



**Analytical Resources, LLC**  
Analytical Chemists and Consultants

10 February 2023

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

RE: AOC4 UR Phase 3

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)  
22L0307

Associated SDG ID(s)  
N/A

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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.*



#1 of 6

224307

# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3291

Project/Client Name: Ac4 WR Phase 3  
 Project Number: 180067-02.01  
 Contact Name: Amara Vandervoort  
 Sampled By: windward

Ship to: ARL  
 Attn: Sue Durnihoo  
 Shipper: Courier  
 Form filled out by: AV/BQ

Shipping Date: 12/9/2022  
 Airbill Number: 1-\*  
 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)]
					Archie	Tue/Total Solids		POBs			
12/12/22	0826	LDW22-1T793A	3	Sediment	X	X		X			
		LDW22-1T793B									
		LDW22-1T793C									
		LDW22-1T793D									
		LDW22-1T793D-FD									
		LDW22-1T793E									
		LDW22-1T793F									
12/12/22	0747	LDW22-1T795B									
		LDW22-1T795C									
		LDW22-1T795C-FD									
		LDW22-1T795D									
		LDW22-1T795E									
Total Number of Containers			36	Purchase Order / Statement of Work # APJ-110222-AC4-ARL							

1) Released by: <u>Amara Vandervoort</u> Print name: <u>Amara Vandervoort</u> Signature: <u>[Signature]</u> Company: <u>windward</u> Date/Time: <u>12/12/22 16:14</u>	1) Rec'd by: <u>YARED</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 4:14</u>	2) Released by: <u>YARED</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Company: <u>ARL</u> Date/Time: <u>12/12/22 1642</u>
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\* 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::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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22L0307

# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3269

Project/Client Name: AOCY UR Phase 3  
 Project Number: 180067-02.04  
 Contact Name: Amaria Vandervort  
 Sampled By: Windward

Ship to: ARI  
 Attn: Sue Dunahoo  
 Shipper: Carrier  
 Form filled out by: AV/BQ  
 Shipping Date: 12/18/2022  
 Airbill Number: 12  
 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)]
					Aroclor	TOC/total Solids		PCBS			
12/12/22	0747	LDW22-1T795 F	3	sediment	X	X		X			
12/12/22	0747	LDW22-1T795 G	3		X	X		X			
12/12/22	0835	LDW22-1T806 A			X	X		X			
		LDW22-1T806 B			X	X		X			
		LDW22-1T806 C			X	X		X			
		LDW22-1T806 D			X	X		X			
		LDW22-1T806 E			X	X		X			
		LDW22-1T806 F			X	X		X			
	0926	LDW22-SC750 A			X	X		X			
		LDW22-SC750 B			X	X		X			
		LDW22-SC750 C			X	X		X			
		LDW22-SC750 D			X	X		X			
Total Number of Containers			36	Purchase Order / Statement of Work # APJ-110222-AOCY-ARL							

1) Released by: Print name: <u>Amaria Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/12/22 1644</u>	1) Rec'd by: <u>YARED</u> Company: <u>VA VA SAFETY</u> Date/Time: <u>12/12/22 4:14PM</u>	2) Released by: Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>VA VA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Company: <u>ARI</u> Date/Time: <u>12/12/22 1642</u>
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To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3267

Project/Client Name: AOCY UE Phase 3  
 Project Number: 180067-02-04  
 Contact Name: Amara Vandervoort  
 Sampled By: Windward

Ship to: ARI  
 Attn: Sue Dunniho  
 Shipper: Courier  
 Form filled out by: AV/BQ  
 Shipping Date: 12/9/2022  
 Airbill Number: AV  
 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)]
					Asph	Toc/total solids	Dioxin/Furan	PCBs	PBP		
12/12/22	0926	LDW22-SC750E	3	sediment	X	X		X			
		LDW22-SC750F			X	X		X			
		LDW22-SC750G			X	X		X			
		LDW22-SC750H			X	X		X			
	0945	LDW22-IT808A			X	X	X	X			
		LDW22-IT808B			X	X	X	X			
		LDW22-IT808C			X	X	X	X			
		LDW22-IT808D			X	X	X	X			
		LDW22-IT808E			X	X	X	X			
		LDW22-IT808F			X	X	X	X			
	1118	LDW22-SC804B			X	X		X	X		
	1118	LDW22-SC804C			X	X		X	X		
Total Number of Containers			30	Purchase Order / Statement of Work # APT-110222-AOCY-ARI							

1) Released by: Print name: <u>A. Vandervoort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/12/22 10:14</u>	1) Rec'd by: <u>YARE</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 4:14</u>	2) Released by: Print name: <u>YARE</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Company: <u>ARI</u> Date/Time: <u>12/12/22 1642</u>
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To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3385

Project/Client Name: AOC4 MR Phase 3  
 Project Number: 180067-02.04  
 Contact Name: Amara Vandervoort  
 Sampled By: Windward

Ship to: ARI  
 Attn: Sue Dunnihoo  
 Shipper: Courier  
 Form filled out by: AV/BA  
 Shipping Date: 12/19/2022  
 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)]
					Archyle	TOC/Total Solids	Asbestos/Heavy Metals	BBP	PCBs		
12/12/22	1118	LDW 22-SC804D	3	sediment	X	X	X	X			
	1118	LDW 22-SC804E	3		X	X	X	X			
	1118	LDW 22-SC804F	3		X	X	X	X			
	1118	LDW 22-SC804F-D	3		X	X	X	X			
	1118	LDW 22-SC804G	3		X	X	X	X			
	1118	LDW 22-SC804H	3		X	X	X	X			
	1101	LDW 22-SC752A	3		X	X	-	X			
	1101	LDW 22-SC752B	3		X	X	-	X			
	1101	LDW 22-SC752C	3		X	X	-	X			
	1101	LDW 22-SC752D	3		X	X	-	X			
	1101	LDW 22-SC752E	3		X	X	-	X			
	1101	LDW 22-SC752F	3		X	X	-	X			
	1101	<b>Total Number of Containers</b>	<b>36</b>		<b>Purchase Order / Statement of Work # APJ-110222-AOC4-ARL</b>						

1) Released by: <u>Amara Vandervoort</u> Print name: <u>Amara Vandervoort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/12/22 16:14</u>	1) Rec'd by: <u>YARED</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 4:14PM</u>	2) Released by: <u>[Signature]</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Print name: <u>ARI</u> Signature: <u>[Signature]</u> Company: <u>ARI</u> Date/Time: <u>12/12/22 1642</u>
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Date of receipt:	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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22L0307

# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3295

Project/Client Name: AOC4 MR Phase 3  
 Project Number: 180067-02.04  
 Contact Name: Amara Vandenberg  
 Sampled By: Windward

Ship to: ARI  
 Attn: Sue Dunning  
 Shipper: Corier  
 Form filled out by: AV/CC

Shipping Date: 12/12/2022  
 Airbill Number: 121912022 CC  
 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)]
					Archive	TOC / Total Solids		PCBs		
12/12/22	1101	LDW 22-SC752G	3	sediment	X	X		X		
12/12/22	1101	LDW 22-SC752H	3		X	X		X		
12/12/22	1101	LDW 22-SC752B-FD	3		X	X		X		
12/12/22	1214	LDW 22-SC800A	1		X	X		X		
		LDW 22-SC800B	.		X	X		X		
		LDW 22-SC800C	.		X	X		X		
		LDW 22-SC800D	.		X	X		X		
		LDW 22-SC800E	.		X	X		X		
		LDW 22-SC800F	.		X	X		X		
		LDW 22-SC800G	.		X	X		X		
		LDW 22-SC800H	.		X	X		X		
Total Number of Containers			33	Purchase Order / Statement of Work # APJ-110222-AOC4-ARL						

1) Released by: <u>Amara Vandenberg</u> Print name: <u>Amara Vandenberg</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/12/22 16:14</u>	1) Rec'd by: <u>YARED</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 4:14</u>	2) Released by: <u>[Signature]</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Print name: <u>ARI</u> Signature: <u>[Signature]</u> Company: <u>ARI</u> Date/Time: <u>12/12/22 1642</u>
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### To be completed by Laboratory upon sample receipt:

Date of receipt: _____	Laboratory W.O. #: _____
Condition upon receipt: _____	Time of receipt: _____
Cooler temperature: _____	Received by: _____

86 of 6 22L4307

# CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3319

Project/Client Name: AOC4 MR Phase 3  
 Project Number: 180067-02.04  
 Contact Name: Amara Vandervort  
 Sampled By: Windward

Ship to: ARI  
 Attn: Sue Dunneho  
 Shipper: Courier  
 Form filled out by: AVICC  
 Shipping Date: 12/12/2022  
 Airbill Number: 1219/2022  
 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)]
					Archive	TOC / Total Solids		PCBs			
12/12/22	1259	LDW22-SC783B	3	Sediment	X	X		X			
	1259	LDW22-SC783C	3		X	X		X			
	1259	LDW22-SC783D	3		X	X		X			
	1259	LDW22-SC783E	3		X	X		X			
	1259	LDW22-SC783F	3		X	X		X			
	1259	LDW22-SC783G	3		X	X		X			
	1259	LDW22-SC783H	3		X	X		X			
Total Number of Containers			21	Purchase Order / Statement of Work # APJ-110222-AOC4-ARL							

1) Released by: Print name: <u>Amara Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/12/22 1614</u>	1) Rec'd by: <u>YARED</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 4:14 PM</u>	2) Released by: Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/12/22 1642</u>	2) Rec'd by: <u>[Signature]</u> Company: <u>ARI</u> Date/Time: <u>12/12/22 1642</u>
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\* Distribution: White copies accompany shipment; yellow retained by consignor.



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 Seattle, WA 98119  
 206.378.1364

**To be completed by Laboratory upon sample receipt:**

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:



# Cooler Receipt Form

ARI Client: Windward Project Name: AOCY UR Phase 3  
 COC No(s): 3319, 3295, 3385, 3267, 3269, 3291 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: \_\_\_\_\_  
 Assigned ARI Job No: 22L0347 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 1642 2.1° 0.7° 4.1° 2.4° 2.8°  
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 9708  
 Cooler Accepted by: JLW Date: 12/12/22 Time: 1642

**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? JLW 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: JLW Date: 12/13/22 Time: 0815 Labels checked by: JLW

**\*\* 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:**

Samples LDW22-IT848A, B, C, D, E, & F all have 4 containers provided, not 3.

By: JLW Date: 12/13/22





Anchor QEA, LLC

1201 3rd Ave, Suite 2600

Seattle, WA 98101

Project: AOC4 UR Phase 3

Project Number: 180067-02.04

Project Manager: Ali Judkins

**Reported:**

02/10/2023 09:07

**ANALYTICAL REPORT FOR SAMPLES**

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
22L0307-01	LDW22-IT793A	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-02	LDW22-IT793B	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-03	LDW22-IT793C	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-04	LDW22-IT793D	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-05	LDW22-IT793D-FD	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-06	LDW22-IT793E	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-07	LDW22-IT793F	Solid	12/12/22 08:26	12/12/22 16:42
22L0307-08	LDW22-IT795B	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-09	LDW22-IT795C	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-10	LDW22-IT795C-FD	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-11	LDW22-IT795D	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-12	LDW22-IT795E	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-13	LDW22-IT795F	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-14	LDW22-IT795G	Solid	12/12/22 07:47	12/12/22 16:42
22L0307-15	LDW22-IT806A	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-16	LDW22-IT806B	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-17	LDW22-IT806C	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-18	LDW22-IT806D	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-19	LDW22-IT806E	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-20	LDW22-IT806F	Solid	12/12/22 08:35	12/12/22 16:42
22L0307-21	LDW22-SC750A	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-22	LDW22-SC750B	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-23	LDW22-SC750C	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-24	LDW22-SC750D	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-25	LDW22-SC750E	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-26	LDW22-SC750F	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-27	LDW22-SC750G	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-28	LDW22-SC750H	Solid	12/12/22 09:26	12/12/22 16:42
22L0307-29	LDW22-IT808A	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-30	LDW22-IT808B	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-31	LDW22-IT808C	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-32	LDW22-IT808D	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-33	LDW22-IT808E	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-34	LDW22-IT808F	Solid	12/12/22 09:46	12/12/22 16:42
22L0307-35	LDW22-SC804B	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-36	LDW22-SC804C	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-37	LDW22-SC804D	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-38	LDW22-SC804E	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-39	LDW22-SC804F	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-40	LDW22-SC804F-FD	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-41	LDW22-SC804G	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-42	LDW22-SC804H	Solid	12/12/22 11:18	12/12/22 16:42
22L0307-43	LDW22-SC752A	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-44	LDW22-SC752B	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-45	LDW22-SC752C	Solid	12/12/22 11:01	12/12/22 16:42



Anchor QEA, LLC

1201 3rd Ave, Suite 2600

Seattle, WA 98101

Project: AOC4 UR Phase 3

Project Number: 180067-02.04

Project Manager: Ali Judkins

**Reported:**

02/10/2023 09:07

**ANALYTICAL REPORT FOR SAMPLES**

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
22L0307-46	LDW22-SC752D	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-47	LDW22-SC752E	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-48	LDW22-SC752F	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-49	LDW22-SC752G	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-50	LDW22-SC752H	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-51	LDW22-SC752B-FD	Solid	12/12/22 11:01	12/12/22 16:42
22L0307-52	LDW22-SC800A	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-53	LDW22-SC800B	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-54	LDW22-SC800C	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-55	LDW22-SC800D	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-56	LDW22-SC800E	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-57	LDW22-SC800F	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-58	LDW22-SC800G	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-59	LDW22-SC800H	Solid	12/12/22 12:14	12/12/22 16:42
22L0307-60	LDW22-SC783B	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-61	LDW22-SC783C	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-62	LDW22-SC783D	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-63	LDW22-SC783E	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-64	LDW22-SC783F	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-65	LDW22-SC783G	Solid	12/12/22 12:59	12/12/22 16:42
22L0307-66	LDW22-SC783H	Solid	12/12/22 12:59	12/12/22 16:42



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

Project: AOC4 UR Phase 3  
Project Number: 180067-02.04  
Project Manager: Ali Judkins

Reported:  
10-Feb-2023 09:07

## Case Narrative

**Client:** Anchor QEA, LLC  
**Project:** AOC4 UR Phase 3  
**Work Order:** 22L0307

### Sample receipt

Samples as listed on the preceding page were received 12-Dec-2022 16:42 under ARI work order 22L0307. For details regarding sample receipt, please refer to the Cooler Receipt Form. Samples were stored frozen to preserved holding time.

*This data set includes only dioxin/furans. Revised to correct narrattve.*

### Dioxin/Furans - EPA Method 1613

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

Initial and continuing calibrations were within method requirements.

Labeled internal standard areas were within limits.

The cleanup surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits, with low level response or EMPC response below the RL. Associated results have been "B"-flagged.

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

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

The duplicate (DUP) relative percent difference (RPD) were outside advisory control limits where flagged on the summary sheet.

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



## QUALIFIERS AND NOTES

<u>Qualifier</u>	<u>Definition</u>
X	Indicates possible CDPE interference.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
J	Estimated concentration value detected below the reporting limit.
EMPC	Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin
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 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-29 A File ID: 23020727  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 06:38  
 % Solids: 55.27 Preparation: EPA 8290 Initial/Final: 18.1 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.756	0.655-0.886	0.169	1.00	1.14	ng/kg	
1746-01-6	2,3,7,8-TCDD	1	0.691	0.655-0.886	0.141	1.00	0.422	ng/kg	J
57117-41-6	1,2,3,7,8-PeCDF	1	1.267	1.318-1.783	0.312	1.00	0.700	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1	1.406	1.318-1.783	0.302	1.00	1.56	ng/kg	
40321-76-4	1,2,3,7,8-PeCDD	1	1.584	1.318-1.783	0.339	1.00	1.33	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.218	1.054-1.426	0.123	1.00	6.90	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.495	1.054-1.426	0.112	1.00	1.92	ng/kg	EMPC, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.213	1.054-1.426	0.121	1.00	2.94	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.487	1.054-1.426	0.136	1.00	1.47	ng/kg	EMPC
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.385	1.054-1.426	0.245	1.00	1.37	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.293	1.054-1.426	0.234	1.00	5.61	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.180	1.054-1.426	0.244	1.00	3.11	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.010	0.893-1.208	0.211	1.00	37.5	ng/kg	
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.066	0.893-1.208	0.276	1.00	4.22	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.026	0.893-1.208	0.466	2.50	159	ng/kg	B
39001-02-0	OCDF	1	0.869	0.757-1.024	0.313	2.50	136	ng/kg	B
3268-87-9	OCDD	1	0.881	0.757-1.024	0.758	10.0	1670	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	13.9	ng/kg	
41903-57-5	Total TCDD	1	0.000			1.00	1.25	ng/kg	
30402-15-4	Total PeCDF	1	0.000			1.00	22.2	ng/kg	
36088-22-9	Total PeCDD	1	0.000			1.00	3.82	ng/kg	
55684-94-1	Total HxCDF	1	0.000			1.00	57.0	ng/kg	
34465-46-8	Total HxCDD	1	0.000			1.00	46.9	ng/kg	
38998-75-3	Total HpCDF	1	0.000			1.00	150	ng/kg	
37871-00-4	Total HpCDD	1	0.000			1.00	357	ng/kg	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 7.24  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 7.24



**Form 2**  
**ORGANIC ANALYSIS DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0307-29</u>
Sampled:	<u>12/12/22 09:46</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>55.27</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23020727</u>
		Analyzed:	<u>02/08/23 06:38</u>
		Initial/Final:	<u>18.1 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.770	0.655-0.886	0.160	77.2	24 - 169 %	
13C12-2,3,7,8-TCDD		0.763	0.655-0.886	0.222	93.7	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.523	1.318-1.783	0.166	80.5	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.526	1.318-1.783	0.173	79.2	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.598	1.318-1.783	0.169	87.3	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.505	0.434-0.587	0.226	85.1	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.503	0.434-0.587	0.221	85.3	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.503	0.434-0.587	0.235	84.3	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.504	0.434-0.587	0.257	84.2	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.276	1.054-1.426	0.235	93.5	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.247	1.054-1.426	0.227	90.6	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.454	0.374-0.506	0.261	66.9	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.437	0.374-0.506	0.299	66.0	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.103	0.893-1.208	0.201	72.6	23 - 140 %	
13C12-OCDD		0.912	0.757-1.024	0.251	61.9	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000		0.086	89.1	35 - 197 %	

\* Values outside of QC limits

**Quantify Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**  
 Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:16:37 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**

**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.867	1.001	1.139e3	1.507e3	0.876	0.756	0.770	879	1196	1.67e4	2.08e4	19.0	17.4	NO	bd	bd	0.569
12378-PeCDF	30.037	1.001	7.891e2	6.228e2	0.845	1.267	1.550	1068	2150	1.29e4	1.00e4	12.1	4.7	YES	bb	bb	0.350
23478-PeCDF	31.363	1.000	1.870e3	1.330e3	0.911	1.406	1.550	1068	2150	2.80e4	1.91e4	26.2	8.9	NO	db	db	0.779
123478-HxCDF	34.984	1.000	8.802e3	7.227e3	1.182	1.218	1.240	858	680	1.37e5	1.17e5	159.2	172.5	NO	bd	bd	3.450
234678-HxCDF	35.942	0.999	3.713e3	3.061e3	1.229	1.213	1.240	858	680	4.20e4	3.64e4	48.9	53.6	NO	bb	MM	1.470
123678-HxCDF	35.118	1.000	2.901e3	1.941e3	1.248	1.495	1.240	858	680	4.43e4	3.55e4	51.7	52.2	YES	db	db	0.960
123789-HxCDF	36.979	1.000	1.785e3	1.200e3	1.187	1.487	1.240	858	680	2.26e4	1.85e4	26.4	27.2	YES	bb	bb	0.735
1234678-HpCDF	38.850	1.000	3.447e4	3.413e4	1.204	1.010	1.050	909	1176	5.70e5	5.58e5	626.9	474.9	NO	bb	bb	18.750
1234789-HpCDF	41.101	1.001	3.324e3	3.117e3	1.165	1.066	1.050	909	1176	4.86e4	4.67e4	53.5	39.7	NO	bb	bb	2.111
OCDF	45.367	1.006	7.996e4	9.201e4	1.186	0.869	0.890	881	782	9.62e5	1.11e6	1091.4	1418.7	NO	bb	bb	67.828
2378-TCDD	26.501	1.001	4.286e2	6.202e2	1.236	0.691	0.770	890	947	5.59e3	8.53e3	6.3	9.0	NO	MM	bd	0.211
12378-PeCDD	31.608	1.000	1.373e3	8.669e2	1.087	1.584	1.550	1265	1682	2.16e4	1.26e4	17.1	7.5	NO	bb	bb	0.665
123478-HxCDD	36.098	1.000	1.500e3	1.083e3	0.987	1.385	1.240	1278	1319	2.46e4	1.93e4	19.3	14.6	NO	bd	bd	0.684
123678-HxCDD	36.221	1.001	6.190e3	4.788e3	1.021	1.293	1.240	1278	1319	1.05e5	7.95e4	81.8	60.3	NO	dd	db	2.807
123789-HxCDD	36.600	1.011	3.173e3	2.688e3	0.985	1.180	1.240	1278	1319	5.68e4	4.43e4	44.5	33.6	NO	bb	bb	1.554
1234678-HpCDD	40.354	1.001	1.256e5	1.224e5	1.253	1.026	1.050	1949	1748	1.89e6	1.89e6	970.6	1081.4	NO	bd	bb	79.516
OCDD	45.129	1.000	9.219e5	1.046e6	1.103	0.881	0.890	2020	1730	1.12e7	1.28e7	5558.1	7396.0	NO	bb	bb	834.977
13C-2378-TCDF	25.851	1.007	2.308e5	2.997e5	1.768	0.770	0.770	1566	1348	3.65e6	4.71e6	2332.4	3494.4	NO	bb	bb	77.237
13C-12378-PeCDF	30.015	1.169	2.881e5	1.892e5	1.527	1.523	1.550	1301	1305	4.42e6	2.94e6	3399.5	2253.3	NO	bb	bb	80.456
13C-23478-PeCDF	31.352	1.221	2.724e5	1.785e5	1.466	1.526	1.550	1301	1305	4.23e6	2.79e6	3253.9	2139.4	NO	bb	bb	79.160
13C-123478-HxCDF	34.973	0.956	1.320e5	2.612e5	1.054	0.505	0.510	1220	1677	2.13e6	4.24e6	1746.0	2528.1	NO	bd	bd	85.134
13C-123678-HxCDF	35.107	0.960	1.351e5	2.689e5	1.080	0.503	0.510	1220	1677	2.21e6	4.46e6	1812.0	2658.6	NO	db	db	85.348
13C-234678-HxCDF	35.976	0.983	1.255e5	2.494e5	1.014	0.503	0.510	1220	1677	2.08e6	4.06e6	1706.4	2422.6	NO	bb	bb	84.323
13C-123789-HxCDF	36.990	1.011	1.147e5	2.276e5	0.928	0.504	0.510	1220	1677	1.91e6	3.81e6	1565.7	2273.0	NO	bb	bb	84.159
13C-1234678-HpCDF	38.839	1.062	9.491e4	2.089e5	1.036	0.454	0.440	1611	1680	1.53e6	3.42e6	952.8	2036.0	NO	bd	bb	66.902
13C-1234789-HpCDF	41.078	1.123	7.966e4	1.822e5	0.905	0.437	0.440	1611	1680	1.18e6	2.56e6	733.0	1523.5	NO	bb	bd	66.023
13C-1234-TCDD	25.670	0.000	1.694e5	2.191e5	1.000	0.773	0.770	1544	975	2.69e6	3.46e6	1738.9	3546.1	NO	bb	bb	100.000
13C-2378-TCDD	26.486	1.032	1.738e5	2.277e5	1.103	0.763	0.770	1544	975	2.73e6	3.57e6	1767.7	3658.6	NO	bb	bb	93.697
13C-12378-PeCDD	31.597	1.231	1.907e5	1.193e5	0.914	1.598	1.550	906	676	2.95e6	1.83e6	3258.0	2710.9	NO	bd	bd	87.306
13C-123478-HxCDD	36.087	0.986	2.144e5	1.680e5	0.933	1.276	1.240	1388	1274	3.61e6	2.79e6	2603.0	2191.8	NO	bd	bd	93.510
13C-123678-HxCDD	36.199	0.989	2.126e5	1.706e5	0.965	1.247	1.240	1388	1274	3.61e6	2.86e6	2603.4	2242.8	NO	db	db	90.620
13C-1234678-HpCDD	40.332	1.102	1.306e5	1.184e5	0.782	1.103	1.050	933	976	1.99e6	1.81e6	2135.4	1849.3	NO	bd	bb	72.641
13C-OCDD	45.111	1.233	2.039e5	2.236e5	0.788	0.912	0.890	1233	1171	2.57e6	2.83e6	2081.0	2419.2	NO	bb	bb	123.722
13C-123789-HxCDD	36.589	0.000	2.450e5	1.933e5	1.000	1.268	1.240	1388	1274	4.07e6	3.24e6	2933.1	2539.6	NO	bb	bb	100.000
37CL-2378-TCDD	26.501	1.032	1.708e5		1.233			1095		2.69e6		2458.0			bb		35.649

ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.359	0.865	2.821e2	6.472e2	1.064	0.436	0.770	879	1196	5.79e3	9.86e3	6.6	8.2	YES	bb	bb	0.165
1289-TCDF	27.469	1.063	6.037e2	1.006e3	0.858	0.600	0.770	879	1196	9.99e3	1.44e4	11.4	12.1	YES	bb	bb	0.354
13468-PECDF					1.013		1.550	725	778								
12389-PECDF					0.844		1.550	1068	2150								
123468-HXCDF	33.324	0.953	5.677e3	4.609e3	1.197	1.232	1.240	858	680	8.80e4	7.13e4	102.5	105.0	NO	bd	bd	2.185
1368-TCDD	23.629	0.892	1.339e3	1.183e3	1.084	1.132	0.770	890	947	2.22e4	2.09e4	24.9	22.0	YES	db	MM	0.579
1289-TCDD					0.975		0.770	890	947								
12479-PECDD	28.890	0.914	2.684e3	2.327e3	1.837	1.153	1.550	1265	1682	3.06e4	2.32e4	24.2	13.8	YES	MM	MM	0.880
12389-PECDD					1.252		1.550	1265	1682								
124679-HXCDD	34.093	0.945	1.648e4	1.332e4	1.033	1.237	1.240	1278	1319	2.61e5	2.20e5	204.6	166.6	NO	bb	bb	7.544
1234679-HPCDD	39.296	0.974	1.612e5	1.553e5	1.286	1.038	1.050	1949	1748	2.58e6	2.47e6	1322.0	1414.2	NO	bb	bb	98.849
Total-tetrafurans			1.472e4		0.933			879		2.21e5							6.932
Total-penta1			1.298e4					725		1.84e5							4.940
Total-pentafurans			1.494e4		0.866			1068		1.82e5							6.141
Total-hexafurans			7.257e4		1.208			858		1.11e6							28.509
Total-heptafurans			1.275e5		1.185			909		2.08e6							75.168
Total-Furans			3.227e5		1.067			879		4.74e6							189.518
Total-tetradiioxins			1.211e3		1.099			890		2.05e4							0.625
Total-pentadiioxins			4.507e3		1.392			1265		7.47e4							1.912
Total-hexadiioxins			5.045e4		1.007			1278		7.29e5							23.450
Total-heptadiioxins			2.868e5		1.269			1949		4.47e6							178.365
Total-Dioxins			1.265e6		1.165			890		1.65e7							1039.330
Total-TEQ			1.588e6					890		2.13e7							1228.848
FUNCTION1 PFK			6.447e6					536622		4.54e7							
FUNCTION2 PFK			1.910e5					150349		5.10e6							0.000
FUNCTION3 PFK			4.687e6					206603		5.33e7							0.000
FUNCTION4 PFK			2.299e5					146886		5.72e6							
FUNCTION5 PFK			6.307e4					97299		2.22e6							
FUNCTION1 HXCD...			9.840e2					653		1.45e4							0.000
FUNCTION1 HPCD...			4.344e3					563		7.12e4							0.000
FUNCTION2 HPCD...			3.131e2					591		5.05e3							0.000
FUNCTION3 OCDPE			2.146e2					543		2.85e3							0.000
FUNCTION4 NCDPE			4.649e3					696		8.52e4							0.000
FUNCTION5 DCDPE			0.000e0					585		0.00e0							



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:37 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.10	1.776e3	2.276e3	0.933	0.78	0.77	28.3	YES	NO	dd	db	0.819
2	Total-tetrafurans	23.96	8.574e2	1.060e3	0.933	0.81	0.77	14.4	YES	NO	dd	dd	0.387
3	Total-tetrafurans	23.86	1.173e3	1.760e3	0.933	0.67	0.77	19.3	YES	NO	dd	bd	0.593
4	Total-tetrafurans	23.69	3.182e2	3.895e2	0.933	0.82	0.77	6.3	YES	NO	dd	db	0.143
5	Total-tetrafurans	23.60	1.560e3	2.188e3	0.933	0.71	0.77	27.3	YES	NO	dd	dd	0.757
6	Total-tetrafurans	23.51	1.012e3	1.154e3	0.933	0.88	0.77	21.1	YES	NO	dd	dd	0.438
7	Total-tetrafurans	23.31	3.295e2	4.437e2	0.933	0.74	0.77	7.2	YES	NO	dd	dd	0.156
8	Total-tetrafurans	23.19	2.101e3	2.627e3	0.933	0.80	0.77	34.2	YES	NO	bd	bd	0.955
9	Total-tetrafurans	25.99	9.135e2	1.277e3	0.933	0.72	0.77	15.1	YES	NO	dd	dd	0.443
10	2378-TCDF	25.87	1.139e3	1.507e3	0.876	0.76	0.77	19.0	YES	NO	bd	bd	0.569
11	Total-tetrafurans	25.38	2.560e2	3.750e2	0.933	0.68	0.77	3.9	YES	NO	db	bb	0.128
12	Total-tetrafurans	25.20	5.781e2	8.430e2	0.933	0.69	0.77	9.7	YES	NO	bd	bb	0.287
13	Total-tetrafurans	24.96	9.027e2	1.359e3	0.933	0.66	0.77	15.0	YES	NO	db	bb	0.457
14	Total-tetrafurans	24.76	1.592e3	1.873e3	0.933	0.85	0.77	27.6	YES	NO	dd	db	0.700
15	Total-tetrafurans	24.37	2.129e2	2.770e2	0.933	0.77	0.77	3.5	YES	NO	dd	bd	0.099

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.29	1.298e4	8.642e3		1.50	1.55	254.0	YES	NO	bb	bb	4.940

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.78	2.013e3	1.398e3	0.866	1.44	1.55	19.3	YES	NO	dd	dd	0.848
2	23478-PeCDF	31.36	1.870e3	1.330e3	0.911	1.41	1.55	26.2	YES	NO	db	db	0.779
3	Total-pentafurans	30.23	1.176e3	8.402e2	0.866	1.40	1.55	20.8	YES	NO	bb	bd	0.501
4	Total-pentafurans	29.67	1.252e3	8.221e2	0.866	1.52	1.55	16.7	YES	NO	dd	bd	0.516
5	Total-pentafurans	28.96	8.626e3	5.435e3	0.866	1.59	1.55	87.6	YES	NO	MM	MM	3.497

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:37 Pacific Standard Time

ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.98	8.802e3	7.227e3	1.182	1.22	1.24	159.2	YES	NO	bd	bd	3.450
2	Total-hexafurans	34.36	3.351e4	2.685e4	1.208	1.25	1.24	621.1	YES	NO	bd	bb	13.192
3	Total-hexafurans	34.05	8.801e2	6.368e2	1.208	1.38	1.24	15.5	YES	NO	bb	bb	0.332
4	Total-hexafurans	33.54	1.999e4	1.606e4	1.208	1.24	1.24	349.1	YES	NO	db	db	7.881
5	123468-HxCDF	33.32	5.677e3	4.609e3	1.197	1.23	1.24	102.5	YES	NO	bd	bd	2.185
6	234678-HxCDF	35.94	3.713e3	3.061e3	1.229	1.21	1.24	48.9	YES	NO	bb	MM	1.470

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	3.324e3	3.117e3	1.165	1.07	1.05	53.5	YES	NO	bb	bb	2.111
2	Total-heptafurans	39.51	8.969e4	9.230e4	1.185	0.97	1.05	1604.6	YES	NO	bd	bd	54.307
3	1234678-HpCDF	38.85	3.447e4	3.413e4	1.204	1.01	1.05	626.9	YES	NO	bb	bb	18.750

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.10	1.776e3	2.276e3	0.933	0.78	0.77	28.3	YES	NO	dd	db	0.819
2	Total-tetrafurans	23.96	8.574e2	1.060e3	0.933	0.81	0.77	14.4	YES	NO	dd	dd	0.387
3	Total-tetrafurans	23.86	1.173e3	1.760e3	0.933	0.67	0.77	19.3	YES	NO	dd	bd	0.593
4	Total-tetrafurans	23.69	3.182e2	3.895e2	0.933	0.82	0.77	6.3	YES	NO	dd	db	0.143
5	Total-tetrafurans	23.60	1.560e3	2.188e3	0.933	0.71	0.77	27.3	YES	NO	dd	dd	0.757
6	Total-tetrafurans	23.51	1.012e3	1.154e3	0.933	0.88	0.77	21.1	YES	NO	dd	dd	0.438
7	Total-tetrafurans	23.31	3.295e2	4.437e2	0.933	0.74	0.77	7.2	YES	NO	dd	dd	0.156
8	Total-tetrafurans	23.19	2.101e3	2.627e3	0.933	0.80	0.77	34.2	YES	NO	bd	bd	0.955
9	Total-tetrafurans	25.99	9.135e2	1.277e3	0.933	0.72	0.77	15.1	YES	NO	dd	dd	0.443
10	2378-TCDF	25.87	1.139e3	1.507e3	0.876	0.76	0.77	19.0	YES	NO	bd	bd	0.569
11	Total-tetrafurans	25.38	2.560e2	3.750e2	0.933	0.68	0.77	3.9	YES	NO	db	bb	0.128
12	Total-tetrafurans	25.20	5.781e2	8.430e2	0.933	0.69	0.77	9.7	YES	NO	bd	bb	0.287
13	Total-tetrafurans	24.96	9.027e2	1.359e3	0.933	0.66	0.77	15.0	YES	NO	db	bb	0.457
14	Total-tetrafurans	24.76	1.592e3	1.873e3	0.933	0.85	0.77	27.6	YES	NO	dd	db	0.700
15	Total-tetrafurans	24.37	2.129e2	2.770e2	0.933	0.77	0.77	3.5	YES	NO	dd	bd	0.099
16	Total-pentafurans	28.78	2.013e3	1.398e3	0.866	1.44	1.55	19.3	YES	NO	dd	dd	0.848
17	23478-PeCDF	31.36	1.870e3	1.330e3	0.911	1.41	1.55	26.2	YES	NO	db	db	0.779
18	Total-pentafurans	30.23	1.176e3	8.402e2	0.866	1.40	1.55	20.8	YES	NO	bb	bd	0.501
19	Total-pentafurans	29.67	1.252e3	8.221e2	0.866	1.52	1.55	16.7	YES	NO	dd	bd	0.516
20	123478-HxCDF	34.98	8.802e3	7.227e3	1.182	1.22	1.24	159.2	YES	NO	bd	bd	3.450
21	Total-hexafurans	34.36	3.351e4	2.685e4	1.208	1.25	1.24	621.1	YES	NO	bd	bb	13.192
22	Total-hexafurans	34.05	8.801e2	6.368e2	1.208	1.38	1.24	15.5	YES	NO	bb	bb	0.332
23	Total-hexafurans	33.54	1.999e4	1.606e4	1.208	1.24	1.24	349.1	YES	NO	db	db	7.881
24	123468-HXCDF	33.32	5.677e3	4.609e3	1.197	1.23	1.24	102.5	YES	NO	bd	bd	2.185
25	234678-HxCDF	35.94	3.713e3	3.061e3	1.229	1.21	1.24	48.9	YES	NO	bb	MM	1.470
26	1234789-HpCDF	41.10	3.324e3	3.117e3	1.165	1.07	1.05	53.5	YES	NO	bb	bb	2.111
27	Total-heptafurans	39.51	8.969e4	9.230e4	1.185	0.97	1.05	1604.6	YES	NO	bd	bd	54.307
28	1234678-HpCDF	38.85	3.447e4	3.413e4	1.204	1.01	1.05	626.9	YES	NO	bb	bb	18.750
29	OCDF	45.37	7.996e4	9.201e4	1.186	0.87	0.89	1091.4	YES	NO	bb	bb	67.828
30	Total-penta1	27.29	1.298e4	8.642e3	1.50	1.50	1.55	254.0	YES	NO	bb	bb	4.940
31	Total-pentafurans	28.96	8.626e3	5.435e3	0.866	1.59	1.55	87.6	YES	NO	MM	MM	3.497

## TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.50	4.286e2	6.202e2	1.236	0.69	0.77	6.3	YES	NO	MM	bd	0.211
2	Total-tetradoxins	23.90	7.822e2	1.043e3	1.099	0.75	0.77	16.7	YES	NO	bb	bb	0.414

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.61	1.373e3	8.669e2	1.087	1.58	1.55	17.1	YES	NO	bb	bb	0.665
2	Total-pentadioxins	30.37	8.991e2	6.117e2	1.392	1.47	1.55	11.8	YES	NO	bb	db	0.350
3	Total-pentadioxins	30.23	1.166e3	8.467e2	1.392	1.38	1.55	14.1	YES	NO	bb	MM	0.466
4	Total-pentadioxins	30.01	1.069e3	7.911e2	1.392	1.35	1.55	16.1	YES	NO	bb	bb	0.431

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	35.32	1.278e3	1.031e3	1.007	1.24	1.24	15.9	YES	NO	db	db	0.599
2	Total-hexadioxins	35.22	1.880e4	1.500e4	1.007	1.25	1.24	165.0	YES	NO	bd	bd	8.772
3	Total-hexadioxins	34.86	3.027e3	2.712e3	1.007	1.12	1.24	39.4	YES	NO	bb	bb	1.489
4	124679-HxCDD	34.09	1.648e4	1.332e4	1.033	1.24	1.24	204.6	YES	NO	bb	bb	7.544
5	123789-HxCDD	36.60	3.173e3	2.688e3	0.985	1.18	1.24	44.5	YES	NO	bb	bb	1.554
6	123678-HxCDD	36.22	6.190e3	4.788e3	1.021	1.29	1.24	81.8	YES	NO	dd	db	2.807
7	123478-HxCDD	36.10	1.500e3	1.083e3	0.987	1.38	1.24	19.3	YES	NO	bd	bd	0.684

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	1.256e5	1.224e5	1.253	1.03	1.05	970.6	YES	NO	bd	bb	79.516
2	1234679-HPCDD	39.30	1.612e5	1.553e5	1.286	1.04	1.05	1322.0	YES	NO	bb	bb	98.849

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.50	4.286e2	6.202e2	1.236	0.69	0.77	6.3	YES	NO	MM	bd	0.211
2	Total-tetradoxins	23.90	7.822e2	1.043e3	1.099	0.75	0.77	16.7	YES	NO	bb	bb	0.414
3	12378-PeCDD	31.61	1.373e3	8.669e2	1.087	1.58	1.55	17.1	YES	NO	bb	bb	0.665
4	Total-pentadoxins	30.37	8.991e2	6.117e2	1.392	1.47	1.55	11.8	YES	NO	bb	db	0.350
5	Total-pentadoxins	30.23	1.166e3	8.467e2	1.392	1.38	1.55	14.1	YES	NO	bb	MM	0.466
6	Total-pentadoxins	30.01	1.069e3	7.911e2	1.392	1.35	1.55	16.1	YES	NO	bb	bb	0.431
7	Total-hexadoxins	35.32	1.278e3	1.031e3	1.007	1.24	1.24	15.9	YES	NO	db	db	0.599
8	Total-hexadoxins	35.22	1.880e4	1.500e4	1.007	1.25	1.24	165.0	YES	NO	bd	bd	8.772
9	Total-hexadoxins	34.86	3.027e3	2.712e3	1.007	1.12	1.24	39.4	YES	NO	bb	bb	1.489
10	124679-HxCDD	34.09	1.648e4	1.332e4	1.033	1.24	1.24	204.6	YES	NO	bb	bb	7.544
11	123789-HxCDD	36.60	3.173e3	2.688e3	0.985	1.18	1.24	44.5	YES	NO	bb	bb	1.554
12	123678-HxCDD	36.22	6.190e3	4.788e3	1.021	1.29	1.24	81.8	YES	NO	dd	db	2.807
13	123478-HxCDD	36.10	1.500e3	1.083e3	0.987	1.38	1.24	19.3	YES	NO	bd	bd	0.684
14	OCDD	45.13	9.219e5	1.046e6	1.103	0.88	0.89	5558.1	YES	NO	bb	bb	834.977
15	1234678-HpCDD	40.35	1.256e5	1.224e5	1.253	1.03	1.05	970.6	YES	NO	bd	bb	79.516
16	1234679-HPCDD	39.30	1.612e5	1.553e5	1.286	1.04	1.05	1322.0	YES	NO	bb	bb	98.849

## Quantify Totals Report MassLynx V4.1 SCN909

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.10	1.776e3	2.276e3	0.933	0.78	0.77	28.3	YES	NO	dd	db	0.819
2	Total-tetrafurans	23.96	8.574e2	1.060e3	0.933	0.81	0.77	14.4	YES	NO	dd	dd	0.387
3	Total-tetrafurans	23.86	1.173e3	1.760e3	0.933	0.67	0.77	19.3	YES	NO	dd	bd	0.593
4	Total-tetrafurans	23.69	3.182e2	3.895e2	0.933	0.82	0.77	6.3	YES	NO	dd	db	0.143
5	Total-tetrafurans	23.60	1.560e3	2.188e3	0.933	0.71	0.77	27.3	YES	NO	dd	dd	0.757
6	Total-tetrafurans	23.51	1.012e3	1.154e3	0.933	0.88	0.77	21.1	YES	NO	dd	dd	0.438
7	Total-tetrafurans	23.31	3.295e2	4.437e2	0.933	0.74	0.77	7.2	YES	NO	dd	dd	0.156
8	Total-tetrafurans	23.19	2.101e3	2.627e3	0.933	0.80	0.77	34.2	YES	NO	bd	bd	0.955
9	Total-tetrafurans	25.99	9.135e2	1.277e3	0.933	0.72	0.77	15.1	YES	NO	dd	dd	0.443
10	2378-TCDF	25.87	1.139e3	1.507e3	0.876	0.76	0.77	19.0	YES	NO	bd	bd	0.569
11	Total-tetrafurans	25.38	2.560e2	3.750e2	0.933	0.68	0.77	3.9	YES	NO	db	bb	0.128
12	Total-tetrafurans	25.20	5.781e2	8.430e2	0.933	0.69	0.77	9.7	YES	NO	bd	bb	0.287
13	Total-tetrafurans	24.96	9.027e2	1.359e3	0.933	0.66	0.77	15.0	YES	NO	db	bb	0.457
14	Total-tetrafurans	24.76	1.592e3	1.873e3	0.933	0.85	0.77	27.6	YES	NO	dd	db	0.700
15	Total-tetrafurans	24.37	2.129e2	2.770e2	0.933	0.77	0.77	3.5	YES	NO	dd	bd	0.099
16	Total-pentafurans	28.78	2.013e3	1.398e3	0.866	1.44	1.55	19.3	YES	NO	dd	dd	0.848
17	23478-PeCDF	31.36	1.870e3	1.330e3	0.911	1.41	1.55	26.2	YES	NO	db	db	0.779
18	Total-pentafurans	30.23	1.176e3	8.402e2	0.866	1.40	1.55	20.8	YES	NO	bb	bd	0.501
19	Total-pentafurans	29.67	1.252e3	8.221e2	0.866	1.52	1.55	16.7	YES	NO	dd	bd	0.516
20	123478-HxCDF	34.98	8.802e3	7.227e3	1.182	1.22	1.24	159.2	YES	NO	bd	bd	3.450
21	Total-hexafurans	34.36	3.351e4	2.685e4	1.208	1.25	1.24	621.1	YES	NO	bd	bb	13.192
22	Total-hexafurans	34.05	8.801e2	6.368e2	1.208	1.38	1.24	15.5	YES	NO	bb	bb	0.332
23	Total-hexafurans	33.54	1.999e4	1.606e4	1.208	1.24	1.24	349.1	YES	NO	db	db	7.881
24	123468-HXCDF	33.32	5.677e3	4.609e3	1.197	1.23	1.24	102.5	YES	NO	bd	bd	2.185
25	234678-HxCDF	35.94	3.713e3	3.061e3	1.229	1.21	1.24	48.9	YES	NO	bb	MM	1.470
26	1234789-HpCDF	41.10	3.324e3	3.117e3	1.165	1.07	1.05	53.5	YES	NO	bb	bb	2.111
27	Total-heptafurans	39.51	8.969e4	9.230e4	1.185	0.97	1.05	1604.6	YES	NO	bd	bd	54.307
28	1234678-HpCDF	38.85	3.447e4	3.413e4	1.204	1.01	1.05	626.9	YES	NO	bb	bb	18.750
29	OCDF	45.37	7.996e4	9.201e4	1.186	0.87	0.89	1091.4	YES	NO	bb	bb	67.828
30	Total-penta1	27.29	1.298e4	8.642e3		1.50	1.55	254.0	YES	NO	bb	bb	4.940
31	Total-pentafurans	28.96	8.626e3	5.435e3	0.866	1.59	1.55	87.6	YES	NO	MM	MM	3.497
32	2378-TCDD	26.50	4.286e2	6.202e2	1.236	0.69	0.77	6.3	YES	NO	MM	bd	0.211
33	Total-tetradiioxins	23.90	7.822e2	1.043e3	1.099	0.75	0.77	16.7	YES	NO	bb	bb	0.414
34	12378-PeCDD	31.61	1.373e3	8.669e2	1.087	1.58	1.55	17.1	YES	NO	bb	bb	0.665
35	Total-pentadiioxins	30.37	8.991e2	6.117e2	1.392	1.47	1.55	11.8	YES	NO	bb	db	0.350
36	Total-pentadiioxins	30.23	1.166e3	8.467e2	1.392	1.38	1.55	14.1	YES	NO	bb	MM	0.466
37	Total-pentadiioxins	30.01	1.069e3	7.911e2	1.392	1.35	1.55	16.1	YES	NO	bb	bb	0.431

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:37 Pacific Standard Time

ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexadioxins	35.32	1.278e3	1.031e3	1.007	1.24	1.24	15.9	YES	NO	db	db	0.599
39	Total-hexadioxins	35.22	1.880e4	1.500e4	1.007	1.25	1.24	165.0	YES	NO	bd	bd	8.772
40	Total-hexadioxins	34.86	3.027e3	2.712e3	1.007	1.12	1.24	39.4	YES	NO	bb	bb	1.489
41	124679-HxCDD	34.09	1.648e4	1.332e4	1.033	1.24	1.24	204.6	YES	NO	bb	bb	7.544
42	123789-HxCDD	36.60	3.173e3	2.688e3	0.985	1.18	1.24	44.5	YES	NO	bb	bb	1.554
43	123678-HxCDD	36.22	6.190e3	4.788e3	1.021	1.29	1.24	81.8	YES	NO	dd	db	2.807
44	123478-HxCDD	36.10	1.500e3	1.083e3	0.987	1.38	1.24	19.3	YES	NO	bd	bd	0.684
45	OCDD	45.13	9.219e5	1.046e6	1.103	0.88	0.89	5558.1	YES	NO	bb	bb	834.977
46	1234678-HpCDD	40.35	1.256e5	1.224e5	1.253	1.03	1.05	970.6	YES	NO	bd	bb	79.516
47	1234679-HPCDD	39.30	1.612e5	1.553e5	1.286	1.04	1.05	1322.0	YES	NO	bb	bb	98.849

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.54	7.557e4					1.9	NO		bb		
2	FUNCTION1 PFK	22.24	3.015e4					1.6	NO		db		
3	FUNCTION1 PFK	22.19	2.549e4					1.6	NO		bd		
4	FUNCTION1 PFK	22.07	4.671e4					1.2	NO		bb		
5	FUNCTION1 PFK	21.92	6.900e4					3.3	YES		db		
6	FUNCTION1 PFK	21.74	1.522e6					9.9	YES		dd		
7	FUNCTION1 PFK	21.51	1.260e6					17.2	YES		bd		
8	FUNCTION1 PFK	21.35	1.228e6					18.4	YES		db		
9	FUNCTION1 PFK	21.21	2.068e6					20.7	YES		bd		
10	FUNCTION1 PFK	27.47	4.514e3					0.6	NO		bb		
11	FUNCTION1 PFK	26.89	2.093e4					1.4	NO		bb		
12	FUNCTION1 PFK	24.94	2.367e4					1.1	NO		bb		
13	FUNCTION1 PFK	24.73	1.530e4					1.0	NO		bb		
14	FUNCTION1 PFK	23.96	1.087e4					0.9	NO		bb		
15	FUNCTION1 PFK	23.45	5.605e3					0.7	NO		bb		
16	FUNCTION1 PFK	23.37	1.360e4					0.9	NO		bb		
17	FUNCTION1 PFK	23.25	4.968e3					0.6	NO		bb		
18	FUNCTION1 PFK	22.92	1.779e4					1.1	NO		bb		
19	FUNCTION1 PFK	22.77	4.344e3					0.5	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.81	2.059e3					0.7	NO		bb		0.000
2	FUNCTION2 PFK	29.59	9.150e3					1.0	NO		bb		0.000
3	FUNCTION2 PFK	29.41	4.197e4					3.3	YES		bb		0.000
4	FUNCTION2 PFK	28.90	8.305e3					1.6	NO		bb		0.000
5	FUNCTION2 PFK	28.31	6.795e3					1.3	NO		bb		0.000
6	FUNCTION2 PFK	32.78	3.700e3					0.9	NO		bd		0.000
7	FUNCTION2 PFK	32.62	1.577e4					2.6	NO		bb		0.000
8	FUNCTION2 PFK	32.50	2.280e3					0.9	NO		bb		0.000
9	FUNCTION2 PFK	32.25	6.859e3					1.8	NO		bb		0.000
10	FUNCTION2 PFK	32.08	3.873e3					1.3	NO		bb		0.000
11	FUNCTION2 PFK	31.39	1.079e4					2.1	NO		bb		0.000
12	FUNCTION2 PFK	31.31	4.700e3					1.1	NO		db		0.000
13	FUNCTION2 PFK	31.29	4.278e3					1.4	NO		bd		0.000
14	FUNCTION2 PFK	31.03	3.671e3					1.1	NO		bb		0.000
15	FUNCTION2 PFK	30.94	1.046e4					2.0	NO		bb		0.000
16	FUNCTION2 PFK	30.86	5.873e3					1.6	NO		bb		0.000
17	FUNCTION2 PFK	30.54	6.098e3					1.1	NO		db		0.000
18	FUNCTION2 PFK	30.47	1.057e3					0.6	NO		bd		0.000
19	FUNCTION2 PFK	30.37	5.631e3					0.9	NO		bb		0.000
20	FUNCTION2 PFK	30.29	1.462e4					2.2	NO		bb		0.000
21	FUNCTION2 PFK	30.22	1.744e4					2.7	NO		bb		0.000
22	FUNCTION2 PFK	32.80	5.575e3					1.6	NO		db		0.000



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**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.61	1.150e4					1.5	NO		bb		0.000
2	FUNCTION3 PFK	34.12	2.219e4					3.0	NO		db		0.000
3	FUNCTION3 PFK	34.04	5.969e4					4.9	YES		dd		0.000
4	FUNCTION3 PFK	33.99	3.434e4					5.4	YES		dd		0.000
5	FUNCTION3 PFK	33.93	1.180e5					7.4	YES		dd		0.000
6	FUNCTION3 PFK	33.83	2.504e5					11.2	YES		dd		0.000
7	FUNCTION3 PFK	33.66	4.355e5					15.2	YES		dd		0.000
8	FUNCTION3 PFK	33.54	3.488e5					18.3	YES		dd		0.000
9	FUNCTION3 PFK	33.45	3.588e5					20.6	YES		dd		0.000
10	FUNCTION3 PFK	33.40	1.918e5					21.8	YES		dd		0.000
11	FUNCTION3 PFK	33.24	1.021e6					26.9	YES		dd		0.000
12	FUNCTION3 PFK	33.12	4.590e5					29.8	YES		dd		0.000
13	FUNCTION3 PFK	33.05	6.121e5					30.7	YES		dd		0.000
14	FUNCTION3 PFK	32.93	5.071e5					33.4	YES		bd		0.000
15	FUNCTION3 PFK	37.29	1.019e3					0.4	NO		bb		0.000
16	FUNCTION3 PFK	37.03	7.305e3					1.2	NO		bb		0.000
17	FUNCTION3 PFK	36.88	3.690e4					4.2	YES		db		0.000
18	FUNCTION3 PFK	36.83	8.212e4					4.3	YES		bd		0.000
19	FUNCTION3 PFK	36.61	8.088e2					0.4	NO		bb		0.000
20	FUNCTION3 PFK	36.48	1.344e4					1.4	NO		db		0.000
21	FUNCTION3 PFK	36.40	1.314e4					1.7	NO		bd		0.000
22	FUNCTION3 PFK	35.50	1.049e4					1.8	NO		db		0.000
23	FUNCTION3 PFK	35.44	1.496e4					2.1	NO		bd		0.000
24	FUNCTION3 PFK	35.37	8.496e3					1.4	NO		bb		0.000
25	FUNCTION3 PFK	35.33	3.132e3					0.8	NO		bb		0.000
26	FUNCTION3 PFK	35.20	8.461e3					1.2	NO		bb		0.000
27	FUNCTION3 PFK	35.11	6.901e3					0.9	NO		bb		0.000
28	FUNCTION3 PFK	35.06	6.558e3					1.4	NO		bb		0.000
29	FUNCTION3 PFK	35.01	1.748e4					1.8	NO		bb		0.000
30	FUNCTION3 PFK	34.67	6.871e3					1.1	NO		bb		0.000
31	FUNCTION3 PFK	37.90	1.933e4					1.8	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.53	5.095e3					1.1	NO		bb		
2	FUNCTION4 PFK	40.45	1.962e3					0.8	NO		bb		
3	FUNCTION4 PFK	39.60	8.075e3					1.6	NO		bb		
4	FUNCTION4 PFK	39.54	2.235e3					0.9	NO		bb		
5	FUNCTION4 PFK	39.47	4.358e3					1.1	NO		bb		
6	FUNCTION4 PFK	39.23	8.858e2					0.5	NO		bb		
7	FUNCTION4 PFK	39.13	1.223e4					1.5	NO		bb		
8	FUNCTION4 PFK	38.74	8.889e2					0.5	NO		bb		
9	FUNCTION4 PFK	38.69	5.338e3					1.2	NO		bb		
10	FUNCTION4 PFK	38.63	1.464e3					0.6	NO		bb		
11	FUNCTION4 PFK	38.25	1.209e4					2.8	NO		db		
12	FUNCTION4 PFK	38.19	3.127e4					4.0	YES		dd		
13	FUNCTION4 PFK	38.12	3.624e4					5.1	YES		dd		
14	FUNCTION4 PFK	38.10	4.977e4					5.1	YES		bd		
15	FUNCTION4 PFK	42.56	4.669e3					1.4	NO		bb		
16	FUNCTION4 PFK	42.32	9.611e3					1.5	NO		bb		
17	FUNCTION4 PFK	41.86	5.053e3					1.4	NO		bb		
18	FUNCTION4 PFK	41.70	9.097e3					2.0	NO		db		
19	FUNCTION4 PFK	41.68	9.031e3					1.8	NO		bd		
20	FUNCTION4 PFK	41.52	3.682e3					1.1	NO		bb		
21	FUNCTION4 PFK	41.06	8.020e3					1.5	NO		bb		
22	FUNCTION4 PFK	40.62	8.842e3					1.5	NO		bb		

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.30	6.977e3					1.7	NO		bb		
2	FUNCTION5 PFK	44.05	9.974e2					0.7	NO		bb		
3	FUNCTION5 PFK	43.75	1.050e3					0.8	NO		bb		
4	FUNCTION5 PFK	43.63	3.390e3					1.5	NO		bb		
5	FUNCTION5 PFK	43.59	2.864e3					1.5	NO		bb		
6	FUNCTION5 PFK	43.49	8.820e3					2.1	NO		bb		
7	FUNCTION5 PFK	43.20	1.089e4					1.9	NO		bb		
8	FUNCTION5 PFK	46.33	1.144e3					0.7	NO		bb		
9	FUNCTION5 PFK	46.29	4.508e3					1.9	NO		bb		
10	FUNCTION5 PFK	46.10	3.457e3					1.5	NO		bb		
11	FUNCTION5 PFK	45.71	1.313e3					0.8	NO		bb		
12	FUNCTION5 PFK	45.59	6.338e3					2.2	NO		bb		
13	FUNCTION5 PFK	45.15	4.162e3					1.6	NO		bb		
14	FUNCTION5 PFK	45.05	1.360e3					0.9	NO		bb		
15	FUNCTION5 PFK	44.87	4.534e2					0.5	NO		bb		
16	FUNCTION5 PFK	44.74	2.513e3					1.3	NO		bb		
17	FUNCTION5 PFK	44.67	3.823e2					0.4	NO		bb		
18	FUNCTION5 PFK	44.61	2.454e3					0.9	NO		bb		

## ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	24.81	8.220e1					1.9	NO		bb		0.000
2	FUNCTION1 HXCD...	23.84	2.165e2					3.6	YES		bb		0.000
3	FUNCTION1 HXCD...	22.65	7.179e1					1.8	NO		bb		0.000
4	FUNCTION1 HXCD...	22.42	1.841e2					4.7	YES		bb		0.000
5	FUNCTION1 HXCD...	26.52	1.359e2					2.3	NO		bb		0.000
6	FUNCTION1 HXCD...	26.00	2.170e2					6.2	YES		bb		0.000
7	FUNCTION1 HXCD...	25.35	7.642e1					1.8	NO		bb		0.000

## ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	23.46	1.799e3					47.8	YES		bb		0.000
2	FUNCTION1 HPCD...	23.16	1.301e2					3.1	YES		bb		0.000
3	FUNCTION1 HPCD...	22.51	7.340e1					2.4	NO		bb		0.000
4	FUNCTION1 HPCD...	22.13	2.342e3					73.1	YES		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	29.58	8.067e1					2.1	NO		bb		0.000
2	FUNCTION2 HPCD...	29.05	7.557e1					2.1	NO		bb		0.000
3	FUNCTION2 HPCD...	28.70	1.569e2					4.3	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.78	7.047e1					2.3	NO		bb		0.000
2	FUNCTION3 OCDPE	34.45	1.441e2					3.0	YES		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.34	1.037e2					3.2	YES		bb		0.000
2	FUNCTION4 NCDPE	38.48	4.464e3					115.1	YES		bb		0.000
3	FUNCTION4 NCDPE	38.09	8.085e1					4.1	YES		bb		0.000

**ETHERS6**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

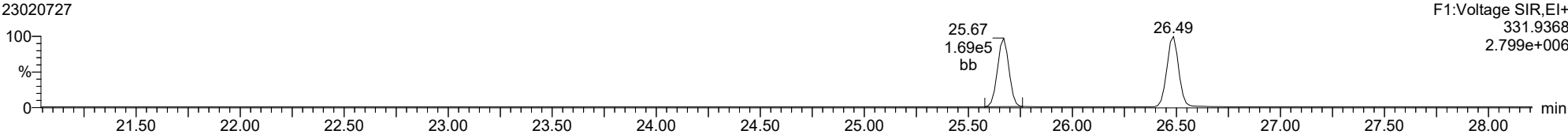
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Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
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**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** 22L0307-29, **Name:** 23020727, **Date:** 08-Feb-2023, **Time:** 06:38:52, **Conditions:** AUTOSPEC01, **User:** pk

**13C-1234-TCDD**

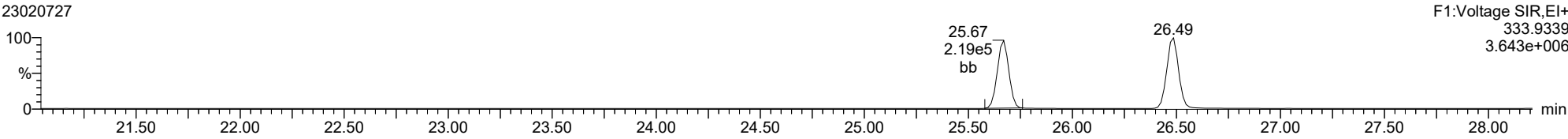
23020727



F1:Voltage SIR,El+  
331.9368  
2.799e+006

**13C-1234-TCDD**

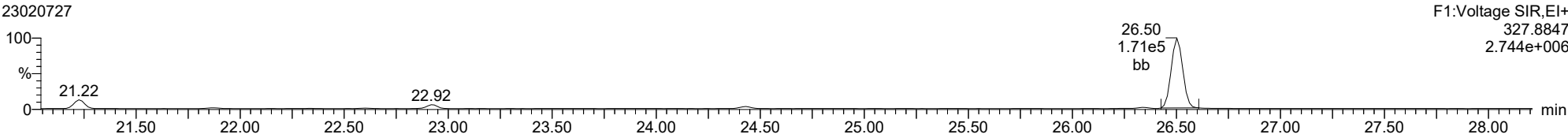
23020727



F1:Voltage SIR,El+  
333.9339  
3.643e+006

**37CL-2378-TCDD**

23020727

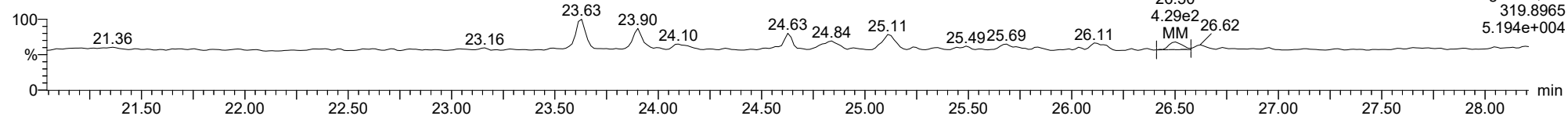


F1:Voltage SIR,El+  
327.8847  
2.744e+006

ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

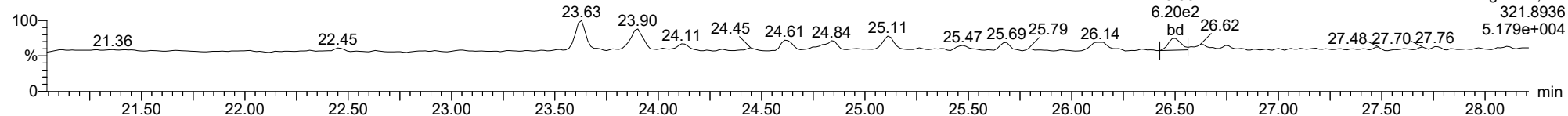
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23020727



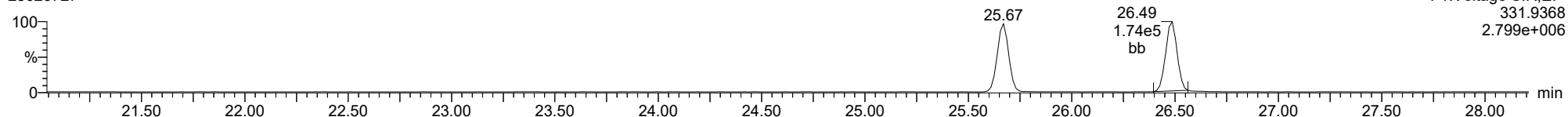
**2378-TCDD**

23020727



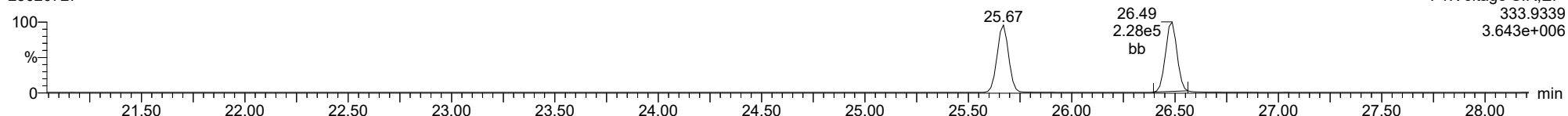
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23020727



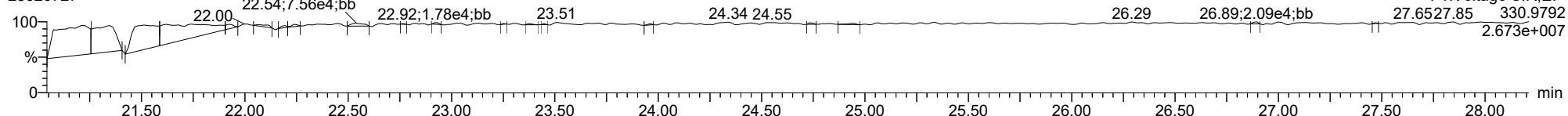
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23020727



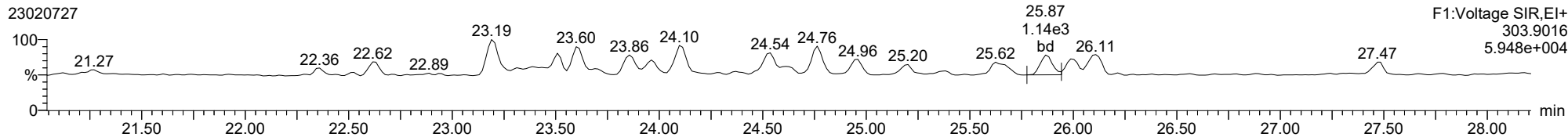
**FUNCTION1 PFK**

23020727

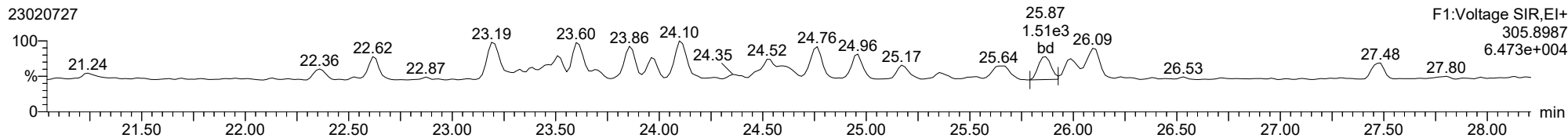


ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

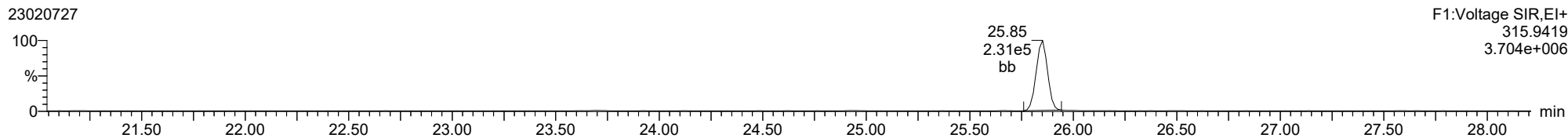
**2378-TCDF**



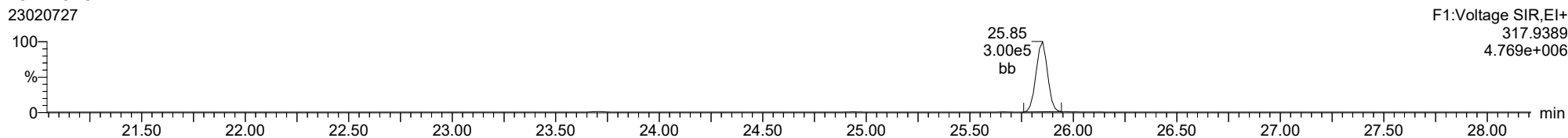
**2378-TCDF**



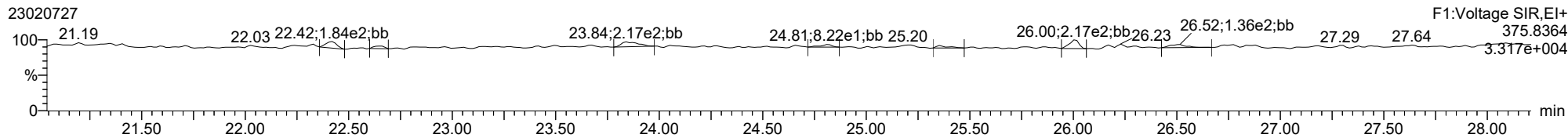
**13C-2378-TCDF**



**13C-2378-TCDF**



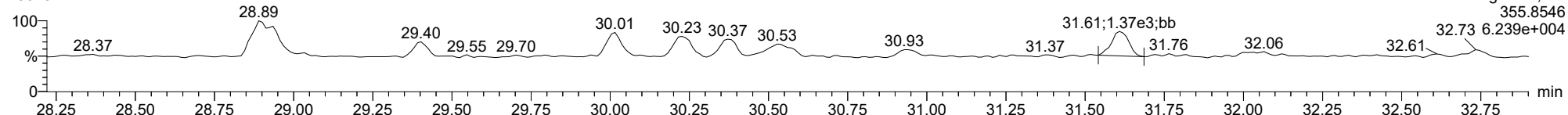
**FUNCTION1 HXCDPE**



ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

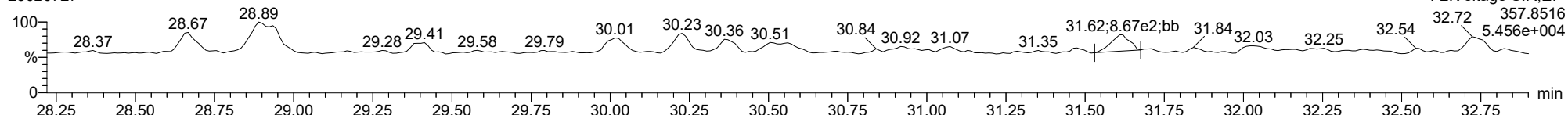
**12378-PeCDD**

23020727



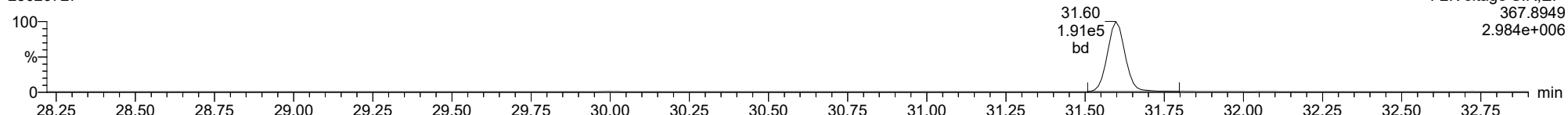
**12378-PeCDD**

23020727



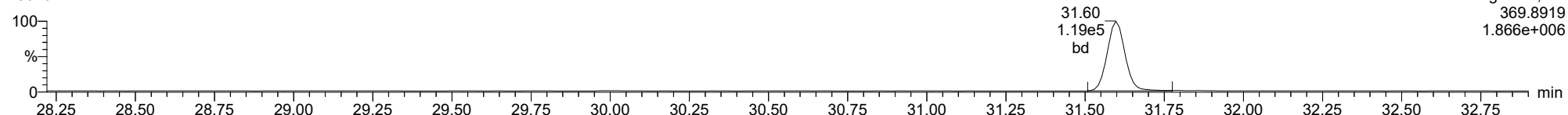
**13C-12378-PeCDD**

23020727



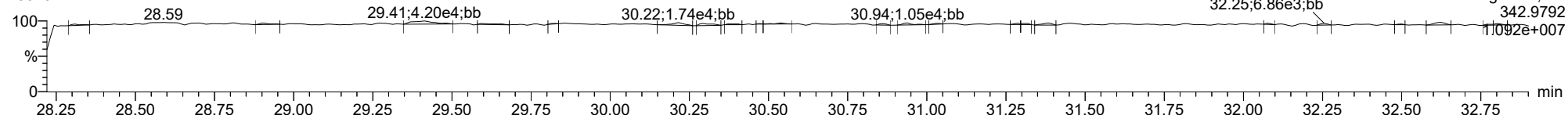
**13C-12378-PeCDD**

23020727



**FUNCTION2 PFK**

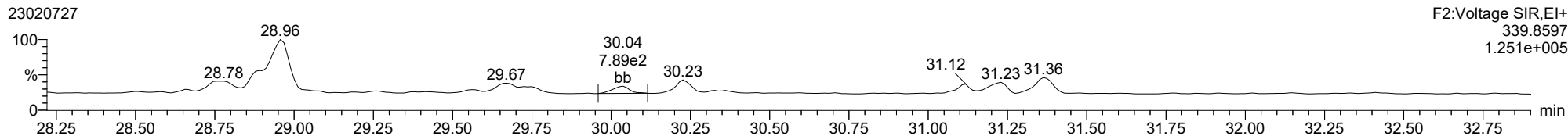
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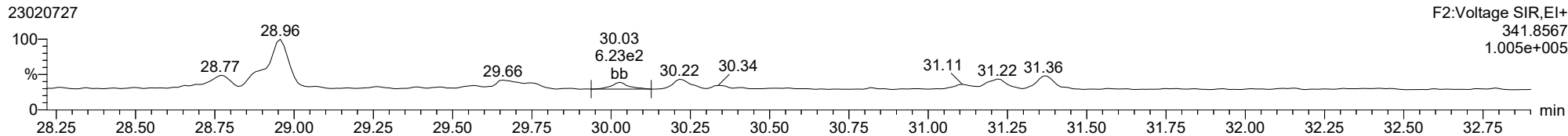


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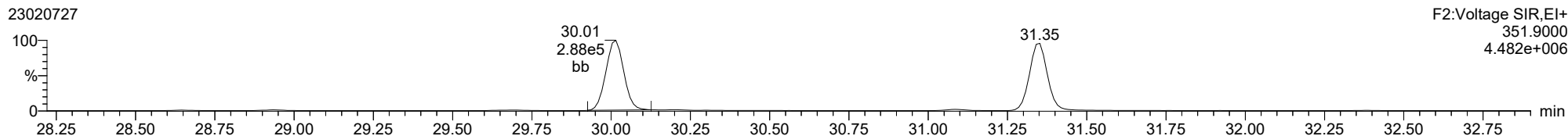
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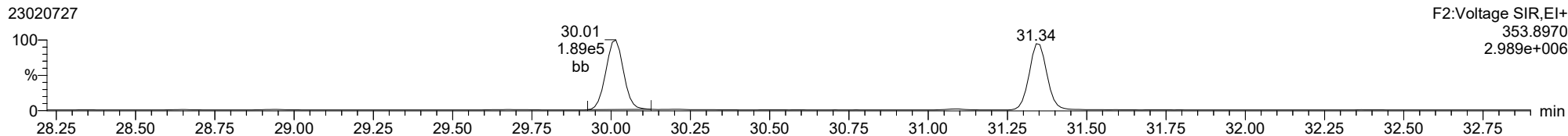
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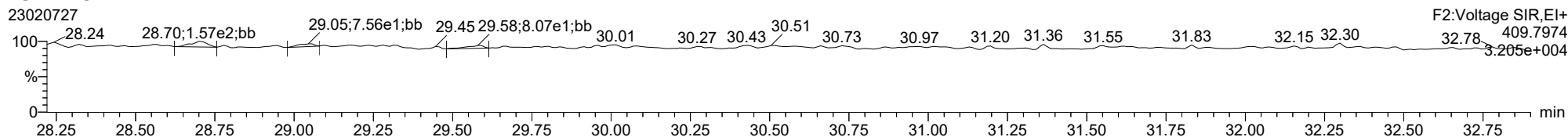
**13C-12378-PeCDF**



**13C-12378-PeCDF**



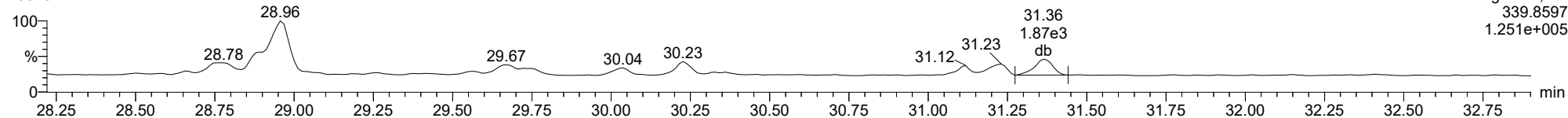
**FUNCTION2 HPCDPE**



ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

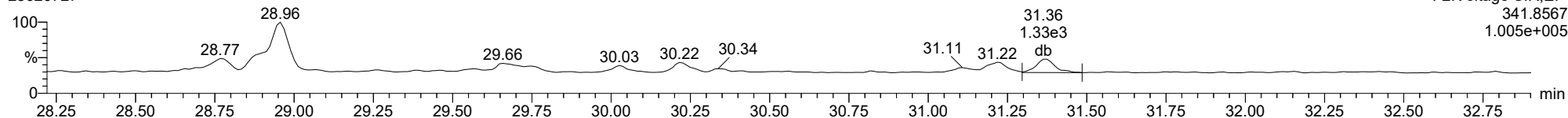
**23478-PeCDF**

23020727



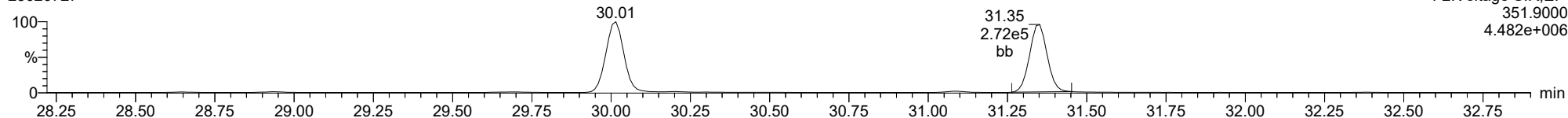
**23478-PeCDF**

23020727



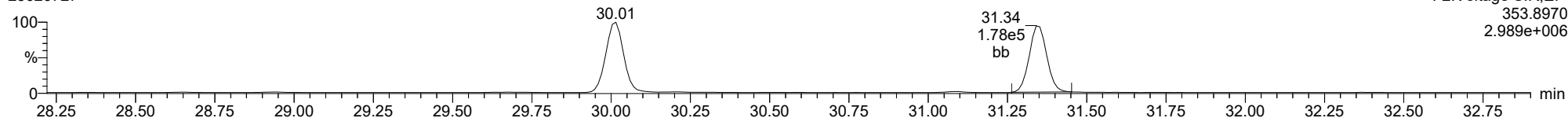
**13C-23478-PeCDF**

23020727



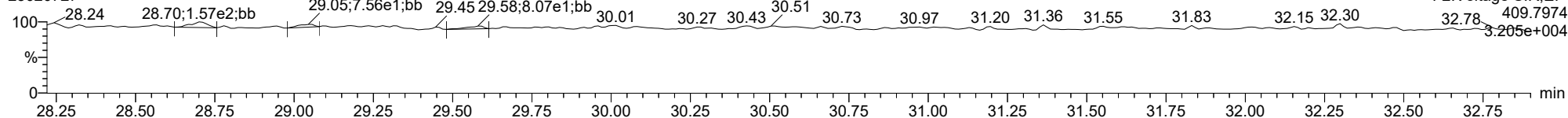
**13C-23478-PeCDF**

23020727



**FUNCTION2 HPCDPE**

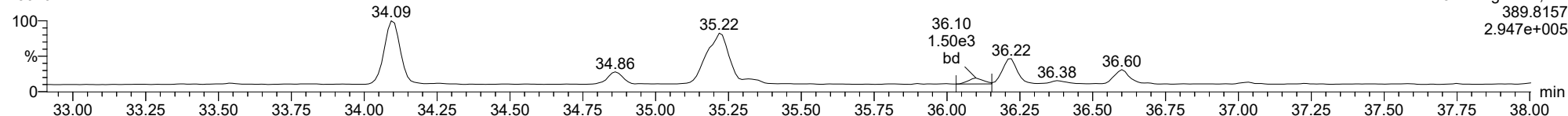
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

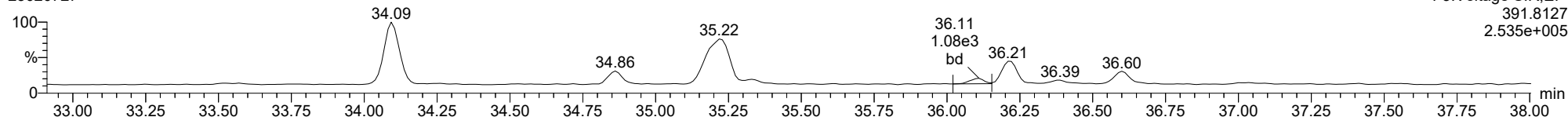
123478-HxCDD

23020727



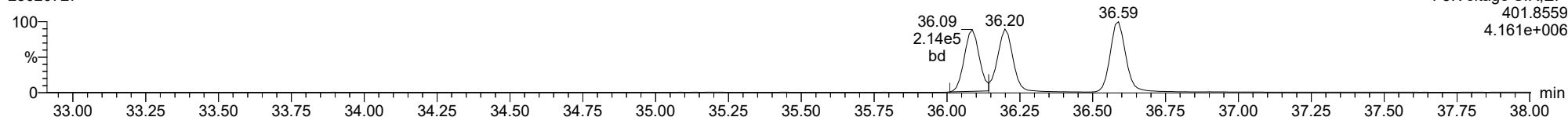
123478-HxCDD

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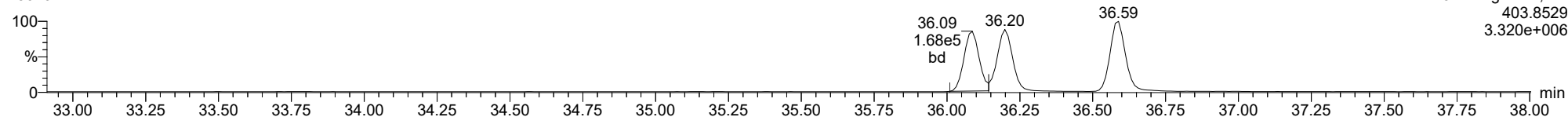
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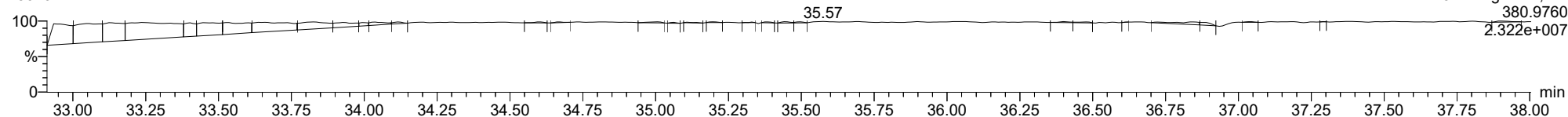
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FUNCTION3 PFK

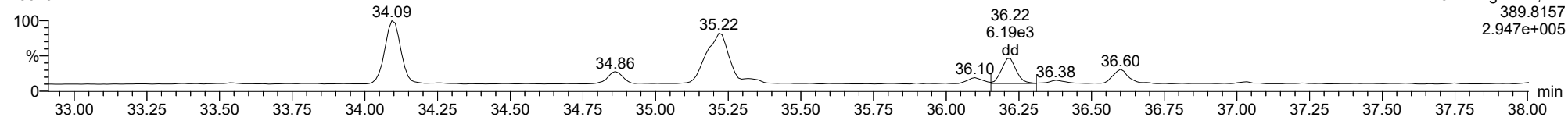
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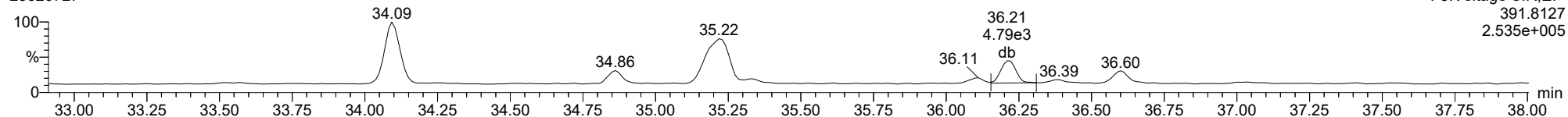
**123678-HxCDD**

23020727



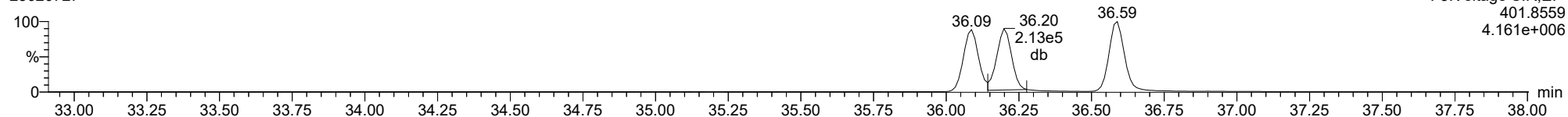
**123678-HxCDD**

23020727



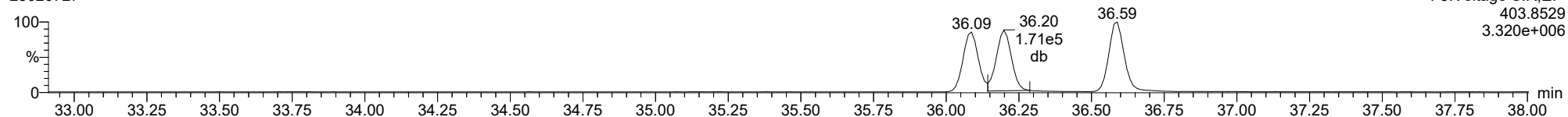
**13C-123678-HxCDD**

23020727



**13C-123678-HxCDD**

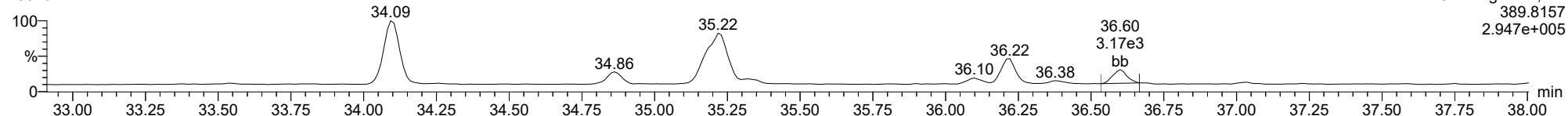
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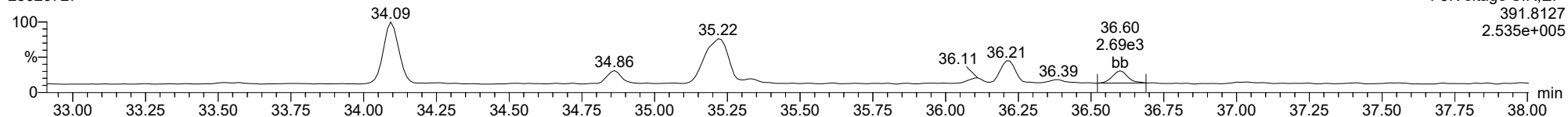
**123789-HxCDD**

23020727



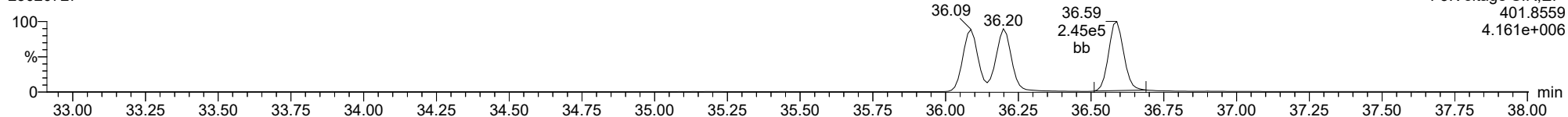
**123789-HxCDD**

23020727



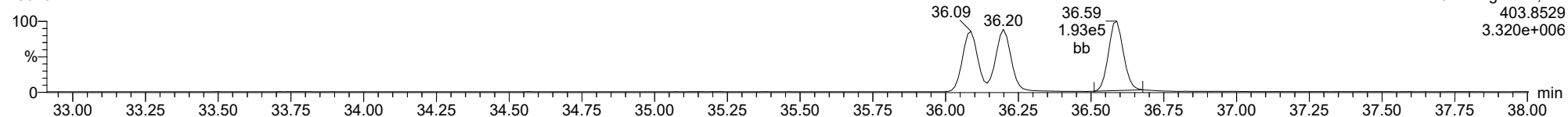
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**13C-123789-HxCDD**

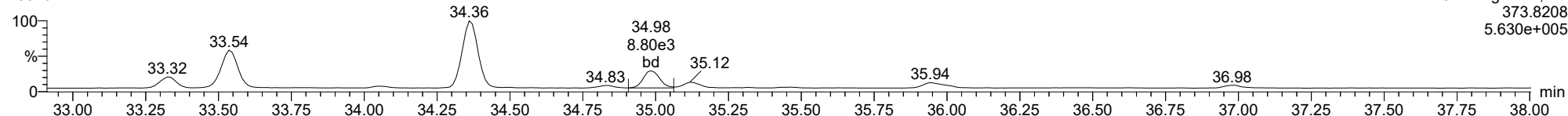
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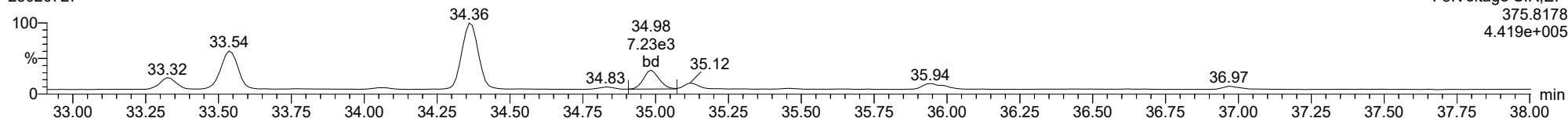
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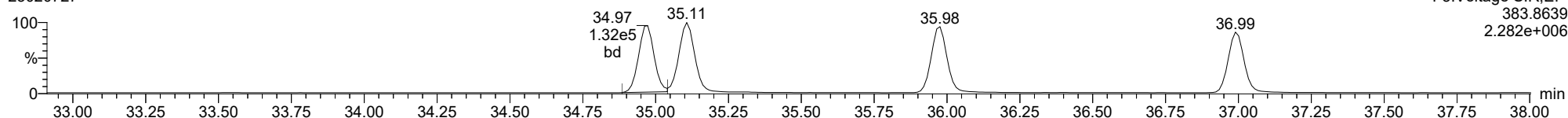
**123478-HxCDF**

23020727



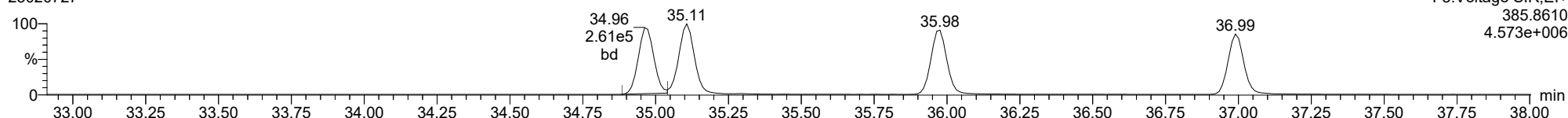
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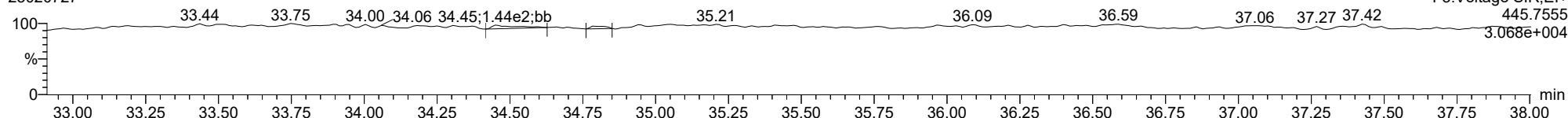
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23020727



**FUNCTION3 OCDPE**

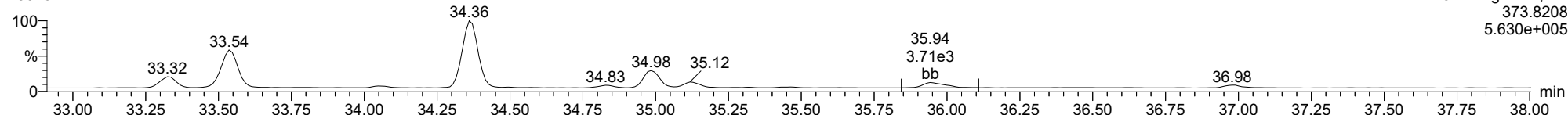
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

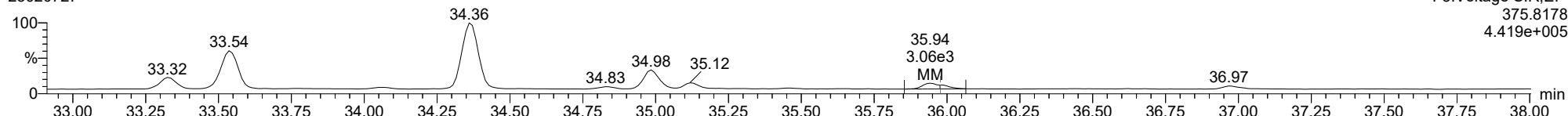
**234678-HxCDF**

23020727



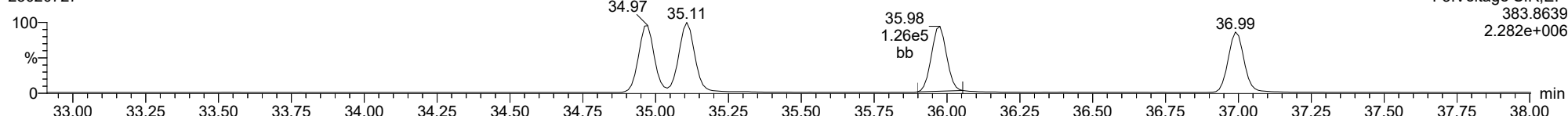
**234678-HxCDF**

23020727



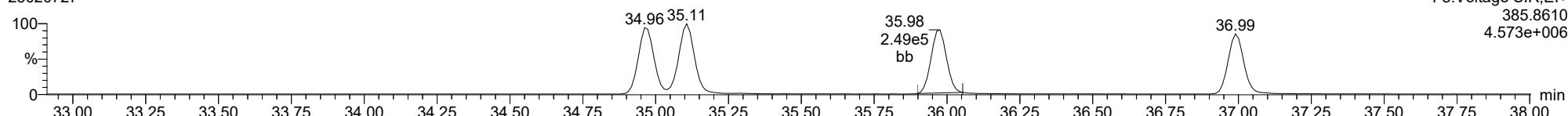
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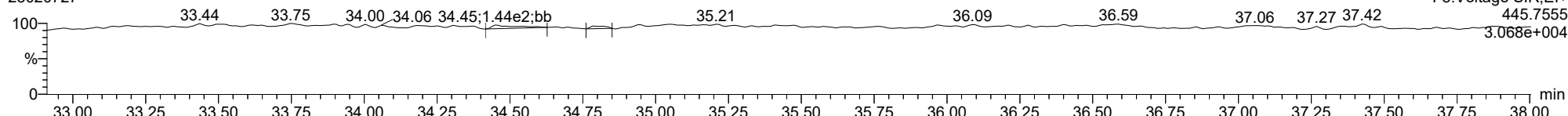
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**FUNCTION3 OCDPE**

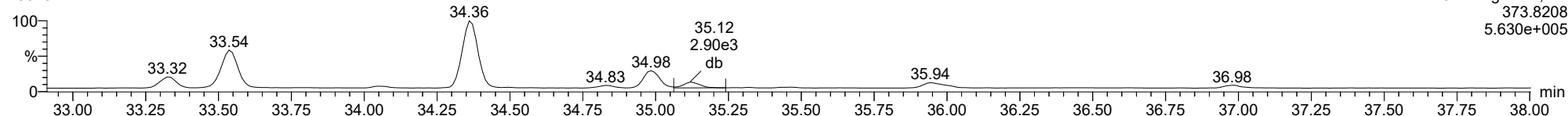
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

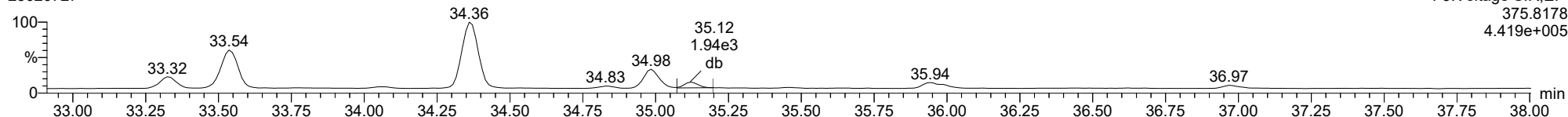
**123678-HxCDF**

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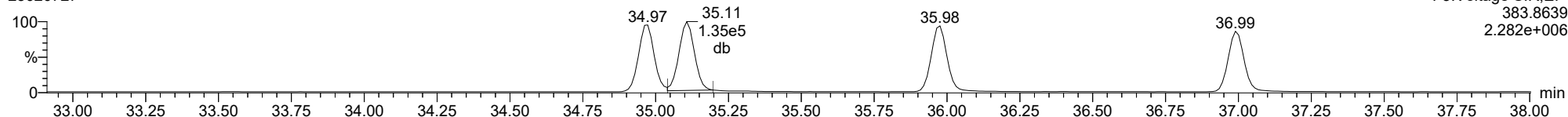
**123678-HxCDF**

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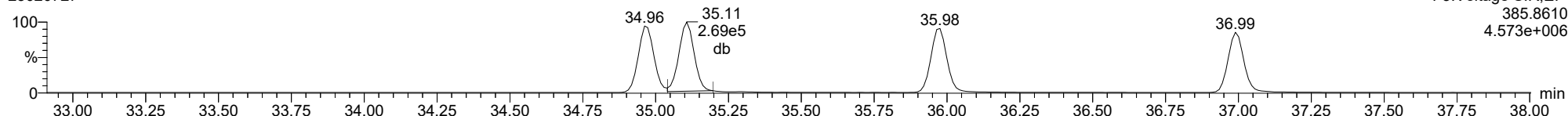
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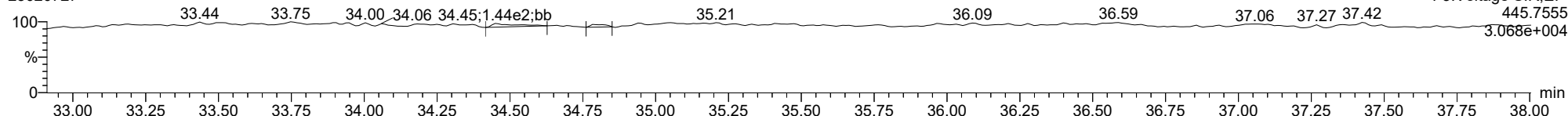
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**FUNCTION3 OCDPE**

23020727

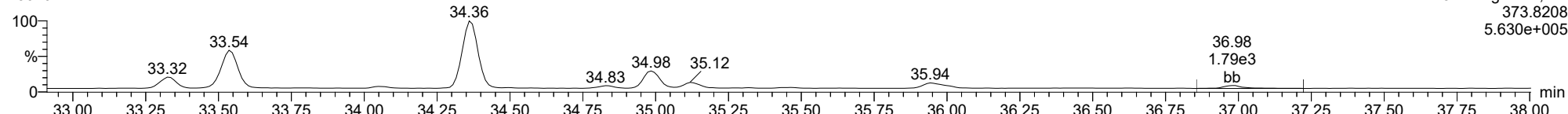




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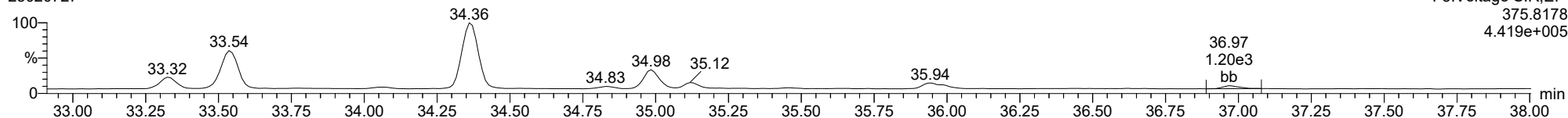
**123789-HxCDF**

23020727



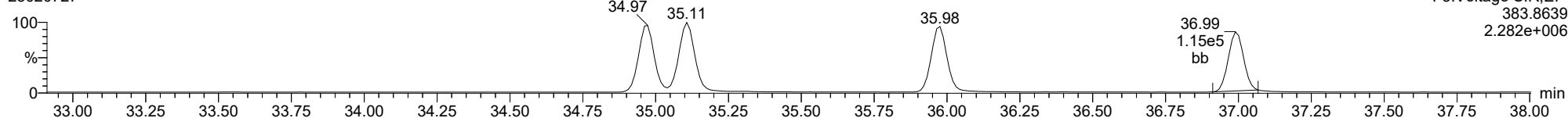
**123789-HxCDF**

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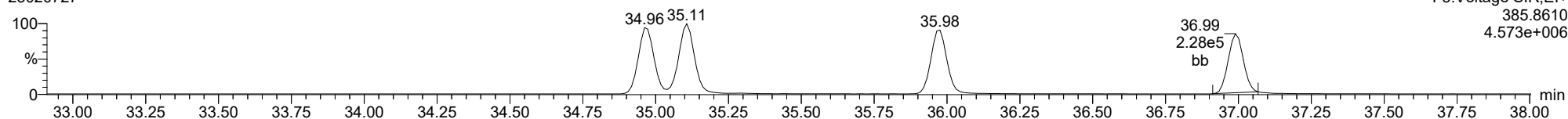
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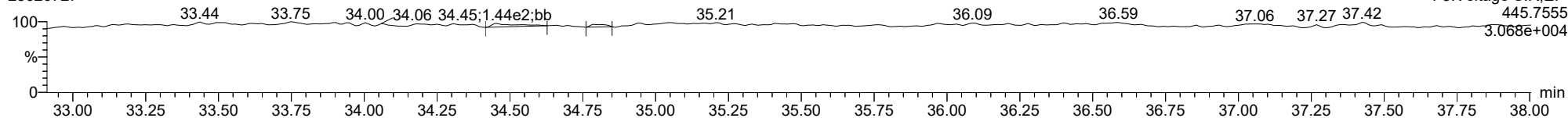
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**FUNCTION3 OCDPE**

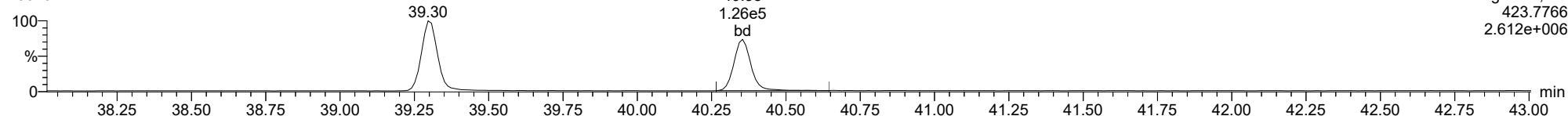
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

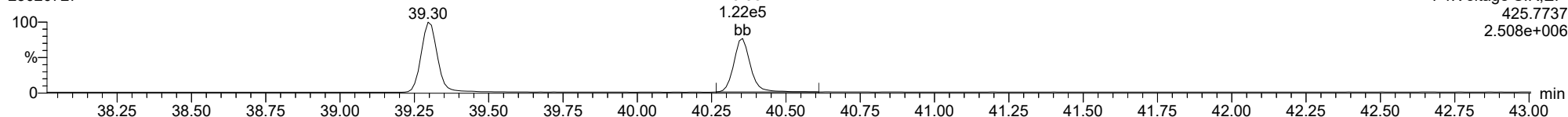
**1234678-HpCDD**

23020727



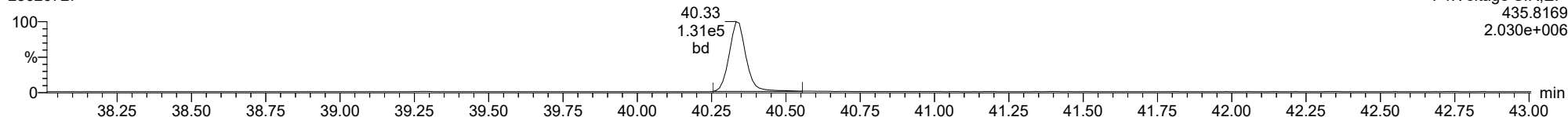
**1234678-HpCDD**

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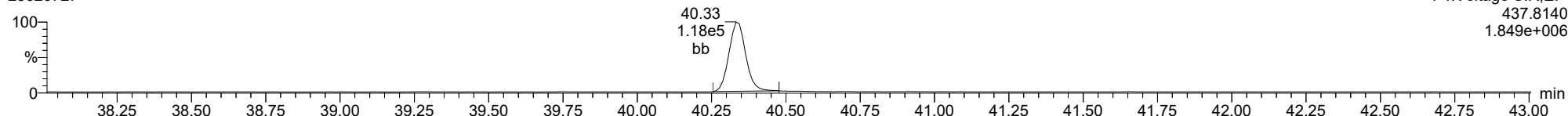
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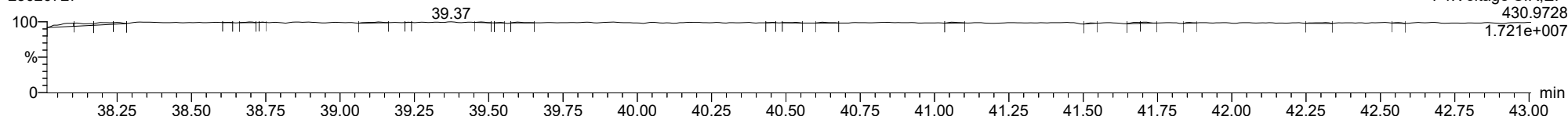
**13C-1234678-HpCDD**

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**FUNCTION4 PFK**

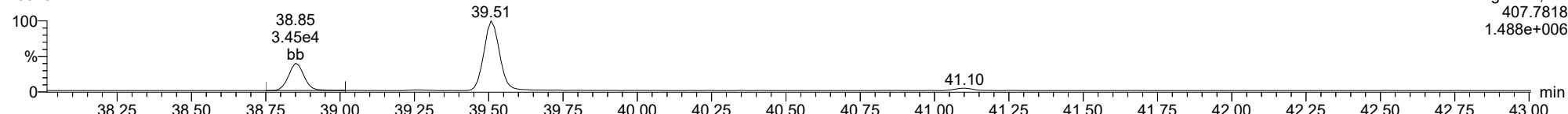
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

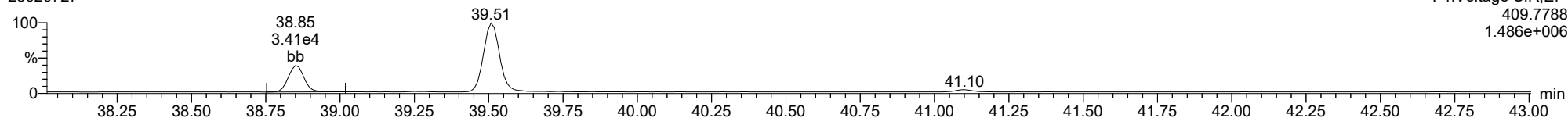
**1234678-HpCDF**

23020727



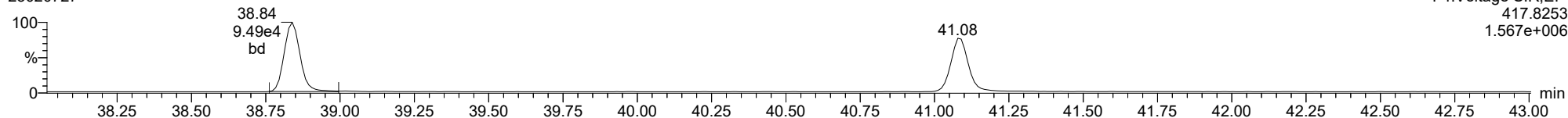
**1234678-HpCDF**

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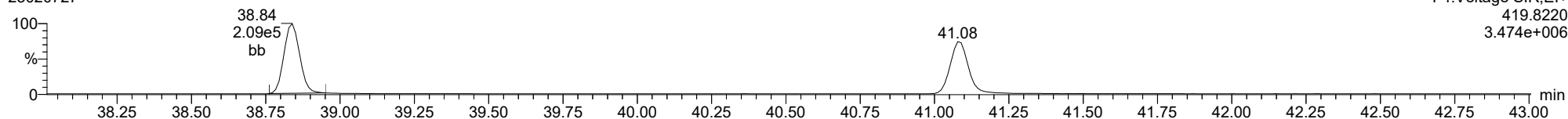
**13C-1234678-HpCDF**

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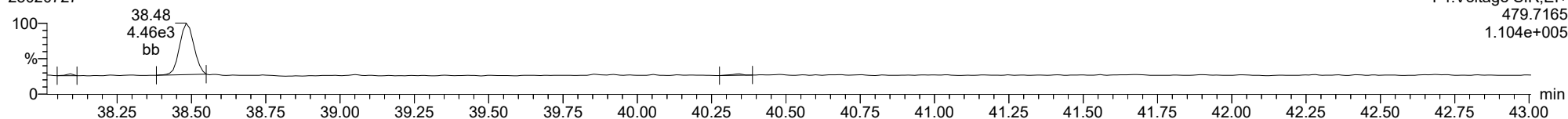
**13C-1234678-HpCDF**

23020727



**FUNCTION4 NCDPE**

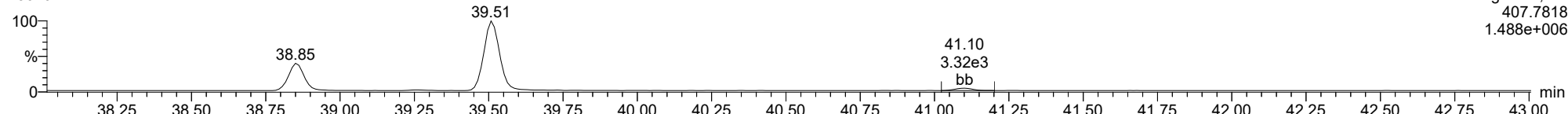
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ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

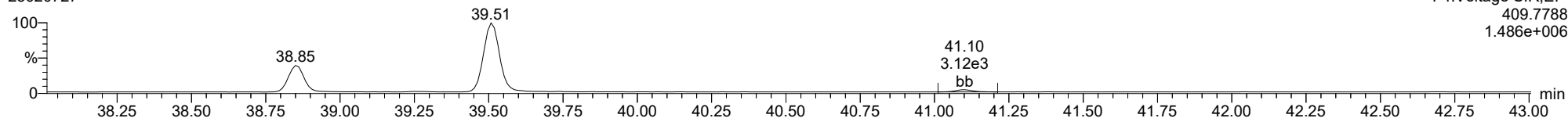
**1234789-HpCDF**

23020727



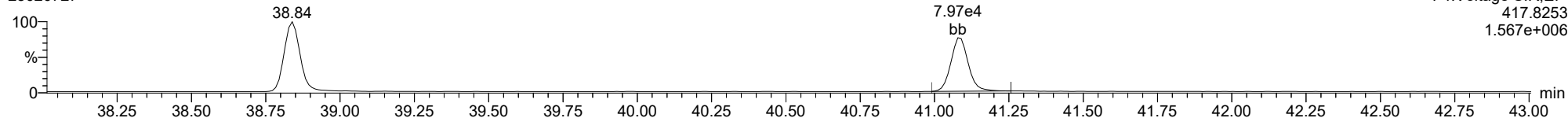
**1234789-HpCDF**

23020727



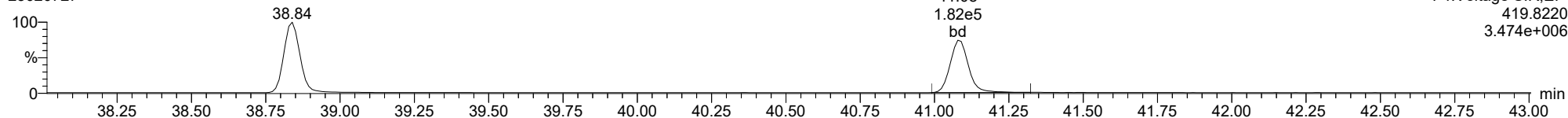
**13C-1234789-HpCDF**

23020727



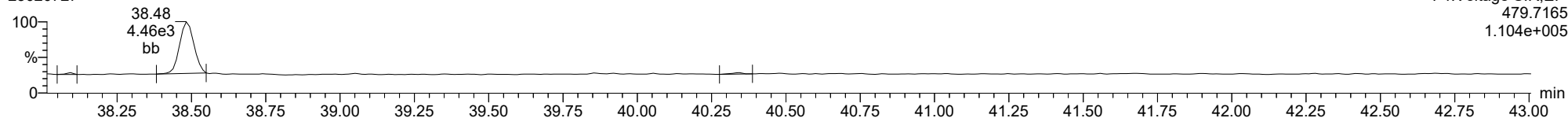
**13C-1234789-HpCDF**

23020727



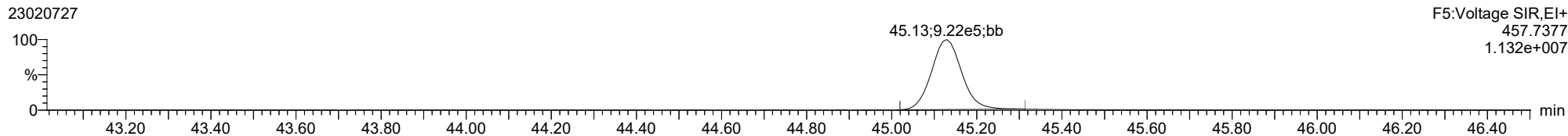
**FUNCTION4 NCDPE**

23020727

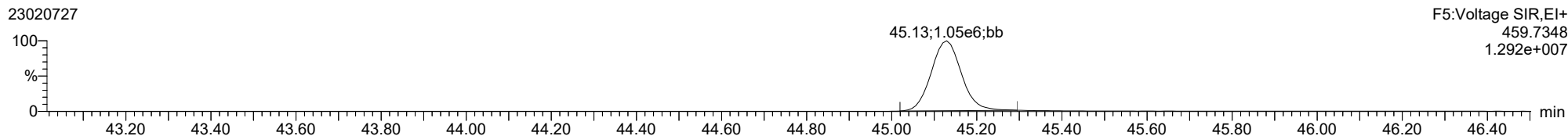


ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

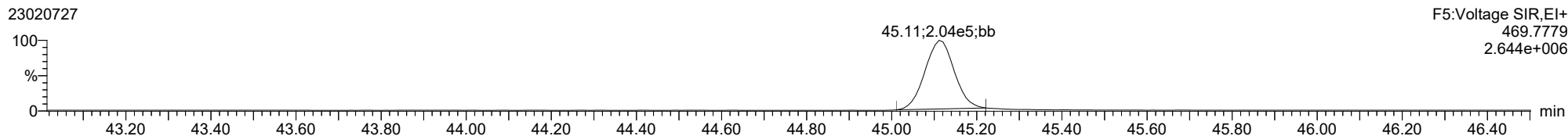
**OCDD**



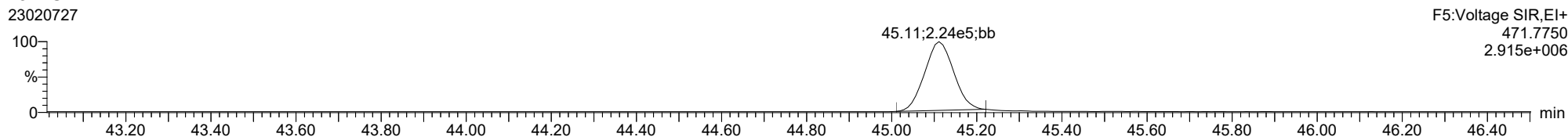
**OCDD**



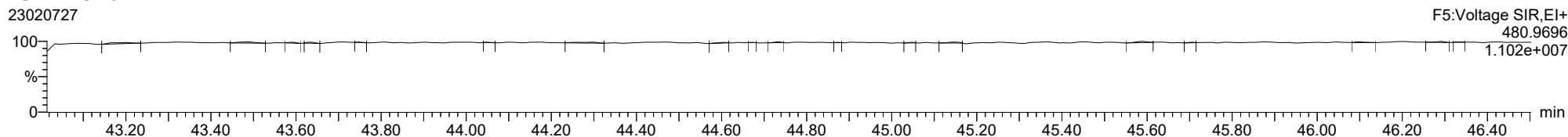
**13C-OCDD**



**13C-OCDD**



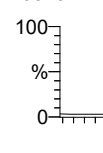
**FUNCTION5 PFK**



ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

**OCDF**

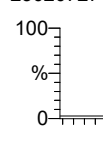
23020727



F5:Voltage SIR,EI+  
441.7428  
9.962e+005

**OCDF**

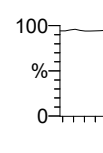
23020727



F5:Voltage SIR,EI+  
443.7399  
1.143e+006

**FUNCTION5 DCDPE**

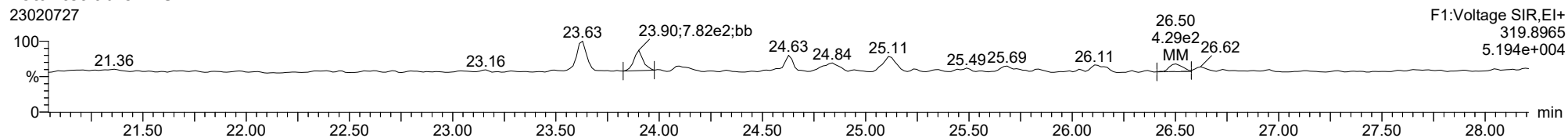
23020727



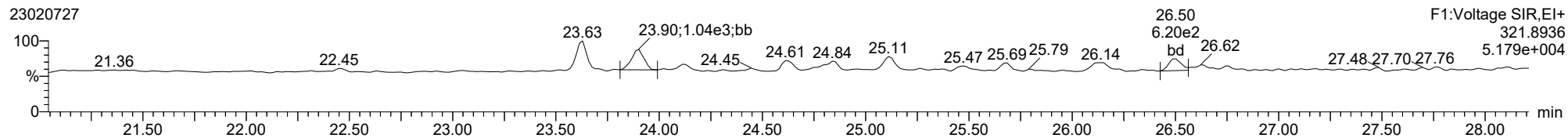
F5:Voltage SIR,EI+  
513.6775  
3.162e+004

ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

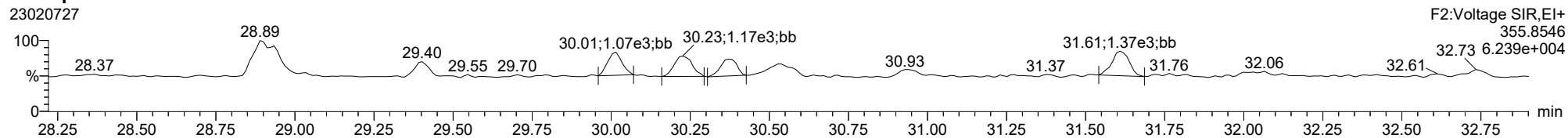
**Total-tetradoxins**



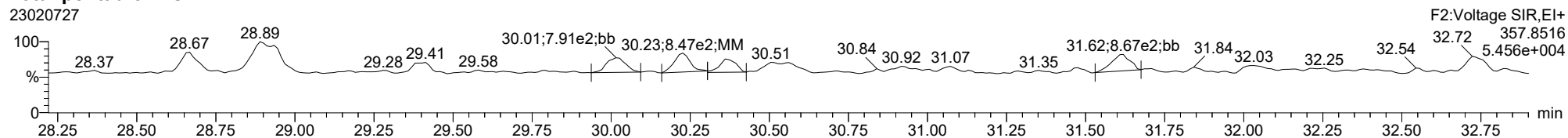
**Total-tetradoxins**



**Total-pentadoxins**



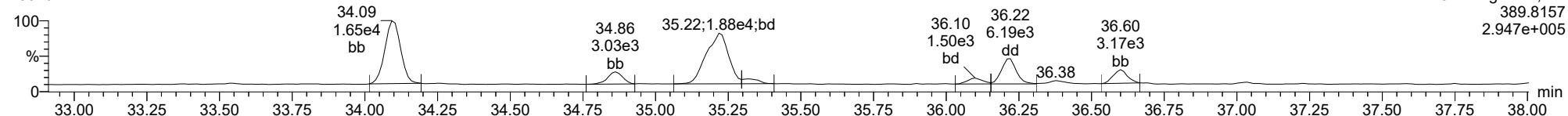
**Total-pentadoxins**



ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

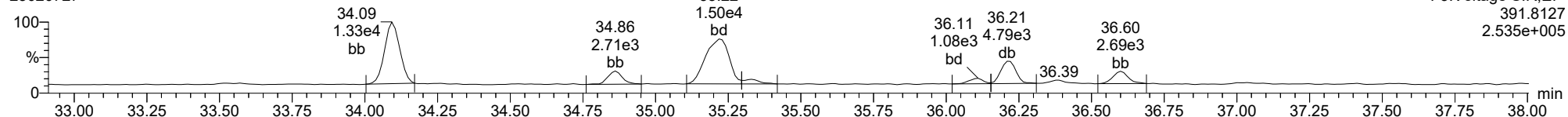
**Total-hexadioxins**

23020727



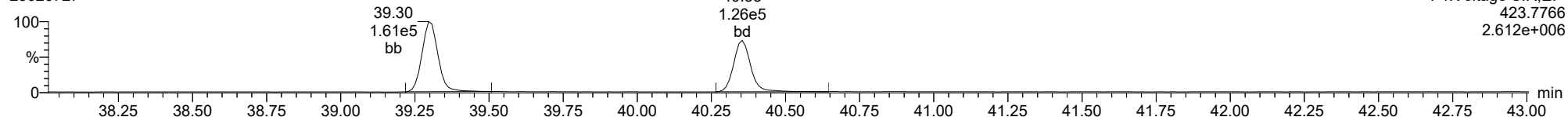
**Total-hexadioxins**

23020727



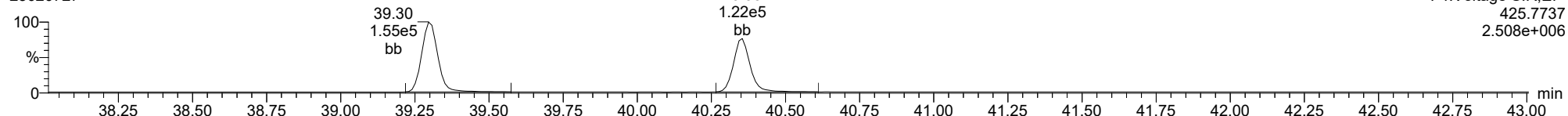
**Total-heptadioxins**

23020727



**Total-heptadioxins**

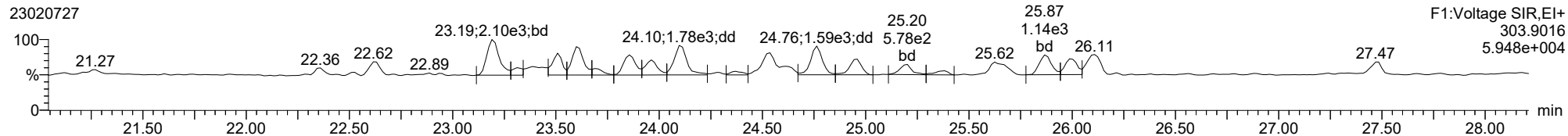
23020727



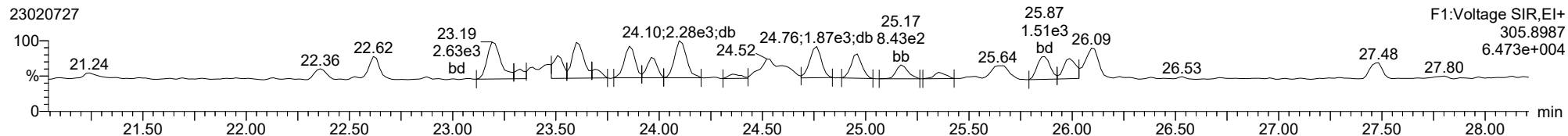


ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

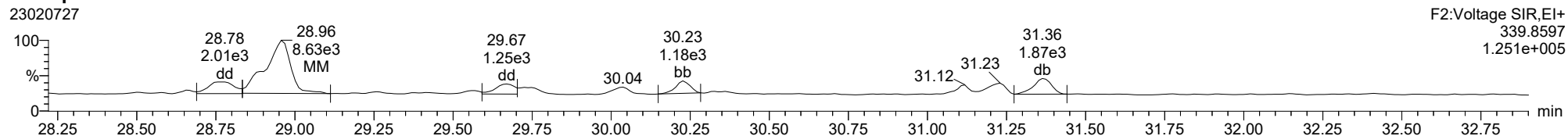
**Total-tetrafurans**



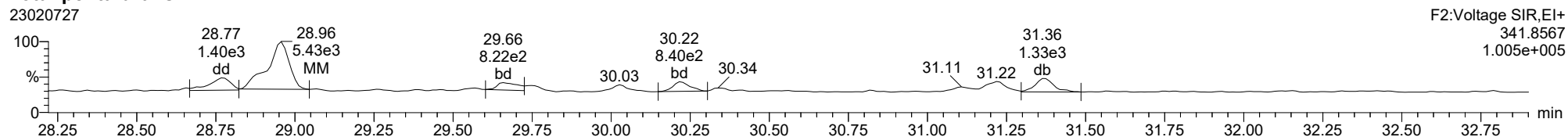
**Total-tetrafurans**



**Total-pentafurans**



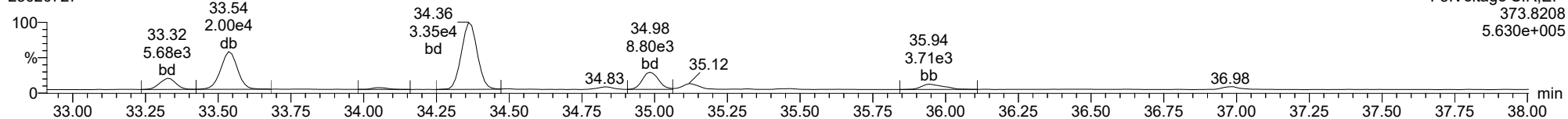
**Total-pentafurans**



ID: 22L0307-29, Name: 23020727, Date: 08-Feb-2023, Time: 06:38:52, Conditions: AUTOSPEC01, User: pk

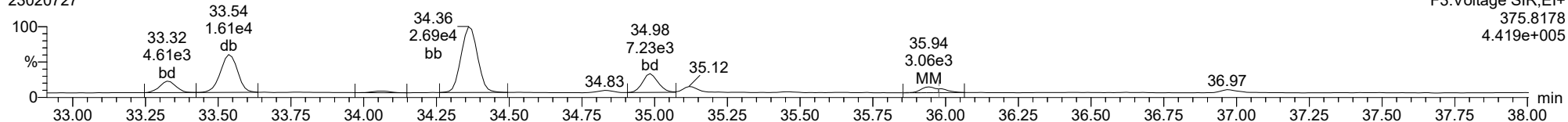
**Total-hexafurans**

23020727



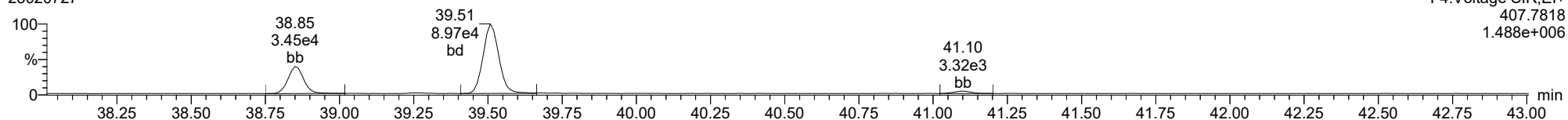
**Total-hexafurans**

23020727



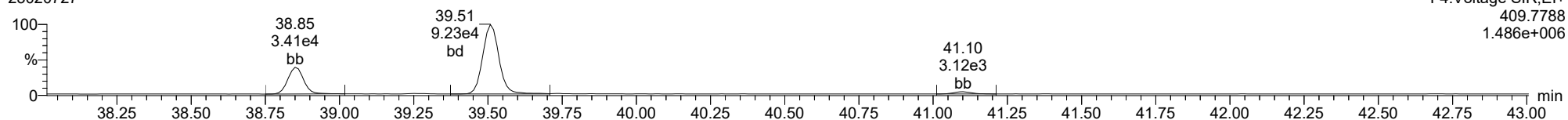
**Total-heptafurans**

23020727



**Total-heptafurans**

23020727





Form 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-30 A File ID: 23020728  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 07:28  
 % Solids: 58.36 Preparation: EPA 8290 Initial/Final: 17.2 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.746	0.655-0.886	0.129	0.996	2.67	ng/kg	X
1746-01-6	2,3,7,8-TCDD	1	0.572	0.655-0.886	0.109	0.996	0.461	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.595	1.318-1.783	0.170	0.996	2.08	ng/kg	
57117-31-4	2,3,4,7,8-PeCDF	1	1.465	1.318-1.783	0.162	0.996	4.64	ng/kg	
40321-76-4	1,2,3,7,8-PeCDD	1	1.615	1.318-1.783	0.303	0.996	2.44	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.273	1.054-1.426	0.136	0.996	37.9	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.242	1.054-1.426	0.128	0.996	7.78	ng/kg	B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.245	1.054-1.426	0.133	0.996	11.9	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.301	1.054-1.426	0.148	0.996	5.97	ng/kg	
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.214	1.054-1.426	0.233	0.996	2.69	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.205	1.054-1.426	0.235	0.996	14.2	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.238	1.054-1.426	0.238	0.996	5.72	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.011	0.893-1.208	0.204	0.996	160	ng/kg	
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.027	0.893-1.208	0.298	0.996	22.3	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.045	0.893-1.208	0.416	2.49	379	ng/kg	B
39001-02-0	OCDF	1	0.877	0.757-1.024	0.311	2.49	426	ng/kg	B
3268-87-9	OCDD	1	0.873	0.757-1.024	0.547	9.96	3140	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.996	43.1	ng/kg
41903-57-5	Total TCDD	1	0.000			0.996	33.0	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.996	94.2	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.996	35.0	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.996	275	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.996	105	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.996	666	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.996	704	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 19.92  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 19.92



**Form 2**  
**ORGANIC ANALYSIS DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0307-30</u>
Sampled:	<u>12/12/22 09:46</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>58.36</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23020728</u>
		Analyzed:	<u>02/08/23 07:28</u>
		Initial/Final:	<u>17.2 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.779	0.655-0.886	0.191	85.3	24 - 169 %	
13C12-2,3,7,8-TCDD		0.757	0.655-0.886	0.172	106	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.519	1.318-1.783	0.161	94.8	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.529	1.318-1.783	0.167	94.3	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.568	1.318-1.783	0.151	106	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.503	0.434-0.587	0.183	90.2	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.508	0.434-0.587	0.178	89.5	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.508	0.434-0.587	0.190	89.3	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.498	0.434-0.587	0.207	88.9	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.279	1.054-1.426	0.138	102	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.264	1.054-1.426	0.133	99.7	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.443	0.374-0.506	0.155	71.6	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.445	0.374-0.506	0.177	69.4	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.064	0.893-1.208	0.186	76.6	23 - 140 %	
13C12-OCDD		0.894	0.757-1.024	0.161	65.7	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000		0.069	89.8	35 - 197 %	

\* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**  
**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	3.805e3	5.103e3	0.876	0.746	0.770	1386	853	5.84e4	7.97e4	42.1	93.5	NO	dd	bd	1.339
12378-PeCDF	30.060	1.001	3.942e3	2.471e3	0.845	1.595	1.550	1518	1193	6.08e4	3.60e4	40.0	30.2	NO	bb	bb	1.042
23478-PeCDF	31.397	1.001	8.791e3	6.000e3	0.911	1.465	1.550	1518	1193	1.32e5	9.10e4	87.0	76.3	NO	db	db	2.329
123478-HxCDF	35.007	1.000	7.651e4	6.009e4	1.182	1.273	1.240	1239	1384	1.25e6	9.66e5	1007.1	697.9	NO	dd	dd	19.038
234678-HxCDF	35.965	0.999	2.347e4	1.885e4	1.229	1.245	1.240	1239	1384	2.74e5	2.36e5	221.0	170.2	NO	bb	bb	5.952
123678-HxCDF	35.151	1.001	1.667e4	1.343e4	1.248	1.242	1.240	1239	1384	2.59e5	2.00e5	208.9	144.8	NO	dd	dd	3.903
123789-HxCDF	36.990	0.999	1.060e4	8.145e3	1.187	1.301	1.240	1239	1384	1.60e5	1.23e5	129.0	88.7	NO	bb	bb	2.996
1234678-HpCDF	38.873	1.000	2.310e5	2.285e5	1.204	1.011	1.050	1544	1740	3.79e6	3.78e6	2455.0	2172.2	NO	bd	bd	80.478
1234789-HpCDF	41.123	1.001	2.648e4	2.578e4	1.165	1.027	1.050	1544	1740	3.76e5	3.86e5	243.7	222.0	NO	bd	bb	11.175
OCDF	45.395	1.005	3.924e5	4.474e5	1.186	0.877	0.890	1065	1533	4.69e6	5.37e6	4400.9	3500.2	NO	bd	bb	213.845
2378-TCDD	26.517	1.001	6.153e2	1.075e3	1.236	0.572	0.770	866	1230	9.50e3	1.45e4	11.0	11.8	YES	bd	bd	0.231
12378-PeCDD	31.631	1.000	4.002e3	2.479e3	1.087	1.615	1.550	1789	2390	5.54e4	3.32e4	31.0	13.9	NO	bb	bb	1.225
123478-HxCDD	36.120	1.000	4.426e3	3.647e3	0.987	1.214	1.240	1728	2291	7.63e4	6.04e4	44.2	26.4	NO	bd	bd	1.350
123678-HxCDD	36.243	1.001	2.440e4	2.026e4	1.021	1.205	1.240	1728	2291	4.12e5	3.40e5	238.1	148.3	NO	dd	db	7.118
123789-HxCDD	36.622	1.011	9.543e3	7.706e3	0.985	1.238	1.240	1728	2291	1.57e5	1.26e5	90.8	55.2	NO	bb	bb	2.868
1234678-HpCDD	40.376	1.001	4.652e5	4.450e5	1.253	1.045	1.050	2829	2362	7.14e6	6.78e6	2522.7	2872.5	NO	bd	bb	189.988
OCDD	45.157	1.000	2.677e6	3.068e6	1.103	0.873	0.890	2212	2037	3.36e7	3.80e7	15177.4	18662.4	NO	bb	bb	1573.833
13C-2378-TCDF	25.867	1.007	3.326e5	4.270e5	1.768	0.779	0.770	2988	1513	5.18e6	6.72e6	1732.9	4440.5	NO	bb	bb	85.290
13C-12378-PeCDF	30.038	1.169	4.396e5	2.894e5	1.527	1.519	1.550	1713	1554	6.82e6	4.44e6	3983.0	2858.4	NO	bb	bb	94.775
13C-23478-PeCDF	31.375	1.222	4.213e5	2.755e5	1.466	1.529	1.550	1713	1554	6.62e6	4.26e6	3864.1	2740.8	NO	bb	bb	94.348
13C-123478-HxCDF	34.995	0.956	2.033e5	4.039e5	1.054	0.503	0.510	1635	1763	3.28e6	6.49e6	2003.4	3682.0	NO	bd	bd	90.197
13C-123678-HxCDF	35.129	0.960	2.081e5	4.097e5	1.080	0.508	0.510	1635	1763	3.31e6	6.61e6	2023.3	3750.3	NO	db	db	89.548
13C-234678-HxCDF	35.998	0.983	1.948e5	3.837e5	1.014	0.508	0.510	1635	1763	3.23e6	6.36e6	1974.5	3610.3	NO	bb	bb	89.275
13C-123789-HxCDF	37.012	1.011	1.752e5	3.521e5	0.928	0.498	0.510	1635	1763	2.96e6	5.94e6	1809.2	3368.5	NO	bb	bb	88.947
13C-1234678-HpCDF	38.861	1.061	1.456e5	3.285e5	1.036	0.443	0.440	1279	1556	2.46e6	5.63e6	1921.0	3620.0	NO	bb	bb	71.629
13C-1234789-HpCDF	41.101	1.123	1.236e5	2.777e5	0.905	0.445	0.440	1279	1556	1.74e6	3.95e6	1360.7	2535.6	NO	bb	bd	69.409
13C-1234-TCDD	25.685	0.000	2.210e5	2.827e5	1.000	0.782	0.770	1464	1058	3.49e6	4.48e6	2385.2	4232.3	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.032	2.545e5	3.365e5	1.103	0.757	0.770	1464	1058	3.99e6	5.27e6	2728.6	4982.7	NO	bb	bb	106.387
13C-12378-PeCDD	31.620	1.231	2.973e5	1.896e5	0.914	1.568	1.550	924	912	4.63e6	2.96e6	5008.2	3247.4	NO	bb	bd	105.727
13C-123478-HxCDD	36.109	0.986	3.400e5	2.658e5	0.933	1.279	1.240	1012	1253	5.85e6	4.54e6	5784.1	3621.5	NO	bd	bd	101.630
13C-123678-HxCDD	36.221	0.989	3.432e5	2.715e5	0.965	1.264	1.240	1012	1253	5.60e6	4.45e6	5537.7	3555.9	NO	db	db	99.734
13C-1234678-HpCDD	40.354	1.102	1.971e5	1.854e5	0.782	1.064	1.050	1432	1141	3.07e6	2.90e6	2141.7	2544.3	NO	bb	bb	76.560
13C-OCDD	45.147	1.233	3.124e5	3.497e5	0.788	0.894	0.890	1214	1033	3.98e6	4.38e6	3276.0	4240.2	NO	bb	bb	131.475
13C-123789-HxCDD	36.611	0.000	3.558e5	2.831e5	1.000	1.257	1.240	1012	1253	5.88e6	4.71e6	5806.3	3762.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	2.232e5		1.233			1128		3.40e6		3017.8			bb		35.919

ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.374	0.865	1.880e3	2.576e3	1.064	0.730	0.770	1386	853	2.66e4	3.98e4	19.2	46.7	NO	bb	bb	0.551
1289-TCDF	27.333	1.057	2.649e2	7.566e2	0.858	0.350	0.770	1386	853	4.16e3	7.13e3	3.0	8.4	YES	dd	bd	0.157
13468-PECDF					1.013		1.550	853	920								
12389-PECDF					0.844		1.550	1518	1193								
123468-HXCDF	33.347	0.953	3.066e4	2.468e4	1.197	1.242	1.240	1239	1384	4.72e5	3.78e5	381.2	272.7	NO	dd	dd	7.612
1368-TCDD	23.644	0.892	1.840e4	2.225e4	1.084	0.827	0.770	866	1230	3.04e5	3.67e5	351.0	298.7	NO	bb	bb	6.341
1289-TCDD					0.975		0.770	866	1230								
12479-PECDD	28.957	0.916	2.136e4	1.488e4	1.837	1.436	1.550	1789	2390	2.22e5	1.34e5	124.1	56.2	NO	MM	MM	4.052
12389-PECDD					1.252		1.550	1789	2390								
124679-HXCDD	34.115	0.945	4.343e4	3.601e4	1.033	1.206	1.240	1728	2291	7.00e5	5.89e5	405.3	257.0	NO	bb	bb	12.696
1234679-HPCDD	39.318	0.974	4.089e5	3.948e5	1.286	1.036	1.050	2829	2362	6.61e6	6.47e6	2338.0	2740.5	NO	bd	bb	163.379
Total-tetrafurans			6.461e4		0.933			1386		9.91e5							21.627
Total-penta1			7.404e4					853		1.13e6							18.450
Total-pentafurans			1.075e5		0.866			1518		1.45e6							28.842
Total-hexafurans			5.425e5		1.208			1239		8.37e6							138.162
Total-heptafurans			8.905e5		1.185			1544		1.44e7							334.314
Total-Furans			2.072e6		1.067			1386		3.10e7							755.239
Total-tetradoxins			4.700e4		1.099			866		7.37e5							16.553
Total-pentadoxins			7.615e4		1.392			1789		1.11e6							17.583
Total-hexadoxins			1.803e5		1.007			1728		2.66e6							52.804
Total-heptadoxins			8.741e5		1.269			2829		1.38e7							353.367
Total-Dioxins			3.855e6		1.165			866		5.18e7							2014.140
Total-TEQ			5.926e6					866		8.29e7							2769.379
FUNCTION1 PFK			1.068e7					532591		9.23e7							
FUNCTION2 PFK			1.831e4					206410		5.36e5							0.000
FUNCTION3 PFK			1.613e6					205272		9.50e6							0.000
FUNCTION4 PFK			1.748e5					144937		4.59e6							
FUNCTION5 PFK			8.584e5					106772		9.05e6							
FUNCTION1 HXCD...			7.293e3					541		1.21e5							0.000
FUNCTION1 HPCD...			3.593e3					766		5.40e4							0.000
FUNCTION2 HPCD...			4.968e3					548		8.46e4							0.000
FUNCTION3 OCDPE			2.365e3					943		5.03e4							0.000
FUNCTION4 NCDPE			6.986e3					718		1.12e5							0.000
FUNCTION5 DCDPE			0.000e0					676		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.13	2.567e3	3.863e3	0.933	0.66	0.77	31.5	YES	NO	bb	db	0.907
2	Total-tetrafurans	23.89	6.717e3	1.003e4	0.933	0.67	0.77	82.3	YES	NO	bd	dd	2.364
3	Total-tetrafurans	23.63	5.072e3	7.043e3	0.933	0.72	0.77	56.7	YES	NO	dd	dd	1.710
4	Total-tetrafurans	23.52	3.167e3	4.836e3	0.933	0.65	0.77	32.7	YES	NO	dd	dd	1.130
5	Total-tetrafurans	23.40	3.011e3	3.910e3	0.933	0.77	0.77	24.0	YES	NO	dd	dd	0.977
6	Total-tetrafurans	23.36	1.411e3	1.903e3	0.933	0.74	0.77	21.4	YES	NO	dd	dd	0.468
7	Total-tetrafurans	23.22	1.111e4	1.478e4	0.933	0.75	0.77	122.0	YES	NO	bd	bd	3.655
8	Total-tetrafurans	22.65	2.775e3	3.918e3	0.933	0.71	0.77	32.4	YES	NO	bb	bb	0.945
9	1368-TCDF	22.37	1.880e3	2.576e3	1.064	0.73	0.77	19.2	YES	NO	bb	bb	0.551
10	Total-tetrafurans	26.89	5.241e2	5.966e2	0.933	0.88	0.77	5.3	YES	NO	bb	bb	0.158
11	Total-tetrafurans	26.24	1.489e3	1.690e3	0.933	0.88	0.77	15.7	YES	NO	dd	db	0.449
12	Total-tetrafurans	26.12	3.896e3	5.349e3	0.933	0.73	0.77	43.6	YES	NO	dd	dd	1.305
13	Total-tetrafurans	26.02	1.562e3	1.903e3	0.933	0.82	0.77	16.3	YES	NO	dd	dd	0.489
14	2378-TCDF	25.88	3.805e3	5.103e3	0.876	0.75	0.77	42.1	YES	NO	dd	bd	1.339
15	Total-tetrafurans	24.97	3.056e3	4.458e3	0.933	0.69	0.77	35.7	YES	NO	bb	bb	1.061
16	Total-tetrafurans	24.78	7.431e3	9.957e3	0.933	0.75	0.77	80.9	YES	NO	db	db	2.454
17	Total-tetrafurans	24.64	1.802e3	2.557e3	0.933	0.70	0.77	25.0	YES	NO	dd	dd	0.615
18	Total-tetrafurans	24.55	3.336e3	4.109e3	0.933	0.81	0.77	28.6	YES	NO	dd	bd	1.051

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	28.03	5.338e2	3.964e2		1.35	1.55	9.0	YES	NO	bb	bb	0.139
2	Total-penta1	27.32	7.351e4	4.890e4		1.50	1.55	1320.5	YES	NO	bb	bb	18.311

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

**ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk****PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	30.25	6.564e3	4.463e3	0.866	1.47	1.55	73.3	YES	NO	bd	bd	1.785
2	12378-PeCDF	30.06	3.942e3	2.471e3	0.845	1.60	1.55	40.0	YES	NO	bb	bb	1.042
3	Total-pentafurans	29.76	2.711e3	1.724e3	0.866	1.57	1.55	30.1	YES	NO	db	dd	0.718
4	Total-pentafurans	29.69	6.681e3	4.855e3	0.866	1.38	1.55	64.7	YES	NO	dd	dd	1.867
5	Total-pentafurans	29.58	2.059e3	1.388e3	0.866	1.48	1.55	25.0	YES	NO	dd	dd	0.558
6	Total-pentafurans	28.98	5.516e4	3.619e4	0.866	1.52	1.55	423.5	YES	NO	dd	MM	14.787
7	Total-pentafurans	28.80	6.680e3	4.317e3	0.866	1.55	1.55	53.0	YES	NO	dd	dd	1.780
8	Total-pentafurans	28.68	1.173e3	8.646e2	0.866	1.36	1.55	15.3	YES	NO	bd	bd	0.330
9	Total-pentafurans	32.42	5.842e2	4.036e2	0.866	1.45	1.55	6.4	YES	NO	db	db	0.160
10	23478-PeCDF	31.40	8.791e3	6.000e3	0.911	1.47	1.55	87.0	YES	NO	db	db	2.329
11	Total-pentafurans	31.24	1.081e4	6.833e3	0.866	1.58	1.55	114.4	YES	NO	dd	dd	2.856
12	Total-pentafurans	31.13	2.306e3	1.585e3	0.866	1.46	1.55	24.7	YES	NO	bd	bd	0.630

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123468-HxCDF	33.35	3.066e4	2.468e4	1.197	1.24	1.24	381.2	YES	NO	dd	dd	7.612
2	123789-HxCDF	36.99	1.060e4	8.145e3	1.187	1.30	1.24	129.0	YES	NO	bb	bb	2.996
3	234678-HxCDF	35.96	2.347e4	1.885e4	1.229	1.25	1.24	221.0	YES	NO	bb	bb	5.952
4	Total-hexafurans	35.66	4.610e2	3.735e2	1.208	1.23	1.24	6.9	YES	NO	bb	bb	0.118
5	Total-hexafurans	35.49	1.643e3	1.476e3	1.208	1.11	1.24	21.9	YES	NO	db	db	0.443
6	123678-HxCDF	35.15	1.667e4	1.343e4	1.248	1.24	1.24	208.9	YES	NO	dd	dd	3.903
7	123478-HxCDF	35.01	7.651e4	6.009e4	1.182	1.27	1.24	1007.1	YES	NO	dd	dd	19.038
8	Total-hexafurans	34.86	5.958e3	4.783e3	1.208	1.25	1.24	76.1	YES	NO	bd	bd	1.525
9	Total-hexafurans	34.38	2.542e5	2.059e5	1.208	1.23	1.24	3230.4	YES	NO	bb	bb	65.332
10	Total-hexafurans	34.08	4.147e3	3.322e3	1.208	1.25	1.24	56.6	YES	NO	bb	bb	1.061
11	Total-hexafurans	33.56	1.182e5	9.437e4	1.208	1.25	1.24	1413.7	YES	NO	dd	dd	30.182

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.12	2.648e4	2.578e4	1.165	1.03	1.05	243.7	YES	NO	bd	bb	11.175
2	Total-heptafurans	39.53	6.297e5	6.223e5	1.185	1.01	1.05	6590.4	YES	NO	bd	bd	241.410
3	Total-heptafurans	39.28	3.422e3	3.068e3	1.185	1.12	1.05	35.6	YES	NO	bb	bb	1.252
4	1234678-HpCDF	38.87	2.310e5	2.285e5	1.204	1.01	1.05	2455.0	YES	NO	bd	bd	80.478



## Quantify Totals Report MassLynx V4.1 SCN909

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Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.13	2.567e3	3.863e3	0.933	0.66	0.77	31.5	YES	NO	bb	db	0.907
2	Total-tetrafurans	23.89	6.717e3	1.003e4	0.933	0.67	0.77	82.3	YES	NO	bd	dd	2.364
3	Total-tetrafurans	23.63	5.072e3	7.043e3	0.933	0.72	0.77	56.7	YES	NO	dd	dd	1.710
4	Total-tetrafurans	23.52	3.167e3	4.836e3	0.933	0.65	0.77	32.7	YES	NO	dd	dd	1.130
5	Total-tetrafurans	23.40	3.011e3	3.910e3	0.933	0.77	0.77	24.0	YES	NO	dd	dd	0.977
6	Total-tetrafurans	23.36	1.411e3	1.903e3	0.933	0.74	0.77	21.4	YES	NO	dd	dd	0.468
7	Total-tetrafurans	23.22	1.111e4	1.478e4	0.933	0.75	0.77	122.0	YES	NO	bd	bd	3.655
8	Total-tetrafurans	22.65	2.775e3	3.918e3	0.933	0.71	0.77	32.4	YES	NO	bb	bb	0.945
9	1368-TCDF	22.37	1.880e3	2.576e3	1.064	0.73	0.77	19.2	YES	NO	bb	bb	0.551
10	Total-tetrafurans	26.89	5.241e2	5.966e2	0.933	0.88	0.77	5.3	YES	NO	bb	bb	0.158
11	Total-tetrafurans	26.24	1.489e3	1.690e3	0.933	0.88	0.77	15.7	YES	NO	dd	db	0.449
12	Total-tetrafurans	26.12	3.896e3	5.349e3	0.933	0.73	0.77	43.6	YES	NO	dd	dd	1.305
13	Total-tetrafurans	26.02	1.562e3	1.903e3	0.933	0.82	0.77	16.3	YES	NO	dd	dd	0.489
14	2378-TCDF	25.88	3.805e3	5.103e3	0.876	0.75	0.77	42.1	YES	NO	dd	bd	1.339
15	Total-tetrafurans	24.97	3.056e3	4.458e3	0.933	0.69	0.77	35.7	YES	NO	bb	bb	1.061
16	Total-tetrafurans	24.78	7.431e3	9.957e3	0.933	0.75	0.77	80.9	YES	NO	db	db	2.454
17	Total-tetrafurans	24.64	1.802e3	2.557e3	0.933	0.70	0.77	25.0	YES	NO	dd	dd	0.615
18	Total-tetrafurans	24.55	3.336e3	4.109e3	0.933	0.81	0.77	28.6	YES	NO	dd	bd	1.051
19	Total-pentafurans	30.25	6.564e3	4.463e3	0.866	1.47	1.55	73.3	YES	NO	bd	bd	1.785
20	12378-PeCDF	30.06	3.942e3	2.471e3	0.845	1.60	1.55	40.0	YES	NO	bb	bb	1.042
21	Total-pentafurans	29.76	2.711e3	1.724e3	0.866	1.57	1.55	30.1	YES	NO	db	dd	0.718
22	Total-pentafurans	29.69	6.681e3	4.855e3	0.866	1.38	1.55	64.7	YES	NO	dd	dd	1.867
23	Total-pentafurans	29.58	2.059e3	1.388e3	0.866	1.48	1.55	25.0	YES	NO	dd	dd	0.558
24	Total-pentafurans	28.98	5.516e4	3.619e4	0.866	1.52	1.55	423.5	YES	NO	dd	MM	14.787
25	Total-pentafurans	28.80	6.680e3	4.317e3	0.866	1.55	1.55	53.0	YES	NO	dd	dd	1.780
26	Total-pentafurans	28.68	1.173e3	8.646e2	0.866	1.36	1.55	15.3	YES	NO	bd	bd	0.330
27	Total-pentafurans	32.42	5.842e2	4.036e2	0.866	1.45	1.55	6.4	YES	NO	db	db	0.160
28	23478-PeCDF	31.40	8.791e3	6.000e3	0.911	1.47	1.55	87.0	YES	NO	db	db	2.329
29	Total-pentafurans	31.24	1.081e4	6.833e3	0.866	1.58	1.55	114.4	YES	NO	dd	dd	2.856
30	Total-pentafurans	31.13	2.306e3	1.585e3	0.866	1.46	1.55	24.7	YES	NO	bd	bd	0.630
31	123468-HXCDF	33.35	3.066e4	2.468e4	1.197	1.24	1.24	381.2	YES	NO	dd	dd	7.612
32	123789-HxCDF	36.99	1.060e4	8.145e3	1.187	1.30	1.24	129.0	YES	NO	bb	bb	2.996
33	234678-HxCDF	35.96	2.347e4	1.885e4	1.229	1.25	1.24	221.0	YES	NO	bb	bb	5.952
34	Total-hexafurans	35.66	4.610e2	3.735e2	1.208	1.23	1.24	6.9	YES	NO	bb	bb	0.118
35	Total-hexafurans	35.49	1.643e3	1.476e3	1.208	1.11	1.24	21.9	YES	NO	db	db	0.443
36	123678-HxCDF	35.15	1.667e4	1.343e4	1.248	1.24	1.24	208.9	YES	NO	dd	dd	3.903
37	123478-HxCDF	35.01	7.651e4	6.009e4	1.182	1.27	1.24	1007.1	YES	NO	dd	dd	19.038

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexafurans	34.86	5.958e3	4.783e3	1.208	1.25	1.24	76.1	YES	NO	bd	bd	1.525
39	Total-hexafurans	34.38	2.542e5	2.059e5	1.208	1.23	1.24	3230.4	YES	NO	bb	bb	65.332
40	Total-hexafurans	34.08	4.147e3	3.322e3	1.208	1.25	1.24	56.6	YES	NO	bb	bb	1.061
41	Total-hexafurans	33.56	1.182e5	9.437e4	1.208	1.25	1.24	1413.7	YES	NO	dd	dd	30.182
42	1234789-HpCDF	41.12	2.648e4	2.578e4	1.165	1.03	1.05	243.7	YES	NO	bd	bb	11.175
43	Total-heptafurans	39.53	6.297e5	6.223e5	1.185	1.01	1.05	6590.4	YES	NO	bd	bd	241.410
44	Total-heptafurans	39.28	3.422e3	3.068e3	1.185	1.12	1.05	35.6	YES	NO	bb	bb	1.252
45	1234678-HpCDF	38.87	2.310e5	2.285e5	1.204	1.01	1.05	2455.0	YES	NO	bd	bd	80.478
46	OCDF	45.39	3.924e5	4.474e5	1.186	0.88	0.89	4400.9	YES	NO	bd	bb	213.845
47	Total-penta1	28.03	5.338e2	3.964e2		1.35	1.55	9.0	YES	NO	bb	bb	0.139
48	Total-penta1	27.32	7.351e4	4.890e4		1.50	1.55	1320.5	YES	NO	bb	bb	18.311

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	26.15	2.518e3	3.247e3	1.099	0.78	0.77	33.0	YES	NO	bb	bb	0.888
2	Total-tetradioxins	25.70	4.261e3	5.349e3	1.099	0.80	0.77	71.4	YES	NO	bd	bd	1.480
3	Total-tetradioxins	25.14	3.776e3	4.665e3	1.099	0.81	0.77	70.0	YES	NO	bb	bb	1.300
4	Total-tetradioxins	24.66	9.383e2	1.249e3	1.099	0.75	0.77	16.0	YES	NO	bb	bd	0.337
5	Total-tetradioxins	24.14	6.442e2	9.422e2	1.099	0.68	0.77	12.3	YES	NO	bb	bb	0.244
6	Total-tetradioxins	23.92	1.585e4	2.143e4	1.099	0.74	0.77	287.3	YES	NO	bb	bb	5.741
7	1368-TCDD	23.64	1.840e4	2.225e4	1.084	0.83	0.77	351.0	YES	NO	bb	bb	6.341
8	Total-tetradioxins	26.65	6.158e2	8.259e2	1.099	0.75	0.77	9.3	YES	NO	db	db	0.222

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.63	4.002e3	2.479e3	1.087	1.61	1.55	31.0	YES	NO	bb	bb	1.225
2	Total-pentadioxins	30.96	7.983e3	5.343e3	1.392	1.49	1.55	69.8	YES	NO	bb	bb	1.966
3	Total-pentadioxins	30.39	1.793e4	1.124e4	1.392	1.60	1.55	158.7	YES	NO	bd	bb	4.304
4	Total-pentadioxins	30.25	3.260e3	1.869e3	1.392	1.74	1.55	35.0	YES	NO	bb	bb	0.757
5	Total-pentadioxins	30.04	2.162e4	1.416e4	1.392	1.53	1.55	199.4	YES	NO	bb	bb	5.280
6	12479-PECDD	28.96	2.136e4	1.488e4	1.837	1.44	1.55	124.1	YES	NO	MM	MM	4.052

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk****HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.12	4.343e4	3.601e4	1.033	1.21	1.24	405.3	YES	NO	bb	bb	12.696
2	123789-HxCDD	36.62	9.543e3	7.706e3	0.985	1.24	1.24	90.8	YES	NO	bb	bb	2.868
3	123678-HxCDD	36.24	2.440e4	2.026e4	1.021	1.20	1.24	238.1	YES	NO	dd	db	7.118
4	123478-HxCDD	36.12	4.426e3	3.647e3	0.987	1.21	1.24	44.2	YES	NO	bd	bd	1.350
5	Total-hexadioxins	35.25	5.732e4	4.441e4	1.007	1.29	1.24	368.9	YES	NO	bb	bd	16.564
6	Total-hexadioxins	34.88	4.114e4	3.384e4	1.007	1.22	1.24	393.3	YES	NO	bb	bb	12.208

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.38	4.652e5	4.450e5	1.253	1.05	1.05	2522.7	YES	NO	bd	bb	189.988
2	1234679-HPCDD	39.32	4.089e5	3.948e5	1.286	1.04	1.05	2338.0	YES	NO	bd	bb	163.379

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	26.15	2.518e3	3.247e3	1.099	0.78	0.77	33.0	YES	NO	bb	bb	0.888
2	Total-tetradoxins	25.70	4.261e3	5.349e3	1.099	0.80	0.77	71.4	YES	NO	bd	bd	1.480
3	Total-tetradoxins	25.14	3.776e3	4.665e3	1.099	0.81	0.77	70.0	YES	NO	bb	bb	1.300
4	Total-tetradoxins	24.66	9.383e2	1.249e3	1.099	0.75	0.77	16.0	YES	NO	bb	bd	0.337
5	Total-tetradoxins	24.14	6.442e2	9.422e2	1.099	0.68	0.77	12.3	YES	NO	bb	bb	0.244
6	Total-tetradoxins	23.92	1.585e4	2.143e4	1.099	0.74	0.77	287.3	YES	NO	bb	bb	5.741
7	1368-TCDD	23.64	1.840e4	2.225e4	1.084	0.83	0.77	351.0	YES	NO	bb	bb	6.341
8	Total-tetradoxins	26.65	6.158e2	8.259e2	1.099	0.75	0.77	9.3	YES	NO	db	db	0.222
9	12378-PeCDD	31.63	4.002e3	2.479e3	1.087	1.61	1.55	31.0	YES	NO	bb	bb	1.225
10	Total-pentadoxins	30.96	7.983e3	5.343e3	1.392	1.49	1.55	69.8	YES	NO	bb	bb	1.966
11	Total-pentadoxins	30.39	1.793e4	1.124e4	1.392	1.60	1.55	158.7	YES	NO	bd	bb	4.304
12	Total-pentadoxins	30.25	3.260e3	1.869e3	1.392	1.74	1.55	35.0	YES	NO	bb	bb	0.757
13	Total-pentadoxins	30.04	2.162e4	1.416e4	1.392	1.53	1.55	199.4	YES	NO	bb	bb	5.280
14	124679-HxCDD	34.12	4.343e4	3.601e4	1.033	1.21	1.24	405.3	YES	NO	bb	bb	12.696
15	123789-HxCDD	36.62	9.543e3	7.706e3	0.985	1.24	1.24	90.8	YES	NO	bb	bb	2.868
16	123678-HxCDD	36.24	2.440e4	2.026e4	1.021	1.20	1.24	238.1	YES	NO	dd	db	7.118
17	123478-HxCDD	36.12	4.426e3	3.647e3	0.987	1.21	1.24	44.2	YES	NO	bd	bd	1.350
18	Total-hexadoxins	35.25	5.732e4	4.441e4	1.007	1.29	1.24	368.9	YES	NO	bb	bd	16.564
19	Total-hexadoxins	34.88	4.114e4	3.384e4	1.007	1.22	1.24	393.3	YES	NO	bb	bb	12.208
20	1234678-HpCDD	40.38	4.652e5	4.450e5	1.253	1.05	1.05	2522.7	YES	NO	bd	bb	189.988
21	1234679-HPCDD	39.32	4.089e5	3.948e5	1.286	1.04	1.05	2338.0	YES	NO	bd	bb	163.379
22	OCDD	45.16	2.677e6	3.068e6	1.103	0.87	0.89	15177.4	YES	NO	bb	bb	1573.8...
23	12479-PECDD	28.96	2.136e4	1.488e4	1.837	1.44	1.55	124.1	YES	NO	MM	MM	4.052

## Quantify Totals Report MassLynx V4.1 SCN909

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Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.13	2.567e3	3.863e3	0.933	0.66	0.77	31.5	YES	NO	bb	db	0.907
2	Total-tetrafurans	23.89	6.717e3	1.003e4	0.933	0.67	0.77	82.3	YES	NO	bd	dd	2.364
3	Total-tetrafurans	23.63	5.072e3	7.043e3	0.933	0.72	0.77	56.7	YES	NO	dd	dd	1.710
4	Total-tetrafurans	23.52	3.167e3	4.836e3	0.933	0.65	0.77	32.7	YES	NO	dd	dd	1.130
5	Total-tetrafurans	23.40	3.011e3	3.910e3	0.933	0.77	0.77	24.0	YES	NO	dd	dd	0.977
6	Total-tetrafurans	23.36	1.411e3	1.903e3	0.933	0.74	0.77	21.4	YES	NO	dd	dd	0.468
7	Total-tetrafurans	23.22	1.111e4	1.478e4	0.933	0.75	0.77	122.0	YES	NO	bd	bd	3.655
8	Total-tetrafurans	22.65	2.775e3	3.918e3	0.933	0.71	0.77	32.4	YES	NO	bb	bb	0.945
9	1368-TCDF	22.37	1.880e3	2.576e3	1.064	0.73	0.77	19.2	YES	NO	bb	bb	0.551
10	Total-tetrafurans	26.89	5.241e2	5.966e2	0.933	0.88	0.77	5.3	YES	NO	bb	bb	0.158
11	Total-tetrafurans	26.24	1.489e3	1.690e3	0.933	0.88	0.77	15.7	YES	NO	dd	db	0.449
12	Total-tetrafurans	26.12	3.896e3	5.349e3	0.933	0.73	0.77	43.6	YES	NO	dd	dd	1.305
13	Total-tetrafurans	26.02	1.562e3	1.903e3	0.933	0.82	0.77	16.3	YES	NO	dd	dd	0.489
14	2378-TCDF	25.88	3.805e3	5.103e3	0.876	0.75	0.77	42.1	YES	NO	dd	bd	1.339
15	Total-tetrafurans	24.97	3.056e3	4.458e3	0.933	0.69	0.77	35.7	YES	NO	bb	bb	1.061
16	Total-tetrafurans	24.78	7.431e3	9.957e3	0.933	0.75	0.77	80.9	YES	NO	db	db	2.454
17	Total-tetrafurans	24.64	1.802e3	2.557e3	0.933	0.70	0.77	25.0	YES	NO	dd	dd	0.615
18	Total-tetrafurans	24.55	3.336e3	4.109e3	0.933	0.81	0.77	28.6	YES	NO	dd	bd	1.051
19	Total-pentafurans	30.25	6.564e3	4.463e3	0.866	1.47	1.55	73.3	YES	NO	bd	bd	1.785
20	12378-PeCDF	30.06	3.942e3	2.471e3	0.845	1.60	1.55	40.0	YES	NO	bb	bb	1.042
21	Total-pentafurans	29.76	2.711e3	1.724e3	0.866	1.57	1.55	30.1	YES	NO	db	dd	0.718
22	Total-pentafurans	29.69	6.681e3	4.855e3	0.866	1.38	1.55	64.7	YES	NO	dd	dd	1.867
23	Total-pentafurans	29.58	2.059e3	1.388e3	0.866	1.48	1.55	25.0	YES	NO	dd	dd	0.558
24	Total-pentafurans	28.98	5.516e4	3.619e4	0.866	1.52	1.55	423.5	YES	NO	dd	MM	14.787
25	Total-pentafurans	28.80	6.680e3	4.317e3	0.866	1.55	1.55	53.0	YES	NO	dd	dd	1.780
26	Total-pentafurans	28.68	1.173e3	8.646e2	0.866	1.36	1.55	15.3	YES	NO	bd	bd	0.330
27	Total-pentafurans	32.42	5.842e2	4.036e2	0.866	1.45	1.55	6.4	YES	NO	db	db	0.160
28	23478-PeCDF	31.40	8.791e3	6.000e3	0.911	1.47	1.55	87.0	YES	NO	db	db	2.329
29	Total-pentafurans	31.24	1.081e4	6.833e3	0.866	1.58	1.55	114.4	YES	NO	dd	dd	2.856
30	Total-pentafurans	31.13	2.306e3	1.585e3	0.866	1.46	1.55	24.7	YES	NO	bd	bd	0.630
31	123468-HXCDF	33.35	3.066e4	2.468e4	1.197	1.24	1.24	381.2	YES	NO	dd	dd	7.612
32	123789-HxCDF	36.99	1.060e4	8.145e3	1.187	1.30	1.24	129.0	YES	NO	bb	bb	2.996
33	234678-HxCDF	35.96	2.347e4	1.885e4	1.229	1.25	1.24	221.0	YES	NO	bb	bb	5.952
34	Total-hexafurans	35.66	4.610e2	3.735e2	1.208	1.23	1.24	6.9	YES	NO	bb	bb	0.118
35	Total-hexafurans	35.49	1.643e3	1.476e3	1.208	1.11	1.24	21.9	YES	NO	db	db	0.443
36	123678-HxCDF	35.15	1.667e4	1.343e4	1.248	1.24	1.24	208.9	YES	NO	dd	dd	3.903
37	123478-HxCDF	35.01	7.651e4	6.009e4	1.182	1.27	1.24	1007.1	YES	NO	dd	dd	19.038

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexafurans	34.86	5.958e3	4.783e3	1.208	1.25	1.24	76.1	YES	NO	bd	bd	1.525
39	Total-hexafurans	34.38	2.542e5	2.059e5	1.208	1.23	1.24	3230.4	YES	NO	bb	bb	65.332
40	Total-hexafurans	34.08	4.147e3	3.322e3	1.208	1.25	1.24	56.6	YES	NO	bb	bb	1.061
41	Total-hexafurans	33.56	1.182e5	9.437e4	1.208	1.25	1.24	1413.7	YES	NO	dd	dd	30.182
42	1234789-HpCDF	41.12	2.648e4	2.578e4	1.165	1.03	1.05	243.7	YES	NO	bd	bb	11.175
43	Total-hepta furans	39.53	6.297e5	6.223e5	1.185	1.01	1.05	6590.4	YES	NO	bd	bd	241.410
44	Total-hepta furans	39.28	3.422e3	3.068e3	1.185	1.12	1.05	35.6	YES	NO	bb	bb	1.252
45	1234678-HpCDF	38.87	2.310e5	2.285e5	1.204	1.01	1.05	2455.0	YES	NO	bd	bd	80.478
46	OCDF	45.39	3.924e5	4.474e5	1.186	0.88	0.89	4400.9	YES	NO	bd	bb	213.845
47	Total-penta 1	28.03	5.338e2	3.964e2		1.35	1.55	9.0	YES	NO	bb	bb	0.139
48	Total-penta 1	27.32	7.351e4	4.890e4		1.50	1.55	1320.5	YES	NO	bb	bb	18.311
49	Total-tetra dioxins	26.15	2.518e3	3.247e3	1.099	0.78	0.77	33.0	YES	NO	bb	bb	0.888
50	Total-tetra dioxins	25.70	4.261e3	5.349e3	1.099	0.80	0.77	71.4	YES	NO	bd	bd	1.480
51	Total-tetra dioxins	25.14	3.776e3	4.665e3	1.099	0.81	0.77	70.0	YES	NO	bb	bb	1.300
52	Total-tetra dioxins	24.66	9.383e2	1.249e3	1.099	0.75	0.77	16.0	YES	NO	bb	bd	0.337
53	Total-tetra dioxins	24.14	6.442e2	9.422e2	1.099	0.68	0.77	12.3	YES	NO	bb	bb	0.244
54	Total-tetra dioxins	23.92	1.585e4	2.143e4	1.099	0.74	0.77	287.3	YES	NO	bb	bb	5.741
55	1368-TCDD	23.64	1.840e4	2.225e4	1.084	0.83	0.77	351.0	YES	NO	bb	bb	6.341
56	Total-tetra dioxins	26.65	6.158e2	8.259e2	1.099	0.75	0.77	9.3	YES	NO	db	db	0.222
57	12378-PeCDD	31.63	4.002e3	2.479e3	1.087	1.61	1.55	31.0	YES	NO	bb	bb	1.225
58	Total-pentadioxins	30.96	7.983e3	5.343e3	1.392	1.49	1.55	69.8	YES	NO	bb	bb	1.966
59	Total-pentadioxins	30.39	1.793e4	1.124e4	1.392	1.60	1.55	158.7	YES	NO	bd	bb	4.304
60	Total-pentadioxins	30.25	3.260e3	1.869e3	1.392	1.74	1.55	35.0	YES	NO	bb	bb	0.757
61	Total-pentadioxins	30.04	2.162e4	1.416e4	1.392	1.53	1.55	199.4	YES	NO	bb	bb	5.280
62	124679-HxCDD	34.12	4.343e4	3.601e4	1.033	1.21	1.24	405.3	YES	NO	bb	bb	12.696
63	123789-HxCDD	36.62	9.543e3	7.706e3	0.985	1.24	1.24	90.8	YES	NO	bb	bb	2.868
64	123678-HxCDD	36.24	2.440e4	2.026e4	1.021	1.20	1.24	238.1	YES	NO	dd	db	7.118
65	123478-HxCDD	36.12	4.426e3	3.647e3	0.987	1.21	1.24	44.2	YES	NO	bd	bd	1.350
66	Total-hexadioxins	35.25	5.732e4	4.441e4	1.007	1.29	1.24	368.9	YES	NO	bb	bd	16.564
67	Total-hexadioxins	34.88	4.114e4	3.384e4	1.007	1.22	1.24	393.3	YES	NO	bb	bb	12.208
68	1234678-HpCDD	40.38	4.652e5	4.450e5	1.253	1.05	1.05	2522.7	YES	NO	bd	bb	189.988
69	1234679-HPCDD	39.32	4.089e5	3.948e5	1.286	1.04	1.05	2338.0	YES	NO	bd	bb	163.379
70	OCDD	45.16	2.677e6	3.068e6	1.103	0.87	0.89	15177.4	YES	NO	bb	bb	1573.8...
71	12479-PECDD	28.96	2.136e4	1.488e4	1.837	1.44	1.55	124.1	YES	NO	MM	MM	4.052

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.69	1.112e6					14.7	YES		dd		
2	FUNCTION1 PFK	21.53	1.432e6					13.8	YES		bd		
3	FUNCTION1 PFK	21.35	6.268e5					10.3	YES		db		
4	FUNCTION1 PFK	21.25	1.533e5					6.1	YES		dd		
5	FUNCTION1 PFK	21.15	8.731e4					2.6	NO		dd		
6	FUNCTION1 PFK	21.13	4.138e4					2.7	NO		bd		
7	FUNCTION1 PFK	24.37	2.086e4					0.9	NO		bb		
8	FUNCTION1 PFK	24.29	1.760e4					1.0	NO		bb		
9	FUNCTION1 PFK	24.04	3.247e4					1.8	NO		bb		
10	FUNCTION1 PFK	23.83	3.871e3					0.5	NO		bb		
11	FUNCTION1 PFK	23.43	6.612e4					2.1	NO		db		
12	FUNCTION1 PFK	23.34	5.380e4					2.0	NO		bd		
13	FUNCTION1 PFK	23.07	2.831e5					4.7	YES		db		
14	FUNCTION1 PFK	22.93	3.481e5					6.3	YES		dd		
15	FUNCTION1 PFK	22.87	1.864e5					6.5	YES		dd		
16	FUNCTION1 PFK	22.80	2.166e5					7.6	YES		dd		
17	FUNCTION1 PFK	22.74	3.138e5					8.6	YES		dd		
18	FUNCTION1 PFK	22.42	2.833e6					12.2	YES		bd		
19	FUNCTION1 PFK	22.09	1.115e6					14.5	YES		db		
20	FUNCTION1 PFK	21.97	4.425e5					14.2	YES		dd		
21	FUNCTION1 PFK	21.91	4.406e5					14.3	YES		dd		
22	FUNCTION1 PFK	21.84	4.103e5					13.1	YES		dd		
23	FUNCTION1 PFK	27.67	1.782e5					3.4	YES		db		
24	FUNCTION1 PFK	27.59	1.319e5					2.8	NO		bd		
25	FUNCTION1 PFK	26.99	1.465e4					1.0	NO		bb		
26	FUNCTION1 PFK	26.20	1.394e4					0.8	NO		bb		
27	FUNCTION1 PFK	26.00	1.656e4					1.0	NO		bb		
28	FUNCTION1 PFK	25.84	3.577e3					0.4	NO		bb		
29	FUNCTION1 PFK	25.69	1.256e4					0.9	NO		bb		
30	FUNCTION1 PFK	25.49	2.072e4					1.3	NO		bb		
31	FUNCTION1 PFK	25.00	4.887e4					1.4	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.52	1.831e4					2.6	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.17	4.805e5					12.7	YES		db		0.000
2	FUNCTION3 PFK	37.02	4.525e5					15.9	YES		bd		0.000
3	FUNCTION3 PFK	36.82	6.157e5					12.5	YES		bb		0.000
4	FUNCTION3 PFK	33.06	6.434e4					5.3	YES		bb		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.89	7.401e3					1.4	NO		bb		
2	FUNCTION4 PFK	42.77	6.321e3					1.4	NO		bb		
3	FUNCTION4 PFK	42.71	6.737e3					1.5	NO		bb		
4	FUNCTION4 PFK	42.19	6.112e3					1.6	NO		bb		
5	FUNCTION4 PFK	42.10	6.643e3					1.2	NO		bb		
6	FUNCTION4 PFK	41.79	1.486e4					2.2	NO		bb		
7	FUNCTION4 PFK	41.72	1.298e4					1.7	NO		bb		
8	FUNCTION4 PFK	41.01	7.293e2					0.5	NO		bb		
9	FUNCTION4 PFK	39.79	1.546e4					1.7	NO		bb		
10	FUNCTION4 PFK	39.35	2.806e3					1.0	NO		bb		
11	FUNCTION4 PFK	38.44	3.520e3					1.1	NO		bb		
12	FUNCTION4 PFK	38.17	1.283e4					2.9	NO		db		
13	FUNCTION4 PFK	38.09	4.303e4					5.8	YES		dd		
14	FUNCTION4 PFK	38.05	3.541e4					7.8	YES		bd		



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.98	6.912e3					1.5	NO		bd		
2	FUNCTION5 PFK	44.85	4.582e3					1.7	NO		bb		
3	FUNCTION5 PFK	44.74	1.708e3					1.0	NO		bb		
4	FUNCTION5 PFK	44.50	3.420e2					0.4	NO		bb		
5	FUNCTION5 PFK	44.28	8.870e3					1.9	NO		bb		
6	FUNCTION5 PFK	44.24	3.340e3					1.1	NO		bb		
7	FUNCTION5 PFK	44.08	2.161e3					0.9	NO		bb		
8	FUNCTION5 PFK	43.97	5.619e2					0.6	NO		bb		
9	FUNCTION5 PFK	43.93	3.185e3					1.2	NO		bb		
10	FUNCTION5 PFK	43.79	4.688e2					0.5	NO		bb		
11	FUNCTION5 PFK	43.64	8.176e3					2.7	NO		db		
12	FUNCTION5 PFK	43.60	8.108e3					3.3	YES		dd		
13	FUNCTION5 PFK	43.52	1.212e5					6.7	YES		dd		
14	FUNCTION5 PFK	43.34	2.841e5					13.4	YES		dd		
15	FUNCTION5 PFK	43.18	1.860e5					18.1	YES		dd		
16	FUNCTION5 PFK	43.08	1.937e5					21.3	YES		bd		
17	FUNCTION5 PFK	46.23	8.627e2					0.6	NO		bb		
18	FUNCTION5 PFK	46.12	3.223e3					0.9	NO		bb		
19	FUNCTION5 PFK	45.89	1.551e3					0.9	NO		bb		
20	FUNCTION5 PFK	45.82	1.479e3					0.6	NO		bb		
21	FUNCTION5 PFK	45.58	1.726e3					0.7	NO		bb		
22	FUNCTION5 PFK	45.47	2.548e3					0.8	NO		bb		
23	FUNCTION5 PFK	45.29	2.404e3					1.2	NO		bb		
24	FUNCTION5 PFK	45.09	6.458e3					1.7	NO		bb		
25	FUNCTION5 PFK	45.02	4.797e3					1.2	NO		db		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	24.08	8.663e1					3.5	YES		bb		0.000
2	FUNCTION1 HXCD...	23.87	1.977e3					61.9	YES		bb		0.000
3	FUNCTION1 HXCD...	22.86	2.888e2					8.5	YES		bb		0.000
4	FUNCTION1 HXCD...	22.54	1.211e2					3.0	NO		db		0.000
5	FUNCTION1 HXCD...	22.43	3.379e2					10.8	YES		bd		0.000
6	FUNCTION1 HXCD...	22.27	2.777e2					8.9	YES		bb		0.000
7	FUNCTION1 HXCD...	27.77	1.197e2					4.0	YES		bb		0.000
8	FUNCTION1 HXCD...	26.89	5.091e2					15.2	YES		bb		0.000
9	FUNCTION1 HXCD...	26.24	1.740e3					55.0	YES		bb		0.000
10	FUNCTION1 HXCD...	26.02	1.872e2					5.7	YES		db		0.000
11	FUNCTION1 HXCD...	25.87	1.262e3					35.8	YES		bd		0.000
12	FUNCTION1 HXCD...	25.22	3.862e2					11.2	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	23.48	1.934e3					37.4	YES		db		0.000
2	FUNCTION1 HPCD...	23.27	7.995e1					1.4	NO		bd		0.000
3	FUNCTION1 HPCD...	22.60	8.916e1					2.3	NO		db		0.000
4	FUNCTION1 HPCD...	22.54	9.156e1					2.1	NO		dd		0.000
5	FUNCTION1 HPCD...	22.42	2.010e2					3.6	YES		bd		0.000
6	FUNCTION1 HPCD...	22.18	1.944e2					4.4	YES		bb		0.000
7	FUNCTION1 HPCD...	22.04	1.349e2					3.4	YES		bb		0.000
8	FUNCTION1 HPCD...	21.35	7.207e1					1.1	NO		db		0.000
9	FUNCTION1 HPCD...	21.27	7.087e1					2.0	NO		bd		0.000
10	FUNCTION1 HPCD...	28.03	2.663e2					4.8	YES		bb		0.000
11	FUNCTION1 HPCD...	27.51	8.100e1					1.3	NO		bb		0.000
12	FUNCTION1 HPCD...	26.77	7.329e1					1.6	NO		bb		0.000
13	FUNCTION1 HPCD...	25.88	8.823e1					1.6	NO		bb		0.000
14	FUNCTION1 HPCD...	25.32	1.104e2					1.1	NO		bb		0.000
15	FUNCTION1 HPCD...	24.64	1.058e2					2.3	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

**ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk****ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.31	7.559e2					22.3	YES		bb		0.000
2	FUNCTION2 HPCD...	31.25	1.085e2					6.2	YES		db		0.000
3	FUNCTION2 HPCD...	31.20	2.045e2					7.0	YES		bd		0.000
4	FUNCTION2 HPCD...	30.93	1.290e2					4.3	YES		bb		0.000
5	FUNCTION2 HPCD...	29.99	1.022e3					28.7	YES		bb		0.000
6	FUNCTION2 HPCD...	29.66	6.050e2					15.8	YES		bb		0.000
7	FUNCTION2 HPCD...	29.21	2.393e2					8.6	YES		db		0.000
8	FUNCTION2 HPCD...	29.06	1.904e3					61.6	YES		bd		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.86	1.303e2					2.8	NO		bb		0.000
2	FUNCTION3 OCDPE	36.63	1.927e2					3.5	YES		bb		0.000
3	FUNCTION3 OCDPE	36.49	1.050e2					3.7	YES		db		0.000
4	FUNCTION3 OCDPE	36.41	2.980e2					6.4	YES		dd		0.000
5	FUNCTION3 OCDPE	36.32	1.763e2					3.5	YES		dd		0.000
6	FUNCTION3 OCDPE	36.29	9.043e1					3.2	YES		bd		0.000
7	FUNCTION3 OCDPE	36.10	2.599e2					5.3	YES		db		0.000
8	FUNCTION3 OCDPE	36.01	1.497e2					3.6	YES		dd		0.000
9	FUNCTION3 OCDPE	35.98	1.870e2					3.7	YES		bd		0.000
10	FUNCTION3 OCDPE	35.00	8.198e1					2.2	NO		db		0.000
11	FUNCTION3 OCDPE	34.94	2.116e2					3.3	YES		bd		0.000
12	FUNCTION3 OCDPE	34.32	2.074e2					5.9	YES		db		0.000
13	FUNCTION3 OCDPE	34.26	7.802e1					2.9	NO		bd		0.000
14	FUNCTION3 OCDPE	33.22	1.973e2					3.3	YES		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.50	4.721e3					106.2	YES		bb		0.000
2	FUNCTION4 NCDPE	40.83	7.302e1					2.7	NO		bb		0.000
3	FUNCTION4 NCDPE	40.35	1.278e3					22.5	YES		db		0.000
4	FUNCTION4 NCDPE	40.23	1.053e2					4.4	YES		dd		0.000
5	FUNCTION4 NCDPE	40.19	1.788e2					6.7	YES		dd		0.000
6	FUNCTION4 NCDPE	40.15	2.878e2					7.4	YES		dd		0.000
7	FUNCTION4 NCDPE	40.06	3.429e2					6.0	YES		bd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
Printed: Wednesday, February 08, 2023 13:16:52 Pacific Standard Time

**ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk**

**ETHERS6**

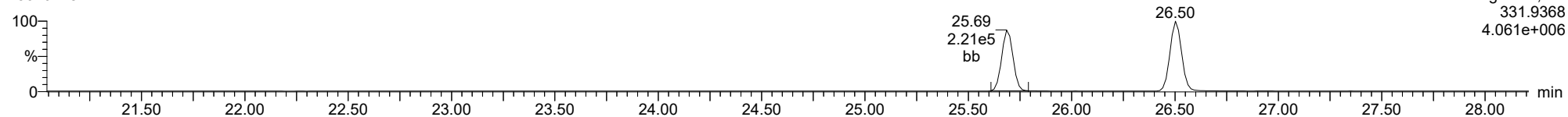
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1													

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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

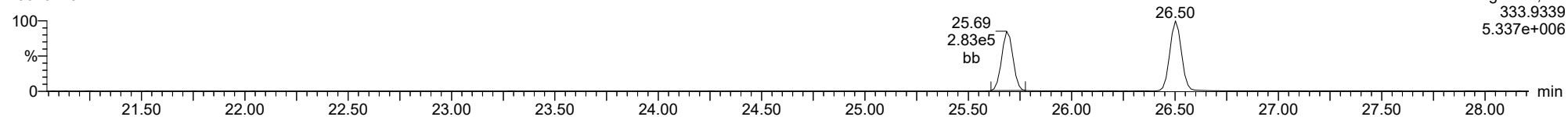
**13C-1234-TCDD**

23020728



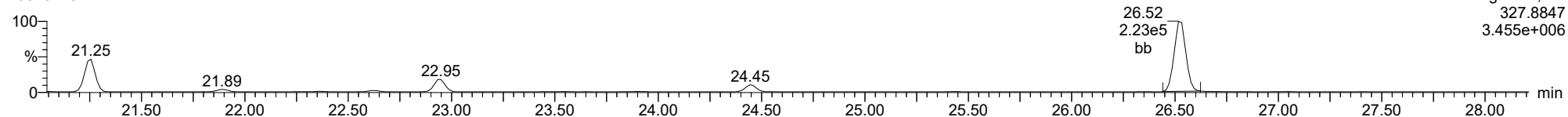
**13C-1234-TCDD**

23020728



**37CL-2378-TCDD**

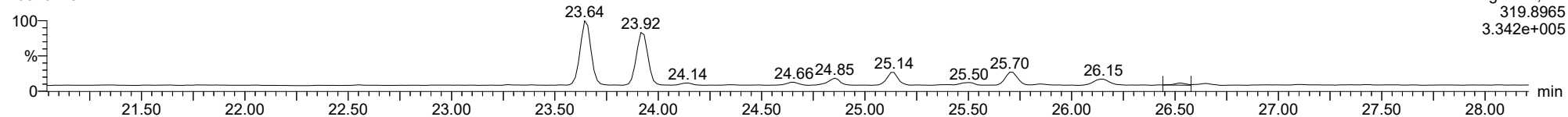
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

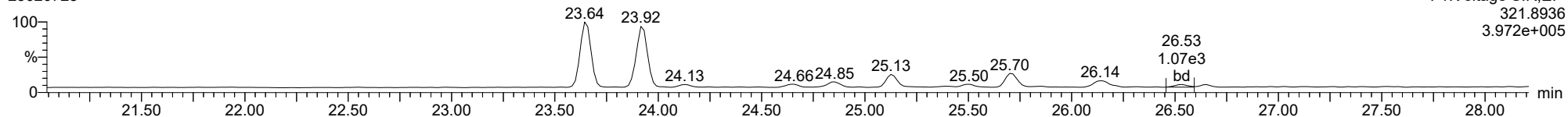
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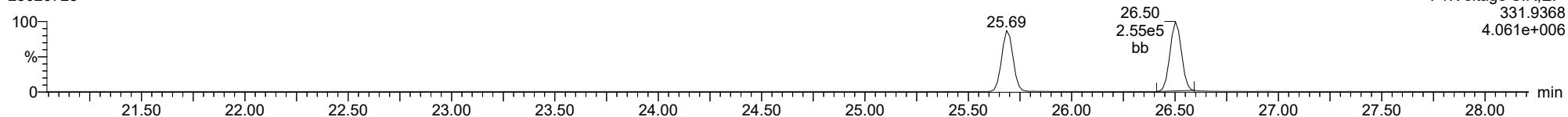
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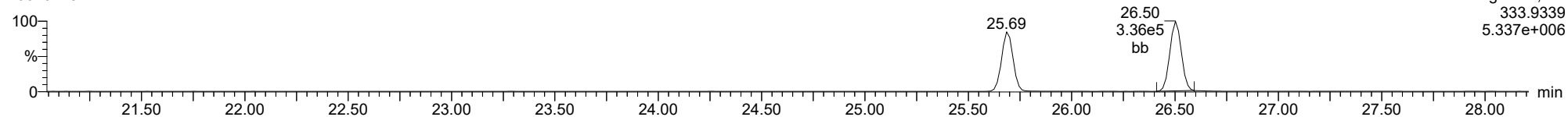
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23020728



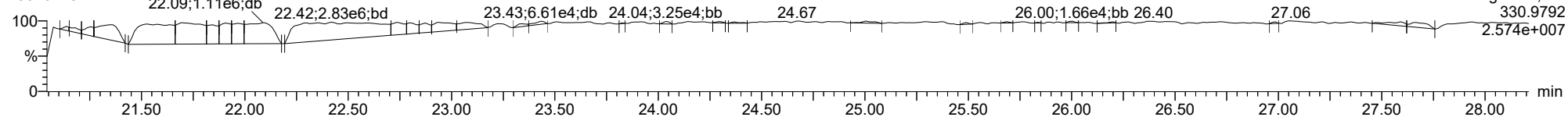
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23020728



**FUNCTION1 PFK**

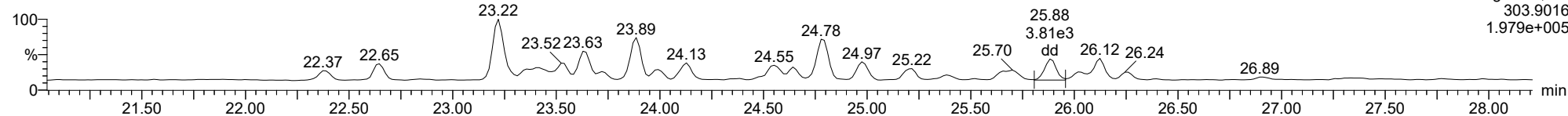
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

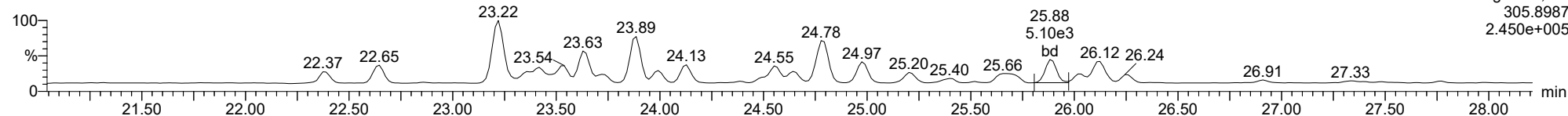
**2378-TCDF**

23020728



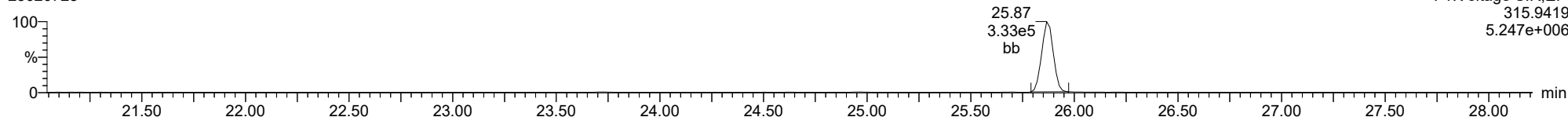
**2378-TCDF**

23020728



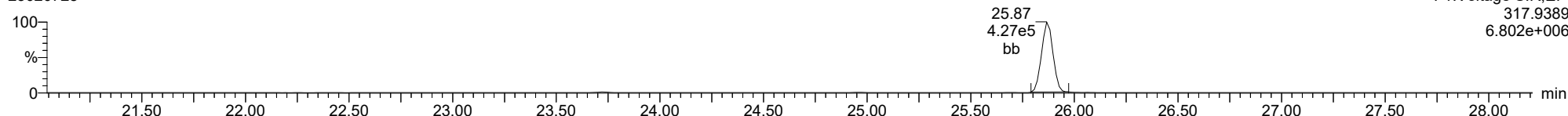
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23020728



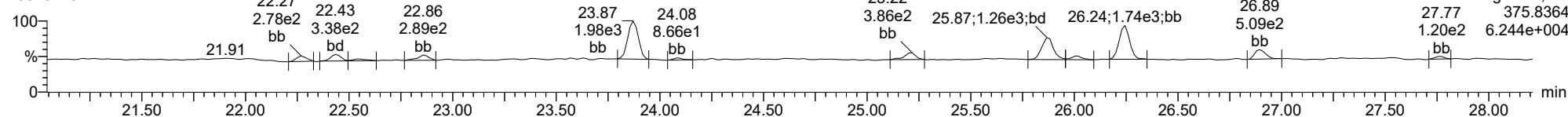
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23020728



**FUNCTION1 HXCDPE**

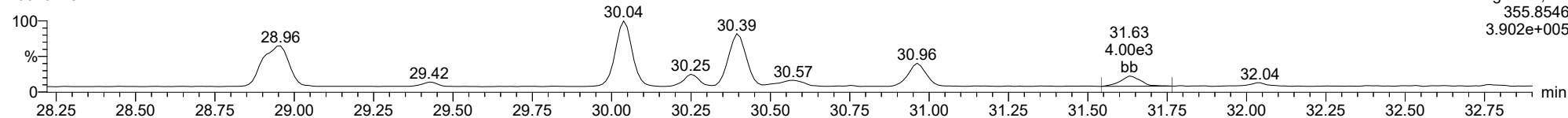
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

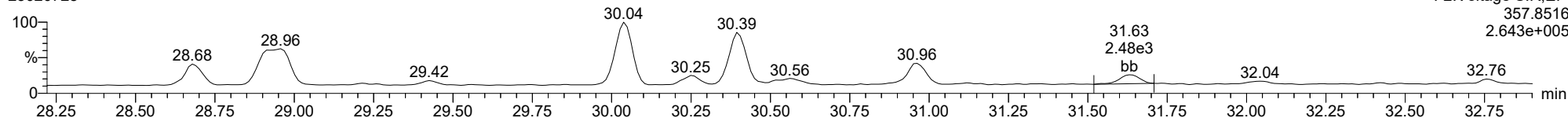
**12378-PeCDD**

23020728



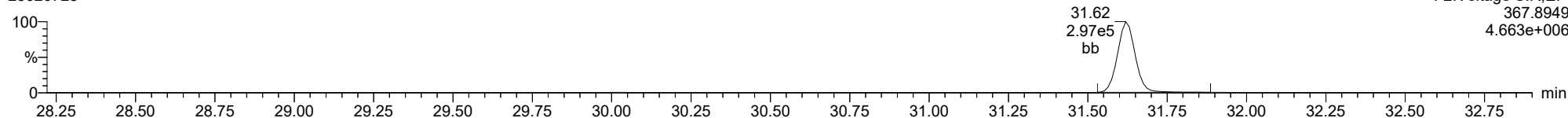
**12378-PeCDD**

23020728



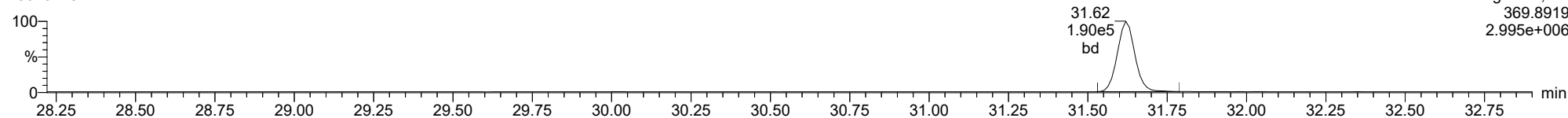
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23020728



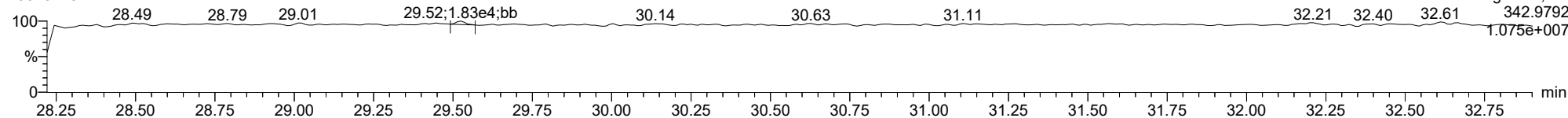
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23020728



**FUNCTION2 PFK**

23020728

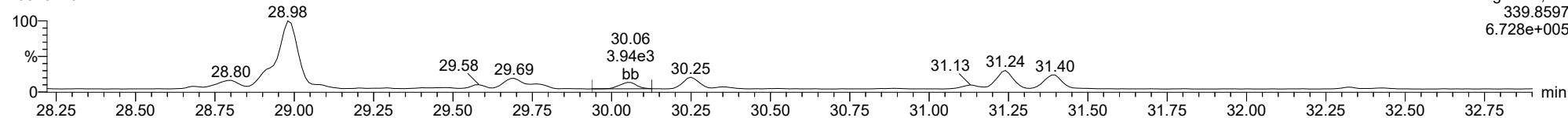




ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

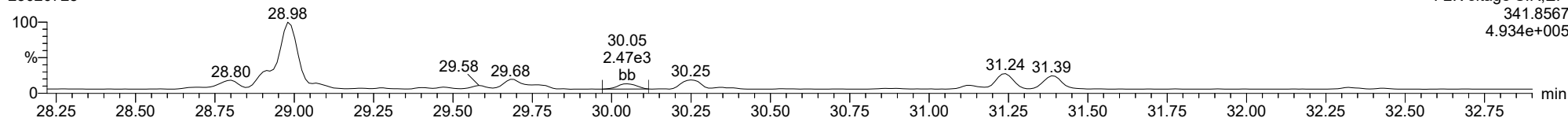
**12378-PeCDF**

23020728



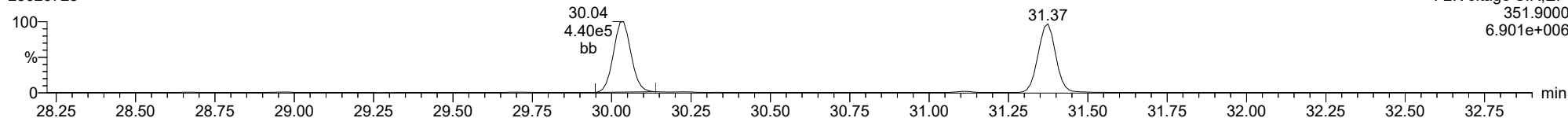
**12378-PeCDF**

23020728



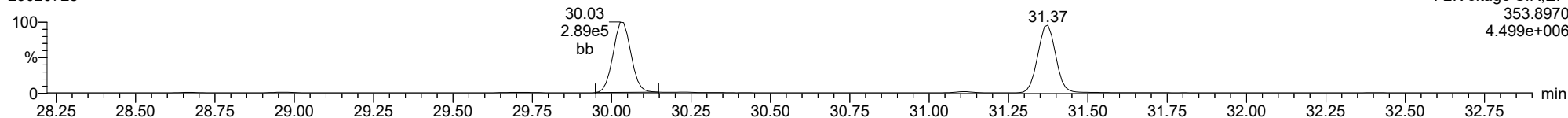
**13C-12378-PeCDF**

23020728



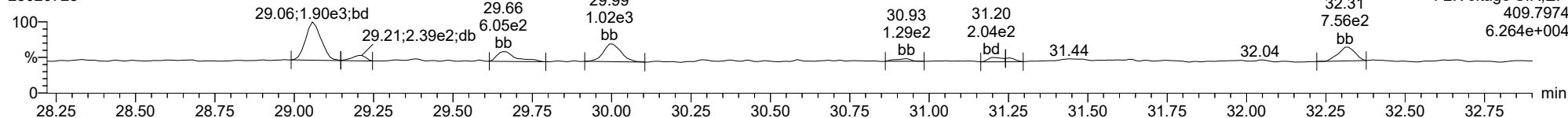
**13C-12378-PeCDF**

23020728



**FUNCTION2 HPCDPE**

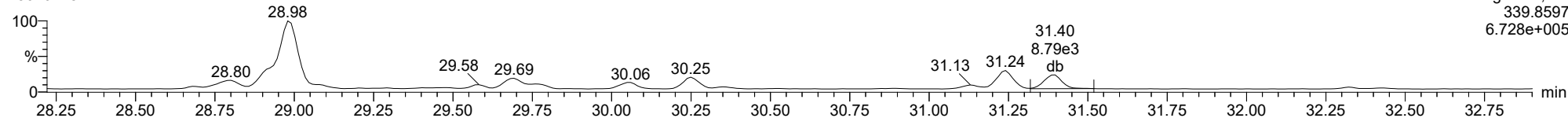
23020728



ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

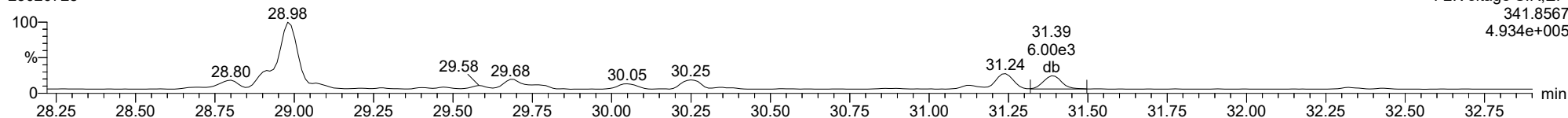
**23478-PeCDF**

23020728



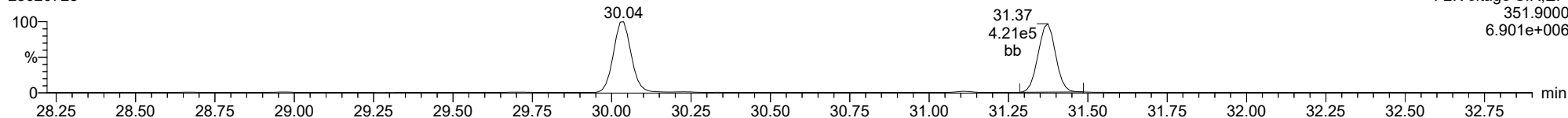
**23478-PeCDF**

23020728



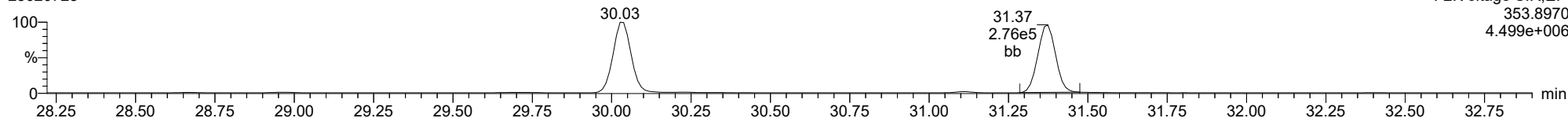
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23020728



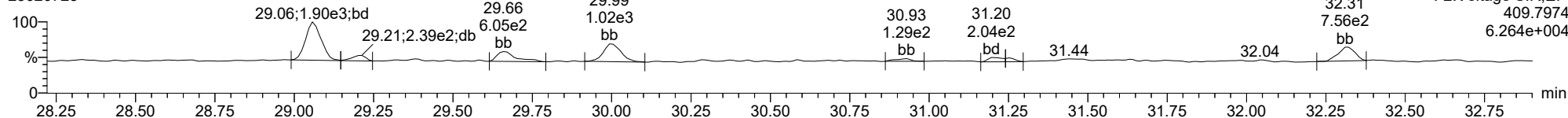
**13C-23478-PeCDF**

23020728



**FUNCTION2 HPCDPE**

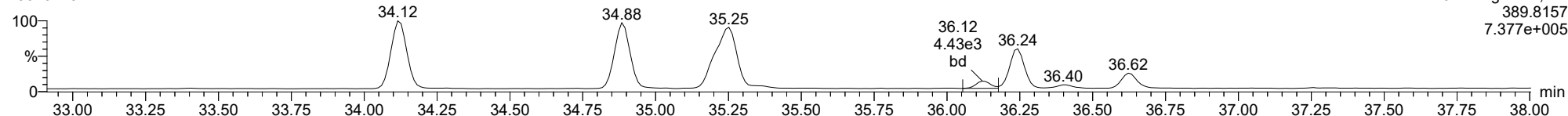
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

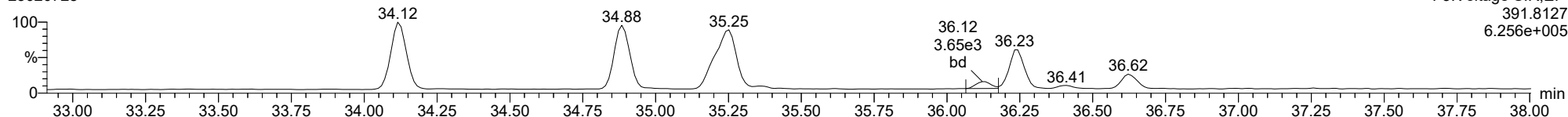
**123478-HxCDD**

23020728



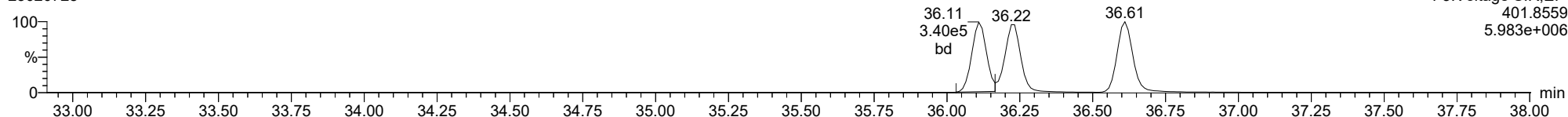
**123478-HxCDD**

23020728



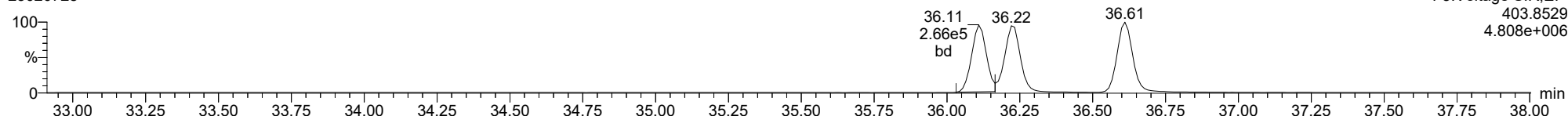
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23020728



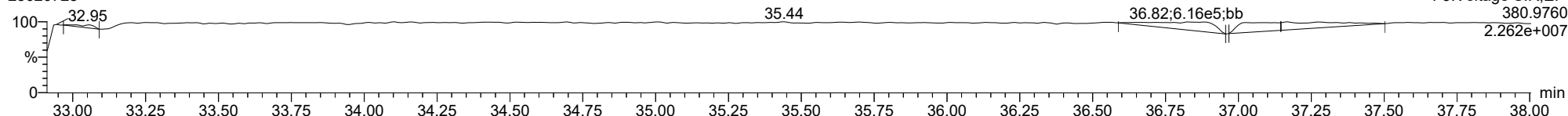
**13C-123478-HxCDD**

23020728



**FUNCTION3 PFK**

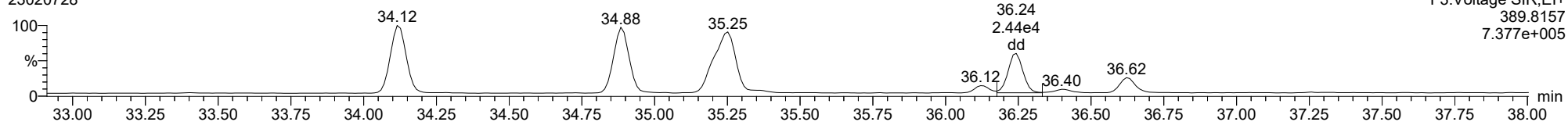
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

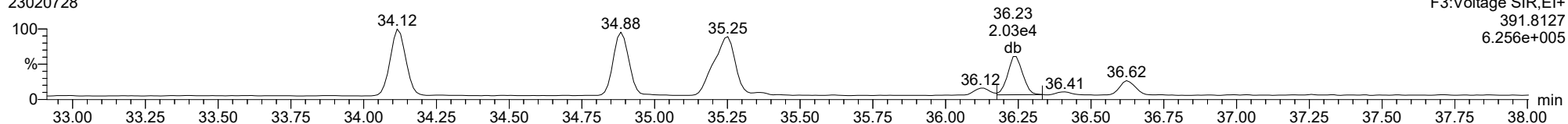
**123678-HxCDD**

23020728



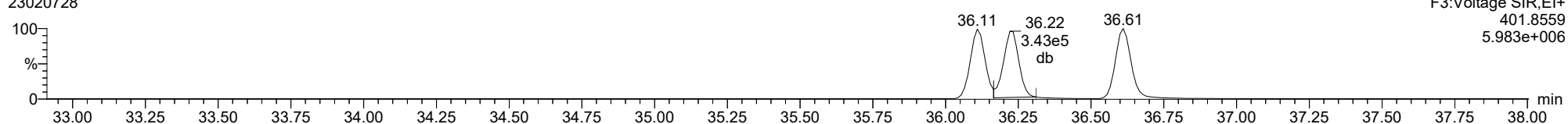
**123678-HxCDD**

23020728



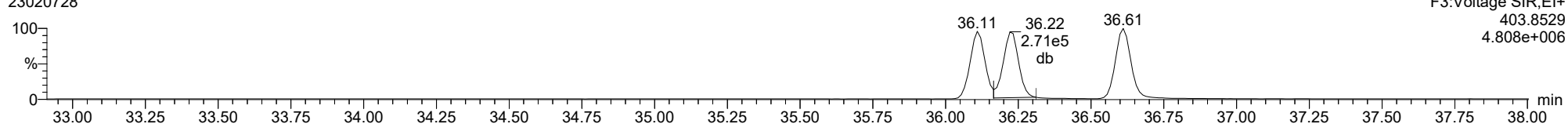
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23020728



**13C-123678-HxCDD**

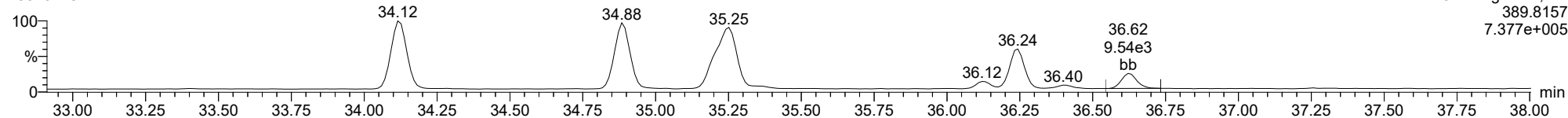
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

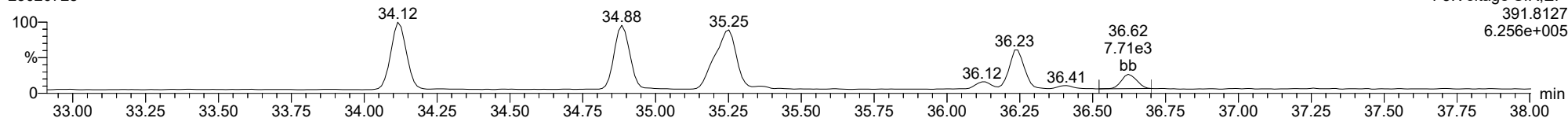
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23020728



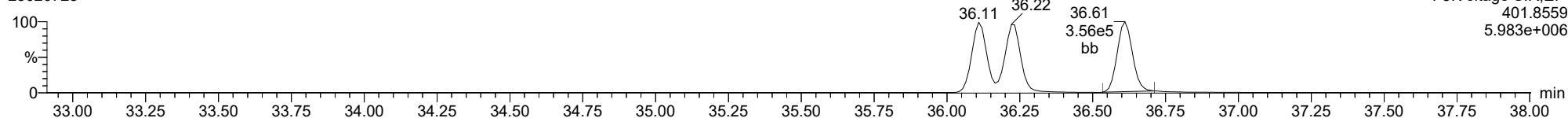
**123789-HxCDD**

23020728



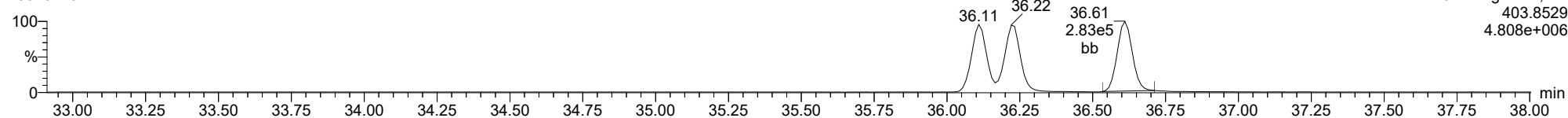
**13C-123789-HxCDD**

23020728



**13C-123789-HxCDD**

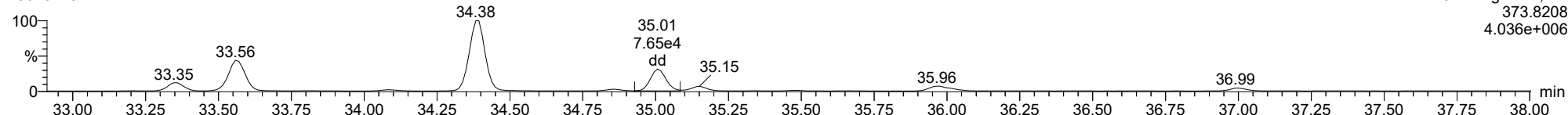
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

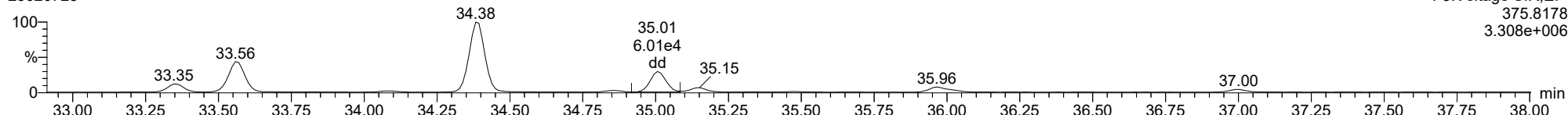
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23020728



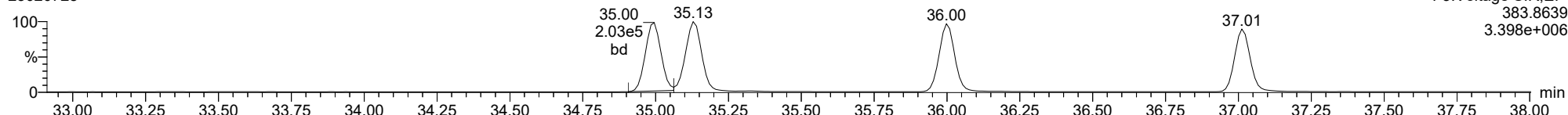
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23020728



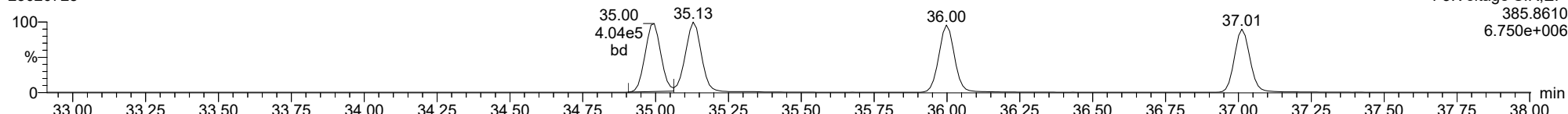
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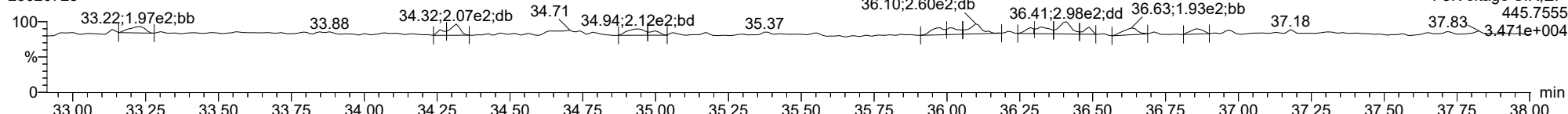
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23020728



**FUNCTION3 OCDPE**

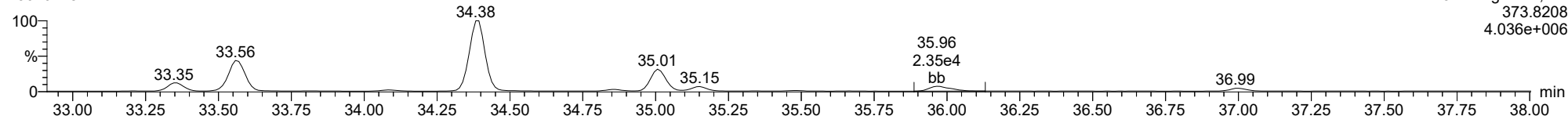
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

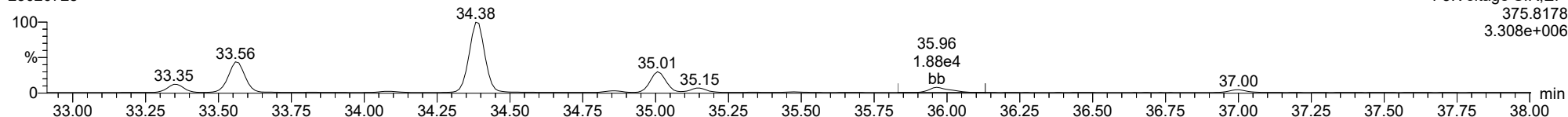
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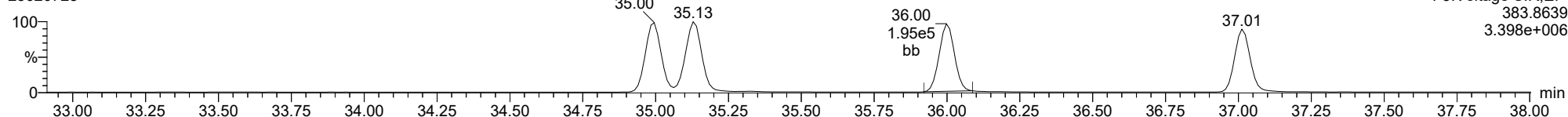
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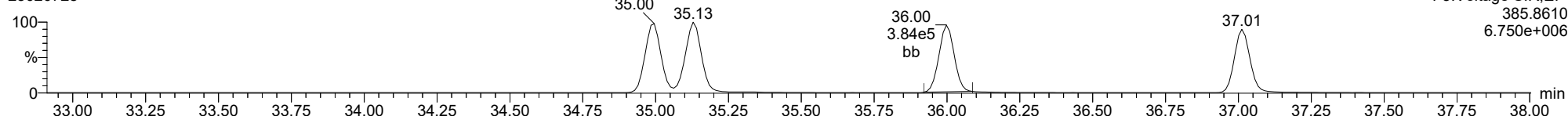
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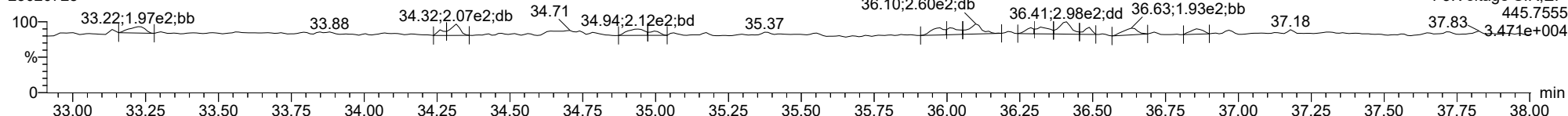
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**FUNCTION3 OCDPE**

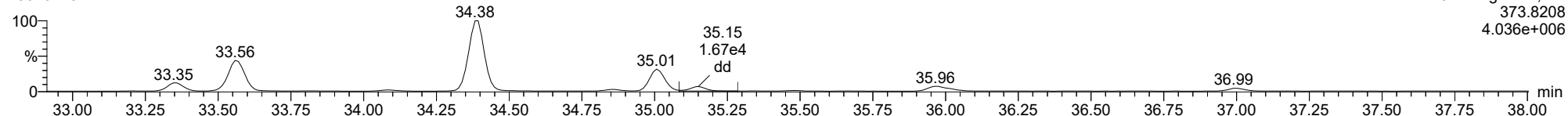
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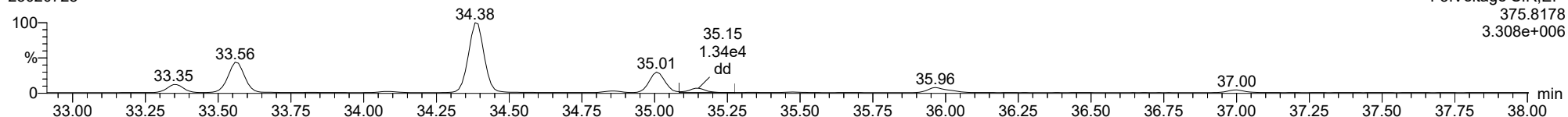
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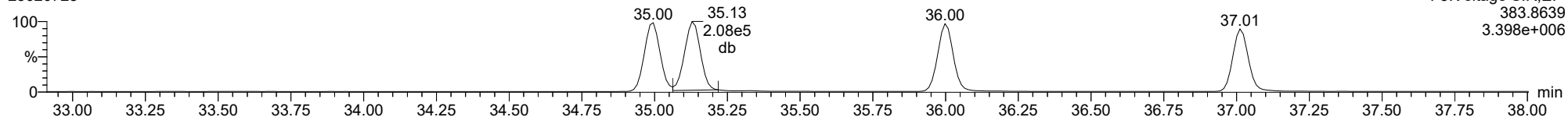
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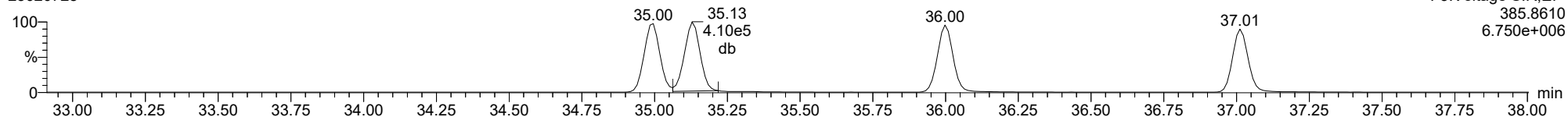
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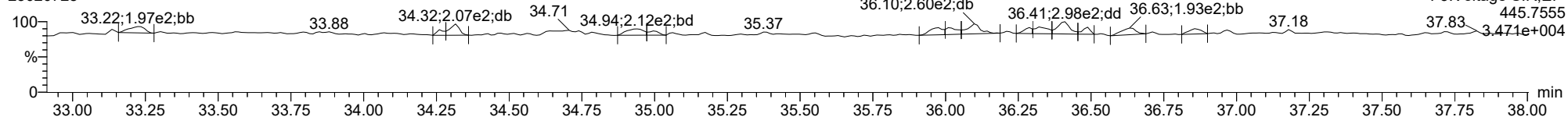
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**FUNCTION3 OCDPE**

23020728

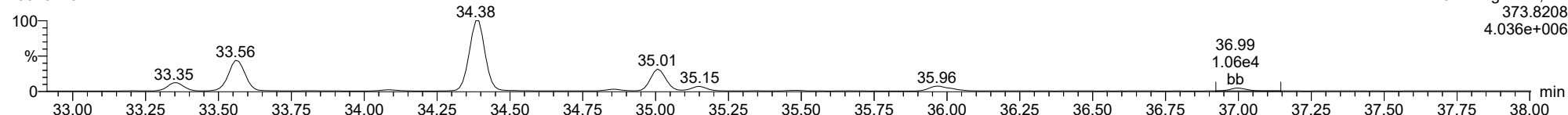




ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

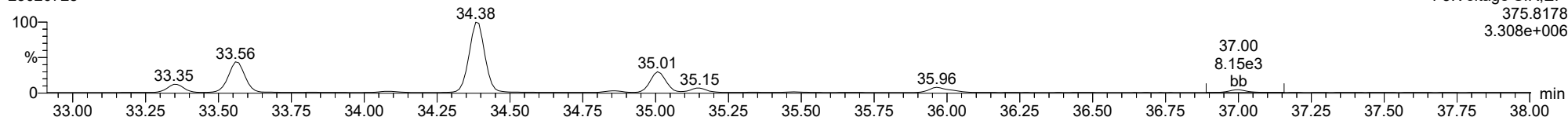
**123789-HxCDF**

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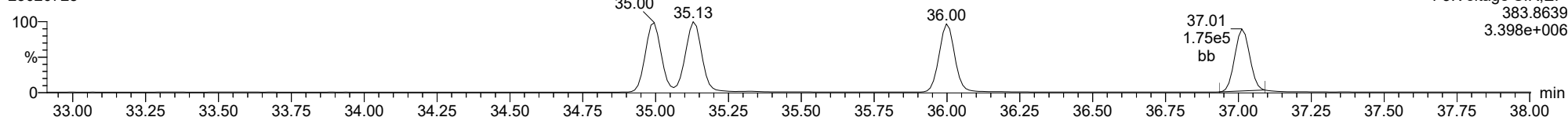
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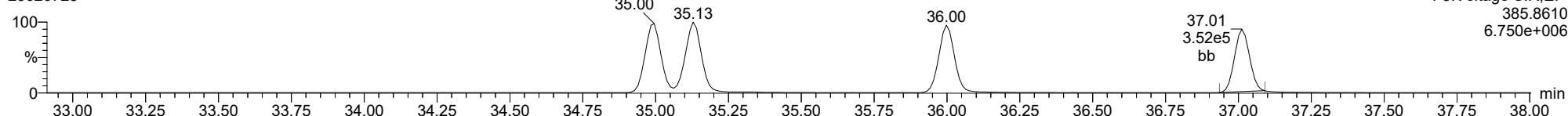
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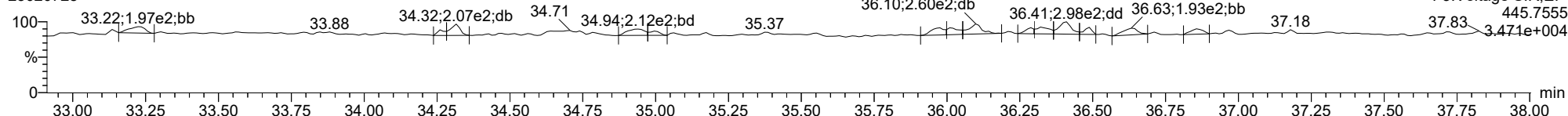
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**FUNCTION3 OCDPE**

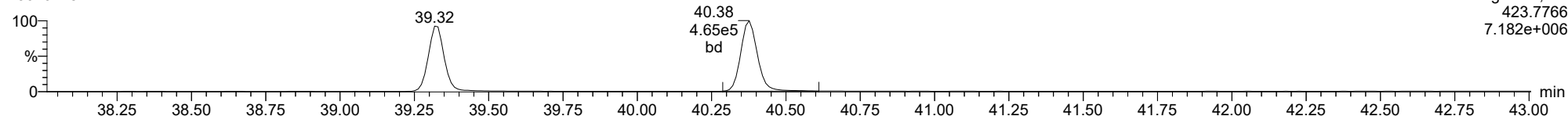
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

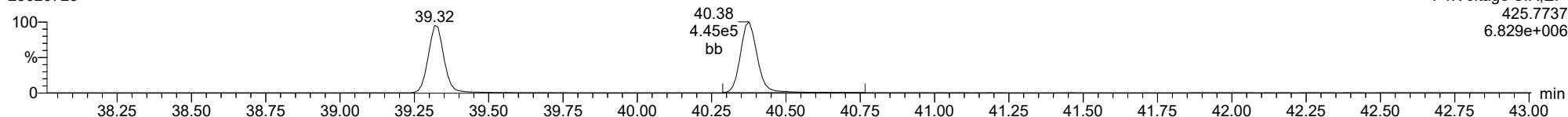
23020728



F4:Voltage SIR,El+  
423.7766  
7.182e+006

**1234678-HpCDD**

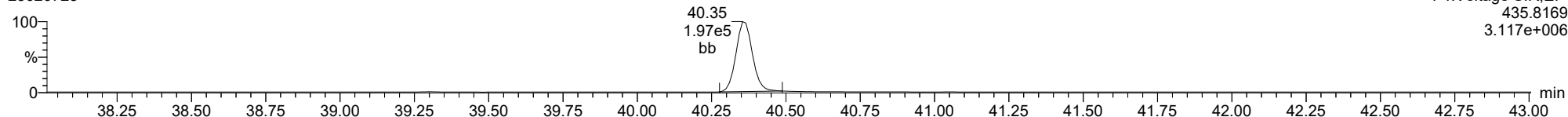
23020728



F4:Voltage SIR,El+  
425.7737  
6.829e+006

**13C-1234678-HpCDD**

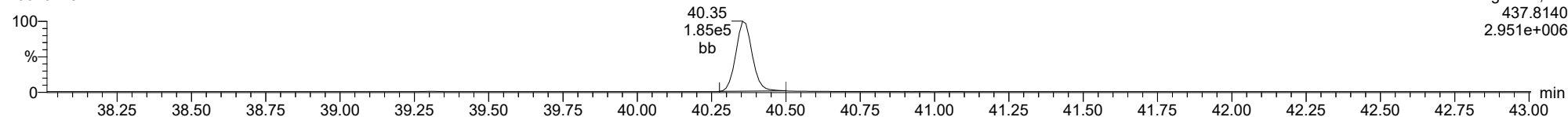
23020728



F4:Voltage SIR,El+  
435.8169  
3.117e+006

**13C-1234678-HpCDD**

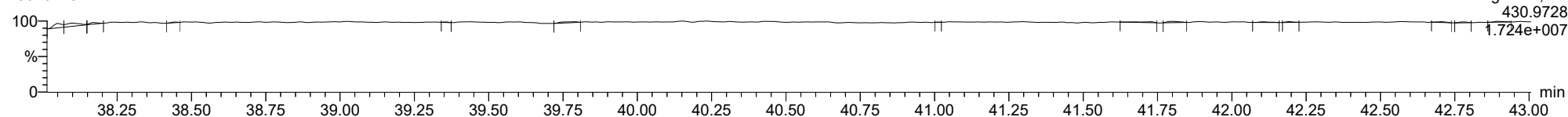
23020728



F4:Voltage SIR,El+  
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2.951e+006

**FUNCTION4 PFK**

23020728

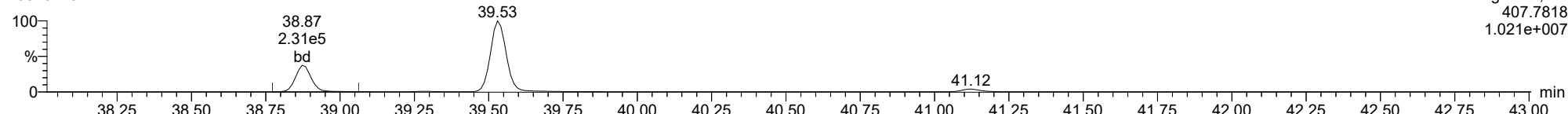


F4:Voltage SIR,El+  
430.9728  
1.724e+007

ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

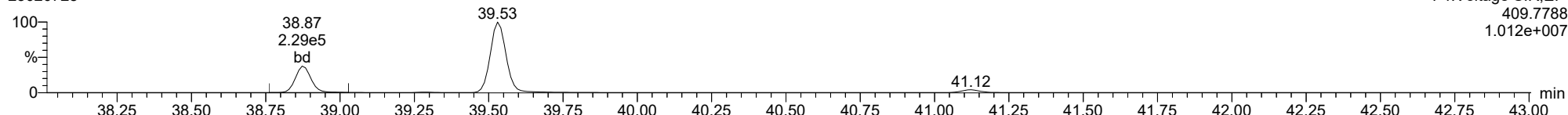
**1234678-HpCDF**

23020728



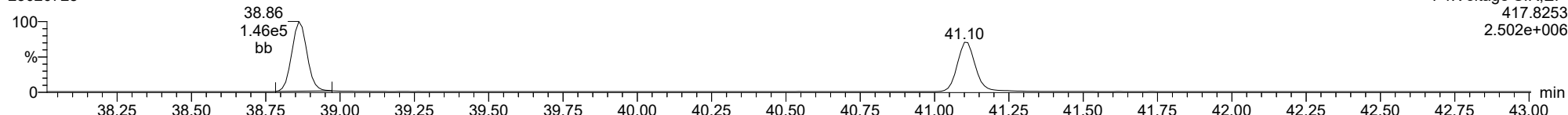
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23020728



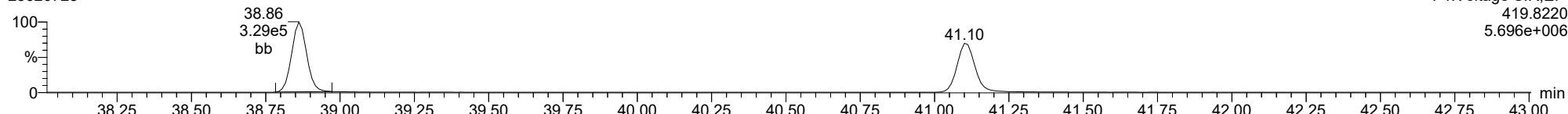
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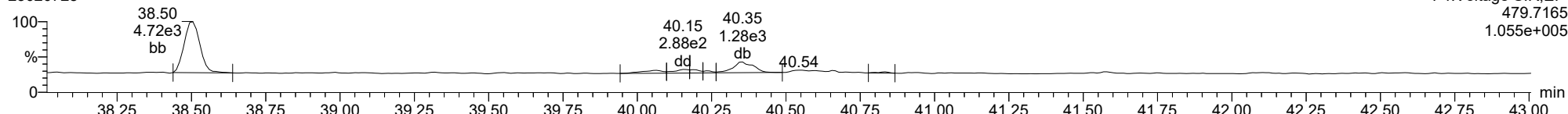
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**FUNCTION4 NCDPE**

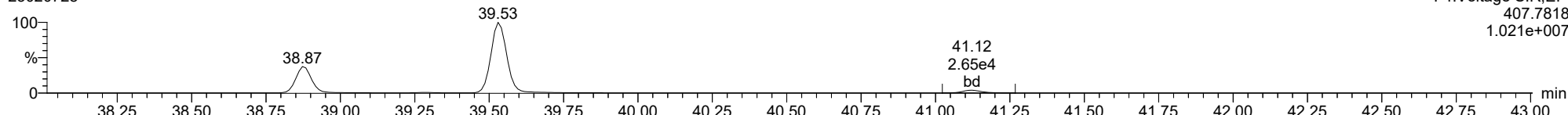
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

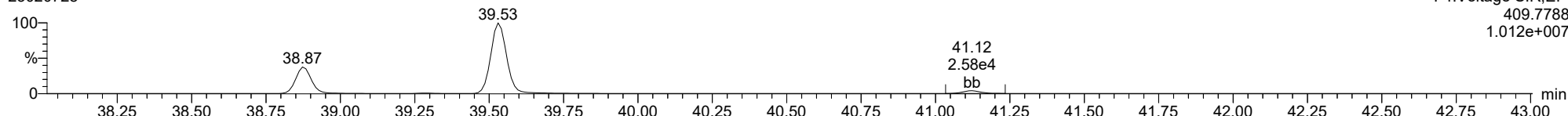
**1234789-HpCDF**

23020728



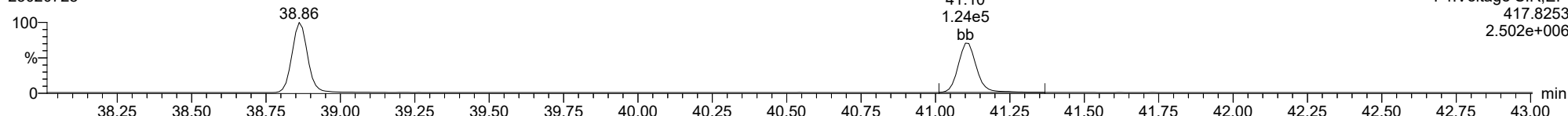
**1234789-HpCDF**

23020728



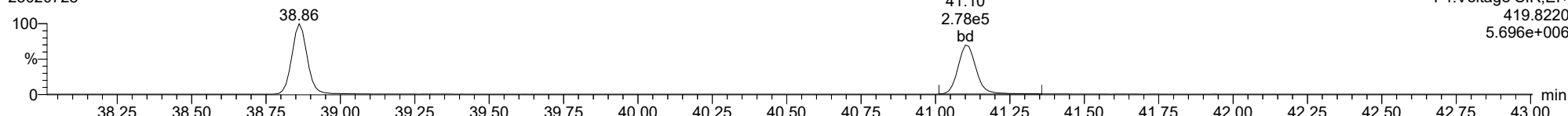
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23020728



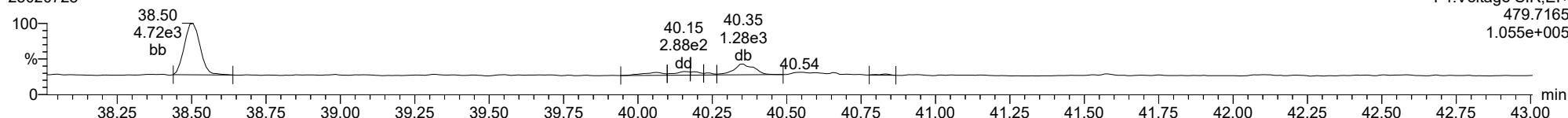
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**FUNCTION4 NCDPE**

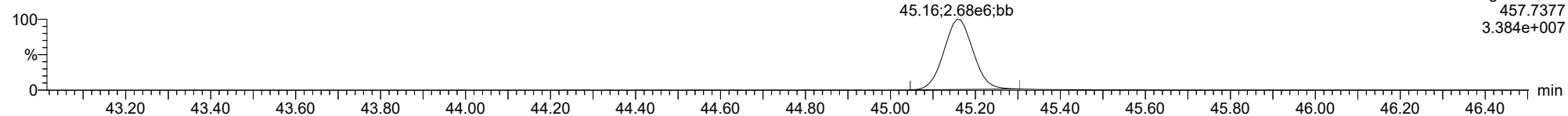
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

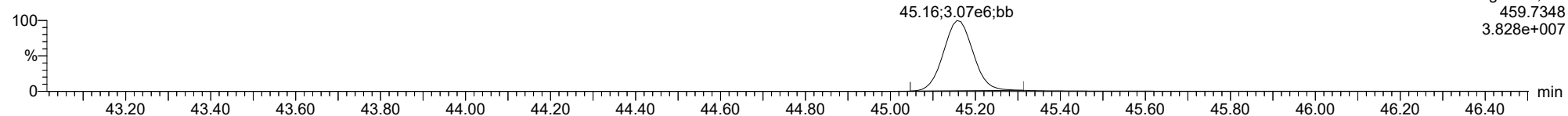
**OCDD**

23020728



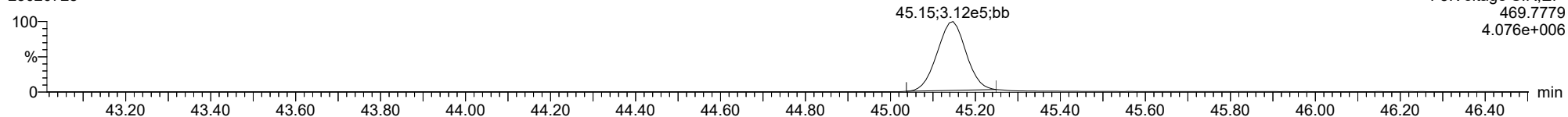
**OCDD**

23020728



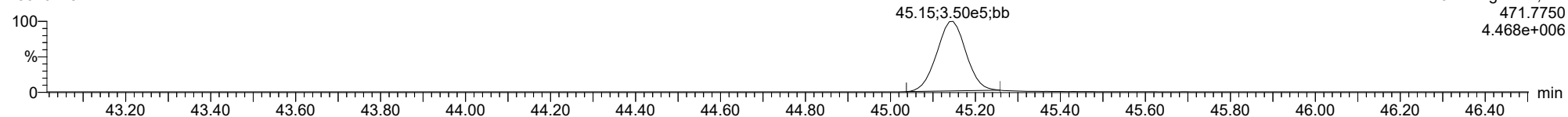
**13C-OCDD**

23020728



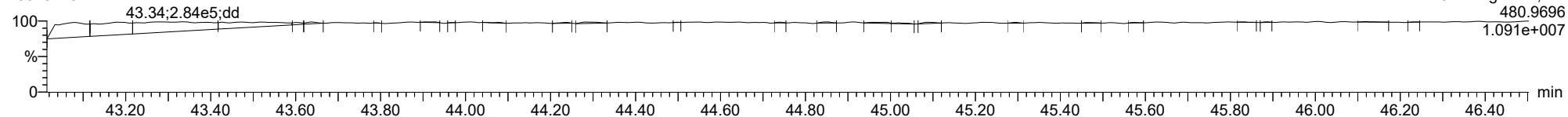
**13C-OCDD**

23020728

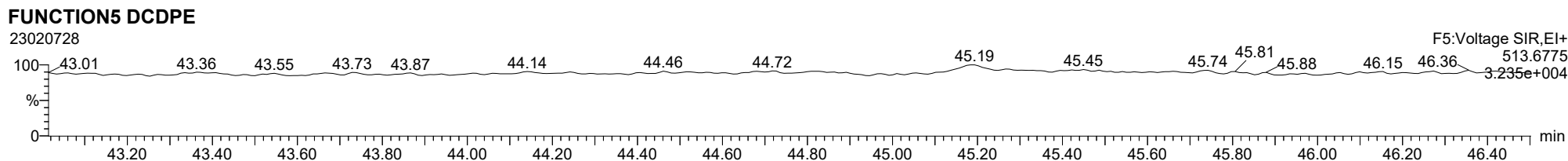
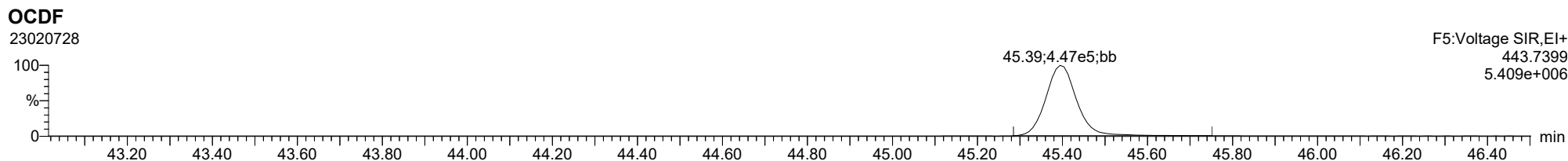
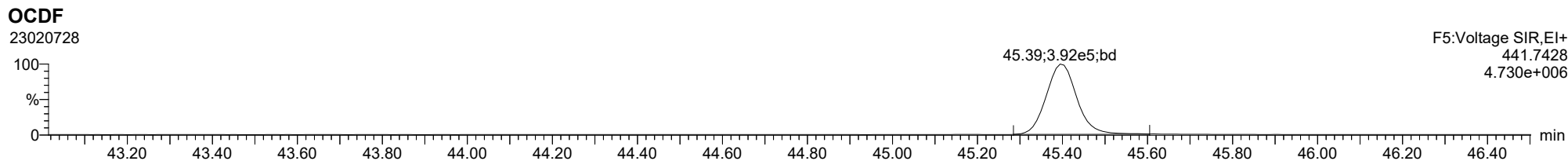


**FUNCTION5 PFK**

23020728



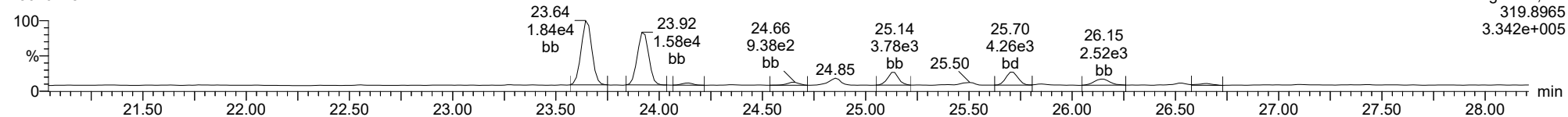
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ID: 22L0307-30, Name: 23020728, Date: 08-Feb-2023, Time: 07:28:17, Conditions: AUTOSPEC01, User: pk

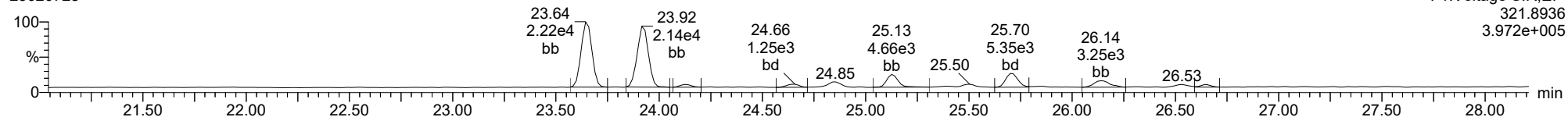
**Total-tetradiioxins**

23020728



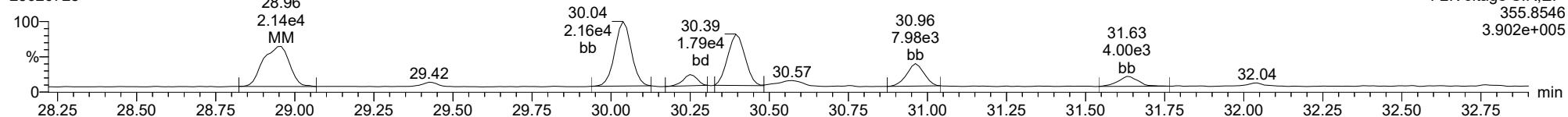
**Total-tetradiioxins**

23020728



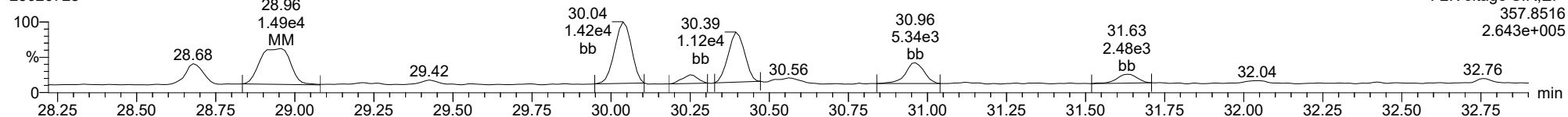
**Total-pentadiioxins**

23020728



**Total-pentadiioxins**

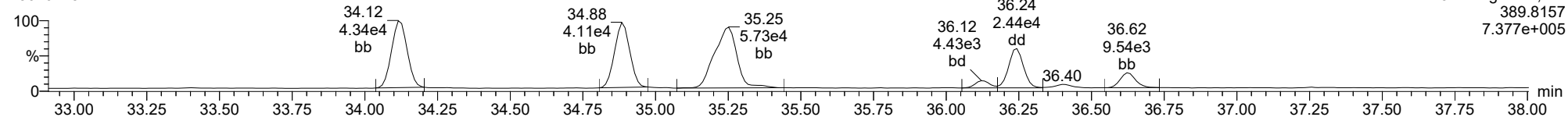
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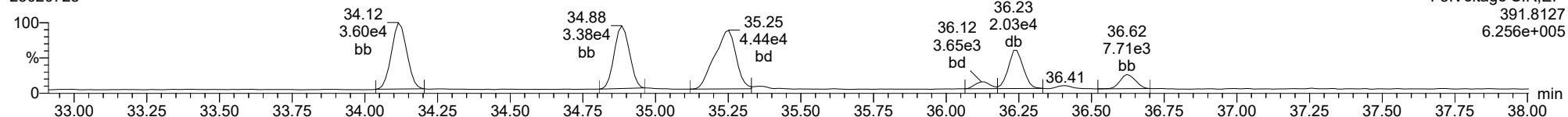
**Total-hexadioxins**

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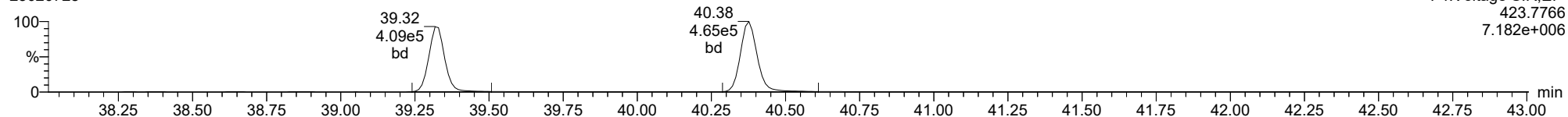
**Total-hexadioxins**

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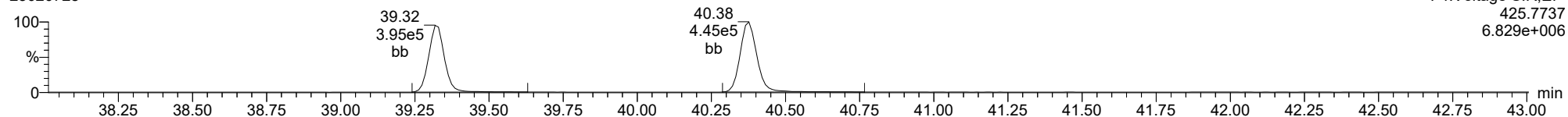
**Total-heptadioxins**

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**Total-heptadioxins**

23020728

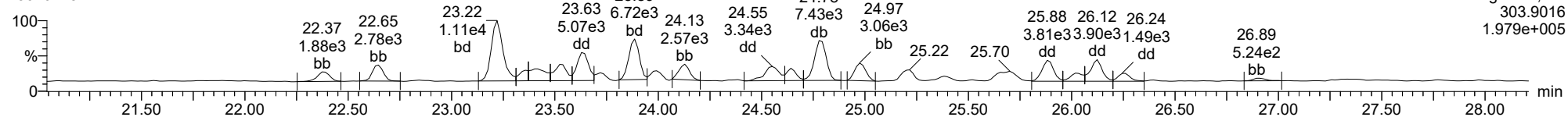




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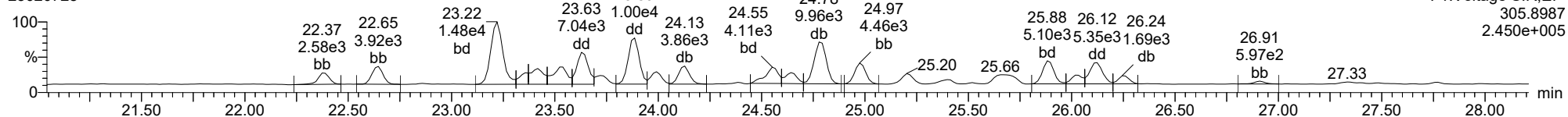
**Total-tetrafurans**

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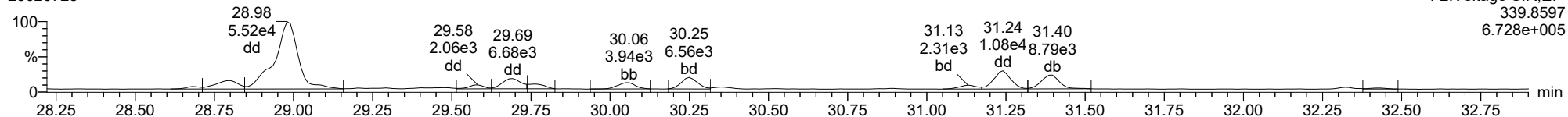
**Total-tetrafurans**

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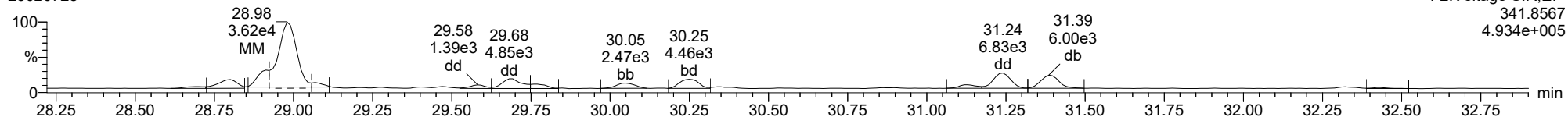
**Total-pentafurans**

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**Total-pentafurans**

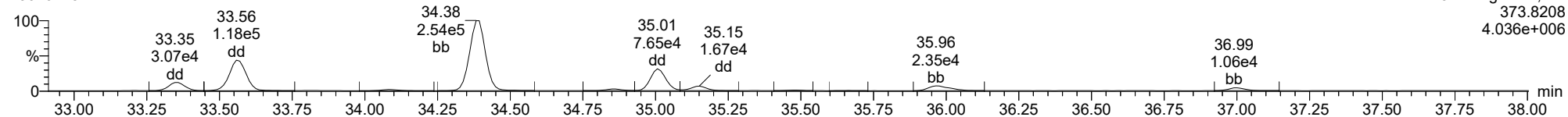
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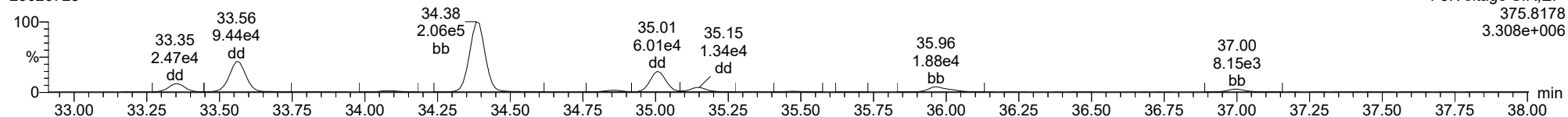
**Total-hexafurans**

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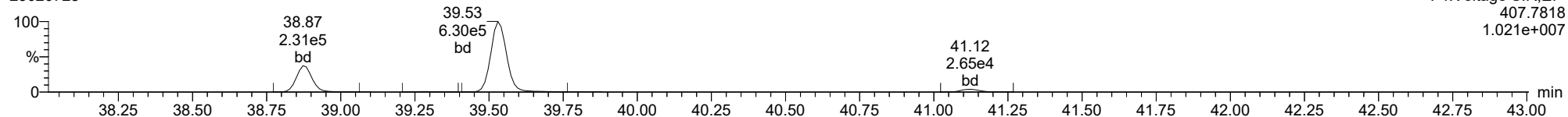
**Total-hexafurans**

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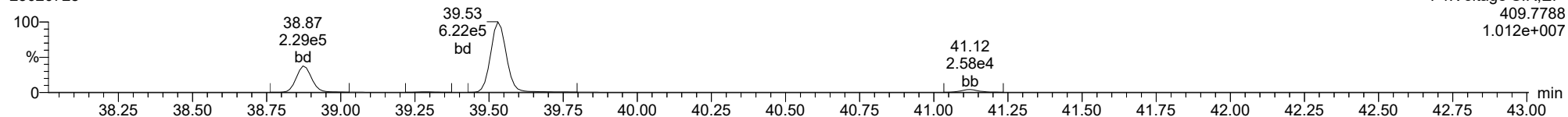
**Total-heptafurans**

23020728



**Total-heptafurans**

23020728





Form 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-31 A File ID: 23020729  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 08:17  
 % Solids: 53.44 Preparation: EPA 8290 Initial/Final: 18.78 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.669	0.655-0.886	0.137	0.996	0.786	ng/kg	X, J
1746-01-6	2,3,7,8-TCDD	1	0.448	0.655-0.886	0.110	0.996	0.171	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.485	1.318-1.783	0.146	0.996	0.377	ng/kg	J
57117-31-4	2,3,4,7,8-PeCDF	1	2.407	1.318-1.783	0.146	0.996	0.445	ng/kg	EMPC, J
40321-76-4	1,2,3,7,8-PeCDD	1	1.256	1.318-1.783	0.138	0.996	0.370	ng/kg	EMPC, J
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.013	1.054-1.426	0.075	0.996	0.379	ng/kg	EMPC, J
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.332	1.054-1.426	0.072	0.996	0.334	ng/kg	J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.906	1.054-1.426	0.076	0.996	0.371	ng/kg	EMPC, J
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.001	1.054-1.426	0.082	0.996	0.114	ng/kg	EMPC, J
39227-28-6	1,2,3,4,7,8-HxCDD	1		1.054-1.426	0.117	0.996	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.619	1.054-1.426	0.117	0.996	0.335	ng/kg	EMPC, J
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.119	1.054-1.426	0.119	0.996	0.459	ng/kg	J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.866	0.893-1.208	0.101	0.996	0.982	ng/kg	EMPC, J
55673-89-7	1,2,3,4,7,8,9-HpCDF	1		0.893-1.208	0.130	0.996	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.051	0.893-1.208	0.113	2.49	2.32	ng/kg	J, B
39001-02-0	OCDF	1	1.054	0.757-1.024	0.175	2.49	0.607	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.832	0.757-1.024	0.160	9.96	17.8	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.996	10.6	ng/kg
41903-57-5	Total TCDD	1	0.000			0.996	3.24	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.996	11.9	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.996	1.58	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.996	4.40	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.996	5.06	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.996	0.728	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.996	6.04	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 1.00  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 1.01



Form 2  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-31 File ID: 23020729  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 08:17  
 Solids Wt%: 53.44 Preparation: EPA 8290 Initial/Final: 18.78 g / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.771	0.655-0.886	0.177	93.3	24 - 169 %	
13C12-2,3,7,8-TCDD		0.767	0.655-0.886	0.147	109	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.509	1.318-1.783	0.127	102	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.527	1.318-1.783	0.132	102	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.614	1.318-1.783	0.152	111	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.502	0.434-0.587	0.175	92.1	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.518	0.434-0.587	0.171	89.7	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.512	0.434-0.587	0.182	89.3	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.506	0.434-0.587	0.199	91.0	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.254	1.054-1.426	0.144	103	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.258	1.054-1.426	0.139	98.8	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.444	0.374-0.506	0.153	77.9	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506	0.175	78.5	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.078	0.893-1.208	0.153	83.8	23 - 140 %	
13C12-OCDD		0.917	0.757-1.024	0.156	73.1	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000		0.048	93.0	35 - 197 %	

\* Values outside of QC limits

**Quantify Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.867	1.000	1.219e3	1.822e3	0.876	0.669	0.770	1598	1129	1.84e4	3.11e4	11.5	27.5	NO	dd	bd	0.394
12378-PeCDF	30.049	1.001	7.901e2	5.322e2	0.845	1.485	1.550	1465	1258	1.39e4	8.97e3	9.5	7.1	NO	bb	bb	0.189
23478-PeCDF	31.375	1.000	1.143e3	4.749e2	0.911	2.407	1.550	1465	1258	1.71e4	9.93e3	11.7	7.9	YES	dd	bb	0.223
123478-HxCDF	34.995	1.000	7.468e2	7.373e2	1.182	1.013	1.240	849	761	1.16e4	1.11e4	13.7	14.6	YES	bb	db	0.190
234678-HxCDF	35.987	1.000	9.259e2	4.858e2	1.229	1.906	1.240	849	761	1.67e4	1.03e4	19.7	13.6	YES	MM	db	0.186
123678-HxCDF	35.140	1.001	7.873e2	5.909e2	1.248	1.332	1.240	849	761	1.42e4	1.10e4	16.7	14.4	NO	bb	bb	0.168
123789-HxCDF	37.001	1.000	1.959e2	1.957e2	1.187	1.001	1.240	849	761	3.17e3	3.25e3	3.7	4.3	YES	bb	bb	0.057
1234678-HpCDF	38.873	1.000	1.513e3	1.747e3	1.204	0.866	1.050	874	949	2.71e4	2.96e4	31.0	31.2	YES	bb	bb	0.493
1234789-HpCDF					1.165		1.050	874	949								
OCDF	45.376	1.005	7.269e2	6.895e2	1.186	1.054	0.890	871	827	8.10e3	9.18e3	9.3	11.1	YES	bb	MM	0.304
2378-TCDD	26.517	1.001	2.111e2	4.714e2	1.236	0.448	0.770	891	1417	4.10e3	7.80e3	4.6	5.5	YES	bb	dd	0.086
12378-PeCDD	31.619	1.000	6.076e2	4.837e2	1.087	1.256	1.550	1245	881	8.72e3	8.90e3	7.0	10.1	YES	bb	bb	0.186
123478-HxCDD					0.987		1.240	946	1235								
123678-HxCDD	36.232	1.001	6.875e2	4.245e2	1.021	1.619	1.240	946	1235	9.94e3	7.77e3	10.5	6.3	YES	db	bb	0.168
123789-HxCDD	36.611	1.011	7.828e2	6.997e2	0.985	1.119	1.240	946	1235	1.32e4	1.07e4	13.9	8.7	NO	bd	bb	0.230
1234678-HpCDD	40.376	1.001	3.330e3	3.168e3	1.253	1.051	1.050	877	763	5.73e4	4.84e4	65.3	63.5	NO	bb	bb	1.163
OCDD	45.157	1.000	1.756e4	2.111e4	1.103	0.832	0.890	828	613	2.22e5	2.53e5	267.9	412.6	NO	bb	bd	8.942
13C-2378-TCDF	25.867	1.007	3.831e5	4.969e5	1.768	0.771	0.770	2493	1788	5.89e6	7.60e6	2363.4	4250.5	NO	bb	bb	93.348
13C-12378-PeCDF	30.026	1.169	4.978e5	3.298e5	1.527	1.509	1.550	1141	1516	7.92e6	5.21e6	6942.3	3436.2	NO	bb	bb	101.640
13C-23478-PeCDF	31.363	1.221	4.805e5	3.146e5	1.466	1.527	1.550	1141	1516	7.40e6	4.85e6	6482.3	3195.9	NO	bb	bb	101.694
13C-123478-HxCDF	34.984	0.956	2.207e5	4.401e5	1.054	0.502	0.510	1433	2092	3.61e6	7.14e6	2521.9	3414.2	NO	bd	bd	92.126
13C-123678-HxCDF	35.118	0.960	2.249e5	4.343e5	1.080	0.518	0.510	1433	2092	3.66e6	7.16e6	2552.5	3421.6	NO	db	db	89.654
13C-234678-HxCDF	35.987	0.983	2.088e5	4.077e5	1.014	0.512	0.510	1433	2092	3.51e6	6.80e6	2446.9	3248.9	NO	bb	bb	89.271
13C-123789-HxCDF	37.001	1.011	1.932e5	3.816e5	0.928	0.506	0.510	1433	2092	3.31e6	6.59e6	2310.5	3147.6	NO	bb	bb	90.996
13C-1234678-HpCDF	38.861	1.062	1.690e5	3.805e5	1.036	0.444	0.440	1536	1484	2.76e6	6.28e6	1800.2	4233.2	NO	bb	bb	77.900
13C-1234789-HpCDF	41.101	1.123	1.492e5	3.343e5	0.905	0.446	0.440	1536	1484	2.22e6	4.96e6	1448.3	3342.4	NO	bd	bd	78.493
13C-1234-TCDD	25.685	0.000	2.328e5	3.004e5	1.000	0.775	0.770	1515	704	3.58e6	4.58e6	2362.7	6510.0	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.032	2.785e5	3.632e5	1.103	0.767	0.770	1515	704	4.39e6	5.63e6	2898.9	7995.3	NO	bb	bb	109.113
13C-12378-PeCDD	31.608	1.231	3.341e5	2.070e5	0.914	1.614	1.550	1137	772	5.22e6	3.23e6	4587.6	4187.9	NO	bd	bd	111.024
13C-123478-HxCDD	36.098	0.986	3.655e5	2.915e5	0.933	1.254	1.240	1417	1142	6.28e6	4.94e6	4435.8	4330.0	NO	bd	bd	103.448
13C-123678-HxCDD	36.210	0.989	3.616e5	2.873e5	0.965	1.258	1.240	1417	1142	6.09e6	4.77e6	4295.6	4180.6	NO	db	db	98.807
13C-1234678-HpCDD	40.354	1.103	2.314e5	2.147e5	0.782	1.078	1.050	1373	911	3.58e6	3.32e6	2608.2	3648.0	NO	bb	bb	83.781
13C-OCDD	45.138	1.233	3.752e5	4.091e5	0.788	0.917	0.890	1167	1174	4.67e6	5.07e6	4000.2	4323.3	NO	bb	bb	146.146
13C-123789-HxCDD	36.600	0.000	3.806e5	3.002e5	1.000	1.268	1.240	1417	1142	6.37e6	5.05e6	4499.2	4421.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	2.447e5		1.233			809		3.90e6		4814.8			bb		37.207

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.374	0.865	1.270e3	1.464e3	1.064	0.868	0.770	1598	1129	1.99e4	2.10e4	12.4	18.6	NO	bb	bb	0.292
1289-TCDF	27.303	1.056	3.434e2	1.298e2	0.858	2.645	0.770	1598	1129	5.24e3	3.44e3	3.3	3.0	YES	bd	bb	0.063
13468-PECDF					1.013		1.550	877	912								
12389-PECDF					0.844		1.550	1465	1258								
123468-HXCDF	33.347	0.953	1.113e3	7.490e2	1.197	1.486	1.240	849	761	1.47e4	1.13e4	17.3	14.8	YES	bb	bb	0.235
1368-TCDD	23.644	0.892	1.744e3	2.751e3	1.084	0.634	0.770	891	1417	2.85e4	4.64e4	32.0	32.7	YES	bb	bb	0.646
1289-TCDD					0.975		0.770	891	1417								
12479-PECDD	28.946	0.916	1.798e3	1.916e3	1.837	0.938	1.550	1245	881	2.80e4	1.84e4	22.5	20.9	YES	db	bb	0.374
12389-PECDD					1.252		1.550	1245	881								
124679-HXCDD	34.115	0.945	3.306e3	3.001e3	1.033	1.102	1.240	946	1235	4.94e4	4.92e4	52.2	39.8	NO	bb	bb	0.929
1234679-HPCDD	39.318	0.974	5.545e3	5.181e3	1.286	1.070	1.050	877	763	9.21e4	7.89e4	105.0	103.4	NO	bb	bb	1.870
Total-tetrafurans			1.884e4		0.933			1598		2.78e5							5.337
Total-penta1			1.333e4					877		1.96e5							2.901
Total-pentafurans			1.306e4		0.866			1465		1.64e5							3.079
Total-hexafurans			9.422e3		1.208			849		1.45e5							2.209
Total-heptafurans			1.121e3		1.185			874		1.89e4							0.365
Total-Furans			5.577e4		1.067			1598		8.01e5							13.892
Total-tetradoxins			4.983e3		1.099			891		7.99e4							1.624
Total-pentadoxins			3.505e3		1.392			1245		6.03e4							0.791
Total-hexadoxins			9.127e3		1.007			946		1.34e5							2.540
Total-heptadoxins			8.875e3		1.269			877		1.49e5							3.033
Total-Dioxins			4.405e4		1.165			891		6.45e5							16.930
Total-TEQ			9.982e4					891		1.45e6							30.822
FUNCTION1 PFK			2.134e7					521117		1.45e8							
FUNCTION2 PFK			1.540e5					221129		4.46e6							0.000
FUNCTION3 PFK			4.123e5					236474		4.97e6							0.000
FUNCTION4 PFK			3.252e5					152796		6.72e6							
FUNCTION5 PFK			0.000e0					90625		0.00e0							
FUNCTION1 HXCD...			3.436e3					627		5.56e4							0.000
FUNCTION1 HPCD...			4.637e2					624		7.77e3							0.000
FUNCTION2 HPCD...			8.853e2					717		1.31e4							0.000
FUNCTION3 OCDPE			1.583e2					690		3.81e3							0.000
FUNCTION4 NCDPE			6.254e3					616		1.07e5							0.000
FUNCTION5 DCDPE			0.000e0					700		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.78	2.693e3	3.790e3	0.933	0.71	0.77	24.4	YES	NO	db	db	0.790
2	Total-tetrafurans	24.54	1.596e3	2.260e3	0.933	0.71	0.77	11.3	YES	NO	bd	dd	0.470
3	Total-tetrafurans	24.10	9.477e2	1.084e3	0.933	0.87	0.77	9.3	YES	NO	db	db	0.248
4	Total-tetrafurans	23.87	2.387e3	3.247e3	0.933	0.74	0.77	23.2	YES	NO	dd	dd	0.686
5	Total-tetrafurans	23.52	1.365e3	1.748e3	0.933	0.78	0.77	12.7	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.21	3.943e3	5.174e3	0.933	0.76	0.77	35.6	YES	NO	bd	bd	1.111
7	Total-tetrafurans	22.63	1.047e3	1.484e3	0.933	0.71	0.77	9.7	YES	NO	bb	bb	0.308
8	1368-TCDF	22.37	1.270e3	1.464e3	1.064	0.87	0.77	12.4	YES	NO	bb	bb	0.292
9	Total-tetrafurans	26.24	7.225e2	8.706e2	0.933	0.83	0.77	6.7	YES	NO	db	dd	0.194
10	Total-tetrafurans	26.11	1.125e3	1.559e3	0.933	0.72	0.77	10.2	YES	NO	dd	dd	0.327
11	2378-TCDF	25.87	1.219e3	1.822e3	0.876	0.67	0.77	11.5	YES	NO	dd	bd	0.394
12	Total-tetrafurans	25.38	5.210e2	6.136e2	0.933	0.85	0.77	6.6	YES	NO	db	bb	0.138

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.30	1.333e4	8.687e3		1.53	1.55	223.6	YES	NO	bb	bb	2.901

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	29.06	6.965e2	4.072e2	0.866	1.71	1.55	7.2	YES	NO	db	db	0.157
2	Total-pentafurans	28.78	1.583e3	9.767e2	0.866	1.62	1.55	12.7	YES	NO	dd	dd	0.364
3	Total-pentafurans	32.31	3.764e2	2.307e2	0.866	1.63	1.55	4.3	YES	NO	bd	bb	0.086
4	Total-pentafurans	31.13	6.523e2	4.374e2	0.866	1.49	1.55	7.4	YES	NO	bd	bd	0.155
5	12378-PeCDF	30.05	7.901e2	5.322e2	0.845	1.48	1.55	9.5	YES	NO	bb	bb	0.189
6	Total-pentafurans	29.67	1.780e3	1.289e3	0.866	1.38	1.55	17.7	YES	NO	bb	dd	0.436
7	Total-pentafurans	28.96	7.182e3	4.705e3	0.866	1.53	1.55	52.9	YES	NO	MM	dd	1.691

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

**ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk****HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.14	7.873e2	5.909e2	1.248	1.33	1.24	16.7	YES	NO	bb	bb	0.168
2	Total-hexafurans	34.84	4.099e2	3.174e2	1.208	1.29	1.24	8.4	YES	NO	bb	bd	0.096
3	Total-hexafurans	34.37	3.209e3	2.824e3	1.208	1.14	1.24	57.9	YES	NO	bb	bb	0.795
4	Total-hexafurans	33.56	5.016e3	3.714e3	1.208	1.35	1.24	87.9	YES	NO	bb	bb	1.151

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.53	1.121e3	1.114e3	1.185	1.01	1.05	21.7	YES	NO	bb	bb	0.365



## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.78	2.693e3	3.790e3	0.933	0.71	0.77	24.4	YES	NO	db	db	0.790
2	Total-tetrafurans	24.54	1.596e3	2.260e3	0.933	0.71	0.77	11.3	YES	NO	bd	dd	0.470
3	Total-tetrafurans	24.10	9.477e2	1.084e3	0.933	0.87	0.77	9.3	YES	NO	db	db	0.248
4	Total-tetrafurans	23.87	2.387e3	3.247e3	0.933	0.74	0.77	23.2	YES	NO	dd	dd	0.686
5	Total-tetrafurans	23.52	1.365e3	1.748e3	0.933	0.78	0.77	12.7	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.21	3.943e3	5.174e3	0.933	0.76	0.77	35.6	YES	NO	bd	bd	1.111
7	Total-tetrafurans	22.63	1.047e3	1.484e3	0.933	0.71	0.77	9.7	YES	NO	bb	bb	0.308
8	1368-TCDF	22.37	1.270e3	1.464e3	1.064	0.87	0.77	12.4	YES	NO	bb	bb	0.292
9	Total-tetrafurans	26.24	7.225e2	8.706e2	0.933	0.83	0.77	6.7	YES	NO	db	dd	0.194
10	Total-tetrafurans	26.11	1.125e3	1.559e3	0.933	0.72	0.77	10.2	YES	NO	dd	dd	0.327
11	2378-TCDF	25.87	1.219e3	1.822e3	0.876	0.67	0.77	11.5	YES	NO	dd	bd	0.394
12	Total-tetrafurans	25.38	5.210e2	6.136e2	0.933	0.85	0.77	6.6	YES	NO	db	bb	0.138
13	Total-pentafurans	29.06	6.965e2	4.072e2	0.866	1.71	1.55	7.2	YES	NO	db	db	0.157
14	Total-pentafurans	28.78	1.583e3	9.767e2	0.866	1.62	1.55	12.7	YES	NO	dd	dd	0.364
15	Total-pentafurans	32.31	3.764e2	2.307e2	0.866	1.63	1.55	4.3	YES	NO	bd	bb	0.086
16	Total-pentafurans	31.13	6.523e2	4.374e2	0.866	1.49	1.55	7.4	YES	NO	bd	bd	0.155
17	12378-PeCDF	30.05	7.901e2	5.322e2	0.845	1.48	1.55	9.5	YES	NO	bb	bb	0.189
18	Total-pentafurans	29.67	1.780e3	1.289e3	0.866	1.38	1.55	17.7	YES	NO	bb	dd	0.436
19	123678-HxCDF	35.14	7.873e2	5.909e2	1.248	1.33	1.24	16.7	YES	NO	bb	bb	0.168
20	Total-hexafurans	34.84	4.099e2	3.174e2	1.208	1.29	1.24	8.4	YES	NO	bb	bd	0.096
21	Total-hexafurans	34.37	3.209e3	2.824e3	1.208	1.14	1.24	57.9	YES	NO	bb	bb	0.795
22	Total-hexafurans	33.56	5.016e3	3.714e3	1.208	1.35	1.24	87.9	YES	NO	bb	bb	1.151
23	Total-heptafurans	39.53	1.121e3	1.114e3	1.185	1.01	1.05	21.7	YES	NO	bb	bb	0.365
24	Total-penta 1	27.30	1.333e4	8.687e3		1.53	1.55	223.6	YES	NO	bb	bb	2.901
25	Total-pentafurans	28.96	7.182e3	4.705e3	0.866	1.53	1.55	52.9	YES	NO	MM	dd	1.691

## TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.63	1.374e3	1.683e3	1.099	0.82	0.77	25.6	YES	NO	bb	bb	0.434
2	Total-tetradoxins	24.11	2.456e2	3.332e2	1.099	0.74	0.77	4.7	YES	NO	bb	bb	0.082
3	Total-tetradoxins	23.90	1.079e3	1.417e3	1.099	0.76	0.77	19.0	YES	NO	bb	bb	0.354
4	Total-tetradoxins	26.15	4.138e2	6.174e2	1.099	0.67	0.77	7.0	YES	NO	bb	bb	0.146
5	Total-tetradoxins	25.69	3.563e2	4.238e2	1.099	0.84	0.77	7.0	YES	NO	bd	bd	0.111
6	Total-tetradoxins	25.13	8.364e2	1.012e3	1.099	0.83	0.77	15.4	YES	NO	bb	bb	0.262
7	Total-tetradoxins	24.85	6.782e2	9.803e2	1.099	0.69	0.77	11.0	YES	NO	bb	bb	0.235

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## PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.03	1.486e3	1.032e3	1.392	1.44	1.55	21.3	YES	NO	bb	bb	0.334
2	Total-pentadioxins	30.39	1.068e3	7.976e2	1.392	1.34	1.55	14.5	YES	NO	dd	dd	0.248
3	Total-pentadioxins	30.25	9.511e2	6.269e2	1.392	1.52	1.55	12.6	YES	NO	bd	bd	0.209

## HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	7.828e2	6.997e2	0.985	1.12	1.24	13.9	YES	NO	bd	bb	0.230
2	Total-hexadioxins	35.24	2.952e3	2.401e3	1.007	1.23	1.24	36.7	YES	NO	bb	bb	0.814
3	Total-hexadioxins	34.87	2.087e3	1.630e3	1.007	1.28	1.24	38.8	YES	NO	bb	bb	0.565
4	124679-HXCDD	34.12	3.306e3	3.001e3	1.033	1.10	1.24	52.2	YES	NO	bb	bb	0.929

## HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.38	3.330e3	3.168e3	1.253	1.05	1.05	65.3	YES	NO	bb	bb	1.163
2	1234679-HPCDD	39.32	5.545e3	5.181e3	1.286	1.07	1.05	105.0	YES	NO	bb	bb	1.870

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.63	1.374e3	1.683e3	1.099	0.82	0.77	25.6	YES	NO	bb	bb	0.434
2	Total-tetradoxins	24.11	2.456e2	3.332e2	1.099	0.74	0.77	4.7	YES	NO	bb	bb	0.082
3	Total-tetradoxins	23.90	1.079e3	1.417e3	1.099	0.76	0.77	19.0	YES	NO	bb	bb	0.354
4	Total-tetradoxins	26.15	4.138e2	6.174e2	1.099	0.67	0.77	7.0	YES	NO	bb	bb	0.146
5	Total-tetradoxins	25.69	3.563e2	4.238e2	1.099	0.84	0.77	7.0	YES	NO	bd	bd	0.111
6	Total-tetradoxins	25.13	8.364e2	1.012e3	1.099	0.83	0.77	15.4	YES	NO	bb	bb	0.262
7	Total-tetradoxins	24.85	6.782e2	9.803e2	1.099	0.69	0.77	11.0	YES	NO	bb	bb	0.235
8	Total-pentadoxins	30.03	1.486e3	1.032e3	1.392	1.44	1.55	21.3	YES	NO	bb	bb	0.334
9	Total-pentadoxins	30.39	1.068e3	7.976e2	1.392	1.34	1.55	14.5	YES	NO	dd	dd	0.248
10	Total-pentadoxins	30.25	9.511e2	6.269e2	1.392	1.52	1.55	12.6	YES	NO	bd	bd	0.209
11	123789-HxCDD	36.61	7.828e2	6.997e2	0.985	1.12	1.24	13.9	YES	NO	bd	bb	0.230
12	Total-hexadoxins	35.24	2.952e3	2.401e3	1.007	1.23	1.24	36.7	YES	NO	bb	bb	0.814
13	Total-hexadoxins	34.87	2.087e3	1.630e3	1.007	1.28	1.24	38.8	YES	NO	bb	bb	0.565
14	124679-HxCDD	34.12	3.306e3	3.001e3	1.033	1.10	1.24	52.2	YES	NO	bb	bb	0.929
15	1234678-HpCDD	40.38	3.330e3	3.168e3	1.253	1.05	1.05	65.3	YES	NO	bb	bb	1.163
16	1234679-HPCDD	39.32	5.545e3	5.181e3	1.286	1.07	1.05	105.0	YES	NO	bb	bb	1.870
17	OCDD	45.16	1.756e4	2.111e4	1.103	0.83	0.89	267.9	YES	NO	bb	bd	8.942

## Quantify Totals Report MassLynx V4.1 SCN909

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.78	2.693e3	3.790e3	0.933	0.71	0.77	24.4	YES	NO	db	db	0.790
2	Total-tetrafurans	24.54	1.596e3	2.260e3	0.933	0.71	0.77	11.3	YES	NO	bd	dd	0.470
3	Total-tetrafurans	24.10	9.477e2	1.084e3	0.933	0.87	0.77	9.3	YES	NO	db	db	0.248
4	Total-tetrafurans	23.87	2.387e3	3.247e3	0.933	0.74	0.77	23.2	YES	NO	dd	dd	0.686
5	Total-tetrafurans	23.52	1.365e3	1.748e3	0.933	0.78	0.77	12.7	YES	NO	dd	dd	0.379
6	Total-tetrafurans	23.21	3.943e3	5.174e3	0.933	0.76	0.77	35.6	YES	NO	bd	bd	1.111
7	Total-tetrafurans	22.63	1.047e3	1.484e3	0.933	0.71	0.77	9.7	YES	NO	bb	bb	0.308
8	1368-TCDF	22.37	1.270e3	1.464e3	1.064	0.87	0.77	12.4	YES	NO	bb	bb	0.292
9	Total-tetrafurans	26.24	7.225e2	8.706e2	0.933	0.83	0.77	6.7	YES	NO	db	dd	0.194
10	Total-tetrafurans	26.11	1.125e3	1.559e3	0.933	0.72	0.77	10.2	YES	NO	dd	dd	0.327
11	2378-TCDF	25.87	1.219e3	1.822e3	0.876	0.67	0.77	11.5	YES	NO	dd	bd	0.394
12	Total-tetrafurans	25.38	5.210e2	6.136e2	0.933	0.85	0.77	6.6	YES	NO	db	bb	0.138
13	Total-pentafurans	29.06	6.965e2	4.072e2	0.866	1.71	1.55	7.2	YES	NO	db	db	0.157
14	Total-pentafurans	28.78	1.583e3	9.767e2	0.866	1.62	1.55	12.7	YES	NO	dd	dd	0.364
15	Total-pentafurans	32.31	3.764e2	2.307e2	0.866	1.63	1.55	4.3	YES	NO	bd	bb	0.086
16	Total-pentafurans	31.13	6.523e2	4.374e2	0.866	1.49	1.55	7.4	YES	NO	bd	bd	0.155
17	12378-PeCDF	30.05	7.901e2	5.322e2	0.845	1.48	1.55	9.5	YES	NO	bb	bb	0.189
18	Total-pentafurans	29.67	1.780e3	1.289e3	0.866	1.38	1.55	17.7	YES	NO	bb	dd	0.436
19	123678-HxCDF	35.14	7.873e2	5.909e2	1.248	1.33	1.24	16.7	YES	NO	bb	bb	0.168
20	Total-hexafurans	34.84	4.099e2	3.174e2	1.208	1.29	1.24	8.4	YES	NO	bb	bd	0.096
21	Total-hexafurans	34.37	3.209e3	2.824e3	1.208	1.14	1.24	57.9	YES	NO	bb	bb	0.795
22	Total-hexafurans	33.56	5.016e3	3.714e3	1.208	1.35	1.24	87.9	YES	NO	bb	bb	1.151
23	Total-heptafurans	39.53	1.121e3	1.114e3	1.185	1.01	1.05	21.7	YES	NO	bb	bb	0.365
24	Total-penta1	27.30	1.333e4	8.687e3		1.53	1.55	223.6	YES	NO	bb	bb	2.901
25	Total-pentafurans	28.96	7.182e3	4.705e3	0.866	1.53	1.55	52.9	YES	NO	MM	dd	1.691
26	Total-tetradioxins	24.63	1.374e3	1.683e3	1.099	0.82	0.77	25.6	YES	NO	bb	bb	0.434
27	Total-tetradioxins	24.11	2.456e2	3.332e2	1.099	0.74	0.77	4.7	YES	NO	bb	bb	0.082
28	Total-tetradioxins	23.90	1.079e3	1.417e3	1.099	0.76	0.77	19.0	YES	NO	bb	bb	0.354
29	Total-tetradioxins	26.15	4.138e2	6.174e2	1.099	0.67	0.77	7.0	YES	NO	bb	bb	0.146
30	Total-tetradioxins	25.69	3.563e2	4.238e2	1.099	0.84	0.77	7.0	YES	NO	bd	bd	0.111
31	Total-tetradioxins	25.13	8.364e2	1.012e3	1.099	0.83	0.77	15.4	YES	NO	bb	bb	0.262
32	Total-tetradioxins	24.85	6.782e2	9.803e2	1.099	0.69	0.77	11.0	YES	NO	bb	bb	0.235
33	Total-pentadioxins	30.03	1.486e3	1.032e3	1.392	1.44	1.55	21.3	YES	NO	bb	bb	0.334
34	Total-pentadioxins	30.39	1.068e3	7.976e2	1.392	1.34	1.55	14.5	YES	NO	dd	dd	0.248
35	Total-pentadioxins	30.25	9.511e2	6.269e2	1.392	1.52	1.55	12.6	YES	NO	bd	bd	0.209
36	123789-HxCDD	36.61	7.828e2	6.997e2	0.985	1.12	1.24	13.9	YES	NO	bd	bb	0.230
37	Total-hexadioxins	35.24	2.952e3	2.401e3	1.007	1.23	1.24	36.7	YES	NO	bb	bb	0.814

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexadioxins	34.87	2.087e3	1.630e3	1.007	1.28	1.24	38.8	YES	NO	bb	bb	0.565
39	124679-HXCDD	34.12	3.306e3	3.001e3	1.033	1.10	1.24	52.2	YES	NO	bb	bb	0.929
40	1234678-HpCDD	40.38	3.330e3	3.168e3	1.253	1.05	1.05	65.3	YES	NO	bb	bb	1.163
41	1234679-HPCDD	39.32	5.545e3	5.181e3	1.286	1.07	1.05	105.0	YES	NO	bb	bb	1.870
42	OCDD	45.16	1.756e4	2.111e4	1.103	0.83	0.89	267.9	YES	NO	bb	bd	8.942

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.40	1.073e4					0.7	NO		bb		
2	FUNCTION1 PFK	23.30	2.749e4					1.6	NO		db		
3	FUNCTION1 PFK	23.24	6.776e3					0.5	NO		bd		
4	FUNCTION1 PFK	22.90	8.301e3					0.7	NO		bb		
5	FUNCTION1 PFK	22.42	7.128e5					10.4	YES		db		
6	FUNCTION1 PFK	22.36	1.304e6					12.4	YES		bd		
7	FUNCTION1 PFK	22.10	7.632e5					20.3	YES		db		
8	FUNCTION1 PFK	22.04	6.571e5					21.7	YES		dd		
9	FUNCTION1 PFK	21.98	1.870e6					22.2	YES		dd		
10	FUNCTION1 PFK	21.53	4.075e6					23.7	YES		dd		
11	FUNCTION1 PFK	21.47	1.045e6					23.4	YES		dd		
12	FUNCTION1 PFK	21.36	1.749e6					23.3	YES		dd		
13	FUNCTION1 PFK	21.22	1.047e6					23.2	YES		dd		
14	FUNCTION1 PFK	21.13	1.182e6					22.1	YES		bd		
15	FUNCTION1 PFK	26.34	6.258e4					2.1	NO		bb		
16	FUNCTION1 PFK	26.21	6.784e4					2.5	NO		db		
17	FUNCTION1 PFK	26.14	7.495e4					2.6	NO		dd		
18	FUNCTION1 PFK	26.05	5.263e4					2.0	NO		dd		
19	FUNCTION1 PFK	25.99	1.954e4					1.1	NO		bd		
20	FUNCTION1 PFK	25.79	2.769e4					1.3	NO		bb		
21	FUNCTION1 PFK	25.72	1.429e4					1.0	NO		db		
22	FUNCTION1 PFK	25.67	9.479e3					0.7	NO		bd		
23	FUNCTION1 PFK	25.52	1.336e4					0.9	NO		bb		
24	FUNCTION1 PFK	24.97	3.065e4					1.0	NO		bb		
25	FUNCTION1 PFK	24.84	3.203e4					1.6	NO		db		
26	FUNCTION1 PFK	24.75	1.089e4					0.8	NO		bd		
27	FUNCTION1 PFK	24.32	1.402e4					0.9	NO		bb		
28	FUNCTION1 PFK	24.23	4.155e4					1.9	NO		bb		
29	FUNCTION1 PFK	23.72	9.138e3					0.7	NO		bb		
30	FUNCTION1 PFK	23.54	4.319e3					0.5	NO		bb		
31	FUNCTION1 PFK	28.04	3.665e5					8.2	YES		db		
32	FUNCTION1 PFK	27.91	1.429e6					13.9	YES		bd		
33	FUNCTION1 PFK	27.32	3.879e6					11.3	YES		db		
34	FUNCTION1 PFK	27.17	2.794e5					7.9	YES		dd		
35	FUNCTION1 PFK	27.11	2.942e5					6.5	YES		dd		
36	FUNCTION1 PFK	26.92	1.432e5					2.6	NO		bd		
37	FUNCTION1 PFK	26.53	3.210e3					0.4	NO		bb		

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**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	26.49	3.173e3					0.4	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.58	6.168e3					0.5	NO		bb		0.000
2	FUNCTION2 PFK	28.92	4.129e3					0.9	NO		bb		0.000
3	FUNCTION2 PFK	28.88	3.844e3					0.8	NO		bb		0.000
4	FUNCTION2 PFK	28.62	1.101e3					0.4	NO		bb		0.000
5	FUNCTION2 PFK	28.49	4.274e4					1.9	NO		bb		0.000
6	FUNCTION2 PFK	28.34	2.135e3					0.7	NO		bb		0.000
7	FUNCTION2 PFK	28.30	2.438e3					0.6	NO		bb		0.000
8	FUNCTION2 PFK	32.77	1.179e3					0.5	NO		bb		0.000
9	FUNCTION2 PFK	32.58	9.462e2					0.4	NO		bb		0.000
10	FUNCTION2 PFK	31.76	2.341e4					1.8	NO		db		0.000
11	FUNCTION2 PFK	31.72	4.013e3					0.8	NO		bd		0.000
12	FUNCTION2 PFK	31.56	5.134e3					1.0	NO		bb		0.000
13	FUNCTION2 PFK	31.51	9.305e3					1.3	NO		bb		0.000
14	FUNCTION2 PFK	31.21	4.058e3					0.9	NO		bb		0.000
15	FUNCTION2 PFK	31.13	4.925e3					0.4	NO		bb		0.000
16	FUNCTION2 PFK	31.03	7.850e3					0.8	NO		bb		0.000
17	FUNCTION2 PFK	30.98	3.463e3					0.8	NO		bb		0.000
18	FUNCTION2 PFK	30.41	7.876e3					1.4	NO		bb		0.000
19	FUNCTION2 PFK	30.30	9.788e2					0.4	NO		bb		0.000
20	FUNCTION2 PFK	30.20	5.686e3					1.1	NO		db		0.000
21	FUNCTION2 PFK	30.17	4.950e3					0.9	NO		bd		0.000
22	FUNCTION2 PFK	29.97	4.619e3					1.0	NO		bb		0.000
23	FUNCTION2 PFK	29.93	2.134e3					0.6	NO		bb		0.000
24	FUNCTION2 PFK	32.80	9.559e2					0.4	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.37	2.149e5					9.6	YES		db		0.000
2	FUNCTION3 PFK	37.28	1.718e5					9.2	YES		bd		0.000
3	FUNCTION3 PFK	35.27	2.554e4					2.3	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.59	2.432e4					2.0	NO		bb		
2	FUNCTION4 PFK	39.41	6.352e2					0.4	NO		bb		
3	FUNCTION4 PFK	39.31	7.480e3					1.9	NO		db		
4	FUNCTION4 PFK	39.27	2.609e4					2.3	NO		bd		
5	FUNCTION4 PFK	39.01	1.702e4					2.3	NO		bb		
6	FUNCTION4 PFK	38.81	2.274e4					1.6	NO		bb		
7	FUNCTION4 PFK	38.66	5.539e3					1.2	NO		bb		
8	FUNCTION4 PFK	38.44	4.027e4					3.6	YES		bb		
9	FUNCTION4 PFK	38.17	2.903e4					2.5	NO		db		
10	FUNCTION4 PFK	38.05	9.441e3					2.3	NO		bd		
11	FUNCTION4 PFK	42.60	6.644e3					1.6	NO		db		
12	FUNCTION4 PFK	42.49	1.288e4					1.3	NO		bd		
13	FUNCTION4 PFK	42.42	5.143e3					1.1	NO		db		
14	FUNCTION4 PFK	42.35	2.363e3					0.8	NO		bd		
15	FUNCTION4 PFK	42.29	3.305e3					0.9	NO		bb		
16	FUNCTION4 PFK	42.17	1.152e4					1.8	NO		bb		
17	FUNCTION4 PFK	42.04	6.819e3					0.9	NO		bb		
18	FUNCTION4 PFK	41.88	2.591e3					0.9	NO		bb		
19	FUNCTION4 PFK	41.31	1.254e4					1.7	NO		bb		
20	FUNCTION4 PFK	41.20	2.347e3					0.6	NO		bb		
21	FUNCTION4 PFK	41.01	8.547e2					0.5	NO		bb		
22	FUNCTION4 PFK	40.76	8.654e2					0.5	NO		bb		
23	FUNCTION4 PFK	40.19	6.062e3					1.2	NO		bb		
24	FUNCTION4 PFK	39.88	1.105e4					2.4	NO		db		
25	FUNCTION4 PFK	39.83	1.349e4					2.6	NO		dd		
26	FUNCTION4 PFK	39.76	3.545e4					3.1	YES		bd		
27	FUNCTION4 PFK	42.89	4.802e3					0.9	NO		bb		
28	FUNCTION4 PFK	42.85	3.882e3					1.1	NO		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													



Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

## ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.00	8.809e1					3.0	YES		bb		0.000
2	FUNCTION1 HXCD...	26.89	2.865e2					7.3	YES		bb		0.000
3	FUNCTION1 HXCD...	26.24	7.176e2					17.1	YES		bb		0.000
4	FUNCTION1 HXCD...	26.02	7.226e2					20.1	YES		db		0.000
5	FUNCTION1 HXCD...	25.85	4.178e2					10.2	YES		bd		0.000
6	FUNCTION1 HXCD...	25.20	2.957e2					7.3	YES		bb		0.000
7	FUNCTION1 HXCD...	23.86	5.968e2					16.2	YES		db		0.000
8	FUNCTION1 HXCD...	23.78	8.166e1					2.8	NO		dd		0.000
9	FUNCTION1 HXCD...	23.70	1.186e2					2.9	NO		bd		0.000
10	FUNCTION1 HXCD...	21.84	1.103e2					1.7	NO		bb		0.000

## ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	21.22	9.000e1					2.3	NO		bb		0.000
2	FUNCTION1 HPCD...	26.94	8.686e1					2.0	NO		bb		0.000
3	FUNCTION1 HPCD...	25.20	1.013e2					4.1	YES		bb		0.000
4	FUNCTION1 HPCD...	24.94	8.743e1					1.8	NO		bb		0.000
5	FUNCTION1 HPCD...	22.15	9.809e1					2.2	NO		bb		0.000

## ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.30	3.174e2					5.9	YES		bb		0.000
2	FUNCTION2 HPCD...	30.03	1.175e2					2.5	NO		bb		0.000
3	FUNCTION2 HPCD...	29.07	4.503e2					9.8	YES		bb		0.000

## ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.55	8.317e1					1.6	NO		bb		0.000
2	FUNCTION3 OCDPE	36.82	7.515e1					3.9	YES		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:08 Pacific Standard Time

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.63	8.448e1					3.4	YES		bb		0.000
2	FUNCTION4 NCDPE	39.18	9.802e1					2.9	NO		bb		0.000
3	FUNCTION4 NCDPE	38.50	6.071e3					168.0	YES		bb		0.000

**ETHERS6**

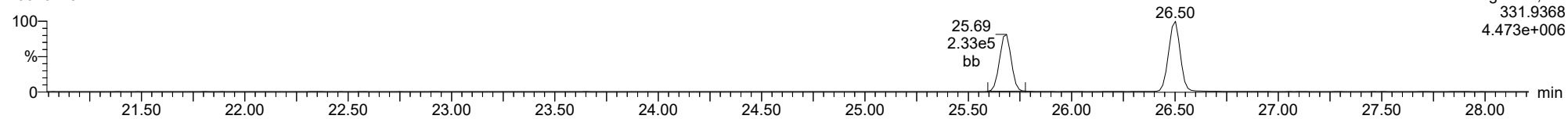
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

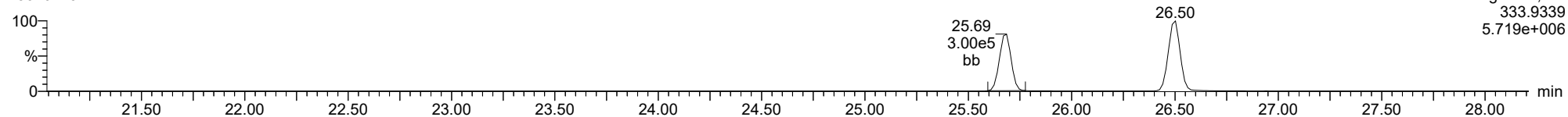
23020729



F1:Voltage SIR,El+  
331.9368  
4.473e+006

**13C-1234-TCDD**

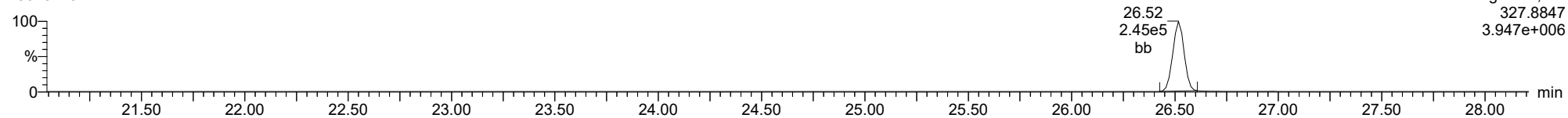
23020729



F1:Voltage SIR,El+  
333.9339  
5.719e+006

**37CL-2378-TCDD**

23020729

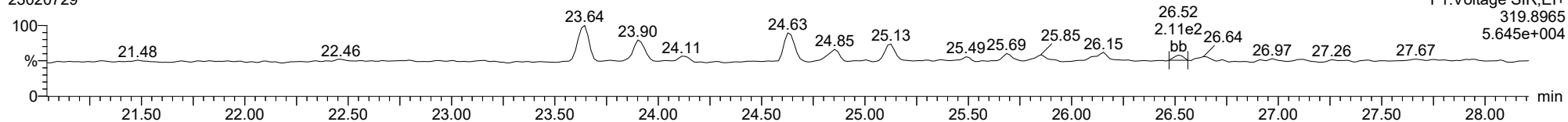


F1:Voltage SIR,El+  
327.8847  
3.947e+006

ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

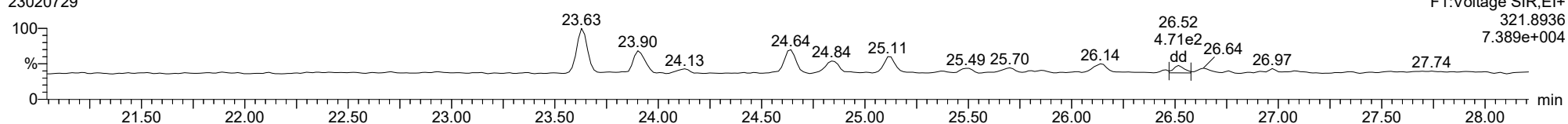
**2378-TCDD**

23020729



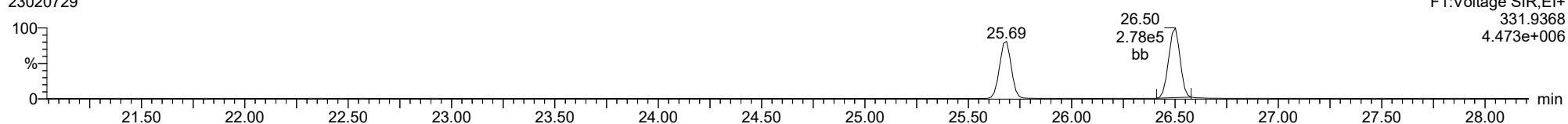
**2378-TCDD**

23020729



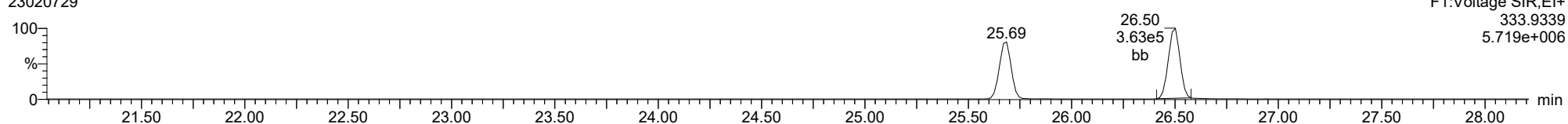
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23020729



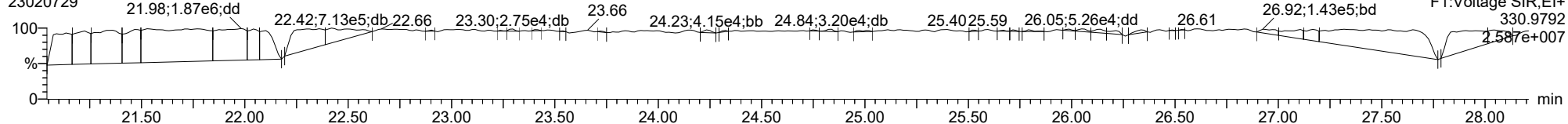
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23020729



**FUNCTION1 PFK**

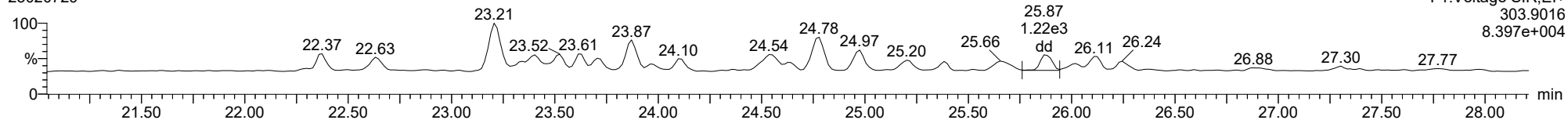
23020729



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

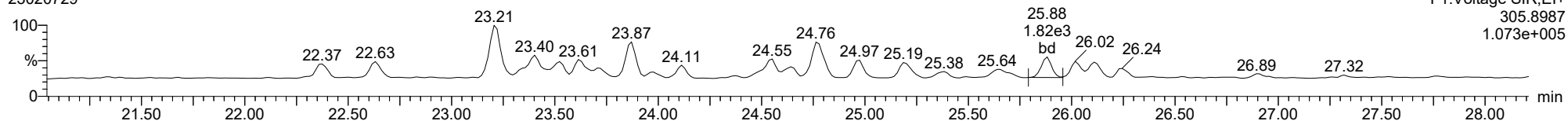
**2378-TCDF**

23020729



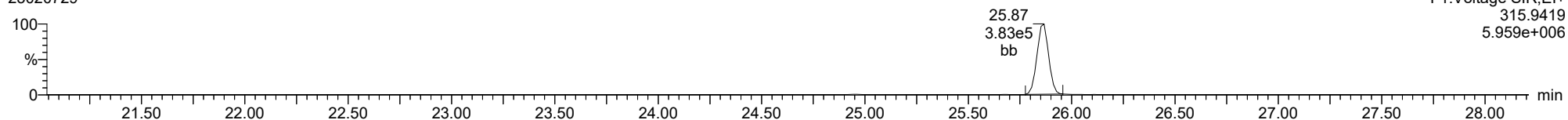
**2378-TCDF**

23020729



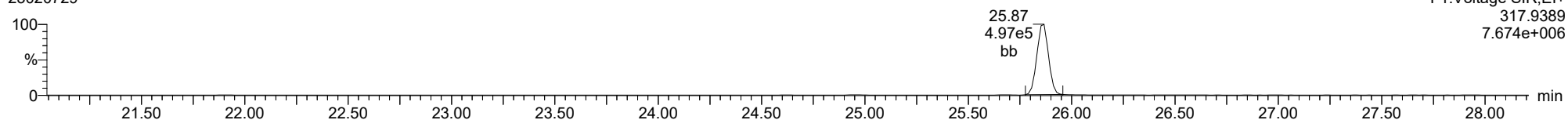
**13C-2378-TCDF**

23020729



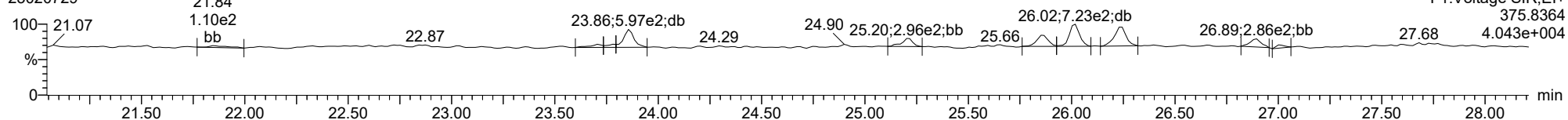
**13C-2378-TCDF**

23020729



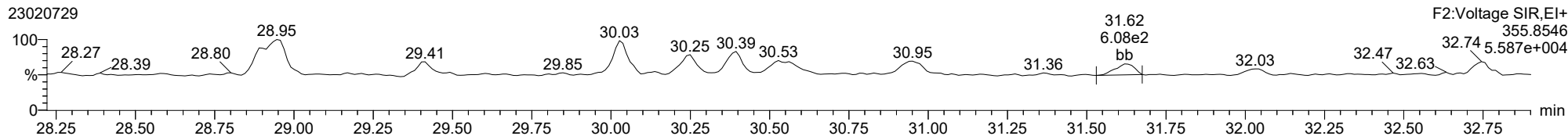
**FUNCTION1 HXCDPE**

23020729

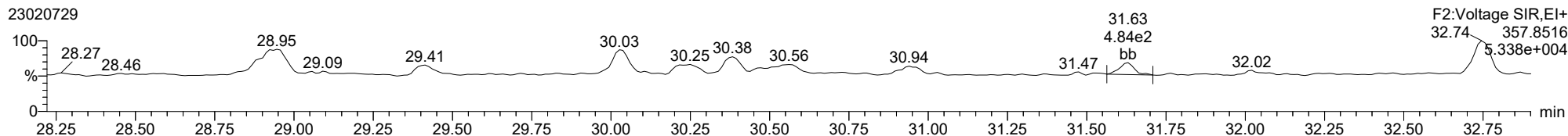


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

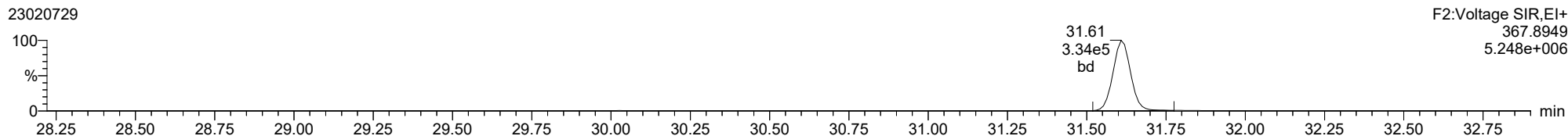
**12378-PeCDD**



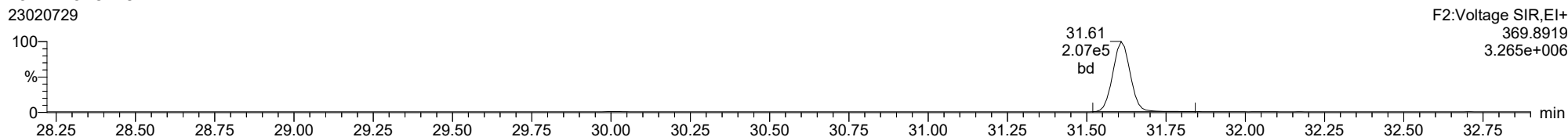
**12378-PeCDD**



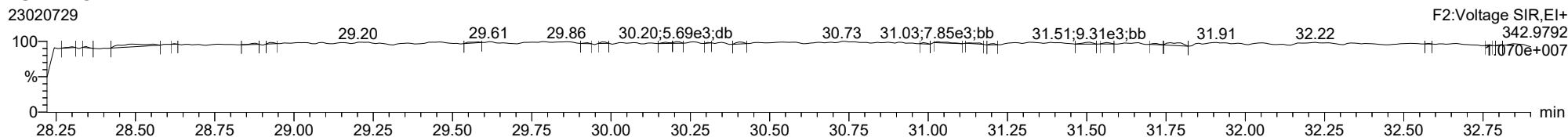
**13C-12378-PeCDD**



**13C-12378-PeCDD**

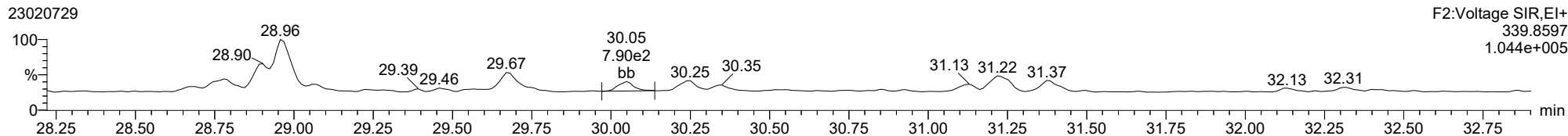


**FUNCTION2 PFK**

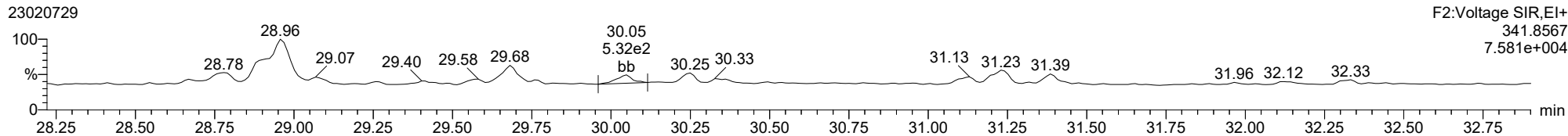


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

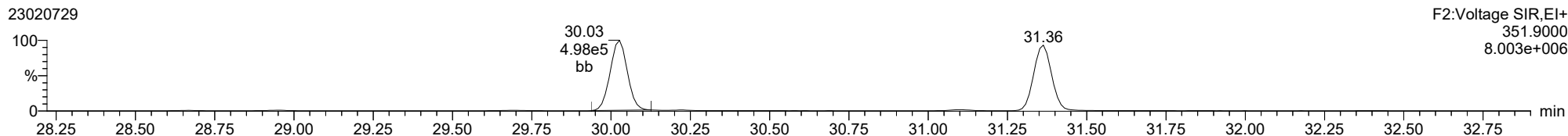
**12378-PeCDF**



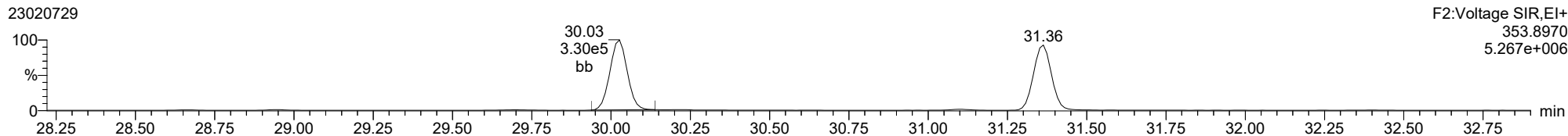
**12378-PeCDF**



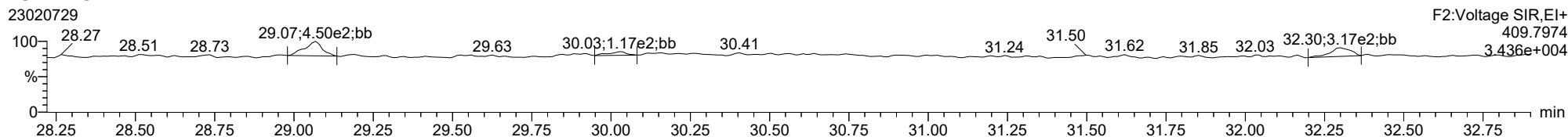
**13C-12378-PeCDF**



**13C-12378-PeCDF**



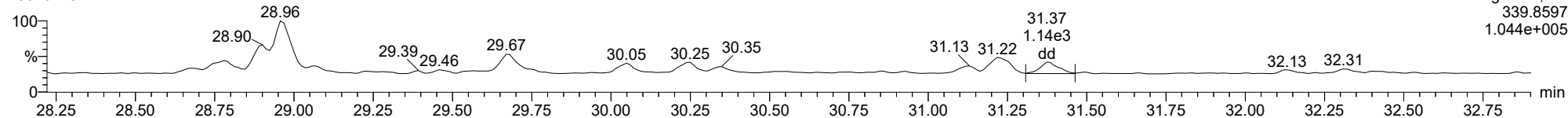
**FUNCTION2 HPCDPE**



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

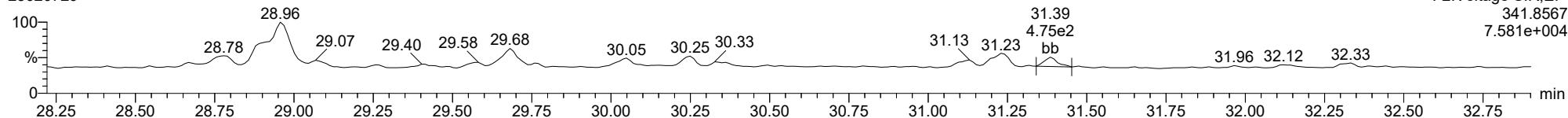
**23478-PeCDF**

23020729



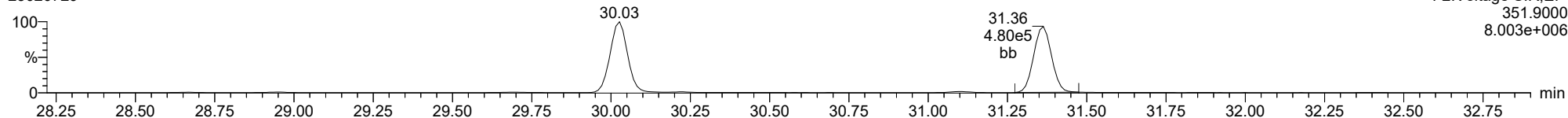
**23478-PeCDF**

23020729



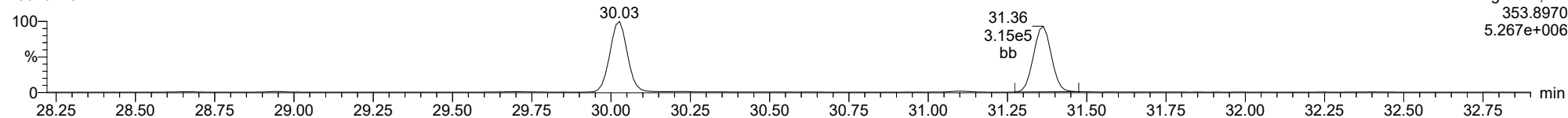
**13C-23478-PeCDF**

23020729



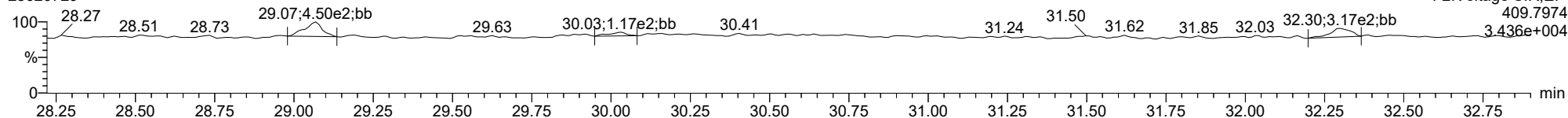
**13C-23478-PeCDF**

23020729



**FUNCTION2 HPCDPE**

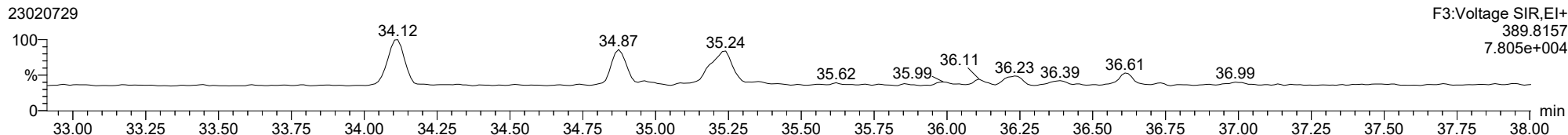
23020729



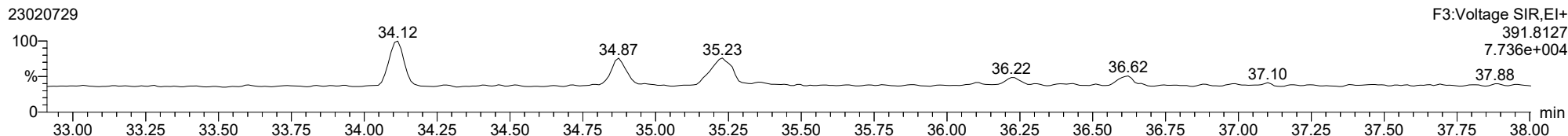


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

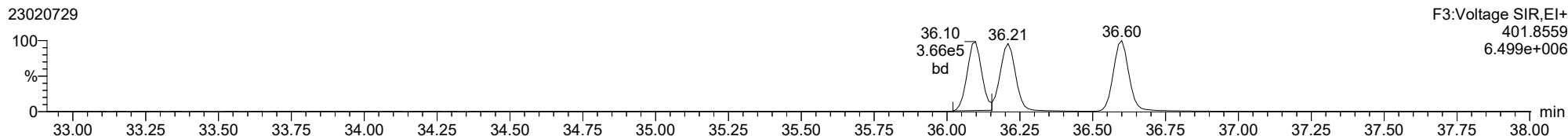
123478-HxCDD



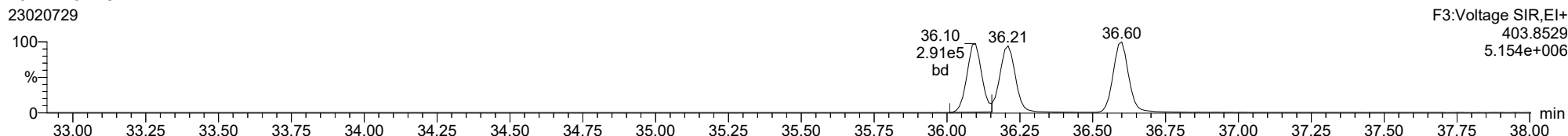
123478-HxCDD



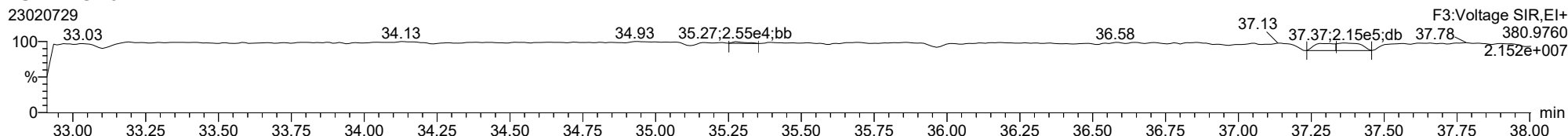
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13C-123478-HxCDD



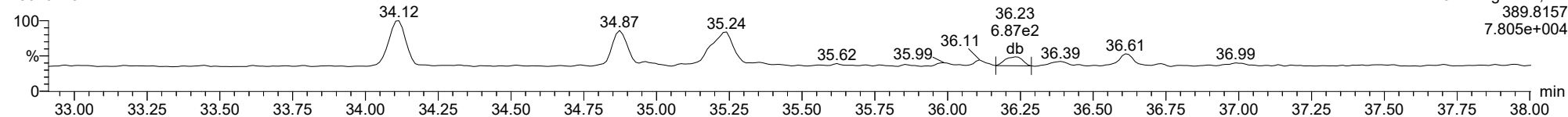
FUNCTION3 PFK



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

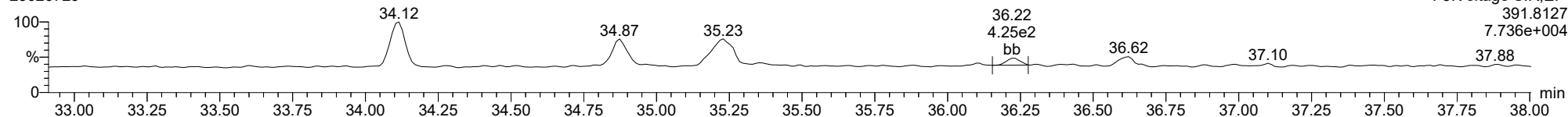
**123678-HxCDD**

23020729



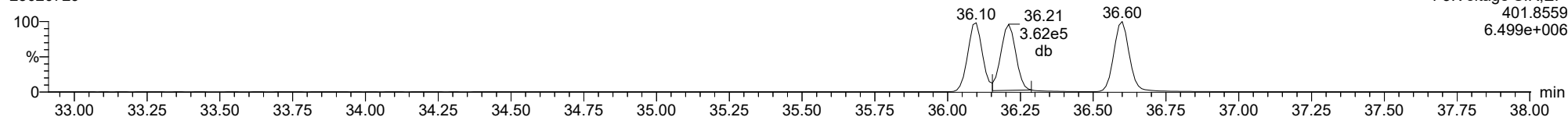
**123678-HxCDD**

23020729



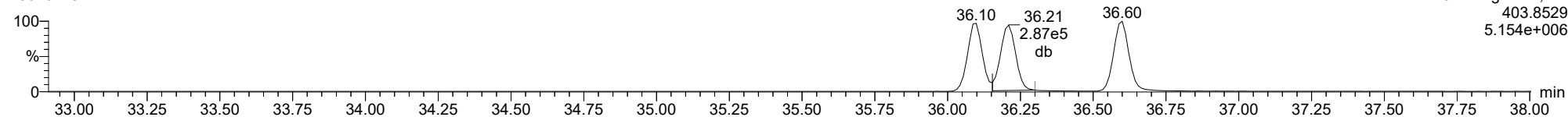
**13C-123678-HxCDD**

23020729



**13C-123678-HxCDD**

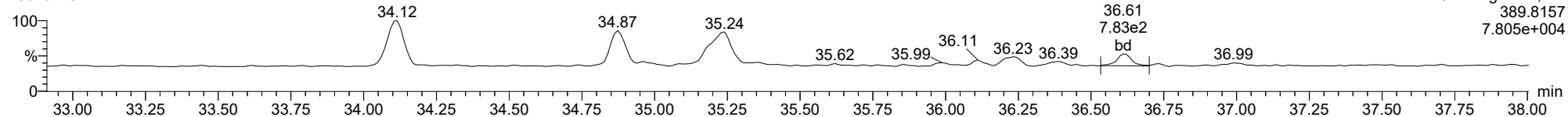
23020729



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

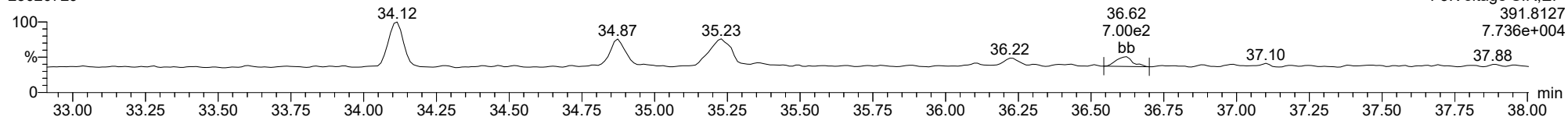
**123789-HxCDD**

23020729



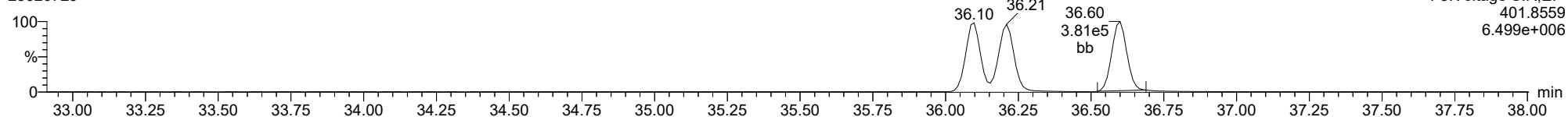
**123789-HxCDD**

23020729



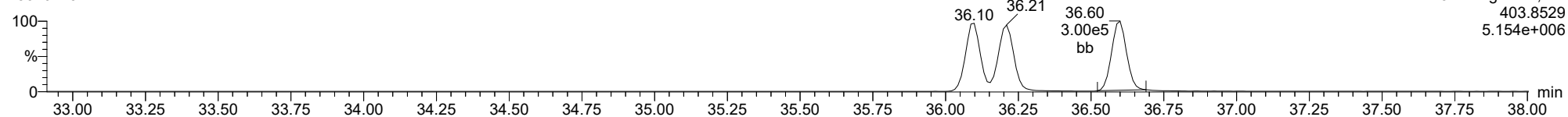
**13C-123789-HxCDD**

23020729



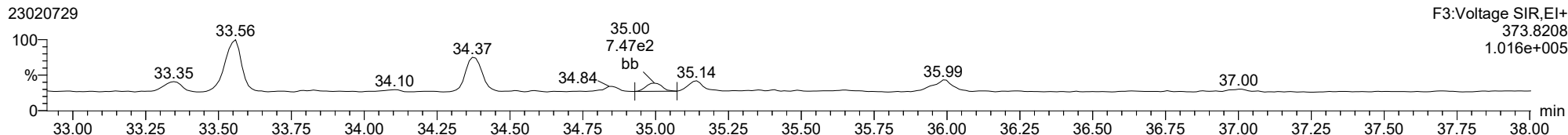
**13C-123789-HxCDD**

23020729

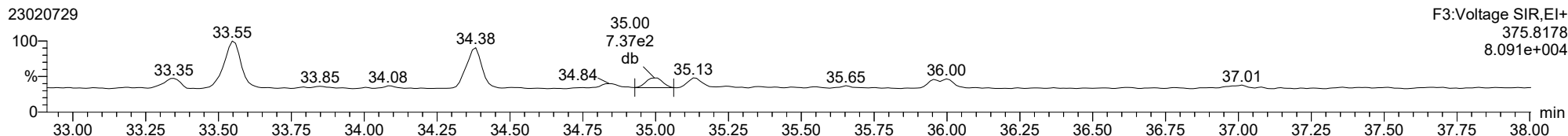


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

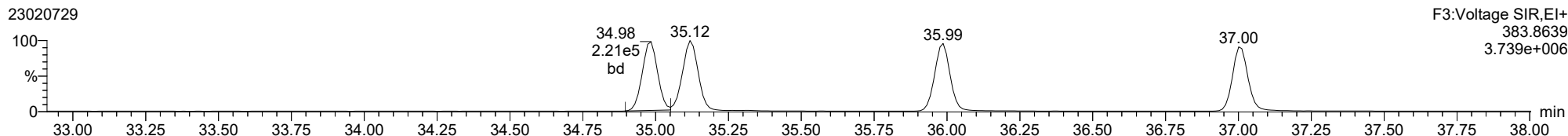
**123478-HxCDF**



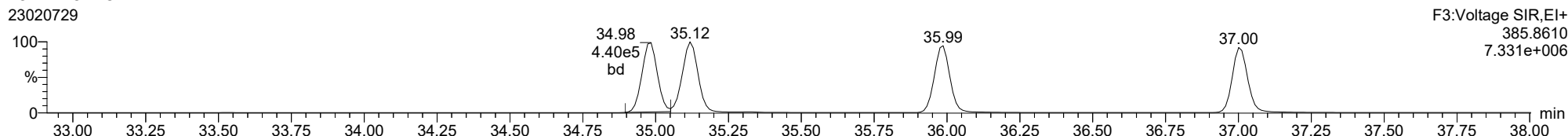
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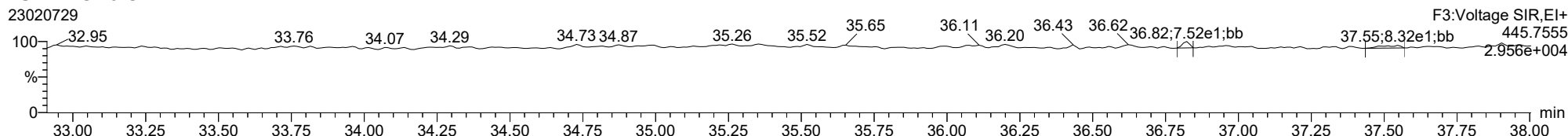
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**13C-123478-HxCDF**



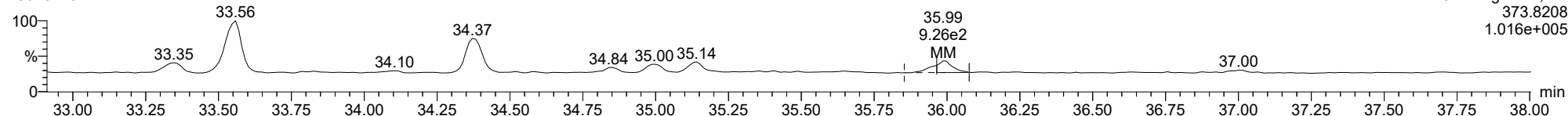
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ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

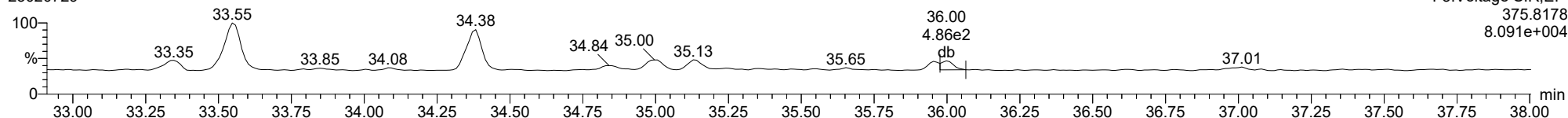
**234678-HxCDF**

23020729



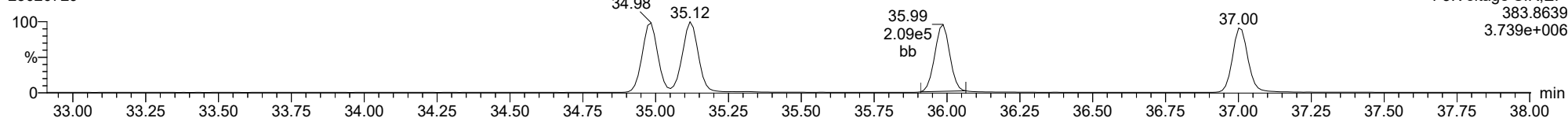
**234678-HxCDF**

23020729



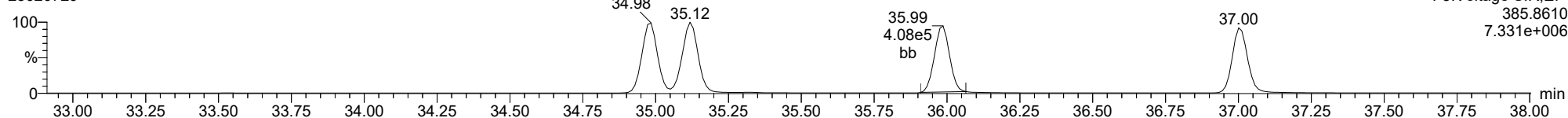
**13C-234678-HxCDF**

23020729



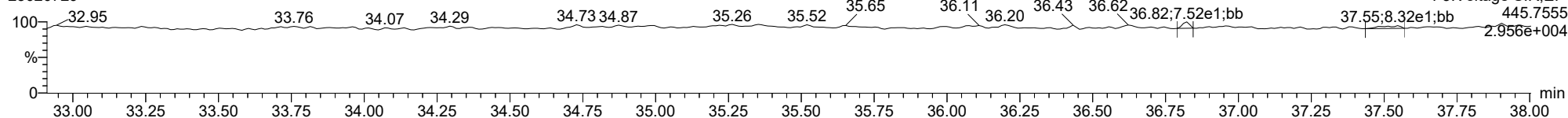
**13C-234678-HxCDF**

23020729



**FUNCTION3 OCDPE**

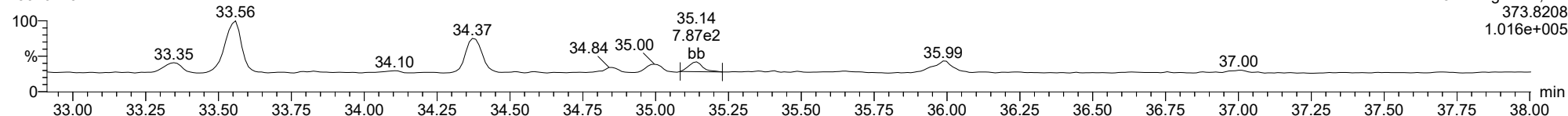
23020729



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

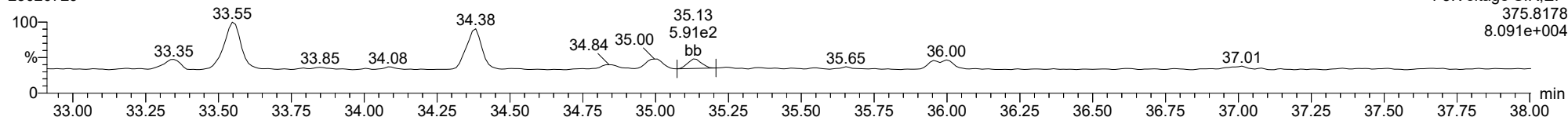
**123678-HxCDF**

23020729



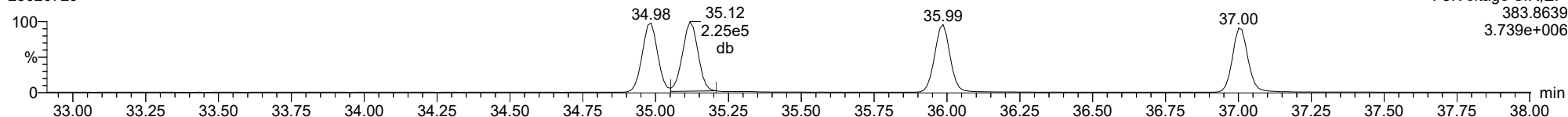
**123678-HxCDF**

23020729



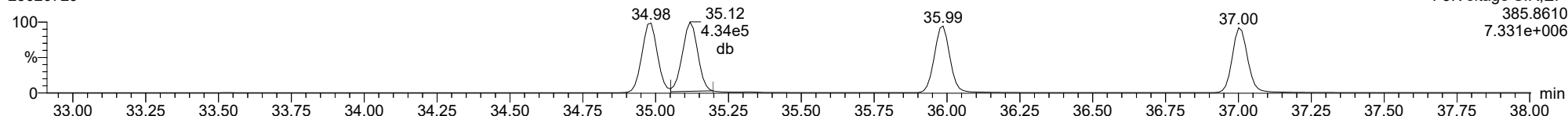
**13C-123678-HxCDF**

23020729



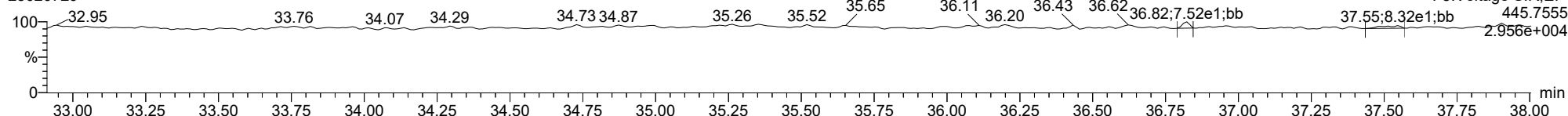
**13C-123678-HxCDF**

23020729



**FUNCTION3 OCDPE**

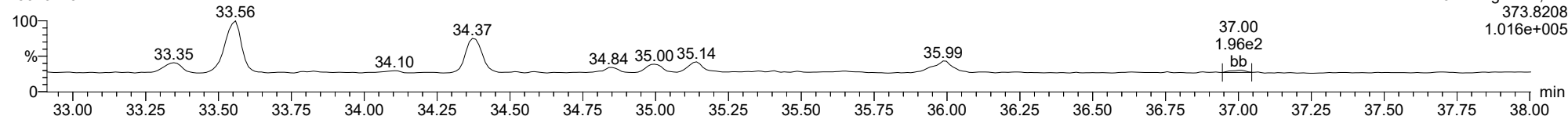
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ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

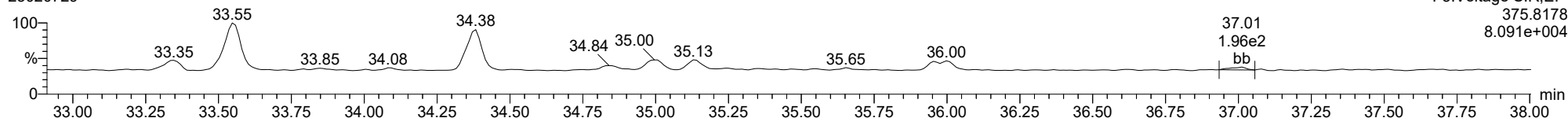
**123789-HxCDF**

23020729



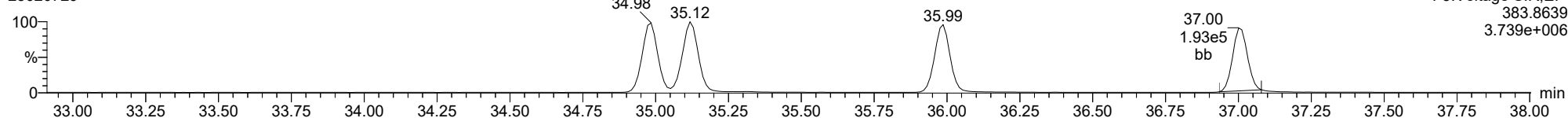
**123789-HxCDF**

23020729



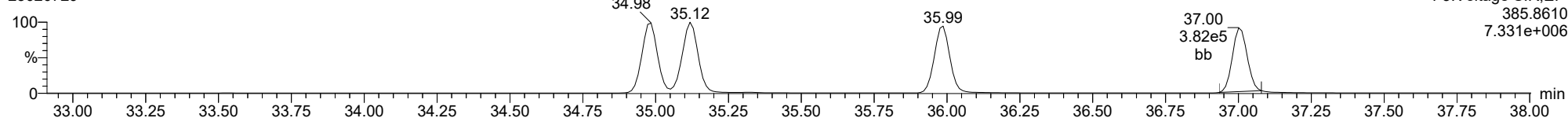
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23020729



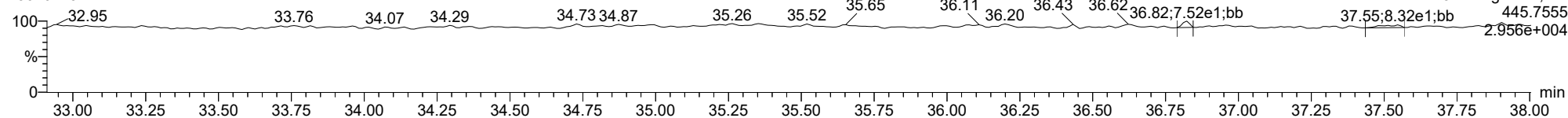
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23020729



**FUNCTION3 OCDPE**

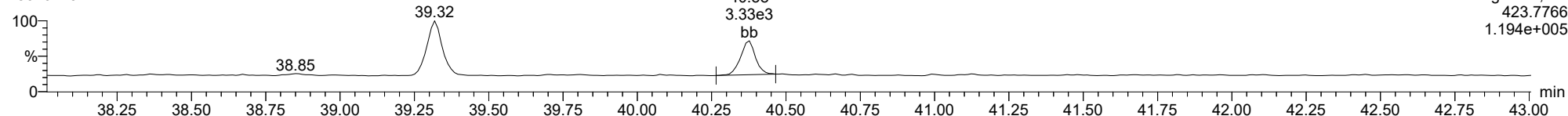
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ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

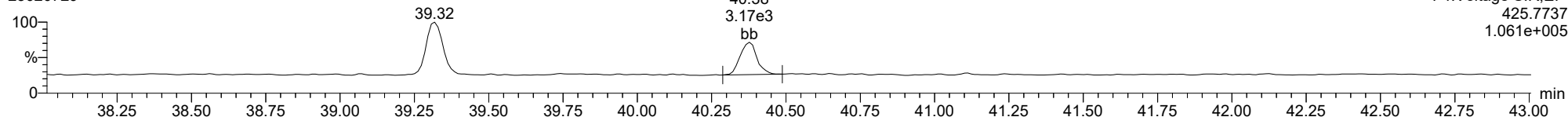
**1234678-HpCDD**

23020729



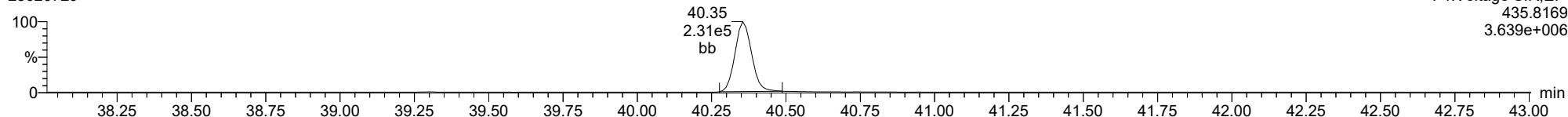
**1234678-HpCDD**

23020729



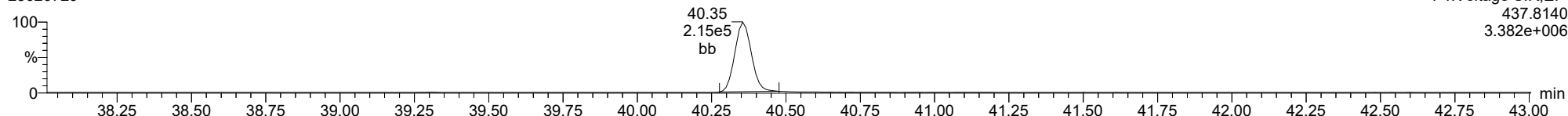
**13C-1234678-HpCDD**

23020729



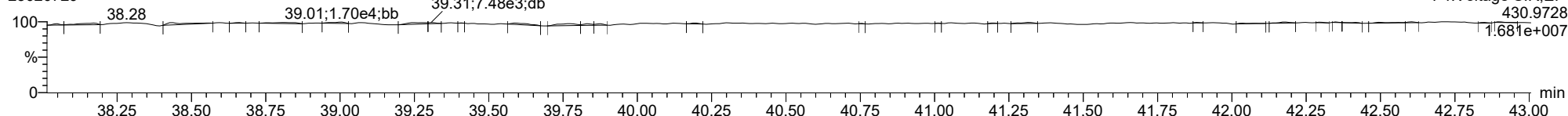
**13C-1234678-HpCDD**

23020729



**FUNCTION4 PFK**

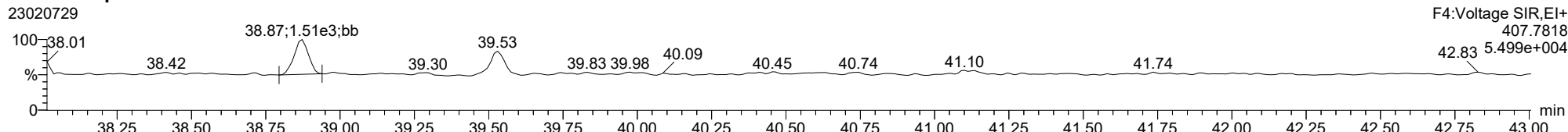
23020729



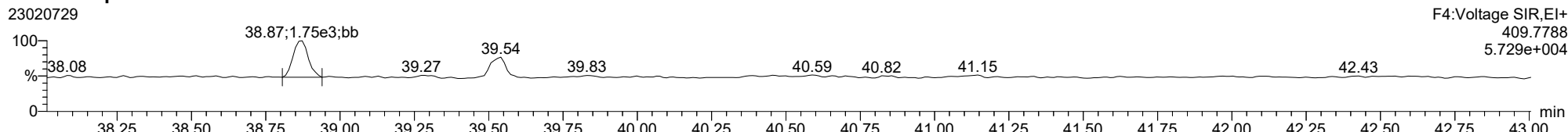


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

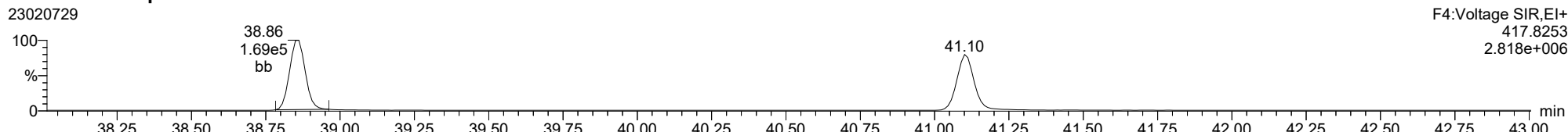
1234678-HpCDF



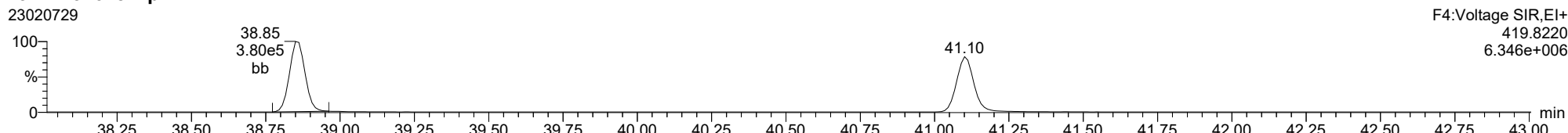
1234678-HpCDF



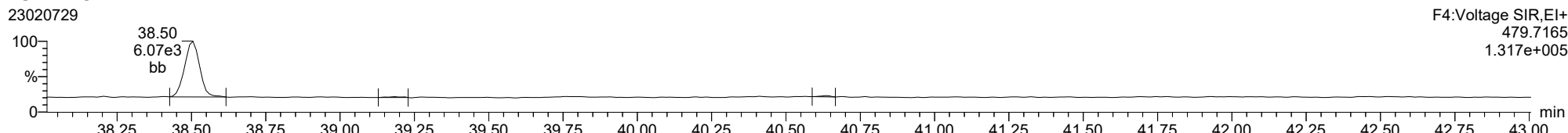
13C-1234678-HpCDF



13C-1234678-HpCDF



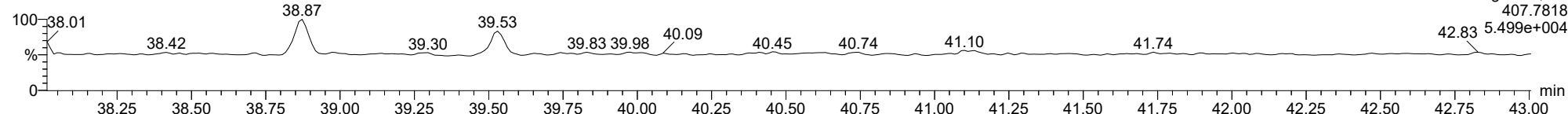
FUNCTION4 NCDPE



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

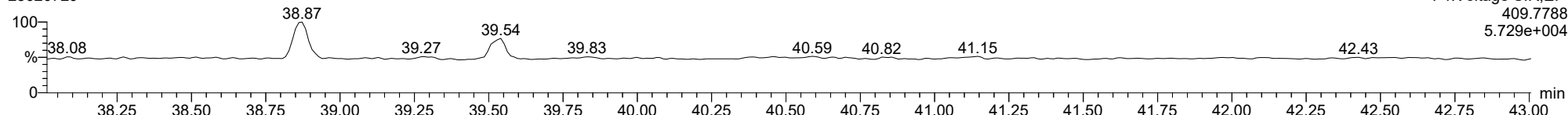
1234789-HpCDF

23020729



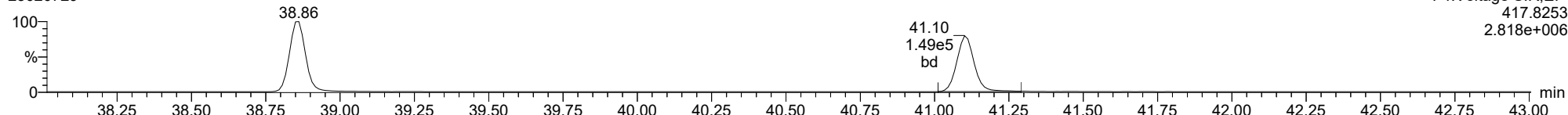
1234789-HpCDF

23020729



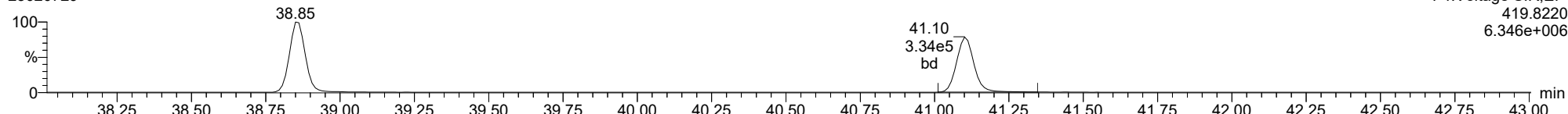
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23020729



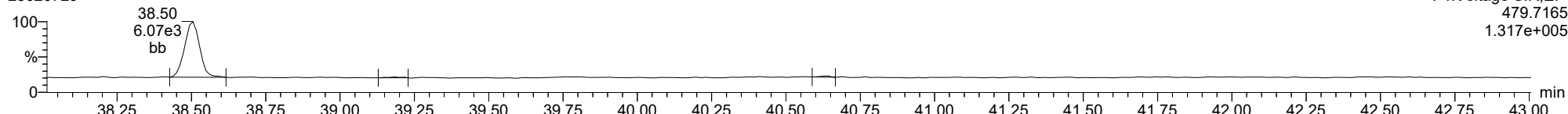
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23020729



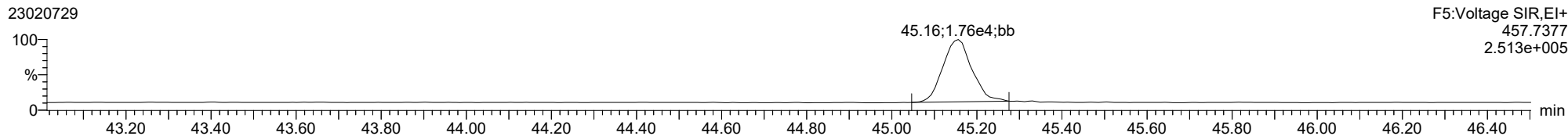
FUNCTION4 NCDPE

23020729

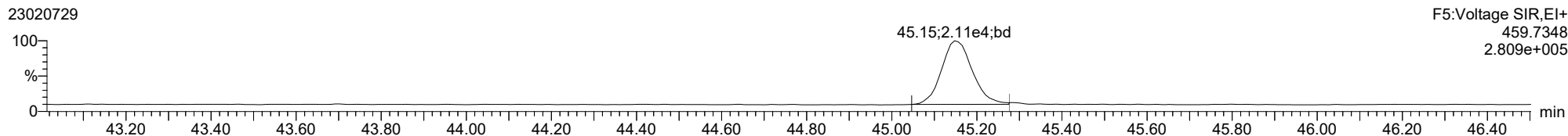


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

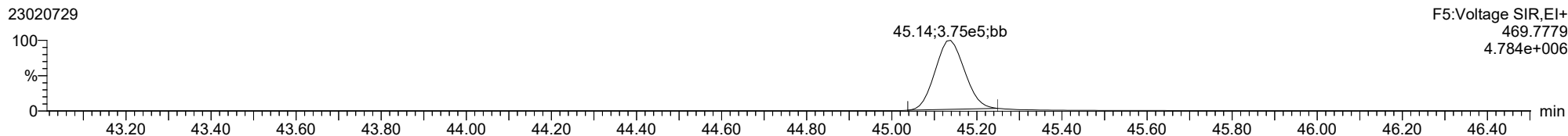
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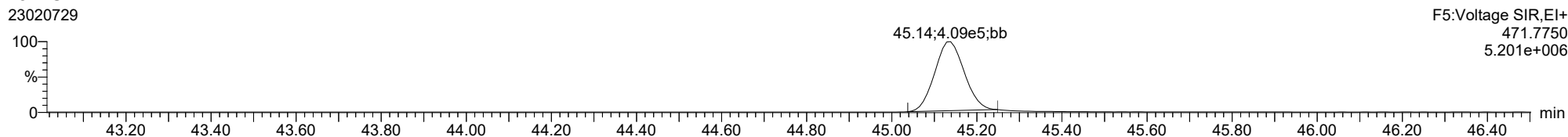
**OCDD**



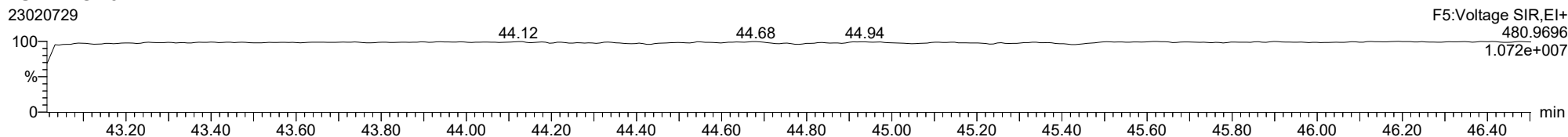
**13C-OCDD**



**13C-OCDD**



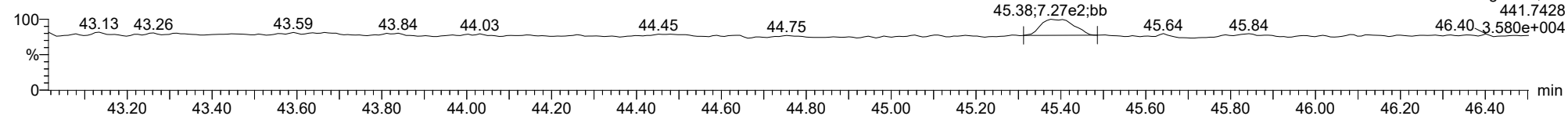
**FUNCTIONS PFK**



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

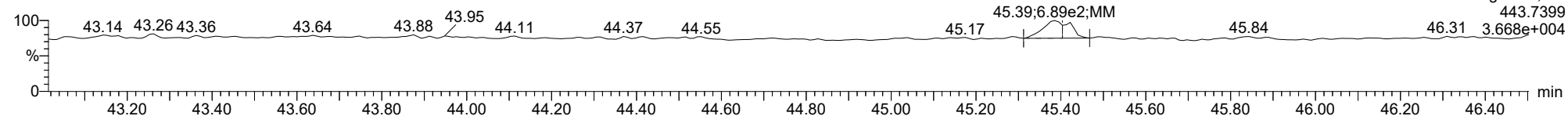
**OCDF**

23020729



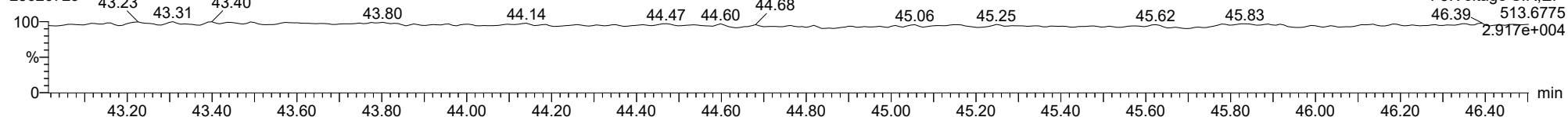
**OCDF**

23020729



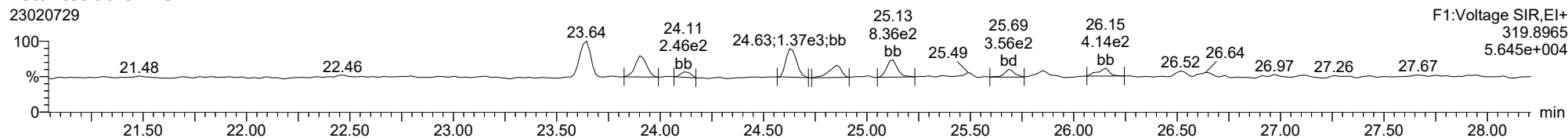
**FUNCTION5 DCDPE**

23020729

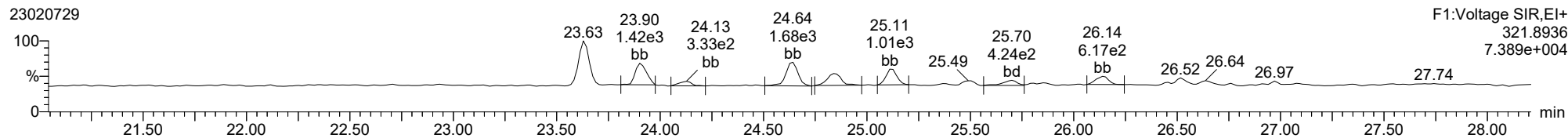


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

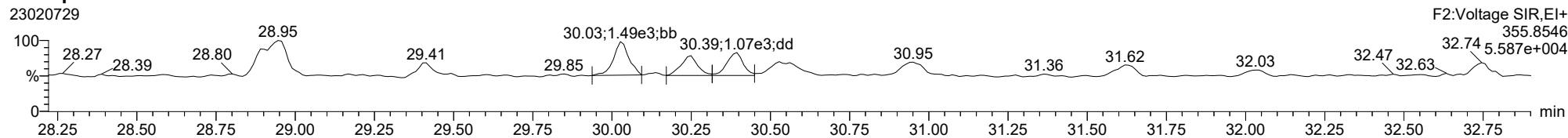
**Total-tetradoxins**



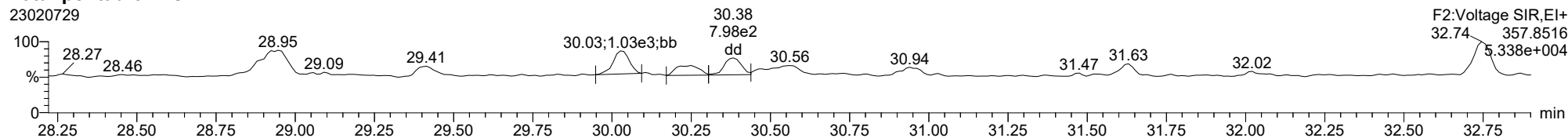
**Total-tetradoxins**



**Total-pentadoxins**



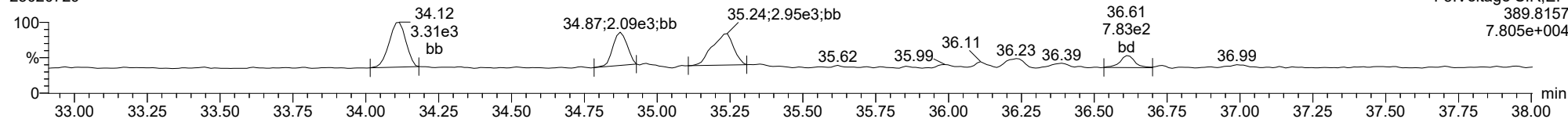
**Total-pentadoxins**



ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

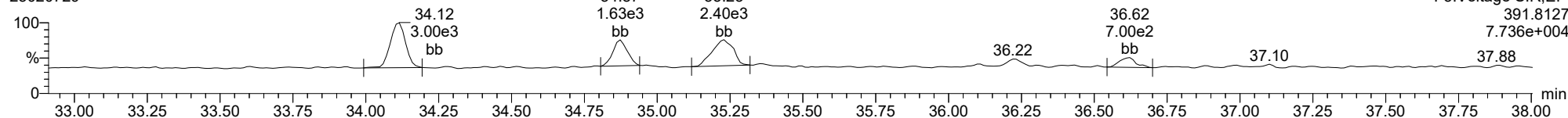
### Total-hexadioxins

23020729



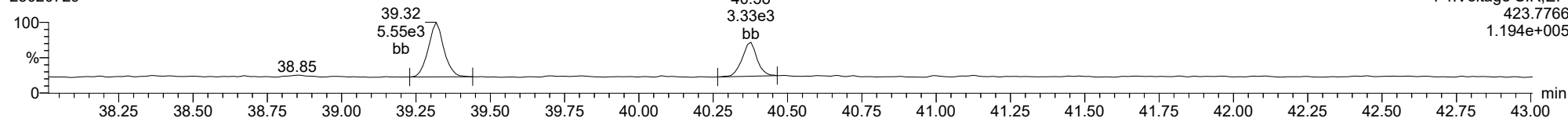
### Total-hexadioxins

23020729



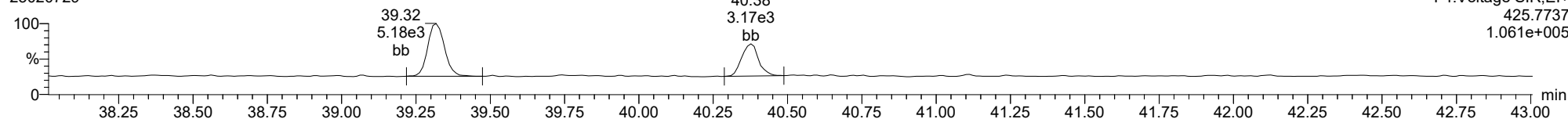
### Total-heptadioxins

23020729



### Total-heptadioxins

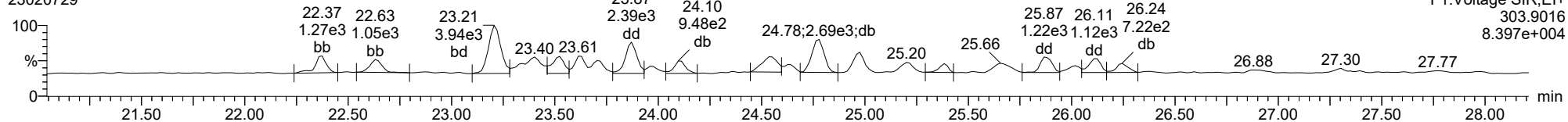
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ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

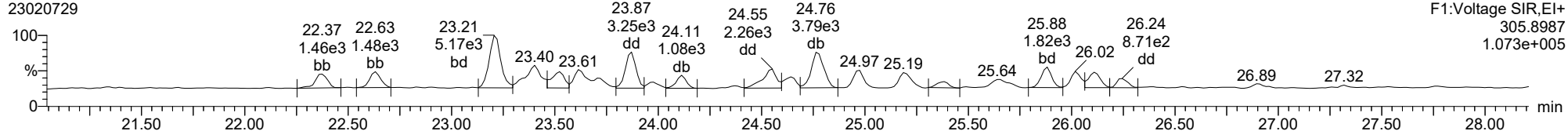
**Total-tetrafurans**

23020729



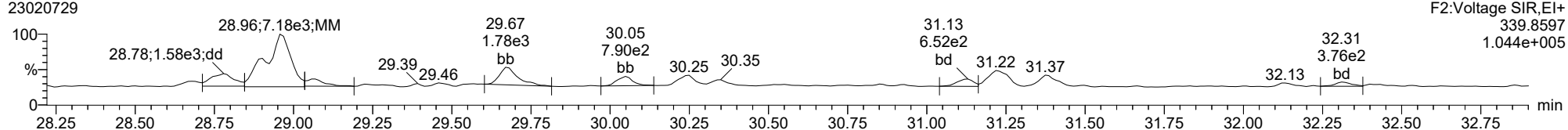
**Total-tetrafurans**

23020729



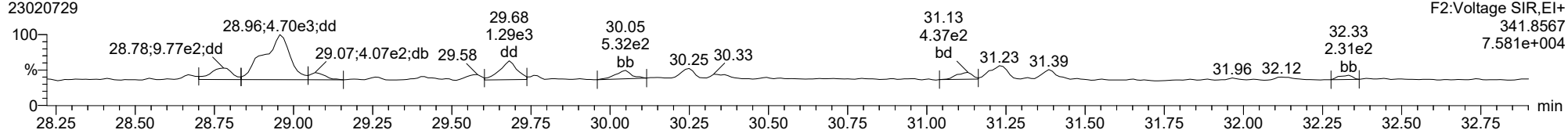
**Total-pentafurans**

23020729



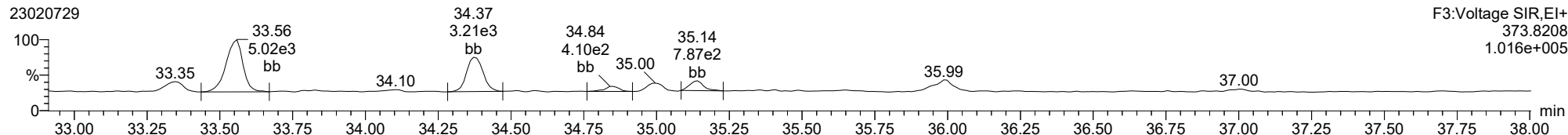
**Total-pentafurans**

23020729

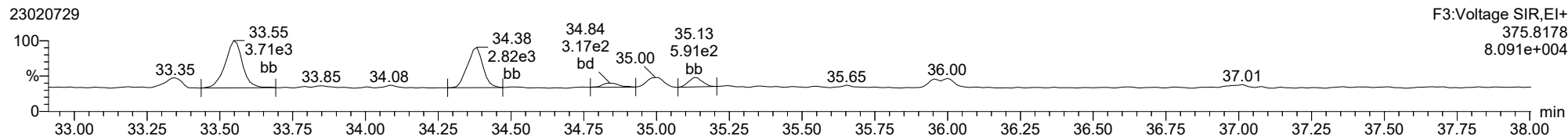


ID: 22L0307-31, Name: 23020729, Date: 08-Feb-2023, Time: 08:17:45, Conditions: AUTOSPEC01, User: pk

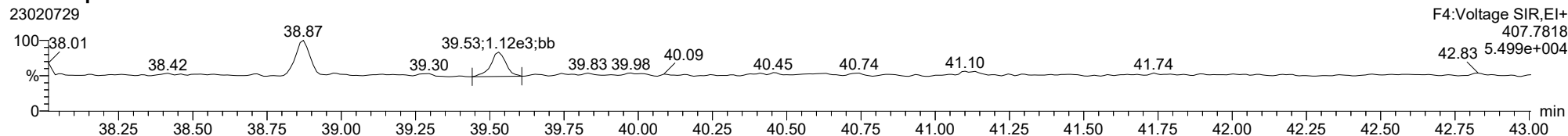
**Total-hexafurans**



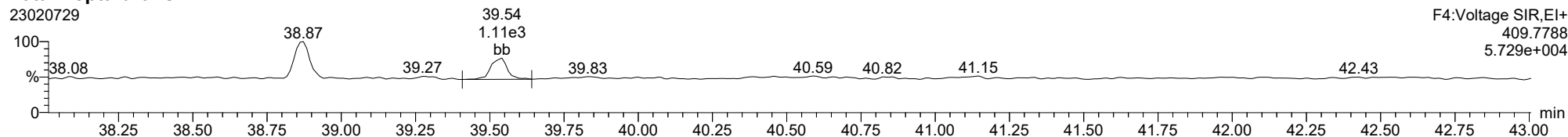
**Total-hexafurans**



**Total-heptafurans**



**Total-heptafurans**







Form 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-32 A File ID: 23020730  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 09:07  
 % Solids: 61.77 Preparation: EPA 8290 Initial/Final: 16.2 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.743	0.655-0.886	0.256	0.999	1.84	ng/kg	X
1746-01-6	2,3,7,8-TCDD	1		0.655-0.886	0.225	0.999	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	1.421	1.318-1.783	0.191	0.999	0.263	ng/kg	J
57117-31-4	2,3,4,7,8-PeCDF	1	1.490	1.318-1.783	0.190	0.999	0.325	ng/kg	J
40321-76-4	1,2,3,7,8-PeCDD	1		1.318-1.783	0.605	0.999	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.340	1.054-1.426	0.091	0.999	0.333	ng/kg	J
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.598	1.054-1.426	0.086	0.999	0.399	ng/kg	EMPC, J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.581	1.054-1.426	0.089	0.999	0.435	ng/kg	EMPC, J
72918-21-9	1,2,3,7,8,9-HxCDF	1		1.054-1.426	0.099	0.999	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1		1.054-1.426	0.128	0.999	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.306	1.054-1.426	0.122	0.999	0.348	ng/kg	J
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.157	1.054-1.426	0.127	0.999	0.429	ng/kg	J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.951	0.893-1.208	0.117	0.999	1.30	ng/kg	
55673-89-7	1,2,3,4,7,8,9-HpCDF	1		0.893-1.208	0.154	0.999	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.155	0.893-1.208	0.192	2.50	2.06	ng/kg	J, B
39001-02-0	OCDF	1	1.077	0.757-1.024	0.232	2.50	0.951	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.863	0.757-1.024	0.224	9.99	15.3	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	15.2	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	0.565	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	16.8	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	5.79	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	3.06	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	2.33	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	4.77	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.522  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.949



**Form 2**  
**ORGANIC ANALYSIS DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0307-32</u>
Sampled:	<u>12/12/22 09:46</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>61.77</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23020730</u>
		Analyzed:	<u>02/08/23 09:07</u>
		Initial/Final:	<u>16.2 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.794	0.655-0.886	0.244	86.8	24 - 169 %	
13C12-2,3,7,8-TCDD		0.782	0.655-0.886	0.300	101	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.538	1.318-1.783	0.198	91.6	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.534	1.318-1.783	0.206	92.2	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.611	1.318-1.783	0.190	100	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.503	0.434-0.587	0.141	84.8	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.511	0.434-0.587	0.137	85.8	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.506	0.434-0.587	0.146	84.8	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.508	0.434-0.587	0.160	84.3	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.277	1.054-1.426	0.179	98.9	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.270	1.054-1.426	0.173	97.1	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.441	0.374-0.506	0.147	76.0	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.448	0.374-0.506	0.168	79.4	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.082	0.893-1.208	0.203	80.5	23 - 140 %	
13C12-OCDD		0.908	0.757-1.024	0.204	73.1	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000		0.111	90.5	35 - 197 %	

\* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** 22L0307-32, **Name:** 23020730, **Date:** 08-Feb-2023, **Time:** 09:07:11, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	2.407e3	3.242e3	0.876	0.743	0.770	1797	2349	3.43e4	4.91e4	19.1	20.9	NO	bd	bd	0.922
12378-PeCDF	30.048	1.001	4.156e2	2.924e2	0.845	1.421	1.550	1537	1246	6.89e3	5.91e3	4.5	4.7	NO	bb	MM	0.131
23478-PeCDF	31.385	1.001	5.460e2	3.663e2	0.911	1.490	1.550	1537	1246	1.01e4	6.81e3	6.6	5.5	NO	db	bb	0.163
123478-HxCDF	34.995	1.000	5.767e2	4.304e2	1.182	1.340	1.240	752	764	9.89e3	7.60e3	13.2	10.0	NO	dd	bd	0.167
234678-HxCDF	35.998	1.000	8.047e2	5.089e2	1.229	1.581	1.240	752	764	1.20e4	8.71e3	15.9	11.4	YES	db	MM	0.217
123678-HxCDF	35.140	1.001	8.119e2	5.081e2	1.248	1.598	1.240	752	764	1.16e4	8.19e3	15.4	10.7	YES	db	db	0.200
123789-HxCDF					1.187		1.240	752	764								
1234678-HpCDF	38.873	1.000	1.719e3	1.808e3	1.204	0.951	1.050	975	843	2.98e4	2.77e4	30.6	32.8	NO	bb	bb	0.651
1234789-HpCDF					1.165		1.050	975	843								
OCDF	45.376	1.005	9.638e2	8.945e2	1.186	1.077	0.890	928	918	1.19e4	1.25e4	12.9	13.7	YES	bb	MM	0.476
2378-TCDD					1.236		0.770	1813	1914								
12378-PeCDD					1.087		1.550	5538	1472								
123478-HxCDD					0.987		1.240	905	951								
123678-HxCDD	36.221	1.000	5.380e2	4.119e2	1.021	1.306	1.240	905	951	7.73e3	6.48e3	8.5	6.8	NO	bb	bb	0.174
123789-HxCDD	36.611	1.011	6.019e2	5.203e2	0.985	1.157	1.240	905	951	1.01e4	7.15e3	11.2	7.5	NO	bb	bb	0.214
1234678-HpCDD	40.376	1.001	2.486e3	2.151e3	1.253	1.155	1.050	1294	953	3.98e4	3.41e4	30.7	35.8	NO	bb	bb	1.029
OCDD	45.138	1.000	1.289e4	1.493e4	1.103	0.863	0.890	793	861	1.55e5	1.74e5	195.1	202.2	NO	bb	bb	7.663
13C-2378-TCDF	25.867	1.007	3.094e5	3.899e5	1.768	0.794	0.770	2834	2349	4.90e6	6.14e6	1728.6	2616.0	NO	bb	bb	86.796
13C-12378-PeCDF	30.026	1.169	3.864e5	2.513e5	1.527	1.538	1.550	1443	2183	6.26e6	4.07e6	4342.3	1862.9	NO	bb	bb	91.643
13C-23478-PeCDF	31.363	1.221	3.730e5	2.432e5	1.466	1.534	1.550	1443	2183	5.85e6	3.83e6	4052.5	1755.4	NO	bb	bb	92.221
13C-123478-HxCDF	34.984	0.956	1.709e5	3.398e5	1.054	0.503	0.510	1094	1264	2.84e6	5.59e6	2598.1	4421.3	NO	bd	bd	84.835
13C-123678-HxCDF	35.118	0.960	1.791e5	3.506e5	1.080	0.511	0.510	1094	1264	2.87e6	5.66e6	2625.6	4479.8	NO	db	db	85.832
13C-234678-HxCDF	35.987	0.983	1.653e5	3.264e5	1.014	0.506	0.510	1094	1264	2.79e6	5.48e6	2548.8	4332.3	NO	bb	bb	84.827
13C-123789-HxCDF	37.012	1.011	1.506e5	2.963e5	0.928	0.508	0.510	1094	1264	2.60e6	5.03e6	2372.8	3982.1	NO	bb	bb	84.281
13C-1234678-HpCDF	38.861	1.062	1.377e5	3.124e5	1.036	0.441	0.440	1095	1329	2.36e6	5.31e6	2157.6	3998.6	NO	bb	bb	76.033
13C-1234789-HpCDF	41.101	1.123	1.271e5	2.834e5	0.905	0.448	0.440	1095	1329	1.87e6	4.02e6	1712.2	3027.2	NO	bd	bb	79.384
13C-1234-TCDD	25.685	0.000	2.010e5	2.547e5	1.000	0.789	0.770	2193	1788	3.18e6	4.00e6	1449.5	2235.8	NO	bb	bb	100.000
13C-2378-TCDD	26.501	1.032	2.230e5	2.851e5	1.103	0.782	0.770	2193	1788	3.52e6	4.48e6	1606.0	2504.3	NO	bb	bb	101.107
13C-12378-PeCDD	31.619	1.231	2.581e5	1.602e5	0.914	1.611	1.550	1081	1006	3.94e6	2.46e6	3650.6	2445.1	NO	bb	bb	100.425
13C-123478-HxCDD	36.098	0.986	2.957e5	2.315e5	0.933	1.277	1.240	1510	1137	4.94e6	3.91e6	3269.5	3433.8	NO	bd	bd	98.883
13C-123678-HxCDD	36.210	0.989	2.994e5	2.357e5	0.965	1.270	1.240	1510	1137	5.01e6	3.97e6	3320.8	3492.1	NO	db	db	97.076
13C-1234678-HpCDD	40.354	1.103	1.870e5	1.728e5	0.782	1.082	1.050	1204	1323	2.91e6	2.70e6	2420.4	2037.9	NO	bb	bb	80.524
13C-OCDD	45.138	1.233	3.134e5	3.452e5	0.788	0.908	0.890	1496	1059	3.83e6	4.22e6	2560.4	3987.6	NO	bb	bb	146.224
13C-123789-HxCDD	36.599	0.000	3.182e5	2.532e5	1.000	1.257	1.240	1510	1137	5.31e6	4.23e6	3515.0	3721.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	2.034e5	1.233				1648		3.21e6		1945.1			bb		36.183

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.374	0.865	5.276e2	9.792e2	1.064	0.539	0.770	1797	2349	9.65e3	1.20e4	5.4	5.1	YES	db	db	0.202
1289-TCDF					0.858		0.770	1797	2349								
13468-PECDF					1.013		1.550	1522	1850								
12389-PECDF					0.844		1.550	1537	1246								
123468-HXCDF	33.346	0.953	1.076e3	6.902e2	1.197	1.558	1.240	752	764	1.71e4	1.16e4	22.8	15.2	YES	bd	bb	0.289
1368-TCDD	23.644	0.892	1.274e3	1.375e3	1.084	0.927	0.770	1813	1914	1.85e4	1.99e4	10.2	10.4	YES	bb	bb	0.481
1289-TCDD					0.975		0.770	1813	1914								
12479-PECDD					1.837		1.550	5538	1472								
12389-PECDD					1.252		1.550	5538	1472								
124679-HXCDD	34.104	0.945	2.180e3	1.799e3	1.033	1.212	1.240	905	951	3.48e4	2.84e4	38.5	29.8	NO	bb	bb	0.731
1234679-HPCDD	39.318	0.974	3.304e3	2.971e3	1.286	1.112	1.050	1294	953	5.79e4	4.87e4	44.8	51.1	NO	bb	bb	1.356
Total-tetrafurans			2.076e4		0.933			1797		3.24e5							7.617
Total-penta1			1.501e4					1522		2.23e5							4.321
Total-pentafurans			1.322e4		0.866			1537		1.99e5							4.093
Total-hexafurans			9.367e3		1.208			752		1.45e5							2.898
Total-heptafurans			3.127e3		1.185			975		5.55e4							1.164
Total-Furans			6.208e4		1.067			1797		9.61e5							20.286
Total-tetradoxins			6.639e2		1.099			1813		1.04e4							0.283
Total-pentadoxins			0.000e0		1.392			5538		0.00e0							
Total-hexadoxins			4.492e3		1.007			905		7.30e4							1.529
Total-heptadoxins			5.790e3		1.269			1294		9.76e4							2.385
Total-Dioxins			2.394e4		1.165			1813		3.39e5							11.905
Total-TEQ			8.602e4					1813		1.30e6							32.191
FUNCTION1 PFK			1.076e7					805713		8.52e7							
FUNCTION2 PFK			3.151e5					456625		1.11e7							0.000
FUNCTION3 PFK			8.870e6					317059		8.16e7							0.000
FUNCTION4 PFK			7.176e5					191460		1.46e7							
FUNCTION5 PFK			1.893e4					129999		8.56e5							
FUNCTION1 HXCD...			1.414e4					1363		2.42e5							0.000
FUNCTION1 HPCD...			6.652e3					1944		1.30e5							0.000
FUNCTION2 HPCD...			6.575e3					1215		1.11e5							0.000
FUNCTION3 OCDPE			3.309e2					664		4.49e3							0.000
FUNCTION4 NCDPE			3.665e3					887		7.31e4							0.000
FUNCTION5 DCDPE			5.111e2					938		1.09e4							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	22.63	1.267e3	1.748e3	0.933	0.72	0.77	13.1	YES	NO	bd	bd	0.462
2	Total-tetrafurans	24.66	4.434e2	6.126e2	0.933	0.72	0.77	4.5	YES	NO	dd	dd	0.162
3	Total-tetrafurans	24.54	8.242e2	1.145e3	0.933	0.72	0.77	7.4	YES	NO	dd	dd	0.302
4	Total-tetrafurans	24.11	3.632e2	5.260e2	0.933	0.69	0.77	3.4	YES	NO	bd	bd	0.136
5	Total-tetrafurans	23.89	4.166e3	5.636e3	0.933	0.74	0.77	35.8	YES	NO	bd	dd	1.503
6	Total-tetrafurans	23.54	5.805e2	8.678e2	0.933	0.67	0.77	7.0	YES	NO	dd	dd	0.222
7	Total-tetrafurans	23.40	7.831e2	1.153e3	0.933	0.68	0.77	7.0	YES	NO	dd	dd	0.297
8	Total-tetrafurans	23.21	3.914e3	5.685e3	0.933	0.69	0.77	35.4	YES	NO	bd	bd	1.472
9	Total-tetrafurans	26.91	8.560e2	1.053e3	0.933	0.81	0.77	6.9	YES	NO	db	bb	0.293
10	Total-tetrafurans	26.24	2.114e3	2.666e3	0.933	0.79	0.77	15.7	YES	NO	db	db	0.733
11	2378-TCDF	25.88	2.407e3	3.242e3	0.876	0.74	0.77	19.1	YES	NO	bd	bd	0.922
12	Total-tetrafurans	24.97	7.292e2	1.084e3	0.933	0.67	0.77	5.2	YES	NO	bb	bb	0.278
13	Total-tetrafurans	24.78	2.312e3	3.134e3	0.933	0.74	0.77	19.8	YES	NO	db	db	0.835

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.30	1.501e4	1.026e4		1.46	1.55	146.8	YES	NO	bb	bd	4.321

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	30.05	4.156e2	2.924e2	0.845	1.42	1.55	4.5	YES	NO	bb	MM	0.131
2	Total-pentafurans	29.68	1.323e3	9.748e2	0.866	1.36	1.55	15.2	YES	NO	db	db	0.423
3	Total-pentafurans	28.97	6.317e3	4.681e3	0.866	1.35	1.55	54.0	YES	NO	dd	dd	2.024
4	Total-pentafurans	28.89	1.790e3	1.066e3	0.866	1.68	1.55	22.7	YES	NO	bd	dd	0.526
5	Total-pentafurans	28.78	5.492e2	3.626e2	0.866	1.51	1.55	6.2	YES	NO	bb	bd	0.168
6	23478-PeCDF	31.39	5.460e2	3.663e2	0.911	1.49	1.55	6.6	YES	NO	db	bb	0.163
7	Total-pentafurans	31.24	2.279e3	1.297e3	0.866	1.76	1.55	20.5	YES	NO	dd	bb	0.658

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.00	5.767e2	4.304e2	1.182	1.34	1.24	13.2	YES	NO	dd	bd	0.167
2	Total-hexafurans	34.38	4.086e3	3.628e3	1.208	1.13	1.24	88.7	YES	NO	bb	bb	1.290
3	Total-hexafurans	33.56	4.704e3	3.911e3	1.208	1.20	1.24	91.5	YES	NO	db	bb	1.441

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.87	1.719e3	1.808e3	1.204	0.95	1.05	30.6	YES	NO	bb	bb	0.651
2	Total-heptafurans	39.53	1.408e3	1.209e3	1.185	1.16	1.05	26.4	YES	NO	bb	bb	0.513

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	22.63	1.267e3	1.748e3	0.933	0.72	0.77	13.1	YES	NO	bd	bd	0.462
2	Total-Furans	21.66	2.314e2	3.048e2	1.067	0.76	0.77	3.7	NO	NO	dd	dd	0.072
3	Total-Furans	21.22	1.880e2	2.651e2	1.067	0.71	0.77	2.2	NO	NO	db	dd	0.061
4	Total-Furans	21.13	1.780e2	2.664e2	1.067	0.67	0.77	2.0	NO	NO	dd	bd	0.060
5	Total-tetrafurans	24.66	4.434e2	6.126e2	0.933	0.72	0.77	4.5	YES	NO	dd	dd	0.162
6	Total-tetrafurans	24.54	8.242e2	1.145e3	0.933	0.72	0.77	7.4	YES	NO	dd	dd	0.302
7	Total-tetrafurans	24.11	3.632e2	5.260e2	0.933	0.69	0.77	3.4	YES	NO	bd	bd	0.136
8	Total-tetrafurans	23.89	4.166e3	5.636e3	0.933	0.74	0.77	35.8	YES	NO	bd	dd	1.503
9	Total-tetrafurans	23.54	5.805e2	8.678e2	0.933	0.67	0.77	7.0	YES	NO	dd	dd	0.222
10	Total-tetrafurans	23.40	7.831e2	1.153e3	0.933	0.68	0.77	7.0	YES	NO	dd	dd	0.297
11	Total-tetrafurans	23.21	3.914e3	5.685e3	0.933	0.69	0.77	35.4	YES	NO	bd	bd	1.472
12	Total-tetrafurans	26.91	8.560e2	1.053e3	0.933	0.81	0.77	6.9	YES	NO	db	bb	0.293
13	Total-tetrafurans	26.24	2.114e3	2.666e3	0.933	0.79	0.77	15.7	YES	NO	db	db	0.733
14	2378-TCDF	25.88	2.407e3	3.242e3	0.876	0.74	0.77	19.1	YES	NO	bd	bd	0.922
15	Total-tetrafurans	24.97	7.292e2	1.084e3	0.933	0.67	0.77	5.2	YES	NO	bb	bb	0.278
16	Total-tetrafurans	24.78	2.312e3	3.134e3	0.933	0.74	0.77	19.8	YES	NO	db	db	0.835
17	12378-PeCDF	30.05	4.156e2	2.924e2	0.845	1.42	1.55	4.5	YES	NO	bb	MM	0.131
18	Total-pentafurans	29.68	1.323e3	9.748e2	0.866	1.36	1.55	15.2	YES	NO	db	db	0.423
19	Total-pentafurans	28.97	6.317e3	4.681e3	0.866	1.35	1.55	54.0	YES	NO	dd	dd	2.024
20	Total-pentafurans	28.89	1.790e3	1.066e3	0.866	1.68	1.55	22.7	YES	NO	bd	dd	0.526
21	Total-pentafurans	28.78	5.492e2	3.626e2	0.866	1.51	1.55	6.2	YES	NO	bb	bd	0.168
22	23478-PeCDF	31.39	5.460e2	3.663e2	0.911	1.49	1.55	6.6	YES	NO	db	bb	0.163
23	Total-pentafurans	31.24	2.279e3	1.297e3	0.866	1.76	1.55	20.5	YES	NO	dd	bb	0.658
24	123478-HxCDF	35.00	5.767e2	4.304e2	1.182	1.34	1.24	13.2	YES	NO	dd	bd	0.167
25	Total-hexafurans	34.38	4.086e3	3.628e3	1.208	1.13	1.24	88.7	YES	NO	bb	bb	1.290
26	Total-hexafurans	33.56	4.704e3	3.911e3	1.208	1.20	1.24	91.5	YES	NO	db	bb	1.441
27	1234678-HpCDF	38.87	1.719e3	1.808e3	1.204	0.95	1.05	30.6	YES	NO	bb	bb	0.651
28	Total-heptafurans	39.53	1.408e3	1.209e3	1.185	1.16	1.05	26.4	YES	NO	bb	bb	0.513
29	Total-penta1	27.30	1.501e4	1.026e4		1.46	1.55	146.8	YES	NO	bb	bd	4.321

## TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	23.92	6.639e2	9.151e2	1.099	0.73	0.77	5.7	YES	NO	bb	bb	0.283

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

**ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk****PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	6.019e2	5.203e2	0.985	1.16	1.24	11.2	YES	NO	bb	bb	0.214
2	123678-HxCDD	36.22	5.380e2	4.119e2	1.021	1.31	1.24	8.5	YES	NO	bb	bb	0.174
3	Total-hexadioxins	34.88	1.172e3	1.019e3	1.007	1.15	1.24	22.4	YES	NO	bb	bb	0.410
4	124679-HXCDD	34.10	2.180e3	1.799e3	1.033	1.21	1.24	38.5	YES	NO	bb	bb	0.731

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.38	2.486e3	2.151e3	1.253	1.16	1.05	30.7	YES	NO	bb	bb	1.029
2	1234679-HPCDD	39.32	3.304e3	2.971e3	1.286	1.11	1.05	44.8	YES	NO	bb	bb	1.356

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	23.92	6.639e2	9.151e2	1.099	0.73	0.77	5.7	YES	NO	bb	bb	0.283
2	Total-Dioxins	21.97	1.050e2	1.582e2	1.165	0.66	0.77	1.5	NO	NO	bb	dd	0.044
3	123789-HxCDD	36.61	6.019e2	5.203e2	0.985	1.16	1.24	11.2	YES	NO	bb	bb	0.214
4	123678-HxCDD	36.22	5.380e2	4.119e2	1.021	1.31	1.24	8.5	YES	NO	bb	bb	0.174
5	Total-hexadioxins	34.88	1.172e3	1.019e3	1.007	1.15	1.24	22.4	YES	NO	bb	bb	0.410
6	124679-HXCDD	34.10	2.180e3	1.799e3	1.033	1.21	1.24	38.5	YES	NO	bb	bb	0.731
7	OCDD	45.14	1.289e4	1.493e4	1.103	0.86	0.89	195.1	YES	NO	bb	bb	7.663
8	1234678-HpCDD	40.38	2.486e3	2.151e3	1.253	1.16	1.05	30.7	YES	NO	bb	bb	1.029
9	1234679-HPCDD	39.32	3.304e3	2.971e3	1.286	1.11	1.05	44.8	YES	NO	bb	bb	1.356



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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	22.63	1.267e3	1.748e3	0.933	0.72	0.77	13.1	YES	NO	bd	bd	0.462
2	Total-Furans	21.66	2.314e2	3.048e2	1.067	0.76	0.77	3.7	NO	NO	dd	dd	0.072
3	Total-Furans	21.22	1.880e2	2.651e2	1.067	0.71	0.77	2.2	NO	NO	db	dd	0.061
4	Total-Furans	21.13	1.780e2	2.664e2	1.067	0.67	0.77	2.0	NO	NO	dd	bd	0.060
5	Total-tetrafurans	24.66	4.434e2	6.126e2	0.933	0.72	0.77	4.5	YES	NO	dd	dd	0.162
6	Total-tetrafurans	24.54	8.242e2	1.145e3	0.933	0.72	0.77	7.4	YES	NO	dd	dd	0.302
7	Total-tetrafurans	24.11	3.632e2	5.260e2	0.933	0.69	0.77	3.4	YES	NO	bd	bd	0.136
8	Total-tetrafurans	23.89	4.166e3	5.636e3	0.933	0.74	0.77	35.8	YES	NO	bd	dd	1.503
9	Total-tetrafurans	23.54	5.805e2	8.678e2	0.933	0.67	0.77	7.0	YES	NO	dd	dd	0.222
10	Total-tetrafurans	23.40	7.831e2	1.153e3	0.933	0.68	0.77	7.0	YES	NO	dd	dd	0.297
11	Total-tetrafurans	23.21	3.914e3	5.685e3	0.933	0.69	0.77	35.4	YES	NO	bd	bd	1.472
12	Total-tetrafurans	26.91	8.560e2	1.053e3	0.933	0.81	0.77	6.9	YES	NO	db	bb	0.293
13	Total-tetrafurans	26.24	2.114e3	2.666e3	0.933	0.79	0.77	15.7	YES	NO	db	db	0.733
14	2378-TCDF	25.88	2.407e3	3.242e3	0.876	0.74	0.77	19.1	YES	NO	bd	bd	0.922
15	Total-tetrafurans	24.97	7.292e2	1.084e3	0.933	0.67	0.77	5.2	YES	NO	bb	bb	0.278
16	Total-tetrafurans	24.78	2.312e3	3.134e3	0.933	0.74	0.77	19.8	YES	NO	db	db	0.835
17	12378-PeCDF	30.05	4.156e2	2.924e2	0.845	1.42	1.55	4.5	YES	NO	bb	MM	0.131
18	Total-pentafurans	29.68	1.323e3	9.748e2	0.866	1.36	1.55	15.2	YES	NO	db	db	0.423
19	Total-pentafurans	28.97	6.317e3	4.681e3	0.866	1.35	1.55	54.0	YES	NO	dd	dd	2.024
20	Total-pentafurans	28.89	1.790e3	1.066e3	0.866	1.68	1.55	22.7	YES	NO	bd	dd	0.526
21	Total-pentafurans	28.78	5.492e2	3.626e2	0.866	1.51	1.55	6.2	YES	NO	bb	bd	0.168
22	23478-PeCDF	31.39	5.460e2	3.663e2	0.911	1.49	1.55	6.6	YES	NO	db	bb	0.163
23	Total-pentafurans	31.24	2.279e3	1.297e3	0.866	1.76	1.55	20.5	YES	NO	dd	bb	0.658
24	123478-HxCDF	35.00	5.767e2	4.304e2	1.182	1.34	1.24	13.2	YES	NO	dd	bd	0.167
25	Total-hexafurans	34.38	4.086e3	3.628e3	1.208	1.13	1.24	88.7	YES	NO	bb	bb	1.290
26	Total-hexafurans	33.56	4.704e3	3.911e3	1.208	1.20	1.24	91.5	YES	NO	db	bb	1.441
27	1234678-HpCDF	38.87	1.719e3	1.808e3	1.204	0.95	1.05	30.6	YES	NO	bb	bb	0.651
28	Total-heptafurans	39.53	1.408e3	1.209e3	1.185	1.16	1.05	26.4	YES	NO	bb	bb	0.513
29	Total-penta1	27.30	1.501e4	1.026e4		1.46	1.55	146.8	YES	NO	bb	bd	4.321
30	Total-tetradioxins	23.92	6.639e2	9.151e2	1.099	0.73	0.77	5.7	YES	NO	bb	bb	0.283
31	Total-Dioxins	21.97	1.050e2	1.582e2	1.165	0.66	0.77	1.5	NO	NO	bb	dd	0.044
32	123789-HxCDD	36.61	6.019e2	5.203e2	0.985	1.16	1.24	11.2	YES	NO	bb	bb	0.214
33	123678-HxCDD	36.22	5.380e2	4.119e2	1.021	1.31	1.24	8.5	YES	NO	bb	bb	0.174
34	Total-hexadioxins	34.88	1.172e3	1.019e3	1.007	1.15	1.24	22.4	YES	NO	bb	bb	0.410
35	124679-HXCDD	34.10	2.180e3	1.799e3	1.033	1.21	1.24	38.5	YES	NO	bb	bb	0.731
36	OCDD	45.14	1.289e4	1.493e4	1.103	0.86	0.89	195.1	YES	NO	bb	bb	7.663
37	1234678-HpCDD	40.38	2.486e3	2.151e3	1.253	1.16	1.05	30.7	YES	NO	bb	bb	1.029

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**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	1234679-HPCDD	39.32	3.304e3	2.971e3	1.286	1.11	1.05	44.8	YES	NO	bb	bb	1.356

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.21	2.874e4					1.4	NO		bb		
2	FUNCTION1 PFK	24.45	3.033e4					1.2	NO		bb		
3	FUNCTION1 PFK	24.32	2.139e4					0.8	NO		bb		
4	FUNCTION1 PFK	24.08	1.109e4					0.6	NO		bb		
5	FUNCTION1 PFK	23.83	6.527e4					0.8	NO		bb		
6	FUNCTION1 PFK	23.69	6.141e4					1.2	NO		bb		
7	FUNCTION1 PFK	23.45	1.538e4					0.8	NO		bb		
8	FUNCTION1 PFK	22.96	3.444e4					1.2	NO		bb		
9	FUNCTION1 PFK	22.65	1.198e5					3.1	YES		db		
10	FUNCTION1 PFK	22.59	7.128e5					4.9	YES		dd		
11	FUNCTION1 PFK	22.37	1.702e6					11.1	YES		dd		
12	FUNCTION1 PFK	22.24	7.091e5					14.3	YES		bd		
13	FUNCTION1 PFK	22.01	2.593e6					13.3	YES		db		
14	FUNCTION1 PFK	21.86	1.735e6					12.3	YES		dd		
15	FUNCTION1 PFK	21.68	1.070e6					9.9	YES		dd		
16	FUNCTION1 PFK	21.53	5.564e5					8.5	YES		bd		
17	FUNCTION1 PFK	21.35	3.514e5					5.1	YES		bb		
18	FUNCTION1 PFK	28.01	5.574e5					4.0	YES		bb		
19	FUNCTION1 PFK	27.54	2.759e4					1.1	NO		bb		
20	FUNCTION1 PFK	26.79	3.553e4					1.3	NO		bb		
21	FUNCTION1 PFK	26.53	8.664e4					1.3	NO		db		
22	FUNCTION1 PFK	26.41	2.816e4					1.0	NO		dd		
23	FUNCTION1 PFK	26.34	6.599e4					1.5	NO		bd		
24	FUNCTION1 PFK	25.81	3.912e4					1.3	NO		db		
25	FUNCTION1 PFK	25.75	2.144e4					1.0	NO		bd		
26	FUNCTION1 PFK	25.64	4.677e4					1.3	NO		bb		
27	FUNCTION1 PFK	25.47	2.605e4					1.0	NO		bb		
28	FUNCTION1 PFK	25.14	6.692e3					0.5	NO		bb		

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**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.96	1.764e4					0.8	NO		bb		0.000
2	FUNCTION2 PFK	28.43	3.556e3					0.7	NO		bb		0.000
3	FUNCTION2 PFK	28.35	4.509e3					0.9	NO		bb		0.000
4	FUNCTION2 PFK	28.29	3.010e4					1.7	NO		bb		0.000
5	FUNCTION2 PFK	30.78	5.191e3					0.8	NO		db		0.000
6	FUNCTION2 PFK	30.75	1.090e4					0.9	NO		dd		0.000
7	FUNCTION2 PFK	30.72	4.506e3					0.7	NO		bd		0.000
8	FUNCTION2 PFK	30.68	1.044e4					1.0	NO		db		0.000
9	FUNCTION2 PFK	30.58	2.661e4					0.9	NO		bd		0.000
10	FUNCTION2 PFK	30.35	2.996e4					1.6	NO		bb		0.000
11	FUNCTION2 PFK	30.26	1.759e4					1.4	NO		bb		0.000
12	FUNCTION2 PFK	29.99	1.063e4					1.0	NO		bb		0.000
13	FUNCTION2 PFK	29.91	1.690e4					1.1	NO		bb		0.000
14	FUNCTION2 PFK	29.65	1.202e4					1.1	NO		db		0.000
15	FUNCTION2 PFK	29.61	1.473e4					1.0	NO		bd		0.000
16	FUNCTION2 PFK	29.39	3.711e3					0.5	NO		bb		0.000
17	FUNCTION2 PFK	29.16	1.762e4					1.4	NO		db		0.000
18	FUNCTION2 PFK	29.09	1.799e4					0.9	NO		bd		0.000
19	FUNCTION2 PFK	29.05	1.284e4					1.2	NO		db		0.000
20	FUNCTION2 PFK	29.00	7.019e3					0.9	NO		bd		0.000
21	FUNCTION2 PFK	32.67	8.098e3					0.9	NO		bb		0.000
22	FUNCTION2 PFK	32.12	2.011e3					0.4	NO		bb		0.000
23	FUNCTION2 PFK	31.02	1.226e4					1.1	NO		db		0.000
24	FUNCTION2 PFK	30.96	1.830e4					1.4	NO		bd		0.000

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**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.11	2.702e3					0.5	NO		bb		0.000
2	FUNCTION3 PFK	34.52	5.612e3					0.7	NO		bb		0.000
3	FUNCTION3 PFK	34.30	2.585e4					1.2	NO		bb		0.000
4	FUNCTION3 PFK	34.10	1.141e4					1.2	NO		db		0.000
5	FUNCTION3 PFK	33.81	1.825e6					11.9	YES		dd		0.000
6	FUNCTION3 PFK	33.50	7.007e5					22.9	YES		dd		0.000
7	FUNCTION3 PFK	33.30	1.554e6					30.7	YES		dd		0.000
8	FUNCTION3 PFK	33.26	4.561e5					32.7	YES		dd		0.000
9	FUNCTION3 PFK	33.19	1.424e6					35.1	YES		dd		0.000
10	FUNCTION3 PFK	33.05	1.290e6					37.7	YES		dd		0.000
11	FUNCTION3 PFK	32.96	8.746e5					42.0	YES		bd		0.000
12	FUNCTION3 PFK	37.32	3.653e4					2.3	NO		bd		0.000
13	FUNCTION3 PFK	37.07	4.472e4					2.3	NO		db		0.000
14	FUNCTION3 PFK	37.01	4.139e4					3.1	YES		bd		0.000
15	FUNCTION3 PFK	36.88	8.540e4					3.9	YES		db		0.000
16	FUNCTION3 PFK	36.79	1.931e4					1.4	NO		bd		0.000
17	FUNCTION3 PFK	36.56	8.408e3					0.9	NO		bb		0.000
18	FUNCTION3 PFK	36.42	7.022e3					0.9	NO		bb		0.000
19	FUNCTION3 PFK	35.92	5.723e4					2.3	NO		db		0.000
20	FUNCTION3 PFK	35.84	6.468e4					3.1	YES		bd		0.000
21	FUNCTION3 PFK	35.67	1.161e5					3.6	YES		db		0.000
22	FUNCTION3 PFK	35.60	3.801e4					2.6	NO		dd		0.000
23	FUNCTION3 PFK	35.55	2.704e4					2.2	NO		dd		0.000
24	FUNCTION3 PFK	35.46	3.422e4					2.1	NO		dd		0.000
25	FUNCTION3 PFK	35.39	1.390e4					1.2	NO		bd		0.000
26	FUNCTION3 PFK	35.30	1.609e3					0.5	NO		bb		0.000
27	FUNCTION3 PFK	35.15	8.549e3					1.1	NO		bb		0.000
28	FUNCTION3 PFK	37.67	4.562e4					2.1	NO		bb		0.000
29	FUNCTION3 PFK	37.57	4.167e3					0.6	NO		bb		0.000
30	FUNCTION3 PFK	37.41	2.298e4					2.6	NO		db		0.000
31	FUNCTION3 PFK	37.37	2.262e4					2.0	NO		dd		0.000

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**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.36	1.317e4					1.8	NO		bb		
2	FUNCTION4 PFK	39.22	2.604e3					0.7	NO		bb		
3	FUNCTION4 PFK	39.07	1.334e3					0.0	NO		bb		
4	FUNCTION4 PFK	39.04	7.172e3					1.6	NO		bb		
5	FUNCTION4 PFK	38.81	6.371e3					1.1	NO		bb		
6	FUNCTION4 PFK	38.48	3.318e4					1.8	NO		db		
7	FUNCTION4 PFK	38.28	1.035e5					5.6	YES		dd		
8	FUNCTION4 PFK	38.23	4.011e4					5.3	YES		dd		
9	FUNCTION4 PFK	38.15	1.189e5					7.9	YES		dd		
10	FUNCTION4 PFK	38.10	3.532e4					6.1	YES		dd		
11	FUNCTION4 PFK	38.05	4.116e4					7.6	YES		bd		
12	FUNCTION4 PFK	42.11	7.163e2					0.3	NO		bb		
13	FUNCTION4 PFK	41.86	2.622e4					1.6	NO		db		
14	FUNCTION4 PFK	41.72	2.260e4					2.4	NO		bd		
15	FUNCTION4 PFK	41.48	3.549e3					0.8	NO		db		
16	FUNCTION4 PFK	41.38	2.678e4					1.6	NO		bd		
17	FUNCTION4 PFK	41.20	5.817e3					1.2	NO		bb		
18	FUNCTION4 PFK	41.07	1.752e4					1.9	NO		db		
19	FUNCTION4 PFK	41.04	1.822e4					2.5	NO		dd		
20	FUNCTION4 PFK	41.01	1.600e4					2.2	NO		bd		
21	FUNCTION4 PFK	40.22	6.307e3					1.0	NO		db		
22	FUNCTION4 PFK	40.15	1.779e4					2.5	NO		dd		
23	FUNCTION4 PFK	40.06	1.223e4					1.5	NO		bd		
24	FUNCTION4 PFK	40.01	5.022e3					1.1	NO		bb		
25	FUNCTION4 PFK	39.86	4.119e3					0.9	NO		bb		
26	FUNCTION4 PFK	39.61	3.345e4					2.6	NO		bb		
27	FUNCTION4 PFK	39.51	5.443e3					1.1	NO		bb		
28	FUNCTION4 PFK	42.71	3.984e3					0.9	NO		bb		
29	FUNCTION4 PFK	42.54	2.219e4					1.8	NO		bb		
30	FUNCTION4 PFK	42.34	1.149e4					1.7	NO		db		
31	FUNCTION4 PFK	42.27	1.789e4					2.3	NO		dd		
32	FUNCTION4 PFK	42.23	1.717e4					2.3	NO		dd		
33	FUNCTION4 PFK	42.18	2.023e4					2.7	NO		bd		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.39	2.251e3					1.2	NO		bb		
2	FUNCTION5 PFK	45.38	6.932e3					2.3	NO		bb		
3	FUNCTION5 PFK	43.41	6.160e3					1.6	NO		db		
4	FUNCTION5 PFK	43.34	3.587e3					1.5	NO		bd		

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

## ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.66	2.505e2					3.0	NO		dd		0.000
2	FUNCTION1 HXCD...	21.57	4.793e2					4.2	YES		bd		0.000
3	FUNCTION1 HXCD...	21.22	1.674e2					2.8	NO		bb		0.000
4	FUNCTION1 HXCD...	21.13	1.389e2					3.3	YES		bb		0.000
5	FUNCTION1 HXCD...	24.66	2.343e2					2.1	NO		dd		0.000
6	FUNCTION1 HXCD...	24.60	3.746e2					4.0	YES		bd		0.000
7	FUNCTION1 HXCD...	24.26	2.414e2					3.2	YES		db		0.000
8	FUNCTION1 HXCD...	24.17	2.255e2					3.3	YES		dd		0.000
9	FUNCTION1 HXCD...	24.08	1.182e2					1.5	NO		bd		0.000
10	FUNCTION1 HXCD...	23.87	2.138e3					24.3	YES		bb		0.000
11	FUNCTION1 HXCD...	23.58	1.180e2					2.0	NO		bb		0.000
12	FUNCTION1 HXCD...	23.48	9.217e1					2.0	NO		bb		0.000
13	FUNCTION1 HXCD...	23.01	7.128e1					1.3	NO		bb		0.000
14	FUNCTION1 HXCD...	22.86	2.026e2					3.2	YES		db		0.000
15	FUNCTION1 HXCD...	22.75	6.850e2					6.4	YES		bd		0.000
16	FUNCTION1 HXCD...	22.62	3.006e2					7.3	YES		bb		0.000
17	FUNCTION1 HXCD...	22.16	8.751e1					1.6	NO		bb		0.000
18	FUNCTION1 HXCD...	21.86	9.585e1					1.5	NO		bb		0.000
19	FUNCTION1 HXCD...	21.75	1.065e2					1.9	NO		db		0.000
20	FUNCTION1 HXCD...	21.71	1.313e2					2.7	NO		dd		0.000
21	FUNCTION1 HXCD...	27.76	3.915e2					4.3	YES		bb		0.000
22	FUNCTION1 HXCD...	27.51	1.295e2					2.1	NO		db		0.000
23	FUNCTION1 HXCD...	27.45	1.200e2					2.0	NO		bd		0.000
24	FUNCTION1 HXCD...	26.89	9.200e2					10.1	YES		bb		0.000
25	FUNCTION1 HXCD...	26.64	1.229e2					1.6	NO		bb		0.000
26	FUNCTION1 HXCD...	26.24	2.620e3					30.7	YES		bb		0.000
27	FUNCTION1 HXCD...	25.97	2.167e2					2.7	NO		db		0.000
28	FUNCTION1 HXCD...	25.87	1.980e3					25.3	YES		bd		0.000
29	FUNCTION1 HXCD...	25.70	1.194e2					2.3	NO		db		0.000
30	FUNCTION1 HXCD...	25.62	4.000e2					4.0	YES		bd		0.000
31	FUNCTION1 HXCD...	25.22	7.302e2					9.0	YES		bb		0.000
32	FUNCTION1 HXCD...	24.76	1.309e2					1.9	NO		db		0.000

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:22 Pacific Standard Time

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

## ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	21.32	1.419e2					1.8	NO		bd		0.000
2	FUNCTION1 HPCD...	21.22	1.459e2					1.2	NO		db		0.000
3	FUNCTION1 HPCD...	21.13	1.261e2					1.5	NO		bd		0.000
4	FUNCTION1 HPCD...	23.58	2.358e2					2.2	NO		dd		0.000
5	FUNCTION1 HPCD...	23.48	1.326e2					1.2	NO		bd		0.000
6	FUNCTION1 HPCD...	23.16	2.286e2					2.1	NO		db		0.000
7	FUNCTION1 HPCD...	23.01	7.053e1					0.9	NO		dd		0.000
8	FUNCTION1 HPCD...	22.93	1.161e2					1.6	NO		bd		0.000
9	FUNCTION1 HPCD...	22.75	5.492e2					4.2	YES		db		0.000
10	FUNCTION1 HPCD...	22.62	5.345e2					6.0	YES		dd		0.000
11	FUNCTION1 HPCD...	22.45	1.765e2					1.3	NO		dd		0.000
12	FUNCTION1 HPCD...	22.37	1.049e2					1.0	NO		bd		0.000
13	FUNCTION1 HPCD...	22.16	1.276e2					1.4	NO		bb		0.000
14	FUNCTION1 HPCD...	21.86	1.010e2					1.4	NO		bb		0.000
15	FUNCTION1 HPCD...	21.75	7.939e1					1.4	NO		db		0.000
16	FUNCTION1 HPCD...	21.71	1.830e2					2.1	NO		dd		0.000
17	FUNCTION1 HPCD...	21.65	1.978e2					2.5	NO		dd		0.000
18	FUNCTION1 HPCD...	21.57	3.323e2					3.2	YES		bd		0.000
19	FUNCTION1 HPCD...	21.38	2.029e2					2.2	NO		db		0.000
20	FUNCTION1 HPCD...	27.45	1.259e2					1.5	NO		bd		0.000
21	FUNCTION1 HPCD...	25.97	1.571e2					1.4	NO		db		0.000
22	FUNCTION1 HPCD...	25.91	1.049e2					1.4	NO		dd		0.000
23	FUNCTION1 HPCD...	25.87	1.362e2					1.6	NO		bd		0.000
24	FUNCTION1 HPCD...	25.75	7.184e1					1.1	NO		db		0.000
25	FUNCTION1 HPCD...	25.69	1.573e2					1.7	NO		dd		0.000
26	FUNCTION1 HPCD...	25.61	4.600e2					3.6	YES		dd		0.000
27	FUNCTION1 HPCD...	25.53	7.648e1					0.9	NO		bd		0.000
28	FUNCTION1 HPCD...	24.97	8.328e1					0.8	NO		bb		0.000
29	FUNCTION1 HPCD...	24.60	1.347e2					2.0	NO		db		0.000
30	FUNCTION1 HPCD...	24.55	8.143e1					1.4	NO		bd		0.000
31	FUNCTION1 HPCD...	24.35	7.987e1					0.9	NO		db		0.000
32	FUNCTION1 HPCD...	24.26	2.573e2					2.4	NO		dd		0.000
33	FUNCTION1 HPCD...	24.17	1.787e2					1.8	NO		bd		0.000
34	FUNCTION1 HPCD...	23.87	3.246e2					1.8	NO		bb		0.000
35	FUNCTION1 HPCD...	23.66	1.101e2					1.2	NO		db		0.000
36	FUNCTION1 HPCD...	28.01	2.056e2					1.5	NO		bb		0.000
37	FUNCTION1 HPCD...	27.51	1.201e2					1.3	NO		db		0.000



Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

## ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.31	8.266e2					12.0	YES		bb		0.000
2	FUNCTION2 HPCD...	29.55	1.949e3					27.8	YES		bb		0.000
3	FUNCTION2 HPCD...	29.03	2.080e3					29.2	YES		db		0.000
4	FUNCTION2 HPCD...	29.00	1.720e3					22.1	YES		bd		0.000

## ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.76	7.567e1					2.1	NO		bb		0.000
2	FUNCTION3 OCDPE	36.63	1.688e2					2.3	NO		bb		0.000
3	FUNCTION3 OCDPE	34.97	8.645e1					2.4	NO		bb		0.000

## ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.72	8.770e1					3.1	YES		bb		0.000
2	FUNCTION4 NCDPE	41.29	1.341e2					6.1	YES		bb		0.000
3	FUNCTION4 NCDPE	38.49	3.443e3					73.3	YES		bb		0.000

## ETHERS6

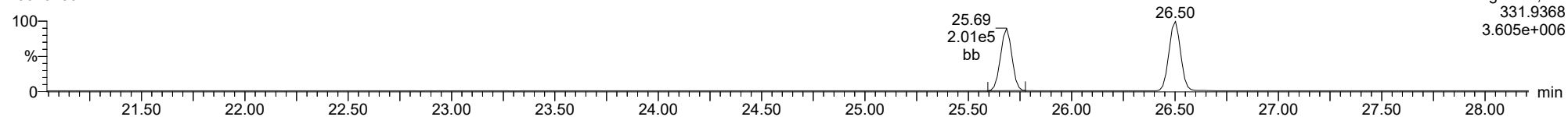
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.96	7.909e1					1.6	NO		bb		0.000
2	FUNCTION5 DCDPE	45.13	1.139e2					1.9	NO		bb		0.000
3	FUNCTION5 DCDPE	44.35	7.806e1					1.2	NO		bb		0.000
4	FUNCTION5 DCDPE	43.98	9.082e1					2.1	NO		bb		0.000
5	FUNCTION5 DCDPE	43.64	7.456e1					3.0	NO		bb		0.000
6	FUNCTION5 DCDPE	43.29	7.462e1					1.9	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

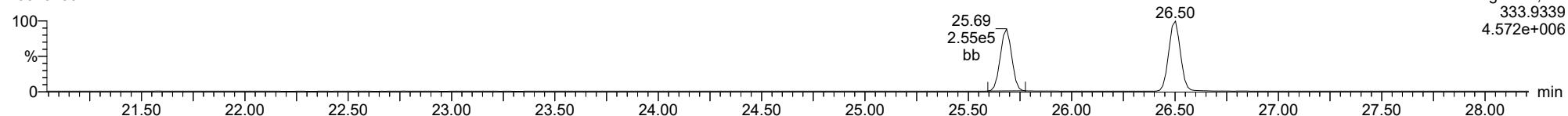
23020730



F1:Voltage SIR,El+  
331.9368  
3.605e+006

**13C-1234-TCDD**

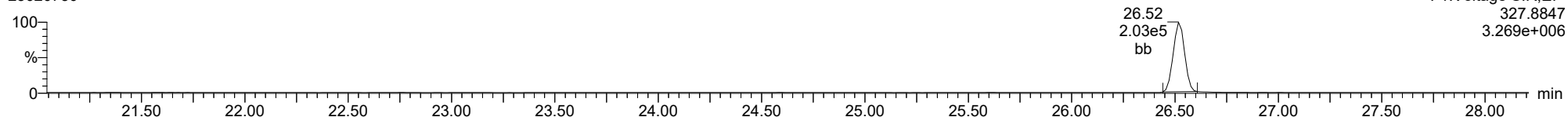
23020730



F1:Voltage SIR,El+  
333.9339  
4.572e+006

**37CL-2378-TCDD**

23020730



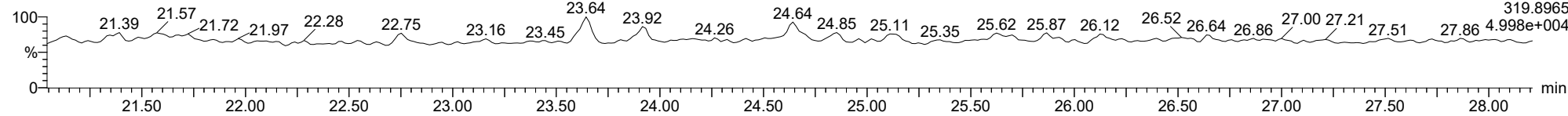
F1:Voltage SIR,El+  
327.8847  
3.269e+006

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

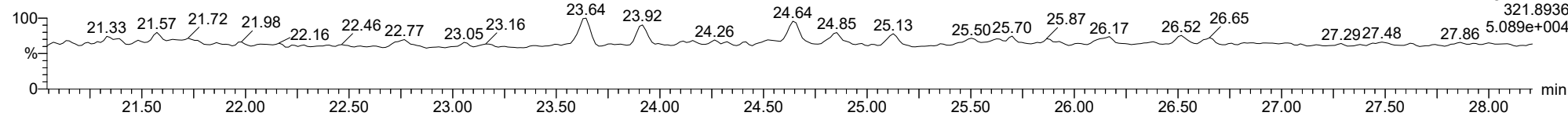
**2378-TCDD**

23020730



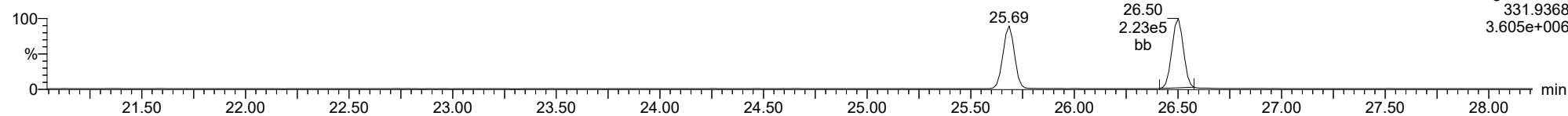
**2378-TCDD**

23020730



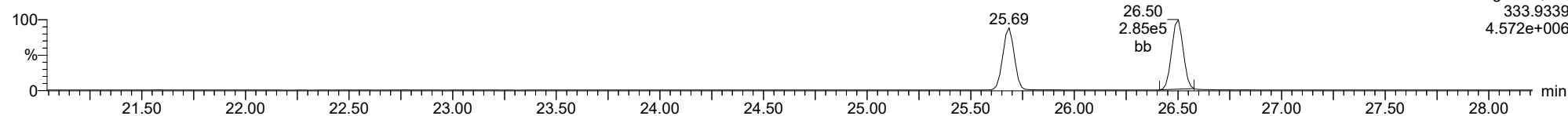
**13C-2378-TCDD**

23020730



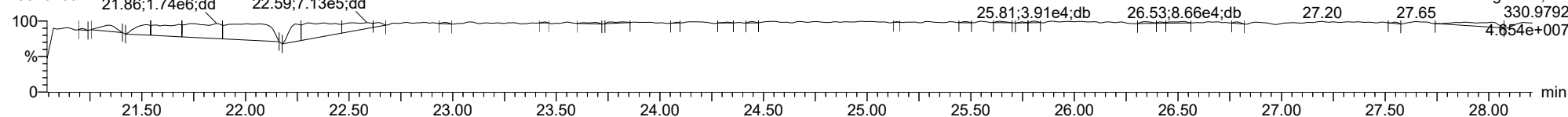
**13C-2378-TCDD**

23020730



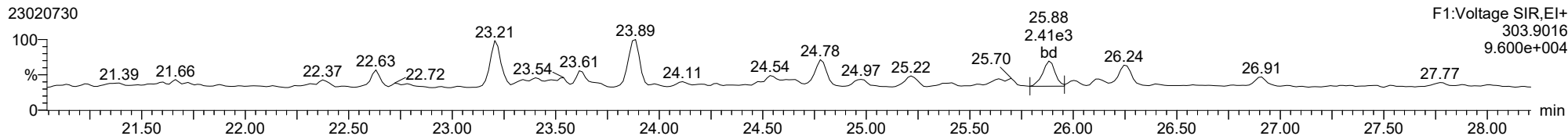
**FUNCTION1 PFK**

23020730

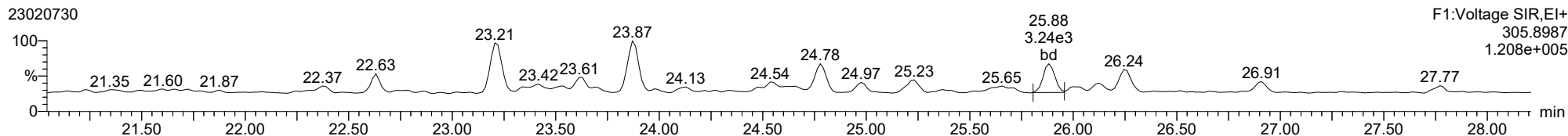


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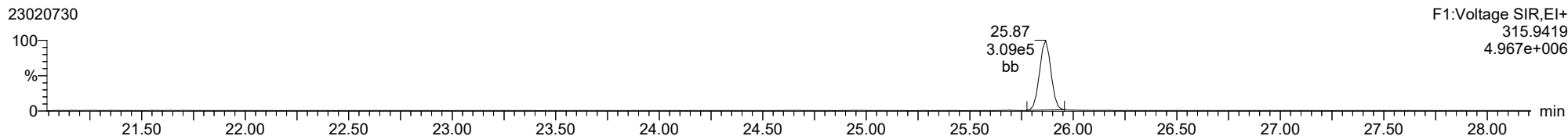
**2378-TCDF**



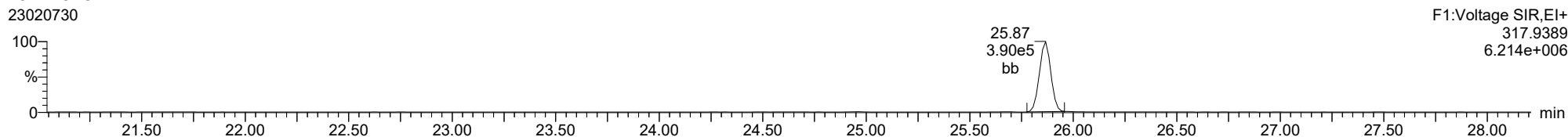
**2378-TCDF**



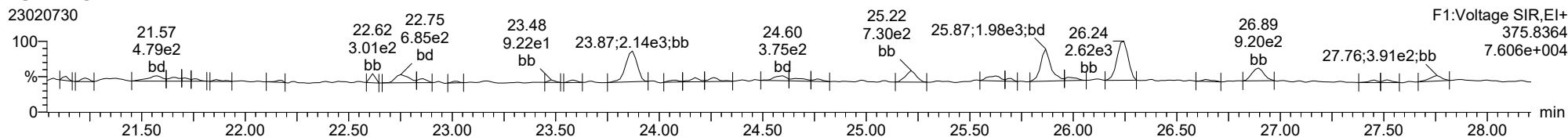
**13C-2378-TCDF**



**13C-2378-TCDF**

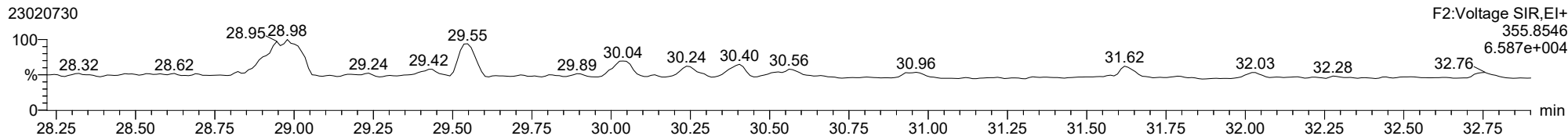


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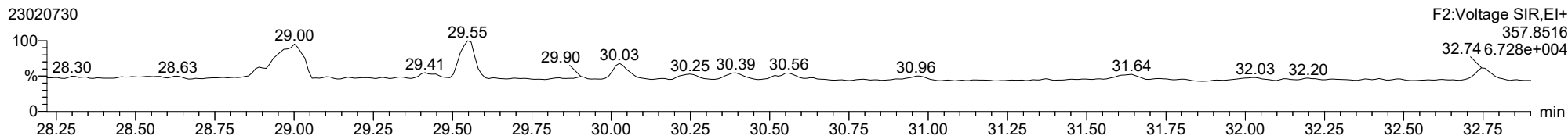


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

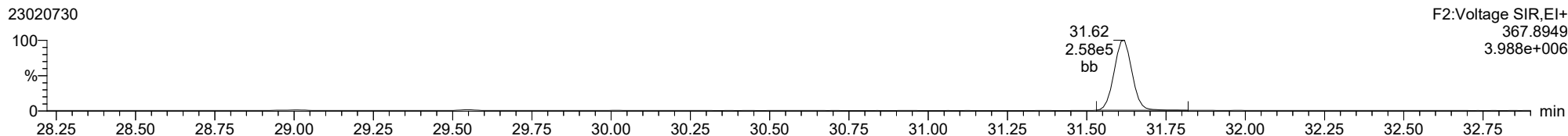
12378-PeCDD



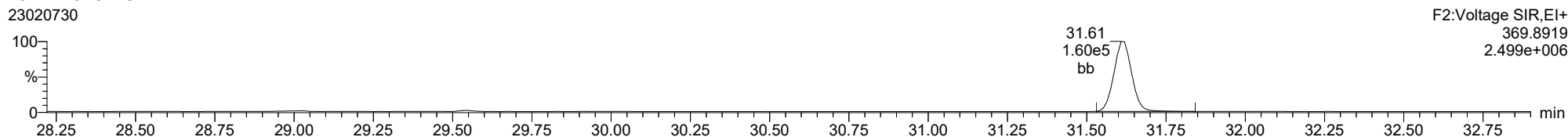
12378-PeCDD



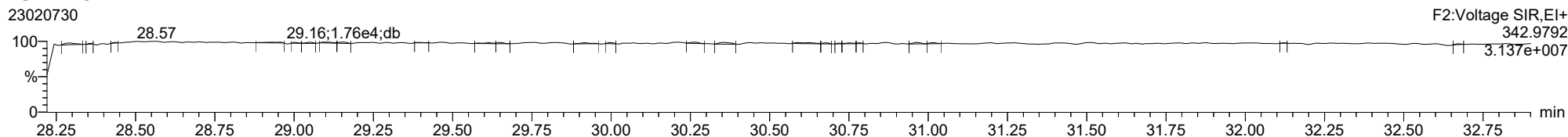
13C-12378-PeCDD



13C-12378-PeCDD



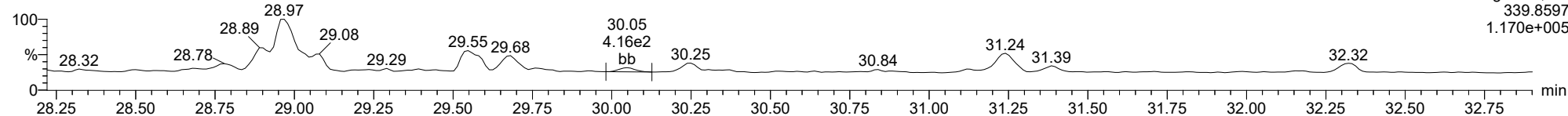
FUNCTION2 PFK



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

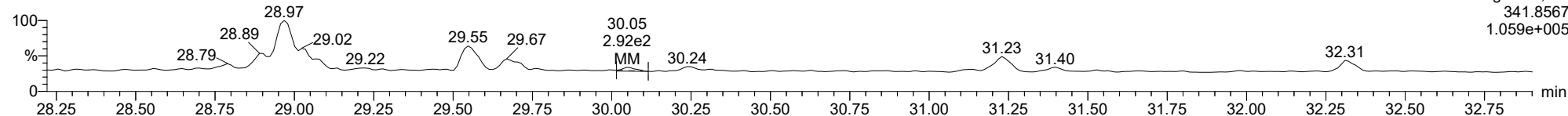
**12378-PeCDF**

23020730



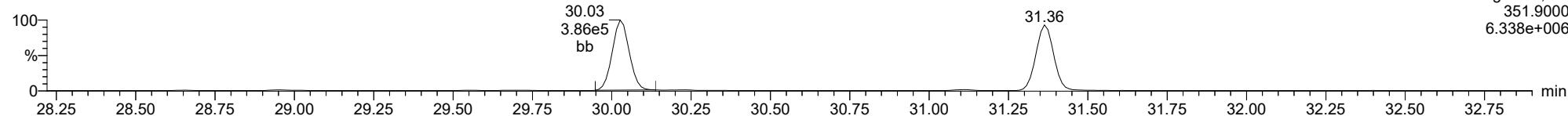
**12378-PeCDF**

23020730



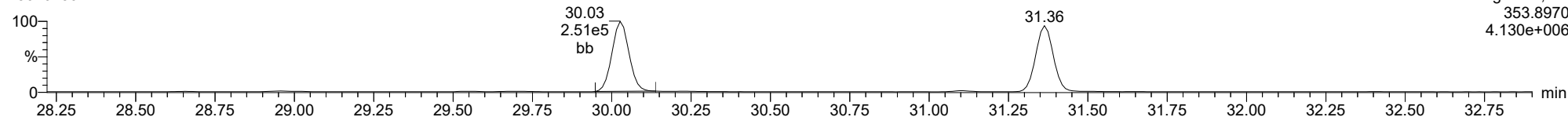
**13C-12378-PeCDF**

23020730



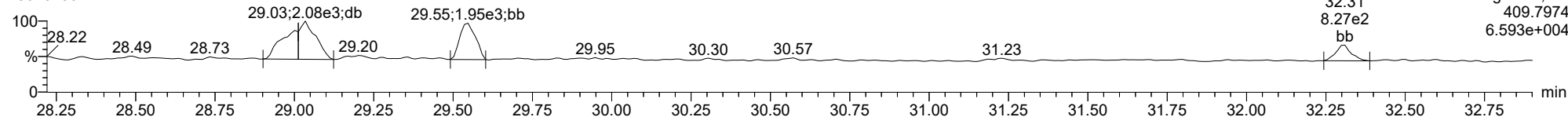
**13C-12378-PeCDF**

23020730



**FUNCTION2 HPCDPE**

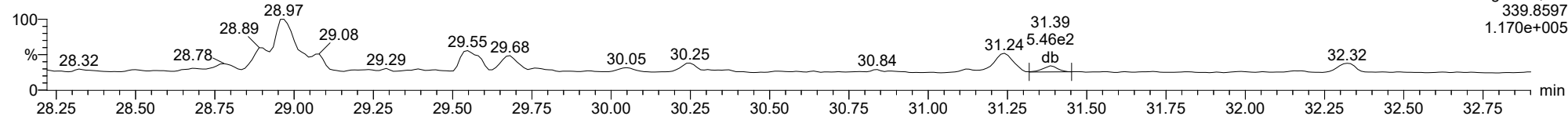
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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

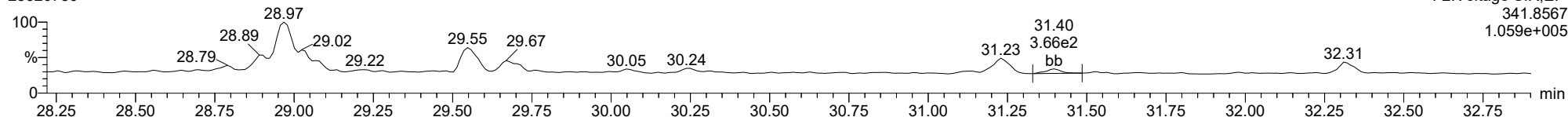
**23478-PeCDF**

23020730



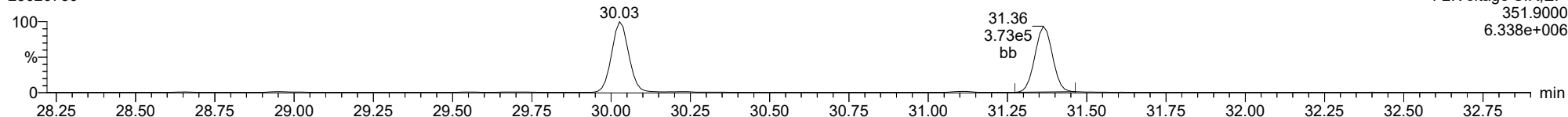
**23478-PeCDF**

23020730



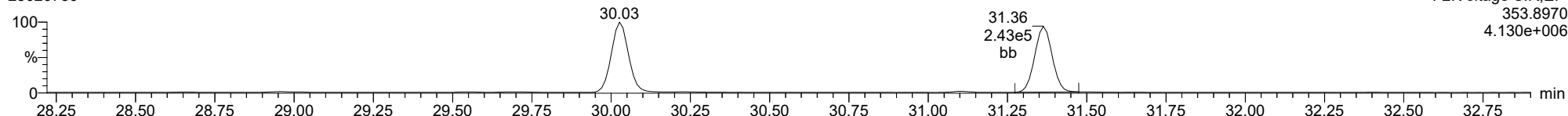
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23020730



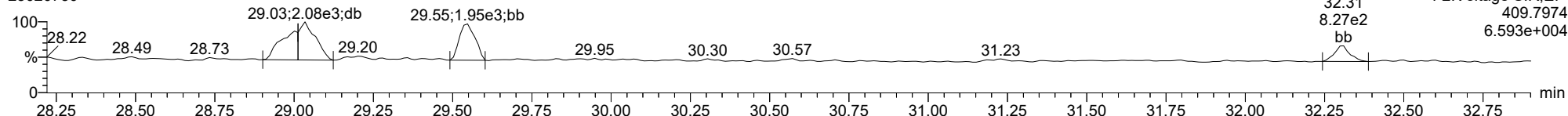
**13C-23478-PeCDF**

23020730



**FUNCTION2 HPCDPE**

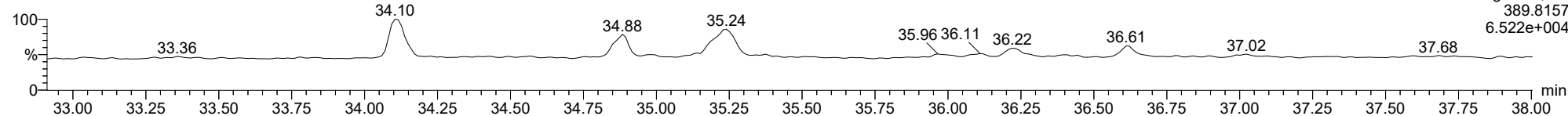
23020730



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

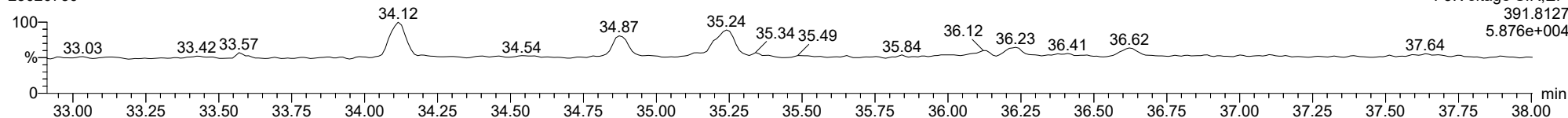
**123478-HxCDD**

23020730



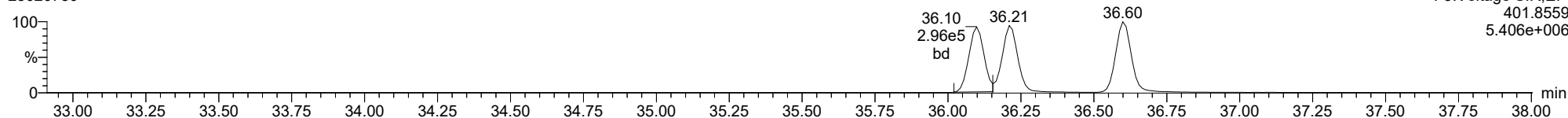
**123478-HxCDD**

23020730



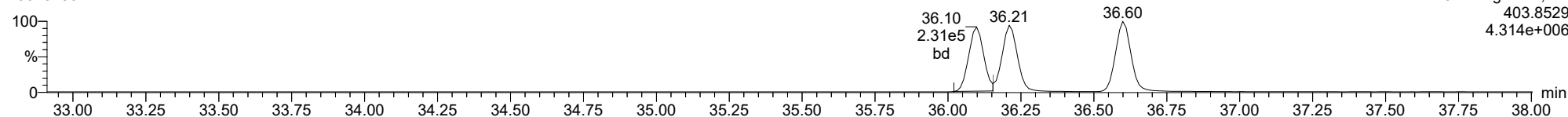
**13C-123478-HxCDD**

23020730



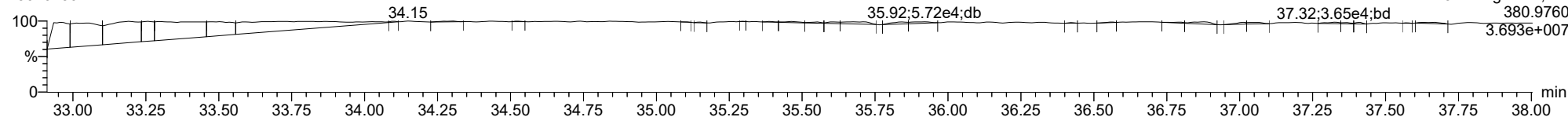
**13C-123478-HxCDD**

23020730



**FUNCTION3 PFK**

23020730

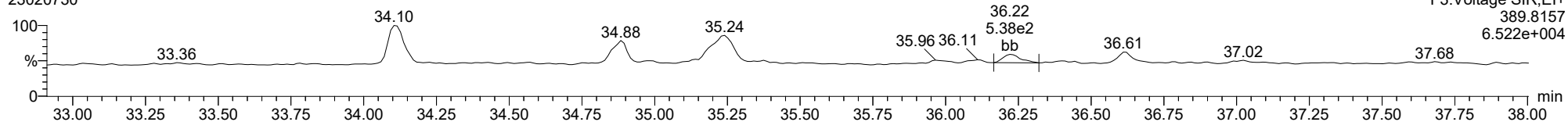




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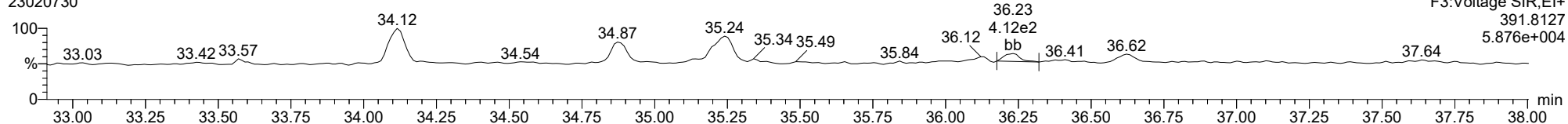
**123678-HxCDD**

23020730



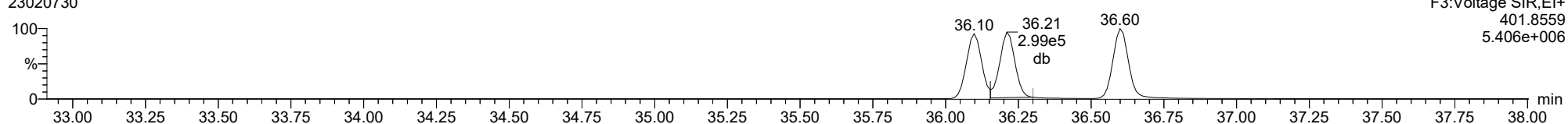
**123678-HxCDD**

23020730



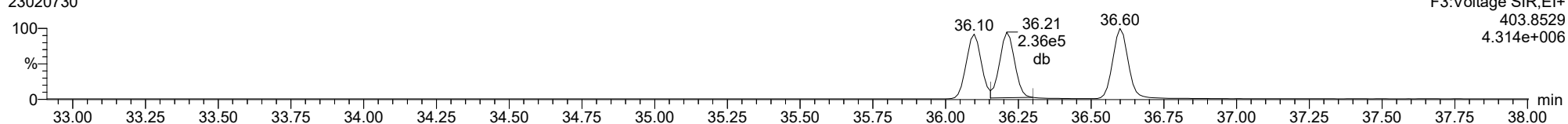
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23020730



**13C-123678-HxCDD**

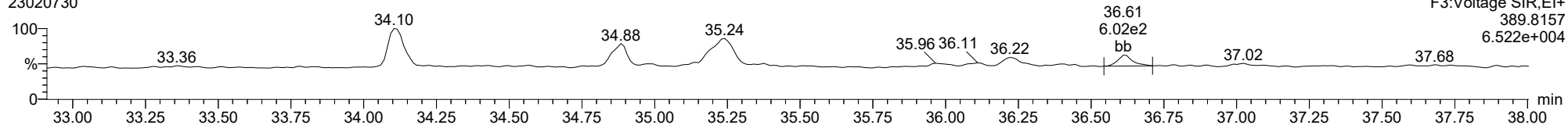
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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

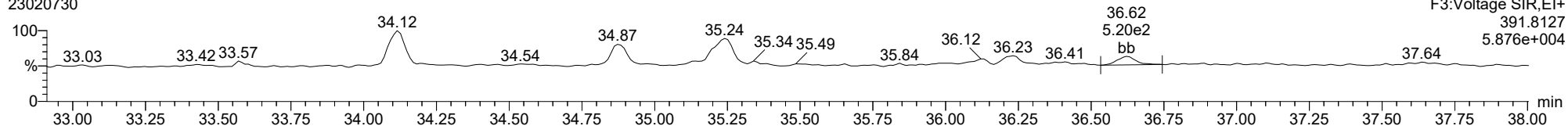
**123789-HxCDD**

23020730



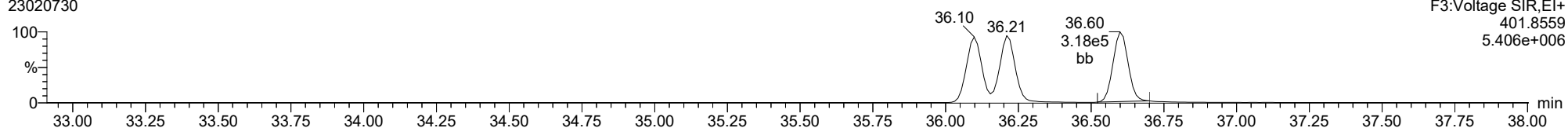
**123789-HxCDD**

23020730



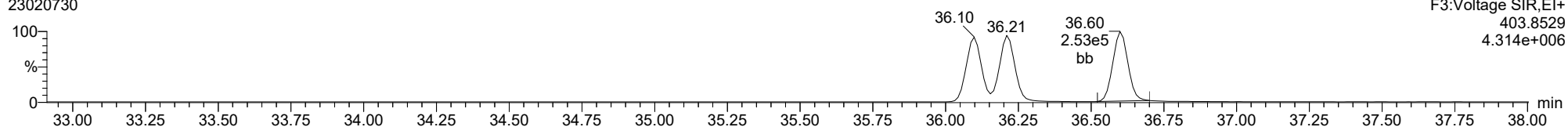
**13C-123789-HxCDD**

23020730



**13C-123789-HxCDD**

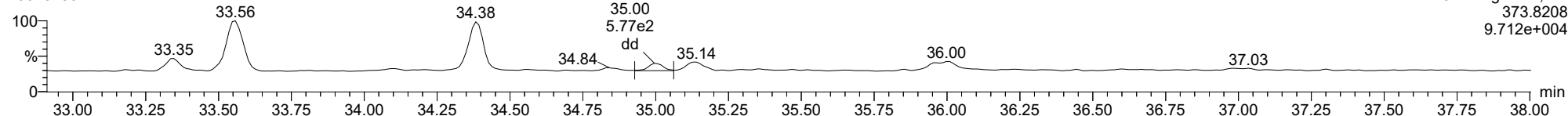
23020730



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

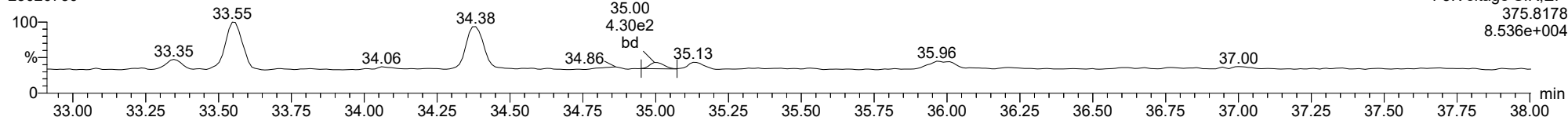
**123478-HxCDF**

23020730



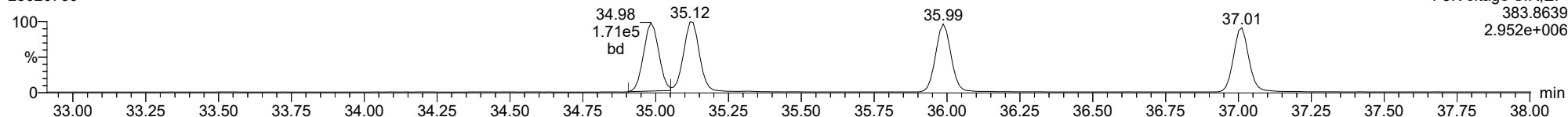
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23020730



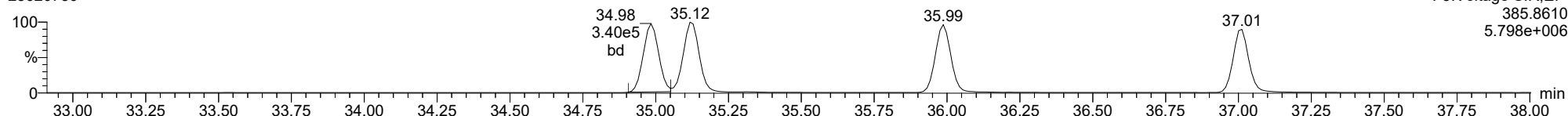
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23020730



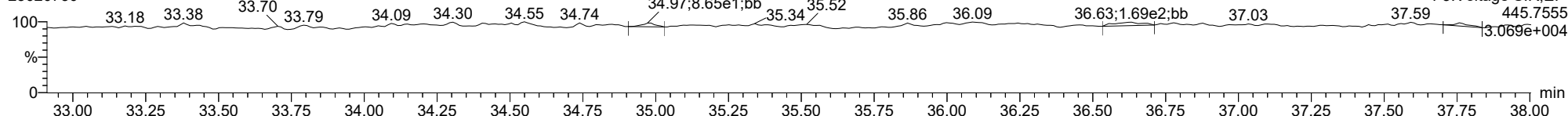
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23020730



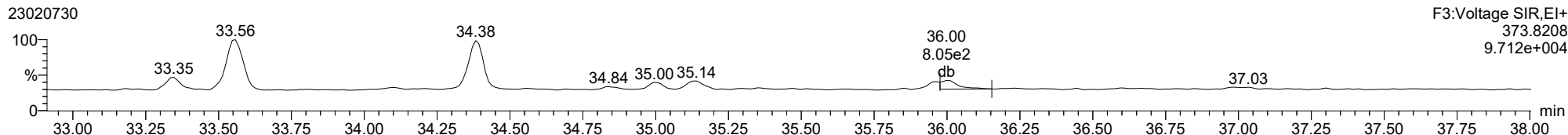
**FUNCTION3 OCDPE**

23020730

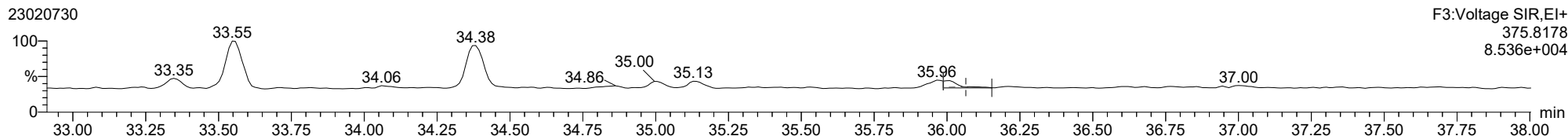


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

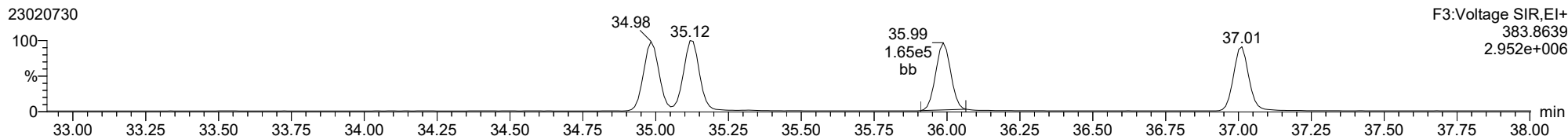
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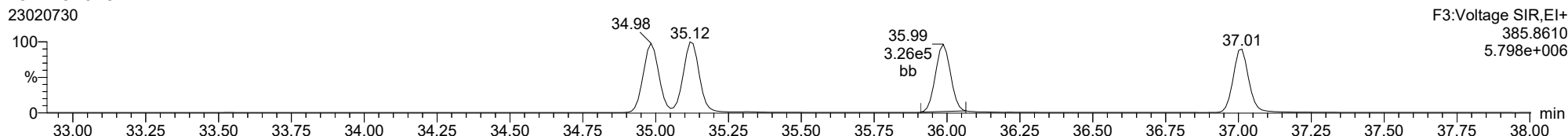
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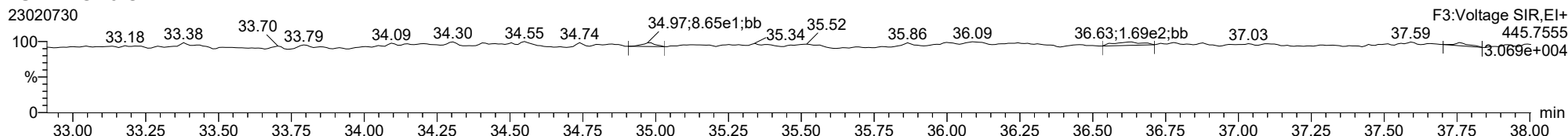
**13C-234678-HxCDF**



**13C-234678-HxCDF**



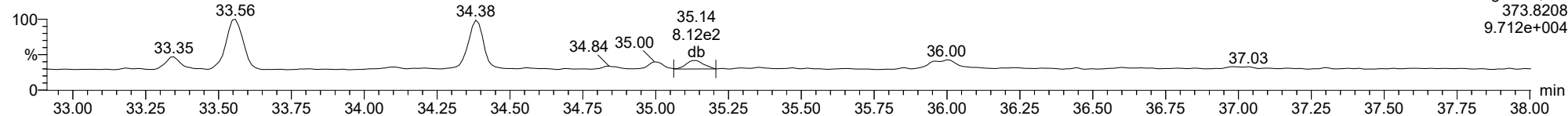
**FUNCTION3 OCDPE**



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

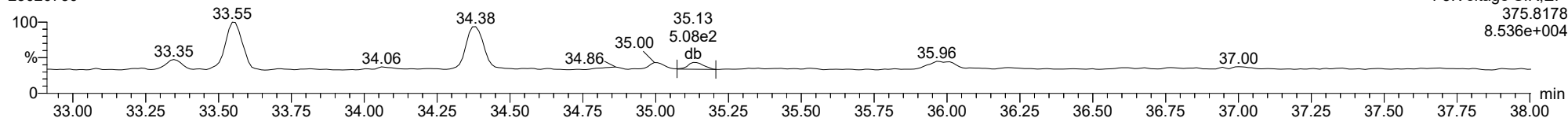
123678-HxCDF

23020730



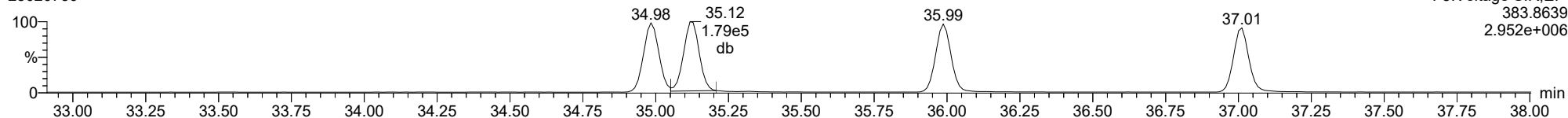
123678-HxCDF

23020730



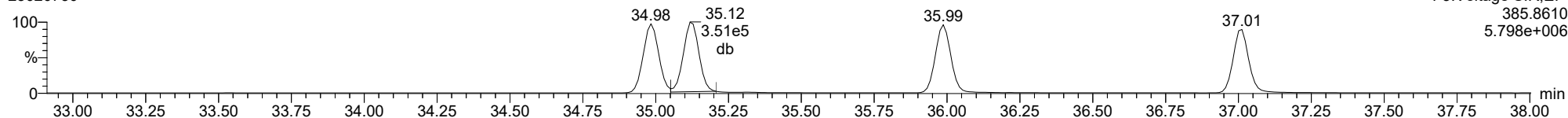
13C-123678-HxCDF

23020730



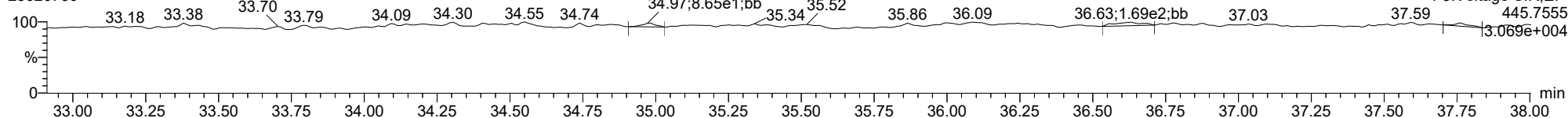
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23020730



FUNCTION3 OCDPE

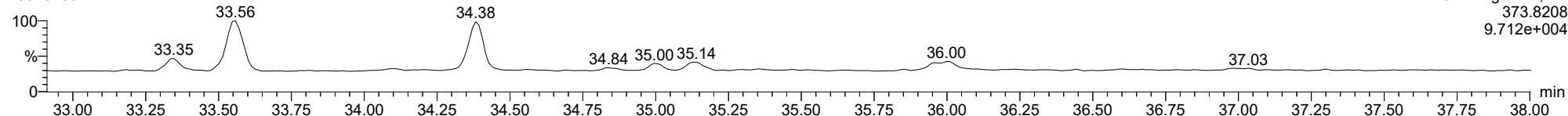
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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

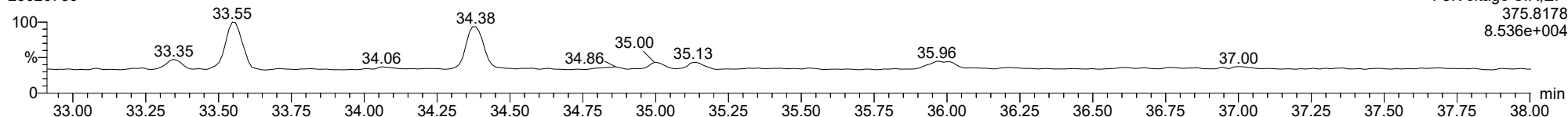
**123789-HxCDF**

23020730



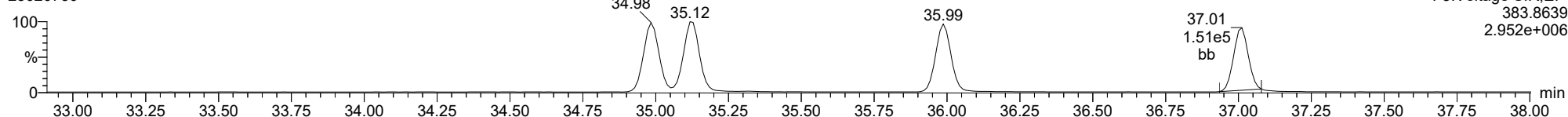
**123789-HxCDF**

23020730



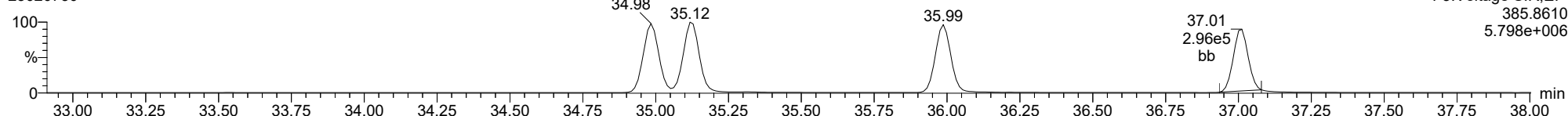
**13C-123789-HxCDF**

23020730



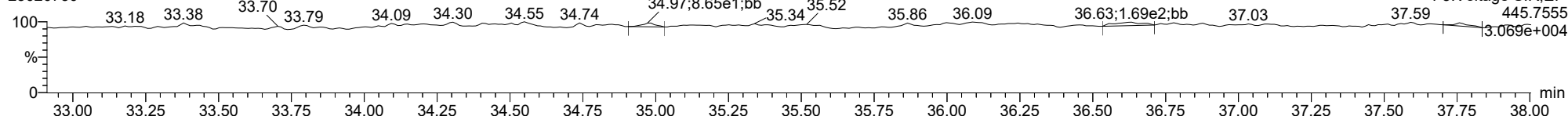
**13C-123789-HxCDF**

23020730



**FUNCTION3 OCDPE**

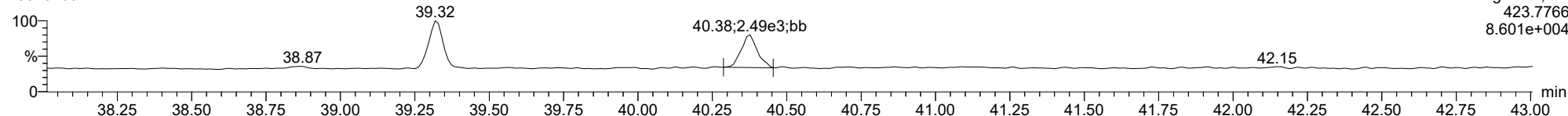
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ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

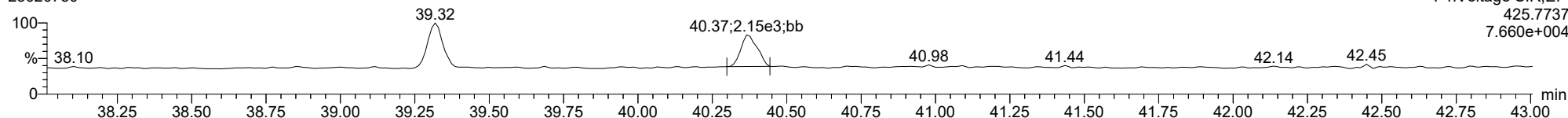
**1234678-HpCDD**

23020730



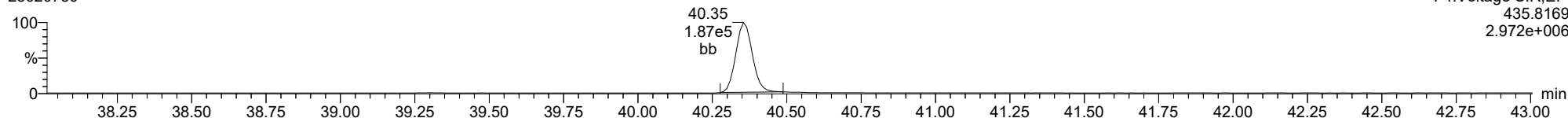
**1234678-HpCDD**

23020730



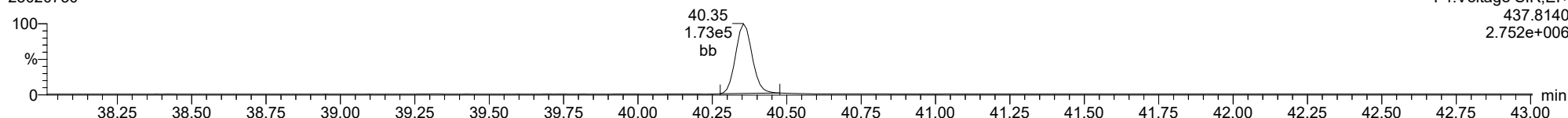
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23020730



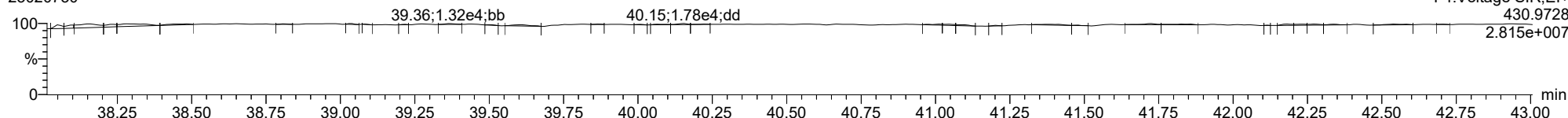
**13C-1234678-HpCDD**

23020730



**FUNCTION4 PFK**

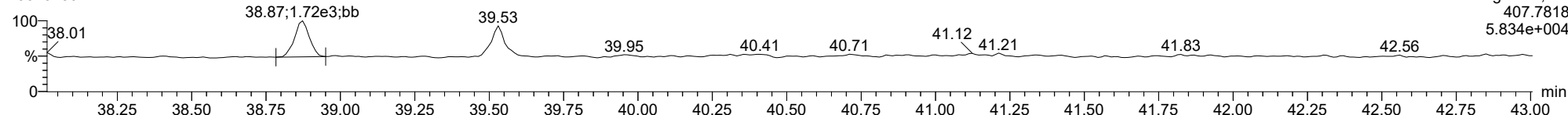
23020730



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

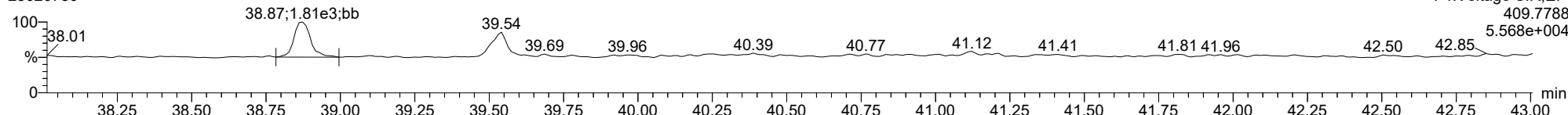
1234678-HpCDF

23020730



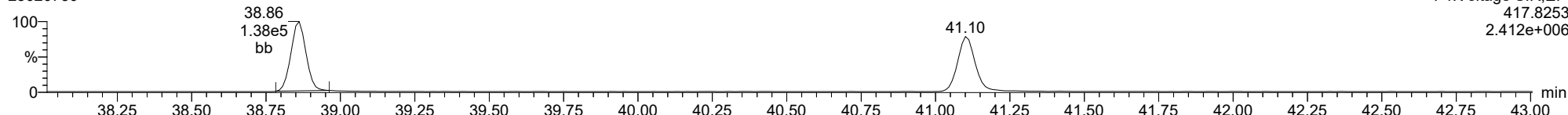
1234678-HpCDF

23020730



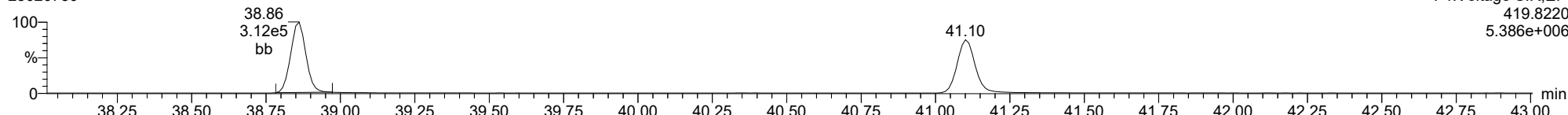
13C-1234678-HpCDF

23020730



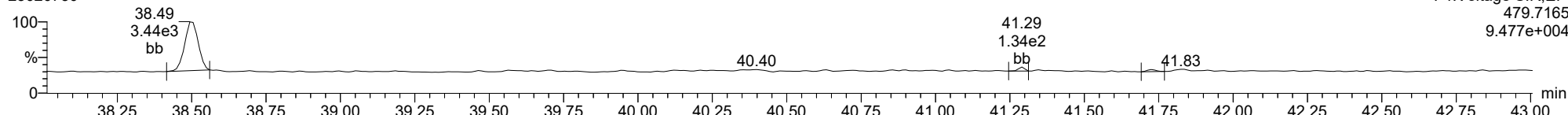
13C-1234678-HpCDF

23020730



FUNCTION4 NCDPE

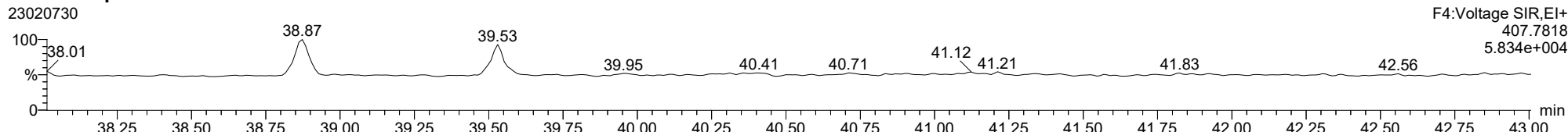
23020730



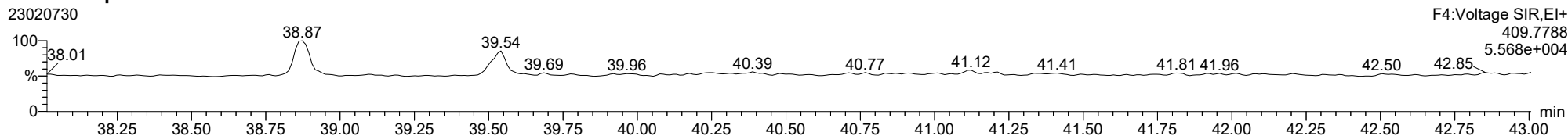


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

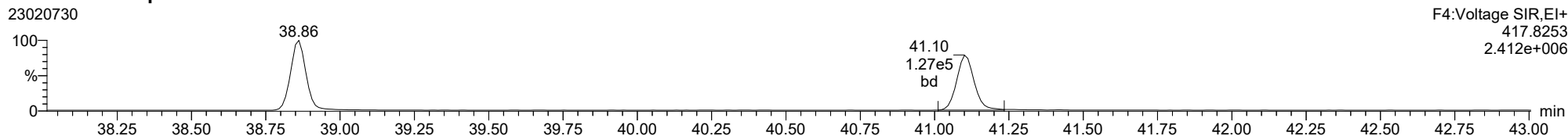
1234789-HpCDF



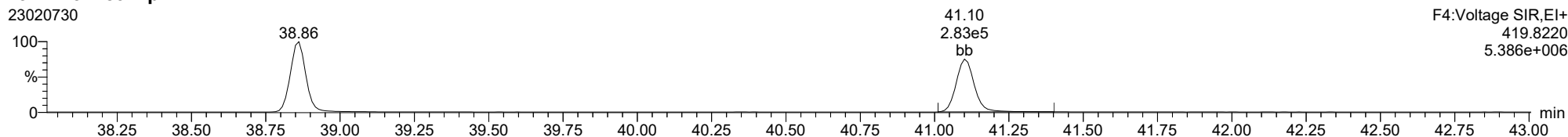
1234789-HpCDF



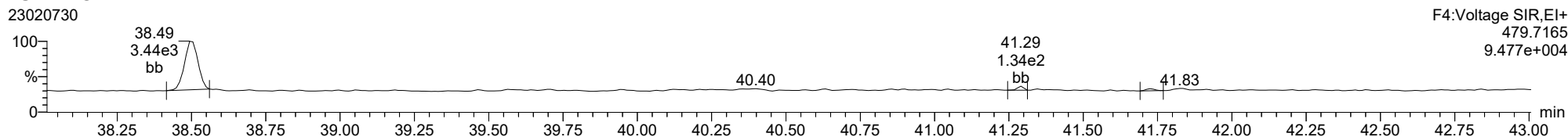
13C-1234789-HpCDF



13C-1234789-HpCDF



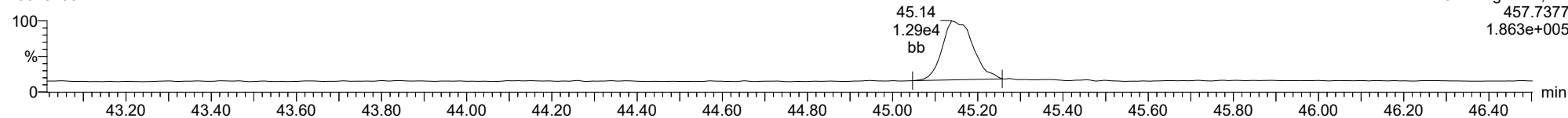
FUNCTION4 NCDPE



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

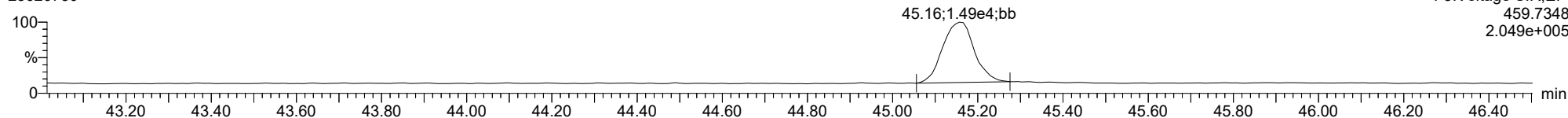
**OCDD**

23020730



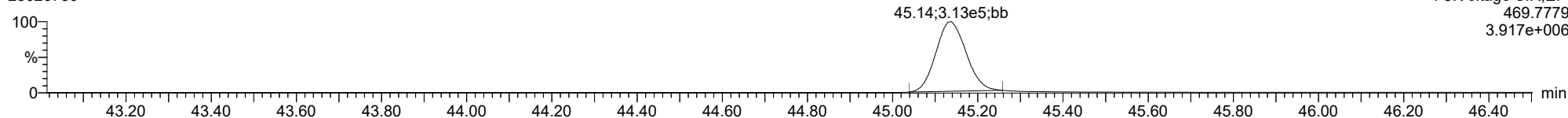
**OCDD**

23020730



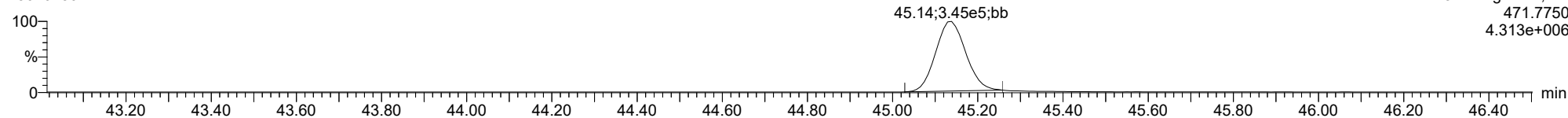
**13C-OCDD**

23020730



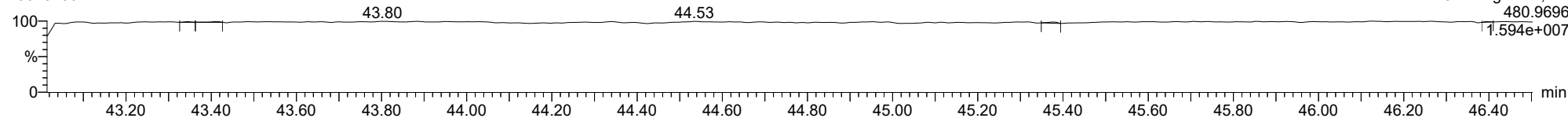
**13C-OCDD**

23020730

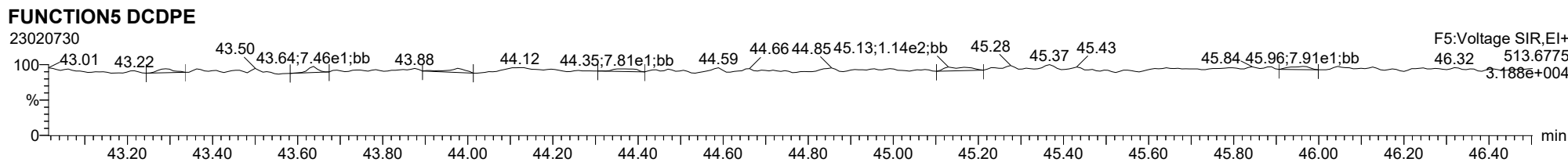
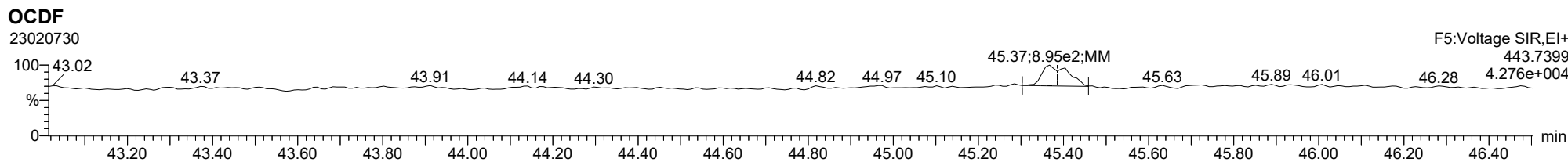
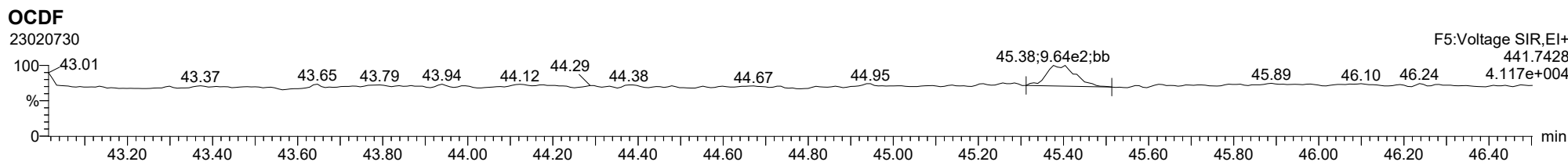


**FUNCTION5 PFK**

23020730

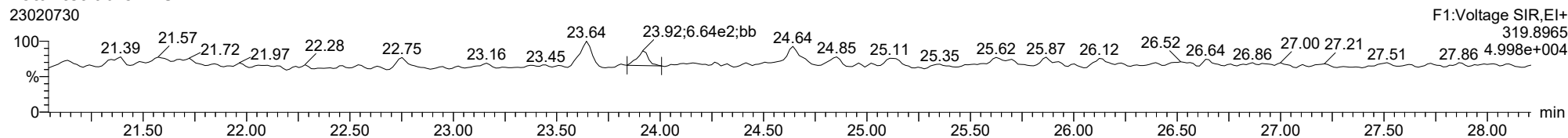


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

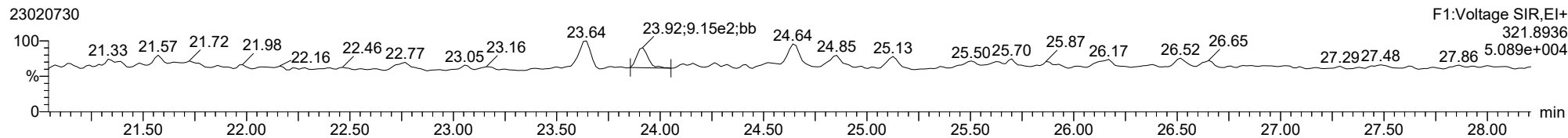


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

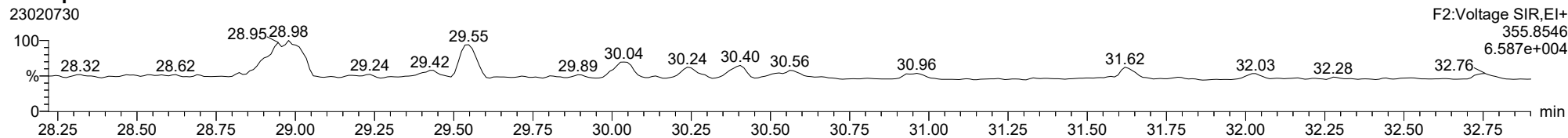
**Total-tetradoxins**



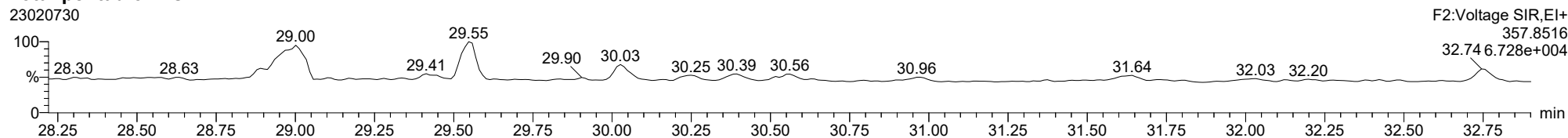
**Total-tetradoxins**



**Total-pentadoxins**



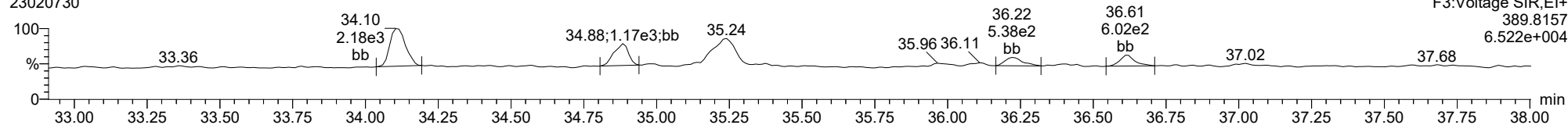
**Total-pentadoxins**



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

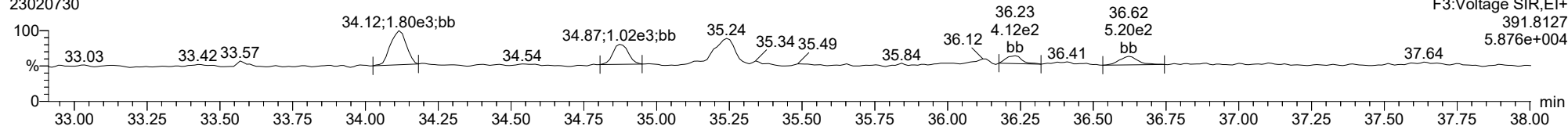
**Total-hexadioxins**

23020730



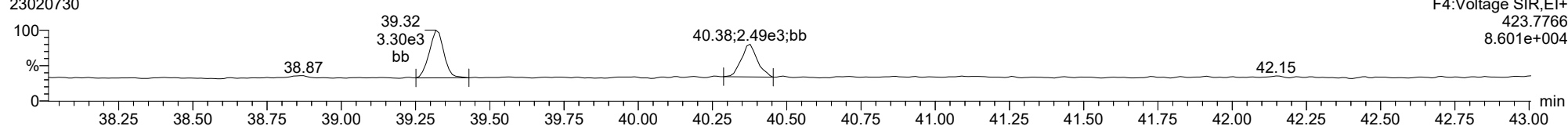
**Total-hexadioxins**

23020730



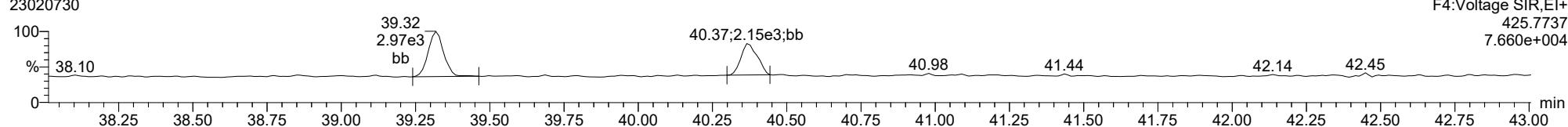
**Total-heptadioxins**

23020730



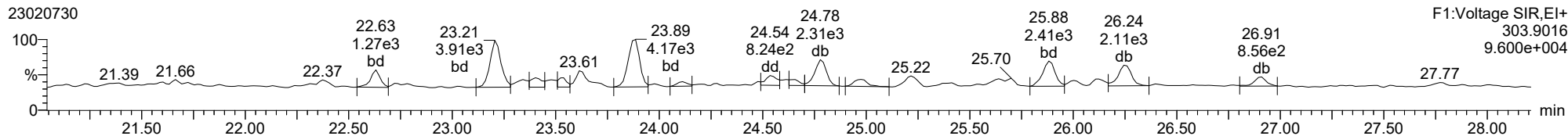
**Total-heptadioxins**

23020730

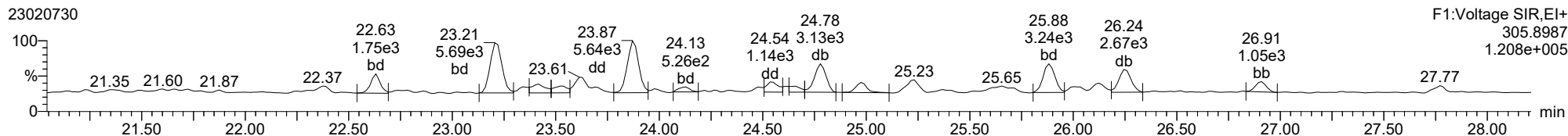


ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

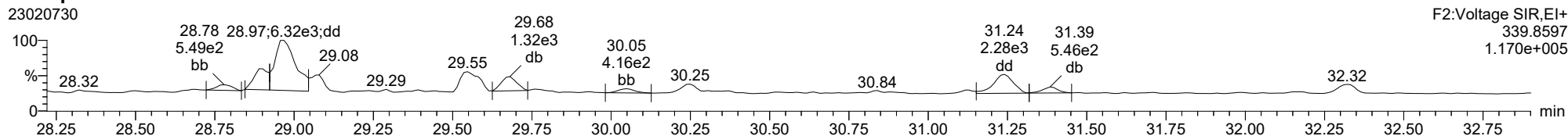
**Total-tetrafurans**



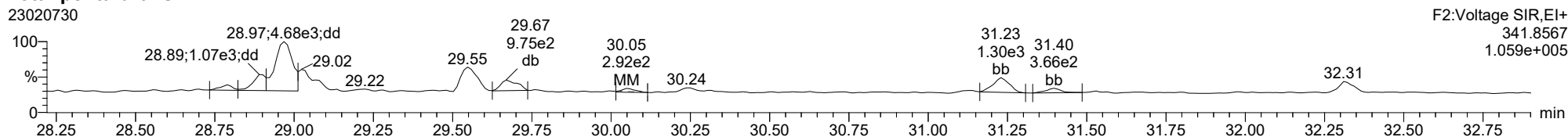
**Total-tetrafurans**



**Total-pentafurans**



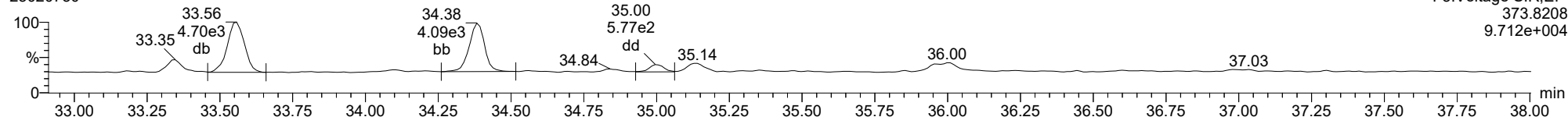
**Total-pentafurans**



ID: 22L0307-32, Name: 23020730, Date: 08-Feb-2023, Time: 09:07:11, Conditions: AUTOSPEC01, User: pk

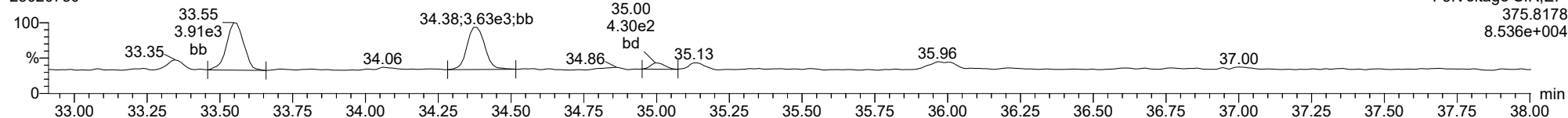
**Total-hexafurans**

23020730



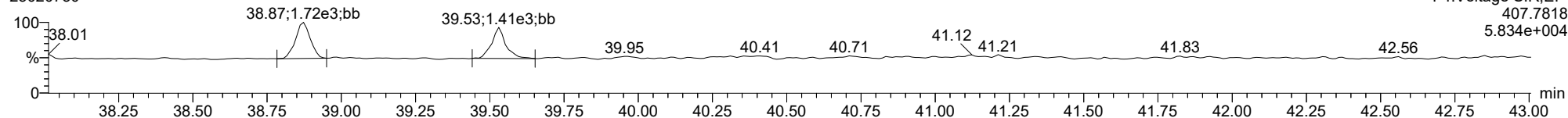
**Total-hexafurans**

23020730



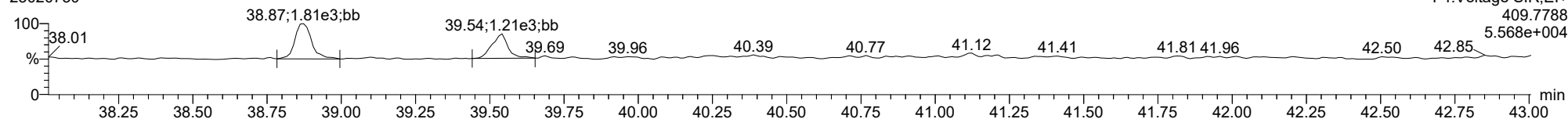
**Total-heptafurans**

23020730



**Total-heptafurans**

23020730





Form 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-33 A File ID: 23020731  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 09:56  
 % Solids: 81.32 Preparation: EPA 8290 Initial/Final: 12.33 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1		0.655-0.886	0.121	0.997	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1		0.655-0.886	0.127	0.997	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1		1.318-1.783	0.134	0.997	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1		1.318-1.783	0.132	0.997	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1		1.318-1.783	0.179	0.997	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1		1.054-1.426	0.104	0.997	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1		1.054-1.426	0.096	0.997	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1		1.054-1.426	0.098	0.997	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1		1.054-1.426	0.116	0.997	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1		1.054-1.426	0.127	0.997	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1		1.054-1.426	0.125	0.997	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1		1.054-1.426	0.128	0.997	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1		0.893-1.208	0.161	0.997	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1		0.893-1.208	0.225	0.997	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1		0.893-1.208	0.187	2.49	ND	ng/kg	U
39001-02-0	OCDF	1	1.064	0.757-1.024	0.354	2.49	0.632	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.792	0.757-1.024	0.343	9.97	2.22	ng/kg	J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.997	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.997	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.997	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.997	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.997	ND	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.997	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.997	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.997	ND	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.001  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.224





**Form 2**  
**ORGANIC ANALYSIS DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0307-33</u>
Sampled:	<u>12/12/22 09:46</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>81.32</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23020731</u>
		Analyzed:	<u>02/08/23 09:56</u>
		Initial/Final:	<u>12.33 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.776	0.655-0.886	0.206	90.8	24 - 169 %	
13C12-2,3,7,8-TCDD		0.775	0.655-0.886	0.253	108	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.514	1.318-1.783	0.180	98.4	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.524	1.318-1.783	0.188	95.8	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.598	1.318-1.783	0.202	104	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.516	0.434-0.587	0.182	95.3	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.507	0.434-0.587	0.178	95.7	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.513	0.434-0.587	0.189	94.5	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.503	0.434-0.587	0.207	90.0	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.283	1.054-1.426	0.232	109	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.267	1.054-1.426	0.225	108	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.447	0.374-0.506	0.302	81.4	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.447	0.374-0.506	0.346	82.1	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.078	0.893-1.208	0.240	87.1	23 - 140 %	
13C12-OCDD		0.924	0.757-1.024	0.299	75.0	17 - 157 %	
37Cl4-2,3,7,8-TCDD		328.000		0.092	88.9	35 - 197 %	

\* Values outside of QC limits

Quantify Sample Summary Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:17:37 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	846	884								
12378-PeCDF					0.845		1.550	860	876								
23478-PeCDF					0.911		1.550	860	876								
123478-HxCDF					1.182		1.240	786	724								
234678-HxCDF					1.229		1.240	786	724								
123678-HxCDF					1.248		1.240	786	724								
123789-HxCDF					1.187		1.240	786	724								
1234678-HpCDF					1.204		1.050	989	1121								
1234789-HpCDF					1.165		1.050	989	1121								
OCDF	45.348	1.005	5.269e2	4.954e2	1.186	1.064	0.890	1076	1237	6.08e3	6.03e3	5.6	4.9	YES	MM	MM	0.317
2378-TCDD					1.236		0.770	1179	743								
12378-PeCDD					1.087		1.550	928	891								
123478-HxCDD					0.987		1.240	878	792								
123678-HxCDD					1.021		1.240	878	792								
123789-HxCDD					0.985		1.240	878	792								
1234678-HpCDD					1.253		1.050	977	900								
OCDD	45.147	1.001	1.474e3	1.861e3	1.103	0.792	0.890	1053	1032	1.96e4	2.10e4	18.6	20.3	NO	MM	MM	1.112
13C-2378-TCDF	25.836	1.007	2.750e5	3.541e5	1.768	0.776	0.770	2323	1393	4.28e6	5.47e6	1840.8	3928.6	NO	bb	bb	90.837
13C-12378-PeCDF	30.004	1.170	3.546e5	2.342e5	1.527	1.514	1.550	1567	1239	5.54e6	3.63e6	3533.5	2927.6	NO	bb	bb	98.441
13C-23478-PeCDF	31.341	1.222	3.323e5	2.180e5	1.466	1.524	1.550	1567	1239	5.21e6	3.43e6	3322.5	2765.2	NO	bb	bb	95.798
13C-123478-HxCDF	34.962	0.956	1.572e5	3.048e5	1.054	0.516	0.510	1276	1178	2.51e6	4.91e6	1964.0	4172.6	NO	bd	bd	95.281
13C-123678-HxCDF	35.106	0.960	1.601e5	3.155e5	1.080	0.507	0.510	1276	1178	2.54e6	5.05e6	1991.1	4291.0	NO	db	db	95.710
13C-234678-HxCDF	35.964	0.983	1.495e5	2.916e5	1.014	0.513	0.510	1276	1178	2.55e6	4.97e6	2001.2	4222.6	NO	bb	bb	94.486
13C-123789-HxCDF	36.989	1.011	1.286e5	2.557e5	0.928	0.503	0.510	1276	1178	2.19e6	4.31e6	1719.3	3656.4	NO	bb	bb	89.989
13C-1234678-HpCDF	38.839	1.062	1.198e5	2.681e5	1.036	0.447	0.440	1663	2338	2.01e6	4.51e6	1206.8	1927.8	NO	bb	bb	81.355
13C-1234789-HpCDF	41.078	1.123	1.056e5	2.364e5	0.905	0.447	0.440	1663	2338	1.49e6	3.38e6	894.8	1444.1	NO	bd	bd	82.107
13C-1234-TCDD	25.655	0.000	1.723e5	2.194e5	1.000	0.785	0.770	1950	898	2.68e6	3.45e6	1376.7	3844.7	NO	bb	bb	100.000
13C-2378-TCDD	26.471	1.032	2.040e5	2.632e5	1.103	0.775	0.770	1950	898	3.19e6	4.15e6	1636.6	4622.4	NO	bb	bb	108.136
13C-12378-PeCDD	31.597	1.232	2.282e5	1.428e5	0.914	1.598	1.550	895	988	3.43e6	2.11e6	3835.8	2140.1	NO	bd	bd	103.590
13C-123478-HxCDD	36.076	0.986	2.628e5	2.048e5	0.933	1.283	1.240	1381	1390	4.49e6	3.51e6	3251.9	2527.3	NO	bd	bd	108.921
13C-123678-HxCDD	36.187	0.989	2.674e5	2.110e5	0.965	1.267	1.240	1381	1390	4.38e6	3.47e6	3168.4	2497.2	NO	db	db	107.773
13C-1234678-HpCDD	40.332	1.103	1.625e5	1.508e5	0.782	1.078	1.050	1267	1136	2.49e6	2.35e6	1966.0	2065.7	NO	bb	bb	87.071
13C-OCDD	45.111	1.233	2.612e5	2.827e5	0.788	0.924	0.890	1330	1688	3.17e6	3.48e6	2382.0	2065.0	NO	bb	bb	149.935
13C-123789-HxCDD	36.577	0.000	2.566e5	2.036e5	1.000	1.261	1.240	1381	1390	4.27e6	3.39e6	3088.2	2434.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.501	1.033	1.718e5		1.233			1159		2.63e6		2269.3			bb		35.556

**ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.465	0.870	8.460e1	8.592e1	1.064	0.985	0.770	846	884	1.26e3	1.23e3	1.5	1.4	YES	bb	bb	0.025
1289-TCDF					0.858		0.770	846	884								
13468-PECDF					1.013		1.550	646	763								
12389-PECDF					0.844		1.550	860	876								
123468-HXCDF					1.197		1.240	786	724								
1368-TCDD					1.084		0.770	1179	743								
1289-TCDD					0.975		0.770	1179	743								
12479-PECDD					1.837		1.550	928	891								
12389-PECDD					1.252		1.550	928	891								
124679-HXCDD	34.093	0.945	1.461e2	7.451e1	1.033	1.961	1.240	878	792	3.14e3	1.73e3	3.6	2.2	YES	bb	bb	0.046
1234679-HPCDD	39.296	0.974	1.141e3	6.984e2	1.286	1.633	1.050	977	900	1.22e4	1.20e4	12.5	13.4	YES	dd	bd	0.456
Total-tetrafurans			0.000e0		0.933			846		0.00e0							
Total-penta1			0.000e0					646		0.00e0							
Total-pentafurans			0.000e0		0.866			860		0.00e0							
Total-hexafurans			0.000e0		1.208			786		0.00e0							
Total-heptafurans			0.000e0		1.185			989		0.00e0							
Total-Furans			0.000e0		1.067			846		0.00e0							
Total-tetradoxins			0.000e0		1.099			1179		0.00e0							
Total-pentadoxins			0.000e0		1.392			928		0.00e0							
Total-hexadoxins			0.000e0		1.007			878		0.00e0							
Total-heptadoxins			0.000e0		1.269			977		0.00e0							
Total-Dioxins			1.474e3		1.165			1179		1.96e4							1.112
Total-TEQ			1.474e3					1179		1.96e4							1.112
FUNCTION1 PFK			3.453e6					786457		6.23e7							
FUNCTION2 PFK			5.575e5					443446		1.66e7							0.000
FUNCTION3 PFK			2.328e5					309966		7.31e6							0.000
FUNCTION4 PFK			3.975e6					179267		5.08e7							
FUNCTION5 PFK			1.359e5					144812		4.02e6							
FUNCTION1 HXCD...			5.316e2					604		7.60e3							0.000
FUNCTION1 HPCD...			1.144e3					773		1.76e4							0.000
FUNCTION2 HPCD...			5.697e2					655		9.92e3							0.000
FUNCTION3 OCDPE			4.281e2					642		8.14e3							0.000
FUNCTION4 NCDPE			6.922e2					934		1.14e4							0.000
FUNCTION5 DCDPE			3.181e2					910		8.30e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:37 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	OCDD	45.15	1.474e3	1.861e3	1.103	0.79	0.89	18.6	YES	NO	MM	MM	1.112

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

## PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.84	1.015e4					0.5	NO		bb		
2	FUNCTION1 PFK	22.72	4.338e4					1.2	NO		bb		
3	FUNCTION1 PFK	22.63	4.264e4					1.3	NO		db		
4	FUNCTION1 PFK	22.53	9.043e4					1.5	NO		dd		
5	FUNCTION1 PFK	22.46	5.539e4					1.7	NO		bd		
6	FUNCTION1 PFK	22.40	1.626e4					0.9	NO		bb		
7	FUNCTION1 PFK	22.19	4.358e4					1.5	NO		db		
8	FUNCTION1 PFK	22.12	1.109e5					1.5	NO		dd		
9	FUNCTION1 PFK	21.98	4.124e4					1.4	NO		dd		
10	FUNCTION1 PFK	21.92	2.822e4					1.0	NO		bd		
11	FUNCTION1 PFK	21.62	2.966e4					1.2	NO		db		
12	FUNCTION1 PFK	21.57	6.124e4					1.3	NO		dd		
13	FUNCTION1 PFK	21.44	1.300e5					2.5	NO		bd		
14	FUNCTION1 PFK	21.35	1.679e5					2.7	NO		db		
15	FUNCTION1 PFK	21.21	1.323e5					2.7	NO		bd		
16	FUNCTION1 PFK	21.12	1.501e4					0.8	NO		bb		
17	FUNCTION1 PFK	24.54	8.382e4					1.7	NO		dd		
18	FUNCTION1 PFK	24.45	4.075e4					1.1	NO		dd		
19	FUNCTION1 PFK	24.37	6.188e4					1.6	NO		dd		
20	FUNCTION1 PFK	24.29	6.964e4					1.6	NO		dd		
21	FUNCTION1 PFK	24.23	6.106e4					1.7	NO		dd		
22	FUNCTION1 PFK	24.10	1.042e5					1.4	NO		bd		
23	FUNCTION1 PFK	23.98	2.638e5					1.7	NO		db		
24	FUNCTION1 PFK	23.70	5.748e4					1.2	NO		dd		
25	FUNCTION1 PFK	23.63	2.419e4					1.0	NO		dd		
26	FUNCTION1 PFK	23.57	2.159e4					0.7	NO		bd		
27	FUNCTION1 PFK	23.49	1.280e4					0.4	NO		bb		
28	FUNCTION1 PFK	23.36	1.538e4					0.7	NO		bb		
29	FUNCTION1 PFK	23.30	4.374e4					1.2	NO		db		
30	FUNCTION1 PFK	23.24	5.658e4					1.3	NO		bd		
31	FUNCTION1 PFK	23.13	5.145e4					1.3	NO		bb		
32	FUNCTION1 PFK	22.99	1.343e4					0.5	NO		bb		
33	FUNCTION1 PFK	26.58	4.855e4					0.8	NO		bb		
34	FUNCTION1 PFK	26.27	1.334e4					0.5	NO		bb		
35	FUNCTION1 PFK	25.91	7.390e3					0.4	NO		bb		
36	FUNCTION1 PFK	25.85	2.501e4					1.0	NO		db		
37	FUNCTION1 PFK	25.81	5.344e4					1.6	NO		dd		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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**ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	25.73	7.244e4					1.4	NO		bd		
39	FUNCTION1 PFK	25.47	6.610e4					1.6	NO		bb		
40	FUNCTION1 PFK	25.35	3.411e4					1.2	NO		bb		
41	FUNCTION1 PFK	25.23	5.913e4					1.5	NO		db		
42	FUNCTION1 PFK	25.17	2.626e4					1.0	NO		bd		
43	FUNCTION1 PFK	25.10	4.480e4					1.2	NO		db		
44	FUNCTION1 PFK	25.02	7.937e4					1.8	NO		dd		
45	FUNCTION1 PFK	24.93	9.854e4					1.9	NO		dd		
46	FUNCTION1 PFK	24.85	6.600e4					1.4	NO		dd		
47	FUNCTION1 PFK	24.76	1.515e5					1.8	NO		dd		
48	FUNCTION1 PFK	24.61	3.450e4					0.8	NO		dd		
49	FUNCTION1 PFK	28.07	2.160e4					0.7	NO		bb		
50	FUNCTION1 PFK	27.95	8.819e4					1.7	NO		bb		
51	FUNCTION1 PFK	27.80	3.261e4					1.0	NO		bb		
52	FUNCTION1 PFK	27.74	2.086e4					1.0	NO		bb		
53	FUNCTION1 PFK	27.67	3.629e4					0.9	NO		bb		
54	FUNCTION1 PFK	27.59	3.031e4					1.0	NO		db		
55	FUNCTION1 PFK	27.53	4.459e4					1.5	NO		bd		
56	FUNCTION1 PFK	27.45	9.145e3					0.5	NO		bb		
57	FUNCTION1 PFK	27.33	1.376e4					0.7	NO		bb		
58	FUNCTION1 PFK	27.15	3.304e3					0.3	NO		bb		
59	FUNCTION1 PFK	26.99	3.785e4					1.6	NO		db		
60	FUNCTION1 PFK	26.92	9.449e4					2.0	NO		dd		
61	FUNCTION1 PFK	26.88	4.863e4					1.6	NO		dd		
62	FUNCTION1 PFK	26.82	1.836e4					0.9	NO		bd		
63	FUNCTION1 PFK	26.71	7.203e4					1.3	NO		bb		

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

## PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.90	8.002e3					0.7	NO		bb		0.000
2	FUNCTION2 PFK	29.85	5.599e3					0.6	NO		bb		0.000
3	FUNCTION2 PFK	29.80	6.732e3					0.8	NO		bb		0.000
4	FUNCTION2 PFK	29.74	1.363e4					1.1	NO		db		0.000
5	FUNCTION2 PFK	29.67	2.710e4					1.4	NO		bd		0.000
6	FUNCTION2 PFK	29.63	1.228e4					0.7	NO		bb		0.000
7	FUNCTION2 PFK	29.48	2.280e3					0.5	NO		bb		0.000
8	FUNCTION2 PFK	29.45	8.884e3					1.0	NO		bb		0.000
9	FUNCTION2 PFK	29.17	8.984e3					0.9	NO		db		0.000
10	FUNCTION2 PFK	29.09	2.959e4					1.4	NO		bd		0.000
11	FUNCTION2 PFK	28.92	2.706e4					1.8	NO		bb		0.000
12	FUNCTION2 PFK	28.87	6.375e3					0.8	NO		bb		0.000
13	FUNCTION2 PFK	28.72	1.634e3					0.3	NO		bb		0.000
14	FUNCTION2 PFK	28.59	2.762e4					1.1	NO		bb		0.000
15	FUNCTION2 PFK	28.33	1.383e4					1.4	NO		db		0.000
16	FUNCTION2 PFK	28.28	1.770e4					1.0	NO		bd		0.000
17	FUNCTION2 PFK	31.80	1.488e4					0.8	NO		bb		0.000
18	FUNCTION2 PFK	31.63	9.824e3					0.9	NO		db		0.000
19	FUNCTION2 PFK	31.59	1.358e4					0.9	NO		bd		0.000
20	FUNCTION2 PFK	31.52	1.968e3					0.4	NO		bb		0.000
21	FUNCTION2 PFK	31.47	3.296e4					1.3	NO		db		0.000
22	FUNCTION2 PFK	31.39	3.951e3					0.6	NO		bd		0.000
23	FUNCTION2 PFK	31.16	1.690e4					1.2	NO		bb		0.000
24	FUNCTION2 PFK	30.87	4.978e3					0.6	NO		bb		0.000
25	FUNCTION2 PFK	30.68	2.078e3					0.4	NO		bb		0.000
26	FUNCTION2 PFK	30.65	2.847e3					0.6	NO		bb		0.000
27	FUNCTION2 PFK	30.61	1.533e4					1.1	NO		bb		0.000
28	FUNCTION2 PFK	30.54	4.802e4					1.6	NO		db		0.000
29	FUNCTION2 PFK	30.45	2.253e4					1.6	NO		dd		0.000
30	FUNCTION2 PFK	30.37	4.010e4					1.5	NO		bd		0.000
31	FUNCTION2 PFK	30.28	1.556e4					1.2	NO		bb		0.000
32	FUNCTION2 PFK	29.97	5.062e3					0.7	NO		bb		0.000
33	FUNCTION2 PFK	32.82	2.017e4					1.5	NO		bb		0.000
34	FUNCTION2 PFK	32.31	7.208e3					0.6	NO		bb		0.000
35	FUNCTION2 PFK	32.18	1.292e4					0.9	NO		bb		0.000
36	FUNCTION2 PFK	32.11	2.502e4					1.3	NO		db		0.000
37	FUNCTION2 PFK	32.02	1.651e4					1.5	NO		bd		0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:37 Pacific Standard Time

ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	31.90	7.815e3					0.8	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.48	3.414e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	34.44	5.630e3					0.9	NO		db		0.000
3	FUNCTION3 PFK	34.39	8.732e3					1.2	NO		bd		0.000
4	FUNCTION3 PFK	34.29	6.751e3					0.9	NO		bb		0.000
5	FUNCTION3 PFK	33.95	9.633e3					1.3	NO		bb		0.000
6	FUNCTION3 PFK	33.90	5.412e3					0.8	NO		bb		0.000
7	FUNCTION3 PFK	33.28	1.454e3					0.4	NO		bb		0.000
8	FUNCTION3 PFK	33.05	2.303e4					1.5	NO		bb		0.000
9	FUNCTION3 PFK	32.97	1.239e4					2.0	NO		bb		0.000
10	FUNCTION3 PFK	37.82	4.735e3					0.8	NO		bb		0.000
11	FUNCTION3 PFK	37.54	6.636e3					1.0	NO		bb		0.000
12	FUNCTION3 PFK	37.46	7.362e3					0.8	NO		bb		0.000
13	FUNCTION3 PFK	37.37	1.065e4					0.9	NO		db		0.000
14	FUNCTION3 PFK	37.30	1.100e4					1.2	NO		dd		0.000
15	FUNCTION3 PFK	37.26	6.913e3					0.9	NO		bd		0.000
16	FUNCTION3 PFK	37.06	2.163e3					0.6	NO		bb		0.000
17	FUNCTION3 PFK	36.81	8.339e3					0.8	NO		bb		0.000
18	FUNCTION3 PFK	36.66	4.909e4					1.6	NO		bb		0.000
19	FUNCTION3 PFK	36.57	2.818e4					2.2	NO		db		0.000
20	FUNCTION3 PFK	36.52	1.418e4					1.6	NO		bd		0.000
21	FUNCTION3 PFK	35.59	5.548e3					0.9	NO		bb		0.000
22	FUNCTION3 PFK	34.71	1.542e3					0.4	NO		bb		0.000

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.11	2.738e5					23.9	YES		dd		
2	FUNCTION4 PFK	38.07	2.679e5					25.1	YES		bd		
3	FUNCTION4 PFK	39.66	1.716e4					1.9	NO		bd		
4	FUNCTION4 PFK	39.51	1.584e4					2.1	NO		db		
5	FUNCTION4 PFK	39.44	3.738e4					3.5	YES		dd		
6	FUNCTION4 PFK	39.40	2.989e4					4.1	YES		dd		
7	FUNCTION4 PFK	39.30	8.722e4					6.0	YES		dd		
8	FUNCTION4 PFK	39.20	1.634e5					7.7	YES		dd		
9	FUNCTION4 PFK	39.03	2.447e5					11.1	YES		dd		
10	FUNCTION4 PFK	38.96	1.350e5					12.1	YES		dd		
11	FUNCTION4 PFK	38.85	1.947e5					13.5	YES		dd		
12	FUNCTION4 PFK	38.82	1.075e5					13.8	YES		dd		
13	FUNCTION4 PFK	38.73	2.324e5					15.5	YES		dd		
14	FUNCTION4 PFK	38.58	4.199e5					17.8	YES		dd		
15	FUNCTION4 PFK	38.46	4.023e5					19.7	YES		dd		
16	FUNCTION4 PFK	38.31	4.952e5					22.1	YES		dd		
17	FUNCTION4 PFK	38.28	4.006e5					23.0	YES		dd		
18	FUNCTION4 PFK	38.18	1.764e5					22.5	YES		dd		
19	FUNCTION4 PFK	41.40	4.027e3					0.9	NO		bd		
20	FUNCTION4 PFK	41.36	7.581e3					1.1	NO		db		
21	FUNCTION4 PFK	41.30	1.315e4					1.3	NO		bd		
22	FUNCTION4 PFK	41.04	8.432e2					0.4	NO		bb		
23	FUNCTION4 PFK	40.84	1.642e4					1.5	NO		bb		
24	FUNCTION4 PFK	40.77	4.489e3					1.0	NO		bb		
25	FUNCTION4 PFK	40.67	7.008e2					0.4	NO		bb		
26	FUNCTION4 PFK	40.62	6.335e3					1.6	NO		bb		
27	FUNCTION4 PFK	40.41	2.910e3					0.8	NO		bb		
28	FUNCTION4 PFK	40.33	1.796e4					1.5	NO		db		
29	FUNCTION4 PFK	40.22	6.085e3					1.4	NO		bd		
30	FUNCTION4 PFK	40.03	8.594e3					1.5	NO		db		
31	FUNCTION4 PFK	39.92	4.141e4					3.1	YES		bd		
32	FUNCTION4 PFK	39.86	1.176e3					0.5	NO		db		
33	FUNCTION4 PFK	39.81	1.709e4					1.7	NO		bd		
34	FUNCTION4 PFK	39.73	7.140e3					1.4	NO		db		
35	FUNCTION4 PFK	42.77	1.023e4					2.0	NO		bd		
36	FUNCTION4 PFK	42.65	2.799e3					0.8	NO		bb		
37	FUNCTION4 PFK	42.56	4.108e3					0.8	NO		db		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION4 PFK	42.41	3.648e4					2.3	NO		bd		
39	FUNCTION4 PFK	42.35	1.109e3					0.6	NO		bb		
40	FUNCTION4 PFK	42.20	1.134e4					1.2	NO		bb		
41	FUNCTION4 PFK	42.01	7.034e3					1.4	NO		bb		
42	FUNCTION4 PFK	41.96	7.354e2					0.4	NO		bb		
43	FUNCTION4 PFK	41.91	3.010e3					0.8	NO		bb		
44	FUNCTION4 PFK	41.79	8.448e3					1.2	NO		bb		
45	FUNCTION4 PFK	41.71	9.831e3					1.3	NO		db		
46	FUNCTION4 PFK	41.65	8.834e2					0.4	NO		bd		
47	FUNCTION4 PFK	41.61	2.596e3					0.7	NO		bb		
48	FUNCTION4 PFK	41.56	1.908e3					0.7	NO		bb		
49	FUNCTION4 PFK	41.51	3.294e3					0.7	NO		bb		
50	FUNCTION4 PFK	41.45	4.404e3					0.9	NO		db		
51	FUNCTION4 PFK	42.87	1.040e3					0.5	NO		bb		
52	FUNCTION4 PFK	42.82	8.134e3					1.3	NO		db		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.88	8.258e3					1.5	NO		bb		
2	FUNCTION5 PFK	44.79	2.737e3					0.9	NO		bb		
3	FUNCTION5 PFK	44.55	7.498e3					1.9	NO		bb		
4	FUNCTION5 PFK	44.49	2.432e3					0.8	NO		bb		
5	FUNCTION5 PFK	44.33	4.854e3					1.1	NO		bb		
6	FUNCTION5 PFK	43.88	7.383e3					1.2	NO		bb		
7	FUNCTION5 PFK	43.73	3.776e3					1.2	NO		db		
8	FUNCTION5 PFK	43.70	1.284e3					0.7	NO		bd		
9	FUNCTION5 PFK	43.61	1.737e3					0.9	NO		bb		
10	FUNCTION5 PFK	43.39	6.193e3					1.7	NO		db		
11	FUNCTION5 PFK	43.33	2.731e4					2.8	NO		dd		
12	FUNCTION5 PFK	43.22	2.599e4					2.7	NO		bd		
13	FUNCTION5 PFK	43.06	1.002e3					0.8	NO		bb		
14	FUNCTION5 PFK	46.47	5.541e2					0.4	NO		bb		
15	FUNCTION5 PFK	46.44	3.269e3					1.2	NO		db		
16	FUNCTION5 PFK	46.40	3.438e3					1.1	NO		bd		
17	FUNCTION5 PFK	45.79	1.815e3					0.7	NO		db		
18	FUNCTION5 PFK	45.71	9.557e3					1.6	NO		bd		
19	FUNCTION5 PFK	45.63	7.691e3					1.8	NO		db		
20	FUNCTION5 PFK	45.59	4.006e3					1.1	NO		bd		
21	FUNCTION5 PFK	45.49	6.135e2					0.5	NO		bb		
22	FUNCTION5 PFK	45.32	4.553e3					1.2	NO		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.09	9.823e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	26.88	7.124e1					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	25.67	8.545e1					2.3	NO		bb		0.000
4	FUNCTION1 HXCD...	24.14	8.210e1					2.0	NO		db		0.000
5	FUNCTION1 HXCD...	24.01	1.101e2					2.2	NO		bd		0.000
6	FUNCTION1 HXCD...	22.03	8.446e1					1.6	NO		bb		0.000

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## ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	28.16	7.834e1					2.3	NO		bb		0.000
2	FUNCTION1 HPCD...	28.03	8.708e1					2.1	NO		bb		0.000
3	FUNCTION1 HPCD...	27.51	7.888e1					1.8	NO		db		0.000
4	FUNCTION1 HPCD...	27.36	1.380e2					2.0	NO		dd		0.000
5	FUNCTION1 HPCD...	27.24	1.493e2					3.3	YES		bd		0.000
6	FUNCTION1 HPCD...	24.07	8.563e1					1.4	NO		bb		0.000
7	FUNCTION1 HPCD...	22.68	1.590e2					3.1	YES		bb		0.000
8	FUNCTION1 HPCD...	21.57	9.466e1					2.0	NO		db		0.000
9	FUNCTION1 HPCD...	21.47	1.342e2					2.5	NO		dd		0.000
10	FUNCTION1 HPCD...	21.35	1.387e2					2.2	NO		bd		0.000

## ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.84	7.204e1					2.5	NO		bd		0.000
2	FUNCTION2 HPCD...	30.01	9.234e1					2.3	NO		bb		0.000
3	FUNCTION2 HPCD...	29.86	9.208e1					3.8	YES		bb		0.000
4	FUNCTION2 HPCD...	29.28	1.101e2					1.9	NO		bb		0.000
5	FUNCTION2 HPCD...	32.44	7.155e1					2.0	NO		bb		0.000
6	FUNCTION2 HPCD...	31.95	1.316e2					2.7	NO		db		0.000

## ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.65	7.807e1					2.2	NO		bb		0.000
2	FUNCTION3 OCDPE	37.54	7.176e1					1.7	NO		bb		0.000
3	FUNCTION3 OCDPE	35.95	1.995e2					4.0	YES		bb		0.000
4	FUNCTION3 OCDPE	34.15	7.879e1					4.8	YES		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.70	1.648e2					1.3	NO		bb		0.000
2	FUNCTION4 NCDPE	42.50	8.882e1					2.2	NO		bb		0.000
3	FUNCTION4 NCDPE	40.44	8.455e1					1.7	NO		db		0.000
4	FUNCTION4 NCDPE	40.32	1.575e2					2.2	NO		bd		0.000
5	FUNCTION4 NCDPE	39.61	1.171e2					2.6	NO		bb		0.000
6	FUNCTION4 NCDPE	38.66	7.941e1					2.1	NO		bb		0.000

**ETHERS6**

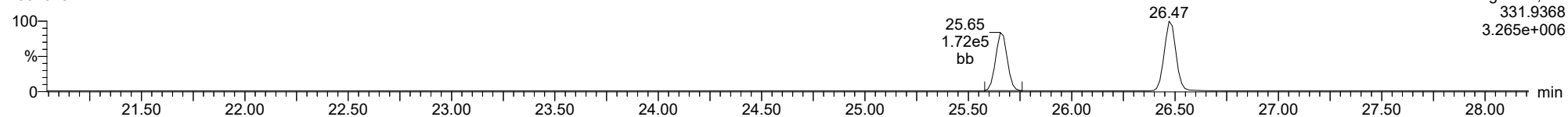
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1	FUNCTION5 DCDPE	45.33	7.005e1					2.2	NO		bb		0.000
2	FUNCTION5 DCDPE	46.40	1.461e2					3.7	YES		bb		0.000
3	FUNCTION5 DCDPE	46.08	1.020e2					3.2	YES		bb		0.000

**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** 22L0307-33, **Name:** 23020731, **Date:** 08-Feb-2023, **Time:** 09:56:39, **Conditions:** AUTOSPEC01, **User:** pk

**13C-1234-TCDD**

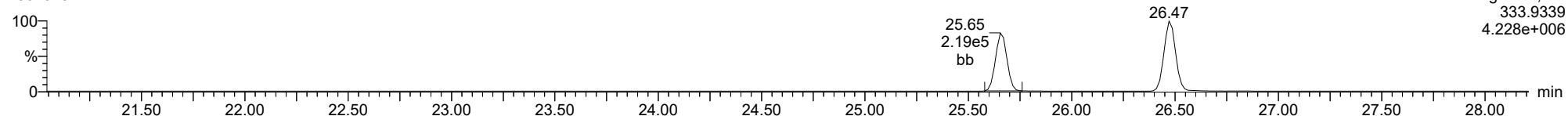
23020731



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3.265e+006

**13C-1234-TCDD**

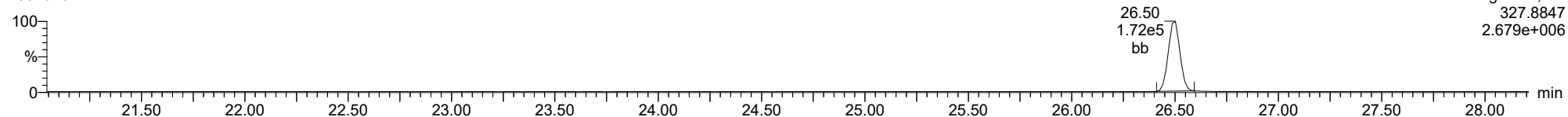
23020731



F1:Voltage SIR,El+  
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4.228e+006

**37CL-2378-TCDD**

23020731

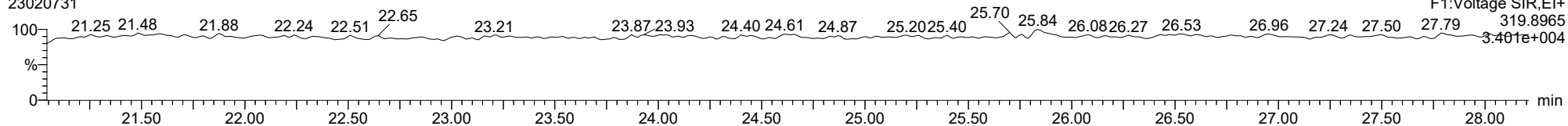


F1:Voltage SIR,El+  
327.8847  
2.679e+006

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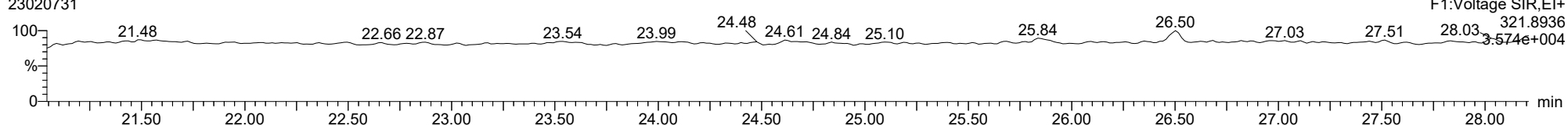
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23020731



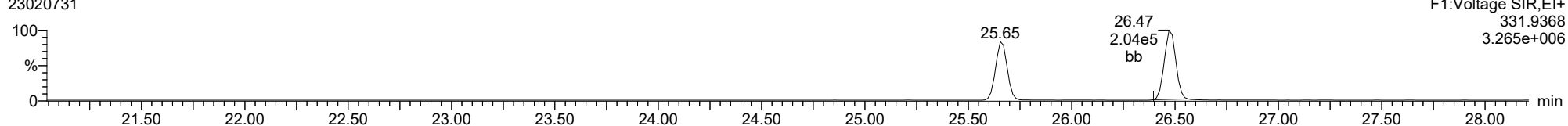
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23020731



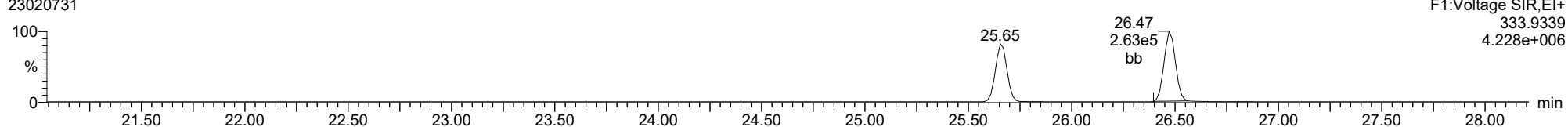
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23020731



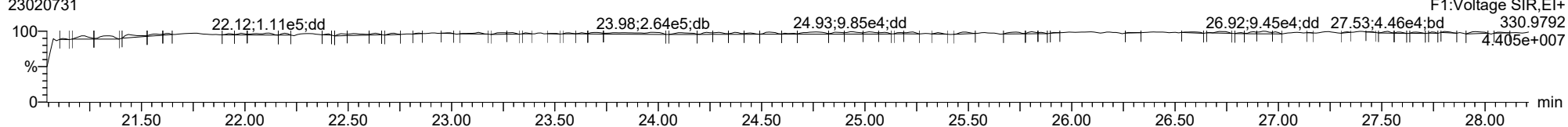
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23020731



**FUNCTION1 PFK**

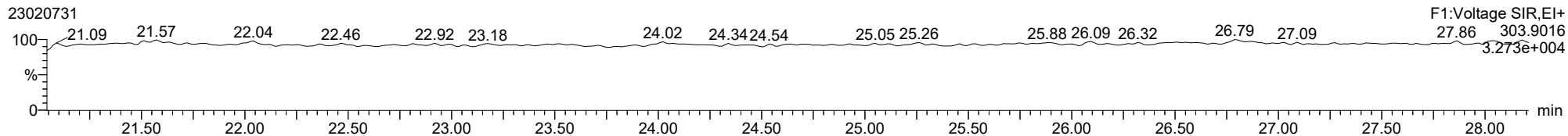
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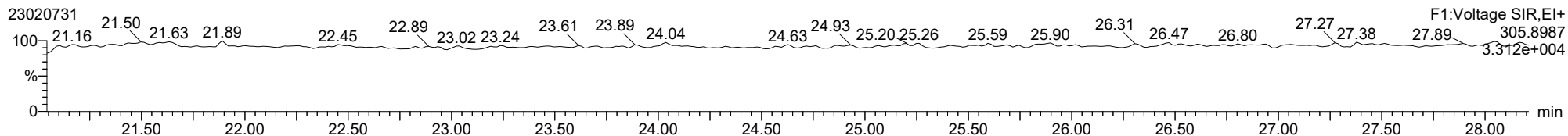


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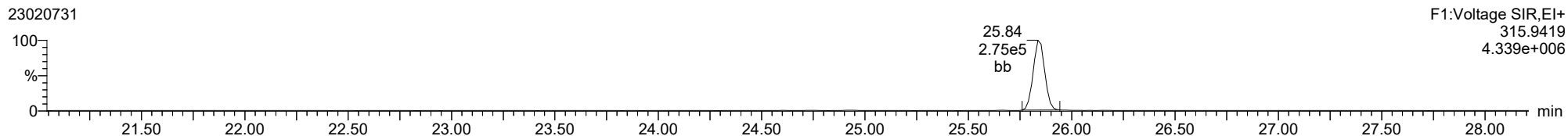
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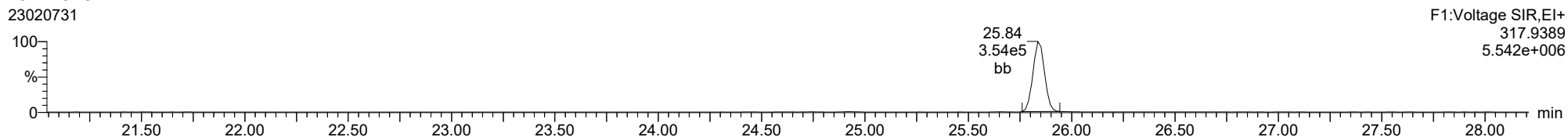
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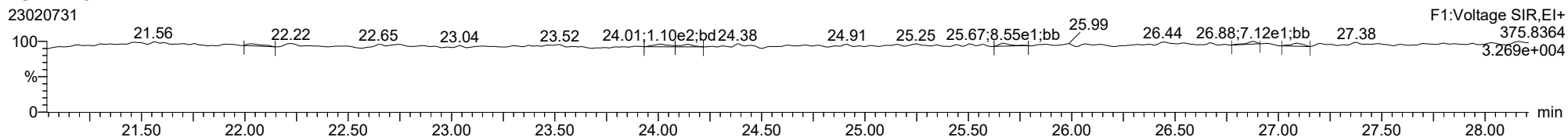
**13C-2378-TCDF**



**13C-2378-TCDF**

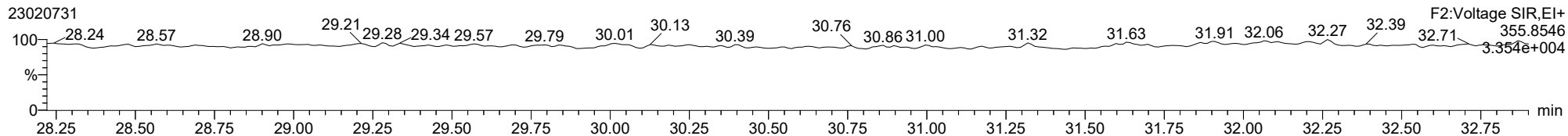


**FUNCTION1 HXCDPE**

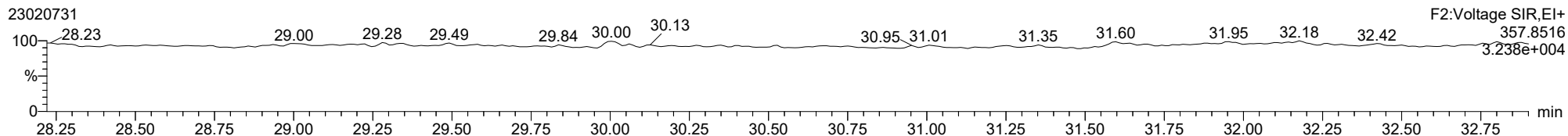


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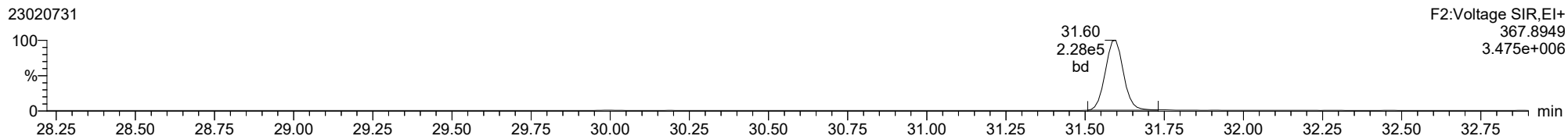
**12378-PeCDD**



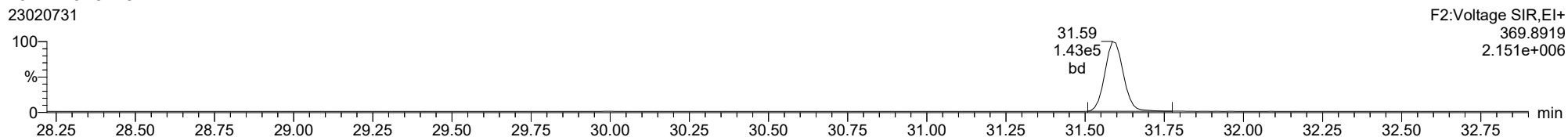
**12378-PeCDD**



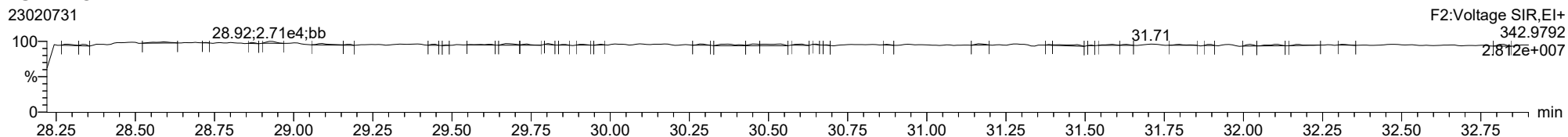
**13C-12378-PeCDD**



**13C-12378-PeCDD**

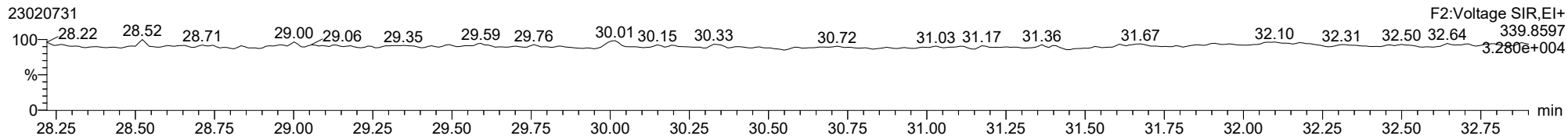


**FUNCTION2 PFK**

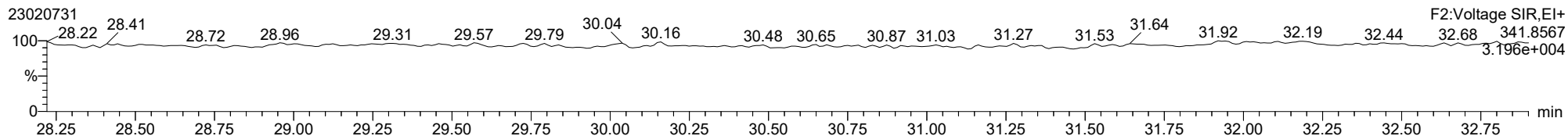


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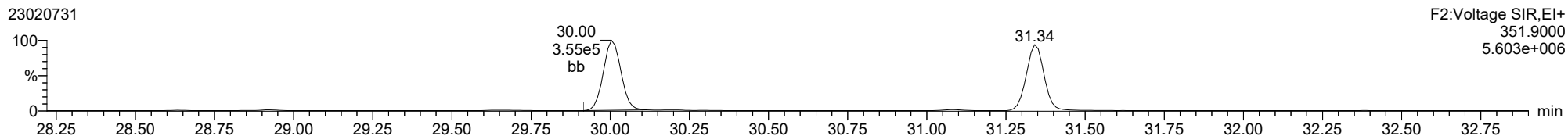
12378-PeCDF



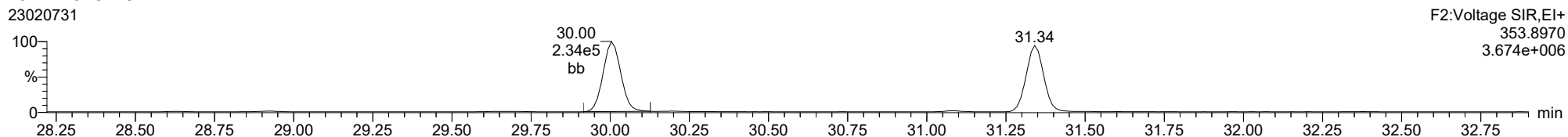
12378-PeCDF



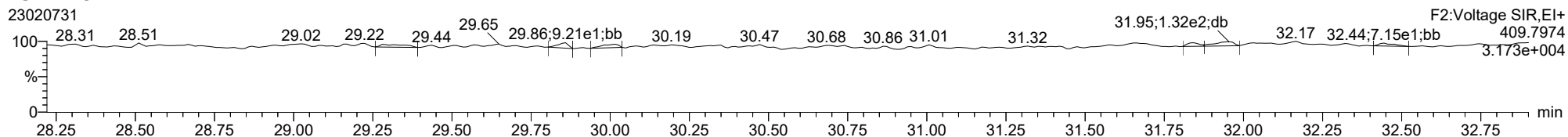
13C-12378-PeCDF



13C-12378-PeCDF

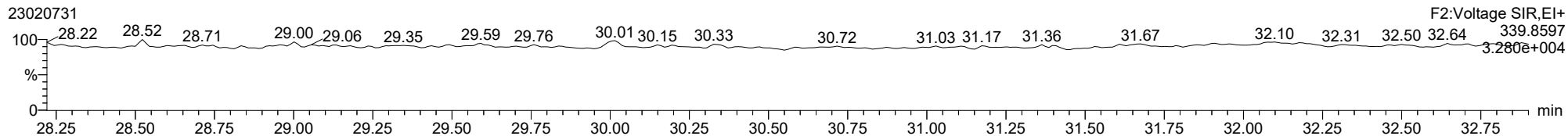


FUNCTION2 HPCDPE

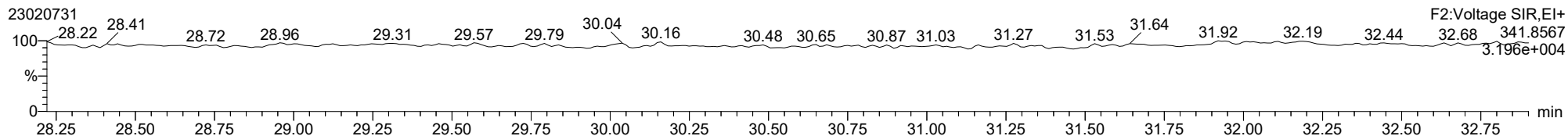


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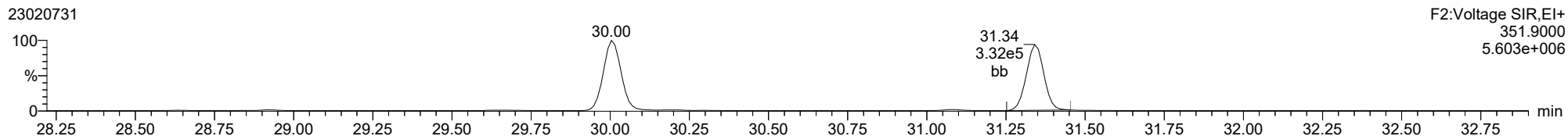
**23478-PeCDF**



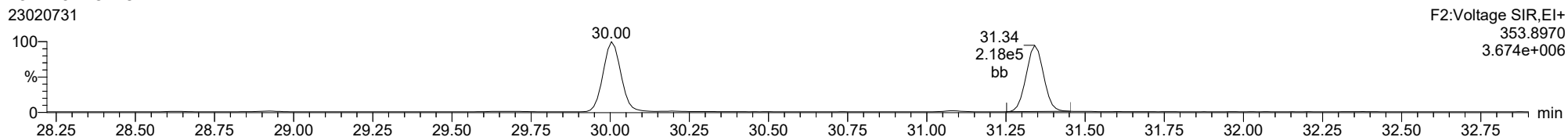
**23478-PeCDF**



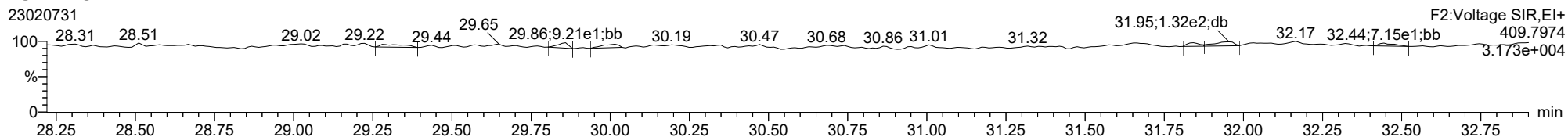
**13C-23478-PeCDF**



**13C-23478-PeCDF**

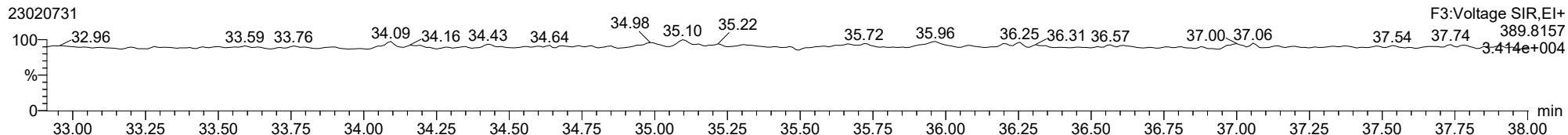


**FUNCTION2 HPCDPE**

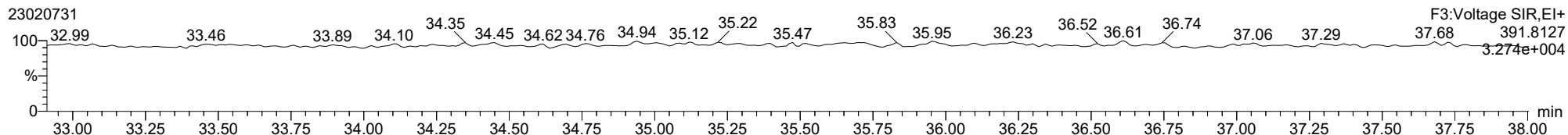


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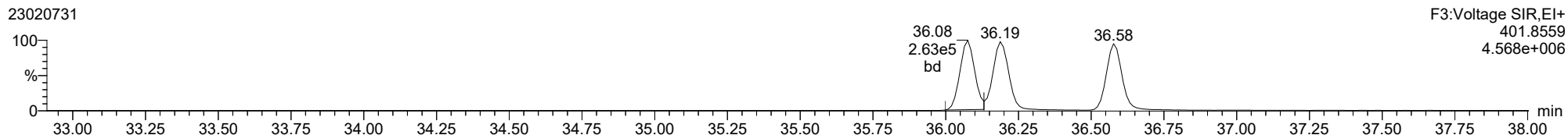
**123478-HxCDD**



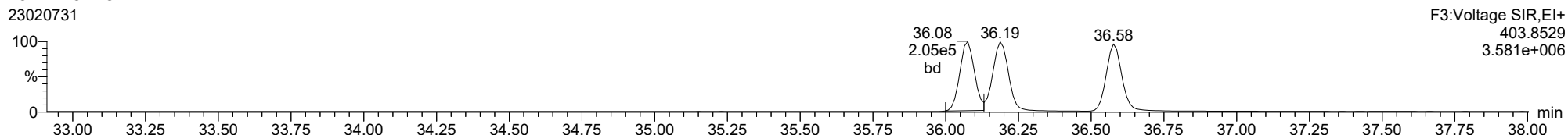
**123478-HxCDD**



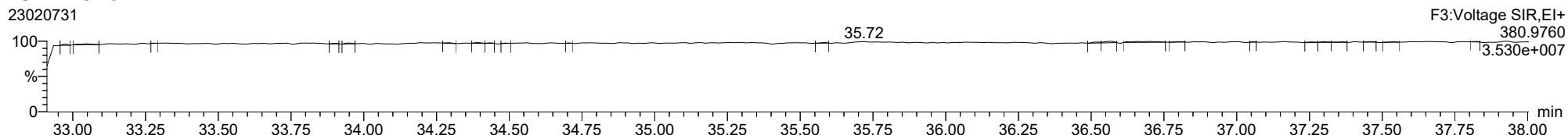
**13C-123478-HxCDD**



**13C-123478-HxCDD**

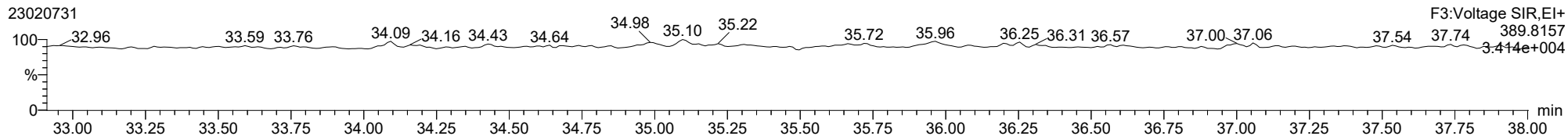


**FUNCTION3 PFK**

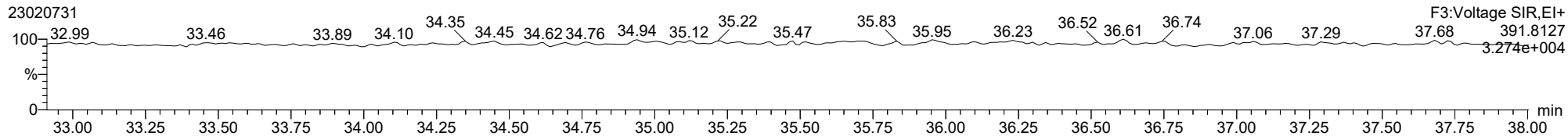


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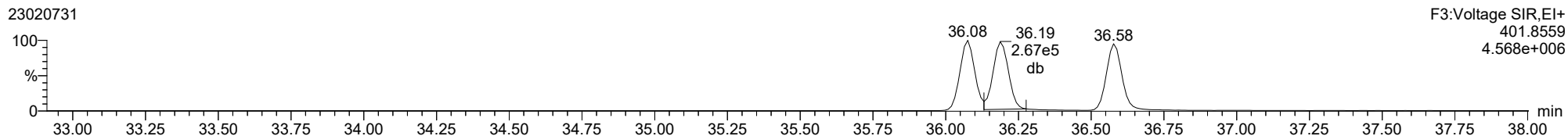
123678-HxCDD



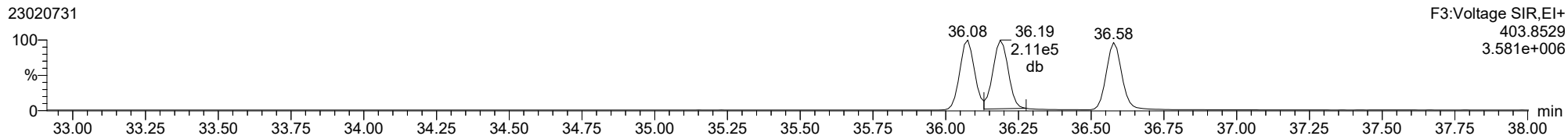
123678-HxCDD



13C-123678-HxCDD

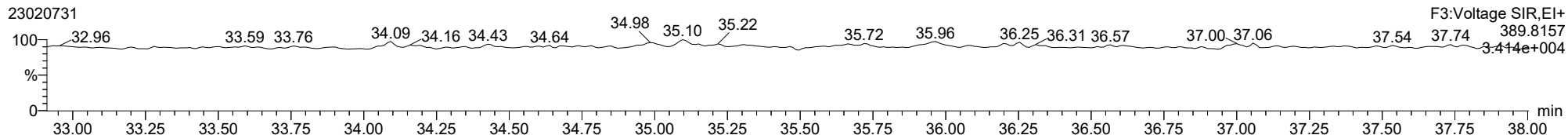


13C-123678-HxCDD

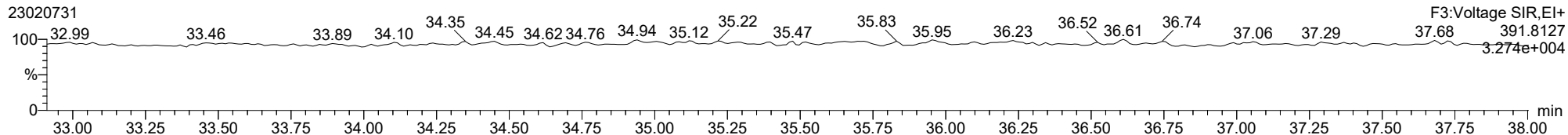


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

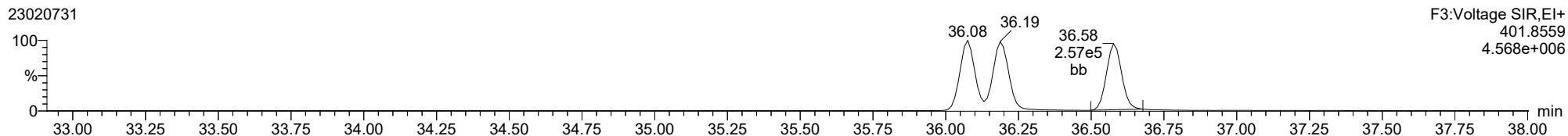
123789-HxCDD



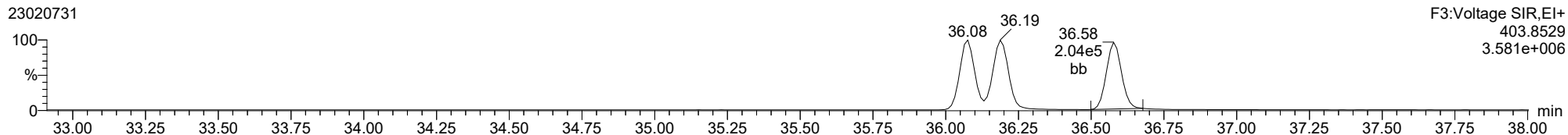
123789-HxCDD



13C-123789-HxCDD

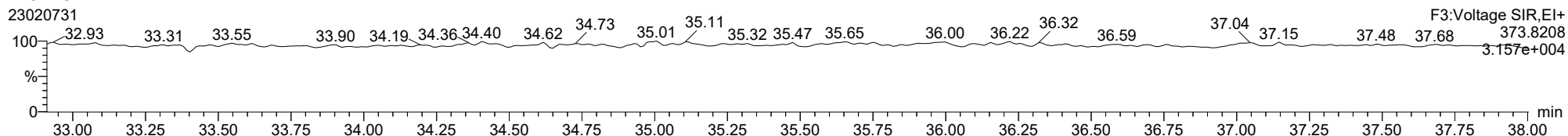


13C-123789-HxCDD

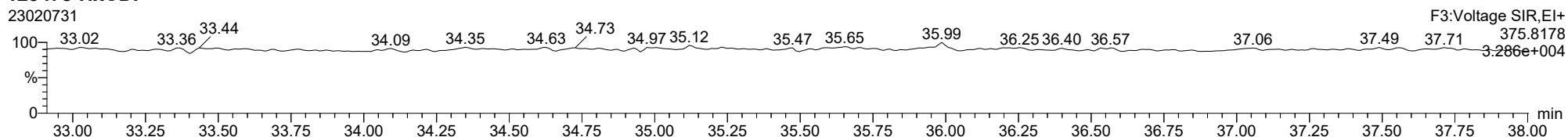


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

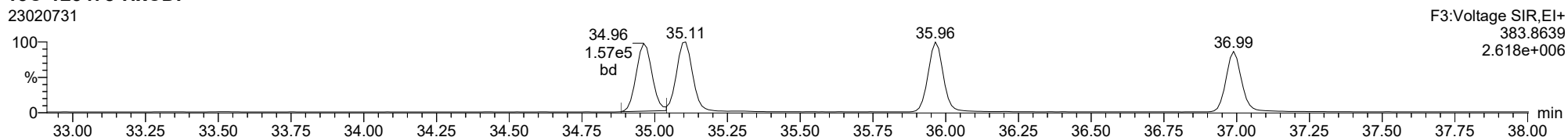
**123478-HxCDF**



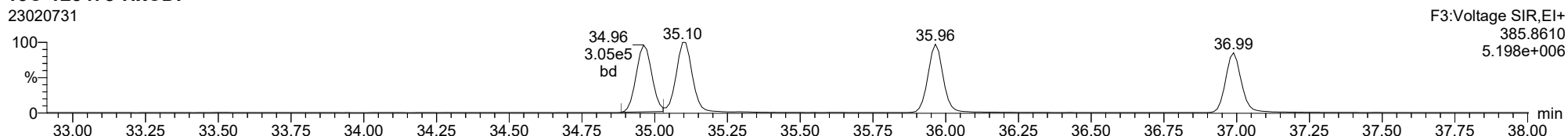
**123478-HxCDF**



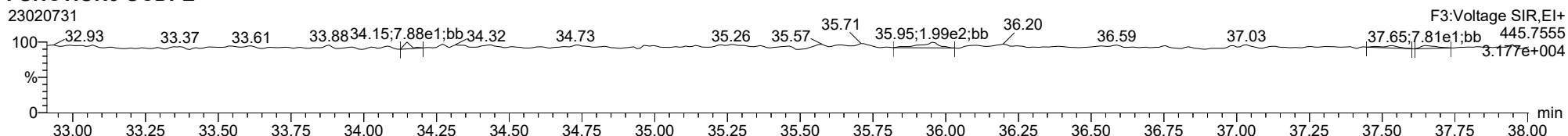
**13C-123478-HxCDF**



**13C-123478-HxCDF**



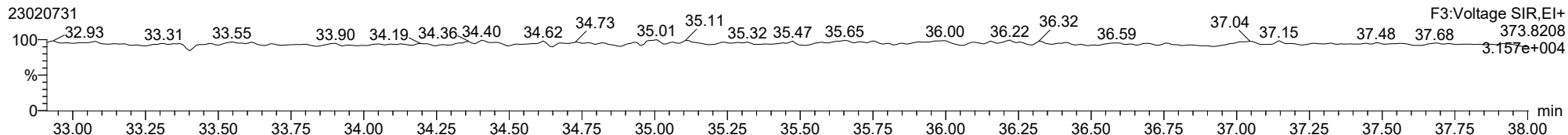
**FUNCTION3 OCDPE**



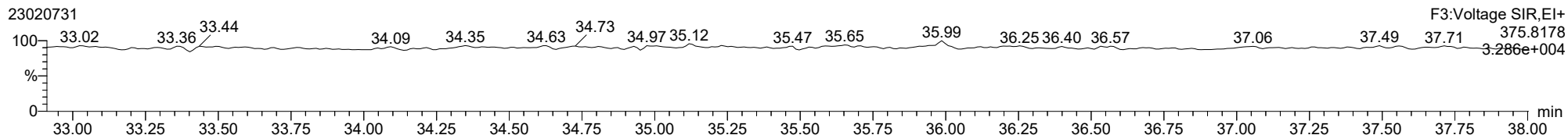


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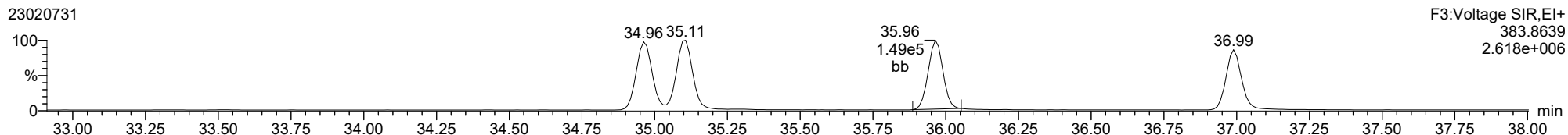
**234678-HxCDF**



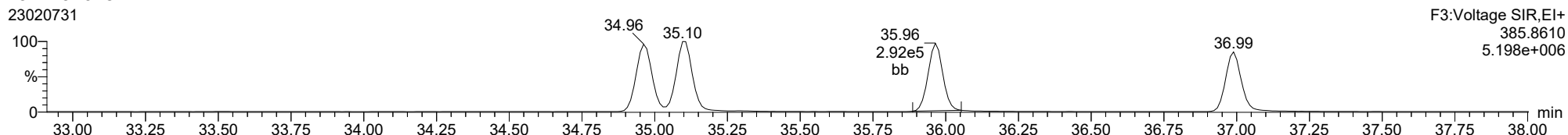
**234678-HxCDF**



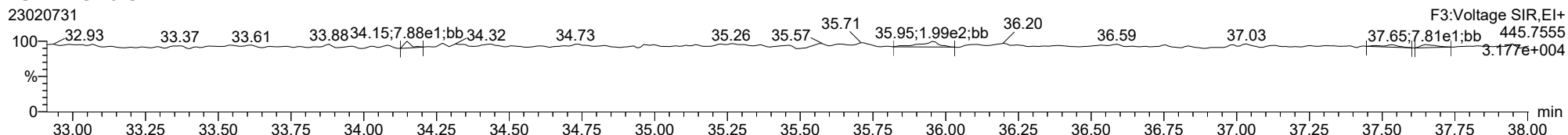
**13C-234678-HxCDF**



**13C-234678-HxCDF**

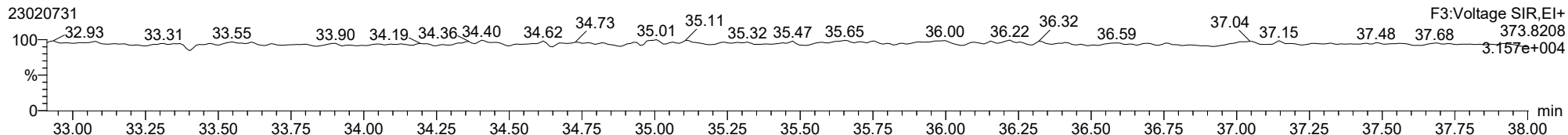


**FUNCTION3 OCDPE**

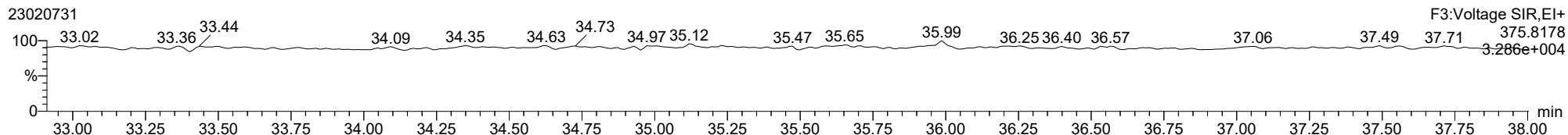


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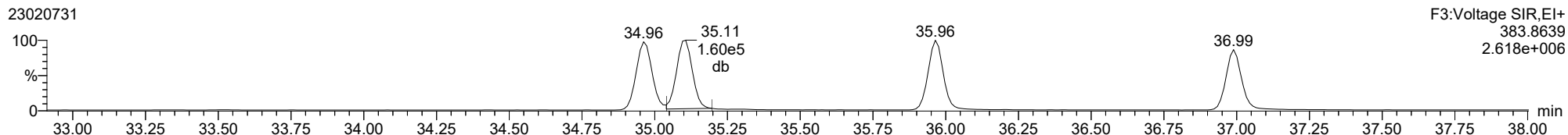
123678-HxCDF



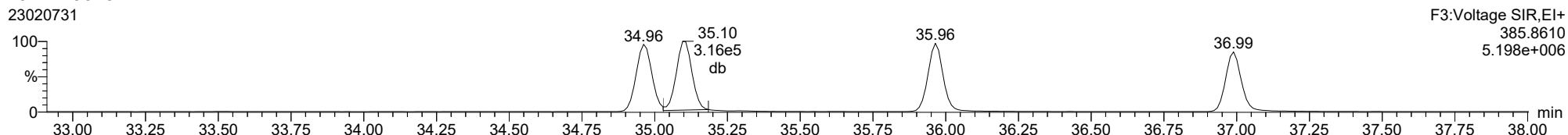
123678-HxCDF



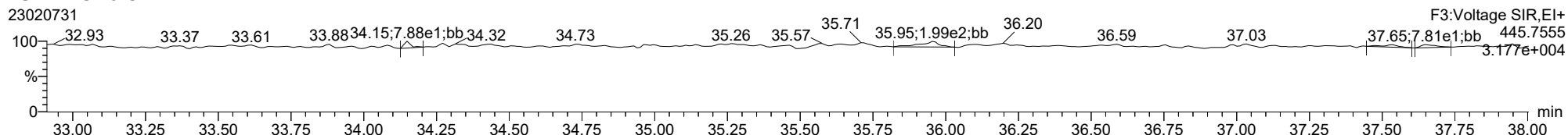
13C-123678-HxCDF



13C-123678-HxCDF

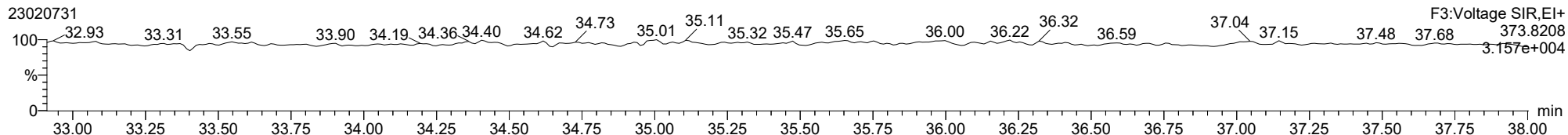


FUNCTION3 OCDPE

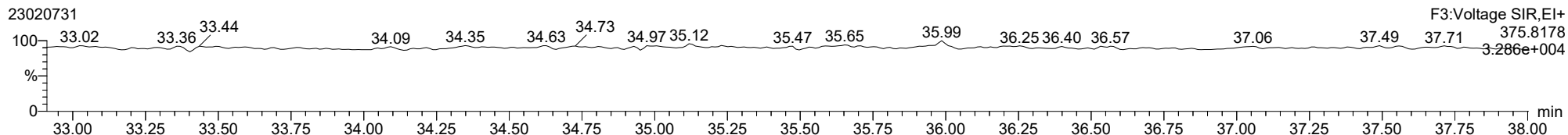


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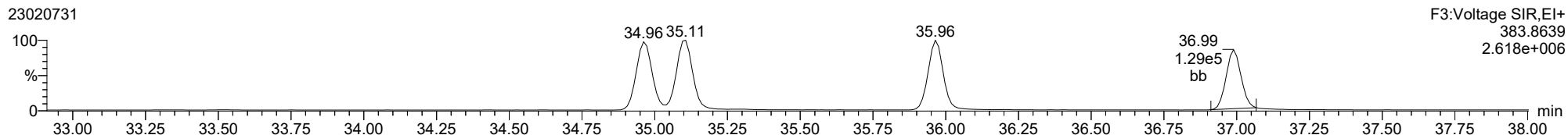
**123789-HxCDF**



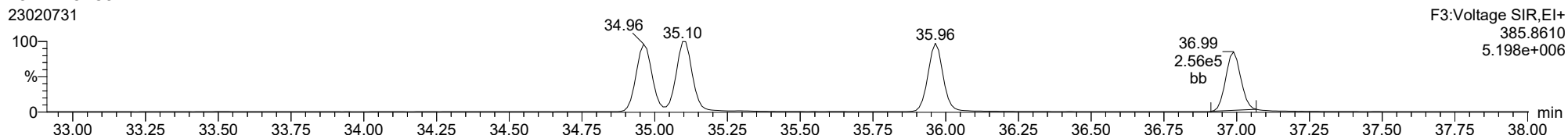
**123789-HxCDF**



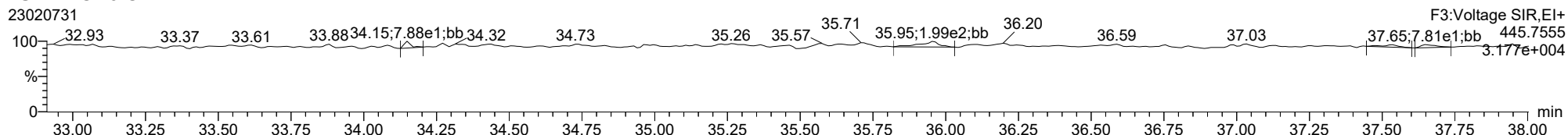
**13C-123789-HxCDF**



**13C-123789-HxCDF**



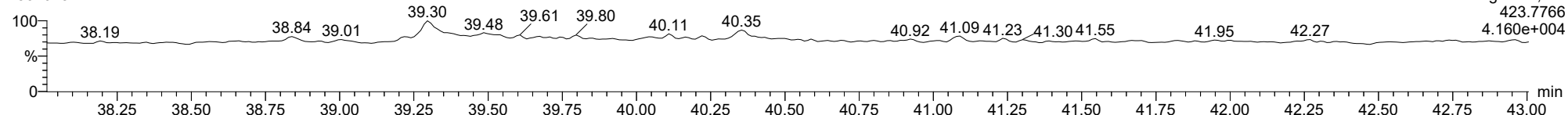
**FUNCTION3 OCDPE**



ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

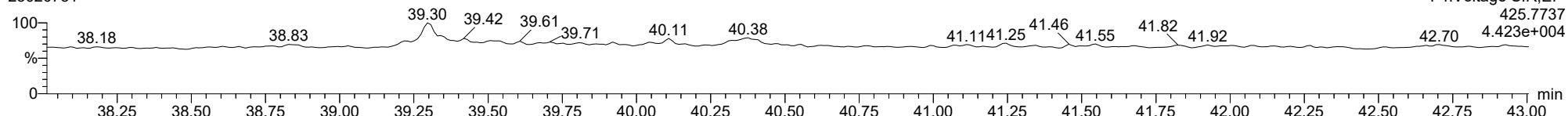
**1234678-HpCDD**

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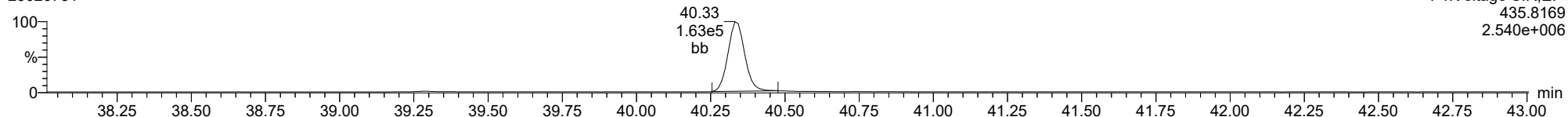
**1234678-HpCDD**

23020731



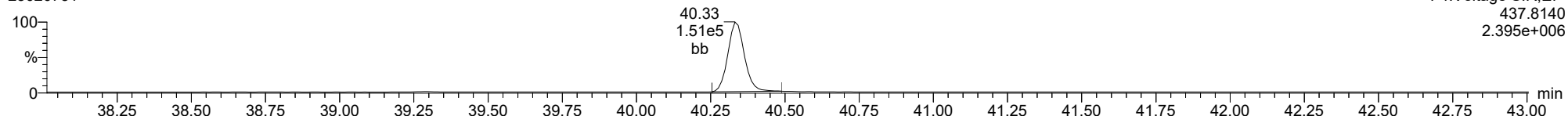
**13C-1234678-HpCDD**

23020731



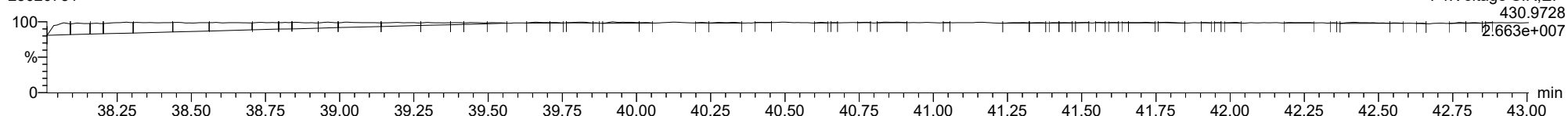
**13C-1234678-HpCDD**

23020731



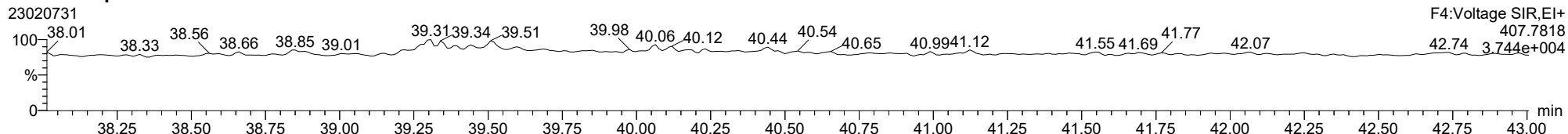
**FUNCTION4 PFK**

23020731

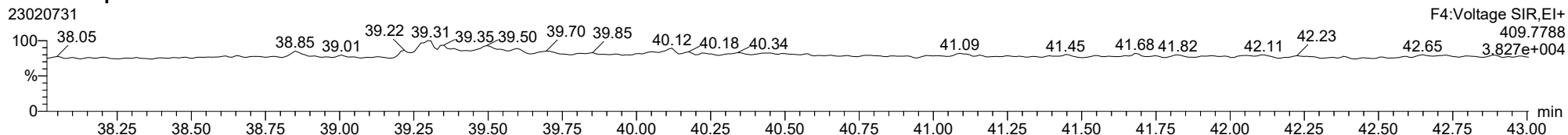


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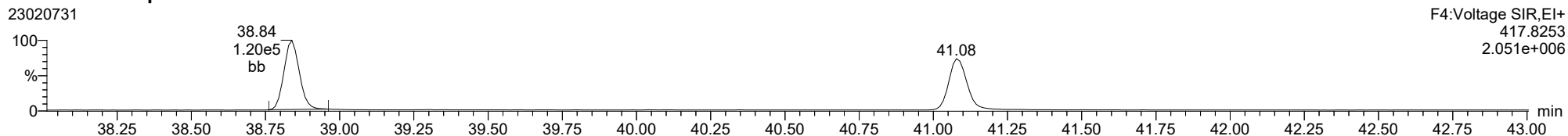
1234678-HpCDF



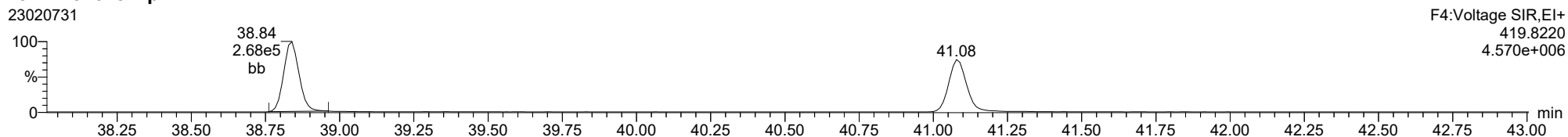
1234678-HpCDF



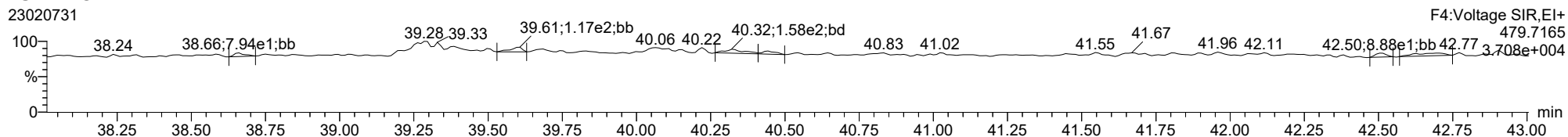
13C-1234678-HpCDF



13C-1234678-HpCDF

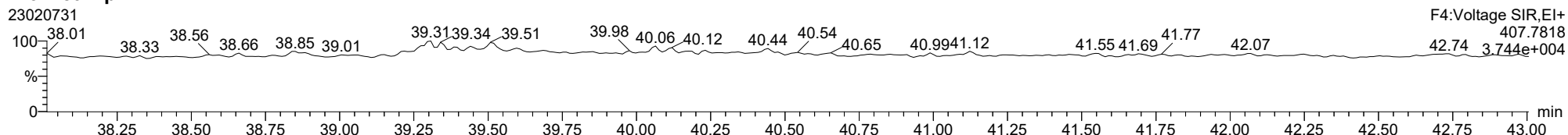


FUNCTION4 NCDPE

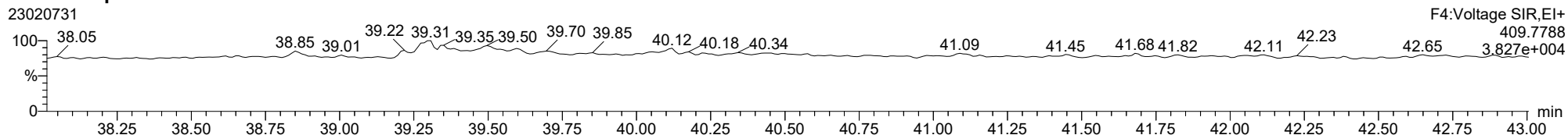


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

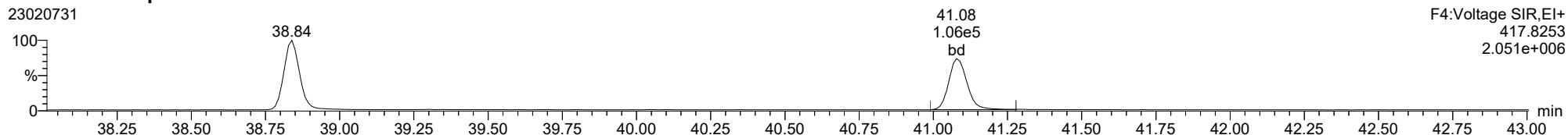
1234789-HpCDF



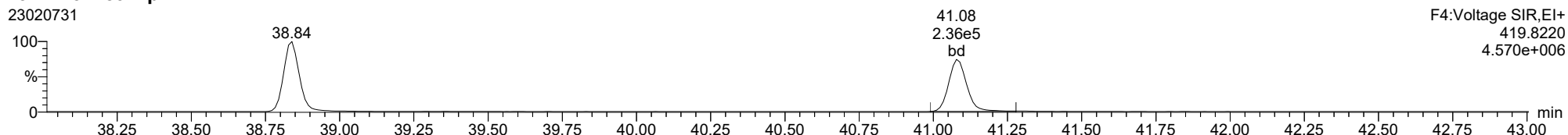
1234789-HpCDF



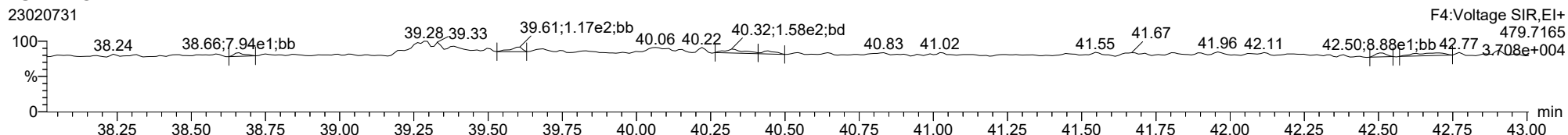
13C-1234789-HpCDF



13C-1234789-HpCDF



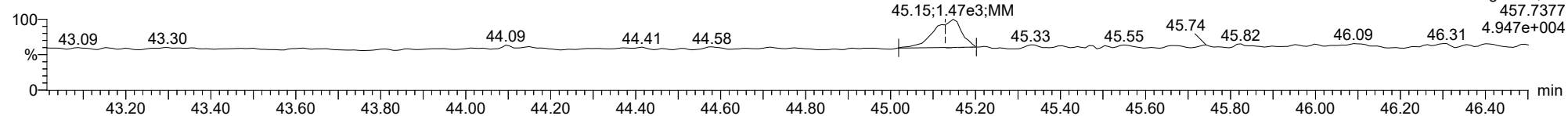
FUNCTION4 NCDPE



ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

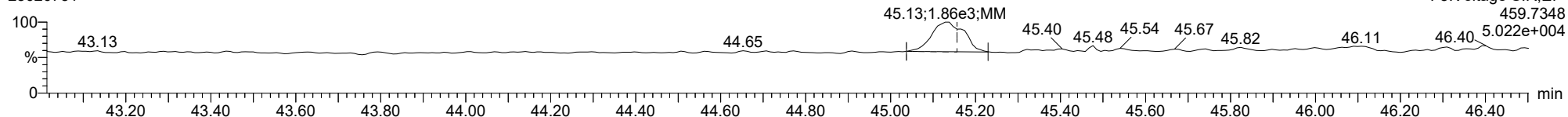
**OCDD**

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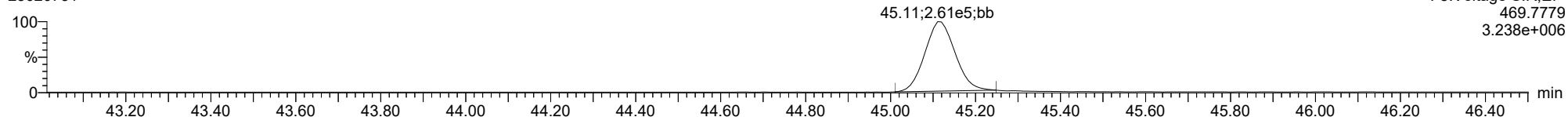
**OCDD**

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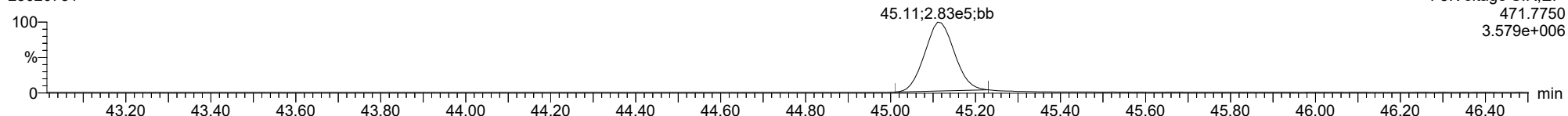
**13C-OCDD**

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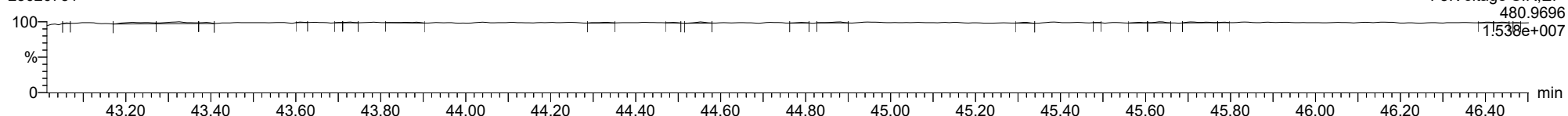
**13C-OCDD**

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**FUNCTION5 PFK**

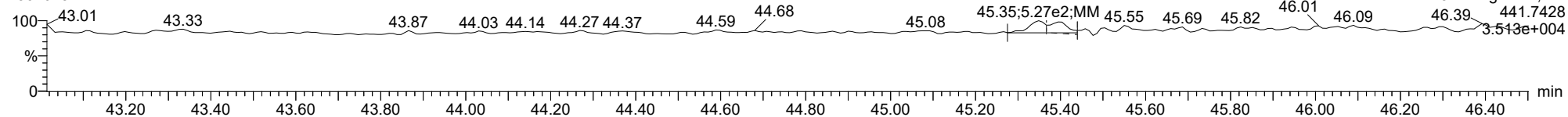
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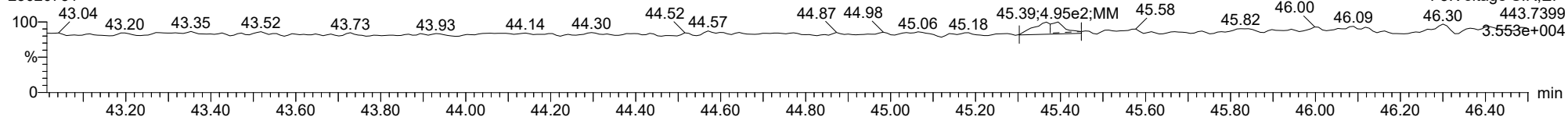
**OCDF**

23020731



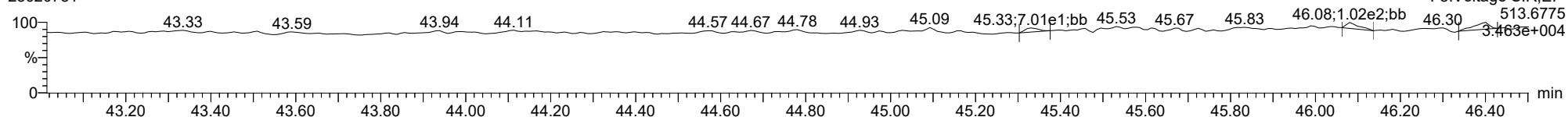
**OCDF**

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**FUNCTION5 DCDPE**

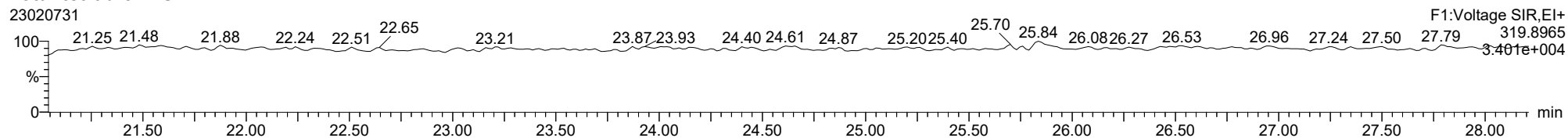
23020731



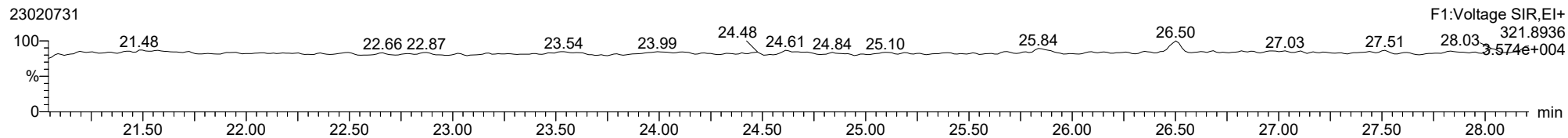


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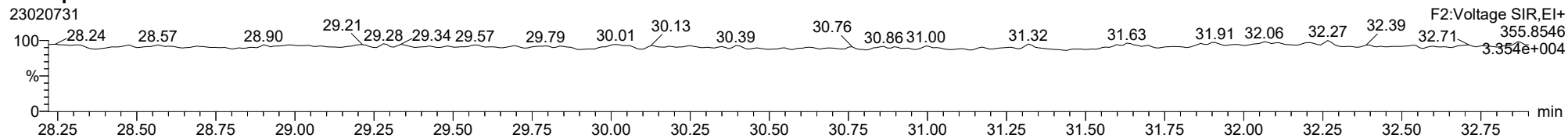
**Total-tetradioxins**



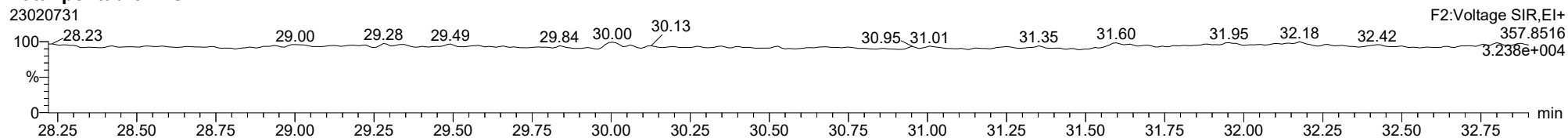
**Total-tetradioxins**



**Total-pentadioxins**

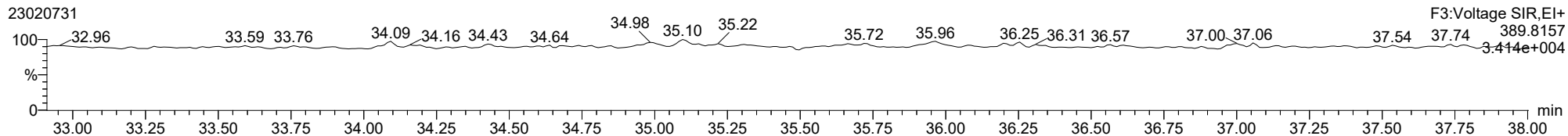


**Total-pentadioxins**

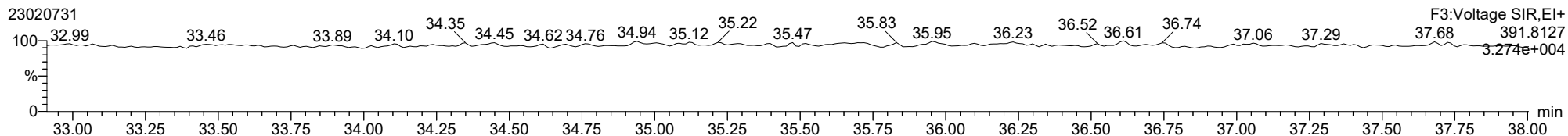


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

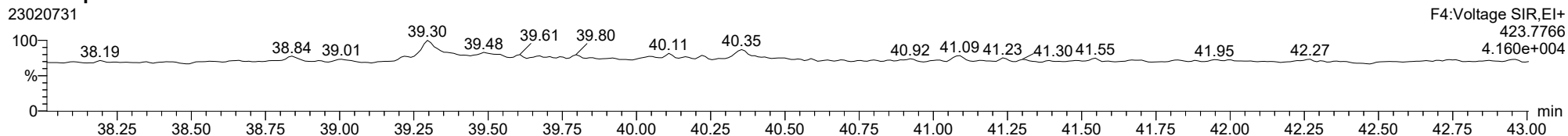
**Total-hexadioxins**



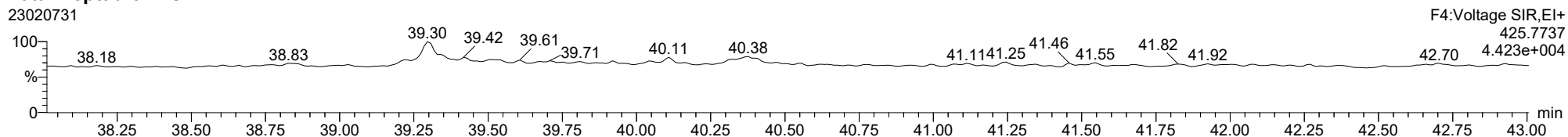
**Total-hexadioxins**



**Total-heptadioxins**

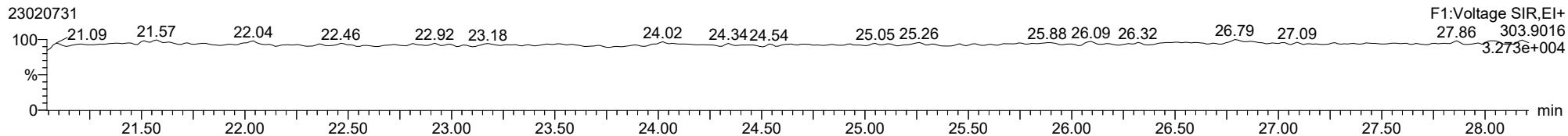


**Total-heptadioxins**

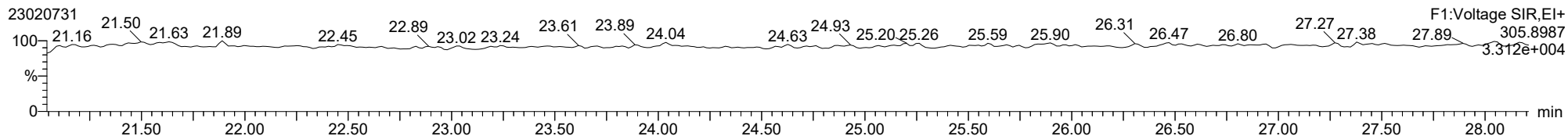


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

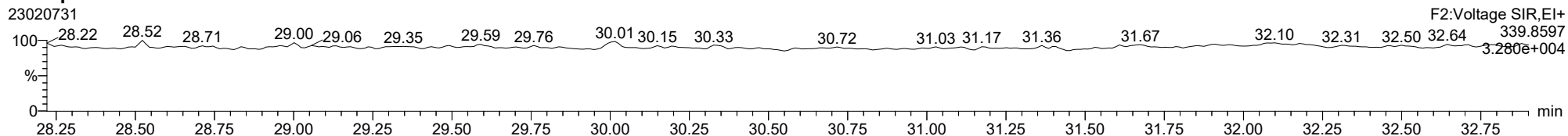
**Total-tetrafurans**



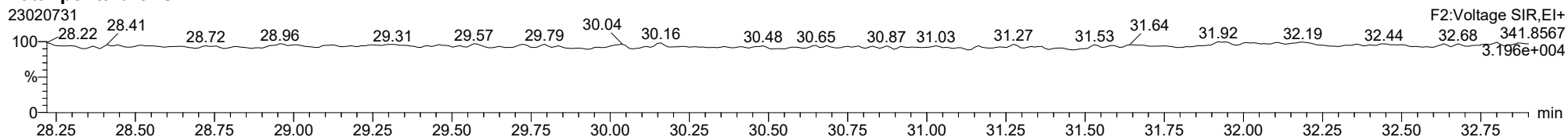
**Total-tetrafurans**



**Total-pentafurans**

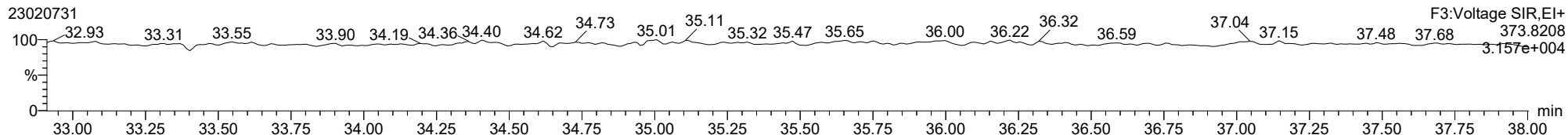


**Total-pentafurans**

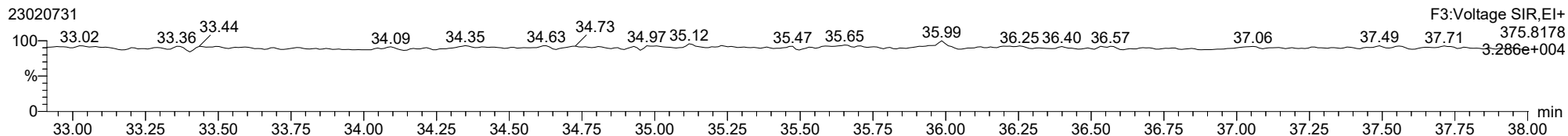


ID: 22L0307-33, Name: 23020731, Date: 08-Feb-2023, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

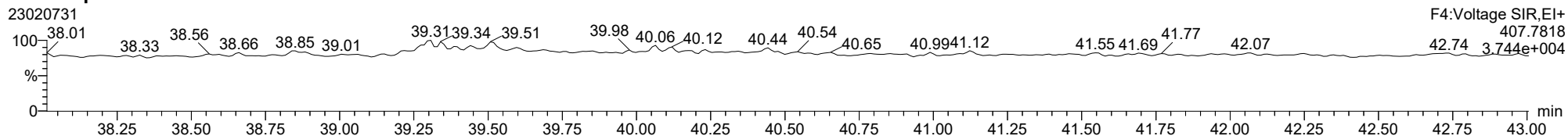
**Total-hexafurans**



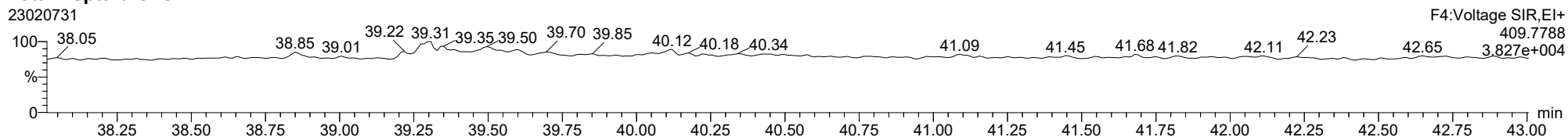
**Total-hexafurans**



**Total-heptafurans**



**Total-heptafurans**





Form 1  
ORGANIC ANALYSIS DATA SHEET  
EPA 1613B  
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC  
 Project: AOC4 UR Phase 3  
 Matrix: Sediment Laboratory ID: 22L0307-34 A File ID: 23020732  
 Sampled: 12/12/22 09:46 Prepared: 12/27/22 14:20 Analyzed: 02/08/23 10:46  
 % Solids: 79.63 Preparation: EPA 8290 Initial/Final: 12.57 g Wet / 20 uL  
 Result Basis: Dry Sequence: SLB0072 Calibration: GB00010  
 Batch: BKL0420 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1		0.655-0.886	0.130	0.999	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1		0.655-0.886	0.114	0.999	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1		1.318-1.783	0.168	0.999	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1		1.318-1.783	0.166	0.999	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1		1.318-1.783	0.210	0.999	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1		1.054-1.426	0.131	0.999	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1		1.054-1.426	0.121	0.999	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1		1.054-1.426	0.133	0.999	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1		1.054-1.426	0.160	0.999	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1		1.054-1.426	0.147	0.999	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1		1.054-1.426	0.141	0.999	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1		1.054-1.426	0.146	0.999	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1		0.893-1.208	0.134	0.999	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1		0.893-1.208	0.190	0.999	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1		0.893-1.208	0.186	2.50	ND	ng/kg	U
39001-02-0	OCDF	1		0.757-1.024	0.335	2.50	ND	ng/kg	U
3268-87-9	OCDD	1	0.949	0.757-1.024	0.227	9.99	2.47	ng/kg	J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	ND	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	0.258	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	0.311	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.001  
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.248



**Form 2**  
**ORGANIC ANALYSIS DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0307-34</u>
Sampled:	<u>12/12/22 09:46</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>79.63</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23020732</u>
		Analyzed:	<u>02/08/23 10:46</u>
		Initial/Final:	<u>12.57 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.778	0.655-0.886	0.241	96.8	24 - 169 %	
13C12-2,3,7,8-TCDD		0.786	0.655-0.886	0.289	115	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.555	1.318-1.783	0.277	105	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.543	1.318-1.783	0.288	101	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.632	1.318-1.783	0.269	112	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.508	0.434-0.587	0.304	111	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.507	0.434-0.587	0.297	109	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.510	0.434-0.587	0.316	108	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.503	0.434-0.587	0.346	101	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.259	1.054-1.426	0.254	126	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.250	1.054-1.426	0.245	124	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.432	0.374-0.506	0.312	89.6	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506	0.358	86.3	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.032	0.893-1.208	0.287	95.6	23 - 140 %	
13C12-OCDD		0.914	0.757-1.024	0.336	74.9	17 - 157 %	
37Cl4-2,3,7,8-TCDD		328.000		0.115	95.8	35 - 197 %	

\* Values outside of QC limits

**Quant Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**  
 Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:17:51 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**

**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	778	938								
12378-PeCDF					0.845		1.550	964	1046								
23478-PeCDF					0.911		1.550	964	1046								
123478-HxCDF					1.182		1.240	790	945								
234678-HxCDF					1.229		1.240	790	945								
123678-HxCDF					1.248		1.240	790	945								
123789-HxCDF					1.187		1.240	790	945								
1234678-HpCDF					1.204		1.050	630	817								
1234789-HpCDF					1.165		1.050	630	817								
OCDF					1.186		0.890	637	1094								
2378-TCDD					1.236		0.770	918	693								
12378-PeCDD					1.087		1.550	1150	877								
123478-HxCDD					0.987		1.240	903	761								
123678-HxCDD					1.021		1.240	903	761								
123789-HxCDD					0.985		1.240	903	761								
1234678-HpCDD					1.253		1.050	790	765								
OCDD	45.129	1.000	1.382e3	1.456e3	1.103	0.949	0.890	518	572	1.71e4	2.17e4	33.0	37.9	NO	bb	bb	1.235
13C-2378-TCDF	25.836	1.007	2.580e5	3.316e5	1.768	0.778	0.770	2423	1374	3.94e6	5.09e6	1624.4	3702.9	NO	bb	bb	96.836
13C-12378-PeCDF	30.004	1.170	3.359e5	2.160e5	1.527	1.555	1.550	2213	1558	5.17e6	3.34e6	2335.3	2141.6	NO	bb	bb	104.943
13C-23478-PeCDF	31.341	1.222	3.110e5	2.015e5	1.466	1.543	1.550	2213	1558	4.82e6	3.14e6	2178.0	2014.0	NO	bb	bb	101.496
13C-123478-HxCDF	34.962	0.956	1.389e5	2.734e5	1.054	0.508	0.510	1480	1704	2.26e6	4.42e6	1526.4	2593.5	NO	bd	bd	110.831
13C-123678-HxCDF	35.106	0.960	1.399e5	2.761e5	1.080	0.507	0.510	1480	1704	2.31e6	4.49e6	1561.1	2633.8	NO	db	db	109.133
13C-234678-HxCDF	35.965	0.983	1.300e5	2.552e5	1.014	0.510	0.510	1480	1704	2.15e6	4.27e6	1454.7	2509.3	NO	bb	bb	107.592
13C-123789-HxCDF	36.989	1.011	1.112e5	2.212e5	0.928	0.503	0.510	1480	1704	1.83e6	3.68e6	1235.9	2158.2	NO	bb	bb	101.476
13C-1234678-HpCDF	38.839	1.062	9.882e4	2.287e5	1.036	0.432	0.440	1340	1873	1.62e6	3.72e6	1206.4	1985.7	NO	bb	bd	89.550
13C-1234789-HpCDF	41.078	1.123	8.496e4	1.906e5	0.905	0.446	0.440	1340	1873	1.21e6	2.71e6	899.8	1448.3	NO	bb	bd	86.273
13C-1234-TCDD	25.655	0.000	1.494e5	1.950e5	1.000	0.766	0.770	1675	1164	2.32e6	3.01e6	1383.7	2585.2	NO	bb	bb	100.000
13C-2378-TCDD	26.471	1.032	1.925e5	2.448e5	1.103	0.786	0.770	1675	1164	3.01e6	3.83e6	1794.8	3288.4	NO	bb	bb	115.116
13C-12378-PeCDD	31.597	1.232	2.186e5	1.340e5	0.914	1.632	1.550	1040	1150	3.30e6	2.03e6	3175.5	1769.1	NO	bd	bd	111.989
13C-123478-HxCDD	36.076	0.986	2.310e5	1.835e5	0.933	1.259	1.240	1258	1092	3.83e6	3.05e6	3047.0	2793.6	NO	bd	bd	125.859
13C-123678-HxCDD	36.187	0.989	2.342e5	1.874e5	0.965	1.250	1.240	1258	1092	3.86e6	3.13e6	3064.6	2862.7	NO	db	db	123.804
13C-1234678-HpCDD	40.332	1.103	1.340e5	1.299e5	0.782	1.032	1.050	1142	1086	2.04e6	1.94e6	1783.1	1786.9	NO	bb	bd	95.608
13C-OCDD	45.111	1.233	1.991e5	2.178e5	0.788	0.914	0.890	1395	1235	2.50e6	2.72e6	1788.4	2206.1	NO	bb	bb	149.831
13C-123789-HxCDD	36.577	0.000	1.952e5	1.578e5	1.000	1.238	1.240	1258	1092	3.29e6	2.61e6	2615.9	2392.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.502	1.033	1.627e5		1.233			1269		2.46e6		1935.4			bb		38.309

ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	778	938								
1289-TCDF					0.858		0.770	778	938								
13468-PECDF					1.013		1.550	593	892								
12389-PECDF					0.844		1.550	964	1046								
123468-HXCDF					1.197		1.240	790	945								
1368-TCDD					1.084		0.770	918	693								
1289-TCDD					0.975		0.770	918	693								
12479-PECDD					1.837		1.550	1150	877								
12389-PECDD					1.252		1.550	1150	877								
124679-HXCDD					1.033		1.240	903	761								
1234679-HPCDD	39.296	0.974	2.568e2	2.710e2	1.286	0.948	1.050	790	765	4.83e3	5.63e3	6.1	7.4	NO	bb	bb	0.156
Total-tetrafurans			0.000e0		0.933			778		0.00e0							
Total-penta1			0.000e0					593		0.00e0							
Total-pentafurans			0.000e0		0.866			964		0.00e0							
Total-hexafurans			0.000e0		1.208			790		0.00e0							
Total-heptafurans			2.339e2		1.185			630		5.18e3							0.129
Total-Furans			2.339e2		1.067			778		5.18e3							0.129
Total-tetradoxins			0.000e0		1.099			918		0.00e0							
Total-pentadoxins			0.000e0		1.392			1150		0.00e0							
Total-hexadoxins			0.000e0		1.007			903		0.00e0							
Total-heptadoxins			2.568e2		1.269			790		4.83e3							0.156
Total-Dioxins			1.639e3		1.165			918		2.19e4							1.390
Total-TEQ			1.873e3					918		2.71e4							1.520
FUNCTION1 PFK			1.111e7					836268		1.58e8							
FUNCTION2 PFK			1.452e5					395684		4.78e6							0.000
FUNCTION3 PFK			2.844e6					325427		1.89e7							0.000
FUNCTION4 PFK			6.863e4					175972		2.11e6							
FUNCTION5 PFK			7.708e4					104442		1.74e6							
FUNCTION1 HXCD...			2.912e2					688		5.42e3							0.000
FUNCTION1 HPCD...			8.522e2					678		1.20e4							0.000
FUNCTION2 HPCD...			1.318e3					919		3.18e4							0.000
FUNCTION3 OCDPE			2.329e2					620		5.01e3							0.000
FUNCTION4 NCDPE			3.282e2					857		5.86e3							0.000
FUNCTION5 DCDPE			1.793e2					754		3.47e3							0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:51 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.51	2.339e2	2.275e2	1.185	1.03	1.05	8.2	YES	NO	bd	bb	0.129

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.51	2.339e2	2.275e2	1.185	1.03	1.05	8.2	YES	NO	bd	bb	0.129

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:51 Pacific Standard Time

ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.30	2.568e2	2.710e2	1.286	0.95	1.05	6.1	YES	NO	bb	bb	0.156

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.30	2.568e2	2.710e2	1.286	0.95	1.05	6.1	YES	NO	bb	bb	0.156
2	OCDD	45.13	1.382e3	1.456e3	1.103	0.95	0.89	33.0	YES	NO	bb	bb	1.235

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.51	2.339e2	2.275e2	1.185	1.03	1.05	8.2	YES	NO	bd	bb	0.129
2	1234679-HPCDD	39.30	2.568e2	2.710e2	1.286	0.95	1.05	6.1	YES	NO	bb	bb	0.156
3	OCDD	45.13	1.382e3	1.456e3	1.103	0.95	0.89	33.0	YES	NO	bb	bb	1.235

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:17:51 Pacific Standard Time

ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

## PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.44	6.910e5					14.9	YES		dd		
2	FUNCTION1 PFK	21.32	1.534e6					16.5	YES		dd		
3	FUNCTION1 PFK	21.19	1.478e6					18.0	YES		dd		
4	FUNCTION1 PFK	21.10	1.578e6					18.9	YES		bd		
5	FUNCTION1 PFK	22.60	2.988e4					1.1	NO		bb		
6	FUNCTION1 PFK	22.54	8.925e3					0.7	NO		bb		
7	FUNCTION1 PFK	22.48	1.429e4					0.6	NO		bb		
8	FUNCTION1 PFK	22.39	1.709e4					0.7	NO		bb		
9	FUNCTION1 PFK	22.33	5.273e3					0.4	NO		bb		
10	FUNCTION1 PFK	22.27	6.553e3					0.5	NO		bb		
11	FUNCTION1 PFK	22.15	3.792e5					3.1	YES		db		
12	FUNCTION1 PFK	22.03	2.778e5					5.2	YES		dd		
13	FUNCTION1 PFK	21.94	2.904e5					6.5	YES		dd		
14	FUNCTION1 PFK	21.89	3.579e5					7.5	YES		dd		
15	FUNCTION1 PFK	21.81	4.188e5					9.2	YES		dd		
16	FUNCTION1 PFK	21.75	6.064e5					10.2	YES		dd		
17	FUNCTION1 PFK	21.68	5.287e5					11.0	YES		dd		
18	FUNCTION1 PFK	21.62	7.297e5					12.2	YES		dd		
19	FUNCTION1 PFK	21.54	7.687e5					12.7	YES		dd		
20	FUNCTION1 PFK	21.48	7.001e5					14.5	YES		dd		
21	FUNCTION1 PFK	24.58	3.458e4					1.2	NO		bb		
22	FUNCTION1 PFK	24.52	7.491e3					0.6	NO		bb		
23	FUNCTION1 PFK	24.40	1.499e4					0.6	NO		bb		
24	FUNCTION1 PFK	24.16	1.772e4					0.7	NO		bb		
25	FUNCTION1 PFK	24.07	2.161e4					0.7	NO		bb		
26	FUNCTION1 PFK	23.98	1.543e4					0.5	NO		bb		
27	FUNCTION1 PFK	23.86	2.999e4					1.1	NO		bb		
28	FUNCTION1 PFK	23.70	3.158e4					0.7	NO		bb		
29	FUNCTION1 PFK	23.61	2.416e4					0.9	NO		bb		
30	FUNCTION1 PFK	23.42	2.523e4					0.9	NO		bb		
31	FUNCTION1 PFK	23.22	1.759e4					0.8	NO		bb		
32	FUNCTION1 PFK	23.15	8.324e3					0.7	NO		bb		
33	FUNCTION1 PFK	23.08	5.576e4					1.6	NO		db		
34	FUNCTION1 PFK	23.01	3.317e4					0.7	NO		bd		
35	FUNCTION1 PFK	22.90	3.811e4					1.1	NO		db		
36	FUNCTION1 PFK	22.80	7.960e4					1.2	NO		bd		
37	FUNCTION1 PFK	27.64	3.888e4					1.2	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	27.44	5.458e3					0.4	NO		bb		
39	FUNCTION1 PFK	27.21	4.926e3					0.4	NO		bb		
40	FUNCTION1 PFK	26.99	4.052e4					1.5	NO		bb		
41	FUNCTION1 PFK	26.92	7.642e3					0.6	NO		bb		
42	FUNCTION1 PFK	26.73	2.189e4					0.6	NO		db		
43	FUNCTION1 PFK	26.65	6.132e3					0.4	NO		bd		
44	FUNCTION1 PFK	26.59	1.420e4					0.6	NO		bb		
45	FUNCTION1 PFK	26.49	1.599e4					0.6	NO		bb		
46	FUNCTION1 PFK	26.29	7.648e3					0.6	NO		bb		
47	FUNCTION1 PFK	26.21	2.129e4					0.6	NO		bb		
48	FUNCTION1 PFK	25.65	5.963e3					0.5	NO		bb		
49	FUNCTION1 PFK	25.26	1.377e4					0.7	NO		bb		
50	FUNCTION1 PFK	24.87	4.291e3					0.3	NO		bb		
51	FUNCTION1 PFK	24.76	2.365e4					0.9	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.86	1.314e4					0.9	NO		bb		0.000
2	FUNCTION2 PFK	32.69	2.644e3					0.6	NO		bb		0.000
3	FUNCTION2 PFK	32.02	2.917e3					0.7	NO		bb		0.000
4	FUNCTION2 PFK	31.98	1.305e4					1.1	NO		bb		0.000
5	FUNCTION2 PFK	31.82	2.974e3					0.7	NO		bb		0.000
6	FUNCTION2 PFK	31.78	2.085e3					0.5	NO		bb		0.000
7	FUNCTION2 PFK	31.73	5.378e3					0.7	NO		bb		0.000
8	FUNCTION2 PFK	31.34	8.823e3					0.7	NO		bb		0.000
9	FUNCTION2 PFK	30.96	3.123e3					0.7	NO		bb		0.000
10	FUNCTION2 PFK	29.26	1.326e4					0.7	NO		bb		0.000
11	FUNCTION2 PFK	29.12	6.188e3					0.8	NO		bb		0.000
12	FUNCTION2 PFK	28.69	1.043e4					1.0	NO		bb		0.000
13	FUNCTION2 PFK	28.46	4.544e4					1.9	NO		bb		0.000
14	FUNCTION2 PFK	28.32	1.574e4					1.1	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	32.97	3.932e5					18.5	YES		bd		0.000
2	FUNCTION3 PFK	36.20	2.260e3					0.6	NO		bb		0.000
3	FUNCTION3 PFK	36.05	7.812e3					1.0	NO		db		0.000
4	FUNCTION3 PFK	36.01	8.957e3					1.1	NO		dd		0.000
5	FUNCTION3 PFK	35.96	5.487e3					0.8	NO		bd		0.000
6	FUNCTION3 PFK	35.83	6.993e3					0.8	NO		bb		0.000
7	FUNCTION3 PFK	35.31	2.251e3					0.6	NO		bb		0.000
8	FUNCTION3 PFK	34.97	1.482e4					1.9	NO		bb		0.000
9	FUNCTION3 PFK	34.56	8.252e3					1.0	NO		bb		0.000
10	FUNCTION3 PFK	34.45	1.700e4					1.2	NO		bb		0.000
11	FUNCTION3 PFK	34.20	2.731e4					1.5	NO		db		0.000
12	FUNCTION3 PFK	34.12	3.062e4					1.9	NO		bd		0.000
13	FUNCTION3 PFK	33.88	7.378e3					1.1	NO		db		0.000
14	FUNCTION3 PFK	33.83	7.079e3					0.8	NO		bd		0.000
15	FUNCTION3 PFK	33.64	1.943e5					2.2	NO		db		0.000
16	FUNCTION3 PFK	33.47	6.669e4					6.6	YES		dd		0.000
17	FUNCTION3 PFK	33.38	1.991e6					9.9	YES		dd		0.000
18	FUNCTION3 PFK	37.61	4.738e3					0.7	NO		bb		0.000
19	FUNCTION3 PFK	37.55	9.743e3					1.0	NO		db		0.000
20	FUNCTION3 PFK	37.49	1.062e4					0.9	NO		bd		0.000
21	FUNCTION3 PFK	37.37	2.084e3					0.6	NO		bb		0.000
22	FUNCTION3 PFK	37.23	1.006e4					1.1	NO		bb		0.000
23	FUNCTION3 PFK	36.57	3.676e3					0.6	NO		bb		0.000
24	FUNCTION3 PFK	36.45	1.422e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	36.33	1.008e4					1.3	NO		bb		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.11	1.109e4					1.9	NO		bb		
2	FUNCTION4 PFK	41.97	4.738e3					1.3	NO		bb		
3	FUNCTION4 PFK	41.36	9.121e3					1.9	NO		bb		
4	FUNCTION4 PFK	41.25	1.286e3					0.7	NO		bb		
5	FUNCTION4 PFK	38.27	8.212e3					1.1	NO		bb		
6	FUNCTION4 PFK	38.17	8.637e3					1.8	NO		db		
7	FUNCTION4 PFK	38.10	2.555e4					3.3	YES		bd		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.21	2.253e3					1.0	NO		bb		
2	FUNCTION5 PFK	45.96	3.487e3					1.4	NO		bb		
3	FUNCTION5 PFK	45.91	2.501e3					1.2	NO		bb		
4	FUNCTION5 PFK	45.70	1.508e3					0.9	NO		bb		
5	FUNCTION5 PFK	45.27	1.165e3					0.8	NO		bb		
6	FUNCTION5 PFK	45.09	1.406e3					0.9	NO		bb		
7	FUNCTION5 PFK	44.96	5.722e3					1.8	NO		bb		
8	FUNCTION5 PFK	44.39	4.717e3					1.7	NO		bb		
9	FUNCTION5 PFK	43.07	5.432e4					7.0	YES		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.73	1.028e2					3.5	YES		bb		0.000
2	FUNCTION1 HXCD...	25.43	7.312e1					2.5	NO		bb		0.000
3	FUNCTION1 HXCD...	21.53	1.153e2					1.9	NO		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	21.18	1.761e2					2.5	NO		bd		0.000
2	FUNCTION1 HPCD...	26.65	1.186e2					2.2	NO		bb		0.000
3	FUNCTION1 HPCD...	25.65	1.071e2					2.4	NO		bb		0.000
4	FUNCTION1 HPCD...	25.17	7.478e1					1.8	NO		bb		0.000
5	FUNCTION1 HPCD...	24.97	1.424e2					2.5	NO		bb		0.000
6	FUNCTION1 HPCD...	21.51	8.313e1					2.1	NO		bb		0.000
7	FUNCTION1 HPCD...	21.33	7.550e1					2.7	NO		db		0.000
8	FUNCTION1 HPCD...	21.27	7.461e1					1.5	NO		dd		0.000

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

## ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.24	8.884e1					1.2	NO		bb		0.000
2	FUNCTION2 HPCD...	30.98	1.074e2					1.9	NO		db		0.000
3	FUNCTION2 HPCD...	30.90	1.214e2					1.8	NO		bd		0.000
4	FUNCTION2 HPCD...	30.62	1.194e2					3.7	YES		db		0.000
5	FUNCTION2 HPCD...	30.57	7.901e1					2.6	NO		bd		0.000
6	FUNCTION2 HPCD...	30.22	8.086e1					4.3	YES		db		0.000
7	FUNCTION2 HPCD...	30.18	2.041e2					6.7	YES		bd		0.000
8	FUNCTION2 HPCD...	30.05	1.801e2					5.4	YES		bb		0.000
9	FUNCTION2 HPCD...	32.62	7.269e1					1.2	NO		db		0.000
10	FUNCTION2 HPCD...	32.50	7.831e1					1.4	NO		dd		0.000
11	FUNCTION2 HPCD...	32.40	1.044e2					2.0	NO		bd		0.000
12	FUNCTION2 HPCD...	31.51	8.131e1					2.6	NO		bb		0.000

## ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.22	8.805e1					2.5	NO		bb		0.000
2	FUNCTION3 OCDPE	35.03	7.292e1					2.3	NO		bb		0.000
3	FUNCTION3 OCDPE	33.15	7.195e1					3.3	YES		bb		0.000

## ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.26	7.780e1					1.7	NO		bb		0.000
2	FUNCTION4 NCDPE	39.34	8.548e1					1.6	NO		bb		0.000
3	FUNCTION4 NCDPE	38.47	1.649e2					3.6	YES		bb		0.000

## ETHERS6

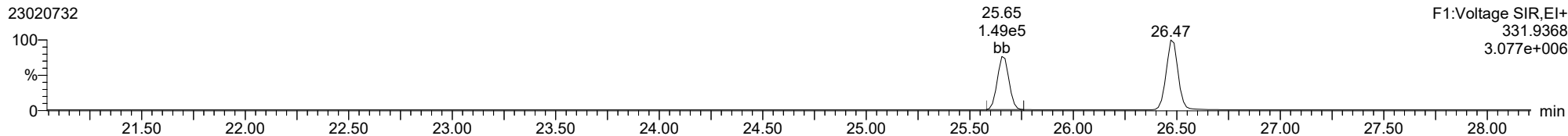
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.78	7.614e1					2.8	NO		bb		0.000
2	FUNCTION5 DCDPE	45.46	1.031e2					1.8	NO		bb		0.000

**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\2302011CIH.cdb 03 Feb 2023 10:33:40

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**13C-1234-TCDD**

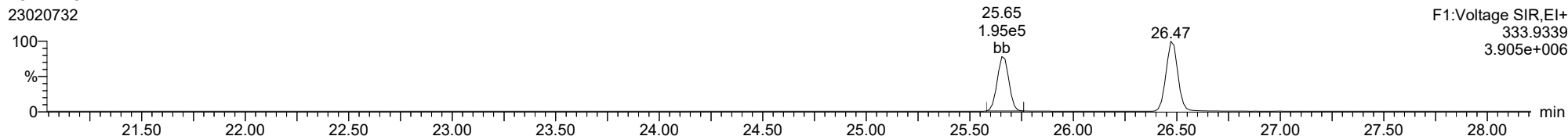
23020732



F1:Voltage SIR,El+  
331.9368  
3.077e+006

**13C-1234-TCDD**

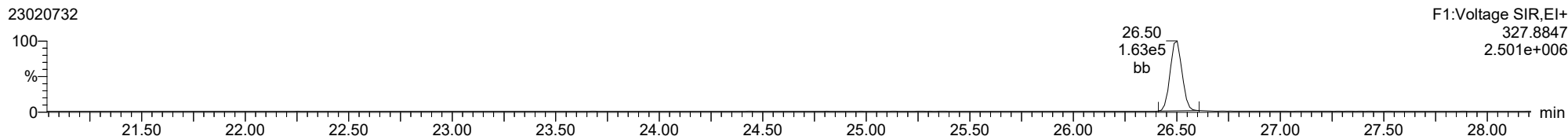
23020732



F1:Voltage SIR,El+  
333.9339  
3.905e+006

**37CL-2378-TCDD**

23020732

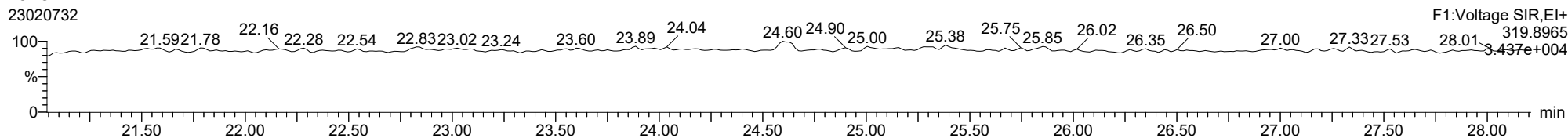


F1:Voltage SIR,El+  
327.8847  
2.501e+006

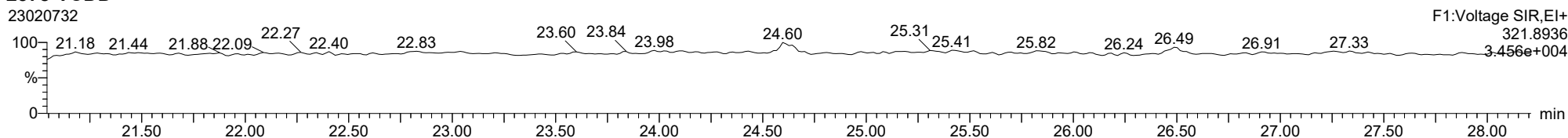


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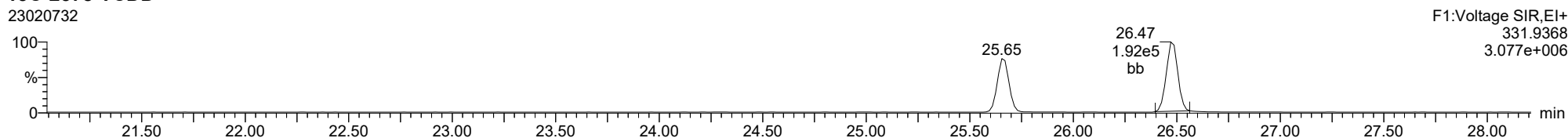
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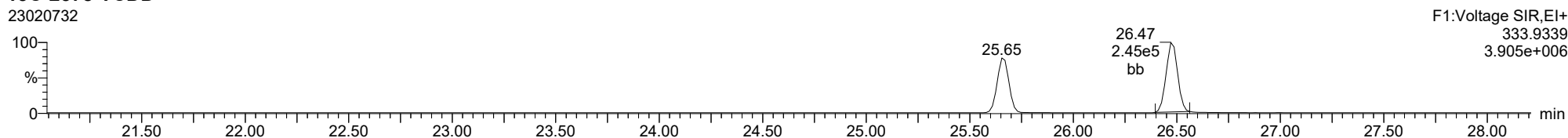
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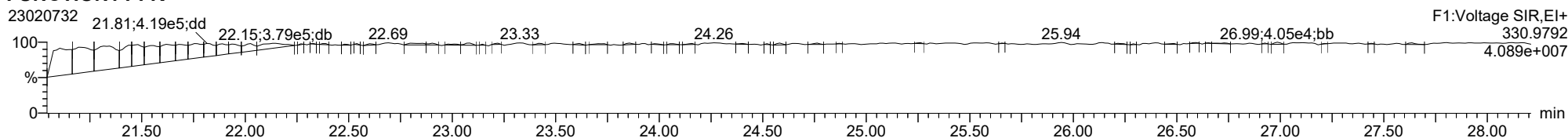
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**13C-2378-TCDD**

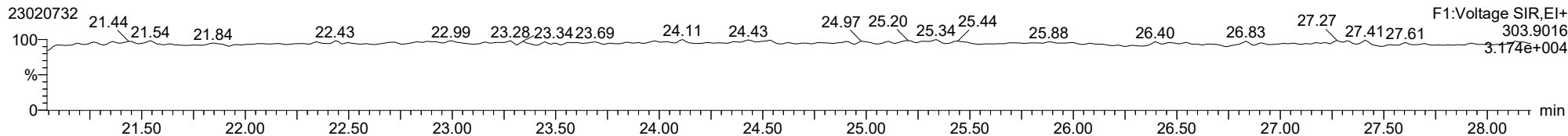


**FUNCTION1 PFK**

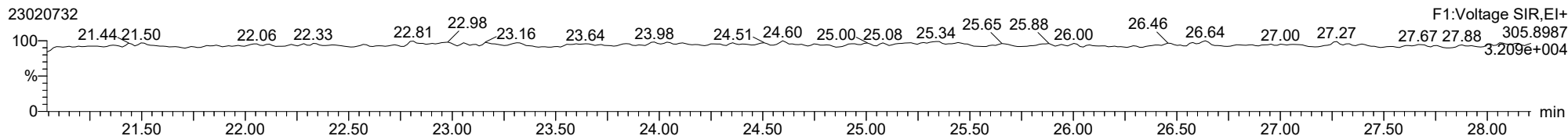


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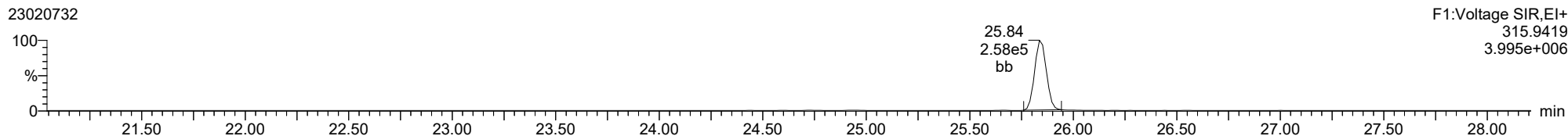
**2378-TCDF**



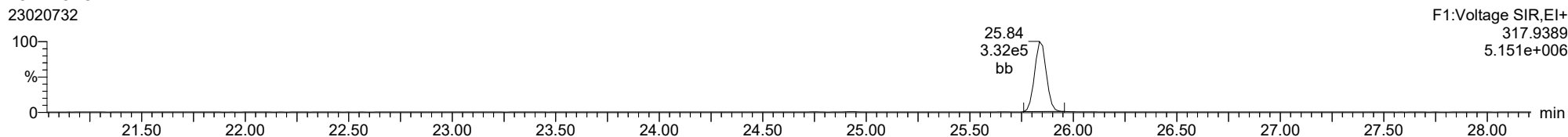
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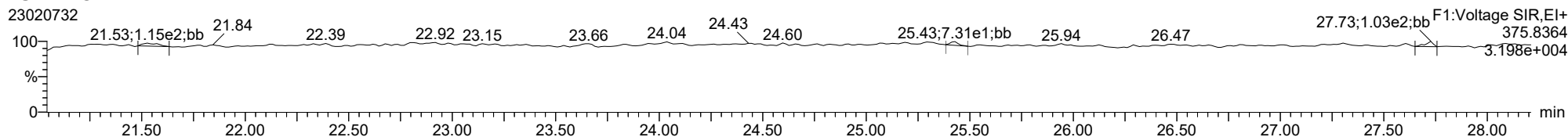
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**13C-2378-TCDF**

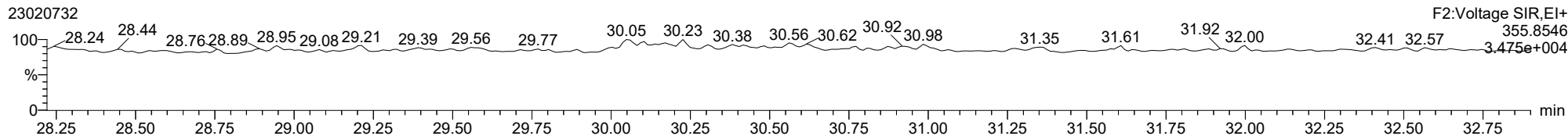


**FUNCTION1 HXCDPE**

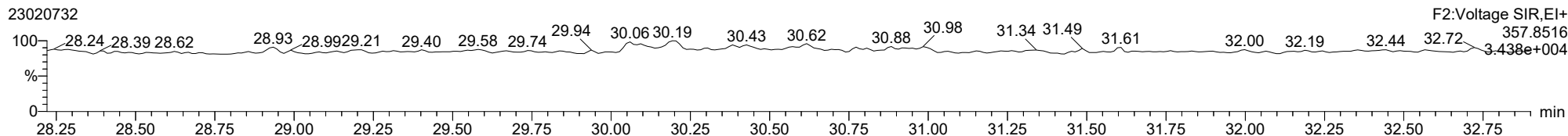


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

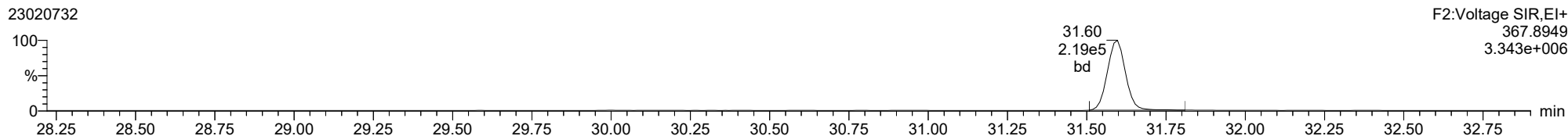
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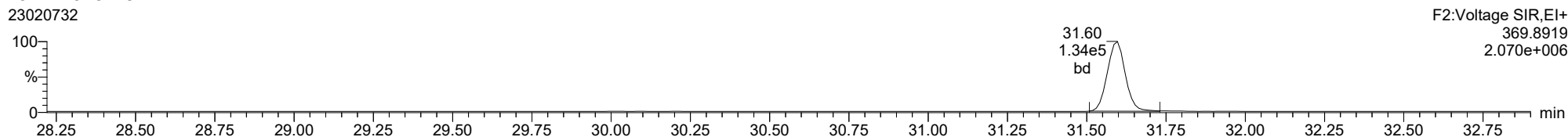
**12378-PeCDD**



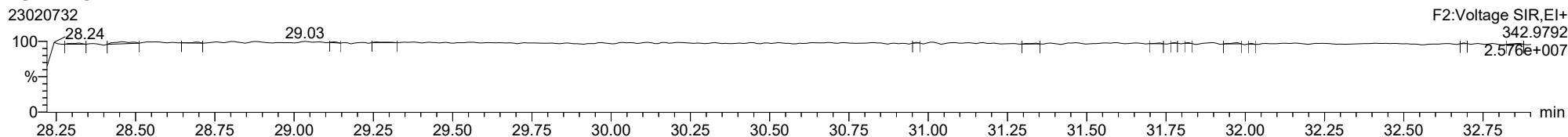
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**13C-12378-PeCDD**

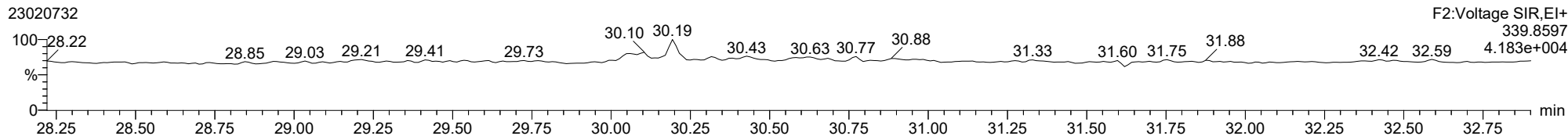


**FUNCTION2 PFK**

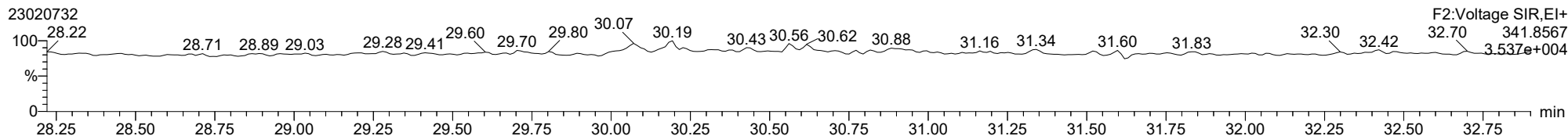


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

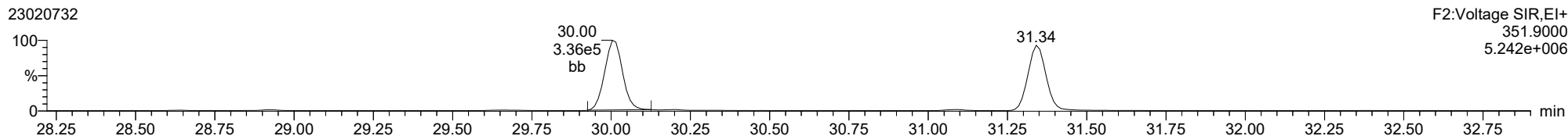
12378-PeCDF



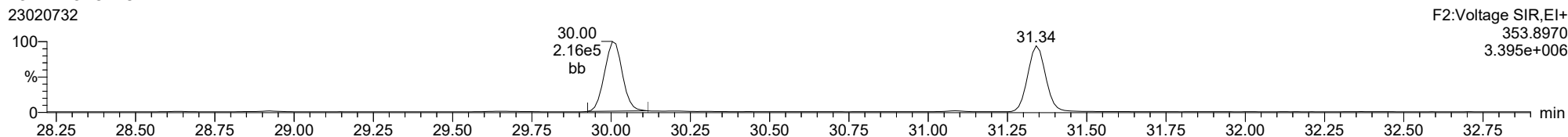
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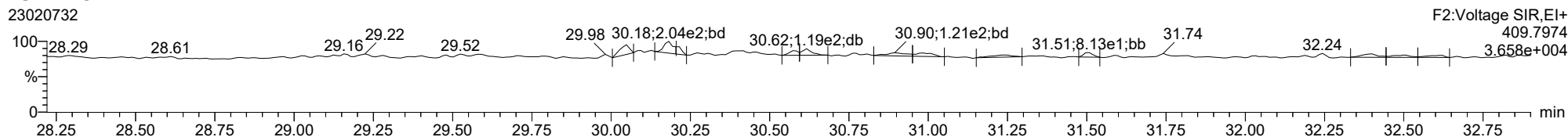
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13C-12378-PeCDF

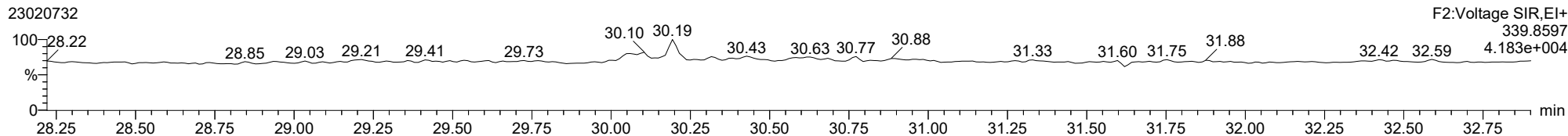


FUNCTION2 HPCDPE

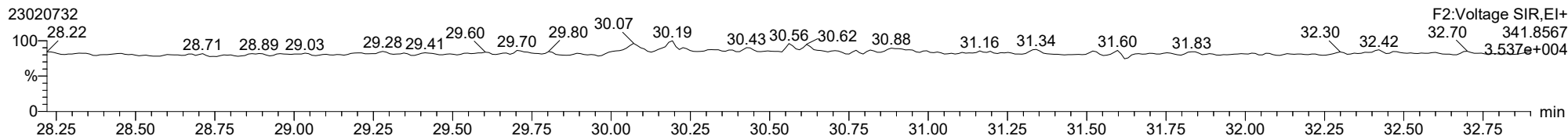


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

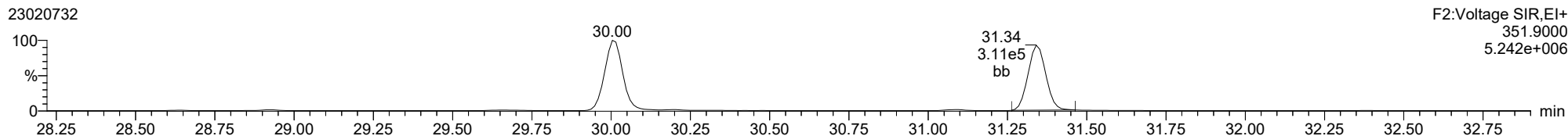
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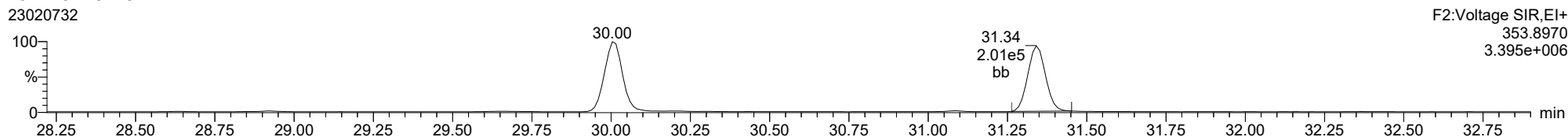
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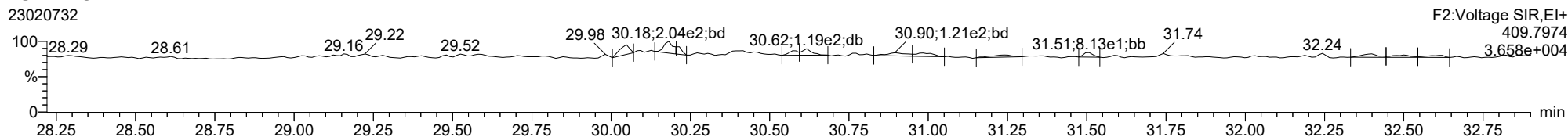
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**13C-23478-PeCDF**

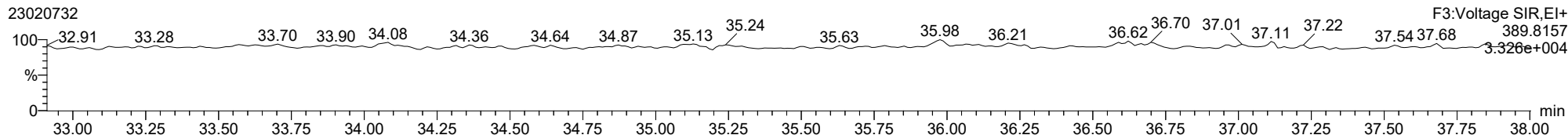


**FUNCTION2 HPCDPE**

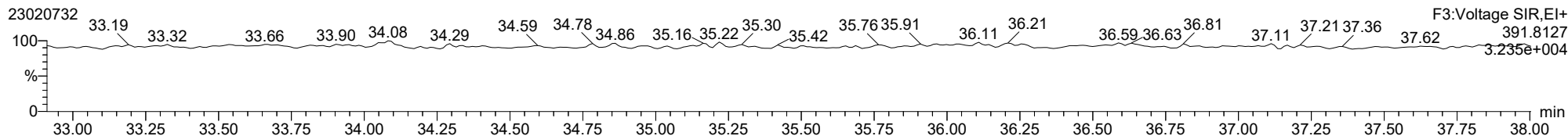


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

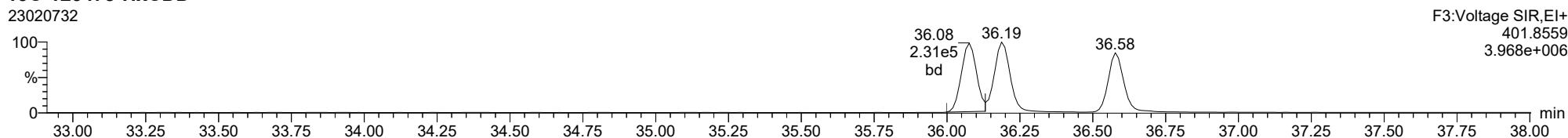
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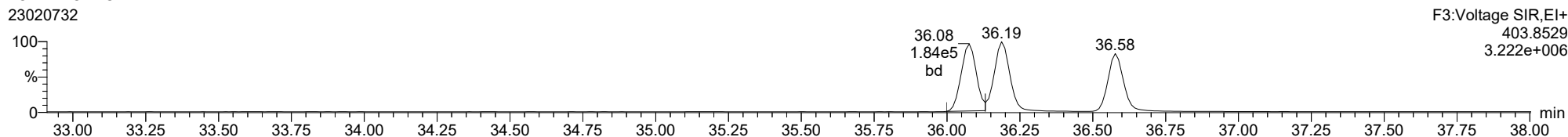
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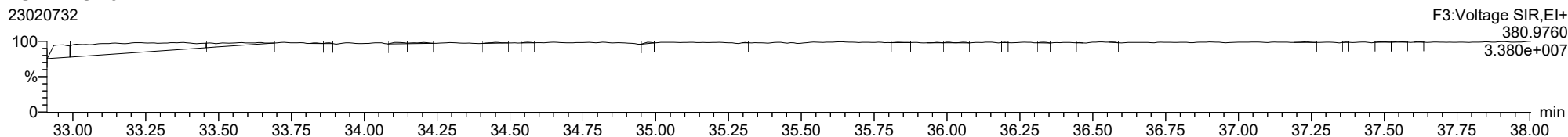
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**13C-123478-HxCDD**

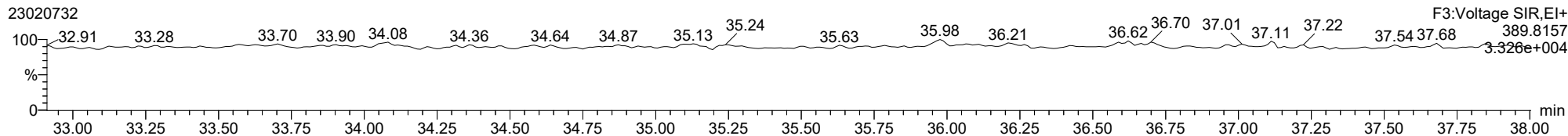


**FUNCTION3 PFK**

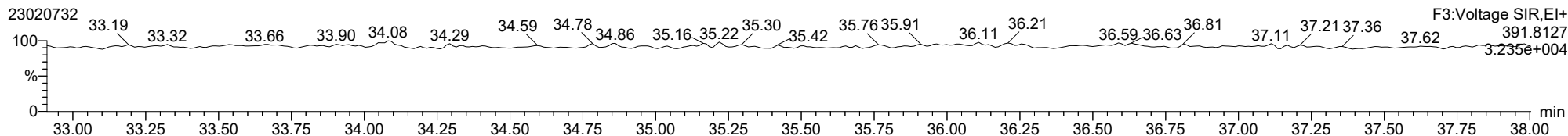


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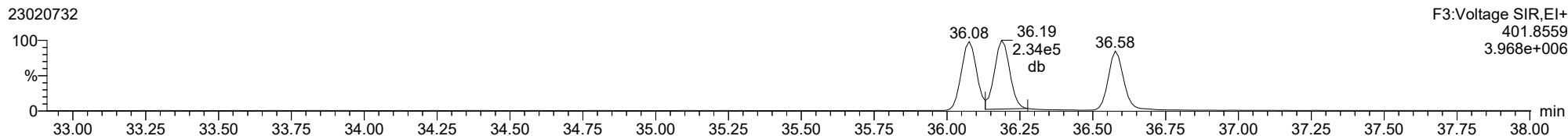
123678-HxCDD



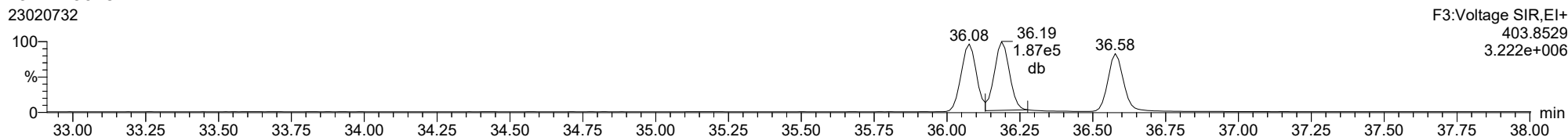
123678-HxCDD



13C-123678-HxCDD



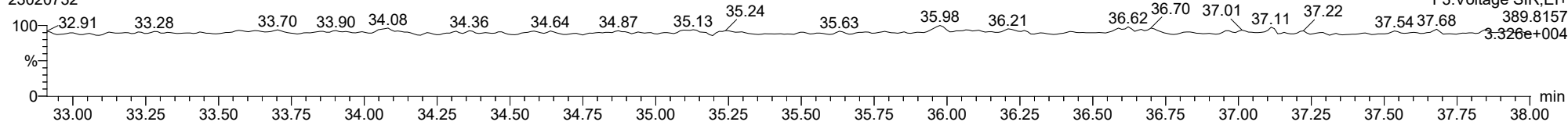
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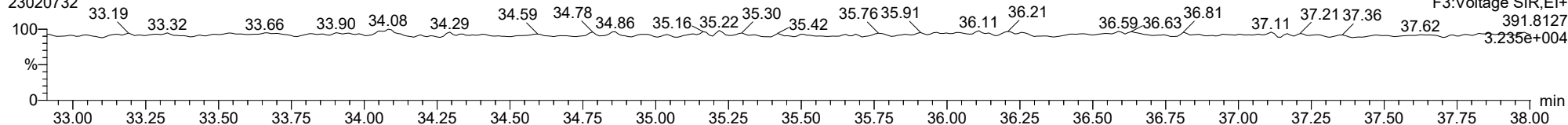
**123789-HxCDD**

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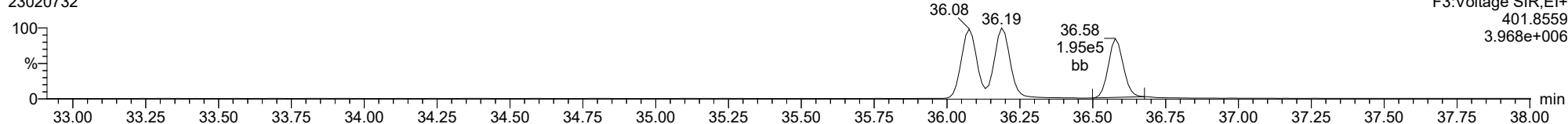
**123789-HxCDD**

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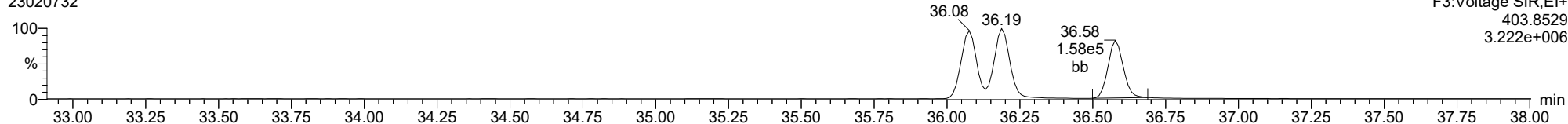
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**13C-123789-HxCDD**

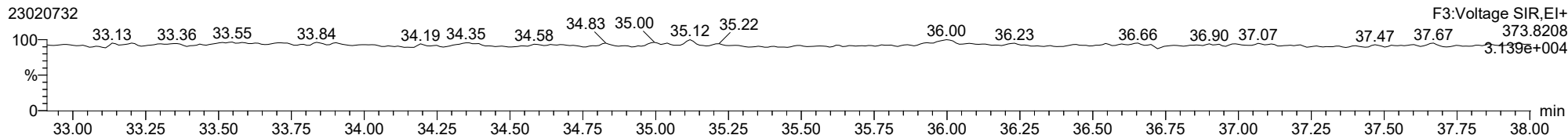
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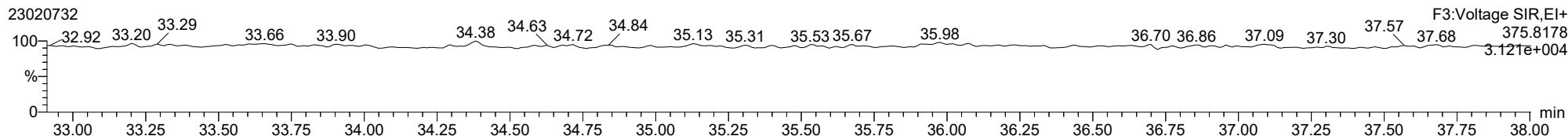


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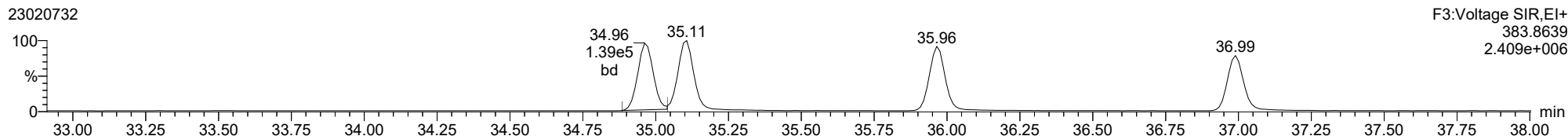
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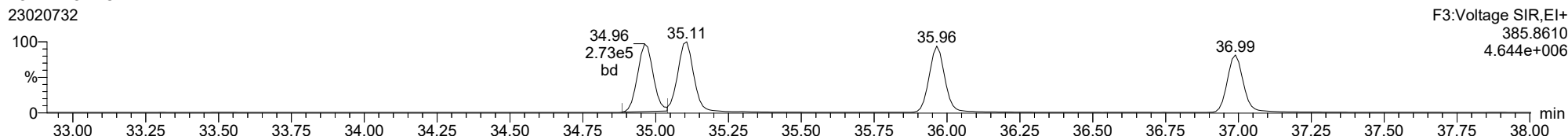
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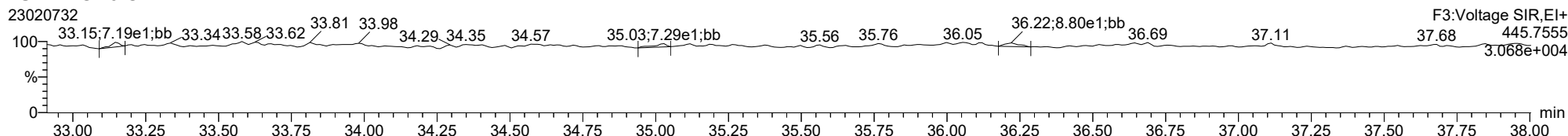
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**13C-123478-HxCDF**

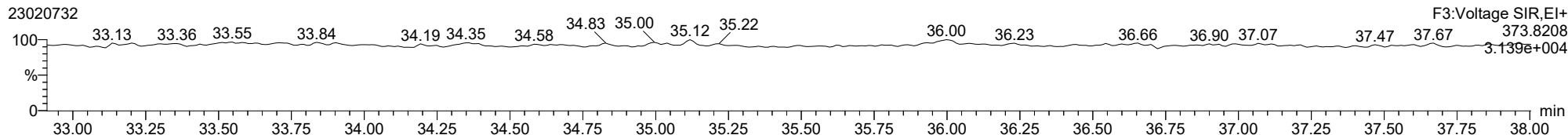


**FUNCTION3 OCDPE**

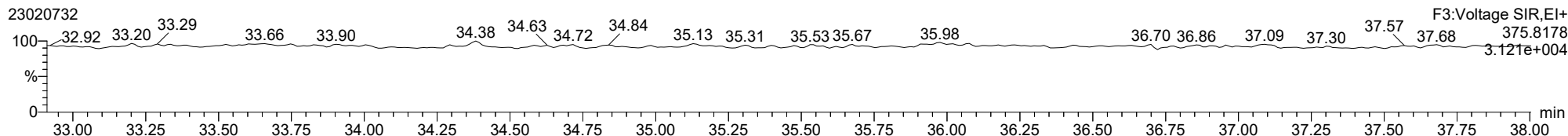


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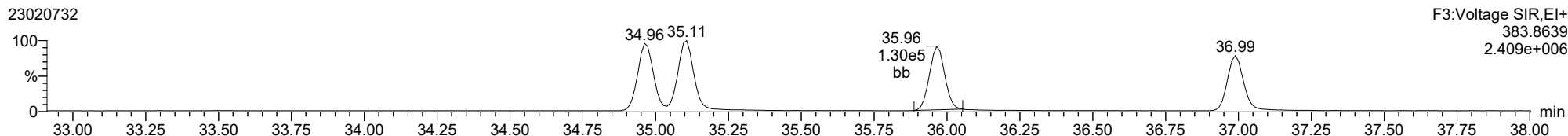
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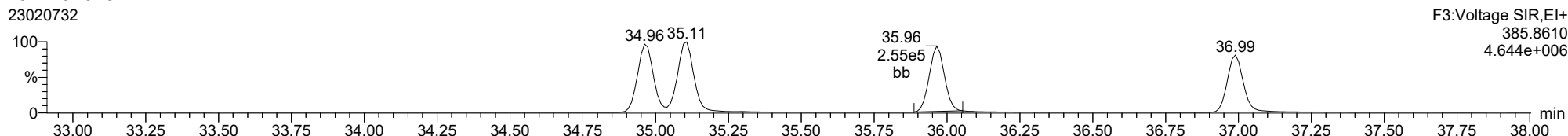
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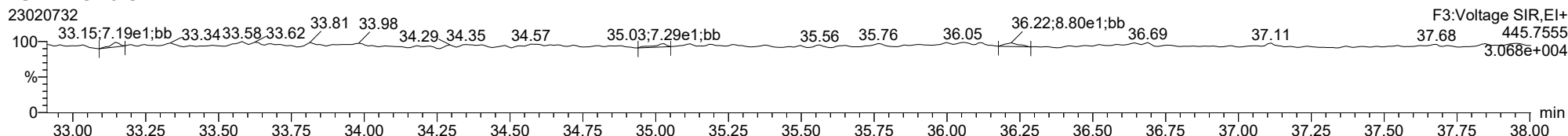
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**13C-234678-HxCDF**

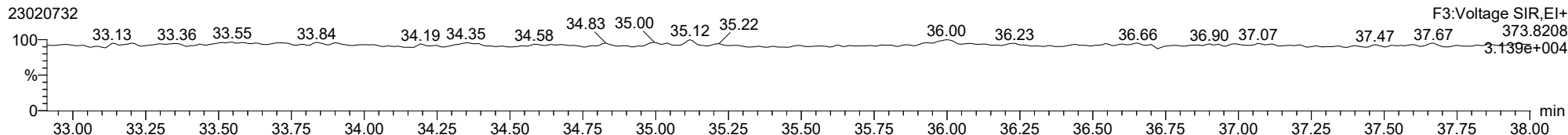


**FUNCTION3 OCDPE**

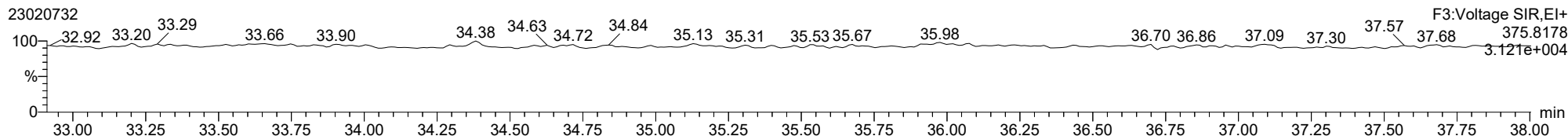


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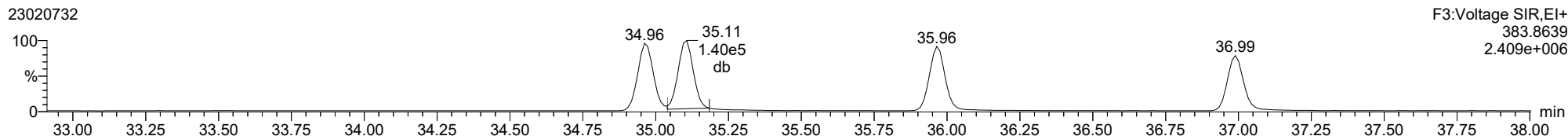
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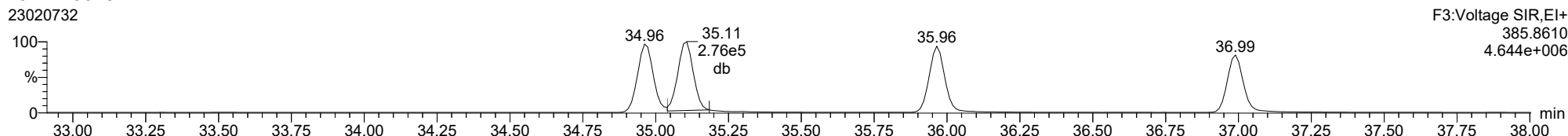
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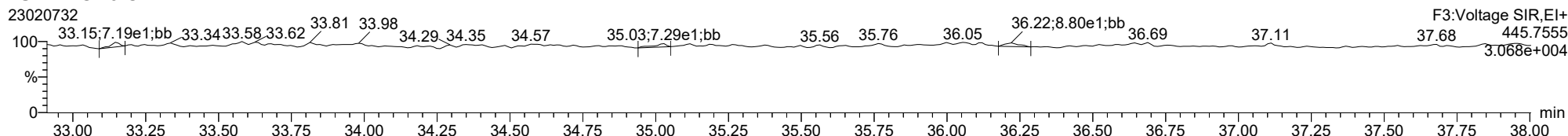
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**13C-123678-HxCDF**

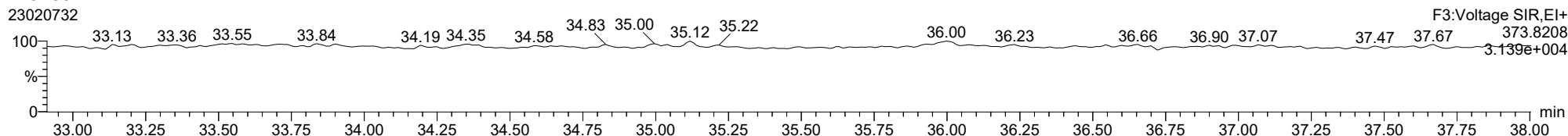


**FUNCTION3 OCDPE**

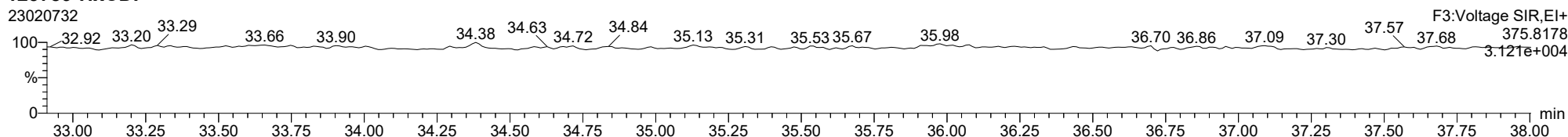


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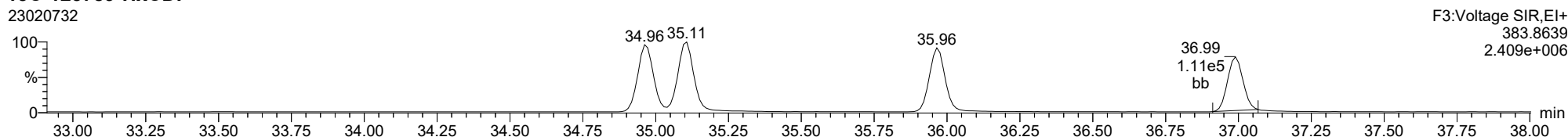
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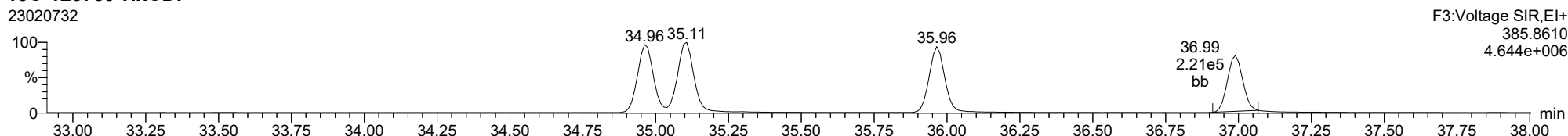
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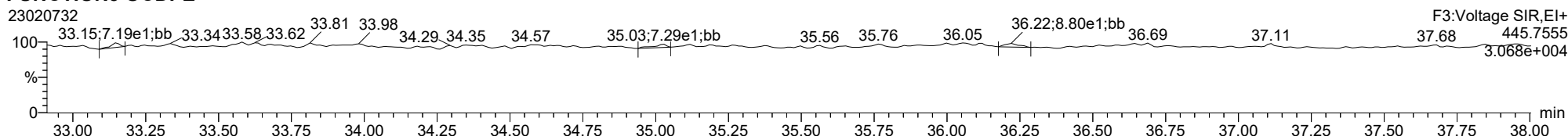
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**13C-123789-HxCDF**



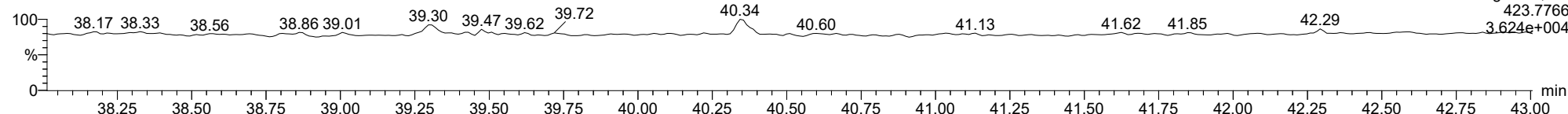
**FUNCTION3 OCDPE**



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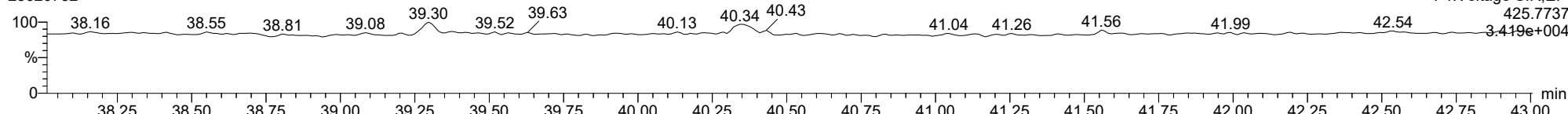
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23020732



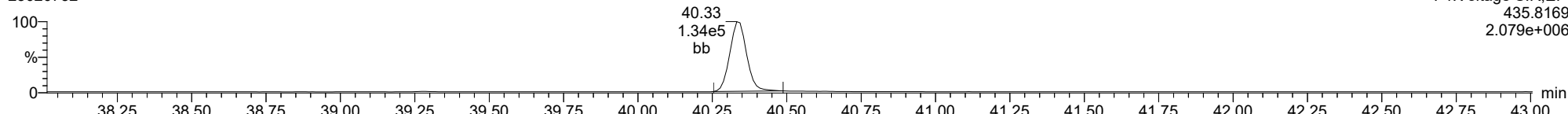
**1234678-HpCDD**

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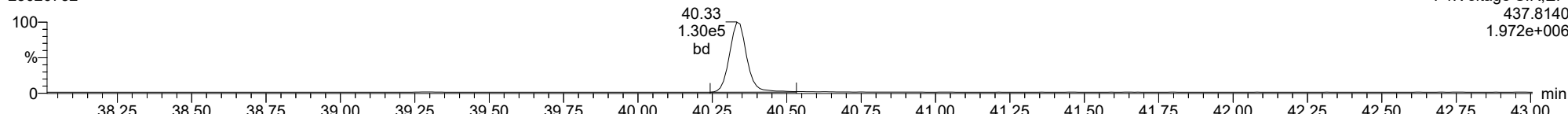
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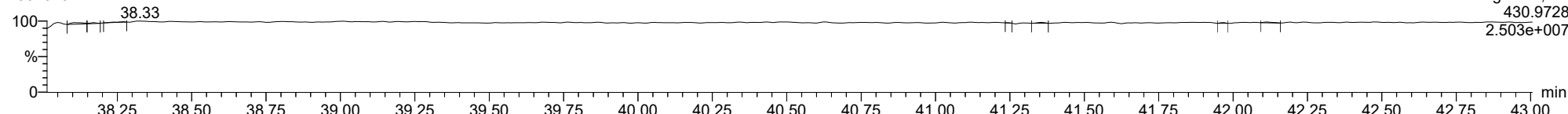
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23020732



**FUNCTION4 PFK**

23020732

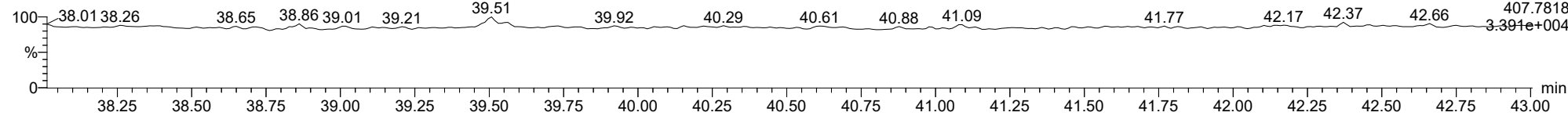


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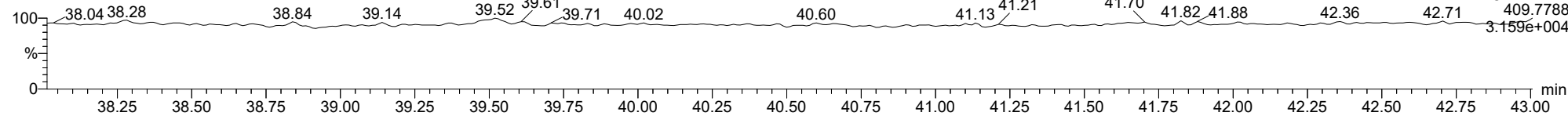
**1234678-HpCDF**

23020732



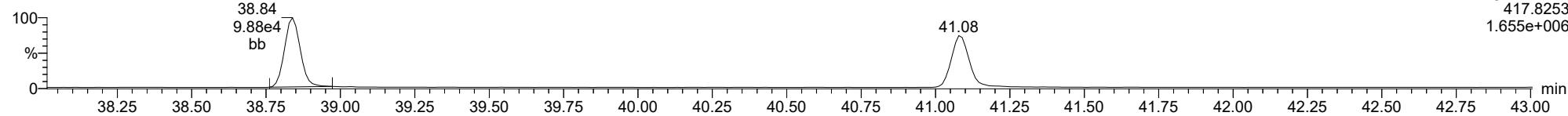
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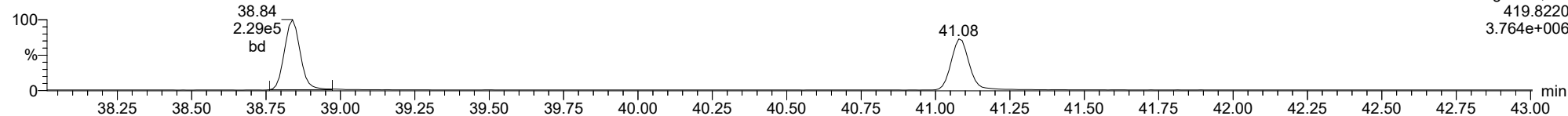
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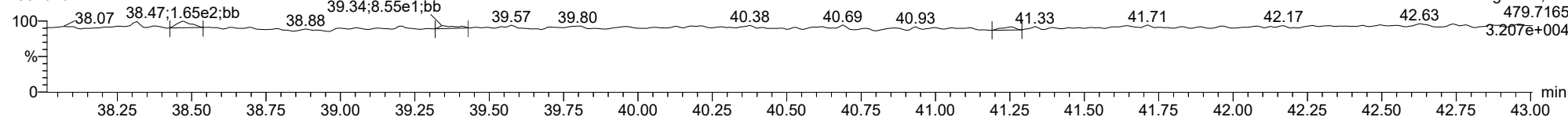
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**FUNCTION4 NCDPE**

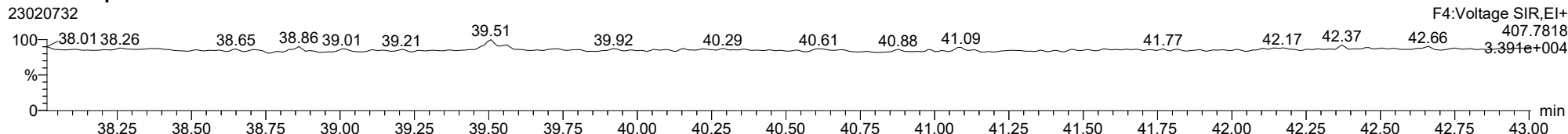
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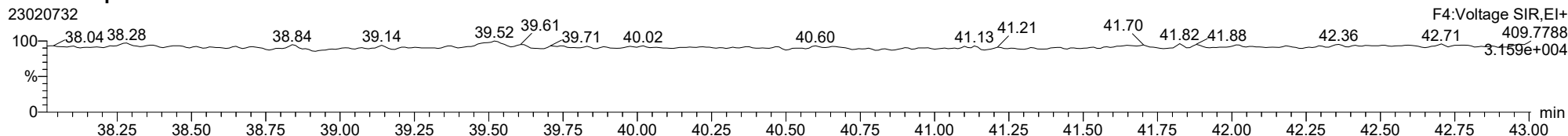
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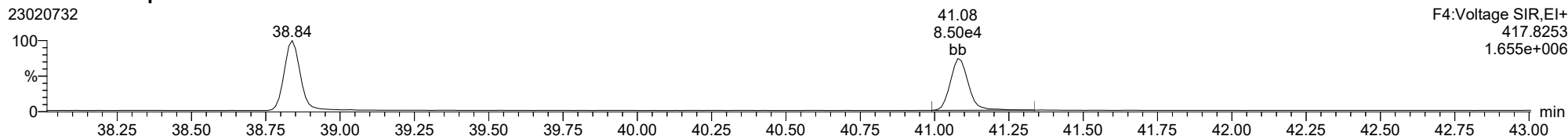
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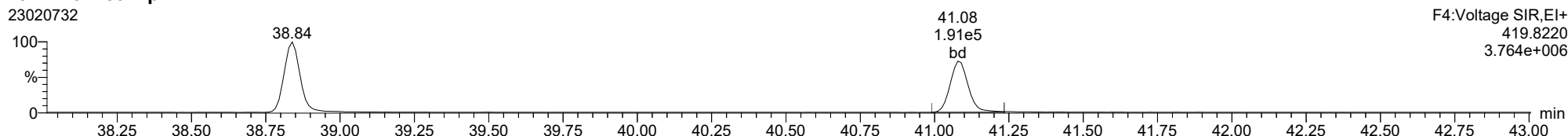
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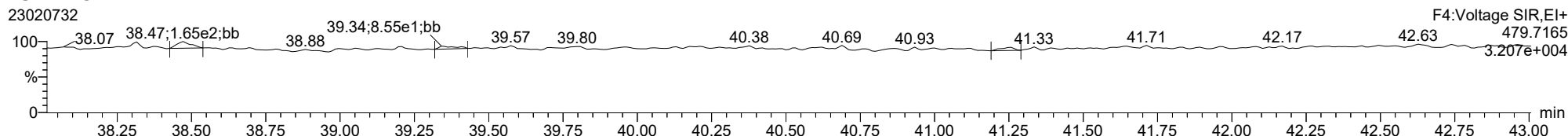
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**FUNCTION4 NCDPE**

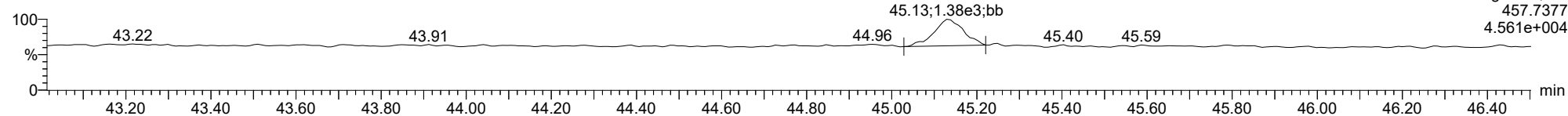
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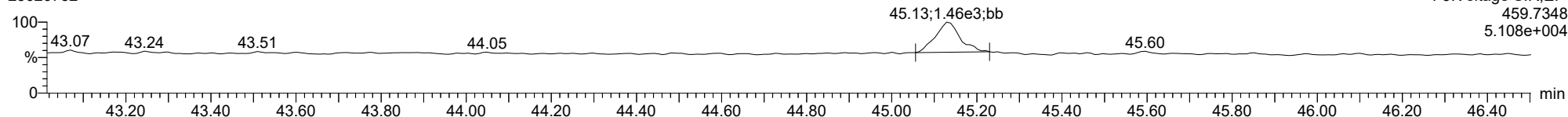
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23020732



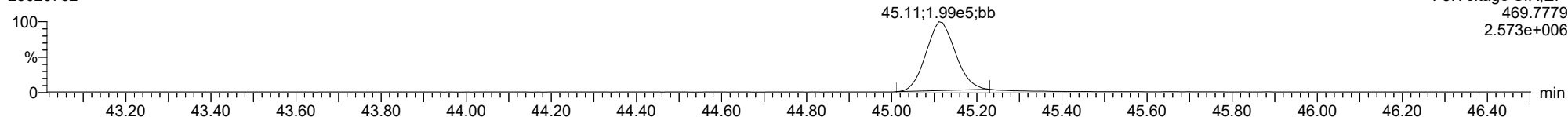
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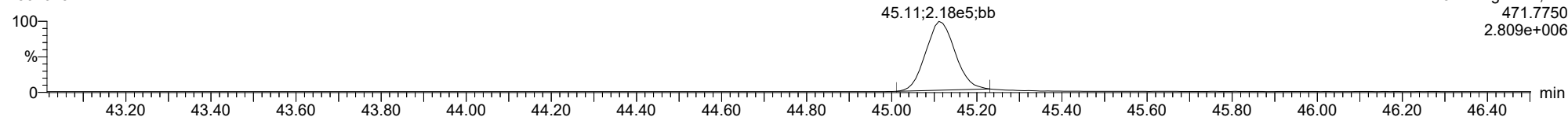
**13C-OCDD**

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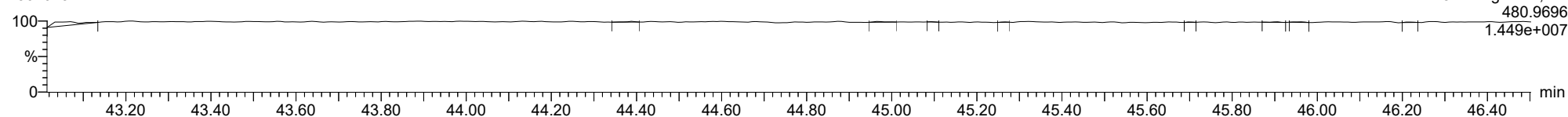
**13C-OCDD**

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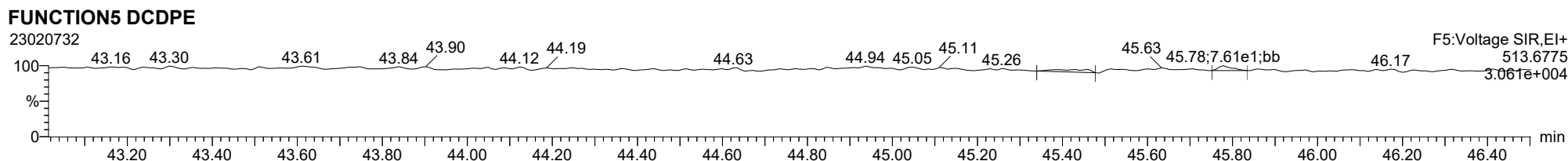
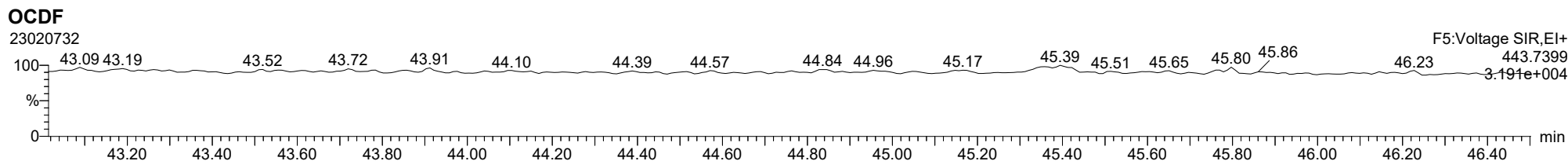
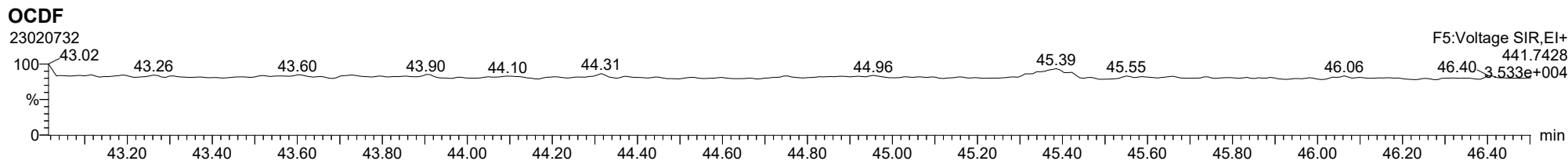
**FUNCTION5 PFK**

23020732



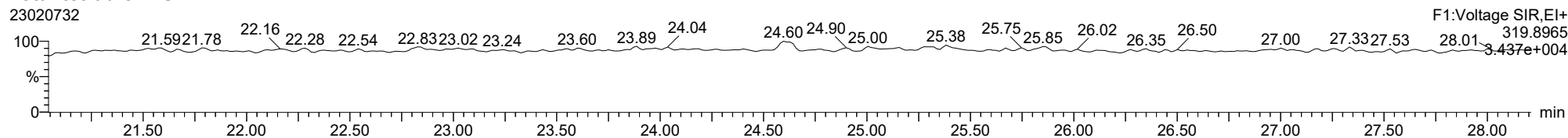


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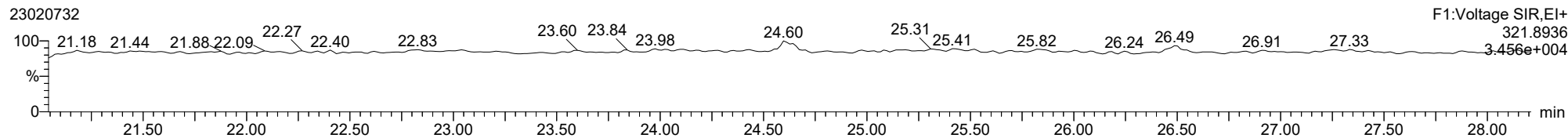


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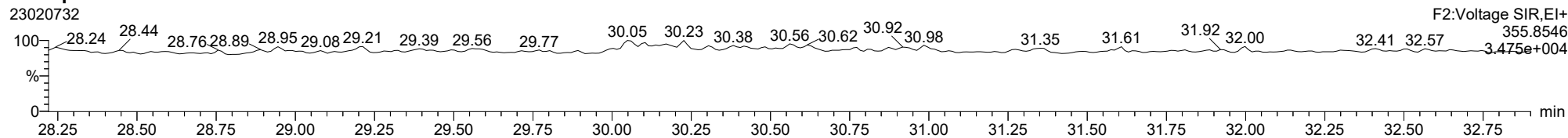
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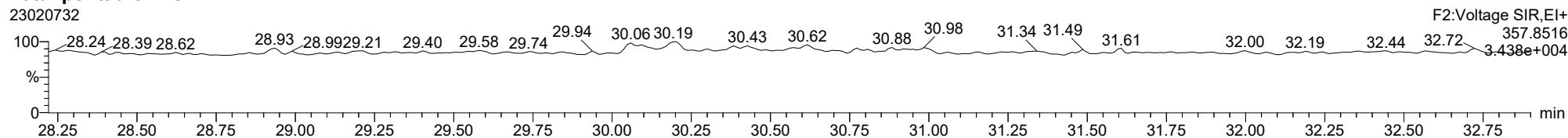
**Total-tetradiioxins**



**Total-pentadiioxins**

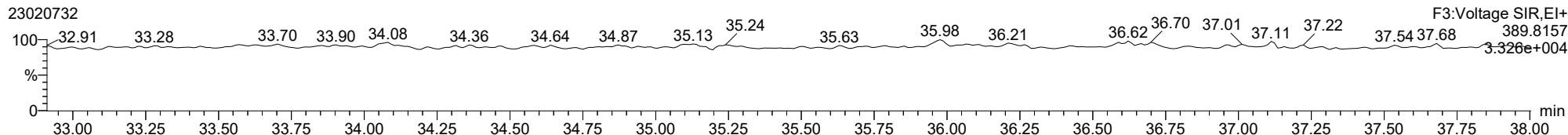


**Total-pentadiioxins**

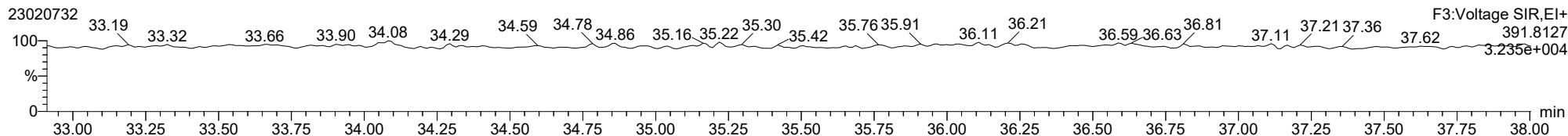


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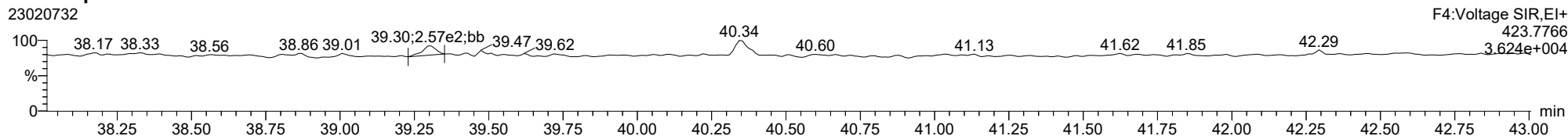
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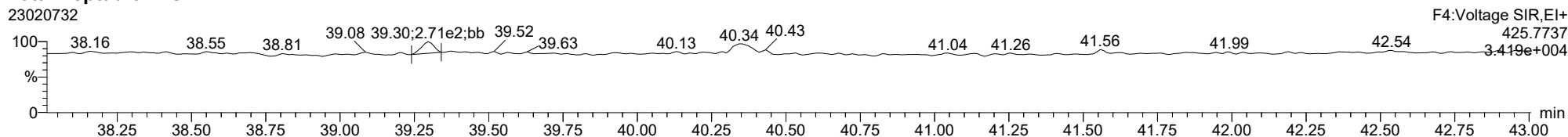
**Total-hexadioxins**



**Total-heptadioxins**

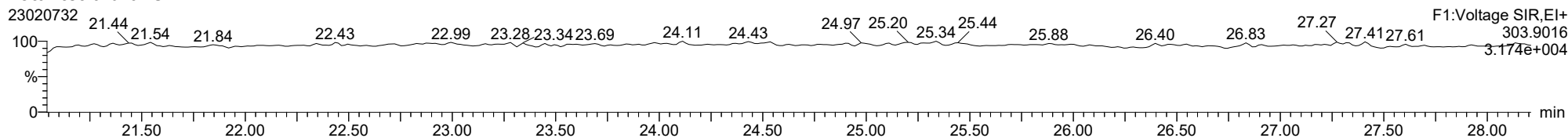


**Total-heptadioxins**

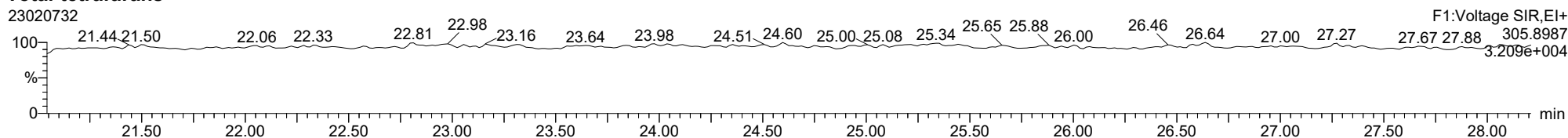


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

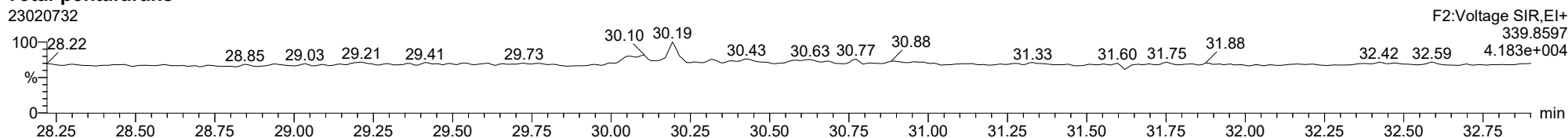
**Total-tetrafurans**



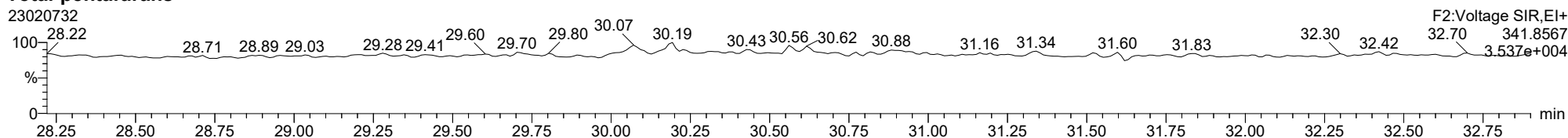
**Total-tetrafurans**



**Total-pentafurans**

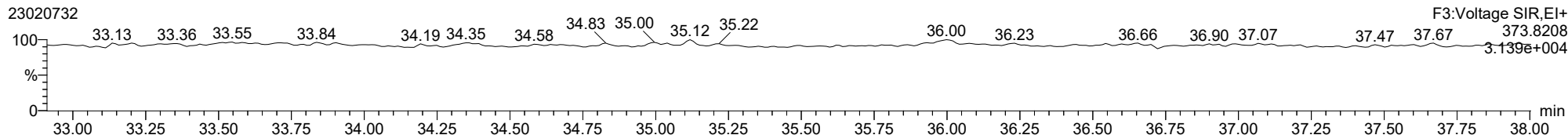


**Total-pentafurans**

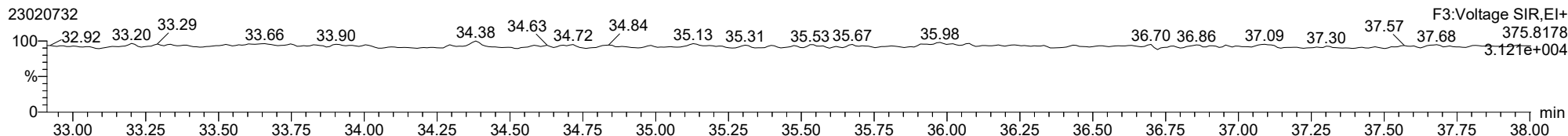


ID: 22L0307-34, Name: 23020732, Date: 08-Feb-2023, Time: 10:46:05, Conditions: AUTOSPEC01, User: pk

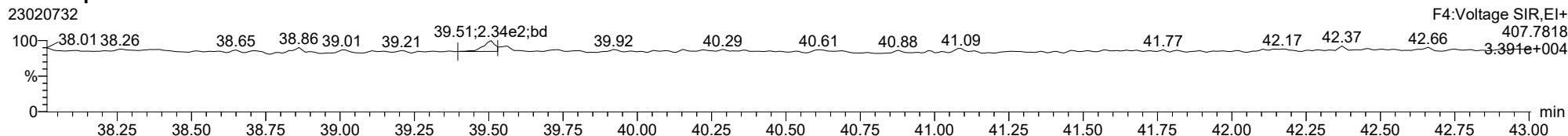
**Total-hexafurans**



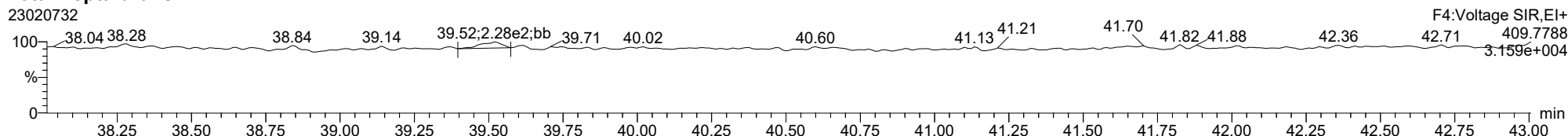
**Total-hexafurans**



**Total-heptafurans**



**Total-heptafurans**





**PREPARATION BATCH SUMMARY**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC SDG: 22L0307  
Client: Anchor QEA, LLC Project: AOC4 UR Phase 3  
Batch: BKL0420 Batch Matrix: Solid Preparation: EPA 8290

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-IT808A	22L0307-29	23020727	12/27/22 14:20	
LDW22-IT808B	22L0307-30	23020728	12/27/22 14:20	
LDW22-IT808C	22L0307-31	23020729	12/27/22 14:20	
LDW22-IT808D	22L0307-32	23020730	12/27/22 14:20	
LDW22-IT808E	22L0307-33	23020731	12/27/22 14:20	
LDW22-IT808F	22L0307-34	23020732	12/27/22 14:20	
Blank	BKL0420-BLK1	23020723	12/27/22 14:20	
LCS	BKL0420-BS1	23020724	12/27/22 14:20	
LDW22-IT808A	BKL0420-DUP1	23020726	12/27/22 14:20	
Reference	BKL0420-SRM1	23020725	12/27/22 14:20	



Analytical Resources, LLC  
Analytical Chemists and Consultants

HRGCMS Dioxin/Furan Preparation Bench Sheet EPA Methods 8290A & 1613B

Batch: BKL0420

Solid Samples

ARI Work Orders: 22L0307, 22L0312

Matrix (circle one)	<input checked="" type="checkbox"/> Soil	Sediment	Oil	Tissue
Extraction Method	Start Date/Time:	End Date/Time:		
Soxhlet	12/27/22 14:20	12/28/22 10:30		

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Glasswool		3012850	DR	12/30/22
Basic Silica		K002255	DR	12/30/22
Acid Silica		K011012	DR	12/30/22
Activated Florisil		K005956	DR	12/30/22
Balance		24650344	DR	12/27/22
Toluene		K011233	DR	12/27/22
Hexane		K011333	DR	12/28/22
CH2Cl2		K007902	DR	12/30/22
H2SO4		K009296	DR	12/21/22
Na2SO4		K011562	DR	12/21/22
Other ( RM )		K011477	DR	12/22/22
0% Silica		K011054	DR	12/30/22
Nonane		H006038	TW	1/3/23

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date
Recovery Standard	1.0 mL	K011158	2/4 ng/mL	12/12/23
OPR	1.0 mL	K006003	0.21/0.2.0 ng/mL	6/30/23
Clean-up Standard	1.0 mL	K011159	0.8 ng/mL	12/2/23

Lab Number & Container	Sample Name	% Solids	Sample Weight Equal to dry (g) (Target Dry) Actual	RotoVap °C	Water Trap Vol (mL)	Final Vol. (uL)
22L0307-29 A	LDW22-TI808A	55.27	18.10	120	7.4	20
22L0307-29 A	LDW22-TI808A	55.27	17.20	120	7.2	20
22L0307-30 A	LDW22-TI808B	58.36	18.78	120	8.4	20
22L0307-31 A	LDW22-TI808C	53.44	16.20	120	5.5	20
22L0307-32 A	LDW22-TI808D	61.77	12.33	120	1.8	20
22L0307-33 A	LDW22-TI808E	81.32	12.57	120	2.0	20
22L0307-34 A	LDW22-TI808F	79.63	29.64	120	14.0	20
22L0312-01 A	RM10W-ST01-221208	33.75	22.89	120	10.2	20
22L0312-01 A	RM10W-ST01-221208	33.75	26.28	120	15.0	20
22L0312-02 A	RM10W-ST03-221208	43.73	23.88	120	12.0	20
22L0312-03 A	RM10W-ST04-221207	38.06	33.19	120	20.4	20
22L0312-04 A	RM10W-ST05-221207	41.99	36.61	120	24.0	20
22L0312-05 A	RM10W-ST06-221207	30.14	33.24	120	22.0	20
22L0312-06 A	RM10W-ST07-221207	27.35	24.29	120	14.0	20
22L0312-07 A	RM10W-ST08-221207	30.11	10.02	120	0.0	20
22L0312-08 A	RM10W-FD18	41.17	10.01	120	0.0	20
BKL0420-BLK1	Blank	100	18.10	120	7.0	20
BKL0420-BLS1	LCS	100	29.64	120	13.6	20
BKL0420-DUP1	22L0312-01A	55.27	10.02	120	0.2	20
BKL0420-DUP2	22L0312-01A	33.75	10.02	120	0.2	20
BKL0420-SRM1	Reference	100	10.02	120	0.2	20

Prep Analyst / Date:	Analyst	Witness	Date	Verify Client ID
DR 12/27/22	DR	TW	12/27/22	Acid Clean
DR 12/27/22	DR	TW	12/27/22	Silica-Florisil Clean

Supervisor Review By: DR  
Date: 12/23



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

Dioxin Extraction Laboratory – Glassware

Batch ID: BKLB424

Work Order: 22L0307, 22L0312

Extraction Parameter: Dioxin

ARI Analyst

ARI Sample ID	300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
BKLB424														
-051	28	26		30	29	35	121	66				4	4	
-061	5	4		37	84	101	1	81				4	4	
-062	63			23	54	145	59	71				4	4	
-063	34			35	47	119	128	68				4	4	
-064	51	16		177	19	212	166	46				4	4	
22L0307														
-065	2			48	65	229	61	80				4	4	
-066	79			40	5	21	7	16				4	4	
-067	18			12	61	204	104	7				4	4	
-068	4	21		10	95	3	55	61				4	4	
-069	30	114		1	21	2	41	55				4	4	
-070	9	18		34	72	143	70	65				4	4	
22L0312														
-071	44			13	52	27	53	34				4	4	
-072	76			45	57	170	3	18				4	4	
-073	60			11	24	51	164	70				4	4	
-074	22			50	64	44	150	20				4	4	
-075	32			43	60	200	58	18				4	4	
-076	12			21	18	24	2	21				4	4	
-077	25			138	32	16	145	40				4	4	
-078	48			41	70	36	71	29				4	4	



**TOTAL SOLIDS BENCHSHEET**

Method HRSM01.2

(dry at 110 C)

Instrumentation

Batch: BKL0335

Date: 12/16/2022 5:30

Analyst: TW

Drying Oven: 18

Analytical Balance: 24650344

Batch drying time

Record times as mm/dd/yy hh:mm

Date/time in oven: 12/15/2022 12:25

Date/time out: 12/16/2022 5:30

Elapsed hrs: 17.1

Oven Temp, C

110

111

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100) / (sample & dish - dish tare)

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted	Oven Temps, °C
22L0307-29	0.8000	11.7100	6.8300	6.03	55.27%	No	110
22L0307-30	0.8100	11.4500	7.0200	6.21	58.36%	No	110
22L0307-31	0.8100	11.5700	6.5600	5.75	53.44%	No	111
22L0307-32	0.8100	11.9800	7.7100	6.90	61.77%	No	111
22L0307-33	0.8000	11.4000	9.4200	8.62	81.32%	No	111
22L0307-34	0.8100	11.0700	8.9800	8.17	79.63%	Yes	111
22L0312-01	0.7900	11.2500	4.3200	3.53	33.75%	Yes	111
22L0312-02	0.8100	11.1000	5.3100	4.50	43.73%	Yes	111
22L0312-03	0.7900	11.8000	4.9800	4.19	38.06%	Yes	111
22L0312-04	0.8000	11.5400	5.3100	4.51	41.99%	Yes	111
22L0312-05	0.8100	11.6600	4.0800	3.27	30.14%	Yes	111
22L0312-06	0.8000	11.2200	3.6500	2.85	27.35%	Yes	111
22L0312-07	0.8000	11.6600	4.0700	3.27	30.11%	Yes	111
22L0312-08	0.8000	11.4400	5.1800	4.38	41.17%	Yes	111

**TOTAL SOLIDS BENCHSHEET**

Method HRSM01.2

(dry at 110 C)

Instrumentation

Batch: BKL0335

Date: 12/16/22

Analyst: TW

Drying Oven: 018

Analytical Balance: 24650344

**Batch drying time**

Record times as mm/dd/yy hh:mm

Date/time in oven: 12/15/22 12:25

Date/time out: 12/16/22 8:38

Elapsed hrs: 0.0

Oven Temp, C 111

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)  
 TS = (Final Dry Wt X 100)/(sample & dish - dish tare)

Oven Temps, °C

Start Temp: 110

End Temp: 111

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
22L0307-29 A	0.80	11.71	6.83			No
22L0307-30	0.81	11.45	7.42			No
22L0307-31	0.81	11.57	6.56			No
22L0307-32	0.81	11.98	7.71			No
22L0307-33	0.80	11.40	9.42			No
22L0307-34	0.81	11.07	8.98			No
22L0312-01	0.79	11.25	4.32			No
22L0312-02	0.81	11.10	5.31			No
22L0312-03	0.79	11.80	4.98			No
22L0312-04	0.80	11.54	5.31			No
22L0312-05	0.81	11.66	4.48			No
22L0312-06	0.80	11.22	3.65			No
22L0312-07	0.80	11.66	4.47			No
22L0312-08	0.80	11.44	5.18			No



Extraction Parameter: Dioxin Extraction Batch \_\_\_\_\_

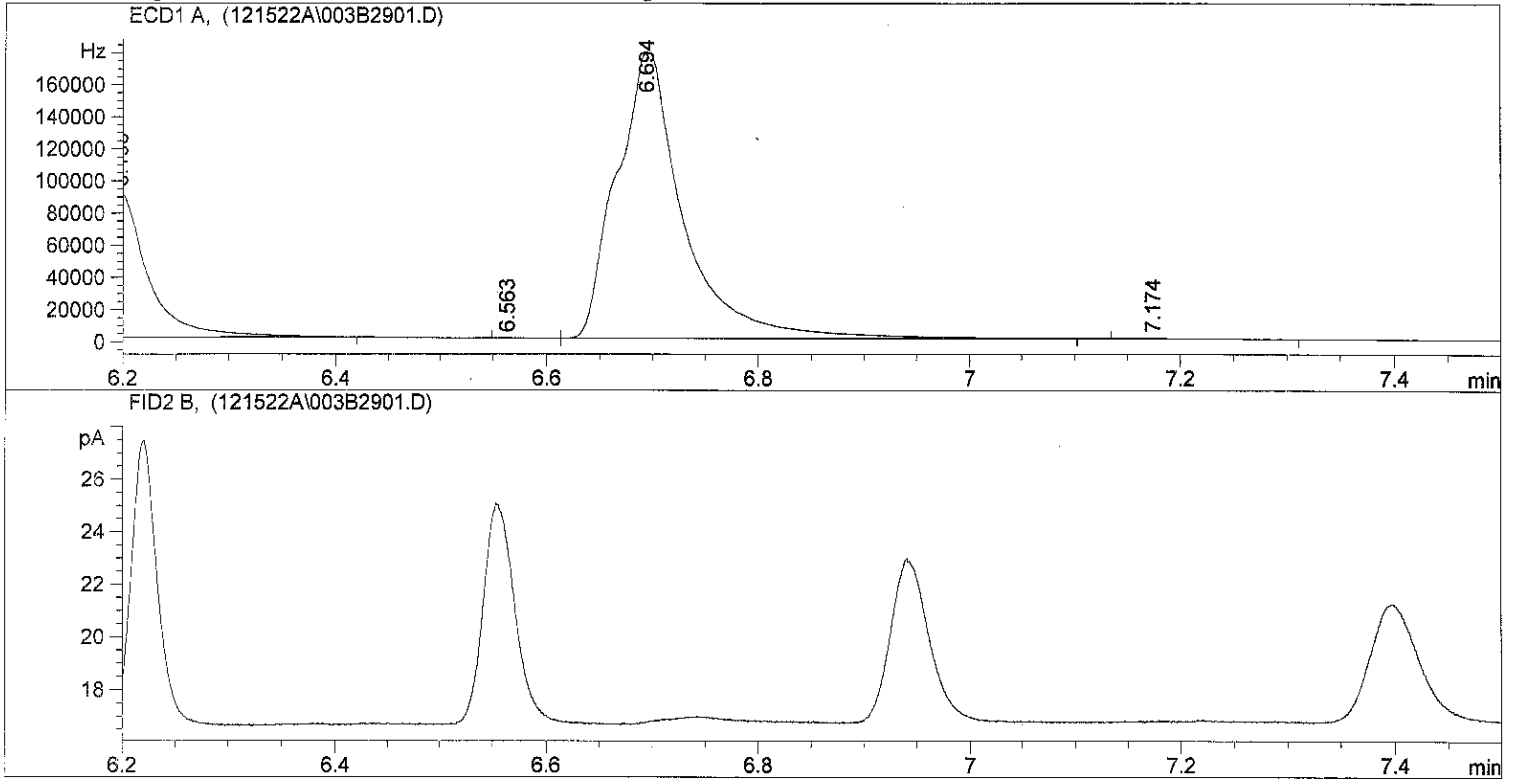
Total Solids Batch: BKLD335 Work Order(s): 22L0307, 22L0312

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>307-34, 312-01-08</u>	<u>TW 12/15/22</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input checked="" type="checkbox"/> Clay/Clumps (Difficult to homogenize)= <u>307-29-32,</u>	<u>TW 12/15/22</u>
<input type="checkbox"/> Rocks (%+size)?	
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= <u>307-30, 312, 02, = &lt; 1% Small roots</u>	<u>TW 12/15/22</u>
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>307-29-34, 312-03, 07</u>	<u>TW 12/15/22</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input checked="" type="checkbox"/> Other (Details)= <u>Roto-vaped up to Sample 22L0307-32 on 12/28/22</u>	<u>DP 12/28/22</u>
<b>Aqueous:</b>	
<input 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 checked="" type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<u>Could only weigh out samples on 12/22/22 due to hazardous weather conditions due for 12/23/22. Samples were stored in Refrigerator R-40 until 12/27/22.</u>	<u>DP 12/22/22</u>
<input type="checkbox"/> Share Samples Y / N	
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

```

=====
Injection Date : 12/15/2022 7:57:38 PM      Seq. Line : 29
Sample Name    : CS4                          Location  : Vial 3
Acq. Operator  : TW                           Inj      : 1
                                           Inj Volume : 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



=====  
 Area Percent Report  
 =====

```

Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.296	BP	0.0127	891.47217	872.69391	0.02717
2	5.363	VP	0.0345	67.49742	32.57380	0.00206
3	5.510	VV S	0.0332	4.95285e5	1.98028e5	15.09439
4	5.609	VV S	0.0458	7.19819e5	2.61779e5	21.93734
5	5.671	VV S	0.0373	2.43113e5	1.08555e5	7.40916
6	5.723	VV S	0.0560	2.97114e5	8.83934e4	9.05489
7	5.968	VV S	0.0386	2.81176e5	1.21371e5	8.56916
8	6.118	VV S	0.0387	2.10781e5	9.07992e4	6.42380
9	6.198	VB S	0.0467	2.53113e5	9.02839e4	7.71390
10	6.563	PP	0.0192	71.62710	44.52584	0.00218
11	6.694	VB S	0.0542	7.79120e5	1.77601e5	23.74460
12	7.174	BP	0.0541	535.41669	116.85674	0.01632
13	7.586	PP	4.40e-3	3.69272	11.32402	0.00011
14	7.658	BP	0.0310	161.65683	65.40012	0.00493

Totals : 3.28125e6 1.13795e6

Results obtained with enhanced integrator!

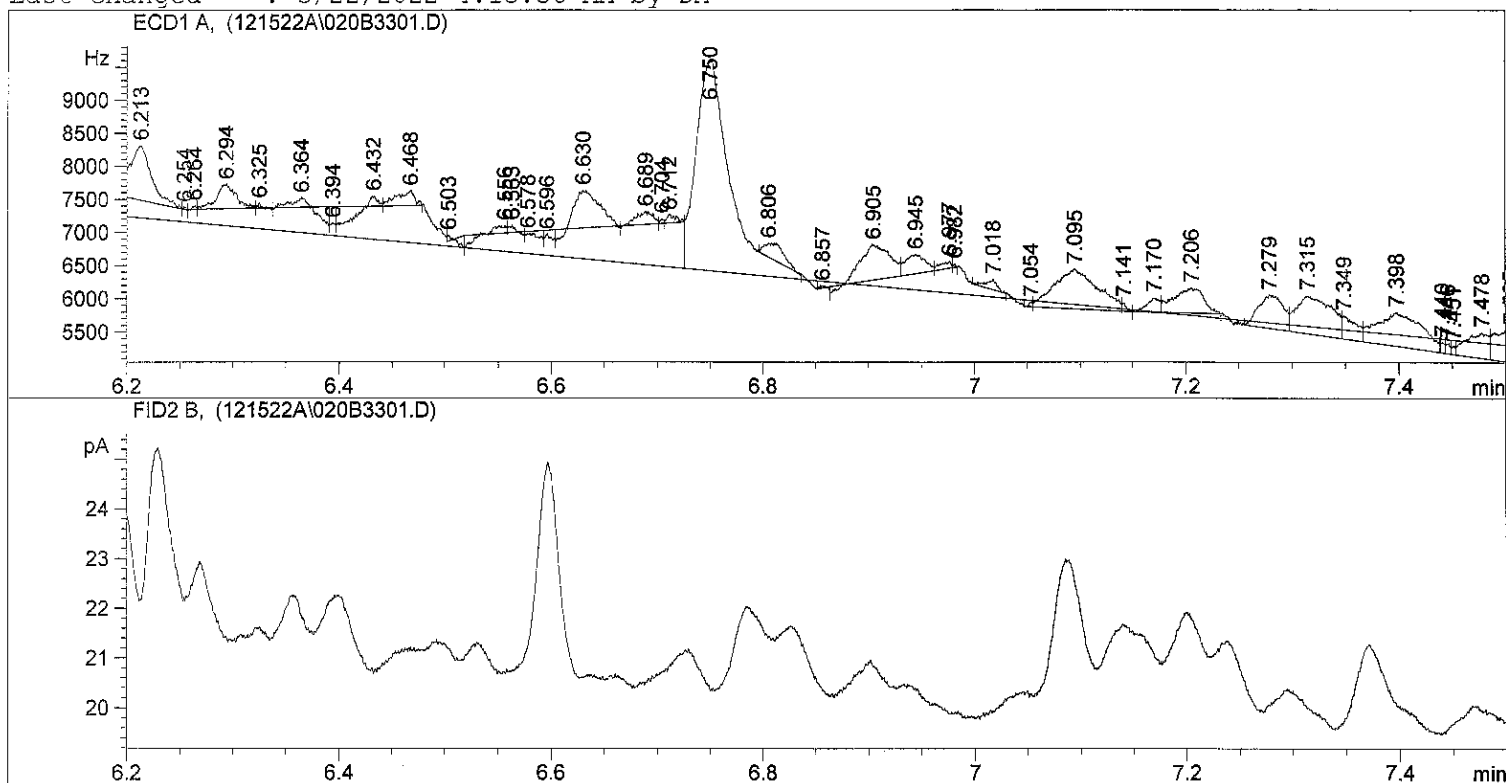
Signal 2: FID2 B,

=====  
\*\*\* End of Report \*\*\*

```

=====
Injection Date : 12/15/2022 8:42:03 PM      Seq. Line : 33
Sample Name    : 22L0307 29                 Location  : Vial 20
Acq. Operator  : TW                          Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

```

Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.214	BP	0.0000	2553.99609	496.45871	1.82756
2	5.273	VV	6.74e-3	110.09496	209.13354	0.07878
3	5.298	VP	0.0174	2161.73511	1573.66968	1.54687
4	5.335	VV	4.85e-3	113.64717	311.62329	0.08132
5	5.378	VV S	0.0463	3.37732e4	8727.11035	24.16702
6	5.434	BV T	0.0140	1146.57971	997.75732	0.82046
7	5.472	PB T	0.0128	1440.75989	1423.64380	1.03096
8	5.586	BV T	0.0293	6902.07959	2803.00122	4.93890
9	5.614	PV T	0.0231	4212.93994	2247.17798	3.01464
10	5.673	PV T	0.0268	4743.92383	2233.89771	3.39460
11	5.756	PV S	0.0521	2.25370e4	5354.08057	16.12673
12	5.809	BV T	0.0172	627.14703	452.08667	0.44877
13	5.842	PV T	4.06e-3	21.01768	75.32753	0.01504
14	5.864	PV T	0.0133	417.04071	377.27966	0.29842
15	5.898	PV T	0.0109	291.52435	330.21378	0.20861
16	5.941	PV S	0.0649	3.61492e4	6662.62646	25.86716
17	6.003	BV T	0.0130	488.77197	458.99194	0.34975

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.032	PB T	3.34e-3	16.07224	80.12772	0.01150
19	6.062	BV T	2.22e-3	4.33840	32.49797	0.00310
20	6.087	PV T	0.0143	338.09827	300.49591	0.24193
21	6.106	PB T	3.71e-3	17.47072	78.42654	0.01250
22	6.131	BV T	5.56e-3	42.40588	95.79613	0.03034
23	6.153	PV T	9.44e-3	182.69225	286.35144	0.13073
24	6.158	PV T	4.08e-3	72.25021	294.78040	0.05170
25	6.164	PV T	5.83e-3	124.13245	354.60715	0.08883
26	6.169	PV T	0.0138	415.80563	361.70328	0.29754
27	6.189	PV T	4.86e-3	98.04965	336.26447	0.07016
28	6.213	PV T	0.0190	1254.95691	822.74292	0.89801
29	6.254	PV T	2.75e-3	4.49025	27.23673	0.00321
30	6.264	PV T	2.51e-3	7.11723	43.49544	0.00509
31	6.294	PV T	0.0166	464.66971	360.29279	0.33250
32	6.325	PV T	1.90e-3	7.52579	65.92593	0.00539
33	6.364	PV T	0.0000	28.79584	135.49449	0.02061
34	6.394	PV T	4.92e-3	96.24831	248.28419	0.06887
35	6.432	PV T	0.0000	229.28064	147.23936	0.16407
36	6.468	PB T	0.0151	265.05780	216.44090	0.18967
37	6.503	BP T	0.0000	39.57389	82.18188	0.02832
38	6.556	PV T	0.0000	4.38757	106.54169	0.00314
39	6.563	PV T	4.58e-3	28.60181	103.98611	0.02047
40	6.578	PV T	0.0257	73.32915	33.83932	0.05247
41	6.596	PV T	0.0146	81.28854	67.60647	0.05817
42	6.630	PV T	0.0179	842.89362	569.83990	0.60315
43	6.689	PV T	0.0132	202.18433	187.68433	0.14468
44	6.704	PV T	3.60e-3	15.16578	70.11685	0.01085
45	6.712	PV T	8.17e-3	68.36148	111.25018	0.04892
46	6.750	PBAS	0.0105	2755.27930	3180.22412	1.97159
47	6.806	BB T	0.0183	314.18475	207.61342	0.22482
48	6.857	BV T	2.10e-3	4.69251	32.23782	0.00336
49	6.905	PV T	0.0241	993.49597	528.38129	0.71091
50	6.945	PV T	0.0161	377.38843	284.13507	0.27005
51	6.977	PV T	9.85e-3	78.42094	98.88927	0.05612
52	6.982	PB T	2.58e-3	8.66185	56.03919	0.00620
53	7.018	BB T	9.81e-3	111.77161	151.47252	0.07998
54	7.054	BV T	3.47e-3	13.98869	61.05922	0.01001
55	7.095	PV T	0.0341	1675.08289	589.73389	1.19863
56	7.141	PV T	4.59e-3	33.73944	122.37886	0.02414
57	7.170	PV T	0.0112	180.04022	209.95056	0.12883
58	7.206	PB T	0.0235	723.09991	368.73239	0.51743
59	7.279	BV T	0.0198	811.55286	489.06631	0.58072
60	7.315	PV T	0.0278	1321.14526	563.17084	0.94537
61	7.349	PV T	0.0156	322.30002	343.36737	0.23063
62	7.398	PV T	0.0352	1459.19800	501.40833	1.04415
63	7.440	PV T	4.82e-3	44.59268	154.22070	0.03191
64	7.446	PV T	4.77e-3	42.26258	147.52501	0.03024
65	7.451	PV T	3.53e-3	27.43807	129.67543	0.01963
66	7.478	PV T	0.0182	556.38538	377.89844	0.39813
67	7.505	PV T	0.0200	803.15765	483.95514	0.57471
68	7.520	PV T	0.0140	366.03833	434.91153	0.26193
69	7.535	PV T	0.0169	351.37231	346.71228	0.25143
70	7.617	PV T	0.0409	2458.38647	721.94507	1.75914
71	7.671	PV T	7.76e-3	129.96390	279.19580	0.09300
72	7.685	PV T	7.57e-3	169.82826	276.15643	0.12152
73	7.698	PV T	8.32e-3	205.92410	311.01907	0.14735
74	7.704	PV T	0.0192	526.27448	329.38412	0.37658
75	7.745	PV T	4.21e-3	13.19743	52.24430	0.00944
76	7.760	PV T	9.03e-3	68.49535	102.04845	0.04901
77	7.771	PV T	6.53e-3	31.27082	79.78880	0.02238
78	7.782	PBAT	9.84e-3	54.74632	73.88657	0.03917

Totals : 1.39749e5 5.24438e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

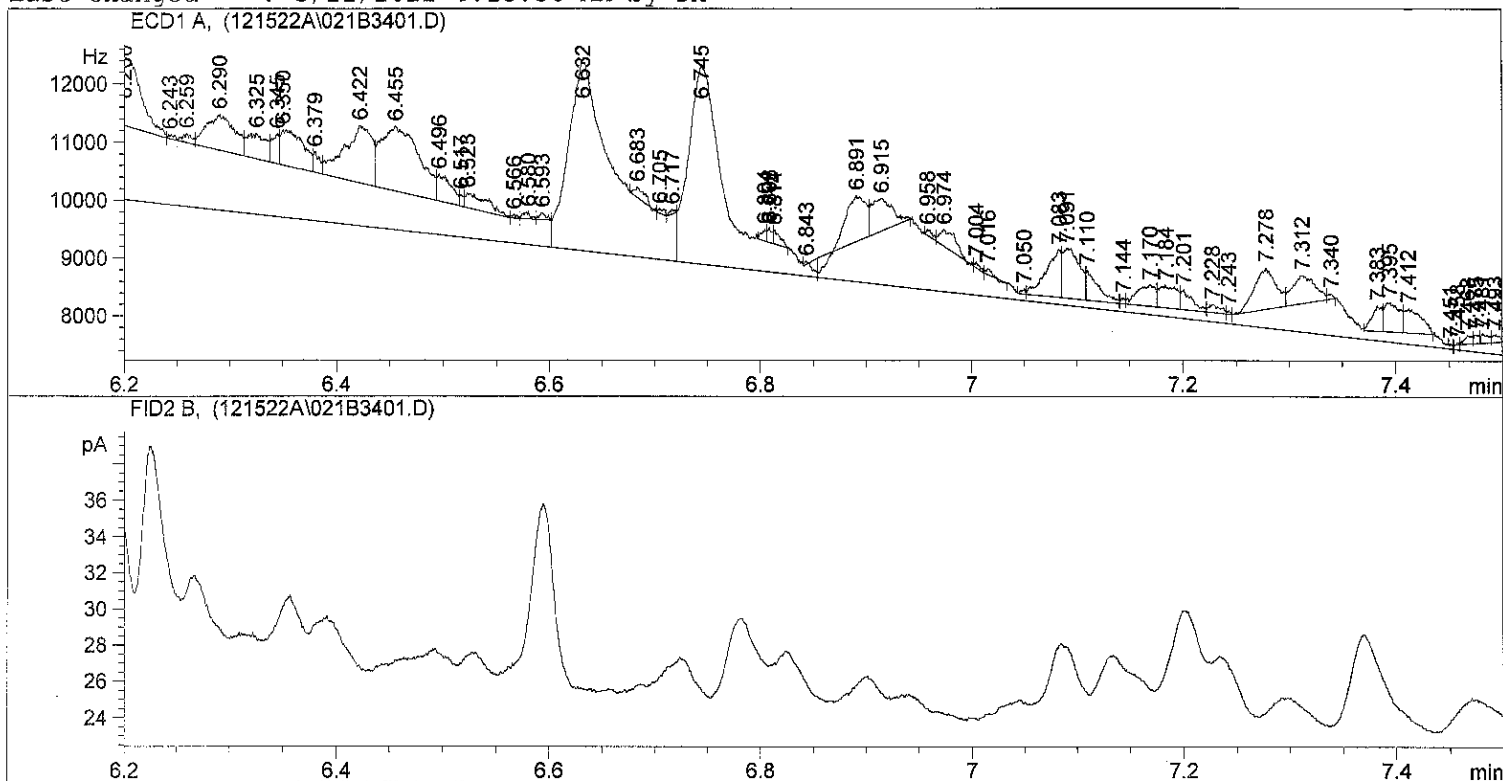
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\*\*\* End of Report \*\*\*



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Injection Date : 12/15/2022 8:53:13 PM      Seq. Line : 34
Sample Name    : 22L0307 30                  Location  : Vial 21
Acq. Operator  : TW                          Inj       : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.243	BP	9.66e-3	257.34308	324.34985	0.11892
2	5.297	VV S	0.0194	4505.29297	3027.62988	2.08199
3	5.333	BV T	8.02e-3	127.38099	217.86150	0.05887
4	5.372	VV S	0.0209	7208.42285	4551.64746	3.33116
5	5.432	VV S	0.0325	7957.78809	4077.57739	3.67745
6	5.472	VV S	0.0232	1.19162e4	8548.34375	5.50672
7	5.504	VV S	0.1293	1.68377e4	2170.46606	7.78103
8	5.560	BV T	0.0163	810.84650	660.93787	0.37471
9	5.588	VV T	0.0177	1525.71350	1122.03271	0.70506
10	5.609	VV T	4.24e-3	60.29395	193.31741	0.02786
11	5.621	VV T	0.0000	164.59807	140.34662	0.07606
12	5.644	VV T	7.54e-3	396.30301	647.38013	0.18314
13	5.674	VV T	0.0000	468.15680	79.49211	0.21634
14	5.691	VV S	0.0215	7916.12158	5034.62061	3.65820
15	5.752	VV S	0.0300	1.51823e4	8430.48242	7.01604
16	5.868	VV S	0.0623	2.19442e4	4489.36768	10.14085
17	5.938	VV S	0.0356	1.01384e4	4740.09131	4.68517

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.999	VV S	0.0499	1.34572e4	4490.76904	6.21884
19	6.038	VV S	0.2521	3.48338e4	2302.89160	16.09738
20	6.063	BV T	4.36e-3	24.79008	94.82140	0.01146
21	6.083	VV T	0.0255	1887.91809	893.34735	0.87244
22	6.133	PV T	0.0102	231.25818	293.58618	0.10687
23	6.163	PV T	0.0158	714.95270	587.07227	0.33039
24	6.200	PV T	0.0266	2566.64844	1153.82654	1.18610
25	6.243	PV T	7.48e-3	29.70300	66.21761	0.01373
26	6.259	PV T	7.85e-3	92.49248	148.88289	0.04274
27	6.290	PV T	0.0227	1131.19739	607.34302	0.52275
28	6.325	PV T	0.0173	536.74542	439.35861	0.24804
29	6.345	PV T	6.38e-3	243.61786	508.93716	0.11258
30	6.350	PV T	0.0178	897.94226	607.47601	0.41496
31	6.379	PV T	6.97e-3	145.44624	347.70822	0.06721
32	6.422	PV T	0.0221	1800.11279	986.51215	0.83187
33	6.455	PV T	0.0301	2787.13599	1111.60596	1.28799
34	6.496	PV T	0.0113	431.82590	461.07343	0.19956
35	6.517	PV T	4.21e-3	50.65110	200.32216	0.02341
36	6.523	PV T	0.0184	386.05154	250.19147	0.17840
37	6.566	PV T	4.33e-3	18.23863	57.02686	0.00843
38	6.580	PV T	6.27e-3	57.08061	117.49701	0.02638
39	6.593	PV T	6.18e-3	55.51582	120.40813	0.02565
40	6.632	PV S	0.0393	1.05781e4	3225.48828	4.88834
41	6.683	BV T	9.35e-3	130.94379	178.73508	0.06051
42	6.705	PV T	7.60e-3	34.07703	74.71107	0.01575
43	6.717	PV T	4.25e-3	25.00808	79.86824	0.01156
44	6.745	PBAS	0.0815	2.34275e4	3418.97363	10.82633
45	6.804	BV T	4.36e-3	64.36844	199.71872	0.02975
46	6.808	PV T	5.18e-3	74.33688	239.05762	0.03435
47	6.814	PB T	7.42e-3	105.10239	235.95653	0.04857
48	6.843	BV T	0.0000	67.97221	56.62828	0.03141
49	6.891	PV T	0.0140	913.14008	796.28204	0.42198
50	6.915	PB T	0.0170	781.85974	562.13123	0.36131
51	6.958	BV T	5.55e-3	42.09309	95.40268	0.01945
52	6.974	PV T	0.0142	328.47009	282.43994	0.15179
53	7.004	PV T	5.39e-3	30.71648	94.94901	0.01419
54	7.016	PB T	4.13e-3	30.17668	99.84550	0.01395
55	7.050	BV T	3.36e-3	22.51953	95.08833	0.01041
56	7.083	PV T	0.0126	823.15717	812.52368	0.38040
57	7.091	PV T	0.0137	972.69873	855.76672	0.44950
58	7.110	PV T	0.0135	419.11249	515.85913	0.19368
59	7.144	PV T	4.19e-3	24.58364	97.75379	0.01136
60	7.170	PV T	0.0145	436.59015	365.81018	0.20176
61	7.184	PV T	0.0142	445.19614	382.10730	0.20573
62	7.201	PV T	0.0127	256.17575	337.05658	0.11838
63	7.228	PV T	0.0102	107.65670	139.31740	0.04975
64	7.243	PV T	3.29e-3	11.73699	59.53155	0.00542
65	7.278	PV T	0.0175	1031.05493	712.41931	0.47647
66	7.312	PV T	0.0183	715.43512	481.36203	0.33062
67	7.340	PB T	5.14e-3	32.81857	92.47314	0.01517
68	7.383	BV T	8.33e-3	287.20801	433.35522	0.13272
69	7.395	PV T	0.0118	484.63879	506.31543	0.22396
70	7.412	PB T	0.0140	460.11838	417.83307	0.21263
71	7.451	BV T	3.58e-4	3.42323e-1	15.92888	0.00016
72	7.458	PV T	1.68e-3	2.32824	32.03639	0.00108
73	7.468	PV T	7.14e-3	69.51102	132.16724	0.03212
74	7.475	PV T	6.07e-3	52.29319	143.57805	0.02417
75	7.481	PV T	8.16e-3	78.08880	159.58641	0.03609
76	7.493	PV T	6.42e-3	62.72805	130.29346	0.02899
77	7.503	PV T	6.74e-3	39.10474	96.72122	0.01807
78	7.512	PB T	4.54e-3	19.33128	70.98399	0.00893
79	7.532	BB T	2.23e-3	5.06234	37.89425	0.00234
80	7.556	BV T	2.42e-3	10.68245	61.68211	0.00494
81	7.567	PV T	0.0107	8.25548	12.89927	0.00382
82	7.620	PV T	0.0295	2233.26001	903.03619	1.03203

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.650	PV T	0.0108	337.60214	418.35379	0.15601
84	7.670	PV T	5.56e-3	76.12498	194.89119	0.03518
85	7.678	PV T	5.36e-3	60.30093	147.80457	0.02787
86	7.704	PV T	9.74e-3	108.77412	138.84904	0.05027
87	7.709	PB T	9.10e-3	69.18002	126.71780	0.03197
88	7.752	BV T	4.28e-3	17.12421	66.75272	0.00791
89	7.769	PV T	9.03e-3	81.16300	112.34617	0.03751
90	7.786	PBAT	9.11e-3	100.86566	138.26785	0.04661

Totals :                                   2.16394e5  8.33884e4

Results obtained with enhanced integrator!

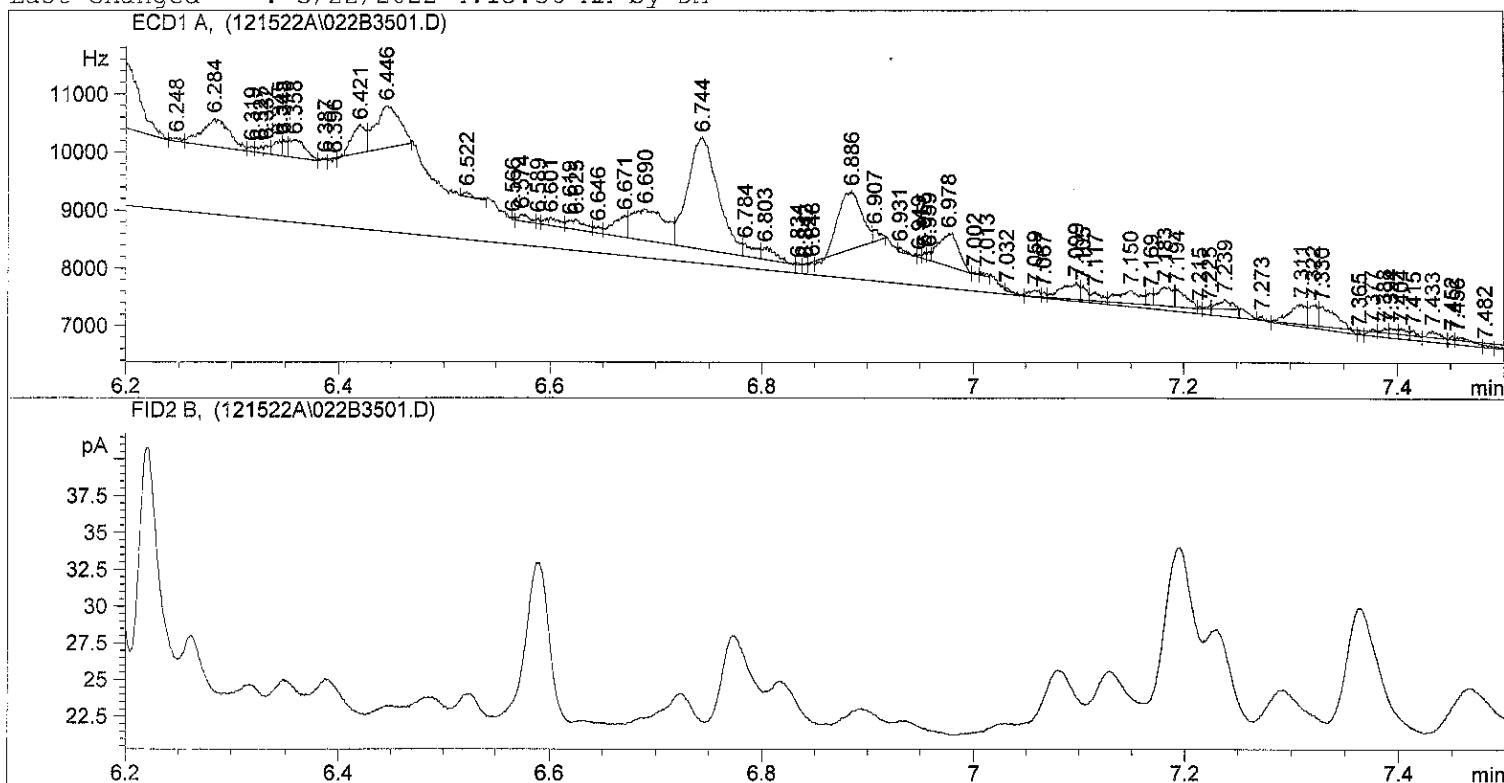
Signal 2: FID2 B,

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\*\*\* End of Report \*\*\*

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Injection Date : 12/15/2022 9:04:08 PM      Seq. Line : 35
Sample Name    : 22L0307 31                 Location  : Vial 22
Acq. Operator  : TW                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report  
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.217	BV	0.0000	2.83693	68.50677	0.00176
2	5.244	VP	0.0131	86.43810	109.98679	0.05371
3	5.288	VV	0.0156	542.20905	434.71350	0.33693
4	5.305	VV	7.70e-3	112.53660	184.81886	0.06993
5	5.320	VV	3.52e-3	35.46172	141.76512	0.02204
6	5.334	VV	9.47e-3	252.15353	355.74826	0.15669
7	5.370	VV	0.0233	3342.21021	1735.62256	2.07687
8	5.394	VV	7.17e-3	458.46298	1065.00500	0.28489
9	5.404	VV	0.0114	1100.51196	1207.74146	0.68386
10	5.435	VV S	0.1432	5.07053e4	4159.17432	31.50853
11	5.478	BV T	5.03e-3	50.12368	126.22794	0.03115
12	5.484	VV T	3.20e-3	36.94502	165.50285	0.02296
13	5.507	VV T	0.0126	729.91150	731.16565	0.45357
14	5.555	VV T	7.05e-3	203.00444	379.16803	0.12615
15	5.570	VV T	8.63e-3	343.83850	499.49866	0.21366
16	5.578	VV T	6.39e-3	266.41864	576.72131	0.16555
17	5.584	VV T	0.0125	658.47235	632.85822	0.40918

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.622	VV T	0.0148	709.06842	589.74329	0.44062
19	5.625	VV T	9.71e-3	356.62473	612.14905	0.22161
20	5.642	VV T	7.31e-3	251.65211	496.93256	0.15638
21	5.688	VV T	0.0269	2736.35571	1231.44739	1.70039
22	5.708	VV T	0.0131	858.90948	840.76715	0.53373
23	5.725	VV T	9.34e-3	510.81540	697.60583	0.31742
24	5.750	VV T	0.0177	1057.16846	736.58868	0.65693
25	5.775	VV T	4.41e-3	35.15897	132.85013	0.02185
26	5.786	VV T	8.07e-3	113.18429	176.85100	0.07033
27	5.808	VV T	0.0167	1169.03320	859.26184	0.72644
28	5.834	VV T	3.46e-3	64.24696	262.26868	0.03992
29	5.864	VV T	0.0161	1820.43298	1407.55725	1.13123
30	5.882	VV T	0.0154	1250.21680	986.24677	0.77689
31	5.935	VV S	0.0326	1.17095e4	4552.87158	7.27636
32	6.001	VBAS	0.3053	5.49538e4	2999.67773	34.14856
33	6.026	BV T	0.0159	228.08875	172.12846	0.14174
34	6.073	VV T	0.0183	817.81299	584.62024	0.50819
35	6.101	VV T	0.0191	815.91315	514.52338	0.50701
36	6.125	PV T	0.0107	176.33672	274.88013	0.10958
37	6.155	PV T	0.0162	735.41095	563.15454	0.45699
38	6.189	PV T	0.0258	2937.61353	1368.52283	1.82545
39	6.248	PV T	8.77e-3	33.29729	63.24358	0.02069
40	6.284	PV T	0.0217	863.15381	486.27426	0.53637
41	6.319	PV T	4.45e-3	30.24014	91.70031	0.01879
42	6.327	PV T	4.86e-3	44.35336	121.35858	0.02756
43	6.332	PV T	5.69e-3	50.28731	147.18611	0.03125
44	6.345	PV T	6.08e-3	121.60607	259.00687	0.07557
45	6.348	PV T	5.43e-3	92.05279	282.57626	0.05720
46	6.358	PV T	0.0175	321.51291	306.57489	0.19979
47	6.387	PV T	3.75e-3	6.43257	23.82194	0.00400
48	6.396	PV T	0.0157	14.80754	11.55627	0.00920
49	6.421	PV T	0.0114	436.12033	478.59448	0.27101
50	6.446	PB T	0.0198	1153.95435	721.97833	0.71707
51	6.522	BB T	5.12e-3	36.53545	90.30425	0.02270
52	6.566	BV T	1.83e-3	5.23388	47.68969	0.00325
53	6.574	PV T	8.45e-3	78.51877	119.71560	0.04879
54	6.589	PV T	2.75e-3	16.06734	97.25243	0.00998
55	6.601	PV T	0.0121	129.57684	133.45290	0.08052
56	6.619	PV T	5.66e-3	62.92412	139.50688	0.03910
57	6.625	PV T	0.0120	122.95610	170.61150	0.07641
58	6.646	PV T	6.02e-3	53.92765	115.98783	0.03351
59	6.671	PV T	0.0110	324.78201	371.77194	0.20182
60	6.690	PV T	0.0269	1199.93457	536.36945	0.74565
61	6.744	PV T	0.0244	3815.75366	1920.66479	2.37113
62	6.784	PV T	0.0135	176.61642	218.75581	0.10975
63	6.803	PV T	0.0109	185.91145	207.05028	0.11553
64	6.834	PV T	4.43e-3	7.57046	24.35421	0.00470
65	6.842	PV T	0.0000	3.27426e-1	10.49149	0.00020
66	6.848	PV T	0.3376	8.46709	2.93430e-1	0.00526
67	6.886	PV T	0.0189	1516.39136	988.32806	0.94229
68	6.907	PB T	7.62e-3	91.91425	201.04434	0.05712
69	6.931	BV T	6.45e-3	33.18204	85.78137	0.02062
70	6.949	PV T	4.25e-3	9.76708	38.31517	0.00607
71	6.955	PV T	2.68e-3	21.26093	119.35479	0.01321
72	6.959	PV T	3.91e-3	31.80319	135.54999	0.01976
73	6.978	PV T	0.0158	746.16962	566.65820	0.46367
74	7.002	PV T	4.19e-3	7.19044	28.61669	0.00447
75	7.013	PB T	4.72e-3	19.28193	54.62050	0.01198
76	7.032	BV T	3.45e-3	9.40472	45.39770	0.00584
77	7.059	PV T	8.84e-3	73.55309	107.97665	0.04571
78	7.067	PV T	4.39e-3	21.33739	80.93786	0.01326
79	7.099	PV T	0.0137	324.51202	297.69199	0.20165
80	7.105	PV T	6.34e-3	92.17867	242.43210	0.05728
81	7.117	PV T	8.92e-3	102.29625	154.61876	0.06357
82	7.150	PV T	0.0173	323.46082	228.75708	0.20100

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.169	PV T	5.74e-3	81.70773	201.18292	0.05077
84	7.183	PV T	0.0125	330.18045	328.26434	0.20518
85	7.194	PV T	0.0127	233.40489	307.03772	0.14504
86	7.215	PV T	2.65e-3	6.53924	41.16856	0.00406
87	7.225	PV T	4.37e-3	14.14582	55.55114	0.00879
88	7.239	PB T	9.91e-3	142.08627	177.96632	0.08829
89	7.273	BV T	4.45e-3	19.47961	72.93049	0.01210
90	7.311	PV T	0.0140	432.72385	389.21152	0.26890
91	7.322	PV T	7.68e-3	239.31129	405.87842	0.14871
92	7.330	PV T	0.0149	488.29712	397.89227	0.30343
93	7.365	PV T	2.73e-3	7.56318	46.20249	0.00470
94	7.377	PV T	6.21e-3	59.22352	123.23640	0.03680
95	7.388	PV T	6.09e-3	78.17723	160.27759	0.04858
96	7.394	PV T	7.80e-3	78.79605	168.46396	0.04896
97	7.404	PV T	8.98e-3	97.58173	181.02324	0.06064
98	7.415	PV T	8.36e-3	82.91057	165.38374	0.05152
99	7.433	PV T	0.0130	187.51712	191.85730	0.11652
100	7.452	PV T	4.40e-3	43.45510	140.63333	0.02700
101	7.456	PV T	0.0172	136.34882	132.24644	0.08473
102	7.482	PV T	6.97e-3	18.05150	43.17173	0.01122
103	7.512	PV T	9.17e-3	59.71928	89.62850	0.03711
104	7.518	PB T	0.0139	61.03308	73.14957	0.03793
105	7.561	BV T	3.78e-3	6.24777	28.28056	0.00388
106	7.605	PV T	0.0169	340.82669	243.27170	0.21179
107	7.632	PV T	0.0153	464.17917	367.32346	0.28844
108	7.652	PV T	0.0288	1295.80286	535.37189	0.80522
109	7.691	PV T	0.0250	774.89154	383.75403	0.48152
110	7.788	PV T	8.15e-3	58.51796	88.03833	0.03636
111	7.792	PBAT	6.11e-3	36.09756	98.41438	0.02243

Totals : 1.60926e5 4.88459e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.283	PP	0.0159	26.64286	25.32841	26.24110
2	5.613	PP	0.0145	22.19533	23.81246	21.86063
3	5.754	BB	0.0253	52.69287	28.32001	51.89828

Totals : 101.53106 77.46088

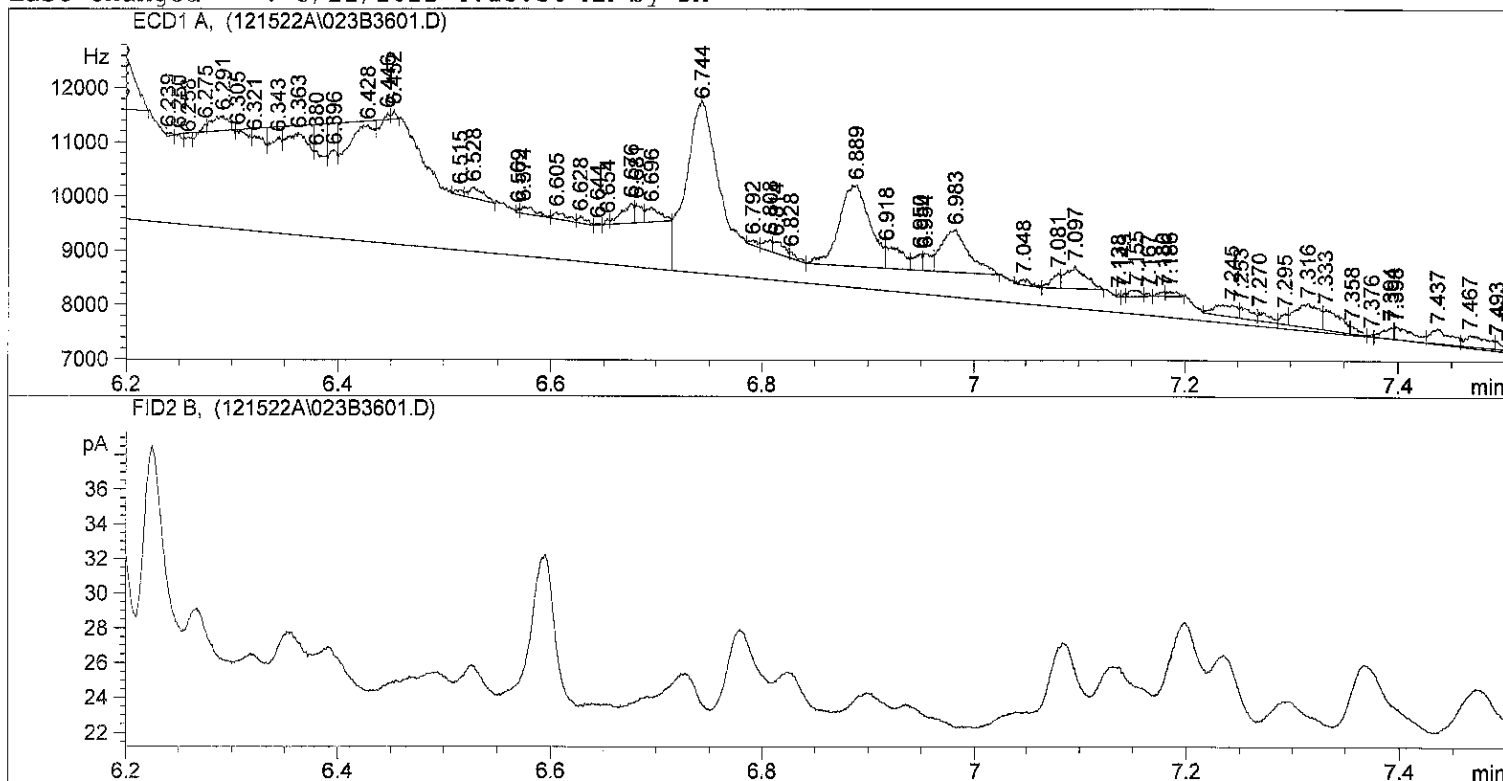
Results obtained with enhanced integrator!

\*\*\* End of Report \*\*\*

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=====
Injection Date : 12/15/2022 9:15:17 PM      Seq. Line : 36
Sample Name    : 22L0307 32                  Location  : Vial 23
Acq. Operator  : TW                          Inj       : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.206	BP	7.66e-3	131.32512	216.89246	0.06781
2	5.236	VV	2.24e-3	7.82705	55.84376	0.00404
3	5.246	VP	8.88e-3	187.62665	264.44620	0.09688
4	5.289	VV	0.0149	461.54071	393.36636	0.23832
5	5.306	VV	7.52e-3	180.31529	303.92599	0.09311
6	5.311	VV	9.16e-3	242.63142	323.03586	0.12528
7	5.337	VV	9.37e-3	285.67792	379.86526	0.14751
8	5.342	VV	3.25e-3	81.63788	359.82892	0.04215
9	5.368	VV	0.0266	3881.39697	1767.17627	2.00415
10	5.397	VV	0.0118	1395.85278	1422.31396	0.72074
11	5.436	VV S	0.1851	5.50195e4	3509.47046	28.40918
12	5.476	BV T	8.40e-3	156.65822	228.37511	0.08089
13	5.512	VV T	9.45e-3	295.80386	475.80331	0.15274
14	5.557	PV T	3.18e-3	82.12125	344.80994	0.04240
15	5.584	VV T	0.0123	511.76105	546.59705	0.26425
16	5.593	VV T	7.92e-3	120.69330	254.13763	0.06232
17	5.621	VV T	9.38e-3	320.69861	425.95721	0.16559

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.688	VV T	0.0173	1646.88770	1181.57397	0.85037
19	5.692	VV T	0.0121	896.12048	1236.66016	0.46271
20	5.712	VV T	8.08e-3	173.94969	358.80939	0.08982
21	5.728	VV T	0.0106	241.89600	294.53839	0.12490
22	5.755	VV T	0.0106	389.95935	476.15311	0.20135
23	5.777	VV T	0.0105	34.61129	55.08965	0.01787
24	5.812	VV T	0.0150	728.74677	635.91162	0.37629
25	5.867	VV T	0.0161	2529.55469	1926.14062	1.30613
26	5.879	VV T	0.0169	2404.11987	1700.57654	1.24136
27	5.937	VV S	0.0299	1.12439e4	5148.42285	5.80575
28	6.002	VV S	0.2659	7.54299e4	3382.70093	38.94802
29	6.065	BV T	4.29e-3	64.48602	215.65770	0.03330
30	6.072	VV T	6.12e-3	170.57173	347.75146	0.08807
31	6.082	VV T	9.78e-3	232.59381	396.49292	0.12010
32	6.098	VB T	0.0177	763.13922	525.91364	0.39404
33	6.163	BV T	0.0132	315.71518	292.73001	0.16302
34	6.196	PB T	0.0194	1707.07922	1103.44104	0.88145
35	6.239	BV T	4.90e-3	19.43751	66.09286	0.01004
36	6.250	PV T	0.0000	19.76494	10.50151	0.01021
37	6.258	PV T	7.56e-3	48.94538	82.05009	0.02527
38	6.275	PV T	1.42e-3	10.02143	143.33403	0.00517
39	6.291	PV T	0.0124	278.08322	269.47491	0.14359
40	6.305	PV T	0.0805	78.50430	16.24574	0.04054
41	6.321	PV T	0.0207	175.43108	141.30659	0.09058
42	6.343	PV T	0.0152	224.61635	187.75397	0.11598
43	6.363	PV T	0.0374	475.28836	149.96214	0.24541
44	6.380	PV T	0.0145	431.32938	496.40646	0.22272
45	6.396	PV T	8.23e-3	308.94507	498.67255	0.15952
46	6.428	PV T	0.0929	597.59753	75.53565	0.30857
47	6.446	PV T	0.0000	27.61550	117.47396	0.01426
48	6.452	PB T	3.31e-3	39.68895	170.63759	0.02049
49	6.515	BV T	7.17e-3	49.93113	102.05451	0.02578
50	6.528	PB T	0.0120	197.19031	209.84222	0.10182
51	6.569	BV T	2.23e-3	11.34680	84.84583	0.00586
52	6.574	PV T	0.0161	122.05650	126.28799	0.06302
53	6.605	PV T	0.0119	117.73820	127.85406	0.06079
54	6.628	PV T	6.67e-3	64.54733	124.02849	0.03333
55	6.644	PV T	3.54e-3	7.54604	29.92596	0.00390
56	6.654	PV T	3.33e-3	25.62221	109.43959	0.01323
57	6.676	PV T	0.0101	285.46088	372.17719	0.14740
58	6.681	PV T	7.95e-3	164.78346	345.58487	0.08509
59	6.696	PV T	0.0116	244.45967	264.30829	0.12623
60	6.744	PBAS	0.0602	1.62333e4	3175.61084	8.38203
61	6.792	BV T	6.53e-3	47.80860	97.39072	0.02469
62	6.808	PV T	6.66e-3	106.58817	212.13388	0.05504
63	6.814	PV T	0.0124	163.98857	220.73758	0.08468
64	6.828	PV T	8.27e-3	58.00651	116.93954	0.02995
65	6.889	PV T	0.0242	3037.60498	1502.18127	1.56846
66	6.918	PV T	0.0184	443.61954	401.80377	0.22906
67	6.950	PV T	7.59e-3	173.47310	299.74774	0.08957
68	6.954	PV T	9.66e-3	180.43967	311.36111	0.09317
69	6.983	PB T	0.0223	1407.77979	771.84485	0.72690
70	7.048	BV T	9.43e-3	75.88672	100.23208	0.03918
71	7.081	PV T	7.66e-3	155.99901	265.37796	0.08055
72	7.097	PB T	0.0154	525.17004	412.60684	0.27117
73	7.138	BV T	2.02e-3	7.42912	61.21414	0.00384
74	7.143	PV T	2.43e-3	10.12869	64.59351	0.00523
75	7.155	PV T	9.61e-3	91.47382	115.84959	0.04723
76	7.167	PV T	3.90e-3	19.87422	70.36725	0.01026
77	7.180	PV T	6.78e-3	35.64134	77.22546	0.01840
78	7.186	PB T	0.0114	60.65763	88.33006	0.03132
79	7.245	BV T	0.0163	299.19574	221.97649	0.15449
80	7.253	PV T	0.0134	160.51945	200.27455	0.08288
81	7.270	PV T	0.0127	120.82669	158.09409	0.06239
82	7.295	PV T	6.12e-3	86.80305	190.47214	0.04482



Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.316	PV T	0.0186	681.21356	441.71011	0.35174
84	7.333	PV T	0.0187	423.13770	376.72638	0.21849
85	7.358	PV T	8.65e-3	71.86124	138.53516	0.03711
86	7.376	PV T	3.54e-3	9.14039	43.01916	0.00472
87	7.394	PV T	8.09e-3	139.87827	217.87448	0.07223
88	7.398	PV T	0.0209	287.20761	229.30037	0.14830
89	7.437	PV T	0.0164	385.40594	281.80087	0.19900
90	7.467	PV T	0.0187	358.61703	231.14244	0.18517
91	7.493	PV T	7.47e-3	85.19566	190.13445	0.04399
92	7.504	PV T	5.62e-3	43.95164	102.09936	0.02269
93	7.516	PV T	6.18e-3	65.00767	135.89371	0.03357
94	7.523	PB T	8.89e-3	106.40095	149.73743	0.05494
95	7.581	BV T	6.98e-3	37.56032	81.51260	0.01939
96	7.608	PV T	0.0147	238.54895	196.87898	0.12317
97	7.641	PV T	0.0131	249.06715	232.76123	0.12861
98	7.658	PV T	0.0116	248.81970	263.69531	0.12848
99	7.663	PV T	9.35e-3	125.04821	222.97119	0.06457
100	7.676	PB T	8.52e-3	87.73486	126.01951	0.04530
101	7.704	BV T	6.54e-3	23.06842	58.76514	0.01191
102	7.713	PV T	6.98e-3	24.76080	59.12873	0.01279
103	7.724	PV T	3.48e-3	10.62444	50.85767	0.00549
104	7.732	PV T	7.79e-3	26.54147	45.59929	0.01370
105	7.744	PV T	0.0132	56.61486	71.58553	0.02923
106	7.774	PV T	2.21e-3	3.60597	26.14485	0.00186
107	7.783	PV T	0.0000	12.61339	3.31833	0.00651
108	7.798	PBAT	0.0000	2.00500	29.14429	0.00104

Totals : 1.93668e5 4.80149e4

Results obtained with enhanced integrator!

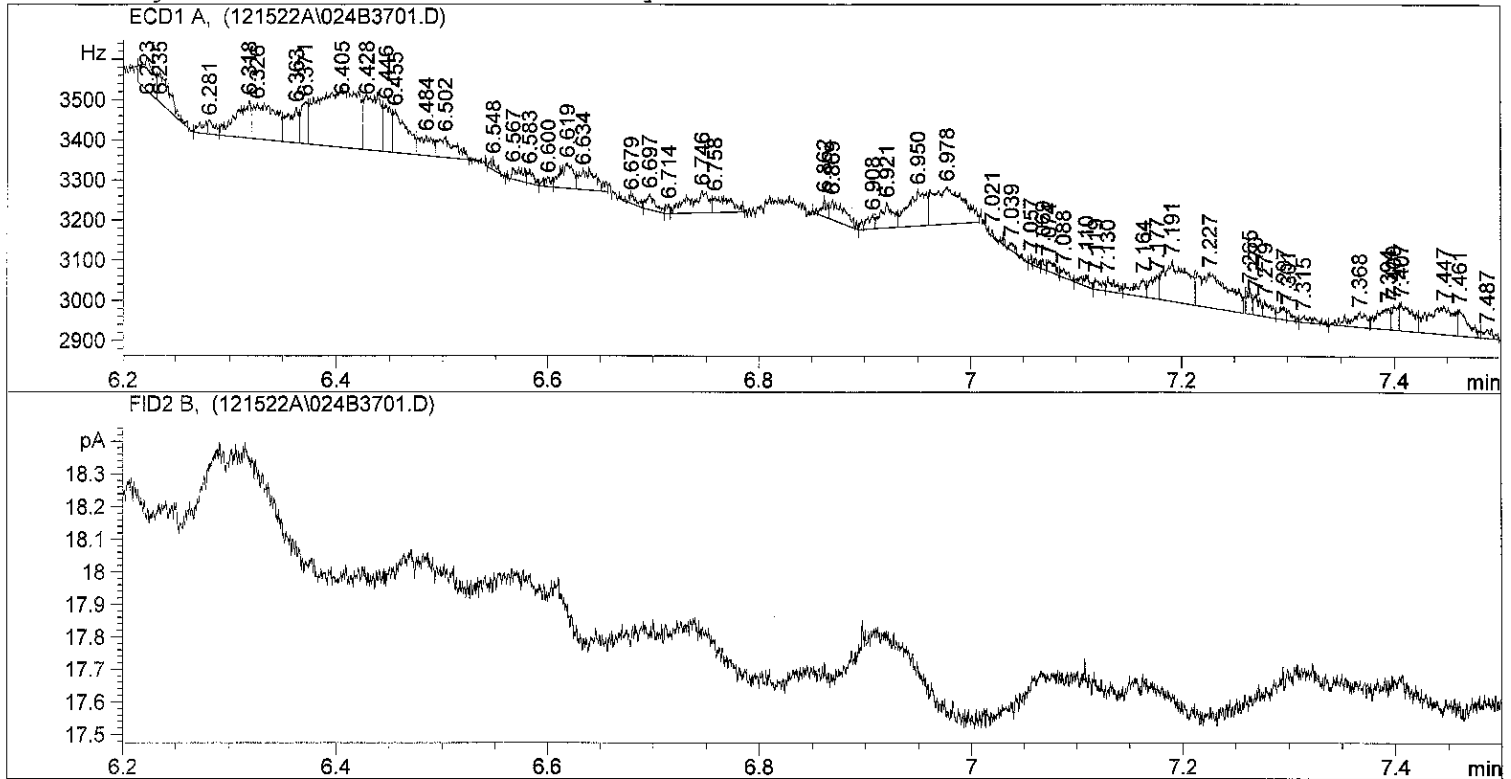
Signal 2: FID2 B,

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\*\*\* End of Report \*\*\*

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Injection Date   : 12/15/2022 9:26:13 PM      Seq. Line : 37
Sample Name     : 22L0307 33                 Location  : Vial 24
Acq. Operator  : TW                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\2\SEQUENCE\121522A.S
Method          : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed    : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.214	BP	8.13e-3	18.08886	29.60926	0.19891
2	5.313	VV	0.0380	343.30569	113.19570	3.77503
3	5.353	VV	0.0278	259.19556	111.84151	2.85015
4	5.385	VV	0.0142	137.38676	117.53360	1.51072
5	5.400	VV	0.0170	163.63969	121.11797	1.79940
6	5.454	VV	0.0374	220.59598	71.09285	2.42570
7	5.477	VV	0.0159	110.16159	84.13699	1.21135
8	5.517	VV	0.0130	81.18666	76.62847	0.89274
9	5.538	VV	0.0111	122.00713	135.15599	1.34161
10	5.549	VV	0.0164	168.34479	125.54178	1.85114
11	5.582	VV	0.0130	125.16036	132.36252	1.37628
12	5.613	VV	0.0192	266.44339	167.39166	2.92985
13	5.635	VV	0.0190	299.87915	188.37735	3.29751
14	5.677	VV	0.0299	596.96075	242.40157	6.56426
15	5.702	VV	0.0123	215.45828	210.58189	2.36921
16	5.723	VV	0.0108	167.90282	192.35539	1.84628
17	5.769	BV	0.0125	134.92944	136.62251	1.48370

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.792	VV	0.0136	167.77411	150.55380	1.84487
19	5.846	VV	0.0311	609.43799	234.79488	6.70146
20	5.870	VV	0.0129	234.65974	223.20810	2.58035
21	5.877	VV	9.11e-3	153.62276	210.57761	1.68926
22	5.899	VV	0.0152	195.35211	158.74803	2.14812
23	5.919	VV	9.95e-3	117.55381	146.64561	1.29264
24	5.952	VV	0.0232	259.01309	138.61951	2.84814
25	5.970	VV	0.0136	93.76711	89.58543	1.03108
26	6.018	VV	0.0219	308.90686	181.31648	3.39678
27	6.026	VV	0.0129	186.53134	176.82463	2.05112
28	6.054	VB	0.0104	57.71632	76.82223	0.63466
29	6.085	BP	7.57e-3	19.91242	35.38255	0.21896
30	6.108	BV	7.23e-3	20.74518	36.52015	0.22812
31	6.127	VP	0.0102	36.43767	44.34688	0.40067
32	6.140	VV	3.66e-3	5.89184	28.88780	0.06479
33	6.158	VV	6.48e-3	29.57880	58.73125	0.32525
34	6.170	VB	9.33e-3	34.86714	45.52741	0.38340
35	6.223	BV	0.0103	67.40162	82.70975	0.74116
36	6.235	VP	0.0111	62.79703	70.82213	0.69052
37	6.281	VV	0.0107	27.67501	33.33725	0.30432
38	6.318	VV	0.0118	88.97335	92.72350	0.97836
39	6.326	VV	0.0186	131.57806	85.35693	1.44685
40	6.363	VV	9.03e-3	64.32278	86.92587	0.70730
41	6.371	VV	6.06e-3	46.94347	104.18002	0.51620
42	6.405	VV	0.0302	379.02286	149.59837	4.16778
43	6.428	VV	0.0124	139.13130	140.36897	1.52991
44	6.446	VV	6.32e-3	57.23445	116.67323	0.62936
45	6.455	VB	0.0112	91.31355	102.75837	1.00410
46	6.484	BV	0.0147	42.10626	47.63476	0.46301
47	6.502	VB	0.0140	57.35027	50.86909	0.63063
48	6.548	BP	5.87e-3	9.84523	26.86819	0.10826
49	6.567	BV	8.67e-3	19.52820	28.22036	0.21473
50	6.583	VP	4.69e-3	12.90786	35.12971	0.14194
51	6.600	VV	7.18e-3	11.17653	20.44438	0.12290
52	6.619	VV	0.0105	52.03818	62.68785	0.57222
53	6.634	VB	0.0148	57.16427	47.10139	0.62859
54	6.679	PP	7.82e-3	12.13359	19.07128	0.13342
55	6.697	VP	7.39e-3	22.33038	39.51950	0.24555
56	6.714	VV	3.82e-3	5.13399	22.85991	0.05645
57	6.746	VV	0.0155	71.09110	55.00938	0.78173
58	6.758	VB	0.0138	45.54716	40.32446	0.50084
59	6.862	BV	5.65e-3	15.27049	46.30900	0.16792
60	6.869	VP	0.0115	46.65067	49.00422	0.51298
61	6.908	VV	7.72e-3	19.56338	32.97049	0.21512
62	6.921	VV	9.78e-3	48.91996	62.19207	0.53793
63	6.950	VV	0.0141	103.61149	89.57359	1.13933
64	6.978	VB	0.0238	184.16620	92.49802	2.02512
65	7.021	PB	1.65e-3	1.36380	15.18720	0.01500
66	7.039	BP	6.73e-3	8.98775	18.97235	0.09883
67	7.057	VV	5.22e-3	6.82083	18.00186	0.07500
68	7.069	VV	2.41e-3	3.88144	22.48599	0.04268
69	7.074	VV	7.39e-3	13.12843	23.96410	0.14436
70	7.088	VP	7.38e-3	9.00447	20.32909	0.09901
71	7.110	BP	6.70e-3	14.65863	28.96416	0.16119
72	7.119	VV	5.22e-3	11.26907	28.45178	0.12392
73	7.130	VV	6.89e-3	17.55213	31.54640	0.19301
74	7.164	VV	9.84e-3	30.92608	43.80445	0.34007
75	7.177	VV	7.61e-3	32.55165	55.77499	0.35794
76	7.191	VB	0.0184	153.71361	100.75670	1.69025
77	7.227	BB	0.0243	173.01244	85.84439	1.90247
78	7.265	BV	4.77e-3	17.64429	61.69115	0.19402
79	7.270	VV	5.68e-3	19.87420	47.47488	0.21854
80	7.279	VV	6.61e-3	19.42682	36.52242	0.21362
81	7.297	VV	5.80e-3	12.24627	29.78889	0.13466
82	7.301	VP	4.42e-3	8.13823	24.85743	0.08949

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.315	VB	0.0108	11.78897	14.25547	0.12963
84	7.368	BV	0.0128	37.57586	35.79127	0.41319
85	7.394	VV	0.0113	43.04512	52.58767	0.47333
86	7.400	VV	5.53e-3	25.19314	62.15538	0.27703
87	7.407	VB	9.56e-3	54.53332	69.46328	0.59966
88	7.447	BV	0.0197	113.84198	69.39863	1.25182
89	7.461	VB	8.37e-3	43.86355	64.20567	0.48233
90	7.487	BB	7.30e-3	12.56226	21.88639	0.13814
91	7.542	PP	0.0000	3.94926	4.34403	0.04343
92	7.611	PP	6.17e-3	4.37065	11.80443	0.04806
93	7.623	VB	7.18e-3	6.73486	13.14754	0.07406
94	7.669	BV	0.0176	94.96911	65.78177	1.04429
95	7.677	VV	5.30e-3	22.99362	54.80240	0.25284
96	7.693	VV	0.0130	64.65907	61.04903	0.71100
97	7.709	VV	3.16e-3	6.17651	30.55040	0.06792
98	7.714	VB	6.39e-3	15.56150	30.28945	0.17112
99	7.758	BB	0.0132	19.72145	19.83496	0.21686
100	7.796	BBA	2.79e-3	3.02382	16.12583	0.03325

Totals : 9094.10806 7618.67324

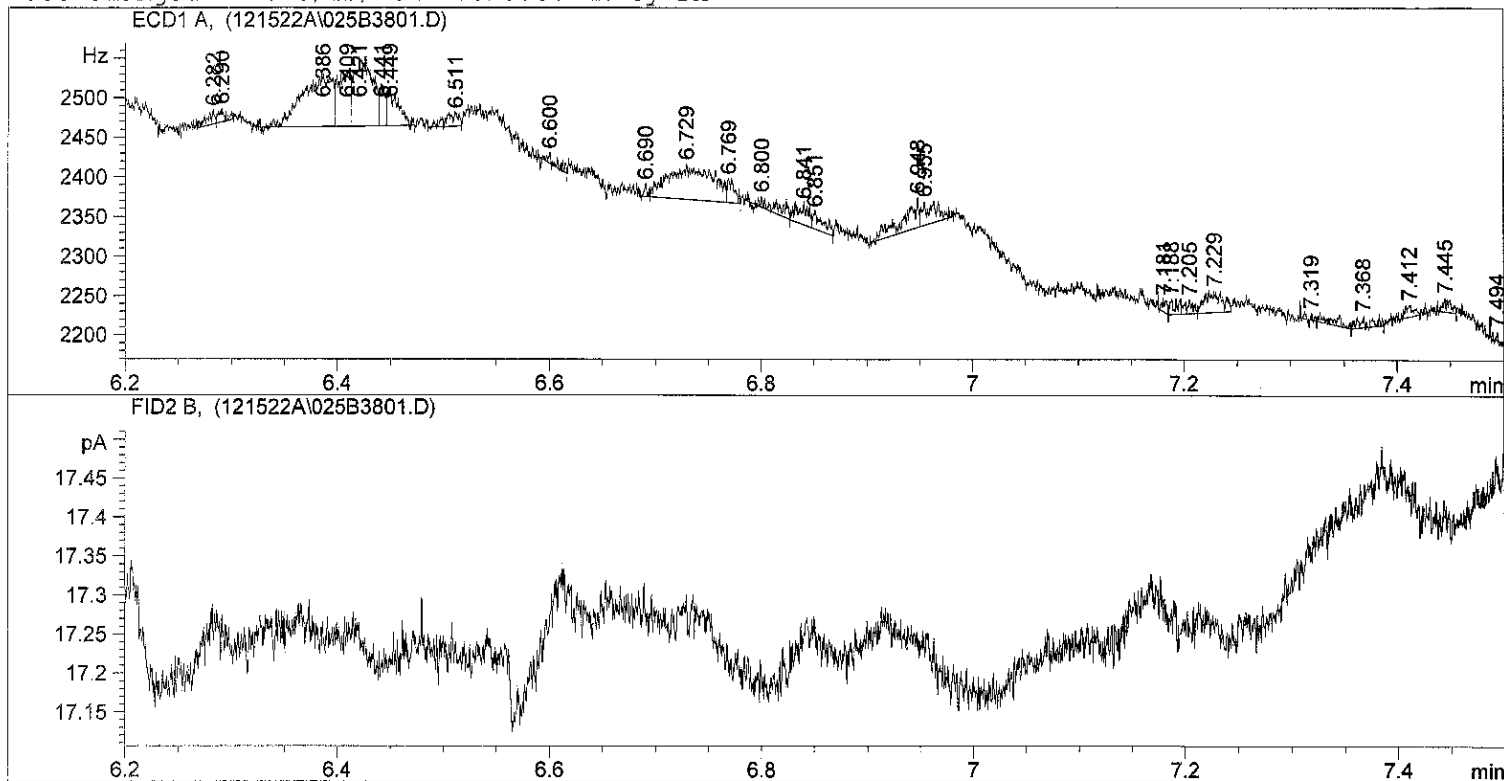
Results obtained with enhanced integrator!

Signal 2: FID2 B,

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\*\*\* End of Report \*\*\*

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Injection Date   : 12/15/2022 9:37:09 PM   Seq. Line   : 38
Sample Name     : 22L0307 34              Location    : Vial 25
Acq. Operator  : TW                      Inj        : 1
                                           Inj Volume  : 1 µl
Sequence File   : C:\HPCHEM\2\SEQUENCE\121522A.S
Method          : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed    : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report  
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.322	BV	0.0278	58.27509	25.39563	1.38880
2	5.367	VV	0.0204	56.38230	33.25010	1.34369
3	5.444	VV	0.0512	208.34114	49.18922	4.96515
4	5.463	VV	0.0122	48.79455	49.09792	1.16286
5	5.497	VV	0.0209	91.99928	52.74403	2.19251
6	5.562	VV	0.0322	143.75990	54.01374	3.42606
7	5.682	VV	0.0507	682.30121	158.93304	16.26048
8	5.700	VV	0.0191	252.35332	158.80472	6.01404
9	5.721	VV	0.0149	176.24831	150.44310	4.20032
10	5.737	VV	3.40e-3	28.24882	117.61292	0.67322
11	5.742	VV	0.0131	121.53174	112.99281	2.89632
12	5.777	VV	0.0126	94.59024	91.58289	2.25426
13	5.827	VV	0.0339	291.33237	106.50356	6.94298
14	5.854	VV	0.0159	146.42903	113.42348	3.48967
15	5.878	VV	0.0223	211.92796	114.02404	5.05063
16	5.904	VV	9.17e-3	57.61280	76.65825	1.37302
17	5.922	VV	0.0143	75.71053	64.42174	1.80432

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.999	VV	0.0311	331.93057	127.77991	7.91051
19	6.020	VV	0.0174	187.47568	128.37936	4.46789
20	6.035	VB	9.98e-3	62.47391	77.68323	1.48887
21	6.063	BB	0.0122	53.96972	54.15096	1.28620
22	6.153	PV	0.0222	86.21612	46.65372	2.05469
23	6.282	PV	6.54e-3	8.06582	15.85490	0.19222
24	6.290	VB	6.08e-3	6.98528	15.43622	0.16647
25	6.386	PV	0.0248	127.41301	61.86566	3.03648
26	6.409	VV	9.80e-3	56.93140	70.65411	1.35678
27	6.421	VV	0.0151	100.96053	84.68668	2.40607
28	6.441	VV	4.30e-3	17.03333	53.71313	0.40594
29	6.449	VP	9.97e-3	32.95391	41.94159	0.78535
30	6.511	PV	0.0115	13.97567	15.26448	0.33307
31	6.600	PP	6.36e-3	4.89073	11.49770	0.11655
32	6.690	PV	3.37e-3	2.81168	13.83930	0.06701
33	6.729	VV	0.0342	120.23611	42.76014	2.86545
34	6.769	VP	6.32e-3	14.00751	28.59390	0.33382
35	6.800	BP	0.0143	13.24108	11.28125	0.31556
36	6.841	VV	9.12e-3	19.18081	25.66245	0.45711
37	6.851	VP	8.79e-3	14.17695	20.71005	0.33786
38	6.948	PV	0.0122	36.54114	36.04473	0.87084
39	6.955	VB	0.0107	24.90446	28.77372	0.59352
40	7.181	BP	5.78e-3	4.97342	14.33100	0.11853
41	7.188	VB	6.35e-3	8.42112	17.68636	0.20069
42	7.205	BV	6.69e-3	8.67148	16.09433	0.20666
43	7.229	VV	0.0150	30.57523	25.92687	0.72866
44	7.319	BP	0.0197	10.65999	6.58894	0.25405
45	7.368	VP	0.0100	9.56122	12.61578	0.22786
46	7.412	PP	8.85e-3	8.87392	13.18867	0.21148
47	7.445	BP	6.48e-3	8.47713	16.27701	0.20203
48	7.494	PB	0.0000	1.95615e-1	9.88240	0.00466
49	7.514	BP	0.0177	5.45551	3.71621	0.13001
50	7.564	VP	7.64e-3	9.03569	18.04935	0.21534
51	7.791	PBA	6.46e-3	8.95611	17.22991	0.21344

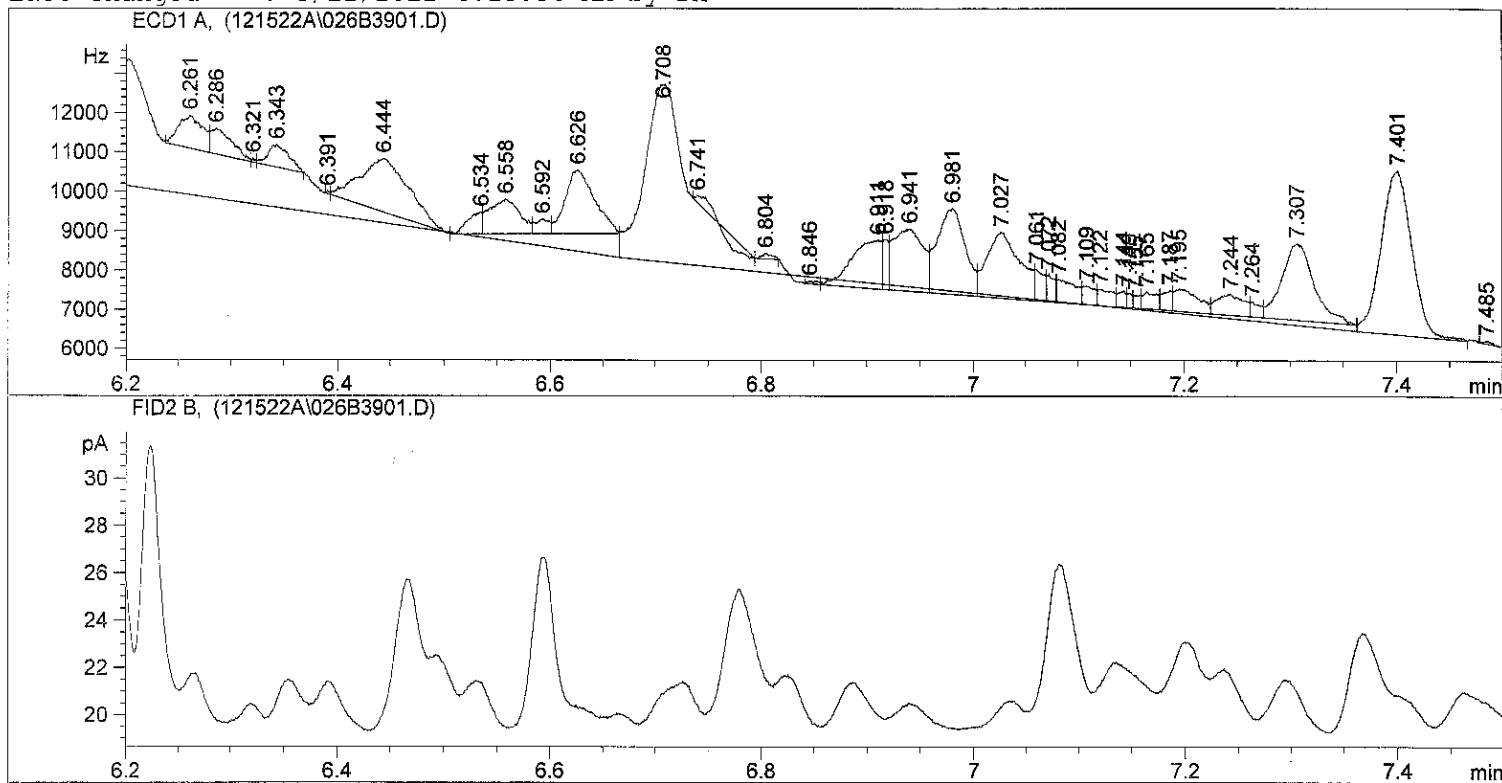
Totals : 4196.07045 2713.90523

Results obtained with enhanced integrator!

Signal 2: FID2 B,

\*\*\* End of Report \*\*\*

=====  
Injection Date : 12/15/2022 9:48:19 PM Seq. Line : 39  
Sample Name : 22L0312 01 Location : Vial 26  
Acq. Operator : TW Inj : 1  
Inj Volume : 1 µl  
Sequence File : C:\HPCHEM\2\SEQUENCE\121522A.S  
Method : C:\HPCHEM\2\METHODS\DIOXIN.M  
Last changed : 3/22/2022 4:13:36 AM by DM



=====  
Area Percent Report  
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Sorted By : Signal  
Multiplier : 1.0000  
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.227	BP	1.21e-3	48.47058	1391.42126	0.00174
2	5.298	VV S	0.0222	2.82597e4	1.77671e4	1.01496
3	5.367	PV S	0.0190	5.43414e5	4.39950e5	19.51700
4	5.419	VV S	0.0399	3.10408e4	1.29762e4	1.11485
5	5.470	PV S	0.0281	1.75364e4	7390.91406	0.62983
6	5.501	BV T	7.49e-3	259.49323	466.16864	0.00932
7	5.556	PV S	0.0308	1.54462e6	7.43220e5	55.47594
8	5.749	VV S	0.0338	2.48512e5	1.22709e5	8.92543
9	5.848	BV T	7.85e-3	336.85608	541.84998	0.01210
10	5.928	PV S	0.0403	2.96510e5	1.22615e5	10.64933
11	6.048	BV T	0.0161	1197.25427	953.38989	0.04300
12	6.081	PV T	0.0185	2853.60864	1901.54297	0.10249
13	6.119	PV T	2.97e-3	18.77382	105.25745	0.00067
14	6.141	PV T	0.0166	1828.70581	1352.66272	0.06568
15	6.170	PV T	7.59e-3	19.51674	42.86028	0.00070
16	6.180	PV T	3.89e-3	18.42996	65.39139	0.00066
17	6.192	PB T	5.54e-3	78.38641	201.21559	0.00282

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.261	BV T	0.0199	1377.93921	843.50336	0.04949
19	6.286	PV T	0.0170	930.04773	660.27692	0.03340
20	6.321	PV T	3.38e-3	20.67788	101.83270	0.00074
21	6.343	PB T	0.0162	767.56873	575.67590	0.02757
22	6.391	BV T	2.72e-3	10.45409	64.14963	0.00038
23	6.444	PP T	0.0373	4302.99121	1368.20239	0.15454
24	6.534	PV T	0.0113	506.03125	549.89050	0.01817
25	6.558	PV T	0.0237	1732.89771	869.37354	0.06224
26	6.592	PV T	0.0120	342.72729	370.13922	0.01231
27	6.626	PV T	0.0235	3118.57275	1617.60132	0.11201
28	6.708	PV S	0.0466	1.80484e4	4556.88965	0.64822
29	6.741	BV T	0.0000	101.78199	181.49072	0.00366
30	6.804	PB T	9.02e-3	93.30427	132.40300	0.00335
31	6.846	PV T	8.03e-3	47.79967	73.07204	0.00172
32	6.911	PV T	0.0229	2363.12012	1236.51721	0.08487
33	6.918	PV T	6.32e-3	480.34012	1266.89038	0.01725
34	6.941	PV T	0.0236	3037.90601	1582.35364	0.10911
35	6.981	PV T	0.0234	3989.00806	2173.66772	0.14327
36	7.027	PV T	0.0263	3702.67041	1666.44336	0.13298
37	7.061	PV T	9.99e-3	481.14032	803.01709	0.01728
38	7.072	PV T	8.51e-3	342.40198	670.82080	0.01230
39	7.082	PV T	0.0211	741.58270	585.59064	0.02663
40	7.109	PV T	0.0105	380.38974	469.30222	0.01366
41	7.122	PV T	0.0164	404.22818	410.52118	0.01452
42	7.144	PV T	6.44e-3	207.34918	414.54825	0.00745
43	7.149	PV T	5.50e-3	122.92396	372.80978	0.00441
44	7.155	PV T	7.39e-3	146.05360	329.48865	0.00525
45	7.165	PV T	0.0118	400.48679	425.86716	0.01438
46	7.187	PV T	8.00e-3	325.04910	512.19952	0.01167
47	7.195	PV T	0.0197	905.89398	572.35175	0.03254
48	7.244	PV T	0.0220	945.63306	536.79883	0.03396
49	7.264	PV T	0.0112	256.18066	382.35245	0.00920
50	7.307	PV T	0.0259	4140.65625	1942.41895	0.14871
51	7.401	PB S	0.0245	8240.31641	4163.58691	0.29596
52	7.485	BP	7.12e-3	38.80095	71.65958	0.00139
53	7.528	VV	0.0191	357.28180	222.36145	0.01283
54	7.559	VP	2.25e-3	7.26365	51.26207	0.00026
55	7.587	VV	9.22e-3	132.83990	179.73448	0.00477
56	7.600	VV	0.0118	196.70915	205.75851	0.00706
57	7.611	VV	3.27e-3	35.97639	183.52809	0.00129
58	7.616	VV	5.01e-3	57.03018	189.76688	0.00205
59	7.650	VV	0.0212	915.04773	512.25415	0.03286
60	7.669	VV	9.45e-3	300.09207	470.00751	0.01078
61	7.680	VV	8.29e-3	278.40540	500.84393	0.01000
62	7.689	VV	0.0179	542.73364	505.55673	0.01949
63	7.704	VV	4.10e-3	116.88128	413.36835	0.00420
64	7.723	VV	0.0150	685.78271	556.90656	0.02463
65	7.734	VV	0.0108	448.84052	534.52454	0.01612
66	7.754	VP	0.0200	627.68201	377.87009	0.02254

Totals : 2.78431e6 1.51111e6

Results obtained with enhanced integrator!

Signal 2: FID2 B,

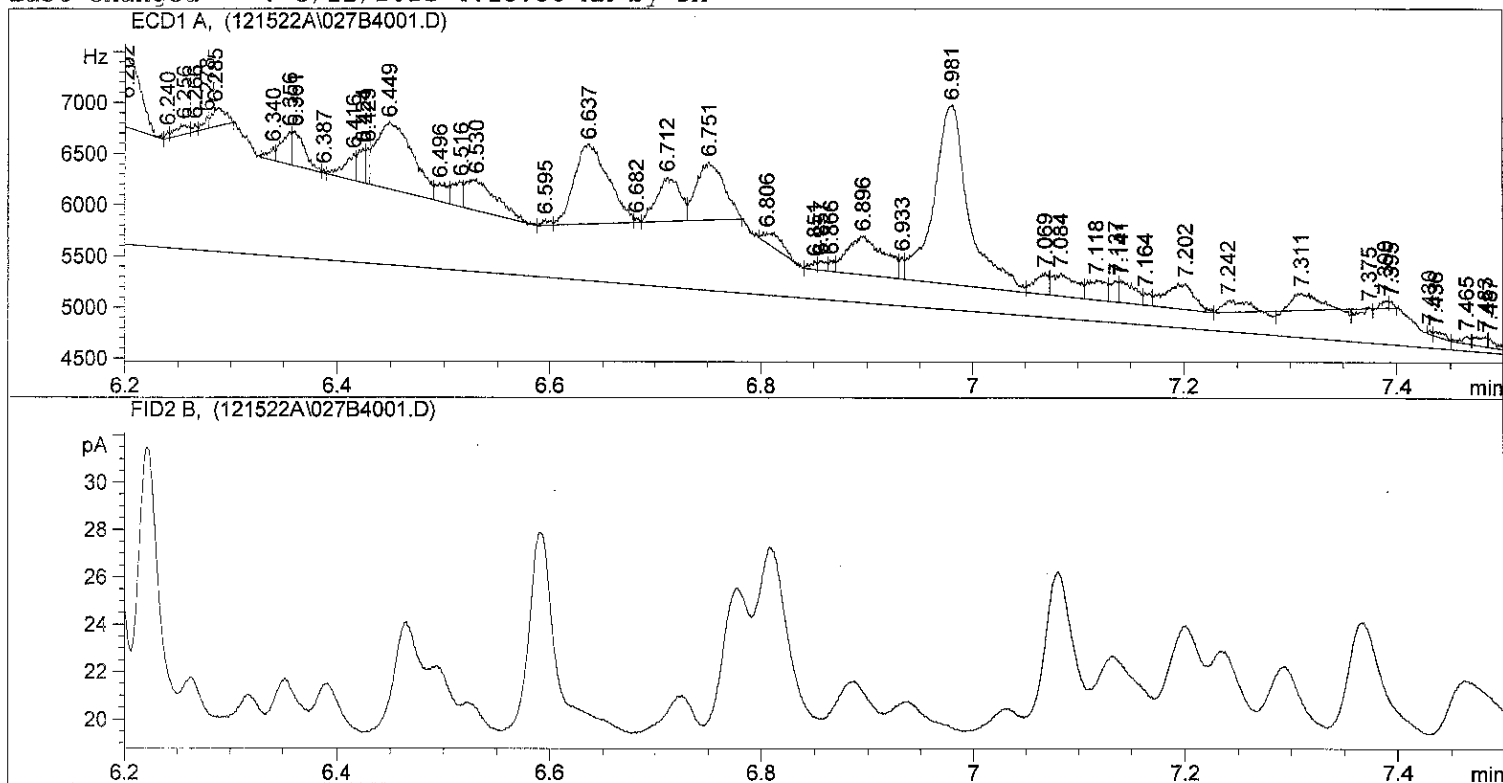
\*\*\* End of Report \*\*\*



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Injection Date : 12/15/2022 9:59:28 PM      Seq. Line : 40
Sample Name    : 22L0312 02                  Location  : Vial 27
Acq. Operator  : TW                          Inj      : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.228	BV	0.0159	1746.25659	1504.62158	0.91143
2	5.267	VP	0.0123	441.45688	464.46292	0.23041
3	5.309	VV	0.0157	485.11295	370.02664	0.25320
4	5.381	VV S	0.0334	1.51980e4	5436.84668	7.93236
5	5.436	VV S	0.0295	5131.18994	2900.40234	2.67815
6	5.586	VV S	0.0877	3.16300e4	4679.40039	16.50883
7	5.812	VV S	0.1524	2.79582e4	3057.87891	14.59238
8	6.001	VV S	0.1283	2.79275e4	2677.60596	14.57637
9	6.090	VBAS	0.5901	6.14227e4	1734.73535	32.05871
10	6.135	BV T	0.0124	63.09740	84.66515	0.03293
11	6.148	VV T	6.65e-3	39.54370	99.06607	0.02064
12	6.158	VV T	6.20e-3	64.28721	144.70068	0.03355
13	6.202	VV T	0.0266	1455.74902	673.77850	0.75981
14	6.240	PV T	3.03e-3	13.38381	73.70947	0.00699
15	6.256	PV T	0.0103	80.33274	94.27486	0.04193
16	6.266	PV T	3.56e-3	18.83889	74.19010	0.00983
17	6.278	PV T	4.96e-3	41.92422	117.48568	0.02188

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.285	VB T	0.0102	157.56332	192.43129	0.08224
19	6.340	BV T	5.89e-3	51.80957	128.98326	0.02704
20	6.356	PV T	8.47e-3	211.81262	322.15176	0.11055
21	6.361	PV T	0.0129	258.37708	333.90933	0.13486
22	6.387	PV T	1.91e-3	4.52748	39.44524	0.00236
23	6.416	PV T	9.23e-3	193.49855	261.60028	0.10099
24	6.424	PV T	5.88e-3	152.35988	336.76526	0.07952
25	6.429	PV T	3.95e-3	84.15660	354.80478	0.04392
26	6.449	PV T	0.0289	1563.38562	649.81531	0.81599
27	6.496	PV T	0.0139	148.48422	178.37025	0.07750
28	6.516	PV T	8.87e-3	160.02769	243.27054	0.08352
29	6.530	PV T	0.0246	604.99603	307.07150	0.31577
30	6.595	PV T	6.79e-3	25.46751	53.16471	0.01329
31	6.637	PV T	0.0273	1742.22546	773.22394	0.90933
32	6.682	PV T	5.29e-3	12.02228	37.89103	0.00627
33	6.712	PV T	0.0185	665.38916	432.55716	0.34729
34	6.751	PB T	0.0217	1037.47949	567.30573	0.54150
35	6.806	BV T	0.0197	161.02542	102.61749	0.08404
36	6.851	PV T	6.14e-3	33.23639	72.60186	0.01735
37	6.857	PV T	6.74e-3	48.59465	95.39496	0.02536
38	6.866	PV T	5.75e-3	37.99866	110.10607	0.01983
39	6.896	PV T	0.0291	899.02087	373.36682	0.46923
40	6.933	PV T	4.22e-3	67.60379	218.12656	0.03528
41	6.981	PV T	0.0287	4065.36914	1750.22034	2.12186
42	7.069	PV T	0.0120	186.65897	208.44295	0.09742
43	7.084	PV T	0.0184	339.83981	225.43416	0.17737
44	7.118	PV T	0.0155	233.14151	192.32765	0.12168
45	7.137	PV T	7.37e-3	113.49566	207.87389	0.05924
46	7.141	PV T	0.0174	217.85371	208.59033	0.11371
47	7.164	PV T	7.52e-3	54.94411	121.76039	0.02868
48	7.202	PV T	0.0222	460.69073	253.16269	0.24045
49	7.242	PV T	0.0161	155.31964	115.41502	0.08107
50	7.311	PV T	0.0182	256.30331	169.87245	0.13377
51	7.375	PV T	0.0000	32.87128	18.22003	0.01716
52	7.390	PV T	5.83e-3	32.70758	75.82890	0.01707
53	7.395	PB T	4.50e-3	15.99216	59.26046	0.00835
54	7.430	BV T	3.62e-3	8.53055	39.29860	0.00445
55	7.436	PV T	0.0130	37.14054	47.60563	0.01938
56	7.465	PV T	7.04e-3	41.73109	75.59098	0.02178
57	7.483	PV T	9.95e-3	70.51392	96.25554	0.03680
58	7.487	PV T	8.46e-3	45.92545	90.43478	0.02397
59	7.507	PV T	4.29e-3	12.25205	38.74511	0.00639
60	7.520	PB T	0.0101	87.22348	106.90142	0.04553
61	7.609	PV T	0.0189	545.31543	343.21545	0.28462
62	7.630	PV T	0.0112	330.67001	364.07825	0.17259
63	7.652	PV T	0.0380	1587.65283	495.77594	0.82865
64	7.711	PV T	6.78e-3	69.19582	170.07954	0.03612
65	7.727	PV T	0.0154	199.85773	164.44131	0.10431
66	7.748	PV T	0.0100	135.09354	167.41612	0.07051
67	7.760	PV T	0.0149	211.48065	172.37856	0.11038
68	7.794	PP T	2.98e-3	8.06241	43.17198	0.00421

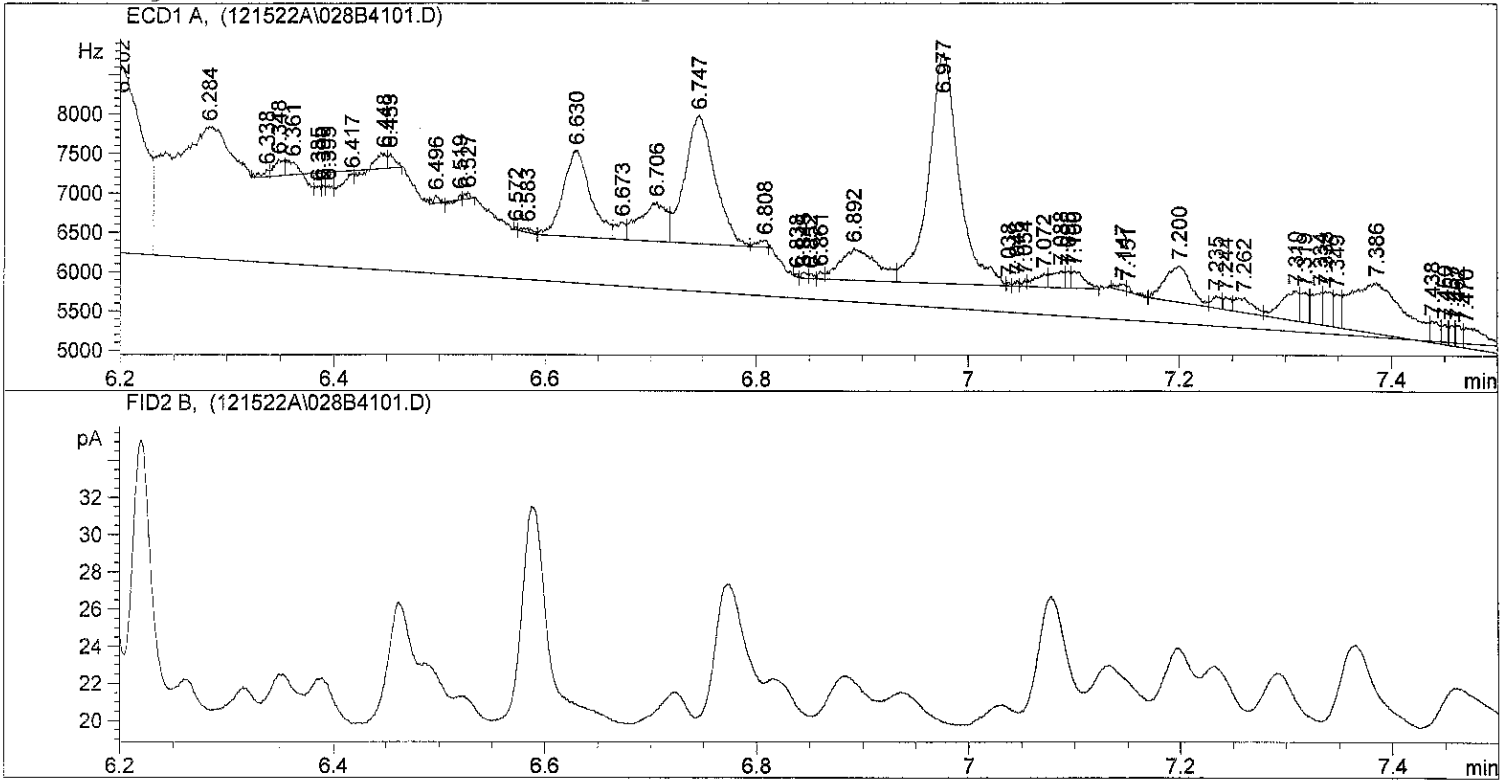
Totals : 1.91594e5 3.63946e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

\*\*\* End of Report \*\*\*

=====  
Injection Date : 12/15/2022 10:10:39 PM Seq. Line : 41  
Sample Name : 22L0312 03 Location : Vial 28  
Acq. Operator : TW Inj : 1  
Inj Volume : 1 µl  
Sequence File : C:\HPCHEM\2\SEQUENCE\121522A.S  
Method : C:\HPCHEM\2\METHODS\DIOXIN.M  
Last changed : 3/22/2022 4:13:36 AM by DM



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Area Percent Report  
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Sorted By : Signal  
Multiplier : 1.0000  
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.227	BV S	0.0486	1.21761e4	3154.90552	7.15598
2	5.265	BV T	0.0000	450.30258	173.13766	0.26465
3	5.301	PV T	0.0125	674.50781	649.05872	0.39641
4	5.310	VV T	0.0109	511.45807	781.46307	0.30059
5	5.344	VV T	0.0227	1382.48755	737.57910	0.81250
6	5.376	VV T	0.0000	41.95243	578.10779	0.02466
7	5.392	VB T	2.46e-3	10.92379	73.90546	0.00642
8	5.437	VV S	0.0300	4865.30859	2700.81982	2.85937
9	5.584	VV S	0.2211	3.60483e4	2541.18994	21.18579
10	5.808	VV S	0.0350	6481.36670	3084.10107	3.80914
11	6.001	VV S	0.1341	2.38025e4	2957.74365	13.98885
12	6.031	VV S	0.0537	8199.75098	2167.98413	4.81904
13	6.202	VV S	0.0878	1.24054e4	2355.79272	7.29072
14	6.284	VBAS	0.2773	3.95332e4	1676.02930	23.23390
15	6.338	BV T	6.05e-3	38.06769	81.56010	0.02237
16	6.348	VV T	8.07e-3	132.06131	206.16121	0.07761
17	6.361	VV T	3.94e-3	37.56201	158.82422	0.02208

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.385	PV T	5.15e-3	66.65202	170.88290	0.03917
19	6.390	PV T	4.58e-3	44.74412	162.99055	0.02630
20	6.395	PV T	8.74e-3	89.94841	171.51360	0.05286
21	6.417	PV T	0.0466	154.93530	39.49862	0.09106
22	6.448	VV T	7.22e-3	95.93723	192.21100	0.05638
23	6.453	VB T	5.63e-3	77.67967	180.27917	0.04565
24	6.496	BV T	4.64e-3	31.11566	94.42641	0.01829
25	6.519	PV T	0.0000	2.75658	66.62222	0.00162
26	6.527	PB T	5.02e-3	25.69118	71.00684	0.01510
27	6.572	BV T	1.91e-3	4.20060	36.68876	0.00247
28	6.583	PV T	7.16e-3	34.91534	60.21700	0.02052
29	6.630	PV T	0.0219	1978.05383	1094.63818	1.16251
30	6.673	PV T	8.91e-3	146.10492	221.00104	0.08587
31	6.706	PV T	0.0212	874.48706	496.29822	0.51394
32	6.747	PV T	0.0237	3228.17725	1630.06628	1.89722
33	6.808	PB T	7.96e-3	58.15886	89.71181	0.03418
34	6.838	BV T	3.50e-3	8.81883	41.97781	0.00518
35	6.845	PV T	6.27e-3	28.69008	76.24511	0.01686
36	6.852	PV T	5.05e-3	19.31192	63.78696	0.01135
37	6.861	PV T	6.16e-3	34.75876	94.07915	0.02043
38	6.892	PV T	0.0284	977.93866	410.28827	0.57474
39	6.977	PV T	0.0261	5785.42285	2902.80908	3.40013
40	7.038	PV T	3.77e-3	9.81387	43.34526	0.00577
41	7.046	PV T	3.25e-3	16.09948	70.83012	0.00946
42	7.054	PV T	4.08e-3	20.76954	84.74513	0.01221
43	7.072	PV T	0.0102	143.46857	171.30585	0.08432
44	7.088	PV T	0.0105	178.30963	214.31580	0.10479
45	7.095	PV T	5.07e-3	64.43073	211.88684	0.03787
46	7.100	PB T	0.0141	184.31880	218.30696	0.10833
47	7.147	BV T	6.88e-3	45.17655	86.74283	0.02655
48	7.151	PV T	5.34e-3	22.42150	69.91475	0.01318
49	7.200	PV T	0.0204	765.61780	459.72205	0.44996
50	7.235	PV T	7.49e-3	93.26923	153.55325	0.05481
51	7.244	PV T	6.38e-3	79.72115	160.97755	0.04685
52	7.262	PV T	0.0147	220.43695	188.08618	0.12955
53	7.310	PV T	0.0146	446.11304	378.27008	0.26218
54	7.319	PV T	6.97e-3	199.30551	377.10831	0.11713
55	7.334	PV T	8.24e-3	271.06140	413.97644	0.15930
56	7.338	PV T	7.47e-3	254.89374	433.12244	0.14980
57	7.349	PV T	7.81e-3	196.83665	419.94824	0.11568
58	7.386	PV T	0.0396	2169.84766	645.73792	1.27523
59	7.438	PV T	9.84e-3	159.28116	269.76337	0.09361
60	7.450	PV T	5.17e-3	99.94697	255.29442	0.05874
61	7.457	PV T	5.76e-3	90.13615	260.76065	0.05297
62	7.462	PV T	7.50e-3	120.70022	268.22876	0.07094
63	7.470	PV T	0.0284	426.56836	250.44304	0.25070
64	7.506	PV T	6.86e-3	108.60184	202.55920	0.06383
65	7.520	PV T	9.88e-3	144.86238	244.32307	0.08514
66	7.528	PV T	0.0163	282.96222	289.52863	0.16630
67	7.566	PV T	4.39e-3	25.98804	79.90517	0.01527
68	7.592	PV T	0.0165	298.69650	218.85516	0.17555
69	7.604	PV T	8.83e-3	108.15247	204.15955	0.06356
70	7.620	PV T	0.0115	197.11995	210.06189	0.11585
71	7.643	PV T	9.67e-3	254.32809	327.16562	0.14947
72	7.652	PV T	0.0173	493.70740	362.55872	0.29015
73	7.680	PV T	0.0132	173.51276	219.68092	0.10197
74	7.700	PV T	0.0113	139.05553	160.12343	0.08172
75	7.710	PV T	4.20e-3	41.19148	141.20322	0.02421
76	7.717	PV T	9.37e-3	110.68063	150.67169	0.06505
77	7.756	PV T	0.0273	928.24957	414.19818	0.54554
78	7.794	PBAT	3.53e-3	7.75045	36.54857	0.00455

Totals : 1.70153e5 4.18135e4

Results obtained with enhanced integrator!

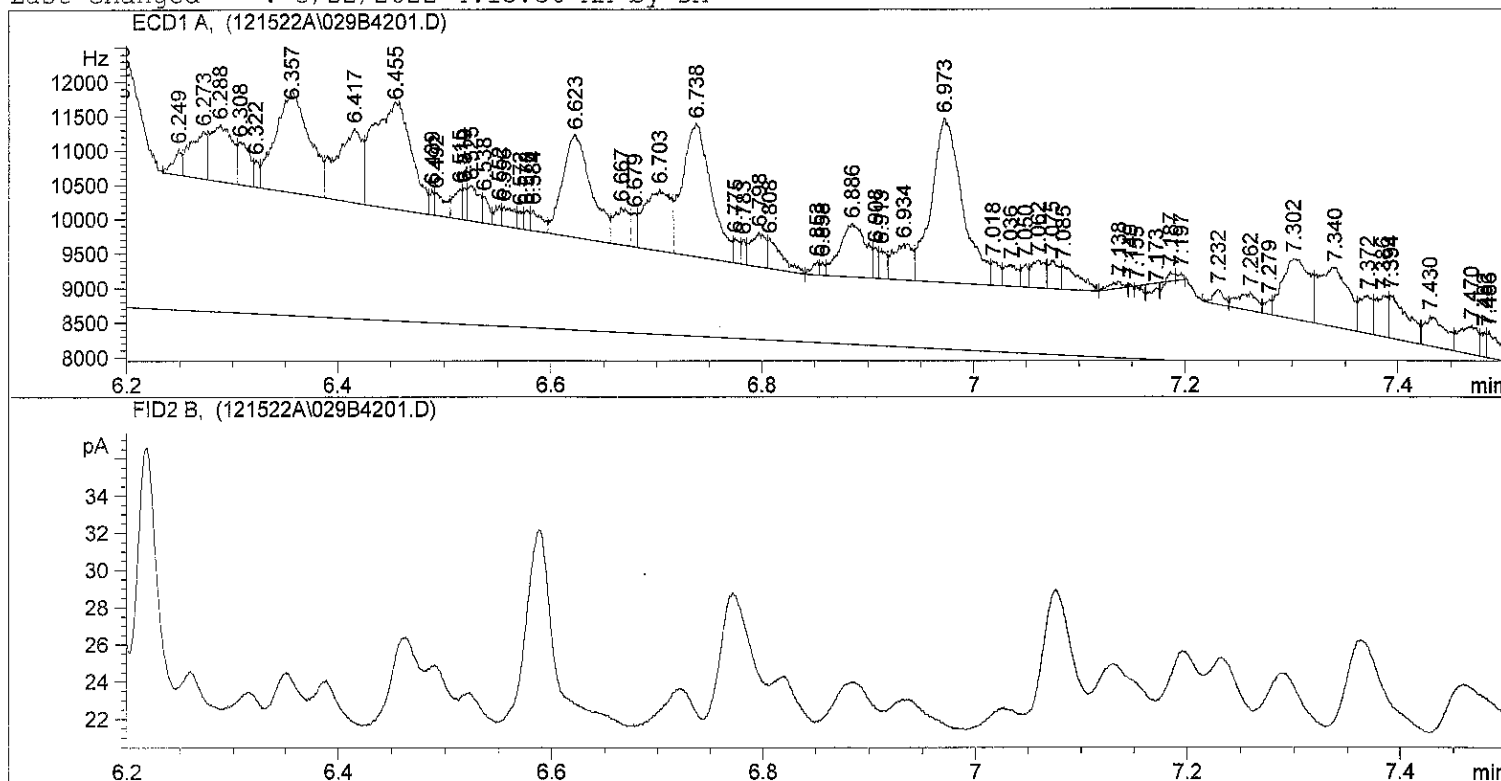
Signal 2: FID2 B,

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\*\*\* End of Report \*\*\*

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Injection Date : 12/15/2022 10:21:50 PM   Seq. Line : 42
Sample Name    : 22L0312 04                Location  : Vial 29
Acq. Operator  : TW                       Inj      : 1
                                           Inj Volume : 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.214	BP	0.0172	798.77240	554.32190	0.19397
2	5.267	VV	9.25e-3	243.09769	320.28839	0.05903
3	5.310	VV	0.0212	1562.04431	894.92999	0.37933
4	5.333	VV	0.0134	1080.59326	1037.17126	0.26241
5	5.369	VV S	0.0223	7.68318e4	4.80366e4	18.65791
6	5.433	VV S	0.0276	7765.20068	4696.20703	1.88571
7	5.568	VV S	0.0740	5.71222e4	1.28575e4	13.87163
8	5.754	VV S	0.0733	3.99507e4	9079.99219	9.70166
9	5.807	VV S	0.0306	9347.76953	5095.20557	2.27002
10	5.929	VV S	0.0691	4.03405e4	9729.80469	9.79632
11	5.994	VV S	0.0337	9383.39648	4642.67041	2.27867
12	6.196	VPAS	0.5579	1.23390e5	3685.82568	29.96411
13	6.249	BV T	7.01e-3	209.69051	381.36975	0.05092
14	6.273	VV T	0.0132	741.58875	694.93524	0.18009
15	6.288	VV T	0.0187	1226.67065	828.07593	0.29789
16	6.308	VV T	0.0131	484.17825	615.37164	0.11758
17	6.322	VV T	5.41e-3	127.27547	391.79010	0.03091

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.357	VV T	0.0277	3319.56421	1482.99731	0.80613
19	6.417	VV T	0.0209	1838.84802	1079.18921	0.44655
20	6.455	VV T	0.0296	3788.34521	1558.79126	0.91997
21	6.489	PV T	3.86e-3	100.30318	358.52890	0.02436
22	6.492	PV T	0.0124	234.31889	315.34747	0.05690
23	6.515	PV T	6.89e-3	241.04764	447.28134	0.05854
24	6.519	PV T	4.18e-3	118.56396	472.24988	0.02879
25	6.525	PV T	0.0102	389.23434	517.37927	0.09452
26	6.538	PV T	6.91e-3	161.57184	389.91098	0.03924
27	6.552	PV T	5.43e-3	119.39198	288.39661	0.02899
28	6.556	PV T	0.0130	217.40773	278.76105	0.05280
29	6.572	PV T	6.01e-3	93.43753	259.20694	0.02269
30	6.578	PV T	5.73e-3	97.07543	282.20444	0.02357
31	6.584	PV T	0.0112	199.70253	298.28357	0.04850
32	6.623	PV T	0.0230	2810.46631	1492.70703	0.68250
33	6.667	PV T	0.0117	520.28424	545.81726	0.12635
34	6.679	PV T	5.42e-3	187.55005	494.61359	0.04554
35	6.703	PV T	0.0205	1527.43042	895.49695	0.37092
36	6.738	PV T	0.0234	3652.74072	1939.03552	0.88704
37	6.775	PV T	7.14e-3	152.90376	357.04492	0.03713
38	6.783	PV T	4.26e-3	90.41673	353.36407	0.02196
39	6.798	PV T	0.0122	493.00131	497.72101	0.11972
40	6.808	PV T	0.0157	406.27649	430.55258	0.09866
41	6.853	PV T	5.76e-3	84.05566	190.22971	0.02041
42	6.858	PV T	4.98e-3	56.79417	190.06943	0.01379
43	6.886	PV T	0.0202	1308.63696	771.15851	0.31779
44	6.908	PV T	4.40e-3	135.35999	438.93082	0.03287
45	6.913	PV T	7.77e-3	196.25319	420.97269	0.04766
46	6.934	PV T	0.0153	670.96741	524.50342	0.16294
47	6.973	PV T	0.0243	4843.69043	2384.61646	1.17625
48	7.018	PV T	9.60e-3	198.38745	344.51785	0.04818
49	7.036	PV T	0.0120	294.69174	313.26126	0.07156
50	7.050	PV T	5.20e-3	131.86476	334.24704	0.03202
51	7.062	PV T	0.0119	358.02692	390.95755	0.08694
52	7.075	PV T	8.72e-3	291.43423	408.52240	0.07077
53	7.085	PV T	0.0183	384.63528	349.82959	0.09341
54	7.138	PV T	0.0103	79.49277	101.98888	0.01930
55	7.149	PV T	1.01e-4	2.76911e-1	45.62199	6.725e-5
56	7.155	PV T	0.0000	35.90846	8.14195	0.00872
57	7.173	PV T	0.0157	89.26251	71.03609	0.02168
58	7.187	PV T	2.39e-3	20.69168	134.69957	0.00502
59	7.197	PB T	5.90e-3	37.72728	106.59975	0.00916
60	7.232	BV T	8.85e-3	149.44687	216.67067	0.03629
61	7.262	PV T	0.0145	321.83774	270.03653	0.07816
62	7.279	PV T	6.22e-3	97.52738	218.47614	0.02368
63	7.302	PV T	0.0210	1544.88403	876.02197	0.37516
64	7.340	PV T	0.0244	1668.94751	862.58319	0.40529
65	7.372	PV T	0.0103	458.41193	560.10962	0.11132
66	7.386	PV T	0.0100	489.32129	594.07013	0.11883
67	7.394	PV T	0.0200	754.89899	627.74078	0.18332
68	7.430	PV T	0.0164	599.15961	435.62668	0.14550
69	7.470	PV T	0.0142	495.76828	418.98575	0.12039
70	7.482	PV T	6.04e-3	130.65053	360.54785	0.03173
71	7.486	PV T	0.0110	250.96423	379.23083	0.06094
72	7.519	PV T	0.0235	834.73181	445.65088	0.20271
73	7.559	PV T	3.25e-3	5.98971	30.68460	0.00145
74	7.568	PV T	5.72e-3	35.79158	84.94075	0.00869
75	7.574	PV T	3.90e-3	22.78230	97.26661	0.00553
76	7.583	PV T	4.53e-3	60.23889	188.50006	0.01463
77	7.589	PV T	0.0154	248.47946	196.00555	0.06034
78	7.641	PV T	0.0175	688.70996	471.13193	0.16725
79	7.651	PV T	0.0160	484.72171	503.94882	0.11771
80	7.667	PV T	0.0122	416.57626	420.45410	0.10116
81	7.686	PV T	8.61e-3	177.62425	344.02057	0.04313
82	7.699	PV T	0.0150	450.01709	363.33945	0.10928

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.723	PV T	8.26e-3	165.41606	273.48584	0.04017
84	7.730	PV T	7.60e-3	90.47604	198.30228	0.02197
85	7.738	PV T	3.86e-3	61.52152	265.39981	0.01494
86	7.744	PV T	9.16e-3	146.12857	265.88031	0.03549
87	7.754	PV T	5.53e-3	93.58672	251.88412	0.02273
88	7.763	PV T	9.03e-3	179.72308	267.62970	0.04364
89	7.782	PV T	4.92e-3	35.63680	96.15393	0.00865
90	7.790	PV T	6.90e-3	48.78428	103.40054	0.01185

Totals : 4.11792e5 1.36795e5

Results obtained with enhanced integrator!

Signal 2: FID2 B,

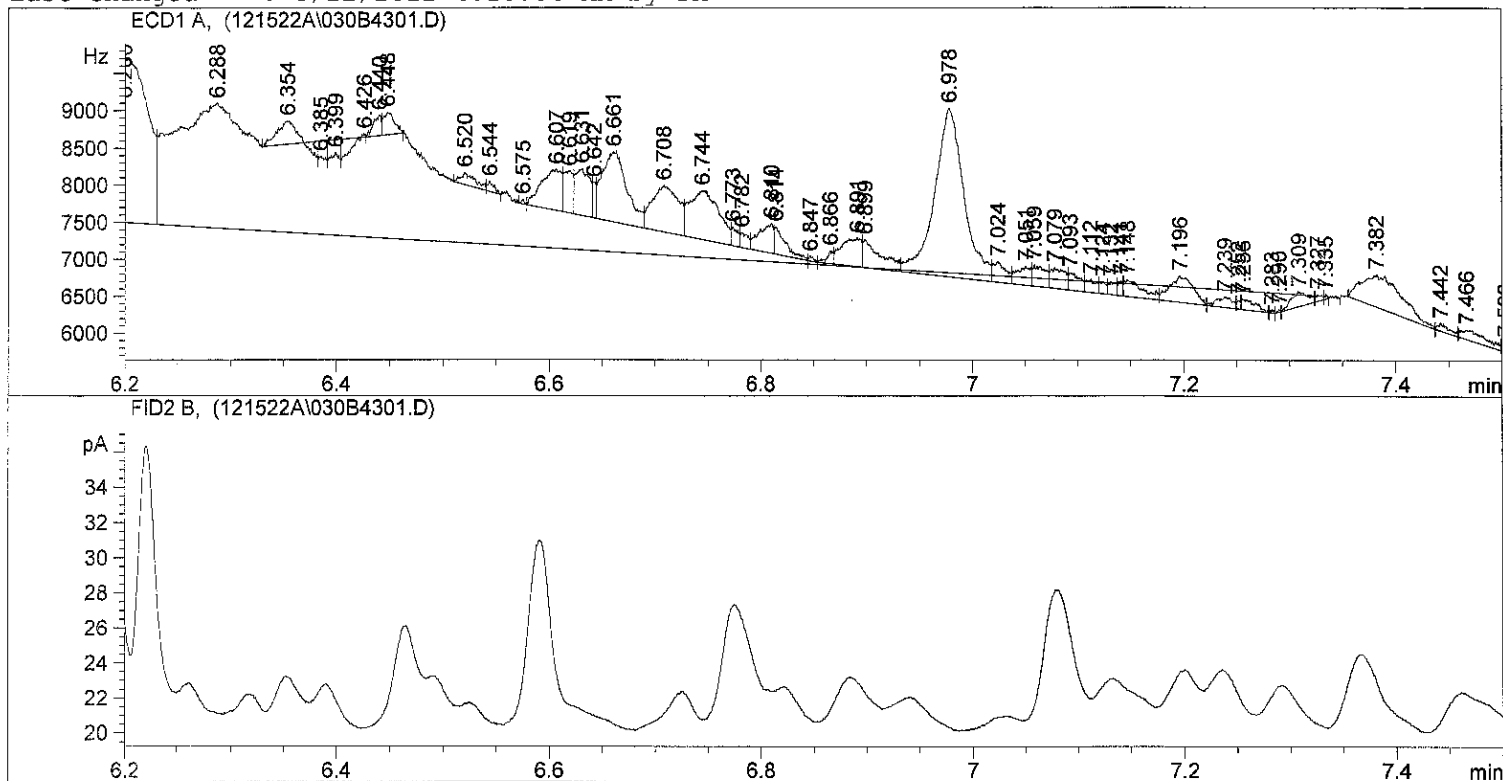
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\*\*\* End of Report \*\*\*



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Injection Date : 12/15/2022 10:33:01 PM      Seq. Line : 43
Sample Name    : 22L0312 05                  Location  : Vial 30
Acq. Operator : TW                          Inj      : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report  
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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.229	BV S	0.0165	5086.03662	4541.94238	3.16269
2	5.269	VV S	0.0297	1459.93823	820.15375	0.90784
3	5.301	BV T	6.44e-3	62.58157	120.94985	0.03892
4	5.310	VV T	2.57e-3	7.71114	50.05207	0.00480
5	5.318	VV T	2.48e-3	7.81547	52.58622	0.00486
6	5.376	VV S	0.0344	1.26794e4	4378.04785	7.88456
7	5.438	VV S	0.0322	5020.37402	2599.37769	3.12186
8	5.579	VV S	0.1645	3.10313e4	2785.67896	19.29643
9	5.812	VV S	0.0750	1.38961e4	3089.70117	8.64115
10	5.865	VV S	0.1757	2.86709e4	2689.90698	17.82865
11	6.200	VV S	0.1273	1.69284e4	2216.31958	10.52675
12	6.288	VB S	0.1845	2.52184e4	1682.90430	15.68176
13	6.354	BV T	0.0112	274.70905	307.82196	0.17082
14	6.385	VV T	0.0102	128.52467	209.18330	0.07992
15	6.399	VV T	0.0118	170.49628	178.36069	0.10602
16	6.426	VV T	0.0000	153.78241	39.13570	0.09563
17	6.440	VV T	6.64e-3	138.08195	266.82831	0.08586

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.448	VB T	9.11e-3	218.06119	299.00461	0.13560
19	6.520	BV T	0.0122	159.73242	162.99791	0.09933
20	6.544	PB T	5.63e-3	58.02334	134.50713	0.03608
21	6.575	BV T	2.72e-3	10.52631	57.83211	0.00655
22	6.607	PV T	0.0170	720.44745	553.84546	0.44800
23	6.619	PV T	7.93e-3	333.14078	560.60712	0.20716
24	6.631	PV T	0.0113	580.51447	634.30908	0.36099
25	6.642	PV T	3.96e-3	113.75158	478.67816	0.07074
26	6.661	PV T	0.0198	1549.69287	940.31982	0.96366
27	6.708	PV T	0.0208	1067.69104	623.61603	0.66393
28	6.744	PV T	0.0230	1286.33606	662.76544	0.79989
29	6.773	PV T	7.34e-3	109.61417	249.04826	0.06816
30	6.782	PV T	8.60e-3	103.76137	201.18074	0.06452
31	6.810	PV T	0.0126	361.22769	397.67203	0.22463
32	6.814	PV T	0.0124	273.21658	368.68176	0.16990
33	6.847	PV T	5.16e-3	18.35805	59.32432	0.01142
34	6.866	PV T	5.39e-3	73.74168	172.39400	0.04586
35	6.891	PV T	0.0155	497.61731	384.82025	0.30944
36	6.899	PV T	0.0199	450.07550	376.19659	0.27987
37	6.978	PV T	0.0247	4395.60791	2261.34790	2.73336
38	7.024	PV T	0.0108	238.53101	274.16653	0.14833
39	7.051	PV T	0.0111	224.88850	244.97621	0.13984
40	7.059	PV T	0.0141	237.32022	279.66595	0.14757
41	7.079	PV T	0.0118	265.42432	275.40192	0.16505
42	7.093	PV T	0.0123	173.17253	235.52365	0.10769
43	7.112	PV T	8.34e-3	115.60702	174.18401	0.07189
44	7.124	PV T	5.68e-3	69.74850	160.22690	0.04337
45	7.132	PV T	5.95e-3	82.59645	173.73688	0.05136
46	7.141	PV T	5.21e-3	62.72145	200.69591	0.03900
47	7.148	PV T	0.0147	273.15170	225.86139	0.16986
48	7.196	PV T	0.0181	530.08148	353.32565	0.32962
49	7.239	PV T	0.0133	147.49612	140.06200	0.09172
50	7.252	PV T	3.87e-3	27.51625	118.63305	0.01711
51	7.256	PV T	0.0156	129.80299	138.99365	0.08072
52	7.283	PV T	2.97e-3	7.23922	32.83438	0.00450
53	7.290	PV T	2.77e-3	5.71398	30.70582	0.00355
54	7.309	PV T	0.0138	214.44711	192.65610	0.13335
55	7.327	PV T	4.37e-3	30.22564	88.78220	0.01880
56	7.335	PB T	3.42e-3	10.20824	49.69685	0.00635
57	7.382	BP	0.0325	1157.35352	431.93457	0.71969
58	7.442	VV	0.0104	83.10201	99.33920	0.05168
59	7.466	VV	0.0222	232.92789	125.79082	0.14484
60	7.503	VV	7.38e-3	69.17285	130.60803	0.04301
61	7.523	VP	0.0194	397.81921	244.35722	0.24738
62	7.598	VV	0.0151	301.21600	271.59039	0.18731
63	7.603	VV	6.31e-3	138.94127	283.64819	0.08640
64	7.613	VV	6.05e-3	98.30408	218.26103	0.06113
65	7.642	VV	0.0156	495.09756	411.61914	0.30787
66	7.650	VV	0.0151	530.00201	420.91968	0.32958
67	7.673	VV	0.0123	279.86066	284.77039	0.17403
68	7.692	VV	0.0123	196.93547	195.83926	0.12246
69	7.715	VV	3.33e-3	29.13277	124.39671	0.01812
70	7.720	VV	8.15e-3	76.11190	120.88759	0.04733
71	7.747	VV	9.90e-3	185.40582	232.51010	0.11529
72	7.757	VPA	0.0181	380.54507	250.48396	0.23664

Totals : 1.60814e5 4.28452e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.281	BB	0.0159	22.77900	21.60309	34.05613
2	5.752	PB	0.0243	44.10764	24.41071	65.94387

Totals :                           66.88664   46.01380

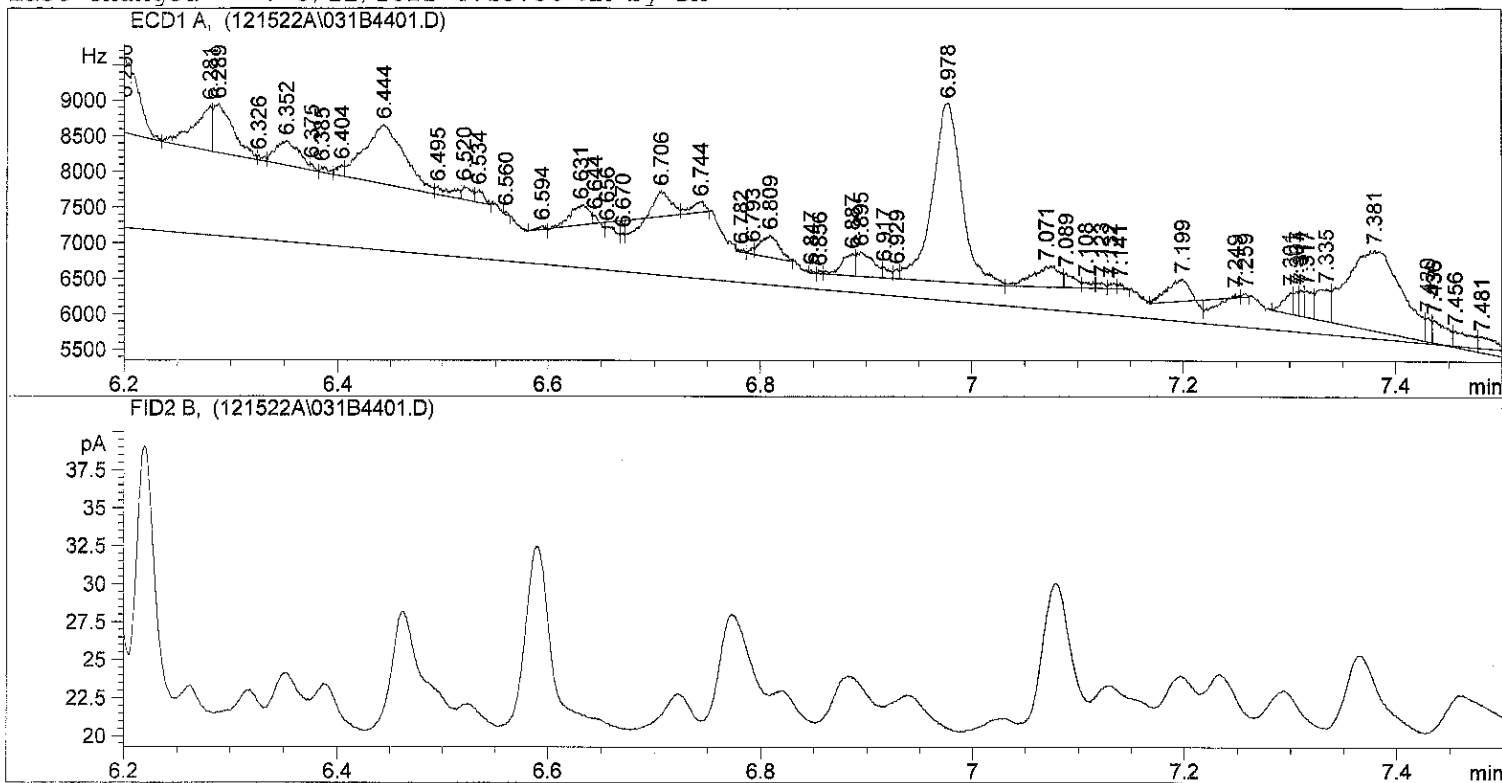
Results obtained with enhanced integrator!

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\*\*\* End of Report \*\*\*

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Injection Date : 12/15/2022 10:44:12 PM      Seq. Line : 44
Sample Name    : 22L0312 06                  Location  : Vial 31
Acq. Operator : TW                          Inj      : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.228	BV S	0.0162	1.13786e4	1.00875e4	6.09667
2	5.267	VV S	0.0729	4356.82471	996.43250	2.33440
3	5.337	BV T	0.0180	536.43188	377.17004	0.28742
4	5.375	VV S	0.0318	1.46421e4	5686.88574	7.84531
5	5.436	VV S	0.0318	5212.54834	2736.13794	2.79290
6	5.582	VV S	0.0765	1.72101e4	3048.44434	9.22126
7	5.809	VV S	0.1466	2.68920e4	3056.61743	14.40881
8	5.999	VV S	0.1261	2.96928e4	2899.27637	15.90951
9	6.075	VBAS	0.3716	5.19943e4	1721.45703	27.85871
10	6.169	BV T	0.0111	170.13734	189.01680	0.09116
11	6.200	VV T	0.0252	2038.80566	1045.34167	1.09240
12	6.281	PV T	0.0147	776.35876	641.67828	0.41598
13	6.289	VV T	0.0210	861.87213	683.34210	0.46179
14	6.326	PV T	6.71e-3	25.88292	64.26567	0.01387
15	6.352	PV T	0.0179	515.06818	347.68054	0.27598
16	6.375	PV T	4.26e-3	23.33237	91.32719	0.01250
17	6.385	PV T	6.20e-3	38.75926	78.01900	0.02077

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.404	PV T	5.80e-3	70.17298	157.30077	0.03760
19	6.444	PV T	0.0313	2187.54321	835.86438	1.17209
20	6.495	PV T	0.0207	133.82800	107.96691	0.07171
21	6.520	PV T	7.83e-3	116.53170	187.95851	0.06244
22	6.534	PB T	9.05e-3	93.14191	171.47043	0.04991
23	6.560	BB T	3.75e-3	10.40072	46.27331	0.00557
24	6.594	BV T	5.28e-3	19.48055	50.70733	0.01044
25	6.631	PV T	0.0157	347.91516	280.82907	0.18641
26	6.644	PV T	2.14e-3	15.84390	123.15297	0.00849
27	6.656	PV T	0.0286	95.21725	55.41101	0.05102
28	6.670	PV T	4.82e-3	49.79135	172.16353	0.02668
29	6.706	PV T	8.57e-3	228.54665	352.21472	0.12246
30	6.744	PB T	0.0112	137.78442	149.00024	0.07383
31	6.782	BV T	6.03e-3	12.26540	33.91688	0.00657
32	6.793	PV T	3.77e-3	24.96455	91.92038	0.01338
33	6.809	PB T	0.0142	366.88556	314.36469	0.19658
34	6.847	BV T	2.89e-3	7.79252	36.51769	0.00418
35	6.856	PV T	5.24e-3	11.36820	34.56228	0.00609
36	6.887	PV T	0.0113	265.33139	303.17432	0.14217
37	6.895	PV T	0.0135	376.06912	346.03616	0.20150
38	6.917	PV T	7.86e-3	69.25130	146.85750	0.03711
39	6.929	PV T	5.55e-3	42.14690	126.63362	0.02258
40	6.978	PV T	0.0236	4842.64258	2499.09912	2.59471
41	7.071	PV T	0.0213	510.90396	287.89056	0.27374
42	7.089	PV T	0.0114	135.89134	198.15776	0.07281
43	7.108	PV T	8.13e-3	52.70692	79.53966	0.02824
44	7.123	PV T	7.10e-3	40.91808	83.80577	0.02192
45	7.132	PV T	6.87e-3	31.13132	75.51334	0.01668
46	7.141	PB T	4.95e-3	20.88116	70.31617	0.01119
47	7.199	BV T	0.0165	409.90671	304.56219	0.21963
48	7.249	PV T	0.0000	109.41515	54.57830	0.05863
49	7.259	PB T	3.88e-3	15.96258	56.72262	0.00855
50	7.301	BV T	7.68e-3	184.89244	304.78757	0.09907
51	7.307	PV T	4.16e-3	102.54967	336.45203	0.05495
52	7.311	PV T	5.04e-3	111.63645	369.47427	0.05982
53	7.317	PV T	9.16e-3	207.04581	376.86746	0.11094
54	7.335	PV T	0.0116	402.75427	451.18137	0.21580
55	7.381	PV T	0.0414	3961.25098	1126.67712	2.12245
56	7.430	PV T	4.96e-3	127.37720	340.87839	0.06825
57	7.436	PV T	0.0157	306.75589	326.43979	0.16436
58	7.456	PV T	0.0220	299.66785	226.74014	0.16056
59	7.481	PV T	0.0202	271.08044	223.74619	0.14525
60	7.517	PV T	0.0251	578.95276	277.59384	0.31020
61	7.594	PV T	0.0178	322.06149	218.52200	0.17256
62	7.601	PV T	0.0133	245.76440	237.41107	0.13168
63	7.644	PV T	0.0224	711.49664	387.62827	0.38122
64	7.667	PV T	8.33e-3	191.96210	289.69388	0.10285
65	7.678	PV T	4.44e-3	68.77621	257.88571	0.03685
66	7.683	PV T	7.04e-3	105.16502	248.86569	0.05635
67	7.701	PV T	0.0137	239.72656	213.38635	0.12845
68	7.715	PV T	4.88e-3	41.76630	142.55063	0.02238
69	7.728	PV T	8.37e-3	112.21747	173.00018	0.06013
70	7.753	PV T	0.0271	822.50586	358.83777	0.44070
71	7.798	PBAT	1.32e-3	1.61933	20.57052	0.00087

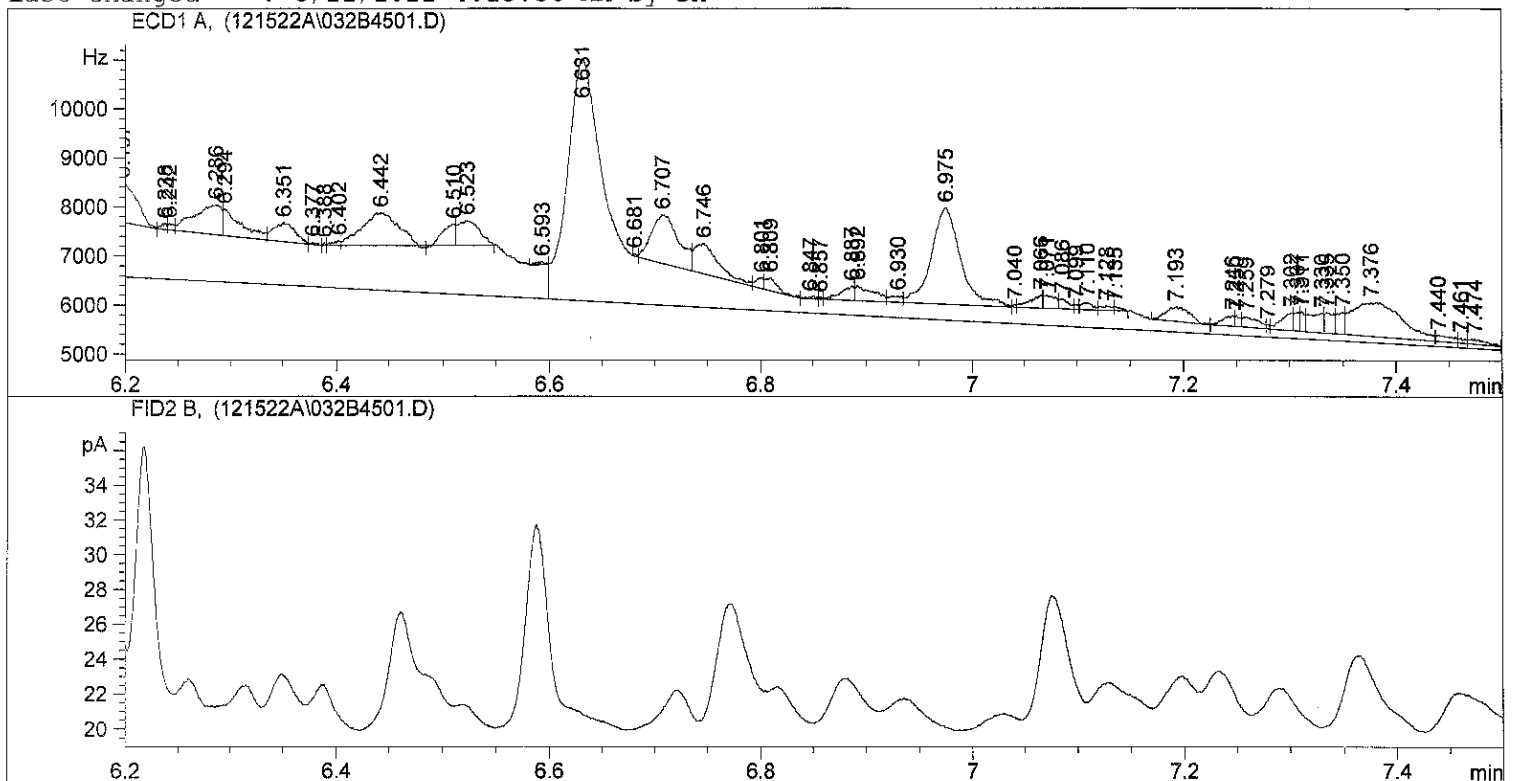
Totals : 1.86636e5 4.84943e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

=====  
Injection Date : 12/15/2022 10:55:22 PM      Seq. Line : 45  
Sample Name : 22L0312 07                      Location : Vial 32  
Acq. Operator : TW                              Inj : 1  
   Inj Volume : 1 µl

Sequence File : C:\HPCHEM\2\SEQUENCE\121522A.S  
Method : C:\HPCHEM\2\METHODS\DIOXIN.M  
Last changed : 3/22/2022 4:13:36 AM by DM



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Area Percent Report  
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Sorted By : Signal  
Multiplier : 1.0000  
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.227	PV S	0.0179	1.16412e4	9773.14453	6.49273
2	5.265	BV T	0.0102	530.52045	642.35815	0.29589
3	5.310	PV T	6.86e-3	36.99675	79.01681	0.02063
4	5.375	VV S	0.0346	1.16644e4	4280.97363	6.50563
5	5.434	VV S	0.0306	4004.94482	2184.43921	2.23370
6	5.809	VV S	0.2427	3.71894e4	2554.19897	20.74181
7	5.996	VV S	0.1224	3.04432e4	4146.29834	16.97926
8	6.086	VV S	0.1954	3.47161e4	2130.99219	19.36240
9	6.155	BV T	5.70e-3	67.59414	167.83559	0.03770
10	6.160	VV T	4.78e-3	42.63812	148.81764	0.02378
11	6.170	VV T	6.79e-3	108.61850	204.64929	0.06058
12	6.197	VV T	0.0228	1472.48889	779.22290	0.82126
13	6.238	PV T	5.35e-3	45.37137	111.33291	0.02531
14	6.242	PV T	6.27e-3	49.23351	130.81796	0.02746
15	6.286	PV T	0.0214	1091.39905	611.05005	0.60871
16	6.294	VV T	0.0211	684.36407	540.04449	0.38169
17	6.351	PV T	0.0167	531.96564	386.33136	0.29670

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.377	PV T	4.95e-3	19.36160	49.66731	0.01080
19	6.388	PV T	1.88e-3	6.28928	55.77834	0.00351
20	6.402	PV T	6.62e-3	50.98496	98.81914	0.02844
21	6.442	PV T	0.0297	1609.06348	669.10327	0.89743
22	6.510	PV T	0.0108	356.75150	431.62500	0.19897
23	6.523	PB T	0.0172	699.17615	504.32001	0.38996
24	6.593	BV T	6.59e-3	30.34623	59.07615	0.01693
25	6.631	PBAS	0.0640	2.62239e4	4935.23975	14.62599
26	6.681	BV T	4.09e-3	11.99876	48.91502	0.00669
27	6.707	PV T	0.0218	1799.44324	988.70538	1.00361
28	6.746	PV T	0.0194	967.70282	613.72345	0.53972
29	6.801	PV T	6.33e-3	102.18935	208.08664	0.05699
30	6.809	PV T	9.81e-3	206.59103	261.66440	0.11522
31	6.847	PV T	0.0101	24.30120	39.95260	0.01355
32	6.857	PV T	4.07e-3	7.37696	30.23461	0.00411
33	6.887	PV T	0.0103	242.52695	291.21722	0.13527
34	6.892	PV T	0.0197	362.80859	306.52725	0.20235
35	6.930	PV T	9.80e-3	105.10317	133.29660	0.05862
36	6.975	PV T	0.0239	3804.29639	1970.02490	2.12179
37	7.040	PV T	3.34e-3	10.32473	51.46630	0.00576
38	7.066	PV T	0.0102	216.51619	263.76303	0.12076
39	7.071	PV T	9.67e-3	203.58594	262.01068	0.11355
40	7.086	PV T	8.11e-3	126.76804	202.29408	0.07070
41	7.099	PV T	4.25e-3	26.25712	103.01868	0.01464
42	7.110	PV T	8.63e-3	101.77350	147.87411	0.05676
43	7.128	PV T	8.48e-3	59.65549	88.30052	0.03327
44	7.135	PB T	7.95e-3	36.94154	77.42335	0.02060
45	7.193	BV T	0.0188	451.83264	292.59650	0.25200
46	7.246	PV T	8.80e-3	153.92847	224.60938	0.08585
47	7.250	PV T	5.61e-3	76.02113	225.86620	0.04240
48	7.259	PV T	0.0119	212.76547	219.91173	0.11867
49	7.279	PV T	3.35e-3	18.02002	89.64269	0.01005
50	7.302	PV T	9.61e-3	277.62875	359.31818	0.15484
51	7.307	PV T	4.41e-3	133.53586	388.36694	0.07448
52	7.311	PV T	4.91e-3	116.95659	397.03842	0.06523
53	7.330	PV T	0.0115	371.93463	398.89453	0.20744
54	7.335	PV T	9.69e-3	241.20464	414.84210	0.13453
55	7.350	PV T	6.98e-3	228.81860	446.48215	0.12762
56	7.376	PV T	0.0387	2267.55566	690.96149	1.26470
57	7.440	PV T	0.0176	133.70567	126.47698	0.07457
58	7.461	PV T	5.54e-3	43.32541	102.22136	0.02416
59	7.474	PV T	0.0128	112.84693	108.26404	0.06294
60	7.508	PV T	5.23e-3	20.04803	50.48549	0.01118
61	7.521	PB T	6.85e-3	35.59221	66.48994	0.01985
62	7.574	BV T	8.23e-3	77.95589	129.40720	0.04348
63	7.592	PV T	0.0154	290.50323	237.86572	0.16202
64	7.604	PV T	0.0131	169.54414	216.02684	0.09456
65	7.628	PV T	0.0102	199.21440	247.59358	0.11111
66	7.647	PV T	0.0191	606.69562	386.12900	0.33838
67	7.676	PV T	0.0282	425.58261	251.25003	0.23736
68	7.699	PV T	7.56e-3	77.78339	171.45851	0.04338
69	7.710	PV T	9.67e-3	122.18521	157.13376	0.06815
70	7.748	PV T	0.0252	531.41199	263.04327	0.29639
71	7.769	PV T	0.0139	142.98740	171.89417	0.07975
72	7.790	PBAT	6.90e-3	24.51850	59.22644	0.01367

Totals : 1.79297e5 4.86571e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.281	BB	0.0164	23.31906	22.00584	1.000e2

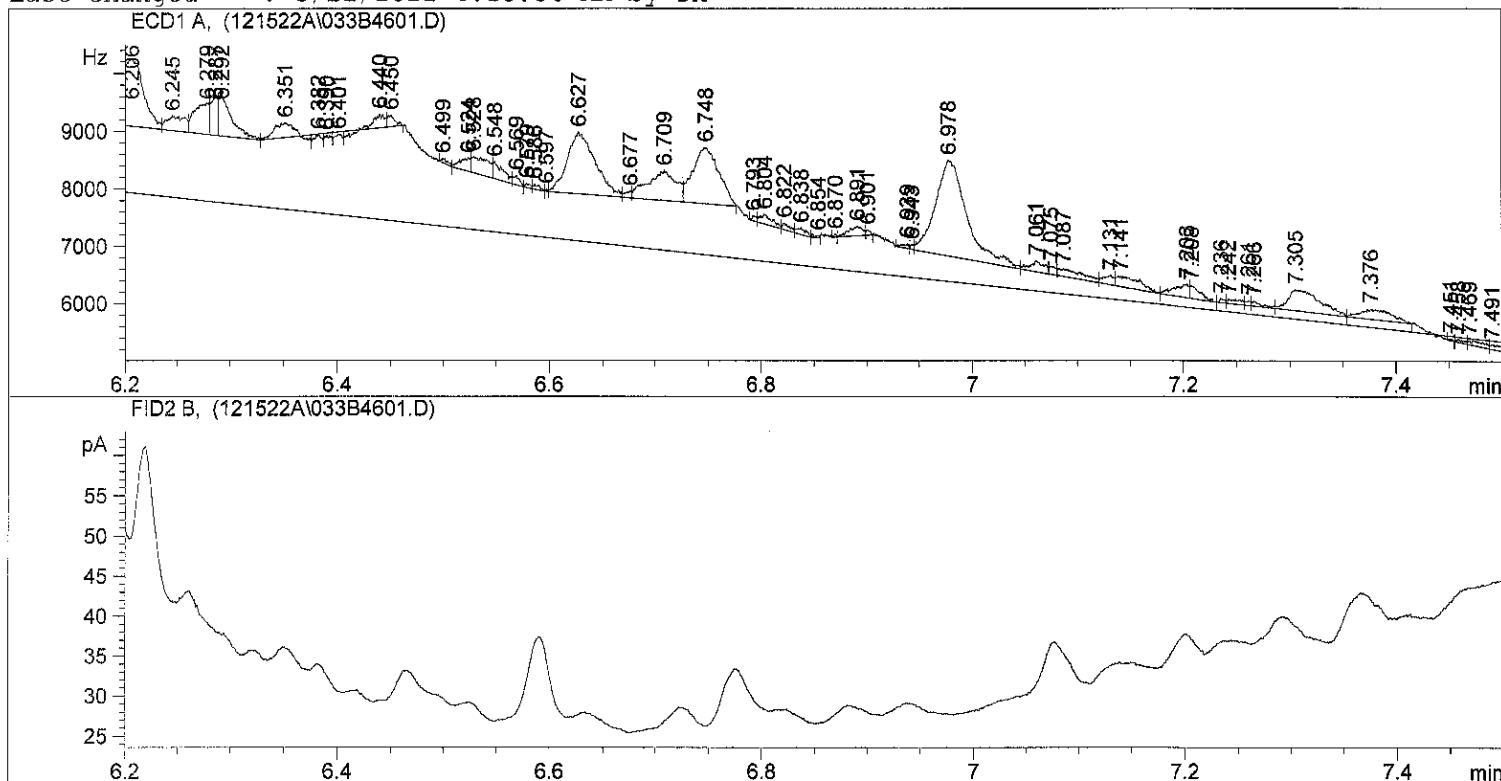
Totals :                   23.31906   22.00584

Results obtained with enhanced integrator!

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\*\*\* End of Report \*\*\*



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Injection Date : 12/15/2022 11:06:32 PM      Seq. Line : 46  
Sample Name : 22L0312 08                      Location : Vial 33  
Acq. Operator : TW                              Inj : 1  
   Inj Volume : 1 µl  
Sequence File : C:\HPCHEM\2\SEQUENCE\121522A.S  
Method : C:\HPCHEM\2\METHODS\DIODIN.M  
Last changed : 3/22/2022 4:13:36 AM by DM  
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Area Percent Report  
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Sorted By : Signal  
Multiplier : 1.0000  
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.234	BV S	0.0181	4263.00293	3096.30273	2.71489
2	5.272	BP T	0.0123	591.84558	669.69629	0.37692
3	5.293	PV T	2.70e-3	13.70162	76.15437	0.00873
4	5.297	PV T	6.16e-3	49.23763	133.20383	0.03136
5	5.313	PP T	0.0119	330.49982	347.04382	0.21048
6	5.339	PV T	3.33e-3	17.21932	68.53625	0.01097
7	5.385	VV S	0.0802	2.67332e4	3918.01318	17.02504
8	5.443	BV T	0.0110	833.42676	952.25299	0.53077
9	5.484	PV T	8.49e-3	116.96986	184.29938	0.07449
10	5.511	PV T	8.85e-4	1.90615	262.72055	0.00121
11	5.534	PV T	4.61e-3	102.55272	370.97504	0.06531
12	5.575	PV T	0.0000	204.07497	468.69101	0.12997
13	5.588	PV T	8.46e-3	412.15341	611.97723	0.26248
14	5.593	PV T	7.38e-3	230.32622	520.42218	0.14668
15	5.606	PV T	2.54e-3	7.89813	51.91666	0.00503
16	5.628	PV T	1.76e-3	20.04118	201.41083	0.01276
17	5.659	PV T	0.0198	230.04672	138.35165	0.14651

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.705	PV T	0.0177	823.84479	562.52081	0.52467
19	5.725	PB T	4.24e-3	15.86749	62.32322	0.01011
20	5.775	BV T	0.0196	844.64471	542.69049	0.53791
21	5.816	PBAS	0.4028	9.27262e4	2689.46069	59.05267
22	5.850	BV T	3.65e-3	14.91764	68.20173	0.00950
23	5.868	PV T	0.0150	981.30841	864.56586	0.62495
24	5.908	PV T	0.0150	793.51147	650.70605	0.50535
25	5.937	PV T	0.0232	2591.34888	1339.93628	1.65030
26	5.972	PV T	0.0148	832.46149	703.36169	0.53015
27	6.001	PV T	0.0162	1406.67566	1062.53821	0.89584
28	6.032	PV T	0.0224	1409.79260	761.39087	0.89783
29	6.068	PV T	7.15e-3	104.69962	186.61620	0.06668
30	6.081	PV T	6.94e-3	74.34811	146.07124	0.04735
31	6.118	PV T	0.0269	962.03687	427.53259	0.61267
32	6.174	PV T	0.0114	420.20685	482.04572	0.26761
33	6.184	PV T	8.24e-3	339.12433	578.43396	0.21597
34	6.206	PV T	0.0203	1944.67407	1152.85291	1.23847
35	6.245	PV T	0.0152	310.10022	245.24538	0.19749
36	6.279	PV T	0.0120	508.51038	531.52478	0.32384
37	6.287	PV T	6.46e-3	306.86316	656.00732	0.19543
38	6.292	PV T	0.0118	588.60156	662.30463	0.37485
39	6.351	PV T	0.0140	272.22449	247.92590	0.17337
40	6.382	PV T	0.0322	41.26869	15.54971	0.02628
41	6.390	PV T	0.0164	38.51248	39.02838	0.02453
42	6.401	PV T	0.0119	40.93743	42.39865	0.02607
43	6.440	PV T	5.57e-3	103.41982	233.29750	0.06586
44	6.450	PB T	6.24e-3	95.65351	191.10239	0.06092
45	6.499	BV T	5.95e-3	31.03357	65.19881	0.01976
46	6.524	PV T	7.94e-3	145.14172	224.59763	0.09243
47	6.528	PV T	0.0199	333.54974	279.90125	0.21242
48	6.548	PV T	0.0116	202.28882	291.71509	0.12883
49	6.569	PV T	6.61e-3	63.21569	159.44096	0.04026
50	6.579	PV T	4.73e-3	24.07400	64.92564	0.01533
51	6.586	PV T	7.18e-3	34.32409	79.72363	0.02186
52	6.597	PV T	2.34e-3	5.98442	42.61217	0.00381
53	6.627	PV T	0.0217	1952.96948	1071.41370	1.24375
54	6.677	PV T	5.55e-3	48.95356	115.31621	0.03118
55	6.709	PV T	0.0220	951.71881	513.92883	0.60610
56	6.748	PB T	0.0210	1673.62134	976.40460	1.06585
57	6.793	BV T	4.07e-3	25.13094	79.83843	0.01600
58	6.804	PV T	0.0107	132.01794	162.03998	0.08408
59	6.822	PV T	5.98e-3	53.41752	115.92877	0.03402
60	6.838	PV T	8.26e-3	66.03558	109.17761	0.04205
61	6.854	PB T	6.71e-3	13.21476	32.81979	0.00842
62	6.870	BV T	2.18e-3	6.17276	47.24203	0.00393
63	6.891	PV T	0.0111	146.16827	162.33809	0.09309
64	6.901	PB T	4.21e-3	23.25235	92.15073	0.01481
65	6.939	BV T	5.30e-3	35.41186	87.97012	0.02255
66	6.943	PV T	3.37e-3	16.38308	80.99535	0.01043
67	6.978	PV T	0.0246	3428.71875	1664.29187	2.18358
68	7.061	PV T	0.0116	175.41644	186.88800	0.11171
69	7.075	PV T	7.28e-3	60.51734	138.47491	0.03854
70	7.087	PV T	0.0297	229.16284	128.75273	0.14594
71	7.131	PV T	9.37e-3	111.58790	155.54001	0.07106
72	7.141	PV T	0.0200	294.80554	175.62715	0.18775
73	7.203	PV T	0.0121	216.45837	231.80603	0.13785
74	7.208	PV T	0.0114	151.56749	221.16815	0.09653
75	7.236	PV T	4.53e-3	22.30425	69.74120	0.01420
76	7.242	PV T	0.0148	66.29140	74.63026	0.04222
77	7.261	PV T	4.90e-3	27.30814	92.86804	0.01739
78	7.266	PV T	9.97e-3	55.96801	93.51718	0.03564
79	7.305	PV T	0.0253	779.87842	365.09958	0.49667
80	7.376	PB T	0.0234	350.81427	179.54745	0.22342
81	7.451	BV T	3.38e-3	6.59006	32.53745	0.00420
82	7.458	PV T	7.15e-3	26.43528	47.09202	0.01684

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.469	PV T	0.0199	86.20633	72.17112	0.05490
84	7.491	PV T	0.0203	137.73763	82.41409	0.08772
85	7.528	PP T	0.0155	51.29610	55.16093	0.03267
86	7.559	PP T	3.29e-3	5.19694	26.42218	0.00331
87	7.596	PV T	0.0168	198.72429	142.92691	0.12656
88	7.607	PV T	8.50e-3	63.87352	125.24944	0.04068
89	7.653	PV T	0.0340	1326.48755	471.12427	0.84477
90	7.700	PV T	0.0258	208.52882	134.46271	0.13280
91	7.743	PV T	5.57e-3	33.80729	82.65062	0.02153
92	7.753	PV T	7.00e-3	56.43036	113.47713	0.03594
93	7.759	PV T	3.52e-3	21.53906	102.12078	0.01372
94	7.765	PP T	8.57e-3	83.05421	121.53255	0.05289
95	7.791	PP T	3.40e-3	12.21859	47.50150	0.00778

Totals : 1.57023e5 3.75081e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.336	BP	0.0224	123.85738	80.48795	4.38412
2	5.512	BV	0.0276	329.29553	174.27002	11.65590
3	5.556	VV	0.0176	227.45377	183.67212	8.05106
4	5.576	VV	0.0153	124.54440	119.90103	4.40843
5	5.621	VV	0.0260	179.61720	84.52409	6.35782
6	5.659	VV	0.0212	177.10410	120.36522	6.26886
7	5.695	VV	0.0303	284.73129	126.15484	10.07849
8	5.751	VV	0.0359	376.91675	136.29478	13.34153
9	5.821	VV	0.0292	224.90102	104.25183	7.96071
10	5.861	VV	0.0283	435.32761	208.86096	15.40907
11	5.938	VB	0.0335	292.02774	115.33527	10.33676
12	6.130	PP	0.0215	49.36262	34.47848	1.74726

Totals : 2825.13941 1488.59660

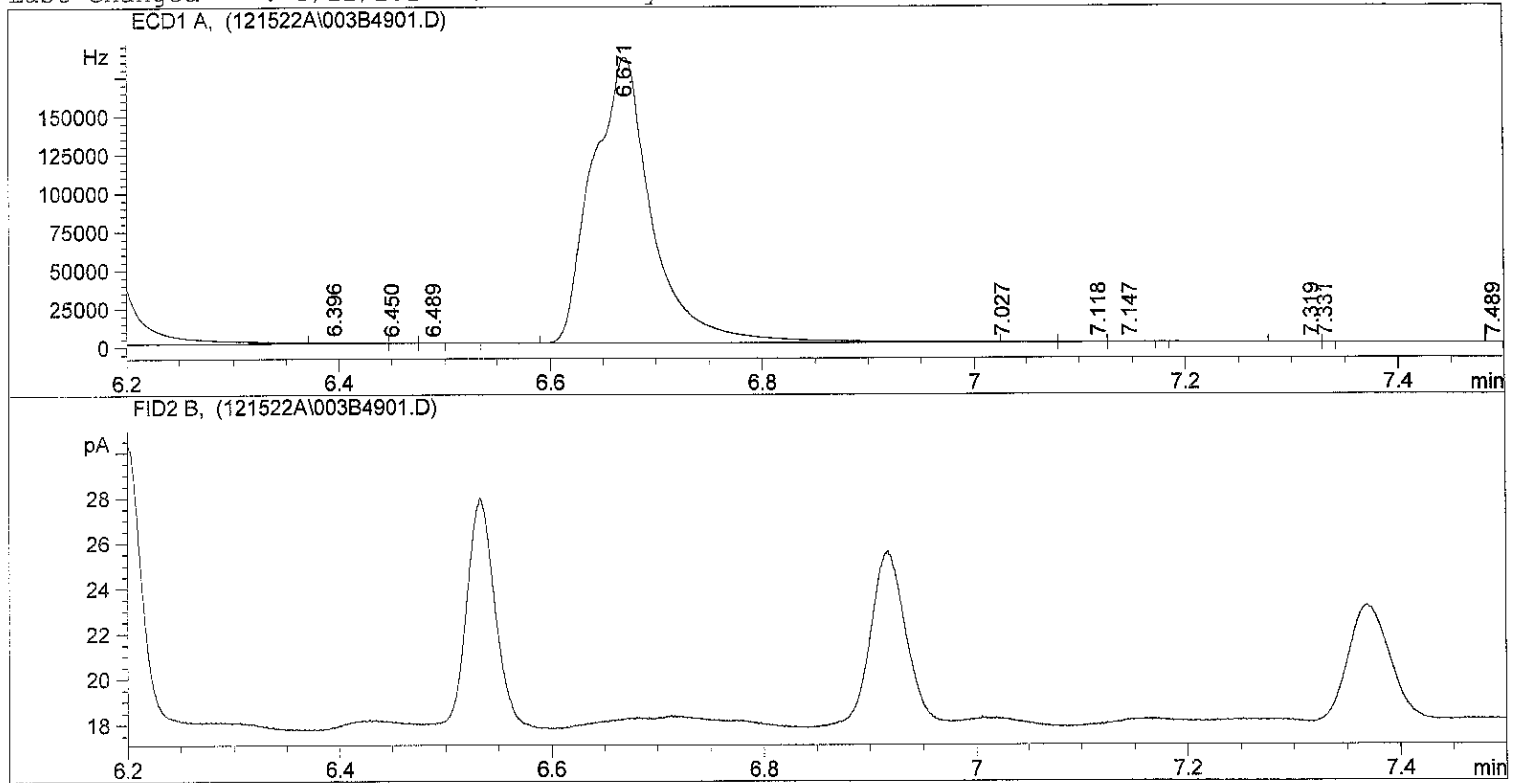
Results obtained with enhanced integrator!

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 \*\*\* End of Report \*\*\*

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Injection Date : 12/15/2022 11:39:55 PM   Seq. Line : 49
Sample Name    : CS4                       Location  : Vial 3
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume : 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\121522A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

```

Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.291	BP	0.0148	801.41156	866.53894	0.02439
2	5.350	BP	0.0125	34.69974	34.49135	0.00106
3	5.399	VP	0.0195	131.88214	83.15037	0.00401
4	5.498	VV S	0.0332	5.17815e5	2.21784e5	15.75598
5	5.595	VV S	0.0433	7.59564e5	2.92168e5	23.11188
6	5.658	VV S	0.0329	2.49146e5	1.26132e5	7.58097
7	5.705	VV S	0.0445	2.74154e5	1.02647e5	8.34191
8	5.851	VV S	0.0446	5537.81787	2069.60840	0.16850
9	5.947	VV S	0.0329	2.82433e5	1.43259e5	8.59383
10	6.097	VV S	0.0332	2.16749e5	1.08878e5	6.59519
11	6.177	VB S	0.0385	2.55077e5	1.10445e5	7.76144
12	6.396	BV T	0.0223	337.15887	185.04619	0.01026
13	6.450	PV T	8.17e-3	10.80930	22.05277	0.00033
14	6.489	PB T	9.83e-3	17.59789	23.24156	0.00054
15	6.671	PB S	0.0508	7.23873e5	1.85385e5	22.02587
16	7.027	BV T	0.0202	99.20989	81.70483	0.00302
17	7.118	PV T	0.0209	67.17702	38.57832	0.00204

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	7.147	PB T	0.0204	116.46187	68.52201	0.00354
19	7.319	PV	0.0179	82.29376	55.42694	0.00250
20	7.331	VB	6.29e-3	18.40429	39.12970	0.00056
21	7.489	BB	4.37e-3	2.76632	10.88150	8.417e-5
22	7.628	PV	0.0294	376.94357	153.75043	0.01147
23	7.753	PP	0.0104	10.89455	12.93486	0.00033
24	7.789	VP	9.02e-3	9.48884	14.15771	0.00029

Totals :                           3.28646e6  1.29446e6

Results obtained with enhanced integrator!

Signal 2: FID2 B,

=====  
\*\*\* End of Report \*\*\*



## CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CLA0007

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BKL0420-BLK1	23020723	12/29/2022	
LDW22-IT808B	22L0307-30	23020728	12/29/2022	
LDW22-IT808C	22L0307-31	23020729	12/29/2022	
LDW22-IT808D	22L0307-32	23020730	12/29/2022	
Reference	BKL0420-SRM1	23020725	12/29/2022	
Duplicate	BKL0420-DUP1	23020726	12/29/2022	
LDW22-IT808E	22L0307-33	23020731	12/29/2022	
LDW22-IT808F	22L0307-34	23020732	12/29/2022	
LDW22-IT808A	22L0307-29	23020727	12/29/2022	
LCS	BKL0420-BS1	23020724	12/29/2022	



### CLEANUP BENCH SHEET

CLA0007

Matrix: Solid

Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 1/3/2023 10:34:19AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0307-29	A	LDW22-IT808A	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0307-29	A	LDW22-IT808A	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0307-30	A	LDW22-IT808B	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0307-31	A	LDW22-IT808C	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0307-32	A	LDW22-IT808D	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0307-33	A	LDW22-IT808E	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0307-34	A	LDW22-IT808F	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	1613B Dioxin	12/29/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-02	A	RM10W-ST03-221208	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-03	A	RM10W-ST04-221207	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-04	A	RM10W-ST05-221207	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-05	A	RM10W-ST06-221207	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-06	A	RM10W-ST07-221207	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-07	A	RM10W-ST08-221207	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
22L0312-08	A	RM10W-FD18	A 01	20	20	8290 Dioxin	12/29/2022	DxP	
BKL0420-BLK1	-	Blank	-	20	20	-	12/29/2022	DxP	
BKL0420-BS1	-	LCS	-	20	20	-	12/29/2022	DxP	
BKL0420-DUP1	-	Duplicate	-	20	20	-	12/29/2022	DxP	
BKL0420-DUP2	-	Duplicate	-	20	20	-	12/29/2022	DxP	
BKL0420-SRM1	-	Reference	-	20	20	-	12/29/2022	DxP	



## CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CLA0008

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-IT808E	22L0307-33	23020731	12/30/2022	
LDW22-IT808F	22L0307-34	23020732	12/30/2022	
LDW22-IT808C	22L0307-31	23020729	12/30/2022	
LDW22-IT808B	22L0307-30	23020728	12/30/2022	
LDW22-IT808A	22L0307-29	23020727	12/30/2022	
LDW22-IT808D	22L0307-32	23020730	12/30/2022	
Reference	BKL0420-SRM1	23020725	12/30/2022	
LCS	BKL0420-BS1	23020724	12/30/2022	
Blank	BKL0420-BLK1	23020723	12/30/2022	
Duplicate	BKL0420-DUP1	23020726	12/30/2022	





## CLEANUP BENCH SHEET

CLA0008

Matrix: Solid

Cleanup using: HRGCMS - EPA 3660C Silica Gel Cleanup - uL

Printed: 1/3/2023 10:35:50AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0307-29	A	LDW22-IT808A	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0307-29	A	LDW22-IT808A	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-30	A	LDW22-IT808B	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-31	A	LDW22-IT808C	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-32	A	LDW22-IT808D	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-33	A	LDW22-IT808E	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-34	A	LDW22-IT808F	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-02	A	RM10W-ST03-221208	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-03	A	RM10W-ST04-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-04	A	RM10W-ST05-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-05	A	RM10W-ST06-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-06	A	RM10W-ST07-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-07	A	RM10W-ST08-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-08	A	RM10W-FD18	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
BKL0420-BLK1	-	Blank	-	20	20	-	12/30/2022	DxP	
BKL0420-BS1	-	LCS	-	20	20	-	12/30/2022	DxP	
BKL0420-DUP1	-	Duplicate	-	20	20	-	12/30/2022	DxP	
BKL0420-DUP2	-	Duplicate	-	20	20	-	12/30/2022	DxP	
BKL0420-SRM1	-	Reference	-	20	20	-	12/30/2022	DxP	



## CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CLA0009

Cleanup Type: Florisil

Cleanup Method: EPA 3620B Florisil Cleanup (uL)

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-IT808B	22L0307-30	23020728	12/30/2022	
LCS	BKL0420-BS1	23020724	12/30/2022	
Duplicate	BKL0420-DUP1	23020726	12/30/2022	
Blank	BKL0420-BLK1	23020723	12/30/2022	
LDW22-IT808F	22L0307-34	23020732	12/30/2022	
LDW22-IT808E	22L0307-33	23020731	12/30/2022	
Reference	BKL0420-SRM1	23020725	12/30/2022	
LDW22-IT808C	22L0307-31	23020729	12/30/2022	
LDW22-IT808A	22L0307-29	23020727	12/30/2022	
LDW22-IT808D	22L0307-32	23020730	12/30/2022	



### CLEANUP BENCH SHEET

CLA0009

Matrix: Solid      Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)      Check Standard: CKK0015-FLO1      Printed: 1/3/2023 10:36:48AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0307-29	A	LDW22-IT808A	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0307-29	A	LDW22-IT808A	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-30	A	LDW22-IT808B	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-31	A	LDW22-IT808C	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-32	A	LDW22-IT808D	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-33	A	LDW22-IT808E	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0307-34	A	LDW22-IT808F	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	1613B Dioxin	12/30/2022	DxP	
22L0312-01	A	RM10W-ST01-221208	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-02	A	RM10W-ST03-221208	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-03	A	RM10W-ST04-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-04	A	RM10W-ST05-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-05	A	RM10W-ST06-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-06	A	RM10W-ST07-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-07	A	RM10W-ST08-221207	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
22L0312-08	A	RM10W-FD18	A 01	20	20	8290 Dioxin	12/30/2022	DxP	
BKL0420-BLK1	-	Blank	-	20	20	-	12/30/2022	DxP	
BKL0420-BS1	-	LCS	-	20	20	-	12/30/2022	DxP	
BKL0420-DUP1	-	Duplicate	-	20	20	-	12/30/2022	DxP	
BKL0420-DUP2	-	Duplicate	-	20	20	-	12/30/2022	DxP	
BKL0420-SRM1	-	Reference	-	20	20	-	12/30/2022	DxP	



**Blank**

**Form 1**  
**METHOD BLANK DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	Solid	Laboratory ID:	<u>BKL0420-BLK1</u>
Sampled:	<u>N/A</u>	File ID:	<u>23020723</u>
Solids Wt%:		Prepared:	<u>12/27/22 14:20</u>
Result Basis:	<u>Dry</u>	Analyzed:	<u>02/08/23 03:21</u>
Batch:	<u>BKL0420</u>	Preparation:	<u>EPA 8290</u>
		Initial/Final:	<u>10.02 g / 20 uL</u>
		Sequence:	<u>SLB0072</u>
		Calibration:	<u>GB00010</u>
		Instrument:	<u>AUTOSPEC01</u>
		Column:	<u>RTX-Dioxin2</u>

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.092	0.998	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.084	0.998	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.120	0.998	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.119	0.998	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.123	0.998	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.069	0.998	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.095	1.054-1.426	0.062	0.998	0.0605	ng/kg	J
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.067	0.998	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.080	0.998	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.108	0.998	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.107	0.998	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.110	0.998	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.000	0.893-1.208	0.096	0.998	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.134	0.998	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.564	0.893-1.208	0.105	2.50	0.156	ng/kg	EMPC, J
39001-02-0	OCDF	1	0.930	0.757-1.024	0.176	2.50	0.338	ng/kg	J
3268-87-9	OCDD	1	0.856	0.757-1.024	0.192	9.98	1.20	ng/kg	J

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.998	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.998	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.998	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.998	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.998	0.0605	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.998	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.998	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.998	ND	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC):	0.008
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC):	0.164



Blank

**Form 2**  
**METHOD BLANK DATA SHEET**  
**EPA 1613B**  
**Dioxins/Furans by HRGC/HRMS**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	Solid	Laboratory ID:	<u>BKL0420-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>12/27/22 14:20</u>
Solids Wt%:	<u>0.00</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0072</u>
Batch:	<u>BKL0420</u>	Instrument:	<u>AUTOSPEC01</u>
		Column:	<u>RTX-Dioxin2</u>
		File ID:	<u>23020723</u>
		Analyzed:	<u>02/08/23 03:21</u>
		Initial/Final:	<u>10.02 g / 20 uL</u>
		Calibration:	<u>GB00010</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF	1	0.773	0.655-0.886	0.13	97.6	24 - 169 %	
13C12-2,3,7,8-TCDD	1	0.776	0.655-0.886	0.21	113	25 - 164 %	
13C12-1,2,3,7,8-PeCDF	1	1.480	1.318-1.783	0.22	101	24 - 185 %	
13C12-2,3,4,7,8-PeCDF	1	1.528	1.318-1.783	0.23	97.3	21 - 178 %	
13C12-1,2,3,7,8-PeCDD	1	1.592	1.318-1.783	0.15	108	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF	1	0.515	0.434-0.587	0.29	104	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF	1	0.511	0.434-0.587	0.28	106	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF	1	0.513	0.434-0.587	0.30	101	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF	1	0.509	0.434-0.587	0.32	96.4	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD	1	1.299	1.054-1.426	0.22	113	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD	1	1.252	1.054-1.426	0.21	115	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF	1	0.460	0.374-0.506	0.25	89.3	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF	1	0.445	0.374-0.506	0.29	90.3	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD	1	1.108	0.893-1.208	0.22	98.9	23 - 140 %	
13C12-OCDD	1	0.899	0.757-1.024	0.26	87.3	17 - 157 %	
37Cl4-2,3,7,8-TCDD	1	328.000		0.07	98.4	35 - 197 %	

\* Values outside of QC limits

**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** BKL0420-BLK1, **Name:** 23020723, **Date:** 08-Feb-2023, **Time:** 03:21:03, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	683	766								
12378-PeCDF					0.845		1.550	737	910								
23478-PeCDF					0.911		1.550	737	910								
123478-HxCDF					1.182		1.240	576	497								
234678-HxCDF					1.229		1.240	576	497								
123678-HxCDF	35.140	1.001	1.040e2	9.494e1	1.248	1.095	1.240	576	497	1.93e3	2.36e3	3.4	4.7	NO	bb	bb	0.030
123789-HxCDF					1.187		1.240	576	497								
1234678-HpCDF					1.204		1.050	644	700								
1234789-HpCDF					1.165		1.050	644	700								
OCDF	45.367	1.005	3.059e2	3.290e2	1.186	0.930	0.890	686	622	5.05e3	5.38e3	7.4	8.7	NO	bb	bb	0.169
2378-TCDD					1.236		0.770	777	616								
12378-PeCDD					1.087		1.550	788	612								
123478-HxCDD					0.987		1.240	719	741								
123678-HxCDD					1.021		1.240	719	741								
123789-HxCDD					0.985		1.240	719	741								
1234678-HpCDD	40.388	1.001	2.114e2	1.352e2	1.253	1.564	1.050	609	545	2.84e3	3.10e3	4.7	5.7	YES	bb	bb	0.078
OCDD	45.138	1.000	9.676e2	1.130e3	1.103	0.856	0.890	736	589	1.17e4	1.24e4	15.9	21.1	NO	bb	MM	0.602
13C-2378-TCDF	25.867	1.007	3.176e5	4.110e5	1.768	0.773	0.770	1546	929	4.70e6	6.17e6	3041.9	6637.6	NO	bb	bb	97.586
13C-12378-PeCDF	30.027	1.169	3.885e5	2.626e5	1.527	1.480	1.550	1480	2233	5.80e6	3.85e6	3915.1	1722.7	NO	bb	bd	100.963
13C-23478-PeCDF	31.364	1.221	3.641e5	2.384e5	1.466	1.528	1.550	1480	2233	5.51e6	3.62e6	3724.4	1620.9	NO	bb	bb	97.308
13C-123478-HxCDF	34.973	0.956	1.713e5	3.328e5	1.054	0.515	0.510	1187	2541	2.69e6	5.31e6	2261.8	2088.7	NO	bd	bd	104.199
13C-123678-HxCDF	35.118	0.960	1.778e5	3.482e5	1.080	0.511	0.510	1187	2541	2.81e6	5.43e6	2366.0	2135.9	NO	db	db	106.058
13C-234678-HxCDF	35.976	0.983	1.602e5	3.121e5	1.014	0.513	0.510	1187	2541	2.64e6	5.20e6	2221.7	2047.7	NO	bb	bb	101.396
13C-123789-HxCDF	37.001	1.011	1.385e5	2.722e5	0.928	0.509	0.510	1187	2541	2.29e6	4.54e6	1928.0	1787.7	NO	bb	bb	96.392
13C-1234678-HpCDF	38.850	1.062	1.338e5	2.908e5	1.036	0.460	0.440	1160	2106	2.19e6	4.88e6	1885.3	2314.8	NO	bd	bb	89.254
13C-1234789-HpCDF	41.089	1.123	1.155e5	2.597e5	0.905	0.445	0.440	1160	2106	1.58e6	3.61e6	1365.5	1713.5	NO	bd	bd	90.307
13C-1234-TCDD	25.685	0.000	1.843e5	2.380e5	1.000	0.775	0.770	1542	1024	2.89e6	3.68e6	1872.4	3597.9	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.032	2.293e5	2.954e5	1.103	0.776	0.770	1542	1024	3.49e6	4.45e6	2264.0	4342.9	NO	bb	bb	112.639
13C-12378-PeCDD	31.608	1.231	2.557e5	1.606e5	0.914	1.592	1.550	769	741	3.87e6	2.45e6	5033.7	3304.3	NO	bb	bd	107.825
13C-123478-HxCDD	36.087	0.986	2.728e5	2.100e5	0.933	1.299	1.240	1349	1151	4.61e6	3.53e6	3419.1	3066.7	NO	bd	bd	112.711
13C-123678-HxCDD	36.199	0.989	2.825e5	2.257e5	0.965	1.252	1.240	1349	1151	4.46e6	3.57e6	3303.5	3105.4	NO	db	db	114.748
13C-1234678-HpCDD	40.343	1.103	1.867e5	1.685e5	0.782	1.108	1.050	803	1298	2.76e6	2.57e6	3434.9	1978.1	NO	bd	bb	98.902
13C-OCDD	45.120	1.233	2.991e5	3.326e5	0.788	0.899	0.890	1292	1254	3.55e6	3.94e6	2748.1	3140.3	NO	bb	bb	174.523
13C-123789-HxCDD	36.589	0.000	2.581e5	2.010e5	1.000	1.284	1.240	1349	1151	4.18e6	3.32e6	3097.2	2885.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	2.050e5		1.233			997		3.16e6		3169.6			bb		39.357

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	683	766								
1289-TCDF					0.858		0.770	683	766								
13468-PECDF					1.013		1.550	689	937								
12389-PECDF					0.844		1.550	737	910								
123468-HXCDF					1.197		1.240	576	497								
1368-TCDD					1.084		0.770	777	616								
1289-TCDD					0.975		0.770	777	616								
12479-PECDD					1.837		1.550	788	612								
12389-PECDD					1.252		1.550	788	612								
124679-HXCDD					1.033		1.240	719	741								
1234679-HPCDD					1.286		1.050	609	545								
Total-tetrafurans			0.000e0		0.933			683		0.00e0							
Total-penta1			0.000e0					689		0.00e0							
Total-pentafurans			0.000e0		0.866			737		0.00e0							
Total-hexafurans			1.040e2		1.208			576		1.93e3							0.030
Total-heptafurans			0.000e0		1.185			644		0.00e0							
Total-Furans			4.099e2		1.067			683		6.99e3							0.200
Total-tetradoxins			0.000e0		1.099			777		0.00e0							
Total-pentadoxins			0.000e0		1.392			788		0.00e0							
Total-hexadoxins			0.000e0		1.007			719		0.00e0							
Total-heptadoxins			0.000e0		1.269			609		0.00e0							
Total-Dioxins			9.676e2		1.165			777		1.17e4							0.602
Total-TEQ			1.377e3					777		1.87e4							0.802
FUNCTION1 PFK			1.236e6					513706		2.50e7							
FUNCTION2 PFK			4.335e5					221908		1.05e7							0.000
FUNCTION3 PFK			4.834e5					229201		1.33e7							0.000
FUNCTION4 PFK			1.800e5					157754		5.21e6							
FUNCTION5 PFK			7.029e3					92978		3.40e5							
FUNCTION1 HXCD...			4.043e2					516		6.14e3							0.000
FUNCTION1 HPCD...			9.045e1					483		1.32e3							0.000
FUNCTION2 HPCD...			8.550e1					639		1.00e3							0.000
FUNCTION3 OCDPE			7.715e1					486		1.42e3							0.000
FUNCTION4 NCDPE			2.387e2					705		4.03e3							0.000
FUNCTION5 DCDPE			0.000e0					486		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.14	1.040e2	9.494e1	1.248	1.09	1.24	3.4	YES	NO	bb	bb	0.030

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.14	1.040e2	9.494e1	1.248	1.09	1.24	3.4	YES	NO	bb	bb	0.030
2	OCDF	45.37	3.059e2	3.290e2	1.186	0.93	0.89	7.4	YES	NO	bb	bb	0.169

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	OCDD	45.14	9.676e2	1.130e3	1.103	0.86	0.89	15.9	YES	NO	bb	MM	0.602

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.14	1.040e2	9.494e1	1.248	1.09	1.24	3.4	YES	NO	bb	bb	0.030
2	OCDF	45.37	3.059e2	3.290e2	1.186	0.93	0.89	7.4	YES	NO	bb	bb	0.169
3	OCDD	45.14	9.676e2	1.130e3	1.103	0.86	0.89	15.9	YES	NO	bb	MM	0.602

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.86	2.009e4					1.1	NO		bd		
2	FUNCTION1 PFK	21.78	1.682e4					1.2	NO		bb		
3	FUNCTION1 PFK	21.72	1.301e4					0.9	NO		bb		
4	FUNCTION1 PFK	21.47	2.821e4					1.5	NO		db		
5	FUNCTION1 PFK	21.33	1.533e5					3.0	NO		bd		
6	FUNCTION1 PFK	21.22	1.707e4					1.1	NO		bb		
7	FUNCTION1 PFK	21.15	4.174e4					1.8	NO		bb		
8	FUNCTION1 PFK	23.40	2.109e4					1.1	NO		bd		
9	FUNCTION1 PFK	23.19	5.600e3					0.6	NO		bb		
10	FUNCTION1 PFK	23.11	1.117e4					0.8	NO		bb		
11	FUNCTION1 PFK	23.05	1.651e4					1.2	NO		bb		
12	FUNCTION1 PFK	22.99	4.854e3					0.6	NO		bb		
13	FUNCTION1 PFK	22.83	3.019e4					0.9	NO		db		
14	FUNCTION1 PFK	22.77	1.340e4					0.9	NO		bd		
15	FUNCTION1 PFK	22.68	1.377e4					0.9	NO		bb		
16	FUNCTION1 PFK	22.57	7.722e3					0.6	NO		bb		
17	FUNCTION1 PFK	22.51	4.935e3					0.6	NO		bb		
18	FUNCTION1 PFK	22.45	1.191e4					0.8	NO		db		
19	FUNCTION1 PFK	22.36	1.855e4					1.1	NO		bd		
20	FUNCTION1 PFK	22.30	1.578e4					1.2	NO		bb		
21	FUNCTION1 PFK	22.22	5.527e4					1.5	NO		db		
22	FUNCTION1 PFK	22.06	6.144e4					1.6	NO		bd		
23	FUNCTION1 PFK	21.98	8.223e4					1.9	NO		db		
24	FUNCTION1 PFK	26.83	2.037e4					0.9	NO		bb		
25	FUNCTION1 PFK	26.52	5.020e3					0.4	NO		bb		
26	FUNCTION1 PFK	26.02	6.083e3					0.5	NO		bb		
27	FUNCTION1 PFK	25.96	1.357e4					0.7	NO		bb		
28	FUNCTION1 PFK	25.62	6.759e3					0.5	NO		bb		
29	FUNCTION1 PFK	25.37	5.793e3					0.7	NO		bb		
30	FUNCTION1 PFK	25.31	5.476e3					0.7	NO		bb		
31	FUNCTION1 PFK	25.07	6.102e4					1.8	NO		bb		
32	FUNCTION1 PFK	24.99	3.014e4					1.6	NO		bb		
33	FUNCTION1 PFK	24.91	3.159e3					0.4	NO		bb		
34	FUNCTION1 PFK	24.28	8.503e3					0.6	NO		bb		
35	FUNCTION1 PFK	24.02	4.158e4					1.5	NO		bb		
36	FUNCTION1 PFK	23.84	8.857e3					0.6	NO		bb		
37	FUNCTION1 PFK	23.76	3.972e4					1.8	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	23.69	3.800e4					1.3	NO		db		
39	FUNCTION1 PFK	23.55	1.076e5					1.8	NO		dd		
40	FUNCTION1 PFK	28.13	3.793e4					1.6	NO		db		
41	FUNCTION1 PFK	28.07	1.925e4					1.0	NO		bd		
42	FUNCTION1 PFK	27.91	6.774e4					1.5	NO		bb		
43	FUNCTION1 PFK	27.76	2.525e4					1.1	NO		bb		
44	FUNCTION1 PFK	27.26	1.999e4					0.6	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.95	4.269e3					0.9	NO		bd		0.000
2	FUNCTION2 PFK	28.82	1.216e4					1.4	NO		db		0.000
3	FUNCTION2 PFK	28.76	1.595e4					1.9	NO		dd		0.000
4	FUNCTION2 PFK	28.68	2.959e4					2.0	NO		dd		0.000
5	FUNCTION2 PFK	28.62	2.381e4					2.4	NO		dd		0.000
6	FUNCTION2 PFK	28.58	3.549e4					2.8	NO		dd		0.000
7	FUNCTION2 PFK	28.44	7.339e4					3.6	YES		bd		0.000
8	FUNCTION2 PFK	28.37	3.569e3					0.9	NO		db		0.000
9	FUNCTION2 PFK	28.33	2.371e4					2.9	NO		dd		0.000
10	FUNCTION2 PFK	28.29	9.946e3					1.5	NO		bd		0.000
11	FUNCTION2 PFK	31.49	1.792e4					2.0	NO		db		0.000
12	FUNCTION2 PFK	31.44	2.263e3					0.5	NO		bd		0.000
13	FUNCTION2 PFK	31.37	1.120e4					1.4	NO		bb		0.000
14	FUNCTION2 PFK	31.24	6.040e3					0.9	NO		bb		0.000
15	FUNCTION2 PFK	30.88	1.614e4					1.4	NO		bb		0.000
16	FUNCTION2 PFK	30.65	4.614e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	30.52	1.116e4					1.4	NO		bb		0.000
18	FUNCTION2 PFK	29.99	5.169e3					1.0	NO		bb		0.000
19	FUNCTION2 PFK	29.59	7.122e3					1.1	NO		db		0.000
20	FUNCTION2 PFK	29.54	4.689e3					0.8	NO		bd		0.000
21	FUNCTION2 PFK	29.49	7.113e3					1.1	NO		db		0.000
22	FUNCTION2 PFK	29.46	3.090e3					0.9	NO		bd		0.000
23	FUNCTION2 PFK	29.37	1.839e4					1.4	NO		bb		0.000
24	FUNCTION2 PFK	29.25	4.402e3					0.6	NO		bb		0.000
25	FUNCTION2 PFK	29.08	7.864e2					0.3	NO		bb		0.000
26	FUNCTION2 PFK	28.98	1.031e4					1.2	NO		db		0.000
27	FUNCTION2 PFK	32.86	3.605e3					0.6	NO		db		0.000
28	FUNCTION2 PFK	32.81	5.103e3					0.8	NO		bd		0.000
29	FUNCTION2 PFK	32.69	1.650e4					1.4	NO		db		0.000
30	FUNCTION2 PFK	32.64	8.273e3					1.2	NO		bd		0.000
31	FUNCTION2 PFK	32.52	2.071e3					0.6	NO		bb		0.000
32	FUNCTION2 PFK	32.37	2.974e3					0.6	NO		bb		0.000
33	FUNCTION2 PFK	32.31	5.284e3					0.7	NO		bb		0.000
34	FUNCTION2 PFK	31.99	1.466e4					1.4	NO		bb		0.000
35	FUNCTION2 PFK	31.93	1.976e3					0.6	NO		bb		0.000
36	FUNCTION2 PFK	31.89	1.336e3					0.5	NO		bb		0.000
37	FUNCTION2 PFK	31.84	7.987e3					1.4	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	31.60	1.386e3					0.6	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.24	3.745e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	33.05	1.527e4					2.1	NO		bb		0.000
3	FUNCTION3 PFK	32.98	1.466e4					2.9	NO		bb		0.000
4	FUNCTION3 PFK	34.55	3.134e3					0.6	NO		bb		0.000
5	FUNCTION3 PFK	34.43	7.162e3					0.9	NO		db		0.000
6	FUNCTION3 PFK	34.39	1.206e4					1.5	NO		dd		0.000
7	FUNCTION3 PFK	34.36	7.119e3					1.3	NO		bd		0.000
8	FUNCTION3 PFK	34.25	2.806e4					1.7	NO		db		0.000
9	FUNCTION3 PFK	34.19	7.826e3					1.0	NO		dd		0.000
10	FUNCTION3 PFK	34.13	2.063e4					1.7	NO		bd		0.000
11	FUNCTION3 PFK	33.89	8.374e3					1.5	NO		db		0.000
12	FUNCTION3 PFK	33.88	7.313e3					1.4	NO		bd		0.000
13	FUNCTION3 PFK	33.76	2.104e4					2.0	NO		bb		0.000
14	FUNCTION3 PFK	33.59	6.326e3					1.1	NO		db		0.000
15	FUNCTION3 PFK	33.56	2.066e4					2.4	NO		bd		0.000
16	FUNCTION3 PFK	33.48	1.648e4					2.4	NO		db		0.000
17	FUNCTION3 PFK	33.42	2.915e4					2.5	NO		dd		0.000
18	FUNCTION3 PFK	33.38	2.464e4					2.7	NO		dd		0.000
19	FUNCTION3 PFK	33.31	3.992e4					2.6	NO		bd		0.000
20	FUNCTION3 PFK	36.34	4.960e3					0.8	NO		bb		0.000
21	FUNCTION3 PFK	36.30	7.400e3					1.0	NO		bb		0.000
22	FUNCTION3 PFK	36.18	7.155e3					1.0	NO		bb		0.000
23	FUNCTION3 PFK	36.12	1.217e3					0.4	NO		bb		0.000
24	FUNCTION3 PFK	36.09	1.093e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	35.98	1.310e3					0.4	NO		bb		0.000
26	FUNCTION3 PFK	35.55	2.834e3					0.5	NO		bb		0.000
27	FUNCTION3 PFK	35.51	3.412e3					0.8	NO		bb		0.000
28	FUNCTION3 PFK	35.43	3.780e3					0.5	NO		bb		0.000
29	FUNCTION3 PFK	35.34	6.070e3					0.9	NO		bb		0.000
30	FUNCTION3 PFK	35.07	9.345e3					1.2	NO		bb		0.000
31	FUNCTION3 PFK	34.97	1.590e4					1.3	NO		db		0.000
32	FUNCTION3 PFK	34.94	5.533e3					1.0	NO		bd		0.000
33	FUNCTION3 PFK	34.86	2.064e3					0.5	NO		bb		0.000
34	FUNCTION3 PFK	34.81	1.128e3					0.3	NO		bb		0.000
35	FUNCTION3 PFK	34.74	1.393e4					1.2	NO		bb		0.000
36	FUNCTION3 PFK	37.72	2.769e3					0.6	NO		bb		0.000
37	FUNCTION3 PFK	37.59	5.896e3					1.0	NO		db		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:41 Pacific Standard Time

**ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	37.54	1.537e4					1.2	NO		bd		0.000
39	FUNCTION3 PFK	37.38	8.880e3					0.8	NO		bb		0.000
40	FUNCTION3 PFK	37.33	1.857e3					0.6	NO		db		0.000
41	FUNCTION3 PFK	37.25	1.791e4					1.2	NO		bd		0.000
42	FUNCTION3 PFK	37.18	7.179e3					0.9	NO		db		0.000
43	FUNCTION3 PFK	37.13	6.951e3					1.0	NO		bd		0.000
44	FUNCTION3 PFK	37.08	6.074e3					0.9	NO		db		0.000
45	FUNCTION3 PFK	37.03	9.363e3					1.0	NO		bd		0.000
46	FUNCTION3 PFK	36.96	5.672e3					1.2	NO		db		0.000
47	FUNCTION3 PFK	36.93	6.482e3					1.2	NO		bd		0.000
48	FUNCTION3 PFK	36.64	4.414e3					0.7	NO		bb		0.000
49	FUNCTION3 PFK	36.47	3.920e3					0.7	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:41 Pacific Standard Time

**ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.08	2.039e4					2.5	NO		bd		
2	FUNCTION4 PFK	40.98	6.180e3					1.4	NO		bd		
3	FUNCTION4 PFK	40.92	2.180e3					0.7	NO		bb		
4	FUNCTION4 PFK	40.68	7.875e2					0.4	NO		bb		
5	FUNCTION4 PFK	40.02	4.803e3					1.2	NO		bb		
6	FUNCTION4 PFK	39.71	6.184e3					1.4	NO		bb		
7	FUNCTION4 PFK	39.56	1.023e3					0.6	NO		bb		
8	FUNCTION4 PFK	39.45	9.276e3					1.6	NO		bb		
9	FUNCTION4 PFK	39.37	5.082e3					1.2	NO		db		
10	FUNCTION4 PFK	39.28	1.967e4					2.1	NO		bd		
11	FUNCTION4 PFK	39.23	5.205e3					1.4	NO		bb		
12	FUNCTION4 PFK	38.82	4.311e3					0.8	NO		bb		
13	FUNCTION4 PFK	38.57	9.600e2					0.5	NO		bb		
14	FUNCTION4 PFK	38.53	6.798e2					0.4	NO		bb		
15	FUNCTION4 PFK	38.46	2.675e3					0.8	NO		bb		
16	FUNCTION4 PFK	38.35	7.398e3					1.5	NO		bb		
17	FUNCTION4 PFK	38.12	2.691e4					3.0	NO		db		
18	FUNCTION4 PFK	42.78	5.217e3					1.2	NO		bb		
19	FUNCTION4 PFK	42.58	2.173e3					0.7	NO		bb		
20	FUNCTION4 PFK	42.54	4.713e3					1.3	NO		bb		
21	FUNCTION4 PFK	42.20	4.343e3					1.1	NO		bb		
22	FUNCTION4 PFK	42.06	6.446e3					1.3	NO		bb		
23	FUNCTION4 PFK	41.81	9.576e3					1.7	NO		db		
24	FUNCTION4 PFK	41.76	8.432e3					1.3	NO		bd		
25	FUNCTION4 PFK	41.67	1.018e4					1.2	NO		bb		
26	FUNCTION4 PFK	41.50	3.112e3					0.7	NO		bb		
27	FUNCTION4 PFK	41.01	2.100e3					0.8	NO		db		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.26	5.812e2					0.7	NO		bb		
2	FUNCTION5 PFK	45.72	3.243e3					1.1	NO		bb		
3	FUNCTION5 PFK	43.16	3.205e3					1.9	NO		bb		



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:41 Pacific Standard Time

**ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	23.11	9.884e1					3.3	YES		bb		0.000
2	FUNCTION1 HXCD...	25.46	7.129e1					1.3	NO		bb		0.000
3	FUNCTION1 HXCD...	25.04	7.139e1					2.0	NO		db		0.000
4	FUNCTION1 HXCD...	24.91	7.212e1					2.8	NO		bd		0.000
5	FUNCTION1 HXCD...	23.83	9.066e1					2.5	NO		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	25.76	9.045e1					2.7	NO		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.14	8.550e1					1.6	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.22	7.715e1					2.9	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.68	7.261e1					2.3	NO		bb		0.000
2	FUNCTION4 NCDPE	40.98	9.425e1					1.5	NO		bb		0.000
3	FUNCTION4 NCDPE	40.58	7.187e1					1.9	NO		bb		0.000

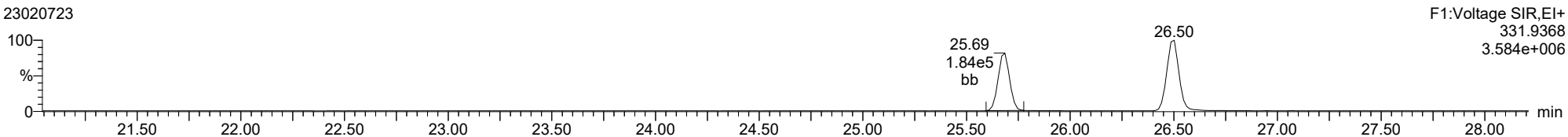
**ETHERS6**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
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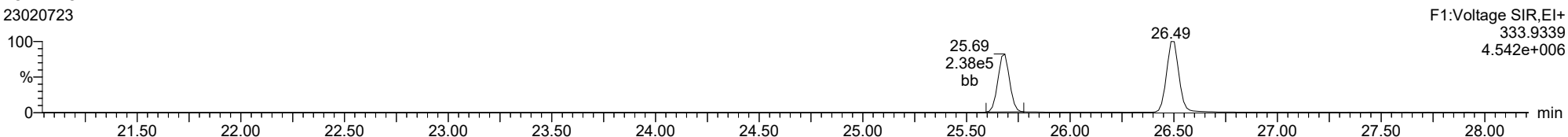
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Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

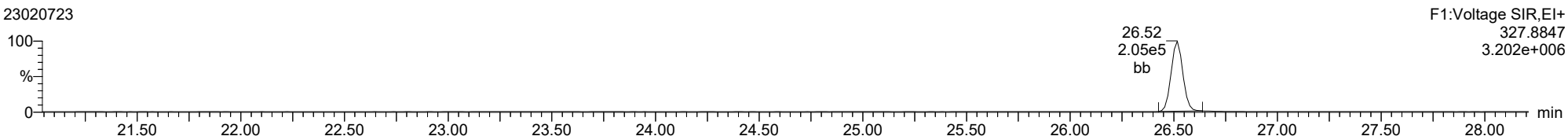
**13C-1234-TCDD**  
23020723



**13C-1234-TCDD**  
23020723



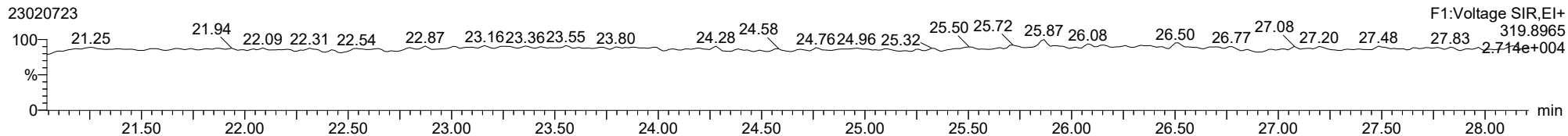
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23020723



ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

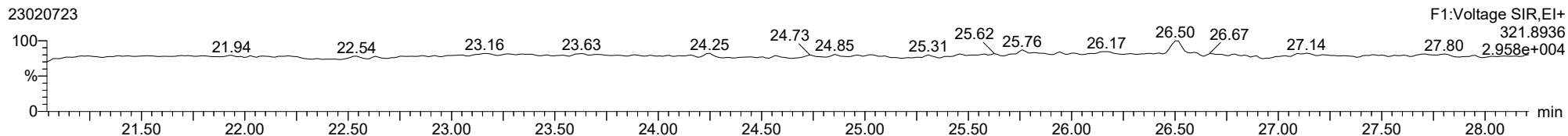
**2378-TCDD**

23020723



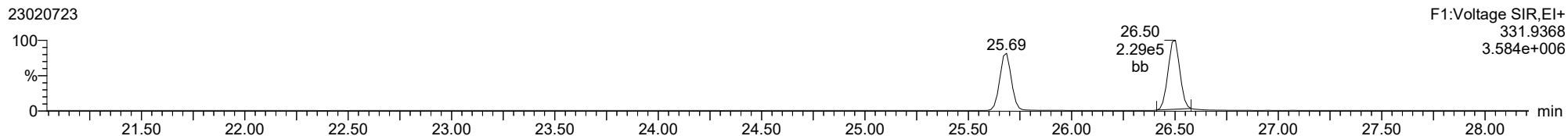
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23020723



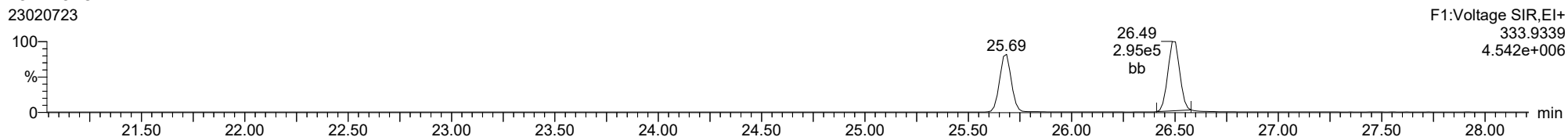
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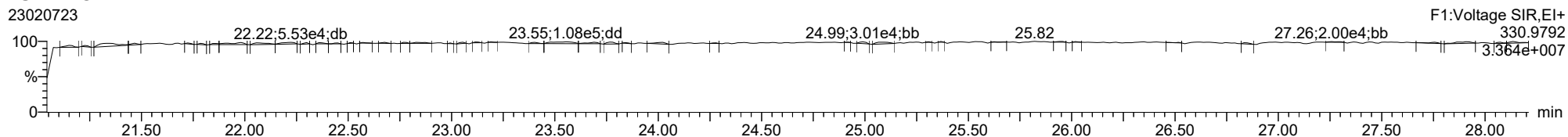
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23020723



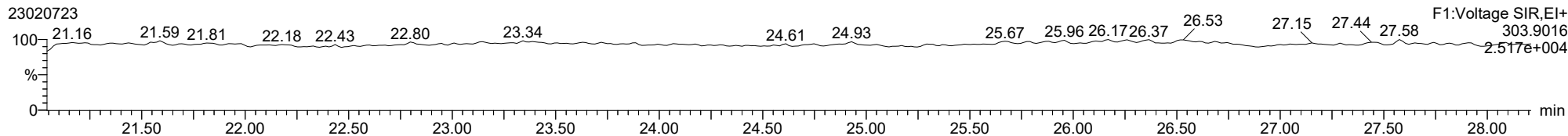
**FUNCTION1 PFK**

23020723

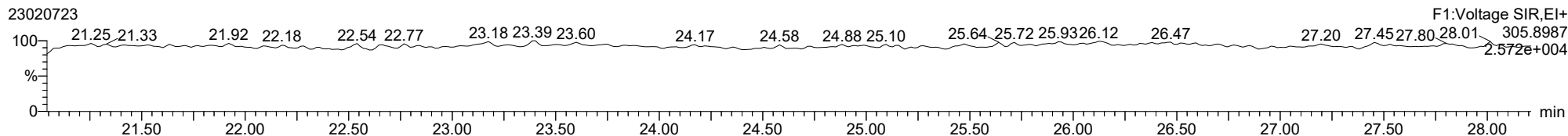


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

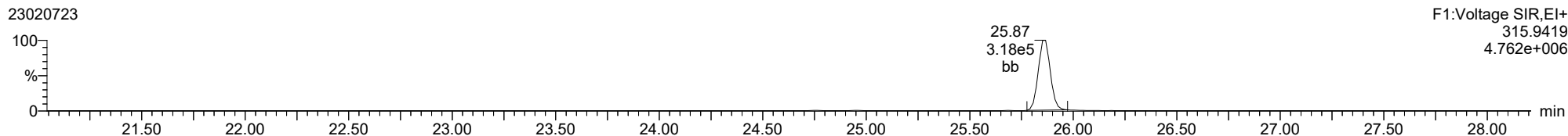
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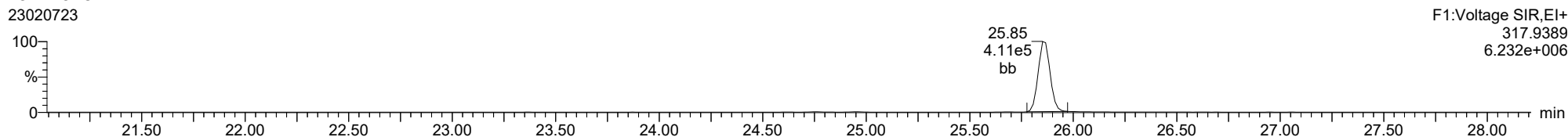
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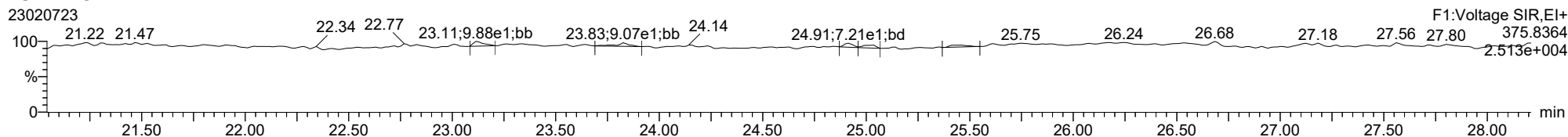
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**13C-2378-TCDF**

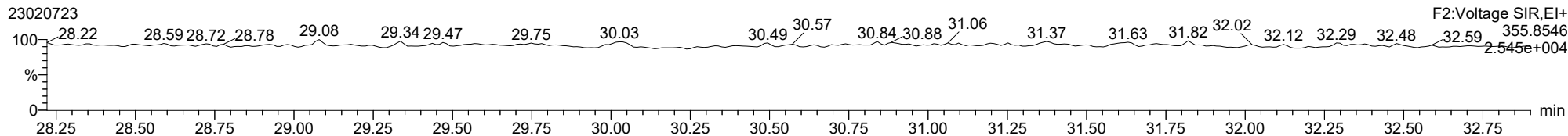


**FUNCTION1 HXCDPE**

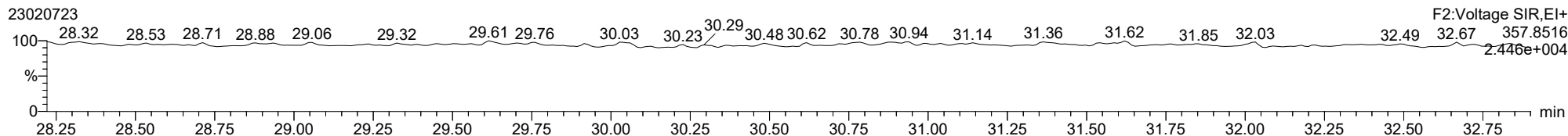


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

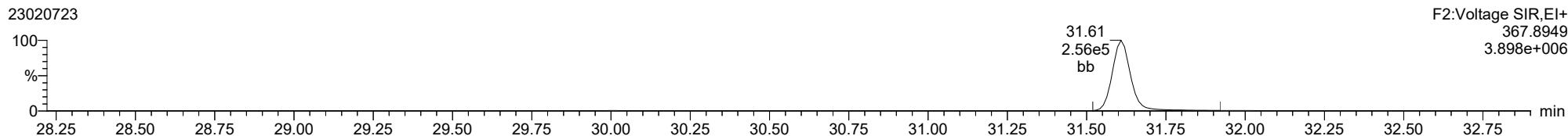
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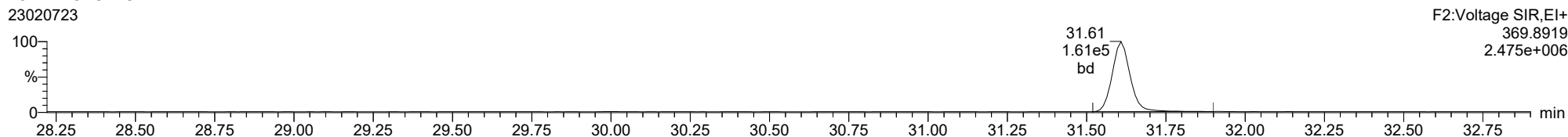
**12378-PeCDD**



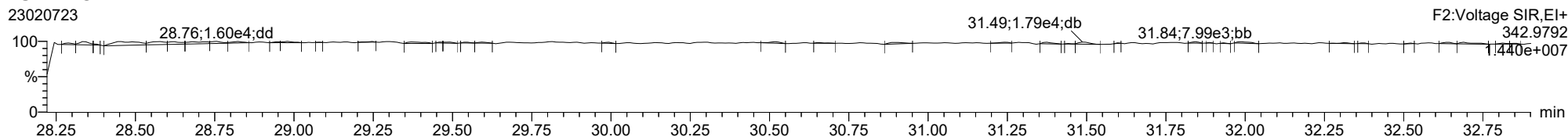
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**13C-12378-PeCDD**

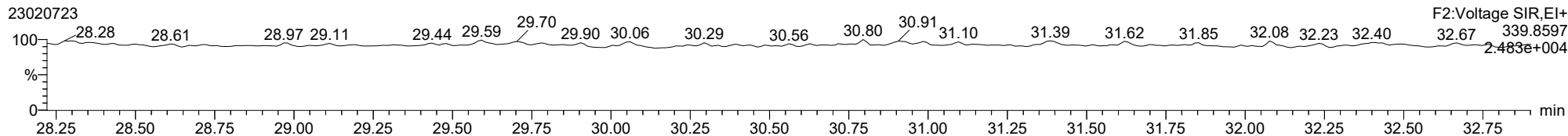


**FUNCTION2 PFK**

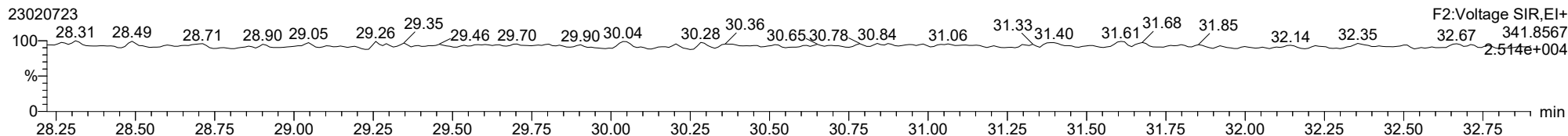


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

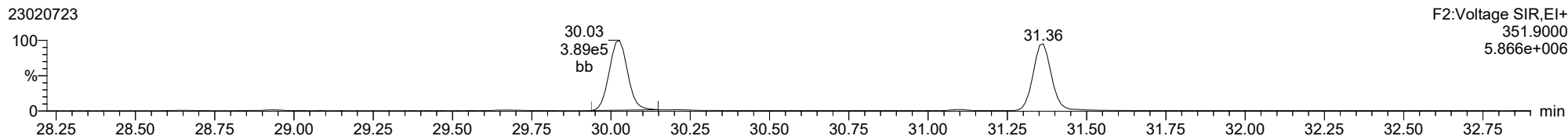
**12378-PeCDF**



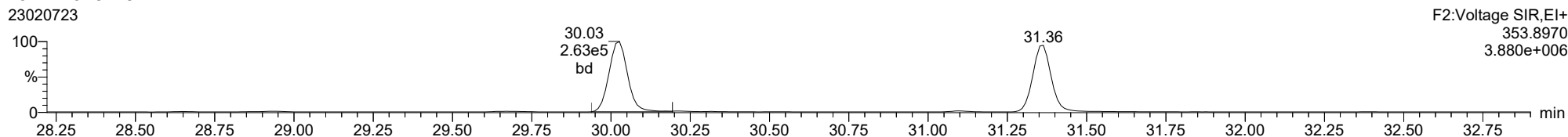
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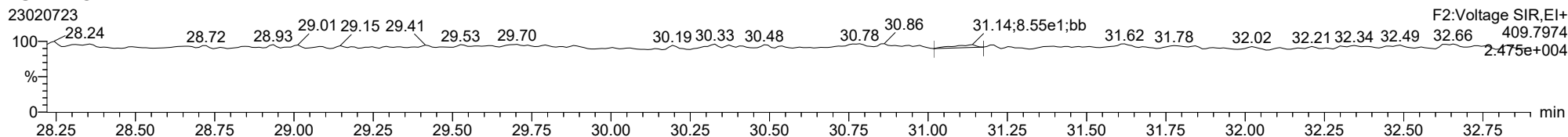
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**13C-12378-PeCDF**

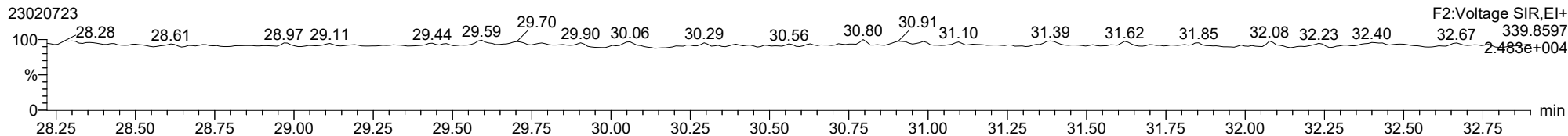


**FUNCTION2 HPCDPE**

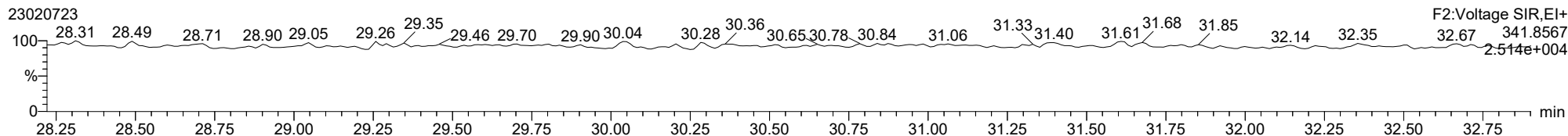


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

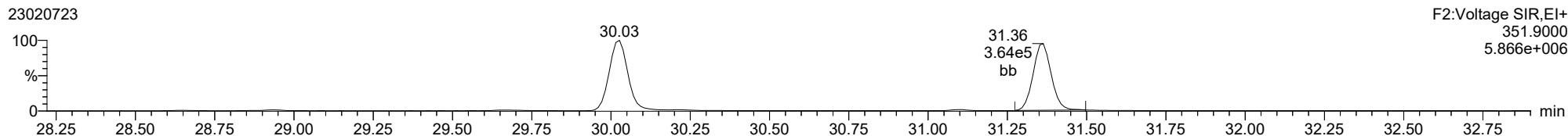
**23478-PeCDF**



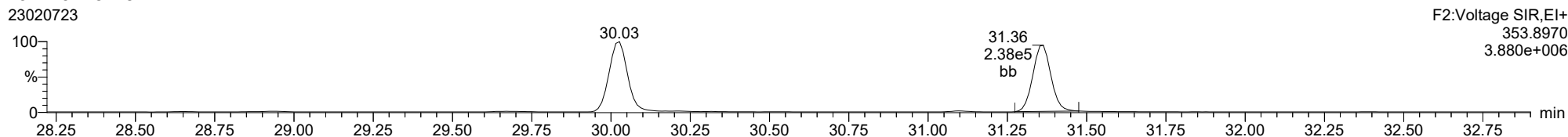
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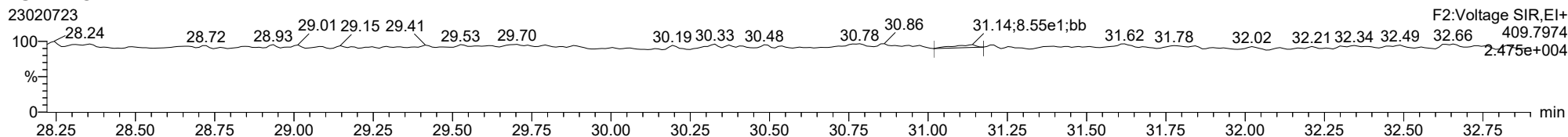
**13C-23478-PeCDF**



**13C-23478-PeCDF**

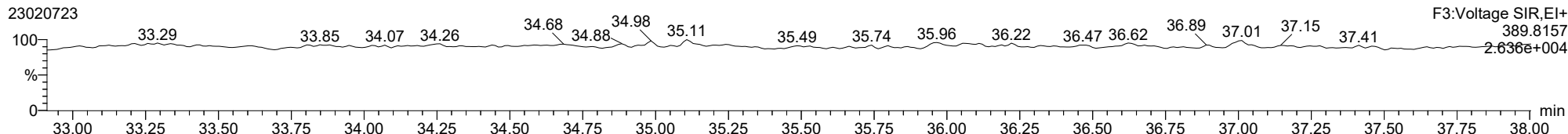


**FUNCTION2 HPCDPE**

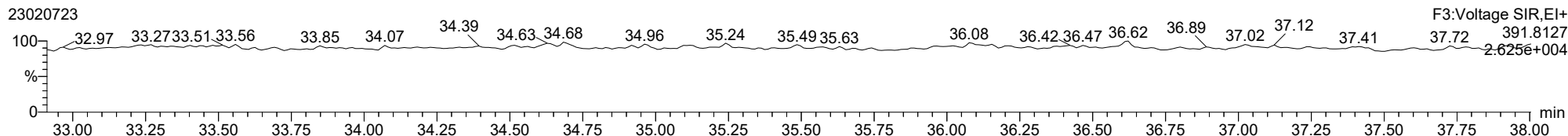


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

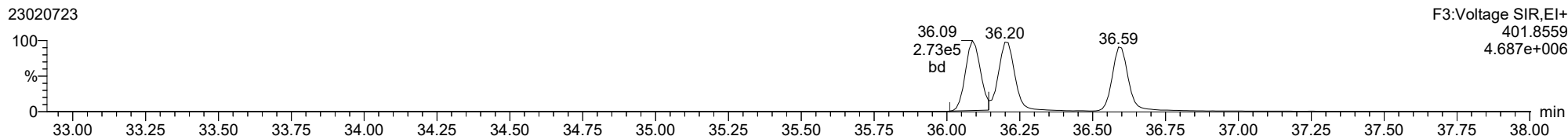
**123478-HxCDD**



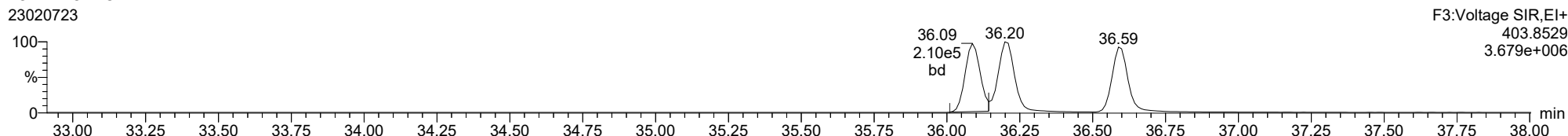
**123478-HxCDD**



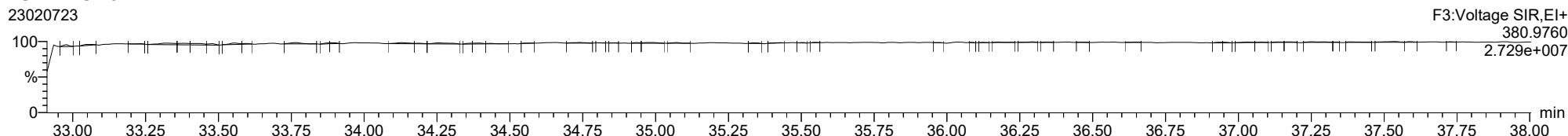
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**13C-123478-HxCDD**



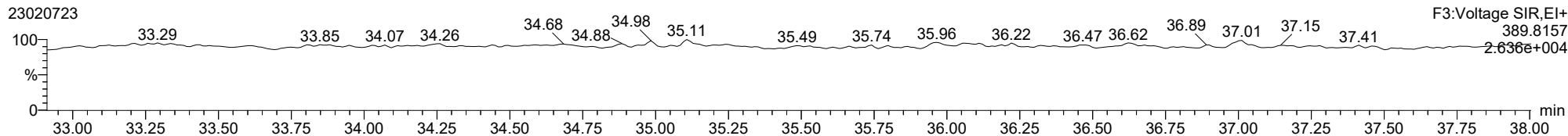
**FUNCTION3 PFK**



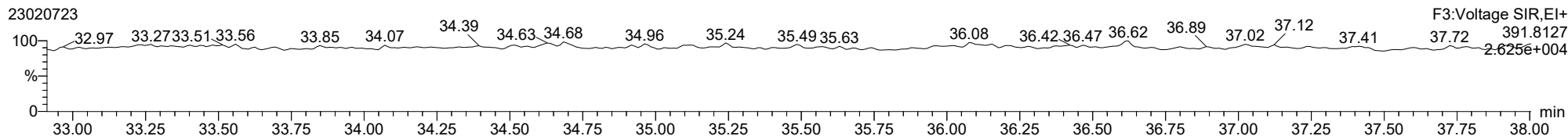


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

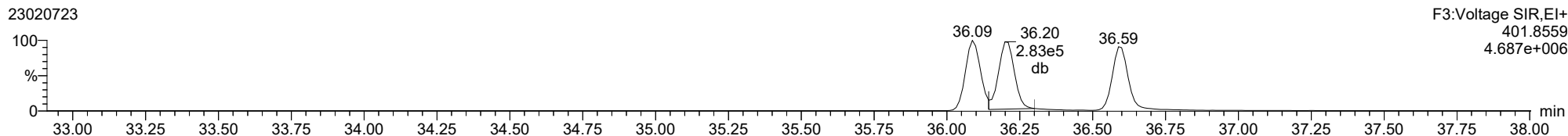
123678-HxCDD



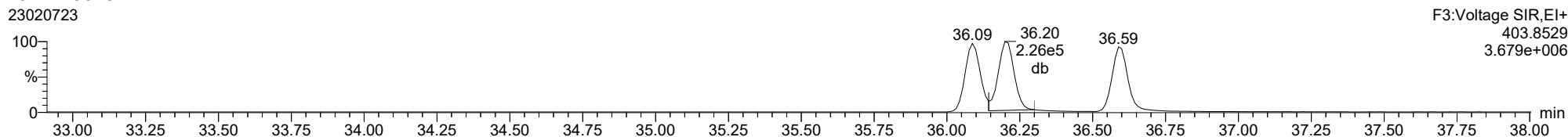
123678-HxCDD



13C-123678-HxCDD

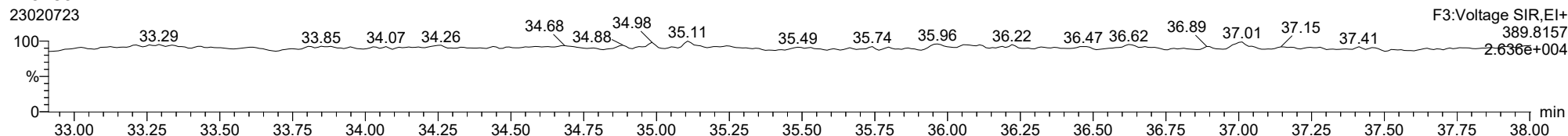


13C-123678-HxCDD

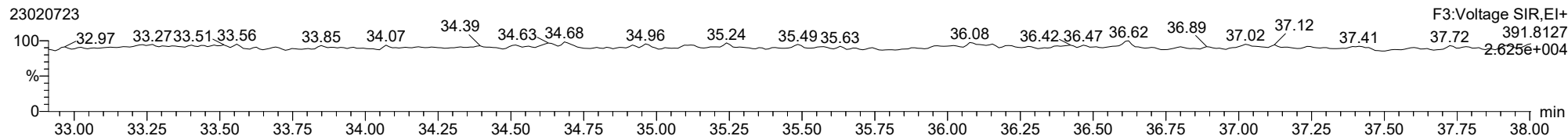


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

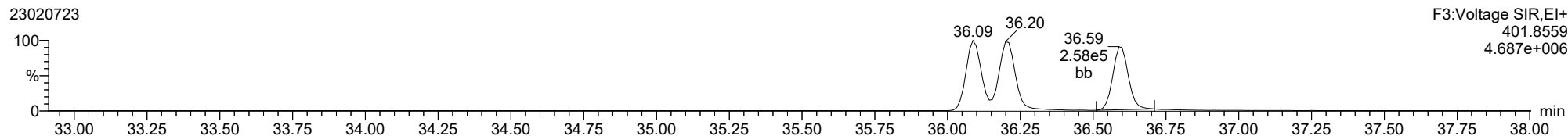
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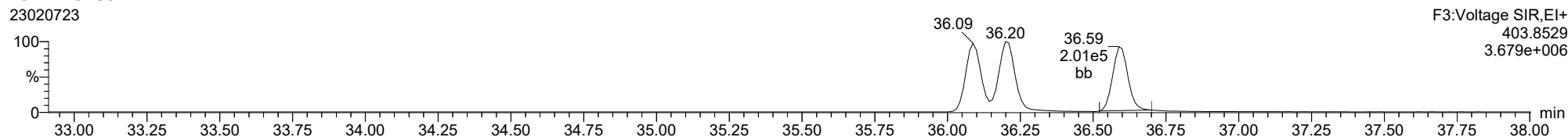
**123789-HxCDD**



**13C-123789-HxCDD**

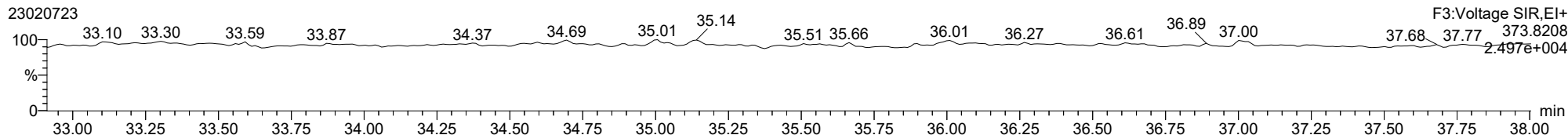


**13C-123789-HxCDD**

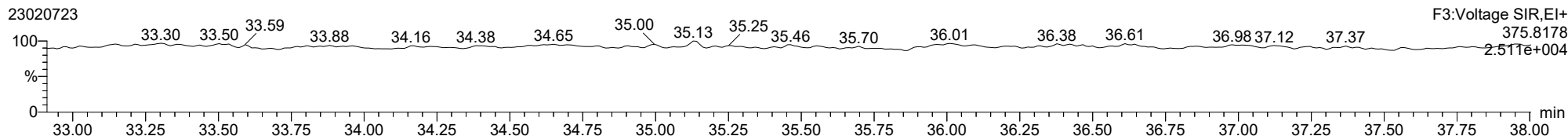


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

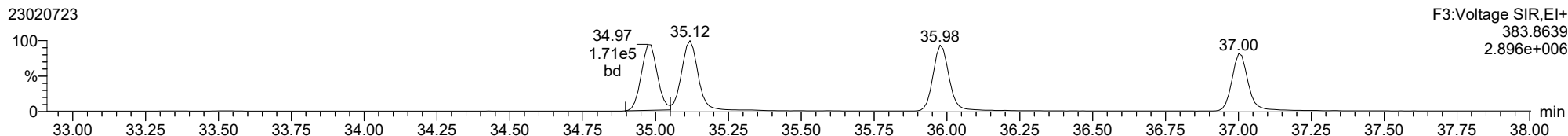
123478-HxCDF



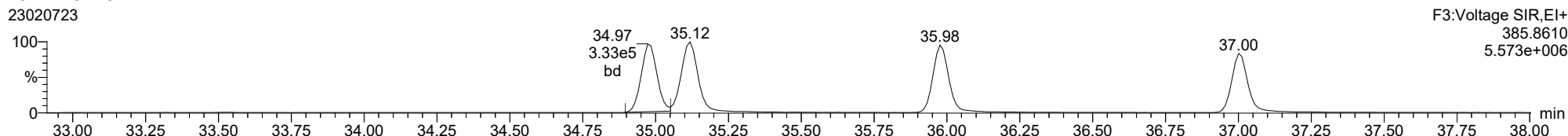
123478-HxCDF



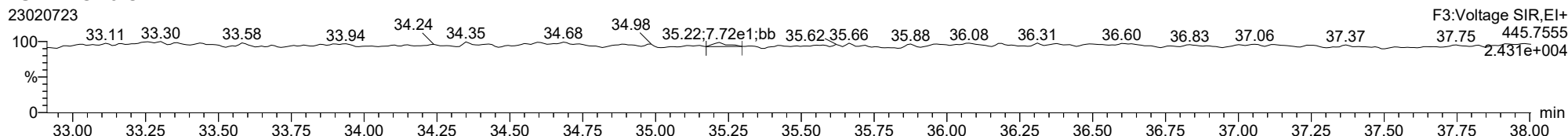
13C-123478-HxCDF



13C-123478-HxCDF

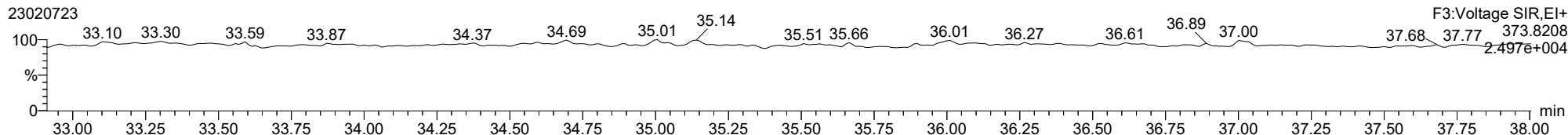


FUNCTION3 OCDPE

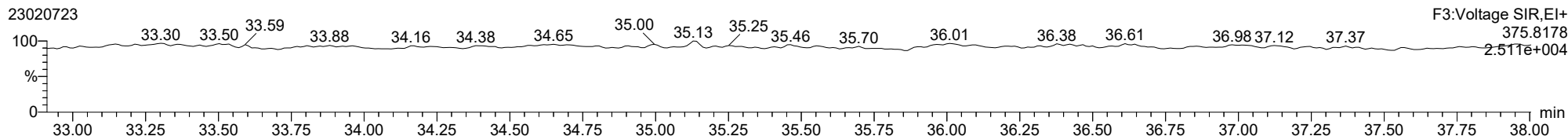


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

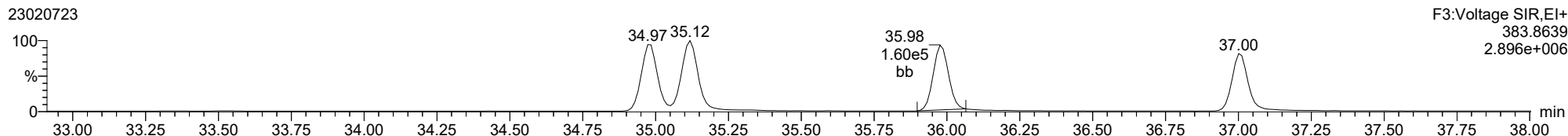
**234678-HxCDF**



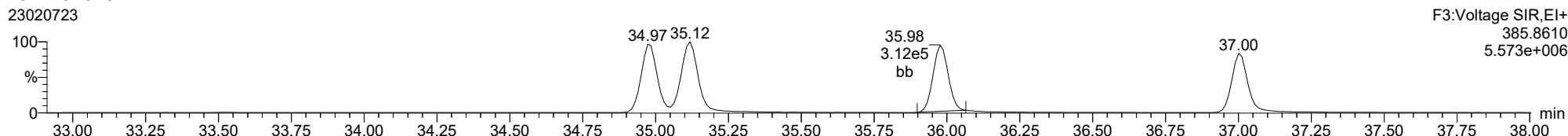
**234678-HxCDF**



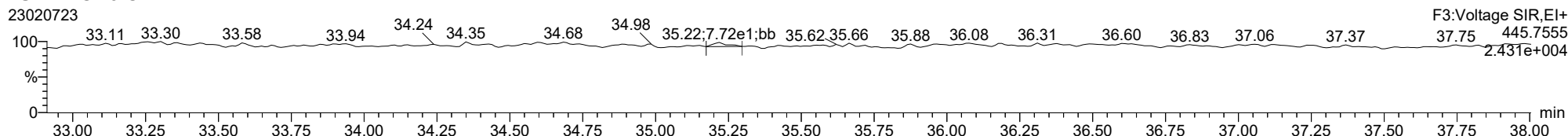
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**13C-234678-HxCDF**

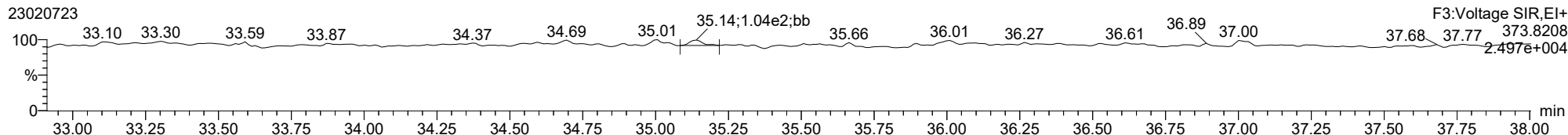


**FUNCTION3 OCDPE**

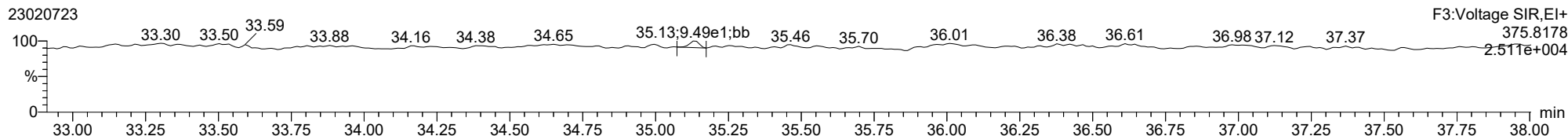


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

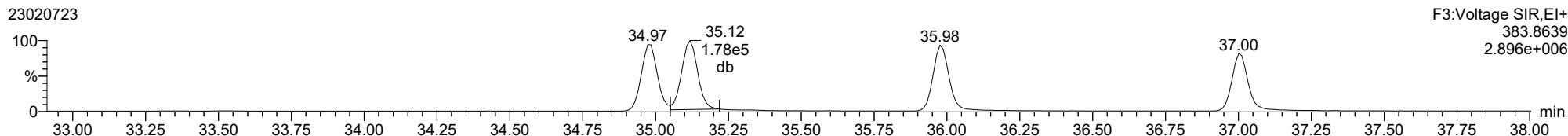
123678-HxCDF



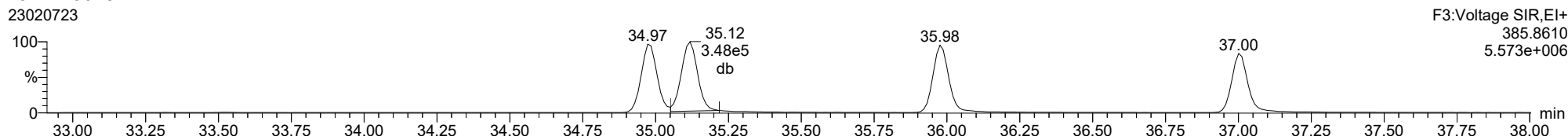
123678-HxCDF



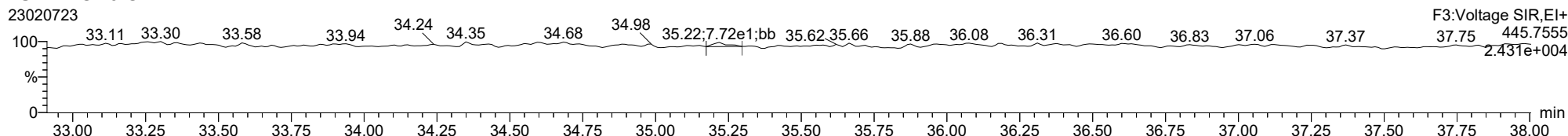
13C-123678-HxCDF



13C-123678-HxCDF

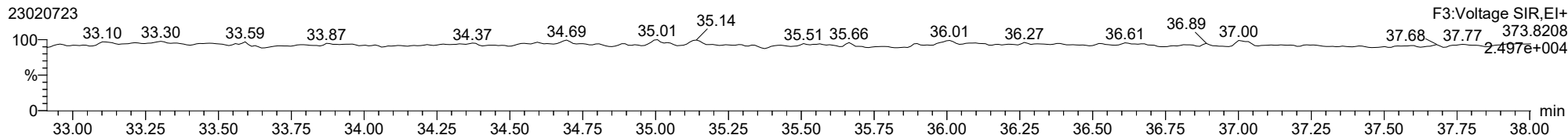


FUNCTION3 OCDPE

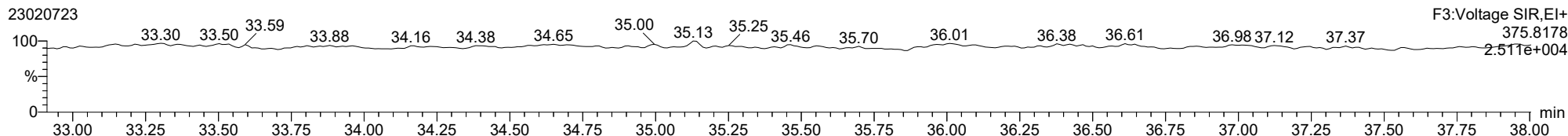


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

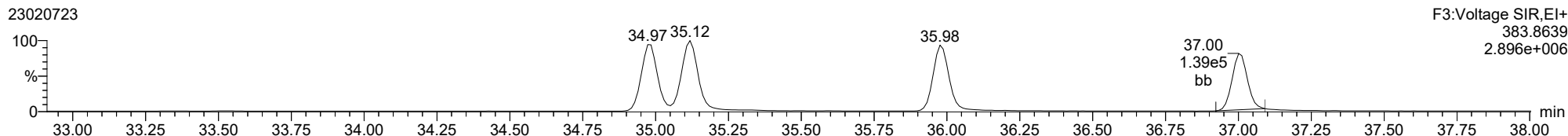
**123789-HxCDF**



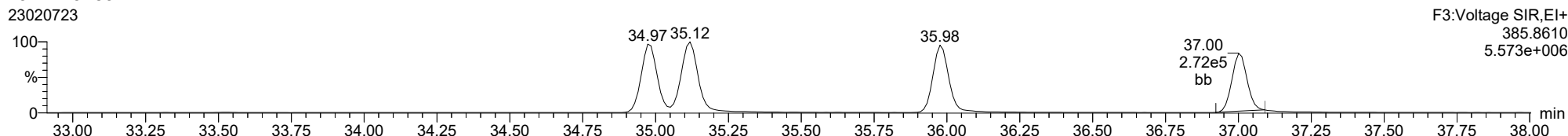
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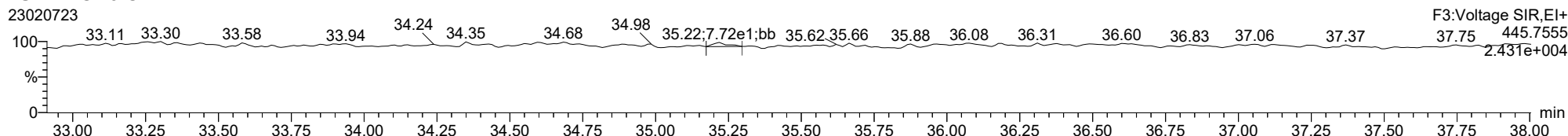
**13C-123789-HxCDF**



**13C-123789-HxCDF**

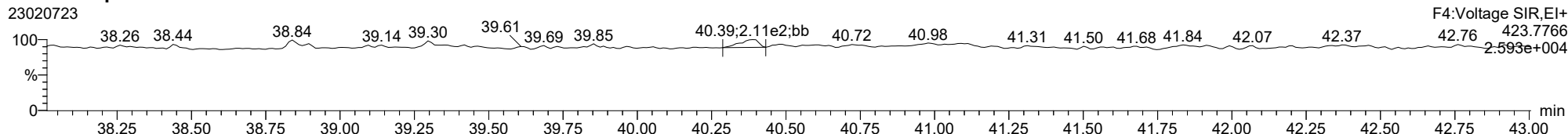


**FUNCTION3 OCDPE**

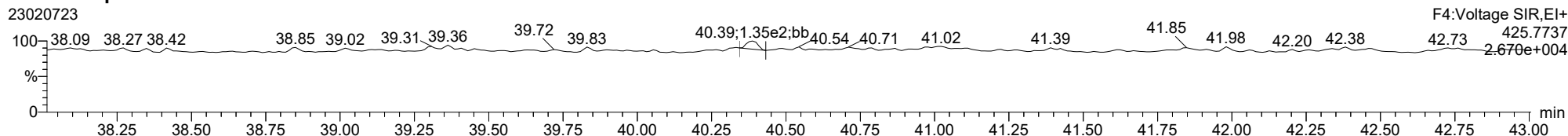


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

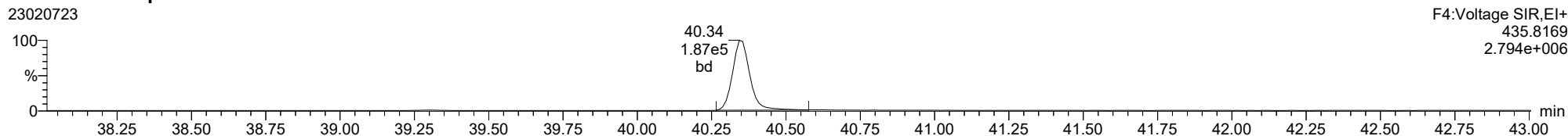
**1234678-HpCDD**



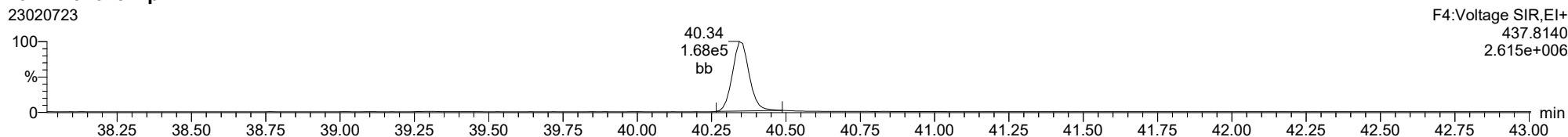
**1234678-HpCDD**



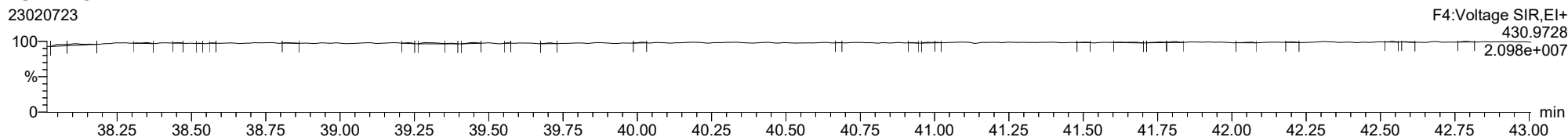
**13C-1234678-HpCDD**



**13C-1234678-HpCDD**

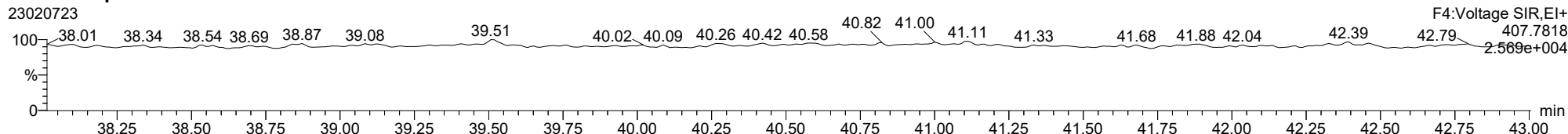


**FUNCTION4 PFK**

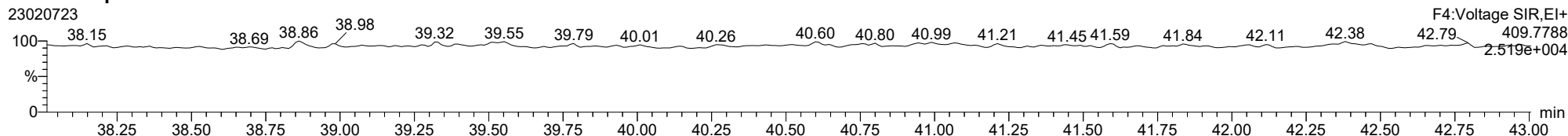


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

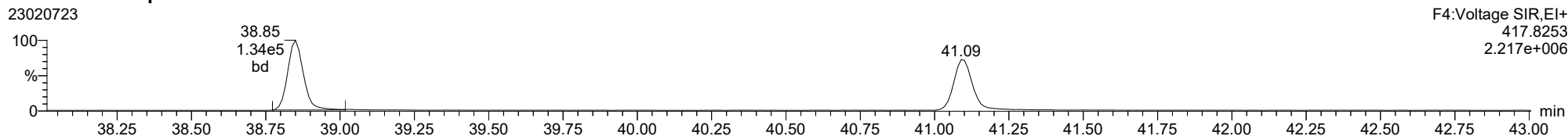
1234678-HpCDF



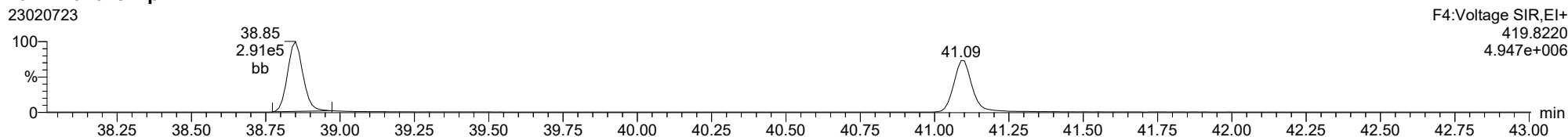
1234678-HpCDF



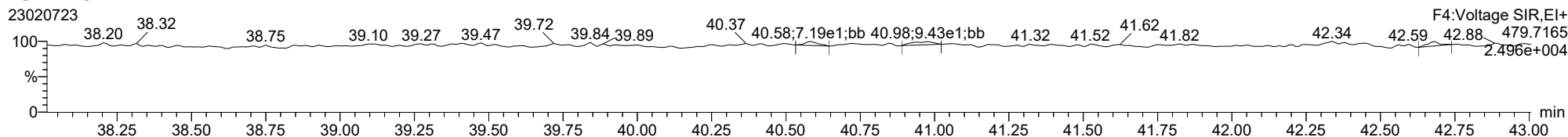
13C-1234678-HpCDF



13C-1234678-HpCDF



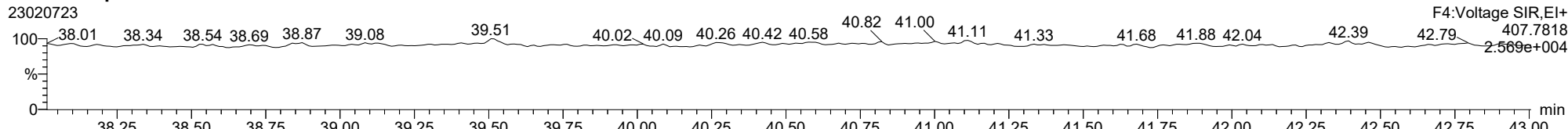
FUNCTION4 NCDPE



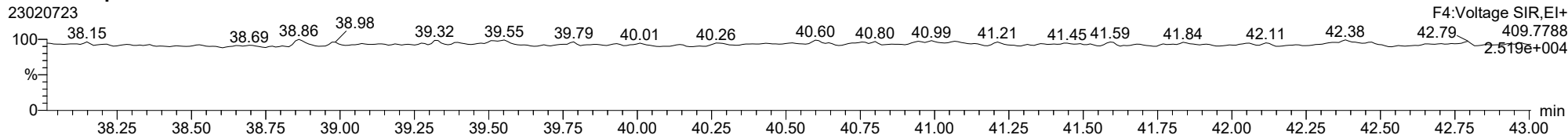


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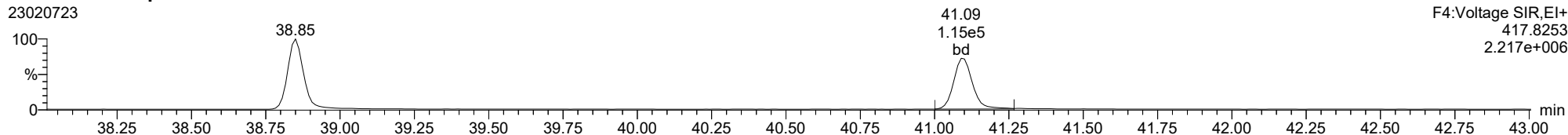
**1234789-HpCDF**



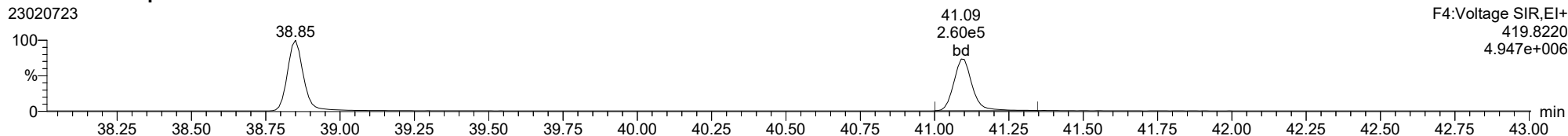
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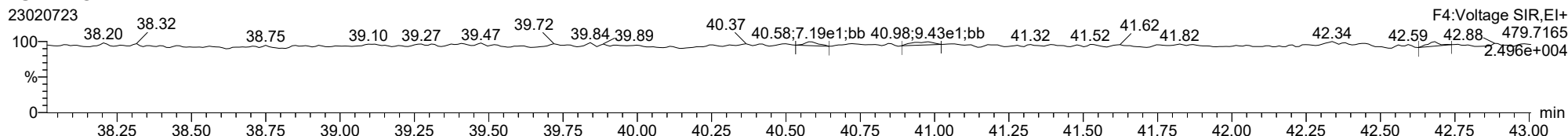
**13C-1234789-HpCDF**



**13C-1234789-HpCDF**

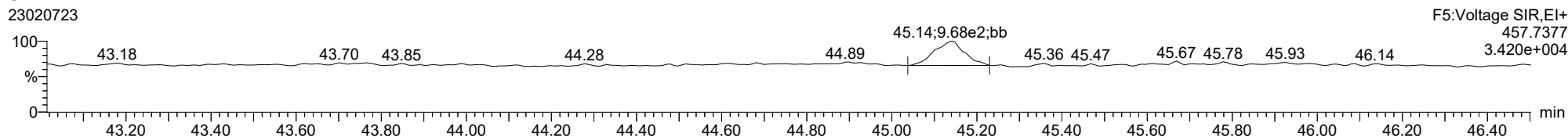


**FUNCTION4 NCDPE**

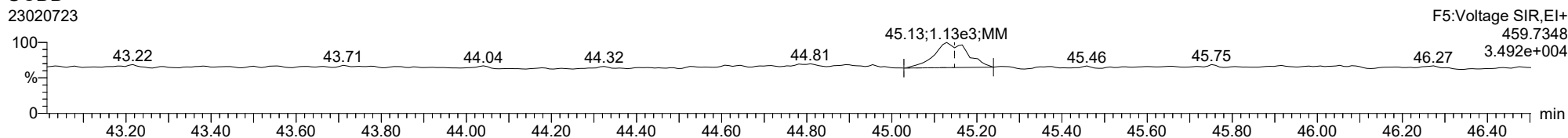


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

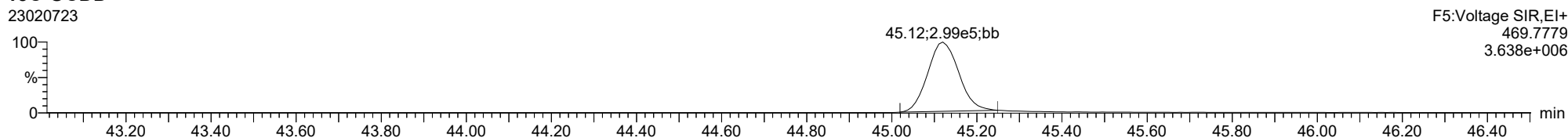
**OCDD**



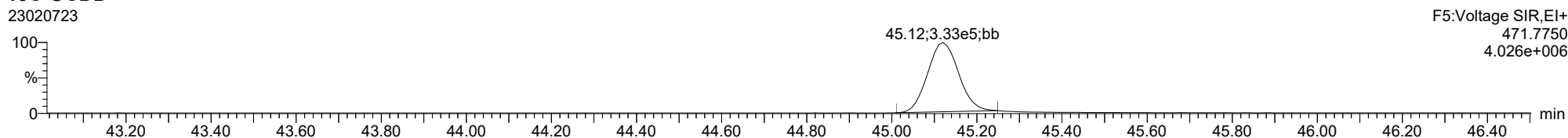
**OCDD**



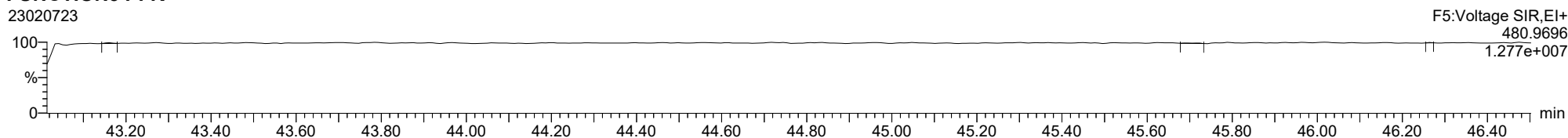
**13C-OCDD**



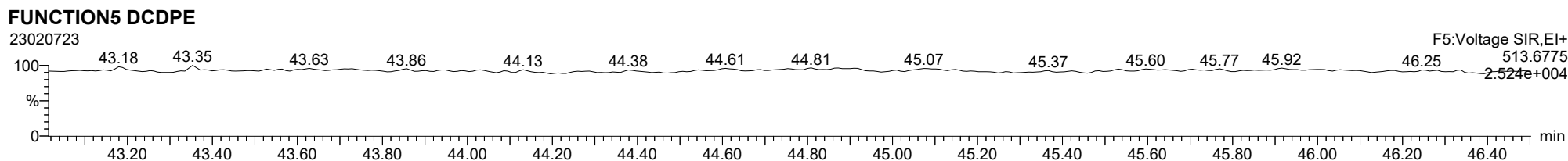
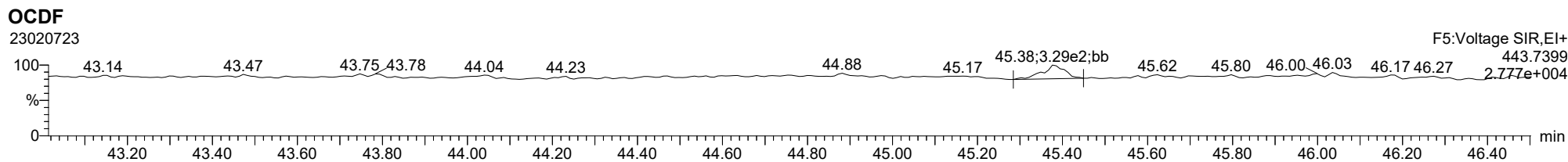
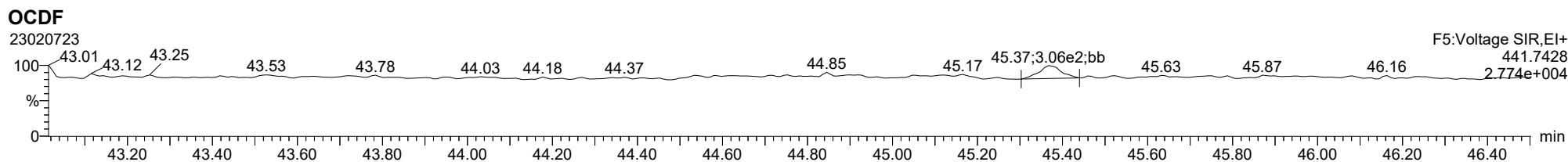
**13C-OCDD**



**FUNCTION5 PFK**

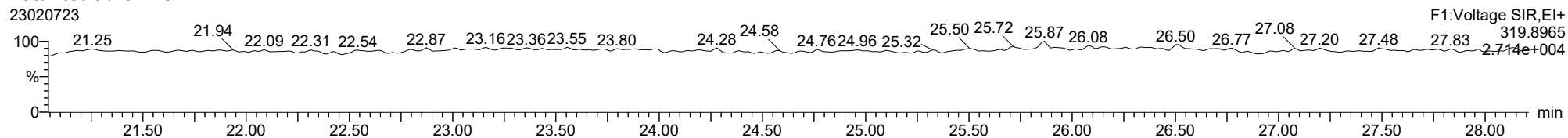


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

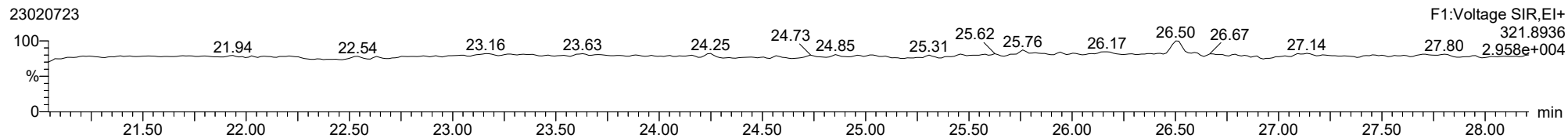


ID: BKL0420-BLK1, Name: 23020723, Date: 08-Feb-2023, Time: 03:21:03, Conditions: AUTOSPEC01, User: pk

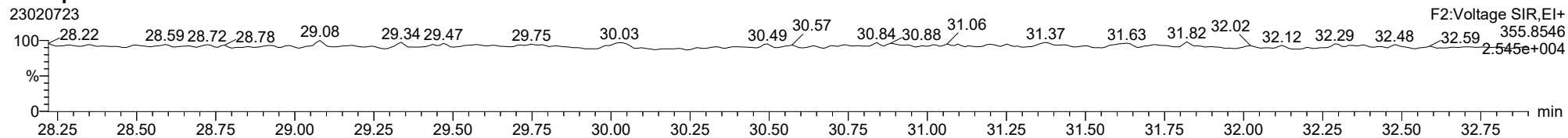
**Total-tetradiioxins**



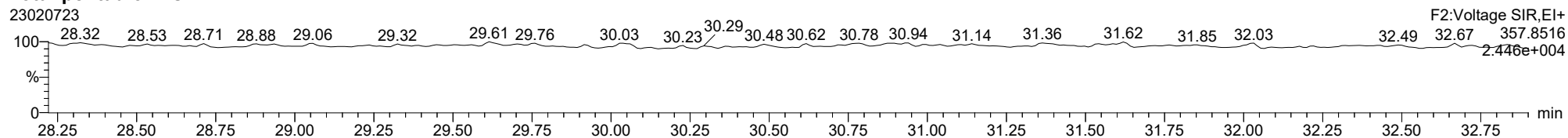
**Total-tetradiioxins**



**Total-pentadiioxins**

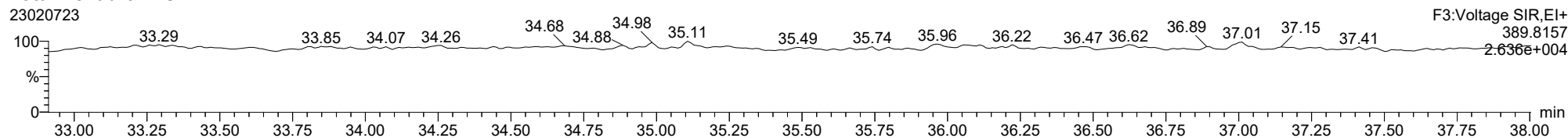


**Total-pentadiioxins**

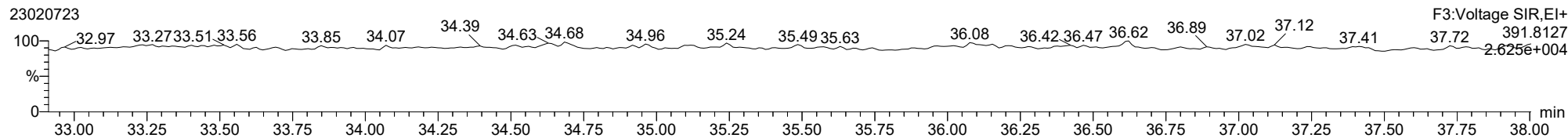


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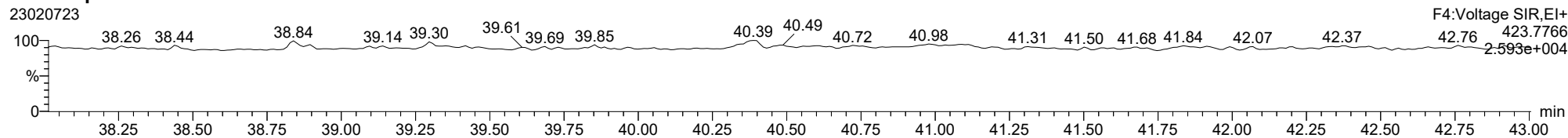
**Total-hexadioxins**



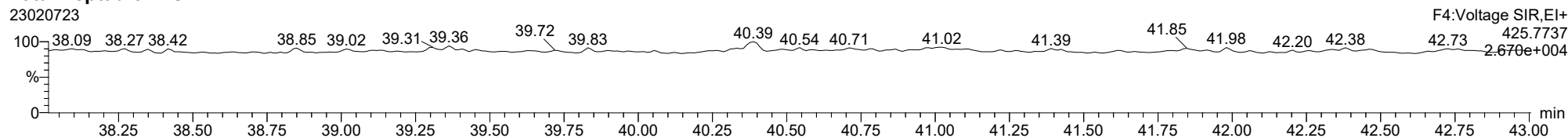
**Total-hexadioxins**



**Total-heptadioxins**

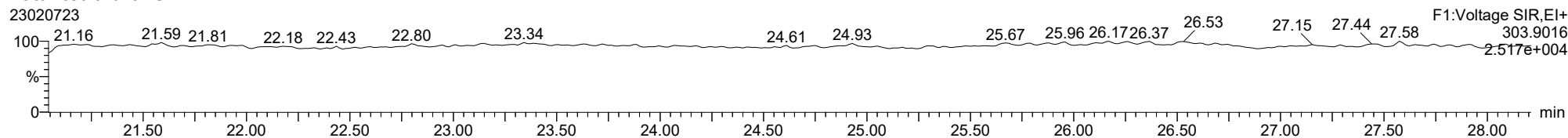


**Total-heptadioxins**

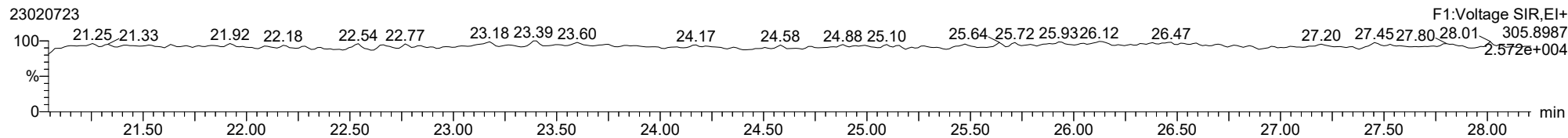


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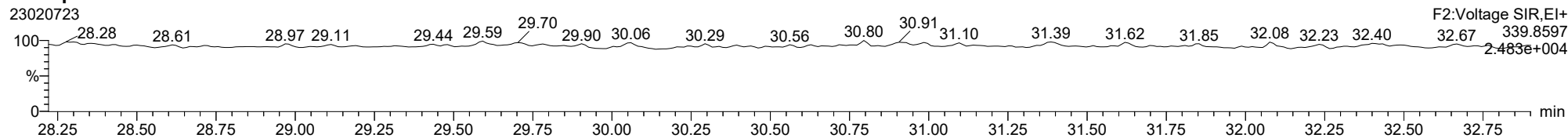
**Total-tetrafurans**



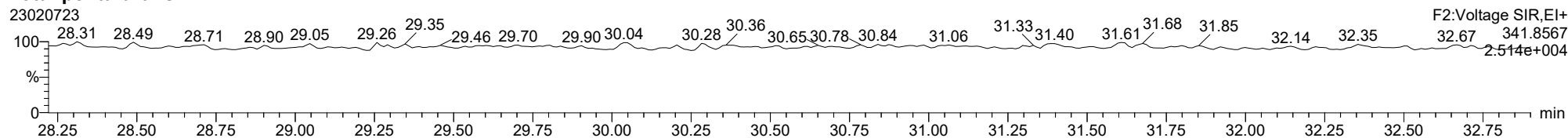
**Total-tetrafurans**



**Total-pentafurans**

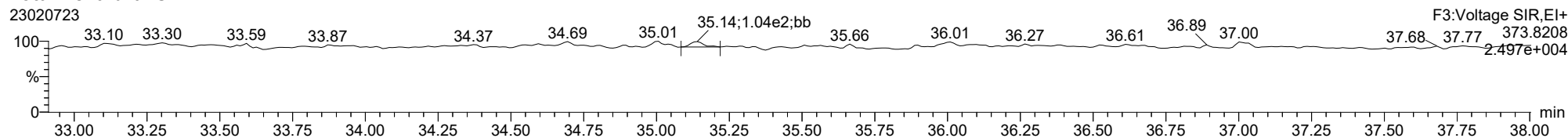


**Total-pentafurans**

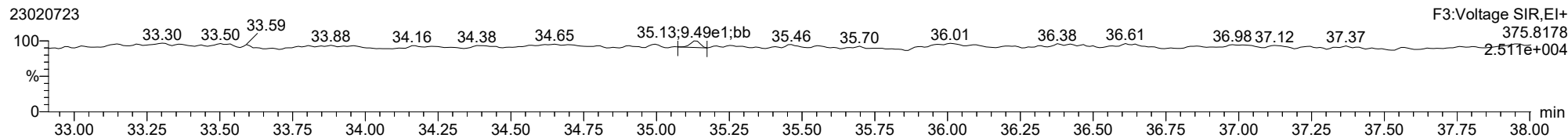


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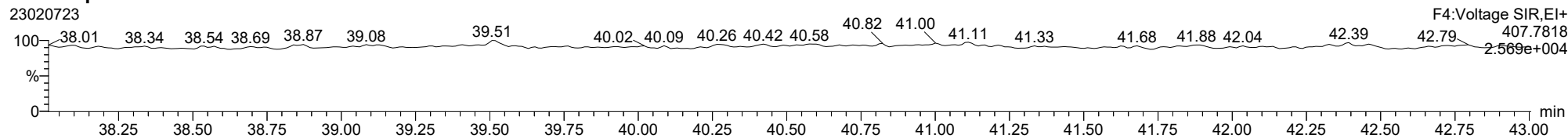
**Total-hexafurans**



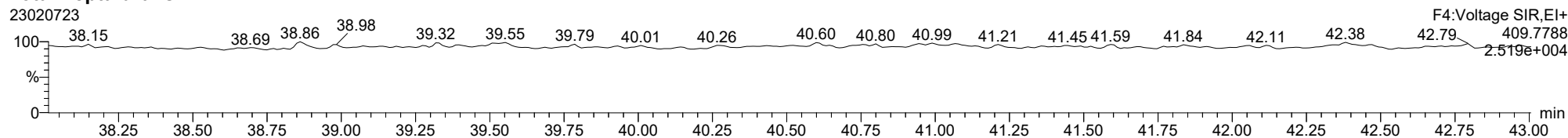
**Total-hexafurans**



**Total-heptafurans**



**Total-heptafurans**





**LCS RECOVERY**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Analyzed: 02/08/23 04:10

Batch: BKL0420

Laboratory ID: BKL0420-BS1

Preparation: EPA 8290

Sequence Name: LCS

Initial/Final: 10.01 g / 20 uL

COMPOUND	SPIKE ADDED (ng/kg wet)	LCS CONCENTRATION (ng/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
2,3,7,8-TCDF	20.0	17.9		89.3	75 - 158
2,3,7,8-TCDD	20.0	17.9		89.4	67 - 158
1,2,3,7,8-PeCDF	99.9	87.9		88.0	80 - 134
2,3,4,7,8-PeCDF	99.9	88.6		88.7	68 - 160
1,2,3,7,8-PeCDD	99.9	92.7		92.8	70 - 142
1,2,3,4,7,8-HxCDF	99.9	91.3		91.3	72 - 134
1,2,3,6,7,8-HxCDF	99.9	89.3	B	89.4	84 - 130
2,3,4,6,7,8-HxCDF	99.9	94.8		94.9	70 - 156
1,2,3,7,8,9-HxCDF	99.9	92.3		92.4	78 - 130
1,2,3,4,7,8-HxCDD	99.9	92.1		92.2	70 - 164
1,2,3,6,7,8-HxCDD	99.9	90.6		90.7	76 - 134
1,2,3,7,8,9-HxCDD	99.9	90.9		91.0	64 - 162
1,2,3,4,6,7,8-HpCDF	99.9	92.4		92.5	82 - 122
1,2,3,4,7,8,9-HpCDF	99.9	89.4		89.4	78 - 138
1,2,3,4,6,7,8-HpCDD	99.9	88.7	B	88.8	70 - 140
OCDF	200	155	B	77.4	63 - 170
OCDD	200	178	B	89.0	78 - 144

\* Indicates values outside of QC limits



**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** BKL0420-BS1, **Name:** 23020724, **Date:** 08-Feb-2023, **Time:** 04:10:27, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.851	1.001	1.830e4	2.504e4	0.876	0.731	0.770	621	976	2.76e5	3.76e5	444.3	384.8	NO	bb	bb	8.935
12378-PeCDF	30.026	1.001	1.138e5	7.506e4	0.845	1.516	1.550	1397	1055	1.72e6	1.13e6	1231.1	1066.8	NO	bb	bb	44.003
23478-PeCDF	31.352	1.000	1.134e5	7.849e4	0.911	1.445	1.550	1397	1055	1.71e6	1.16e6	1223.0	1100.2	NO	bb	bd	44.330
123478-HxCDF	34.973	1.000	1.157e5	9.420e4	1.182	1.229	1.240	1547	1191	1.82e6	1.47e6	1176.5	1235.8	NO	bd	bd	45.673
234678-HxCDF	35.976	1.001	1.164e5	9.326e4	1.229	1.248	1.240	1547	1191	1.84e6	1.44e6	1187.9	1209.1	NO	bd	bb	47.444
123678-HxCDF	35.118	1.001	1.248e5	1.003e5	1.248	1.243	1.240	1547	1191	1.89e6	1.51e6	1222.3	1264.6	NO	db	db	44.705
123789-HxCDF	37.001	1.000	9.420e4	7.417e4	1.187	1.270	1.240	1547	1191	1.44e6	1.17e6	932.7	983.8	NO	bb	bb	46.185
1234678-HpCDF	38.839	1.000	8.808e4	9.006e4	1.204	0.978	1.050	1124	1648	1.40e6	1.39e6	1249.6	840.9	NO	bb	bd	46.234
1234789-HpCDF	41.090	1.000	7.216e4	7.031e4	1.165	1.026	1.050	1124	1648	1.01e6	9.88e5	897.6	599.2	NO	bd	bd	44.720
OCDF	45.358	1.006	9.630e4	1.075e5	1.186	0.896	0.890	800	1150	1.10e6	1.26e6	1377.6	1095.8	NO	bd	bd	77.427
2378-TCDD	26.502	1.001	2.037e4	2.494e4	1.236	0.817	0.770	776	708	3.14e5	3.86e5	405.1	545.3	NO	bd	bb	8.940
12378-PeCDD	31.608	1.001	9.790e4	6.470e4	1.087	1.513	1.550	1110	944	1.52e6	9.99e5	1368.6	1057.9	NO	bb	bb	46.383
123478-HxCDD	36.087	1.000	9.377e4	7.631e4	0.987	1.229	1.240	1041	1107	1.58e6	1.27e6	1518.8	1145.0	NO	bd	bd	46.101
123678-HxCDD	36.199	1.000	9.684e4	7.862e4	1.021	1.232	1.240	1041	1107	1.60e6	1.30e6	1540.9	1176.7	NO	db	db	45.345
123789-HxCDD	36.589	1.011	9.225e4	7.651e4	0.985	1.206	1.240	1041	1107	1.52e6	1.27e6	1456.2	1151.3	NO	bb	bb	45.490
1234678-HpCDD	40.343	1.000	7.268e4	7.194e4	1.253	1.010	1.050	1076	854	1.11e6	1.08e6	1027.2	1261.1	NO	bb	bd	44.405
OCDD	45.120	1.000	1.015e5	1.163e5	1.103	0.872	0.890	896	1060	1.25e6	1.40e6	1394.8	1323.6	NO	bb	bd	89.026
13C-2378-TCDF	25.837	1.007	2.433e5	3.104e5	1.768	0.784	0.770	1577	1131	3.71e6	4.79e6	2352.7	4236.6	NO	bb	bb	80.199
13C-12378-PeCDF	30.004	1.170	3.035e5	2.047e5	1.527	1.483	1.550	1701	1616	4.65e6	3.05e6	2731.7	1885.7	NO	bb	bd	85.220
13C-23478-PeCDF	31.341	1.222	2.875e5	1.876e5	1.466	1.533	1.550	1701	1616	4.35e6	2.87e6	2553.7	1773.0	NO	bb	bb	82.975
13C-123478-HxCDF	34.962	0.956	1.304e5	2.585e5	1.054	0.504	0.510	1649	1410	2.08e6	4.15e6	1264.0	2947.1	NO	bd	bd	92.937
13C-123678-HxCDF	35.096	0.959	1.334e5	2.700e5	1.080	0.494	0.510	1649	1410	2.12e6	4.25e6	1286.6	3013.6	NO	db	db	94.041
13C-234678-HxCDF	35.953	0.983	1.204e5	2.391e5	1.014	0.504	0.510	1649	1410	1.97e6	3.92e6	1196.0	2780.9	NO	bb	bb	89.234
13C-123789-HxCDF	36.990	1.011	1.030e5	2.042e5	0.928	0.504	0.510	1649	1410	1.70e6	3.37e6	1033.0	2392.3	NO	bb	bb	83.357
13C-1234678-HpCDF	38.828	1.062	9.777e4	2.222e5	1.036	0.440	0.440	1170	2075	1.60e6	3.61e6	1363.3	1740.2	NO	bb	bb	77.751
13C-1234789-HpCDF	41.078	1.123	8.469e4	1.887e5	0.905	0.449	0.440	1170	2075	1.18e6	2.59e6	1005.5	1246.0	NO	bb	bb	76.054
13C-1234-TCDD	25.655	0.000	1.701e5	2.204e5	1.000	0.772	0.770	1492	943	2.58e6	3.39e6	1727.6	3593.6	NO	bb	bb	100.000
13C-2378-TCDD	26.472	1.032	1.786e5	2.313e5	1.103	0.772	0.770	1492	943	2.72e6	3.59e6	1823.3	3802.7	NO	bb	bb	95.164
13C-12378-PeCDD	31.586	1.231	1.985e5	1.241e5	0.914	1.599	1.550	793	790	2.93e6	1.87e6	3695.9	2363.8	NO	bd	bd	90.366
13C-123478-HxCDD	36.076	0.986	2.097e5	1.641e5	0.933	1.278	1.240	1674	1229	3.42e6	2.66e6	2044.0	2161.4	NO	bd	bd	100.871
13C-123678-HxCDD	36.188	0.989	2.130e5	1.661e5	0.965	1.282	1.240	1674	1229	3.50e6	2.74e6	2088.0	2229.5	NO	db	db	98.937
13C-1234678-HpCDD	40.332	1.103	1.352e5	1.248e5	0.782	1.083	1.050	1138	1134	2.04e6	1.88e6	1791.7	1661.0	NO	bb	bb	83.710
13C-OCDD	45.102	1.233	2.102e5	2.335e5	0.788	0.901	0.890	1082	1600	2.59e6	2.90e6	2398.2	1812.0	NO	bb	bb	141.709
13C-123789-HxCDD	36.577	0.000	2.229e5	1.743e5	1.000	1.279	1.240	1674	1229	3.58e6	2.85e6	2141.5	2321.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.502	1.033	1.539e5		1.233			1014		2.31e6		2273.3			bb		31.947

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	621	976								
1289-TCDF					0.858		0.770	621	976								
13468-PECDF					1.013		1.550	729	719								
12389-PECDF	32.399	1.080	8.095e2	6.648e2	0.844	1.218	1.550	1397	1055	1.15e4	8.46e3	8.2	8.0	YES	bb	bb	0.344
123468-HXCDF					1.197		1.240	1547	1191								
1368-TCDD					1.084		0.770	776	708								
1289-TCDD					0.975		0.770	776	708								
12479-PECDD					1.837		1.550	1110	944								
12389-PECDD					1.252		1.550	1110	944								
124679-HXCDD					1.033		1.240	1041	1107								
1234679-HPCDD	39.296	0.974	7.031e2	6.027e2	1.286	1.167	1.050	1076	854	1.14e4	1.03e4	10.6	12.1	NO	bb	bb	0.390
Total-tetrafurans			1.881e4		0.933			621		2.84e5							9.154
Total-penta1			0.000e0					729		0.00e0							
Total-pentafurans			2.273e5		0.866			1397		3.43e6							88.333
Total-hexafurans			4.510e5		1.208			1547		6.99e6							184.007
Total-heptafurans			1.602e5		1.185			1124		2.41e6							90.954
Total-Furans			9.538e5		1.067			621		1.42e7							449.927
Total-tetradoxins			2.037e4		1.099			776		3.14e5							8.940
Total-pentadoxins			9.790e4		1.392			1110		1.52e6							46.383
Total-hexadoxins			2.829e5		1.007			1041		4.70e6							136.936
Total-heptadoxins			7.339e4		1.269			1076		1.12e6							44.796
Total-Dioxins			5.760e5		1.165			776		8.90e6							326.081
Total-TEQ			1.530e6					776		2.31e7							776.008
FUNCTION1 PFK			5.167e5					510354		1.36e7							
FUNCTION2 PFK			4.477e4					225738		1.03e6							0.000
FUNCTION3 PFK			0.000e0					240155		0.00e0							
FUNCTION4 PFK			0.000e0					140665		0.00e0							
FUNCTION5 PFK			7.923e4					110563		2.89e6							
FUNCTION1 HXCD...			5.025e2					529		6.61e3							0.000
FUNCTION1 HPCD...			7.278e2					507		9.74e3							0.000
FUNCTION2 HPCD...			0.000e0					679		0.00e0							
FUNCTION3 OCDPE			3.838e2					662		9.57e3							0.000
FUNCTION4 NCDPE			4.774e2					567		6.31e3							0.000
FUNCTION5 DCDPE			1.478e2					426		2.23e3							0.000

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

## TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.85	1.830e4	2.504e4	0.876	0.73	0.77	444.3	YES	NO	bb	bb	8.935
2	Total-tetrafurans	24.75	2.791e2	3.324e2	0.933	0.84	0.77	7.0	YES	NO	dd	db	0.118
3	Total-tetrafurans	24.61	2.262e2	2.957e2	0.933	0.76	0.77	5.8	YES	NO	bd	bd	0.101

## PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

## PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.35	1.134e5	7.849e4	0.911	1.45	1.55	1223.0	YES	NO	bb	bd	44.330
2	12378-PeCDF	30.03	1.138e5	7.506e4	0.845	1.52	1.55	1231.1	YES	NO	bb	bb	44.003

## HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.00	9.420e4	7.417e4	1.187	1.27	1.24	932.7	YES	NO	bb	bb	46.185
2	234678-HxCDF	35.98	1.164e5	9.326e4	1.229	1.25	1.24	1187.9	YES	NO	bd	bb	47.444
3	123678-HxCDF	35.12	1.248e5	1.003e5	1.248	1.24	1.24	1222.3	YES	NO	db	db	44.705
4	123478-HxCDF	34.97	1.157e5	9.420e4	1.182	1.23	1.24	1176.5	YES	NO	bd	bd	45.673

## HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.09	7.216e4	7.031e4	1.165	1.03	1.05	897.6	YES	NO	bd	bd	44.720
2	1234678-HpCDF	38.84	8.808e4	9.006e4	1.204	0.98	1.05	1249.6	YES	NO	bb	bd	46.234

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:54 Pacific Standard Time

**ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.85	1.830e4	2.504e4	0.876	0.73	0.77	444.3	YES	NO	bb	bb	8.935
2	Total-tetrafurans	24.75	2.791e2	3.324e2	0.933	0.84	0.77	7.0	YES	NO	dd	db	0.118
3	Total-tetrafurans	24.61	2.262e2	2.957e2	0.933	0.76	0.77	5.8	YES	NO	bd	bd	0.101
4	Total-Furans	21.74	1.306e2	1.818e2	1.067	0.72	0.77	2.8	NO	NO	bb	bb	0.053
5	23478-PeCDF	31.35	1.134e5	7.849e4	0.911	1.45	1.55	1223.0	YES	NO	bb	bd	44.330
6	12378-PeCDF	30.03	1.138e5	7.506e4	0.845	1.52	1.55	1231.1	YES	NO	bb	bb	44.003
7	123789-HxCDF	37.00	9.420e4	7.417e4	1.187	1.27	1.24	932.7	YES	NO	bb	bb	46.185
8	234678-HxCDF	35.98	1.164e5	9.326e4	1.229	1.25	1.24	1187.9	YES	NO	bd	bb	47.444
9	123678-HxCDF	35.12	1.248e5	1.003e5	1.248	1.24	1.24	1222.3	YES	NO	db	db	44.705
10	123478-HxCDF	34.97	1.157e5	9.420e4	1.182	1.23	1.24	1176.5	YES	NO	bd	bd	45.673
11	1234789-HpCDF	41.09	7.216e4	7.031e4	1.165	1.03	1.05	897.6	YES	NO	bd	bd	44.720
12	1234678-HpCDF	38.84	8.808e4	9.006e4	1.204	0.98	1.05	1249.6	YES	NO	bb	bd	46.234
13	OCDF	45.36	9.630e4	1.075e5	1.186	0.90	0.89	1377.6	YES	NO	bd	bd	77.427

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.50	2.037e4	2.494e4	1.236	0.82	0.77	405.1	YES	NO	bd	bb	8.940

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.61	9.790e4	6.470e4	1.087	1.51	1.55	1368.6	YES	NO	bb	bb	46.383

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.59	9.225e4	7.651e4	0.985	1.21	1.24	1456.2	YES	NO	bb	bb	45.490
2	123678-HxCDD	36.20	9.684e4	7.862e4	1.021	1.23	1.24	1540.9	YES	NO	db	db	45.345
3	123478-HxCDD	36.09	9.377e4	7.631e4	0.987	1.23	1.24	1518.8	YES	NO	bd	bd	46.101

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.34	7.268e4	7.194e4	1.253	1.01	1.05	1027.2	YES	NO	bb	bd	44.405
2	1234679-HPCDD	39.30	7.031e2	6.027e2	1.286	1.17	1.05	10.6	YES	NO	bb	bb	0.390

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:54 Pacific Standard Time

**ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk****Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.61	9.790e4	6.470e4	1.087	1.51	1.55	1368.6	YES	NO	bb	bb	46.383
2	2378-TCDD	26.50	2.037e4	2.494e4	1.236	0.82	0.77	405.1	YES	NO	bd	bb	8.940
3	123789-HxCDD	36.59	9.225e4	7.651e4	0.985	1.21	1.24	1456.2	YES	NO	bb	bb	45.490
4	123678-HxCDD	36.20	9.684e4	7.862e4	1.021	1.23	1.24	1540.9	YES	NO	db	db	45.345
5	123478-HxCDD	36.09	9.377e4	7.631e4	0.987	1.23	1.24	1518.8	YES	NO	bd	bd	46.101
6	1234678-HpCDD	40.34	7.268e4	7.194e4	1.253	1.01	1.05	1027.2	YES	NO	bb	bd	44.405
7	1234679-HPCDD	39.30	7.031e2	6.027e2	1.286	1.17	1.05	10.6	YES	NO	bb	bb	0.390
8	OCDD	45.12	1.015e5	1.163e5	1.103	0.87	0.89	1394.8	YES	NO	bb	bd	89.026

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.85	1.830e4	2.504e4	0.876	0.73	0.77	444.3	YES	NO	bb	bb	8.935
2	Total-tetrafurans	24.75	2.791e2	3.324e2	0.933	0.84	0.77	7.0	YES	NO	dd	db	0.118
3	Total-tetrafurans	24.61	2.262e2	2.957e2	0.933	0.76	0.77	5.8	YES	NO	bd	bd	0.101
4	Total-Furans	21.74	1.306e2	1.818e2	1.067	0.72	0.77	2.8	NO	NO	bb	bb	0.053
5	23478-PeCDF	31.35	1.134e5	7.849e4	0.911	1.45	1.55	1223.0	YES	NO	bb	bd	44.330
6	12378-PeCDF	30.03	1.138e5	7.506e4	0.845	1.52	1.55	1231.1	YES	NO	bb	bb	44.003
7	123789-HxCDF	37.00	9.420e4	7.417e4	1.187	1.27	1.24	932.7	YES	NO	bb	bb	46.185
8	234678-HxCDF	35.98	1.164e5	9.326e4	1.229	1.25	1.24	1187.9	YES	NO	bd	bb	47.444
9	123678-HxCDF	35.12	1.248e5	1.003e5	1.248	1.24	1.24	1222.3	YES	NO	db	db	44.705
10	123478-HxCDF	34.97	1.157e5	9.420e4	1.182	1.23	1.24	1176.5	YES	NO	bd	bd	45.673
11	1234789-HpCDF	41.09	7.216e4	7.031e4	1.165	1.03	1.05	897.6	YES	NO	bd	bd	44.720
12	1234678-HpCDF	38.84	8.808e4	9.006e4	1.204	0.98	1.05	1249.6	YES	NO	bb	bd	46.234
13	OCDF	45.36	9.630e4	1.075e5	1.186	0.90	0.89	1377.6	YES	NO	bd	bd	77.427
14	12378-PeCDD	31.61	9.790e4	6.470e4	1.087	1.51	1.55	1368.6	YES	NO	bb	bb	46.383
15	2378-TCDD	26.50	2.037e4	2.494e4	1.236	0.82	0.77	405.1	YES	NO	bd	bb	8.940
16	123789-HxCDD	36.59	9.225e4	7.651e4	0.985	1.21	1.24	1456.2	YES	NO	bb	bb	45.490
17	123678-HxCDD	36.20	9.684e4	7.862e4	1.021	1.23	1.24	1540.9	YES	NO	db	db	45.345
18	123478-HxCDD	36.09	9.377e4	7.631e4	0.987	1.23	1.24	1518.8	YES	NO	bd	bd	46.101
19	1234678-HpCDD	40.34	7.268e4	7.194e4	1.253	1.01	1.05	1027.2	YES	NO	bb	bd	44.405
20	1234679-HPCDD	39.30	7.031e2	6.027e2	1.286	1.17	1.05	10.6	YES	NO	bb	bb	0.390
21	OCDD	45.12	1.015e5	1.163e5	1.103	0.87	0.89	1394.8	YES	NO	bb	bd	89.026

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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**ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.72	1.279e5					2.1	NO		bb		
2	FUNCTION1 PFK	23.58	3.541e3					0.5	NO		bb		
3	FUNCTION1 PFK	23.40	1.235e4					0.8	NO		db		
4	FUNCTION1 PFK	23.34	2.588e4					1.5	NO		bd		
5	FUNCTION1 PFK	23.21	1.645e4					1.1	NO		bb		
6	FUNCTION1 PFK	22.87	1.250e4					0.9	NO		bb		
7	FUNCTION1 PFK	22.63	1.224e4					0.8	NO		bb		
8	FUNCTION1 PFK	22.57	4.595e3					0.6	NO		bb		
9	FUNCTION1 PFK	22.39	5.243e3					0.7	NO		bb		
10	FUNCTION1 PFK	22.24	9.175e3					0.8	NO		bb		
11	FUNCTION1 PFK	21.91	1.543e4					1.1	NO		bb		
12	FUNCTION1 PFK	21.84	7.628e3					0.8	NO		bb		
13	FUNCTION1 PFK	21.45	1.562e4					1.1	NO		db		
14	FUNCTION1 PFK	21.41	1.635e4					1.1	NO		bd		
15	FUNCTION1 PFK	21.21	1.458e4					1.1	NO		bb		
16	FUNCTION1 PFK	27.38	4.436e3					0.6	NO		bb		
17	FUNCTION1 PFK	27.06	1.245e4					0.9	NO		bb		
18	FUNCTION1 PFK	26.99	4.230e4					1.3	NO		bb		
19	FUNCTION1 PFK	26.82	3.704e4					1.7	NO		bb		
20	FUNCTION1 PFK	25.99	2.107e4					1.2	NO		db		
21	FUNCTION1 PFK	25.94	3.170e4					1.5	NO		bd		
22	FUNCTION1 PFK	25.85	2.591e4					1.2	NO		bb		
23	FUNCTION1 PFK	25.69	3.459e3					0.4	NO		bb		
24	FUNCTION1 PFK	24.81	6.212e3					0.6	NO		bb		
25	FUNCTION1 PFK	24.48	8.128e3					0.7	NO		bb		
26	FUNCTION1 PFK	24.02	1.443e4					1.0	NO		bb		
27	FUNCTION1 PFK	23.92	1.011e4					0.6	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.07	1.520e4					1.3	NO		bb		0.000
2	FUNCTION2 PFK	29.55	1.361e3					0.5	NO		bb		0.000
3	FUNCTION2 PFK	28.66	1.665e4					1.7	NO		bb		0.000
4	FUNCTION2 PFK	31.51	1.155e4					1.0	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:54 Pacific Standard Time

**ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.54	1.512e3					1.0	NO		bb		
2	FUNCTION5 PFK	44.42	3.646e3					1.5	NO		db		
3	FUNCTION5 PFK	44.37	7.333e3					1.8	NO		dd		
4	FUNCTION5 PFK	44.33	3.061e3					1.4	NO		bd		
5	FUNCTION5 PFK	44.26	4.079e2					0.4	NO		bb		
6	FUNCTION5 PFK	44.22	1.904e3					0.9	NO		bb		
7	FUNCTION5 PFK	44.16	1.801e3					0.7	NO		bb		
8	FUNCTION5 PFK	44.01	2.235e3					1.0	NO		bb		
9	FUNCTION5 PFK	43.96	7.694e2					0.5	NO		bb		
10	FUNCTION5 PFK	43.80	5.377e3					1.0	NO		bb		
11	FUNCTION5 PFK	43.20	1.475e4					2.8	NO		bb		
12	FUNCTION5 PFK	43.14	3.494e3					1.3	NO		bb		
13	FUNCTION5 PFK	46.47	3.900e3					1.5	NO		bb		
14	FUNCTION5 PFK	46.13	2.142e3					0.7	NO		bb		
15	FUNCTION5 PFK	46.01	7.008e2					0.5	NO		bb		
16	FUNCTION5 PFK	45.72	2.679e3					1.3	NO		db		
17	FUNCTION5 PFK	45.69	6.022e3					1.6	NO		bd		
18	FUNCTION5 PFK	45.59	1.531e3					0.8	NO		bb		
19	FUNCTION5 PFK	45.50	1.920e3					0.9	NO		bb		
20	FUNCTION5 PFK	45.37	1.983e3					0.8	NO		bb		
21	FUNCTION5 PFK	45.05	1.598e3					0.7	NO		bb		
22	FUNCTION5 PFK	44.87	2.265e3					0.9	NO		bb		
23	FUNCTION5 PFK	44.78	4.729e3					1.4	NO		bb		
24	FUNCTION5 PFK	44.74	3.468e3					0.9	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:54 Pacific Standard Time

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	22.42	1.634e2					2.0	NO		bd		0.000
2	FUNCTION1 HXCD...	21.72	7.425e1					1.1	NO		bb		0.000
3	FUNCTION1 HXCD...	21.33	1.045e2					2.0	NO		bb		0.000
4	FUNCTION1 HXCD...	25.50	7.390e1					3.4	YES		bb		0.000
5	FUNCTION1 HXCD...	22.56	8.650e1					4.0	YES		db		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.99	8.722e1					2.1	NO		bb		0.000
2	FUNCTION1 HPCD...	26.67	7.291e1					1.8	NO		db		0.000
3	FUNCTION1 HPCD...	26.50	1.108e2					2.2	NO		bd		0.000
4	FUNCTION1 HPCD...	24.79	1.037e2					2.1	NO		db		0.000
5	FUNCTION1 HPCD...	24.73	8.819e1					2.5	NO		bd		0.000
6	FUNCTION1 HPCD...	21.77	8.064e1					2.8	NO		db		0.000
7	FUNCTION1 HPCD...	21.71	9.103e1					2.9	NO		dd		0.000
8	FUNCTION1 HPCD...	21.62	9.336e1					2.8	NO		bd		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.61	8.882e1					3.5	YES		bb		0.000
2	FUNCTION3 OCDPE	34.19	9.086e1					2.2	NO		db		0.000
3	FUNCTION3 OCDPE	34.08	1.027e2					1.8	NO		bd		0.000
4	FUNCTION3 OCDPE	37.35	1.015e2					7.0	YES		bb		0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:15:54 Pacific Standard Time

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.65	1.185e2					2.2	NO		bb		0.000
2	FUNCTION4 NCDPE	41.60	1.029e2					2.2	NO		bb		0.000
3	FUNCTION4 NCDPE	41.33	1.700e2					2.6	NO		bb		0.000
4	FUNCTION4 NCDPE	38.37	8.597e1					4.1	YES		bb		0.000

**ETHERS6**

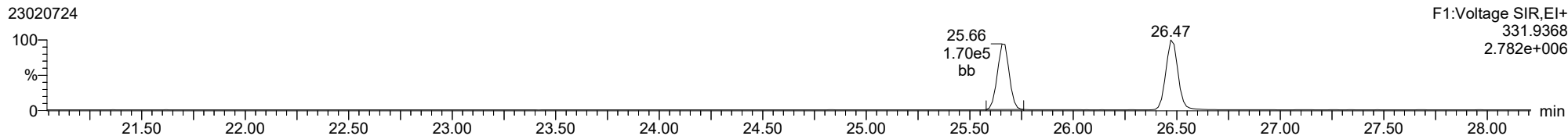
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	46.07	7.108e1					2.5	NO		bb		0.000
2	FUNCTION5 DCDPE	45.30	7.670e1					2.8	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

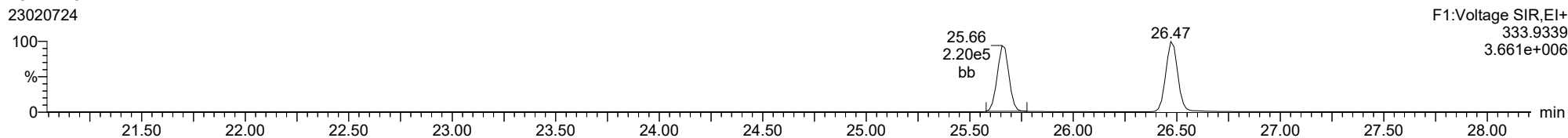
**13C-1234-TCDD**

23020724



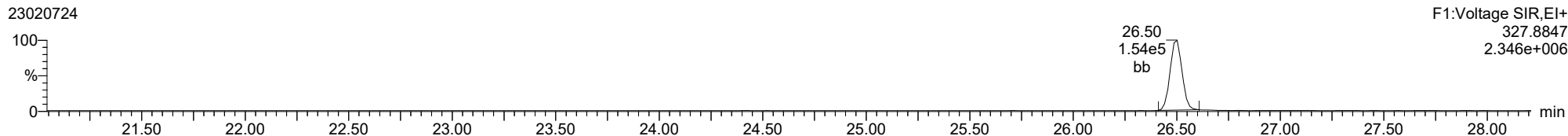
**13C-1234-TCDD**

23020724



**37CL-2378-TCDD**

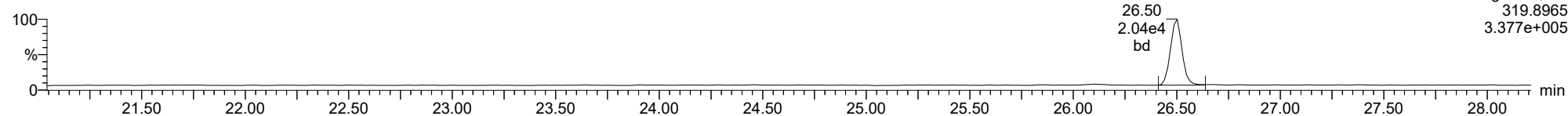
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

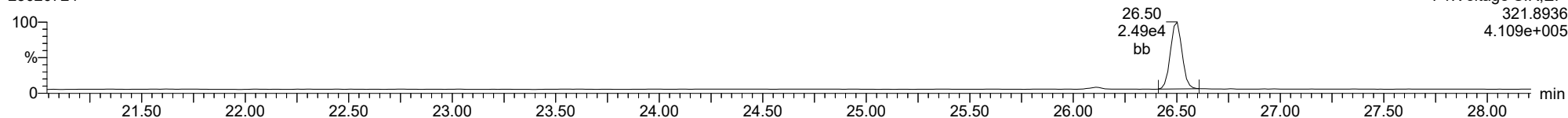
**2378-TCDD**

23020724



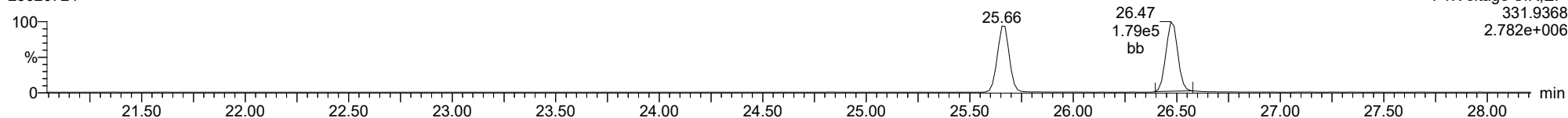
**2378-TCDD**

23020724



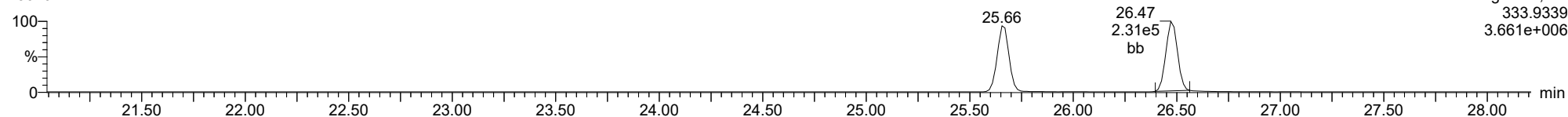
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23020724



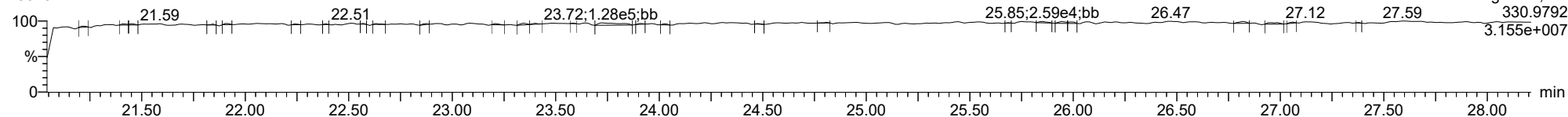
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23020724



**FUNCTION1 PFK**

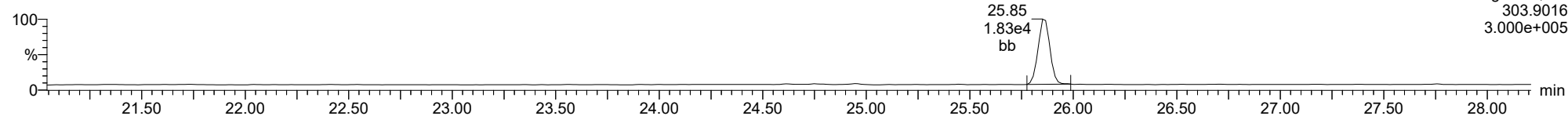
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

**2378-TCDF**

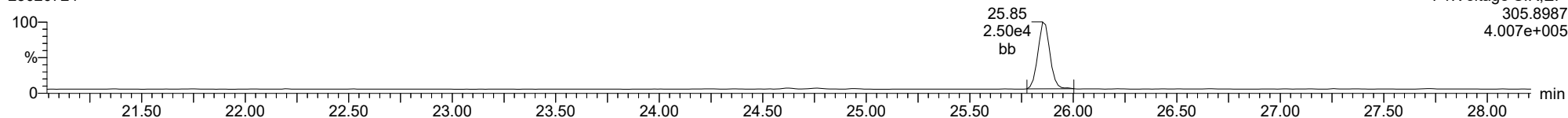
23020724



F1:Voltage SIR,EI+  
303.9016  
3.000e+005

**2378-TCDF**

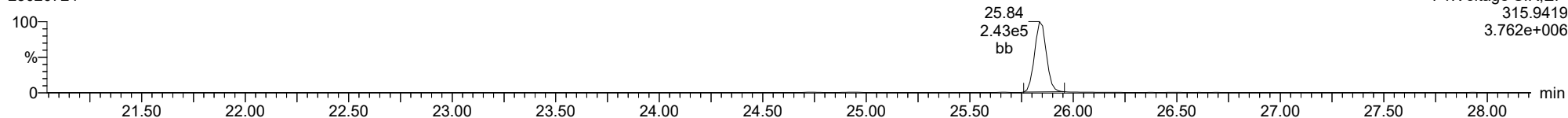
23020724



F1:Voltage SIR,EI+  
305.8987  
4.007e+005

**13C-2378-TCDF**

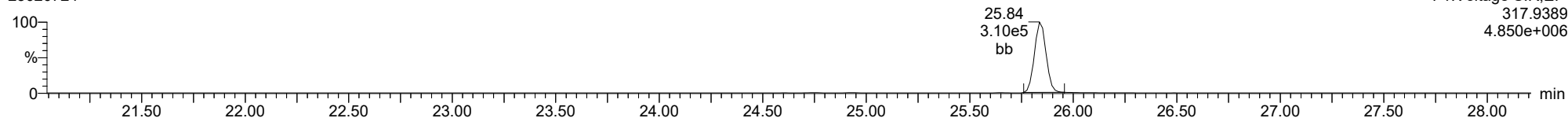
23020724



F1:Voltage SIR,EI+  
315.9419  
3.762e+006

**13C-2378-TCDF**

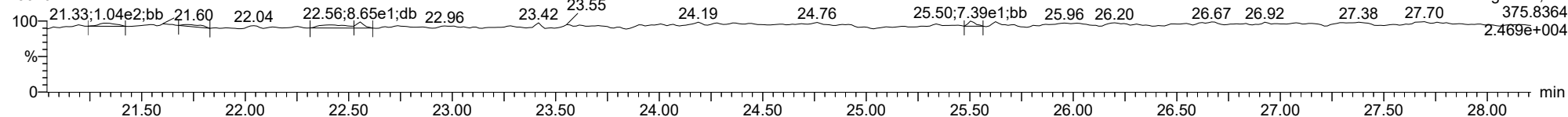
23020724



F1:Voltage SIR,EI+  
317.9389  
4.850e+006

**FUNCTION1 HXCDFE**

23020724

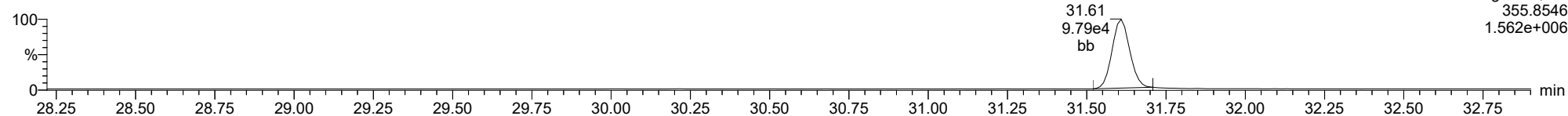


F1:Voltage SIR,EI+  
375.8364  
2.469e+004

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

**12378-PeCDD**

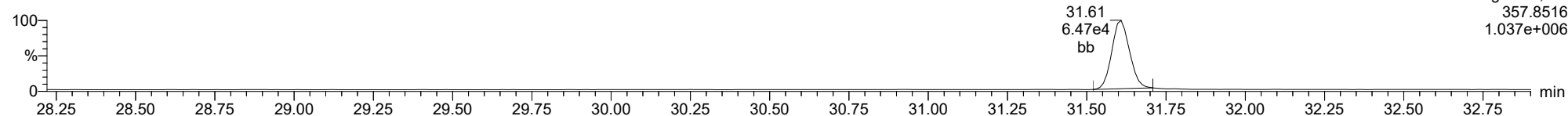
23020724



F2:Voltage SIR,EI+  
355.8546  
1.562e+006

**12378-PeCDD**

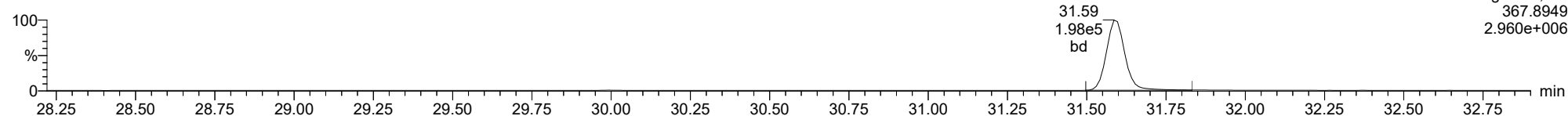
23020724



F2:Voltage SIR,EI+  
357.8516  
1.037e+006

**13C-12378-PeCDD**

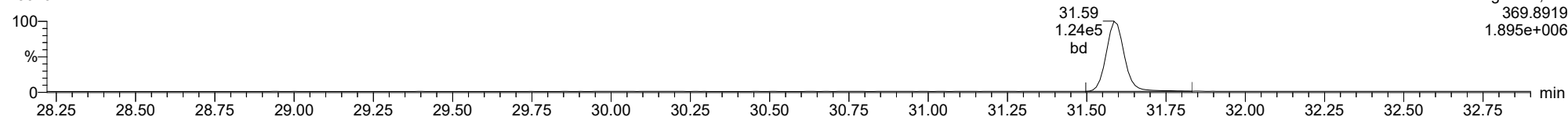
23020724



F2:Voltage SIR,EI+  
367.8949  
2.960e+006

**13C-12378-PeCDD**

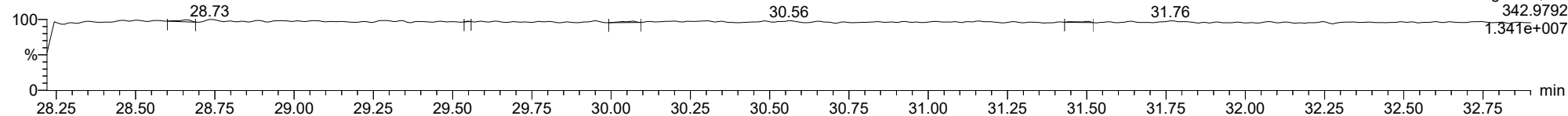
23020724



F2:Voltage SIR,EI+  
369.8919  
1.895e+006

**FUNCTION2 PFK**

23020724

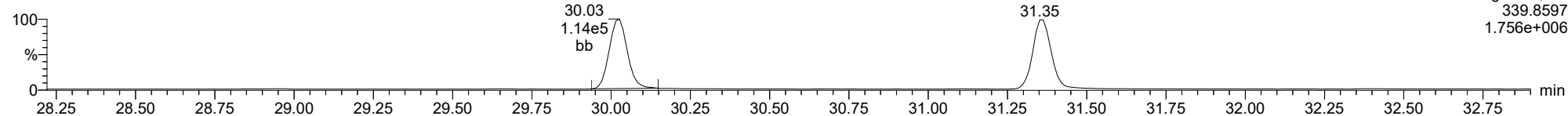


F2:Voltage SIR,EI+  
342.9792  
1.341e+007

ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

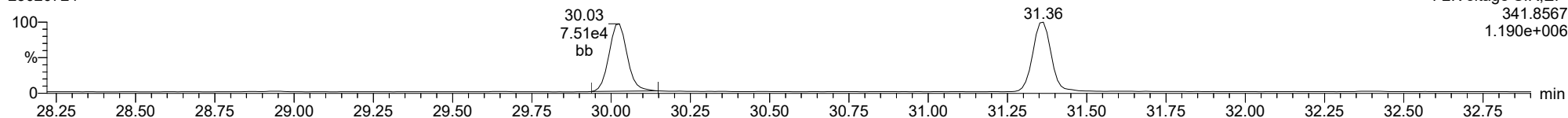
**12378-PeCDF**

23020724



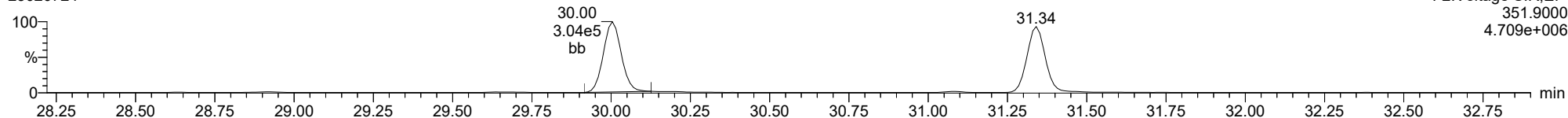
**12378-PeCDF**

23020724



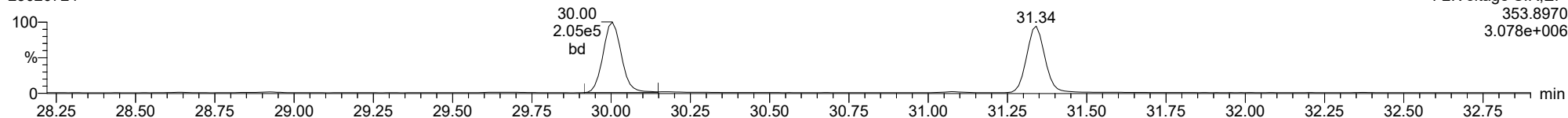
**13C-12378-PeCDF**

23020724



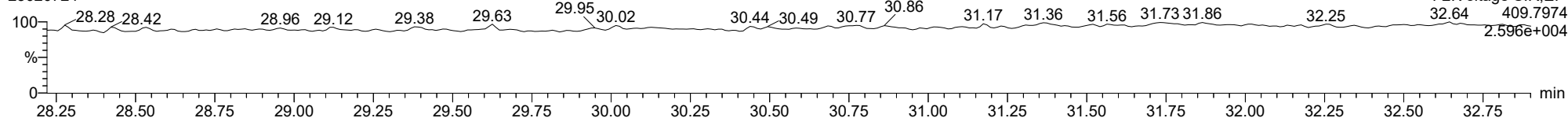
**13C-12378-PeCDF**

23020724



**FUNCTION2 HPCDPE**

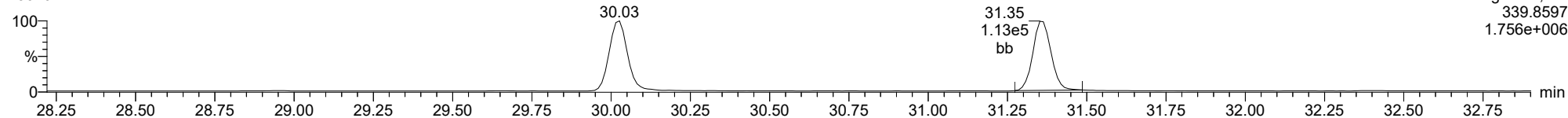
23020724



ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

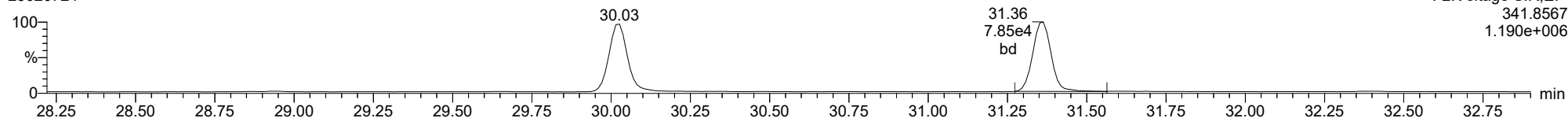
**23478-PeCDF**

23020724



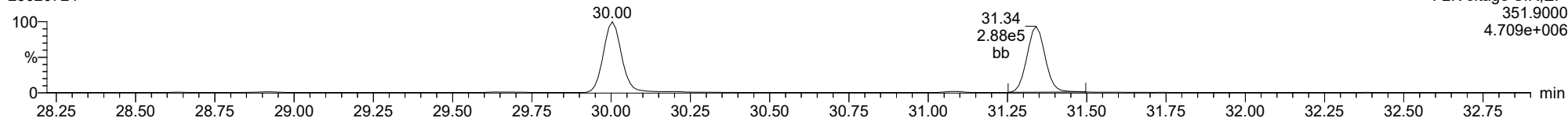
**23478-PeCDF**

23020724



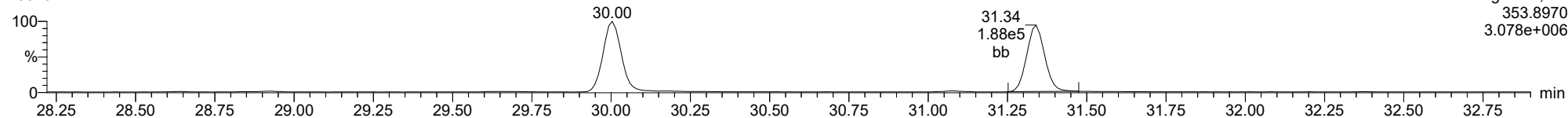
**13C-23478-PeCDF**

23020724



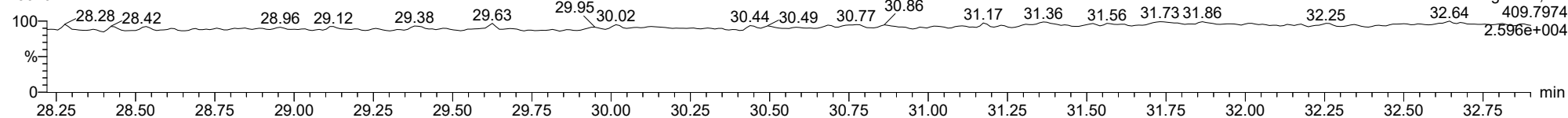
**13C-23478-PeCDF**

23020724



**FUNCTION2 HPCDPE**

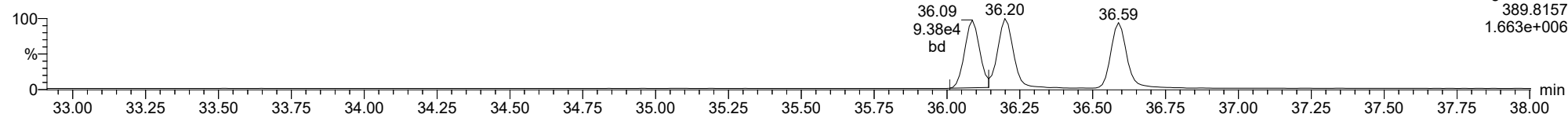
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

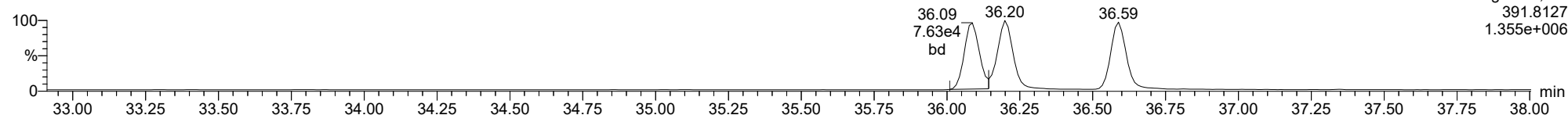
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23020724



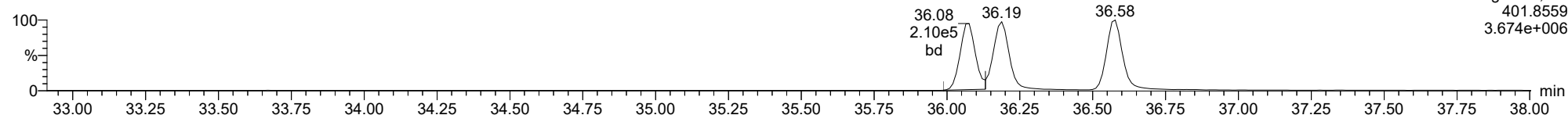
**123478-HxCDD**

23020724



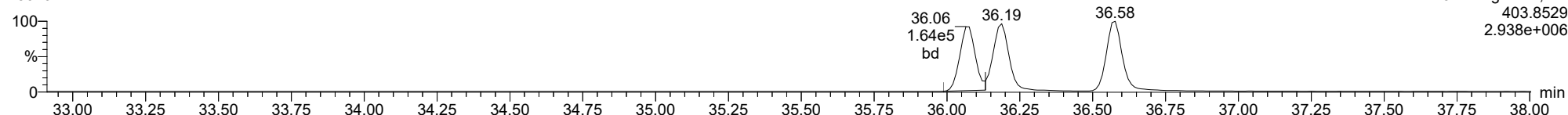
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23020724



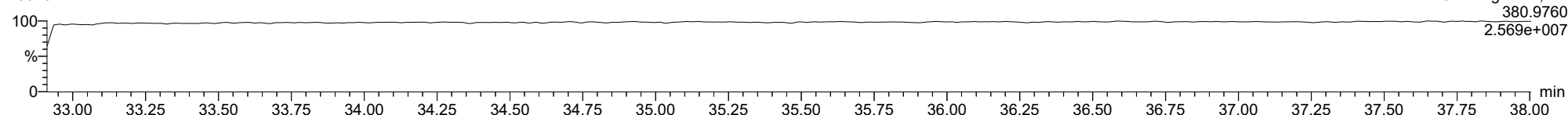
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23020724



**FUNCTION3 PFK**

23020724

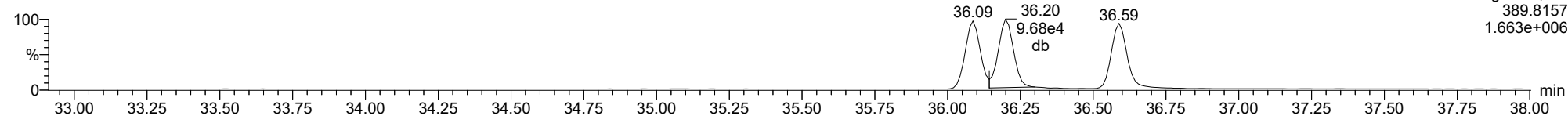




ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

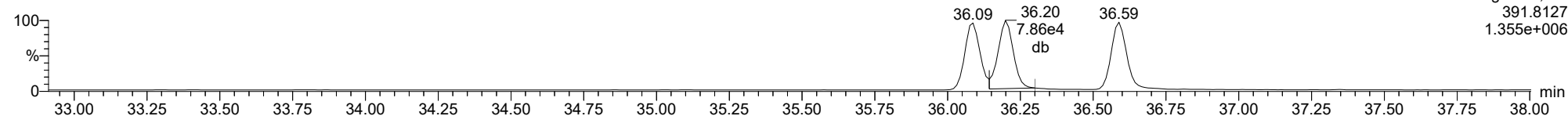
**123678-HxCDD**

23020724



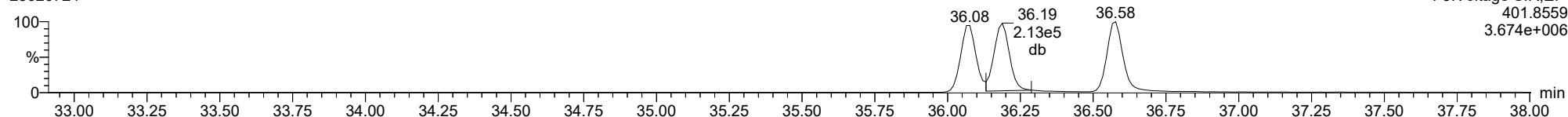
**123678-HxCDD**

23020724



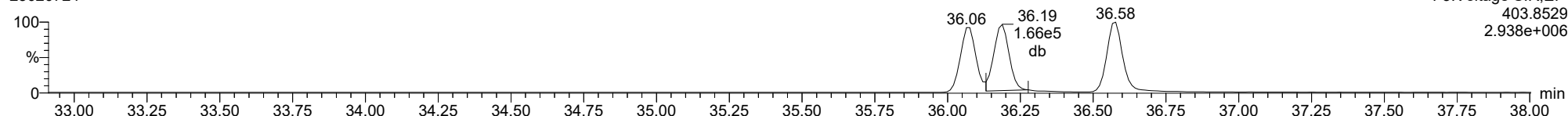
**13C-123678-HxCDD**

23020724



**13C-123678-HxCDD**

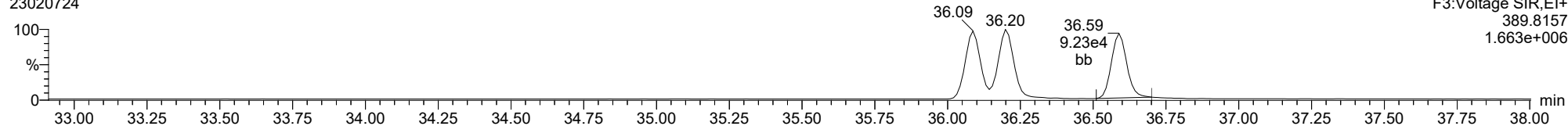
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

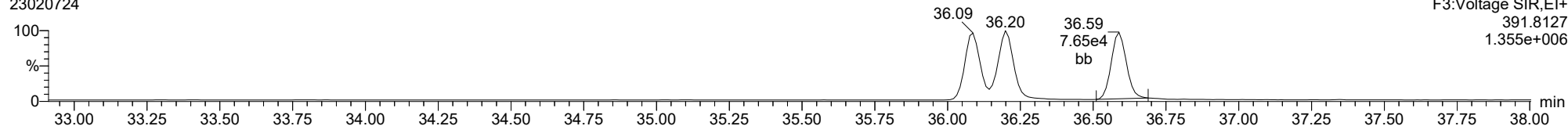
**123789-HxCDD**

23020724



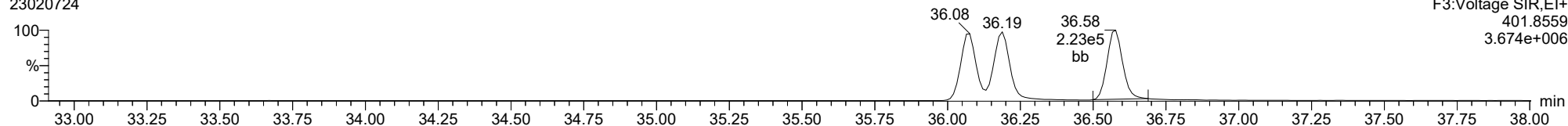
**123789-HxCDD**

23020724



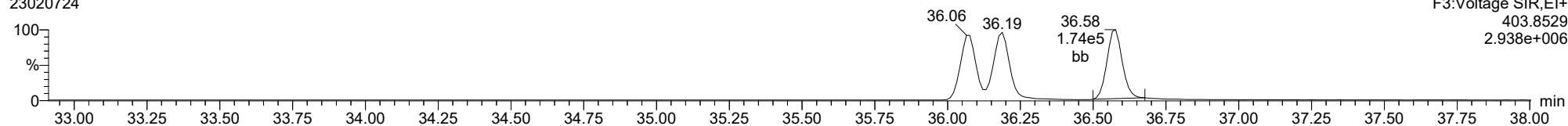
**13C-123789-HxCDD**

23020724



**13C-123789-HxCDD**

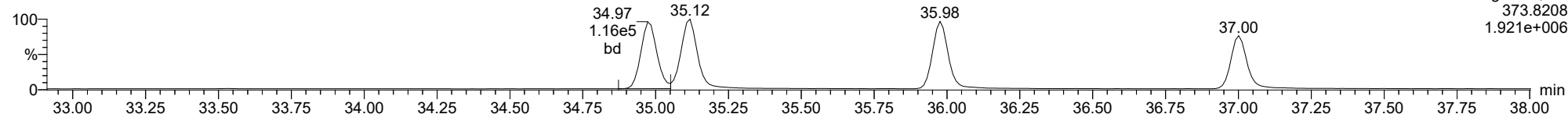
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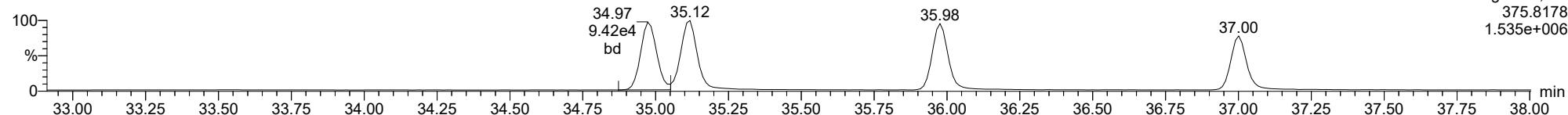
**123478-HxCDF**

23020724



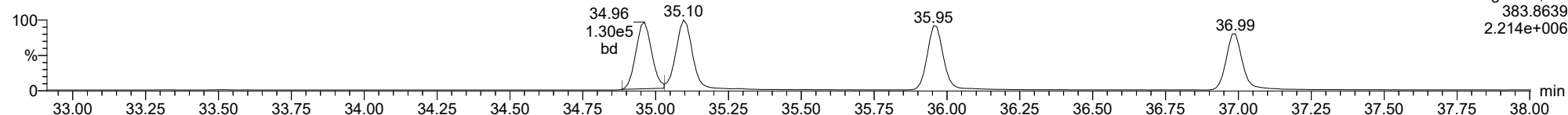
**123478-HxCDF**

23020724



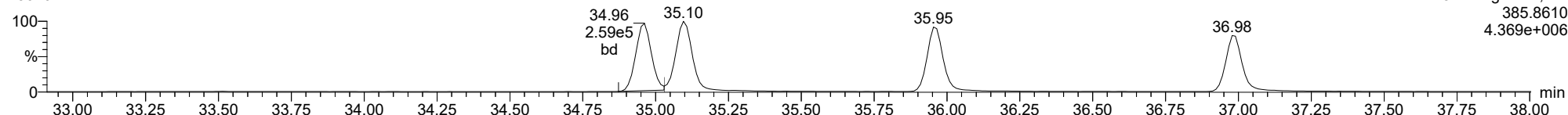
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23020724



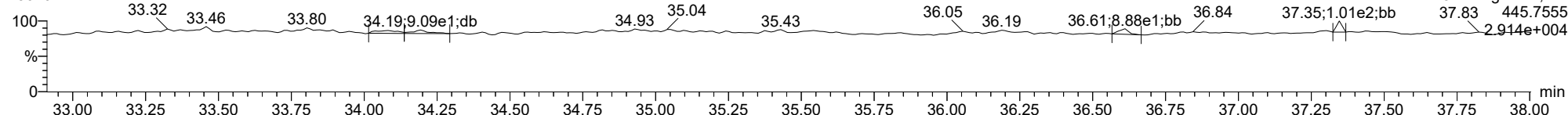
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23020724



**FUNCTION3 OCDPE**

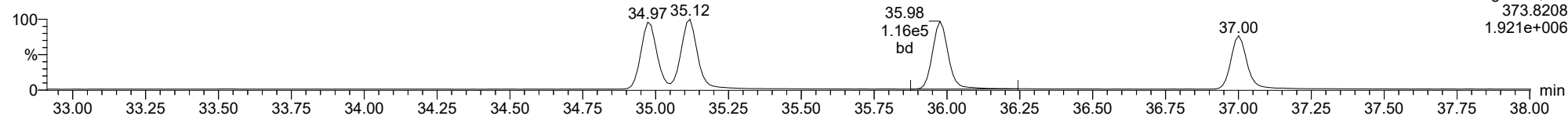
23020724



ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

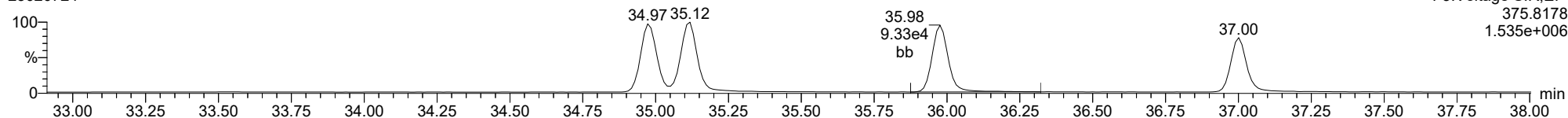
**234678-HxCDF**

23020724



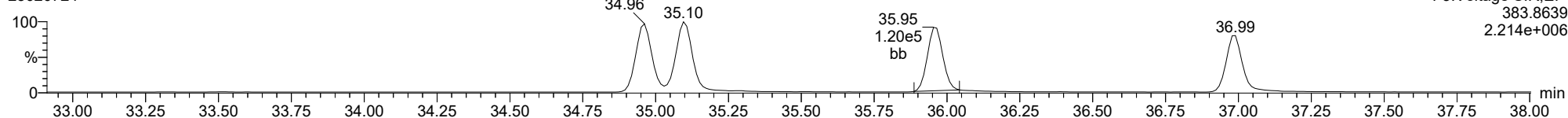
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23020724



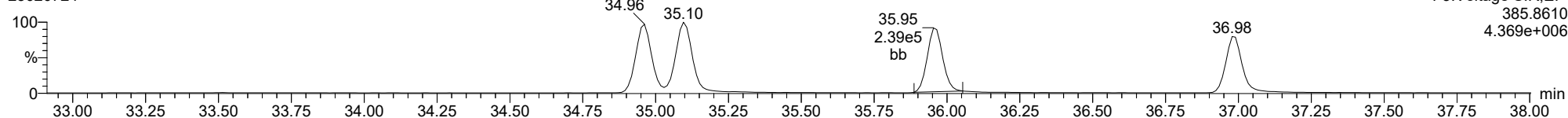
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23020724



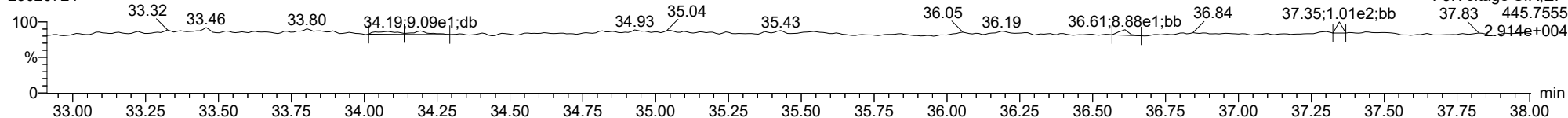
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23020724



**FUNCTION3 OCDPE**

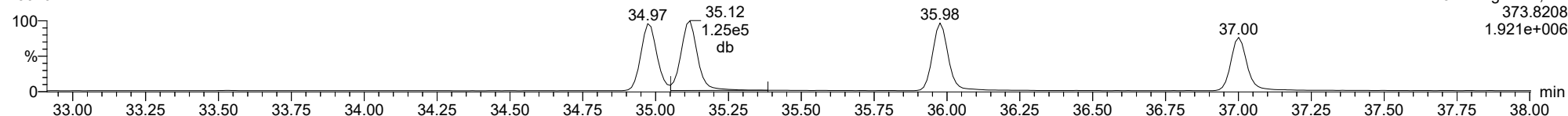
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

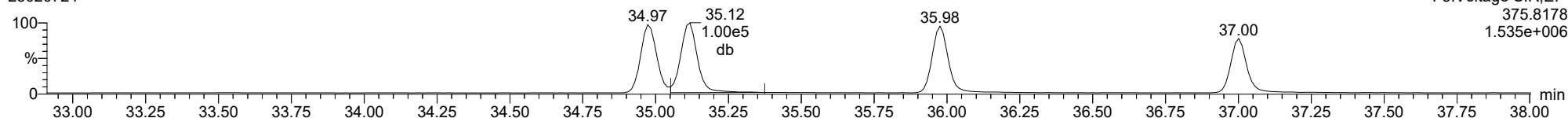
**123678-HxCDF**

23020724



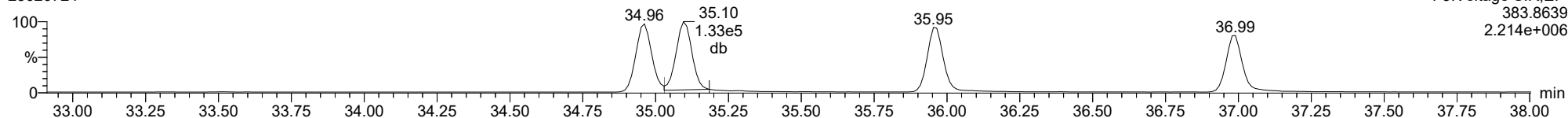
**123678-HxCDF**

23020724



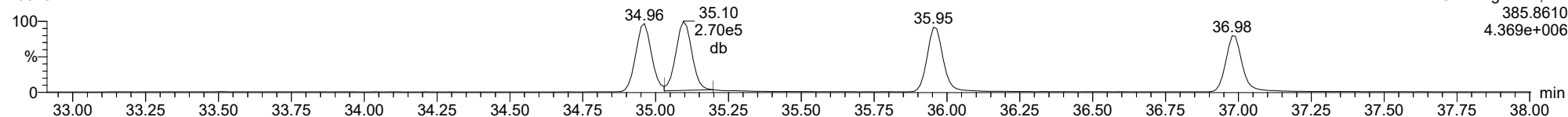
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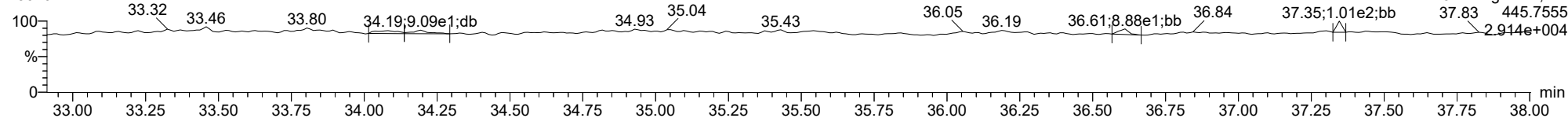
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23020724



**FUNCTION3 OCDPE**

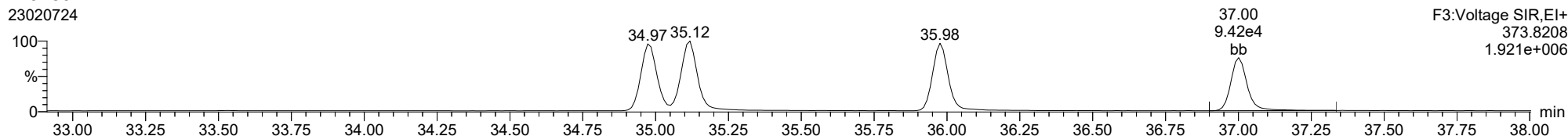
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

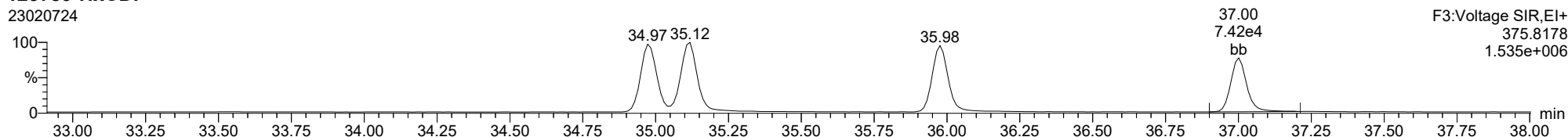
**123789-HxCDF**

23020724



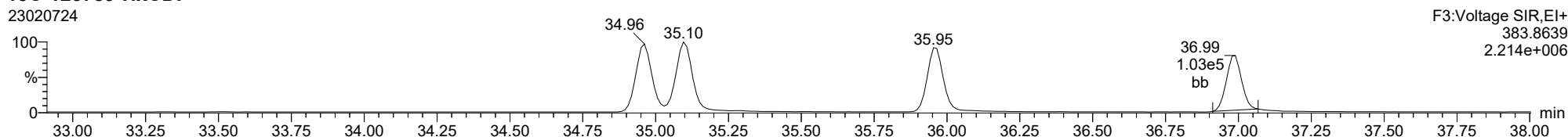
**123789-HxCDF**

23020724



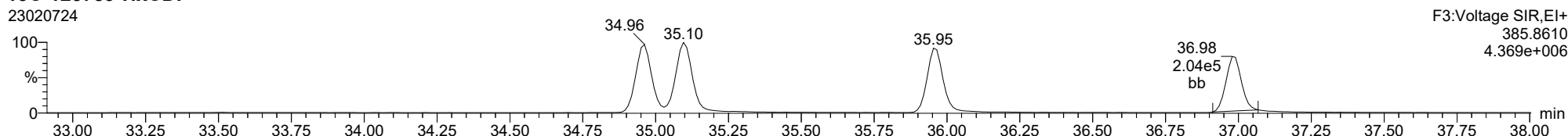
**13C-123789-HxCDF**

23020724



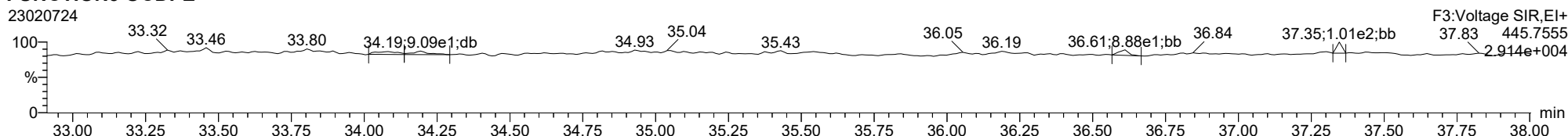
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23020724



**FUNCTION3 OCDPE**

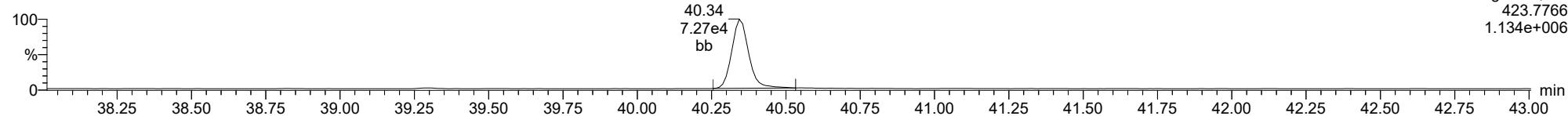
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

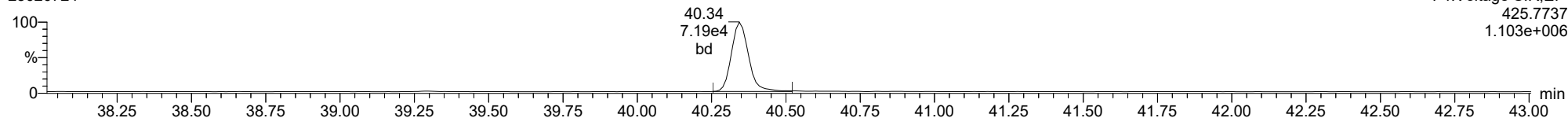
**1234678-HpCDD**

23020724



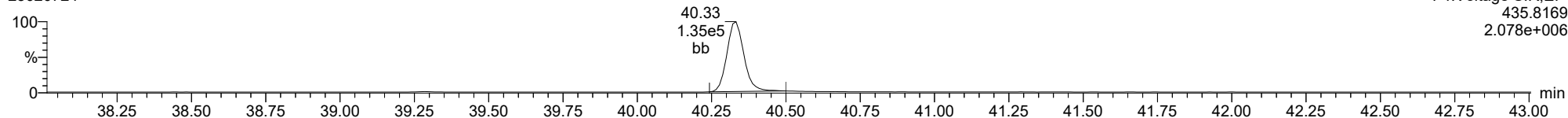
**1234678-HpCDD**

23020724



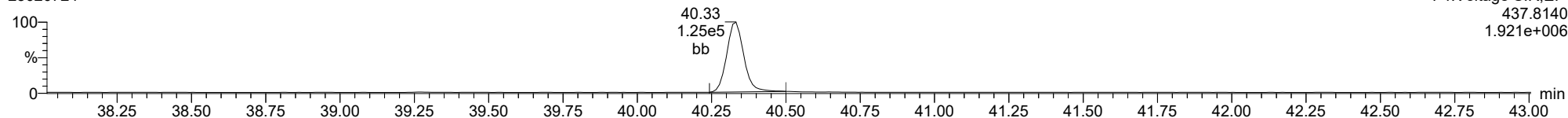
**13C-1234678-HpCDD**

23020724



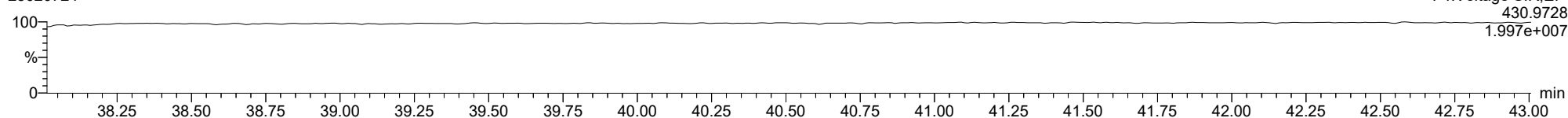
**13C-1234678-HpCDD**

23020724



**FUNCTION4 PFK**

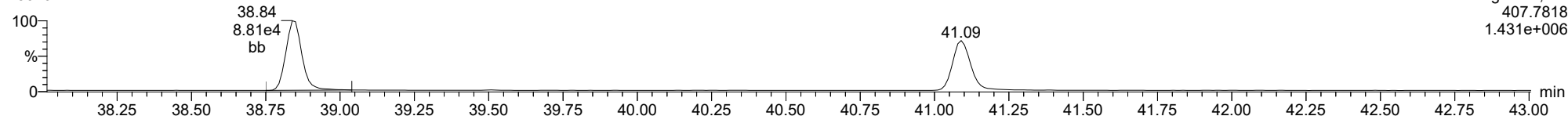
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

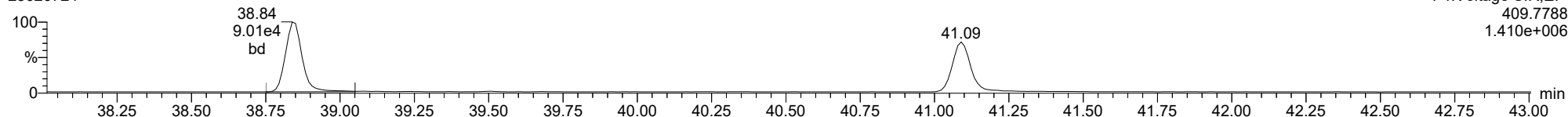
**1234678-HpCDF**

23020724



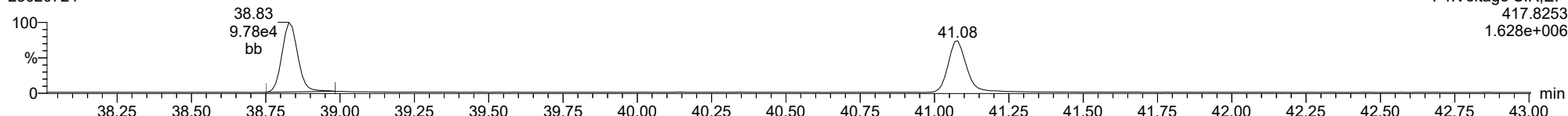
**1234678-HpCDF**

23020724



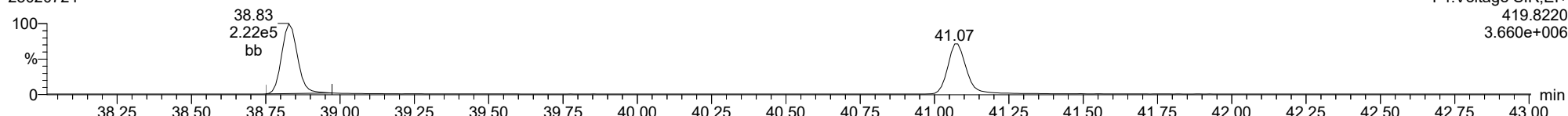
**13C-1234678-HpCDF**

23020724



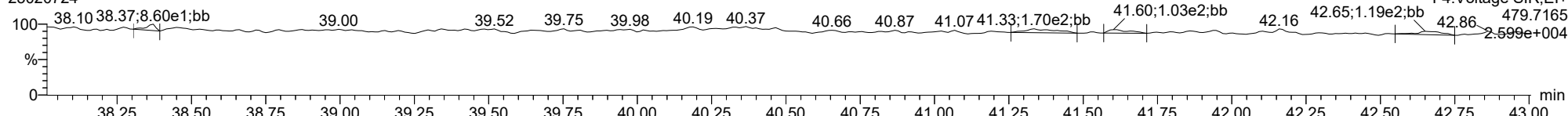
**13C-1234678-HpCDF**

23020724



**FUNCTION4 NCDPE**

23020724

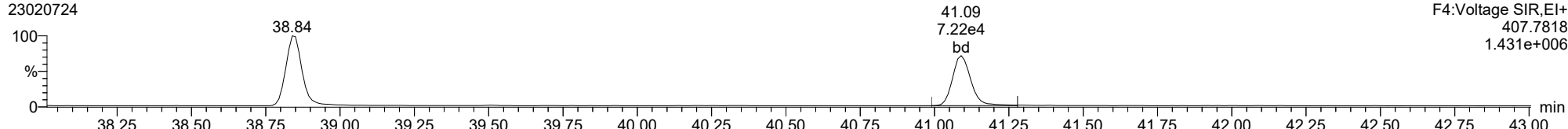




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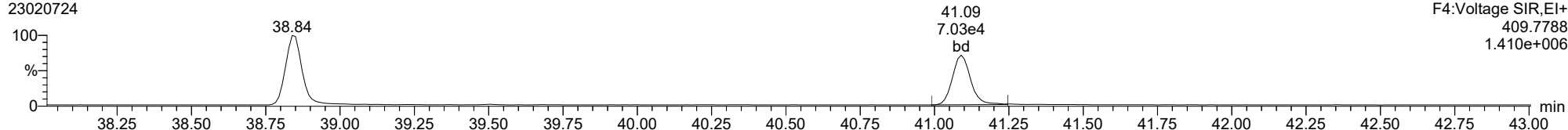
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23020724



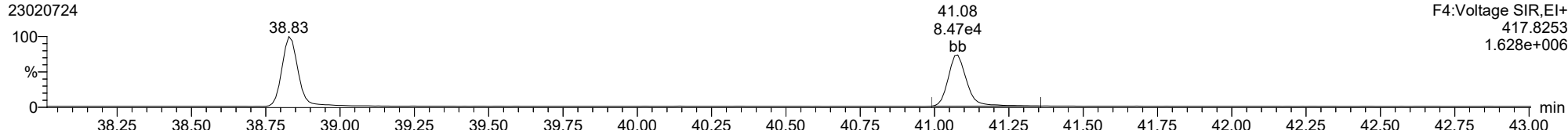
**1234789-HpCDF**

23020724



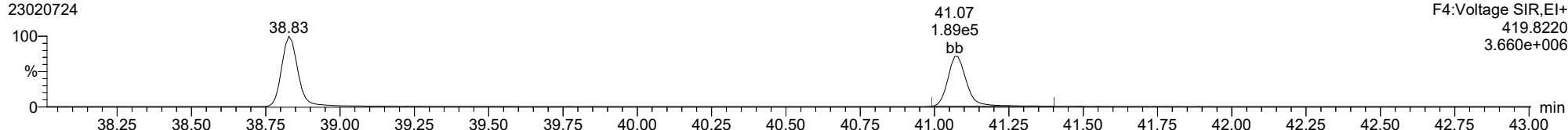
**13C-1234789-HpCDF**

23020724



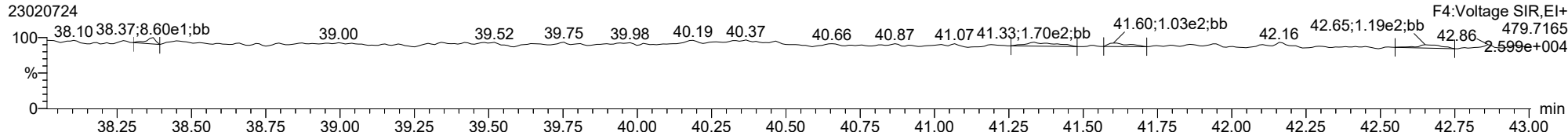
**13C-1234789-HpCDF**

23020724



**FUNCTION4 NCDPE**

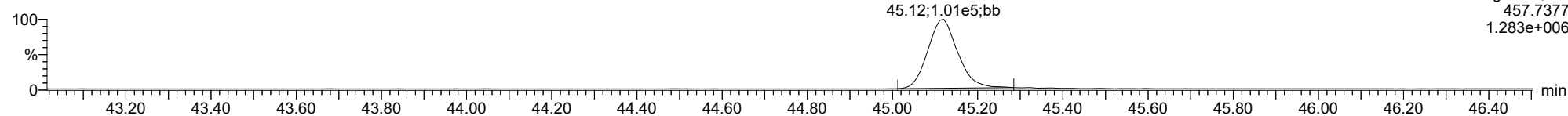
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

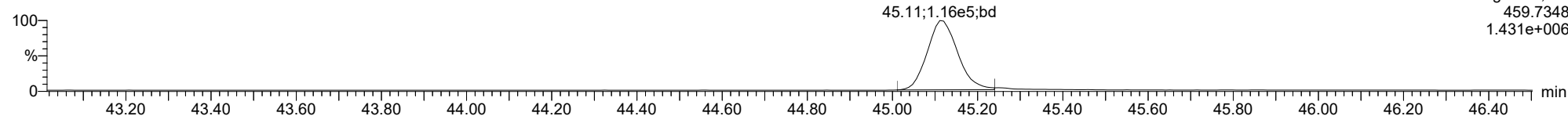
**OCDD**

23020724



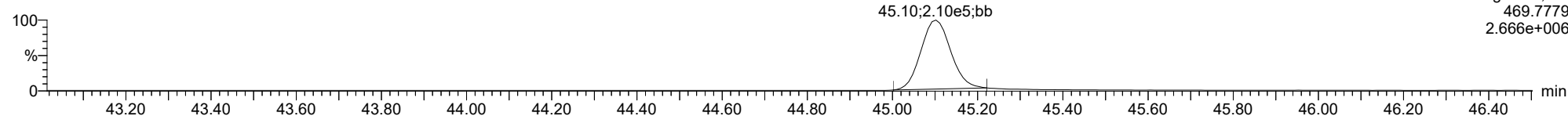
**OCDD**

23020724



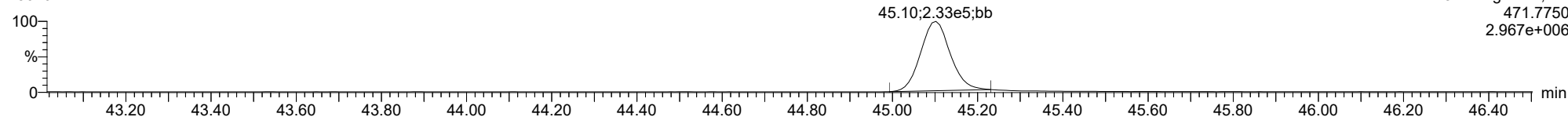
**13C-OCDD**

23020724



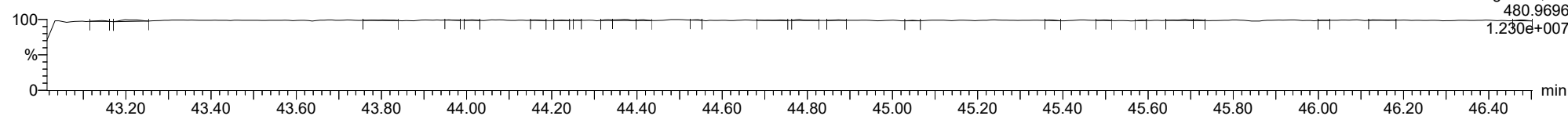
**13C-OCDD**

23020724

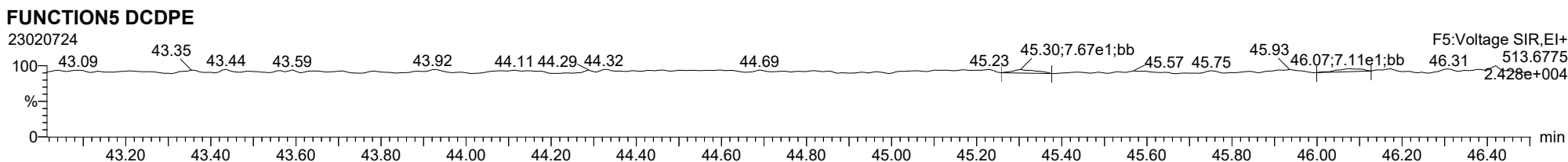
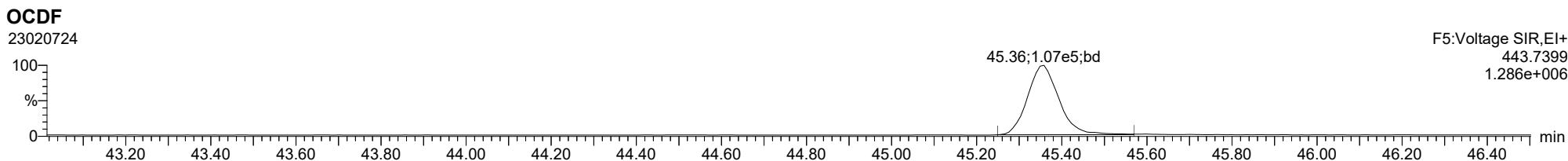
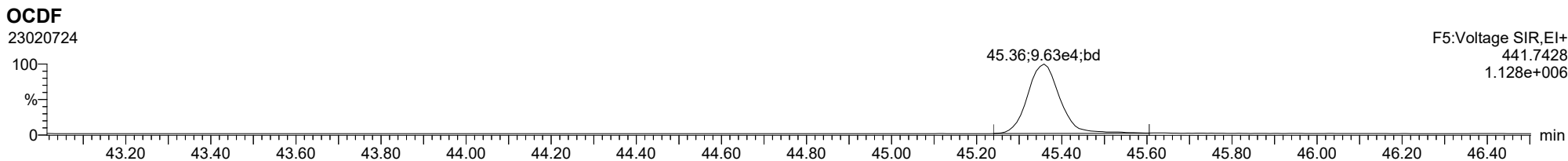


**FUNCTION5 PFK**

23020724



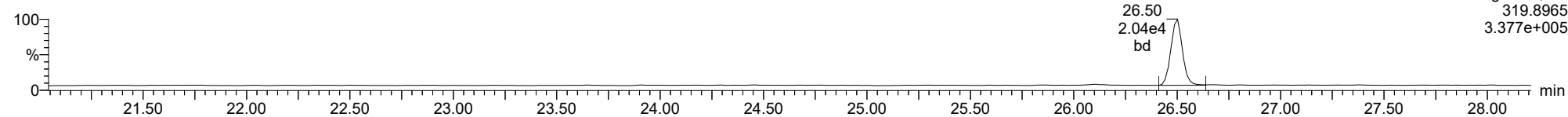
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ID: BKL0420-BS1, Name: 23020724, Date: 08-Feb-2023, Time: 04:10:27, Conditions: AUTOSPEC01, User: pk

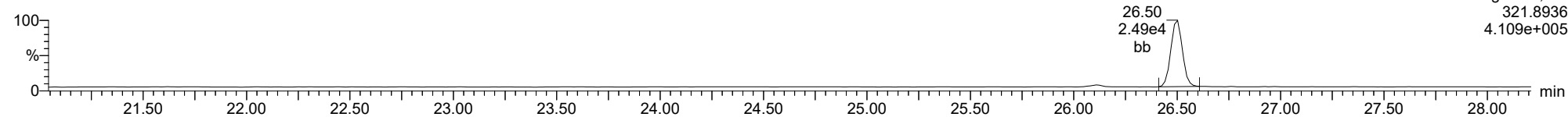
**Total-tetradoxins**

23020724



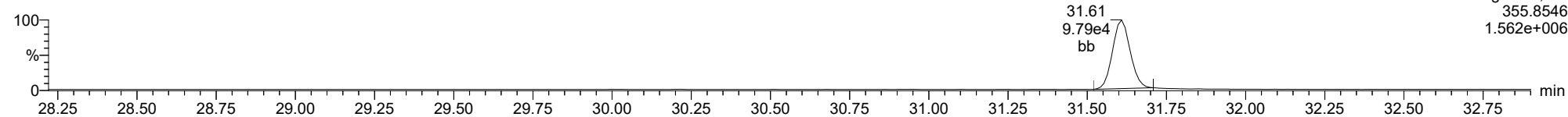
**Total-tetradoxins**

23020724



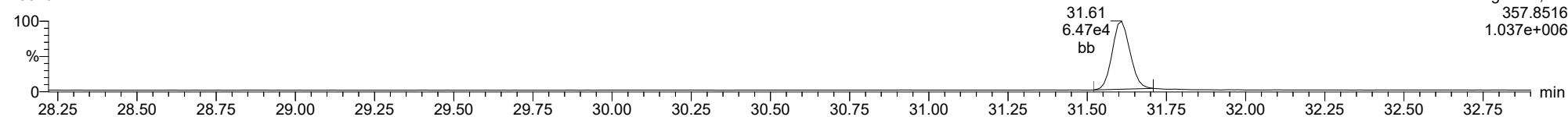
**Total-pentadoxins**

23020724



**Total-pentadoxins**

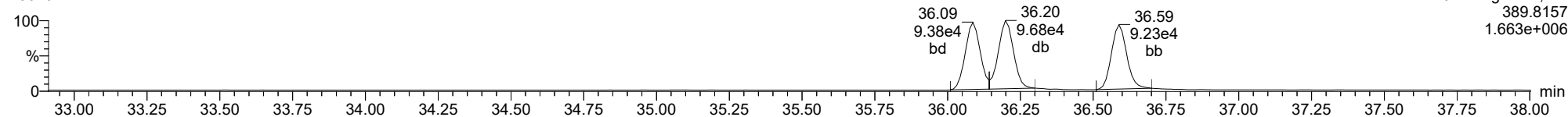
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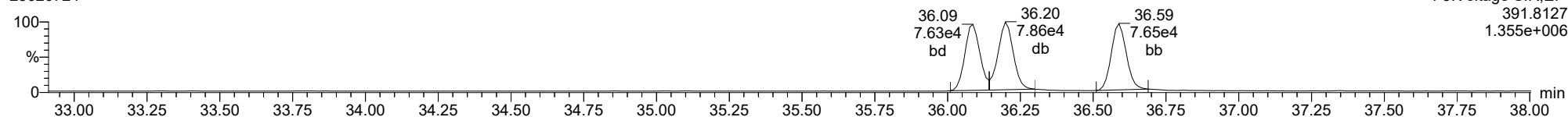
**Total-hexadioxins**

23020724



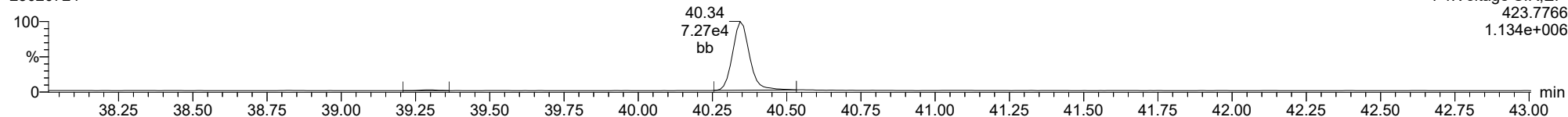
**Total-hexadioxins**

23020724



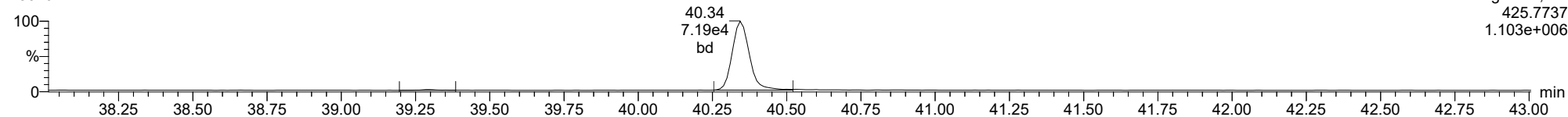
**Total-heptadioxins**

23020724



**Total-heptadioxins**

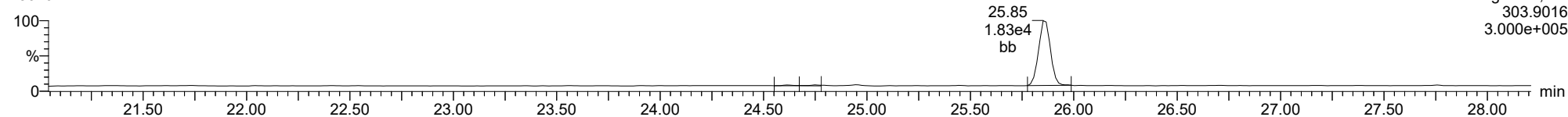
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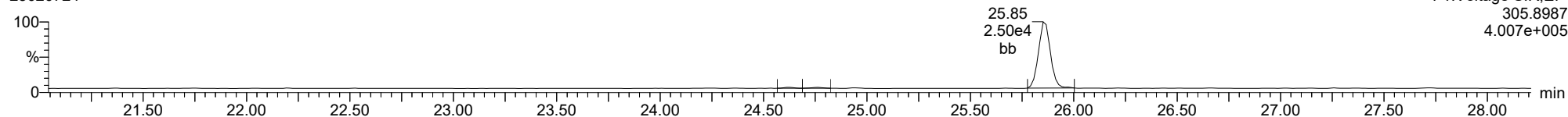
**Total-tetrafurans**

23020724



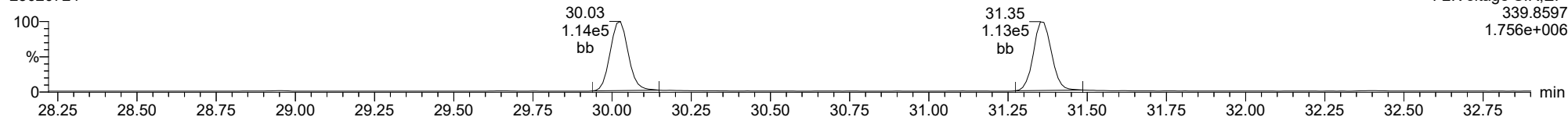
**Total-tetrafurans**

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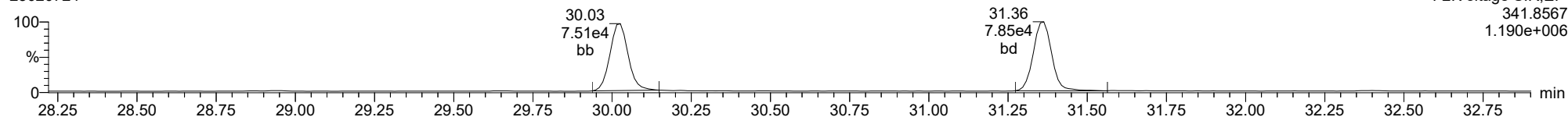
**Total-pentafurans**

23020724



**Total-pentafurans**

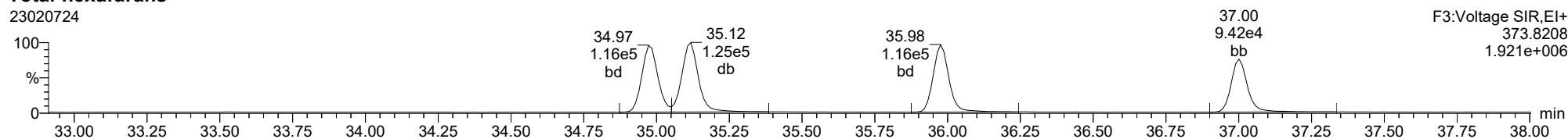
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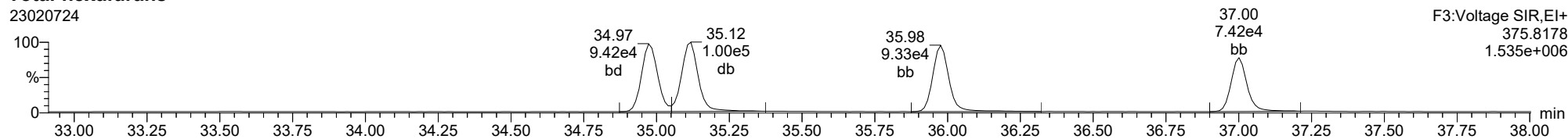
**Total-hexafurans**

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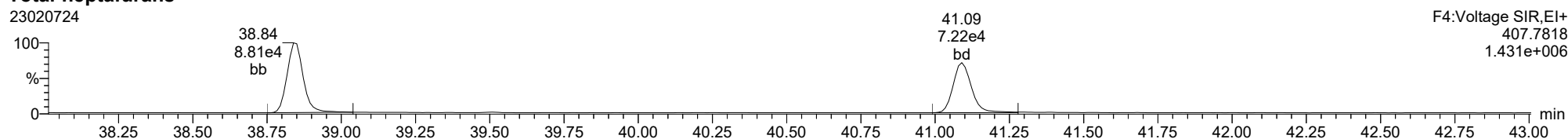
**Total-hexafurans**

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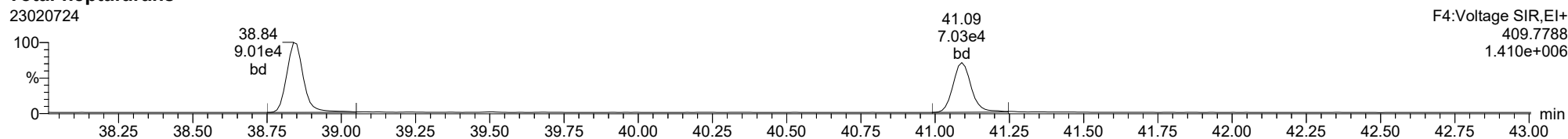
**Total-heptafurans**

23020724



**Total-heptafurans**

23020724





**DUPLICATES**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0420-DUP1

Batch: BKL0420

Lab Source ID: 22L0307-29

Preparation: EPA 8290

Initial/Final: 18.1 g / 20 uL

Source Sample Name: LDW22-IT808A

% Solids: 55.27

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
2,3,7,8-TCDF	25	1.14	1.19	4.06	
2,3,7,8-TCDD	25	0.422	0.455	7.34	
1,2,3,7,8-PeCDF	25	0.700	0.759	8.11	
2,3,4,7,8-PeCDF	25	1.56	1.43	8.42	
1,2,3,7,8-PeCDD	25	1.33	1.27	4.75	
1,2,3,4,7,8-HxCDF	25	6.90	6.69	3.12	
1,2,3,6,7,8-HxCDF	25	1.92	2.14	10.7	
2,3,4,6,7,8-HxCDF	25	2.94	2.78	5.56	
1,2,3,7,8,9-HxCDF	25	1.47	1.26	15.7	
1,2,3,4,7,8-HxCDD	25	1.37	1.38	0.769	
1,2,3,6,7,8-HxCDD	25	5.61	5.50	2.09	
1,2,3,7,8,9-HxCDD	25	3.11	3.48	11.3	
1,2,3,4,6,7,8-HpCDF	25	37.5	32.9	13.0	
1,2,3,4,7,8,9-HpCDF	25	4.22	3.97	6.19	
1,2,3,4,6,7,8-HpCDD	25	159	128	21.7	
OCDF	25	136	79.6	52.0	*
OCDD	25	1670	1030	47.2	*
Total TCDF	200	13.9	17.3	22.2	
Total TCDD	200	1.25	3.23	88.4	
Total PeCDF	200	22.2	21.0	5.54	
Total PeCDD	200	3.82	4.72	21.0	
Total HxCDF	200	57.0	59.0	3.40	
Total HxCDD	200	46.9	46.6	0.588	
Total HpCDF	200	150	116	25.3	
Total HpCDD	200	357	291	20.2	
13C12-2,3,7,8-TCDF		154	186		
13C12-2,3,7,8-TCDD		187	224		

\* Values outside of QC limits

L Analyte concentration is  $\leq 5$  times the reporting limit and the replicate control limit defaults to +/- RL instead of 20% RPD





**DUPLICATES**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0420-DUP1

Batch: BKL0420

Lab Source ID: 22L0307-29

Preparation: EPA 8290

Initial/Final: 18.1 g / 20 uL

Source Sample Name: LDW22-IT808A

% Solids: 55.27

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
13C12-1,2,3,7,8-PeCDF		161	211		
13C12-2,3,4,7,8-PeCDF		158	207		
13C12-1,2,3,7,8-PeCDD		175	232		
13C12-1,2,3,4,7,8-HxCDF		170	219		
13C12-1,2,3,6,7,8-HxCDF		171	218		
13C12-2,3,4,6,7,8-HxCDF		169	221		
13C12-1,2,3,7,8,9-HxCDF		168	224		
13C12-1,2,3,4,7,8-HxCDD		187	243		
13C12-1,2,3,6,7,8-HxCDD		181	240		
13C12-1,2,3,4,6,7,8-HpCDF		134	177		
13C12-1,2,3,4,7,8,9-HpCDF		132	172		
13C12-1,2,3,4,6,7,8-HpCDD		145	191		
13C12-OCDD		247	317		
37Cl4-2,3,7,8-TCDD		71.3	73.1		

\*: 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

**Quantify Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**  
 Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
 Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**

**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.867	1.001	1.438e3	1.822e3	0.876	0.789	0.770	854	1348	2.49e4	2.96e4	29.2	21.9	NO	bd	bd	0.593
12378-PeCDF	30.026	1.000	1.240e3	7.355e2	0.845	1.686	1.550	1679	1258	1.97e4	1.12e4	11.7	8.9	NO	bb	MM	0.380
23478-PeCDF	31.363	1.000	2.252e3	1.531e3	0.911	1.471	1.550	1679	1258	3.25e4	2.52e4	19.4	20.0	NO	db	db	0.716
123478-HxCDF	34.984	1.000	1.094e4	8.756e3	1.182	1.249	1.240	910	865	1.72e5	1.38e5	188.6	160.0	NO	dd	dd	3.344
234678-HxCDF	35.953	0.999	4.629e3	3.652e3	1.229	1.267	1.240	910	865	4.91e4	3.98e4	53.9	46.0	NO	bb	bb	1.391
123678-HxCDF	35.129	1.001	3.974e3	2.819e3	1.248	1.410	1.240	910	865	5.45e4	4.32e4	59.9	49.9	NO	dd	db	1.069
123789-HxCDF	36.978	1.000	1.767e3	1.581e3	1.187	1.118	1.240	910	865	2.61e4	2.41e4	28.7	27.9	NO	bb	bb	0.628
1234678-HpCDF	38.850	1.000	3.951e4	3.914e4	1.204	1.009	1.050	1064	1038	6.52e5	6.44e5	612.7	620.5	NO	bd	bb	16.465
1234789-HpCDF	41.100	1.000	3.509e3	4.275e3	1.165	0.821	1.050	1064	1038	5.20e4	6.25e4	48.9	60.2	YES	MM	bb	1.984
OCDF	45.367	1.005	5.932e4	6.818e4	1.186	0.870	0.890	785	944	6.94e5	7.51e5	884.7	796.0	NO	bd	bd	39.824
2378-TCDD	26.517	1.001	5.989e2	7.269e2	1.236	0.824	0.770	862	948	8.73e3	1.16e4	10.1	12.2	NO	MM	bd	0.227
12378-PeCDD	31.619	1.001	1.714e3	1.076e3	1.087	1.593	1.550	1523	1414	2.56e4	1.66e4	16.8	11.7	NO	bb	bb	0.634
123478-HxCDD	36.109	1.000	1.860e3	1.479e3	0.987	1.257	1.240	1341	1662	3.23e4	2.58e4	24.1	15.5	NO	bd	bd	0.690
123678-HxCDD	36.221	1.000	7.558e3	6.496e3	1.021	1.163	1.240	1341	1662	1.28e5	1.05e5	95.3	63.4	NO	dd	dd	2.749
123789-HxCDD	36.610	1.011	4.662e3	3.837e3	0.985	1.215	1.240	1341	1662	7.38e4	6.35e4	55.0	38.2	NO	db	bb	1.740
1234678-HpCDD	40.354	1.001	1.304e5	1.285e5	1.253	1.015	1.050	1762	1801	1.96e6	1.95e6	1111.8	1083.2	NO	bd	bd	63.955
OCDD	45.129	1.000	7.170e5	8.196e5	1.103	0.875	0.890	1265	1981	8.83e6	1.01e7	6981.8	5089.1	NO	bb	bb	516.342
13C-2378-TCDF	25.851	1.007	2.733e5	3.542e5	1.768	0.771	0.770	1814	1161	4.27e6	5.48e6	2352.8	4718.7	NO	bb	bb	92.900
13C-12378-PeCDF	30.015	1.169	3.726e5	2.431e5	1.527	1.533	1.550	1167	1274	5.80e6	3.77e6	4968.9	2963.2	NO	bb	bb	105.539
13C-23478-PeCDF	31.352	1.221	3.524e5	2.273e5	1.466	1.550	1.550	1167	1274	5.42e6	3.51e6	4647.2	2752.1	NO	bb	bb	103.491
13C-123478-HxCDF	34.973	0.956	1.672e5	3.311e5	1.054	0.505	0.510	1167	1372	2.71e6	5.35e6	2319.4	3900.4	NO	bd	bd	109.501
13C-123678-HxCDF	35.106	0.959	1.712e5	3.381e5	1.080	0.507	0.510	1167	1372	2.72e6	5.37e6	2332.8	3917.2	NO	db	db	109.188
13C-234678-HxCDF	35.986	0.983	1.626e5	3.219e5	1.014	0.505	0.510	1167	1372	2.64e6	5.13e6	2263.6	3740.5	NO	bb	bb	110.595
13C-123789-HxCDF	36.989	1.011	1.514e5	2.977e5	0.928	0.509	0.510	1167	1372	2.63e6	5.14e6	2252.9	3749.1	NO	bb	bb	112.039
13C-1234678-HpCDF	38.839	1.061	1.220e5	2.747e5	1.036	0.444	0.440	1458	1440	2.04e6	4.61e6	1400.3	3198.8	NO	bb	bb	88.639
13C-1234789-HpCDF	41.089	1.123	1.015e5	2.352e5	0.905	0.431	0.440	1458	1440	1.46e6	3.35e6	1002.7	2323.8	NO	bb	bd	86.148
13C-1234-TCDD	25.670	0.000	1.684e5	2.137e5	1.000	0.788	0.770	1491	913	2.65e6	3.37e6	1777.0	3691.9	NO	bb	bb	100.000
13C-2378-TCDD	26.486	1.032	2.054e5	2.661e5	1.103	0.772	0.770	1491	913	3.20e6	4.18e6	2147.5	4575.3	NO	bb	bb	111.911
13C-12378-PeCDD	31.597	1.231	2.489e5	1.562e5	0.914	1.593	1.550	1164	711	3.73e6	2.34e6	3202.8	3283.9	NO	bd	bb	115.990
13C-123478-HxCDD	36.098	0.986	2.773e5	2.133e5	0.933	1.300	1.240	1318	1062	4.62e6	3.51e6	3508.5	3301.1	NO	bd	bd	121.736
13C-123678-HxCDD	36.209	0.989	2.811e5	2.198e5	0.965	1.279	1.240	1318	1062	4.60e6	3.63e6	3490.1	3413.1	NO	db	db	120.219
13C-1234678-HpCDD	40.332	1.102	1.627e5	1.604e5	0.782	1.014	1.050	901	1066	2.49e6	2.39e6	2760.4	2239.3	NO	bb	bd	95.664
13C-OCDD	45.120	1.233	2.579e5	2.819e5	0.788	0.915	0.890	1377	805	3.25e6	3.56e6	2360.2	4427.5	NO	bb	bb	158.538
13C-123789-HxCDD	36.599	0.000	2.395e5	1.924e5	1.000	1.245	1.240	1318	1062	3.93e6	3.14e6	2986.2	2952.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.501	1.032	1.723e5		1.233			931		2.66e6		2860.4			bb		36.557

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.359	0.865	5.469e2	5.323e2	1.064	1.028	0.770	854	1348	8.63e3	8.59e3	10.1	6.4	YES	bd	bd	0.162
1289-TCDF	27.469	1.063	7.553e2	1.093e3	0.858	0.691	0.770	854	1348	1.37e4	1.68e4	16.0	12.5	NO	db	db	0.343
13468-PECDF					1.013		1.550	897	704								
12389-PECDF					0.844		1.550	1679	1258								
123468-HXCDF	33.324	0.953	7.136e3	5.665e3	1.197	1.260	1.240	910	865	1.15e5	8.92e4	126.0	103.0	NO	bd	bd	2.145
1368-TCDD	23.614	0.892	1.298e3	1.842e3	1.084	0.705	0.770	862	948	2.12e4	2.92e4	24.6	30.9	NO	bb	bb	0.614
1289-TCDD					0.975		0.770	862	948								
12479-PECDD	28.923	0.915	4.296e3	3.478e3	1.837	1.235	1.550	1523	1414	3.93e4	3.62e4	25.8	25.6	YES	MM	MM	1.045
12389-PECDD					1.252		1.550	1523	1414								
124679-HXCDD	34.092	0.944	1.997e4	1.594e4	1.033	1.253	1.240	1341	1662	3.10e5	2.54e5	231.5	153.1	NO	bb	bb	7.087
1234679-HPCDD	39.296	0.974	1.726e5	1.666e5	1.286	1.036	1.050	1762	1801	2.70e6	2.64e6	1534.3	1467.9	NO	bb	bd	81.613
Total-tetrafurans			2.159e4		0.933			854		3.27e5							8.666
Total-penta1			1.775e4					897		2.45e5							5.252
Total-pentafurans			1.616e4		0.866			1679		2.38e5							5.231
Total-hexafurans			9.661e4		1.208			910		1.46e6							29.494
Total-heptafurans			1.309e5		1.185			1064		2.09e6							58.268
Total-Furans			3.423e5		1.067			854		5.06e6							146.736
Total-tetradoxins			3.727e3		1.099			862		5.61e4							1.616
Total-pentadoxins			7.593e3		1.392			1523		1.22e5							2.361
Total-hexadoxins			6.452e4		1.007			1341		9.06e5							23.312
Total-heptadoxins			3.030e5		1.269			1762		4.66e6							145.569
Total-Dioxins			1.096e6		1.165			862		1.46e7							689.200
Total-TEQ			1.438e6					862		1.96e7							835.936
FUNCTION1 PFK			7.261e6					502882		4.36e7							
FUNCTION2 PFK			2.339e5					182345		5.58e6							0.000
FUNCTION3 PFK			1.780e6					207052		5.05e6							0.000
FUNCTION4 PFK			7.070e4					156677		1.57e6							
FUNCTION5 PFK			1.270e5					78183		2.59e6							
FUNCTION1 HXCD...			1.376e3					613		2.35e4							0.000
FUNCTION1 HPCD...			3.063e3					517		5.32e4							0.000
FUNCTION2 HPCD...			4.189e2					780		7.79e3							0.000
FUNCTION3 OCDPE			1.930e2					636		2.59e3							0.000
FUNCTION4 NCDPE			4.309e3					584		7.58e4							0.000
FUNCTION5 DCDPE			2.404e2					636		5.40e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.98	1.149e3	1.321e3	0.933	0.87	0.77	20.2	YES	NO	db	db	0.422
2	Total-tetrafurans	23.86	1.464e3	1.736e3	0.933	0.84	0.77	28.5	YES	NO	bd	bd	0.547
3	Total-tetrafurans	23.61	1.390e3	1.784e3	0.933	0.78	0.77	25.9	YES	NO	dd	dd	0.542
4	Total-tetrafurans	23.33	5.507e2	7.328e2	0.933	0.75	0.77	12.3	YES	NO	dd	dd	0.219
5	Total-tetrafurans	23.21	2.628e3	3.328e3	0.933	0.79	0.77	42.6	YES	NO	bd	bd	1.018
6	Total-tetrafurans	22.63	9.966e2	1.306e3	0.933	0.76	0.77	18.0	YES	NO	db	db	0.394
7	Total-tetrafurans	26.23	2.881e2	4.363e2	0.933	0.66	0.77	7.1	YES	NO	db	db	0.124
8	Total-tetrafurans	26.09	1.849e3	2.492e3	0.933	0.74	0.77	34.8	YES	NO	dd	dd	0.742
9	2378-TCDF	25.87	1.438e3	1.822e3	0.876	0.79	0.77	29.2	YES	NO	bd	bd	0.593
10	Total-tetrafurans	25.62	1.342e3	1.922e3	0.933	0.70	0.77	13.6	YES	NO	db	db	0.558
11	Total-tetrafurans	25.37	4.744e2	6.402e2	0.933	0.74	0.77	8.2	YES	NO	dd	dd	0.190
12	Total-tetrafurans	25.17	7.647e2	9.793e2	0.933	0.78	0.77	12.3	YES	NO	bd	bd	0.298
13	Total-tetrafurans	24.94	1.167e3	1.534e3	0.933	0.76	0.77	20.5	YES	NO	bb	bb	0.461
14	Total-tetrafurans	24.76	1.849e3	2.771e3	0.933	0.67	0.77	30.2	YES	NO	db	MM	0.789
15	Total-tetrafurans	24.61	6.460e2	7.888e2	0.933	0.82	0.77	12.1	YES	NO	dd	dd	0.245
16	Total-tetrafurans	24.54	1.386e3	1.959e3	0.933	0.71	0.77	23.0	YES	NO	bd	dd	0.571
17	Total-tetrafurans	24.10	1.454e3	2.110e3	0.933	0.69	0.77	28.5	YES	NO	bb	bd	0.609
18	1289-TCDF	27.47	7.553e2	1.093e3	0.858	0.69	0.77	16.0	YES	NO	db	db	0.343

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.30	1.775e4	1.191e4		1.49	1.55	273.6	YES	NO	bb	db	5.252

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	30.23	1.584e3	1.198e3	0.866	1.32	1.55	15.3	YES	NO	bb	bd	0.537
2	12378-PeCDF	30.03	1.240e3	7.355e2	0.845	1.69	1.55	11.7	YES	NO	bb	MM	0.380
3	Total-pentafurans	28.97	9.146e3	6.207e3	0.866	1.47	1.55	78.0	YES	NO	db	dd	2.964
4	23478-PeCDF	31.36	2.252e3	1.531e3	0.911	1.47	1.55	19.4	YES	NO	db	db	0.716
5	Total-pentafurans	31.22	1.942e3	1.340e3	0.866	1.45	1.55	17.5	YES	NO	dd	dd	0.634

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.98	1.767e3	1.581e3	1.187	1.12	1.24	28.7	YES	NO	bb	bb	0.628
2	234678-HxCDF	35.95	4.629e3	3.652e3	1.229	1.27	1.24	53.9	YES	NO	bb	bb	1.391
3	Total-hexafurans	35.45	4.155e2	3.725e2	1.208	1.12	1.24	6.8	YES	NO	bb	bb	0.134
4	123678-HxCDF	35.13	3.974e3	2.819e3	1.248	1.41	1.24	59.9	YES	NO	dd	db	1.069
5	123478-HxCDF	34.98	1.094e4	8.756e3	1.182	1.25	1.24	188.6	YES	NO	dd	dd	3.344
6	Total-hexafurans	34.84	1.397e3	9.862e2	1.208	1.42	1.24	27.2	YES	NO	bd	bd	0.406
7	Total-hexafurans	34.37	4.002e4	3.196e4	1.208	1.25	1.24	686.2	YES	NO	bb	bd	12.272
8	Total-hexafurans	34.07	8.819e2	7.787e2	1.208	1.13	1.24	17.6	YES	NO	bb	bb	0.283
9	Total-hexafurans	33.54	2.545e4	2.043e4	1.208	1.25	1.24	414.3	YES	NO	db	dd	7.822
10	123468-HXCDF	33.32	7.136e3	5.665e3	1.197	1.26	1.24	126.0	YES	NO	bd	bd	2.145

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.51	9.140e4	9.022e4	1.185	1.01	1.05	1356.2	YES	NO	bb	bd	41.803
2	1234678-HpCDF	38.85	3.951e4	3.914e4	1.204	1.01	1.05	612.7	YES	NO	bd	bb	16.465

## Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.98	1.149e3	1.321e3	0.933	0.87	0.77	20.2	YES	NO	db	db	0.422
2	Total-tetrafurans	23.86	1.464e3	1.736e3	0.933	0.84	0.77	28.5	YES	NO	bd	bd	0.547
3	Total-tetrafurans	23.61	1.390e3	1.784e3	0.933	0.78	0.77	25.9	YES	NO	dd	dd	0.542
4	Total-tetrafurans	23.33	5.507e2	7.328e2	0.933	0.75	0.77	12.3	YES	NO	dd	dd	0.219
5	Total-tetrafurans	23.21	2.628e3	3.328e3	0.933	0.79	0.77	42.6	YES	NO	bd	bd	1.018
6	Total-tetrafurans	22.63	9.966e2	1.306e3	0.933	0.76	0.77	18.0	YES	NO	db	db	0.394
7	Total-tetrafurans	26.23	2.881e2	4.363e2	0.933	0.66	0.77	7.1	YES	NO	db	db	0.124
8	Total-tetrafurans	26.09	1.849e3	2.492e3	0.933	0.74	0.77	34.8	YES	NO	dd	dd	0.742
9	2378-TCDF	25.87	1.438e3	1.822e3	0.876	0.79	0.77	29.2	YES	NO	bd	bd	0.593
10	Total-tetrafurans	25.62	1.342e3	1.922e3	0.933	0.70	0.77	13.6	YES	NO	db	db	0.558
11	Total-tetrafurans	25.37	4.744e2	6.402e2	0.933	0.74	0.77	8.2	YES	NO	dd	dd	0.190
12	Total-tetrafurans	25.17	7.647e2	9.793e2	0.933	0.78	0.77	12.3	YES	NO	bd	bd	0.298
13	Total-tetrafurans	24.94	1.167e3	1.534e3	0.933	0.76	0.77	20.5	YES	NO	bb	bb	0.461
14	Total-tetrafurans	24.76	1.849e3	2.771e3	0.933	0.67	0.77	30.2	YES	NO	db	MM	0.789
15	Total-tetrafurans	24.61	6.460e2	7.888e2	0.933	0.82	0.77	12.1	YES	NO	dd	dd	0.245
16	Total-tetrafurans	24.54	1.386e3	1.959e3	0.933	0.71	0.77	23.0	YES	NO	bd	dd	0.571
17	Total-tetrafurans	24.10	1.454e3	2.110e3	0.933	0.69	0.77	28.5	YES	NO	bb	bd	0.609
18	1289-TCDF	27.47	7.553e2	1.093e3	0.858	0.69	0.77	16.0	YES	NO	db	db	0.343
19	Total-pentafurans	30.23	1.584e3	1.198e3	0.866	1.32	1.55	15.3	YES	NO	bb	bd	0.537
20	12378-PeCDF	30.03	1.240e3	7.355e2	0.845	1.69	1.55	11.7	YES	NO	bb	MM	0.380
21	Total-pentafurans	28.97	9.146e3	6.207e3	0.866	1.47	1.55	78.0	YES	NO	db	dd	2.964
22	23478-PeCDF	31.36	2.252e3	1.531e3	0.911	1.47	1.55	19.4	YES	NO	db	db	0.716
23	Total-pentafurans	31.22	1.942e3	1.340e3	0.866	1.45	1.55	17.5	YES	NO	dd	dd	0.634
24	123789-HxCDF	36.98	1.767e3	1.581e3	1.187	1.12	1.24	28.7	YES	NO	bb	bb	0.628
25	234678-HxCDF	35.95	4.629e3	3.652e3	1.229	1.27	1.24	53.9	YES	NO	bb	bb	1.391
26	Total-hexafurans	35.45	4.155e2	3.725e2	1.208	1.12	1.24	6.8	YES	NO	bb	bb	0.134
27	123678-HxCDF	35.13	3.974e3	2.819e3	1.248	1.41	1.24	59.9	YES	NO	dd	db	1.069
28	123478-HxCDF	34.98	1.094e4	8.756e3	1.182	1.25	1.24	188.6	YES	NO	dd	dd	3.344
29	Total-hexafurans	34.84	1.397e3	9.862e2	1.208	1.42	1.24	27.2	YES	NO	bd	bd	0.406
30	Total-hexafurans	34.37	4.002e4	3.196e4	1.208	1.25	1.24	686.2	YES	NO	bb	bd	12.272
31	Total-hexafurans	34.07	8.819e2	7.787e2	1.208	1.13	1.24	17.6	YES	NO	bb	bb	0.283
32	Total-hexafurans	33.54	2.545e4	2.043e4	1.208	1.25	1.24	414.3	YES	NO	db	dd	7.822
33	123468-HXCDF	33.32	7.136e3	5.665e3	1.197	1.26	1.24	126.0	YES	NO	bd	bd	2.145
34	Total-heptafurans	39.51	9.140e4	9.022e4	1.185	1.01	1.05	1356.2	YES	NO	bb	bd	41.803
35	1234678-HpCDF	38.85	3.951e4	3.914e4	1.204	1.01	1.05	612.7	YES	NO	bd	bb	16.465
36	OCDF	45.37	5.932e4	6.818e4	1.186	0.87	0.89	884.7	YES	NO	bd	bd	39.824
37	Total-penta1	27.30	1.775e4	1.191e4		1.49	1.55	273.6	YES	NO	bb	db	5.252

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.11	6.933e2	8.552e2	1.099	0.81	0.77	11.7	YES	NO	bd	bb	0.299
2	Total-tetradoxins	23.90	1.136e3	1.329e3	1.099	0.85	0.77	18.6	YES	NO	bb	bb	0.476
3	1368-TCDD	23.61	1.298e3	1.842e3	1.084	0.71	0.77	24.6	YES	NO	bb	bb	0.614
4	2378-TCDD	26.52	5.989e2	7.269e2	1.236	0.82	0.77	10.1	YES	NO	MM	bd	0.227

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadoxins	30.24	1.748e3	1.009e3	1.392	1.73	1.55	22.5	YES	NO	bb	bb	0.489
2	Total-pentadoxins	30.01	1.717e3	1.271e3	1.392	1.35	1.55	17.5	YES	NO	bb	bb	0.530
3	12378-PeCDD	31.62	1.714e3	1.076e3	1.087	1.59	1.55	16.8	YES	NO	bb	bb	0.634
4	Total-pentadoxins	30.56	1.020e3	6.952e2	1.392	1.47	1.55	8.3	YES	NO	db	bb	0.304
5	Total-pentadoxins	30.36	1.394e3	8.822e2	1.392	1.58	1.55	14.9	YES	NO	bb	bb	0.404

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	4.662e3	3.837e3	0.985	1.22	1.24	55.0	YES	NO	db	bb	1.740
2	123678-HxCDD	36.22	7.558e3	6.496e3	1.021	1.16	1.24	95.3	YES	NO	dd	dd	2.749
3	123478-HxCDD	36.11	1.860e3	1.479e3	0.987	1.26	1.24	24.1	YES	NO	bd	bd	0.690
4	Total-hexadoxins	35.32	1.549e3	1.346e3	1.007	1.15	1.24	19.6	YES	NO	db	db	0.580
5	Total-hexadoxins	35.23	2.280e4	1.842e4	1.007	1.24	1.24	178.1	YES	NO	bd	bd	8.262
6	Total-hexadoxins	34.86	6.121e3	4.884e3	1.007	1.25	1.24	72.1	YES	NO	bb	bb	2.206
7	124679-HXCDD	34.09	1.997e4	1.594e4	1.033	1.25	1.24	231.5	YES	NO	bb	bb	7.087

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	1.304e5	1.285e5	1.253	1.01	1.05	1111.8	YES	NO	bd	bd	63.955
2	1234679-HPCDD	39.30	1.726e5	1.666e5	1.286	1.04	1.05	1534.3	YES	NO	bb	bd	81.613

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.11	6.933e2	8.552e2	1.099	0.81	0.77	11.7	YES	NO	bd	bb	0.299
2	Total-tetradoxins	23.90	1.136e3	1.329e3	1.099	0.85	0.77	18.6	YES	NO	bb	bb	0.476
3	1368-TCDD	23.61	1.298e3	1.842e3	1.084	0.71	0.77	24.6	YES	NO	bb	bb	0.614
4	2378-TCDD	26.52	5.989e2	7.269e2	1.236	0.82	0.77	10.1	YES	NO	MM	bd	0.227
5	Total-pentadoxins	30.24	1.748e3	1.009e3	1.392	1.73	1.55	22.5	YES	NO	bb	bb	0.489
6	Total-pentadoxins	30.01	1.717e3	1.271e3	1.392	1.35	1.55	17.5	YES	NO	bb	bb	0.530
7	12378-PeCDD	31.62	1.714e3	1.076e3	1.087	1.59	1.55	16.8	YES	NO	bb	bb	0.634
8	Total-pentadoxins	30.56	1.020e3	6.952e2	1.392	1.47	1.55	8.3	YES	NO	db	bb	0.304
9	Total-pentadoxins	30.36	1.394e3	8.822e2	1.392	1.58	1.55	14.9	YES	NO	bb	bb	0.404
10	123789-HxCDD	36.61	4.662e3	3.837e3	0.985	1.22	1.24	55.0	YES	NO	db	bb	1.740
11	123678-HxCDD	36.22	7.558e3	6.496e3	1.021	1.16	1.24	95.3	YES	NO	dd	dd	2.749
12	123478-HxCDD	36.11	1.860e3	1.479e3	0.987	1.26	1.24	24.1	YES	NO	bd	bd	0.690
13	Total-hexadoxins	35.32	1.549e3	1.346e3	1.007	1.15	1.24	19.6	YES	NO	db	db	0.580
14	Total-hexadoxins	35.23	2.280e4	1.842e4	1.007	1.24	1.24	178.1	YES	NO	bd	bd	8.262
15	Total-hexadoxins	34.86	6.121e3	4.884e3	1.007	1.25	1.24	72.1	YES	NO	bb	bb	2.206
16	124679-HxCDD	34.09	1.997e4	1.594e4	1.033	1.25	1.24	231.5	YES	NO	bb	bb	7.087
17	OCDD	45.13	7.170e5	8.196e5	1.103	0.87	0.89	6981.8	YES	NO	bb	bb	516.342
18	1234678-HpCDD	40.35	1.304e5	1.285e5	1.253	1.01	1.05	1111.8	YES	NO	bd	bd	63.955
19	1234679-HPCDD	39.30	1.726e5	1.666e5	1.286	1.04	1.05	1534.3	YES	NO	bb	bd	81.613



## Quantify Totals Report MassLynx V4.1 SCN909

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Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.98	1.149e3	1.321e3	0.933	0.87	0.77	20.2	YES	NO	db	db	0.422
2	Total-tetrafurans	23.86	1.464e3	1.736e3	0.933	0.84	0.77	28.5	YES	NO	bd	bd	0.547
3	Total-tetrafurans	23.61	1.390e3	1.784e3	0.933	0.78	0.77	25.9	YES	NO	dd	dd	0.542
4	Total-tetrafurans	23.33	5.507e2	7.328e2	0.933	0.75	0.77	12.3	YES	NO	dd	dd	0.219
5	Total-tetrafurans	23.21	2.628e3	3.328e3	0.933	0.79	0.77	42.6	YES	NO	bd	bd	1.018
6	Total-tetrafurans	22.63	9.966e2	1.306e3	0.933	0.76	0.77	18.0	YES	NO	db	db	0.394
7	Total-tetrafurans	26.23	2.881e2	4.363e2	0.933	0.66	0.77	7.1	YES	NO	db	db	0.124
8	Total-tetrafurans	26.09	1.849e3	2.492e3	0.933	0.74	0.77	34.8	YES	NO	dd	dd	0.742
9	2378-TCDF	25.87	1.438e3	1.822e3	0.876	0.79	0.77	29.2	YES	NO	bd	bd	0.593
10	Total-tetrafurans	25.62	1.342e3	1.922e3	0.933	0.70	0.77	13.6	YES	NO	db	db	0.558
11	Total-tetrafurans	25.37	4.744e2	6.402e2	0.933	0.74	0.77	8.2	YES	NO	dd	dd	0.190
12	Total-tetrafurans	25.17	7.647e2	9.793e2	0.933	0.78	0.77	12.3	YES	NO	bd	bd	0.298
13	Total-tetrafurans	24.94	1.167e3	1.534e3	0.933	0.76	0.77	20.5	YES	NO	bb	bb	0.461
14	Total-tetrafurans	24.76	1.849e3	2.771e3	0.933	0.67	0.77	30.2	YES	NO	db	MM	0.789
15	Total-tetrafurans	24.61	6.460e2	7.888e2	0.933	0.82	0.77	12.1	YES	NO	dd	dd	0.245
16	Total-tetrafurans	24.54	1.386e3	1.959e3	0.933	0.71	0.77	23.0	YES	NO	bd	dd	0.571
17	Total-tetrafurans	24.10	1.454e3	2.110e3	0.933	0.69	0.77	28.5	YES	NO	bb	bd	0.609
18	1289-TCDF	27.47	7.553e2	1.093e3	0.858	0.69	0.77	16.0	YES	NO	db	db	0.343
19	Total-pentafurans	30.23	1.584e3	1.198e3	0.866	1.32	1.55	15.3	YES	NO	bb	bd	0.537
20	12378-PeCDF	30.03	1.240e3	7.355e2	0.845	1.69	1.55	11.7	YES	NO	bb	MM	0.380
21	Total-pentafurans	28.97	9.146e3	6.207e3	0.866	1.47	1.55	78.0	YES	NO	db	dd	2.964
22	23478-PeCDF	31.36	2.252e3	1.531e3	0.911	1.47	1.55	19.4	YES	NO	db	db	0.716
23	Total-pentafurans	31.22	1.942e3	1.340e3	0.866	1.45	1.55	17.5	YES	NO	dd	dd	0.634
24	123789-HxCDF	36.98	1.767e3	1.581e3	1.187	1.12	1.24	28.7	YES	NO	bb	bb	0.628
25	234678-HxCDF	35.95	4.629e3	3.652e3	1.229	1.27	1.24	53.9	YES	NO	bb	bb	1.391
26	Total-hexafurans	35.45	4.155e2	3.725e2	1.208	1.12	1.24	6.8	YES	NO	bb	bb	0.134
27	123678-HxCDF	35.13	3.974e3	2.819e3	1.248	1.41	1.24	59.9	YES	NO	dd	db	1.069
28	123478-HxCDF	34.98	1.094e4	8.756e3	1.182	1.25	1.24	188.6	YES	NO	dd	dd	3.344
29	Total-hexafurans	34.84	1.397e3	9.862e2	1.208	1.42	1.24	27.2	YES	NO	bd	bd	0.406
30	Total-hexafurans	34.37	4.002e4	3.196e4	1.208	1.25	1.24	686.2	YES	NO	bb	bd	12.272
31	Total-hexafurans	34.07	8.819e2	7.787e2	1.208	1.13	1.24	17.6	YES	NO	bb	bb	0.283
32	Total-hexafurans	33.54	2.545e4	2.043e4	1.208	1.25	1.24	414.3	YES	NO	db	dd	7.822
33	123468-HXCDF	33.32	7.136e3	5.665e3	1.197	1.26	1.24	126.0	YES	NO	bd	bd	2.145
34	Total-heptafurans	39.51	9.140e4	9.022e4	1.185	1.01	1.05	1356.2	YES	NO	bb	bd	41.803
35	1234678-HpCDF	38.85	3.951e4	3.914e4	1.204	1.01	1.05	612.7	YES	NO	bd	bb	16.465
36	OCDF	45.37	5.932e4	6.818e4	1.186	0.87	0.89	884.7	YES	NO	bd	bd	39.824
37	Total-penta1	27.30	1.775e4	1.191e4		1.49	1.55	273.6	YES	NO	bb	db	5.252

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

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**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-tetradoxins	25.11	6.933e2	8.552e2	1.099	0.81	0.77	11.7	YES	NO	bd	bb	0.299
39	Total-tetradoxins	23.90	1.136e3	1.329e3	1.099	0.85	0.77	18.6	YES	NO	bb	bb	0.476
40	1368-TCDD	23.61	1.298e3	1.842e3	1.084	0.71	0.77	24.6	YES	NO	bb	bb	0.614
41	2378-TCDD	26.52	5.989e2	7.269e2	1.236	0.82	0.77	10.1	YES	NO	MM	bd	0.227
42	Total-pentadoxins	30.24	1.748e3	1.009e3	1.392	1.73	1.55	22.5	YES	NO	bb	bb	0.489
43	Total-pentadoxins	30.01	1.717e3	1.271e3	1.392	1.35	1.55	17.5	YES	NO	bb	bb	0.530
44	12378-PeCDD	31.62	1.714e3	1.076e3	1.087	1.59	1.55	16.8	YES	NO	bb	bb	0.634
45	Total-pentadoxins	30.56	1.020e3	6.952e2	1.392	1.47	1.55	8.3	YES	NO	db	bb	0.304
46	Total-pentadoxins	30.36	1.394e3	8.822e2	1.392	1.58	1.55	14.9	YES	NO	bb	bb	0.404
47	123789-HxCDD	36.61	4.662e3	3.837e3	0.985	1.22	1.24	55.0	YES	NO	db	bb	1.740
48	123678-HxCDD	36.22	7.558e3	6.496e3	1.021	1.16	1.24	95.3	YES	NO	dd	dd	2.749
49	123478-HxCDD	36.11	1.860e3	1.479e3	0.987	1.26	1.24	24.1	YES	NO	bd	bd	0.690
50	Total-hexadoxins	35.32	1.549e3	1.346e3	1.007	1.15	1.24	19.6	YES	NO	db	db	0.580
51	Total-hexadoxins	35.23	2.280e4	1.842e4	1.007	1.24	1.24	178.1	YES	NO	bd	bd	8.262
52	Total-hexadoxins	34.86	6.121e3	4.884e3	1.007	1.25	1.24	72.1	YES	NO	bb	bb	2.206
53	124679-HXCDD	34.09	1.997e4	1.594e4	1.033	1.25	1.24	231.5	YES	NO	bb	bb	7.087
54	OCDD	45.13	7.170e5	8.196e5	1.103	0.87	0.89	6981.8	YES	NO	bb	bb	516.342
55	1234678-HpCDD	40.35	1.304e5	1.285e5	1.253	1.01	1.05	1111.8	YES	NO	bd	bd	63.955
56	1234679-HPCDD	39.30	1.726e5	1.666e5	1.286	1.04	1.05	1534.3	YES	NO	bb	bd	81.613

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.95	1.091e4					0.9	NO		bb		
2	FUNCTION1 PFK	27.62	2.949e5					5.2	YES		bb		
3	FUNCTION1 PFK	27.39	3.727e5					4.6	YES		bb		
4	FUNCTION1 PFK	25.17	4.802e3					0.6	NO		bb		
5	FUNCTION1 PFK	22.72	1.672e4					1.3	NO		bb		
6	FUNCTION1 PFK	22.59	1.740e4					1.3	NO		bb		
7	FUNCTION1 PFK	22.33	2.472e5					2.2	NO		bb		
8	FUNCTION1 PFK	22.12	4.704e4					3.0	NO		db		
9	FUNCTION1 PFK	22.07	1.484e5					3.6	YES		bd		
10	FUNCTION1 PFK	21.80	2.352e5					3.6	YES		db		
11	FUNCTION1 PFK	21.68	1.923e6					10.4	YES		bd		
12	FUNCTION1 PFK	21.33	1.250e6					25.9	YES		db		
13	FUNCTION1 PFK	21.21	2.693e6					24.2	YES		bd		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.42	5.038e3					1.1	NO		bb		0.000
2	FUNCTION2 PFK	31.08	2.756e3					0.7	NO		bb		0.000
3	FUNCTION2 PFK	30.90	2.635e3					0.8	NO		bb		0.000
4	FUNCTION2 PFK	30.81	7.787e3					1.2	NO		bb		0.000
5	FUNCTION2 PFK	30.50	1.145e3					0.4	NO		db		0.000
6	FUNCTION2 PFK	30.47	4.820e3					1.3	NO		bd		0.000
7	FUNCTION2 PFK	30.04	7.651e2					0.4	NO		bb		0.000
8	FUNCTION2 PFK	29.81	1.662e4					1.5	NO		bb		0.000
9	FUNCTION2 PFK	29.46	5.878e4					3.0	NO		db		0.000
10	FUNCTION2 PFK	29.39	1.384e4					1.9	NO		bd		0.000
11	FUNCTION2 PFK	29.06	7.636e3					1.8	NO		bb		0.000
12	FUNCTION2 PFK	28.68	8.122e3					1.5	NO		bb		0.000
13	FUNCTION2 PFK	28.59	2.178e3					0.7	NO		bb		0.000
14	FUNCTION2 PFK	28.39	3.388e3					0.7	NO		db		0.000
15	FUNCTION2 PFK	28.35	4.876e3					1.1	NO		bd		0.000
16	FUNCTION2 PFK	32.81	6.455e3					0.8	NO		bb		0.000
17	FUNCTION2 PFK	32.61	2.613e4					2.9	NO		db		0.000
18	FUNCTION2 PFK	32.53	1.895e4					1.9	NO		bd		0.000
19	FUNCTION2 PFK	32.42	1.462e4					1.4	NO		bb		0.000
20	FUNCTION2 PFK	32.21	1.300e3					0.5	NO		db		0.000
21	FUNCTION2 PFK	32.18	4.899e3					1.0	NO		bd		0.000
22	FUNCTION2 PFK	32.05	5.818e3					1.3	NO		bb		0.000
23	FUNCTION2 PFK	31.94	3.328e3					0.9	NO		bb		0.000
24	FUNCTION2 PFK	31.71	1.200e4					1.5	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.04	5.547e5					15.3	YES		bb		0.000
2	FUNCTION3 PFK	36.47	1.199e6					4.5	YES		bb		0.000
3	FUNCTION3 PFK	33.05	6.602e3					1.6	NO		bb		0.000
4	FUNCTION3 PFK	32.98	1.920e4					3.0	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.24	3.324e4					2.1	NO		bb		
2	FUNCTION4 PFK	40.62	8.094e3					1.8	NO		bb		
3	FUNCTION4 PFK	40.19	2.744e3					0.9	NO		bb		
4	FUNCTION4 PFK	39.84	3.076e3					1.0	NO		bb		
5	FUNCTION4 PFK	39.75	1.233e4					2.0	NO		bb		
6	FUNCTION4 PFK	38.57	1.122e4					2.2	NO		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.86	6.253e3					1.8	NO		db		
2	FUNCTION5 PFK	44.77	3.576e3					1.5	NO		bd		
3	FUNCTION5 PFK	44.26	1.818e3					1.0	NO		db		
4	FUNCTION5 PFK	44.23	6.303e2					0.7	NO		bd		
5	FUNCTION5 PFK	44.01	9.914e2					0.8	NO		bb		
6	FUNCTION5 PFK	43.81	2.984e3					1.5	NO		bb		
7	FUNCTION5 PFK	43.73	1.280e3					1.1	NO		bb		
8	FUNCTION5 PFK	43.66	9.777e2					0.8	NO		bb		
9	FUNCTION5 PFK	43.20	5.375e3					2.9	NO		db		
10	FUNCTION5 PFK	43.08	6.963e4					8.0	YES		bd		
11	FUNCTION5 PFK	46.34	1.471e4					2.9	NO		bb		
12	FUNCTION5 PFK	46.09	2.486e3					1.3	NO		bb		
13	FUNCTION5 PFK	46.03	5.206e2					0.7	NO		bb		
14	FUNCTION5 PFK	45.83	2.989e3					1.5	NO		db		
15	FUNCTION5 PFK	45.80	5.503e3					2.4	NO		bd		
16	FUNCTION5 PFK	45.14	5.316e2					0.7	NO		bb		
17	FUNCTION5 PFK	45.10	1.607e3					0.8	NO		bb		
18	FUNCTION5 PFK	45.00	2.101e3					1.5	NO		bb		
19	FUNCTION5 PFK	44.94	3.024e3					1.0	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

**ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.87	1.736e2					4.1	YES		bd		0.000
2	FUNCTION1 HXCD...	23.86	3.094e2					8.2	YES		bb		0.000
3	FUNCTION1 HXCD...	22.66	1.090e2					2.2	NO		bb		0.000
4	FUNCTION1 HXCD...	22.42	1.395e2					4.1	YES		bb		0.000
5	FUNCTION1 HXCD...	22.25	1.504e2					4.8	YES		bb		0.000
6	FUNCTION1 HXCD...	21.32	1.272e2					2.9	NO		bb		0.000
7	FUNCTION1 HXCD...	26.86	7.775e1					2.6	NO		bb		0.000
8	FUNCTION1 HXCD...	26.23	1.563e2					5.4	YES		bb		0.000
9	FUNCTION1 HXCD...	26.00	1.324e2					4.1	YES		db		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	27.12	8.372e1					3.1	YES		bb		0.000
2	FUNCTION1 HPCD...	26.52	7.460e1					1.3	NO		bb		0.000
3	FUNCTION1 HPCD...	23.45	1.161e3					36.9	YES		bb		0.000
4	FUNCTION1 HPCD...	22.51	7.464e1					2.7	NO		db		0.000
5	FUNCTION1 HPCD...	22.40	8.234e1					3.7	YES		bd		0.000
6	FUNCTION1 HPCD...	22.15	1.481e3					53.0	YES		bb		0.000
7	FUNCTION1 HPCD...	21.15	1.064e2					2.1	NO		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	29.19	8.370e1					2.7	NO		bb		0.000
2	FUNCTION2 HPCD...	29.06	2.477e2					4.9	YES		bb		0.000
3	FUNCTION2 HPCD...	28.59	8.745e1					2.4	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.69	1.014e2					1.9	NO		bb		0.000
2	FUNCTION3 OCDPE	33.13	9.159e1					2.1	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.48	4.309e3					129.8	YES		bb		0.000

**ETHERS6**

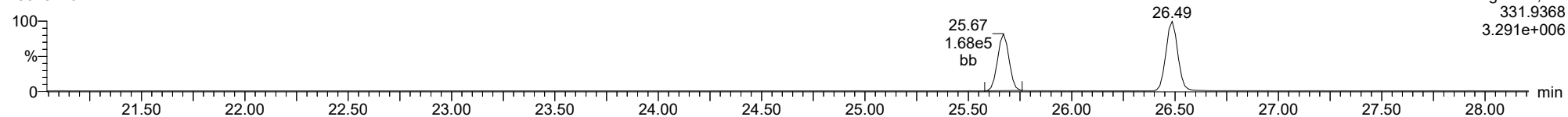
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.55	7.085e1					2.4	NO		bb		0.000
2	FUNCTION5 DCDPE	45.17	7.887e1					3.4	YES		db		0.000
3	FUNCTION5 DCDPE	45.11	9.070e1					2.7	NO		bd		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

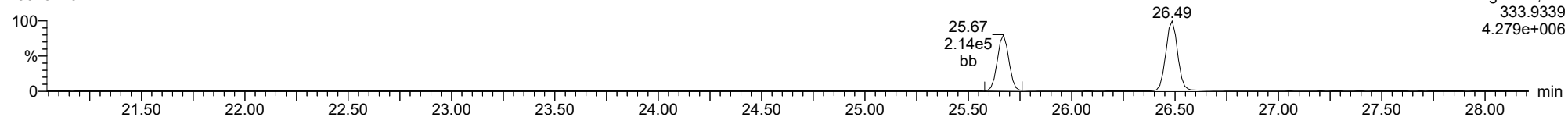
23020726



F1:Voltage SIR,El+  
331.9368  
3.291e+006

**13C-1234-TCDD**

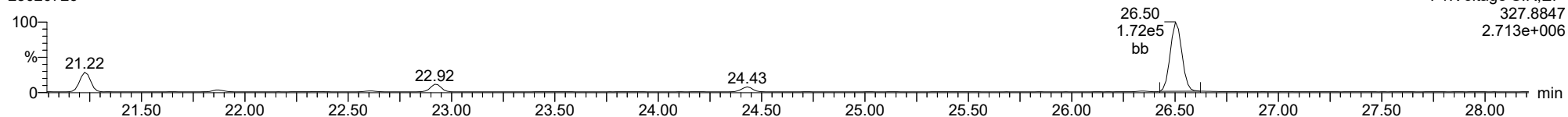
23020726



F1:Voltage SIR,El+  
333.9339  
4.279e+006

**37CL-2378-TCDD**

23020726



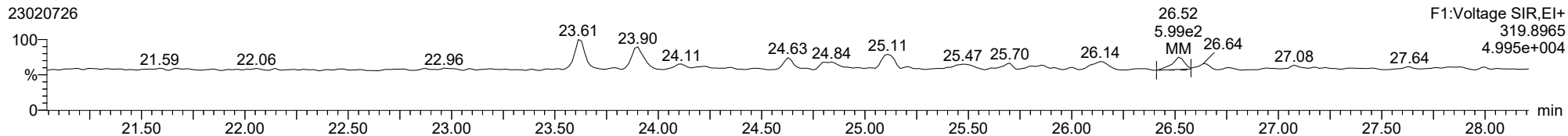
F1:Voltage SIR,El+  
327.8847  
2.713e+006

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

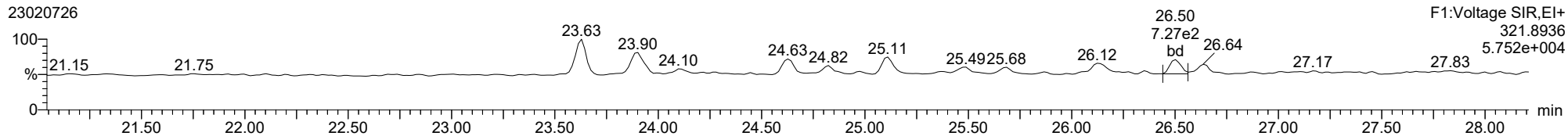
**2378-TCDD**

23020726



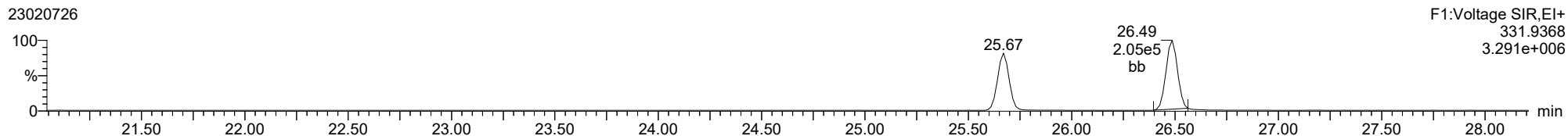
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23020726



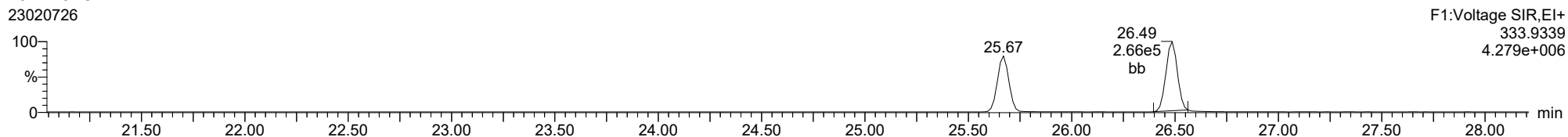
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23020726



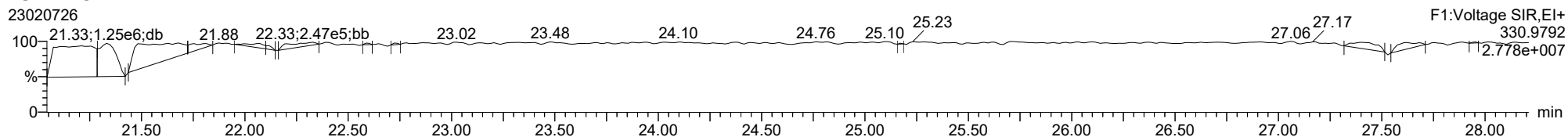
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23020726



**FUNCTION1 PFK**

23020726

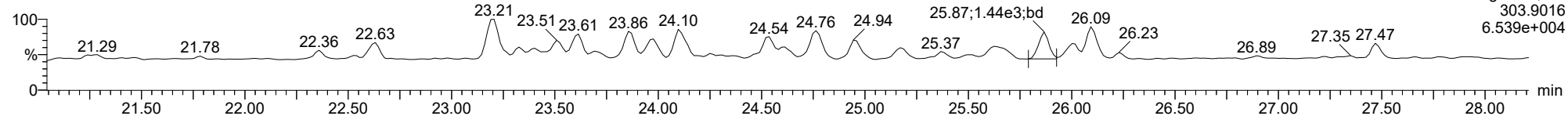




ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

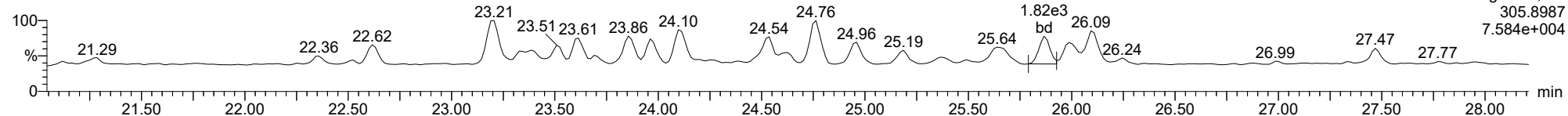
**2378-TCDF**

23020726



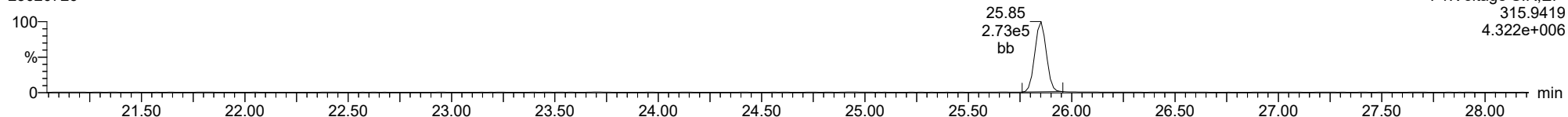
**2378-TCDF**

23020726



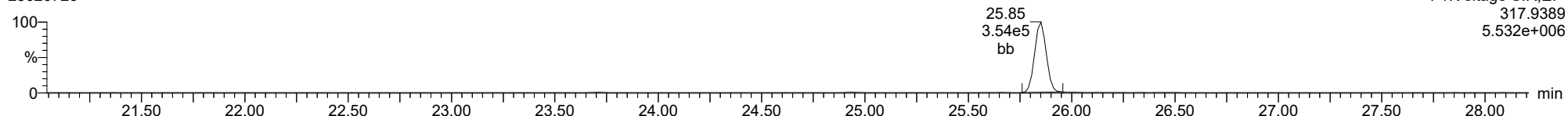
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23020726



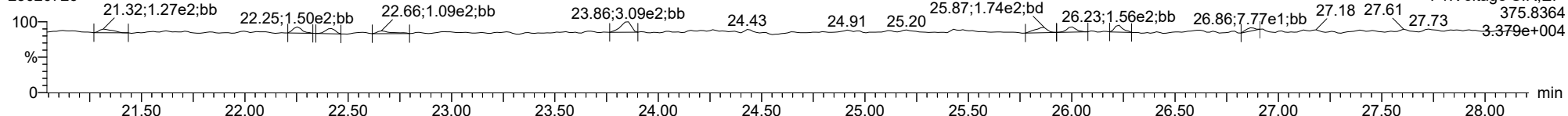
**13C-2378-TCDF**

23020726



**FUNCTION1 HXCDPE**

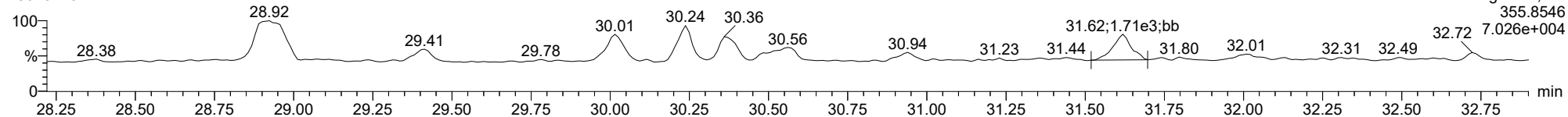
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

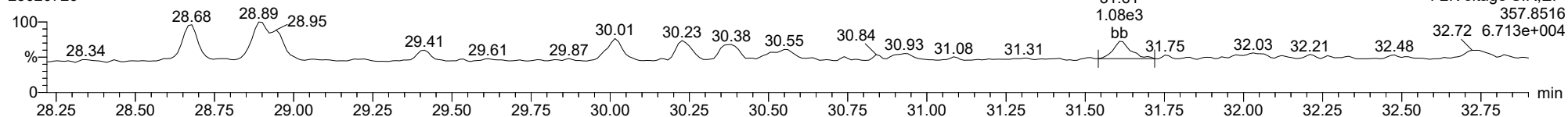
**12378-PeCDD**

23020726



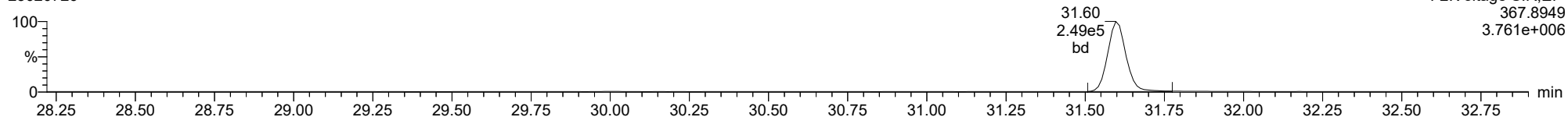
**12378-PeCDD**

23020726



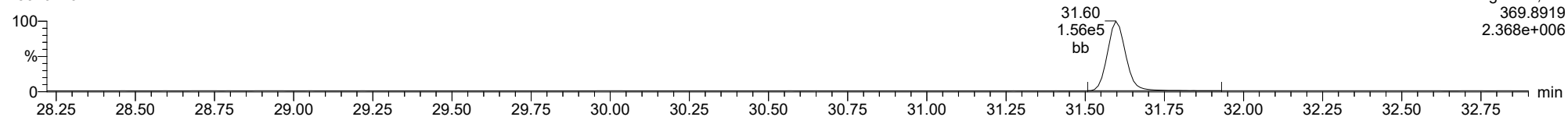
**13C-12378-PeCDD**

23020726



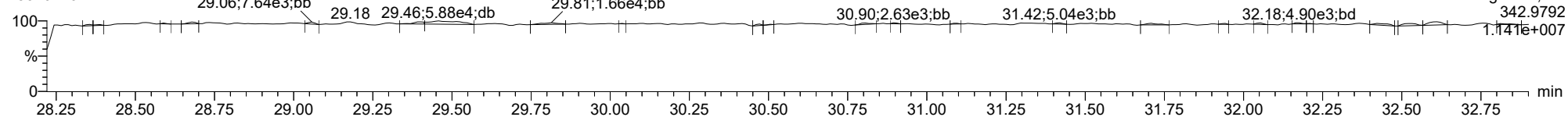
**13C-12378-PeCDD**

23020726



**FUNCTION2 PFK**

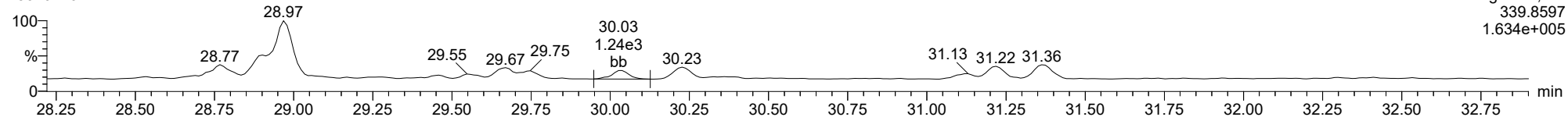
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

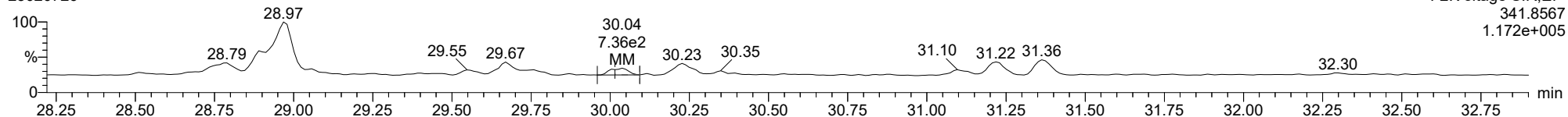
**12378-PeCDF**

23020726



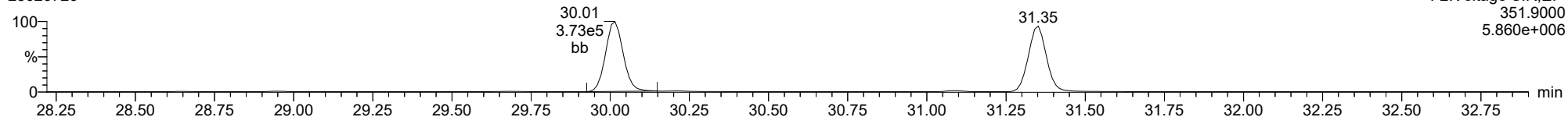
**12378-PeCDF**

23020726



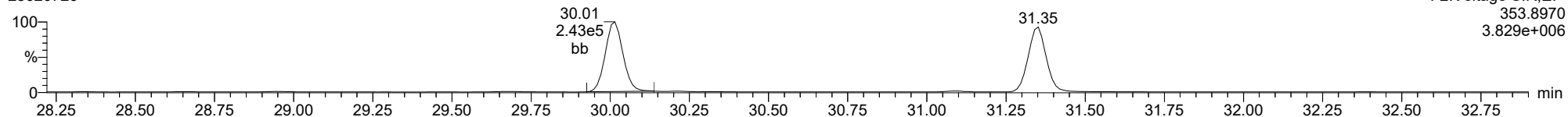
**13C-12378-PeCDF**

23020726



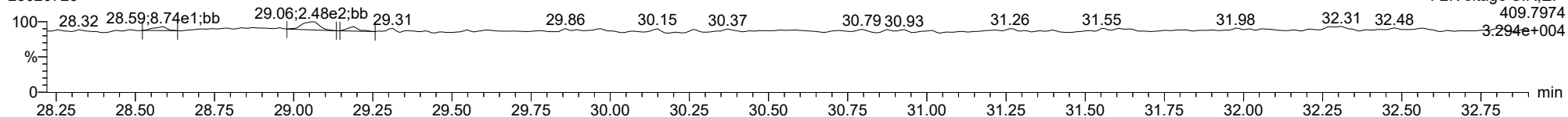
**13C-12378-PeCDF**

23020726



**FUNCTION2 HPCDPE**

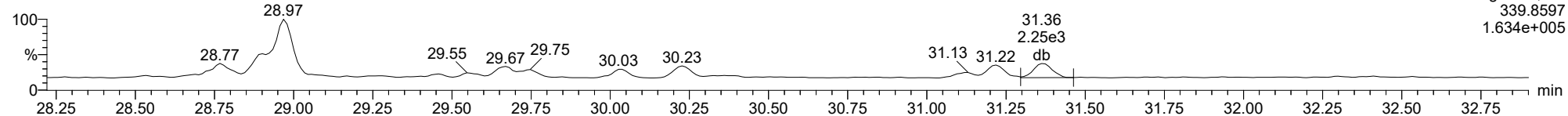
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**23478-PeCDF**

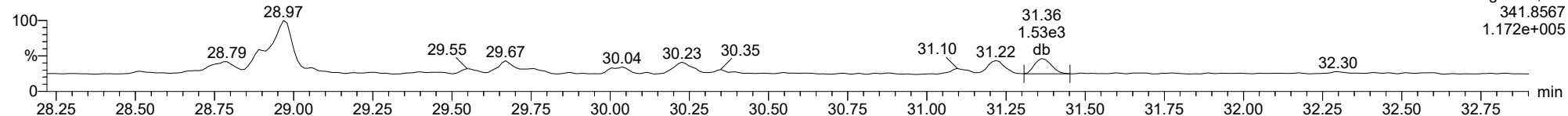
23020726



F2:Voltage SIR,EI+  
339.8597  
1.634e+005

**23478-PeCDF**

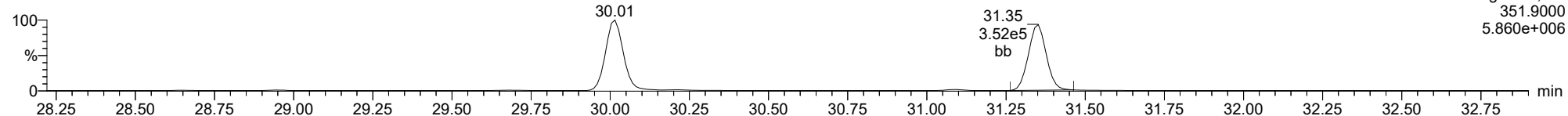
23020726



F2:Voltage SIR,EI+  
341.8567  
1.172e+005

**13C-23478-PeCDF**

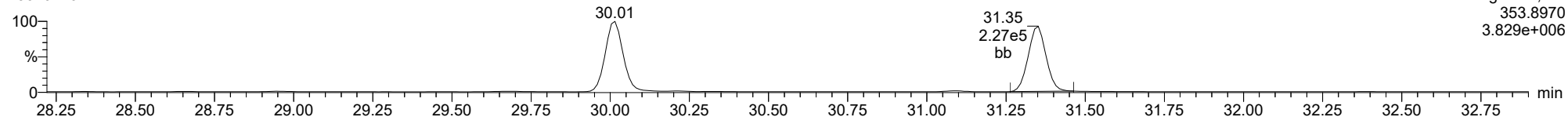
23020726



F2:Voltage SIR,EI+  
351.9000  
5.860e+006

**13C-23478-PeCDF**

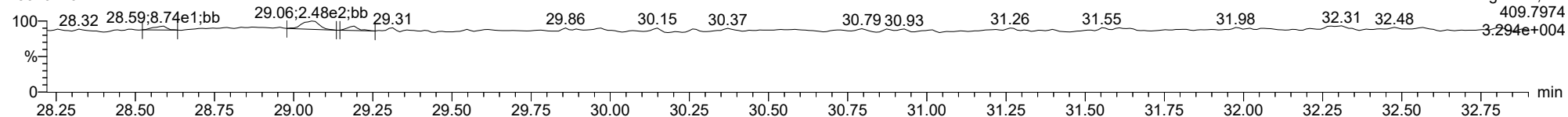
23020726



F2:Voltage SIR,EI+  
353.8970  
3.829e+006

**FUNCTION2 HPCDPE**

23020726

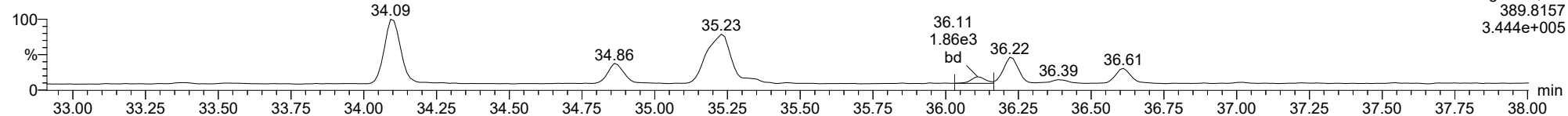


F2:Voltage SIR,EI+  
409.7974  
3.294e+004

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

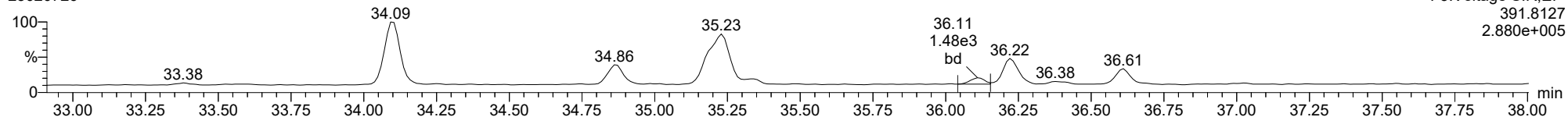
**123478-HxCDD**

23020726



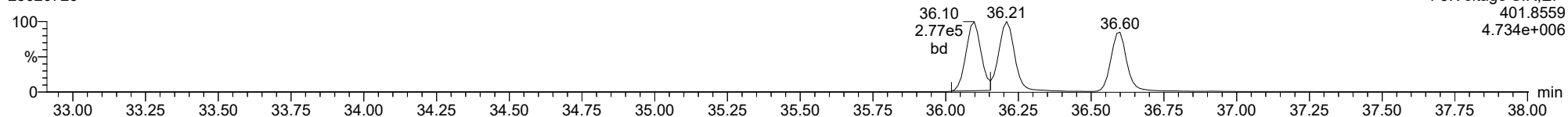
**123478-HxCDD**

23020726



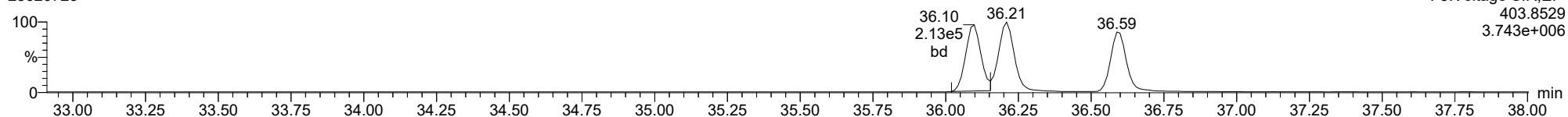
**13C-123478-HxCDD**

23020726



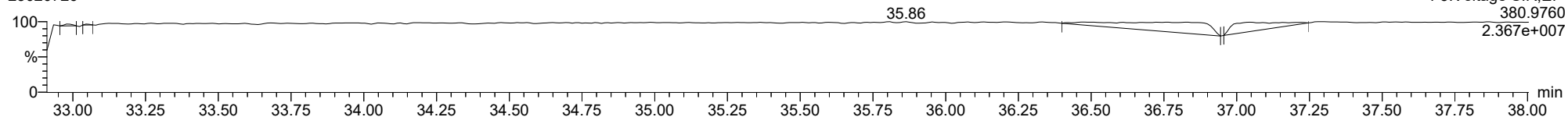
**13C-123478-HxCDD**

23020726



**FUNCTION3 PFK**

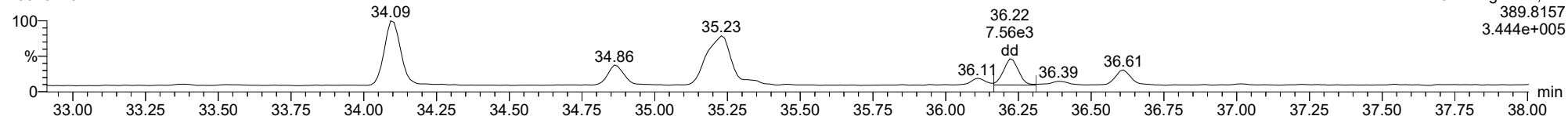
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

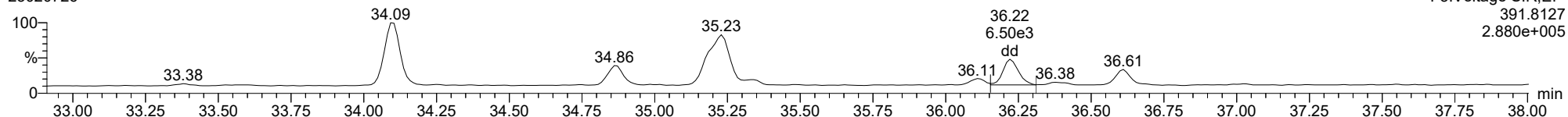
**123678-HxCDD**

23020726



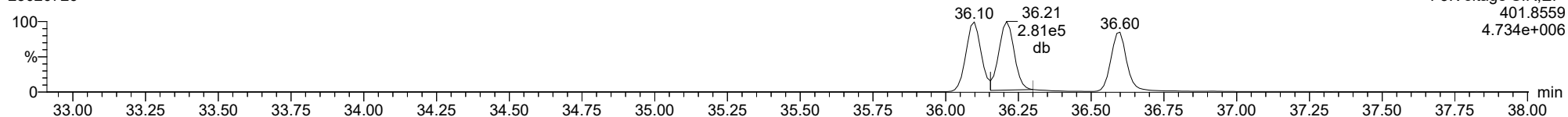
**123678-HxCDD**

23020726



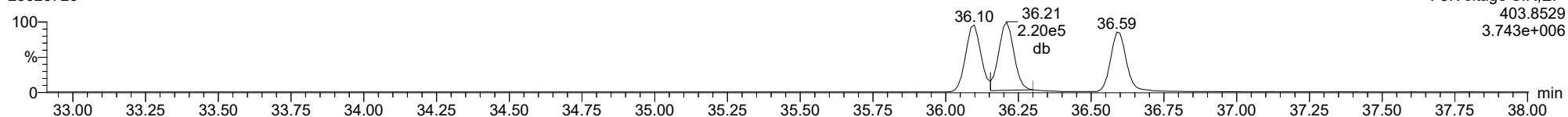
**13C-123678-HxCDD**

23020726



**13C-123678-HxCDD**

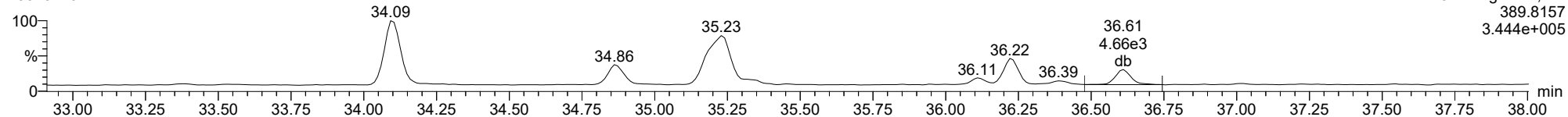
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

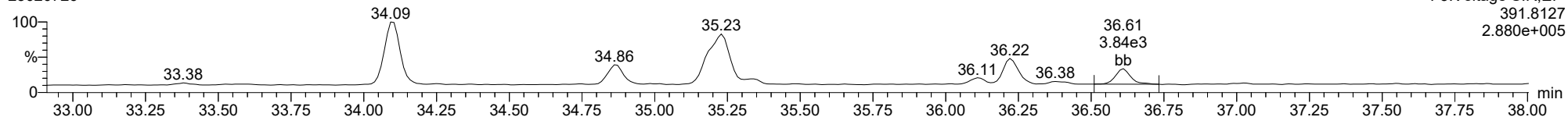
**123789-HxCDD**

23020726



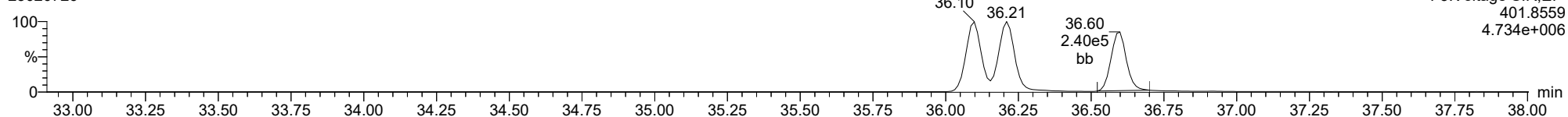
**123789-HxCDD**

23020726



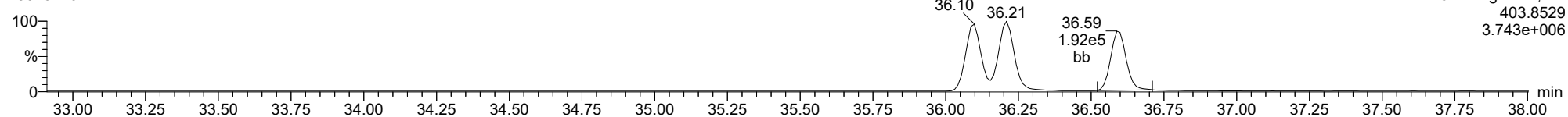
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23020726



**13C-123789-HxCDD**

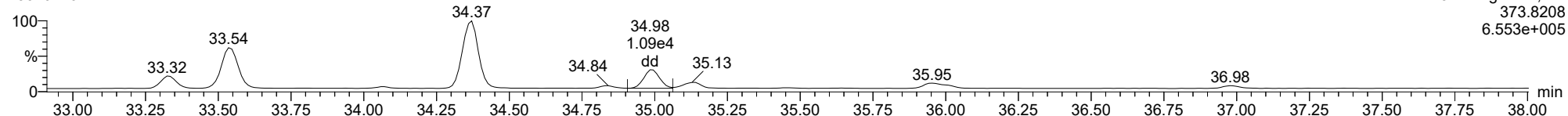
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

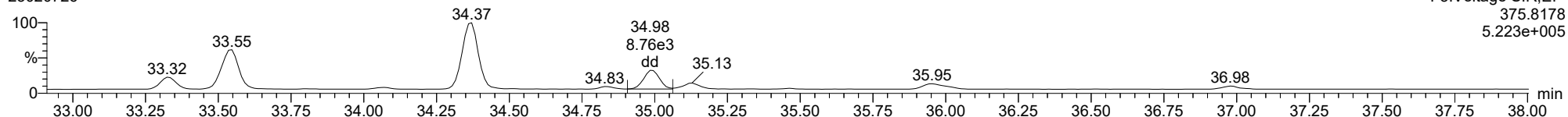
**123478-HxCDF**

23020726



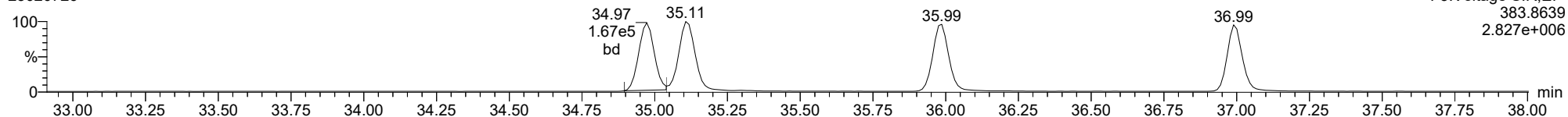
**123478-HxCDF**

23020726



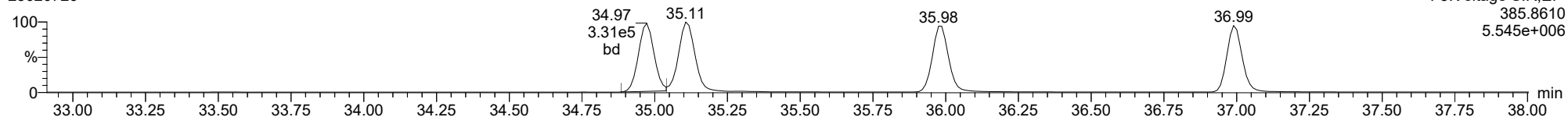
**13C-123478-HxCDF**

23020726



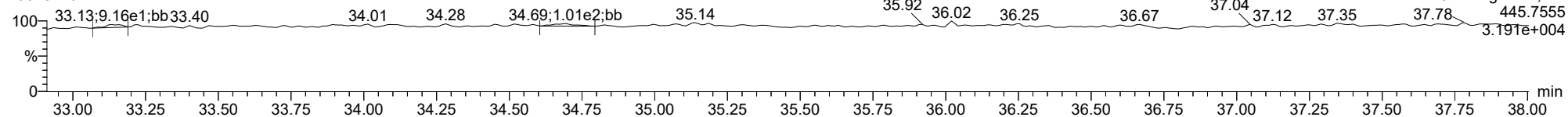
**13C-123478-HxCDF**

23020726



**FUNCTION3 OCDPE**

23020726

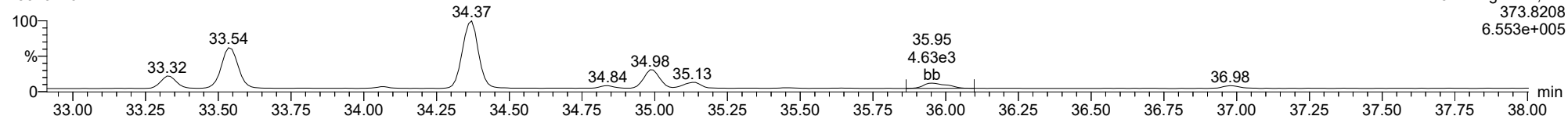




ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

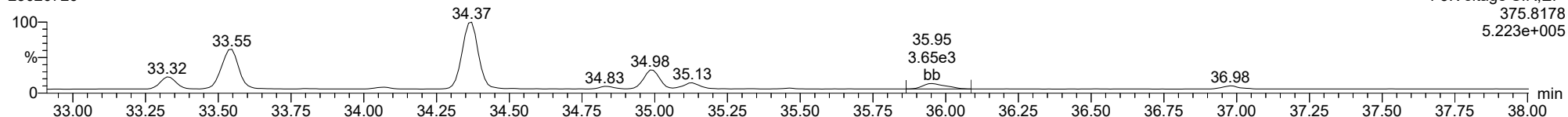
**234678-HxCDF**

23020726



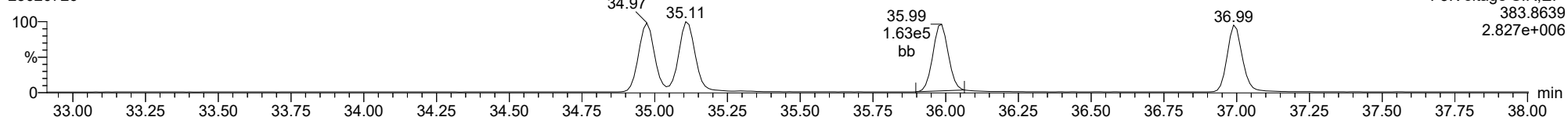
**234678-HxCDF**

23020726



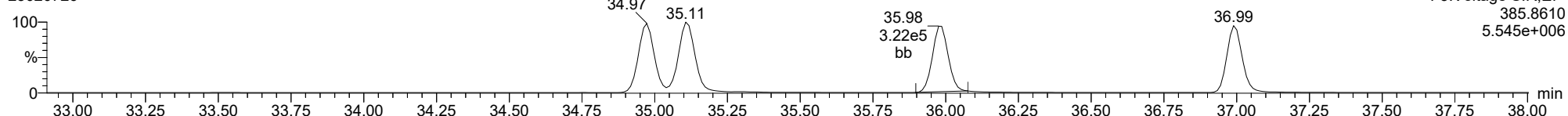
**13C-234678-HxCDF**

23020726



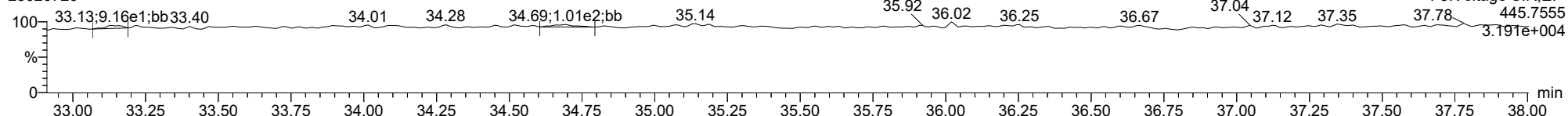
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23020726



**FUNCTION3 OCDPE**

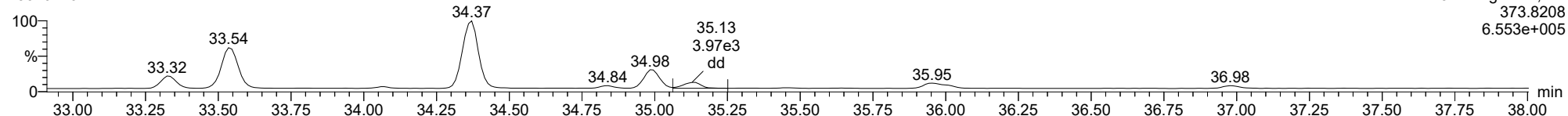
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

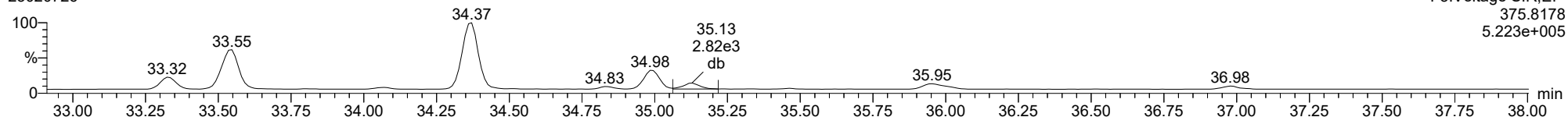
123678-HxCDF

23020726



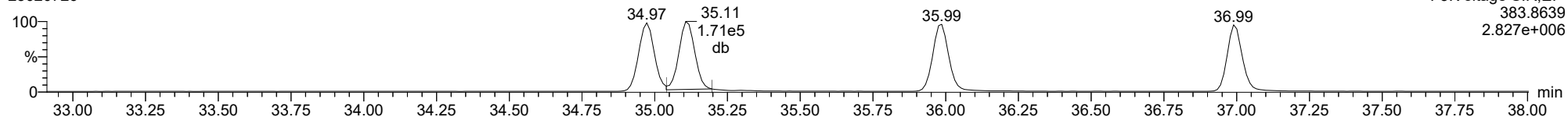
123678-HxCDF

23020726



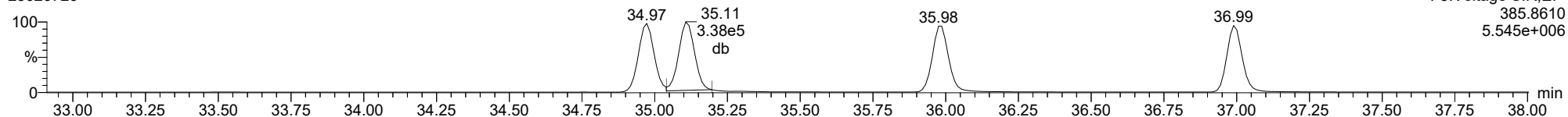
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23020726



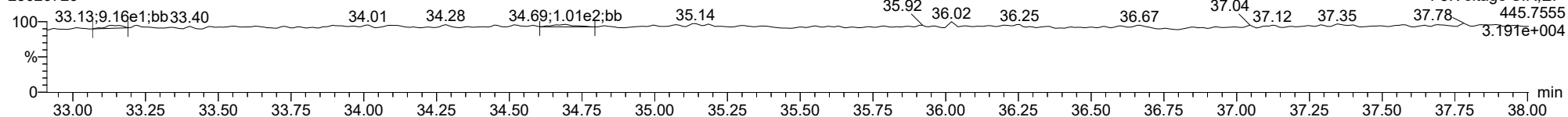
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23020726



FUNCTION3 OCDPE

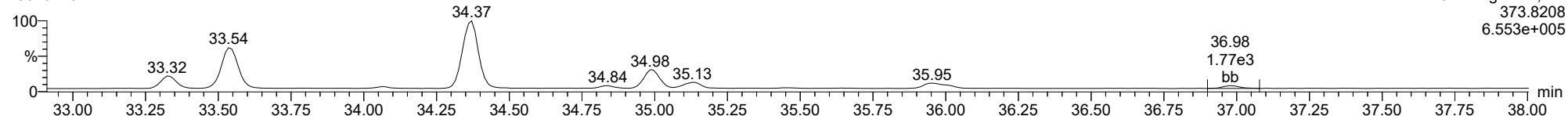
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

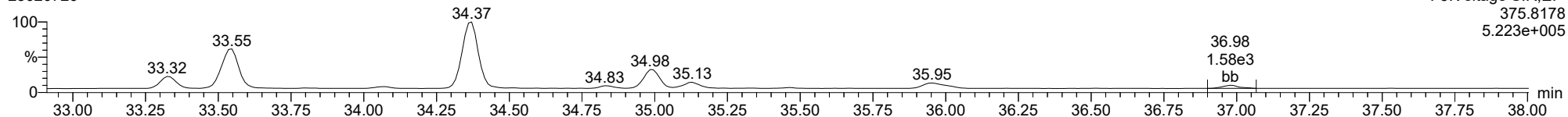
123789-HxCDF

23020726



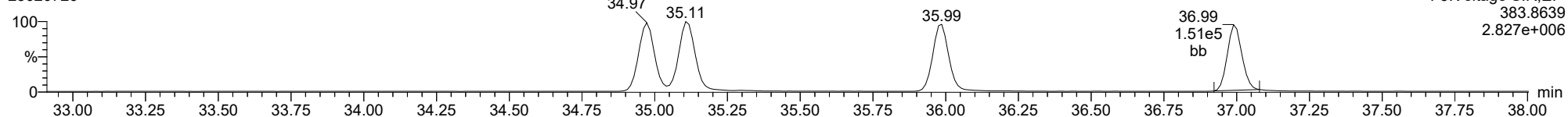
123789-HxCDF

23020726



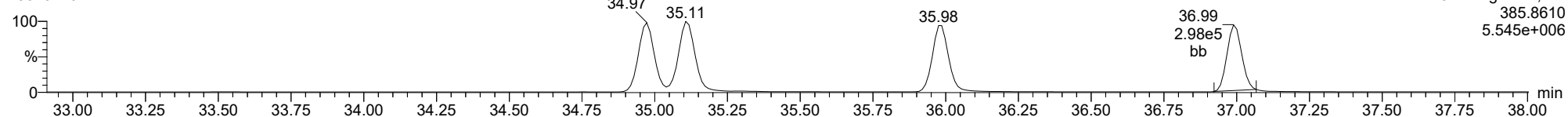
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23020726



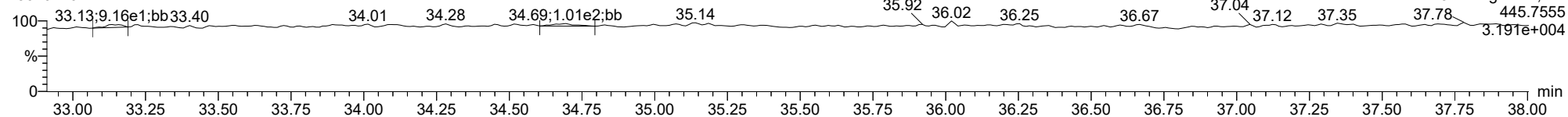
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23020726



FUNCTION3 OCDPE

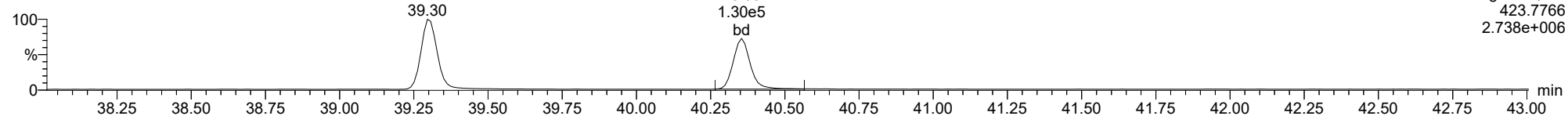
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

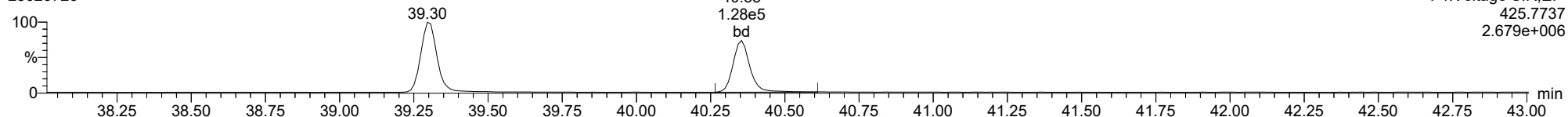
**1234678-HpCDD**

23020726



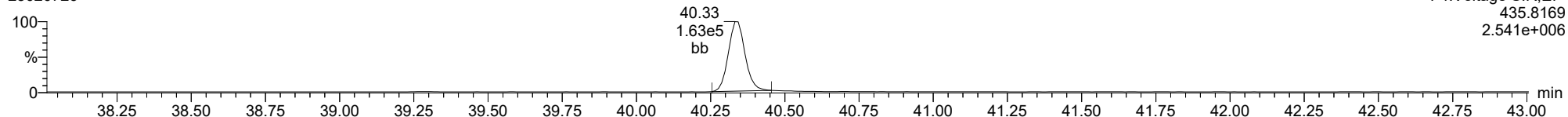
**1234678-HpCDD**

23020726



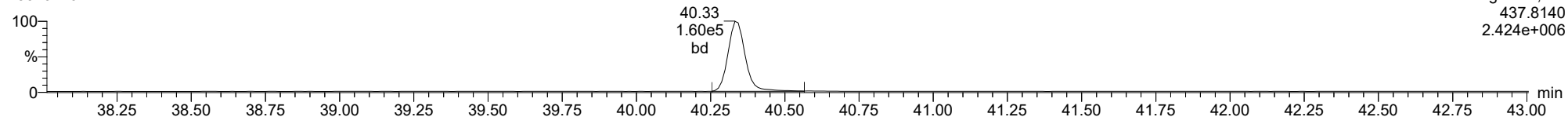
**13C-1234678-HpCDD**

23020726



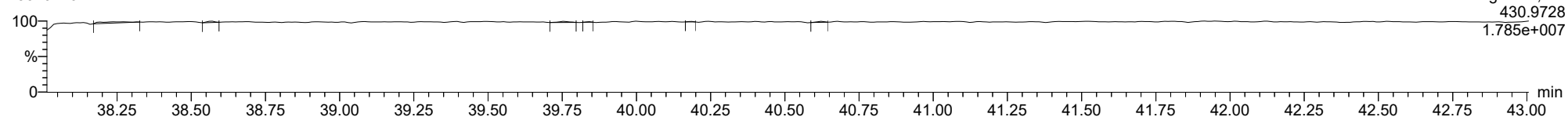
**13C-1234678-HpCDD**

23020726



**FUNCTION4 PFK**

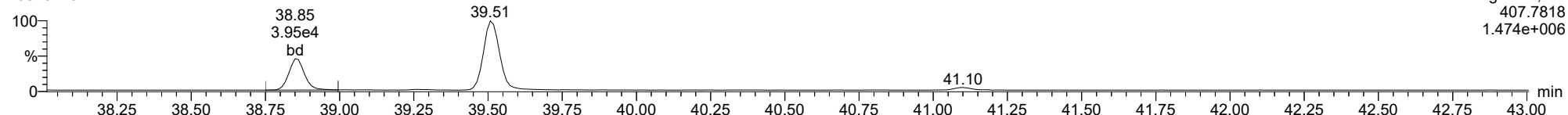
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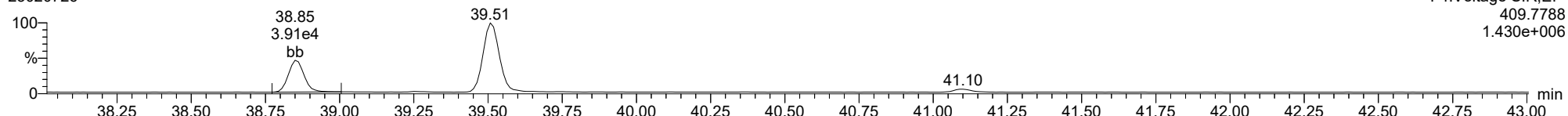
**1234678-HpCDF**

23020726



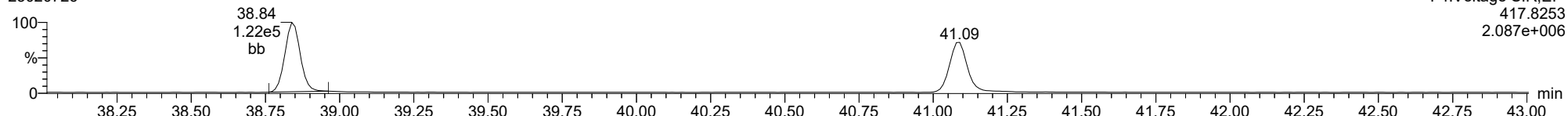
**1234678-HpCDF**

23020726



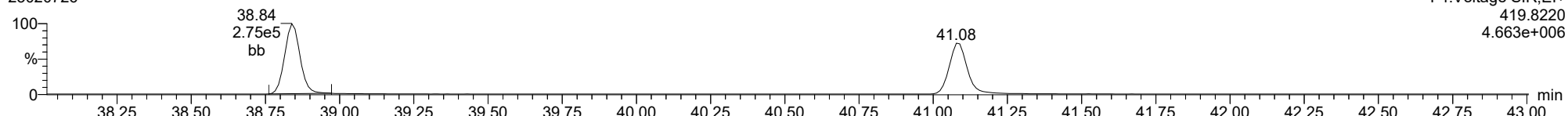
**13C-1234678-HpCDF**

23020726



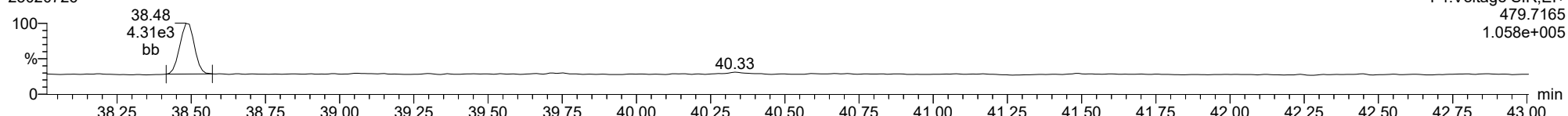
**13C-1234678-HpCDF**

23020726



**FUNCTION4 NCDPE**

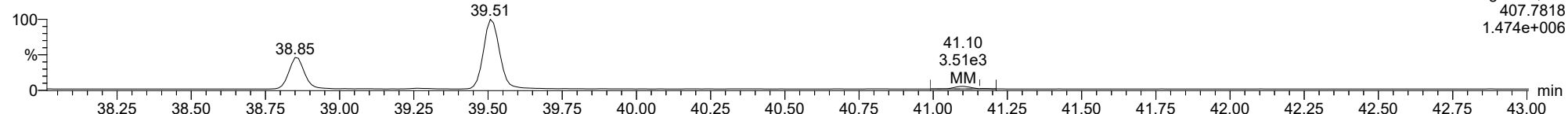
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

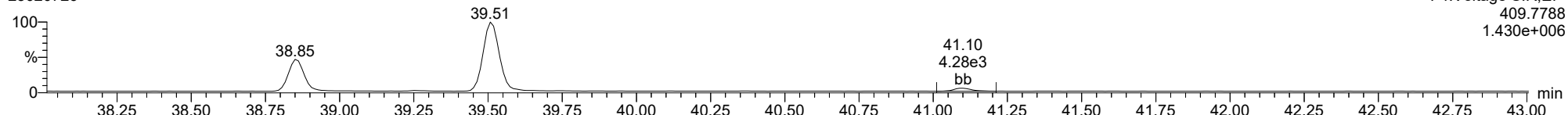
**1234789-HpCDF**

23020726



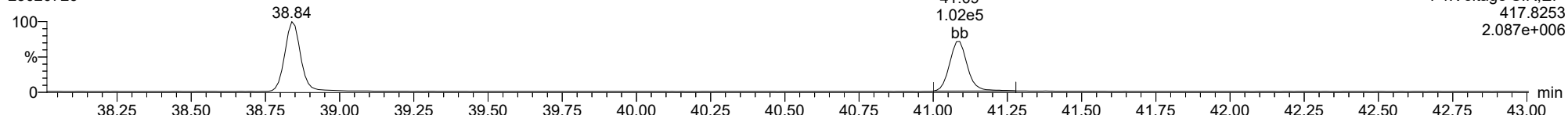
**1234789-HpCDF**

23020726



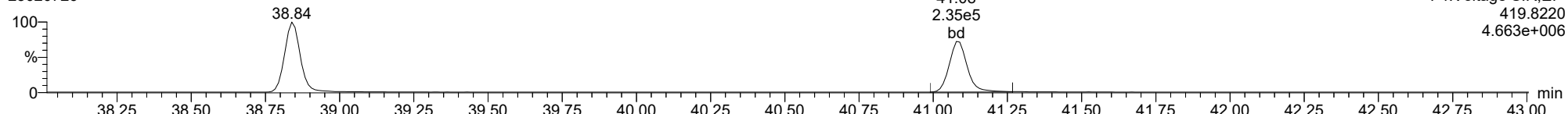
**13C-1234789-HpCDF**

23020726



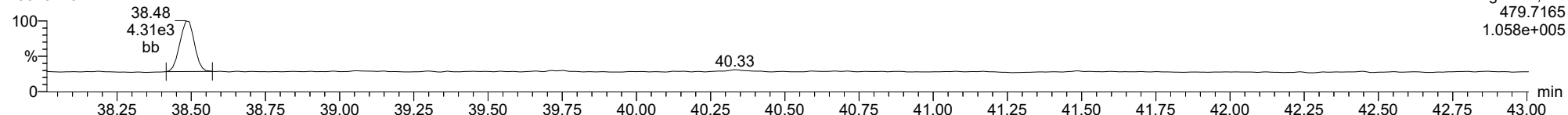
**13C-1234789-HpCDF**

23020726



**FUNCTION4 NCDPE**

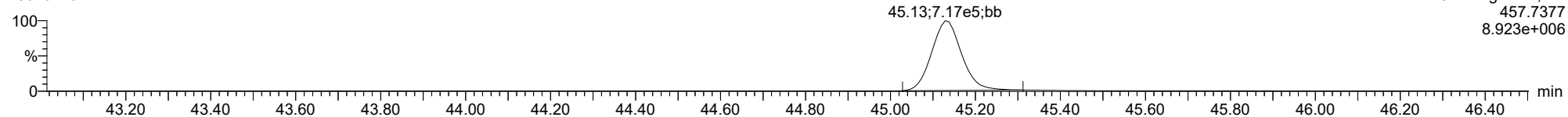
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ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**OCDD**

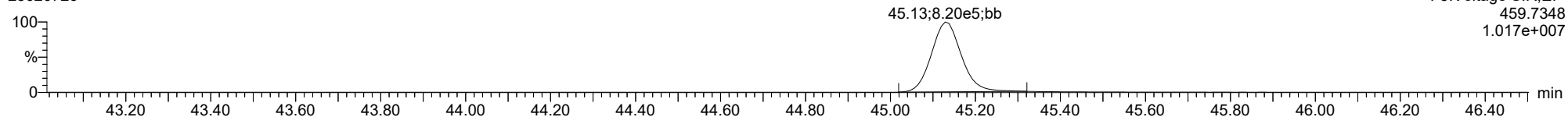
23020726



F5:Voltage SIR,EI+  
457.7377  
8.923e+006

**OCDD**

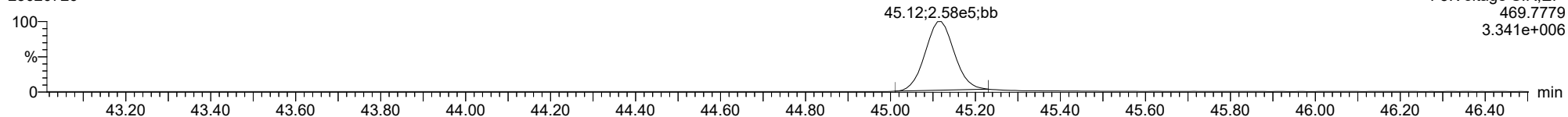
23020726



F5:Voltage SIR,EI+  
459.7348  
1.017e+007

**13C-OCDD**

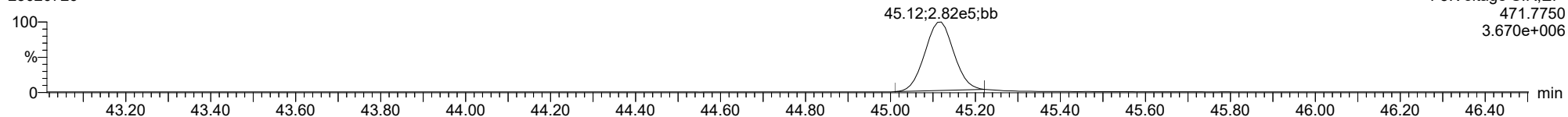
23020726



F5:Voltage SIR,EI+  
469.7779  
3.341e+006

**13C-OCDD**

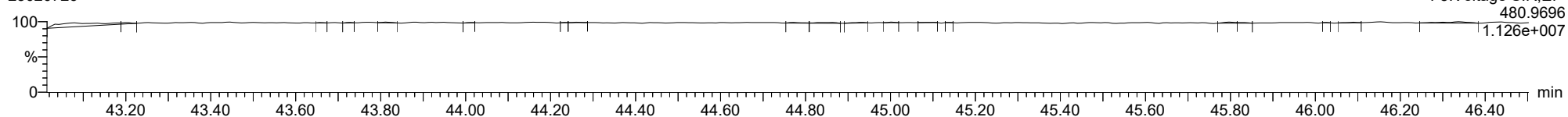
23020726



F5:Voltage SIR,EI+  
471.7750  
3.670e+006

**FUNCTION5 PFK**

23020726

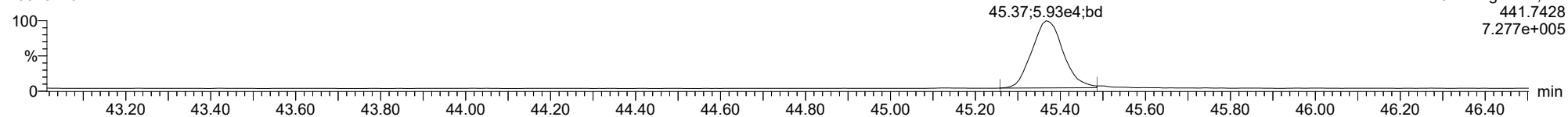


F5:Voltage SIR,EI+  
480.9696  
1.126e+007

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

**OCDF**

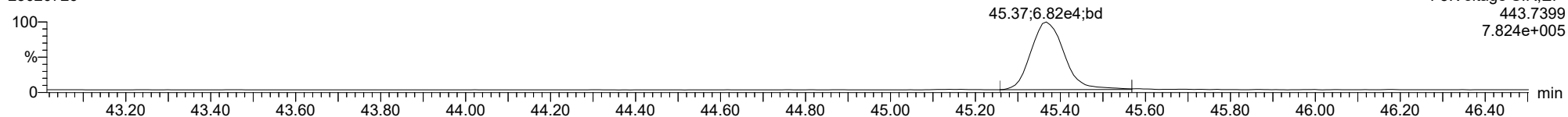
23020726



F5:Voltage SIR,EI+  
441.7428  
7.277e+005

**OCDF**

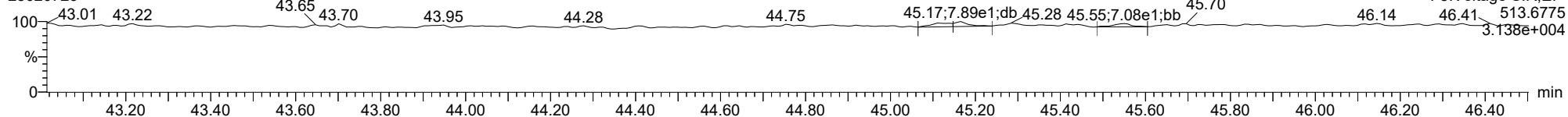
23020726



F5:Voltage SIR,EI+  
443.7399  
7.824e+005

**FUNCTION5 DCDPE**

23020726

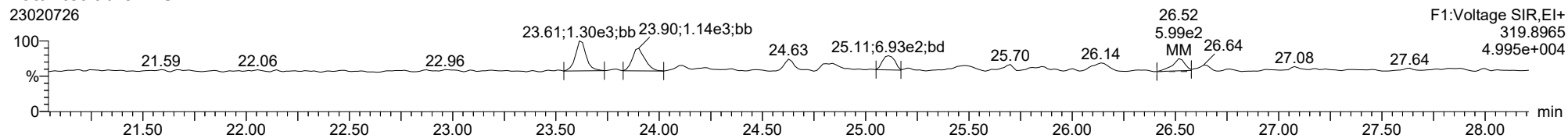


F5:Voltage SIR,EI+  
513.6775  
3.138e+004

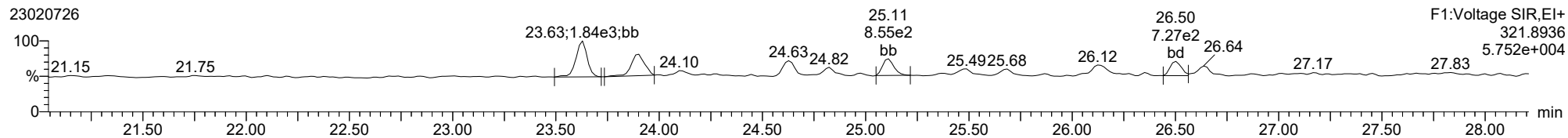


ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

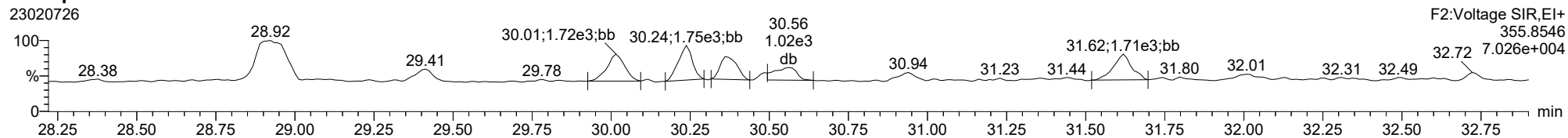
**Total-tetradoxins**



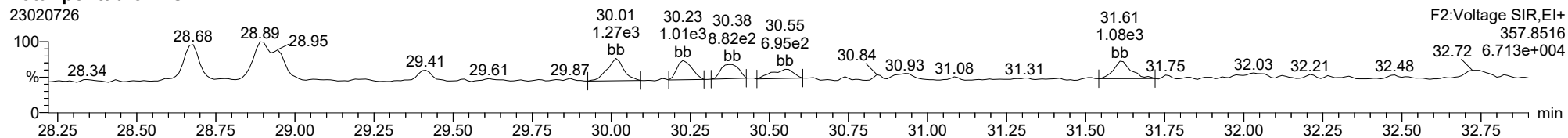
**Total-tetradoxins**



**Total-pentadoxins**



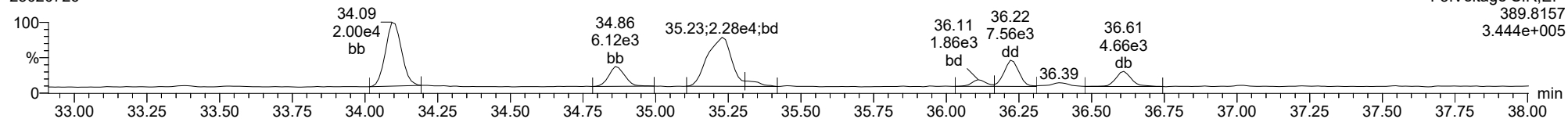
**Total-pentadoxins**



ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

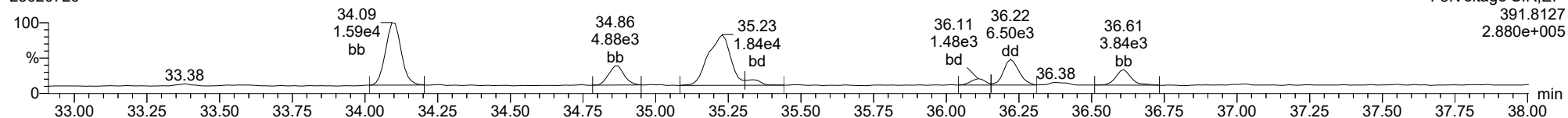
**Total-hexadioxins**

23020726



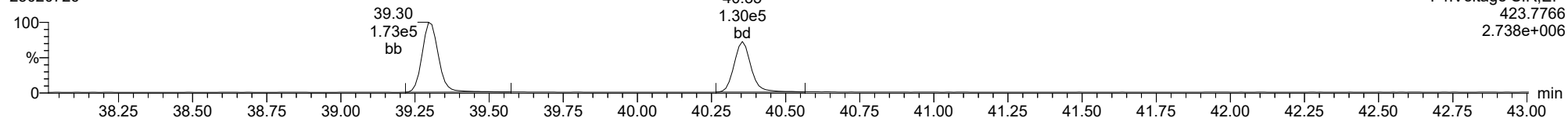
**Total-hexadioxins**

23020726



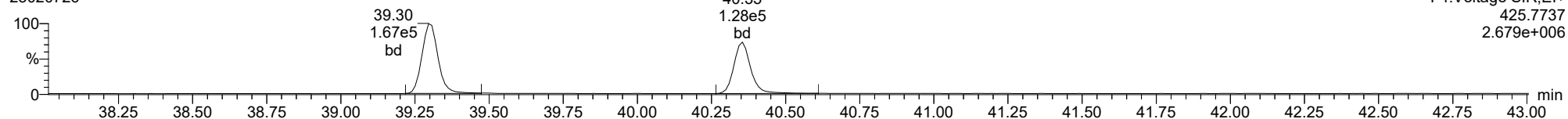
**Total-heptadioxins**

23020726



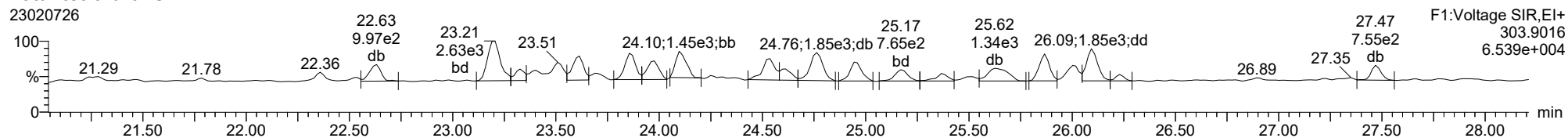
**Total-heptadioxins**

23020726

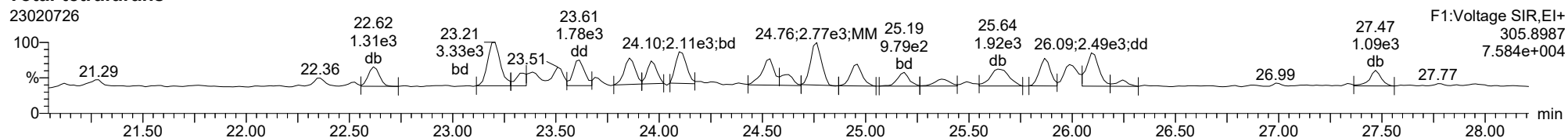


ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

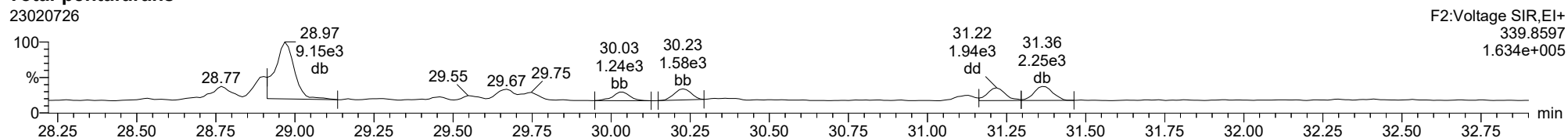
**Total-tetrafurans**



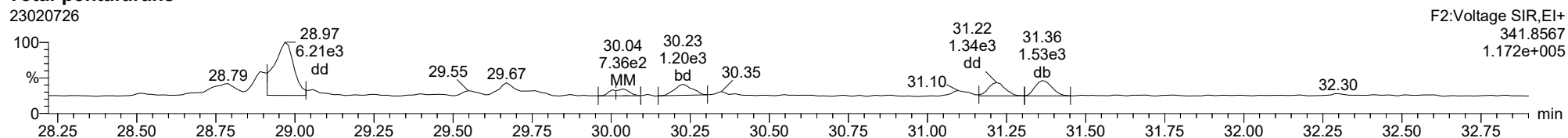
**Total-tetrafurans**



**Total-pentafurans**



**Total-pentafurans**

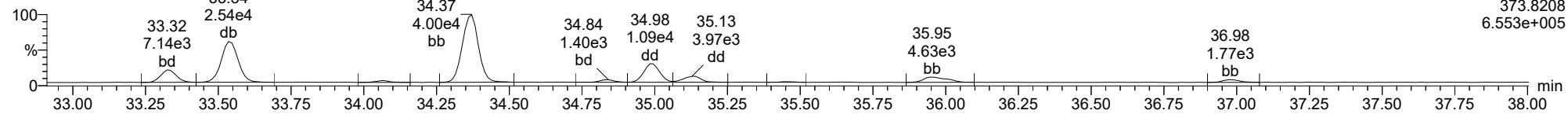


Dataset: T:\Autospec\Processed Data Batch\230207D2.qld  
Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time  
Printed: Wednesday, February 08, 2023 13:16:23 Pacific Standard Time

ID: BKL0420-DUP1, Name: 23020726, Date: 08-Feb-2023, Time: 05:49:21, Conditions: AUTOSPEC01, User: pk

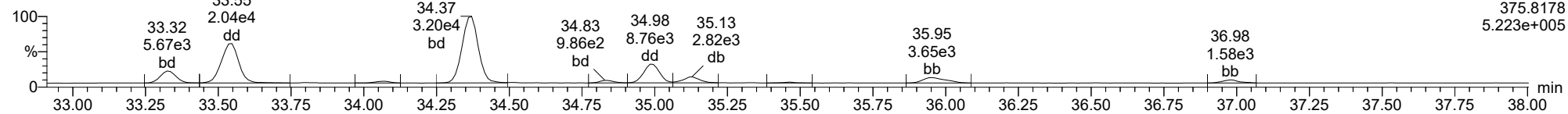
**Total-hexafurans**

23020726



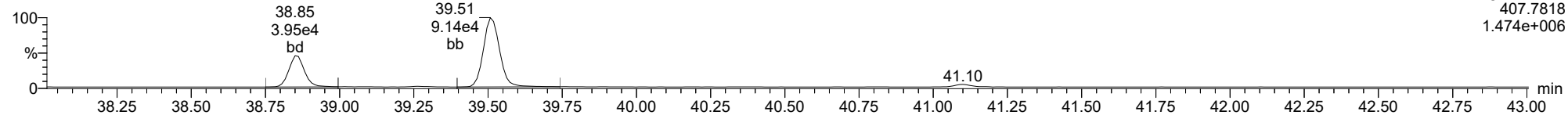
**Total-hexafurans**

23020726



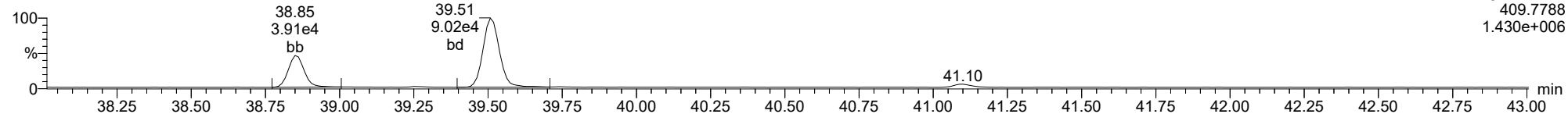
**Total-heptafurans**

23020726



**Total-heptafurans**

23020726





**STANDARD REFERENCE MATERIAL RECOVERY**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0420-SRM1

Batch: BKL0420

Initial/Final: 10 g / 20 uL

Preparation: EPA 8290

Analyzed: 02/08/2023 4:59

Standard ID: K011477

Expires: 06/11/2023

Standard Lot#: PSRM0168

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ng/kg wet)	FOUND (ng/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,3,7,8-TCDF	1.1100	0.728	0.123	1.00	EMPC, J	65.6	50 - 150
2,3,7,8-TCDD	1.0500	0.770	0.150	1.00	EMPC, J	73.3	50 - 150
1,2,3,7,8-PeCDF	1.2300	0.811	0.240	1.00	J	65.9	50 - 150
2,3,4,7,8-PeCDF	1.0700	0.589	0.220	1.00	EMPC, J	55.0	50 - 150
1,2,3,7,8-PeCDD	1.0800	1.03	0.230	1.00		95.6	50 - 150
1,2,3,4,7,8-HxCDF	3.0200	2.13	0.280	1.00		70.5	50 - 150
1,2,3,6,7,8-HxCDF	1.0900	0.731	0.200	1.00	B, J	67.0	50 - 150
2,3,4,6,7,8-HxCDF	1.8300	1.51	0.170	1.00		82.3	50 - 150
1,2,3,7,8,9-HxCDF	0.51100	0.568	0.190	1.00	J	111	50 - 150
1,2,3,4,7,8-HxCDD	1.5900	1.21	0.195	1.00		76.3	50 - 150
1,2,3,6,7,8-HxCDD	3.8800	3.27	0.187	1.00		84.3	50 - 150
1,2,3,7,8,9-HxCDD	3.0400	2.44	0.220	1.00		80.3	50 - 150
1,2,3,4,6,7,8-HpCDF	18.700	16.6	0.210	1.00		89.0	50 - 150
1,2,3,4,7,8,9-HpCDF	1.6300	1.22	0.256	1.00		75.1	50 - 150
1,2,3,4,6,7,8-HpCDD	90.600	81.1	0.560	2.50	B	89.5	50 - 150
OCDF	58.400	42.9	1.10	2.50	B	73.5	50 - 150
OCDD	811.00	755	4.60	10.0	B	93.2	50 - 150

\* Values outside of QC limits

**Quantify Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.867	1.000	7.244e2	1.342e3	0.876	0.540	0.770	755	1013	1.20e4	1.98e4	15.8	19.5	YES	bd	bd	0.364
12378-PeCDF	30.037	1.000	1.110e3	8.014e2	0.845	1.384	1.550	1093	1029	1.75e4	1.39e4	16.0	13.5	NO	db	db	0.405
23478-PeCDF	31.374	1.001	7.092e2	7.281e2	0.911	0.974	1.550	1093	1029	1.03e4	1.06e4	9.5	10.3	YES	bb	bb	0.294
123478-HxCDF	35.007	1.001	2.970e3	2.544e3	1.182	1.168	1.240	540	777	4.41e4	4.05e4	81.6	52.1	NO	bd	bd	1.065
234678-HxCDF	35.987	1.000	2.210e3	1.721e3	1.229	1.284	1.240	540	777	2.62e4	1.93e4	48.4	24.8	NO	bb	bb	0.753
123678-HxCDF	35.140	1.001	1.126e3	1.008e3	1.248	1.117	1.240	540	777	1.74e4	1.62e4	32.2	20.9	NO	db	db	0.365
123789-HxCDF	37.001	1.000	7.349e2	6.290e2	1.187	1.168	1.240	540	777	9.77e3	8.00e3	18.1	10.3	NO	MM	bb	0.284
1234678-HpCDF	38.861	1.000	1.764e4	1.759e4	1.204	1.003	1.050	1162	940	2.88e5	2.85e5	247.7	303.2	NO	bd	bd	8.319
1234789-HpCDF	41.112	1.001	1.060e3	1.116e3	1.165	0.950	1.050	1162	940	1.74e4	1.48e4	15.0	15.7	NO	bb	bb	0.612
OCDF	45.376	1.006	2.778e4	3.230e4	1.186	0.860	0.890	808	858	3.24e5	3.85e5	400.4	448.2	NO	bb	bd	21.471
2378-TCDD	26.517	1.001	8.472e2	1.431e3	1.236	0.592	0.770	870	632	1.31e4	2.13e4	15.0	33.8	YES	bd	bd	0.385
12378-PeCDD	31.608	1.000	1.314e3	7.397e2	1.087	1.776	1.550	1071	1177	1.51e4	8.36e3	14.1	7.1	NO	MM	bb	0.517
123478-HxCDD	36.110	1.000	1.416e3	1.157e3	0.987	1.224	1.240	1007	1250	2.25e4	1.80e4	22.3	14.4	NO	bd	bd	0.607
123678-HxCDD	36.221	1.000	4.186e3	3.198e3	1.021	1.309	1.240	1007	1250	6.22e4	5.16e4	61.8	41.3	NO	dd	dd	1.635
123789-HxCDD	36.611	1.011	3.026e3	2.221e3	0.985	1.362	1.240	1007	1250	4.66e4	3.36e4	46.3	26.9	NO	bb	bb	1.221
1234678-HpCDD	40.366	1.001	7.622e4	7.137e4	1.253	1.068	1.050	1399	1996	1.10e6	1.06e6	788.8	529.3	NO	bd	bd	40.537
OCDD	45.139	1.000	4.477e5	5.348e5	1.103	0.837	0.890	1232	1581	5.46e6	6.27e6	4431.1	3967.4	NO	bb	bd	377.746
13C-2378-TCDF	25.867	1.007	2.851e5	3.634e5	1.768	0.784	0.770	2349	1814	4.32e6	5.47e6	1840.9	3018.8	NO	bb	bb	77.977
13C-12378-PeCDF	30.026	1.169	3.375e5	2.207e5	1.527	1.529	1.550	2057	1779	5.23e6	3.38e6	2540.2	1900.6	NO	bb	bb	77.722
13C-23478-PeCDF	31.352	1.221	3.239e5	2.120e5	1.466	1.528	1.550	2057	1779	4.84e6	3.21e6	2350.4	1802.6	NO	bb	bb	77.702
13C-123478-HxCDF	34.984	0.956	1.479e5	2.902e5	1.054	0.510	0.510	1447	1786	2.32e6	4.52e6	1601.5	2534.0	NO	bd	bd	83.713
13C-123678-HxCDF	35.118	0.960	1.575e5	3.104e5	1.080	0.507	0.510	1447	1786	2.53e6	4.94e6	1745.9	2765.5	NO	db	db	87.226
13C-234678-HxCDF	35.987	0.983	1.437e5	2.813e5	1.014	0.511	0.510	1447	1786	2.32e6	4.56e6	1603.9	2556.0	NO	bb	bb	84.352
13C-123789-HxCDF	37.001	1.011	1.387e5	2.662e5	0.928	0.521	0.510	1447	1786	2.28e6	4.40e6	1573.9	2464.2	NO	bb	bb	87.838
13C-1234678-HpCDF	38.850	1.061	1.096e5	2.420e5	1.036	0.453	0.440	1126	1622	1.82e6	4.00e6	1613.1	2466.7	NO	bb	bb	68.332
13C-1234789-HpCDF	41.090	1.123	9.418e4	2.108e5	0.905	0.447	0.440	1126	1622	1.30e6	2.96e6	1157.2	1826.4	NO	bd	bb	67.852
13C-1234-TCDD	25.685	0.000	2.043e5	2.660e5	1.000	0.768	0.770	1343	982	3.15e6	4.06e6	2344.1	4137.4	NO	bb	bb	100.000
13C-2378-TCDD	26.501	1.032	2.114e5	2.672e5	1.103	0.791	0.770	1343	982	3.18e6	4.04e6	2365.3	4115.7	NO	bb	bb	92.261
13C-12378-PeCDD	31.608	1.231	2.260e5	1.399e5	0.914	1.615	1.550	679	771	3.33e6	2.08e6	4915.0	2695.6	NO	bb	bb	85.087
13C-123478-HxCDD	36.098	0.986	2.430e5	1.865e5	0.933	1.303	1.240	1337	1265	3.99e6	3.12e6	2984.9	2462.0	NO	bd	bd	92.685
13C-123678-HxCDD	36.210	0.989	2.495e5	1.929e5	0.965	1.293	1.240	1337	1265	4.01e6	3.18e6	2999.8	2509.9	NO	db	db	92.340
13C-1234678-HpCDD	40.343	1.102	1.491e5	1.416e5	0.782	1.053	1.050	916	1005	2.21e6	2.09e6	2407.4	2079.5	NO	bb	bd	74.831
13C-OCDD	45.120	1.233	2.255e5	2.462e5	0.788	0.916	0.890	881	1169	2.76e6	3.00e6	3135.2	2570.1	NO	bb	bb	120.477
13C-123789-HxCDD	36.600	0.000	2.778e5	2.190e5	1.000	1.268	1.240	1337	1265	4.61e6	3.66e6	3448.2	2894.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	1.978e5		1.233			1032		3.03e6		2937.8			bb		34.091

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.374	0.865	2.177e2	3.113e2	1.064	0.699	0.770	755	1013	4.15e3	4.62e3	5.5	4.6	NO	bd	bd	0.077
1289-TCDF	27.484	1.063	4.211e2	4.025e2	0.858	1.046	0.770	755	1013	7.37e3	6.34e3	9.8	6.3	YES	bb	bb	0.148
13468-PECDF	27.182	0.905	5.231e2	5.076e2	1.013	1.031	1.550	781	756	8.16e3	6.98e3	10.4	9.2	YES	bd	dd	0.182
12389-PECDF					0.844		1.550	1093	1029								
123468-HXCDF	33.335	0.953	3.156e3	2.548e3	1.197	1.239	1.240	540	777	5.09e4	4.15e4	94.2	53.4	NO	bd	bb	1.087
1368-TCDD	23.644	0.892	8.610e2	6.786e2	1.084	1.269	0.770	870	632	1.43e4	1.13e4	16.5	18.0	YES	bb	bb	0.297
1289-TCDD					0.975		0.770	870	632								
12479-PECDD	28.923	0.915	1.935e3	1.482e3	1.837	1.306	1.550	1071	1177	2.00e4	1.77e4	18.7	15.0	YES	bb	bb	0.508
12389-PECDD					1.252		1.550	1071	1177								
124679-HXCDD	34.104	0.945	9.855e3	8.285e3	1.033	1.189	1.240	1007	1250	1.52e5	1.18e5	151.1	94.7	NO	bb	bb	4.089
1234679-HPCDD	39.307	0.974	1.250e5	1.208e5	1.286	1.035	1.050	1399	1996	1.97e6	1.95e6	1409.3	978.4	NO	bd	bd	65.763
Total-tetrafurans			4.953e3		0.933			755		7.55e4							1.970
Total-penta1			8.507e3					781		1.05e5							2.782
Total-pentafurans			2.669e3		0.866			1093		4.22e4							0.952
Total-hexafurans			3.483e4		1.208			540		5.14e5							11.952
Total-heptafurans			5.225e4		1.185			1162		8.24e5							26.537
Total-Furans			1.310e5		1.067			755		1.88e6							65.663
Total-tetradoxins			9.175e2		1.099			870		1.38e4							0.410
Total-pentadoxins			3.248e3		1.392			1071		4.25e4							1.135
Total-hexadoxins			3.169e4		1.007			1007		4.39e5							13.177
Total-heptadoxins			2.012e5		1.269			1399		3.08e6							106.301
Total-Dioxins			6.848e5		1.165			870		9.03e6							498.769
Total-TEQ			8.157e5					870		1.09e7							564.432
FUNCTION1 PFK			6.107e5					564752		7.62e6							
FUNCTION2 PFK			2.244e5					194023		7.17e6							0.000
FUNCTION3 PFK			5.426e5					213262		9.54e6							0.000
FUNCTION4 PFK			3.007e5					145258		7.59e6							
FUNCTION5 PFK			1.342e5					105449		3.93e6							
FUNCTION1 HXCD...			1.310e3					575		2.16e4							0.000
FUNCTION1 HPCD...			4.169e3					577		7.25e4							0.000
FUNCTION2 HPCD...			2.343e2					750		4.69e3							0.000
FUNCTION3 OCDPE			9.507e1					665		1.41e3							0.000
FUNCTION4 NCDPE			8.433e3					736		1.50e5							0.000
FUNCTION5 DCDPE			0.000e0					626		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.57	7.081e2	1.053e3	0.933	0.67	0.77	12.2	YES	NO	bd	dd	0.291
2	Total-tetrafurans	23.96	4.881e2	6.142e2	0.933	0.79	0.77	11.3	YES	NO	db	dd	0.182
3	Total-tetrafurans	23.21	1.064e3	1.609e3	0.933	0.66	0.77	20.5	YES	NO	bd	bd	0.442
4	Total-tetrafurans	22.52	2.938e2	3.957e2	0.933	0.74	0.77	6.5	YES	NO	dd	dd	0.114
5	1368-TCDF	22.37	2.177e2	3.113e2	1.064	0.70	0.77	5.5	YES	NO	bd	bd	0.077
6	Total-tetrafurans	25.19	2.634e2	3.025e2	0.933	0.87	0.77	5.5	YES	NO	bb	bb	0.094
7	Total-tetrafurans	24.96	1.149e3	1.606e3	0.933	0.72	0.77	23.0	YES	NO	bb	bb	0.456
8	Total-tetrafurans	24.78	7.684e2	1.134e3	0.933	0.68	0.77	15.6	YES	NO	db	db	0.315

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.30	8.507e3	5.735e3		1.48	1.55	134.2	YES	NO	db	db	2.782

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	30.04	1.110e3	8.014e2	0.845	1.38	1.55	16.0	YES	NO	db	db	0.405
2	Total-pentafurans	28.59	9.569e2	5.829e2	0.866	1.64	1.55	13.6	YES	NO	dd	db	0.325
3	Total-pentafurans	28.30	6.027e2	4.472e2	0.866	1.35	1.55	9.0	YES	NO	bb	bb	0.221

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.00	7.349e2	6.290e2	1.187	1.17	1.24	18.1	YES	NO	MM	bb	0.284
2	234678-HxCDF	35.99	2.210e3	1.721e3	1.229	1.28	1.24	48.4	YES	NO	bb	bb	0.753
3	123678-HxCDF	35.14	1.126e3	1.008e3	1.248	1.12	1.24	32.2	YES	NO	db	db	0.365
4	123478-HxCDF	35.01	2.970e3	2.544e3	1.182	1.17	1.24	81.6	YES	NO	bd	bd	1.065
5	Total-hexafurans	34.37	1.366e4	1.071e4	1.208	1.27	1.24	381.7	YES	NO	bb	bb	4.646
6	Total-hexafurans	34.06	2.810e2	2.319e2	1.208	1.21	1.24	8.0	YES	NO	bb	bb	0.098
7	Total-hexafurans	33.55	1.069e4	8.466e3	1.208	1.26	1.24	287.9	YES	NO	db	bb	3.653
8	123468-HxCDF	33.34	3.156e3	2.548e3	1.197	1.24	1.24	94.2	YES	NO	bd	bb	1.087



## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

## HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.86	1.764e4	1.759e4	1.204	1.00	1.05	247.7	YES	NO	bd	bd	8.319
2	1234789-HpCDF	41.11	1.060e3	1.116e3	1.165	0.95	1.05	15.0	YES	NO	bb	bb	0.612
3	Total-heptafurans	39.67	3.069e2	2.879e2	1.185	1.07	1.05	7.2	YES	NO	dd	db	0.153
4	Total-heptafurans	39.52	3.324e4	3.465e4	1.185	0.96	1.05	438.7	YES	NO	bd	bd	17.453

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.57	7.081e2	1.053e3	0.933	0.67	0.77	12.2	YES	NO	bd	dd	0.291
2	Total-tetrafurans	23.96	4.881e2	6.142e2	0.933	0.79	0.77	11.3	YES	NO	db	dd	0.182
3	Total-tetrafurans	23.21	1.064e3	1.609e3	0.933	0.66	0.77	20.5	YES	NO	bd	bd	0.442
4	Total-tetrafurans	22.52	2.938e2	3.957e2	0.933	0.74	0.77	6.5	YES	NO	dd	dd	0.114
5	1368-TCDF	22.37	2.177e2	3.113e2	1.064	0.70	0.77	5.5	YES	NO	bd	bd	0.077
6	Total-tetrafurans	25.19	2.634e2	3.025e2	0.933	0.87	0.77	5.5	YES	NO	bb	bb	0.094
7	Total-tetrafurans	24.96	1.149e3	1.606e3	0.933	0.72	0.77	23.0	YES	NO	bb	bb	0.456
8	Total-tetrafurans	24.78	7.684e2	1.134e3	0.933	0.68	0.77	15.6	YES	NO	db	db	0.315
9	12378-PeCDF	30.04	1.110e3	8.014e2	0.845	1.38	1.55	16.0	YES	NO	db	db	0.405
10	Total-pentafurans	28.59	9.569e2	5.829e2	0.866	1.64	1.55	13.6	YES	NO	dd	db	0.325
11	Total-pentafurans	28.30	6.027e2	4.472e2	0.866	1.35	1.55	9.0	YES	NO	bb	bb	0.221
12	123789-HxCDF	37.00	7.349e2	6.290e2	1.187	1.17	1.24	18.1	YES	NO	MM	bb	0.284
13	234678-HxCDF	35.99	2.210e3	1.721e3	1.229	1.28	1.24	48.4	YES	NO	bb	bb	0.753
14	123678-HxCDF	35.14	1.126e3	1.008e3	1.248	1.12	1.24	32.2	YES	NO	db	db	0.365
15	123478-HxCDF	35.01	2.970e3	2.544e3	1.182	1.17	1.24	81.6	YES	NO	bd	bd	1.065
16	Total-hexafurans	34.37	1.366e4	1.071e4	1.208	1.27	1.24	381.7	YES	NO	bb	bb	4.646
17	Total-hexafurans	34.06	2.810e2	2.319e2	1.208	1.21	1.24	8.0	YES	NO	bb	bb	0.098
18	Total-hexafurans	33.55	1.069e4	8.466e3	1.208	1.26	1.24	287.9	YES	NO	db	bb	3.653
19	123468-HXCDF	33.34	3.156e3	2.548e3	1.197	1.24	1.24	94.2	YES	NO	bd	bb	1.087
20	1234678-HpCDF	38.86	1.764e4	1.759e4	1.204	1.00	1.05	247.7	YES	NO	bd	bd	8.319
21	1234789-HpCDF	41.11	1.060e3	1.116e3	1.165	0.95	1.05	15.0	YES	NO	bb	bb	0.612
22	Total-heptafurans	39.67	3.069e2	2.879e2	1.185	1.07	1.05	7.2	YES	NO	dd	db	0.153
23	Total-heptafurans	39.52	3.324e4	3.465e4	1.185	0.96	1.05	438.7	YES	NO	bd	bd	17.453
24	OCDF	45.38	2.778e4	3.230e4	1.186	0.86	0.89	400.4	YES	NO	bb	bd	21.471
25	Total-penta1	27.30	8.507e3	5.735e3		1.48	1.55	134.2	YES	NO	db	db	2.782

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.64	5.769e2	7.342e2	1.099	0.79	0.77	9.0	YES	NO	bb	bb	0.249
2	Total-tetradoxins	26.14	3.406e2	5.028e2	1.099	0.68	0.77	6.9	YES	NO	bb	bb	0.160

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.61	1.314e3	7.397e2	1.087	1.78	1.55	14.1	YES	NO	MM	bb	0.517
2	Total-pentadoxins	30.24	1.142e3	6.444e2	1.392	1.77	1.55	14.9	YES	NO	bd	bd	0.351
3	Total-pentadoxins	30.01	7.918e2	5.720e2	1.392	1.38	1.55	10.7	YES	NO	bb	bb	0.268

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	3.026e3	2.221e3	0.985	1.36	1.24	46.3	YES	NO	bb	bb	1.221
2	123678-HxCDD	36.22	4.186e3	3.198e3	1.021	1.31	1.24	61.8	YES	NO	dd	dd	1.635
3	123478-HxCDD	36.11	1.416e3	1.157e3	0.987	1.22	1.24	22.3	YES	NO	bd	bd	0.607
4	Total-hexadoxins	35.24	1.135e4	9.786e3	1.007	1.16	1.24	120.7	YES	NO	bd	bd	4.817
5	Total-hexadoxins	34.87	1.850e3	1.698e3	1.007	1.09	1.24	33.4	YES	NO	bb	bb	0.808
6	124679-HxCDD	34.10	9.855e3	8.285e3	1.033	1.19	1.24	151.1	YES	NO	bb	bb	4.089

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	7.622e4	7.137e4	1.253	1.07	1.05	788.8	YES	NO	bd	bd	40.537
2	1234679-HPCDD	39.31	1.250e5	1.208e5	1.286	1.03	1.05	1409.3	YES	NO	bd	bd	65.763

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.64	5.769e2	7.342e2	1.099	0.79	0.77	9.0	YES	NO	bb	bb	0.249
2	Total-tetradoxins	26.14	3.406e2	5.028e2	1.099	0.68	0.77	6.9	YES	NO	bb	bb	0.160
3	12378-PeCDD	31.61	1.314e3	7.397e2	1.087	1.78	1.55	14.1	YES	NO	MM	bb	0.517
4	Total-pentadoxins	30.24	1.142e3	6.444e2	1.392	1.77	1.55	14.9	YES	NO	bd	bd	0.351
5	Total-pentadoxins	30.01	7.918e2	5.720e2	1.392	1.38	1.55	10.7	YES	NO	bb	bb	0.268
6	123789-HxCDD	36.61	3.026e3	2.221e3	0.985	1.36	1.24	46.3	YES	NO	bb	bb	1.221
7	123678-HxCDD	36.22	4.186e3	3.198e3	1.021	1.31	1.24	61.8	YES	NO	dd	dd	1.635
8	123478-HxCDD	36.11	1.416e3	1.157e3	0.987	1.22	1.24	22.3	YES	NO	bd	bd	0.607
9	Total-hexadoxins	35.24	1.135e4	9.786e3	1.007	1.16	1.24	120.7	YES	NO	bd	bd	4.817
10	Total-hexadoxins	34.87	1.850e3	1.698e3	1.007	1.09	1.24	33.4	YES	NO	bb	bb	0.808
11	124679-HxCDD	34.10	9.855e3	8.285e3	1.033	1.19	1.24	151.1	YES	NO	bb	bb	4.089
12	1234678-HpCDD	40.37	7.622e4	7.137e4	1.253	1.07	1.05	788.8	YES	NO	bd	bd	40.537
13	1234679-HPCDD	39.31	1.250e5	1.208e5	1.286	1.03	1.05	1409.3	YES	NO	bd	bd	65.763
14	OCDD	45.14	4.477e5	5.348e5	1.103	0.84	0.89	4431.1	YES	NO	bb	bd	377.746

## Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.57	7.081e2	1.053e3	0.933	0.67	0.77	12.2	YES	NO	bd	dd	0.291
2	Total-tetrafurans	23.96	4.881e2	6.142e2	0.933	0.79	0.77	11.3	YES	NO	db	dd	0.182
3	Total-tetrafurans	23.21	1.064e3	1.609e3	0.933	0.66	0.77	20.5	YES	NO	bd	bd	0.442
4	Total-tetrafurans	22.52	2.938e2	3.957e2	0.933	0.74	0.77	6.5	YES	NO	dd	dd	0.114
5	1368-TCDF	22.37	2.177e2	3.113e2	1.064	0.70	0.77	5.5	YES	NO	bd	bd	0.077
6	Total-tetrafurans	25.19	2.634e2	3.025e2	0.933	0.87	0.77	5.5	YES	NO	bb	bb	0.094
7	Total-tetrafurans	24.96	1.149e3	1.606e3	0.933	0.72	0.77	23.0	YES	NO	bb	bb	0.456
8	Total-tetrafurans	24.78	7.684e2	1.134e3	0.933	0.68	0.77	15.6	YES	NO	db	db	0.315
9	12378-PeCDF	30.04	1.110e3	8.014e2	0.845	1.38	1.55	16.0	YES	NO	db	db	0.405
10	Total-pentafurans	28.59	9.569e2	5.829e2	0.866	1.64	1.55	13.6	YES	NO	dd	db	0.325
11	Total-pentafurans	28.30	6.027e2	4.472e2	0.866	1.35	1.55	9.0	YES	NO	bb	bb	0.221
12	123789-HxCDF	37.00	7.349e2	6.290e2	1.187	1.17	1.24	18.1	YES	NO	MM	bb	0.284
13	234678-HxCDF	35.99	2.210e3	1.721e3	1.229	1.28	1.24	48.4	YES	NO	bb	bb	0.753
14	123678-HxCDF	35.14	1.126e3	1.008e3	1.248	1.12	1.24	32.2	YES	NO	db	db	0.365
15	123478-HxCDF	35.01	2.970e3	2.544e3	1.182	1.17	1.24	81.6	YES	NO	bd	bd	1.065
16	Total-hexafurans	34.37	1.366e4	1.071e4	1.208	1.27	1.24	381.7	YES	NO	bb	bb	4.646
17	Total-hexafurans	34.06	2.810e2	2.319e2	1.208	1.21	1.24	8.0	YES	NO	bb	bb	0.098
18	Total-hexafurans	33.55	1.069e4	8.466e3	1.208	1.26	1.24	287.9	YES	NO	db	bb	3.653
19	123468-HXCDF	33.34	3.156e3	2.548e3	1.197	1.24	1.24	94.2	YES	NO	bd	bb	1.087
20	1234678-HpCDF	38.86	1.764e4	1.759e4	1.204	1.00	1.05	247.7	YES	NO	bd	bd	8.319
21	1234789-HpCDF	41.11	1.060e3	1.116e3	1.165	0.95	1.05	15.0	YES	NO	bb	bb	0.612
22	Total-heptafurans	39.67	3.069e2	2.879e2	1.185	1.07	1.05	7.2	YES	NO	dd	db	0.153
23	Total-heptafurans	39.52	3.324e4	3.465e4	1.185	0.96	1.05	438.7	YES	NO	bd	bd	17.453
24	OCDF	45.38	2.778e4	3.230e4	1.186	0.86	0.89	400.4	YES	NO	bb	bd	21.471
25	Total-penta1	27.30	8.507e3	5.735e3		1.48	1.55	134.2	YES	NO	db	db	2.782
26	Total-tetradioxins	24.64	5.769e2	7.342e2	1.099	0.79	0.77	9.0	YES	NO	bb	bb	0.249
27	Total-tetradioxins	26.14	3.406e2	5.028e2	1.099	0.68	0.77	6.9	YES	NO	bb	bb	0.160
28	12378-PeCDD	31.61	1.314e3	7.397e2	1.087	1.78	1.55	14.1	YES	NO	MM	bb	0.517
29	Total-pentadioxins	30.24	1.142e3	6.444e2	1.392	1.77	1.55	14.9	YES	NO	bd	bd	0.351
30	Total-pentadioxins	30.01	7.918e2	5.720e2	1.392	1.38	1.55	10.7	YES	NO	bb	bb	0.268
31	123789-HxCDD	36.61	3.026e3	2.221e3	0.985	1.36	1.24	46.3	YES	NO	bb	bb	1.221
32	123678-HxCDD	36.22	4.186e3	3.198e3	1.021	1.31	1.24	61.8	YES	NO	dd	dd	1.635
33	123478-HxCDD	36.11	1.416e3	1.157e3	0.987	1.22	1.24	22.3	YES	NO	bd	bd	0.607
34	Total-hexadioxins	35.24	1.135e4	9.786e3	1.007	1.16	1.24	120.7	YES	NO	bd	bd	4.817
35	Total-hexadioxins	34.87	1.850e3	1.698e3	1.007	1.09	1.24	33.4	YES	NO	bb	bb	0.808
36	124679-HXCDD	34.10	9.855e3	8.285e3	1.033	1.19	1.24	151.1	YES	NO	bb	bb	4.089
37	1234678-HpCDD	40.37	7.622e4	7.137e4	1.253	1.07	1.05	788.8	YES	NO	bd	bd	40.537

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	1234679-HPCDD	39.31	1.250e5	1.208e5	1.286	1.03	1.05	1409.3	YES	NO	bd	bd	65.763
39	OCDD	45.14	4.477e5	5.348e5	1.103	0.84	0.89	4431.1	YES	NO	bb	bd	377.746

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.72	2.283e4					1.2	NO		bd		
2	FUNCTION1 PFK	23.49	2.416e4					1.3	NO		bb		
3	FUNCTION1 PFK	23.19	4.366e3					0.5	NO		bb		
4	FUNCTION1 PFK	22.42	2.748e4					1.4	NO		bb		
5	FUNCTION1 PFK	22.36	5.937e3					0.7	NO		bb		
6	FUNCTION1 PFK	21.69	3.991e5					1.9	NO		bb		
7	FUNCTION1 PFK	21.22	6.085e4					1.8	NO		bb		
8	FUNCTION1 PFK	27.88	4.101e3					0.5	NO		bb		
9	FUNCTION1 PFK	26.96	1.296e4					0.8	NO		bb		
10	FUNCTION1 PFK	25.44	1.344e4					0.9	NO		bb		
11	FUNCTION1 PFK	24.93	1.859e4					1.1	NO		bb		
12	FUNCTION1 PFK	24.69	4.890e3					0.6	NO		bb		
13	FUNCTION1 PFK	23.78	1.205e4					0.8	NO		db		

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

## PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.05	4.470e3					1.2	NO		bb		0.000
2	FUNCTION2 PFK	28.87	9.541e3					1.6	NO		bb		0.000
3	FUNCTION2 PFK	28.80	3.847e3					0.8	NO		bb		0.000
4	FUNCTION2 PFK	28.62	6.856e3					1.0	NO		bb		0.000
5	FUNCTION2 PFK	28.56	1.352e4					1.6	NO		db		0.000
6	FUNCTION2 PFK	28.49	1.303e4					1.9	NO		dd		0.000
7	FUNCTION2 PFK	28.44	1.430e4					2.1	NO		bd		0.000
8	FUNCTION2 PFK	28.38	6.261e3					1.5	NO		db		0.000
9	FUNCTION2 PFK	28.34	7.107e3					1.2	NO		bd		0.000
10	FUNCTION2 PFK	31.71	1.070e4					1.6	NO		bd		0.000
11	FUNCTION2 PFK	31.15	2.029e3					0.6	NO		bb		0.000
12	FUNCTION2 PFK	30.68	3.644e3					0.9	NO		bb		0.000
13	FUNCTION2 PFK	30.61	2.256e3					0.6	NO		bb		0.000
14	FUNCTION2 PFK	30.36	8.582e3					1.4	NO		bb		0.000
15	FUNCTION2 PFK	30.25	1.977e3					0.5	NO		bb		0.000
16	FUNCTION2 PFK	30.15	1.340e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	30.08	8.817e2					0.4	NO		bb		0.000
18	FUNCTION2 PFK	29.96	1.047e3					0.5	NO		bb		0.000
19	FUNCTION2 PFK	29.70	3.466e3					0.4	NO		bb		0.000
20	FUNCTION2 PFK	29.50	5.378e3					1.3	NO		bb		0.000
21	FUNCTION2 PFK	29.44	4.840e3					0.9	NO		bb		0.000
22	FUNCTION2 PFK	29.27	8.009e2					0.4	NO		bb		0.000
23	FUNCTION2 PFK	29.22	4.737e3					1.1	NO		db		0.000
24	FUNCTION2 PFK	29.15	1.225e4					1.7	NO		bd		0.000
25	FUNCTION2 PFK	29.09	1.117e3					0.5	NO		bb		0.000
26	FUNCTION2 PFK	32.80	1.222e4					1.8	NO		db		0.000
27	FUNCTION2 PFK	32.76	5.229e3					1.1	NO		bd		0.000
28	FUNCTION2 PFK	32.63	3.257e4					2.2	NO		bb		0.000
29	FUNCTION2 PFK	32.41	7.752e3					1.4	NO		bb		0.000
30	FUNCTION2 PFK	32.21	1.221e4					1.7	NO		bb		0.000
31	FUNCTION2 PFK	32.06	1.094e3					0.5	NO		bb		0.000
32	FUNCTION2 PFK	31.98	3.680e3					0.9	NO		bb		0.000
33	FUNCTION2 PFK	31.75	5.654e3					0.9	NO		db		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.74	9.089e3					1.5	NO		db		0.000
2	FUNCTION3 PFK	33.70	5.239e3					1.2	NO		bd		0.000
3	FUNCTION3 PFK	33.35	1.425e3					0.6	NO		bb		0.000
4	FUNCTION3 PFK	33.13	3.647e4					3.5	YES		bb		0.000
5	FUNCTION3 PFK	33.08	1.095e4					2.1	NO		bb		0.000
6	FUNCTION3 PFK	33.00	1.630e4					3.3	YES		db		0.000
7	FUNCTION3 PFK	32.98	1.527e4					3.0	NO		bd		0.000
8	FUNCTION3 PFK	36.83	1.669e5					5.8	YES		db		0.000
9	FUNCTION3 PFK	36.78	3.729e4					3.6	YES		bd		0.000
10	FUNCTION3 PFK	36.54	1.337e4					1.3	NO		bb		0.000
11	FUNCTION3 PFK	36.21	8.151e3					1.2	NO		bb		0.000
12	FUNCTION3 PFK	35.73	1.143e4					1.5	NO		bb		0.000
13	FUNCTION3 PFK	35.52	2.120e4					1.6	NO		bb		0.000
14	FUNCTION3 PFK	35.43	3.556e3					0.8	NO		bb		0.000
15	FUNCTION3 PFK	35.24	4.933e3					0.8	NO		bb		0.000
16	FUNCTION3 PFK	34.98	1.784e4					2.5	NO		db		0.000
17	FUNCTION3 PFK	34.94	2.383e3					0.7	NO		bd		0.000
18	FUNCTION3 PFK	34.78	3.117e3					0.7	NO		bb		0.000
19	FUNCTION3 PFK	34.65	8.496e3					1.1	NO		bb		0.000
20	FUNCTION3 PFK	34.53	1.237e3					0.5	NO		bb		0.000
21	FUNCTION3 PFK	34.37	1.114e3					0.5	NO		bb		0.000
22	FUNCTION3 PFK	34.28	2.168e3					0.6	NO		bb		0.000
23	FUNCTION3 PFK	33.95	7.683e3					1.3	NO		bb		0.000
24	FUNCTION3 PFK	37.56	4.734e3					1.0	NO		bb		0.000
25	FUNCTION3 PFK	37.45	3.134e3					0.8	NO		bb		0.000
26	FUNCTION3 PFK	37.08	1.292e5					3.5	YES		bb		0.000

**Quantify Totals Report MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.25	2.127e3					0.8	NO		bb		
2	FUNCTION4 PFK	39.20	5.772e3					1.3	NO		bb		
3	FUNCTION4 PFK	39.00	8.533e3					1.8	NO		db		
4	FUNCTION4 PFK	38.94	8.648e3					1.6	NO		bd		
5	FUNCTION4 PFK	38.84	2.308e3					0.8	NO		db		
6	FUNCTION4 PFK	38.81	6.493e2					0.4	NO		bd		
7	FUNCTION4 PFK	38.75	3.066e3					0.9	NO		bb		
8	FUNCTION4 PFK	38.61	5.128e3					0.7	NO		bb		
9	FUNCTION4 PFK	38.55	5.916e2					0.4	NO		bb		
10	FUNCTION4 PFK	38.51	8.587e2					0.5	NO		bb		
11	FUNCTION4 PFK	38.29	8.954e2					0.6	NO		bb		
12	FUNCTION4 PFK	38.08	7.389e3					0.0	NO		bb		
13	FUNCTION4 PFK	41.29	5.416e3					1.6	NO		bd		
14	FUNCTION4 PFK	41.13	6.173e2					0.4	NO		bb		
15	FUNCTION4 PFK	41.05	7.121e3					1.3	NO		bb		
16	FUNCTION4 PFK	40.92	9.041e3					0.9	NO		bb		
17	FUNCTION4 PFK	40.82	1.120e4					1.6	NO		db		
18	FUNCTION4 PFK	40.72	1.252e4					1.8	NO		bd		
19	FUNCTION4 PFK	40.54	5.387e3					0.9	NO		bb		
20	FUNCTION4 PFK	40.39	3.887e3					1.1	NO		bb		
21	FUNCTION4 PFK	40.28	1.575e4					1.5	NO		bb		
22	FUNCTION4 PFK	39.84	6.897e3					2.1	NO		db		
23	FUNCTION4 PFK	39.81	2.852e4					2.7	NO		dd		
24	FUNCTION4 PFK	39.65	1.693e4					1.8	NO		bd		
25	FUNCTION4 PFK	39.59	5.738e3					1.6	NO		bb		
26	FUNCTION4 PFK	39.52	1.226e4					1.7	NO		db		
27	FUNCTION4 PFK	39.43	3.098e3					0.8	NO		bd		
28	FUNCTION4 PFK	39.31	2.204e3					0.5	NO		bb		
29	FUNCTION4 PFK	42.95	2.000e4					1.8	NO		bb		
30	FUNCTION4 PFK	42.85	6.550e3					1.5	NO		db		
31	FUNCTION4 PFK	42.81	7.048e3					1.6	NO		dd		
32	FUNCTION4 PFK	42.76	3.514e3					0.9	NO		bd		
33	FUNCTION4 PFK	42.68	1.253e4					2.2	NO		bb		
34	FUNCTION4 PFK	42.47	5.938e2					0.4	NO		bb		
35	FUNCTION4 PFK	42.43	1.698e3					0.6	NO		bb		
36	FUNCTION4 PFK	42.30	1.314e3					0.6	NO		db		
37	FUNCTION4 PFK	42.27	6.303e3					1.3	NO		bd		



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

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**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION4 PFK	42.07	1.150e4					1.6	NO		db		
39	FUNCTION4 PFK	42.01	4.067e3					1.2	NO		bd		
40	FUNCTION4 PFK	41.91	8.350e3					1.3	NO		bb		
41	FUNCTION4 PFK	41.52	4.560e3					1.1	NO		db		
42	FUNCTION4 PFK	41.48	6.718e3					1.1	NO		dd		
43	FUNCTION4 PFK	41.44	6.531e3					1.5	NO		bd		
44	FUNCTION4 PFK	41.32	6.890e3					1.5	NO		db		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.07	1.309e3					0.8	NO		bb		
2	FUNCTION5 PFK	44.92	3.133e3					1.4	NO		bb		
3	FUNCTION5 PFK	44.76	4.197e3					1.5	NO		db		
4	FUNCTION5 PFK	44.71	8.726e3					1.5	NO		bd		
5	FUNCTION5 PFK	44.56	1.378e4					2.1	NO		db		
6	FUNCTION5 PFK	44.53	1.570e3					0.8	NO		bd		
7	FUNCTION5 PFK	44.47	2.275e3					1.1	NO		bb		
8	FUNCTION5 PFK	44.34	6.850e3					1.2	NO		bb		
9	FUNCTION5 PFK	44.16	2.483e3					1.0	NO		bb		
10	FUNCTION5 PFK	43.99	3.129e3					0.9	NO		bb		
11	FUNCTION5 PFK	43.72	3.650e2					0.4	NO		bb		
12	FUNCTION5 PFK	43.68	6.598e2					0.4	NO		bb		
13	FUNCTION5 PFK	43.27	2.121e3					1.1	NO		bb		
14	FUNCTION5 PFK	43.13	7.282e3					2.1	NO		db		
15	FUNCTION5 PFK	43.09	4.078e3					1.7	NO		bd		
16	FUNCTION5 PFK	46.36	1.324e3					0.7	NO		bb		
17	FUNCTION5 PFK	46.21	4.960e3					1.7	NO		bb		
18	FUNCTION5 PFK	46.15	8.846e3					2.2	NO		db		
19	FUNCTION5 PFK	46.11	1.017e4					1.9	NO		dd		
20	FUNCTION5 PFK	46.04	5.088e3					1.6	NO		dd		
21	FUNCTION5 PFK	45.99	1.415e4					2.2	NO		dd		
22	FUNCTION5 PFK	45.91	5.566e3					1.6	NO		dd		
23	FUNCTION5 PFK	45.84	9.975e3					2.1	NO		bd		
24	FUNCTION5 PFK	45.72	2.538e3					1.3	NO		bb		
25	FUNCTION5 PFK	45.51	2.782e3					1.0	NO		db		
26	FUNCTION5 PFK	45.47	4.330e3					1.5	NO		bd		
27	FUNCTION5 PFK	45.40	2.520e3					1.1	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.63	7.152e1					2.0	NO		bb		0.000
2	FUNCTION1 HXCD...	21.15	1.032e2					2.5	NO		db		0.000
3	FUNCTION1 HXCD...	21.09	7.036e1					2.8	NO		bd		0.000
4	FUNCTION1 HXCD...	28.13	7.534e1					3.8	YES		bb		0.000
5	FUNCTION1 HXCD...	27.12	8.407e1					2.7	NO		bb		0.000
6	FUNCTION1 HXCD...	26.24	1.598e2					5.6	YES		db		0.000
7	FUNCTION1 HXCD...	26.02	2.759e2					7.0	YES		bd		0.000
8	FUNCTION1 HXCD...	25.69	1.153e2					3.3	YES		bb		0.000
9	FUNCTION1 HXCD...	24.91	1.388e2					2.3	NO		bb		0.000
10	FUNCTION1 HXCD...	24.51	8.447e1					2.4	NO		bb		0.000
11	FUNCTION1 HXCD...	23.86	1.308e2					3.2	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	25.31	7.661e1					2.5	NO		bb		0.000
2	FUNCTION1 HPCD...	23.46	1.335e3					39.6	YES		bb		0.000
3	FUNCTION1 HPCD...	22.71	7.856e1					3.3	YES		bb		0.000
4	FUNCTION1 HPCD...	22.42	8.126e1					2.4	NO		bb		0.000
5	FUNCTION1 HPCD...	22.15	2.597e3					78.0	YES		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	28.50	9.367e1					2.2	NO		bb		0.000
2	FUNCTION2 HPCD...	31.00	7.037e1					1.7	NO		bb		0.000
3	FUNCTION2 HPCD...	29.18	7.023e1					2.3	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.17	9.507e1					2.1	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:16:08 Pacific Standard Time

**ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk****ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.24	9.756e1					2.5	NO		bb		0.000
2	FUNCTION4 NCDPE	40.59	8.181e1					3.7	YES		bb		0.000
3	FUNCTION4 NCDPE	38.49	8.254e3					197.3	YES		bb		0.000

**ETHERS6**

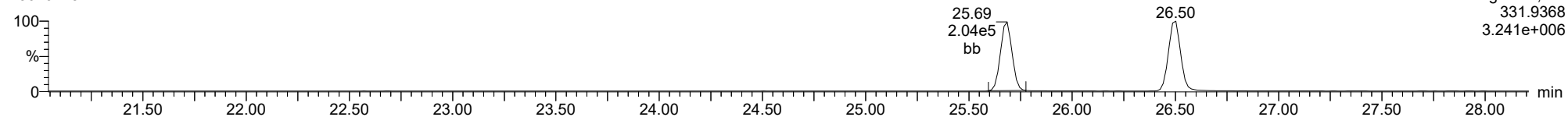
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

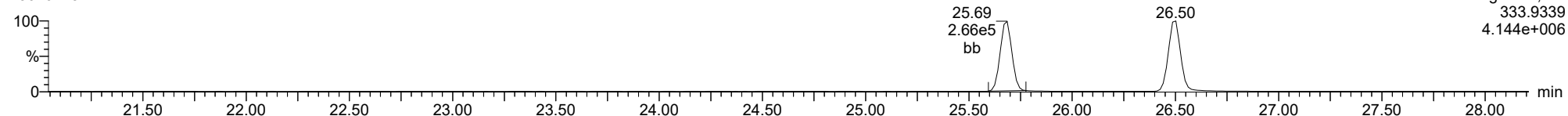
**13C-1234-TCDD**

23020725



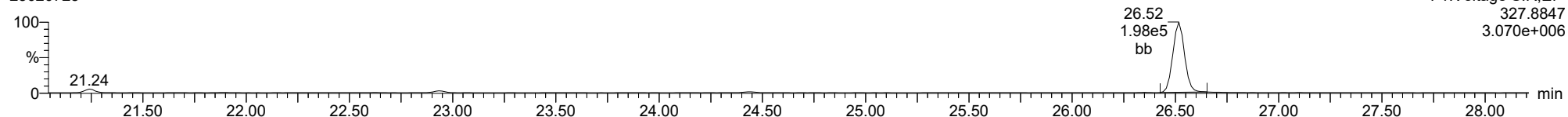
**13C-1234-TCDD**

23020725



**37CL-2378-TCDD**

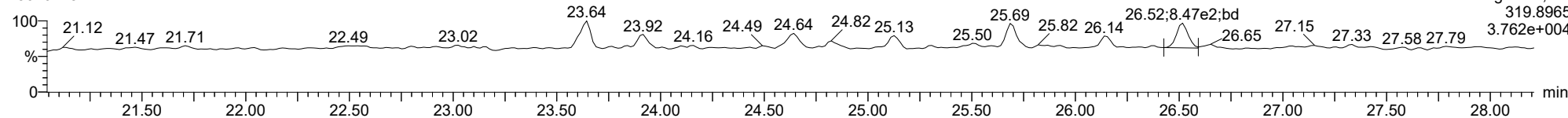
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

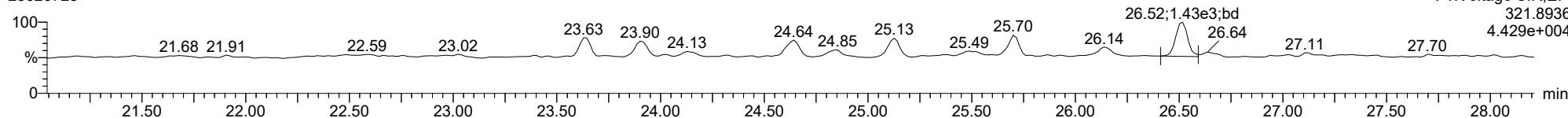
**2378-TCDD**

23020725



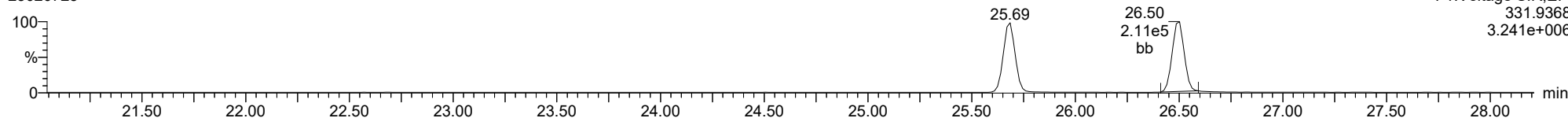
**2378-TCDD**

23020725



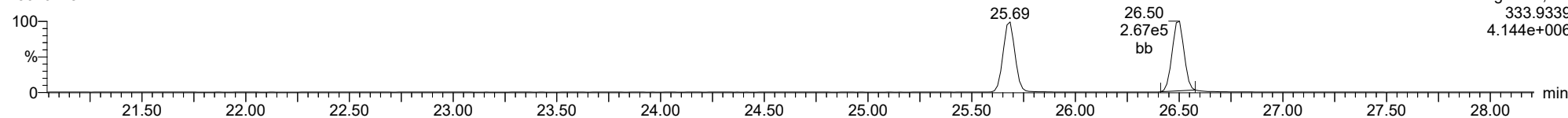
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23020725



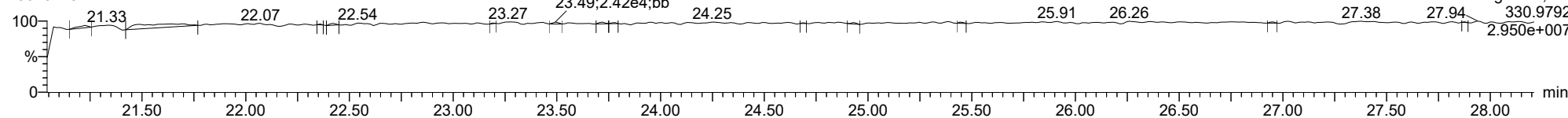
**13C-2378-TCDD**

23020725



**FUNCTION1 PFK**

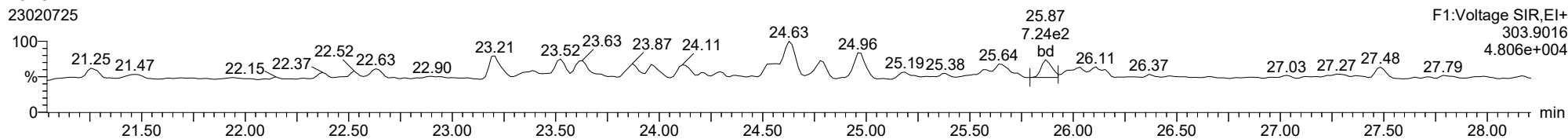
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

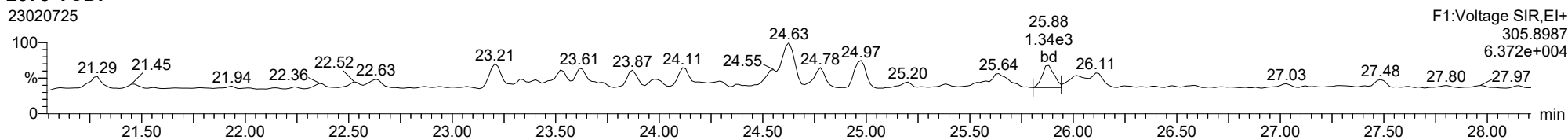
**2378-TCDF**

23020725



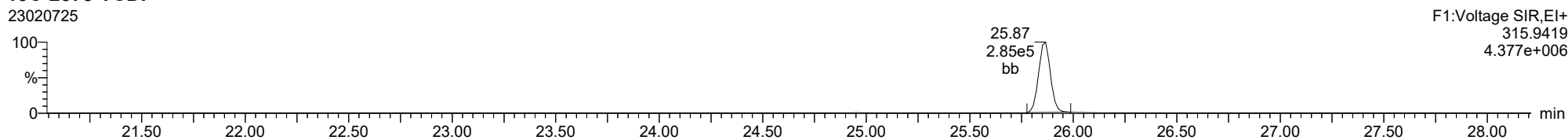
**2378-TCDF**

23020725



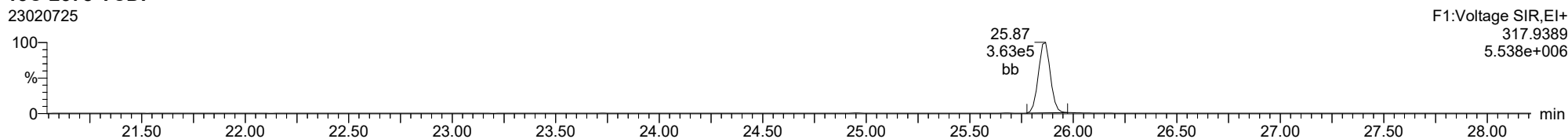
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23020725



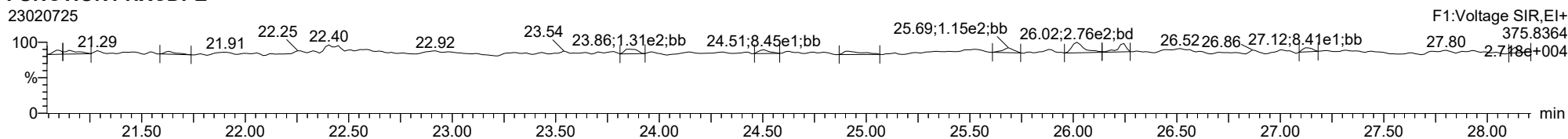
**13C-2378-TCDF**

23020725



**FUNCTION1 HXCDPE**

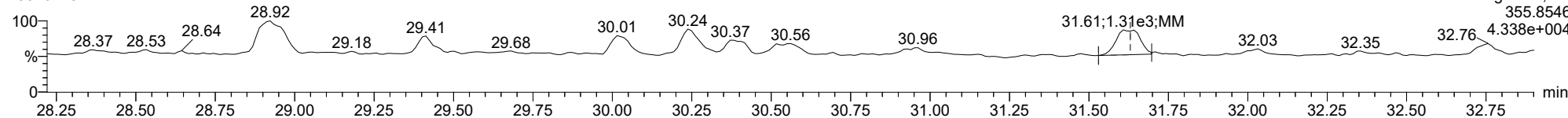
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

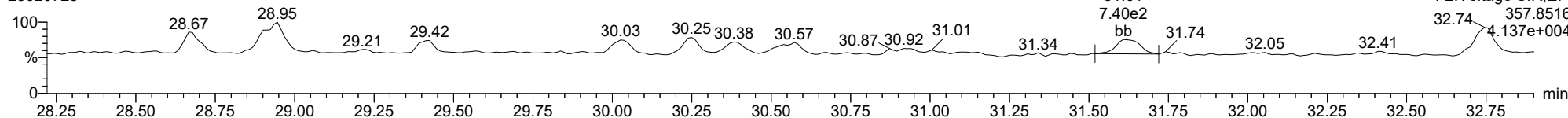
**12378-PeCDD**

23020725



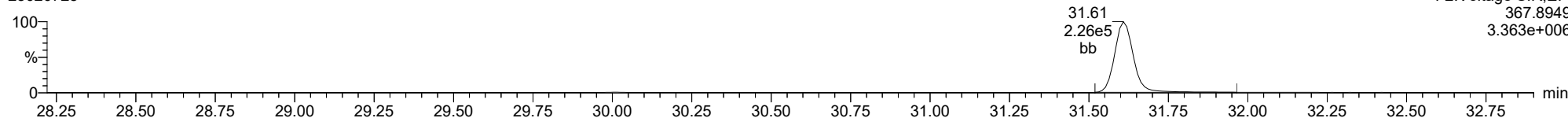
**12378-PeCDD**

23020725



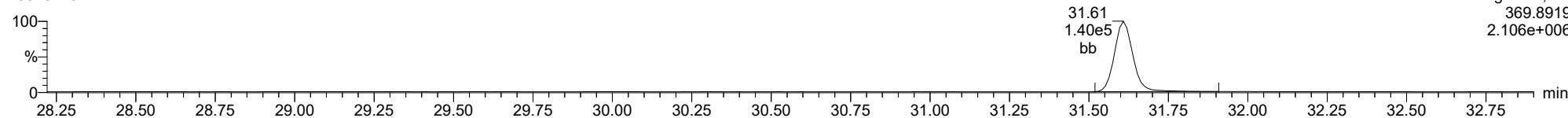
**13C-12378-PeCDD**

23020725



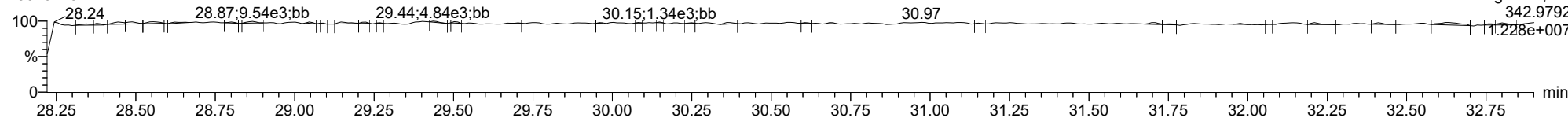
**13C-12378-PeCDD**

23020725



**FUNCTION2 PFK**

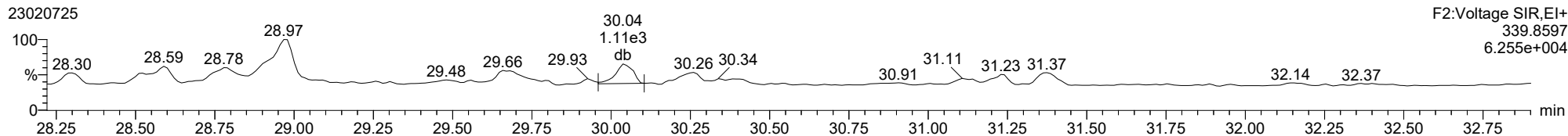
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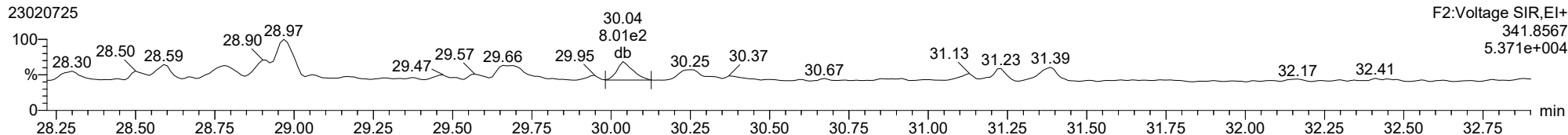


ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

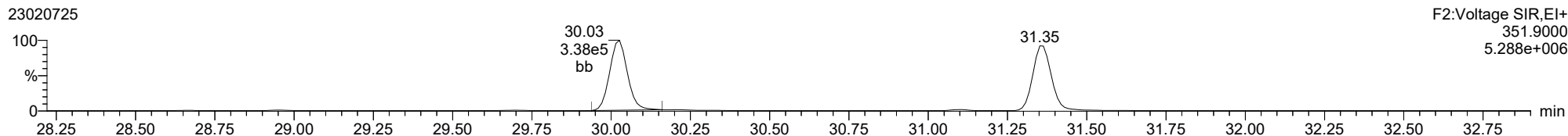
**12378-PeCDF**



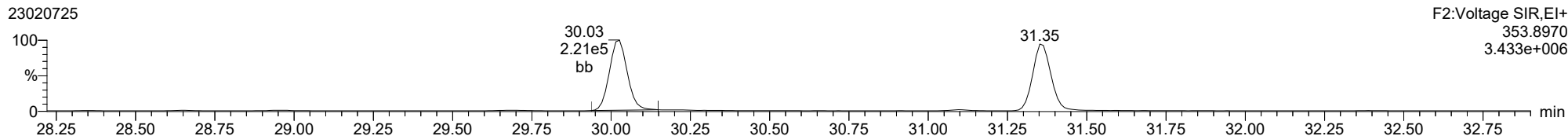
**12378-PeCDF**



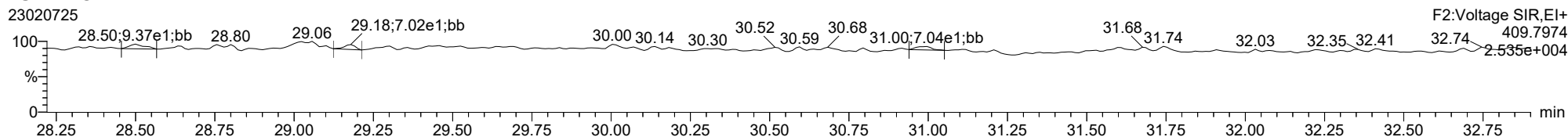
**13C-12378-PeCDF**



**13C-12378-PeCDF**



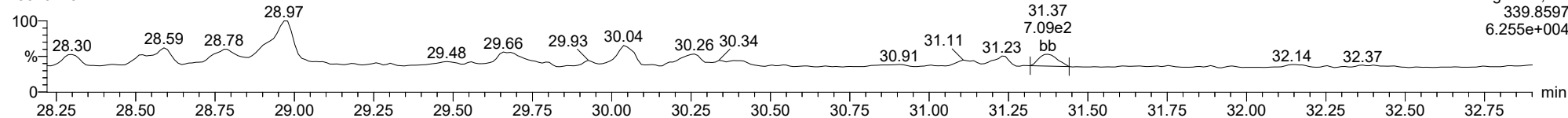
**FUNCTION2 HPCDFE**



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

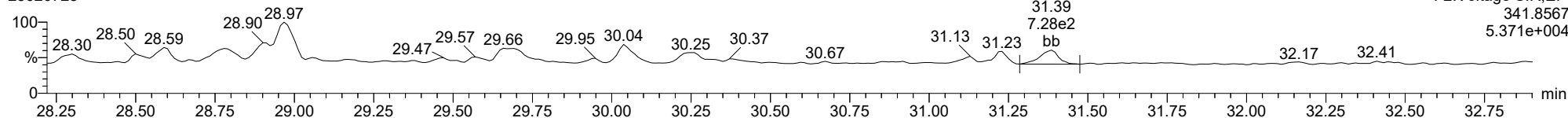
**23478-PeCDF**

23020725



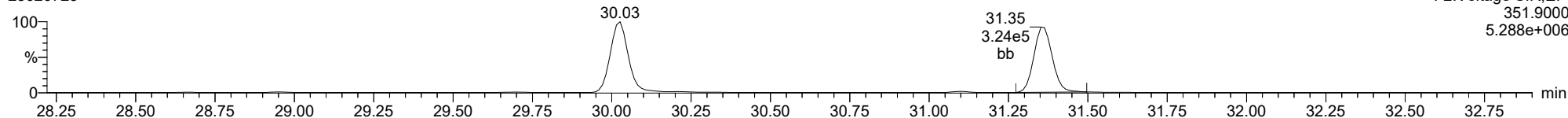
**23478-PeCDF**

23020725



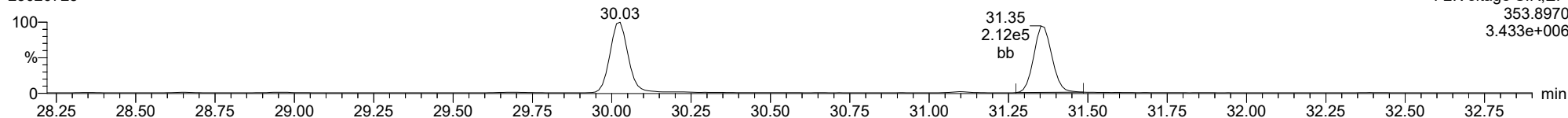
**13C-23478-PeCDF**

23020725



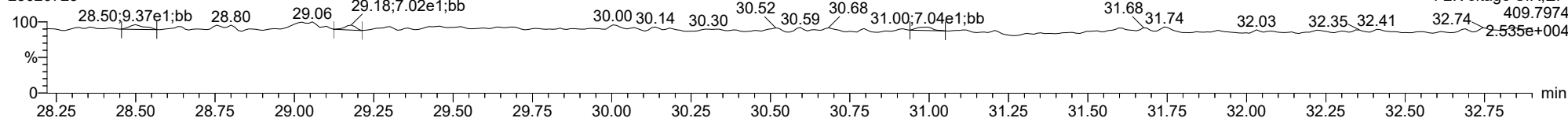
**13C-23478-PeCDF**

23020725



**FUNCTION2 HPCDFE**

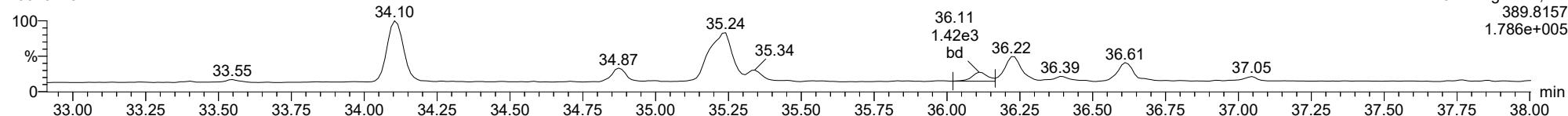
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

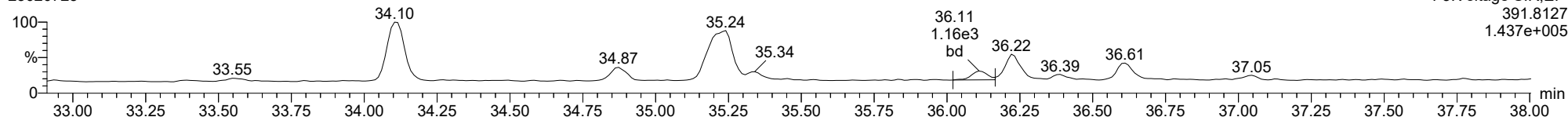
**123478-HxCDD**

23020725



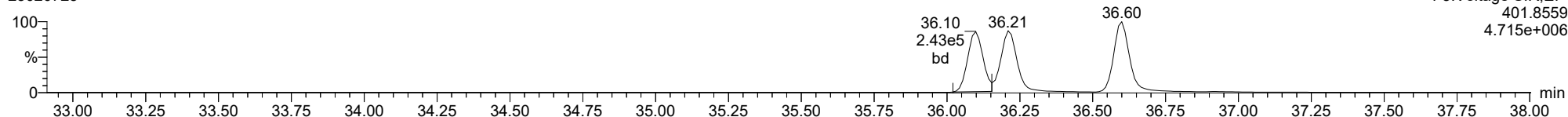
**123478-HxCDD**

23020725



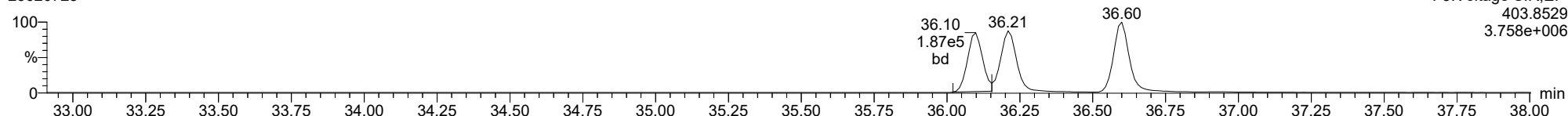
**13C-123478-HxCDD**

23020725



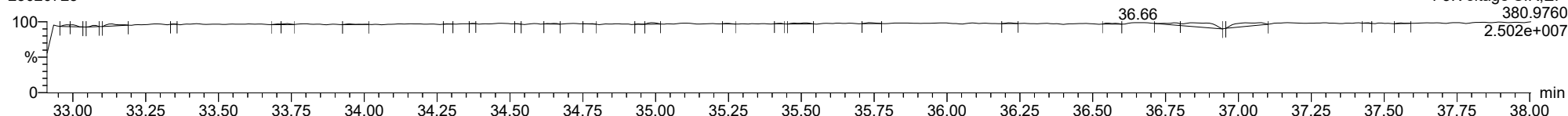
**13C-123478-HxCDD**

23020725



**FUNCTION3 PFK**

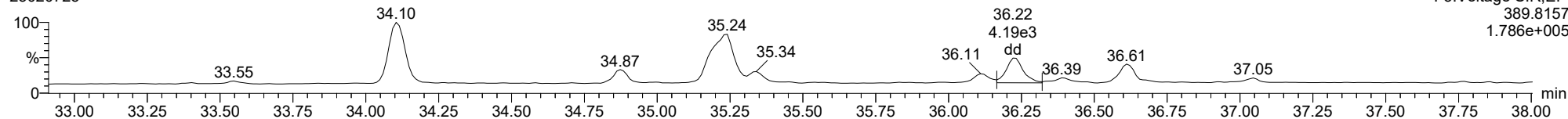
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

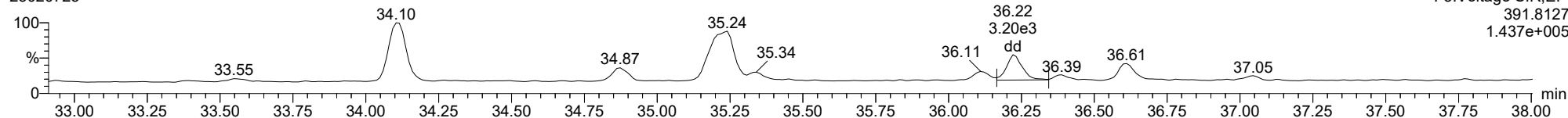
**123678-HxCDD**

23020725



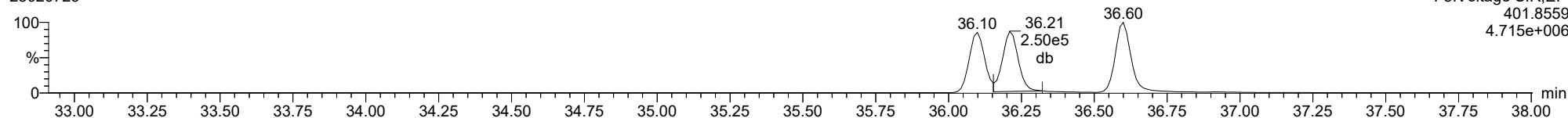
**123678-HxCDD**

23020725



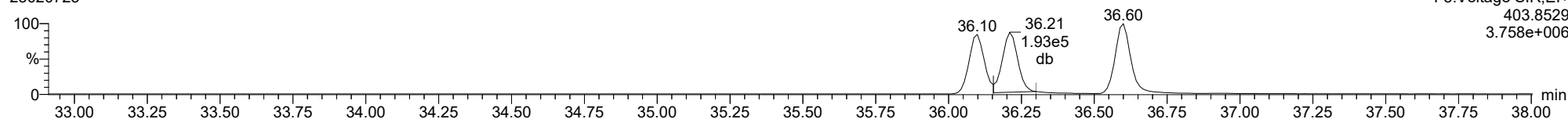
**13C-123678-HxCDD**

23020725



**13C-123678-HxCDD**

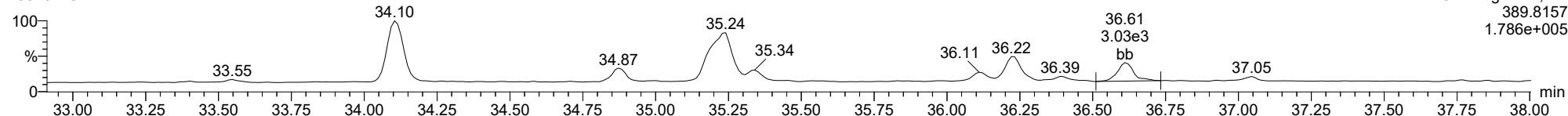
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

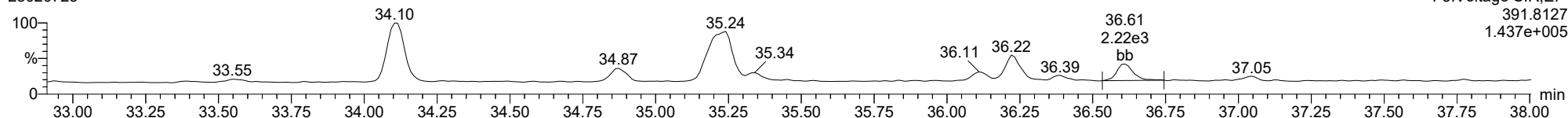
**123789-HxCDD**

23020725



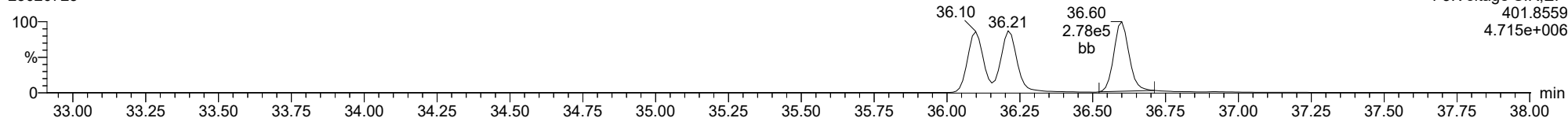
**123789-HxCDD**

23020725



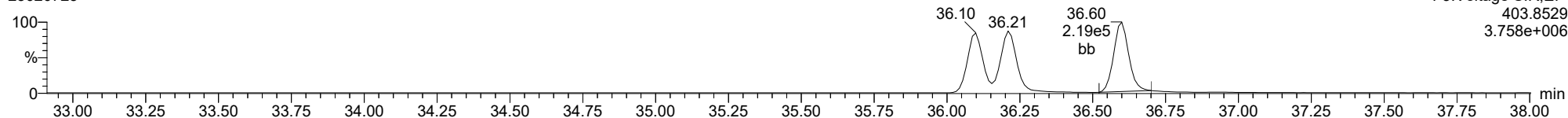
**13C-123789-HxCDD**

23020725



**13C-123789-HxCDD**

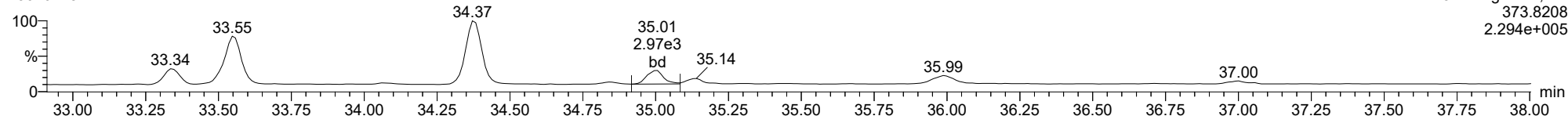
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

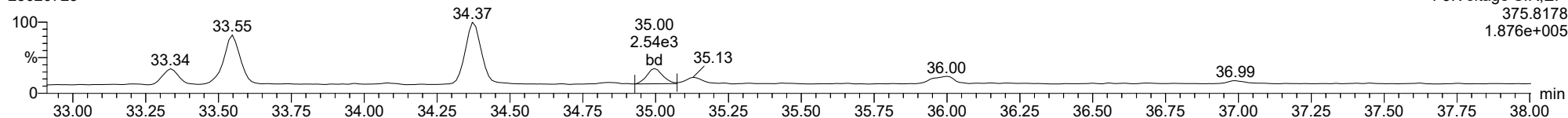
123478-HxCDF

23020725



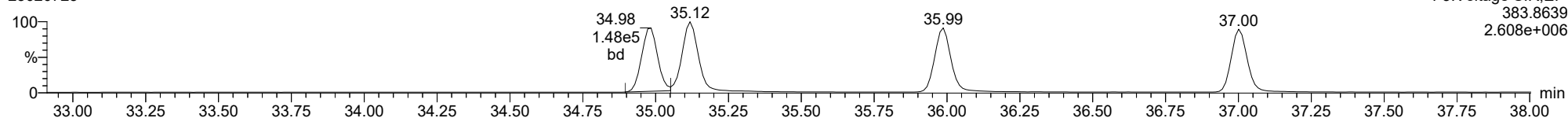
123478-HxCDF

23020725



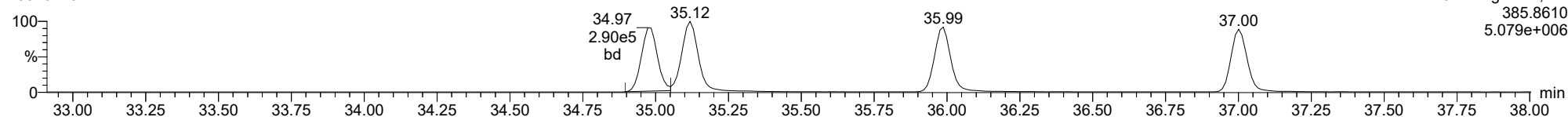
13C-123478-HxCDF

23020725



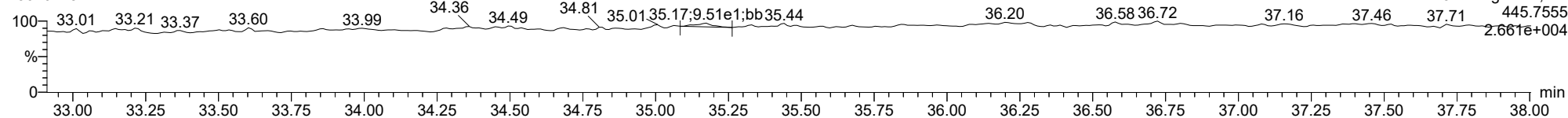
13C-123478-HxCDF

23020725



FUNCTION3 OCDPE

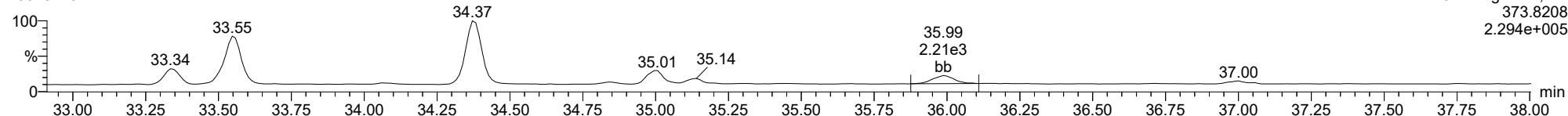
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

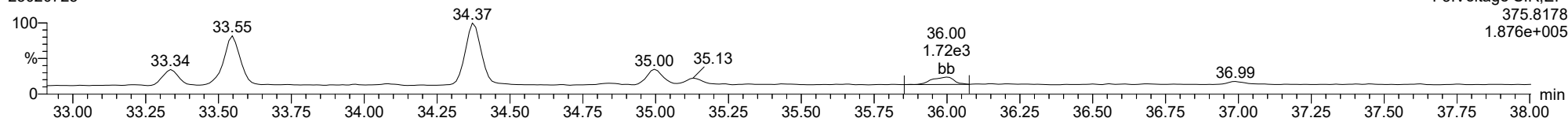
**234678-HxCDF**

23020725



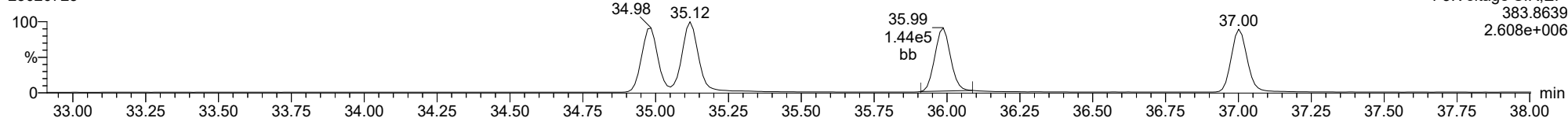
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23020725



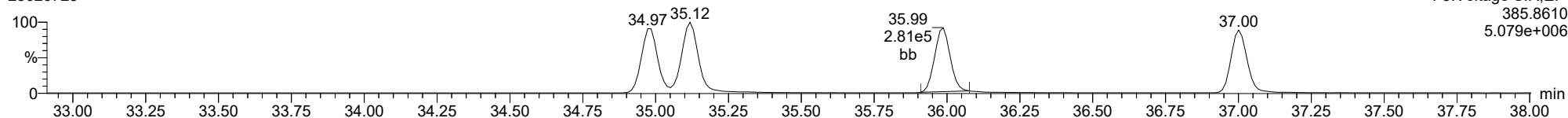
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23020725



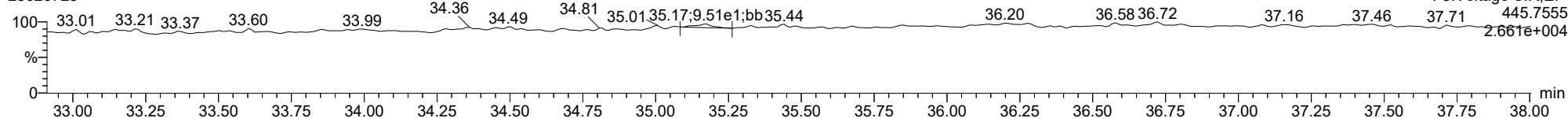
**13C-234678-HxCDF**

23020725



**FUNCTION3 OCDPE**

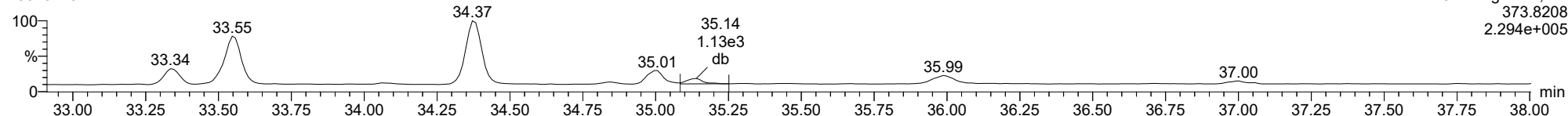
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

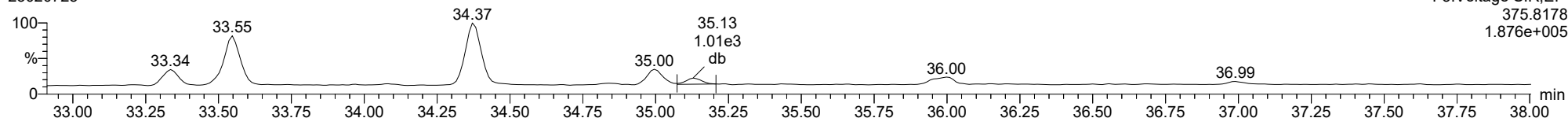
123678-HxCDF

23020725



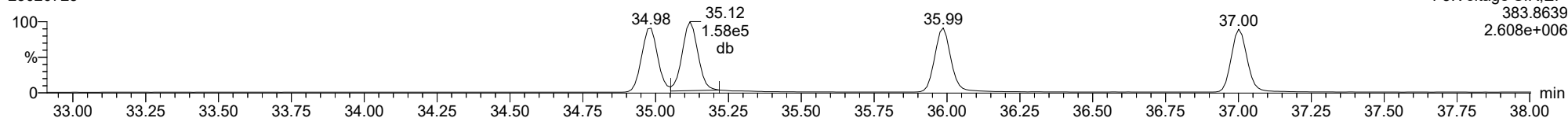
123678-HxCDF

23020725



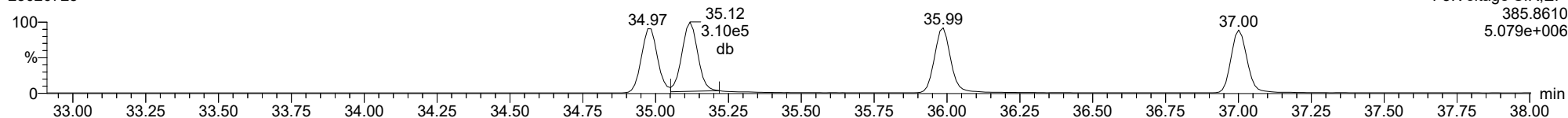
13C-123678-HxCDF

23020725



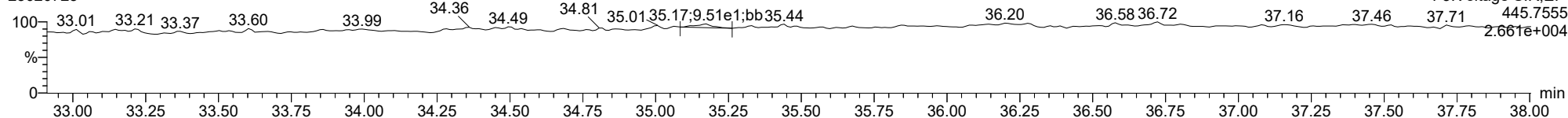
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23020725



FUNCTION3 OCDPE

23020725

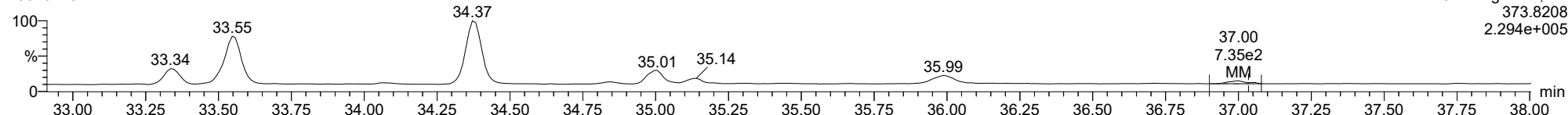




ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

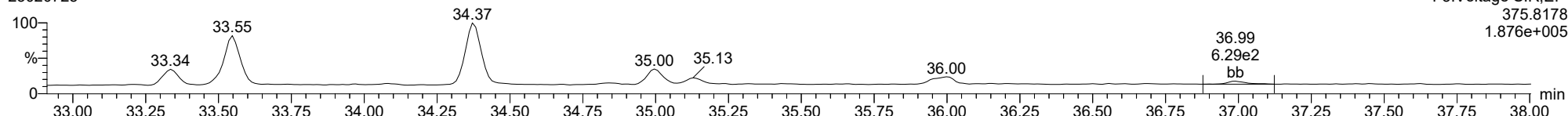
**123789-HxCDF**

23020725



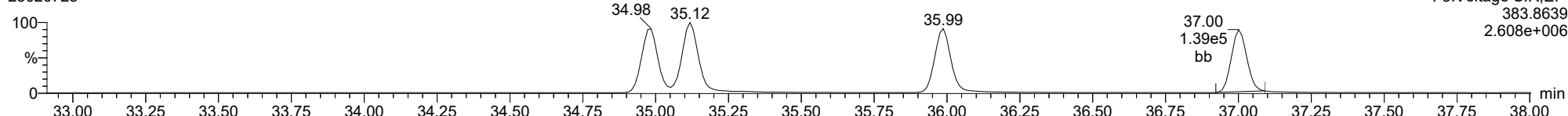
**123789-HxCDF**

23020725



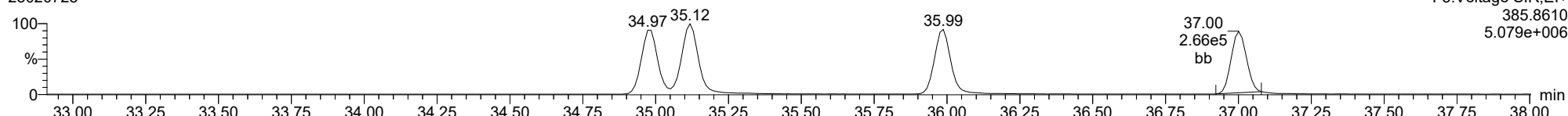
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23020725



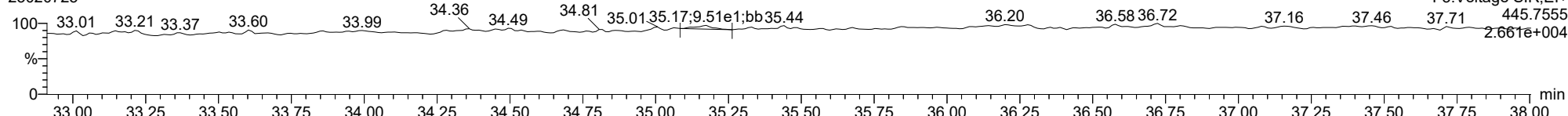
**13C-123789-HxCDF**

23020725



**FUNCTION3 OCDPE**

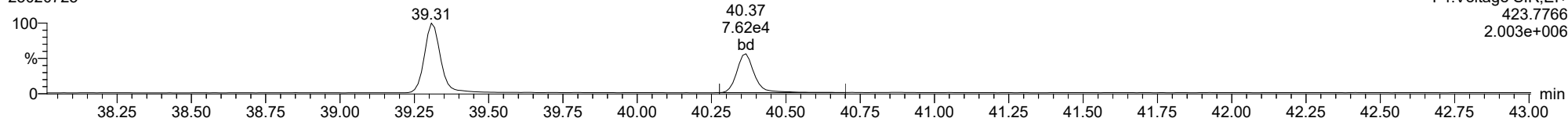
23020725



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

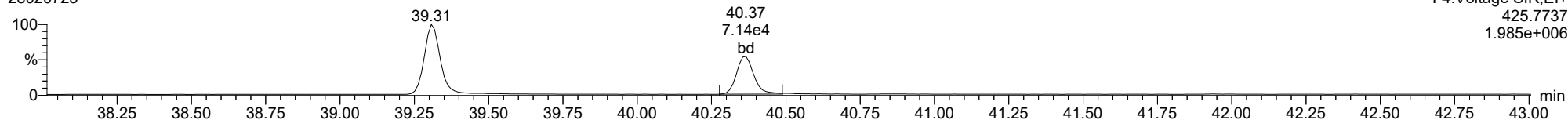
**1234678-HpCDD**

23020725



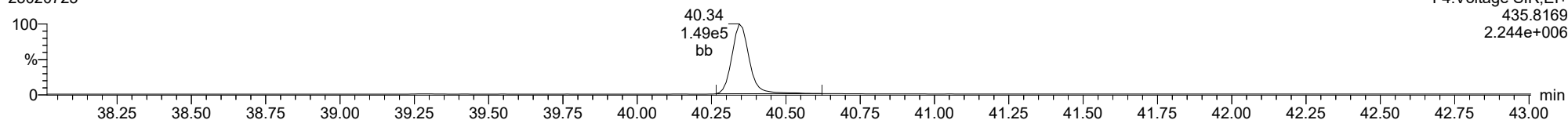
**1234678-HpCDD**

23020725



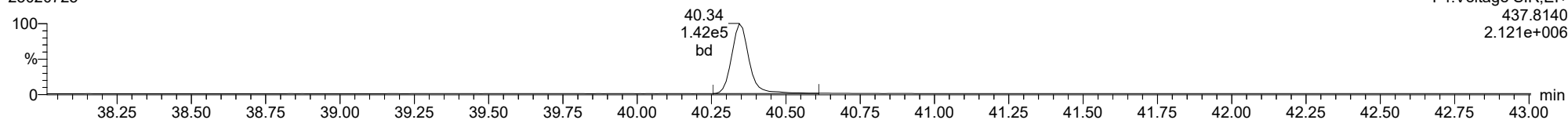
**13C-1234678-HpCDD**

23020725



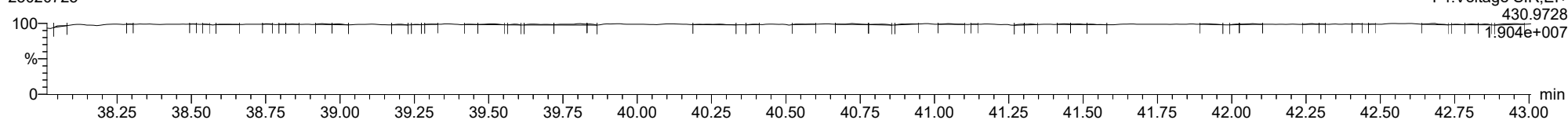
**13C-1234678-HpCDD**

23020725



**FUNCTION4 PFK**

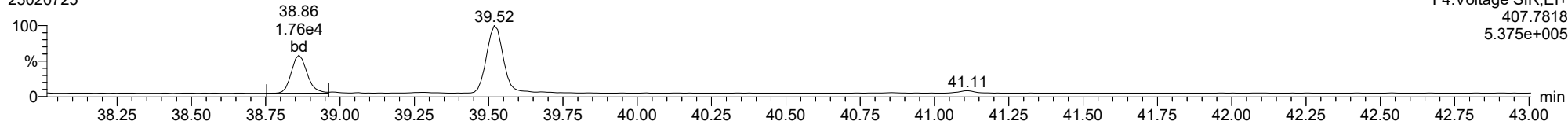
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

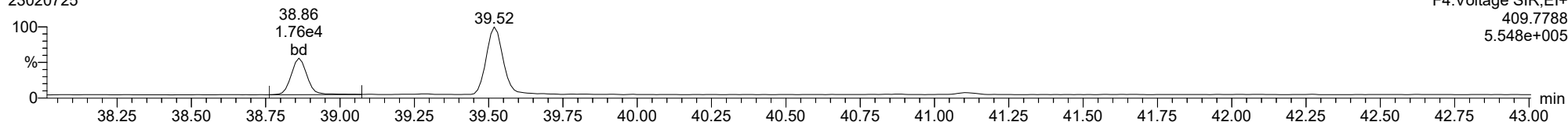
**1234678-HpCDF**

23020725



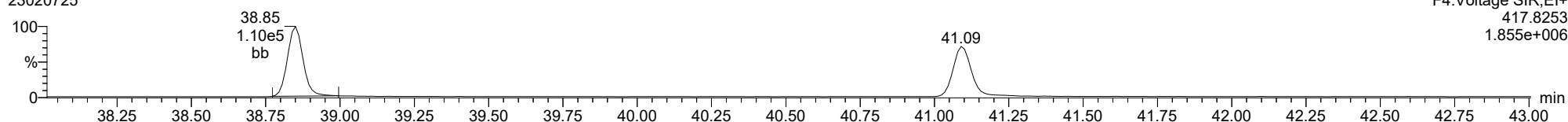
**1234678-HpCDF**

23020725



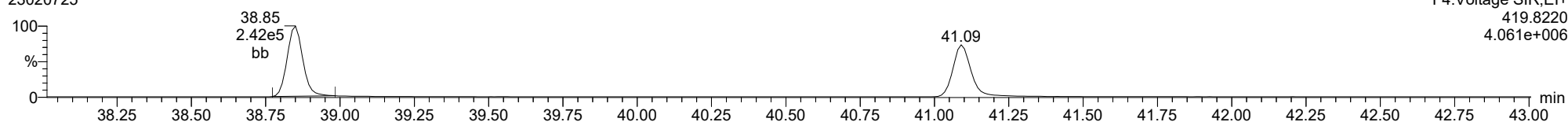
**13C-1234678-HpCDF**

23020725



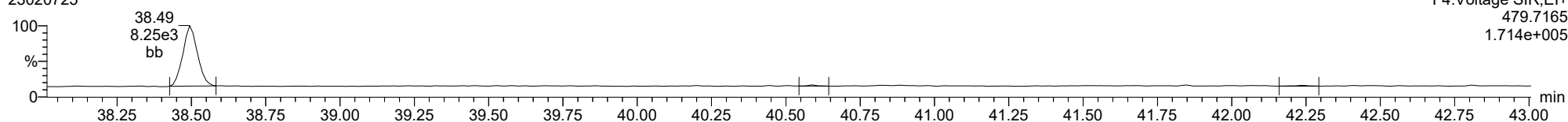
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23020725



**FUNCTION4 NCDPE**

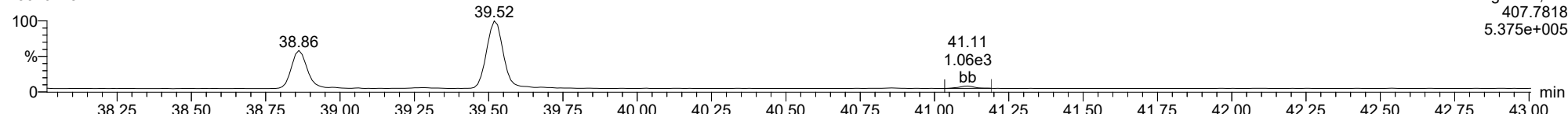
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

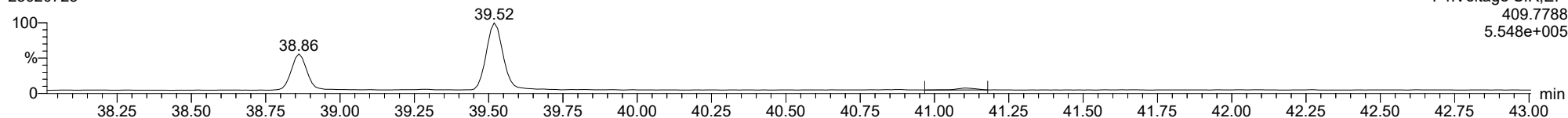
**1234789-HpCDF**

23020725



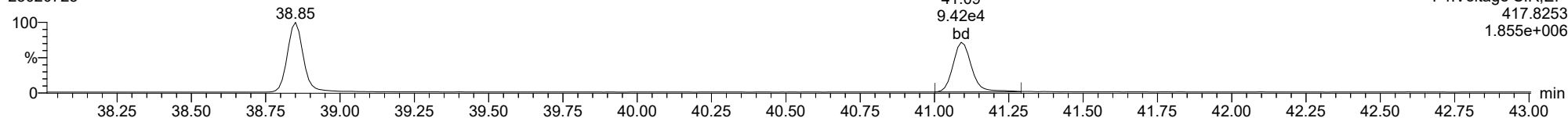
**1234789-HpCDF**

23020725



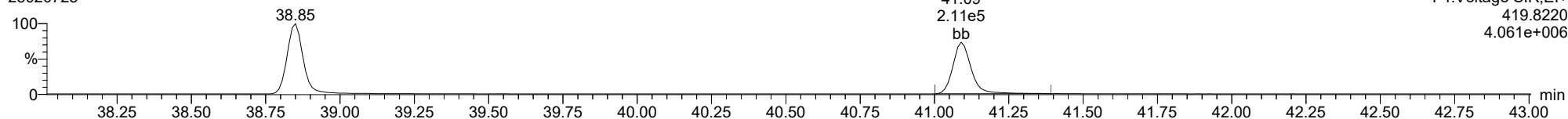
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23020725



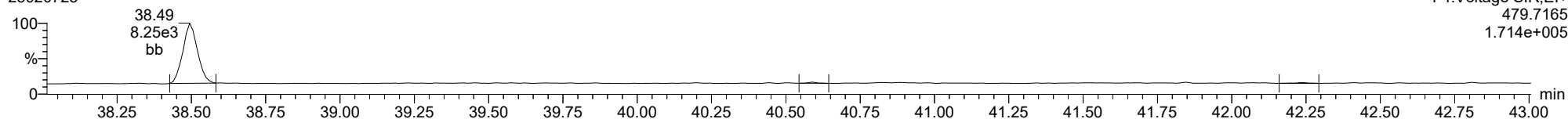
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**FUNCTION4 NCDPE**

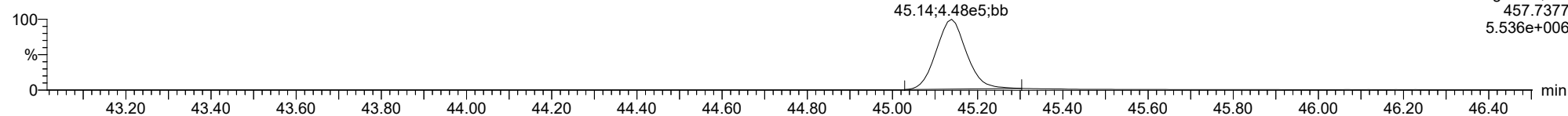
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ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

**OCDD**

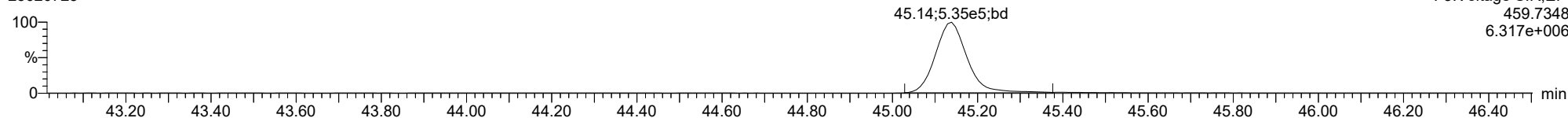
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F5:Voltage SIR,El+  
457.7377  
5.536e+006

**OCDD**

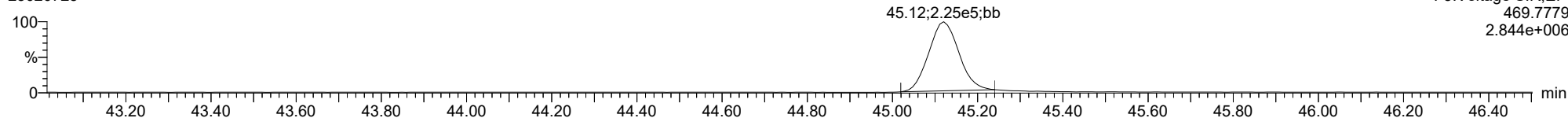
23020725



F5:Voltage SIR,El+  
459.7348  
6.317e+006

**13C-OCDD**

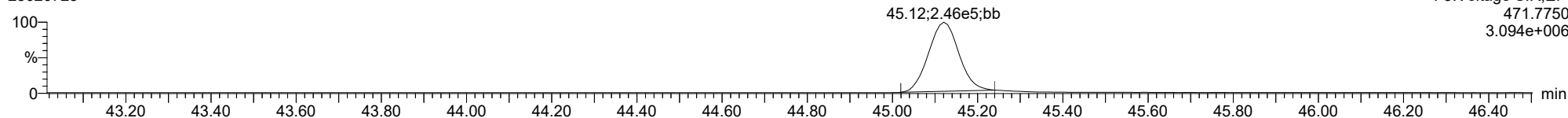
23020725



F5:Voltage SIR,El+  
469.7779  
2.844e+006

**13C-OCDD**

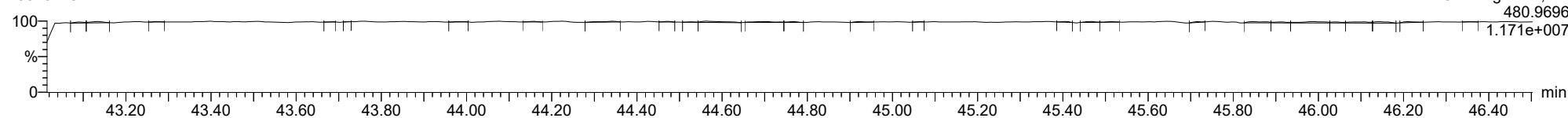
23020725



F5:Voltage SIR,El+  
471.7750  
3.094e+006

**FUNCTION5 PFK**

23020725

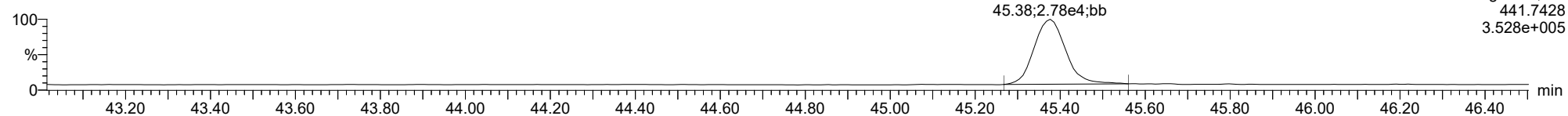


F5:Voltage SIR,El+  
480.9696  
1.171e+007

ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

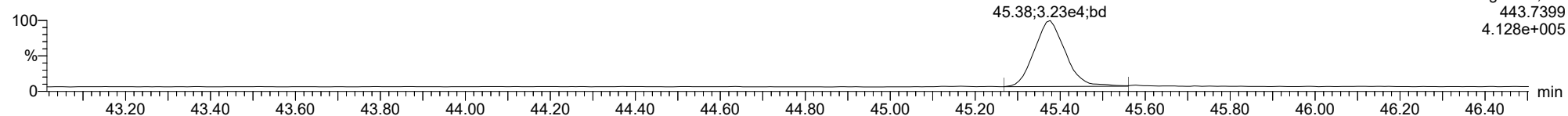
**OCDF**

23020725



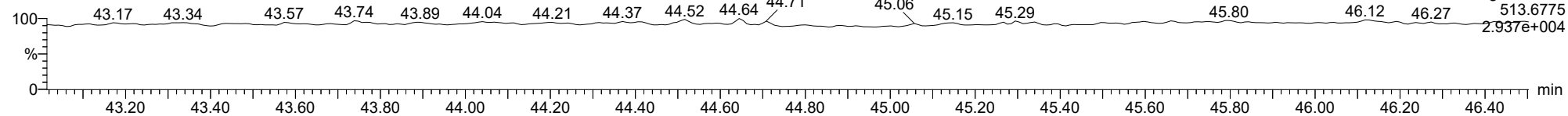
**OCDF**

23020725



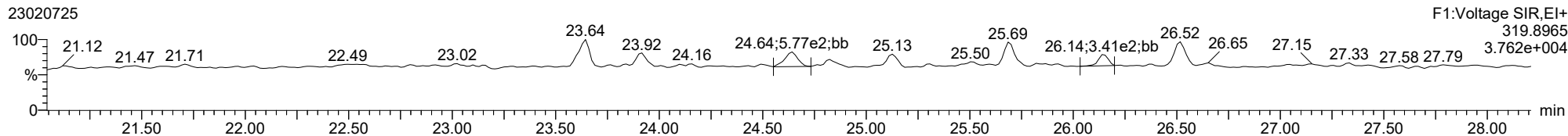
**FUNCTION5 DCDPE**

23020725

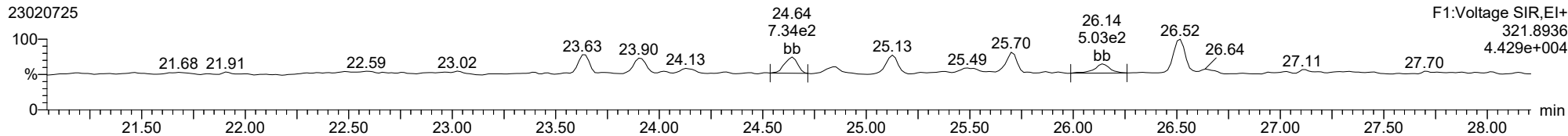


ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

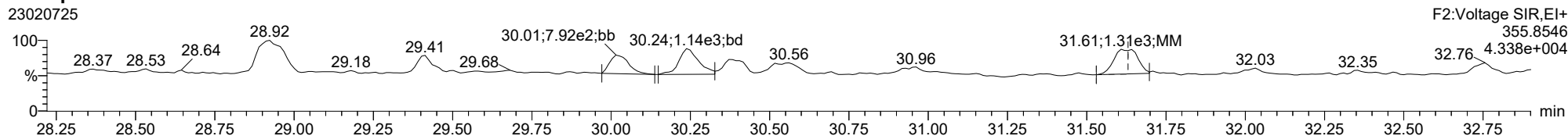
**Total-tetradiioxins**



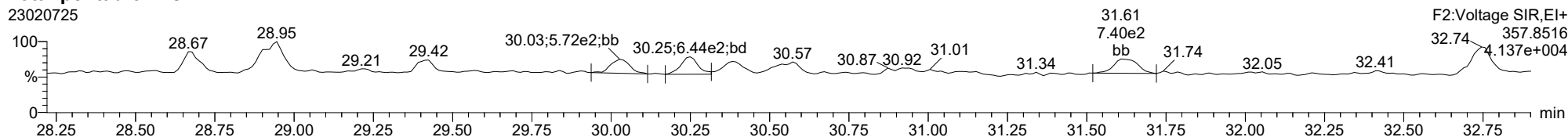
**Total-tetradiioxins**



**Total-pentadiioxins**



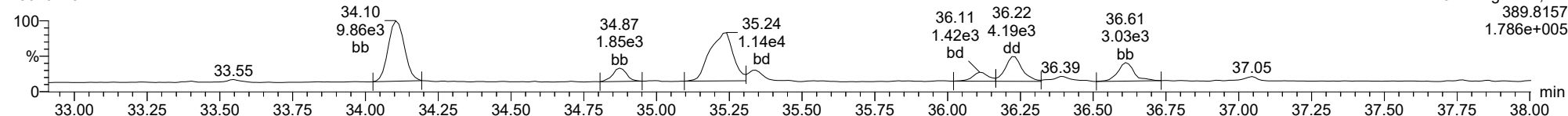
**Total-pentadiioxins**



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

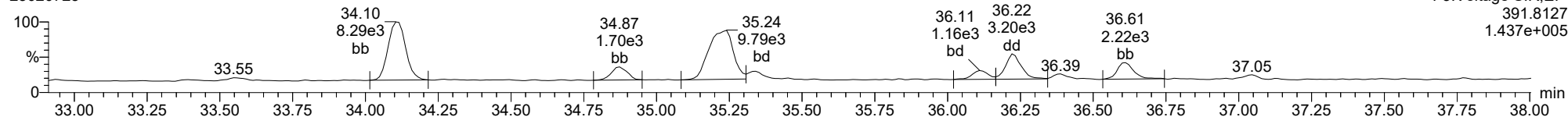
### Total-hexadioxins

23020725



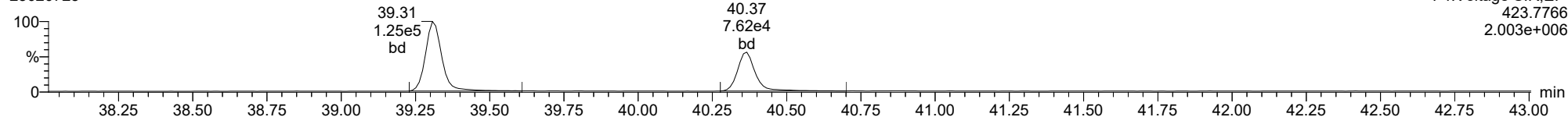
### Total-hexadioxins

23020725



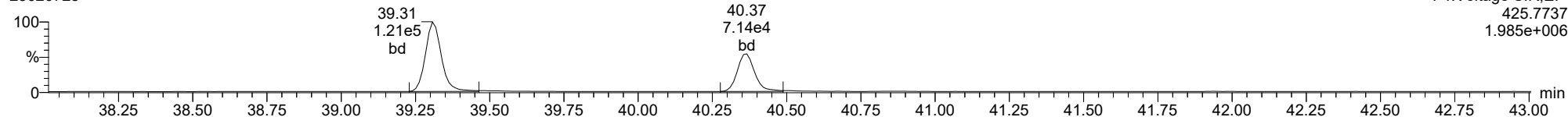
### Total-heptadioxins

23020725



### Total-heptadioxins

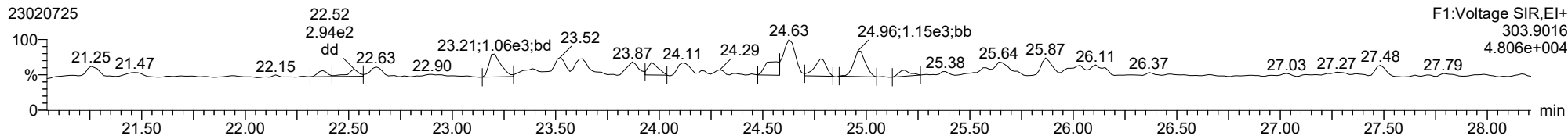
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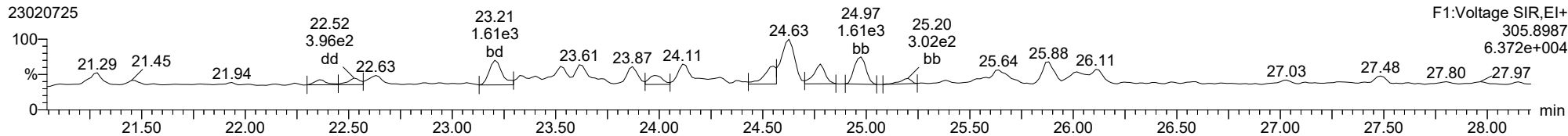


ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

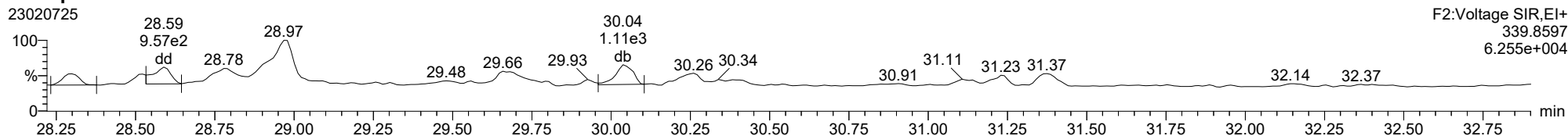
**Total-tetrafurans**



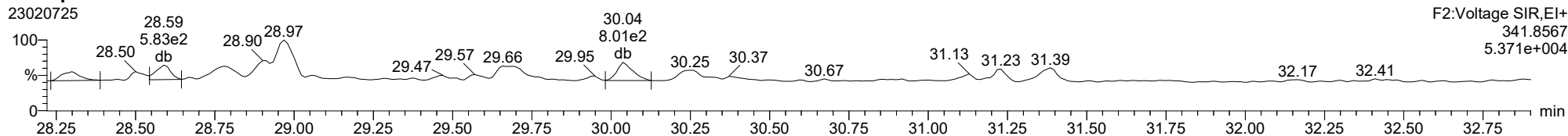
**Total-tetrafurans**



**Total-pentafurans**



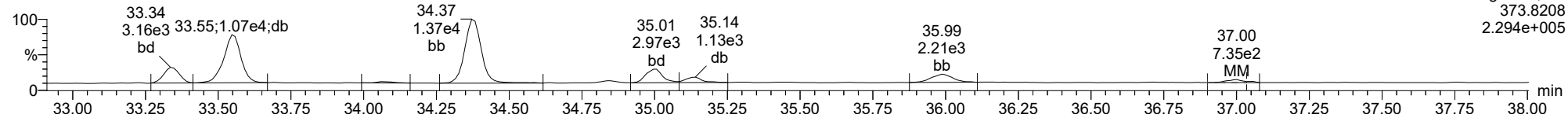
**Total-pentafurans**



ID: BKL0420-SRM1, Name: 23020725, Date: 08-Feb-2023, Time: 04:59:57, Conditions: AUTOSPEC01, User: pk

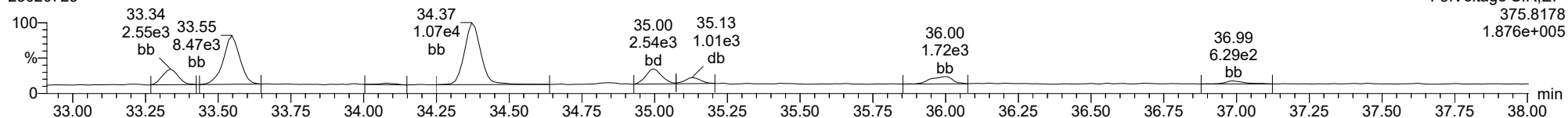
**Total-hexafurans**

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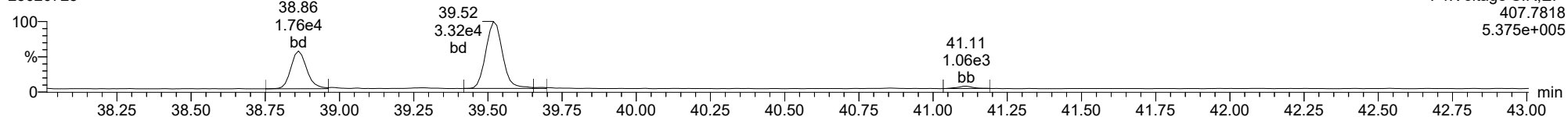
**Total-hexafurans**

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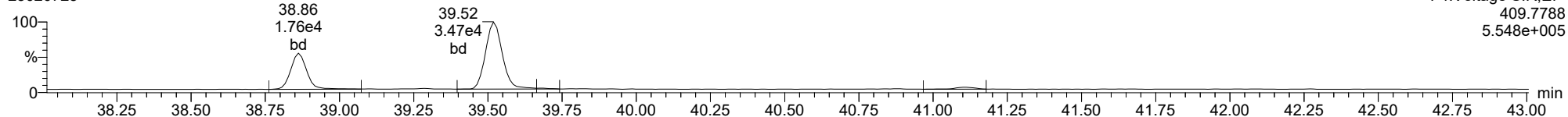
**Total-heptafurans**

23020725



**Total-heptafurans**

23020725







**INITIAL CALIBRATION DATA**  
**EPA 1613B**

Laboratory:	Analytical Resources, LLC	SDG:	22L0307
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	GB00010	Instrument:	AUTOSPEC01
Calibration Date:	02/01/2023	Column (1):	RTX-Dioxin2

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
13C12-1,2,3,4,6,7,8-HpCDF	100	1.009495	100	1.017629	100	1.046802	100	1.034238	100	1.053933	100	1.054435
13C12-1,2,3,4,7,8,9-HpCDF	100	0.8702856	100	0.8813287	100	0.9193412	100	0.9336903	100	0.9100344	100	0.9149429
13C12-1,2,3,4,6,7,8-HpCDD	100	0.7540434	100	0.7706109	100	0.7896711	100	0.7862201	100	0.7996856	100	0.7916329
13C12-OCDD	200	0.7447514	200	0.7401513	200	0.7909367	200	0.7980945	200	0.8130205	200	0.8424516
37C14-2,3,7,8-TCDD	0.1	1.457715	0.5	1.244154	2	1.209026	10	1.112721	40	1.137195	200	1.239891
13C12-1,2,3,4-TCDD	100	1	100	1	100	1	100	1	100	1	100	1
13C12-1,2,3,7,8,9-HxCDD	100	1	100	1	100	1	100	1	100	1	100	1



**INITIAL CALIBRATION DATA**  
**EPA 1613B**

Laboratory:	Analytical Resources, LLC	SDG:	22L0307
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	GB00010	Instrument:	AUTOSPEC01
Calibration Date:	02/01/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2,3,7,8-TCDF	0.8760604	2.0			RSD ()	
2,3,7,8-TCDD	1.23636	5.6			RSD ()	
1,2,3,7,8-PeCDF	0.844654	2.5			RSD ()	
2,3,4,7,8-PeCDF	0.911178	2.8			RSD ()	
1,2,3,7,8-PeCDD	1.086685	0.9			RSD ()	
1,2,3,4,7,8-HxCDF	1.181686	2.2			RSD ()	
1,2,3,6,7,8-HxCDF	1.248048	2.0			RSD ()	
2,3,4,6,7,8-HxCDF	1.22885	1.7			RSD ()	
1,2,3,7,8,9-HxCDF	1.186537	4.7			RSD ()	
1,2,3,4,7,8-HxCDD	0.9869672	2.3			RSD ()	
1,2,3,6,7,8-HxCDD	1.020722	5.7			RSD ()	
1,2,3,7,8,9-HxCDD	0.985478	1.8			RSD ()	
1,2,3,4,6,7,8-HpCDF	1.204119	5.7			RSD ()	
1,2,3,4,7,8,9-HpCDF	1.165305	3.7			RSD ()	
1,2,3,4,6,7,8-HpCDD	1.252569	11.3			RSD ()	
OCDF	1.186264	13.8			RSD ()	
OCDD	1.102667	10.9			RSD ()	
13C12-2,3,7,8-TCDF	1.768059	3.4			RSD ()	
13C12-2,3,7,8-TCDD	1.102947	3.7			RSD ()	
13C12-1,2,3,7,8-PeCDF	1.527125	6.7			RSD ()	
13C12-2,3,4,7,8-PeCDF	1.466284	6.6			RSD ()	
13C12-1,2,3,7,8-PeCDD	0.9141518	7.4			RSD ()	
13C12-1,2,3,4,7,8-HxCDF	1.053661	2.6			RSD ()	
13C12-1,2,3,6,7,8-HxCDF	1.079953	2.0			RSD ()	
13C12-2,3,4,6,7,8-HxCDF	1.014326	1.2			RSD ()	
13C12-1,2,3,7,8,9-HxCDF	0.9279333	1.5			RSD ()	
13C12-1,2,3,4,7,8-HxCDD	0.9329336	1.7			RSD ()	
13C12-1,2,3,6,7,8-HxCDD	0.9646272	1.1			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDF	1.036089	1.8			RSD ()	
13C12-1,2,3,4,7,8,9-HpCDF	0.9049372	2.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDD	0.7819773	2.1			RSD ()	



**INITIAL CALIBRATION DATA**  
**EPA 1613B**

Laboratory:	Analytical Resources, LLC	SDG:	22L0307
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	GB00010	Instrument:	AUTOSPEC01
Calibration Date:	02/01/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
13C12-OCDD	0.7882343	5.0			RSD ()	
37C14-2,3,7,8-TCDD	1.23345	9.9			RSD ()	
13C12-1,2,3,4-TCDD	1	0.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDD	1	0.0			RSD ()	



ANALYSIS SEQUENCE

SLB0026

Instrument: AUTOSPEC01      HRGCMS Column ID: K11292  
Calibration ID: GB00010      Tune File: JAN3023  
EM Voltage: 350      Resolution check times : 11:48, 22:06

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0026-ICV1	CS3R1	QC		1	K009821		02/01/2023 10:37	23020102	PK	
SLB0026-RES1	ISCR1	QC		2	K003933		02/01/2023 13:02	23020103	PK	
SLB0026-CAL1	CSLCR	QC		3	I005460		02/01/2023 14:39	23020104	PK	
SLB0026-CAL2	CS1CR	QC		4	I005456		02/01/2023 15:28	23020105	PK	
SLB0026-CAL3	CS2CR	QC		5	I005457		02/01/2023 17:07	23020106	PK	
SLB0026-CAL4	CS3CR	QC		6	K009821		02/01/2023 17:56	23020107	PK	
SLB0026-CAL5	CS4CR	QC		7	I005458		02/01/2023 18:45	23020108	PK	
SLB0026-CAL6	CS5CR	QC		8	I005459		02/01/2023 19:34	23020109	PK	
SLB0026-SCV1	ICVCR	QC		9	H008219		02/01/2023 20:23	23020110	PK	
SLB0026-CCV1	CS3R2	QC		10	K009821		02/01/2023 21:12	23020111	PK	
SLB0026-RES2	ISCR2	QC		11	K003933		02/01/2023 22:06	23020112	PK	

Dataset: T:\Autospec\Processed Data Batch\230201ICIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:13 Pacific Standard Time

2/3/23 pk

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23020104, Compound:TF, RT:25.882	1
Peak deleted	Sample:23020104, Compound:TD, RT:26.532	1
Peak deleted	Sample:23020104, Compound:OD, RT:45.120	1
Peak deleted	Sample:23020109, Compound:TF, RT:27.273	6
Peak deleted	Sample:23020109, Compound:TF, RT:27.379	6
Peak deleted	Sample:23020108, Compound:PP, RT:27.107	5
Peak deleted	Sample:23020106, Compound:PF, RT:32.432	3
Peak deleted	Sample:23020108, Compound:HF, RT:33.335	5
Peak deleted	Sample:23020109, Compound:HF, RT:33.335	6
Peak deleted	Sample:23020108, Compound:TD, RT:27.122	5
Peak deleted	Sample:23020108, Compound:TD, RT:27.061	5
Peak deleted	Sample:23020109, Compound:TD, RT:27.107	6
Peak deleted	Sample:23020109, Compound:TD, RT:27.167	6
Peak deleted	Sample:23020104, Compound:HPD, RT:39.318	1
Peak deleted	Sample:23020105, Compound:HPD, RT:39.318	2
Peak deleted	Sample:23020106, Compound:HPD, RT:39.329	3
Peak deleted	Sample:23020108, Compound:HPD, RT:39.296	5
Peak deleted	Sample:23020109, Compound:HPD, RT:39.307	6
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230201ICIH.qld'	



Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld  
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.633e4	2.121e4	0.876	0.770	0.770	844	1016	2.38e5	3.19e5	282.5	314.0	NO	bb	bb	8.996
12378-PeCDF	30.050	1.001	1.109e5	7.631e4	0.845	1.453	1.550	1249	1693	1.63e6	1.11e6	1307.7	657.1	NO	bb	bd	45.474
23478-PeCDF	31.387	1.001	1.159e5	7.903e4	0.911	1.467	1.550	1249	1693	1.77e6	1.19e6	1420.2	702.0	NO	bd	bd	46.006
123478-HxCDF	34.997	1.000	1.295e5	1.045e5	1.182	1.240	1.240	1714	1368	2.02e6	1.66e6	1181.4	1216.7	NO	bd	bd	43.803
234678-HxCDF	35.988	1.000	1.343e5	1.093e5	1.229	1.229	1.240	1714	1368	2.03e6	1.64e6	1185.6	1198.5	NO	bd	bb	45.575
123678-HxCDF	35.131	1.000	1.458e5	1.151e5	1.248	1.266	1.240	1714	1368	2.05e6	1.65e6	1195.7	1205.2	NO	db	dd	44.655
123789-HxCDF	37.025	1.001	1.158e5	9.218e4	1.187	1.257	1.240	1714	1368	1.74e6	1.39e6	1013.6	1013.7	NO	bb	bb	44.499
1234678-HpCDF	38.852	1.000	1.090e5	1.104e5	1.204	0.988	1.050	1381	2036	1.81e6	1.80e6	1312.8	883.5	NO	bb	bd	45.091
1234789-HpCDF	41.113	1.001	9.861e4	9.166e4	1.165	1.076	1.050	1381	2036	1.37e6	1.36e6	990.9	669.9	NO	bd	bb	47.733
OCDF	45.368	1.006	1.600e5	1.827e5	1.186	0.875	0.890	1512	1583	1.89e6	2.17e6	1249.6	1369.4	NO	bd	bd	86.348
2378-TCDD	26.532	1.001	1.602e4	2.106e4	1.236	0.761	0.770	1110	975	2.31e5	3.09e5	207.8	317.0	NO	bb	bd	7.999
12378-PeCDD	31.643	1.001	9.866e4	5.958e4	1.087	1.656	1.550	1646	1001	1.48e6	9.13e5	896.9	912.1	NO	bd	bb	49.739
123478-HxCDD	36.111	1.000	1.092e5	8.877e4	0.987	1.230	1.240	1547	1532	1.85e6	1.48e6	1198.0	965.8	NO	bd	bd	44.758
123678-HxCDD	36.234	1.001	1.208e5	9.232e4	1.021	1.308	1.240	1547	1532	1.90e6	1.47e6	1225.9	960.4	NO	db	db	43.840
123789-HxCDD	36.612	1.011	1.096e5	9.138e4	0.985	1.199	1.240	1547	1532	1.82e6	1.52e6	1178.1	989.3	NO	bb	bb	44.134
1234678-HpCDD	40.367	1.001	9.142e4	8.634e4	1.253	1.059	1.050	1287	1635	1.36e6	1.30e6	1055.7	793.5	NO	bd	bb	44.175
OCDD	45.130	1.000	1.558e5	1.797e5	1.103	0.867	0.890	1087	1881	1.97e6	2.25e6	1808.2	1195.6	NO	bb	bb	90.946
13C-2378-TCDF	25.867	1.006	2.092e5	2.671e5	1.768	0.783	0.770	1473	1226	3.13e6	4.02e6	2126.4	3281.6	NO	bb	bb	81.841
13C-12378-PeCDF	30.028	1.168	2.959e5	1.916e5	1.527	1.544	1.550	2999	2197	4.50e6	2.95e6	1498.8	1341.1	NO	bb	bb	96.965
13C-23478-PeCDF	31.365	1.220	2.816e5	1.834e5	1.466	1.535	1.550	2999	2197	4.34e6	2.84e6	1446.0	1290.5	NO	bb	bb	96.345
13C-123478-HxCDF	34.986	0.956	1.509e5	3.011e5	1.054	0.501	0.510	1539	2587	2.37e6	4.78e6	1539.0	1847.3	NO	bd	bd	88.697
13C-123678-HxCDF	35.119	0.960	1.595e5	3.087e5	1.080	0.517	0.510	1539	2587	2.51e6	4.86e6	1632.0	1878.9	NO	db	db	89.641
13C-234678-HxCDF	35.977	0.983	1.463e5	2.887e5	1.014	0.507	0.510	1539	2587	2.39e6	4.73e6	1553.6	1829.5	NO	bb	bb	88.660
13C-123789-HxCDF	37.002	1.011	1.315e5	2.625e5	0.928	0.501	0.510	1539	2587	2.16e6	4.40e6	1402.9	1699.3	NO	bb	bb	87.781
13C-1234678-HpCDF	38.841	1.062	1.240e5	2.800e5	1.036	0.443	0.440	1596	2193	2.11e6	4.68e6	1322.3	2133.9	NO	bb	bb	80.624
13C-1234789-HpCDF	41.091	1.123	1.084e5	2.336e5	0.905	0.464	0.440	1596	2193	1.58e6	3.44e6	991.3	1568.5	NO	bb	bb	78.158
13C-1234-TCDD	25.700	0.000	1.445e5	1.847e5	1.000	0.782	0.770	1667	873	2.18e6	2.81e6	1307.2	3212.9	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	1.635e5	2.114e5	1.103	0.774	0.770	1667	873	2.52e6	3.27e6	1513.3	3746.2	NO	bb	bb	103.258
13C-12378-PeCDD	31.621	1.230	1.783e5	1.145e5	0.914	1.557	1.550	940	1014	2.71e6	1.73e6	2879.6	1709.2	NO	bb	bb	97.286
13C-123478-HxCDD	36.100	0.987	2.492e5	1.989e5	0.933	1.253	1.240	1846	1567	4.13e6	3.30e6	2236.6	2103.6	NO	bd	bd	99.308
13C-123678-HxCDD	36.211	0.990	2.631e5	2.131e5	0.965	1.234	1.240	1846	1567	4.22e6	3.43e6	2285.9	2187.7	NO	db	db	102.074
13C-1234678-HpCDD	40.345	1.103	1.659e5	1.554e5	0.782	1.067	1.050	1641	1171	2.51e6	2.40e6	1529.6	2051.4	NO	bb	bb	84.947
13C-OCDD	45.111	1.233	3.174e5	3.517e5	0.788	0.903	0.890	3114	1814	4.07e6	4.46e6	1307.4	2459.0	NO	bb	bb	175.516
13C-123789-HxCDD	36.590	0.000	2.678e5	2.158e5	1.000	1.241	1.240	1846	1567	4.30e6	3.43e6	2331.6	2186.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	3.482e4		1.233			850		5.25e5		617.9			bb		8.577

Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld  
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	1.928e4	2.641e4	1.064	0.730	0.770	844	1016	3.12e5	4.35e5	369.4	427.9	NO	bb	bb	9.011
1289-TCDF	27.394	1.059	1.506e4	2.111e4	0.858	0.713	0.770	844	1016	2.15e5	3.01e5	254.4	296.4	NO	db	dd	8.854
13468-PECDF	27.243	0.907	1.732e5	1.184e5	1.013	1.464	1.550	906	933	2.67e6	1.81e6	2951.1	1944.9	NO	bb	bb	59.051
12389-PECDF	32.423	1.080	1.096e5	7.394e4	0.844	1.482	1.550	1249	1693	1.63e6	1.06e6	1301.6	627.3	NO	bb	bd	44.621
123468-HXCDF	33.337	0.953	1.333e5	1.071e5	1.197	1.245	1.240	1714	1368	1.94e6	1.63e6	1132.0	1192.1	NO	bb	bd	44.431
1368-TCDD	23.674	0.893	1.559e4	1.973e4	1.084	0.790	0.770	1110	975	2.48e5	3.06e5	223.8	314.1	NO	bb	bb	8.690
1289-TCDD	27.137	1.023	1.343e4	1.711e4	0.975	0.785	0.770	1110	975	2.02e5	2.57e5	181.6	263.1	NO	bb	bd	8.354
12479-PECDD	28.925	0.915	1.617e5	1.030e5	1.837	1.569	1.550	1646	1001	1.58e6	1.01e6	962.4	1010.4	NO	bb	bb	49.217
12389-PECDD	32.033	1.013	1.065e5	6.755e4	1.252	1.576	1.550	1646	1001	1.60e6	1.04e6	973.2	1039.9	NO	bb	bb	47.467
124679-HXCDD	34.117	0.945	1.151e5	9.437e4	1.033	1.219	1.240	1547	1532	1.82e6	1.49e6	1174.2	973.0	NO	bb	bb	45.255
1234679-HPCDD	39.309	0.974	9.857e4	9.267e4	1.286	1.064	1.050	1287	1635	1.62e6	1.55e6	1257.2	945.5	NO	bb	bb	46.288
Total-tetrafurans			5.067e4		0.933			844		7.65e5							26.861
Total-penta1			1.732e5					906		2.67e6							59.051
Total-pentafurans			3.556e5		0.866			1249		5.33e6							143.542
Total-hexafurans			6.587e5		1.208			1714		9.78e6							222.964
Total-heptafurans			2.076e5		1.185			1381		3.18e6							92.824
Total-Furans			1.606e6		1.067			844		2.36e7							631.589
Total-tetradioxins			7.564e4		1.099			1110		1.04e6							41.916
Total-pentadioxins			3.670e5		1.392			1646		4.67e6							146.491
Total-hexadioxins			4.546e5		1.007			1547		7.39e6							177.988
Total-heptadioxins			1.900e5		1.269			1287		2.98e6							90.463
Total-Dioxins			1.243e6		1.165			1110		1.80e7							547.804
Total-TEQ			2.849e6					1110		4.17e7							1179.393
FUNCTION1 PFK			6.977e5					215892		1.30e7							
FUNCTION2 PFK			7.329e6					149595		7.20e7							0.000
FUNCTION3 PFK			1.409e7					224809		7.00e7							0.000
FUNCTION4 PFK			7.505e3					156562		3.03e5							
FUNCTION5 PFK			1.269e4					142532		5.28e5							
FUNCTION1 HXCD...			3.884e2					838		8.06e3							0.000
FUNCTION1 HPCD...			3.094e2					854		6.24e3							0.000
FUNCTION2 HPCD...			4.137e2					755		7.38e3							0.000
FUNCTION3 OCDPE			2.422e2					659		4.44e3							0.000
FUNCTION4 NCDPE			2.399e2					738		4.58e3							0.000
FUNCTION5 DCDPE			0.000e0					686		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld  
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
2	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
3	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
4	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
2	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
3	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
4	123468-HxCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
5	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
2	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201HOP.qld  
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

**ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk**

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011
4	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
5	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
6	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
7	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440
8	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
9	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
10	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
11	123468-HXCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
12	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499
13	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
14	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091
15	OCDF	45.37	1.600e5	1.827e5	1.186	0.88	0.89	1249.6	YES	NO	bd	bd	86.348
16	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
2	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
3	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
4	Total-tetradoxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
5	Total-tetradoxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
2	Total-pentadoxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
3	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
4	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
2	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
3	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
4	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
2	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
2	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
3	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
4	Total-tetradoxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
5	Total-tetradoxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020
6	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
7	Total-pentadoxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
8	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
9	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217
10	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
11	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
12	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
13	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255
14	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
15	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288
16	OCDD	45.13	1.558e5	1.797e5	1.103	0.87	0.89	1808.2	YES	NO	bb	bb	90.946

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011
4	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
5	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
6	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
7	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440
8	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
9	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
10	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
11	123468-HXCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
12	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499
13	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
14	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091
15	OCDF	45.37	1.600e5	1.827e5	1.186	0.88	0.89	1249.6	YES	NO	bd	bd	86.348
16	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051
17	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
18	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
19	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
20	Total-tetradiioxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
21	Total-tetradiioxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020
22	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
23	Total-pentadiioxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
24	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
25	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217
26	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
27	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
28	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
29	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255
30	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
31	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288
32	OCDD	45.13	1.558e5	1.797e5	1.103	0.87	0.89	1808.2	YES	NO	bb	bb	90.946

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.12	9.025e3					1.5	NO		bb		
2	FUNCTION1 PFK	23.39	1.564e4					1.7	NO		db		
3	FUNCTION1 PFK	23.33	1.699e4					1.8	NO		dd		
4	FUNCTION1 PFK	23.21	3.674e4					1.8	NO		dd		
5	FUNCTION1 PFK	23.15	1.668e4					1.7	NO		bd		
6	FUNCTION1 PFK	23.07	1.606e4					2.1	NO		bb		
7	FUNCTION1 PFK	22.69	6.506e3					1.1	NO		db		
8	FUNCTION1 PFK	22.57	5.324e4					2.0	NO		bd		
9	FUNCTION1 PFK	22.46	2.047e3					0.6	NO		bb		
10	FUNCTION1 PFK	22.18	2.854e4					1.8	NO		bb		
11	FUNCTION1 PFK	22.00	2.061e4					1.1	NO		bb		
12	FUNCTION1 PFK	21.88	1.276e3					0.4	NO		bb		
13	FUNCTION1 PFK	21.48	1.972e3					0.6	NO		bb		
14	FUNCTION1 PFK	21.36	4.333e4					3.4	YES		db		
15	FUNCTION1 PFK	21.33	3.930e4					3.3	YES		dd		
16	FUNCTION1 PFK	21.25	3.950e4					3.7	YES		dd		
17	FUNCTION1 PFK	21.22	1.839e4					1.7	NO		bd		
18	FUNCTION1 PFK	26.44	2.008e3					0.6	NO		bb		
19	FUNCTION1 PFK	26.37	1.096e4					1.2	NO		bb		
20	FUNCTION1 PFK	26.06	5.687e3					0.8	NO		bb		
21	FUNCTION1 PFK	25.85	4.606e4					2.0	NO		bb		
22	FUNCTION1 PFK	25.67	1.822e4					1.6	NO		db		
23	FUNCTION1 PFK	25.59	5.429e3					0.7	NO		bd		
24	FUNCTION1 PFK	25.41	3.678e3					0.7	NO		bb		
25	FUNCTION1 PFK	25.35	1.804e3					0.6	NO		bb		
26	FUNCTION1 PFK	24.69	1.276e4					1.4	NO		bb		
27	FUNCTION1 PFK	24.46	1.415e3					0.4	NO		bb		
28	FUNCTION1 PFK	24.23	1.486e4					1.4	NO		db		
29	FUNCTION1 PFK	24.16	3.220e4					2.1	NO		dd		
30	FUNCTION1 PFK	24.07	1.916e4					1.5	NO		bd		
31	FUNCTION1 PFK	23.86	1.041e4					1.2	NO		bb		
32	FUNCTION1 PFK	23.75	2.252e4					1.8	NO		bb		
33	FUNCTION1 PFK	23.46	2.488e3					0.5	NO		bb		
34	FUNCTION1 PFK	28.21	1.683e4					1.3	NO		bb		
35	FUNCTION1 PFK	28.13	1.846e4					1.2	NO		db		
36	FUNCTION1 PFK	27.97	3.589e4					1.9	NO		bd		
37	FUNCTION1 PFK	27.85	3.272e3					0.6	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	27.55	1.459e3					0.4	NO		bb		
39	FUNCTION1 PFK	27.48	1.620e3					0.5	NO		bb		
40	FUNCTION1 PFK	27.36	8.182e3					1.0	NO		bb		
41	FUNCTION1 PFK	27.27	3.811e3					0.8	NO		db		
42	FUNCTION1 PFK	27.24	6.329e3					0.8	NO		bd		
43	FUNCTION1 PFK	27.03	6.469e3					1.1	NO		db		
44	FUNCTION1 PFK	26.99	1.869e4					1.7	NO		bd		
45	FUNCTION1 PFK	26.88	1.188e3					0.4	NO		bb		



## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.61	1.089e6					38.3	YES		dd		0.000
2	FUNCTION2 PFK	28.42	5.461e5					42.0	YES		dd		0.000
3	FUNCTION2 PFK	28.36	4.208e5					43.0	YES		bd		0.000
4	FUNCTION2 PFK	30.22	3.292e4					7.2	YES		dd		0.000
5	FUNCTION2 PFK	30.16	1.231e5					8.8	YES		dd		0.000
6	FUNCTION2 PFK	30.05	1.117e5					10.9	YES		dd		0.000
7	FUNCTION2 PFK	29.99	9.120e4					11.4	YES		dd		0.000
8	FUNCTION2 PFK	29.94	2.092e5					12.7	YES		dd		0.000
9	FUNCTION2 PFK	29.76	2.907e5					15.9	YES		dd		0.000
10	FUNCTION2 PFK	29.69	1.383e5					17.3	YES		dd		0.000
11	FUNCTION2 PFK	29.58	3.090e5					19.5	YES		dd		0.000
12	FUNCTION2 PFK	29.52	2.750e5					21.8	YES		dd		0.000
13	FUNCTION2 PFK	29.39	4.070e5					23.3	YES		dd		0.000
14	FUNCTION2 PFK	29.28	4.078e5					25.5	YES		dd		0.000
15	FUNCTION2 PFK	29.18	3.023e5					27.3	YES		dd		0.000
16	FUNCTION2 PFK	29.14	2.357e5					29.1	YES		dd		0.000
17	FUNCTION2 PFK	28.99	6.311e5					30.4	YES		dd		0.000
18	FUNCTION2 PFK	28.92	2.637e5					32.6	YES		dd		0.000
19	FUNCTION2 PFK	28.71	1.202e6					36.5	YES		dd		0.000
20	FUNCTION2 PFK	32.81	9.753e3					1.3	NO		bb		0.000
21	FUNCTION2 PFK	32.42	4.488e3					1.0	NO		db		0.000
22	FUNCTION2 PFK	32.38	3.779e3					1.0	NO		bd		0.000
23	FUNCTION2 PFK	31.96	1.738e4					2.2	NO		bb		0.000
24	FUNCTION2 PFK	31.88	6.239e3					1.5	NO		db		0.000
25	FUNCTION2 PFK	31.82	6.444e3					1.4	NO		bd		0.000
26	FUNCTION2 PFK	31.71	6.215e3					1.3	NO		db		0.000
27	FUNCTION2 PFK	31.68	5.289e3					1.0	NO		bd		0.000
28	FUNCTION2 PFK	31.61	3.799e3					1.0	NO		bb		0.000
29	FUNCTION2 PFK	31.29	5.305e3					1.2	NO		bb		0.000
30	FUNCTION2 PFK	31.23	7.886e3					2.2	NO		bb		0.000
31	FUNCTION2 PFK	30.99	1.453e4					1.9	NO		bb		0.000
32	FUNCTION2 PFK	30.82	9.920e3					1.5	NO		bb		0.000
33	FUNCTION2 PFK	30.75	8.792e3					1.2	NO		bb		0.000
34	FUNCTION2 PFK	30.57	3.072e3					0.9	NO		bb		0.000
35	FUNCTION2 PFK	30.26	1.206e5					6.2	YES		db		0.000
36	FUNCTION2 PFK	32.91	8.369e3					1.2	NO		bb		0.000

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**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.94	1.363e3					0.5	NO		bb		0.000
2	FUNCTION3 PFK	36.89	2.597e3					0.7	NO		bb		0.000
3	FUNCTION3 PFK	36.63	5.216e4					2.1	NO		bb		0.000
4	FUNCTION3 PFK	35.98	3.727e4					3.2	YES		bb		0.000
5	FUNCTION3 PFK	35.89	8.881e3					1.2	NO		bb		0.000
6	FUNCTION3 PFK	35.60	1.234e3					0.5	NO		bb		0.000
7	FUNCTION3 PFK	34.97	3.658e3					1.5	NO		bb		0.000
8	FUNCTION3 PFK	34.76	1.198e4					1.2	NO		bb		0.000
9	FUNCTION3 PFK	34.41	7.167e5					12.6	YES		db		0.000
10	FUNCTION3 PFK	34.27	1.814e5					18.8	YES		dd		0.000
11	FUNCTION3 PFK	33.46	8.929e6					56.3	YES		dd		0.000
12	FUNCTION3 PFK	33.26	1.470e6					65.1	YES		dd		0.000
13	FUNCTION3 PFK	33.14	1.013e6					69.2	YES		dd		0.000
14	FUNCTION3 PFK	33.07	1.616e6					73.1	YES		bd		0.000
15	FUNCTION3 PFK	37.87	2.660e3					0.7	NO		bb		0.000
16	FUNCTION3 PFK	37.70	1.990e4					1.9	NO		bb		0.000
17	FUNCTION3 PFK	37.50	4.098e3					0.8	NO		bb		0.000
18	FUNCTION3 PFK	37.39	4.630e3					0.7	NO		bb		0.000
19	FUNCTION3 PFK	37.31	1.274e4					1.3	NO		bb		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.07	7.505e3					1.9	NO		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.80	5.683e3					1.8	NO		bb		
2	FUNCTION5 PFK	43.45	7.005e3					1.9	NO		bb		

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#### ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	28.15	7.677e1					2.2	NO		bb		0.000
2	FUNCTION1 HXCD...	27.41	8.186e1					1.7	NO		bb		0.000
3	FUNCTION1 HXCD...	26.21	8.899e1					2.8	NO		bb		0.000
4	FUNCTION1 HXCD...	24.48	1.408e2					2.9	NO		bb		0.000

#### ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	25.28	8.635e1					2.2	NO		bb		0.000
2	FUNCTION1 HPCD...	24.58	7.600e1					1.7	NO		bb		0.000
3	FUNCTION1 HPCD...	22.57	1.471e2					3.3	YES		bb		0.000

#### ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.97	1.041e2					2.4	NO		bb		0.000
2	FUNCTION2 HPCD...	31.62	1.168e2					2.5	NO		bb		0.000
3	FUNCTION2 HPCD...	31.26	1.928e2					4.9	YES		bb		0.000

#### ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.10	7.435e1					2.4	NO		bb		0.000
2	FUNCTION3 OCDPE	35.85	7.444e1					2.1	NO		bb		0.000
3	FUNCTION3 OCDPE	35.30	9.337e1					2.3	NO		bb		0.000

#### ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	7.794e1					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	41.07	7.754e1					1.8	NO		bb		0.000
3	FUNCTION4 NCDPE	39.75	8.441e1					2.5	NO		bb		0.000

#### ETHERS6

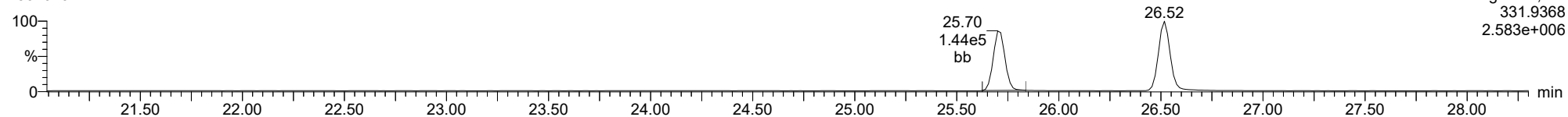
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Method:** T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** CS3R1, **Name:** 23020102, **Date:** 01-Feb-2023, **Time:** 10:37:16, **Conditions:** AUTOSPEC01, **User:** pk

**13C-1234-TCDD**

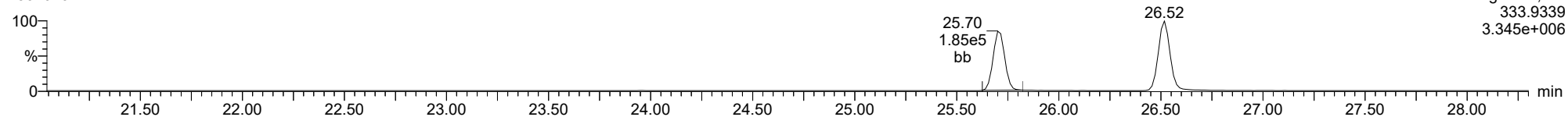
23020102



F1:Voltage SIR,El+  
331.9368  
2.583e+006

**13C-1234-TCDD**

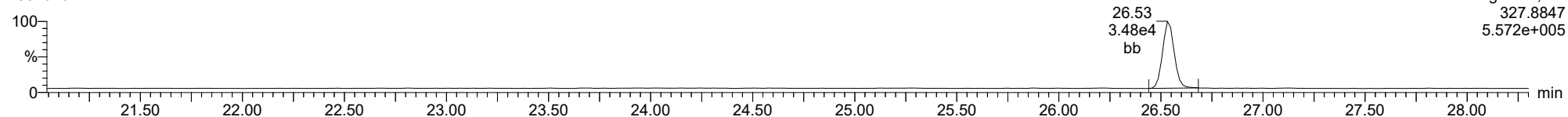
23020102



F1:Voltage SIR,El+  
333.9339  
3.345e+006

**37CL-2378-TCDD**

23020102

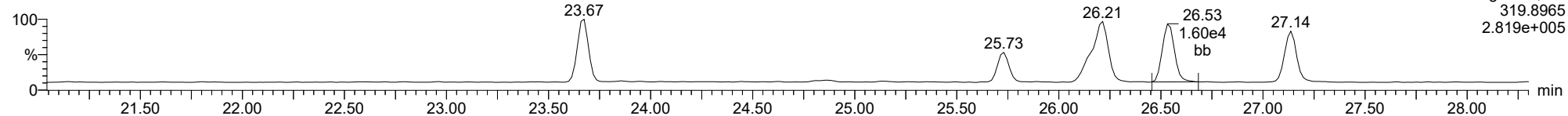


F1:Voltage SIR,El+  
327.8847  
5.572e+005

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

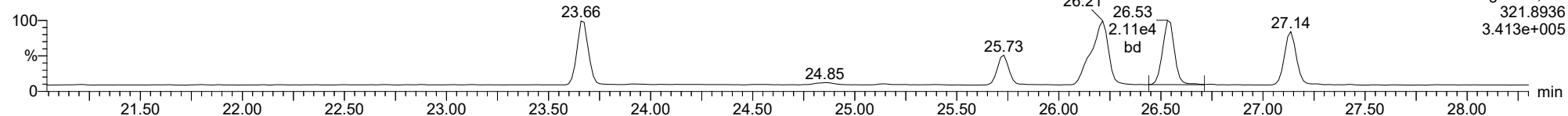
**2378-TCDD**

23020102



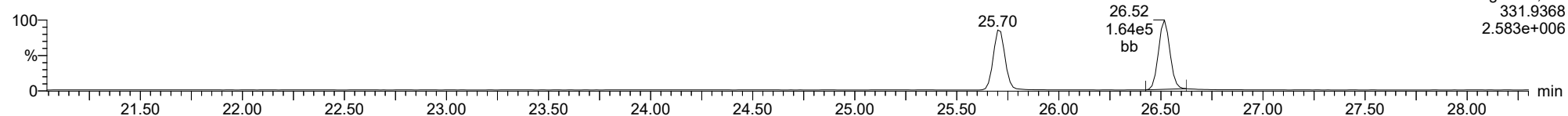
**2378-TCDD**

23020102



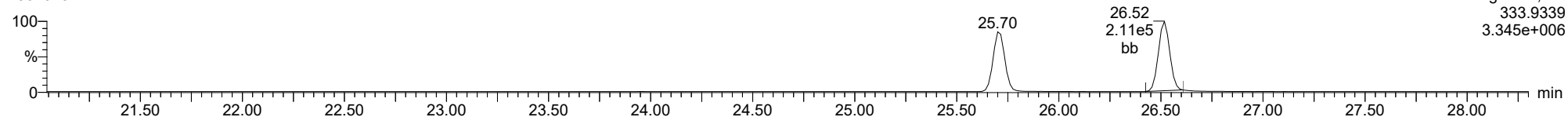
**13C-2378-TCDD**

23020102



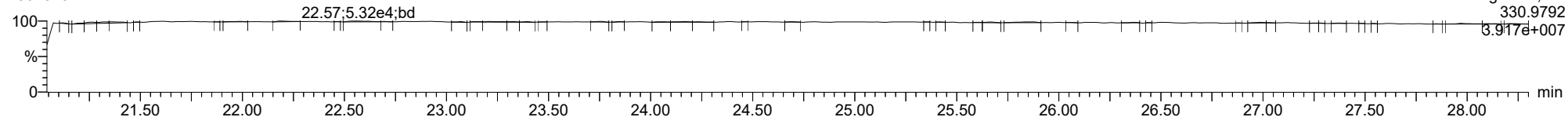
**13C-2378-TCDD**

23020102



**FUNCTION1 PFK**

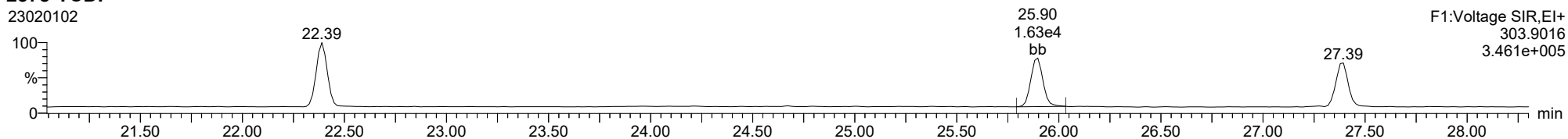
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

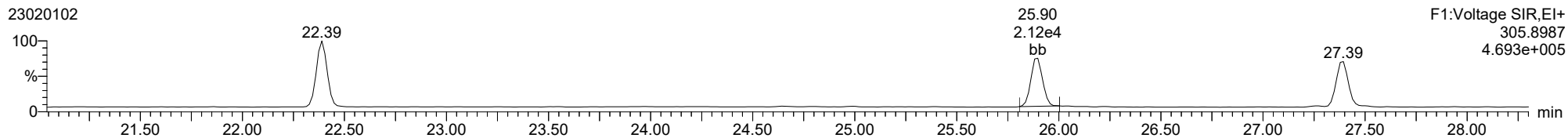
**2378-TCDF**

23020102



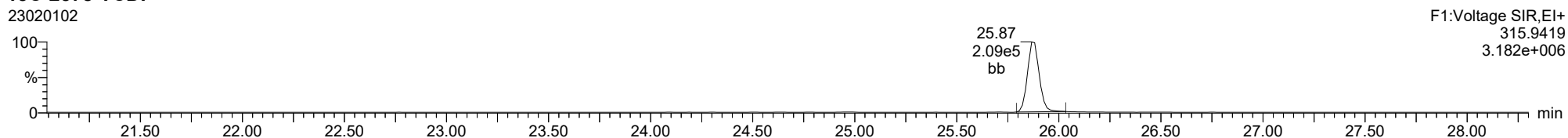
**2378-TCDF**

23020102



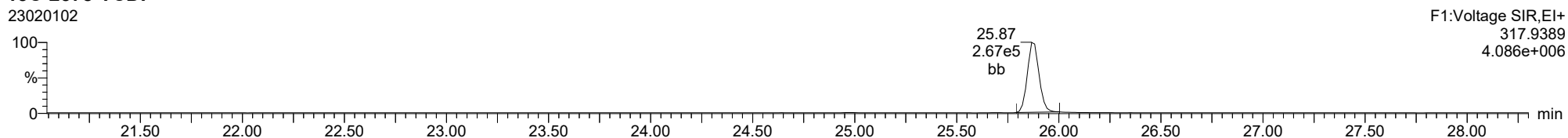
**13C-2378-TCDF**

23020102



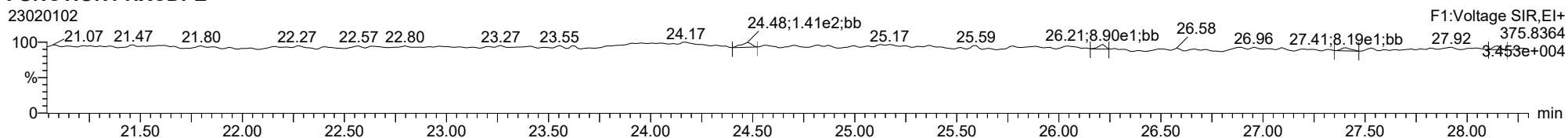
**13C-2378-TCDF**

23020102



**FUNCTION1 HXCDPE**

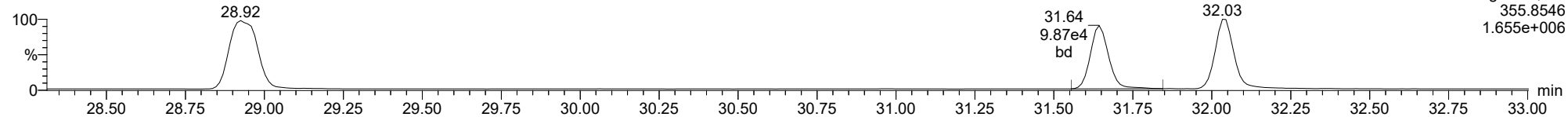
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

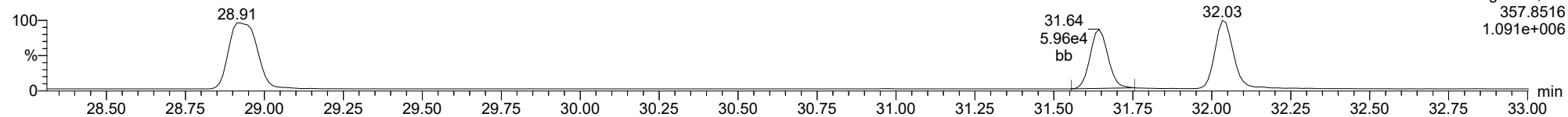
**12378-PeCDD**

23020102



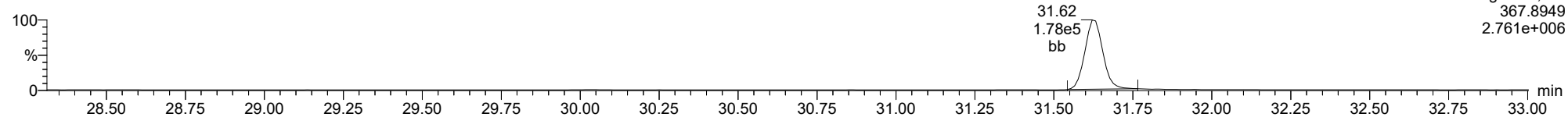
**12378-PeCDD**

23020102



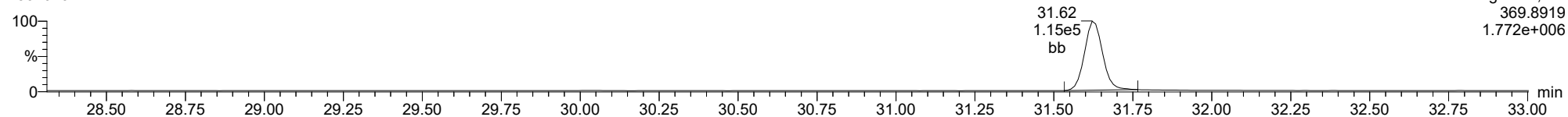
**13C-12378-PeCDD**

23020102



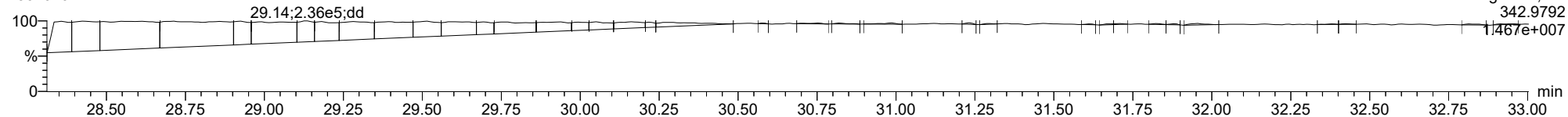
**13C-12378-PeCDD**

23020102



**FUNCTION2 PFK**

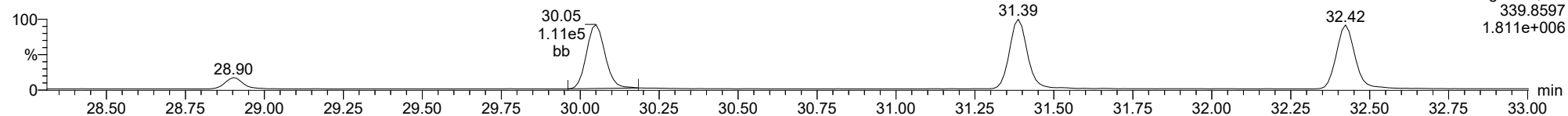
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

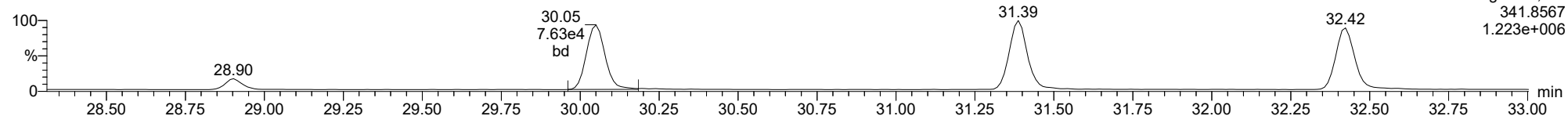
**12378-PeCDF**

23020102



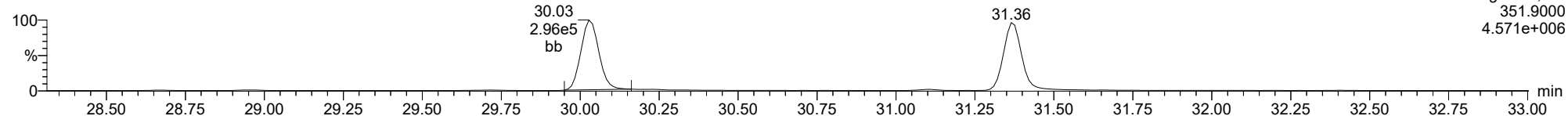
**12378-PeCDF**

23020102



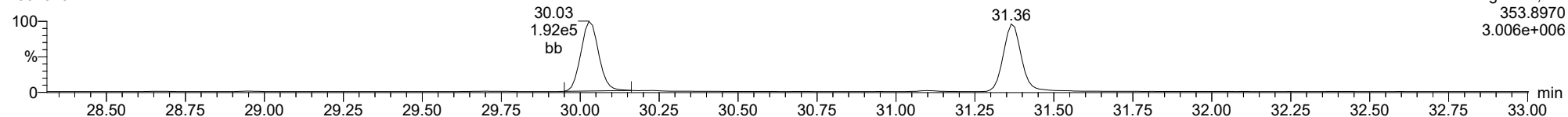
**13C-12378-PeCDF**

23020102



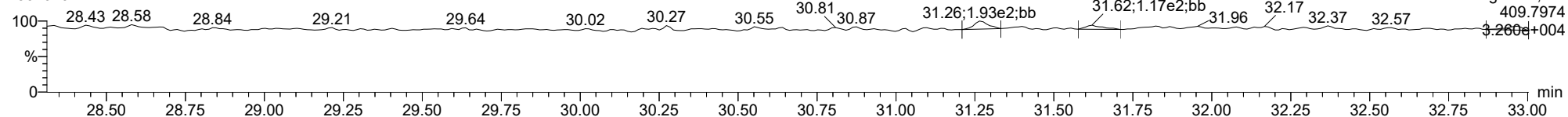
**13C-12378-PeCDF**

23020102



**FUNCTION2 HPCDPE**

23020102

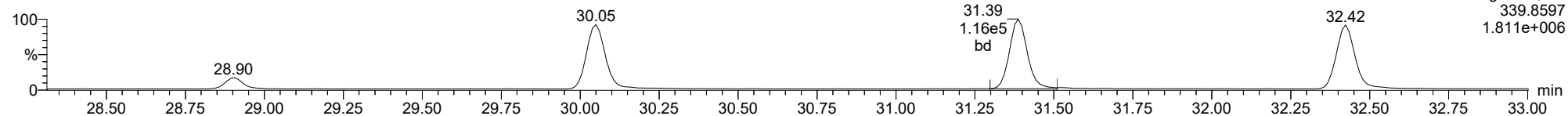




ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**23478-PeCDF**

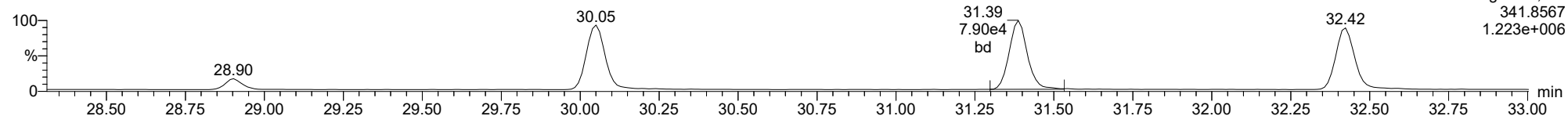
23020102



F2:Voltage SIR,EI+  
339.8597  
1.811e+006

**23478-PeCDF**

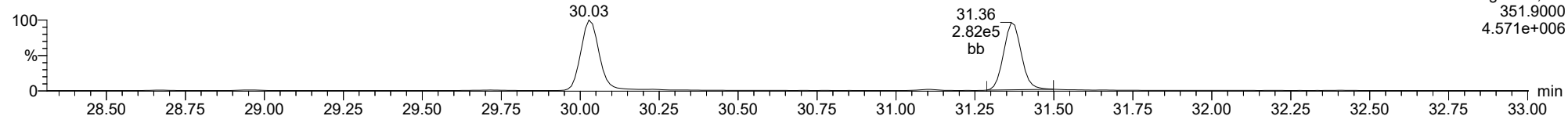
23020102



F2:Voltage SIR,EI+  
341.8567  
1.223e+006

**13C-23478-PeCDF**

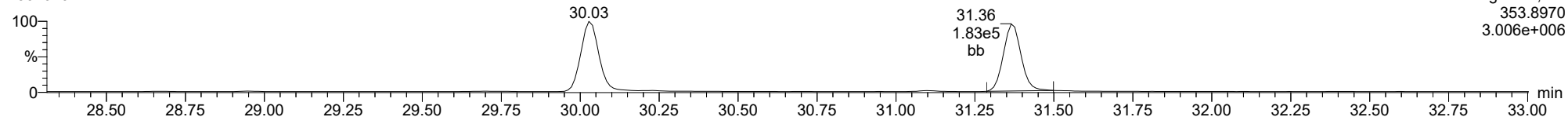
23020102



F2:Voltage SIR,EI+  
351.9000  
4.571e+006

**13C-23478-PeCDF**

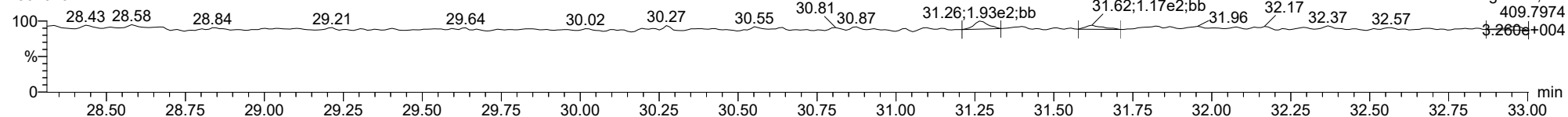
23020102



F2:Voltage SIR,EI+  
353.8970  
3.006e+006

**FUNCTION2 HPCDPE**

23020102

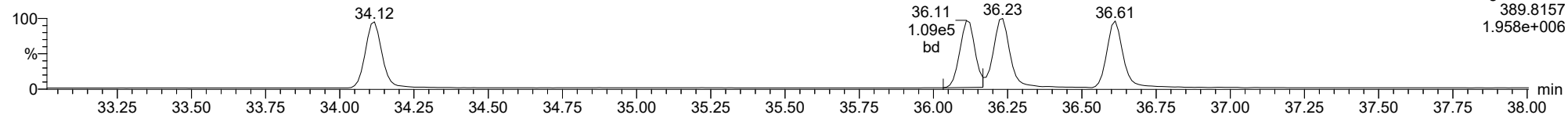


F2:Voltage SIR,EI+  
409.7974  
1.266e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

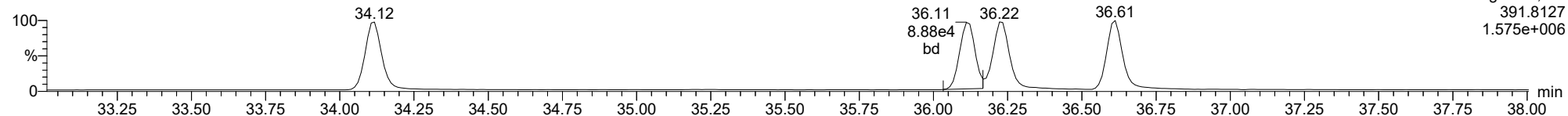
23020102



F3:Voltage SIR,El+  
389.8157  
1.958e+006

**123478-HxCDD**

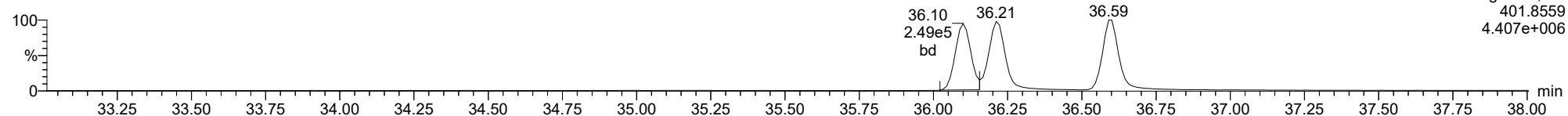
23020102



F3:Voltage SIR,El+  
391.8127  
1.575e+006

**13C-123478-HxCDD**

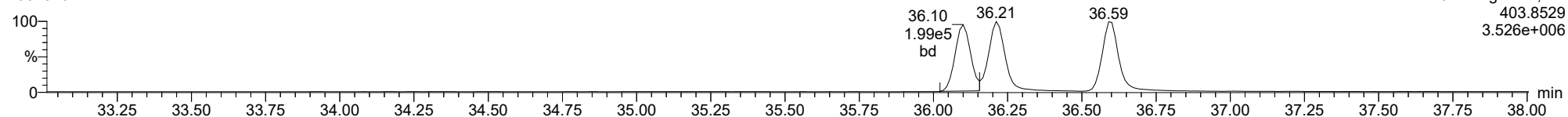
23020102



F3:Voltage SIR,El+  
401.8559  
4.407e+006

**13C-123478-HxCDD**

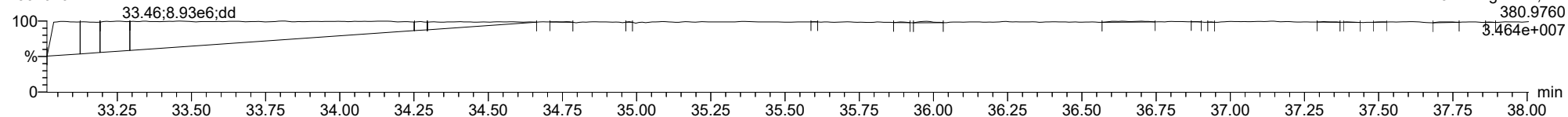
23020102



F3:Voltage SIR,El+  
403.8529  
3.526e+006

**FUNCTION3 PFK**

23020102

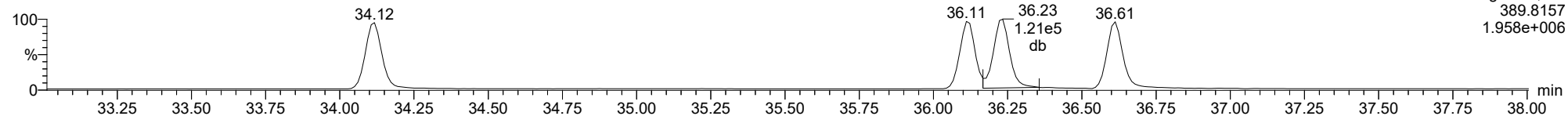


F3:Voltage SIR,El+  
380.9760  
8.93e6;dd  
3.464e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**123678-HxCDD**

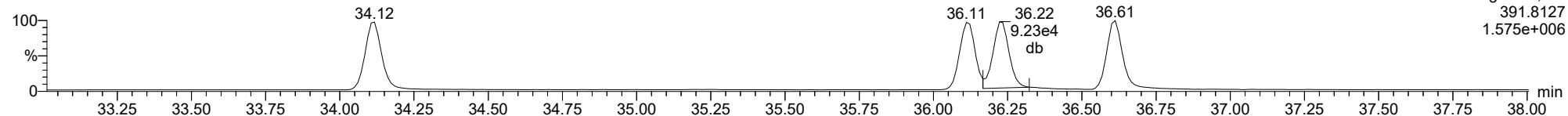
23020102



F3:Voltage SIR,EI+  
389.8157  
1.958e+006

**123678-HxCDD**

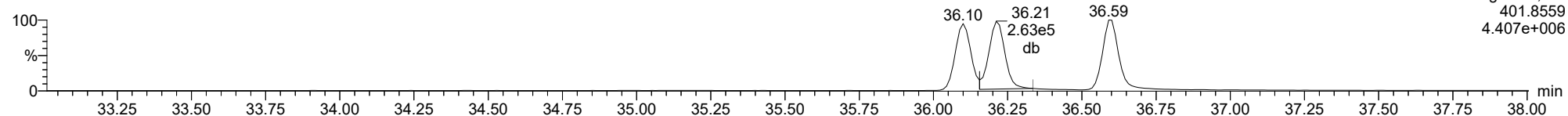
23020102



F3:Voltage SIR,EI+  
391.8127  
1.575e+006

**13C-123678-HxCDD**

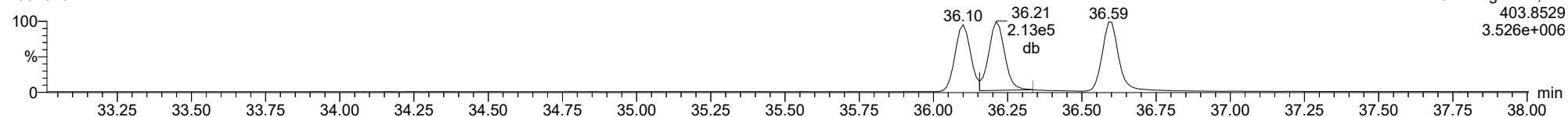
23020102



F3:Voltage SIR,EI+  
401.8559  
4.407e+006

**13C-123678-HxCDD**

23020102

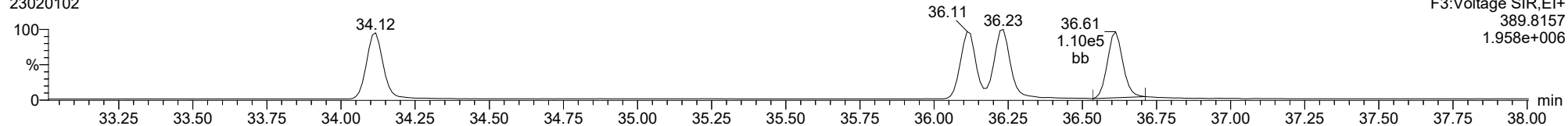


F3:Voltage SIR,EI+  
403.8529  
3.526e+006

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**123789-HxCDD**

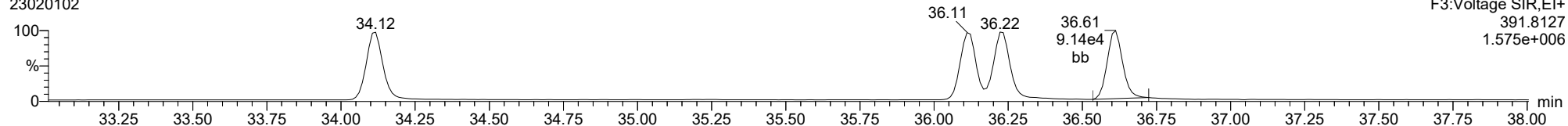
23020102



F3:Voltage SIR,EI+  
389.8157  
1.958e+006

**123789-HxCDD**

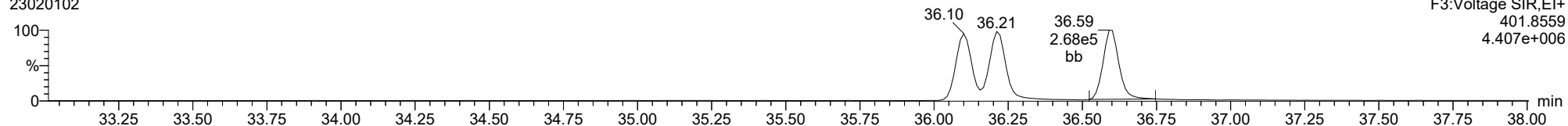
23020102



F3:Voltage SIR,EI+  
391.8127  
1.575e+006

**13C-123789-HxCDD**

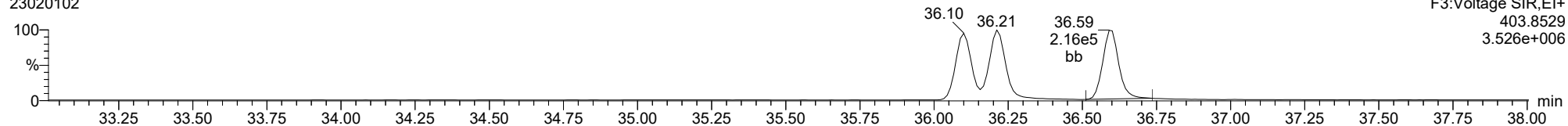
23020102



F3:Voltage SIR,EI+  
401.8559  
4.407e+006

**13C-123789-HxCDD**

23020102

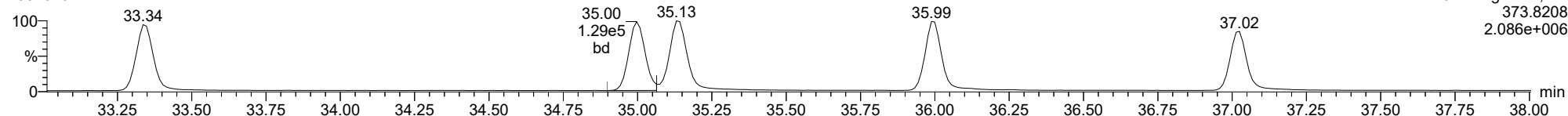


F3:Voltage SIR,EI+  
403.8529  
3.526e+006

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

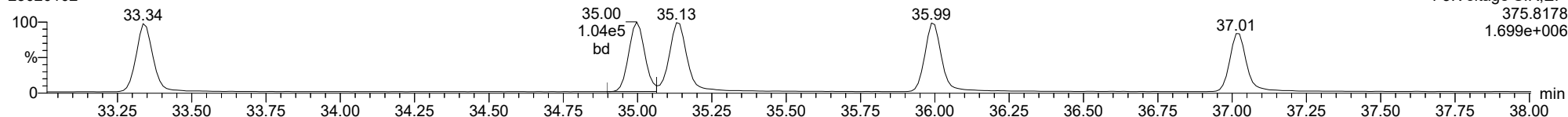
123478-HxCDF

23020102



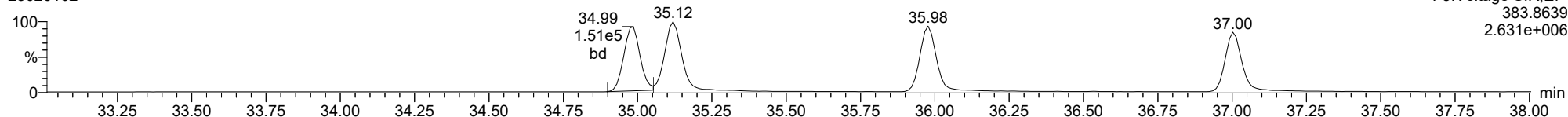
123478-HxCDF

23020102



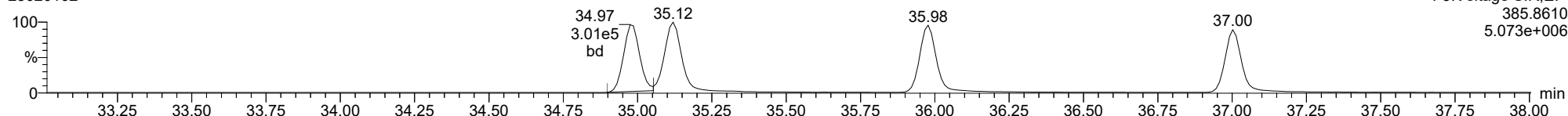
13C-123478-HxCDF

23020102



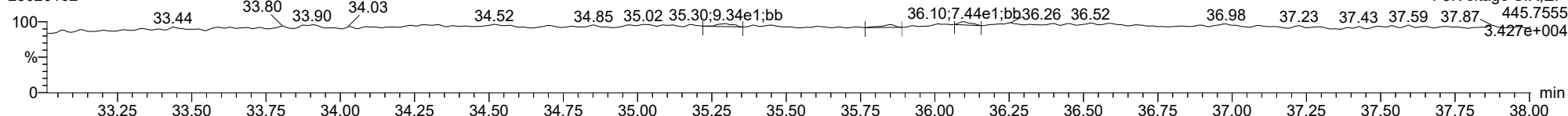
13C-123478-HxCDF

23020102



FUNCTION3 OCDPE

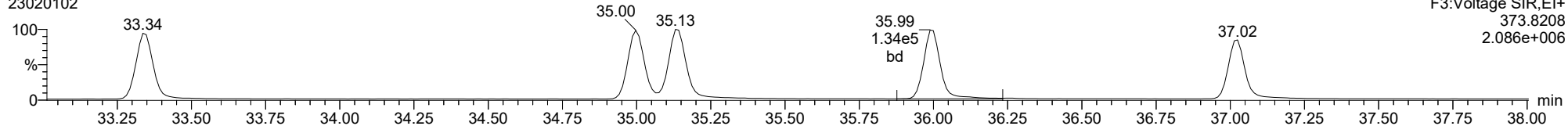
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

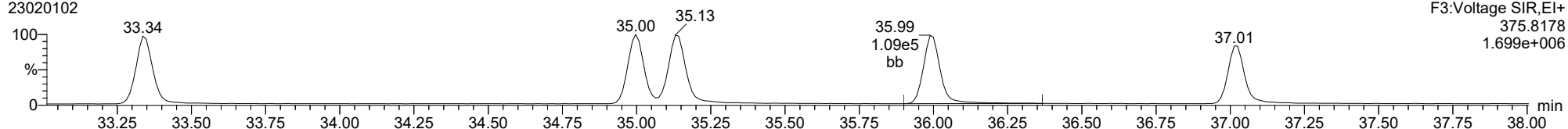
**234678-HxCDF**

23020102



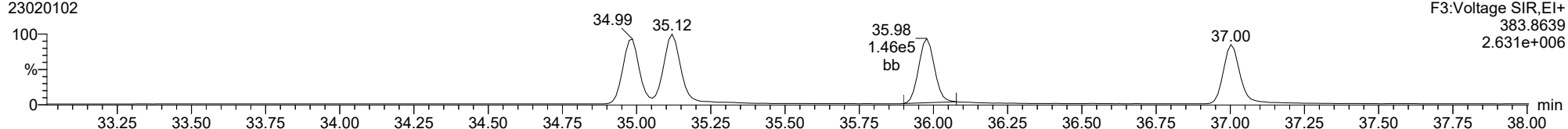
**234678-HxCDF**

23020102



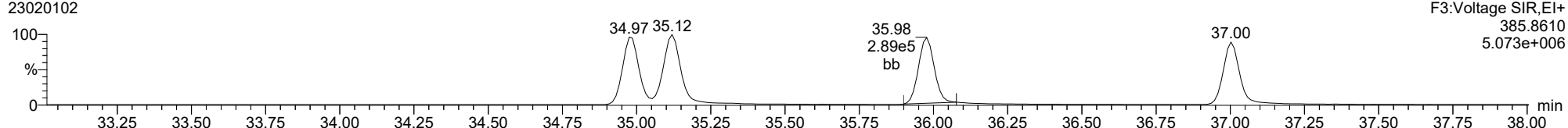
**13C-234678-HxCDF**

23020102



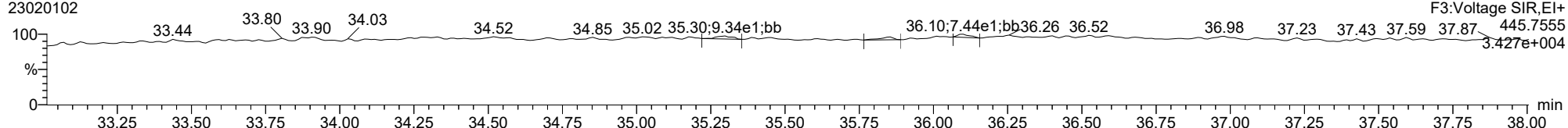
**13C-234678-HxCDF**

23020102



**FUNCTION3 OCDPE**

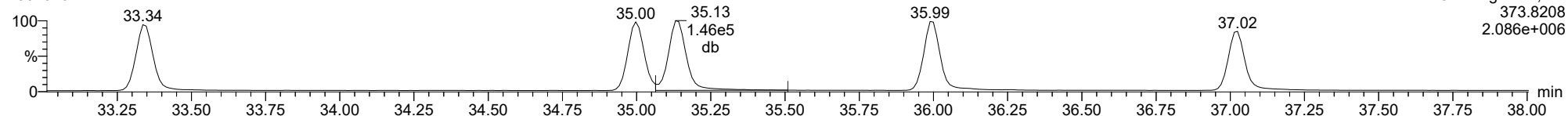
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

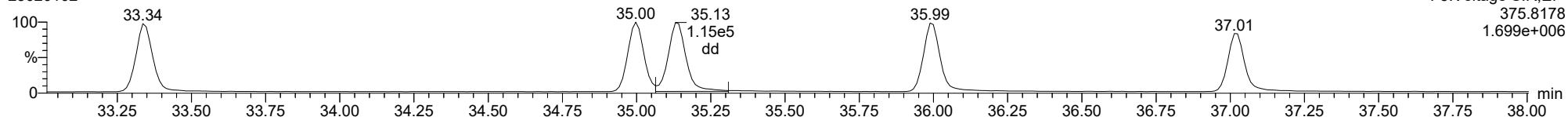
**123678-HxCDF**

23020102



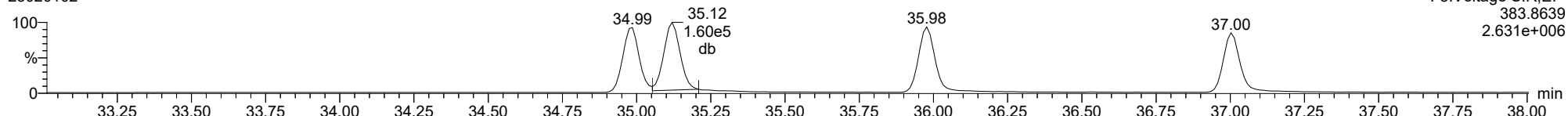
**123678-HxCDF**

23020102



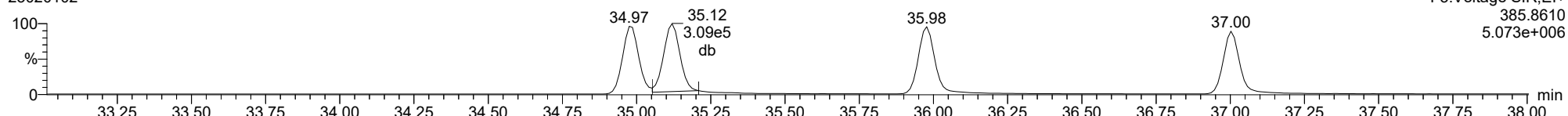
**13C-123678-HxCDF**

23020102



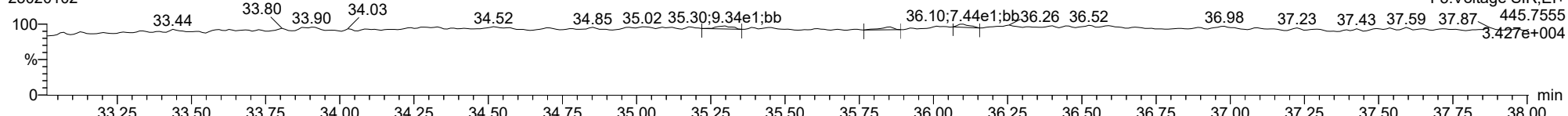
**13C-123678-HxCDF**

23020102



**FUNCTION3 OCDPE**

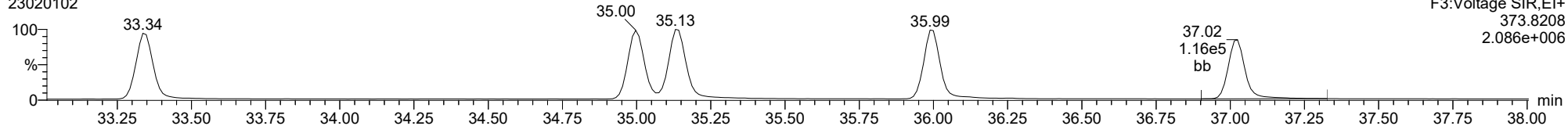
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

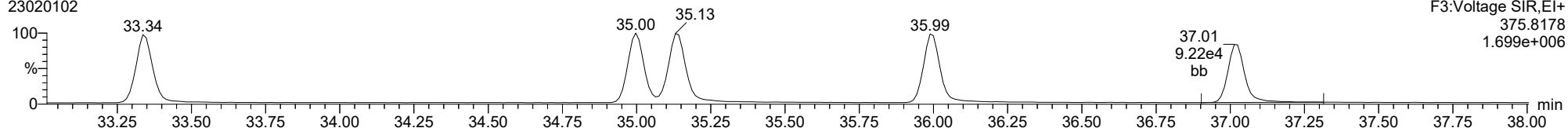
**123789-HxCDF**

23020102



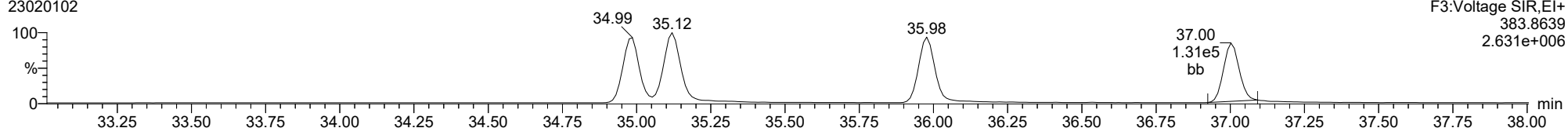
**123789-HxCDF**

23020102



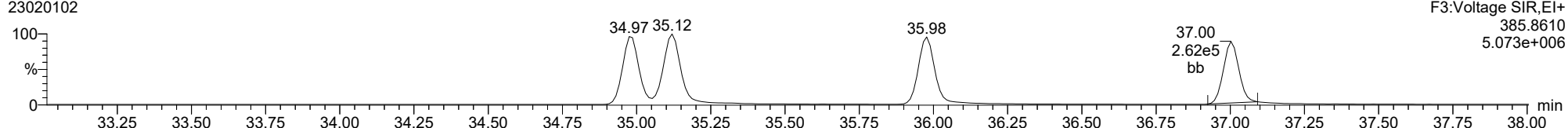
**13C-123789-HxCDF**

23020102



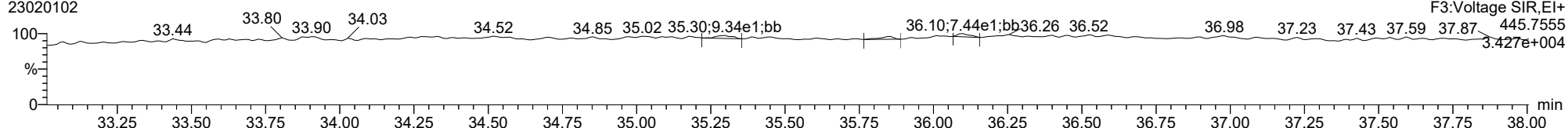
**13C-123789-HxCDF**

23020102



**FUNCTION3 OCDPE**

23020102

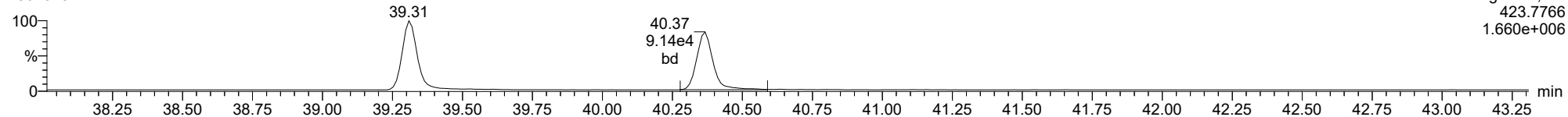




ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

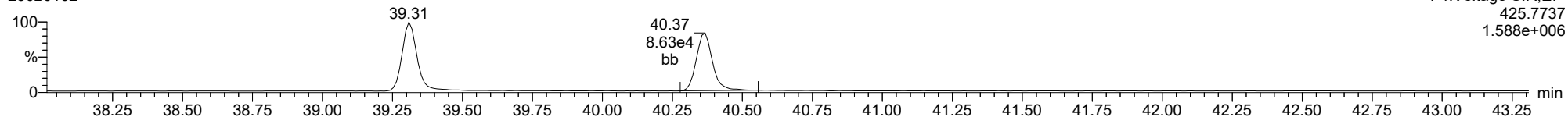
23020102



F4:Voltage SIR,El+  
423.7766  
1.660e+006

**1234678-HpCDD**

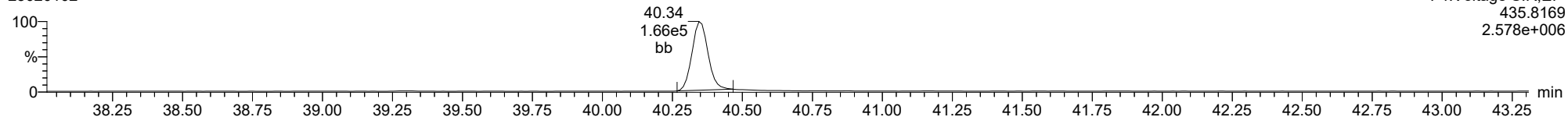
23020102



F4:Voltage SIR,El+  
425.7737  
1.588e+006

**13C-1234678-HpCDD**

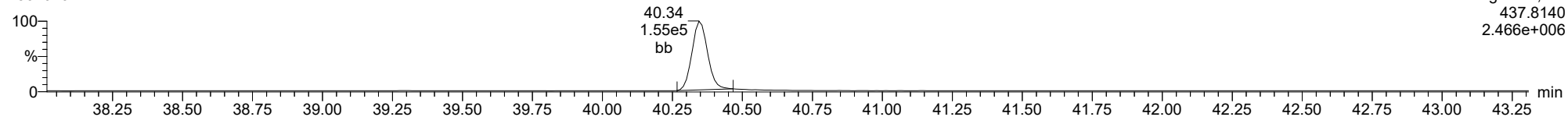
23020102



F4:Voltage SIR,El+  
435.8169  
2.578e+006

**13C-1234678-HpCDD**

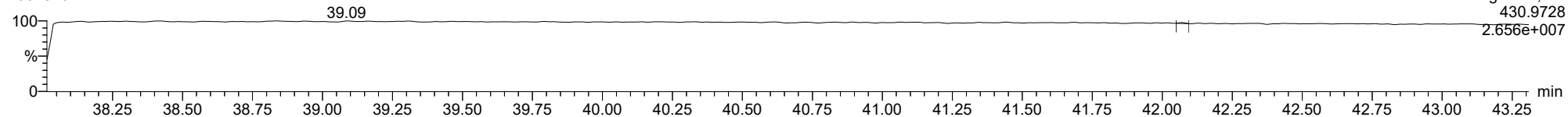
23020102



F4:Voltage SIR,El+  
437.8140  
2.466e+006

**FUNCTION4 PFK**

23020102

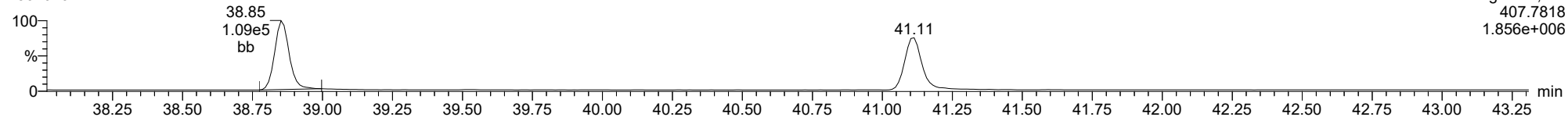


F4:Voltage SIR,El+  
430.9728  
2.656e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

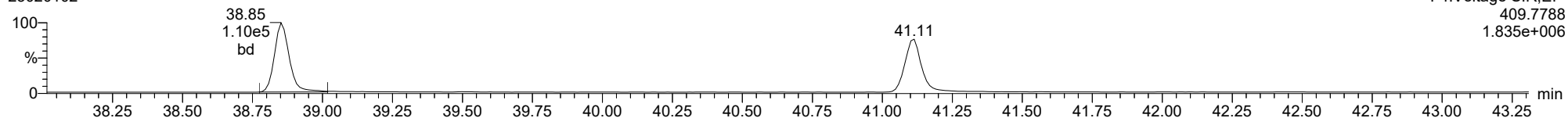
**1234678-HpCDF**

23020102



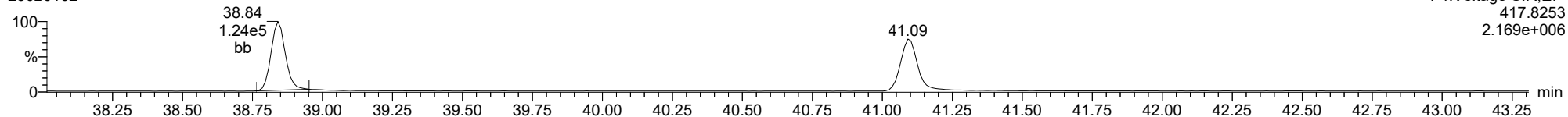
**1234678-HpCDF**

23020102



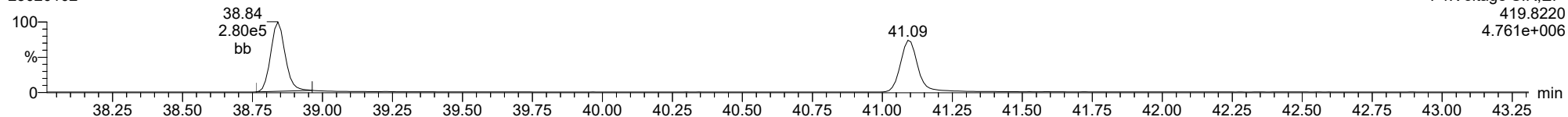
**13C-1234678-HpCDF**

23020102



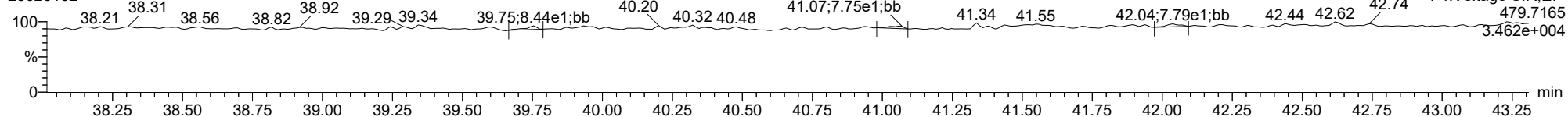
**13C-1234678-HpCDF**

23020102



**FUNCTION4 NCDPE**

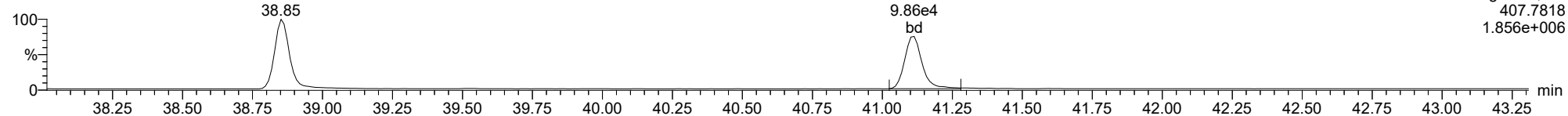
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**1234789-HpCDF**

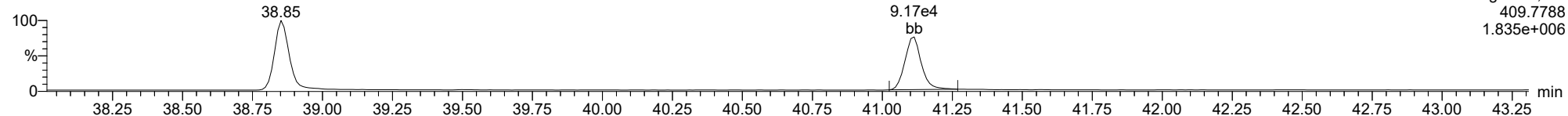
23020102



F4:Voltage SIR,EI+  
407.7818  
1.856e+006

**1234789-HpCDF**

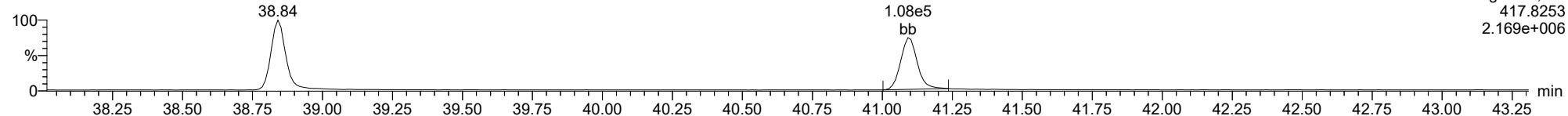
23020102



F4:Voltage SIR,EI+  
409.7788  
1.835e+006

**13C-1234789-HpCDF**

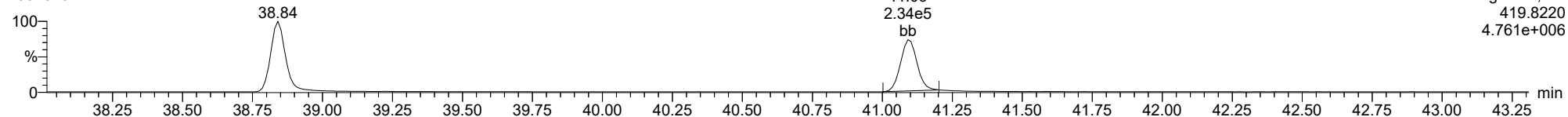
23020102



F4:Voltage SIR,EI+  
417.8253  
2.169e+006

**13C-1234789-HpCDF**

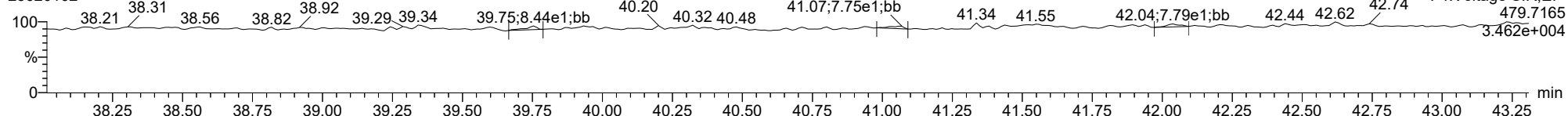
23020102



F4:Voltage SIR,EI+  
419.8220  
4.761e+006

**FUNCTION4 NCDPE**

23020102

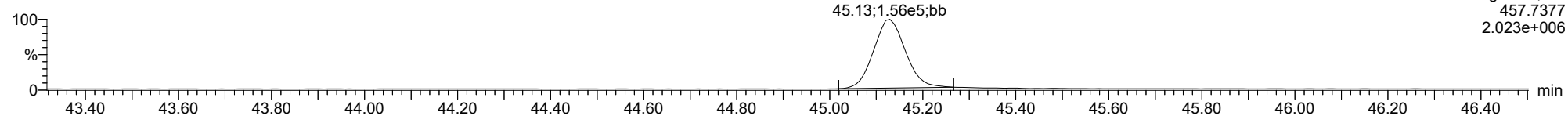


F4:Voltage SIR,EI+  
479.7165  
3.462e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

**OCDD**

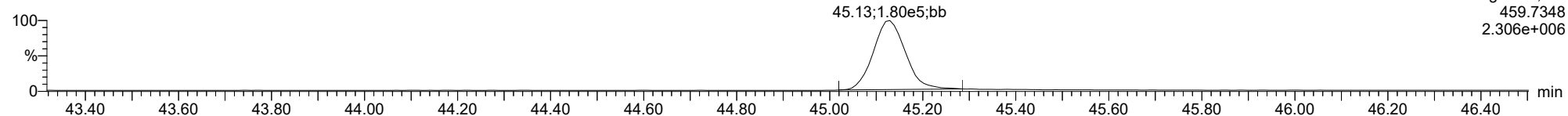
23020102



F5:Voltage SIR,EI+  
457.7377  
2.023e+006

**OCDD**

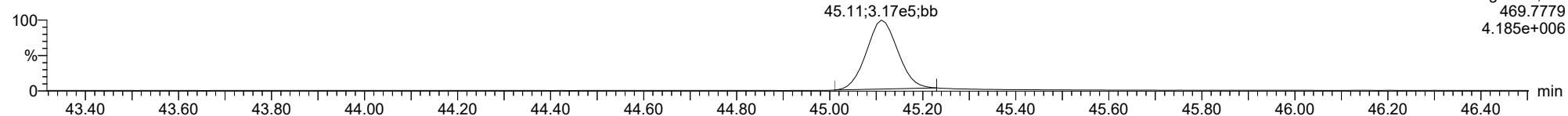
23020102



F5:Voltage SIR,EI+  
459.7348  
2.306e+006

**13C-OCDD**

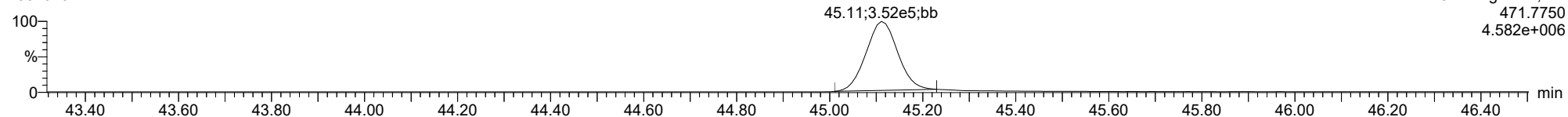
23020102



F5:Voltage SIR,EI+  
469.7779  
4.185e+006

**13C-OCDD**

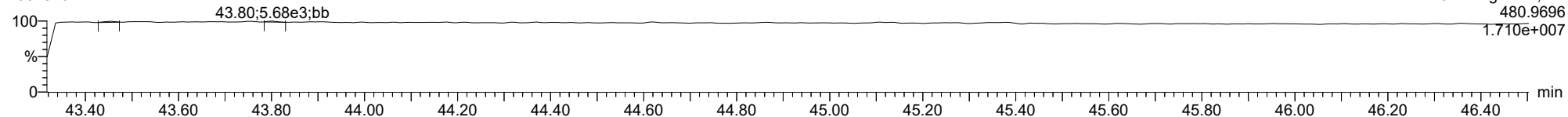
23020102



F5:Voltage SIR,EI+  
471.7750  
4.582e+006

**FUNCTION5 PFK**

23020102

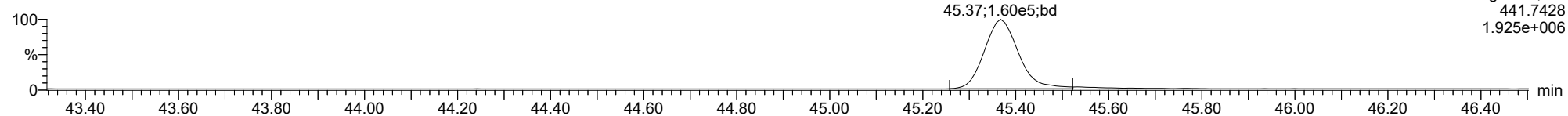


F5:Voltage SIR,EI+  
480.9696  
1.710e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

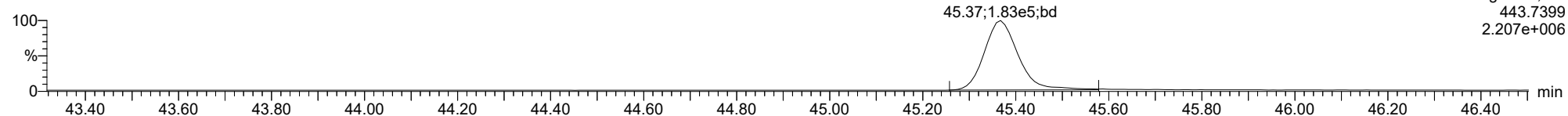
**OCDF**

23020102



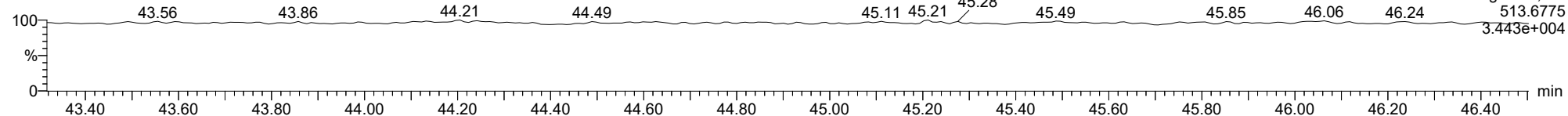
**OCDF**

23020102



**FUNCTION5 DCDPE**

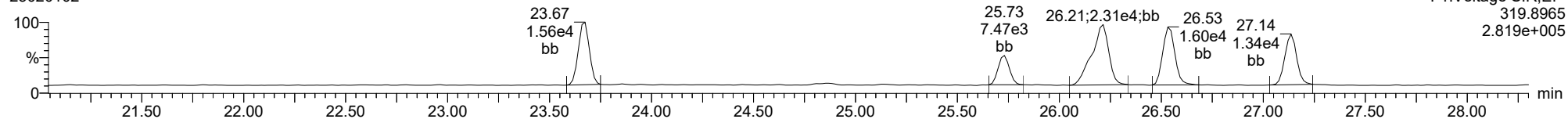
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

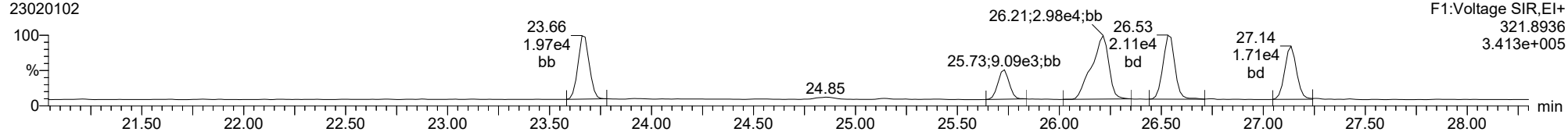
**Total-tetradiioxins**

23020102



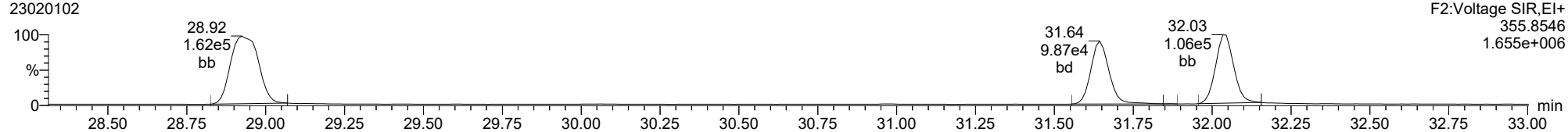
**Total-tetradiioxins**

23020102



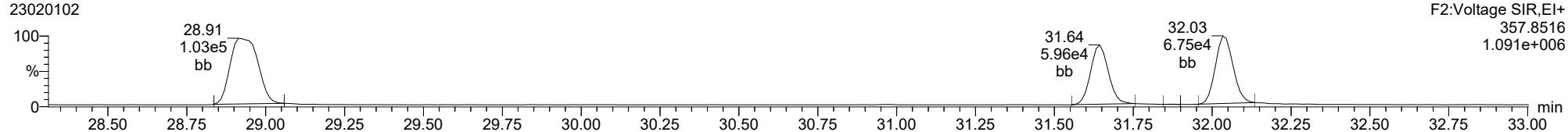
**Total-pentadiioxins**

23020102



**Total-pentadiioxins**

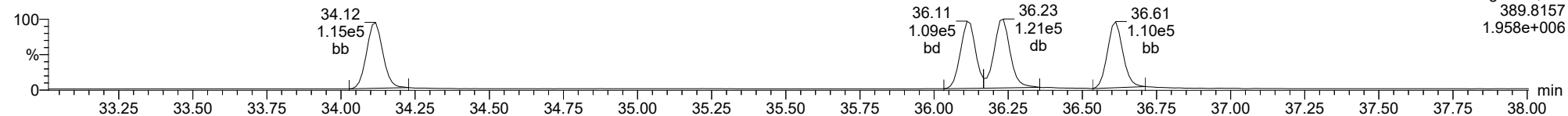
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

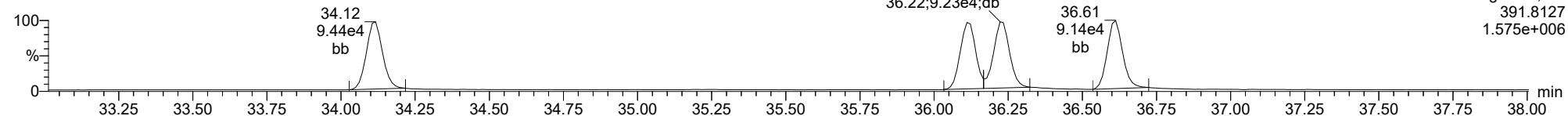
**Total-hexadioxins**

23020102



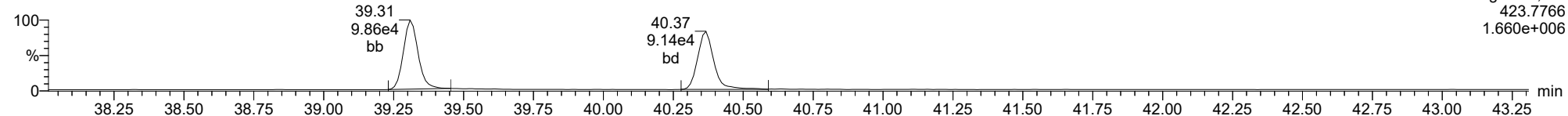
**Total-hexadioxins**

23020102



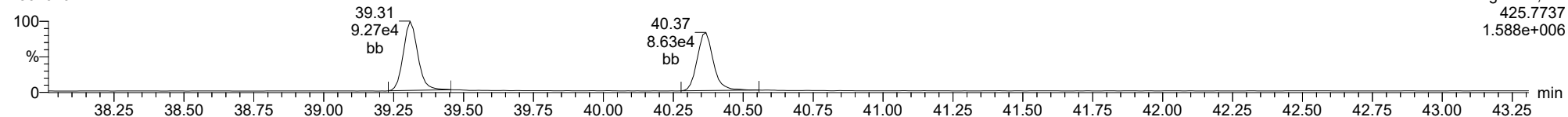
**Total-heptadioxins**

23020102



**Total-heptadioxins**

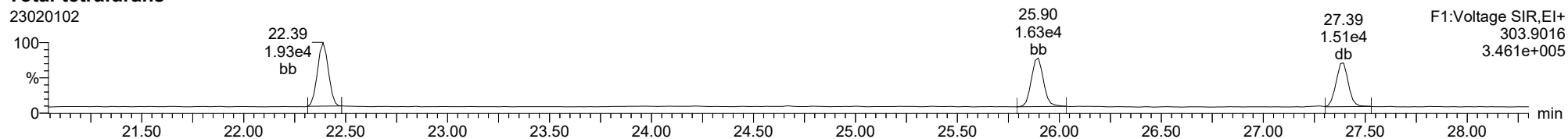
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

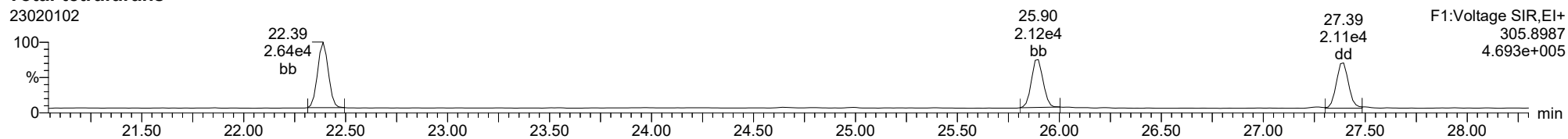
**Total-tetrafurans**

23020102



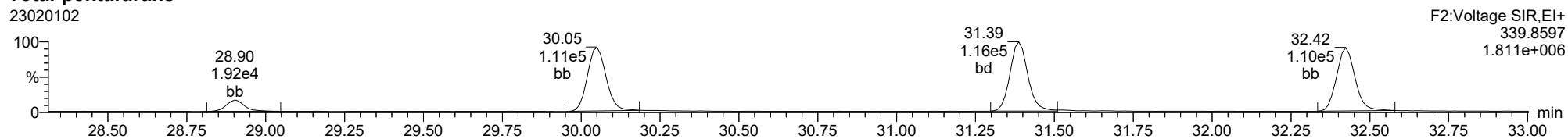
**Total-tetrafurans**

23020102



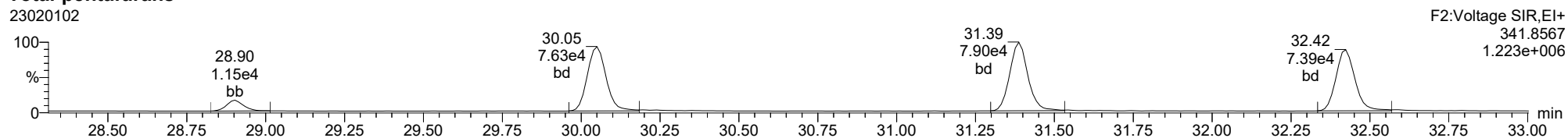
**Total-pentafurans**

23020102



**Total-pentafurans**

23020102

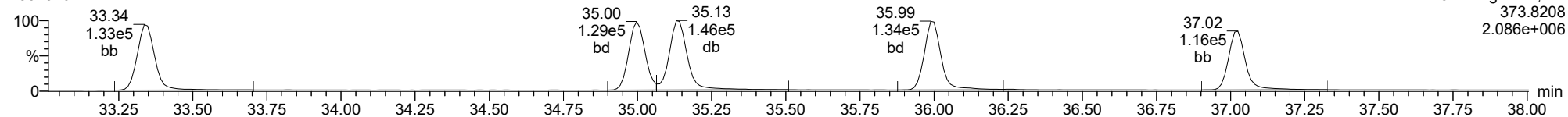




ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

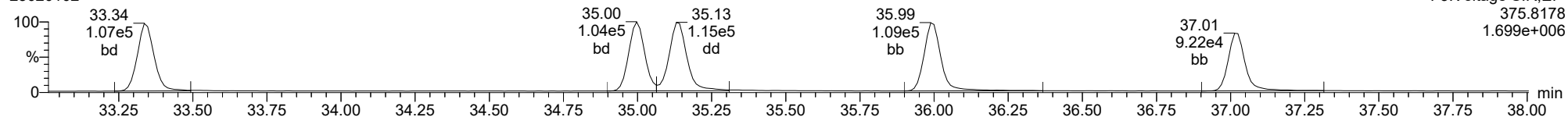
**Total-hexafurans**

23020102



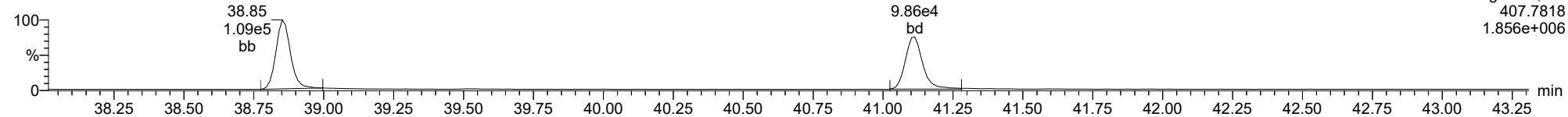
**Total-hexafurans**

23020102



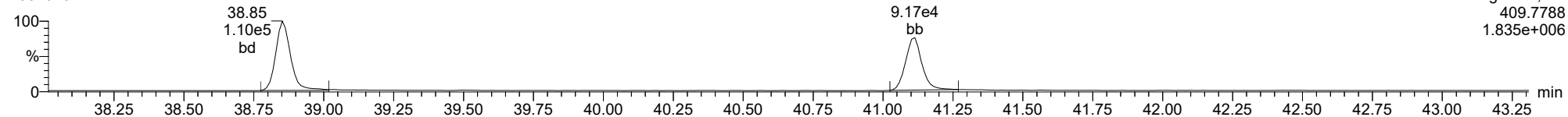
**Total-heptafurans**

23020102

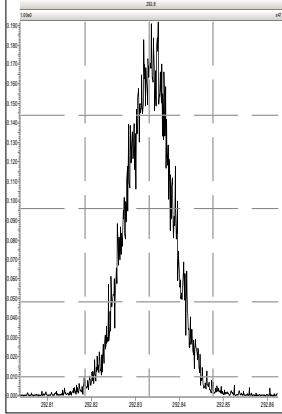


**Total-heptafurans**

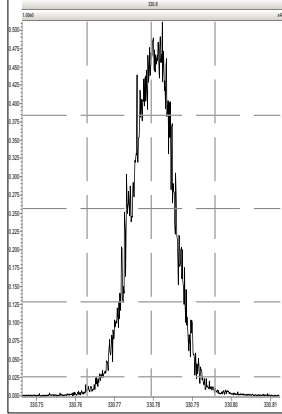
23020102



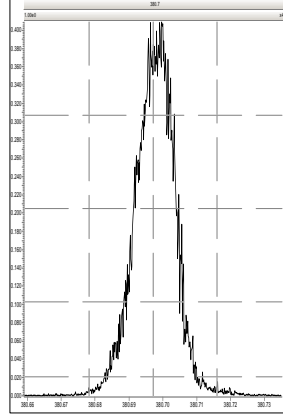
M 292.9824 R 11917



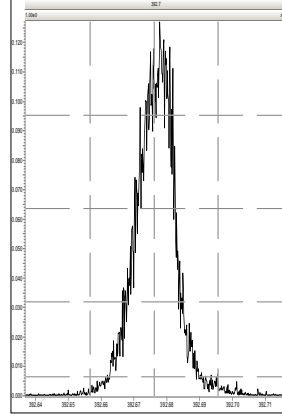
M 330.9792 R 13588



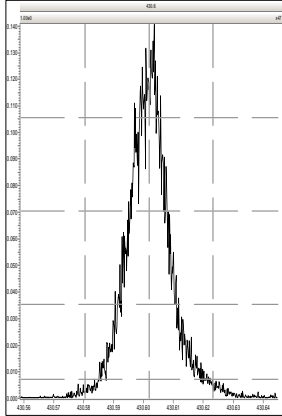
M 380.9760 R 14418



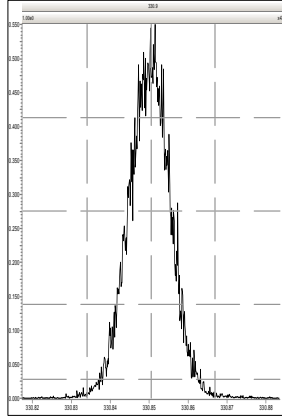
M 392.9760 R 14368



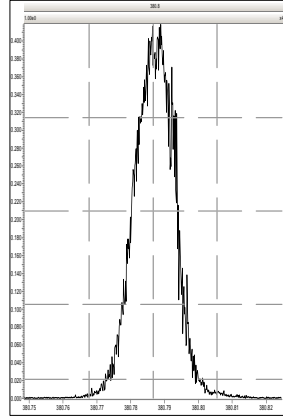
M 430.9728 R 12136



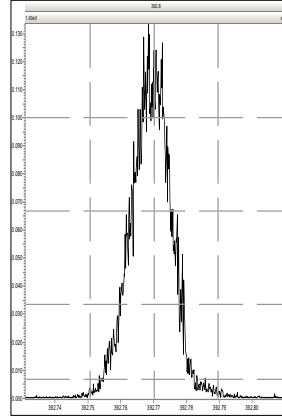
M 330.9792 R 13710



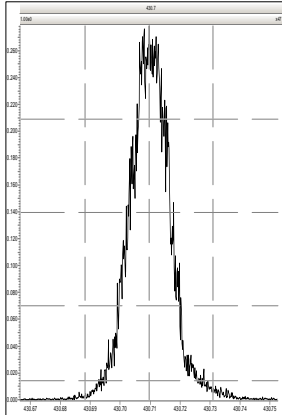
M 380.9760 R 14367



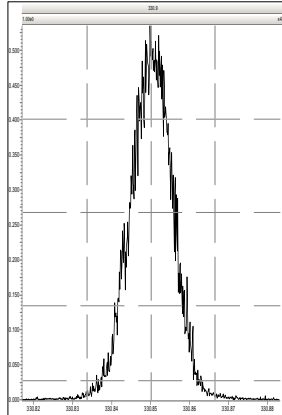
M 392.9760 R 14398



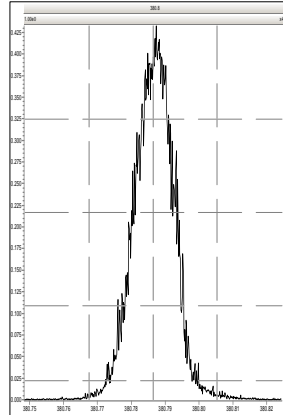
M 430.9728 R 13606



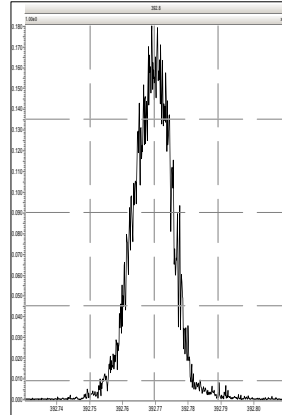
M 330.9792 R 13406



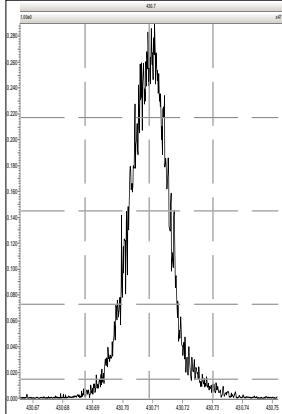
M 380.9760 R 14285



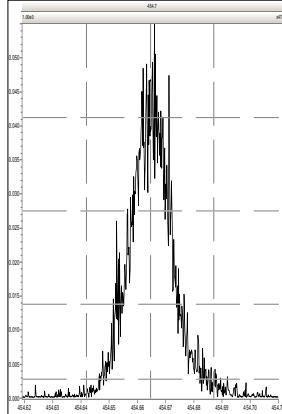
M 392.9760 R 14764



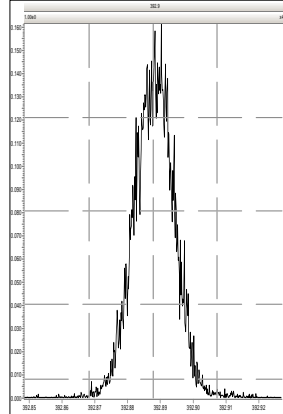
M 430.9728 R 13909



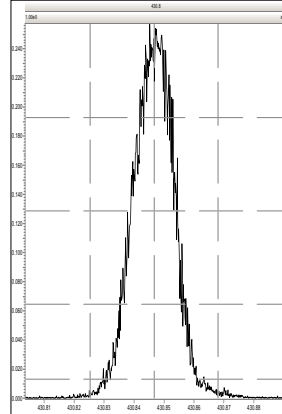
M 454.9728 R 12891



M 392.9760 R 14627

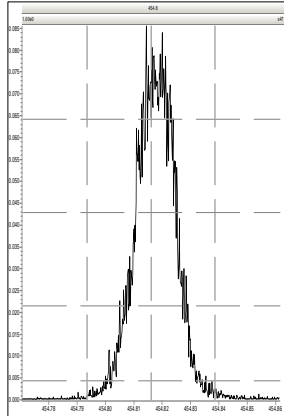


M 430.9728 R 14577

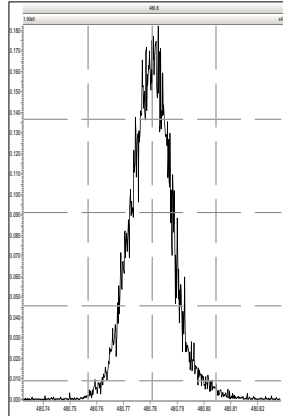


Printed: Wednesday, February 01, 2023 11:48:03 Pacific Standard Time

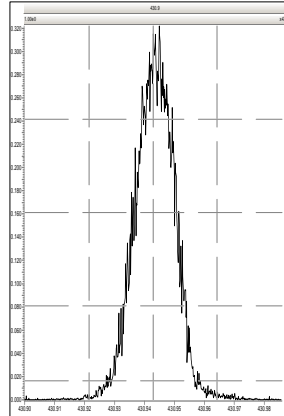
M 454.9728 R 14287



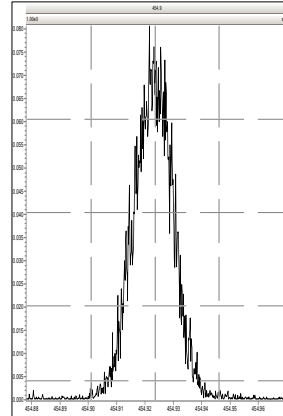
M 480.9696 R 13699



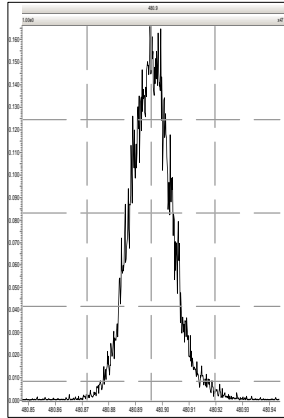
M 430.9728 R 15291



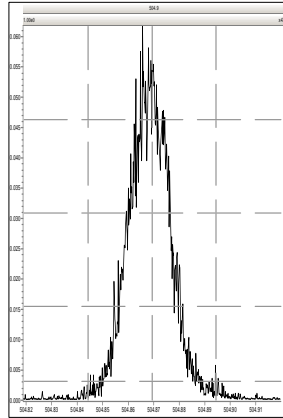
M 454.9728 R 15060



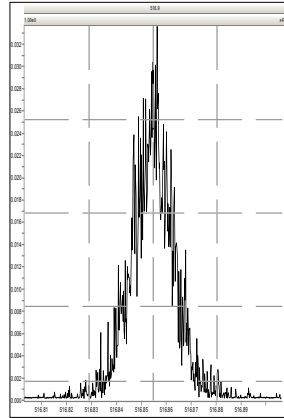
M 480.9696 R 13303



M 504.9696 R 14166



M 516.9697 R 14534

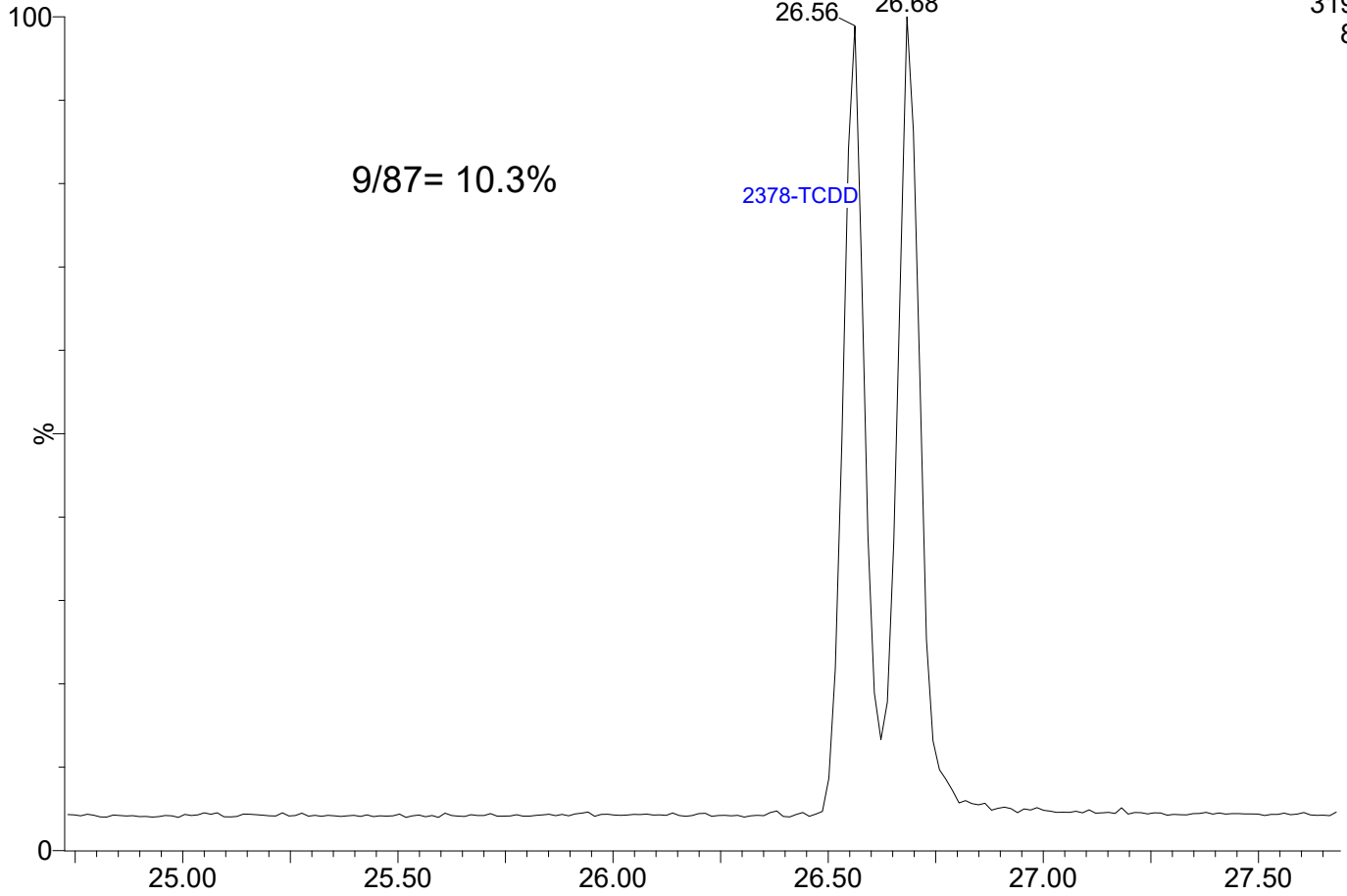


23020103

1: Voltage SIR 15 Channels EI+

319.8965

8.22e5

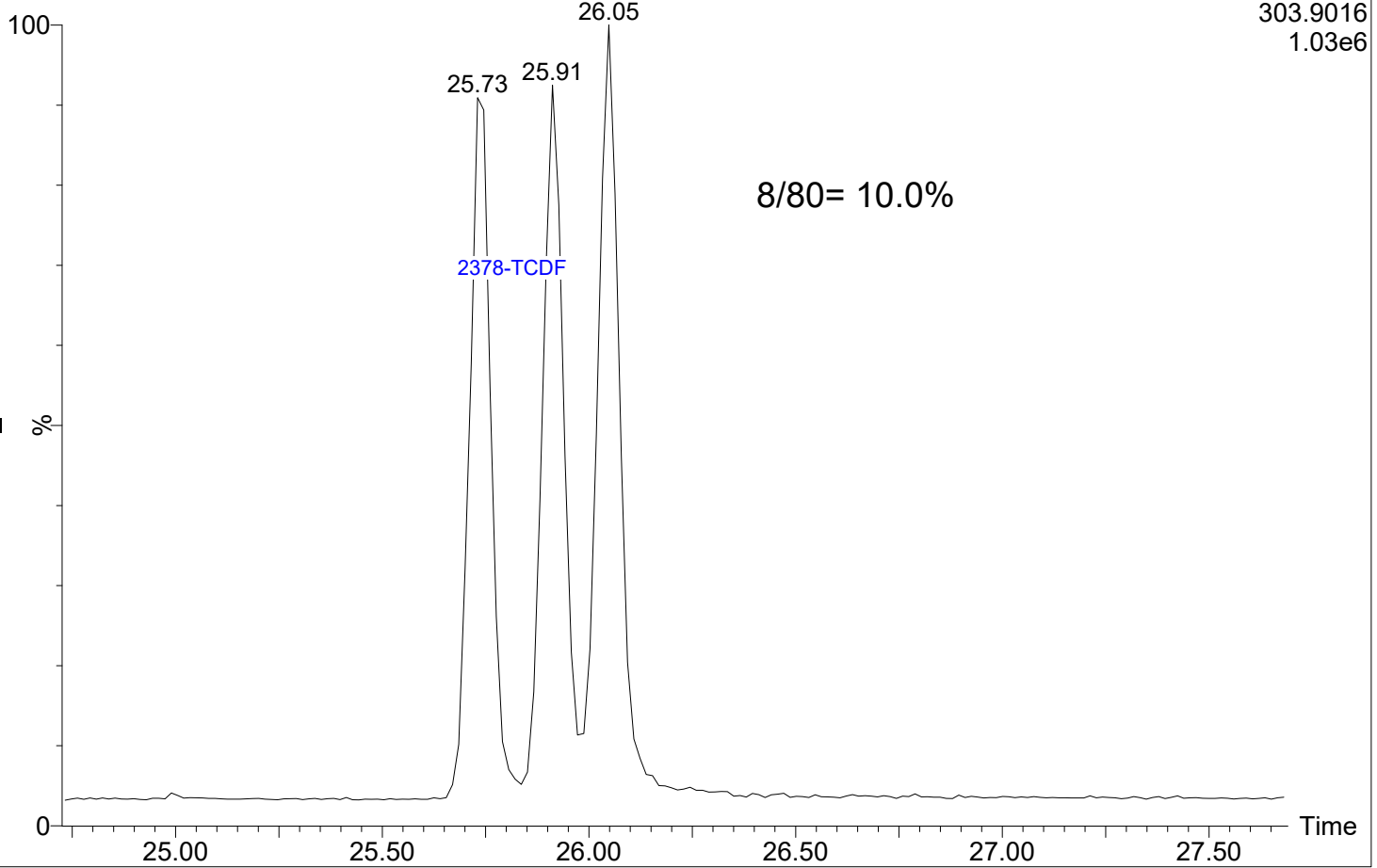


23020103

1: Voltage SIR 15 Channels EI+

303.9016

1.03e6



**Quantify Sample Summary Report**      **MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	1080	1324								
12378-PeCDF	30.038	1.000	4.271e3	3.157e3	0.845	1.353	1.550	952	1114	6.59e4	5.26e4	69.3	47.2	NO	bb	bd	0.524
23478-PeCDF	31.374	1.000	4.511e3	2.751e3	0.911	1.640	1.550	952	1114	6.73e4	4.18e4	70.7	37.5	NO	bb	bb	0.494
123478-HxCDF	34.995	1.001	4.104e3	3.031e3	1.182	1.354	1.240	1010	1011	5.83e4	4.33e4	57.7	42.8	NO	bd	bd	0.507
234678-HxCDF	35.987	1.000	3.766e3	3.106e3	1.229	1.212	1.240	1010	1011	5.67e4	5.22e4	56.2	51.6	NO	bb	bb	0.497
123678-HxCDF	35.129	1.000	4.222e3	3.339e3	1.248	1.264	1.240	1010	1011	6.34e4	4.53e4	62.8	44.8	NO	db	db	0.502
123789-HxCDF	37.012	1.000	3.644e3	2.921e3	1.187	1.248	1.240	1010	1011	5.58e4	4.74e4	55.3	46.9	NO	bb	bb	0.543
1234678-HpCDF	38.850	1.000	3.896e3	3.656e3	1.204	1.066	1.050	999	874	7.14e4	6.60e4	71.5	75.5	NO	bb	bb	0.550
1234789-HpCDF	41.101	1.000	3.001e3	3.100e3	1.165	0.968	1.050	999	874	4.75e4	4.72e4	47.6	54.0	NO	bb	bb	0.533
OCDF	45.376	1.006	5.786e3	6.873e3	1.186	0.842	0.890	933	1403	7.23e4	8.24e4	77.5	58.8	NO	bb	bd	1.268
2378-TCDD					1.236		0.770	1059	950								
12378-PeCDD	31.642	1.001	3.215e3	2.188e3	1.087	1.469	1.550	1079	785	5.52e4	3.24e4	51.2	41.3	NO	bd	bb	0.496
123478-HxCDD	36.109	1.000	2.827e3	2.333e3	0.987	1.212	1.240	1001	800	4.34e4	4.15e4	43.4	51.9	NO	dd	bd	0.497
123678-HxCDD	36.221	1.000	3.387e3	2.724e3	1.021	1.243	1.240	1001	800	5.33e4	4.23e4	53.3	52.9	NO	db	db	0.556
123789-HxCDD	36.611	1.011	2.961e3	2.378e3	0.985	1.245	1.240	1001	800	5.48e4	3.89e4	54.8	48.6	NO	bb	bb	0.509
1234678-HpCDD	40.354	1.000	3.173e3	3.384e3	1.253	0.938	1.050	1384	648	4.91e4	5.67e4	35.5	87.6	NO	bb	bb	0.614
OCDD					1.103		0.890	865	2890								
13C-2378-TCDF	25.867	1.007	8.880e5	1.123e6	1.768	0.791	0.770	2432	2065	1.34e7	1.70e7	5499.3	8229.7	NO	bb	bb	101.483
13C-12378-PeCDF	30.026	1.168	1.020e6	6.593e5	1.527	1.547	1.550	4351	2458	1.57e7	1.01e7	3618.6	4108.9	NO	bb	bb	98.114
13C-23478-PeCDF	31.363	1.220	9.713e5	6.405e5	1.466	1.516	1.550	4351	2458	1.47e7	9.63e6	3385.5	3917.5	NO	bb	bb	98.077
13C-123478-HxCDF	34.973	0.956	3.987e5	7.926e5	1.054	0.503	0.510	2002	3102	6.44e6	1.29e7	3217.2	4143.2	NO	bd	bd	100.084
13C-123678-HxCDF	35.118	0.960	4.078e5	7.990e5	1.080	0.510	0.510	2002	3102	6.70e6	1.31e7	3346.6	4215.9	NO	db	db	98.911
13C-234678-HxCDF	35.976	0.983	3.811e5	7.451e5	1.014	0.512	0.510	2002	3102	6.35e6	1.23e7	3171.4	3951.0	NO	bb	bb	98.285
13C-123789-HxCDF	37.001	1.011	3.510e5	6.676e5	0.928	0.526	0.510	2002	3102	5.85e6	1.13e7	2920.8	3645.7	NO	bb	bb	97.160
13C-1234678-HpCDF	38.839	1.061	3.505e5	7.899e5	1.036	0.444	0.440	2536	4120	5.96e6	1.33e7	2351.6	3236.3	NO	bb	bb	97.433
13C-1234789-HpCDF	41.090	1.123	3.059e5	6.773e5	0.905	0.452	0.440	2536	4120	4.61e6	1.03e7	1815.9	2503.7	NO	bb	bb	96.171
13C-1234-TCDD	25.700	0.000	4.959e5	6.249e5	1.000	0.794	0.770	2405	1251	7.82e6	9.77e6	3252.7	7808.7	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	5.458e5	6.834e5	1.103	0.799	0.770	2405	1251	8.30e6	1.04e7	3451.4	8324.3	NO	bb	bb	99.431
13C-12378-PeCDD	31.619	1.230	6.125e5	3.907e5	0.914	1.568	1.550	1178	1168	9.36e6	5.78e6	7947.4	4944.2	NO	bb	bd	97.913
13C-123478-HxCDD	36.098	0.987	5.901e5	4.628e5	0.933	1.275	1.240	2011	1749	9.65e6	7.66e6	4801.0	4381.0	NO	bd	bd	99.896
13C-123678-HxCDD	36.209	0.990	6.061e5	4.713e5	0.965	1.286	1.240	2011	1749	9.81e6	7.59e6	4881.2	4342.3	NO	db	db	98.864
13C-1234678-HpCDD	40.343	1.103	4.400e5	4.119e5	0.782	1.068	1.050	2377	2314	6.98e6	6.54e6	2937.2	2824.0	NO	bb	bb	96.428
13C-OCDD	45.102	1.233	8.036e5	8.792e5	0.788	0.914	0.890	2320	2081	1.01e7	1.12e7	4365.2	5363.3	NO	bb	bb	188.967
13C-123789-HxCDD	36.588	0.000	6.276e5	5.021e5	1.000	1.250	1.240	2011	1749	1.01e7	8.07e6	5029.1	4612.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.634e3		1.233			1257		2.25e4		17.9			bb		0.118

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
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**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	1080	1324								
1289-TCDF					0.858		0.770	1080	1324								
13468-PECDF					1.013		1.550	869	1005								
12389-PECDF					0.844		1.550	952	1114								
123468-HXCDF					1.197		1.240	1010	1011								
1368-TCDD					1.084		0.770	1059	950								
1289-TCDD					0.975		0.770	1059	950								
12479-PECDD					1.837		1.550	1079	785								
12389-PECDD					1.252		1.550	1079	785								
124679-HXCDD					1.033		1.240	1001	800								
1234679-HPCDD					1.286		1.050	1384	648								
Total-tetrafurans			0.000e0		0.933			1080		0.00e0							
Total-penta1			0.000e0					869		0.00e0							
Total-pentafurans			8.782e3		0.866			952		1.33e5							1.018
Total-hexafurans			1.574e4		1.208			1010		2.34e5							2.049
Total-heptafurans			6.897e3		1.185			999		1.19e5							1.082
Total-Furans			3.720e4		1.067			1080		5.59e5							5.417
Total-tetradoxins			0.000e0		1.099			1059		0.00e0							
Total-pentadoxins			3.215e3		1.392			1079		5.52e4							0.496
Total-hexadoxins			9.529e3		1.007			1001		1.58e5							1.624
Total-heptadoxins			3.173e3		1.269			1384		4.91e4							0.614
Total-Dioxins			1.601e4		1.165			1059		2.65e5							2.750
Total-TEQ			5.321e4					1059		8.24e5							8.168
FUNCTION1 PFK			3.664e5					577038		8.77e6							
FUNCTION2 PFK			5.803e5					248887		1.44e7							0.000
FUNCTION3 PFK			1.568e5					462057		5.36e6							0.000
FUNCTION4 PFK			0.000e0					300538		0.00e0							
FUNCTION5 PFK			6.700e4					200836		2.35e6							
FUNCTION1 HXCD...			8.333e2					859		1.29e4							0.000
FUNCTION1 HPCD...			1.557e3					919		1.93e4							0.000
FUNCTION2 HPCD...			7.646e2					998		1.65e4							0.000
FUNCTION3 OCDPE			1.789e3					773		2.75e4							0.000
FUNCTION4 NCDPE			1.690e2					924		5.87e3							0.000
FUNCTION5 DCDPE			8.847e1					800		2.49e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33****Calibration: 03 Feb 2023 10:33:40****ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
2	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
3	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
4	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
2	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524
3	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
4	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
5	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
6	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507
7	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
8	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550
9	OCDF	45.38	5.786e3	6.873e3	1.186	0.84	0.89	77.5	YES	NO	bb	bd	1.268

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
2	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
3	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
4	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Dioxins	22.28	9.641e1	1.412e2	1.165	0.68	0.77	2.5	NO	NO	bd	bb	0.017
2	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496
3	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
4	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
5	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
6	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063
7	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524
3	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
4	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
5	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
6	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507
7	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
8	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550
9	OCDF	45.38	5.786e3	6.873e3	1.186	0.84	0.89	77.5	YES	NO	bb	bd	1.268
10	Total-Dioxins	22.28	9.641e1	1.412e2	1.165	0.68	0.77	2.5	NO	NO	bd	bb	0.017
11	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496
12	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
13	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
14	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
15	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063
16	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.58	8.439e4					1.7	NO		bb		
2	FUNCTION1 PFK	27.45	2.771e4					1.5	NO		bb		
3	FUNCTION1 PFK	27.17	2.484e4					1.4	NO		bb		
4	FUNCTION1 PFK	26.40	1.936e4					1.3	NO		bb		
5	FUNCTION1 PFK	26.11	4.980e4					1.6	NO		bb		
6	FUNCTION1 PFK	25.62	1.288e4					0.9	NO		bb		
7	FUNCTION1 PFK	23.40	2.240e4					0.8	NO		bb		
8	FUNCTION1 PFK	22.69	1.568e4					1.0	NO		bb		
9	FUNCTION1 PFK	22.18	2.261e4					1.3	NO		bb		
10	FUNCTION1 PFK	22.10	4.769e4					1.5	NO		bb		
11	FUNCTION1 PFK	21.98	1.078e4					0.8	NO		bb		
12	FUNCTION1 PFK	21.92	2.828e4					1.5	NO		bb		

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.52	1.267e4					1.4	NO		dd		0.000
2	FUNCTION2 PFK	29.46	2.595e4					2.1	NO		bd		0.000
3	FUNCTION2 PFK	29.36	9.698e3					1.3	NO		db		0.000
4	FUNCTION2 PFK	29.26	3.530e4					1.9	NO		dd		0.000
5	FUNCTION2 PFK	29.20	3.010e4					2.1	NO		dd		0.000
6	FUNCTION2 PFK	29.12	1.008e4					1.1	NO		dd		0.000
7	FUNCTION2 PFK	29.07	1.252e4					1.4	NO		bd		0.000
8	FUNCTION2 PFK	29.00	5.699e3					0.9	NO		db		0.000
9	FUNCTION2 PFK	28.97	2.160e4					1.6	NO		dd		0.000
10	FUNCTION2 PFK	28.81	1.772e4					0.9	NO		bd		0.000
11	FUNCTION2 PFK	28.71	1.302e4					0.8	NO		bb		0.000
12	FUNCTION2 PFK	28.64	1.871e3					0.4	NO		bb		0.000
13	FUNCTION2 PFK	28.51	4.178e3					0.8	NO		bb		0.000
14	FUNCTION2 PFK	28.42	7.027e3					0.8	NO		bb		0.000
15	FUNCTION2 PFK	28.34	4.550e3					0.9	NO		bb		0.000
16	FUNCTION2 PFK	31.02	8.571e3					1.3	NO		dd		0.000
17	FUNCTION2 PFK	30.97	2.370e4					2.0	NO		dd		0.000
18	FUNCTION2 PFK	30.86	2.515e4					1.6	NO		dd		0.000
19	FUNCTION2 PFK	30.83	6.842e3					1.2	NO		bd		0.000
20	FUNCTION2 PFK	30.75	1.931e4					1.6	NO		bb		0.000
21	FUNCTION2 PFK	30.62	1.066e4					1.2	NO		db		0.000
22	FUNCTION2 PFK	30.58	5.541e3					1.0	NO		bd		0.000
23	FUNCTION2 PFK	30.53	9.069e3					1.2	NO		bb		0.000
24	FUNCTION2 PFK	30.44	1.277e4					1.2	NO		db		0.000
25	FUNCTION2 PFK	30.39	1.436e4					1.3	NO		bd		0.000
26	FUNCTION2 PFK	30.19	7.186e3					0.8	NO		bb		0.000
27	FUNCTION2 PFK	30.03	1.599e4					1.2	NO		bb		0.000
28	FUNCTION2 PFK	29.91	1.518e3					0.4	NO		bb		0.000
29	FUNCTION2 PFK	29.80	6.143e3					0.8	NO		bb		0.000
30	FUNCTION2 PFK	29.65	1.120e4					1.0	NO		db		0.000
31	FUNCTION2 PFK	29.56	1.510e4					1.6	NO		dd		0.000
32	FUNCTION2 PFK	32.43	5.171e3					1.0	NO		db		0.000
33	FUNCTION2 PFK	32.40	8.945e3					1.4	NO		bd		0.000
34	FUNCTION2 PFK	32.33	8.546e3					0.8	NO		db		0.000
35	FUNCTION2 PFK	32.28	1.923e3					0.6	NO		bd		0.000
36	FUNCTION2 PFK	32.23	9.966e3					1.3	NO		db		0.000
37	FUNCTION2 PFK	32.18	8.875e3					1.2	NO		bd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.09	1.451e4					1.2	NO		db		0.000
39	FUNCTION2 PFK	32.04	5.136e3					0.8	NO		dd		0.000
40	FUNCTION2 PFK	32.01	7.259e3					1.1	NO		bd		0.000
41	FUNCTION2 PFK	31.94	6.720e3					0.8	NO		bb		0.000
42	FUNCTION2 PFK	31.74	5.803e3					0.8	NO		bb		0.000
43	FUNCTION2 PFK	31.61	6.954e3					1.2	NO		db		0.000
44	FUNCTION2 PFK	31.59	1.111e4					1.2	NO		bd		0.000
45	FUNCTION2 PFK	31.45	7.843e2					0.3	NO		bb		0.000
46	FUNCTION2 PFK	31.41	1.192e4					1.2	NO		bb		0.000
47	FUNCTION2 PFK	31.07	1.965e3					0.4	NO		db		0.000
48	FUNCTION2 PFK	32.80	6.019e3					1.1	NO		db		0.000
49	FUNCTION2 PFK	32.77	9.084e3					1.2	NO		bd		0.000
50	FUNCTION2 PFK	32.64	3.494e4					1.5	NO		db		0.000
51	FUNCTION2 PFK	32.60	5.286e3					0.9	NO		dd		0.000
52	FUNCTION2 PFK	32.53	4.308e3					0.5	NO		bd		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.14	4.336e3					0.7	NO		db		0.000
2	FUNCTION3 PFK	36.11	5.755e3					0.7	NO		bd		0.000
3	FUNCTION3 PFK	36.06	7.687e3					0.9	NO		bb		0.000
4	FUNCTION3 PFK	36.02	1.796e4					1.6	NO		bb		0.000
5	FUNCTION3 PFK	35.81	1.736e4					1.2	NO		bb		0.000
6	FUNCTION3 PFK	35.69	5.338e4					1.7	NO		bb		0.000
7	FUNCTION3 PFK	35.20	3.054e3					0.6	NO		bb		0.000
8	FUNCTION3 PFK	34.12	1.673e4					1.2	NO		bb		0.000
9	FUNCTION3 PFK	33.89	1.577e4					1.4	NO		bb		0.000
10	FUNCTION3 PFK	33.50	1.199e4					1.1	NO		bb		0.000
11	FUNCTION3 PFK	36.41	2.803e3					0.5	NO		bb		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.30	6.353e3					1.3	NO		bb		
2	FUNCTION5 PFK	45.94	1.054e4					1.7	NO		bb		
3	FUNCTION5 PFK	45.79	1.187e3					0.6	NO		bb		
4	FUNCTION5 PFK	45.60	4.997e3					1.0	NO		bb		
5	FUNCTION5 PFK	45.34	9.354e3					1.4	NO		db		
6	FUNCTION5 PFK	45.31	2.478e3					1.0	NO		bd		
7	FUNCTION5 PFK	45.26	5.509e3					1.0	NO		bb		
8	FUNCTION5 PFK	43.99	1.588e4					1.1	NO		bb		
9	FUNCTION5 PFK	43.56	6.413e3					1.4	NO		db		
10	FUNCTION5 PFK	43.53	4.291e3					1.1	NO		bd		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	22.28	8.501e1					1.7	NO		bb		0.000
2	FUNCTION1 HXCD...	21.98	1.104e2					2.3	NO		bb		0.000
3	FUNCTION1 HXCD...	26.53	2.072e2					2.6	NO		bb		0.000
4	FUNCTION1 HXCD...	26.29	8.524e1					1.7	NO		bb		0.000
5	FUNCTION1 HXCD...	25.91	1.063e2					2.1	NO		db		0.000
6	FUNCTION1 HXCD...	25.87	8.437e1					1.9	NO		bd		0.000
7	FUNCTION1 HXCD...	25.00	7.918e1					1.2	NO		bb		0.000
8	FUNCTION1 HXCD...	24.64	7.557e1					1.6	NO		bb		0.000

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

## ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.37	8.294e1					2.3	NO		dd		0.000
2	FUNCTION1 HPCD...	26.31	7.445e1					1.6	NO		bd		0.000
3	FUNCTION1 HPCD...	25.85	3.079e2					2.6	NO		db		0.000
4	FUNCTION1 HPCD...	25.72	1.912e2					2.1	NO		bd		0.000
5	FUNCTION1 HPCD...	25.35	9.102e1					2.4	NO		bb		0.000
6	FUNCTION1 HPCD...	24.26	7.312e1					0.4	NO		bb		0.000
7	FUNCTION1 HPCD...	23.34	2.139e2					1.8	NO		bb		0.000
8	FUNCTION1 HPCD...	22.66	8.267e1					0.8	NO		bb		0.000
9	FUNCTION1 HPCD...	21.38	7.618e1					1.4	NO		bb		0.000
10	FUNCTION1 HPCD...	27.98	9.946e1					3.1	YES		bb		0.000
11	FUNCTION1 HPCD...	26.99	8.404e1					1.1	NO		bb		0.000
12	FUNCTION1 HPCD...	26.52	1.802e2					1.5	NO		db		0.000

## ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.64	1.571e2					2.9	NO		bb		0.000
2	FUNCTION2 HPCD...	31.35	7.515e1					1.4	NO		bb		0.000
3	FUNCTION2 HPCD...	30.72	8.443e1					1.4	NO		bb		0.000
4	FUNCTION2 HPCD...	30.46	1.124e2					2.4	NO		bb		0.000
5	FUNCTION2 HPCD...	30.06	1.840e2					5.0	YES		bb		0.000
6	FUNCTION2 HPCD...	28.49	7.182e1					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	28.27	7.966e1					1.8	NO		bb		0.000

## ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.88	1.145e2					2.3	NO		bd		0.000
2	FUNCTION3 OCDPE	35.18	2.003e2					3.4	YES		bb		0.000
3	FUNCTION3 OCDPE	34.09	1.081e2					2.7	NO		db		0.000
4	FUNCTION3 OCDPE	34.04	7.302e1					3.0	YES		bd		0.000
5	FUNCTION3 OCDPE	37.75	1.221e2					3.1	YES		bb		0.000
6	FUNCTION3 OCDPE	36.64	1.574e2					3.5	YES		db		0.000
7	FUNCTION3 OCDPE	36.60	2.003e2					4.2	YES		bd		0.000
8	FUNCTION3 OCDPE	36.20	2.806e2					4.2	YES		db		0.000
9	FUNCTION3 OCDPE	36.12	3.227e2					5.3	YES		dd		0.000
10	FUNCTION3 OCDPE	35.99	2.101e2					3.8	YES		dd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk****ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.48	9.634e1					2.9	NO		bb		0.000
2	FUNCTION4 NCDPE	38.52	7.264e1					3.4	YES		bb		0.000

**ETHERS6**

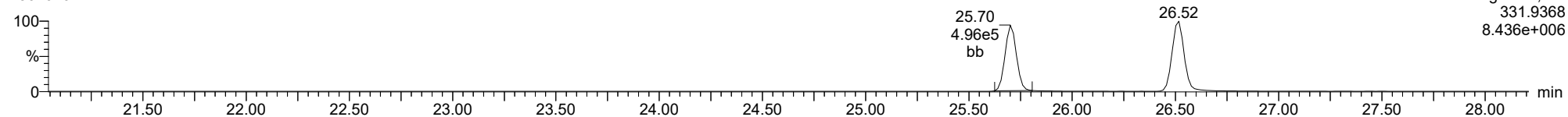
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1	FUNCTION5 DCDPE	44.32	8.847e1					3.1	YES		bb		0.000

**Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk**

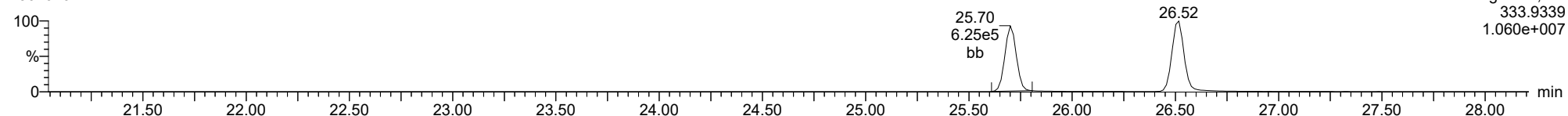
**13C-1234-TCDD**

23020104



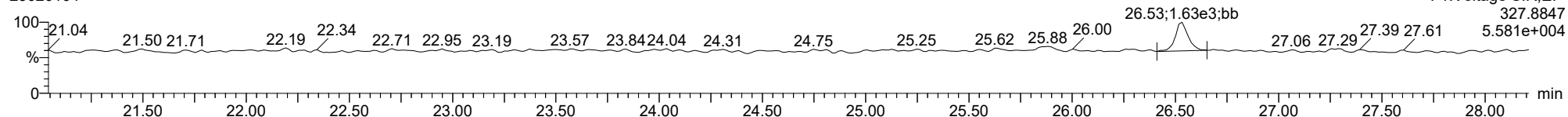
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23020104



**37CL-2378-TCDD**

23020104

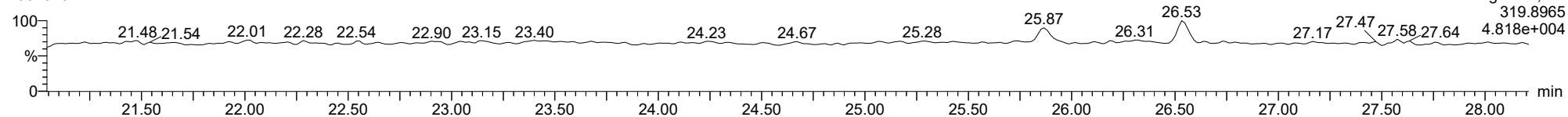




ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

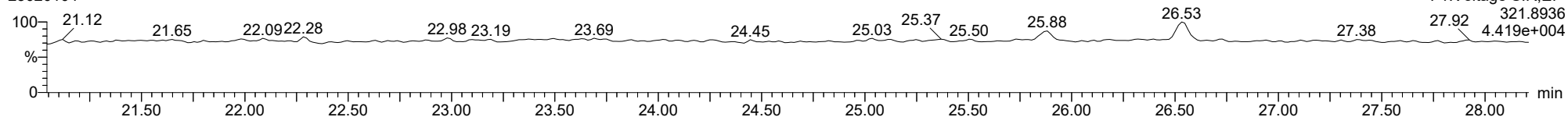
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23020104



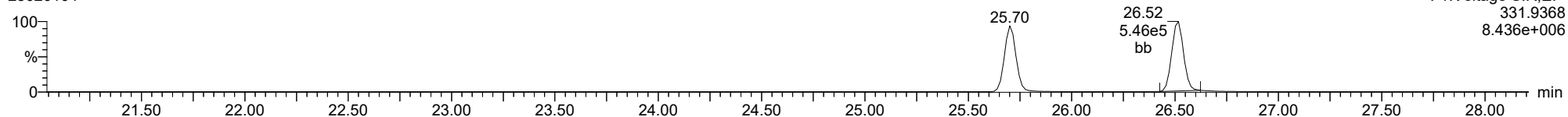
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23020104



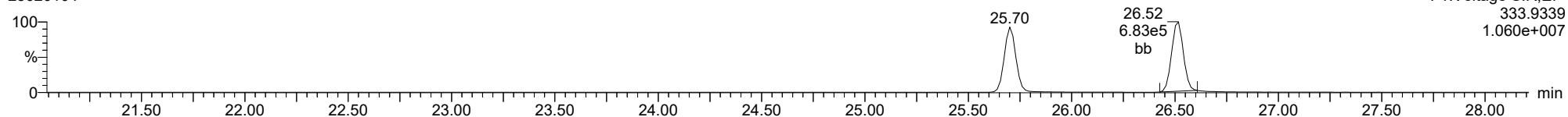
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23020104



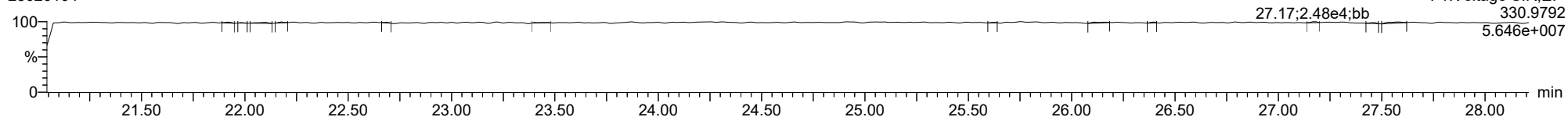
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23020104



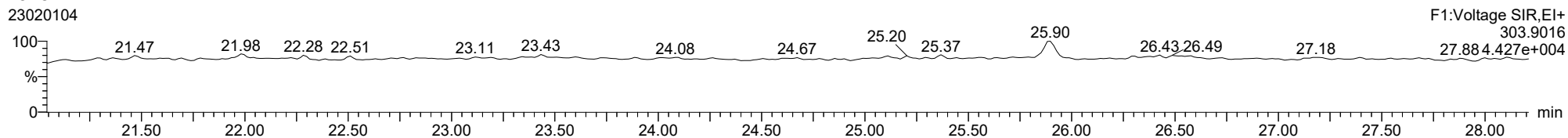
**FUNCTION1 PFK**

23020104

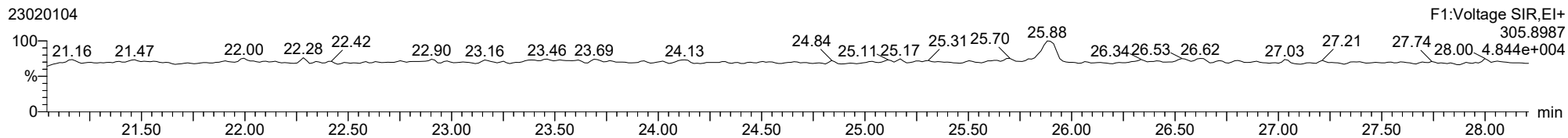


ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

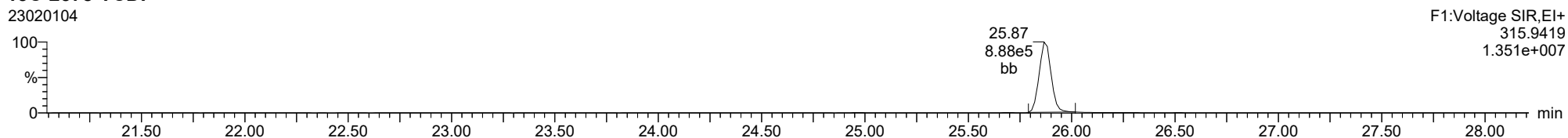
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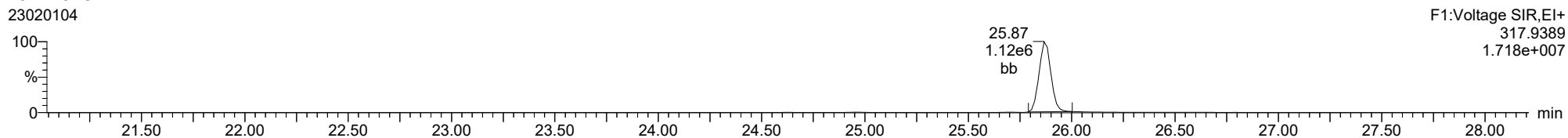
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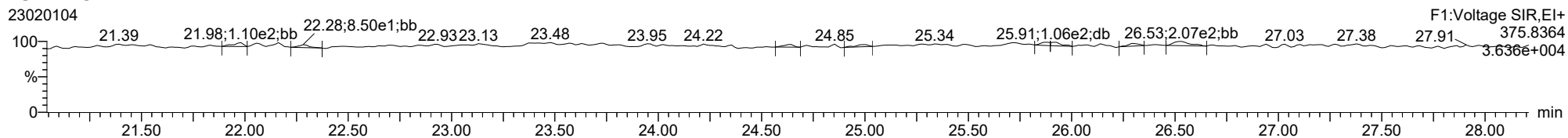
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**13C-2378-TCDF**



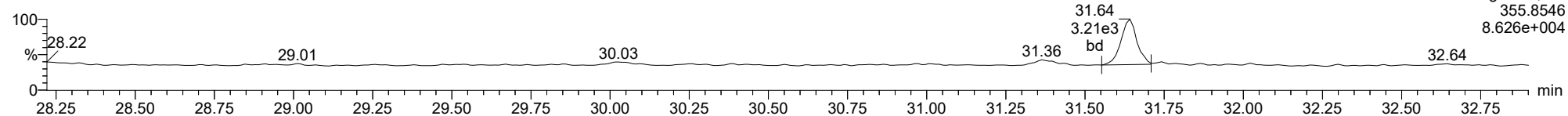
**FUNCTION1 HXCDPE**



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

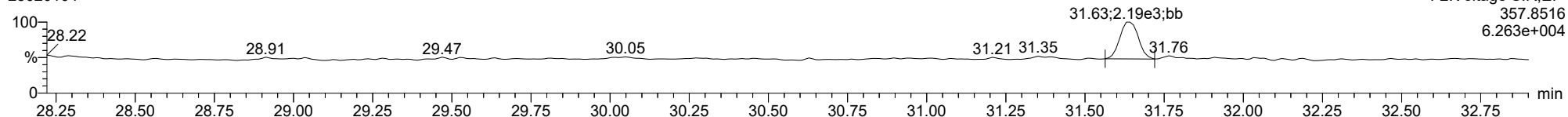
**12378-PeCDD**

23020104



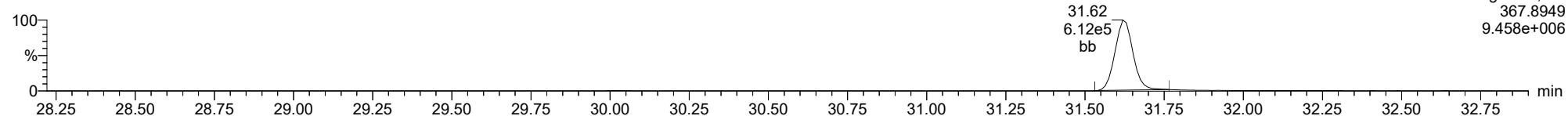
**12378-PeCDD**

23020104



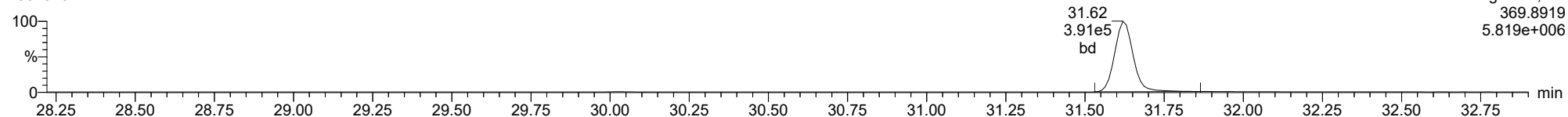
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23020104



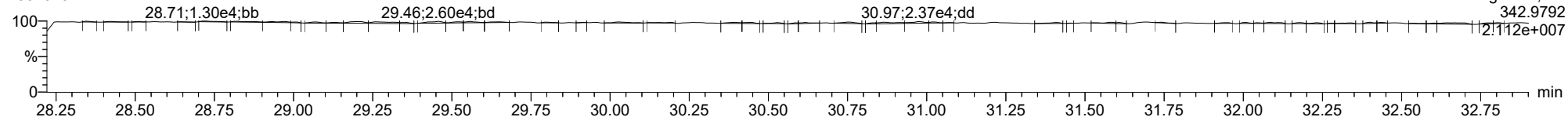
**13C-12378-PeCDD**

23020104



**FUNCTION2 PFK**

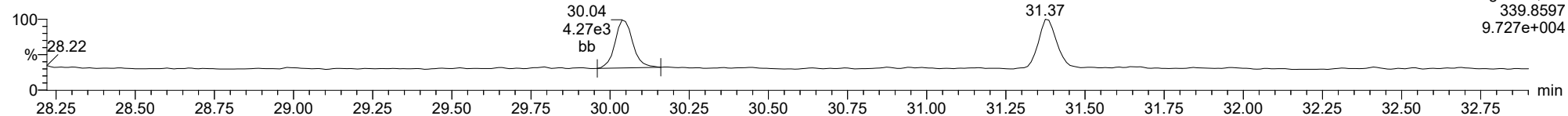
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

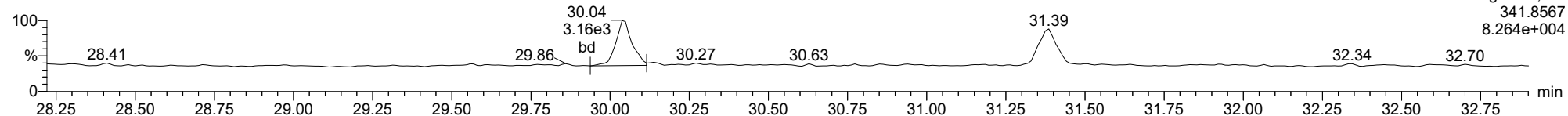
**12378-PeCDF**

23020104



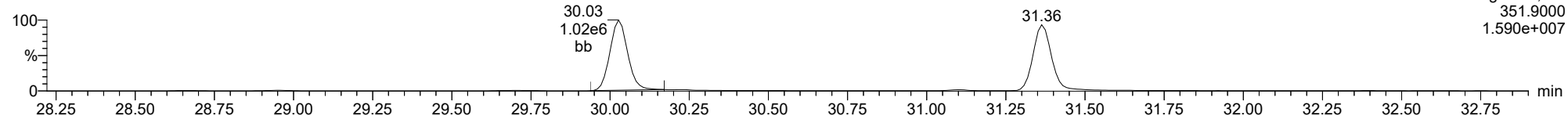
**12378-PeCDF**

23020104



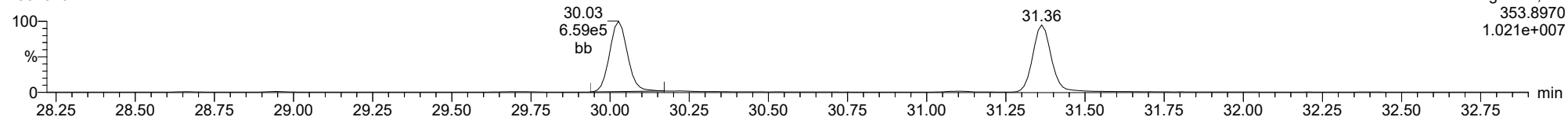
**13C-12378-PeCDF**

23020104



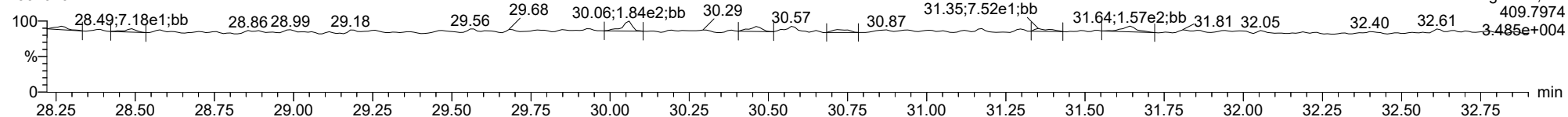
**13C-12378-PeCDF**

23020104



**FUNCTION2 HPCDPE**

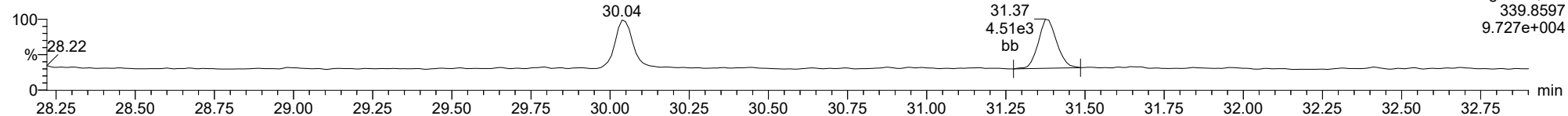
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

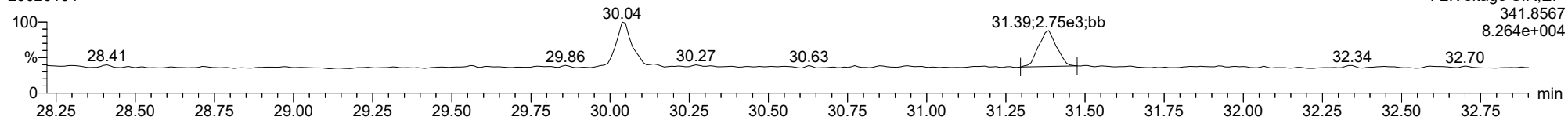
**23478-PeCDF**

23020104



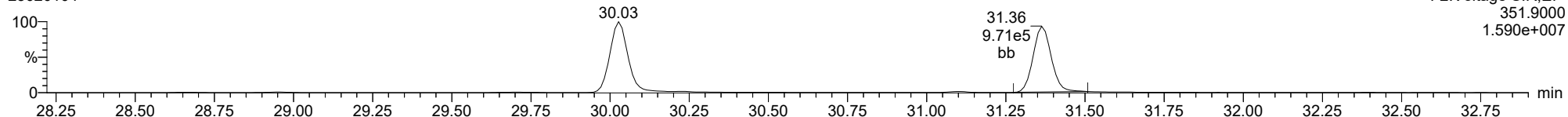
**23478-PeCDF**

23020104



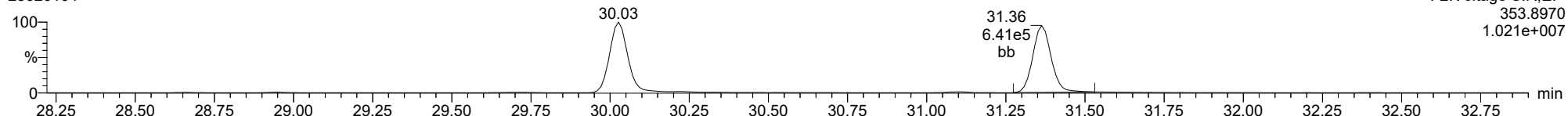
**13C-23478-PeCDF**

23020104



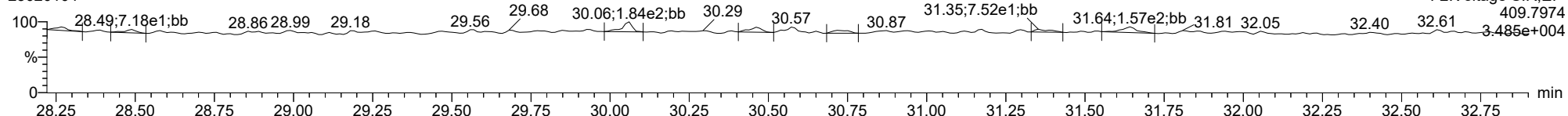
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23020104



**FUNCTION2 HPCDPE**

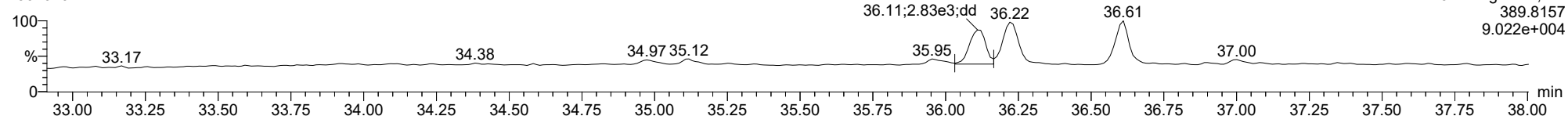
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

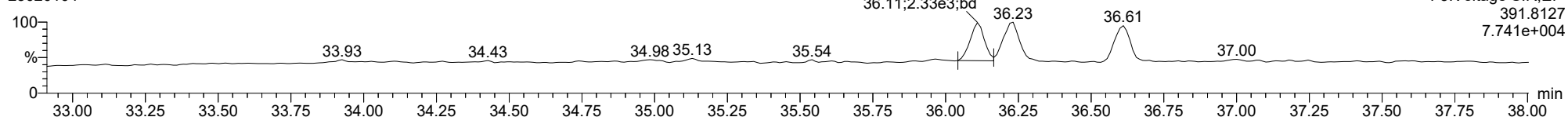
**123478-HxCDD**

23020104



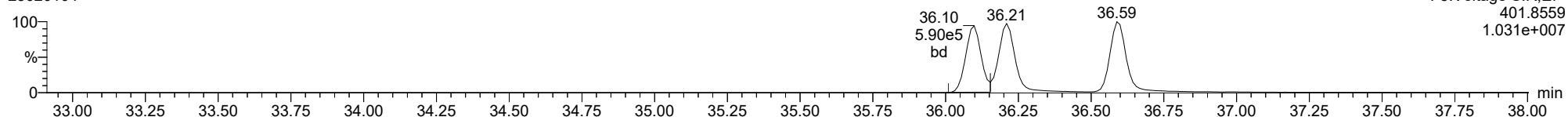
**123478-HxCDD**

23020104



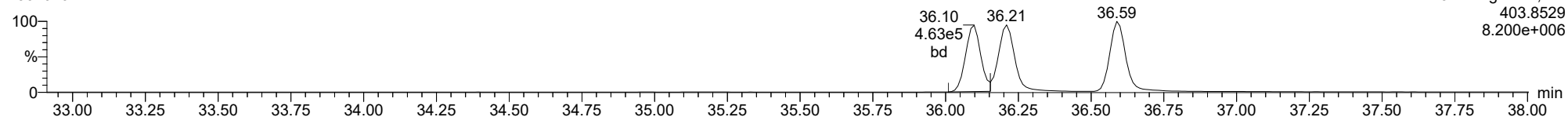
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23020104



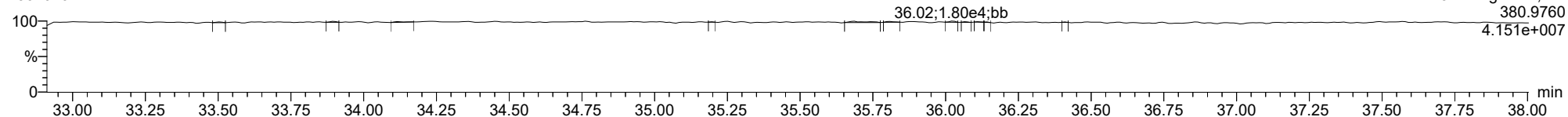
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23020104



**FUNCTION3 PFK**

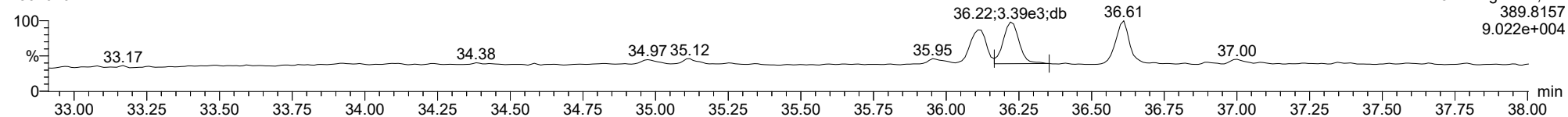
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

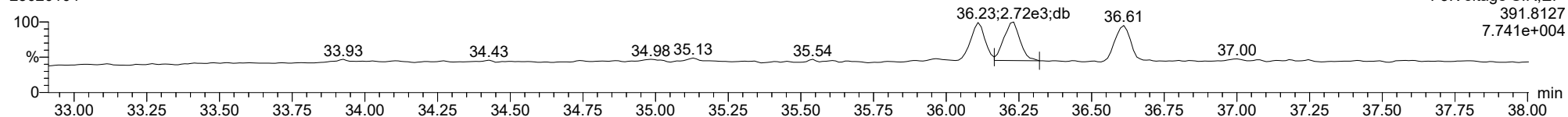
**123678-HxCDD**

23020104



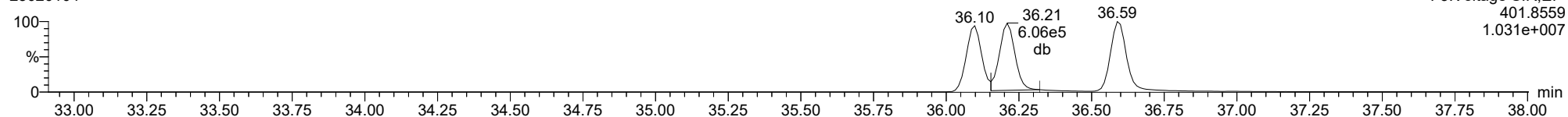
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23020104



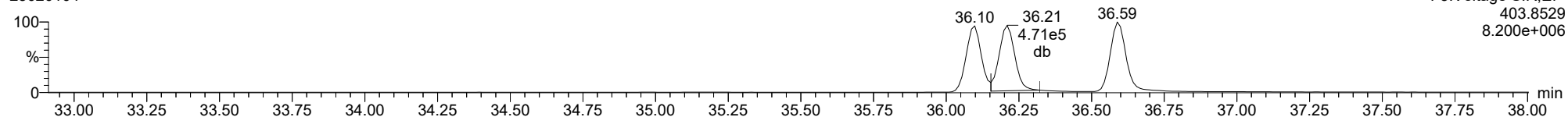
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23020104



**13C-123678-HxCDD**

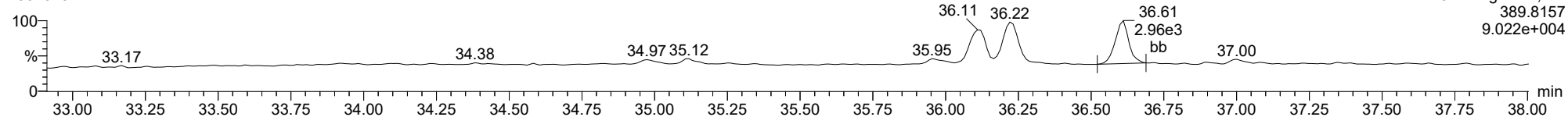
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

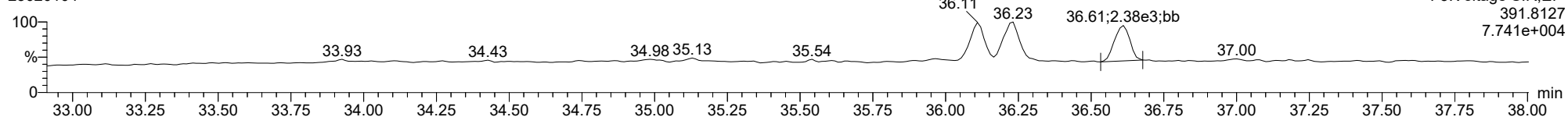
**123789-HxCDD**

23020104



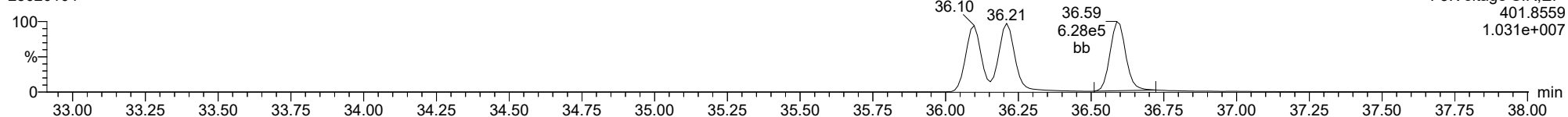
**123789-HxCDD**

23020104



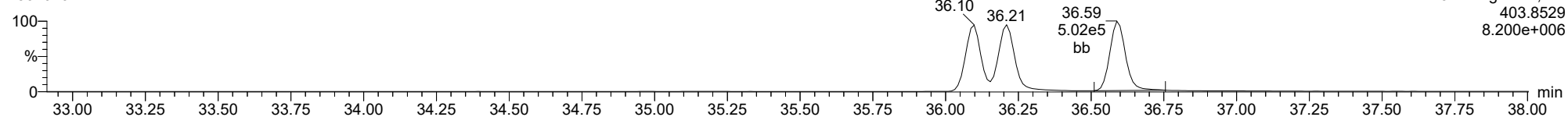
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23020104



**13C-123789-HxCDD**

23020104

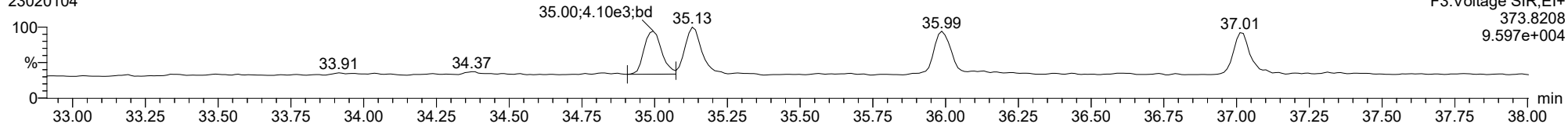




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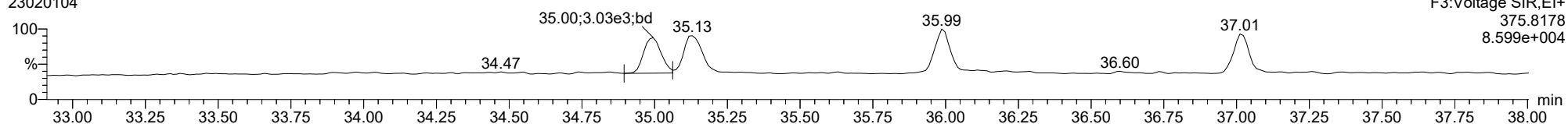
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23020104



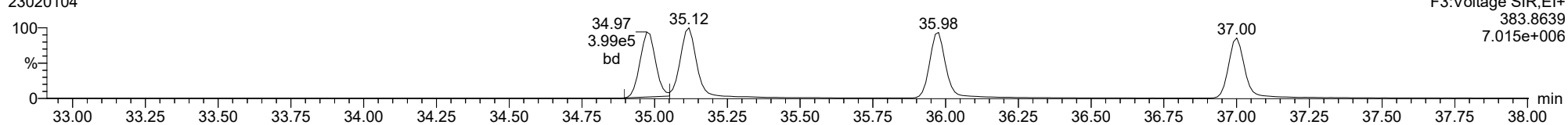
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23020104



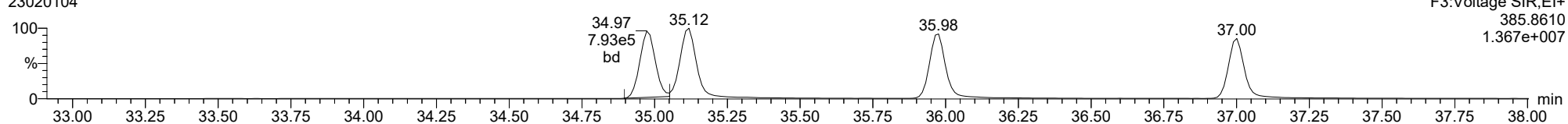
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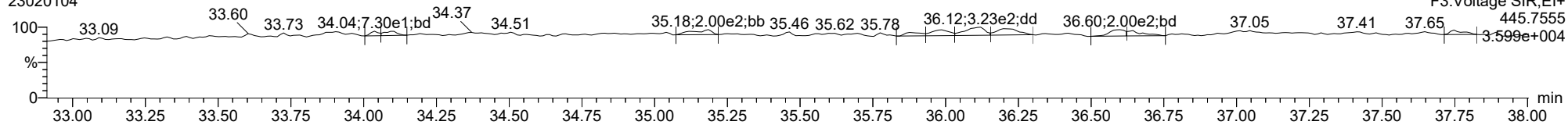
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23020104



**FUNCTION3 OCDPE**

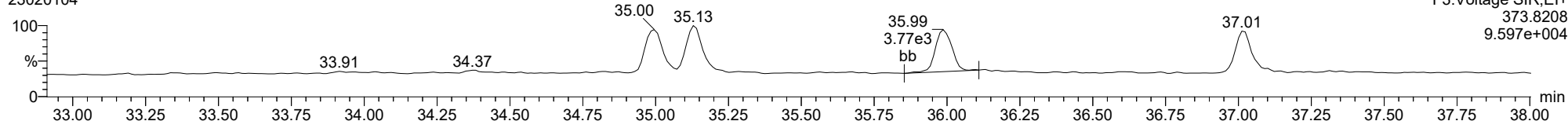
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

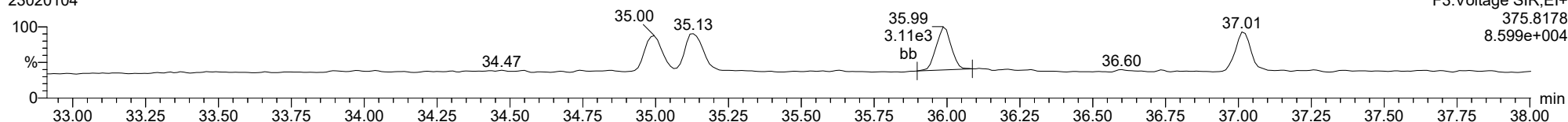
**234678-HxCDF**

23020104



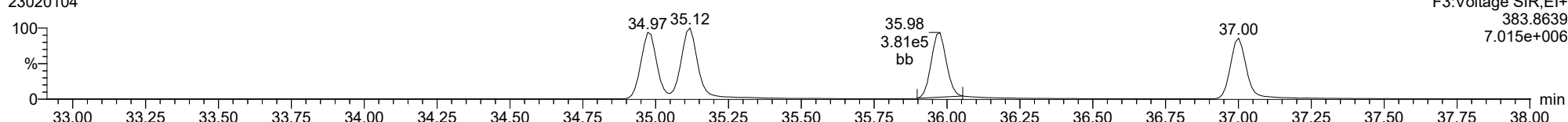
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23020104



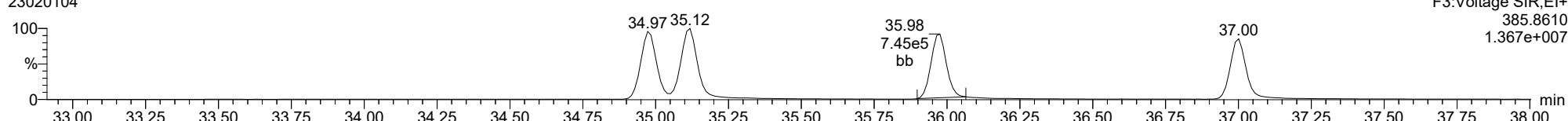
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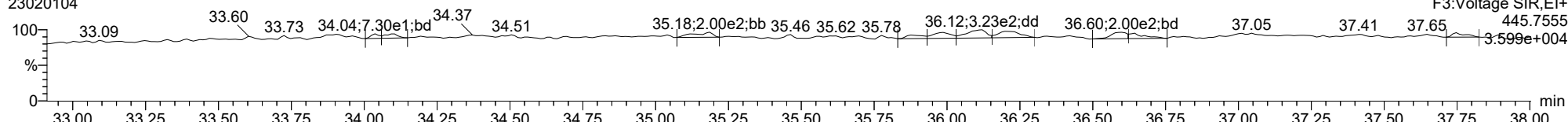
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23020104



**FUNCTION3 OCDPE**

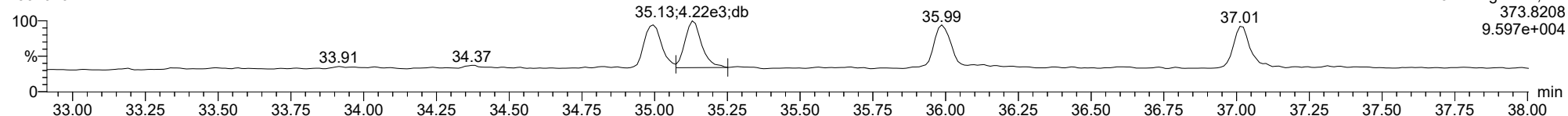
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

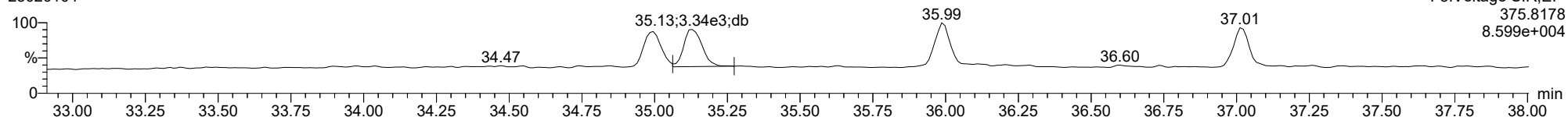
**123678-HxCDF**

23020104



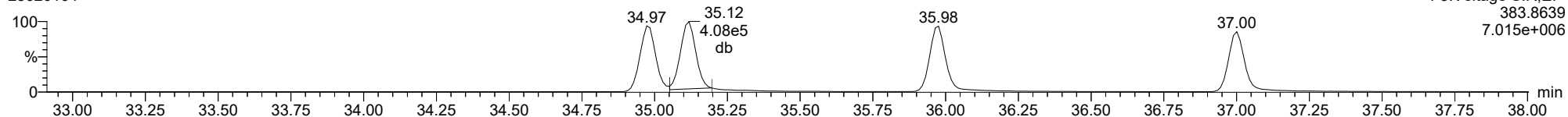
**123678-HxCDF**

23020104



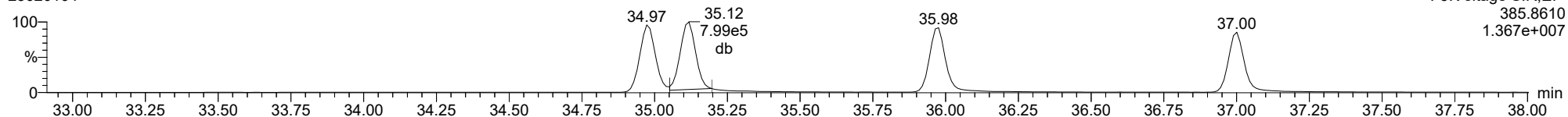
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23020104



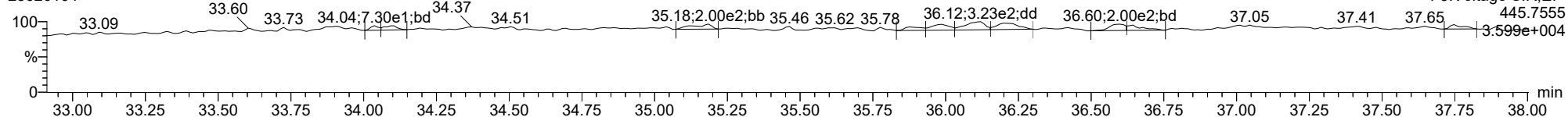
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23020104



**FUNCTION3 OCDPE**

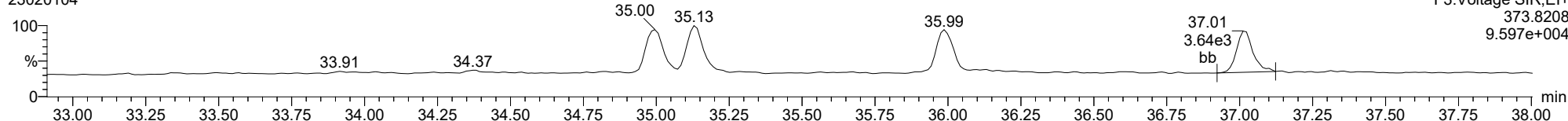
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

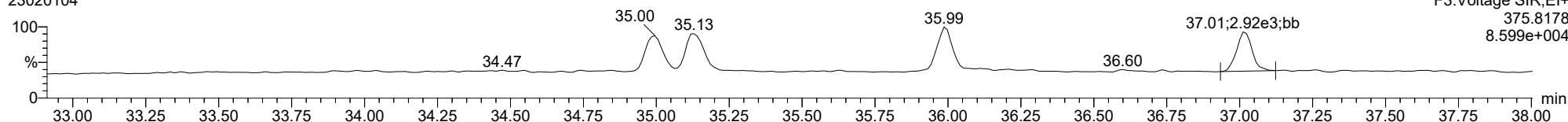
**123789-HxCDF**

23020104



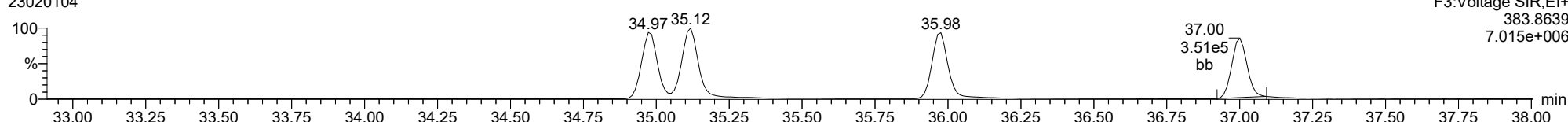
**123789-HxCDF**

23020104



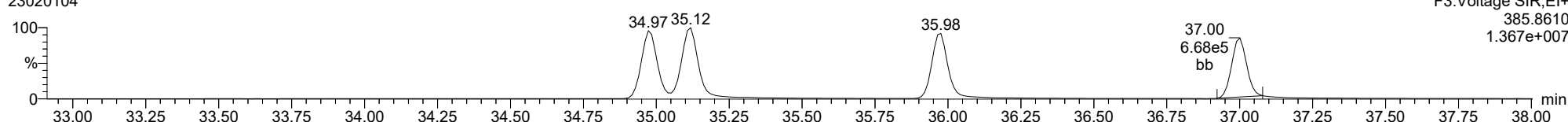
**13C-123789-HxCDF**

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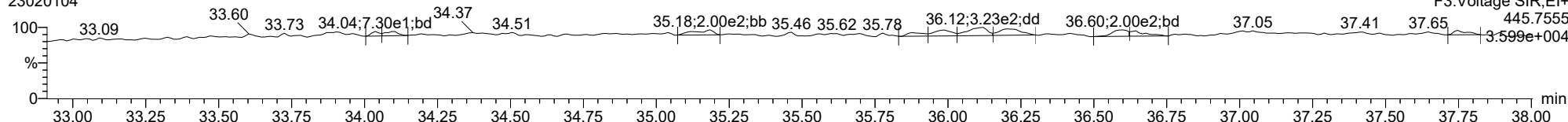
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23020104



**FUNCTION3 OCDPE**

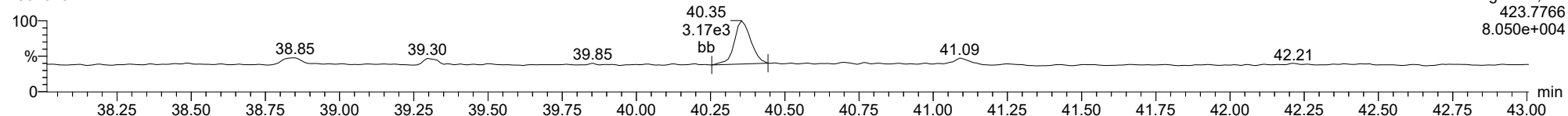
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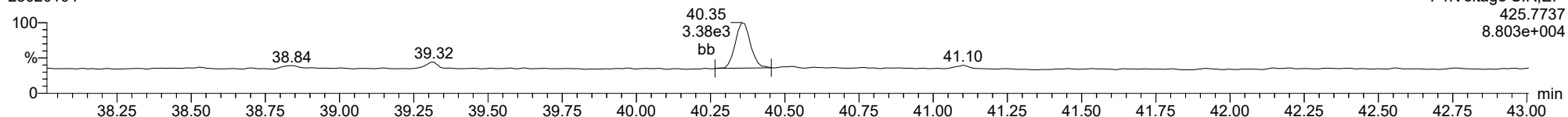
**1234678-HpCDD**

23020104



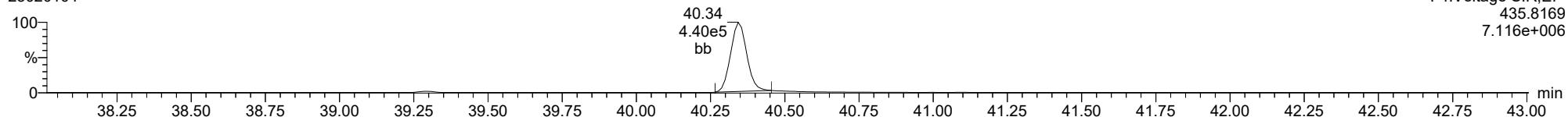
**1234678-HpCDD**

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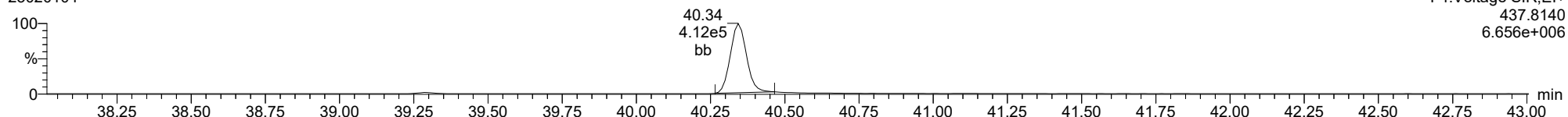
**13C-1234678-HpCDD**

23020104



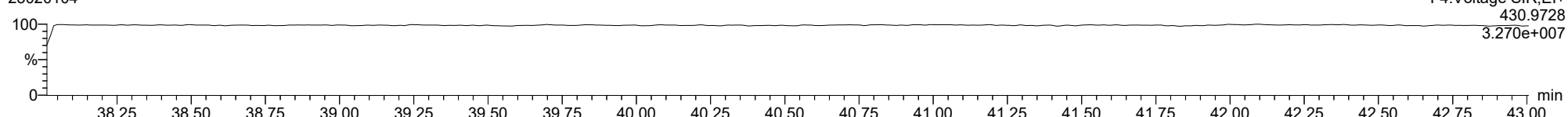
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23020104



**FUNCTION4 PFK**

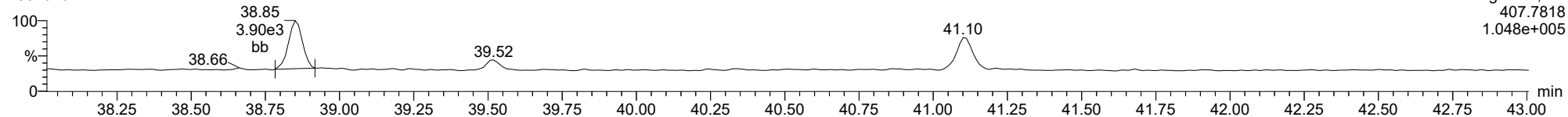
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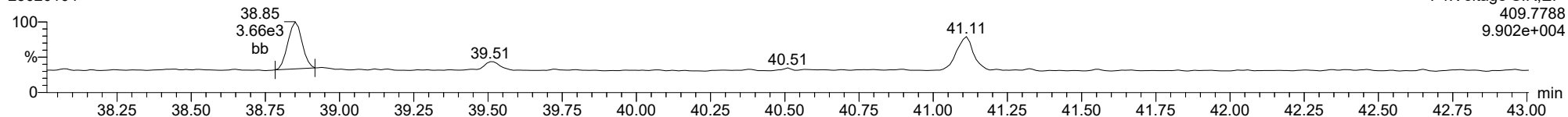
1234678-HpCDF

23020104



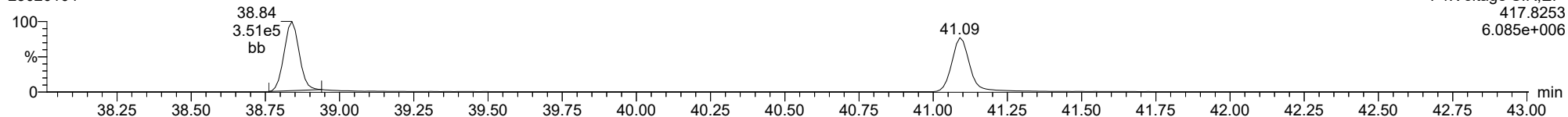
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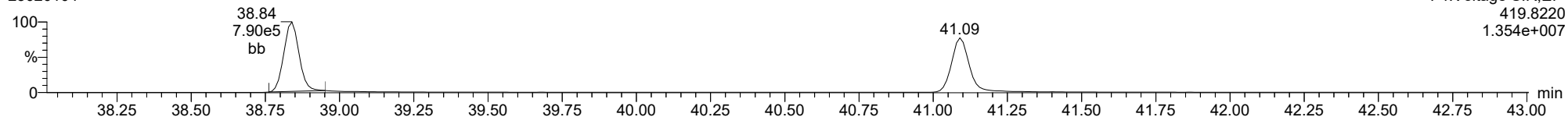
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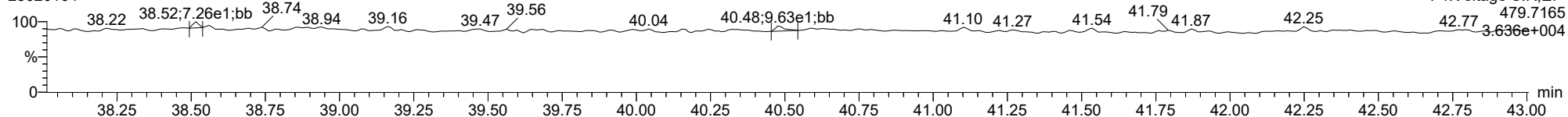
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FUNCTION4 NCDPE

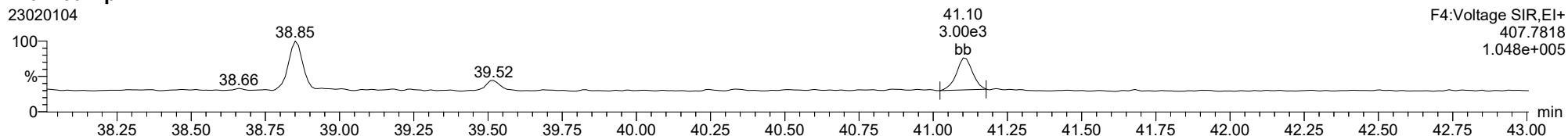
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

**1234789-HpCDF**

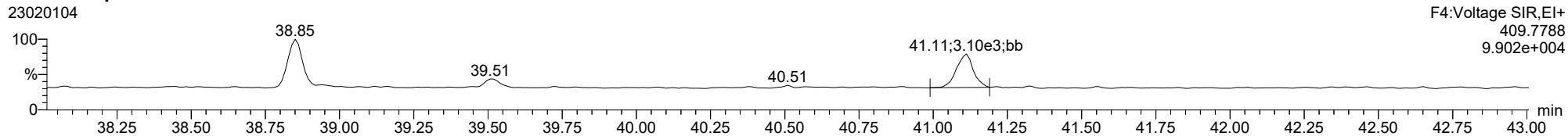
23020104



F4:Voltage SIR,EI+  
407.7818  
1.048e+005

**1234789-HpCDF**

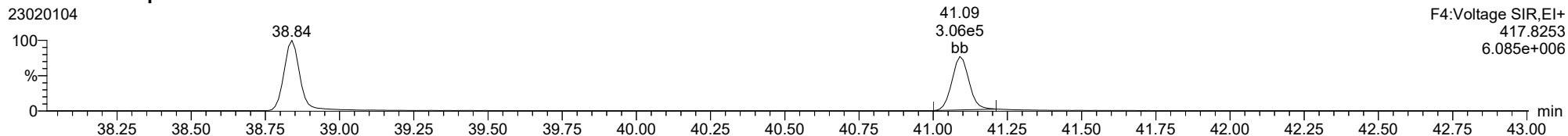
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F4:Voltage SIR,EI+  
409.7788  
9.902e+004

**13C-1234789-HpCDF**

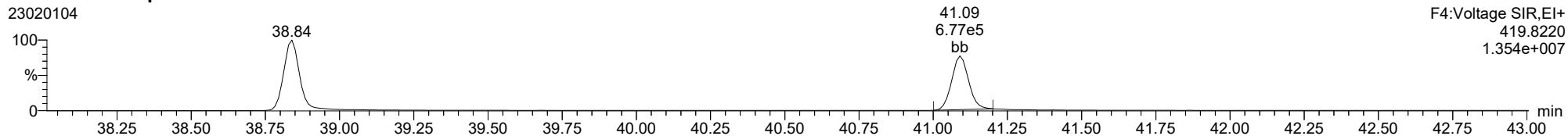
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F4:Voltage SIR,EI+  
417.8253  
6.085e+006

**13C-1234789-HpCDF**

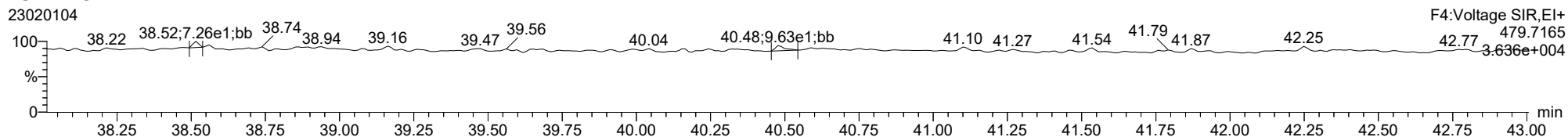
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F4:Voltage SIR,EI+  
419.8220  
1.354e+007

**FUNCTION4 NCDPE**

23020104

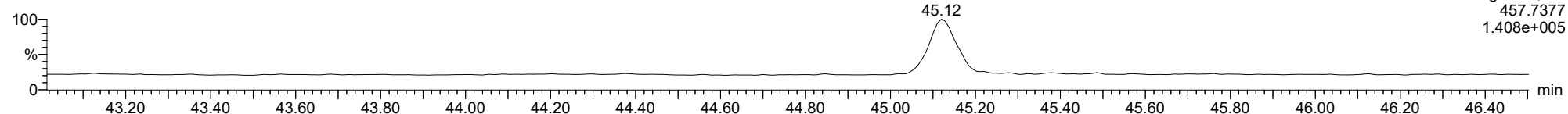


F4:Voltage SIR,EI+  
479.7165  
3.636e+004

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

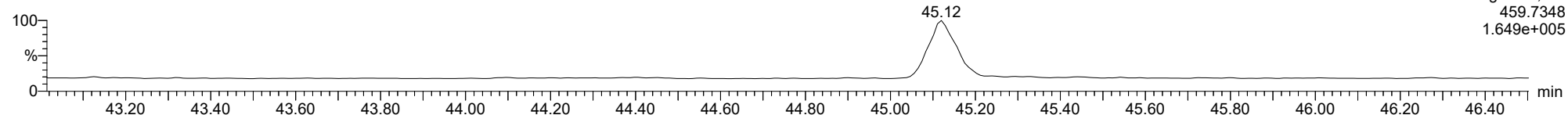
**OCDD**

23020104



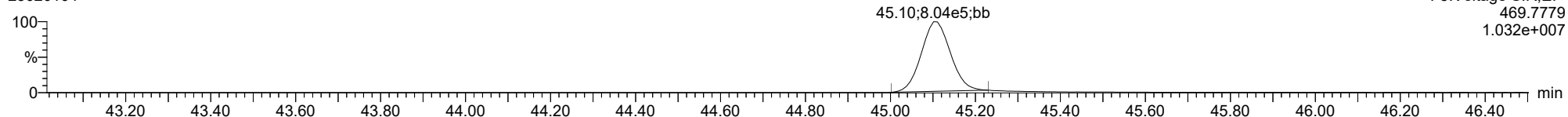
**OCDD**

23020104



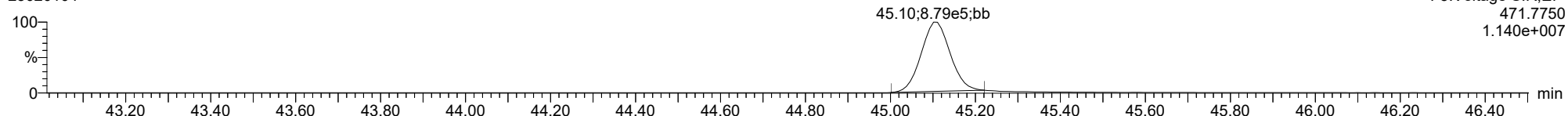
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23020104



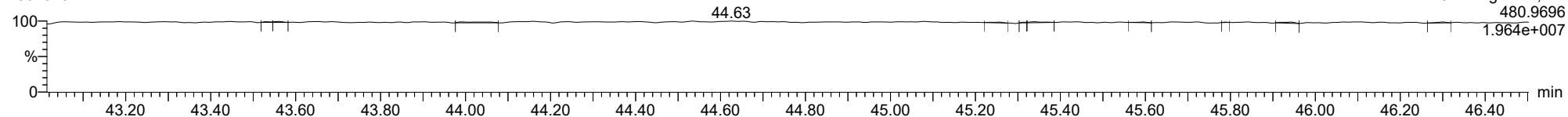
**13C-OCDD**

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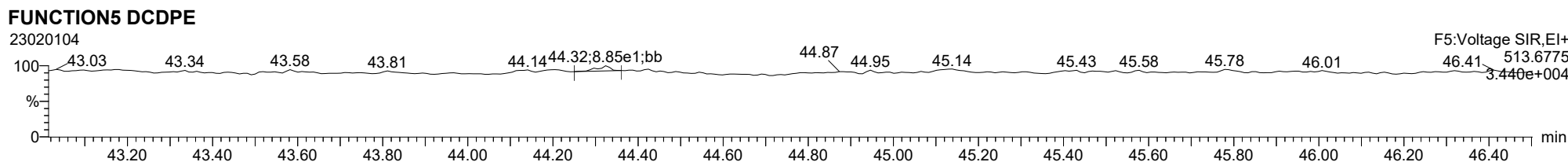
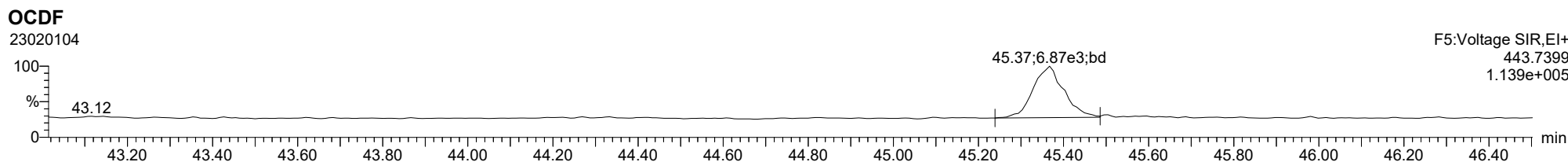
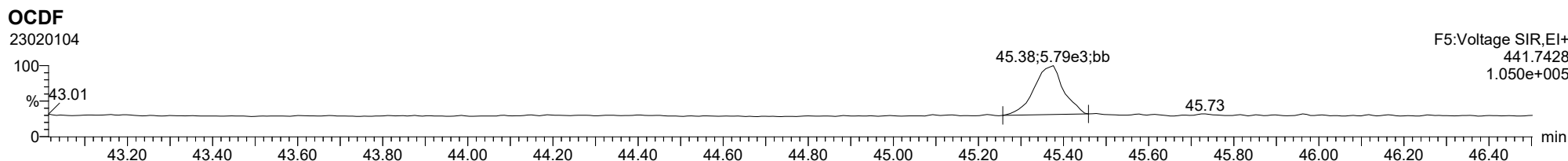
**FUNCTION5 PFK**

23020104





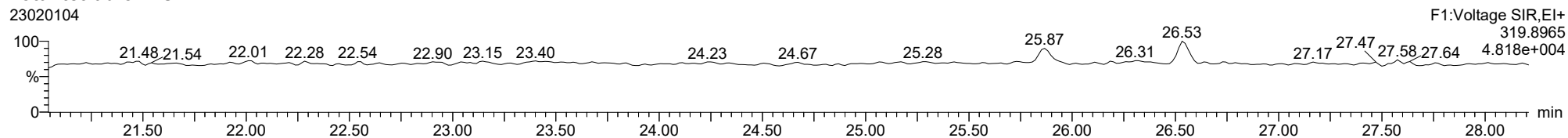
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

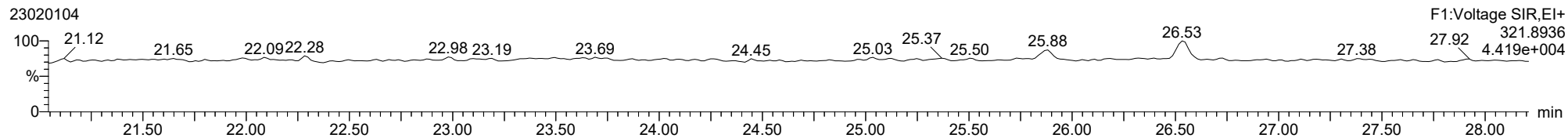
**Total-tetradoxins**

23020104



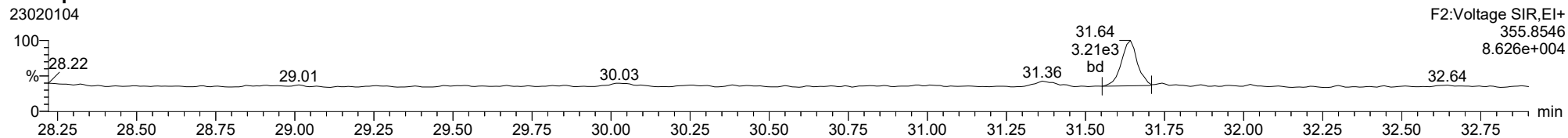
**Total-tetradoxins**

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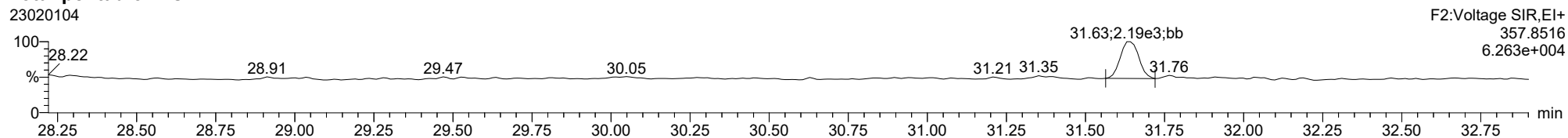
**Total-pentadoxins**

23020104



**Total-pentadoxins**

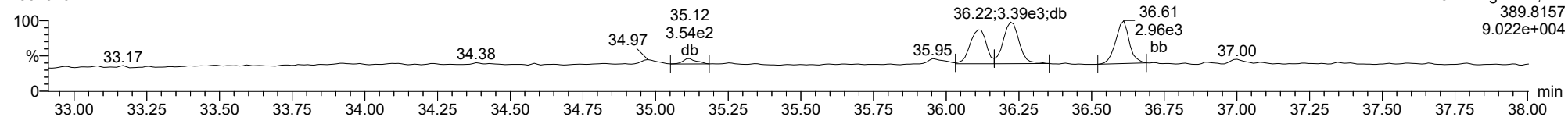
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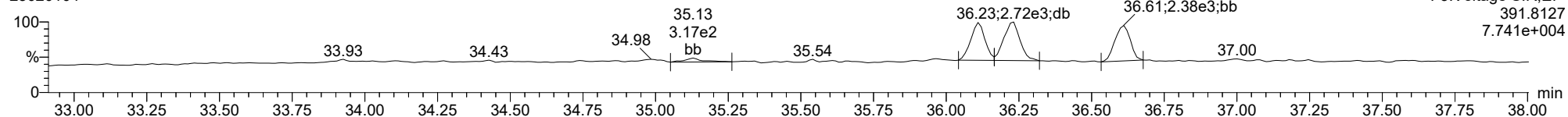
**Total-hexadioxins**

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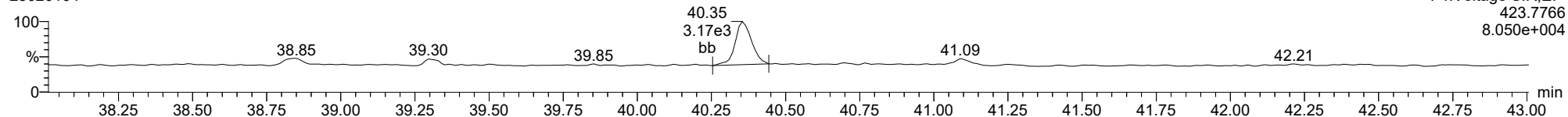
**Total-hexadioxins**

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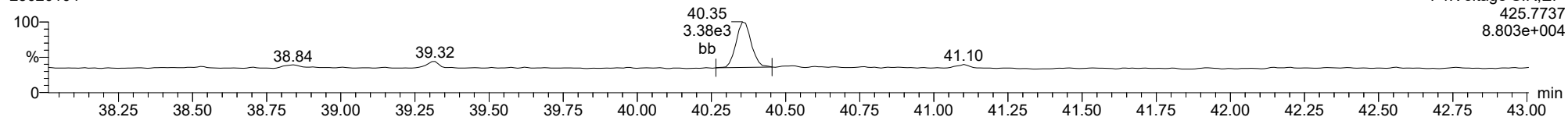
**Total-heptadioxins**

23020104



**Total-heptadioxins**

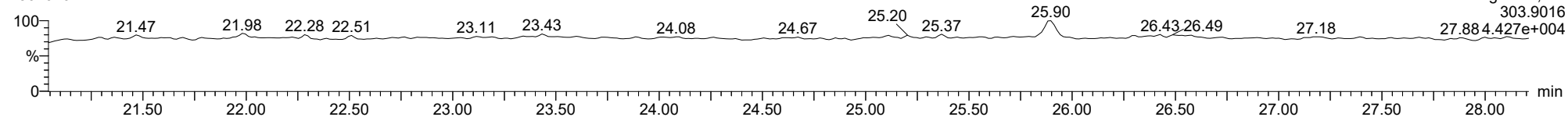
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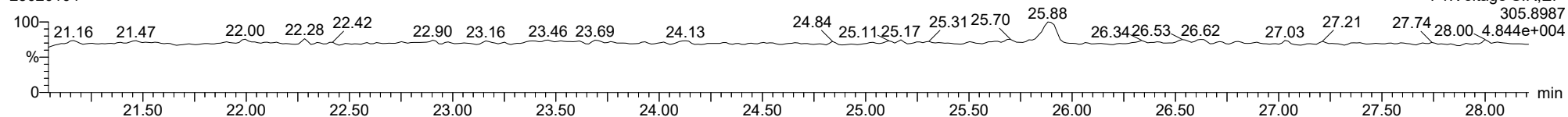
**Total-tetrafurans**

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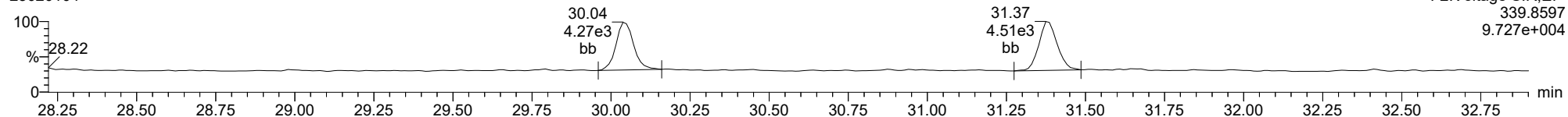
**Total-tetrafurans**

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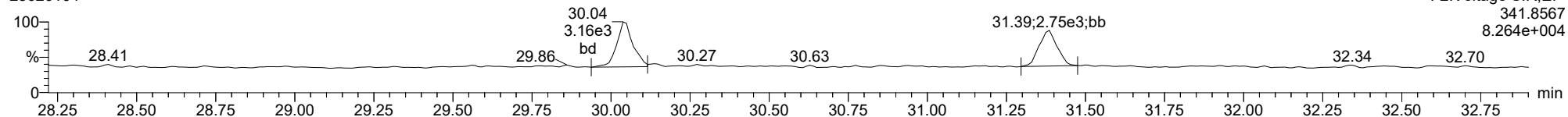
**Total-pentafurans**

23020104



**Total-pentafurans**

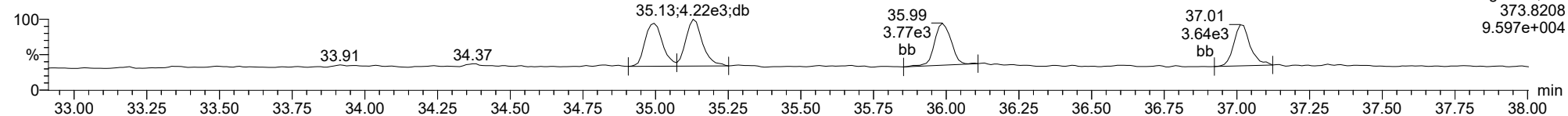
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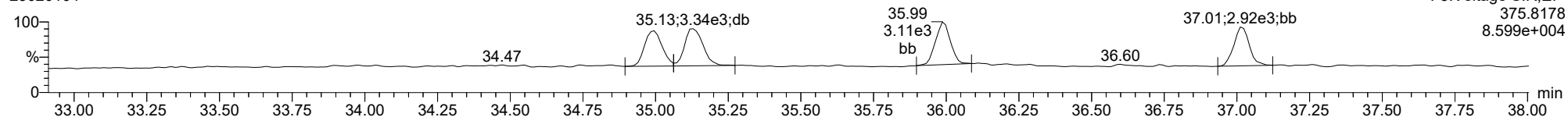
**Total-hexafurans**

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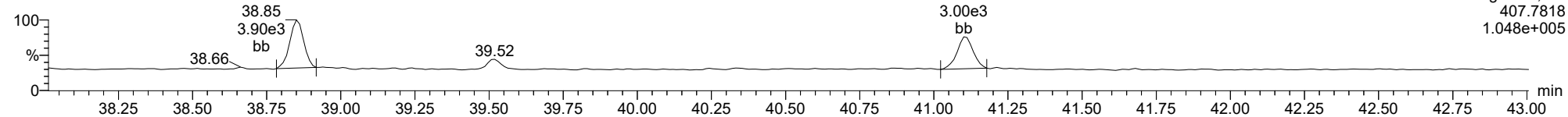
**Total-hexafurans**

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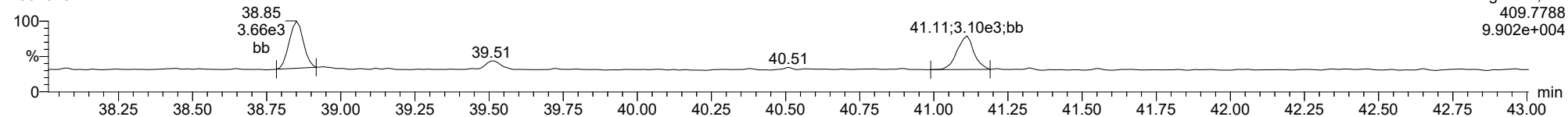
**Total-heptafurans**

23020104



**Total-heptafurans**

23020104



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131\H.mdb 03 Feb 2023 10:31:33  
 Calibration: 03 Feb 2023 10:33:40

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	3.165e3	3.812e3	0.876	0.830	0.770	851	1202	5.14e4	5.60e4	60.4	46.6	NO	db	bb	0.501
12378-PeCDF	30.048	1.000	1.657e4	1.122e4	0.845	1.477	1.550	1016	1248	2.51e5	1.73e5	247.1	138.5	NO	bb	bb	2.455
23478-PeCDF	31.385	1.000	1.669e4	1.174e4	0.911	1.422	1.550	1016	1248	2.63e5	1.81e5	259.2	145.3	NO	bb	bd	2.401
123478-HxCDF	35.006	1.001	1.544e4	1.249e4	1.182	1.236	1.240	890	1056	2.44e5	1.98e5	274.0	187.0	NO	bd	bd	2.494
234678-HxCDF	35.998	1.001	1.543e4	1.155e4	1.229	1.336	1.240	890	1056	2.60e5	1.91e5	292.0	180.6	NO	bd	bb	2.421
123678-HxCDF	35.140	1.001	1.636e4	1.318e4	1.248	1.241	1.240	890	1056	2.60e5	2.03e5	291.7	192.2	NO	dd	db	2.443
123789-HxCDF	37.023	1.000	1.293e4	1.008e4	1.187	1.282	1.240	890	1056	2.13e5	1.63e5	239.4	154.3	NO	bd	bb	2.372
1234678-HpCDF	38.861	1.000	1.439e4	1.337e4	1.204	1.077	1.050	1098	1117	2.42e5	2.23e5	220.8	199.9	NO	bb	bd	2.577
1234789-HpCDF	41.112	1.000	1.117e4	1.059e4	1.165	1.055	1.050	1098	1117	1.62e5	1.56e5	147.3	139.5	NO	bb	bb	2.411
OCDF	45.367	1.006	1.860e4	2.066e4	1.186	0.900	0.890	1237	861	2.12e5	2.52e5	171.2	292.2	NO	bb	bb	5.087
2378-TCDD	26.547	1.001	2.836e3	3.619e3	1.236	0.784	0.770	1261	742	4.26e4	5.78e4	33.8	77.9	NO	bb	bb	0.538
12378-PeCDD	31.642	1.000	1.354e4	8.892e3	1.087	1.522	1.550	1167	972	2.08e5	1.36e5	178.2	140.0	NO	bd	bd	2.535
123478-HxCDD	36.120	1.001	1.109e4	9.100e3	0.987	1.219	1.240	1079	803	1.88e5	1.54e5	174.2	191.5	NO	bd	bd	2.425
123678-HxCDD	36.232	1.000	1.193e4	1.017e4	1.021	1.173	1.240	1079	803	2.08e5	1.71e5	192.4	213.0	NO	db	dd	2.523
123789-HxCDD	36.611	1.011	1.141e4	9.550e3	0.985	1.195	1.240	1079	803	1.90e5	1.59e5	175.6	197.5	NO	bb	bd	2.499
1234678-HpCDD	40.365	1.000	1.047e4	1.022e4	1.253	1.025	1.050	924	912	1.67e5	1.57e5	180.8	172.2	NO	bb	bb	2.439
OCDD	45.129	1.000	2.025e4	2.243e4	1.103	0.903	0.890	770	1015	2.54e5	2.74e5	329.8	270.4	NO	bb	bb	5.948
13C-2378-TCDF	25.882	1.007	6.992e5	8.909e5	1.768	0.785	0.770	1890	1690	1.07e7	1.37e7	5679.3	8103.6	NO	bb	bb	99.523
13C-12378-PeCDF	30.037	1.168	8.127e5	5.274e5	1.527	1.541	1.550	2822	3217	1.25e7	8.12e6	4447.1	2523.6	NO	bb	bb	97.112
13C-23478-PeCDF	31.374	1.220	7.914e5	5.082e5	1.466	1.557	1.550	2822	3217	1.22e7	7.90e6	4335.0	2456.5	NO	bb	bb	98.086
13C-123478-HxCDF	34.984	0.956	3.203e5	6.270e5	1.054	0.511	0.510	2242	2569	5.23e6	1.03e7	2333.1	3994.8	NO	bd	bd	102.287
13C-123678-HxCDF	35.118	0.960	3.331e5	6.354e5	1.080	0.524	0.510	2242	2569	5.30e6	1.04e7	2362.3	4050.9	NO	db	db	102.033
13C-234678-HxCDF	35.975	0.983	3.012e5	6.055e5	1.014	0.497	0.510	2242	2569	5.04e6	1.01e7	2247.8	3935.5	NO	bb	bb	101.688
13C-123789-HxCDF	37.012	1.011	2.780e5	5.398e5	0.928	0.515	0.510	2242	2569	4.60e6	8.89e6	2053.4	3459.1	NO	bb	bb	100.261
13C-1234678-HpCDF	38.850	1.061	2.750e5	6.195e5	1.036	0.444	0.440	2698	3387	4.63e6	1.03e7	1714.9	3048.9	NO	bb	bb	98.218
13C-1234789-HpCDF	41.100	1.123	2.400e5	5.347e5	0.905	0.449	0.440	2698	3387	3.64e6	7.83e6	1350.8	2311.2	NO	bb	bb	97.391
13C-1234-TCDD	25.715	0.000	4.030e5	5.006e5	1.000	0.805	0.770	2070	1290	6.17e6	7.63e6	2981.3	5910.4	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.031	4.334e5	5.370e5	1.103	0.807	0.770	2070	1290	6.64e6	8.43e6	3208.6	6536.2	NO	bb	bb	97.361
13C-12378-PeCDD	31.630	1.230	5.002e5	3.141e5	0.914	1.593	1.550	1571	1429	7.70e6	4.72e6	4905.0	3303.0	NO	bb	bd	98.574
13C-123478-HxCDD	36.098	0.986	4.774e5	3.663e5	0.933	1.303	1.240	2711	2219	7.76e6	6.04e6	2862.5	2723.9	NO	bd	bd	102.880
13C-123678-HxCDD	36.221	0.990	4.780e5	3.801e5	0.965	1.258	1.240	2711	2219	7.94e6	6.30e6	2926.7	2837.8	NO	db	db	101.203
13C-1234678-HpCDD	40.354	1.103	3.494e5	3.280e5	0.782	1.065	1.050	1617	1571	5.50e6	5.16e6	3401.2	3284.5	NO	bb	bb	98.546
13C-OCDD	45.111	1.233	6.222e5	6.790e5	0.788	0.916	0.890	1719	2376	7.89e6	8.58e6	4588.0	3611.7	NO	bb	bb	187.800
13C-123789-HxCDD	36.599	0.000	4.932e5	3.858e5	1.000	1.278	1.240	2711	2219	8.15e6	6.30e6	3006.5	2840.6	NO	bb	bb	100.000
37CL-2378-TCDD	26.547	1.032	5.621e3		1.233			1648		8.22e4		49.9			bb		0.504

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	851	1202								
1289-TCDF					0.858		0.770	851	1202								
13468-PECDF					1.013		1.550	923	968								
12389-PECDF					0.844		1.550	1016	1248								
123468-HXCDF					1.197		1.240	890	1056								
1368-TCDD					1.084		0.770	1261	742								
1289-TCDD					0.975		0.770	1261	742								
12479-PECDD					1.837		1.550	1167	972								
12389-PECDD					1.252		1.550	1167	972								
124679-HXCDD					1.033		1.240	1079	803								
1234679-HPCDD					1.286		1.050	924	912								
Total-tetrafurans			3.165e3		0.933			851		5.14e4							0.501
Total-penta1			0.000e0					923		0.00e0							
Total-pentafurans			3.326e4		0.866			1016		5.14e5							4.856
Total-hexafurans			6.015e4		1.208			890		9.76e5							9.731
Total-heptafurans			2.643e4		1.185			1098		4.18e5							5.166
Total-Furans			1.416e5		1.067			851		2.17e6							25.340
Total-tetradoxins			2.907e3		1.099			1261		4.45e4							0.554
Total-pentadoxins			1.372e4		1.392			1167		2.12e5							2.561
Total-hexadoxins			3.443e4		1.007			1079		5.85e5							7.448
Total-heptadoxins			1.047e4		1.269			924		1.67e5							2.439
Total-Dioxins			8.178e4		1.165			1261		1.26e6							18.950
Total-TEQ			2.234e5					1261		3.43e6							44.290
FUNCTION1 PFK			2.400e7					626106		1.90e8							
FUNCTION2 PFK			0.000e0					236572		0.00e0							
FUNCTION3 PFK			4.302e5					501624		1.34e7							0.000
FUNCTION4 PFK			4.347e5					324457		1.19e7							
FUNCTION5 PFK			8.590e4					209539		3.93e6							
FUNCTION1 HXCD...			1.828e3					784		2.65e4							0.000
FUNCTION1 HPCD...			8.634e2					852		1.29e4							0.000
FUNCTION2 HPCD...			2.922e2					978		5.26e3							0.000
FUNCTION3 OCDPE			8.271e2					835		1.40e4							0.000
FUNCTION4 NCDPE			1.900e2					822		4.03e3							0.000
FUNCTION5 DCDPE			0.000e0					732		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**

**Calibration: 03 Feb 2023 10:33:40**

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**

**TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
2	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
2	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
3	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
4	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
2	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
3	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501
2	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
3	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455
4	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
5	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
6	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
7	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494
8	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
9	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
10	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577
11	OCDF	45.37	1.860e4	2.066e4	1.186	0.90	0.89	171.2	YES	NO	bb	bb	5.087

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
2	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadoxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
2	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
2	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
3	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradiioxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
2	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538
3	Total-pentadiioxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
4	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535
5	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
6	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
7	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425
8	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439
9	OCDD	45.13	2.025e4	2.243e4	1.103	0.90	0.89	329.8	YES	NO	bb	bb	5.948

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501
2	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
3	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455
4	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
5	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
6	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
7	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494
8	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
9	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
10	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577
11	OCDF	45.37	1.860e4	2.066e4	1.186	0.90	0.89	171.2	YES	NO	bb	bb	5.087
12	Total-tetradiioxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
13	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538
14	Total-pentadiioxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
15	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535
16	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
17	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
18	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425
19	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439
20	OCDD	45.13	2.025e4	2.243e4	1.103	0.90	0.89	329.8	YES	NO	bb	bb	5.948

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.24	1.348e6					15.3	YES		dd		
2	FUNCTION1 PFK	22.18	4.644e5					16.9	YES		dd		
3	FUNCTION1 PFK	22.16	1.313e6					16.6	YES		dd		
4	FUNCTION1 PFK	21.98	1.487e6					20.5	YES		dd		
5	FUNCTION1 PFK	21.88	1.450e6					22.1	YES		dd		
6	FUNCTION1 PFK	21.72	1.801e6					24.8	YES		dd		
7	FUNCTION1 PFK	21.60	1.955e6					26.8	YES		dd		
8	FUNCTION1 PFK	21.39	6.532e6					30.5	YES		dd		
9	FUNCTION1 PFK	21.12	3.552e6					35.4	YES		bd		
10	FUNCTION1 PFK	24.35	3.975e3					0.4	NO		bb		
11	FUNCTION1 PFK	24.08	2.445e4					0.9	NO		bb		
12	FUNCTION1 PFK	23.89	1.855e4					1.0	NO		bb		
13	FUNCTION1 PFK	23.81	2.526e4					1.3	NO		bb		
14	FUNCTION1 PFK	23.73	2.606e4					1.2	NO		db		
15	FUNCTION1 PFK	23.63	3.953e4					0.9	NO		bd		
16	FUNCTION1 PFK	23.40	1.725e4					0.8	NO		db		
17	FUNCTION1 PFK	23.36	2.281e4					0.8	NO		bd		
18	FUNCTION1 PFK	23.28	4.142e4					1.3	NO		bb		
19	FUNCTION1 PFK	23.08	3.989e4					1.2	NO		db		
20	FUNCTION1 PFK	23.01	5.719e4					2.6	NO		dd		
21	FUNCTION1 PFK	22.78	6.498e5					6.6	YES		dd		
22	FUNCTION1 PFK	22.62	7.070e5					9.1	YES		dd		
23	FUNCTION1 PFK	22.51	7.554e5					10.8	YES		dd		
24	FUNCTION1 PFK	22.43	4.428e5					12.6	YES		dd		
25	FUNCTION1 PFK	22.39	4.834e5					13.1	YES		dd		
26	FUNCTION1 PFK	26.44	1.834e4					0.9	NO		bb		
27	FUNCTION1 PFK	26.31	1.630e4					0.8	NO		db		
28	FUNCTION1 PFK	26.24	2.476e4					1.0	NO		bd		
29	FUNCTION1 PFK	26.17	2.817e4					1.0	NO		bb		
30	FUNCTION1 PFK	26.03	3.473e4					1.3	NO		db		
31	FUNCTION1 PFK	25.97	2.971e4					1.1	NO		dd		
32	FUNCTION1 PFK	25.90	2.965e4					1.4	NO		bd		
33	FUNCTION1 PFK	25.84	6.319e3					0.7	NO		bb		
34	FUNCTION1 PFK	25.76	2.805e4					1.0	NO		db		
35	FUNCTION1 PFK	25.69	1.550e4					0.7	NO		bd		
36	FUNCTION1 PFK	25.43	1.865e4					0.8	NO		bb		
37	FUNCTION1 PFK	25.29	2.496e4					1.2	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	25.16	1.218e4					0.7	NO		bb		
39	FUNCTION1 PFK	24.90	4.251e4					1.2	NO		bb		
40	FUNCTION1 PFK	24.82	9.911e3					0.6	NO		bb		
41	FUNCTION1 PFK	24.70	1.084e4					0.7	NO		bb		
42	FUNCTION1 PFK	28.13	1.191e4					0.5	NO		bb		
43	FUNCTION1 PFK	28.06	1.157e4					0.7	NO		bb		
44	FUNCTION1 PFK	27.94	2.880e4					1.2	NO		bb		
45	FUNCTION1 PFK	27.73	2.725e4					1.2	NO		db		
46	FUNCTION1 PFK	27.65	2.104e4					0.9	NO		bd		
47	FUNCTION1 PFK	27.53	9.466e3					0.5	NO		bb		
48	FUNCTION1 PFK	27.45	2.859e4					0.9	NO		db		
49	FUNCTION1 PFK	27.32	3.854e4					1.1	NO		bd		
50	FUNCTION1 PFK	27.18	2.011e4					0.9	NO		db		
51	FUNCTION1 PFK	27.11	5.101e4					1.6	NO		dd		
52	FUNCTION1 PFK	27.05	7.101e4					1.7	NO		dd		
53	FUNCTION1 PFK	26.97	2.738e4					1.1	NO		bd		
54	FUNCTION1 PFK	26.85	5.698e3					0.5	NO		bb		
55	FUNCTION1 PFK	26.79	9.173e3					0.6	NO		bb		
56	FUNCTION1 PFK	26.65	1.932e4					1.0	NO		bb		
57	FUNCTION1 PFK	26.50	1.249e4					0.8	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.28	1.720e4					1.2	NO		bb		0.000
2	FUNCTION3 PFK	35.17	3.494e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	35.02	1.498e4					0.7	NO		bb		0.000
4	FUNCTION3 PFK	34.97	2.068e4					1.6	NO		db		0.000
5	FUNCTION3 PFK	34.92	3.898e4					1.7	NO		bd		0.000
6	FUNCTION3 PFK	34.84	3.344e4					2.0	NO		db		0.000
7	FUNCTION3 PFK	34.79	4.044e4					2.0	NO		bd		0.000
8	FUNCTION3 PFK	34.56	1.848e4					1.0	NO		bb		0.000
9	FUNCTION3 PFK	34.43	3.131e3					0.6	NO		bb		0.000
10	FUNCTION3 PFK	33.97	1.059e4					1.1	NO		bb		0.000
11	FUNCTION3 PFK	33.91	7.198e3					0.6	NO		bb		0.000
12	FUNCTION3 PFK	33.77	2.029e4					1.1	NO		bb		0.000
13	FUNCTION3 PFK	33.51	2.578e4					1.1	NO		bb		0.000
14	FUNCTION3 PFK	33.23	2.194e3					0.4	NO		bb		0.000
15	FUNCTION3 PFK	37.66	2.055e4					1.5	NO		db		0.000
16	FUNCTION3 PFK	37.61	1.552e4					1.3	NO		bd		0.000
17	FUNCTION3 PFK	37.55	2.721e4					1.4	NO		bb		0.000
18	FUNCTION3 PFK	37.30	3.274e4					1.5	NO		bb		0.000
19	FUNCTION3 PFK	36.81	9.296e3					0.9	NO		bb		0.000
20	FUNCTION3 PFK	36.47	5.665e3					0.6	NO		bb		0.000
21	FUNCTION3 PFK	36.37	1.213e4					0.9	NO		bb		0.000
22	FUNCTION3 PFK	35.99	5.368e3					0.6	NO		bb		0.000
23	FUNCTION3 PFK	35.72	2.308e3					0.4	NO		bb		0.000
24	FUNCTION3 PFK	35.61	2.395e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	35.56	8.733e3					0.7	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.48	1.749e3					0.5	NO		bb		
2	FUNCTION4 PFK	38.35	9.022e3					0.9	NO		bb		
3	FUNCTION4 PFK	38.24	3.875e3					0.6	NO		bb		
4	FUNCTION4 PFK	38.13	2.737e4					1.8	NO		bb		
5	FUNCTION4 PFK	41.33	1.294e4					1.5	NO		bd		
6	FUNCTION4 PFK	41.23	4.010e4					1.6	NO		db		
7	FUNCTION4 PFK	41.09	3.801e4					1.9	NO		bd		
8	FUNCTION4 PFK	40.99	2.136e4					1.8	NO		bb		
9	FUNCTION4 PFK	40.59	8.289e3					0.7	NO		bb		
10	FUNCTION4 PFK	40.23	3.985e3					0.6	NO		bb		
11	FUNCTION4 PFK	39.88	1.184e3					0.3	NO		bb		
12	FUNCTION4 PFK	39.83	1.945e3					0.5	NO		bb		
13	FUNCTION4 PFK	39.52	8.163e3					1.0	NO		bb		
14	FUNCTION4 PFK	39.21	1.232e3					0.3	NO		bb		
15	FUNCTION4 PFK	39.07	1.853e4					1.3	NO		db		
16	FUNCTION4 PFK	38.94	5.337e4					2.0	NO		dd		
17	FUNCTION4 PFK	38.87	1.627e4					1.6	NO		dd		
18	FUNCTION4 PFK	38.84	1.863e4					1.8	NO		bd		
19	FUNCTION4 PFK	38.69	3.030e4					2.1	NO		bb		
20	FUNCTION4 PFK	38.54	2.688e3					0.5	NO		bb		
21	FUNCTION4 PFK	42.75	7.635e3					1.1	NO		bb		
22	FUNCTION4 PFK	42.65	3.824e3					0.5	NO		db		
23	FUNCTION4 PFK	42.62	3.380e3					0.6	NO		bd		
24	FUNCTION4 PFK	42.55	8.483e3					1.1	NO		bb		
25	FUNCTION4 PFK	42.45	5.962e3					0.8	NO		db		
26	FUNCTION4 PFK	42.40	5.418e3					0.7	NO		bd		
27	FUNCTION4 PFK	42.27	7.694e3					0.9	NO		bb		
28	FUNCTION4 PFK	42.10	9.463e3					1.2	NO		db		
29	FUNCTION4 PFK	42.05	1.039e4					1.1	NO		bd		
30	FUNCTION4 PFK	41.81	3.060e3					0.9	NO		bb		
31	FUNCTION4 PFK	41.77	4.237e3					0.7	NO		bb		
32	FUNCTION4 PFK	41.71	3.440e3					0.6	NO		bb		
33	FUNCTION4 PFK	41.67	1.592e3					0.4	NO		bb		
34	FUNCTION4 PFK	41.57	2.688e4					1.3	NO		bb		
35	FUNCTION4 PFK	41.37	1.425e4					1.5	NO		db		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.31	4.706e3					1.2	NO		bb		
2	FUNCTION5 PFK	46.25	4.425e3					1.1	NO		bb		
3	FUNCTION5 PFK	46.16	2.646e3					0.9	NO		bb		
4	FUNCTION5 PFK	46.03	5.117e3					1.5	NO		db		
5	FUNCTION5 PFK	46.01	6.487e3					1.4	NO		bd		
6	FUNCTION5 PFK	45.67	8.229e3					1.3	NO		bb		
7	FUNCTION5 PFK	45.46	1.002e3					0.5	NO		bb		
8	FUNCTION5 PFK	45.18	2.741e3					0.8	NO		db		
9	FUNCTION5 PFK	45.15	2.119e3					0.7	NO		bd		
10	FUNCTION5 PFK	44.83	3.811e3					1.2	NO		bb		
11	FUNCTION5 PFK	44.20	1.148e4					1.5	NO		bb		
12	FUNCTION5 PFK	44.06	5.518e3					1.3	NO		bb		
13	FUNCTION5 PFK	44.02	1.106e3					0.6	NO		bb		
14	FUNCTION5 PFK	43.71	1.195e4					1.8	NO		bb		
15	FUNCTION5 PFK	43.46	1.476e3					0.8	NO		bb		
16	FUNCTION5 PFK	43.39	1.169e4					1.4	NO		bb		
17	FUNCTION5 PFK	46.43	1.400e3					0.7	NO		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.97	1.637e2					3.3	YES		bb		0.000
2	FUNCTION1 HXCD...	27.23	1.144e2					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	26.82	1.144e2					2.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.91	1.100e2					2.2	NO		bb		0.000
5	FUNCTION1 HXCD...	25.23	1.805e2					5.5	YES		bb		0.000
6	FUNCTION1 HXCD...	24.26	1.341e2					2.3	NO		bb		0.000
7	FUNCTION1 HXCD...	24.08	1.268e2					1.9	NO		bb		0.000
8	FUNCTION1 HXCD...	23.43	1.602e2					2.4	NO		bb		0.000
9	FUNCTION1 HXCD...	22.78	1.018e2					1.8	NO		bb		0.000
10	FUNCTION1 HXCD...	22.39	1.626e2					2.8	NO		bb		0.000
11	FUNCTION1 HXCD...	22.06	1.129e2					2.5	NO		bb		0.000
12	FUNCTION1 HXCD...	21.53	1.052e2					1.2	NO		db		0.000
13	FUNCTION1 HXCD...	21.36	9.992e1					1.3	NO		bd		0.000
14	FUNCTION1 HXCD...	21.16	1.410e2					2.5	NO		bb		0.000

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	28.16	7.208e1					2.1	NO		bb		0.000
2	FUNCTION1 HPCD...	27.42	1.038e2					2.0	NO		db		0.000
3	FUNCTION1 HPCD...	27.27	1.034e2					2.2	NO		bd		0.000
4	FUNCTION1 HPCD...	25.70	1.308e2					1.7	NO		bb		0.000
5	FUNCTION1 HPCD...	24.05	1.613e2					1.7	NO		bb		0.000
6	FUNCTION1 HPCD...	22.59	1.423e2					2.0	NO		bb		0.000
7	FUNCTION1 HPCD...	22.39	1.496e2					3.4	YES		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.14	1.080e2					1.8	NO		db		0.000
2	FUNCTION2 HPCD...	30.05	1.026e2					1.8	NO		bd		0.000
3	FUNCTION2 HPCD...	28.74	8.165e1					1.9	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.11	9.641e1					2.4	NO		db		0.000
2	FUNCTION3 OCDPE	36.03	1.029e2					1.5	NO		bd		0.000
3	FUNCTION3 OCDPE	34.77	8.096e1					1.2	NO		bb		0.000
4	FUNCTION3 OCDPE	37.01	1.018e2					2.8	NO		bb		0.000
5	FUNCTION3 OCDPE	36.73	1.470e2					3.1	YES		bb		0.000
6	FUNCTION3 OCDPE	36.60	1.766e2					3.1	YES		bb		0.000
7	FUNCTION3 OCDPE	36.22	1.214e2					2.7	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.34	9.946e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	39.96	9.057e1					2.5	NO		bb		0.000

**ETHERS6**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

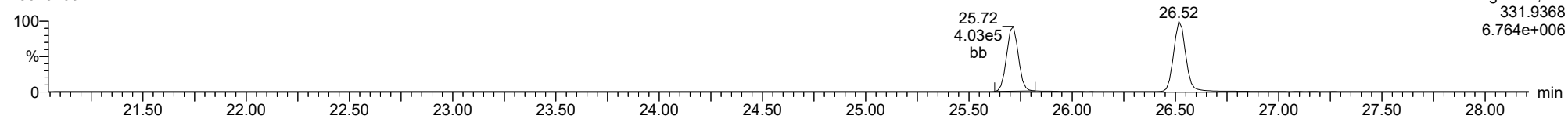


**Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**

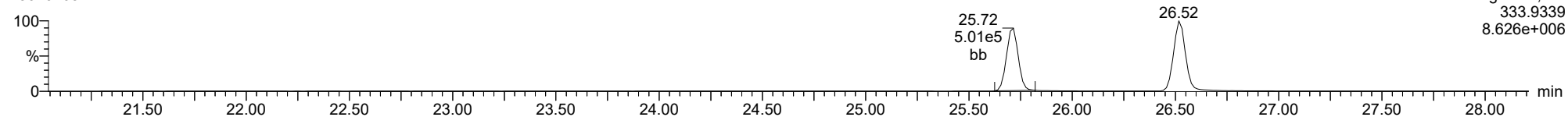
**13C-1234-TCDD**

23020105



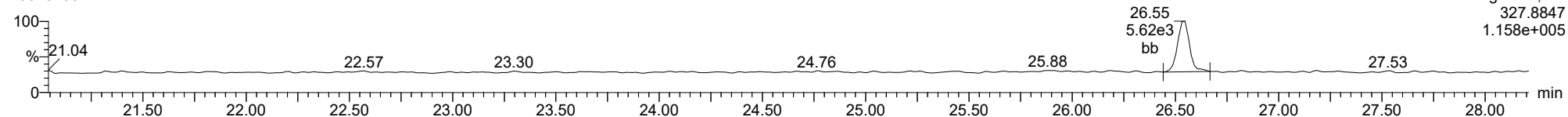
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23020105



**37CL-2378-TCDD**

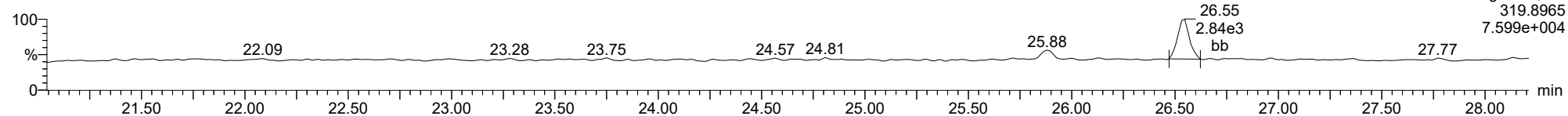
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

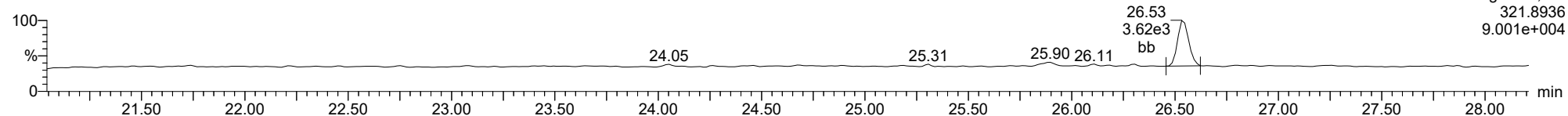
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23020105



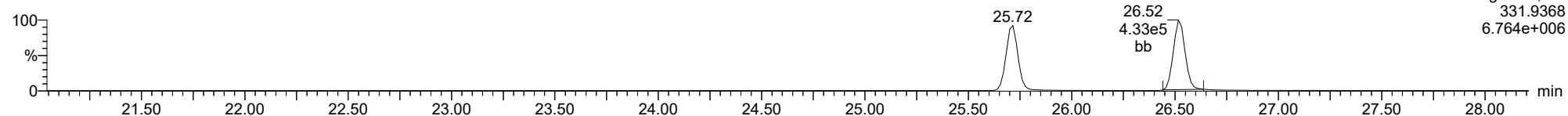
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23020105



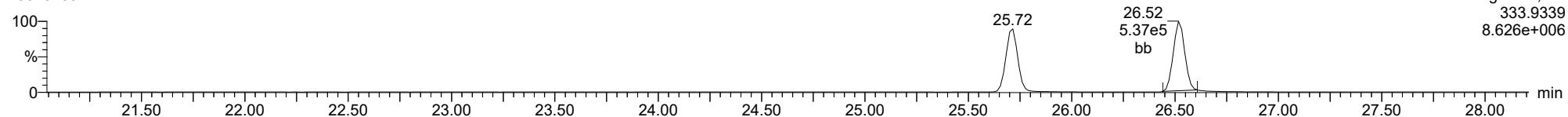
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23020105



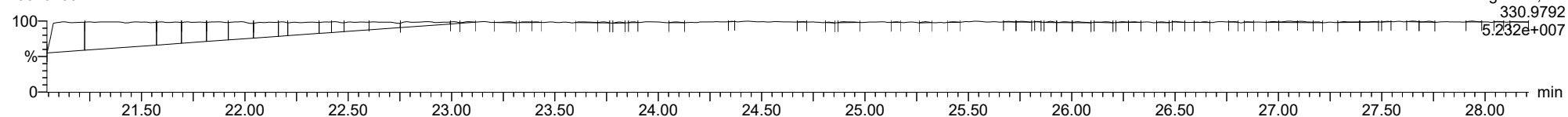
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23020105



**FUNCTION1 PFK**

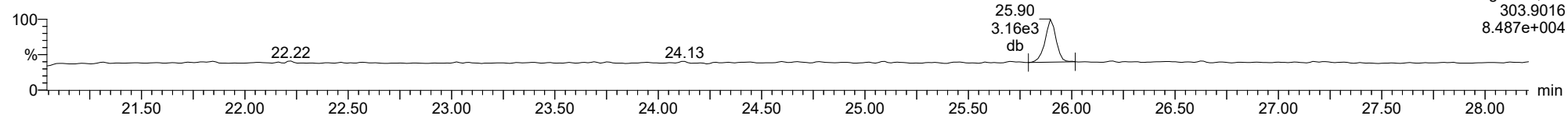
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

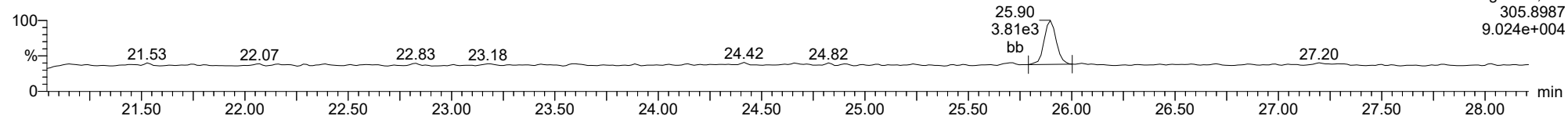
**2378-TCDF**

23020105



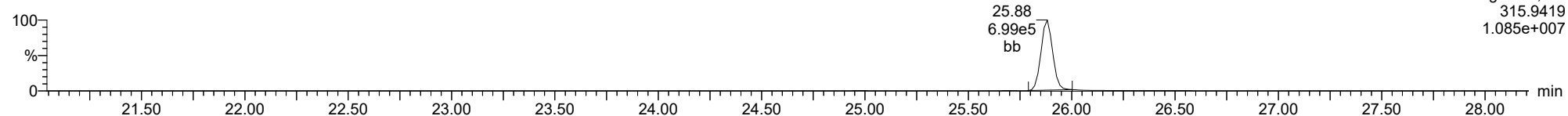
**2378-TCDF**

23020105



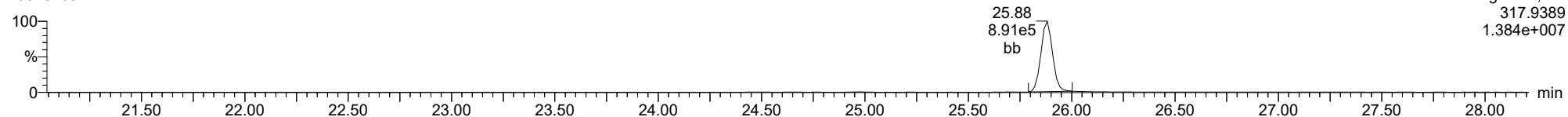
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23020105



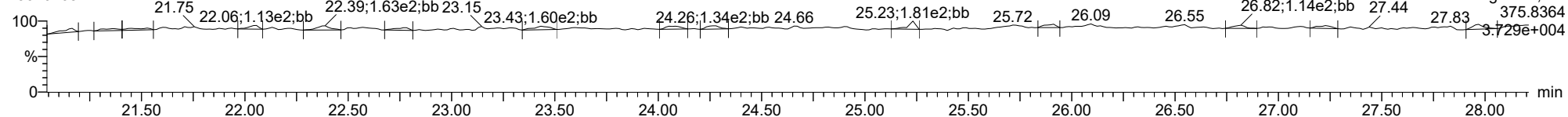
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23020105



**FUNCTION1 HXCDFE**

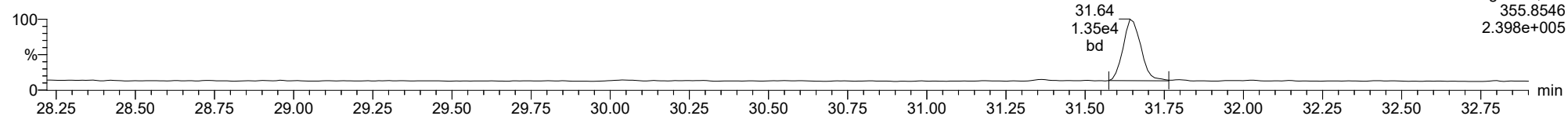
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

**12378-PeCDD**

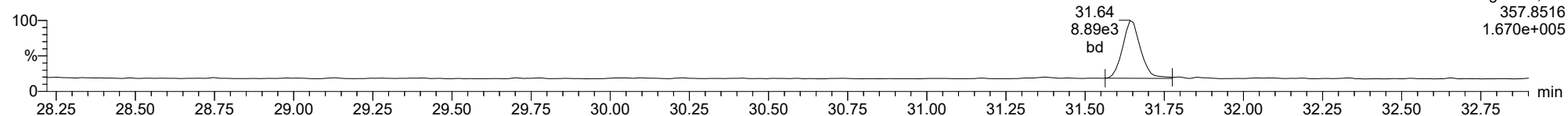
23020105



F2:Voltage SIR,EI+  
355.8546  
2.398e+005

**12378-PeCDD**

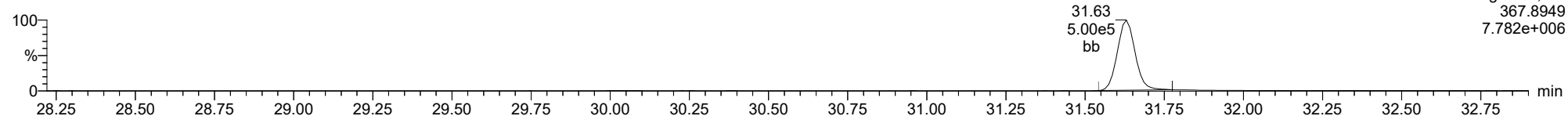
23020105



F2:Voltage SIR,EI+  
357.8516  
1.670e+005

**13C-12378-PeCDD**

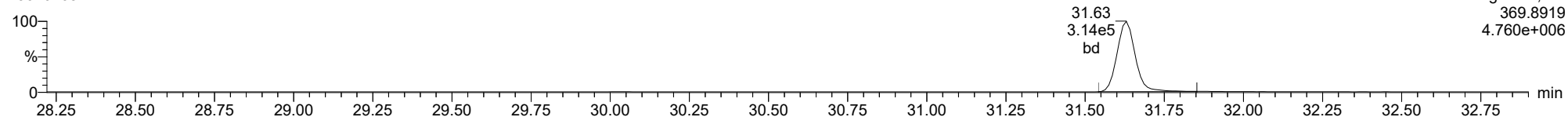
23020105



F2:Voltage SIR,EI+  
367.8949  
7.782e+006

**13C-12378-PeCDD**

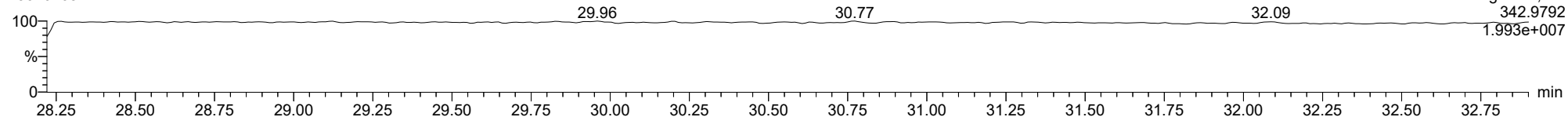
23020105



F2:Voltage SIR,EI+  
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4.760e+006

**FUNCTION2 PFK**

23020105

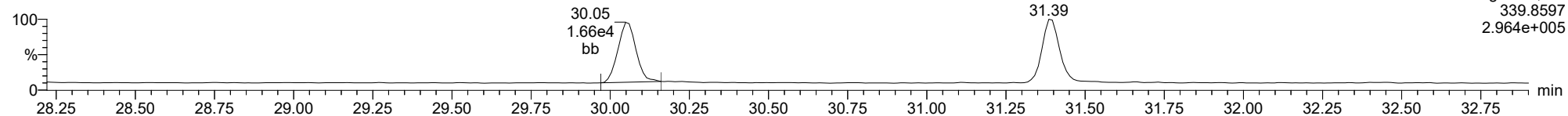


F2:Voltage SIR,EI+  
342.9792  
1.993e+007

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

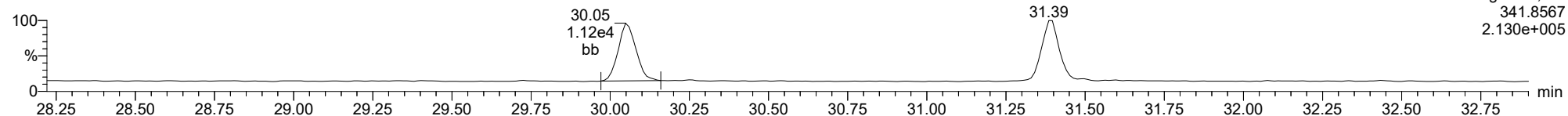
**12378-PeCDF**

23020105



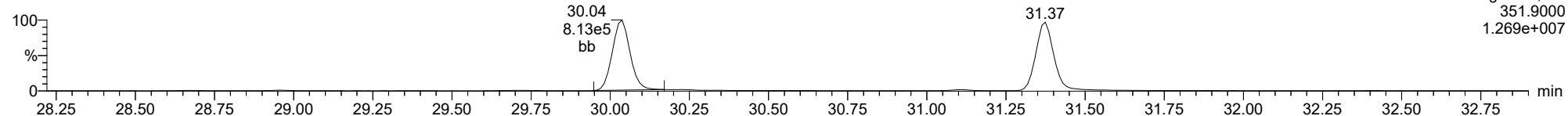
**12378-PeCDF**

23020105



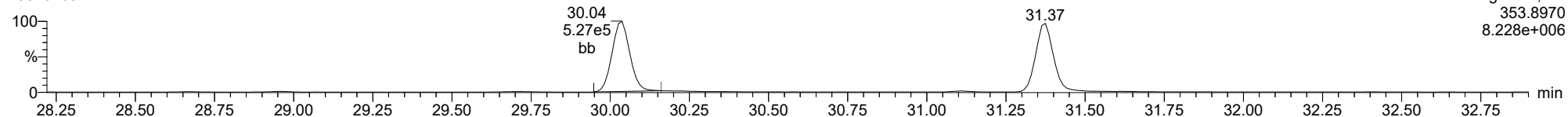
**13C-12378-PeCDF**

23020105



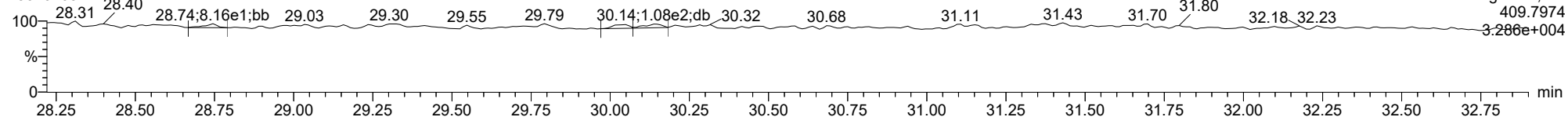
**13C-12378-PeCDF**

23020105



**FUNCTION2 HPCDPE**

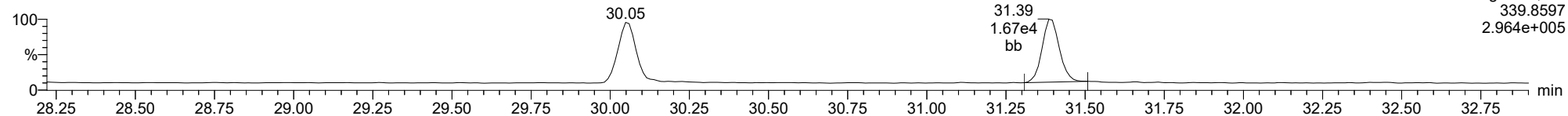
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

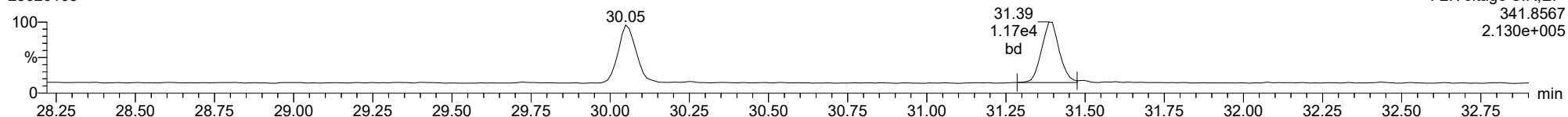
**23478-PeCDF**

23020105



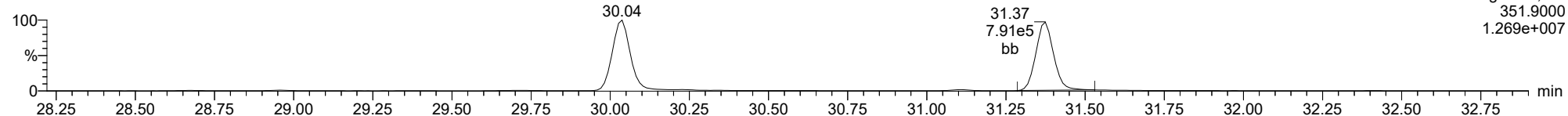
**23478-PeCDF**

23020105



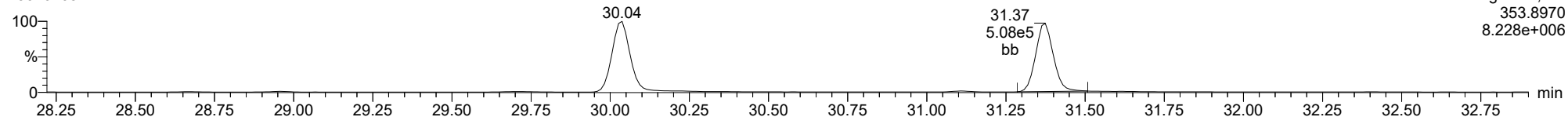
**13C-23478-PeCDF**

23020105



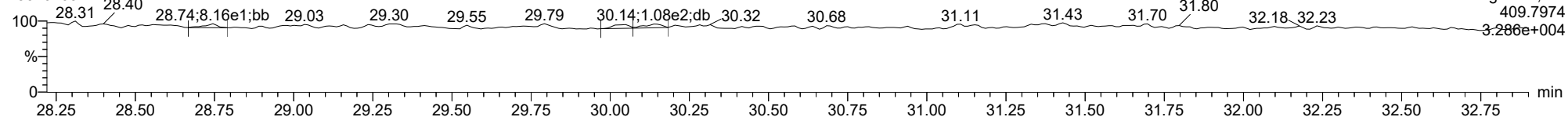
**13C-23478-PeCDF**

23020105



**FUNCTION2 HPCDPE**

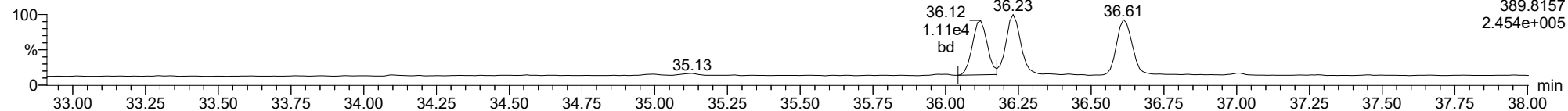
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

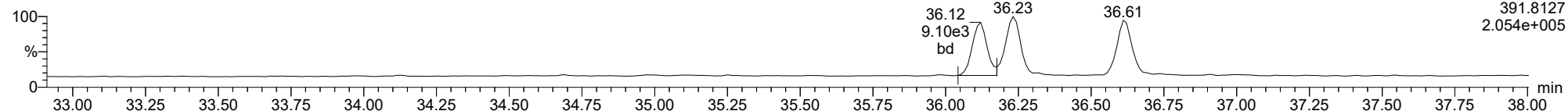
23020105



F3:Voltage SIR,El+  
389.8157  
2.454e+005

**123478-HxCDD**

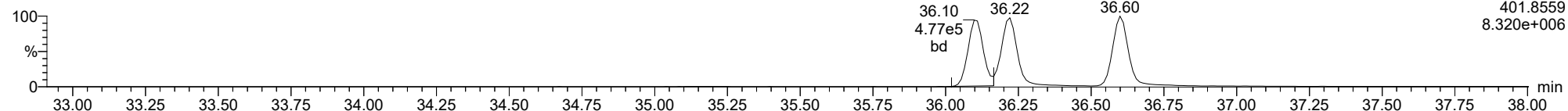
23020105



F3:Voltage SIR,El+  
391.8127  
2.054e+005

**13C-123478-HxCDD**

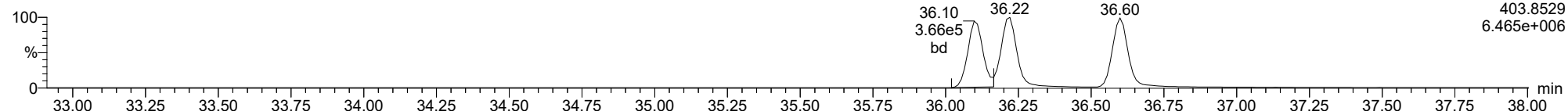
23020105



F3:Voltage SIR,El+  
401.8559  
8.320e+006

**13C-123478-HxCDD**

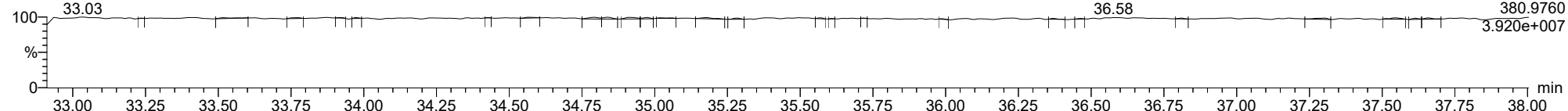
23020105



F3:Voltage SIR,El+  
403.8529  
6.465e+006

**FUNCTION3 PFK**

23020105

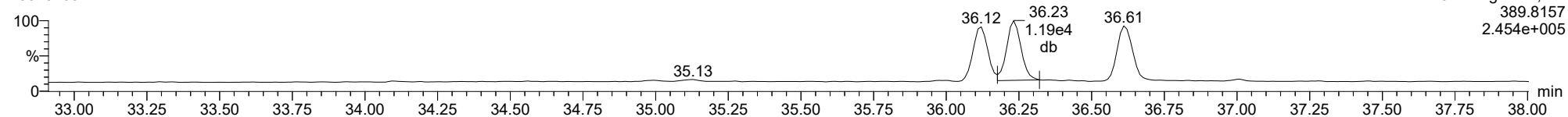


F3:Voltage SIR,El+  
380.9760  
3.920e+007

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

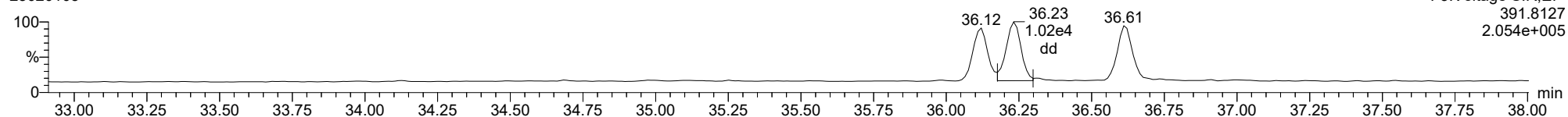
**123678-HxCDD**

23020105



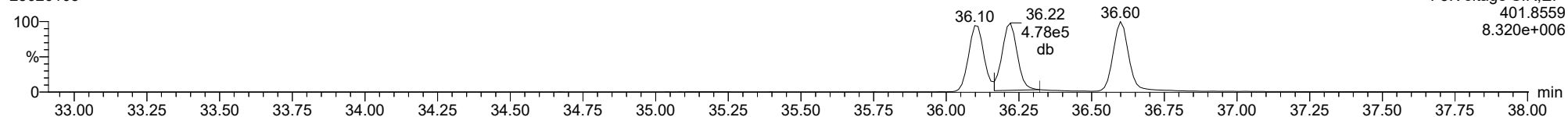
**123678-HxCDD**

23020105



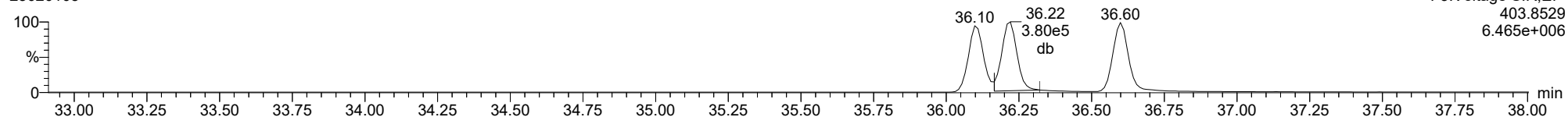
**13C-123678-HxCDD**

23020105



**13C-123678-HxCDD**

23020105

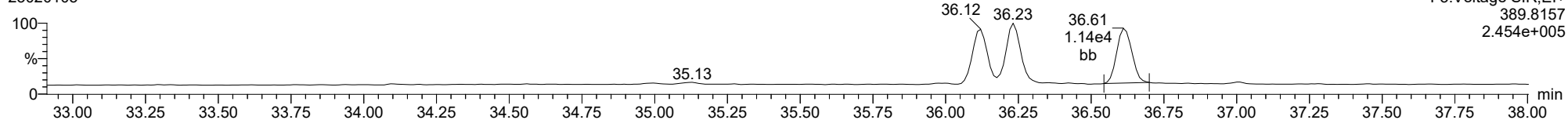




ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

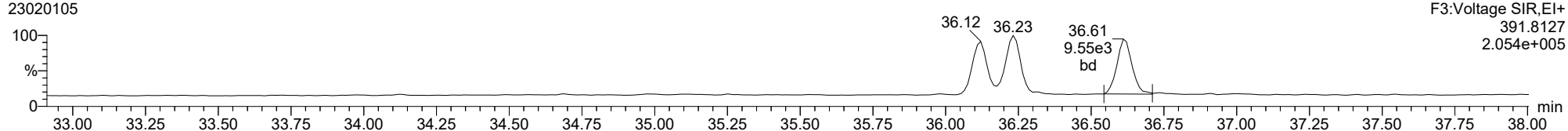
**123789-HxCDD**

23020105



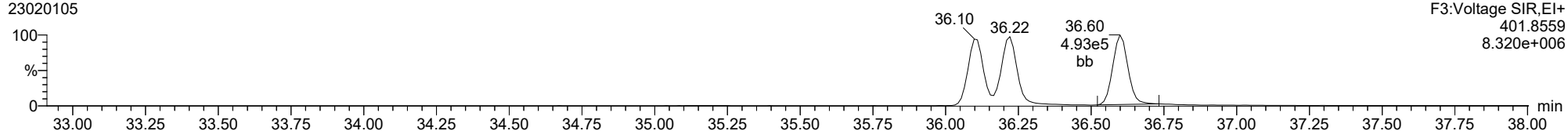
**123789-HxCDD**

23020105



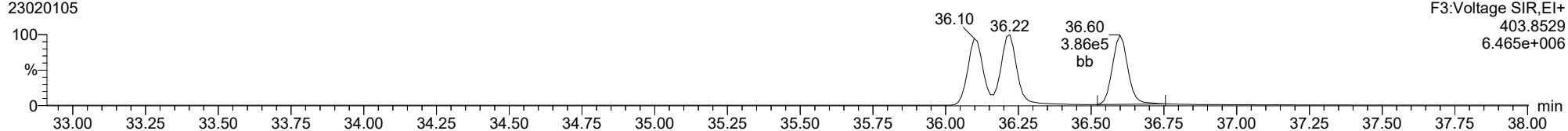
**13C-123789-HxCDD**

23020105



**13C-123789-HxCDD**

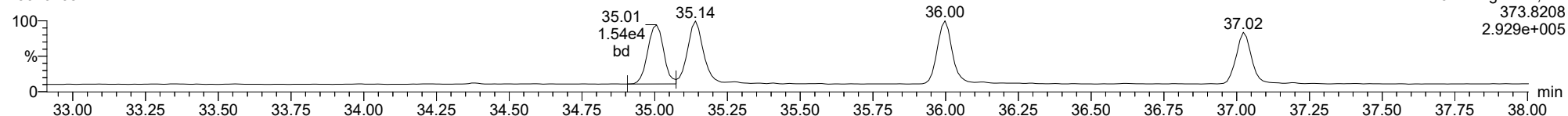
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

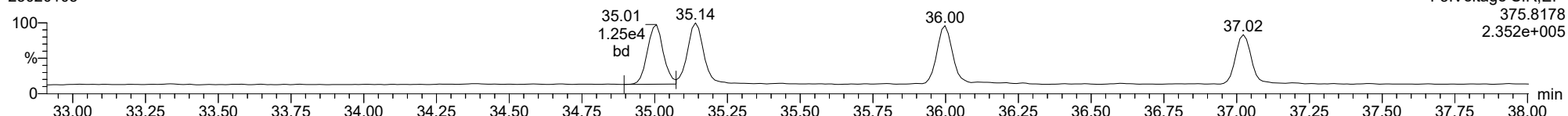
123478-HxCDF

23020105



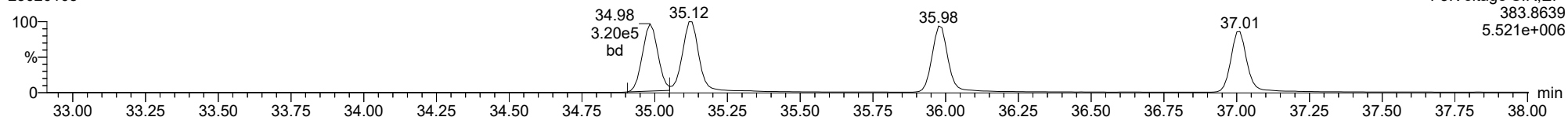
123478-HxCDF

23020105



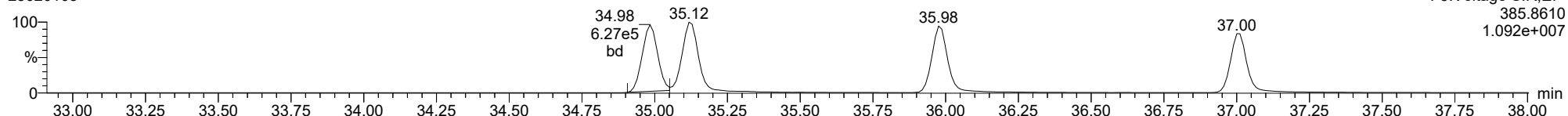
13C-123478-HxCDF

23020105



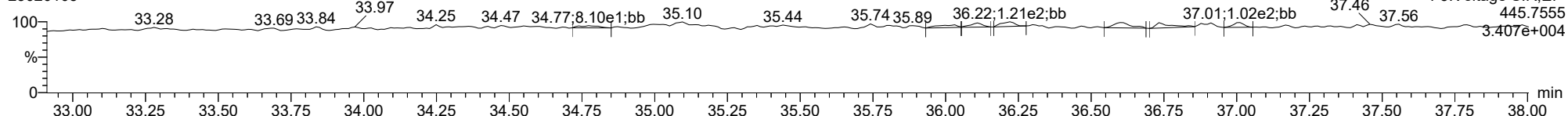
13C-123478-HxCDF

23020105



FUNCTION3 OCDPE

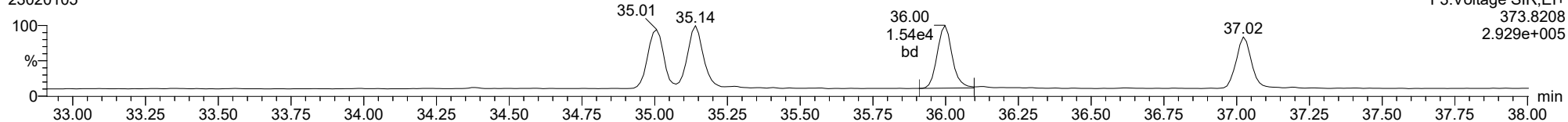
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

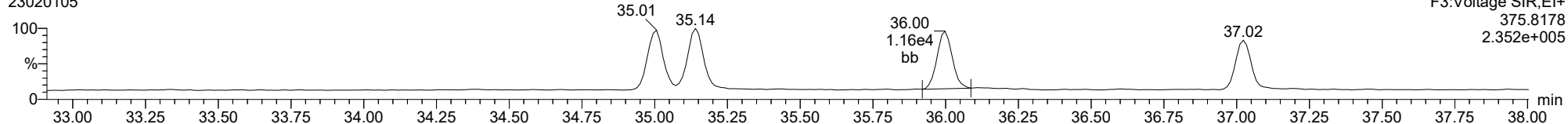
**234678-HxCDF**

23020105



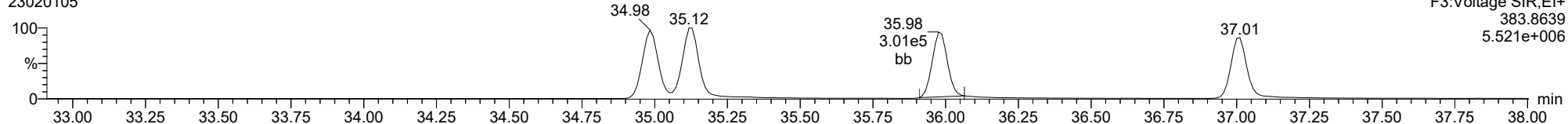
**234678-HxCDF**

23020105



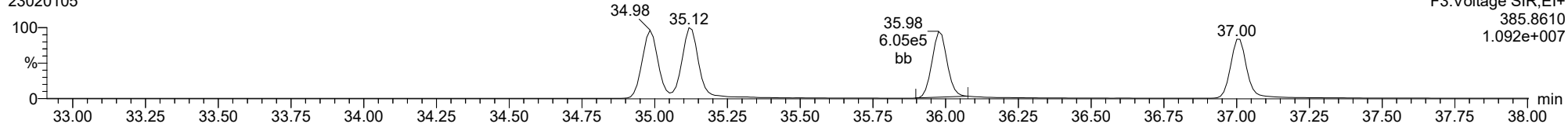
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23020105



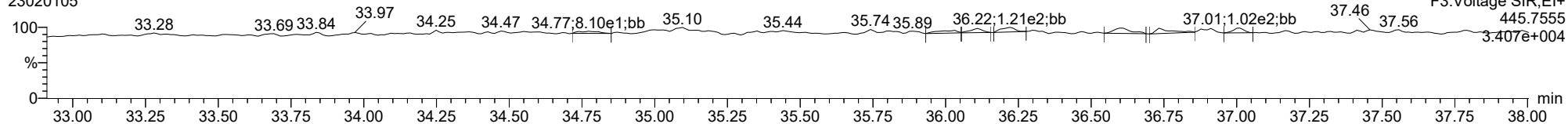
**13C-234678-HxCDF**

23020105



**FUNCTION3 OCDPE**

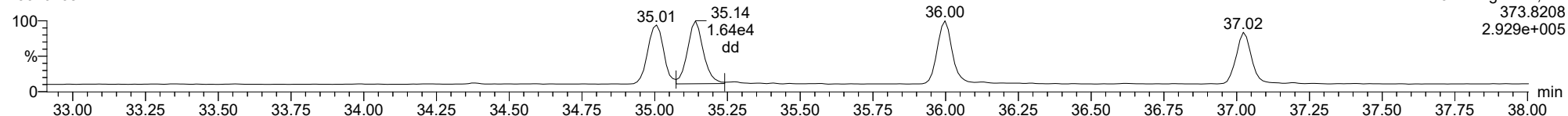
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

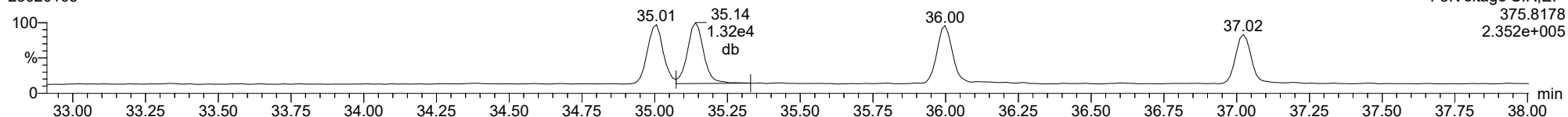
123678-HxCDF

23020105



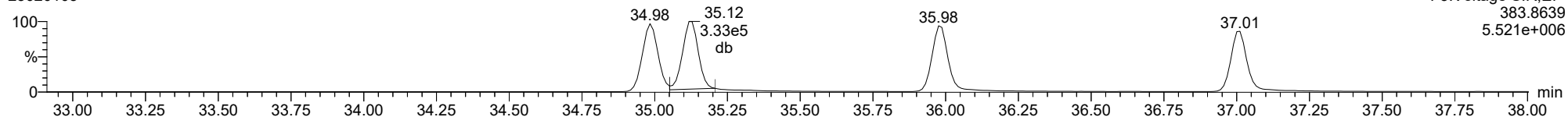
123678-HxCDF

23020105



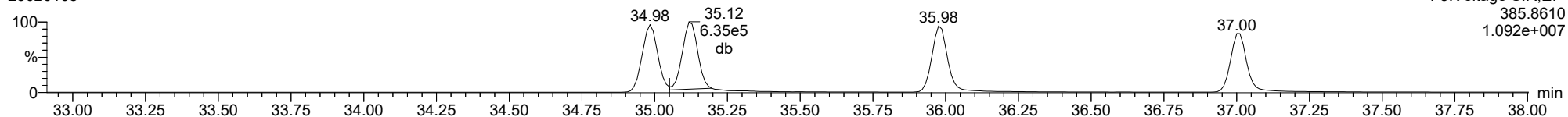
13C-123678-HxCDF

23020105



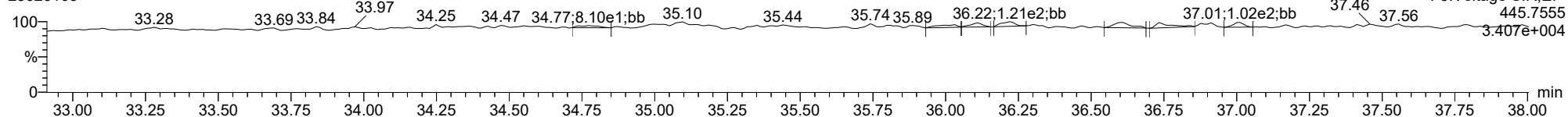
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23020105



FUNCTION3 OCDPE

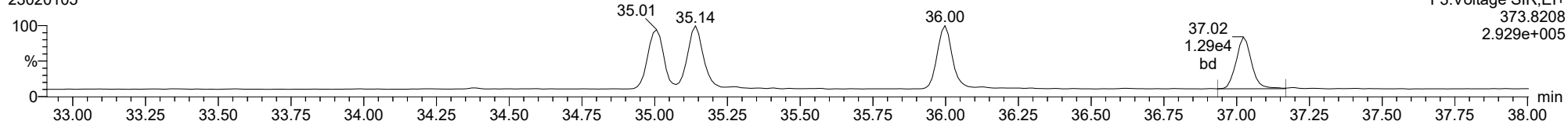
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

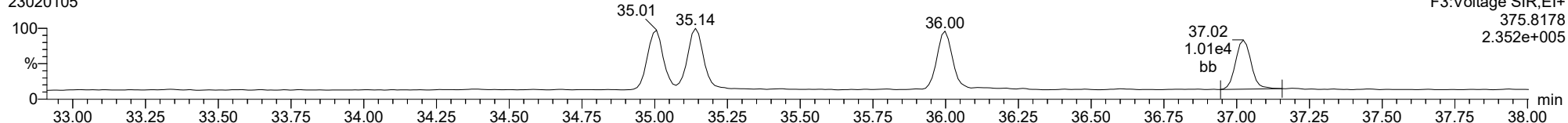
**123789-HxCDF**

23020105



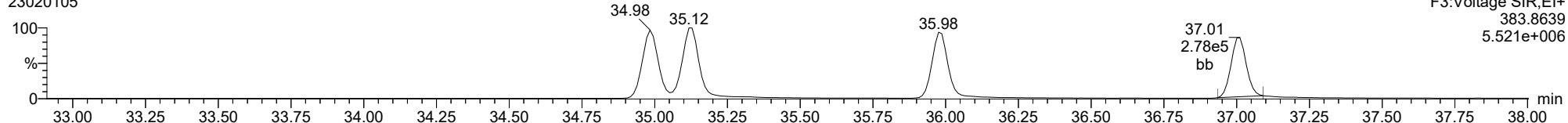
**123789-HxCDF**

23020105



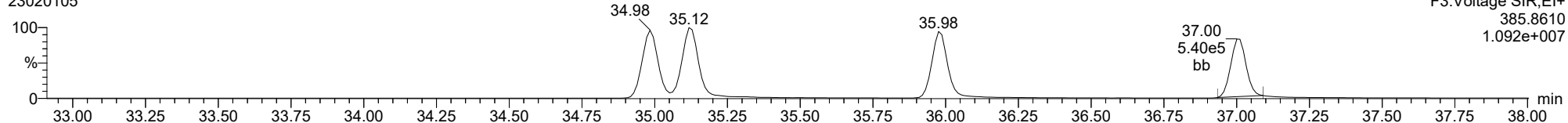
**13C-123789-HxCDF**

23020105



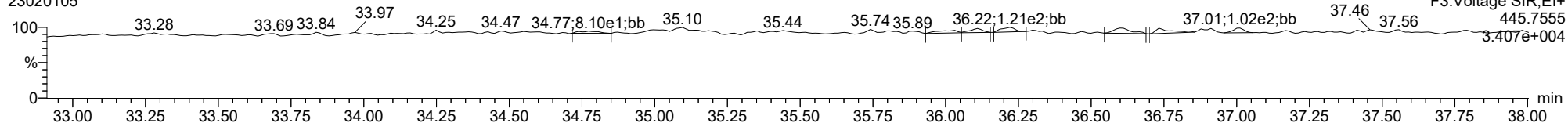
**13C-123789-HxCDF**

23020105



**FUNCTION3 OCDPE**

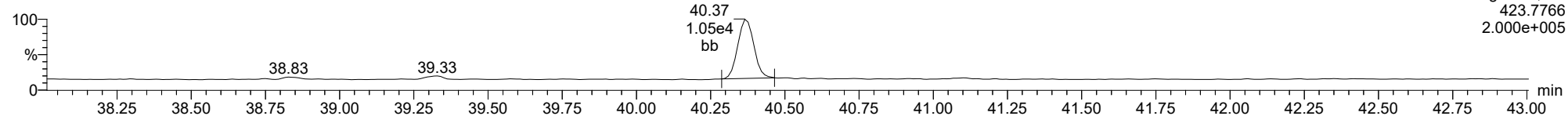
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

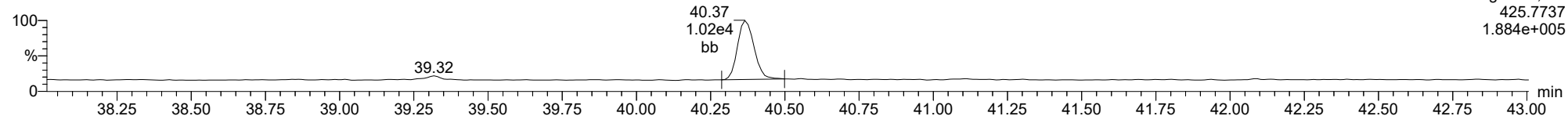
**1234678-HpCDD**

23020105



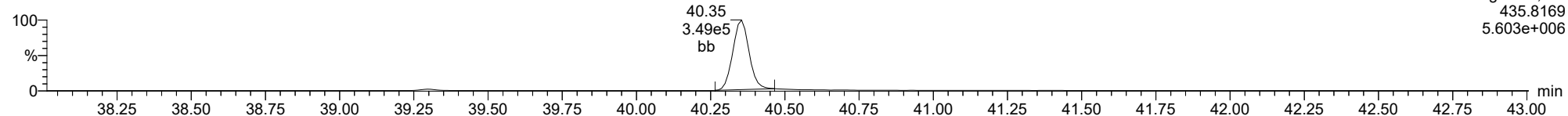
**1234678-HpCDD**

23020105



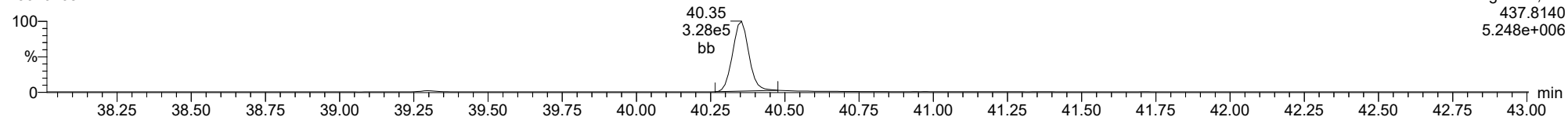
**13C-1234678-HpCDD**

23020105



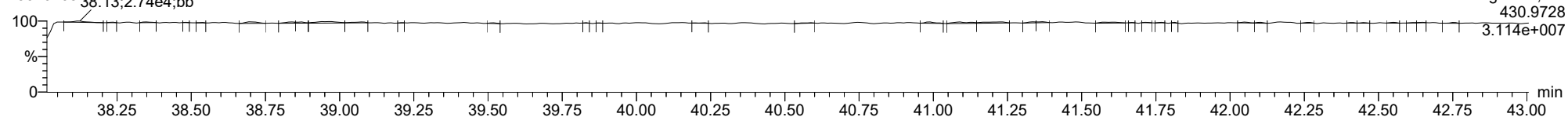
**13C-1234678-HpCDD**

23020105



**FUNCTION4 PFK**

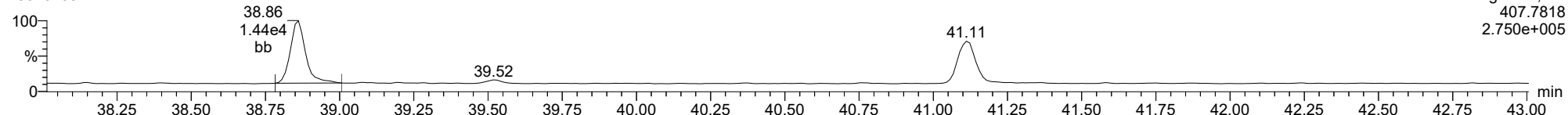
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

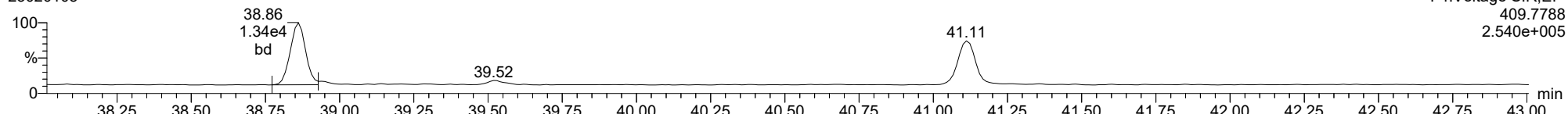
**1234678-HpCDF**

23020105



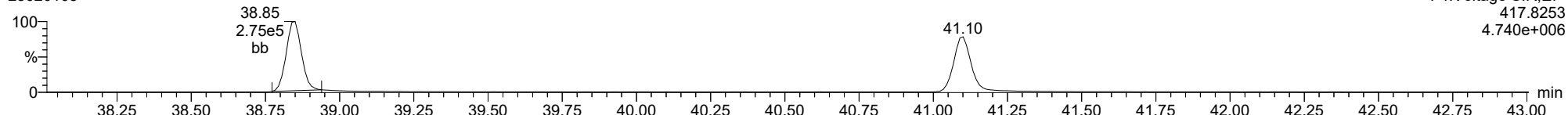
**1234678-HpCDF**

23020105



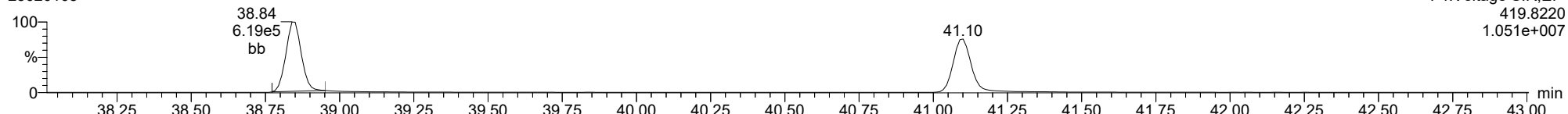
**13C-1234678-HpCDF**

23020105



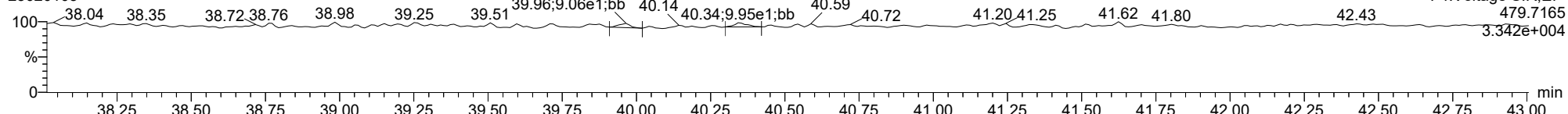
**13C-1234678-HpCDF**

23020105



**FUNCTION4 NCDPE**

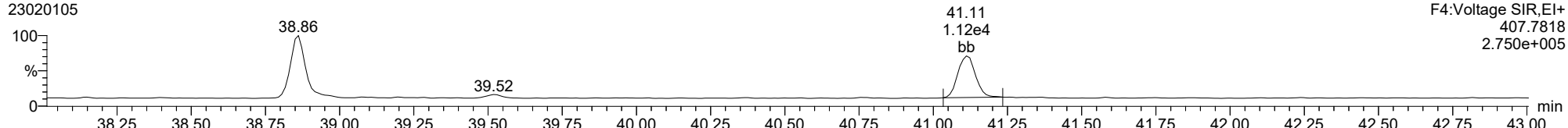
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

**1234789-HpCDF**

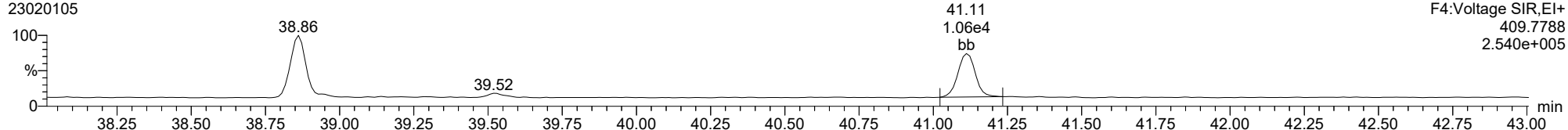
23020105



F4:Voltage SIR,EI+  
407.7818  
2.750e+005

**1234789-HpCDF**

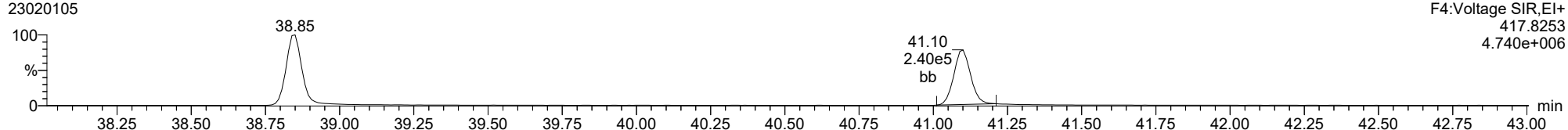
23020105



F4:Voltage SIR,EI+  
409.7788  
2.540e+005

**13C-1234789-HpCDF**

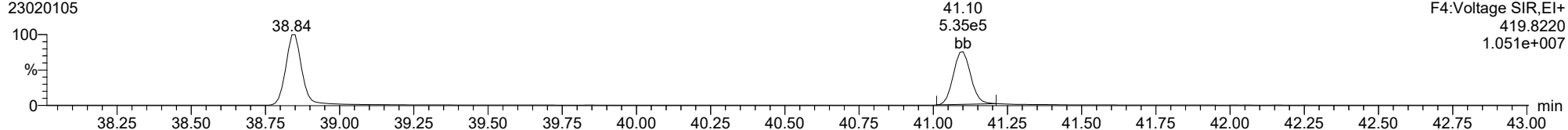
23020105



F4:Voltage SIR,EI+  
417.8253  
4.740e+006

**13C-1234789-HpCDF**

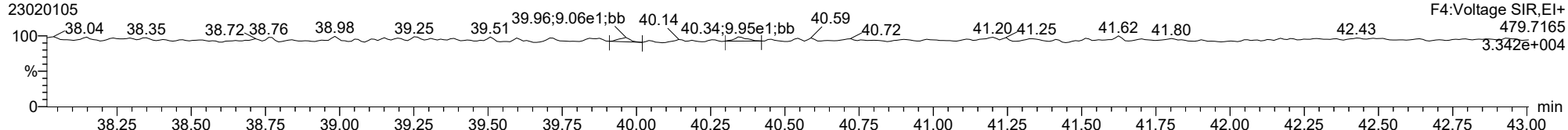
23020105



F4:Voltage SIR,EI+  
419.8220  
1.051e+007

**FUNCTION4 NCDPE**

23020105



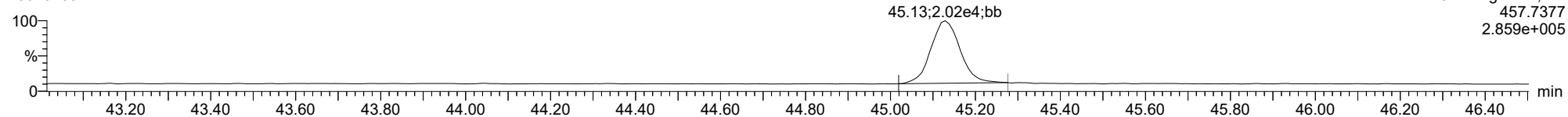
F4:Voltage SIR,EI+  
479.7165  
3.342e+004



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

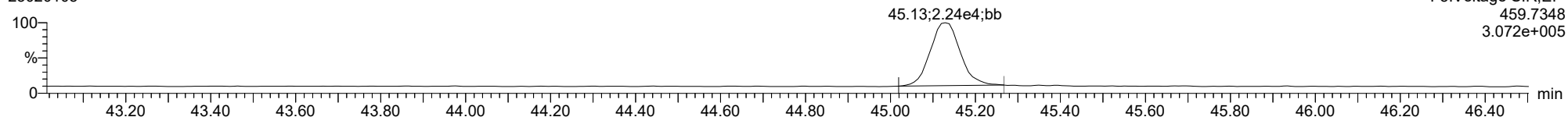
**OCDD**

23020105



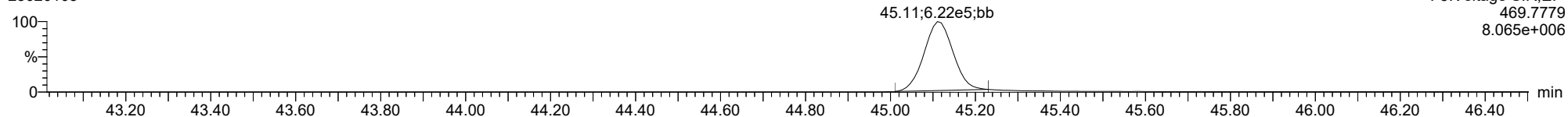
**OCDD**

23020105



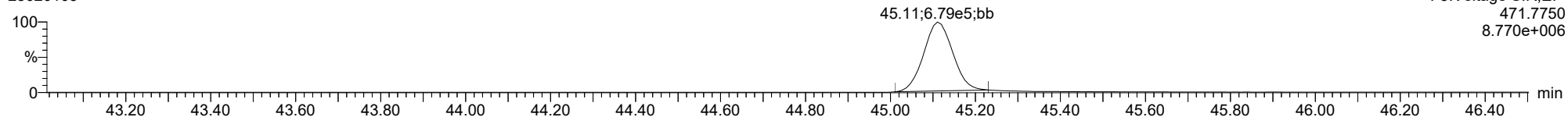
**13C-OCDD**

23020105



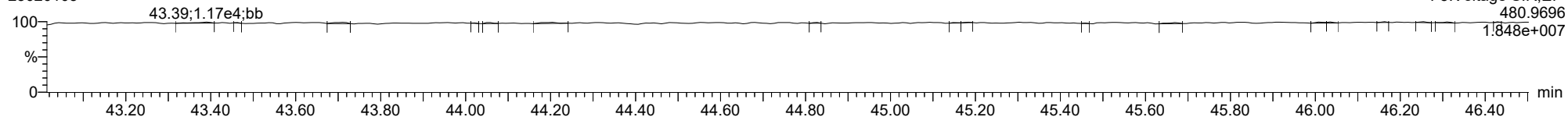
**13C-OCDD**

23020105



**FUNCTION5 PFK**

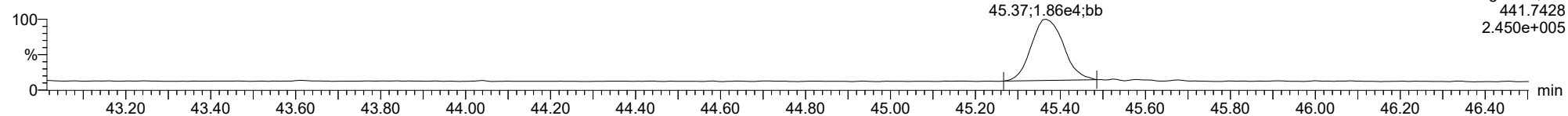
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

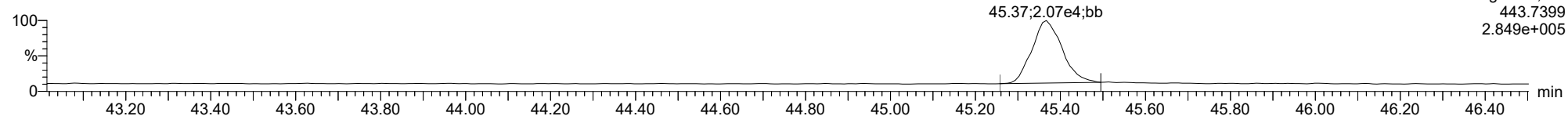
**OCDF**

23020105



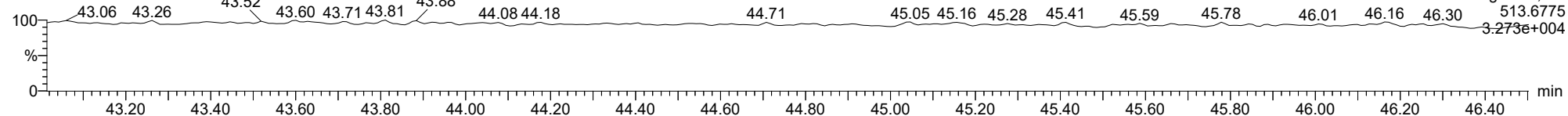
**OCDF**

23020105



**FUNCTION5 DCDPE**

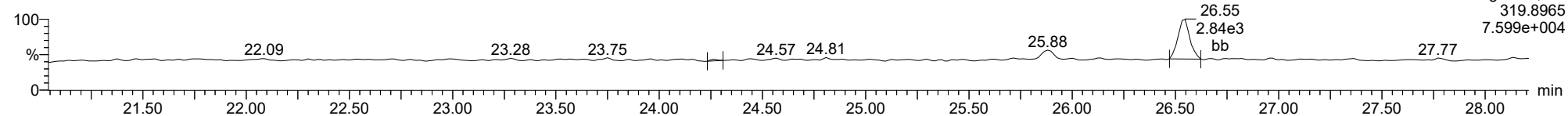
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

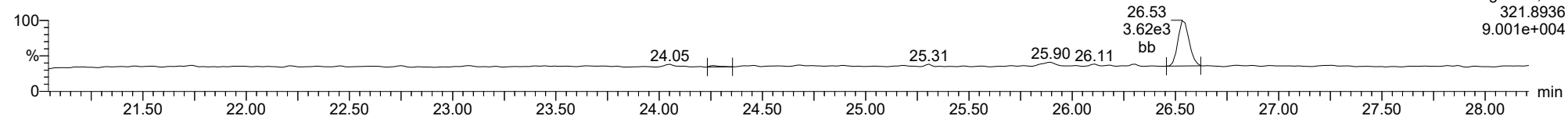
**Total-tetradoxins**

23020105



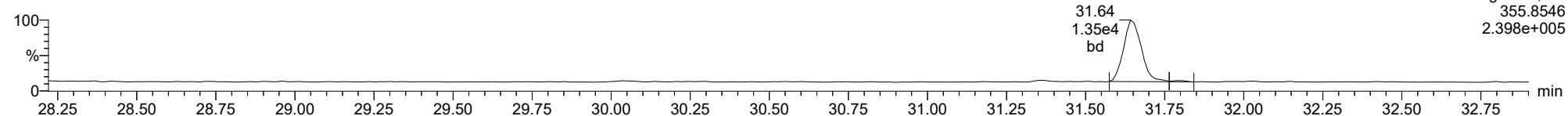
**Total-tetradoxins**

23020105



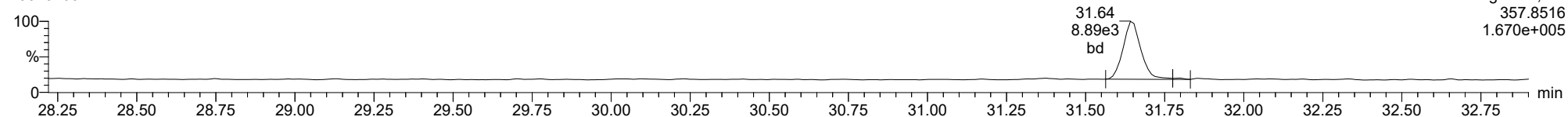
**Total-pentadoxins**

23020105



**Total-pentadoxins**

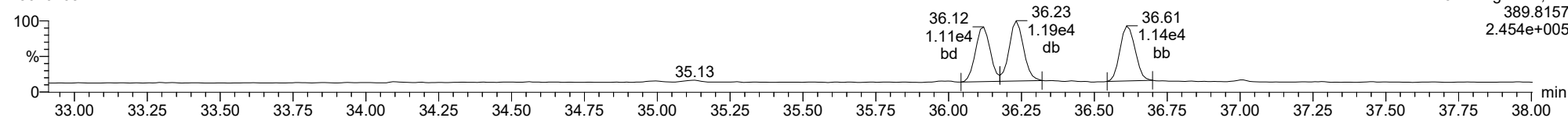
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

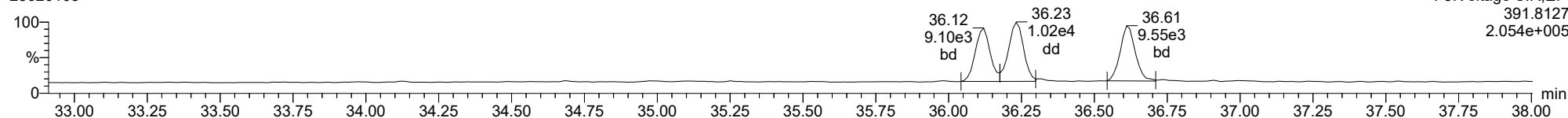
### Total-hexadioxins

23020105



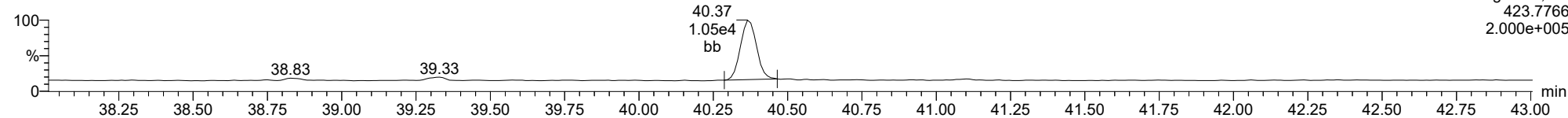
### Total-hexadioxins

23020105



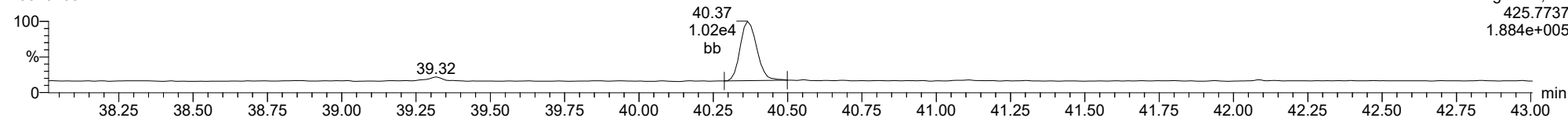
### Total-heptadioxins

23020105



### Total-heptadioxins

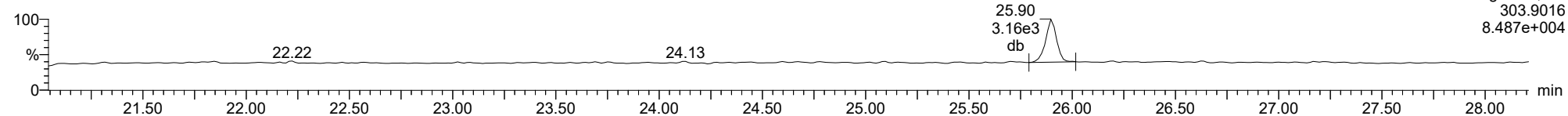
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

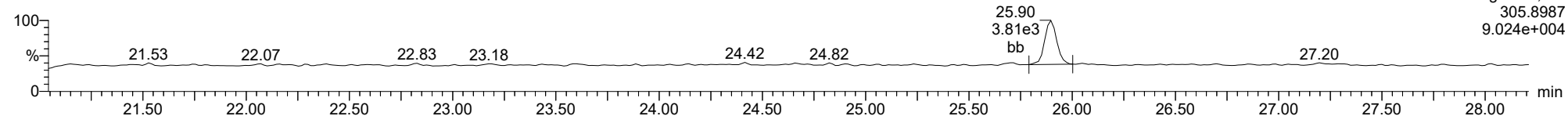
**Total-tetrafurans**

23020105



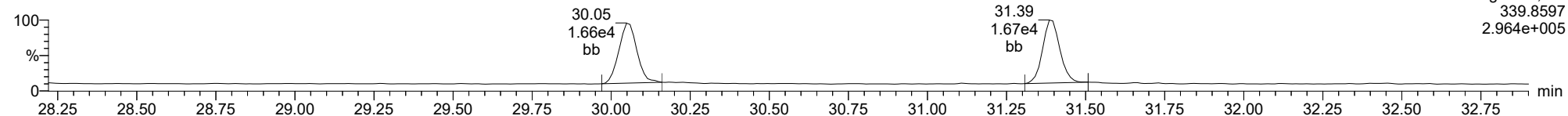
**Total-tetrafurans**

23020105



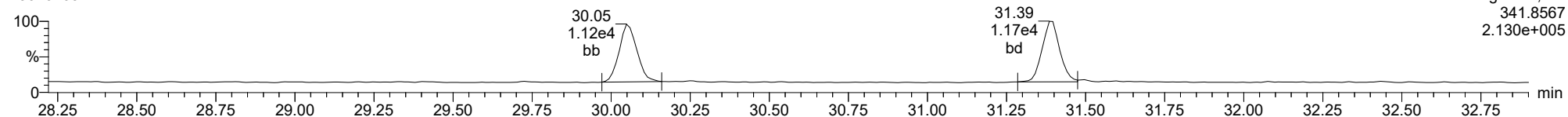
**Total-pentafurans**

23020105



**Total-pentafurans**

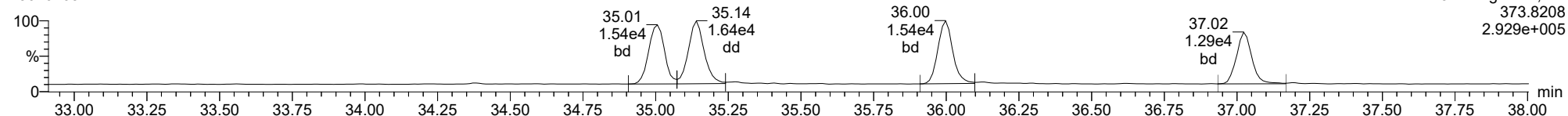
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

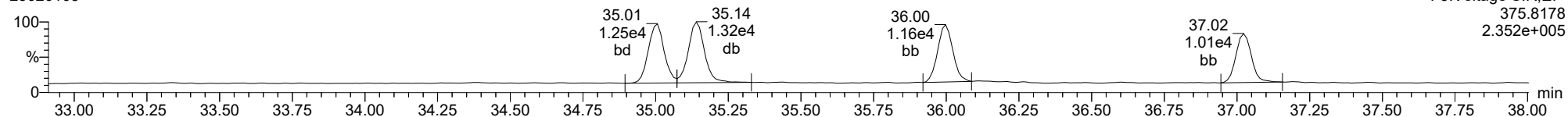
**Total-hexafurans**

23020105



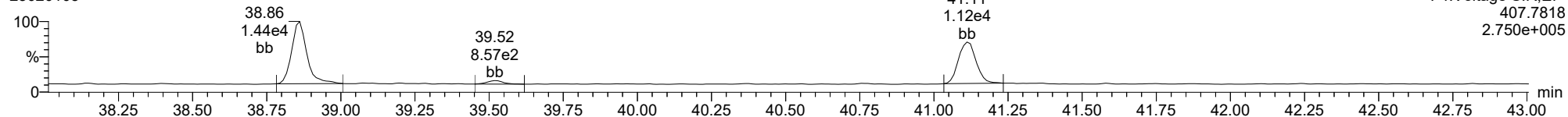
**Total-hexafurans**

23020105



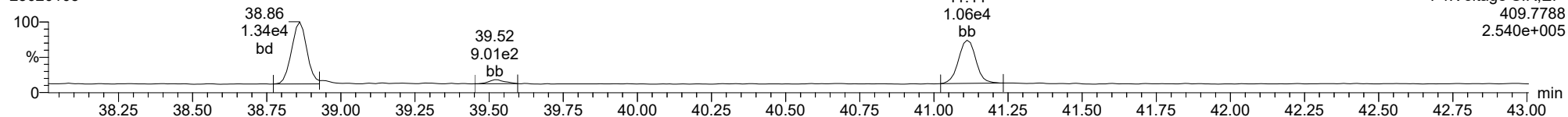
**Total-heptafurans**

23020105



**Total-heptafurans**

23020105



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.375e4	1.851e4	0.876	0.743	0.770	838	1562	2.10e5	2.76e5	250.5	176.4	NO	bb	bb	1.973
12378-PeCDF	30.059	1.001	8.384e4	5.404e4	0.845	1.551	1.550	1494	1842	1.30e6	8.45e5	870.6	458.6	NO	bd	bd	10.086
23478-PeCDF	31.396	1.001	8.811e4	5.691e4	0.911	1.548	1.550	1494	1842	1.31e6	8.58e5	880.0	466.0	NO	dd	bd	10.430
123478-HxCDF	35.006	1.001	7.445e4	5.785e4	1.182	1.287	1.240	1528	1565	1.21e6	9.52e5	791.3	608.7	NO	bd	bd	9.662
234678-HxCDF	35.998	1.000	7.554e4	5.984e4	1.229	1.262	1.240	1528	1565	1.18e6	9.11e5	774.2	582.4	NO	bd	bd	10.016
123678-HxCDF	35.140	1.000	8.156e4	6.332e4	1.248	1.288	1.240	1528	1565	1.23e6	9.70e5	801.6	619.6	NO	dd	dd	9.876
123789-HxCDF	37.023	1.000	6.616e4	5.058e4	1.187	1.308	1.240	1528	1565	1.05e6	8.18e5	687.4	522.6	NO	bd	bd	9.712
1234678-HpCDF	38.861	1.000	6.989e4	6.457e4	1.204	1.082	1.050	1538	1410	1.20e6	1.09e6	782.0	769.9	NO	bd	bb	9.897
1234789-HpCDF	41.111	1.000	5.916e4	5.737e4	1.165	1.031	1.050	1538	1410	8.45e5	8.21e5	549.5	582.6	NO	bd	bd	10.092
OCDF	45.376	1.006	9.214e4	9.862e4	1.186	0.934	0.890	1525	1454	1.11e6	1.20e6	727.4	823.3	NO	bd	bb	18.863
2378-TCDD	26.547	1.001	1.298e4	1.586e4	1.236	0.818	0.770	817	918	1.95e5	2.41e5	239.3	262.4	NO	bb	bb	2.020
12378-PeCDD	31.653	1.001	6.323e4	4.003e4	1.087	1.579	1.550	957	1113	9.67e5	6.22e5	1010.9	558.7	NO	bb	bb	9.953
123478-HxCDD	36.120	1.000	5.350e4	4.542e4	0.987	1.178	1.240	1419	1111	9.15e5	7.70e5	644.4	692.8	NO	bd	bd	9.967
123678-HxCDD	36.232	1.000	5.670e4	4.717e4	1.021	1.202	1.240	1419	1111	9.21e5	7.75e5	649.0	697.0	NO	db	db	9.657
123789-HxCDD	36.621	1.011	5.462e4	4.396e4	0.985	1.243	1.240	1419	1111	9.23e5	7.40e5	650.4	666.2	NO	bb	bb	9.715
1234678-HpCDD	40.376	1.001	5.329e4	4.930e4	1.253	1.081	1.050	939	1025	8.27e5	7.64e5	880.9	744.9	NO	bd	bb	9.623
OCDD	45.129	1.000	8.911e4	9.822e4	1.103	0.907	0.890	1078	1353	1.09e6	1.23e6	1009.3	912.1	NO	bd	bb	19.929
13C-2378-TCDF	25.882	1.007	8.175e5	1.049e6	1.768	0.779	0.770	2768	1604	1.28e7	1.62e7	4615.3	10118.2	NO	bb	bb	98.406
13C-12378-PeCDF	30.037	1.168	9.651e5	6.534e5	1.527	1.477	1.550	2685	2564	1.52e7	9.92e6	5664.2	3868.0	NO	bb	bd	98.795
13C-23478-PeCDF	31.374	1.220	9.289e5	5.970e5	1.466	1.556	1.550	2685	2564	1.42e7	9.15e6	5285.2	3567.7	NO	bb	bb	97.006
13C-123478-HxCDF	34.984	0.956	3.919e5	7.668e5	1.054	0.511	0.510	2280	2951	6.27e6	1.23e7	2748.9	4152.3	NO	bd	bd	102.036
13C-123678-HxCDF	35.129	0.960	3.972e5	7.782e5	1.080	0.510	0.510	2280	2951	6.52e6	1.27e7	2858.6	4308.7	NO	db	db	100.982
13C-234678-HxCDF	35.987	0.983	3.723e5	7.276e5	1.014	0.512	0.510	2280	2951	6.20e6	1.20e7	2719.4	4079.1	NO	bb	bb	100.611
13C-123789-HxCDF	37.012	1.011	3.411e5	6.719e5	0.928	0.508	0.510	2280	2951	5.87e6	1.14e7	2576.5	3878.0	NO	bb	bb	101.286
13C-1234678-HpCDF	38.850	1.061	3.519e5	7.764e5	1.036	0.453	0.440	2948	3056	6.15e6	1.36e7	2085.9	4456.3	NO	bb	bb	101.034
13C-1234789-HpCDF	41.100	1.123	3.071e5	6.837e5	0.905	0.449	0.440	2948	3056	4.66e6	1.03e7	1581.8	3383.9	NO	bb	bb	101.592
13C-1234-TCDD	25.715	0.000	4.761e5	5.966e5	1.000	0.798	0.770	1722	1260	7.44e6	9.39e6	4318.3	7453.5	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.031	5.086e5	6.462e5	1.103	0.787	0.770	1722	1260	7.59e6	9.61e6	4407.4	7623.5	NO	bb	bb	97.603
13C-12378-PeCDD	31.631	1.230	5.873e5	3.674e5	0.914	1.599	1.550	1804	1493	9.15e6	5.75e6	5075.5	3848.9	NO	bb	bb	97.357
13C-123478-HxCDD	36.109	0.987	5.695e5	4.361e5	0.933	1.306	1.240	2351	1925	9.66e6	7.35e6	4110.6	3818.4	NO	bd	bd	100.012
13C-123678-HxCDD	36.221	0.990	5.923e5	4.615e5	0.965	1.283	1.240	2351	1925	9.93e6	7.73e6	4224.3	4014.3	NO	db	db	101.353
13C-1234678-HpCDD	40.354	1.103	4.427e5	4.084e5	0.782	1.084	1.050	2415	1836	6.98e6	6.52e6	2888.8	3549.1	NO	bb	bb	100.984
13C-OCDD	45.110	1.232	8.153e5	8.896e5	0.788	0.916	0.890	2586	2058	1.02e7	1.13e7	3959.4	5482.6	NO	bb	bb	200.686
13C-123789-HxCDD	36.599	0.000	5.962e5	4.816e5	1.000	1.238	1.240	2351	1925	9.93e6	8.01e6	4225.3	4157.6	NO	bb	bb	100.000
37CL-2378-TCDD	26.547	1.032	2.594e4		1.233			1770		3.86e5		217.9			bb		1.960

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	838	1562								
1289-TCDF					0.858		0.770	838	1562								
13468-PECDF					1.013		1.550	818	1180								
12389-PECDF					0.844		1.550	1494	1842								
123468-HXCDF					1.197		1.240	1528	1565								
1368-TCDD					1.084		0.770	817	918								
1289-TCDD					0.975		0.770	817	918								
12479-PECDD					1.837		1.550	957	1113								
12389-PECDD					1.252		1.550	957	1113								
124679-HXCDD					1.033		1.240	1419	1111								
1234679-HPCDD					1.286		1.050	939	1025								
Total-tetrafurans			1.375e4		0.933			838		2.10e5							1.973
Total-penta1			0.000e0					818		0.00e0							
Total-pentafurans			1.724e5		0.866			1494		2.63e6							20.570
Total-hexafurans			2.977e5		1.208			1528		4.67e6							39.267
Total-heptafurans			1.291e5		1.185			1538		2.05e6							19.990
Total-Furans			7.051e5		1.067			838		1.07e7							100.663
Total-tetradoxins			1.298e4		1.099			817		1.95e5							2.020
Total-pentadoxins			6.323e4		1.392			957		9.67e5							9.953
Total-hexadoxins			1.650e5		1.007			1419		2.76e6							29.363
Total-heptadoxins			5.329e4		1.269			939		8.27e5							9.623
Total-Dioxins			3.836e5		1.165			817		5.84e6							70.888
Total-TEQ			1.089e6					817		1.65e7							171.552
FUNCTION1 PFK			0.000e0					575758		0.00e0							
FUNCTION2 PFK			0.000e0					203146		0.00e0							
FUNCTION3 PFK			1.946e5					441294		6.25e6							0.000
FUNCTION4 PFK			6.766e5					326212		1.14e7							
FUNCTION5 PFK			7.829e4					177933		3.00e6							
FUNCTION1 HXCD...			6.944e2					716		1.19e4							0.000
FUNCTION1 HPCD...			4.187e2					801		7.47e3							0.000
FUNCTION2 HPCD...			7.244e2					1047		1.53e4							0.000
FUNCTION3 OCDPE			2.025e2					783		3.00e3							0.000
FUNCTION4 NCDPE			5.677e2					836		9.38e3							0.000
FUNCTION5 DCDPE			1.012e2					822		1.66e3							0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33****Calibration: 03 Feb 2023 10:33:40****ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
2	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
3	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
2	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
3	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
4	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
2	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973
2	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
3	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
4	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086
5	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
6	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
7	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
8	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712
9	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
10	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897
11	OCDF	45.38	9.214e4	9.862e4	1.186	0.93	0.89	727.4	YES	NO	bd	bb	18.863

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
2	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
3	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
4	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953
2	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020
3	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
4	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
5	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
6	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967
7	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623
8	OCDD	45.13	8.911e4	9.822e4	1.103	0.91	0.89	1009.3	YES	NO	bd	bb	19.929

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973
2	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
3	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
4	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086
5	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
6	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
7	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
8	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712
9	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
10	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897
11	OCDF	45.38	9.214e4	9.862e4	1.186	0.93	0.89	727.4	YES	NO	bd	bb	18.863
12	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953
13	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020
14	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
15	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
16	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
17	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967
18	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623
19	OCDD	45.13	8.911e4	9.822e4	1.103	0.91	0.89	1009.3	YES	NO	bd	bb	19.929

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.84	3.684e4					1.4	NO		bb		0.000
2	FUNCTION3 PFK	37.56	3.248e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	37.40	1.502e4					1.5	NO		bb		0.000
4	FUNCTION3 PFK	36.84	6.471e3					0.8	NO		bb		0.000
5	FUNCTION3 PFK	36.52	9.443e3					0.9	NO		bb		0.000
6	FUNCTION3 PFK	36.37	4.140e3					0.7	NO		db		0.000
7	FUNCTION3 PFK	36.33	1.297e4					1.2	NO		bd		0.000
8	FUNCTION3 PFK	36.13	6.608e3					0.8	NO		bb		0.000
9	FUNCTION3 PFK	35.98	2.009e4					1.5	NO		bb		0.000
10	FUNCTION3 PFK	35.88	2.554e3					0.5	NO		bb		0.000
11	FUNCTION3 PFK	34.30	1.671e4					1.6	NO		bb		0.000
12	FUNCTION3 PFK	34.23	8.316e3					0.4	NO		bb		0.000
13	FUNCTION3 PFK	33.98	2.293e4					1.5	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.23	5.785e4					4.4	YES		dd		
2	FUNCTION4 PFK	38.15	1.010e5					5.4	YES		dd		
3	FUNCTION4 PFK	38.09	1.883e5					5.6	YES		bd		
4	FUNCTION4 PFK	42.87	1.204e4					1.0	NO		bb		
5	FUNCTION4 PFK	42.31	2.496e4					1.3	NO		bb		
6	FUNCTION4 PFK	41.49	1.586e4					1.0	NO		bb		
7	FUNCTION4 PFK	41.10	1.494e4					1.1	NO		bb		
8	FUNCTION4 PFK	40.87	1.555e4					1.4	NO		bb		
9	FUNCTION4 PFK	40.79	1.700e4					1.3	NO		bb		
10	FUNCTION4 PFK	40.65	5.082e3					0.8	NO		bb		
11	FUNCTION4 PFK	40.61	1.525e3					0.4	NO		bb		
12	FUNCTION4 PFK	40.14	1.620e4					1.6	NO		bb		
13	FUNCTION4 PFK	39.90	9.157e3					1.0	NO		bb		
14	FUNCTION4 PFK	39.83	9.091e3					1.1	NO		bb		
15	FUNCTION4 PFK	39.77	4.172e3					0.6	NO		bb		
16	FUNCTION4 PFK	39.63	1.903e3					0.5	NO		bb		
17	FUNCTION4 PFK	39.46	1.766e4					0.8	NO		bb		
18	FUNCTION4 PFK	38.45	3.531e4					1.7	NO		db		
19	FUNCTION4 PFK	38.27	1.290e5					3.8	YES		dd		

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.27	9.001e2					0.6	NO		bb		
2	FUNCTION5 PFK	46.15	5.202e3					1.0	NO		bb		
3	FUNCTION5 PFK	45.97	3.660e3					1.2	NO		bb		
4	FUNCTION5 PFK	45.51	1.153e4					2.2	NO		bb		
5	FUNCTION5 PFK	45.41	4.532e3					1.3	NO		db		
6	FUNCTION5 PFK	45.38	1.706e3					0.8	NO		bd		
7	FUNCTION5 PFK	45.15	2.865e3					1.0	NO		bb		
8	FUNCTION5 PFK	44.80	1.877e3					0.7	NO		bb		
9	FUNCTION5 PFK	44.65	3.851e3					1.1	NO		bb		
10	FUNCTION5 PFK	44.56	1.141e4					1.8	NO		bb		
11	FUNCTION5 PFK	44.31	2.169e4					1.9	NO		bb		
12	FUNCTION5 PFK	43.92	8.765e2					0.5	NO		bb		
13	FUNCTION5 PFK	43.88	8.623e2					0.5	NO		db		
14	FUNCTION5 PFK	43.86	1.005e3					0.6	NO		bd		
15	FUNCTION5 PFK	43.82	4.471e3					1.0	NO		bb		
16	FUNCTION5 PFK	46.36	1.842e3					0.7	NO		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.26	9.013e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	26.52	1.374e2					3.3	YES		bb		0.000
3	FUNCTION1 HXCD...	26.35	1.141e2					2.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.31	7.923e1					2.3	NO		bb		0.000
5	FUNCTION1 HXCD...	24.07	1.307e2					3.2	YES		bb		0.000
6	FUNCTION1 HXCD...	22.72	1.428e2					3.3	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.58	7.978e1					2.2	NO		db		0.000
2	FUNCTION1 HPCD...	26.53	1.102e2					2.3	NO		bd		0.000
3	FUNCTION1 HPCD...	24.69	7.048e1					1.7	NO		bb		0.000
4	FUNCTION1 HPCD...	24.48	8.580e1					1.5	NO		bb		0.000
5	FUNCTION1 HPCD...	21.38	7.239e1					1.7	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	28.37	7.170e1					2.5	NO		bb		0.000
2	FUNCTION2 HPCD...	31.76	2.583e2					2.7	NO		db		0.000
3	FUNCTION2 HPCD...	31.64	1.965e2					4.2	YES		bd		0.000
4	FUNCTION2 HPCD...	31.30	1.054e2					1.6	NO		bb		0.000
5	FUNCTION2 HPCD...	29.60	9.241e1					3.7	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.22	9.361e1					1.8	NO		bb		0.000
2	FUNCTION3 OCDPE	33.01	1.089e2					2.0	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.21	1.123e2					2.3	NO		db		0.000
2	FUNCTION4 NCDPE	41.16	1.047e2					2.3	NO		bd		0.000
3	FUNCTION4 NCDPE	41.00	7.125e1					1.9	NO		bb		0.000
4	FUNCTION4 NCDPE	38.88	9.103e1					1.9	NO		bb		0.000
5	FUNCTION4 NCDPE	38.50	1.884e2					2.9	NO		bb		0.000

**ETHERS6**

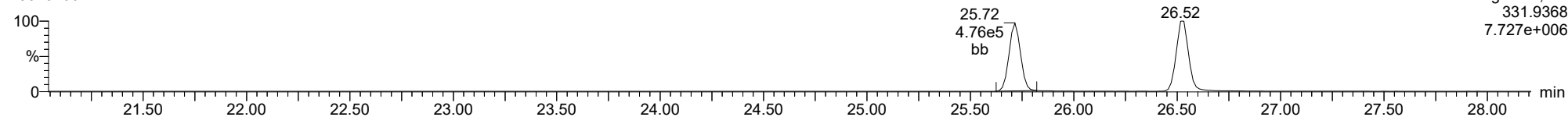
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.32	1.012e2					2.0	NO		bb		0.000

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk**

**13C-1234-TCDD**

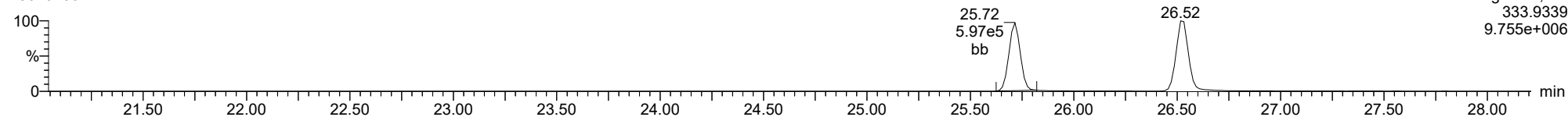
23020106



F1:Voltage SIR,El+  
331.9368  
7.727e+006

**13C-1234-TCDD**

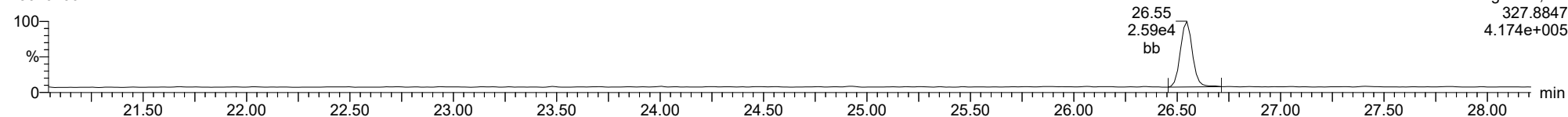
23020106



F1:Voltage SIR,El+  
333.9339  
9.755e+006

**37CL-2378-TCDD**

23020106



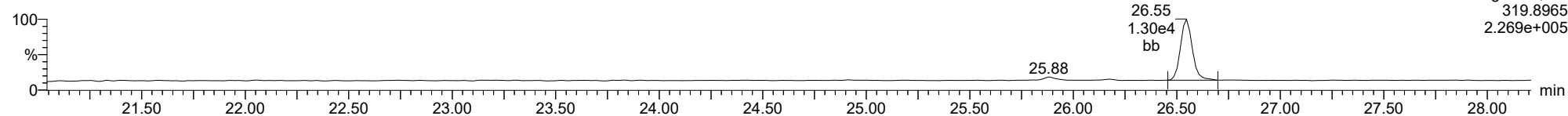
F1:Voltage SIR,El+  
327.8847  
4.174e+005



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

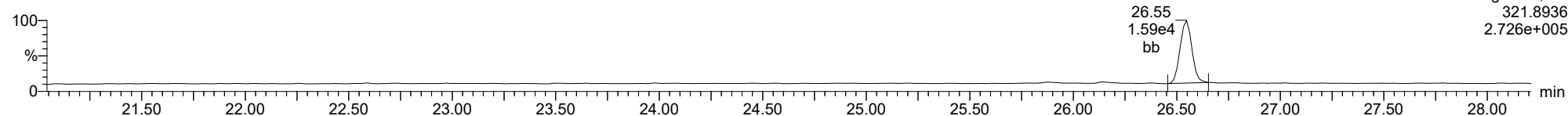
**2378-TCDD**

23020106



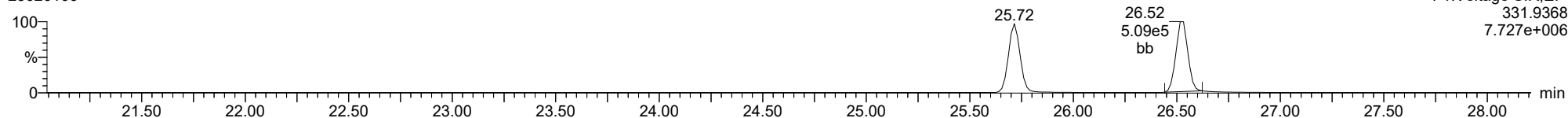
**2378-TCDD**

23020106



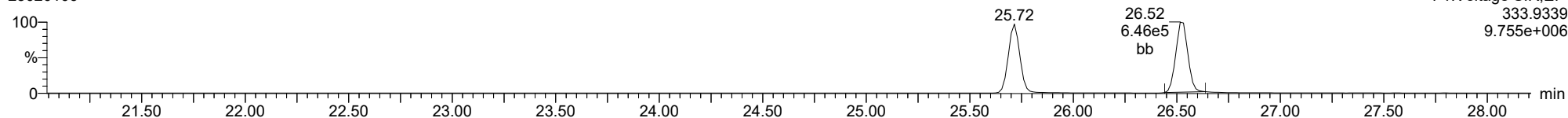
**13C-2378-TCDD**

23020106



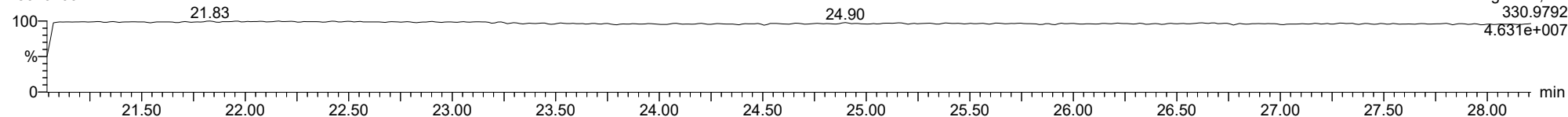
**13C-2378-TCDD**

23020106



**FUNCTION1 PFK**

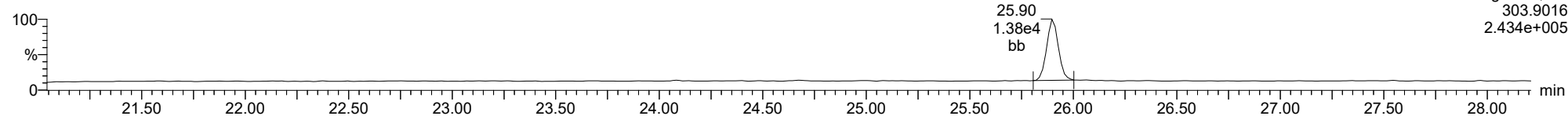
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

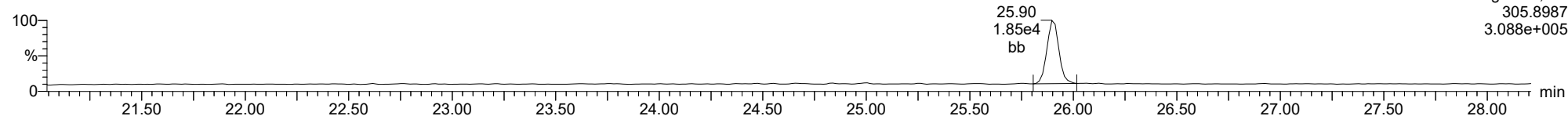
**2378-TCDF**

23020106



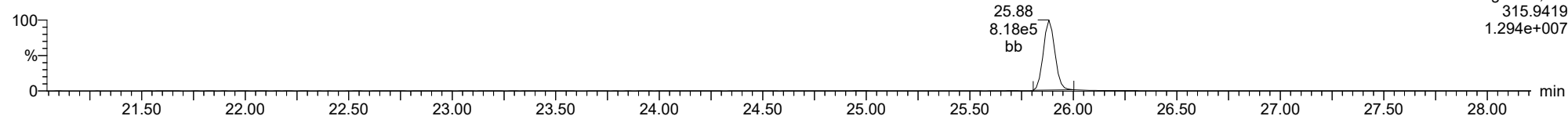
**2378-TCDF**

23020106



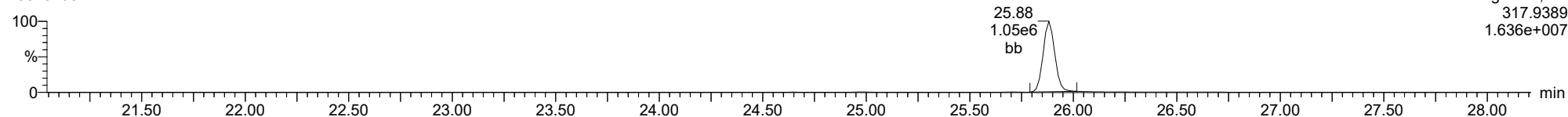
**13C-2378-TCDF**

23020106



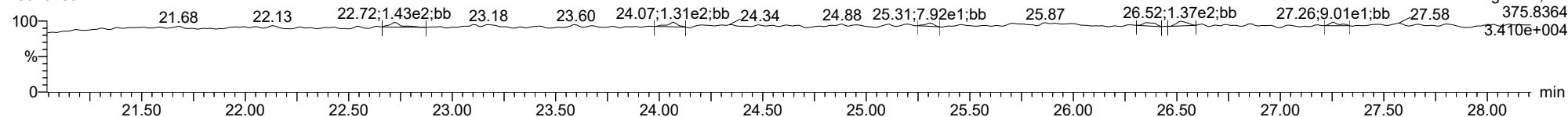
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23020106



**FUNCTION1 HXCDPE**

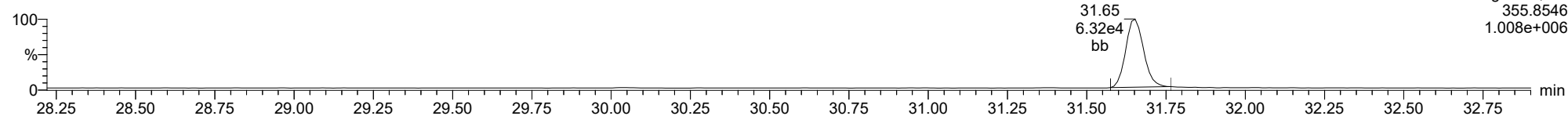
23020106



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

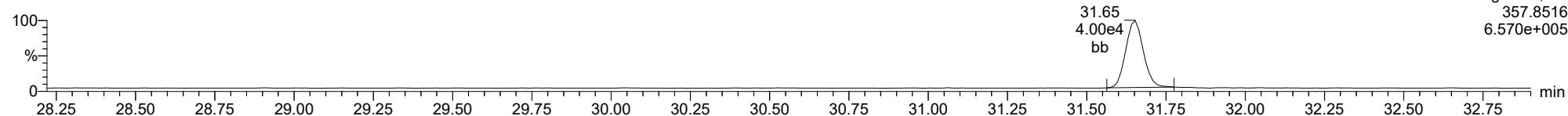
**12378-PeCDD**

23020106



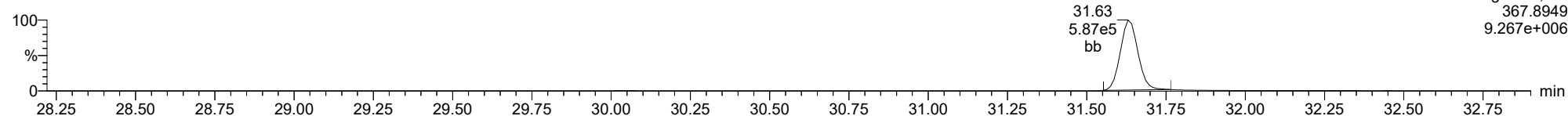
**12378-PeCDD**

23020106



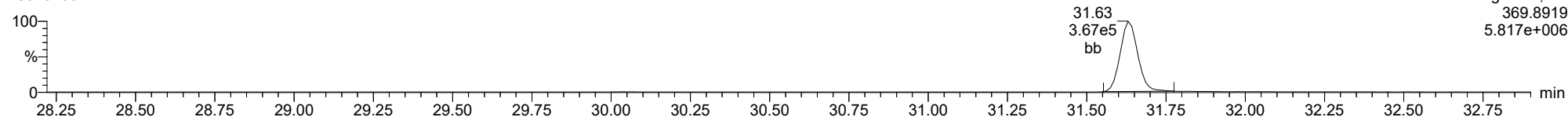
**13C-12378-PeCDD**

23020106



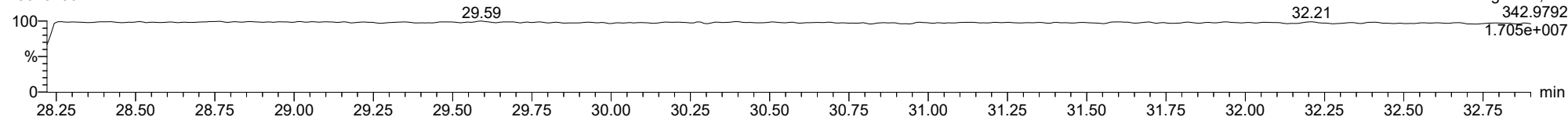
**13C-12378-PeCDD**

23020106



**FUNCTION2 PFK**

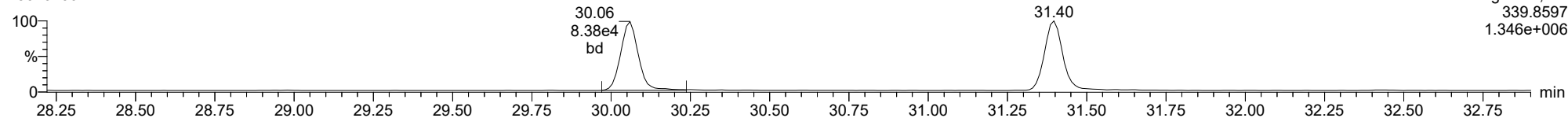
23020106



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

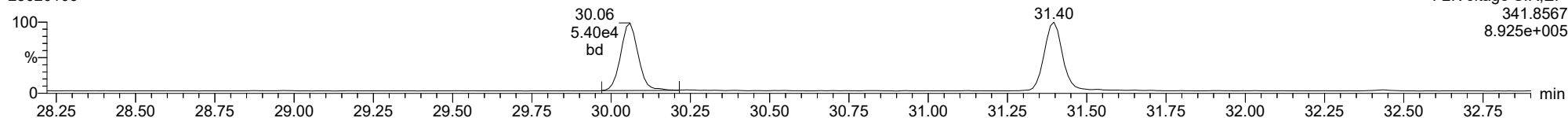
**12378-PeCDF**

23020106



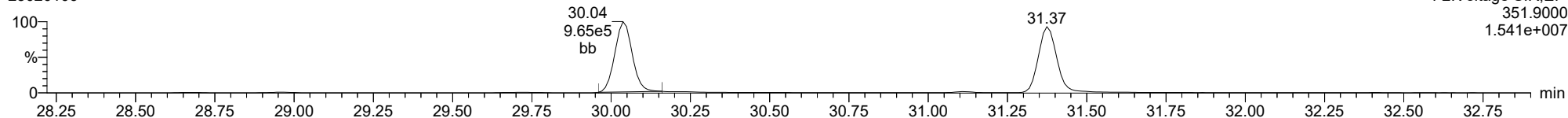
**12378-PeCDF**

23020106



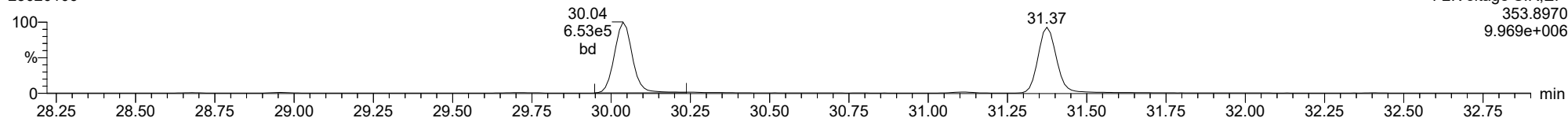
**13C-12378-PeCDF**

23020106



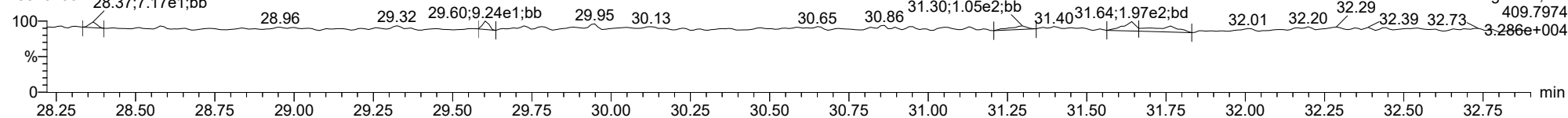
**13C-12378-PeCDF**

23020106



**FUNCTION2 HPCDPE**

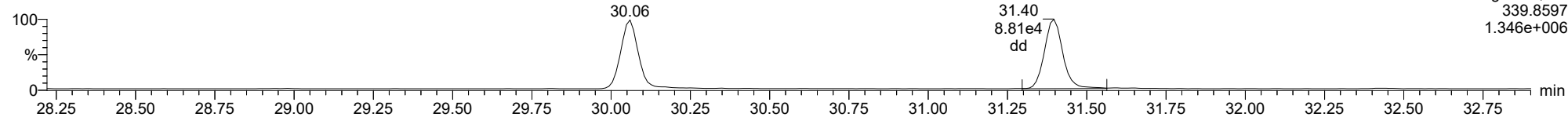
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

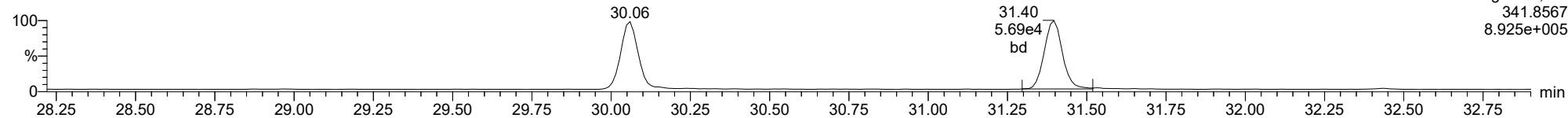
**23478-PeCDF**

23020106



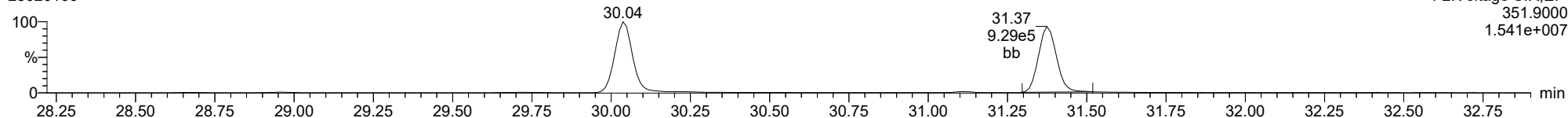
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23020106



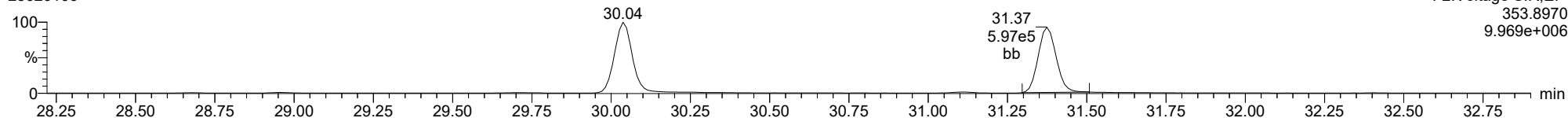
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23020106



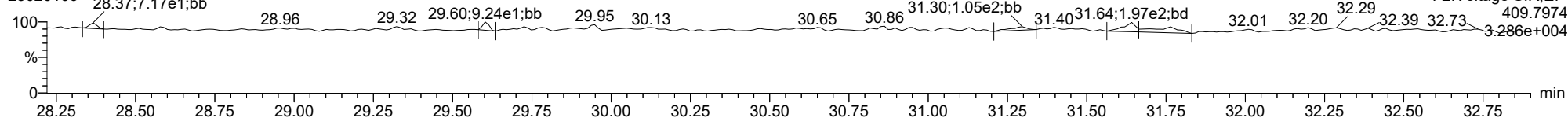
**13C-23478-PeCDF**

23020106



**FUNCTION2 HPCDPE**

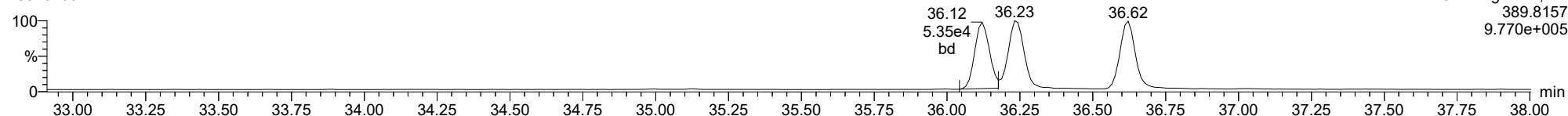
23020106



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

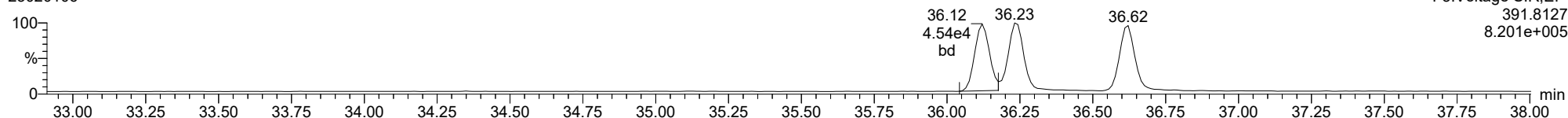
**123478-HxCDD**

23020106



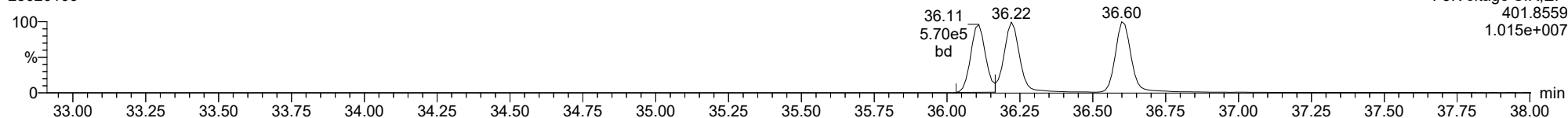
**123478-HxCDD**

23020106



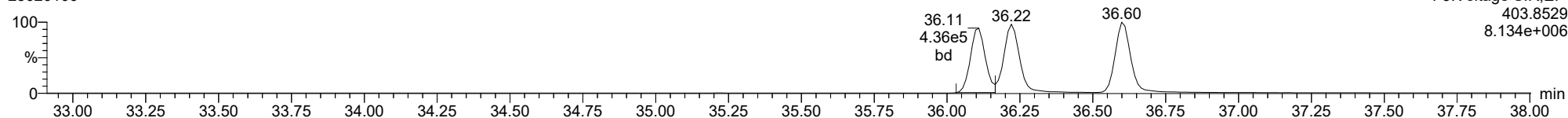
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23020106



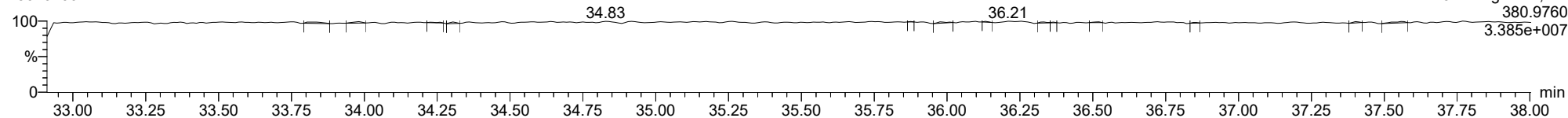
**13C-123478-HxCDD**

23020106



**FUNCTION3 PFK**

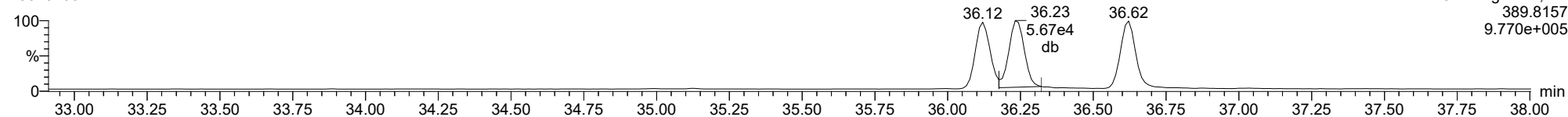
23020106



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

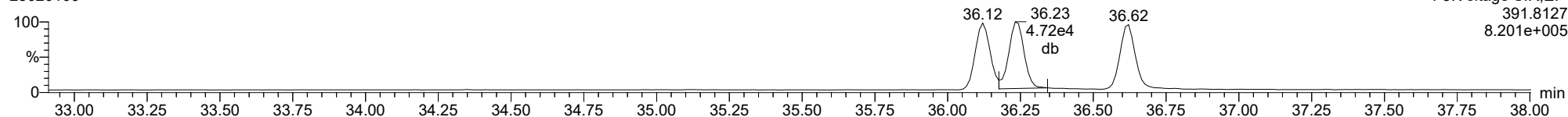
**123678-HxCDD**

23020106



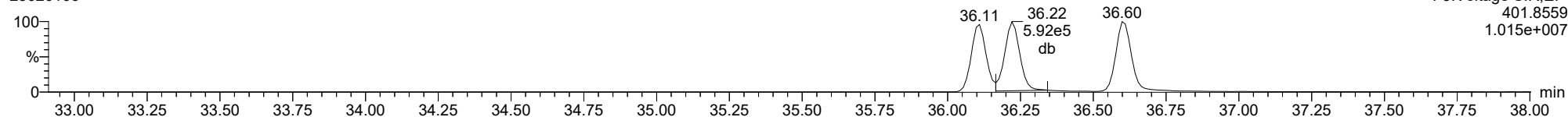
**123678-HxCDD**

23020106



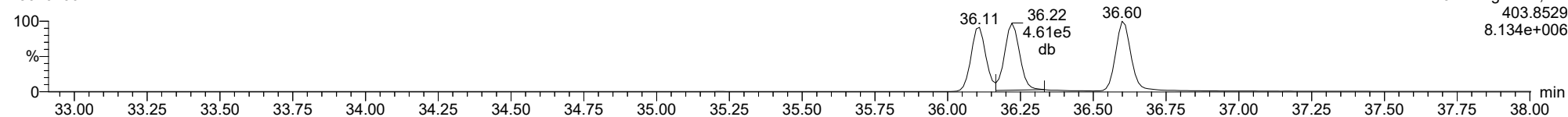
**13C-123678-HxCDD**

23020106



**13C-123678-HxCDD**

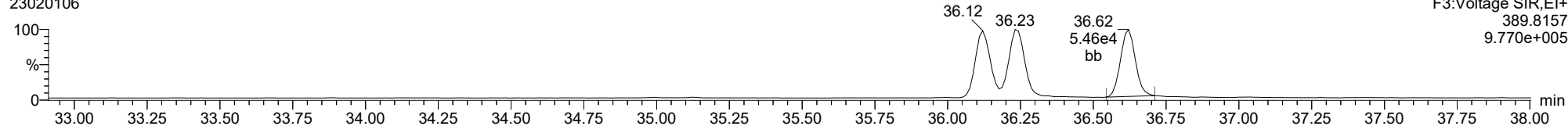
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

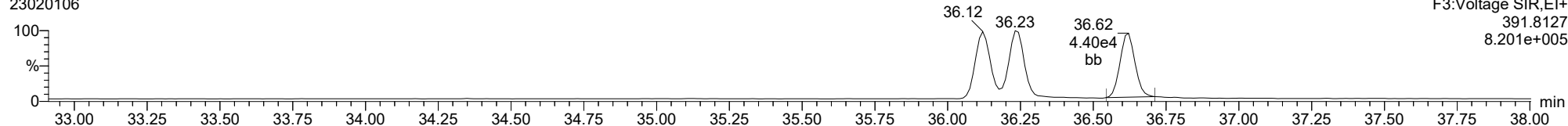
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23020106



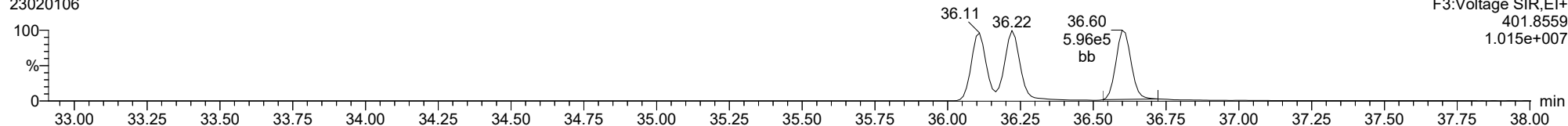
**123789-HxCDD**

23020106



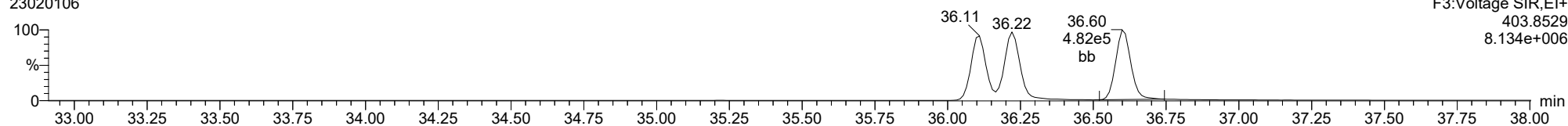
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23020106



**13C-123789-HxCDD**

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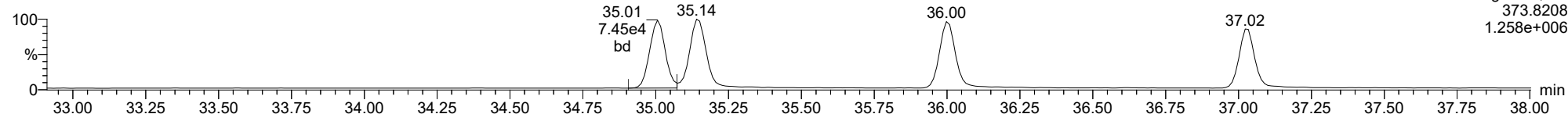




ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

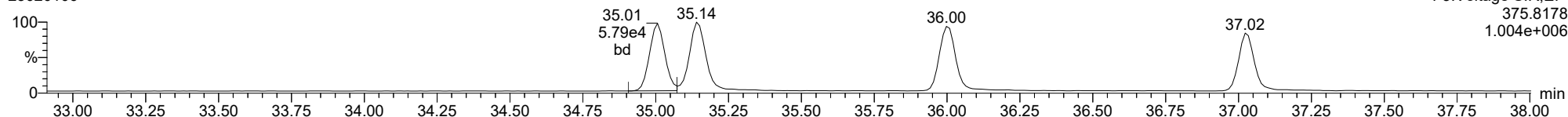
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23020106



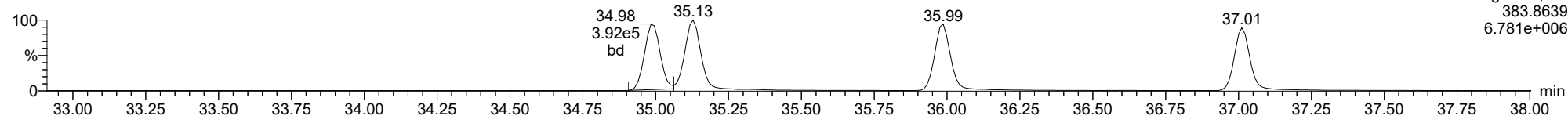
**123478-HxCDF**

23020106



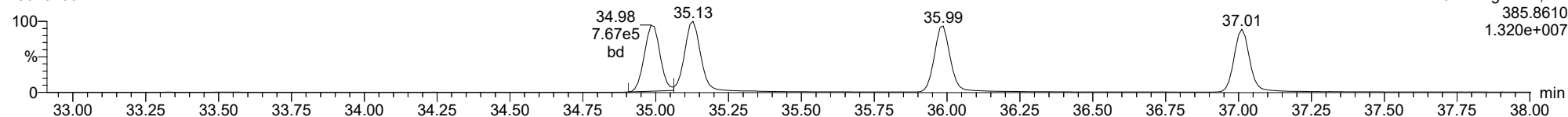
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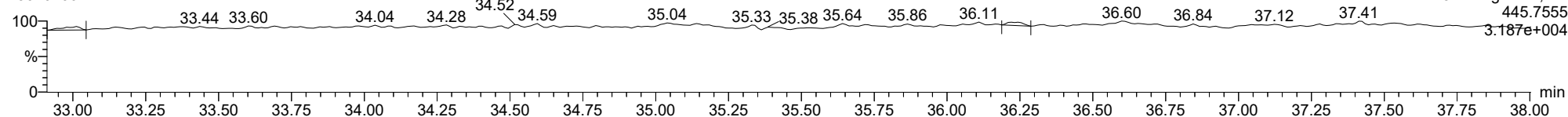
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23020106



**FUNCTION3 OCDPE**

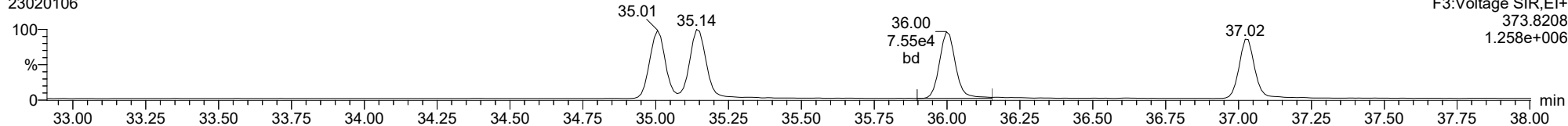
23020106



ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

**234678-HxCDF**

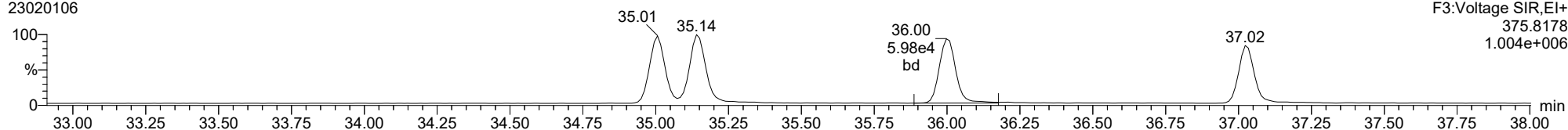
23020106



F3:Voltage SIR,El+  
373.8208  
1.258e+006

**234678-HxCDF**

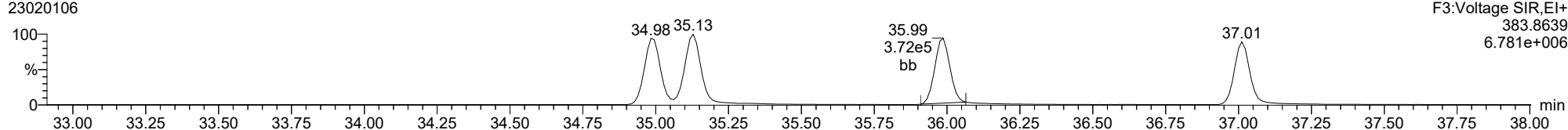
23020106



F3:Voltage SIR,El+  
375.8178  
1.004e+006

**13C-234678-HxCDF**

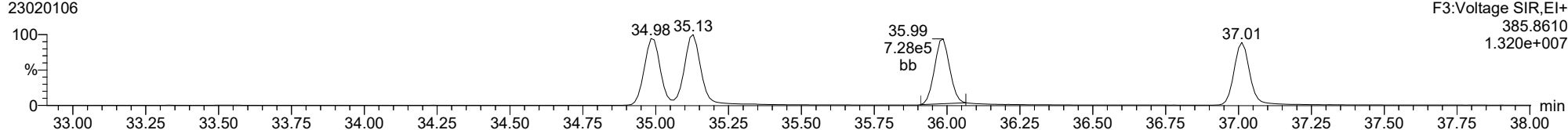
23020106



F3:Voltage SIR,El+  
383.8639  
6.781e+006

**13C-234678-HxCDF**

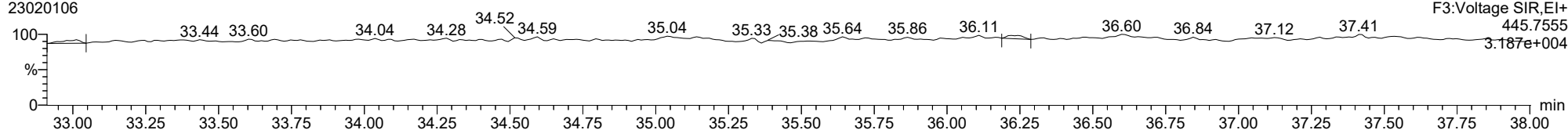
23020106



F3:Voltage SIR,El+  
385.8610  
1.320e+007

**FUNCTION3 OCDPE**

23020106

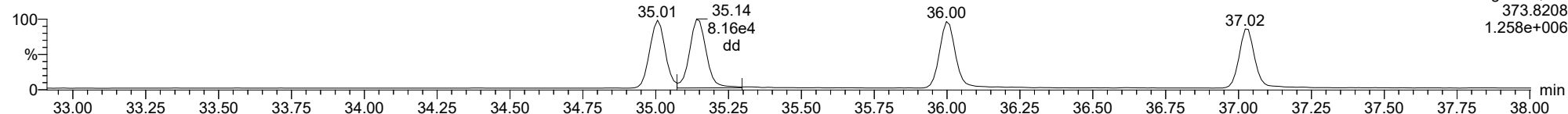


F3:Voltage SIR,El+  
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3.187e+004

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

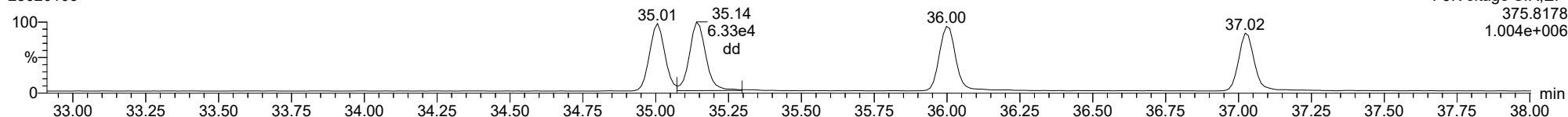
**123678-HxCDF**

23020106



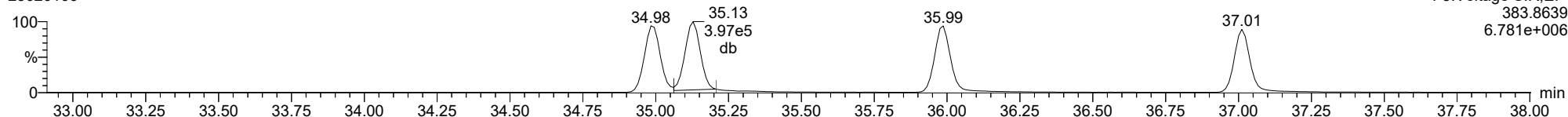
**123678-HxCDF**

23020106



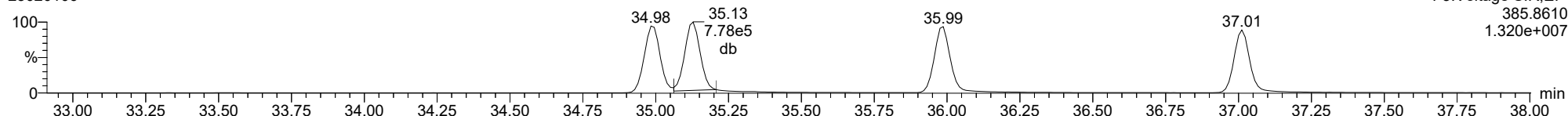
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23020106



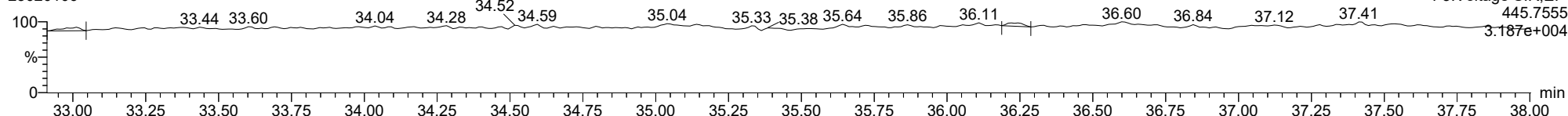
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23020106



**FUNCTION3 OCDPE**

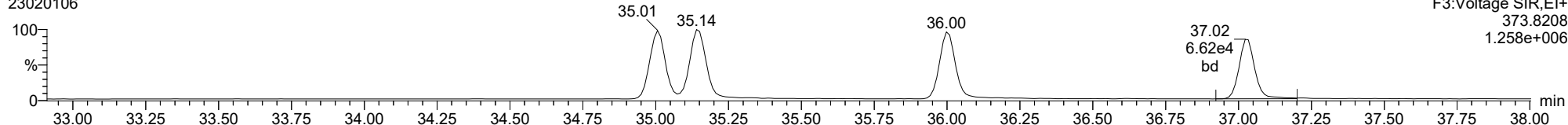
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

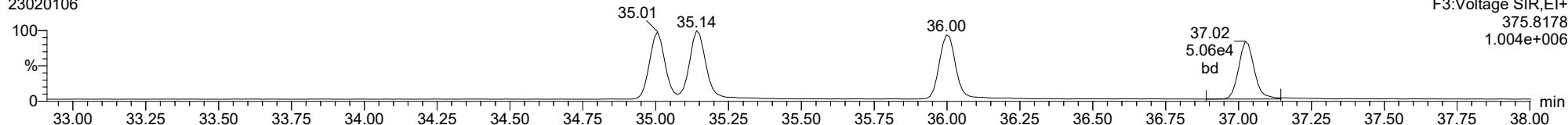
**123789-HxCDF**

23020106



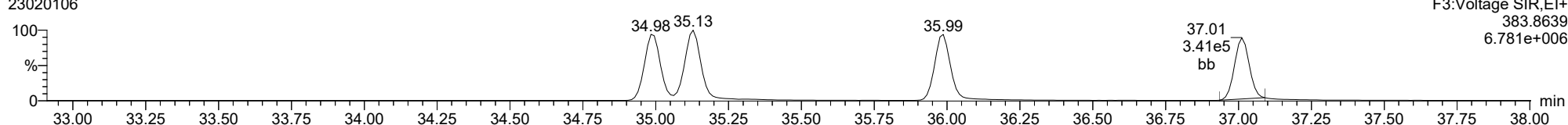
**123789-HxCDF**

23020106



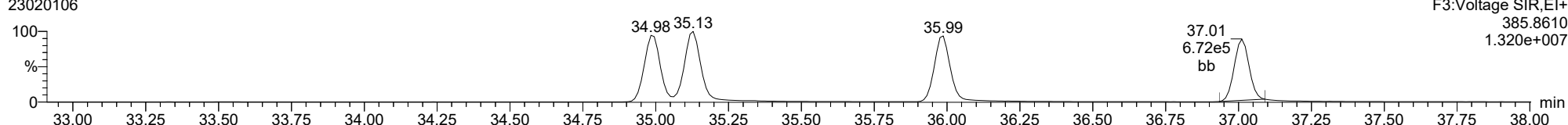
**13C-123789-HxCDF**

23020106



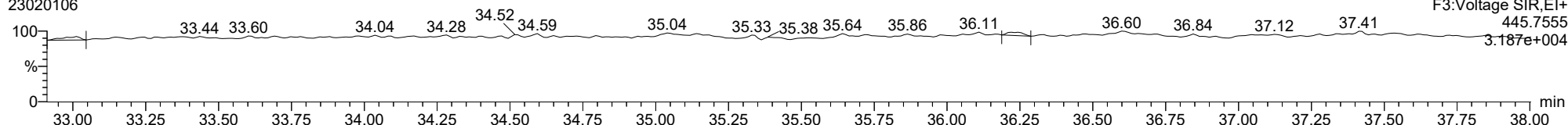
**13C-123789-HxCDF**

23020106



**FUNCTION3 OCDPE**

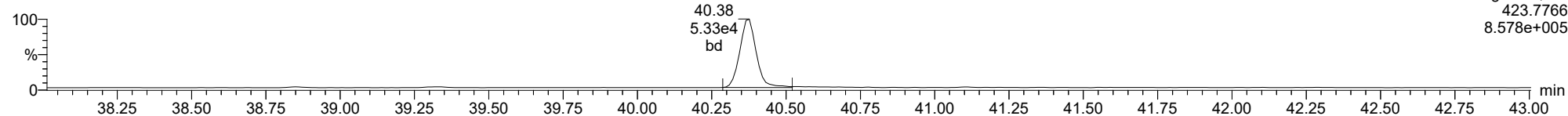
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

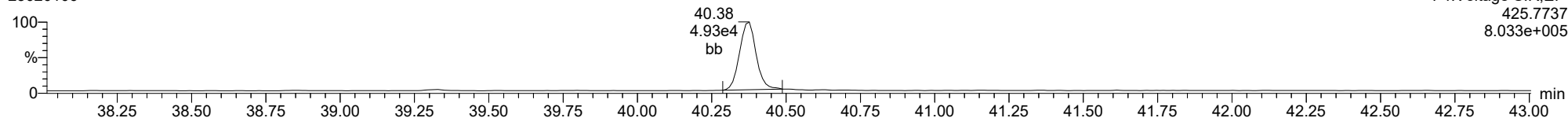
**1234678-HpCDD**

23020106



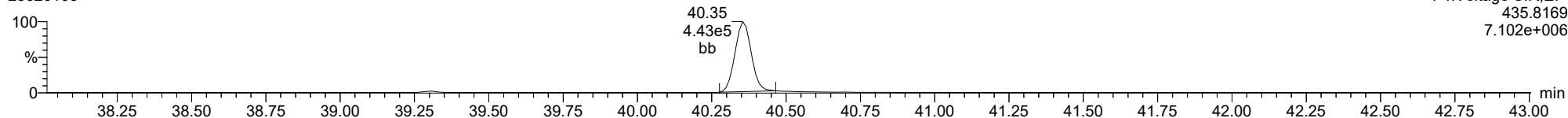
**1234678-HpCDD**

23020106



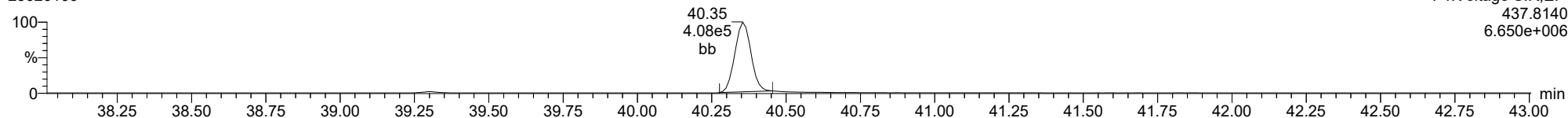
**13C-1234678-HpCDD**

23020106



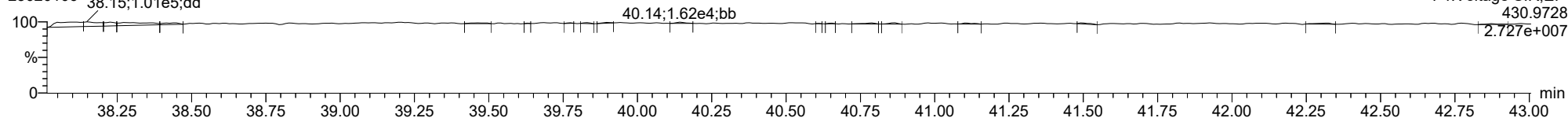
**13C-1234678-HpCDD**

23020106



**FUNCTION4 PFK**

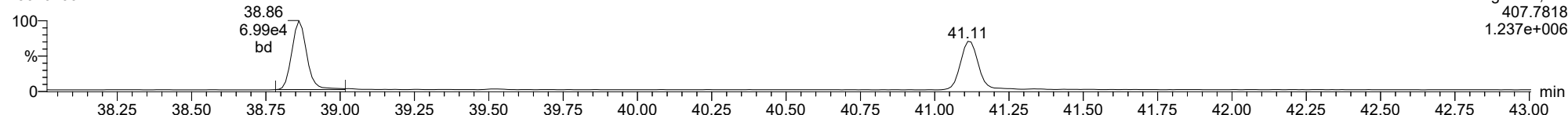
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

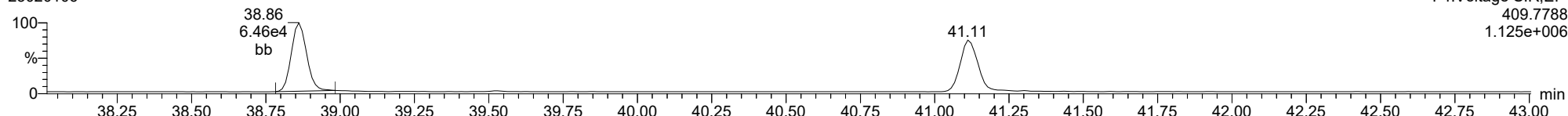
1234678-HpCDF

23020106



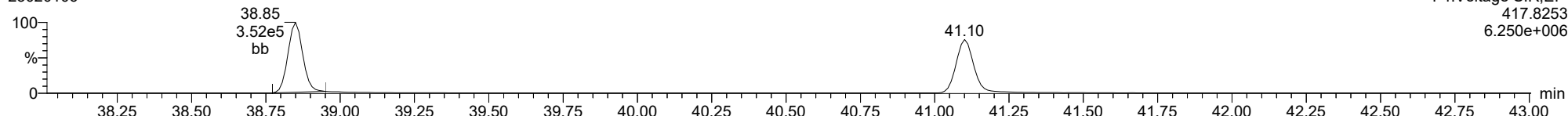
1234678-HpCDF

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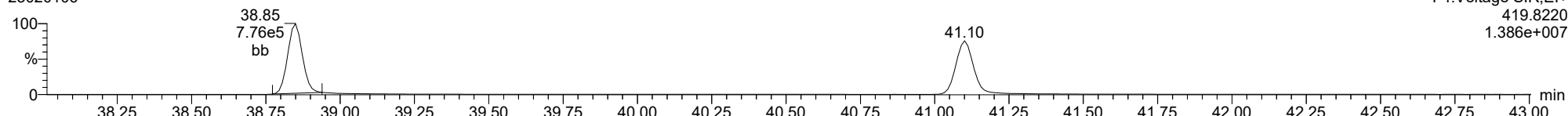
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23020106



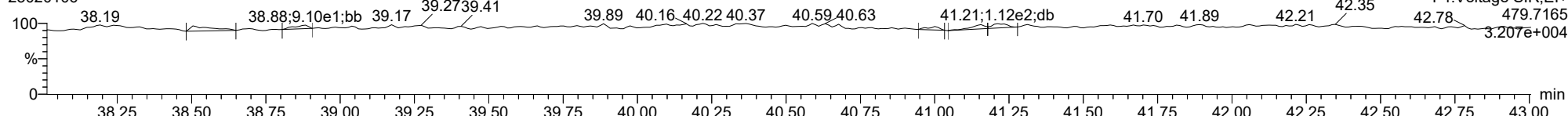
13C-1234678-HpCDF

23020106



FUNCTION4 NCDPE

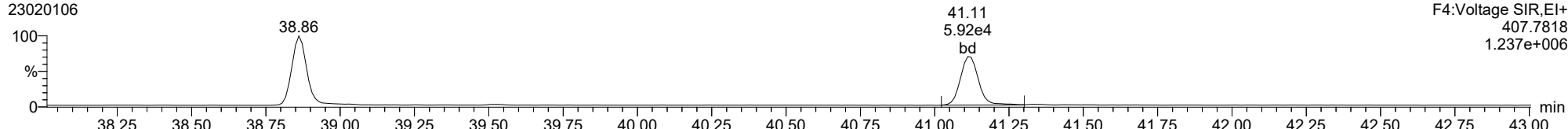
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

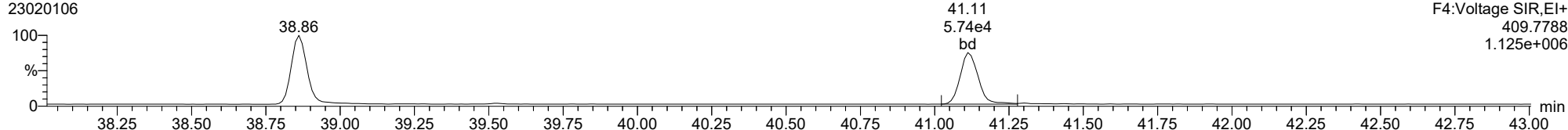
1234789-HpCDF

23020106



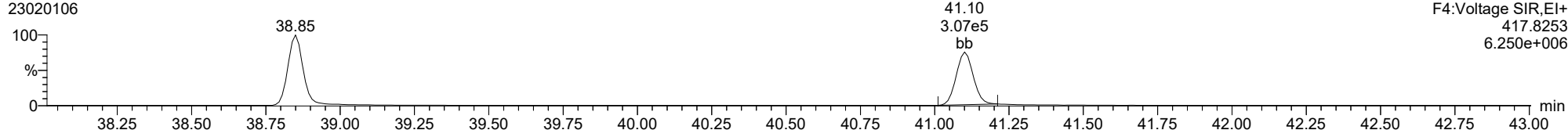
1234789-HpCDF

23020106



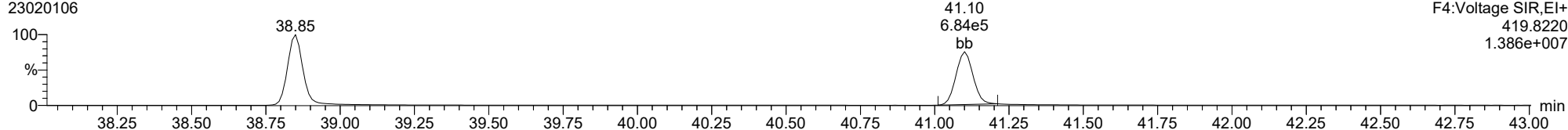
13C-1234789-HpCDF

23020106



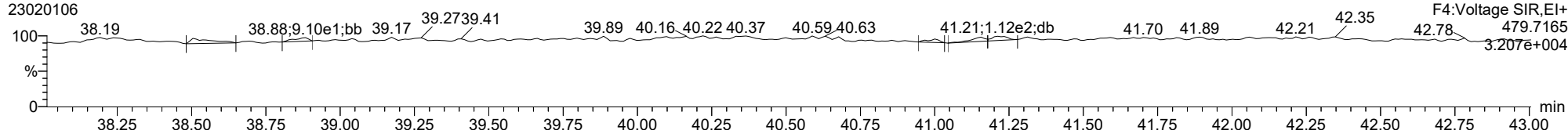
13C-1234789-HpCDF

23020106



FUNCTION4 NCDPE

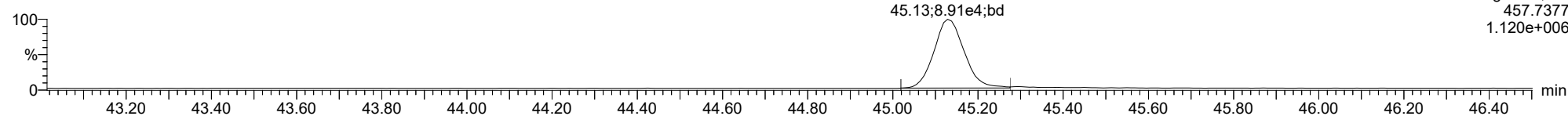
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

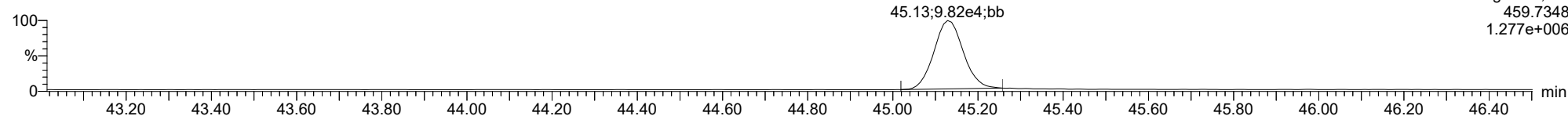
**OCDD**

23020106



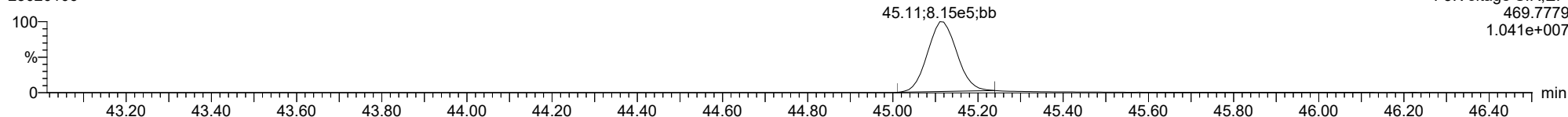
**OCDD**

23020106



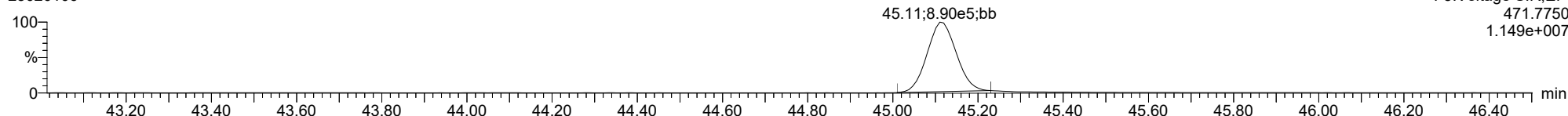
**13C-OCDD**

23020106



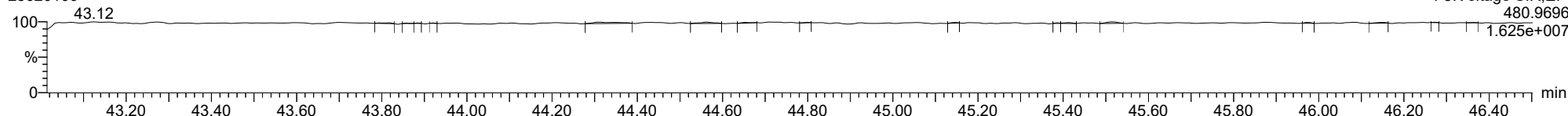
**13C-OCDD**

23020106



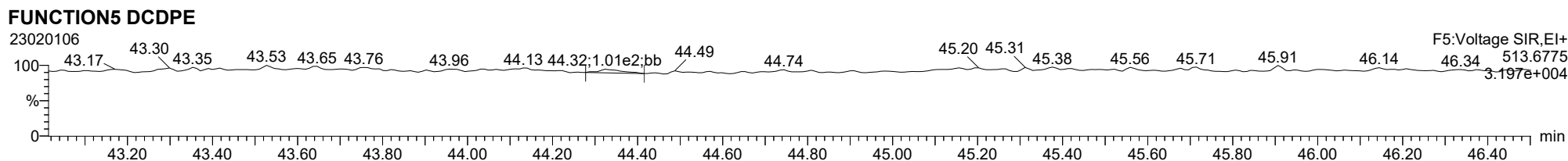
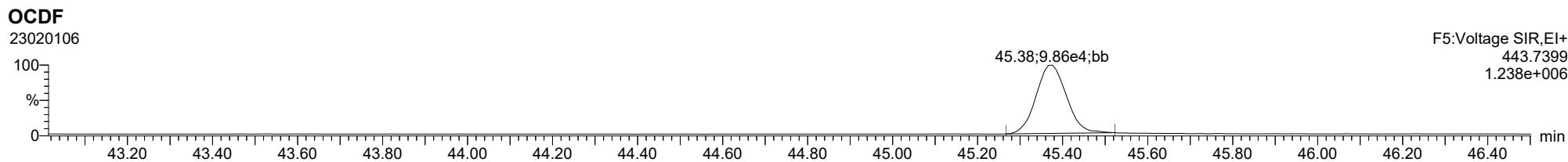
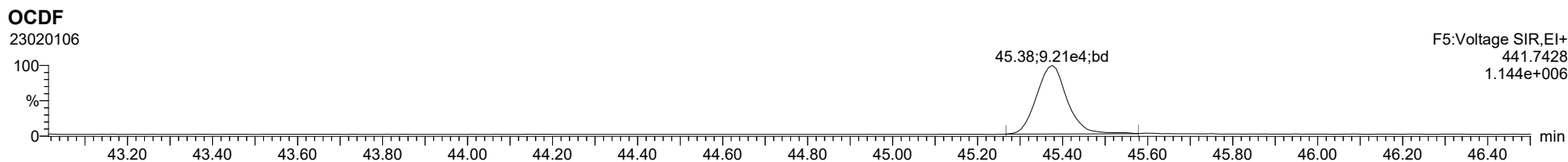
**FUNCTION5 PFK**

23020106





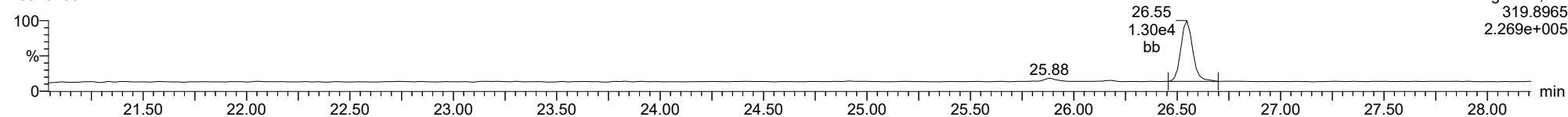
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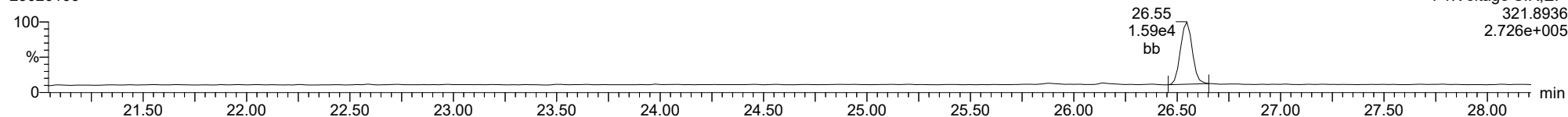
**Total-tetradioxins**

23020106



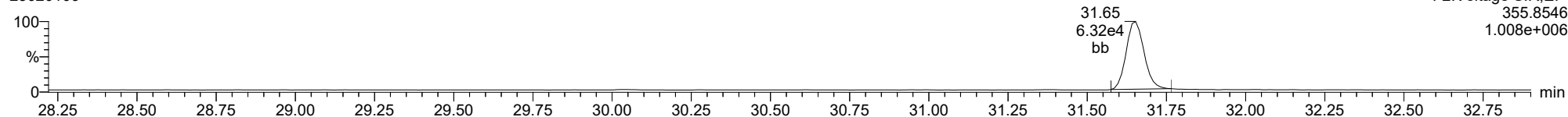
**Total-tetradioxins**

23020106



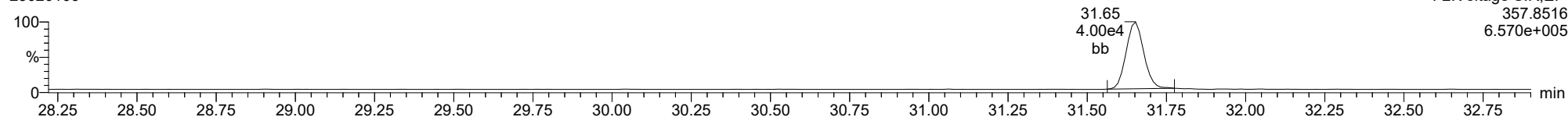
**Total-pentadioxins**

23020106



**Total-pentadioxins**

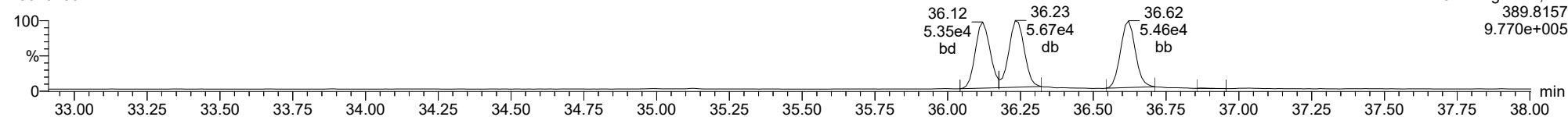
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

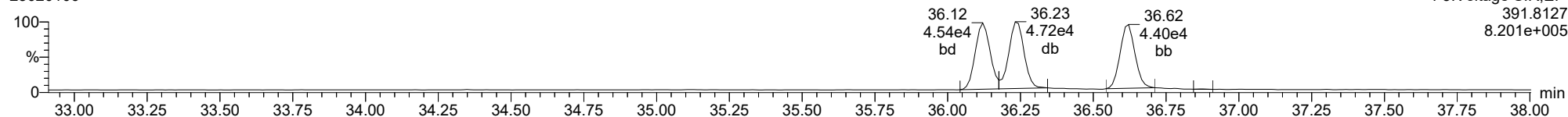
**Total-hexadioxins**

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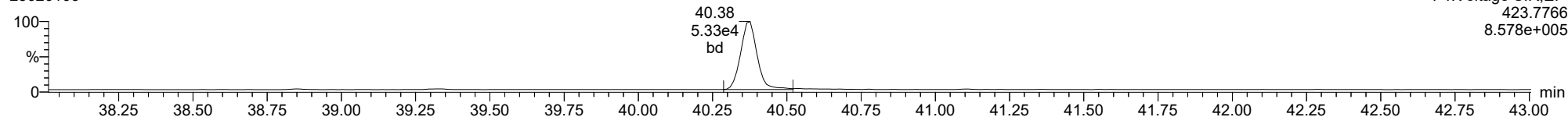
**Total-hexadioxins**

23020106



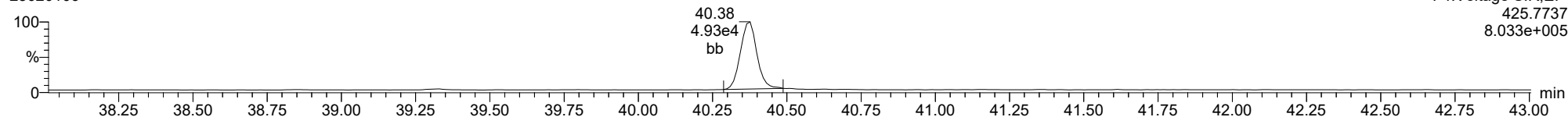
**Total-heptadioxins**

23020106



**Total-heptadioxins**

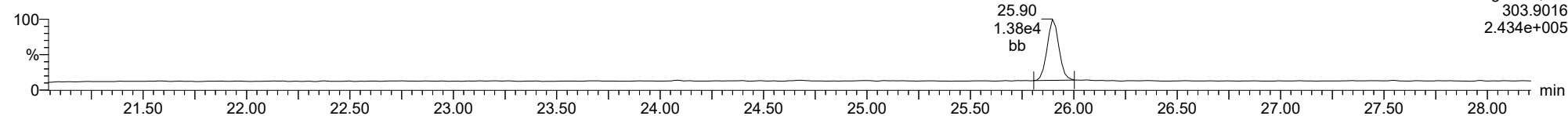
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

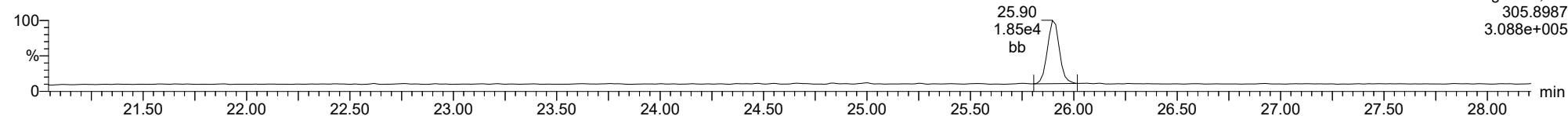
**Total-tetrafurans**

23020106



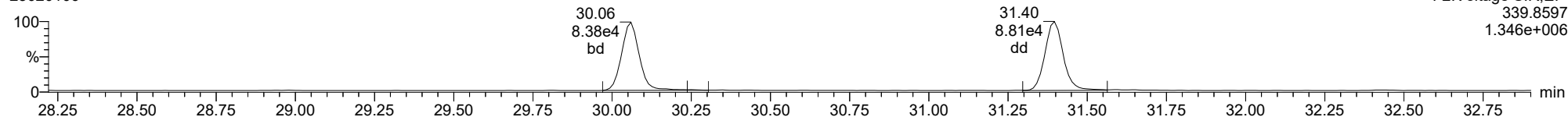
**Total-tetrafurans**

23020106



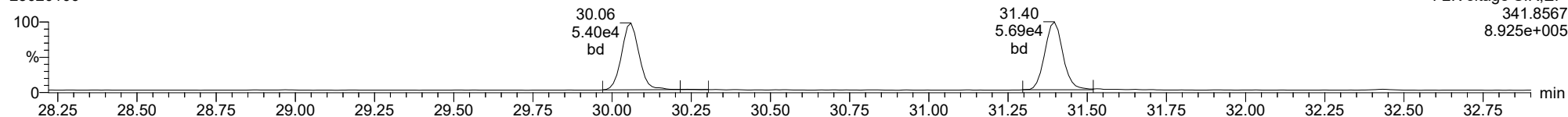
**Total-pentafurans**

23020106



**Total-pentafurans**

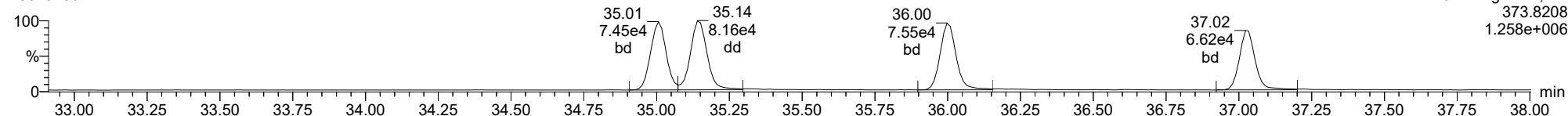
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

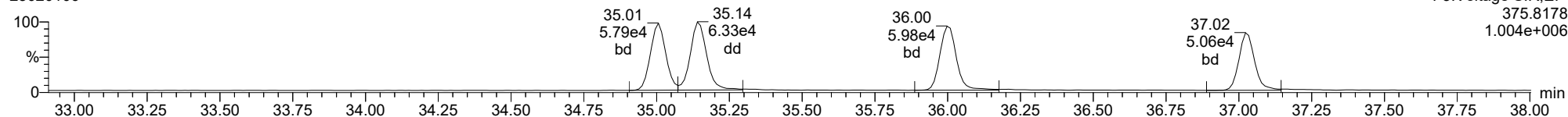
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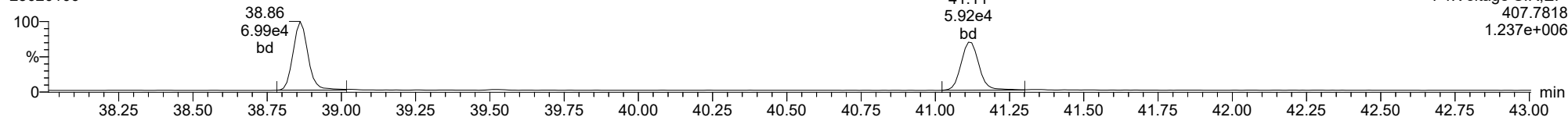
**Total-hexafurans**

23020106



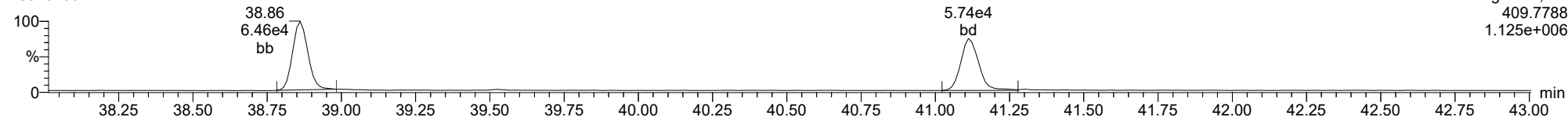
**Total-heptafurans**

23020106



**Total-heptafurans**

23020106



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	6.453e4	8.749e4	0.876	0.738	0.770	1099	2026	9.86e5	1.33e6	897.2	656.5	NO	bb	bb	10.343
12378-PeCDF	30.048	1.001	3.683e5	2.382e5	0.845	1.546	1.550	3190	2595	5.70e6	3.69e6	1785.6	1421.3	NO	bb	bb	49.054
23478-PeCDF	31.385	1.001	3.878e5	2.552e5	0.911	1.520	1.550	3190	2595	5.98e6	3.95e6	1875.0	1521.7	NO	bb	bb	49.735
123478-HxCDF	34.995	1.001	3.439e5	2.707e5	1.182	1.271	1.240	3530	2719	5.57e6	4.47e6	1578.6	1645.2	NO	bd	bd	49.384
234678-HxCDF	35.987	1.000	3.473e5	2.734e5	1.229	1.270	1.240	3530	2719	5.49e6	4.36e6	1554.3	1603.8	NO	bd	bd	50.511
123678-HxCDF	35.129	1.000	3.705e5	2.941e5	1.248	1.260	1.240	3530	2719	5.50e6	4.37e6	1557.7	1606.9	NO	db	db	49.292
123789-HxCDF	37.012	1.000	3.044e5	2.379e5	1.187	1.279	1.240	3530	2719	4.78e6	3.76e6	1354.6	1383.4	NO	bb	bd	49.842
1234678-HpCDF	38.850	1.000	2.941e5	2.898e5	1.204	1.015	1.050	2499	2461	4.94e6	4.87e6	1976.6	1980.3	NO	bb	bb	47.249
1234789-HpCDF	41.100	1.000	2.575e5	2.639e5	1.165	0.976	1.050	2499	2461	3.86e6	3.76e6	1546.5	1528.6	NO	bb	bb	48.293
OCDF	45.357	1.006	3.904e5	4.394e5	1.186	0.889	0.890	2361	1464	4.77e6	5.34e6	2021.3	3646.6	NO	bb	bb	88.323
2378-TCDD	26.532	1.001	5.783e4	7.140e4	1.236	0.810	0.770	1261	1356	8.71e5	1.09e6	690.6	804.6	NO	bb	bb	9.200
12378-PeCDD	31.642	1.001	2.871e5	1.811e5	1.087	1.585	1.550	1935	1700	4.52e6	2.88e6	2335.1	1692.4	NO	bb	bb	49.835
123478-HxCDD	36.109	1.000	2.492e5	2.039e5	0.987	1.222	1.240	2775	1957	4.32e6	3.49e6	1555.2	1781.3	NO	bd	bd	49.339
123678-HxCDD	36.221	1.000	2.605e5	2.153e5	1.021	1.210	1.240	2775	1957	4.30e6	3.56e6	1550.9	1817.2	NO	db	db	49.052
123789-HxCDD	36.611	1.011	2.521e5	2.108e5	0.985	1.196	1.240	2775	1957	4.16e6	3.46e6	1500.2	1770.2	NO	bb	bb	49.951
1234678-HpCDD	40.354	1.000	2.309e5	2.219e5	1.253	1.041	1.050	2551	2394	3.57e6	3.40e6	1399.4	1422.4	NO	bb	bb	46.332
OCDD	45.119	1.000	3.877e5	4.205e5	1.103	0.922	0.890	2154	2574	4.65e6	5.24e6	2156.8	2035.9	NO	bd	bb	92.549
13C-2378-TCDF	25.867	1.007	7.414e5	9.363e5	1.768	0.792	0.770	2053	1619	1.15e7	1.43e7	5585.3	8856.7	NO	bb	bb	94.656
13C-12378-PeCDF	30.026	1.168	8.877e5	5.760e5	1.527	1.541	1.550	2967	1853	1.38e7	8.94e6	4662.3	4827.2	NO	bb	bb	95.615
13C-23478-PeCDF	31.363	1.220	8.562e5	5.626e5	1.466	1.522	1.550	2967	1853	1.33e7	8.64e6	4491.7	4663.8	NO	bb	bb	96.525
13C-123478-HxCDF	34.973	0.956	3.562e5	6.970e5	1.054	0.511	0.510	1992	2758	5.88e6	1.16e7	2952.0	4191.7	NO	bd	bd	100.726
13C-123678-HxCDF	35.118	0.960	3.647e5	7.156e5	1.080	0.510	0.510	1992	2758	5.88e6	1.14e7	2953.9	4143.1	NO	db	db	100.801
13C-234678-HxCDF	35.975	0.983	3.384e5	6.615e5	1.014	0.512	0.510	1992	2758	5.68e6	1.10e7	2849.9	4002.3	NO	bb	bb	99.342
13C-123789-HxCDF	37.000	1.011	3.154e5	6.016e5	0.928	0.524	0.510	1992	2758	5.40e6	1.05e7	2709.2	3801.7	NO	bb	bb	99.581
13C-1234678-HpCDF	38.839	1.061	3.227e5	7.036e5	1.036	0.459	0.440	2621	3052	5.41e6	1.21e7	2065.5	3959.7	NO	bb	bb	99.821
13C-1234789-HpCDF	41.089	1.123	2.972e5	6.294e5	0.905	0.472	0.440	2621	3052	4.32e6	9.59e6	1649.5	3143.4	NO	bd	bb	103.177
13C-1234-TCDD	25.700	0.000	4.469e5	5.555e5	1.000	0.804	0.770	2398	1542	7.04e6	8.78e6	2935.5	5692.9	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	4.991e5	6.371e5	1.103	0.783	0.770	2398	1542	7.48e6	9.58e6	3119.3	6212.6	NO	bb	bb	102.763
13C-12378-PeCDD	31.619	1.230	5.354e5	3.292e5	0.914	1.626	1.550	1302	1293	8.28e6	5.07e6	6359.2	3923.9	NO	bb	bb	94.346
13C-123478-HxCDD	36.098	0.987	5.251e5	4.053e5	0.933	1.296	1.240	1973	3288	8.80e6	6.71e6	4459.6	2041.7	NO	bd	bd	100.495
13C-123678-HxCDD	36.209	0.990	5.354e5	4.149e5	0.965	1.291	1.240	1973	3288	8.89e6	6.90e6	4507.2	2100.1	NO	db	db	99.280
13C-1234678-HpCDD	40.343	1.103	4.018e5	3.784e5	0.782	1.062	1.050	1997	2297	6.40e6	6.01e6	3207.1	2617.9	NO	bb	bb	100.543
13C-OCDD	45.101	1.233	7.578e5	8.262e5	0.788	0.917	0.890	2644	3522	9.52e6	1.02e7	3599.3	2906.4	NO	bb	bb	202.502
13C-123789-HxCDD	36.588	0.000	5.534e5	4.389e5	1.000	1.261	1.240	1973	3288	9.19e6	7.27e6	4657.5	2210.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.115e5		1.233			1579		1.70e6		1075.4			bb		9.021

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	7.831e4	1.003e5	1.064	0.781	0.770	1099	2026	1.24e6	1.58e6	1124.6	780.3	NO	bb	bb	10.000
1289-TCDF	27.378	1.058	6.314e4	8.075e4	0.858	0.782	0.770	1099	2026	9.07e5	1.18e6	825.1	582.8	NO	db	db	10.000
13468-PECDF	27.243	0.907	4.504e5	2.910e5	1.013	1.548	1.550	1001	928	7.08e6	4.58e6	7076.3	4935.5	NO	bb	bb	50.000
12389-PECDF	32.422	1.080	3.693e5	2.481e5	0.844	1.488	1.550	3190	2595	5.63e6	3.73e6	1765.9	1435.6	NO	bb	bb	50.000
123468-HXCDF	33.335	0.953	3.538e5	2.768e5	1.197	1.278	1.240	3530	2719	5.41e6	4.18e6	1531.9	1537.1	NO	bb	bd	50.000
1368-TCDD	23.659	0.892	5.365e4	6.956e4	1.084	0.771	0.770	1261	1356	8.58e5	1.11e6	680.3	820.3	NO	bb	bb	10.000
1289-TCDD	27.122	1.023	4.896e4	6.184e4	0.975	0.792	0.770	1261	1356	7.39e5	9.25e5	586.4	682.2	NO	bb	bb	10.000
12479-PECDD	28.912	0.914	4.860e5	3.082e5	1.837	1.577	1.550	1935	1700	4.68e6	2.92e6	2418.8	1714.3	NO	bb	bb	50.000
12389-PECDD	32.032	1.013	3.312e5	2.102e5	1.252	1.576	1.550	1935	1700	5.26e6	3.30e6	2720.3	1940.3	NO	bb	bb	50.000
124679-HXCDD	34.104	0.945	2.650e5	2.155e5	1.033	1.230	1.240	2775	1957	4.22e6	3.42e6	1521.7	1748.3	NO	bb	bb	50.000
1234679-HPCDD	39.307	0.974	2.579e5	2.438e5	1.286	1.058	1.050	2551	2394	4.26e6	3.98e6	1669.1	1662.1	NO	bb	bb	50.000
Total-tetrafurans			2.076e5		0.933			1099		3.16e6							30.586
Total-penta1			4.504e5					1001		7.08e6							50.000
Total-pentafurans			1.187e6		0.866			3190		1.83e7							156.881
Total-hexafurans			1.720e6		1.208			3530		2.67e7							249.030
Total-heptafurans			5.536e5		1.185			2499		8.83e6							95.864
Total-Furans			4.509e6		1.067			1099		6.89e7							670.685
Total-tetradoxins			2.732e5		1.099			1261		3.78e6							49.490
Total-pentadoxins			1.106e6		1.392			1935		1.45e7							150.052
Total-hexadoxins			1.027e6		1.007			2775		1.70e7							198.343
Total-heptadoxins			4.888e5		1.269			2551		7.83e6							96.332
Total-Dioxins			3.282e6		1.165			1261		4.77e7							586.766
Total-TEQ			7.791e6					1261		1.17e8							1257.451
FUNCTION1 PFK			2.071e7					567379		2.38e8							
FUNCTION2 PFK			0.000e0					180306		0.00e0							
FUNCTION3 PFK			2.786e4					420708		9.12e5							0.000
FUNCTION4 PFK			7.534e5					257681		1.24e7							
FUNCTION5 PFK			1.239e5					175535		5.02e6							
FUNCTION1 HXCD...			1.237e3					791		2.01e4							0.000
FUNCTION1 HPCD...			1.368e3					947		2.24e4							0.000
FUNCTION2 HPCD...			4.817e2					887		9.10e3							0.000
FUNCTION3 OCDPE			4.485e2					809		9.17e3							0.000
FUNCTION4 NCDPE			3.809e2					922		7.31e3							0.000
FUNCTION5 DCDPE			0.000e0					753		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**

**Calibration: 03 Feb 2023 10:33:40**

**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**

**TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
2	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
3	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
4	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
2	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
3	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
4	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
5	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
2	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
3	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000
6	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
7	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
8	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
9	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093
10	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
11	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
12	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
13	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
14	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511
15	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
16	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
17	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249
18	OCDF	45.36	3.904e5	4.394e5	1.186	0.89	0.89	2021.3	YES	NO	bb	bb	88.323
19	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
2	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
3	Total-tetradoxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
4	Total-tetradoxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
5	Total-tetradoxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
6	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk****PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
2	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
3	Total-pentadioxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
4	Total-pentadioxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
5	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
2	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
3	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
4	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
2	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
2	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
3	Total-tetradoxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
4	Total-tetradoxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
5	Total-tetradoxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
6	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000
7	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
8	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
9	Total-pentadoxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
10	Total-pentadoxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
11	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000
12	124679-HxCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
13	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
14	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
15	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339
16	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
17	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000
18	OCDD	45.12	3.877e5	4.205e5	1.103	0.92	0.89	2156.8	YES	NO	bd	bb	92.549

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000
6	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
7	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
8	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
9	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093
10	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
11	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
12	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
13	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
14	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511
15	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
16	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
17	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249
18	OCDF	45.36	3.904e5	4.394e5	1.186	0.89	0.89	2021.3	YES	NO	bb	bb	88.323
19	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000
20	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
21	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
22	Total-tetradioxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
23	Total-tetradioxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
24	Total-tetradioxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
25	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000
26	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
27	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
28	Total-pentadioxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
29	Total-pentadioxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
30	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000
31	124679-HXCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
32	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
33	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
34	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339
35	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
36	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000
37	OCDD	45.12	3.877e5	4.205e5	1.103	0.92	0.89	2156.8	YES	NO	bd	bb	92.549

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.91	6.852e5					20.8	YES		dd		
2	FUNCTION1 PFK	21.84	1.096e6					22.0	YES		dd		
3	FUNCTION1 PFK	21.77	5.746e5					22.9	YES		dd		
4	FUNCTION1 PFK	21.71	1.001e6					23.9	YES		dd		
5	FUNCTION1 PFK	21.59	1.735e6					26.6	YES		dd		
6	FUNCTION1 PFK	21.47	1.869e6					28.4	YES		dd		
7	FUNCTION1 PFK	21.35	2.030e6					30.8	YES		dd		
8	FUNCTION1 PFK	21.25	1.366e6					32.7	YES		dd		
9	FUNCTION1 PFK	21.13	3.514e6					34.9	YES		bd		
10	FUNCTION1 PFK	23.42	1.745e4					0.9	NO		db		
11	FUNCTION1 PFK	23.36	2.629e4					1.1	NO		dd		
12	FUNCTION1 PFK	23.30	5.605e4					1.4	NO		bd		
13	FUNCTION1 PFK	23.16	2.732e4					0.9	NO		bb		
14	FUNCTION1 PFK	22.89	1.080e5					3.0	YES		db		
15	FUNCTION1 PFK	22.81	1.442e5					3.9	YES		dd		
16	FUNCTION1 PFK	22.75	1.516e5					4.8	YES		dd		
17	FUNCTION1 PFK	22.69	1.790e5					5.6	YES		dd		
18	FUNCTION1 PFK	22.56	6.347e5					8.4	YES		dd		
19	FUNCTION1 PFK	22.42	5.662e5					10.5	YES		dd		
20	FUNCTION1 PFK	22.36	4.892e5					12.2	YES		dd		
21	FUNCTION1 PFK	22.30	4.241e5					12.7	YES		dd		
22	FUNCTION1 PFK	22.18	1.005e6					15.7	YES		dd		
23	FUNCTION1 PFK	22.10	6.911e5					16.7	YES		dd		
24	FUNCTION1 PFK	22.04	6.019e5					18.1	YES		dd		
25	FUNCTION1 PFK	21.98	6.245e5					18.6	YES		dd		
26	FUNCTION1 PFK	25.17	1.799e4					0.9	NO		bb		
27	FUNCTION1 PFK	25.05	6.677e4					1.7	NO		bb		
28	FUNCTION1 PFK	24.97	5.669e3					0.4	NO		db		
29	FUNCTION1 PFK	24.93	2.665e4					1.1	NO		bd		
30	FUNCTION1 PFK	24.79	9.106e3					0.5	NO		bb		
31	FUNCTION1 PFK	24.70	2.803e4					1.0	NO		bb		
32	FUNCTION1 PFK	24.60	2.266e4					1.1	NO		bb		
33	FUNCTION1 PFK	24.51	2.481e3					0.3	NO		bb		
34	FUNCTION1 PFK	24.26	2.953e3					0.3	NO		bb		
35	FUNCTION1 PFK	24.07	3.464e4					0.9	NO		db		
36	FUNCTION1 PFK	23.95	2.818e4					0.8	NO		bd		
37	FUNCTION1 PFK	23.86	1.761e4					1.0	NO		bb		

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	23.80	2.745e4					1.4	NO		db		
39	FUNCTION1 PFK	23.75	2.279e4					1.2	NO		bd		
40	FUNCTION1 PFK	23.57	1.177e3					0.1	NO		bb		
41	FUNCTION1 PFK	23.51	3.339e4					1.1	NO		bb		
42	FUNCTION1 PFK	26.92	1.624e4					0.8	NO		bd		
43	FUNCTION1 PFK	26.85	6.743e4					2.0	NO		db		
44	FUNCTION1 PFK	26.77	3.605e4					1.4	NO		dd		
45	FUNCTION1 PFK	26.71	5.041e4					1.7	NO		dd		
46	FUNCTION1 PFK	26.64	3.066e4					1.2	NO		dd		
47	FUNCTION1 PFK	26.58	3.222e4					1.5	NO		bd		
48	FUNCTION1 PFK	26.50	4.287e4					1.3	NO		bb		
49	FUNCTION1 PFK	26.32	9.896e3					0.6	NO		bb		
50	FUNCTION1 PFK	26.26	3.724e4					1.5	NO		bb		
51	FUNCTION1 PFK	26.18	3.323e3					0.4	NO		bb		
52	FUNCTION1 PFK	26.05	1.864e4					1.0	NO		bb		
53	FUNCTION1 PFK	25.91	1.114e4					0.6	NO		bb		
54	FUNCTION1 PFK	25.79	1.895e4					1.1	NO		db		
55	FUNCTION1 PFK	25.72	1.527e4					0.8	NO		bd		
56	FUNCTION1 PFK	25.56	6.069e4					1.2	NO		bb		
57	FUNCTION1 PFK	25.32	2.043e4					0.8	NO		bb		
58	FUNCTION1 PFK	28.10	6.905e3					0.5	NO		bb		
59	FUNCTION1 PFK	28.04	4.818e3					0.4	NO		bb		
60	FUNCTION1 PFK	27.71	1.514e4					0.8	NO		bb		
61	FUNCTION1 PFK	27.65	3.709e4					1.3	NO		db		
62	FUNCTION1 PFK	27.59	2.458e4					1.3	NO		dd		
63	FUNCTION1 PFK	27.53	4.906e4					1.8	NO		bd		
64	FUNCTION1 PFK	27.44	2.074e4					1.1	NO		db		
65	FUNCTION1 PFK	27.38	2.487e4					1.2	NO		dd		
66	FUNCTION1 PFK	27.24	6.345e4					1.2	NO		bd		
67	FUNCTION1 PFK	26.99	2.492e4					1.1	NO		db		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.79	2.481e4					1.5	NO		bb		0.000
2	FUNCTION3 PFK	33.58	3.048e3					0.6	NO		bb		0.000

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.11	2.881e5					5.9	YES		bd		
2	FUNCTION4 PFK	40.30	1.799e3					0.6	NO		bb		
3	FUNCTION4 PFK	40.24	8.794e3					0.9	NO		bb		
4	FUNCTION4 PFK	39.76	2.592e4					1.9	NO		bb		
5	FUNCTION4 PFK	39.53	1.727e3					0.6	NO		bb		
6	FUNCTION4 PFK	39.42	8.213e3					1.1	NO		db		
7	FUNCTION4 PFK	39.37	5.168e3					0.8	NO		bd		
8	FUNCTION4 PFK	39.28	3.722e4					2.1	NO		bb		
9	FUNCTION4 PFK	39.18	4.002e3					0.6	NO		bb		
10	FUNCTION4 PFK	39.14	3.342e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.74	2.110e3					0.5	NO		bb		
12	FUNCTION4 PFK	38.66	1.735e4					1.0	NO		bb		
13	FUNCTION4 PFK	38.54	3.610e3					0.6	NO		db		
14	FUNCTION4 PFK	38.50	2.411e3					0.6	NO		bd		
15	FUNCTION4 PFK	38.43	2.873e4					2.5	NO		db		
16	FUNCTION4 PFK	38.38	2.222e4					2.3	NO		dd		
17	FUNCTION4 PFK	38.32	4.040e4					3.1	YES		dd		
18	FUNCTION4 PFK	42.54	1.660e3					0.6	NO		bb		
19	FUNCTION4 PFK	42.49	5.115e3					0.7	NO		db		
20	FUNCTION4 PFK	42.43	1.342e4					1.1	NO		dd		
21	FUNCTION4 PFK	42.39	8.107e3					1.2	NO		dd		
22	FUNCTION4 PFK	42.35	1.540e4					1.7	NO		bd		
23	FUNCTION4 PFK	42.28	2.692e4					2.0	NO		bb		
24	FUNCTION4 PFK	41.95	3.858e3					0.8	NO		bb		
25	FUNCTION4 PFK	41.80	3.979e4					2.0	NO		db		
26	FUNCTION4 PFK	41.65	1.699e4					1.5	NO		bd		
27	FUNCTION4 PFK	41.55	1.804e4					1.5	NO		db		
28	FUNCTION4 PFK	41.49	1.585e4					1.6	NO		dd		
29	FUNCTION4 PFK	41.42	1.775e4					1.4	NO		dd		
30	FUNCTION4 PFK	41.29	3.051e4					1.6	NO		bd		
31	FUNCTION4 PFK	41.07	3.910e3					0.8	NO		bb		
32	FUNCTION4 PFK	40.83	2.327e4					1.7	NO		bb		
33	FUNCTION4 PFK	40.44	5.321e3					0.8	NO		bb		
34	FUNCTION4 PFK	42.75	1.970e3					0.4	NO		bb		
35	FUNCTION4 PFK	42.66	4.393e3					0.6	NO		bb		



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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.93	2.684e3					0.8	NO		bb		
2	FUNCTION5 PFK	44.87	6.256e3					1.5	NO		bb		
3	FUNCTION5 PFK	44.78	1.077e4					1.6	NO		bb		
4	FUNCTION5 PFK	44.72	7.200e2					0.5	NO		bb		
5	FUNCTION5 PFK	44.65	1.235e3					0.8	NO		bb		
6	FUNCTION5 PFK	44.28	7.736e2					0.5	NO		bb		
7	FUNCTION5 PFK	44.24	1.418e3					0.7	NO		db		
8	FUNCTION5 PFK	44.21	4.442e3					1.2	NO		bd		
9	FUNCTION5 PFK	44.18	5.811e3					0.9	NO		bb		
10	FUNCTION5 PFK	43.82	5.499e3					1.3	NO		bb		
11	FUNCTION5 PFK	43.56	1.617e4					1.7	NO		bb		
12	FUNCTION5 PFK	43.36	1.625e3					0.7	NO		bb		
13	FUNCTION5 PFK	43.23	2.679e3					0.9	NO		bb		
14	FUNCTION5 PFK	46.45	4.419e3					1.2	NO		bb		
15	FUNCTION5 PFK	46.36	5.978e3					1.0	NO		bb		
16	FUNCTION5 PFK	46.26	2.259e3					0.8	NO		bb		
17	FUNCTION5 PFK	46.07	3.509e3					1.0	NO		bb		
18	FUNCTION5 PFK	45.84	4.173e3					1.3	NO		bb		
19	FUNCTION5 PFK	45.76	6.984e2					0.4	NO		bb		
20	FUNCTION5 PFK	45.72	1.077e3					0.7	NO		bb		
21	FUNCTION5 PFK	45.60	7.851e2					0.5	NO		bb		
22	FUNCTION5 PFK	45.54	4.517e3					1.2	NO		db		
23	FUNCTION5 PFK	45.49	1.078e4					1.5	NO		dd		
24	FUNCTION5 PFK	45.41	6.756e3					1.7	NO		dd		
25	FUNCTION5 PFK	45.38	1.279e4					2.2	NO		bd		
26	FUNCTION5 PFK	45.28	8.503e2					0.4	NO		bb		
27	FUNCTION5 PFK	45.04	4.420e3					1.2	NO		bb		
28	FUNCTION5 PFK	44.98	7.643e2					0.5	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.82	2.306e2					4.0	YES		db		0.000
2	FUNCTION1 HXCD...	27.74	8.055e1					1.8	NO		bd		0.000
3	FUNCTION1 HXCD...	27.59	1.178e2					2.5	NO		bb		0.000
4	FUNCTION1 HXCD...	27.21	1.030e2					1.7	NO		bb		0.000
5	FUNCTION1 HXCD...	27.02	8.155e1					1.5	NO		db		0.000
6	FUNCTION1 HXCD...	26.85	8.440e1					2.6	NO		bd		0.000
7	FUNCTION1 HXCD...	26.52	1.203e2					2.7	NO		bb		0.000
8	FUNCTION1 HXCD...	25.93	1.681e2					3.0	YES		bb		0.000
9	FUNCTION1 HXCD...	24.22	7.069e1					2.3	NO		bb		0.000
10	FUNCTION1 HXCD...	23.52	8.011e1					1.5	NO		bb		0.000
11	FUNCTION1 HXCD...	21.12	9.981e1					1.8	NO		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	23.48	8.076e1					2.6	NO		bb		0.000
2	FUNCTION1 HPCD...	21.66	8.657e1					2.4	NO		bb		0.000
3	FUNCTION1 HPCD...	21.27	8.855e1					2.3	NO		db		0.000
4	FUNCTION1 HPCD...	21.16	2.367e2					2.7	NO		bd		0.000
5	FUNCTION1 HPCD...	27.79	1.270e2					2.7	NO		bb		0.000
6	FUNCTION1 HPCD...	26.52	1.210e2					2.0	NO		bb		0.000
7	FUNCTION1 HPCD...	25.97	9.169e1					1.5	NO		db		0.000
8	FUNCTION1 HPCD...	25.88	1.471e2					2.3	NO		dd		0.000
9	FUNCTION1 HPCD...	25.73	1.363e2					1.9	NO		bd		0.000
10	FUNCTION1 HPCD...	24.82	1.792e2					1.5	NO		db		0.000
11	FUNCTION1 HPCD...	24.63	7.297e1					1.7	NO		bd		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.64	8.233e1					2.0	NO		bb		0.000
2	FUNCTION2 HPCD...	31.26	3.994e2					8.3	YES		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.42	1.052e2					1.7	NO		bb		0.000
2	FUNCTION3 OCDPE	36.19	9.953e1					2.2	NO		bb		0.000
3	FUNCTION3 OCDPE	34.50	7.262e1					2.2	NO		bb		0.000
4	FUNCTION3 OCDPE	33.58	9.379e1					1.9	NO		bb		0.000
5	FUNCTION3 OCDPE	33.20	7.737e1					3.3	YES		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.82	9.720e1					2.9	NO		bb		0.000
2	FUNCTION4 NCDPE	42.34	7.165e1					2.1	NO		bb		0.000
3	FUNCTION4 NCDPE	40.58	7.068e1					1.3	NO		bb		0.000
4	FUNCTION4 NCDPE	40.40	1.414e2					1.7	NO		bb		0.000

**ETHERS6**

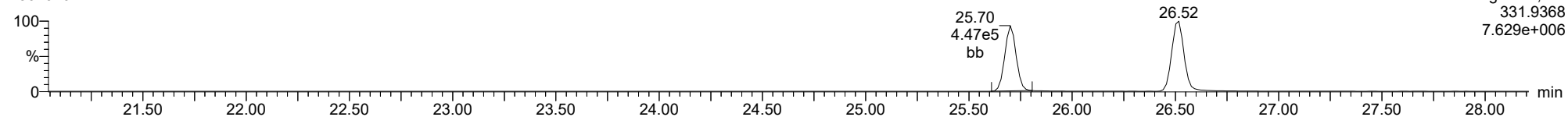
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**

**13C-1234-TCDD**

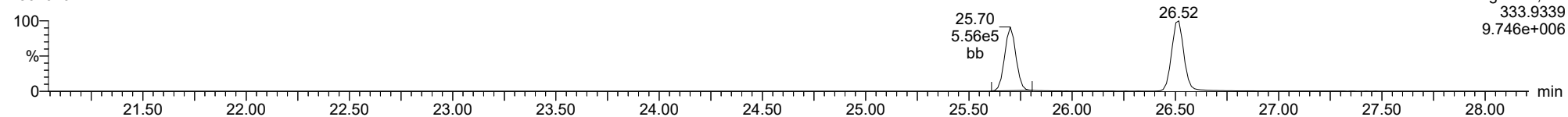
23020107



F1:Voltage SIR,EI+  
331.9368  
7.629e+006

**13C-1234-TCDD**

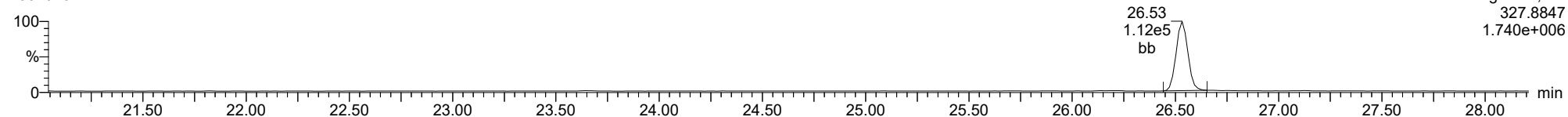
23020107



F1:Voltage SIR,EI+  
333.9339  
9.746e+006

**37CL-2378-TCDD**

23020107

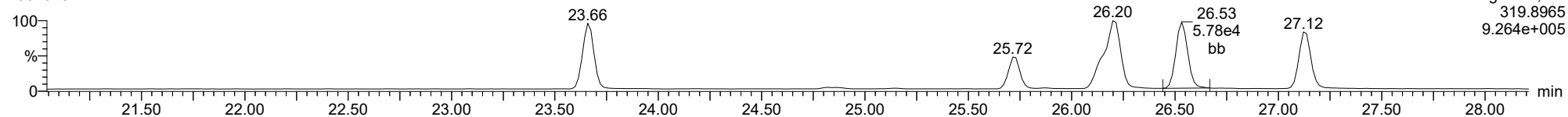


F1:Voltage SIR,EI+  
327.8847  
1.740e+006

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

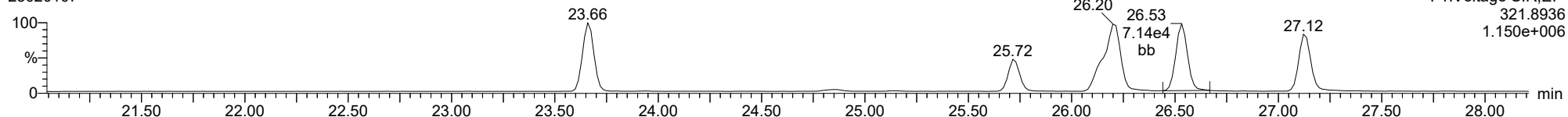
**2378-TCDD**

23020107



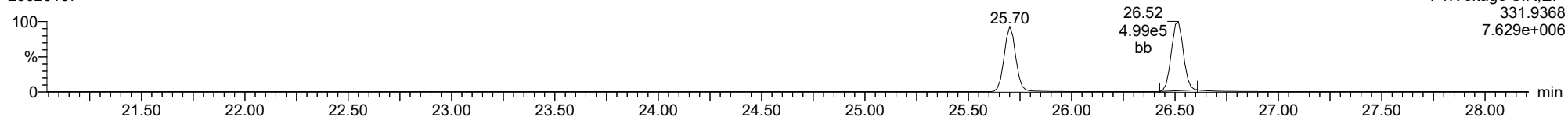
**2378-TCDD**

23020107



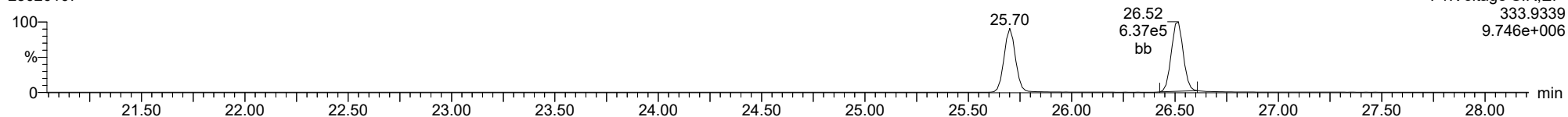
**13C-2378-TCDD**

23020107



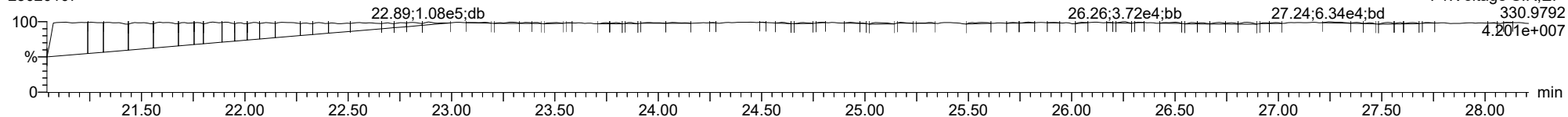
**13C-2378-TCDD**

23020107



**FUNCTION1 PFK**

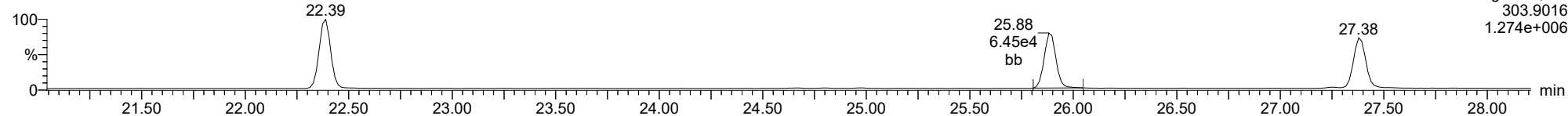
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

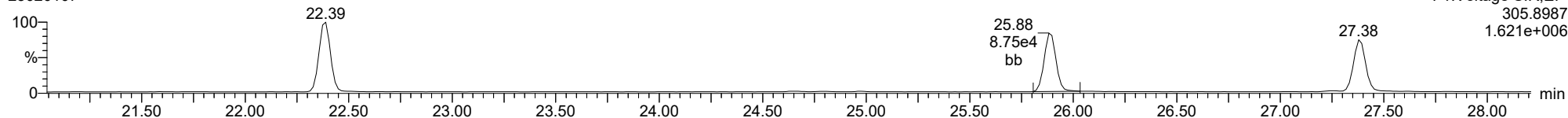
**2378-TCDF**

23020107



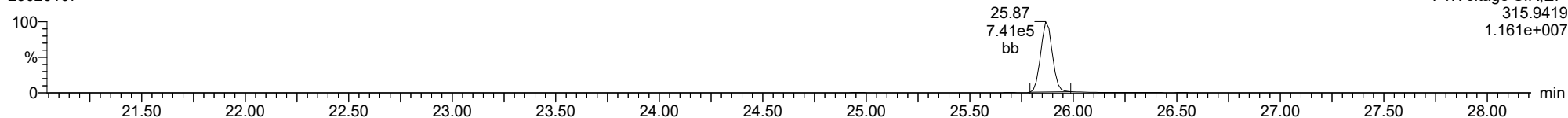
**2378-TCDF**

23020107



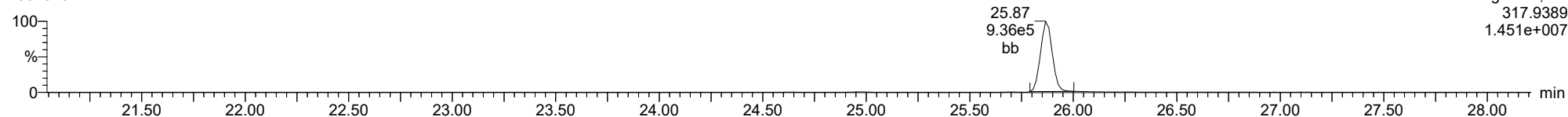
**13C-2378-TCDF**

23020107



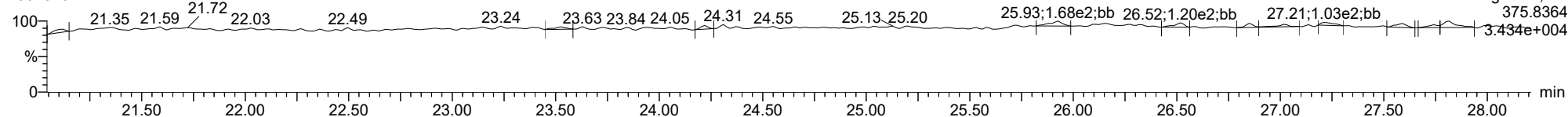
**13C-2378-TCDF**

23020107



**FUNCTION1 HXCDPE**

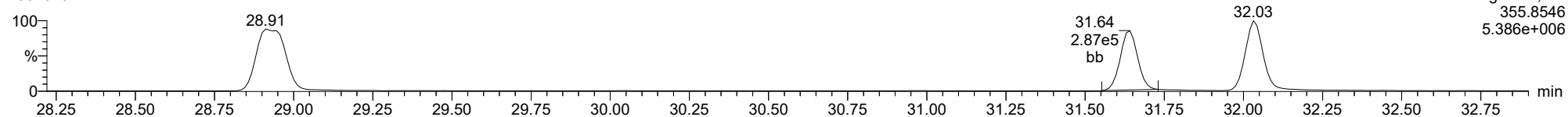
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

**12378-PeCDD**

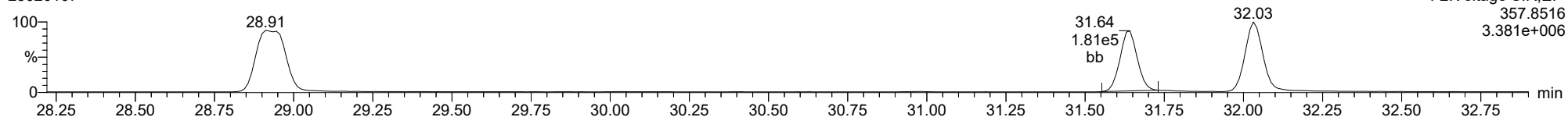
23020107



F2:Voltage SIR,EI+  
355.8546  
5.386e+006

**12378-PeCDD**

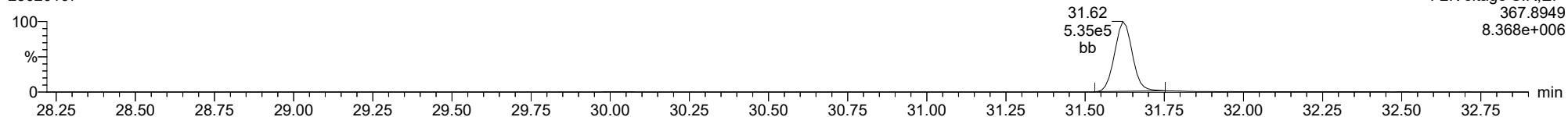
23020107



F2:Voltage SIR,EI+  
357.8516  
3.381e+006

**13C-12378-PeCDD**

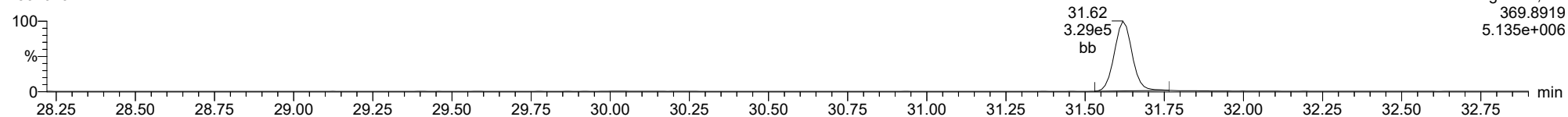
23020107



F2:Voltage SIR,EI+  
367.8949  
8.368e+006

**13C-12378-PeCDD**

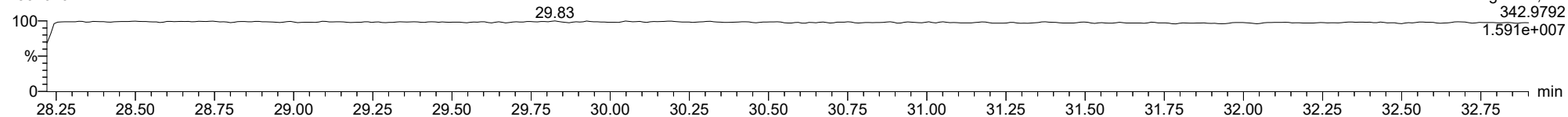
23020107



F2:Voltage SIR,EI+  
369.8919  
5.135e+006

**FUNCTION2 PFK**

23020107

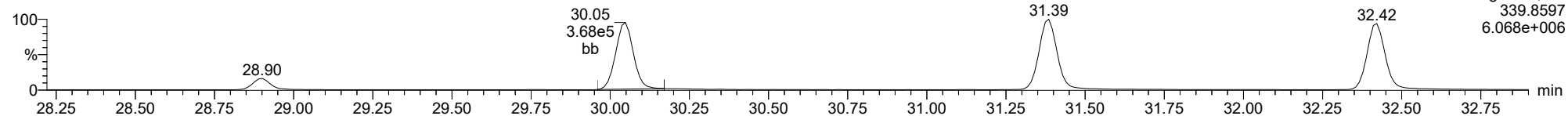


F2:Voltage SIR,EI+  
342.9792  
1.591e+007

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

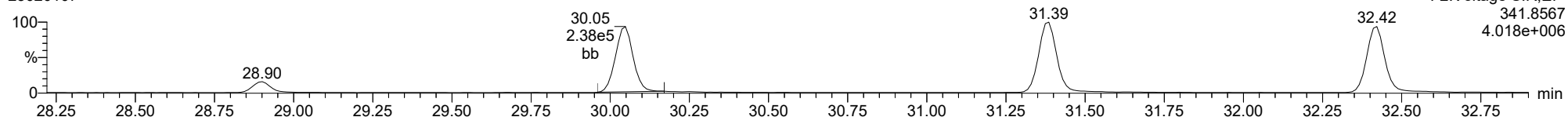
**12378-PeCDF**

23020107



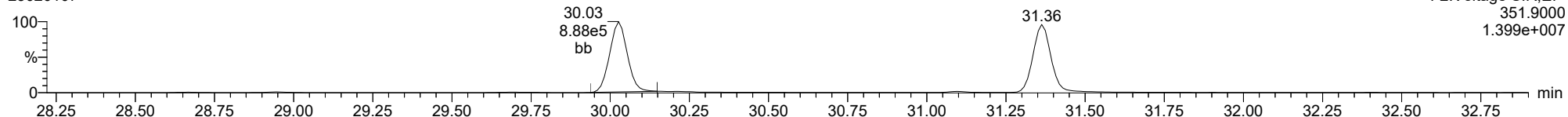
**12378-PeCDF**

23020107



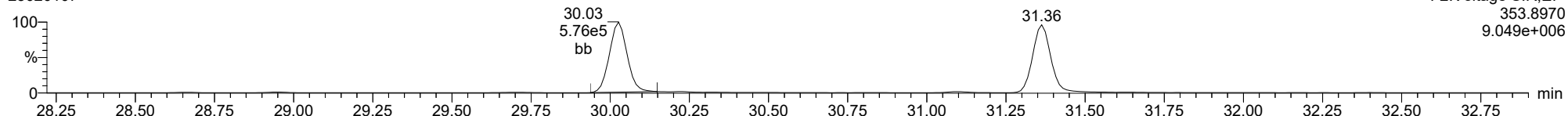
**13C-12378-PeCDF**

23020107



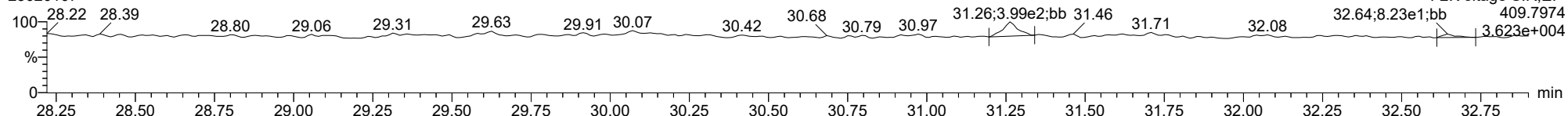
**13C-12378-PeCDF**

23020107



**FUNCTION2 HPCDPE**

23020107

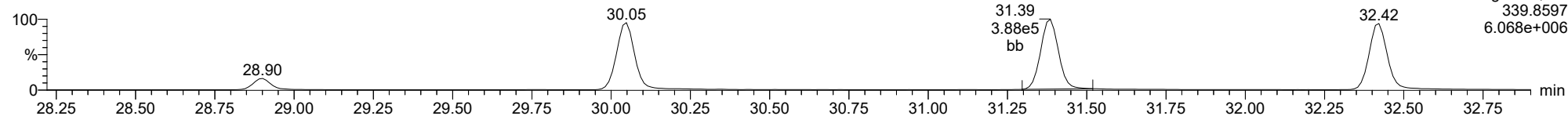




ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

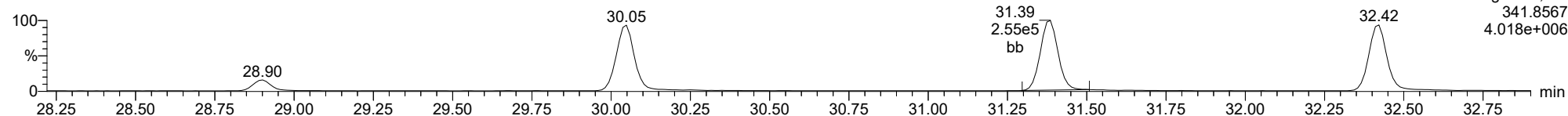
**23478-PeCDF**

23020107



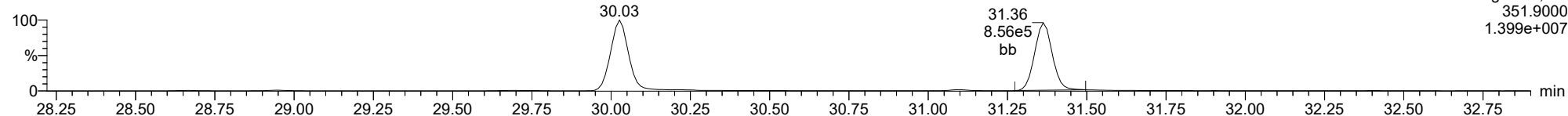
**23478-PeCDF**

23020107



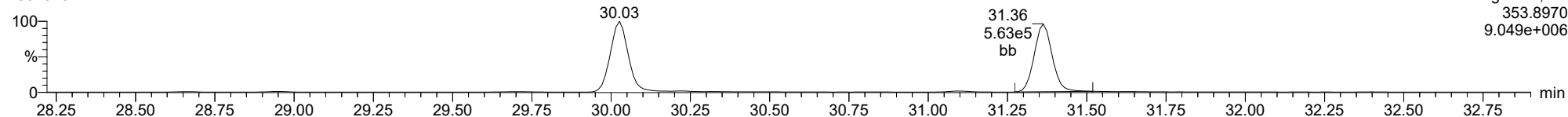
**13C-23478-PeCDF**

23020107



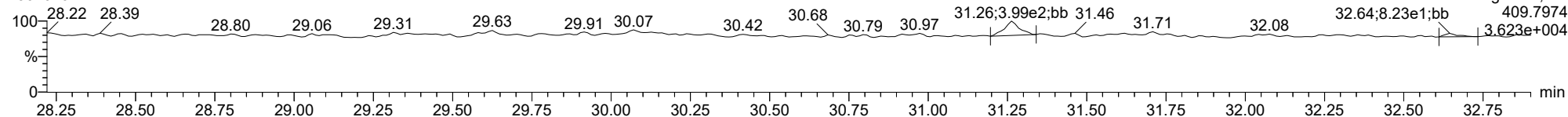
**13C-23478-PeCDF**

23020107



**FUNCTION2 HPCDPE**

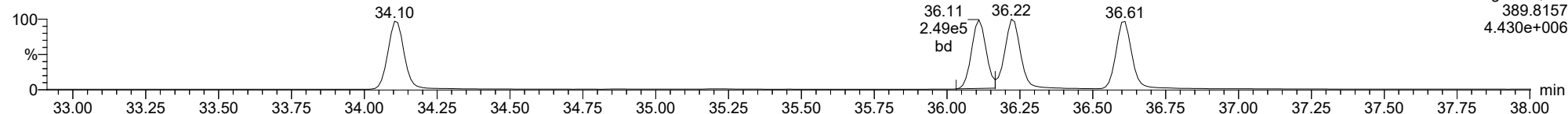
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

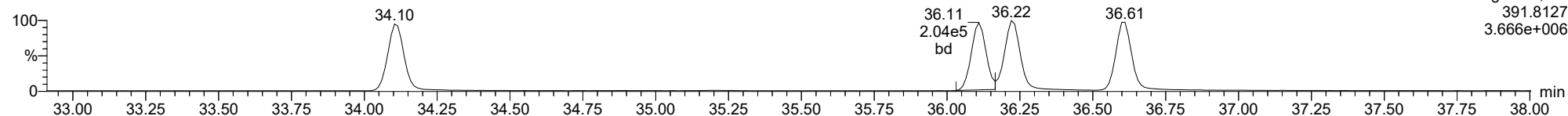
**123478-HxCDD**

23020107



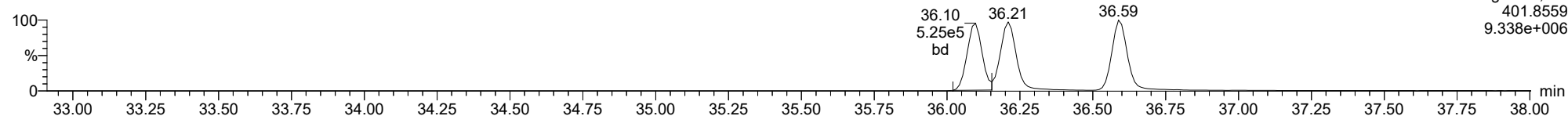
**123478-HxCDD**

23020107



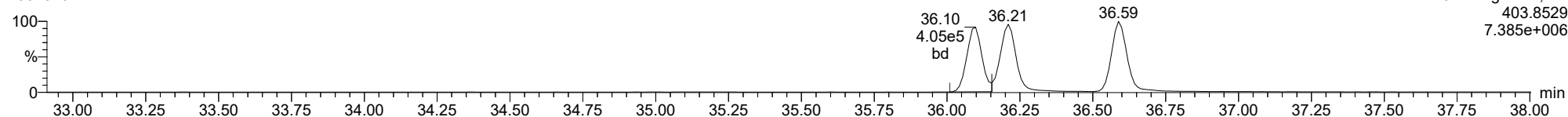
**13C-123478-HxCDD**

23020107



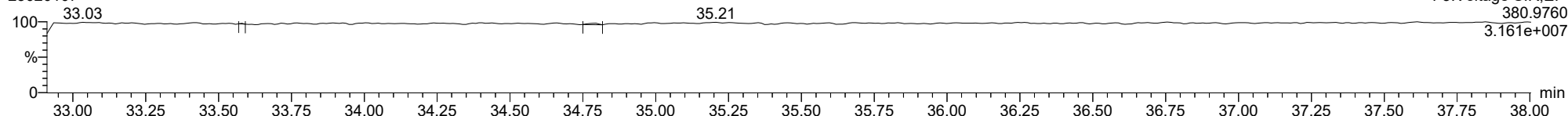
**13C-123478-HxCDD**

23020107



**FUNCTION3 PFK**

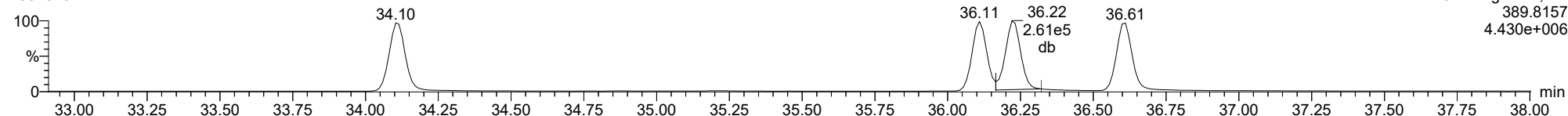
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

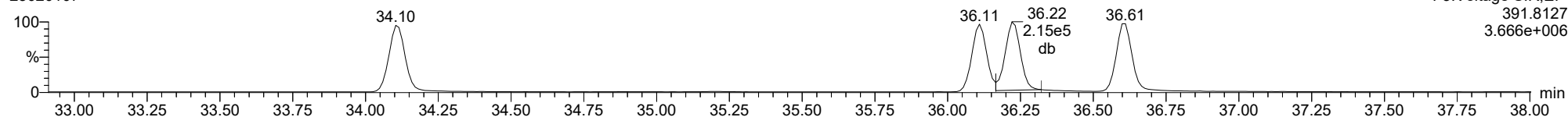
**123678-HxCDD**

23020107



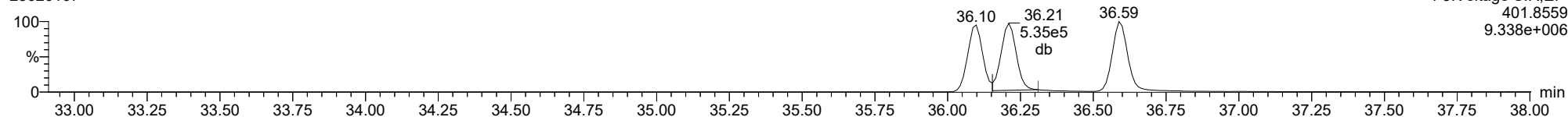
**123678-HxCDD**

23020107



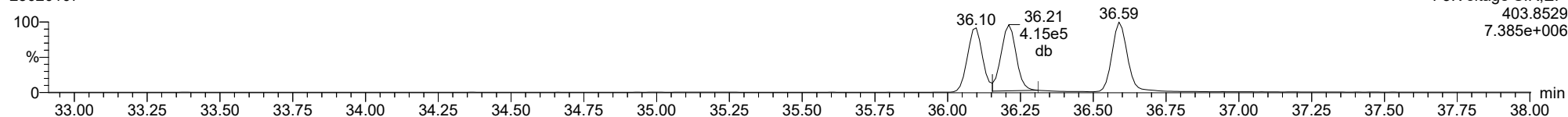
**13C-123678-HxCDD**

23020107



**13C-123678-HxCDD**

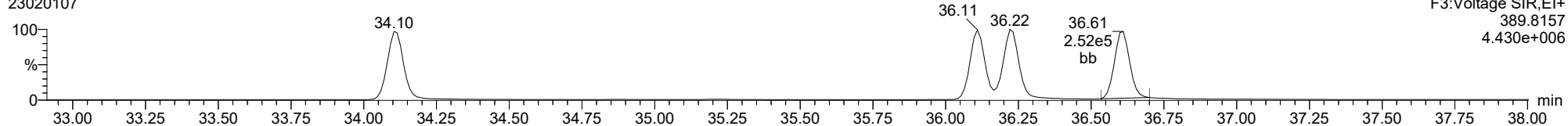
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

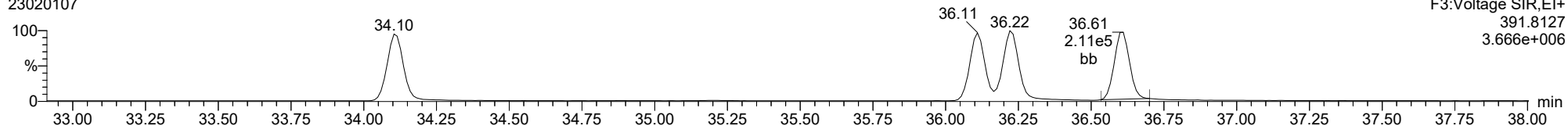
**123789-HxCDD**

23020107



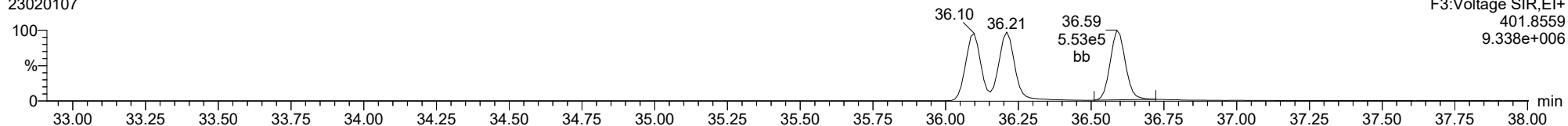
**123789-HxCDD**

23020107



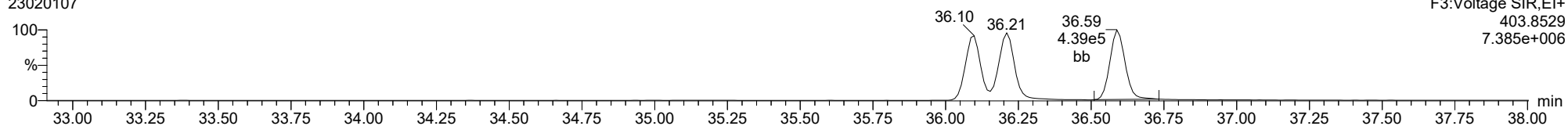
**13C-123789-HxCDD**

23020107



**13C-123789-HxCDD**

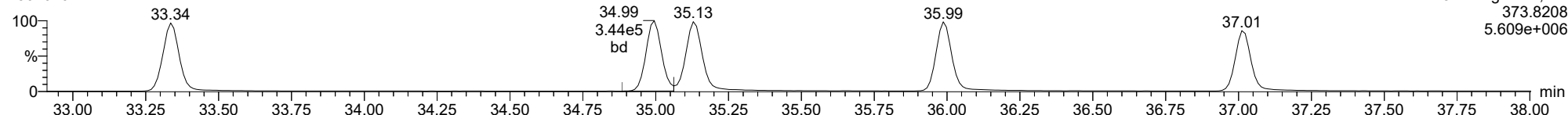
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

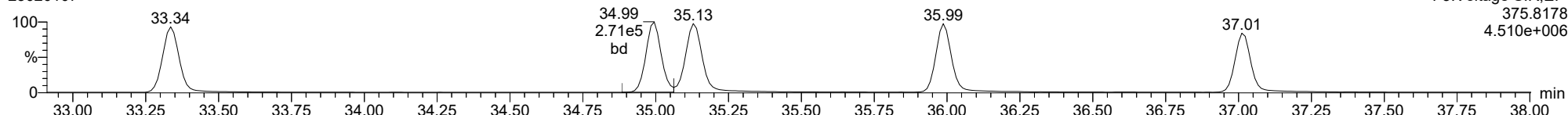
**123478-HxCDF**

23020107



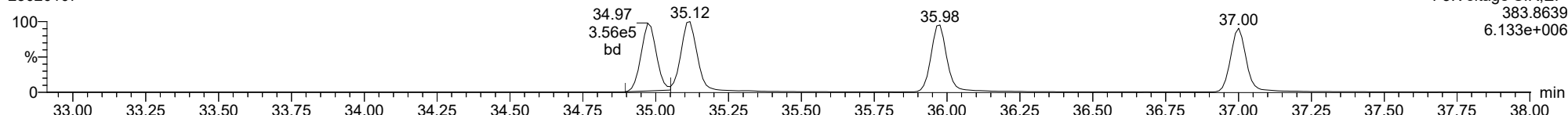
**123478-HxCDF**

23020107



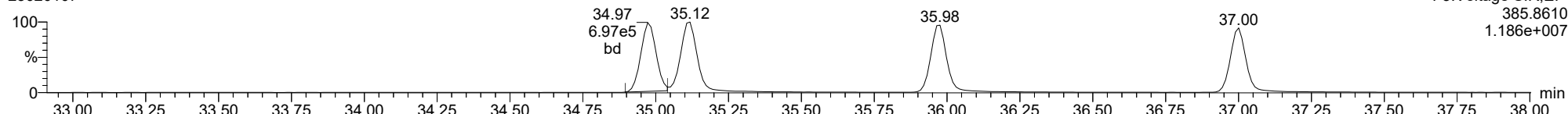
**13C-123478-HxCDF**

23020107



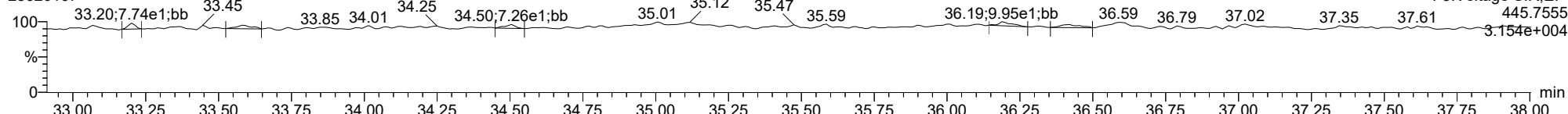
**13C-123478-HxCDF**

23020107



**FUNCTION3 OCDPE**

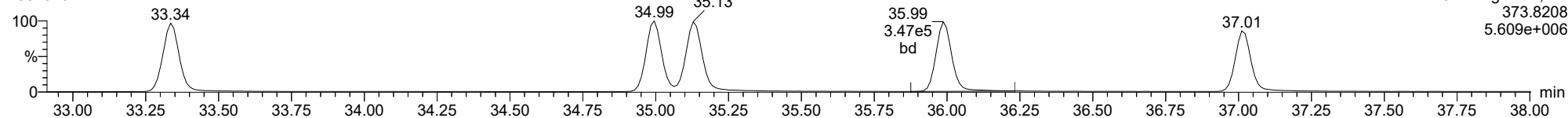
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

**234678-HxCDF**

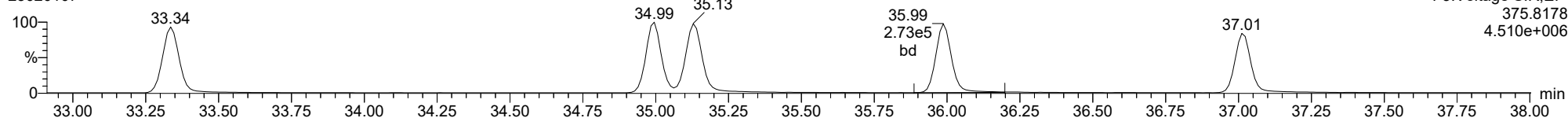
23020107



F3:Voltage SIR,El+  
373.8208  
5.609e+006

**234678-HxCDF**

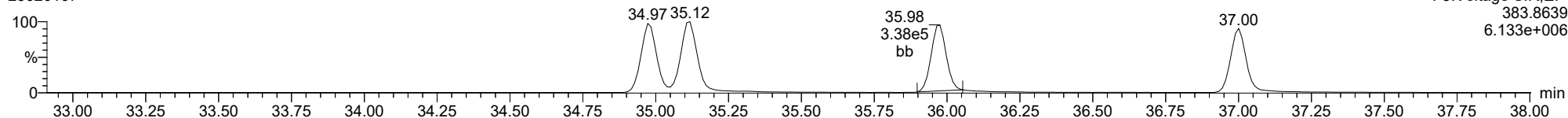
23020107



F3:Voltage SIR,El+  
375.8178  
4.510e+006

**13C-234678-HxCDF**

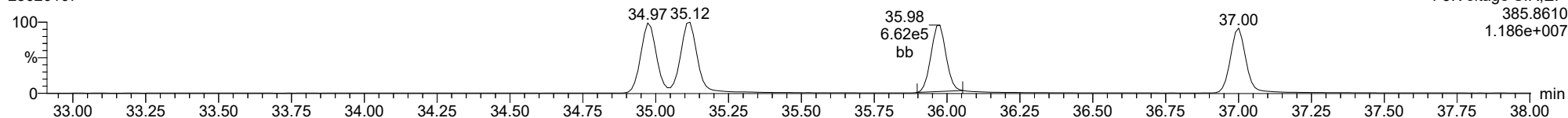
23020107



F3:Voltage SIR,El+  
383.8639  
6.133e+006

**13C-234678-HxCDF**

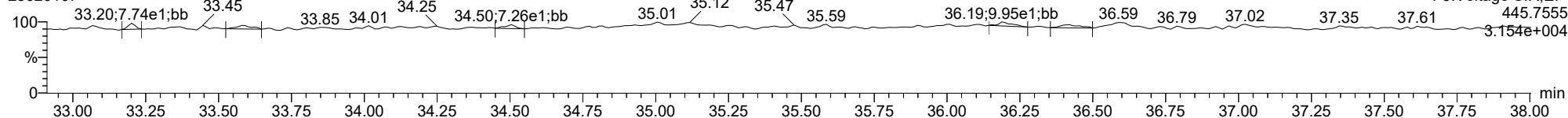
23020107



F3:Voltage SIR,El+  
385.8610  
1.186e+007

**FUNCTION3 OCDPE**

23020107

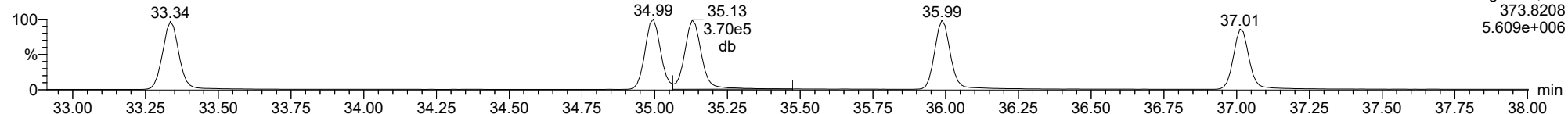


F3:Voltage SIR,El+  
445.7555  
3.154e+004

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

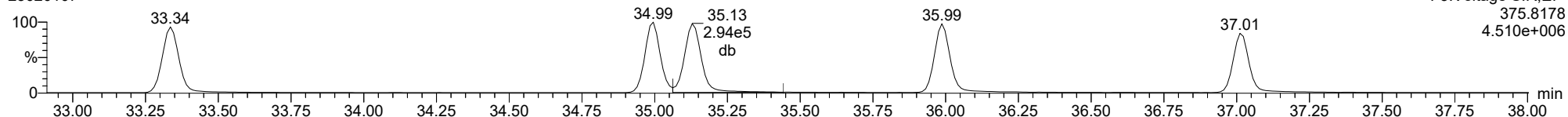
**123678-HxCDF**

23020107



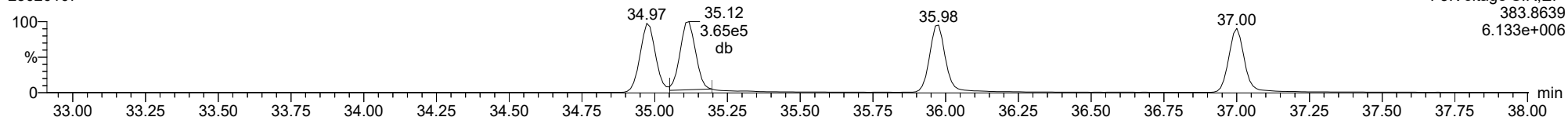
**123678-HxCDF**

23020107



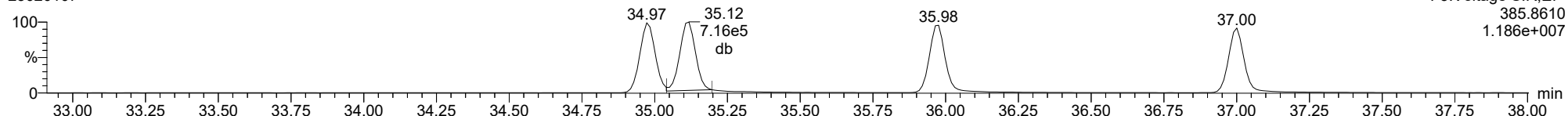
**13C-123678-HxCDF**

23020107



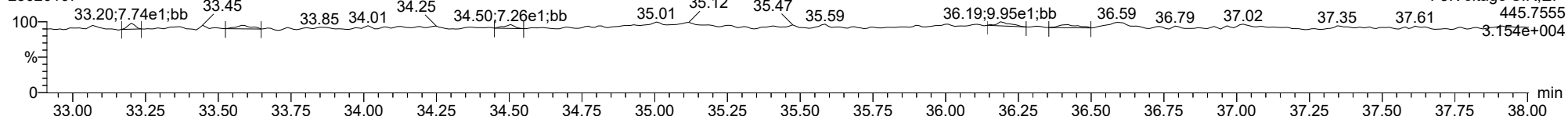
**13C-123678-HxCDF**

23020107



**FUNCTION3 OCDPE**

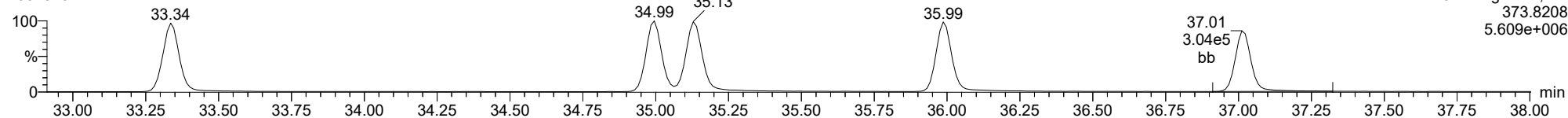
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

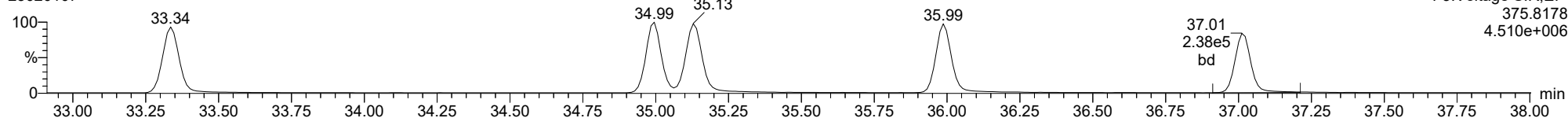
**123789-HxCDF**

23020107



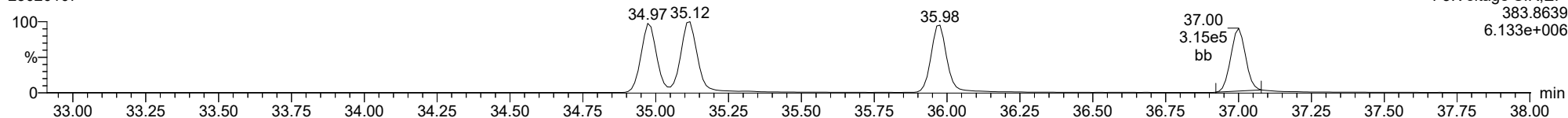
**123789-HxCDF**

23020107



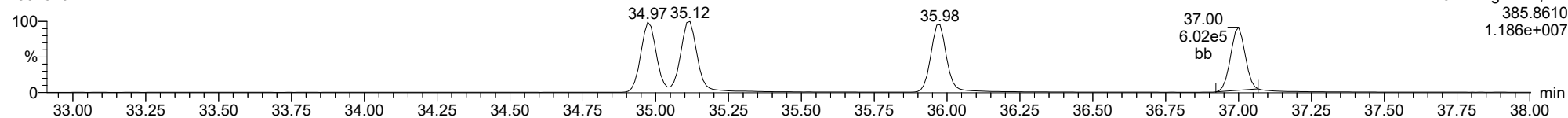
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23020107



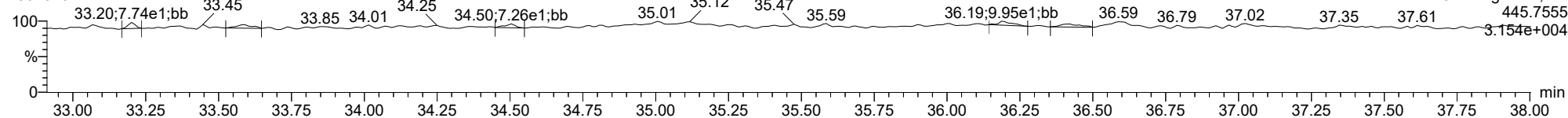
**13C-123789-HxCDF**

23020107



**FUNCTION3 OCDPE**

23020107

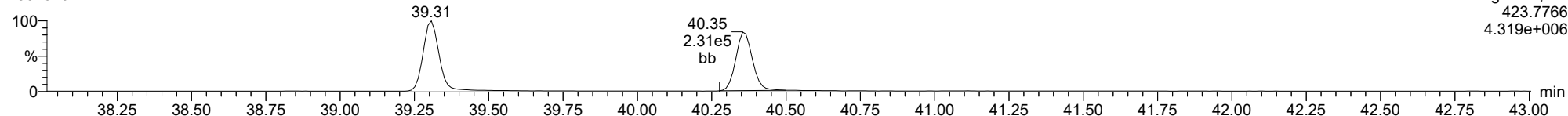




ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

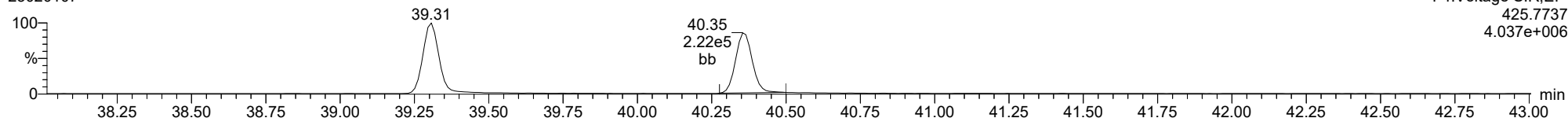
**1234678-HpCDD**

23020107



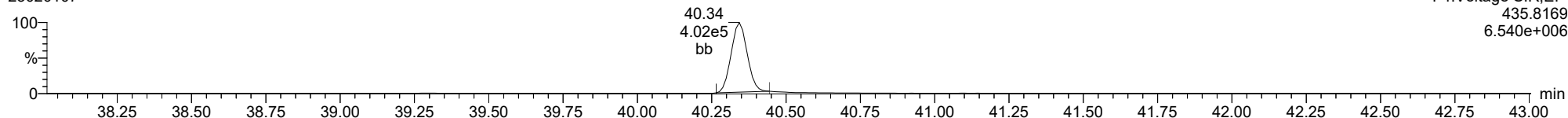
**1234678-HpCDD**

23020107



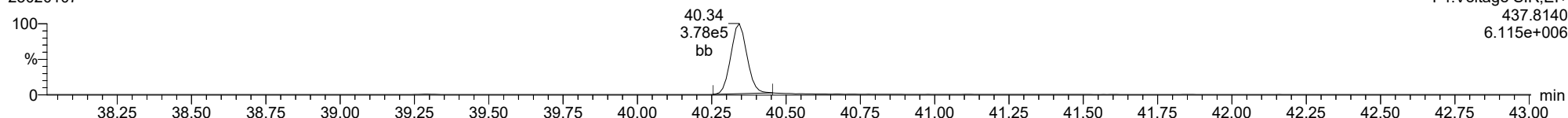
**13C-1234678-HpCDD**

23020107



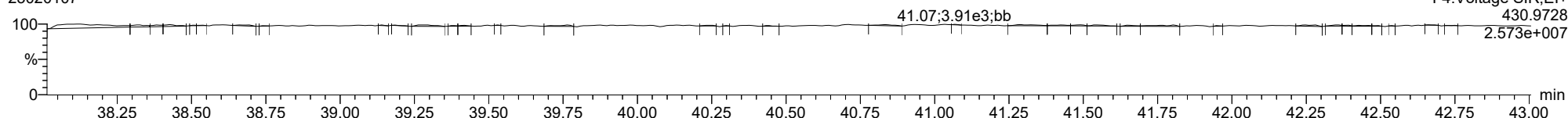
**13C-1234678-HpCDD**

23020107



**FUNCTION4 PFK**

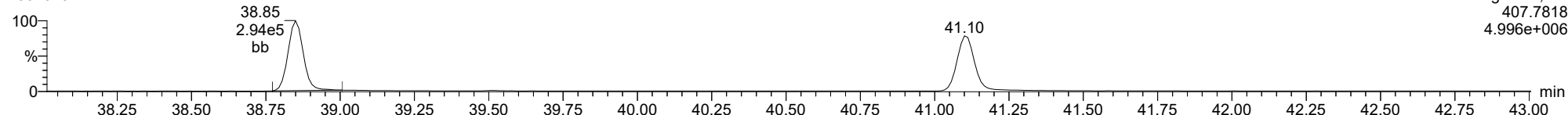
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

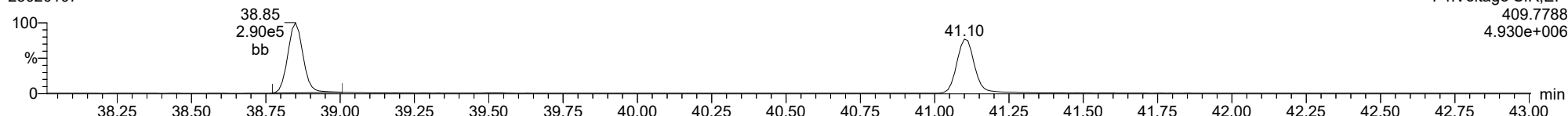
1234678-HpCDF

23020107



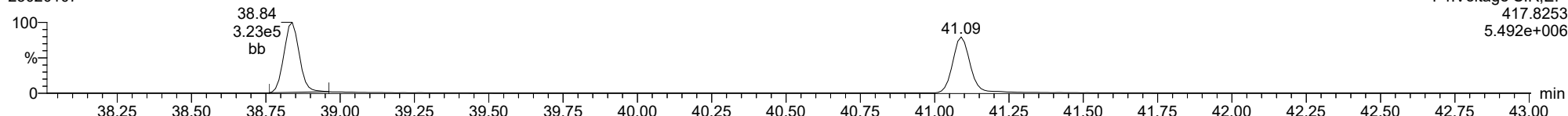
1234678-HpCDF

23020107



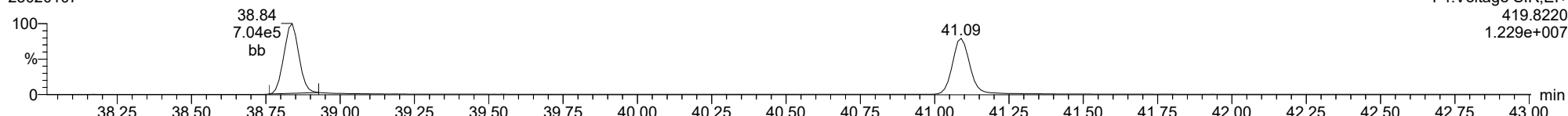
13C-1234678-HpCDF

23020107



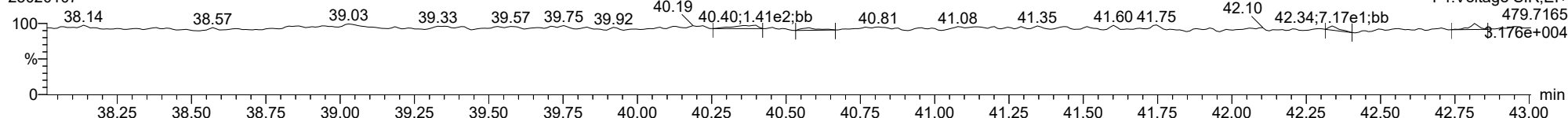
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23020107



FUNCTION4 NCDPE

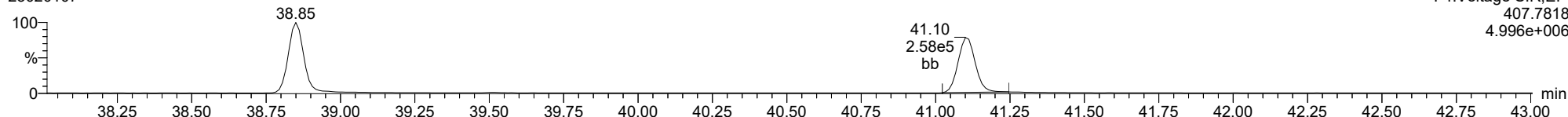
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

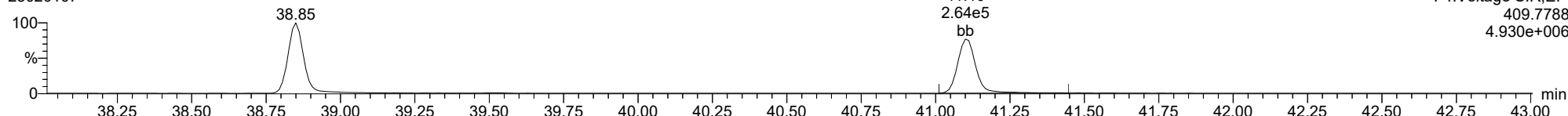
1234789-HpCDF

23020107



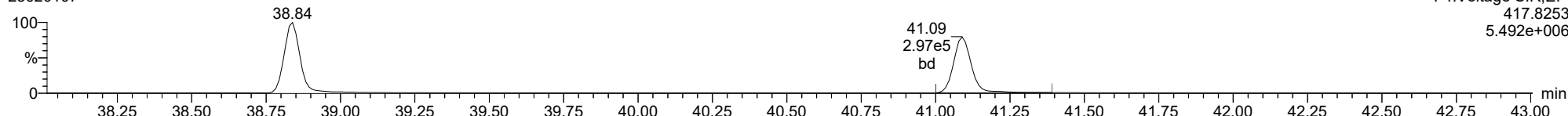
1234789-HpCDF

23020107



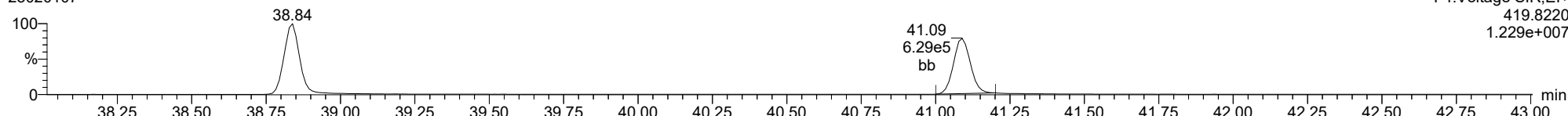
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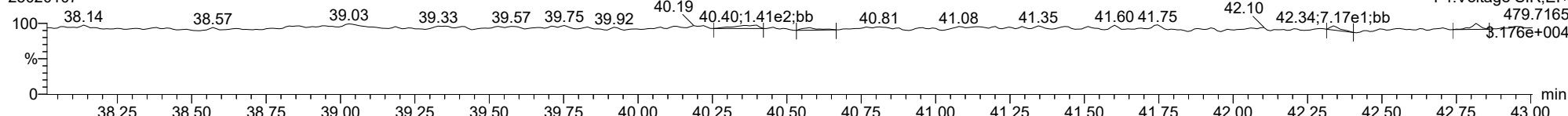
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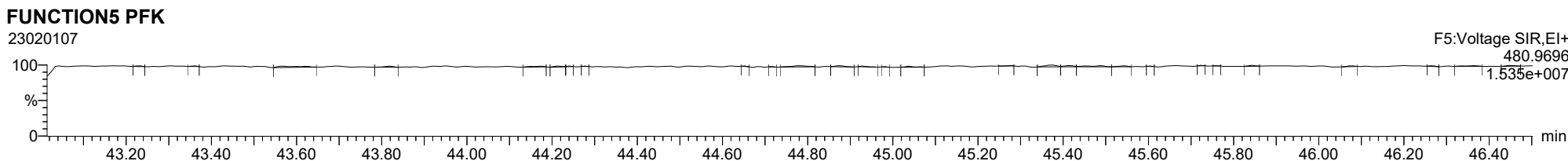
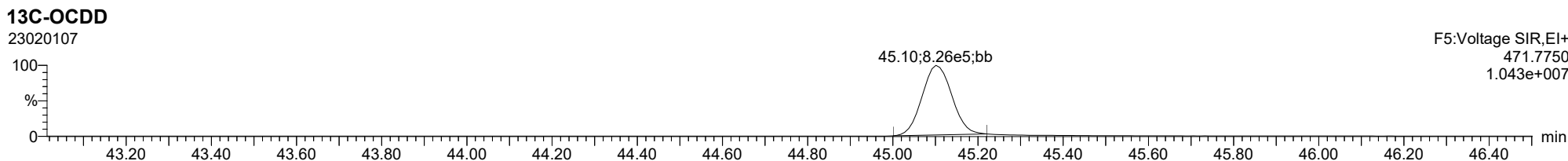
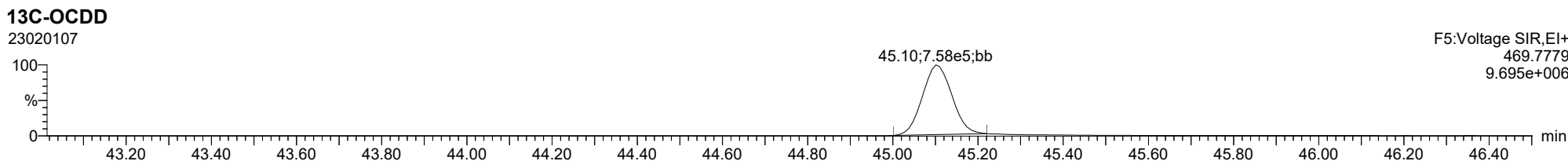
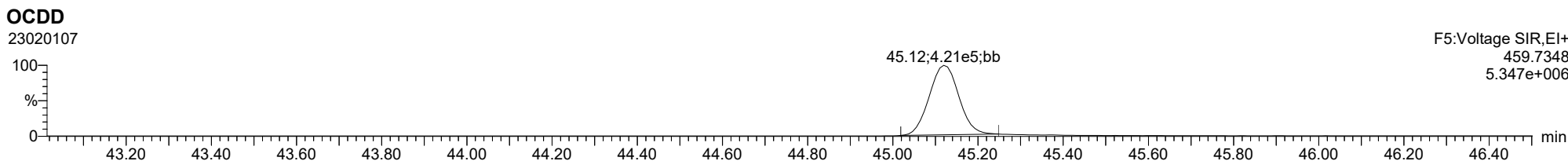
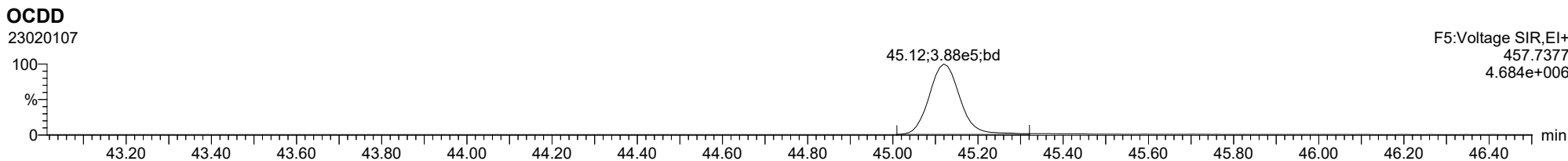


FUNCTION4 NCDPE

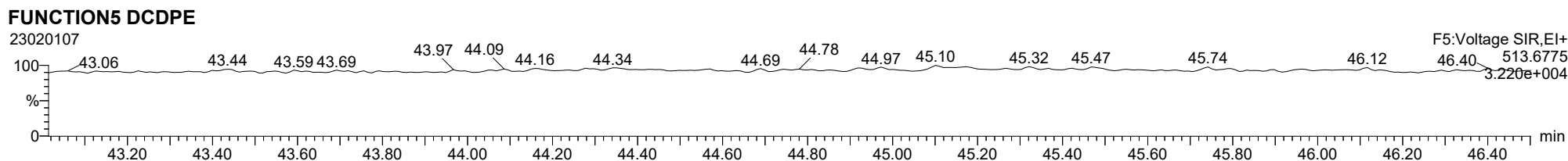
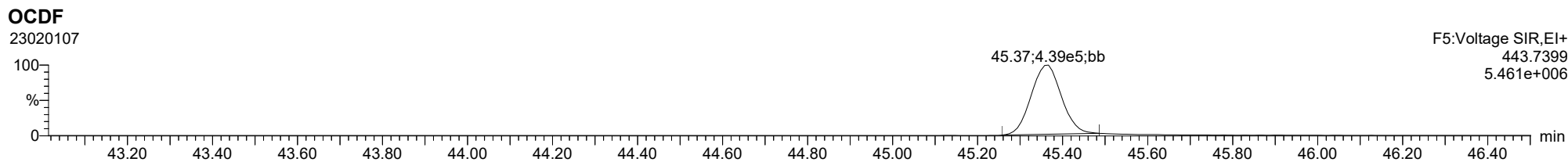
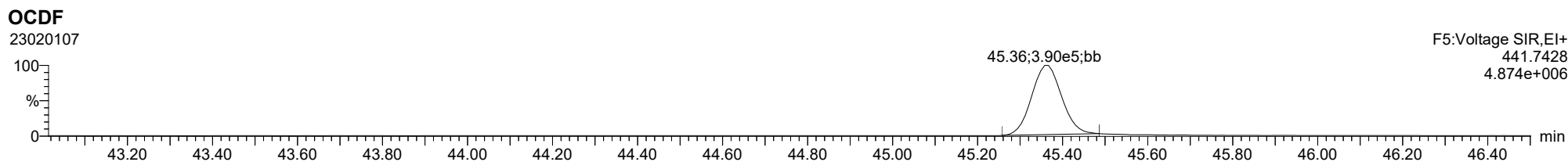
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk



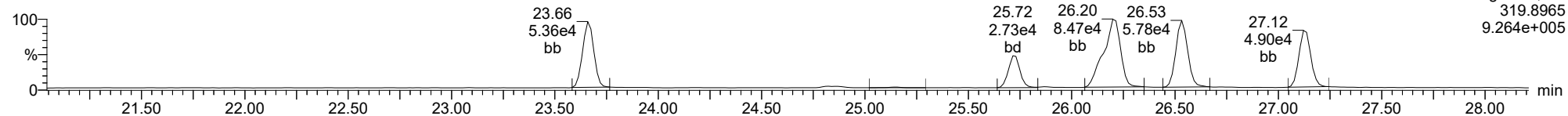
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

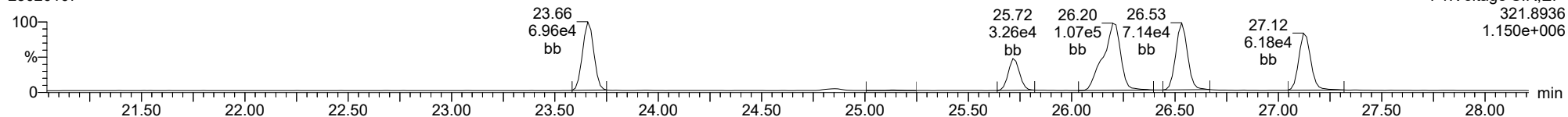
**Total-tetradoxins**

23020107



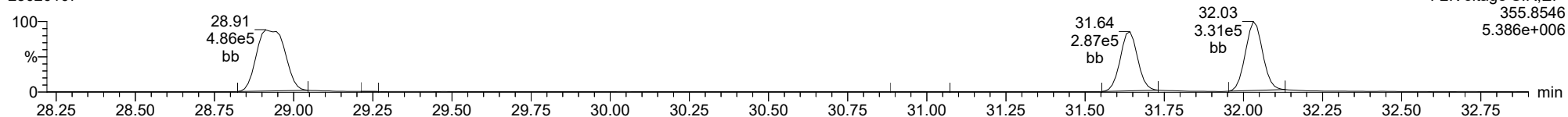
**Total-tetradoxins**

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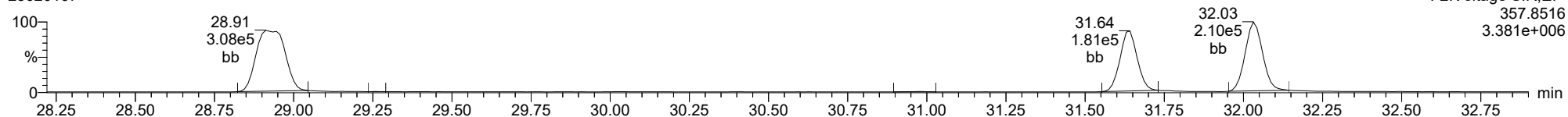
**Total-pentadoxins**

23020107



**Total-pentadoxins**

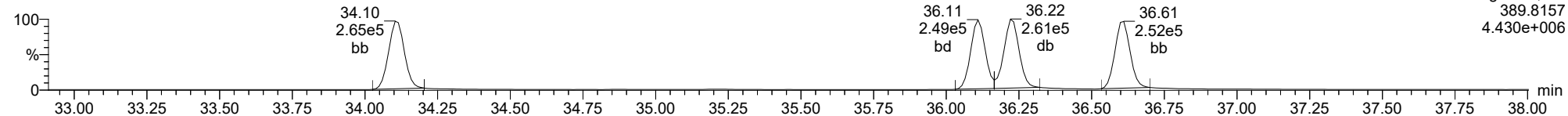
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

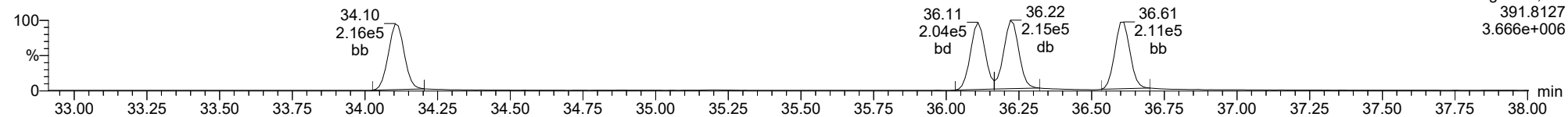
**Total-hexadioxins**

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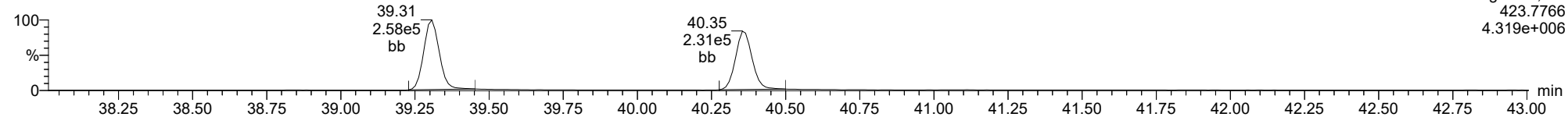
**Total-hexadioxins**

23020107



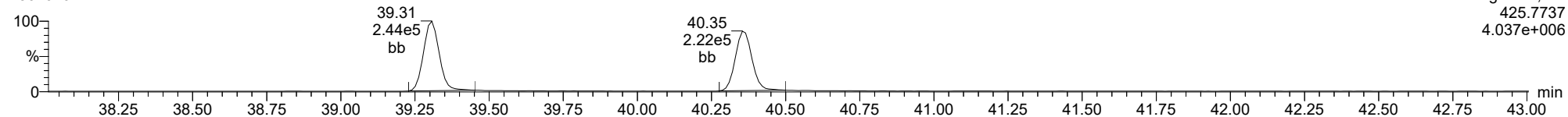
**Total-heptadioxins**

23020107



**Total-heptadioxins**

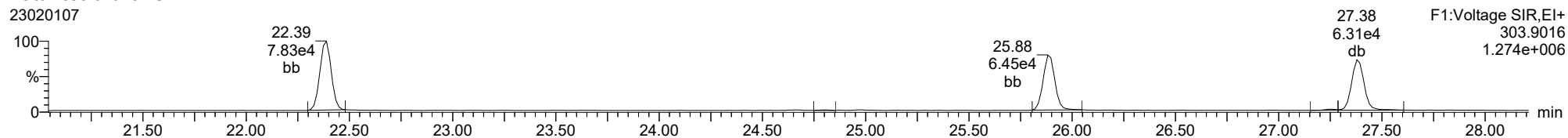
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

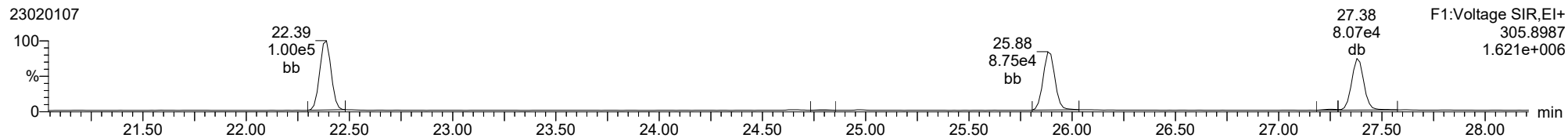
**Total-tetrafurans**

23020107



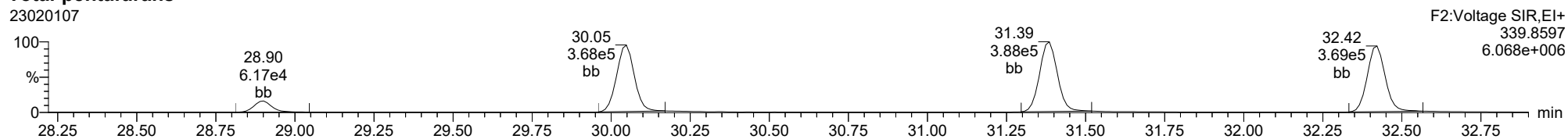
**Total-tetrafurans**

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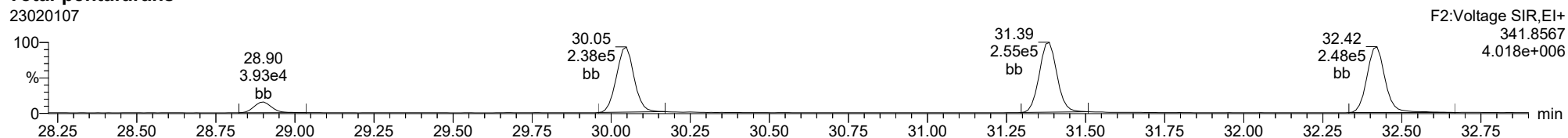
**Total-pentafurans**

23020107



**Total-pentafurans**

23020107

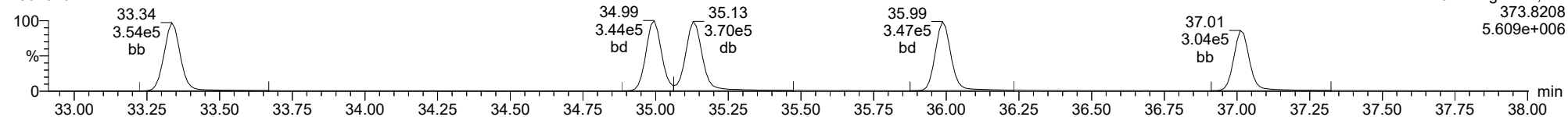




ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

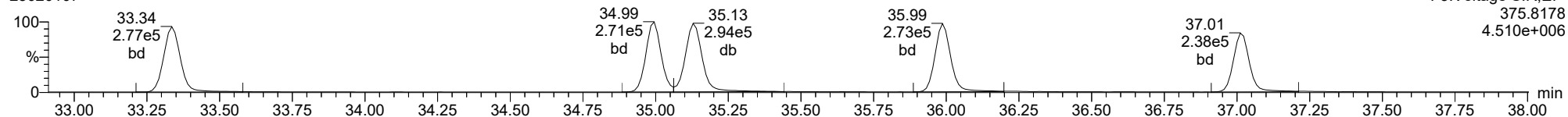
**Total-hexafurans**

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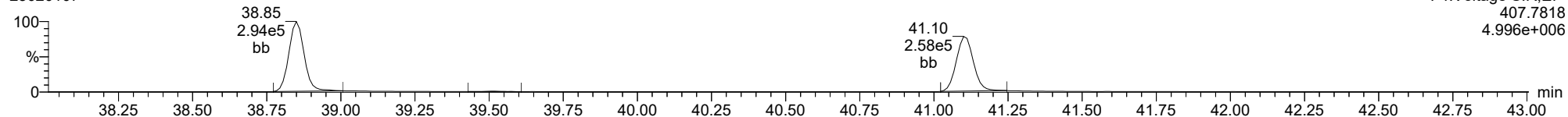
**Total-hexafurans**

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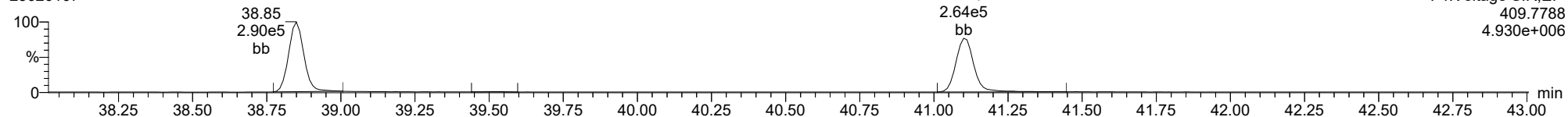
**Total-heptafurans**

23020107



**Total-heptafurans**

23020107



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	3.837e5	5.095e5	0.876	0.753	0.770	3306	1852	5.94e6	7.78e6	1796.5	4201.3	NO	bb	bb	39.352
12378-PeCDF	30.037	1.000	2.144e6	1.419e6	0.845	1.511	1.550	3774	3458	3.38e7	2.23e7	8947.1	6442.4	NO	bb	bb	197.212
23478-PeCDF	31.374	1.000	2.253e6	1.479e6	0.911	1.523	1.550	3774	3458	3.50e7	2.30e7	9263.9	6657.7	NO	bb	bb	199.338
123478-HxCDF	34.984	1.000	2.037e6	1.599e6	1.182	1.274	1.240	4016	3299	3.25e7	2.54e7	8086.7	7697.9	NO	dd	dd	201.086
234678-HxCDF	35.987	1.001	2.093e6	1.626e6	1.229	1.288	1.240	4016	3299	3.22e7	2.54e7	8018.2	7699.6	NO	dd	bd	203.397
123678-HxCDF	35.129	1.001	2.269e6	1.771e6	1.248	1.281	1.240	4016	3299	3.41e7	2.66e7	8495.8	8063.9	NO	dd	dd	203.923
123789-HxCDF	37.012	1.001	1.817e6	1.431e6	1.187	1.269	1.240	4016	3299	2.86e7	2.23e7	7125.7	6768.1	NO	dd	bd	199.649
1234678-HpCDF	38.839	1.000	1.816e6	1.772e6	1.204	1.025	1.050	5173	5540	3.02e7	2.97e7	5847.4	5361.2	NO	bb	bb	193.935
1234789-HpCDF	41.100	1.000	1.575e6	1.522e6	1.165	1.034	1.050	5173	5540	2.37e7	2.31e7	4579.3	4164.7	NO	bb	bb	200.336
OCDF	45.357	1.006	2.485e6	2.804e6	1.186	0.886	0.890	4624	3331	3.05e7	3.43e7	6601.2	10303.1	NO	bb	bb	376.199
2378-TCDD	26.532	1.001	3.417e5	4.230e5	1.236	0.808	0.770	1943	1502	5.26e6	6.49e6	2709.1	4323.6	NO	bb	bb	40.022
12378-PeCDD	31.631	1.000	1.695e6	1.077e6	1.087	1.574	1.550	2803	1572	2.73e7	1.72e7	9745.0	10948.2	NO	bb	bb	198.713
123478-HxCDD	36.109	1.001	1.491e6	1.215e6	0.987	1.227	1.240	2230	3671	2.51e7	2.05e7	11249.2	5579.6	NO	bd	bd	204.141
123678-HxCDD	36.221	1.000	1.525e6	1.238e6	1.021	1.232	1.240	2230	3671	2.55e7	2.09e7	11440.8	5702.6	NO	db	db	192.587
123789-HxCDD	36.599	1.011	1.475e6	1.213e6	0.985	1.216	1.240	2230	3671	2.48e7	2.06e7	11134.5	5610.2	NO	bb	bb	198.496
1234678-HpCDD	40.354	1.001	1.416e6	1.361e6	1.253	1.040	1.050	2506	3274	2.22e7	2.13e7	8870.2	6512.5	NO	bb	bb	190.176
OCDD	45.120	1.000	2.302e6	2.608e6	1.103	0.883	0.890	2646	4665	2.90e7	3.29e7	10978.0	7047.3	NO	bb	bb	375.677
13C-2378-TCDF	25.867	1.007	1.141e6	1.450e6	1.768	0.786	0.770	2983	2394	1.77e7	2.25e7	5940.4	9386.6	NO	bb	bb	101.281
13C-12378-PeCDF	30.026	1.168	1.284e6	8.547e5	1.527	1.502	1.550	4680	2502	1.96e7	1.27e7	4184.1	5065.1	NO	bb	bd	96.786
13C-23478-PeCDF	31.363	1.220	1.245e6	8.091e5	1.466	1.539	1.550	4680	2502	1.90e7	1.23e7	4051.1	4925.5	NO	bb	bb	96.841
13C-123478-HxCDF	34.973	0.956	5.210e5	1.009e6	1.054	0.516	0.510	2637	3506	8.67e6	1.67e7	3288.9	4772.6	NO	bd	bd	99.631
13C-123678-HxCDF	35.107	0.960	5.527e5	1.035e6	1.080	0.534	0.510	2637	3506	9.01e6	1.71e7	3417.9	4869.2	NO	db	db	100.816
13C-234678-HxCDF	35.965	0.983	5.043e5	9.836e5	1.014	0.513	0.510	2637	3506	8.34e6	1.63e7	3164.3	4660.4	NO	bb	bb	100.617
13C-123789-HxCDF	36.989	1.011	4.610e5	9.102e5	0.928	0.507	0.510	2637	3506	7.75e6	1.54e7	2939.3	4390.8	NO	bb	bb	101.358
13C-1234678-HpCDF	38.828	1.061	4.731e5	1.063e6	1.036	0.445	0.440	3133	3783	8.09e6	1.82e7	2583.3	4811.1	NO	bb	bb	101.722
13C-1234789-HpCDF	41.089	1.123	4.094e5	9.173e5	0.905	0.446	0.440	3133	3783	6.17e6	1.38e7	1971.0	3639.0	NO	bb	bb	100.563
13C-1234-TCDD	25.700	0.000	6.435e5	8.034e5	1.000	0.801	0.770	2264	5824	1.00e7	1.24e7	4417.3	2128.2	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.031	6.869e5	8.584e5	1.103	0.800	0.770	2264	5824	1.05e7	1.31e7	4634.7	2257.9	NO	bb	bb	96.836
13C-12378-PeCDD	31.619	1.230	7.945e5	4.894e5	0.914	1.623	1.550	1351	1735	1.23e7	7.56e6	9139.9	4356.9	NO	bb	bb	97.071
13C-123478-HxCDD	36.087	0.986	7.592e5	5.838e5	0.933	1.300	1.240	2349	1779	1.29e7	9.89e6	5485.2	5561.8	NO	bd	bd	98.749
13C-123678-HxCDD	36.210	0.990	7.891e5	6.166e5	0.965	1.280	1.240	2349	1779	1.26e7	9.87e6	5351.9	5549.2	NO	db	db	99.960
13C-1234678-HpCDD	40.332	1.102	6.034e5	5.625e5	0.782	1.073	1.050	2813	2017	9.31e6	8.69e6	3310.2	4307.9	NO	bb	bb	102.265
13C-OCDD	45.101	1.233	1.130e6	1.241e6	0.788	0.911	0.890	2295	1626	1.42e7	1.55e7	6172.7	9561.2	NO	bb	bb	206.289
13C-123789-HxCDD	36.588	0.000	8.190e5	6.388e5	1.000	1.282	1.240	2349	1779	1.32e7	1.04e7	5620.6	5858.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	6.581e5		1.233			1941		1.01e7		5210.0			bb		36.879

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	3306	1852								
1289-TCDF					0.858		0.770	3306	1852								
13468-PECDF					1.013		1.550	3731	5783								
12389-PECDF					0.844		1.550	3774	3458								
123468-HXCDF					1.197		1.240	4016	3299								
1368-TCDD					1.084		0.770	1943	1502								
1289-TCDD					0.975		0.770	1943	1502								
12479-PECDD					1.837		1.550	2803	1572								
12389-PECDD					1.252		1.550	2803	1572								
124679-HXCDD					1.033		1.240	2230	3671								
1234679-HPCDD					1.286		1.050	2506	3274								
Total-tetrafurans			3.913e5		0.933			3306		6.07e6							40.082
Total-penta1			0.000e0					3731		0.00e0							
Total-pentafurans			4.421e6		0.866			3774		6.91e7							398.784
Total-hexafurans			8.218e6		1.208			4016		1.27e8							808.248
Total-heptafurans			3.395e6		1.185			5173		5.40e7							394.809
Total-Furans			1.891e7		1.067			3306		2.87e8							2018.122
Total-tetradoxins			3.511e5		1.099			1943		5.38e6							41.245
Total-pentadoxins			1.697e6		1.392			2803		2.73e7							198.842
Total-hexadoxins			4.491e6		1.007			2230		7.54e7							595.224
Total-heptadoxins			1.416e6		1.269			2506		2.22e7							190.176
Total-Dioxins			1.026e7		1.165			1943		1.59e8							1401.163
Total-TEQ			2.917e7					1943		4.47e8							3419.285
FUNCTION1 PFK			4.404e5					580120		1.21e7							
FUNCTION2 PFK			1.273e5					196333		3.80e6							0.000
FUNCTION3 PFK			0.000e0					408061		0.00e0							
FUNCTION4 PFK			2.183e5					275800		6.18e6							
FUNCTION5 PFK			0.000e0					154157		0.00e0							
FUNCTION1 HXCD...			1.662e4					8726		3.10e5							0.000
FUNCTION1 HPCD...			1.579e4					6150		2.65e5							0.000
FUNCTION2 HPCD...			2.593e3					848		4.54e4							0.000
FUNCTION3 OCDPE			1.183e3					745		1.55e4							0.000
FUNCTION4 NCDPE			4.176e2					872		5.06e3							0.000
FUNCTION5 DCDPE			3.248e2					814		4.90e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33****Calibration: 03 Feb 2023 10:33:40****ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
2	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
3	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
4	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
5	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
6	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
2	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
3	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
4	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
5	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
2	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
3	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104
5	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
6	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
7	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
8	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
9	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
10	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656
11	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
12	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
13	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
14	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
15	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649
16	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
17	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
18	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935
19	OCDF	45.36	2.485e6	2.804e6	1.186	0.89	0.89	6601.2	YES	NO	bb	bb	376.199

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
2	Total-tetradoxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
3	Total-tetradoxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
4	Total-tetradoxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
2	Total-pentadoxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk****HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
2	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
3	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
2	Total-tetradoxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
3	Total-tetradoxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
4	Total-tetradoxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128
5	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
6	Total-pentadoxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129
7	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
8	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
9	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141
10	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176
11	OCDD	45.12	2.302e6	2.608e6	1.103	0.88	0.89	10978.0	YES	NO	bb	bb	375.677

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104
5	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
6	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
7	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
8	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
9	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
10	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656
11	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
12	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
13	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
14	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
15	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649
16	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
17	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
18	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935
19	OCDF	45.36	2.485e6	2.804e6	1.186	0.89	0.89	6601.2	YES	NO	bb	bb	376.199
20	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
21	Total-tetradiioxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
22	Total-tetradiioxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
23	Total-tetradiioxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128
24	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
25	Total-pentadiioxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129
26	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
27	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
28	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141
29	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176
30	OCDD	45.12	2.302e6	2.608e6	1.103	0.88	0.89	10978.0	YES	NO	bb	bb	375.677

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.96	2.020e4					1.1	NO		bb		
2	FUNCTION1 PFK	24.40	2.455e4					1.2	NO		bb		
3	FUNCTION1 PFK	23.70	1.570e4					0.9	NO		bb		
4	FUNCTION1 PFK	22.21	1.520e4					0.8	NO		bb		
5	FUNCTION1 PFK	21.98	2.815e4					1.2	NO		bb		
6	FUNCTION1 PFK	21.62	2.203e4					0.8	NO		bb		
7	FUNCTION1 PFK	21.38	1.821e4					1.0	NO		bb		
8	FUNCTION1 PFK	28.09	4.216e4					1.7	NO		bb		
9	FUNCTION1 PFK	27.48	1.001e4					0.6	NO		bb		
10	FUNCTION1 PFK	27.36	2.341e4					1.3	NO		bb		
11	FUNCTION1 PFK	27.09	4.217e3					0.5	NO		bb		
12	FUNCTION1 PFK	26.77	7.075e3					0.7	NO		bb		
13	FUNCTION1 PFK	26.65	1.537e4					1.0	NO		bb		
14	FUNCTION1 PFK	26.53	2.228e4					1.3	NO		bb		
15	FUNCTION1 PFK	26.06	1.292e4					0.8	NO		bb		
16	FUNCTION1 PFK	25.75	9.216e3					0.7	NO		bb		
17	FUNCTION1 PFK	25.69	2.942e4					1.5	NO		bb		
18	FUNCTION1 PFK	25.47	3.380e4					1.3	NO		bb		
19	FUNCTION1 PFK	25.35	5.518e4					1.2	NO		db		
20	FUNCTION1 PFK	25.23	3.130e4					1.5	NO		bd		



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.88	2.296e4					1.8	NO		bb		0.000
2	FUNCTION2 PFK	28.30	1.717e4					1.6	NO		bb		0.000
3	FUNCTION2 PFK	32.49	5.254e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	32.37	7.309e3					1.1	NO		bb		0.000
5	FUNCTION2 PFK	32.29	1.359e3					0.6	NO		bb		0.000
6	FUNCTION2 PFK	32.17	6.182e3					1.2	NO		bb		0.000
7	FUNCTION2 PFK	31.90	1.405e4					1.8	NO		bb		0.000
8	FUNCTION2 PFK	31.55	3.011e3					0.9	NO		bb		0.000
9	FUNCTION2 PFK	31.41	1.210e4					1.2	NO		bb		0.000
10	FUNCTION2 PFK	30.57	3.830e3					0.9	NO		bb		0.000
11	FUNCTION2 PFK	30.45	4.598e3					1.0	NO		bb		0.000
12	FUNCTION2 PFK	29.87	5.333e3					1.1	NO		bb		0.000
13	FUNCTION2 PFK	29.60	5.195e3					1.1	NO		db		0.000
14	FUNCTION2 PFK	29.56	5.154e3					1.1	NO		bd		0.000
15	FUNCTION2 PFK	29.50	7.364e3					1.4	NO		bb		0.000
16	FUNCTION2 PFK	29.17	6.453e3					1.3	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.21	5.273e3					0.9	NO		bb		
2	FUNCTION4 PFK	40.14	5.827e3					1.0	NO		bb		
3	FUNCTION4 PFK	40.00	4.667e3					0.8	NO		bb		
4	FUNCTION4 PFK	39.82	1.112e3					0.4	NO		bb		
5	FUNCTION4 PFK	39.74	4.984e3					0.8	NO		bb		
6	FUNCTION4 PFK	39.65	3.641e4					1.9	NO		db		
7	FUNCTION4 PFK	39.60	1.243e4					1.6	NO		bd		
8	FUNCTION4 PFK	39.21	6.478e3					1.0	NO		bb		
9	FUNCTION4 PFK	38.98	1.375e3					0.4	NO		bb		
10	FUNCTION4 PFK	38.83	5.023e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.78	4.916e3					0.9	NO		bb		
12	FUNCTION4 PFK	38.68	8.802e3					1.2	NO		bb		
13	FUNCTION4 PFK	38.54	1.096e4					1.2	NO		bb		
14	FUNCTION4 PFK	38.35	1.188e4					1.5	NO		db		
15	FUNCTION4 PFK	38.32	9.581e3					1.3	NO		bd		
16	FUNCTION4 PFK	38.09	5.192e4					1.9	NO		bb		
17	FUNCTION4 PFK	42.95	1.120e3					0.4	NO		bb		
18	FUNCTION4 PFK	42.68	3.847e3					0.6	NO		bb		
19	FUNCTION4 PFK	42.38	1.500e4					1.7	NO		bb		
20	FUNCTION4 PFK	41.06	1.232e4					1.2	NO		bb		
21	FUNCTION4 PFK	40.81	4.336e3					0.7	NO		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.09	1.365e2					0.3	NO		bb		0.000
2	FUNCTION1 HXCD...	25.88	7.559e1					0.2	NO		bb		0.000
3	FUNCTION1 HXCD...	25.69	1.535e2					0.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.38	9.009e1					0.2	NO		bb		0.000
5	FUNCTION1 HXCD...	24.76	1.387e2					0.2	NO		bb		0.000
6	FUNCTION1 HXCD...	24.49	2.087e3					4.8	YES		db		0.000
7	FUNCTION1 HXCD...	24.42	1.113e3					3.5	YES		bd		0.000
8	FUNCTION1 HXCD...	24.07	1.214e2					0.2	NO		bb		0.000
9	FUNCTION1 HXCD...	22.93	9.005e1					0.3	NO		bb		0.000
10	FUNCTION1 HXCD...	28.03	7.580e1					0.2	NO		bb		0.000
11	FUNCTION1 HXCD...	27.80	7.466e1					0.2	NO		bb		0.000
12	FUNCTION1 HXCD...	27.64	9.719e1					0.2	NO		bb		0.000
13	FUNCTION1 HXCD...	27.11	4.735e3					11.6	YES		db		0.000
14	FUNCTION1 HXCD...	27.06	1.264e3					2.6	NO		dd		0.000
15	FUNCTION1 HXCD...	26.99	2.557e3					3.1	YES		dd		0.000
16	FUNCTION1 HXCD...	26.82	1.150e3					2.1	NO		dd		0.000
17	FUNCTION1 HXCD...	26.76	1.090e3					2.6	NO		dd		0.000
18	FUNCTION1 HXCD...	26.68	5.202e2					1.1	NO		dd		0.000
19	FUNCTION1 HXCD...	26.59	4.632e2					0.7	NO		dd		0.000
20	FUNCTION1 HXCD...	26.50	3.837e2					0.7	NO		dd		0.000
21	FUNCTION1 HXCD...	26.44	7.925e1					0.2	NO		bd		0.000
22	FUNCTION1 HXCD...	26.26	1.202e2					0.3	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	21.53	8.754e1					0.3	NO		dd		0.000
2	FUNCTION1 HPCD...	21.39	1.338e2					0.2	NO		bd		0.000
3	FUNCTION1 HPCD...	27.06	1.227e3					3.5	YES		dd		0.000
4	FUNCTION1 HPCD...	26.96	2.312e3					4.3	YES		dd		0.000
5	FUNCTION1 HPCD...	26.83	1.175e3					2.8	NO		dd		0.000
6	FUNCTION1 HPCD...	26.76	1.583e3					4.1	YES		dd		0.000
7	FUNCTION1 HPCD...	26.67	5.135e2					1.6	NO		dd		0.000
8	FUNCTION1 HPCD...	26.58	6.861e2					1.1	NO		dd		0.000
9	FUNCTION1 HPCD...	26.50	1.748e2					0.8	NO		dd		0.000
10	FUNCTION1 HPCD...	26.44	2.373e2					0.4	NO		dd		0.000
11	FUNCTION1 HPCD...	26.26	1.300e2					0.4	NO		bd		0.000
12	FUNCTION1 HPCD...	25.91	1.988e2					0.2	NO		bb		0.000
13	FUNCTION1 HPCD...	25.72	1.012e2					0.3	NO		bb		0.000
14	FUNCTION1 HPCD...	25.53	1.466e2					0.3	NO		db		0.000
15	FUNCTION1 HPCD...	25.32	1.918e2					0.4	NO		bd		0.000
16	FUNCTION1 HPCD...	24.51	2.090e3					6.7	YES		db		0.000
17	FUNCTION1 HPCD...	24.42	8.854e2					3.8	YES		bd		0.000
18	FUNCTION1 HPCD...	21.60	9.175e1					0.3	NO		db		0.000
19	FUNCTION1 HPCD...	27.77	9.425e1					0.4	NO		bb		0.000
20	FUNCTION1 HPCD...	27.65	7.376e1					0.3	NO		db		0.000
21	FUNCTION1 HPCD...	27.53	1.152e2					0.4	NO		bd		0.000
22	FUNCTION1 HPCD...	27.12	3.540e3					10.6	YES		db		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.63	1.971e2					4.5	YES		bb		0.000
2	FUNCTION2 HPCD...	31.26	2.238e3					45.1	YES		bb		0.000
3	FUNCTION2 HPCD...	29.60	1.581e2					4.1	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.60	5.924e2					8.6	YES		bb		0.000
2	FUNCTION3 OCDPE	36.21	3.178e2					6.7	YES		db		0.000
3	FUNCTION3 OCDPE	36.10	2.730e2					5.6	YES		bd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.40	3.196e2					3.7	YES		bb		0.000
2	FUNCTION4 NCDPE	38.52	9.797e1					2.1	NO		bb		0.000

**ETHERS6**

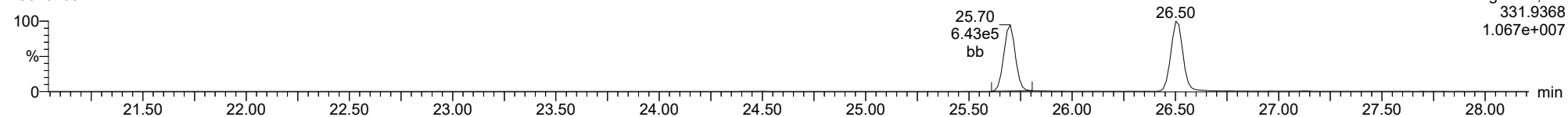
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.14	3.248e2					6.0	YES		bb		0.000

**Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk**

**13C-1234-TCDD**

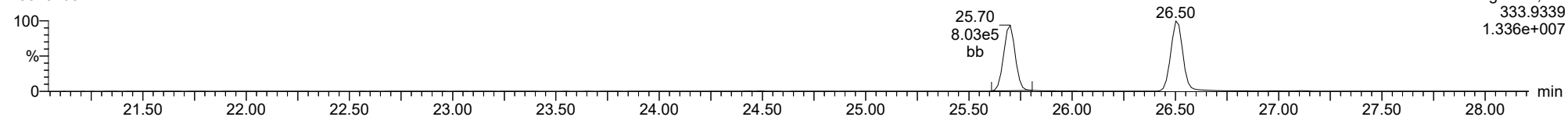
23020108



F1:Voltage SIR,El+  
331.9368  
1.067e+007

**13C-1234-TCDD**

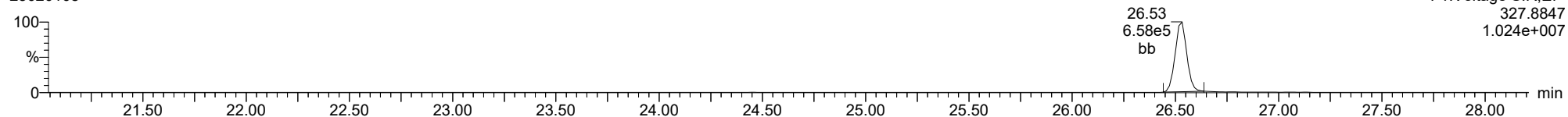
23020108



F1:Voltage SIR,El+  
333.9339  
1.336e+007

**37CL-2378-TCDD**

23020108

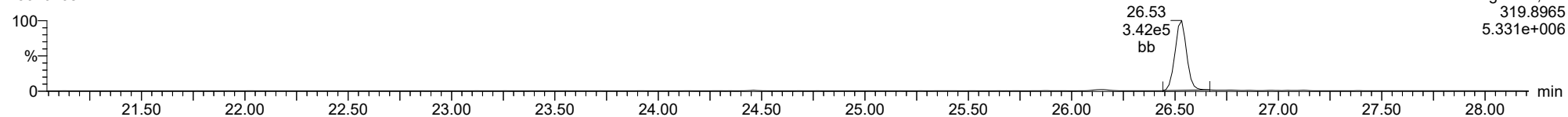


F1:Voltage SIR,El+  
327.8847  
1.024e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

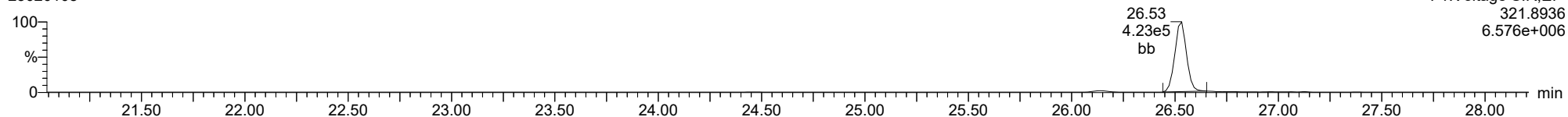
**2378-TCDD**

23020108



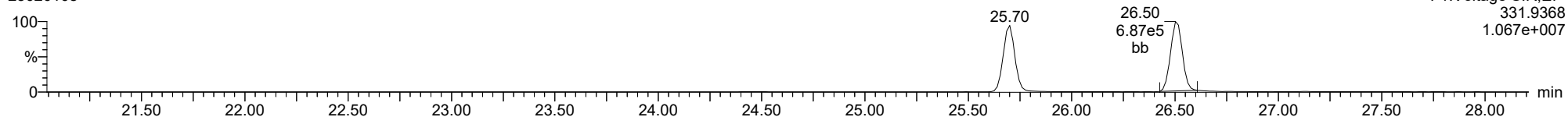
**2378-TCDD**

23020108



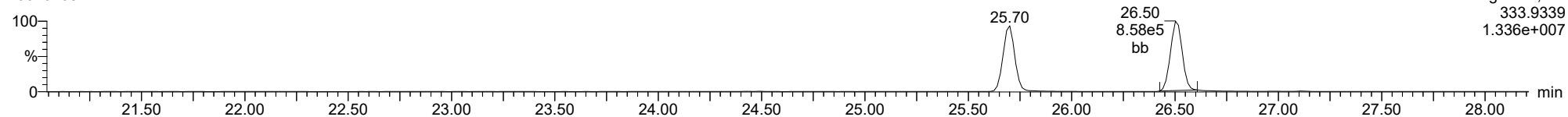
**13C-2378-TCDD**

23020108



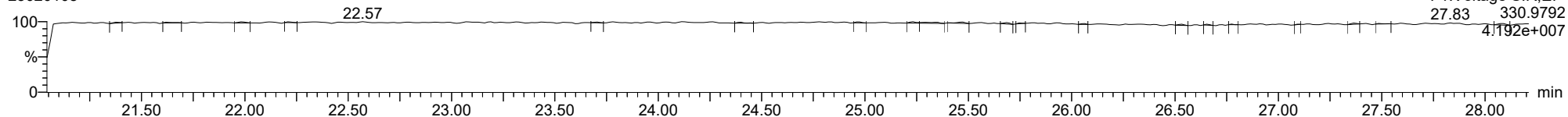
**13C-2378-TCDD**

23020108



**FUNCTION1 PFK**

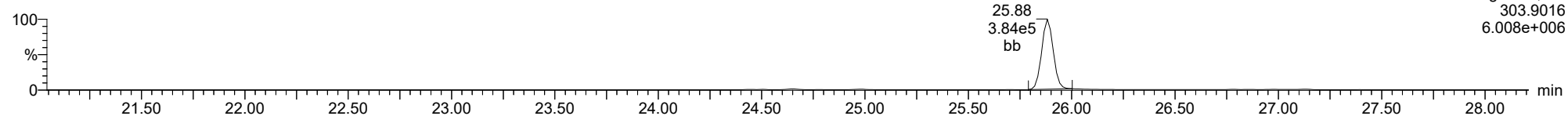
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**2378-TCDF**

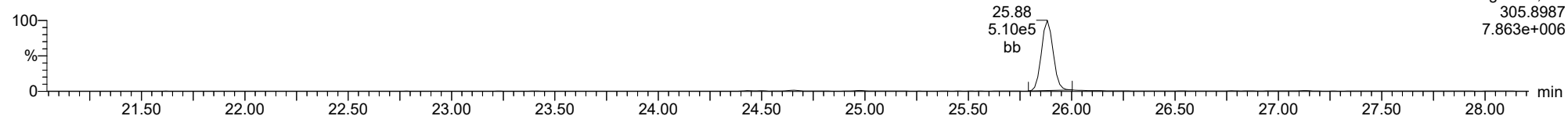
23020108



F1:Voltage SIR,EI+  
303.9016  
6.008e+006

**2378-TCDF**

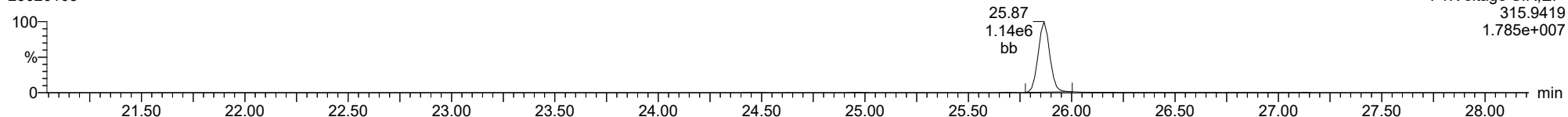
23020108



F1:Voltage SIR,EI+  
305.8987  
7.863e+006

**13C-2378-TCDF**

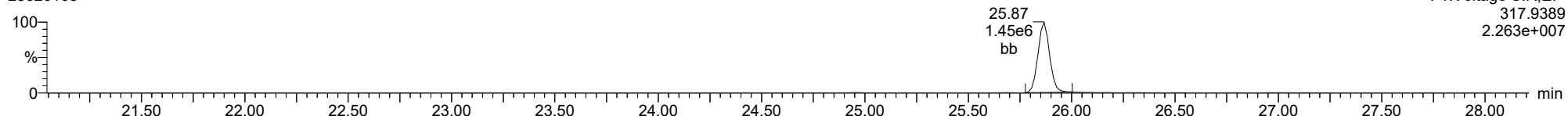
23020108



F1:Voltage SIR,EI+  
315.9419  
1.785e+007

**13C-2378-TCDF**

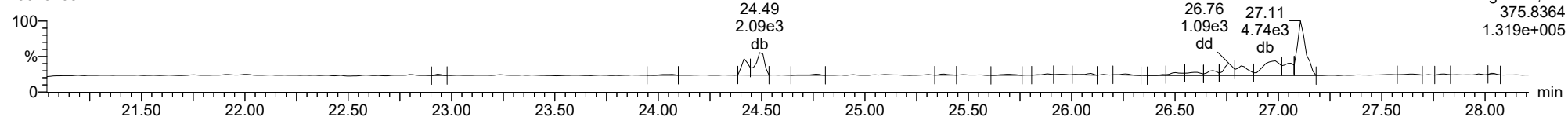
23020108



F1:Voltage SIR,EI+  
317.9389  
2.263e+007

**FUNCTION1 HXCDPE**

23020108



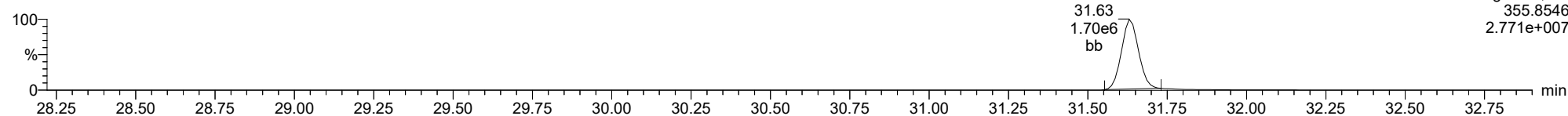
F1:Voltage SIR,EI+  
375.8364  
1.319e+005



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

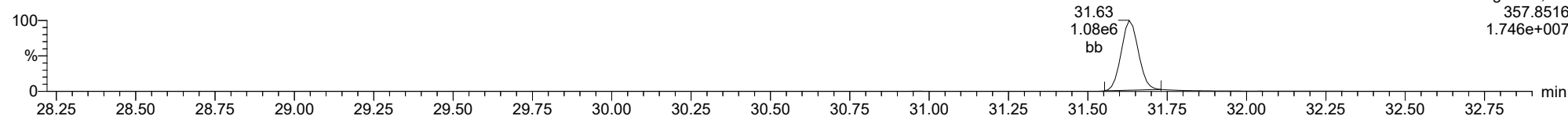
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23020108



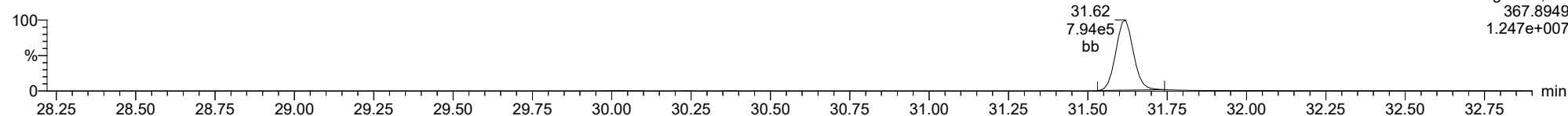
**12378-PeCDD**

23020108



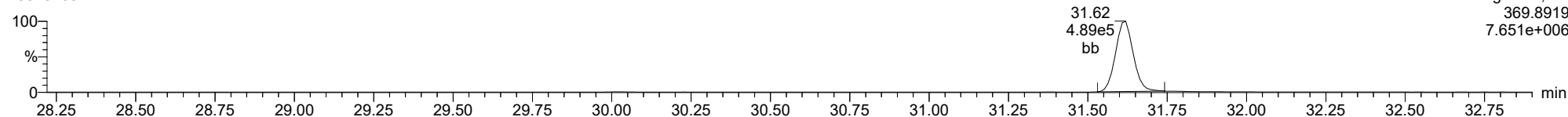
**13C-12378-PeCDD**

23020108



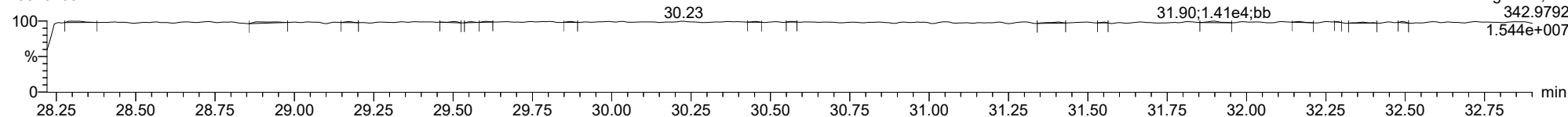
**13C-12378-PeCDD**

23020108



**FUNCTION2 PFK**

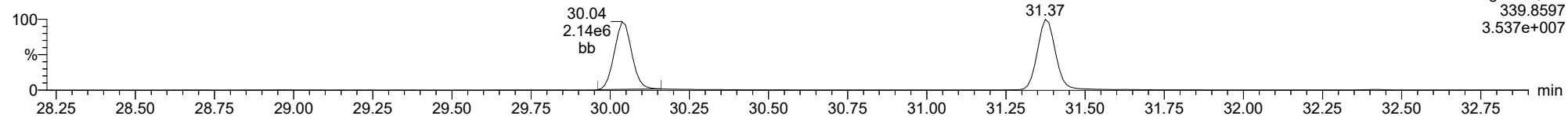
23020108



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

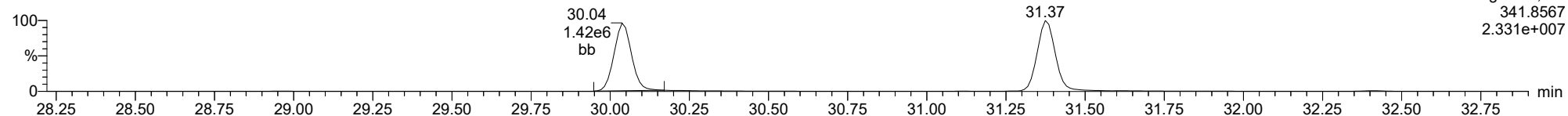
**12378-PeCDF**

23020108



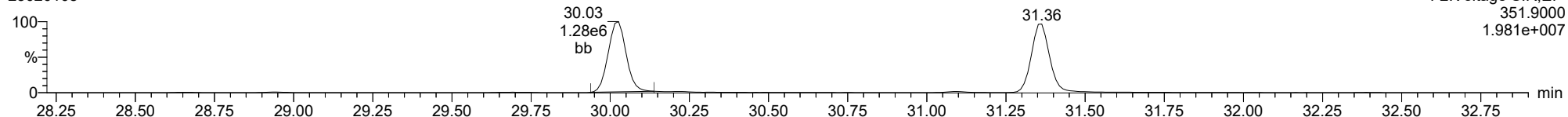
**12378-PeCDF**

23020108



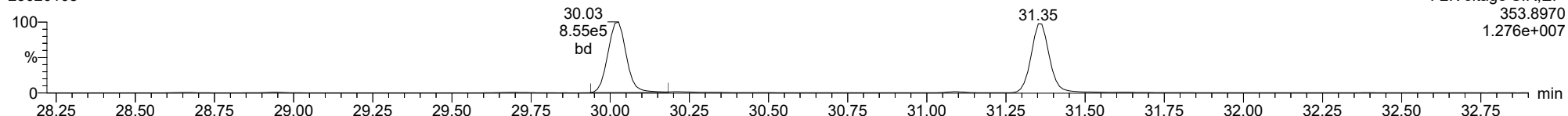
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23020108



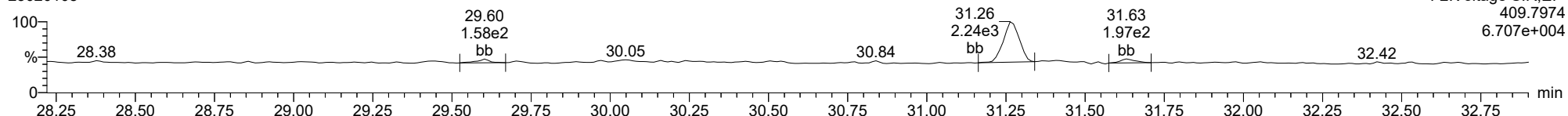
**13C-12378-PeCDF**

23020108



**FUNCTION2 HPCDPE**

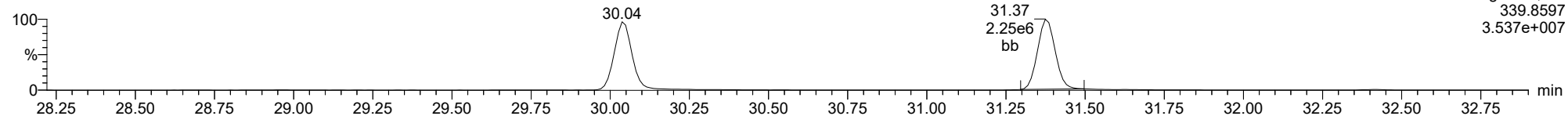
23020108



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

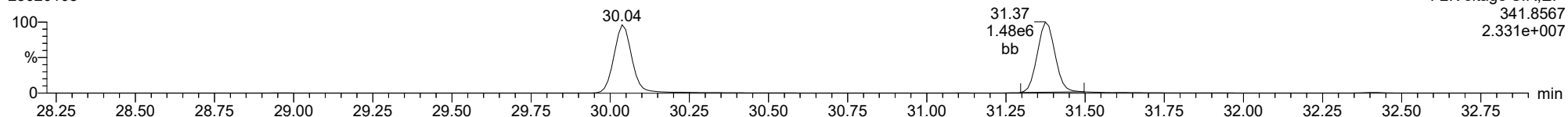
**23478-PeCDF**

23020108



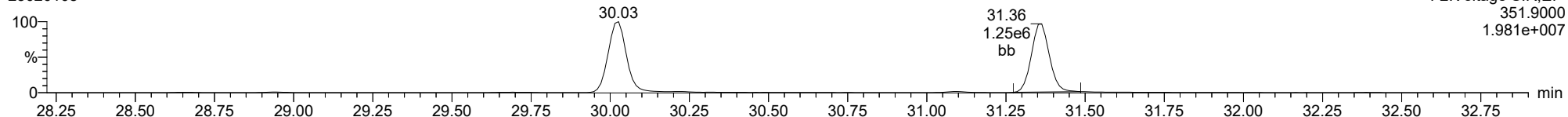
**23478-PeCDF**

23020108



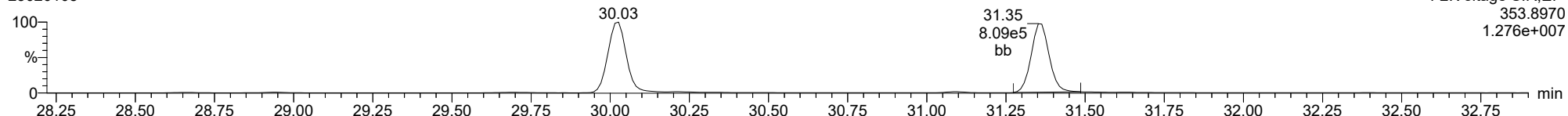
**13C-23478-PeCDF**

23020108



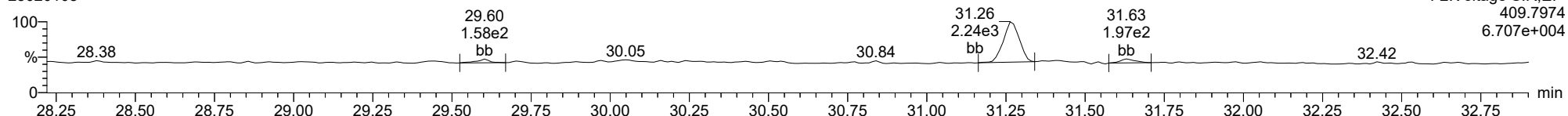
**13C-23478-PeCDF**

23020108



**FUNCTION2 HPCDPE**

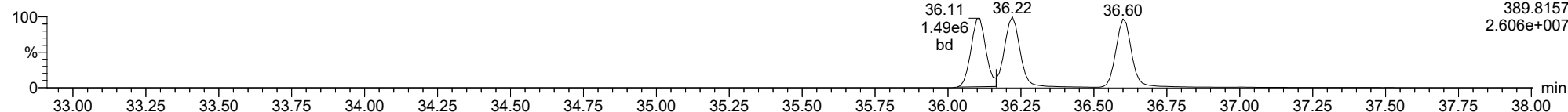
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

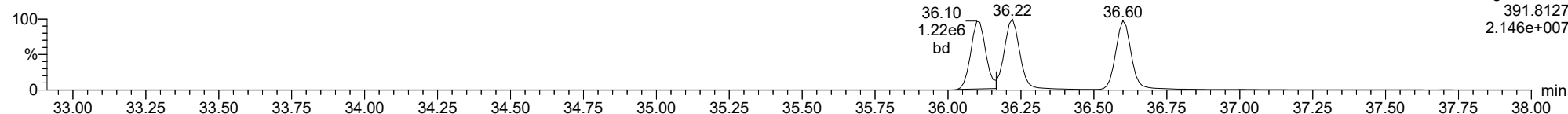
**123478-HxCDD**

23020108



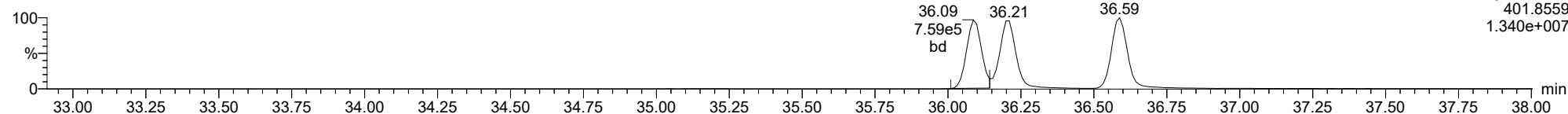
**123478-HxCDD**

23020108



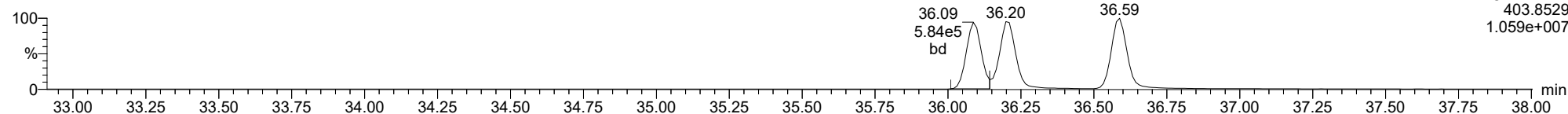
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23020108



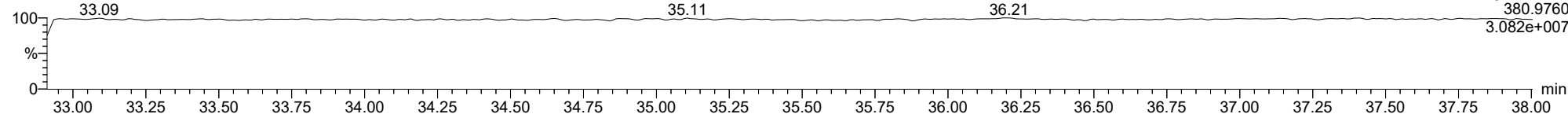
**13C-123478-HxCDD**

23020108



**FUNCTION3 PFK**

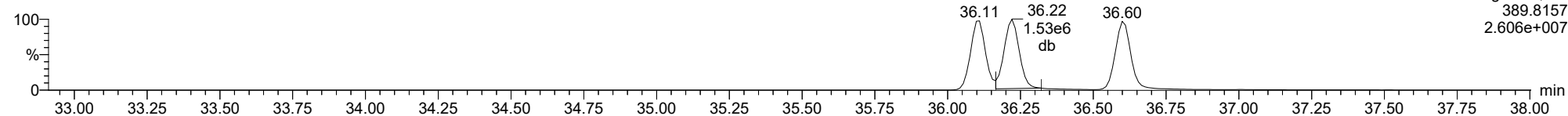
23020108



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**123678-HxCDD**

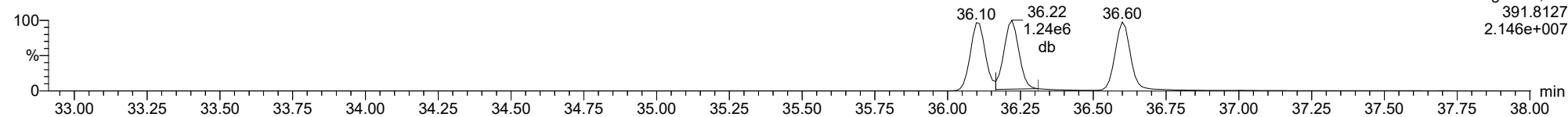
23020108



F3:Voltage SIR,EI+  
389.8157  
2.606e+007

**123678-HxCDD**

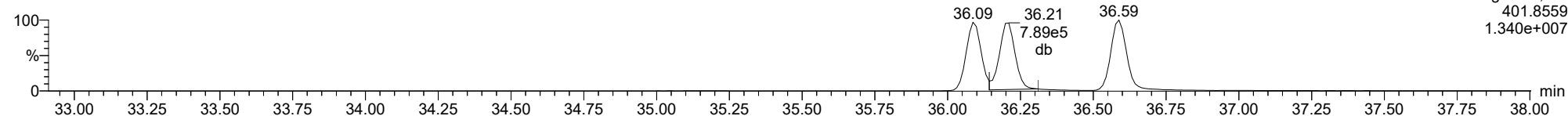
23020108



F3:Voltage SIR,EI+  
391.8127  
2.146e+007

**13C-123678-HxCDD**

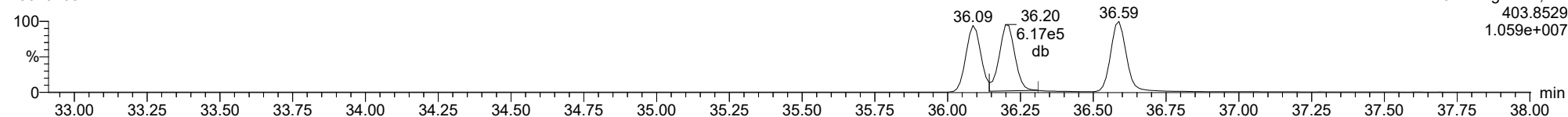
23020108



F3:Voltage SIR,EI+  
401.8559  
1.340e+007

**13C-123678-HxCDD**

23020108

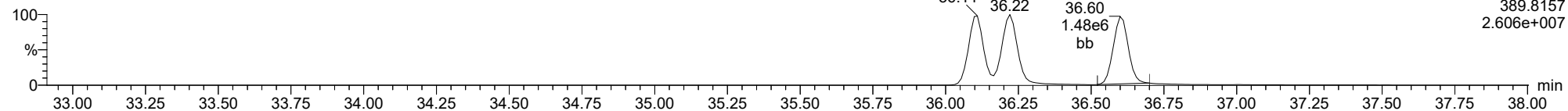


F3:Voltage SIR,EI+  
403.8529  
1.059e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

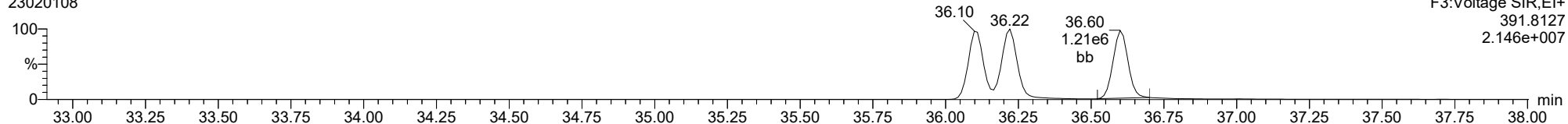
**123789-HxCDD**

23020108



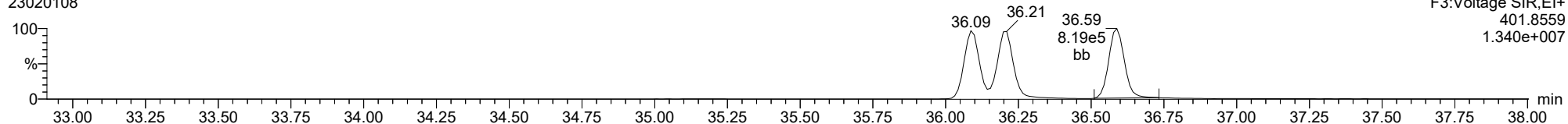
**123789-HxCDD**

23020108



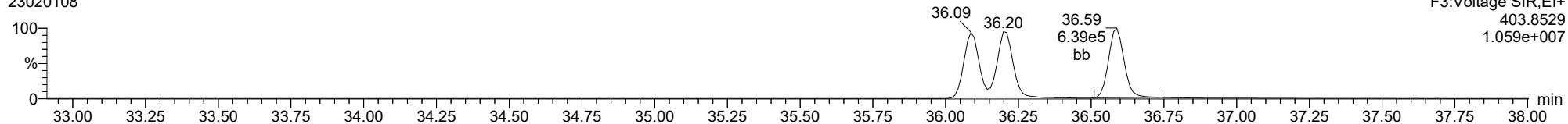
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23020108



**13C-123789-HxCDD**

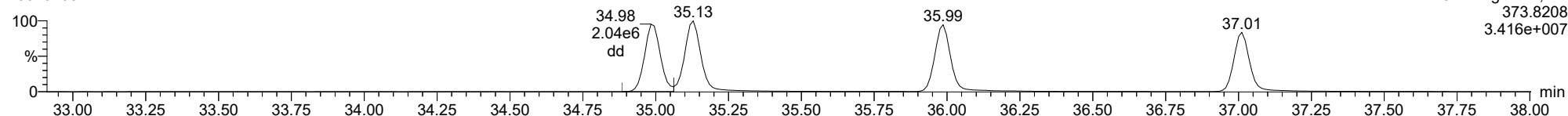
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

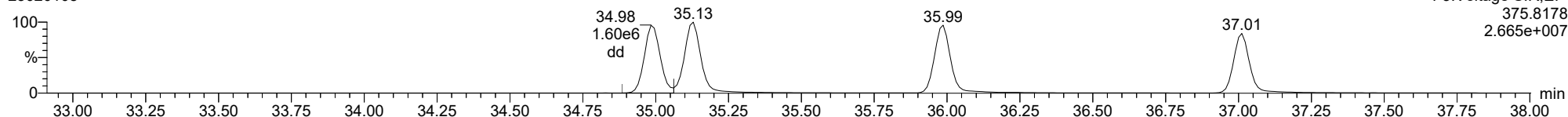
**123478-HxCDF**

23020108



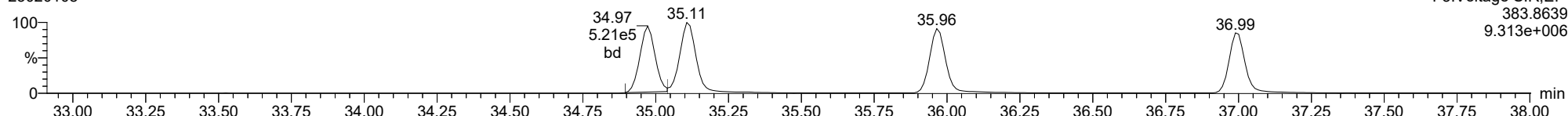
**123478-HxCDF**

23020108



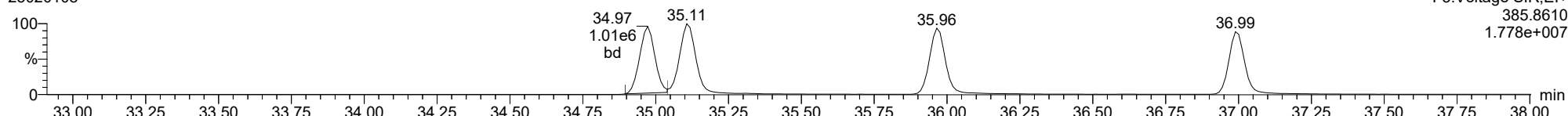
**13C-123478-HxCDF**

23020108



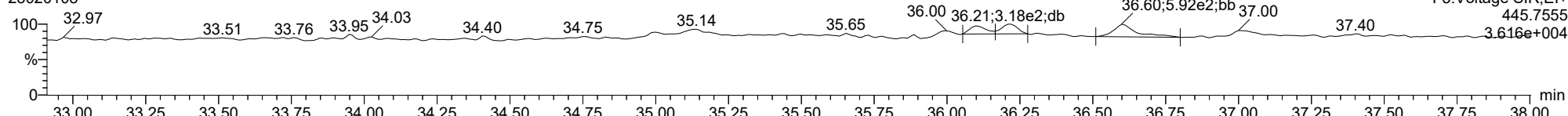
**13C-123478-HxCDF**

23020108



**FUNCTION3 OCDPE**

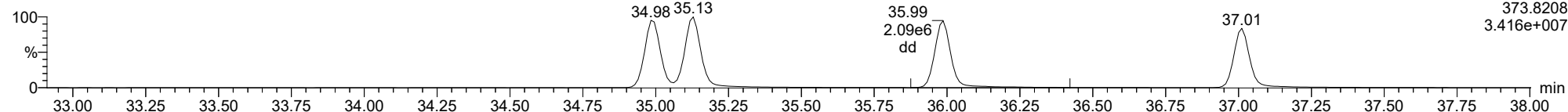
23020108



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

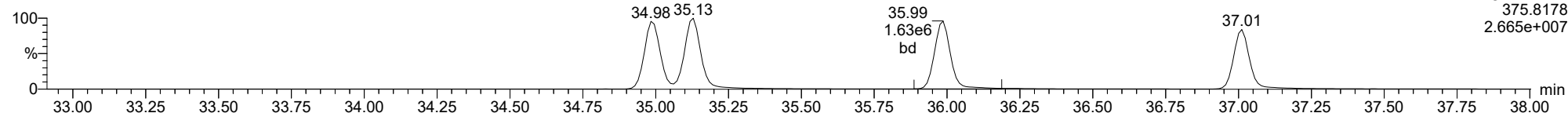
**234678-HxCDF**

23020108



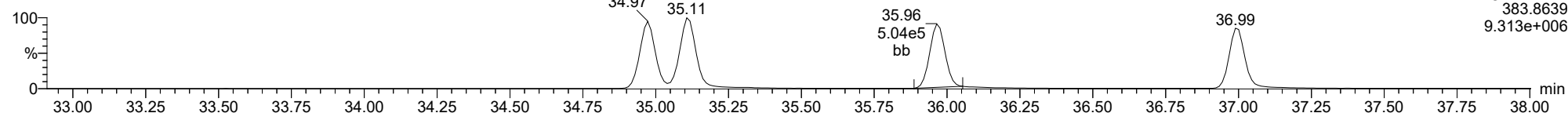
**234678-HxCDF**

23020108



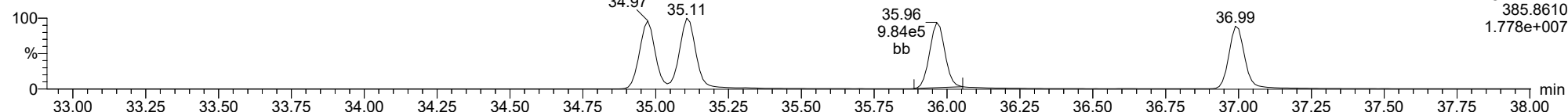
**13C-234678-HxCDF**

23020108



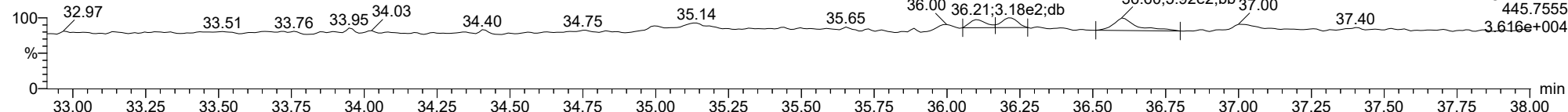
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23020108



**FUNCTION3 OCDPE**

23020108

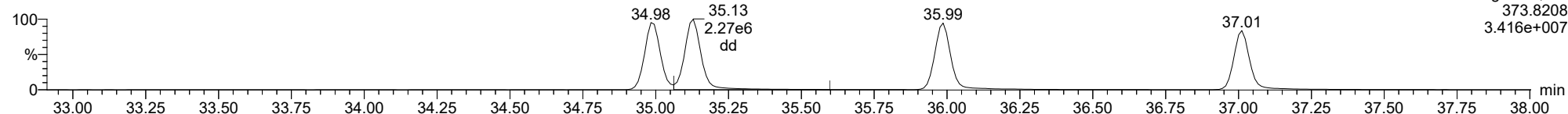




ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

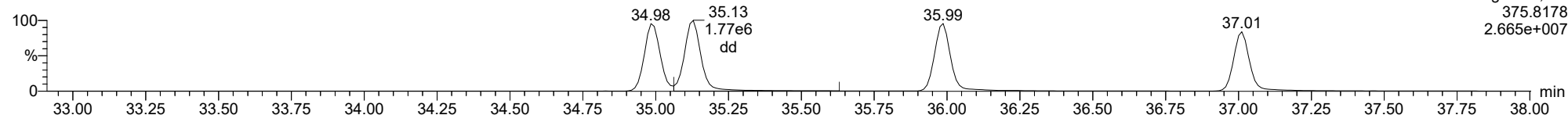
**123678-HxCDF**

23020108



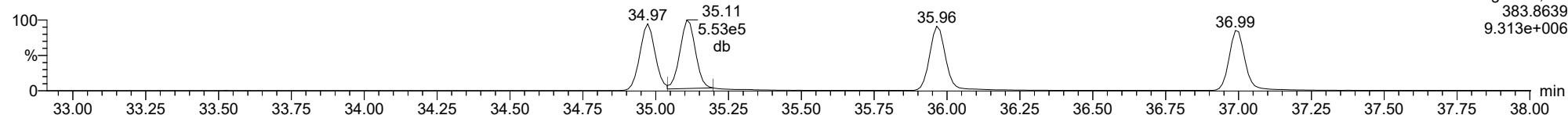
**123678-HxCDF**

23020108



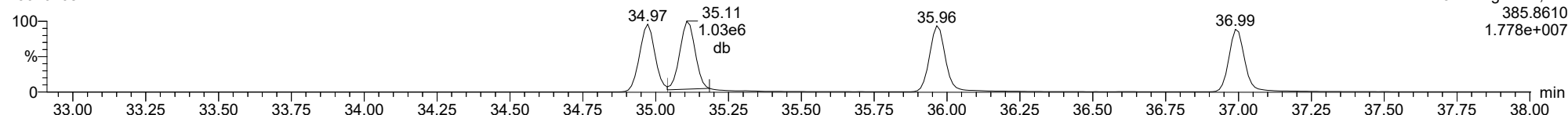
**13C-123678-HxCDF**

23020108



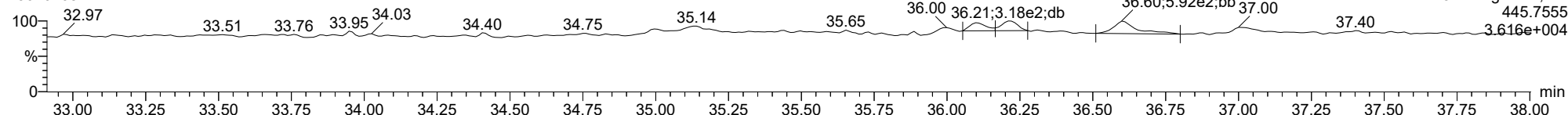
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23020108



**FUNCTION3 OCDPE**

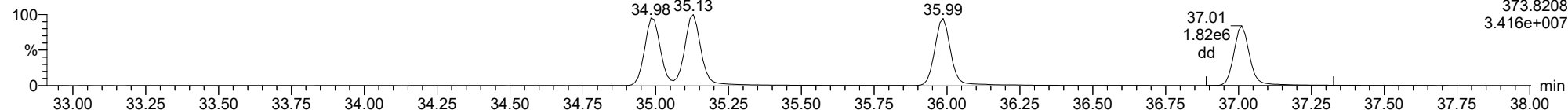
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

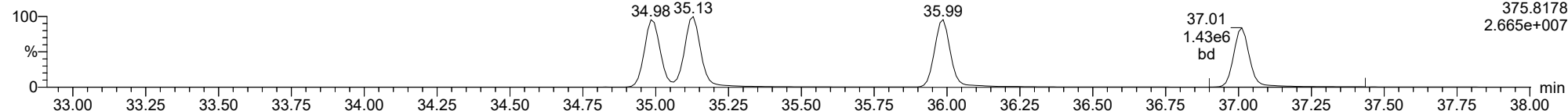
**123789-HxCDF**

23020108



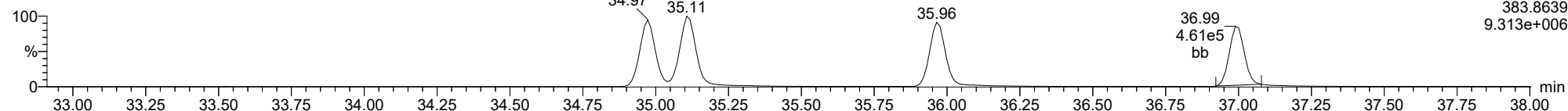
**123789-HxCDF**

23020108



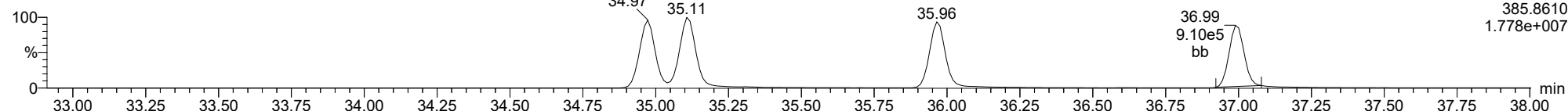
**13C-123789-HxCDF**

23020108



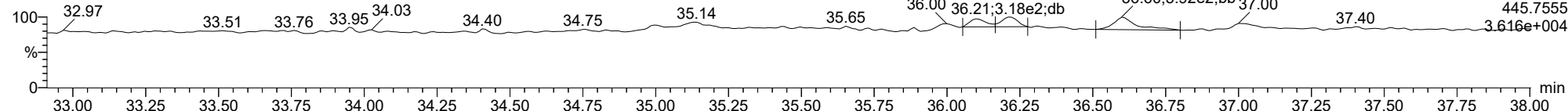
**13C-123789-HxCDF**

23020108



**FUNCTION3 OCDPE**

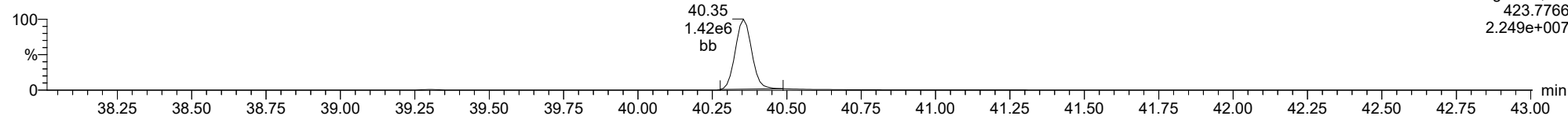
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

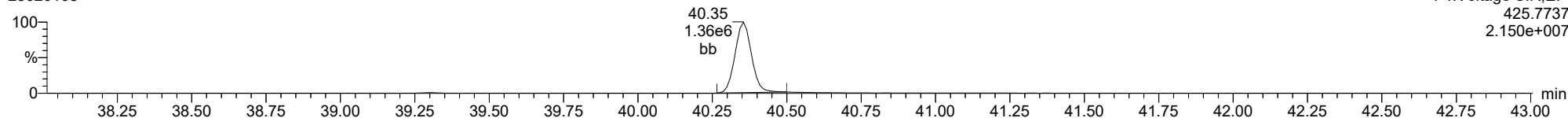
23020108



F4:Voltage SIR,EI+  
423.7766  
2.249e+007

**1234678-HpCDD**

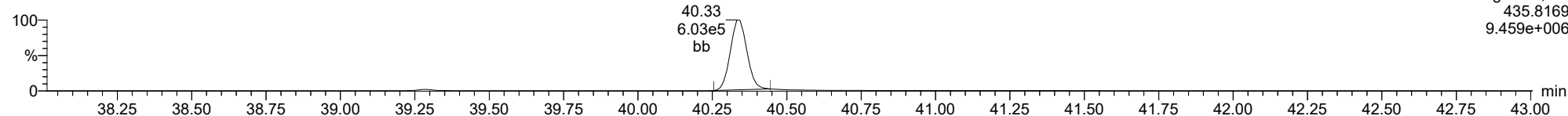
23020108



F4:Voltage SIR,EI+  
425.7737  
2.150e+007

**13C-1234678-HpCDD**

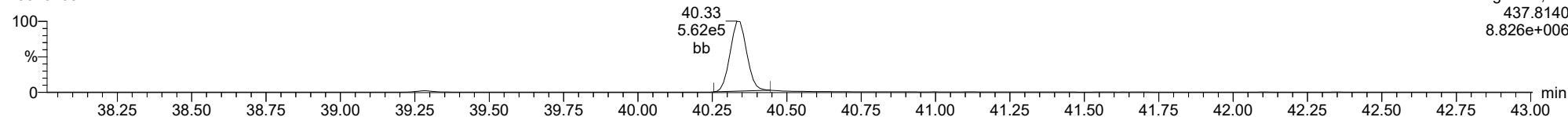
23020108



F4:Voltage SIR,EI+  
435.8169  
9.459e+006

**13C-1234678-HpCDD**

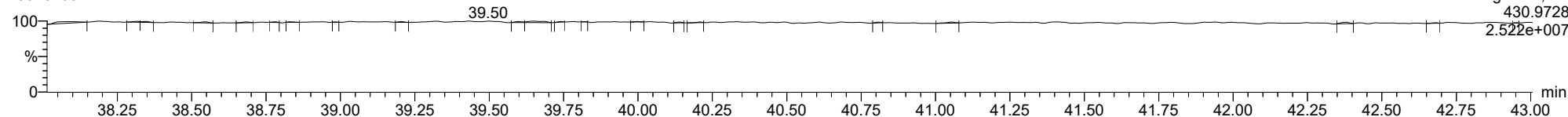
23020108



F4:Voltage SIR,EI+  
437.8140  
8.826e+006

**FUNCTION4 PFK**

23020108

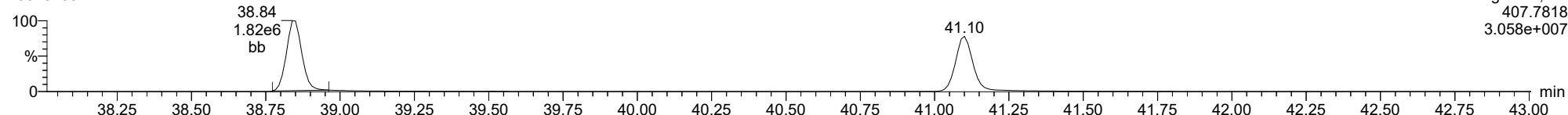


F4:Voltage SIR,EI+  
430.9728  
2.522e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

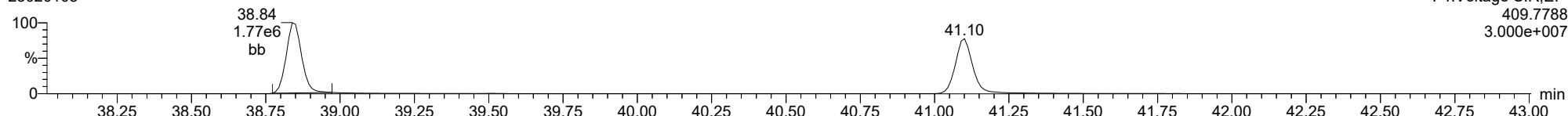
23020108



F4:Voltage SIR,El+  
407.7818  
3.058e+07

1234678-HpCDF

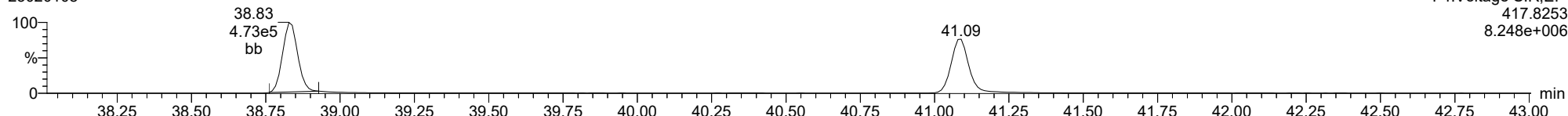
23020108



F4:Voltage SIR,El+  
409.7788  
3.000e+07

13C-1234678-HpCDF

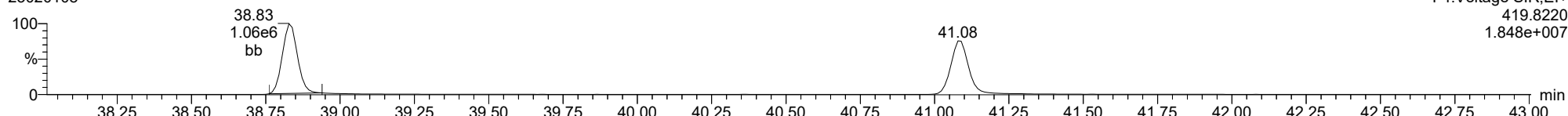
23020108



F4:Voltage SIR,El+  
417.8253  
8.248e+06

13C-1234678-HpCDF

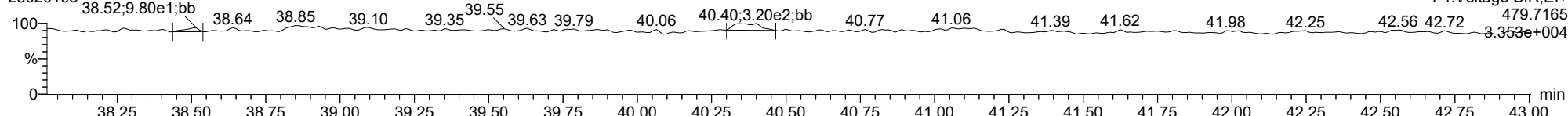
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F4:Voltage SIR,El+  
419.8220  
1.848e+07

FUNCTION4 NCDPE

23020108

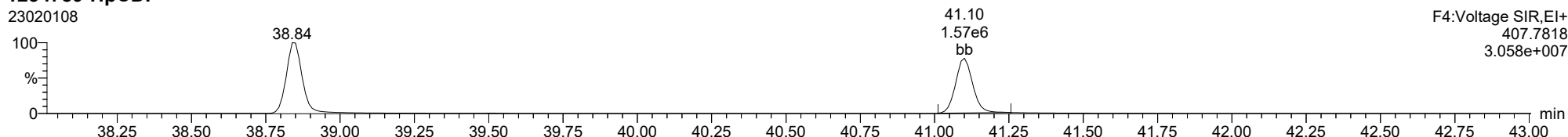


F4:Voltage SIR,El+  
479.7165  
3.353e+04

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

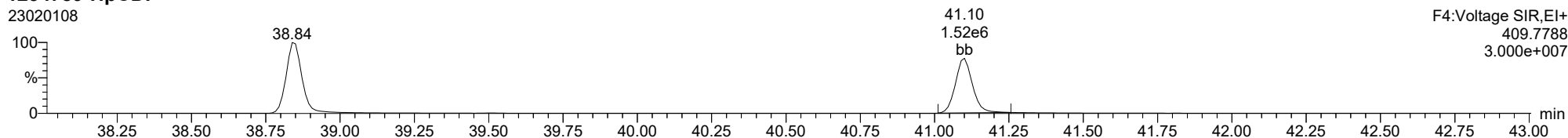
**1234789-HpCDF**

23020108



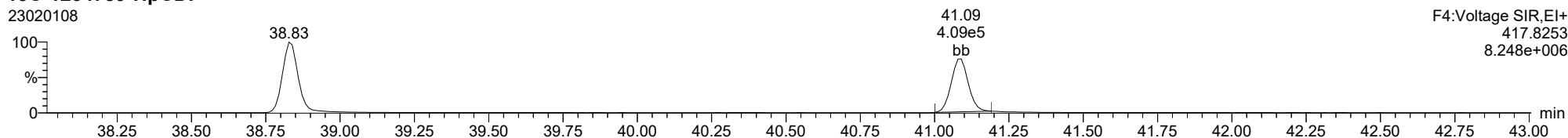
**1234789-HpCDF**

23020108



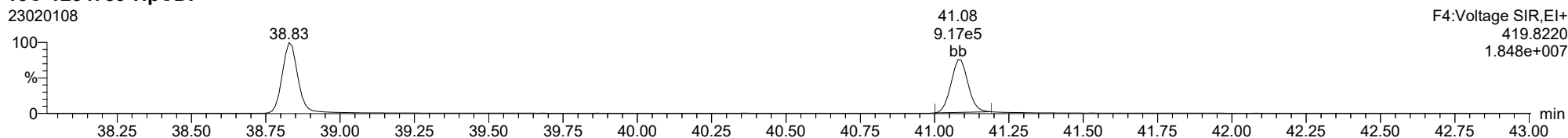
**13C-1234789-HpCDF**

23020108



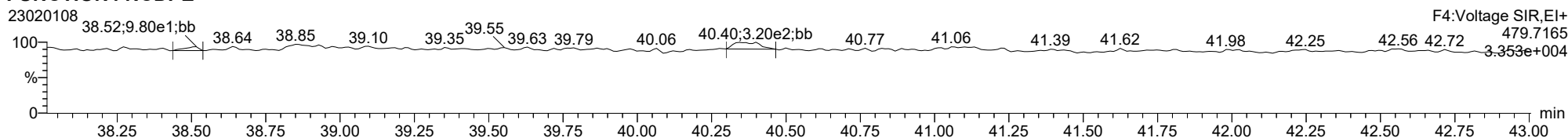
**13C-1234789-HpCDF**

23020108



**FUNCTION4 NCDPE**

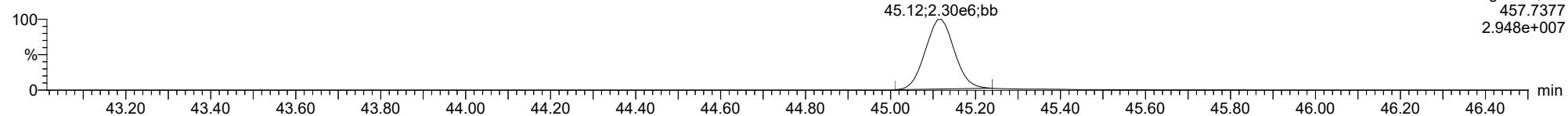
23020108



ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

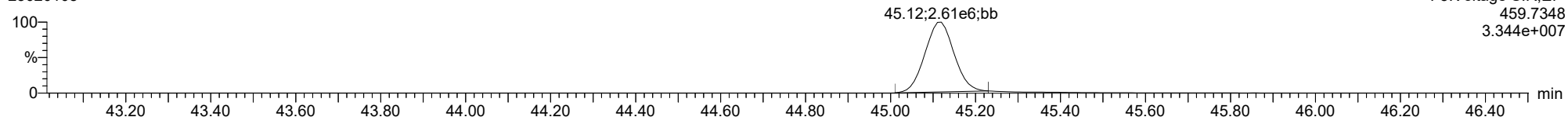
**OCDD**

23020108



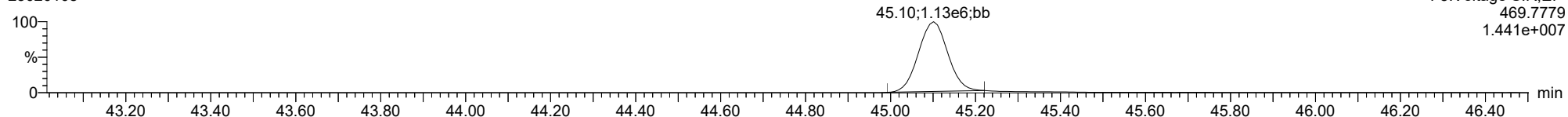
**OCDD**

23020108



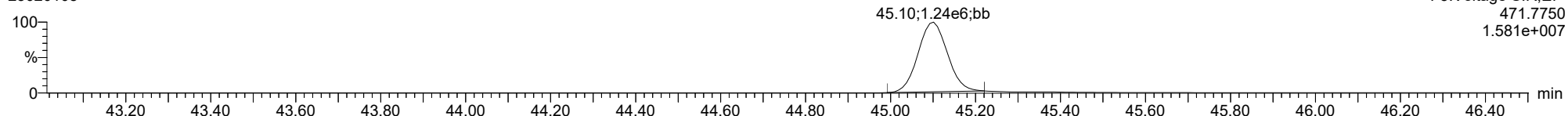
**13C-OCDD**

23020108



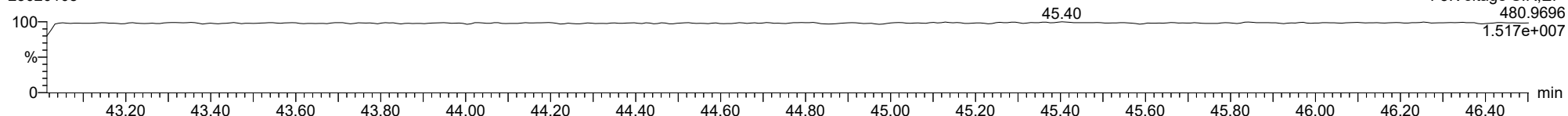
**13C-OCDD**

23020108



**FUNCTION5 PFK**

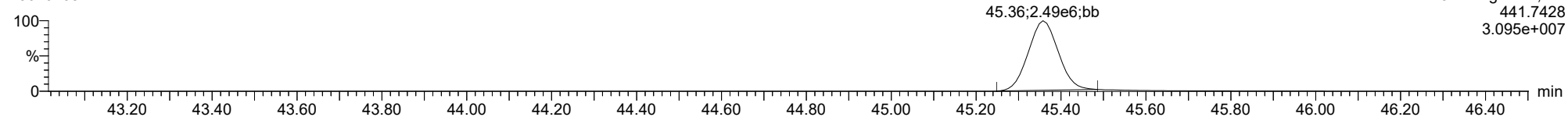
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

**OCDF**

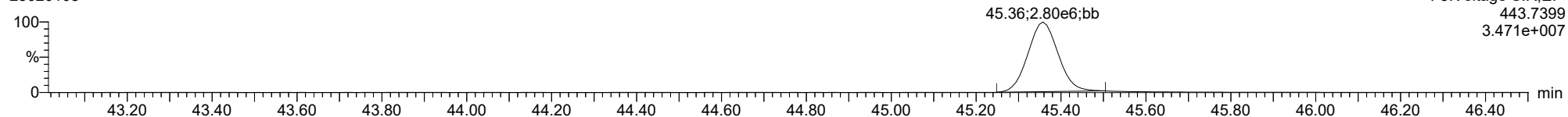
23020108



F5:Voltage SIR,EI+  
441.7428  
3.095e+007

**OCDF**

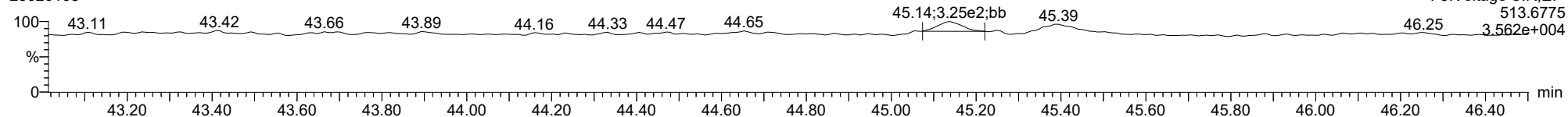
23020108



F5:Voltage SIR,EI+  
443.7399  
3.471e+007

**FUNCTION5 DCDPE**

23020108

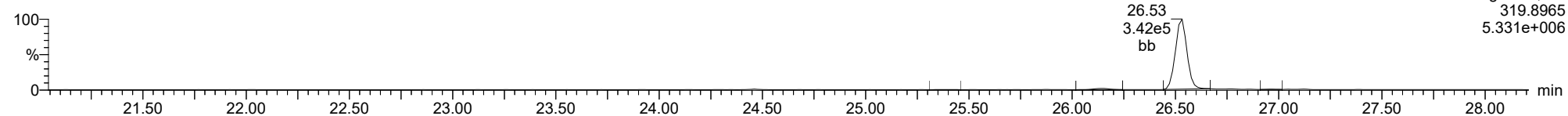


F5:Voltage SIR,EI+  
513.6775  
3.562e+004

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

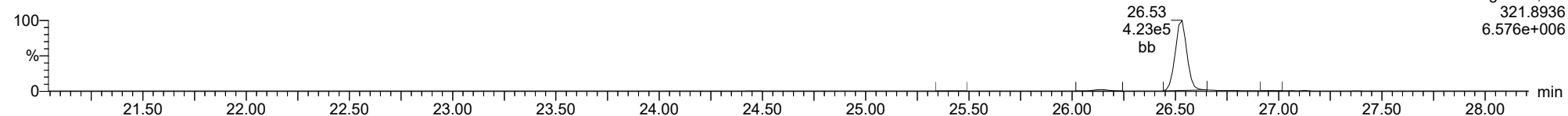
**Total-tetradioxins**

23020108



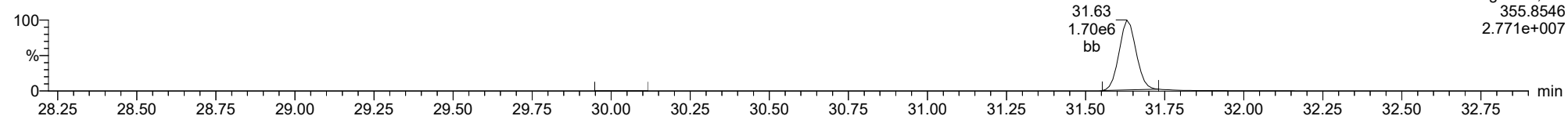
**Total-tetradioxins**

23020108



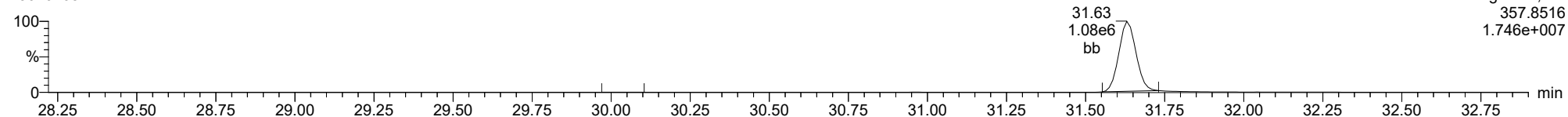
**Total-pentadioxins**

23020108



**Total-pentadioxins**

23020108

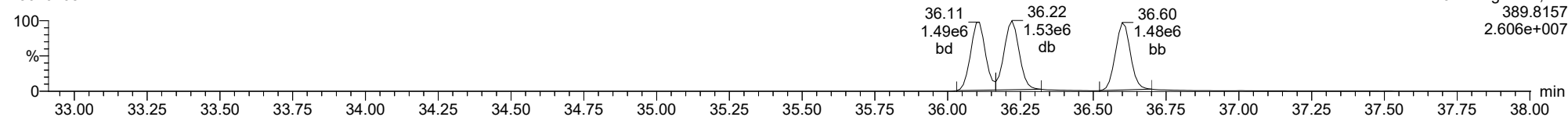




ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

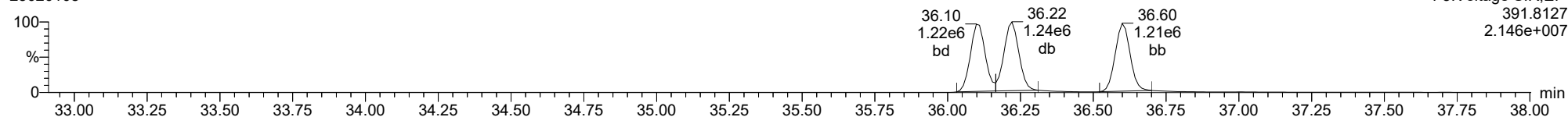
**Total-hexadioxins**

23020108



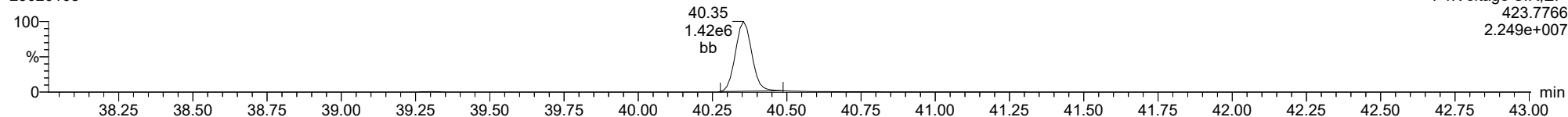
**Total-hexadioxins**

23020108



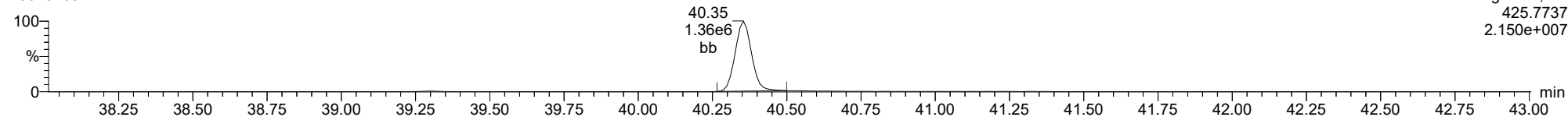
**Total-heptadioxins**

23020108



**Total-heptadioxins**

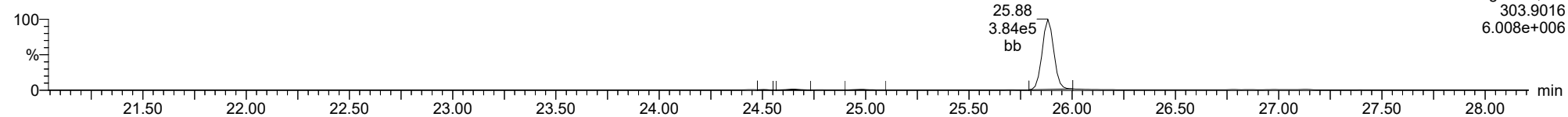
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

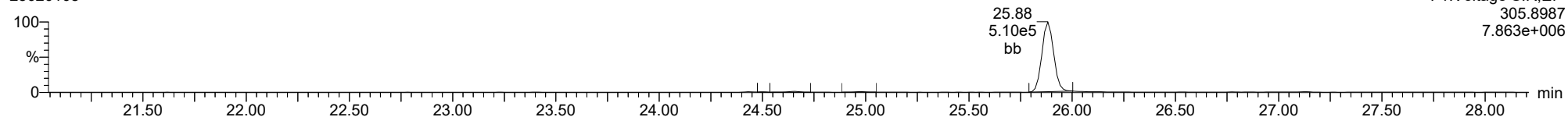
**Total-tetrafurans**

23020108



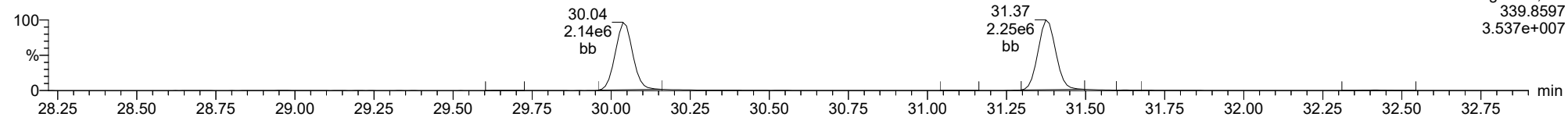
**Total-tetrafurans**

23020108



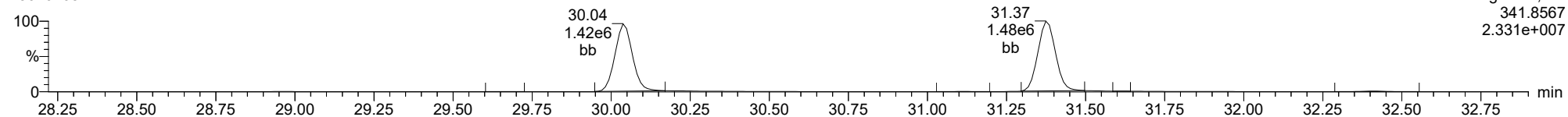
**Total-pentafurans**

23020108



**Total-pentafurans**

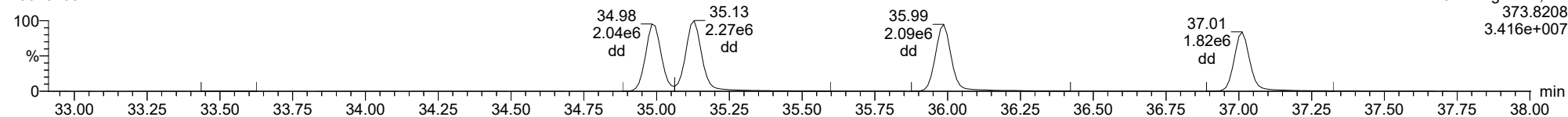
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

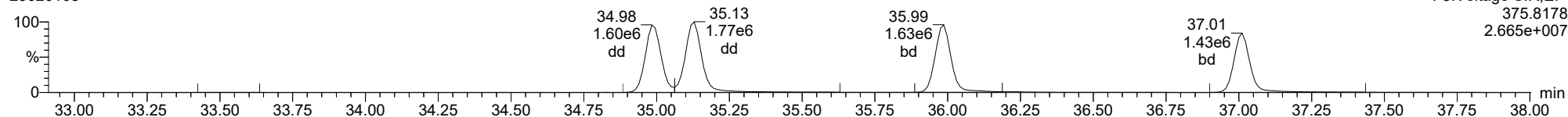
**Total-hexafurans**

23020108



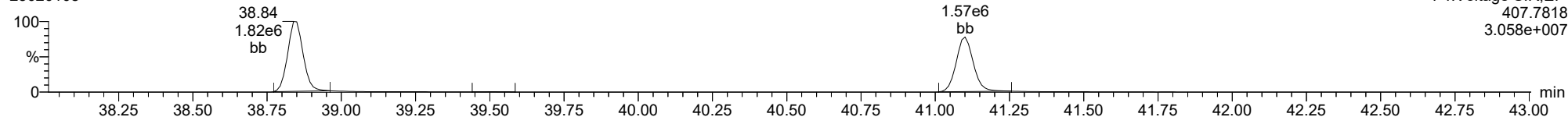
**Total-hexafurans**

23020108



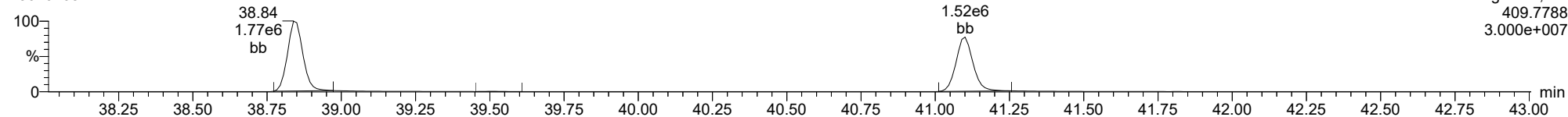
**Total-heptafurans**

23020108



**Total-heptafurans**

23020108



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.902e6	2.502e6	0.876	0.760	0.770	2083	2633	2.83e7	3.68e7	13592.2	13978.0	NO	bb	bb	198.739
12378-PeCDF	30.049	1.000	1.205e7	7.874e6	0.845	1.531	1.550	7373	5488	1.93e8	1.26e8	26224.5	23031.6	NO	bb	bb	994.981
23478-PeCDF	31.386	1.000	1.269e7	8.370e6	0.911	1.517	1.550	7373	5488	2.06e8	1.36e8	27965.2	24705.2	NO	bb	bb	1016.382
123478-HxCDF	34.995	1.000	1.141e7	8.950e6	1.182	1.275	1.240	3920	5169	1.84e8	1.47e8	46993.0	28370.7	NO	dd	dd	1029.340
234678-HxCDF	35.998	1.001	1.171e7	9.171e6	1.229	1.276	1.240	3920	5169	1.90e8	1.49e8	48596.8	28890.8	NO	dd	dd	1009.446
123678-HxCDF	35.140	1.001	1.235e7	9.894e6	1.248	1.248	1.240	3920	5169	1.94e8	1.54e8	49388.8	29696.3	NO	dd	dd	1025.687
123789-HxCDF	37.023	1.001	1.031e7	8.091e6	1.187	1.275	1.240	3920	5169	1.66e8	1.30e8	42476.6	25233.9	NO	bd	bd	998.443
1234678-HpCDF	38.850	1.000	1.032e7	1.012e7	1.204	1.019	1.050	8904	8155	1.75e8	1.74e8	19676.2	21311.7	NO	bb	bb	964.735
1234789-HpCDF	41.112	1.000	8.967e6	8.709e6	1.165	1.030	1.050	8904	8155	1.36e8	1.32e8	15298.2	16219.3	NO	bb	bb	993.722
OCDF	45.375	1.006	1.493e7	1.667e7	1.186	0.896	0.890	4510	4269	1.90e8	2.12e8	42161.0	49693.7	NO	bb	bb	1895.001
2378-TCDD	26.532	1.001	1.752e6	2.174e6	1.236	0.806	0.770	1459	2196	2.70e7	3.36e7	18498.5	15304.9	NO	bb	bb	198.710
12378-PeCDD	31.642	1.000	9.606e6	6.125e6	1.087	1.568	1.550	3423	1668	1.56e8	9.91e7	45448.5	59405.3	NO	bb	bb	1009.559
123478-HxCDD	36.120	1.001	8.528e6	7.016e6	0.987	1.215	1.240	3213	2854	1.40e8	1.15e8	43594.1	40358.9	NO	bd	bd	1032.837
123678-HxCDD	36.232	1.000	8.754e6	7.068e6	1.021	1.239	1.240	3213	2854	1.51e8	1.23e8	47081.5	43211.8	NO	db	db	969.556
123789-HxCDD	36.611	1.011	8.604e6	7.092e6	0.985	1.213	1.240	3213	2854	1.49e8	1.23e8	46396.6	43264.5	NO	bb	bb	1019.817
1234678-HpCDD	40.365	1.001	8.084e6	7.725e6	1.253	1.046	1.050	4704	6048	1.30e8	1.24e8	27631.4	20454.3	NO	bb	bb	955.606
OCDD	45.138	1.000	1.379e7	1.563e7	1.103	0.882	0.890	4246	3833	1.77e8	2.00e8	41633.2	52271.8	NO	bb	bb	1898.324
13C-2378-TCDF	25.867	1.007	1.117e6	1.412e6	1.768	0.791	0.770	2137	1536	1.68e7	2.15e7	7867.7	13974.0	NO	bb	bb	104.652
13C-12378-PeCDF	30.037	1.169	1.439e6	9.319e5	1.527	1.544	1.550	3190	2679	2.23e7	1.46e7	6993.2	5456.9	NO	bb	bb	113.578
13C-23478-PeCDF	31.375	1.221	1.384e6	8.910e5	1.466	1.553	1.550	3190	2679	2.11e7	1.37e7	6621.6	5099.2	NO	bb	bb	113.466
13C-123478-HxCDF	34.984	0.956	5.247e5	1.149e6	1.054	0.456	0.510	2046	3816	8.96e6	1.85e7	4377.9	4858.6	NO	bb	bd	95.236
13C-123678-HxCDF	35.118	0.960	5.447e5	1.193e6	1.080	0.456	0.510	2046	3816	9.54e6	1.96e7	4663.8	5131.1	NO	bb	db	96.456
13C-234678-HxCDF	35.976	0.983	5.724e5	1.111e6	1.014	0.515	0.510	2046	3816	9.48e6	1.86e7	4633.3	4871.3	NO	bb	bb	99.457
13C-123789-HxCDF	37.001	1.011	5.244e5	1.029e6	0.928	0.510	0.510	2046	3816	8.87e6	1.74e7	4335.4	4558.1	NO	bb	bb	100.353
13C-1234678-HpCDF	38.839	1.061	5.492e5	1.210e6	1.036	0.454	0.440	2607	3522	9.31e6	2.08e7	3570.6	5900.4	NO	bb	bb	101.771
13C-1234789-HpCDF	41.100	1.123	4.687e5	1.058e6	0.905	0.443	0.440	2607	3522	6.97e6	1.56e7	2673.2	4442.5	NO	bb	bb	101.106
13C-1234-TCDD	25.700	0.000	6.087e5	7.585e5	1.000	0.803	0.770	1970	1516	9.39e6	1.18e7	4765.4	7760.6	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	7.055e5	8.929e5	1.103	0.790	0.770	1970	1516	1.10e7	1.38e7	5597.9	9134.2	NO	bb	bb	106.005
13C-12378-PeCDD	31.631	1.231	8.888e5	5.452e5	0.914	1.630	1.550	1596	1437	1.37e7	8.34e6	8557.4	5803.5	NO	bb	bb	114.739
13C-123478-HxCDD	36.098	0.986	8.648e5	6.600e5	0.933	1.310	1.240	2021	1546	1.43e7	1.10e7	7083.3	7089.6	NO	bd	bd	97.968
13C-123678-HxCDD	36.221	0.990	8.909e5	7.079e5	0.965	1.258	1.240	2021	1546	1.49e7	1.18e7	7371.3	7606.4	NO	db	db	99.340
13C-1234678-HpCDD	40.343	1.102	6.795e5	6.413e5	0.782	1.059	1.050	2204	1955	1.08e7	1.02e7	4901.5	5191.4	NO	bb	bb	101.235
13C-OCDD	45.119	1.233	1.338e6	1.473e6	0.788	0.908	0.890	3227	1633	1.70e7	1.87e7	5253.8	11468.7	NO	bb	bb	213.757
13C-123789-HxCDD	36.600	0.000	9.379e5	7.305e5	1.000	1.284	1.240	2021	1546	1.55e7	1.24e7	7683.2	7996.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	3.390e6		1.233			2288		5.24e7		22881.9			bb		201.044

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	2083	2633								
1289-TCDF					0.858		0.770	2083	2633								
13468-PECDF					1.013		1.550	1030	1210								
12389-PECDF					0.844		1.550	7373	5488								
123468-HXCDF					1.197		1.240	3920	5169								
1368-TCDD					1.084		0.770	1459	2196								
1289-TCDD					0.975		0.770	1459	2196								
12479-PECDD					1.837		1.550	3423	1668								
12389-PECDD					1.252		1.550	3423	1668								
124679-HXCDD					1.033		1.240	3213	2854								
1234679-HPCDD					1.286		1.050	4704	6048								
Total-tetrafurans			1.936e6		0.933			2083		2.88e7						202.080	
Total-penta1			0.000e0					1030		0.00e0							
Total-pentafurans			2.494e7		0.866			7373		4.02e8						2027.255	
Total-hexafurans			4.602e7		1.208			3920		7.37e8						4083.100	
Total-heptafurans			1.932e7		1.185			8904		3.12e8						1962.233	
Total-Furans			1.071e8		1.067			2083		1.67e9						10169.669	
Total-tetradoxins			1.793e6		1.099			1459		2.75e7						203.813	
Total-pentadoxins			9.627e6		1.392			3423		1.56e8						1011.307	
Total-hexadoxins			2.592e7		1.007			3213		4.41e8						3025.757	
Total-heptadoxins			8.084e6		1.269			4704		1.30e8						955.606	
Total-Dioxins			5.921e7		1.165			1459		9.31e8						7094.807	
Total-TEQ			1.664e8					1459		2.60e9						17264.476	
FUNCTION1 PFK			2.029e7					574211		2.20e8							
FUNCTION2 PFK			0.000e0					188547		0.00e0							
FUNCTION3 PFK			1.011e6					450058		2.54e7						0.000	
FUNCTION4 PFK			3.839e5					271819		2.65e6							
FUNCTION5 PFK			1.416e4					194883		8.19e5							
FUNCTION1 HXCD...			1.885e3					653		2.55e4						0.000	
FUNCTION1 HPCD...			1.625e3					761		2.22e4						0.000	
FUNCTION2 HPCD...			1.554e4					835		2.29e5						0.000	
FUNCTION3 OCDPE			7.873e3					764		8.87e4						0.000	
FUNCTION4 NCDPE			2.525e3					778		3.44e4						0.000	
FUNCTION5 DCDPE			4.222e3					726		3.75e4						0.000	

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld  
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time  
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**

**TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
2	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
3	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
4	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
5	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
6	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
7	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
8	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
9	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
10	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk****HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
2	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
3	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
4	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
5	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
6	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
7	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
8	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
9	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
2	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
3	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
4	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
5	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

## Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700
6	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
7	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
8	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
9	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
10	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
11	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
12	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
13	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
14	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
15	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271
16	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
17	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
18	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
19	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
20	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
21	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
22	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
23	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
24	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...
25	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
26	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
27	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
28	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
29	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735
30	OCDF	45.38	1.493e7	1.667e7	1.186	0.90	0.89	42161.0	YES	NO	bb	bb	1895.0...

## TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
2	Total-tetradoxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
3	Total-tetradoxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk****PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
2	Total-pentadioxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
3	Total-pentadioxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
4	Total-pentadioxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684

**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
2	Total-hexadioxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
3	Total-hexadioxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
4	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
5	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
6	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
2	Total-tetradoxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
3	Total-tetradoxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217
4	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
5	Total-pentadoxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
6	Total-pentadoxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
7	Total-pentadoxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684
8	Total-hexadoxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
9	Total-hexadoxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
10	Total-hexadoxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
11	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
12	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
13	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...
14	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606
15	OCDD	45.14	1.379e7	1.563e7	1.103	0.88	0.89	41633.2	YES	NO	bb	bb	1898.3...

## Quantify Totals Report MassLynx V4.1 SCN909

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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700
6	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
7	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
8	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
9	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
10	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
11	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
12	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
13	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
14	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
15	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271
16	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
17	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
18	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
19	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
20	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
21	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
22	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
23	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
24	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...
25	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
26	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
27	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
28	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
29	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735
30	OCDF	45.38	1.493e7	1.667e7	1.186	0.90	0.89	42161.0	YES	NO	bb	bb	1895.0...
31	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
32	Total-tetradioxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
33	Total-tetradioxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217
34	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
35	Total-pentadioxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
36	Total-pentadioxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
37	Total-pentadioxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexadioxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
39	Total-hexadioxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
40	Total-hexadioxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
41	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
42	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
43	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...
44	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606
45	OCDD	45.14	1.379e7	1.563e7	1.103	0.88	0.89	41633.2	YES	NO	bb	bb	1898.3...

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## PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.86	8.873e5					21.2	YES		dd		
2	FUNCTION1 PFK	21.80	7.665e5					22.5	YES		dd		
3	FUNCTION1 PFK	21.74	1.019e6					23.9	YES		dd		
4	FUNCTION1 PFK	21.59	1.959e6					26.2	YES		dd		
5	FUNCTION1 PFK	21.53	6.962e5					27.3	YES		dd		
6	FUNCTION1 PFK	21.47	1.211e6					28.6	YES		dd		
7	FUNCTION1 PFK	21.41	1.009e6					29.4	YES		dd		
8	FUNCTION1 PFK	21.13	5.872e6					34.2	YES		bd		
9	FUNCTION1 PFK	23.67	5.720e3					0.4	NO		bb		
10	FUNCTION1 PFK	23.28	9.896e3					0.7	NO		bb		
11	FUNCTION1 PFK	23.24	1.090e4					0.7	NO		bb		
12	FUNCTION1 PFK	23.16	1.031e4					0.6	NO		bb		
13	FUNCTION1 PFK	22.96	3.707e4					1.5	NO		db		
14	FUNCTION1 PFK	22.84	1.630e5					3.4	YES		dd		
15	FUNCTION1 PFK	22.72	3.257e5					5.8	YES		dd		
16	FUNCTION1 PFK	22.59	5.378e5					8.3	YES		dd		
17	FUNCTION1 PFK	22.53	8.039e5					8.9	YES		dd		
18	FUNCTION1 PFK	22.37	3.709e5					11.1	YES		dd		
19	FUNCTION1 PFK	22.31	5.024e5					12.0	YES		dd		
20	FUNCTION1 PFK	22.18	9.225e5					14.7	YES		dd		
21	FUNCTION1 PFK	22.12	3.970e5					15.8	YES		dd		
22	FUNCTION1 PFK	22.07	7.082e5					16.9	YES		dd		
23	FUNCTION1 PFK	22.00	6.094e5					18.0	YES		dd		
24	FUNCTION1 PFK	21.94	6.575e5					19.5	YES		dd		
25	FUNCTION1 PFK	26.06	4.194e4					1.5	NO		bb		
26	FUNCTION1 PFK	25.69	3.568e4					1.2	NO		bb		
27	FUNCTION1 PFK	25.56	8.323e3					0.5	NO		bb		
28	FUNCTION1 PFK	25.49	1.374e4					0.7	NO		bb		
29	FUNCTION1 PFK	25.10	2.036e4					1.0	NO		db		
30	FUNCTION1 PFK	25.02	2.247e4					1.0	NO		bd		
31	FUNCTION1 PFK	24.96	3.286e4					1.5	NO		db		
32	FUNCTION1 PFK	24.90	1.152e4					0.7	NO		bd		
33	FUNCTION1 PFK	24.84	1.639e4					1.0	NO		bb		
34	FUNCTION1 PFK	24.78	2.451e4					1.1	NO		db		
35	FUNCTION1 PFK	24.72	2.714e4					1.2	NO		bd		
36	FUNCTION1 PFK	24.55	3.918e3					0.5	NO		bb		
37	FUNCTION1 PFK	24.37	3.551e4					1.1	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	24.01	2.091e4					0.9	NO		bb		
39	FUNCTION1 PFK	23.87	1.925e4					0.9	NO		db		
40	FUNCTION1 PFK	23.80	1.436e4					0.7	NO		bd		
41	FUNCTION1 PFK	27.74	4.148e4					1.2	NO		bb		
42	FUNCTION1 PFK	27.61	1.687e4					0.9	NO		bb		
43	FUNCTION1 PFK	27.36	2.823e4					1.3	NO		bb		
44	FUNCTION1 PFK	27.23	1.221e4					0.7	NO		bb		
45	FUNCTION1 PFK	27.11	2.196e4					0.8	NO		bb		
46	FUNCTION1 PFK	27.03	4.103e4					1.6	NO		db		
47	FUNCTION1 PFK	26.97	5.610e4					1.7	NO		dd		
48	FUNCTION1 PFK	26.86	5.847e4					1.3	NO		dd		
49	FUNCTION1 PFK	26.79	3.039e4					1.0	NO		bd		
50	FUNCTION1 PFK	26.68	1.065e4					0.6	NO		db		
51	FUNCTION1 PFK	26.64	8.185e3					0.7	NO		bd		
52	FUNCTION1 PFK	26.52	5.718e4					1.5	NO		bb		
53	FUNCTION1 PFK	26.40	1.679e4					0.7	NO		bb		
54	FUNCTION1 PFK	26.32	9.414e3					0.6	NO		bb		
55	FUNCTION1 PFK	26.18	2.178e4					1.0	NO		db		
56	FUNCTION1 PFK	26.14	1.887e4					1.1	NO		bd		
57	FUNCTION1 PFK	27.98	3.090e3					0.4	NO		bb		

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.39	1.483e4					1.1	NO		db		0.000
2	FUNCTION3 PFK	34.35	2.582e4					1.3	NO		bd		0.000
3	FUNCTION3 PFK	34.26	2.395e4					1.1	NO		bb		0.000
4	FUNCTION3 PFK	34.15	1.551e4					1.0	NO		db		0.000
5	FUNCTION3 PFK	34.09	2.978e3					0.4	NO		bd		0.000
6	FUNCTION3 PFK	33.87	2.703e4					1.3	NO		db		0.000
7	FUNCTION3 PFK	33.76	2.846e4					1.4	NO		dd		0.000
8	FUNCTION3 PFK	33.70	9.928e3					0.9	NO		bd		0.000
9	FUNCTION3 PFK	33.66	2.430e3					0.5	NO		bb		0.000
10	FUNCTION3 PFK	33.47	5.051e4					0.9	NO		db		0.000
11	FUNCTION3 PFK	33.37	2.100e4					1.4	NO		bd		0.000
12	FUNCTION3 PFK	33.17	1.358e4					1.0	NO		db		0.000
13	FUNCTION3 PFK	33.13	8.975e3					0.9	NO		bd		0.000
14	FUNCTION3 PFK	35.80	8.372e3					0.8	NO		bb		0.000
15	FUNCTION3 PFK	35.71	2.156e4					1.3	NO		db		0.000
16	FUNCTION3 PFK	35.67	2.235e4					1.3	NO		bd		0.000
17	FUNCTION3 PFK	35.59	9.805e3					0.8	NO		bb		0.000
18	FUNCTION3 PFK	35.53	4.290e3					0.5	NO		bb		0.000
19	FUNCTION3 PFK	35.33	9.302e3					1.0	NO		db		0.000
20	FUNCTION3 PFK	35.30	1.165e4					1.0	NO		bd		0.000
21	FUNCTION3 PFK	35.25	5.126e3					0.7	NO		bb		0.000
22	FUNCTION3 PFK	35.14	1.556e4					0.8	NO		bb		0.000
23	FUNCTION3 PFK	35.10	5.550e3					0.6	NO		bb		0.000
24	FUNCTION3 PFK	35.06	1.779e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	34.91	4.171e3					0.5	NO		bb		0.000
26	FUNCTION3 PFK	34.86	1.499e4					1.4	NO		bb		0.000
27	FUNCTION3 PFK	34.81	6.634e3					0.6	NO		bb		0.000
28	FUNCTION3 PFK	34.58	1.500e4					1.1	NO		bb		0.000
29	FUNCTION3 PFK	34.53	1.395e3					0.3	NO		bb		0.000
30	FUNCTION3 PFK	37.08	1.137e4					1.0	NO		dd		0.000
31	FUNCTION3 PFK	36.99	7.110e4					2.2	NO		bd		0.000
32	FUNCTION3 PFK	36.92	2.314e3					0.5	NO		bb		0.000
33	FUNCTION3 PFK	36.88	7.392e3					0.6	NO		db		0.000
34	FUNCTION3 PFK	36.81	7.817e3					0.4	NO		bd		0.000
35	FUNCTION3 PFK	36.77	1.226e4					0.8	NO		bb		0.000
36	FUNCTION3 PFK	36.61	7.220e4					1.7	NO		bb		0.000
37	FUNCTION3 PFK	36.40	2.247e4					1.6	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	36.31	3.432e4					1.8	NO		db		0.000
39	FUNCTION3 PFK	36.24	7.551e4					2.3	NO		dd		0.000
40	FUNCTION3 PFK	36.14	2.231e4					1.5	NO		dd		0.000
41	FUNCTION3 PFK	36.11	4.985e4					2.3	NO		dd		0.000
42	FUNCTION3 PFK	36.04	1.685e4					1.5	NO		dd		0.000
43	FUNCTION3 PFK	36.00	8.077e4					2.9	NO		dd		0.000
44	FUNCTION3 PFK	35.92	1.428e4					1.1	NO		dd		0.000
45	FUNCTION3 PFK	35.89	1.321e4					0.9	NO		bd		0.000
46	FUNCTION3 PFK	37.91	1.145e4					1.0	NO		bb		0.000
47	FUNCTION3 PFK	37.83	2.759e4					1.3	NO		bb		0.000
48	FUNCTION3 PFK	37.75	1.842e3					0.4	NO		bb		0.000
49	FUNCTION3 PFK	37.67	1.331e3					0.3	NO		bb		0.000
50	FUNCTION3 PFK	37.58	1.178e4					0.7	NO		bb		0.000
51	FUNCTION3 PFK	37.52	1.786e3					0.4	NO		bb		0.000
52	FUNCTION3 PFK	37.38	1.181e4					0.8	NO		bb		0.000
53	FUNCTION3 PFK	37.32	2.852e3					0.5	NO		db		0.000
54	FUNCTION3 PFK	37.29	1.067e4					0.9	NO		bd		0.000
55	FUNCTION3 PFK	37.12	1.332e4					1.1	NO		db		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	3.839e5					9.7	YES		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.91	3.198e3					0.9	NO		bb		
2	FUNCTION5 PFK	44.44	5.621e3					1.1	NO		bb		
3	FUNCTION5 PFK	43.72	1.296e3					0.7	NO		bb		
4	FUNCTION5 PFK	46.00	2.951e3					0.9	NO		bb		
5	FUNCTION5 PFK	45.63	1.092e3					0.6	NO		bb		



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.32	1.271e2					3.2	YES		db		0.000
2	FUNCTION1 HXCD...	27.27	1.266e2					3.9	YES		bd		0.000
3	FUNCTION1 HXCD...	26.97	8.256e1					1.6	NO		bb		0.000
4	FUNCTION1 HXCD...	26.55	4.280e2					6.1	YES		bb		0.000
5	FUNCTION1 HXCD...	26.02	1.029e2					2.7	NO		db		0.000
6	FUNCTION1 HXCD...	25.90	2.502e2					4.4	YES		dd		0.000
7	FUNCTION1 HXCD...	25.72	2.101e2					3.6	YES		bd		0.000
8	FUNCTION1 HXCD...	23.72	8.529e1					3.0	YES		bb		0.000
9	FUNCTION1 HXCD...	22.99	9.923e1					2.5	NO		bb		0.000
10	FUNCTION1 HXCD...	22.00	7.560e1					1.7	NO		db		0.000
11	FUNCTION1 HXCD...	21.89	1.928e2					3.3	YES		bd		0.000
12	FUNCTION1 HXCD...	21.10	1.048e2					3.0	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.67	7.036e1					1.9	NO		db		0.000
2	FUNCTION1 HPCD...	26.53	4.357e2					5.6	YES		bd		0.000
3	FUNCTION1 HPCD...	25.91	1.719e2					2.5	NO		bb		0.000
4	FUNCTION1 HPCD...	25.70	1.553e2					2.9	NO		bb		0.000
5	FUNCTION1 HPCD...	24.63	1.444e2					3.1	YES		bb		0.000
6	FUNCTION1 HPCD...	24.20	7.285e1					2.2	NO		bb		0.000
7	FUNCTION1 HPCD...	23.45	7.383e1					2.1	NO		bb		0.000
8	FUNCTION1 HPCD...	23.34	1.346e2					1.9	NO		bb		0.000
9	FUNCTION1 HPCD...	22.31	1.729e2					2.3	NO		bb		0.000
10	FUNCTION1 HPCD...	22.01	7.908e1					1.1	NO		bb		0.000
11	FUNCTION1 HPCD...	21.22	1.137e2					3.5	YES		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.40	9.562e2					13.4	YES		dd		0.000
2	FUNCTION2 HPCD...	31.27	1.162e4					218.9	YES		bd		0.000
3	FUNCTION2 HPCD...	30.07	9.742e2					11.5	YES		bb		0.000
4	FUNCTION2 HPCD...	28.81	1.484e2					3.1	YES		bb		0.000
5	FUNCTION2 HPCD...	32.66	5.798e2					8.9	YES		bb		0.000
6	FUNCTION2 HPCD...	31.65	1.260e3					18.3	YES		db		0.000

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.03	6.482e2					9.9	YES		bb		0.000
2	FUNCTION3 OCDPE	36.61	1.390e3					18.8	YES		bb		0.000
3	FUNCTION3 OCDPE	36.23	1.589e3					24.2	YES		db		0.000
4	FUNCTION3 OCDPE	36.12	1.347e3					19.9	YES		dd		0.000
5	FUNCTION3 OCDPE	36.01	6.921e2					11.8	YES		bd		0.000
6	FUNCTION3 OCDPE	35.14	1.254e3					15.1	YES		db		0.000
7	FUNCTION3 OCDPE	35.01	7.695e2					12.4	YES		bd		0.000
8	FUNCTION3 OCDPE	33.86	1.826e2					4.0	YES		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.12	8.339e2					10.8	YES		bb		0.000
2	FUNCTION4 NCDPE	40.38	7.844e2					14.4	YES		bb		0.000
3	FUNCTION4 NCDPE	39.21	1.191e2					4.5	YES		bb		0.000
4	FUNCTION4 NCDPE	38.86	6.704e2					11.4	YES		bb		0.000
5	FUNCTION4 NCDPE	41.43	1.172e2					3.2	YES		bb		0.000

**ETHERS6**

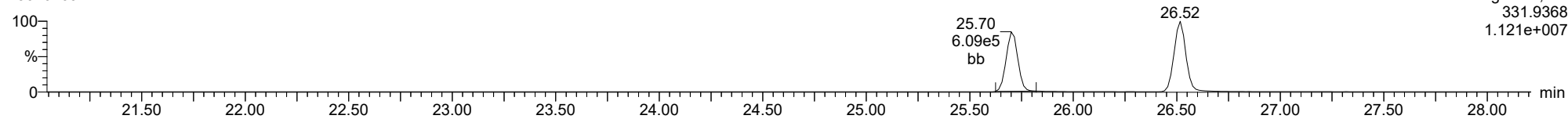
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.38	2.060e3					22.7	YES		db		0.000
2	FUNCTION5 DCDPE	45.15	2.089e3					25.1	YES		bd		0.000
3	FUNCTION5 DCDPE	44.92	7.340e1					3.7	YES		bb		0.000

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**  
**Calibration: 03 Feb 2023 10:33:40**

**ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**

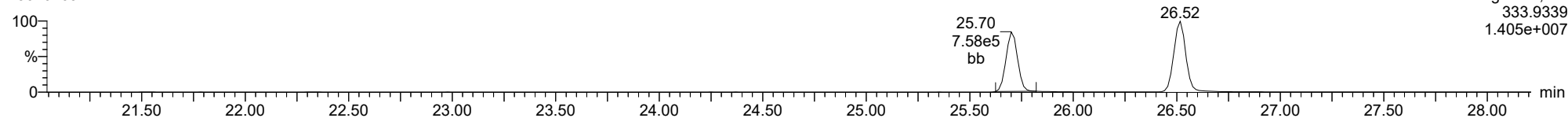
**13C-1234-TCDD**

23020109



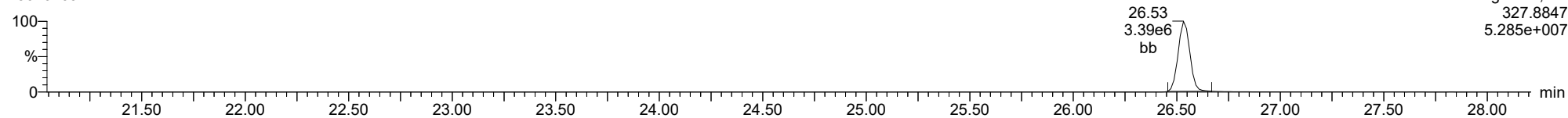
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23020109



**37CL-2378-TCDD**

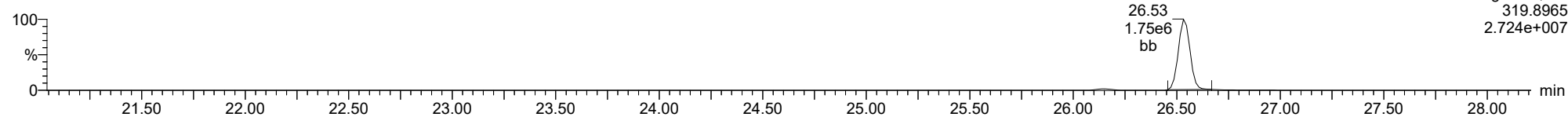
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

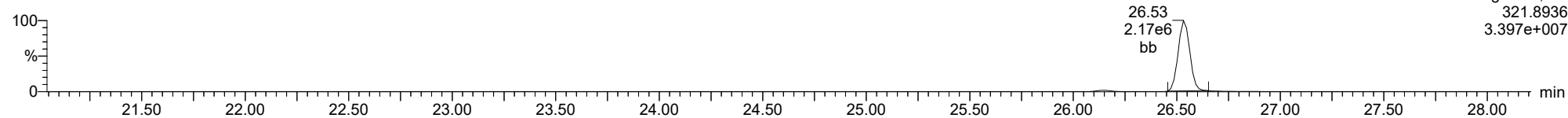
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23020109



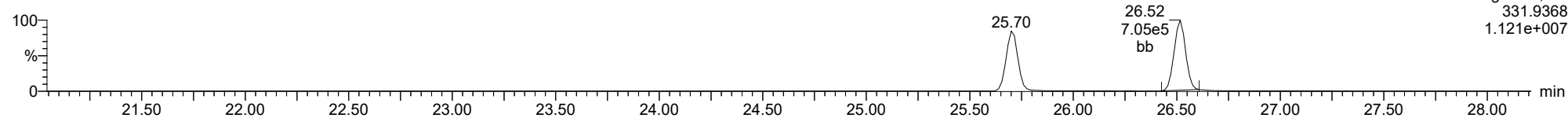
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23020109



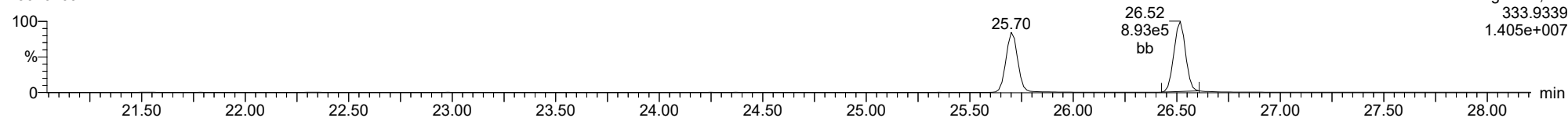
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23020109



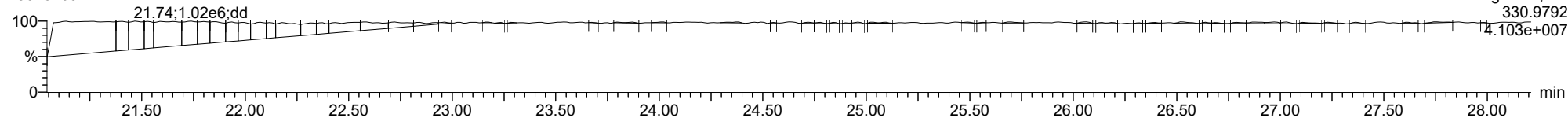
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23020109



**FUNCTION1 PFK**

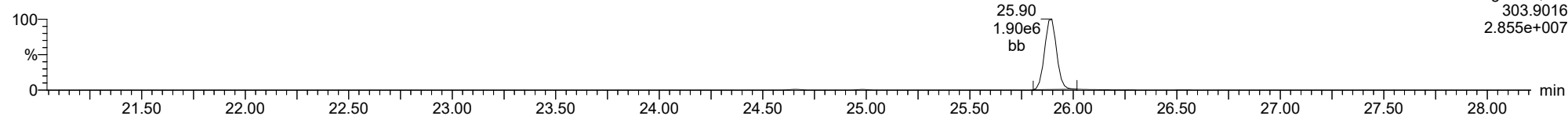
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

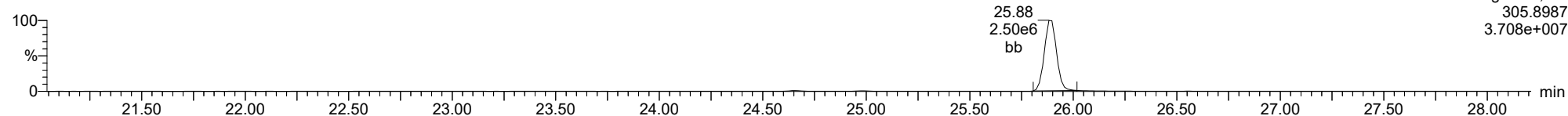
**2378-TCDF**

23020109



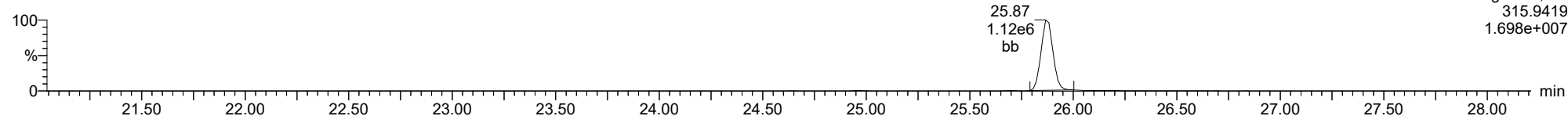
**2378-TCDF**

23020109



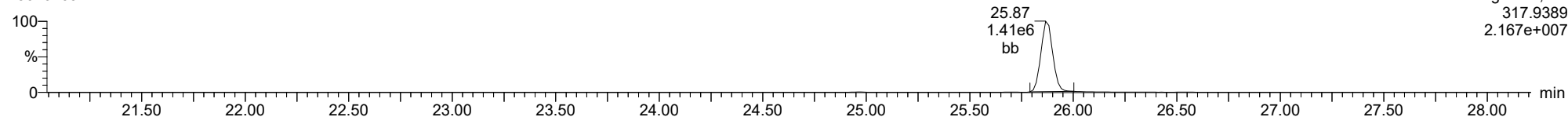
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23020109



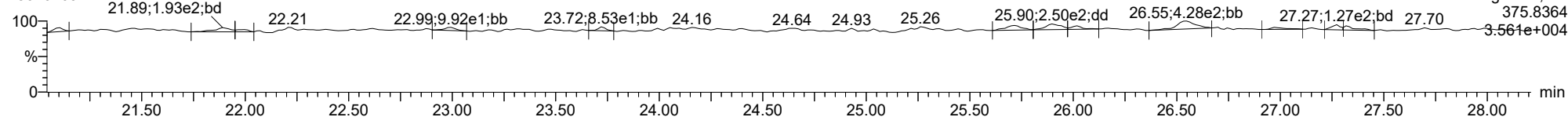
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23020109



**FUNCTION1 HXCDFE**

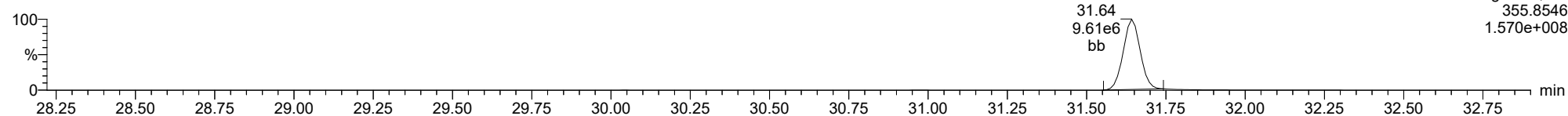
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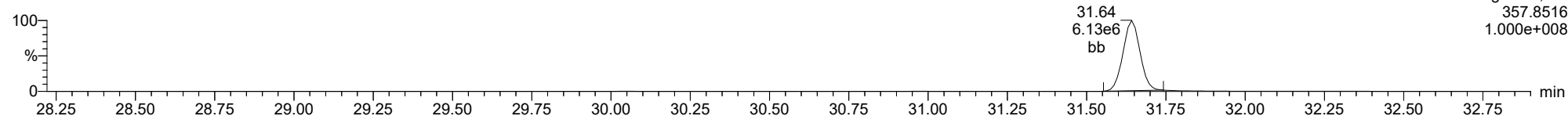
**12378-PeCDD**

23020109



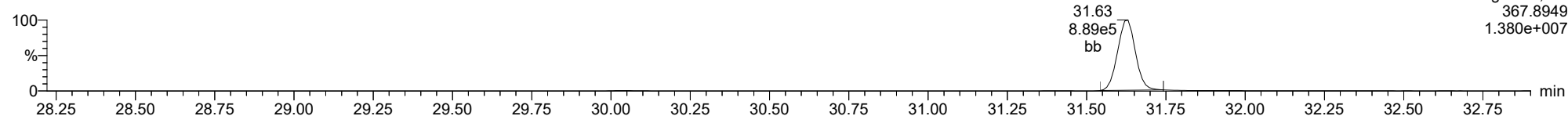
**12378-PeCDD**

23020109



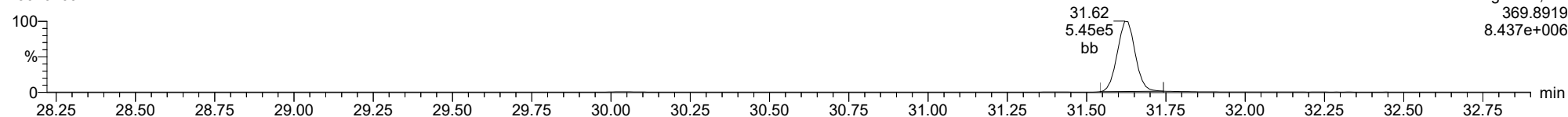
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23020109



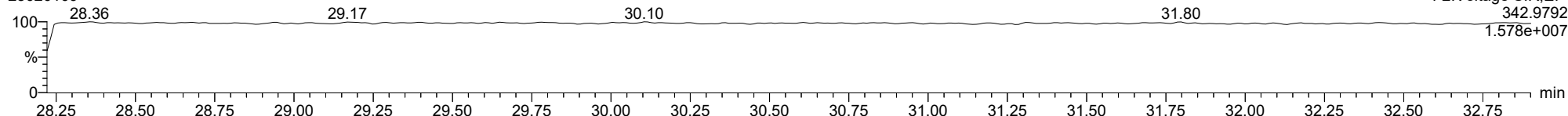
**13C-12378-PeCDD**

23020109



**FUNCTION2 PFK**

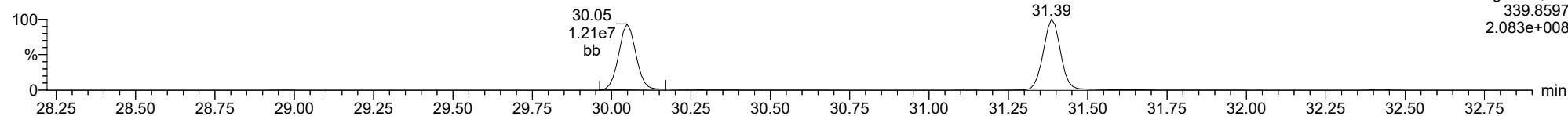
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

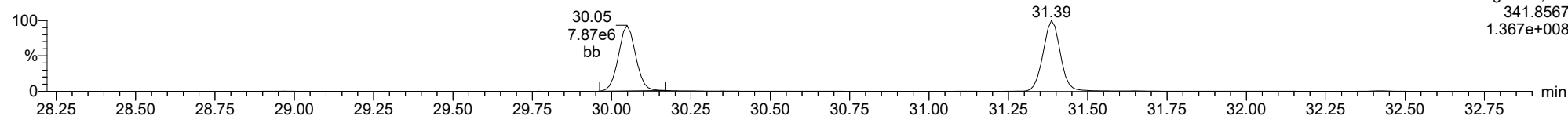
**12378-PeCDF**

23020109



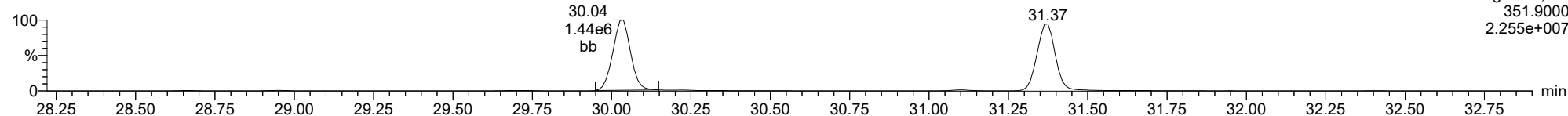
**12378-PeCDF**

23020109



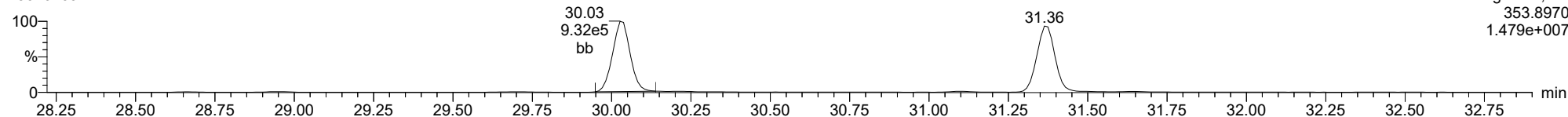
**13C-12378-PeCDF**

23020109



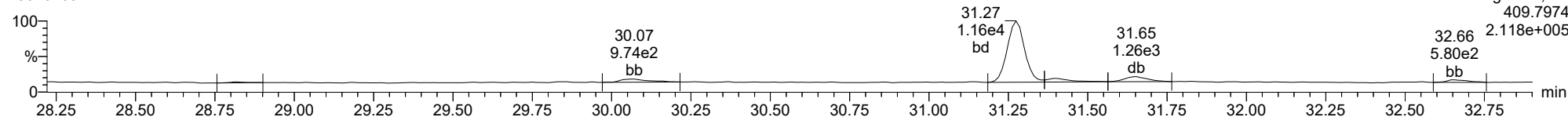
**13C-12378-PeCDF**

23020109



**FUNCTION2 HPCDPE**

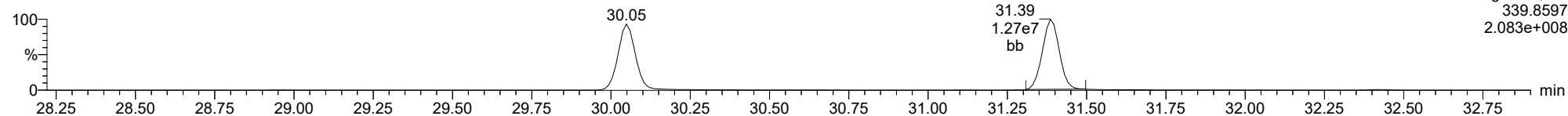
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

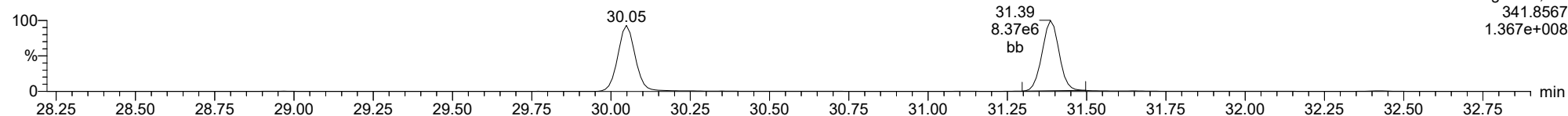
**23478-PeCDF**

23020109



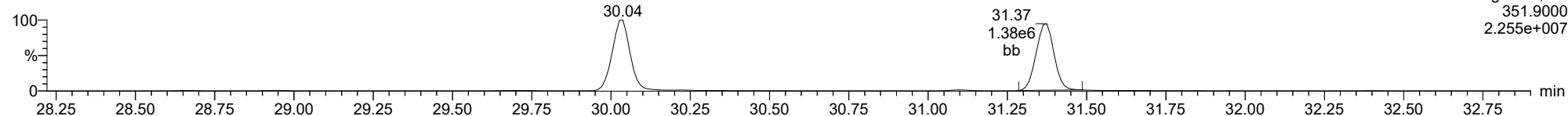
**23478-PeCDF**

23020109



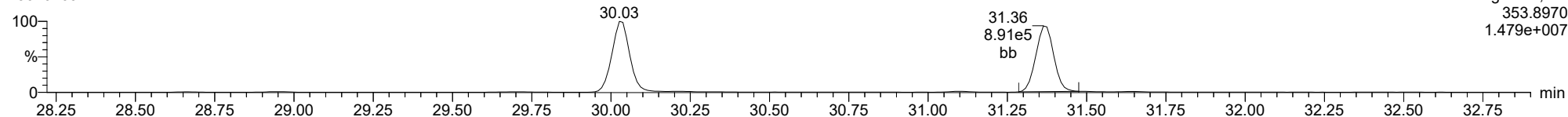
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23020109



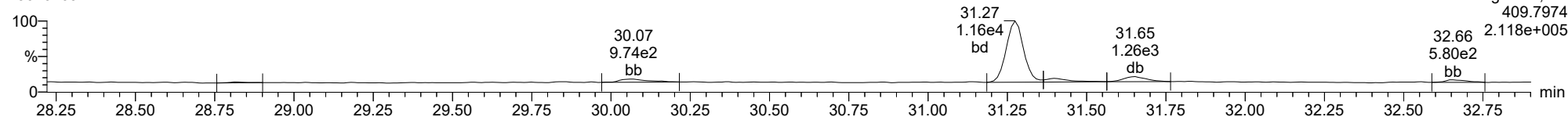
**13C-23478-PeCDF**

23020109



**FUNCTION2 HPCDPE**

23020109

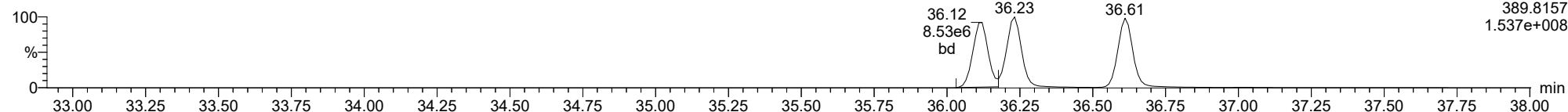




ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

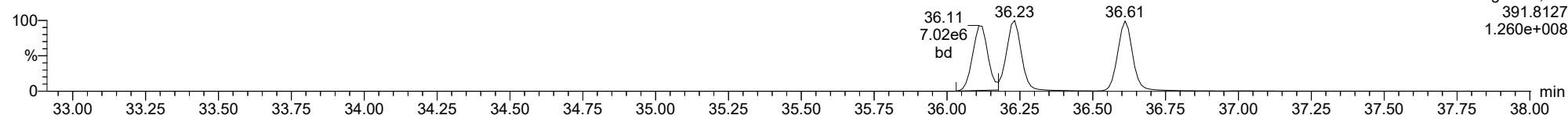
**123478-HxCDD**

23020109



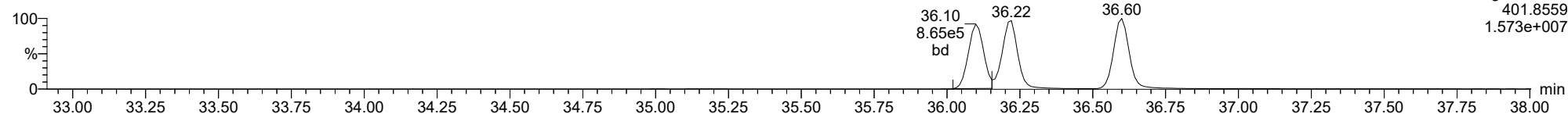
**123478-HxCDD**

23020109



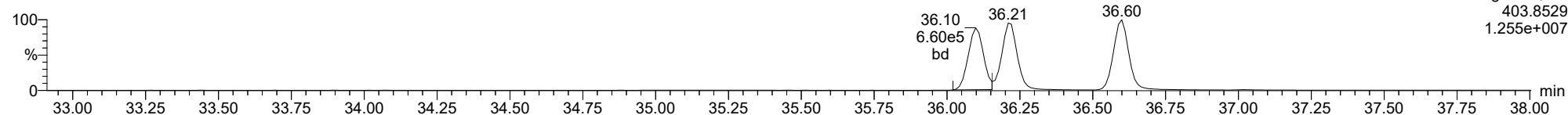
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23020109



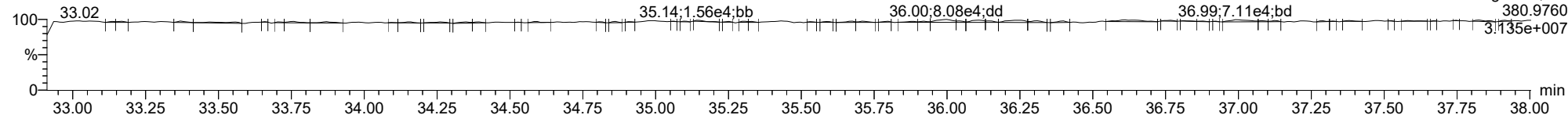
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23020109



**FUNCTION3 PFK**

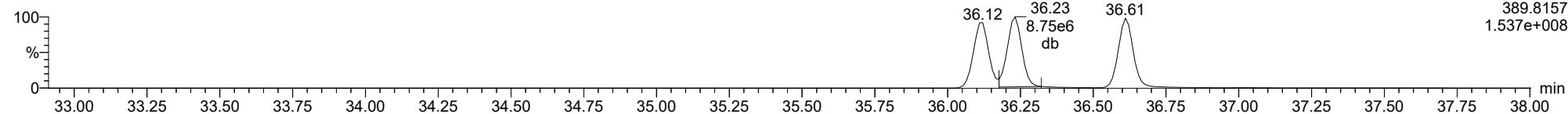
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

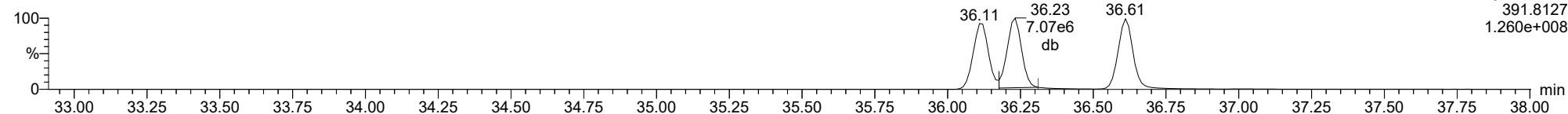
**123678-HxCDD**

23020109



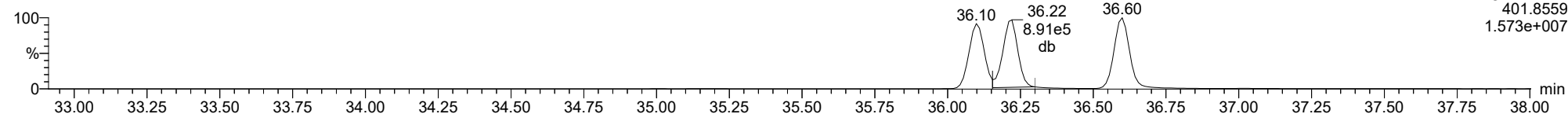
**123678-HxCDD**

23020109



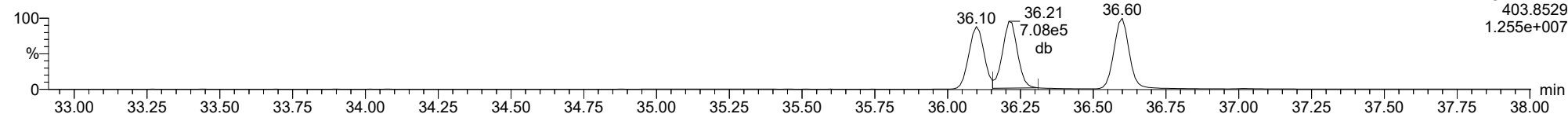
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23020109



**13C-123678-HxCDD**

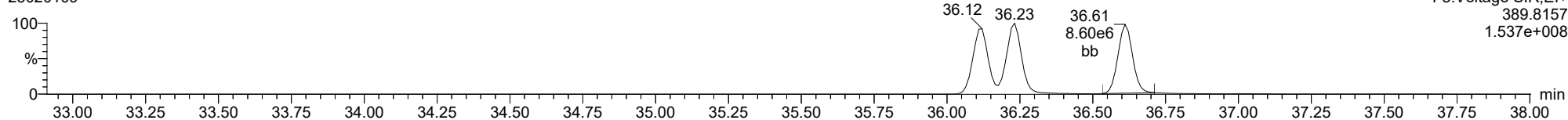
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

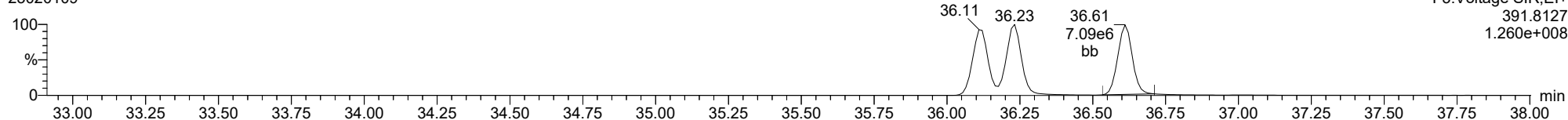
**123789-HxCDD**

23020109



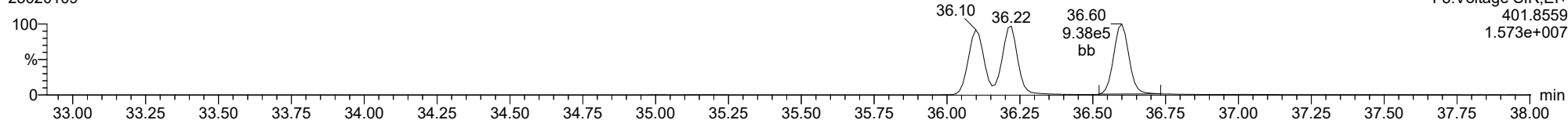
**123789-HxCDD**

23020109



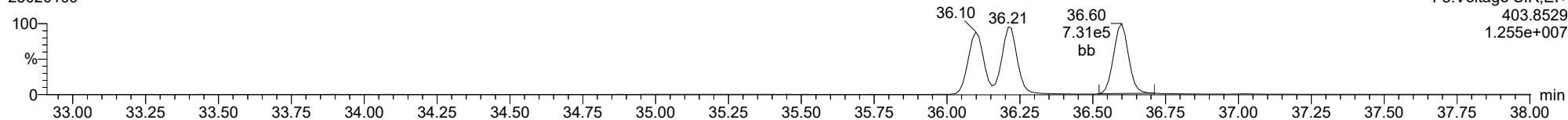
**13C-123789-HxCDD**

23020109



**13C-123789-HxCDD**

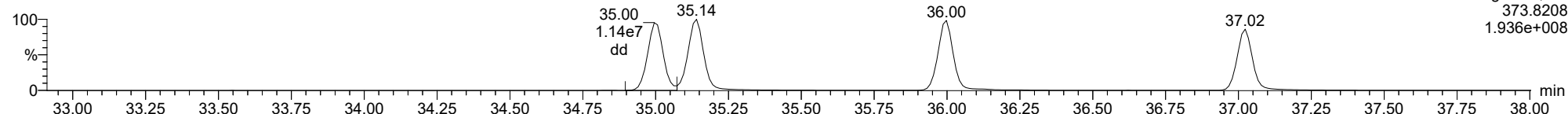
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

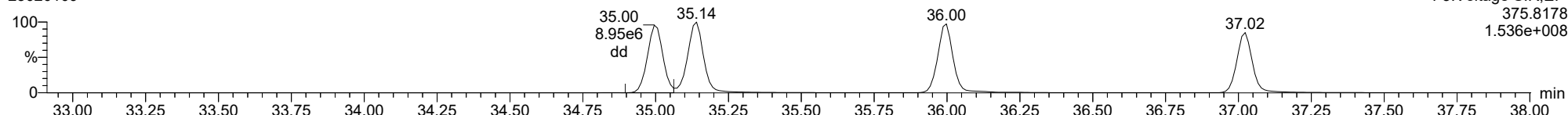
**123478-HxCDF**

23020109



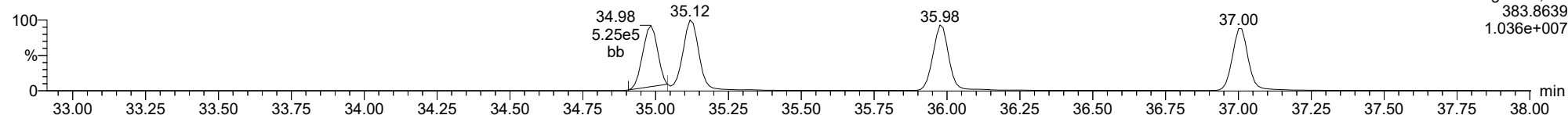
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23020109



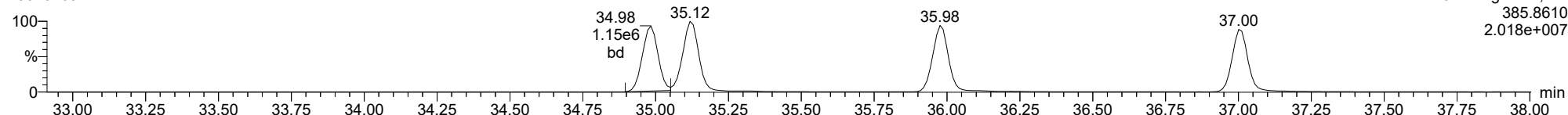
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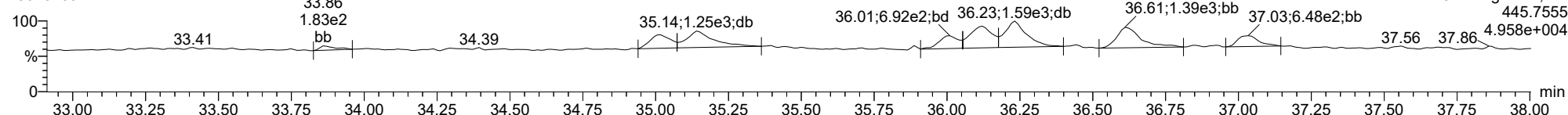
**13C-123478-HxCDF**

23020109



**FUNCTION3 OCDPE**

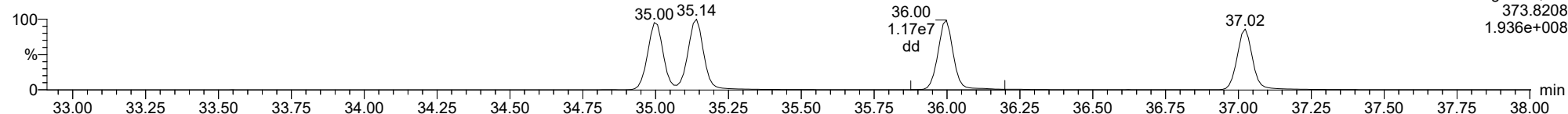
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

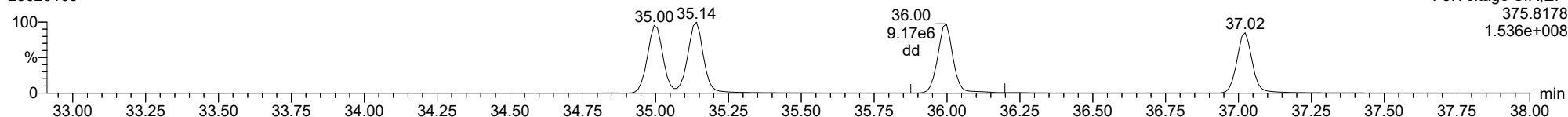
**234678-HxCDF**

23020109



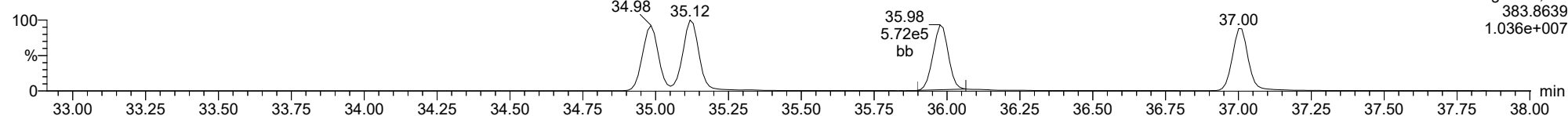
**234678-HxCDF**

23020109



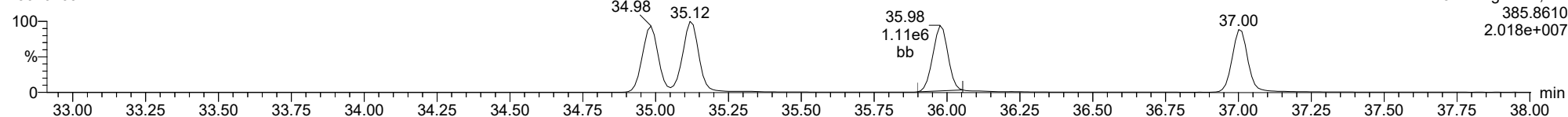
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23020109



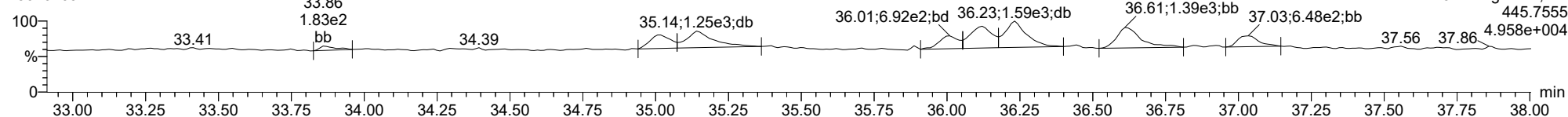
**13C-234678-HxCDF**

23020109



**FUNCTION3 OCDPE**

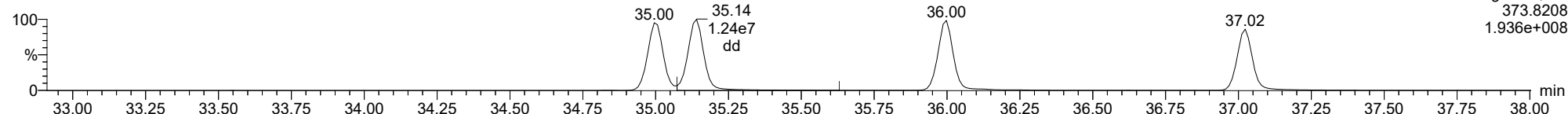
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

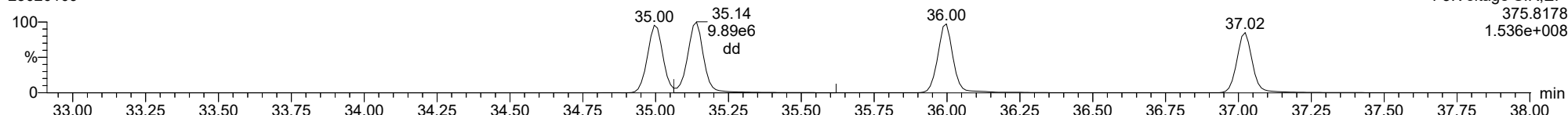
**123678-HxCDF**

23020109



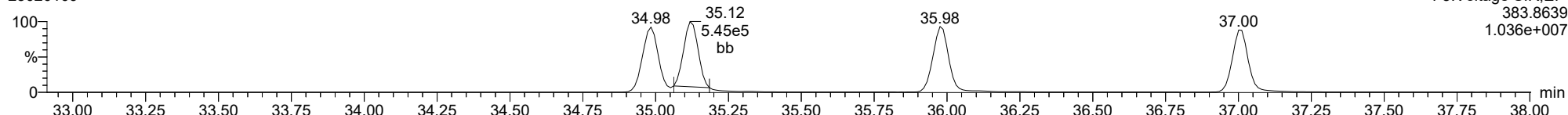
**123678-HxCDF**

23020109



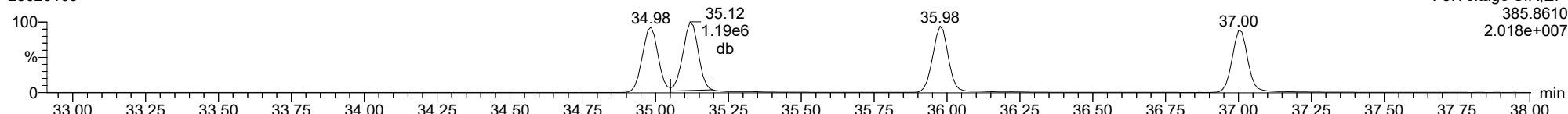
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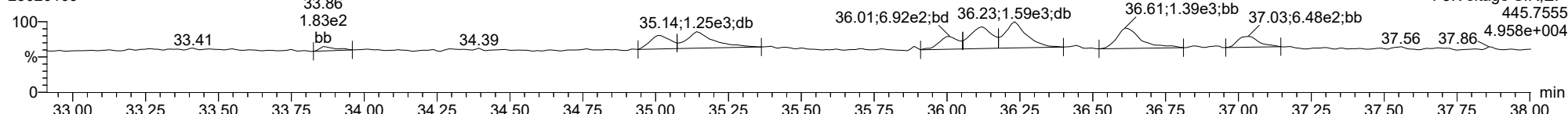
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23020109



**FUNCTION3 OCDPE**

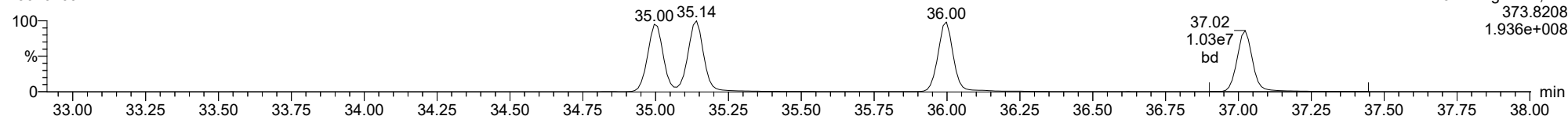
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

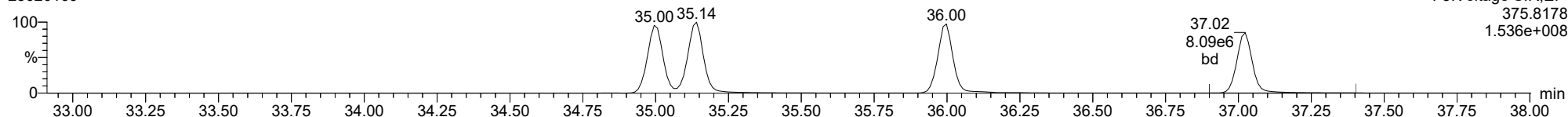
**123789-HxCDF**

23020109



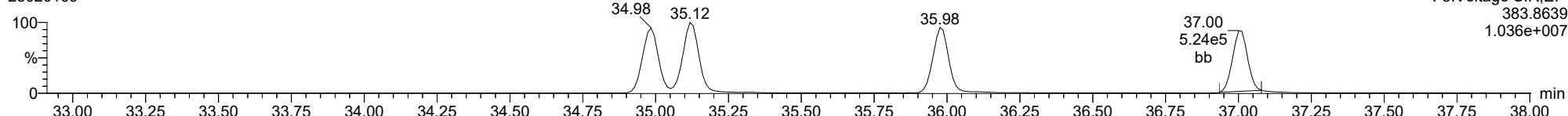
**123789-HxCDF**

23020109



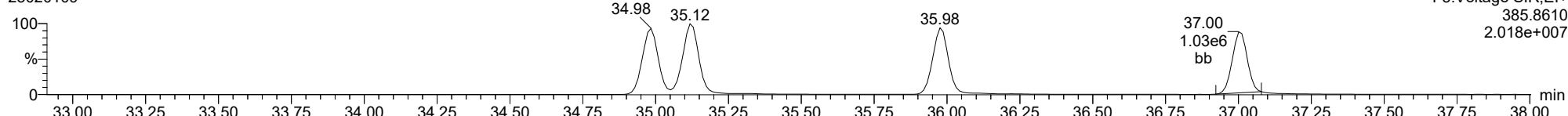
**13C-123789-HxCDF**

23020109



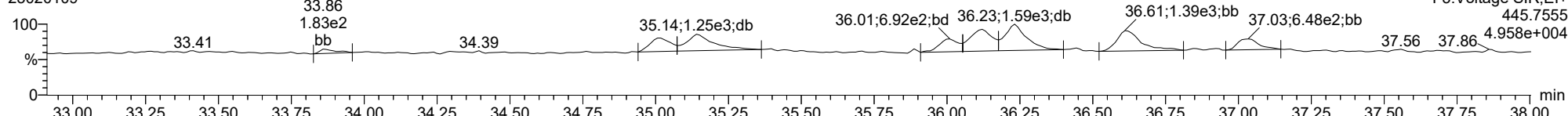
**13C-123789-HxCDF**

23020109



**FUNCTION3 OCDPE**

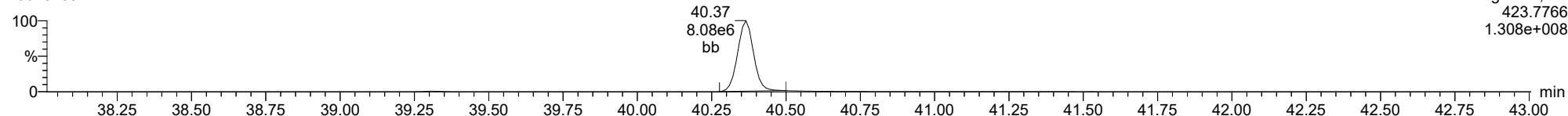
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

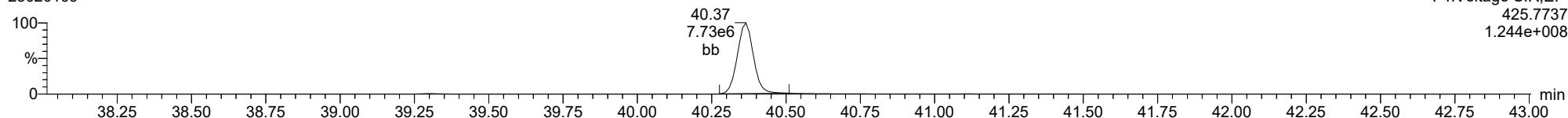
23020109



F4:Voltage SIR,EI+  
423.7766  
1.308e+008

**1234678-HpCDD**

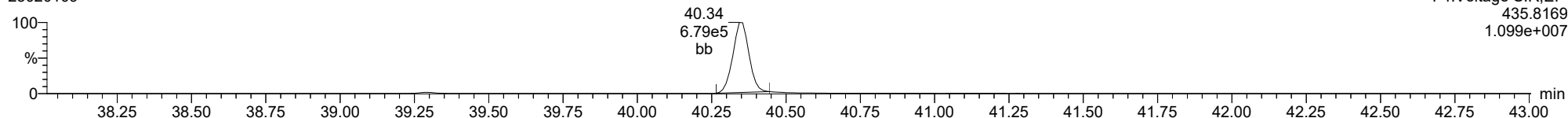
23020109



F4:Voltage SIR,EI+  
425.7737  
1.244e+008

**13C-1234678-HpCDD**

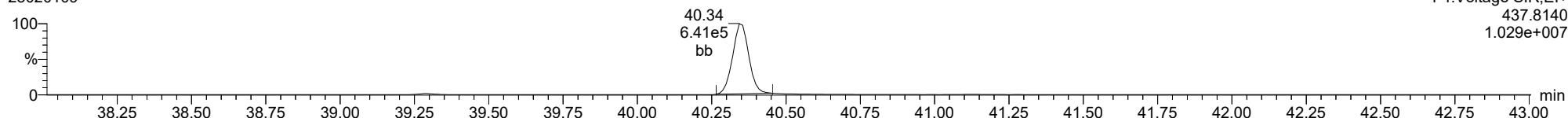
23020109



F4:Voltage SIR,EI+  
435.8169  
1.099e+007

**13C-1234678-HpCDD**

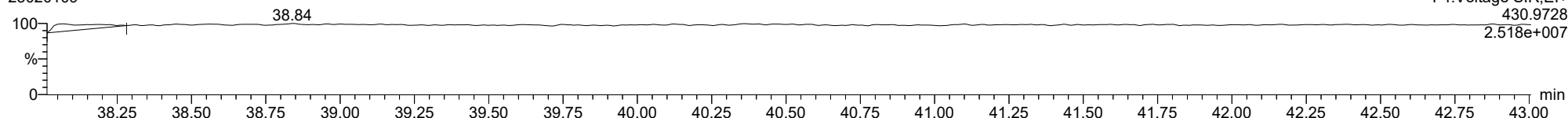
23020109



F4:Voltage SIR,EI+  
437.8140  
1.029e+007

**FUNCTION4 PFK**

23020109



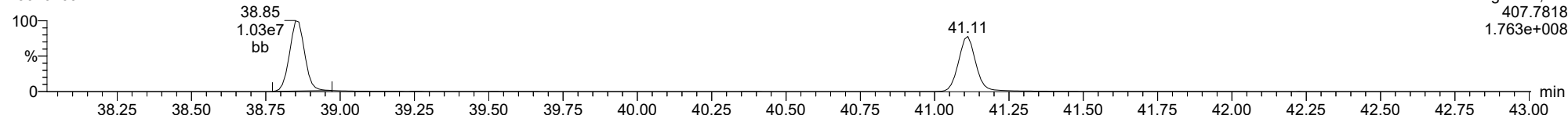
F4:Voltage SIR,EI+  
430.9728  
2.518e+007



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

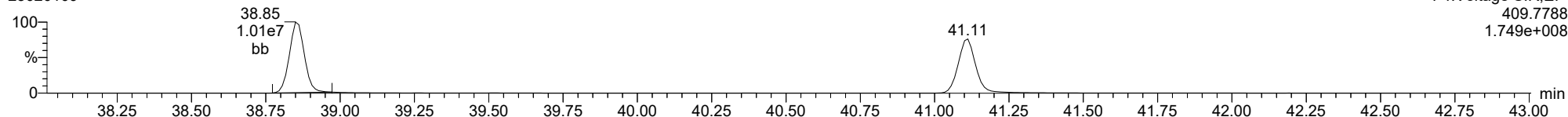
1234678-HpCDF

23020109



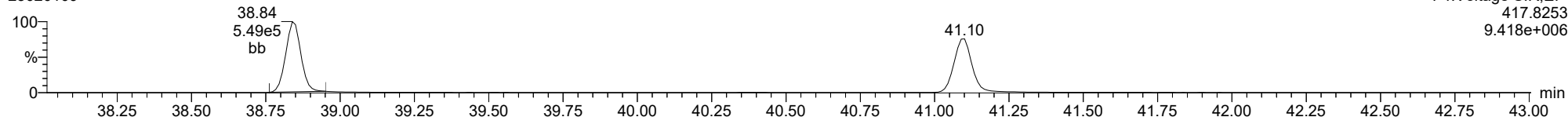
1234678-HpCDF

23020109



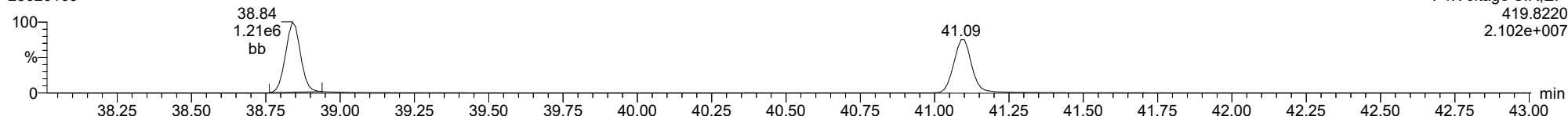
13C-1234678-HpCDF

23020109



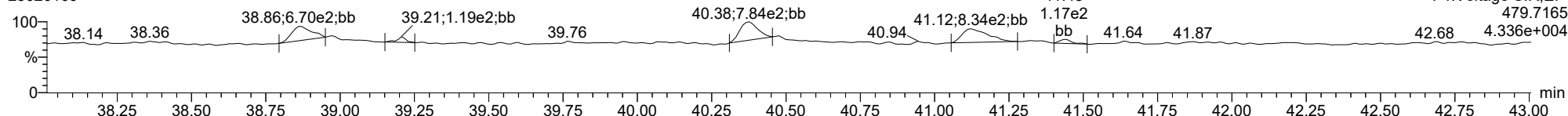
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23020109



FUNCTION4 NCDPE

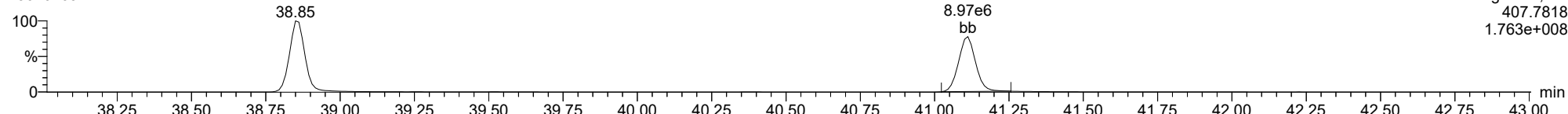
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**1234789-HpCDF**

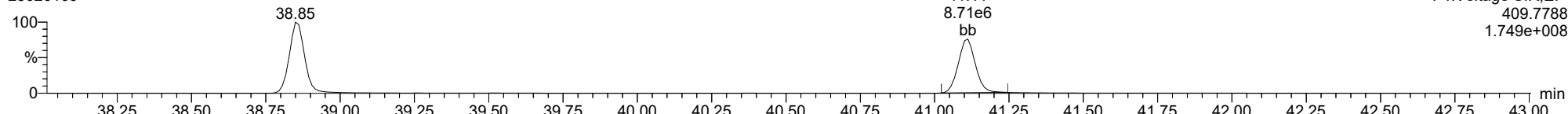
23020109



F4:Voltage SIR,EI+  
407.7818  
1.763e+008

**1234789-HpCDF**

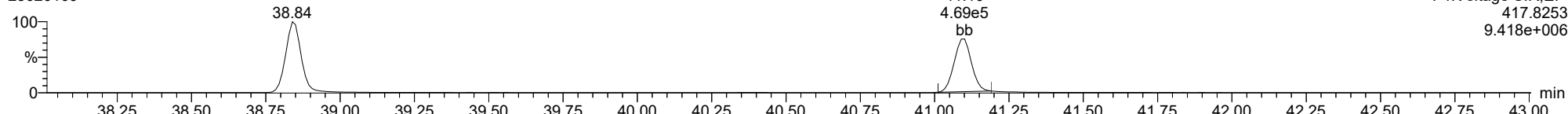
23020109



F4:Voltage SIR,EI+  
409.7788  
1.749e+008

**13C-1234789-HpCDF**

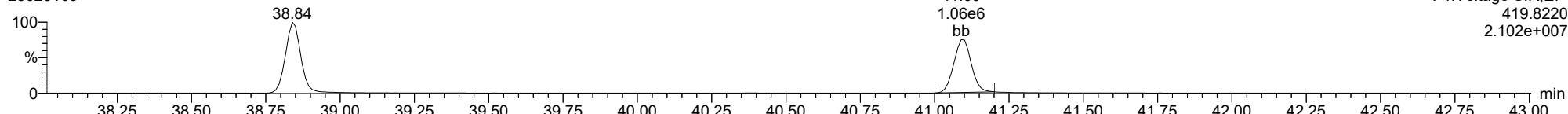
23020109



F4:Voltage SIR,EI+  
417.8253  
9.418e+006

**13C-1234789-HpCDF**

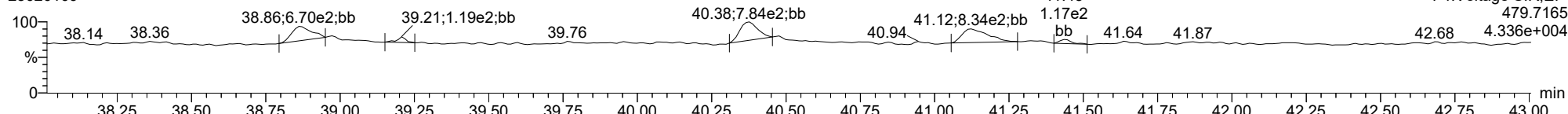
23020109



F4:Voltage SIR,EI+  
419.8220  
2.102e+007

**FUNCTION4 NCDPE**

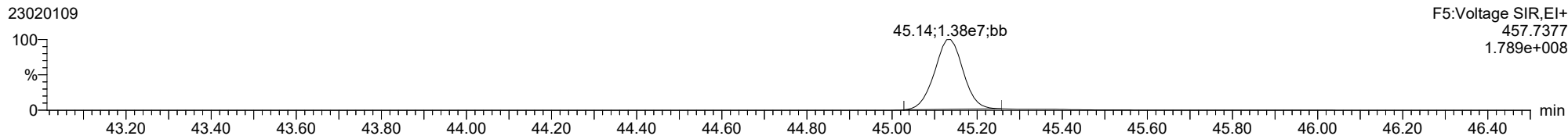
23020109



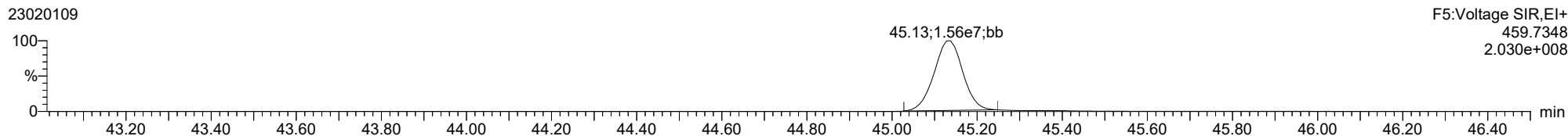
F4:Voltage SIR,EI+  
479.7165  
4.336e+004

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

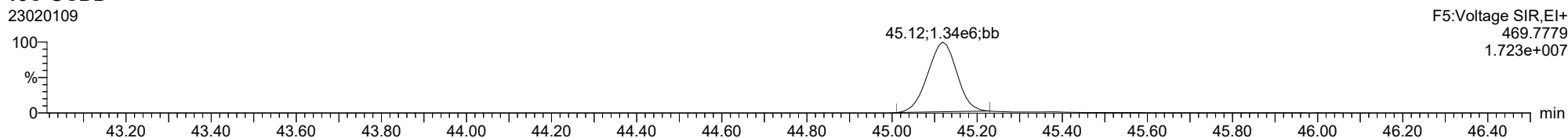
**OCDD**



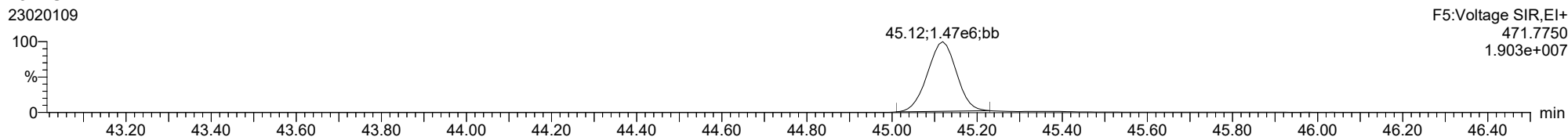
**OCDD**



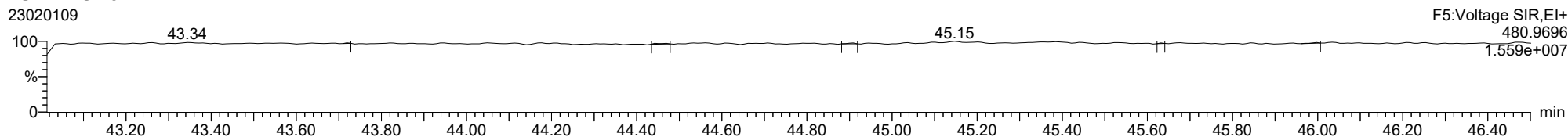
**13C-OCDD**



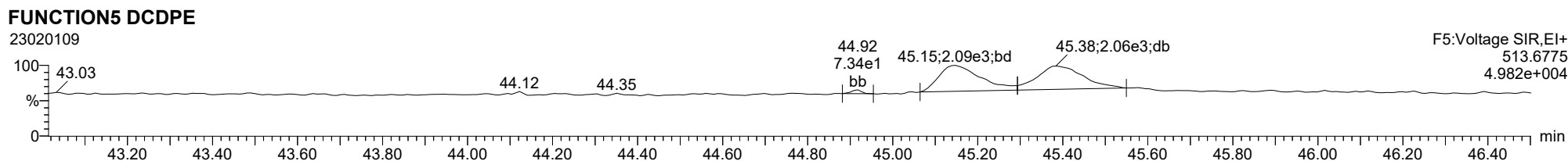
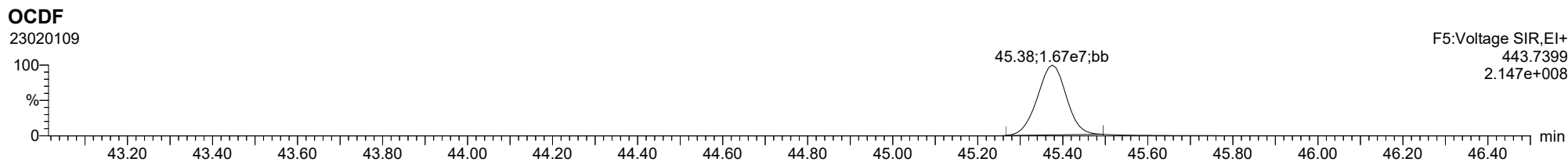
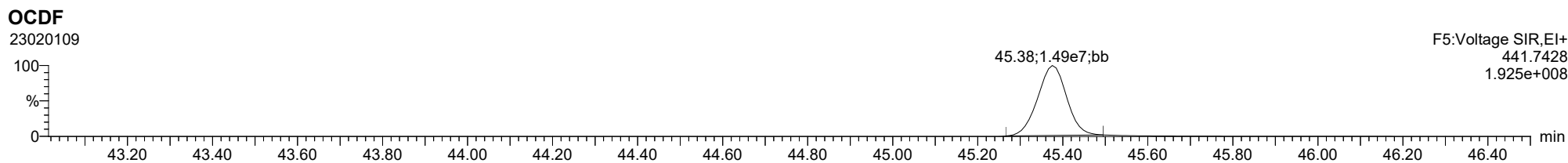
**13C-OCDD**



**FUNCTION5 PFK**



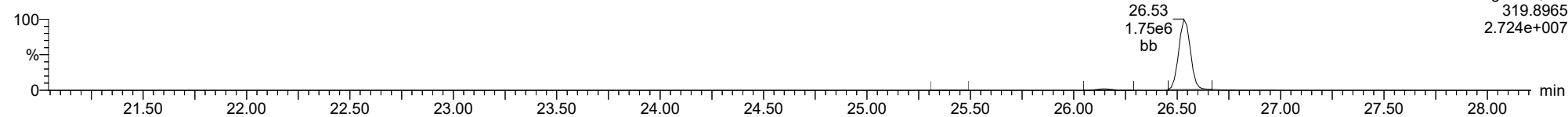
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

**Total-tetradoxins**

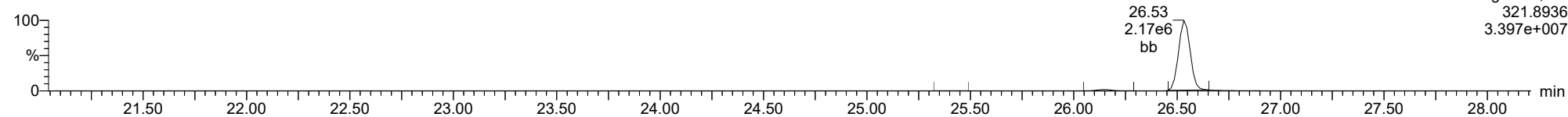
23020109



F1:Voltage SIR,EI+  
319.8965  
2.724e+007

**Total-tetradoxins**

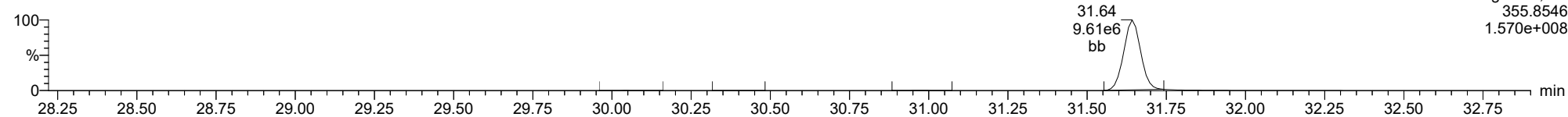
23020109



F1:Voltage SIR,EI+  
321.8936  
3.397e+007

**Total-pentadoxins**

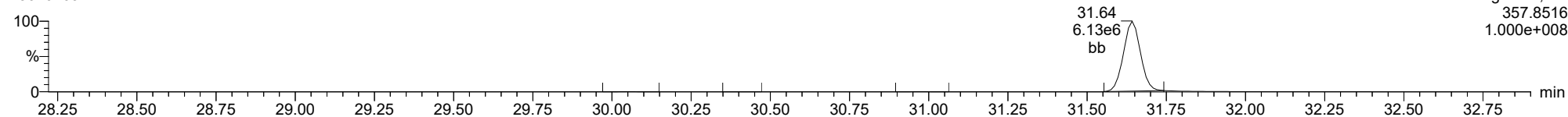
23020109



F2:Voltage SIR,EI+  
355.8546  
1.570e+008

**Total-pentadoxins**

23020109

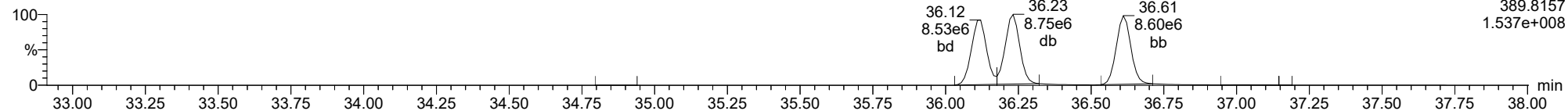


F2:Voltage SIR,EI+  
357.8516  
1.000e+008

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

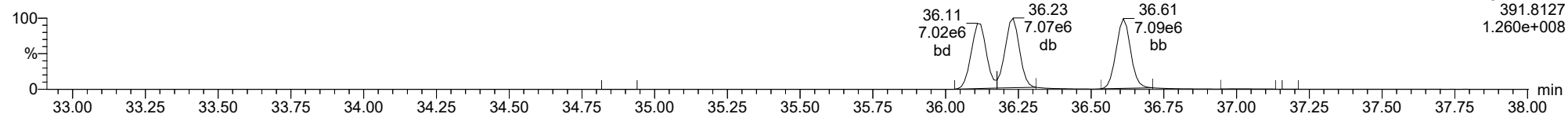
**Total-hexadioxins**

23020109



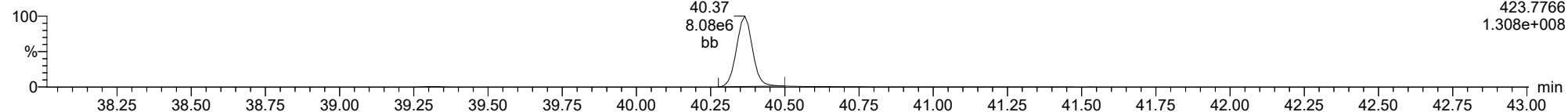
**Total-hexadioxins**

23020109



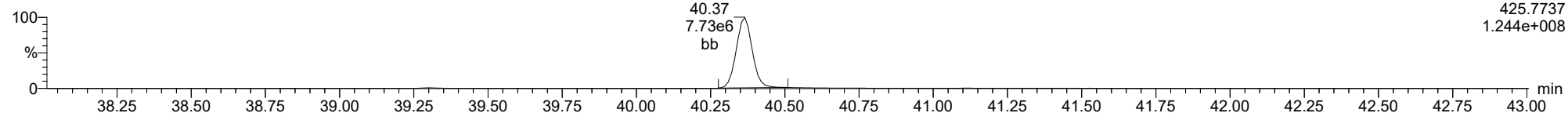
**Total-heptadioxins**

23020109



**Total-heptadioxins**

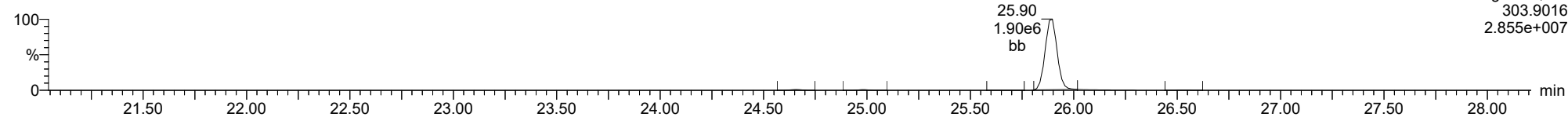
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

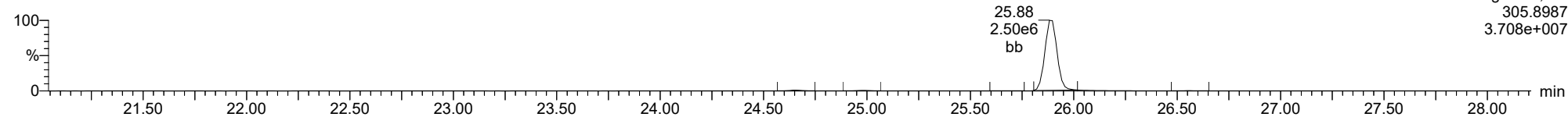
**Total-tetrafurans**

23020109



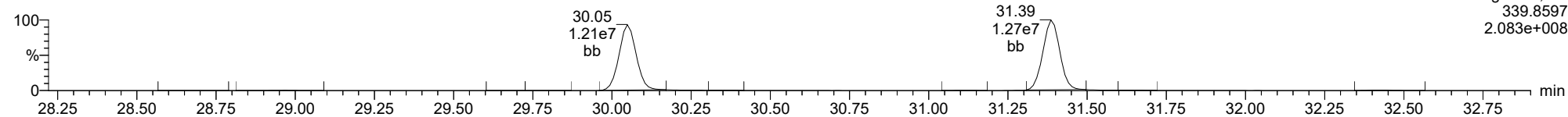
**Total-tetrafurans**

23020109



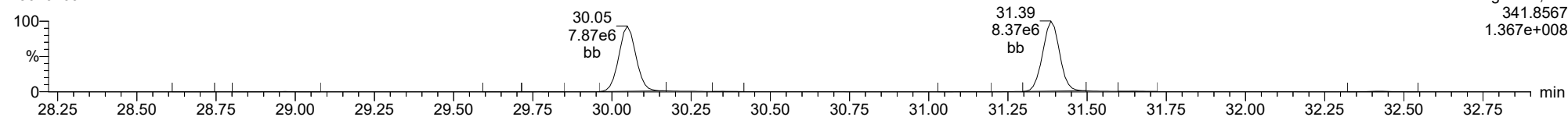
**Total-pentafurans**

23020109



**Total-pentafurans**

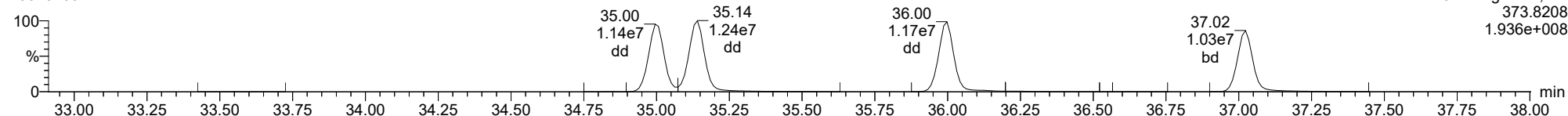
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

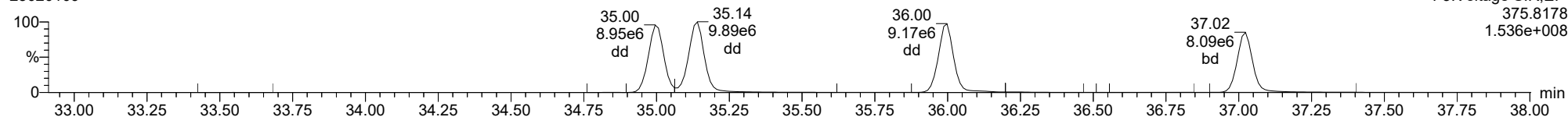
**Total-hexafurans**

23020109



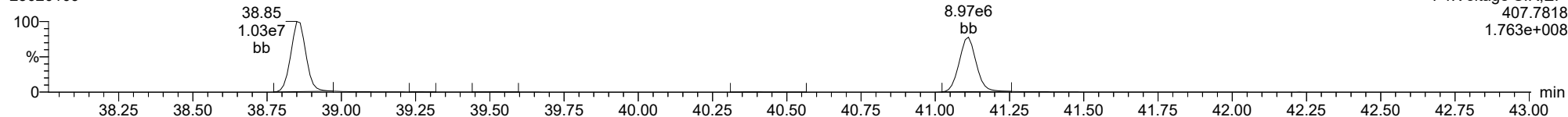
**Total-hexafurans**

23020109



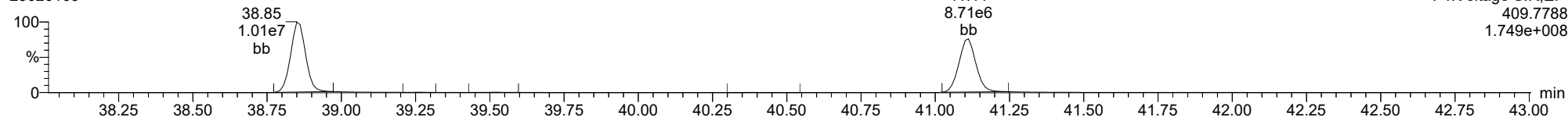
**Total-heptafurans**

23020109



**Total-heptafurans**

23020109





Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld  
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

**Method:** T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** ICVCR, **Name:** 23020110, **Date:** 01-Feb-2023, **Time:** 20:23:25, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	7.583e4	1.018e5	0.876	0.744	0.770	1312	1705	1.17e6	1.55e6	895.7	911.1	NO	bb	bb	9.802
12378-PeCDF	30.037	1.000	4.347e5	2.900e5	0.845	1.499	1.550	3463	2713	6.78e6	4.53e6	1956.5	1669.5	NO	bb	bb	49.435
23478-PeCDF	31.374	1.000	4.582e5	2.969e5	0.911	1.543	1.550	3463	2713	6.90e6	4.53e6	1992.7	1668.4	NO	bb	bb	50.720
123478-HxCDF	34.984	1.000	3.962e5	3.152e5	1.182	1.257	1.240	2904	2208	6.26e6	4.98e6	2155.7	2257.5	NO	bd	bd	50.838
234678-HxCDF	35.987	1.001	4.056e5	3.185e5	1.229	1.273	1.240	2904	2208	6.27e6	4.93e6	2160.6	2231.5	NO	bb	bd	51.528
123678-HxCDF	35.129	1.001	4.284e5	3.437e5	1.248	1.247	1.240	2904	2208	6.50e6	5.14e6	2238.5	2329.7	NO	dd	db	51.066
123789-HxCDF	37.012	1.001	3.438e5	2.711e5	1.187	1.268	1.240	2904	2208	5.39e6	4.21e6	1855.6	1906.8	NO	bb	bb	49.890
1234678-HpCDF	38.850	1.001	3.527e5	3.436e5	1.204	1.027	1.050	3342	3138	5.81e6	5.69e6	1739.4	1813.0	NO	bb	bb	48.984
1234789-HpCDF	41.101	1.000	3.197e5	3.013e5	1.165	1.061	1.050	3342	3138	4.62e6	4.44e6	1383.4	1415.4	NO	bd	bb	51.470
OCDF	45.357	1.006	4.733e5	5.396e5	1.186	0.877	0.890	2772	1582	5.77e6	6.54e6	2082.4	4133.4	NO	bb	bb	92.994
2378-TCDD	26.532	1.001	6.792e4	8.768e4	1.236	0.775	0.770	1380	1753	1.03e6	1.34e6	749.1	761.7	NO	bb	bb	10.105
12378-PeCDD	31.631	1.000	3.290e5	2.096e5	1.087	1.569	1.550	3204	3195	5.14e6	3.30e6	1603.9	1031.8	NO	bb	bb	48.876
123478-HxCDD	36.109	1.001	2.890e5	2.319e5	0.987	1.246	1.240	2459	2022	4.84e6	3.91e6	1968.4	1935.9	NO	bd	bd	50.975
123678-HxCDD	36.221	1.000	2.990e5	2.445e5	1.021	1.223	1.240	2459	2022	4.88e6	4.06e6	1984.4	2008.5	NO	db	db	48.307
123789-HxCDD	36.599	1.011	2.845e5	2.378e5	0.985	1.196	1.240	2459	2022	4.82e6	3.99e6	1960.3	1972.8	NO	bb	bb	49.580
1234678-HpCDD	40.354	1.001	2.858e5	2.609e5	1.253	1.095	1.050	2240	2747	4.24e6	3.98e6	1890.7	1447.3	NO	bd	bb	48.846
OCDD	45.111	1.000	4.553e5	5.144e5	1.103	0.885	0.890	2050	2803	5.81e6	6.65e6	2832.1	2371.2	NO	bb	bb	95.778
13C-2378-TCDF	25.867	1.006	9.159e5	1.153e6	1.768	0.794	0.770	2721	1646	1.40e7	1.78e7	5149.2	10794.2	NO	bb	bb	100.832
13C-12378-PeCDF	30.026	1.168	1.059e6	6.764e5	1.527	1.566	1.550	3804	2727	1.61e7	1.02e7	4228.7	3742.1	NO	bb	bb	97.924
13C-23478-PeCDF	31.363	1.220	9.914e5	6.424e5	1.466	1.543	1.550	3804	2727	1.49e7	9.56e6	3917.8	3506.2	NO	bb	bb	96.003
13C-123478-HxCDF	34.973	0.956	4.014e5	7.827e5	1.054	0.513	0.510	2311	3449	6.56e6	1.28e7	2840.4	3698.0	NO	bd	bd	98.968
13C-123678-HxCDF	35.106	0.960	4.085e5	8.030e5	1.080	0.509	0.510	2311	3449	6.64e6	1.32e7	2872.8	3823.9	NO	db	db	98.793
13C-234678-HxCDF	35.964	0.983	3.869e5	7.566e5	1.014	0.511	0.510	2311	3449	6.49e6	1.28e7	2809.7	3704.0	NO	bb	bb	99.278
13C-123789-HxCDF	36.989	1.011	3.535e5	6.852e5	0.928	0.516	0.510	2311	3449	5.90e6	1.14e7	2552.6	3318.4	NO	bb	bb	98.576
13C-1234678-HpCDF	38.828	1.061	3.652e5	8.153e5	1.036	0.448	0.440	3274	4191	6.12e6	1.38e7	1868.5	3294.0	NO	bb	bb	100.340
13C-1234789-HpCDF	41.090	1.123	3.190e5	7.164e5	0.905	0.445	0.440	3274	4191	4.81e6	1.07e7	1468.7	2563.9	NO	bb	bb	100.753
13C-1234-TCDD	25.700	0.000	5.137e5	6.469e5	1.000	0.794	0.770	2221	1552	7.96e6	9.97e6	3583.6	6423.2	NO	bb	bb	100.000
13C-2378-TCDD	26.501	1.031	5.549e5	6.905e5	1.103	0.804	0.770	2221	1552	8.40e6	1.04e7	3781.7	6727.2	NO	bb	bb	97.290
13C-12378-PeCDD	31.619	1.230	6.261e5	3.880e5	0.914	1.614	1.550	1580	2177	9.40e6	5.80e6	5947.9	2663.3	NO	bb	bb	95.581
13C-123478-HxCDD	36.087	0.986	5.808e5	4.547e5	0.933	1.277	1.240	2129	1763	9.84e6	7.81e6	4624.5	4431.4	NO	bd	bd	97.737
13C-123678-HxCDD	36.209	0.990	6.262e5	4.760e5	0.965	1.315	1.240	2129	1763	9.80e6	7.57e6	4603.5	4292.7	NO	db	db	100.625
13C-1234678-HpCDD	40.332	1.102	4.634e5	4.302e5	0.782	1.077	1.050	2527	2271	7.13e6	6.69e6	2821.9	2945.0	NO	bb	bb	100.628
13C-OCDD	45.101	1.233	8.768e5	9.596e5	0.788	0.914	0.890	3549	1603	1.12e7	1.23e7	3153.1	7665.3	NO	bb	bb	205.165
13C-123789-HxCDD	36.588	0.000	6.499e5	4.857e5	1.000	1.338	1.240	2129	1763	1.03e7	7.92e6	4860.1	4494.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.279e5		1.233			1385		1.91e6		1382.5			bb		8.937

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	9.960e4	1.319e5	1.064	0.755	0.770	1312	1705	1.56e6	2.09e6	1186.8	1226.5	NO	bb	bb	10.509
1289-TCDF	27.378	1.058	7.533e4	1.022e5	0.858	0.737	0.770	1312	1705	1.14e6	1.52e6	867.5	889.5	NO	db	db	10.006
13468-PECDF	27.242	0.907	5.475e5	3.540e5	1.013	1.547	1.550	880	1149	8.31e6	5.37e6	9441.4	4673.6	NO	bb	bb	51.279
12389-PECDF					0.844		1.550	3463	2713								
123468-HXCDF	33.335	0.953	4.175e5	3.320e5	1.197	1.258	1.240	2904	2208	6.11e6	4.84e6	2104.7	2190.3	NO	bb	bb	52.862
1368-TCDD	23.659	0.893	6.883e4	8.714e4	1.084	0.790	0.770	1380	1753	1.12e6	1.44e6	811.7	819.2	NO	bb	bb	11.549
1289-TCDD	27.122	1.023	6.029e4	7.860e4	0.975	0.767	0.770	1380	1753	8.98e5	1.15e6	650.5	656.0	NO	bb	bd	11.436
12479-PECDD	28.912	0.914	6.082e5	3.865e5	1.837	1.574	1.550	3204	3195	5.92e6	3.73e6	1847.3	1168.6	NO	bb	bb	53.387
12389-PECDD	32.032	1.013	4.002e5	2.572e5	1.252	1.556	1.550	3204	3195	6.11e6	3.89e6	1906.1	1217.0	NO	bb	bb	51.760
124679-HXCDD	34.104	0.945	3.073e5	2.529e5	1.033	1.215	1.240	2459	2022	4.88e6	4.09e6	1984.3	2022.2	NO	bb	bb	52.384
1234679-HPCDD	39.296	0.974	2.978e5	2.984e5	1.286	0.998	1.050	2240	2747	4.86e6	4.77e6	2169.4	1735.2	NO	bb	bd	51.878
Total-tetrafurans			2.515e5		0.933			1312		3.88e6							30.410
Total-penta1			5.475e5					880		8.31e6							51.279
Total-pentafurans			1.407e6		0.866			3463		2.14e7							158.406
Total-hexafurans			1.992e6		1.208			2904		3.05e7							256.184
Total-heptafurans			6.724e5		1.185			3342		1.04e7							100.453
Total-Furans			5.343e6		1.067			1312		8.03e7							689.726
Total-tetradoxins			3.350e5		1.099			1380		4.69e6							55.818
Total-pentadoxins			1.337e6		1.392			3204		1.72e7							154.023
Total-hexadoxins			1.180e6		1.007			2459		1.94e7							201.246
Total-heptadoxins			5.836e5		1.269			2240		9.09e6							100.724
Total-Dioxins			3.891e6		1.165			1380		5.62e7							607.589
Total-TEQ			9.234e6					1380		1.36e8							1297.316
FUNCTION1 PFK			2.960e5					590383		7.93e6							
FUNCTION2 PFK			3.847e5					195923		1.00e7							0.000
FUNCTION3 PFK			3.926e5					364545		1.22e7							0.000
FUNCTION4 PFK			4.778e5					303163		3.90e6							
FUNCTION5 PFK			9.338e4					197261		3.25e6							
FUNCTION1 HXCD...			9.172e2					783		1.34e4							0.000
FUNCTION1 HPCD...			1.484e3					913		2.30e4							0.000
FUNCTION2 HPCD...			4.855e2					894		8.19e3							0.000
FUNCTION3 OCDPE			1.383e2					795		2.59e3							0.000
FUNCTION4 NCDPE			2.530e2					911		5.27e3							0.000
FUNCTION5 DCDPE			7.207e1					795		1.85e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

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**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
2	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
3	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
4	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
2	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
3	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
4	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
5	123468-HxCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
2	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509
5	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
6	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
7	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
8	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693
9	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
10	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
11	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
12	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
13	123468-HxCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862
14	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
15	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470
16	OCDF	45.36	4.733e5	5.396e5	1.186	0.88	0.89	2082.4	YES	NO	bb	bb	92.994
17	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
2	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
3	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
4	Total-tetradoxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
5	Total-tetradoxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
2	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
3	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387

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## HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
2	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
3	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
4	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384

## HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
2	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878

## Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
2	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
3	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
4	Total-tetradoxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
5	Total-tetradoxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632
6	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
7	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
8	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387
9	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
10	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
11	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
12	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384
13	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
14	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878
15	OCDD	45.11	4.553e5	5.144e5	1.103	0.89	0.89	2832.1	YES	NO	bb	bb	95.778

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509
5	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
6	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
7	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
8	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693
9	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
10	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
11	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
12	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
13	123468-HXCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862
14	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
15	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470
16	OCDF	45.36	4.733e5	5.396e5	1.186	0.88	0.89	2082.4	YES	NO	bb	bb	92.994
17	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279
18	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
19	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
20	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
21	Total-tetradiioxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
22	Total-tetradiioxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632
23	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
24	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
25	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387
26	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
27	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
28	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
29	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384
30	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
31	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878
32	OCDD	45.11	4.553e5	5.144e5	1.103	0.89	0.89	2832.1	YES	NO	bb	bb	95.778

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

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**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.86	1.802e4					0.8	NO		bb		
2	FUNCTION1 PFK	27.44	9.566e3					0.7	NO		bb		
3	FUNCTION1 PFK	27.12	3.959e3					0.4	NO		bb		
4	FUNCTION1 PFK	26.97	4.648e4					1.4	NO		bb		
5	FUNCTION1 PFK	26.85	1.177e4					0.8	NO		bb		
6	FUNCTION1 PFK	26.26	3.797e3					0.4	NO		bb		
7	FUNCTION1 PFK	25.26	1.715e4					0.9	NO		bb		
8	FUNCTION1 PFK	24.10	5.099e4					1.3	NO		bb		
9	FUNCTION1 PFK	22.39	1.400e4					0.8	NO		bb		
10	FUNCTION1 PFK	22.18	2.255e4					1.2	NO		bb		
11	FUNCTION1 PFK	21.91	1.341e4					0.9	NO		bb		
12	FUNCTION1 PFK	21.72	1.562e4					0.9	NO		bb		
13	FUNCTION1 PFK	21.54	1.217e4					0.8	NO		bb		
14	FUNCTION1 PFK	21.48	3.458e4					0.9	NO		bb		
15	FUNCTION1 PFK	28.06	2.191e4					1.2	NO		bb		

**Quantify Totals Report MassLynx V4.1 SCN909**

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**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.07	6.452e3					0.9	NO		bd		0.000
2	FUNCTION2 PFK	29.81	1.293e4					1.6	NO		db		0.000
3	FUNCTION2 PFK	29.78	4.561e3					1.1	NO		bd		0.000
4	FUNCTION2 PFK	29.68	5.711e3					1.0	NO		db		0.000
5	FUNCTION2 PFK	29.64	1.700e4					1.8	NO		bd		0.000
6	FUNCTION2 PFK	29.47	2.480e4					1.9	NO		db		0.000
7	FUNCTION2 PFK	29.36	1.696e4					1.9	NO		bd		0.000
8	FUNCTION2 PFK	29.29	2.861e3					0.7	NO		bb		0.000
9	FUNCTION2 PFK	29.16	1.091e4					1.2	NO		bb		0.000
10	FUNCTION2 PFK	28.90	2.320e3					0.6	NO		bb		0.000
11	FUNCTION2 PFK	28.80	2.770e3					0.8	NO		bb		0.000
12	FUNCTION2 PFK	28.54	5.899e3					1.2	NO		db		0.000
13	FUNCTION2 PFK	28.50	1.397e4					2.0	NO		bd		0.000
14	FUNCTION2 PFK	28.32	1.175e3					0.5	NO		bb		0.000
15	FUNCTION2 PFK	31.69	3.508e3					0.9	NO		bb		0.000
16	FUNCTION2 PFK	31.63	1.016e4					1.4	NO		bb		0.000
17	FUNCTION2 PFK	31.53	8.675e3					0.8	NO		bb		0.000
18	FUNCTION2 PFK	31.49	1.869e3					0.7	NO		bb		0.000
19	FUNCTION2 PFK	31.40	1.095e4					1.3	NO		bb		0.000
20	FUNCTION2 PFK	31.20	1.018e4					1.4	NO		db		0.000
21	FUNCTION2 PFK	31.14	9.902e3					1.4	NO		bd		0.000
22	FUNCTION2 PFK	31.04	2.521e3					0.6	NO		bb		0.000
23	FUNCTION2 PFK	30.92	4.486e3					1.1	NO		db		0.000
24	FUNCTION2 PFK	30.88	6.090e3					1.2	NO		bd		0.000
25	FUNCTION2 PFK	30.81	3.856e3					0.6	NO		bb		0.000
26	FUNCTION2 PFK	30.76	7.571e3					1.5	NO		db		0.000
27	FUNCTION2 PFK	30.72	1.009e4					1.3	NO		bd		0.000
28	FUNCTION2 PFK	30.37	7.200e3					1.1	NO		db		0.000
29	FUNCTION2 PFK	30.32	1.863e4					2.0	NO		bd		0.000
30	FUNCTION2 PFK	30.12	8.431e3					1.5	NO		db		0.000
31	FUNCTION2 PFK	32.82	1.531e4					1.7	NO		bb		0.000
32	FUNCTION2 PFK	32.76	2.617e4					2.0	NO		db		0.000
33	FUNCTION2 PFK	32.66	9.185e3					1.4	NO		dd		0.000
34	FUNCTION2 PFK	32.61	2.742e4					2.3	NO		dd		0.000
35	FUNCTION2 PFK	32.51	2.015e4					1.8	NO		dd		0.000
36	FUNCTION2 PFK	32.38	1.541e4					2.0	NO		bd		0.000
37	FUNCTION2 PFK	32.27	1.620e3					0.7	NO		bb		0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.22	6.522e3					1.4	NO		bb		0.000
39	FUNCTION2 PFK	31.96	8.002e3					1.0	NO		bb		0.000
40	FUNCTION2 PFK	31.73	2.461e3					0.8	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.03	4.935e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	33.76	5.855e3					0.9	NO		bb		0.000
3	FUNCTION3 PFK	33.65	2.046e4					1.3	NO		bb		0.000
4	FUNCTION3 PFK	33.29	1.061e4					1.2	NO		bb		0.000
5	FUNCTION3 PFK	33.10	1.235e4					0.9	NO		bb		0.000
6	FUNCTION3 PFK	36.89	5.964e3					0.8	NO		bb		0.000
7	FUNCTION3 PFK	36.67	1.246e4					1.3	NO		db		0.000
8	FUNCTION3 PFK	36.59	3.645e4					2.5	NO		bd		0.000
9	FUNCTION3 PFK	36.47	1.165e4					0.9	NO		bb		0.000
10	FUNCTION3 PFK	36.40	4.348e3					0.7	NO		bb		0.000
11	FUNCTION3 PFK	36.32	3.325e4					1.9	NO		bb		0.000
12	FUNCTION3 PFK	36.24	1.791e4					1.4	NO		db		0.000
13	FUNCTION3 PFK	36.19	2.043e4					1.6	NO		bd		0.000
14	FUNCTION3 PFK	35.34	7.839e3					0.9	NO		bb		0.000
15	FUNCTION3 PFK	35.04	1.130e4					1.2	NO		bb		0.000
16	FUNCTION3 PFK	34.98	1.757e4					1.3	NO		bb		0.000
17	FUNCTION3 PFK	34.66	3.150e4					2.1	NO		db		0.000
18	FUNCTION3 PFK	34.63	2.204e4					2.2	NO		bd		0.000
19	FUNCTION3 PFK	34.51	2.015e4					1.6	NO		db		0.000
20	FUNCTION3 PFK	34.43	2.373e4					2.0	NO		dd		0.000
21	FUNCTION3 PFK	34.39	1.491e4					1.8	NO		bd		0.000
22	FUNCTION3 PFK	37.97	9.526e3					1.1	NO		bb		0.000
23	FUNCTION3 PFK	37.61	4.551e3					0.8	NO		bb		0.000
24	FUNCTION3 PFK	37.03	2.911e4					1.8	NO		db		0.000
25	FUNCTION3 PFK	36.98	3.696e3					0.6	NO		bd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.71	9.457e3					0.9	NO		bb		
2	FUNCTION4 PFK	42.55	1.416e3					0.4	NO		bb		
3	FUNCTION4 PFK	42.33	2.050e4					1.4	NO		bb		
4	FUNCTION4 PFK	40.90	3.965e3					0.7	NO		bb		
5	FUNCTION4 PFK	40.40	4.095e3					0.7	NO		bb		
6	FUNCTION4 PFK	40.20	2.031e3					0.6	NO		bb		
7	FUNCTION4 PFK	39.89	7.818e3					1.2	NO		bb		
8	FUNCTION4 PFK	39.30	3.577e3					0.7	NO		db		
9	FUNCTION4 PFK	39.23	1.513e4					1.5	NO		bd		
10	FUNCTION4 PFK	38.50	5.085e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.22	4.047e5					4.0	YES		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.44	6.785e3					1.5	NO		db		
2	FUNCTION5 PFK	46.41	4.268e3					1.1	NO		bd		
3	FUNCTION5 PFK	46.32	3.211e3					0.9	NO		bb		
4	FUNCTION5 PFK	46.25	5.782e3					1.5	NO		bb		
5	FUNCTION5 PFK	46.21	2.148e3					0.5	NO		bb		
6	FUNCTION5 PFK	45.92	1.180e4					1.5	NO		bb		
7	FUNCTION5 PFK	45.78	2.503e3					0.9	NO		bb		
8	FUNCTION5 PFK	45.72	1.015e3					0.6	NO		bb		
9	FUNCTION5 PFK	45.60	1.955e3					0.7	NO		bb		
10	FUNCTION5 PFK	45.57	1.104e3					0.6	NO		bb		
11	FUNCTION5 PFK	45.45	1.042e4					1.3	NO		bb		
12	FUNCTION5 PFK	44.52	3.296e3					0.9	NO		bb		
13	FUNCTION5 PFK	44.38	2.843e4					2.4	NO		bb		
14	FUNCTION5 PFK	44.01	6.535e3					1.0	NO		bb		
15	FUNCTION5 PFK	43.51	4.124e3					1.1	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.80	1.077e2					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	27.23	8.014e1					1.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.90	4.015e2					4.7	YES		db		0.000
4	FUNCTION1 HXCD...	25.72	1.078e2					2.6	NO		bd		0.000
5	FUNCTION1 HXCD...	22.96	9.275e1					1.5	NO		bb		0.000
6	FUNCTION1 HXCD...	21.89	1.274e2					3.2	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	24.78	7.643e1					1.2	NO		bb		0.000
2	FUNCTION1 HPCD...	24.10	1.351e2					2.2	NO		db		0.000
3	FUNCTION1 HPCD...	23.90	1.347e2					2.0	NO		dd		0.000
4	FUNCTION1 HPCD...	23.73	7.182e1					1.5	NO		dd		0.000
5	FUNCTION1 HPCD...	23.60	1.453e2					1.7	NO		bd		0.000
6	FUNCTION1 HPCD...	22.30	7.288e1					1.3	NO		bb		0.000
7	FUNCTION1 HPCD...	21.72	1.050e2					2.3	NO		db		0.000
8	FUNCTION1 HPCD...	21.65	1.092e2					1.7	NO		bd		0.000
9	FUNCTION1 HPCD...	27.77	1.087e2					2.2	NO		db		0.000
10	FUNCTION1 HPCD...	27.64	1.853e2					2.8	NO		bd		0.000
11	FUNCTION1 HPCD...	26.97	7.971e1					1.8	NO		db		0.000
12	FUNCTION1 HPCD...	26.89	8.957e1					2.2	NO		bd		0.000
13	FUNCTION1 HPCD...	25.88	1.706e2					2.4	NO		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.25	4.855e2					9.2	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.13	1.383e2					3.3	YES		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

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**ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk****ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.71	9.570e1					1.7	NO		bb		0.000
2	FUNCTION4 NCDPE	40.15	8.625e1					2.5	NO		bb		0.000
3	FUNCTION4 NCDPE	39.82	7.102e1					1.6	NO		bb		0.000

**ETHERS6**

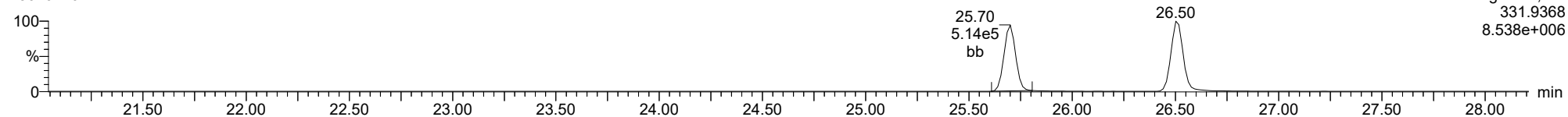
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.11	7.207e1					2.3	NO		bb		0.000

**Method:** T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** ICVCR, **Name:** 23020110, **Date:** 01-Feb-2023, **Time:** 20:23:25, **Conditions:** AUTOSPEC01, **User:** pk

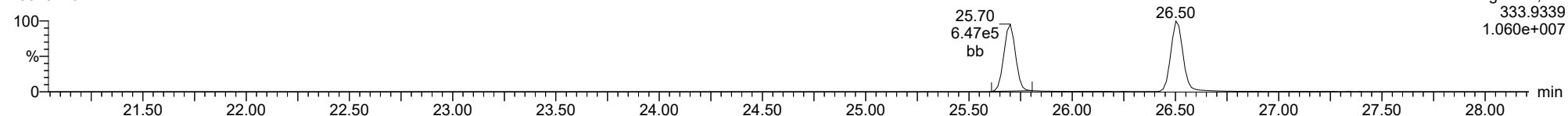
**13C-1234-TCDD**

23020110



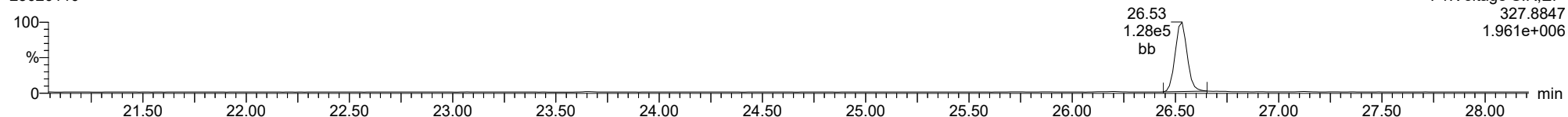
**13C-1234-TCDD**

23020110



**37CL-2378-TCDD**

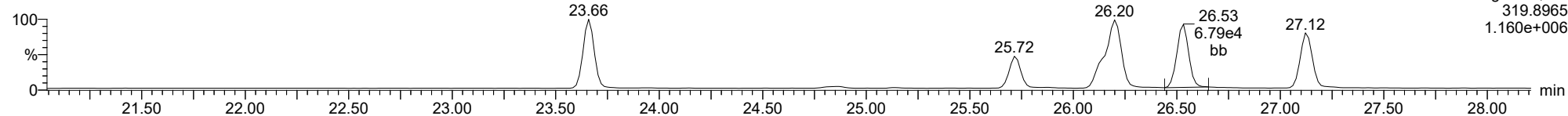
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

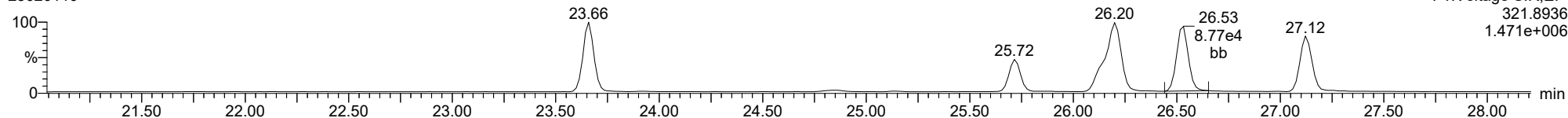
**2378-TCDD**

23020110



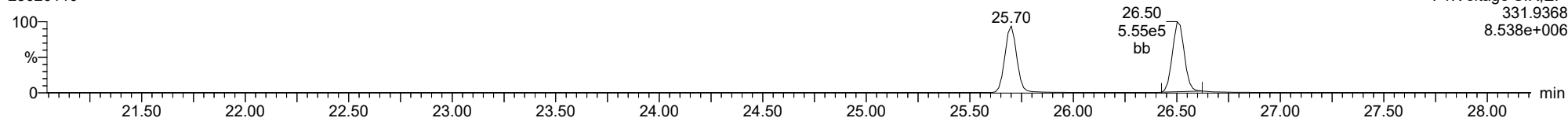
**2378-TCDD**

23020110



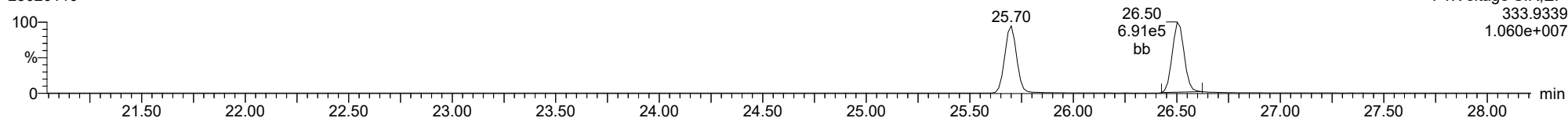
**13C-2378-TCDD**

23020110



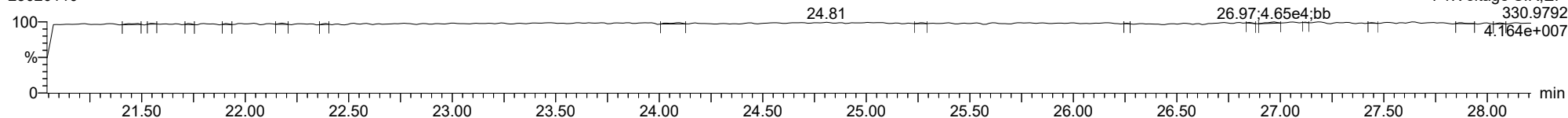
**13C-2378-TCDD**

23020110



**FUNCTION1 PFK**

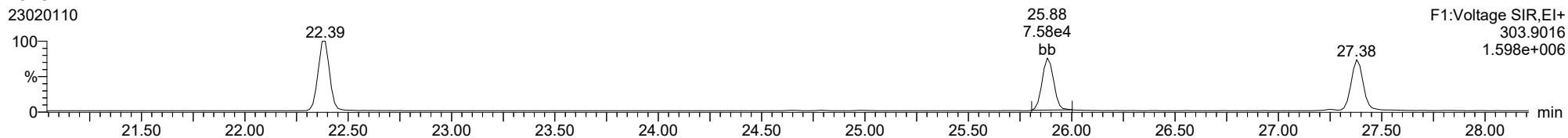
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

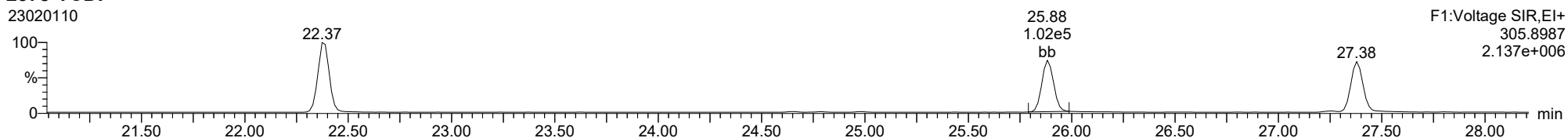
**2378-TCDF**

23020110



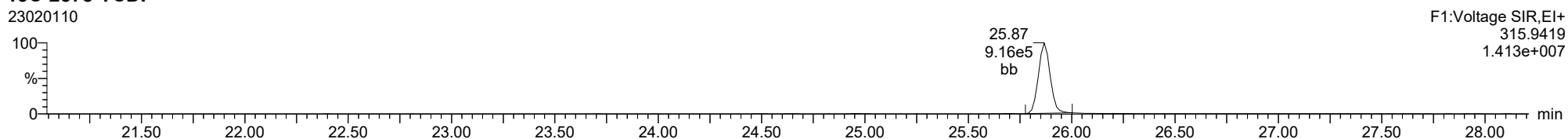
**2378-TCDF**

23020110



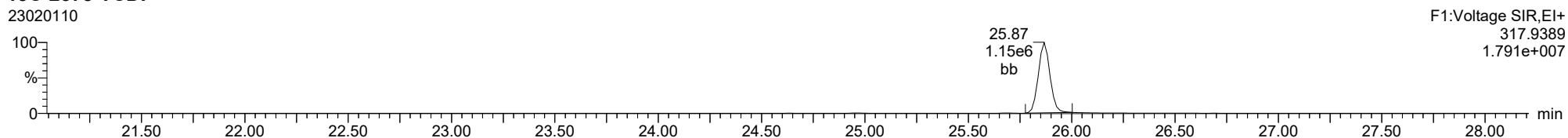
**13C-2378-TCDF**

23020110



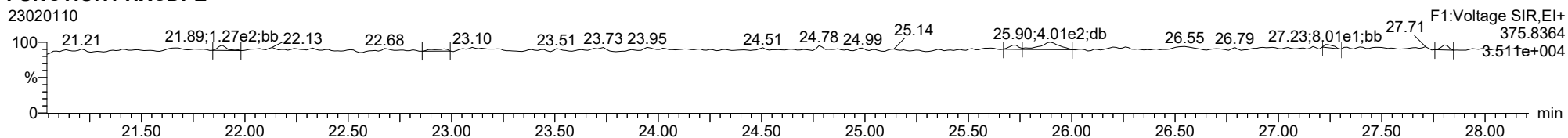
**13C-2378-TCDF**

23020110



**FUNCTION1 HXCDPE**

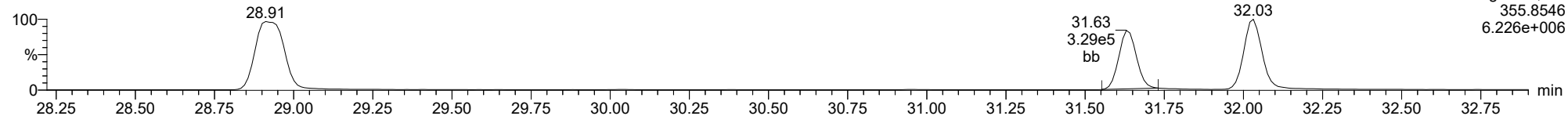
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

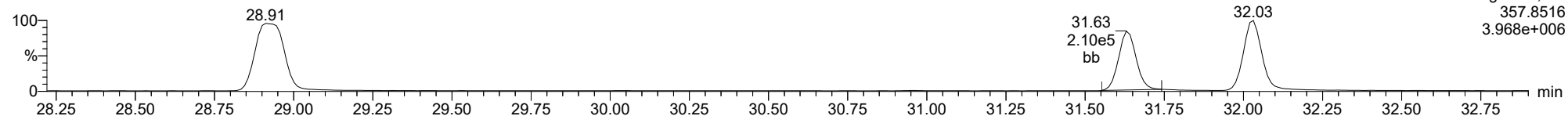
**12378-PeCDD**

23020110



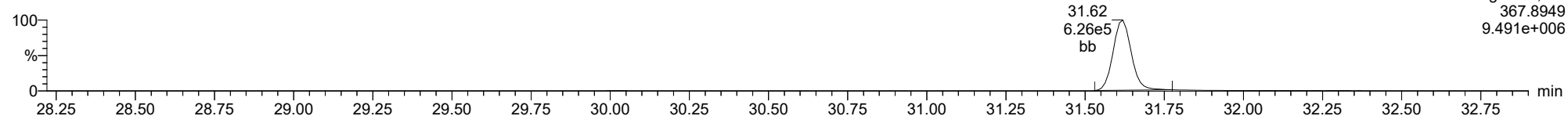
**12378-PeCDD**

23020110



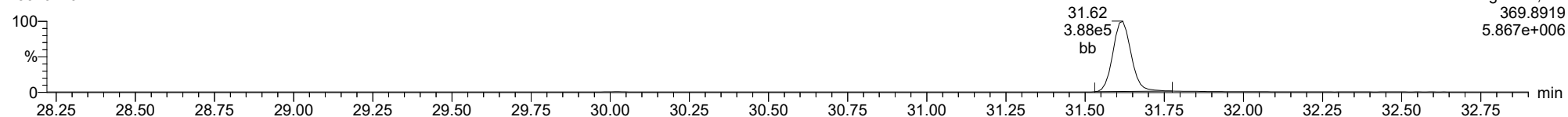
**13C-12378-PeCDD**

23020110



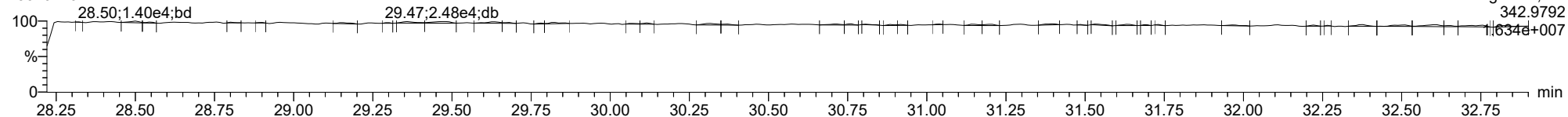
**13C-12378-PeCDD**

23020110



**FUNCTION2 PFK**

23020110

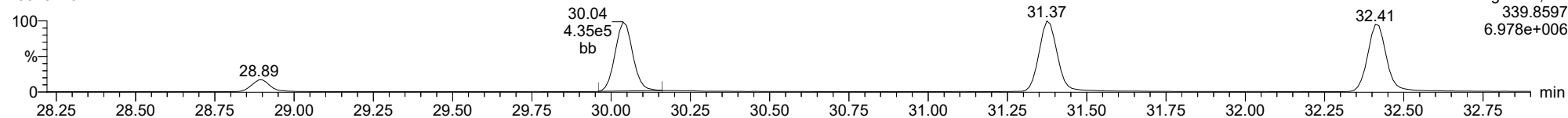




ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

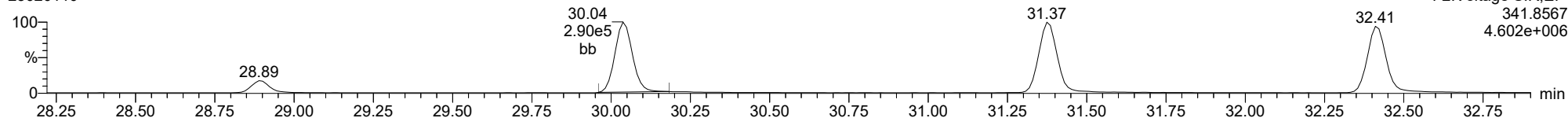
**12378-PeCDF**

23020110



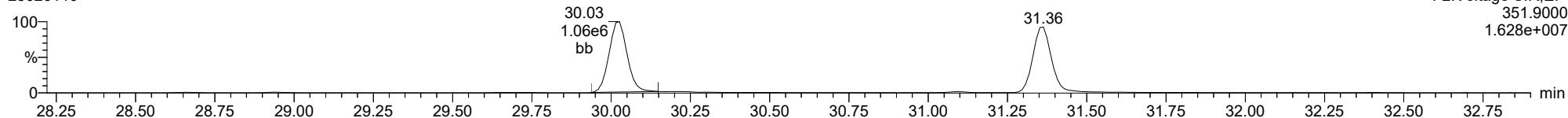
**12378-PeCDF**

23020110



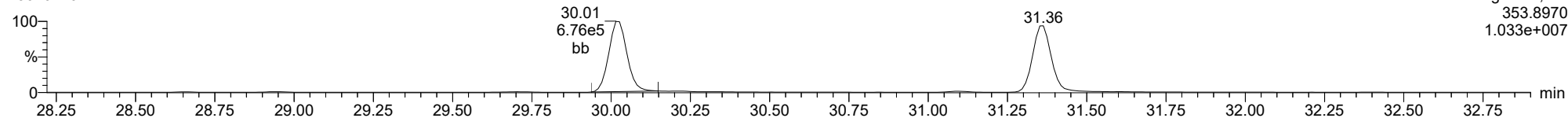
**13C-12378-PeCDF**

23020110



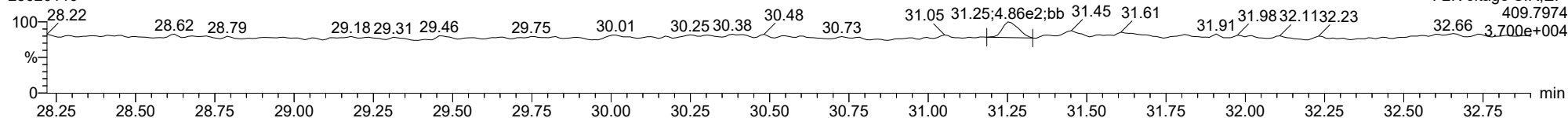
**13C-12378-PeCDF**

23020110



**FUNCTION2 HPCDPE**

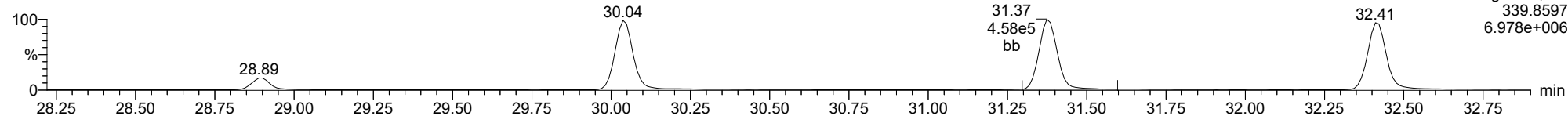
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

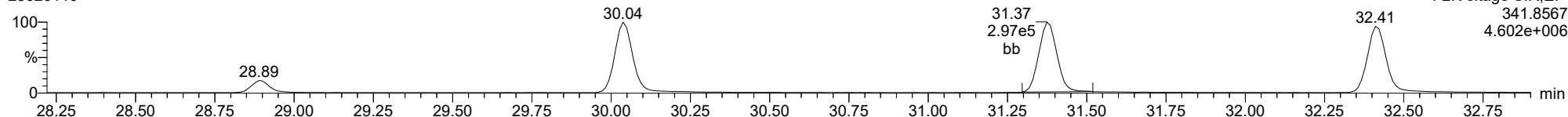
**23478-PeCDF**

23020110



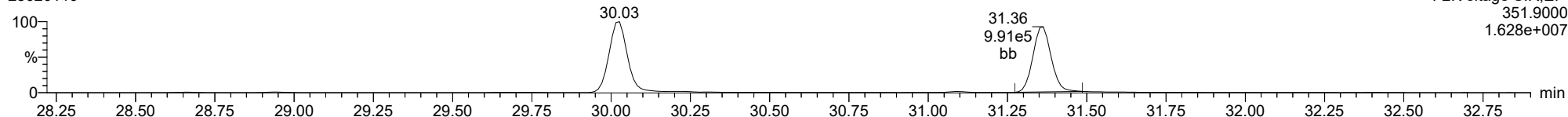
**23478-PeCDF**

23020110



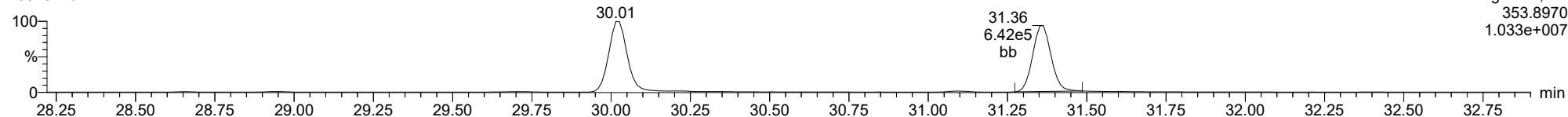
**13C-23478-PeCDF**

23020110



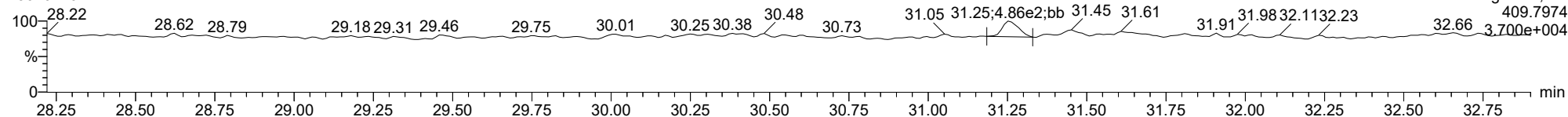
**13C-23478-PeCDF**

23020110



**FUNCTION2 HPCDPE**

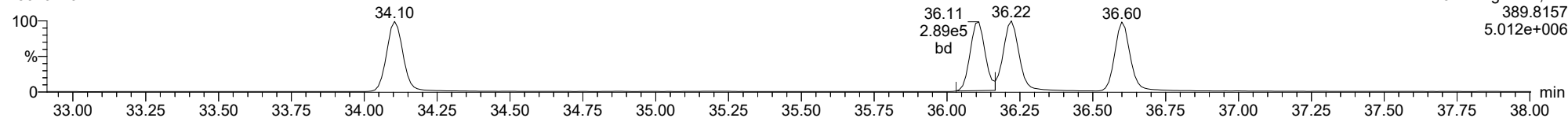
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

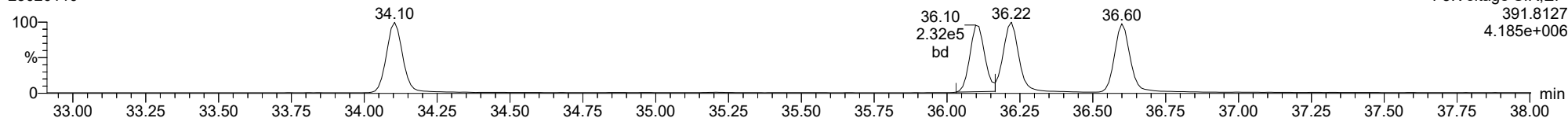
**123478-HxCDD**

23020110



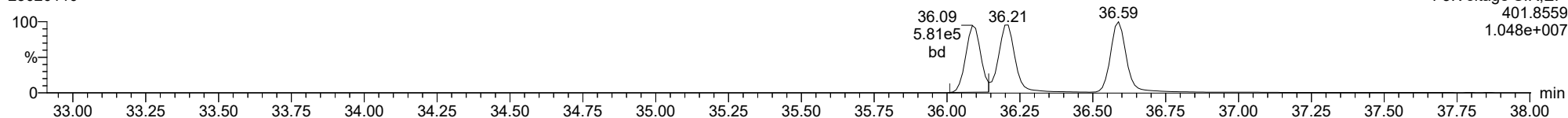
**123478-HxCDD**

23020110



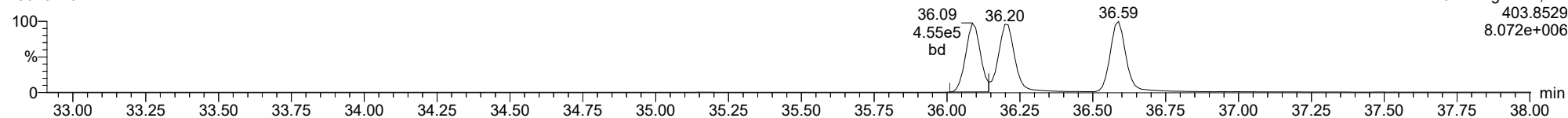
**13C-123478-HxCDD**

23020110



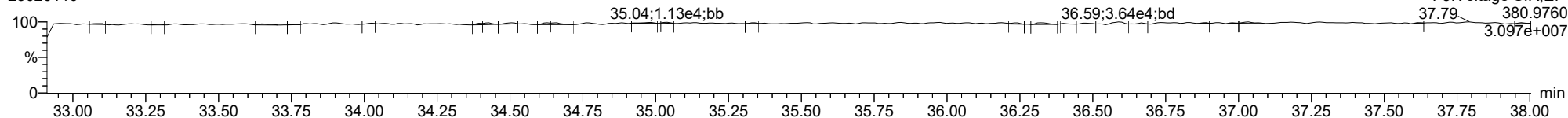
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23020110



**FUNCTION3 PFK**

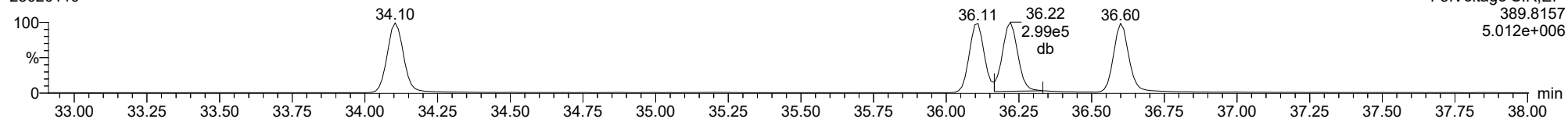
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

**123678-HxCDD**

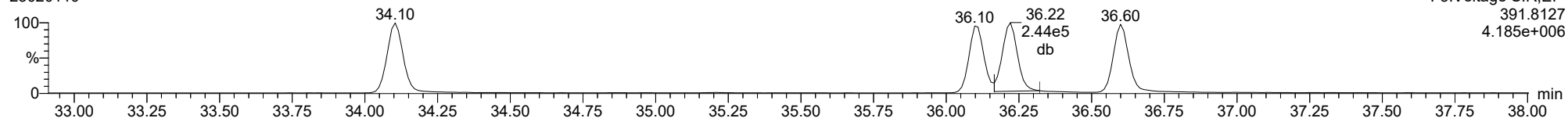
23020110



F3:Voltage SIR,EI+  
389.8157  
5.012e+006

**123678-HxCDD**

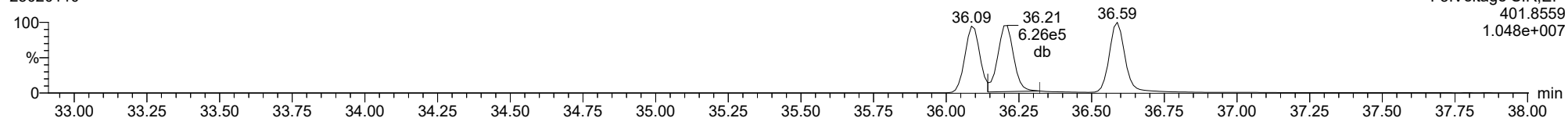
23020110



F3:Voltage SIR,EI+  
391.8127  
4.185e+006

**13C-123678-HxCDD**

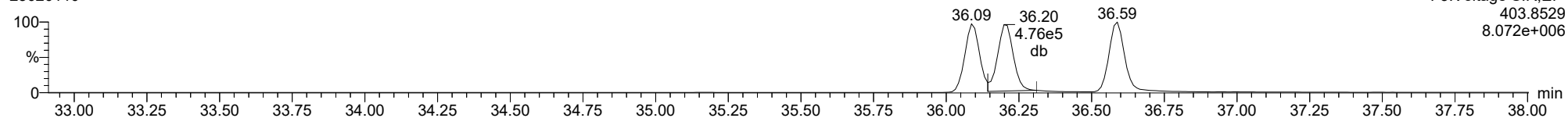
23020110



F3:Voltage SIR,EI+  
401.8559  
1.048e+007

**13C-123678-HxCDD**

23020110

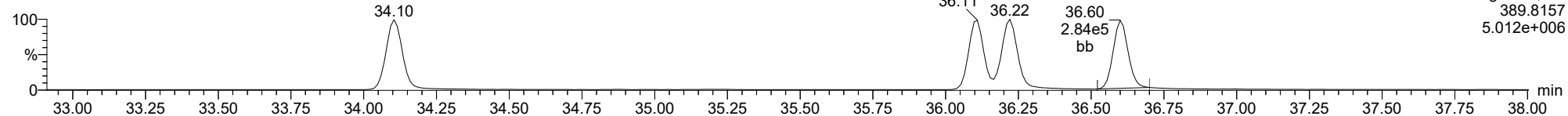


F3:Voltage SIR,EI+  
403.8529  
8.072e+006

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

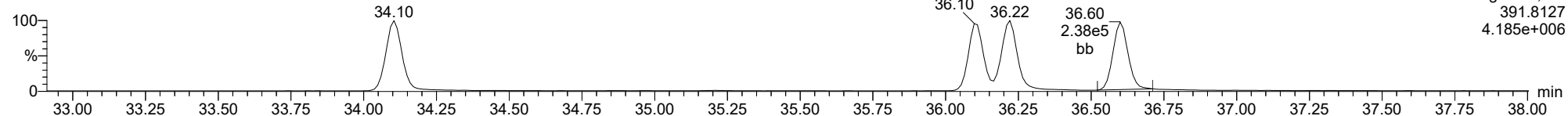
**123789-HxCDD**

23020110



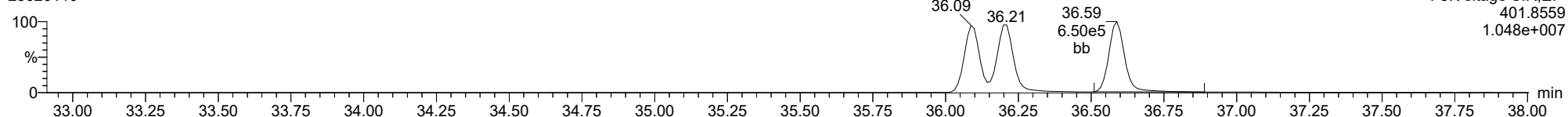
**123789-HxCDD**

23020110



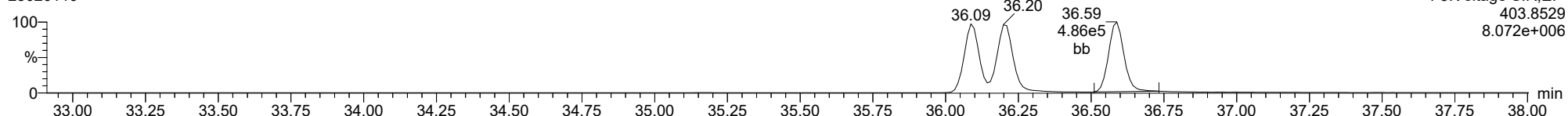
**13C-123789-HxCDD**

23020110



**13C-123789-HxCDD**

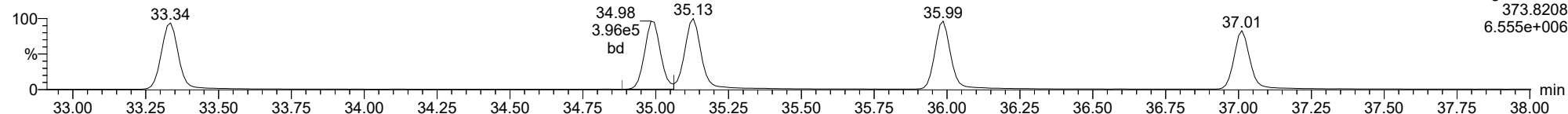
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

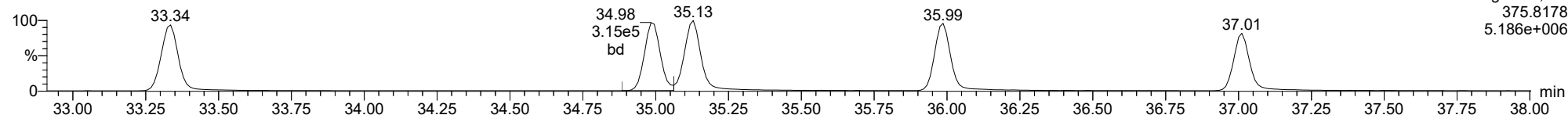
**123478-HxCDF**

23020110



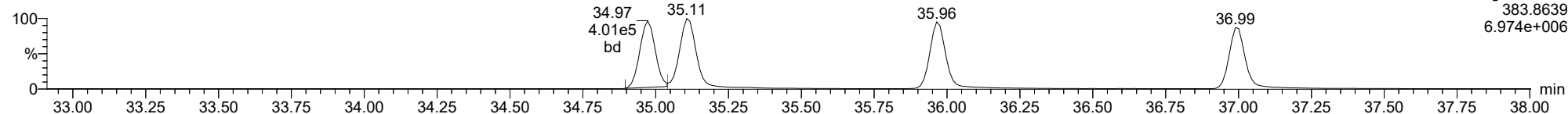
**123478-HxCDF**

23020110



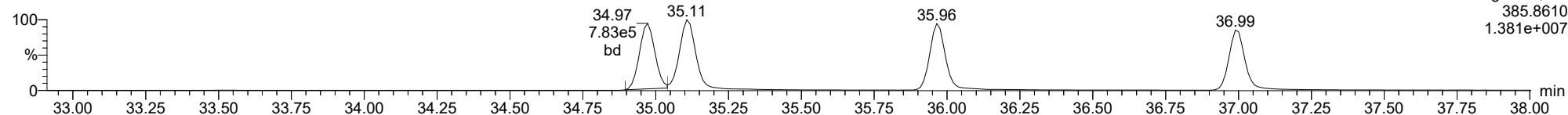
**13C-123478-HxCDF**

23020110



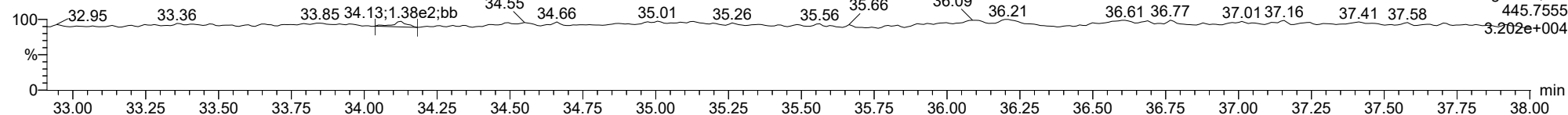
**13C-123478-HxCDF**

23020110



**FUNCTION3 OCDPE**

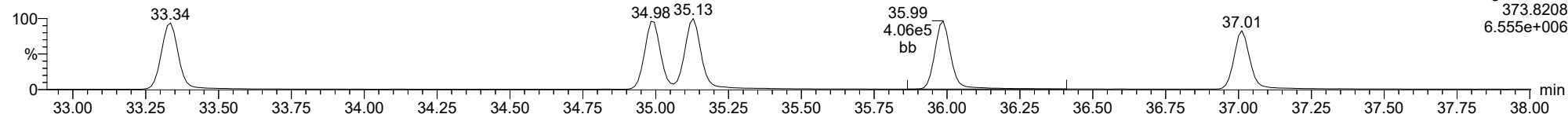
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

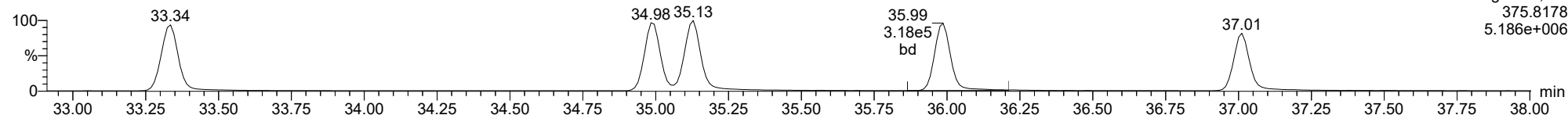
**234678-HxCDF**

23020110



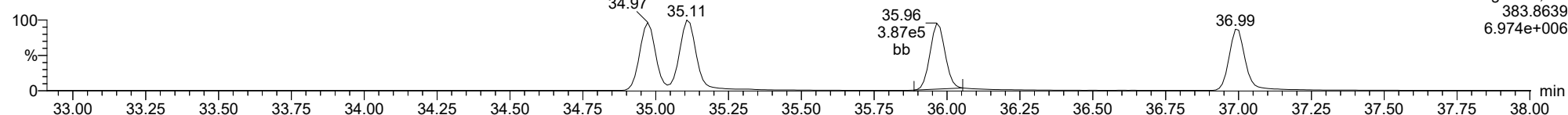
**234678-HxCDF**

23020110



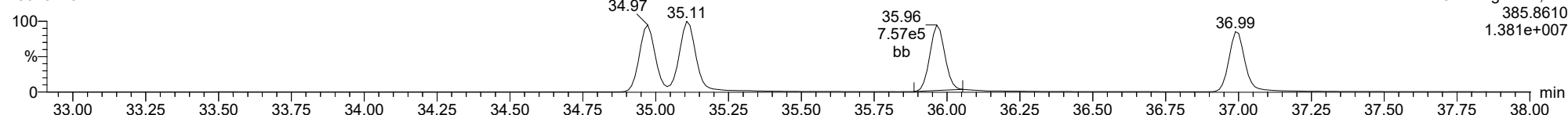
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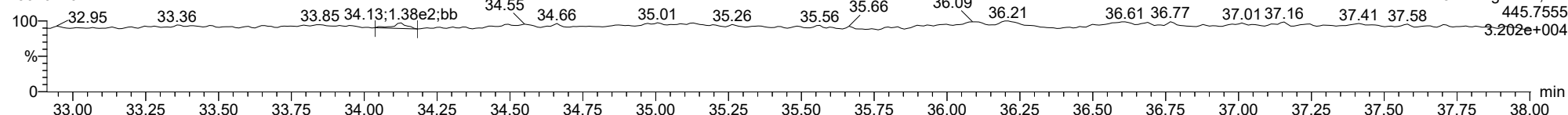
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**FUNCTION3 OCDPE**

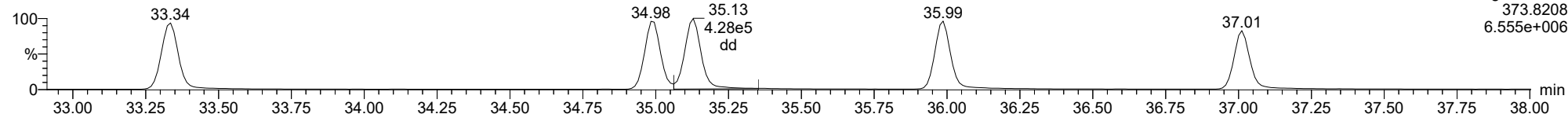
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

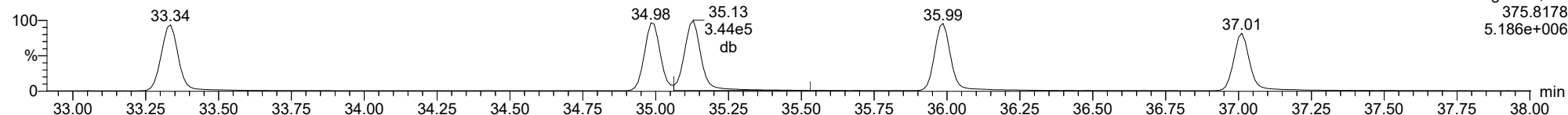
**123678-HxCDF**

23020110



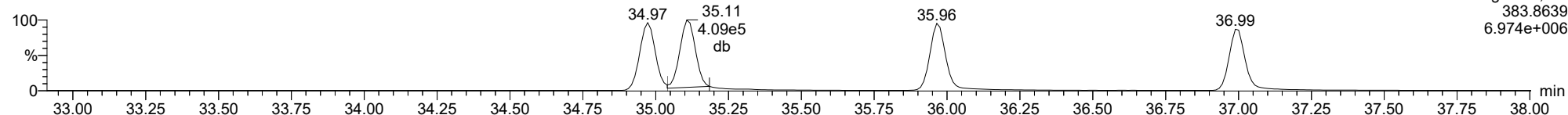
**123678-HxCDF**

23020110



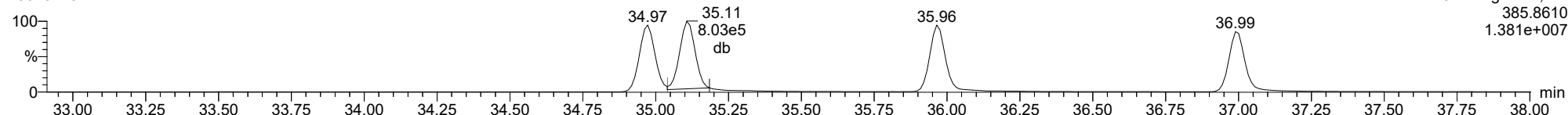
**13C-123678-HxCDF**

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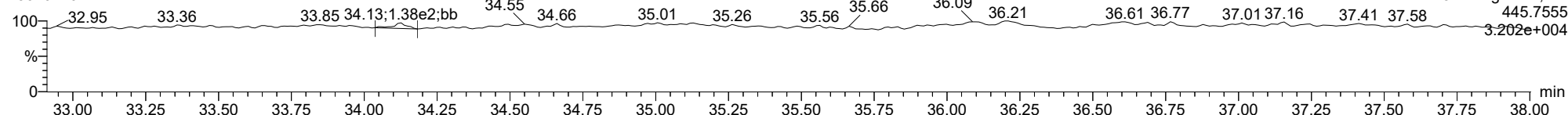
**13C-123678-HxCDF**

23020110



**FUNCTION3 OCDPE**

23020110

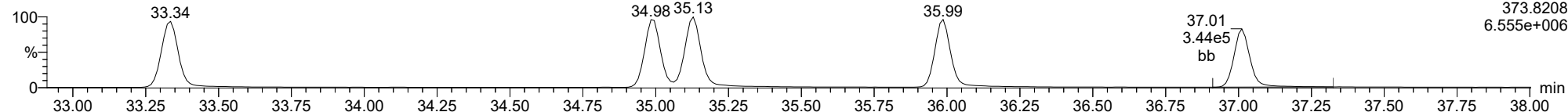




ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

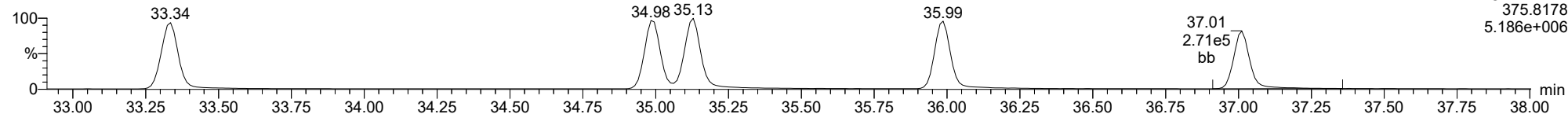
**123789-HxCDF**

23020110



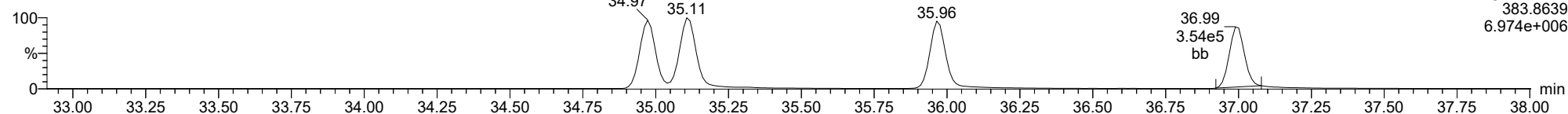
**123789-HxCDF**

23020110



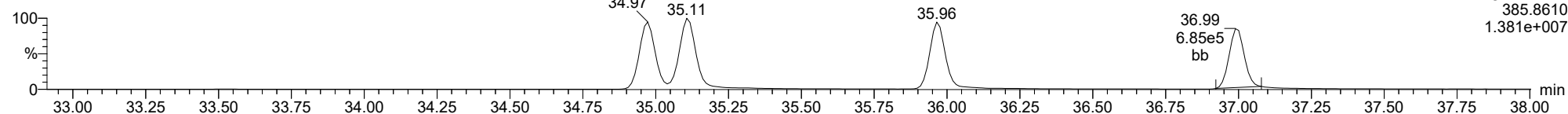
**13C-123789-HxCDF**

23020110



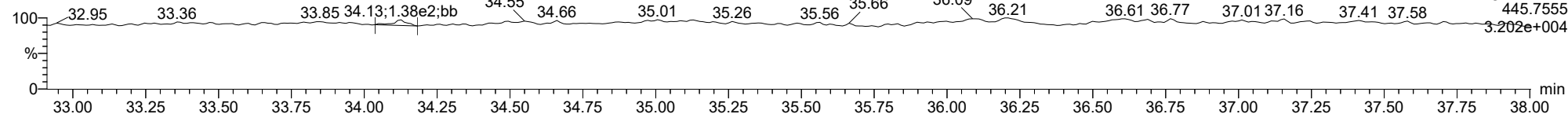
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23020110



**FUNCTION3 OCDPE**

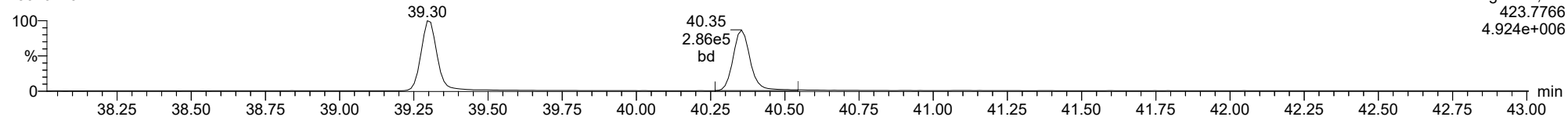
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

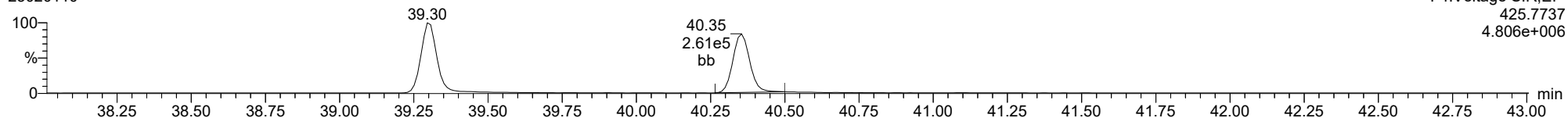
**1234678-HpCDD**

23020110



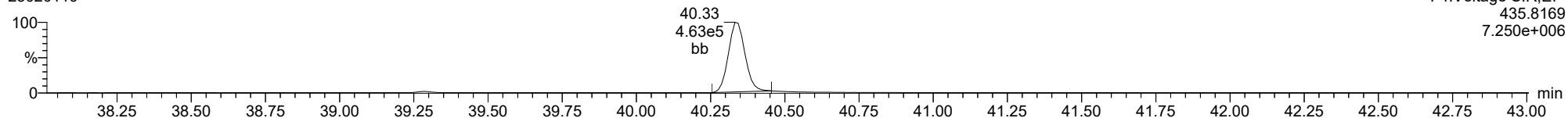
**1234678-HpCDD**

23020110



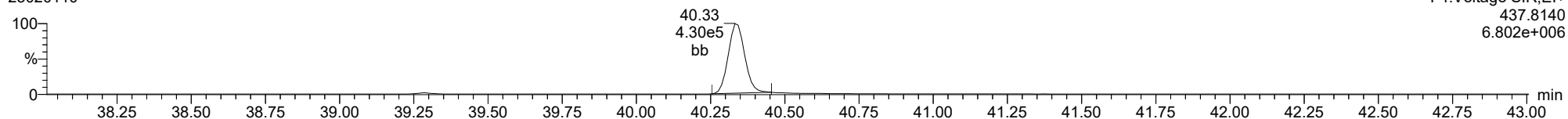
**13C-1234678-HpCDD**

23020110



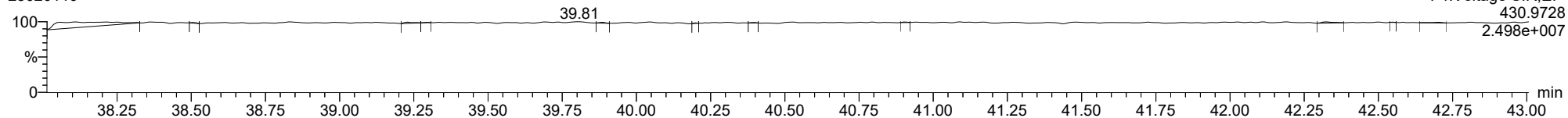
**13C-1234678-HpCDD**

23020110



**FUNCTION4 PFK**

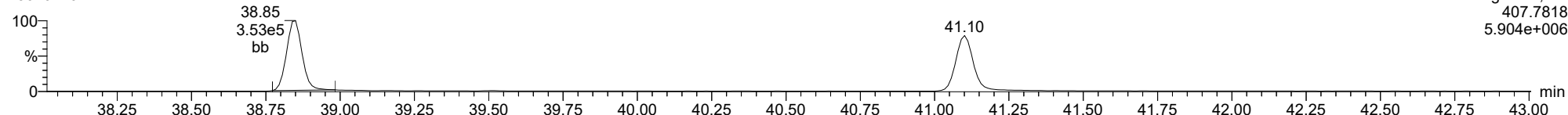
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

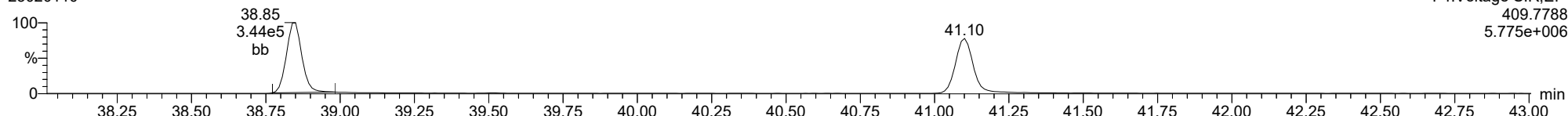
1234678-HpCDF

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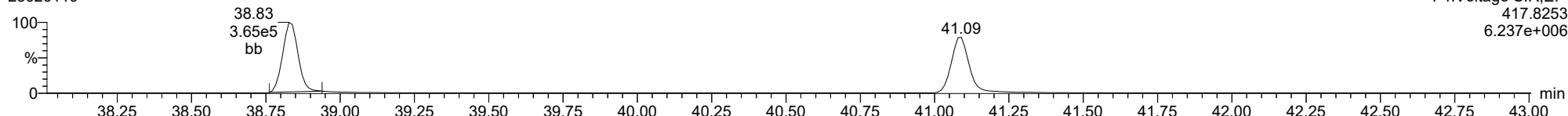
1234678-HpCDF

23020110



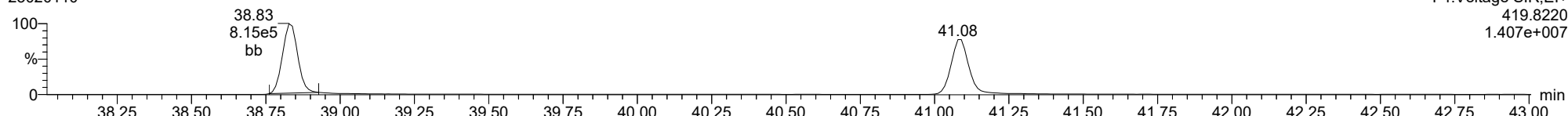
13C-1234678-HpCDF

23020110



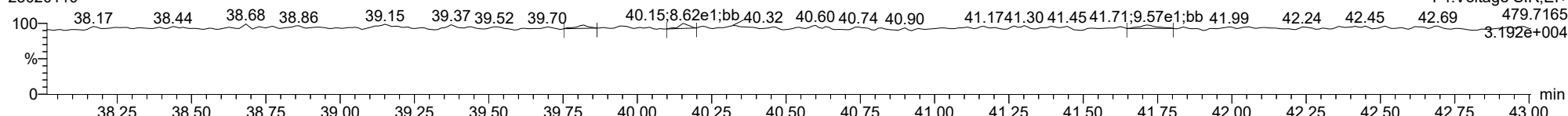
13C-1234678-HpCDF

23020110



FUNCTION4 NCDPE

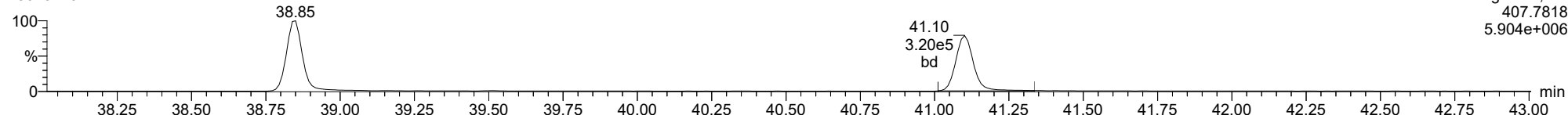
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

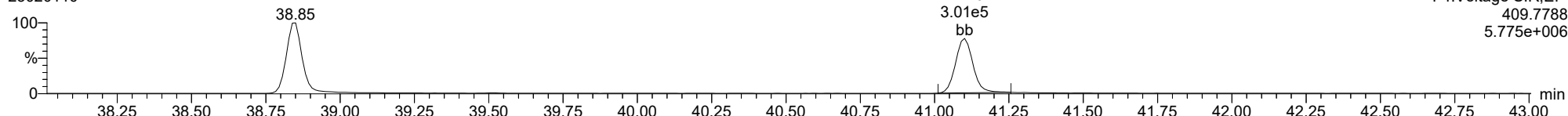
1234789-HpCDF

23020110



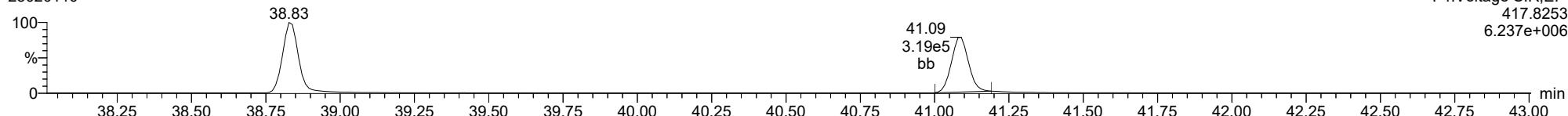
1234789-HpCDF

23020110



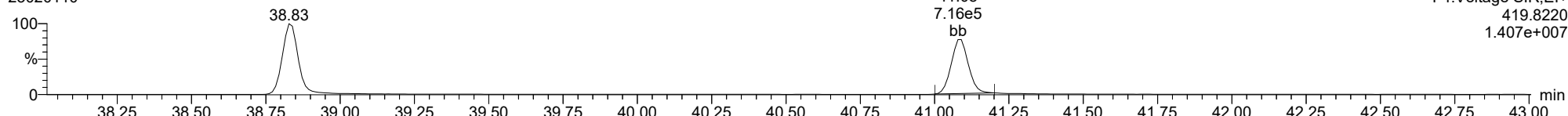
13C-1234789-HpCDF

23020110



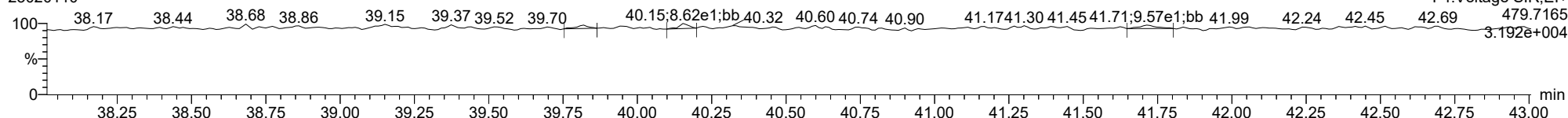
13C-1234789-HpCDF

23020110



FUNCTION4 NCDPE

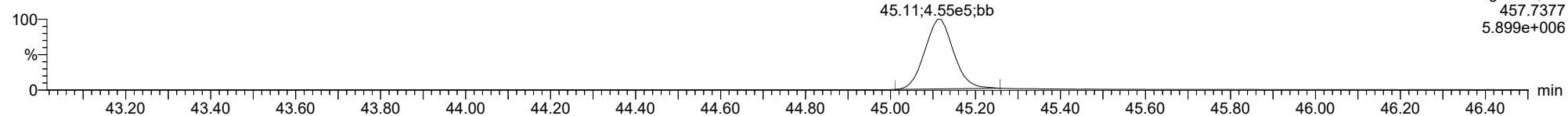
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

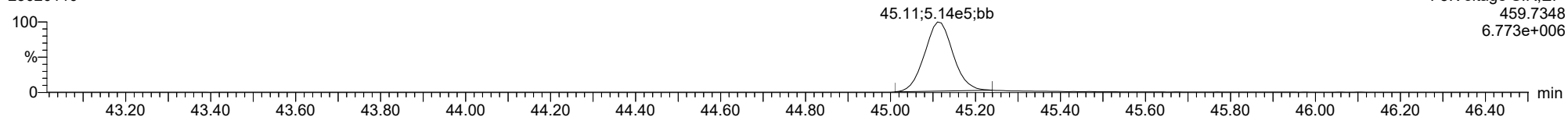
**OCDD**

23020110



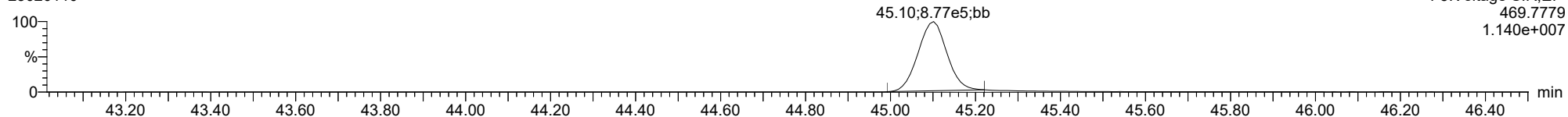
**OCDD**

23020110



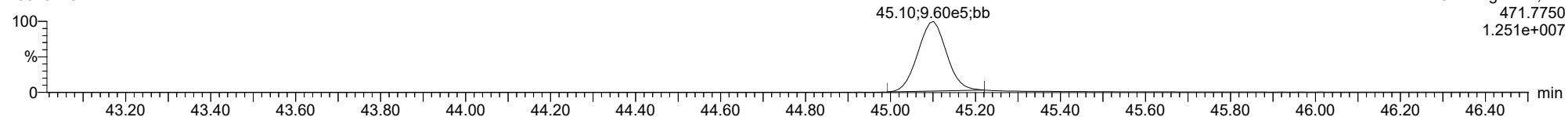
**13C-OCDD**

23020110



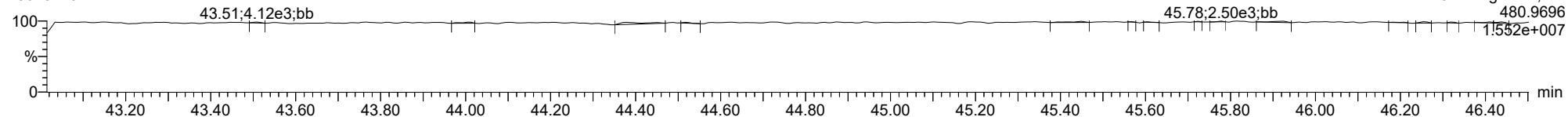
**13C-OCDD**

23020110



**FUNCTION5 PFK**

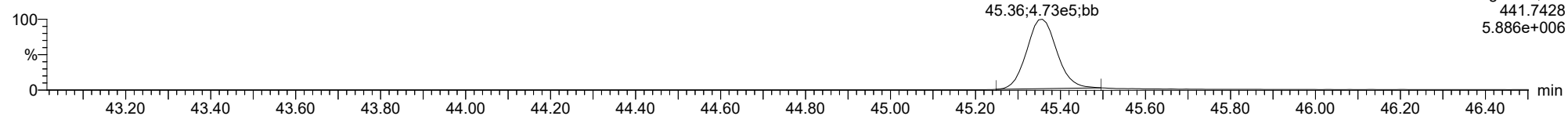
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

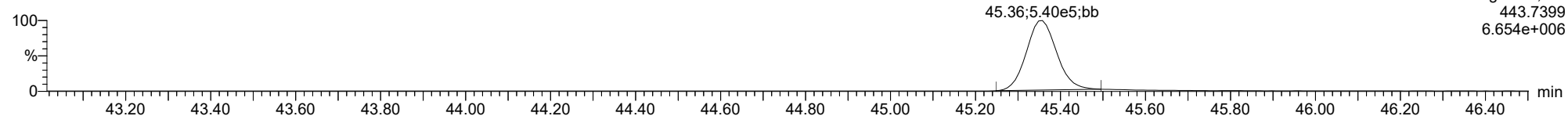
**OCDF**

23020110



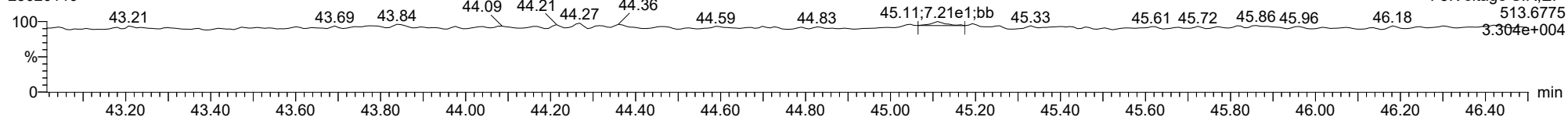
**OCDF**

23020110



**FUNCTION5 DCDPE**

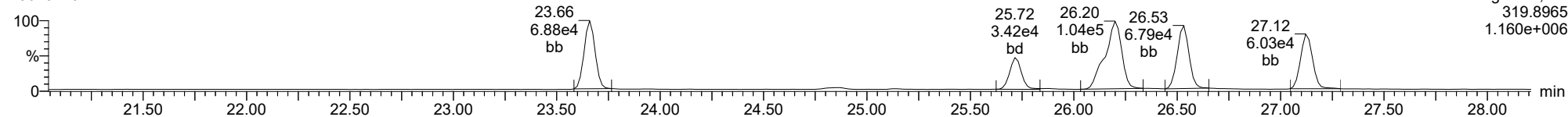
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

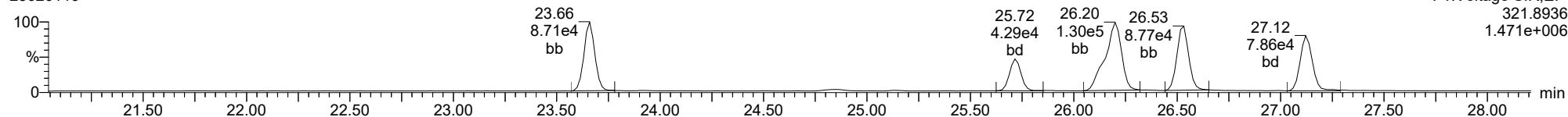
**Total-tetradioxins**

23020110



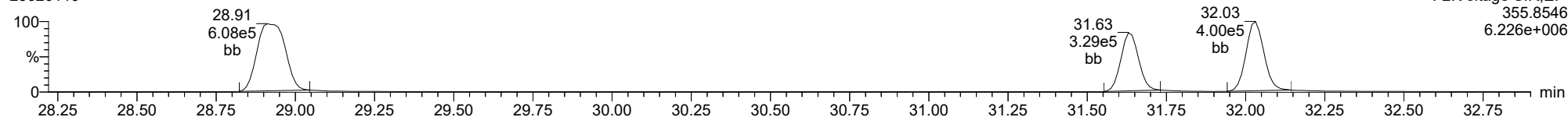
**Total-tetradioxins**

23020110



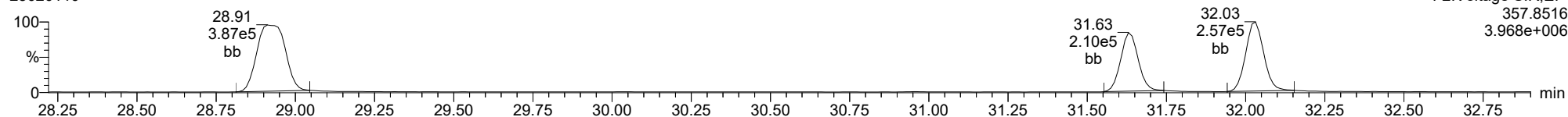
**Total-pentadioxins**

23020110



**Total-pentadioxins**

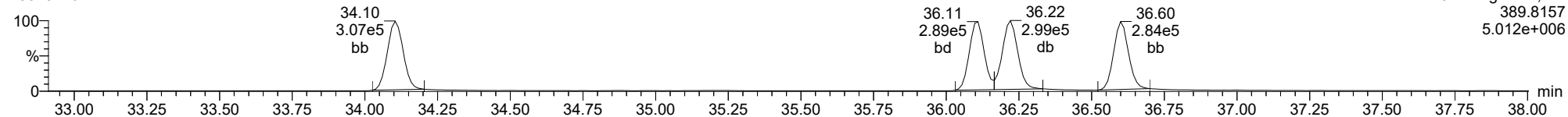
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

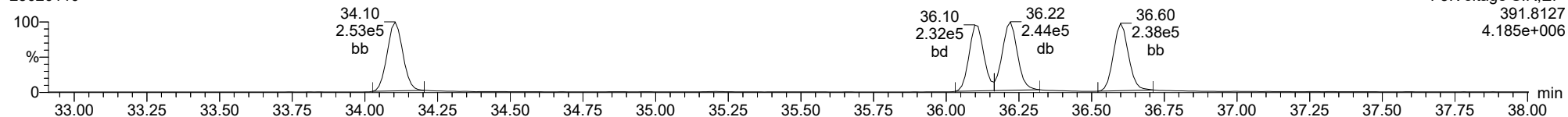
**Total-hexadioxins**

23020110



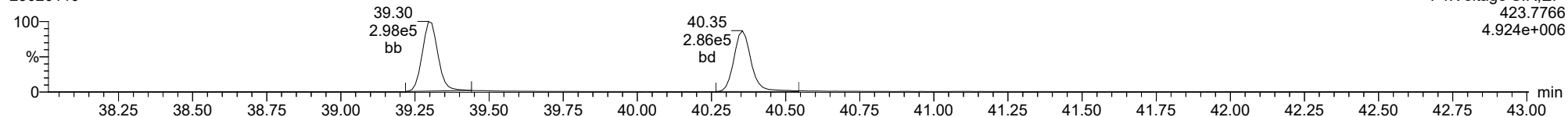
**Total-hexadioxins**

23020110



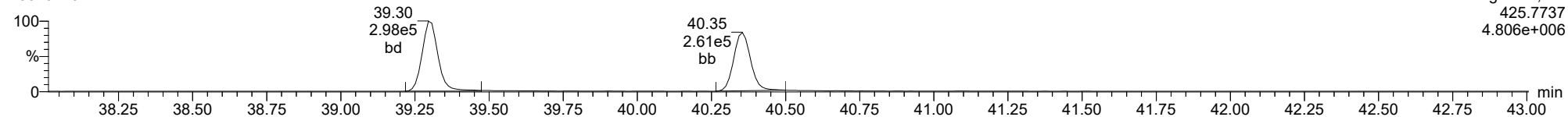
**Total-heptadioxins**

23020110



**Total-heptadioxins**

23020110

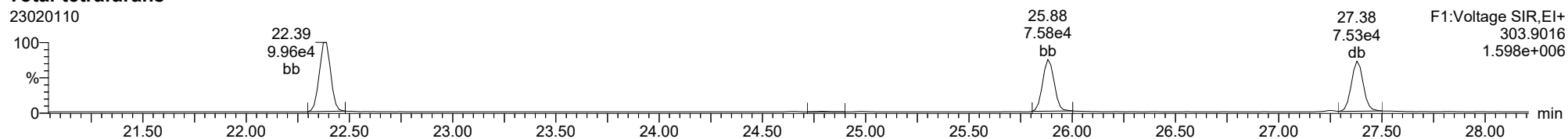




ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

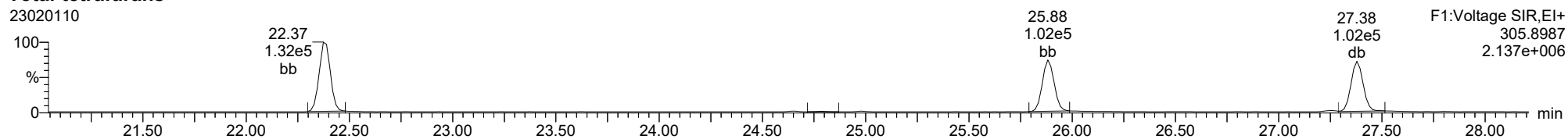
**Total-tetrafurans**

23020110



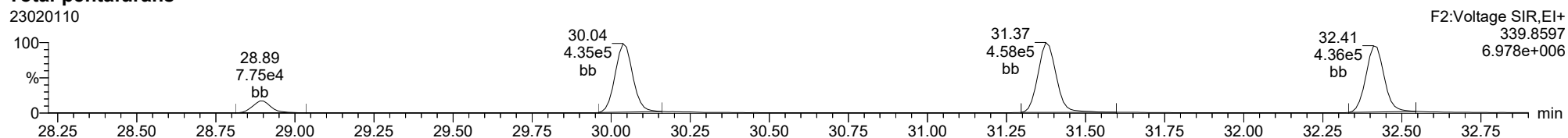
**Total-tetrafurans**

23020110



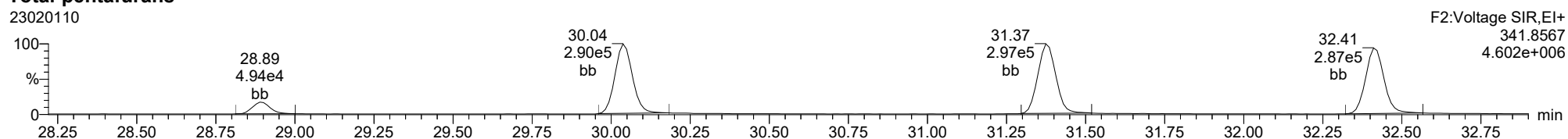
**Total-pentafurans**

23020110



**Total-pentafurans**

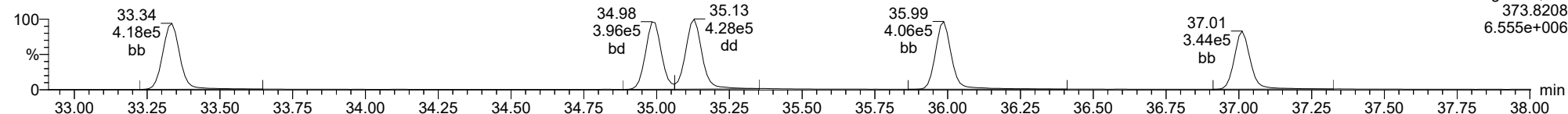
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

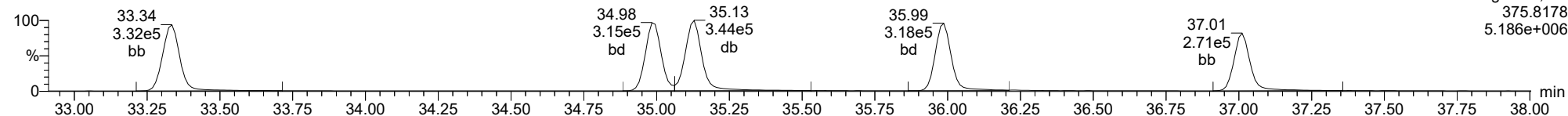
**Total-hexafurans**

23020110



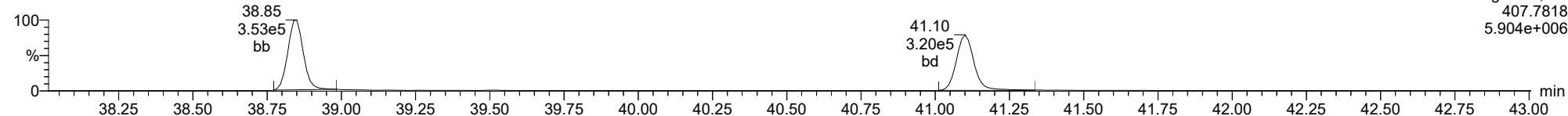
**Total-hexafurans**

23020110



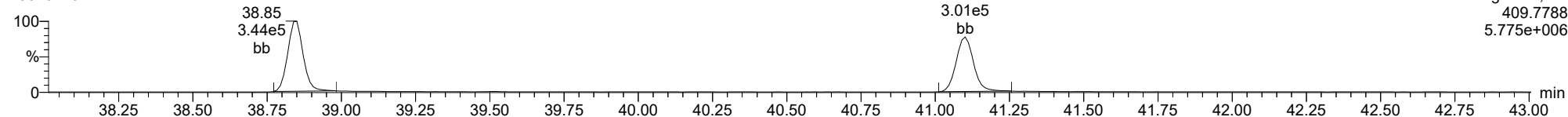
**Total-heptafurans**

23020110



**Total-heptafurans**

23020110



Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld  
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	6.336e4	8.393e4	0.876	0.755	0.770	1070	1746	9.70e5	1.26e6	906.6	721.7	NO	bb	bb	10.162
12378-PeCDF	30.048	1.001	3.709e5	2.488e5	0.845	1.491	1.550	3113	3215	5.69e6	3.70e6	1826.3	1149.4	NO	bb	bd	50.020
23478-PeCDF	31.385	1.001	3.851e5	2.639e5	0.911	1.459	1.550	3113	3215	5.96e6	3.97e6	1913.7	1234.6	NO	bb	bd	50.684
123478-HxCDF	34.995	1.001	3.366e5	2.649e5	1.182	1.270	1.240	2488	2037	5.32e6	4.21e6	2136.8	2067.1	NO	bd	bd	49.625
234678-HxCDF	35.986	1.000	3.507e5	2.736e5	1.229	1.282	1.240	2488	2037	5.45e6	4.23e6	2188.7	2078.3	NO	bb	bd	52.648
123678-HxCDF	35.129	1.000	3.745e5	2.918e5	1.248	1.283	1.240	2488	2037	5.41e6	4.26e6	2174.2	2090.5	NO	dd	dd	50.908
123789-HxCDF	37.012	1.000	2.970e5	2.380e5	1.187	1.248	1.240	2488	2037	4.75e6	3.76e6	1910.9	1845.7	NO	bd	bb	50.440
1234678-HpCDF	38.850	1.000	2.932e5	2.919e5	1.204	1.004	1.050	3100	2795	4.79e6	4.70e6	1544.8	1680.6	NO	bb	bd	48.294
1234789-HpCDF	41.100	1.000	2.671e5	2.524e5	1.165	1.058	1.050	3100	2795	3.96e6	3.73e6	1278.4	1333.4	NO	bb	bb	49.677
OCDF	45.358	1.006	3.958e5	4.645e5	1.186	0.852	0.890	1455	4440	4.72e6	5.37e6	3247.1	1209.2	NO	bb	bd	90.445
2378-TCDD	26.532	1.001	5.892e4	7.101e4	1.236	0.830	0.770	1225	1339	8.91e5	1.09e6	727.0	817.8	NO	dd	bb	9.397
12378-PeCDD	31.642	1.001	2.888e5	1.854e5	1.087	1.558	1.550	2693	2242	4.44e6	2.82e6	1647.5	1257.1	NO	bb	bb	51.126
123478-HxCDD	36.109	1.000	2.420e5	2.004e5	0.987	1.207	1.240	3333	2112	4.15e6	3.36e6	1245.4	1591.3	NO	bd	bd	50.303
123678-HxCDD	36.221	1.000	2.536e5	2.261e5	1.021	1.122	1.240	3333	2112	4.16e6	3.48e6	1248.0	1648.2	NO	db	db	51.010
123789-HxCDD	36.611	1.011	2.491e5	2.029e5	0.985	1.228	1.240	3333	2112	4.05e6	3.32e6	1216.5	1574.2	NO	bb	bb	50.610
1234678-HpCDD	40.354	1.000	2.244e5	2.131e5	1.253	1.053	1.050	2651	2455	3.41e6	3.28e6	1286.0	1334.6	NO	bb	bb	45.500
OCDD	45.120	1.000	3.894e5	4.309e5	1.103	0.904	0.890	2219	2267	4.59e6	5.31e6	2068.3	2340.4	NO	bd	bb	92.775
13C-2378-TCDF	25.867	1.006	7.314e5	9.230e5	1.768	0.792	0.770	2216	1949	1.12e7	1.43e7	5056.1	7338.5	NO	bb	bb	95.256
13C-12378-PeCDF	30.026	1.168	8.745e5	5.922e5	1.527	1.477	1.550	3934	3547	1.37e7	8.95e6	3469.6	2522.0	NO	bb	bd	97.769
13C-23478-PeCDF	31.363	1.220	8.488e5	5.566e5	1.466	1.525	1.550	3934	3547	1.32e7	8.62e6	3344.9	2430.1	NO	bb	bb	97.572
13C-123478-HxCDF	34.973	0.956	3.485e5	6.773e5	1.054	0.515	0.510	2953	4567	5.67e6	1.10e7	1918.4	2413.6	NO	bd	bd	101.894
13C-123678-HxCDF	35.118	0.960	3.543e5	6.945e5	1.080	0.510	0.510	2953	4567	5.60e6	1.10e7	1895.3	2409.2	NO	db	db	101.648
13C-234678-HxCDF	35.975	0.983	3.286e5	6.364e5	1.014	0.516	0.510	2953	4567	5.48e6	1.04e7	1855.6	2267.5	NO	bb	bb	99.572
13C-123789-HxCDF	37.000	1.011	3.031e5	5.907e5	0.928	0.513	0.510	2953	4567	5.28e6	1.02e7	1789.2	2235.2	NO	bb	bb	100.817
13C-1234678-HpCDF	38.839	1.062	3.130e5	6.930e5	1.036	0.452	0.440	2151	4289	5.21e6	1.16e7	2423.7	2703.6	NO	bb	bb	101.637
13C-1234789-HpCDF	41.089	1.123	2.806e5	6.168e5	0.905	0.455	0.440	2151	4289	4.21e6	9.25e6	1954.9	2156.4	NO	bb	bb	103.794
13C-1234-TCDD	25.700	0.000	4.358e5	5.465e5	1.000	0.797	0.770	2468	2151	6.80e6	8.50e6	2756.9	3953.0	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	4.953e5	6.230e5	1.103	0.795	0.770	2468	2151	7.43e6	9.28e6	3010.2	4316.3	NO	bb	bb	103.212
13C-12378-PeCDD	31.619	1.230	5.254e5	3.282e5	0.914	1.601	1.550	1809	1341	8.04e6	5.00e6	4443.5	3732.3	NO	bb	bb	95.052
13C-123478-HxCDD	36.098	0.987	5.053e5	3.859e5	0.933	1.309	1.240	2226	2294	8.20e6	6.16e6	3683.0	2686.4	NO	bd	bd	99.984
13C-123678-HxCDD	36.209	0.990	5.186e5	4.029e5	0.965	1.287	1.240	2226	2294	8.41e6	6.65e6	3779.0	2898.5	NO	db	db	99.982
13C-1234678-HpCDD	40.343	1.103	3.959e5	3.716e5	0.782	1.065	1.050	2537	2687	6.19e6	5.69e6	2441.5	2116.3	NO	bb	bb	102.734
13C-OCDD	45.101	1.233	7.625e5	8.412e5	0.788	0.906	0.890	3243	2707	9.59e6	1.05e7	2957.5	3872.2	NO	bb	bb	212.953
13C-123789-HxCDD	36.588	0.000	5.441e5	4.113e5	1.000	1.323	1.240	2226	2294	8.88e6	6.75e6	3989.4	2943.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.096e5		1.233			1635		1.65e6		1009.4			bb		9.045

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld  
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time  
 Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	7.606e4	1.001e5	1.064	0.760	0.770	1070	1746	1.19e6	1.52e6	1110.3	869.1	NO	bb	bb	10.001
1289-TCDF	27.378	1.058	6.304e4	8.031e4	0.858	0.785	0.770	1070	1746	9.18e5	1.16e6	858.3	662.3	NO	dd	db	10.103
13468-PECDF	27.242	0.907	4.375e5	2.852e5	1.013	1.534	1.550	920	1180	6.83e6	4.45e6	7421.7	3771.3	NO	bb	bb	48.645
12389-PECDF	32.421	1.080	3.692e5	2.469e5	0.844	1.495	1.550	3113	3215	5.48e6	3.56e6	1760.8	1106.5	NO	bb	bd	49.793
123468-HXCDF	33.335	0.953	3.502e5	2.713e5	1.197	1.291	1.240	2488	2037	5.19e6	4.08e6	2086.3	2002.8	NO	bb	bd	50.610
1368-TCDD	23.659	0.892	5.296e4	6.607e4	1.084	0.802	0.770	1225	1339	8.46e5	1.08e6	690.5	804.7	NO	bb	bb	9.816
1289-TCDD	27.121	1.023	4.842e4	6.049e4	0.975	0.800	0.770	1225	1339	7.05e5	8.85e5	575.4	661.1	NO	bb	bb	9.987
12479-PECDD	28.912	0.914	4.728e5	3.089e5	1.837	1.530	1.550	2693	2242	4.61e6	3.01e6	1713.2	1342.4	NO	bb	bb	49.845
12389-PECDD	32.032	1.013	3.302e5	2.107e5	1.252	1.567	1.550	2693	2242	5.03e6	3.18e6	1869.4	1418.4	NO	bb	bb	50.596
124679-HXCDD	34.104	0.945	2.577e5	2.083e5	1.033	1.237	1.240	3333	2112	4.11e6	3.36e6	1234.1	1592.7	NO	bb	bb	50.624
1234679-HPCDD	39.307	0.974	2.468e5	2.463e5	1.286	1.002	1.050	2651	2455	3.99e6	3.89e6	1503.1	1583.0	NO	bb	bd	49.957
Total-tetrafurans			2.030e5		0.933			1070		3.09e6							30.345
Total-penta1			4.375e5					920		6.83e6							48.645
Total-pentafurans			1.184e6		0.866			3113		1.80e7							158.351
Total-hexafurans			1.709e6		1.208			2488		2.61e7							254.231
Total-heptafurans			5.602e5		1.185			3100		8.75e6							97.972
Total-Furans			4.489e6		1.067			1070		6.75e7							679.989
Total-tetradoxins			2.729e5		1.099			1225		3.70e6							49.674
Total-pentadoxins			1.093e6		1.392			2693		1.41e7							151.752
Total-hexadoxins			1.003e6		1.007			3333		1.65e7							202.708
Total-heptadoxins			4.712e5		1.269			2651		7.39e6							95.457
Total-Dioxins			3.230e6		1.165			1225		4.63e7							592.366
Total-TEQ			7.719e6					1225		1.14e8							1272.355
FUNCTION1 PFK			5.445e5					518107		1.64e7							
FUNCTION2 PFK			0.000e0					179627		0.00e0							
FUNCTION3 PFK			0.000e0					451502		0.00e0							
FUNCTION4 PFK			1.511e5					331096		1.60e6							
FUNCTION5 PFK			9.048e3					184760		4.73e5							
FUNCTION1 HXCD...			1.131e3					606		1.62e4							0.000
FUNCTION1 HPCD...			5.247e2					900		8.84e3							0.000
FUNCTION2 HPCD...			8.476e2					1136		1.98e4							0.000
FUNCTION3 OCDPE			4.428e2					714		7.64e3							0.000
FUNCTION4 NCDPE			0.000e0					982		0.00e0							
FUNCTION5 DCDPE			0.000e0					815		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
2	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
3	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
4	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
2	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
3	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
4	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
5	123468-HXCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
2	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

**ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001
5	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
6	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
7	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
8	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020
9	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
10	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
11	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
12	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
13	123468-HxCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610
14	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
15	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677
16	OCDF	45.36	3.958e5	4.645e5	1.186	0.85	0.89	3247.1	YES	NO	bb	bd	90.445
17	13468-PECDF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
2	Total-tetradoxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
3	Total-tetradoxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
4	Total-tetradoxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
5	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
6	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
2	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
3	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
4	Total-pentadoxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
2	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
3	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
4	Total-hexadioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
5	124679-HxCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
2	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
2	Total-tetradioxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
3	Total-tetradioxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
4	Total-tetradioxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
5	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
6	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
7	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987
8	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
9	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
10	Total-pentadioxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185
11	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
12	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
13	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
14	Total-hexadioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
15	124679-HxCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624
16	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
17	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500
18	OCDD	45.12	3.894e5	4.309e5	1.103	0.90	0.89	2068.3	YES	NO	bd	bb	92.775

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001
5	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
6	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
7	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
8	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020
9	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
10	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
11	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
12	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
13	123468-HXCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610
14	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
15	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677
16	OCDF	45.36	3.958e5	4.645e5	1.186	0.85	0.89	3247.1	YES	NO	bb	bd	90.445
17	13468-PECDF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645
18	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
19	Total-tetradiioxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
20	Total-tetradiioxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
21	Total-tetradiioxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
22	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
23	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
24	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987
25	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
26	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
27	Total-pentadiioxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185
28	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
29	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
30	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
31	Total-hexadiioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
32	124679-HXCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624
33	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
34	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500
35	OCDD	45.12	3.894e5	4.309e5	1.103	0.90	0.89	2068.3	YES	NO	bd	bb	92.775



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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.43	3.727e4					1.3	NO		bb		
2	FUNCTION1 PFK	23.18	1.916e4					1.1	NO		bb		
3	FUNCTION1 PFK	22.75	3.142e3					0.4	NO		bb		
4	FUNCTION1 PFK	22.69	1.169e4					0.7	NO		bb		
5	FUNCTION1 PFK	22.63	7.039e3					0.6	NO		bb		
6	FUNCTION1 PFK	22.57	1.283e4					0.8	NO		db		
7	FUNCTION1 PFK	22.51	2.158e4					1.2	NO		bd		
8	FUNCTION1 PFK	22.36	1.134e4					0.8	NO		bb		
9	FUNCTION1 PFK	22.22	4.269e4					1.3	NO		bb		
10	FUNCTION1 PFK	22.10	3.052e4					1.6	NO		bb		
11	FUNCTION1 PFK	21.62	2.765e4					1.4	NO		bb		
12	FUNCTION1 PFK	21.54	1.965e4					1.2	NO		bb		
13	FUNCTION1 PFK	21.48	1.090e4					0.8	NO		bb		
14	FUNCTION1 PFK	21.29	3.708e4					1.3	NO		bb		
15	FUNCTION1 PFK	26.79	7.221e3					0.6	NO		bb		
16	FUNCTION1 PFK	26.49	8.249e3					0.4	NO		bb		
17	FUNCTION1 PFK	26.41	9.337e3					0.7	NO		db		
18	FUNCTION1 PFK	26.35	9.113e3					0.6	NO		bd		
19	FUNCTION1 PFK	26.15	5.974e3					0.5	NO		bb		
20	FUNCTION1 PFK	26.09	1.716e4					0.9	NO		bb		
21	FUNCTION1 PFK	25.96	1.452e4					1.0	NO		bb		
22	FUNCTION1 PFK	25.59	3.325e3					0.4	NO		bb		
23	FUNCTION1 PFK	25.34	4.402e3					0.6	NO		bb		
24	FUNCTION1 PFK	24.87	9.404e3					0.7	NO		bb		
25	FUNCTION1 PFK	24.75	2.747e4					1.4	NO		bb		
26	FUNCTION1 PFK	24.35	3.959e3					0.5	NO		bb		
27	FUNCTION1 PFK	24.04	7.708e3					0.6	NO		bb		
28	FUNCTION1 PFK	23.69	6.646e3					0.9	NO		bb		
29	FUNCTION1 PFK	23.63	5.706e3					0.6	NO		db		
30	FUNCTION1 PFK	23.57	2.430e4					1.1	NO		bd		
31	FUNCTION1 PFK	28.10	1.253e4					0.8	NO		bb		
32	FUNCTION1 PFK	28.03	8.849e3					0.7	NO		bb		
33	FUNCTION1 PFK	27.95	1.020e4					0.7	NO		bb		
34	FUNCTION1 PFK	27.88	1.726e4					1.1	NO		bb		
35	FUNCTION1 PFK	27.76	3.581e3					0.5	NO		bb		
36	FUNCTION1 PFK	27.41	1.709e4					1.1	NO		bb		
37	FUNCTION1 PFK	27.26	1.794e4					1.0	NO		bb		

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**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	1.511e5					4.8	YES		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.55	2.727e3					1.0	NO		bb		
2	FUNCTION5 PFK	43.63	6.321e3					1.6	NO		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.22	7.029e1					2.0	NO		bb		0.000
2	FUNCTION1 HXCD...	27.79	7.872e1					1.6	NO		bb		0.000
3	FUNCTION1 HXCD...	27.44	8.510e1					1.7	NO		bb		0.000
4	FUNCTION1 HXCD...	27.24	1.425e2					4.1	YES		bb		0.000
5	FUNCTION1 HXCD...	26.86	9.476e1					2.1	NO		bb		0.000
6	FUNCTION1 HXCD...	26.52	1.068e2					2.9	NO		bb		0.000
7	FUNCTION1 HXCD...	24.76	1.755e2					3.8	YES		db		0.000
8	FUNCTION1 HXCD...	24.66	1.713e2					3.1	YES		bd		0.000
9	FUNCTION1 HXCD...	22.65	7.687e1					2.7	NO		bb		0.000
10	FUNCTION1 HXCD...	21.59	1.290e2					2.9	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

**ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk****ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	28.01	1.182e2					1.3	NO		bb		0.000
2	FUNCTION1 HPCD...	26.91	1.043e2					2.5	NO		bb		0.000
3	FUNCTION1 HPCD...	26.31	8.865e1					2.0	NO		bb		0.000
4	FUNCTION1 HPCD...	24.76	1.293e2					2.4	NO		bb		0.000
5	FUNCTION1 HPCD...	22.60	8.433e1					1.6	NO		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.44	1.012e2					2.5	NO		bb		0.000
2	FUNCTION2 HPCD...	31.41	1.119e2					1.8	NO		db		0.000
3	FUNCTION2 HPCD...	31.27	2.407e2					5.1	YES		bd		0.000
4	FUNCTION2 HPCD...	30.62	8.382e1					2.0	NO		db		0.000
5	FUNCTION2 HPCD...	30.52	8.939e1					1.4	NO		bd		0.000
6	FUNCTION2 HPCD...	28.80	1.157e2					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	28.49	1.048e2					3.0	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.99	8.499e1					2.5	NO		bb		0.000
2	FUNCTION3 OCDPE	34.37	1.004e2					2.7	NO		bb		0.000
3	FUNCTION3 OCDPE	33.49	7.795e1					2.6	NO		bb		0.000
4	FUNCTION3 OCDPE	33.13	1.794e2					2.9	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**ETHERS6**

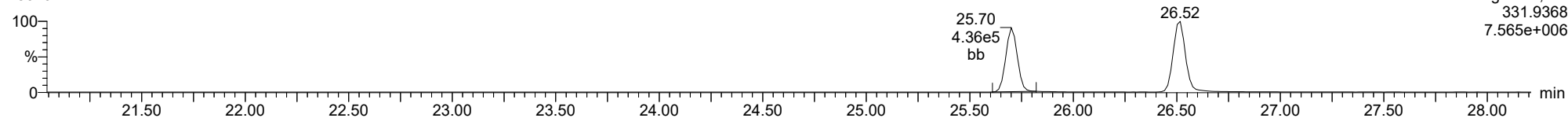
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

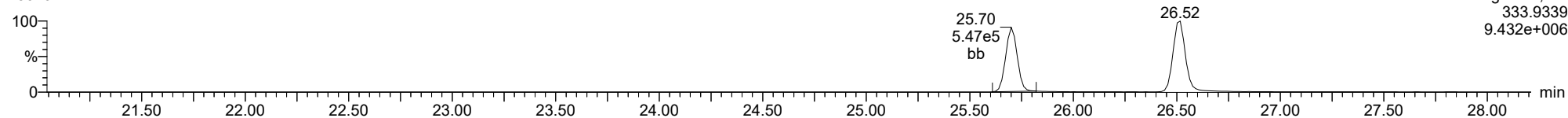
23020111



F1:Voltage SIR,El+  
331.9368  
7.565e+006

**13C-1234-TCDD**

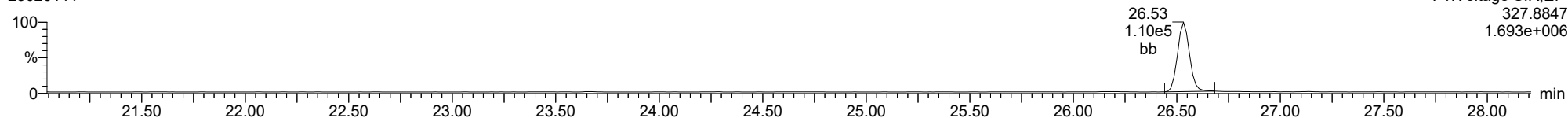
23020111



F1:Voltage SIR,El+  
333.9339  
9.432e+006

**37CL-2378-TCDD**

23020111

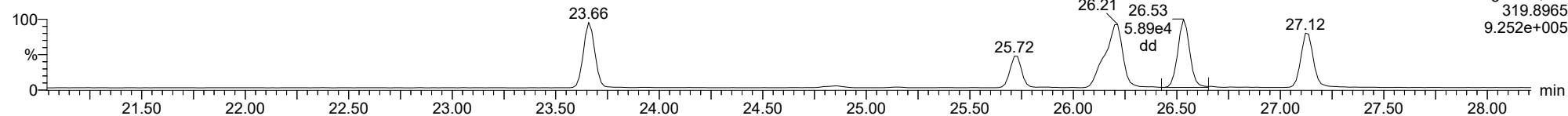


F1:Voltage SIR,El+  
327.8847  
1.693e+006

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

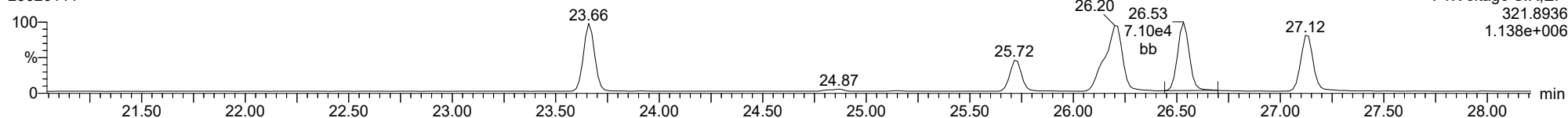
**2378-TCDD**

23020111



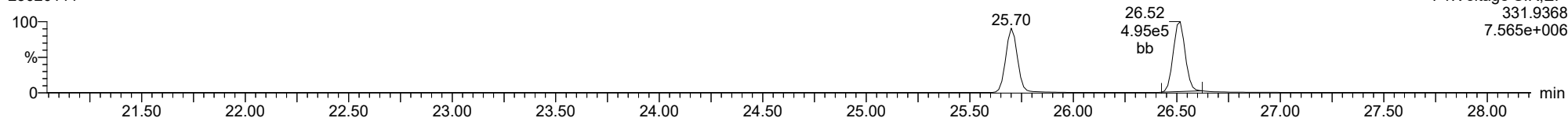
**2378-TCDD**

23020111



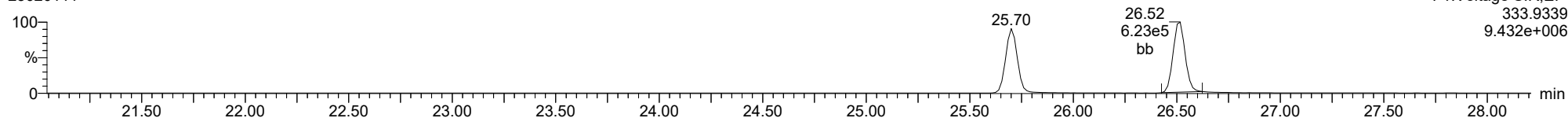
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23020111



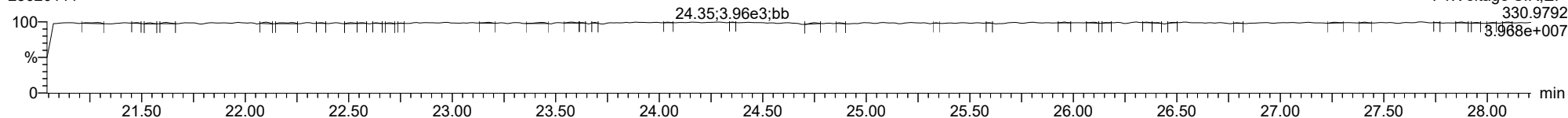
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23020111



**FUNCTION1 PFK**

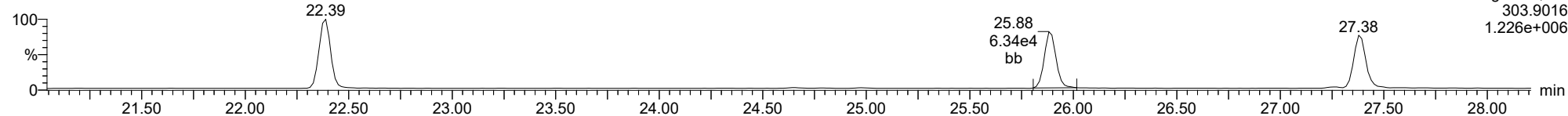
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

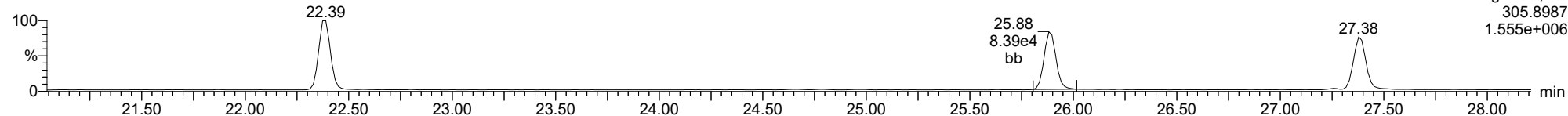
**2378-TCDF**

23020111



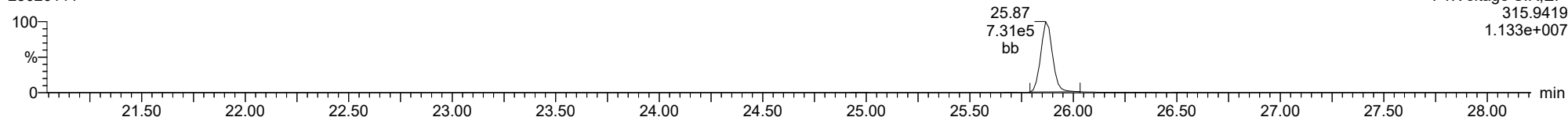
**2378-TCDF**

23020111



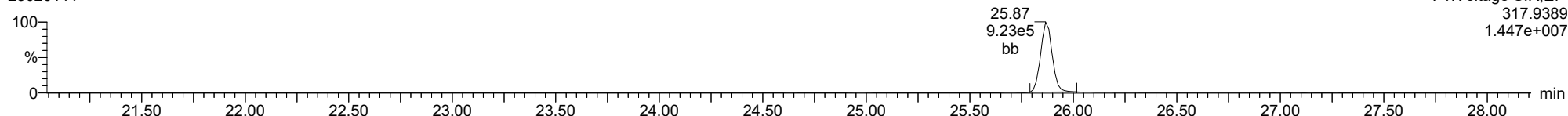
**13C-2378-TCDF**

23020111



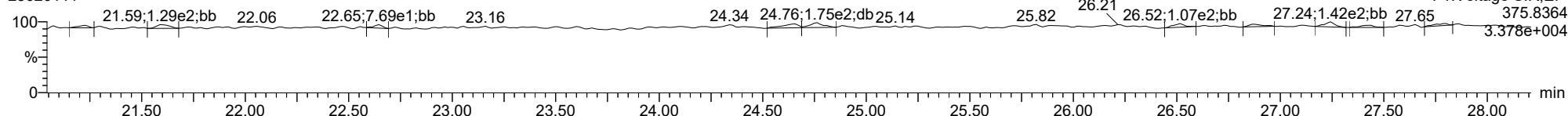
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23020111



**FUNCTION1 HXCDPE**

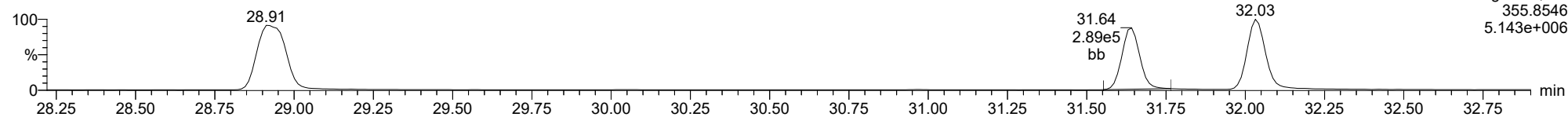
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

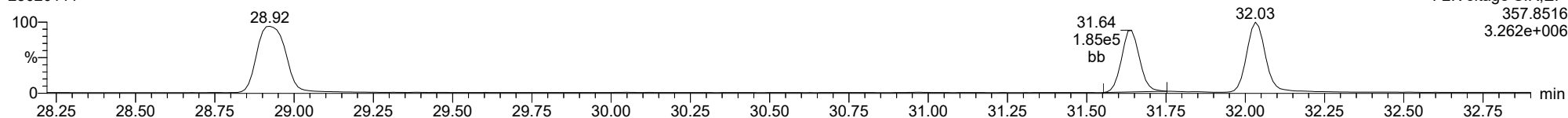
**12378-PeCDD**

23020111



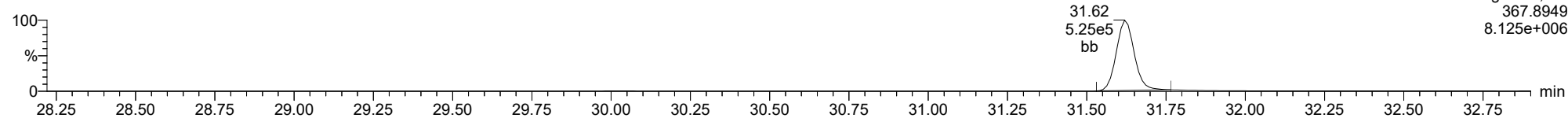
**12378-PeCDD**

23020111



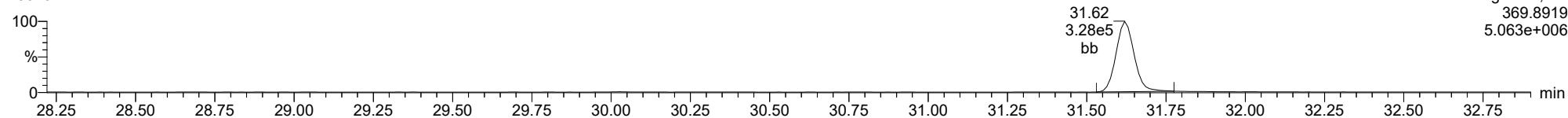
**13C-12378-PeCDD**

23020111



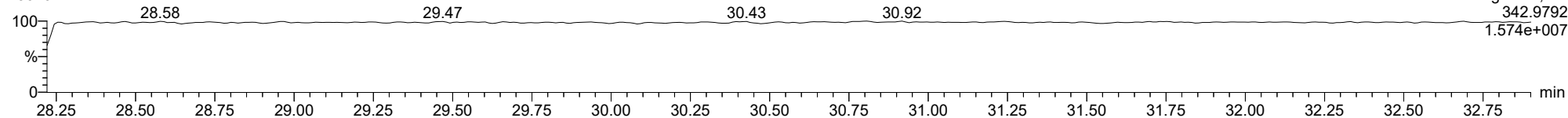
**13C-12378-PeCDD**

23020111



**FUNCTION2 PFK**

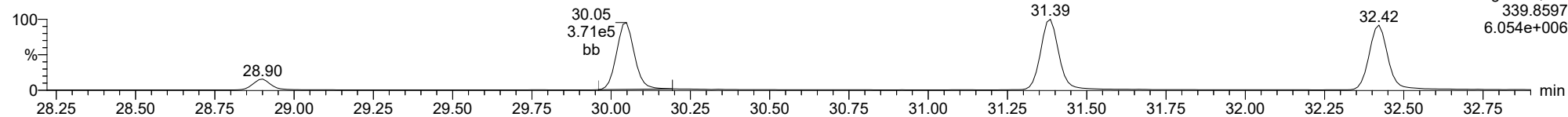
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

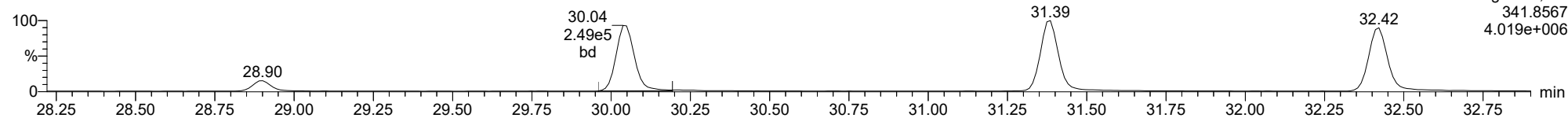
**12378-PeCDF**

23020111



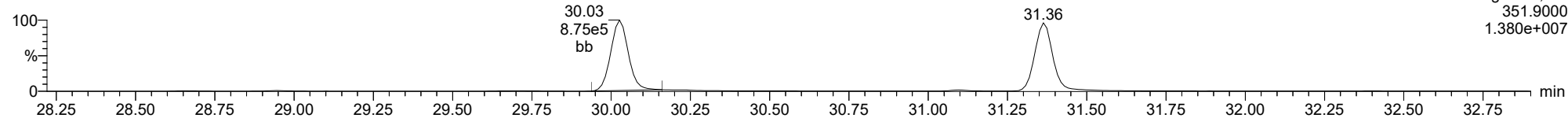
**12378-PeCDF**

23020111



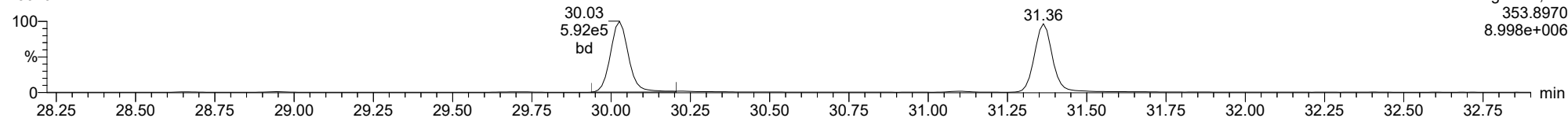
**13C-12378-PeCDF**

23020111



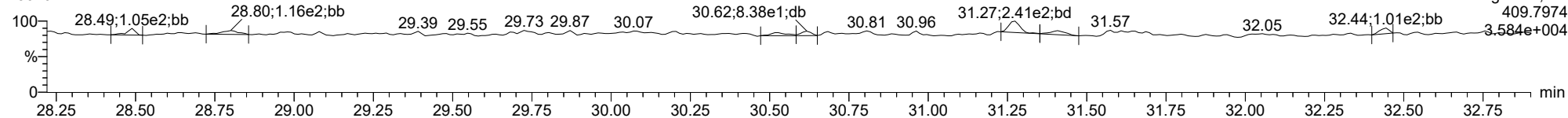
**13C-12378-PeCDF**

23020111



**FUNCTION2 HPCDPE**

23020111

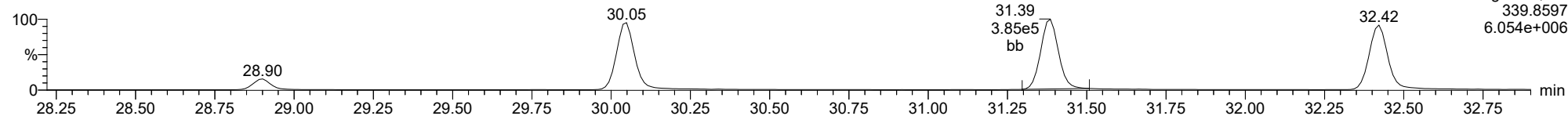




ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

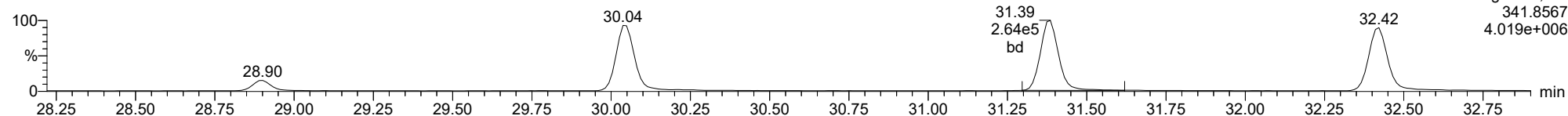
**23478-PeCDF**

23020111



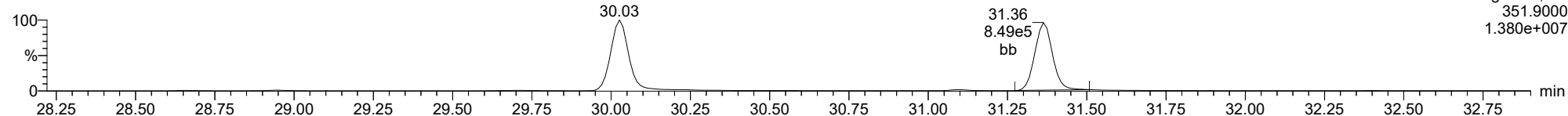
**23478-PeCDF**

23020111



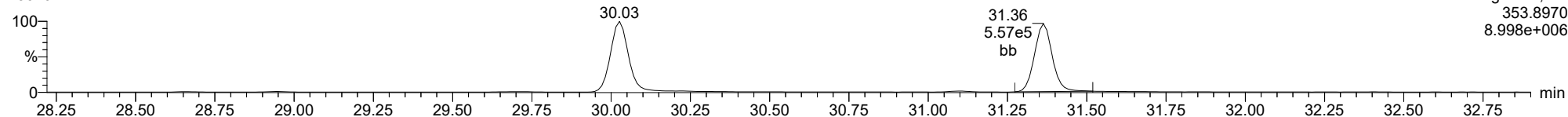
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23020111



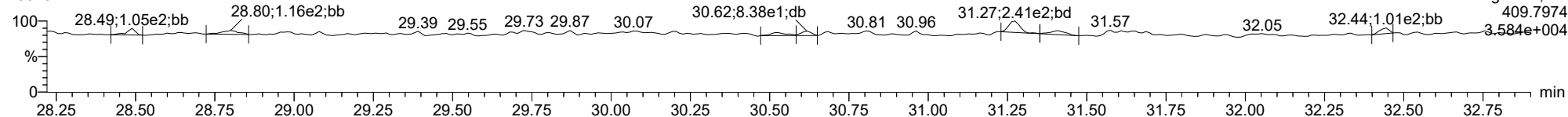
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23020111



**FUNCTION2 HPCDPE**

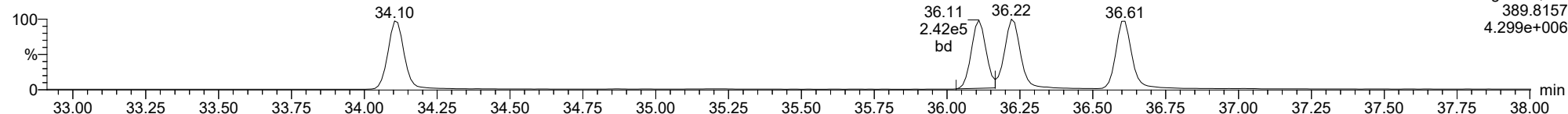
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

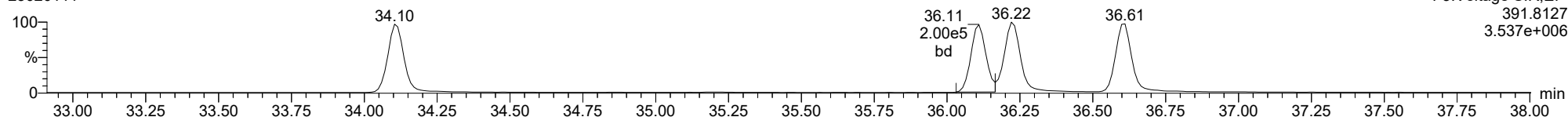
**123478-HxCDD**

23020111



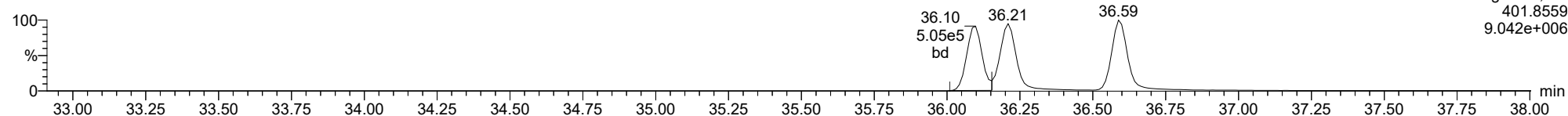
**123478-HxCDD**

23020111



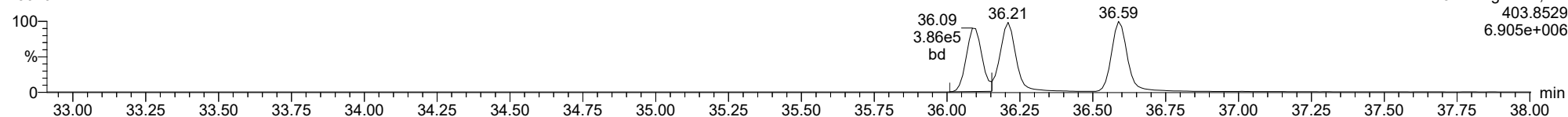
**13C-123478-HxCDD**

23020111



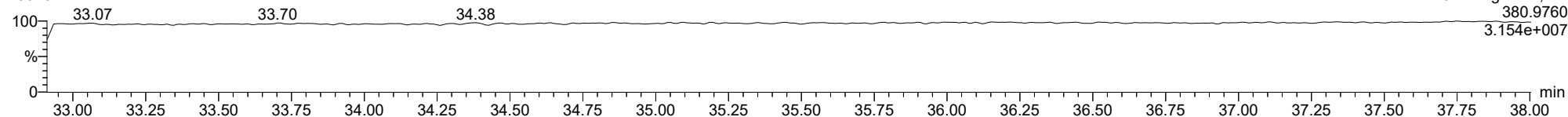
**13C-123478-HxCDD**

23020111



**FUNCTION3 PFK**

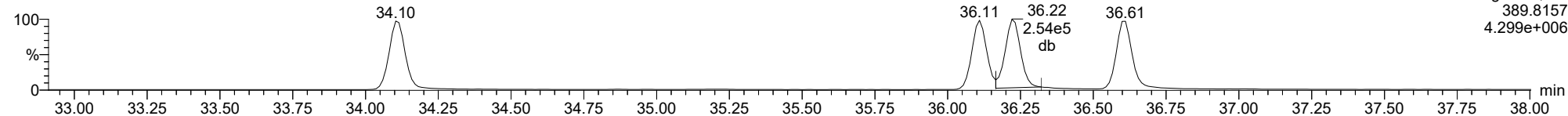
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

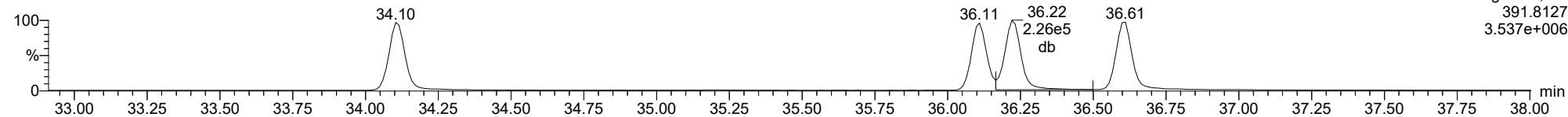
**123678-HxCDD**

23020111



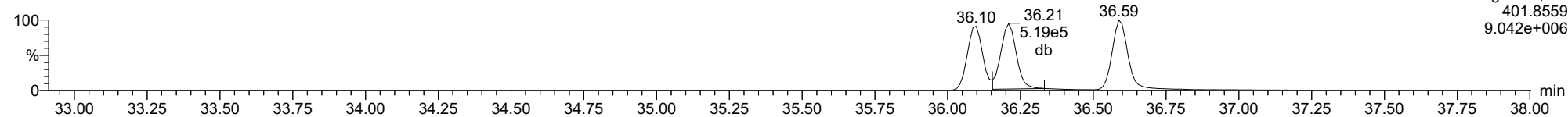
**123678-HxCDD**

23020111



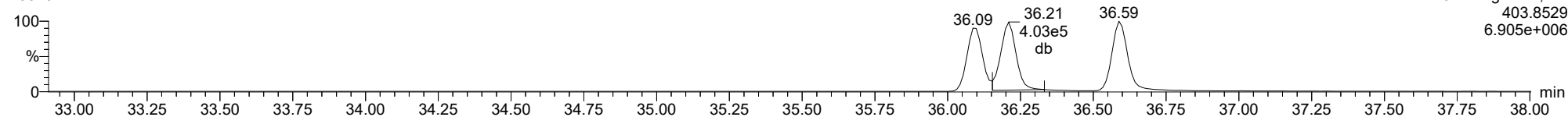
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23020111



**13C-123678-HxCDD**

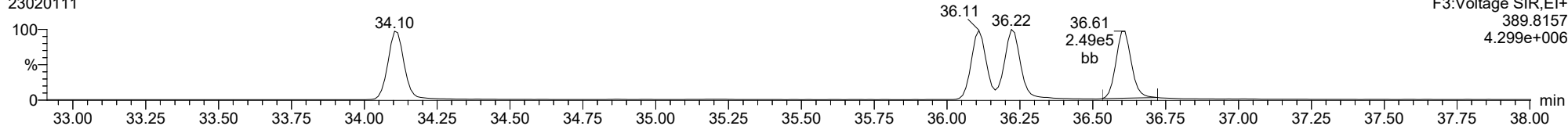
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

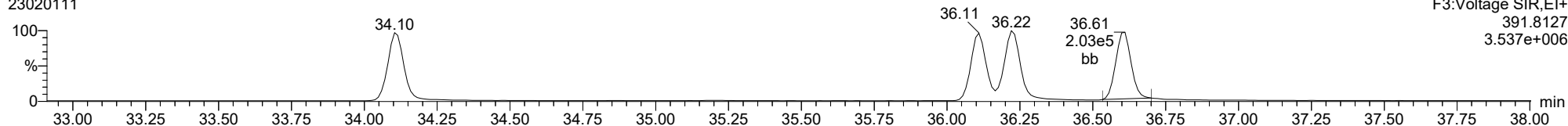
**123789-HxCDD**

23020111



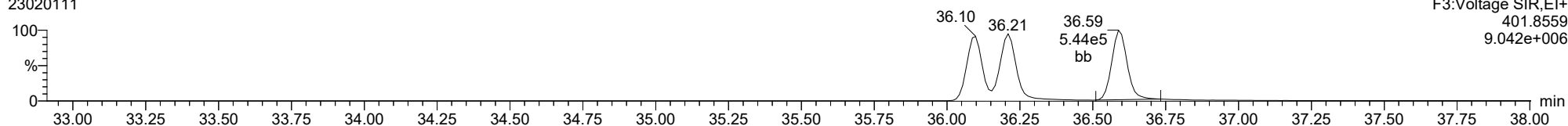
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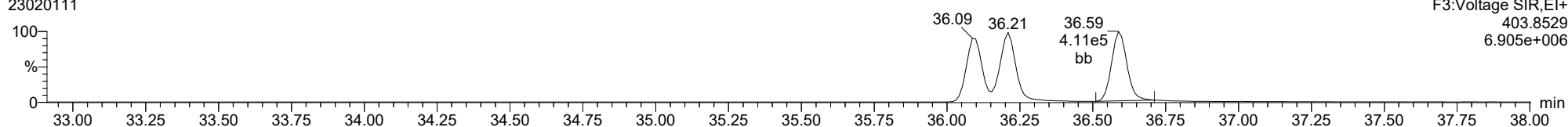
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**13C-123789-HxCDD**

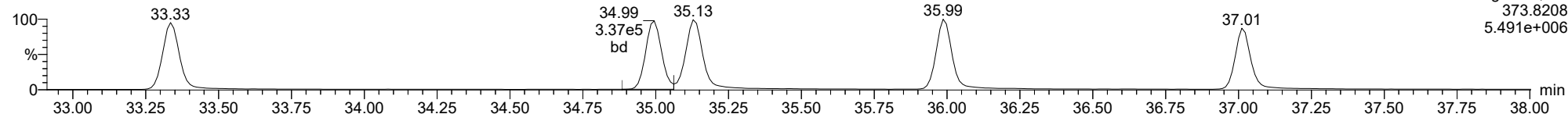
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

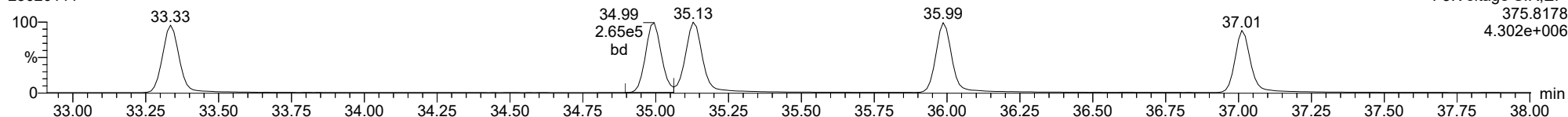
**123478-HxCDF**

23020111



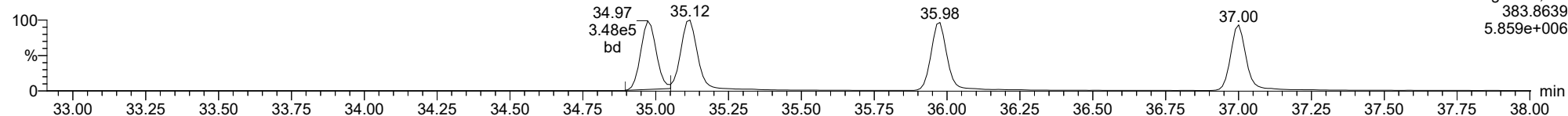
**123478-HxCDF**

23020111



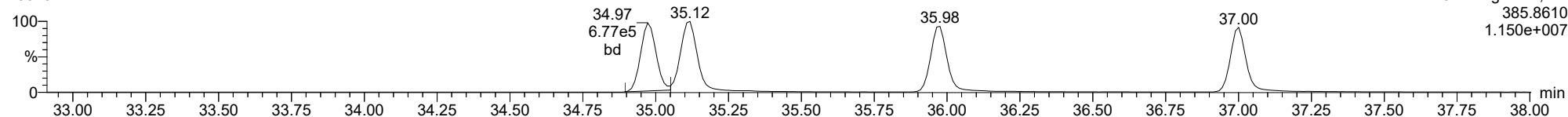
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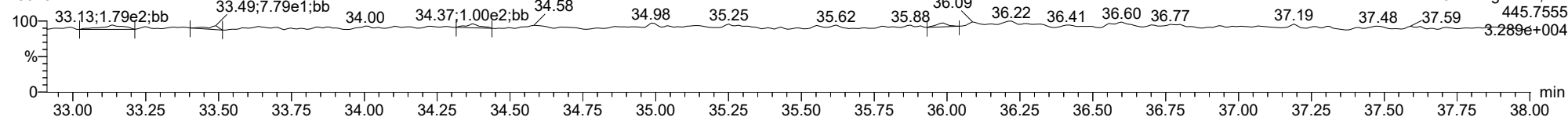
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23020111



**FUNCTION3 OCDPE**

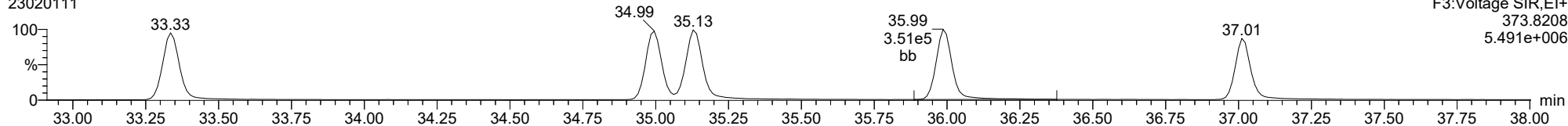
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

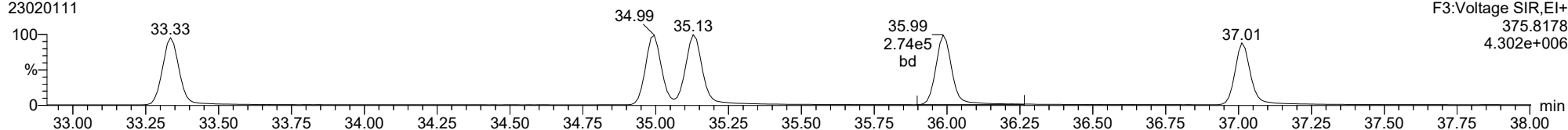
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23020111



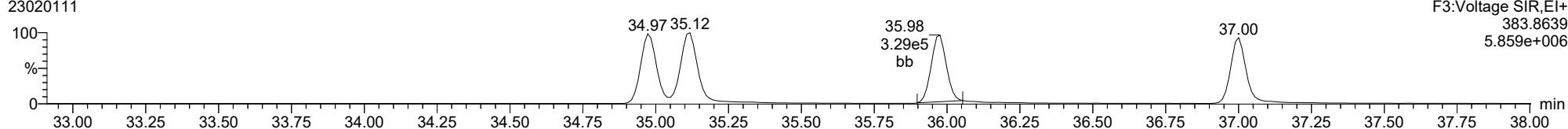
**234678-HxCDF**

23020111



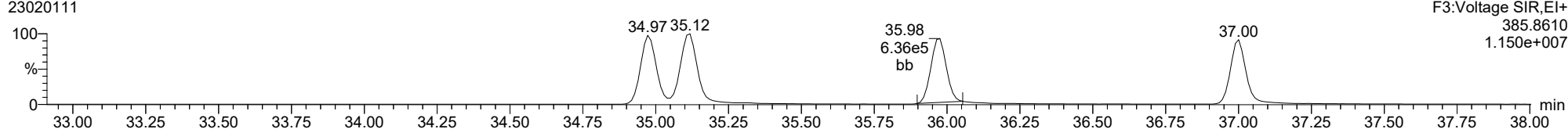
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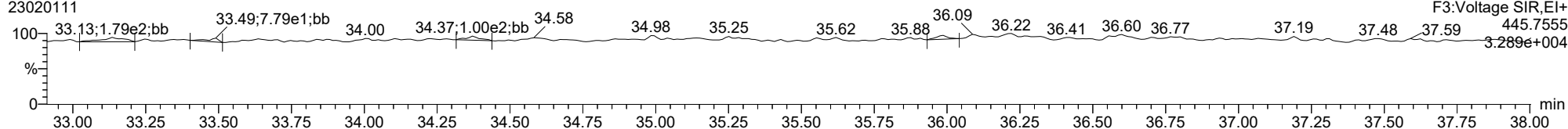
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**FUNCTION3 OCDPE**

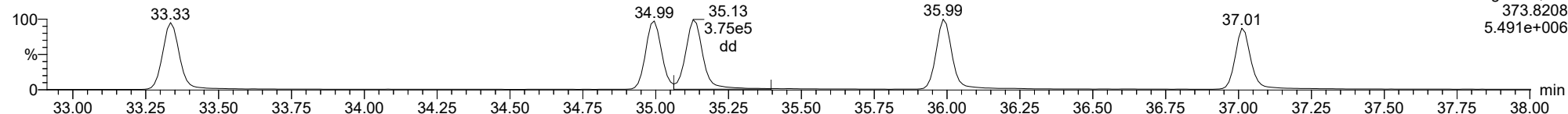
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

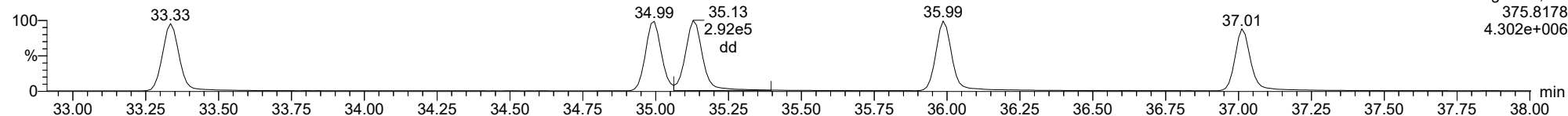
**123678-HxCDF**

23020111



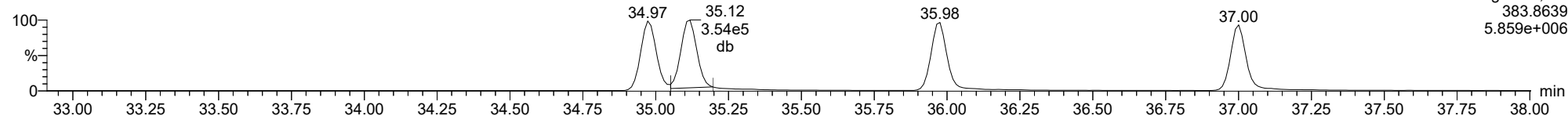
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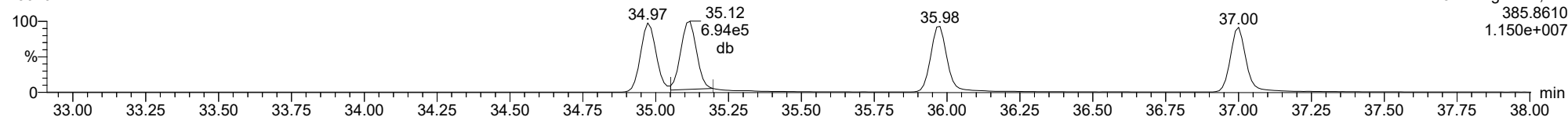
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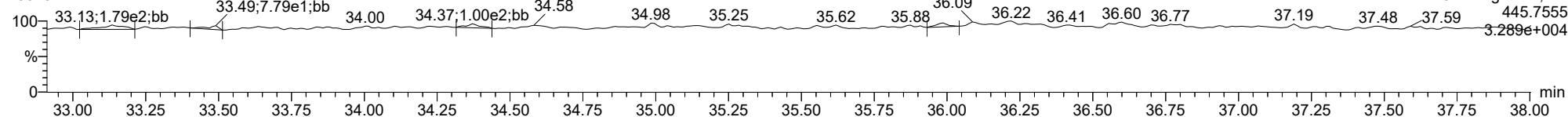
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**FUNCTION3 OCDPE**

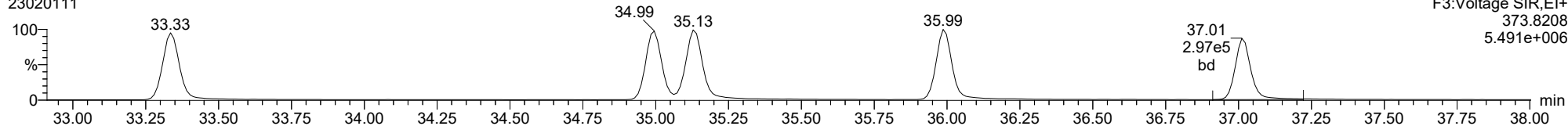
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

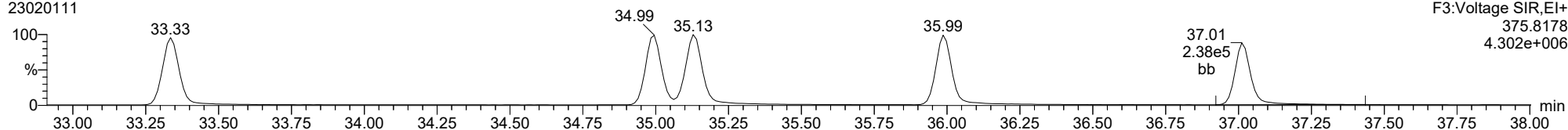
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23020111



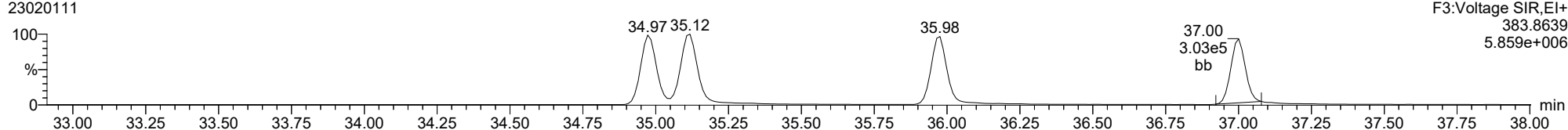
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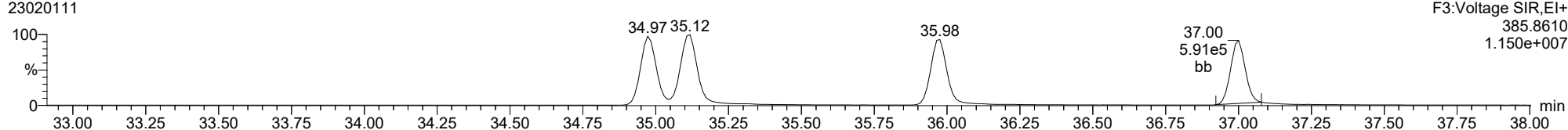
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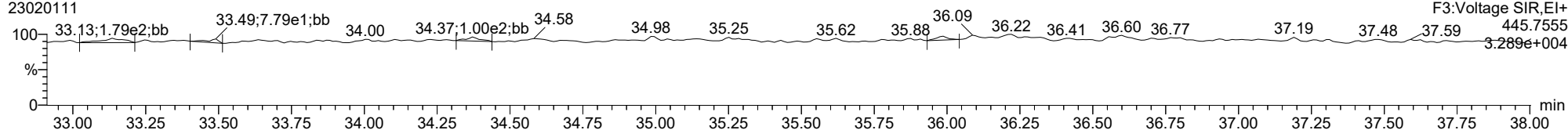
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23020111



**FUNCTION3 OCDPE**

23020111

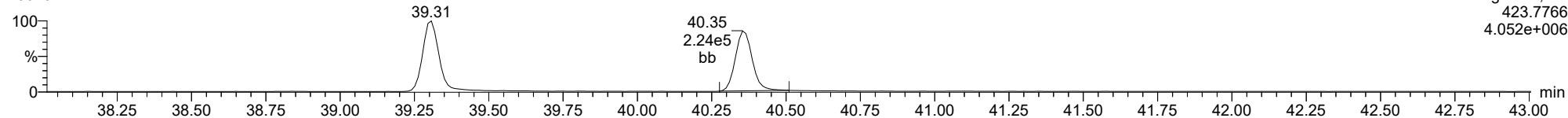




ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

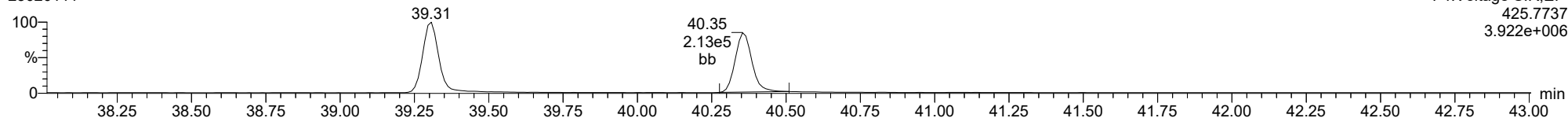
1234678-HpCDD

23020111



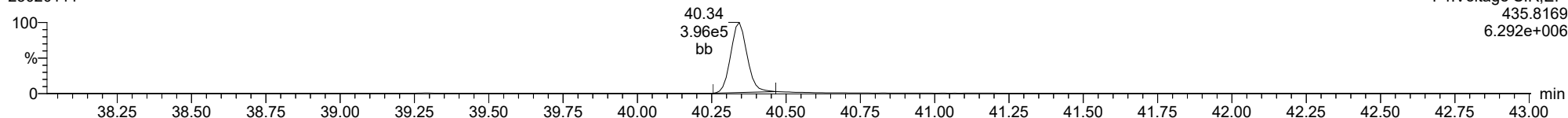
1234678-HpCDD

23020111



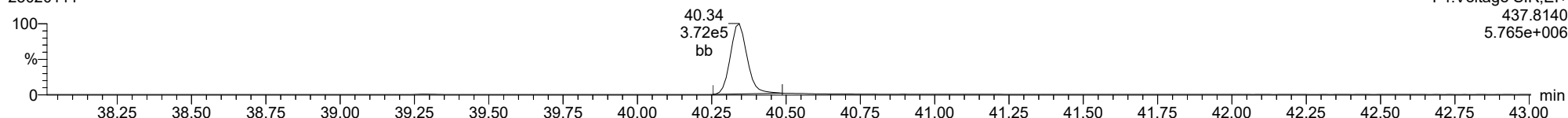
13C-1234678-HpCDD

23020111



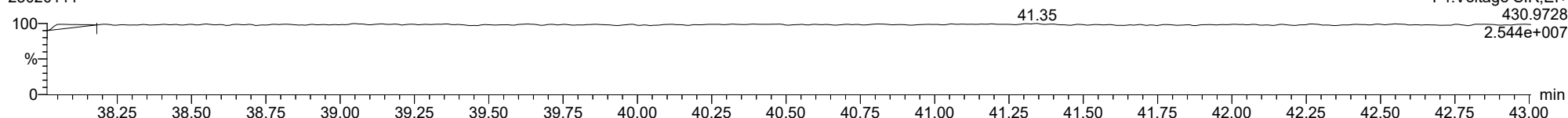
13C-1234678-HpCDD

23020111



FUNCTION4 PFK

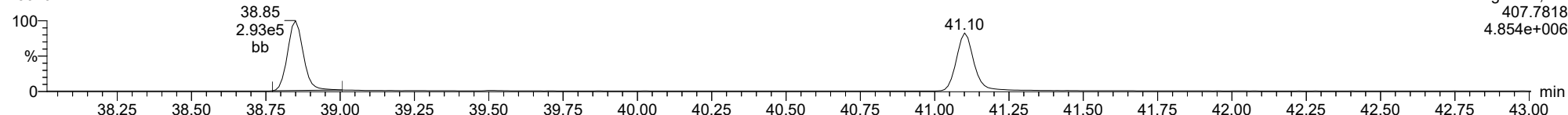
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

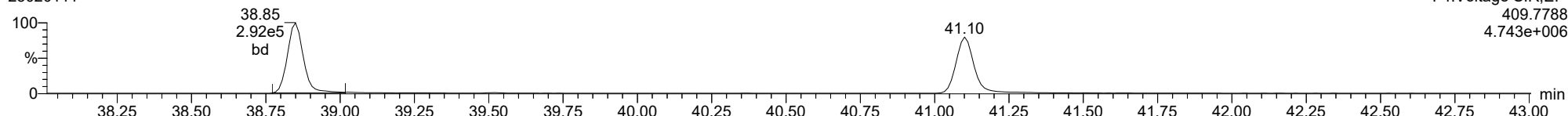
**1234678-HpCDF**

23020111



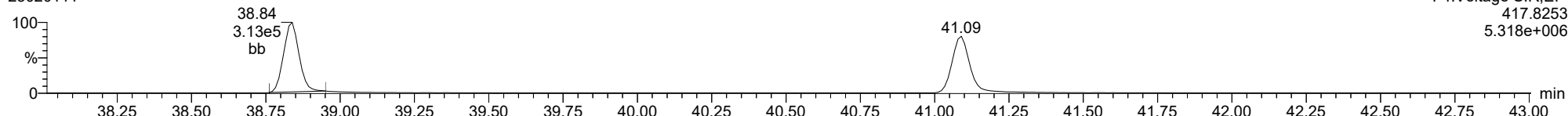
**1234678-HpCDF**

23020111



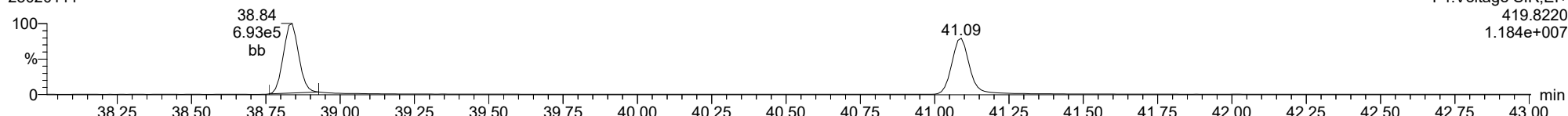
**13C-1234678-HpCDF**

23020111



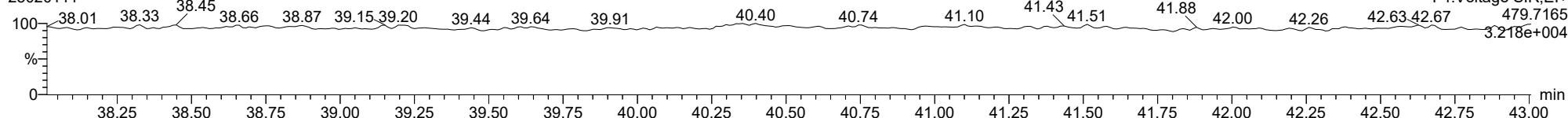
**13C-1234678-HpCDF**

23020111



**FUNCTION4 NCDPE**

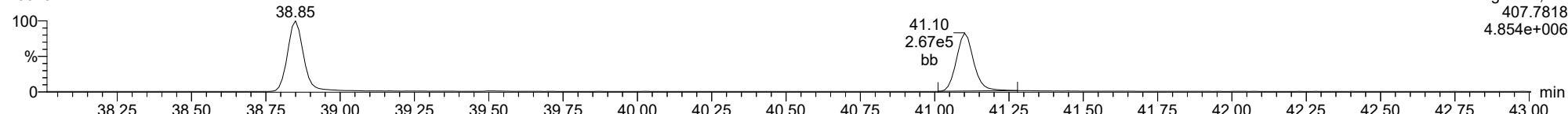
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

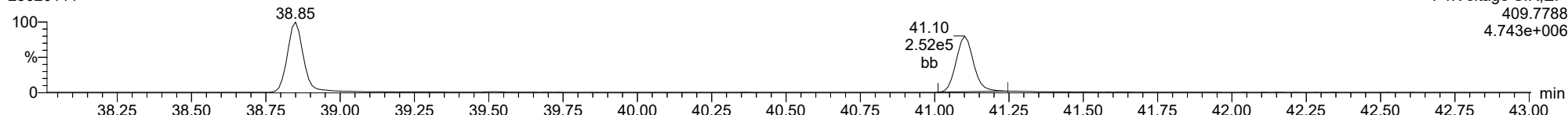
**1234789-HpCDF**

23020111



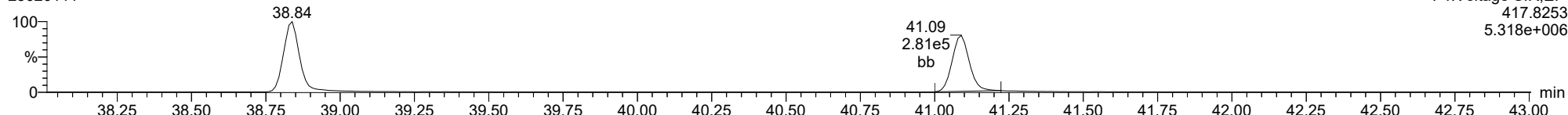
**1234789-HpCDF**

23020111



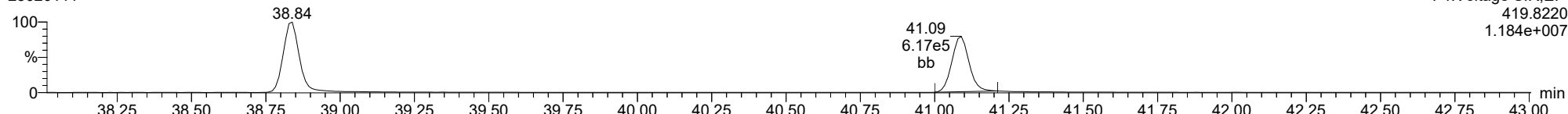
**13C-1234789-HpCDF**

23020111



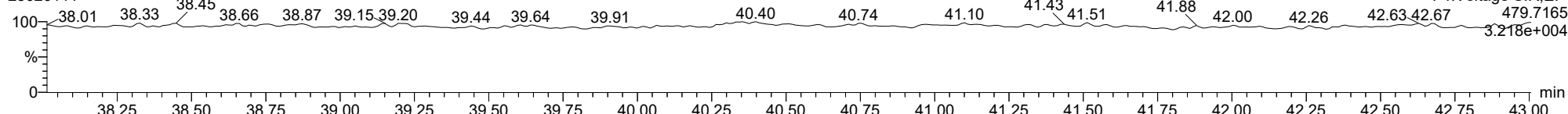
**13C-1234789-HpCDF**

23020111



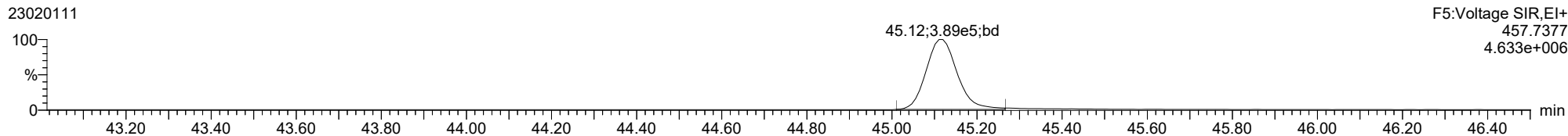
**FUNCTION4 NCDPE**

23020111

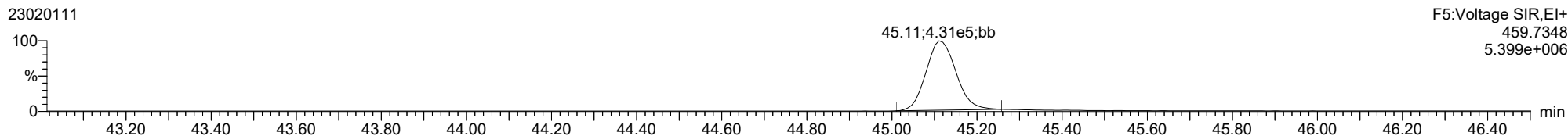


ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

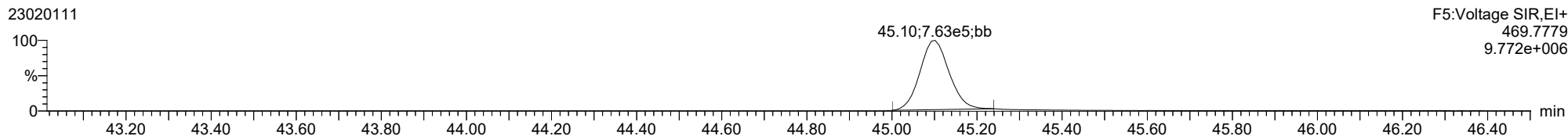
**OCDD**



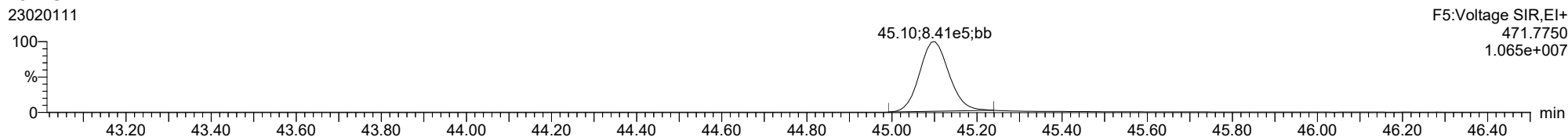
**OCDD**



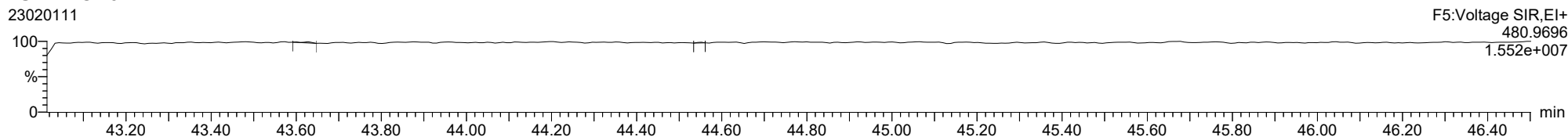
**13C-OCDD**



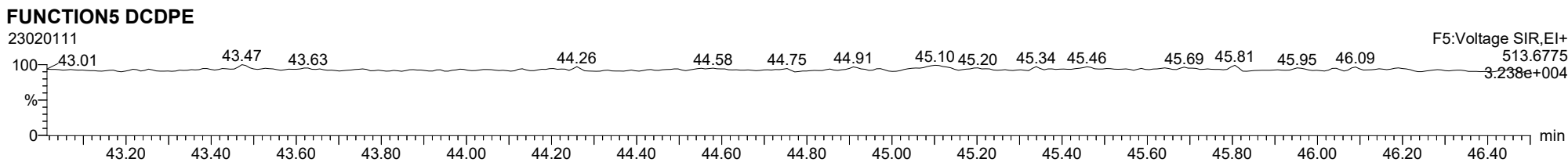
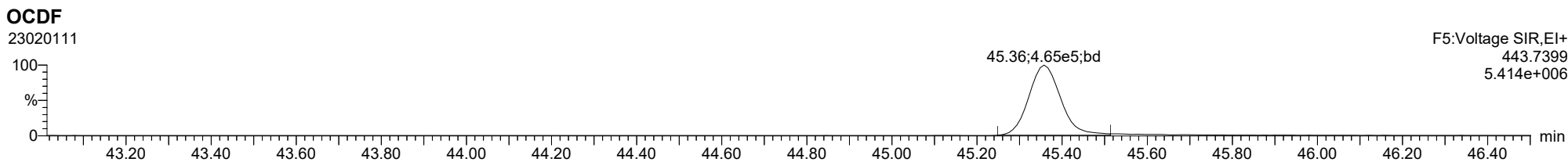
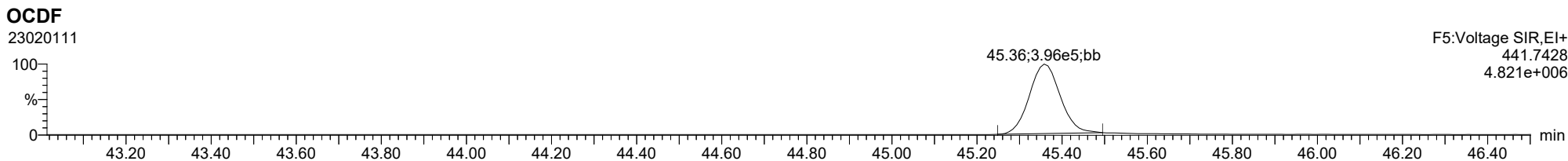
**13C-OCDD**



**FUNCTION5 PFK**



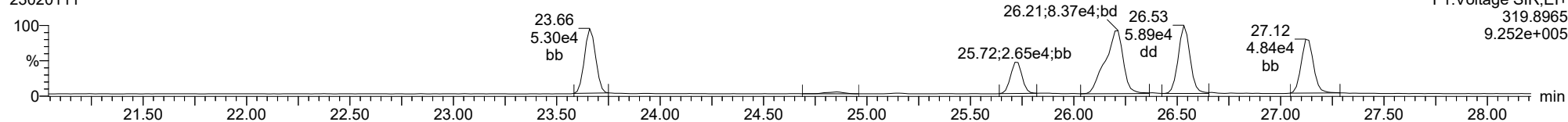
ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

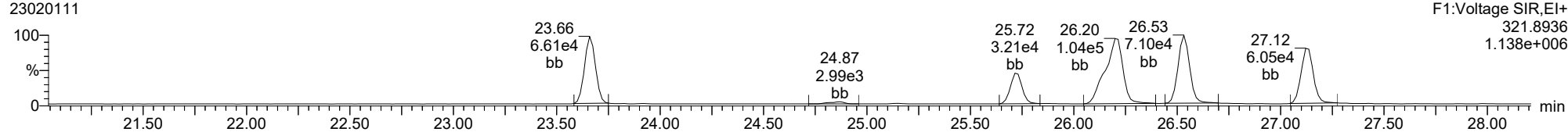
**Total-tetradoxins**

23020111



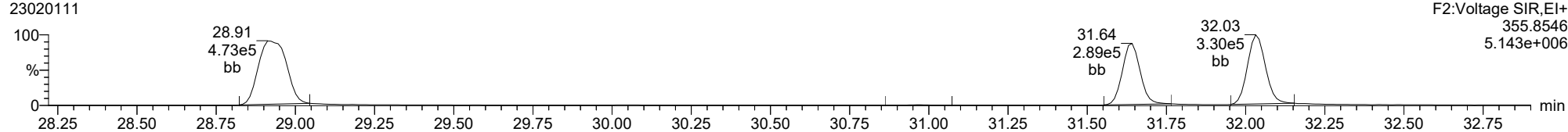
**Total-tetradoxins**

23020111



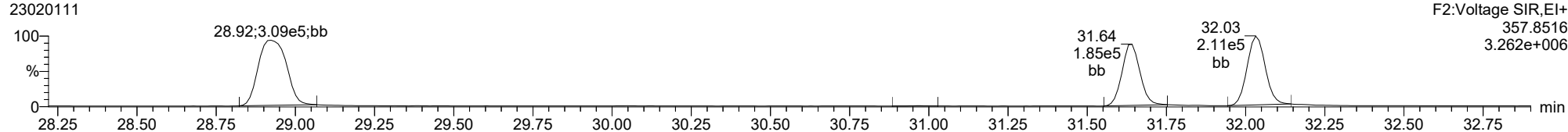
**Total-pentadoxins**

23020111



**Total-pentadoxins**

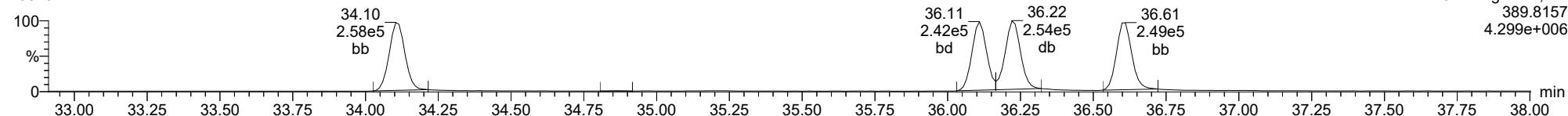
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

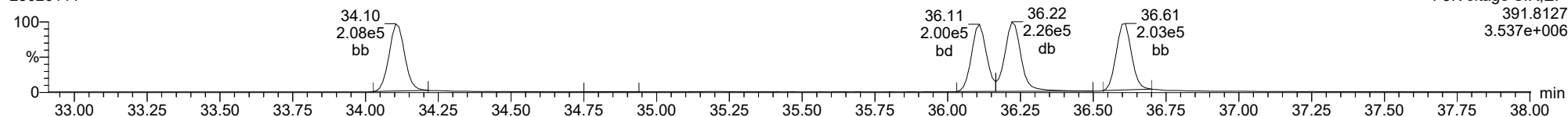
**Total-hexadioxins**

23020111



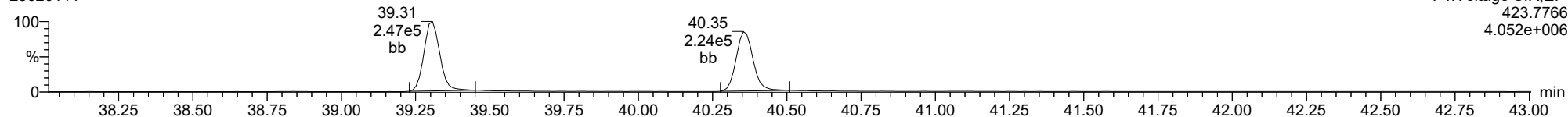
**Total-hexadioxins**

23020111



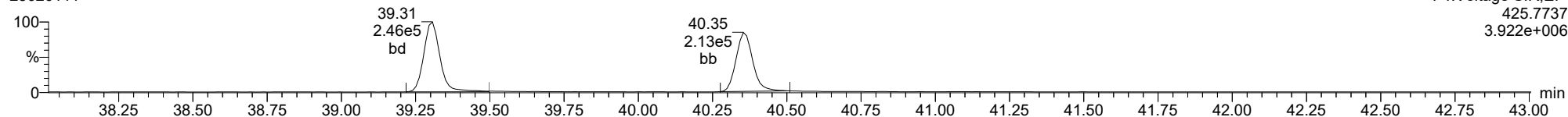
**Total-heptadioxins**

23020111



**Total-heptadioxins**

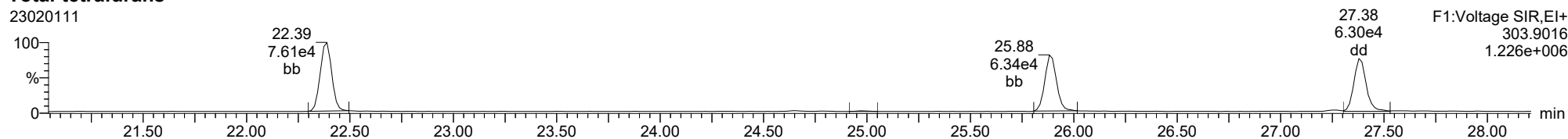
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

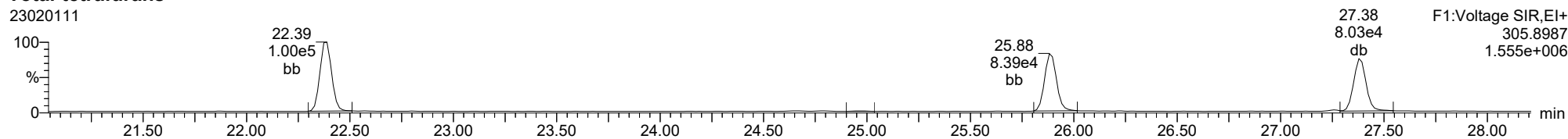
**Total-tetrafurans**

23020111



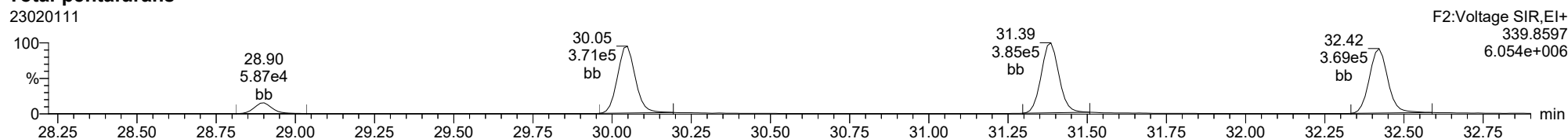
**Total-tetrafurans**

23020111



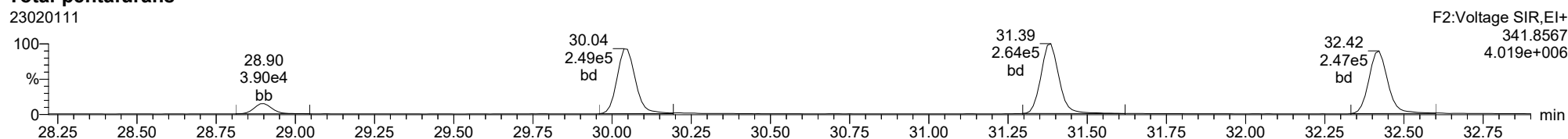
**Total-pentafurans**

23020111



**Total-pentafurans**

23020111

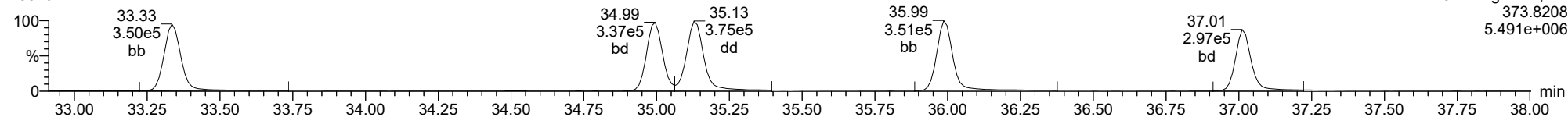




ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

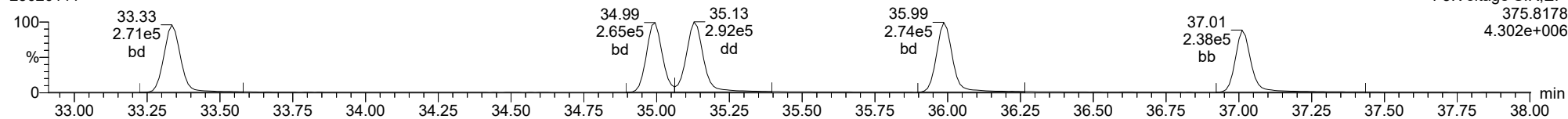
**Total-hexafurans**

23020111



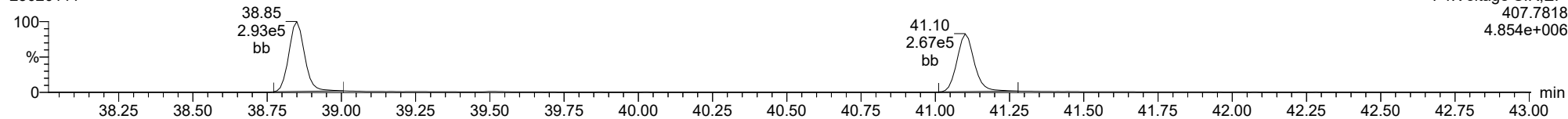
**Total-hexafurans**

23020111



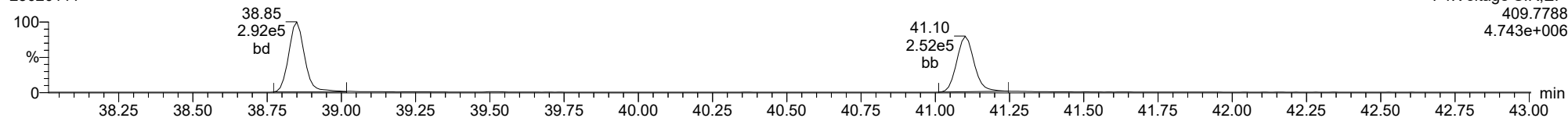
**Total-heptafurans**

23020111

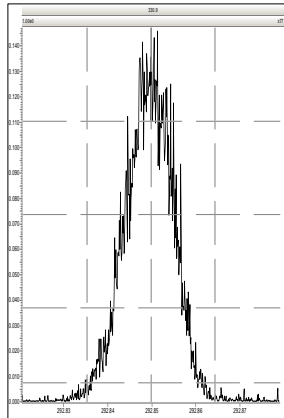


**Total-heptafurans**

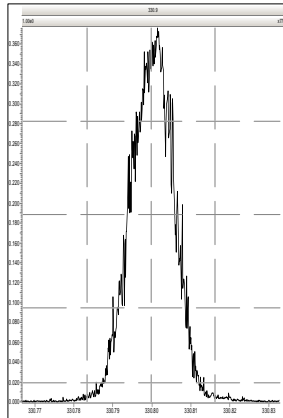
23020111



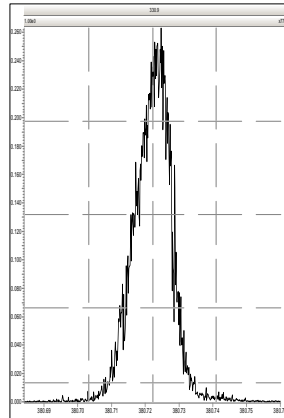
M 292.9824 R 12286



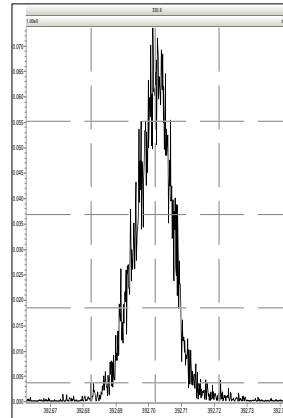
M 330.9792 R 13297



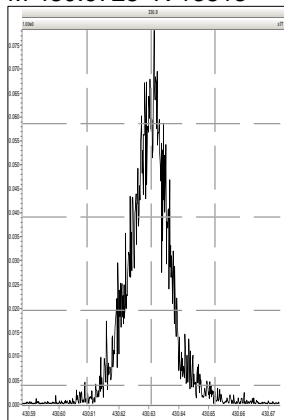
M 380.9760 R 15928



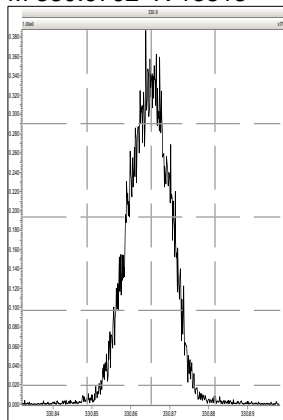
M 392.9760 R 16091



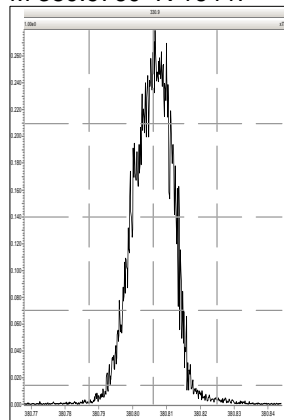
M 430.9728 R 13813



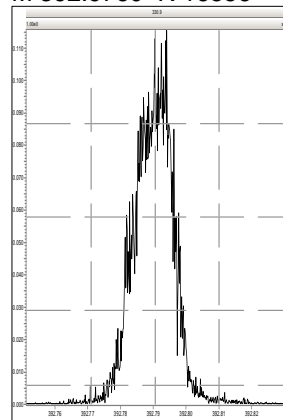
M 330.9792 R 13813



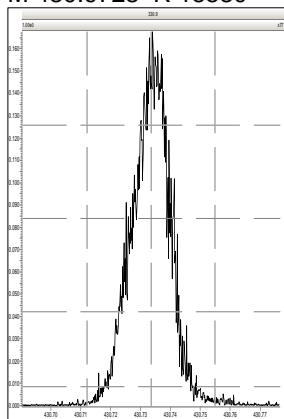
M 380.9760 R 16447



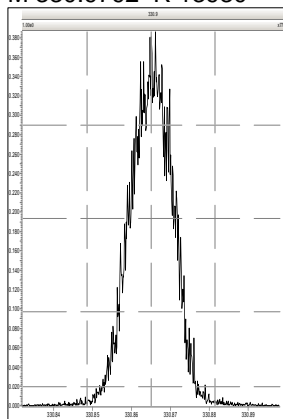
M 392.9760 R 16556



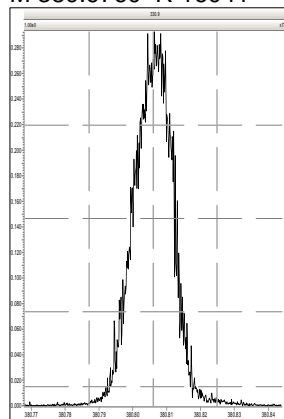
M 430.9728 R 15530



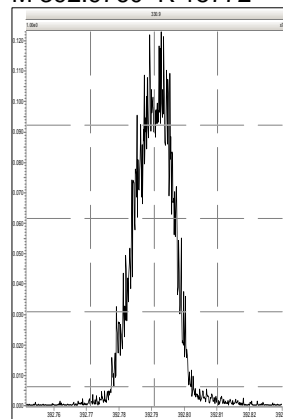
M 330.9792 R 13930



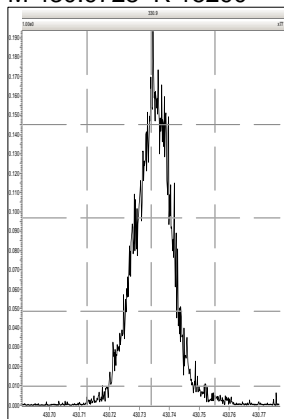
M 380.9760 R 16041



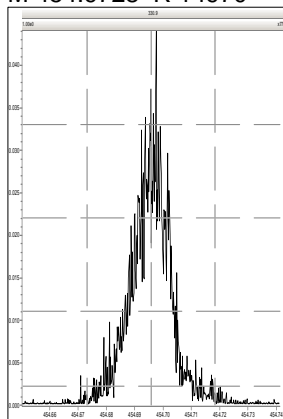
M 392.9760 R 15772



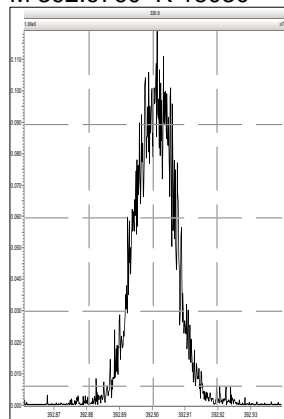
M 430.9728 R 15290



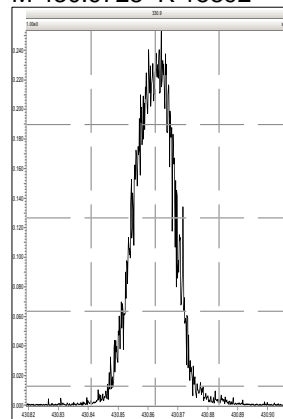
M 454.9728 R 14970



M 392.9760 R 15030

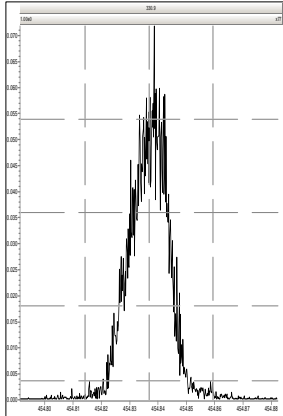


M 430.9728 R 15892

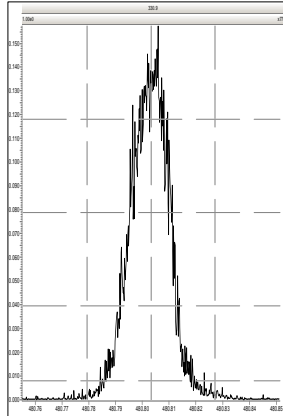


Printed: Wednesday, February 01, 2023 22:06:17 Pacific Standard Time

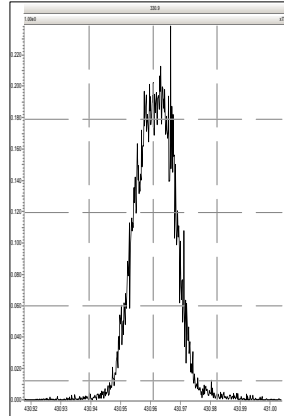
M 454.9728 R 15556



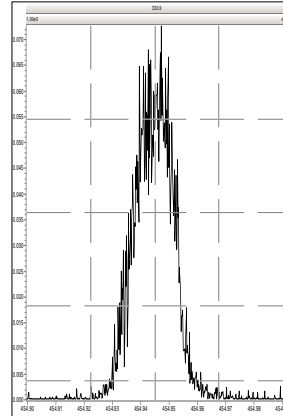
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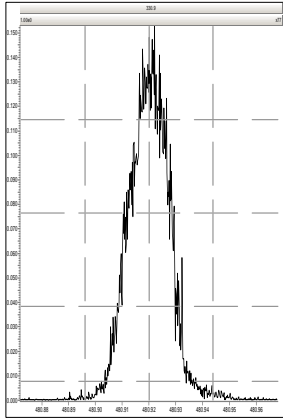
M 430.9728 R 15337



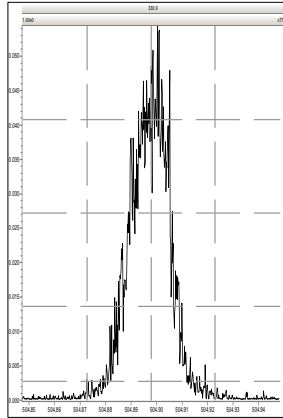
M 454.9728 R 16464



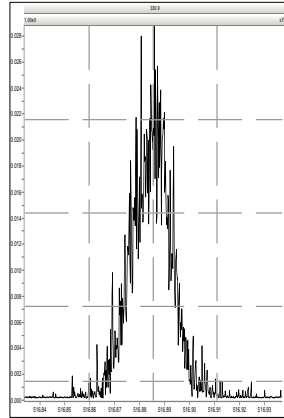
M 480.9696 R 15156



M 504.9696 R 14748



M 516.9697 R 15772

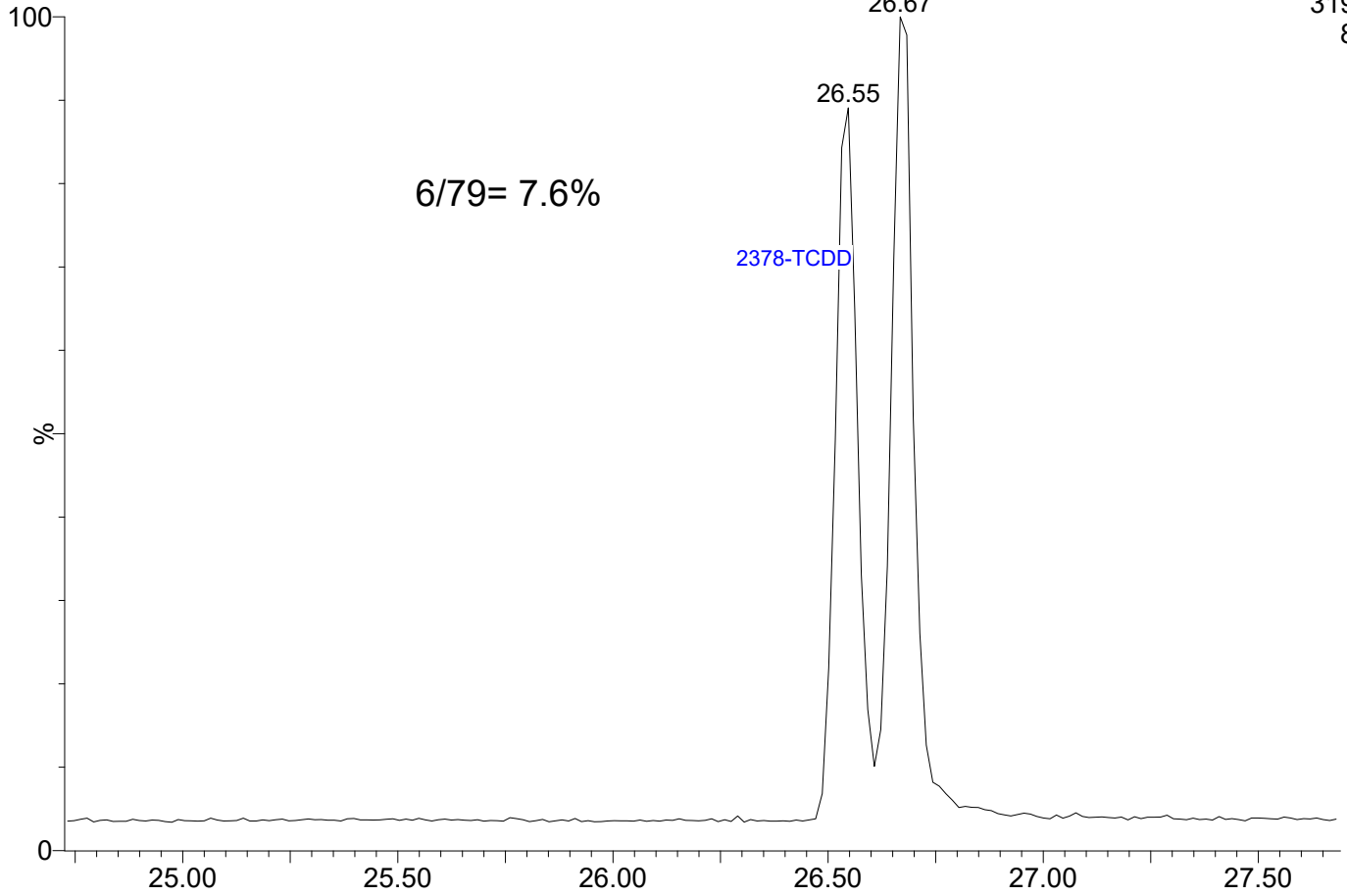


23020112

1: Voltage SIR 15 Channels EI+

319.8965

8.53e5

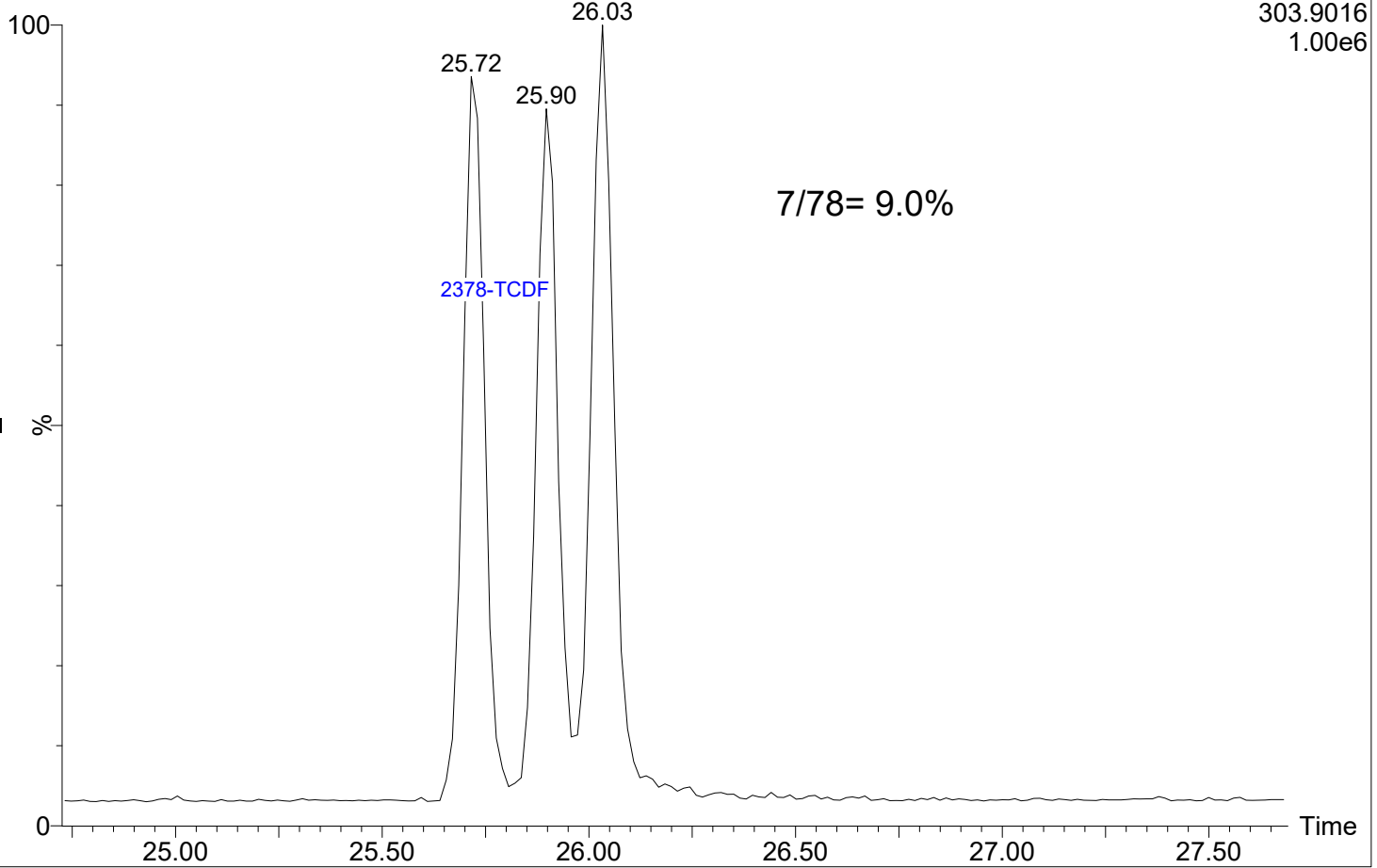


23020112

1: Voltage SIR 15 Channels EI+

303.9016

1.00e6





**SECOND-SOURCE CALIBRATION VERIFICATION**  
**EPA 1613B**

**Laboratory:** Analytical Resources, LLC

**SDG:** 22L0307

**Client:** Anchor QEA, LLC

**Project:** AOC4 UR Phase 3

**Calibration:** GB00010

**Laboratory ID:** SLB0026-SCV1

**Sequence:** SLB0026

**Sequence Name:** ICVCR

**Standard ID:** H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,3,7,8-TCDF	10.000	9.80	-2.0	
2,3,7,8-TCDD	10.000	10.1	1.0	
1,2,3,7,8-PeCDF	50.000	49.4	-1.1	
2,3,4,7,8-PeCDF	50.000	50.7	1.4	
1,2,3,7,8-PeCDD	50.000	48.9	-2.2	
1,2,3,4,7,8-HxCDF	50.000	50.8	1.7	
1,2,3,6,7,8-HxCDF	50.000	51.1	2.1	
2,3,4,6,7,8-HxCDF	50.000	51.5	3.1	
1,2,3,7,8,9-HxCDF	50.000	49.9	-0.2	
1,2,3,4,7,8-HxCDD	50.000	51.0	2.0	
1,2,3,6,7,8-HxCDD	50.000	48.3	-3.4	
1,2,3,7,8,9-HxCDD	50.000	49.6	-0.8	
1,2,3,4,6,7,8-HpCDF	50.000	49.0	-2.0	
1,2,3,4,7,8,9-HpCDF	50.000	51.5	2.9	
1,2,3,4,6,7,8-HpCDD	50.000	48.8	-2.3	
OCDF	100.00	93.0	-7.0	
OCDD	100.00	95.8	-4.2	
13C12-2,3,7,8-TCDF	100.00	101	0.8	
13C12-2,3,7,8-TCDD	100.00	97.3	-2.7	
13C12-1,2,3,7,8-PeCDF	100.00	97.9	-2.1	
13C12-2,3,4,7,8-PeCDF	100.00	96.0	-4.0	
13C12-1,2,3,7,8-PeCDD	100.00	95.6	-4.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	99.0	-1.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.8	-1.2	
13C12-2,3,4,6,7,8-HxCDF	100.00	99.3	-0.7	
13C12-1,2,3,7,8,9-HxCDF	100.00	98.6	-1.4	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,6,7,8-HxCDD	100.00	101	0.6	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	100	0.3	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	101	0.8	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	101	0.6	
13C12-OCDD	200.00	205	2.6	
37Cl4-2,3,7,8-TCDD	10.000	8.94	-10.6	



**SECOND-SOURCE CALIBRATION VERIFICATION**  
**EPA 1613B**

**Laboratory:** Analytical Resources, LLC

**Client:** Anchor QEA, LLC

**Calibration:** GB00010

**Sequence:** SLB0026

**SDG:** 22L0307

**Project:** AOC4 UR Phase 3

**Laboratory ID:** SLB0026-SCV1

**Sequence Name:** ICVCR

**Standard ID:** H008219

\* Indicates values outside of QC limits



**SECOND-SOURCE  
CALIBRATION VERIFICATION**

**EPA 1613B**

**Laboratory:** Analytical Resources, LLC

**SDG:** 22L0307

**Client:** Anchor QEA, LLC

**Project:** AOC4 UR Phase 3

**Calibration:** GB00010

**Laboratory ID:** SLB0026-SCV1

**Sequence:** SLB0026

**Standard ID:** H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
OCDF	100.00	93.0	-7.0	
OCDD	100.00	95.8	-4.2	
13C12-2,3,7,8-TCDF	100.00	101	0.8	
13C12-2,3,7,8-TCDD	100.00	97.3	-2.7	
13C12-1,2,3,7,8-PeCDF	100.00	97.9	-2.1	
13C12-2,3,4,7,8-PeCDF	100.00	96.0	-4.0	
13C12-1,2,3,7,8-PeCDD	100.00	95.6	-4.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	99.0	-1.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.8	-1.2	
13C12-2,3,4,6,7,8-HxCDF	100.00	99.3	-0.7	
13C12-1,2,3,7,8,9-HxCDF	100.00	98.6	-1.4	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,6,7,8-HxCDD	100.00	101	0.6	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	100	0.3	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	101	0.8	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	101	0.6	
13C12-OCDD	200.00	205	2.6	
37Cl4-2,3,7,8-TCDD	10.000	8.94	-10.6	

\* Values outside of QC limits



INITIAL CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020102

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-ICV1

Injection Time: 10:37

Sequence Name: CS3R1

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.00	0.8760604	0.7881394		-10.0	+/-16
2,3,7,8-TCDD	A	10.000	8.00	1.2363600	0.9890074		-20.0	+/-22
1,2,3,7,8-PeCDF	A	50.000	45.5	0.8446540	0.7681961		-9.1	+/-18
2,3,4,7,8-PeCDF	A	50.000	46.0	0.9111780	0.8383961		-8.0	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.7	1.0866850	1.0810230		-0.5	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	43.8	1.1816860	1.0352320		-12.4	+/-10 *
1,2,3,6,7,8-HxCDF	A	50.000	44.7	1.2480480	1.1146430		-10.7	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	45.6	1.2288500	1.1200940		-8.9	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	44.5	1.1865370	1.0560050		-11.0	+/-10 *
1,2,3,4,7,8-HxCDD	A	50.000	44.8	0.9869672	0.8835021		-10.5	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	43.8	1.0207220	0.8949701		-12.3	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	44.1	0.9854780	0.8698650		-11.7	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	45.1	1.2041190	1.0859080		-9.8	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.7	1.1653050	1.1124610		-4.5	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	44.2	1.2525690	1.1066520		-11.6	+/-14
OCDF	A	100.00	86.3	1.1862640	1.0243110		-13.7	+/-37
OCDD	A	100.00	90.9	1.1026670	1.0028370		-9.1	+/-21
13C12-2,3,7,8-TCDF	A	100.00	81.8	1.7680590	1.4469997		-18.2	+/-29
13C12-2,3,7,8-TCDD	A	100.00	103	1.1029470	1.1388769		3.3	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	97.0	1.5271250	1.4807739		-3.0	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	96.3	1.4662840	1.4126920		-3.7	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	97.3	0.9141518	0.8893426		-2.7	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	88.7	1.0536610	0.9345708		-11.3	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	89.6	1.0799530	0.9680754		-10.4	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	88.7	1.0143260	0.8993069		-11.3	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	87.8	0.9279333	0.8145455		-12.2	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	99.3	0.9329336	0.9264810		-0.7	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	102	0.9646272	0.9846310		2.1	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	80.6	1.0360890	0.8353360		-19.4	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	78.2	0.9049372	0.7072834		-21.8	+/-23

\* Values outside of QC limits





**INITIAL CALIBRATION CHECK**  
**EPA 1613B**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>AUTOSPEC01</u>	Calibration:	<u>GB00010</u>
Lab File ID:	<u>23020102</u>	Calibration Date:	<u>02/01/2023</u>
Sequence:	<u>SLB0026</u>	Injection Date:	<u>02/01/23</u>
Lab Sample ID:	<u>SLB0026-ICV1</u>	Injection Time:	<u>10:37</u>
Sequence Name:	<u>CS3R1</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	84.9	0.7819773	0.6642647		-15.1	+/-28
13C12-OCDD	A	200.00	176	0.7882343	0.6917393		-12.2	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	8.58	1.2334500	1.0578858		-14.2	

\* Values outside of QC limits



INITIAL CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020702

Calibration Date: 02/01/2023

Sequence: SLB0072

Injection Date: 02/07/23

Lab Sample ID: SLB0072-ICV1

Injection Time: 09:25

Sequence Name: CS3T1

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.53	0.8760604	0.8351157		-4.7	+/-16
2,3,7,8-TCDD	A	10.000	9.18	1.2363600	1.1355510		-8.2	+/-22
1,2,3,7,8-PeCDF	A	50.000	48.2	0.8446540	0.8146095		-3.6	+/-18
2,3,4,7,8-PeCDF	A	50.000	49.0	0.9111780	0.8931050		-2.0	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.9	1.0866850	1.0837000		-0.3	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	46.3	1.1816860	1.0940110		-7.4	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	44.3	1.2480480	1.1059160		-11.4	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	46.1	1.2288500	1.1319670		-7.9	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	46.0	1.1865370	1.0911970		-8.0	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	48.7	0.9869672	0.9622623		-2.5	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	45.6	1.0207220	0.9313442		-8.8	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	49.2	0.9854780	0.9696455		-1.6	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	46.6	1.2041190	1.1231430		-6.7	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.9	1.1653050	1.1169660		-4.1	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	45.9	1.2525690	1.1507260		-8.1	+/-14
OCDF	A	100.00	85.8	1.1862640	1.0174050		-14.2	+/-37
OCDD	A	100.00	94.8	1.1026670	1.0450010		-5.2	+/-21
13C12-2,3,7,8-TCDF	A	100.00	88.9	1.7680590	1.5714363		-11.1	+/-29
13C12-2,3,7,8-TCDD	A	100.00	104	1.1029470	1.1480541		4.1	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	98.1	1.5271250	1.4984317		-1.9	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	97.9	1.4662840	1.4361152		-2.1	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	99.5	0.9141518	0.9092687		-0.5	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	91.1	1.0536610	0.9602116		-8.9	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	93.8	1.0799530	1.0127282		-6.2	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	93.2	1.0143260	0.9456075		-6.8	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	91.3	0.9279333	0.8476312		-8.7	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	101	0.9329336	0.9378135		0.5	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	99.9	0.9646272	0.9640301		-0.06	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	83.2	1.0360890	0.8618699		-16.8	+/-22
13C12-1,2,3,4,7,8,9-HpCDD	A	100.00	84.7	0.9049372	0.7665857		-15.3	+/-23

\* Values outside of QC limits



**Method:** T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
**Calibration:** T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

**ID:** CS3T1, **Name:** 23020702, **Date:** 07-Feb-2023, **Time:** 09:25:16, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	2.728e4	3.737e4	0.876	0.730	0.770	1068	1145	4.08e5	5.54e5	382.4	484.0	NO	bb	bb	9.533
12378-PeCDF	30.048	1.001	1.810e5	1.197e5	0.845	1.513	1.550	1202	1806	2.77e6	1.84e6	2301.8	1017.7	NO	bb	bb	48.221
23478-PeCDF	31.385	1.001	1.901e5	1.258e5	0.911	1.511	1.550	1202	1806	2.96e6	1.95e6	2467.3	1077.2	NO	bb	bb	49.008
123478-HxCDF	34.995	1.001	1.715e5	1.385e5	1.182	1.238	1.240	1290	1031	2.75e6	2.18e6	2128.7	2115.1	NO	bd	bd	46.290
234678-HxCDF	35.987	1.000	1.754e5	1.404e5	1.229	1.249	1.240	1290	1031	2.75e6	2.24e6	2135.6	2172.0	NO	bb	bd	46.058
123678-HxCDF	35.129	1.000	1.836e5	1.468e5	1.248	1.251	1.240	1290	1031	2.74e6	2.19e6	2121.8	2121.2	NO	db	dd	44.306
123789-HxCDF	37.012	1.000	1.506e5	1.224e5	1.187	1.231	1.240	1290	1031	2.32e6	1.89e6	1798.5	1828.9	NO	bd	bd	45.982
1234678-HpCDF	38.850	1.000	1.452e5	1.405e5	1.204	1.033	1.050	1630	1318	2.43e6	2.31e6	1487.5	1753.4	NO	bd	bd	46.638
1234789-HpCDF	41.100	1.000	1.275e5	1.252e5	1.165	1.018	1.050	1630	1318	1.84e6	1.83e6	1130.9	1389.0	NO	bd	bb	47.926
OCDF	45.358	1.006	1.826e5	2.040e5	1.186	0.895	0.890	838	1256	2.08e6	2.38e6	2474.8	1893.5	NO	bd	bd	85.766
2378-TCDD	26.532	1.001	2.806e4	3.617e4	1.236	0.776	0.770	1281	782	4.29e5	5.43e5	335.2	695.2	NO	bd	bb	9.185
12378-PeCDD	31.631	1.000	1.467e5	9.606e4	1.087	1.527	1.550	1745	1329	2.33e6	1.49e6	1338.0	1122.6	NO	bb	bb	49.863
123478-HxCDD	36.098	1.000	1.462e5	1.201e5	0.987	1.218	1.240	1716	1243	2.39e6	1.98e6	1391.4	1589.0	NO	bd	bd	48.748
123678-HxCDD	36.221	1.001	1.452e5	1.197e5	1.021	1.213	1.240	1716	1243	2.48e6	2.07e6	1444.5	1662.2	NO	db	db	45.622
123789-HxCDD	36.599	1.011	1.493e5	1.228e5	0.985	1.215	1.240	1716	1243	2.46e6	2.03e6	1431.5	1636.5	NO	bb	bb	49.197
1234678-HpCDD	40.354	1.000	1.189e5	1.133e5	1.253	1.049	1.050	1534	1123	1.77e6	1.70e6	1154.5	1513.3	NO	bd	bd	45.935
OCDD	45.120	1.000	1.835e5	2.136e5	1.103	0.859	0.890	1337	2084	2.19e6	2.54e6	1636.7	1216.9	NO	bb	bd	94.770
13C-2378-TCDF	25.867	1.006	3.425e5	4.316e5	1.768	0.794	0.770	1771	1388	5.25e6	6.65e6	2964.7	4790.3	NO	bb	bb	88.879
13C-12378-PeCDF	30.026	1.168	4.470e5	2.912e5	1.527	1.535	1.550	1472	1474	6.96e6	4.56e6	4725.7	3092.7	NO	bb	bb	98.121
13C-23478-PeCDF	31.363	1.220	4.281e5	2.794e5	1.466	1.532	1.550	1472	1474	6.60e6	4.28e6	4480.8	2905.5	NO	bb	bb	97.942
13C-123478-HxCDF	34.973	0.956	1.915e5	3.752e5	1.054	0.511	0.510	1356	1868	3.06e6	6.08e6	2256.2	3256.0	NO	bd	bd	91.131
13C-123678-HxCDF	35.118	0.960	1.997e5	3.979e5	1.080	0.502	0.510	1356	1868	3.09e6	6.13e6	2275.0	3279.5	NO	db	db	93.775
13C-234678-HxCDF	35.976	0.983	1.887e5	3.693e5	1.014	0.511	0.510	1356	1868	3.19e6	6.22e6	2348.6	3328.5	NO	bb	bb	93.225
13C-123789-HxCDF	37.000	1.011	1.673e5	3.329e5	0.928	0.503	0.510	1356	1868	2.78e6	5.52e6	2047.1	2953.5	NO	bb	bb	91.346
13C-1234678-HpCDF	38.839	1.062	1.586e5	3.500e5	1.036	0.453	0.440	1212	1613	2.69e6	5.89e6	2216.9	3649.1	NO	bb	bb	83.185
13C-1234789-HpCDF	41.089	1.123	1.408e5	3.116e5	0.905	0.452	0.440	1212	1613	2.03e6	4.54e6	1676.7	2811.0	NO	bd	bd	84.711
13C-1234-TCDD	25.700	0.000	2.177e5	2.749e5	1.000	0.792	0.770	1617	1252	3.33e6	4.17e6	2061.3	3334.0	NO	bb	bb	100.000
13C-2378-TCDD	26.501	1.031	2.509e5	3.147e5	1.103	0.797	0.770	1617	1252	3.73e6	4.77e6	2309.4	3812.9	NO	bb	bb	104.090
13C-12378-PeCDD	31.619	1.230	2.768e5	1.711e5	0.914	1.617	1.550	783	888	4.10e6	2.49e6	5228.9	2804.4	NO	bb	bd	99.466
13C-123478-HxCDD	36.087	0.986	3.109e5	2.426e5	0.933	1.282	1.240	1343	1091	5.26e6	4.08e6	3913.8	3742.9	NO	bd	bd	100.523
13C-123678-HxCDD	36.198	0.989	3.178e5	2.511e5	0.965	1.266	1.240	1343	1091	5.13e6	4.09e6	3816.8	3751.7	NO	db	db	99.938
13C-1234678-HpCDD	40.343	1.103	2.082e5	1.953e5	0.782	1.066	1.050	1156	1108	3.12e6	2.91e6	2696.1	2629.5	NO	bb	bb	87.434
13C-OCDD	45.102	1.233	3.617e5	3.983e5	0.788	0.908	0.890	1711	1167	4.43e6	4.90e6	2587.8	4199.2	NO	bb	bb	163.380
13C-123789-HxCDD	36.588	0.000	3.296e5	2.606e5	1.000	1.265	1.240	1343	1091	5.47e6	4.32e6	4068.6	3963.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	5.388e4		1.233			1363		8.19e5		600.7			bb		8.867

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.374	0.865	3.276e4	4.423e4	1.064	0.741	0.770	1068	1145	5.08e5	6.91e5	475.8	602.8	NO	bb	bb	9.342
1289-TCDF	27.394	1.059	2.645e4	3.605e4	0.858	0.734	0.770	1068	1145	3.94e5	5.15e5	369.4	449.3	NO	db	db	9.414
13468-PECDF	27.242	0.907	2.282e5	1.505e5	1.013	1.517	1.550	663	863	3.51e6	2.33e6	5294.6	2701.2	NO	bb	bb	50.650
12389-PECDF	32.421	1.080	1.791e5	1.206e5	0.844	1.485	1.550	1202	1806	2.69e6	1.76e6	2236.0	973.7	NO	bb	bb	48.123
123468-HXCDF	33.335	0.953	1.763e5	1.364e5	1.197	1.293	1.240	1290	1031	2.67e6	2.03e6	2069.3	1969.5	NO	bd	bb	46.081
1368-TCDD	23.659	0.893	2.586e4	3.236e4	1.084	0.799	0.770	1281	782	4.16e5	5.19e5	324.6	664.2	NO	bb	bb	9.493
1289-TCDD	27.136	1.024	2.274e4	2.935e4	0.975	0.775	0.770	1281	782	3.33e5	4.20e5	259.8	537.9	NO	bd	bd	9.446
12479-PECDD	28.912	0.914	2.484e5	1.586e5	1.837	1.566	1.550	1745	1329	2.37e6	1.50e6	1356.7	1131.0	NO	MM	MM	49.458
12389-PECDD	32.032	1.013	1.720e5	1.097e5	1.252	1.568	1.550	1745	1329	2.63e6	1.73e6	1506.1	1303.6	NO	bb	bb	50.218
124679-HXCDD	34.104	0.945	1.476e5	1.208e5	1.033	1.222	1.240	1716	1243	2.35e6	1.94e6	1366.8	1564.7	NO	bb	bb	46.946
1234679-HPCDD	39.307	0.974	1.304e5	1.250e5	1.286	1.043	1.050	1534	1123	2.06e6	1.96e6	1342.1	1745.0	NO	bd	bd	49.234
Total-tetrafurans			8.649e4		0.933			1068		1.31e6							28.288
Total-penta1			2.282e5					663		3.51e6							50.650
Total-pentafurans			5.791e5		0.866			1202		8.85e6							152.890
Total-hexafurans			8.574e5		1.208			1290		1.32e7							228.717
Total-heptafurans			2.734e5		1.185			1630		4.28e6							94.859
Total-Furans			2.207e6		1.067			1068		3.33e7							641.171
Total-tetradoxins			1.314e5		1.099			1281		1.82e6							47.858
Total-pentadoxins			5.671e5		1.392			1745		7.33e6							149.539
Total-hexadoxins			5.883e5		1.007			1716		9.67e6							190.513
Total-heptadoxins			2.498e5		1.269			1534		3.84e6							95.350
Total-Dioxins			1.720e6		1.165			1281		2.49e7							578.030
Total-TEQ			3.927e6					1281		5.81e7							1219.201
FUNCTION1 PFK			4.763e6					305793		3.63e7							
FUNCTION2 PFK			5.423e5					181475		1.33e7							0.000
FUNCTION3 PFK			3.583e5					206086		9.34e6							0.000
FUNCTION4 PFK			0.000e0					178080		0.00e0							
FUNCTION5 PFK			2.355e5					105143		5.11e6							
FUNCTION1 HXCD...			7.784e2					629		1.02e4							0.000
FUNCTION1 HPCD...			1.444e3					817		2.23e4							0.000
FUNCTION2 HPCD...			4.630e2					927		1.16e4							0.000
FUNCTION3 OCDPE			8.159e1					667		1.40e3							0.000
FUNCTION4 NCDPE			1.868e2					617		3.83e3							0.000
FUNCTION5 DCDPE			0.000e0					759		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:28:13 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	2.645e4	3.605e4	0.858	0.73	0.77	369.4	YES	NO	db	db	9.414
2	2378-TCDF	25.88	2.728e4	3.737e4	0.876	0.73	0.77	382.4	YES	NO	bb	bb	9.533
3	1368-TCDF	22.37	3.276e4	4.423e4	1.064	0.74	0.77	475.8	YES	NO	bb	bb	9.342

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	2.282e5	1.505e5	1.013	1.52	1.55	5294.6	YES	NO	bb	bb	50.650

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.42	1.791e5	1.206e5	0.844	1.48	1.55	2236.0	YES	NO	bb	bb	48.123
2	23478-PeCDF	31.39	1.901e5	1.258e5	0.911	1.51	1.55	2467.3	YES	NO	bb	bb	49.008
3	12378-PeCDF	30.05	1.810e5	1.197e5	0.845	1.51	1.55	2301.8	YES	NO	bb	bb	48.221
4	Total-pentafurans	28.90	2.889e4	1.832e4	0.866	1.58	1.55	363.8	YES	NO	bb	bb	7.537

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.13	1.836e5	1.468e5	1.248	1.25	1.24	2121.8	YES	NO	db	dd	44.306
2	123478-HxCDF	35.00	1.715e5	1.385e5	1.182	1.24	1.24	2128.7	YES	NO	bd	bd	46.290
3	123468-HxCDF	33.33	1.763e5	1.364e5	1.197	1.29	1.24	2069.3	YES	NO	bd	bb	46.081
4	123789-HxCDF	37.01	1.506e5	1.224e5	1.187	1.23	1.24	1798.5	YES	NO	bd	bd	45.982
5	234678-HxCDF	35.99	1.754e5	1.404e5	1.229	1.25	1.24	2135.6	YES	NO	bb	bd	46.058

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	1.275e5	1.252e5	1.165	1.02	1.05	1130.9	YES	NO	bd	bb	47.926
2	Total-heptafurans	39.52	8.312e2	8.519e2	1.185	0.98	1.05	8.6	YES	NO	bb	bb	0.296
3	1234678-HpCDF	38.85	1.452e5	1.405e5	1.204	1.03	1.05	1487.5	YES	NO	bd	bd	46.638

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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Printed: Wednesday, February 08, 2023 09:28:13 Pacific Standard Time

**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	2.645e4	3.605e4	0.858	0.73	0.77	369.4	YES	NO	db	db	9.414
2	2378-TCDF	25.88	2.728e4	3.737e4	0.876	0.73	0.77	382.4	YES	NO	bb	bb	9.533
3	1368-TCDF	22.37	3.276e4	4.423e4	1.064	0.74	0.77	475.8	YES	NO	bb	bb	9.342
4	12389-PECDF	32.42	1.791e5	1.206e5	0.844	1.48	1.55	2236.0	YES	NO	bb	bb	48.123
5	23478-PeCDF	31.39	1.901e5	1.258e5	0.911	1.51	1.55	2467.3	YES	NO	bb	bb	49.008
6	12378-PeCDF	30.05	1.810e5	1.197e5	0.845	1.51	1.55	2301.8	YES	NO	bb	bb	48.221
7	Total-pentafurans	28.90	2.889e4	1.832e4	0.866	1.58	1.55	363.8	YES	NO	bb	bb	7.537
8	123678-HxCDF	35.13	1.836e5	1.468e5	1.248	1.25	1.24	2121.8	YES	NO	db	dd	44.306
9	123478-HxCDF	35.00	1.715e5	1.385e5	1.182	1.24	1.24	2128.7	YES	NO	bd	bd	46.290
10	123468-HXCDF	33.33	1.763e5	1.364e5	1.197	1.29	1.24	2069.3	YES	NO	bd	bb	46.081
11	123789-HxCDF	37.01	1.506e5	1.224e5	1.187	1.23	1.24	1798.5	YES	NO	bd	bd	45.982
12	234678-HxCDF	35.99	1.754e5	1.404e5	1.229	1.25	1.24	2135.6	YES	NO	bb	bd	46.058
13	1234789-HpCDF	41.10	1.275e5	1.252e5	1.165	1.02	1.05	1130.9	YES	NO	bd	bb	47.926
14	Total-heptafurans	39.52	8.312e2	8.519e2	1.185	0.98	1.05	8.6	YES	NO	bb	bb	0.296
15	1234678-HpCDF	38.85	1.452e5	1.405e5	1.204	1.03	1.05	1487.5	YES	NO	bd	bd	46.638
16	OCDF	45.36	1.826e5	2.040e5	1.186	0.90	0.89	2474.8	YES	NO	bd	bd	85.766
17	13468-PECDF	27.24	2.282e5	1.505e5	1.013	1.52	1.55	5294.6	YES	NO	bb	bb	50.650

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	2.806e4	3.617e4	1.236	0.78	0.77	335.2	YES	NO	bd	bb	9.185
2	Total-tetradoxins	26.20	4.091e4	5.086e4	1.099	0.80	0.77	339.1	YES	NO	bb	bb	14.769
3	Total-tetradoxins	25.72	1.280e4	1.563e4	1.099	0.82	0.77	156.4	YES	NO	bb	bb	4.575
4	Total-tetradoxins	24.85	1.026e3	1.397e3	1.099	0.73	0.77	8.0	YES	NO	bb	bb	0.390
5	1368-TCDD	23.66	2.586e4	3.236e4	1.084	0.80	0.77	324.6	YES	NO	bb	bb	9.493
6	1289-TCDD	27.14	2.274e4	2.935e4	0.975	0.77	0.77	259.8	YES	NO	bd	bd	9.446

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	1.720e5	1.097e5	1.252	1.57	1.55	1506.1	YES	NO	bb	bb	50.218
2	12378-PeCDD	31.63	1.467e5	9.606e4	1.087	1.53	1.55	1338.0	YES	NO	bb	bb	49.863
3	12479-PECDD	28.91	2.484e5	1.586e5	1.837	1.57	1.55	1356.7	YES	NO	MM	MM	49.458

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.10	1.476e5	1.208e5	1.033	1.22	1.24	1366.8	YES	NO	bb	bb	46.946
2	123789-HxCDD	36.60	1.493e5	1.228e5	0.985	1.22	1.24	1431.5	YES	NO	bb	bb	49.197
3	123678-HxCDD	36.22	1.452e5	1.197e5	1.021	1.21	1.24	1444.5	YES	NO	db	db	45.622
4	123478-HxCDD	36.10	1.462e5	1.201e5	0.987	1.22	1.24	1391.4	YES	NO	bd	bd	48.748

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.58	4.504e2	4.766e2	1.269	0.95	1.05	6.8	YES	NO	dd	dd	0.181
2	1234678-HpCDD	40.35	1.189e5	1.133e5	1.253	1.05	1.05	1154.5	YES	NO	bd	bd	45.935
3	1234679-HPCDD	39.31	1.304e5	1.250e5	1.286	1.04	1.05	1342.1	YES	NO	bd	bd	49.234

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	2.806e4	3.617e4	1.236	0.78	0.77	335.2	YES	NO	bd	bb	9.185
2	Total-tetradioxins	26.20	4.091e4	5.086e4	1.099	0.80	0.77	339.1	YES	NO	bb	bb	14.769
3	Total-tetradioxins	25.72	1.280e4	1.563e4	1.099	0.82	0.77	156.4	YES	NO	bb	bb	4.575
4	Total-tetradioxins	24.85	1.026e3	1.397e3	1.099	0.73	0.77	8.0	YES	NO	bb	bb	0.390
5	1368-TCDD	23.66	2.586e4	3.236e4	1.084	0.80	0.77	324.6	YES	NO	bb	bb	9.493
6	1289-TCDD	27.14	2.274e4	2.935e4	0.975	0.77	0.77	259.8	YES	NO	bd	bd	9.446
7	124679-HxCDD	34.10	1.476e5	1.208e5	1.033	1.22	1.24	1366.8	YES	NO	bb	bb	46.946
8	12389-PECDD	32.03	1.720e5	1.097e5	1.252	1.57	1.55	1506.1	YES	NO	bb	bb	50.218
9	12378-PeCDD	31.63	1.467e5	9.606e4	1.087	1.53	1.55	1338.0	YES	NO	bb	bb	49.863
10	123789-HxCDD	36.60	1.493e5	1.228e5	0.985	1.22	1.24	1431.5	YES	NO	bb	bb	49.197
11	123678-HxCDD	36.22	1.452e5	1.197e5	1.021	1.21	1.24	1444.5	YES	NO	db	db	45.622
12	123478-HxCDD	36.10	1.462e5	1.201e5	0.987	1.22	1.24	1391.4	YES	NO	bd	bd	48.748
13	Total-heptadioxins	40.58	4.504e2	4.766e2	1.269	0.95	1.05	6.8	YES	NO	dd	dd	0.181
14	1234678-HpCDD	40.35	1.189e5	1.133e5	1.253	1.05	1.05	1154.5	YES	NO	bd	bd	45.935
15	1234679-HPCDD	39.31	1.304e5	1.250e5	1.286	1.04	1.05	1342.1	YES	NO	bd	bd	49.234
16	OCDD	45.12	1.835e5	2.136e5	1.103	0.86	0.89	1636.7	YES	NO	bb	bd	94.770
17	12479-PECDD	28.91	2.484e5	1.586e5	1.837	1.57	1.55	1356.7	YES	NO	MM	MM	49.458



## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	2.645e4	3.605e4	0.858	0.73	0.77	369.4	YES	NO	db	db	9.414
2	2378-TCDF	25.88	2.728e4	3.737e4	0.876	0.73	0.77	382.4	YES	NO	bb	bb	9.533
3	1368-TCDF	22.37	3.276e4	4.423e4	1.064	0.74	0.77	475.8	YES	NO	bb	bb	9.342
4	12389-PECDF	32.42	1.791e5	1.206e5	0.844	1.48	1.55	2236.0	YES	NO	bb	bb	48.123
5	23478-PeCDF	31.39	1.901e5	1.258e5	0.911	1.51	1.55	2467.3	YES	NO	bb	bb	49.008
6	12378-PeCDF	30.05	1.810e5	1.197e5	0.845	1.51	1.55	2301.8	YES	NO	bb	bb	48.221
7	Total-pentafurans	28.90	2.889e4	1.832e4	0.866	1.58	1.55	363.8	YES	NO	bb	bb	7.537
8	123678-HxCDF	35.13	1.836e5	1.468e5	1.248	1.25	1.24	2121.8	YES	NO	db	dd	44.306
9	123478-HxCDF	35.00	1.715e5	1.385e5	1.182	1.24	1.24	2128.7	YES	NO	bd	bd	46.290
10	123468-HXCDF	33.33	1.763e5	1.364e5	1.197	1.29	1.24	2069.3	YES	NO	bd	bb	46.081
11	123789-HxCDF	37.01	1.506e5	1.224e5	1.187	1.23	1.24	1798.5	YES	NO	bd	bd	45.982
12	234678-HxCDF	35.99	1.754e5	1.404e5	1.229	1.25	1.24	2135.6	YES	NO	bb	bd	46.058
13	1234789-HpCDF	41.10	1.275e5	1.252e5	1.165	1.02	1.05	1130.9	YES	NO	bd	bb	47.926
14	Total-heptafurans	39.52	8.312e2	8.519e2	1.185	0.98	1.05	8.6	YES	NO	bb	bb	0.296
15	1234678-HpCDF	38.85	1.452e5	1.405e5	1.204	1.03	1.05	1487.5	YES	NO	bd	bd	46.638
16	OCDF	45.36	1.826e5	2.040e5	1.186	0.90	0.89	2474.8	YES	NO	bd	bd	85.766
17	13468-PECDF	27.24	2.282e5	1.505e5	1.013	1.52	1.55	5294.6	YES	NO	bb	bb	50.650
18	2378-TCDD	26.53	2.806e4	3.617e4	1.236	0.78	0.77	335.2	YES	NO	bd	bb	9.185
19	Total-tetradiioxins	26.20	4.091e4	5.086e4	1.099	0.80	0.77	339.1	YES	NO	bb	bb	14.769
20	Total-tetradiioxins	25.72	1.280e4	1.563e4	1.099	0.82	0.77	156.4	YES	NO	bb	bb	4.575
21	Total-tetradiioxins	24.85	1.026e3	1.397e3	1.099	0.73	0.77	8.0	YES	NO	bb	bb	0.390
22	1368-TCDD	23.66	2.586e4	3.236e4	1.084	0.80	0.77	324.6	YES	NO	bb	bb	9.493
23	1289-TCDD	27.14	2.274e4	2.935e4	0.975	0.77	0.77	259.8	YES	NO	bd	bd	9.446
24	124679-HXCDD	34.10	1.476e5	1.208e5	1.033	1.22	1.24	1366.8	YES	NO	bb	bb	46.946
25	12389-PECDD	32.03	1.720e5	1.097e5	1.252	1.57	1.55	1506.1	YES	NO	bb	bb	50.218
26	12378-PeCDD	31.63	1.467e5	9.606e4	1.087	1.53	1.55	1338.0	YES	NO	bb	bb	49.863
27	123789-HxCDD	36.60	1.493e5	1.228e5	0.985	1.22	1.24	1431.5	YES	NO	bb	bb	49.197
28	123678-HxCDD	36.22	1.452e5	1.197e5	1.021	1.21	1.24	1444.5	YES	NO	db	db	45.622
29	123478-HxCDD	36.10	1.462e5	1.201e5	0.987	1.22	1.24	1391.4	YES	NO	bd	bd	48.748
30	Total-heptadiioxins	40.58	4.504e2	4.766e2	1.269	0.95	1.05	6.8	YES	NO	dd	dd	0.181
31	1234678-HpCDD	40.35	1.189e5	1.133e5	1.253	1.05	1.05	1154.5	YES	NO	bd	bd	45.935
32	1234679-HPCDD	39.31	1.304e5	1.250e5	1.286	1.04	1.05	1342.1	YES	NO	bd	bd	49.234
33	OCDD	45.12	1.835e5	2.136e5	1.103	0.86	0.89	1636.7	YES	NO	bb	bd	94.770
34	12479-PECDD	28.91	2.484e5	1.586e5	1.837	1.57	1.55	1356.7	YES	NO	MM	MM	49.458

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.14	9.329e3					0.9	NO		bb		
2	FUNCTION1 PFK	22.72	2.595e3					0.6	NO		bb		
3	FUNCTION1 PFK	22.65	1.359e4					1.3	NO		bb		
4	FUNCTION1 PFK	22.21	1.980e3					0.4	NO		bb		
5	FUNCTION1 PFK	21.44	1.834e6					20.0	YES		db		
6	FUNCTION1 PFK	21.32	1.241e6					24.1	YES		dd		
7	FUNCTION1 PFK	21.19	5.654e5					26.4	YES		dd		
8	FUNCTION1 PFK	21.13	8.677e5					28.2	YES		bd		
9	FUNCTION1 PFK	27.15	1.848e4					1.4	NO		bb		
10	FUNCTION1 PFK	26.86	2.297e3					0.5	NO		bb		
11	FUNCTION1 PFK	26.18	2.579e3					0.6	NO		bb		
12	FUNCTION1 PFK	25.85	2.009e4					1.5	NO		bb		
13	FUNCTION1 PFK	25.61	6.044e3					0.8	NO		bb		
14	FUNCTION1 PFK	25.49	1.801e4					0.8	NO		bb		
15	FUNCTION1 PFK	25.13	7.883e3					0.8	NO		bb		
16	FUNCTION1 PFK	24.96	9.320e3					0.9	NO		bb		
17	FUNCTION1 PFK	24.76	1.948e4					1.4	NO		bb		
18	FUNCTION1 PFK	24.26	1.145e4					1.1	NO		db		
19	FUNCTION1 PFK	24.20	3.887e4					1.8	NO		dd		
20	FUNCTION1 PFK	24.08	3.730e4					2.2	NO		bd		
21	FUNCTION1 PFK	23.81	9.090e3					1.1	NO		bb		
22	FUNCTION1 PFK	23.69	2.124e3					0.5	NO		bb		
23	FUNCTION1 PFK	23.22	2.464e4					1.6	NO		bb		

## Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:28:13 Pacific Standard Time

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

## PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.83	4.460e3					0.9	NO		db		0.000
2	FUNCTION2 PFK	29.77	1.230e4					1.7	NO		dd		0.000
3	FUNCTION2 PFK	29.71	1.195e4					2.0	NO		dd		0.000
4	FUNCTION2 PFK	29.64	3.540e4					2.5	NO		dd		0.000
5	FUNCTION2 PFK	29.50	1.525e4					1.9	NO		bd		0.000
6	FUNCTION2 PFK	29.34	7.671e3					1.3	NO		bb		0.000
7	FUNCTION2 PFK	29.26	3.670e3					0.9	NO		bb		0.000
8	FUNCTION2 PFK	29.20	8.595e3					1.4	NO		bb		0.000
9	FUNCTION2 PFK	28.99	7.715e3					1.3	NO		db		0.000
10	FUNCTION2 PFK	28.97	4.644e3					1.2	NO		bd		0.000
11	FUNCTION2 PFK	28.67	1.156e4					2.2	NO		db		0.000
12	FUNCTION2 PFK	28.57	1.982e4					1.8	NO		bd		0.000
13	FUNCTION2 PFK	28.42	9.734e2					0.5	NO		bb		0.000
14	FUNCTION2 PFK	28.35	2.306e4					3.8	YES		db		0.000
15	FUNCTION2 PFK	28.30	3.314e4					4.5	YES		dd		0.000
16	FUNCTION2 PFK	28.25	4.283e4					7.2	YES		bd		0.000
17	FUNCTION2 PFK	31.94	2.853e4					3.2	YES		bd		0.000
18	FUNCTION2 PFK	31.66	2.280e3					0.8	NO		bb		0.000
19	FUNCTION2 PFK	31.62	8.729e3					1.6	NO		bb		0.000
20	FUNCTION2 PFK	31.55	1.136e4					2.0	NO		bb		0.000
21	FUNCTION2 PFK	31.45	1.471e4					2.3	NO		db		0.000
22	FUNCTION2 PFK	31.32	3.155e4					2.1	NO		bd		0.000
23	FUNCTION2 PFK	31.14	1.546e3					0.6	NO		db		0.000
24	FUNCTION2 PFK	31.10	2.015e4					2.2	NO		bd		0.000
25	FUNCTION2 PFK	30.81	6.776e2					0.3	NO		bb		0.000
26	FUNCTION2 PFK	30.75	6.368e3					1.3	NO		db		0.000
27	FUNCTION2 PFK	30.65	1.669e4					2.0	NO		bd		0.000
28	FUNCTION2 PFK	30.58	6.341e3					1.5	NO		bb		0.000
29	FUNCTION2 PFK	30.43	1.161e4					1.7	NO		db		0.000
30	FUNCTION2 PFK	30.36	1.267e4					1.9	NO		bd		0.000
31	FUNCTION2 PFK	30.06	9.922e2					0.5	NO		bb		0.000
32	FUNCTION2 PFK	29.98	1.161e4					1.3	NO		bb		0.000
33	FUNCTION2 PFK	32.71	8.598e2					0.4	NO		bb		0.000
34	FUNCTION2 PFK	32.62	1.844e3					0.6	NO		bb		0.000
35	FUNCTION2 PFK	32.31	8.609e3					1.6	NO		bb		0.000
36	FUNCTION2 PFK	32.22	9.372e3					2.3	NO		db		0.000
37	FUNCTION2 PFK	32.20	2.290e4					3.5	YES		dd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:28:13 Pacific Standard Time

**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.15	5.957e4					3.3	YES		dd		0.000
39	FUNCTION2 PFK	31.99	1.033e4					1.7	NO		dd		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

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**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.96	1.737e4					1.8	NO		db		0.000
2	FUNCTION3 PFK	33.86	9.488e3					1.1	NO		bd		0.000
3	FUNCTION3 PFK	33.47	1.048e4					1.4	NO		bb		0.000
4	FUNCTION3 PFK	33.22	2.023e4					1.8	NO		db		0.000
5	FUNCTION3 PFK	33.12	3.444e4					2.9	NO		bd		0.000
6	FUNCTION3 PFK	33.05	1.049e4					2.0	NO		db		0.000
7	FUNCTION3 PFK	33.01	2.003e4					3.2	YES		dd		0.000
8	FUNCTION3 PFK	32.99	4.737e3					1.4	NO		bd		0.000
9	FUNCTION3 PFK	36.50	2.431e3					0.6	NO		bb		0.000
10	FUNCTION3 PFK	36.42	6.775e3					1.1	NO		bb		0.000
11	FUNCTION3 PFK	36.11	8.685e2					0.4	NO		bb		0.000
12	FUNCTION3 PFK	35.93	4.757e3					0.9	NO		bb		0.000
13	FUNCTION3 PFK	35.79	1.924e4					1.5	NO		bb		0.000
14	FUNCTION3 PFK	35.40	1.951e4					2.0	NO		bb		0.000
15	FUNCTION3 PFK	35.26	1.864e4					1.8	NO		db		0.000
16	FUNCTION3 PFK	35.14	1.457e4					1.6	NO		bd		0.000
17	FUNCTION3 PFK	35.03	1.281e3					0.6	NO		bb		0.000
18	FUNCTION3 PFK	34.69	3.266e4					2.0	NO		bb		0.000
19	FUNCTION3 PFK	34.47	8.681e2					0.4	NO		bb		0.000
20	FUNCTION3 PFK	34.43	7.870e3					1.3	NO		bb		0.000
21	FUNCTION3 PFK	34.29	1.784e3					0.5	NO		bb		0.000
22	FUNCTION3 PFK	34.19	6.455e3					1.2	NO		bb		0.000
23	FUNCTION3 PFK	34.14	3.828e3					0.9	NO		bb		0.000
24	FUNCTION3 PFK	34.00	1.377e3					0.6	NO		bb		0.000
25	FUNCTION3 PFK	37.94	2.008e4					1.8	NO		bb		0.000
26	FUNCTION3 PFK	37.72	1.073e4					1.4	NO		db		0.000
27	FUNCTION3 PFK	37.67	1.759e4					2.2	NO		dd		0.000
28	FUNCTION3 PFK	37.62	9.816e3					1.7	NO		bd		0.000
29	FUNCTION3 PFK	37.56	1.020e4					1.4	NO		db		0.000
30	FUNCTION3 PFK	37.51	3.376e3					0.7	NO		bd		0.000
31	FUNCTION3 PFK	37.08	4.636e3					0.9	NO		bb		0.000
32	FUNCTION3 PFK	36.94	4.701e3					0.9	NO		bb		0.000
33	FUNCTION3 PFK	36.59	4.112e3					0.8	NO		bb		0.000
34	FUNCTION3 PFK	36.54	2.843e3					0.7	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

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ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.40	7.519e3					1.5	NO		bb		
2	FUNCTION5 PFK	43.32	1.005e3					0.6	NO		bb		
3	FUNCTION5 PFK	43.15	4.699e4					5.3	YES		db		
4	FUNCTION5 PFK	43.08	7.471e4					10.3	YES		bd		
5	FUNCTION5 PFK	45.06	1.998e3					0.9	NO		bb		
6	FUNCTION5 PFK	44.99	1.722e3					0.9	NO		bb		
7	FUNCTION5 PFK	44.85	2.358e3					1.0	NO		db		
8	FUNCTION5 PFK	44.79	9.522e3					2.2	NO		dd		
9	FUNCTION5 PFK	44.75	8.975e3					2.7	NO		dd		
10	FUNCTION5 PFK	44.66	8.382e3					1.5	NO		bd		
11	FUNCTION5 PFK	44.59	9.490e3					2.0	NO		db		
12	FUNCTION5 PFK	44.53	5.862e3					2.3	NO		dd		
13	FUNCTION5 PFK	44.48	1.097e4					1.6	NO		bd		
14	FUNCTION5 PFK	44.40	3.511e3					1.2	NO		bb		
15	FUNCTION5 PFK	44.33	5.417e3					1.4	NO		bb		
16	FUNCTION5 PFK	44.02	1.652e3					0.8	NO		db		
17	FUNCTION5 PFK	43.96	4.773e3					1.4	NO		dd		
18	FUNCTION5 PFK	43.89	3.846e3					1.0	NO		bd		
19	FUNCTION5 PFK	43.62	4.955e2					0.5	NO		bb		
20	FUNCTION5 PFK	43.56	4.307e2					0.4	NO		bb		
21	FUNCTION5 PFK	46.44	1.787e3					0.9	NO		bb		
22	FUNCTION5 PFK	46.28	3.625e2					0.4	NO		bb		
23	FUNCTION5 PFK	46.14	3.034e3					0.6	NO		bb		
24	FUNCTION5 PFK	45.99	2.999e3					1.1	NO		db		
25	FUNCTION5 PFK	45.94	4.233e3					1.5	NO		bd		
26	FUNCTION5 PFK	45.60	1.270e3					0.7	NO		bb		
27	FUNCTION5 PFK	45.52	3.112e3					0.7	NO		bb		
28	FUNCTION5 PFK	45.46	3.459e3					1.7	NO		bb		
29	FUNCTION5 PFK	45.32	5.614e3					1.6	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:28:13 Pacific Standard Time

**ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.55	1.291e2					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	26.02	1.156e2					1.3	NO		bb		0.000
3	FUNCTION1 HXCD...	24.66	7.817e1					1.6	NO		bb		0.000
4	FUNCTION1 HXCD...	24.23	7.395e1					1.7	NO		bb		0.000
5	FUNCTION1 HXCD...	22.89	8.777e1					2.1	NO		bb		0.000
6	FUNCTION1 HXCD...	22.12	9.312e1					2.0	NO		bb		0.000
7	FUNCTION1 HXCD...	28.18	8.248e1					1.4	NO		bb		0.000
8	FUNCTION1 HXCD...	27.27	1.182e2					3.0	NO		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	27.92	9.216e1					2.2	NO		db		0.000
2	FUNCTION1 HPCD...	27.82	1.617e2					1.4	NO		bd		0.000
3	FUNCTION1 HPCD...	27.39	8.356e1					1.1	NO		db		0.000
4	FUNCTION1 HPCD...	27.27	1.409e2					2.9	NO		bd		0.000
5	FUNCTION1 HPCD...	26.70	9.683e1					1.7	NO		bb		0.000
6	FUNCTION1 HPCD...	26.17	7.773e1					2.2	NO		db		0.000
7	FUNCTION1 HPCD...	26.05	1.054e2					2.2	NO		dd		0.000
8	FUNCTION1 HPCD...	25.88	1.216e2					2.3	NO		bd		0.000
9	FUNCTION1 HPCD...	23.98	7.990e1					2.0	NO		bb		0.000
10	FUNCTION1 HPCD...	22.19	1.259e2					1.9	NO		db		0.000
11	FUNCTION1 HPCD...	22.10	1.407e2					1.9	NO		bd		0.000
12	FUNCTION1 HPCD...	21.94	8.465e1					2.2	NO		db		0.000
13	FUNCTION1 HPCD...	21.87	1.331e2					3.2	YES		bd		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.23	1.018e2					3.1	YES		bb		0.000
2	FUNCTION2 HPCD...	31.02	9.769e1					2.9	NO		bb		0.000
3	FUNCTION2 HPCD...	28.69	8.773e1					2.0	NO		bb		0.000
4	FUNCTION2 HPCD...	28.50	1.006e2					2.1	NO		bb		0.000
5	FUNCTION2 HPCD...	28.43	7.510e1					2.4	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

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ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	33.32	8.159e1					2.1	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.94	7.078e1					3.3	YES		bb		0.000
2	FUNCTION4 NCDPE	40.42	1.160e2					2.9	NO		bb		0.000

**ETHERS6**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

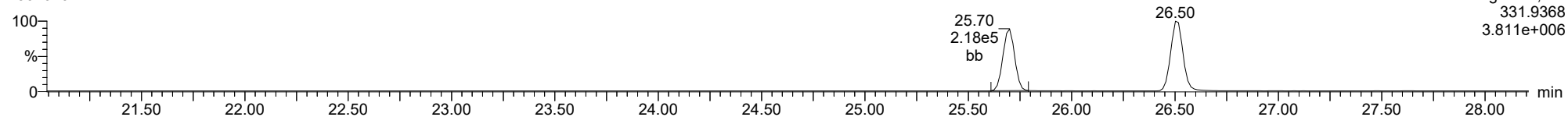


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Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

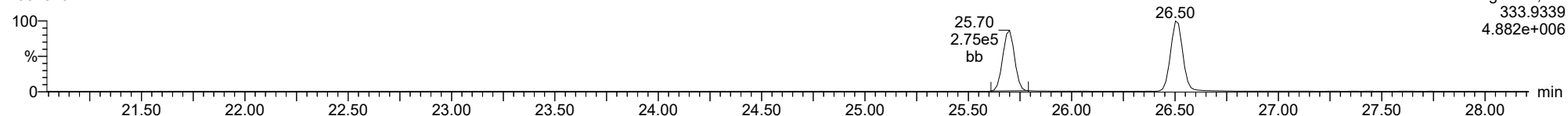
23020702



F1:Voltage SIR,El+  
331.9368  
3.811e+006

**13C-1234-TCDD**

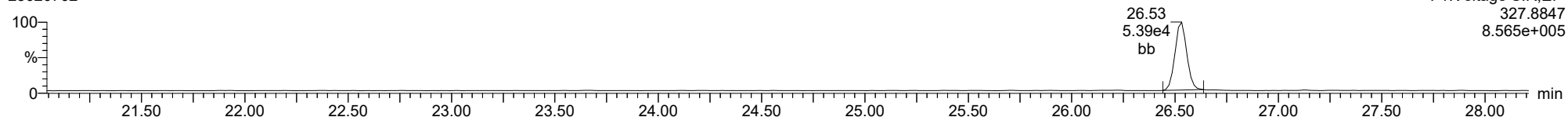
23020702



F1:Voltage SIR,El+  
333.9339  
4.882e+006

**37CL-2378-TCDD**

23020702

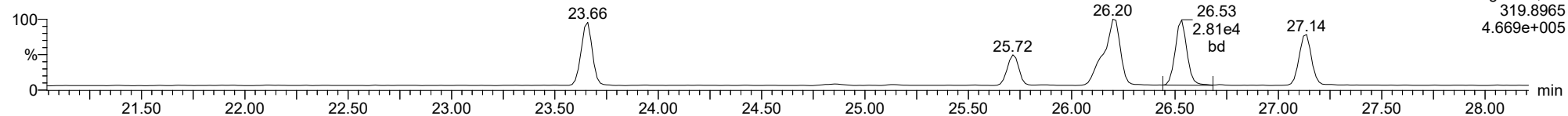


F1:Voltage SIR,El+  
327.8847  
8.565e+005

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**2378-TCDD**

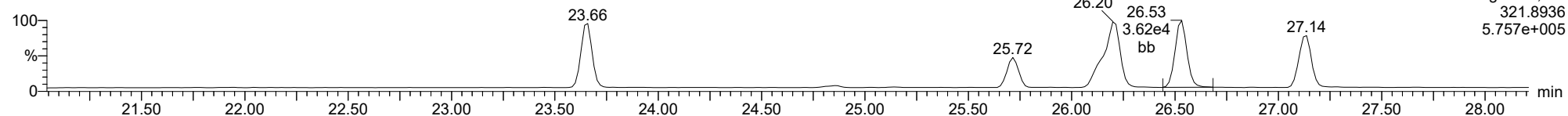
23020702



F1:Voltage SIR,EI+  
319.8965  
4.669e+005

**2378-TCDD**

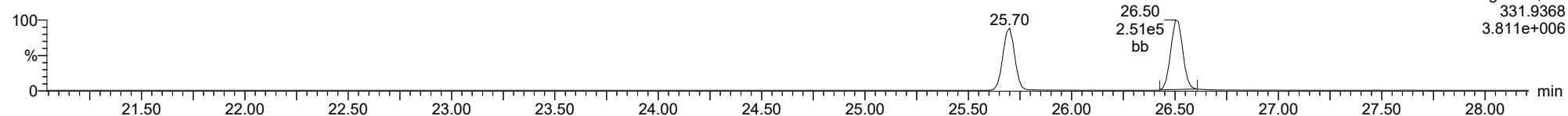
23020702



F1:Voltage SIR,EI+  
321.8936  
5.757e+005

**13C-2378-TCDD**

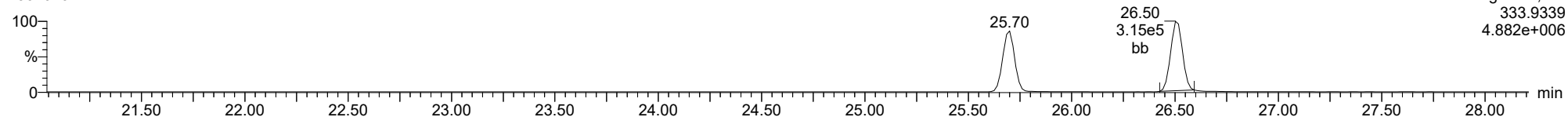
23020702



F1:Voltage SIR,EI+  
331.9368  
3.811e+006

**13C-2378-TCDD**

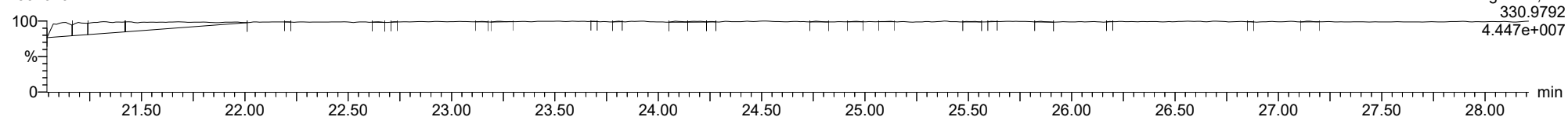
23020702



F1:Voltage SIR,EI+  
333.9339  
4.882e+006

**FUNCTION1 PFK**

23020702

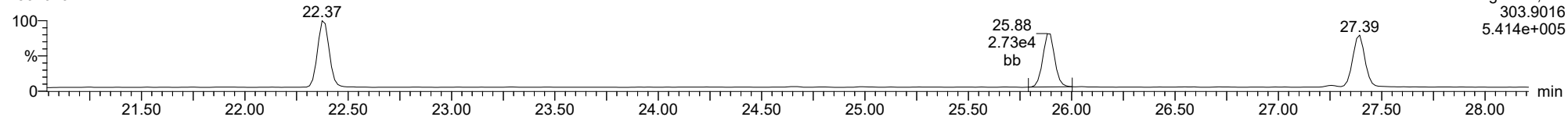


F1:Voltage SIR,EI+  
330.9792  
4.447e+007

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**2378-TCDF**

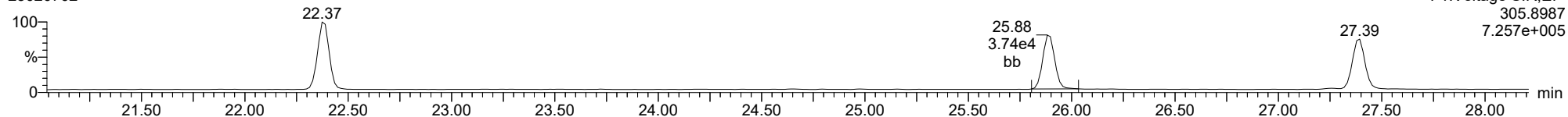
23020702



F1:Voltage SIR,EI+  
303.9016  
5.414e+005

**2378-TCDF**

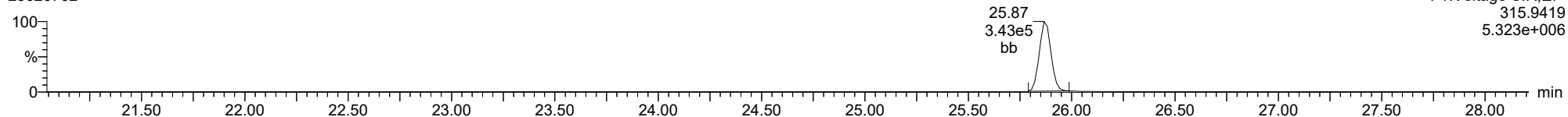
23020702



F1:Voltage SIR,EI+  
305.8987  
7.257e+005

**13C-2378-TCDF**

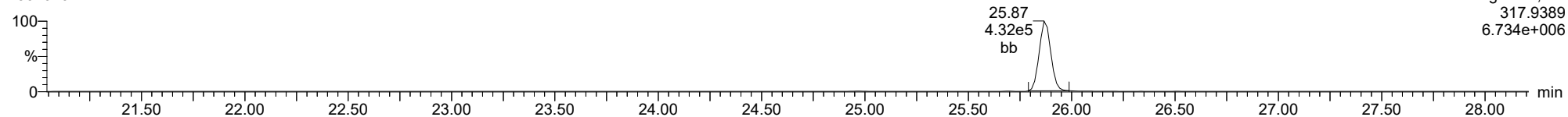
23020702



F1:Voltage SIR,EI+  
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5.323e+006

**13C-2378-TCDF**

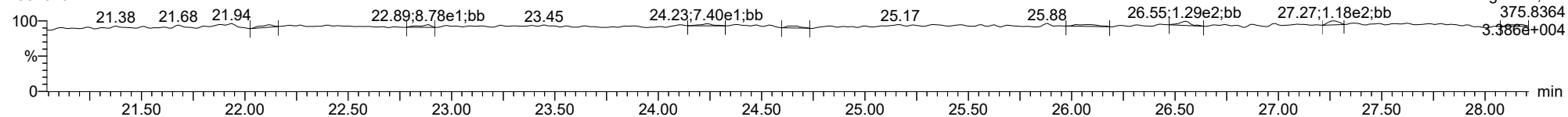
23020702



F1:Voltage SIR,EI+  
317.9389  
6.734e+006

**FUNCTION1 HXCDPE**

23020702

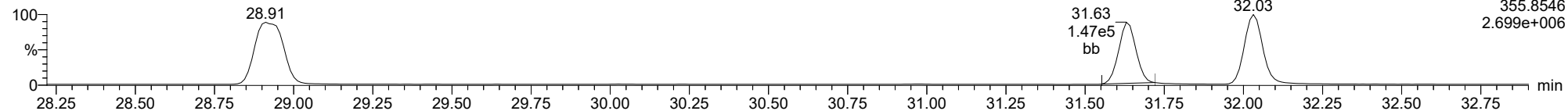


F1:Voltage SIR,EI+  
375.8364  
3.386e+004

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

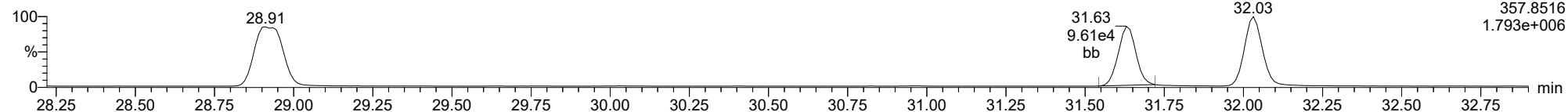
**12378-PeCDD**

23020702



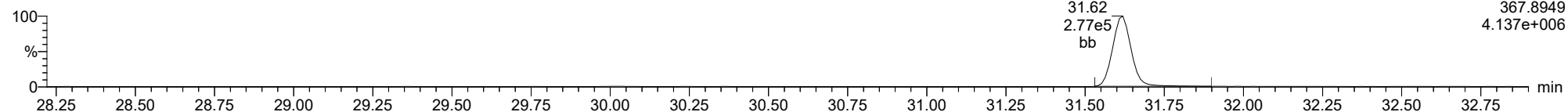
**12378-PeCDD**

23020702



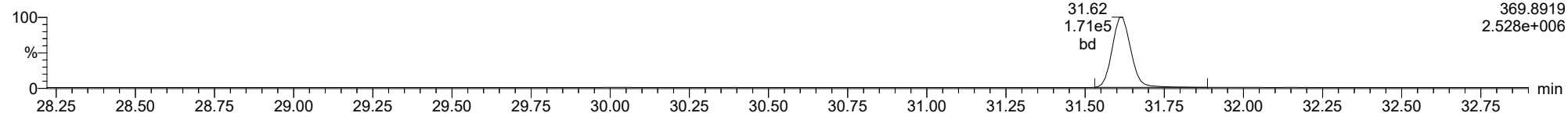
**13C-12378-PeCDD**

23020702



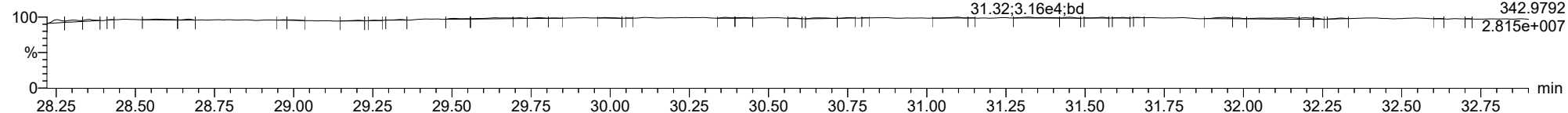
**13C-12378-PeCDD**

23020702



**FUNCTION2 PFK**

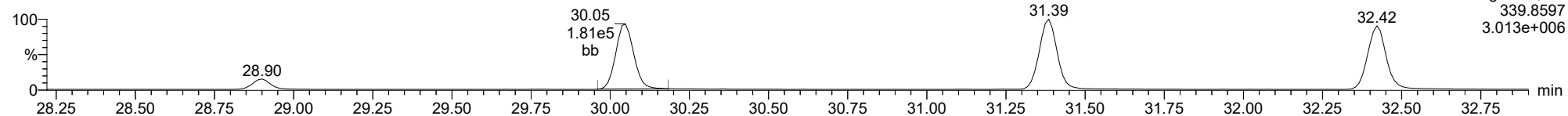
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

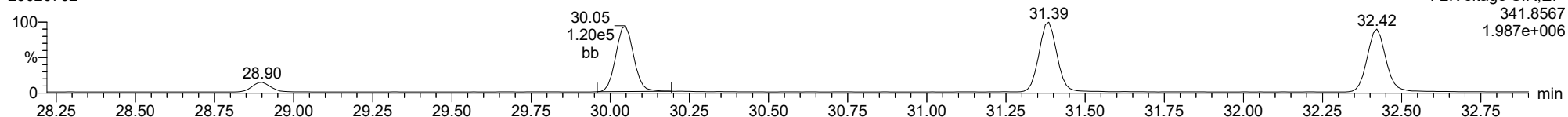
**12378-PeCDF**

23020702



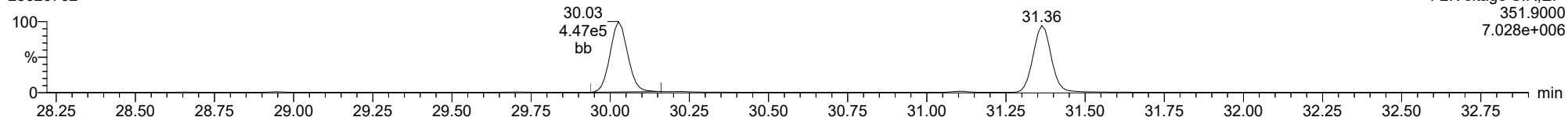
**12378-PeCDF**

23020702



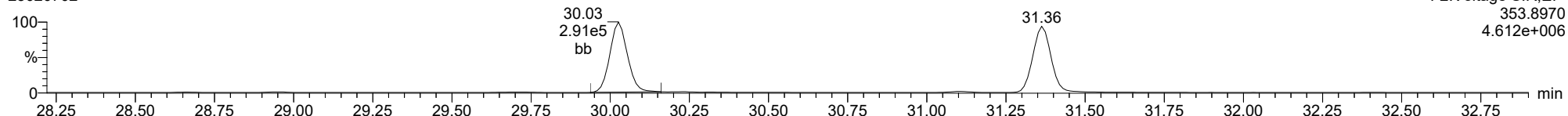
**13C-12378-PeCDF**

23020702



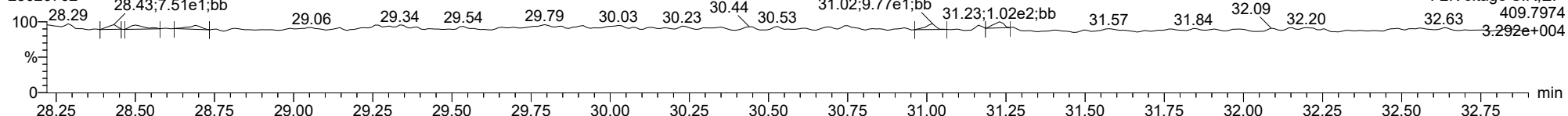
**13C-12378-PeCDF**

23020702



**FUNCTION2 HPCDFE**

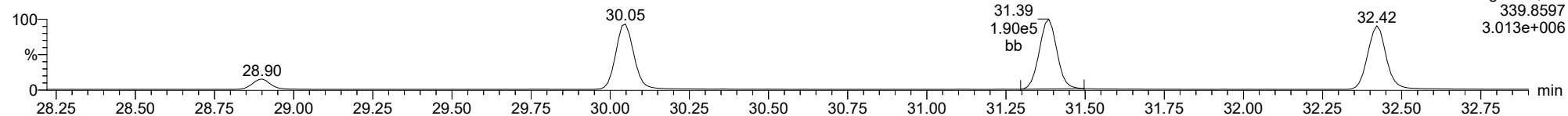
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

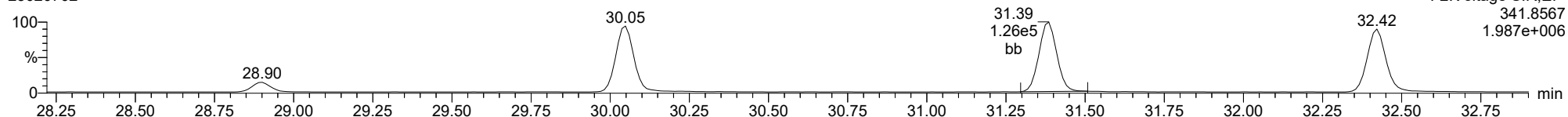
**23478-PeCDF**

23020702



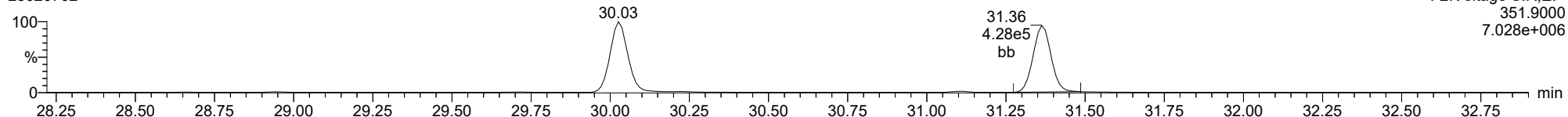
**23478-PeCDF**

23020702



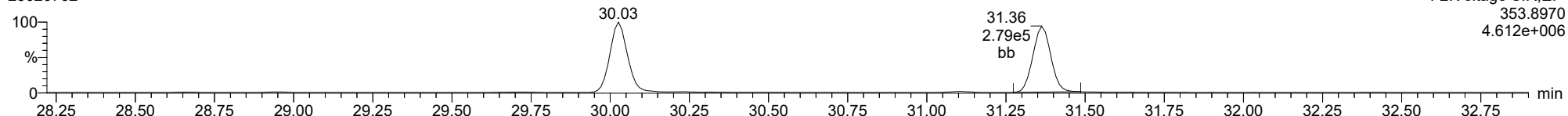
**13C-23478-PeCDF**

23020702



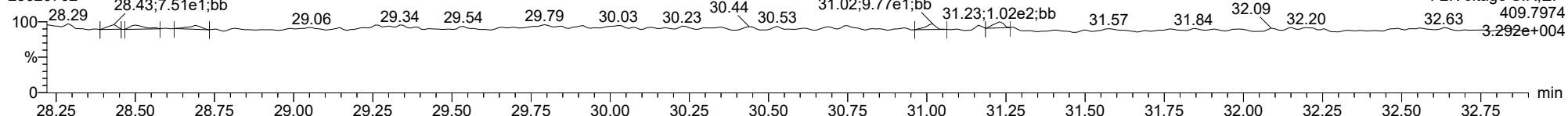
**13C-23478-PeCDF**

23020702



**FUNCTION2 HPCDPE**

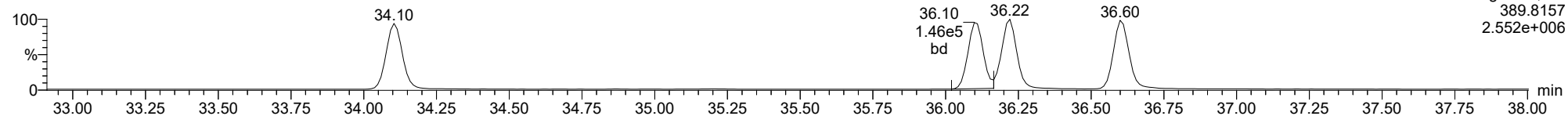
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

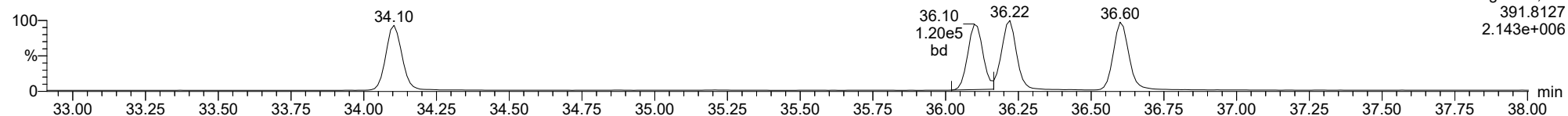
23020702



F3:Voltage SIR,EI+  
389.8157  
2.552e+006

**123478-HxCDD**

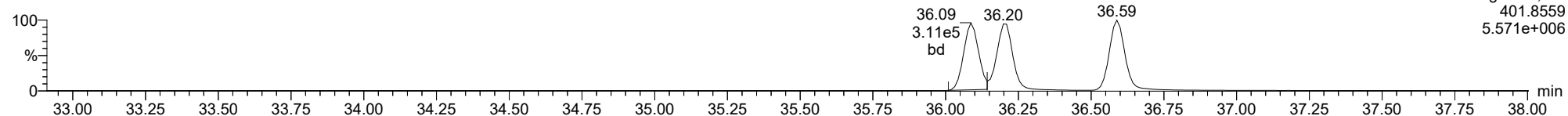
23020702



F3:Voltage SIR,EI+  
391.8127  
2.143e+006

**13C-123478-HxCDD**

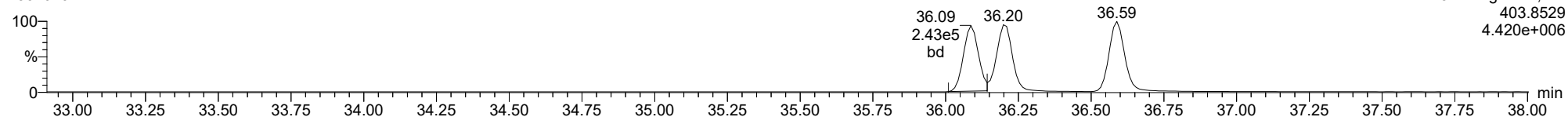
23020702



F3:Voltage SIR,EI+  
401.8559  
5.571e+006

**13C-123478-HxCDD**

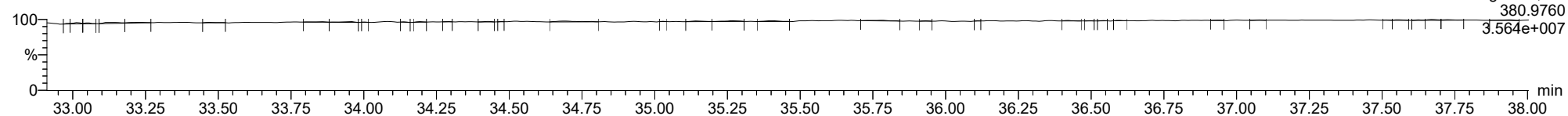
23020702



F3:Voltage SIR,EI+  
403.8529  
4.420e+006

**FUNCTION3 PFK**

23020702

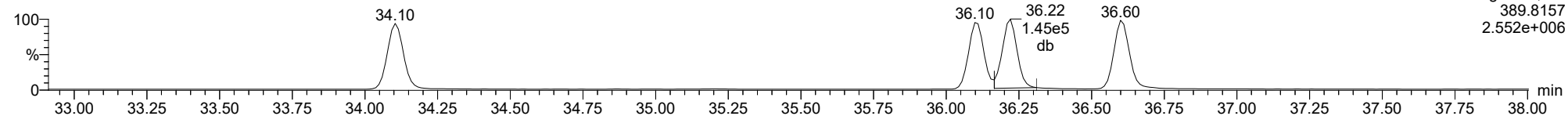


F3:Voltage SIR,EI+  
380.9760  
3.564e+007

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

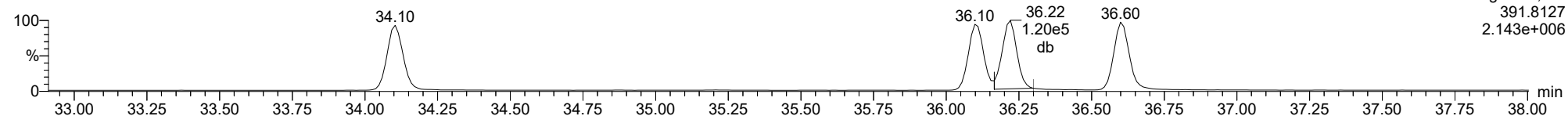
**123678-HxCDD**

23020702



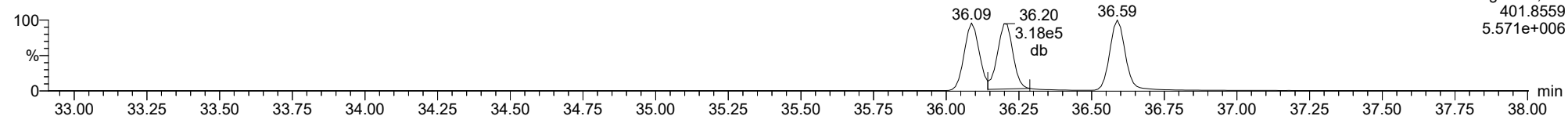
**123678-HxCDD**

23020702



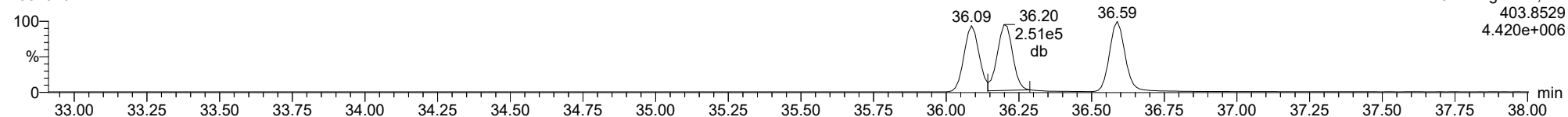
**13C-123678-HxCDD**

23020702



**13C-123678-HxCDD**

23020702

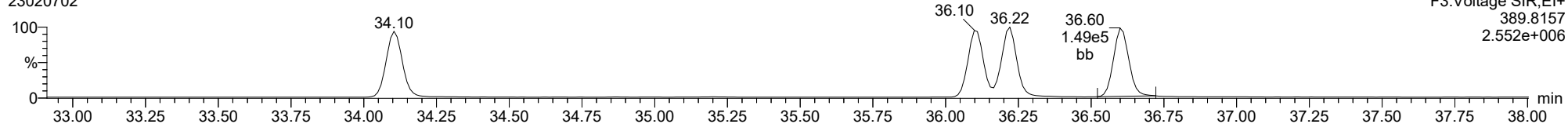




ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

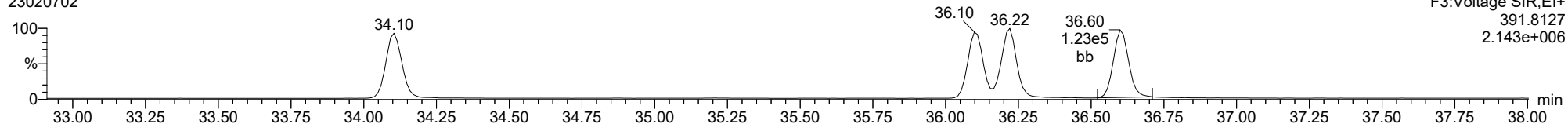
**123789-HxCDD**

23020702



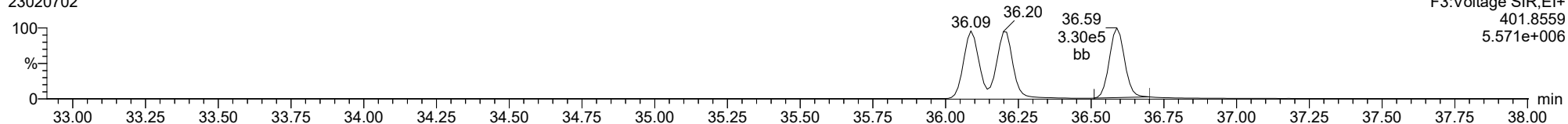
**123789-HxCDD**

23020702



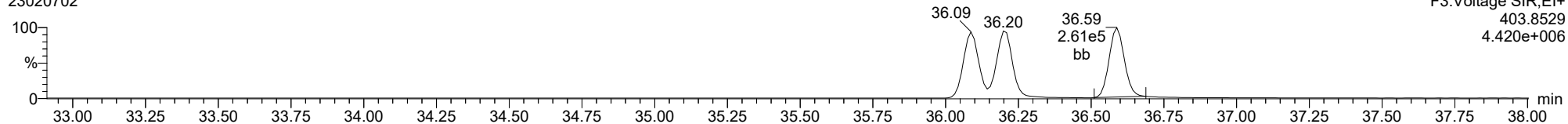
**13C-123789-HxCDD**

23020702



**13C-123789-HxCDD**

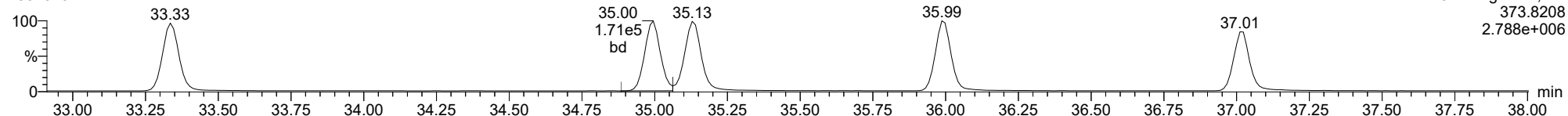
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ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

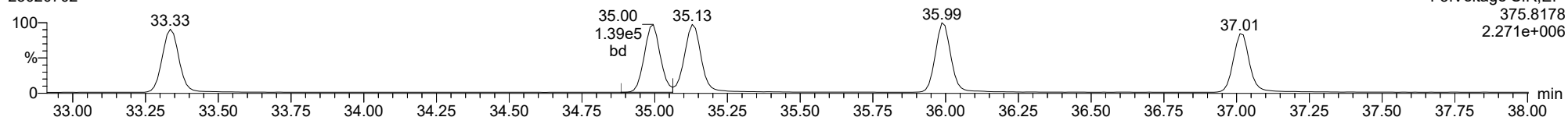
**123478-HxCDF**

23020702



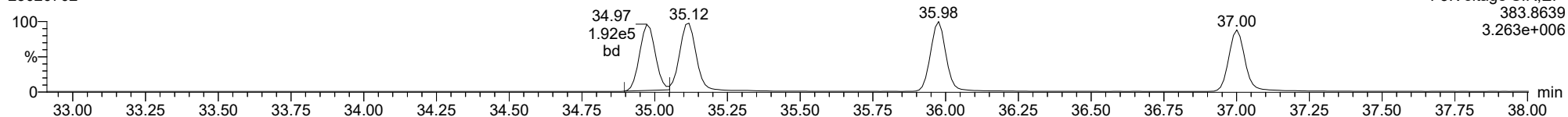
**123478-HxCDF**

23020702



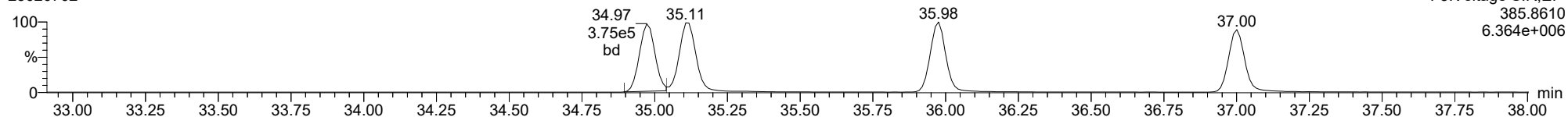
**13C-123478-HxCDF**

23020702



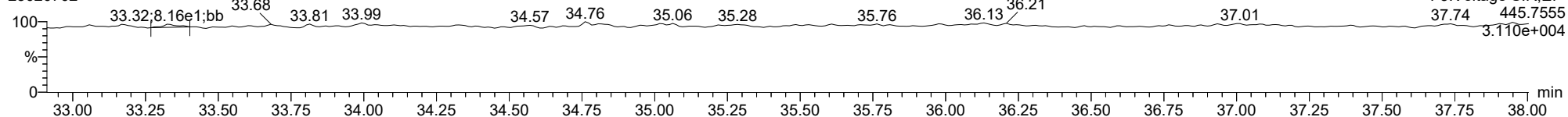
**13C-123478-HxCDF**

23020702



**FUNCTION3 OCDPE**

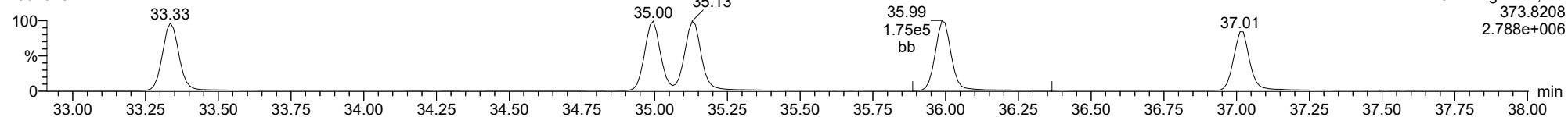
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**234678-HxCDF**

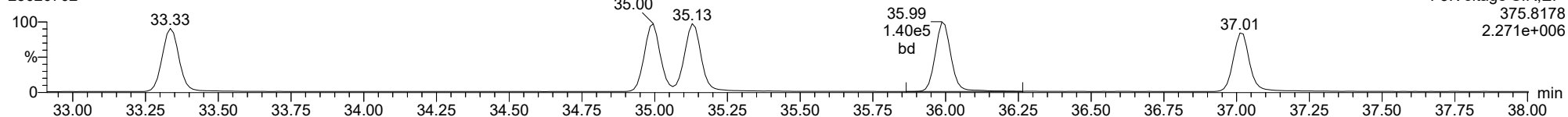
23020702



F3:Voltage SIR,El+  
373.8208  
2.788e+006

**234678-HxCDF**

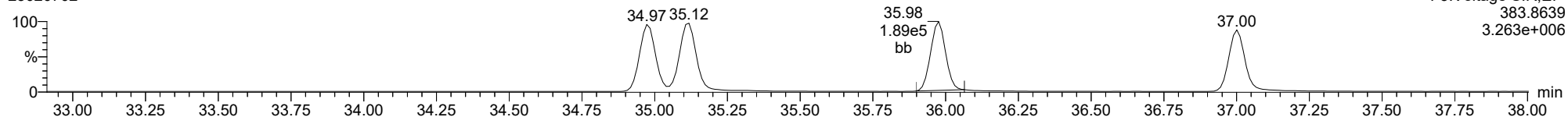
23020702



F3:Voltage SIR,El+  
375.8178  
2.271e+006

**13C-234678-HxCDF**

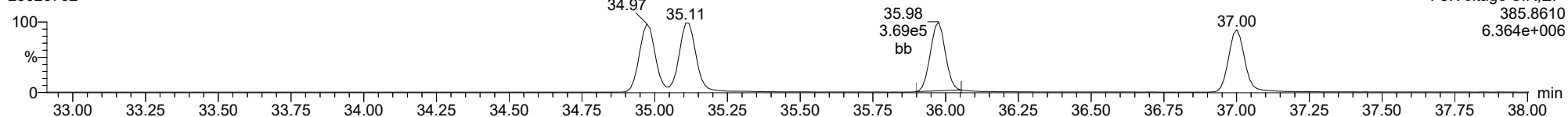
23020702



F3:Voltage SIR,El+  
383.8639  
3.263e+006

**13C-234678-HxCDF**

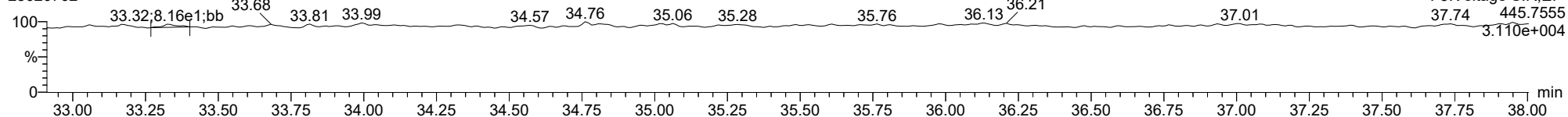
23020702



F3:Voltage SIR,El+  
385.8610  
6.364e+006

**FUNCTION3 OCDPE**

23020702

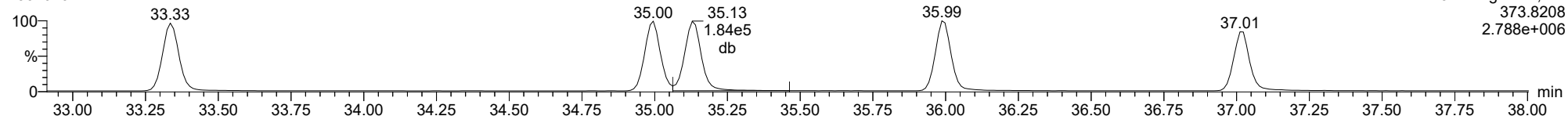


F3:Voltage SIR,El+  
37.74 445.7555  
3.110e+004

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

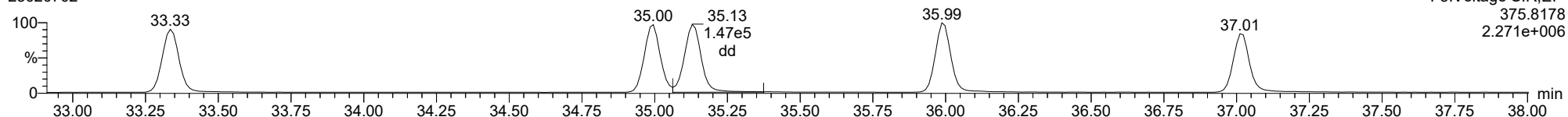
**123678-HxCDF**

23020702



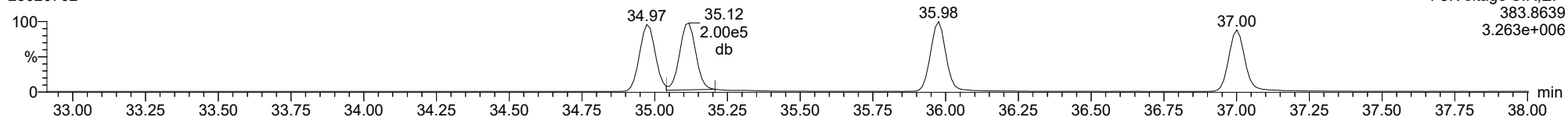
**123678-HxCDF**

23020702



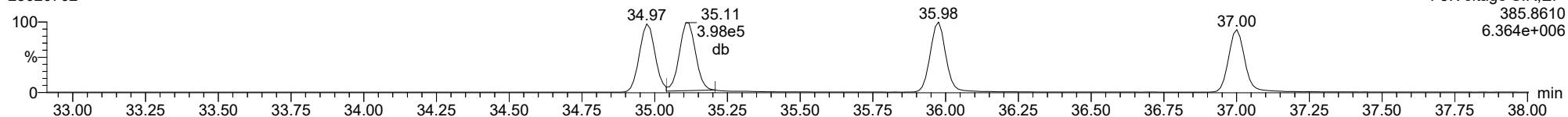
**13C-123678-HxCDF**

23020702



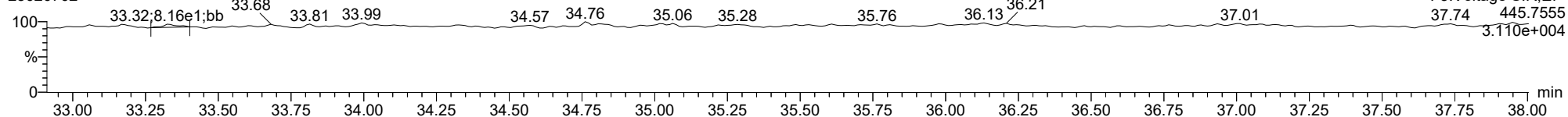
**13C-123678-HxCDF**

23020702



**FUNCTION3 OCDPE**

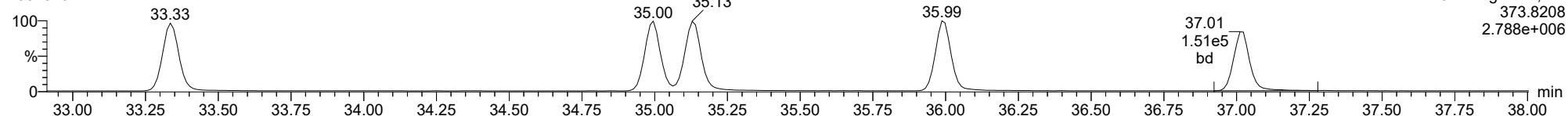
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ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

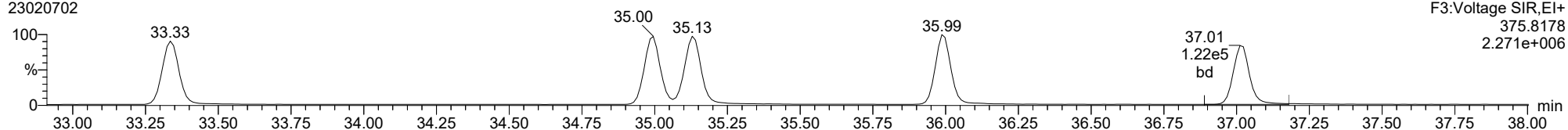
**123789-HxCDF**

23020702



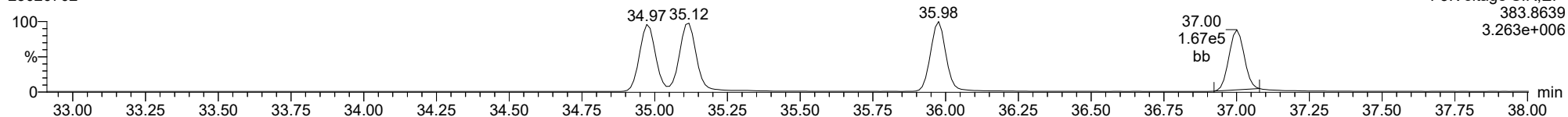
**123789-HxCDF**

23020702



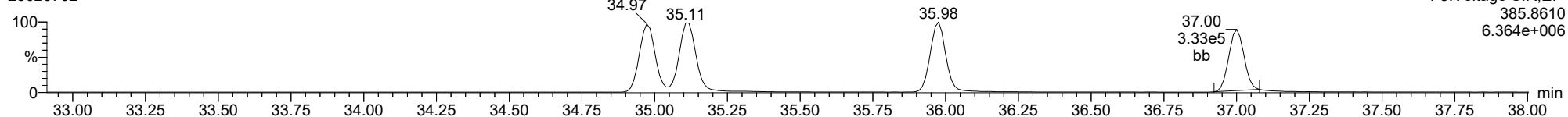
**13C-123789-HxCDF**

23020702



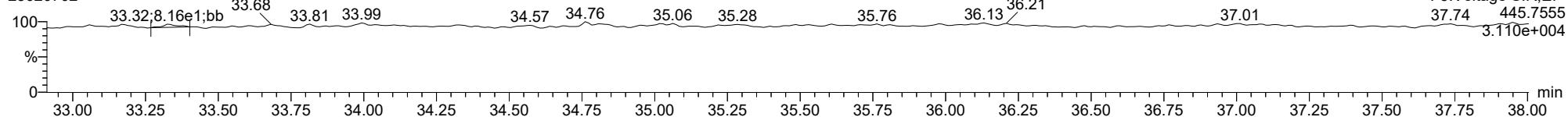
**13C-123789-HxCDF**

23020702



**FUNCTION3 OCDPE**

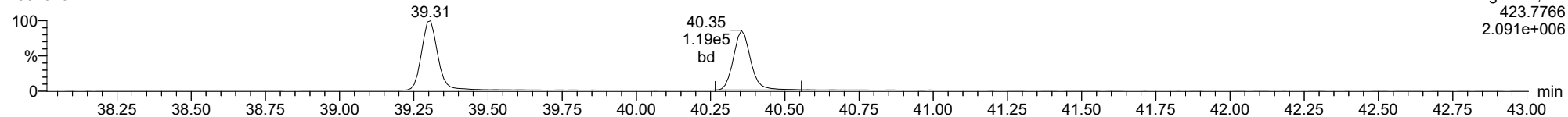
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

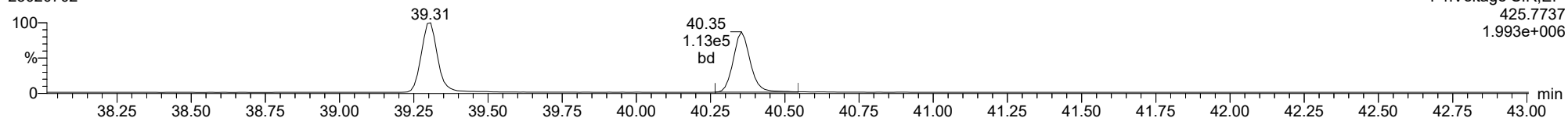
23020702



F4:Voltage SIR,El+  
423.7766  
2.091e+006

**1234678-HpCDD**

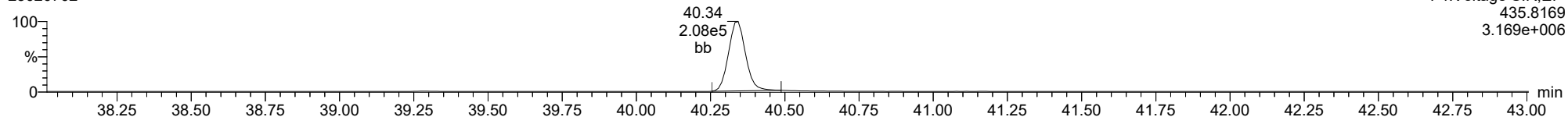
23020702



F4:Voltage SIR,El+  
425.7737  
1.993e+006

**13C-1234678-HpCDD**

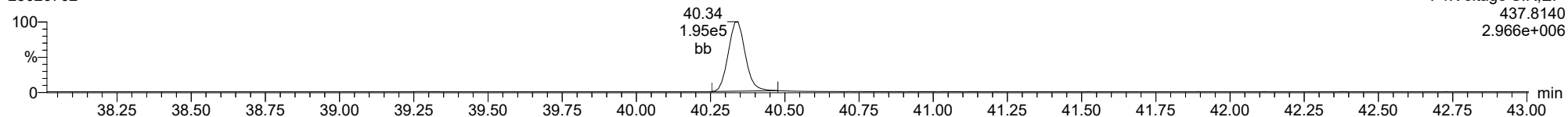
23020702



F4:Voltage SIR,El+  
435.8169  
3.169e+006

**13C-1234678-HpCDD**

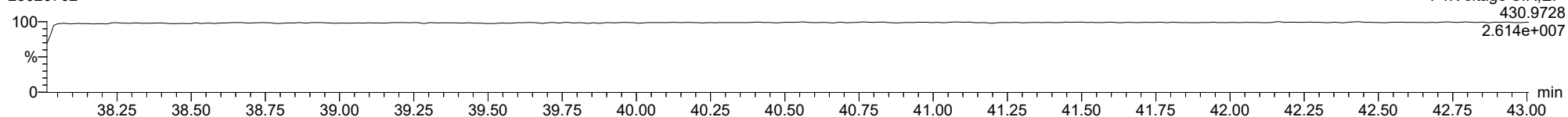
23020702



F4:Voltage SIR,El+  
437.8140  
2.966e+006

**FUNCTION4 PFK**

23020702

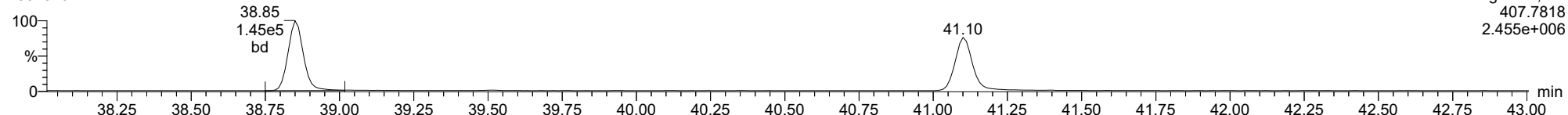


F4:Voltage SIR,El+  
430.9728  
2.614e+007

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

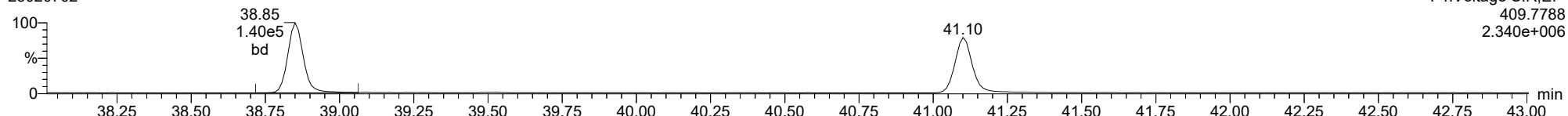
**1234678-HpCDF**

23020702



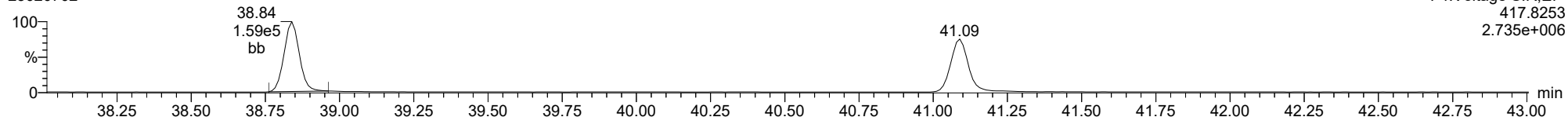
**1234678-HpCDF**

23020702



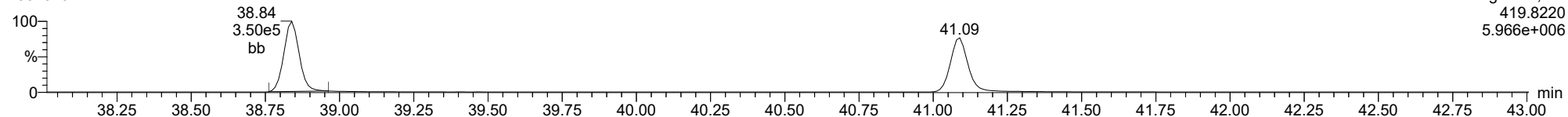
**13C-1234678-HpCDF**

23020702



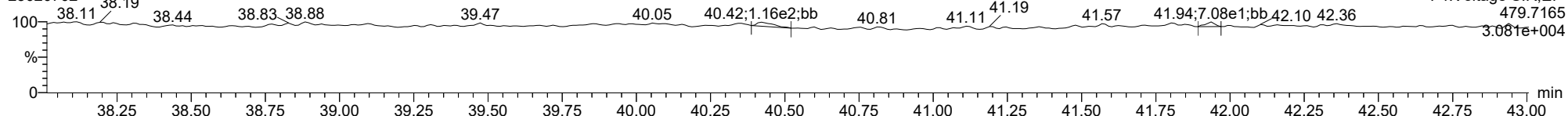
**13C-1234678-HpCDF**

23020702



**FUNCTION4 NCDPE**

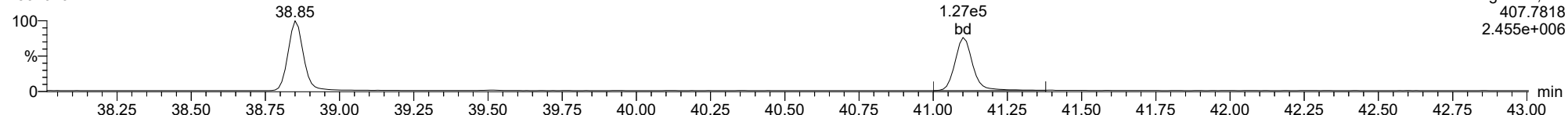
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**1234789-HpCDF**

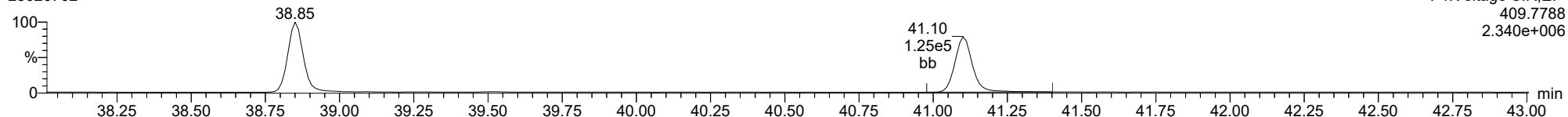
23020702



F4:Voltage SIR,EI+  
407.7818  
2.455e+006

**1234789-HpCDF**

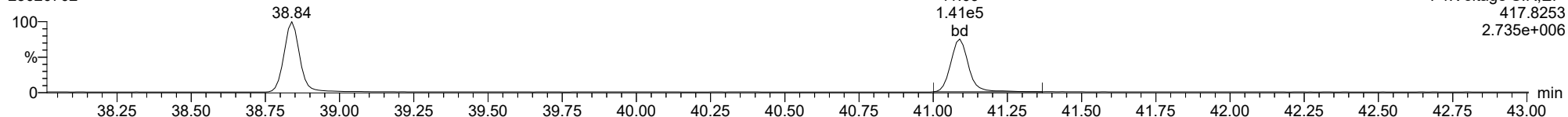
23020702



F4:Voltage SIR,EI+  
409.7788  
2.340e+006

**13C-1234789-HpCDF**

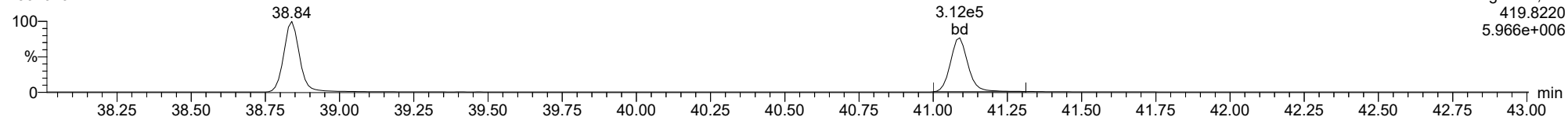
23020702



F4:Voltage SIR,EI+  
417.8253  
2.735e+006

**13C-1234789-HpCDF**

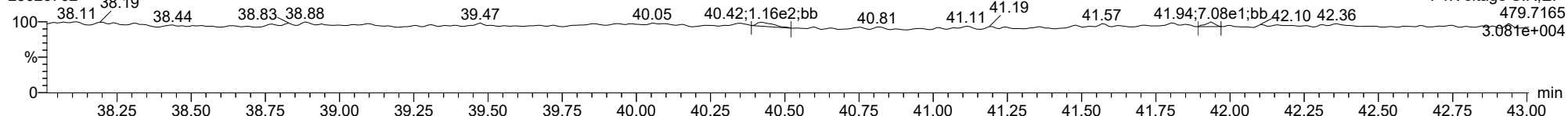
23020702



F4:Voltage SIR,EI+  
419.8220  
5.966e+006

**FUNCTION4 NCDPE**

23020702



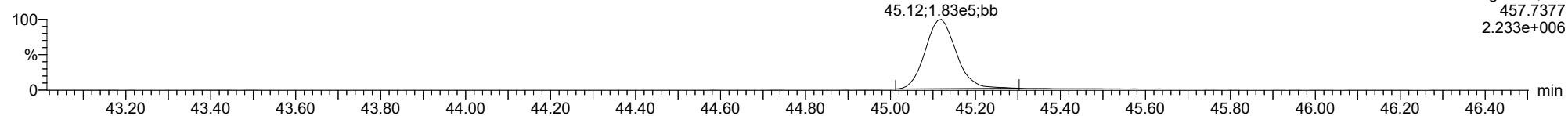
F4:Voltage SIR,EI+  
479.7165  
3.081e+004



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**OCDD**

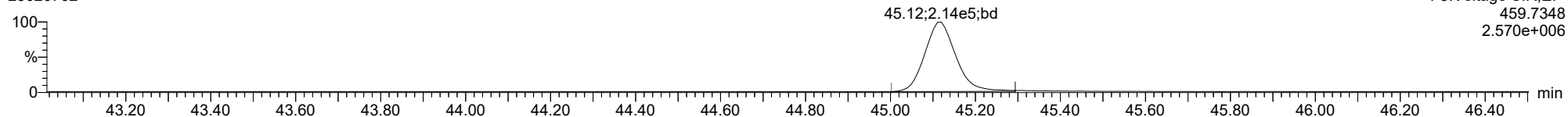
23020702



F5:Voltage SIR,EI+  
459.7348  
2.233e+006

**OCDD**

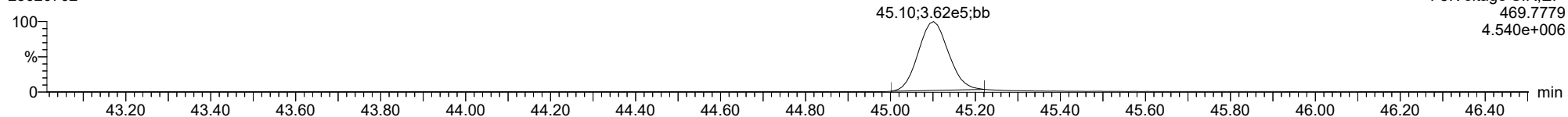
23020702



F5:Voltage SIR,EI+  
459.7348  
2.570e+006

**13C-OCDD**

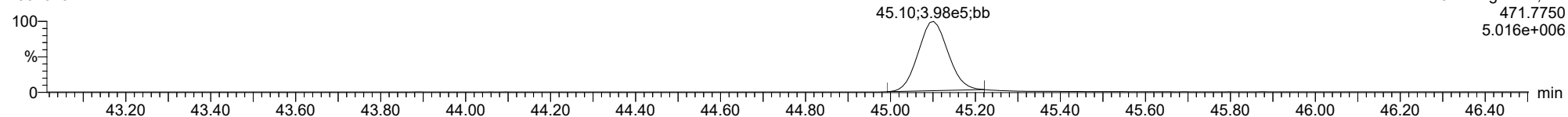
23020702



F5:Voltage SIR,EI+  
469.7779  
4.540e+006

**13C-OCDD**

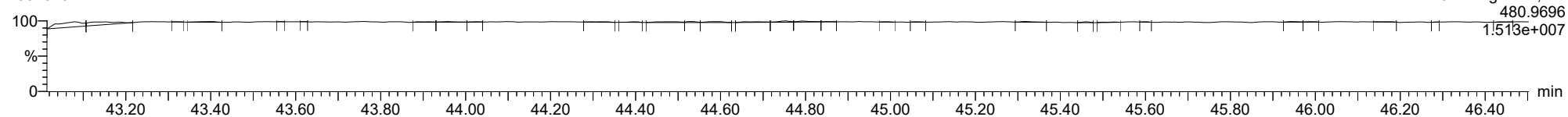
23020702



F5:Voltage SIR,EI+  
471.7750  
5.016e+006

**FUNCTION5 PFK**

23020702

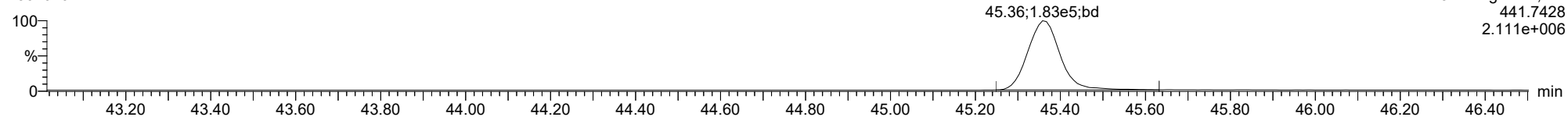


F5:Voltage SIR,EI+  
480.9696  
1.513e+007

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

**OCDF**

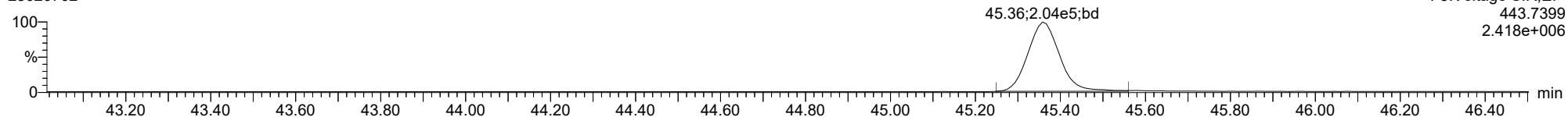
23020702



F5:Voltage SIR,EI+  
441.7428  
2.111e+006

**OCDF**

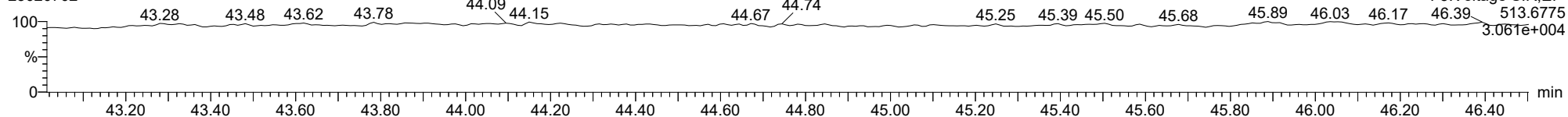
23020702



F5:Voltage SIR,EI+  
443.7399  
2.418e+006

**FUNCTION5 DCDPE**

23020702

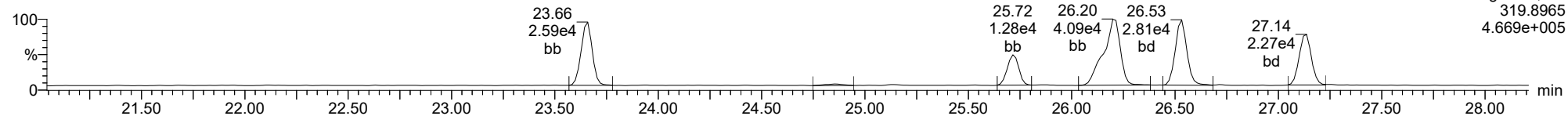


F5:Voltage SIR,EI+  
513.6775  
3.061e+004

ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

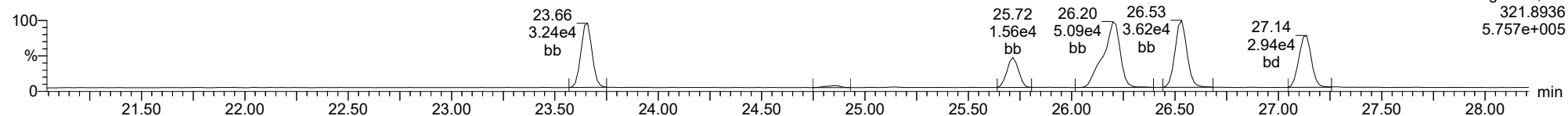
**Total-tetradiioxins**

23020702



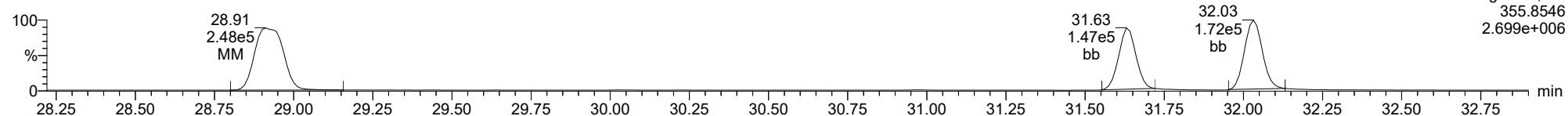
**Total-tetradiioxins**

23020702



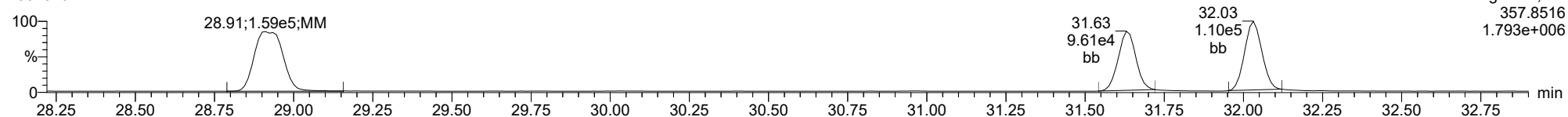
**Total-pentadiioxins**

23020702



**Total-pentadiioxins**

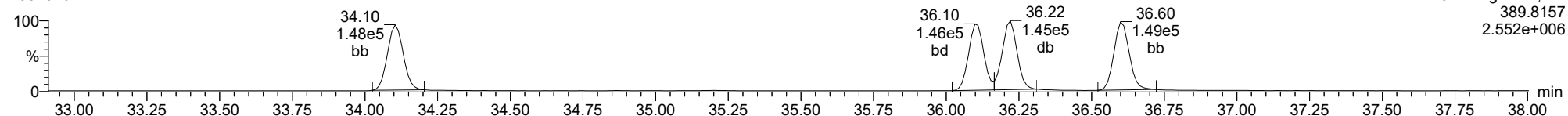
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

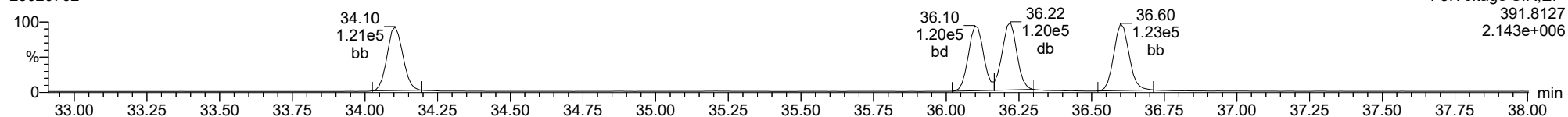
**Total-hexadioxins**

23020702



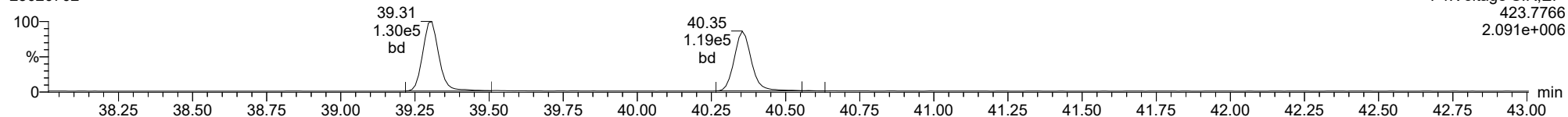
**Total-hexadioxins**

23020702



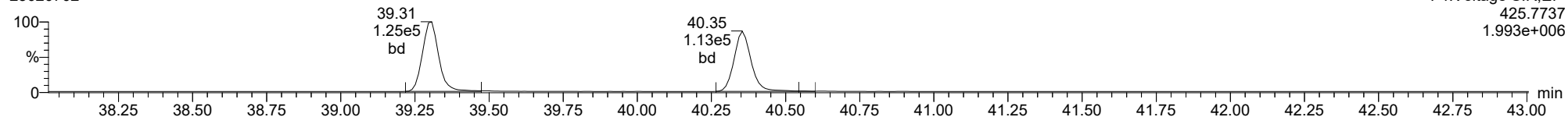
**Total-heptadioxins**

23020702



**Total-heptadioxins**

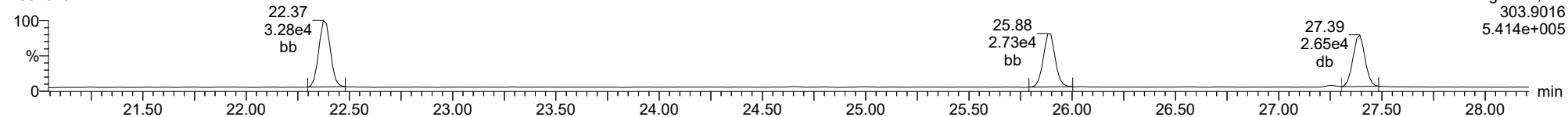
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

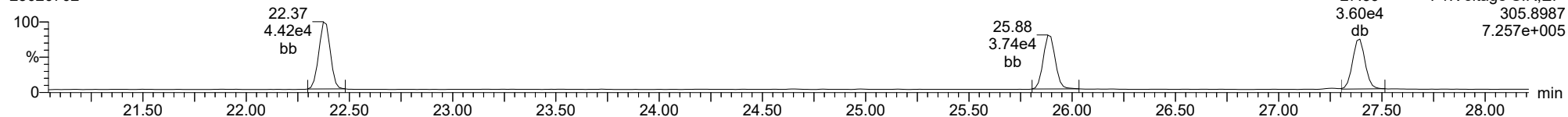
**Total-tetrafurans**

23020702



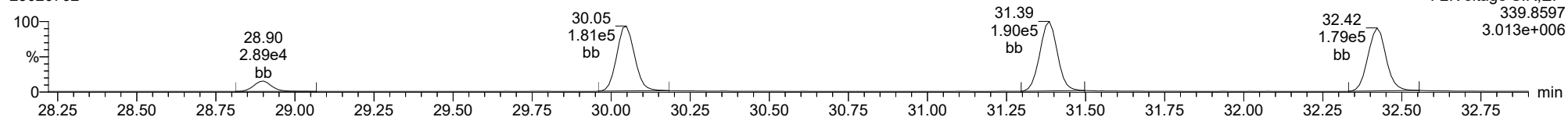
**Total-tetrafurans**

23020702



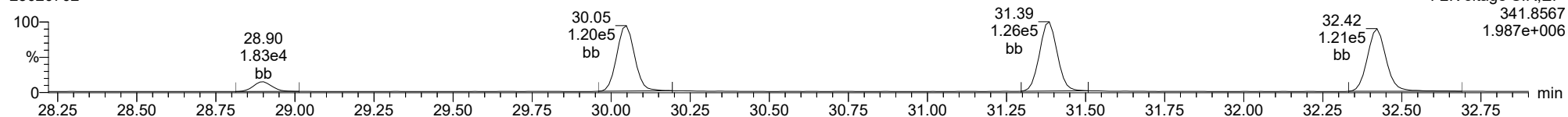
**Total-pentafurans**

23020702



**Total-pentafurans**

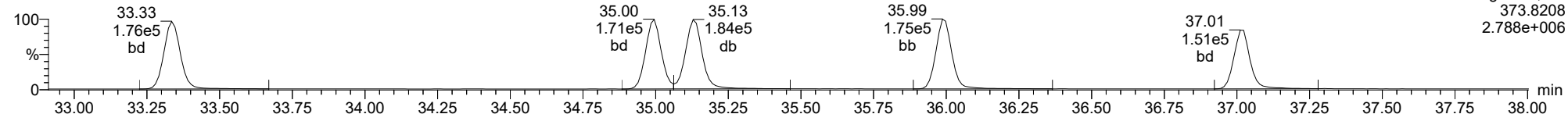
23020702



ID: CS3T1, Name: 23020702, Date: 07-Feb-2023, Time: 09:25:16, Conditions: AUTOSPEC01, User: pk

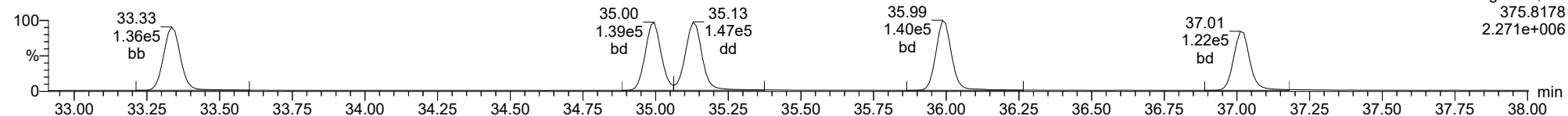
**Total-hexafurans**

23020702



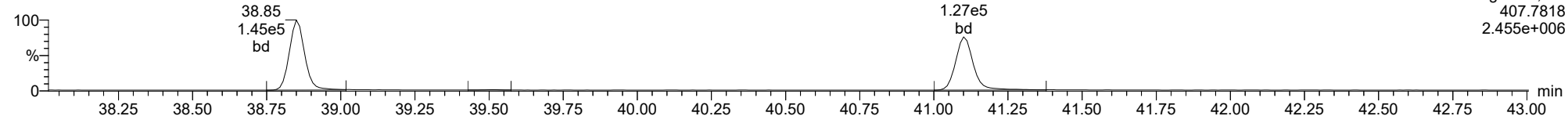
**Total-hexafurans**

23020702



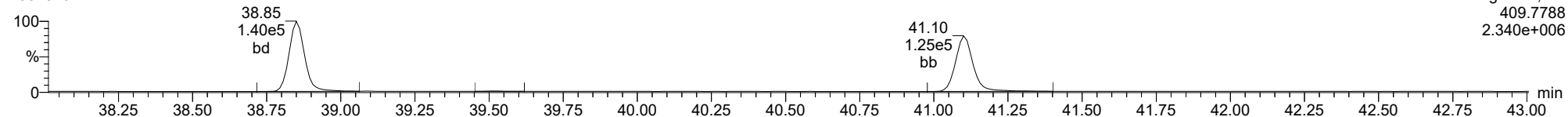
**Total-heptafurans**

23020702

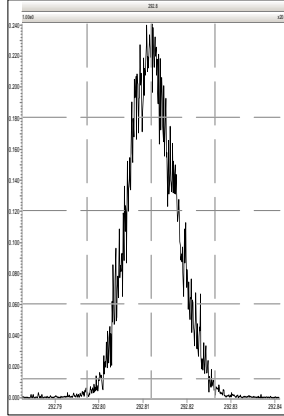


**Total-heptafurans**

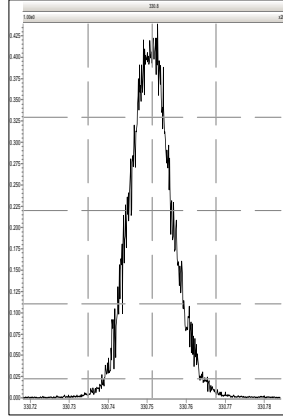
23020702



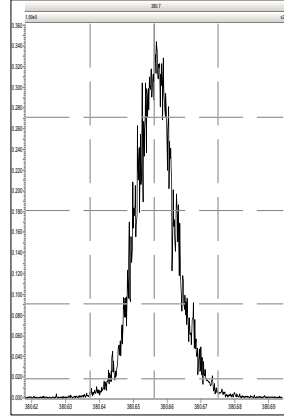
M 292.9824 R 12347



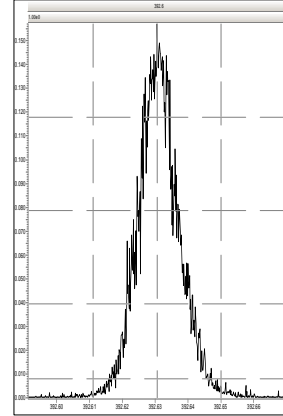
M 330.9792 R 12953



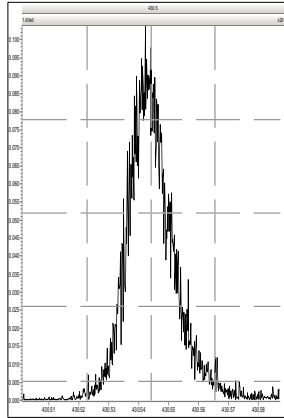
M 380.9760 R 13855



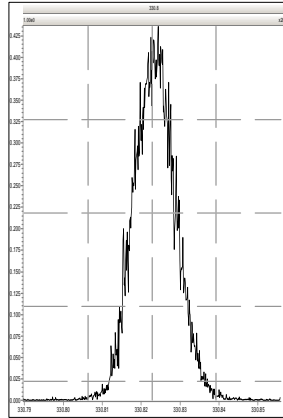
M 392.9760 R 13700



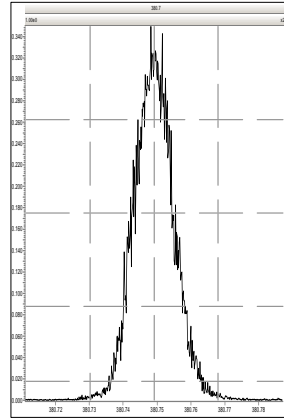
M 430.9728 R 11573



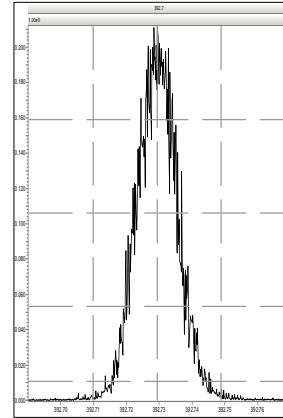
M 330.9792 R 13264



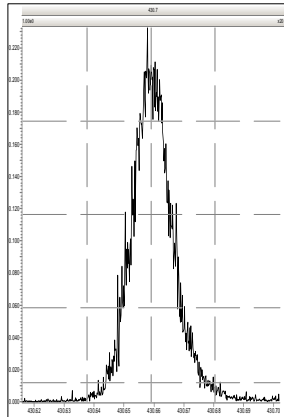
M 380.9760 R 14371



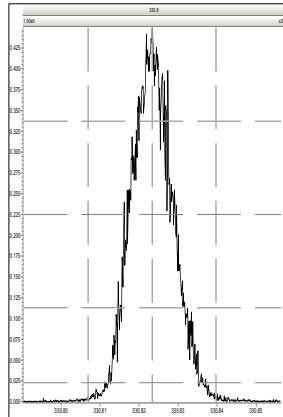
M 392.9760 R 14367



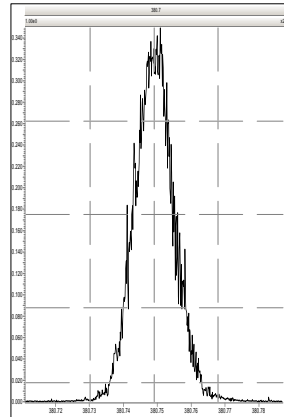
M 430.9728 R 13340



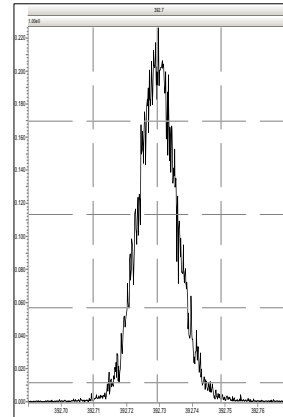
M 330.9792 R 14164



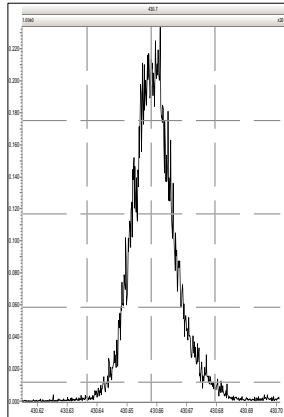
M 380.9760 R 13927



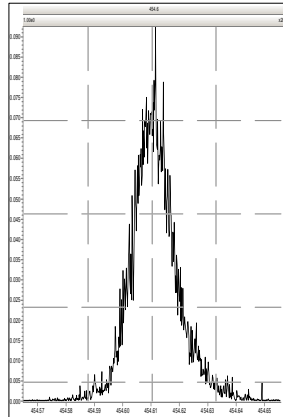
M 392.9760 R 14462



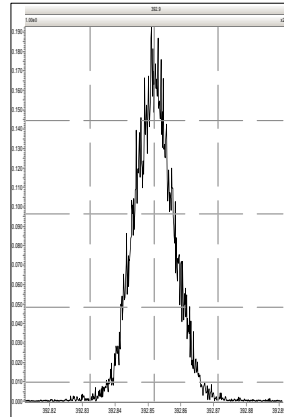
M 430.9728 R 13273



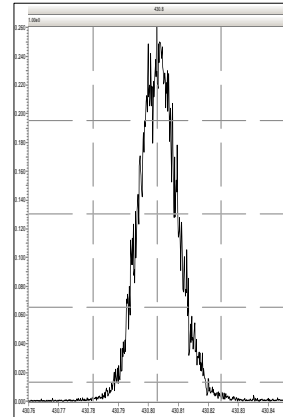
M 454.9728 R 12196



M 392.9760 R 14707

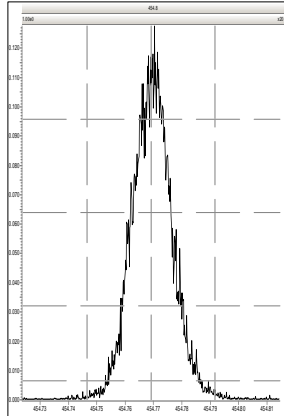


M 430.9728 R 14329

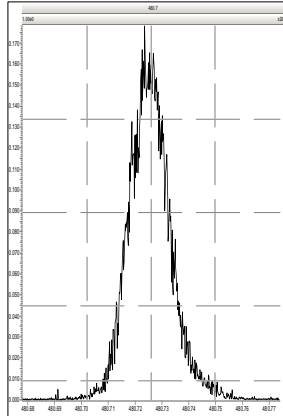


Printed: Tuesday, February 07, 2023 09:21:06 Pacific Standard Time

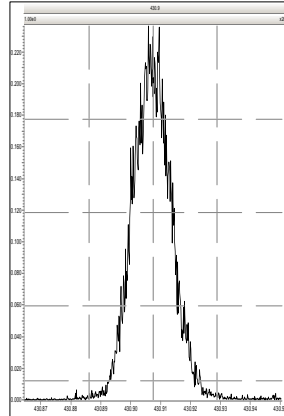
M 454.9728 R 14379



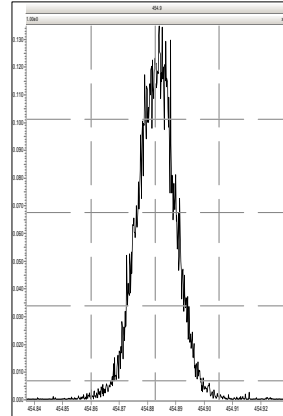
M 480.9696 R 13441



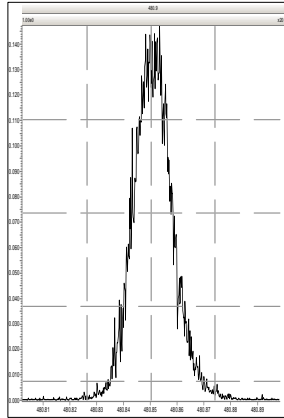
M 430.9728 R 14792



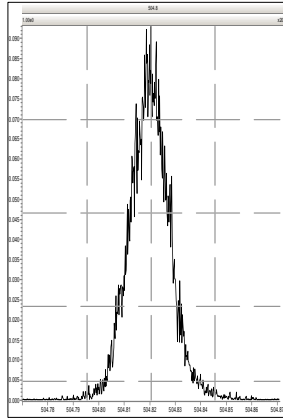
M 454.9728 R 14534



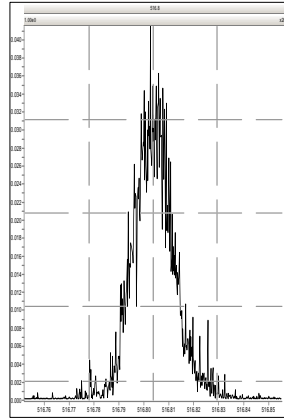
M 480.9696 R 14164



M 504.9696 R 14250



M 516.9697 R 15153



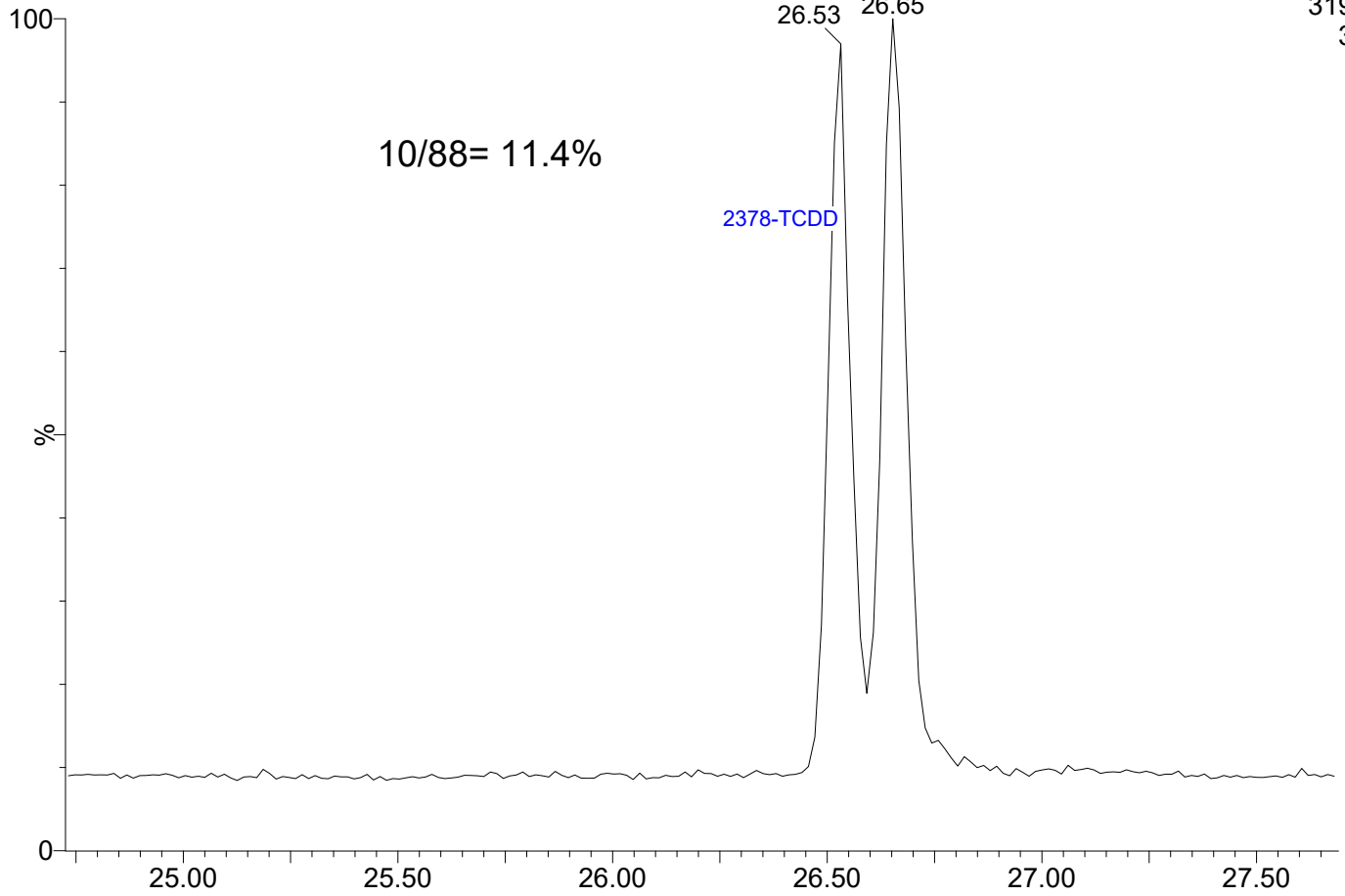


23020703

1: Voltage SIR 15 Channels EI+

319.8965

3.50e5

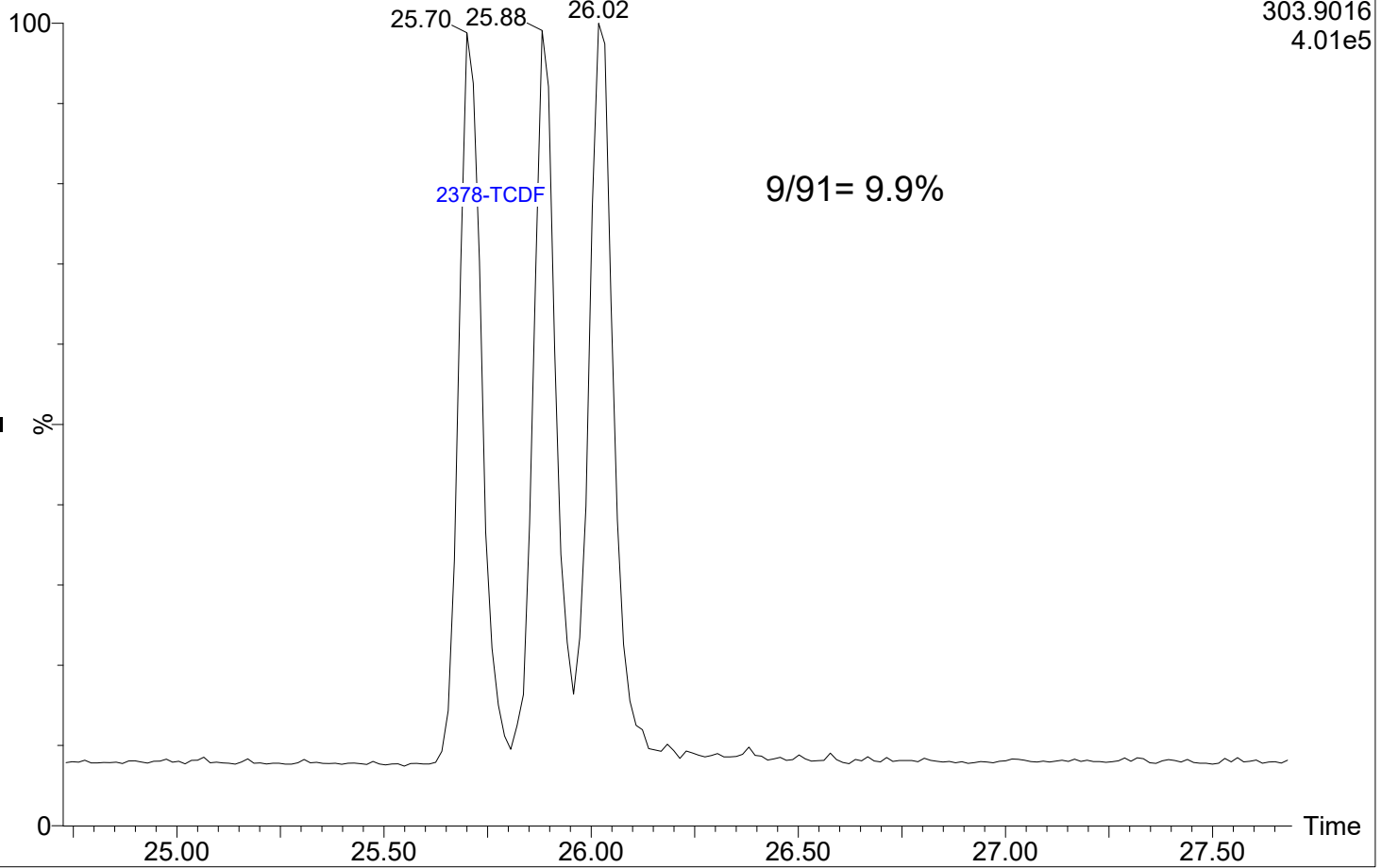


23020703

1: Voltage SIR 15 Channels EI+

303.9016

4.01e5





CONTINUING CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020111

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-CCV1

Injection Time: 21:12

Sequence Name: CS3R2

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	10.2	0.8760604	0.8902585		1.6	+/-16
2,3,7,8-TCDD	A	10.000	9.40	1.2363600	1.1618360		-6.0	+/-22
1,2,3,7,8-PeCDF	A	50.000	50.0	0.8446540	0.8449929		0.04	+/-18
2,3,4,7,8-PeCDF	A	50.000	50.7	0.9111780	0.9236419		1.4	+/-18
1,2,3,7,8-PeCDD	A	50.000	51.1	1.0866850	1.1111520		2.3	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	49.6	1.1816860	1.1728360		-0.7	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	50.9	1.2480480	1.2707090		1.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	52.6	1.2288500	1.2939400		5.3	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	50.4	1.1865370	1.1969780		0.9	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.3	0.9869672	0.9929396		0.6	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	51.0	1.0207220	1.0413320		2.0	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	50.6	0.9854780	0.9974984		1.2	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	48.3	1.2041190	1.1630460		-3.4	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	49.7	1.1653050	1.1577820		-0.6	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	45.5	1.2525690	1.1398400		-9.0	+/-14
OCDF	A	100.00	90.4	1.1862640	1.0729150		-9.6	+/-37
OCDD	A	100.00	92.8	1.1026670	1.0229970		-7.2	+/-21
13C12-2,3,7,8-TCDF	A	100.00	95.3	1.7680590	1.6841852		-4.7	+/-29
13C12-2,3,7,8-TCDD	A	100.00	103	1.1029470	1.1383762		3.2	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	97.8	1.5271250	1.4930478		-2.2	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	97.6	1.4662840	1.4306770		-2.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	95.1	0.9141518	0.8689207		-4.9	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	102	1.0536610	1.0736203		1.9	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	102	1.0799530	1.0977524		1.6	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	99.6	1.0143260	1.0099883		-0.4	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	101	0.9279333	0.9355105		0.8	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	100	0.9329336	0.9327825		-0.02	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	100	0.9646272	0.9644574		-0.02	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	1.0360890	1.0530458		1.6	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	104	0.9049372	0.9392673		3.8	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	103	0.7819773	0.8033582		2.7	+/-28
13C12-OCDD	A	200.00	213	0.7882343	0.8392826		6.5	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.04	1.2334500	1.1156124		-9.6	

\* Values outside of QC limits

\* Values outside of QC limits

\* Values outside of QC limits



**SECOND-SOURCE  
CONTINUING CALIBRATION CHECK  
EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020110

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-SCV1

Injection Time: 20:23

Sequence Name: ICVCR

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.80	0.8760604	0.8586768		-2.0	
2,3,7,8-TCDD	A	10.000	10.1	1.2363600	1.2492920		1.0	
1,2,3,7,8-PeCDF	A	50.000	49.4	0.8446540	0.8351133		-1.1	
2,3,4,7,8-PeCDF	A	50.000	50.7	0.9111780	0.9242915		1.4	
1,2,3,7,8-PeCDD	A	50.000	48.9	1.0866850	1.0622540		-2.2	
1,2,3,4,7,8-HxCDF	A	50.000	50.8	1.1816860	1.2014960		1.7	
1,2,3,6,7,8-HxCDF	A	50.000	51.1	1.2480480	1.2746570		2.1	
2,3,4,6,7,8-HxCDF	A	50.000	51.5	1.2288500	1.2663990		3.1	
1,2,3,7,8,9-HxCDF	A	50.000	49.9	1.1865370	1.1839220		-0.2	
1,2,3,4,7,8-HxCDD	A	50.000	51.0	0.9869672	1.0062160		2.0	
1,2,3,6,7,8-HxCDD	A	50.000	48.3	1.0207220	0.9861518		-3.4	
1,2,3,7,8,9-HxCDD	A	50.000	49.6	0.9854780	1.0444.61		-0.8	
1,2,3,4,6,7,8-HpCDF	A	50.000	49.0	1.2041190	1.1796410		-2.0	
1,2,3,4,7,8,9-HpCDF	A	50.000	51.5	1.1653050	1.1995620		2.9	
1,2,3,4,6,7,8-HpCDD	A	50.000	48.8	1.2525690	1.2236480		-2.3	
OCDF	A	100.00	93.0	1.1862640	1.1031570		-7.0	
OCDD	A	100.00	95.8	1.1026670	1.0561160		-4.2	
13C12-2,3,7,8-TCDF	A	100.00	101	1.7680590	1.7827674		0.8	
13C12-2,3,7,8-TCDD	A	100.00	97.3	1.1029470	1.0730574		-2.7	
13C12-1,2,3,7,8-PeCDF	A	100.00	97.9	1.5271250	1.4954172		-2.1	
13C12-2,3,4,7,8-PeCDF	A	100.00	96.0	1.4662840	1.4076825		-4.0	
13C12-1,2,3,7,8-PeCDD	A	100.00	95.6	0.9141518	0.8737537		-4.4	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	99.0	1.0536610	1.0427881		-1.0	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.8	1.0799530	1.0669191		-1.2	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	99.3	1.0143260	1.0069993		-0.7	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	98.6	0.9279333	0.9147189		-1.4	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.7	0.9329336	0.9118251		-2.3	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	101	0.9646272	0.9706530		0.6	
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	100	1.0360890	1.0396134		0.3	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	101	0.9049372	0.9117511		0.8	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	101	0.7819773	0.7868918		0.6	
13C12-OCDD	A	200.00	205	0.7882343	0.8085897		2.6	
37C14-2,3,7,8-TCDD	A	10.000	8.94	1.2334500	1.1023697		-10.6	

\* Values outside of QC limits



CONTINUING CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020712

Calibration Date: 02/01/2023

Sequence: SLB0072

Injection Date: 02/07/23

Lab Sample ID: SLB0072-CCV1

Injection Time: 18:03

Sequence Name: CS3T2

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.62	0.8760604	0.8425410		-3.8	+/-16
2,3,7,8-TCDD	A	10.000	9.12	1.2363600	1.1279220		-8.8	+/-22
1,2,3,7,8-PeCDF	A	50.000	49.3	0.8446540	0.8333849		-1.3	+/-18
2,3,4,7,8-PeCDF	A	50.000	50.2	0.9111780	0.9145696		0.4	+/-18
1,2,3,7,8-PeCDD	A	50.000	48.9	1.0866850	1.0635240		-2.1	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.2	1.1816860	1.1145670		-5.7	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	46.0	1.2480480	1.1491650		-7.9	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	48.6	1.2288500	1.1942680		-2.8	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	47.0	1.1865370	1.1151780		-6.0	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	46.3	0.9869672	0.9147686		-7.3	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	46.4	1.0207220	0.9463653		-7.3	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	45.4	0.9854780	0.8955373		-9.1	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.6	1.2041190	1.1462050		-4.8	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.9	1.1653050	1.1174530		-4.1	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	44.8	1.2525690	1.1232850		-10.3	+/-14
OCDF	A	100.00	88.4	1.1862640	1.0487720		-11.6	+/-37
OCDD	A	100.00	92.2	1.1026670	1.0161490		-7.8	+/-21
13C12-2,3,7,8-TCDF	A	100.00	90.4	1.7680590	1.5989330		-9.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	104	1.1029470	1.1513037		4.4	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	96.8	1.5271250	1.4789332		-3.2	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	98.7	1.4662840	1.4477561		-1.3	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	104	0.9141518	0.9514060		4.1	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	98.0	1.0536610	1.0323667		-2.0	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.4	1.0799530	1.0621887		-1.6	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	97.4	1.0143260	0.9880678		-2.6	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	99.4	0.9279333	0.9219389		-0.6	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	109	0.9329336	1.0148075		8.8	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	107	0.9646272	1.0358556		7.4	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	90.9	1.0360890	0.9416701		-9.1	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	93.7	0.9049372	0.8477012		-6.3	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	100	0.7819773	0.7837238		0.2	+/-28
13C12-OCDD	A	200.00	181	0.7882343	0.7125389		-9.6	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.10	1.2334500	1.1218993		-9.0	

\* Values outside of QC limits

\* Values outside of QC limits

\* Values outside of QC limits

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**  
**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	3.277e4	4.402e4	0.876	0.744	0.770	997	1584	5.01e5	6.76e5	502.2	426.8	NO	bb	bb	9.617
12378-PeCDF	30.037	1.001	2.126e5	1.387e5	0.845	1.533	1.550	1961	1823	3.25e6	2.15e6	1659.1	1177.0	NO	bb	bb	49.333
23478-PeCDF	31.374	1.001	2.264e5	1.510e5	0.911	1.499	1.550	1961	1823	3.56e6	2.28e6	1816.7	1251.6	NO	bb	dd	50.186
123478-HxCDF	34.995	1.001	2.051e5	1.648e5	1.182	1.245	1.240	1581	1600	3.17e6	2.52e6	2001.9	1575.8	NO	bd	bd	47.160
234678-HxCDF	35.987	1.000	2.102e5	1.692e5	1.229	1.242	1.240	1581	1600	3.32e6	2.69e6	2096.4	1683.4	NO	bb	bb	48.593
123678-HxCDF	35.129	1.000	2.187e5	1.737e5	1.248	1.259	1.240	1581	1600	3.39e6	2.67e6	2142.9	1668.0	NO	db	db	46.038
123789-HxCDF	37.012	1.000	1.837e5	1.468e5	1.187	1.251	1.240	1581	1600	2.81e6	2.27e6	1773.8	1417.9	NO	bd	bb	46.993
1234678-HpCDF	38.850	1.000	1.758e5	1.712e5	1.204	1.027	1.050	2063	1689	2.83e6	2.80e6	1371.7	1657.9	NO	bd	bb	47.595
1234789-HpCDF	41.101	1.000	1.540e5	1.505e5	1.165	1.023	1.050	2063	1689	2.16e6	2.14e6	1046.6	1265.4	NO	bd	bb	47.947
OCDF	45.367	1.006	2.270e5	2.535e5	1.186	0.895	0.890	1195	1577	2.58e6	2.84e6	2156.5	1802.5	NO	bd	bd	88.410
2378-TCDD	26.517	1.001	3.268e4	4.134e4	1.236	0.791	0.770	958	1020	5.06e5	6.20e5	528.3	607.8	NO	bb	bb	9.123
12378-PeCDD	31.631	1.001	1.765e5	1.119e5	1.087	1.578	1.550	1663	1480	2.74e6	1.72e6	1646.9	1162.9	NO	bb	bb	48.934
123478-HxCDD	36.098	1.000	1.629e5	1.355e5	0.987	1.202	1.240	1413	1787	2.76e6	2.30e6	1952.5	1286.8	NO	bd	bd	46.342
123678-HxCDD	36.221	1.001	1.732e5	1.419e5	1.021	1.220	1.240	1413	1787	2.77e6	2.24e6	1958.5	1250.6	NO	db	db	46.358
123789-HxCDD	36.599	1.011	1.629e5	1.322e5	0.985	1.232	1.240	1413	1787	2.60e6	2.13e6	1843.0	1191.0	NO	bb	bb	45.437
1234678-HpCDD	40.354	1.000	1.447e5	1.383e5	1.253	1.046	1.050	1460	1446	2.12e6	2.03e6	1452.7	1404.4	NO	bd	bd	44.839
OCDD	45.120	1.000	2.168e5	2.488e5	1.103	0.871	0.890	1128	726	2.60e6	2.94e6	2303.6	4053.8	NO	bb	bb	92.154
13C-2378-TCDF	25.867	1.007	4.007e5	5.108e5	1.768	0.785	0.770	2076	1628	6.15e6	7.77e6	2965.3	4774.1	NO	bb	bb	90.434
13C-12378-PeCDF	30.015	1.169	5.099e5	3.332e5	1.527	1.530	1.550	2048	1361	7.68e6	5.07e6	3753.0	3723.4	NO	bb	bb	96.844
13C-23478-PeCDF	31.352	1.221	4.998e5	3.256e5	1.466	1.535	1.550	2048	1361	7.66e6	4.94e6	3743.1	3629.9	NO	bb	bb	98.736
13C-123478-HxCDF	34.973	0.956	2.234e5	4.404e5	1.054	0.507	0.510	1394	2029	3.63e6	7.07e6	2601.9	3486.4	NO	bd	bd	97.979
13C-123678-HxCDF	35.118	0.960	2.336e5	4.493e5	1.080	0.520	0.510	1394	2029	3.70e6	7.18e6	2652.9	3540.5	NO	db	db	98.355
13C-234678-HxCDF	35.976	0.983	2.155e5	4.198e5	1.014	0.513	0.510	1394	2029	3.61e6	6.99e6	2592.2	3445.0	NO	bb	bb	97.411
13C-123789-HxCDF	37.001	1.011	1.992e5	3.936e5	0.928	0.506	0.510	1394	2029	3.27e6	6.47e6	2343.4	3188.4	NO	bb	bb	99.354
13C-1234678-HpCDF	38.839	1.062	1.870e5	4.184e5	1.036	0.447	0.440	1688	2097	3.12e6	7.10e6	1847.8	3384.0	NO	bb	bb	90.887
13C-1234789-HpCDF	41.090	1.123	1.676e5	3.774e5	0.905	0.444	0.440	1688	2097	2.41e6	5.32e6	1425.7	2535.6	NO	bd	bd	93.675
13C-1234-TCDD	25.685	0.000	2.526e5	3.174e5	1.000	0.796	0.770	1770	1120	4.00e6	5.00e6	2260.7	4465.7	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.032	2.894e5	3.669e5	1.103	0.789	0.770	1770	1120	4.37e6	5.52e6	2468.5	4931.0	NO	bb	bb	104.384
13C-12378-PeCDD	31.608	1.231	3.343e5	2.080e5	0.914	1.607	1.550	889	1886	4.93e6	3.13e6	5548.9	1657.3	NO	bb	bd	104.075
13C-123478-HxCDD	36.087	0.986	3.637e5	2.888e5	0.933	1.260	1.240	2336	1276	6.15e6	4.85e6	2633.3	3799.7	NO	bd	bd	108.776
13C-123678-HxCDD	36.199	0.989	3.733e5	2.927e5	0.965	1.275	1.240	2336	1276	6.04e6	4.76e6	2587.7	3729.2	NO	db	db	107.384
13C-1234678-HpCDD	40.343	1.103	2.613e5	2.426e5	0.782	1.077	1.050	1333	1266	3.89e6	3.61e6	2916.8	2849.1	NO	bb	bd	100.223
13C-OCDD	45.102	1.233	4.384e5	4.778e5	0.788	0.918	0.890	1711	1145	5.34e6	5.74e6	3120.2	5013.8	NO	bb	bb	180.794
13C-123789-HxCDD	36.588	0.000	3.587e5	2.843e5	1.000	1.262	1.240	2336	1276	5.81e6	4.66e6	2488.9	3649.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.517	1.032	6.396e4		1.233			1329		9.96e5		749.5			bb		9.096

**ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.359	0.864	3.726e4	4.903e4	1.064	0.760	0.770	997	1584	5.78e5	7.73e5	579.4	488.1	NO	bb	bb	8.893
1289-TCDF	27.378	1.058	3.235e4	4.245e4	0.858	0.762	0.770	997	1584	4.84e5	6.44e5	485.1	406.4	NO	db	db	9.568
13468-PECDF	27.227	0.907	2.740e5	1.745e5	1.013	1.570	1.550	654	870	4.19e6	2.73e6	6408.0	3144.6	NO	bb	bb	52.525
12389-PECDF	32.410	1.080	2.153e5	1.414e5	0.844	1.523	1.550	1961	1823	3.23e6	2.12e6	1649.2	1162.6	NO	bb	bb	50.151
123468-HXCDF	33.335	0.953	2.054e5	1.657e5	1.197	1.239	1.240	1581	1600	3.06e6	2.52e6	1933.1	1573.0	NO	bb	bb	46.698
1368-TCDD	23.644	0.892	2.987e4	3.899e4	1.084	0.766	0.770	958	1020	4.60e5	6.04e5	479.8	592.3	NO	bb	bb	9.676
1289-TCDD	27.122	1.023	2.843e4	3.757e4	0.975	0.757	0.770	958	1020	4.28e5	5.60e5	447.1	549.0	NO	bb	bb	10.311
12479-PECDD	28.912	0.915	2.811e5	1.811e5	1.837	1.552	1.550	1663	1480	2.72e6	1.74e6	1635.6	1173.4	NO	bb	bb	46.381
12389-PECDD	32.021	1.013	2.046e5	1.300e5	1.252	1.574	1.550	1663	1480	3.09e6	2.00e6	1858.7	1348.7	NO	bb	bb	49.269
124679-HXCDD	34.104	0.945	1.714e5	1.381e5	1.033	1.241	1.240	1413	1787	2.67e6	2.17e6	1887.9	1214.4	NO	bb	bb	45.934
1234679-HPCDD	39.307	0.974	1.602e5	1.563e5	1.286	1.025	1.050	1460	1446	2.52e6	2.40e6	1728.2	1661.6	NO	bd	bd	48.826
Total-tetrafurans			1.033e5		0.933			997		1.58e6							28.328
Total-penta1			2.740e5					654		4.19e6							52.525
Total-pentafurans			6.875e5		0.866			1961		1.06e7							157.288
Total-hexafurans			1.023e6		1.208			1581		1.57e7							235.482
Total-heptafurans			3.298e5		1.185			2063		4.99e6							95.542
Total-Furans			2.645e6		1.067			997		3.96e7							657.574
Total-tetradoxins			1.549e5		1.099			958		2.14e6							49.032
Total-pentadoxins			6.628e5		1.392			1663		8.56e6							144.714
Total-hexadoxins			6.722e5		1.007			1413		1.08e7							184.532
Total-heptadoxins			3.048e5		1.269			1460		4.65e6							93.665
Total-Dioxins			2.012e6		1.165			958		2.88e7							564.097
Total-TEQ			4.656e6					958		6.84e7							1221.671
FUNCTION1 PFK			2.655e7					338448		1.39e8							
FUNCTION2 PFK			6.100e3					202881		3.37e5							0.000
FUNCTION3 PFK			1.677e7					268870		1.67e7							0.000
FUNCTION4 PFK			4.680e4					186506		1.19e6							
FUNCTION5 PFK			9.757e4					125142		3.45e6							
FUNCTION1 HXCD...			5.883e2					719		8.53e3							0.000
FUNCTION1 HPCD...			7.087e2					765		9.46e3							0.000
FUNCTION2 HPCD...			4.761e2					974		7.53e3							0.000
FUNCTION3 OCDPE			5.293e2					700		7.57e3							0.000
FUNCTION4 NCDPE			6.561e2					933		1.27e4							0.000
FUNCTION5 DCDPE			7.441e1					685		1.58e3							0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:30:36 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	3.235e4	4.245e4	0.858	0.76	0.77	485.1	YES	NO	db	db	9.568
2	Total-tetrafurans	27.24	8.735e2	1.247e3	0.933	0.70	0.77	14.5	YES	NO	bd	bd	0.249
3	2378-TCDF	25.88	3.277e4	4.402e4	0.876	0.74	0.77	502.2	YES	NO	bb	bb	9.617
4	1368-TCDF	22.36	3.726e4	4.903e4	1.064	0.76	0.77	579.4	YES	NO	bb	bb	8.893

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.23	2.740e5	1.745e5	1.013	1.57	1.55	6408.0	YES	NO	bb	bb	52.525

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	30.20	1.837e2	1.243e2	0.866	1.48	1.55	2.4	NO	NO	bb	bb	0.043
2	12378-PeCDF	30.04	2.126e5	1.387e5	0.845	1.53	1.55	1659.1	YES	NO	bb	bb	49.333
3	Total-pentafurans	28.89	3.289e4	2.164e4	0.866	1.52	1.55	257.1	YES	NO	bb	bb	7.545
4	12389-PECDF	32.41	2.153e5	1.414e5	0.844	1.52	1.55	1649.2	YES	NO	bb	bb	50.151
5	Total-pentafurans	31.62	1.344e2	7.833e1	0.866	1.72	1.55	1.9	NO	NO	bb	db	0.029
6	23478-PeCDF	31.37	2.264e5	1.510e5	0.911	1.50	1.55	1816.7	YES	NO	bb	dd	50.186

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	1.837e5	1.468e5	1.187	1.25	1.24	1773.8	YES	NO	bd	bb	46.993
2	234678-HxCDF	35.99	2.102e5	1.692e5	1.229	1.24	1.24	2096.4	YES	NO	bb	bb	48.593
3	123678-HxCDF	35.13	2.187e5	1.737e5	1.248	1.26	1.24	2142.9	YES	NO	db	db	46.038
4	123478-HxCDF	35.00	2.051e5	1.648e5	1.182	1.24	1.24	2001.9	YES	NO	bd	bd	47.160
5	123468-HXCDF	33.34	2.054e5	1.657e5	1.197	1.24	1.24	1933.1	YES	NO	bb	bb	46.698

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	1.540e5	1.505e5	1.165	1.02	1.05	1046.6	YES	NO	bd	bb	47.947
2	1234678-HpCDF	38.85	1.758e5	1.712e5	1.204	1.03	1.05	1371.7	YES	NO	bd	bb	47.595

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

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**ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	3.235e4	4.245e4	0.858	0.76	0.77	485.1	YES	NO	db	db	9.568
2	Total-tetrafurans	27.24	8.735e2	1.247e3	0.933	0.70	0.77	14.5	YES	NO	bd	bd	0.249
3	2378-TCDF	25.88	3.277e4	4.402e4	0.876	0.74	0.77	502.2	YES	NO	bb	bb	9.617
4	1368-TCDF	22.36	3.726e4	4.903e4	1.064	0.76	0.77	579.4	YES	NO	bb	bb	8.893
5	Total-pentafurans	30.20	1.837e2	1.243e2	0.866	1.48	1.55	2.4	NO	NO	bb	bb	0.043
6	12378-PeCDF	30.04	2.126e5	1.387e5	0.845	1.53	1.55	1659.1	YES	NO	bb	bb	49.333
7	Total-pentafurans	28.89	3.289e4	2.164e4	0.866	1.52	1.55	257.1	YES	NO	bb	bb	7.545
8	12389-PECDF	32.41	2.153e5	1.414e5	0.844	1.52	1.55	1649.2	YES	NO	bb	bb	50.151
9	Total-pentafurans	31.62	1.344e2	7.833e1	0.866	1.72	1.55	1.9	NO	NO	bb	db	0.029
10	23478-PeCDF	31.37	2.264e5	1.510e5	0.911	1.50	1.55	1816.7	YES	NO	bb	dd	50.186
11	123789-HxCDF	37.01	1.837e5	1.468e5	1.187	1.25	1.24	1773.8	YES	NO	bd	bb	46.993
12	234678-HxCDF	35.99	2.102e5	1.692e5	1.229	1.24	1.24	2096.4	YES	NO	bb	bb	48.593
13	123678-HxCDF	35.13	2.187e5	1.737e5	1.248	1.26	1.24	2142.9	YES	NO	db	db	46.038
14	123478-HxCDF	35.00	2.051e5	1.648e5	1.182	1.24	1.24	2001.9	YES	NO	bd	bd	47.160
15	123468-HXCDF	33.34	2.054e5	1.657e5	1.197	1.24	1.24	1933.1	YES	NO	bb	bb	46.698
16	1234789-HpCDF	41.10	1.540e5	1.505e5	1.165	1.02	1.05	1046.6	YES	NO	bd	bb	47.947
17	1234678-HpCDF	38.85	1.758e5	1.712e5	1.204	1.03	1.05	1371.7	YES	NO	bd	bb	47.595
18	OCDF	45.37	2.270e5	2.535e5	1.186	0.90	0.89	2156.5	YES	NO	bd	bd	88.410
19	13468-PECDF	27.23	2.740e5	1.745e5	1.013	1.57	1.55	6408.0	YES	NO	bb	bb	52.525

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	2.843e4	3.757e4	0.975	0.76	0.77	447.1	YES	NO	bb	bb	10.311
2	2378-TCDD	26.52	3.268e4	4.134e4	1.236	0.79	0.77	528.3	YES	NO	bb	bb	9.123
3	Total-tetradoxins	26.20	4.683e4	5.977e4	1.099	0.78	0.77	505.8	YES	NO	bb	bb	14.785
4	Total-tetradoxins	25.70	1.574e4	1.835e4	1.099	0.86	0.77	259.4	YES	NO	bb	bb	4.728
5	Total-tetradoxins	24.82	1.366e3	1.588e3	1.099	0.86	0.77	14.0	YES	NO	bb	db	0.410
6	1368-TCDD	23.64	2.987e4	3.899e4	1.084	0.77	0.77	479.8	YES	NO	bb	bb	9.676

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12479-PECDD	28.91	2.811e5	1.811e5	1.837	1.55	1.55	1635.6	YES	NO	bb	bb	46.381
2	12389-PECDD	32.02	2.046e5	1.300e5	1.252	1.57	1.55	1858.7	YES	NO	bb	bb	49.269
3	12378-PeCDD	31.63	1.765e5	1.119e5	1.087	1.58	1.55	1646.9	YES	NO	bb	bb	48.934
4	Total-pentadoxins	30.03	5.772e2	4.005e2	1.392	1.44	1.55	5.3	YES	NO	bb	bb	0.130

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	37.00	4.202e2	2.992e2	1.007	1.40	1.24	6.2	NO	NO	bd	bb	0.108
2	123789-HxCDD	36.60	1.629e5	1.322e5	0.985	1.23	1.24	1843.0	YES	NO	bb	bb	45.437
3	123678-HxCDD	36.22	1.732e5	1.419e5	1.021	1.22	1.24	1958.5	YES	NO	db	db	46.358
4	123478-HxCDD	36.10	1.629e5	1.355e5	0.987	1.20	1.24	1952.5	YES	NO	bd	bd	46.342
5	Total-hexadioxins	35.18	1.270e3	1.070e3	1.007	1.19	1.24	8.9	YES	NO	bb	bb	0.353
6	124679-HXCDD	34.10	1.714e5	1.381e5	1.033	1.24	1.24	1887.9	YES	NO	bb	bb	45.934

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.31	1.602e5	1.563e5	1.286	1.02	1.05	1728.2	YES	NO	bd	bd	48.826
2	1234678-HpCDD	40.35	1.447e5	1.383e5	1.253	1.05	1.05	1452.7	YES	NO	bd	bd	44.839

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	2.843e4	3.757e4	0.975	0.76	0.77	447.1	YES	NO	bb	bb	10.311
2	2378-TCDD	26.52	3.268e4	4.134e4	1.236	0.79	0.77	528.3	YES	NO	bb	bb	9.123
3	Total-tetradioxins	26.20	4.683e4	5.977e4	1.099	0.78	0.77	505.8	YES	NO	bb	bb	14.785
4	Total-tetradioxins	25.70	1.574e4	1.835e4	1.099	0.86	0.77	259.4	YES	NO	bb	bb	4.728
5	Total-tetradioxins	24.82	1.366e3	1.588e3	1.099	0.86	0.77	14.0	YES	NO	bb	db	0.410
6	1368-TCDD	23.64	2.987e4	3.899e4	1.084	0.77	0.77	479.8	YES	NO	bb	bb	9.676
7	12479-PECDD	28.91	2.811e5	1.811e5	1.837	1.55	1.55	1635.6	YES	NO	bb	bb	46.381
8	12389-PECDD	32.02	2.046e5	1.300e5	1.252	1.57	1.55	1858.7	YES	NO	bb	bb	49.269
9	12378-PeCDD	31.63	1.765e5	1.119e5	1.087	1.58	1.55	1646.9	YES	NO	bb	bb	48.934
10	Total-pentadioxins	30.03	5.772e2	4.005e2	1.392	1.44	1.55	5.3	YES	NO	bb	bb	0.130
11	Total-hexadioxins	37.00	4.202e2	2.992e2	1.007	1.40	1.24	6.2	NO	NO	bd	bb	0.108
12	123789-HxCDD	36.60	1.629e5	1.322e5	0.985	1.23	1.24	1843.0	YES	NO	bb	bb	45.437
13	123678-HxCDD	36.22	1.732e5	1.419e5	1.021	1.22	1.24	1958.5	YES	NO	db	db	46.358
14	123478-HxCDD	36.10	1.629e5	1.355e5	0.987	1.20	1.24	1952.5	YES	NO	bd	bd	46.342
15	Total-hexadioxins	35.18	1.270e3	1.070e3	1.007	1.19	1.24	8.9	YES	NO	bb	bb	0.353
16	124679-HXCDD	34.10	1.714e5	1.381e5	1.033	1.24	1.24	1887.9	YES	NO	bb	bb	45.934
17	1234679-HPCDD	39.31	1.602e5	1.563e5	1.286	1.02	1.05	1728.2	YES	NO	bd	bd	48.826
18	OCDD	45.12	2.168e5	2.488e5	1.103	0.87	0.89	2303.6	YES	NO	bb	bb	92.154
19	1234678-HpCDD	40.35	1.447e5	1.383e5	1.253	1.05	1.05	1452.7	YES	NO	bd	bd	44.839

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## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	3.235e4	4.245e4	0.858	0.76	0.77	485.1	YES	NO	db	db	9.568
2	Total-tetrafurans	27.24	8.735e2	1.247e3	0.933	0.70	0.77	14.5	YES	NO	bd	bd	0.249
3	2378-TCDF	25.88	3.277e4	4.402e4	0.876	0.74	0.77	502.2	YES	NO	bb	bb	9.617
4	1368-TCDF	22.36	3.726e4	4.903e4	1.064	0.76	0.77	579.4	YES	NO	bb	bb	8.893
5	Total-pentafurans	30.20	1.837e2	1.243e2	0.866	1.48	1.55	2.4	NO	NO	bb	bb	0.043
6	12378-PeCDF	30.04	2.126e5	1.387e5	0.845	1.53	1.55	1659.1	YES	NO	bb	bb	49.333
7	Total-pentafurans	28.89	3.289e4	2.164e4	0.866	1.52	1.55	257.1	YES	NO	bb	bb	7.545
8	12389-PECDF	32.41	2.153e5	1.414e5	0.844	1.52	1.55	1649.2	YES	NO	bb	bb	50.151
9	Total-pentafurans	31.62	1.344e2	7.833e1	0.866	1.72	1.55	1.9	NO	NO	bb	db	0.029
10	23478-PeCDF	31.37	2.264e5	1.510e5	0.911	1.50	1.55	1816.7	YES	NO	bb	dd	50.186
11	123789-HxCDF	37.01	1.837e5	1.468e5	1.187	1.25	1.24	1773.8	YES	NO	bd	bb	46.993
12	234678-HxCDF	35.99	2.102e5	1.692e5	1.229	1.24	1.24	2096.4	YES	NO	bb	bb	48.593
13	123678-HxCDF	35.13	2.187e5	1.737e5	1.248	1.26	1.24	2142.9	YES	NO	db	db	46.038
14	123478-HxCDF	35.00	2.051e5	1.648e5	1.182	1.24	1.24	2001.9	YES	NO	bd	bd	47.160
15	123468-HXCDF	33.34	2.054e5	1.657e5	1.197	1.24	1.24	1933.1	YES	NO	bb	bb	46.698
16	1234789-HpCDF	41.10	1.540e5	1.505e5	1.165	1.02	1.05	1046.6	YES	NO	bd	bb	47.947
17	1234678-HpCDF	38.85	1.758e5	1.712e5	1.204	1.03	1.05	1371.7	YES	NO	bd	bb	47.595
18	OCDF	45.37	2.270e5	2.535e5	1.186	0.90	0.89	2156.5	YES	NO	bd	bd	88.410
19	13468-PECDF	27.23	2.740e5	1.745e5	1.013	1.57	1.55	6408.0	YES	NO	bb	bb	52.525
20	1289-TCDD	27.12	2.843e4	3.757e4	0.975	0.76	0.77	447.1	YES	NO	bb	bb	10.311
21	2378-TCDD	26.52	3.268e4	4.134e4	1.236	0.79	0.77	528.3	YES	NO	bb	bb	9.123
22	Total-tetradioxins	26.20	4.683e4	5.977e4	1.099	0.78	0.77	505.8	YES	NO	bb	bb	14.785
23	Total-tetradioxins	25.70	1.574e4	1.835e4	1.099	0.86	0.77	259.4	YES	NO	bb	bb	4.728
24	Total-tetradioxins	24.82	1.366e3	1.588e3	1.099	0.86	0.77	14.0	YES	NO	bb	db	0.410
25	1368-TCDD	23.64	2.987e4	3.899e4	1.084	0.77	0.77	479.8	YES	NO	bb	bb	9.676
26	12479-PECDD	28.91	2.811e5	1.811e5	1.837	1.55	1.55	1635.6	YES	NO	bb	bb	46.381
27	12389-PECDD	32.02	2.046e5	1.300e5	1.252	1.57	1.55	1858.7	YES	NO	bb	bb	49.269
28	12378-PeCDD	31.63	1.765e5	1.119e5	1.087	1.58	1.55	1646.9	YES	NO	bb	bb	48.934
29	Total-pentadioxins	30.03	5.772e2	4.005e2	1.392	1.44	1.55	5.3	YES	NO	bb	bb	0.130
30	Total-hexadioxins	37.00	4.202e2	2.992e2	1.007	1.40	1.24	6.2	NO	NO	bd	bb	0.108
31	123789-HxCDD	36.60	1.629e5	1.322e5	0.985	1.23	1.24	1843.0	YES	NO	bb	bb	45.437
32	123678-HxCDD	36.22	1.732e5	1.419e5	1.021	1.22	1.24	1958.5	YES	NO	db	db	46.358
33	123478-HxCDD	36.10	1.629e5	1.355e5	0.987	1.20	1.24	1952.5	YES	NO	bd	bd	46.342
34	Total-hexadioxins	35.18	1.270e3	1.070e3	1.007	1.19	1.24	8.9	YES	NO	bb	bb	0.353
35	124679-HXCDD	34.10	1.714e5	1.381e5	1.033	1.24	1.24	1887.9	YES	NO	bb	bb	45.934
36	1234679-HPCDD	39.31	1.602e5	1.563e5	1.286	1.02	1.05	1728.2	YES	NO	bd	bd	48.826
37	OCDD	45.12	2.168e5	2.488e5	1.103	0.87	0.89	2303.6	YES	NO	bb	bb	92.154

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	1234678-HpCDD	40.35	1.447e5	1.383e5	1.253	1.05	1.05	1452.7	YES	NO	bd	bd	44.839

**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.33	2.530e6					63.5	YES		dd		
2	FUNCTION1 PFK	21.24	1.625e6					65.1	YES		dd		
3	FUNCTION1 PFK	21.12	3.427e6					68.9	YES		bd		
4	FUNCTION1 PFK	24.48	1.219e4					1.0	NO		bb		
5	FUNCTION1 PFK	24.40	5.763e3					0.6	NO		db		
6	FUNCTION1 PFK	24.34	1.485e4					0.9	NO		bd		
7	FUNCTION1 PFK	24.07	1.997e3					0.4	NO		bb		
8	FUNCTION1 PFK	24.01	8.789e3					0.6	NO		bb		
9	FUNCTION1 PFK	23.90	1.739e3					0.3	NO		bb		
10	FUNCTION1 PFK	23.84	4.102e3					0.5	NO		bb		
11	FUNCTION1 PFK	23.57	9.271e3					1.0	NO		db		
12	FUNCTION1 PFK	23.51	3.033e3					0.5	NO		bd		
13	FUNCTION1 PFK	23.24	1.986e4					1.9	NO		db		
14	FUNCTION1 PFK	23.04	3.743e5					8.4	YES		dd		
15	FUNCTION1 PFK	22.93	7.072e5					11.8	YES		dd		
16	FUNCTION1 PFK	22.75	3.265e6					16.9	YES		dd		
17	FUNCTION1 PFK	22.12	1.193e7					37.3	YES		dd		
18	FUNCTION1 PFK	21.48	1.464e6					58.0	YES		dd		
19	FUNCTION1 PFK	21.42	9.162e5					60.2	YES		dd		
20	FUNCTION1 PFK	28.12	6.661e3					0.7	NO		bb		
21	FUNCTION1 PFK	27.97	6.503e3					0.7	NO		bb		
22	FUNCTION1 PFK	27.79	3.007e4					1.6	NO		db		
23	FUNCTION1 PFK	27.68	3.765e4					1.8	NO		bd		
24	FUNCTION1 PFK	26.70	1.853e3					0.4	NO		bb		
25	FUNCTION1 PFK	26.64	2.047e4					1.7	NO		bb		
26	FUNCTION1 PFK	26.37	3.952e4					1.7	NO		bb		
27	FUNCTION1 PFK	25.64	3.424e4					1.6	NO		bb		
28	FUNCTION1 PFK	25.52	3.273e4					1.8	NO		bb		
29	FUNCTION1 PFK	24.93	2.188e4					1.2	NO		bb		

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**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.54	6.100e3					1.7	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.23	7.650e6					24.0	YES		bb		0.000
2	FUNCTION3 PFK	35.86	7.327e6					29.4	YES		db		0.000
3	FUNCTION3 PFK	35.31	1.794e6					8.7	YES		bd		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.37	1.192e4					2.1	NO		bb		
2	FUNCTION4 PFK	38.11	3.488e4					4.2	YES		bb		

**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.25	3.569e3					1.2	NO		bb		
2	FUNCTION5 PFK	44.90	1.693e3					0.7	NO		bb		
3	FUNCTION5 PFK	44.55	4.986e2					0.4	NO		bb		
4	FUNCTION5 PFK	44.52	5.077e2					0.4	NO		bb		
5	FUNCTION5 PFK	44.22	6.053e3					1.9	NO		bb		
6	FUNCTION5 PFK	43.81	5.436e3					1.8	NO		bb		
7	FUNCTION5 PFK	43.45	6.358e3					1.8	NO		bb		
8	FUNCTION5 PFK	43.33	2.798e3					1.1	NO		bb		
9	FUNCTION5 PFK	43.26	5.509e3					1.7	NO		db		
10	FUNCTION5 PFK	43.20	1.679e4					3.1	YES		dd		
11	FUNCTION5 PFK	43.16	1.257e4					2.8	NO		dd		
12	FUNCTION5 PFK	43.10	1.315e4					2.9	NO		bd		
13	FUNCTION5 PFK	46.32	2.108e3					0.9	NO		bb		
14	FUNCTION5 PFK	46.15	6.073e3					1.7	NO		bb		
15	FUNCTION5 PFK	46.07	1.512e3					0.6	NO		bb		
16	FUNCTION5 PFK	46.02	6.816e3					2.0	NO		bb		
17	FUNCTION5 PFK	45.90	3.598e3					1.4	NO		bb		
18	FUNCTION5 PFK	45.50	2.526e3					1.1	NO		bb		

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Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:30:36 Pacific Standard Time

**ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	28.07	8.633e1					2.0	NO		bb		0.000
2	FUNCTION1 HXCD...	27.74	7.273e1					1.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.69	1.174e2					2.0	NO		bb		0.000
4	FUNCTION1 HXCD...	25.49	8.520e1					2.3	NO		db		0.000
5	FUNCTION1 HXCD...	25.34	2.267e2					3.7	YES		bd		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	25.13	2.100e2					3.7	YES		db		0.000
2	FUNCTION1 HPCD...	25.07	1.118e2					2.5	NO		bd		0.000
3	FUNCTION1 HPCD...	24.14	2.140e2					2.0	NO		bb		0.000
4	FUNCTION1 HPCD...	27.98	8.133e1					2.2	NO		bb		0.000
5	FUNCTION1 HPCD...	25.73	9.158e1					2.0	NO		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.00	8.282e1					1.8	NO		db		0.000
2	FUNCTION2 HPCD...	31.90	9.867e1					1.7	NO		bd		0.000
3	FUNCTION2 HPCD...	31.23	1.975e2					3.1	YES		bb		0.000
4	FUNCTION2 HPCD...	28.58	9.713e1					1.1	NO		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.22	8.572e1					2.1	NO		bb		0.000
2	FUNCTION3 OCDPE	36.11	1.412e2					3.1	YES		bb		0.000
3	FUNCTION3 OCDPE	35.13	7.623e1					1.9	NO		db		0.000
4	FUNCTION3 OCDPE	34.95	1.480e2					1.8	NO		bd		0.000
5	FUNCTION3 OCDPE	33.69	7.811e1					1.8	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

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**ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk****ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.28	8.155e1					1.8	NO		bb		0.000
2	FUNCTION4 NCDPE	38.08	7.046e1					0.8	NO		bb		0.000
3	FUNCTION4 NCDPE	41.19	1.073e2					2.6	NO		db		0.000
4	FUNCTION4 NCDPE	41.16	1.095e2					2.6	NO		bd		0.000
5	FUNCTION4 NCDPE	40.93	9.659e1					2.4	NO		db		0.000
6	FUNCTION4 NCDPE	40.86	1.035e2					2.1	NO		bd		0.000
7	FUNCTION4 NCDPE	39.51	8.718e1					1.2	NO		bb		0.000

**ETHERS6**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	43.46	7.441e1					2.3	NO		bb		0.000

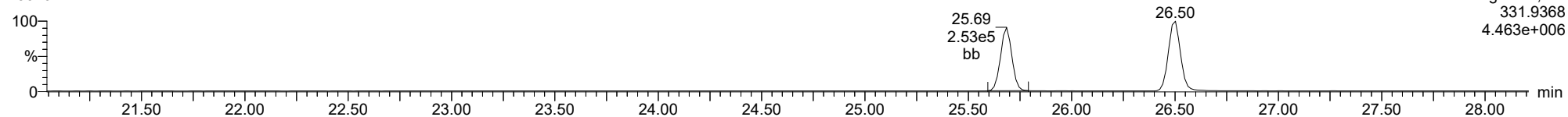


Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

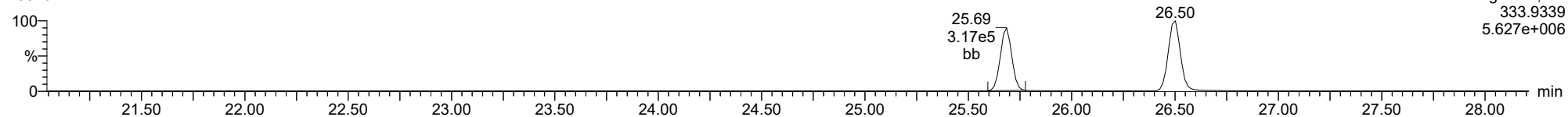
23020712



F1:Voltage SIR,El+  
331.9368  
4.463e+006

**13C-1234-TCDD**

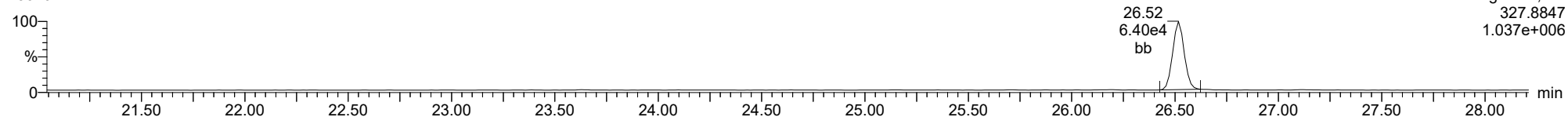
23020712



F1:Voltage SIR,El+  
333.9339  
5.627e+006

**37CL-2378-TCDD**

23020712

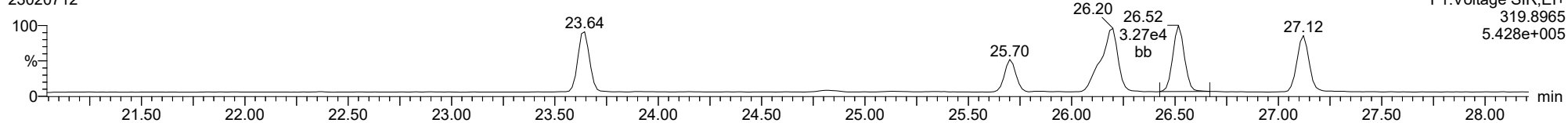


F1:Voltage SIR,El+  
327.8847  
1.037e+006

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

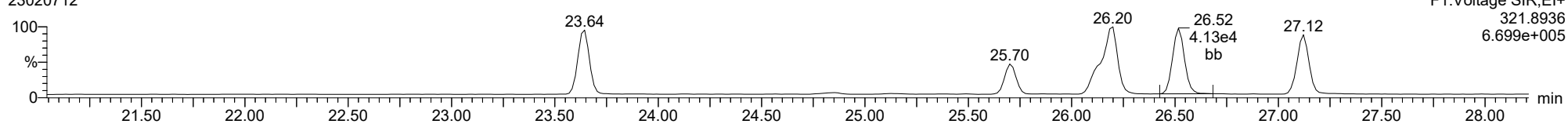
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23020712



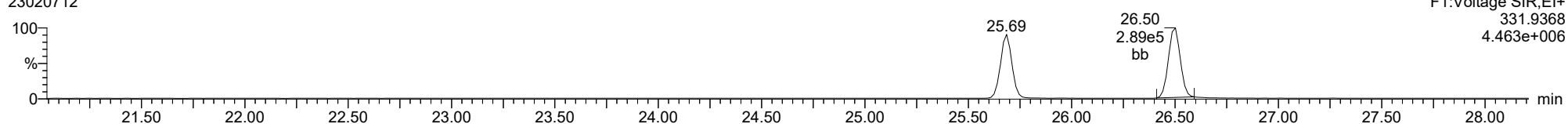
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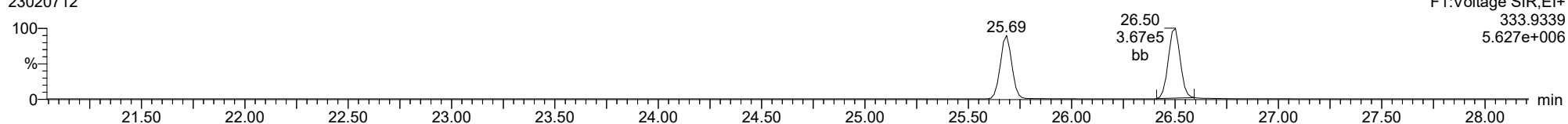
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23020712



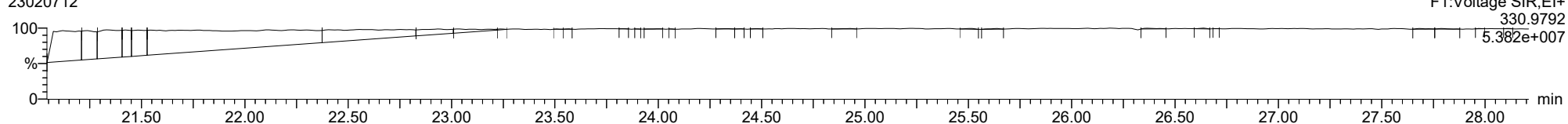
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23020712



**FUNCTION1 PFK**

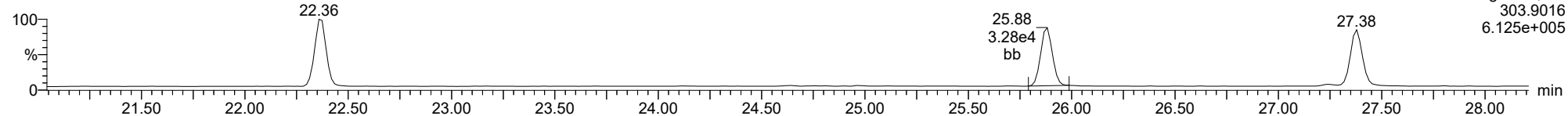
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

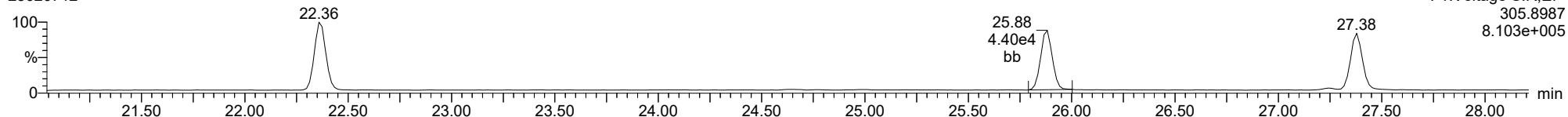
**2378-TCDF**

23020712



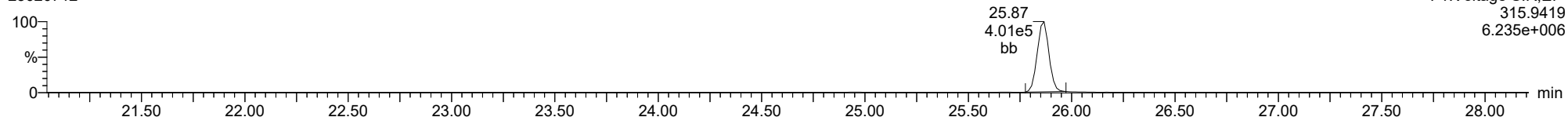
**2378-TCDF**

23020712



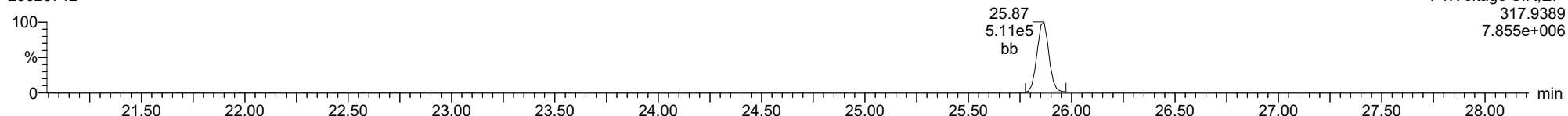
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23020712



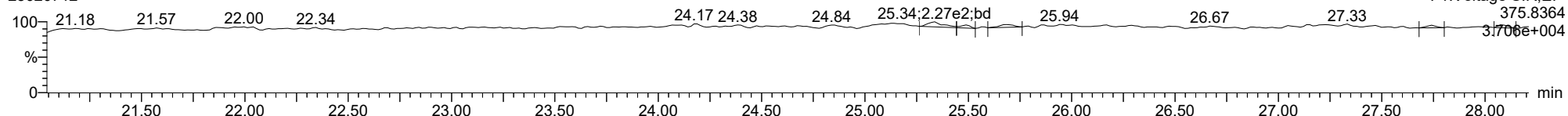
**13C-2378-TCDF**

23020712



**FUNCTION1 HXCDPE**

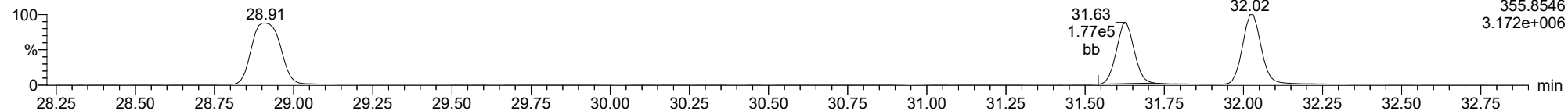
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

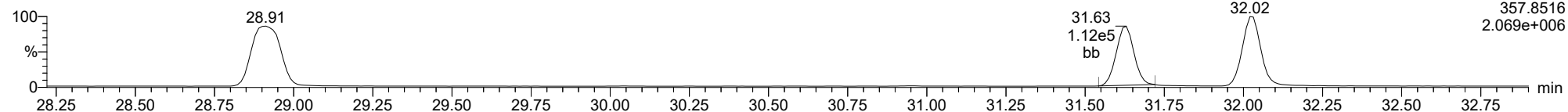
**12378-PeCDD**

23020712



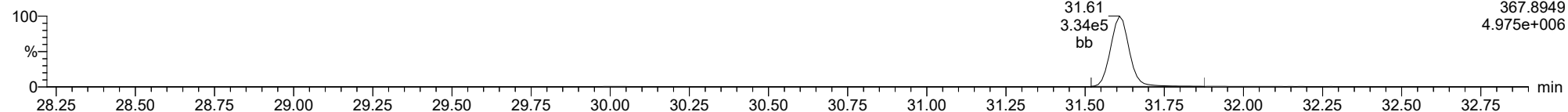
**12378-PeCDD**

23020712



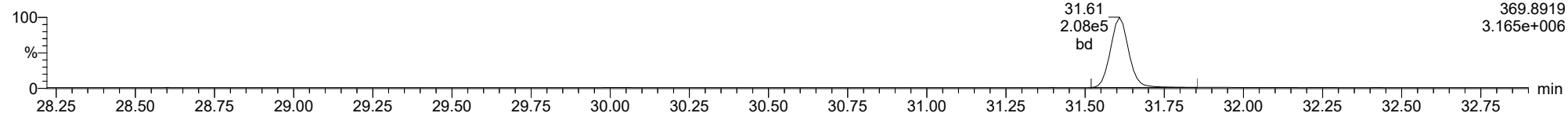
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23020712



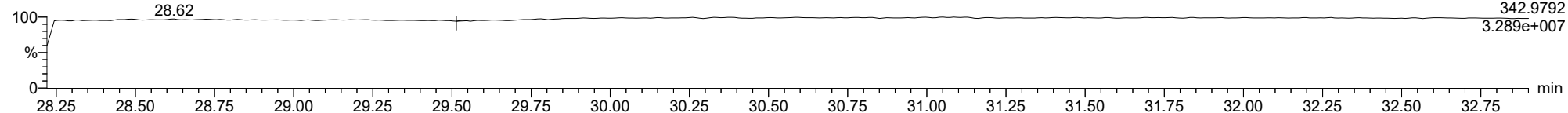
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23020712



**FUNCTION2 PFK**

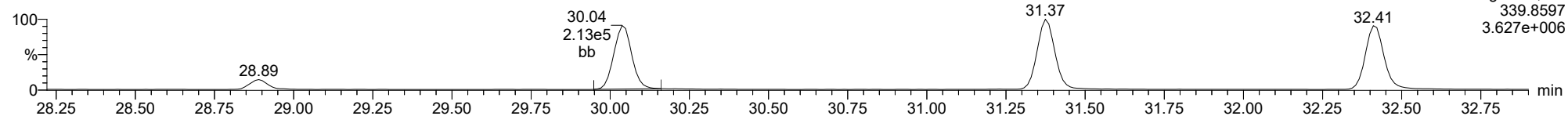
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

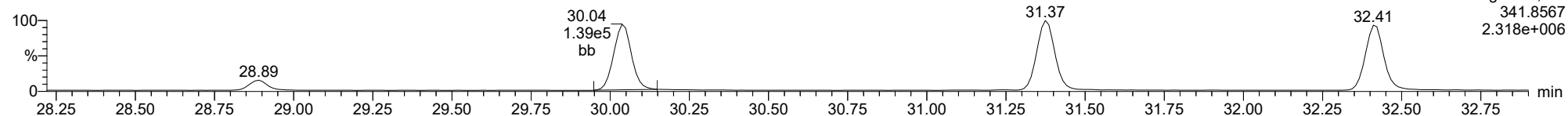
**12378-PeCDF**

23020712



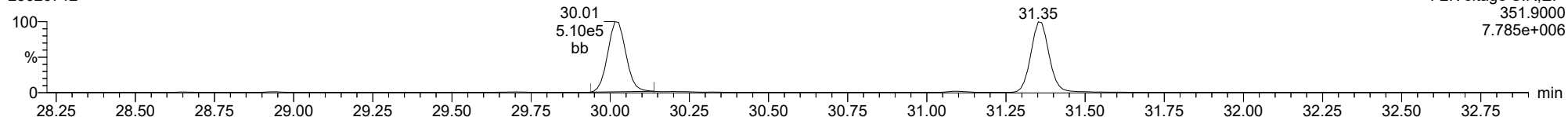
**12378-PeCDF**

23020712



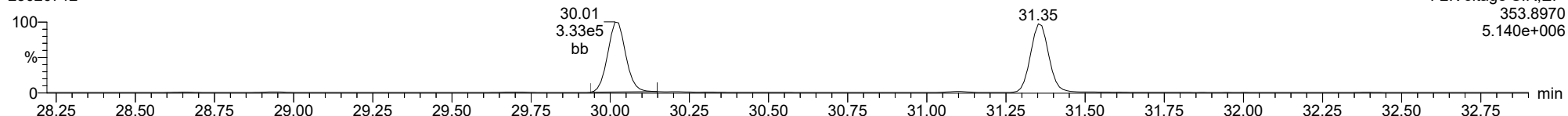
**13C-12378-PeCDF**

23020712



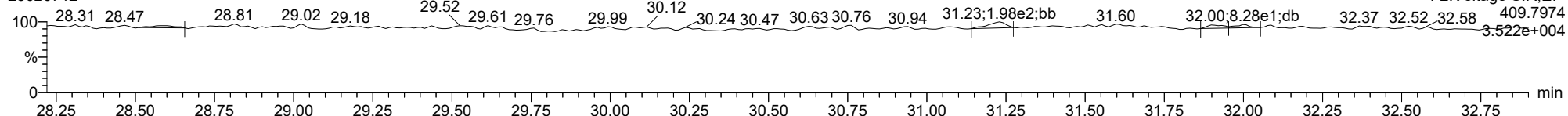
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23020712



**FUNCTION2 HPCDPE**

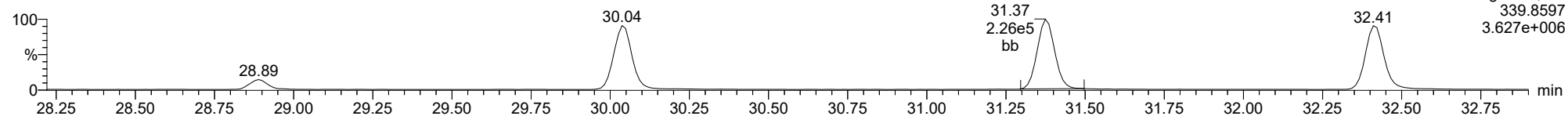
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

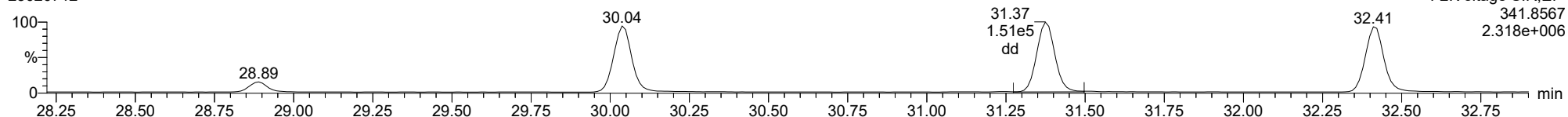
**23478-PeCDF**

23020712



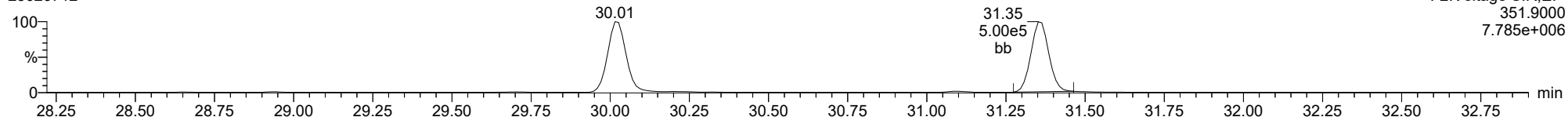
**23478-PeCDF**

23020712



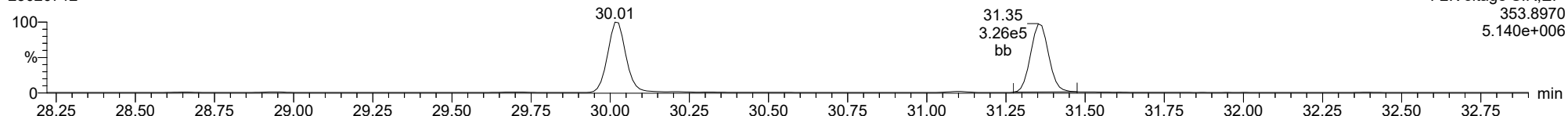
**13C-23478-PeCDF**

23020712



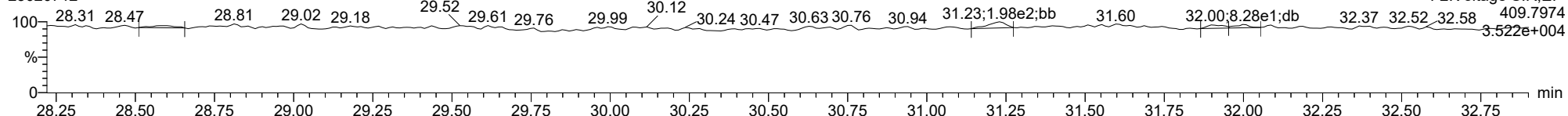
**13C-23478-PeCDF**

23020712



**FUNCTION2 HPCDPE**

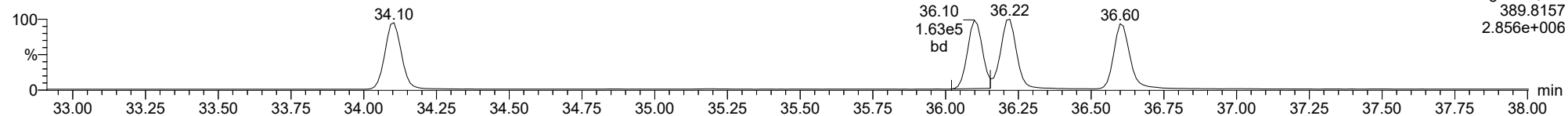
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

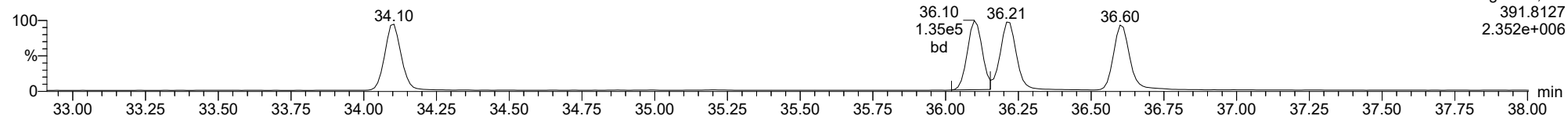
23020712



F3:Voltage SIR,EI+  
389.8157  
2.856e+006

**123478-HxCDD**

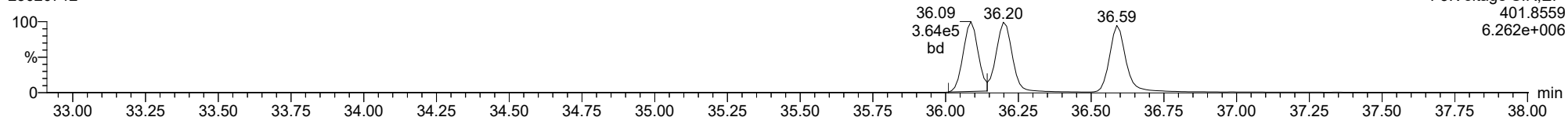
23020712



F3:Voltage SIR,EI+  
391.8127  
2.352e+006

**13C-123478-HxCDD**

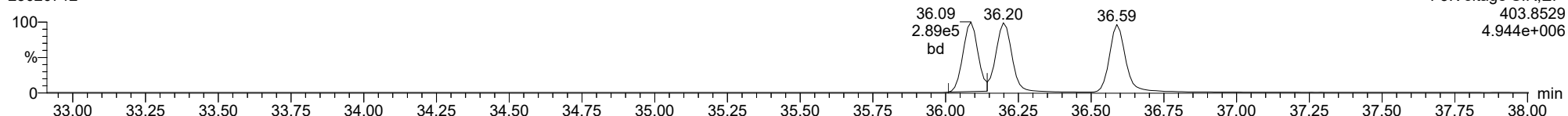
23020712



F3:Voltage SIR,EI+  
401.8559  
6.262e+006

**13C-123478-HxCDD**

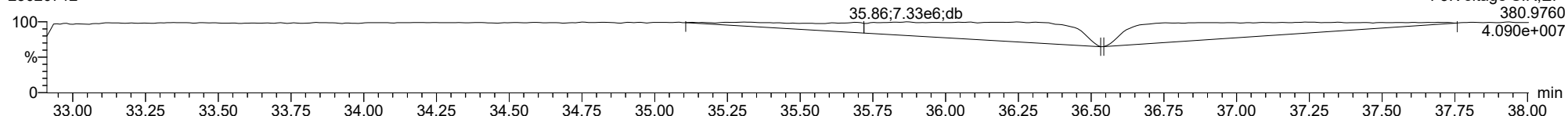
23020712



F3:Voltage SIR,EI+  
403.8529  
4.944e+006

**FUNCTION3 PFK**

23020712

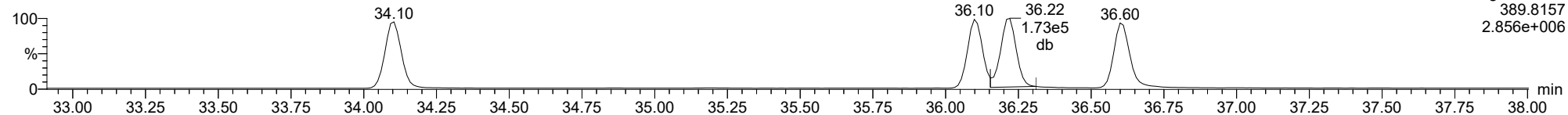


F3:Voltage SIR,EI+  
380.9760  
4.090e+007

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

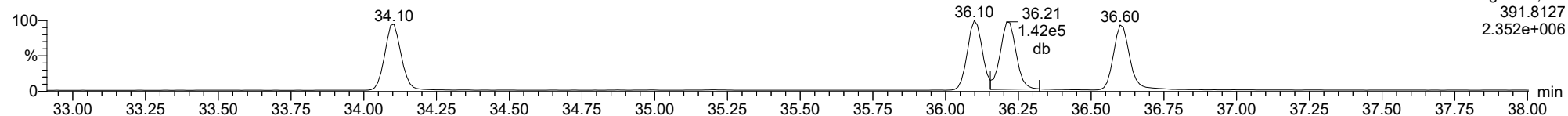
**123678-HxCDD**

23020712



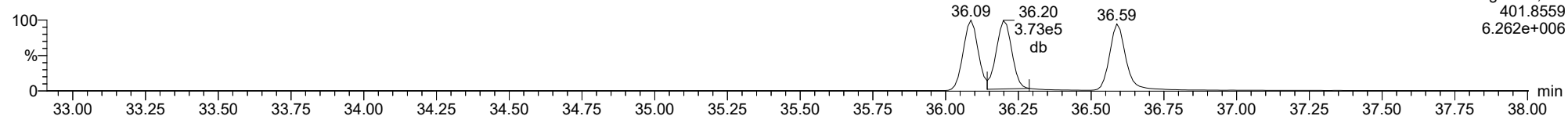
**123678-HxCDD**

23020712



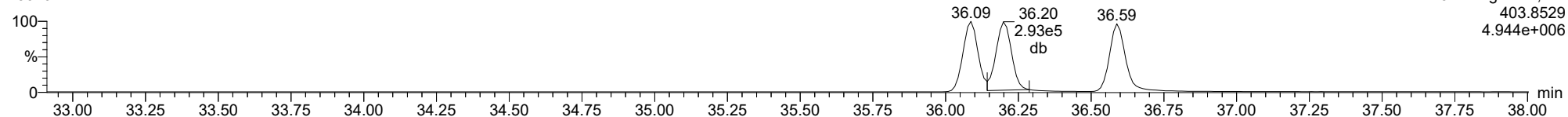
**13C-123678-HxCDD**

23020712



**13C-123678-HxCDD**

23020712

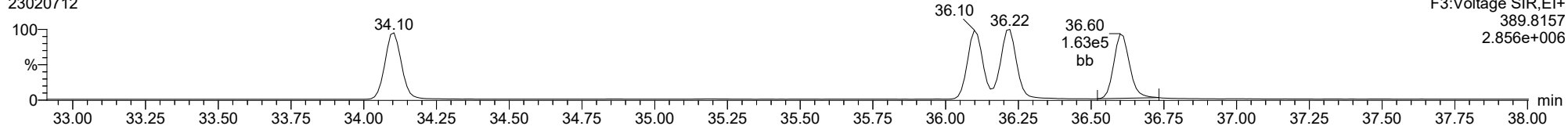




ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**123789-HxCDD**

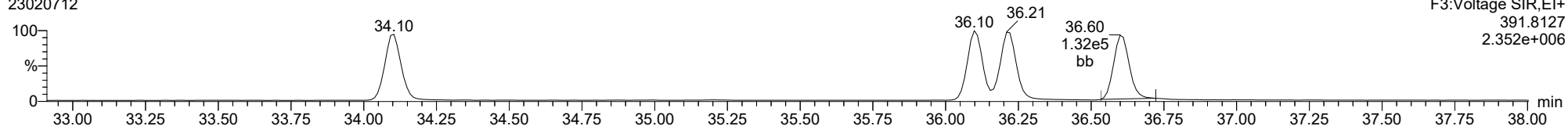
23020712



F3:Voltage SIR,EI+  
389.8157  
2.856e+006

**123789-HxCDD**

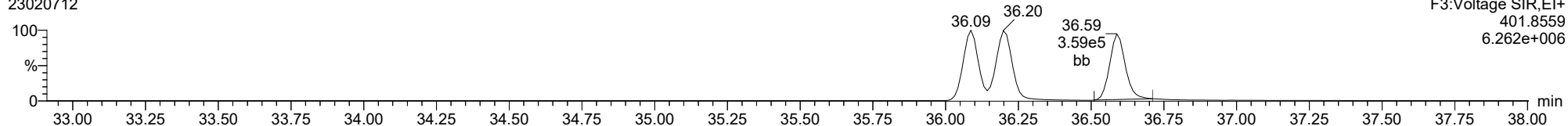
23020712



F3:Voltage SIR,EI+  
391.8127  
2.352e+006

**13C-123789-HxCDD**

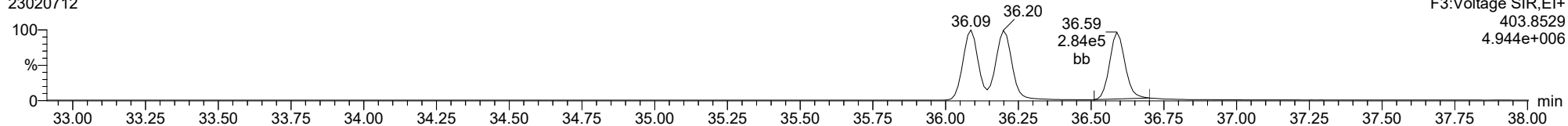
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F3:Voltage SIR,EI+  
401.8559  
6.262e+006

**13C-123789-HxCDD**

23020712

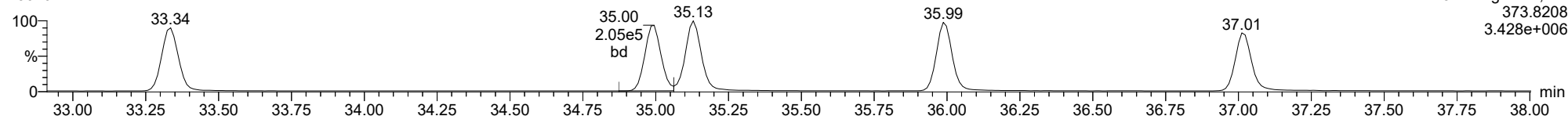


F3:Voltage SIR,EI+  
403.8529  
4.944e+006

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

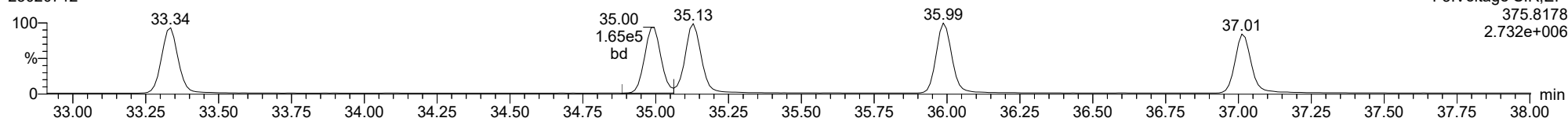
**123478-HxCDF**

23020712



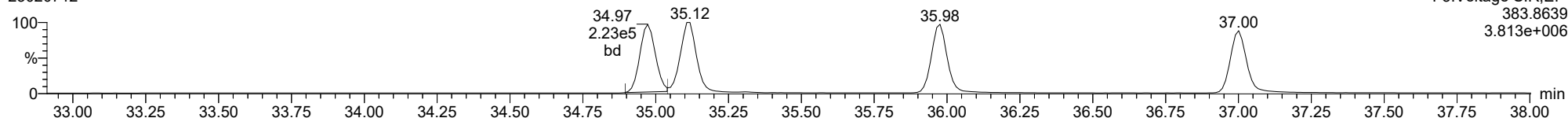
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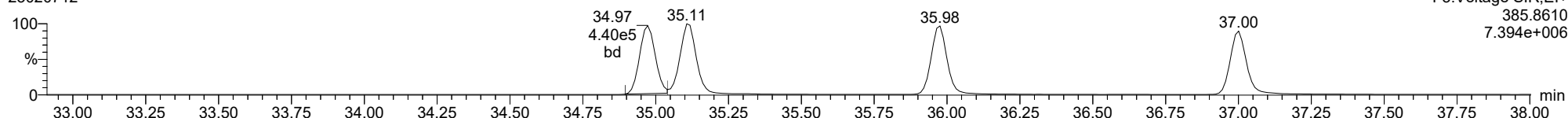
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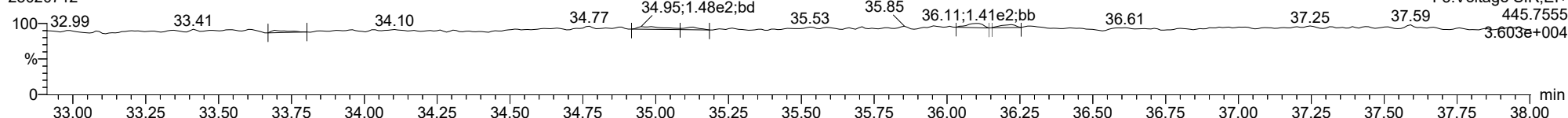
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23020712



**FUNCTION3 OCDPE**

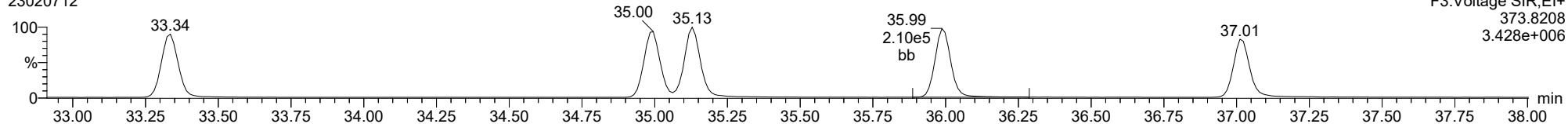
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**234678-HxCDF**

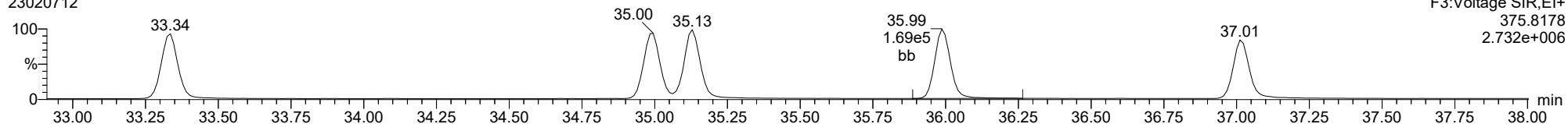
23020712



F3:Voltage SIR,EI+  
373.8208  
3.428e+006

**234678-HxCDF**

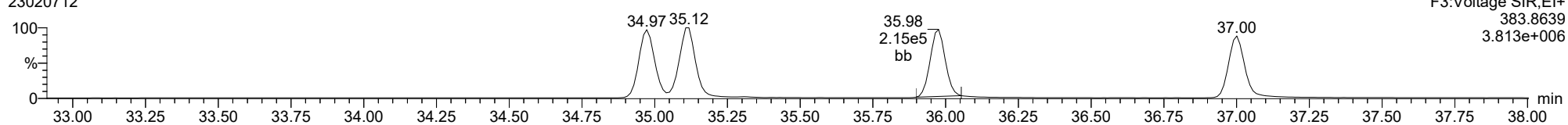
23020712



F3:Voltage SIR,EI+  
375.8178  
2.732e+006

**13C-234678-HxCDF**

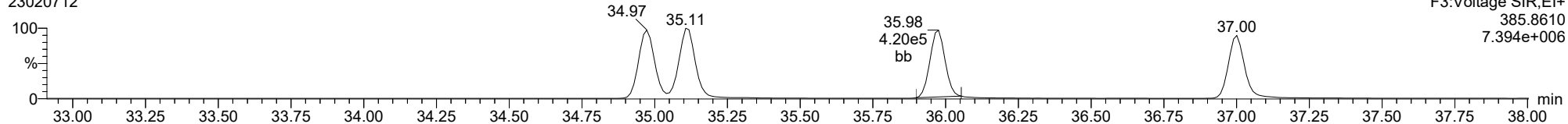
23020712



F3:Voltage SIR,EI+  
383.8639  
3.813e+006

**13C-234678-HxCDF**

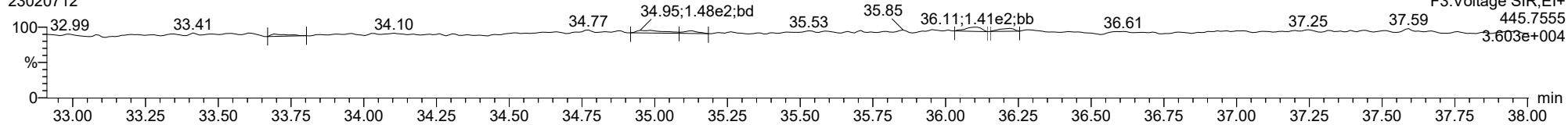
23020712



F3:Voltage SIR,EI+  
385.8610  
7.394e+006

**FUNCTION3 OCDPE**

23020712

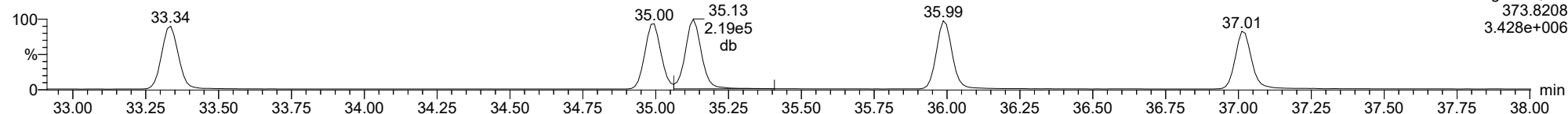


F3:Voltage SIR,EI+  
445.7555  
3.603e+004

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

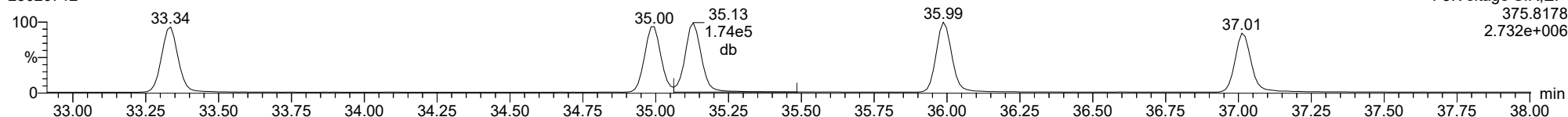
**123678-HxCDF**

23020712



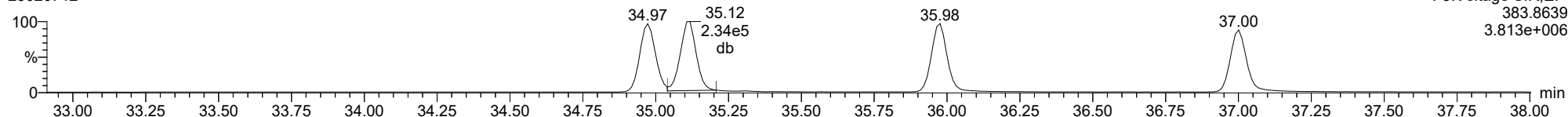
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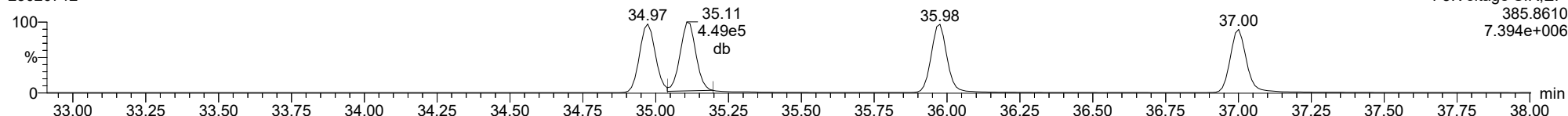
**13C-123678-HxCDF**

23020712



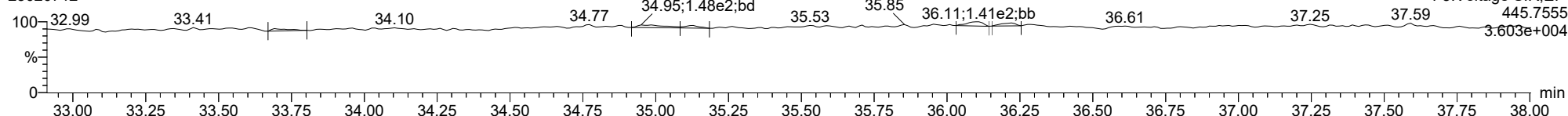
**13C-123678-HxCDF**

23020712



**FUNCTION3 OCDPE**

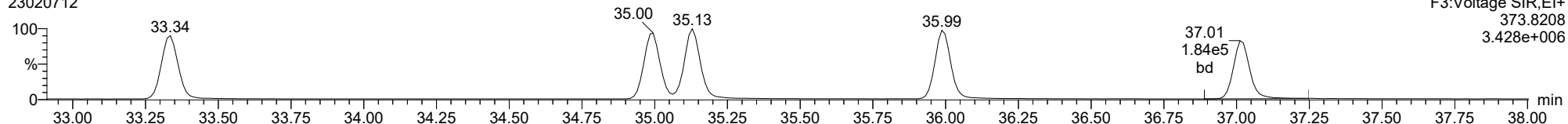
23020712



ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

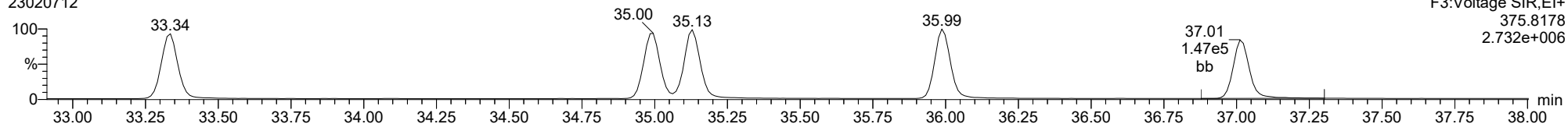
**123789-HxCDF**

23020712



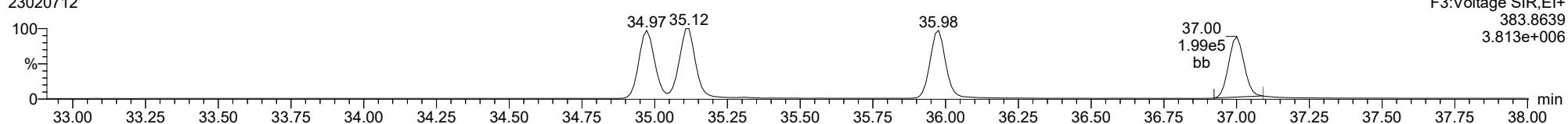
**123789-HxCDF**

23020712



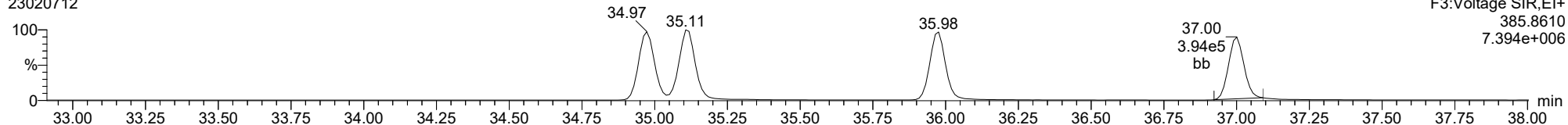
**13C-123789-HxCDF**

23020712



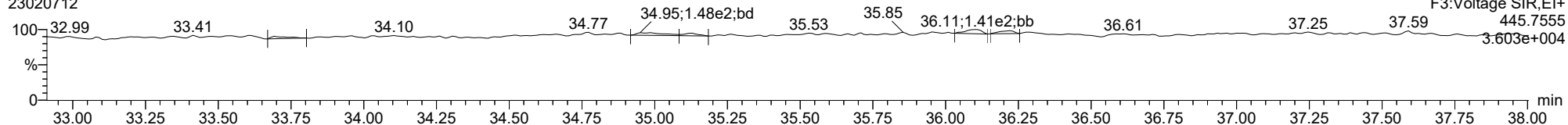
**13C-123789-HxCDF**

23020712



**FUNCTION3 OCDPE**

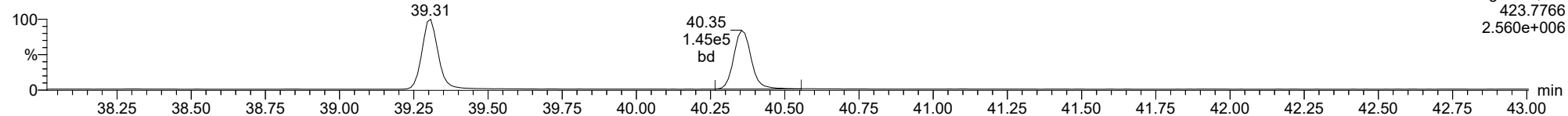
23020712



ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDD**

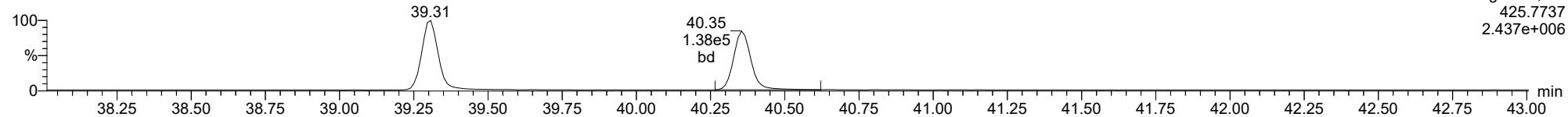
23020712



F4:Voltage SIR,El+  
423.7766  
2.560e+006

**1234678-HpCDD**

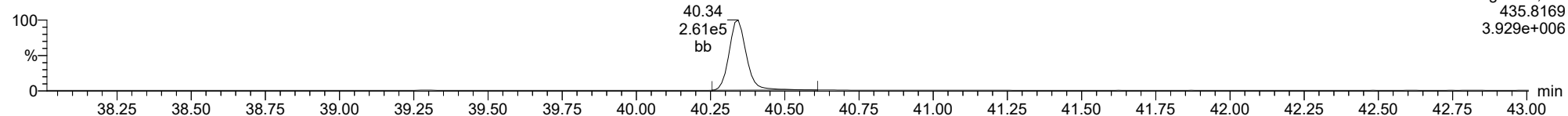
23020712



F4:Voltage SIR,El+  
425.7737  
2.437e+006

**13C-1234678-HpCDD**

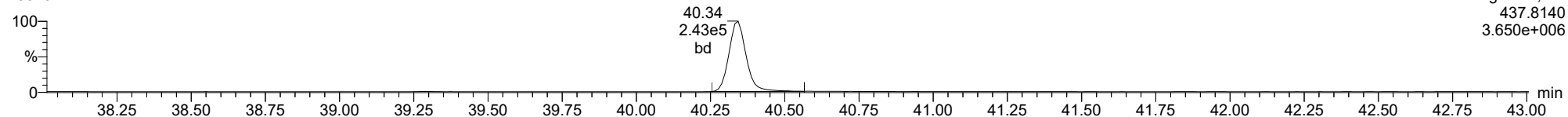
23020712



F4:Voltage SIR,El+  
435.8169  
3.929e+006

**13C-1234678-HpCDD**

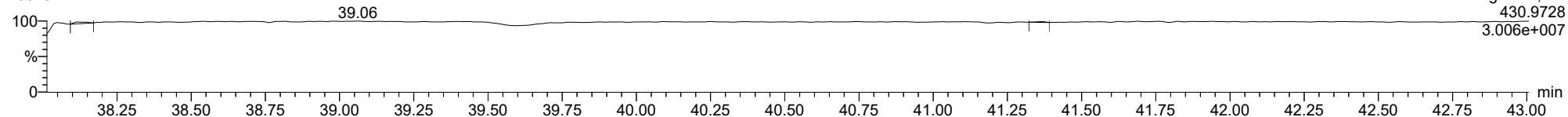
23020712



F4:Voltage SIR,El+  
437.8140  
3.650e+006

**FUNCTION4 PFK**

23020712

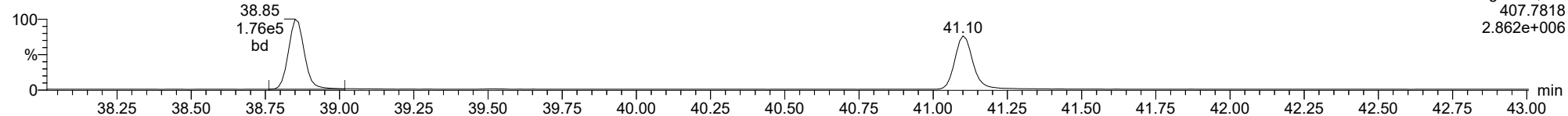


F4:Voltage SIR,El+  
430.9728  
3.006e+007

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

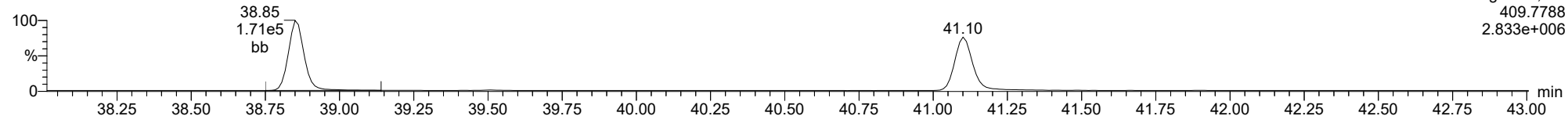
**1234678-HpCDF**

23020712



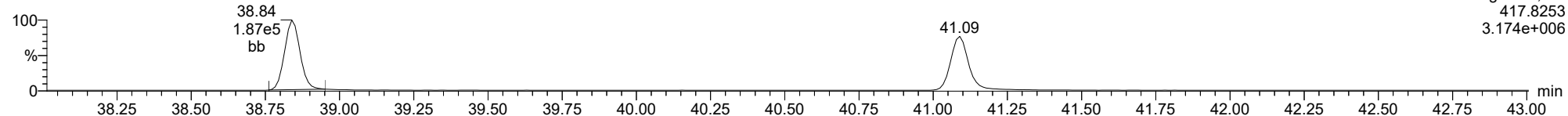
**1234678-HpCDF**

23020712



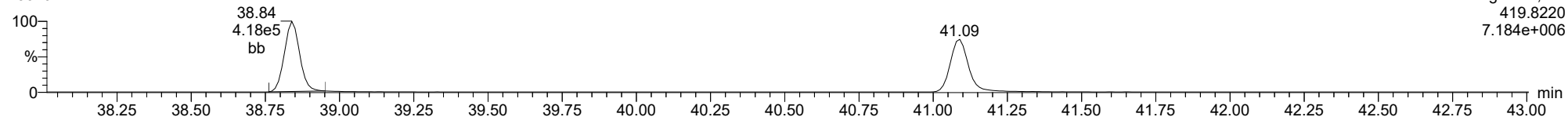
**13C-1234678-HpCDF**

23020712



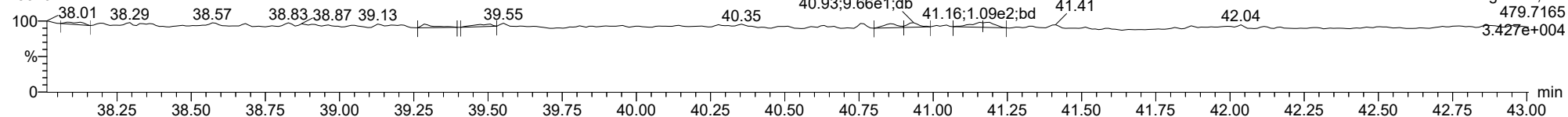
**13C-1234678-HpCDF**

23020712



**FUNCTION4 NCDPE**

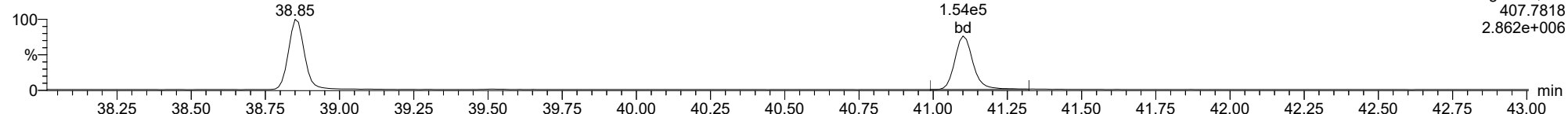
23020712



ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

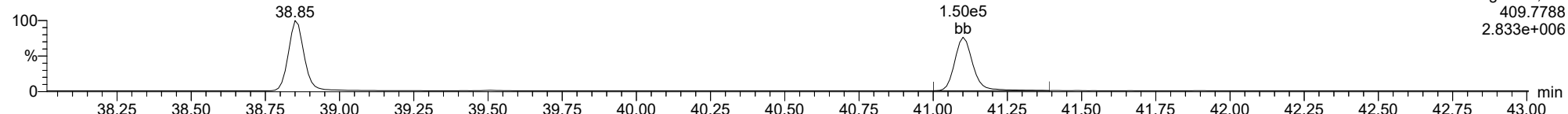
23020712



F4:Voltage SIR,EI+  
407.7818  
2.862e+006

1234789-HpCDF

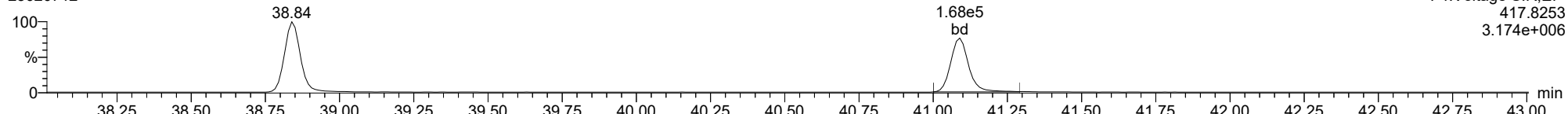
23020712



F4:Voltage SIR,EI+  
409.7788  
2.833e+006

13C-1234789-HpCDF

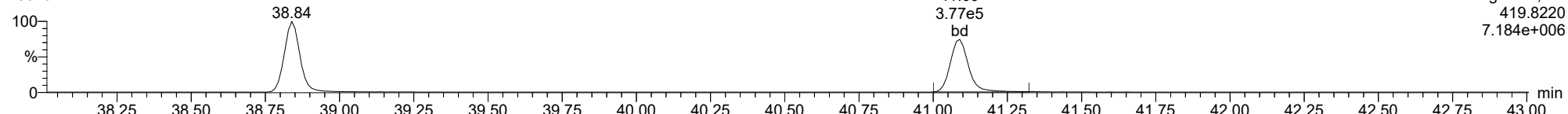
23020712



F4:Voltage SIR,EI+  
417.8253  
3.174e+006

13C-1234789-HpCDF

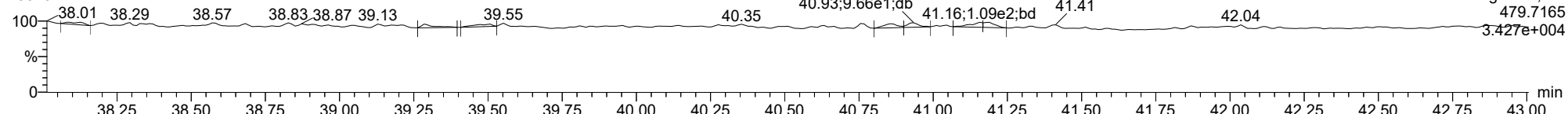
23020712



F4:Voltage SIR,EI+  
419.8220  
7.184e+006

FUNCTION4 NCDPE

23020712



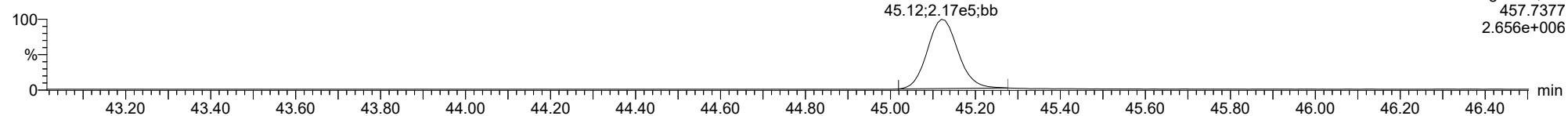
F4:Voltage SIR,EI+  
479.7165  
3.427e+004



ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

**OCDD**

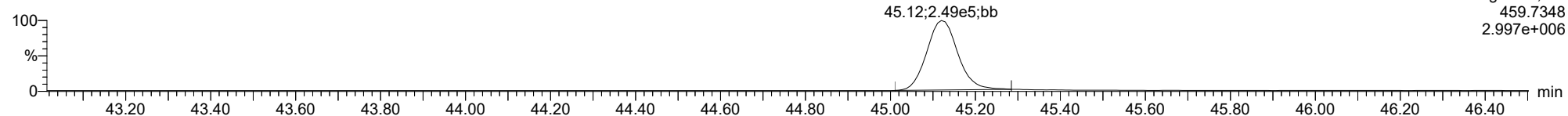
23020712



F5:Voltage SIR,EI+  
457.7377  
2.656e+006

**OCDD**

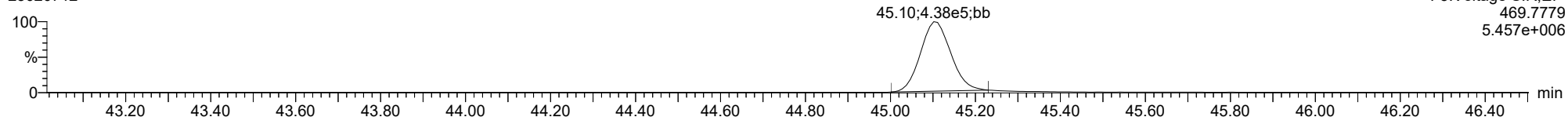
23020712



F5:Voltage SIR,EI+  
459.7348  
2.997e+006

**13C-OCDD**

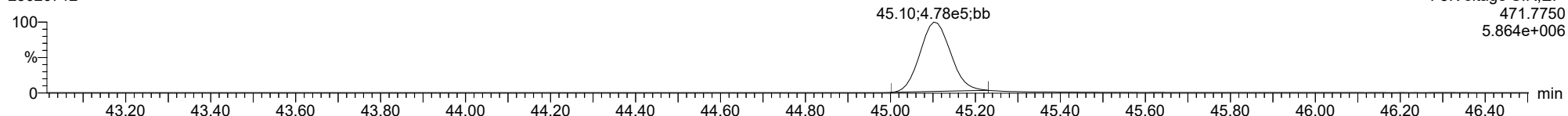
23020712



F5:Voltage SIR,EI+  
469.7779  
5.457e+006

**13C-OCDD**

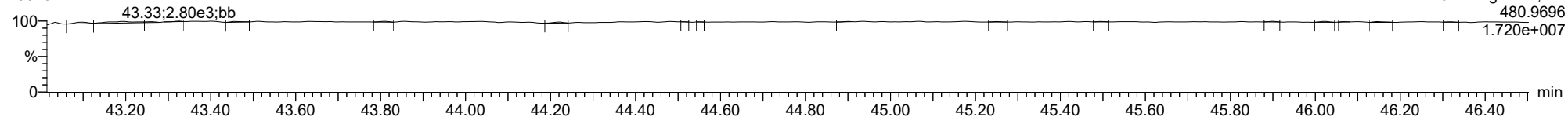
23020712



F5:Voltage SIR,EI+  
471.7750  
5.864e+006

**FUNCTION5 PFK**

23020712

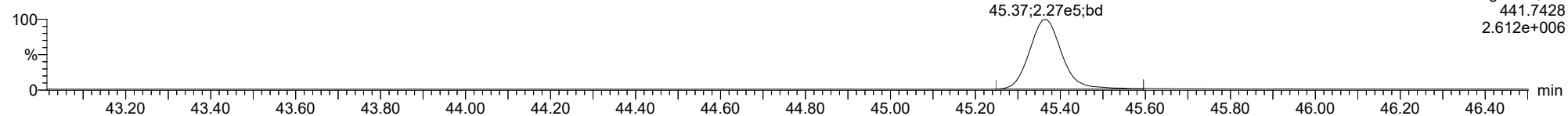


F5:Voltage SIR,EI+  
480.9696  
1.720e+007

ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

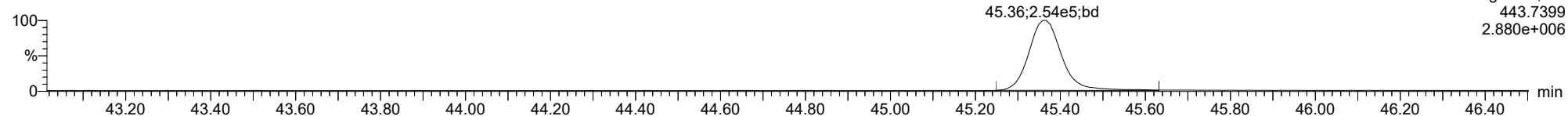
**OCDF**

23020712



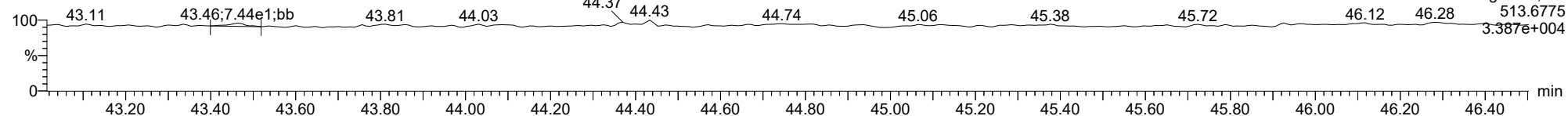
**OCDF**

23020712



**FUNCTION5 DCDPE**

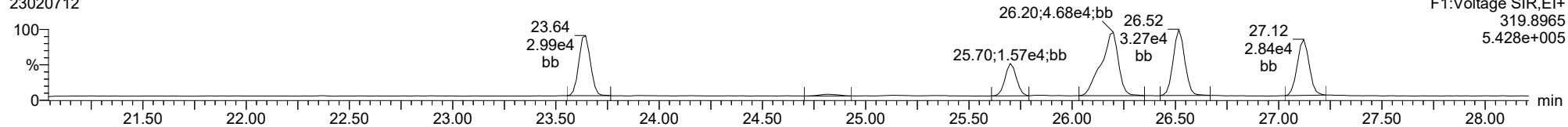
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ID: CS3T2, Name: 23020712, Date: 07-Feb-2023, Time: 18:03:52, Conditions: AUTOSPEC01, User: pk

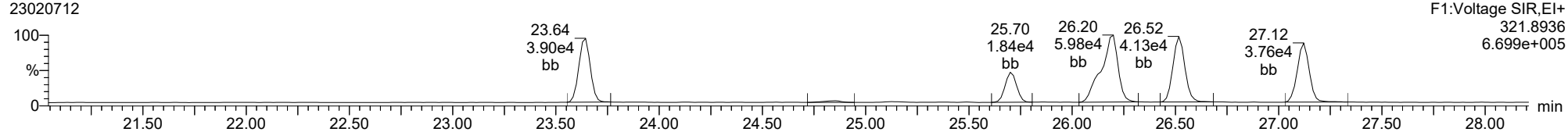
**Total-tetradioxins**

23020712



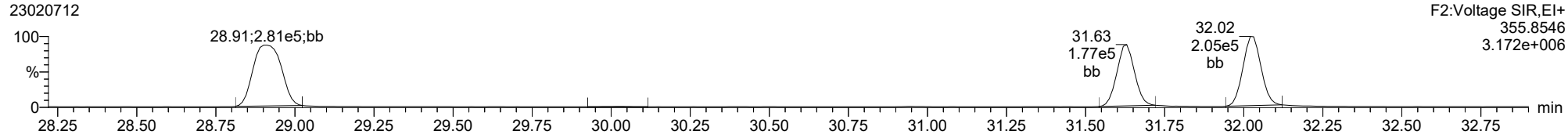
**Total-tetradioxins**

23020712



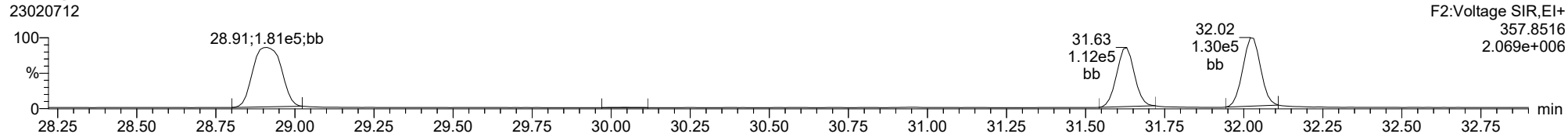
**Total-pentadioxins**

23020712



**Total-pentadioxins**

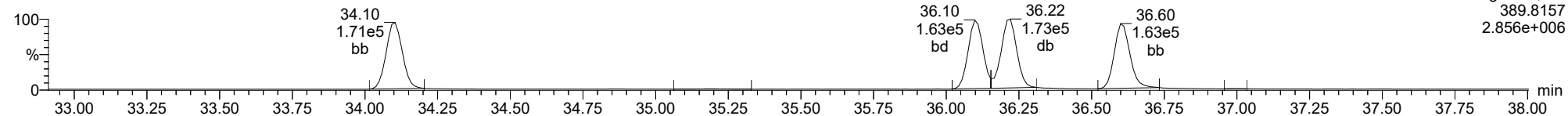
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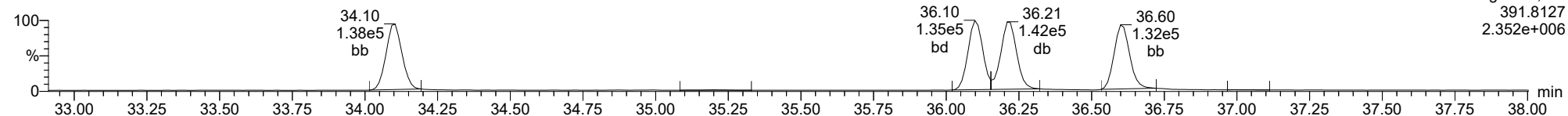
**Total-hexadioxins**

23020712



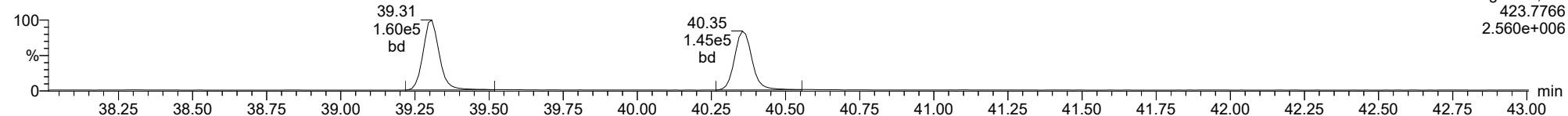
**Total-hexadioxins**

23020712



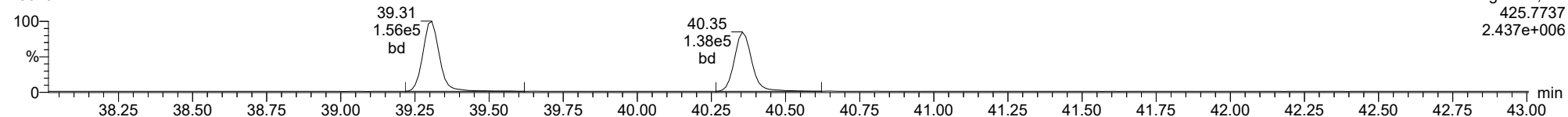
**Total-heptadioxins**

23020712



**Total-heptadioxins**

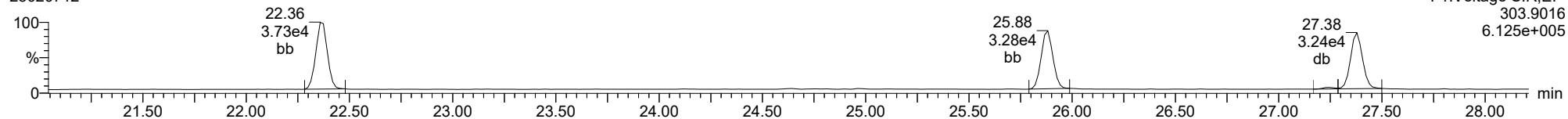
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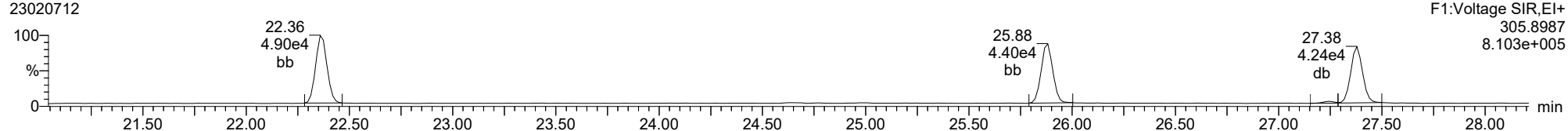
**Total-tetrafurans**

23020712



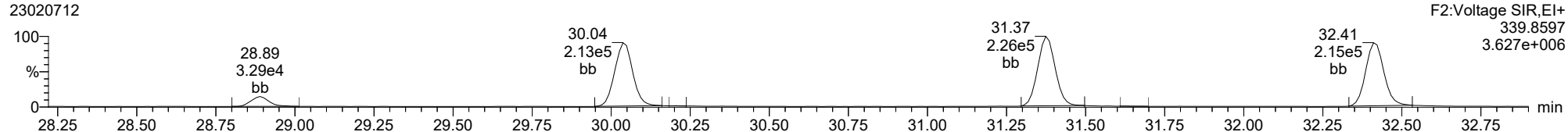
**Total-tetrafurans**

23020712



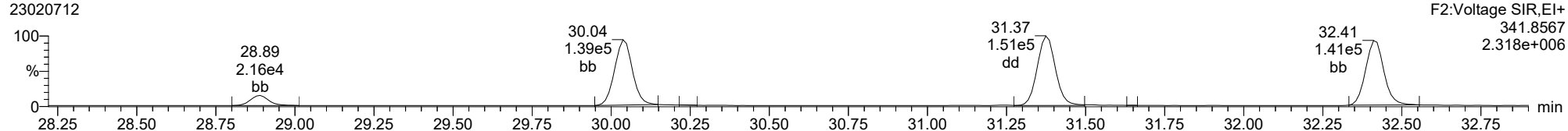
**Total-pentafurans**

23020712



**Total-pentafurans**

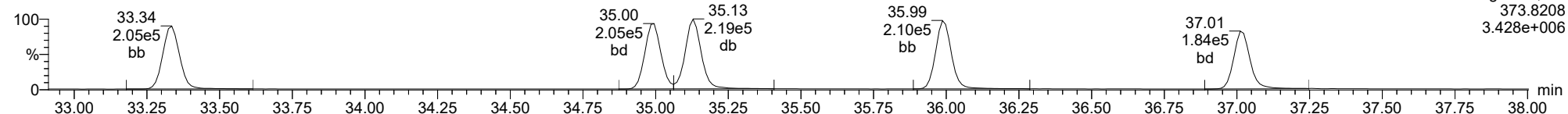
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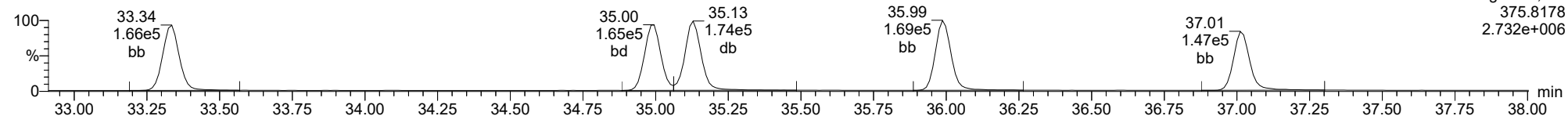
**Total-hexafurans**

23020712



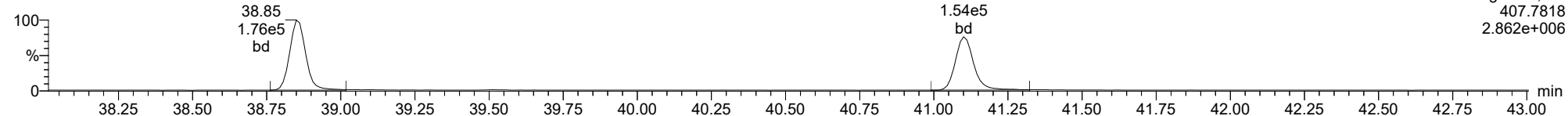
**Total-hexafurans**

23020712



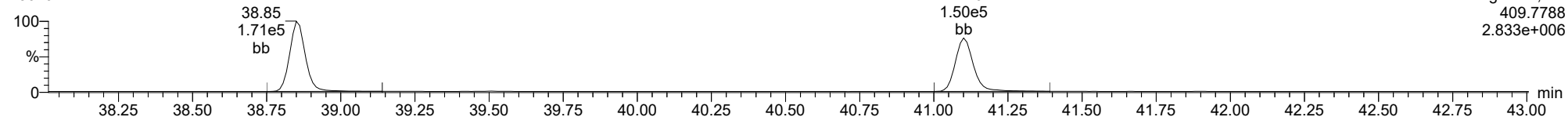
**Total-heptafurans**

23020712

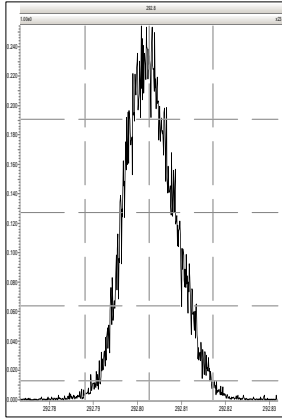


**Total-heptafurans**

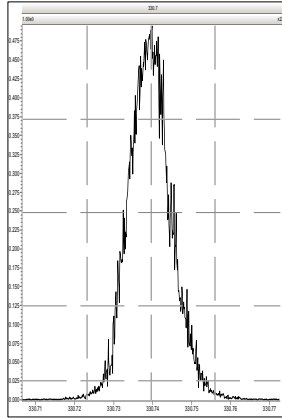
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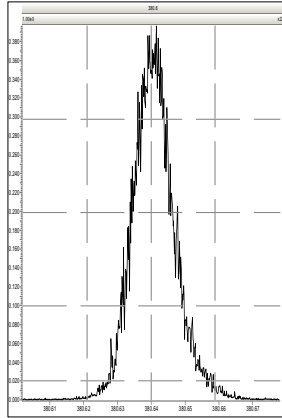
M 292.9824 R 11573



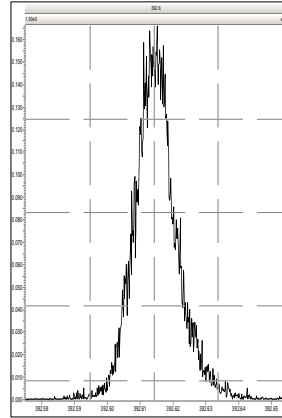
M 330.9792 R 13895



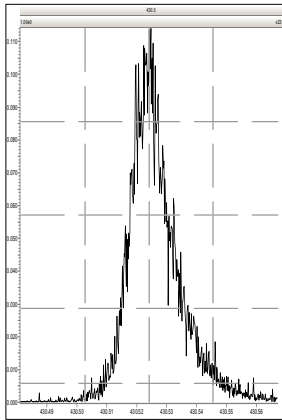
M 380.9760 R 13333



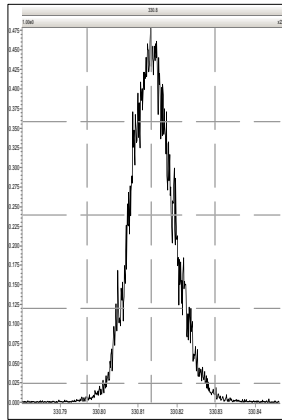
M 392.9760 R 13097



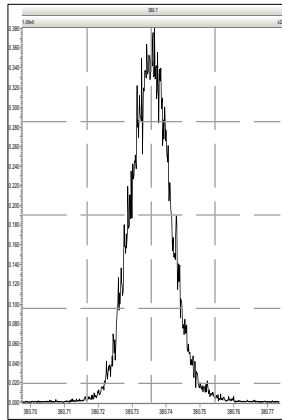
M 430.9728 R 11069



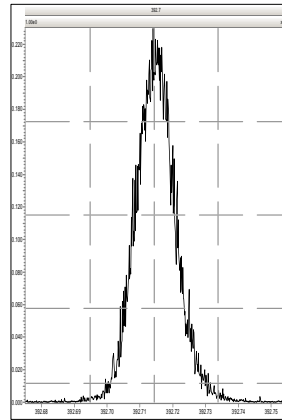
M 330.9792 R 13273



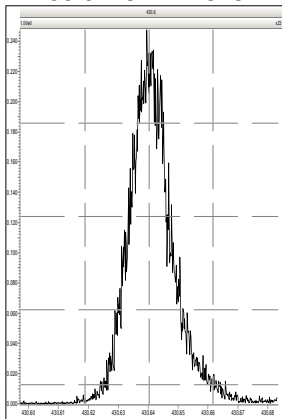
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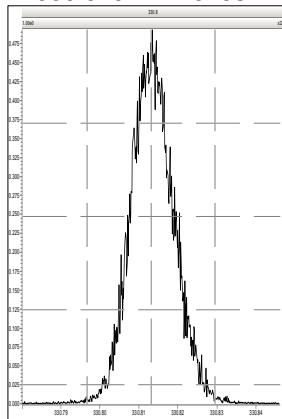
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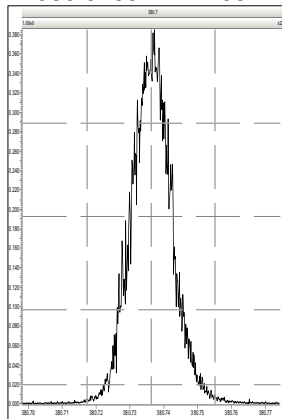
M 430.9728 R 12626



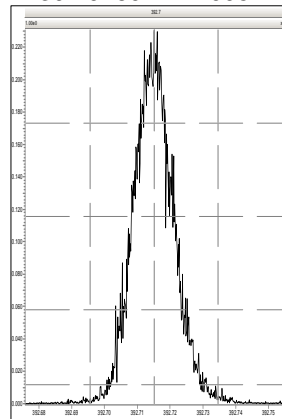
M 330.9792 R 13158



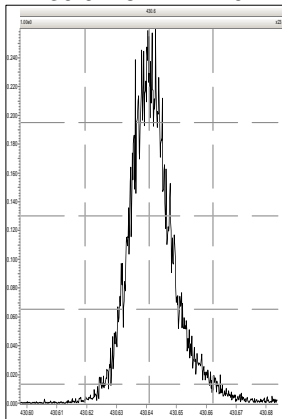
M 380.9760 R 14205



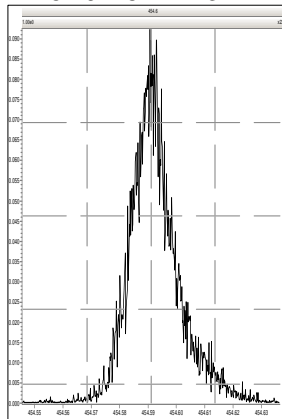
M 392.9760 R 14005



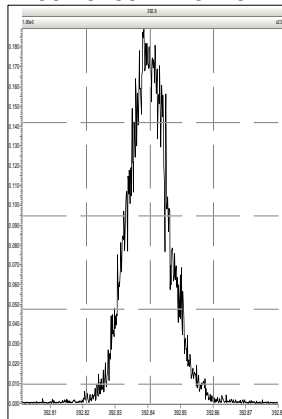
M 430.9728 R 12410



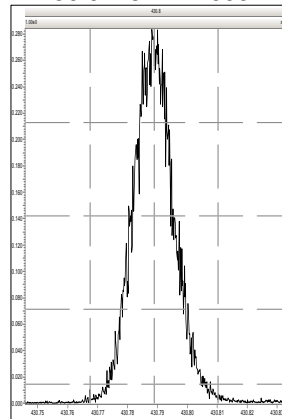
M 454.9728 R 12322



M 392.9760 R 13710

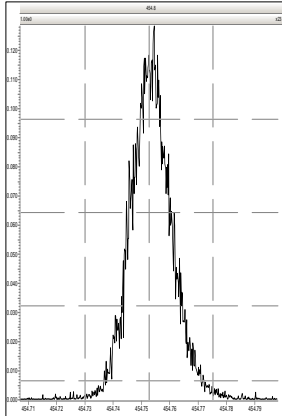


M 430.9728 R 14005

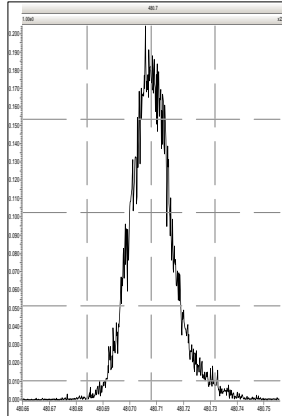


Printed: Tuesday, February 07, 2023 18:57:43 Pacific Standard Time

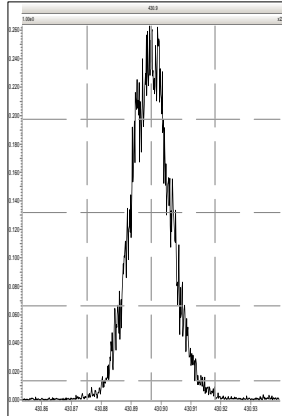
M 454.9728 R 13522



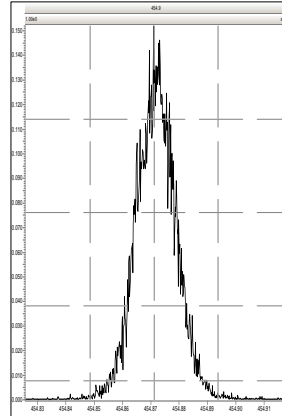
M 480.9696 R 13001



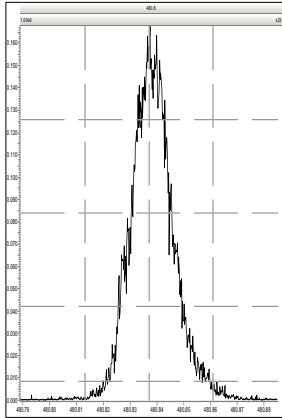
M 430.9728 R 13742



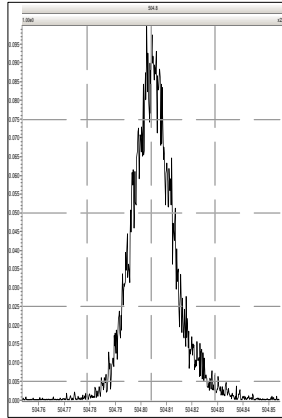
M 454.9728 R 13661



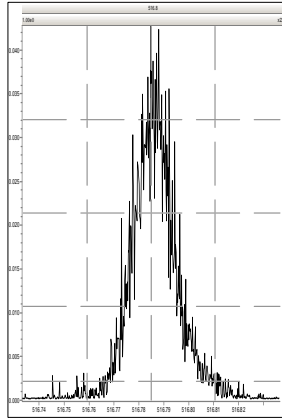
M 480.9696 R 12791



M 504.9696 R 13440



M 516.9697 R 12782



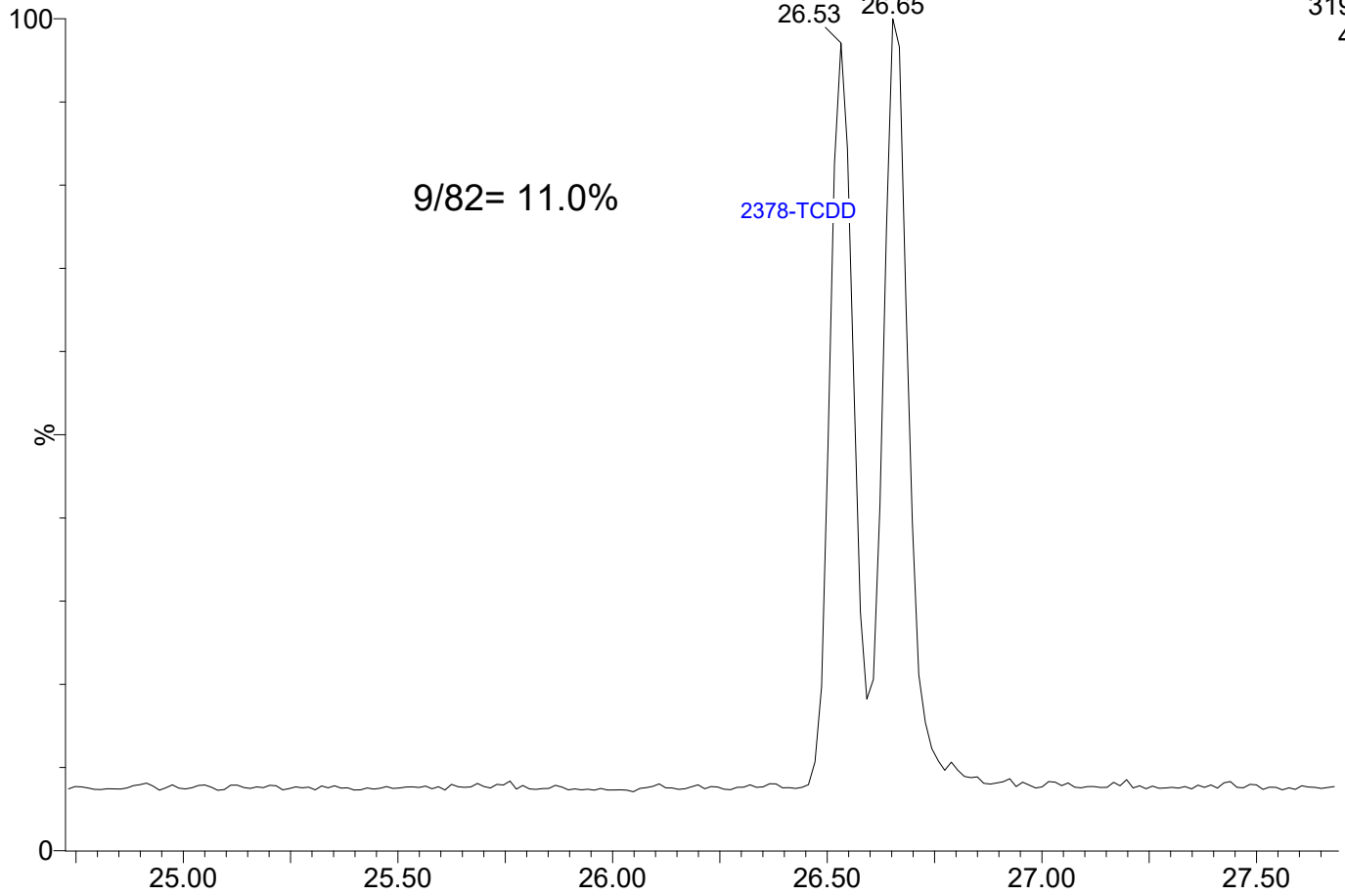


23020713

1: Voltage SIR 15 Channels EI+

319.8965

4.30e5

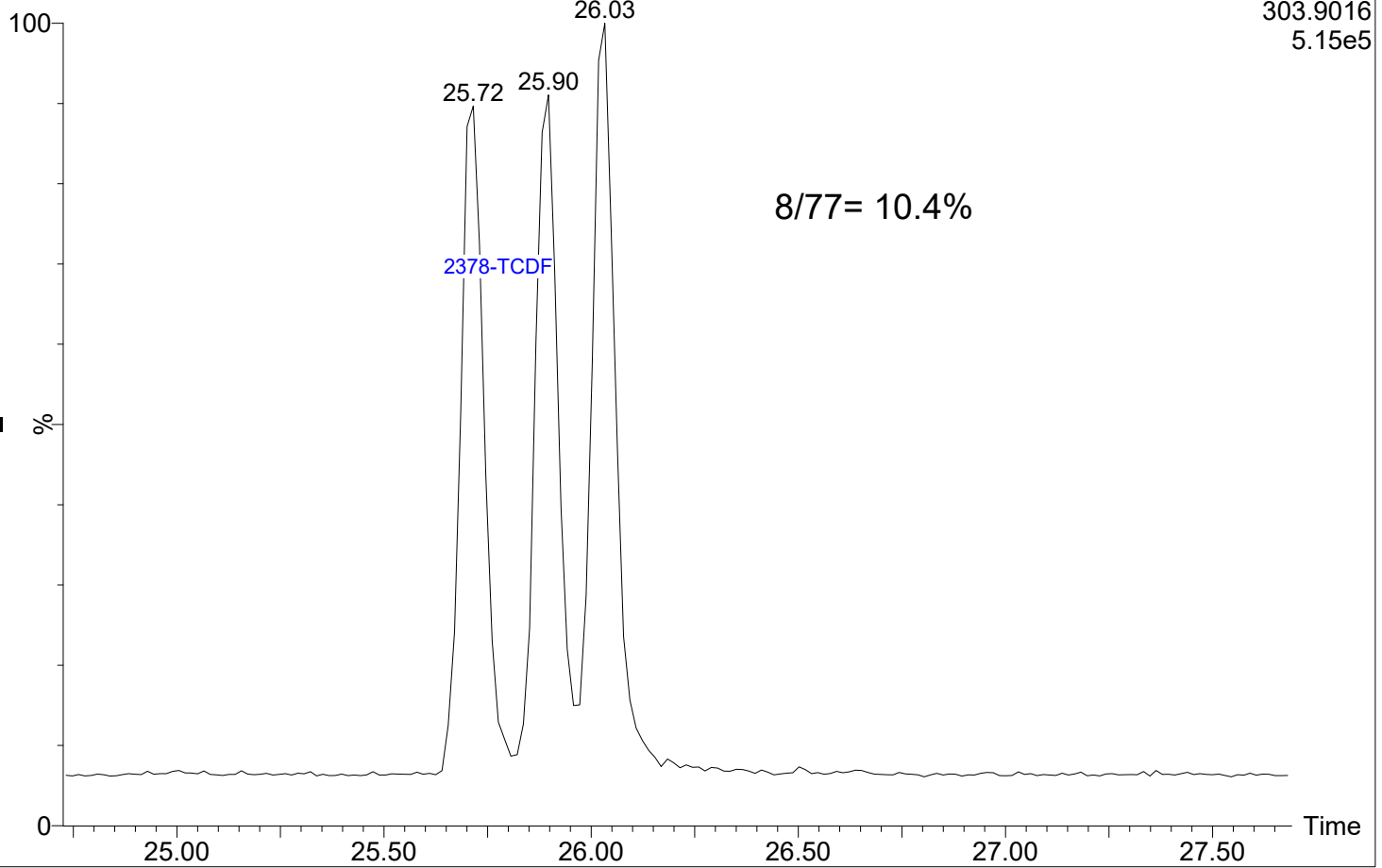


23020713

1: Voltage SIR 15 Channels EI+

303.9016

5.15e5





CONTINUING CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020721

Calibration Date: 02/01/2023

Sequence: SLB0072

Injection Date: 02/08/23

Lab Sample ID: SLB0072-CCV2

Injection Time: 01:35

Sequence Name: CS3T3

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.30	0.8760604	0.8145246		-7.0	+/-16
2,3,7,8-TCDD	A	10.000	9.18	1.2363600	1.1345480		-8.2	+/-22
1,2,3,7,8-PeCDF	A	50.000	46.2	0.8446540	0.7800109		-7.7	+/-18
2,3,4,7,8-PeCDF	A	50.000	47.0	0.9111780	0.8565973		-6.0	+/-18
1,2,3,7,8-PeCDD	A	50.000	47.8	1.0866850	1.0395050		-4.3	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	46.0	1.1816860	1.0866520		-8.0	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	45.1	1.2480480	1.1257010		-9.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	45.6	1.2288500	1.1212440		-8.8	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	46.9	1.1865370	1.1130750		-6.2	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	46.1	0.9869672	0.9093198		-7.9	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	45.9	1.0207220	0.9377266		-8.1	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	50.6	0.9854780	0.9940994		1.2	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	45.6	1.2041190	1.0988650		-8.7	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	46.4	1.1653050	1.0819840		-7.2	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	44.4	1.2525690	1.1119350		-11.2	+/-14
OCDF	A	100.00	80.1	1.1862640	0.9500443		-19.9	+/-37
OCDD	A	100.00	89.9	1.1026670	0.9912677		-10.1	+/-21
13C12-2,3,7,8-TCDF	A	100.00	90.4	1.7680590	1.5979643		-9.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	104	1.1029470	1.1500778		4.3	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	96.0	1.5271250	1.4667768		-4.0	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	94.8	1.4662840	1.3895984		-5.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	103	0.9141518	0.9392497		2.7	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	82.8	1.0536610	0.8722192		-17.2	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	81.2	1.0799530	0.8773133		-18.8	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	84.2	1.0143260	0.8541652		-15.8	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	82.9	0.9279333	0.7689716		-17.1	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	92.3	0.9329336	0.8608756		-7.7	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	90.7	0.9646272	0.8746126		-9.3	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	75.3	1.0360890	0.7805178		-24.7	+/-22 *
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	77.6	0.9049372	0.7020069		-22.4	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	84.6	0.7819773	0.6617408		-15.4	+/-28
13C12-OCDD	A	200.00	159	0.7882343	0.6273629		-20.4	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.10	1.2334500	1.1227087		-9.0	

\* Values outside of QC limits

\* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld  
 Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time  
 Printed: Wednesday, February 08, 2023 09:32:51 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.867	1.001	2.989e4	3.883e4	0.876	0.770	0.770	689	925	4.67e5	6.10e5	677.6	659.2	NO	bb	bb	9.298
12378-PeCDF	30.026	1.000	1.808e5	1.213e5	0.845	1.491	1.550	1124	1652	2.80e6	1.90e6	2491.0	1152.8	NO	bb	bb	46.173
23478-PeCDF	31.363	1.001	1.881e5	1.261e5	0.911	1.492	1.550	1124	1652	2.94e6	1.97e6	2612.3	1195.3	NO	bb	bb	47.005
123478-HxCDF	34.984	1.001	2.009e5	1.593e5	1.182	1.261	1.240	1476	1211	3.21e6	2.54e6	2175.4	2100.1	NO	bd	bd	45.979
234678-HxCDF	35.987	1.001	2.001e5	1.639e5	1.229	1.221	1.240	1476	1211	3.20e6	2.59e6	2167.0	2141.2	NO	bb	bb	45.622
123678-HxCDF	35.118	1.000	2.094e5	1.659e5	1.248	1.263	1.240	1476	1211	3.21e6	2.56e6	2174.0	2115.2	NO	dd	db	45.098
123789-HxCDF	37.012	1.001	1.800e5	1.452e5	1.187	1.239	1.240	1476	1211	2.76e6	2.22e6	1866.8	1830.5	NO	bb	bd	46.904
1234678-HpCDF	38.850	1.000	1.639e5	1.620e5	1.204	1.012	1.050	1257	1463	2.72e6	2.63e6	2165.1	1796.7	NO	bb	bd	45.629
1234789-HpCDF	41.101	1.001	1.449e5	1.438e5	1.165	1.008	1.050	1257	1463	2.06e6	2.04e6	1637.1	1396.2	NO	bd	bd	46.425
OCDF	45.367	1.006	2.150e5	2.381e5	1.186	0.903	0.890	767	924	2.51e6	2.77e6	3275.0	2997.0	NO	bd	bd	80.087
2378-TCDD	26.501	1.001	3.017e4	3.872e4	1.236	0.779	0.770	957	775	4.59e5	5.98e5	479.8	770.8	NO	bb	bb	9.177
12378-PeCDD	31.619	1.001	1.569e5	1.008e5	1.087	1.557	1.550	1447	1164	2.39e6	1.55e6	1655.1	1332.8	NO	bb	bb	47.829
123478-HxCDD	36.087	1.000	1.628e5	1.347e5	0.987	1.209	1.240	1281	1025	2.78e6	2.31e6	2170.2	2258.0	NO	bd	bd	46.066
123678-HxCDD	36.209	1.001	1.712e5	1.405e5	1.021	1.219	1.240	1281	1025	2.74e6	2.23e6	2137.2	2174.2	NO	db	db	45.934
123789-HxCDD	36.588	1.011	1.819e5	1.469e5	0.985	1.238	1.240	1281	1025	3.02e6	2.42e6	2356.9	2363.4	NO	bb	bb	50.590
1234678-HpCDD	40.354	1.001	1.427e5	1.369e5	1.253	1.043	1.050	1275	1044	2.18e6	2.06e6	1709.2	1971.6	NO	bd	bd	44.386
OCDD	45.129	1.000	2.232e5	2.494e5	1.103	0.895	0.890	1183	1172	2.67e6	3.00e6	2259.7	2563.3	NO	bd	bb	89.897
13C-2378-TCDF	25.851	1.007	3.686e5	4.752e5	1.768	0.776	0.770	1717	987	5.74e6	7.30e6	3340.5	7402.0	NO	bb	bb	90.380
13C-12378-PeCDF	30.015	1.169	4.675e5	3.069e5	1.527	1.523	1.550	1282	1259	7.16e6	4.68e6	5579.9	3717.3	NO	bb	bb	96.048
13C-23478-PeCDF	31.341	1.221	4.457e5	2.880e5	1.466	1.548	1.550	1282	1259	6.78e6	4.38e6	5283.5	3476.7	NO	bb	bb	94.770
13C-123478-HxCDF	34.962	0.956	2.233e5	4.396e5	1.054	0.508	0.510	1208	1293	3.58e6	7.13e6	2964.2	5517.4	NO	bd	bd	82.780
13C-123678-HxCDF	35.106	0.960	2.280e5	4.388e5	1.080	0.520	0.510	1208	1293	3.65e6	7.09e6	3022.4	5486.0	NO	db	db	81.236
13C-234678-HxCDF	35.964	0.983	2.191e5	4.301e5	1.014	0.510	0.510	1208	1293	3.66e6	7.13e6	3026.3	5516.7	NO	bb	bb	84.210
13C-123789-HxCDF	36.989	1.011	1.970e5	3.874e5	0.928	0.509	0.510	1208	1293	3.32e6	6.48e6	2745.9	5009.8	NO	bb	bb	82.869
13C-1234678-HpCDF	38.839	1.062	1.843e5	4.089e5	1.036	0.451	0.440	1197	1846	3.08e6	6.73e6	2576.4	3646.6	NO	bb	bb	75.333
13C-1234789-HpCDF	41.078	1.123	1.659e5	3.677e5	0.905	0.451	0.440	1197	1846	2.39e6	5.27e6	1994.8	2855.6	NO	bb	bb	77.575
13C-1234-TCDD	25.670	0.000	2.314e5	2.965e5	1.000	0.780	0.770	1333	873	3.68e6	4.66e6	2762.2	5343.9	NO	bb	bb	100.000
13C-2378-TCDD	26.486	1.032	2.646e5	3.427e5	1.103	0.772	0.770	1333	873	4.17e6	5.36e6	3127.0	6142.0	NO	bb	bb	104.273
13C-12378-PeCDD	31.597	1.231	3.054e5	1.905e5	0.914	1.603	1.550	815	748	4.67e6	2.92e6	5733.6	3904.7	NO	bd	bb	102.745
13C-123478-HxCDD	36.076	0.986	3.680e5	2.863e5	0.933	1.285	1.240	1195	1669	6.27e6	4.84e6	5248.6	2900.5	NO	bd	bd	92.276
13C-123678-HxCDD	36.187	0.989	3.693e5	2.955e5	0.965	1.250	1.240	1195	1669	6.01e6	4.83e6	5026.2	2896.6	NO	db	db	90.668
13C-1234678-HpCDD	40.332	1.103	2.646e5	2.383e5	0.782	1.110	1.050	1103	1181	3.95e6	3.73e6	3582.0	3159.4	NO	bd	bb	84.624
13C-OCDD	45.111	1.233	4.546e5	4.991e5	0.788	0.911	0.890	1981	1422	5.61e6	6.19e6	2832.2	4348.8	NO	bb	bb	159.182
13C-123789-HxCDD	36.577	0.000	4.226e5	3.374e5	1.000	1.252	1.240	1195	1669	7.00e6	5.67e6	5856.2	3396.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.501	1.032	5.928e4		1.233			1148		9.29e5		809.5			bb		9.102

**ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.344	0.864	3.342e4	4.455e4	1.064	0.750	0.770	689	925	5.30e5	7.02e5	768.7	759.5	NO	bb	bb	8.681
1289-TCDF	27.363	1.058	2.927e4	3.773e4	0.858	0.776	0.770	689	925	4.37e5	5.75e5	634.3	622.1	NO	db	bb	9.259
13468-PECDF	27.212	0.907	2.454e5	1.594e5	1.013	1.540	1.550	569	815	3.71e6	2.39e6	6521.3	2933.4	NO	bb	bb	51.598
12389-PECDF					0.844		1.550	1124	1652								
123468-HXCDF	33.324	0.953	1.979e5	1.581e5	1.197	1.252	1.240	1476	1211	3.03e6	2.41e6	2052.5	1991.6	NO	bd	bd	44.844
1368-TCDD	23.629	0.892	2.686e4	3.446e4	1.084	0.780	0.770	957	775	4.19e5	5.33e5	437.7	687.4	NO	bb	bb	9.313
1289-TCDD	27.106	1.023	2.613e4	3.300e4	0.975	0.792	0.770	957	775	4.04e5	5.11e5	422.2	659.1	NO	bb	bd	9.985
12479-PECDD	28.890	0.914	2.667e5	1.702e5	1.837	1.567	1.550	1447	1164	2.61e6	1.66e6	1801.1	1425.3	NO	bb	bb	47.957
12389-PECDD	32.009	1.013	1.833e5	1.186e5	1.252	1.545	1.550	1447	1164	2.80e6	1.84e6	1938.2	1581.8	NO	bb	bb	48.611
124679-HXCDD	34.093	0.945	1.692e5	1.400e5	1.033	1.209	1.240	1281	1025	2.67e6	2.22e6	2084.0	2160.6	NO	bb	bb	45.755
1234679-HPCDD	39.296	0.974	1.557e5	1.502e5	1.286	1.036	1.050	1275	1044	2.52e6	2.45e6	1975.5	2343.0	NO	bd	bb	47.294
Total-tetrafurans			9.279e4		0.933			689		1.44e6							27.296
Total-penta1			2.454e5					569		3.71e6							51.598
Total-pentafurans			5.771e5		0.866			1124		8.83e6							146.147
Total-hexafurans			9.889e5		1.208			1476		1.54e7							228.578
Total-heptafurans			3.088e5		1.185			1257		4.78e6							92.054
Total-Furans			2.428e6		1.067			689		3.67e7							625.761
Total-tetradoxins			1.410e5		1.099			957		1.95e6							48.007
Total-pentadoxins			6.070e5		1.392			1447		7.80e6							144.398
Total-hexadoxins			6.851e5		1.007			1281		1.12e7							188.346
Total-heptadoxins			2.984e5		1.269			1275		4.70e6							91.680
Total-Dioxins			1.955e6		1.165			957		2.83e7							562.328
Total-TEQ			4.383e6					957		6.50e7							1188.088
FUNCTION1 PFK			2.134e5					477536		5.49e6							
FUNCTION2 PFK			1.786e5					215339		5.47e6							0.000
FUNCTION3 PFK			3.692e6					270408		5.38e6							0.000
FUNCTION4 PFK			2.158e5					174561		4.37e6							
FUNCTION5 PFK			1.125e5					115763		4.12e6							
FUNCTION1 HXCD...			1.086e2					438		1.36e3							0.000
FUNCTION1 HPCD...			1.250e2					565		2.02e3							0.000
FUNCTION2 HPCD...			3.788e2					645		4.78e3							0.000
FUNCTION3 OCDPE			8.291e1					503		1.47e3							0.000
FUNCTION4 NCDPE			7.754e1					542		1.15e3							0.000
FUNCTION5 DCDPE			0.000e0					662		0.00e0							

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:32:51 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.36	2.927e4	3.773e4	0.858	0.78	0.77	634.3	YES	NO	db	bb	9.259
2	2378-TCDF	25.87	2.989e4	3.883e4	0.876	0.77	0.77	677.6	YES	NO	bb	bb	9.298
3	Total-tetrafurans	24.76	2.129e2	2.476e2	0.933	0.86	0.77	4.9	YES	NO	dd	bb	0.059
4	1368-TCDF	22.34	3.342e4	4.455e4	1.064	0.75	0.77	768.7	YES	NO	bb	bb	8.681

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.21	2.454e5	1.594e5	1.013	1.54	1.55	6521.3	YES	NO	bb	bb	51.598

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	30.03	1.808e5	1.213e5	0.845	1.49	1.55	2491.0	YES	NO	bb	bb	46.173
2	Total-pentafurans	28.88	2.988e4	2.022e4	0.866	1.48	1.55	414.7	YES	NO	bb	bb	7.668
3	Total-pentafurans	32.40	1.783e5	1.177e5	0.866	1.51	1.55	2333.4	YES	NO	bb	bb	45.302
4	23478-PeCDF	31.36	1.881e5	1.261e5	0.911	1.49	1.55	2612.3	YES	NO	bb	bb	47.005

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.49	5.853e2	4.225e2	1.208	1.39	1.24	10.4	YES	NO	dd	db	0.130
2	123468-HxCDF	33.32	1.979e5	1.581e5	1.197	1.25	1.24	2052.5	YES	NO	bd	bd	44.844
3	123789-HxCDF	37.01	1.800e5	1.452e5	1.187	1.24	1.24	1866.8	YES	NO	bb	bd	46.904
4	234678-HxCDF	35.99	2.001e5	1.639e5	1.229	1.22	1.24	2167.0	YES	NO	bb	bb	45.622
5	123678-HxCDF	35.12	2.094e5	1.659e5	1.248	1.26	1.24	2174.0	YES	NO	dd	db	45.098
6	123478-HxCDF	34.98	2.009e5	1.593e5	1.182	1.26	1.24	2175.4	YES	NO	bd	bd	45.979

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	1.449e5	1.438e5	1.165	1.01	1.05	1637.1	YES	NO	bd	bd	46.425
2	1234678-HpCDF	38.85	1.639e5	1.620e5	1.204	1.01	1.05	2165.1	YES	NO	bb	bd	45.629

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:32:51 Pacific Standard Time

**ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk****Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.36	2.927e4	3.773e4	0.858	0.78	0.77	634.3	YES	NO	db	bb	9.259
2	2378-TCDF	25.87	2.989e4	3.883e4	0.876	0.77	0.77	677.6	YES	NO	bb	bb	9.298
3	Total-tetrafurans	24.76	2.129e2	2.476e2	0.933	0.86	0.77	4.9	YES	NO	dd	bb	0.059
4	1368-TCDF	22.34	3.342e4	4.455e4	1.064	0.75	0.77	768.7	YES	NO	bb	bb	8.681
5	12378-PeCDF	30.03	1.808e5	1.213e5	0.845	1.49	1.55	2491.0	YES	NO	bb	bb	46.173
6	Total-pentafurans	28.88	2.988e4	2.022e4	0.866	1.48	1.55	414.7	YES	NO	bb	bb	7.668
7	Total-hexafurans	33.49	5.853e2	4.225e2	1.208	1.39	1.24	10.4	YES	NO	dd	db	0.130
8	123468-HXCDF	33.32	1.979e5	1.581e5	1.197	1.25	1.24	2052.5	YES	NO	bd	bd	44.844
9	Total-pentafurans	32.40	1.783e5	1.177e5	0.866	1.51	1.55	2333.4	YES	NO	bb	bb	45.302
10	23478-PeCDF	31.36	1.881e5	1.261e5	0.911	1.49	1.55	2612.3	YES	NO	bb	bb	47.005
11	123789-HxCDF	37.01	1.800e5	1.452e5	1.187	1.24	1.24	1866.8	YES	NO	bb	bd	46.904
12	234678-HxCDF	35.99	2.001e5	1.639e5	1.229	1.22	1.24	2167.0	YES	NO	bb	bb	45.622
13	123678-HxCDF	35.12	2.094e5	1.659e5	1.248	1.26	1.24	2174.0	YES	NO	dd	db	45.098
14	123478-HxCDF	34.98	2.009e5	1.593e5	1.182	1.26	1.24	2175.4	YES	NO	bd	bd	45.979
15	1234789-HpCDF	41.10	1.449e5	1.438e5	1.165	1.01	1.05	1637.1	YES	NO	bd	bd	46.425
16	1234678-HpCDF	38.85	1.639e5	1.620e5	1.204	1.01	1.05	2165.1	YES	NO	bb	bd	45.629
17	OCDF	45.37	2.150e5	2.381e5	1.186	0.90	0.89	3275.0	YES	NO	bd	bd	80.087
18	13468-PECDF	27.21	2.454e5	1.594e5	1.013	1.54	1.55	6521.3	YES	NO	bb	bb	51.598

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.63	2.686e4	3.446e4	1.084	0.78	0.77	437.7	YES	NO	bb	bb	9.313
2	1289-TCDD	27.11	2.613e4	3.300e4	0.975	0.79	0.77	422.2	YES	NO	bb	bd	9.985
3	2378-TCDD	26.50	3.017e4	3.872e4	1.236	0.78	0.77	479.8	YES	NO	bb	bb	9.177
4	Total-tetradoxins	26.18	4.356e4	5.516e4	1.099	0.79	0.77	474.0	YES	NO	bb	bb	14.798
5	Total-tetradoxins	25.68	1.401e4	1.679e4	1.099	0.83	0.77	222.9	YES	NO	bd	bb	4.616
6	Total-tetradoxins	25.10	3.249e2	4.667e2	1.099	0.70	0.77	4.8	YES	NO	bb	bb	0.119

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.01	1.833e5	1.186e5	1.252	1.54	1.55	1938.2	YES	NO	bb	bb	48.611
2	12378-PeCDD	31.62	1.569e5	1.008e5	1.087	1.56	1.55	1655.1	YES	NO	bb	bb	47.829
3	12479-PECDD	28.89	2.667e5	1.702e5	1.837	1.57	1.55	1801.1	YES	NO	bb	bb	47.957

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk****HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.09	1.692e5	1.400e5	1.033	1.21	1.24	2084.0	YES	NO	bb	bb	45.755
2	123789-HxCDD	36.59	1.819e5	1.469e5	0.985	1.24	1.24	2356.9	YES	NO	bb	bb	50.590
3	123678-HxCDD	36.21	1.712e5	1.405e5	1.021	1.22	1.24	2137.2	YES	NO	db	db	45.934
4	123478-HxCDD	36.09	1.628e5	1.347e5	0.987	1.21	1.24	2170.2	YES	NO	bd	bd	46.066

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	1.427e5	1.369e5	1.253	1.04	1.05	1709.2	YES	NO	bd	bd	44.386
2	1234679-HPCDD	39.30	1.557e5	1.502e5	1.286	1.04	1.05	1975.5	YES	NO	bd	bb	47.294

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.63	2.686e4	3.446e4	1.084	0.78	0.77	437.7	YES	NO	bb	bb	9.313
2	1289-TCDD	27.11	2.613e4	3.300e4	0.975	0.79	0.77	422.2	YES	NO	bb	bd	9.985
3	2378-TCDD	26.50	3.017e4	3.872e4	1.236	0.78	0.77	479.8	YES	NO	bb	bb	9.177
4	Total-tetradoxins	26.18	4.356e4	5.516e4	1.099	0.79	0.77	474.0	YES	NO	bb	bb	14.798
5	Total-tetradoxins	25.68	1.401e4	1.679e4	1.099	0.83	0.77	222.9	YES	NO	bd	bb	4.616
6	Total-tetradoxins	25.10	3.249e2	4.667e2	1.099	0.70	0.77	4.8	YES	NO	bb	bb	0.119
7	12389-PECDD	32.01	1.833e5	1.186e5	1.252	1.54	1.55	1938.2	YES	NO	bb	bb	48.611
8	12378-PeCDD	31.62	1.569e5	1.008e5	1.087	1.56	1.55	1655.1	YES	NO	bb	bb	47.829
9	12479-PECDD	28.89	2.667e5	1.702e5	1.837	1.57	1.55	1801.1	YES	NO	bb	bb	47.957
10	124679-HxCDD	34.09	1.692e5	1.400e5	1.033	1.21	1.24	2084.0	YES	NO	bb	bb	45.755
11	123789-HxCDD	36.59	1.819e5	1.469e5	0.985	1.24	1.24	2356.9	YES	NO	bb	bb	50.590
12	123678-HxCDD	36.21	1.712e5	1.405e5	1.021	1.22	1.24	2137.2	YES	NO	db	db	45.934
13	123478-HxCDD	36.09	1.628e5	1.347e5	0.987	1.21	1.24	2170.2	YES	NO	bd	bd	46.066
14	1234678-HpCDD	40.35	1.427e5	1.369e5	1.253	1.04	1.05	1709.2	YES	NO	bd	bd	44.386
15	1234679-HPCDD	39.30	1.557e5	1.502e5	1.286	1.04	1.05	1975.5	YES	NO	bd	bb	47.294
16	OCDD	45.13	2.232e5	2.494e5	1.103	0.89	0.89	2259.7	YES	NO	bd	bb	89.897

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.36	2.927e4	3.773e4	0.858	0.78	0.77	634.3	YES	NO	db	bb	9.259
2	2378-TCDF	25.87	2.989e4	3.883e4	0.876	0.77	0.77	677.6	YES	NO	bb	bb	9.298
3	Total-tetrafurans	24.76	2.129e2	2.476e2	0.933	0.86	0.77	4.9	YES	NO	dd	bb	0.059
4	1368-TCDF	22.34	3.342e4	4.455e4	1.064	0.75	0.77	768.7	YES	NO	bb	bb	8.681
5	12378-PeCDF	30.03	1.808e5	1.213e5	0.845	1.49	1.55	2491.0	YES	NO	bb	bb	46.173
6	Total-pentafurans	28.88	2.988e4	2.022e4	0.866	1.48	1.55	414.7	YES	NO	bb	bb	7.668
7	Total-hexafurans	33.49	5.853e2	4.225e2	1.208	1.39	1.24	10.4	YES	NO	dd	db	0.130
8	123468-HxCDF	33.32	1.979e5	1.581e5	1.197	1.25	1.24	2052.5	YES	NO	bd	bd	44.844
9	Total-pentafurans	32.40	1.783e5	1.177e5	0.866	1.51	1.55	2333.4	YES	NO	bb	bb	45.302
10	23478-PeCDF	31.36	1.881e5	1.261e5	0.911	1.49	1.55	2612.3	YES	NO	bb	bb	47.005
11	123789-HxCDF	37.01	1.800e5	1.452e5	1.187	1.24	1.24	1866.8	YES	NO	bb	bd	46.904
12	234678-HxCDF	35.99	2.001e5	1.639e5	1.229	1.22	1.24	2167.0	YES	NO	bb	bb	45.622
13	123678-HxCDF	35.12	2.094e5	1.659e5	1.248	1.26	1.24	2174.0	YES	NO	dd	db	45.098
14	123478-HxCDF	34.98	2.009e5	1.593e5	1.182	1.26	1.24	2175.4	YES	NO	bd	bd	45.979
15	1234789-HpCDF	41.10	1.449e5	1.438e5	1.165	1.01	1.05	1637.1	YES	NO	bd	bd	46.425
16	1234678-HpCDF	38.85	1.639e5	1.620e5	1.204	1.01	1.05	2165.1	YES	NO	bb	bd	45.629
17	OCDF	45.37	2.150e5	2.381e5	1.186	0.90	0.89	3275.0	YES	NO	bd	bd	80.087
18	13468-PECDF	27.21	2.454e5	1.594e5	1.013	1.54	1.55	6521.3	YES	NO	bb	bb	51.598
19	1368-TCDD	23.63	2.686e4	3.446e4	1.084	0.78	0.77	437.7	YES	NO	bb	bb	9.313
20	1289-TCDD	27.11	2.613e4	3.300e4	0.975	0.79	0.77	422.2	YES	NO	bb	bd	9.985
21	2378-TCDD	26.50	3.017e4	3.872e4	1.236	0.78	0.77	479.8	YES	NO	bb	bb	9.177
22	Total-tetradiioxins	26.18	4.356e4	5.516e4	1.099	0.79	0.77	474.0	YES	NO	bb	bb	14.798
23	Total-tetradiioxins	25.68	1.401e4	1.679e4	1.099	0.83	0.77	222.9	YES	NO	bd	bb	4.616
24	Total-tetradiioxins	25.10	3.249e2	4.667e2	1.099	0.70	0.77	4.8	YES	NO	bb	bb	0.119
25	12389-PECDD	32.01	1.833e5	1.186e5	1.252	1.54	1.55	1938.2	YES	NO	bb	bb	48.611
26	12378-PeCDD	31.62	1.569e5	1.008e5	1.087	1.56	1.55	1655.1	YES	NO	bb	bb	47.829
27	12479-PECDD	28.89	2.667e5	1.702e5	1.837	1.57	1.55	1801.1	YES	NO	bb	bb	47.957
28	124679-HXCDD	34.09	1.692e5	1.400e5	1.033	1.21	1.24	2084.0	YES	NO	bb	bb	45.755
29	123789-HxCDD	36.59	1.819e5	1.469e5	0.985	1.24	1.24	2356.9	YES	NO	bb	bb	50.590
30	123678-HxCDD	36.21	1.712e5	1.405e5	1.021	1.22	1.24	2137.2	YES	NO	db	db	45.934
31	123478-HxCDD	36.09	1.628e5	1.347e5	0.987	1.21	1.24	2170.2	YES	NO	bd	bd	46.066
32	1234678-HpCDD	40.35	1.427e5	1.369e5	1.253	1.04	1.05	1709.2	YES	NO	bd	bd	44.386
33	1234679-HPCDD	39.30	1.557e5	1.502e5	1.286	1.04	1.05	1975.5	YES	NO	bd	bb	47.294
34	OCDD	45.13	2.232e5	2.494e5	1.103	0.89	0.89	2259.7	YES	NO	bd	bb	89.897



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.70	2.023e4					1.3	NO		bb		
2	FUNCTION1 PFK	26.55	1.144e4					0.9	NO		bb		
3	FUNCTION1 PFK	26.49	4.635e3					0.6	NO		bb		
4	FUNCTION1 PFK	26.05	3.908e3					0.5	NO		bb		
5	FUNCTION1 PFK	25.40	1.187e4					0.9	NO		bb		
6	FUNCTION1 PFK	22.45	3.890e3					0.5	NO		bb		
7	FUNCTION1 PFK	22.22	6.548e4					2.2	NO		bb		
8	FUNCTION1 PFK	21.98	1.169e4					0.9	NO		bb		
9	FUNCTION1 PFK	21.72	1.145e4					1.0	NO		bb		
10	FUNCTION1 PFK	21.18	6.878e4					2.5	NO		bb		

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.30	3.568e3					0.9	NO		bb		0.000
2	FUNCTION2 PFK	31.43	1.195e3					0.5	NO		bb		0.000
3	FUNCTION2 PFK	31.24	1.126e3					0.5	NO		bb		0.000
4	FUNCTION2 PFK	31.20	4.585e3					1.0	NO		db		0.000
5	FUNCTION2 PFK	31.16	6.978e3					1.2	NO		bd		0.000
6	FUNCTION2 PFK	31.11	1.585e4					1.6	NO		bb		0.000
7	FUNCTION2 PFK	30.32	2.082e3					0.6	NO		bb		0.000
8	FUNCTION2 PFK	30.09	6.311e3					1.3	NO		bb		0.000
9	FUNCTION2 PFK	29.99	5.210e3					1.2	NO		db		0.000
10	FUNCTION2 PFK	29.89	1.515e4					1.4	NO		bd		0.000
11	FUNCTION2 PFK	29.84	1.481e4					1.8	NO		bb		0.000
12	FUNCTION2 PFK	29.44	1.114e3					0.5	NO		bb		0.000
13	FUNCTION2 PFK	28.87	1.231e4					0.9	NO		bb		0.000
14	FUNCTION2 PFK	28.56	3.301e3					0.9	NO		bb		0.000
15	FUNCTION2 PFK	28.51	8.870e3					1.3	NO		bb		0.000
16	FUNCTION2 PFK	28.44	1.006e4					1.6	NO		bb		0.000
17	FUNCTION2 PFK	28.38	3.503e3					0.8	NO		bb		0.000
18	FUNCTION2 PFK	32.63	1.162e3					0.5	NO		bb		0.000
19	FUNCTION2 PFK	32.54	1.268e4					1.2	NO		bb		0.000
20	FUNCTION2 PFK	32.39	9.909e3					1.4	NO		bb		0.000
21	FUNCTION2 PFK	32.23	4.859e3					0.9	NO		bb		0.000
22	FUNCTION2 PFK	31.90	4.977e3					0.9	NO		bb		0.000
23	FUNCTION2 PFK	31.80	2.169e4					1.8	NO		bb		0.000
24	FUNCTION2 PFK	31.51	7.345e3					0.7	NO		bb		0.000

**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.87	1.434e6					9.2	YES		bb		0.000
2	FUNCTION3 PFK	36.01	2.258e6					10.7	YES		bb		0.000

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.91	9.011e2					0.5	NO		bb		
2	FUNCTION4 PFK	38.30	5.373e3					1.0	NO		db		
3	FUNCTION4 PFK	38.24	2.063e4					2.9	NO		bd		
4	FUNCTION4 PFK	38.16	2.921e4					3.8	YES		db		
5	FUNCTION4 PFK	38.13	5.819e4					3.6	YES		bd		
6	FUNCTION4 PFK	42.75	3.865e3					1.0	NO		bb		
7	FUNCTION4 PFK	42.68	3.805e3					1.1	NO		bb		
8	FUNCTION4 PFK	41.91	2.761e3					0.6	NO		bb		
9	FUNCTION4 PFK	41.27	2.323e4					1.5	NO		db		
10	FUNCTION4 PFK	41.10	1.132e4					1.5	NO		bd		
11	FUNCTION4 PFK	40.65	7.650e3					1.5	NO		bb		
12	FUNCTION4 PFK	40.52	2.352e4					2.0	NO		bb		
13	FUNCTION4 PFK	39.82	1.782e4					2.0	NO		bb		
14	FUNCTION4 PFK	39.03	3.662e3					0.9	NO		db		
15	FUNCTION4 PFK	38.98	3.895e3					1.1	NO		bd		

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.35	2.092e3					0.7	NO		db		
2	FUNCTION5 PFK	43.31	4.272e3					1.4	NO		bd		
3	FUNCTION5 PFK	43.24	4.550e3					1.5	NO		bb		
4	FUNCTION5 PFK	43.11	3.078e3					1.3	NO		db		
5	FUNCTION5 PFK	43.07	2.926e3					1.4	NO		bd		
6	FUNCTION5 PFK	45.39	8.629e3					1.2	NO		db		
7	FUNCTION5 PFK	45.33	2.745e3					0.9	NO		bd		
8	FUNCTION5 PFK	45.28	3.286e3					1.2	NO		bb		
9	FUNCTION5 PFK	45.06	3.876e2					0.4	NO		bb		
10	FUNCTION5 PFK	44.86	4.044e3					1.1	NO		bb		
11	FUNCTION5 PFK	44.77	1.135e4					2.1	NO		bb		
12	FUNCTION5 PFK	44.68	9.812e3					1.9	NO		bb		
13	FUNCTION5 PFK	44.48	2.605e3					1.0	NO		db		
14	FUNCTION5 PFK	44.43	2.465e3					0.9	NO		bd		
15	FUNCTION5 PFK	44.28	4.028e2					0.4	NO		bb		
16	FUNCTION5 PFK	44.24	1.798e3					0.9	NO		bb		
17	FUNCTION5 PFK	44.08	5.712e3					1.4	NO		bb		
18	FUNCTION5 PFK	43.99	2.793e3					1.2	NO		bb		
19	FUNCTION5 PFK	43.79	4.234e3					1.1	NO		bb		
20	FUNCTION5 PFK	43.62	3.789e3					1.3	NO		db		
21	FUNCTION5 PFK	43.56	5.347e3					1.2	NO		bd		
22	FUNCTION5 PFK	46.46	1.270e3					0.8	NO		bb		
23	FUNCTION5 PFK	46.36	1.625e3					0.7	NO		bb		
24	FUNCTION5 PFK	46.16	5.790e2					0.5	NO		bb		
25	FUNCTION5 PFK	46.13	7.509e2					0.5	NO		db		
26	FUNCTION5 PFK	46.09	2.489e3					1.1	NO		bd		
27	FUNCTION5 PFK	45.88	4.478e3					1.2	NO		db		
28	FUNCTION5 PFK	45.83	6.104e3					1.8	NO		dd		
29	FUNCTION5 PFK	45.79	2.918e3					1.0	NO		dd		
30	FUNCTION5 PFK	45.75	2.440e3					0.9	NO		bd		
31	FUNCTION5 PFK	45.70	1.975e3					0.9	NO		bb		
32	FUNCTION5 PFK	45.55	5.406e2					0.5	NO		bb		
33	FUNCTION5 PFK	45.51	5.188e2					0.5	NO		bb		
34	FUNCTION5 PFK	45.48	5.220e2					0.5	NO		bb		

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D1.qld

Last Altered: Wednesday, February 08, 2023 08:38:31 Pacific Standard Time

Printed: Wednesday, February 08, 2023 09:32:51 Pacific Standard Time

**ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk****ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	23.83	1.086e2					3.1	YES		bb		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	24.37	1.250e2					3.6	YES		bb		0.000

**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.20	3.788e2					7.4	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.58	8.291e1					2.9	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.65	7.754e1					2.1	NO		bb		0.000

**ETHERS6**

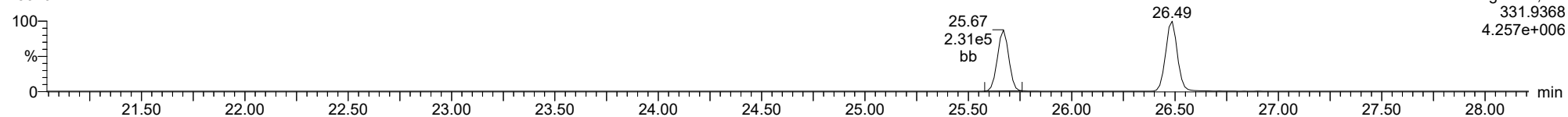
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**13C-1234-TCDD**

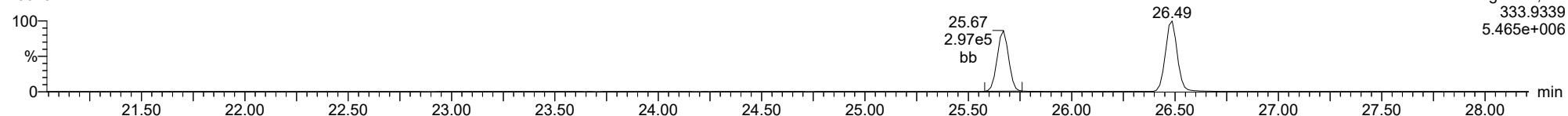
23020721



F1:Voltage SIR,El+  
331.9368  
4.257e+006

**13C-1234-TCDD**

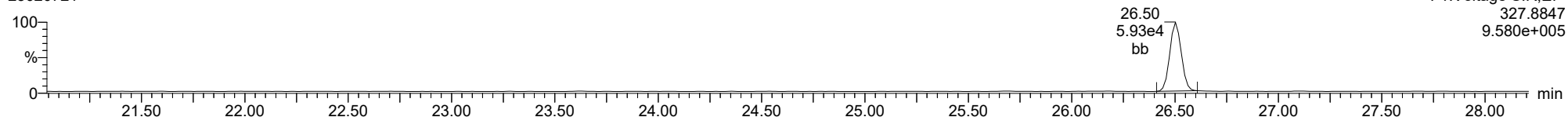
23020721



F1:Voltage SIR,El+  
333.9339  
5.465e+006

**37CL-2378-TCDD**

23020721

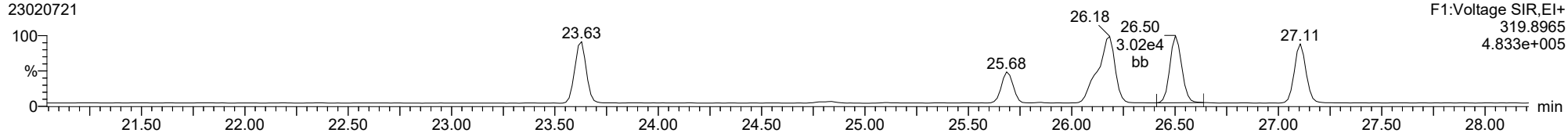


F1:Voltage SIR,El+  
327.8847  
9.580e+005

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**2378-TCDD**

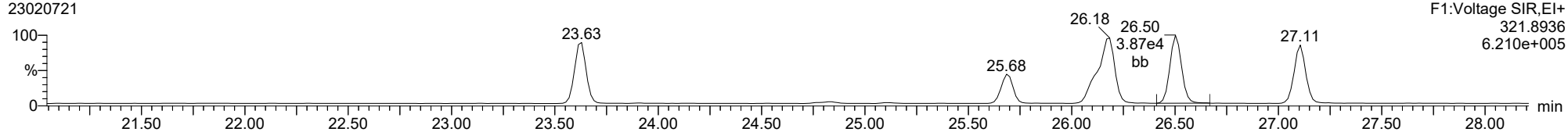
23020721



F1:Voltage SIR,EI+  
319.8965  
4.833e+005

**2378-TCDD**

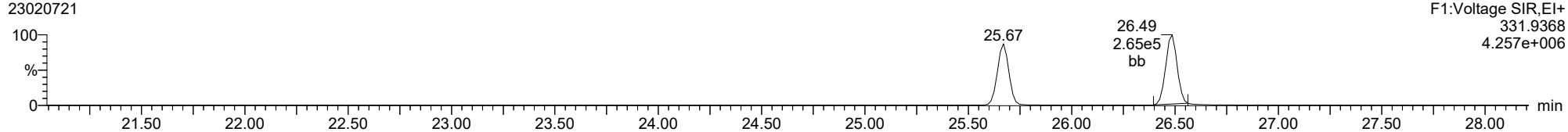
23020721



F1:Voltage SIR,EI+  
321.8936  
6.210e+005

**13C-2378-TCDD**

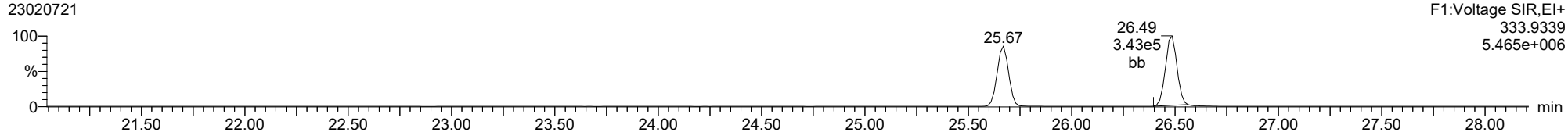
23020721



F1:Voltage SIR,EI+  
331.9368  
4.257e+006

**13C-2378-TCDD**

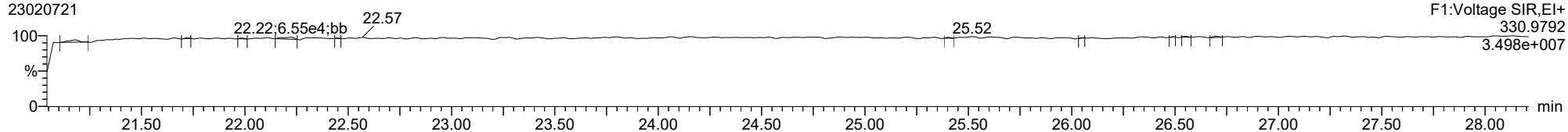
23020721



F1:Voltage SIR,EI+  
333.9339  
5.465e+006

**FUNCTION1 PFK**

23020721

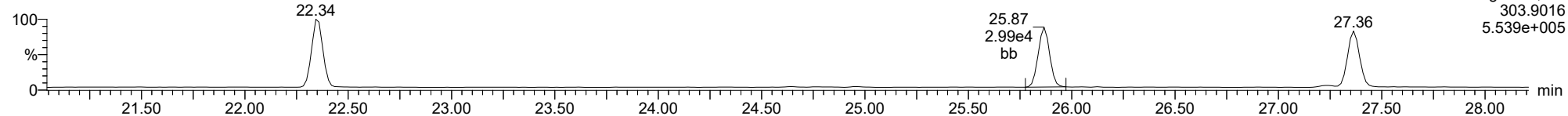


F1:Voltage SIR,EI+  
330.9792  
3.498e+007

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**2378-TCDF**

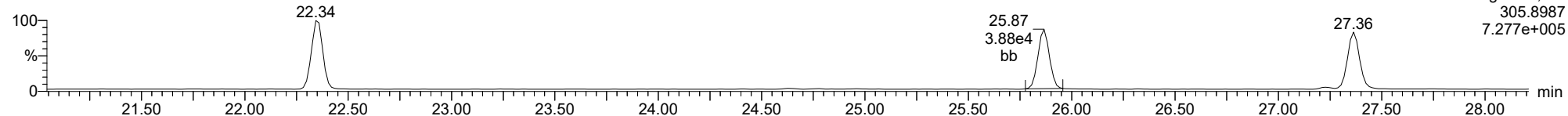
23020721



F1:Voltage SIR,EI+  
303.9016  
5.539e+005

**2378-TCDF**

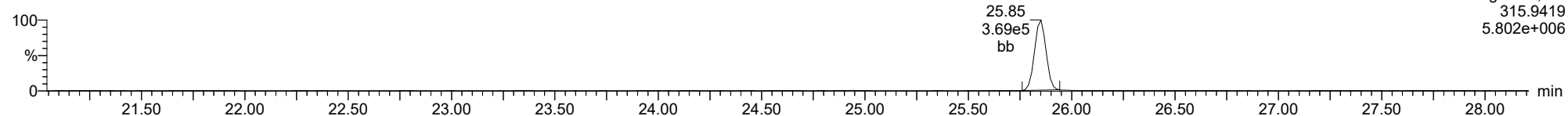
23020721



F1:Voltage SIR,EI+  
305.8987  
7.277e+005

**13C-2378-TCDF**

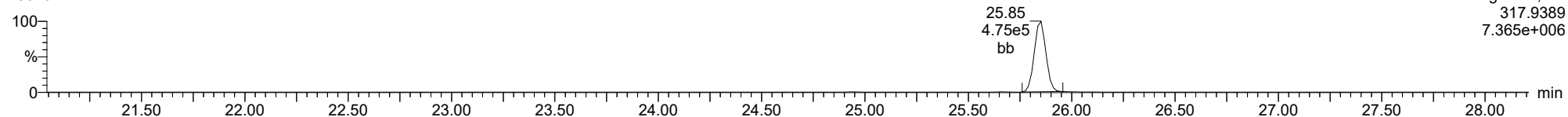
23020721



F1:Voltage SIR,EI+  
315.9419  
5.802e+006

**13C-2378-TCDF**

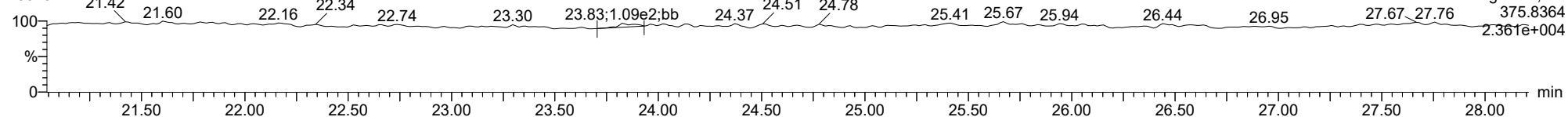
23020721



F1:Voltage SIR,EI+  
317.9389  
7.365e+006

**FUNCTION1 HXCDPE**

23020721



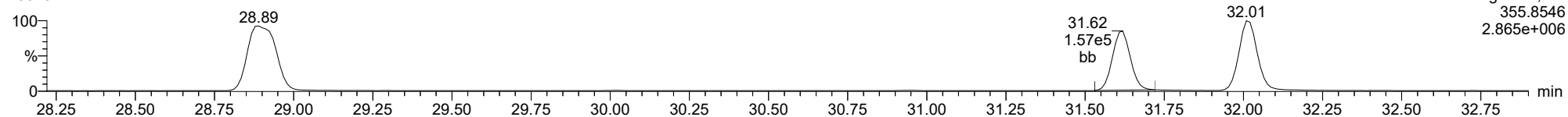
F1:Voltage SIR,EI+  
375.8364  
2.361e+004



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

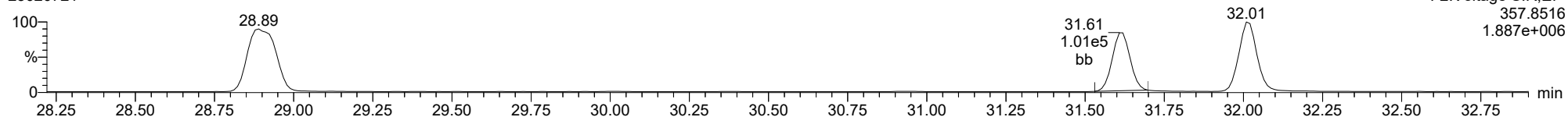
**12378-PeCDD**

23020721



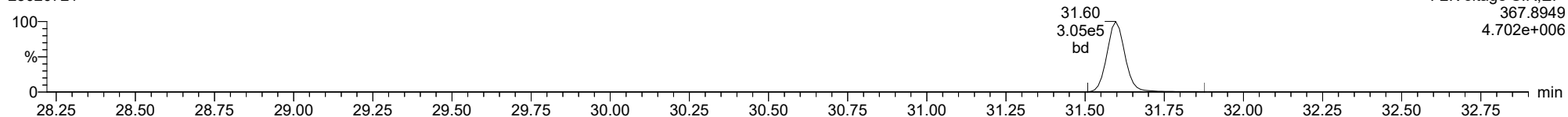
**12378-PeCDD**

23020721



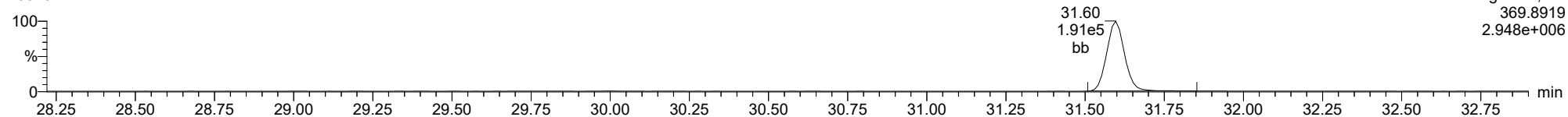
**13C-12378-PeCDD**

23020721



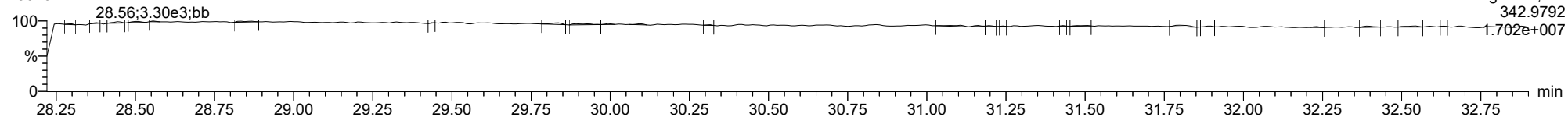
**13C-12378-PeCDD**

23020721



**FUNCTION2 PFK**

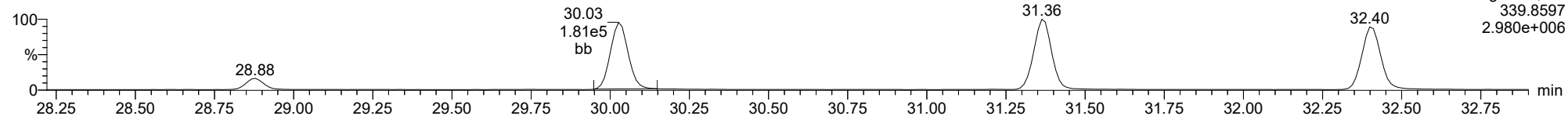
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

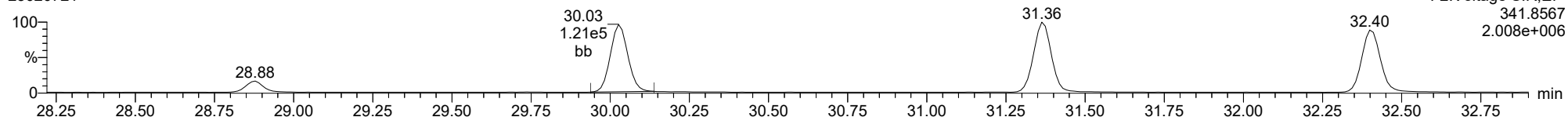
**12378-PeCDF**

23020721



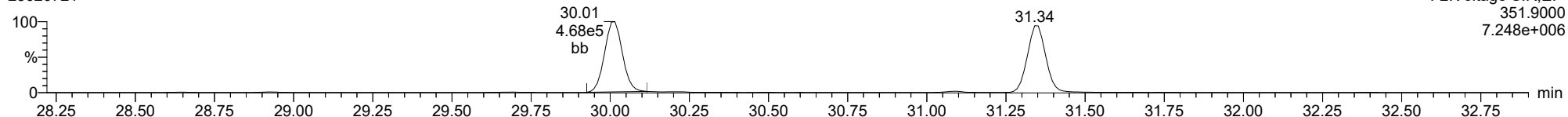
**12378-PeCDF**

23020721



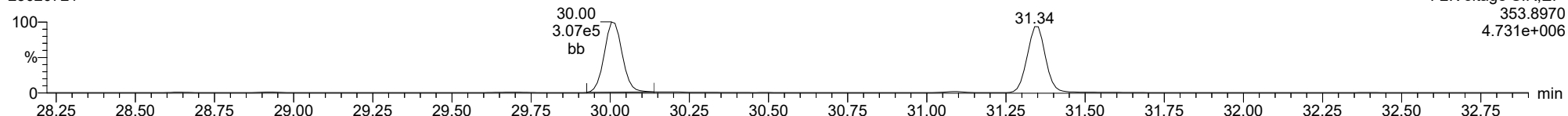
**13C-12378-PeCDF**

23020721



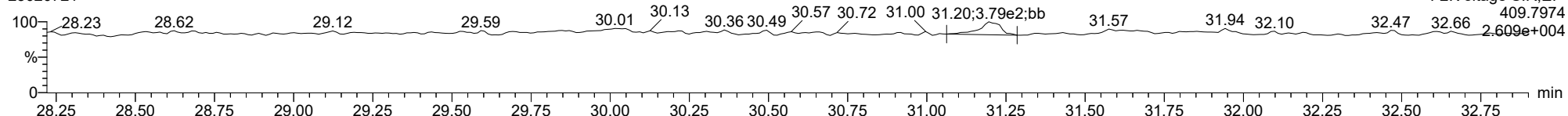
**13C-12378-PeCDF**

23020721



**FUNCTION2 HPCDPE**

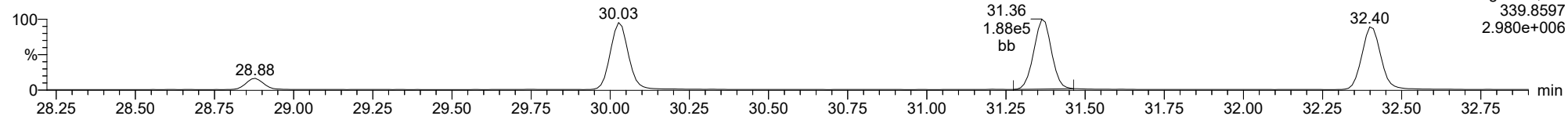
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

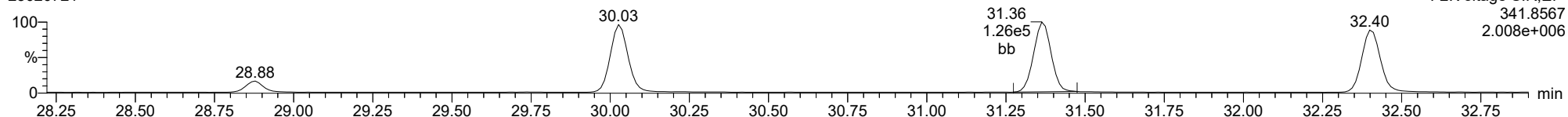
**23478-PeCDF**

23020721



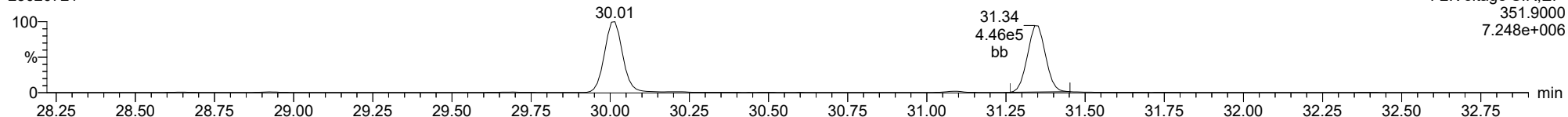
**23478-PeCDF**

23020721



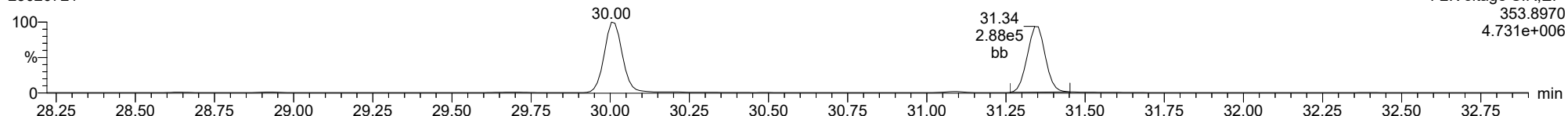
**13C-23478-PeCDF**

23020721



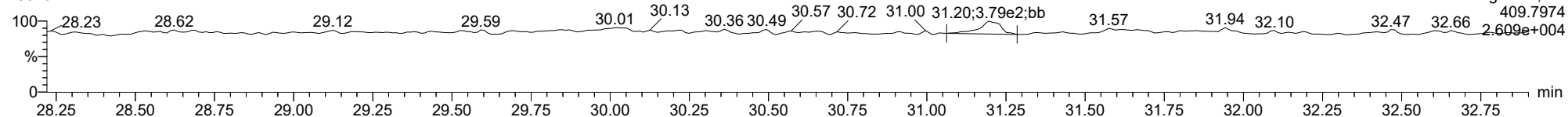
**13C-23478-PeCDF**

23020721



**FUNCTION2 HPCDPE**

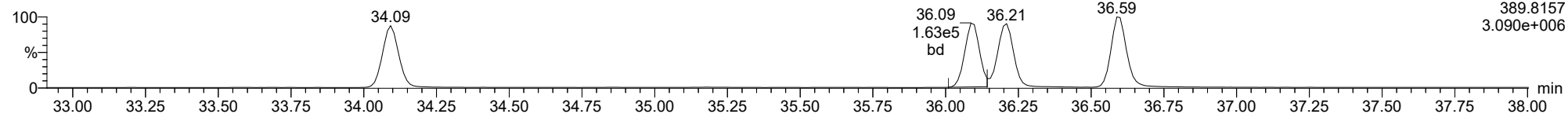
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

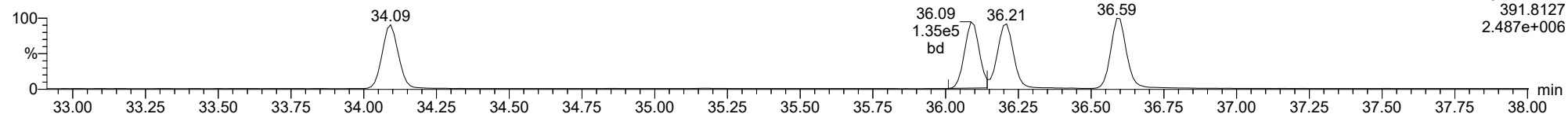
23020721



F3:Voltage SIR,EI+  
389.8157  
3.090e+006

**123478-HxCDD**

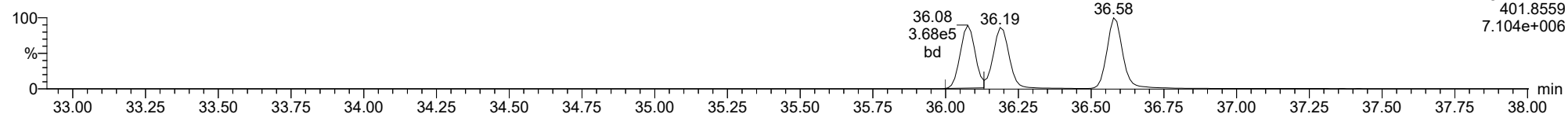
23020721



F3:Voltage SIR,EI+  
391.8127  
2.487e+006

**13C-123478-HxCDD**

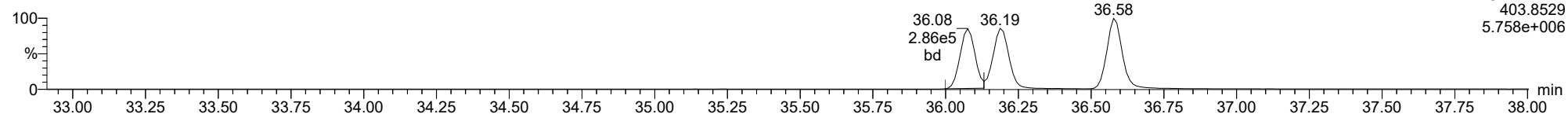
23020721



F3:Voltage SIR,EI+  
401.8559  
7.104e+006

**13C-123478-HxCDD**

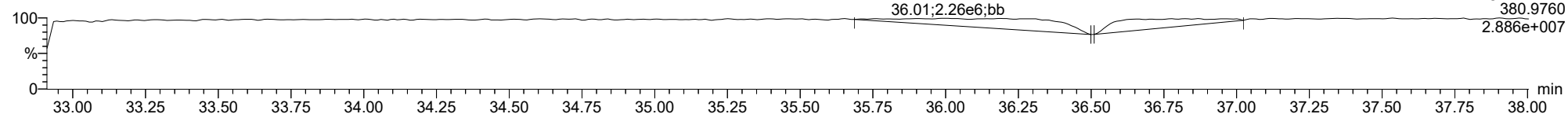
23020721



F3:Voltage SIR,EI+  
403.8529  
5.758e+006

**FUNCTION3 PFK**

23020721

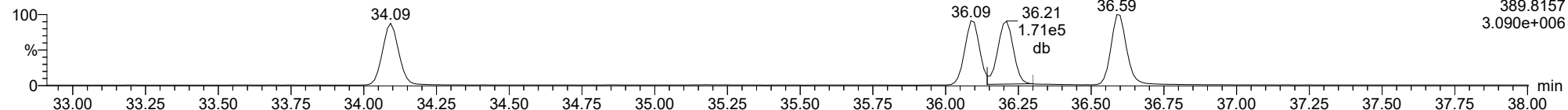


F3:Voltage SIR,EI+  
380.9760  
2.886e+007

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**123678-HxCDD**

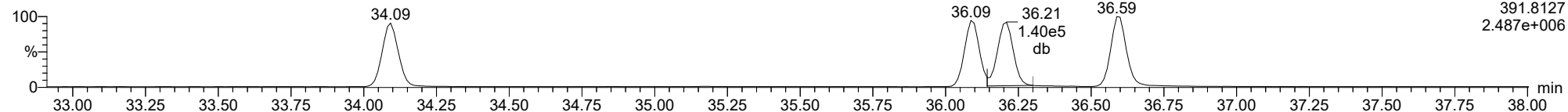
23020721



F3:Voltage SIR,EI+  
389.8157  
3.090e+006

**123678-HxCDD**

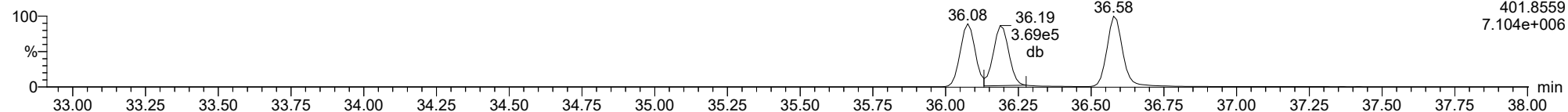
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F3:Voltage SIR,EI+  
391.8127  
2.487e+006

**13C-123678-HxCDD**

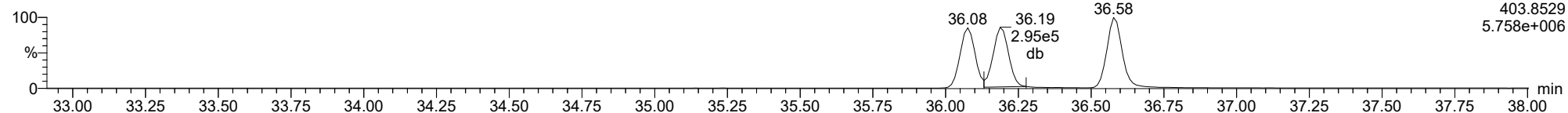
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F3:Voltage SIR,EI+  
401.8559  
7.104e+006

**13C-123678-HxCDD**

23020721

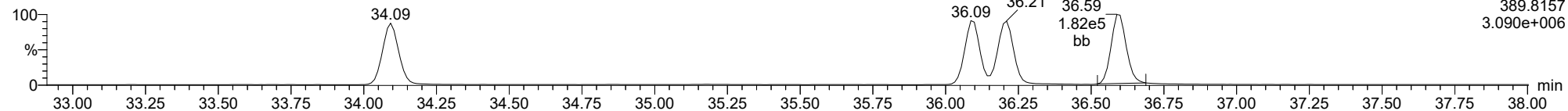


F3:Voltage SIR,EI+  
403.8529  
5.758e+006

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**123789-HxCDD**

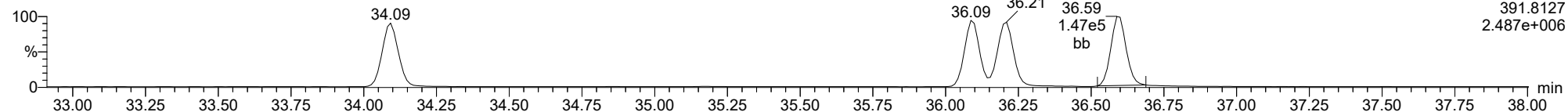
23020721



F3:Voltage SIR,EI+  
389.8157  
3.090e+006

**123789-HxCDD**

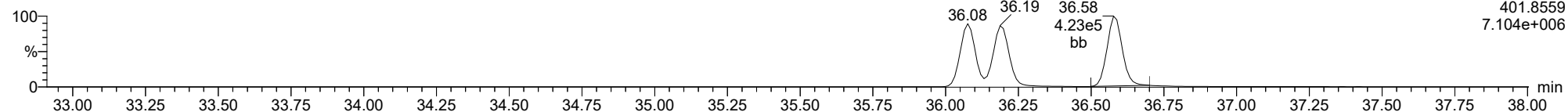
23020721



F3:Voltage SIR,EI+  
391.8127  
2.487e+006

**13C-123789-HxCDD**

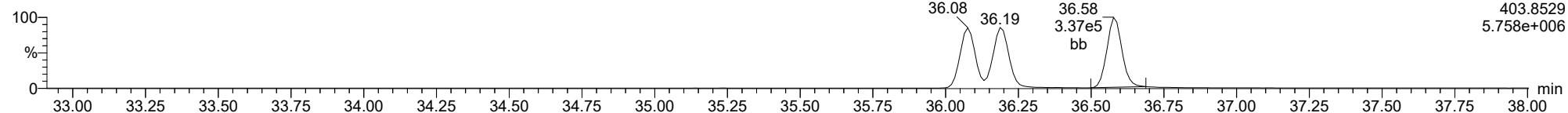
23020721



F3:Voltage SIR,EI+  
401.8559  
7.104e+006

**13C-123789-HxCDD**

23020721

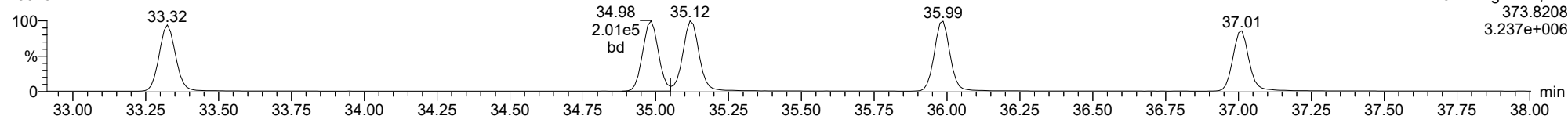


F3:Voltage SIR,EI+  
403.8529  
5.758e+006

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

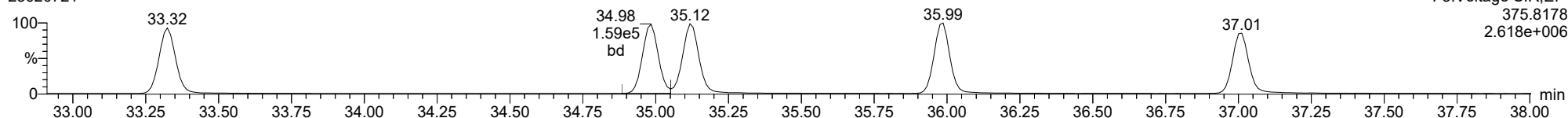
**123478-HxCDF**

23020721



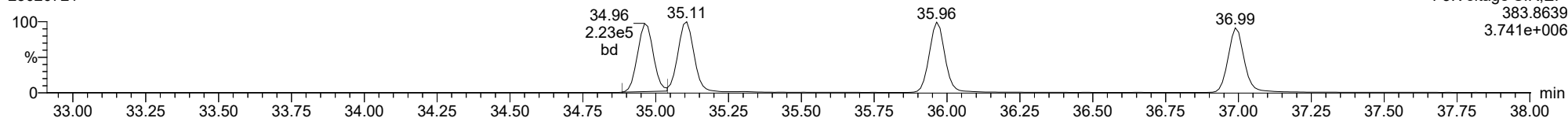
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23020721



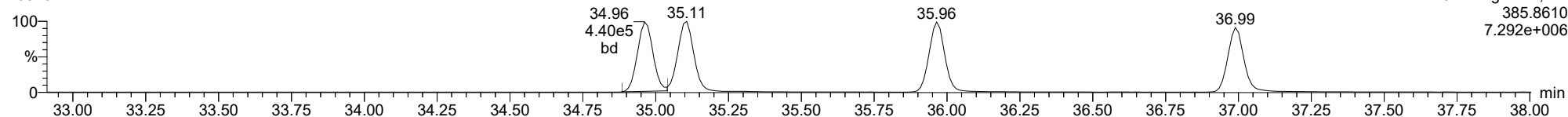
**13C-123478-HxCDF**

23020721



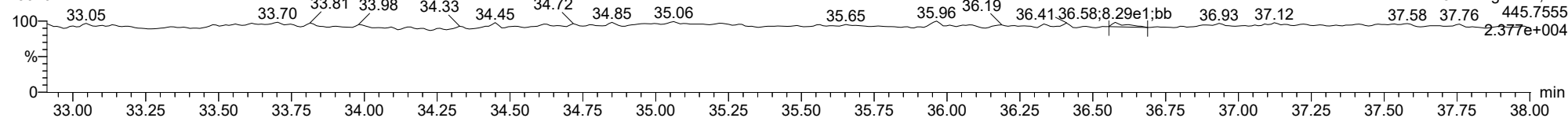
**13C-123478-HxCDF**

23020721



**FUNCTION3 OCDPE**

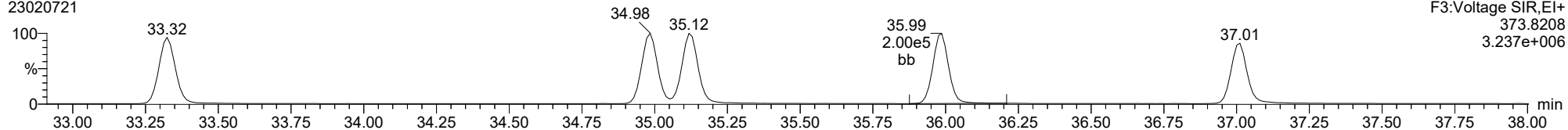
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ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

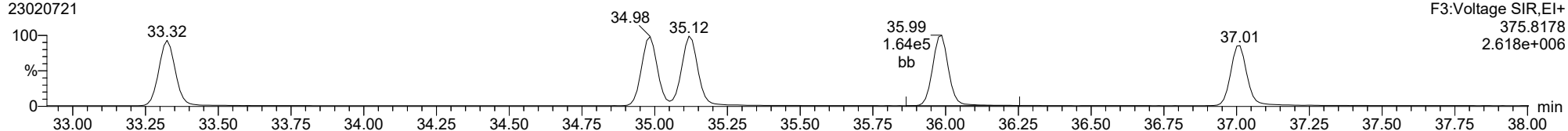
**234678-HxCDF**

23020721



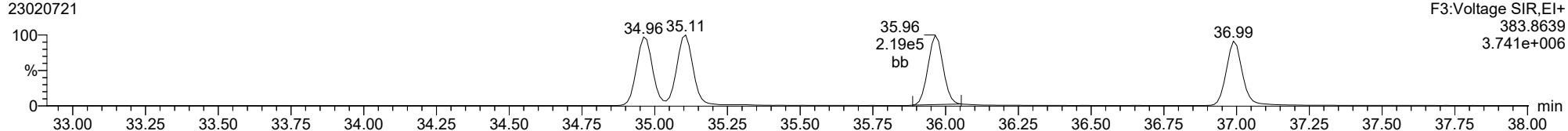
**234678-HxCDF**

23020721



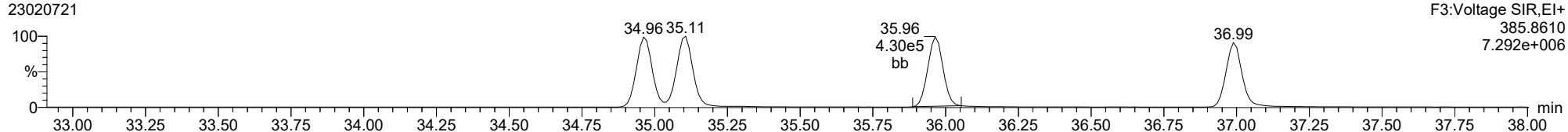
**13C-234678-HxCDF**

23020721



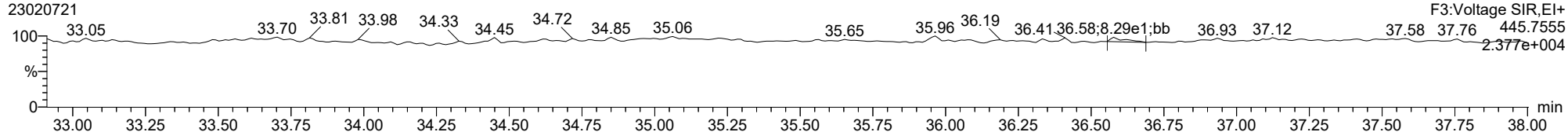
**13C-234678-HxCDF**

23020721



**FUNCTION3 OCDPE**

23020721

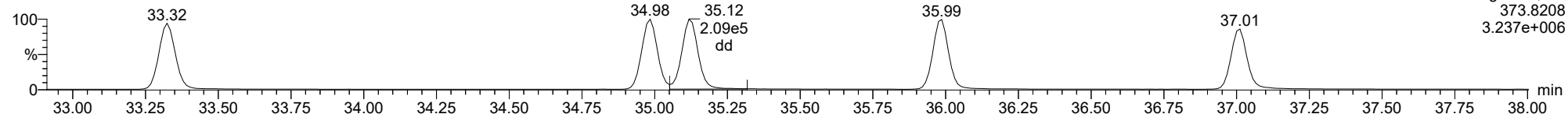




ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

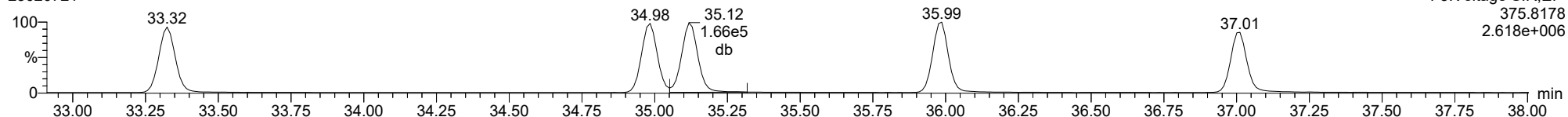
**123678-HxCDF**

23020721



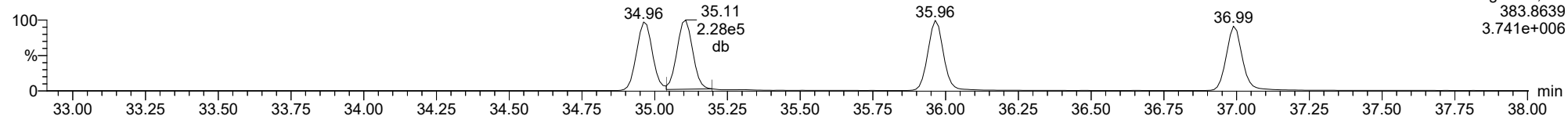
**123678-HxCDF**

23020721



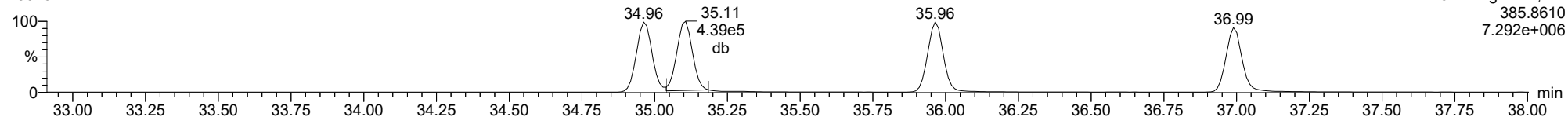
**13C-123678-HxCDF**

23020721



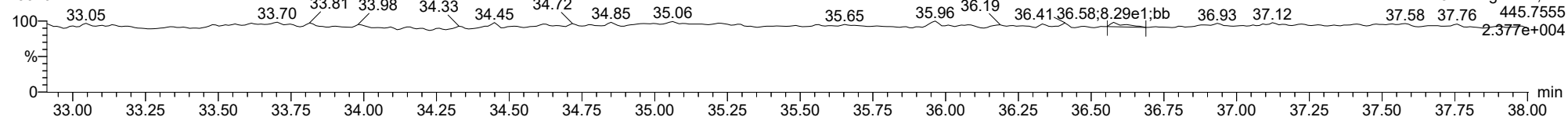
**13C-123678-HxCDF**

23020721



**FUNCTION3 OCDPE**

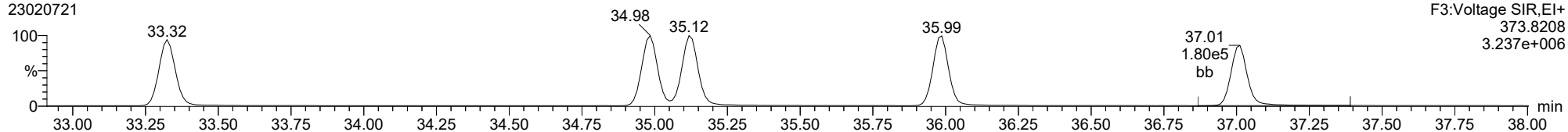
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

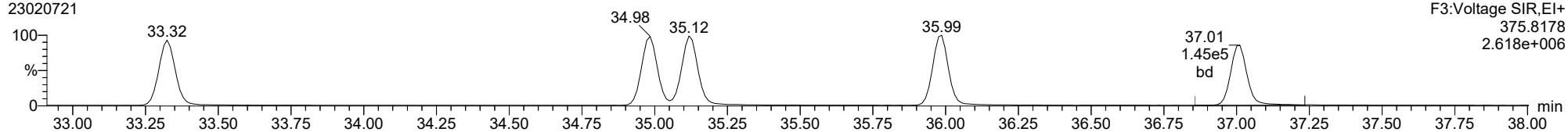
**123789-HxCDF**

23020721



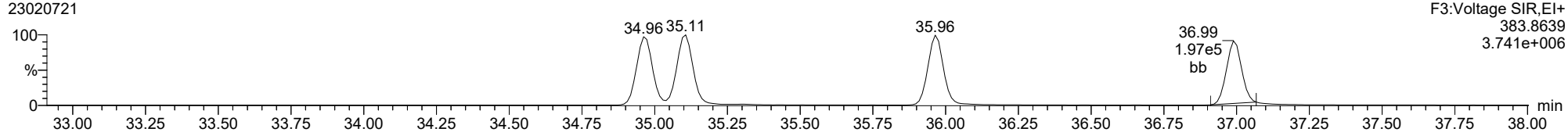
**123789-HxCDF**

23020721



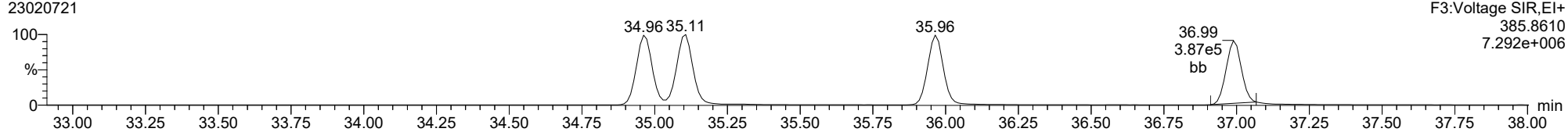
**13C-123789-HxCDF**

23020721



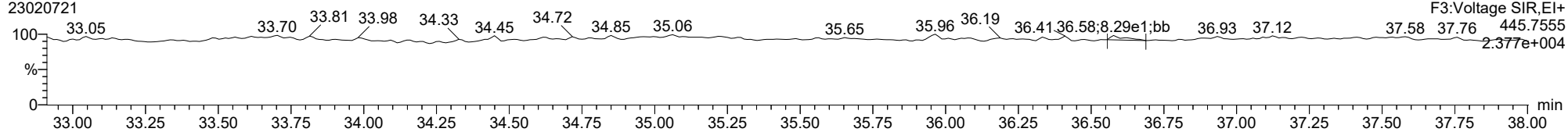
**13C-123789-HxCDF**

23020721



**FUNCTION3 OCDPE**

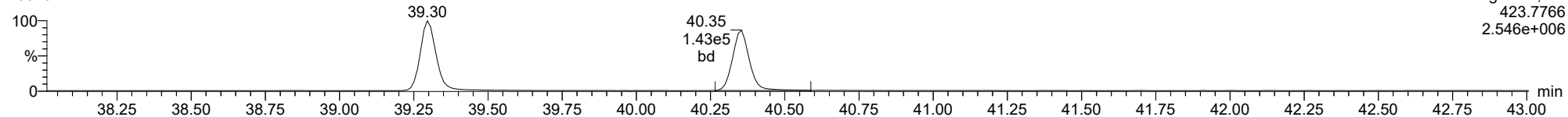
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

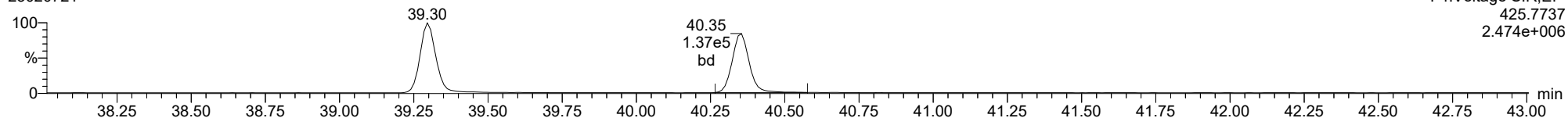
1234678-HpCDD

23020721



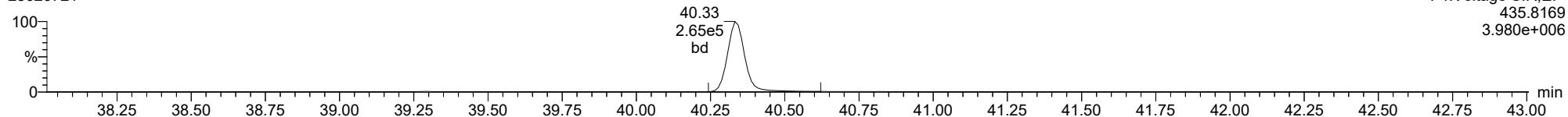
1234678-HpCDD

23020721



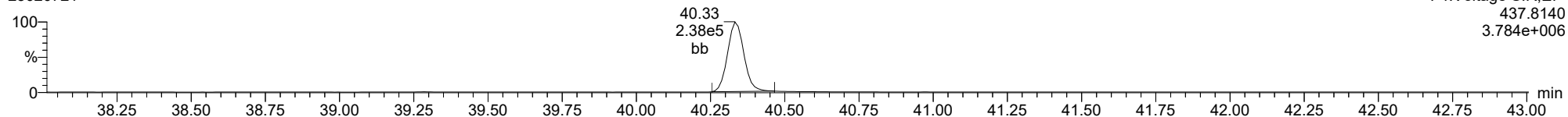
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23020721



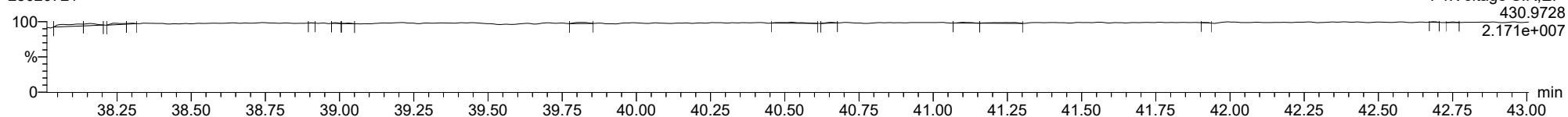
13C-1234678-HpCDD

23020721



FUNCTION4 PFK

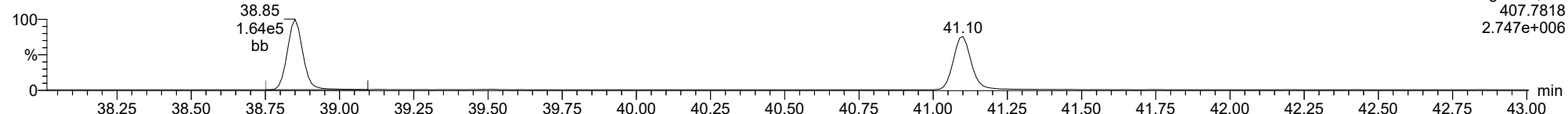
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDF**

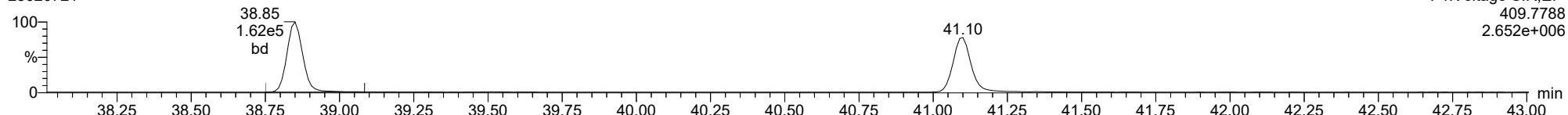
23020721



F4:Voltage SIR,El+  
407.7818  
2.747e+006

**1234678-HpCDF**

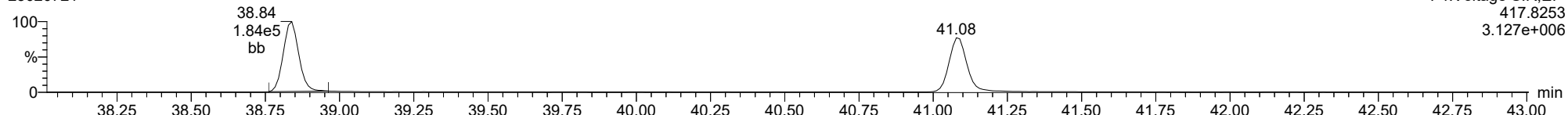
23020721



F4:Voltage SIR,El+  
409.7788  
2.652e+006

**13C-1234678-HpCDF**

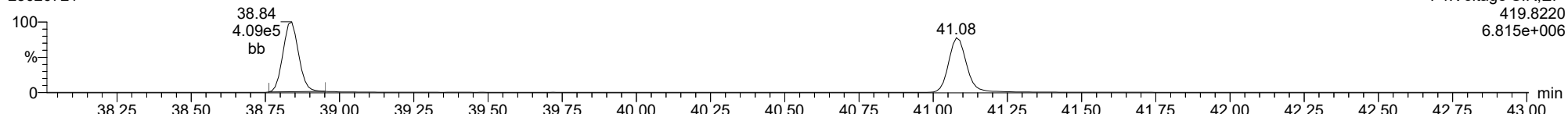
23020721



F4:Voltage SIR,El+  
417.8253  
3.127e+006

**13C-1234678-HpCDF**

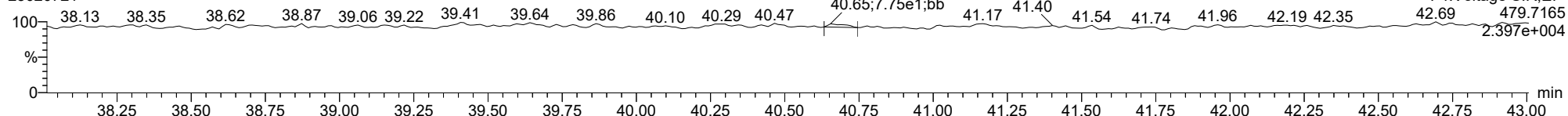
23020721



F4:Voltage SIR,El+  
419.8220  
6.815e+006

**FUNCTION4 NCDPE**

23020721

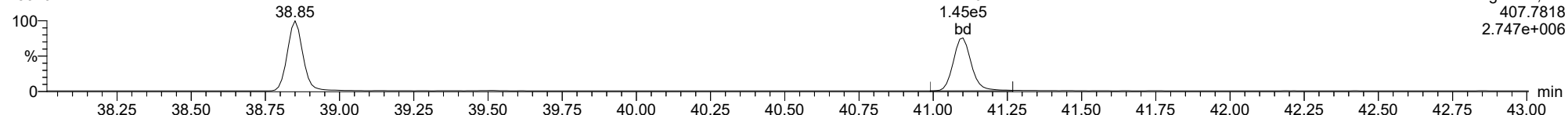


F4:Voltage SIR,El+  
479.7165  
2.397e+004

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

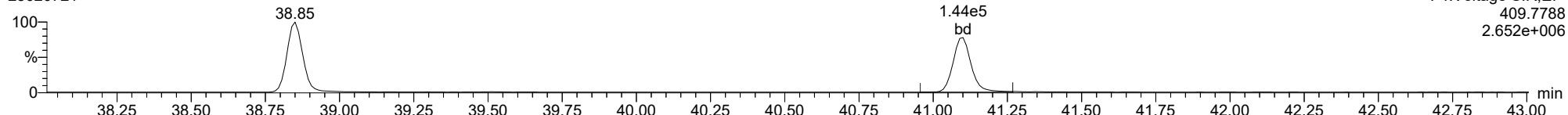
23020721



F4:Voltage SIR,EI+  
407.7818  
2.747e+006

1234789-HpCDF

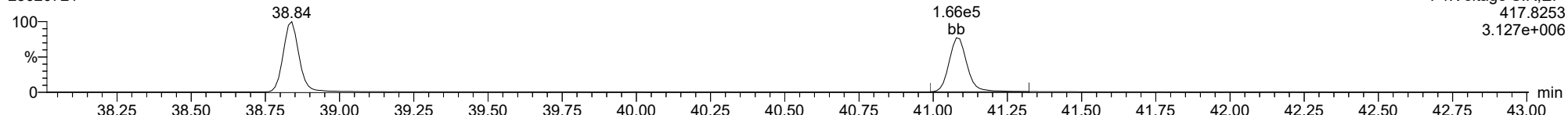
23020721



F4:Voltage SIR,EI+  
409.7788  
2.652e+006

13C-1234789-HpCDF

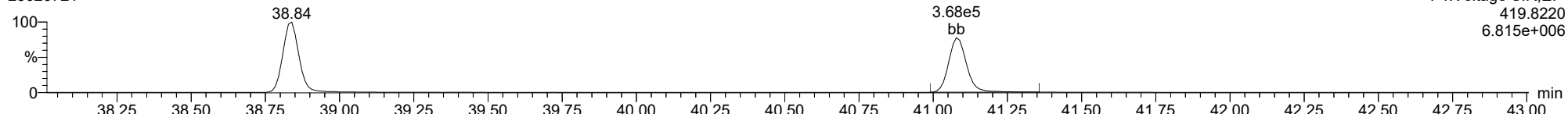
23020721



F4:Voltage SIR,EI+  
417.8253  
3.127e+006

13C-1234789-HpCDF

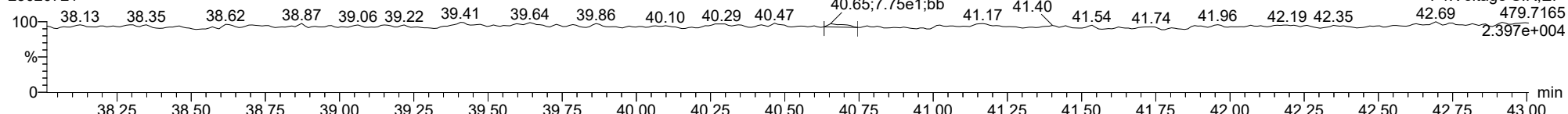
23020721



F4:Voltage SIR,EI+  
419.8220  
6.815e+006

FUNCTION4 NCDPE

23020721

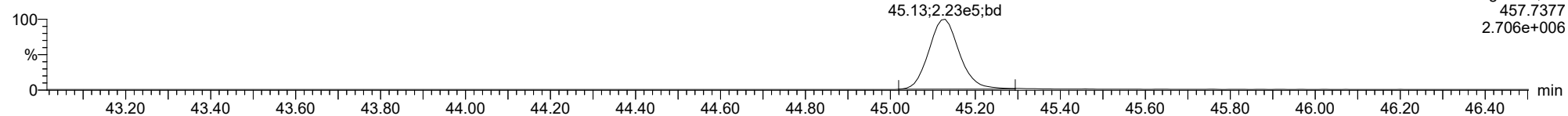


F4:Voltage SIR,EI+  
479.7165  
2.397e+004

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**OCDD**

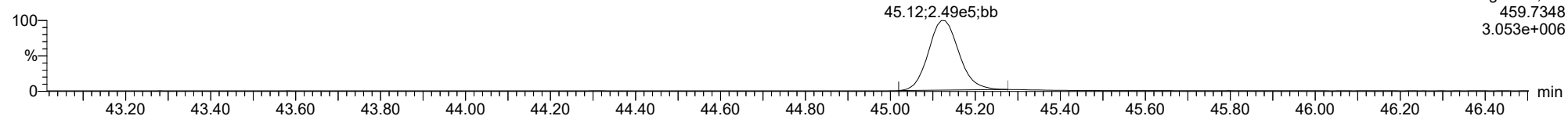
23020721



F5:Voltage SIR,EI+  
457.7377  
2.706e+006

**OCDD**

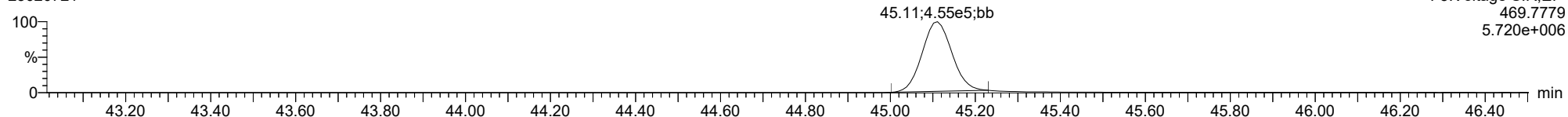
23020721



F5:Voltage SIR,EI+  
459.7348  
3.053e+006

**13C-OCDD**

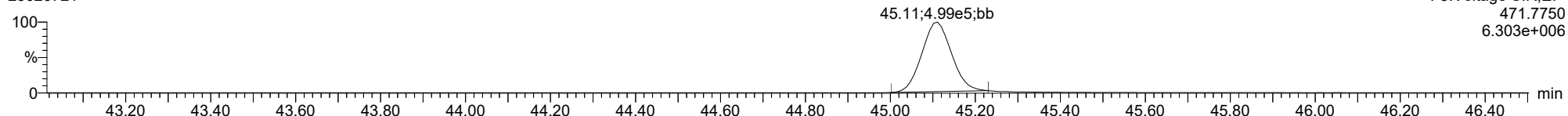
23020721



F5:Voltage SIR,EI+  
469.7779  
5.720e+006

**13C-OCDD**

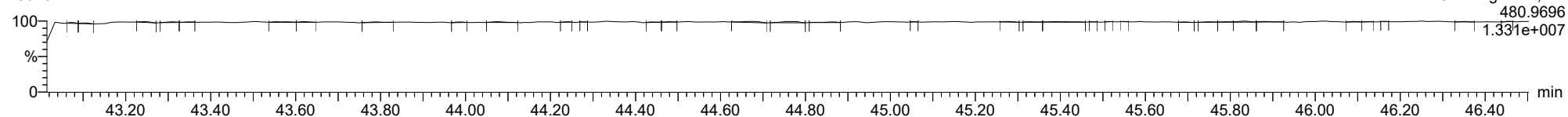
23020721



F5:Voltage SIR,EI+  
471.7750  
6.303e+006

**FUNCTION5 PFK**

23020721



F5:Voltage SIR,EI+  
480.9696  
1.331e+007

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

**OCDF**

23020721

100  
%  
0

45.37;2.15e5;bd

F5:Voltage SIR,EI+  
441.7428  
2.542e+006

43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 46.20 46.40 min

**OCDF**

23020721

100  
%  
0

45.36;2.38e5;bd

F5:Voltage SIR,EI+  
443.7399  
2.801e+006

43.20 43.40 43.60 43.80 44.00 44.20 44.40 44.60 44.80 45.00 45.20 45.40 45.60 45.80 46.00 46.20 46.40 min

**FUNCTION5 DCDPE**

23020721

100  
%  
0

45.31

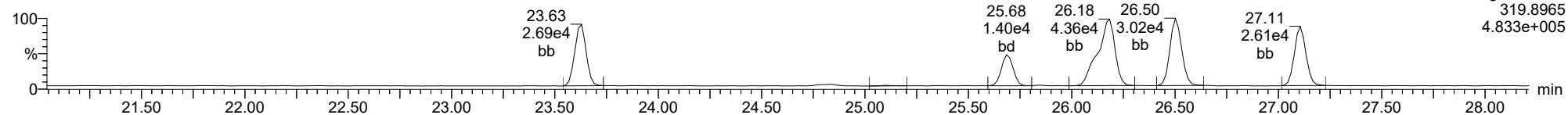
F5:Voltage SIR,EI+  
513.6775  
2.406e+004

43.11 43.32 43.45 43.57 43.77 43.92 44.10 44.22 44.44 44.55 44.97 45.14 45.25 45.48 45.73 46.10 46.18 46.30 min

ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

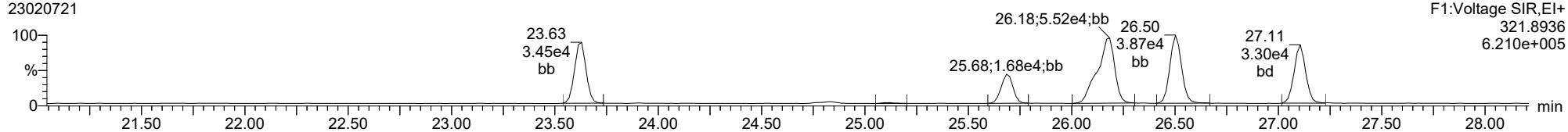
**Total-tetradioxins**

23020721



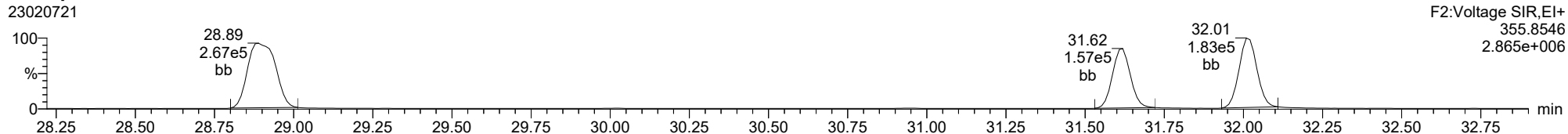
**Total-tetradioxins**

23020721



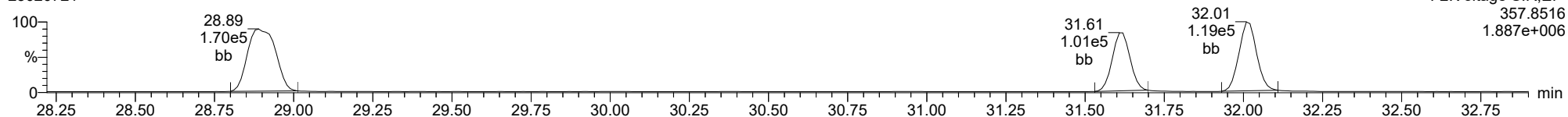
**Total-pentadioxins**

23020721



**Total-pentadioxins**

23020721

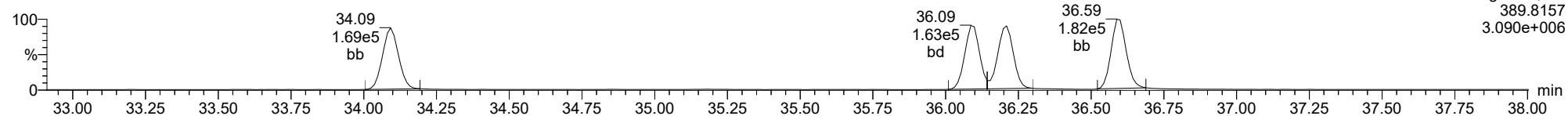




ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

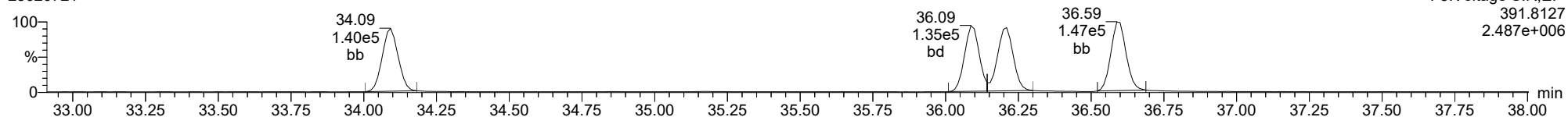
**Total-hexadioxins**

23020721



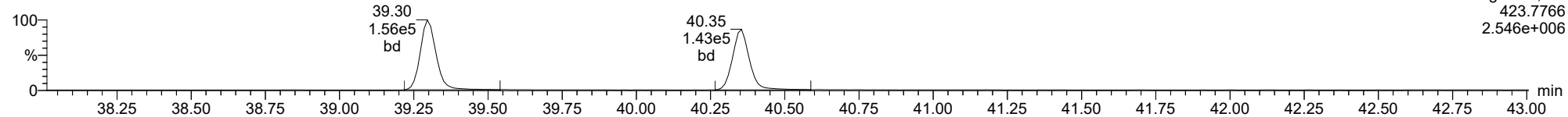
**Total-hexadioxins**

23020721



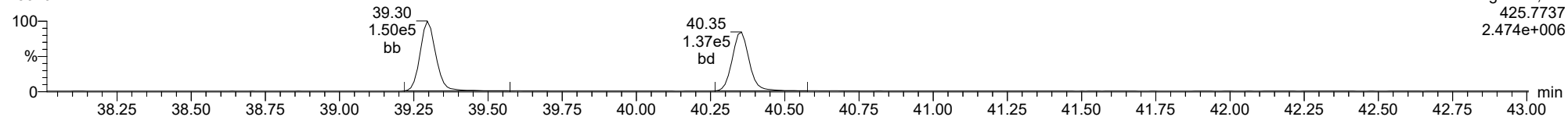
**Total-heptadioxins**

23020721



**Total-heptadioxins**

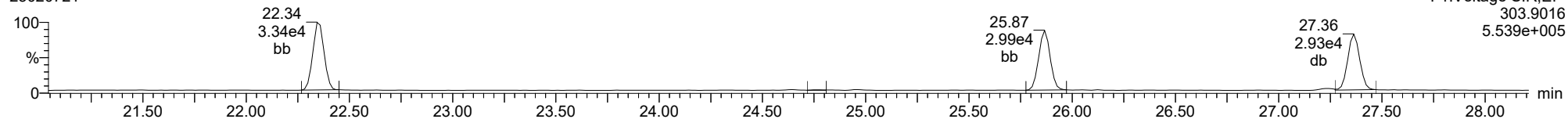
23020721



ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

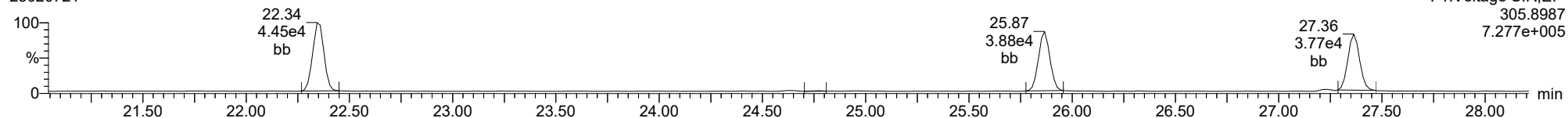
**Total-tetrafurans**

23020721



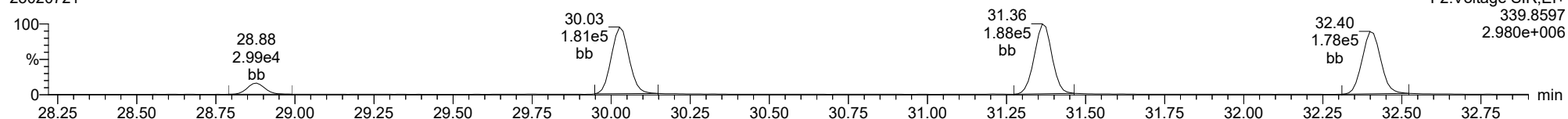
**Total-tetrafurans**

23020721



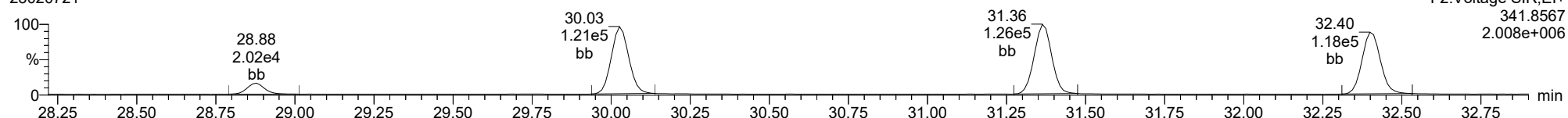
**Total-pentafurans**

23020721



**Total-pentafurans**

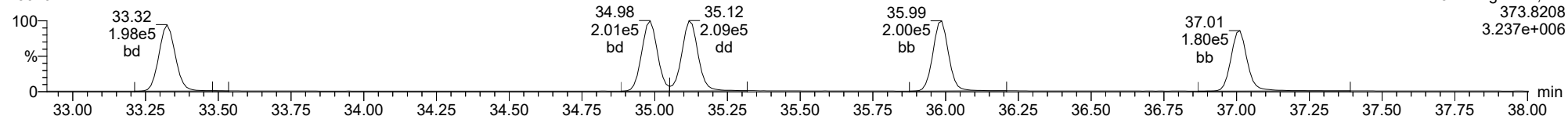
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ID: CS3T3, Name: 23020721, Date: 08-Feb-2023, Time: 01:35:31, Conditions: AUTOSPEC01, User: pk

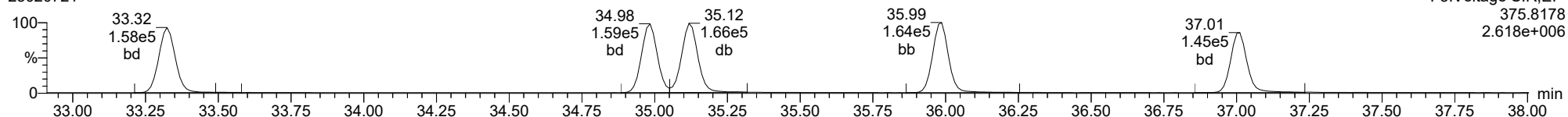
**Total-hexafurans**

23020721



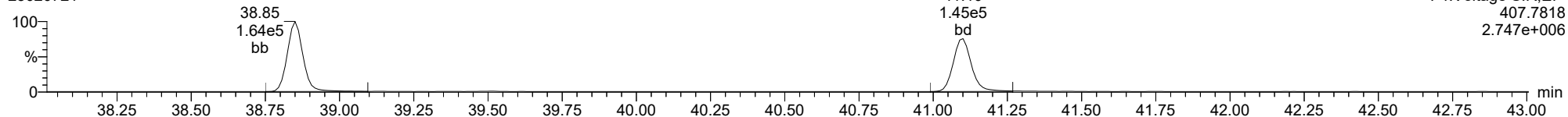
**Total-hexafurans**

23020721



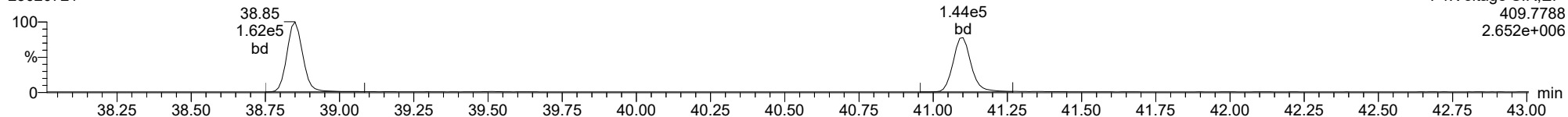
**Total-heptafurans**

23020721

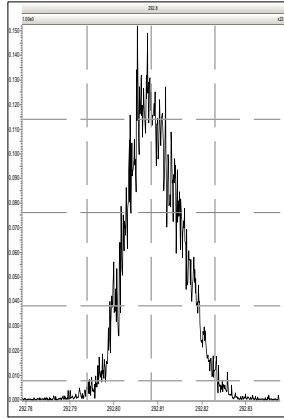


**Total-heptafurans**

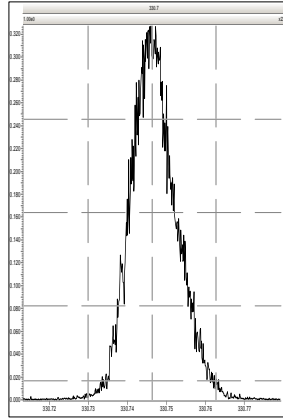
23020721



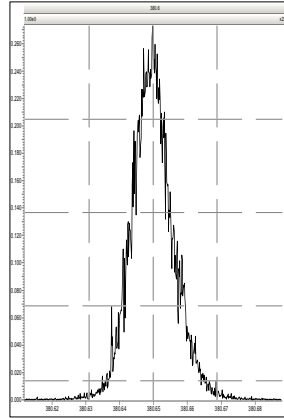
M 292.9824 R 10683



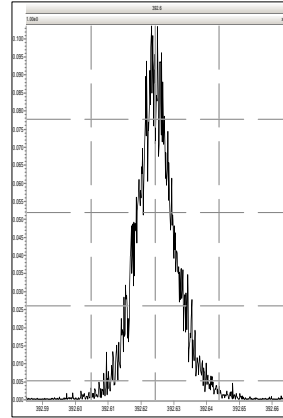
M 330.9792 R 12577



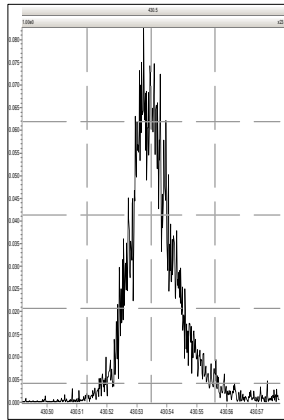
M 380.9760 R 13592



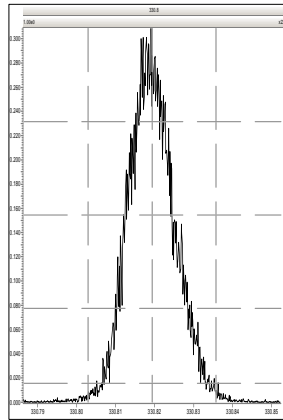
M 392.9760 R 14335



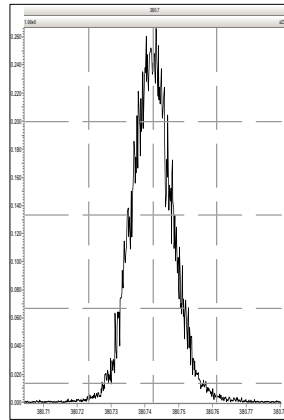
M 430.9728 R 13739



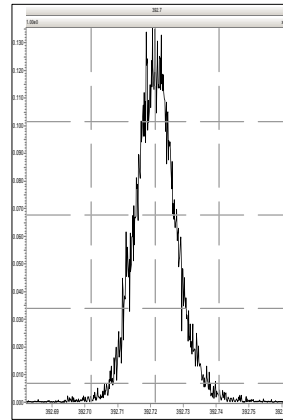
M 330.9792 R 12286



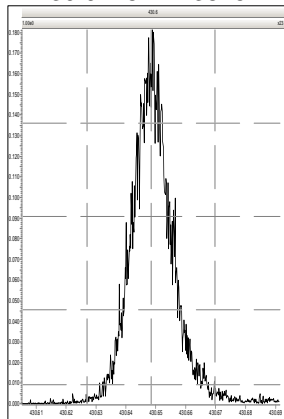
M 380.9760 R 13440



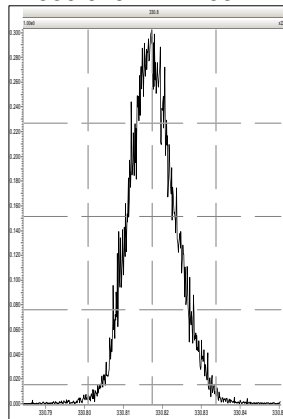
M 392.9760 R 13736



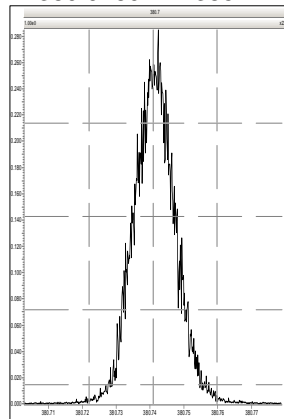
M 430.9728 R 13815



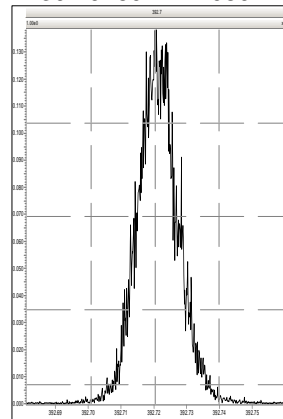
M 330.9792 R 12051



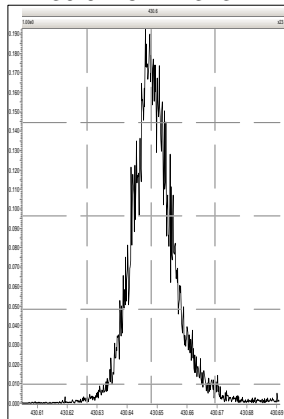
M 380.9760 R 13851



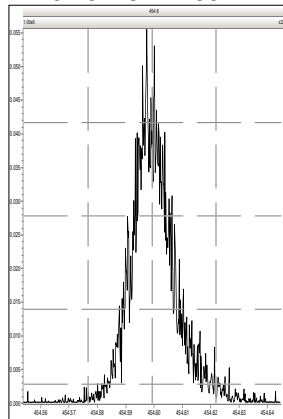
M 392.9760 R 14089



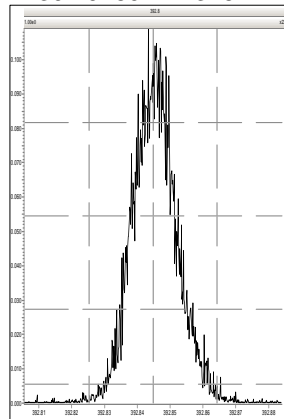
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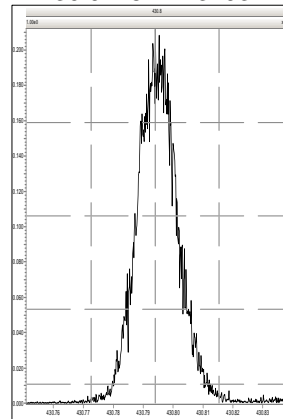
M 454.9728 R 13074



M 392.9760 R 13262

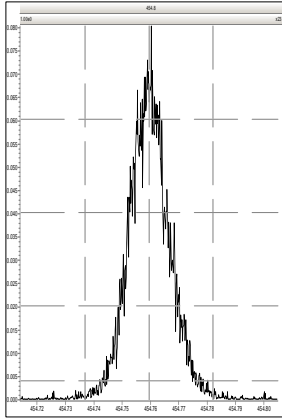


M 430.9728 R 13193

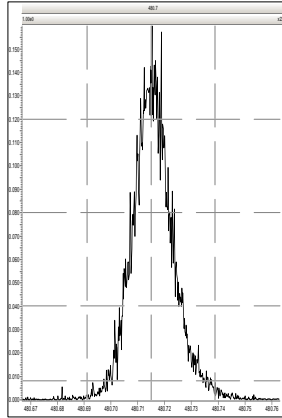


Printed: Wednesday, February 08, 2023 02:29:19 Pacific Standard Time

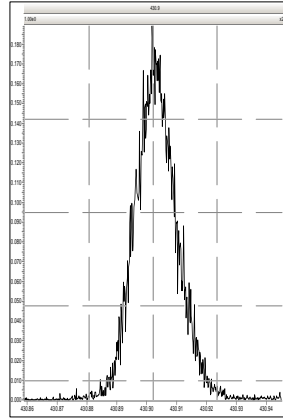
M 454.9728 R 14066



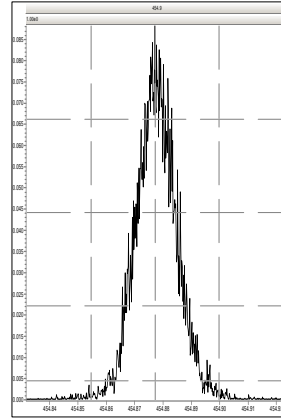
M 480.9696 R 13412



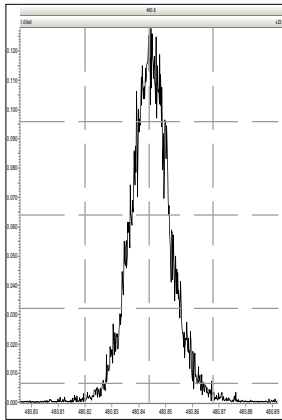
M 430.9728 R 14411



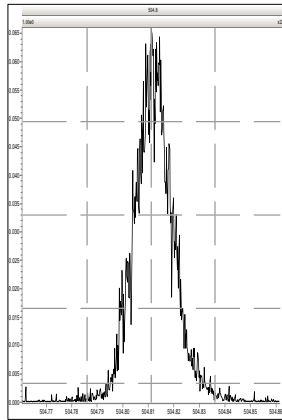
M 454.9728 R 15021



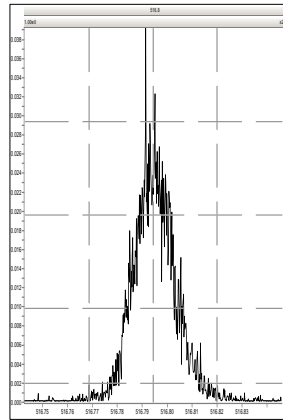
M 480.9696 R 14173



M 504.9696 R 14579



M 516.9697 R 14839

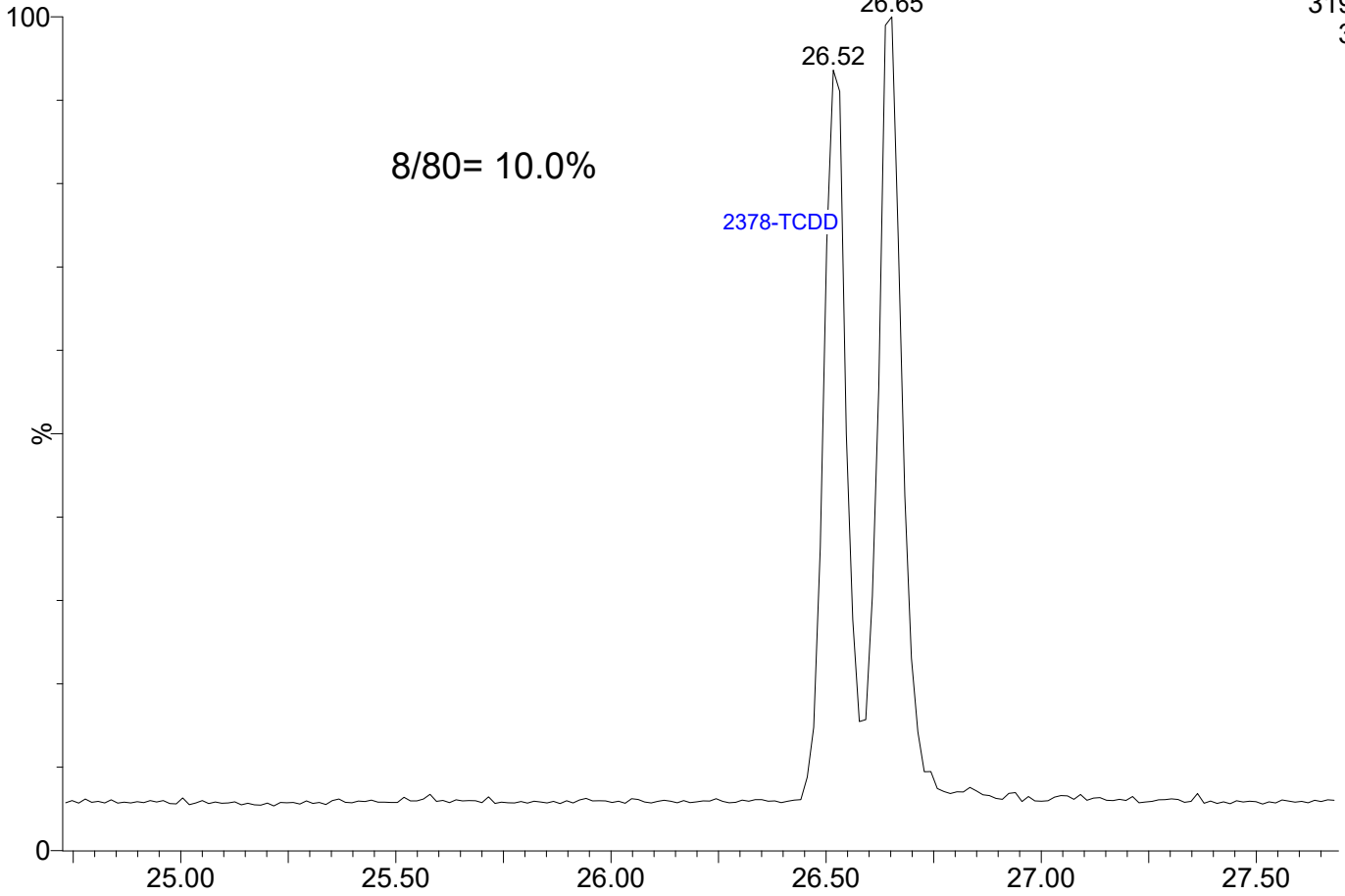


23020722

1: Voltage SIR 15 Channels EI+

319.8965

3.89e5

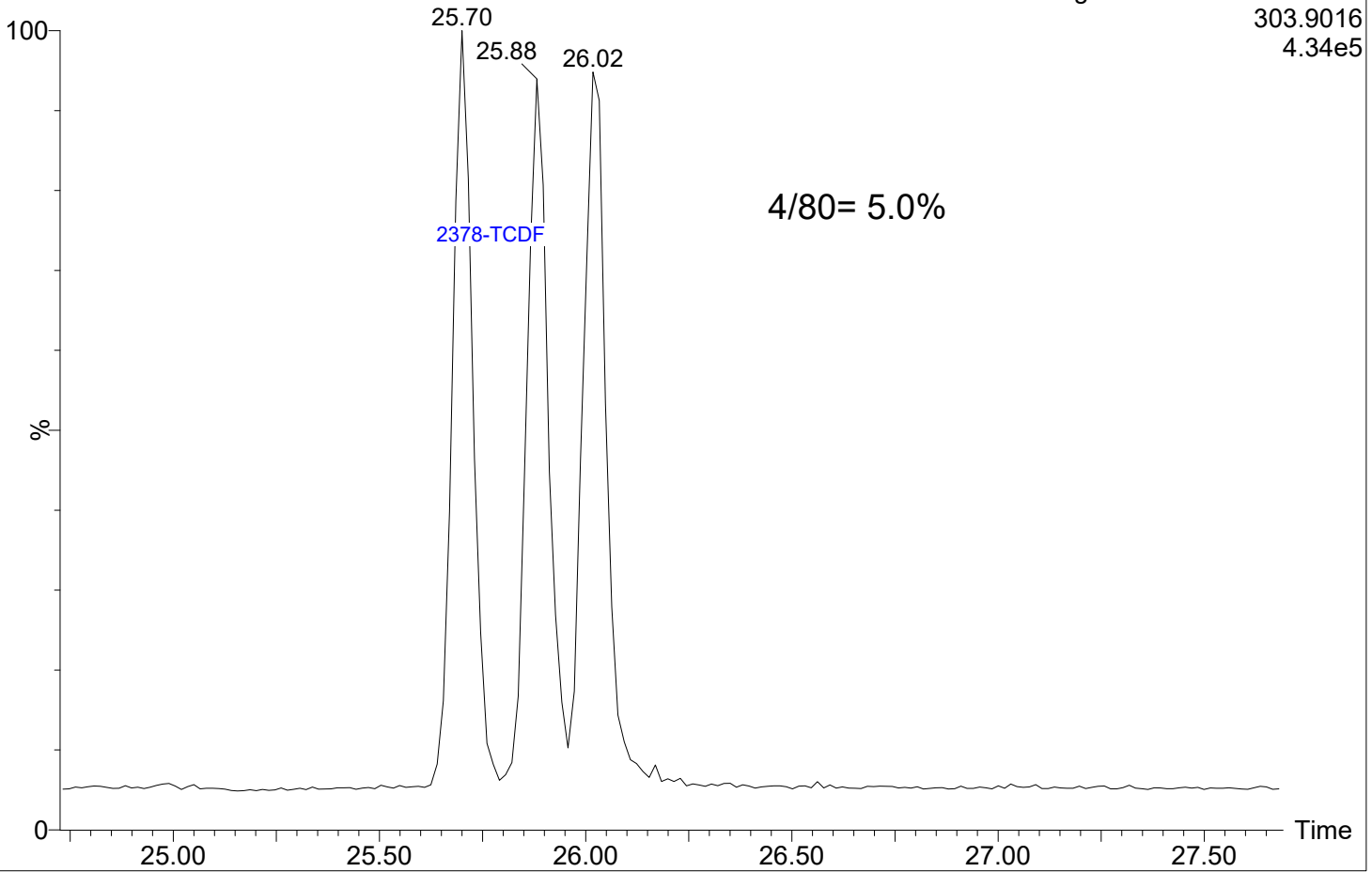


23020722

1: Voltage SIR 15 Channels EI+

303.9016

4.34e5





CONTINUING CALIBRATION CHECK  
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020733

Calibration Date: 02/01/2023

Sequence: SLB0072

Injection Date: 02/08/23

Lab Sample ID: SLB0072-CCV3

Injection Time: 11:35

Sequence Name: CS3T4

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.32	0.8760604	0.8163078		-6.8	+/-16
2,3,7,8-TCDD	A	10.000	9.10	1.2363600	1.1246270		-9.0	+/-22
1,2,3,7,8-PeCDF	A	50.000	45.8	0.8446540	0.7741542		-8.3	+/-18
2,3,4,7,8-PeCDF	A	50.000	46.6	0.9111780	0.8493908		-6.8	+/-18
1,2,3,7,8-PeCDD	A	50.000	48.2	1.0866850	1.0472790		-3.6	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.8	1.1816860	1.1297060		-4.4	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	46.1	1.2480480	1.1511800		-7.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	47.9	1.2288500	1.1770570		-4.2	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	47.9	1.1865370	1.1371680		-4.2	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	44.6	0.9869672	0.8811099		-10.7	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	45.2	1.0207220	0.9230492		-9.6	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	46.5	0.9854780	0.9166071		-7.0	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	46.2	1.2041190	1.1121100		-7.6	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.2	1.1653050	1.0996630		-5.6	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	44.2	1.2525690	1.1061560		-11.7	+/-14
OCDF	A	100.00	84.3	1.1862640	1.0001830		-15.7	+/-37
OCDD	A	100.00	92.8	1.1026670	1.0228680		-7.2	+/-21
13C12-2,3,7,8-TCDF	A	100.00	90.3	1.7680590	1.5960653		-9.7	+/-29
13C12-2,3,7,8-TCDD	A	100.00	103	1.1029470	1.1389283		3.3	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	98.3	1.5271250	1.5018211		-1.7	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	95.8	1.4662840	1.4040983		-4.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	102	0.9141518	0.9315333		1.9	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	85.7	1.0536610	0.9026476		-14.3	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	87.9	1.0799530	0.9488578		-12.1	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	87.1	1.0143260	0.8834615		-12.9	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	85.1	0.9279333	0.7899308		-14.9	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	101	0.9329336	0.9393407		0.7	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	98.7	0.9646272	0.9517011		-1.3	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	81.2	1.0360890	0.8411297		-18.8	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	84.1	0.9049372	0.7610092		-15.9	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	90.4	0.7819773	0.7069767		-9.6	+/-28
13C12-OCDD	A	200.00	171	0.7882343	0.6747299		-14.4	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	8.90	1.2334500	1.0978430		-11.0	

\* Values outside of QC limits

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10**  
**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40**

**ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.851	1.001	2.595e4	3.559e4	0.876	0.729	0.770	1011	964	3.80e5	5.20e5	375.6	539.5	NO	bb	bb	9.318
12378-PeCDF	30.026	1.001	1.647e5	1.099e5	0.845	1.499	1.550	1598	1774	2.55e6	1.66e6	1594.7	937.4	NO	bb	bb	45.827
23478-PeCDF	31.363	1.001	1.673e5	1.143e5	0.911	1.463	1.550	1598	1774	2.57e6	1.73e6	1605.4	973.3	NO	bb	bb	46.609
123478-HxCDF	34.973	1.000	1.704e5	1.372e5	1.182	1.242	1.240	1781	1047	2.66e6	2.14e6	1491.4	2042.5	NO	bd	bd	47.801
234678-HxCDF	35.976	1.000	1.745e5	1.392e5	1.229	1.253	1.240	1781	1047	2.67e6	2.19e6	1497.7	2095.3	NO	bb	bd	47.893
123678-HxCDF	35.118	1.001	1.844e5	1.451e5	1.248	1.271	1.240	1781	1047	2.74e6	2.16e6	1535.7	2058.4	NO	dd	dd	46.119
123789-HxCDF	37.001	1.000	1.496e5	1.214e5	1.187	1.232	1.240	1781	1047	2.29e6	1.85e6	1285.4	1769.3	NO	bd	bd	47.920
1234678-HpCDF	38.850	1.000	1.416e5	1.406e5	1.204	1.007	1.050	1328	1605	2.28e6	2.27e6	1713.2	1413.4	NO	bd	bd	46.179
1234789-HpCDF	41.090	1.000	1.274e5	1.250e5	1.165	1.019	1.050	1328	1605	1.74e6	1.75e6	1309.1	1087.9	NO	bd	bd	47.183
OCDF	45.367	1.006	1.913e5	2.158e5	1.186	0.886	0.890	1736	1046	2.24e6	2.47e6	1289.4	2358.5	NO	bd	bd	84.314
2378-TCDD	26.502	1.001	2.619e4	3.431e4	1.236	0.763	0.770	1279	1150	3.89e5	4.88e5	303.7	424.5	NO	bb	bb	9.096
12378-PeCDD	31.608	1.001	1.393e5	9.105e4	1.087	1.531	1.550	1667	1109	2.18e6	1.43e6	1309.8	1285.1	NO	bb	bb	48.187
123478-HxCDD	36.087	1.000	1.362e5	1.135e5	0.987	1.201	1.240	1259	1362	2.29e6	1.90e6	1816.1	1397.6	NO	bd	bd	44.637
123678-HxCDD	36.199	1.000	1.438e5	1.212e5	1.021	1.187	1.240	1259	1362	2.37e6	2.01e6	1884.3	1476.1	NO	db	db	45.216
123789-HxCDD	36.589	1.011	1.437e5	1.177e5	0.985	1.221	1.240	1259	1362	2.35e6	1.96e6	1869.7	1435.9	NO	bb	bb	46.506
1234678-HpCDD	40.343	1.000	1.197e5	1.163e5	1.253	1.029	1.050	1436	1222	1.76e6	1.68e6	1224.8	1373.6	NO	bd	bd	44.156
OCDD	45.129	1.000	1.970e5	2.194e5	1.103	0.898	0.890	1128	1220	2.36e6	2.66e6	2087.8	2176.6	NO	bd	bb	92.763
13C-2378-TCDF	25.836	1.007	3.313e5	4.225e5	1.768	0.784	0.770	1988	1369	5.04e6	6.45e6	2534.5	4710.8	NO	bb	bb	90.272
13C-12378-PeCDF	30.004	1.170	4.343e5	2.751e5	1.527	1.579	1.550	1901	2096	6.46e6	4.12e6	3400.2	1967.6	NO	bd	bb	98.343
13C-23478-PeCDF	31.341	1.222	4.016e5	2.616e5	1.466	1.535	1.550	1901	2096	6.09e6	3.98e6	3204.6	1898.8	NO	bb	bb	95.759
13C-123478-HxCDF	34.962	0.956	1.837e5	3.608e5	1.054	0.509	0.510	1514	2118	2.97e6	5.80e6	1963.4	2739.4	NO	bd	bd	85.668
13C-123678-HxCDF	35.096	0.959	1.947e5	3.778e5	1.080	0.515	0.510	1514	2118	3.00e6	5.95e6	1982.4	2811.2	NO	db	db	87.861
13C-234678-HxCDF	35.965	0.983	1.804e5	3.526e5	1.014	0.512	0.510	1514	2118	2.94e6	5.87e6	1940.6	2773.3	NO	bb	bb	87.098
13C-123789-HxCDF	36.990	1.011	1.599e5	3.166e5	0.928	0.505	0.510	1514	2118	2.66e6	5.19e6	1756.4	2448.8	NO	bb	bb	85.128
13C-1234678-HpCDF	38.839	1.062	1.567e5	3.508e5	1.036	0.447	0.440	1790	1881	2.61e6	5.74e6	1460.2	3053.0	NO	bb	bb	81.183
13C-1234789-HpCDF	41.078	1.123	1.420e5	3.171e5	0.905	0.448	0.440	1790	1881	2.00e6	4.44e6	1117.8	2360.5	NO	bd	bb	84.095
13C-1234-TCDD	25.655	0.000	2.074e5	2.649e5	1.000	0.783	0.770	1577	988	3.26e6	4.16e6	2065.6	4206.9	NO	bb	bb	100.000
13C-2378-TCDD	26.471	1.032	2.373e5	3.007e5	1.103	0.789	0.770	1577	988	3.67e6	4.67e6	2323.6	4722.5	NO	bb	bb	103.262
13C-12378-PeCDD	31.586	1.231	2.713e5	1.687e5	0.914	1.608	1.550	850	966	3.93e6	2.47e6	4624.1	2559.2	NO	bd	bd	101.901
13C-123478-HxCDD	36.076	0.986	3.176e5	2.492e5	0.933	1.275	1.240	1376	1452	5.18e6	4.06e6	3763.0	2794.3	NO	bd	bd	100.687
13C-123678-HxCDD	36.188	0.989	3.196e5	2.545e5	0.965	1.256	1.240	1376	1452	5.40e6	4.29e6	3924.1	2956.1	NO	db	db	98.660
13C-1234678-HpCDD	40.332	1.103	2.263e5	2.003e5	0.782	1.130	1.050	1149	1164	3.34e6	3.03e6	2910.2	2599.9	NO	bd	bb	90.409
13C-OCDD	45.111	1.233	3.893e5	4.249e5	0.788	0.916	0.890	1594	1662	4.73e6	5.18e6	2969.4	3119.4	NO	bb	bb	171.200
13C-123789-HxCDD	36.577	0.000	3.344e5	2.689e5	1.000	1.243	1.240	1376	1452	5.46e6	4.35e6	3969.9	2998.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.486	1.032	5.185e4		1.233			1333		7.75e5		581.1			bb		8.901



**ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk**

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.344	0.865	2.874e4	3.783e4	1.064	0.760	0.770	1011	964	4.55e5	5.89e5	450.2	610.4	NO	bb	bb	8.296
1289-TCDF	27.348	1.059	2.517e4	3.285e4	0.858	0.766	0.770	1011	964	3.58e5	4.71e5	353.8	488.9	NO	db	db	8.975
13468-PECDF	27.212	0.907	2.244e5	1.469e5	1.013	1.528	1.550	721	1118	3.48e6	2.26e6	4825.2	2023.9	NO	bb	bb	51.665
12389-PECDF	32.399	1.080	1.582e5	1.060e5	0.844	1.493	1.550	1598	1774	2.29e6	1.54e6	1431.2	865.5	NO	bb	bb	44.146
123468-HXCDF	33.324	0.953	1.725e5	1.391e5	1.197	1.240	1.240	1781	1047	2.55e6	2.04e6	1430.3	1943.3	NO	bb	bb	47.789
1368-TCDD	23.614	0.892	2.431e4	3.146e4	1.084	0.773	0.770	1279	1150	3.80e5	4.94e5	297.1	429.8	NO	bb	bb	9.560
1289-TCDD	27.091	1.023	2.271e4	2.943e4	0.975	0.772	0.770	1279	1150	3.22e5	4.40e5	251.5	382.6	NO	bd	bb	9.940
12479-PECDD	28.879	0.914	2.336e5	1.521e5	1.837	1.536	1.550	1667	1109	2.33e6	1.49e6	1396.3	1345.9	NO	bb	bb	47.715
12389-PECDD	32.009	1.013	1.605e5	1.044e5	1.252	1.538	1.550	1667	1109	2.43e6	1.60e6	1457.6	1444.0	NO	bb	bb	48.067
124679-HXCDD	34.082	0.945	1.433e5	1.180e5	1.033	1.214	1.240	1259	1362	2.21e6	1.81e6	1755.1	1330.9	NO	bb	bb	44.638
1234679-HPCDD	39.296	0.974	1.318e5	1.267e5	1.286	1.040	1.050	1436	1222	2.05e6	1.97e6	1429.7	1613.1	NO	bd	bd	47.135
Total-tetrafurans			8.037e4		0.933			1011		1.20e6							26.757
Total-penta1			2.244e5					721		3.48e6							51.665
Total-pentafurans			5.162e5		0.866			1598		7.80e6							143.918
Total-hexafurans			8.514e5		1.208			1781		1.29e7							237.521
Total-heptafurans			2.692e5		1.185			1328		4.02e6							93.434
Total-Furans			2.133e6		1.067			1011		3.16e7							637.609
Total-tetradoxins			1.252e5		1.099			1279		1.69e6							48.306
Total-pentadoxins			5.334e5		1.392			1667		6.94e6							143.969
Total-hexadoxins			5.670e5		1.007			1259		9.22e6							180.996
Total-heptadoxins			2.515e5		1.269			1436		3.81e6							91.291
Total-Dioxins			1.674e6		1.165			1279		2.40e7							557.325
Total-TEQ			3.807e6					1279		5.56e7							1194.935
FUNCTION1 PFK			0.000e0					793780		0.00e0							
FUNCTION2 PFK			2.735e5					366736		9.42e6							0.000
FUNCTION3 PFK			2.458e5					325510		6.97e6							0.000
FUNCTION4 PFK			0.000e0					196590		0.00e0							
FUNCTION5 PFK			7.096e4					116348		2.59e6							
FUNCTION1 HXCD...			4.601e2					668		5.59e3							0.000
FUNCTION1 HPCD...			4.907e2					687		7.15e3							0.000
FUNCTION2 HPCD...			5.211e2					937		8.72e3							0.000
FUNCTION3 OCDPE			7.760e1					700		1.58e3							0.000
FUNCTION4 NCDPE			1.116e2					686		1.57e3							0.000
FUNCTION5 DCDPE			7.691e1					539		1.55e3							0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:18:03 Pacific Standard Time

**Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10****Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.35	2.517e4	3.285e4	0.858	0.77	0.77	353.8	YES	NO	db	db	8.975
2	Total-tetrafurans	27.21	5.045e2	6.815e2	0.933	0.74	0.77	7.4	YES	NO	bd	bd	0.169
3	2378-TCDF	25.85	2.595e4	3.559e4	0.876	0.73	0.77	375.6	YES	NO	bb	bb	9.318
4	1368-TCDF	22.34	2.874e4	3.783e4	1.064	0.76	0.77	450.2	YES	NO	bb	bb	8.296

**PP**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.21	2.244e5	1.469e5	1.013	1.53	1.55	4825.2	YES	NO	bb	bb	51.665

**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.40	1.582e5	1.060e5	0.844	1.49	1.55	1431.2	YES	NO	bb	bb	44.146
2	23478-PeCDF	31.36	1.673e5	1.143e5	0.911	1.46	1.55	1605.4	YES	NO	bb	bb	46.609
3	12378-PeCDF	30.03	1.647e5	1.099e5	0.845	1.50	1.55	1594.7	YES	NO	bb	bb	45.827
4	Total-pentafurans	28.87	2.598e4	1.765e4	0.866	1.47	1.55	247.2	YES	NO	bb	bb	7.336

**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.98	1.745e5	1.392e5	1.229	1.25	1.24	1497.7	YES	NO	bb	bd	47.893
2	123678-HxCDF	35.12	1.844e5	1.451e5	1.248	1.27	1.24	1535.7	YES	NO	dd	dd	46.119
3	123478-HxCDF	34.97	1.704e5	1.372e5	1.182	1.24	1.24	1491.4	YES	NO	bd	bd	47.801
4	123468-HxCDF	33.32	1.725e5	1.391e5	1.197	1.24	1.24	1430.3	YES	NO	bb	bb	47.789
5	123789-HxCDF	37.00	1.496e5	1.214e5	1.187	1.23	1.24	1285.4	YES	NO	bd	bd	47.920

**HPF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.09	1.274e5	1.250e5	1.165	1.02	1.05	1309.1	YES	NO	bd	bd	47.183
2	Total-heptafurans	39.14	2.026e2	2.062e2	1.185	0.98	1.05	4.2	YES	NO	db	db	0.071
3	1234678-HpCDF	38.85	1.416e5	1.406e5	1.204	1.01	1.05	1713.2	YES	NO	bd	bd	46.179

**Quantify Totals Report MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:18:03 Pacific Standard Time

ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.35	2.517e4	3.285e4	0.858	0.77	0.77	353.8	YES	NO	db	db	8.975
2	Total-tetrafurans	27.21	5.045e2	6.815e2	0.933	0.74	0.77	7.4	YES	NO	bd	bd	0.169
3	2378-TCDF	25.85	2.595e4	3.559e4	0.876	0.73	0.77	375.6	YES	NO	bb	bb	9.318
4	1368-TCDF	22.34	2.874e4	3.783e4	1.064	0.76	0.77	450.2	YES	NO	bb	bb	8.296
5	12389-PECDF	32.40	1.582e5	1.060e5	0.844	1.49	1.55	1431.2	YES	NO	bb	bb	44.146
6	23478-PeCDF	31.36	1.673e5	1.143e5	0.911	1.46	1.55	1605.4	YES	NO	bb	bb	46.609
7	12378-PeCDF	30.03	1.647e5	1.099e5	0.845	1.50	1.55	1594.7	YES	NO	bb	bb	45.827
8	Total-pentafurans	28.87	2.598e4	1.765e4	0.866	1.47	1.55	247.2	YES	NO	bb	bb	7.336
9	234678-HxCDF	35.98	1.745e5	1.392e5	1.229	1.25	1.24	1497.7	YES	NO	bb	bd	47.893
10	123678-HxCDF	35.12	1.844e5	1.451e5	1.248	1.27	1.24	1535.7	YES	NO	dd	dd	46.119
11	123478-HxCDF	34.97	1.704e5	1.372e5	1.182	1.24	1.24	1491.4	YES	NO	bd	bd	47.801
12	123468-HXCDF	33.32	1.725e5	1.391e5	1.197	1.24	1.24	1430.3	YES	NO	bb	bb	47.789
13	123789-HxCDF	37.00	1.496e5	1.214e5	1.187	1.23	1.24	1285.4	YES	NO	bd	bd	47.920
14	1234789-HpCDF	41.09	1.274e5	1.250e5	1.165	1.02	1.05	1309.1	YES	NO	bd	bd	47.183
15	Total-heptafurans	39.14	2.026e2	2.062e2	1.185	0.98	1.05	4.2	YES	NO	db	db	0.071
16	1234678-HpCDF	38.85	1.416e5	1.406e5	1.204	1.01	1.05	1713.2	YES	NO	bd	bd	46.179
17	OCDF	45.37	1.913e5	2.158e5	1.186	0.89	0.89	1289.4	YES	NO	bd	bd	84.314
18	13468-PECDF	27.21	2.244e5	1.469e5	1.013	1.53	1.55	4825.2	YES	NO	bb	bb	51.665

**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.09	2.271e4	2.943e4	0.975	0.77	0.77	251.5	YES	NO	bd	bb	9.940
2	2378-TCDD	26.50	2.619e4	3.431e4	1.236	0.76	0.77	303.7	YES	NO	bb	bb	9.096
3	Total-tetradoxins	26.17	3.941e4	4.898e4	1.099	0.80	0.77	317.9	YES	NO	bb	bb	14.957
4	Total-tetradoxins	25.67	1.214e4	1.508e4	1.099	0.80	0.77	147.2	YES	NO	bd	bb	4.606
5	Total-tetradoxins	25.10	4.082e2	4.654e2	1.099	0.88	0.77	4.6	YES	NO	bb	bb	0.148
6	1368-TCDD	23.61	2.431e4	3.146e4	1.084	0.77	0.77	297.1	YES	NO	bb	bb	9.560

**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.01	1.605e5	1.044e5	1.252	1.54	1.55	1457.6	YES	NO	bb	bb	48.067
2	12378-PeCDD	31.61	1.393e5	9.105e4	1.087	1.53	1.55	1309.8	YES	NO	bb	bb	48.187
3	12479-PECDD	28.88	2.336e5	1.521e5	1.837	1.54	1.55	1396.3	YES	NO	bb	bb	47.715

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

Dataset: T:\Autospec\Processed Data Batch\230207D2.qld

Last Altered: Wednesday, February 08, 2023 13:13:24 Pacific Standard Time

Printed: Wednesday, February 08, 2023 13:18:03 Pacific Standard Time

**ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk****HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.59	1.437e5	1.177e5	0.985	1.22	1.24	1869.7	YES	NO	bb	bb	46.506
2	123678-HxCDD	36.20	1.438e5	1.212e5	1.021	1.19	1.24	1884.3	YES	NO	db	db	45.216
3	123478-HxCDD	36.09	1.362e5	1.135e5	0.987	1.20	1.24	1816.1	YES	NO	bd	bd	44.637
4	124679-HXCDD	34.08	1.433e5	1.180e5	1.033	1.21	1.24	1755.1	YES	NO	bb	bb	44.638

**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.30	1.318e5	1.267e5	1.286	1.04	1.05	1429.7	YES	NO	bd	bd	47.135
2	1234678-HpCDD	40.34	1.197e5	1.163e5	1.253	1.03	1.05	1224.8	YES	NO	bd	bd	44.156

**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.09	2.271e4	2.943e4	0.975	0.77	0.77	251.5	YES	NO	bd	bb	9.940
2	2378-TCDD	26.50	2.619e4	3.431e4	1.236	0.76	0.77	303.7	YES	NO	bb	bb	9.096
3	Total-tetradoxins	26.17	3.941e4	4.898e4	1.099	0.80	0.77	317.9	YES	NO	bb	bb	14.957
4	Total-tetradoxins	25.67	1.214e4	1.508e4	1.099	0.80	0.77	147.2	YES	NO	bd	bb	4.606
5	Total-tetradoxins	25.10	4.082e2	4.654e2	1.099	0.88	0.77	4.6	YES	NO	bb	bb	0.148
6	1368-TCDD	23.61	2.431e4	3.146e4	1.084	0.77	0.77	297.1	YES	NO	bb	bb	9.560
7	12389-PECDD	32.01	1.605e5	1.044e5	1.252	1.54	1.55	1457.6	YES	NO	bb	bb	48.067
8	12378-PeCDD	31.61	1.393e5	9.105e4	1.087	1.53	1.55	1309.8	YES	NO	bb	bb	48.187
9	12479-PECDD	28.88	2.336e5	1.521e5	1.837	1.54	1.55	1396.3	YES	NO	bb	bb	47.715
10	123789-HxCDD	36.59	1.437e5	1.177e5	0.985	1.22	1.24	1869.7	YES	NO	bb	bb	46.506
11	123678-HxCDD	36.20	1.438e5	1.212e5	1.021	1.19	1.24	1884.3	YES	NO	db	db	45.216
12	123478-HxCDD	36.09	1.362e5	1.135e5	0.987	1.20	1.24	1816.1	YES	NO	bd	bd	44.637
13	124679-HXCDD	34.08	1.433e5	1.180e5	1.033	1.21	1.24	1755.1	YES	NO	bb	bb	44.638
14	1234679-HPCDD	39.30	1.318e5	1.267e5	1.286	1.04	1.05	1429.7	YES	NO	bd	bd	47.135
15	OCDD	45.13	1.970e5	2.194e5	1.103	0.90	0.89	2087.8	YES	NO	bd	bb	92.763
16	1234678-HpCDD	40.34	1.197e5	1.163e5	1.253	1.03	1.05	1224.8	YES	NO	bd	bd	44.156

## Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

## TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.35	2.517e4	3.285e4	0.858	0.77	0.77	353.8	YES	NO	db	db	8.975
2	Total-tetrafurans	27.21	5.045e2	6.815e2	0.933	0.74	0.77	7.4	YES	NO	bd	bd	0.169
3	2378-TCDF	25.85	2.595e4	3.559e4	0.876	0.73	0.77	375.6	YES	NO	bb	bb	9.318
4	1368-TCDF	22.34	2.874e4	3.783e4	1.064	0.76	0.77	450.2	YES	NO	bb	bb	8.296
5	12389-PECDF	32.40	1.582e5	1.060e5	0.844	1.49	1.55	1431.2	YES	NO	bb	bb	44.146
6	23478-PeCDF	31.36	1.673e5	1.143e5	0.911	1.46	1.55	1605.4	YES	NO	bb	bb	46.609
7	12378-PeCDF	30.03	1.647e5	1.099e5	0.845	1.50	1.55	1594.7	YES	NO	bb	bb	45.827
8	Total-pentafurans	28.87	2.598e4	1.765e4	0.866	1.47	1.55	247.2	YES	NO	bb	bb	7.336
9	234678-HxCDF	35.98	1.745e5	1.392e5	1.229	1.25	1.24	1497.7	YES	NO	bb	bd	47.893
10	123678-HxCDF	35.12	1.844e5	1.451e5	1.248	1.27	1.24	1535.7	YES	NO	dd	dd	46.119
11	123478-HxCDF	34.97	1.704e5	1.372e5	1.182	1.24	1.24	1491.4	YES	NO	bd	bd	47.801
12	123468-HXCDF	33.32	1.725e5	1.391e5	1.197	1.24	1.24	1430.3	YES	NO	bb	bb	47.789
13	123789-HxCDF	37.00	1.496e5	1.214e5	1.187	1.23	1.24	1285.4	YES	NO	bd	bd	47.920
14	1234789-HpCDF	41.09	1.274e5	1.250e5	1.165	1.02	1.05	1309.1	YES	NO	bd	bd	47.183
15	Total-heptafurans	39.14	2.026e2	2.062e2	1.185	0.98	1.05	4.2	YES	NO	db	db	0.071
16	1234678-HpCDF	38.85	1.416e5	1.406e5	1.204	1.01	1.05	1713.2	YES	NO	bd	bd	46.179
17	OCDF	45.37	1.913e5	2.158e5	1.186	0.89	0.89	1289.4	YES	NO	bd	bd	84.314
18	13468-PECDF	27.21	2.244e5	1.469e5	1.013	1.53	1.55	4825.2	YES	NO	bb	bb	51.665
19	1289-TCDD	27.09	2.271e4	2.943e4	0.975	0.77	0.77	251.5	YES	NO	bd	bb	9.940
20	2378-TCDD	26.50	2.619e4	3.431e4	1.236	0.76	0.77	303.7	YES	NO	bb	bb	9.096
21	Total-tetradioxins	26.17	3.941e4	4.898e4	1.099	0.80	0.77	317.9	YES	NO	bb	bb	14.957
22	Total-tetradioxins	25.67	1.214e4	1.508e4	1.099	0.80	0.77	147.2	YES	NO	bd	bb	4.606
23	Total-tetradioxins	25.10	4.082e2	4.654e2	1.099	0.88	0.77	4.6	YES	NO	bb	bb	0.148
24	1368-TCDD	23.61	2.431e4	3.146e4	1.084	0.77	0.77	297.1	YES	NO	bb	bb	9.560
25	12389-PECDD	32.01	1.605e5	1.044e5	1.252	1.54	1.55	1457.6	YES	NO	bb	bb	48.067
26	12378-PeCDD	31.61	1.393e5	9.105e4	1.087	1.53	1.55	1309.8	YES	NO	bb	bb	48.187
27	12479-PECDD	28.88	2.336e5	1.521e5	1.837	1.54	1.55	1396.3	YES	NO	bb	bb	47.715
28	123789-HxCDD	36.59	1.437e5	1.177e5	0.985	1.22	1.24	1869.7	YES	NO	bb	bb	46.506
29	123678-HxCDD	36.20	1.438e5	1.212e5	1.021	1.19	1.24	1884.3	YES	NO	db	db	45.216
30	123478-HxCDD	36.09	1.362e5	1.135e5	0.987	1.20	1.24	1816.1	YES	NO	bd	bd	44.637
31	124679-HXCDD	34.08	1.433e5	1.180e5	1.033	1.21	1.24	1755.1	YES	NO	bb	bb	44.638
32	1234679-HPCDD	39.30	1.318e5	1.267e5	1.286	1.04	1.05	1429.7	YES	NO	bd	bd	47.135
33	OCDD	45.13	1.970e5	2.194e5	1.103	0.90	0.89	2087.8	YES	NO	bd	bb	92.763
34	1234678-HpCDD	40.34	1.197e5	1.163e5	1.253	1.03	1.05	1224.8	YES	NO	bd	bd	44.156

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk****PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.03	5.657e3					1.0	NO		db		0.000
2	FUNCTION2 PFK	29.00	1.642e4					1.7	NO		dd		0.000
3	FUNCTION2 PFK	28.97	2.914e3					0.6	NO		bd		0.000
4	FUNCTION2 PFK	28.76	5.101e3					0.9	NO		bb		0.000
5	FUNCTION2 PFK	28.40	9.036e3					0.8	NO		bb		0.000
6	FUNCTION2 PFK	28.32	1.892e4					1.8	NO		bb		0.000
7	FUNCTION2 PFK	32.19	7.583e3					1.0	NO		bb		0.000
8	FUNCTION2 PFK	31.98	1.453e4					1.3	NO		db		0.000
9	FUNCTION2 PFK	31.91	1.204e4					0.9	NO		bd		0.000
10	FUNCTION2 PFK	31.47	8.812e3					1.2	NO		db		0.000
11	FUNCTION2 PFK	31.44	4.255e3					0.6	NO		bd		0.000
12	FUNCTION2 PFK	31.37	2.130e4					1.5	NO		bb		0.000
13	FUNCTION2 PFK	30.76	2.662e3					0.7	NO		bb		0.000
14	FUNCTION2 PFK	30.65	4.052e4					1.8	NO		bb		0.000
15	FUNCTION2 PFK	30.55	2.891e4					1.8	NO		bb		0.000
16	FUNCTION2 PFK	30.41	2.278e4					1.4	NO		bb		0.000
17	FUNCTION2 PFK	30.17	1.926e3					0.5	NO		bb		0.000
18	FUNCTION2 PFK	30.12	6.021e3					0.9	NO		bb		0.000
19	FUNCTION2 PFK	29.73	5.436e3					0.7	NO		bb		0.000
20	FUNCTION2 PFK	29.47	2.284e3					0.6	NO		bb		0.000
21	FUNCTION2 PFK	29.30	4.737e3					0.7	NO		bb		0.000
22	FUNCTION2 PFK	29.26	1.755e3					0.4	NO		bb		0.000
23	FUNCTION2 PFK	32.78	1.881e3					0.5	NO		bb		0.000
24	FUNCTION2 PFK	32.71	1.577e4					1.0	NO		bb		0.000
25	FUNCTION2 PFK	32.51	9.995e3					1.1	NO		bb		0.000
26	FUNCTION2 PFK	32.47	2.247e3					0.6	NO		bb		0.000

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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**ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk****PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.82	4.647e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	35.59	1.633e4					1.5	NO		bb		0.000
3	FUNCTION3 PFK	34.76	2.289e4					1.3	NO		bb		0.000
4	FUNCTION3 PFK	34.10	6.463e3					0.8	NO		db		0.000
5	FUNCTION3 PFK	34.01	3.193e4					2.0	NO		bd		0.000
6	FUNCTION3 PFK	33.69	1.437e4					1.2	NO		db		0.000
7	FUNCTION3 PFK	33.65	8.391e3					0.9	NO		bd		0.000
8	FUNCTION3 PFK	33.30	7.910e3					1.1	NO		db		0.000
9	FUNCTION3 PFK	33.26	4.786e3					0.7	NO		bd		0.000
10	FUNCTION3 PFK	33.06	2.792e3					0.8	NO		bb		0.000
11	FUNCTION3 PFK	33.00	4.763e4					3.7	YES		bb		0.000
12	FUNCTION3 PFK	37.91	6.257e3					0.8	NO		bb		0.000
13	FUNCTION3 PFK	37.86	8.568e3					1.0	NO		bb		0.000
14	FUNCTION3 PFK	37.37	1.482e4					0.8	NO		bb		0.000
15	FUNCTION3 PFK	37.32	2.690e3					0.7	NO		bb		0.000
16	FUNCTION3 PFK	37.28	4.414e3					0.5	NO		bb		0.000
17	FUNCTION3 PFK	36.98	7.596e3					0.7	NO		bb		0.000
18	FUNCTION3 PFK	36.90	2.386e4					0.8	NO		bb		0.000
19	FUNCTION3 PFK	36.19	4.240e3					0.7	NO		bb		0.000
20	FUNCTION3 PFK	36.06	5.168e3					0.8	NO		bb		0.000

**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.62	3.389e3					1.1	NO		bb		
2	FUNCTION5 PFK	43.33	1.450e3					0.7	NO		db		
3	FUNCTION5 PFK	43.29	2.064e3					0.9	NO		bd		
4	FUNCTION5 PFK	43.13	3.447e3					1.7	NO		db		
5	FUNCTION5 PFK	43.10	9.441e3					1.7	NO		bd		
6	FUNCTION5 PFK	46.36	4.308e3					1.3	NO		bb		
7	FUNCTION5 PFK	46.31	5.106e3					1.8	NO		db		
8	FUNCTION5 PFK	46.28	4.832e3					1.6	NO		bd		
9	FUNCTION5 PFK	46.01	9.302e2					0.6	NO		bb		
10	FUNCTION5 PFK	45.88	3.557e3					1.3	NO		bb		
11	FUNCTION5 PFK	45.24	1.699e3					1.0	NO		bb		
12	FUNCTION5 PFK	45.19	1.379e3					0.8	NO		db		
13	FUNCTION5 PFK	45.17	4.531e3					1.7	NO		bd		
14	FUNCTION5 PFK	45.02	1.435e4					1.7	NO		bb		
15	FUNCTION5 PFK	44.89	1.604e3					0.7	NO		bb		
16	FUNCTION5 PFK	44.35	1.308e3					0.7	NO		bb		
17	FUNCTION5 PFK	44.09	5.816e3					2.0	NO		bb		
18	FUNCTION5 PFK	43.99	1.745e3					0.9	NO		bb		

**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.84	1.640e2					1.9	NO		bd		0.000
2	FUNCTION1 HXCD...	25.16	1.056e2					2.3	NO		bb		0.000
3	FUNCTION1 HXCD...	26.20	1.105e2					2.1	NO		db		0.000
4	FUNCTION1 HXCD...	26.05	8.007e1					2.1	NO		dd		0.000

**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	27.85	8.181e1					1.5	NO		bb		0.000
2	FUNCTION1 HPCD...	27.23	8.323e1					1.9	NO		bb		0.000
3	FUNCTION1 HPCD...	26.65	7.423e1					2.2	NO		bb		0.000
4	FUNCTION1 HPCD...	26.08	8.787e1					1.8	NO		db		0.000
5	FUNCTION1 HPCD...	25.91	8.908e1					1.6	NO		bd		0.000
6	FUNCTION1 HPCD...	22.40	7.443e1					1.5	NO		bb		0.000



**Quantify Totals Report MassLynx MassLynx V4.1 SCN909**

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.17	2.680e2					4.4	YES		bb		0.000
2	FUNCTION2 HPCD...	30.85	9.332e1					1.6	NO		bb		0.000
3	FUNCTION2 HPCD...	30.10	1.598e2					3.3	YES		bb		0.000

**ETHERS4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.66	7.760e1					2.3	NO		bb		0.000

**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.49	1.116e2					2.3	NO		bb		0.000

**ETHERS6**

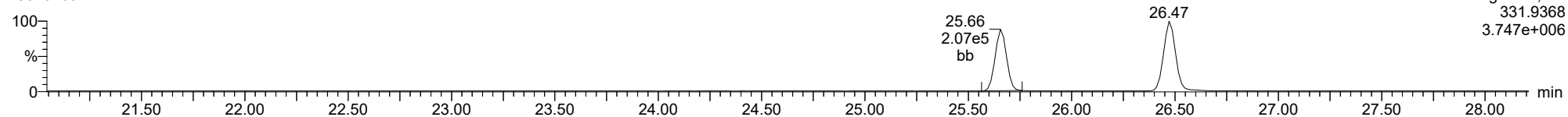
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	46.19	7.691e1					2.9	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 07 Feb 2023 09:29:10  
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

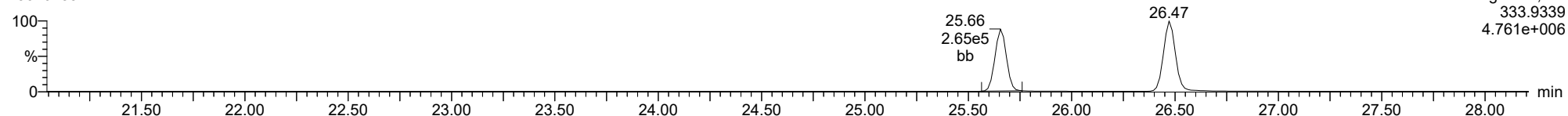
**13C-1234-TCDD**

23020733



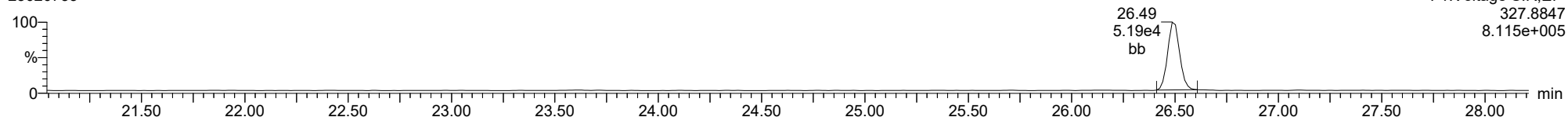
**13C-1234-TCDD**

23020733



**37CL-2378-TCDD**

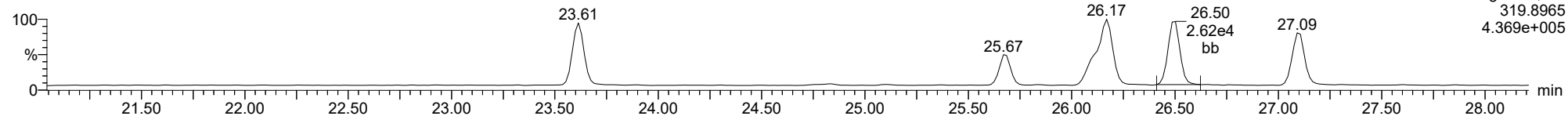
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

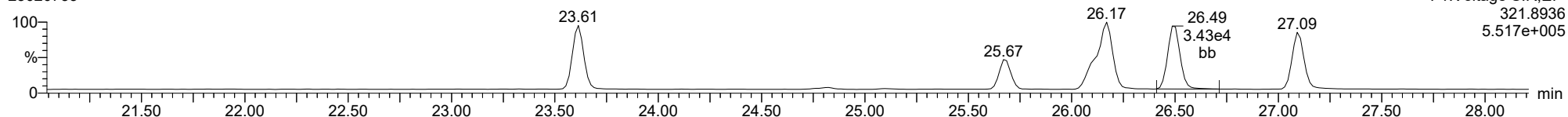
**2378-TCDD**

23020733



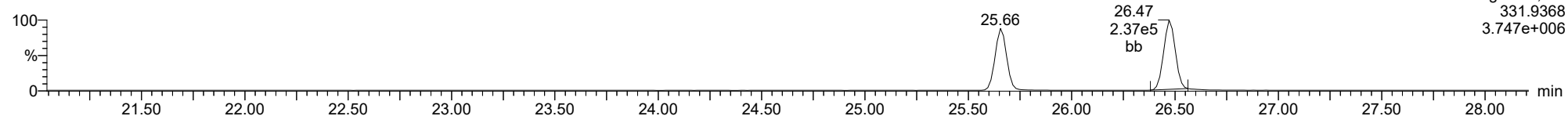
**2378-TCDD**

23020733



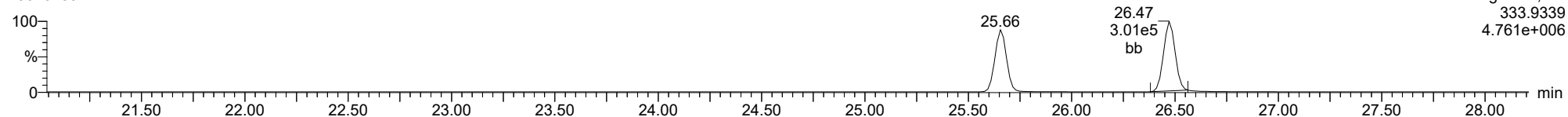
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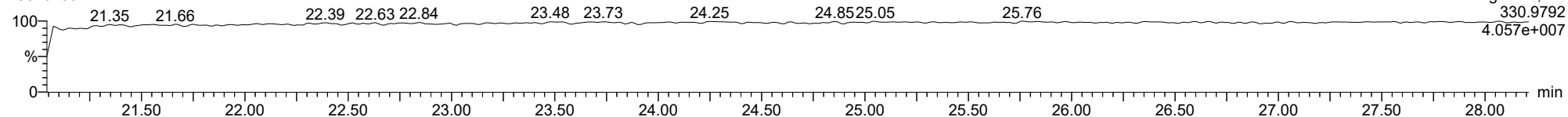
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23020733



**FUNCTION1 PFK**

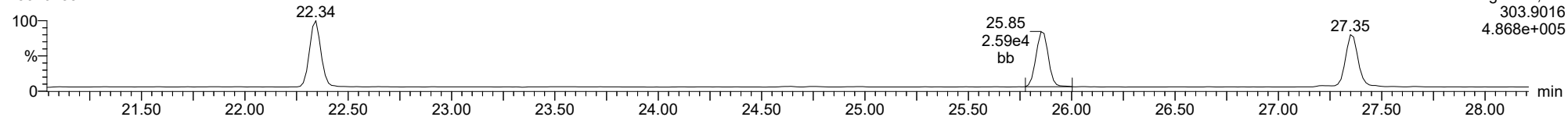
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

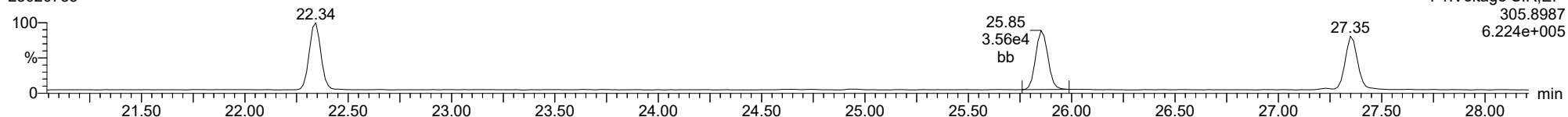
**2378-TCDF**

23020733



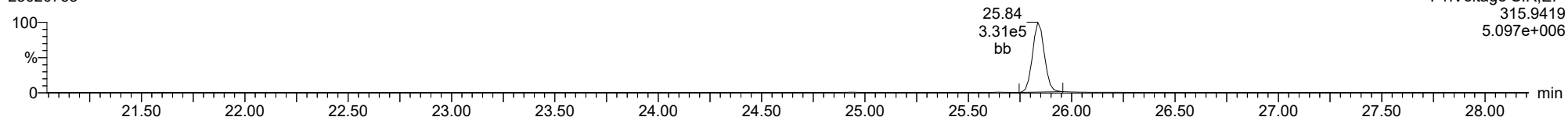
**2378-TCDF**

23020733



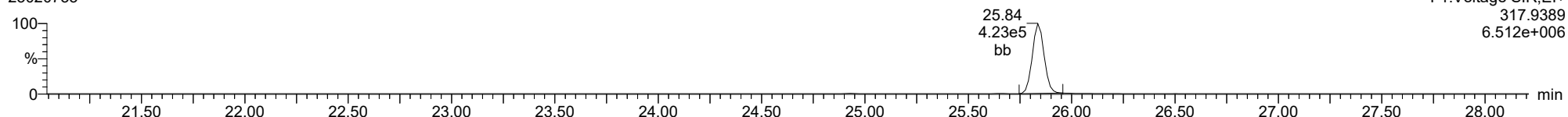
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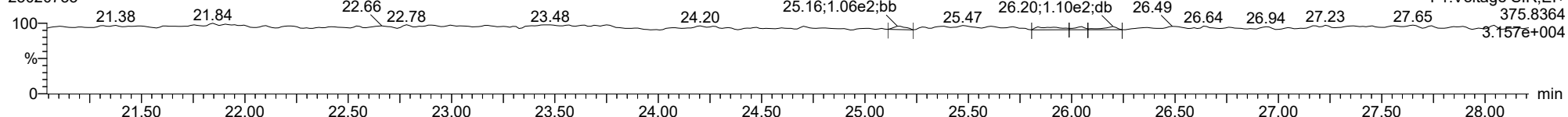
**13C-2378-TCDF**

23020733



**FUNCTION1 HXCDPE**

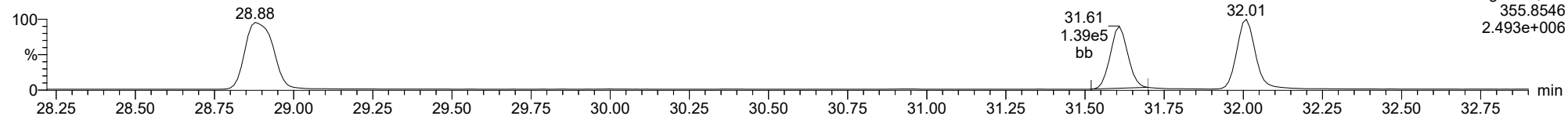
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

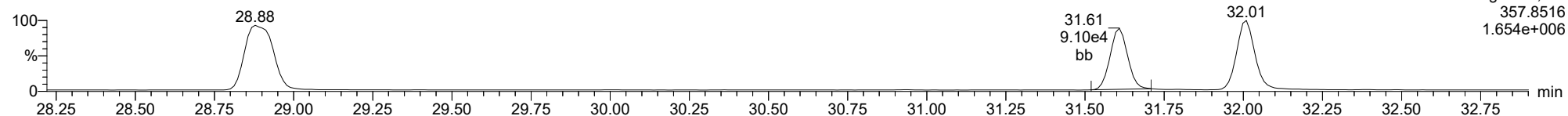
**12378-PeCDD**

23020733



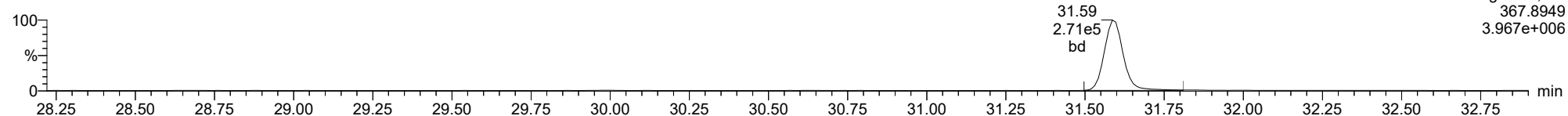
**12378-PeCDD**

23020733



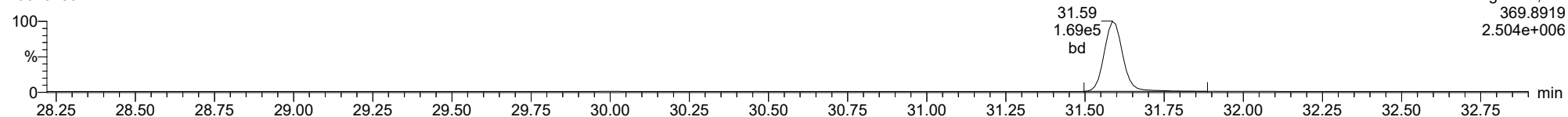
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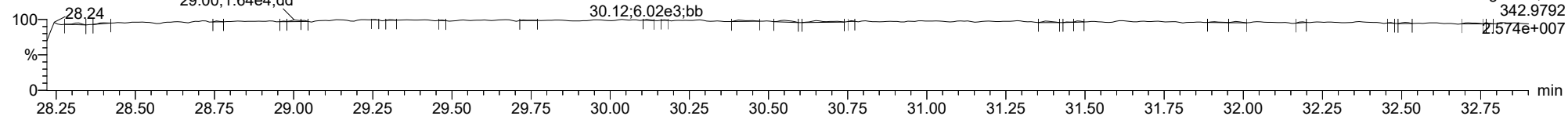
**13C-12378-PeCDD**

23020733



**FUNCTION2 PFK**

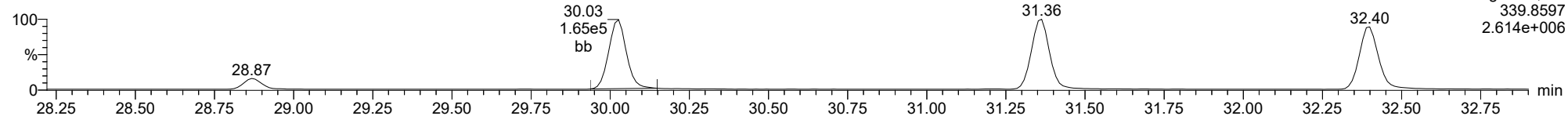
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

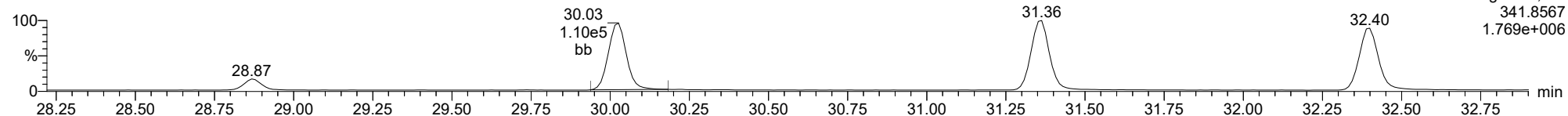
**12378-PeCDF**

23020733



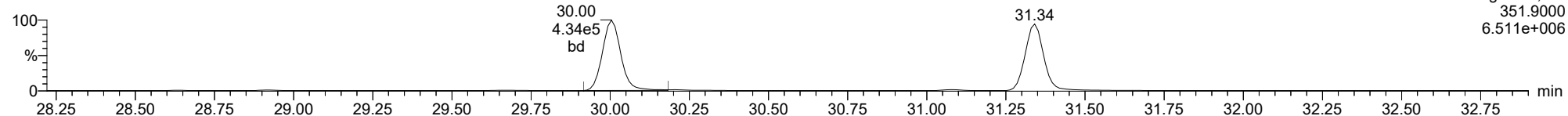
**12378-PeCDF**

23020733



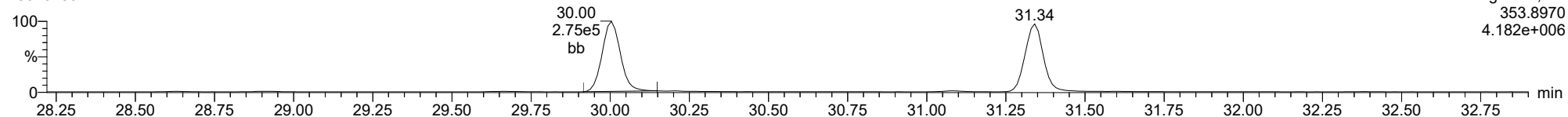
**13C-12378-PeCDF**

23020733



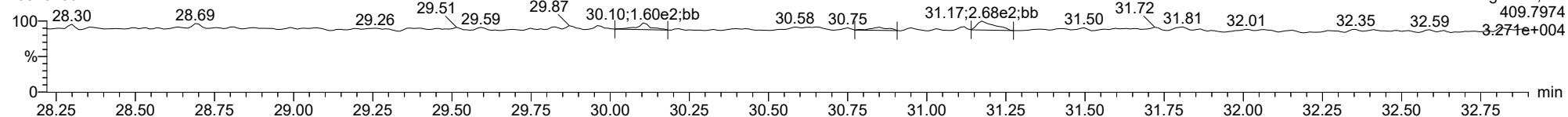
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**FUNCTION2 HPCDPE**

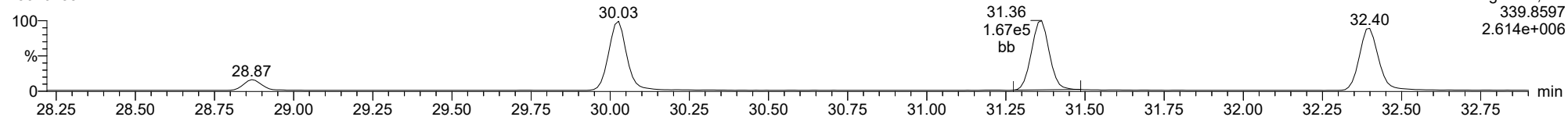
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

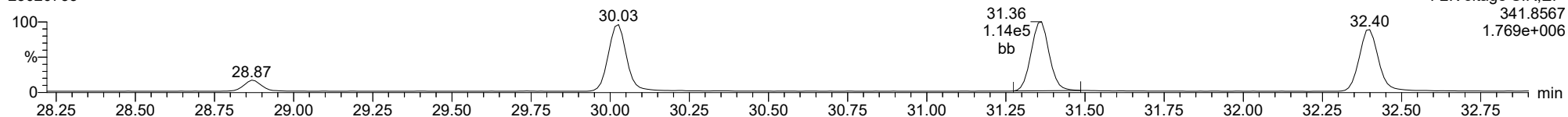
**23478-PeCDF**

23020733



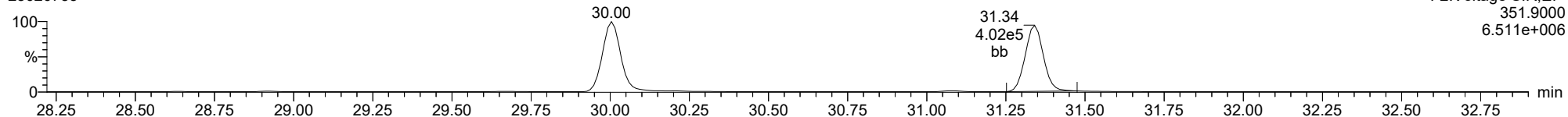
**23478-PeCDF**

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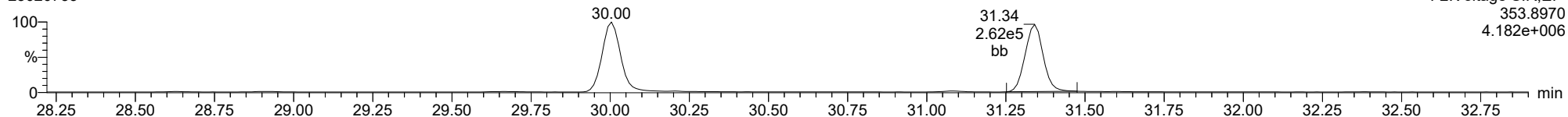
**13C-23478-PeCDF**

23020733



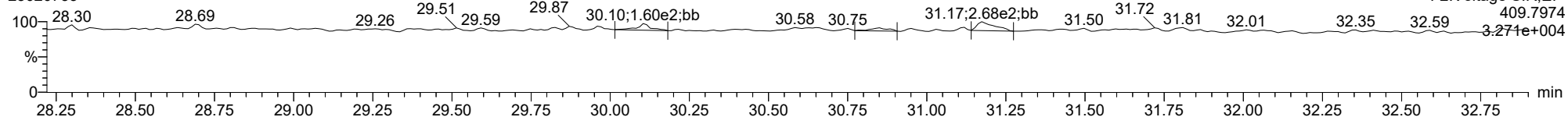
**13C-23478-PeCDF**

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**FUNCTION2 HPCDPE**

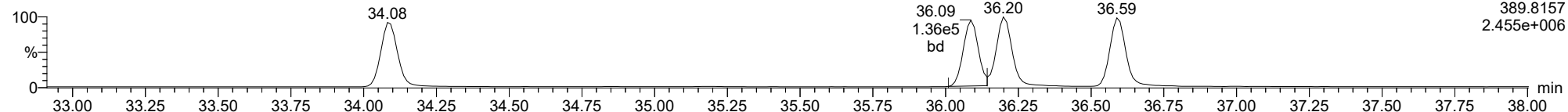
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

**123478-HxCDD**

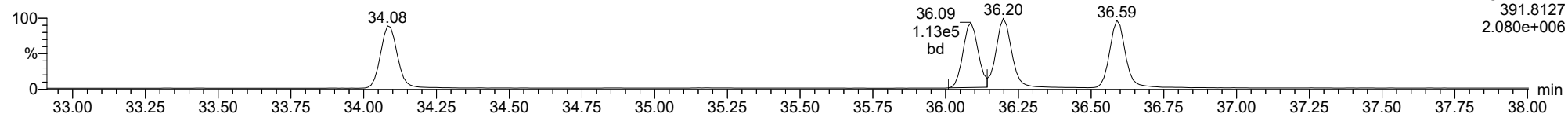
23020733



F3:Voltage SIR,EI+  
389.8157  
2.455e+006

**123478-HxCDD**

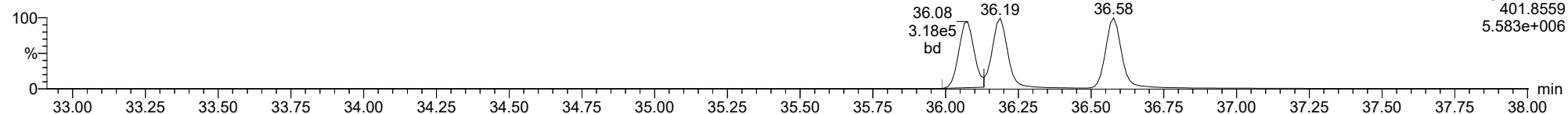
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F3:Voltage SIR,EI+  
391.8127  
2.080e+006

**13C-123478-HxCDD**

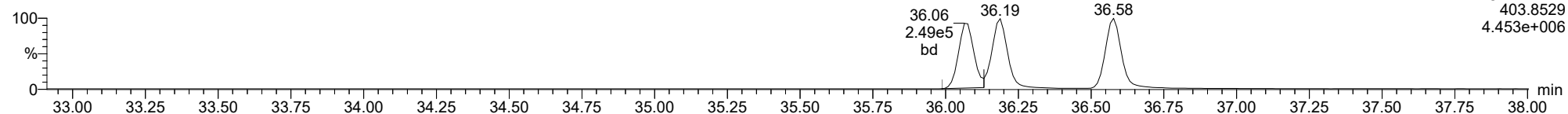
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F3:Voltage SIR,EI+  
401.8559  
5.583e+006

**13C-123478-HxCDD**

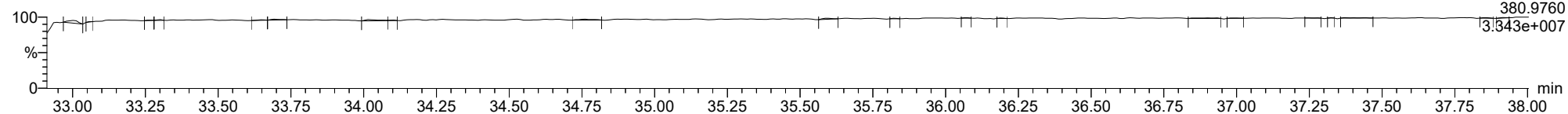
23020733



F3:Voltage SIR,EI+  
403.8529  
4.453e+006

**FUNCTION3 PFK**

23020733



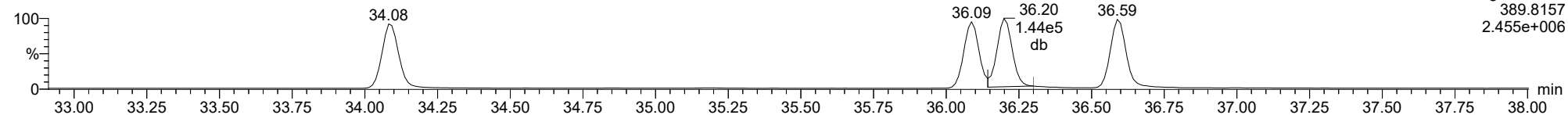
F3:Voltage SIR,EI+  
380.9760  
3.343e+007



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

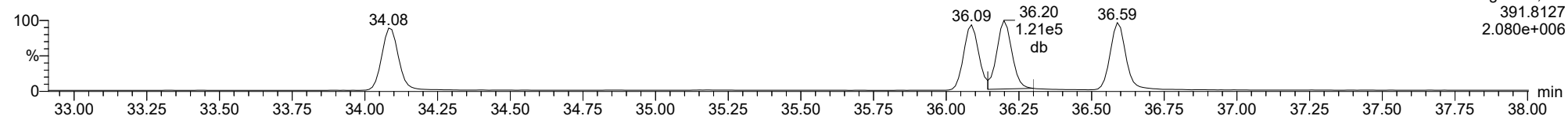
**123678-HxCDD**

23020733



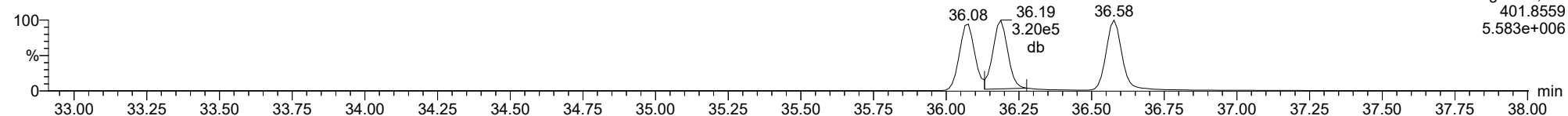
**123678-HxCDD**

23020733



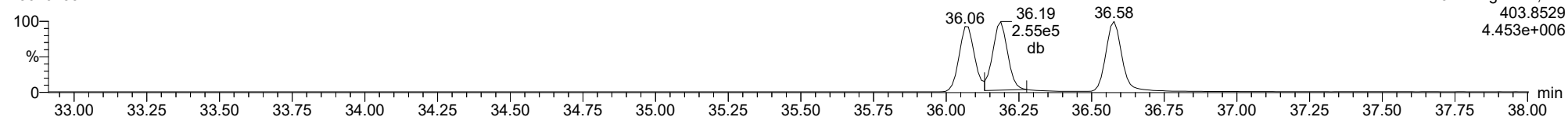
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**13C-123678-HxCDD**

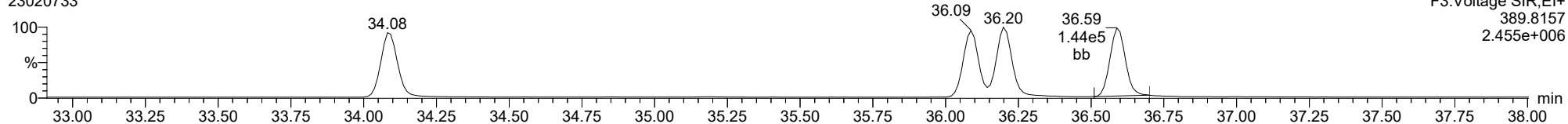
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

**123789-HxCDD**

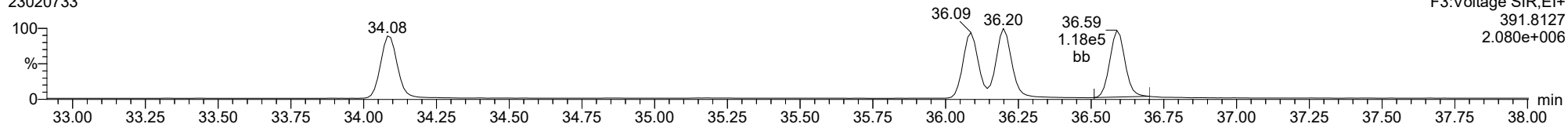
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F3:Voltage SIR,EI+  
389.8157  
2.455e+006

**123789-HxCDD**

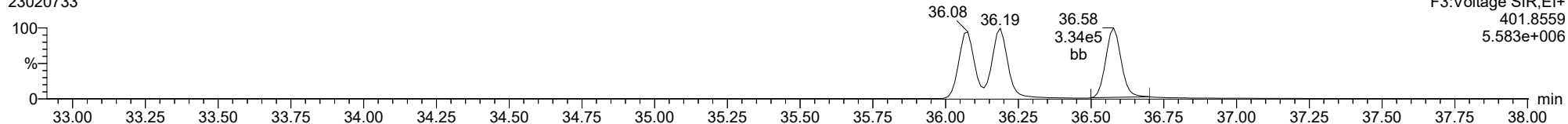
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F3:Voltage SIR,EI+  
391.8127  
2.080e+006

**13C-123789-HxCDD**

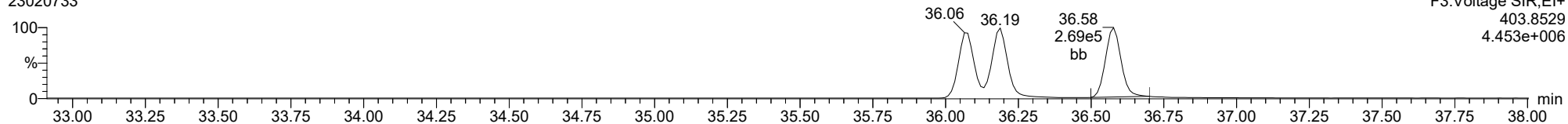
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F3:Voltage SIR,EI+  
401.8559  
5.583e+006

**13C-123789-HxCDD**

23020733

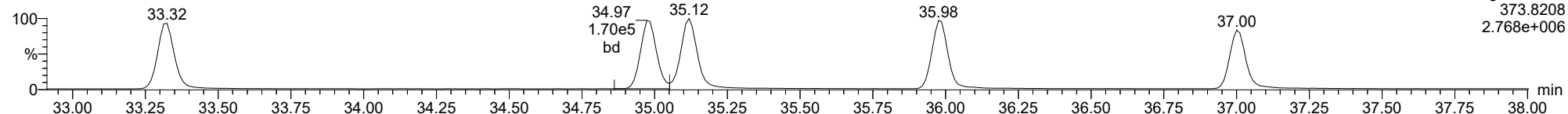


F3:Voltage SIR,EI+  
403.8529  
4.453e+006

ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

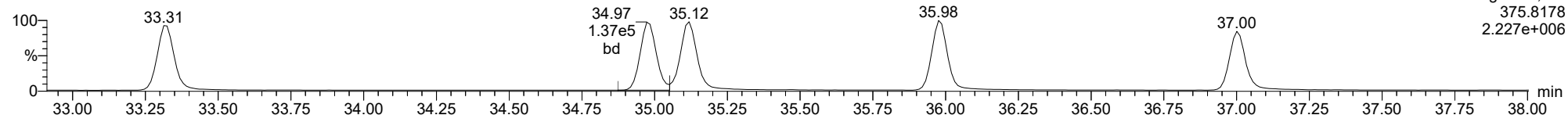
**123478-HxCDF**

23020733



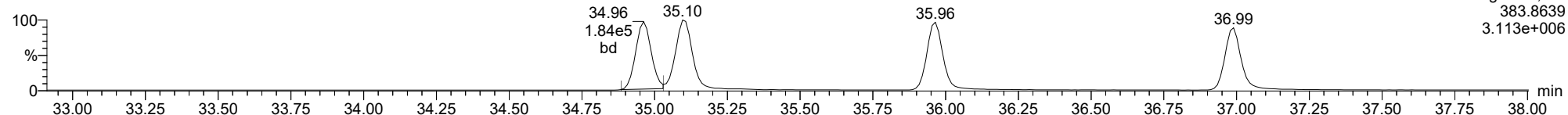
**123478-HxCDF**

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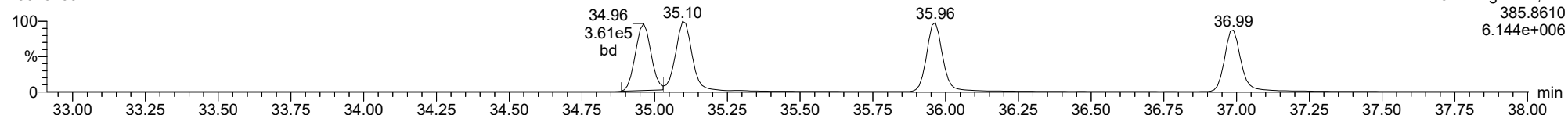
**13C-123478-HxCDF**

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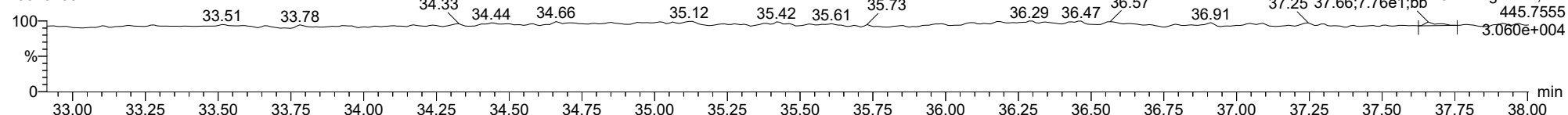
**13C-123478-HxCDF**

23020733



**FUNCTION3 OCDPE**

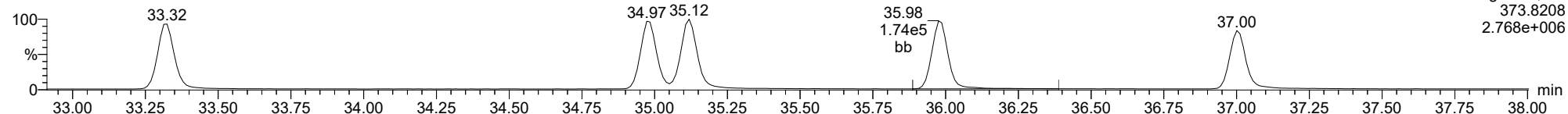
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

**234678-HxCDF**

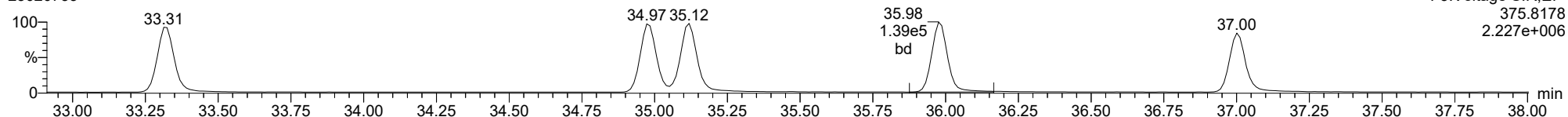
23020733



F3:Voltage SIR,EI+  
373.8208  
2.768e+006

**234678-HxCDF**

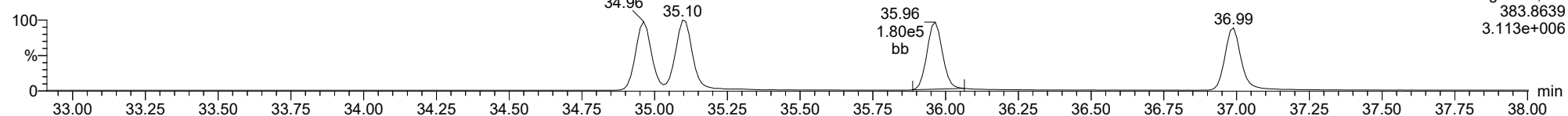
23020733



F3:Voltage SIR,EI+  
375.8178  
2.227e+006

**13C-234678-HxCDF**

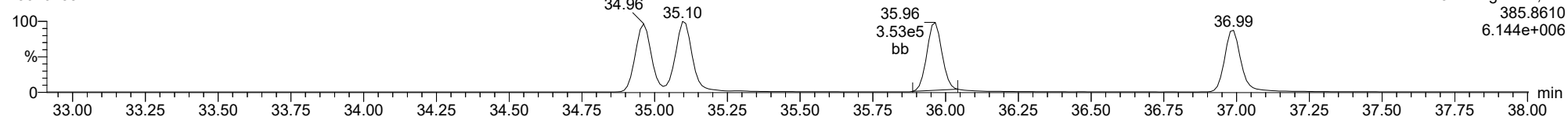
23020733



F3:Voltage SIR,EI+  
383.8639  
3.113e+006

**13C-234678-HxCDF**

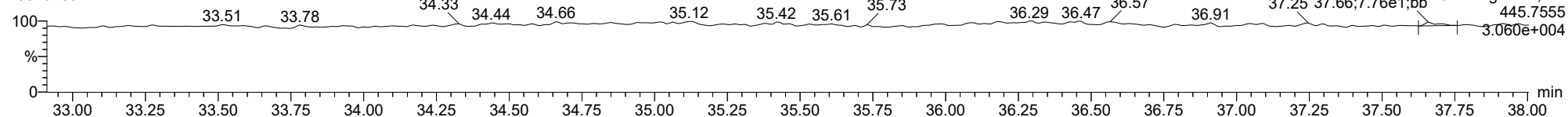
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F3:Voltage SIR,EI+  
385.8610  
6.144e+006

**FUNCTION3 OCDPE**

23020733

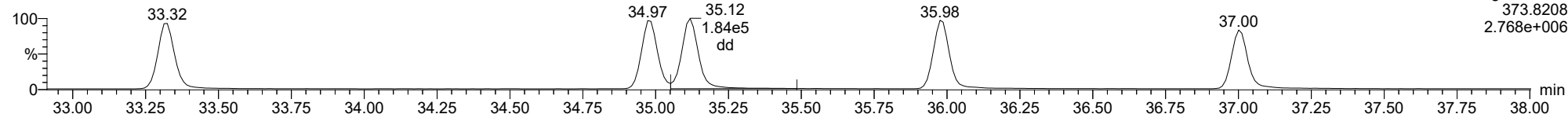


F3:Voltage SIR,EI+  
445.7555  
3.060e+004

ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

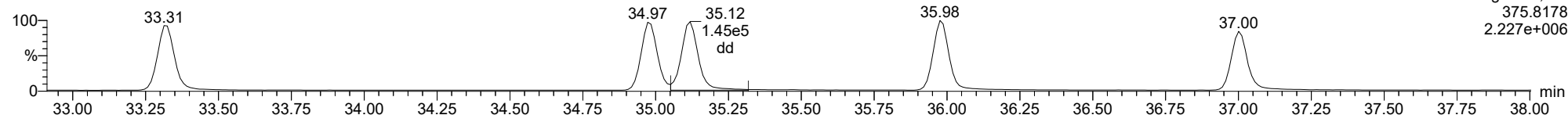
123678-HxCDF

23020733



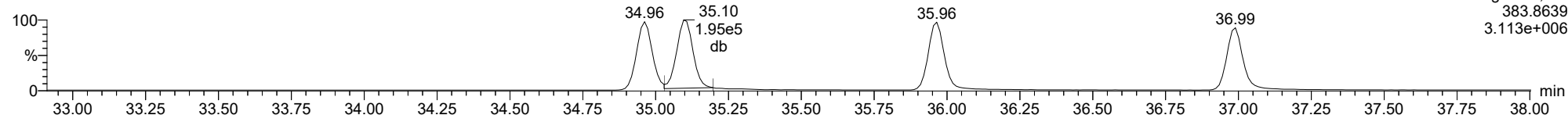
123678-HxCDF

23020733



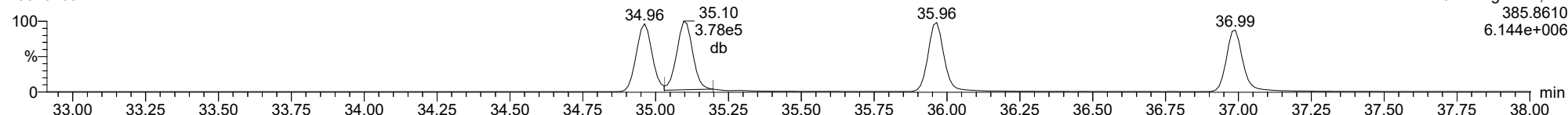
13C-123678-HxCDF

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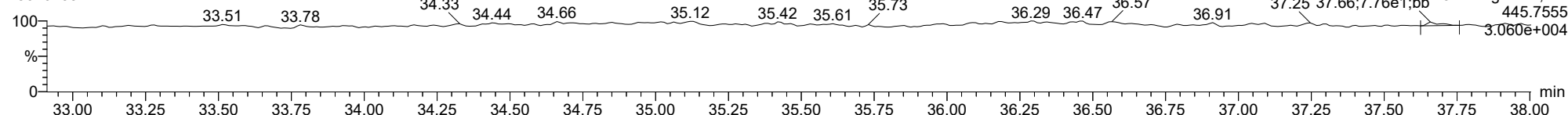
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FUNCTION3 OCDPE

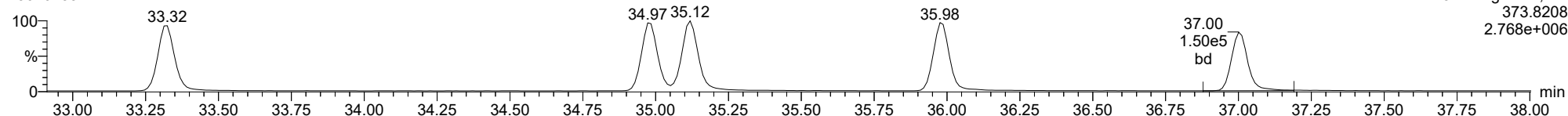
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

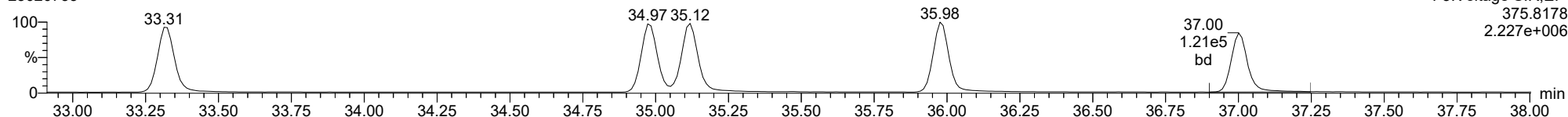
**123789-HxCDF**

23020733



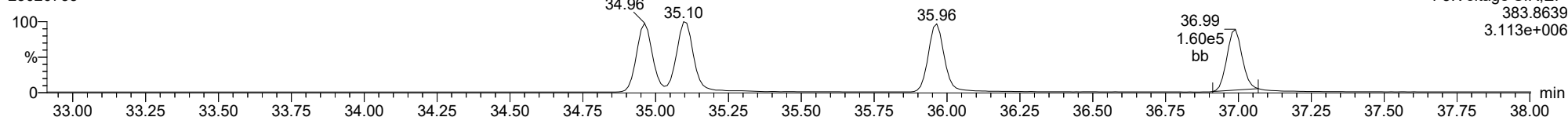
**123789-HxCDF**

23020733



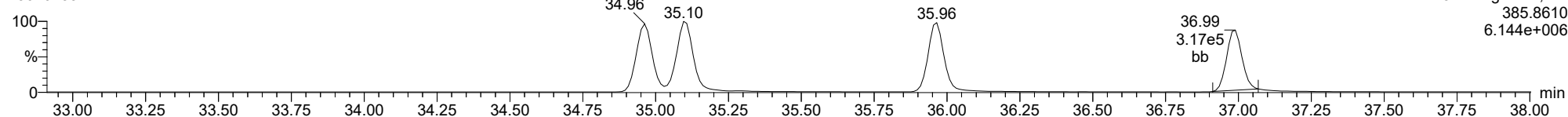
**13C-123789-HxCDF**

23020733



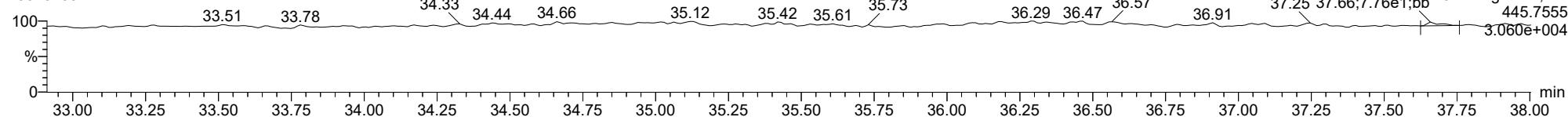
**13C-123789-HxCDF**

23020733



**FUNCTION3 OCDPE**

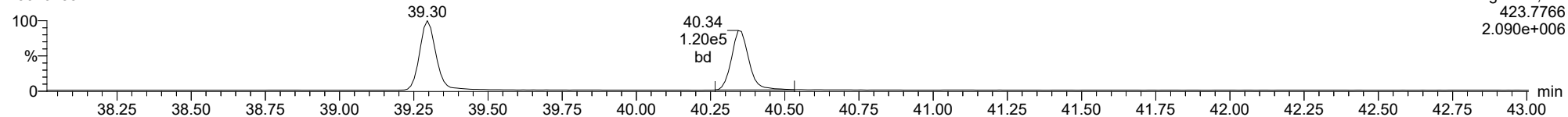
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

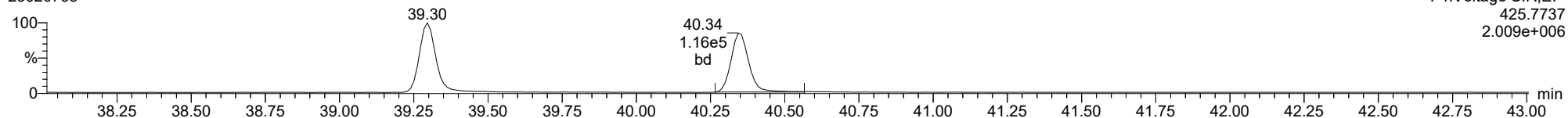
**1234678-HpCDD**

23020733



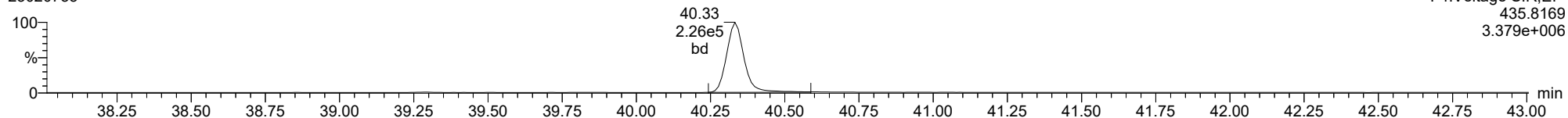
**1234678-HpCDD**

23020733



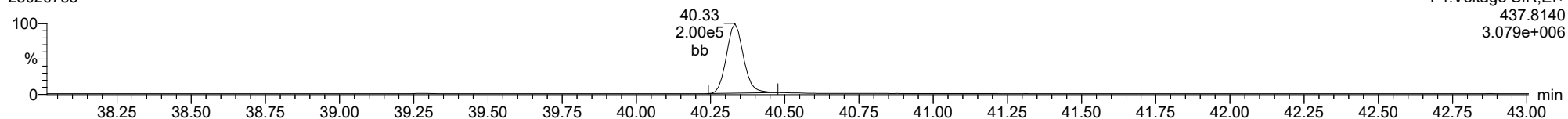
**13C-1234678-HpCDD**

23020733



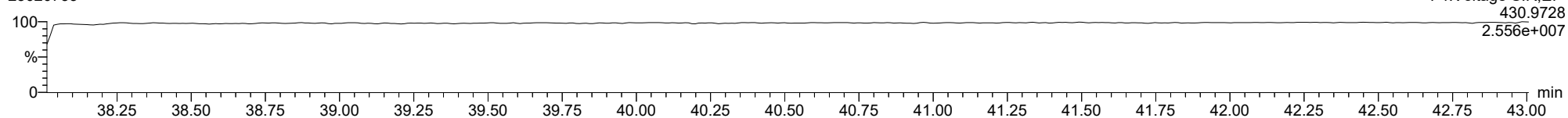
**13C-1234678-HpCDD**

23020733



**FUNCTION4 PFK**

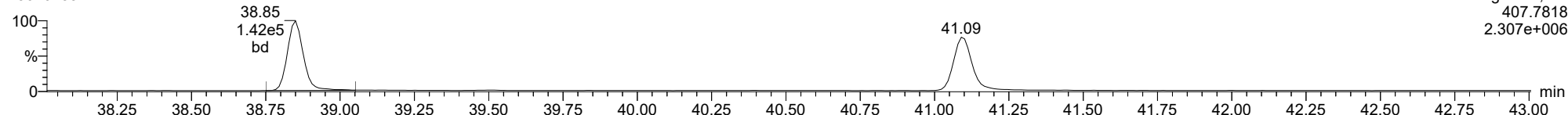
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ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

**1234678-HpCDF**

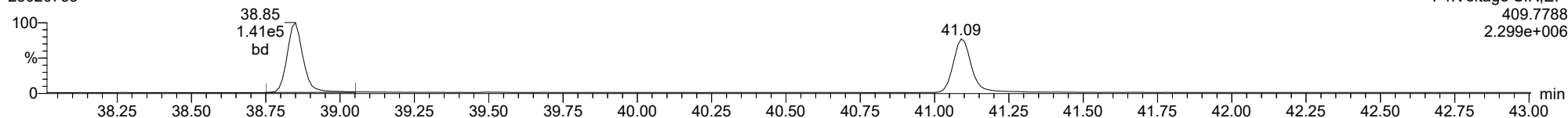
23020733



F4:Voltage SIR,EI+  
407.7818  
2.307e+006

**1234678-HpCDF**

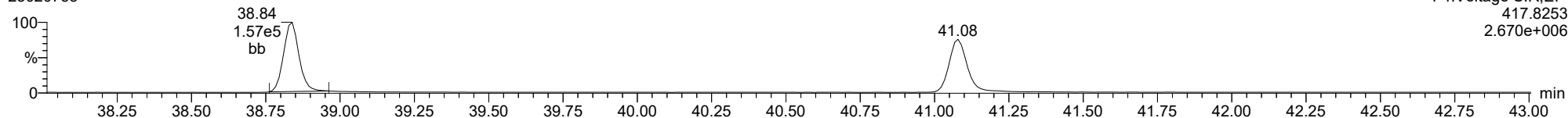
23020733



F4:Voltage SIR,EI+  
409.7788  
2.299e+006

**13C-1234678-HpCDF**

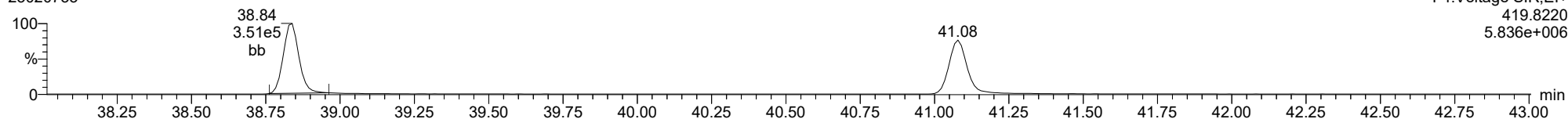
23020733



F4:Voltage SIR,EI+  
417.8253  
2.670e+006

**13C-1234678-HpCDF**

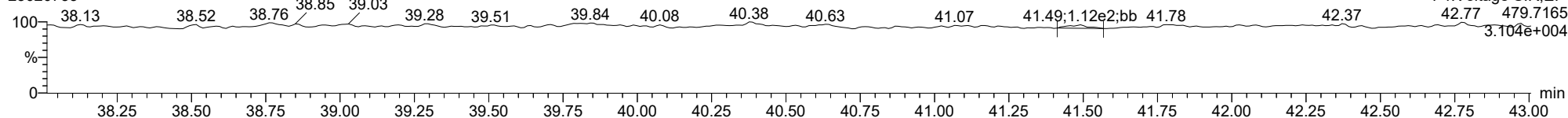
23020733



F4:Voltage SIR,EI+  
419.8220  
5.836e+006

**FUNCTION4 NCDPE**

23020733



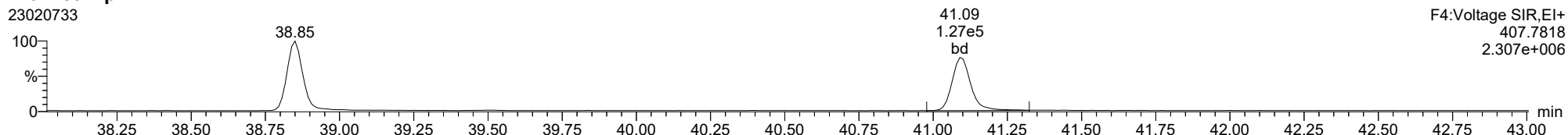
F4:Voltage SIR,EI+  
479.7165  
3.104e+004



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

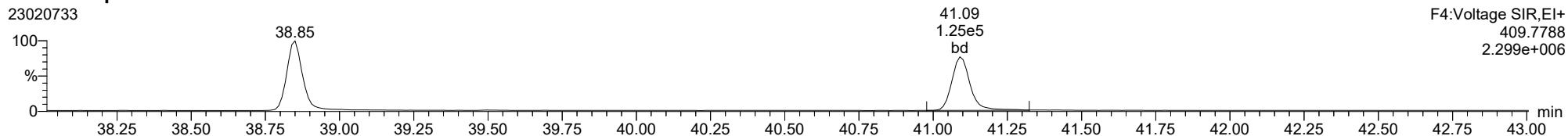
23020733



F4:Voltage SIR,EI+  
407.7818  
2.307e+006

1234789-HpCDF

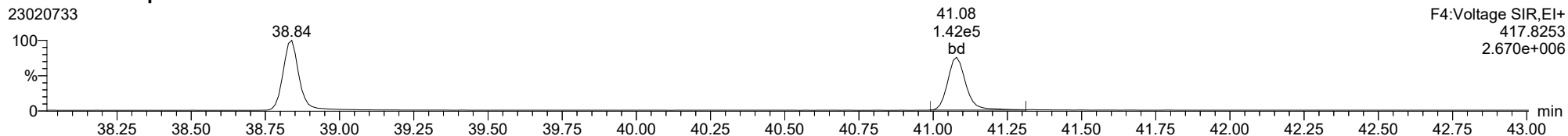
23020733



F4:Voltage SIR,EI+  
409.7788  
2.299e+006

13C-1234789-HpCDF

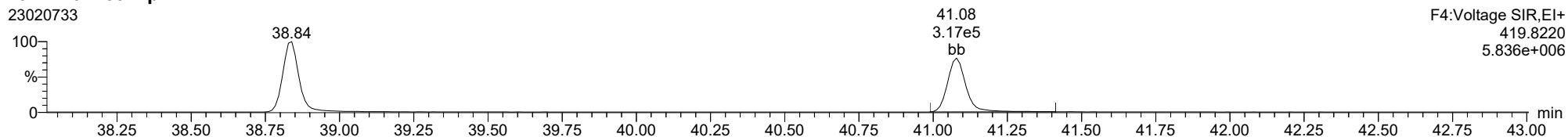
23020733



F4:Voltage SIR,EI+  
417.8253  
2.670e+006

13C-1234789-HpCDF

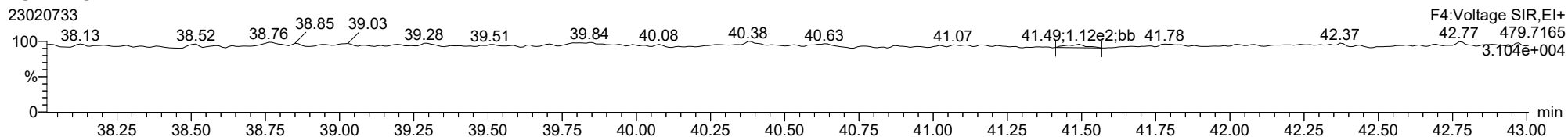
23020733



F4:Voltage SIR,EI+  
419.8220  
5.836e+006

FUNCTION4 NCDPE

23020733

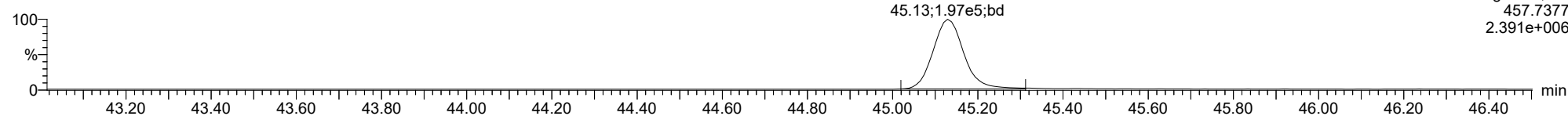


F4:Voltage SIR,EI+  
42.77 479.7165  
3.104e+004

ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

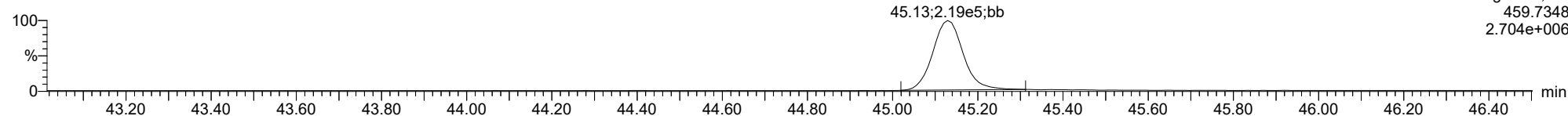
**OCDD**

23020733



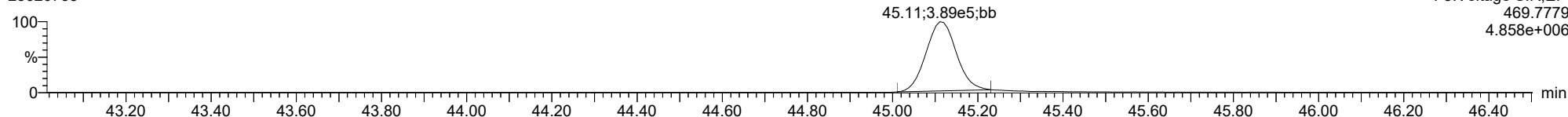
**OCDD**

23020733



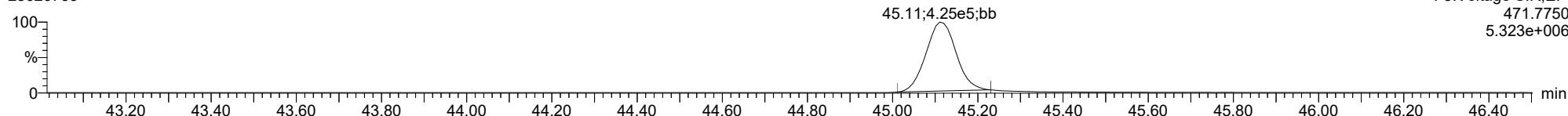
**13C-OCDD**

23020733



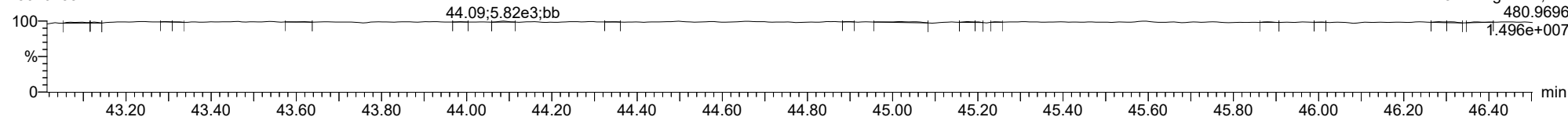
**13C-OCDD**

23020733



**FUNCTION5 PFK**

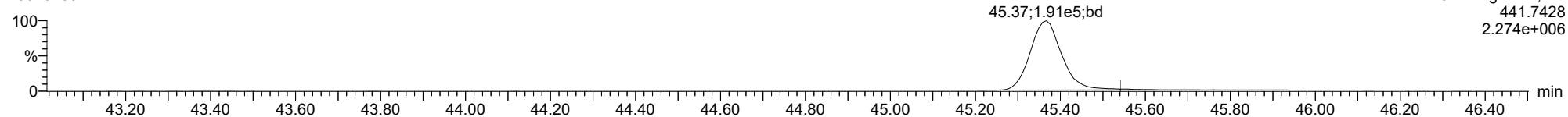
23020733



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

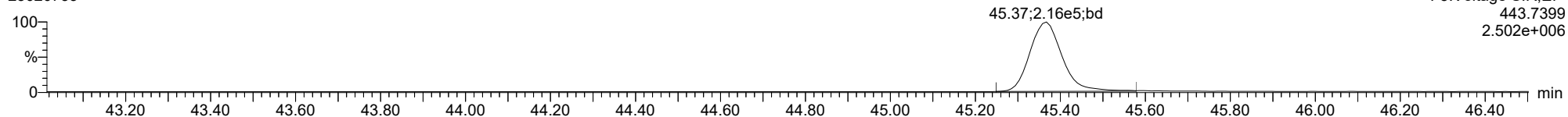
**OCDF**

23020733



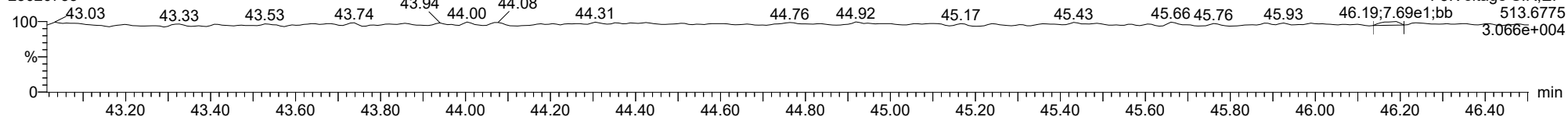
**OCDF**

23020733



**FUNCTION5 DCDPE**

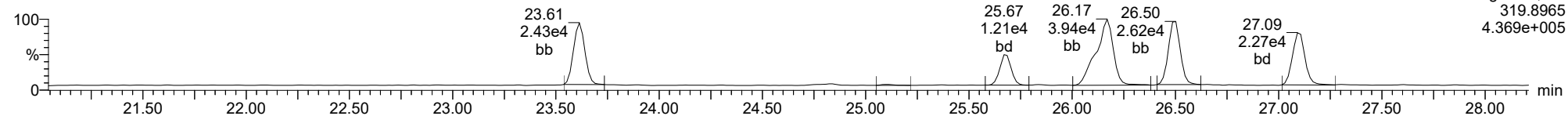
23020733



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

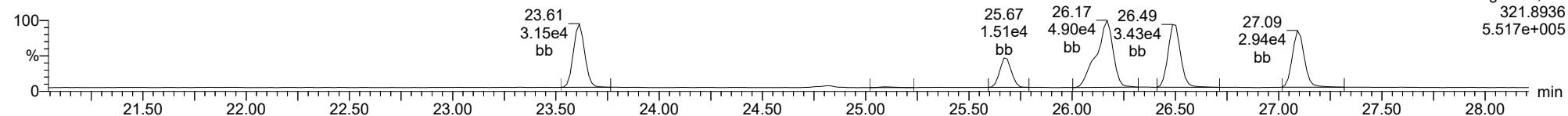
**Total-tetradioxins**

23020733



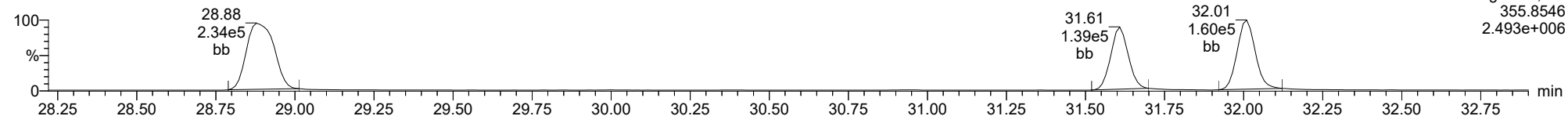
**Total-tetradioxins**

23020733



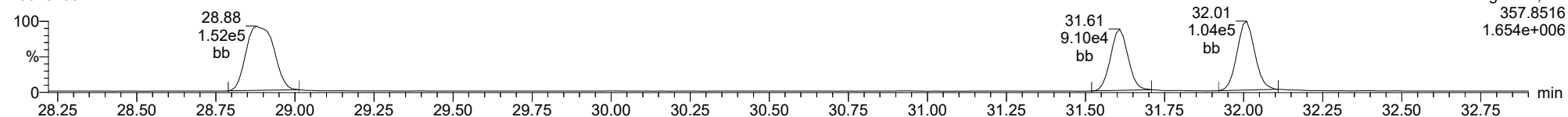
**Total-pentadioxins**

23020733



**Total-pentadioxins**

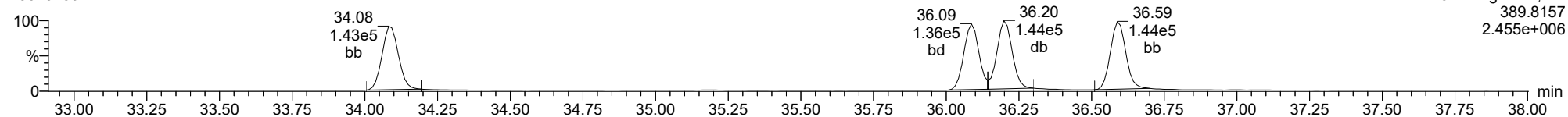
23020733



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

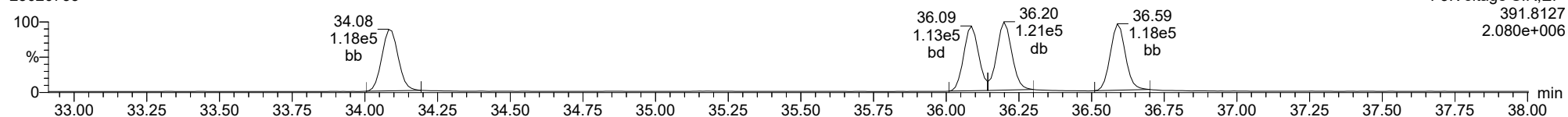
### Total-hexadioxins

23020733



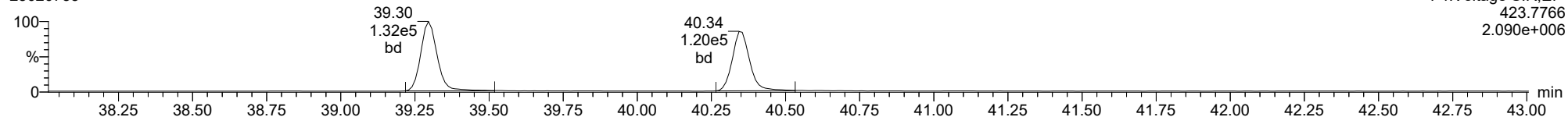
### Total-hexadioxins

23020733



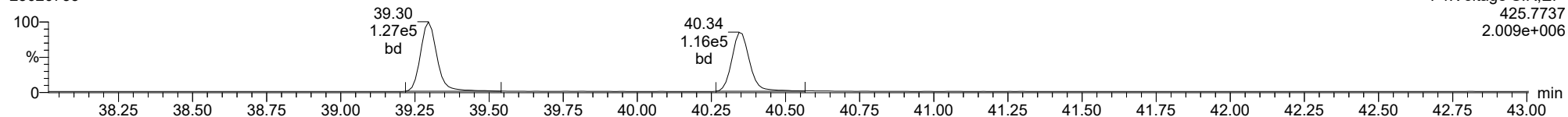
### Total-heptadioxins

23020733



### Total-heptadioxins

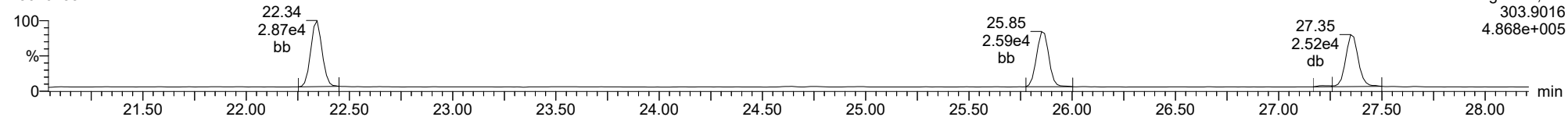
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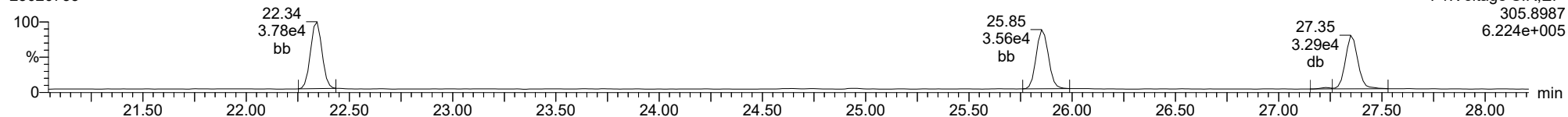
**Total-tetrafurans**

23020733



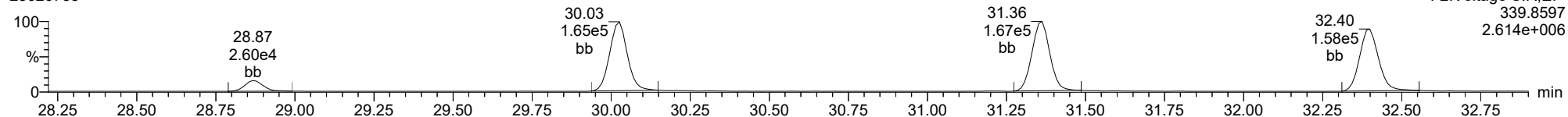
**Total-tetrafurans**

23020733



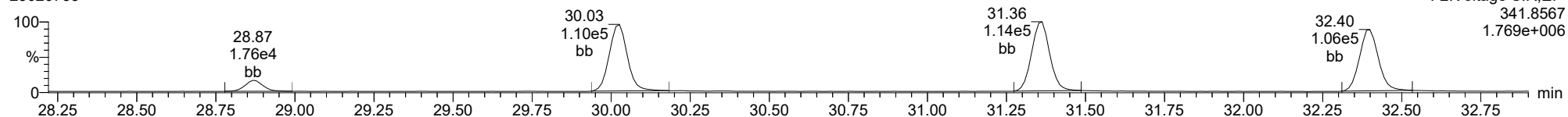
**Total-pentafurans**

23020733



**Total-pentafurans**

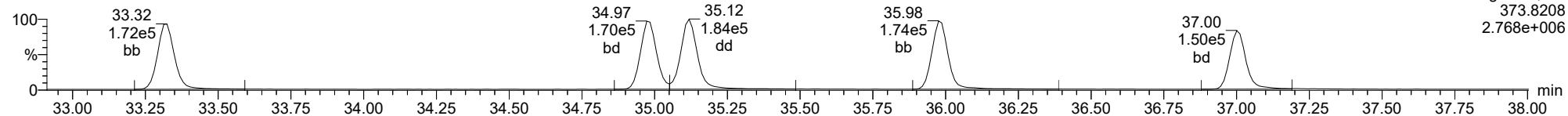
23020733



ID: CS3T4, Name: 23020733, Date: 08-Feb-2023, Time: 11:35:35, Conditions: AUTOSPEC01, User: pk

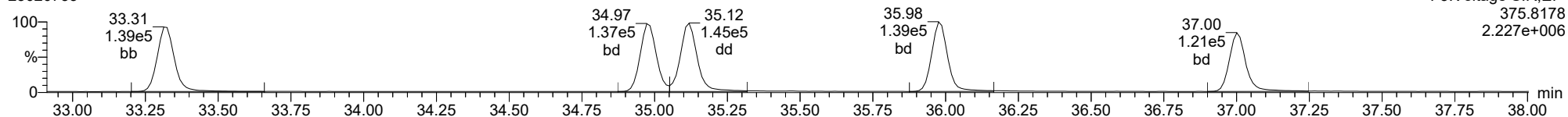
**Total-hexafurans**

23020733



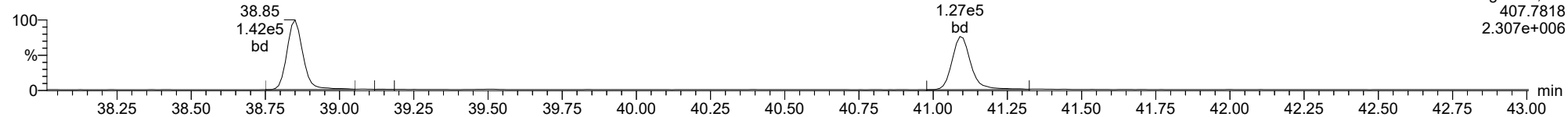
**Total-hexafurans**

23020733



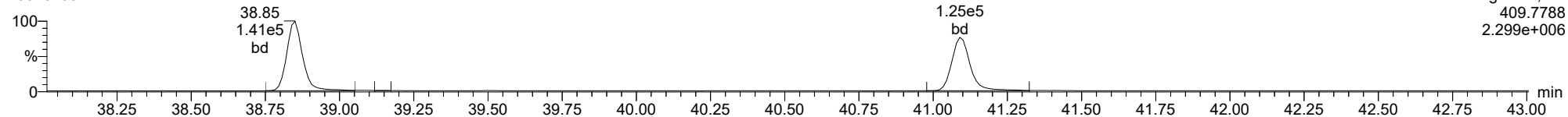
**Total-heptafurans**

23020733

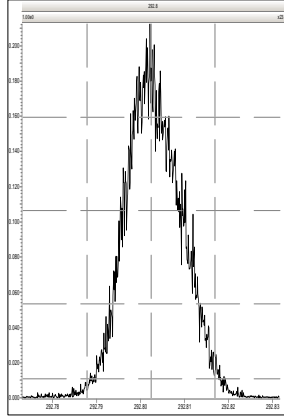


**Total-heptafurans**

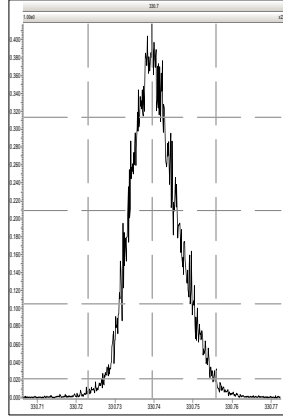
23020733



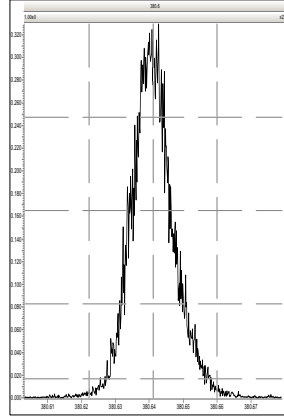
M 292.9824 R 10224



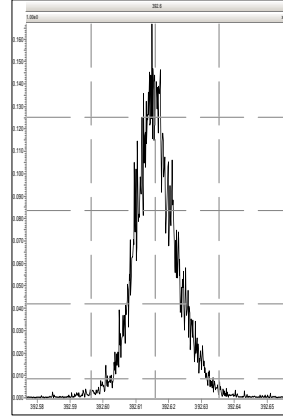
M 330.9792 R 11576



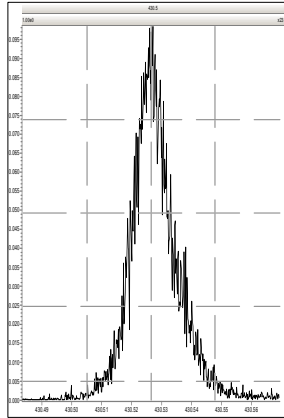
M 380.9760 R 13021



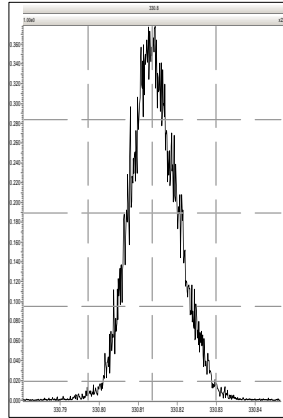
M 392.9760 R 13444



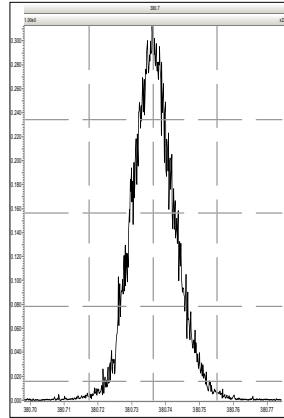
M 430.9728 R 12855



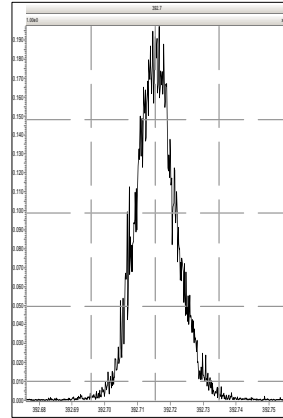
M 330.9792 R 11991



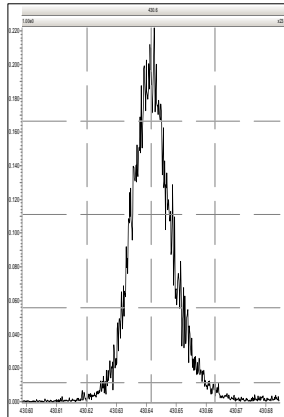
M 380.9760 R 13404



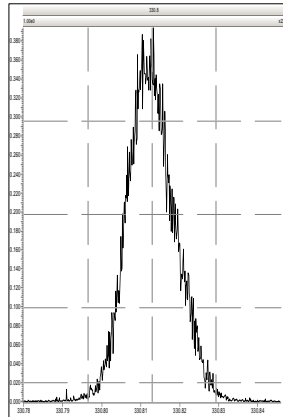
M 392.9760 R 13812



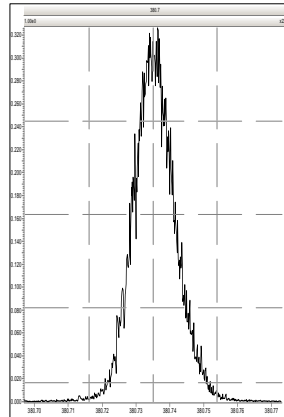
M 430.9728 R 13930



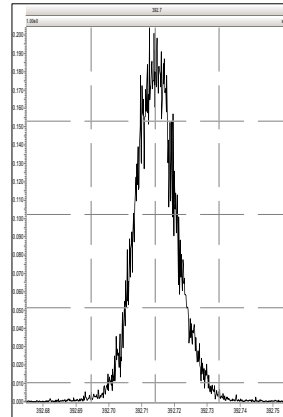
M 330.9792 R 12107



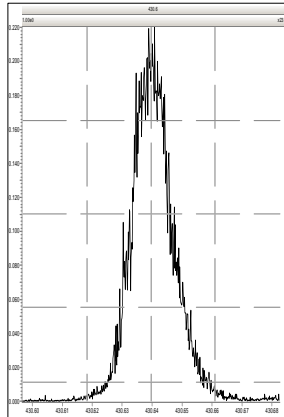
M 380.9760 R 13635



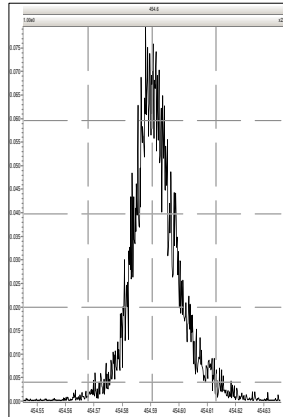
M 392.9760 R 13527



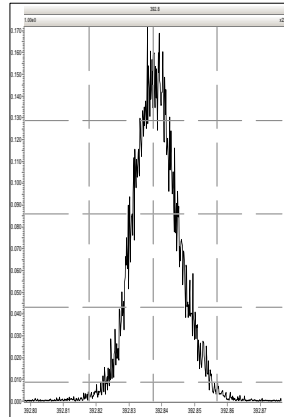
M 430.9728 R 13550



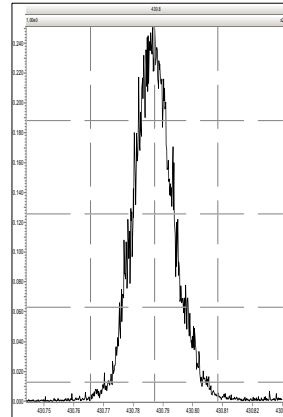
M 454.9728 R 12732



M 392.9760 R 12987



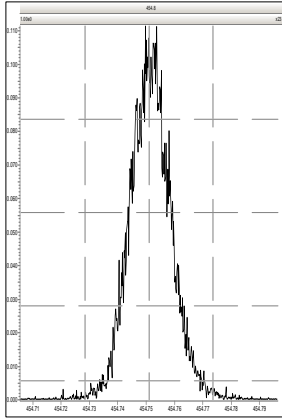
M 430.9728 R 14173



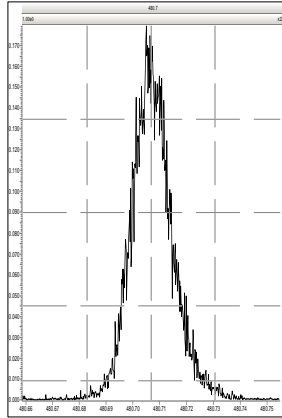


Printed: Wednesday, February 08, 2023 12:29:37 Pacific Standard Time

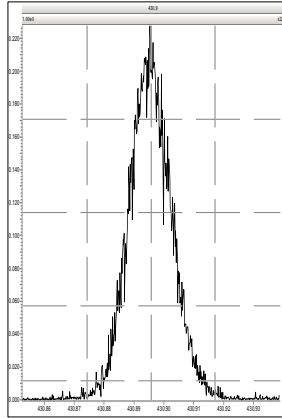
M 454.9728 R 14584



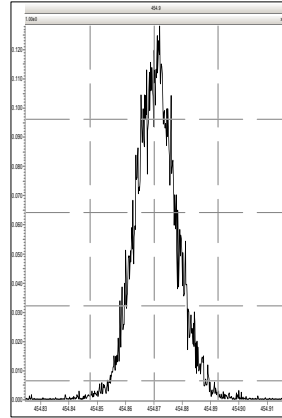
M 480.9696 R 13626



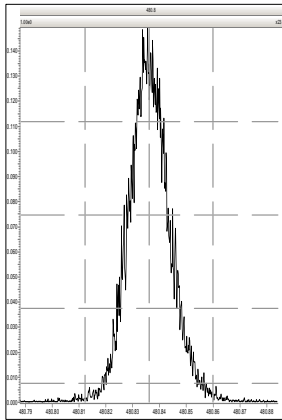
M 430.9728 R 13742



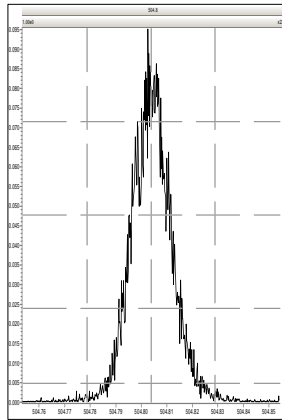
M 454.9728 R 13520



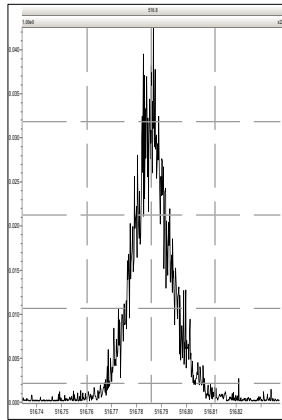
M 480.9696 R 13737



M 504.9696 R 13664



M 516.9697 R 13626

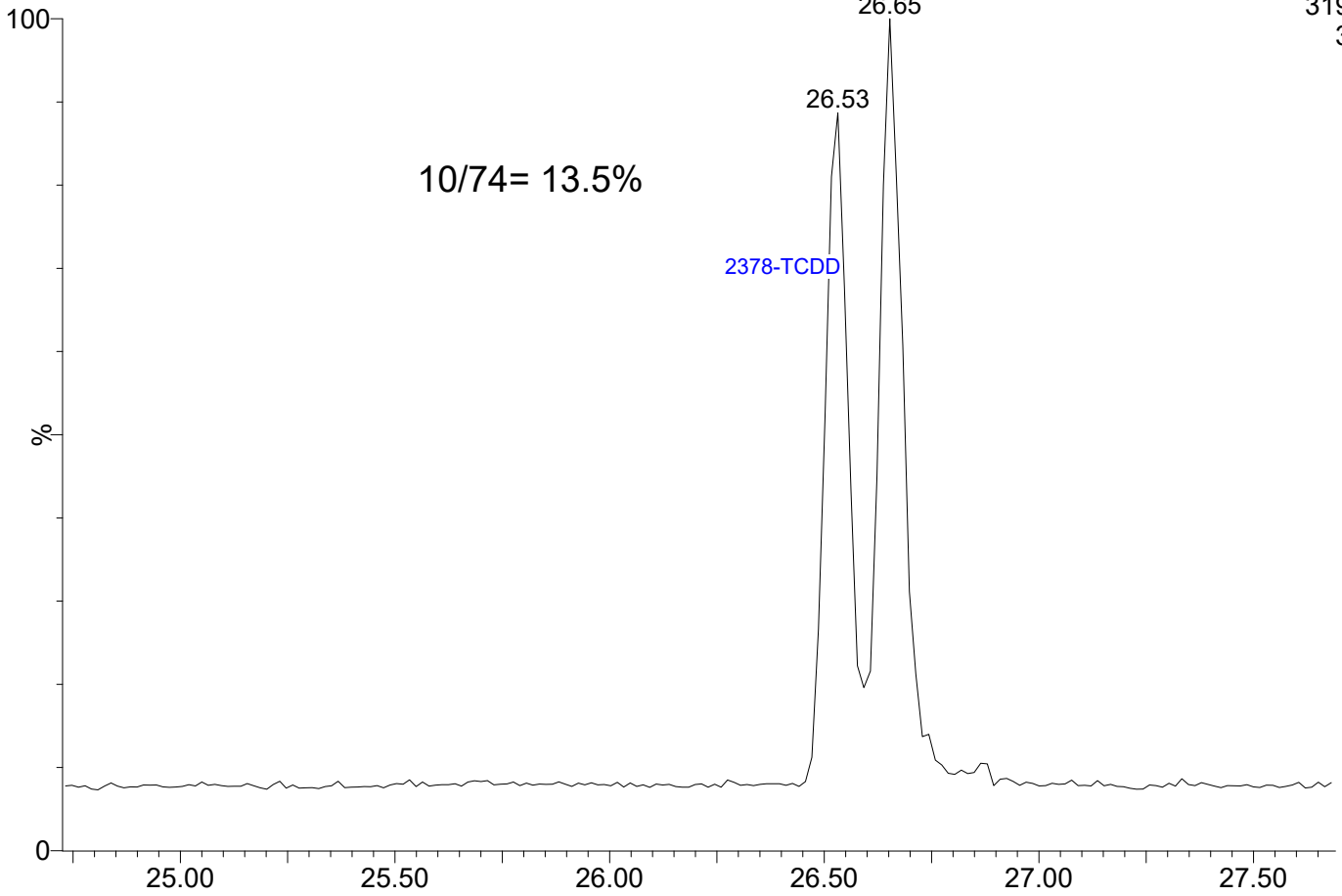


23020734

1: Voltage SIR 15 Channels EI+

319.8965

3.90e5

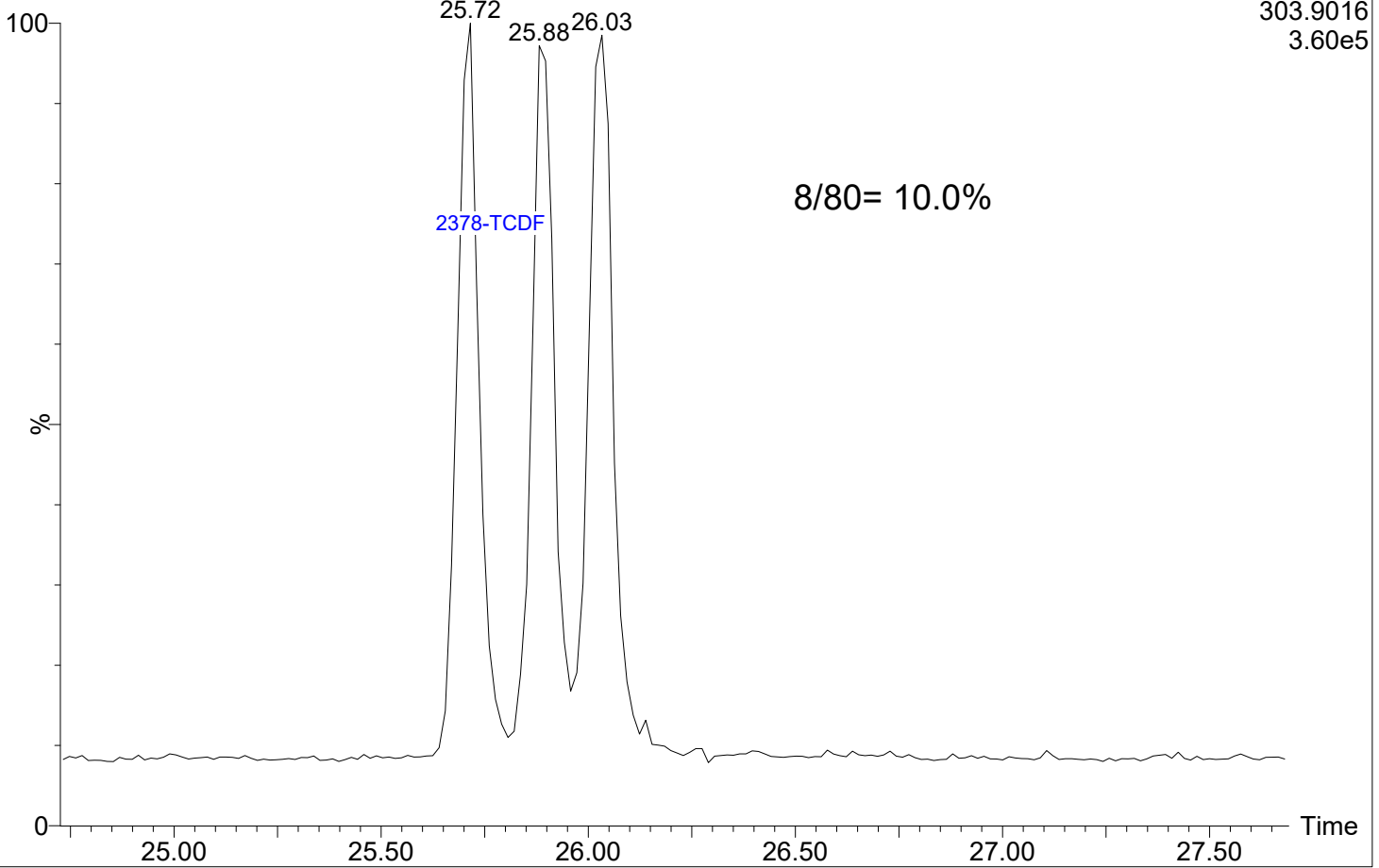


23020734

1: Voltage SIR 15 Channels EI+

303.9016

3.60e5





**CDD/CDF CHROMATOGRAPHIC  
RESOLUTION SUMMARY  
EPA 1613B**

Lab Name: Analytical Resources, LLC SDG: 22L0307  
 Instrument .ID: AUTOSPEC01 Lab File ID: 23020103  
 Date Analyzed: 02/01/23 Time Analyzed: 13:02  
 Lab Sample ID: SLB0026-RES1 Sequence: SLB0026

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 10.3

3467-TCDF/2378-TCDF: 10

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLB0026-ICV1	CS3R1	23020102	02/01/2023	10:37
SLB0026-RES1	ISCR1	23020103	02/01/2023	13:02
SLB0026-CAL1	CSLCR	23020104	02/01/2023	14:39
SLB0026-CAL2	CS1CR	23020105	02/01/2023	15:28
SLB0026-CAL3	CS2CR	23020106	02/01/2023	17:07
SLB0026-CAL4	CS3CR	23020107	02/01/2023	17:56
SLB0026-CAL5	CS4CR	23020108	02/01/2023	18:45
SLB0026-CAL6	CS5CR	23020109	02/01/2023	19:34
SLB0026-SCV1	ICVCR	23020110	02/01/2023	20:23
SLB0026-CCV1	CS3R2	23020111	02/01/2023	21:12
SLB0026-RES2	ISCR2	23020112	02/01/2023	22:06





**CDD/CDF CHROMATOGRAPHIC  
RESOLUTION SUMMARY  
EPA 1613B**

Lab Name: Analytical Resources, LLC SDG: 22L0307  
Instrument .ID: AUTOSPEC01 Lab File ID: 23020703  
Date Analyzed: 02/07/23 Time Analyzed: 10:20  
Lab Sample ID: SLB0072-RES1 Sequence: SLB0072

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 11.4

3467-TCDF/2378-TCDF: 9.9

Quality Control (QC) Limits:  $\leq 25\%$

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLB0072-ICV1	CS3T1	23020702	02/07/2023	09:25
SLB0072-RES1	ISCT1	23020703	02/07/2023	10:20
SLB0072-CCV1	CS3T2	23020712	02/07/2023	18:03
SLB0072-RES2	ISCT2	23020713	02/07/2023	18:57
SLB0072-CCV2	CS3T3	23020721	02/08/2023	01:35
SLB0072-RES3	ISCT3	23020722	02/08/2023	02:29
BKL0420-BLK1	Blank	23020723	02/08/2023	03:21
BKL0420-BS1	LCS	23020724	02/08/2023	04:10
BKL0420-SRM1	Reference	23020725	02/08/2023	04:59
BKL0420-DUP1	Duplicate	23020726	02/08/2023	05:49
22L0307-29	LDW22-IT808A	23020727	02/08/2023	06:38
22L0307-30	LDW22-IT808B	23020728	02/08/2023	07:28
22L0307-31	LDW22-IT808C	23020729	02/08/2023	08:17
22L0307-32	LDW22-IT808D	23020730	02/08/2023	09:07
22L0307-33	LDW22-IT808E	23020731	02/08/2023	09:56
22L0307-34	LDW22-IT808F	23020732	02/08/2023	10:46
SLB0072-CCV3	CS3T4	23020733	02/08/2023	11:35







## ANALYSIS BATCH (SEQUENCE) SUMMARY

### EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SLB0026

Instrument: AUTOSPEC01

Calibration: GB00010

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3R1	SLB0026-ICV1	23020102	NA	02/01/23 10:37
ISCR1	SLB0026-RES1	23020103	NA	02/01/23 13:02
CSLCR	SLB0026-CAL1	23020104	NA	02/01/23 14:39
CS1CR	SLB0026-CAL2	23020105	NA	02/01/23 15:28
CS2CR	SLB0026-CAL3	23020106	NA	02/01/23 17:07
CS3CR	SLB0026-CAL4	23020107	NA	02/01/23 17:56
CS4CR	SLB0026-CAL5	23020108	NA	02/01/23 18:45
CS5CR	SLB0026-CAL6	23020109	NA	02/01/23 19:34
ICVCR	SLB0026-SCV1	23020110	NA	02/01/23 20:23
CS3R2	SLB0026-CCV1	23020111	NA	02/01/23 21:12
ISCR2	SLB0026-RES2	23020112	NA	02/01/23 22:06





## ANALYSIS BATCH (SEQUENCE) SUMMARY

### EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SLB0072

Instrument: AUTOSPEC01

Calibration: GB00010

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3T1	SLB0072-ICV1	23020702	NA	02/07/23 09:25
ISCT1	SLB0072-RES1	23020703	NA	02/07/23 10:20
CS3T2	SLB0072-CCV1	23020712	NA	02/07/23 18:03
ISCT2	SLB0072-RES2	23020713	NA	02/07/23 18:57
CS3T3	SLB0072-CCV2	23020721	NA	02/08/23 01:35
ISCT3	SLB0072-RES3	23020722	NA	02/08/23 02:29
Blank	BKL0420-BLK1	23020723	Solid	02/08/23 03:21
LCS	BKL0420-BS1	23020724	Solid	02/08/23 04:10
Reference	BKL0420-SRM1	23020725	Solid	02/08/23 04:59
LDW22-IT808A	BKL0420-DUP1	23020726	Solid	02/08/23 05:49
LDW22-IT808A	22L0307-29	23020727	Solid	02/08/23 06:38
LDW22-IT808B	22L0307-30	23020728	Solid	02/08/23 07:28
LDW22-IT808C	22L0307-31	23020729	Solid	02/08/23 08:17
LDW22-IT808D	22L0307-32	23020730	Solid	02/08/23 09:07
LDW22-IT808E	22L0307-33	23020731	Solid	02/08/23 09:56
LDW22-IT808F	22L0307-34	23020732	Solid	02/08/23 10:46
CS3T4	SLB0072-CCV3	23020733	NA	02/08/23 11:35













**SURROGATE RECOVERY AND RT SUMMARY**  
**EPA 1613B**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0307</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Sequence:	<u>SLB0072</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>SLB0072-CCV2</u>	Calibration:	<u>GB00010</u>
File ID:	<u>23020721</u>	Analyzed:	<u>02/08/23 01:35</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	90.4	71 - 129	25.8513	25.87167	-0.0204	N/A	
13C12-2,3,7,8-TCDD	100.00	104	82 - 118	26.4863	26.51423	-0.0279	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	96.0	76 - 124	30.015	30.03173	-0.0167	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	94.8	77 - 123	31.3407	31.36872	-0.0280	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	103	62 - 138	31.5968	31.62498	-0.0282	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	82.8	76 - 124	34.9617	34.9784	-0.0167	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	81.2	70 - 130	35.1065	35.11773	-0.0112	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	84.2	73 - 127	35.9643	35.97562	-0.0113	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	82.9	74 - 126	36.9893	37.00233	-0.0130	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	92.3	85 - 115	36.0758	36.09812	-0.0223	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	90.7	85 - 115	36.1872	36.21508	-0.0279	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	75.3	78 - 122	38.8388	38.84072	-0.0019	N/A	*
13C12-1,2,3,4,7,8,9-HpCDF	100.00	77.6	77 - 123	41.0783	41.09488	-0.0166	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	84.6	72 - 128	40.3318	40.3447	-0.0129	N/A	
13C12-OCDD	200.00	79.6	48 - 152	45.1108	45.10738	0.0034	N/A	
37C14-2,3,7,8-TCDD	10.000	91.0	0 - 200	26.5015	26.53683	-0.0353	N/A	

\* Values outside of QC limits



**SURROGATE RECOVERY AND RT SUMMARY**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC Project: AOC4 UR Phase 3  
 Sequence: SLB0072 Instrument: AUTOSPEC01  
 Sample ID: BKL0420-BLK1 Calibration: GB00010  
 File ID: 23020723 Analyzed: 02/08/23 03:21

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.60	97.6	24 - 169	25.8667	25.87167	-0.0050	N/A	
13C12-2,3,7,8-TCDD	199.60	113	25 - 164	26.5018	26.51423	-0.0124	N/A	
13C12-1,2,3,7,8-PeCDF	199.60	101	24 - 185	30.0265	30.03173	-0.0052	N/A	
13C12-2,3,4,7,8-PeCDF	199.60	97.3	21 - 178	31.3635	31.36872	-0.0052	N/A	
13C12-1,2,3,7,8-PeCDD	199.60	108	25 - 181	31.6085	31.62498	-0.0165	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.60	104	26 - 152	34.9732	34.9784	-0.0052	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.60	106	26 - 123	35.118	35.11773	0.0003	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.60	101	28 - 136	35.9758	35.97562	0.0002	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.60	96.4	29 - 147	37.0007	37.00233	-0.0016	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.60	113	32 - 141	36.0872	36.09812	-0.0109	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.60	115	28 - 130	36.1987	36.21508	-0.0164	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.60	89.3	28 - 143	38.8502	38.84072	0.0095	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.60	90.3	26 - 138	41.0893	41.09488	-0.0056	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.60	98.9	23 - 140	40.343	40.3447	-0.0017	N/A	
13C12-OCDD	399.20	87.3	17 - 157	45.1198	45.10738	0.0124	N/A	
37C14-2,3,7,8-TCDD	79.840	98.4	35 - 197	26.5168	26.53683	-0.0200	N/A	

\* Values outside of QC limits

























**SURROGATE RECOVERY AND RT SUMMARY**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC SDG: 22L0307  
 Client: Anchor QEA, LLC Project: AOC4 UR Phase 3  
 Sequence: SLB0072 Instrument: AUTOSPEC01  
 Sample ID: SLB0072-CCV3 Calibration: GB00010  
 File ID: 23020733 Analyzed: 02/08/23 11:35

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	90.3	71 - 129	25.8363	25.87167	-0.0354	N/A	
13C12-2,3,7,8-TCDD	100.00	103	82 - 118	26.4713	26.51423	-0.0429	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	98.3	76 - 124	30.004	30.03173	-0.0277	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	95.8	77 - 123	31.341	31.36872	-0.0277	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	102	62 - 138	31.586	31.62498	-0.0390	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	85.7	76 - 124	34.962	34.9784	-0.0164	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	87.9	70 - 130	35.0957	35.11773	-0.0220	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	87.1	73 - 127	35.9645	35.97562	-0.0111	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	85.1	74 - 126	36.9897	37.00233	-0.0126	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	101	85 - 115	36.076	36.09812	-0.0221	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	98.7	85 - 115	36.1875	36.21508	-0.0276	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	81.2	78 - 122	38.839	38.84072	-0.0017	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	84.1	77 - 123	41.0785	41.09488	-0.0164	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	90.4	72 - 128	40.332	40.3447	-0.0127	N/A	
13C12-OCDD	200.00	85.6	48 - 152	45.1108	45.10738	0.0034	N/A	
37C14-2,3,7,8-TCDD	10.000	89.0	0 - 200	26.4865	26.53683	-0.0503	N/A	

\* Values outside of QC limits



## HOLDING TIME SUMMARY

**Analysis: EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

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
LDW22-IT808A 22L0307-29	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 06:38	43	365	*
LDW22-IT808B 22L0307-30	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 07:28	43	365	*
LDW22-IT808C 22L0307-31	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 08:17	43	365	*
LDW22-IT808D 22L0307-32	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 09:07	43	365	*
LDW22-IT808E 22L0307-33	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 09:56	43	365	*
LDW22-IT808F 22L0307-34	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 10:46	43	365	*
Duplicate BKL0420-DUP1	12/12/22 09:46	12/12/22 16:42	12/27/22 14:20	15	14	02/08/23 05:49	43	365	*

\* Indicates hold time exceedance.



**METHOD DETECTION  
AND REPORTING LIMITS**  
**EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.058	1.00	ng/kg
2,3,7,8-TCDD	0.150	1.00	ng/kg
1,2,3,7,8-PeCDF	0.240	1.00	ng/kg
2,3,4,7,8-PeCDF	0.220	1.00	ng/kg
1,2,3,7,8-PeCDD	0.170	1.00	ng/kg
1,2,3,4,7,8-HxCDF	0.280	1.00	ng/kg
1,2,3,6,7,8-HxCDF	0.200	1.00	ng/kg
2,3,4,6,7,8-HxCDF	0.170	1.00	ng/kg
1,2,3,7,8,9-HxCDF	0.190	1.00	ng/kg
1,2,3,4,7,8-HxCDD	0.170	1.00	ng/kg
1,2,3,6,7,8-HxCDD	0.180	1.00	ng/kg
1,2,3,7,8,9-HxCDD	0.220	1.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.210	1.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.240	1.00	ng/kg
1,2,3,4,6,7,8-HpCDD	0.560	2.50	ng/kg
OCDF	1.10	2.50	ng/kg
OCDD	4.60	10.0	ng/kg
Total TCDF		1.00	ng/kg
Total TCDD		1.00	ng/kg
Total PeCDF		1.00	ng/kg
Total PeCDD		1.00	ng/kg
Total HxCDF		1.00	ng/kg
Total HxCDD		1.00	ng/kg
Total HpCDF		1.00	ng/kg
Total HpCDD		1.00	ng/kg



**CS3WT**

**Calibration and Verification Solution (EPA-1613CS3)  
combined with Window Defining and 2,3,7,8-TCDD  
Resolution Testing Congeners**

**PRODUCT CODE:** CS3WT  
**LOT NUMBER:** CS3WT0918  
**SOLVENT(S):** Nonane/Toluene  
**DATE PREPARED:** (mm/dd/yyyy) 10/24/2018  
**LAST TESTED:** (mm/dd/yyyy) 10/29/2018  
**EXPIRY DATE:** (mm/dd/yyyy) 10/29/2025  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

**DESCRIPTION:**

CS3WT is a solution/mixture of native and <sup>13</sup>C<sub>12</sub>-labelled chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

CS3WT was designed and prepared to be used as a HRMS calibration standard according to U.S. EPA Method 1613B.

It is to be used for calibration verification in place of EPA-1613CS3 (Lot: 13CS30918). It also contains the PCDD and PCDF window defining congeners for a DB-5 (or equivalent) capillary column as well as the TCDD isomers required to test and confirm the resolution of 2,3,7,8-TCDD.

The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<b><u>PRODUCT CODE</u></b>	<b><u>LOT NUMBER</u></b>
EPA-1613CS1	13CS10918
EPA-1613CS2	13CS20918
EPA-1613CS3	13CS30918
EPA-1613CS4	13CS40918
EPA-1613CS5	13CS50918
EPA-1613CSL	13CSL0918
EPA-1613CS0.5	13CS0.50918

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations of the Solution/Mixture  
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.
- Only the 2,3,7,8-substituted PCDDs and PCDFs should be used for quantitation. The other congeners (window defining and 2378-TCDD resolution testing) should be considered semi-quantitative (within  $\pm 20\%$  of their design value). Impurities have been identified where possible.

**INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

**HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

**SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

**HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

**UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

**TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

**EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

**LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: CS3WT; Components and Concentrations (ng/ml, in nonane/4.5% toluene)**

**QUANTITATIVE ANALYTES (ng/ml, ±5%)**

**Native PCDDs & PCDFs:**

2,3,7,8-TCDD	10
2,3,7,8-TCDF	10
1,2,3,7,8-PeCDD	50
1,2,3,7,8-PeCDF	50
2,3,4,7,8-PeCDF	50
1,2,3,4,7,8-HxCDD	50
1,2,3,6,7,8-HxCDD	50
1,2,3,7,8,9-HxCDD	50
1,2,3,4,7,8-HxCDF	50
1,2,3,6,7,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	50
1,2,3,4,6,7,8-HpCDD (WD)	50
1,2,3,4,6,7,8-HpCDF (WD)	50
1,2,3,4,7,8,9-HpCDF (WD)	50
OCDD	100
OCDF	100

**Labelled PCDDs & PCDFs:**

<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100
<sup>13</sup> C <sub>12</sub> -OCDD	200

**Cleanup Standard:**

<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	10
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**Internal Standards:**

<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100

**SEMI-QUANTITATIVE ANALYTES (ng/ml, ±20%)**

**Window Definers:\***

1,3,6,8-TCDD	10
1,2,8,9-TCDD	10
1,3,6,8-TCDF	10
1,2,8,9-TCDF	10
1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,8,9-PeCDD	50
1,3,4,6,8-PeCDF	50
1,2,3,8,9-PeCDF	50
1,2,4,6,7,9-HxCDD	50
1,2,3,4,6,8-HxCDF	50
1,2,3,4,6,7,9-HpCDD	50

**2378-TCDD Resolution Testing Isomers:**

1,2,3,4-TCDD	5
1,2,3,7/1,2,3,8-TCDD	5
1,2,3,9-TCDD	10

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\* 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD. Use 1,2,3,4,6,7,9-HpCDD to set window.

\* 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF. Use 1,2,3,4,6,7,8-HpCDF to set window.

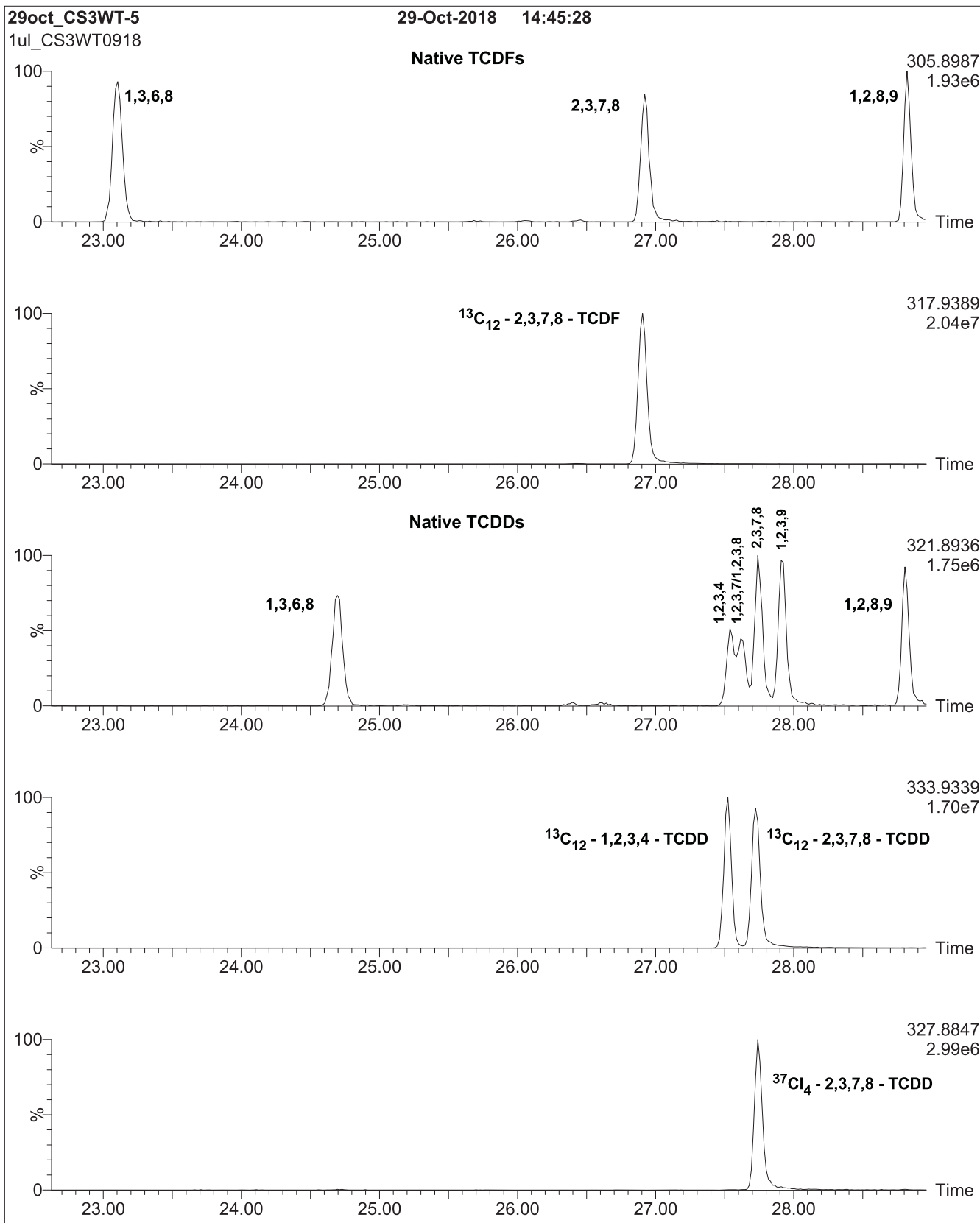
WD – Window Definer

Certified By:   
B.G. Chittim, General Manager

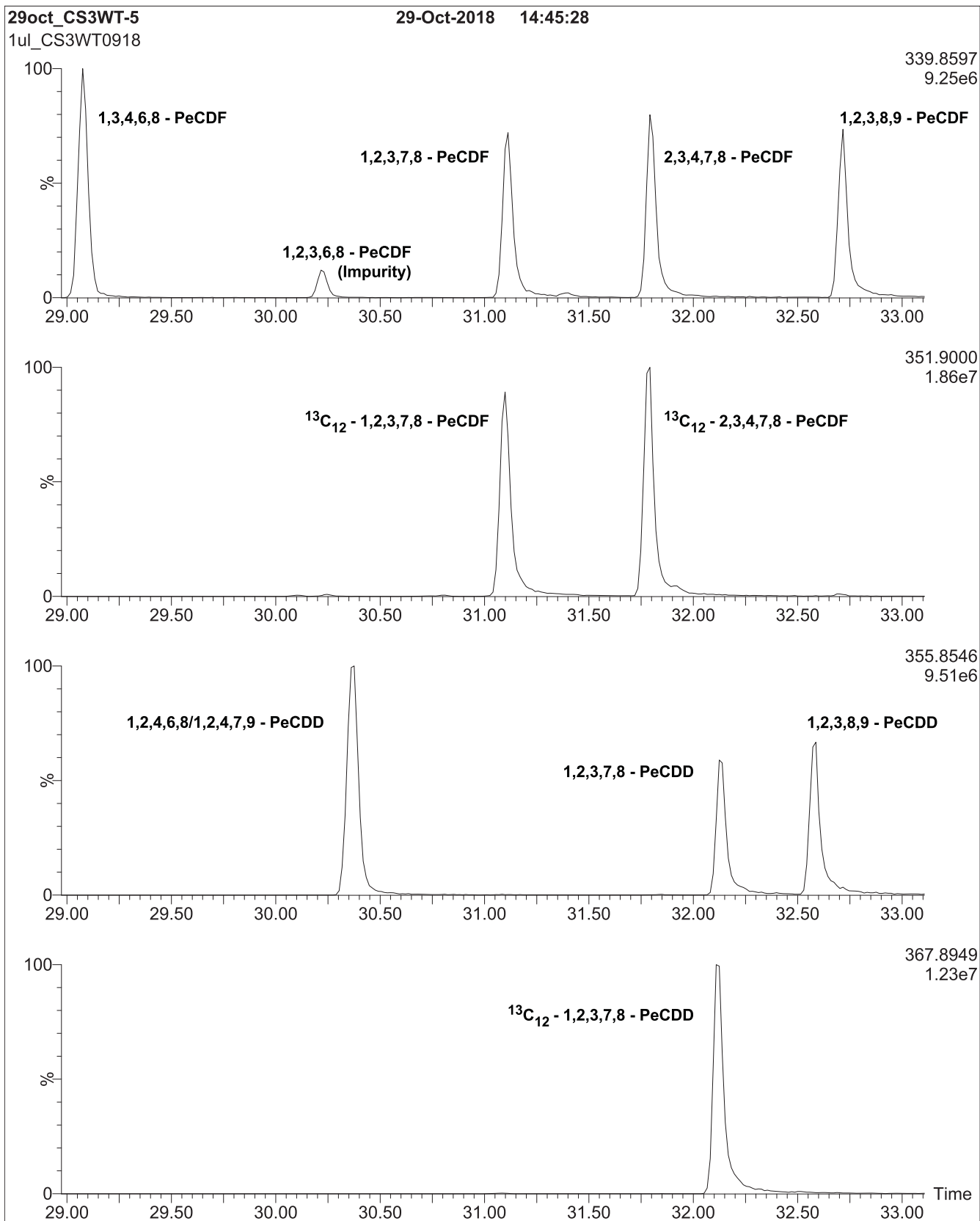
Date: 10/30/2018  
(mm/dd/yyyy)



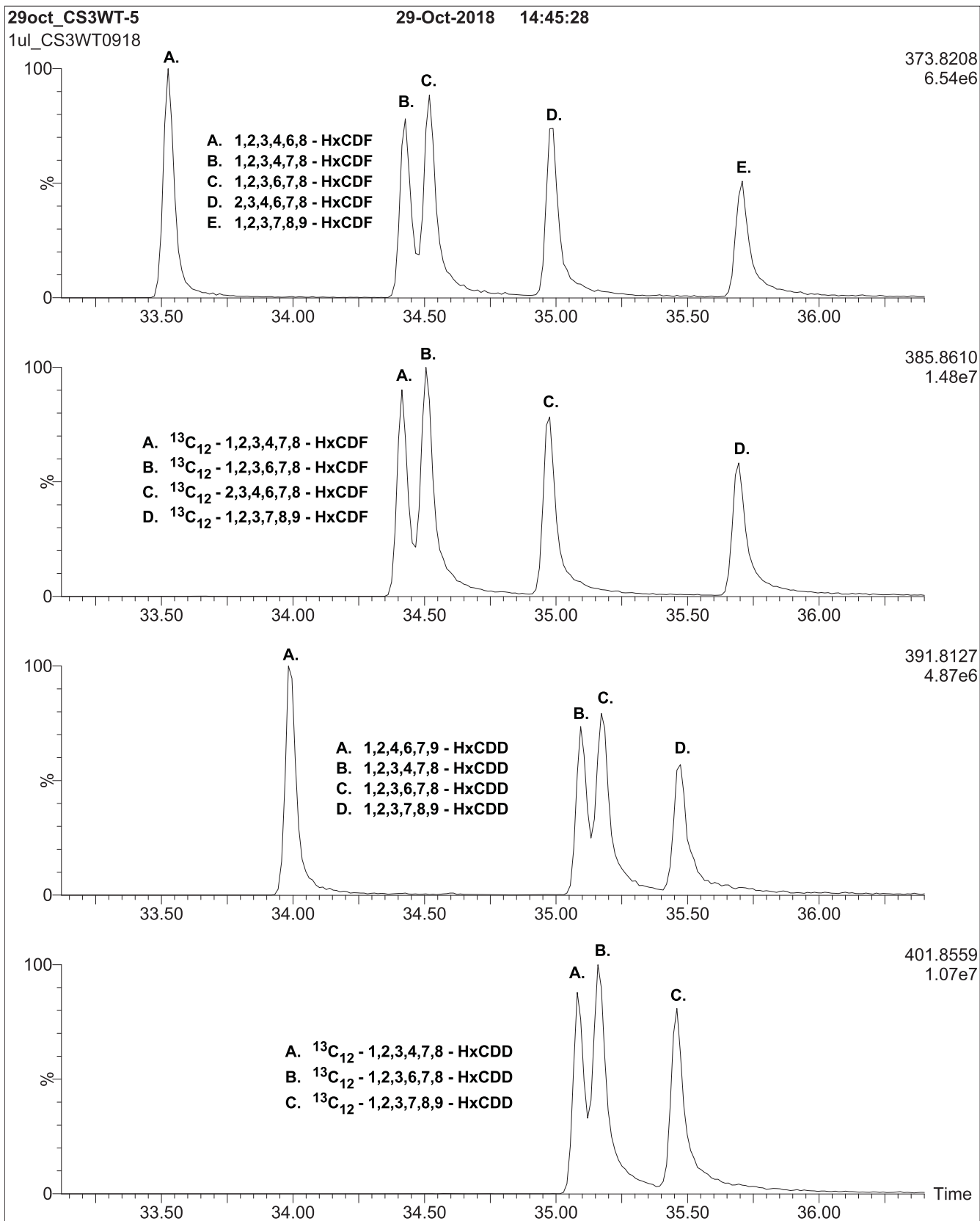
**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



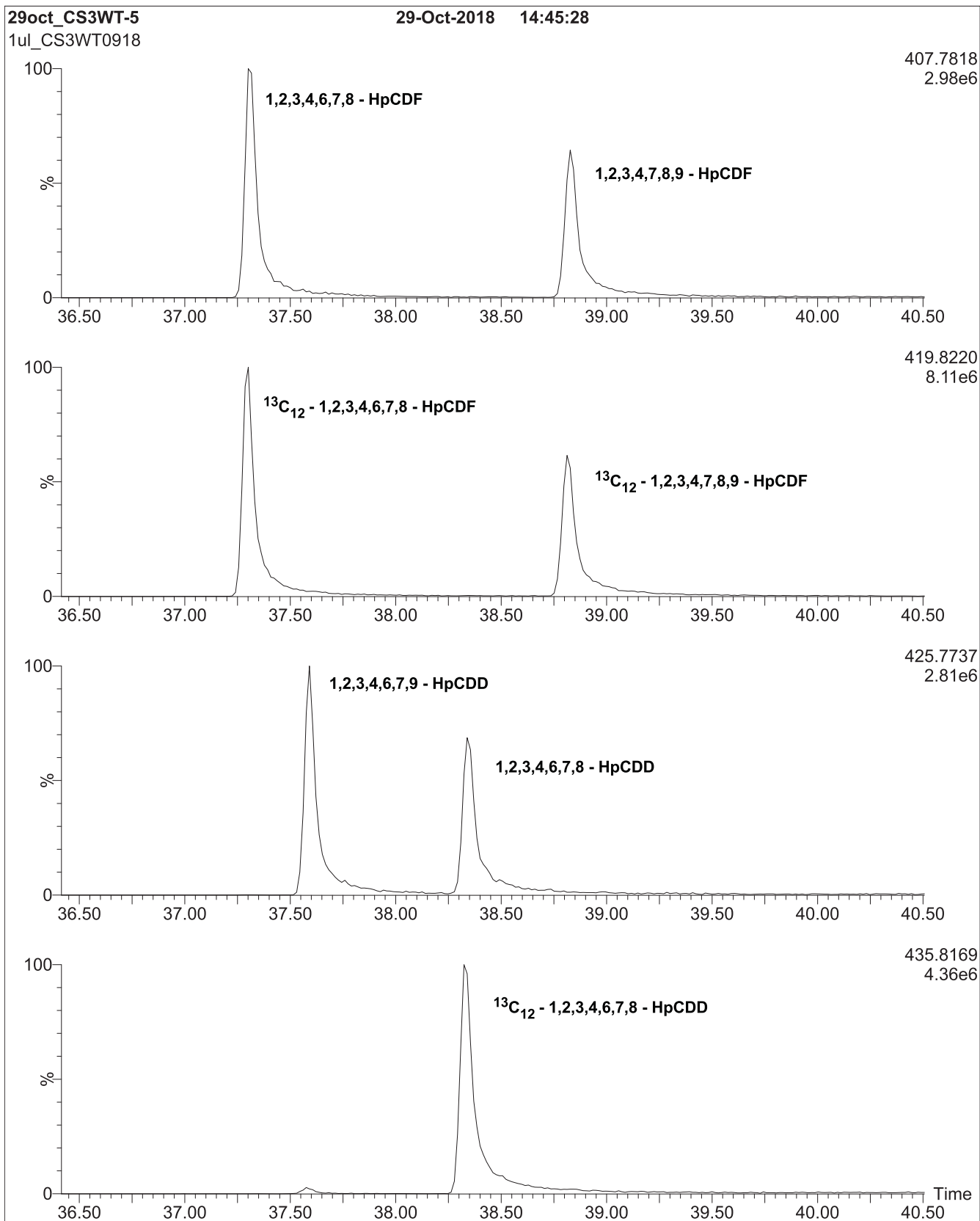
**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



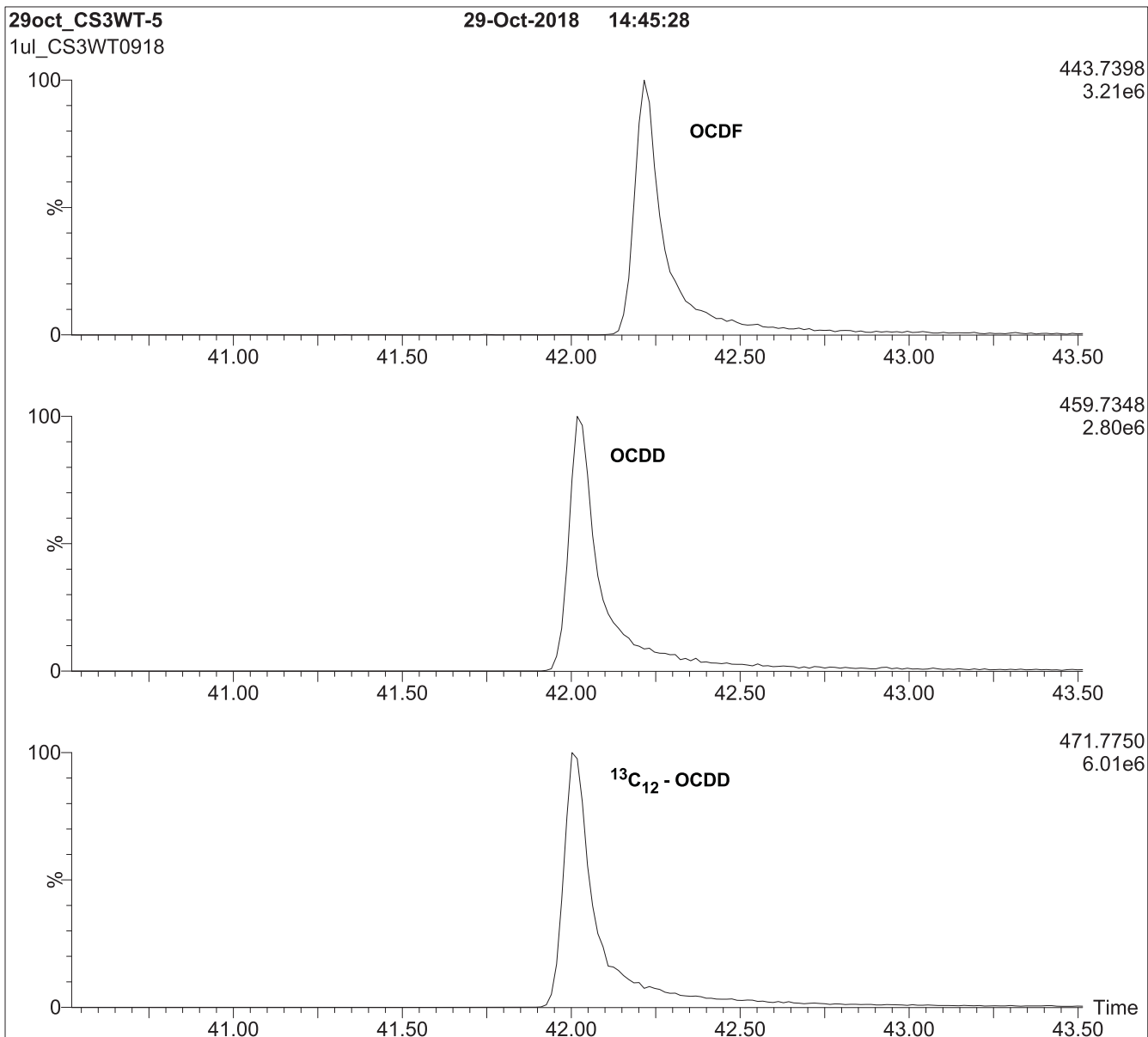
**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



**EPA-1613CVS**

**U.S. EPA Method 1613 Calibration and Verification Solutions  
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<b><u>PRODUCT CODES:</u></b>	EPA-1613CVS	<b><u>LOT NUMBERS:</u></b>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/22/2019
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/24/2019
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/24/2026
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoules in a cool, dark place

<b>I005456</b>
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1613 CS1 CAL STD  
Expires 10/24/2026  
*Prepared By Joshua Rains 6/23/2020*

**DESCRIPTION:**

EPA-1613CVS is a series of 5 calibration solutions containing native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub> and <sup>37</sup>Cl<sub>4</sub>) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
519-822-2436 • Fax: 519-822-2849 • [info@well-labs.com](mailto:info@well-labs.com)

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

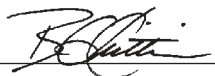


\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*



**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
<b>Native PCDDs and PCDFs:</b>							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
<b>Labelled PCDDs and PCDFs:</b>							
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -OCDD	200	200	200	200	200	200	200
<b>Cleanup Standard:</b>							
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
<b>Internal Standards:</b>							
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:   
B.G. Chittim, General Manager

Date: 10/25/2019  
(mm/dd/yyyy)

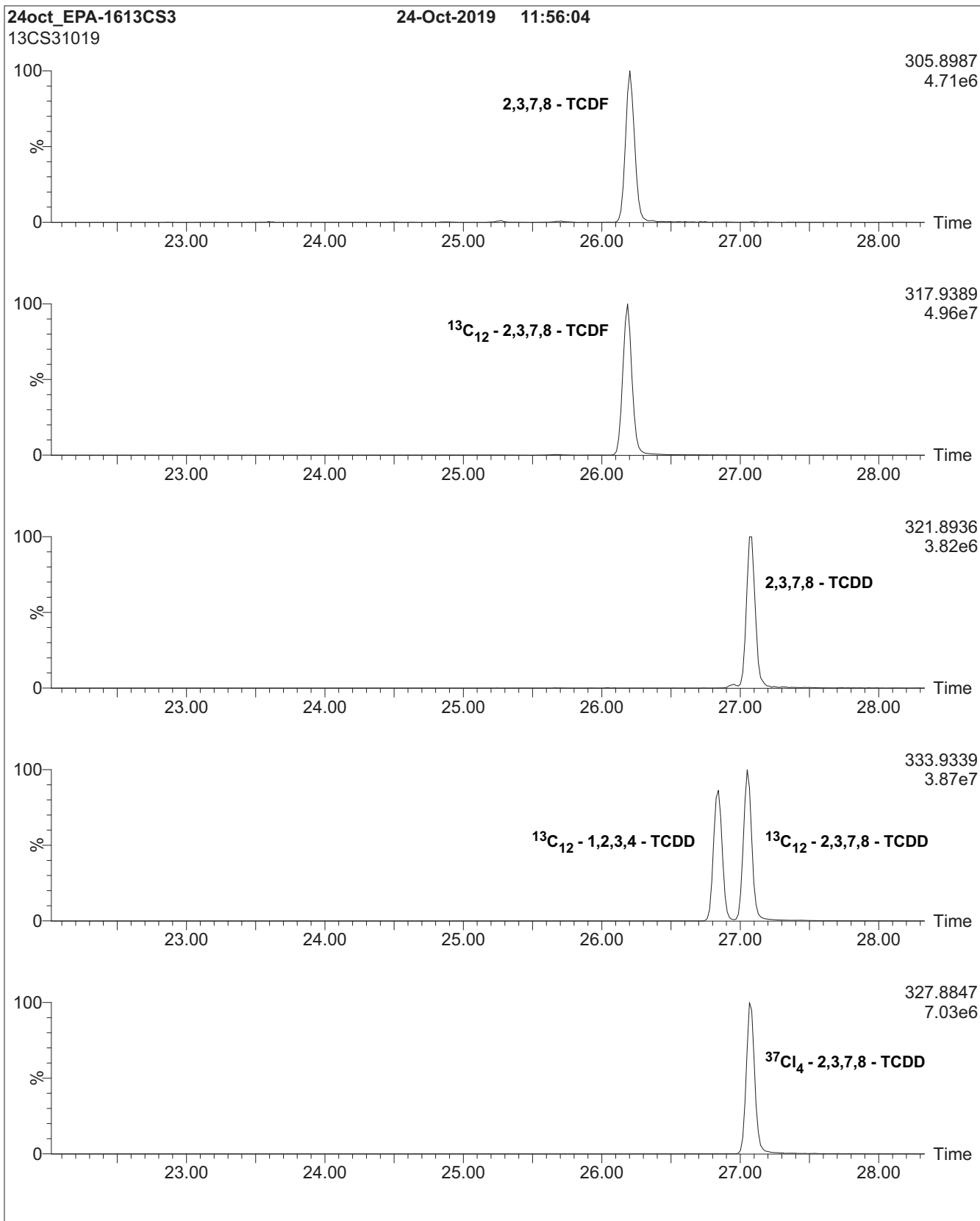
**Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

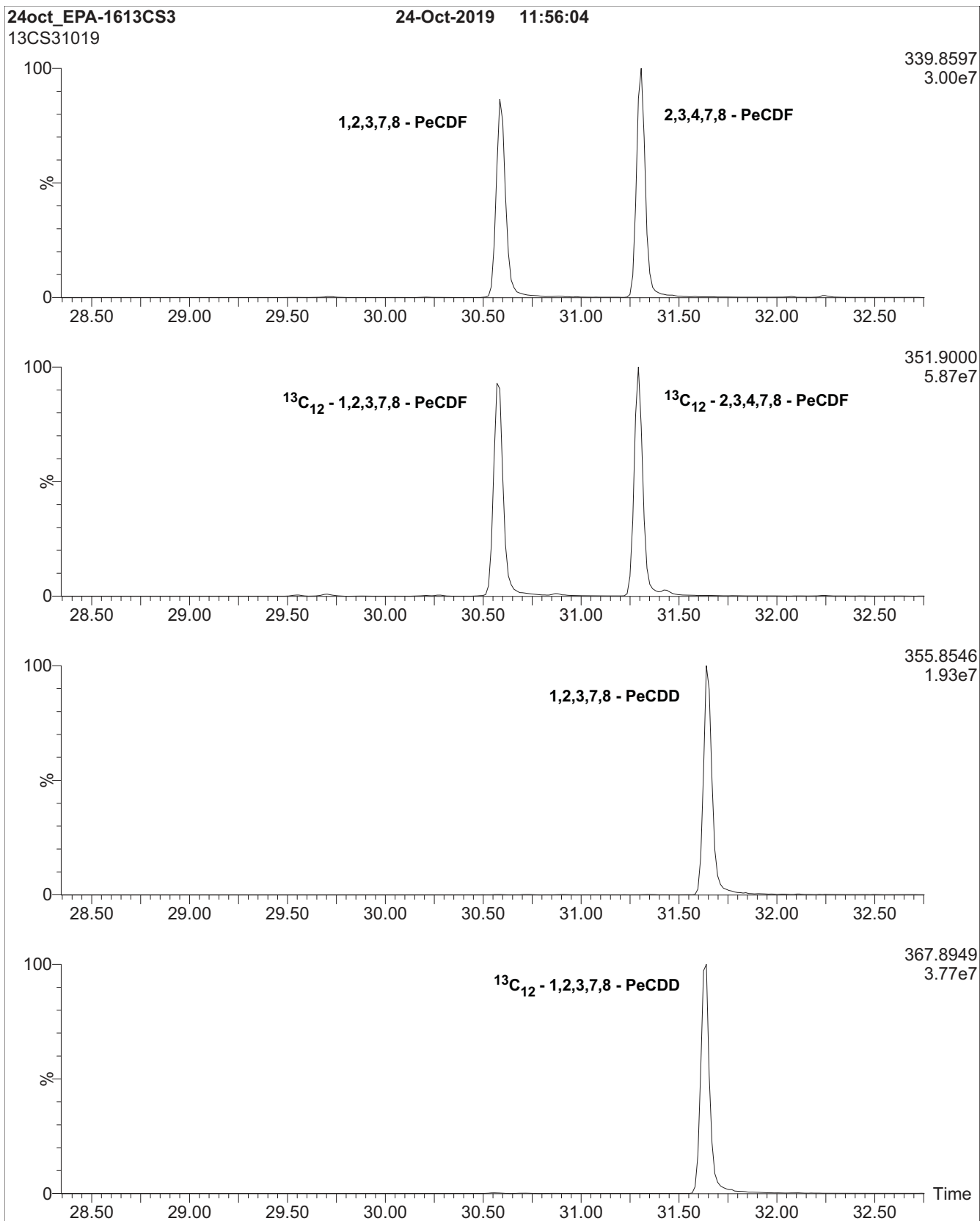
**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

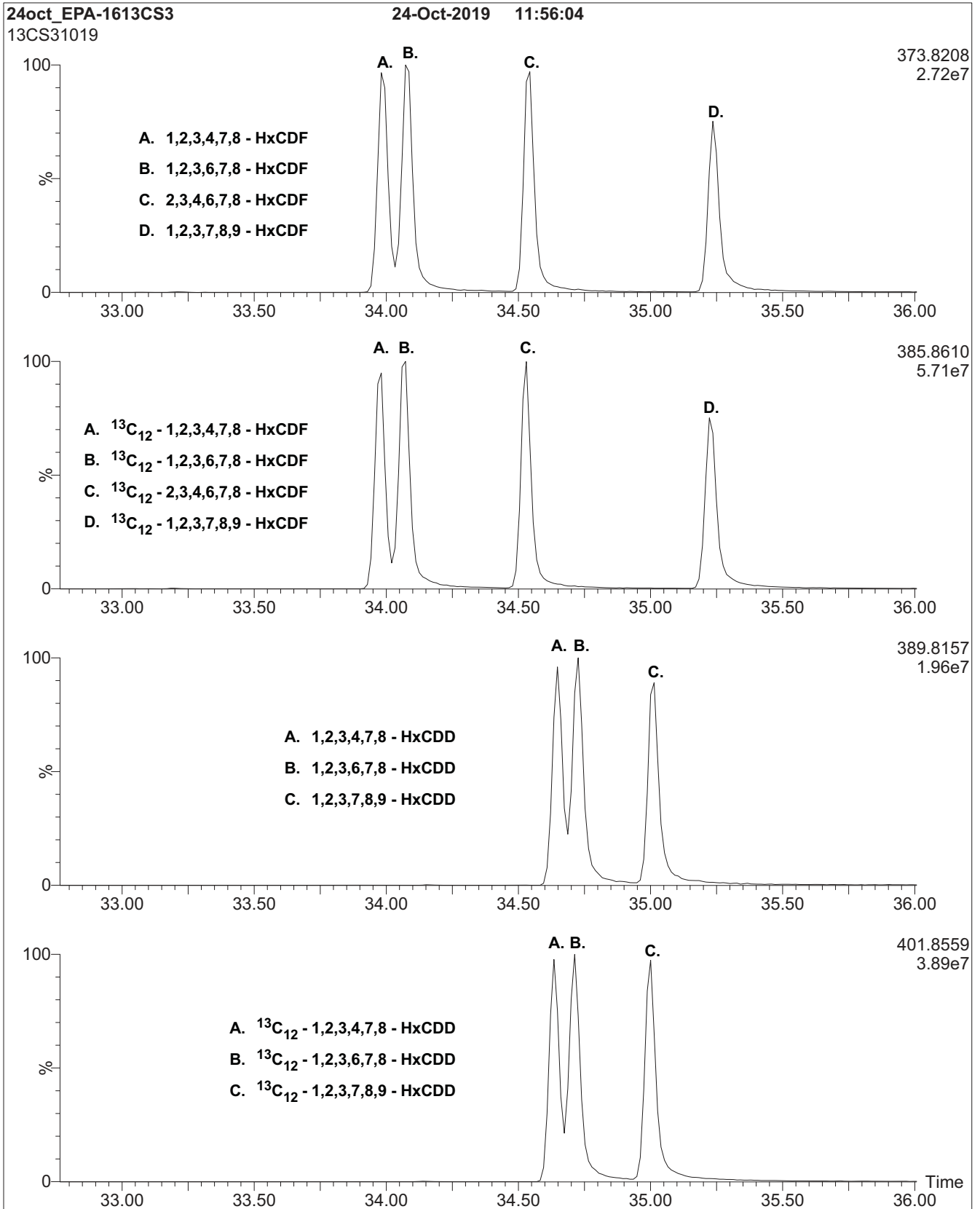
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



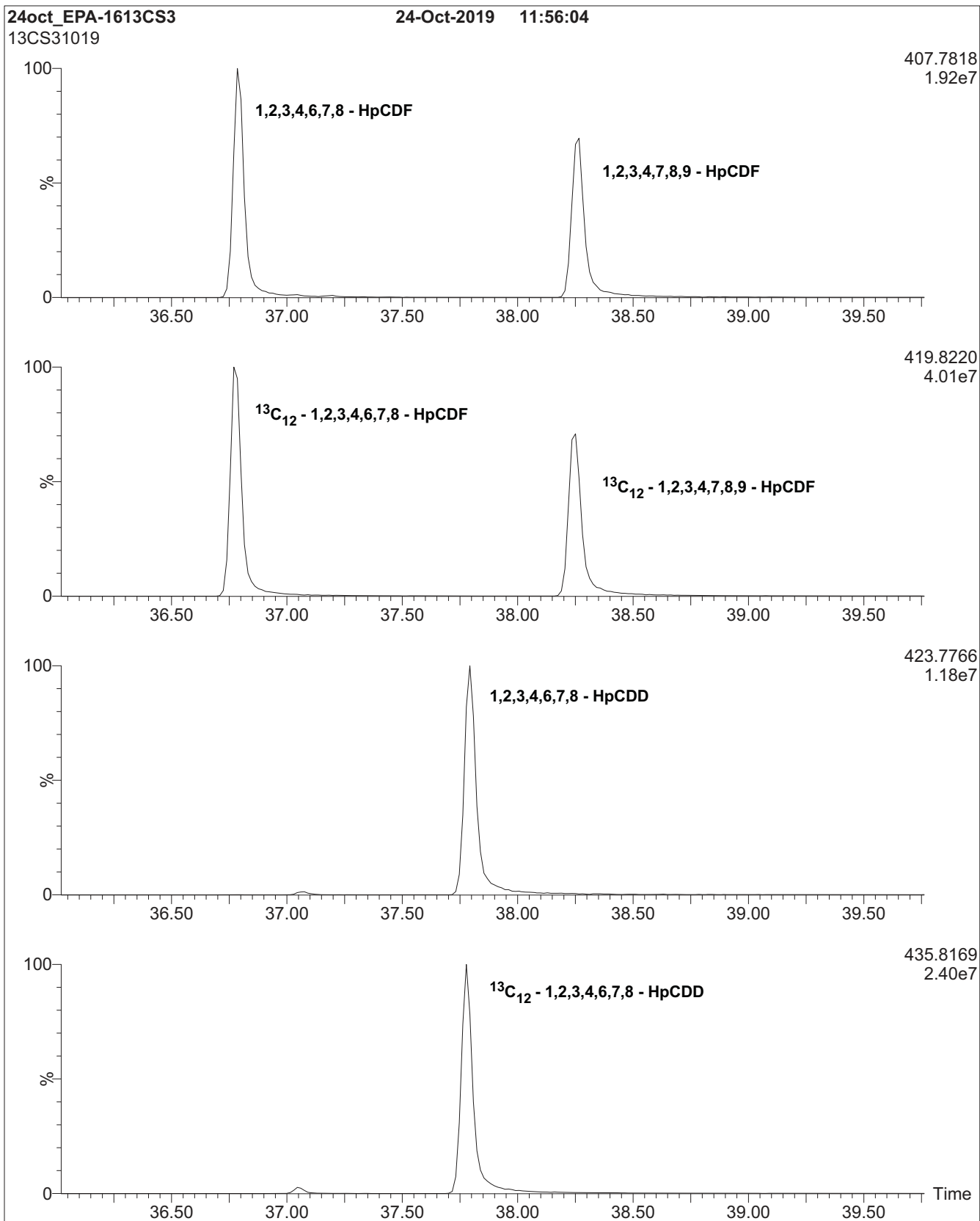
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



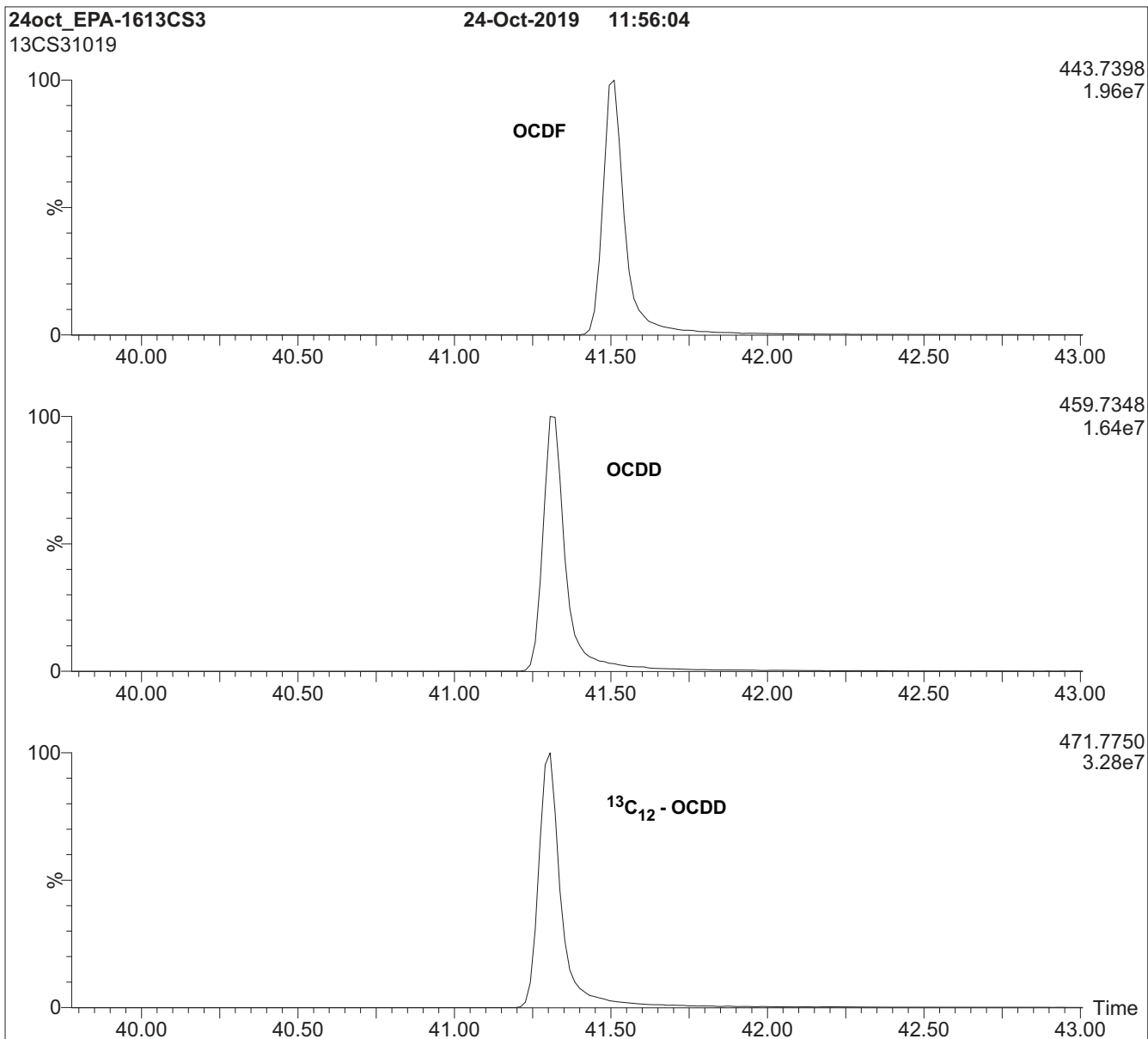
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)





**EPA-1613CVS**

**U.S. EPA Method 1613 Calibration and Verification Solutions  
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<b><u>PRODUCT CODES:</u></b>	EPA-1613CVS	<b><u>LOT NUMBERS:</u></b>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/22/2019
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/24/2019
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/24/2026
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoules in a cool, dark place

<b>1005457</b>
1613 CS2 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

**DESCRIPTION:**

EPA-1613CVS is a series of 5 calibration solutions containing native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub> and <sup>37</sup>Cl<sub>4</sub>) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
<b>Native PCDDs and PCDFs:</b>							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
<b>Labelled PCDDs and PCDFs:</b>							
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -OCDD	200	200	200	200	200	200	200
<b>Cleanup Standard:</b>							
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
<b>Internal Standards:</b>							
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:   
B.G. Chittim, General Manager

Date: 10/25/2019  
(mm/dd/yyyy)

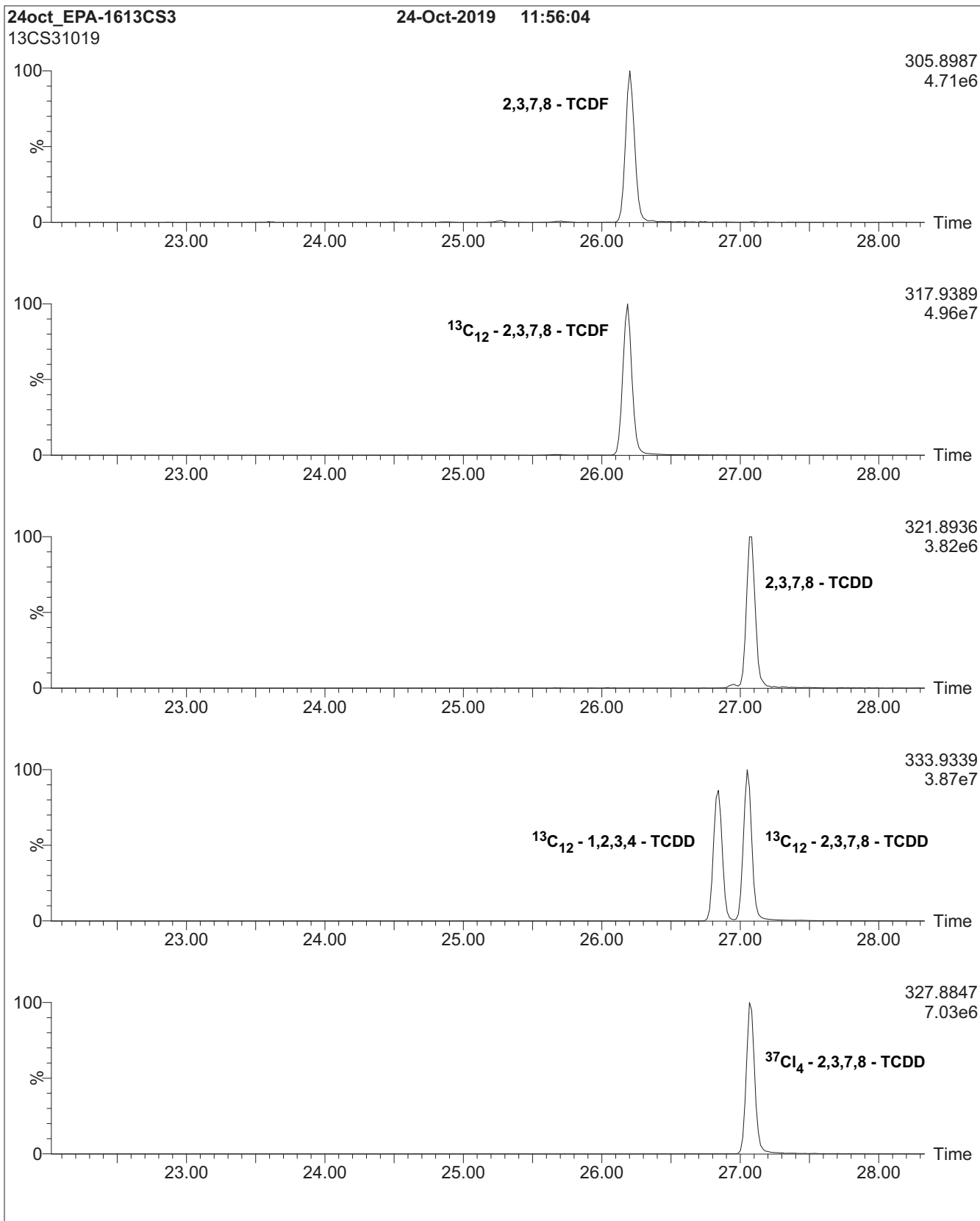
**Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

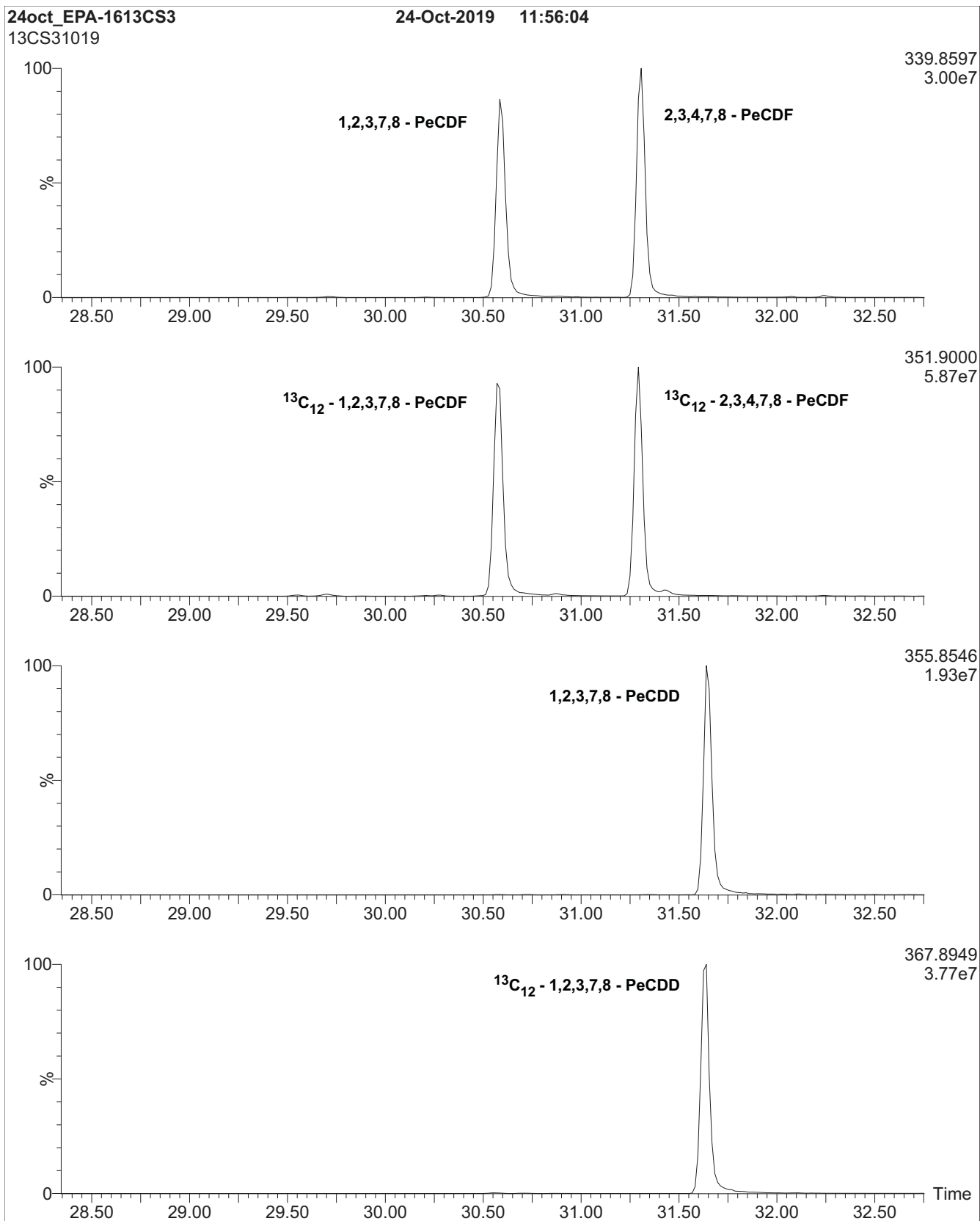
**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

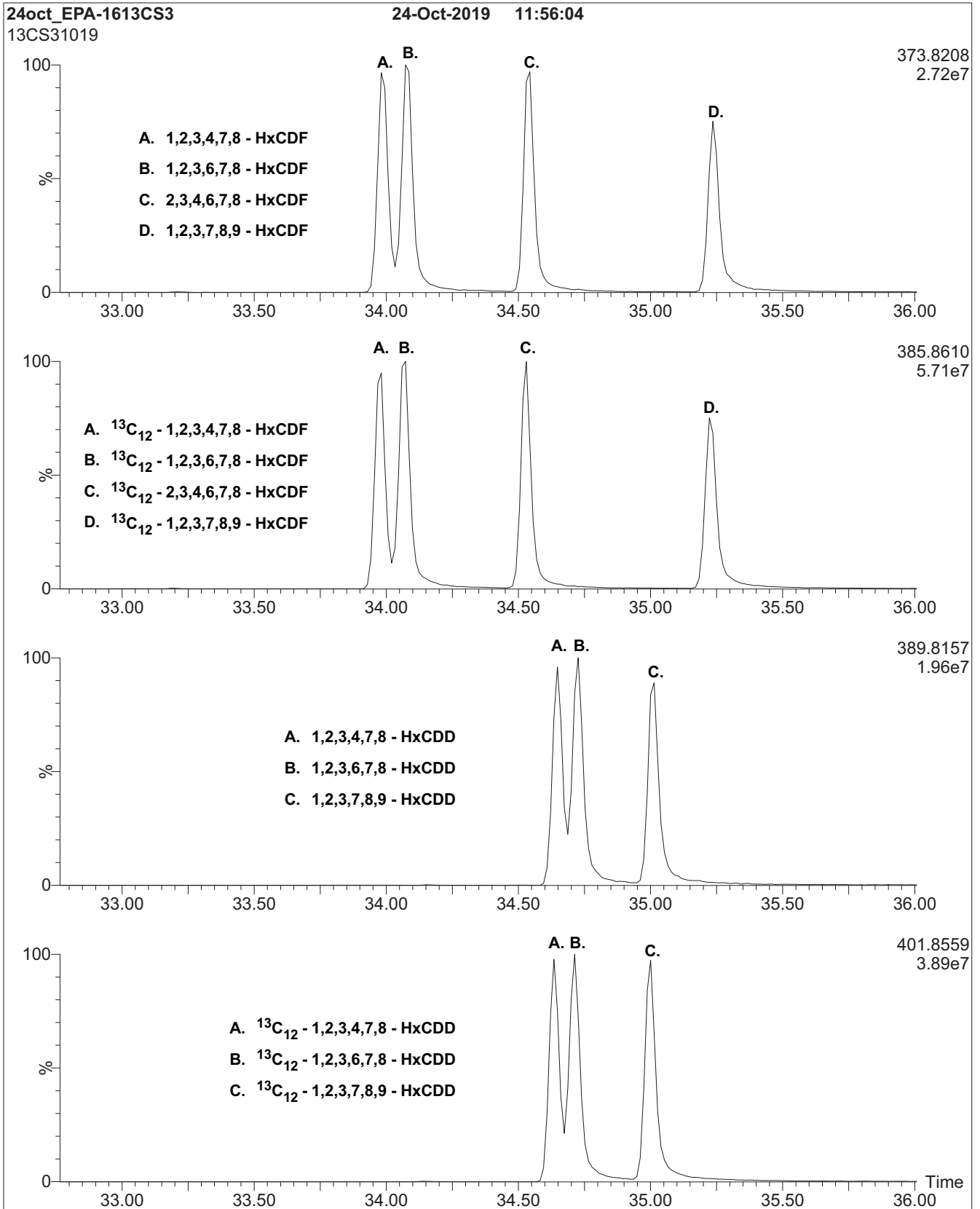


**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

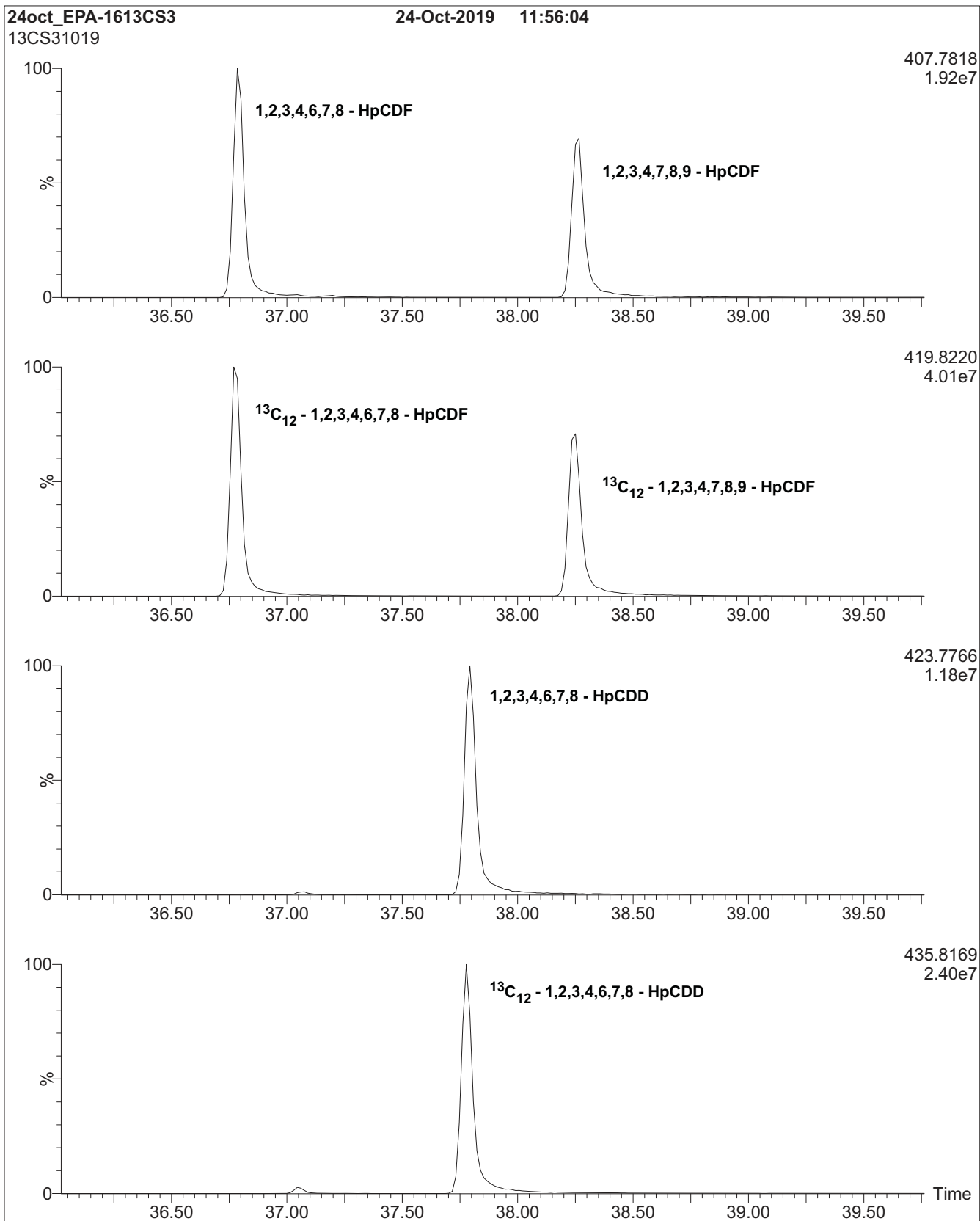




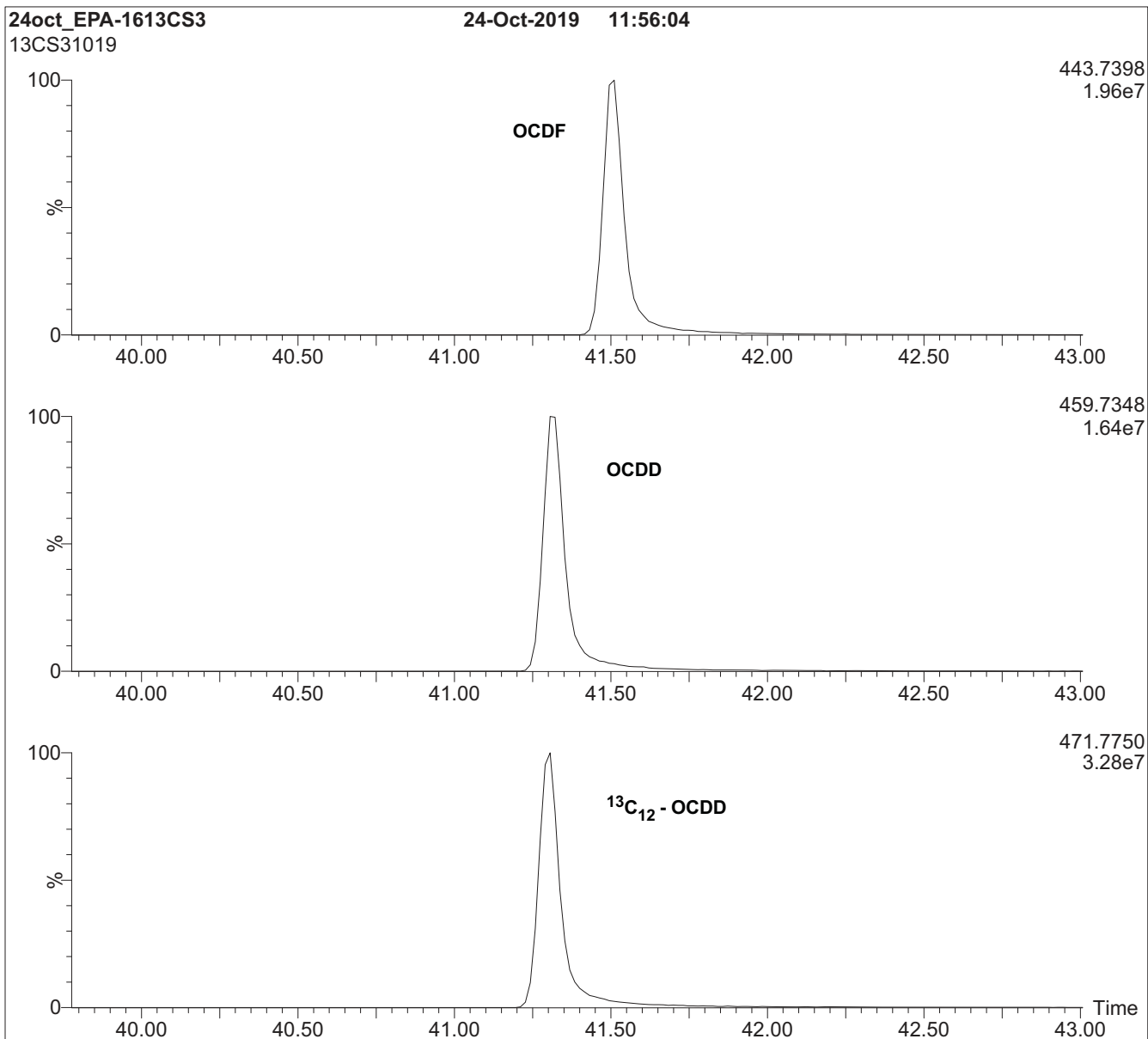
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



**EPA-1613CVS**

**U.S. EPA Method 1613 Calibration and Verification Solutions  
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<b><u>PRODUCT CODES:</u></b>	EPA-1613CVS	<b><u>LOT NUMBERS:</u></b>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/22/2019
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/24/2019
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/24/2026
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoules in a cool, dark place

<b>1005458</b>
1613 CS4 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

**DESCRIPTION:**

EPA-1613CVS is a series of 5 calibration solutions containing native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub> and <sup>37</sup>Cl<sub>4</sub>) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
519-822-2436 • Fax: 519-822-2849 • [info@well-labs.com](mailto:info@well-labs.com)

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
<b>Native PCDDs and PCDFs:</b>							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
<b>Labelled PCDDs and PCDFs:</b>							
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -OCDD	200	200	200	200	200	200	200
<b>Cleanup Standard:</b>							
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
<b>Internal Standards:</b>							
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:   
B.G. Chittim, General Manager

Date: 10/25/2019  
(mm/dd/yyyy)

**Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

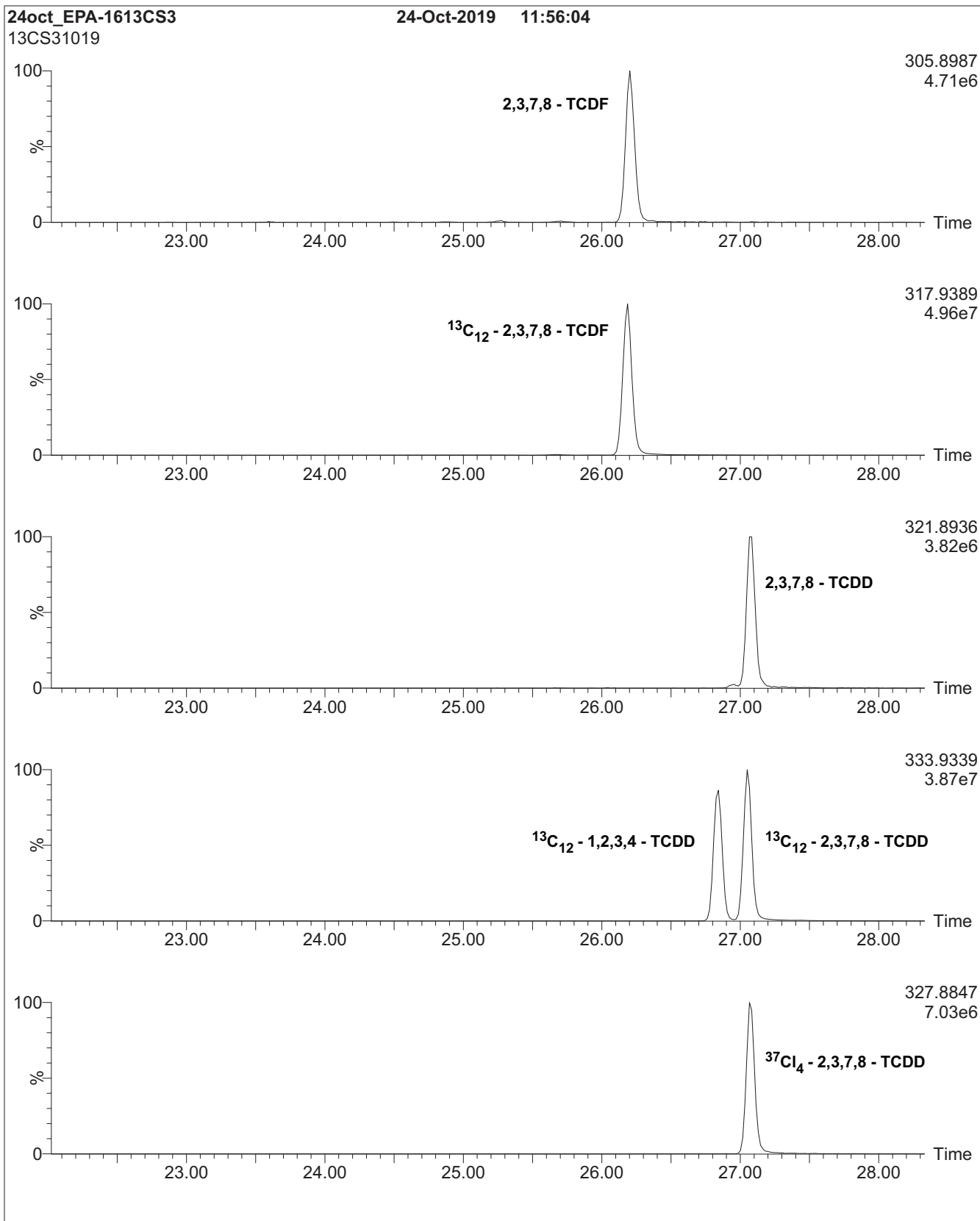
Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99



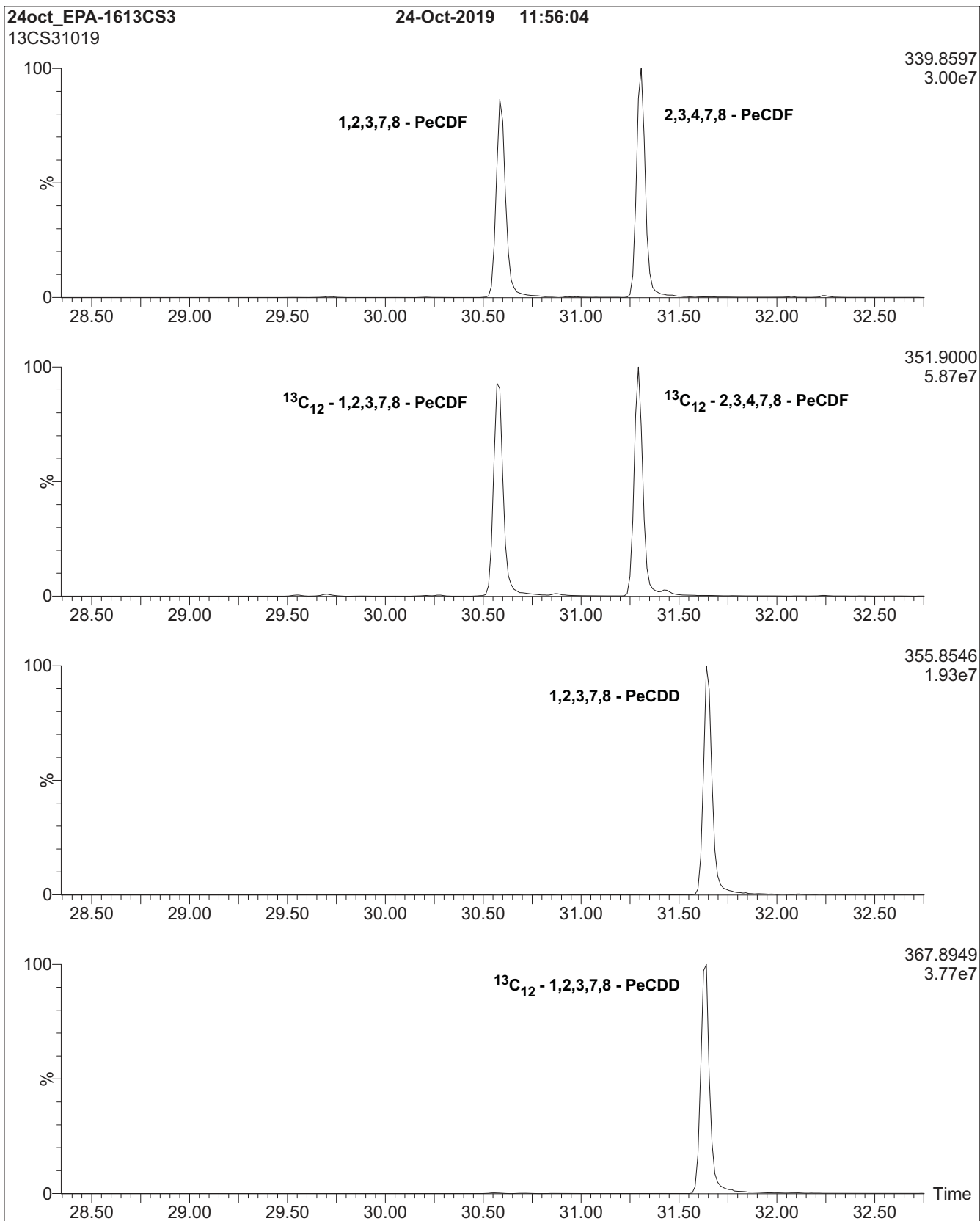
**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

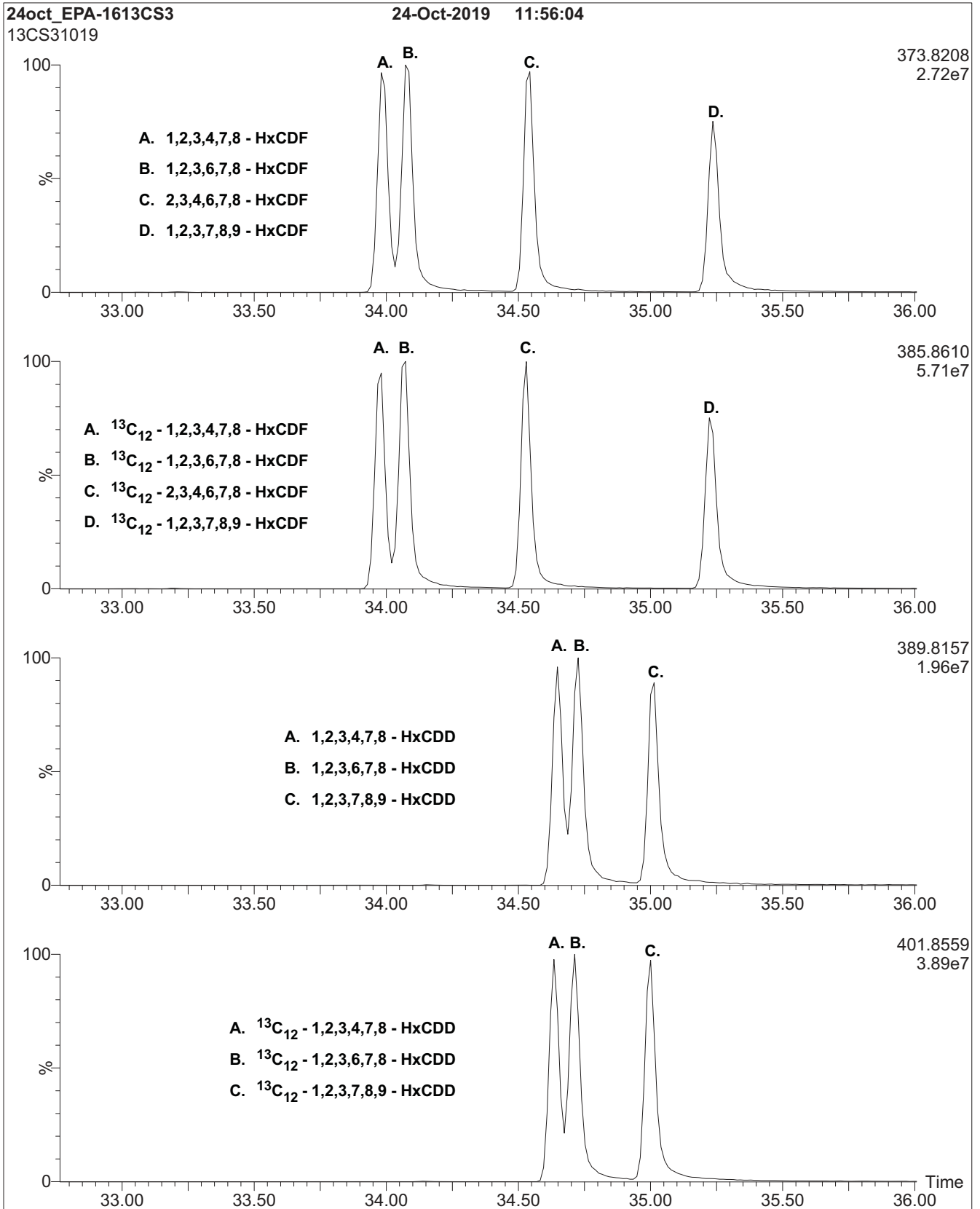
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



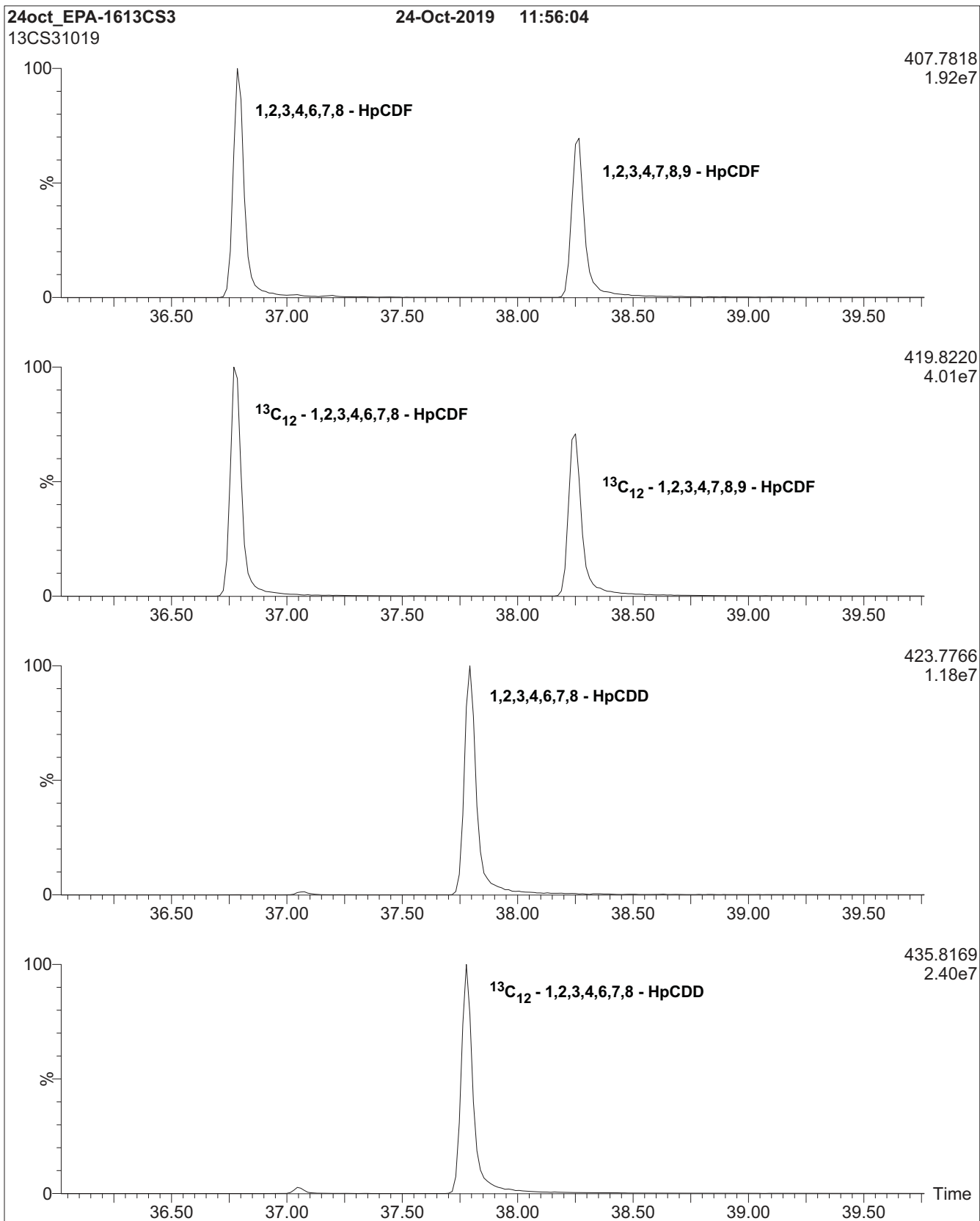
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



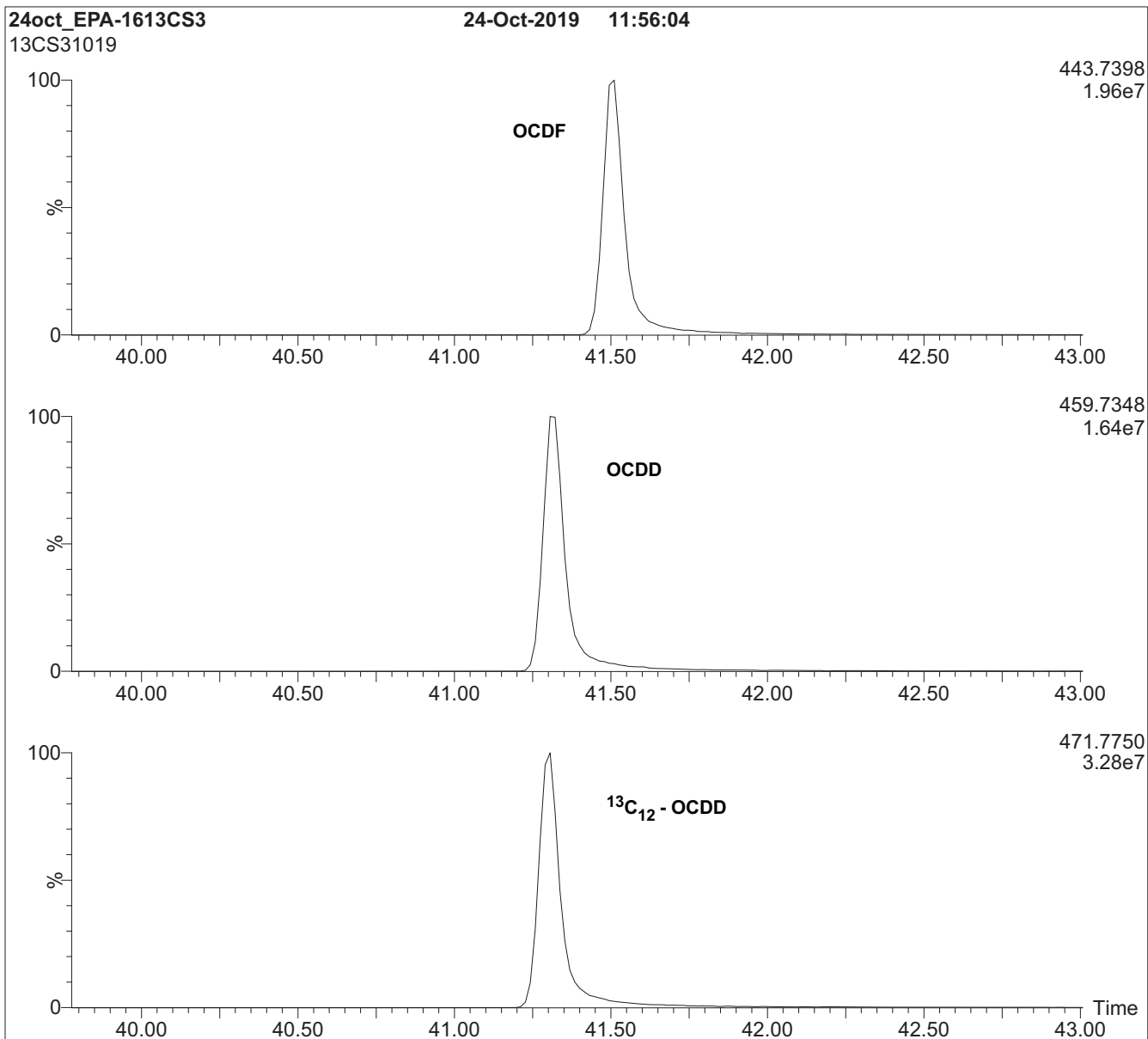
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



**EPA-1613CVS**

**U.S. EPA Method 1613 Calibration and Verification Solutions  
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<b><u>PRODUCT CODES:</u></b>	EPA-1613CVS	<b><u>LOT NUMBERS:</u></b>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/22/2019
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/24/2019
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/24/2026
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoules in a cool, dark place

<b>I005459</b>
1613 CS5 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

**DESCRIPTION:**

EPA-1613CVS is a series of 5 calibration solutions containing native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub> and <sup>37</sup>Cl<sub>4</sub>) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.



### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

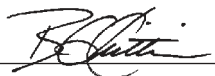
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
<b>Native PCDDs and PCDFs:</b>							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
<b>Labelled PCDDs and PCDFs:</b>							
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -OCDD	200	200	200	200	200	200	200
<b>Cleanup Standard:</b>							
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
<b>Internal Standards:</b>							
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:   
B.G. Chittim, General Manager

Date: 10/25/2019  
(mm/dd/yyyy)

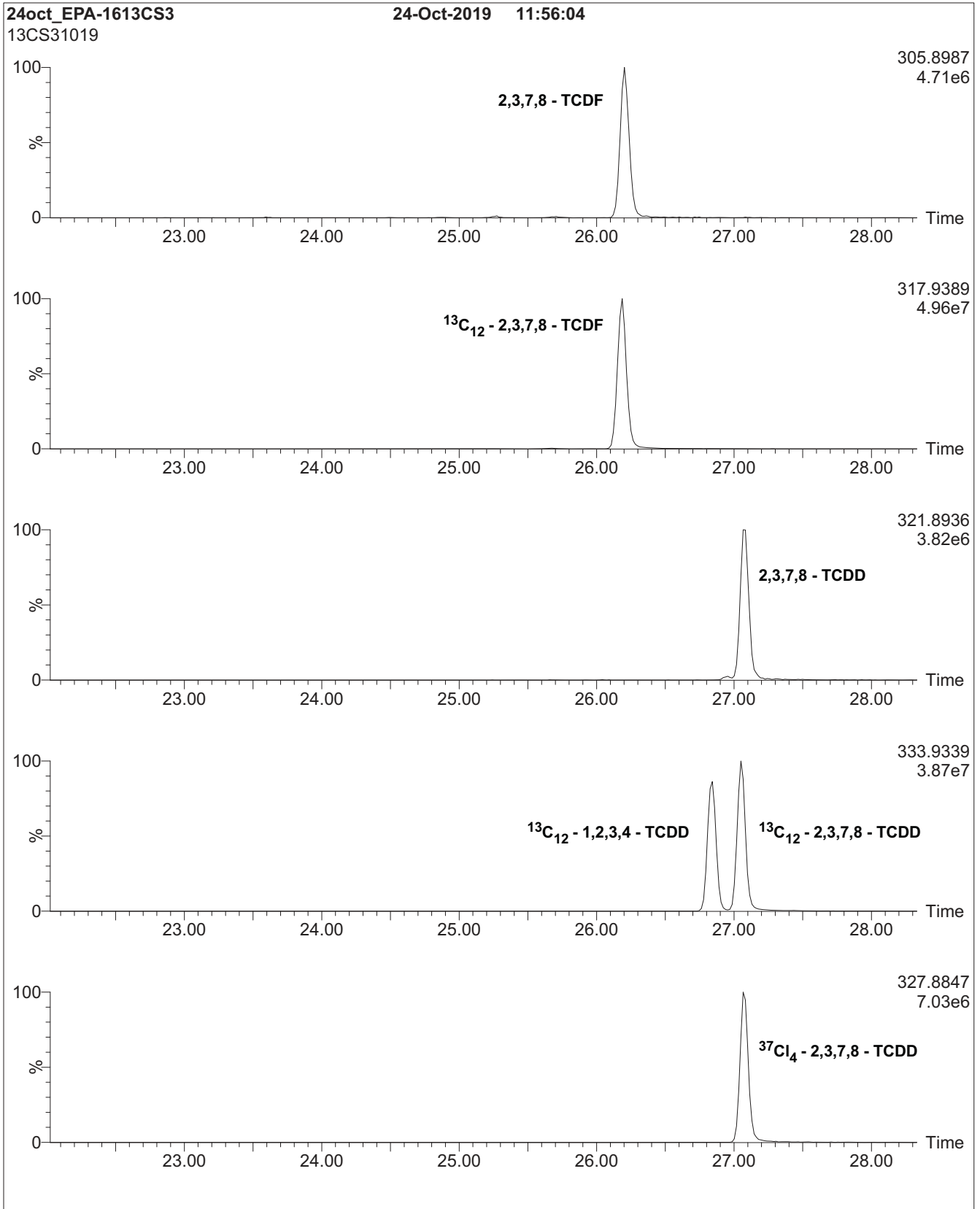
**Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

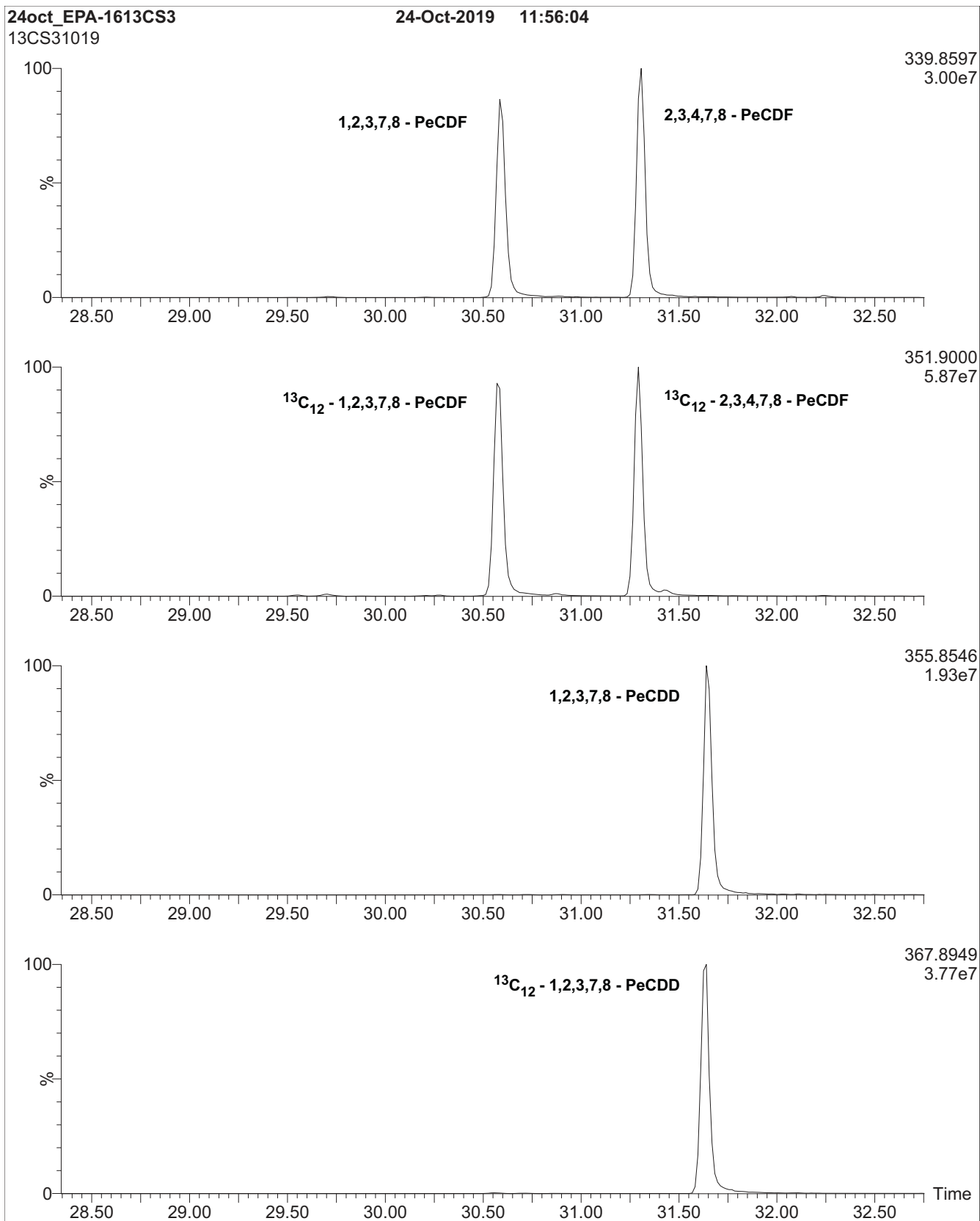
**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

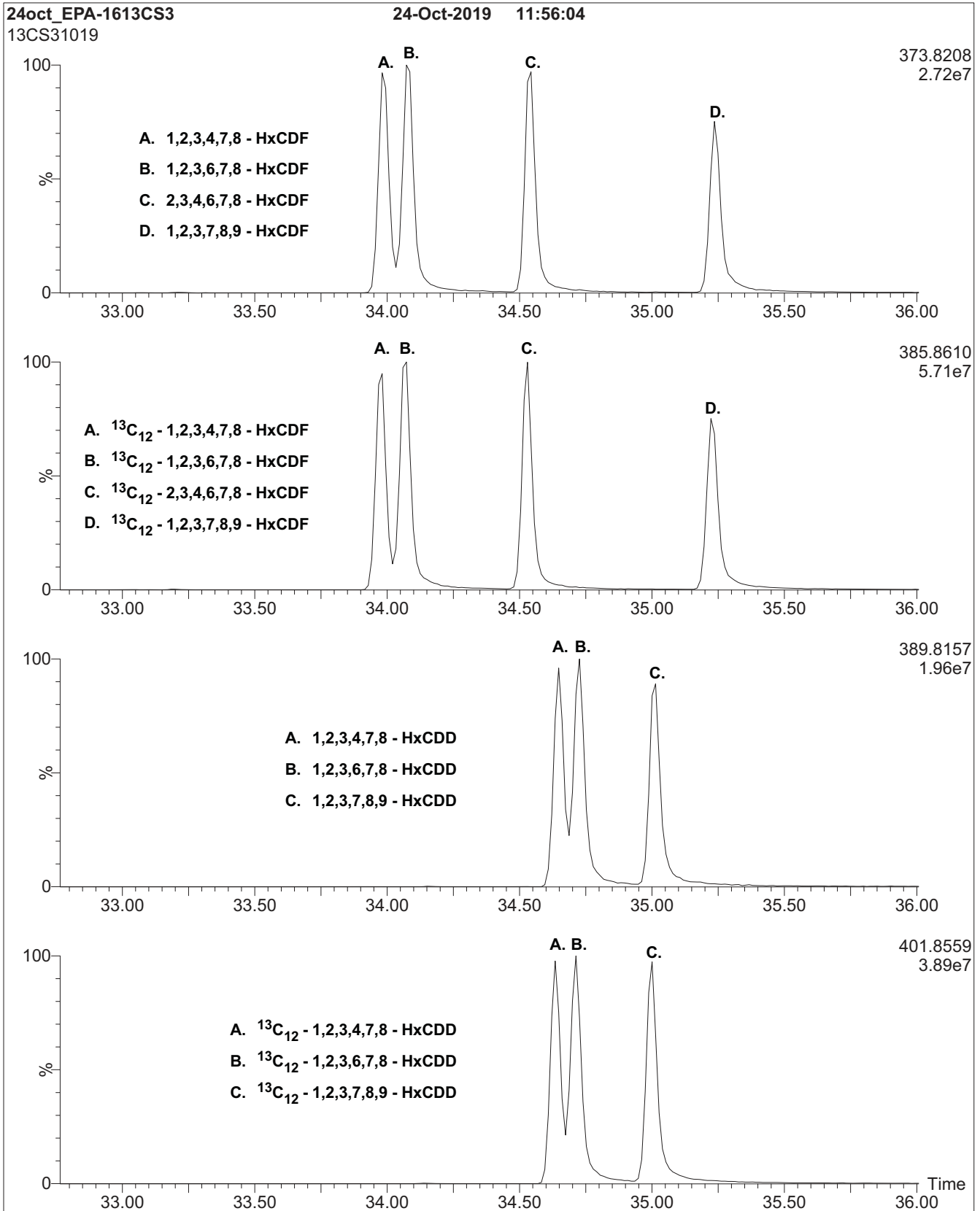
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



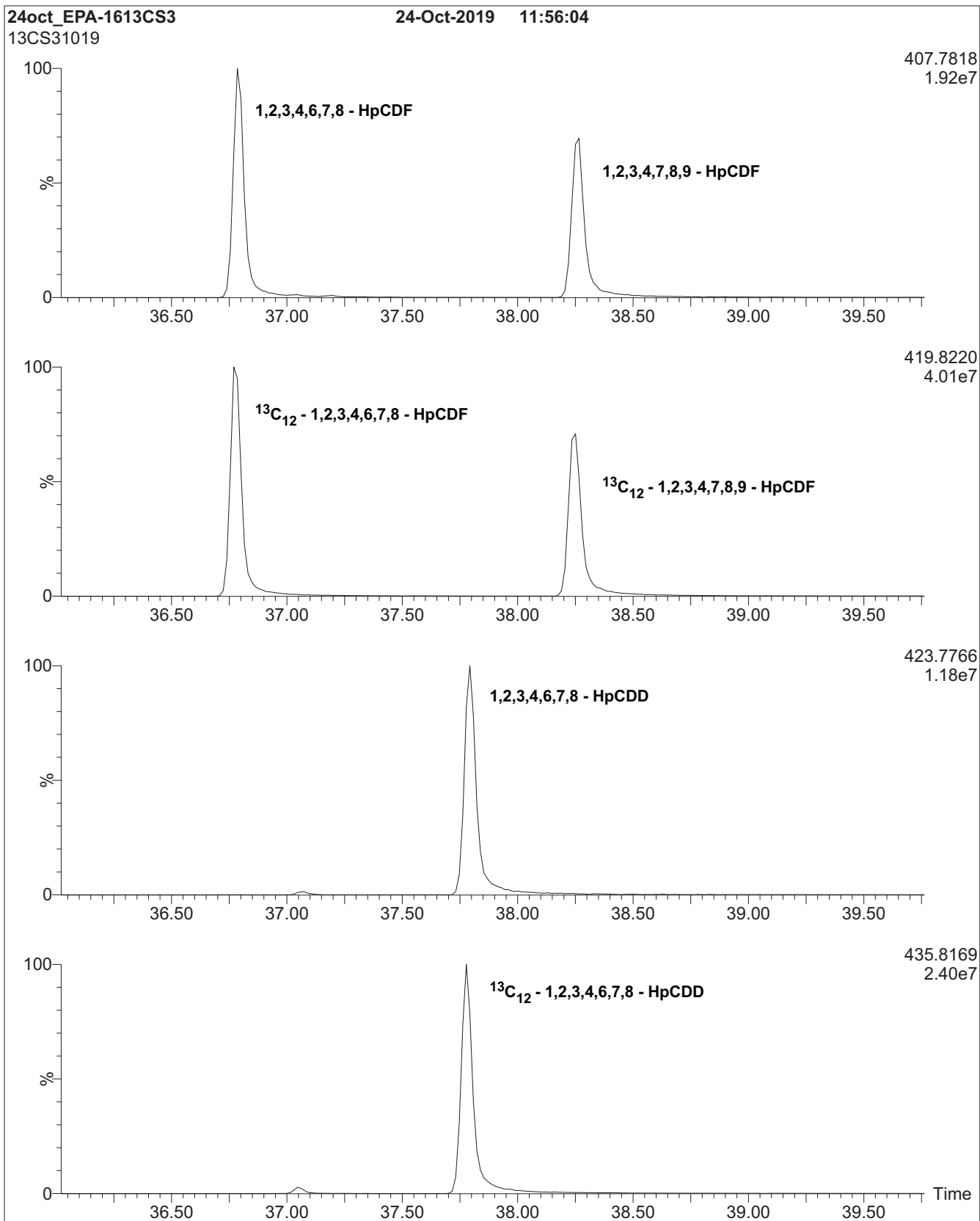
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

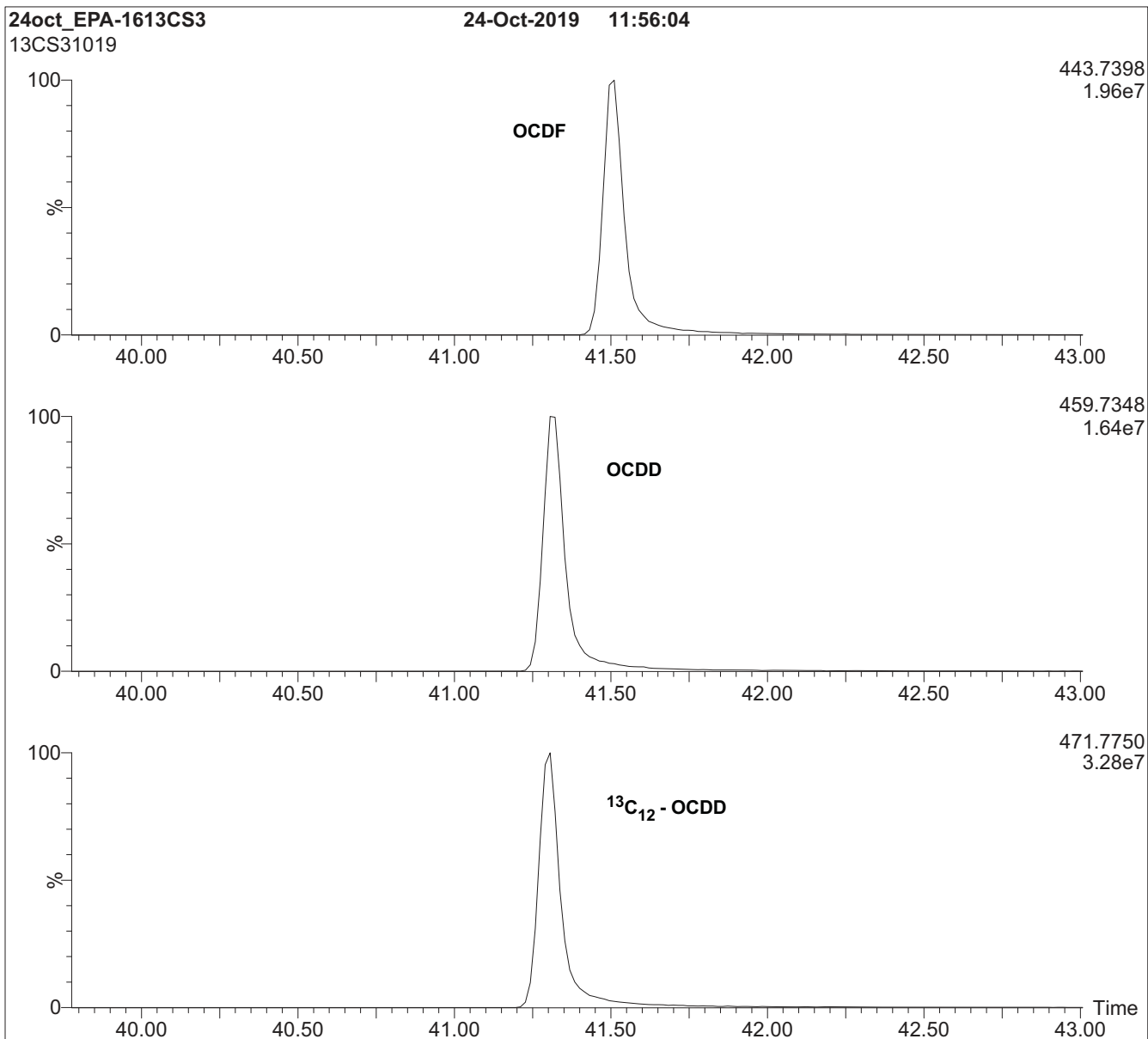


**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**





**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



**EPA-1613CVS**

**U.S. EPA Method 1613 Calibration and Verification Solutions  
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<b><u>PRODUCT CODES:</u></b>	EPA-1613CVS	<b><u>LOT NUMBERS:</u></b>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/22/2019
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/24/2019
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/24/2026
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoules in a cool, dark place

<b>I005460</b>
1613 CSL CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

**DESCRIPTION:**

EPA-1613CVS is a series of 5 calibration solutions containing native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub> and <sup>37</sup>Cl<sub>4</sub>) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-<sup>37</sup>Cl<sub>4</sub>-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 3 for further details.

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

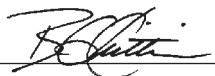
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
<b>Native PCDDs and PCDFs:</b>							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
<b>Labelled PCDDs and PCDFs:</b>							
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -OCDD	200	200	200	200	200	200	200
<b>Cleanup Standard:</b>							
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
<b>Internal Standards:</b>							
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	100	100	100	100	100	100	100
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:   
B.G. Chittim, General Manager

Date: 10/25/2019  
(mm/dd/yyyy)

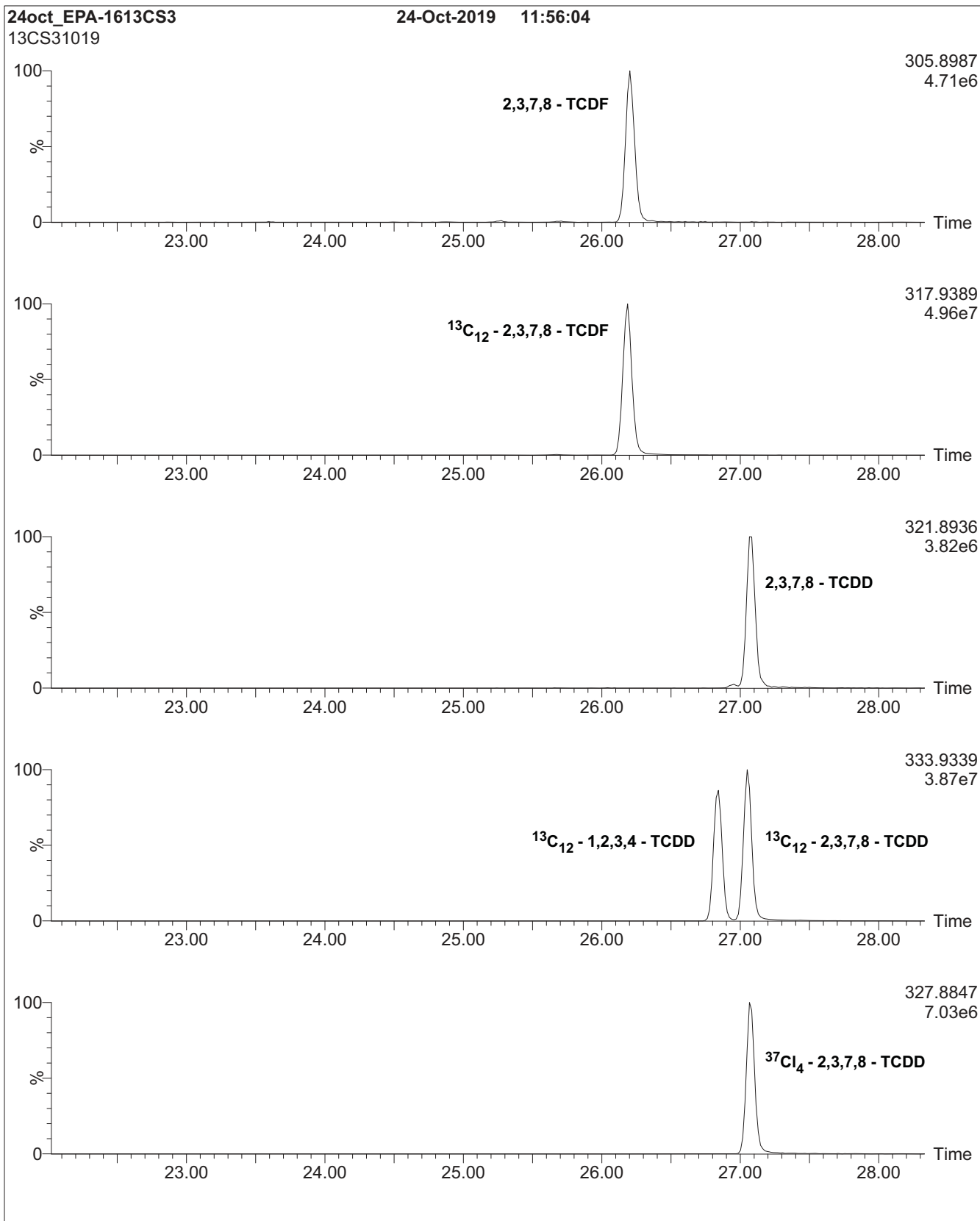
**Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);  
7-point HRGC/HRMS Calibration and RRF Summary**

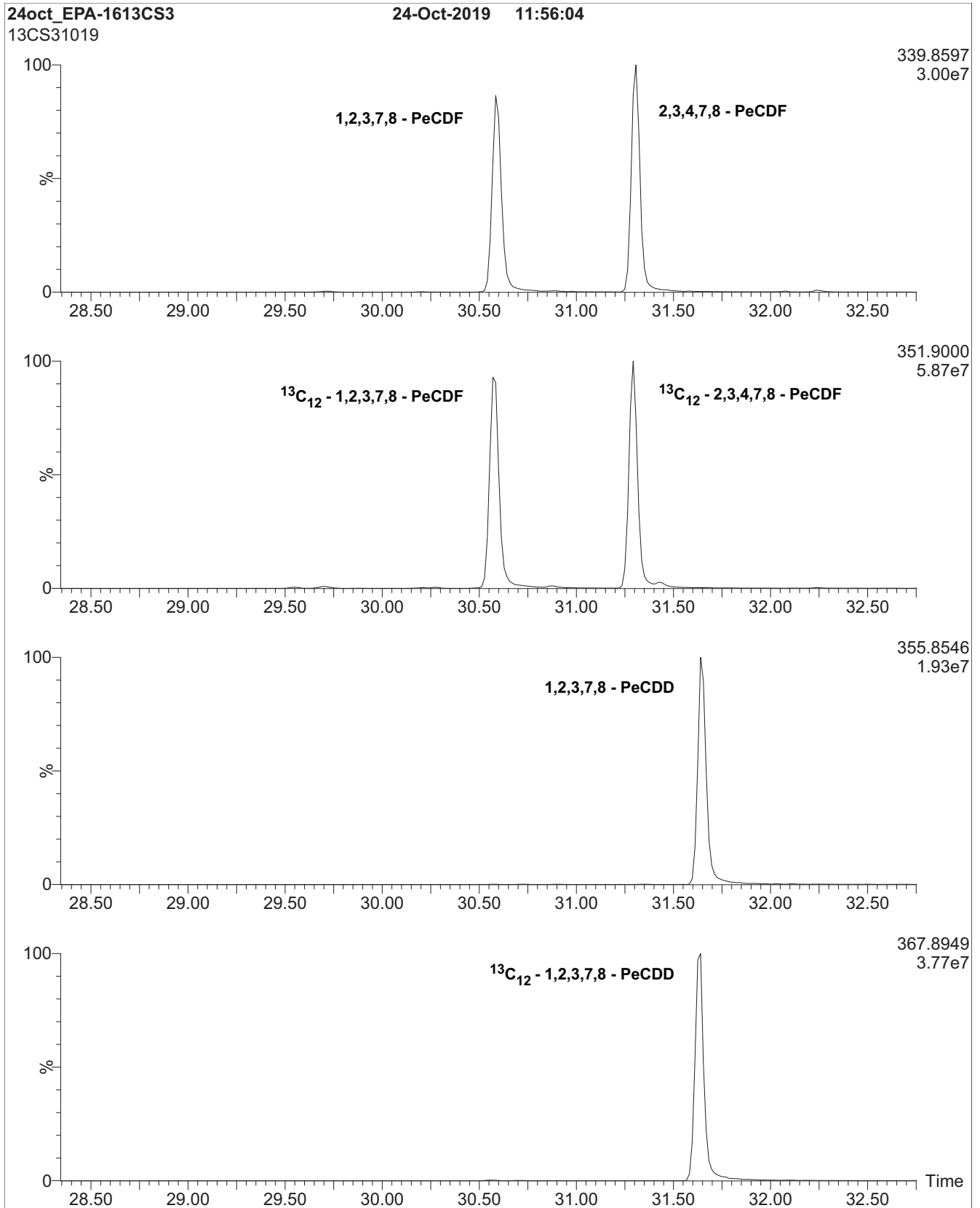
Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
<sup>13</sup> C <sub>12</sub> -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

**Figure 1:** EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

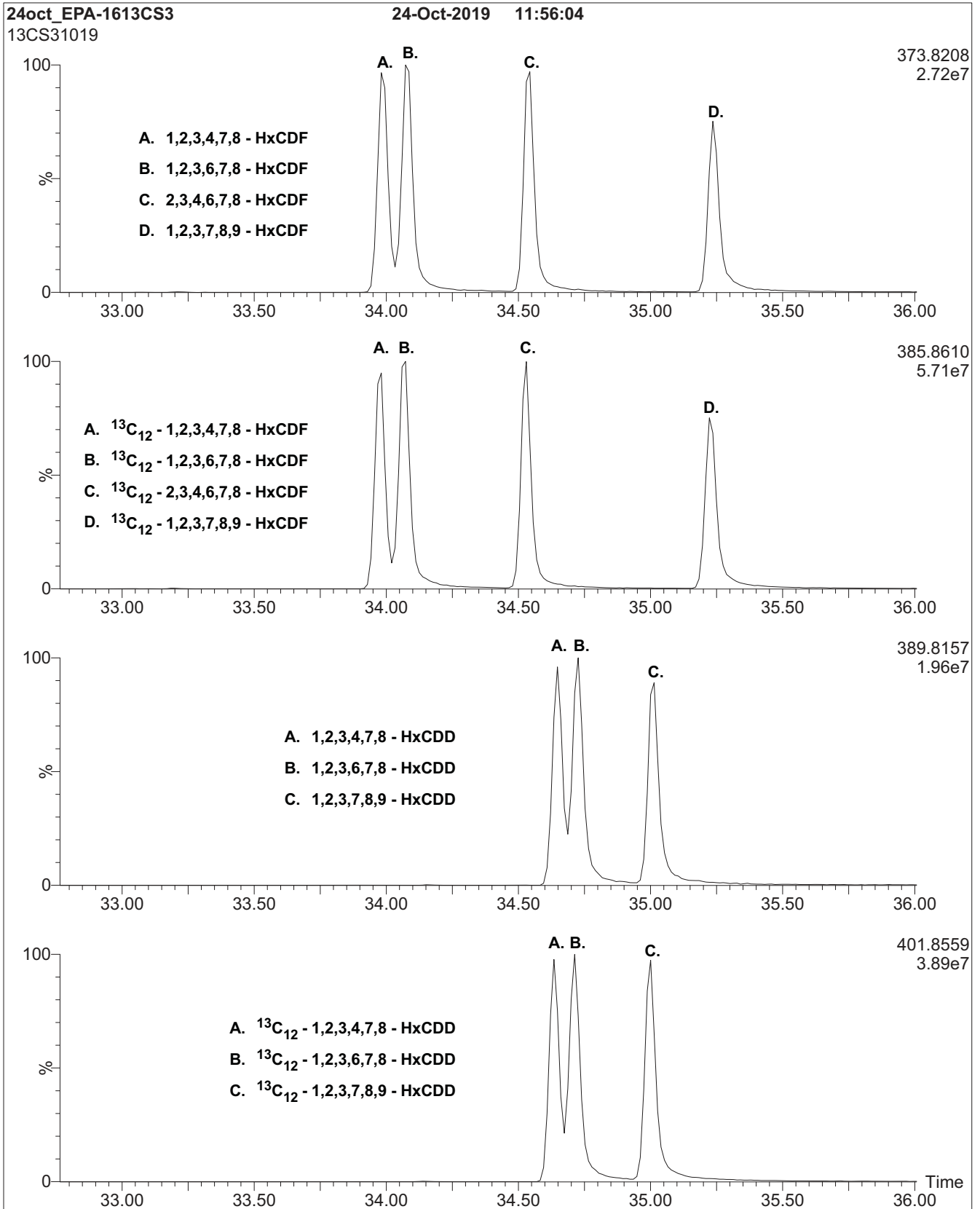




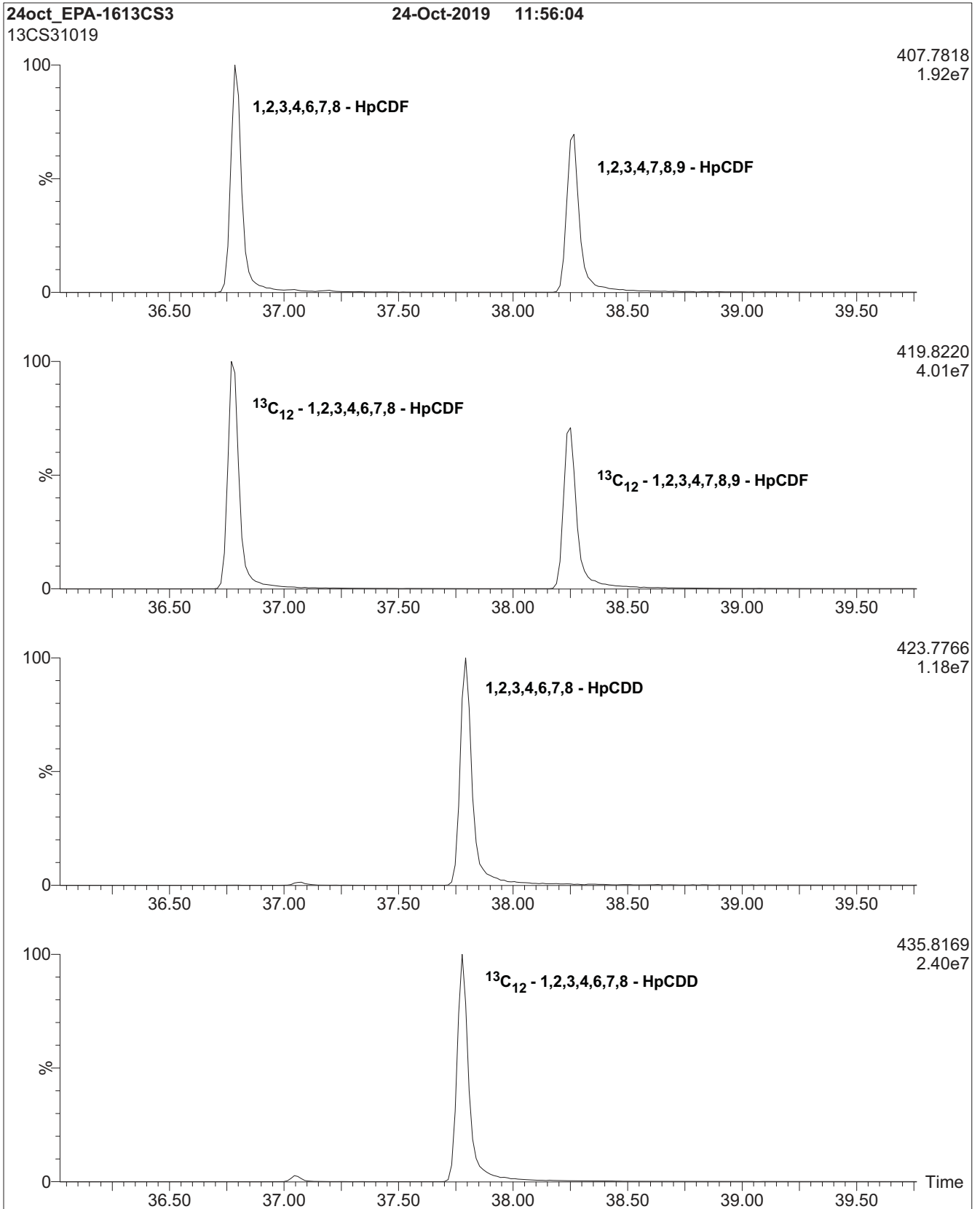
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



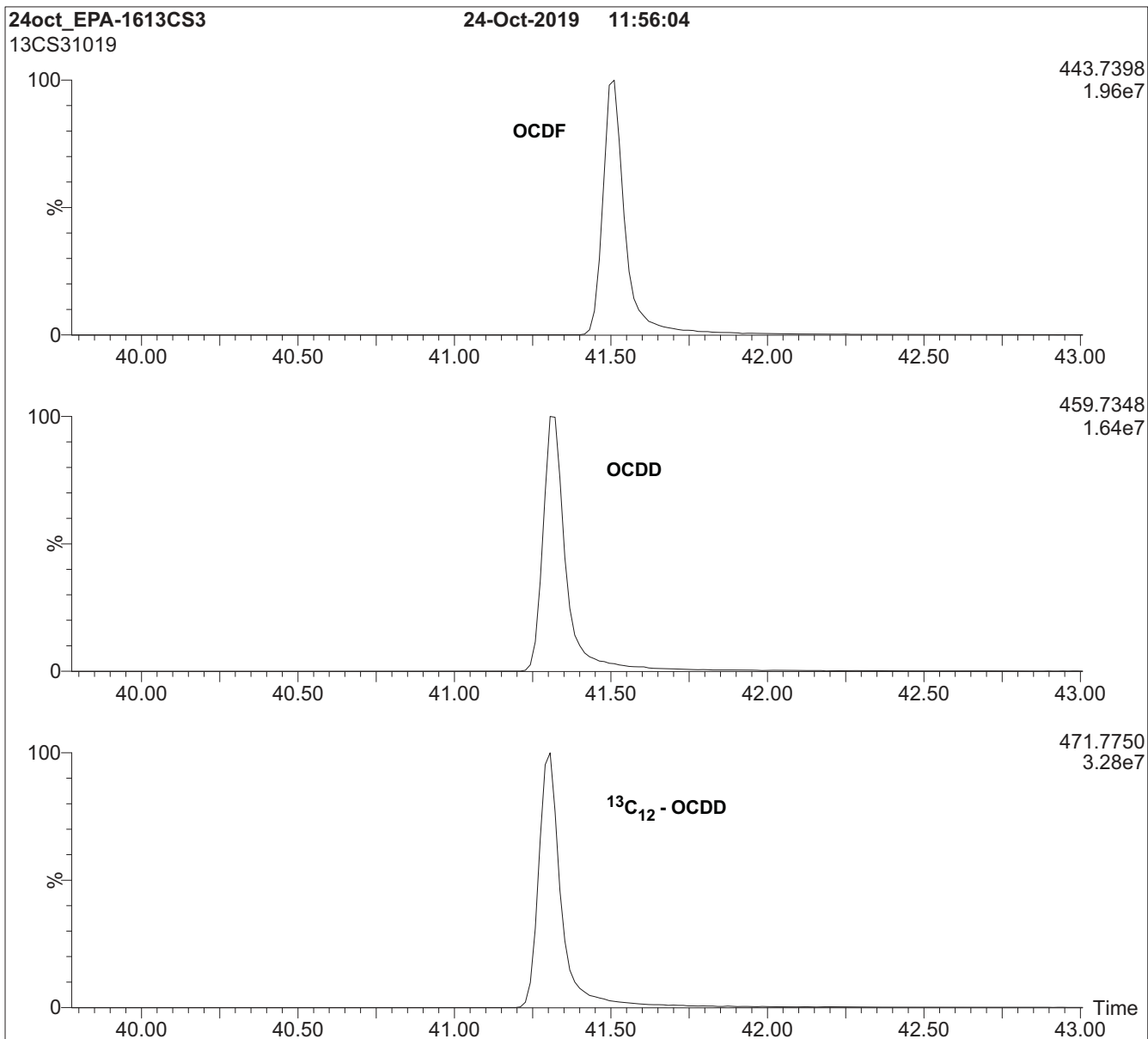
**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



**HRGC/HRMS:**

Agilent 6890N (HRGC)  
Autospec Ultima (HRMS)

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



**EPA-1613PAR**

**U.S. EPA Method 1613 Native PCDD/PCDF  
Precision and Recovery Stock Solution**

**PRODUCT CODE:** EPA-1613PAR  
**LOT NUMBER:** 13PAR1021  
**SOLVENT(S):** Nonane/Toluene  
**DATE PREPARED:** (mm/dd/yyyy) 10/25/2021  
**LAST TESTED:** (mm/dd/yyyy) 11/03/2021  
**EXPIRY DATE:** (mm/dd/yyyy) 11/03/2028  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

J013397  
Rec'd. JR  
12/20/21

**DESCRIPTION:**

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations of the Solution/Mixture  
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 2 for further details.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

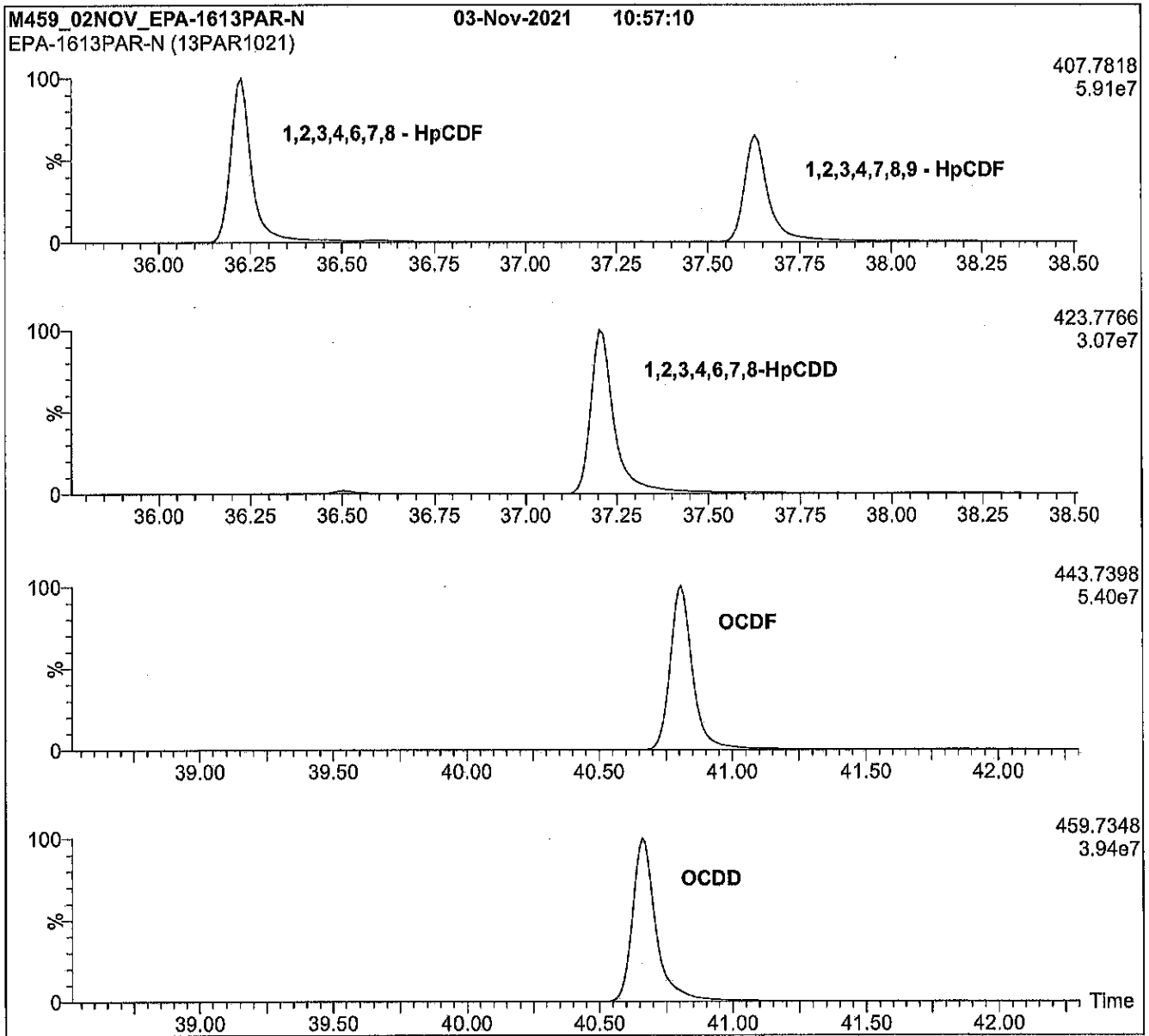
**Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
<b>PCDDs:</b>			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
<b>PCDFs:</b>			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By:   
 B.G. Chittim, General Manager

Date: 11/05/2021  
(mm/dd/yyyy)

**Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
Autospec Ultima HRMS

**Chromatographic Conditions:**

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven:
Injector:	280°C (Splitless Injection)	150°C (1 min)
Ionization:	EI+	12°C/min to 200°C
Detector:	280°C	3°C/min to 235°C
	SIR at 10,000 mass resolving power	235°C (8 min)
		8°C/min to 310°C
		310°C (8 min)



**EPA-1613PAR**

**U.S. EPA Method 1613 Native PCDD/PCDF  
Precision and Recovery Stock Solution**

**PRODUCT CODE:** EPA-1613PAR  
**LOT NUMBER:** 13PAR1021  
**SOLVENT(S):** Nonane/Toluene  
**DATE PREPARED:** (mm/dd/yyyy) 10/25/2021  
**LAST TESTED:** (mm/dd/yyyy) 11/03/2021  
**EXPIRY DATE:** (mm/dd/yyyy) 11/03/2028  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

J013397  
Rec'd. JR  
12/20/21

**DESCRIPTION:**

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations of the Solution/Mixture  
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 2 for further details.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**



### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

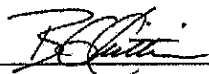
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

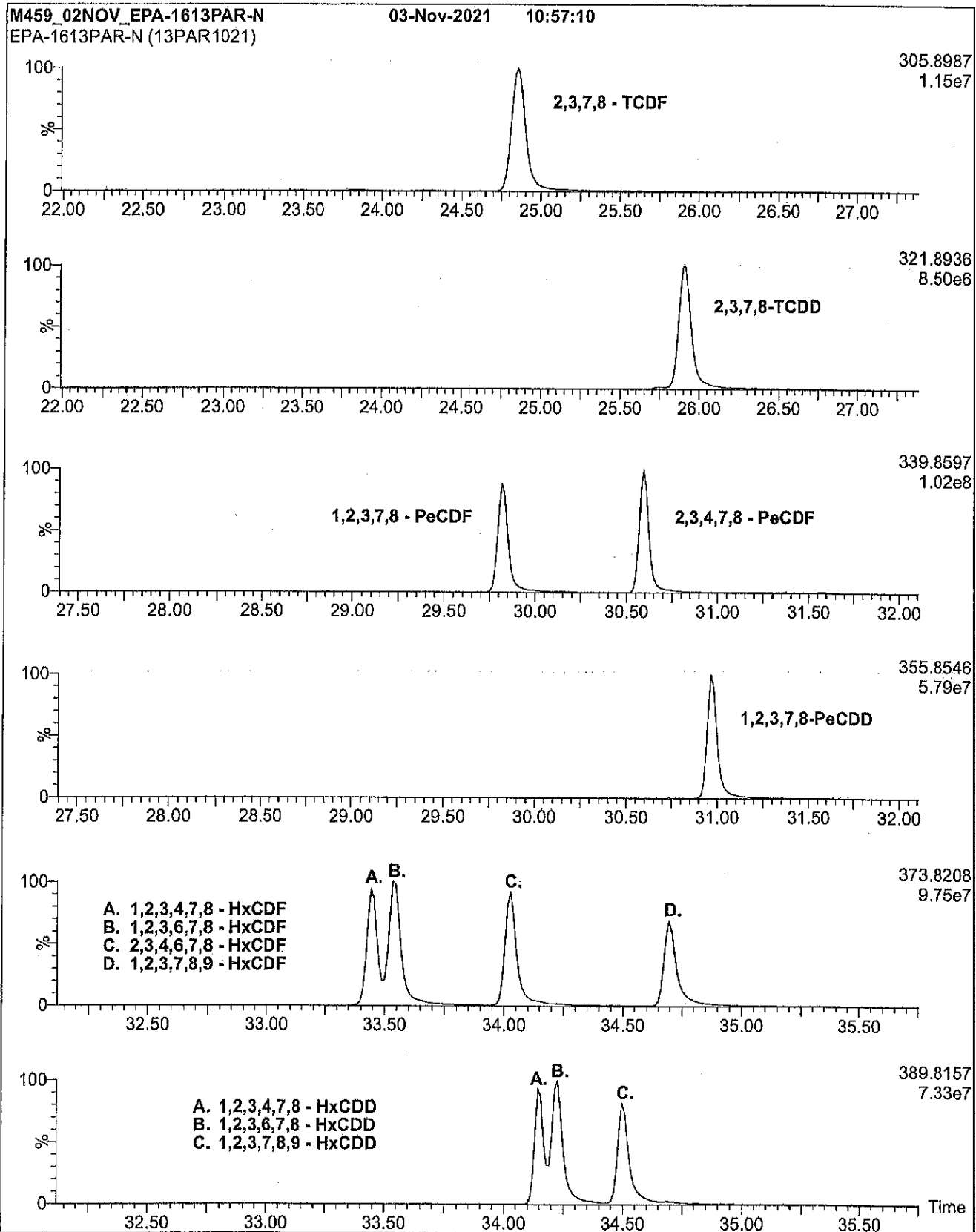
**Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
<b>PCDDs:</b>			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
<b>PCDFs:</b>			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

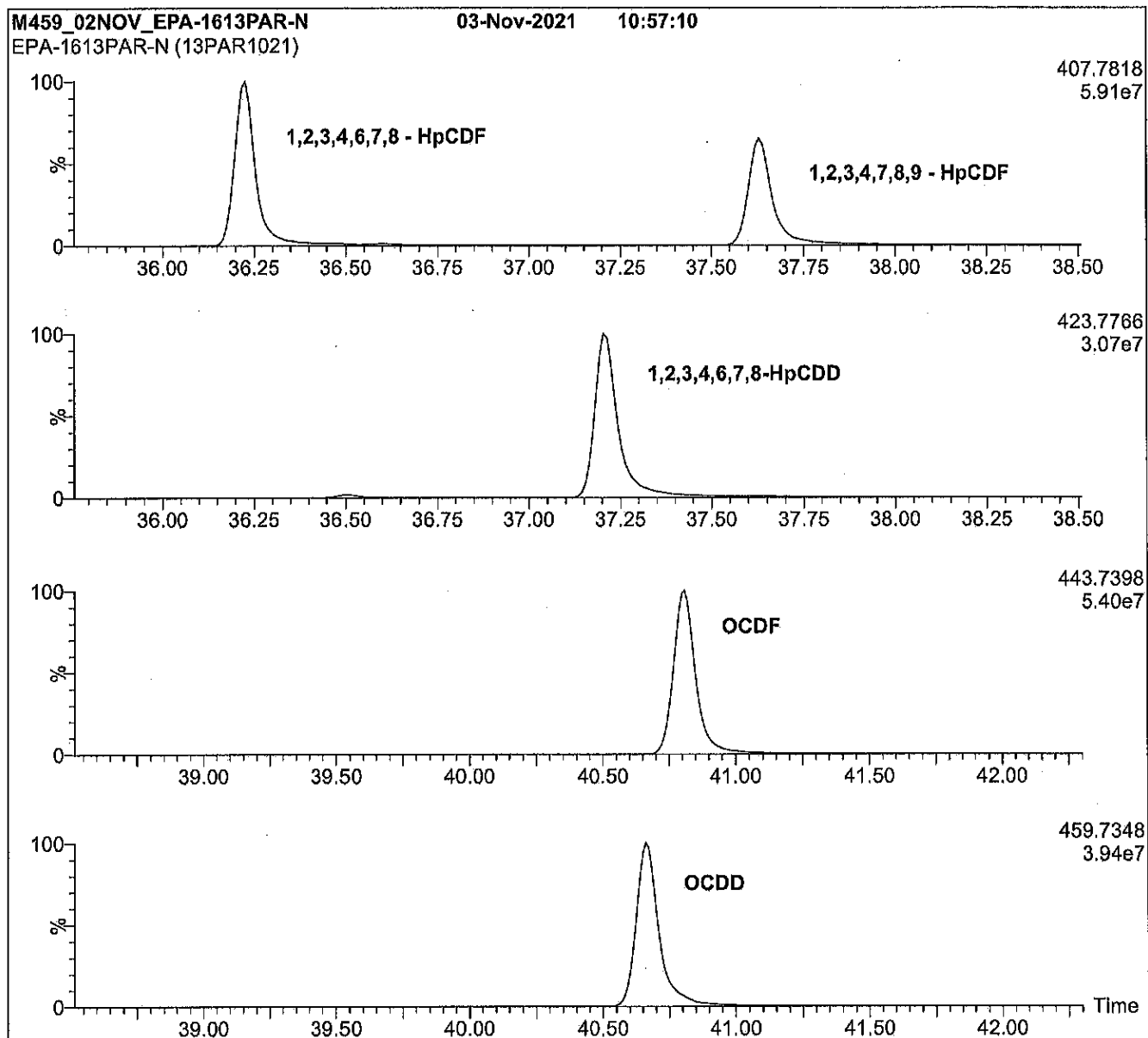
Certified By:   
 B.G. Chittim, General Manager

Date: 11/05/2021  
(mm/dd/yyyy)

**Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
Autospec Ultima HRMS

**Chromatographic Conditions:**

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1.4 mL/min  
Injector: 280°C (Splitless Injection)  
Ionization: EI+  
Detector: 280°C

Oven: 150°C (1 min)  
12°C/min to 200°C  
3°C/min to 235°C  
235°C (8 min)  
8°C/min to 310°C  
310°C (8 min)



**EPA-1613CSS**

**U.S. EPA Method 1613 Cleanup Standard  
Spiking Solution**

**PRODUCT CODE:** EPA-1613CSS  
**LOT NUMBER:** 13CSS1021  
**SOLVENT(S):** Nonane  
**DATE PREPARED:** (mm/dd/yyyy) 10/29/2021  
**LAST TESTED:** (mm/dd/yyyy) 10/31/2021  
**EXPIRY DATE:** (mm/dd/yyyy) 10/31/2028  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

**DESCRIPTION:**

K003104

EPA-1613CSS contains 2,3,7,8-(<sup>37</sup>Cl<sub>4</sub>)tetrachlorodibenzo-*p*-dioxin at the concentration given in Table A.

EPA-1613CSS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

2,3,7,8-(<sup>37</sup>Cl<sub>4</sub>)Tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%.

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations of the Solution  
 Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 2 for further details.

**Table A: EPA-1613CSS; Components and Concentrations (ng/mL, ± 5% in nonane)**

Compound	Acronym	CAS #	Concentration (ng/mL)
2,3,7,8-( <sup>37</sup> Cl <sub>4</sub> )Tetrachlorodibenzo- <i>p</i> -dioxin	<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	85508-50-5	40.0

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Certified By:**   
 B.G. Chittim, General Manager  
**Date:** 11/05/2021  
 (mm/dd/yyyy)

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

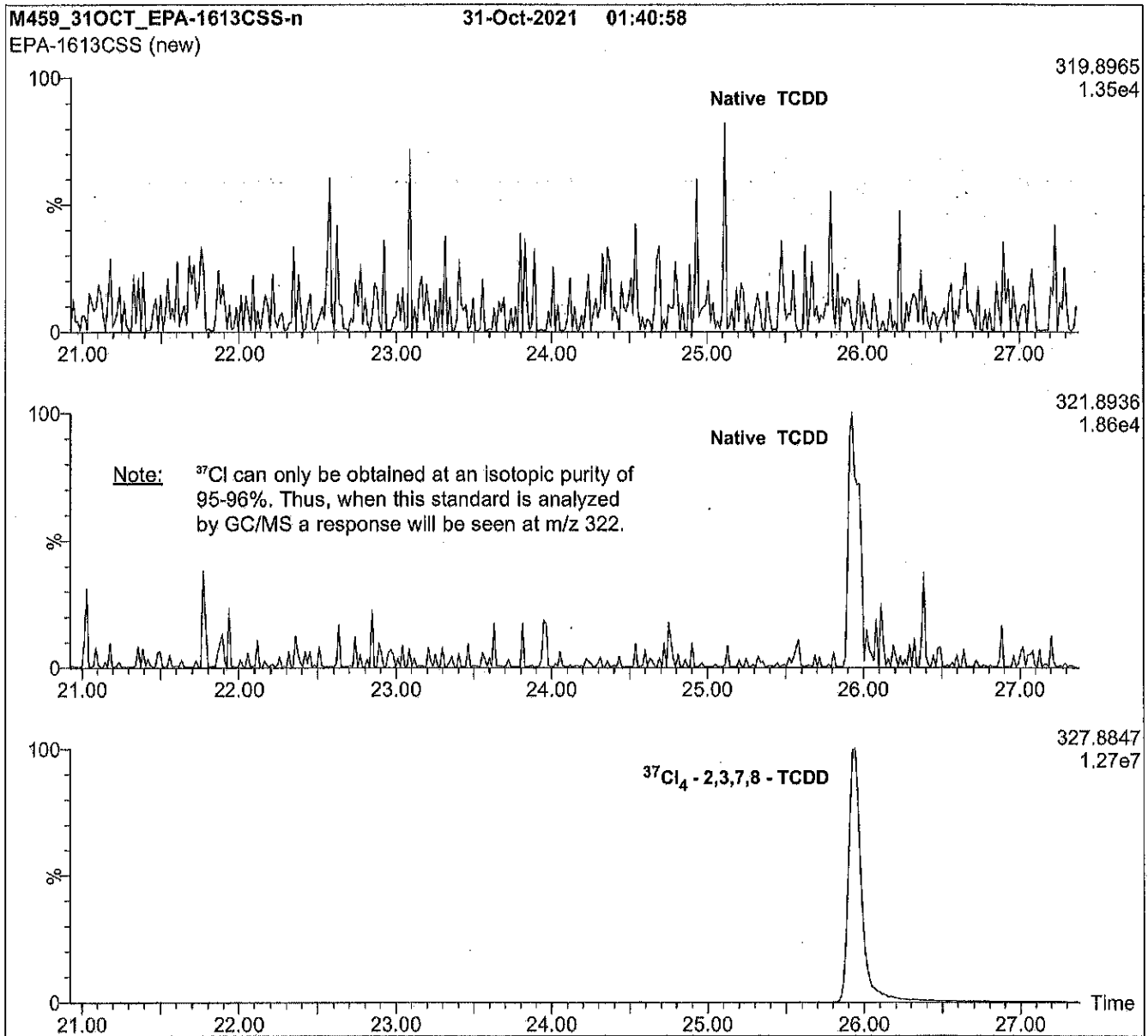
### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Figure 1: EPA-1613CSS; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
Autospec Ultima HRMS

**Chromatographic Conditions:**

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven:
Injector:	280°C (Splitless Injection)	150°C (1 min)
Ionization:	EI+	12°C/min to 200°C
Detector:	280°C	3°C/min to 235°C
	SIR at 10,000 mass resolving power	235°C (8 min)
		8°C/min to 310°C
		310°C (8 min)



**EPA-1613LCS**

**U.S. EPA Method 1613**  
**Labelled Compound Stock Solution**

**PRODUCT CODE:** EPA-1613LCS  
**LOT NUMBER:** 13LCS1021  
**SOLVENT(S):** Nonane/Toluene  
**DATE PREPARED:** (mm/dd/yyyy) 10/29/2021  
**LAST TESTED:** (mm/dd/yyyy) 10/31/2021  
**EXPIRY DATE:** (mm/dd/yyyy) 10/31/2028  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

**DESCRIPTION:**

K3105

EPA-1613LCS is a solution/mixture of mass-labelled ( $^{13}\text{C}_{12}$ ) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual  $^{13}\text{C}$ -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of  $\geq 99\%$ .

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations  
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 2 for further details.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**



### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters

$x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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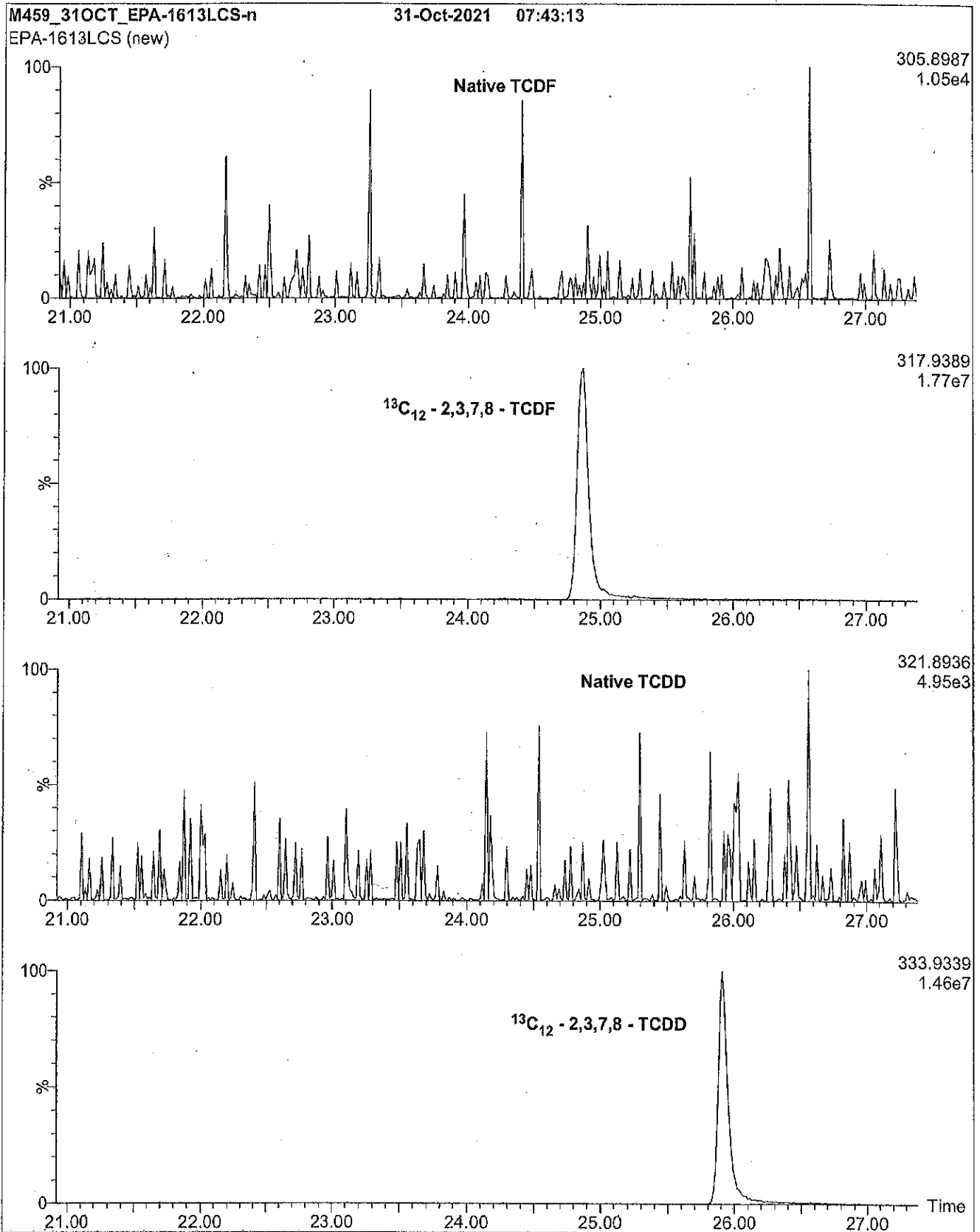
**Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
<b>Mass-Labelled PCDDs:</b>			
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -OCDD	114423-97-1	200
<b>Mass-Labelled PCDFs:</b>			
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

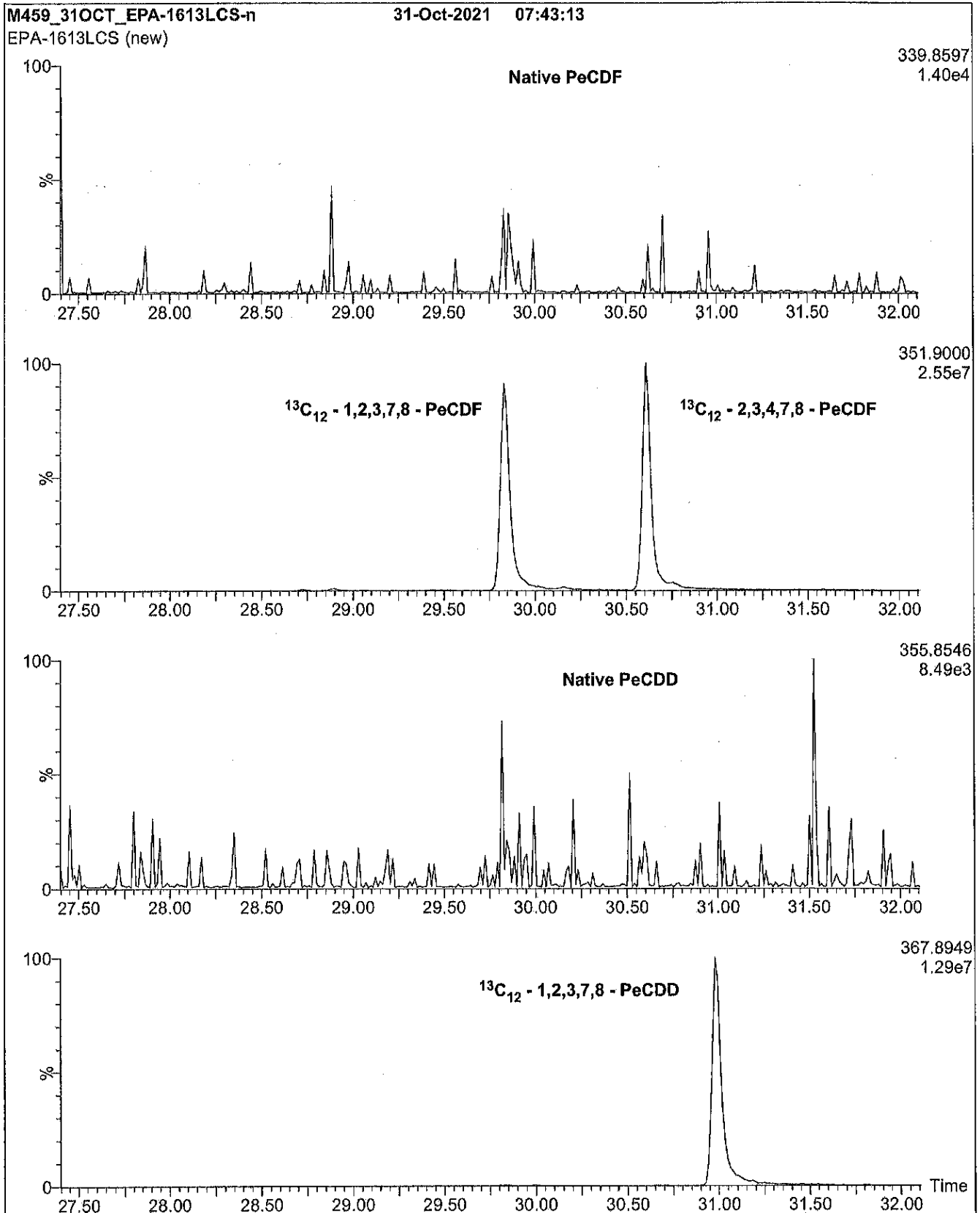
Certified By:   
 B.G. Chittim, General Manager

Date: 11/05/2021  
(mm/dd/yyyy)

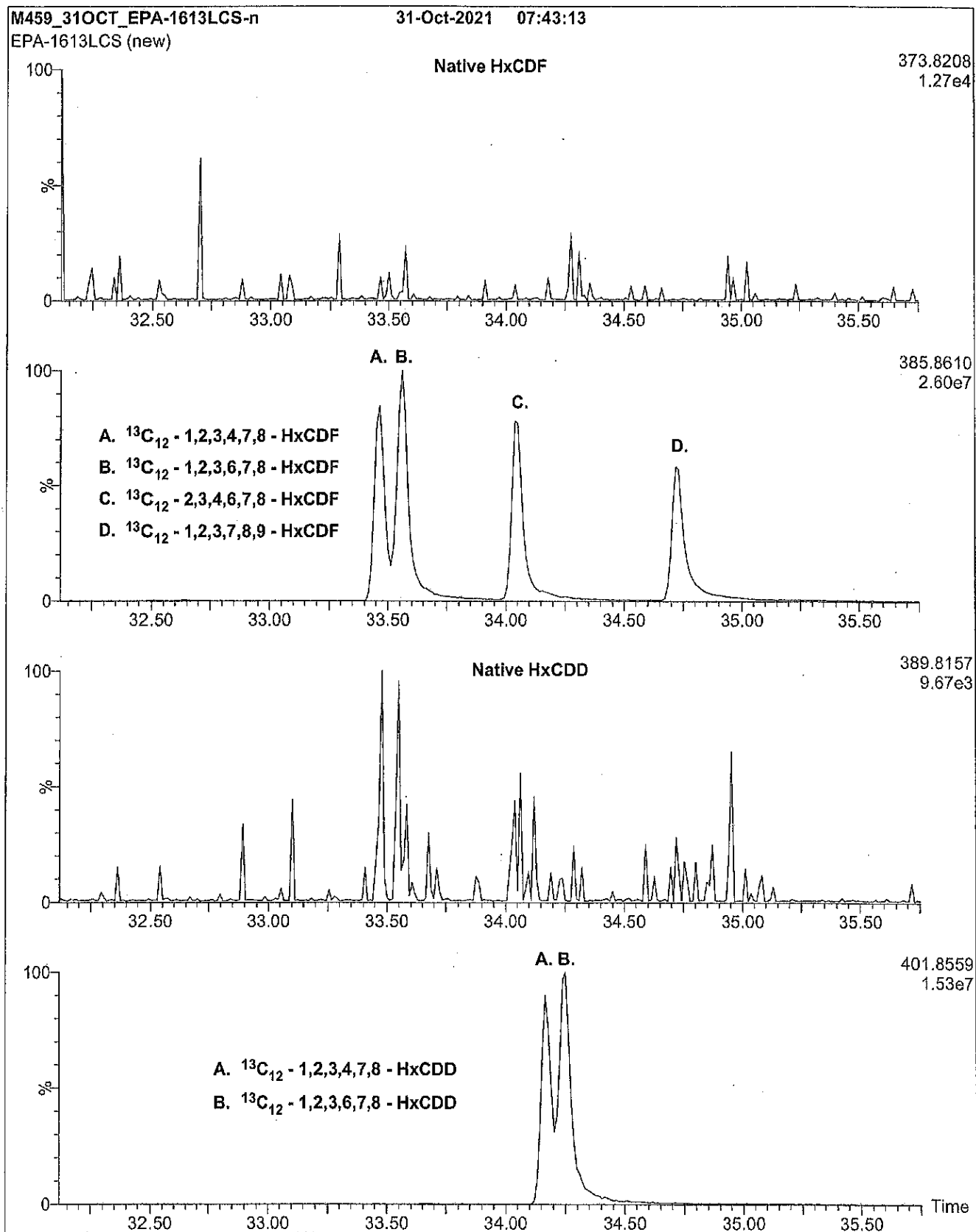
**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



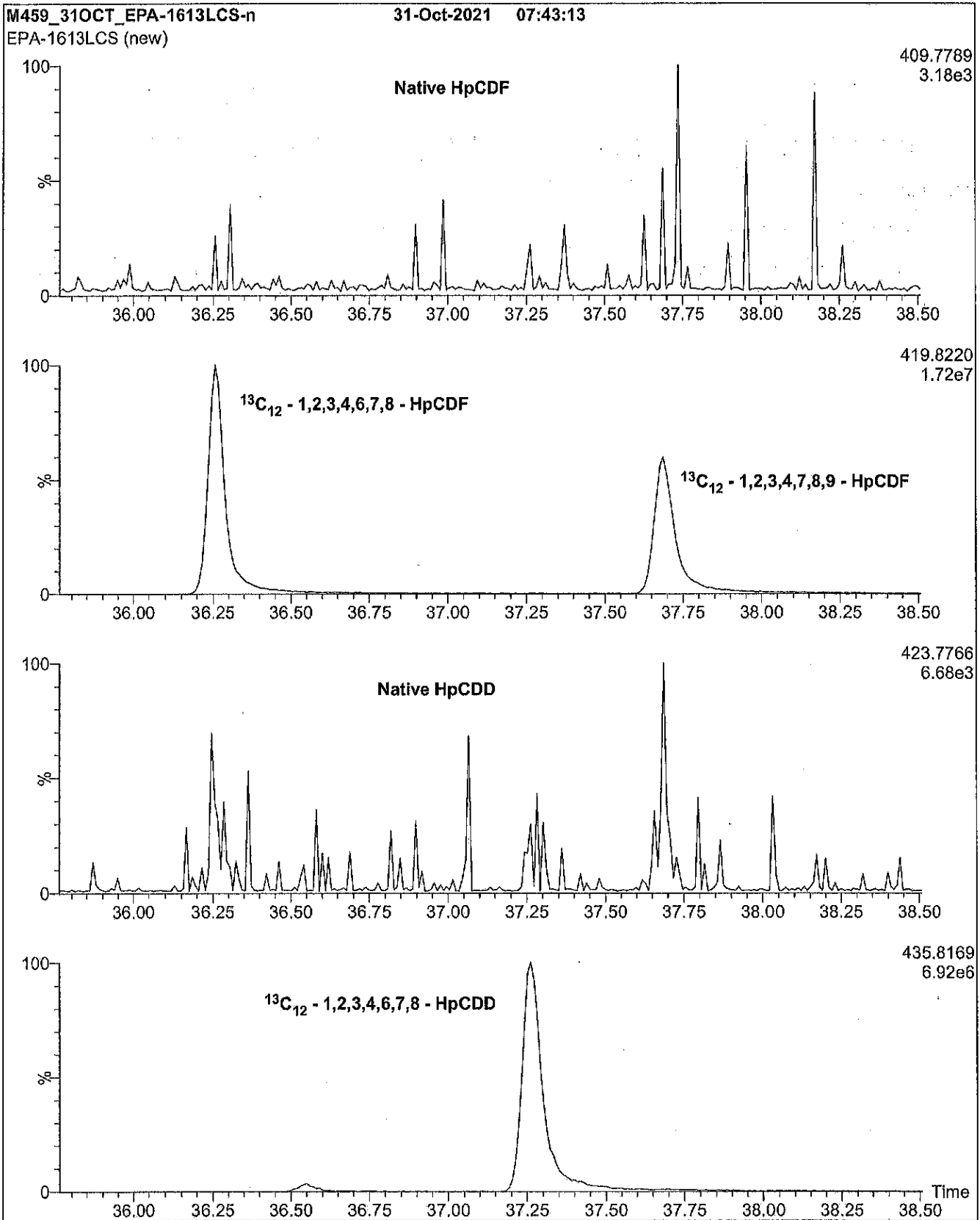
**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



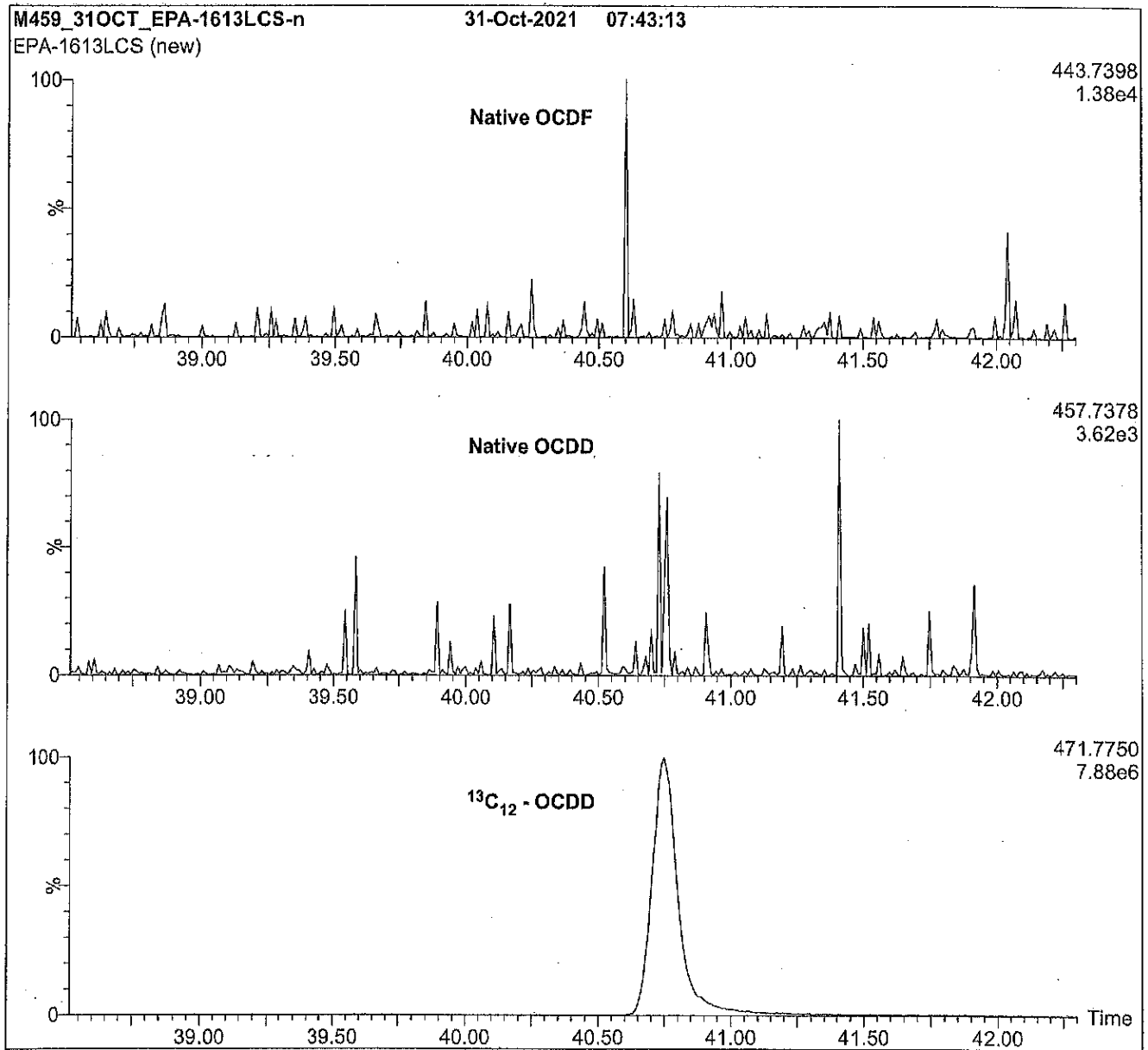
**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
Autospec Ultima HRMS

**Chromatographic Conditions:**

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)



K9821

**CS3WT**

**Calibration and Verification Solution (EPA-1613CS3)  
combined with Window Defining and 2,3,7,8-TCDD  
Resolution Testing Congeners**

**PRODUCT CODE:** CS3WT  
**LOT NUMBER:** CS3WT1021  
**SOLVENT(S):** Nonane/Toluene  
**DATE PREPARED:** (mm/dd/yyyy) 11/01/2021  
**LAST TESTED:** (mm/dd/yyyy) 11/02/2021  
**EXPIRY DATE:** (mm/dd/yyyy) 11/02/2028  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

**DESCRIPTION:**

CS3WT is a solution/mixture of native (<sup>12</sup>C<sub>12</sub>) and mass-labelled (<sup>13</sup>C<sub>12</sub>) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Tables A and B.

CS3WT is an HRGC/HRMS calibration solution that was designed and prepared to be used according to U.S. EPA Method 1613, Revision B, in place of EPA-1613CS3 (lot: 13CS31021). Additionally, it contains the PCDD and PCDF isomers required to set retention time windows as well as test and establish isomer specificity for 2,3,7,8-TCDD on a DB-5 (or equivalent) capillary column.

The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-(<sup>37</sup>Cl<sub>4</sub>)tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (<sup>37</sup>Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<b><u>PRODUCT CODE</u></b>	<b><u>LOT NUMBER</u></b>
EPA-1613CS1	13CS11021
EPA-1613CS2	13CS21021
EPA-1613CS3	13CS31021
EPA-1613CS4	13CS41021
EPA-1613CS5	13CS51021
EPA-1613CSL	13CSL1021
EPA-1613CS0.5	13CS0.51021

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA**  
**519-822-2436 • Fax: 519-822-2849 • info@well-labs.com**



### INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

### HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters  $x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) has been assigned to the quantitative components in this product. A maximum combined percent relative uncertainty of  $\pm 20\%$  has been assigned to the semi-quantitative components in this product.

### TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

### LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: CS3WT; Quantitative Components and Concentrations (ng/mL, ± 5%, in nonane/4.5% toluene)**

Compound	Designation <sup>a</sup>	Acronym	CAS #	Concentration (ng/mL)
<b>Native PCDDs:</b>				
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin		2,3,7,8-TCDD	1746-01-6	10.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin		1,2,3,7,8-PeCDD	40321-76-4	50.0
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,4,7,8-HxCDD	39227-28-6	50.0
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,6,7,8-HxCDD	57653-85-7	50.0
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	Last HxCDD <sup>b</sup>	1,2,3,7,8,9-HxCDD	19408-74-3	50.0
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	Last HpCDD	1,2,3,4,6,7,8-HpCDD	35822-46-9	50.0
Octachlorodibenzo- <i>p</i> -dioxin		OCDD	3268-87-9	100
<b>Native PCDFs:</b>				
2,3,7,8-Tetrachlorodibenzofuran		2,3,7,8-TCDF	51207-31-9	10.0
1,2,3,7,8-Pentachlorodibenzofuran		1,2,3,7,8-PeCDF	57117-41-6	50.0
2,3,4,7,8-Pentachlorodibenzofuran		2,3,4,7,8-PeCDF	57117-31-4	50.0
1,2,3,4,7,8-Hexachlorodibenzofuran		1,2,3,4,7,8-HxCDF	70648-26-9	50.0
1,2,3,6,7,8-Hexachlorodibenzofuran		1,2,3,6,7,8-HxCDF	57117-44-9	50.0
1,2,3,7,8,9-Hexachlorodibenzofuran		1,2,3,7,8,9-HxCDF	72918-21-9	50.0
2,3,4,6,7,8-Hexachlorodibenzofuran		2,3,4,6,7,8-HxCDF	60851-34-5	50.0
1,2,3,4,6,7,8-Heptachlorodibenzofuran	First HpCDF <sup>c</sup>	1,2,3,4,6,7,8-HpCDF	67562-39-4	50.0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	Last HpCDF	1,2,3,4,7,8,9-HpCDF	55673-89-7	50.0
Octachlorodibenzofuran		OCDF	39001-02-0	100
<b>Mass-Labelled PCDDs:</b>				
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -OCDD	114423-97-1	200
<b>Mass-Labelled PCDFs:</b>				
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran		<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	109719-94-0	100
<b>Cleanup Standard:</b>				
2,3,7,8-( <sup>37</sup> Cl <sub>4</sub> )Tetrachlorodibenzo- <i>p</i> -dioxin		<sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD	85508-50-5	10.0
<b>Internal Standards:</b>				
1,2,3,4-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD	114423-99-3	100
1,2,3,7,8,9-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin		<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD	109719-82-6	100

<sup>a</sup> First/Last eluting isomer for the specified homologue group (see Table B for additional Window Definers).

<sup>b,c</sup> – see Table B for footnote.

**Table B: CS3WT; Semi-Quantitative Components and Concentrations (ng/mL, ± 20%, in nonane/4.5% toluene)**

Compound	Designation <sup>a</sup>	Acronym	CAS #	Concentration (ng/mL)
<b>PCDD Window Definers:</b>				
1,3,6,8-Tetrachlorodibenzo- <i>p</i> -dioxin	First TCDD	1,3,6,8-TCDD	33423-92-6	10.0
1,2,8,9-Tetrachlorodibenzo- <i>p</i> -dioxin	Last TCDD	1,2,8,9-TCDD	62470-54-6	10.0
1,2,4,6,8-/1,2,4,7,9-Pentachlorodibenzo- <i>p</i> -dioxin	First PeCDD	1,2,4,6,8-PeCDD 1,2,4,7,9-PeCDD	71998-76-0 82291-37-0	50.0 <sup>d</sup>
1,2,3,8,9-Pentachlorodibenzo- <i>p</i> -dioxin	Last PeCDD	1,2,3,8,9-PeCDD	71925-18-3	50.0
1,2,4,6,7,9-Hexachlorodibenzo- <i>p</i> -dioxin	First HxCDD	1,2,4,6,7,9-HxCDD	39227-62-8	50.0
1,2,3,4,6,7,9-Heptachlorodibenzo- <i>p</i> -dioxin	First HpCDD	1,2,3,4,6,7,9-HpCDD	58200-70-7	50.0
<b>PCDF Window Definers:</b>				
1,3,6,8-Tetrachlorodibenzofuran	First TCDF	1,3,6,8-TCDF	71998-72-6	10.0
1,2,8,9-Tetrachlorodibenzofuran	Last TCDF	1,2,8,9-TCDF	70648-22-5	10.0
1,3,4,6,8-Pentachlorodibenzofuran	First PeCDF	1,3,4,6,8-PeCDF	83704-55-6	50.0
1,2,3,8,9-Pentachlorodibenzofuran	Last PeCDF	1,2,3,8,9-PeCDF	83704-54-5	50.0
1,2,3,4,6,8-Hexachlorodibenzofuran	First HxCDF	1,2,3,4,6,8-HxCDF	69698-60-8	50.0
<b>2,3,7,8-TCDD Resolution Testing Isomers:</b>				
1,2,3,4-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,4-TCDD	30746-58-8	5.00
1,2,3,7-/1,2,3,8-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,7-TCDD 1,2,3,8-TCDD	67028-18-6 53555-02-5	5.00 <sup>d</sup>
1,2,3,9-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,9-TCDD	71669-26-6	10.0

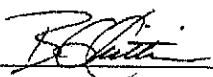
<sup>a</sup> First/Last eluting isomer for the specified homologue group (see Table A for additional Window Definers).

<sup>b</sup> 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD on a 60 m DB-5 column. Use 1,2,3,7,8,9-HxCDD (see Table A) and 1,2,3,4,6,7,9-HpCDD to approximate the end of the HxCDD window.

<sup>c</sup> 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF on a 60 m DB-5 column. Use 1,2,3,4,6,7,8-HpCDF (see Table A) to approximate the end of the HxCDF window.

<sup>d</sup> Total concentration of isomers.

Certified By: \_\_\_\_\_



B.G. Chittim, General Manager

Date: 11/05/2021

(mm/dd/yyyy)

**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

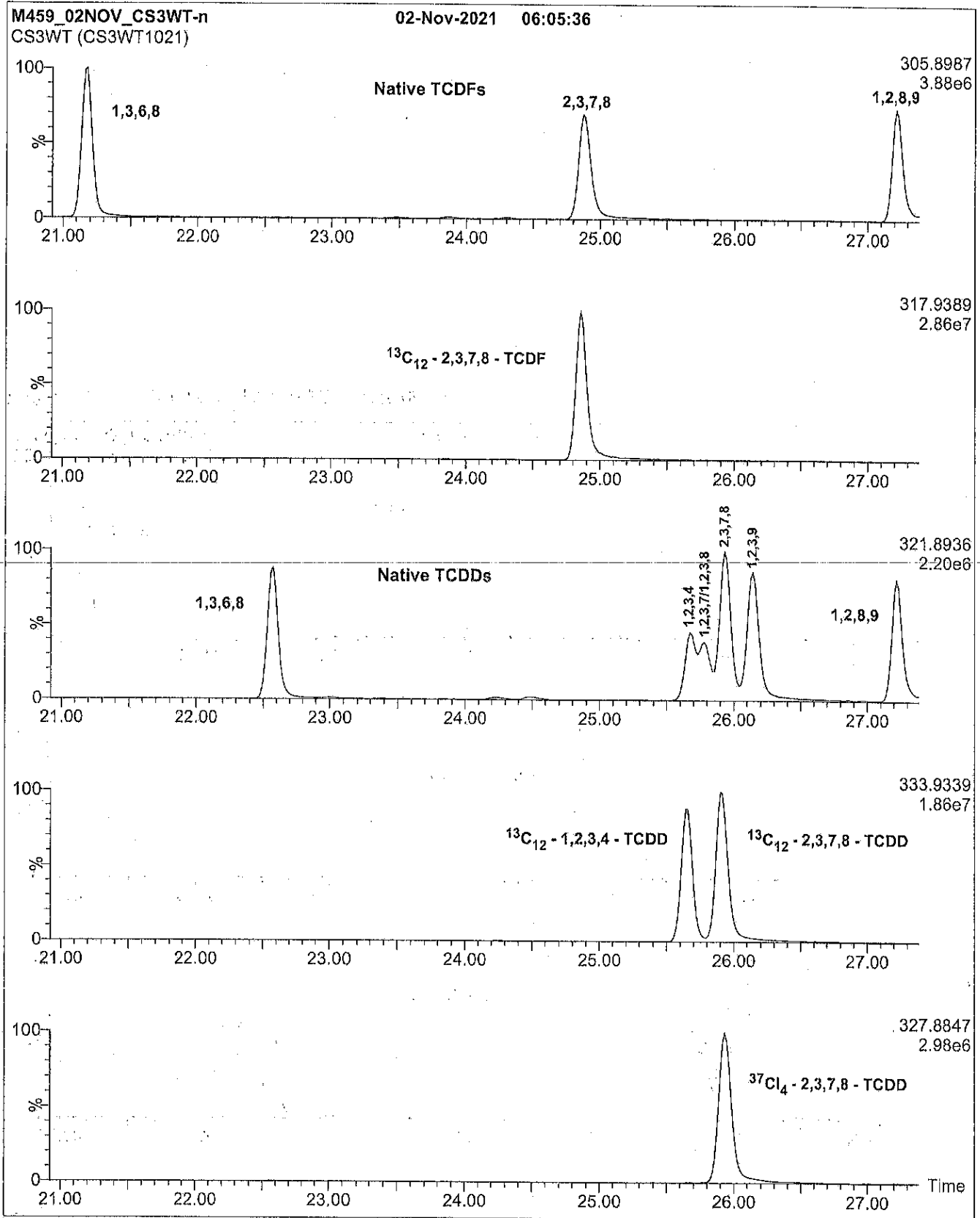
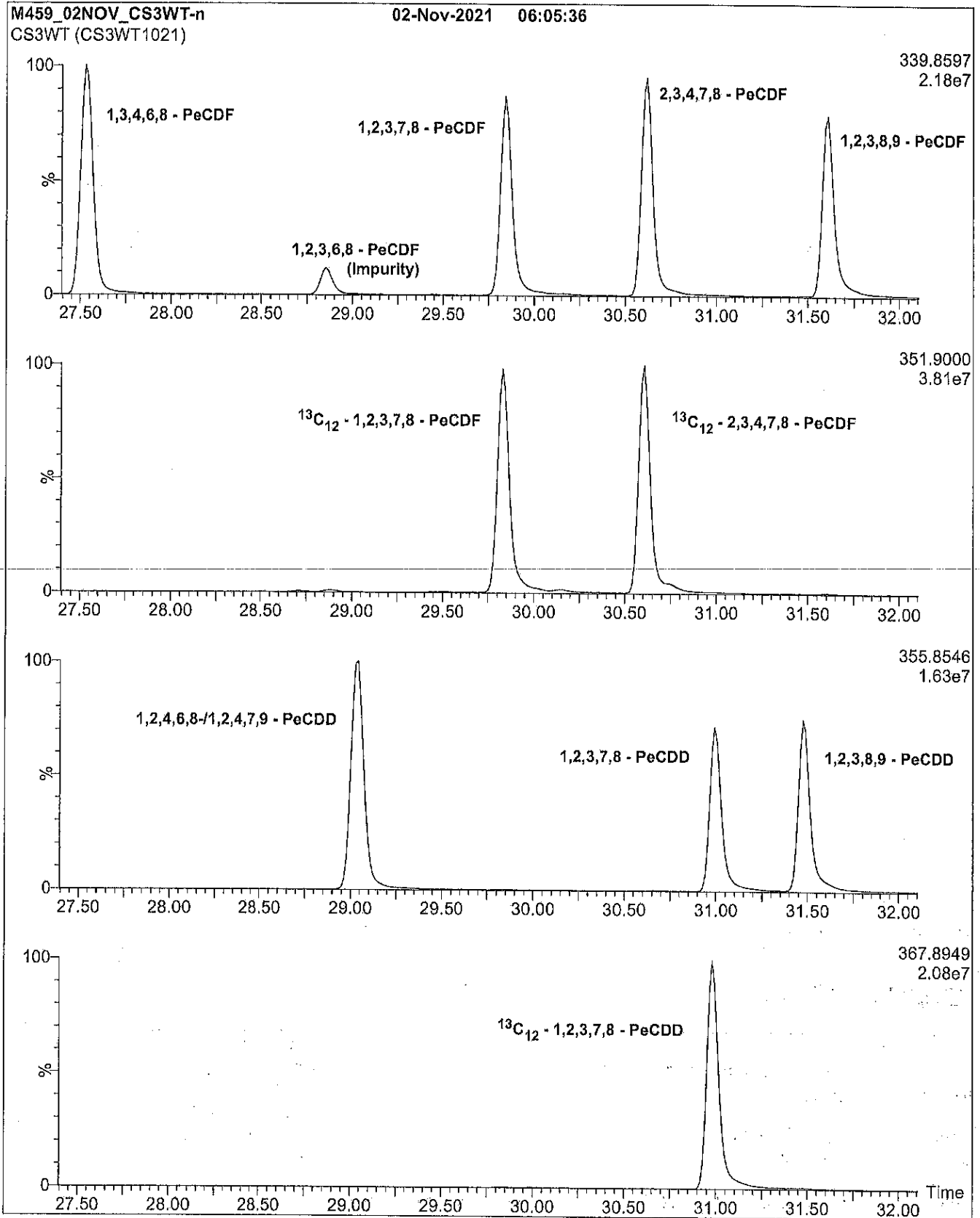


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

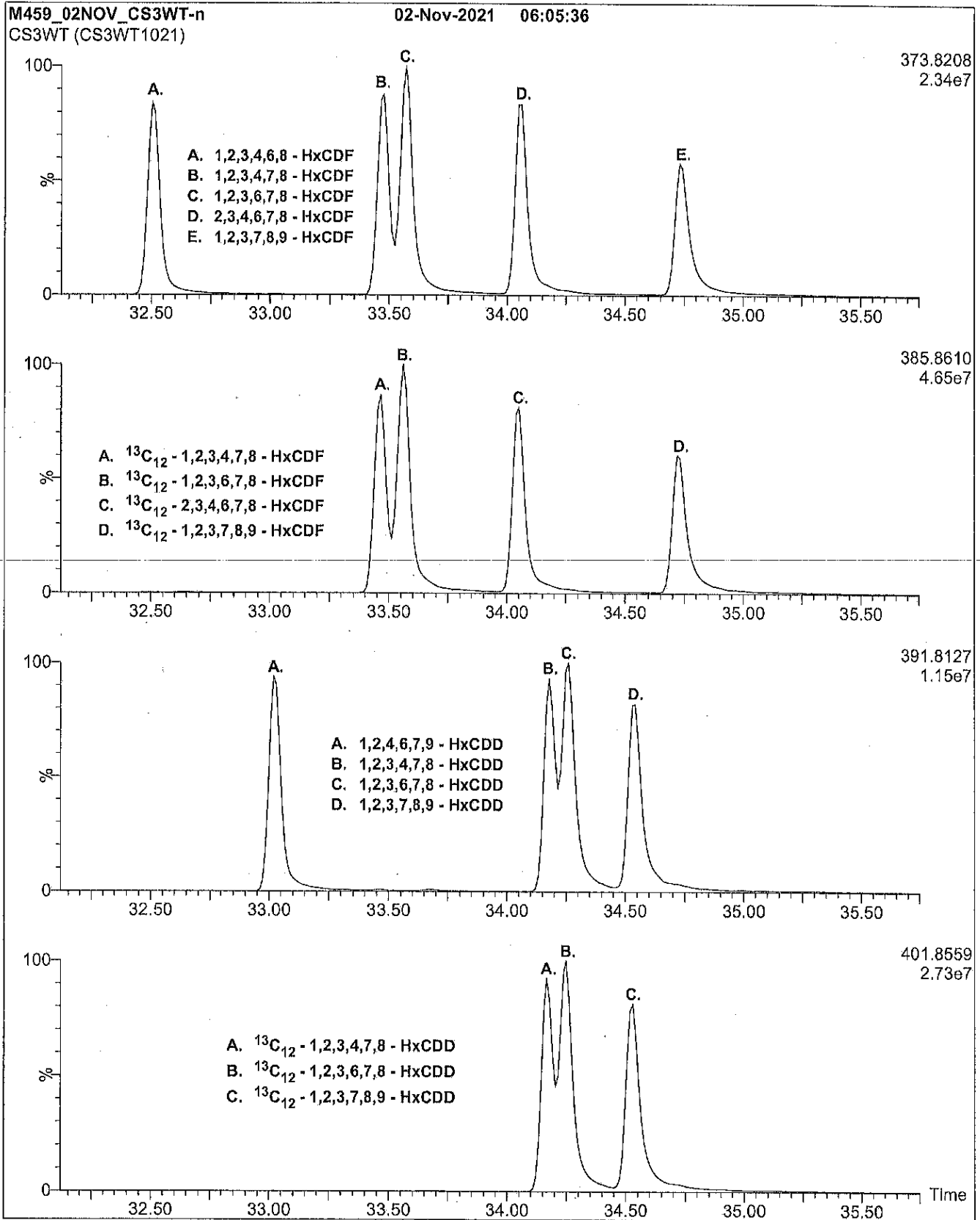
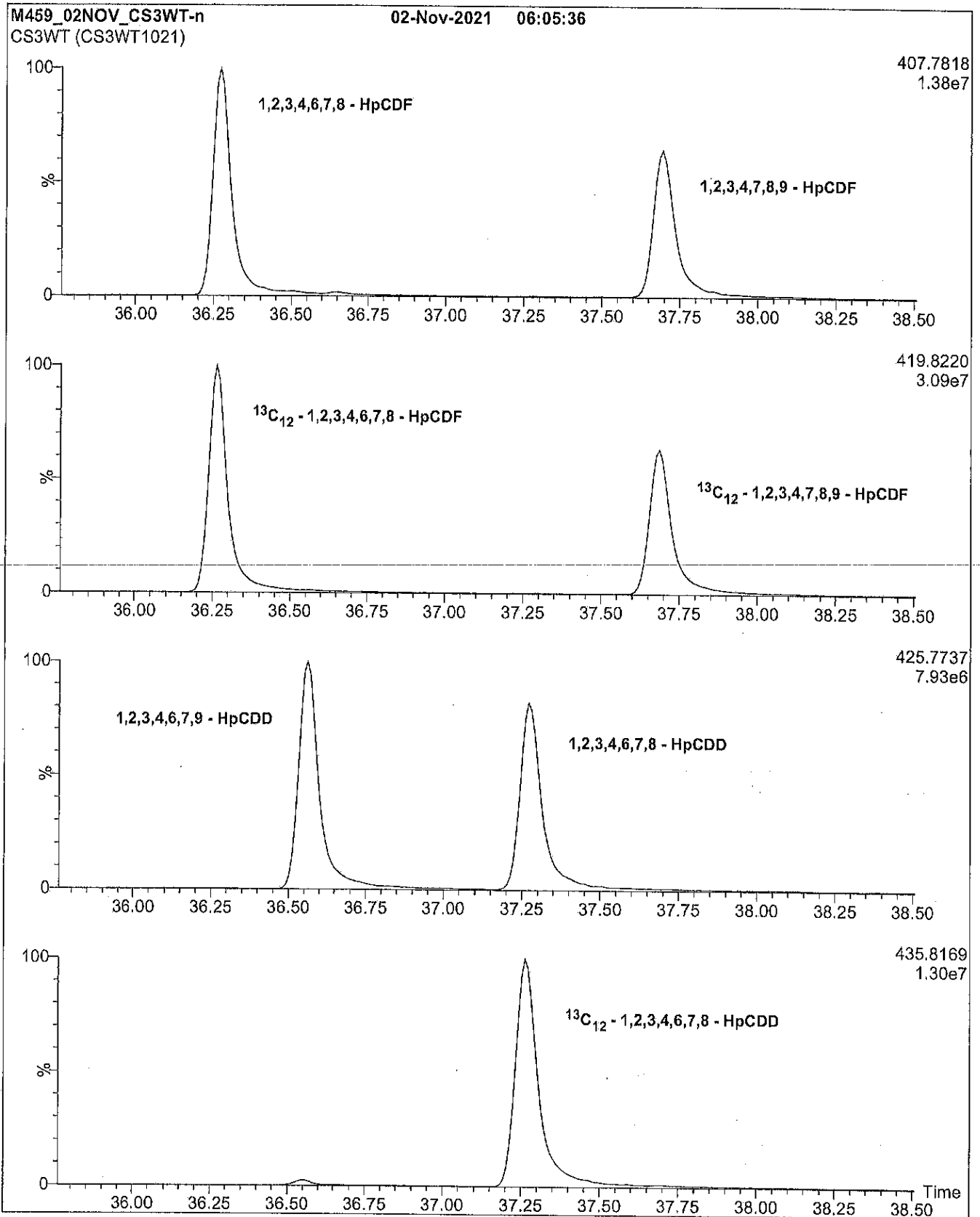
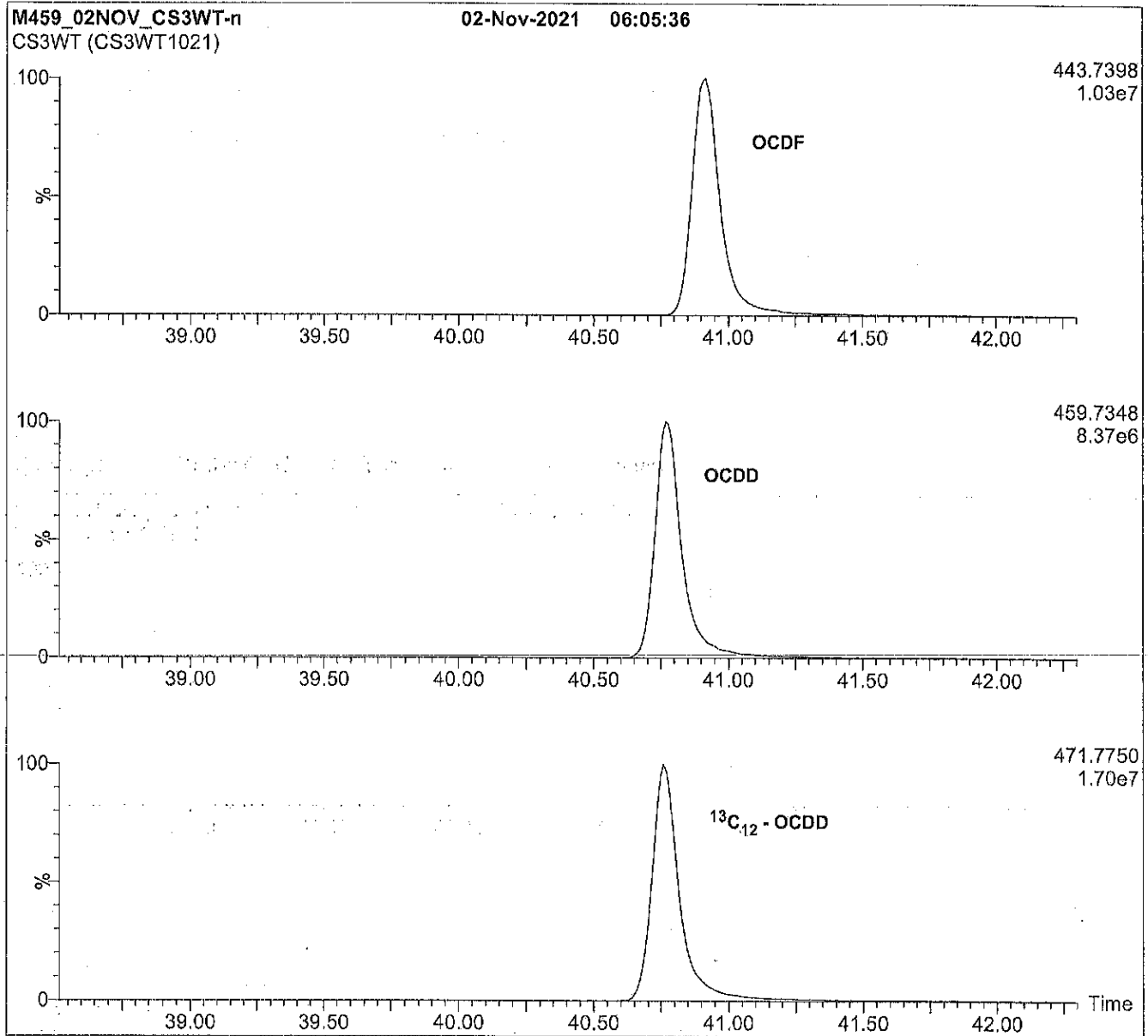


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



**Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
 Autospec Ultima HRMS

**Chromatographic Conditions:**

Column:	60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven:
Injector:	280°C (Splitless Injection)	150°C (1 min)
Ionization:	EI+	12°C/min to 200°C
Detector:	280°C	3°C/min to 235°C
	SIR at 10,000 mass resolving power	235°C (8 min)
		8°C/min to 310°C
		310°C (8 min)





**EPA-1613LCS**

**U.S. EPA Method 1613  
Labelled Compound Stock Solution**

<b><u>PRODUCT CODE:</u></b>	EPA-1613LCS
<b><u>LOT NUMBER:</u></b>	13LCS1021
<b><u>SOLVENT(S):</u></b>	Nonane/Toluene
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	10/29/2021
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	10/31/2021
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	10/31/2028
<b><u>RECOMMENDED STORAGE:</u></b>	Store ampoule in a cool, dark place

K 9985  
JK Reed  
10/27/22

**DESCRIPTION:**

EPA-1613LCS is a solution/mixture of mass-labelled (<sup>13</sup>C<sub>12</sub>) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual <sup>13</sup>C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%.

**DOCUMENTATION/ DATA ATTACHED:**

Table A: Components and Concentrations  
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

**ADDITIONAL INFORMATION:**

- See page 2 for further details.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

### **INTENDED USE:**

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

### **HANDLING:**

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

### **SYNTHESIS / CHARACTERIZATION:**

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

### **HOMOGENEITY:**

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

### **UNCERTAINTY:**

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty,  $u_c(y)$ , of a value  $y$  and the uncertainty of the independent parameters

$x_1, x_2, \dots, x_n$  on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of  $\pm 5\%$  (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

### **TRACEABILITY:**

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

### **EXPIRY DATE / PERIOD OF VALIDITY:**

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

### **LIMITED WARRANTY:**

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

### **QUALITY MANAGEMENT:**

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

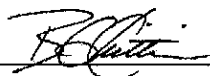


\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
<b>Mass-Labelled PCDDs:</b>			
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro( <sup>13</sup> C <sub>12</sub> )dibenzo- <i>p</i> -dioxin	<sup>13</sup> C <sub>12</sub> -OCDD	114423-97-1	200
<b>Mass-Labelled PCDFs:</b>			
2,3,7,8-Tetrachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro( <sup>13</sup> C <sub>12</sub> )dibenzofuran	<sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By:

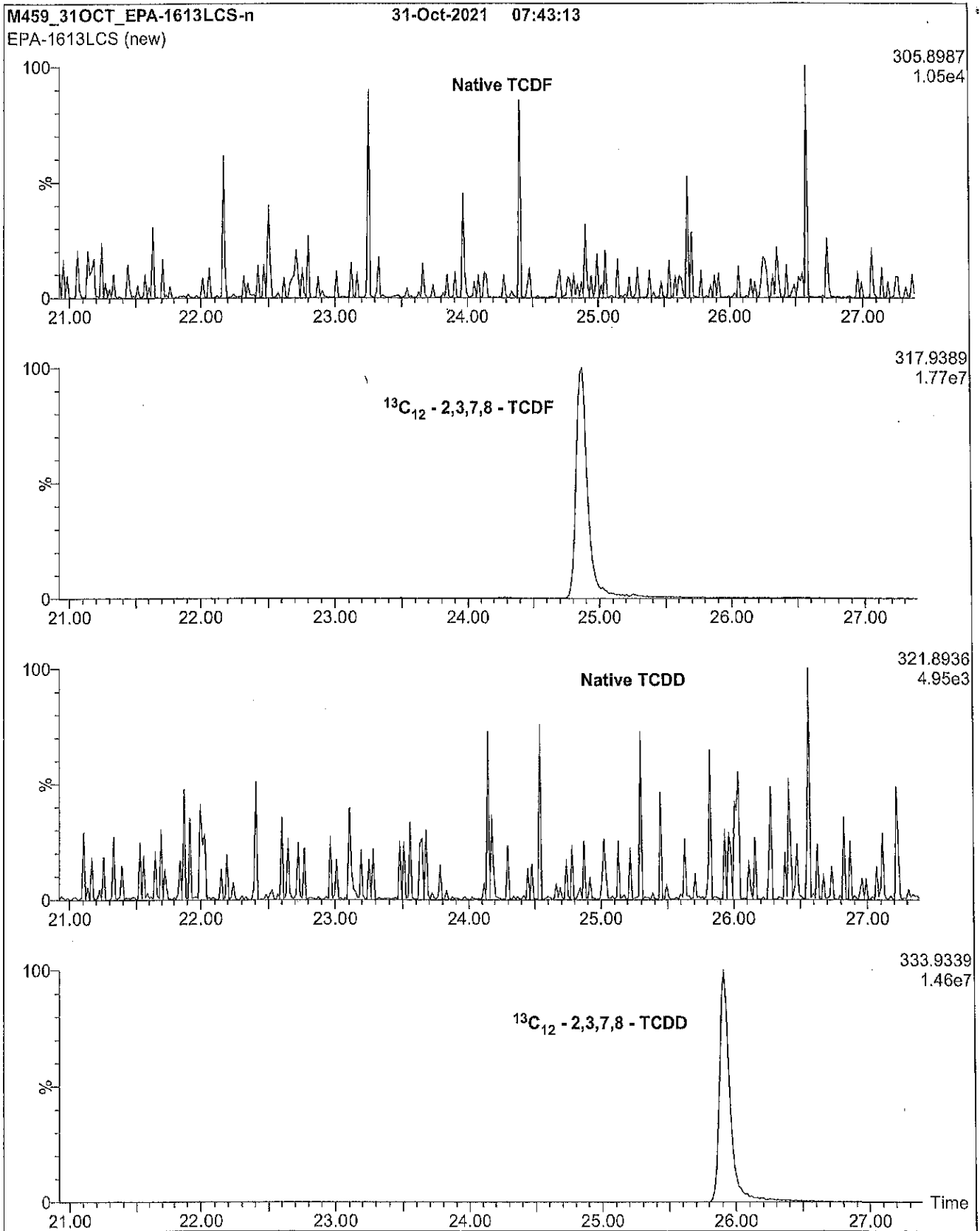


B.G. Chittim, General Manager

Date: 11/05/2021

(mm/dd/yyyy)

**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

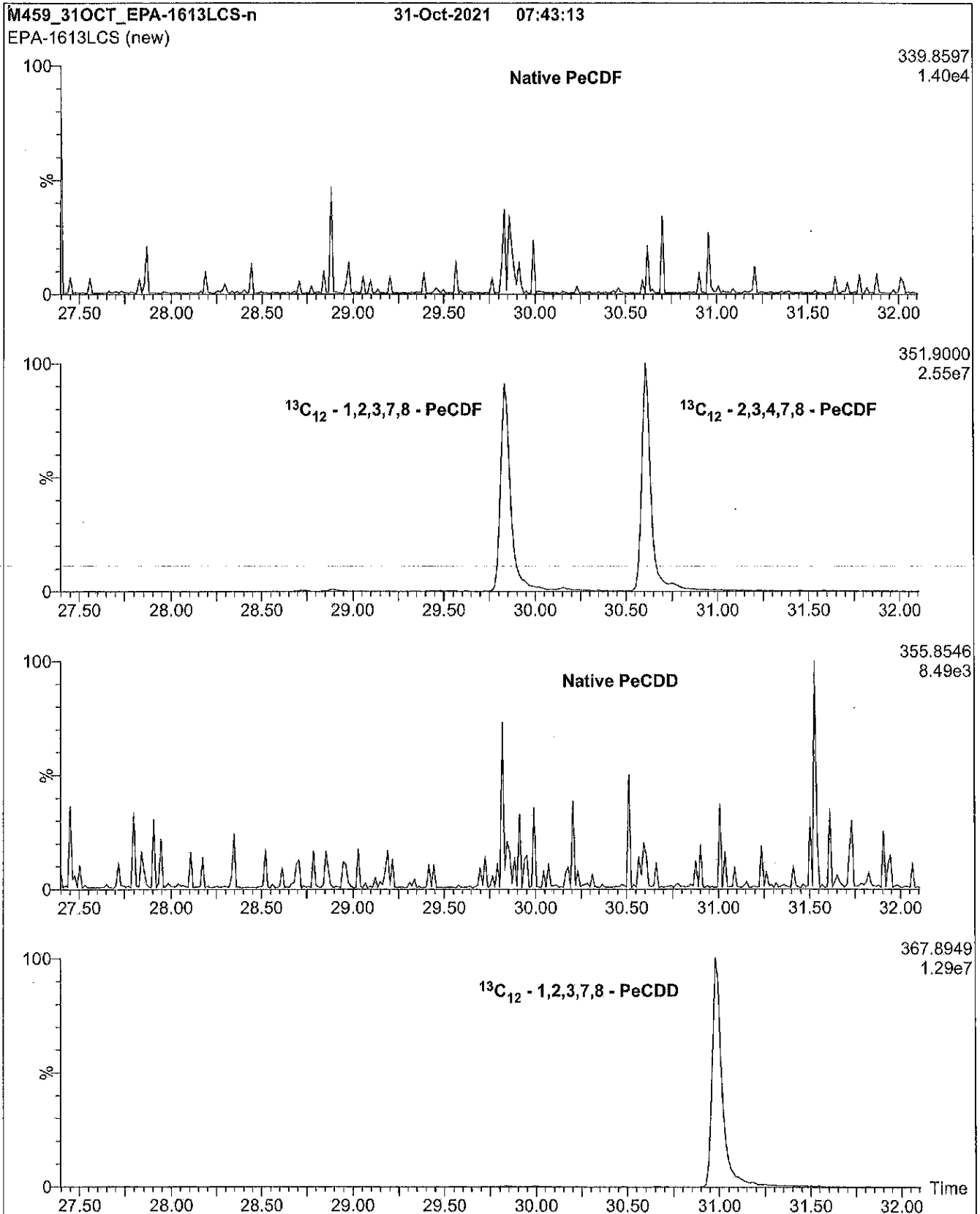
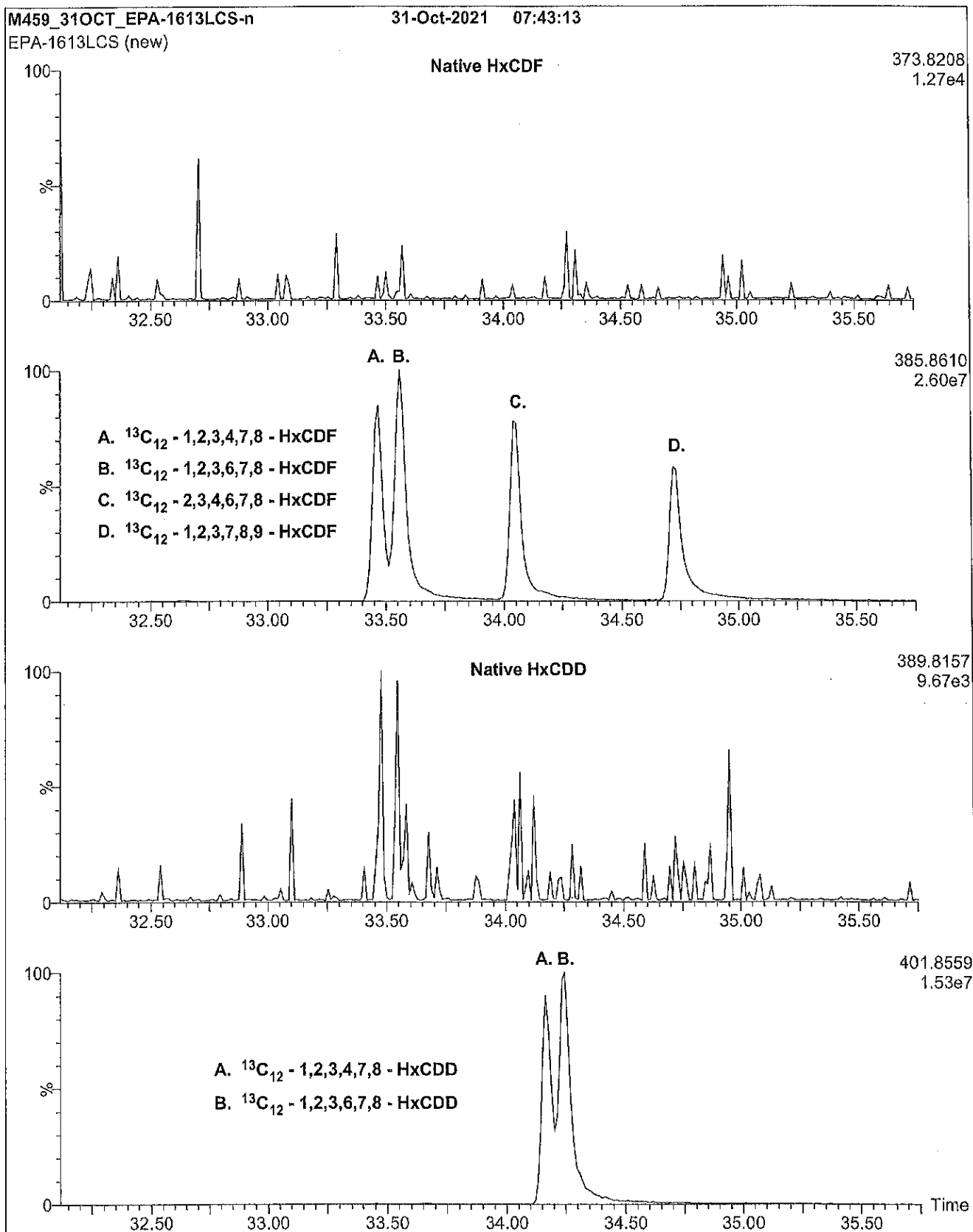
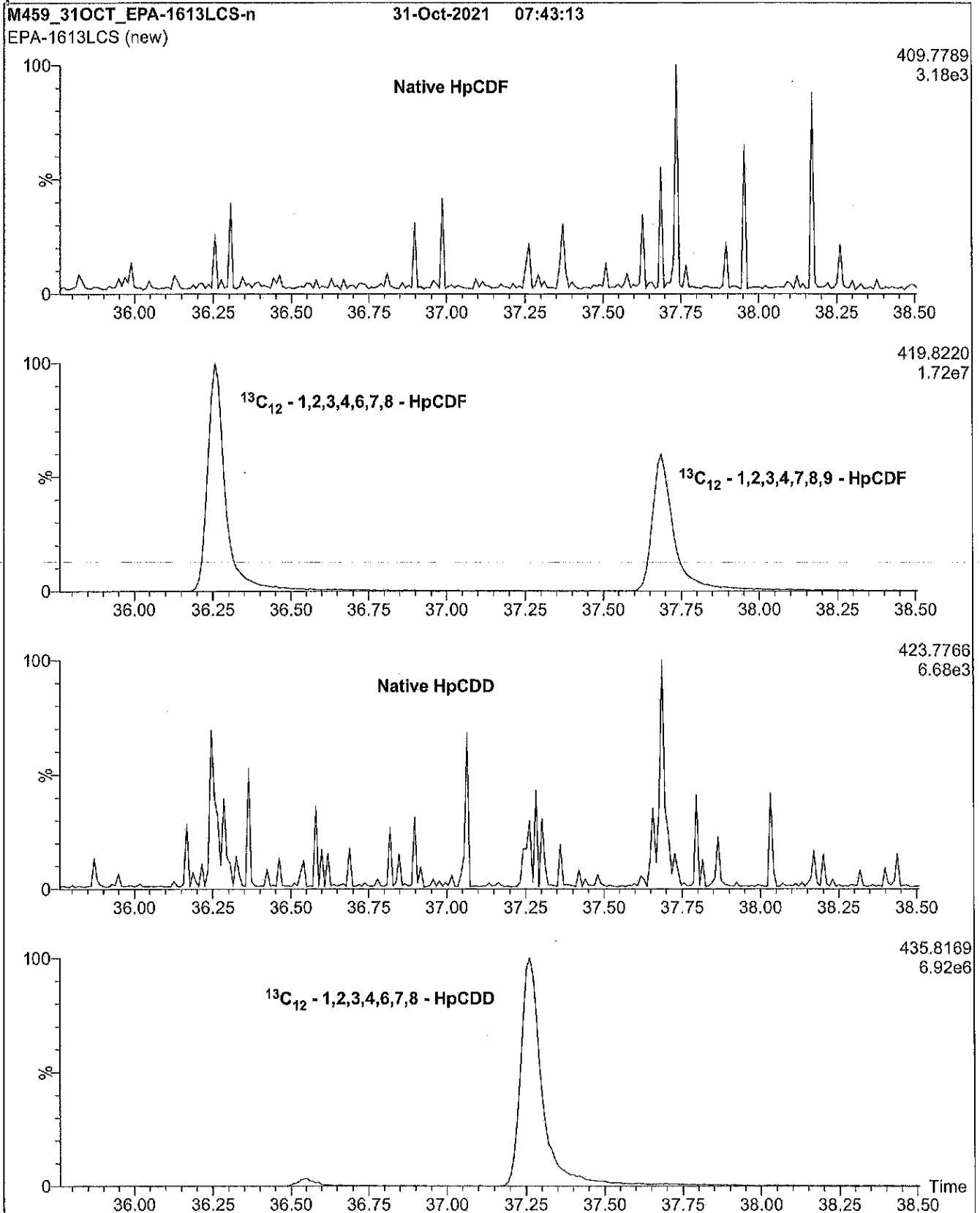


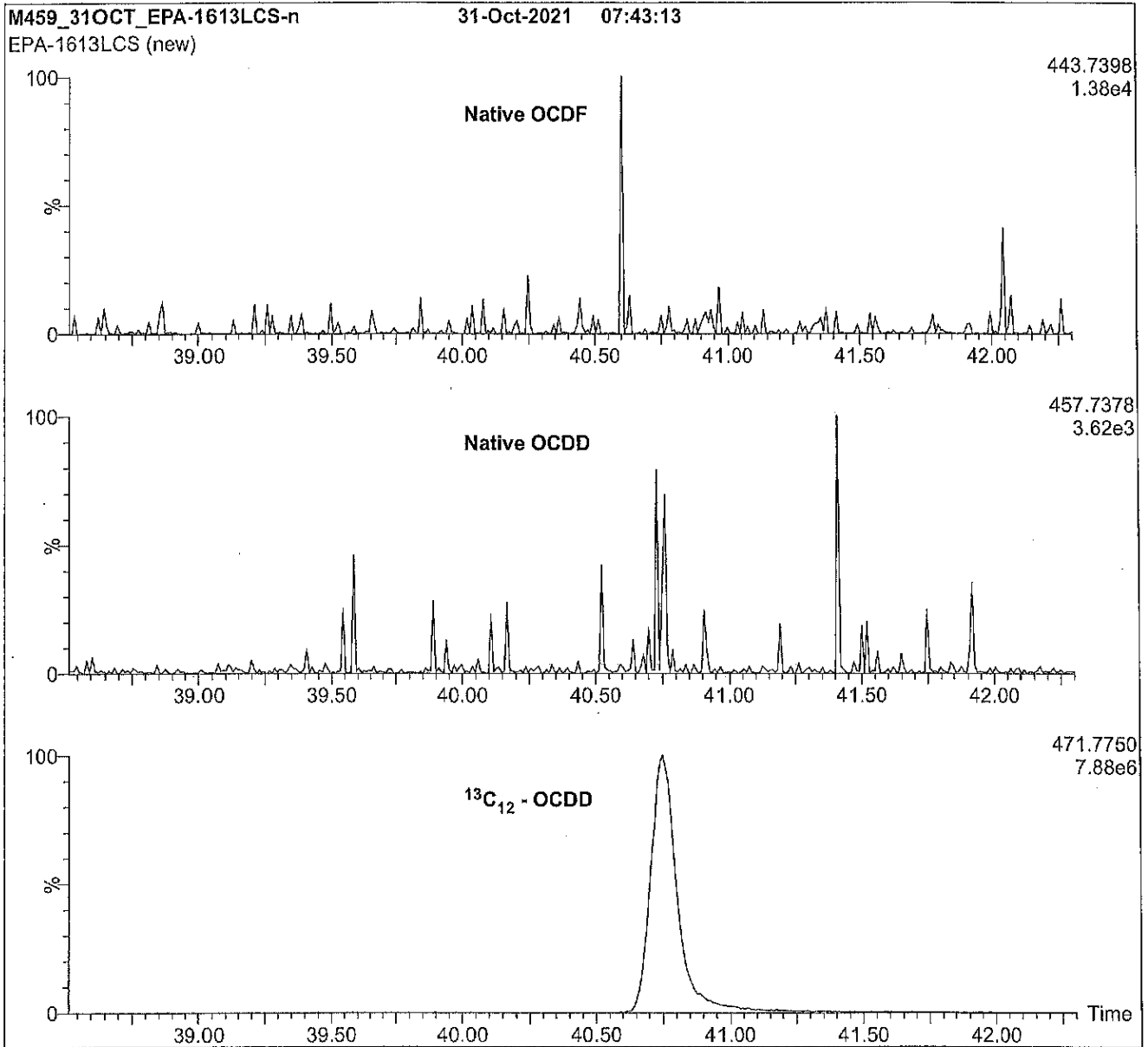
Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)



**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



**Conditions for Figure 1:**

Agilent 6890N HRGC  
 Autospec Ultima HRMS

**Chromatographic Conditions:**

Column:	60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	Ei+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)



# Recipient Copy

## CHAIN-OF-CUSTODY RECORD

COC No. 15570

Order Number: CB014985

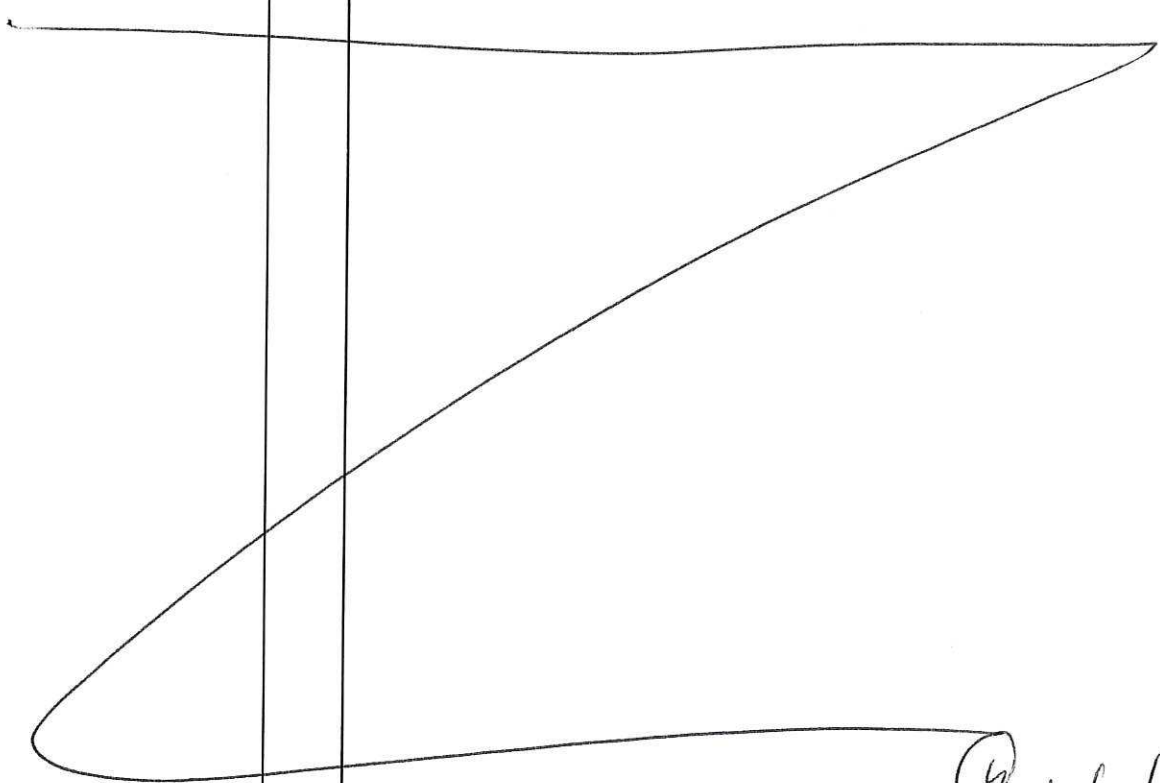
Date Shipped: 12/12/2022

AirBill No(s):

From: QATS LABORATORY  
2700 CHANDLER AVENUE, BLDG. B  
LAS VEGAS, NV 89120  
PHONE: 1-702-895-8712

To: SUE DUNNIHOO  
ANALYTICAL RESOURCES INC.  
4611 S. 134TH PLACE SUITE 100  
TUKWILA WA 98168  
250-695-6207

519204142631

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
K011477 PSRM0168	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
K011478 PSRM0169	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
K011479 PSRM0171	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
				
<p>12/12/2022</p> <p>PUGET SOUND SRM FOR DUWAMISH AOC4 PROJECT.</p>				

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 (1400) 12/12/2022	Received by: (Signature) <i>Phillip [Signature]</i>	Date/Time 12/12/22 11:15
Custody Seal(s): <u>Present</u> /Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time





## HOLDING TIME SUMMARY

**Analysis: ASTM D2216**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

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
LDW22-IT808A 22L0307-29	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	
LDW22-IT808B 22L0307-30	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	
LDW22-IT808C 22L0307-31	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	
LDW22-IT808D 22L0307-32	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	
LDW22-IT808E 22L0307-33	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	
LDW22-IT808F 22L0307-34	12/12/22 09:46	12/12/22 16:42	12/15/22 12:25	3	28	12/16/22 05:30	4	28	

\* Indicates hold time exceedance.



**Analytical Resources, LLC**  
Analytical Chemists and Consultants

**METHOD DETECTION  
AND REPORTING LIMITS**  
**ASTM D2216**

Laboratory: Analytical Resources, LLC

SDG: 22L0307

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Instrument:

<b>Analyte</b>	<b>MDL</b>	<b>RL</b>	<b>Units</b>
Total Solids		0.01	%