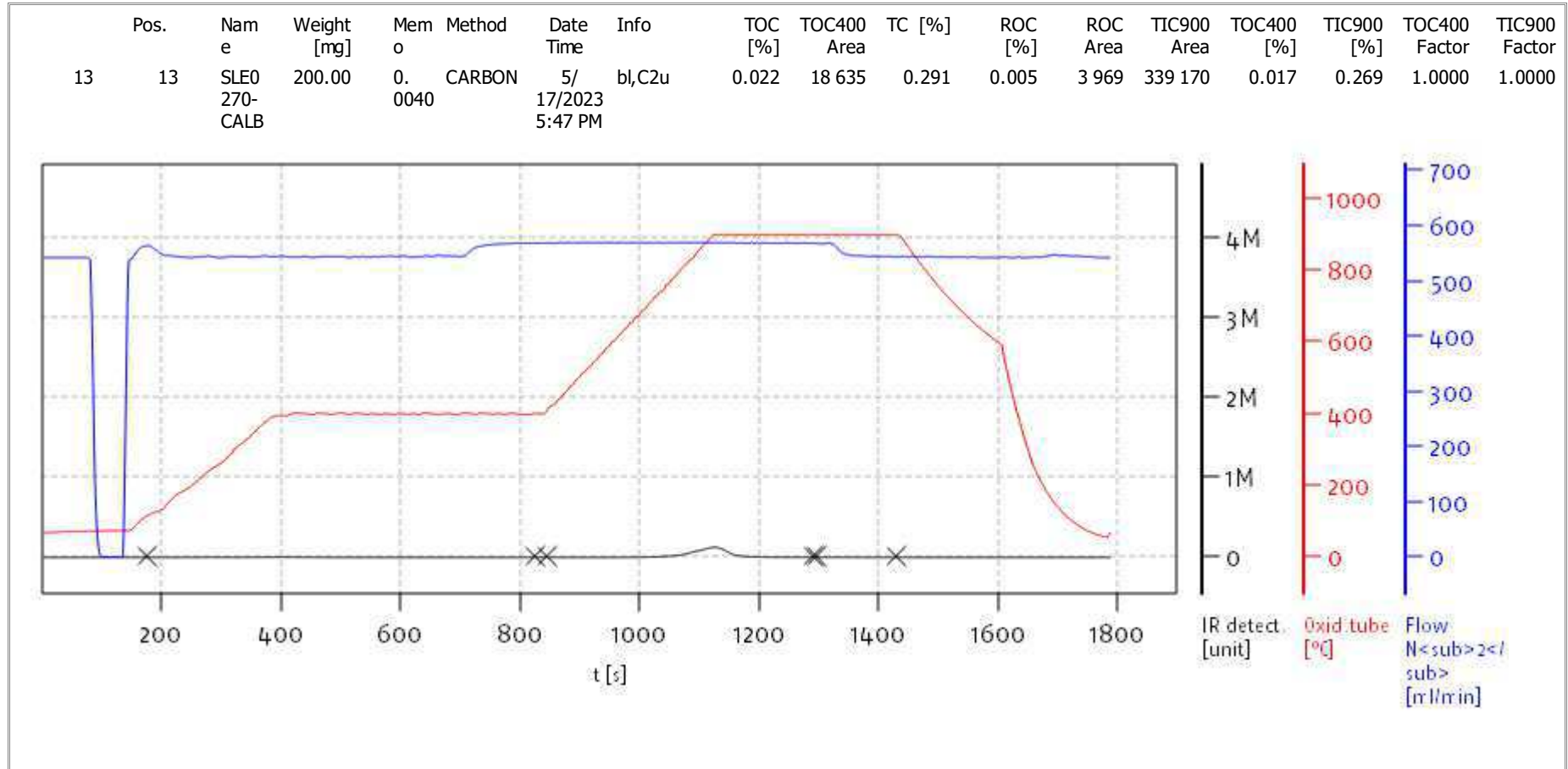
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Name:

Access: solITOC superuser

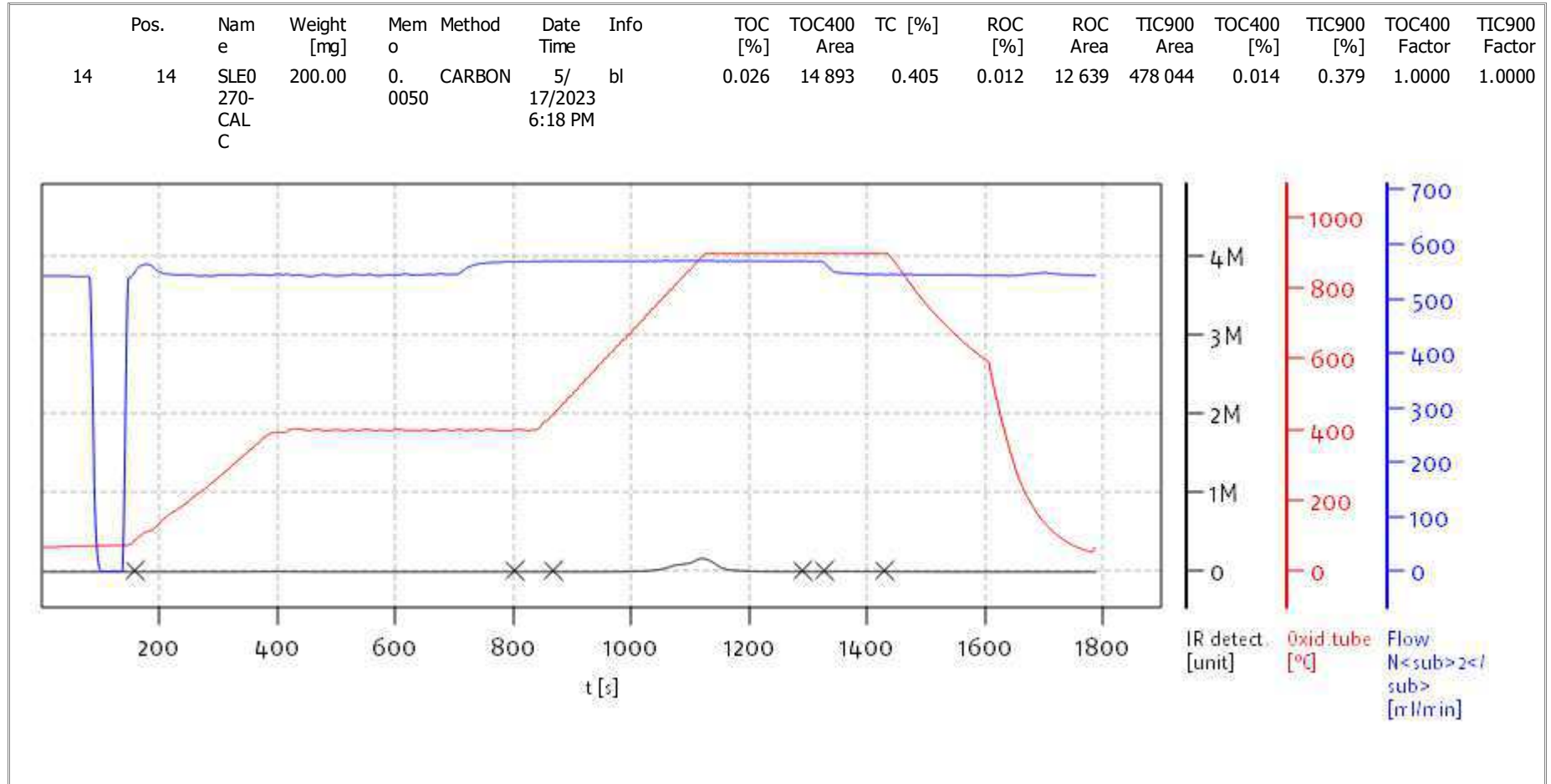
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

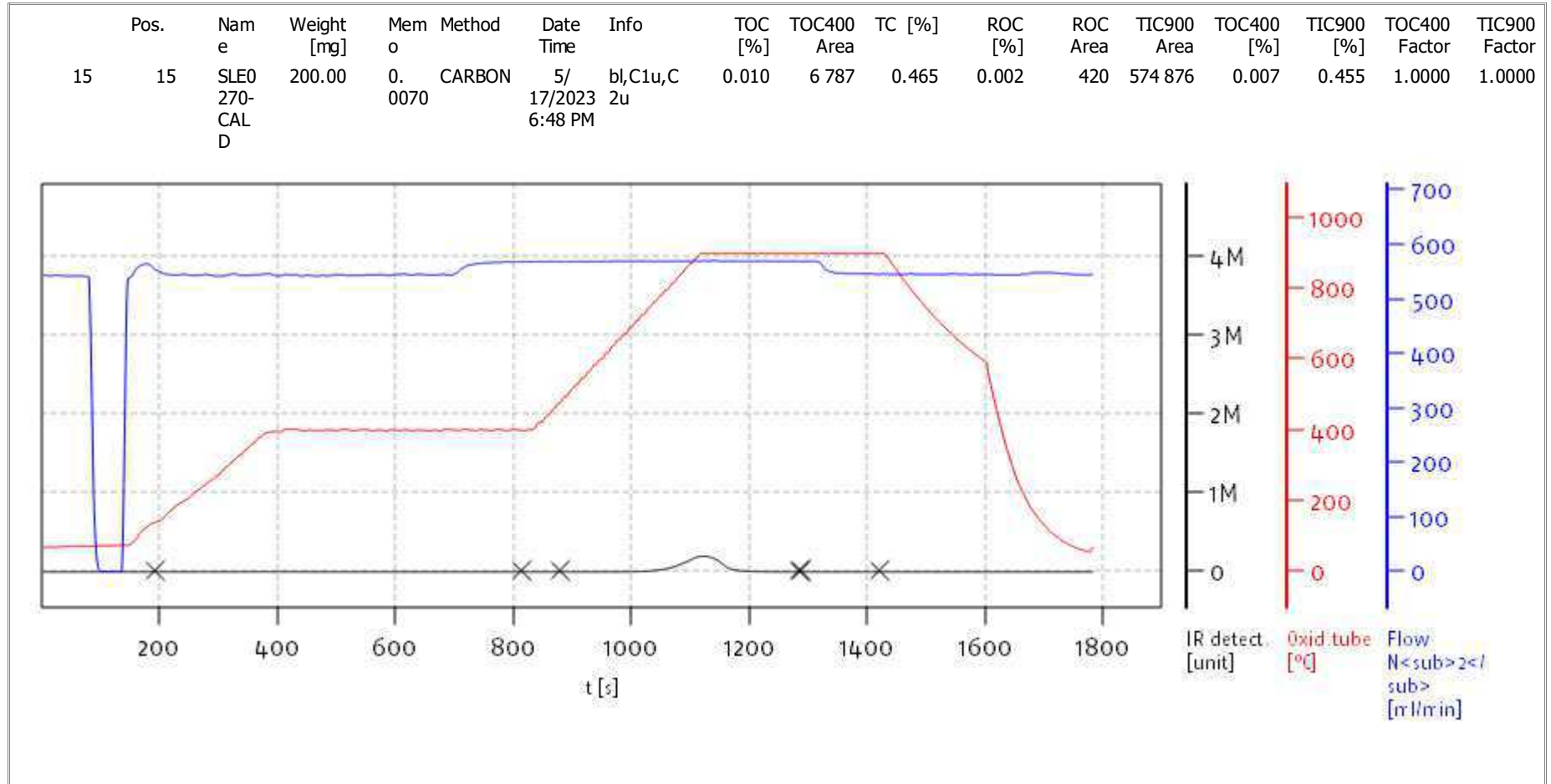
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

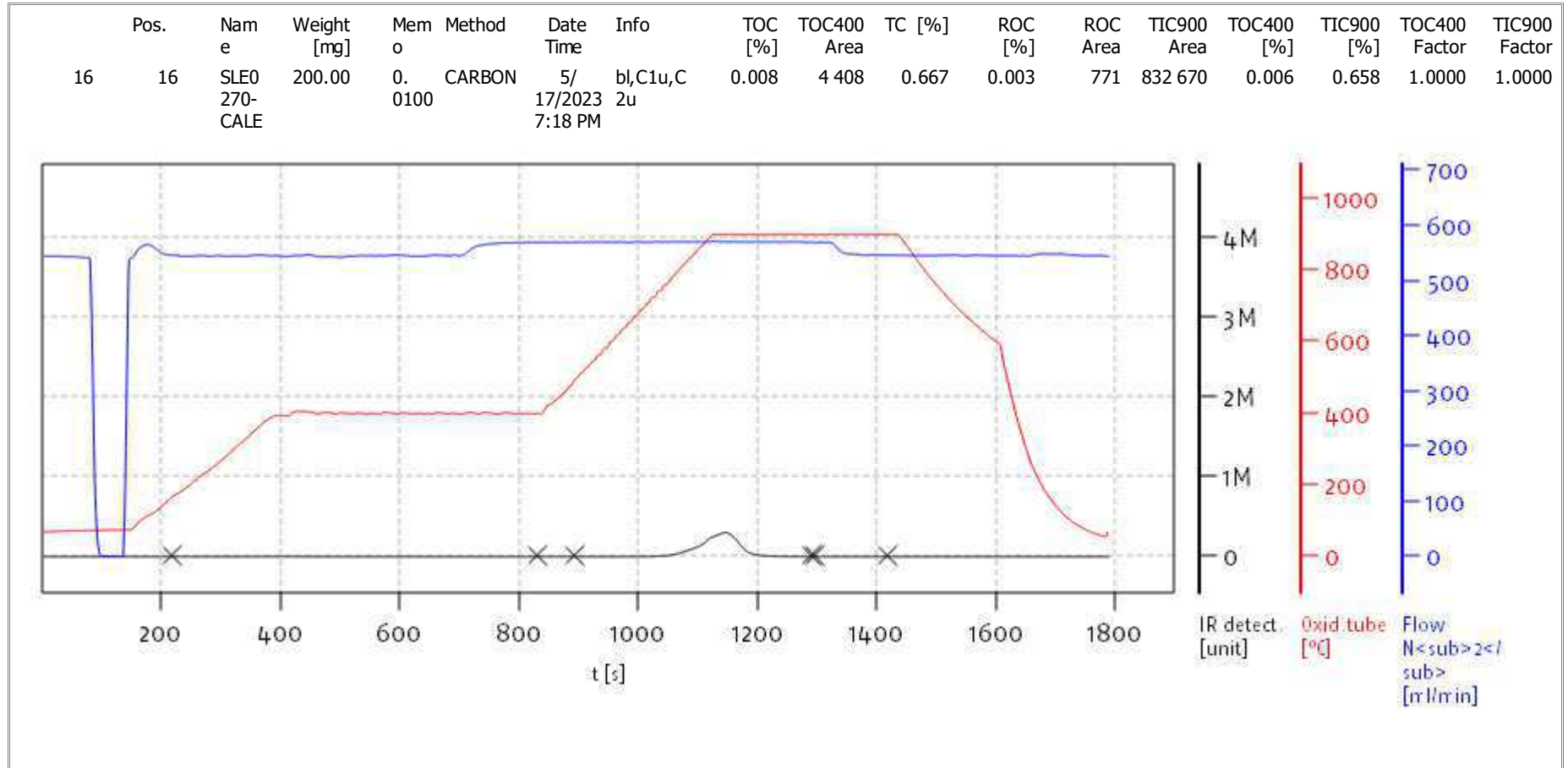
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

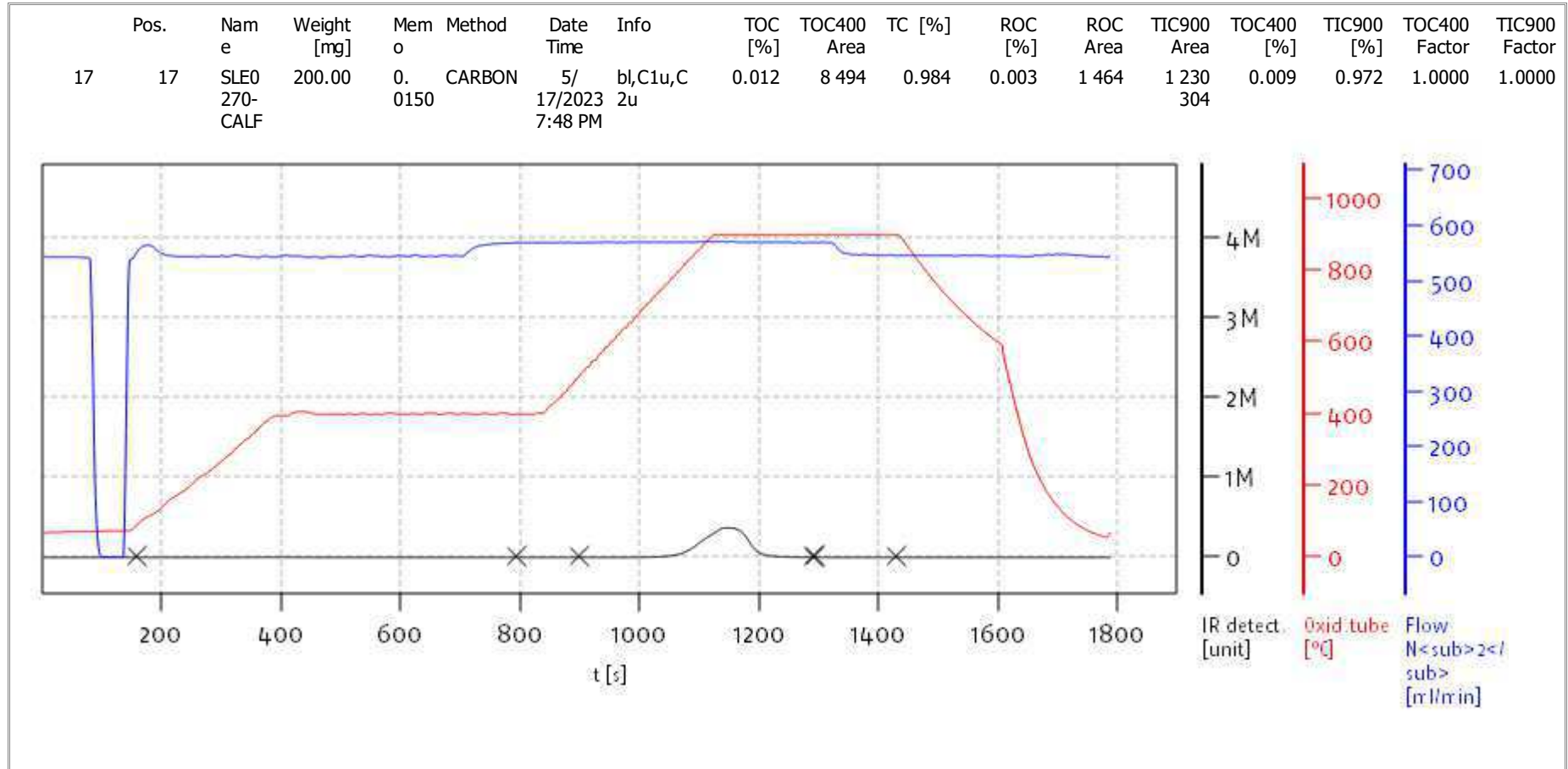
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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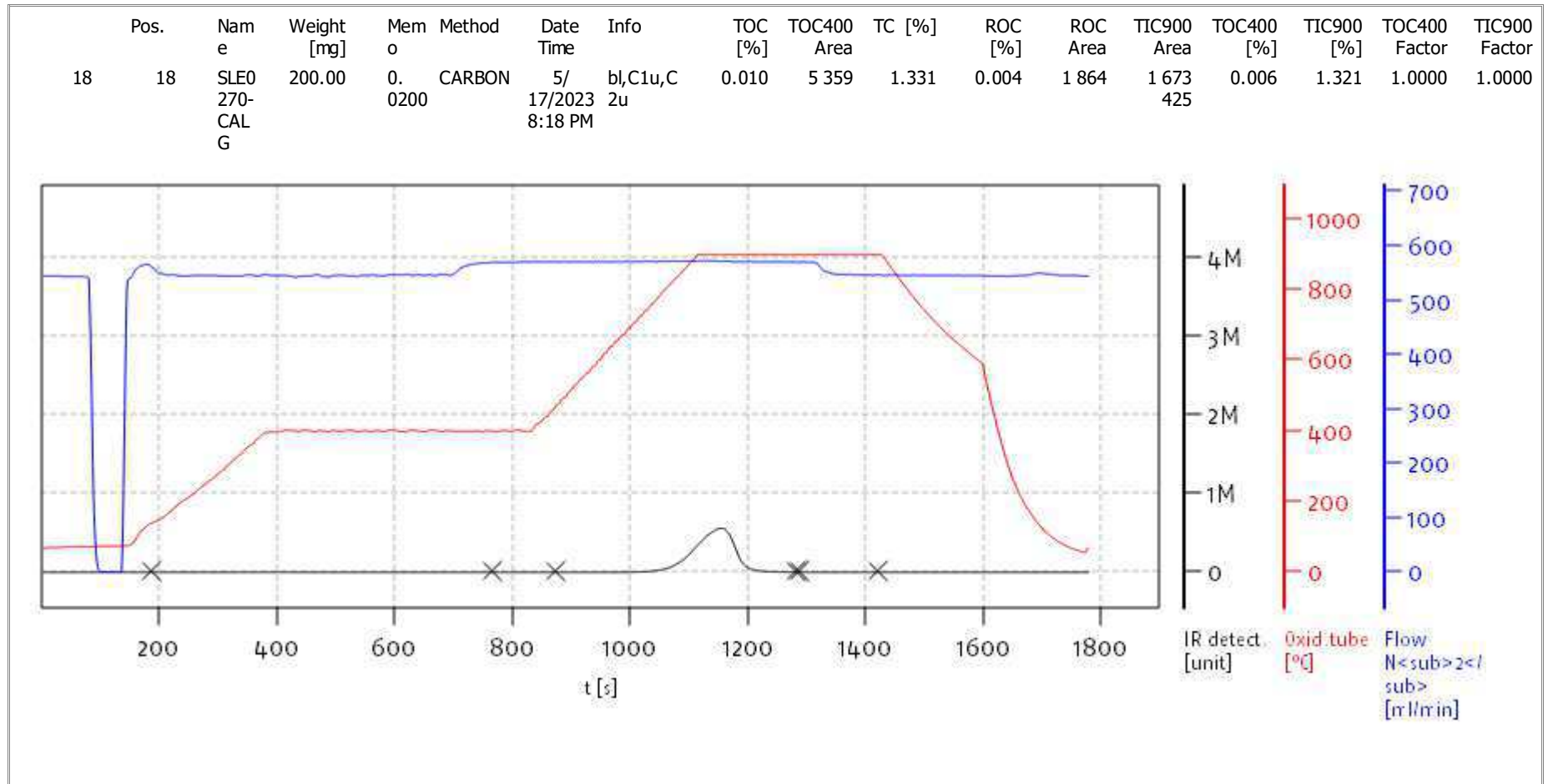
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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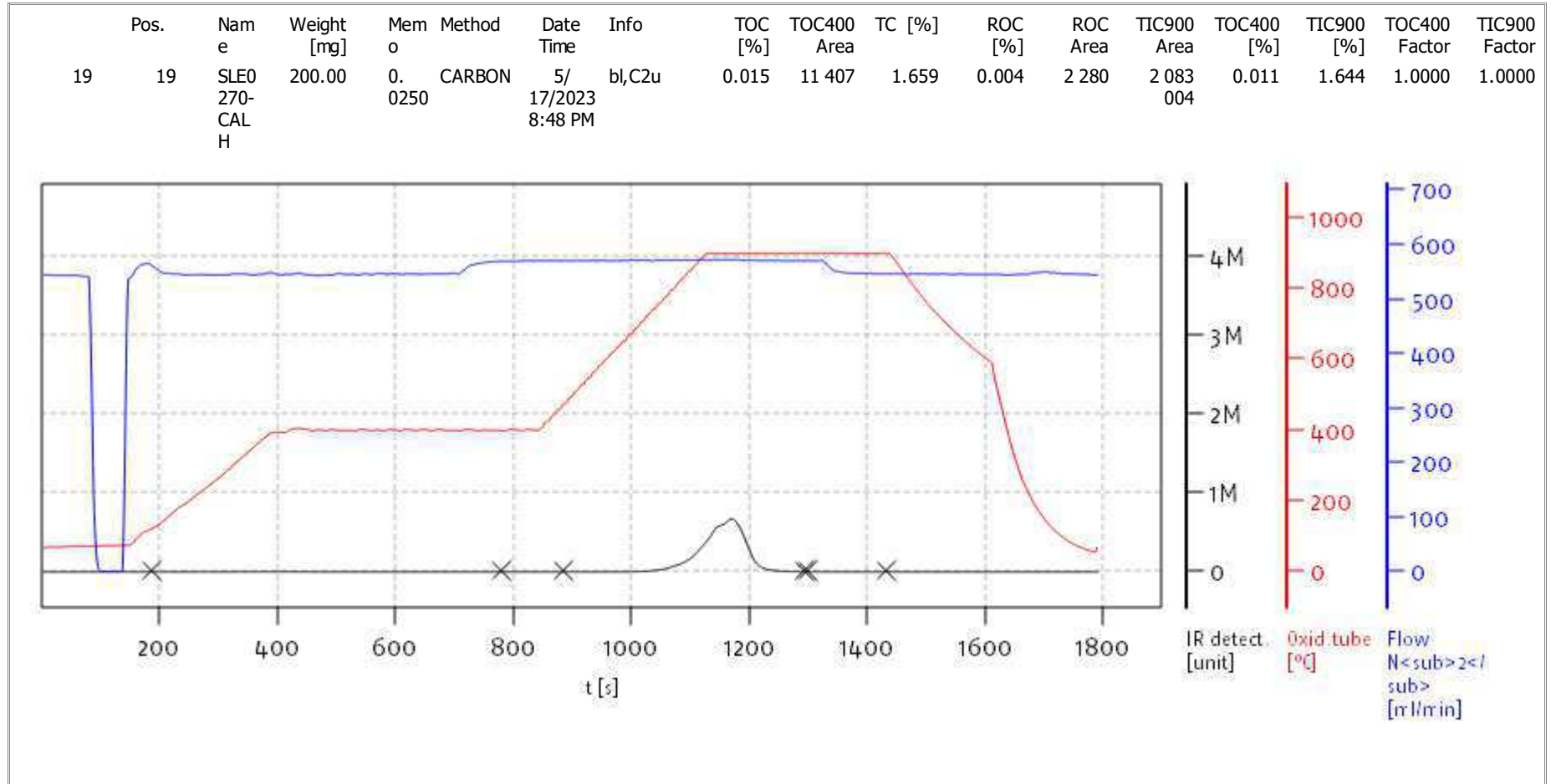
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solITOC V2.0.2 (31015f9) 2018-11-19
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Soli TOC Cube, Carbon
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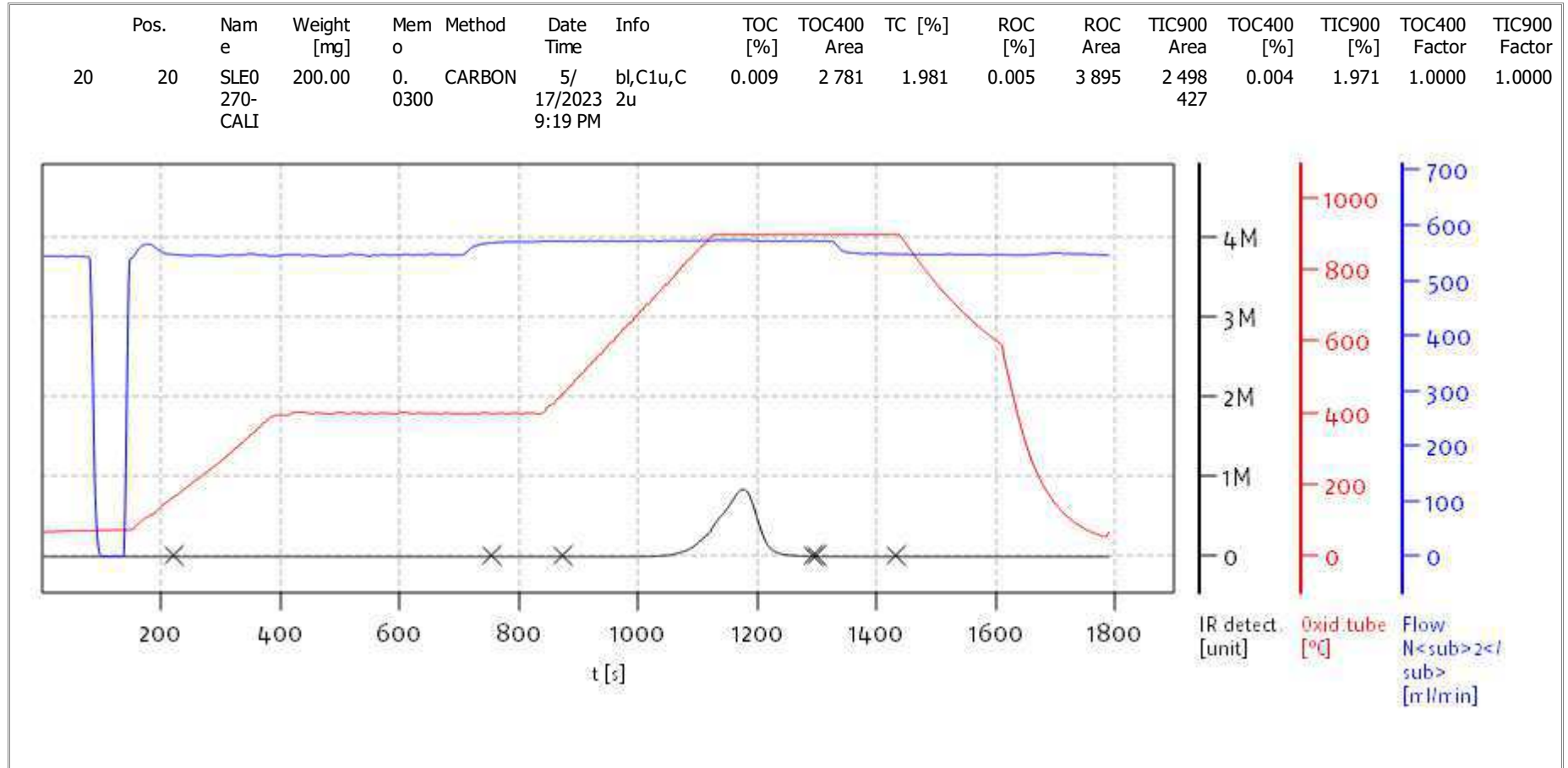
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Soli TOC Cube, Carbon
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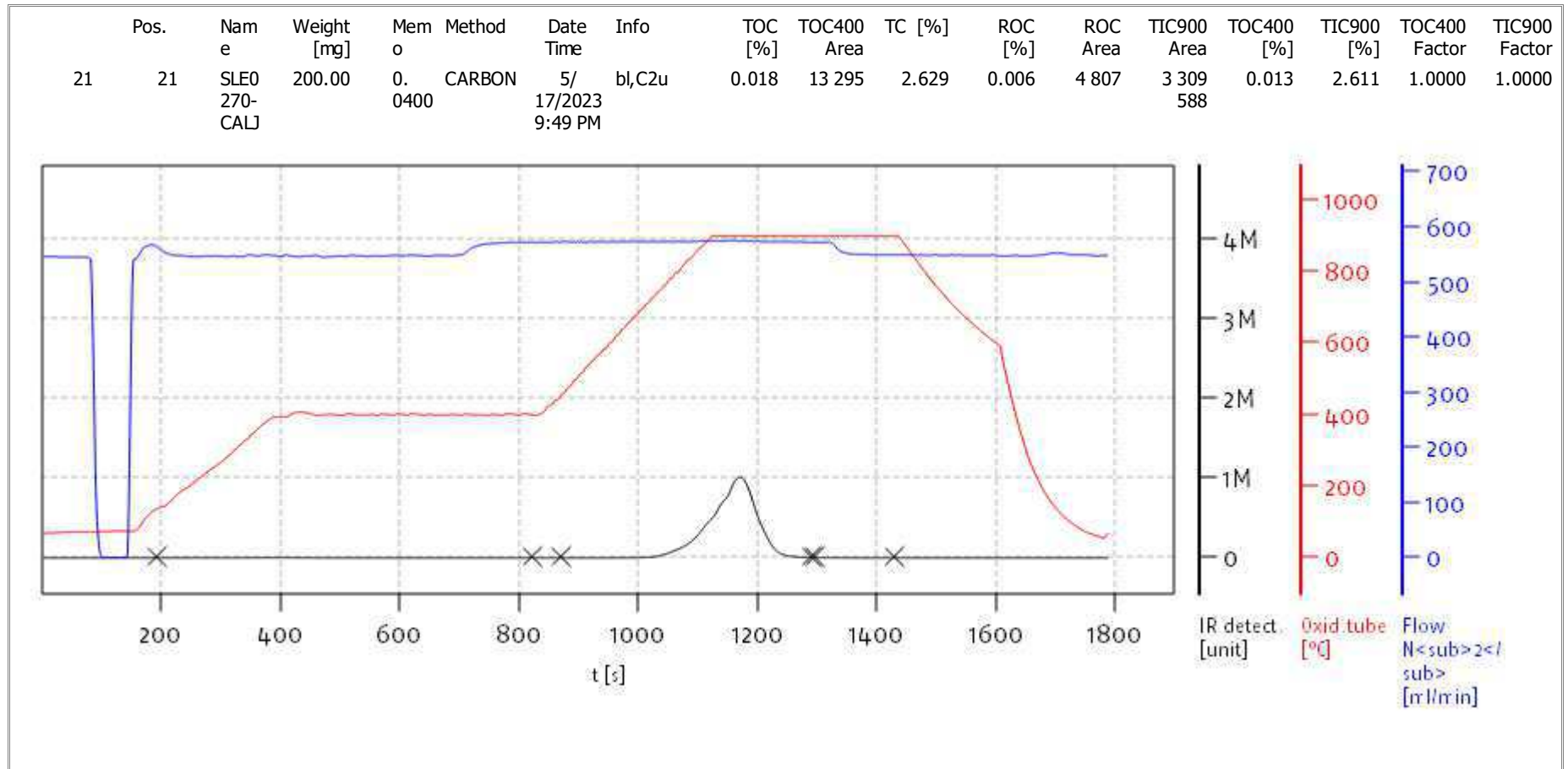
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Soli TOC Cube, Carbon
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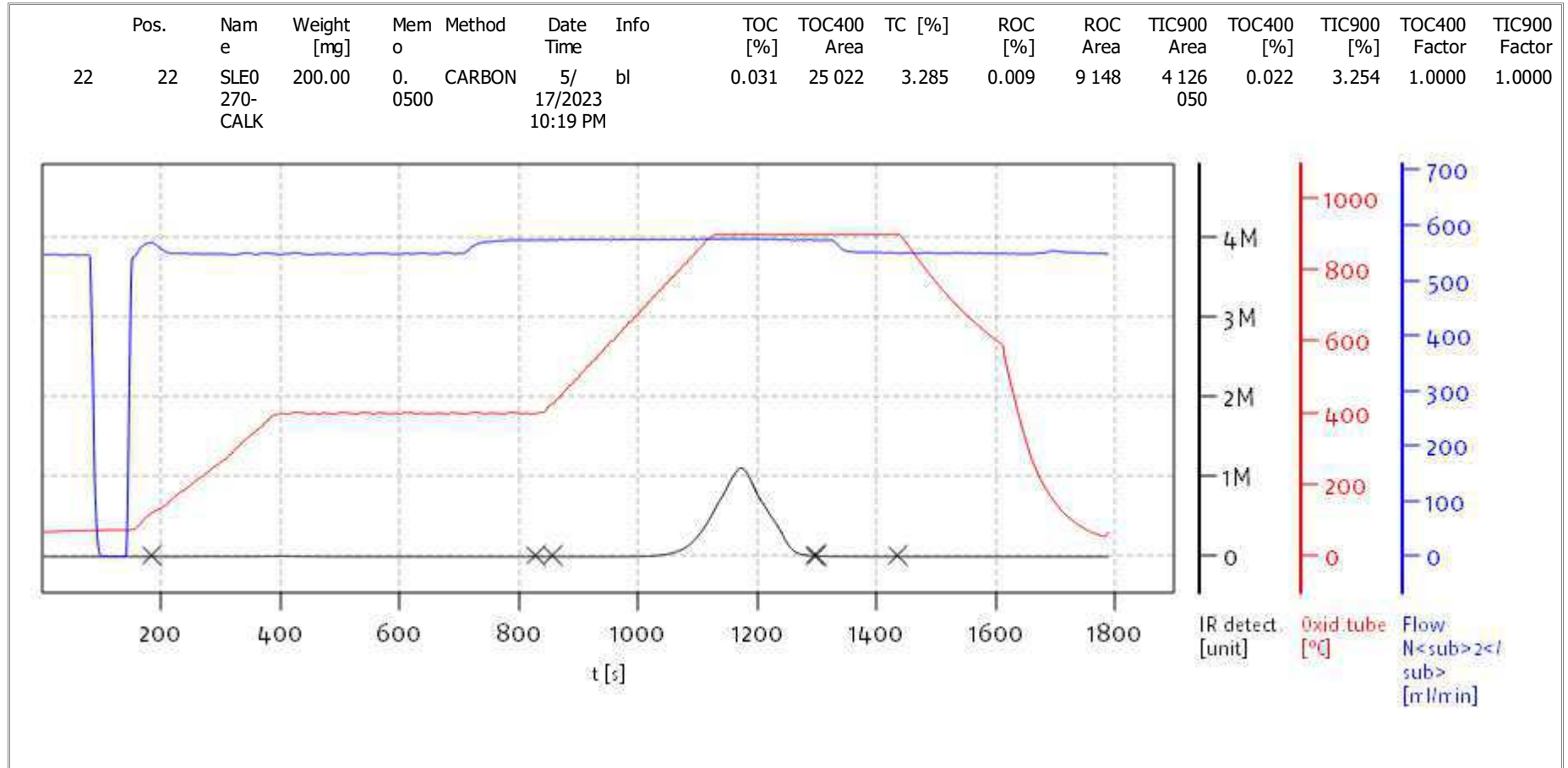
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Soli TOC Cube, Carbon
Balance: BAL3
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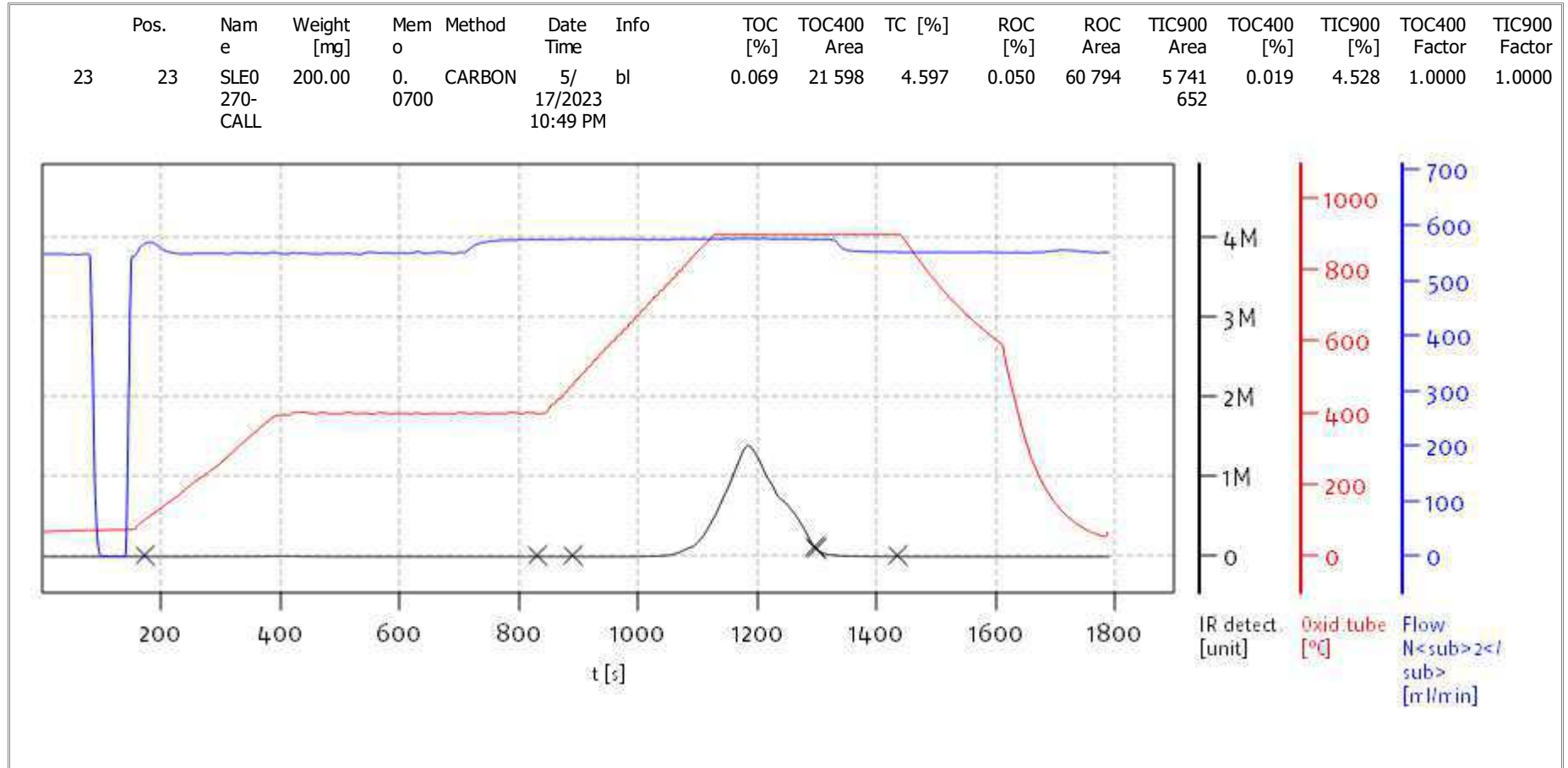
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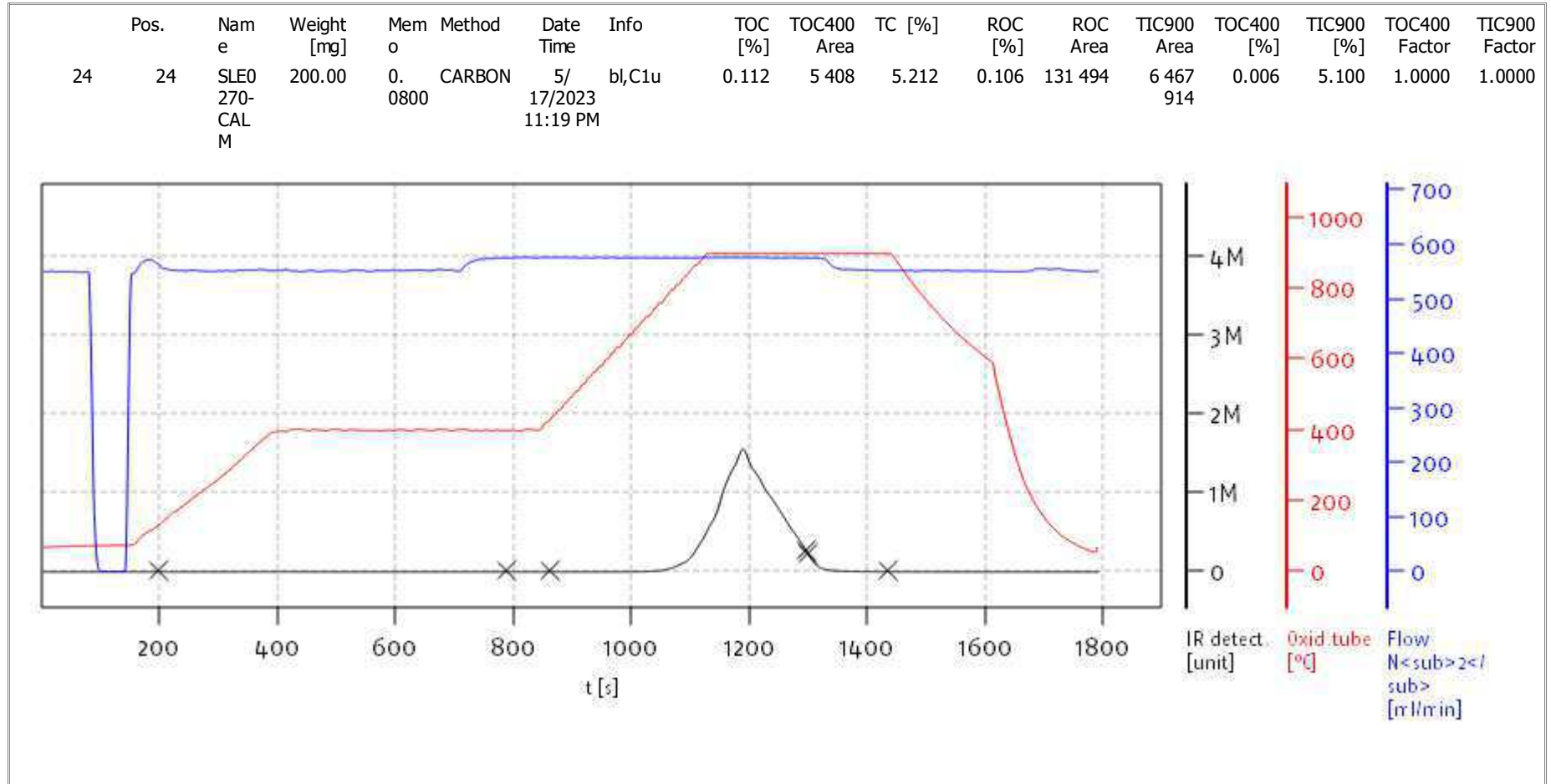
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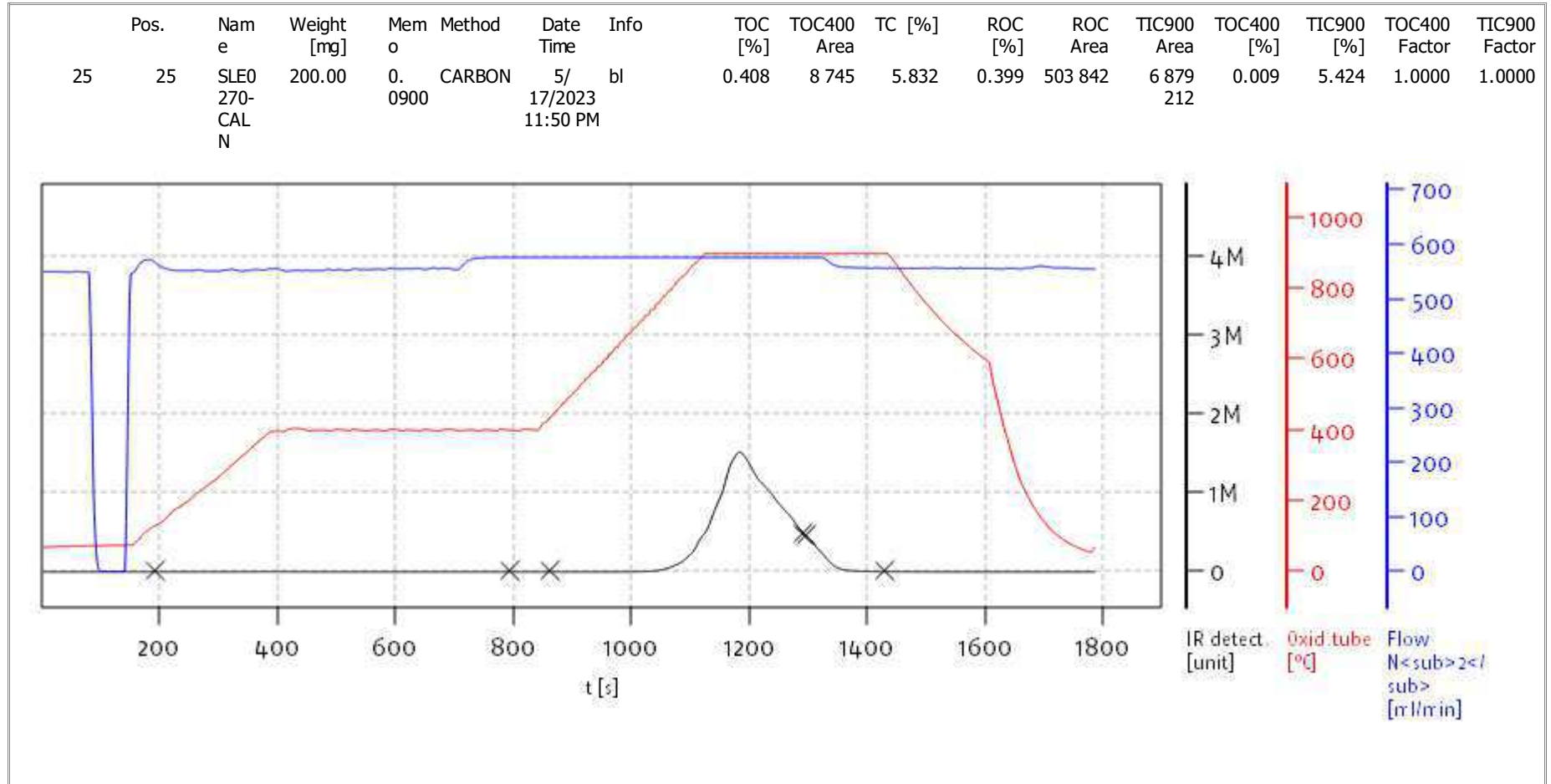
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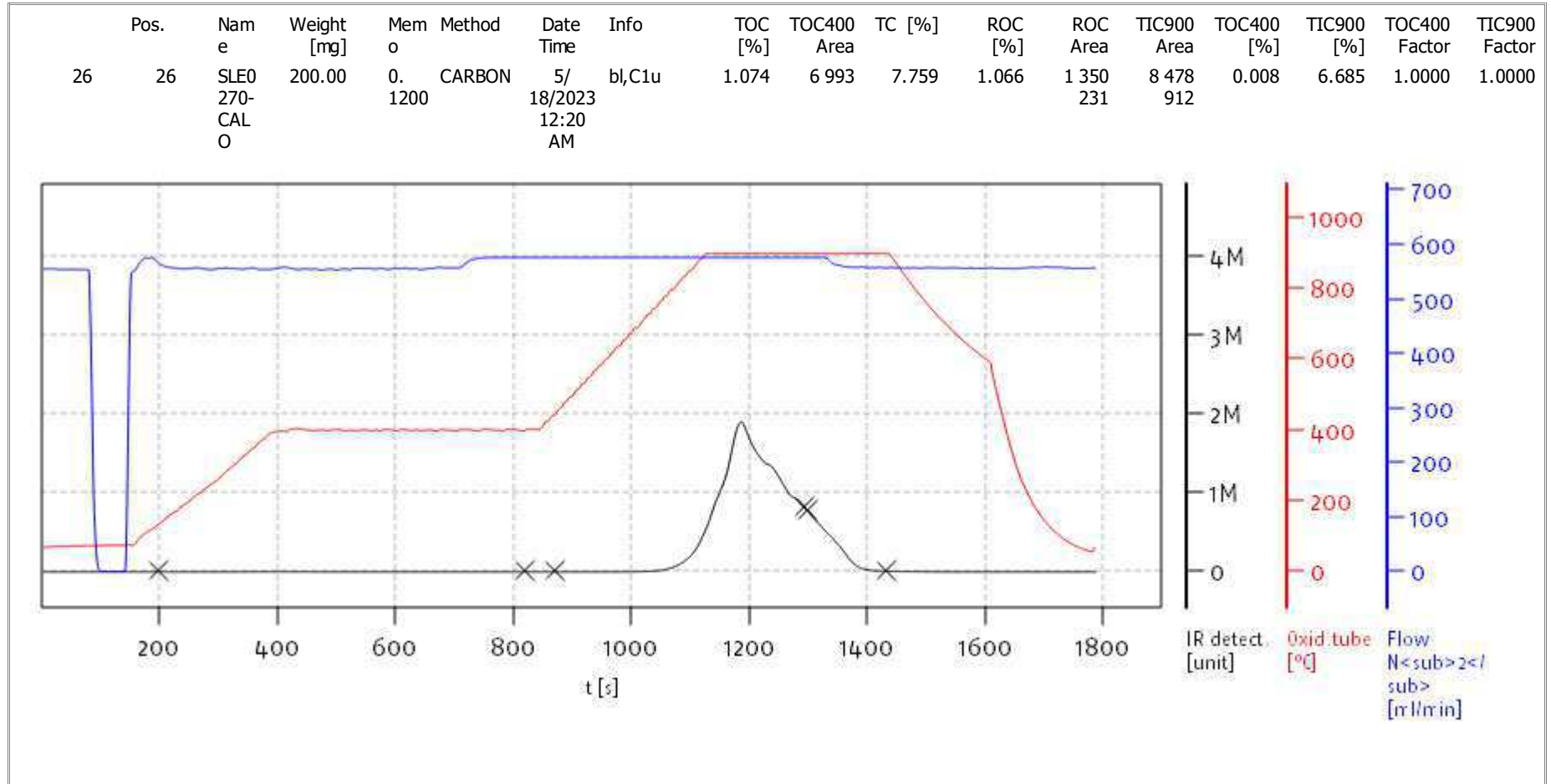
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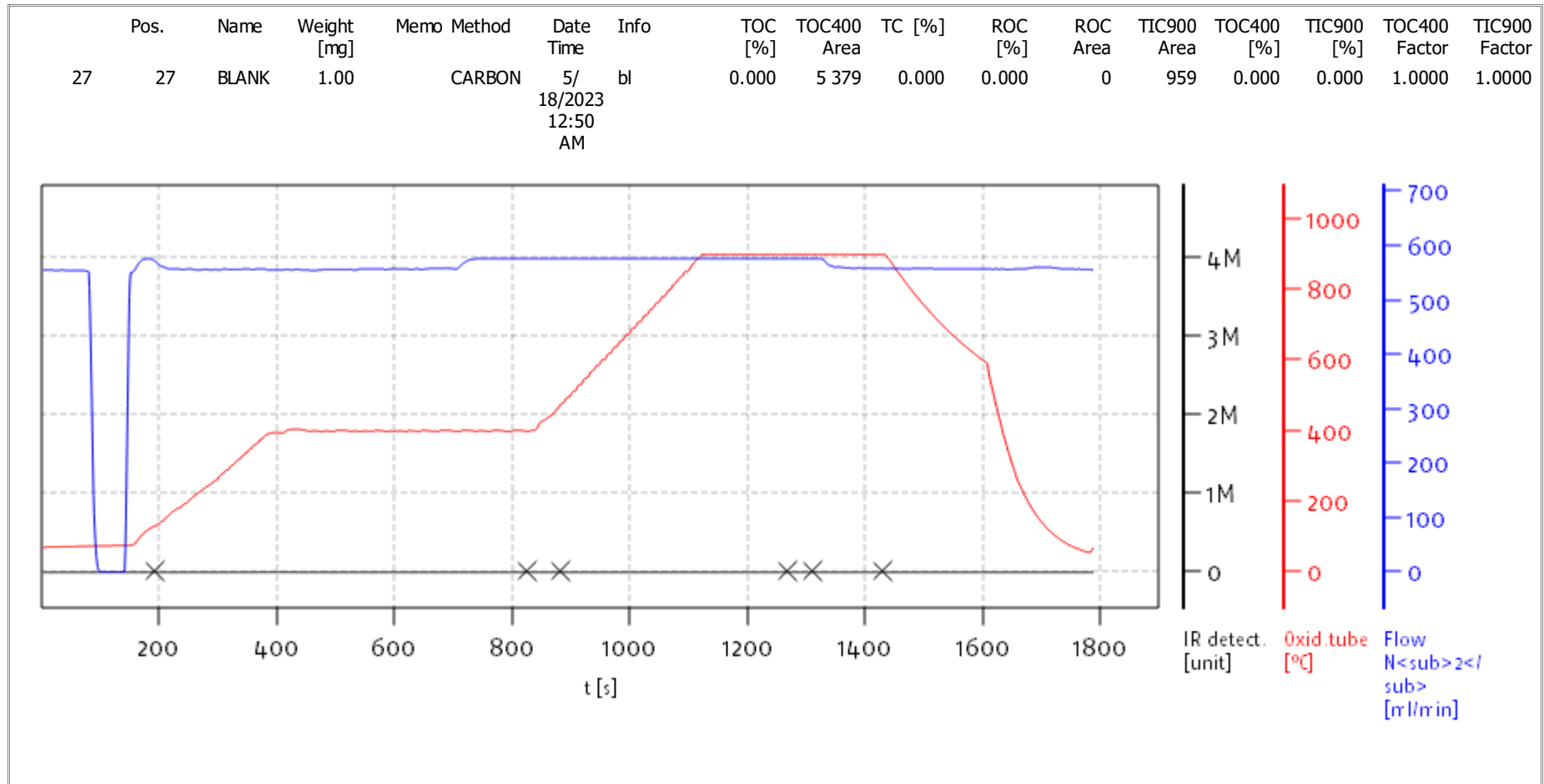
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Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

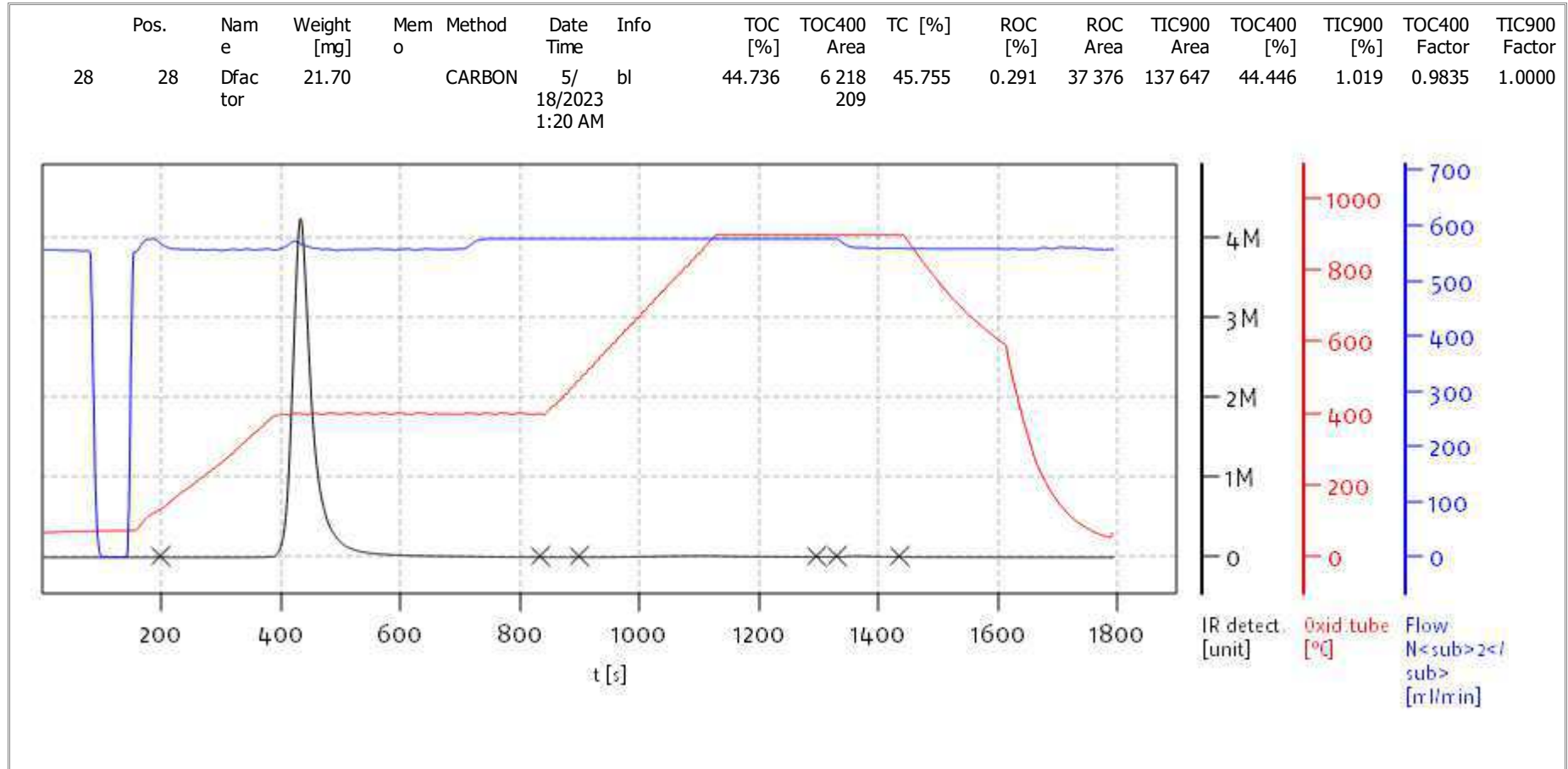
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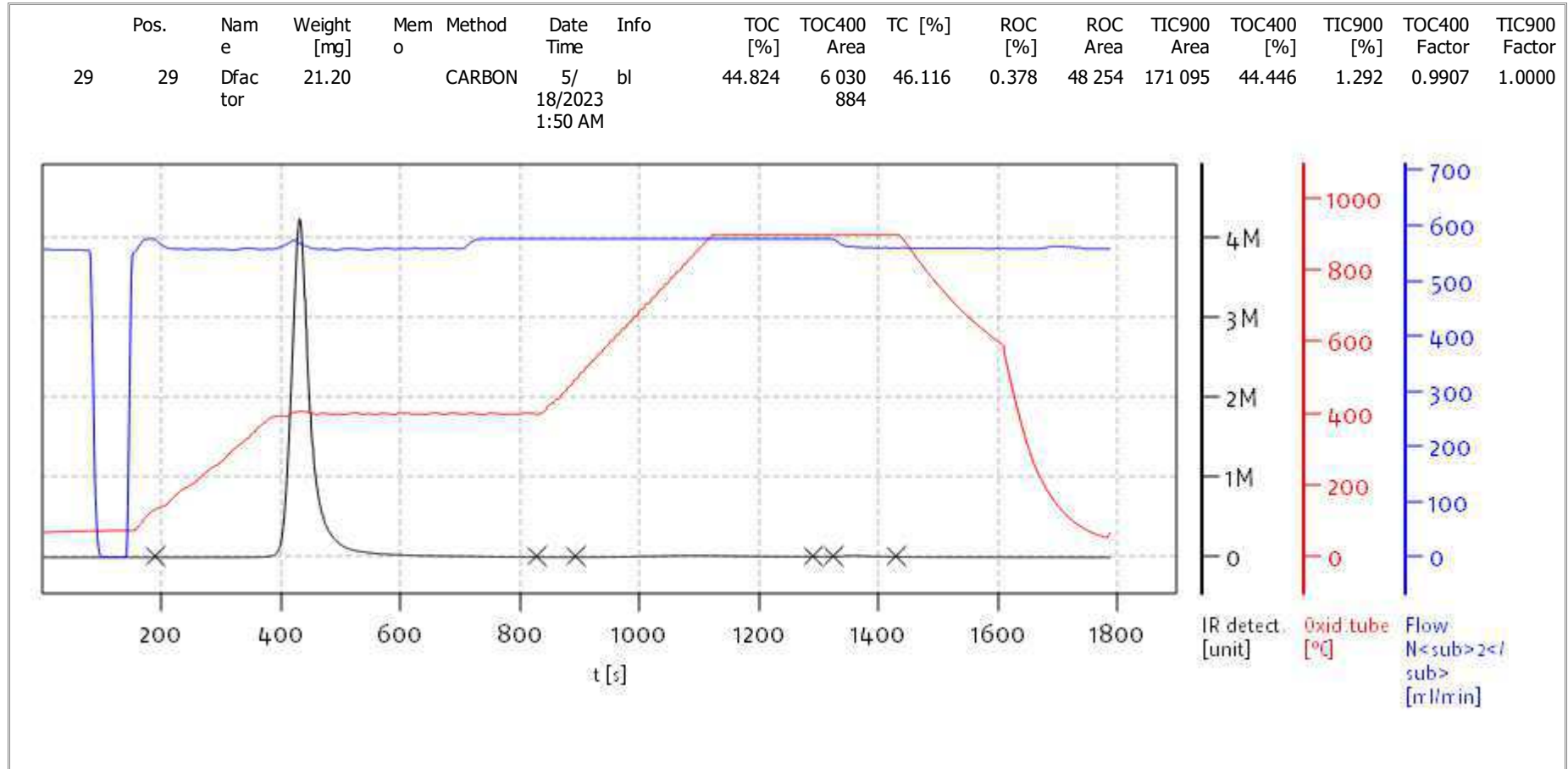
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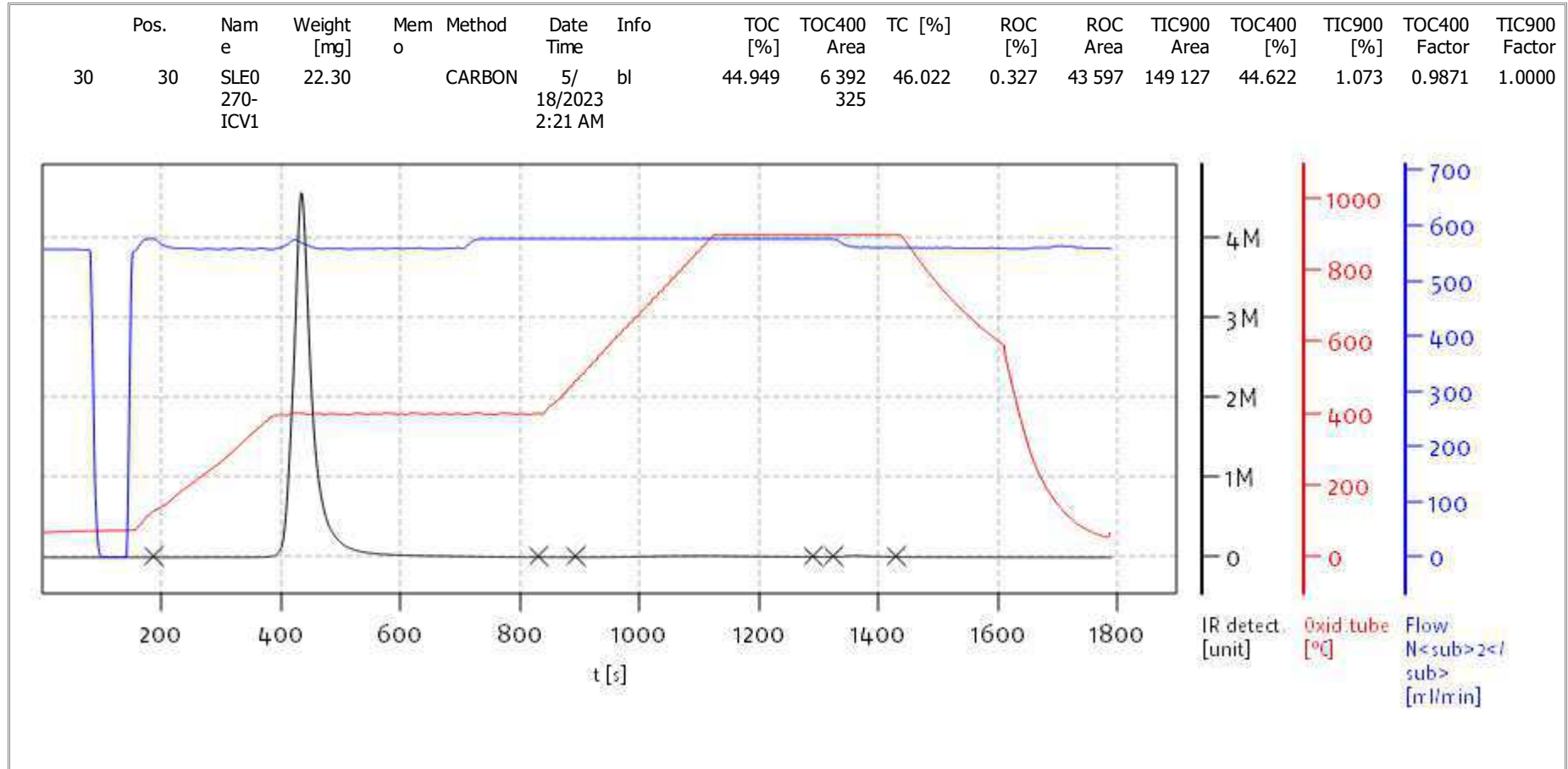
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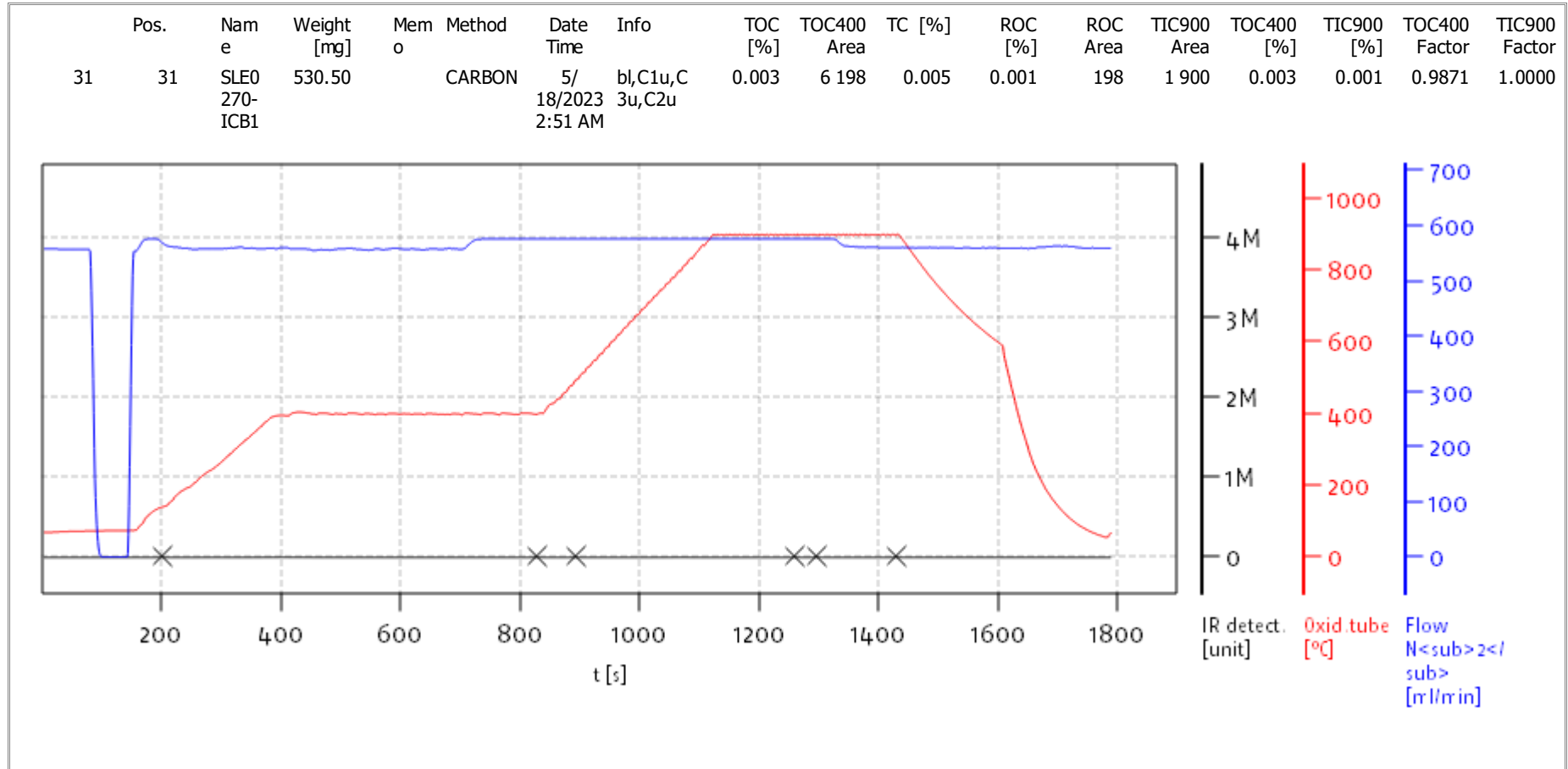
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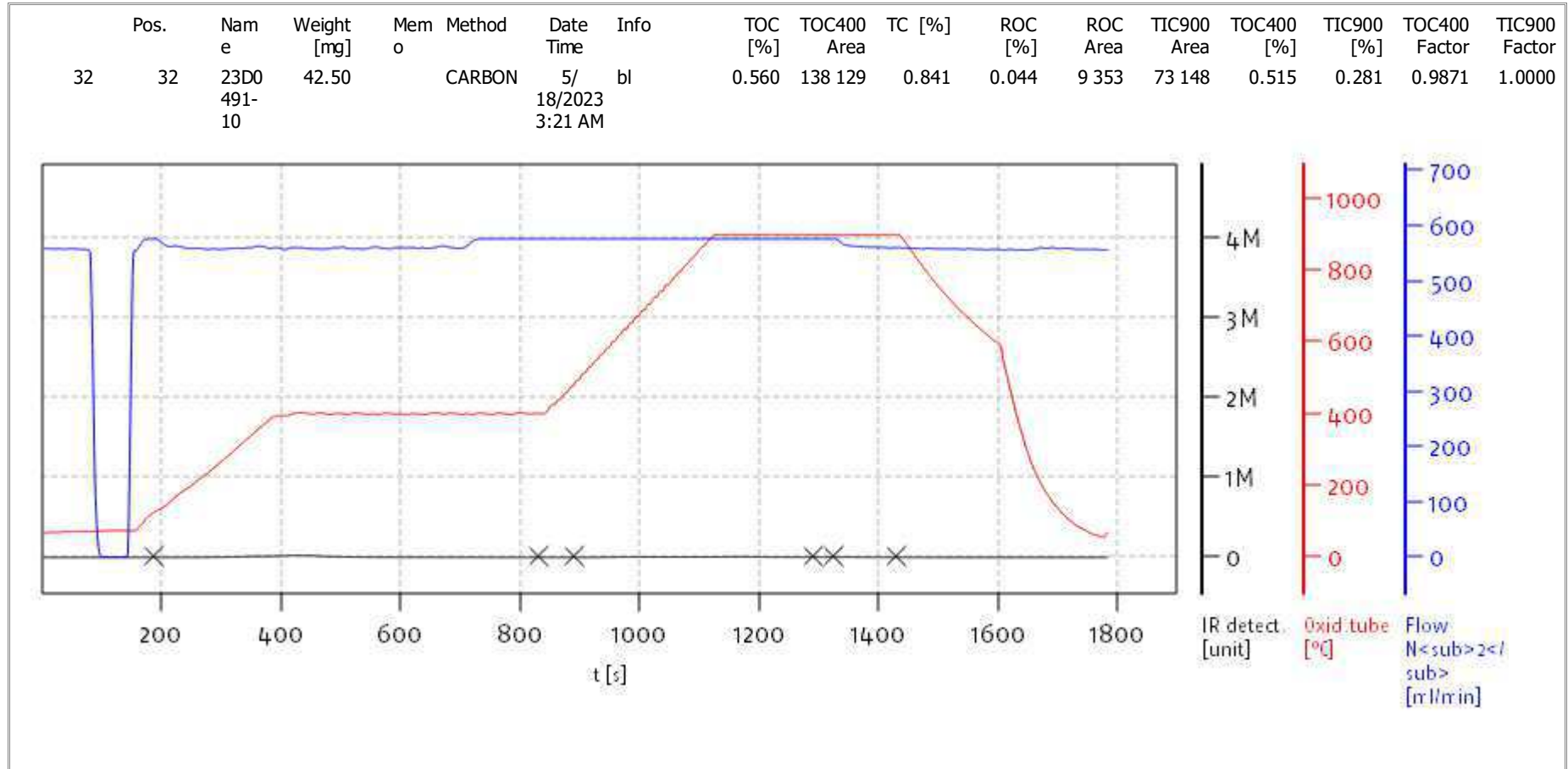
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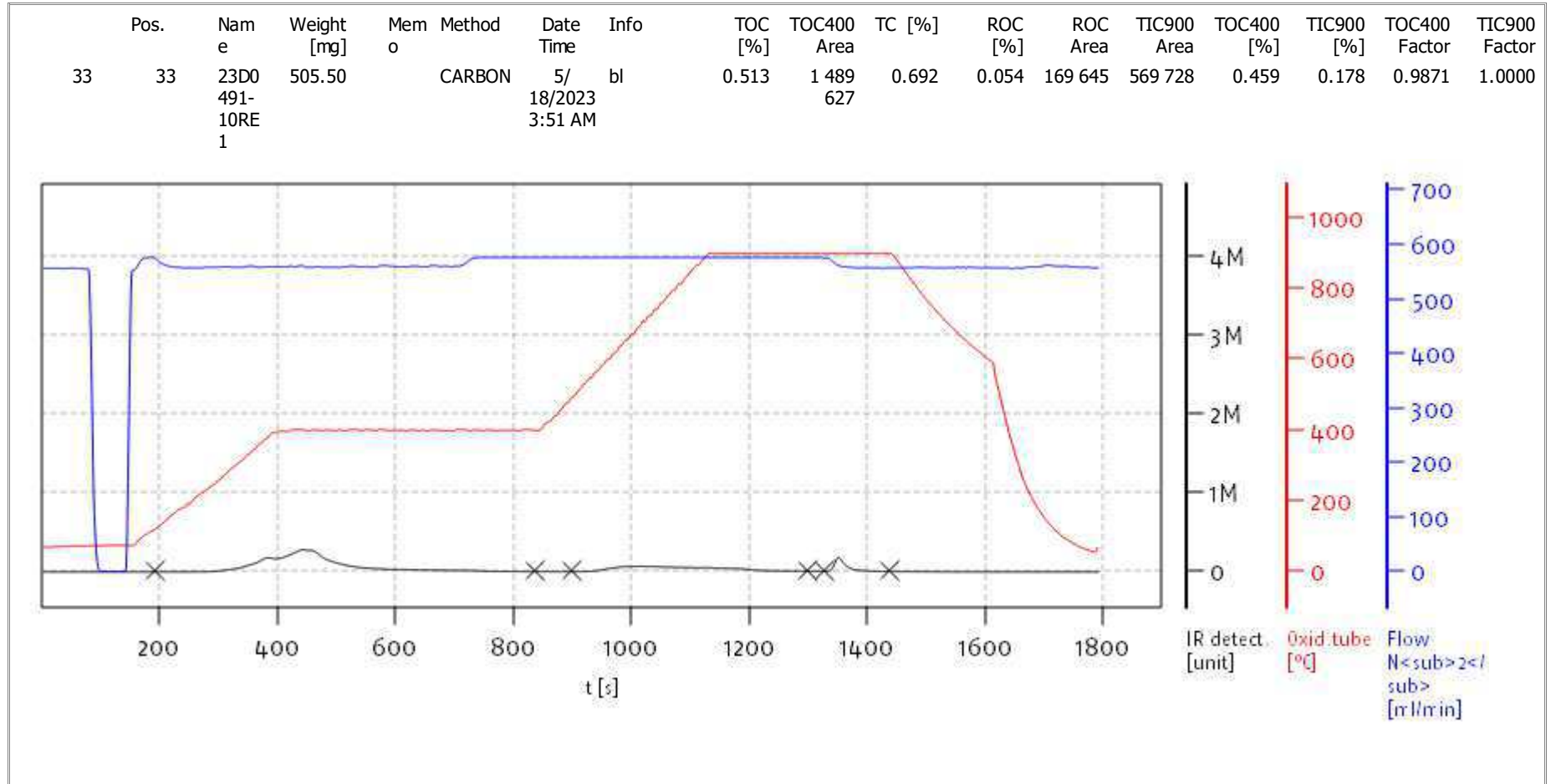
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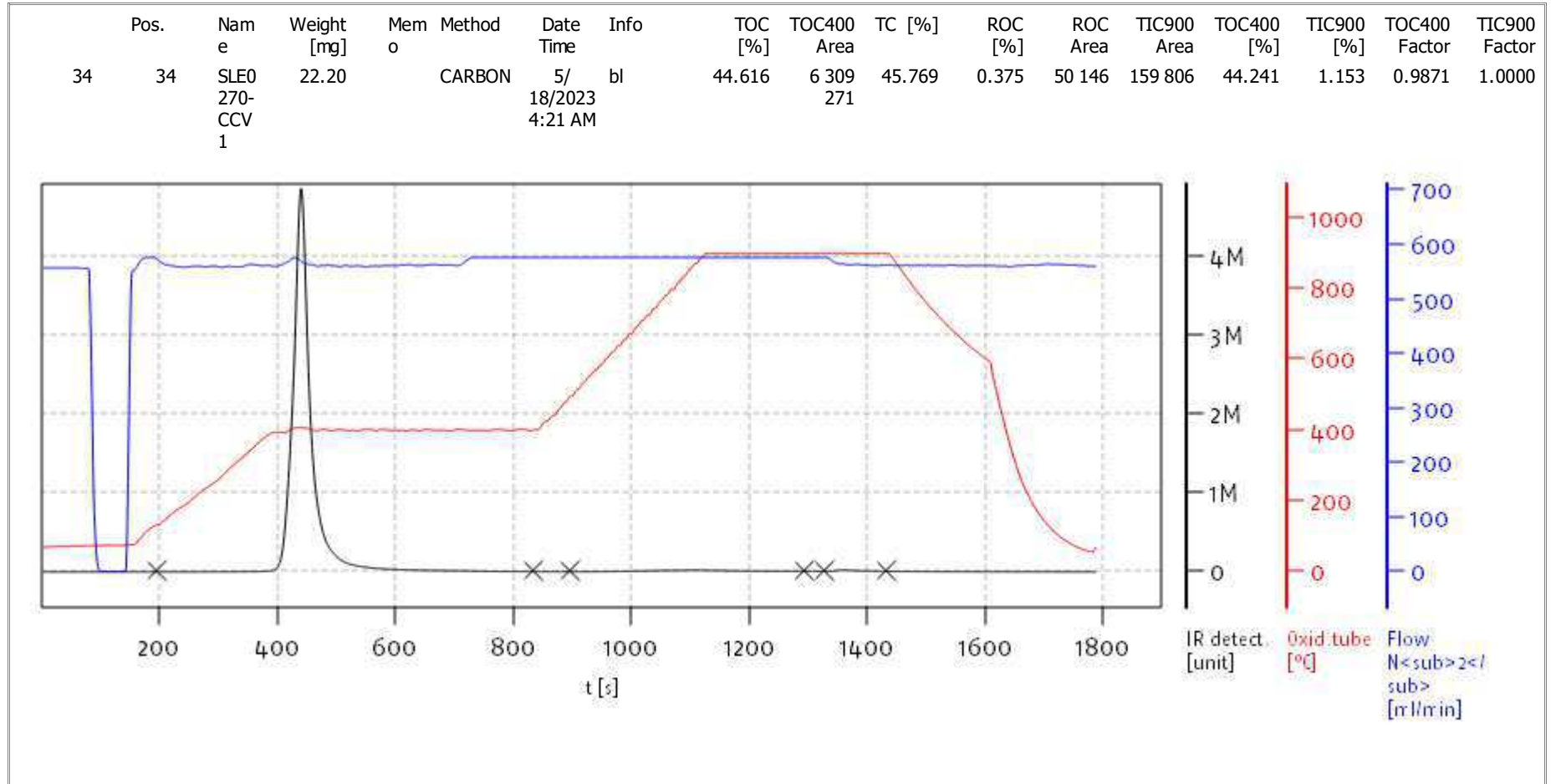
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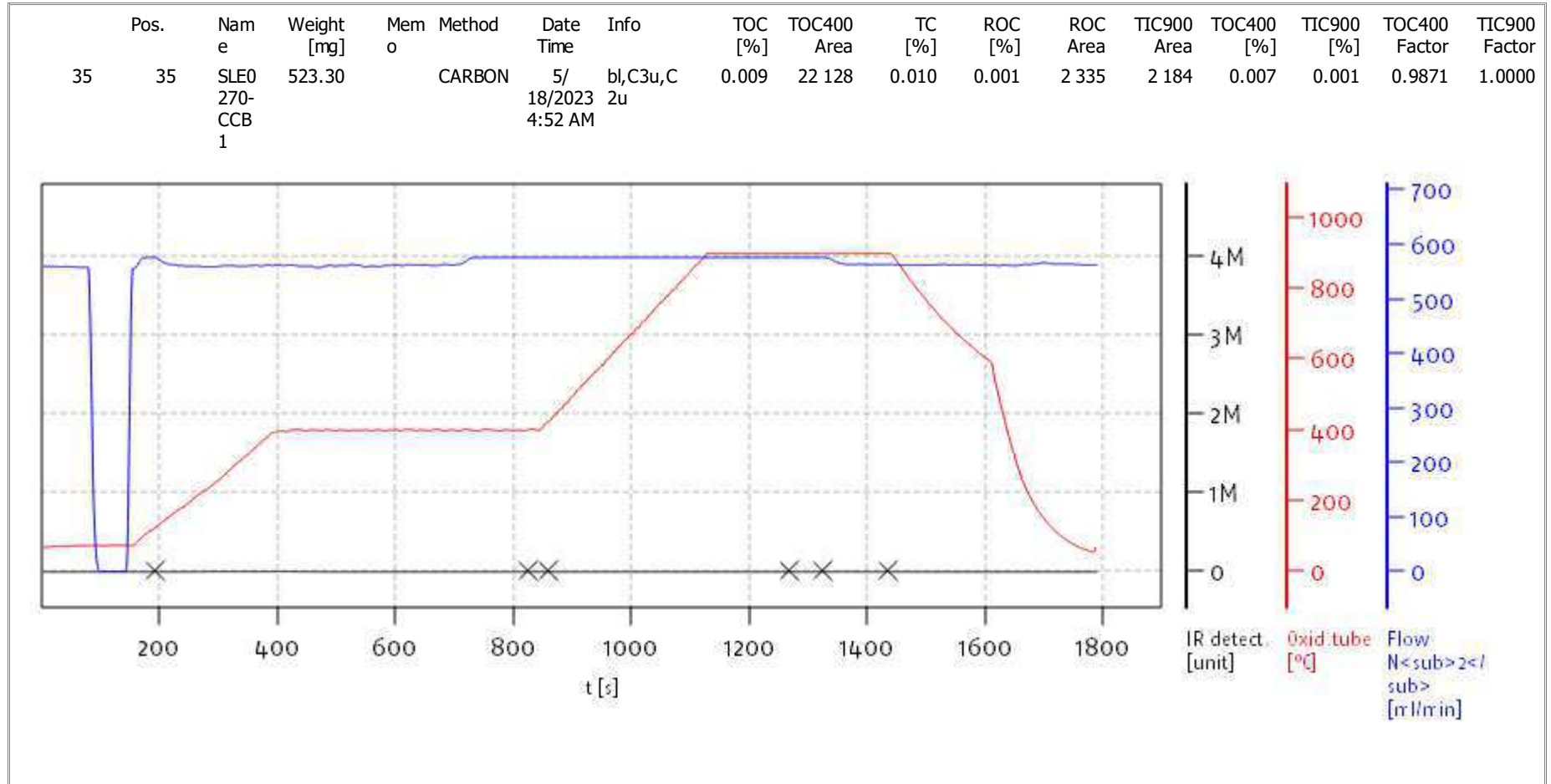
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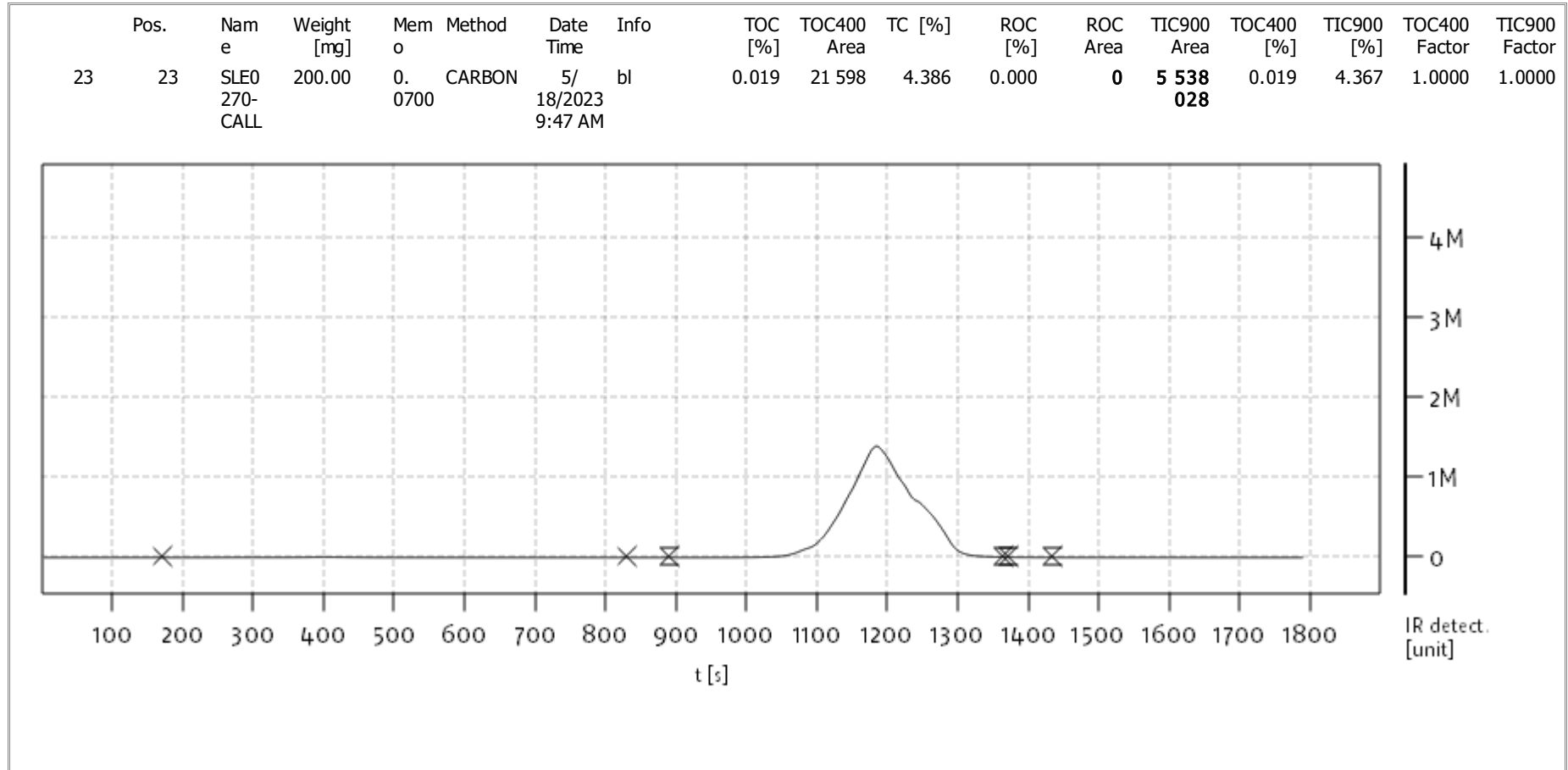
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Soli TOC Cube, Carbon
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Name:

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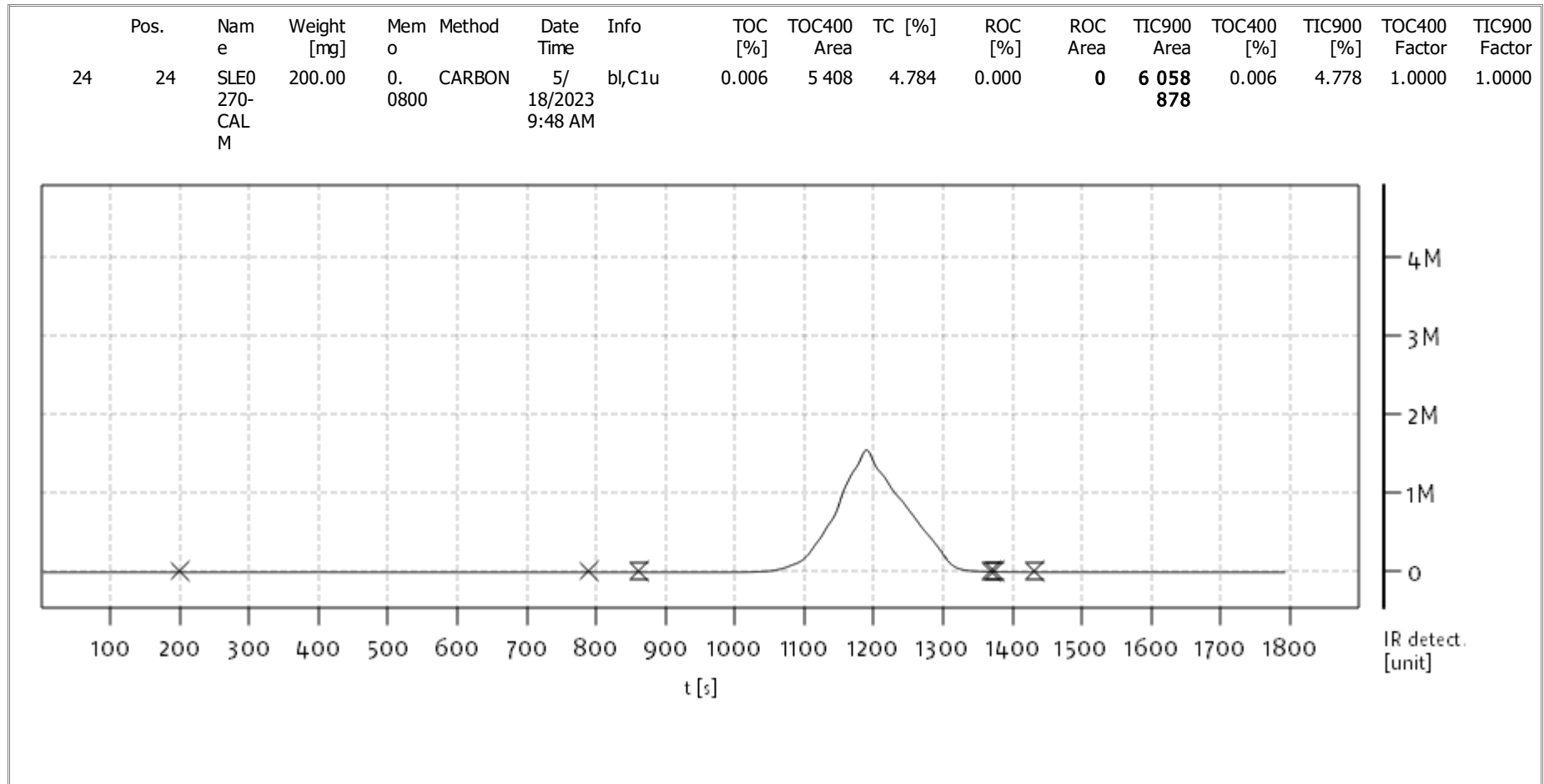
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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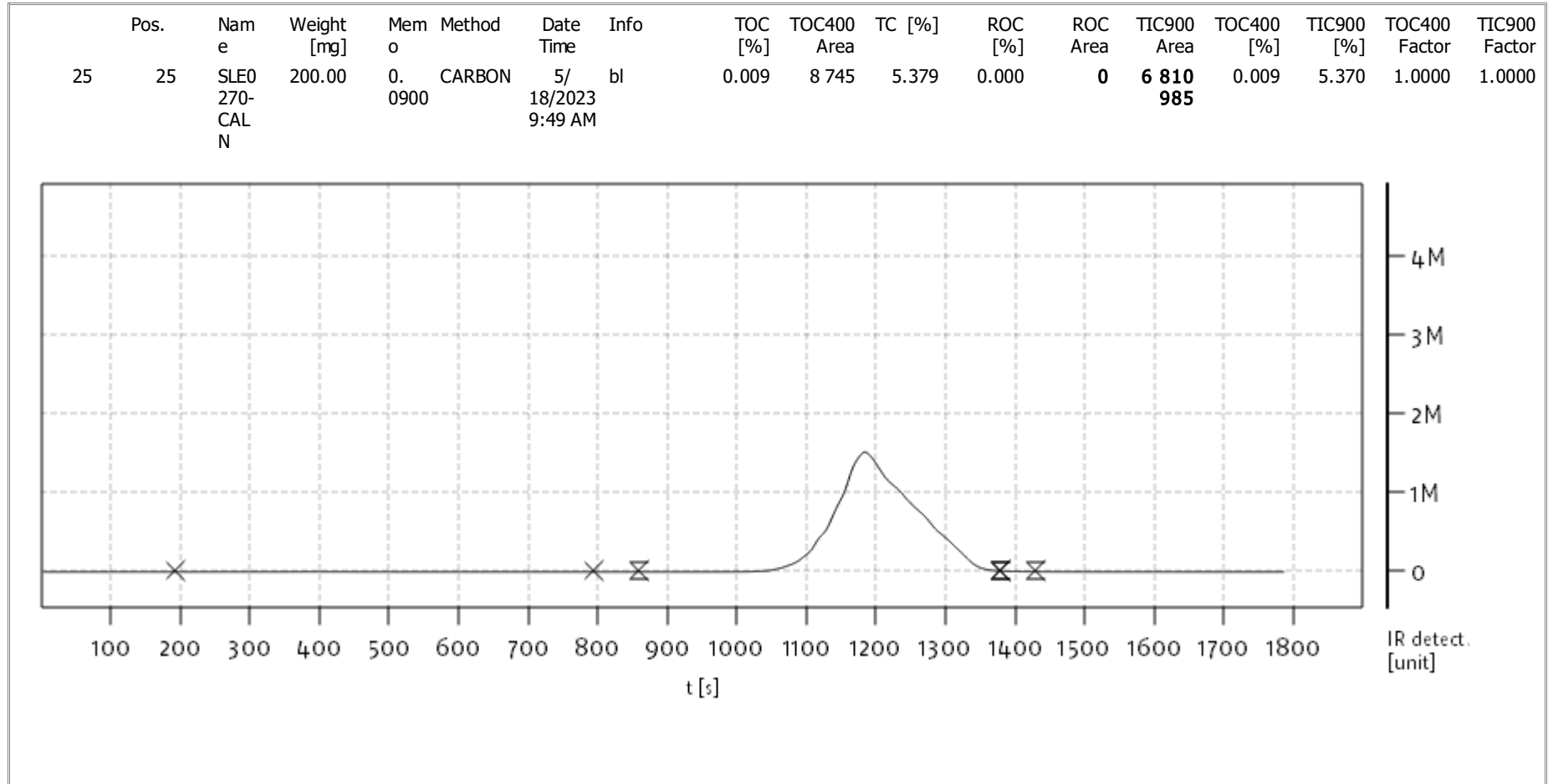
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



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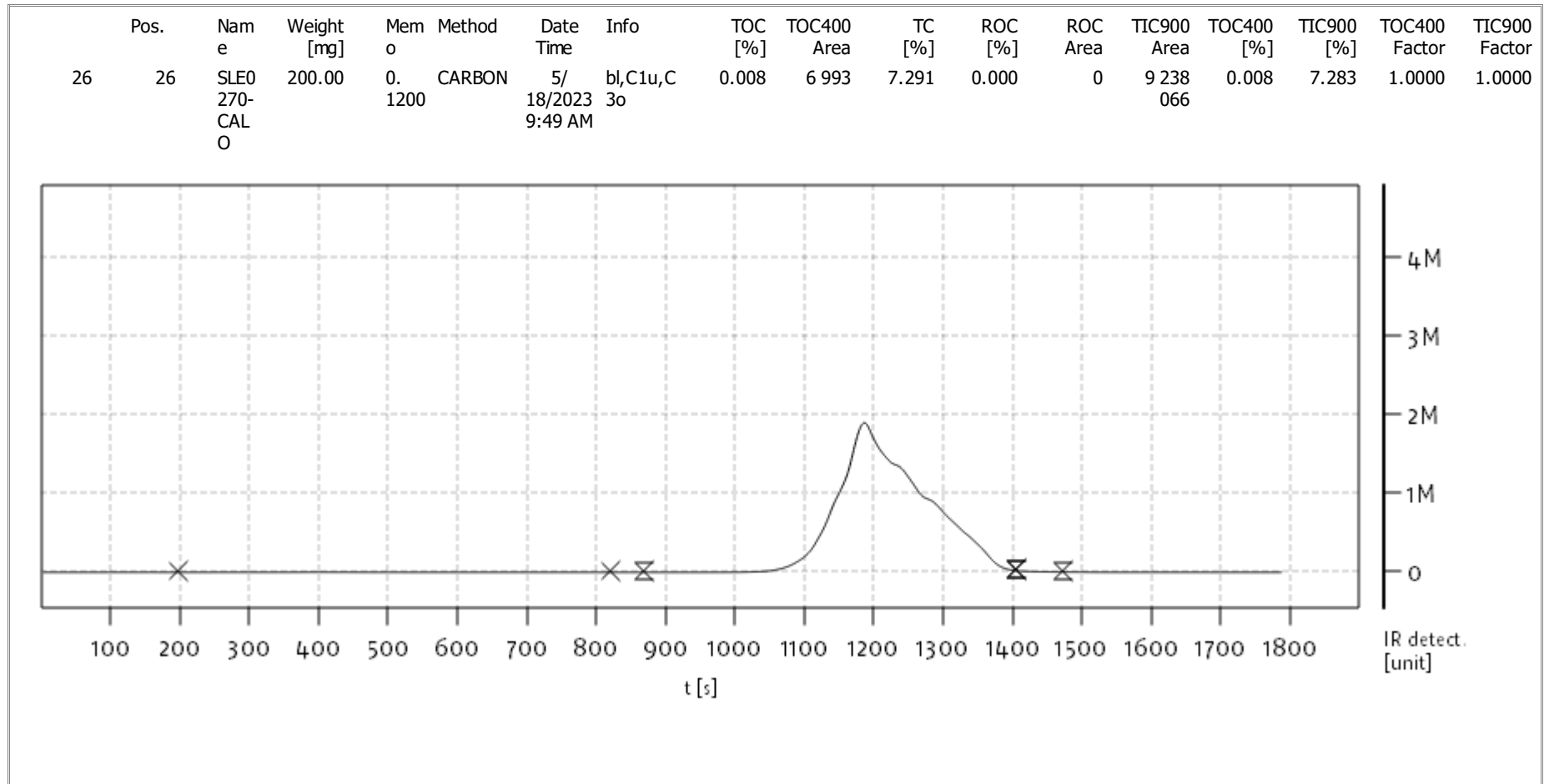
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

Date: Thu May 18 09:50:12 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
Total Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
Total Inorganic Carbon	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782
% Soot	0.0081413	2824365	0.015378	1908831	0.02171	2161539	0.030153	2354094	0.04523	1647690	0.060306	1529782



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
Total Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
Total Inorganic Carbon	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209
% Soot	0.075081	1526165	0.092268	1411324	0.12031	1696235	0.15107	1646548	0.24	1507392	0.306	1652209



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
Total Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
Total Inorganic Carbon	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100
% Soot	0.426	1366392	0.606	1382589	0.894	1387318	1.206	1393572	1.506	1392225	1.806	1387100



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

Calibration Date: 05/17/2023 10:07

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
Total Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
Total Inorganic Carbon	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654
% Soot	2.406	1383080	2.988	1392309	4.206	1321832	4.788	1266559	5.394	1264318	7.152	1292654



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GE00052

Instrument: TOC Cube

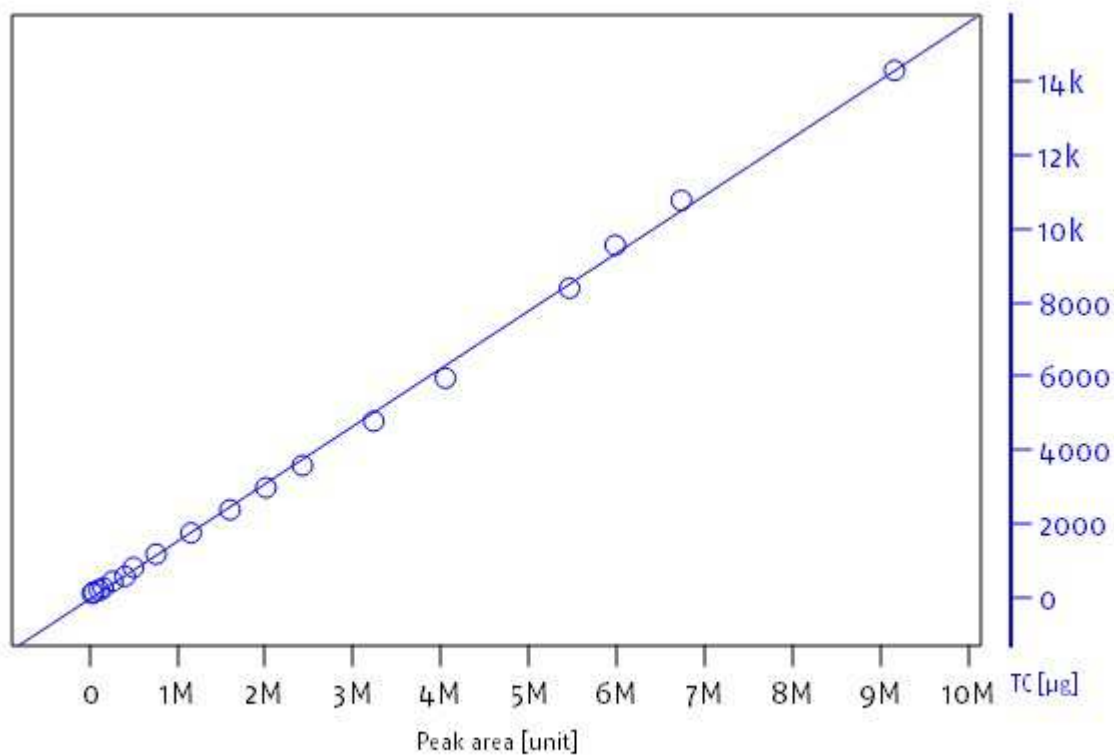
Calibration Date: 05/17/2023 10:07

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Total Organic Carbon	1587338	23.9	0.9987			
Total Carbon	1587338	23.9	0.9987			
Total Inorganic Carbon	1587338	23.9	0.9987			
% Soot	1587338	23.9	0.9987			

Calibration parameters TC, Whole range

a	+9.122373e-03
b	+1.560792e-06
c	+0.000000e+00
d	+0.000000e+00
e	+0.000000e+00
r	0.998690
r_old	0.998690
Proc.-SD	155.562438 µg

Calibration graph TC, Whole range



Name:

Access: solITOC superuser

Date: Thu May 18 10:02:15 2023



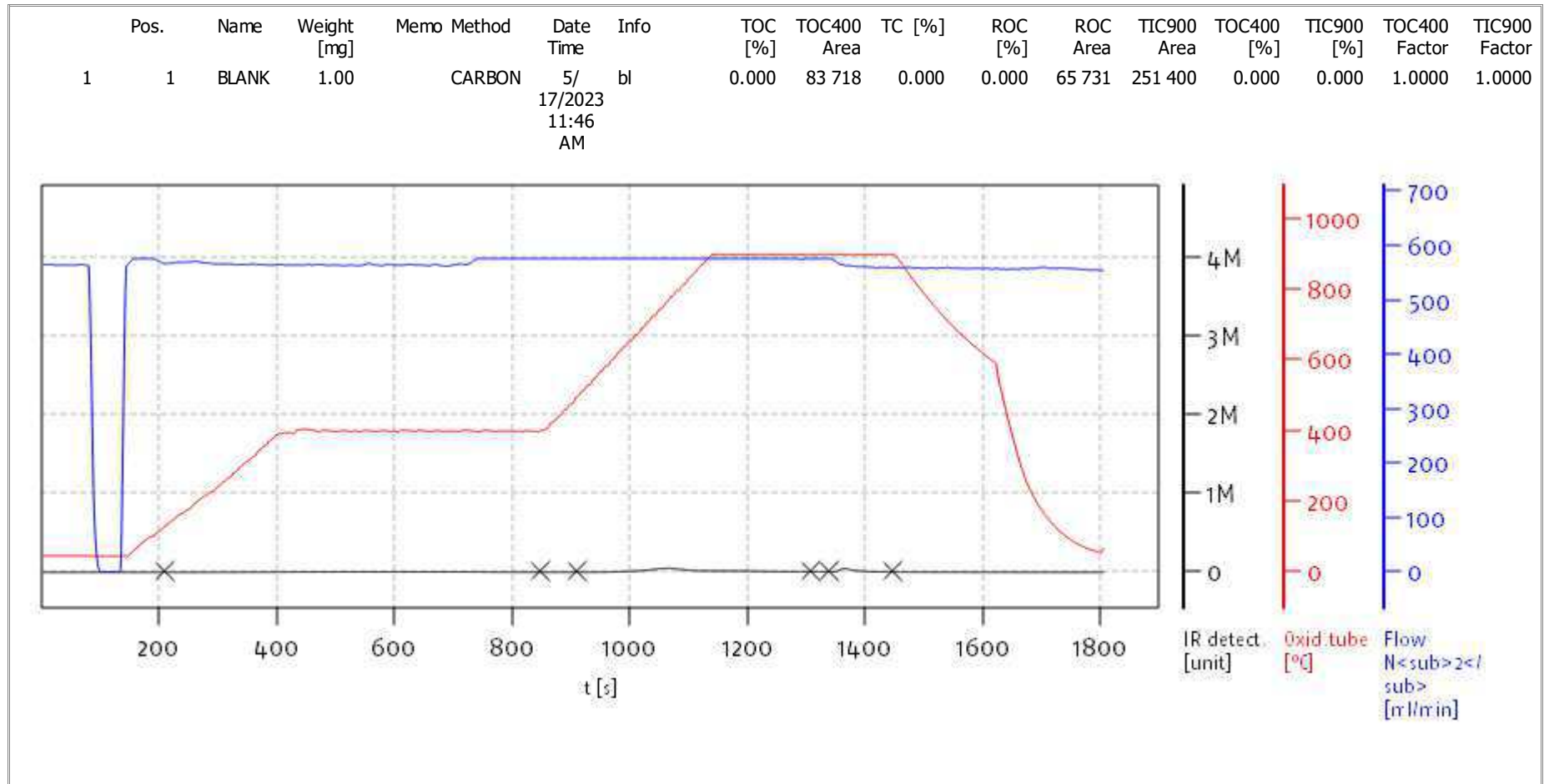
solITOC V2.0.2 (31015f9) 2018-11-19

Serial No: 0300.181017

Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

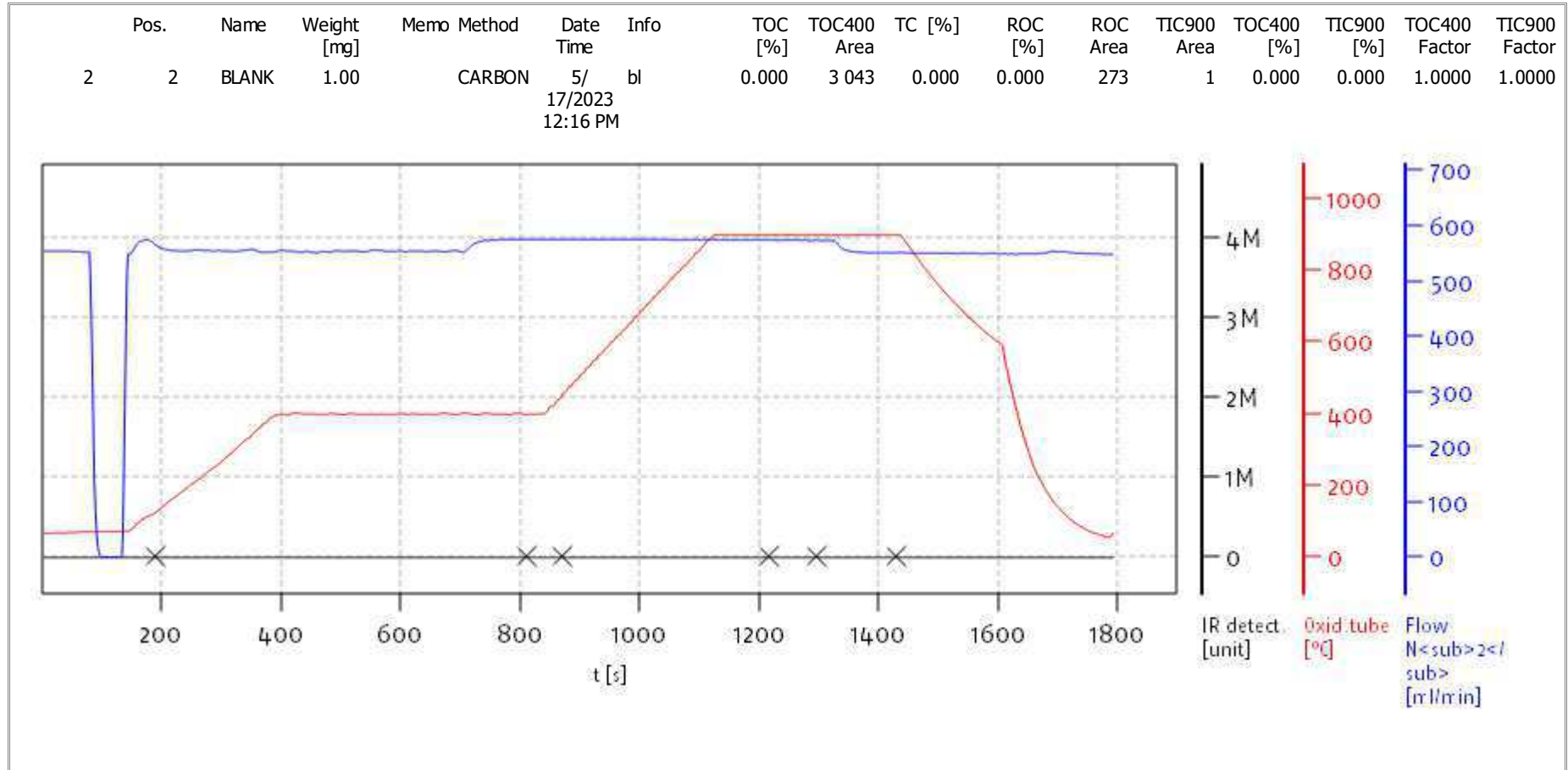
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Soli TOC Cube, Carbon
Balance: BAL3
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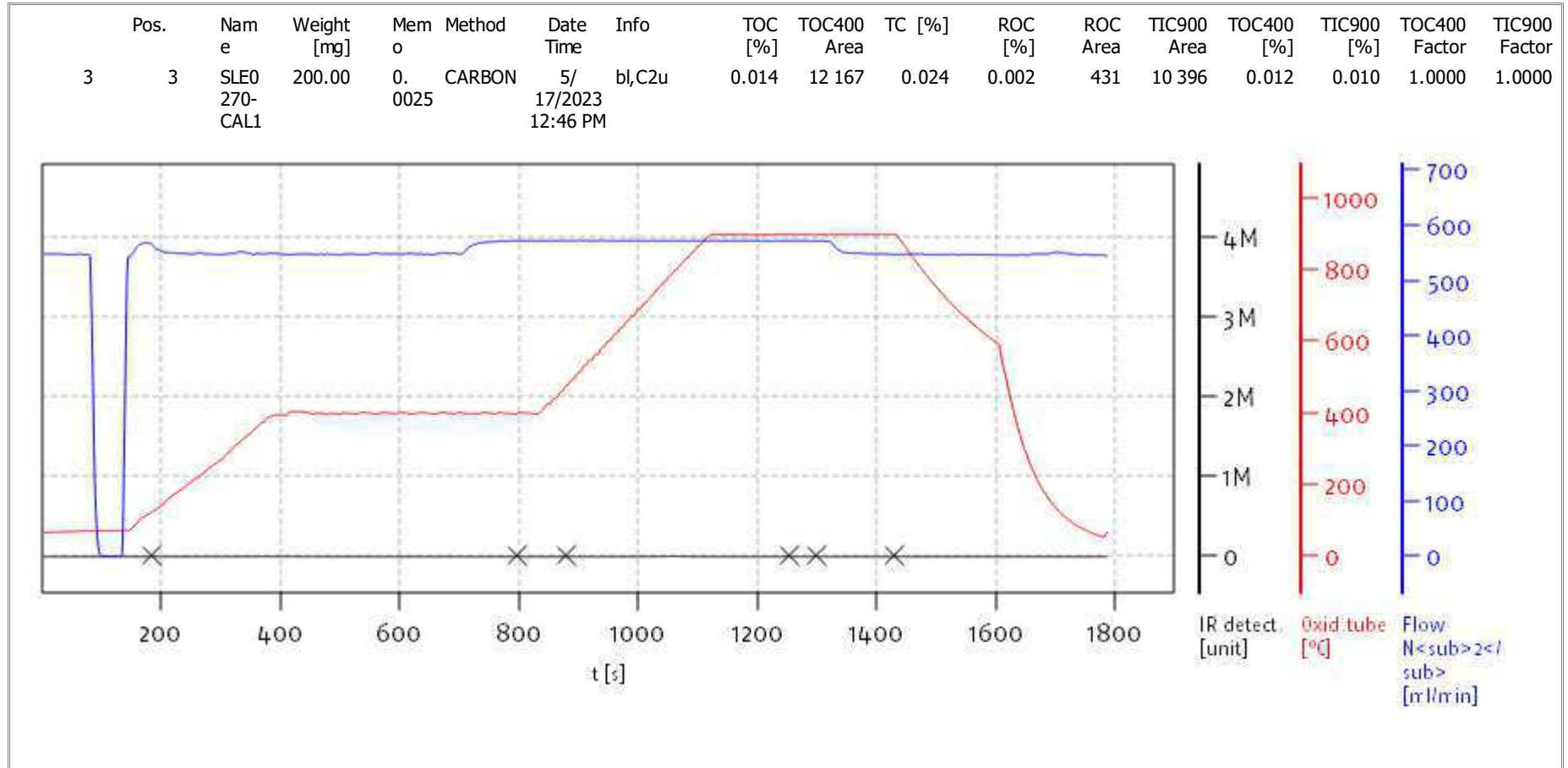
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Soli TOC Cube, Carbon
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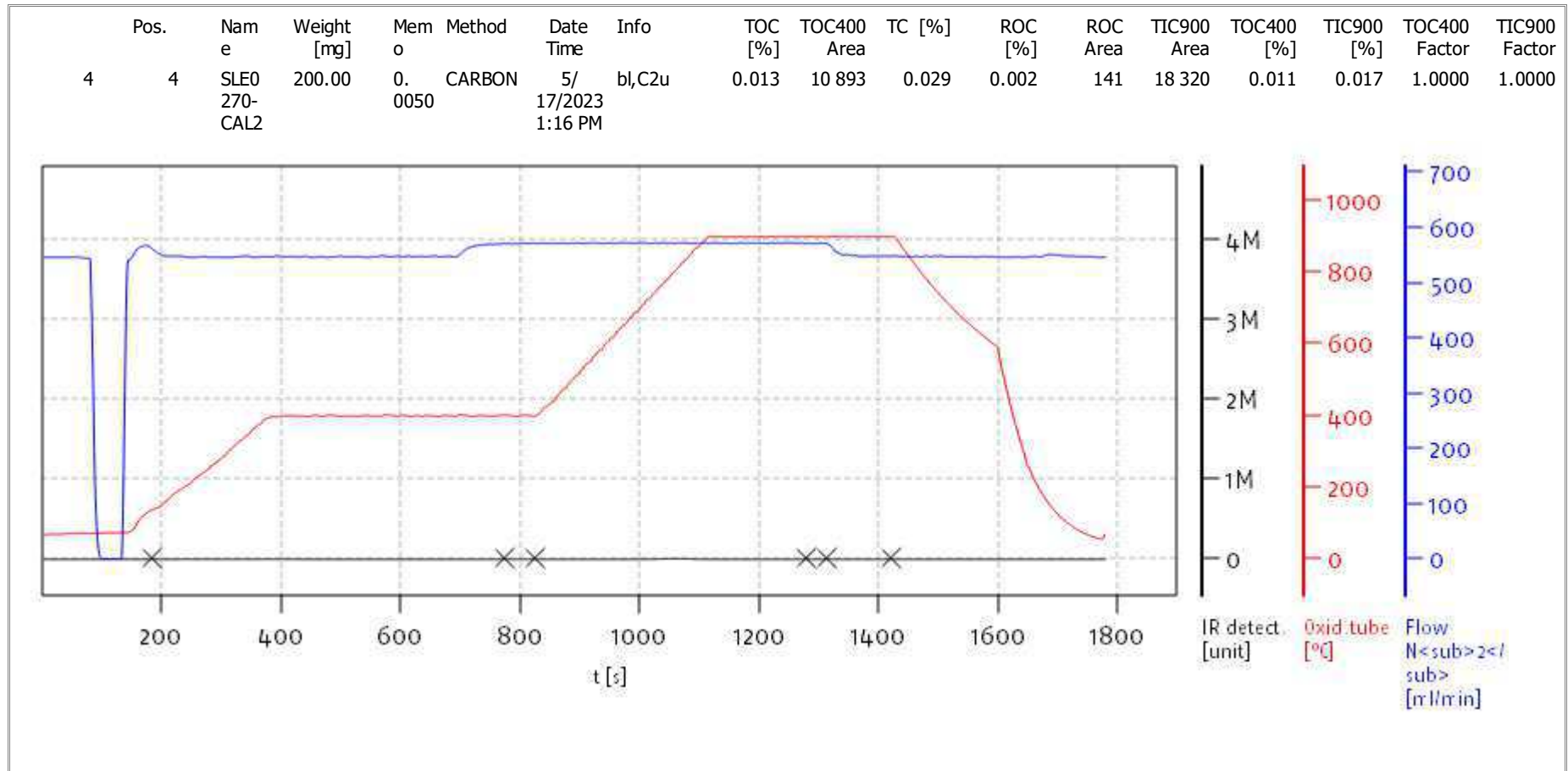
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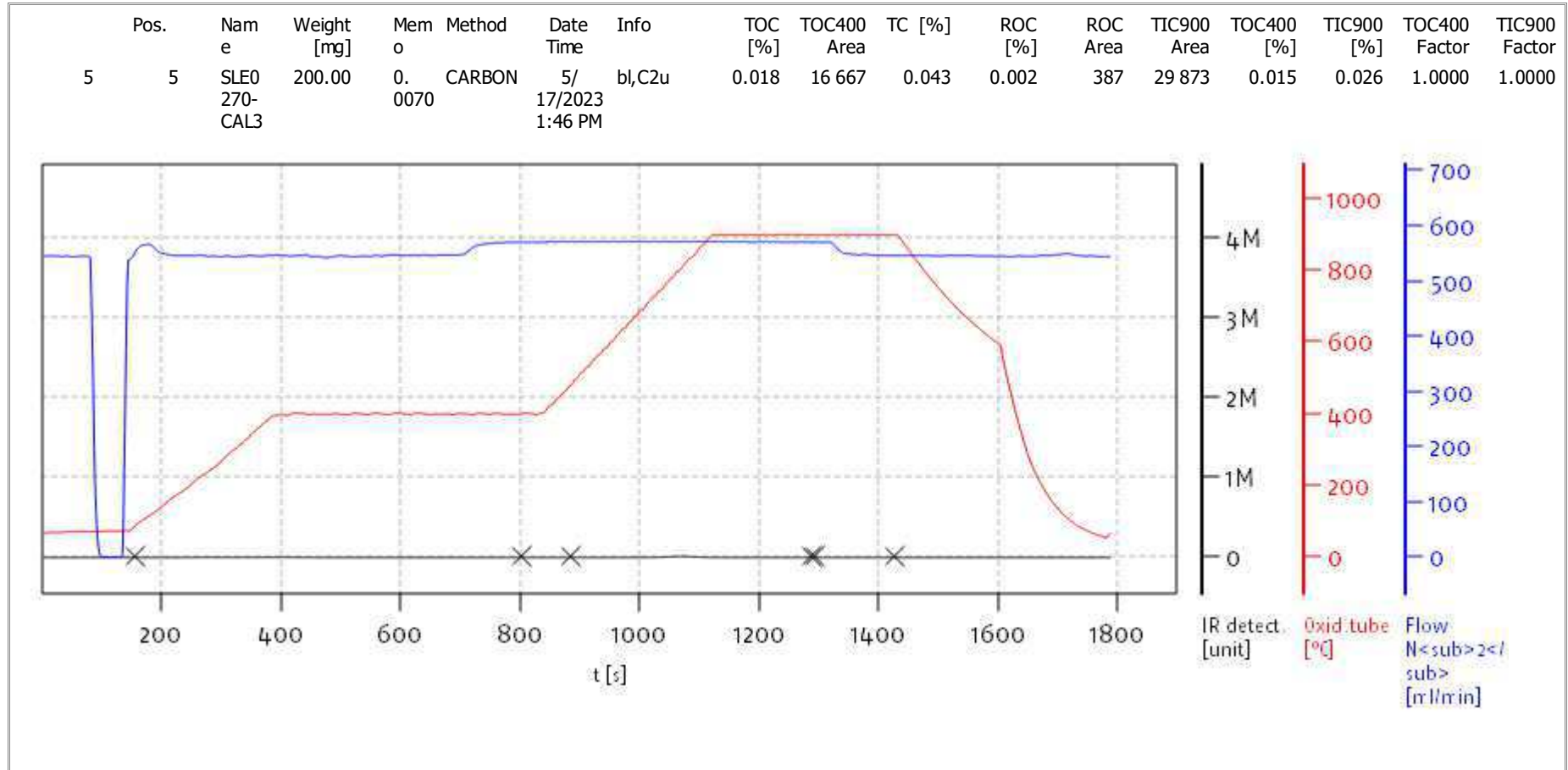
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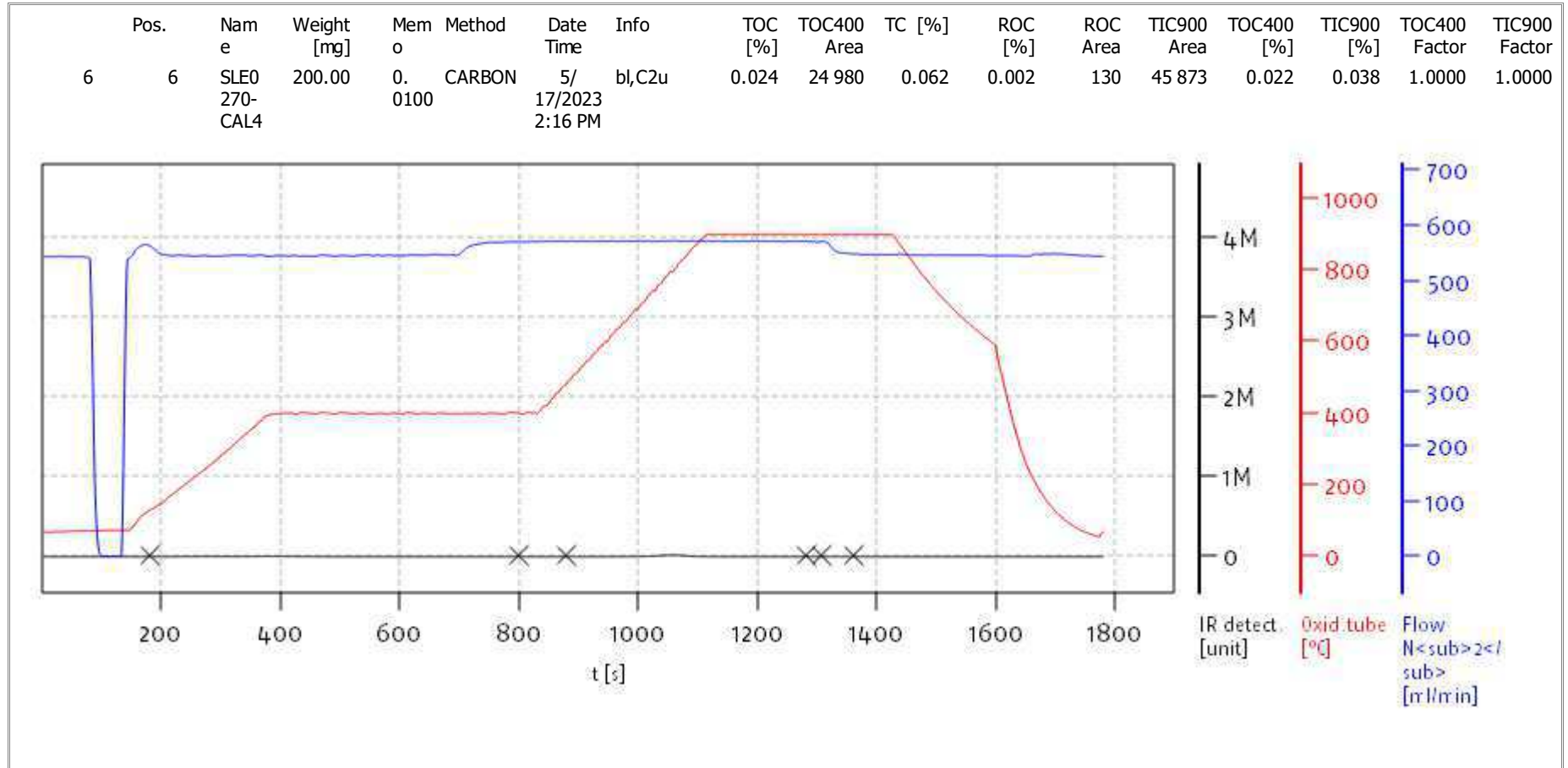
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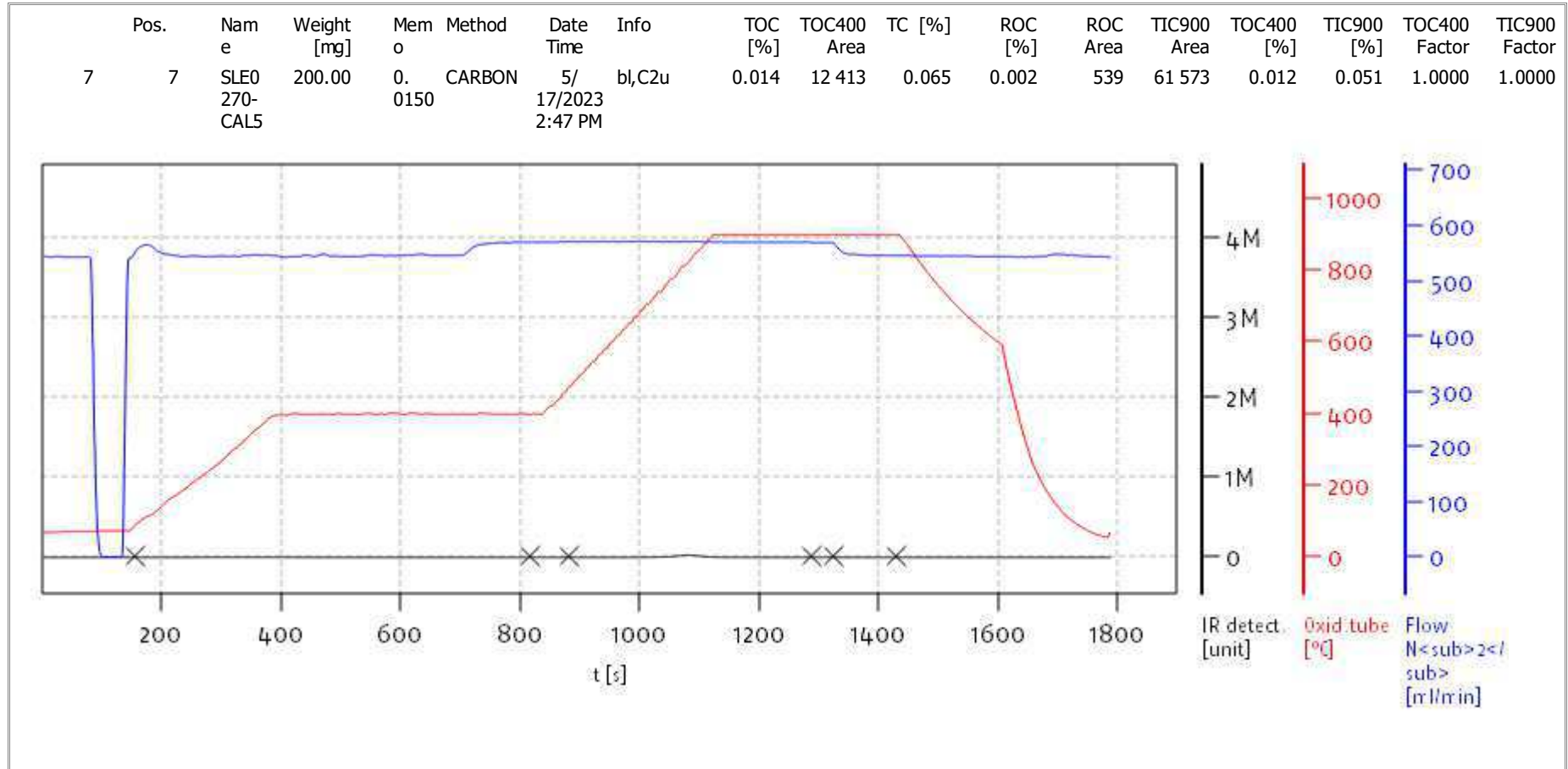
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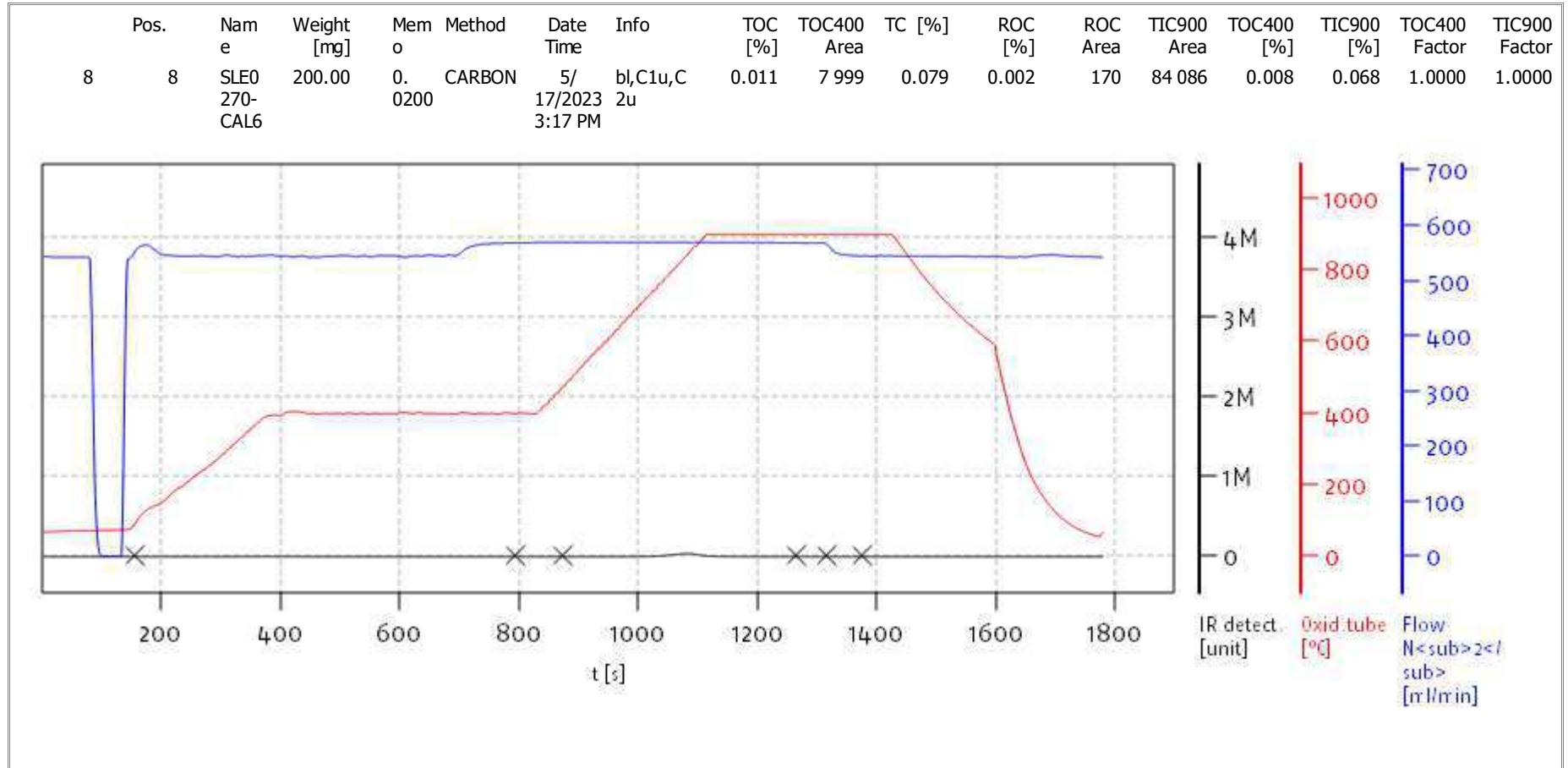
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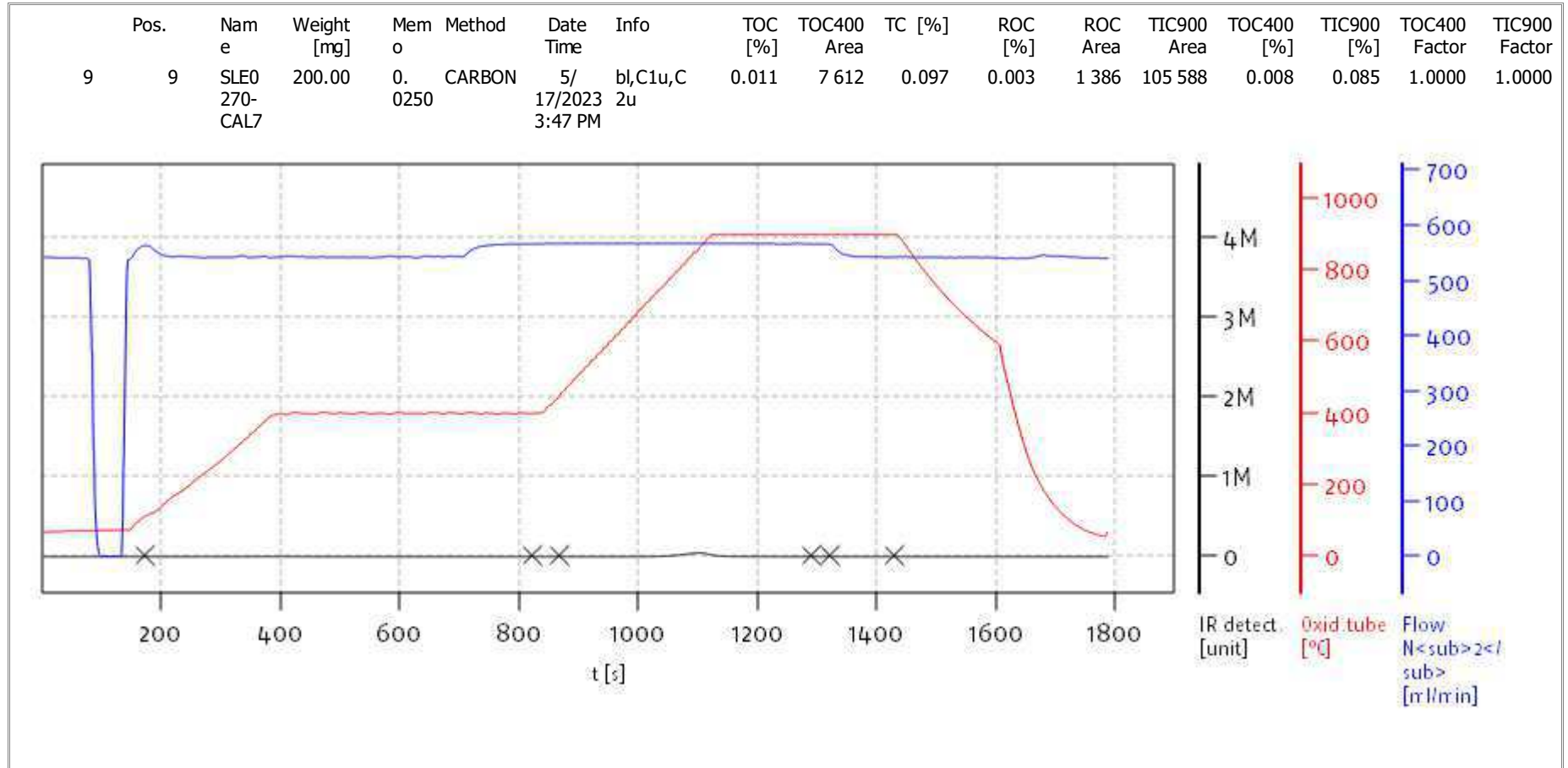
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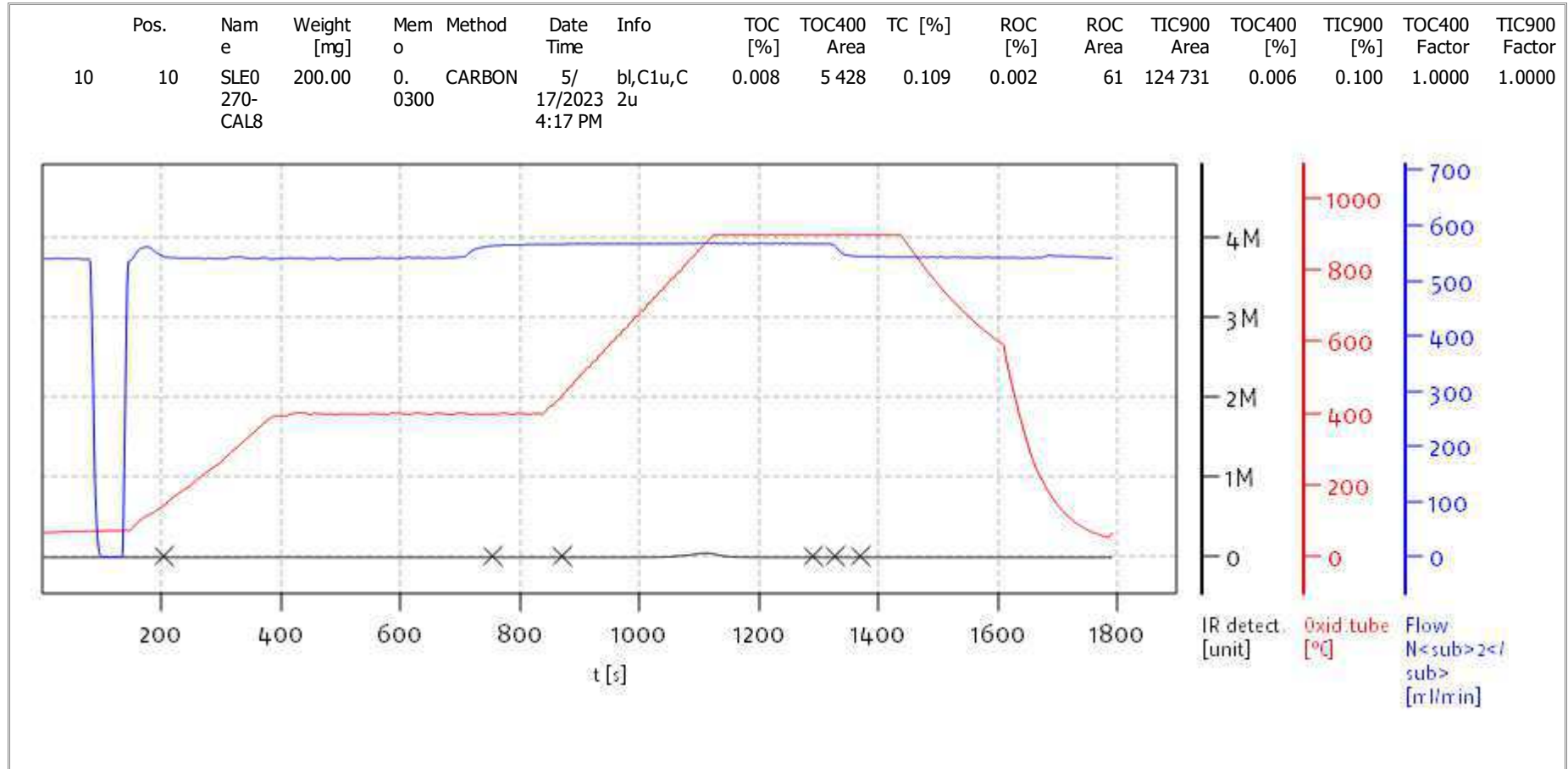
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Access: solITOC superuser

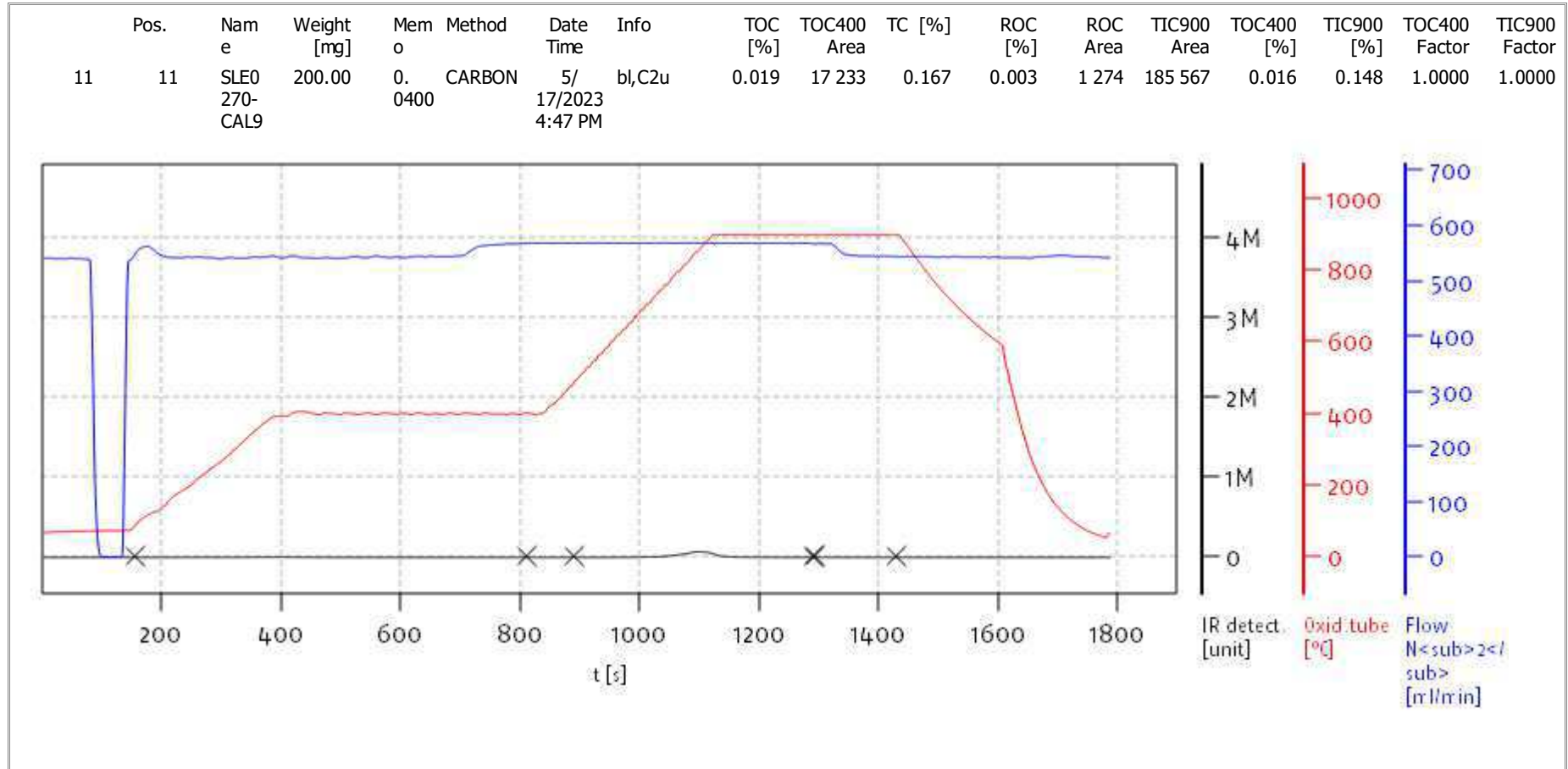
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

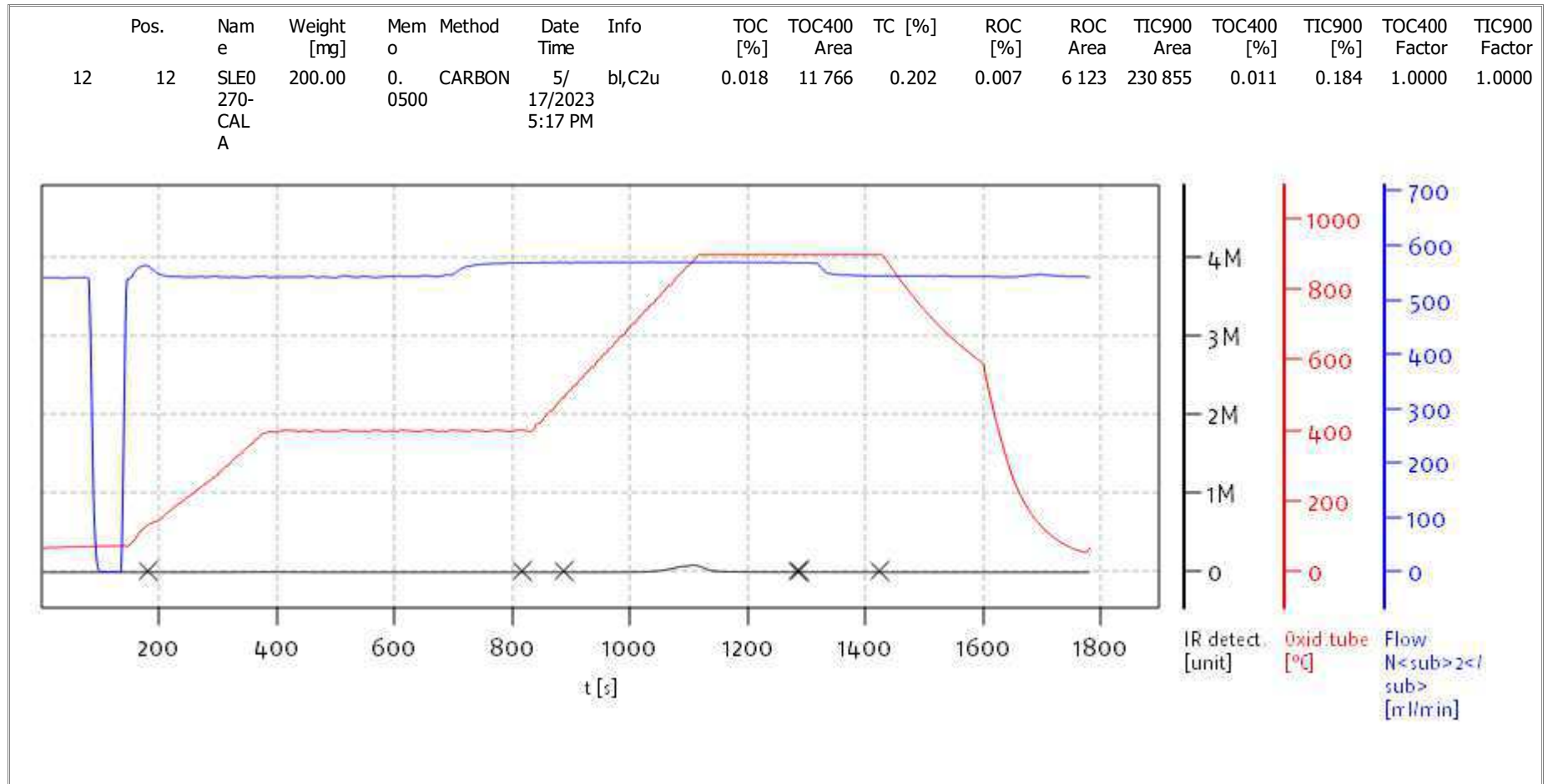
Date: Thu May 18 09:43:39 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

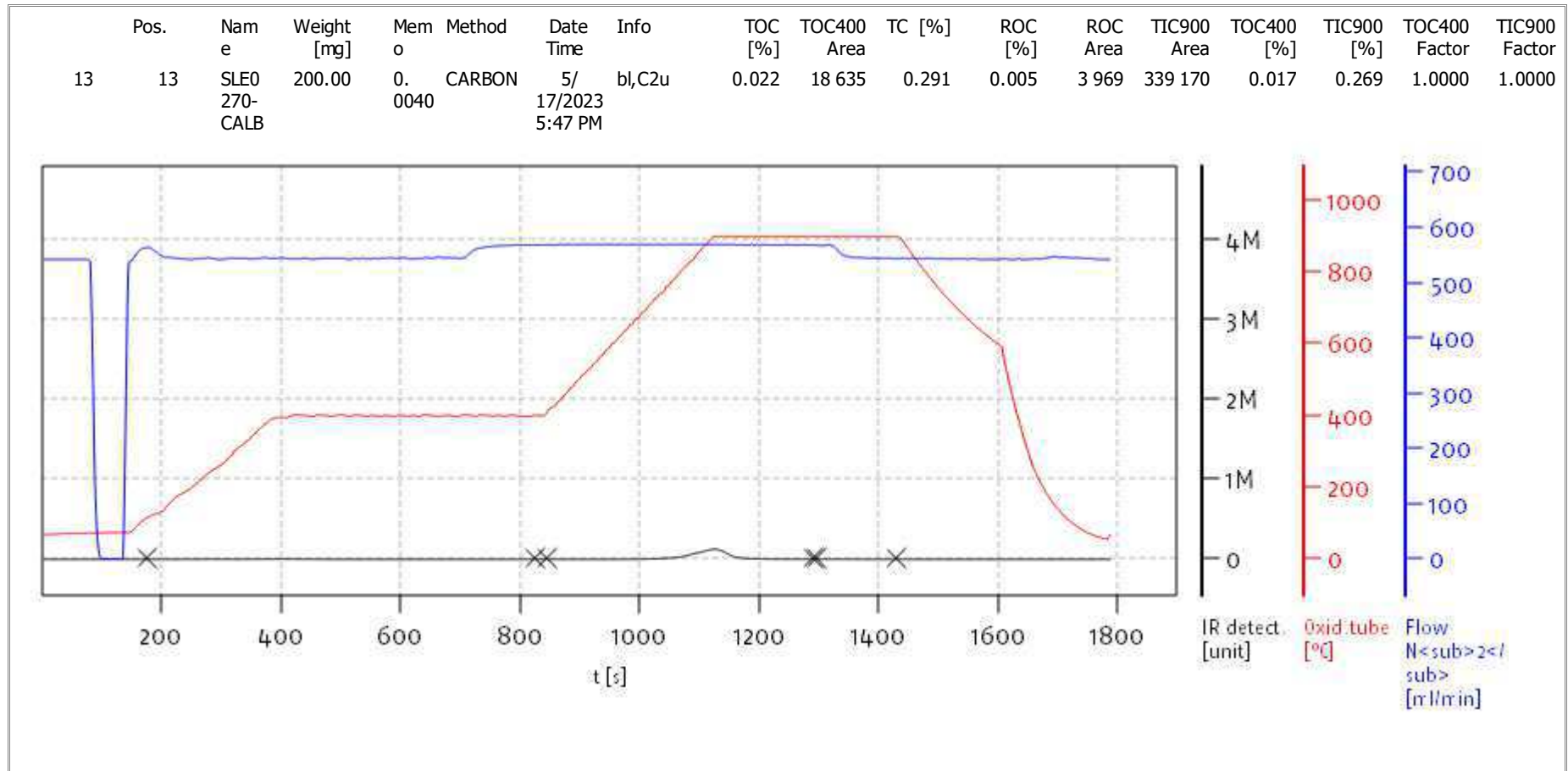
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

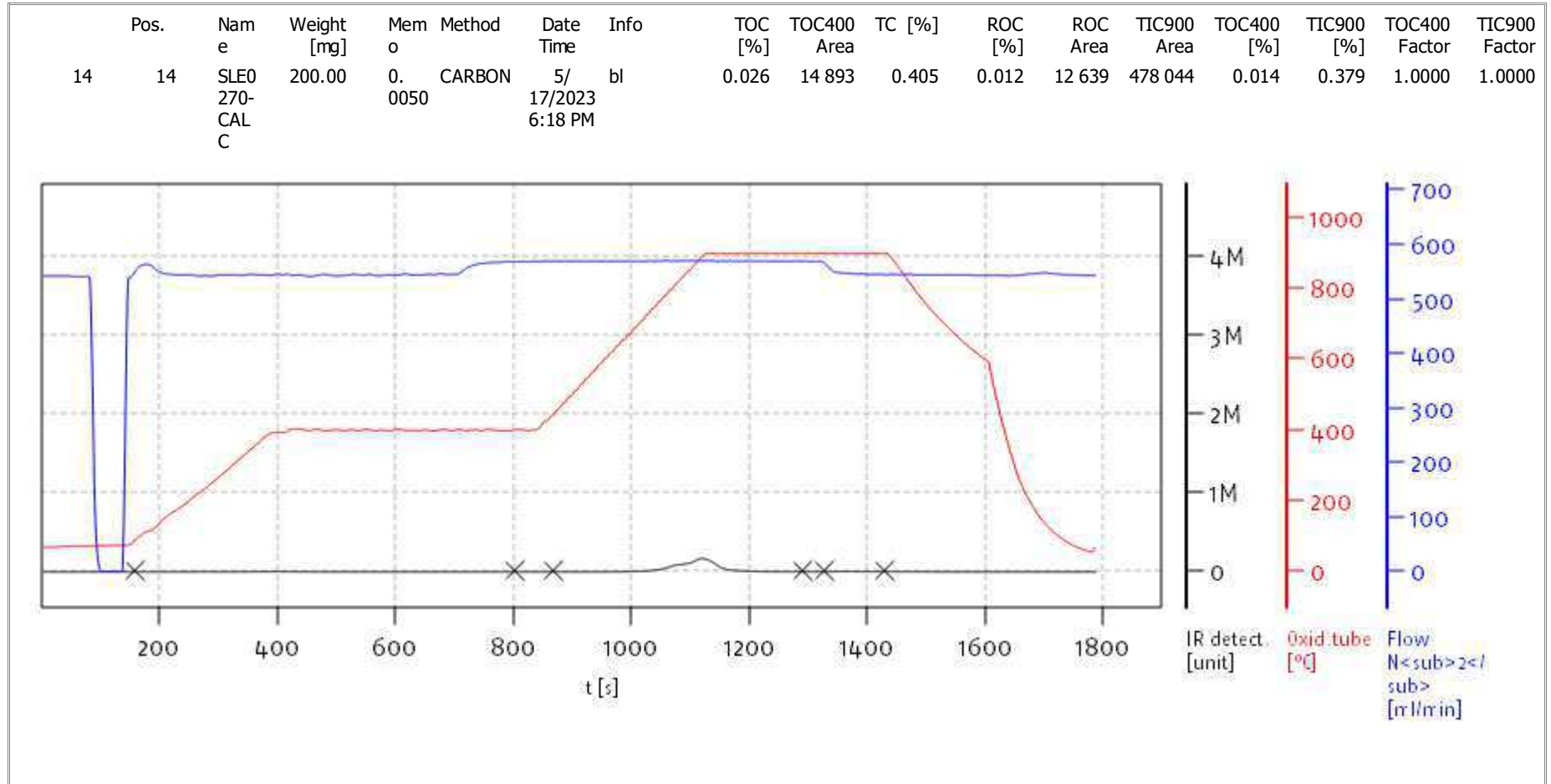
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

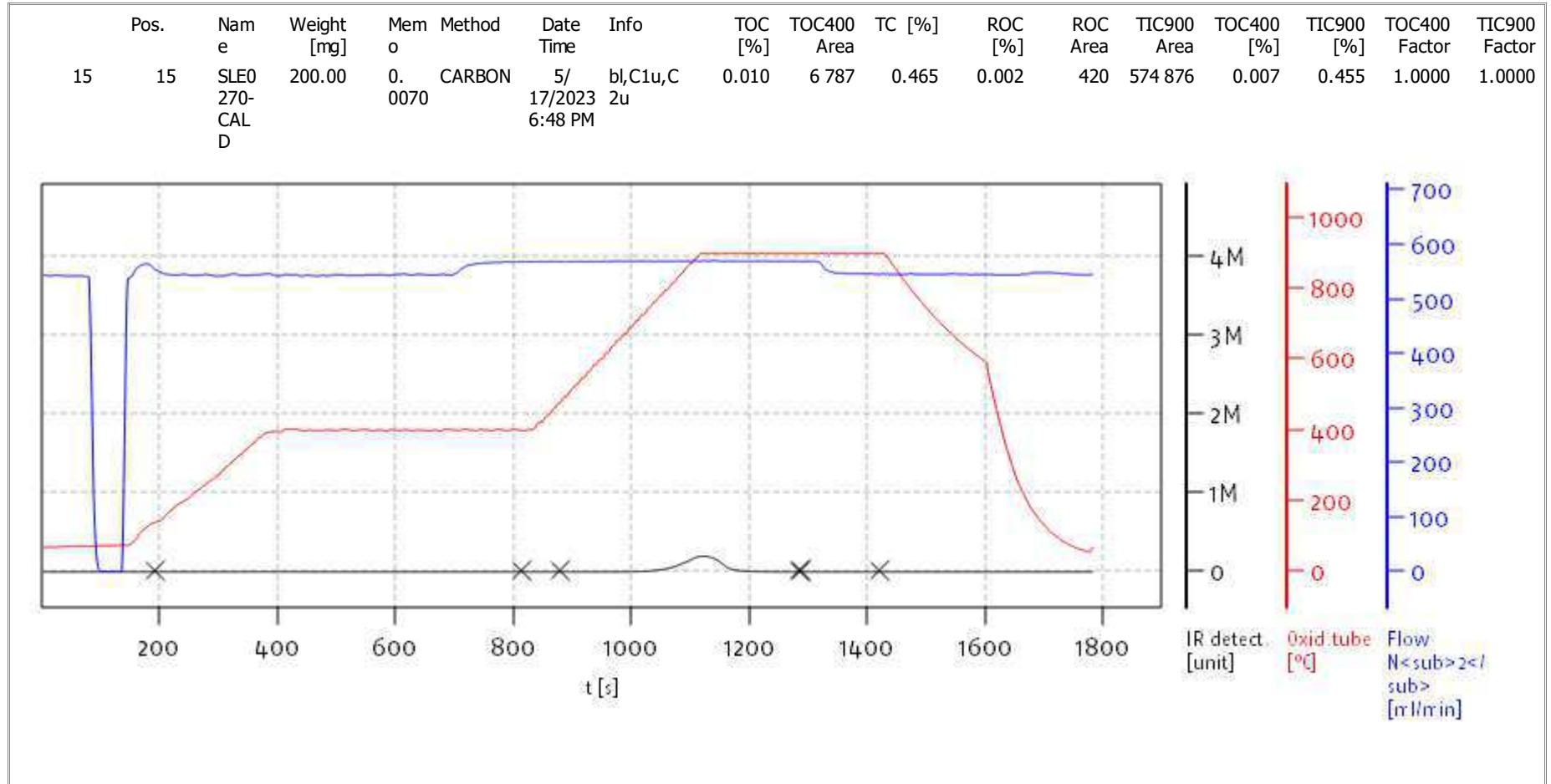
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solITOC V2.0.2 (31015f9) 2018-11-19
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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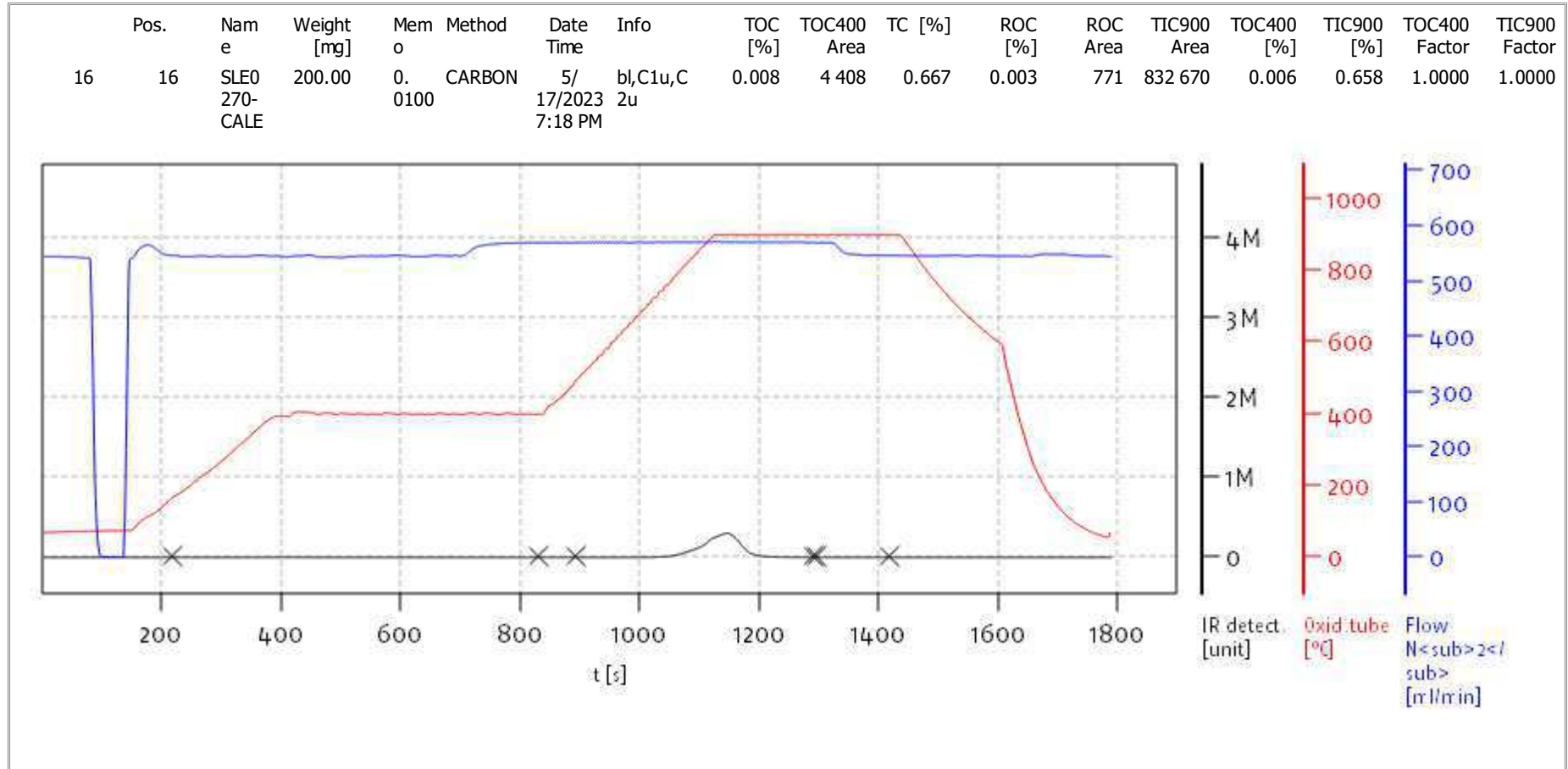
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

Access: solITOC superuser

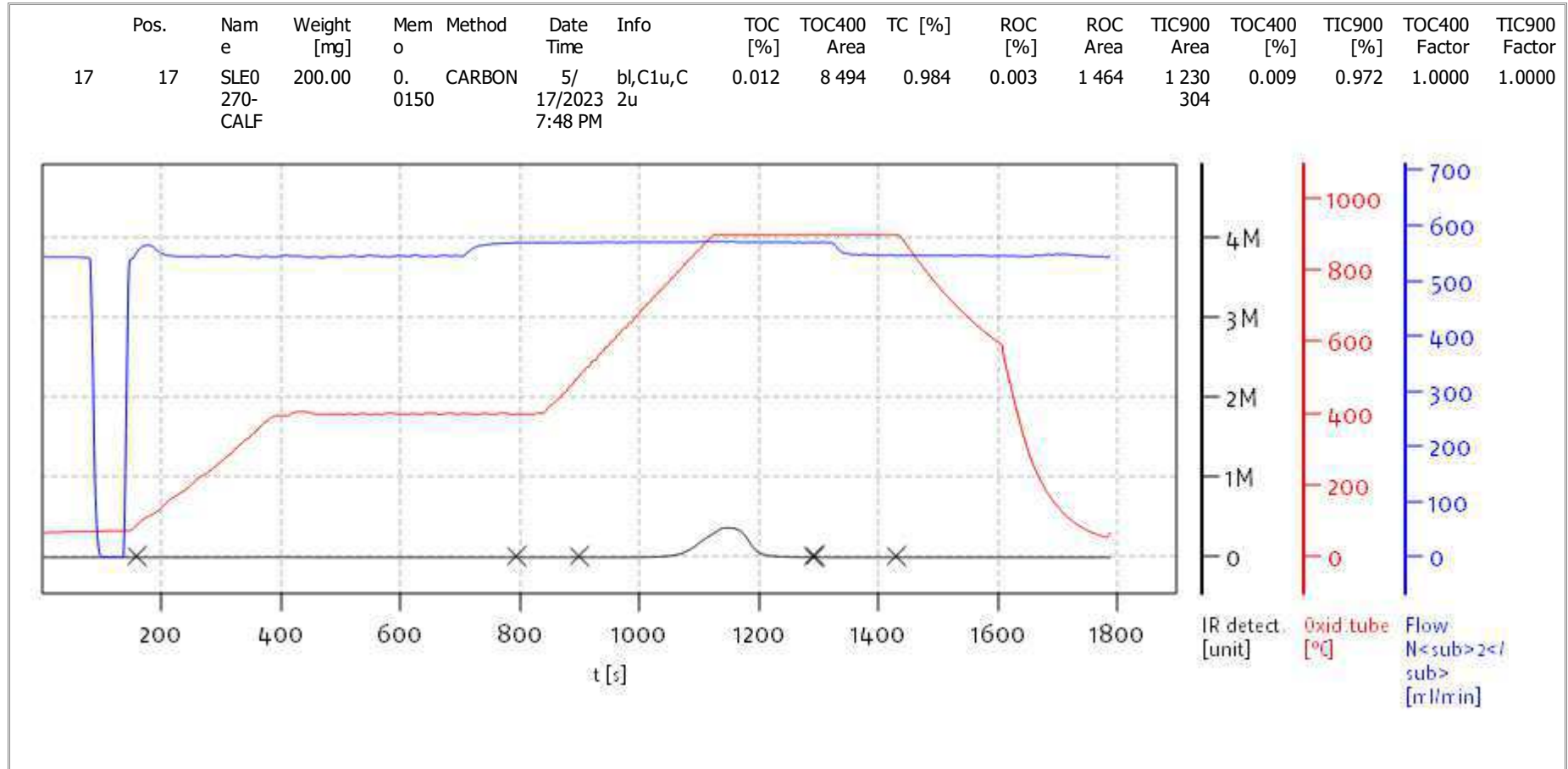
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Name:

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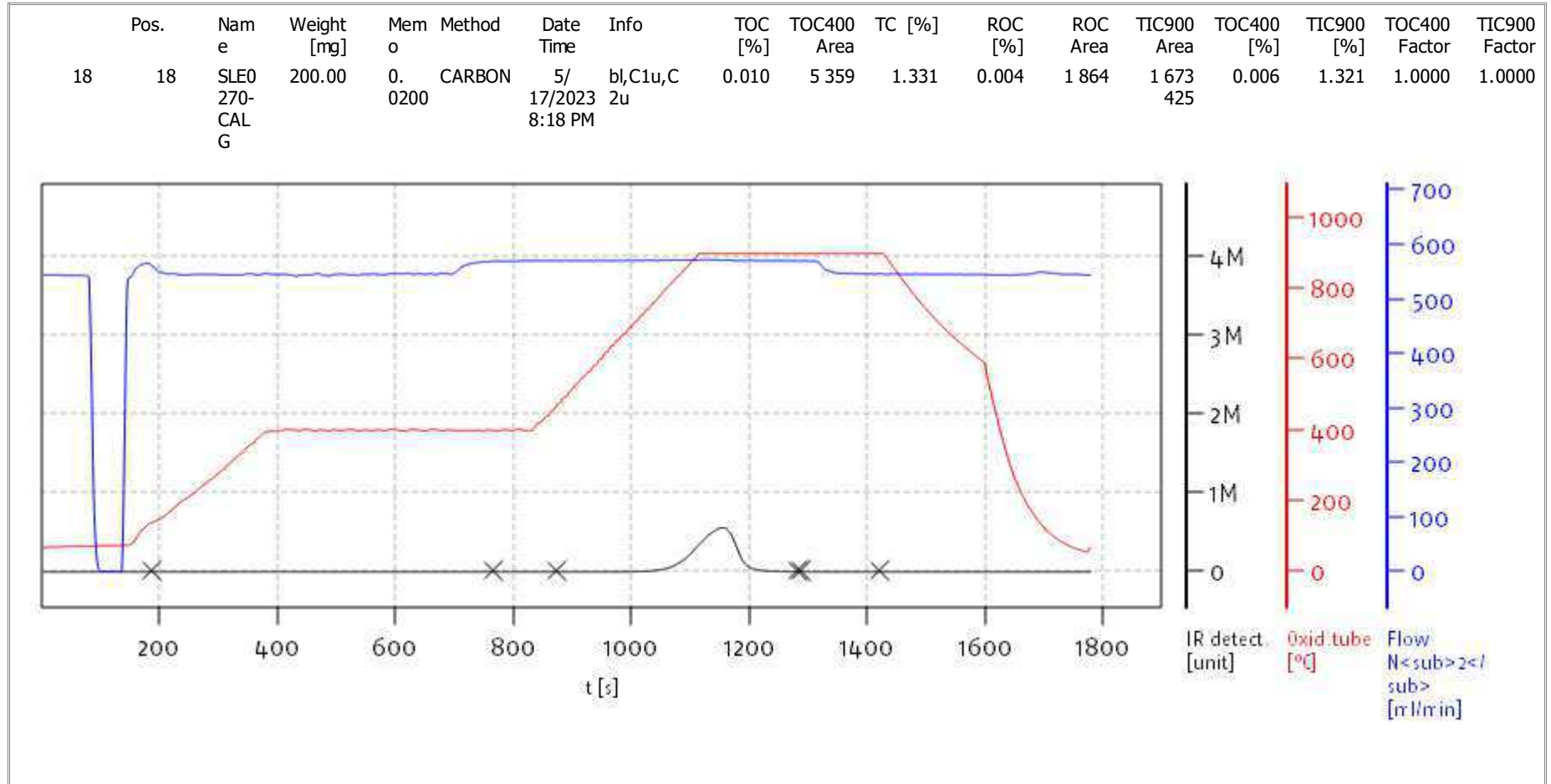
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

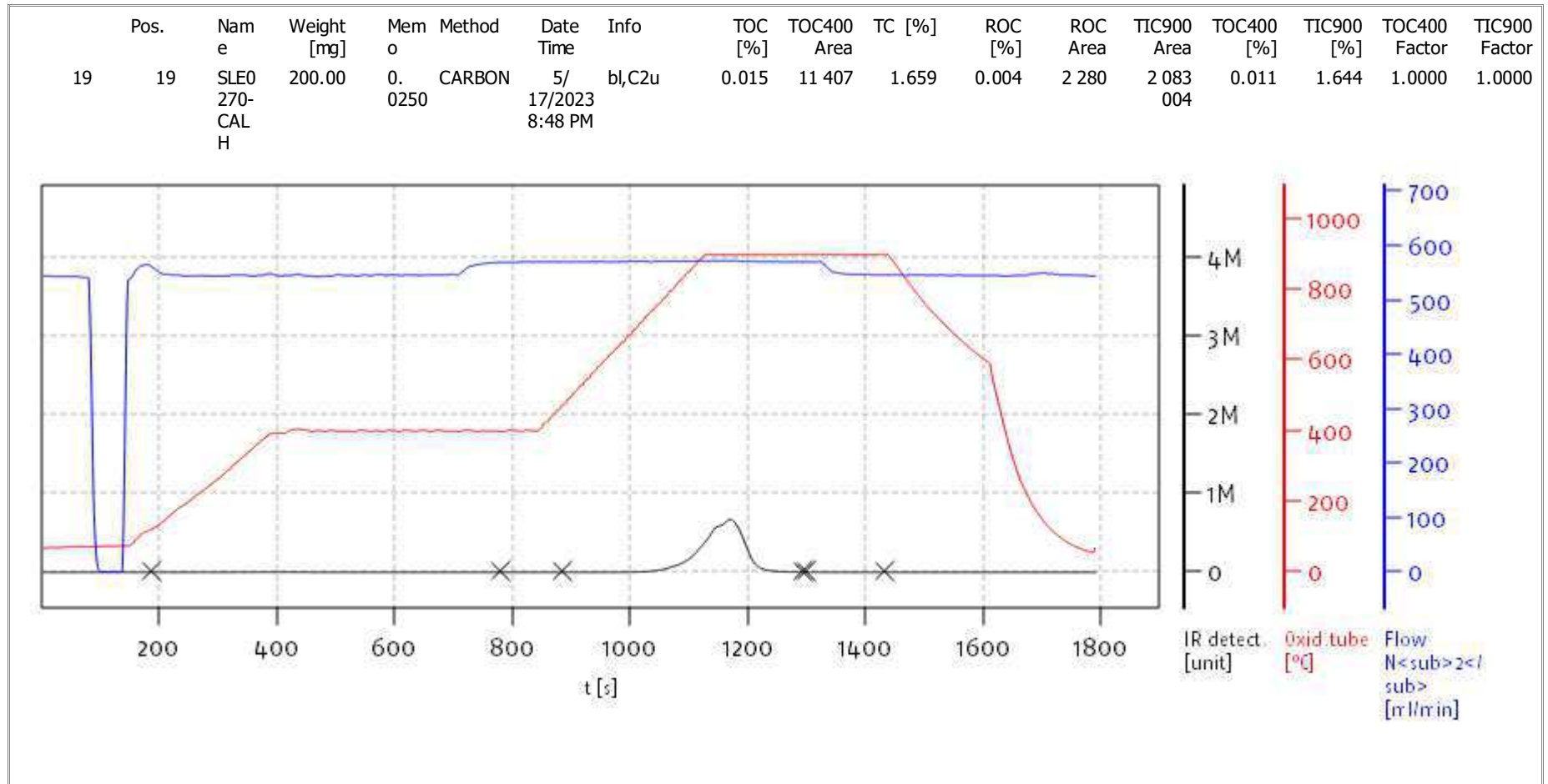
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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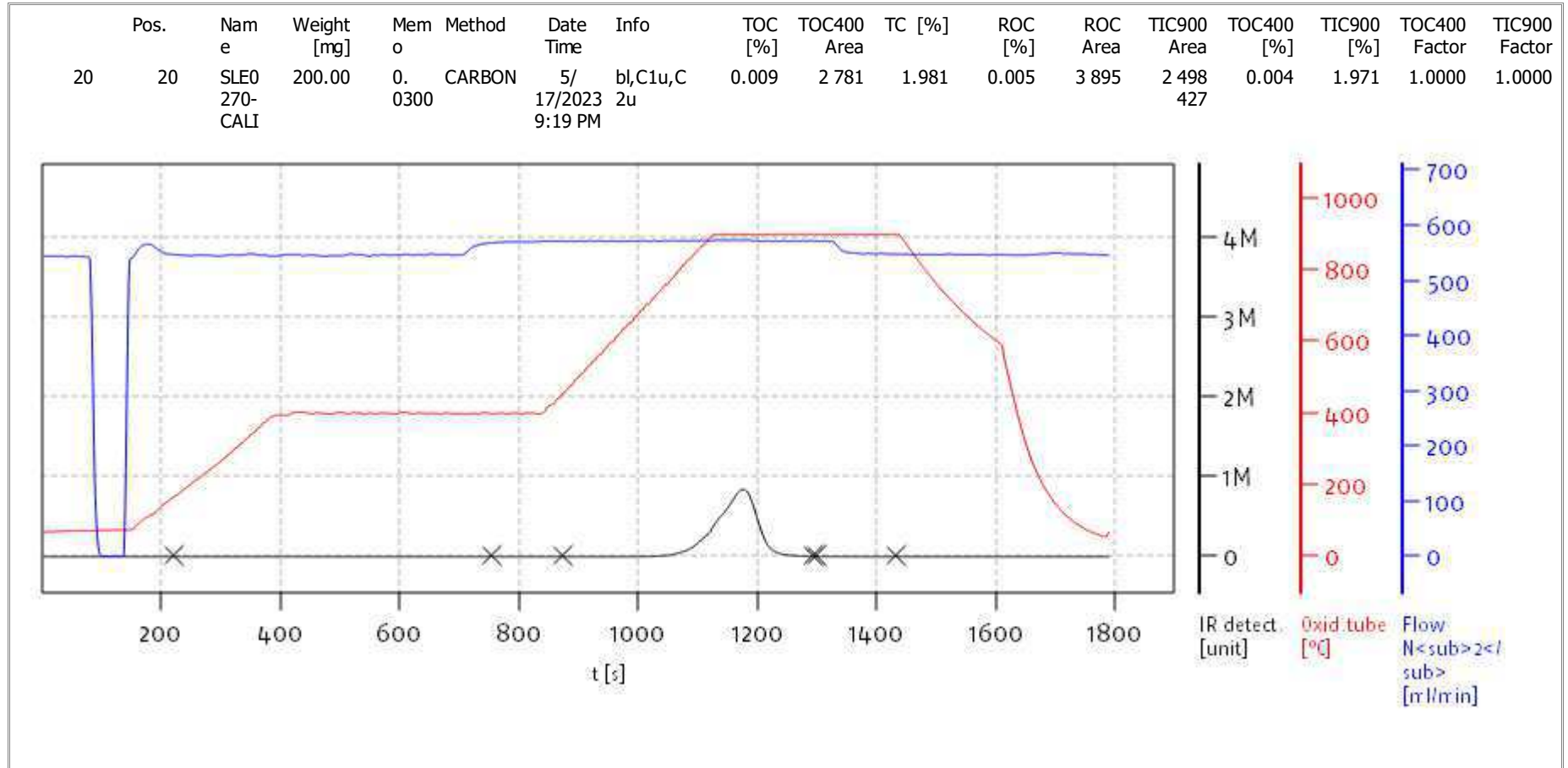
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Balance: BAL3
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Name:

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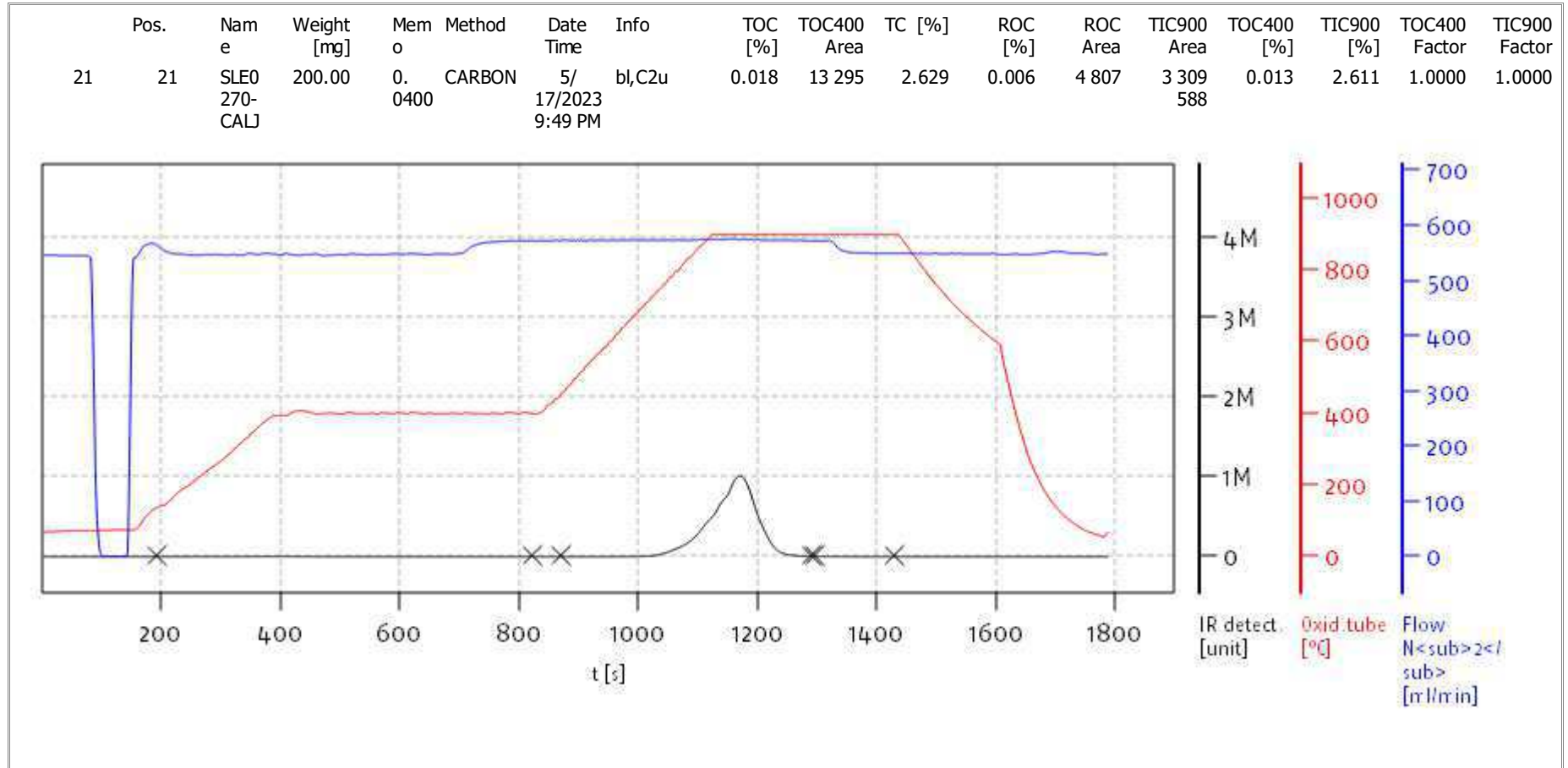
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

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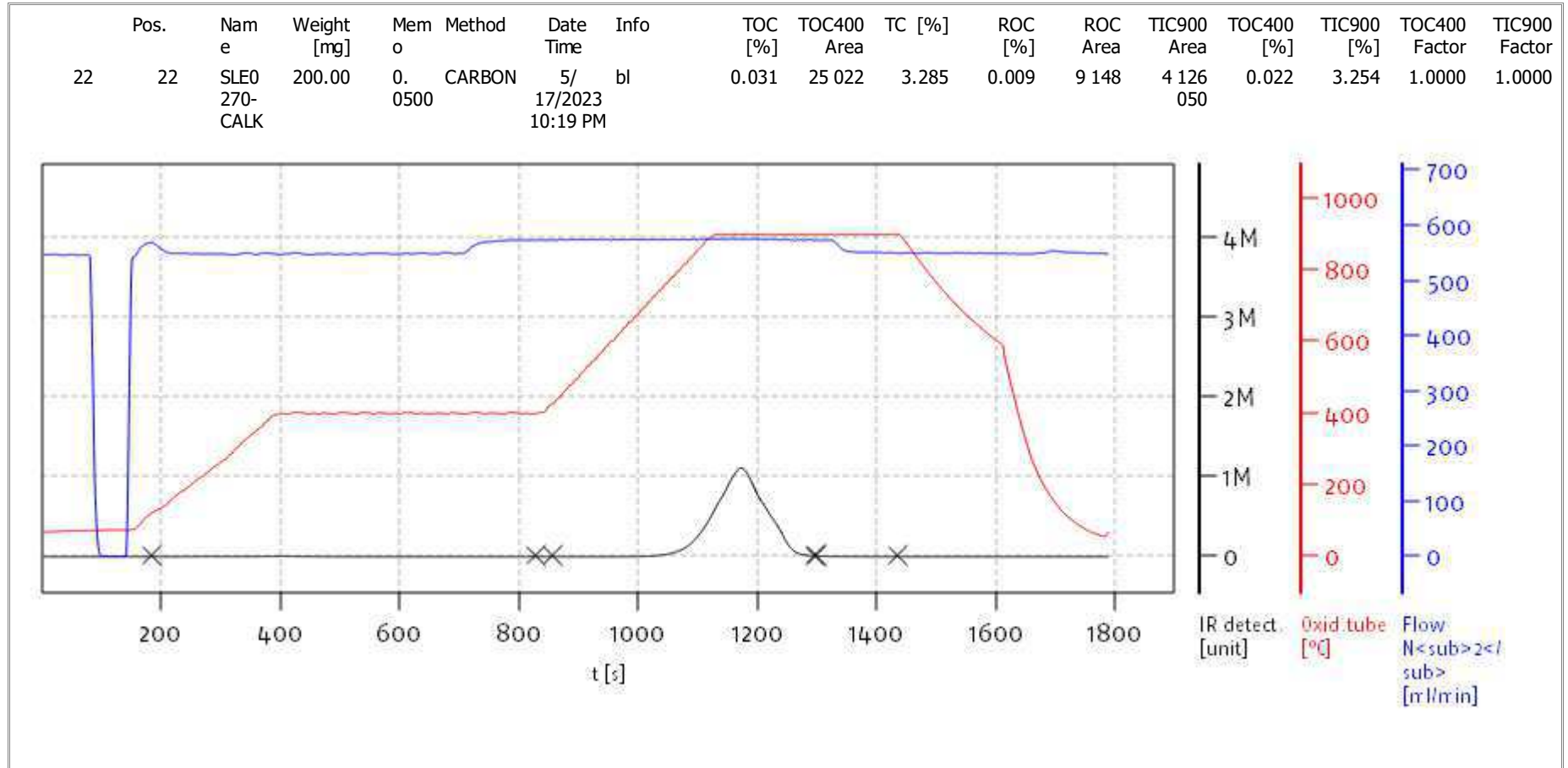
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Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

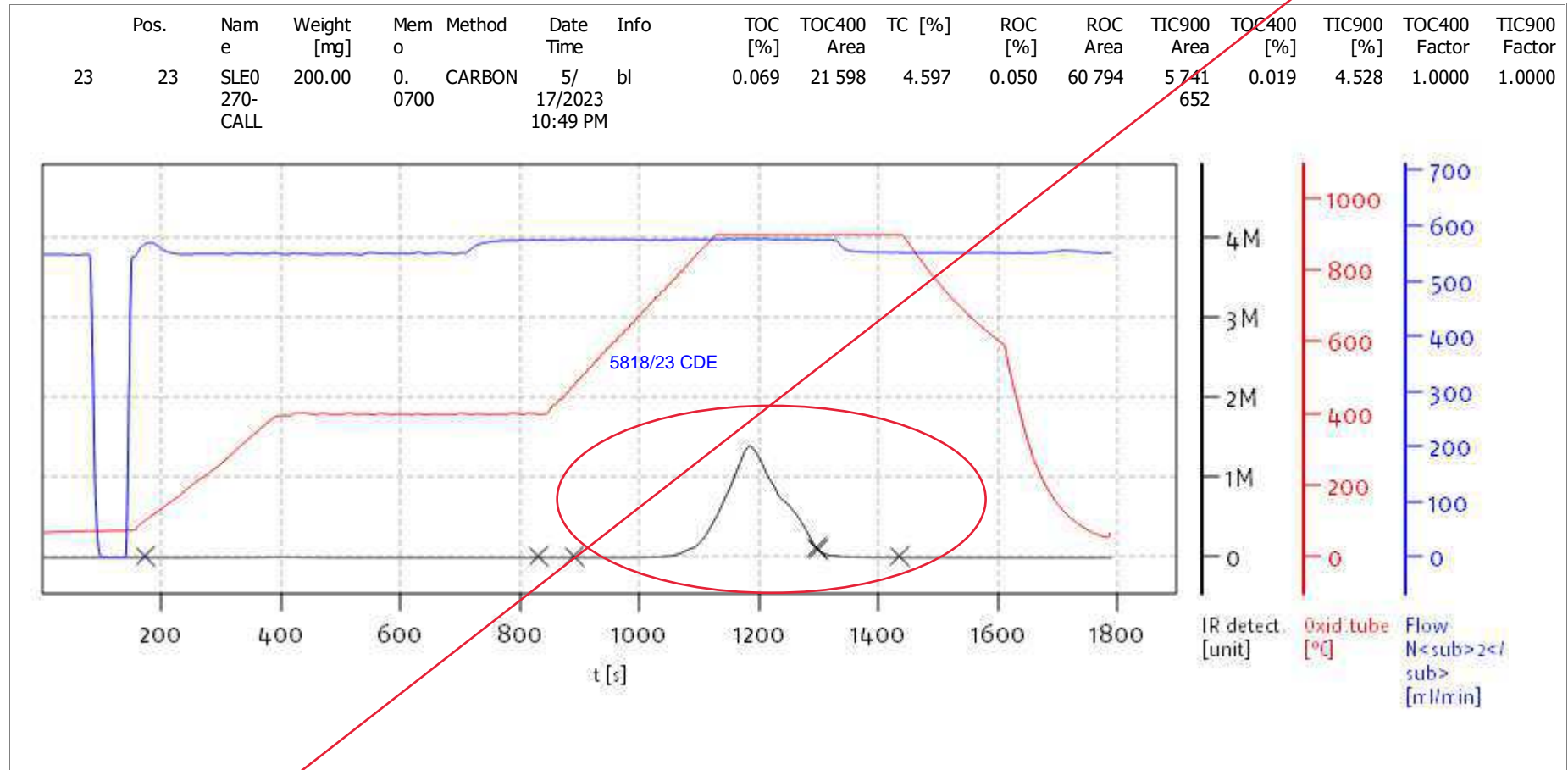
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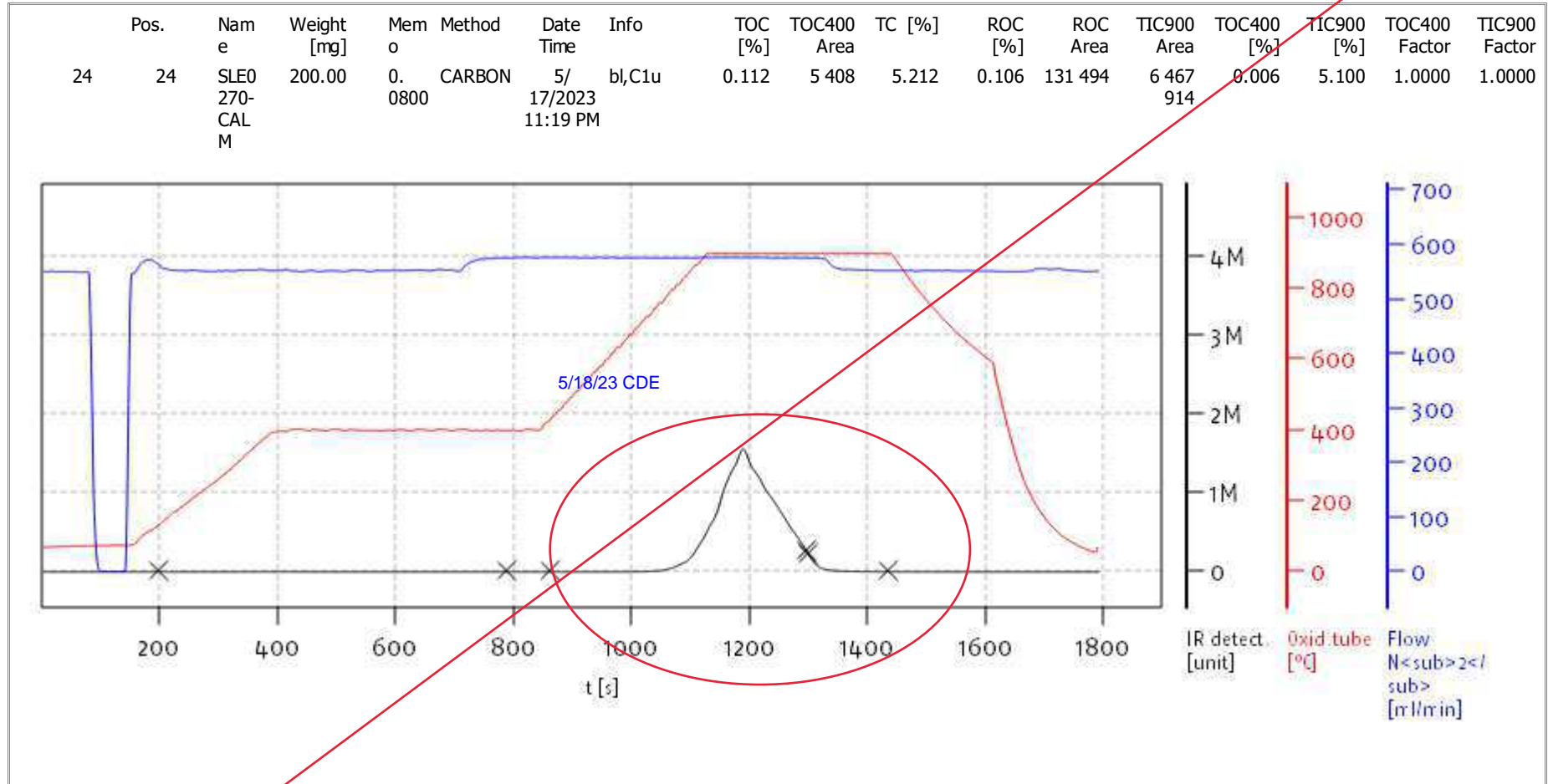
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Name:

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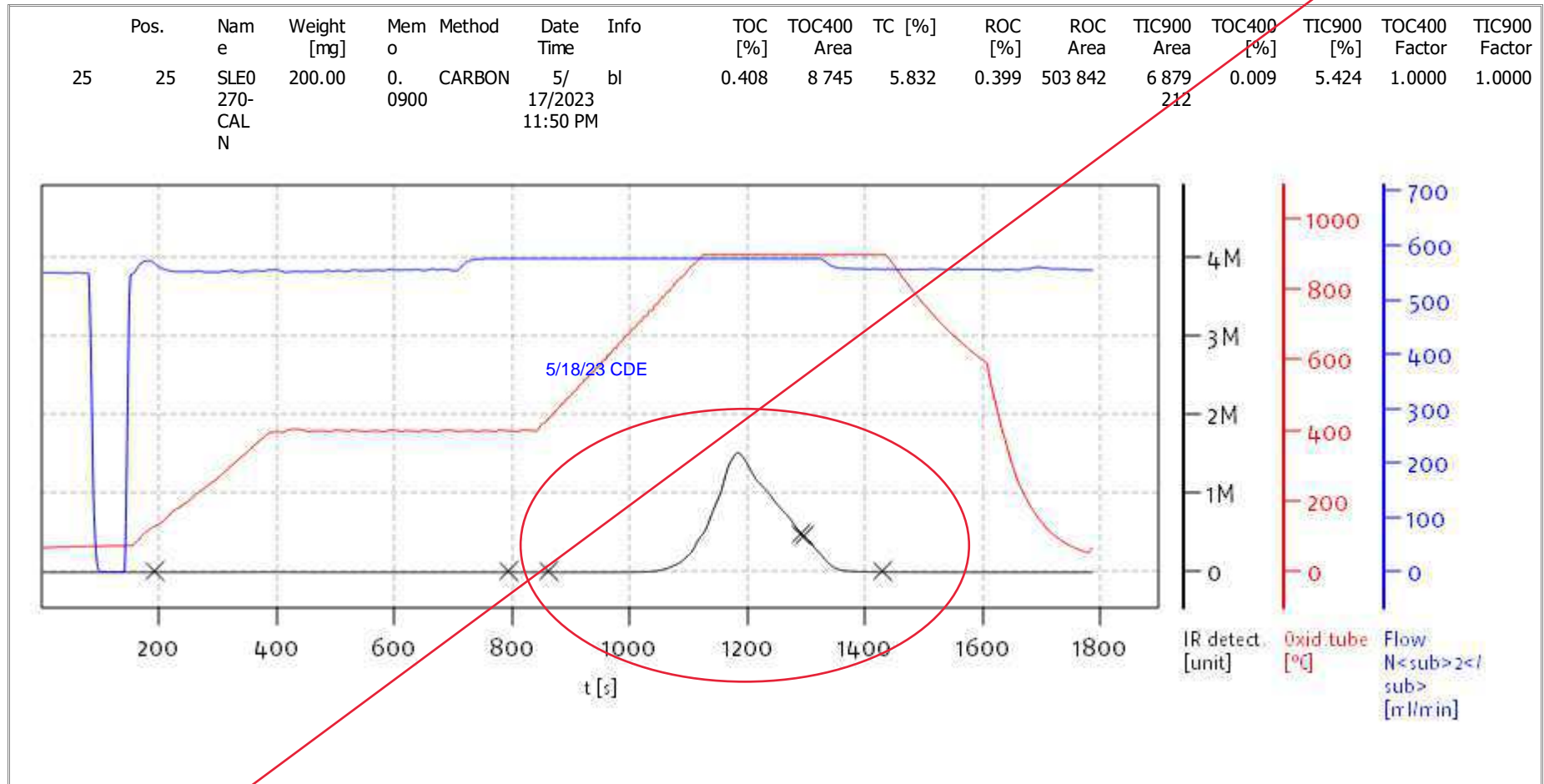
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Serial No: 0300.181017
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Name:

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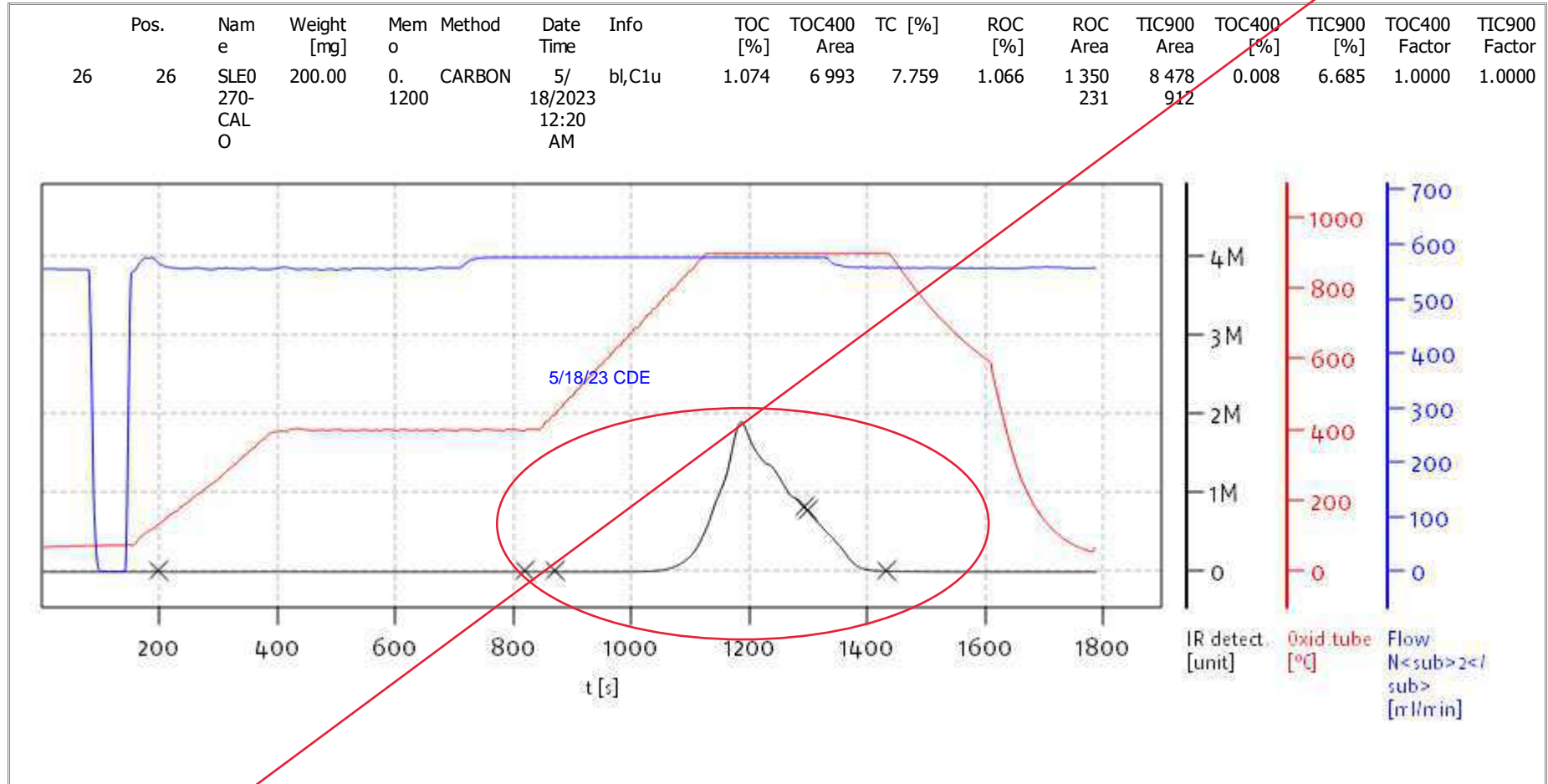
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Name:

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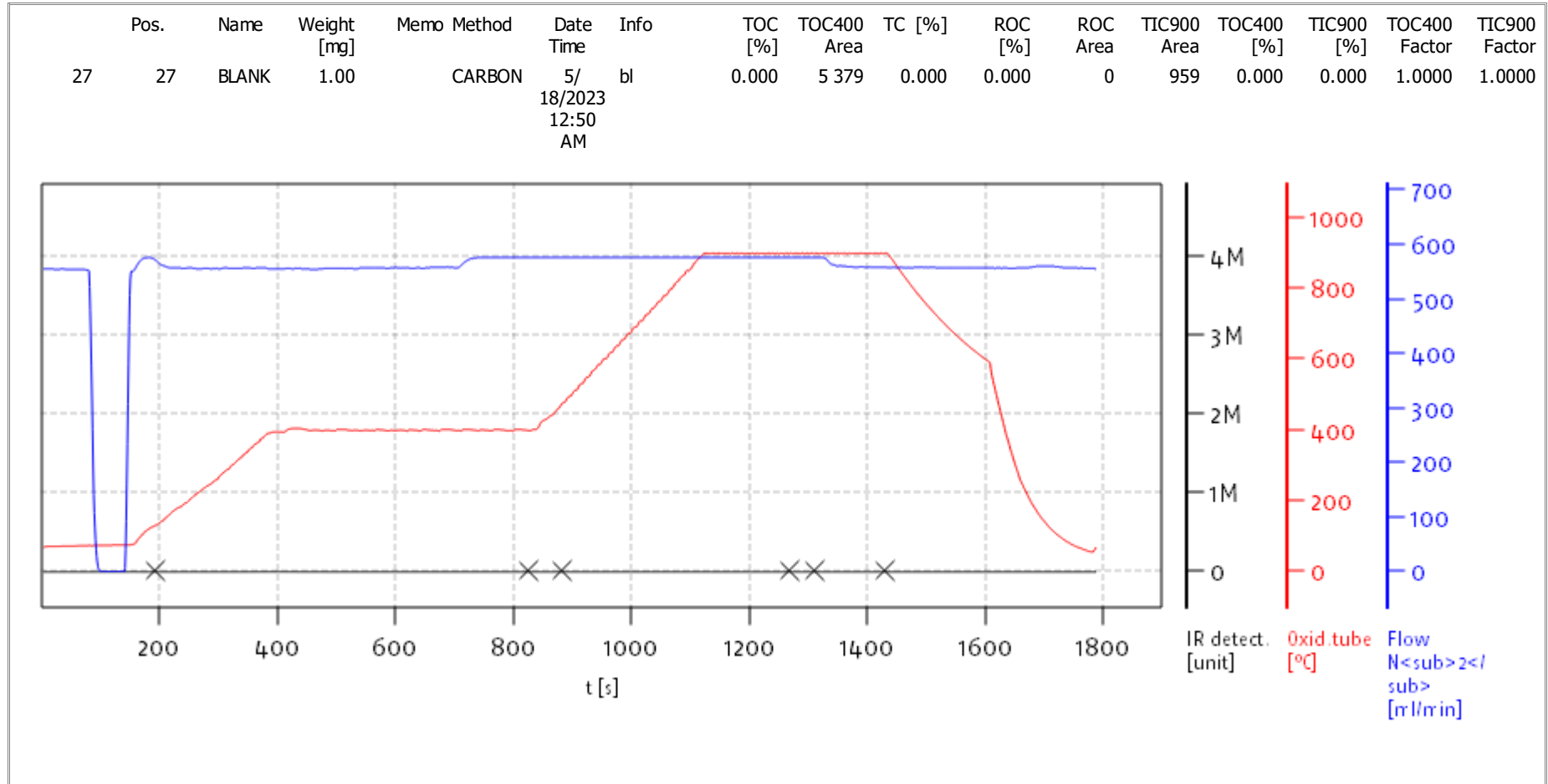
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Balance: BAL3
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Name:

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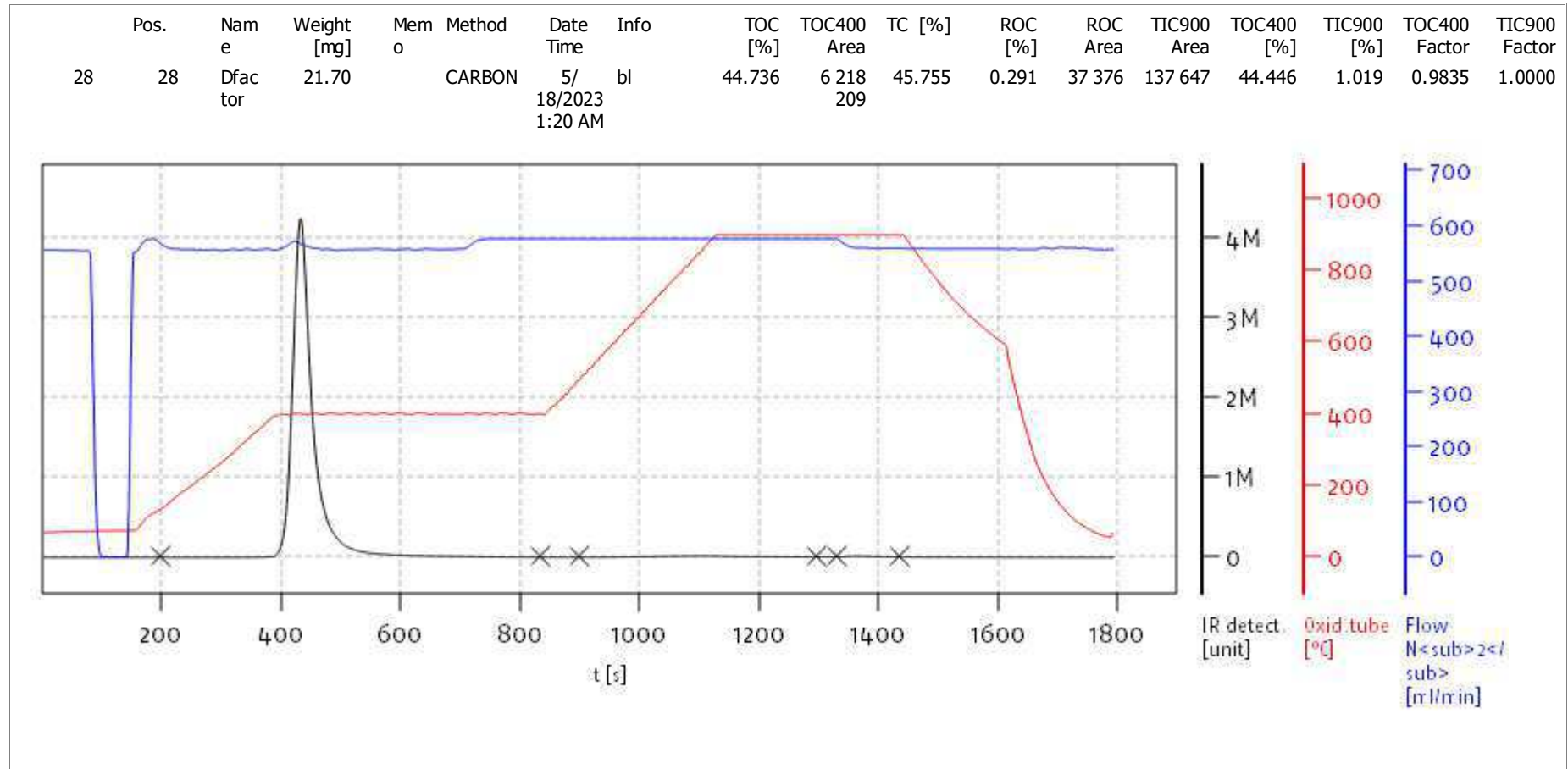
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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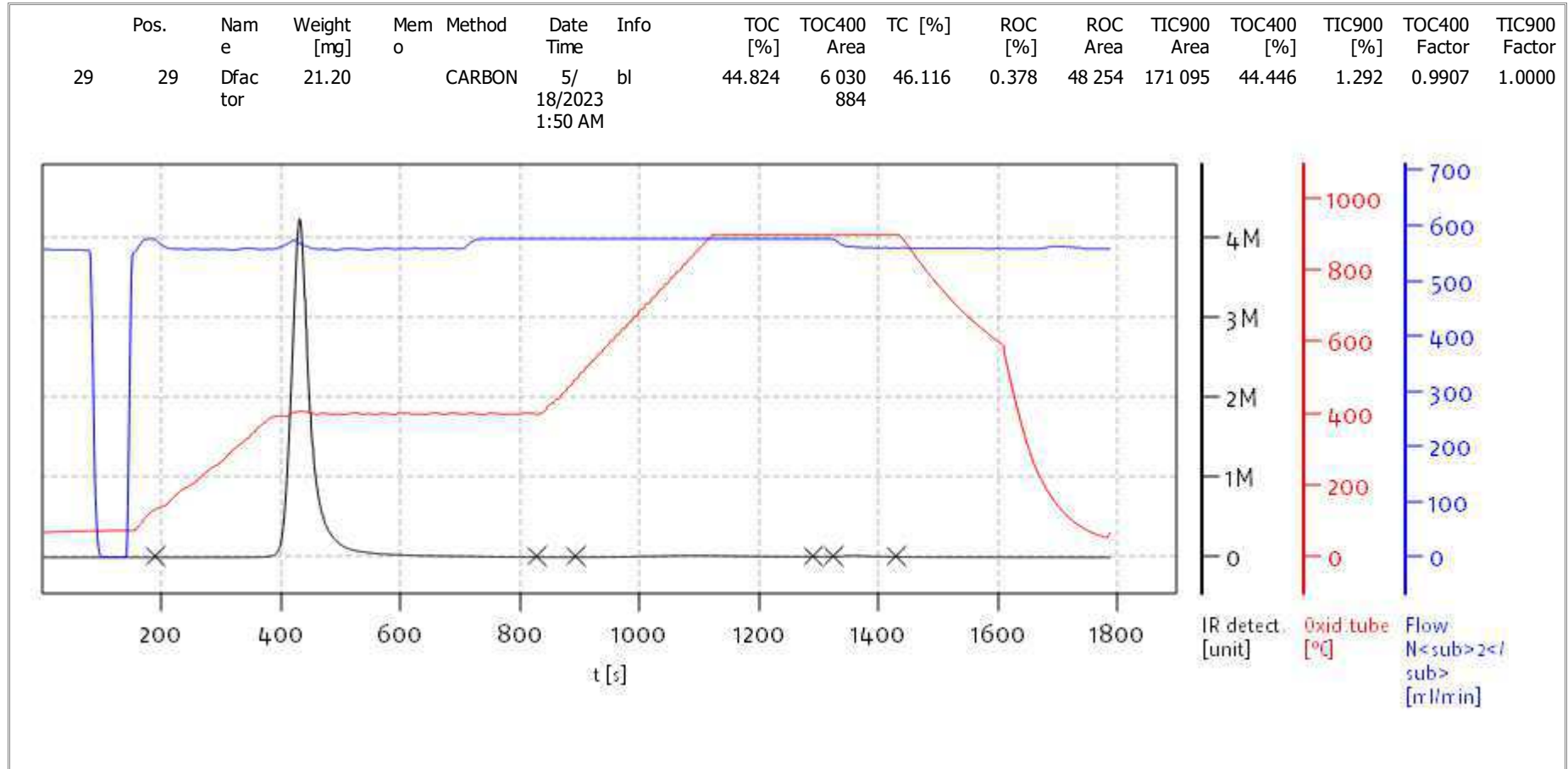
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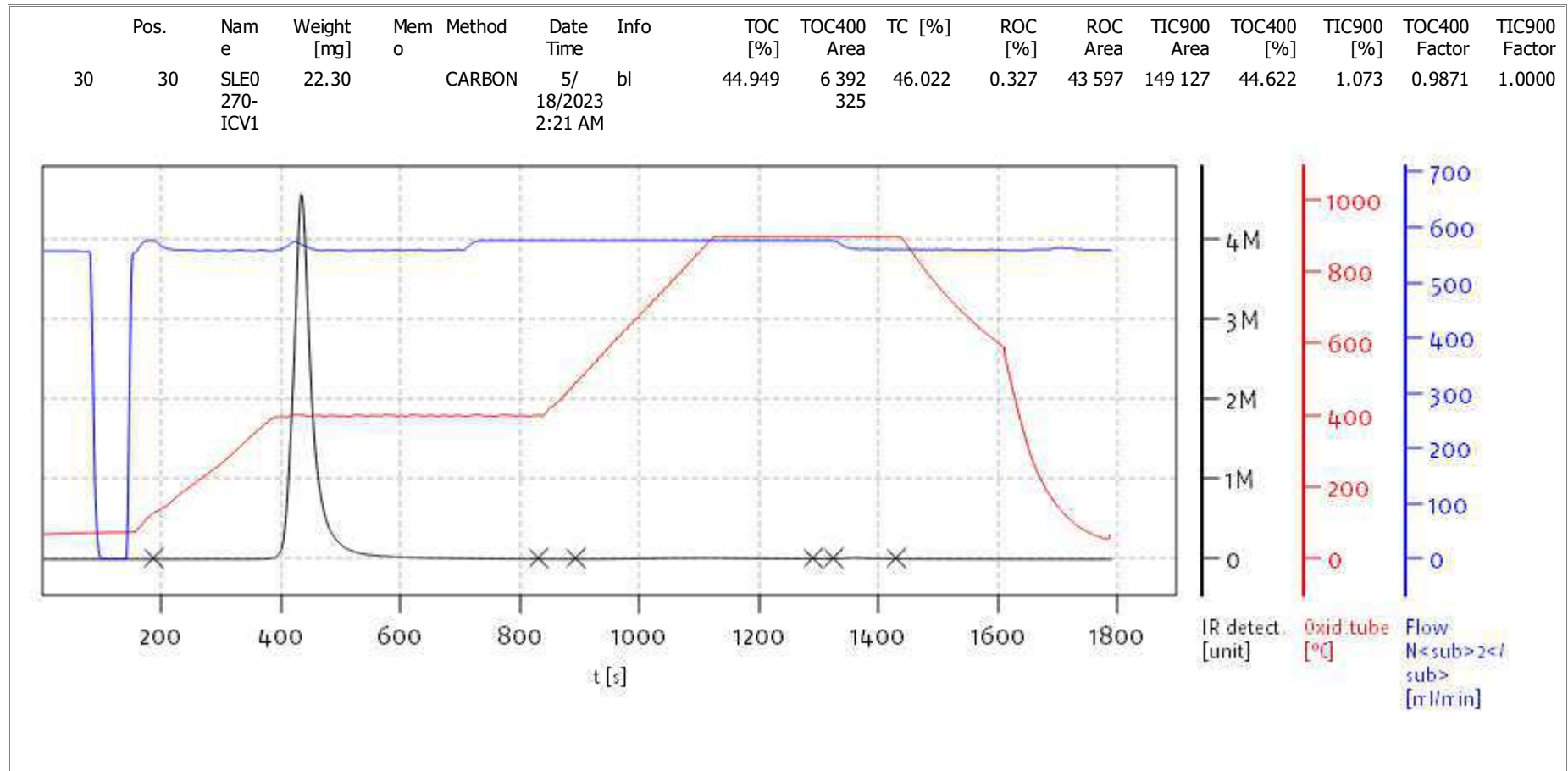
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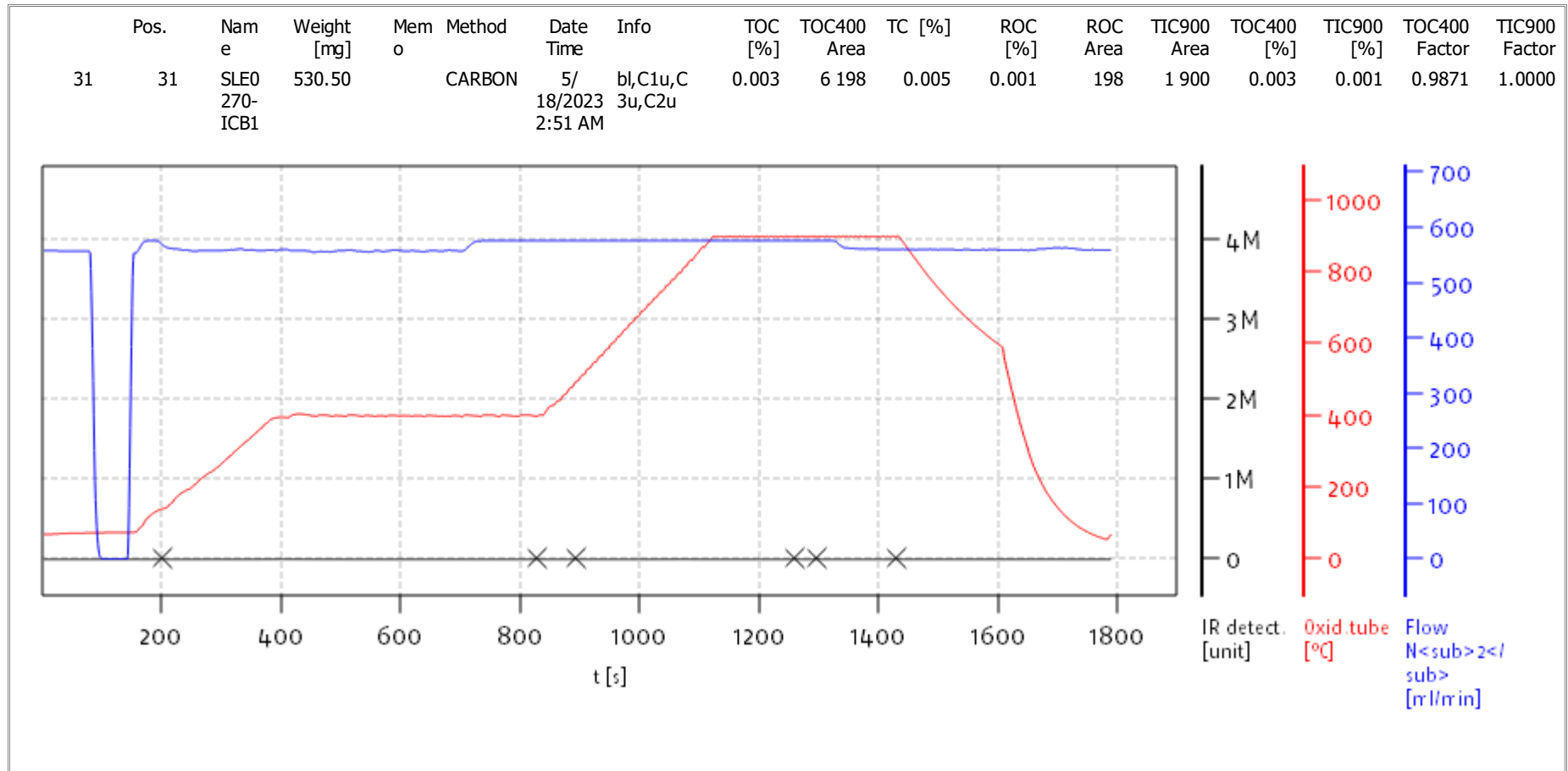
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Soli TOC Cube, Carbon
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Name:

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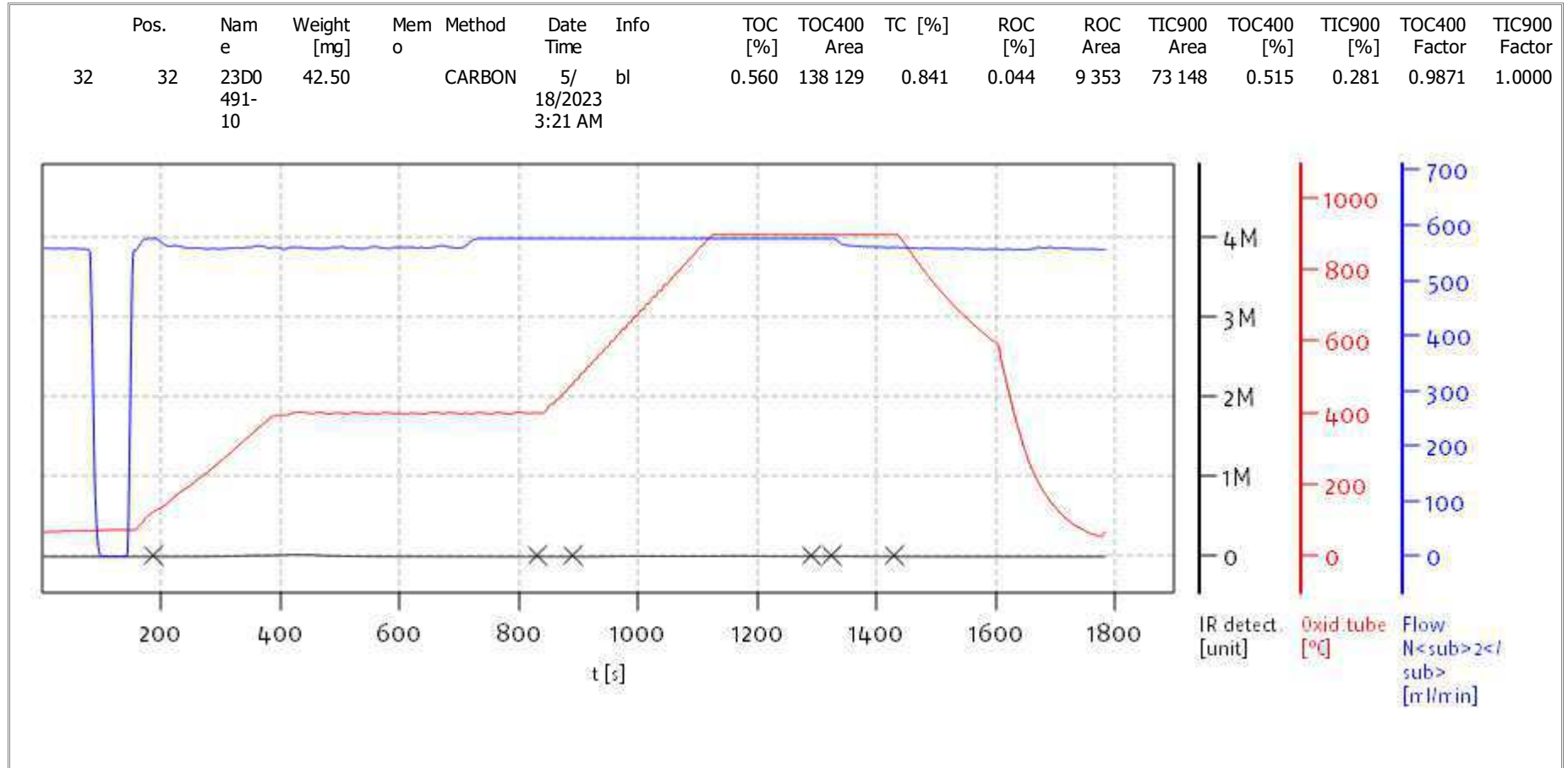
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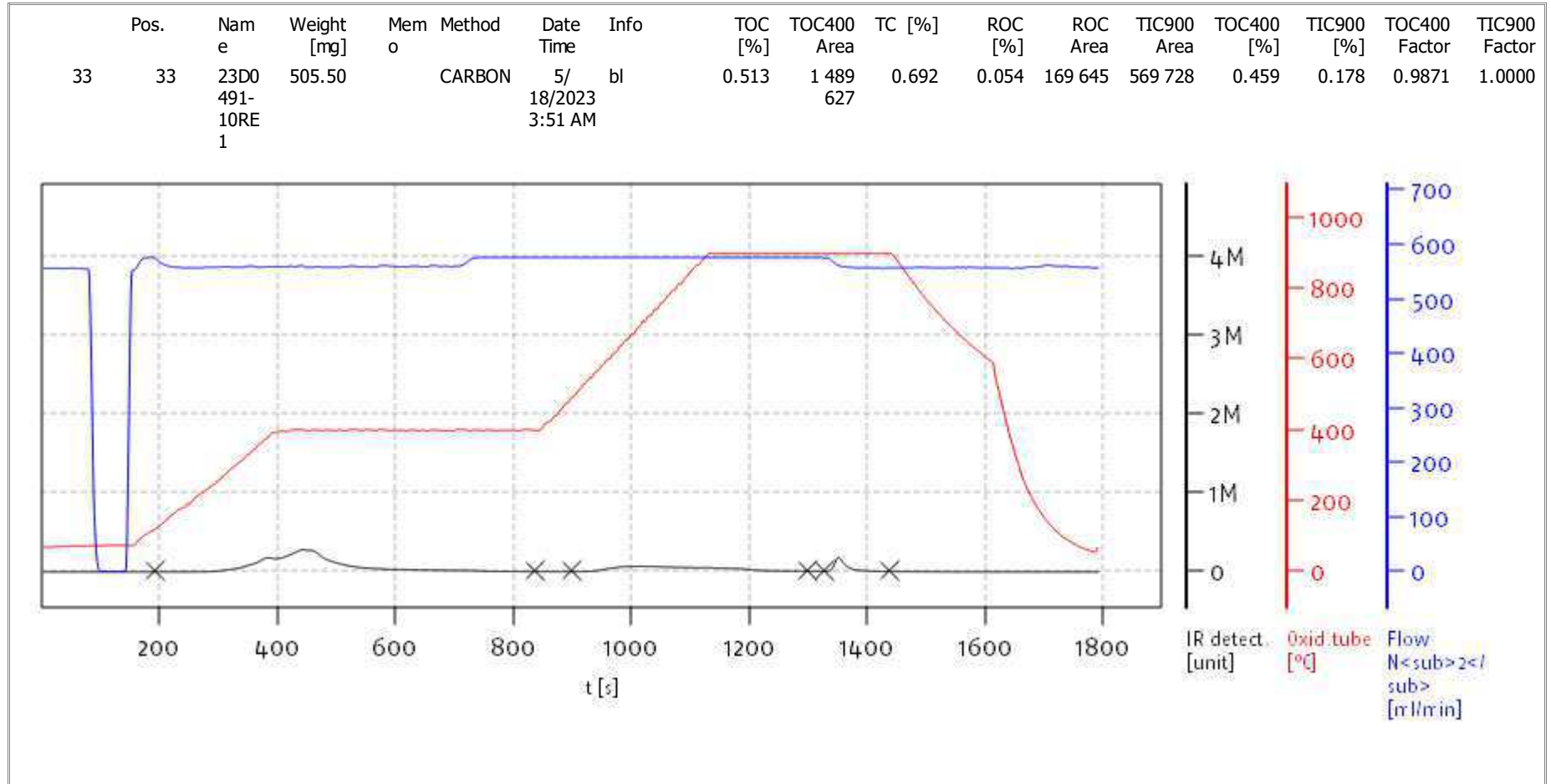
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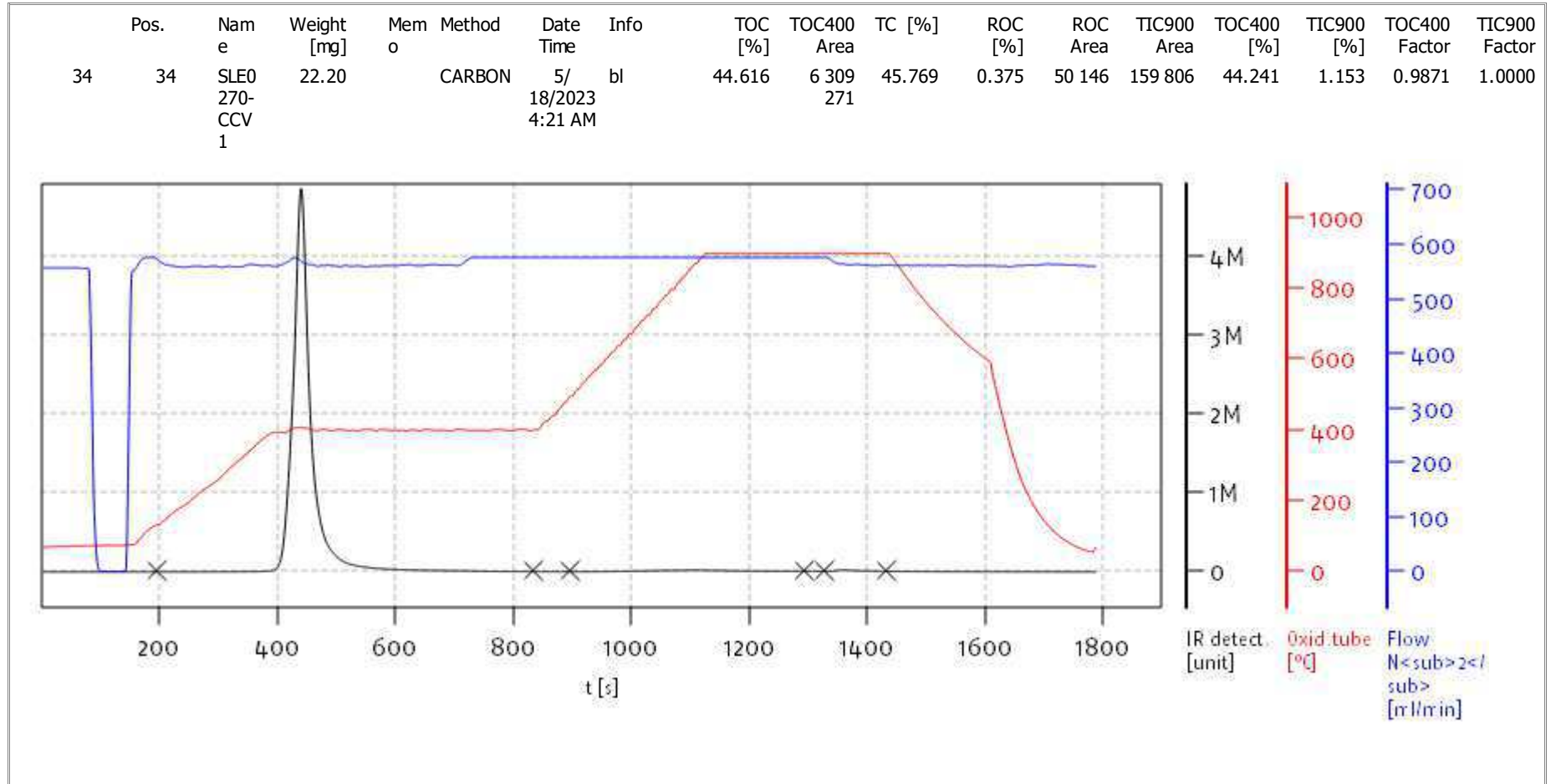
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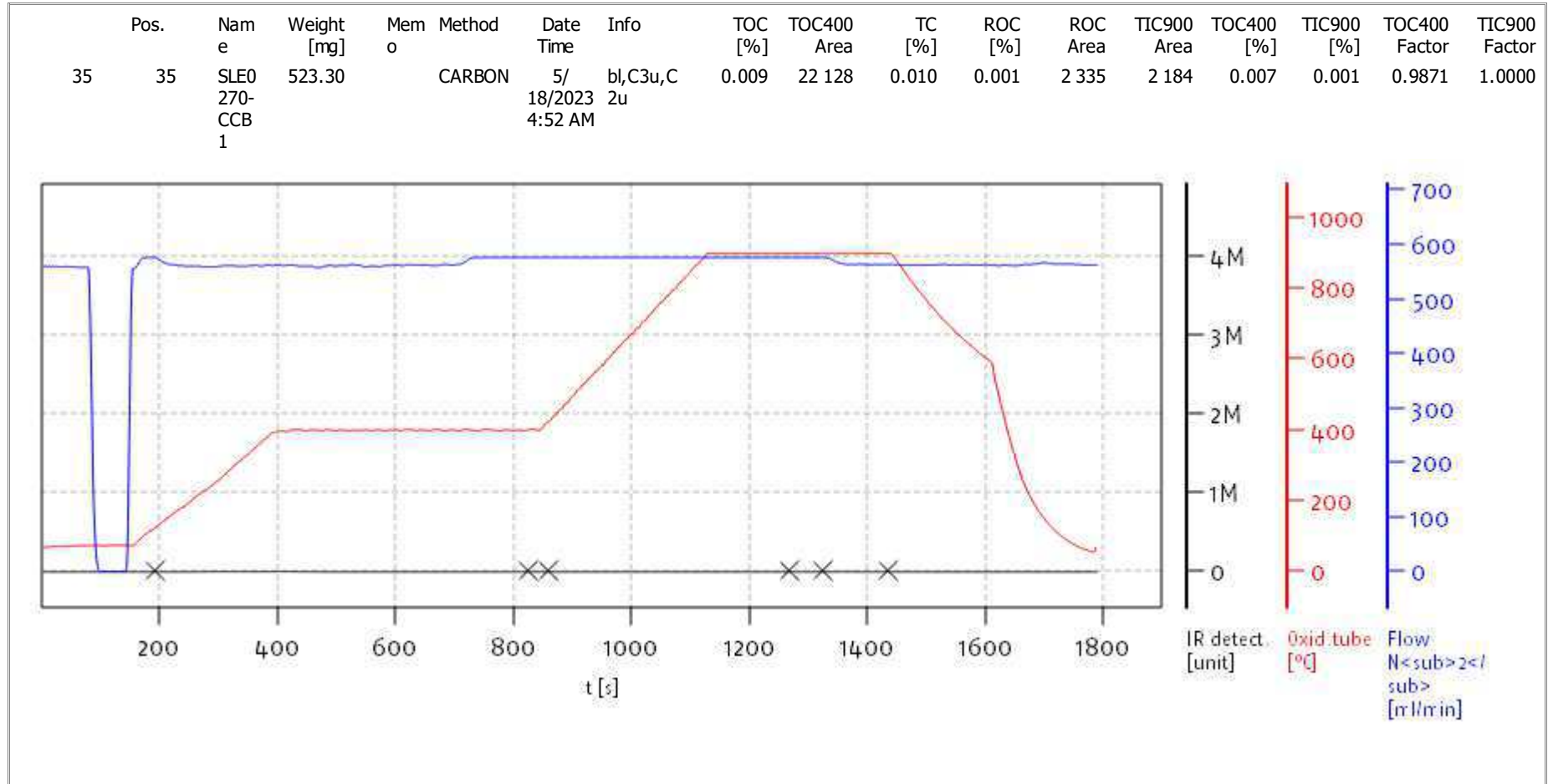
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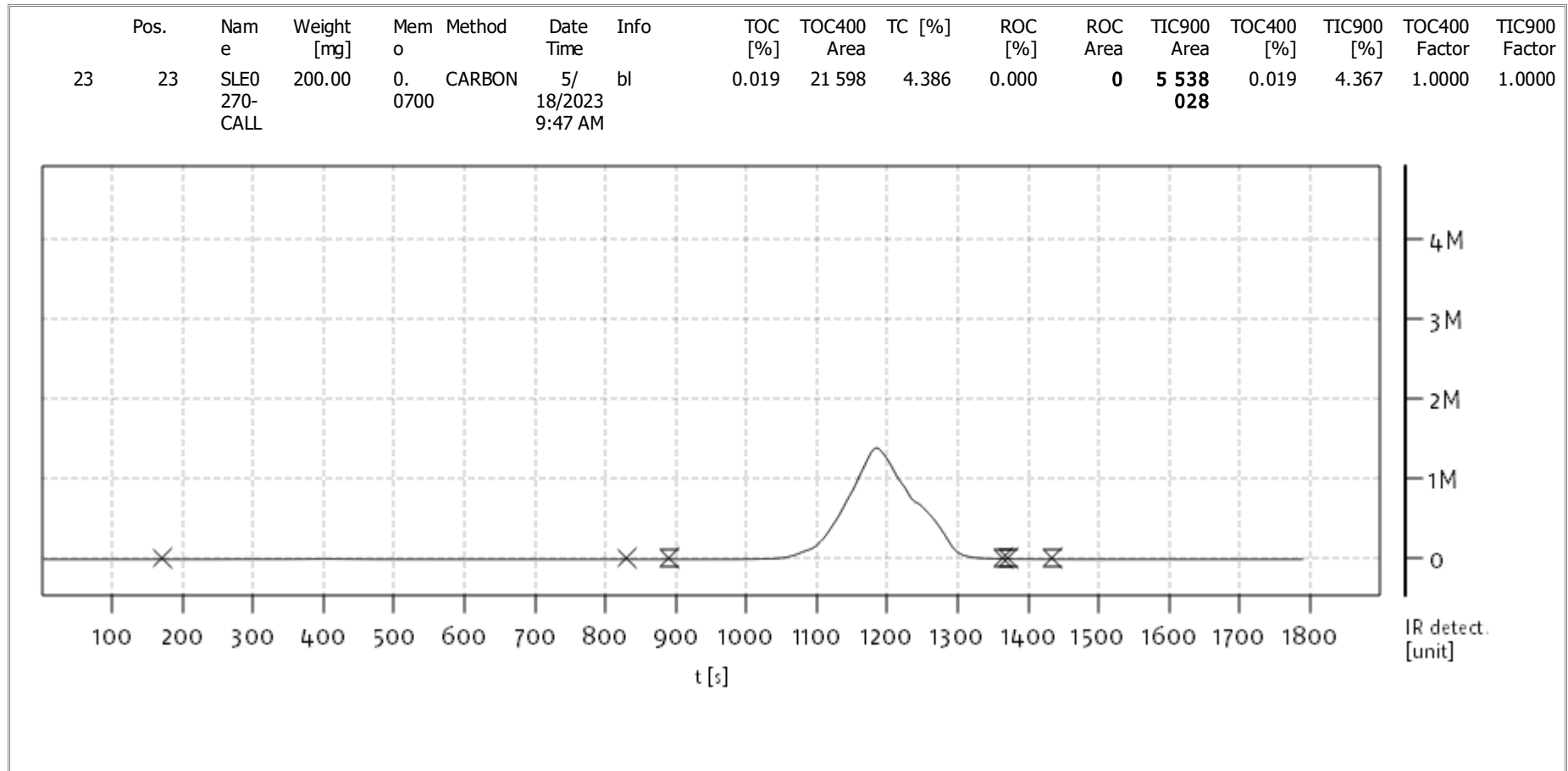
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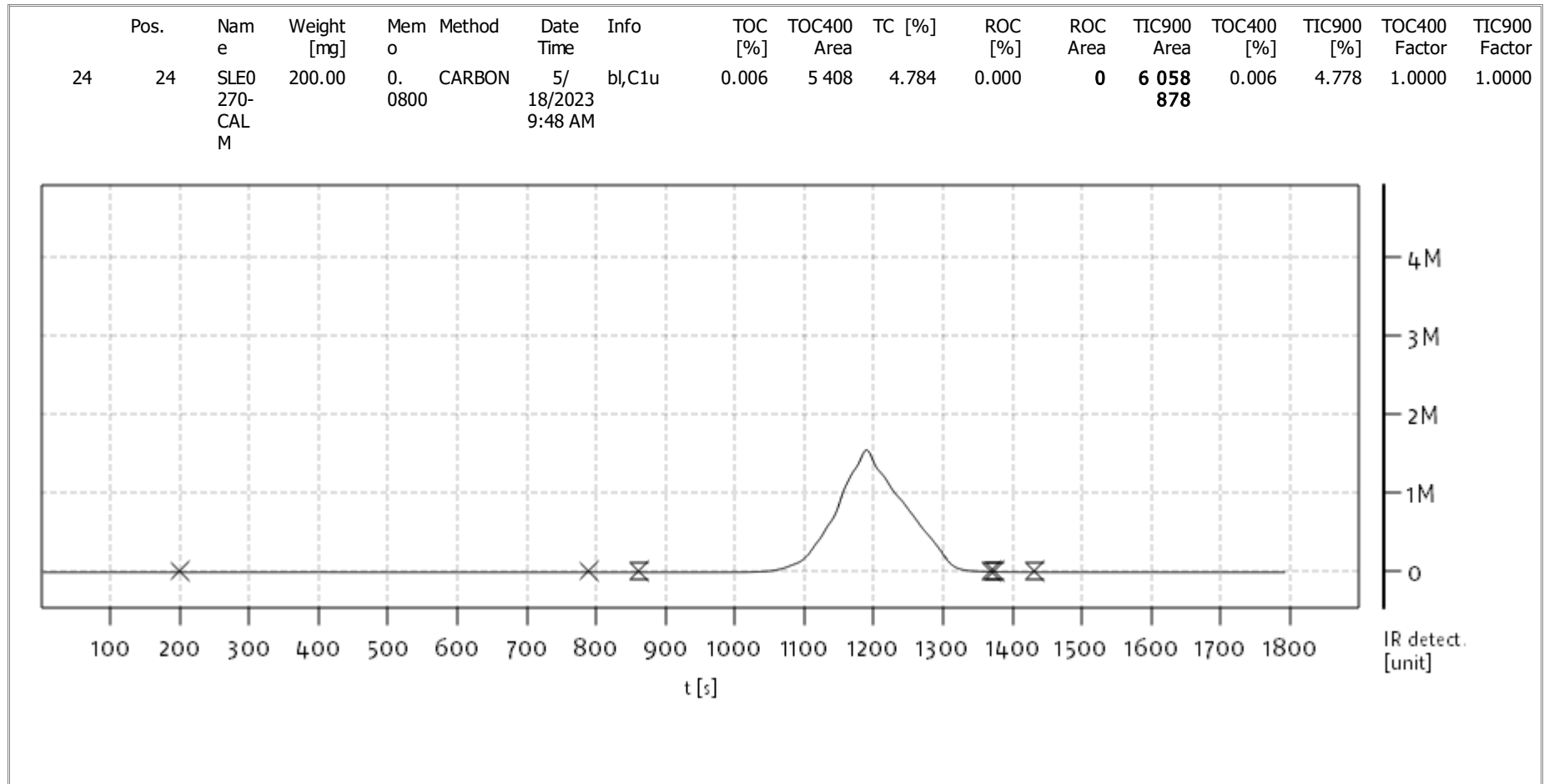
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Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

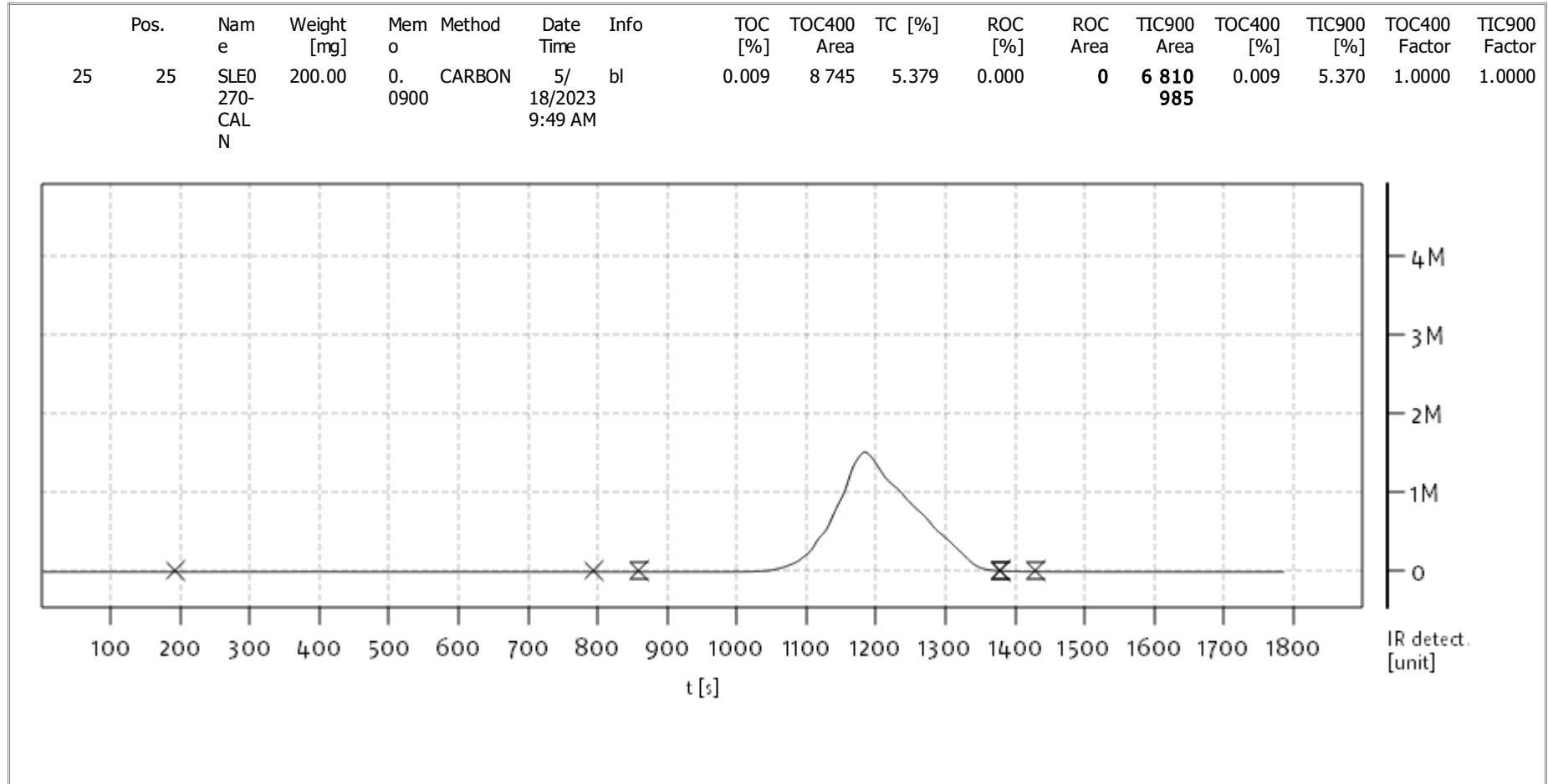
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Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

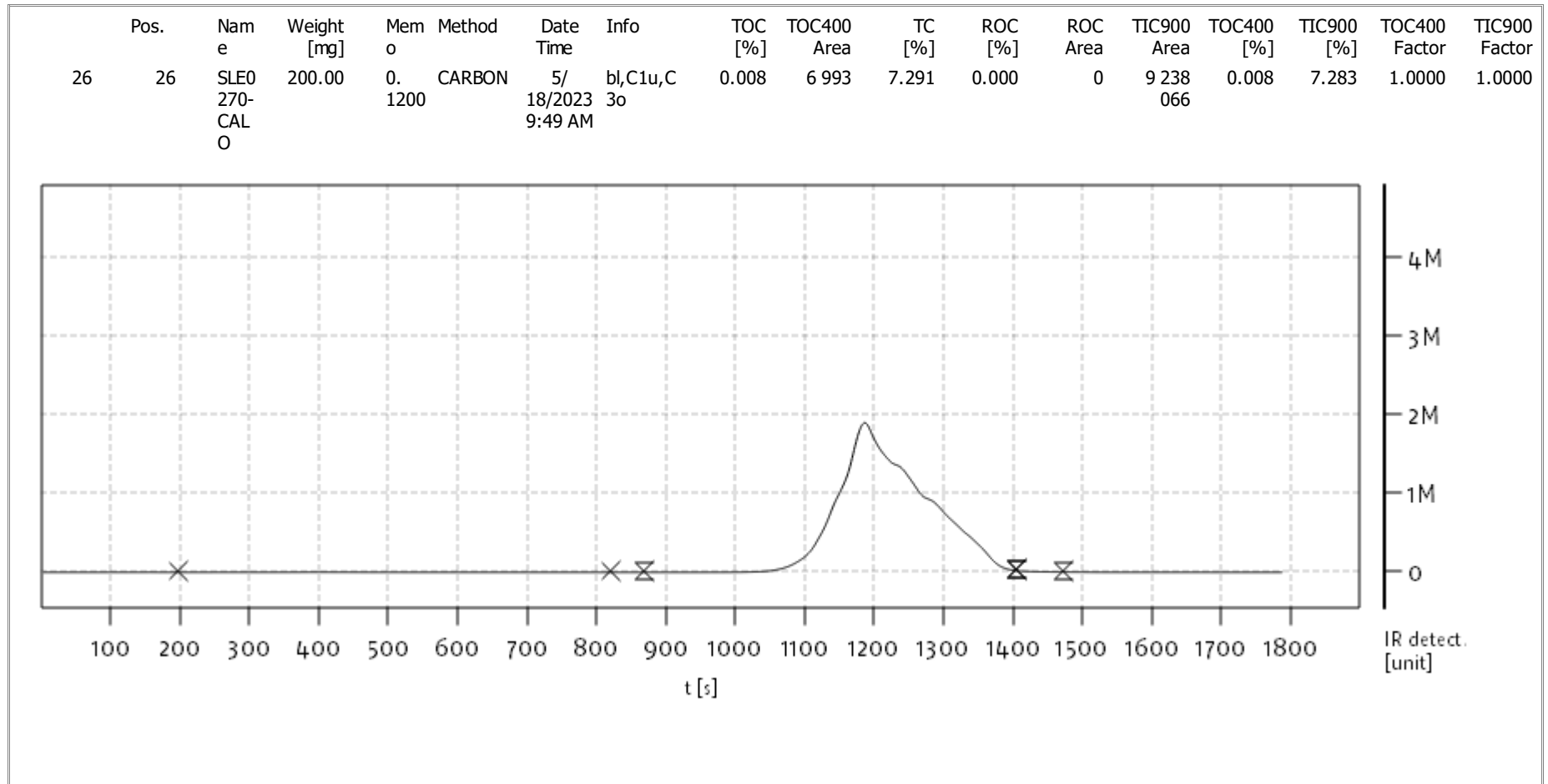
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Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: CDE



Name:

Access: solITOC superuser

Date: Thu May 18 09:50:12 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Sequence: SLE0228

Date Analyzed: 05/19/23 13:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0228-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB2	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB4	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB5	Total Organic Carbon	0.00	0.02	0.02	%	
SLE0228-CCB6	Total Organic Carbon	0.00	0.02	0.02	%	



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Sequence: SLE0270

Date Analyzed: 05/18/23 02:51

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLE0270-ICB1	Total Organic Carbon	0.003	0.02	0.02	%	
SLE0270-CCB1	Total Organic Carbon	0.009	0.02	0.02	%	



**INITIAL AND CONTINUING
CALIBRATION CHECK**
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Control Limit: +/- 10.00%

Sequence: SLE0228

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0228-ICV1	Total Organic Carbon	44.446	44.4	99.8	%	EPA 9060A m
SLE0228-CCV1	Total Organic Carbon	44.446	45.3	102	%	EPA 9060A m
SLE0228-CCV2	Total Organic Carbon	44.446	44.9	101	%	EPA 9060A m
SLE0228-CCV3	Total Organic Carbon	44.446	43.4	97.7	%	EPA 9060A m
SLE0228-CCV4	Total Organic Carbon	44.446	44.8	101	%	EPA 9060A m
SLE0228-CCV5	Total Organic Carbon	44.446	44.8	101	%	EPA 9060A m
SLE0228-CCV6	Total Organic Carbon	44.446	46.0	103	%	EPA 9060A m

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: GE00052

Control Limit: +/- 10.00%

Sequence: SLE0270

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLE0270-ICV1	Total Organic Carbon	44.446	45.4	102	%	EPA 9060A m
	Total Carbon	44.446	45.4	102	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	45.4		%	EPA 9060A m
	% Soot	0.0000	45.4		%	EPA 9060A m
SLE0270-CCV1	Total Organic Carbon	44.446	45.2	102	%	EPA 9060A m
	Total Carbon	44.446	45.2	102	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	45.2		%	EPA 9060A m
	% Soot	0.0000	45.2		%	EPA 9060A m

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLE0415-SRM1

Batch: BLE0415

Initial/Final: 0.1599 g / 0.1599 g

Preparation: No Prep Wet Chem

Analyzed: 05/19/2023 17:37

Standard ID: L000790

Expires: 05/19/2024

Standard Lot#: NA

Description: 1941B - Organics in Marine Sediment (Conv

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	2.87	0.02	0.02		96.1	80 - 120

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SS1801 23D0396-01	04/12/23 09:56	04/12/23 16:32	05/13/23 14:02	31	14	05/20/23 21:14			*
LDW23-SC1801 23D0396-02	04/12/23 10:15	04/12/23 16:32	05/13/23 14:02	31	14	05/20/23 21:44			*
LDW23-SS1802 23D0396-03	04/12/23 15:03	04/12/23 16:32	05/13/23 14:02	30	14	05/20/23 22:15			*
LDW23-SC1802 23D0396-04	04/12/23 15:40	04/12/23 16:32	05/13/23 14:02	30	14	05/20/23 22:45			*

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23D0396

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: TOC Cube

Analyte	MDL	RL	Units
Total Organic Carbon	0.02	0.02	%



Analytical Standard Record
Standard ID: B000871

Printed: 5/25/2023 9:17:22AM

Description:	Calcium Carbonate 99.9% for Calibration	Expires:	31-Oct-2030
Standard Type:	Reagent	Prepared:	28-Jun-2013
Solvent:	NA/I2605	Prepared By:	Susan Dunnihoo
Final Volume (mls):	500	Department:	Conventionals
Vials:	1	Last Edit:	08-Jul-2019 12:16 by CDE
Vendor:	Mallinckrodt	Lot #:	4072 KDHD
Vendor Catalog #:	4072-03		

Comments

Analyte	CAS Number	Concentration	Units
Total Organic Carbon		120000	ppm
Total Inorganic Carbon		120000	ppm
Total Carbon		120000	ppm
Calcium carbonate	471-34-1	1000000	ppm
% Soot		120000	ppm



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 1941b

Organics in Marine Sediment

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. Information values are also provided for total organic carbon (TOC), total carbon, hydrogen, and nitrogen. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Certified Mass Fraction Values: Certified mass fraction values for PAHs, PCB congeners, and chlorinated pesticides are provided in Table 1 through Table 3. The certified values for the PAHs, PCB congeners, and chlorinated pesticides are based on the agreement of results obtained at NIST from two or more chemically independent analytical techniques along with results from an interlaboratory comparison study [1]. A NIST certified value is a value for which NIST has the highest confidence in its accuracy in that all known or suspected sources of bias have been investigated or taken into account [1].

Reference Mass Fraction Values: Reference mass fraction values for additional PAHs (some in combination), additional PCB congeners, and additional chlorinated pesticides are provided in Table 4 through Table 7. Reference values for alkylated PAH groups are provided in Table 8 and for selected hopanes and steranes in Table 9. A reference value for total organic carbon is provided in Table 10. Reference values are noncertified values that are the best estimate of the true value; however, the values do not meet the NIST criteria for certification and are provided with associated uncertainties that may reflect only measurement precision, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods [1].

Information Mass Fraction Values: Information mass fraction values are provided in Table 11 for carbon, hydrogen, and nitrogen. An information value is considered to be a value that will be of use to the SRM user, but insufficient information is available to assess the uncertainty associated with the value [1]. Information values cannot be used to establish metrological traceability.

Expiration of Certification: The certification of SRM 1941b is valid, within the measurement uncertainty specified, until **01 October 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Handling, Storage, and Use"). This certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet or register online) will facilitate notification.

Coordination of the technical measurements leading to the certification of this material was under the leadership of M.M. Schantz and S.A. Wise of the NIST Chemical Sciences Division.

Analytical measurements for the certification of SRM 1941b were performed at NIST by J.R. Kucklick, B.J. Porter, D.L. Poster, M.M. Schantz, P. Schubert, S. Tutschku, and L.L. Yu of the NIST Chemical Sciences Division.

Carlos A. Gonzalez, Chief
Chemical Sciences Division

Measurements for TOC were provided by a commercial laboratory and T.L. Wade of the Geochemical and Environmental Research Group, Texas A&M University (College Station, TX). The carbon, hydrogen, and nitrogen data were provided by a commercial laboratory. Results for the PAHs, PCBs, and chlorinated pesticides from 38 laboratories (see Appendix A) that participated in an interlaboratory comparison exercise coordinated by NIST were used. Results for the alkylated PAH groups, hopanes, and steranes from 33 laboratories (see Appendix B) that participated in another interlaboratory comparison exercise coordinated by NIST were also used.

Collection and preparation of SRM 1941b were performed by M.P. Cronise and C.N. Fales of the NIST Office of Reference Materials and B.J. Porter and M.M. Schantz of the NIST Chemical Sciences Division. The sediment material was collected with the assistance of G.G. Lauenstein, J. Collier, and J. Lewis (National Oceanic and Atmospheric Administration, Silver Spring, MD).

Consultation on the statistical design of the experimental work and evaluation of the data were provided by S.D. Leigh and J.H. Yen of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Office of Reference Materials.

INSTRUCTIONS FOR HANDLING, STORAGE, AND USE

Handling: This material is naturally occurring marine sediment from an urban area and may contain constituents of unknown toxicities; therefore, caution and care should be exercised during its handling and use.

Storage: SRM 1941b must be stored in its original bottle at temperatures less than 30 °C and away from direct sunlight.

Use: Prior to removal of subsamples for analysis, the contents of the bottle should be mixed. The mass fractions of constituents in SRM 1941b are reported on a dry-mass basis. The SRM, as received, contains a mass fraction of approximately 2.4 % moisture (see "Conversion to Dry-Mass Basis"). The sediment sample should be dried to a constant mass before weighing for analysis; or a separate subsample of the sediment should be removed from the bottle at the time of analysis and dried to determine the mass fraction on a dry-mass basis. If the constituents of interest are volatile, then the moisture must be determined with a separate subsample.

PREPARATION AND ANALYSIS⁽¹⁾

Sample Collection and Preparation: The sediment used to prepare this SRM was collected from the Chesapeake Bay at the mouth of the Baltimore (MD) Harbor near the Francis Scott Key Bridge (39°12.3'N and 76°31.4'W). This location is very near the site where SRM 1941 and SRM 1941a were collected. The sediment was collected using a Kynar-coated modified Van Veen-type grab sampler. A total of approximately 3300 kg of wet sediment was collected from the site. The sediment was freeze-dried, sieved at 150 µm (100 % passing), homogenized in a cone blender, radiation sterilized (⁶⁰Co), and then packaged in screw-capped amber glass bottles each containing approximately 50 g.

Conversion to Dry-Mass Basis: The results for the constituents in SRM 1941b are reported on a dry-mass basis; however, the material "as received" contains residual moisture. The amount of moisture in SRM 1941b was determined by measuring the mass loss after freeze-drying subsamples of 1.1 g to 1.3 g for four days at 1 Pa with a -10 °C shelf temperature and a -50 °C condenser temperature. The moisture content in SRM 1941b at the time of the certification analyses was 2.39 % ± 0.08 % (95 % confidence level). Analytical results for the organic constituents were determined on an as-received basis and then converted to a dry-mass basis by dividing by the conversion factor of 0.9761 (gram dry mass per gram as-received mass).

Polycyclic Aromatic Hydrocarbons: The general approach used for the value assignment of the PAHs in SRM 1941b was similar to that reported in detail elsewhere [2]. The approach consisted of combining results from analyses using various combinations of different extraction techniques and solvents, clean-up/isolation procedures, and chromatographic separation and detection techniques: Soxhlet extraction and pressurized-fluid extraction (PFE) using dichloromethane (DCM) or a hexane/acetone mixture, cleanup of the extracts using solid-phase extraction (SPE) or normal-phase liquid chromatography (LC), followed by analysis using the following techniques: (1) reversed-phase liquid chromatography with fluorescence detection (LC-FL) analysis of the total PAH fraction, (2) reversed-phase

⁽¹⁾ Certain commercial equipment, instruments or materials are identified in this certificate to adequately specify the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.

LC-FL analysis of isomeric PAH fractions isolated by normal-phase LC (i.e., multidimensional LC), (3) gas chromatography/mass spectrometry (GC/MS) analysis of the PAH fraction on three stationary phases of different selectivity, i.e., a 5 % (all column compositions are given as mole fractions in %) phenyl-substituted methylpolysiloxane phase, a 50 % phenyl-substituted methylpolysiloxane phase, and a relatively non-polar proprietary phase.

Three sets of GC/MS results, designated as GC/MS (I), GC/MS (II), and GC/MS (III), were obtained using three columns with different selectivities for the separation of PAHs. For GC/MS (I) analyses, duplicate subsamples of approximately 1 g from ten bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 2 % DCM in hexane (all solvent concentrations are given as volume fractions in %). The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5 MS, J&W Scientific, Folsom, CA). The GC/MS (II) analyses were performed using 5 g subsamples from six bottles of SRM 1941b. These samples were extracted using PFE with DCM. The high molecular mass compounds were removed from the extracts using size exclusion chromatography (SEC) with a preparative-scale divinylbenzene-polystyrene column (10 μm particle size with 10 nm diameter pores), and the sulfur was removed from the extracts by adding copper powder. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The analysis was by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17 MS, J&W Scientific). For the GC/MS (III), 9 g subsamples from six bottles of SRM 1941b were Soxhlet-extracted for 18 h with 250 mL of a mixture of 50 % hexane/50 % acetone. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific).

Two sets of LC-FL results, designated as LC-FL (total) and LC-FL (isomer), were used in the certification process. For the LC-FL (total), subsamples of approximately 1 g from six bottles of SRM 1941b were extracted using PFE with a mixture of 50 % hexane/50 % acetone. The extracts were concentrated and then processed through an aminopropylsilane SPE cartridge using 2 % DCM in hexane to obtain the total PAH fraction. For the LC-FL (isomer), a 5 g subsample from the six bottles was extracted using PFE with DCM and processed through an aminopropylsilane SPE cartridge using 10 % DCM in hexane; the PAH fraction was then fractionated further on a semi-preparative aminopropylsilane column (μBondapak NH₂, 9 mm i.d. × 30 cm, Waters Associates, Milford, MA) to isolate isomeric PAH fractions as described previously [3–6]. The total PAH fraction and the isomeric PAH fractions were analyzed using a 5 μm particle-size polymeric octadecylsilane (C₁₈) column (4.6 mm i.d. × 25 cm, Hypersil-PAH, Keystone Scientific, Inc., Bellefonte, PA) with wavelength-programmed fluorescence detection [4,5].

For the GC/MS and LC-FL measurements described above, selected perdeuterated PAHs were added to the sediment prior to solvent extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PAHs in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

Homogeneity Assessment for PAHs: The homogeneity of SRM 1941b was assessed by analyzing duplicate samples of approximately 1 g from ten bottles selected by stratified random sampling. Samples were extracted, processed, and analyzed as described above for GC/MS (I). No statistically significant differences among bottles were observed for the PAHs at this sample size.

PAH Isomers of Molecular Mass 300 and 302: For the determination of the molecular mass 300 and 302 isomers, three subsamples of approximately 5 g each were extracted using PFE with DCM. The extracts were then concentrated with a solvent change to hexane and passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17MS, J&W Scientific). Perdeuterated dibenzo[*a,i*]pyrene was added to the sediment prior to extraction for use as an internal standard [8].

PCBs and Chlorinated Pesticides: The general approach used for the determination of PCBs and chlorinated pesticides in SRM 1941b consisted of combining results from analyses using various combinations of different extraction techniques and solvents, cleanup/isolation procedures, and chromatographic separation and detection techniques. Techniques and solvents included Soxhlet extraction and PFE using DCM or a hexane/acetone mixture.

clean-up/isolation using SPE or LC, followed by analysis using GC/MS and gas chromatography with electron capture detection (GC-ECD) on two columns with different selectivity for the separation of PCBs and chlorinated pesticides. The analytical methods are described in detail elsewhere [2].

Six sets of results were obtained and designated as GC-ECD (I) A and B, GC/MS (I) A and B, GC/MS (II), and Interlaboratory Comparison Exercise. For the GC-ECD (I) analyses, approximately 10 g subsamples from six bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur, and SEC, as described above, was used to remove the high molecular mass compounds. The concentrated extract was then fractionated on a semi-preparative aminopropylsilane column to isolate two fractions containing: (1) the PCBs and lower-polarity pesticides and (2) the more polar pesticides. GC-ECD analyses of the two fractions were performed on two columns of different selectivities for PCB separations: 0.25 mm × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5, J&W Scientific), and a 0.25 mm × 60 m fused silica capillary column with a non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The results from the 5 % phenyl phase are designated as GC-ECD (IA) and the results from the proprietary phase are designated as GC-ECD (IB). For the GC-ECD analyses, two PCB congeners that are not significantly present in the sediment extract (PCB 103 and PCB 198 [9,10]) and endosulfan I-*d*₄, 4,4'-DDE-*d*₈, 4,4'-DD-*d*₈, and 4,4'-DDT-*d*₈ were added to the sediment prior to extraction for use as internal standards for quantification purposes.

Two sets of results were obtained by GC/MS. For GC/MS (I), approximately 9 g subsamples from six bottles were Soxhlet- extracted with a mixture of 50 % hexane/50 % acetone for approximately 18 h. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS with two ionization modes, electron impact (EI) and negative ion chemical ionization (NICI). The GC/MS EI method, GC/MS (IA), used a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The GC/MS NICI method, GC/MS (IB), used a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5MS, J&W Scientific). The GC/MS (II) results were obtained in the same manner as the GC/MS (IA) analyses except that three subsamples were Soxhlet-extracted with DCM for approximately 18 h. For the GC/MS analyses, selected carbon-13 labeled PCB congeners and chlorinated pesticides were added to the sediment prior to extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PCB congeners and chlorinated pesticides in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

The reference value for PCB 77 was determined from a separate fraction. The samples were extracted and processed as for GC-ECD (I) above. The first (PCB and lower-polarity pesticide) fraction from the semi-preparative aminopropylsilane column was further fractionated using a Cosmosil PYE (pyrenylethyl group bonded) column (5 μm particle size, 4.6 mm i.d. × 25 cm; Phenomenex, Torrance, CA) [11]. Three fractions were collected: the first fraction contained the pesticides and multi-*ortho* PCBs, the second fraction contained the polychlorinated naphthalenes, non-*ortho* PCB congeners, and some mono-*ortho* PCB congeners, and the third fraction removed the residual planar compounds from the column. The second fraction was analyzed by GC/MS NICI using the same column as GC/MS (IB) above. Carbon-13 labeled PCB 77 was used as an internal standard for quantification purposes.

Alkylated PAH Groups, Hopanes, and Steranes: SRM 1941b was used in an interlaboratory comparison exercise in 2011 [12]. Results from 33 laboratories that participated in this exercise were used in the determination of the reference values for alkylated PAH groups, hopanes, and steranes in SRM 1941b. Note that not all laboratories returned data for each analyte. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest. For the alkylated PAHs, the majority of the laboratories (>90 %) used the parent PAH for determination of the response factor for the corresponding alkylated group.

Total Organic Carbon (TOC): Two laboratories provided results for TOC using similar procedures. Briefly, subsamples of approximately 200 mg were reacted with 6 mol/L hydrochloric acid and rinsed with deionized water prior to combustion in a gas fusion furnace. The carbon monoxide and carbon dioxide produced were measured and compared to a blank for calculation of the percent TOC. Each laboratory analyzed subsamples from three bottles of SRM 1941b. One of the laboratories also analyzed three subsamples from three bottles of SRM 1941b for carbon, hydrogen, and nitrogen.

Table 1. Certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)	
Naphthalene ^(b,c,d,e,f,g)	848	$\pm 95^{(h)}$
Fluorene ^(b,c,d,e,f,g)	85	$\pm 15^{(h)}$
Phenanthrene ^(b,c,d,e,f,g)	406	$\pm 44^{(h)}$
Anthracene ^(b,c,d,e,f,g)	184	$\pm 18^{(h)}$
3-Methylphenanthrene ^(b,c,d)	105	$\pm 13^{(h)}$
2-Methylphenanthrene ^(b,c,d)	128	$\pm 14^{(h)}$
1-Methylphenanthrene ^(b,c,d,g)	73.2	$\pm 5.9^{(h)}$
Fluoranthene ^(b,c,d,e,f,g)	651	$\pm 50^{(h)}$
Pyrene ^(b,c,d,e,f,g)	581	$\pm 39^{(h)}$
Benz[<i>a</i>]anthracene ^(b,c,d,e,f,g)	335	$\pm 25^{(h)}$
Chrysene ^(d,f)	291	$\pm 31^{(h)}$
Triphenylene ^(d,f)	108	$\pm 5^{(i)}$
Benzo[<i>b</i>]fluoranthene ^(c,e)	453	$\pm 21^{(h)}$
Benzo[<i>k</i>]fluoranthene ^(b,c,d,e)	225	$\pm 18^{(h)}$
Benzo[<i>e</i>]pyrene ^(b,c,d,g)	325	$\pm 25^{(h)}$
Benzo[<i>a</i>]pyrene ^(b,c,d,f,g)	358	$\pm 17^{(h)}$
Perylene ^(b,c,d,f,g)	397	$\pm 45^{(h)}$
Benzo[<i>ghi</i>]perylene ^(b,c,d,f,g)	307	$\pm 45^{(h)}$
Indeno[1,2,3- <i>cd</i>]pyrene ^(b,c,d,f,g)	341	$\pm 57^{(h)}$
Dibenz[<i>a,j</i>]anthracene ^(b,c,d,f)	48.9	$\pm 4.6^{(h)}$
Dibenz[<i>a,c</i>]anthracene ^(c,f)	36.7	$\pm 5.2^{(h)}$
Dibenz[<i>a,h</i>]anthracene ^(c,f)	53	$\pm 10^{(h)}$
Benzo[<i>b</i>]chrysene ^(b,c,d,f)	53	$\pm 12^{(h)}$
Picene ^(b,c,d)	46.6	$\pm 4.7^{(h)}$

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) LC-FL (total) of total PAH fraction after PFE with DCM.

^(f) LC-FL (isomer) of isomeric PAH fractions after PFE with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 21 to 29 laboratories submitting data for each PAH.

^(h) Certified values are weighted means of the results from two to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ The certified value is an unweighted mean of the results from two analytical methods. The uncertainty listed with the value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the value is metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 2. Certified Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners		Mass Fractions ^(b) ($\mu\text{g}/\text{kg}$)
PCB	8 (2,4'-Dichlorobiphenyl) ^(c,d,e,f,g)	1.65 \pm 0.19 ^(h)
PCB	18 (2,2',5-Trichlorobiphenyl) ^(c,d,e,f,g)	2.39 \pm 0.29 ^(h)
PCB	28 (2,4,4'-Trichlorobiphenyl) ^(c,d,e,f,g)	4.52 \pm 0.57 ^(h)
PCB	31 (2,4',5-Trichlorobiphenyl) ^(c,e,f)	3.18 \pm 0.41 ^(h)
PCB	44 (2,2',3,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	3.85 \pm 0.20 ⁽ⁱ⁾
PCB	49 (2,2',4,5'-Tetrachlorobiphenyl) ^(c,d,e,f)	4.34 \pm 0.28 ⁽ⁱ⁾
PCB	52 (2,2',5,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	5.24 \pm 0.28 ⁽ⁱ⁾
PCB	66 (2,3',4,4'-Tetrachlorobiphenyl) ^(c,e,f,g,j)	4.96 \pm 0.53 ⁽ⁱ⁾
PCB	87 (2,2',3,4,5'-Pentachlorobiphenyl) ^(c,d,f,j)	1.14 \pm 0.16 ^(h)
PCB	95 (2,2',3,5',6-Pentachlorobiphenyl) ^(c,e,f,g)	3.93 \pm 0.62 ⁽ⁱ⁾
PCB	99 (2,2',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g)	2.90 \pm 0.36 ⁽ⁱ⁾
PCB	101 (2,2',4,5,5'-Pentachlorobiphenyl) ^(c,e,f,g,j)	5.11 \pm 0.34 ⁽ⁱ⁾
PCB	105 (2,3,3',4,4'-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	1.43 \pm 0.10 ⁽ⁱ⁾
PCB	110 (2,3,3',4',6-Pentachlorobiphenyl) ^(c,e,f,j)	4.62 \pm 0.36 ⁽ⁱ⁾
PCB	118 (2,3',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	4.23 \pm 0.19 ⁽ⁱ⁾
PCB	128 (2,2',3,3',4,4'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	0.696 \pm 0.044 ⁽ⁱ⁾
PCB	138 (2,2',3,4,4',5'-Hexachlorobiphenyl) ^(c,e,f,j)	3.60 \pm 0.28 ⁽ⁱ⁾
PCB	149 (2,2',3,4',5,6-Hexachlorobiphenyl) ^(c,d,e,j)	4.35 \pm 0.26 ^(h)
PCB	153 (2,2',4,4',5,5'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	5.47 \pm 0.32 ⁽ⁱ⁾
PCB	156 (2,3,3',4,4',5-Hexachlorobiphenyl) ^(c,d,e,f,j)	0.507 \pm 0.090 ^(h)
PCB	170 (2,2',3,3',4,4',5-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	1.35 \pm 0.09 ⁽ⁱ⁾
PCB	180 (2,2',3,4,4',5,5'-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	3.24 \pm 0.51 ⁽ⁱ⁾
PCB	183 (2,2',3,4,4',5',6-Heptachlorobiphenyl) ^(c,d,e,j)	0.979 \pm 0.087 ^(h)
PCB	187 (2,2',3,4',5,5',6-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	2.17 \pm 0.22 ⁽ⁱ⁾
PCB	194 (2,2',3,3',4,4',5,5'-Octachlorobiphenyl) ^(c,d,e,j)	1.04 \pm 0.06 ^(h)
PCB	195 (2,2',3,3',4,4',5,6-Octachlorobiphenyl) ^(c,e,g,j)	0.645 \pm 0.060 ⁽ⁱ⁾
PCB	201 (2,2',3,3',4,5',6'-Octachlorobiphenyl) ^(c,e,j)	0.777 \pm 0.034 ^(h)
PCB	206 (2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl) ^(c,e,f,g,j)	2.42 \pm 0.19 ⁽ⁱ⁾
PCB	209 Decachlorobiphenyl ^(c,d,e,f,g,j)	4.86 \pm 0.45 ⁽ⁱ⁾

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform to IUPAC rules, except PCB 201. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 201 is listed as PCB 200.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each PCB congener.

^(h) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ Certified values are weighted means of the results from three to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(j) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

Table 3. Certified Mass Fraction Values for Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)
Hexachlorobenzene ^(b,c,d,e)	5.83 \pm 0.38 ^(f)
<i>cis</i> -Chlordane ^(b,c,d,e,g)	0.85 \pm 0.11 ^(h)
<i>trans</i> -Chlordane ^(b,c,e)	0.566 \pm 0.093 ^(f)
<i>cis</i> -Nonachlor ^(b,e,g)	0.378 \pm 0.053 ^(h)
<i>trans</i> -Nonachlor ^(b,c,d,e,g)	0.438 \pm 0.073 ^(f)
4,4'-DDE ^(b,d,e,g)	3.22 \pm 0.28 ^(h)
4,4'-DDD ^(b,d,e,g)	4.66 \pm 0.46 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(e) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each pesticide.

^(f) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(h) Certified values are weighted means of the results from three to five analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed and the values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 4. Reference Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a)		
	(µg/kg)		
1-Methylnaphthalene ^(b,c,d,e)	127	±	14 ^(f)
2-Methylnaphthalene ^(b,c,d,e)	276	±	53 ^(f)
2,6-Dimethylnaphthalene ^(b,c,d,e)	75.9	±	4.5 ^(f)
2,3,5-Trimethylnaphthalene ^(b,c,d,e)	25.5	±	5.1 ^(f)
Biphenyl ^(b,c,d,e)	74.0	±	8.0 ^(f)
Acenaphthylene ^(b,c,d,e)	53.3	±	6.4 ^(f)
Acenaphthene ^(b,c,d,e)	38.4	±	5.2 ^(f)
9-Methylphenanthrene ^(c)	63.5	±	2.5 ^(g)
4-Methylphenanthrene and 9-Methylphenanthrene ^(b,d)	80.1	±	4.8 ^(f)
2-Methylanthracene ^(c,d)	36	±	15 ^(f)
8-Methylfluoranthene ^(b)	49.5	±	2.7 ^(g)
7-Methylfluoranthene ^(b)	45.4	±	1.5 ^(g)
1-Methylfluoranthene ^(b)	42.4	±	2.1 ^(g)
3-Methylfluoranthene ^(b)	28.8	±	1.3 ^(g)
2-Methylpyrene ^(b)	78.7	±	4.0 ^(g)
4-Methylpyrene ^(b)	66.4	±	2.6 ^(g)
1-Methylpyrene ^(b)	52.5	±	2.3 ^(g)
Acephenanthrene ^(d)	30.5	±	1.9 ^(g)
Benzo[<i>c</i>]phenanthrene ^(b,c,d)	58	±	15 ^(f)
Benzo[<i>a</i>]fluoranthene ^(b,c,d)	73	±	18 ^(f)
Benzo[<i>j</i>]fluoranthene ^(c)	217	±	5 ^(g)
Indeno[1,2,3- <i>cd</i>]fluoranthene ^(d)	9.63	±	0.34 ^(g)
Pentaphene ^(d)	25.3	±	1.0 ^(g)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) 1999 Interlaboratory Comparison Study [7] with 14 to 26 laboratories submitting data for each PAH.

^(f) Reference values are weighted means of the results from two to four analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of PAHs listed as determined by the methods indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for the associated degrees of freedom (19 for footnote b and 5 for footnotes c and d) and 95 % confidence level for each analyte. The measurand is the total mass fraction of the PAHs listed as determined by the method indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 5. Reference Mass Fraction Values for PAHs of Molecular Mass 300 and 302 in SRM 1941b

PAHs of Molecular Mass 300 and 302	Mass Fractions ^(a,b,c) ($\mu\text{g}/\text{kg}$)
Coronene	72.6 \pm 4.7
Dibenzo[<i>b,e</i>]fluoranthene	10.3 \pm 0.3
Naphtho[1,2- <i>b</i>]fluoranthene	91.0 \pm 3.1
Naphtho[1,2- <i>k</i>]fluoranthene and Naphtho[2,3- <i>j</i>]fluoranthene	79.8 \pm 2.5
Naphtho[2,3- <i>b</i>]fluoranthene	23.5 \pm 0.3
Dibenzo[<i>b,k</i>]fluoranthene	95.6 \pm 3.1
Dibenzo[<i>a,k</i>]fluoranthene	26.6 \pm 0.4
Dibenzo[<i>j,l</i>]fluoranthene	63.8 \pm 1.8
Dibenzo[<i>a,l</i>]pyrene	11.1 \pm 1.0
Naphtho[2,3- <i>k</i>]fluoranthene	10.7 \pm 0.6
Naphtho[1,2- <i>a</i>]pyrene	16.7 \pm 1.4
Naphtho[2,3- <i>e</i>]pyrene	33.2 \pm 2.3
Dibenzo[<i>a,e</i>]pyrene	76.1 \pm 3.6
Naphtho[2,1- <i>a</i>]pyrene	59.2 \pm 1.8
Dibenzo[<i>e,i</i>]pyrene	35.0 \pm 2.4
Naphtho[2,3- <i>a</i>]pyrene	16.5 \pm 0.6
Benzo[<i>b</i>]perylene	38.2 \pm 1.2
Dibenzo[<i>a,i</i>]pyrene	25.5 \pm 1.0
Dibenzo[<i>a,h</i>]pyrene	6.94 \pm 0.29

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for two degrees of freedom and 95 % confidence level for each analyte. The measurand is the total mass fraction of the constituent listed as determined by the method indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM [8].

Table 6. Reference Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners			Mass Fractions ^(b,c) ($\mu\text{g}/\text{kg}$)		
PCB	45	(2,2',3,6-Tetrachlorobiphenyl) ^(d,e)	0.73	\pm	0.12
PCB	56	(2,3,3',4'-Tetrachlorobiphenyl) ^(d,f,g)	1.21	\pm	0.11
PCB	63	(2,3,4',5-Tetrachlorobiphenyl) ^(e,f,g)	0.213	\pm	0.040
PCB	70	(2,3',4',5-Tetrachlorobiphenyl) ^(e,f,g)	4.99	\pm	0.29
PCB	74	(2,4,4',5-Tetrachlorobiphenyl) ^(e,f,g)	2.04	\pm	0.15
PCB	77	(3,3',4,4'-Tetrachlorobiphenyl) ^(h)	0.31	\pm	0.03
PCB	107	(2,3,3',4',5-Pentachlorobiphenyl) ^(d,e,f,g)	0.628	\pm	0.028
PCB	132	(2,2',3,3',4,6'-Hexachlorobiphenyl) ^(d,f,g)	1.28	\pm	0.27
PCB	146	(2,2',3,4',5,5'-Hexachlorobiphenyl) ^(e,f,g)	1.22	\pm	0.12
PCB	158	(2,3,3',4,4',6-Hexachlorobiphenyl) ^(d,e,f,g)	0.65	\pm	0.15
PCB	163	(2,3,3',4',5,6-Hexachlorobiphenyl) ^(e,f,g)	1.28	\pm	0.06
PCB	174	(2,2',3,3',4,5,6'-Heptachlorobiphenyl) ^(d,e,f,g)	1.51	\pm	0.39
PCB	193	(2,3,3',4',5,5',6-Heptachlorobiphenyl) ^(d,e,f,g)	0.292	\pm	0.075

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform with IUPAC rules, except PCB 107. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 107 is listed as PCB 108.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) For these PCB congeners except PCB 77, the reference values are unweighted means of the results from two to four analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled within-method variance following the ISO/JCGM Guide [14,15]. For PCB 77, the reference value is the mean of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution corresponding to two degrees of freedom and 95 % confidence level for PCB 77. The measurand is the total mass fraction of the PCB Congeners listed as determined by the method or methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as microgram per kilogram on a dry-mass basis.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(g) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(h) GC/MS NICI on a 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC-ECD (I) fractionated using a PYE column.

Table 7. Reference Mass Fraction Values for Selected Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a,b) ($\mu\text{g}/\text{kg}$)
2,4'-DDE ^(c,d)	0.38 \pm 0.12
4,4'-DDT ^(e,f)	1.12 \pm 0.42

^(a) Mass Fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) The reference values are unweighted means of the results from two analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(e) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(f) 1999 Interlaboratory Comparison Study [7] with 10 laboratories submitting data for 4,4'-DDT.

Table 8. Reference Mass Fraction Values for Alkylated PAH Groups in SRM 1941b

Alkylated PAH Group	Mass Fraction ^(a,b) ($\mu\text{g}/\text{kg}$)
C2-decalins	18 \pm 5
C4-decalins	41 \pm 4
C2-naphthalenes	187 \pm 53
C3-naphthalenes	158 \pm 42
C1-benzothiophenes	25 \pm 14
C2-benzothiophenes	20 \pm 11
C3-benzothiophenes	22 \pm 13
C4-benzothiophenes	18 \pm 5
C1-fluorenes	57 \pm 18
C2-fluorenes	122 \pm 43
C3-fluorenes	128 \pm 31
C1-phenanthrenes/anthracenes	313 \pm 99
C2-phenanthrenes/anthracenes	247 \pm 62
C3-phenanthrenes/anthracenes	165 \pm 46
C4-phenanthrenes/anthracenes	87 \pm 36
C1-dibenzothiophenes	54 \pm 13
C2-dibenzothiophenes	91 \pm 18
C3-dibenzothiophenes	84 \pm 15
C4-dibenzothiophenes	57 \pm 13
C1-fluoranthenes/pyrenes	252 \pm 48
C2-fluoranthenes/pyrenes	205 \pm 38
C3-fluoranthenes/pyrenes	102 \pm 22
C4-fluoranthenes/pyrenes	121 \pm 59
C1-benzanthracenes/chrysenes/triphenylenes	208 \pm 43
C2-benzanthracenes/chrysenes/triphenylenes	120 \pm 24
C3-benzanthracenes/chrysenes/triphenylenes	73 \pm 31
C4-benzanthracenes/chrysenes/triphenylenes	41 \pm 11

^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the alkylated PAH groups listed as determined by the interlaboratory study methods. The values listed are metrologically traceable to the SI unit of mass fraction, expressed as micrograms per kilogram on a dry-mass basis.

^(b) Data from the interlaboratory study [12].

Table 9. Reference Mass Fraction Values for Hopanes and Steranes in SRM 1941b

Hopane or Sterane	Mass Fraction ^(a,b) (µg/kg)
17α(H)-22,29,30-Trisnorhopane	54 ± 18
17α(H)-21β(H)-30-Norhopane	137 ± 21
17α(H)-21β(H)-30-Hopane	215 ± 44
17α(H)-21β(H)-22R-Homohopane	44 ± 10
17α(H)-21β(H)-22S-Homohopane	48 ± 13
5α(H)-14α(H),17α(H)-Cholestane 20R	41 ± 11
5α(H)-14β(H),17β(H)-Cholestane 20R	27 ± 6
5α(H)-14β(H),17β(H)-24-Methylcholestane 20R	21 ± 8
5α(H)-14α(H),17α(H)-24-Ethylcholestane 20R	19 ± 5
5α(H)-14β(H),17β(H)-24-Ethylcholestane 20R	41 ± 9

- ^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the constituent listed as determined by the methods used during the interlaboratory study. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
- ^(b) Data from the interlaboratory study [12].

Table 10. Reference Mass Fraction Value for Total Organic Carbon in SRM 1941b

Total Organic Carbon (TOC)	2.99 % ± 0.24 % ^(a,b)
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- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.
- ^(b) The reference value for total organic carbon is a weighted mean value from routine measurements made by two laboratories [21]. The uncertainty listed is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance. The reporting follows the ISO/JCGM Guides [2]. The measurand is the total mass fraction of TOC listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as a percent on a dry-mass basis.

Table 11. Information Mass Fraction Values for Carbon, Hydrogen, and Nitrogen in SRM 1941b

Elements	Mass Fractions ^(a) (%)
Carbon	3.3
Hydrogen	1.2
Nitrogen	<0.5

- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

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Certificate Revision History: 16 January 2015 (Corrected IUPAC name for PCB-56 and PCB-107; editorial changes); 10 June 2014 (Units corrected from mg/kg to µg/kg in Tables 8 and 9; editorial changes); 10 April 2012 (Reference value added for alkylated PAH groups, hopanes, and steranes; extension of certification period; editorial changes); 16 August 2004 (Reference values for the butyl tins removed; editorial changes); 15 July 2002 (Original certificate date).

Users of this SRM should ensure that the Certificate of Analysis in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX A

The laboratories listed below performed measurements that contributed to the certification of PAHs, PCBs, and chlorinated pesticides in SRM 1941b Organics in Marine Sediment.

Arthur D. Little, Inc; Cambridge, MA
Alys Analytical Services; Sidney, BC, Canada
B & B Laboratories; College Station, TX
Battelle Ocean Sciences; Duxbury, MA
Bedford Institute of Oceanography; Dartmouth, NS, Canada
California Department of Fish and Game; Rancho Cordova, CA
Central Contra Costa Sanitary District; Martinez, CA
Chesapeake Biological Laboratory; Solomons, MD
Centro de Investigaciones Energeticas Medioambientales y Tecnologicas; Madrid, Spain
City of Los Angeles Environmental Monitoring Division; Playa del Rey, CA
City of San Jose Environmental Services Department; San Jose, CA
Columbia Analytical Services; Kelso, WA
East Bay Municipal Utility District; Oakland, CA
Florida Department of Environmental Protection; Tallahassee, FL
Manchester Environmental Laboratory; Port Orchard, WA
Murray State University; Murray, KY
Massachusetts Water Resources Authority Central Lab; Winthrop, MA
National Research Council of Canada; Ottawa, Ontario, Canada
National Oceanic and Atmospheric Association (NOAA), National Marine Fisheries Service (NMFS), Auke Bay Laboratory; Juneau, AK
NOAA, National Ocean Service/Center for Coastal Environmental Health and Biomolecular Research; Charleston, SC
NOAA, NMFS, Sandy Hook Marine Laboratory; Highlands, NJ
NOAA, NMFS, Northwest Fisheries Science Center; Seattle, WA
Orange County Sanitation District; Fountain Valley, CA
Philip Analytical Services; Burlington, Ontario, Canada
Serv de Hidrografia Naval; Buenos Aires, Argentina
Skidaway Institute of Technology; Savannah, GA
Southwest Laboratory of Oklahoma; Broken Arrow, OK
Severn Trent Knoxville Laboratory; Knoxville, TN
Texas A&M University, Geochemical and Environmental Research Group; College Station, TX
Texas Parks and Wildlife Department; San Marcos, TX
University of California at Los Angeles, Institute of Geophysics and Planetary Physics; Los Angeles, CA
University of Connecticut, Environmental Research Institute; Storrs, CT
University of Rhode Island, Graduate School of Oceanography; Narragansett, RI
US Department of Agriculture, Environmental Chemistry Laboratory; Beltsville, MD
US Environmental Protection Agency, Atlantic Ecology Division; Narragansett, RI
US Geological Survey, National Water Quality Laboratory; Denver, CO
Woods Hole Group Environmental Lab; Raynham, MA
Wright State University; Dayton, OH

APPENDIX B

The laboratories listed below performed measurements that contributed to the certification of alkylated PAH groups, hopanes, and steranes in SRM 1941b Organics in Marine Sediment.

Alpha Analytical, Inc.; Mansfield, MA
Analytical Resources, Inc.; Tukwila, WA
Axy's Analytical Services; Sydney, BC, Canada
Battelle Analytical & Environmental Chemistry Laboratory; Duxbury, MA
Center for Laboratory Sciences; Pasco, WA
Columbia Analytical Services; Jacksonville, FL
Columbia Analytical Services; Rochester, NY
Columbia Analytical Services, Kelso, WA
Florida Department of Environmental Protection; Tallahassee, FL
Florida International University; North Miami, FL
Michigan Department of Natural Resources and Environment; Lansing, MI
Mississippi State Chemical Laboratory; Mississippi State, MS
NIST; Charleston, SC
NIST; Gaithersburg, MD
NOAA/NCCOS/NOS; Charleston, SC
NOAA/NMFS/Alaska Fisheries Science Center; Juneau, AK
NY State Department of Health; Albany, NY
Pace Analytical Services, Inc. Minneapolis; Minneapolis, MN
RJ Lee Group, Inc; Monroeville, PA
TDI/B&B Laboratories, Inc.; College Station, TX
TestAmerica Laboratories; Mobile, AL
TestAmerica Laboratories; West Sacramento, CA
TestAmerica Laboratories; University Park, IL
TestAmerica Laboratories; Schriever, LA
TestAmerica Laboratories; Edison, NJ
TestAmerica Laboratories; Knoxville, TN
TestAmerica Laboratories; Pittsburgh, PA
TestAmerica Laboratories; South Burlington, VT
TestAmerica Laboratories; Tacoma, WA
US Army Engineer Research and Development Center; Vicksburg, MS
USGS Columbia Environmental Research Center; Columbia, MO
University of Iowa, State Hygienic Laboratory; Iowa City, IO
Washington State Public Health Laboratories; Shoreline, WA



Date of Issue:
31 March 2014

SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

Product Identifier

SRM Number: 1941b
SRM Name: Organics in Marine Sediment
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Company Information

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200
FAX: 301-948-3730
E-mail: SRMMSDS@nist.gov
Website: <http://www.nist.gov/srm>

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

Physical Hazard: Not classified.
Health Hazard: Not classified.

Label Elements

Symbol
No Symbol/Pictogram

Signal Word
Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients(s) with Unknown Acute Toxicity: Not applicable.

3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Substance: Marine sediment

Other Designations: Sediment.

This material is naturally occurring marine sediment from an urban area. The material contains trace amounts of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and should be handled with care. Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the Certificate of Analysis.

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Marine Sediment	Not available	Not available	23D0396 CLPLIKE (Rev0) - Page 3770 of 3781 100

4. FIRST AID MEASURES

Description of First Aid Measures:

Inhalation: If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

Ingestion: If adverse effects occur after ingestion, seek medical treatment.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation.

Indication of any immediate medical attention and special treatment needed, if necessary: If any of the above symptoms are present, seek medical attention if needed.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Negligible fire hazard. Avoid generating dust. See Section 9, "Physical and Chemical Properties" for flammability properties.

Extinguishing Media:

Suitable: Use extinguishing media appropriate for surrounding fire.

Unsuitable: None listed.

Specific Hazards Arising from the Chemical: None listed.

Special Protective Equipment and Precautions for Fire-Fighters: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

NFPA Ratings (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 1

Fire = 0

Reactivity = 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Any accumulated material on surfaces should be removed and properly disposed of. Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

Methods and Materials for Containment and Clean up: Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

7. HANDLING AND STORAGE

Safe Handling Precautions: Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. See Section 8, "Exposure Controls and Personal Protection".

Storage: Store and handling in accordance with all current regulations and standards.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: No occupational exposure limits have been established for marine sediment. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable.

OSHA (PEL): 15 mg/m³ (TWA, total particulates not otherwise regulated)

OSHA (PEL) 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

NIOSH (REL): 10 mg/m³ (TWA, total particulates not otherwise regulated, 8 h)

NIOSH (REL): 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection: In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

Respiratory Protection: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye/Face Protection: Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

Skin and Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Descriptive Properties:

Appearance (physical state, color, etc.):	amorphous powder
Molecular Formula:	not applicable
Molar Mass (g/mol):	not applicable
Odor:	not available
Odor threshold:	not available
pH:	not available
Evaporation rate:	not applicable
Melting point/freezing point (°C):	not available
Specific Gravity (water=1)	not available
Vapor Pressure (mmHg):	not applicable
Vapor Density (air = 1):	not applicable
Viscosity (cP):	not applicable
Solubility(ies):	not available
Partition coefficient (n-octanol/water):	not available
Particle Size:	<150 µm

Thermal Stability Properties:

Autoignition Temperature (°C):	not available
Thermal Decomposition (°C):	not available
Initial boiling point and boiling range (°C):	not available
Explosive Limits, LEL (Volume %):	not available
Explosive Limits, UEL (Volume %):	not available
Flash Point (°C):	not available
Flammability (solid, gas):	not available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Stability: X Stable Unstable

Possible Hazardous Reactions: None listed.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None listed.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Thermal decomposition will produce oxides of carbon.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: Inhalation Skin Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Generated dust may cause irritation if inhaled.

Potential Health Effects (Acute, Chronic and Delayed):

Inhalation: Generated dust may cause irritation.

Skin Contact: May cause mechanical irritation.

Eye Contact: May cause mechanical irritation.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: Not classified; no data available.

Skin Corrosion/Irritation: Not classified; no data available.

Serious Eye damage/ Eye irritation: Not classified; no data available.

Respiratory Sensitization: Not classified; no data available.

Skin Sensitization: Not classified; no data available.

Germ Cell Mutagenicity: Not classified; no data available.

Carcinogenicity: Not classified.

Listed as a Carcinogen/Potential Carcinogen Yes No
Marine sediment is not listed by NTP, IARC or OSHA as a carcinogen.

Reproductive Toxicity: Not classified; no data available.

Specific Target Organ Toxicity, Single Exposure: Not classified; no data available.

Specific Target Organ Toxicity, Repeated Exposure: Not classified; no data available.

Aspiration Hazard: Not classified; no data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: No.
CHRONIC HEALTH: No.
FIRE: No.
REACTIVE: No.
PRESSURE: No.

State Regulations:

California Proposition 65: Not listed.

U.S. TSCA Inventory: Not listed.

TSCA 12(b), Export Notification: Not listed.

Canadian Regulations:

WHMIS Information: Not provided for this material.

16. OTHER INFORMATION

Issue Date: 31 March 2014

Sources: 29 CFR Occupational Health and Safety Office (OSHA) 1910.1000, *Limits for Air Contaminants*, Table Z-1; available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992 (accessed Mar 2014).

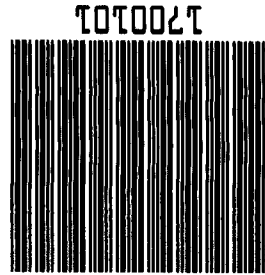
Center for Disease Control (CDC) NIOSH Pocket Guide to Chemical Hazards, *Particulates not otherwise regulated*; available at <http://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Mar 2014).

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transportation Agency	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration, 50 %	STEL	Short Term Exposure Limit
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health	UEL	Upper Explosive Limit
NIST	National Institute of Standards and Technology	WHMIS	Workplace Hazardous Materials Information System

Disclaimer: Physical and chemical data contained in this SDS are provided only for use in assessing the hazardous nature of the material. The SDS was prepared carefully, using current references; however, NIST does not certify the data in the SDS. The certified values for this material are given in the NIST Certificate of Analysis.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730. <http://www.nist.gov/srm>



Picked by 9/21/16 04:04 PM

Weight	
# of pieces	
Packed by	
Picked by	

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LABORATORY USE ONLY.

1 / EACH

Organics in Marine Sediment

Total qty:

1941B 0 EACH 1 EACH 1 EACH 1 EACH

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Order discrepancies (other than back ordered items) must be reported to our Customer Relations Department at 301-975-6776 within 5 days of receipt of shipment or this order will be considered complete. NIST SRMs/RMs are generally not returnable - with the exception of defective goods or shipments made in error by NIST. To return a SRM/RM, please call for instructions and a Return SRM/RM Authorization Number before shipment. Returns WILL NOT BE ACCEPTED without prior authorization.

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MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Microcrystalline Cellulose Powder_
Catalog Number: 191499_
Lot: Q9483_

Formula: (C₆H₁₀O₅)_n
CAS #: 9004-34-6
Physical Description: White Powder

Formula Weight: N/A
Storage: 15 - 30°C

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822

Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
Prepared By Casey English 2/22/2019

Identification A & B: Passes

Bulk Density: 0.29 g/ml

Bulk Density (graduated cylinder): 0.31 g/ml

Conductivity: 18 µS/cm

Starch: Negative

Ether Soluble Substances: 0.01%

Total Aerobic microbial Count: 100 cfu/g

Total Mold and Yeast Count: 20 cfu/g

Staphylococcus aureus: Absent/1 g

Pseudomonas aeruginosa: Absent/1 g

E. coli: Absent/1 g

Salmonella: Absent/10 g

Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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CAS #: 9004-34-6 **Storage:** 15 - 30°C
Physical Description: White Powder

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822
Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
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Identification A & B: Passes
Bulk Density: 0.29 g/ml
Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
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07/26/2018 - John Huang, PhD
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Quality Control Manager

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Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)

TOTAL SOLIDS BENCHSHEET						Batch:	BLD0432	
Method: PSEP 1986 (dry at 103-105 C)						Date:	4/17/2023 12:54	
Instrumentation						Analyst:	CR	
						Drying Oven:	15	
						Analytical Balance:	B139298002	
Batch drying time			Oven Temp, C			TS (%) calculated as:		
Record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)			Oven Temps, °C		
Date/time in oven:	4/18/2023 10:52		106	TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)			Start Temp:	106
Date/time out:	4/19/2023 6:23		100				End Temp:	100
Elapsed hrs:	19.5							
SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted		
23D0396-01	0.7900	11.0900	5.2200	4.43	43.01%	No		
23D0396-02	0.8100	11.5200	6.0500	5.24	48.93%	No		
23D0396-03	0.7900	12.4800	5.9200	5.13	43.88%	No		
23D0396-04	0.7700	11.5600	6.0600	5.29	49.03%	No		

TOTAL SOLIDS BENCHSHEET		Batch:	BLD0432
Method: PSEP 1986		Date:	4/17/2023 12:54
(dry at 103-105 C)		Analyst:	R
Instrumentation		Drying Oven:	015
		Analytical Balance:	BL3929002
Batch drying time			
Record times as mm/dd/yy hh:mm		Oven Temp, C	TS (%) calculated as:
Date/time in oven:	4/18/23 10:52	106	Final dry wt (g) = (Dry Wt - Tare Wt)
Date/time out:	4/18/23 6:23	100	TS = (Final Dry Wt X 100)/(sample & dish -dish tare)
Elapsed hrs:	0.0		
		Oven Temps, °C	
		Start Temp:	106
		End Temp:	100

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23D0396-01 A	0.79	11.09	5.22			No
23D0396-02 I	0.81	11.52	6.05			No
23D0396-03 I	0.79	12.48	5.92			No
23D0396-04 A	0.77	11.56	6.06			No

T/S + Screens
2 copies