

November 30, 2020

**Vista Work Order No. 2002358**

Ms. Delaney Peterson  
Anchor QEA, LLC  
720 Olive Way, Suite 1900  
Seattle, WA 98101

Dear Ms. Peterson,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 03, 2020 under your Project Name 'GascoSiltronic: US Moorings'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.*

**Vista Work Order No. 2002358**

**Case Narrative**

**Sample Condition on Receipt:**

Four sediment samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements.

**Analytical Notes:**

**EPA Method 1613B**

These samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-DIOXIN GC column.

**Holding Times**

The samples were extracted and analyzed within the method hold times.

**Quality Control**

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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# Sample Inventory Report

<b>Vista Sample ID</b>	<b>Client Sample ID</b>	<b>Sampled</b>	<b>Received</b>	<b>Components/Containers</b>
2002358-01	USMPDI-055SC-A-01-02-201028	28-Oct-20 15:45	03-Nov-20 09:27	Amber Glass, 120 mL
2002358-02	USMPDI-055SC-A-02-03-201028	28-Oct-20 15:45	03-Nov-20 09:27	Amber Glass, 120 mL
2002358-03	USMPDI-055SC-A-03-04-201028	28-Oct-20 15:45	03-Nov-20 09:27	Amber Glass, 120 mL
2002358-04	USMPDI-055SC-A-04-05-201028	28-Oct-20 15:45	03-Nov-20 09:27	Amber Glass, 120 mL



## **ANALYTICAL RESULTS**

Sample ID: Method Blank					EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0K0115 Date Extracted: 14-Nov-2020 7:34		Lab Sample: B0K0115-BLK1 Date Analyzed: 20-Nov-20 12:23 Column: ZB-DIOXIN					
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.197			IS 13C-2,3,7,8-TCDD	103	25 - 164		
1,2,3,7,8-PeCDD	ND	0.107			13C-1,2,3,7,8-PeCDD	95.7	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.0970			13C-1,2,3,4,7,8-HxCDD	105	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.104			13C-1,2,3,6,7,8-HxCDD	102	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.112			13C-1,2,3,7,8,9-HxCDD	105	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.128			13C-1,2,3,4,6,7,8-HpCDD	93.5	23 - 140		
OCDD	ND	0.281			13C-OCDD	81.1	17 - 157		
2,3,7,8-TCDF	ND	0.0552			13C-2,3,7,8-TCDF	103	24 - 169		
1,2,3,7,8-PeCDF	ND	0.0452			13C-1,2,3,7,8-PeCDF	102	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0388			13C-2,3,4,7,8-PeCDF	103	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.103			13C-1,2,3,4,7,8-HxCDF	97.6	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0997			13C-1,2,3,6,7,8-HxCDF	94.5	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.111			13C-2,3,4,6,7,8-HxCDF	93.1	28 - 136		
1,2,3,7,8,9-HxCDF	ND	0.171			13C-1,2,3,7,8,9-HxCDF	95.8	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.0742			13C-1,2,3,4,6,7,8-HpCDF	81.1	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.0760			13C-1,2,3,4,7,8,9-HpCDF	78.6	26 - 138		
OCDF	ND	0.102			13C-OCDF	73.6	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	106	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.00		
<b>TOTALS</b>									
Total TCDD	ND	0.197							
Total PeCDD	ND	0.107							
Total HxCDD	ND	0.112							
Total HpCDD	ND	0.128							
Total TCDF	ND	0.0552							
Total PeCDF	ND	0.0452							
Total HxCDF	ND	0.171							
Total HpCDF	ND	0.0760							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: OPR					EPA Method 1613B		
Matrix: Solid	QC Batch: B0K0115	Lab Sample: B0K0115-BS1					
Sample Size: 10.0 g	Date Extracted: 14-Nov-2020 7:34	Date Analyzed: 20-Nov-20 10:08	Column: ZB-DIOXIN				
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	20.0	20.0	99.8	67 - 158	IS 13C-2,3,7,8-TCDD	102	20 - 175
1,2,3,7,8-PeCDD	109	100	109	70 - 142	13C-1,2,3,7,8-PeCDD	101	21 - 227
1,2,3,4,7,8-HxCDD	99.6	100	99.6	70 - 164	13C-1,2,3,4,7,8-HxCDD	106	21 - 193
1,2,3,6,7,8-HxCDD	101	100	101	76 - 134	13C-1,2,3,6,7,8-HxCDD	105	25 - 163
1,2,3,7,8,9-HxCDD	100	100	100	64 - 162	13C-1,2,3,7,8,9-HxCDD	108	21 - 193
1,2,3,4,6,7,8-HpCDD	96.4	100	96.4	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	100	26 - 166
OCDD	197	200	98.7	78 - 144	13C-OCDD	89.9	13 - 199
2,3,7,8-TCDF	17.6	20.0	88.1	75 - 158	13C-2,3,7,8-TCDF	102	22 - 152
1,2,3,7,8-PeCDF	98.0	100	98.0	80 - 134	13C-1,2,3,7,8-PeCDF	107	21 - 192
2,3,4,7,8-PeCDF	97.8	100	97.8	68 - 160	13C-2,3,4,7,8-PeCDF	110	13 - 328
1,2,3,4,7,8-HxCDF	91.6	100	91.6	72 - 134	13C-1,2,3,4,7,8-HxCDF	97.4	19 - 202
1,2,3,6,7,8-HxCDF	90.9	100	90.9	84 - 130	13C-1,2,3,6,7,8-HxCDF	94.6	21 - 159
2,3,4,6,7,8-HxCDF	90.8	100	90.8	70 - 156	13C-2,3,4,6,7,8-HxCDF	93.6	22 - 176
1,2,3,7,8,9-HxCDF	90.6	100	90.6	78 - 130	13C-1,2,3,7,8,9-HxCDF	94.6	17 - 205
1,2,3,4,6,7,8-HpCDF	90.2	100	90.2	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	83.8	21 - 158
1,2,3,4,7,8,9-HpCDF	89.2	100	89.2	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	81.7	20 - 186
OCDF	186	200	93.0	63 - 170	13C-OCDF	81.1	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	111	31 - 191

LCL-UCL - Lower control limit - upper control limit

**Sample ID: USMPDI-055SC-A-01-02-201028** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2002358-01      Date Received: 03-Nov-2020 9:27
Project: GascoSiltronic: US Moorings	Sample Size: 19.9 g	QC Batch: B0K0115      Date Extracted: 14-Nov-2020 7:34
Date Collected: 28-Oct-2020 15:45	% Solids: 50.2	Date Analyzed: 20-Nov-20 14:38      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.321		IS 13C-2,3,7,8-TCDD	108	25 - 164	
1,2,3,7,8-PeCDD	0.475			J	13C-1,2,3,7,8-PeCDD	106	25 - 181	
1,2,3,4,7,8-HxCDD	0.576			J	13C-1,2,3,4,7,8-HxCDD	110	32 - 141	
1,2,3,6,7,8-HxCDD	2.92				13C-1,2,3,6,7,8-HxCDD	108	28 - 130	
1,2,3,7,8,9-HxCDD	1.41			J	13C-1,2,3,7,8,9-HxCDD	112	32 - 141	
1,2,3,4,6,7,8-HpCDD	74.1				13C-1,2,3,4,6,7,8-HpCDD	109	23 - 140	
OCDD	751				13C-OCDD	97.8	17 - 157	
2,3,7,8-TCDF	7.20				13C-2,3,7,8-TCDF	106	24 - 169	
1,2,3,7,8-PeCDF	7.33				13C-1,2,3,7,8-PeCDF	111	24 - 185	
2,3,4,7,8-PeCDF	4.93				13C-2,3,4,7,8-PeCDF	113	21 - 178	
1,2,3,4,7,8-HxCDF	10.4				13C-1,2,3,4,7,8-HxCDF	100	26 - 152	
1,2,3,6,7,8-HxCDF	2.63				13C-1,2,3,6,7,8-HxCDF	94.8	26 - 123	
2,3,4,6,7,8-HxCDF	1.19			J	13C-2,3,4,6,7,8-HxCDF	95.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.389			J	13C-1,2,3,7,8,9-HxCDF	99.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	12.4				13C-1,2,3,4,6,7,8-HpCDF	88.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	2.04			J	13C-1,2,3,4,7,8,9-HpCDF	89.5	26 - 138	
OCDF	32.1				13C-OCDF	86.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	113	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      5.97

<b>TOTALS</b>		
Total TCDD	2.41	2.73
Total PeCDD	3.32	4.10
Total HxCDD	29.5	
Total HpCDD	243	
Total TCDF	22.8	24.6
Total PeCDF	27.7	
Total HxCDF	29.9	
Total HpCDF	35.5	

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: USMPDI-055SC-A-02-03-201028** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2002358-02      Date Received: 03-Nov-2020 9:27
Project: GascoSiltronic: US Moorings	Sample Size: 15.2 g	QC Batch: B0K0115      Date Extracted: 14-Nov-2020 7:34
Date Collected: 28-Oct-2020 15:45	% Solids: 67.4	Date Analyzed: 20-Nov-20 15:22      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.304		IS 13C-2,3,7,8-TCDD	110	25 - 164	
1,2,3,7,8-PeCDD	ND		0.556		13C-1,2,3,7,8-PeCDD	109	25 - 181	
1,2,3,4,7,8-HxCDD	0.660			J	13C-1,2,3,4,7,8-HxCDD	114	32 - 141	
1,2,3,6,7,8-HxCDD	5.73				13C-1,2,3,6,7,8-HxCDD	113	28 - 130	
1,2,3,7,8,9-HxCDD	2.22			J	13C-1,2,3,7,8,9-HxCDD	119	32 - 141	
1,2,3,4,6,7,8-HpCDD	92.4				13C-1,2,3,4,6,7,8-HpCDD	108	23 - 140	
OCDD	1130				13C-OCDD	97.7	17 - 157	
2,3,7,8-TCDF	15.6				13C-2,3,7,8-TCDF	109	24 - 169	
1,2,3,7,8-PeCDF	38.7				13C-1,2,3,7,8-PeCDF	114	24 - 185	
2,3,4,7,8-PeCDF	18.9				13C-2,3,4,7,8-PeCDF	113	21 - 178	
1,2,3,4,7,8-HxCDF	53.1				13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	19.0				13C-1,2,3,6,7,8-HxCDF	102	26 - 123	
2,3,4,6,7,8-HxCDF	5.39				13C-2,3,4,6,7,8-HxCDF	103	28 - 136	
1,2,3,7,8,9-HxCDF	1.74			J	13C-1,2,3,7,8,9-HxCDF	109	29 - 147	
1,2,3,4,6,7,8-HpCDF	33.9				13C-1,2,3,4,6,7,8-HpCDF	91.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	7.37				13C-1,2,3,4,7,8,9-HpCDF	89.8	26 - 138	
OCDF	68.6				13C-OCDF	87.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	114	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      18.9

<b>TOTALS</b>			
Total TCDD	2.28		2.58
Total PeCDD	4.72		5.94
Total HxCDD	41.2		
Total HpCDD	206		
Total TCDF	38.1		39.8
Total PeCDF	98.3		
Total HxCDF	109		
Total HpCDF	85.5		

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: USMPDI-055SC-A-03-04-201028** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2002358-03      Date Received: 03-Nov-2020 9:27
Project: GascoSiltronic: US Moorings	Sample Size: 17.3 g	QC Batch: B0K0115      Date Extracted: 14-Nov-2020 7:34
Date Collected: 28-Oct-2020 15:45	% Solids: 59.7	Date Analyzed: 20-Nov-20 16:07      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.168		IS 13C-2,3,7,8-TCDD	111	25 - 164	
1,2,3,7,8-PeCDD	ND		0.183		13C-1,2,3,7,8-PeCDD	108	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.132			13C-1,2,3,4,7,8-HxCDD	115	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.128			13C-1,2,3,6,7,8-HxCDD	113	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.138			13C-1,2,3,7,8,9-HxCDD	119	32 - 141	
1,2,3,4,6,7,8-HpCDD	2.09			J	13C-1,2,3,4,6,7,8-HpCDD	111	23 - 140	
OCDD	21.0				13C-OCDD	94.8	17 - 157	
2,3,7,8-TCDF	0.308			J	13C-2,3,7,8-TCDF	111	24 - 169	
1,2,3,7,8-PeCDF	ND		0.0662		13C-1,2,3,7,8-PeCDF	117	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0426			13C-2,3,4,7,8-PeCDF	118	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.104		13C-1,2,3,4,7,8-HxCDF	104	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0543			13C-1,2,3,6,7,8-HxCDF	99.9	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0605			13C-2,3,4,6,7,8-HxCDF	102	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0859			13C-1,2,3,7,8,9-HxCDF	108	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0766			13C-1,2,3,4,6,7,8-HpCDF	92.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0705			13C-1,2,3,4,7,8,9-HpCDF	88.6	26 - 138	
OCDF	ND	0.127			13C-OCDF	84.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	114	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      0.0580

<b>TOTALS</b>								
Total TCDD	0.879		1.22					
Total PeCDD	0.353		1.09					
Total HxCDD	2.63							
Total HpCDD	5.61							
Total TCDF	0.516		0.792					
Total PeCDF	ND		0.0662					
Total HxCDF	ND		0.104					
Total HpCDF	ND	0.0766						

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: USMPDI-055SC-A-04-05-201028** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2002358-04      Date Received: 03-Nov-2020 9:27
Project: GascoSiltronic: US Moorings	Sample Size: 12.6 g	QC Batch: B0K0115      Date Extracted: 14-Nov-2020 7:34
Date Collected: 28-Oct-2020 15:45	% Solids: 79.8	Date Analyzed: 20-Nov-20 16:52      Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0569			IS 13C-2,3,7,8-TCDD	108	25 - 164	
1,2,3,7,8-PeCDD	ND	0.114			13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0922			13C-1,2,3,4,7,8-HxCDD	114	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0933			13C-1,2,3,6,7,8-HxCDD	110	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0966			13C-1,2,3,7,8,9-HxCDD	115	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.25			J	13C-1,2,3,4,6,7,8-HpCDD	109	23 - 140	
OCDD	11.3				13C-OCDD	94.4	17 - 157	
2,3,7,8-TCDF	0.0923			J	13C-2,3,7,8-TCDF	105	24 - 169	
1,2,3,7,8-PeCDF	0.212			J	13C-1,2,3,7,8-PeCDF	111	24 - 185	
2,3,4,7,8-PeCDF	ND		0.0717		13C-2,3,4,7,8-PeCDF	111	21 - 178	
1,2,3,4,7,8-HxCDF	0.545			J	13C-1,2,3,4,7,8-HxCDF	100	26 - 152	
1,2,3,6,7,8-HxCDF	0.249			J	13C-1,2,3,6,7,8-HxCDF	96.6	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0515			13C-2,3,4,6,7,8-HxCDF	99.8	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0728			13C-1,2,3,7,8,9-HxCDF	104	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.750			J	13C-1,2,3,4,6,7,8-HpCDF	91.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.270			J	13C-1,2,3,4,7,8,9-HpCDF	90.3	26 - 138	
OCDF	0.846			J	13C-OCDF	86.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	113	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.121

<b>TOTALS</b>			
Total TCDD	0.227		
Total PeCDD	0.151	0.241	
Total HxCDD	1.21		
Total HpCDD	3.14		
Total TCDF	0.0923	0.226	
Total PeCDF	0.325	0.397	
Total HxCDF	0.969	1.04	
Total HpCDF	1.54		

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

## DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
K	EMPC (specific projects only)
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.



### Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

## NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

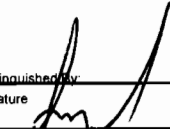
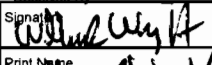
2002358 3.1°C

**POC: #** Delaney Peterson (360-715-2707)  
 1605 Cornwall Avenue, Bellingham, WA 98225

**Project:** GascoSiltronic: US Moorings  
**Client:** NW Natural

**COC ID:** VISTA-20201028-160308  
**Sample Custodian:** CO  
**Lab:** VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-055SC-A-01-02-201028	N	SE	10/28/2020	15:45	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
002	USMPDI-055SC-A-02-03-201028	N	SE	10/28/2020	15:45	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
003	USMPDI-055SC-A-03-04-201028	N	SE	10/28/2020	15:45	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
004	USMPDI-055SC-A-04-05-201028	N	SE	10/28/2020	15:45	1	<input type="checkbox"/>	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C

Comment:					
Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: 	Signature: 	Signature:	Signature:	Signature:	Signature:
Print Name: Sista Norwood	Print Name: William Wright	Print Name:	Print Name:	Print Name:	Print Name:
Company: Anchor OEA	Company: VAI	Company:	Company:	Company:	Company:
Date/Time: 10/25/20 09:10	Date/Time: 11/3/20 09:27	Date/Time:	Date/Time:	Date/Time:	Date/Time:



# Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2002358 TAT Std

<b>Samples Arrival:</b>	<b>Date/Time:</b> 11/3/20 09:27	<b>Initials:</b> Wew	<b>Location:</b> WR-2
			<b>Shelf/Rack:</b> NA
<b>Delivered By:</b>	FedEx	UPS	On Trac
		GLS	DHL
		Hand Delivered	Other
<b>Preservation:</b>	Ice	Blue Ice	Techni Ice
		Dry Ice	None
<b>Temp °C:</b> 3.1 (uncorrected)	<b>Probe used:</b> Y / N		<b>Thermometer ID:</b> IR-3
<b>Temp °C:</b> 3.1 (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill <u>142</u> Trk # <u>7719 6992 3185</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<input checked="" type="checkbox"/>	Client	Retain
		Return	Dispose
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Logged In:</b>	<b>Date/Time:</b> 11/03/20 13:57	<b>Initials:</b> KA	<b>Location:</b> <del>WR-2</del> KA 11/03/20 WR-2
			<b>Shelf/Rack:</b> D-3
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

# CoC/Label Reconciliation Report WO# 2002358

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002358-01	A USMPDI-055SC-A-01-02-201028	<input checked="" type="checkbox"/>	28-Oct-20 15:45	Amber Glass, 120 mL	Solid	
2002358-02	A USMPDI-055SC-A-02-03-201028	<input checked="" type="checkbox"/>	28-Oct-20 15:45	Amber Glass, 120 mL	Solid	
2002358-03	A USMPDI-055SC-A-03-04-201028	<input checked="" type="checkbox"/>	28-Oct-20 15:45	Amber Glass, 120 mL	Solid	
2002358-04	A USMPDI-055SC-A-04-05-201028	<input checked="" type="checkbox"/>	28-Oct-20 15:45	Amber Glass, 120 mL	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.  
Any discrepancies are noted in the following columns.

	Yes	No	NA	Comments:
Sample Container Intact?	<input checked="" type="checkbox"/>			
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>	
Adequate Sample Volume?	<input checked="" type="checkbox"/>			
Container Type Appropriate for Analysis(es)	<input checked="" type="checkbox"/>			
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>	

Verified by/Date: KA 11/03/20

## **EXTRACTION INFORMATION**

Process Sheet  
**Workorder: 2002358**

Prep Expiration: 2021-10-28  
 Client: Anchor QEA, LLC

**Workorder Due: 01-Dec-20 00:00**  
 TAT: 28

Method: **1613 Full List**  
 Matrix: **Solid**  
 Client Matrix: **Sediment**  
 Also run: **Percent Solids**

Prep Batch: BOK0115

Prep Data Entered: IM 11/16/20  
Date and Initials

Initial Sequence: SOK0057

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
2002358-01	<input checked="" type="checkbox"/>	USMPDI-055SC-A-01-02-201028	03-Nov-20 09:27	WR-2 D-3	
2002358-02	<input checked="" type="checkbox"/>	USMPDI-055SC-A-02-03-201028	03-Nov-20 09:27	WR-2 D-3	
2002358-03	<input checked="" type="checkbox"/>	USMPDI-055SC-A-03-04-201028	03-Nov-20 09:27	WR-2 D-3	
2002358-04	<input checked="" type="checkbox"/>	USMPDI-055SC-A-04-05-201028	03-Nov-20 09:27	WR-2 D-3	

**WO Comments: 1613: 10g dw**

Pre-Prep Check Out: CHT 11/06/20  
 Pre-Prep Check In: CHT 11/06/20

Prep Check Out: EM 11/14/20  
 Prep Check In: EM 11/14/20

Prep Reconciled Initials/Date: CHT 11/06/20  
 Spike Reconciled Initials/Date: EM 11/14/20  
 VialBoxID: Turkey



PREPARATION BENCH SHEET

Matrix: Solid

B0K0115

Chemist: ell

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 14-Nov-20 07:34

Sox	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS/PS CHEM/WIT DATE	AP CHEM/DATE	ABSG CHEM/DATE	AA CHEM/DATE	Florisil CHEM/DATE	RS CHEM/WIT DATE
A1	B0K0115-BLK1	N/A	(10.00)	20 <u>ell 11/14/20</u>	IM <u>HR 11/15/20</u>	N/A	IM 11/15/20	IM 11/15/20	IM 11/16/20	IM <u>RR 11/16/20</u>
A2	B0K0115-BS1	↓	(10.00)	↓	↓	↓	↓	↓	↓	↓
A3	2002357-01	6.58	6.77	↓	↓	↓	↓	↓	↓	↓
A4	2002357-02	5.77	5.93	↓	↓	↓	↓	↓	↓	↓
A5	2002358-01	19.93	19.93	↓	↓	↓	↓	↓	↓	↓
A6	2002358-02	14.83	15.15	↓	↓	↓	↓	↓	↓	↓
A7	2002358-03	16.74	17.30	↓	↓	↓	↓	↓	↓	↓
A8	2002358-04	12.52	12.59	↓	↓	↓	↓	↓	↓	↓
A9	2002368-01	6.25	6.42	↓	↓	↓	↓	↓	↓	↓
A10	2002368-02	6.46	7.04	↓	↓	↓	↓	↓	↓	↓
A11	2002368-03	6.30	6.95	↓	↓	↓	↓	↓	↓	↓
A12	2002368-04	6.24	6.31	↓	↓	↓	↓	↓	↓	↓
B1	2002368-05	6.43	6.81	↓	↓	↓	↓	↓	↓	↓
B2	2002368-06	6.30	6.85	↓	↓	↓	↓	↓	↓	↓
B3	2002368-07	6.67	6.70	↓	↓	↓	↓	↓	↓	↓

IS: <u>20F1101, 10µL (V3)</u>	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: <u>ell 11/14/20</u>	Soxhlet Siphoned Chemist/Date: <u>ell 11/14/20</u>	Notes:
NS: <u>20F0107, 10µL (V4)</u>	Start Date/Time: <u>11/14/20 1221</u>	SOLV: <u>TOL</u>	Check In: <u>ell 11/14/20</u>	Chemist/Date: <u>ell 11/14/20</u>	① IM 11/15/20
PS/CRS: <u>2060701, 10µL (V1)</u>	Stop Date/Time: <u>11/15/20 0640</u>	Other: <u>N/A</u>	Balance ID: <u>HRMS-08</u>	Vial Transfer Chemist/Date: <u>IM 11/16/20</u>	② sample poured through glass wool to remove dirt/sand IM 11/15/20
RS: <u>20E0702, 10µL (V1)</u>	Final Volume(s): <u>20µL C14</u>				③ delay to elute AA column w/ 20% DCM:HEXANE IM 11/15/20
Diox/F PCB PAH PEST PBDE HCB					④ channel found in AA column after eluting w/ 20% DCM:HEX 11/15/20 IM

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist
- 7 = Soxhlet approached dryness

\*IM 11/15/20

PREPARATION BENCH SHEET

Matrix: Solid

B0K0115

Chemist: GU

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 14-Nov-20 07:34

Sox	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS/PS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
B4	2002368-08	6.37	7.09	20 GU 11/14/20	IM 11/15/20	N/A 11/15/20	IM 11/15/20	IM 11/15/20	IM 11/16/20	IM 11/16/20
B5	2002368-09	6.13	6.38	T	T	T	T	T	T	T
B6	2002368-10	7.01	7.91	T	T	T	T	T	T	T
B7	2002368-11	6.53	6.68	T	T	T	T	T	T	T
B8	2002368-13	5.69	5.96	T	T	T	T	T	T	T
B9	2002409-01	16.38	16.97	T	T	T	T	T	T	T

\*IM 11/15/20

IS: 20F1101, 10µL (V3)	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: GU 11/14/20	Soxhlet Siphoned Chemist/Date: GU 11/14/20	Notes: (A) sample poured through glass wool to remove dirt/sand IM 11/15/20 (B) IM 11/15/20 (C) rotovap was set to 77°; removed sample & let cool before continuing to rotovap IM 11/15/20
NS: 20F0107, 10µL (V4)	Start Date/Time: 11/14/20 1221	SOLV: TDI	Check In: GU 11/14/20	Vial Transfer Chemist/Date: IM 11/16/20	
PS/CRS: 20E0701, 10µL (V1)	Stop Date/Time: 11/15/20 0640	Other: N/A	Balance ID: HRMS-08		
RS: 20E0702, 10µL (V1)		Final Volume(s): 20µL C14			
Diox/ PCB PAH PEST PBDE HCB					

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist
- 7 = Soxhlet approached dryness

Batch: B0K0115

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2002357-01	6.77 ✓	75.97292	5.1434	20 ✓	14-Nov-20 07:34 ✓	ACO ✓			Sediment	1613 Full List
2002357-02	5.93 ✓	86.58228	5.1343	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002358-01	19.93 ✓	50.1805	10.0010	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002358-02	15.15 ✓	67.4359	10.2165	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002358-03	17.3 ✓	59.73155	10.3336	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002358-04	12.59 ✓	79.84293	10.0522	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-01	6.42 ✓	80.00001	5.1360	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-02	7.04 ✓	77.42719	5.4509	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-03	6.95 ✓	79.31818	5.5126	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-04	6.31 ✓	80.18647	5.0598	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-05	6.81 ✓	77.77779	5.2967	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-06	6.85 ✓	79.31034	5.4328	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-07	6.7 ✓	75.00001	5.0250	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-08	7.09 ✓	78.48101	5.5643	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-09	6.38 ✓	81.5047	5.2000	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-10	7.91 ✓	71.36564	5.6450	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-11	6.68 ✓	76.61018	5.1176	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002368-13	5.96 ✓	87.92271	5.2402	20	14-Nov-20 07:34	ACO			Sediment	1613 Full List
2002409-01	16.97 ✓	48.84393	8.2888	20	14-Nov-20 07:34	ACO			Soil	1613 Full List
B0K0115-BLK1	10 ✓			20	14-Nov-20 07:34	ACO				QC
B0K0115-BS1	10 ✓			20 ✓	14-Nov-20 07:34 ✓	ACO ✓	20F0107 ✓	10 ✓		QC

All bolded data on report verified against written benchsheet by (initial/date) IM 11/16/20

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0K0052

<b>Analyst:</b> CHT ✓	<b>Test Code:</b> %Moist/%Solids	<b>Data Entry Verified by:</b> (Initial and Date) <u>YML 11/14/20</u>
<b>Analyte:</b> Dried at 110°C±5°C	<b>Units:</b> %	
<b>Oven ID:</b> 01 <u>02</u>		

**Date/Time IN:** 11/06/20 1249 ✓ **Date/Time OUT:** 11/13/20 1338 ✓

Inst HRMS-09 ✓

Particle Size	SampID	SampType	Initial and Date: Pan Tare Wt. (gms)	F Wet Pan and Sample Weight (g)	G Dry Pan and Sample Weight (g)	H Dry Sample Weight (g)	I %Solids RawVal	K Visual Inspection				O Acid Added	P Sample Homogenized*
								Visual Inspection	Cl-	pH Before	pH After		
	2002358-01	A ✓	1.2800 ✓	4.0500 ✓	2.6700 ✓	1.3900	50.18	Mud ✓	N/A	N/A	N/A	N/A	X
	2002358-02	A ✓	1.2900 ✓	5.1900 ✓	3.9200 ✓	2.6300	67.44	Mud ✓	N/A	N/A	N/A	N/A	X
	2002358-03	A ✓	1.2700 ✓	5.7400 ✓	3.9400 ✓	2.6700	59.73	Mud ✓	N/A	N/A	N/A	N/A	X
	2002358-04	A ✓	1.2700 ✓	5.0900 ✓	4.3200 ✓	3.0500	79.84	Dirt ✓	N/A	N/A	N/A	N/A	X

\*Sample homogenized in sample container unless otherwise noted.

**Percent Moisture/ Percent Solids**

D2216-90

BATCH ID B0K0052

Analyst: <b>CHT</b>	Test Code: %Moist/%Solids	Data Entry Verified by: (Initial and Date) <b>CH</b>
Analyte: Dried at 110°C+/-5°C	Units: %	
Oven ID: 01 <b>02</b>		

Inst **HPMS-9**

Date/Time IN: **11/06/20 12:49**    Date/Time OUT: **11/13/20 13:38**

B		C	D	E		F	G	H	I	K L M N O				P
Particle Size	SampID	SampType	Initial and Date:		Wet Pan and Sample	Dry Pan and Sample	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	Cl-	pH Before	pH After	Acid Added	Sample Homogenized*
			Pan Tare Wt. (gms)	Weight (g)	Weight (g)									
	2002358-01	<b>A</b>	Sample	1.28	<b>4.05</b>	<b>2.67</b>								✓
	2002358-02	<b>J</b>	Sample	1.29	<b>5.19</b>	<b>3.92</b>								✓
	2002358-03	<b>J</b>	Sample	1.27	<b>5.74</b>	<b>3.94</b>								✓
	2002358-04	<b>J</b>	Sample	1.27	<b>5.09</b>	<b>4.32</b>								✓

\*Sample homogenized in sample container unless otherwise noted.

SAMPLE DATA – EPA METHOD 1613



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-7.qld

Last Altered: Friday, November 20, 2020 1:14:19 PM Pacific Standard Time  
Printed: Monday, November 23, 2020 8:24:34 AM Pacific Standard Time

*Geo 11/23/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

*CT 11/25/2020*

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.950	10.000	26.112		1.001				0.197	
2	2 1,2,3,7,8-PeCDD			NO	0.885	10.000	30.819		1.000				0.107	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.000	34.135		1.000				0.0970	
4	4 1,2,3,6,7,8-HxCDD			NO	0.915	10.000	34.263		1.000				0.104	
5	5 1,2,3,7,8,9-HxCDD			NO	0.934	10.000	34.530		1.000				0.112	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.870	10.000	38.020		1.000				0.128	
7	7 OCDD			NO	0.872	10.000	40.977		1.000				0.281	
8	8 2,3,7,8-TCDF			NO	0.824	10.000	25.396		1.000				0.0552	
9	9 1,2,3,7,8-PeCDF			NO	0.963	10.000	29.557		1.000				0.0452	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.000	30.608		1.000				0.0388	
11	11 1,2,3,4,7,8-HxCDF			NO	0.953	10.000	33.220		1.000				0.103	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.000	33.358		1.000				0.0997	
13	13 2,3,4,6,7,8-HxCDF			NO	0.991	10.000	34.022		1.000				0.111	
14	14 1,2,3,7,8,9-HxCDF			NO	0.951	10.000	35.030		1.000				0.171	
15	15 1,2,3,4,6,7,8-HpCDF			NO	0.999	10.000	36.607		1.000				0.0742	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.12	10.000	38.648		1.000				0.0760	
17	17 OCDF			NO	0.868	10.000	41.273		1.000				0.102	
18	18 13C-2,3,7,8-TCDD	5.75e5	0.80	NO	1.11	10.000	26.074	26.08	1.030	1.030	206.36	103	0.398	
19	19 13C-1,2,3,7,8-PeCDD	4.13e5	0.64	NO	0.859	10.000	30.792	30.81	1.216	1.217	191.42	95.7	0.275	
20	20 13C-1,2,3,4,7,8-HxCDD	3.23e5	1.30	NO	0.700	10.000	34.135	34.13	1.014	1.014	210.42	105	0.803	
21	21 13C-1,2,3,6,7,8-HxCDD	3.71e5	1.28	NO	0.833	10.000	34.273	34.25	1.018	1.017	203.21	102	0.675	
22	22 13C-1,2,3,7,8,9-HxCDD	3.50e5	1.25	NO	0.762	10.000	34.516	34.52	1.025	1.025	209.58	105	0.738	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.66e5	1.03	NO	0.650	10.000	38.000	38.02	1.129	1.129	186.93	93.5	0.972	
24	24 13C-OCDD	3.84e5	0.92	NO	0.539	10.000	40.966	40.98	1.217	1.217	324.35	81.1	0.532	
25	25 13C-2,3,7,8-TCDF	7.82e5	0.79	NO	0.981	10.000	25.395	25.39	1.003	1.003	206.20	103	0.383	
26	26 13C-1,2,3,7,8-PeCDF	6.21e5	1.59	NO	0.792	10.000	29.524	29.55	1.166	1.167	203.21	102	0.770	
27	27 13C-2,3,4,7,8-PeCDF	6.20e5	1.58	NO	0.778	10.000	30.582	30.61	1.208	1.209	206.44	103	0.784	
28	28 13C-1,2,3,4,7,8-HxCDF	4.09e5	0.49	NO	0.954	10.000	33.226	33.22	0.987	0.987	195.26	97.6	0.582	
29	29 13C-1,2,3,6,7,8-HxCDF	4.17e5	0.51	NO	1.01	10.000	33.357	33.36	0.991	0.991	189.01	94.5	0.552	
30	30 13C-2,3,4,6,7,8-HxCDF	3.76e5	0.50	NO	0.921	10.000	34.027	34.02	1.011	1.010	186.25	93.1	0.603	

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-7.qld

Last Altered: Friday, November 20, 2020 1:14:19 PM Pacific Standard Time  
Printed: Monday, November 23, 2020 8:24:34 AM Pacific Standard Time

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	3.38e5	0.49	NO	0.803	10.000	35.024	35.03	1.040	1.041	191.65	95.8	0.691	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.62e5	0.43	NO	0.735	10.000	36.593	36.60	1.087	1.087	162.25	81.1	0.701	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.96e5	0.41	NO	0.568	10.000	38.630	38.65	1.147	1.148	157.13	78.6	0.909	
34	34 13C-OCDF	4.07e5	0.84	NO	0.629	10.000	41.249	41.26	1.225	1.226	294.49	73.6	0.502	
35	35 37Cl-2,3,7,8-TCDD	2.32e5			1.09	10.000	26.074	26.10	1.030	1.031	84.832	106	0.111	
36	36 13C-1,2,3,4-TCDD	5.02e5	0.82	NO	1.00	10.000	25.370	25.31	1.000	1.000	200.00	100	0.442	
37	37 13C-1,2,3,4-TCDF	7.73e5	0.77	NO	1.00	10.000	23.870	23.81	1.000	1.000	200.00	100	0.376	
38	38 13C-1,2,3,4,6,9-HxCDF	4.39e5	0.50	NO	1.00	10.000	33.710	33.67	1.000	1.000	200.00	100	0.556	
39	39 Total Tetra-Dioxins				0.950	10.000	24.620		0.000				0.0385	
40	40 Total Penta-Dioxins				0.885	10.000	29.960		0.000				0.0639	
41	41 Total Hexa-Dioxins				0.915	10.000	33.635		0.000				0.0655	
42	42 Total Hepta-Dioxins				0.870	10.000	37.640		0.000				0.0482	
43	43 Total Tetra-Furans				0.824	10.000	23.610		0.000				0.0284	
44	44 1st Func. Penta-Furans				0.963	10.000	26.930		0.000				0.0226	
45	45 Total Penta-Furans				0.963	10.000	29.275		0.000				0.0221	
46	46 Total Hexa-Furans				0.991	10.000	33.555		0.000				0.0345	
47	47 Total Hepta-Furans				0.999	10.000	37.835		0.000				0.0329	



Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-7.qld

Last Altered: Friday, November 20, 2020 1:14:19 PM Pacific Standard Time

Printed: Monday, November 23, 2020 8:24:34 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-7.qld

Last Altered: Friday, November 20, 2020 1:14:19 PM Pacific Standard Time

Printed: Monday, November 23, 2020 8:24:34 AM Pacific Standard Time

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

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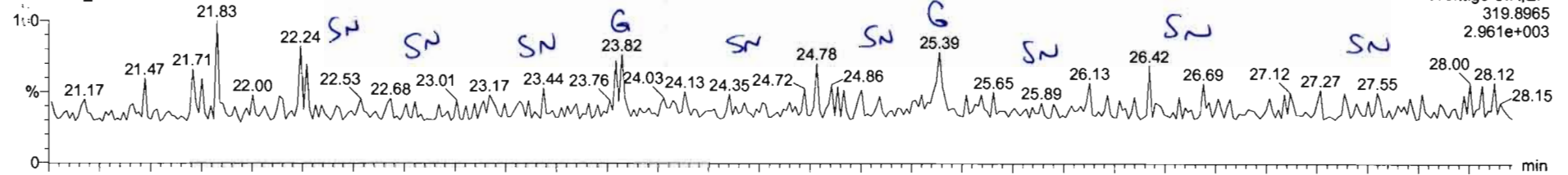
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

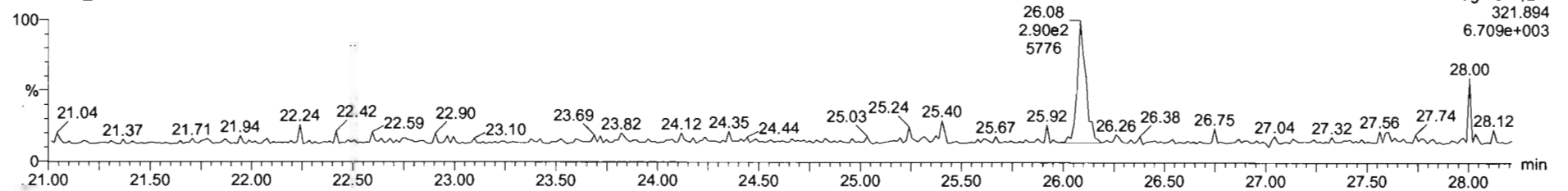
**2,3,7,8-TCDD**

201120R1\_7



F1:Voltage SIR,EI+  
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2.961e+003

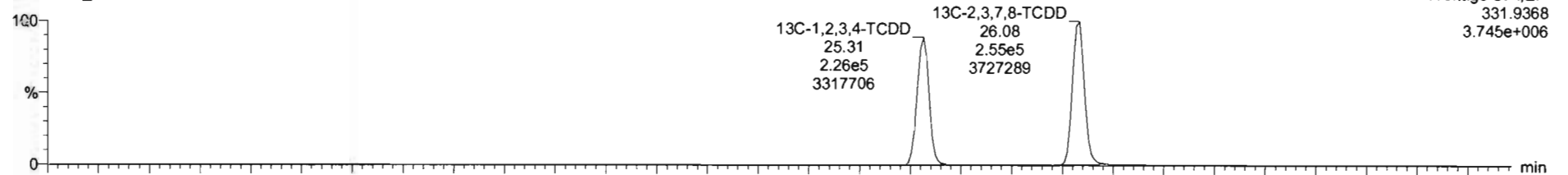
201120R1\_7



F1:Voltage SIR,EI+  
321.894  
6.709e+003

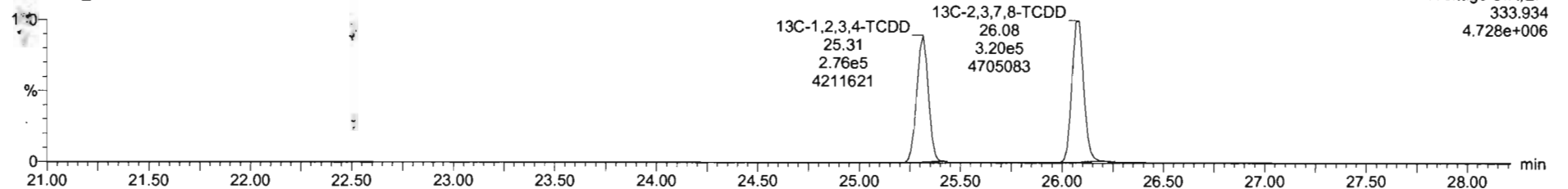
**13C-2,3,7,8-TCDD**

201120R1\_7



F1:Voltage SIR,EI+  
331.9368  
3.745e+006

201120R1\_7



F1:Voltage SIR,EI+  
333.934  
4.728e+006

Dataset: Untitled

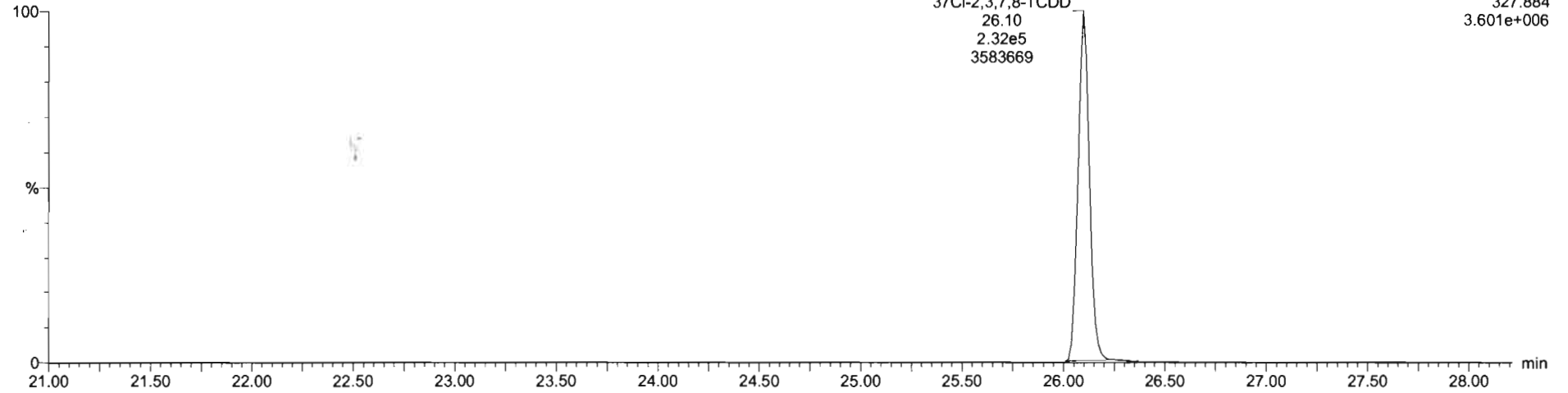
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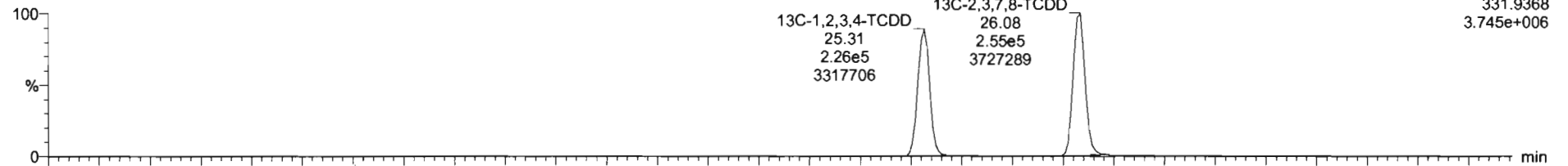
**37Cl-2,3,7,8-TCDD**

201120R1\_7

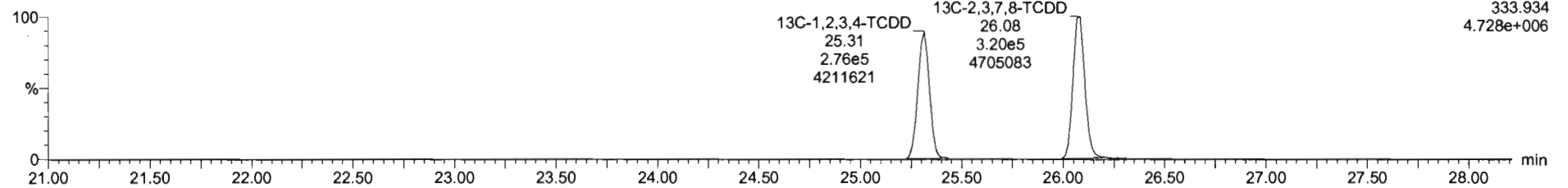


**13C-1,2,3,4-TCDD**

201120R1\_7



201120R1\_7



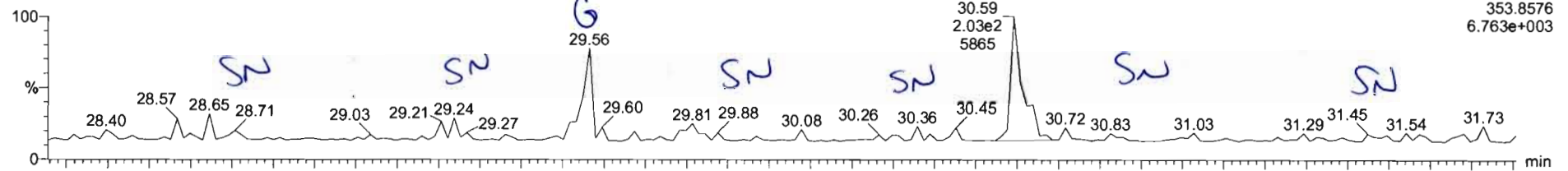
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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
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Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

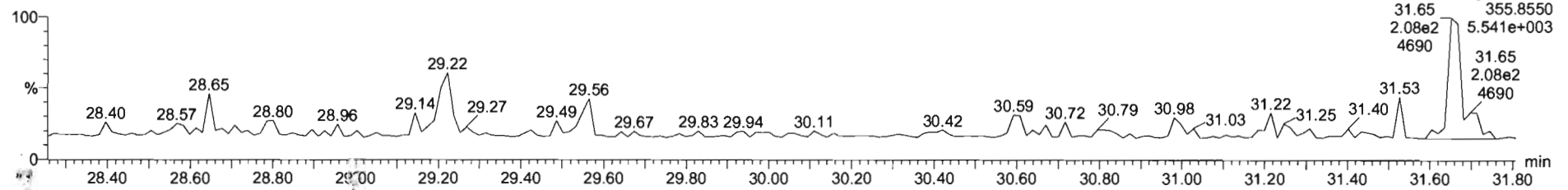
1,2,3,7,8-PeCDD

201120R1\_7



F2:Voltage SIR,EI+  
353.8576  
6.763e+003

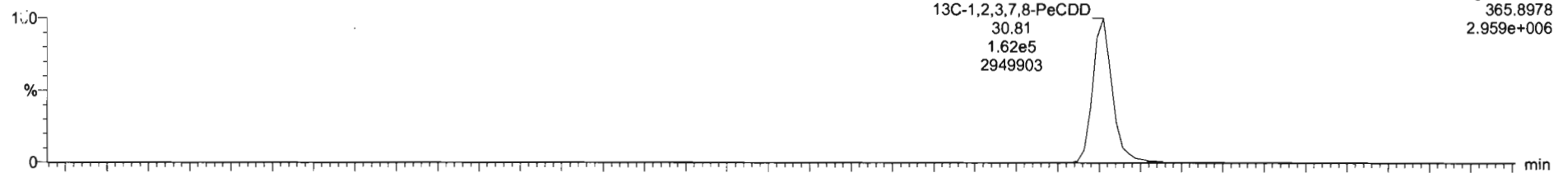
201120R1\_7



F2:Voltage SIR,EI+  
31.65 355.8550  
2.08e2 5.541e+003  
4690

13C-1,2,3,7,8-PeCDD

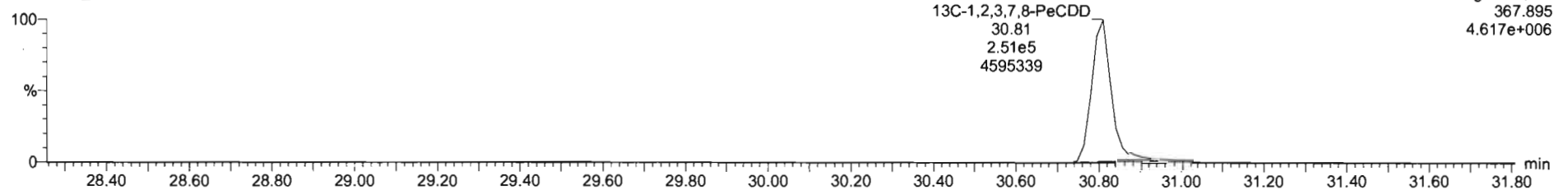
201120R1\_7



13C-1,2,3,7,8-PeCDD  
30.81  
1.62e5  
2949903

F2:Voltage SIR,EI+  
365.8978  
2.959e+006

201120R1\_7



13C-1,2,3,7,8-PeCDD  
30.81  
2.51e5  
4595339

F2:Voltage SIR,EI+  
367.895  
4.617e+006

Dataset: Untitled

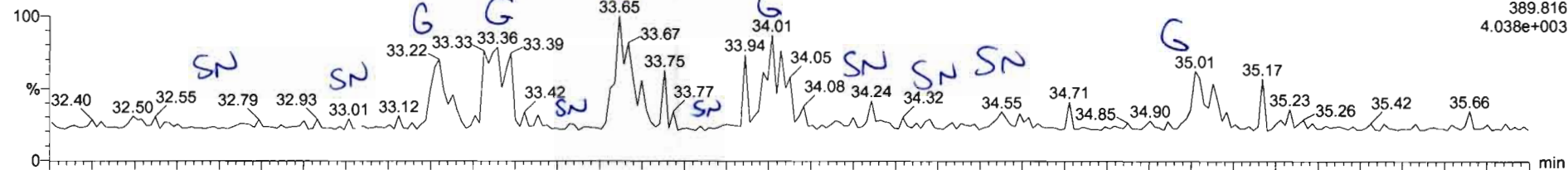
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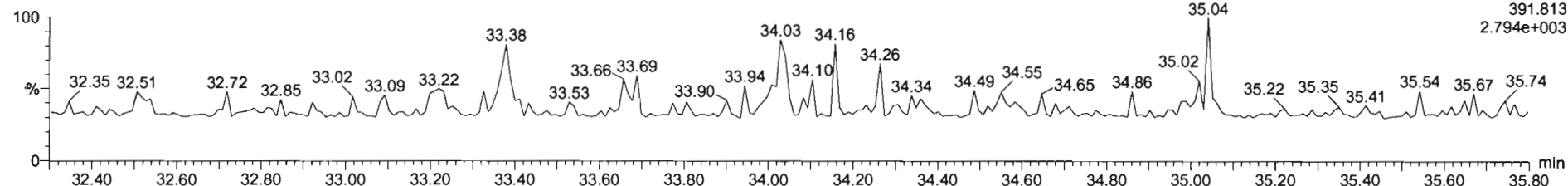
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1,2,3,4,7,8-HxCDD

201120R1\_7

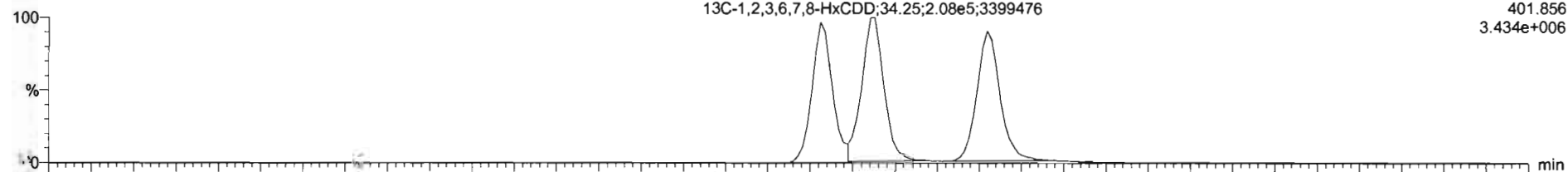


201120R1\_7

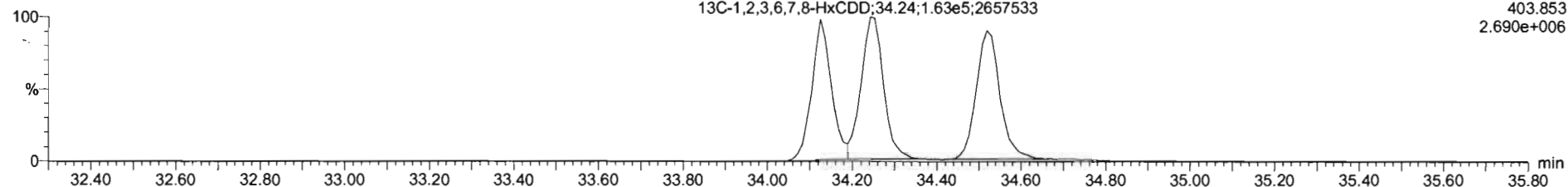


13C-1,2,3,4,7,8-HxCDD

201120R1\_7



201120R1\_7



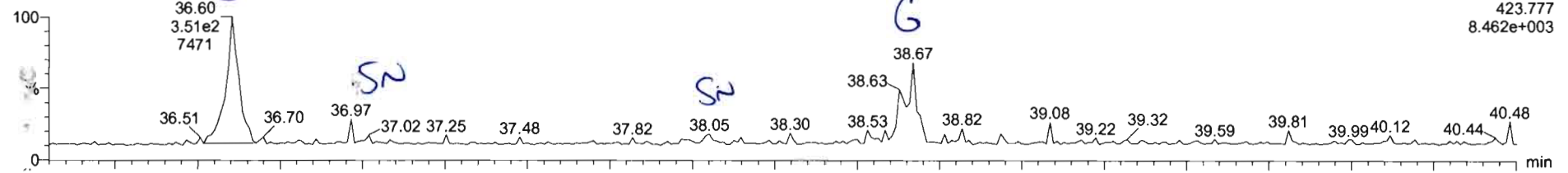
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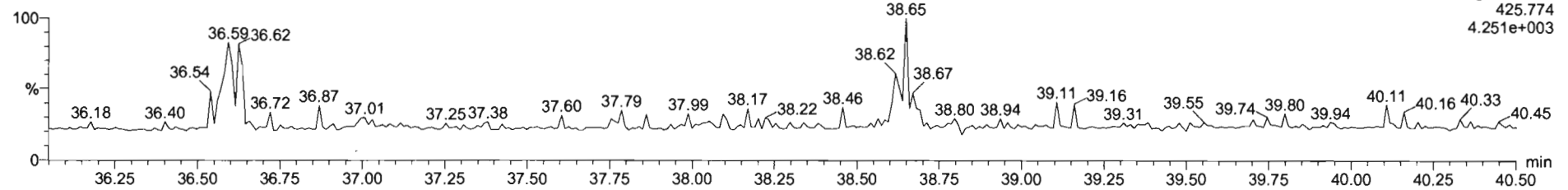
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1,2,3,4,6,7,8-HpCDD

201120R1\_7

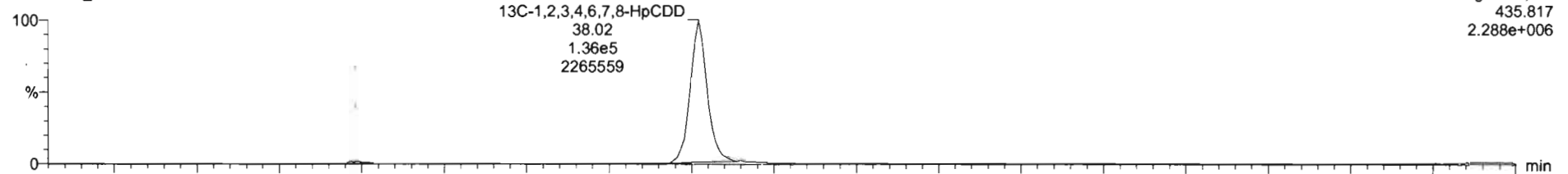


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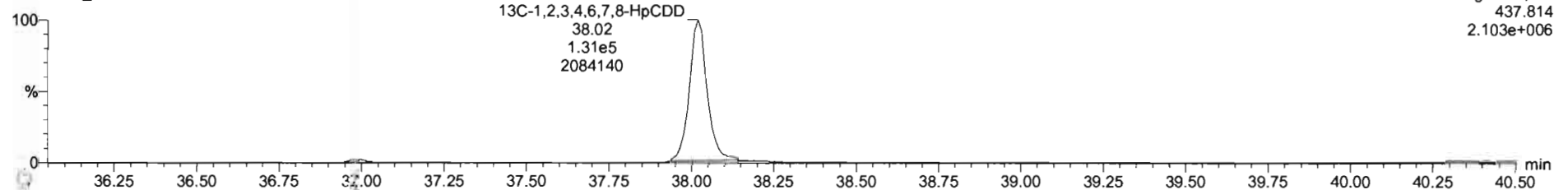


13C-1,2,3,4,6,7,8-HpCDD

201120R1\_7



201120R1\_7

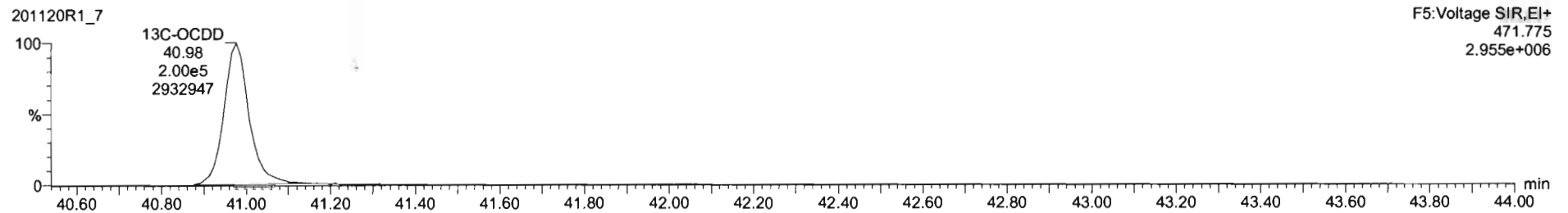
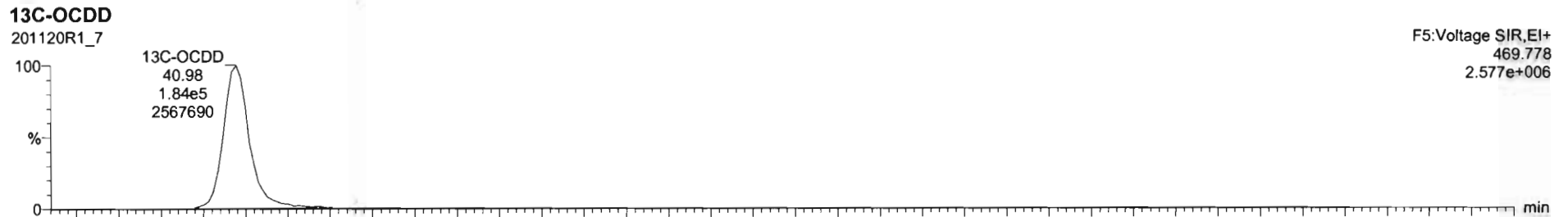
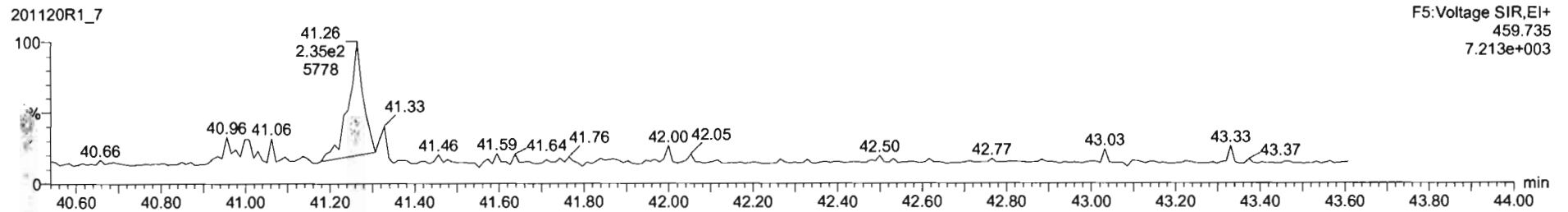
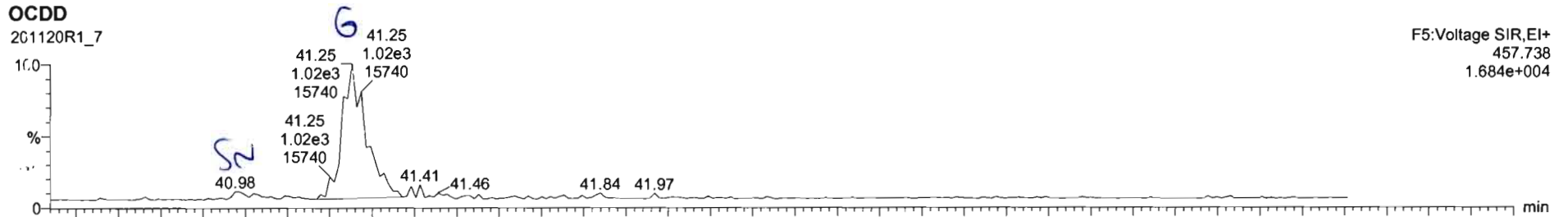


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Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank





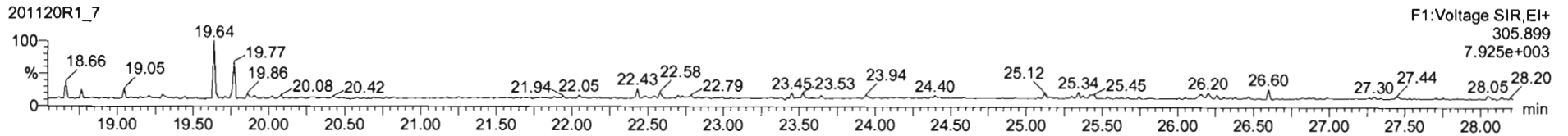
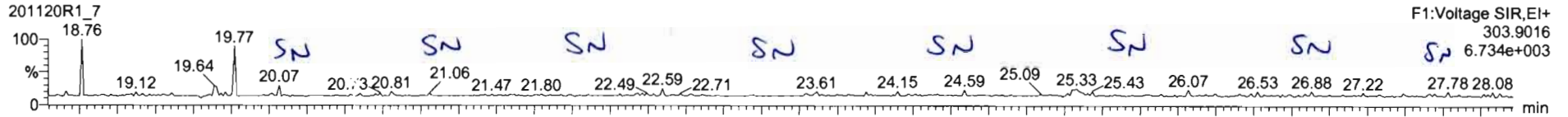
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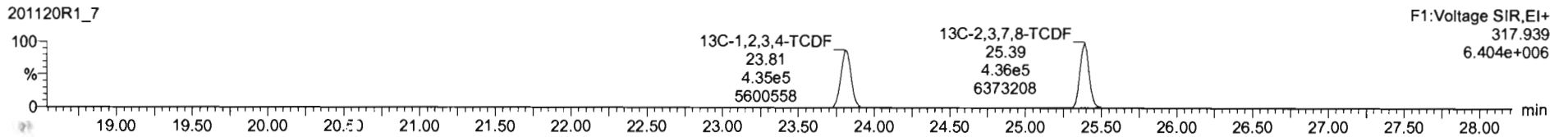
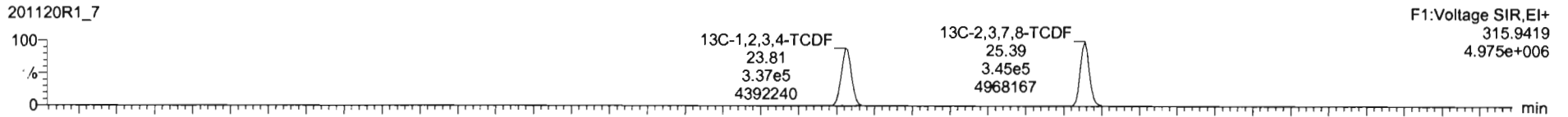
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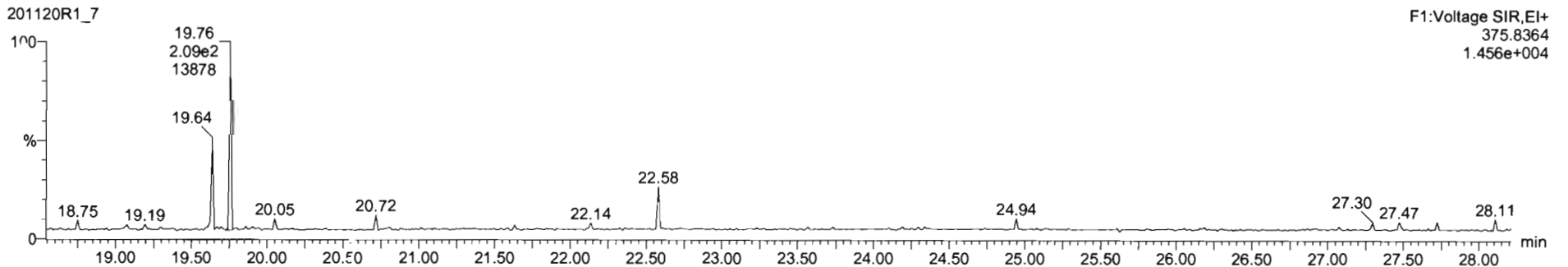
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**

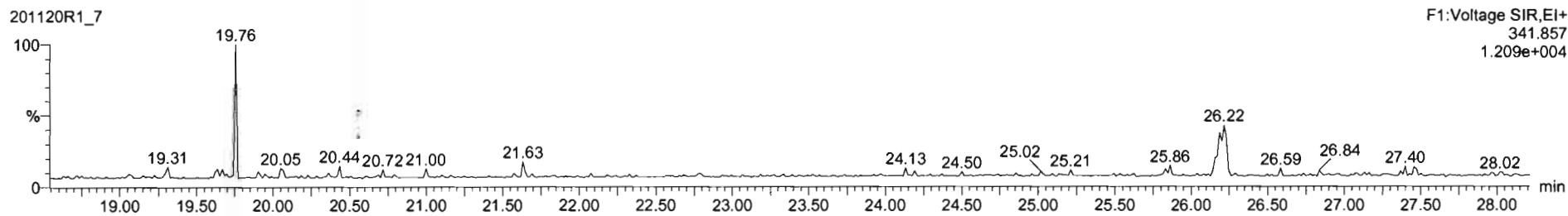
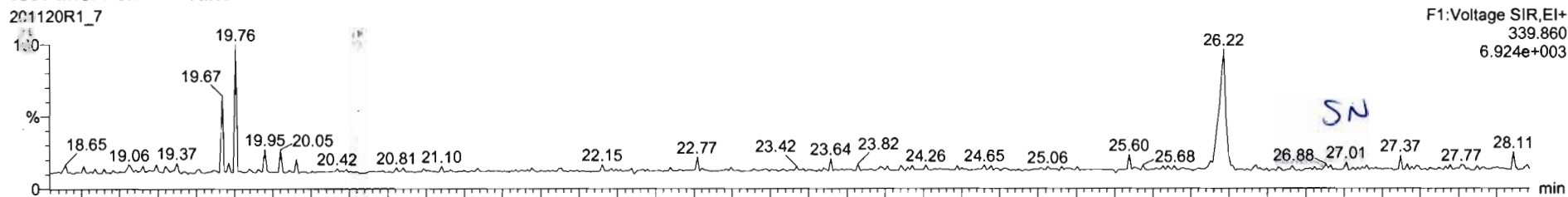


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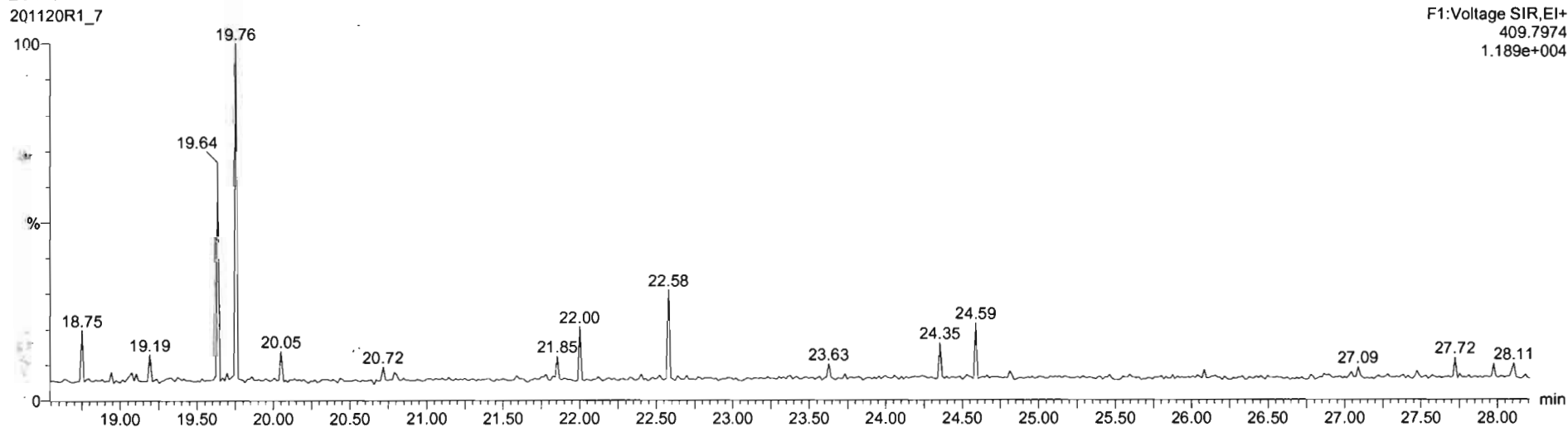
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans



DPE6



Dataset: Untitled

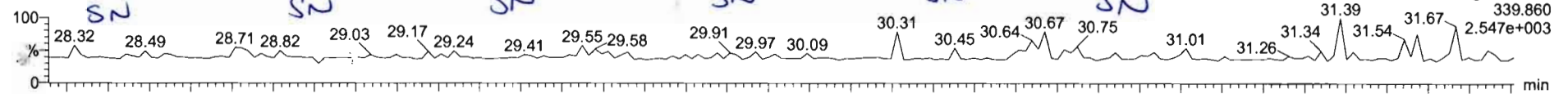
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

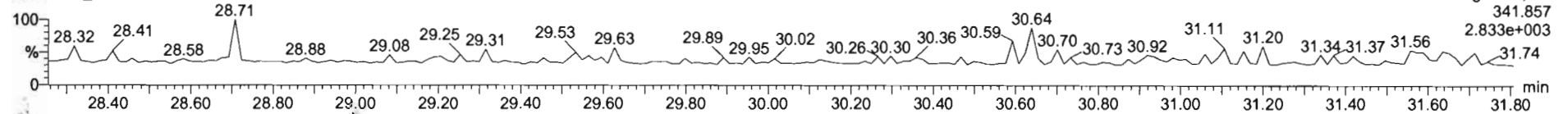
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1,2,3,7,8-PeCDF

201120R1\_7

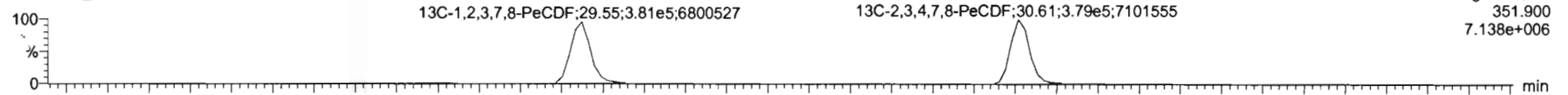


201120R1\_7

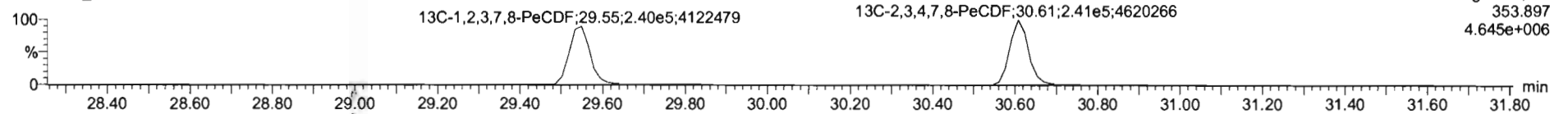


13C-1,2,3,7,8-PeCDF

201120R1\_7

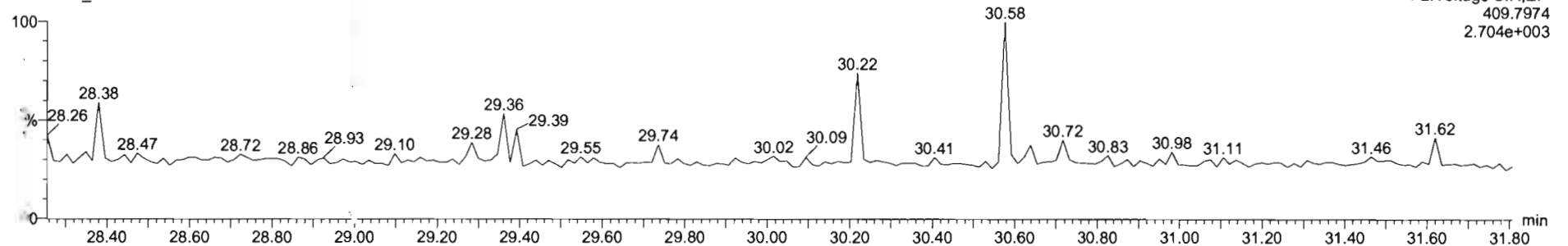


201120R1\_7



DPE2

201120R1\_7



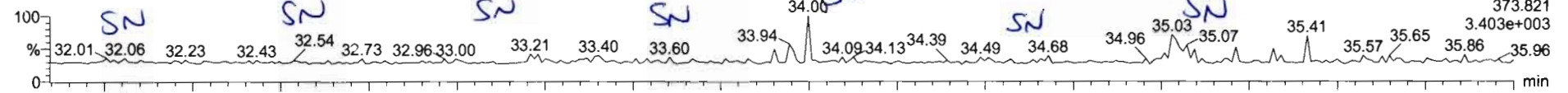
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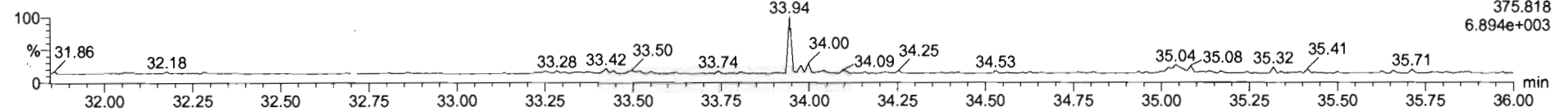
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**1,2,3,4,7,8-HxCDF**

201120R1\_7

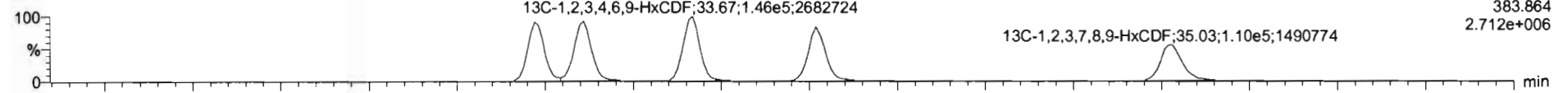


201120R1\_7

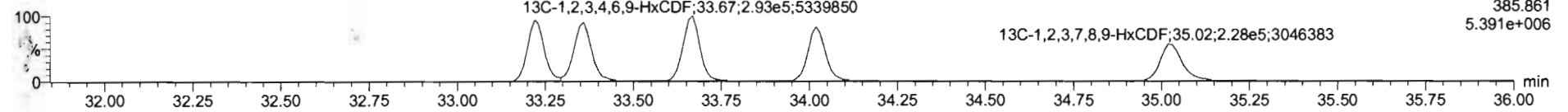


**13C-1,2,3,4,7,8-HxCDF**

201120R1\_7

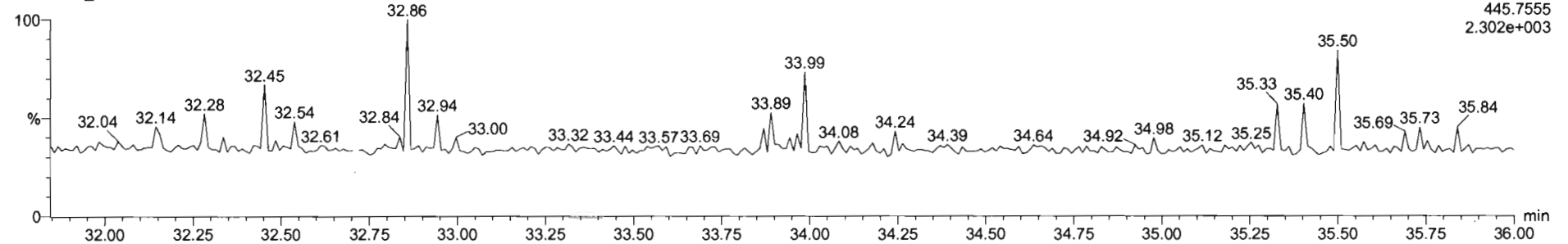


201120R1\_7



**DPE3**

201120R1\_7

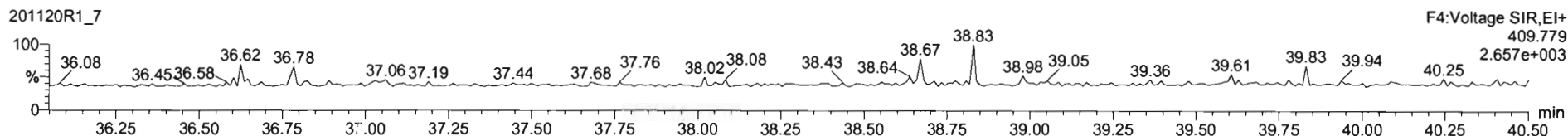
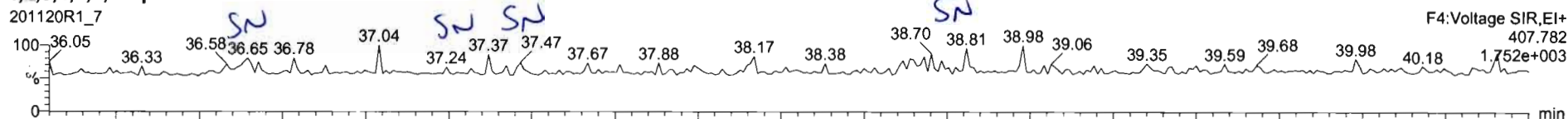


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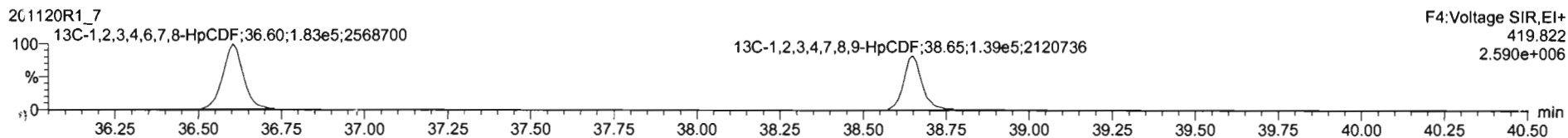
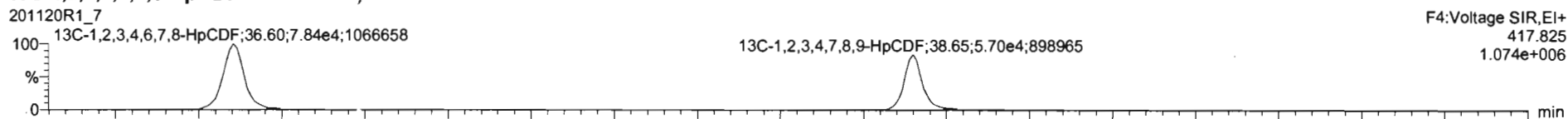
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

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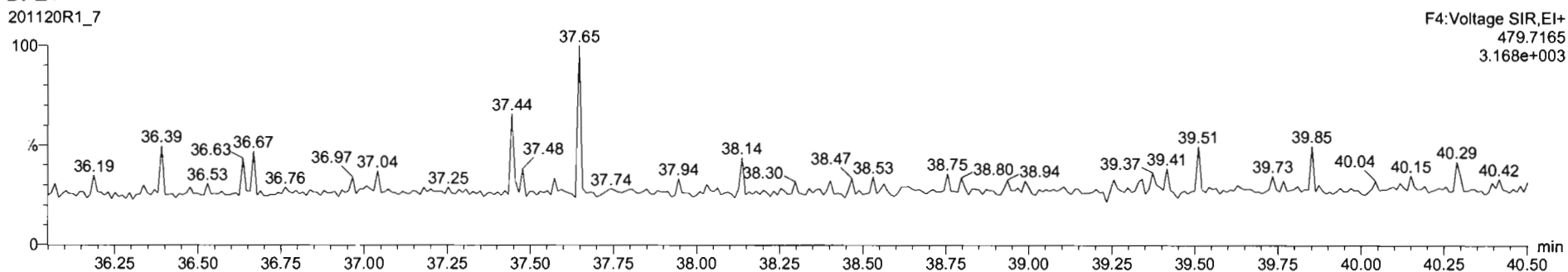
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

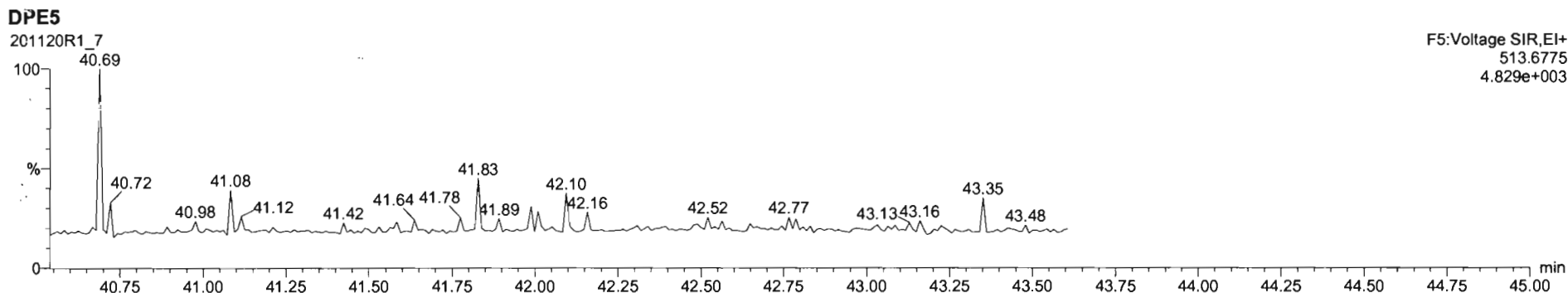
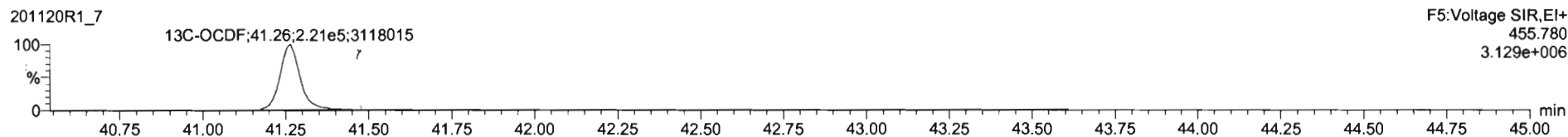
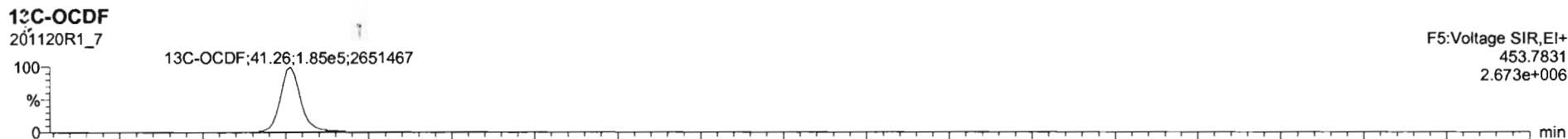
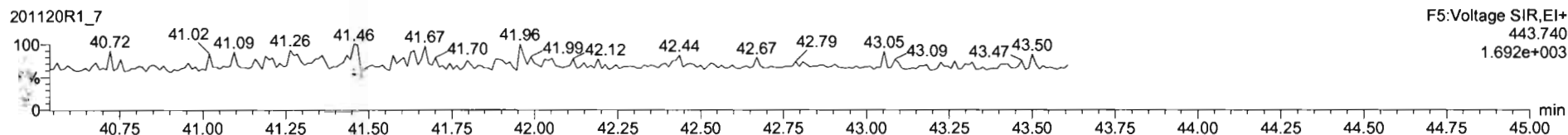
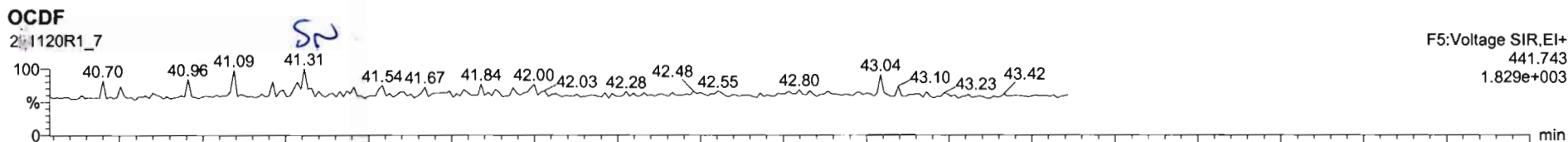




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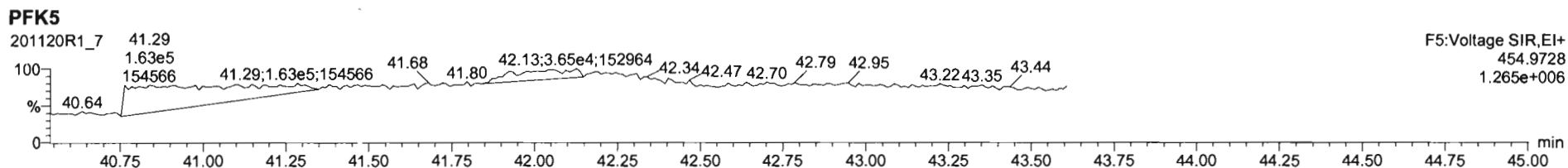
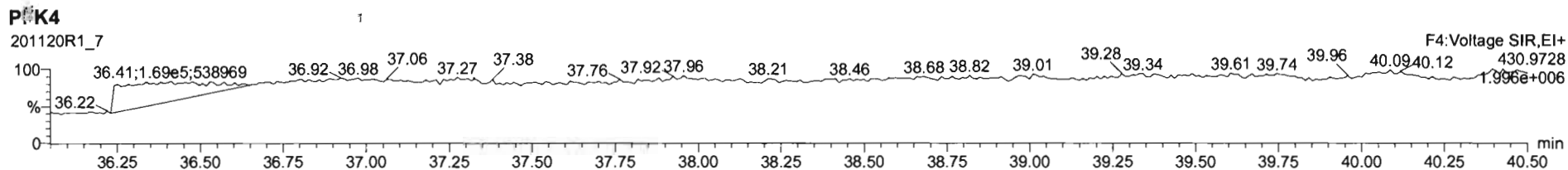
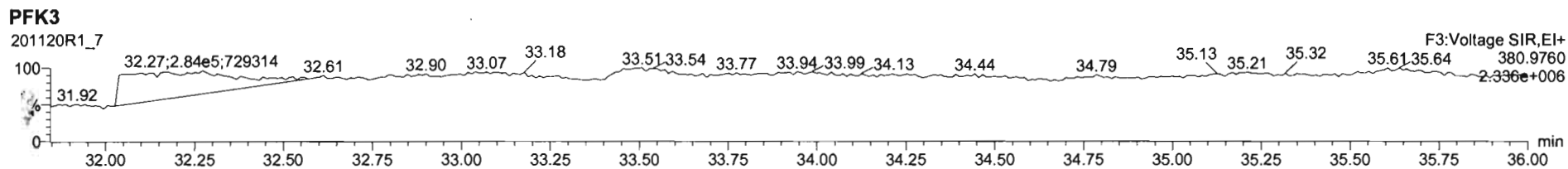
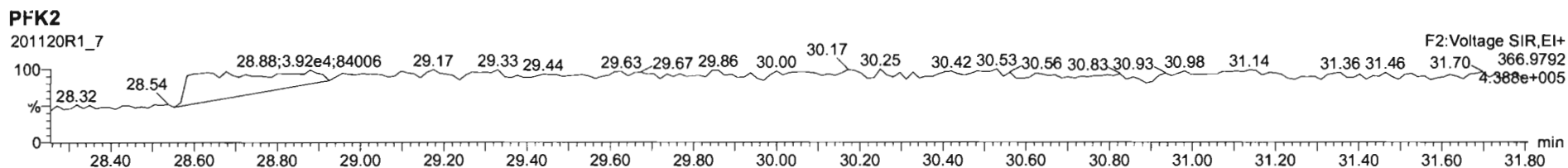
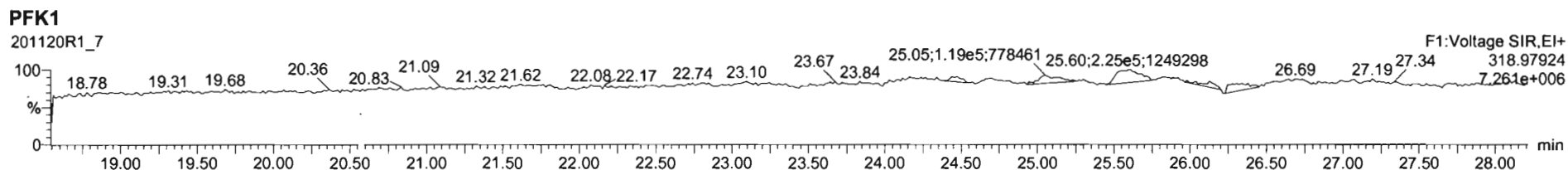
Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank



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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_7, Date: 20-Nov-2020, Time: 12:23:20, ID: B0K0115-BLK1 Method Blank 10, Description: Method Blank



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-4.qld

Last Altered: Monday, November 23, 2020 8:19:21 AM Pacific Standard Time  
Printed: Monday, November 23, 2020 8:20:09 AM Pacific Standard Time

*GRB 11/23/2020*

*CT, 11/25/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39  
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Name: 201120R1\_4, Date: 20-Nov-2020, Time: 10:08:05, ID: B0K0115-BS1 OPR 10, Description: OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	5.45e4	0.78	NO	0.950	10.000	26.097	26.10	1.001	1.001	19.954		0.0735	20.0
2	2 1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.885	10.000	30.804	30.83	1.000	1.001	108.59		0.148	109
3	3 1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.02	10.000	34.135	34.14	1.000	1.000	99.568		0.247	99.6
4	4 1,2,3,6,7,8-HxCDD	1.86e5	1.24	NO	0.915	10.000	34.253	34.25	1.000	1.000	100.62		0.249	101
5	5 1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.934	10.000	34.519	34.53	1.000	1.001	100.32		0.285	100
6	6 1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.870	10.000	38.009	38.02	1.000	1.000	96.438		0.543	96.4
7	7 OCDD	1.93e5	0.87	NO	0.872	10.000	40.935	40.96	1.000	1.001	197.50		0.414	197
8	8 2,3,7,8-TCDF	5.49e4	0.73	NO	0.824	10.000	25.396	25.40	1.000	1.001	17.619		0.0565	17.6
9	9 1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.963	10.000	29.542	29.55	1.000	1.001	98.036		0.239	98.0
10	10 2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.07	10.000	30.608	30.62	1.000	1.000	97.814		0.187	97.8
11	11 1,2,3,4,7,8-HxCDF	1.87e5	1.21	NO	0.953	10.000	33.220	33.23	1.000	1.000	91.589		0.279	91.6
12	12 1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.01	10.000	33.348	33.37	1.000	1.001	90.859		0.278	90.9
13	13 2,3,4,6,7,8-HxCDF	1.79e5	1.21	NO	0.991	10.000	34.022	34.03	1.000	1.000	90.806		0.313	90.8
14	14 1,2,3,7,8,9-HxCDF	1.51e5	1.21	NO	0.951	10.000	35.009	35.03	1.000	1.001	90.559		0.474	90.6
15	15 1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.999	10.000	36.586	36.60	1.000	1.001	90.205		0.592	90.2
16	16 1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.12	10.000	38.638	38.65	1.000	1.000	89.158		0.620	89.2
17	17 OCDF	1.90e5	0.84	NO	0.868	10.000	41.241	41.24	1.000	1.000	185.90		0.365	186
18	18 13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.11	10.000	26.073	26.07	1.030	1.030	204.11	102	0.371	
19	19 13C-1,2,3,7,8-PeCDD	4.40e5	0.64	NO	0.859	10.000	30.792	30.80	1.216	1.217	201.60	101	0.293	
20	20 13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.700	10.000	34.125	34.13	1.014	1.014	211.84	106	0.667	
21	21 13C-1,2,3,6,7,8-HxCDD	4.04e5	1.29	NO	0.833	10.000	34.263	34.24	1.018	1.017	210.26	105	0.561	
22	22 13C-1,2,3,7,8,9-HxCDD	3.80e5	1.27	NO	0.762	10.000	34.505	34.51	1.025	1.025	216.16	108	0.613	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.01e5	1.04	NO	0.650	10.000	37.989	38.01	1.129	1.129	200.64	100	0.955	
24	24 13C-OCDD	4.48e5	0.89	NO	0.539	10.000	40.954	40.94	1.217	1.216	359.50	89.9	0.603	
25	25 13C-2,3,7,8-TCDF	7.55e5	0.77	NO	0.981	10.000	25.395	25.39	1.003	1.003	203.87	102	0.321	
26	26 13C-1,2,3,7,8-PeCDF	6.39e5	1.62	NO	0.792	10.000	29.524	29.53	1.166	1.167	213.69	107	0.834	
27	27 13C-2,3,4,7,8-PeCDF	6.45e5	1.58	NO	0.778	10.000	30.582	30.61	1.208	1.209	219.65	110	0.849	
28	28 13C-1,2,3,4,7,8-HxCDF	4.29e5	0.50	NO	0.954	10.000	33.216	33.22	0.987	0.987	194.73	97.4	0.638	
29	29 13C-1,2,3,6,7,8-HxCDF	4.40e5	0.50	NO	1.01	10.000	33.347	33.35	0.991	0.991	189.25	94.6	0.605	
30	30 13C-2,3,4,6,7,8-HxCDF	3.98e5	0.50	NO	0.921	10.000	34.017	34.02	1.011	1.011	187.18	93.6	0.660	
31	31 13C-1,2,3,7,8,9-HxCDF	3.51e5	0.49	NO	0.803	10.000	35.013	35.01	1.040	1.040	189.28	94.6	0.757	



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-4.qld

Last Altered: Monday, November 23, 2020 8:19:21 AM Pacific Standard Time

Printed: Monday, November 23, 2020 8:20:09 AM Pacific Standard Time

Name: 201120R1\_4, Date: 20-Nov-2020, Time: 10:08:05, ID: B0K0115-BS1 OPR 10, Description: OPR

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.85e5	0.42	NO	0.735	10.000	36.582	36.58	1.087	1.087	167.56	83.8	0.774	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.14e5	0.42	NO	0.568	10.000	38.618	38.64	1.147	1.148	163.40	81.7	1.00	
34	34 13C-OCDF	4.71e5	0.84	NO	0.629	10.000	41.237	41.23	1.225	1.225	324.21	81.1	0.602	
35	35 37Cl-2,3,7,8-TCDD	2.46e5			1.09	10.000	26.073	26.10	1.030	1.031	88.863	111	0.0829	
36	36 13C-1,2,3,4-TCDD	5.08e5	0.80	NO	1.00	10.000	25.370	25.31	1.000	1.000	200.00	100	0.411	
37	37 13C-1,2,3,4-TCDF	7.55e5	0.79	NO	1.00	10.000	23.870	23.81	1.000	1.000	200.00	100	0.315	
38	38 13C-1,2,3,4,6,9-HxCDF	4.62e5	0.50	NO	1.00	10.000	33.710	33.66	1.000	1.000	200.00	100	0.608	

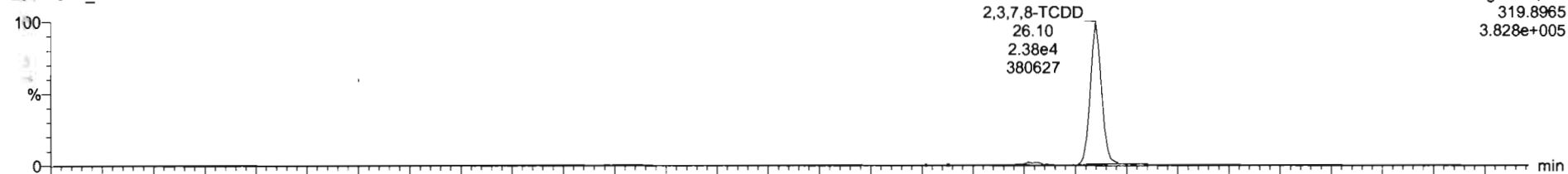
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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

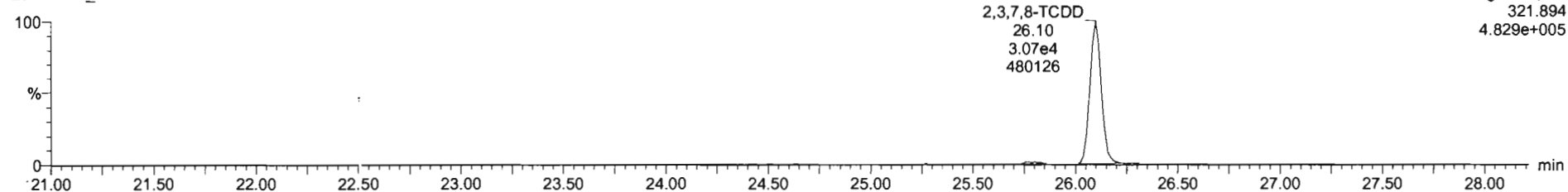
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**2,3,7,8-TCDD**

201120R1\_4

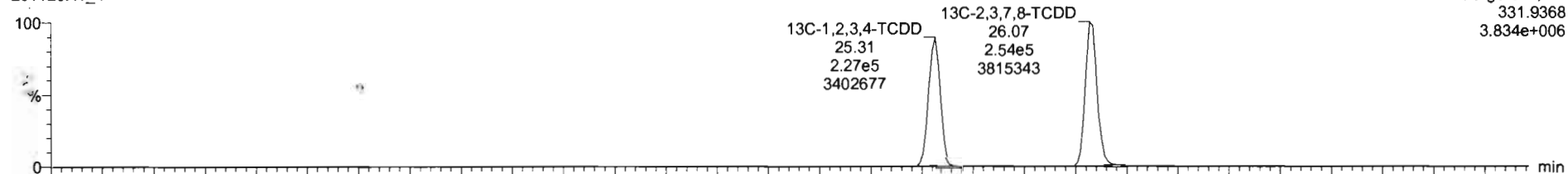


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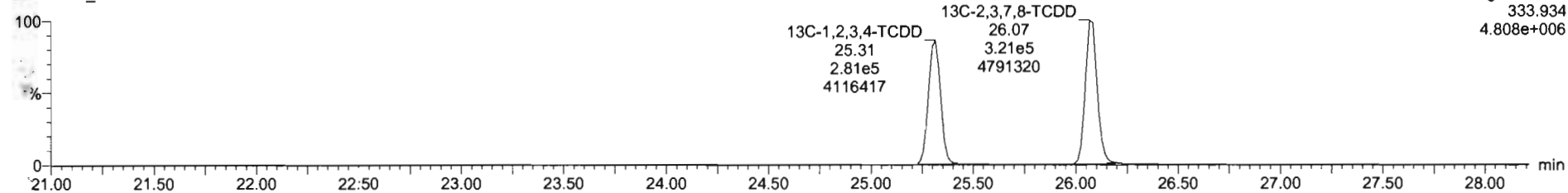


**13C-2,3,7,8-TCDD**

201120R1\_4



201120R1\_4



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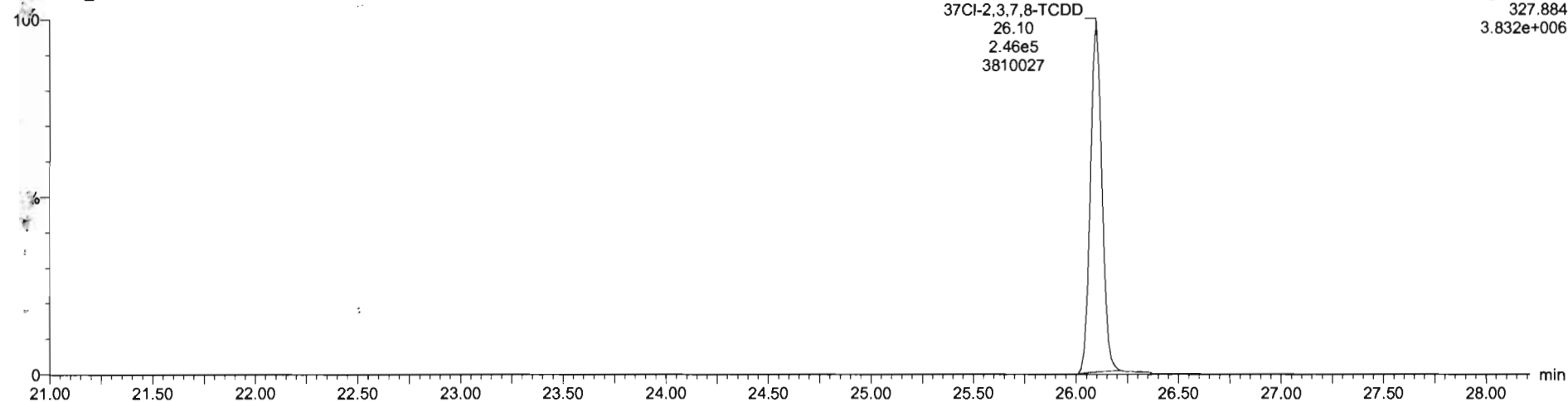
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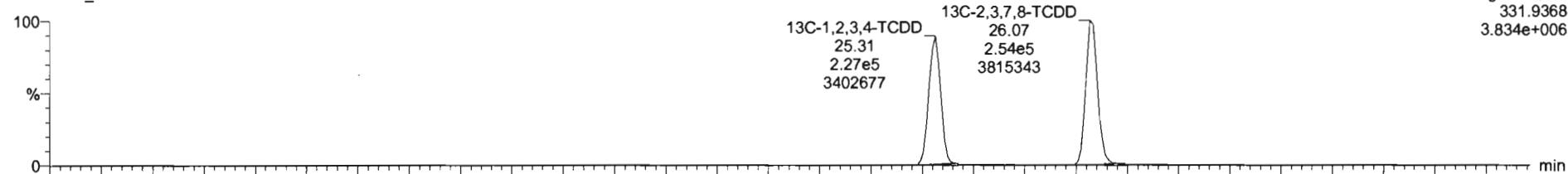
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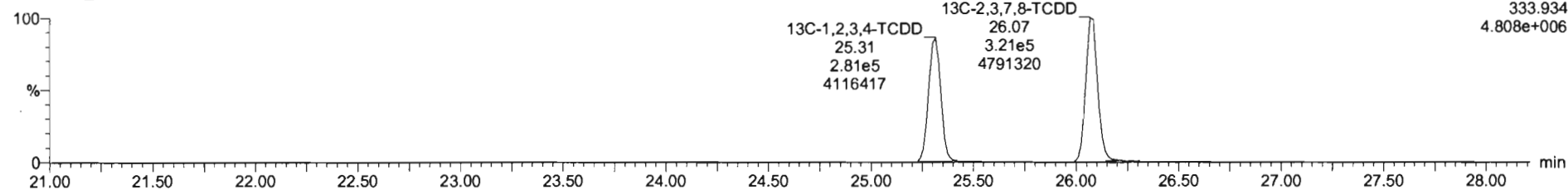


13C-1,2,3,4-TCDD

201120R1\_4



201120R1\_4



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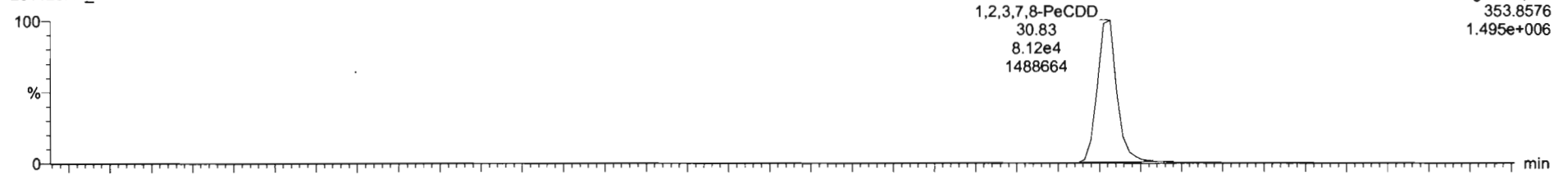
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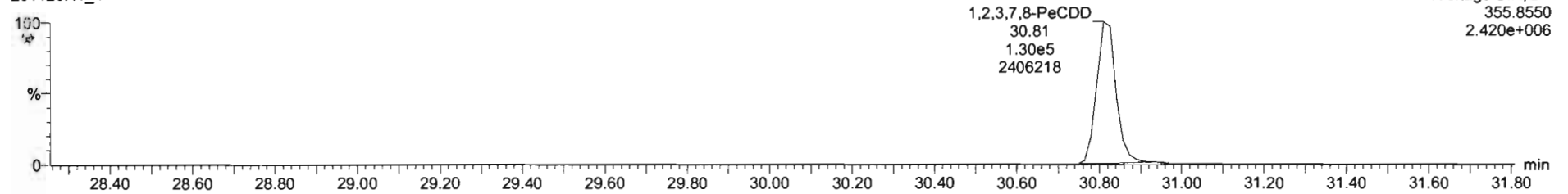
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**1,2,3,7,8-PeCDD**

201120R1\_4

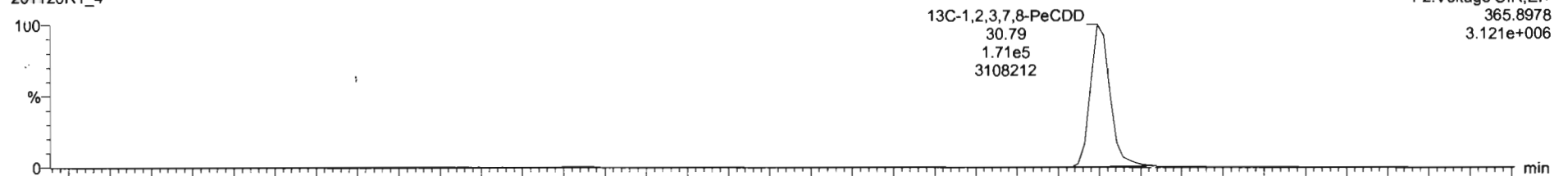


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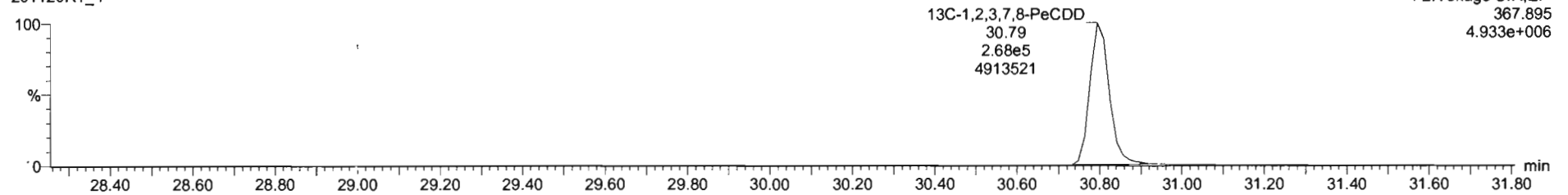


**13C-1,2,3,7,8-PeCDD**

201120R1\_4



201120R1\_4



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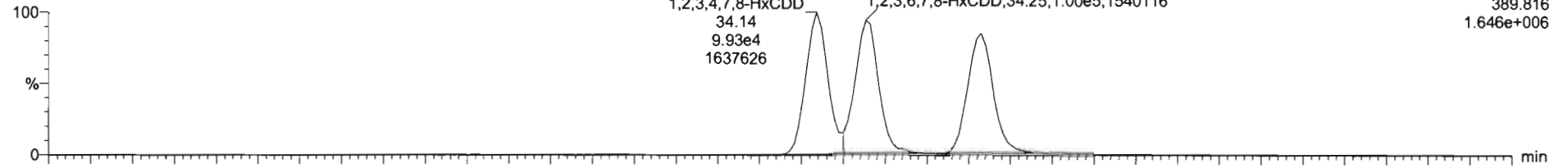
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

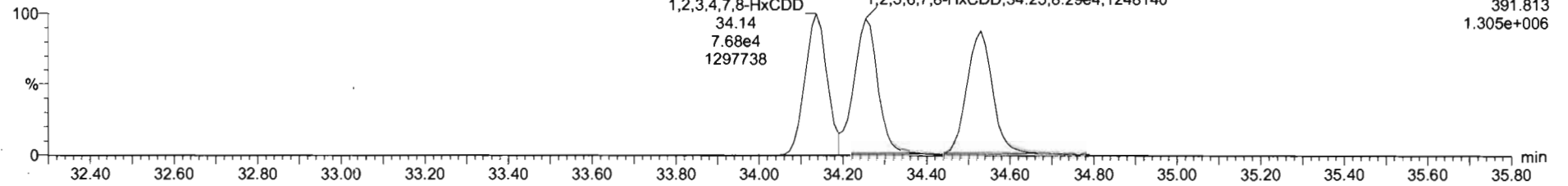
Name: 201120R1\_4, Date: 20-Nov-2020, Time: 10:08:05, ID: B0K0115-BS1 OPR 10, Description: OPR

1,2,3,4,7,8-HxCDD

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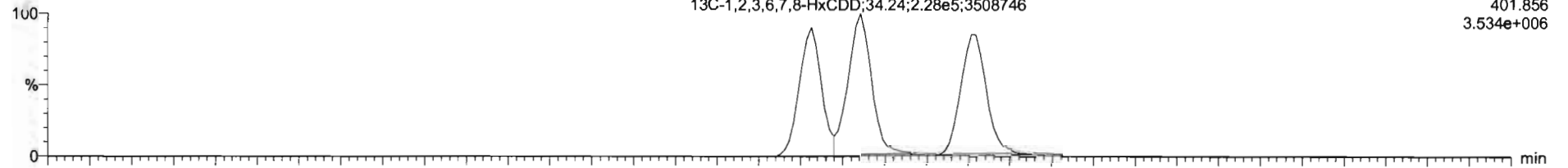


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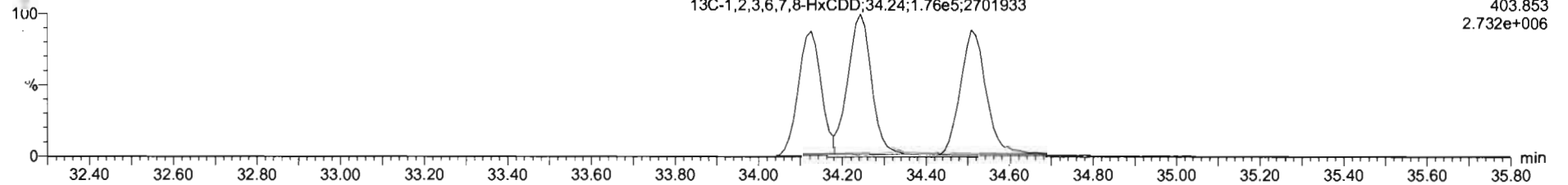


13C-1,2,3,4,7,8-HxCDD

201120R1\_4



201120R1\_4

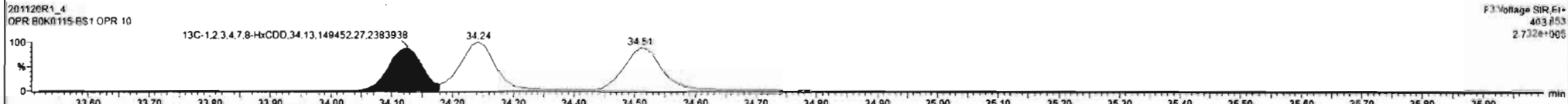
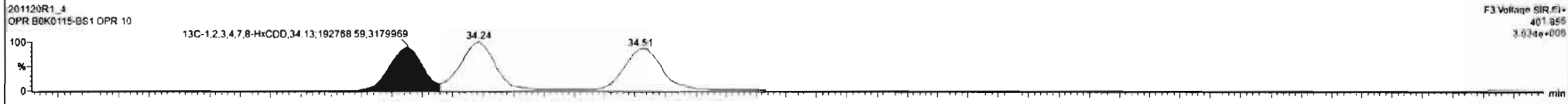


TargetLynx - 201120R1\_4.d - Chromatogram

File Edit View Display Processing Window Help

201120R1\_4\_BOK0115-BS1 OPR 10 OPR

#	Name	Resp	RA	xy	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.45e4	0.78	NO	0.9501	10.000	26.10	1.001	20.0		0.0735	20.0
2	1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.8855	10.000	30.83	1.001	109		0.148	109
3	1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.0178	10.000	34.14	1.000	99.6		0.247	99.6
4	1,2,3,6,7,8-HxCDD	1.83e5	1.21	NO	0.9145	10.000	34.25	1.000	99.2		0.249	99.2
5	1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.9345	10.000	34.53	1.001	100		0.285	100
6	1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.8697	10.000	38.02	1.000	95.4		0.543	95.4
7	OCDD	1.93e5	0.87	NO	0.8717	10.000	40.96	1.001	197		0.414	197
8	2,3,7,8-TCDF	5.49e4	0.73	NO	0.8243	10.000	25.40	1.001	17.6		0.0565	17.6
9	1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.9626	10.000	29.55	1.001	98.0		0.239	98.0
10	2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.0684	10.000	30.62	1.000	97.8		0.187	97.8
11	1,2,3,4,7,8-HxCDF	1.87e5	1.21	NO	0.9535	10.000	33.23	1.000	91.6		0.279	91.6
12	1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.0080	10.000	33.37	1.001	90.9		0.278	90.9
13	2,3,4,6,7,8-HxCDF	1.79e5	1.21	NO	0.9907	10.000	34.03	1.000	90.8		0.313	90.8
14	1,2,3,7,8,9-HxCDF	1.51e5	1.21	NO	0.9506	10.000	35.03	1.001	80.6		0.474	80.6
15	1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.9986	10.000	36.80	1.001	90.2		0.592	90.2
16	1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.1238	10.000	38.65	1.000	89.2		0.620	89.2
17	OCDF	1.90e5	0.84	NO	0.8662	10.000	41.24	1.000	166		0.365	166
18	13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.1089	10.000	26.07	1.030	204	102	0.371	
19	13C-1,2,3,7,8-PeCDD	4.40e5	0.84	NO	0.8585	10.000	30.80	1.217	202	101	0.293	
20	13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.8997	10.000	34.13	1.014	212	106	0.667	
21	13C-1,2,3,6,7,8-HxCDD	4.04e5	1.29	NO	0.8327	10.000	34.24	1.017	210	105	0.561	

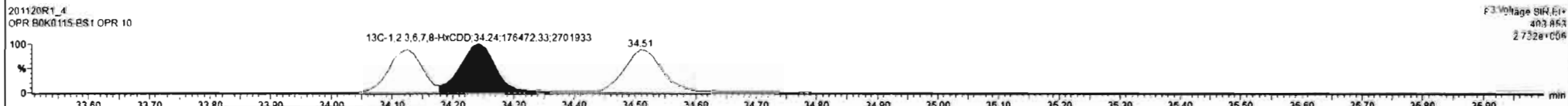
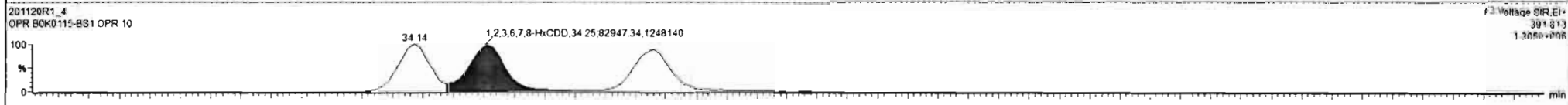


TargetLynx - 201120R1\_4.qld - Chromatogram

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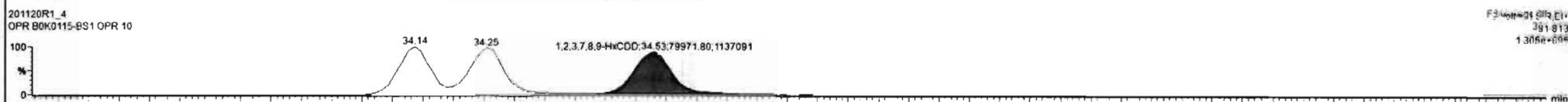
201120R1\_4 - BOK0115-BS1 OPR 10 - OPR

#	Name	Resp	RA	ndy	RRF	wt/wst	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.45e4	0.78	NO	0.9501	10.000	26.10	1.001	20.0		0.0735	20.0
2	1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.8855	10.000	30.83	1.001	109		0.148	109
3	1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.0176	10.000	34.14	1.000	99.6		0.247	99.6
4	1,2,3,6,7,8-HxCDD	1.86e5	1.24	NO	0.9145	10.000	34.25	1.000	101		0.248	101
5	1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.9345	10.000	34.53	1.001	100		0.285	100
6	1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.8697	10.000	36.02	1.000	96.4		0.543	96.4
7	OCDD	1.93e5	0.87	NO	0.8717	10.000	40.98	1.001	197		0.414	197
8	2,3,7,8-TCDF	5.49e4	0.73	NO	0.8243	10.000	25.40	1.001	17.6		0.0585	17.6
9	1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.9626	10.000	29.55	1.001	98.0		0.239	98.0
10	2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.0684	10.000	30.62	1.000	97.8		0.187	97.8
11	1,2,3,4,7,8-HxCDF	1.87e5	1.21	NO	0.9535	10.000	33.23	1.000	91.6		0.279	91.6
12	1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.0680	10.000	33.37	1.001	90.9		0.278	90.9
13	2,3,4,6,7,8-HxCDF	1.78e5	1.21	NO	0.9907	10.000	34.03	1.000	90.8		0.313	90.8
14	1,2,3,7,8,9-HxCDF	1.51e5	1.21	NO	0.9506	10.000	35.03	1.001	90.6		0.474	90.6
15	1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.9886	10.000	36.80	1.001	90.2		0.592	90.2
16	1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.1238	10.000	38.85	1.000	89.2		0.620	89.2
17	OCDF	1.90e5	0.84	NO	0.8682	10.000	41.24	1.000	186		0.365	186
18	13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.1089	10.000	26.07	1.030	204	102	0.371	
19	13C-1,2,3,7,8-PeCDD	4.40e5	0.84	NO	0.8585	10.000	30.80	1.217	202	101	0.293	
20	13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.8997	10.000	34.13	1.014	212	106	0.687	
21	13C-1,2,3,6,7,8-HxCDD	4.04e5	1.29	NO	0.8327	10.000	34.24	1.017	210	105	0.561	





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.45e4	0.78	NO	0.9501	10.000	26.10	1.001	20.0	0.0735	20.0
2	1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.8855	10.000	30.83	1.001	109	0.148	109
3	1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.0176	10.000	34.14	1.000	99.6	0.247	99.6
4	1,2,3,6,7,8-HxCDD	1.86e5	1.24	NO	0.9145	10.000	34.25	1.000	101	0.249	101
5	1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.9345	10.000	34.53	1.001	100	0.285	100
6	1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.8697	10.000	38.02	1.000	96.4	0.543	96.4
7	OCDD	1.93e5	0.87	NO	0.8717	10.000	40.96	1.001	197	0.414	197
8	2,3,7,8-TCDF	5.49e4	0.73	NO	0.8243	10.000	25.40	1.001	17.6	0.0565	17.6
9	1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.9626	10.000	29.55	1.001	98.0	0.239	98.0
10	2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.0684	10.000	30.62	1.000	97.8	0.187	97.8
11	1,2,3,4,7,8-HxCDF	1.87e5	1.21	NO	0.9535	10.000	33.23	1.000	91.6	0.279	91.6
12	1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.0080	10.000	33.37	1.001	90.9	0.278	90.9
13	2,3,4,6,7,8-HxCDF	1.79e5	1.21	NO	0.9907	10.000	34.03	1.000	90.8	0.313	90.8
14	1,2,3,7,8,9-HxCDF	1.51e5	1.21	NO	0.9506	10.000	35.03	1.001	90.6	0.474	90.6
15	1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.9986	10.000	36.60	1.001	90.2	0.592	90.2
16	1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.1238	10.000	38.65	1.000	88.2	0.620	88.2
17	OCDF	1.90e5	0.84	NO	0.8682	10.000	41.24	1.000	196	0.365	196
18	13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.1089	10.000	26.07	1.030	204	102	0.371
19	13C-1,2,3,7,8-PeCDD	4.40e5	0.84	NO	0.8585	10.000	30.80	1.217	202	101	0.293
20	13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.8997	10.000	34.13	1.014	212	108	0.867
21	13C-1,2,3,6,7,8-HxCDD	4.04e5	1.29	NO	0.8327	10.000	34.24	1.017	210	105	0.581





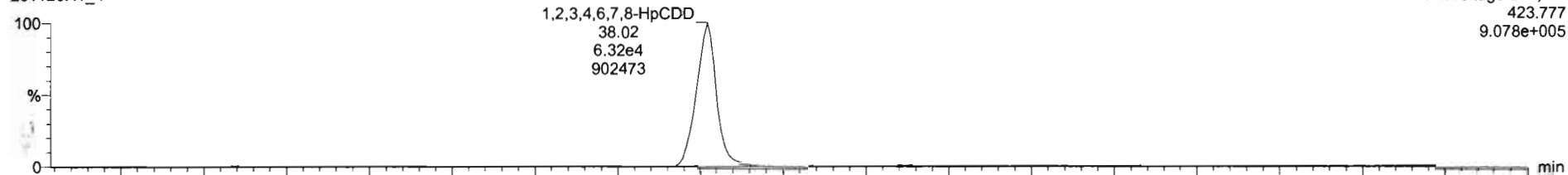
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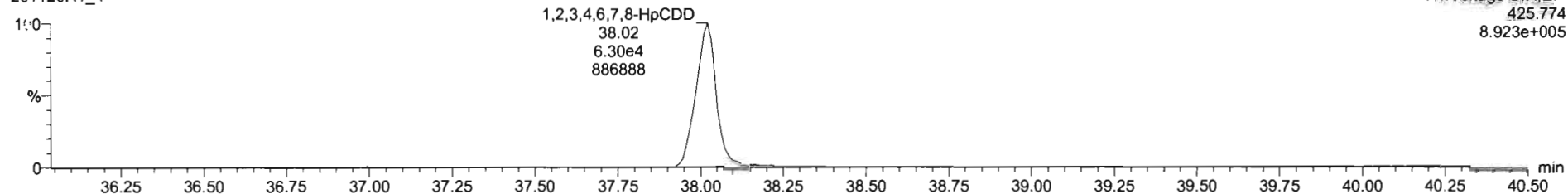
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**1,2,3,4,6,7,8-HpCDD**

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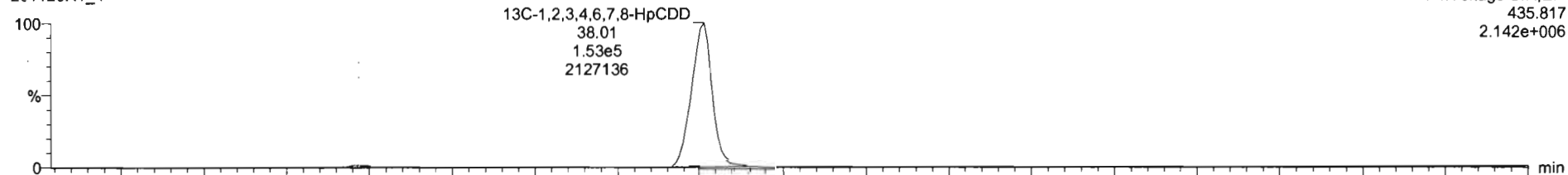


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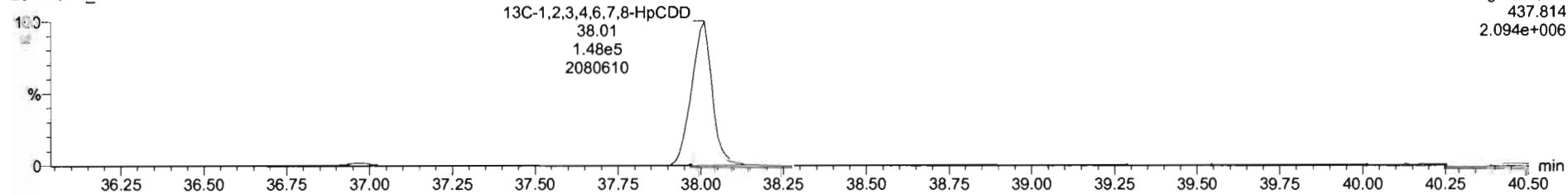


**13C-1,2,3,4,6,7,8-HpCDD**

201120R1\_4



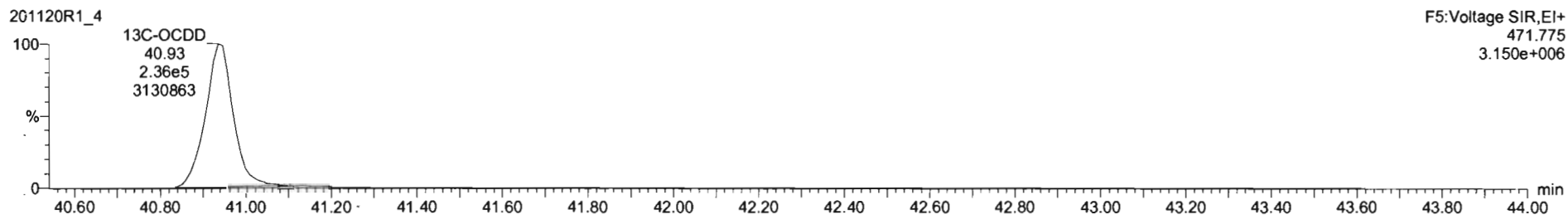
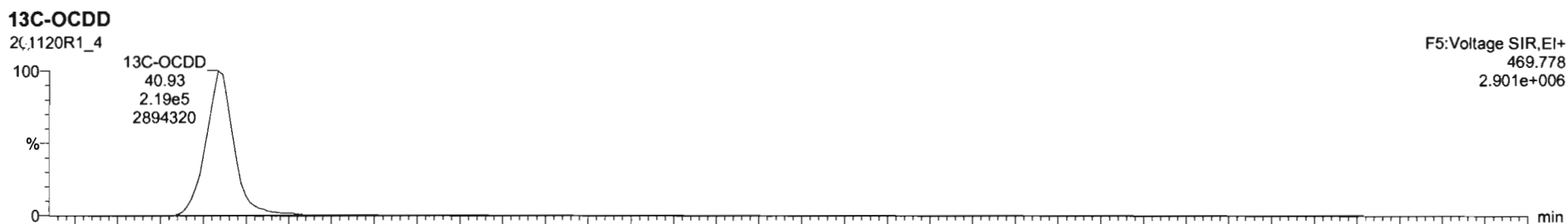
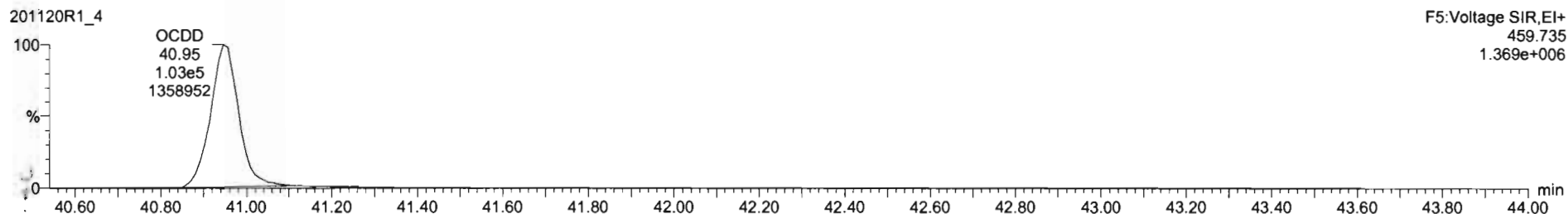
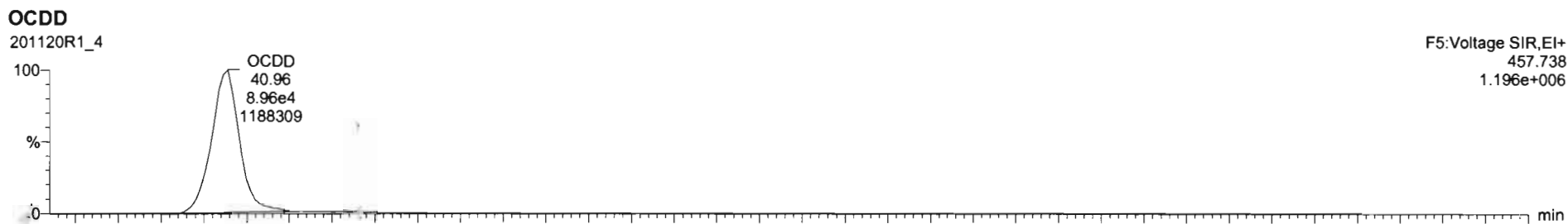
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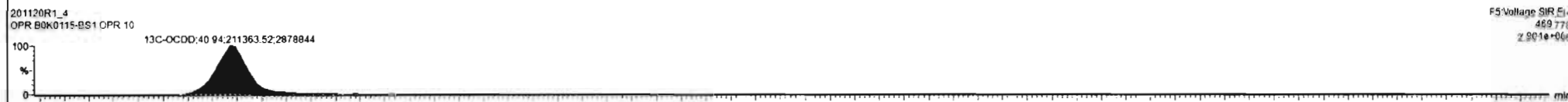
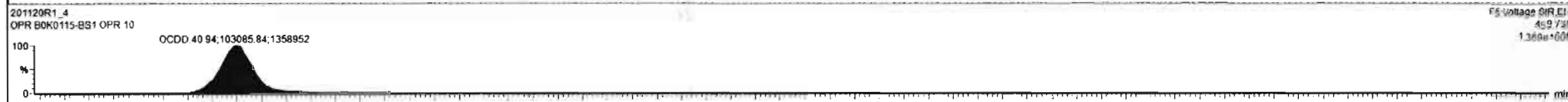


TargetLynx - 201120R1\_4.qld F - [Chromatogram]

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201120R1\_4 - B0K0115-BS1 OPR 10 - OPR

#	Name	Resp	RA	n/y	RRF	wt/vol	RT	SRT	Conc.	%Rec	DI	EMPC
1	2,3,7,8-TCDD	5.45e4	0.78	NO	0.9501	10.000	26.10	1.001	20.0		0.0735	20.0
2	1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.8655	10.000	30.83	1.001	109		0.148	109
3	1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.0176	10.000	34.14	1.000	99.6		0.247	99.6
4	1,2,3,6,7,8-HxCDD	1.86e5	1.24	NO	0.9145	10.000	34.25	1.000	101		0.249	101
5	1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.9345	10.000	34.53	1.001	100		0.285	100
6	1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.8697	10.000	38.02	1.000	96.4		0.543	96.4
7	OCDD	1.83e5	0.67	NO	0.6717	10.000	40.98	1.001	197		0.414	197
8	2,3,7,8-TCDF	5.49e4	0.73	NO	0.8243	10.000	25.40	1.001	17.6		0.0565	17.6
9	1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.9628	10.000	29.55	1.001	98.0		0.239	98.0
10	2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.0684	10.000	30.62	1.000	97.8		0.187	97.8
11	1,2,3,4,8-HxCDF	1.87e5	1.21	NO	0.9535	10.000	33.23	1.000	91.6		0.279	91.6
12	1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.0080	10.000	33.37	1.001	90.9		0.278	90.9
13	2,3,4,6,7,8-HxCDF	1.79e5	1.21	NO	0.9907	10.000	34.03	1.000	90.8		0.313	90.8
14	1,2,3,7,8,9-HxCDF	1.51e5	1.21	NO	0.9506	10.000	35.03	1.001	90.8		0.474	90.8
15	1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.9986	10.000	36.60	1.001	90.2		0.592	90.2
16	1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.1238	10.000	38.65	1.000	89.2		0.620	89.2
17	OCDF	1.90e5	0.84	NO	0.8682	10.000	41.24	1.000	186		0.355	186
18	13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.1089	10.000	26.07	1.030	204	102		0.371
19	13C-1,2,3,7,8-PeCDD	4.40e5	0.64	NO	0.8585	10.000	30.80	1.217	202	101		0.293
20	13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.6997	10.000	34.13	1.014	212	106		0.667
21	13C-1,2,3,6,7,8-HxCDD	4.04e5	1.29	NO	0.8327	10.000	34.24	1.017	210	105		0.561



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201120R1\_4

8:19 AM

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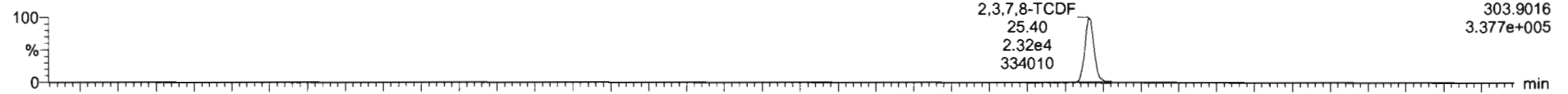
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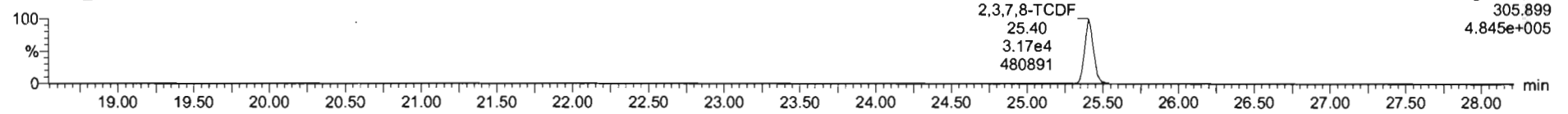
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**2,3,7,8-TCDF**

201120R1\_4

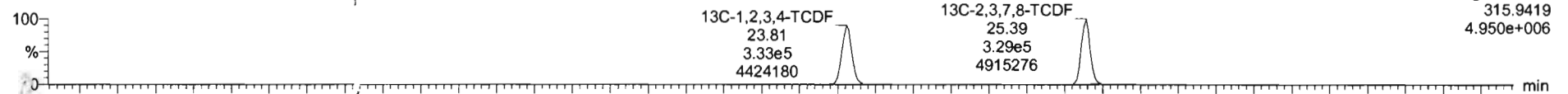


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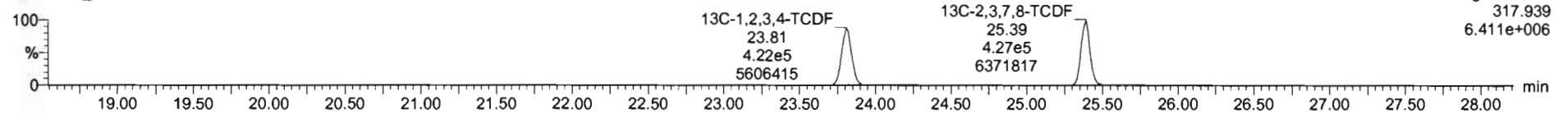


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201120R1\_4

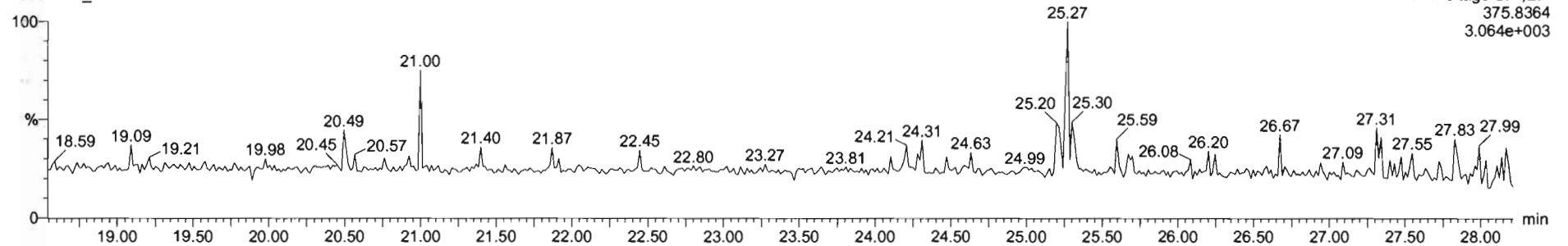


201120R1\_4



**DE1**

201120R1\_4



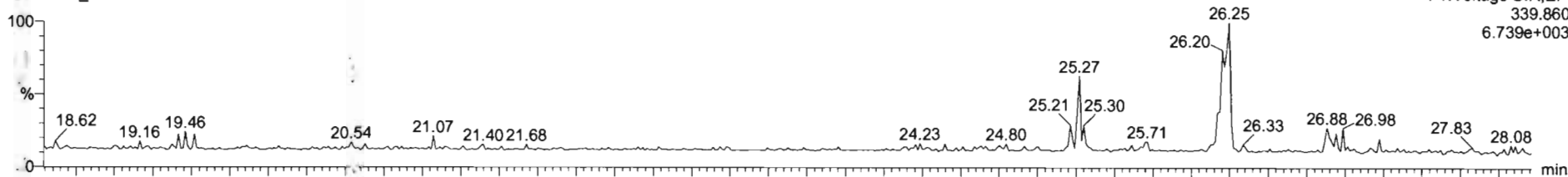
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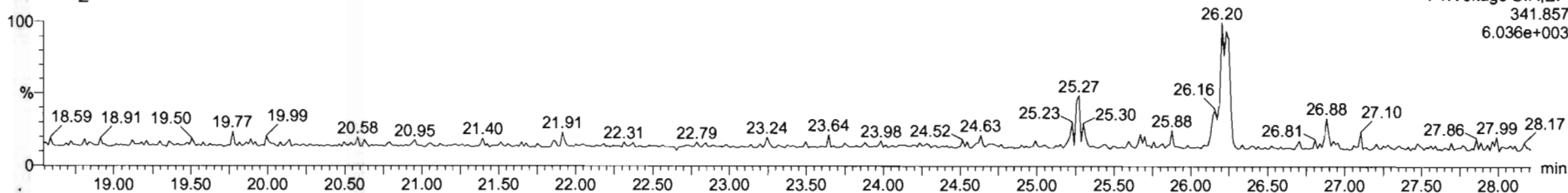
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201120R1\_4

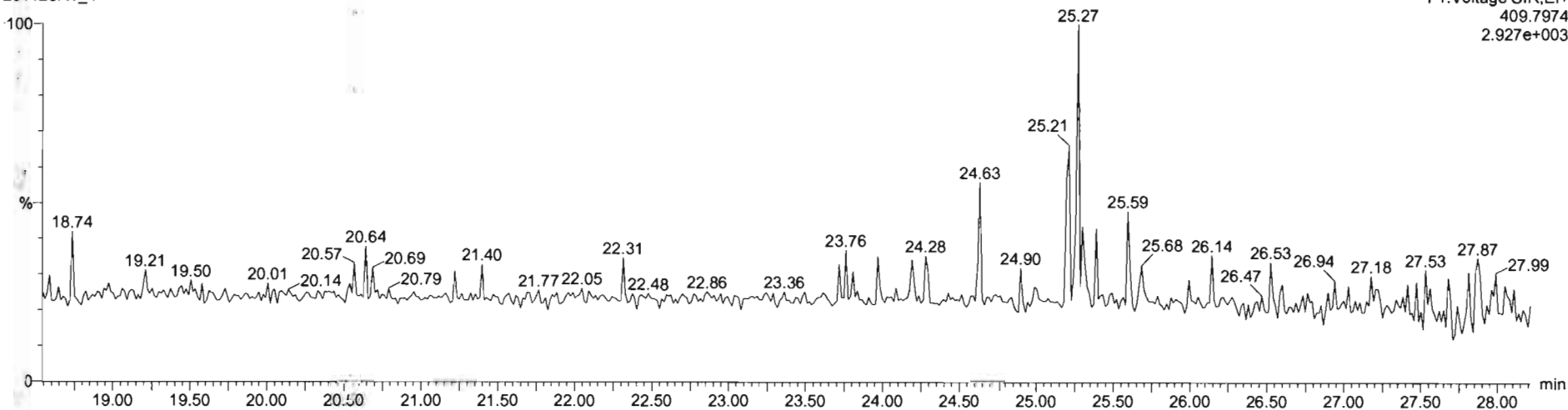


201120R1\_4



DPE6

201120R1\_4



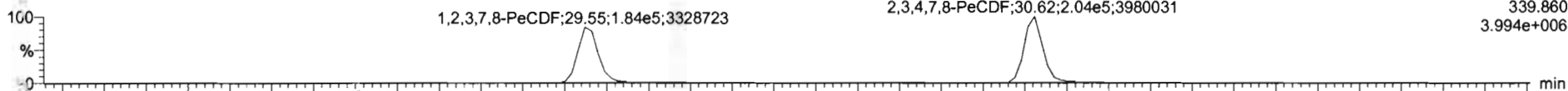
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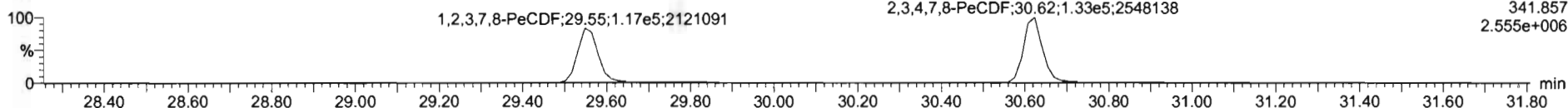
**1,2,3,7,8-PeCDF**

201120R1\_4



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3.994e+006

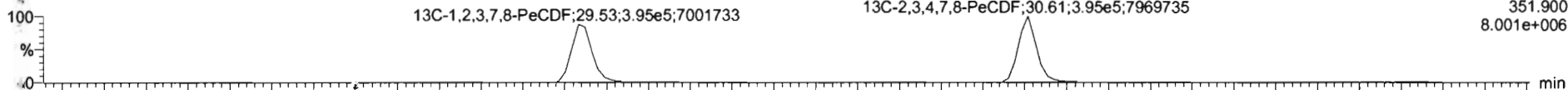
201120R1\_4



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2.555e+006

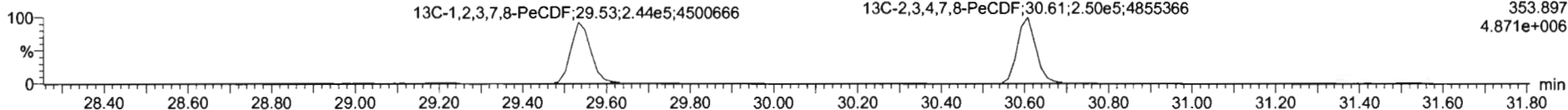
**13C-1,2,3,7,8-PeCDF**

201120R1\_4



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8.001e+006

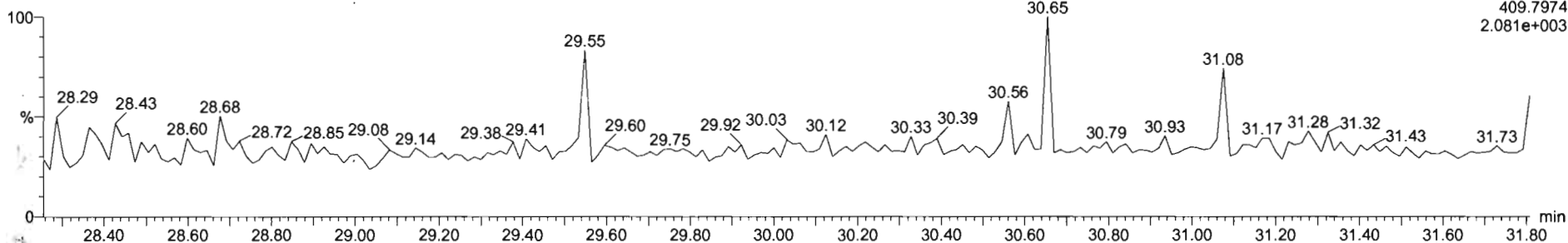
201120R1\_4



F2:Voltage SIR,EI+  
353.897  
4.871e+006

**DPE2**

201120R1\_4



F2:Voltage SIR,EI+  
409.7974  
2.081e+003

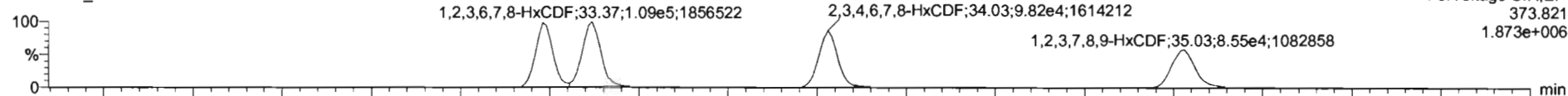
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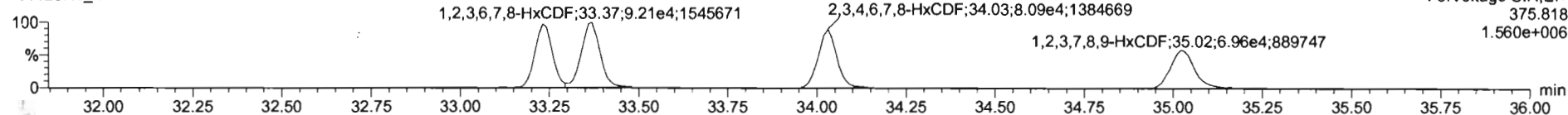
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**1,2,3,4,7,8-HxCDF**

201120R1\_4

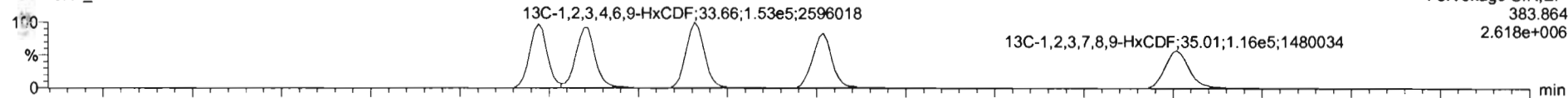


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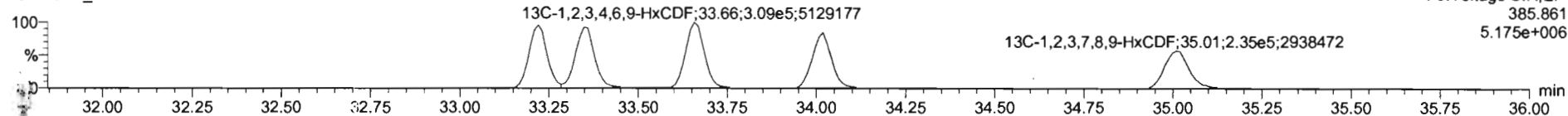


**13C-1,2,3,4,7,8-HxCDF**

201120R1\_4

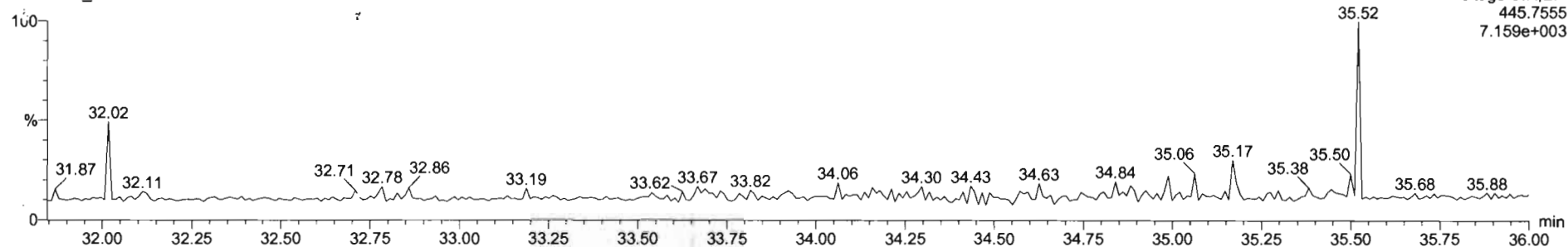


201120R1\_4



**DPE3**

201120R1\_4



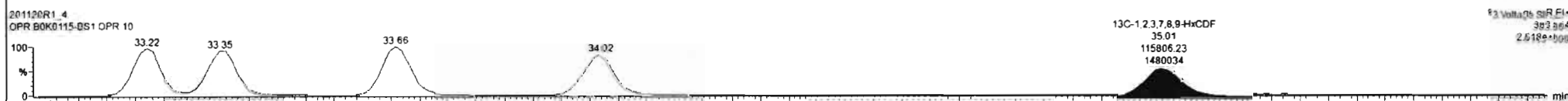
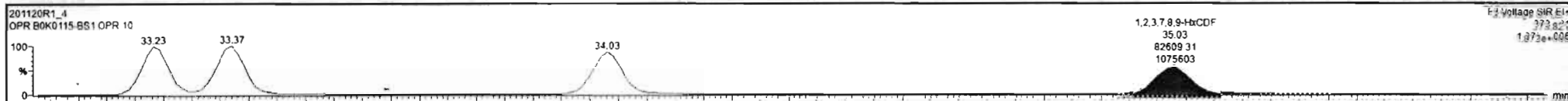


TargetLynx - 201120R1\_4.d - Chromatogram

File Edit View Display Processing Window Help

201120R1\_4\_B0K0115\_BS1 OPR 10 OPR

#	Name	Resp	RA	My	RRF	wVvol	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	5.45e4	0.78	NO	0.9501	10.000	26.10	1.001	20.0		0.0735	20.0
2	1,2,3,7,8-PeCDD	2.11e5	0.62	NO	0.8655	10.000	20.63	1.001	109		0.148	109
3	1,2,3,4,7,8-HxCDD	1.73e5	1.26	NO	1.0178	10.000	34.14	1.000	99.6		0.247	99.6
4	1,2,3,6,7,8-HxCDD	1.86e5	1.24	NO	0.9145	10.000	34.25	1.000	101		0.249	101
5	1,2,3,7,8,9-HxCDD	1.78e5	1.23	NO	0.9345	10.000	34.53	1.001	100		0.285	100
6	1,2,3,4,6,7,8-HpCDD	1.26e5	1.00	NO	0.8697	10.000	38.02	1.000	96.4		0.543	96.4
7	OCDD	1.93e5	0.87	NO	0.8717	10.000	40.96	1.001	197		0.414	197
8	2,3,7,8-TCDF	5.49e4	0.73	NO	0.8243	10.000	25.40	1.001	17.6		0.0565	17.6
9	1,2,3,7,8-PeCDF	3.01e5	1.57	NO	0.9626	10.000	29.55	1.001	98.0		0.239	98.0
10	2,3,4,7,8-PeCDF	3.37e5	1.54	NO	1.0684	10.000	29.62	1.000	97.8		0.187	97.8
11	1,2,3,4,7,8-HxCDF	1.87e5	1.21	NO	0.9535	10.000	33.23	1.000	91.6		0.279	91.6
12	1,2,3,6,7,8-HxCDF	2.01e5	1.19	NO	1.0080	10.000	33.37	1.001	90.9		0.278	90.9
13	2,3,4,6,7,8-HxCDF	1.79e5	1.21	NO	0.9907	10.000	34.03	1.000	90.8		0.313	90.8
14	1,2,3,7,8,9-HxCDF	1.31e5	1.21	NO	0.8508	10.000	35.03	1.001	86.6		0.474	86.6
15	1,2,3,4,6,7,8-HpCDF	1.28e5	0.98	NO	0.9986	10.000	36.60	1.001	90.2		0.592	90.2
16	1,2,3,4,7,8,9-HpCDF	1.07e5	0.97	NO	1.1238	10.000	38.65	1.000	89.2		0.620	89.2
17	OCDF	1.90e5	0.84	NO	0.8682	10.000	41.24	1.000	186		0.365	186
18	13C-2,3,7,8-TCDD	5.75e5	0.79	NO	1.1089	10.000	26.07	1.030	204	102		0.371
19	13C-1,2,3,7,8-PeCDD	4.40e5	0.84	NO	0.8585	10.000	30.80	1.217	202	101		0.293
20	13C-1,2,3,4,7,8-HxCDD	3.42e5	1.29	NO	0.8997	10.000	34.13	1.014	212	106		0.687
21	13C-1,2,3,6,7,8-HxCDD	4.94e5	1.29	NO	0.8327	10.000	34.24	1.017	210	105		0.561



Custom Reporting: Select reports to generate

201120R1\_4

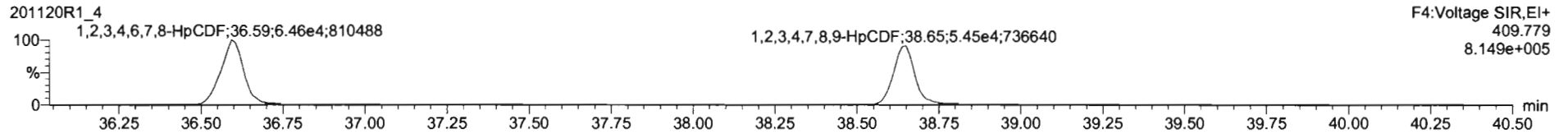
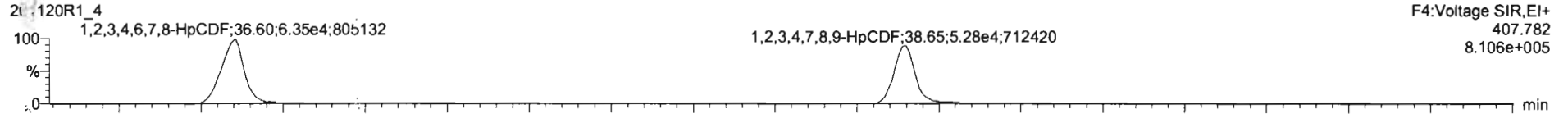


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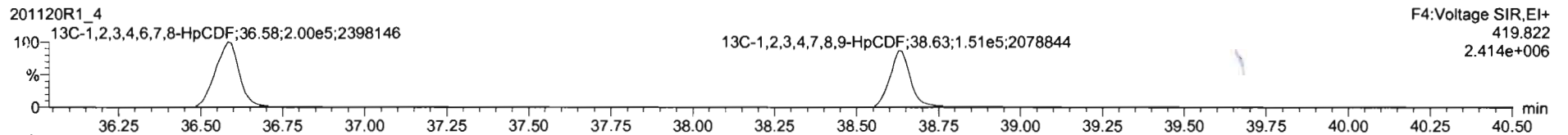
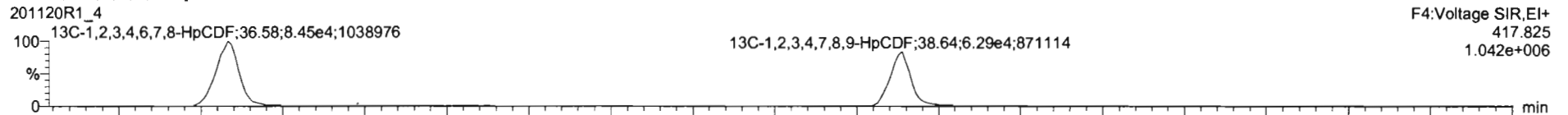
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

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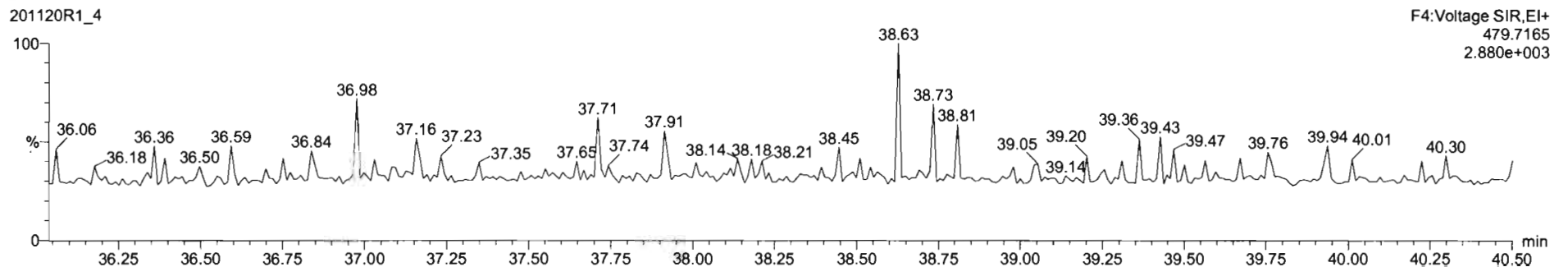
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



DPE4

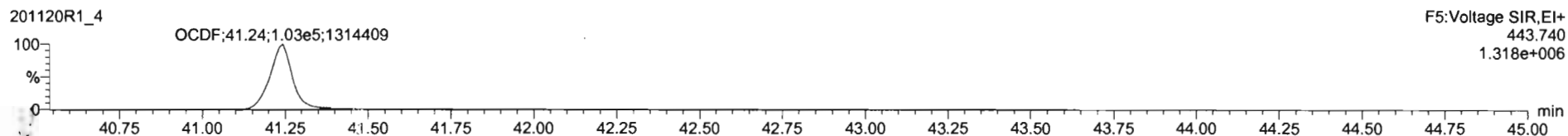
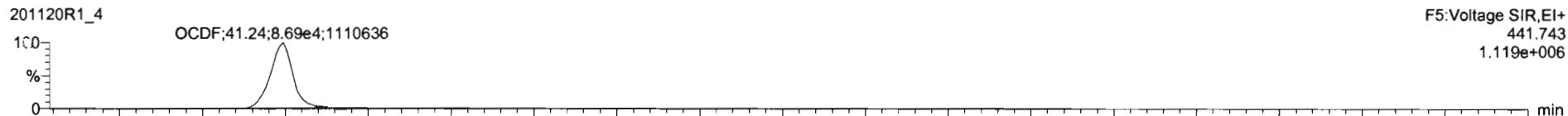


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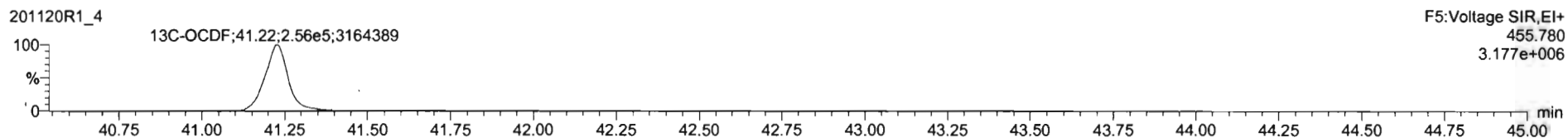
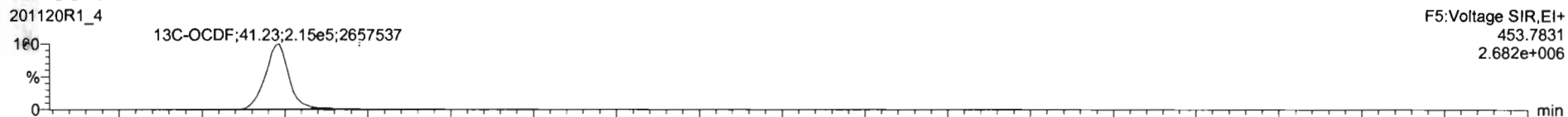
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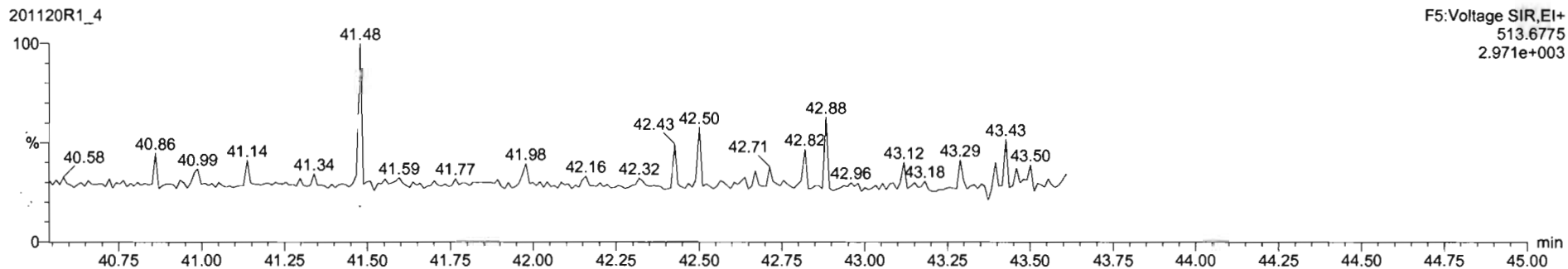
**OCDF**



**13C-OCDF**



**DPE5**



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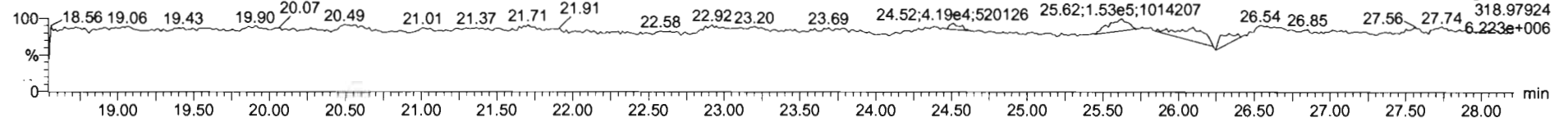
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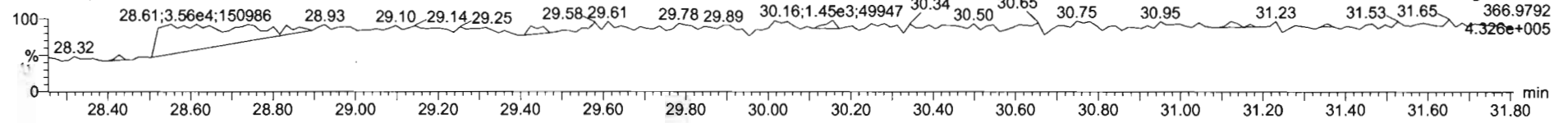
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201120R1\_4



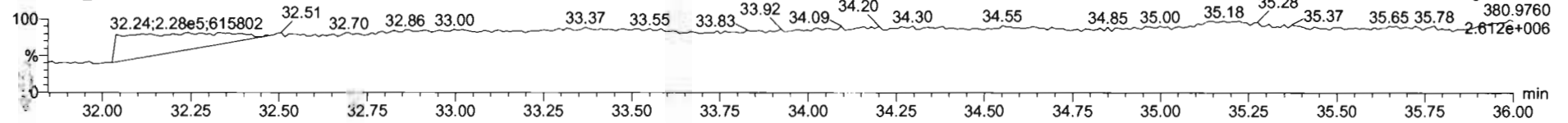
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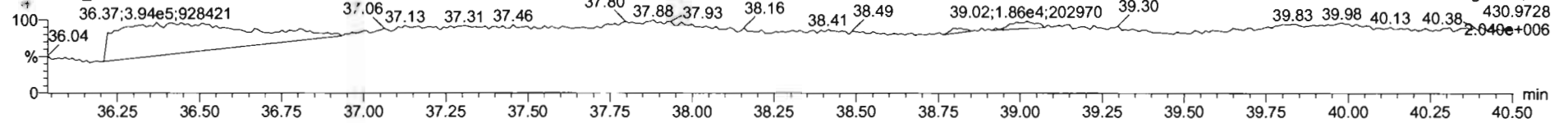
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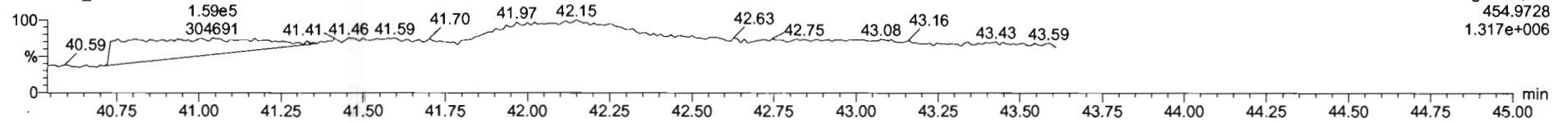
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201120R1\_4



PFK5

201120R1\_4



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-10.qld

Last Altered: Monday, November 23, 2020 9:13:47 AM Pacific Standard Time  
Printed: Monday, November 23, 2020 9:15:21 AM Pacific Standard Time

*GRB 11/23/2020*

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*CT 11/30/2020*

Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.12e3	0.56	YES	0.950	10.001	26.112	26.10	1.001	1.001	0.38681		0.114	0.321
2	2 1,2,3,7,8-PeCDD	9.63e2	0.65	NO	0.885	10.001	30.819	30.83	1.000	1.001	0.47496		0.110	0.475
3	3 1,2,3,4,7,8-HxCDD	1.13e3	1.10	NO	1.02	10.001	34.146	34.15	1.000	1.000	0.57648		0.242	0.576
4	4 1,2,3,6,7,8-HxCDD	5.98e3	1.11	NO	0.915	10.001	34.263	34.26	1.000	1.000	2.9221		0.241	2.92
5	5 1,2,3,7,8,9-HxCDD	2.81e3	1.10	NO	0.934	10.001	34.529	34.54	1.000	1.001	1.4088		0.257	1.41
6	6 1,2,3,4,6,7,8-HpCDD	1.14e5	1.01	NO	0.870	10.001	38.009	38.02	1.000	1.000	74.054		0.736	74.1
7	7 OCDD	8.63e5	0.87	NO	0.872	10.001	40.945	40.96	1.000	1.000	751.45		0.807	751
8	8 2,3,7,8-TCDF	2.39e4	0.74	NO	0.824	10.001	25.396	25.42	1.000	1.001	7.2000		0.120	7.20
9	9 1,2,3,7,8-PeCDF	2.41e4	1.51	NO	0.963	10.001	29.557	29.55	1.000	1.000	7.3325		0.138	7.33
10	10 2,3,4,7,8-PeCDF	1.79e4	1.68	NO	1.07	10.001	30.608	30.62	1.000	1.000	4.9292		0.117	4.93
11	11 1,2,3,4,7,8-HxCDF	2.35e4	1.22	NO	0.953	10.001	33.230	33.24	1.000	1.000	10.371		0.121	10.4
12	12 1,2,3,6,7,8-HxCDF	6.30e3	1.19	NO	1.01	10.001	33.358	33.38	1.000	1.001	2.6250		0.120	2.63
13	13 2,3,4,6,7,8-HxCDF	2.60e3	1.16	NO	0.991	10.001	34.032	34.04	1.000	1.000	1.1932		0.131	1.19
14	14 1,2,3,7,8,9-HxCDF	7.41e2	1.32	NO	0.951	10.001	35.020	35.04	1.000	1.001	0.38886		0.190	0.389
15	15 1,2,3,4,6,7,8-HpCDF	2.00e4	1.00	NO	0.999	10.001	36.596	36.61	1.000	1.001	12.351		0.228	12.4
16	16 1,2,3,4,7,8,9-HpCDF	2.91e3	1.03	NO	1.12	10.001	38.637	38.65	1.000	1.000	2.0380		0.224	2.04
17	17 OCDF	3.80e4	0.84	NO	0.868	10.001	41.240	41.25	1.000	1.001	32.070		0.182	32.1
18	18 13C-2,3,7,8-TCDD	6.06e5	0.79	NO	1.11	10.001	26.073	26.08	1.030	1.030	216.70	108	0.207	
19	19 13C-1,2,3,7,8-PeCDD	4.58e5	0.64	NO	0.859	10.001	30.792	30.81	1.216	1.217	211.51	106	0.422	
20	20 13C-1,2,3,4,7,8-HxCDD	3.85e5	1.31	NO	0.700	10.001	34.135	34.14	1.014	1.014	220.44	110	0.525	
21	21 13C-1,2,3,6,7,8-HxCDD	4.48e5	1.27	NO	0.833	10.001	34.273	34.25	1.018	1.017	215.28	108	0.441	
22	22 13C-1,2,3,7,8,9-HxCDD	4.27e5	1.26	NO	0.762	10.001	34.515	34.52	1.025	1.025	224.70	112	0.482	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.53e5	1.05	NO	0.650	10.001	38.000	38.01	1.129	1.129	217.74	109	0.847	
24	24 13C-OCDD	5.27e5	0.88	NO	0.539	10.001	40.966	40.94	1.217	1.216	391.19	97.8	0.649	
25	25 13C-2,3,7,8-TCDF	8.04e5	0.77	NO	0.981	10.001	25.395	25.39	1.003	1.003	211.44	106	0.329	
26	26 13C-1,2,3,7,8-PeCDF	6.83e5	1.59	NO	0.792	10.001	29.524	29.55	1.166	1.167	222.61	111	0.625	
27	27 13C-2,3,4,7,8-PeCDF	6.82e5	1.63	NO	0.778	10.001	30.582	30.61	1.208	1.209	226.11	113	0.636	
28	28 13C-1,2,3,4,7,8-HxCDF	4.76e5	0.49	NO	0.954	10.001	33.226	33.23	0.987	0.987	199.94	100	0.638	
29	29 13C-1,2,3,6,7,8-HxCDF	4.76e5	0.50	NO	1.01	10.001	33.357	33.36	0.991	0.991	189.51	94.8	0.605	
30	30 13C-2,3,4,6,7,8-HxCDF	4.40e5	0.50	NO	0.921	10.001	34.027	34.03	1.011	1.011	191.49	95.8	0.661	
31	31 13C-1,2,3,7,8,9-HxCDF	4.01e5	0.51	NO	0.803	10.001	35.024	35.02	1.040	1.040	199.75	99.9	0.757	

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-10.qld

Last Altered: Monday, November 23, 2020 9:13:47 AM Pacific Standard Time

Printed: Monday, November 23, 2020 9:15:21 AM Pacific Standard Time

Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.25e5	0.43	NO	0.735	10.001	36.593	36.59	1.087	1.087	176.86	88.4	0.619	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.54e5	0.42	NO	0.568	10.001	38.630	38.64	1.147	1.148	178.99	89.5	0.802	
34	34 13C-OCDF	5.46e5	0.87	NO	0.629	10.001	41.249	41.23	1.225	1.225	347.53	86.9	0.650	
35	35 37Cl-2,3,7,8-TCDD	2.49e5			1.09	10.001	26.073	26.10	1.030	1.031	90.728	113	0.122	
36	36 13C-1,2,3,4-TCDD	5.04e5	0.80	NO	1.00	10.001	25.370	25.31	1.000	1.000	199.98	100	0.229	
37	37 13C-1,2,3,4-TCDF	7.75e5	0.78	NO	1.00	10.001	23.870	23.82	1.000	1.000	199.98	100	0.322	
38	38 13C-1,2,3,4,6,9-HxCDF	4.99e5	0.50	NO	1.00	10.001	33.710	33.67	1.000	1.000	199.98	100	0.608	
39	39 Total Tetra-Dioxins				0.950	10.001	24.620		0.000		2.4095		0.114	2.73
40	40 Total Penta-Dioxins				0.885	10.001	29.960		0.000		3.3238		0.110	4.10
41	41 Total Hexa-Dioxins				0.915	10.001	33.635		0.000		29.502		0.257	29.5
42	42 Total Hepta-Dioxins				0.870	10.001	37.640		0.000		243.11		0.736	243
43	43 Total Tetra-Furans				0.824	10.001	23.610		0.000		22.750		0.120	24.6
44	44 1st Func. Penta-Furans				0.963	10.001	26.930		0.000		3.8180		0.0259	3.82
45	45 Total Penta-Furans				0.963	10.001	29.275		0.000		23.927		0.134	23.9
46	46 Total Hexa-Furans				0.991	10.001	33.555		0.000		29.922		0.136	29.9
47	47 Total Hepta-Furans				0.999	10.001	37.835		0.000		35.482		0.239	35.5

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-10.qld

Last Altered: Monday, November 23, 2020 9:13:47 AM Pacific Standard Time

Printed: Monday, November 23, 2020 9:15:21 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.28	7.651e3	9.818e3	6.420e2	8.298e2	0.77	NO	1.472e3	0.51114	0.51114	0.114
2	Total Tetra-Dioxins	22.65	4.723e3	3.531e3	3.044e2	3.707e2	0.82	NO	6.751e2	0.23446	0.23446	0.114
3	Total Tetra-Dioxins	23.16	2.683e3	4.272e3	1.768e2	2.622e2	0.67	NO	4.390e2	0.15248	0.15248	0.114
4	Total Tetra-Dioxins	24.01	1.791e3	2.785e3	1.229e2	1.823e2	0.67	NO	3.052e2	0.10599	0.10599	0.114
5	Total Tetra-Dioxins	24.20	2.743e3	3.192e3	2.099e2	2.606e2	0.81	NO	4.706e2	0.16343	0.16343	0.114
6	Total Tetra-Dioxins	24.44	4.499e3	5.185e3	2.340e2	2.655e2	0.88	NO	4.995e2	0.17348	0.17348	0.114
7	Total Tetra-Dioxins	25.83	2.123e4	2.271e4	1.371e3	1.706e3	0.80	NO	3.077e3	1.0685	1.0685	0.114
8	2,3,7,8-TCDD	26.10	5.484e3	1.093e4	4.023e2	7.173e2	0.56	YES	1.120e3	0.00000	0.32114	0.114

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.54	1.310e4	2.212e4	8.894e2	1.597e3	0.56	NO	2.486e3	1.2261	1.2261	0.110
2	Total Penta-Dioxins	29.03	7.274e3	9.925e3	3.733e2	5.282e2	0.71	NO	9.015e2	0.44458	0.44458	0.110
3	Total Penta-Dioxins	29.55	9.714e3	1.371e4	5.090e2	7.474e2	0.68	NO	1.256e3	0.61957	0.61957	0.110
4	Total Penta-Dioxins	29.75	6.730e3	1.209e4	3.123e2	5.510e2	0.57	NO	0.000e0	0.00000	0.42573	0.110
5	Total Penta-Dioxins	29.77	4.567e3	7.446e3	2.018e2	3.030e2	0.67	NO	0.000e0	0.00000	0.24894	0.110
6	Total Penta-Dioxins	30.02	9.030e3	9.161e3	4.619e2	6.709e2	0.69	NO	1.133e3	0.55862	0.55862	0.110
7	1,2,3,7,8-PeCDD	30.83	7.578e3	1.250e4	3.792e2	5.839e2	0.65	NO	9.631e2	0.47496	0.47496	0.110
8	Total Penta-Dioxins	30.89	1.834e3	2.038e3	9.741e1	1.243e2	0.78	YES	0.000e0	0.00000	0.099921	0.110



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-10.qld

Last Altered: Monday, November 23, 2020 9:13:47 AM Pacific Standard Time

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Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.51	2.140e5	1.645e5	1.134e4	9.001e3	1.26	NO	2.034e4	10.587	10.587	0.257
2	Total Hexa-Dioxins	33.11	2.713e4	2.219e4	1.447e3	1.275e3	1.13	NO	2.722e3	1.4167	1.4167	0.257
3	Total Hexa-Dioxins	33.40	1.551e5	1.219e5	1.102e4	8.759e3	1.26	NO	1.977e4	10.293	10.293	0.257
4	Total Hexa-Dioxins	33.51	3.627e4	2.481e4	1.902e3	1.434e3	1.33	NO	3.336e3	1.7362	1.7362	0.257
5	1,2,3,4,7,8-HxCDD	34.15	1.167e4	1.034e4	5.918e2	5.380e2	1.10	NO	1.130e3	0.57648	0.57648	0.242
6	1,2,3,6,7,8-HxCDD	34.26	5.140e4	4.600e4	3.148e3	2.834e3	1.11	NO	5.982e3	2.9221	2.9221	0.241
7	Total Hexa-Dioxins	34.41	9.408e3	7.306e3	5.757e2	5.035e2	1.14	NO	1.079e3	0.56173	0.56173	0.257
8	1,2,3,7,8,9-HxCDD	34.54	2.428e4	2.120e4	1.475e3	1.339e3	1.10	NO	2.814e3	1.4088	1.4088	0.257

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.99	1.738e6	1.701e6	1.303e5	1.294e5	1.01	NO	2.597e5	169.06	169.06	0.736
2	1,2,3,4,6,7,8-HpCDD	38.02	9.620e5	9.241e5	5.707e4	5.668e4	1.01	NO	1.138e5	74.054	74.054	0.736

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-10.qld

Last Altered: Monday, November 23, 2020 9:13:47 AM Pacific Standard Time

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Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.05	2.637e3	4.497e3	2.226e2	3.329e2	0.67	NO	5.555e2	0.16759	0.16759	0.120
2	Total Tetra-Furans	20.63	3.412e3	5.443e3	2.769e2	4.136e2	0.67	NO	6.904e2	0.20829	0.20829	0.120
3	Total Tetra-Furans	21.40	1.870e4	2.734e4	1.714e3	2.426e3	0.71	NO	4.140e3	1.2488	1.2488	0.120
4	Total Tetra-Furans	22.31	3.374e4	4.356e4	3.034e3	4.016e3	0.76	NO	7.050e3	2.1268	2.1268	0.120
5	Total Tetra-Furans	22.82	1.570e4	2.559e4	1.347e3	1.874e3	0.72	NO	3.221e3	0.97181	0.97181	0.120
6	Total Tetra-Furans	22.90	3.381e3	6.008e3	2.789e2	3.448e2	0.81	NO	6.237e2	0.18815	0.18815	0.120
7	Total Tetra-Furans	23.16	8.572e3	9.781e3	6.991e2	9.200e2	0.76	NO	1.619e3	0.48844	0.48844	0.120
8	Total Tetra-Furans	23.56	2.858e3	3.366e3	2.011e2	2.840e2	0.71	NO	4.851e2	0.14633	0.14633	0.120
9	Total Tetra-Furans	23.67	2.892e3	4.111e3	1.839e2	2.423e2	0.76	NO	4.263e2	0.12860	0.12860	0.120
10	Total Tetra-Furans	23.88	1.728e4	2.688e4	7.652e2	1.101e3	0.70	NO	0.000e0	0.00000	0.56298	0.120
11	Total Tetra-Furans	23.91	1.885e4	2.978e4	1.721e3	2.495e3	0.69	NO	0.000e0	0.00000	1.2719	0.120
12	Total Tetra-Furans	24.40	1.442e5	1.984e5	9.912e3	1.380e4	0.72	NO	2.372e4	7.1547	7.1547	0.120
13	Total Tetra-Furans	24.72	7.861e3	1.322e4	4.573e2	6.799e2	0.67	NO	1.137e3	0.34307	0.34307	0.120
14	Total Tetra-Furans	25.28	2.291e4	2.834e4	1.560e3	1.945e3	0.80	NO	3.504e3	1.0572	1.0572	0.120
15	2,3,7,8-TCDF	25.42	1.407e5	2.021e5	1.013e4	1.374e4	0.74	NO	2.387e4	7.2000	7.2000	0.120
16	Total Tetra-Furans	25.73	7.198e3	9.903e3	6.016e2	7.091e2	0.85	NO	1.311e3	0.39539	0.39539	0.120
17	Total Tetra-Furans	25.99	3.325e3	4.804e3	1.931e2	2.857e2	0.68	NO	4.789e2	0.14446	0.14446	0.120
18	Total Tetra-Furans	27.33	2.053e4	2.315e4	1.128e3	1.460e3	0.77	NO	2.588e3	0.78081	0.78081	0.120

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.94	1.267e5	7.832e4	7.731e3	4.807e3	1.61	NO	1.254e4	3.8180	3.8180	0.0259



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Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.40	1.369e4	1.015e4	8.938e2	5.480e2	1.63	NO	1.442e3	0.43905	0.43905	0.134
2	Total Penta-Furans	28.57	1.578e5	9.286e4	1.054e4	6.694e3	1.57	NO	1.723e4	5.2471	5.2471	0.134
3	Total Penta-Furans	29.21	3.506e4	2.450e4	2.307e3	1.626e3	1.42	NO	3.933e3	1.1976	1.1976	0.134
4	Total Penta-Furans	29.36	4.140e4	2.416e4	2.259e3	1.314e3	1.72	NO	3.573e3	1.0880	1.0880	0.134
5	1,2,3,7,8-PeCDF	29.55	2.481e5	1.720e5	1.452e4	9.587e3	1.51	NO	2.411e4	7.3325	7.3325	0.138
6	Total Penta-Furans	29.81	1.377e5	8.376e4	6.346e3	4.114e3	1.54	NO	1.046e4	3.1851	3.1851	0.134
7	Total Penta-Furans	30.44	9.394e3	4.986e3	3.906e2	2.438e2	1.60	NO	6.344e2	0.19318	0.19318	0.134
8	2,3,4,7,8-PeCDF	30.62	2.103e5	1.243e5	1.125e4	6.694e3	1.68	NO	1.795e4	4.9292	4.9292	0.117
9	Total Penta-Furans	31.54	1.104e4	6.098e3	6.506e2	3.838e2	1.70	NO	1.034e3	0.31496	0.31496	0.134

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.97	3.753e4	3.290e4	1.995e3	1.667e3	1.20	NO	3.661e3	1.6485	1.6485	0.136
2	Total Hexa-Furans	32.14	1.255e5	1.025e5	6.567e3	5.373e3	1.22	NO	1.194e4	5.3757	5.3757	0.136
3	Total Hexa-Furans	32.78	1.683e5	1.449e5	8.689e3	7.168e3	1.21	NO	1.586e4	7.1394	7.1394	0.136
4	Total Hexa-Furans	33.11	5.090e3	5.090e3	2.916e2	2.701e2	1.08	NO	5.617e2	0.25288	0.25288	0.136
5	1,2,3,4,7,8-HxCDF	33.24	2.313e5	1.933e5	1.296e4	1.059e4	1.22	NO	2.355e4	10.371	10.371	0.121
6	1,2,3,6,7,8-HxCDF	33.38	5.604e4	4.918e4	3.426e3	2.873e3	1.19	NO	6.299e3	2.6250	2.6250	0.120
7	2,3,4,6,7,8-HxCDF	34.04	2.179e4	1.671e4	1.400e3	1.204e3	1.16	NO	2.603e3	1.1932	1.1932	0.131
8	1,2,3,7,8,9-HxCDF	35.04	1.557e4	1.099e4	4.217e2	3.190e2	1.32	NO	7.407e2	0.38886	0.38886	0.190
9	Total Hexa-Furans	35.06	2.287e4	1.616e4	1.162e3	8.973e2	1.29	NO	2.059e3	0.92703	0.92703	0.136

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.61	1.352e5	1.459e5	1.003e4	1.000e4	1.00	NO	2.003e4	12.351	12.351	0.228
2	Total Hepta-Furans	37.34	2.038e5	2.081e5	1.483e4	1.563e4	0.95	NO	3.047e4	21.093	21.093	0.239
3	1,2,3,4,7,8,9-HpCDF	38.65	2.541e4	2.177e4	1.472e3	1.434e3	1.03	NO	2.906e3	2.0380	2.0380	0.224

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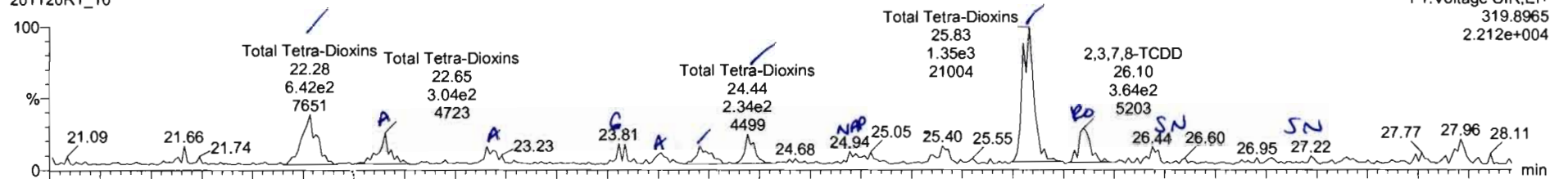
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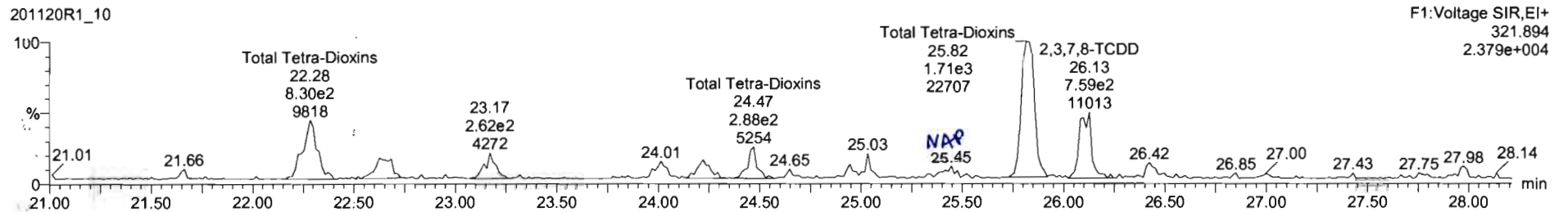
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**2,3,7,8-TCDD**

201120R1\_10

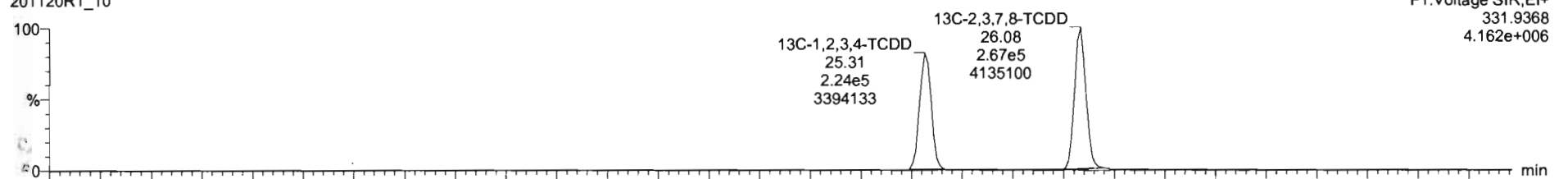


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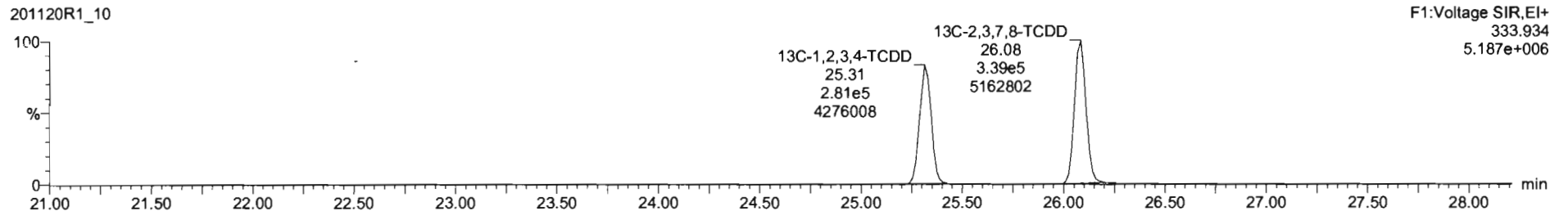


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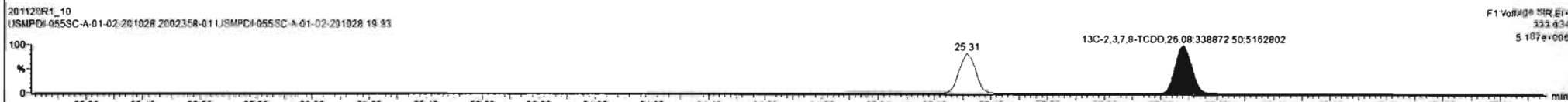
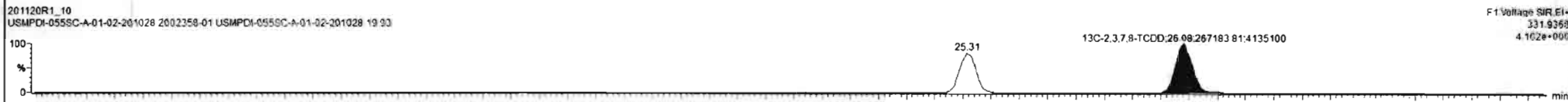
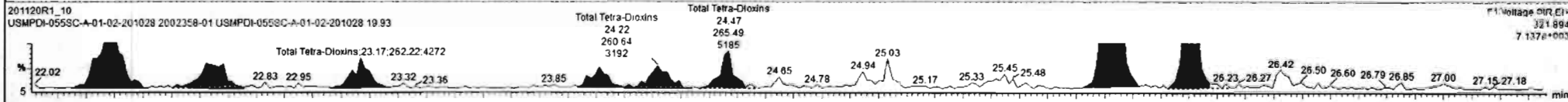
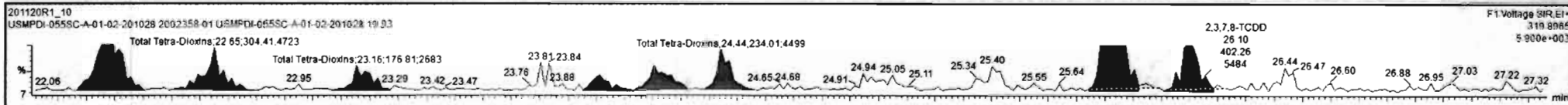
201120R1\_10



201120R1\_10



Name	Resp	RA	My	RRF	wtVoi	RT	RRT	Conc	%Rec	DL	EMPC
38 13C-1,2,3,4,6,8-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.67	1.000	209	100	0.605	
39 Total Tetra-Dioxins				0.9501	10.001			2.41		0.314	2.73
40 Total Penta-Dioxins				0.8855	10.001			3.32		0.110	4.03
41 Total Hexa-Dioxins				0.9145	10.001			29.5		0.257	29.5
42 Total Hepta-Dioxins				0.8697	10.001			243		0.736	243
43 Total Tetra-Furans				0.8243	10.001			24.6		0.120	24.6
44 1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259	3.82
45 Total Penta-Furans				0.9626	10.001			24.0		0.134	24.0
46 Total Hexa-Furans				0.9907	10.001			29.9		0.136	29.9
47 Total Hepta-Furans				0.9985	10.001			35.5		0.239	35.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											
58 DPE6											



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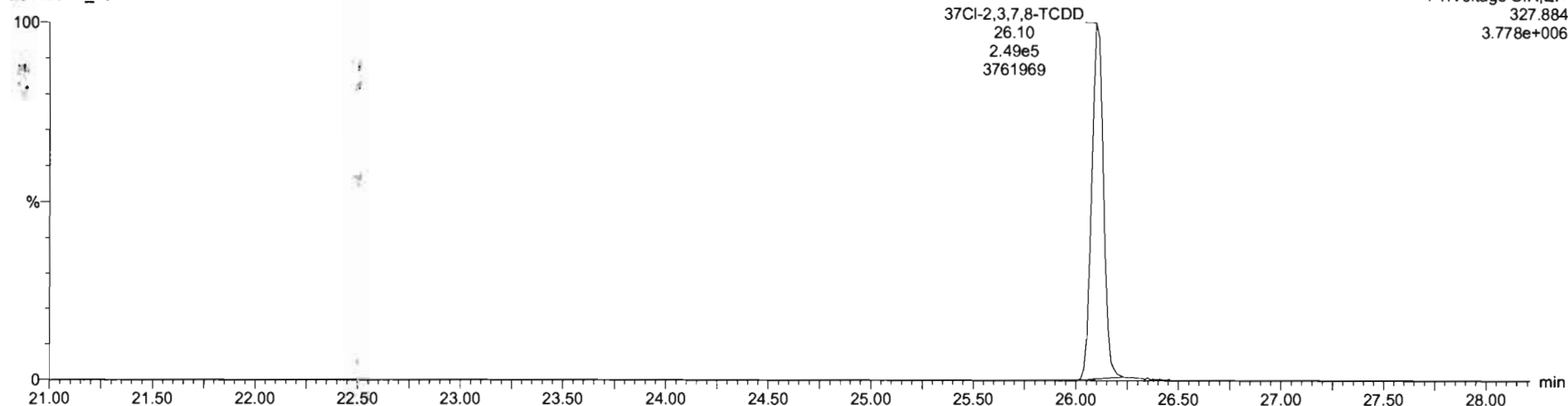
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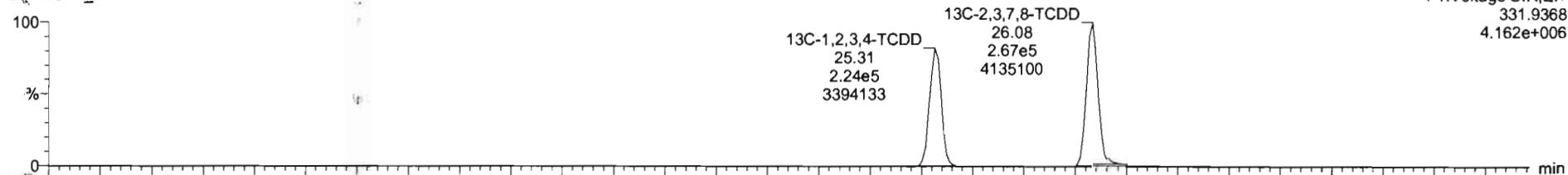
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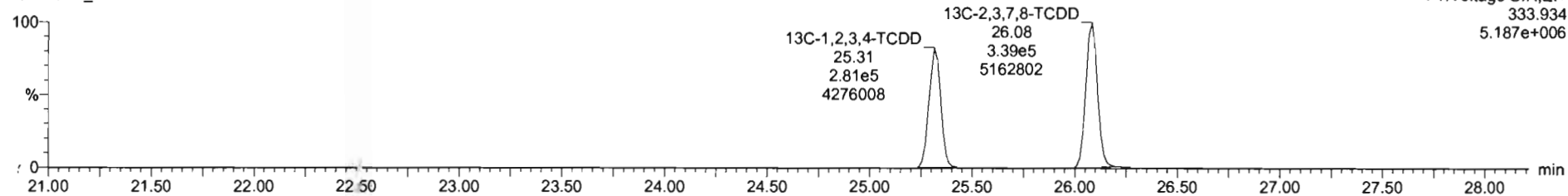


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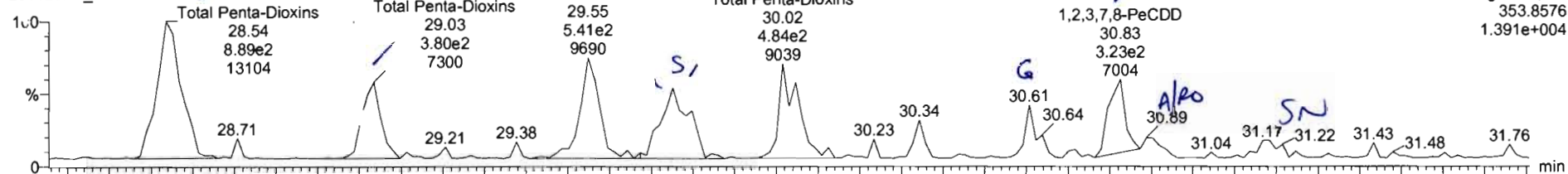
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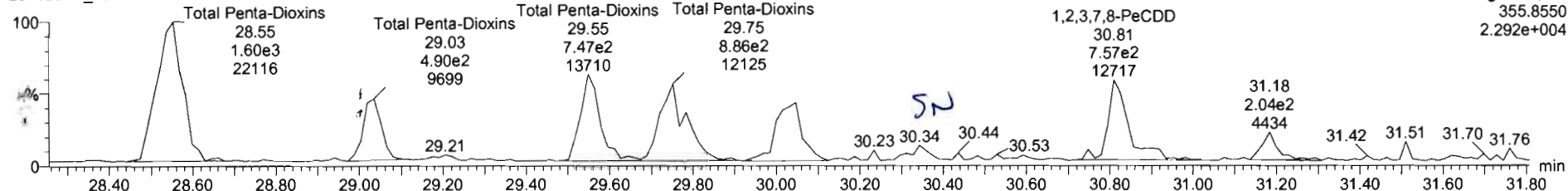
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1,2,3,7,8-PeCDD

201120R1\_10



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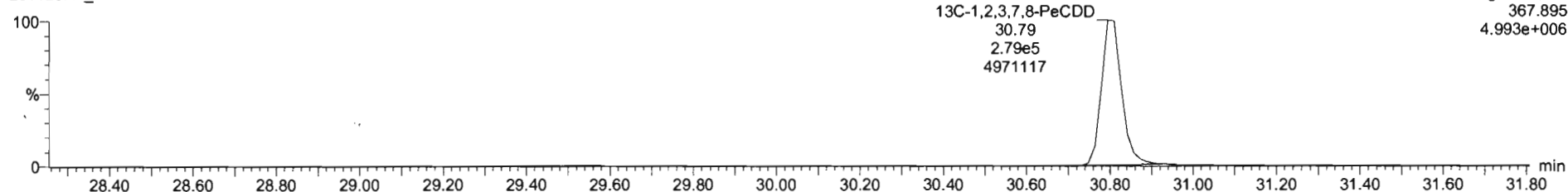


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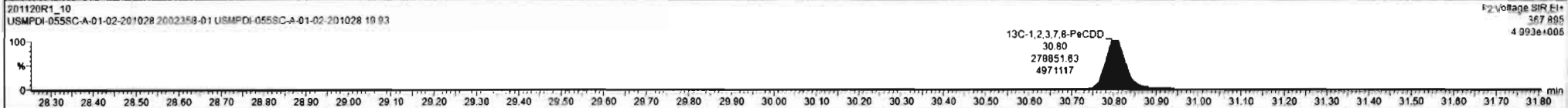
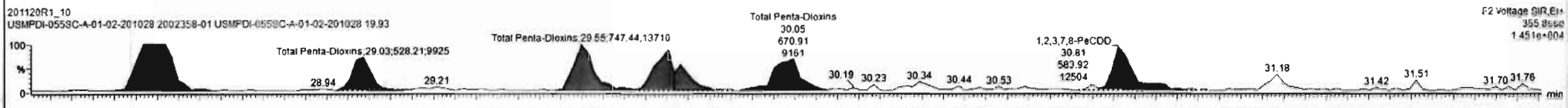
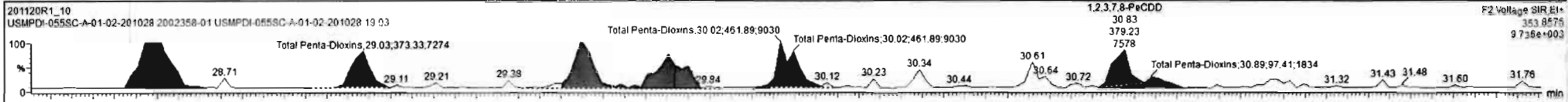


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201120R1\_10 2002358 01 USMPDI-055SC A 01 02 201028 19 93 - USMPDI-055SC A 01 02 201028

#	Name	Resp	RA	n/y	RRF	wt/mol	RT	RRT	Conc	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.67	1.000	200	100	0.608	
39	Total Tetra-Dioxins				0.9501	10.001			2.41		0.114	2.73
40	Total Penta-Dioxins				0.8655	10.001			3.32		0.110	4.10
41	Total Hexa-Dioxins				0.9145	10.001			29.5		0.257	29.5
42	Total Hepta-Dioxins				0.8697	10.001			243		0.736	243
43	Total Tetra-Furans				0.8243	10.001			24.6		0.120	24.6
44	1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259	3.82
45	Total Penta-Furans				0.9626	10.001			24.0		0.134	24.0
46	Total Hexa-Furans				0.9907	10.001			29.9		0.136	29.9
47	Total Hepta-Furans				0.9986	10.001			35.5		0.239	35.5
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											
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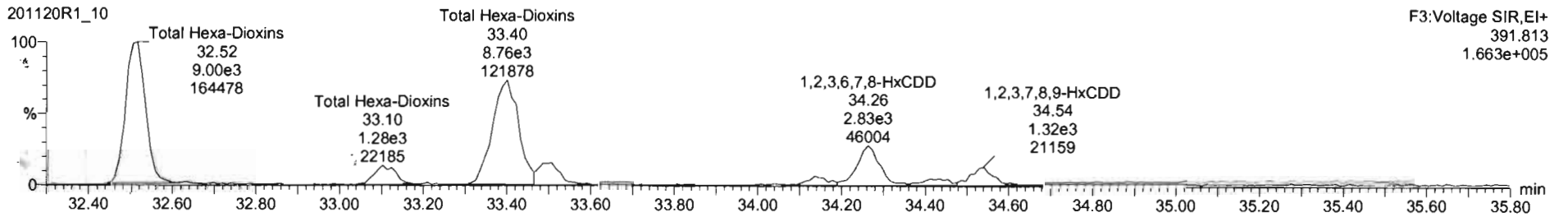
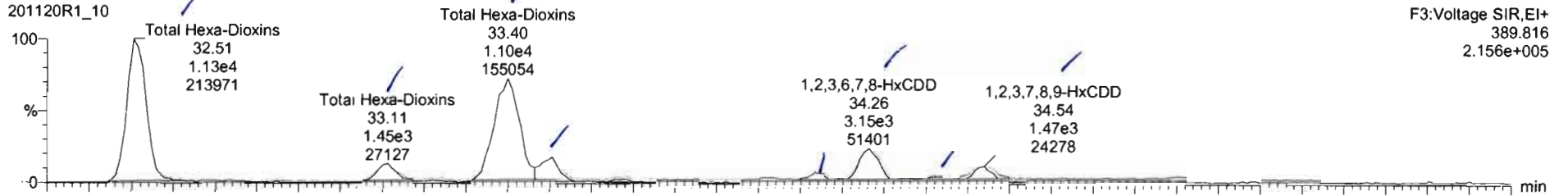
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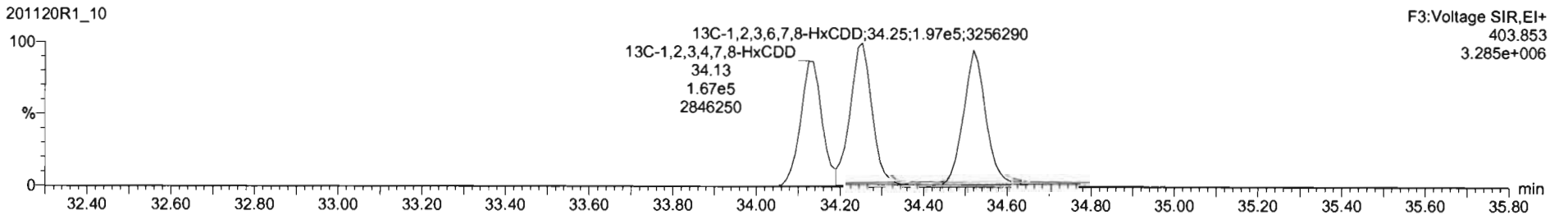
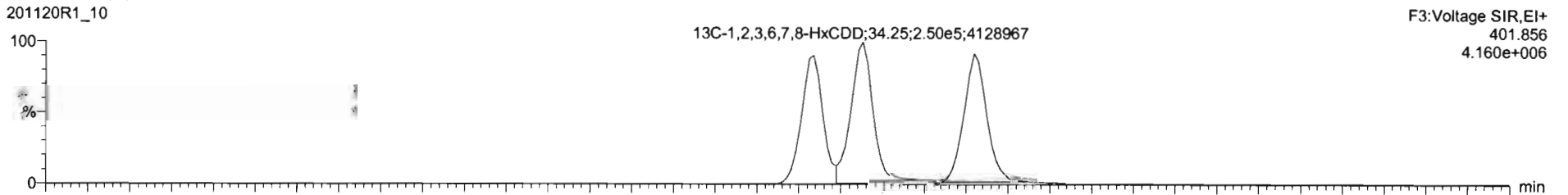
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Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

1,2,3,4,7,8-HxCDD



13C-1,2,3,4,7,8-HxCDD

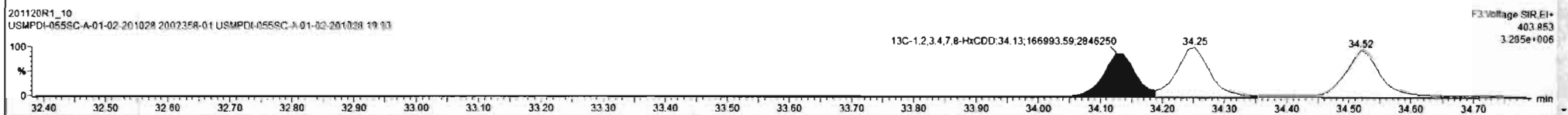
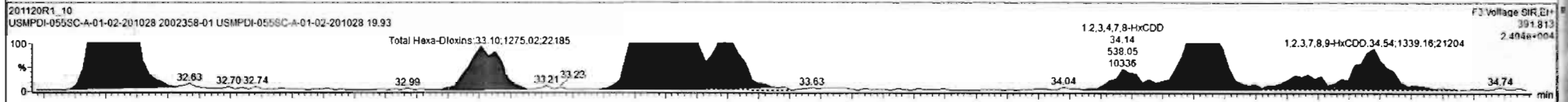
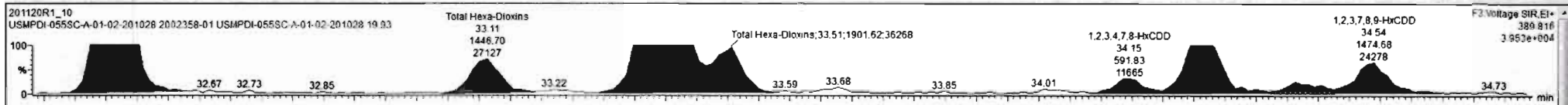


TargetLynx - 201120R1\_10.d - Chromatogram

File Edit View Display Processing Window Help

201120R1\_10 - 2002358-01 USMPDI-055SC-A-01-02-201028-19-93 USMPDI-055SC-A-01-02-201028

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.67	1.000	200	100	0.608
39	Total Tetra-Dioxins				0.9501	10.001			2.41		0.114
40	Total Penta-Dioxins				0.8855	10.001			3.32		0.110
41	Total Hexa-Dioxins				0.9145	10.001			29.5		0.257
42	Total Hepta-Dioxins				0.8697	10.001			2.43		0.736
43	Total Tetra-Furans				0.8243	10.001			24.6		0.120
44	1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259
45	Total Penta-Furans				0.9626	10.001			24.0		0.134
46	Total Hexa-Furans				0.9907	10.001			29.9		0.136
47	Total Hepta-Furans				0.9986	10.001			35.5		0.239
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										
58	DPE6										





Dataset: Untitled

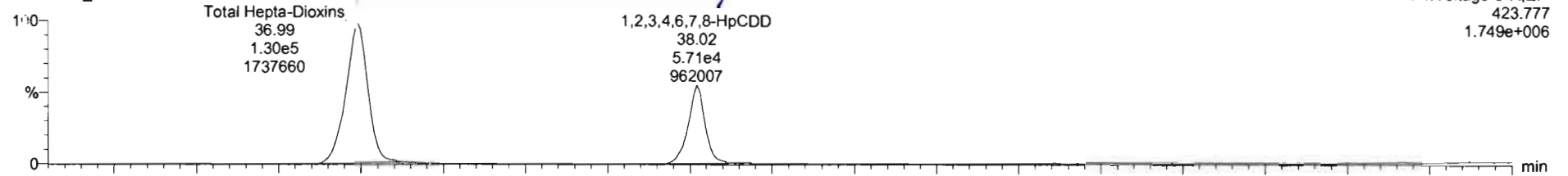
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

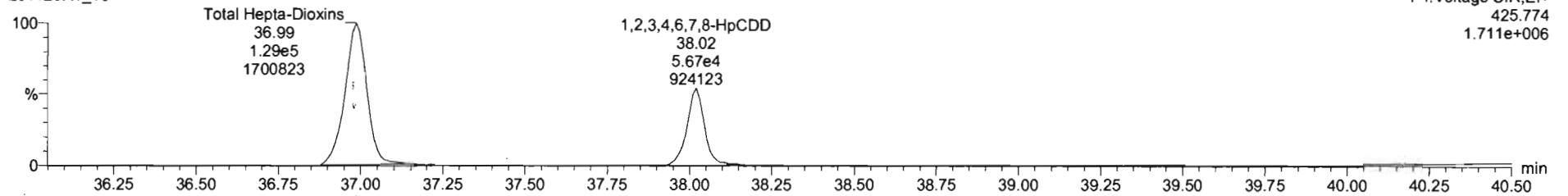
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

1,2,3,4,6,7,8-HpCDD

201120R1\_10

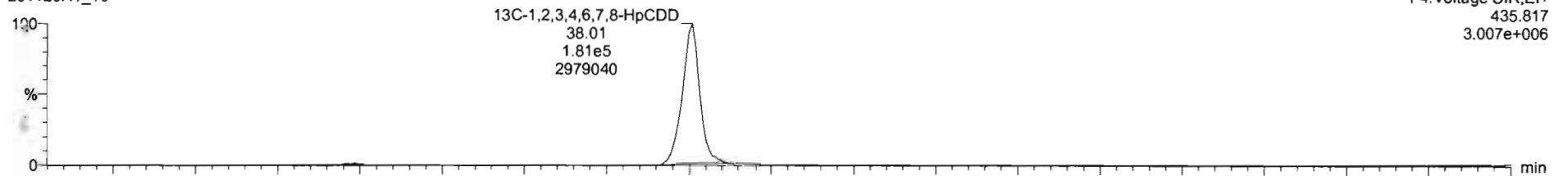


201120R1\_10

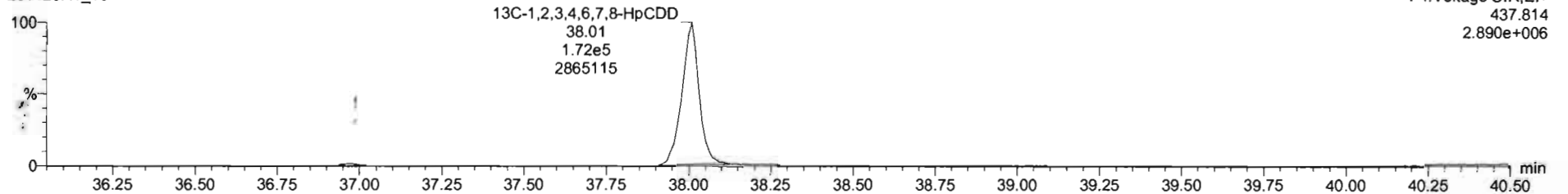


13C-1,2,3,4,6,7,8-HpCDD

201120R1\_10



201120R1\_10



Dataset: Untitled

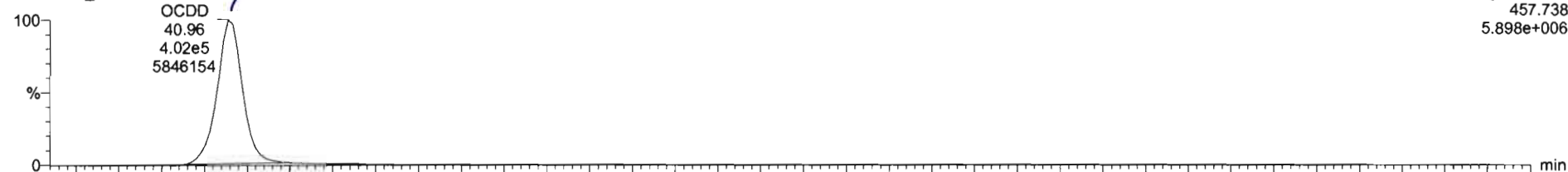
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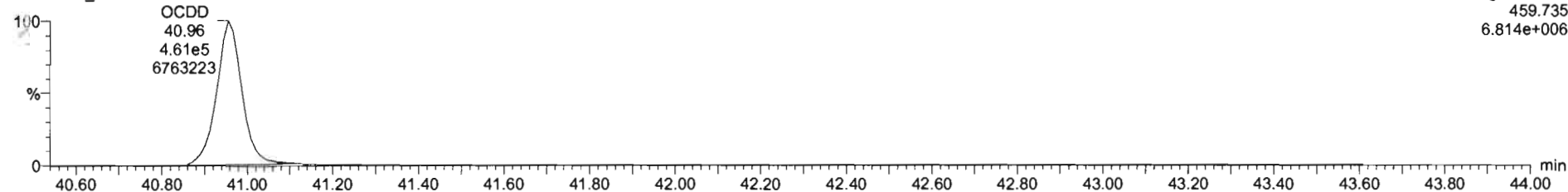
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**OCDD**

201120R1\_10

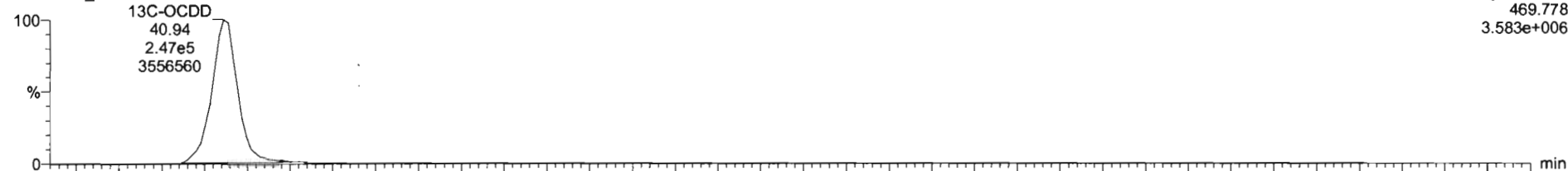


201120R1\_10

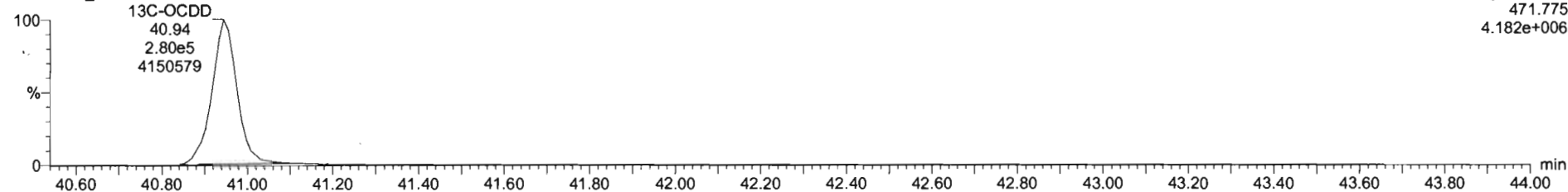


**13C-OCDD**

201120R1\_10



201120R1\_10



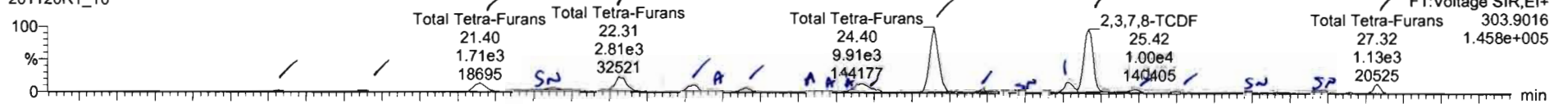
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

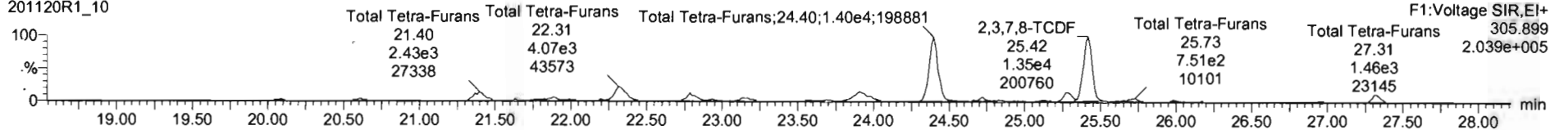
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**2,3,7,8-TCDF**

201120R1\_10

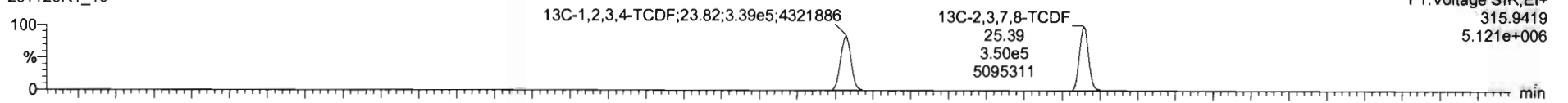


201120R1\_10

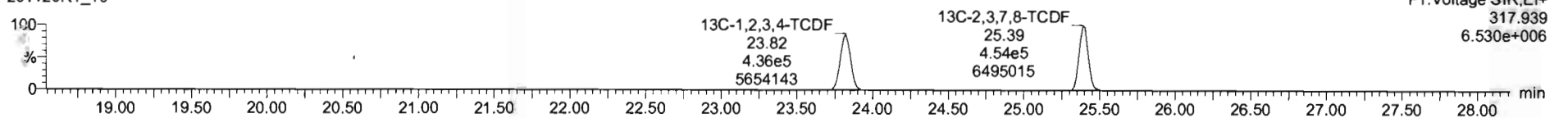


**13C-2,3,7,8-TCDF**

201120R1\_10

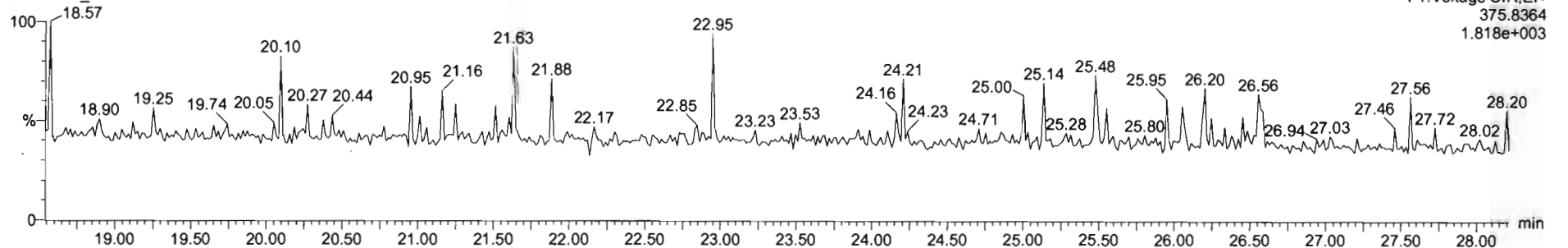


201120R1\_10



**DPE1**

201120R1\_10

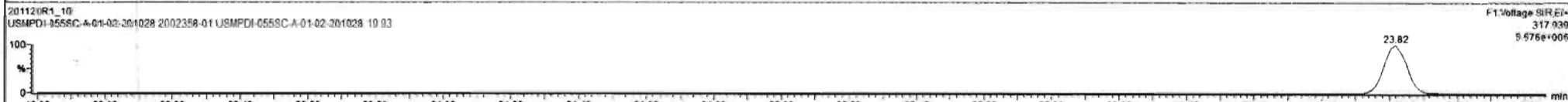
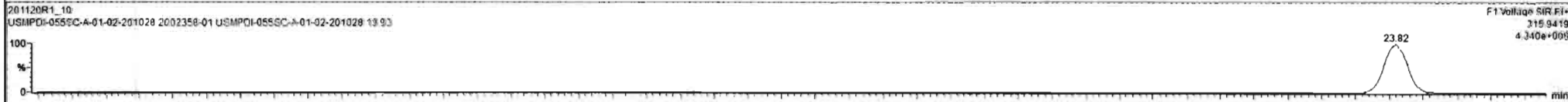
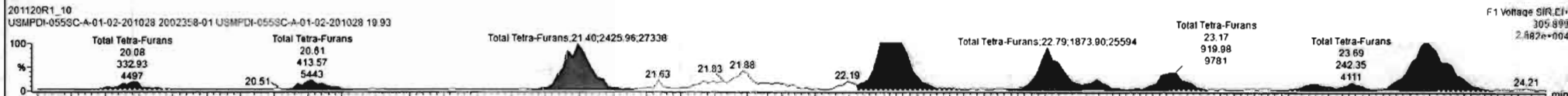
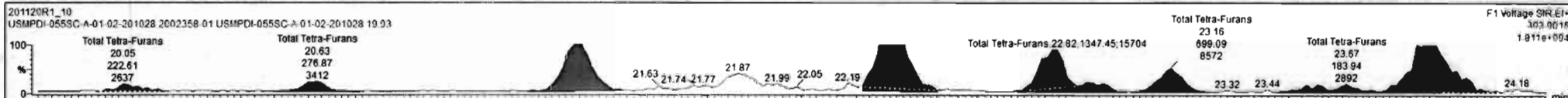


Targetlynx - 201120R1\_10.d [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_10 - 2002358-01 USMPDI-055SC-A-01-02-201028-19-93 USMPDI-055SC-A-01-02-201028

Name	Resp	RA	My	RRF	wt/wt	RT	RRT	Conc	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.67	1.000	200	100	0.608
39	Total Tetra-Dioxins				0.9501	10.001		2.41		0.114	2.73
40	Total Penta-Dioxins				0.8855	10.001		3.32		0.110	4.10
41	Total Hexa-Dioxins				0.9145	10.001		29.5		0.257	29.5
42	Total Hepta-Dioxins				0.8697	10.001		243		0.736	243
43	Total Tetra-Furans				0.6243	10.001		22.8		0.120	24.8
44	1st Func. Penta-Furans				0.9626	10.001		3.82		0.0259	3.82
45	Total Penta-Furans				0.9626	10.001		24.0		0.134	24.0
46	Total Hexa-Furans				0.9907	10.001		29.9		0.136	29.9
47	Total Hepta-Furans				0.9966	10.001		35.5		0.239	35.5
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										
58	DPE6										



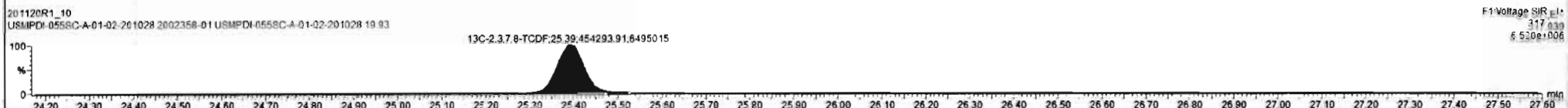
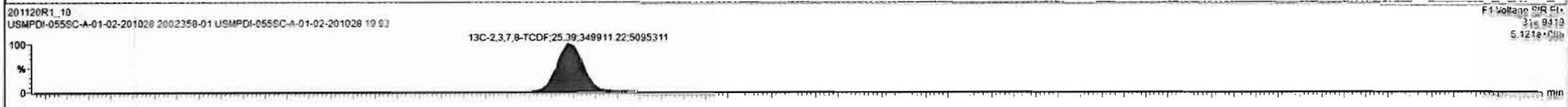
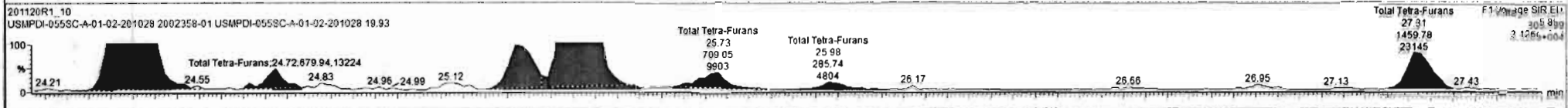
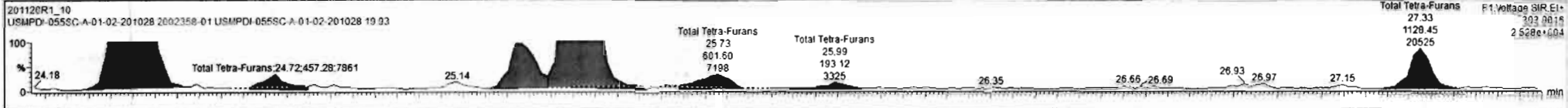


TargetLynx - 201120R1\_10.d [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_10 2002358-01 USMPDI-055SC-A-01-02-201028 19-93 - USMPDI-055SC-A-01-02-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EUPC
38	13C-1,2,3,4,6,8-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.57	1.000	200	100	0.608	
39	Total Tetra-Dioxins				0.9501	10.001			2.41		0.114	2.73
40	Total Penta-Dioxins				0.8855	10.001			3.32		0.110	4.10
41	Total Hexa-Dioxins				0.9145	10.001			29.5		0.257	29.5
42	Total Hepta-Dioxins				0.8697	10.001			243		0.736	243
43	Total Tetra-Furans				0.8243	10.001			22.8		0.120	24.8
44	1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259	3.82
45	Total Penta-Furans				0.9626	10.001			24.0		0.134	24.0
46	Total Hexa-Furans				0.9907	10.001			29.9		0.136	29.9
47	Total Hepta-Furans				0.9986	10.001			35.5		0.239	35.5
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	OPE1											
54	OPE2											
55	OPE3											
56	OPE4											
57	OPE5											
58	OPE6											



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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

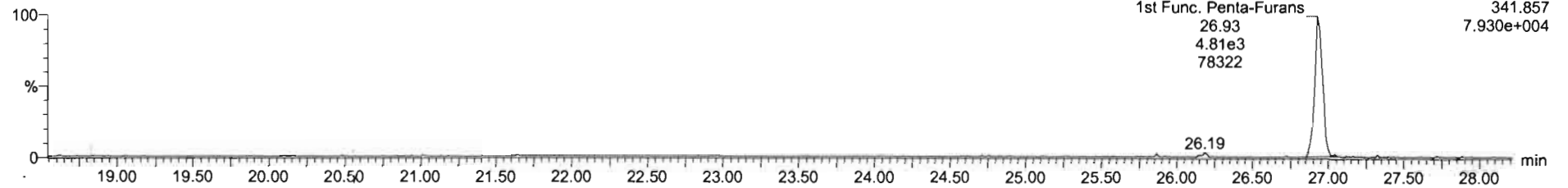
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

1st Func. Penta-Furans

201120R1\_10

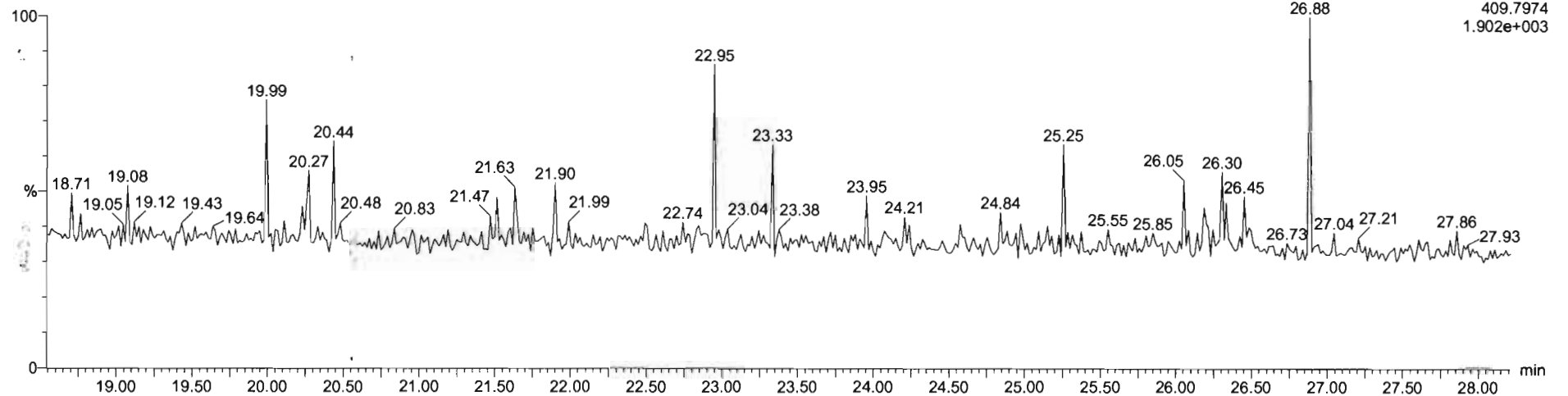


201120R1\_10



DPE6

201120R1\_10

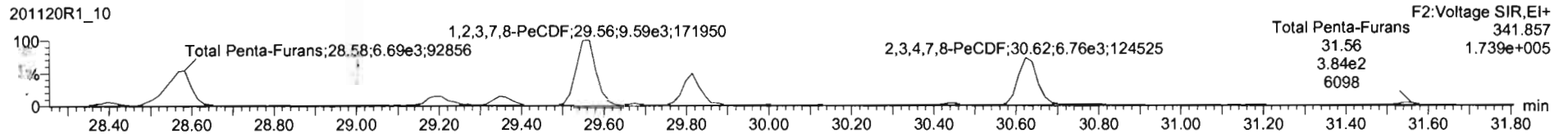
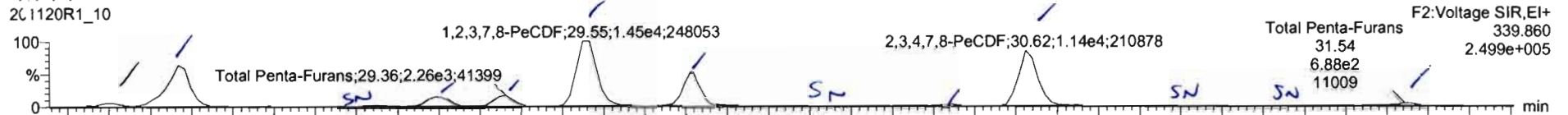


Dataset: Untitled

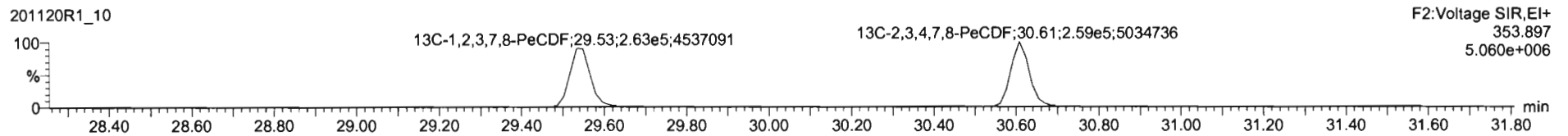
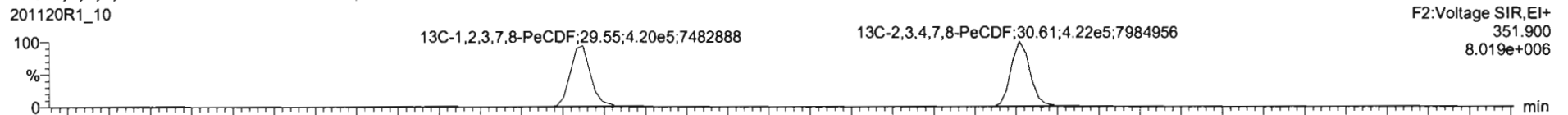
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

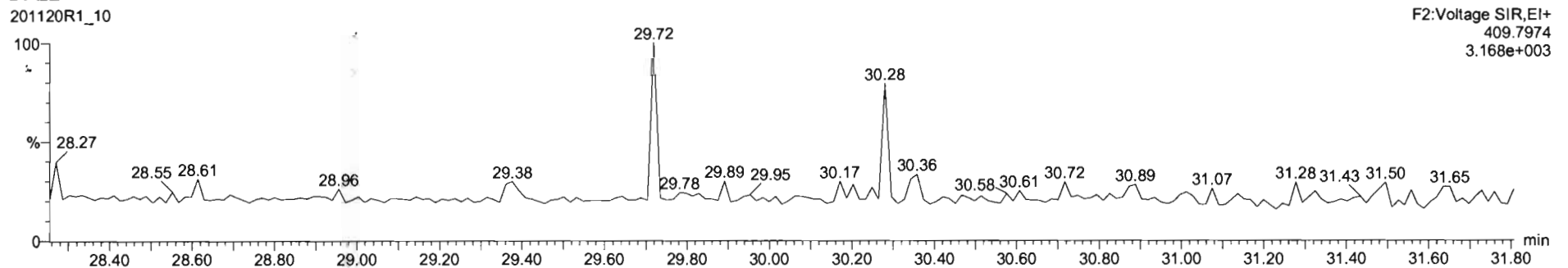
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**

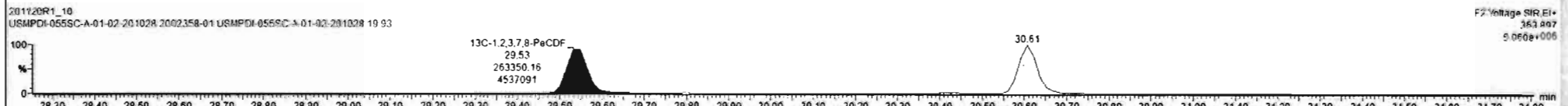
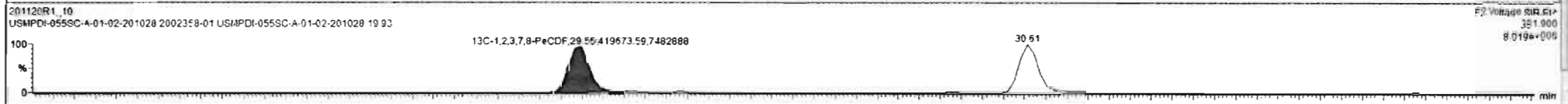
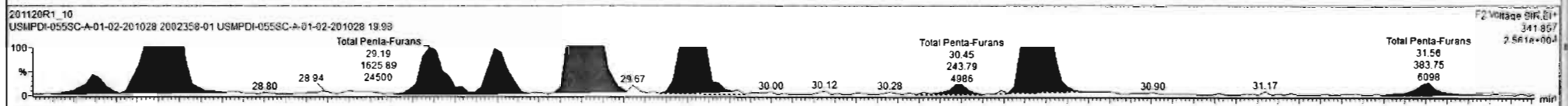
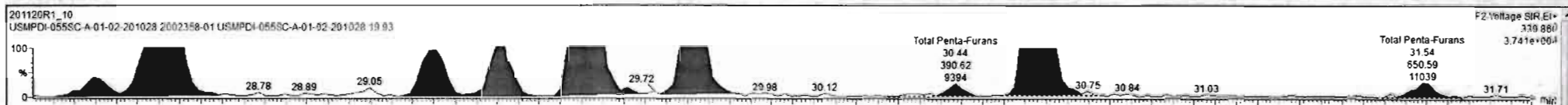


TargetLynx - 201120R1\_10.qld - Chromatogram

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201120R1\_10 - 2002358-01 USMPDI-055SC-A-01-02-201028-19-93 USMPDI-055SC-A-01-02-201028

Name	Reso	RA	n/y	HRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
38 13C-1,2,3,4,6,9-HxCDF	4.98e5	0.50	NO	1.0000	10.001	33.67	1.000	200	100	0.608	
39 Total Tetra-Dioxins				0.9501	10.001			2.41		0.114	2.73
40 Total Penta-Dioxins				0.6855	10.001			3.32		0.110	4.10
41 Total Hexa-Dioxins				0.9145	10.001			29.5		0.257	29.5
42 Total Hepta-Dioxins				0.8697	10.001			243		0.736	243
43 Total Tetra-Furans				0.8243	10.001			22.8		0.120	24.8
44 1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259	3.82
45 Total Penta-Furans				0.9626	10.001			23.9		0.134	23.9
46 Total Hexa-Furans				0.9907	10.001			28.9		0.136	28.9
47 Total Hepta-Furans				0.9986	10.001			35.5		0.239	35.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											
58 DPE6											





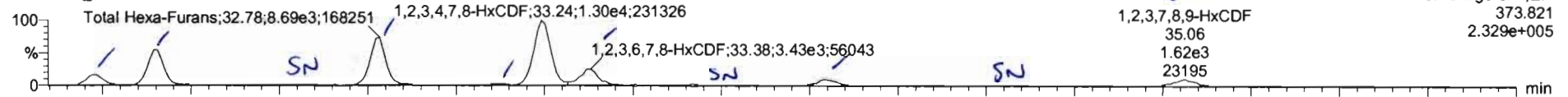
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

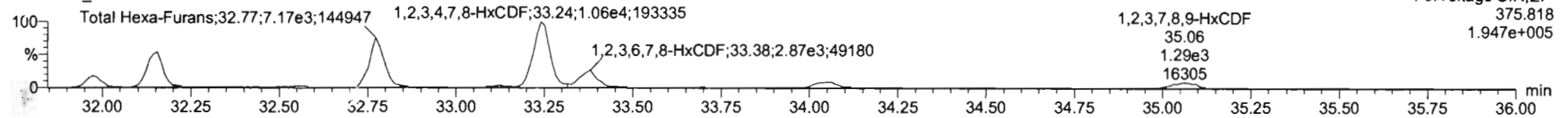
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**1,2,3,4,7,8-HxCDF**

201120R1\_10

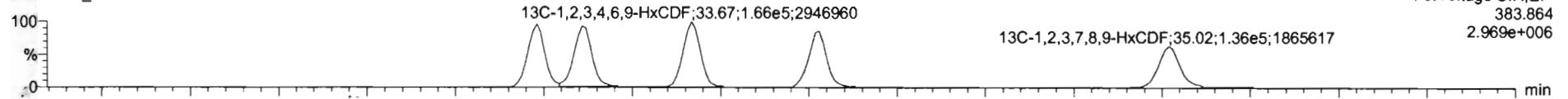


201120R1\_10

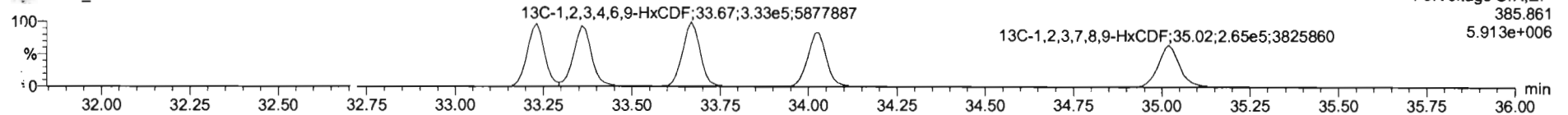


**13C-1,2,3,4,7,8-HxCDF**

201120R1\_10

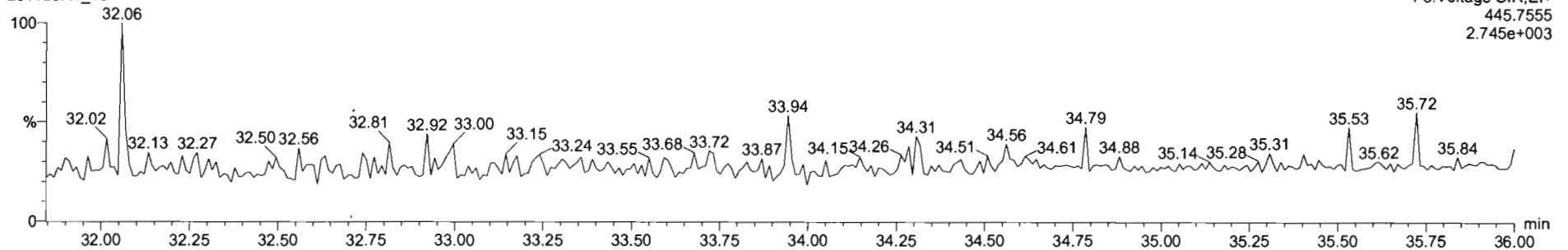


201120R1\_10



**DPE3**

201120R1\_10

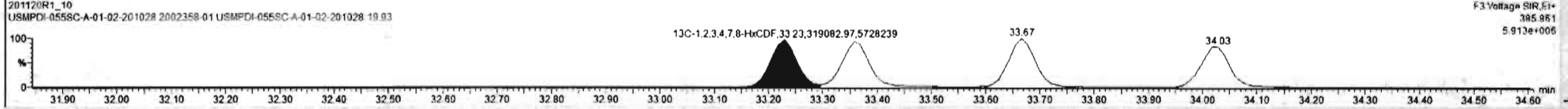
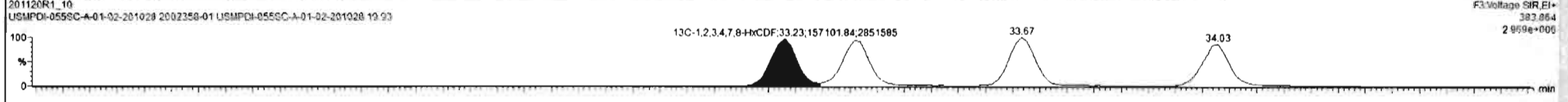
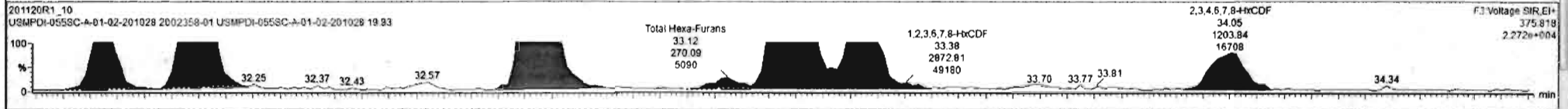
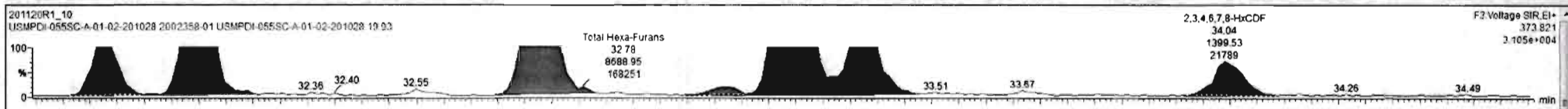


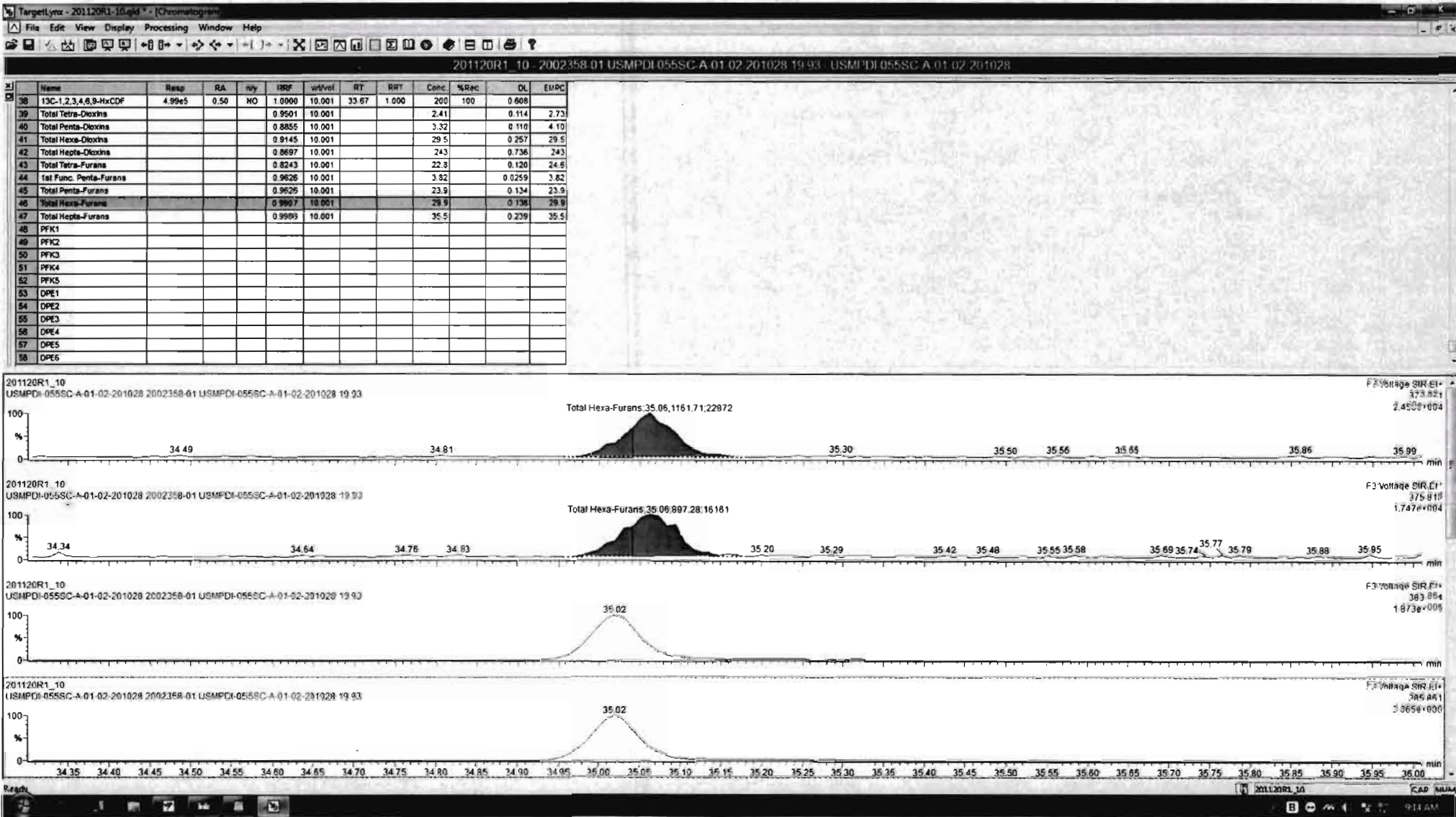
TargetLynx - 201120R1\_10.d - [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_10 2002358-01 USMPDI-055SC-A-01-02-201028-19-93 USMPDI-055SC-A-01-02-201028

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
38 13C-1,2,3,4,6,9-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.67	1.000	200	100	0.608	
39 Total Tetra-Dioxins				0.9501	10.001			2.41		0.114	2.73
40 Total Penta-Dioxins				0.8855	10.001			3.32		0.110	4.10
41 Total Hexa-Dioxins				0.9145	10.001			29.5		0.257	29.5
42 Total Hepta-Dioxins				0.8697	10.001			243		0.736	243
43 Total Tetra-Furans				0.8243	10.001			22.8		0.120	24.6
44 1st Func. Penta-Furans				0.9626	10.001			3.82		0.0259	3.82
45 Total Penta-Furans				0.9626	10.001			23.9		0.134	23.9
46 Total Hexa-Furans				0.9907	10.001			29.9		0.136	29.9
47 Total Hepta-Furans				0.9989	10.001			35.5		0.239	35.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											
58 DPE6											





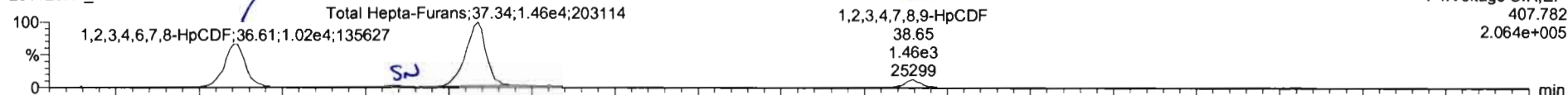
Dataset: Untitled

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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

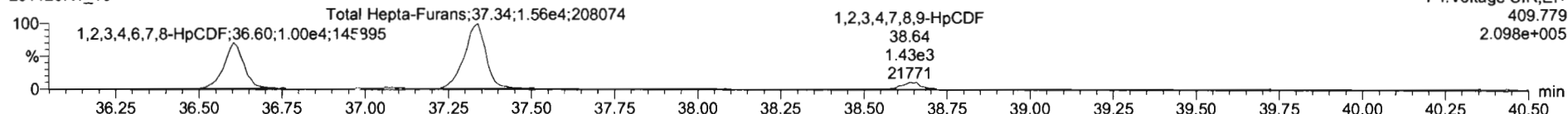
Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028

**1,2,3,4,6,7,8-HpCDF**

201120R1\_10

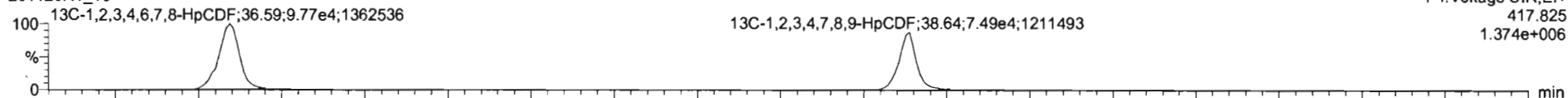


201120R1\_10

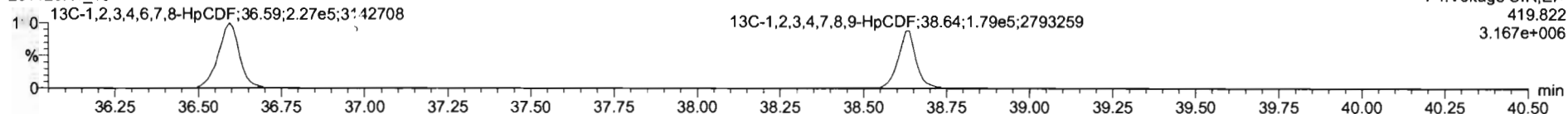


**13C-1,2,3,4,6,7,8-HpCDF**

201120R1\_10

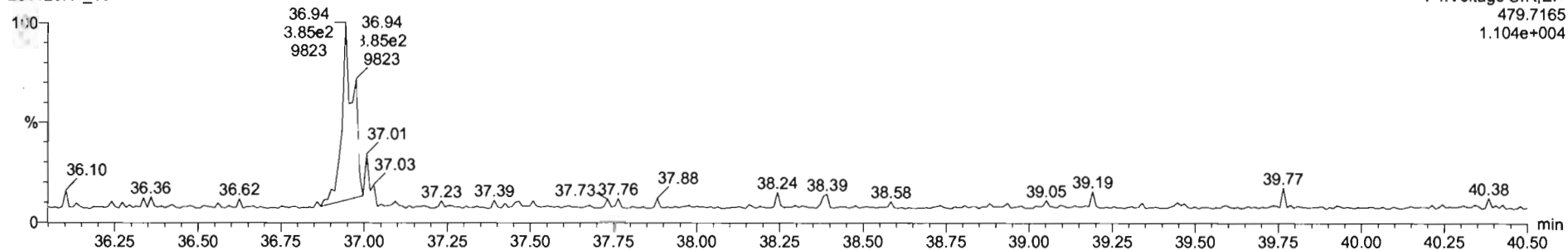


201120R1\_10



**DPE4**

201120R1\_10



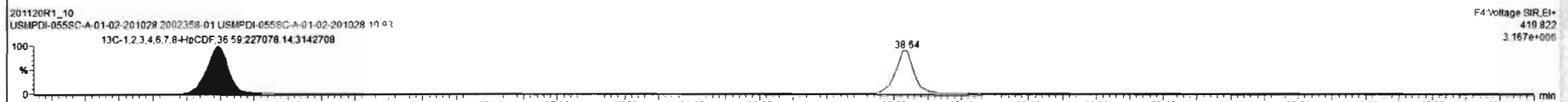
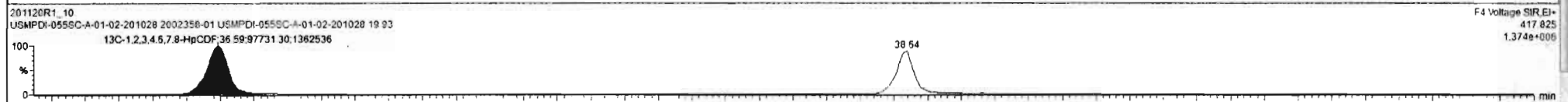
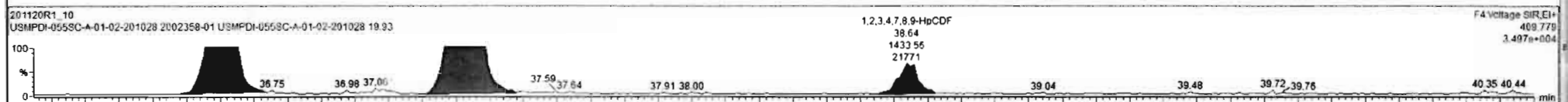
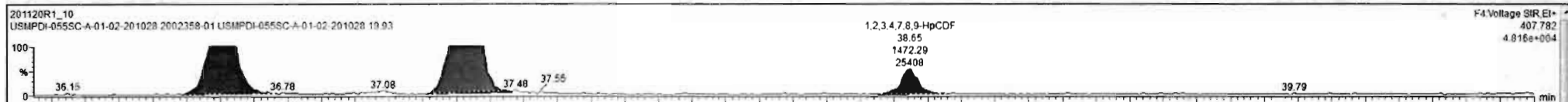


TargetLynx - 201120R1-10.qld - [Chromatogram]

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201120R1\_10 - 2002358-01 USMPDI-055SC-A-01-02-201028 19-93 - USMPDI-055SC-A-01-02-201028

Name	Resp	RA	n/y	RF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
38	13C-1,2,3,4,6,8,9-HxCDF	4.99e5	0.50	NO	1.0000	10.001	33.87	1.000	200	100	0.608
39	Total Te <sup>-</sup> a-Dioxins				0.9501	10.001		2.41		0.114	2.73
40	Total Penta-Dioxins				0.8855	10.001		3.32		0.110	4.10
41	Total Hexa-Dioxins				0.9145	10.001		29.5		0.257	29.5
42	Total Hepta-Dioxins				0.8697	10.001		243		0.736	243
43	Total Tetra-Furans				0.8243	10.001		22.8		0.120	24.6
44	1st Func. Penta-Furans				0.9626	10.001		3.82		0.0259	3.82
45	Total Penta-Furans				0.9526	10.001		23.9		0.134	23.9
46	Total Hexa-Furans				0.9907	10.001		29.9		0.136	29.9
47	Total Hepta-Furans				0.9986	10.001		35.5		0.239	35.5
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										
58	DPE6										

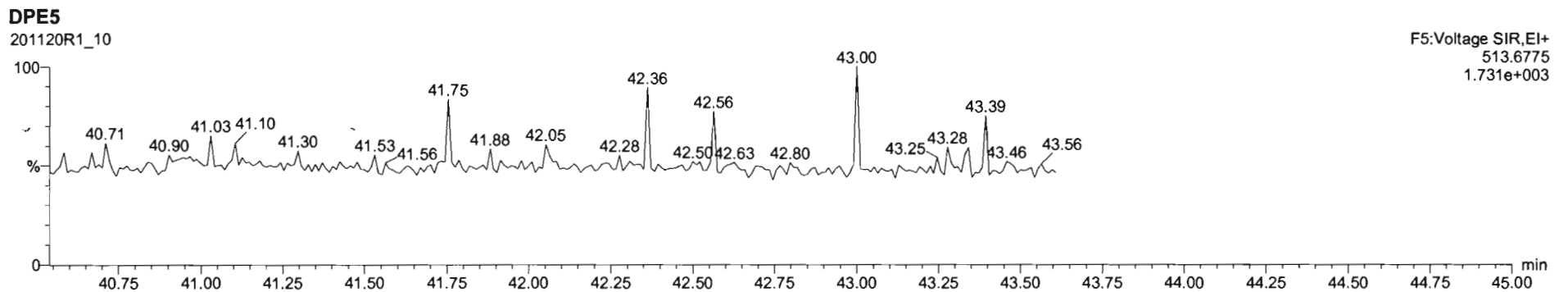
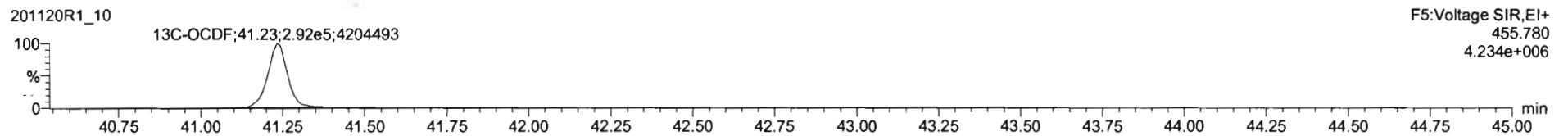
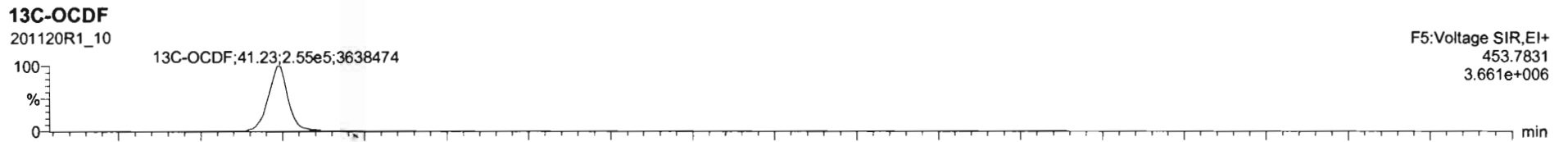
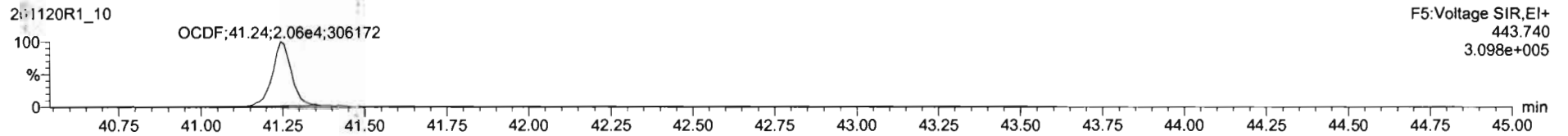
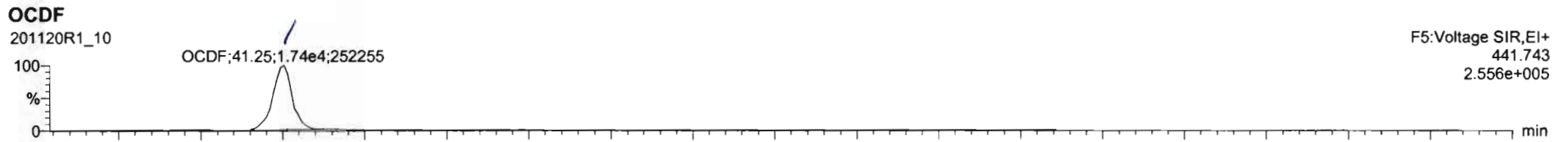


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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_10, Date: 20-Nov-2020, Time: 14:38:03, ID: 2002358-01 USMPDI-055SC-A-01-02-201028 19.93, Description: USMPDI-055SC-A-01-02-201028



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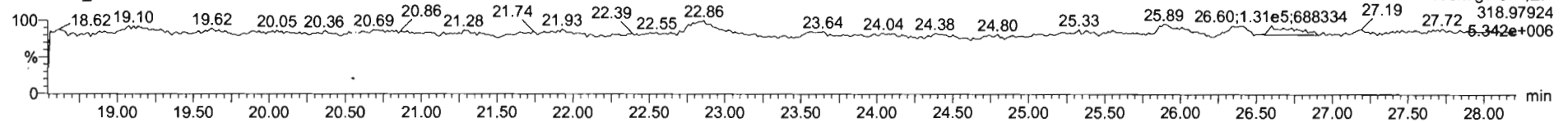
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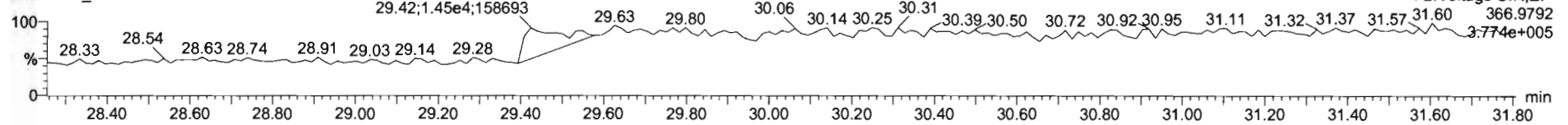
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201120R1\_10



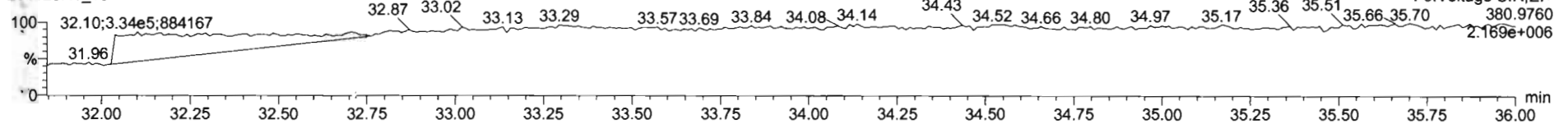
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201120R1\_10



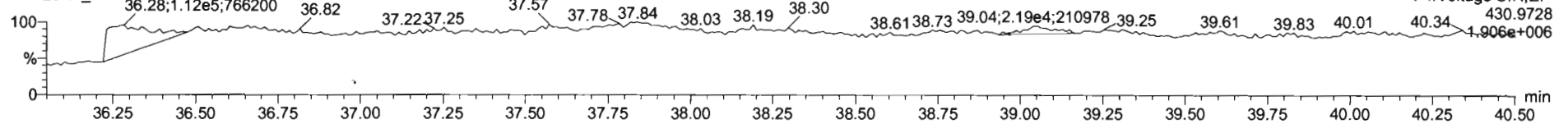
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201120R1\_10



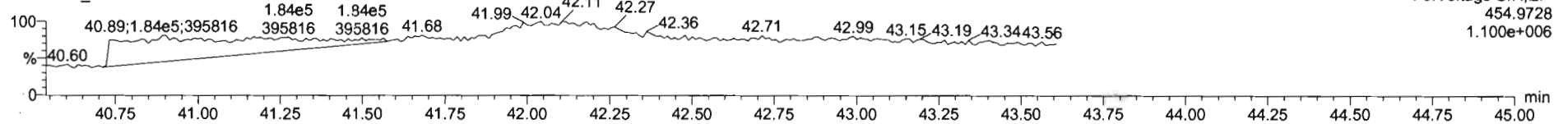
PFK4

201120R1\_10



PFK5

201120R1\_10



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

Last Altered: Monday, November 23, 2020 9:56:08 AM Pacific Standard Time  
Printed: Monday, November 23, 2020 9:56:39 AM Pacific Standard Time

GPB 11/23/2020

C7 11/30/2020

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.09e3	0.50	YES	0.950	10.217	26.112	26.11	1.001	1.001	0.39481		0.109	0.304
2	2 1,2,3,7,8-PeCDD	1.33e3	0.47	YES	0.885	10.217	30.819	30.83	1.000	1.001	0.66987		0.150	0.556
3	3 1,2,3,4,7,8-HxCDD	1.22e3	1.28	NO	1.02	10.217	34.146	34.15	1.000	1.000	0.65952		0.284	0.660
4	4 1,2,3,6,7,8-HxCDD	1.13e4	1.17	NO	0.915	10.217	34.263	34.27	1.000	1.001	5.7288		0.276	5.73
5	5 1,2,3,7,8,9-HxCDD	4.30e3	1.20	NO	0.934	10.217	34.540	34.54	1.000	1.000	2.2206		0.290	2.22
6	6 1,2,3,4,6,7,8-HpCDD	1.29e5	1.02	NO	0.870	10.217	38.009	38.02	1.000	1.000	92.404		1.01	92.4
7	7 OCDD	1.18e6	0.88	NO	0.872	10.217	40.977	40.99	1.000	1.000	1131.5		0.845	1130
8	8 2,3,7,8-TCDF	5.16e4	0.74	NO	0.824	10.217	25.396	25.42	1.000	1.001	15.596		0.132	15.6
9	9 1,2,3,7,8-PeCDF	1.25e5	1.56	NO	0.963	10.217	29.557	29.56	1.000	1.001	38.738		0.177	38.7
10	10 2,3,4,7,8-PeCDF	6.68e4	1.54	NO	1.07	10.217	30.623	30.62	1.000	1.000	18.946		0.162	18.9
11	11 1,2,3,4,7,8-HxCDF	1.15e5	1.19	NO	0.953	10.217	33.230	33.24	1.000	1.000	53.086		0.188	53.1
12	12 1,2,3,6,7,8-HxCDF	4.46e4	1.21	NO	1.01	10.217	33.358	33.38	1.000	1.001	18.990		0.183	19.0
13	13 2,3,4,6,7,8-HxCDF	1.15e4	1.14	NO	0.991	10.217	34.032	34.05	1.000	1.001	5.3935		0.212	5.39
14	14 1,2,3,7,8,9-HxCDF	3.28e3	1.24	NO	0.951	10.217	35.020	35.04	1.000	1.001	1.7385		0.284	1.74
15	15 1,2,3,4,6,7,8-HpCDF	5.21e4	0.98	NO	0.999	10.217	36.596	36.60	1.000	1.000	33.944		0.281	33.9
16	16 1,2,3,4,7,8,9-HpCDF	9.62e3	0.93	NO	1.12	10.217	38.637	38.65	1.000	1.000	7.3735		0.265	7.37
17	17 OCDF	7.43e4	0.86	NO	0.868	10.217	41.272	41.28	1.000	1.000	68.644		0.326	68.6
18	18 13C-2,3,7,8-TCDD	5.70e5	0.79	NO	1.11	10.217	26.073	26.08	1.030	1.030	215.27	110	0.302	
19	19 13C-1,2,3,7,8-PeCDD	4.39e5	0.63	NO	0.859	10.217	30.792	30.81	1.216	1.217	214.22	109	0.368	
20	20 13C-1,2,3,4,7,8-HxCDD	3.56e5	1.30	NO	0.700	10.217	34.135	34.14	1.014	1.014	223.55	114	0.588	
21	21 13C-1,2,3,6,7,8-HxCDD	4.20e5	1.27	NO	0.833	10.217	34.273	34.25	1.018	1.017	221.70	113	0.494	
22	22 13C-1,2,3,7,8,9-HxCDD	4.06e5	1.28	NO	0.762	10.217	34.515	34.53	1.025	1.026	233.79	119	0.540	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.14e5	1.05	NO	0.650	10.217	38.000	38.01	1.129	1.129	212.11	108	0.720	
24	24 13C-OCDD	4.70e5	0.90	NO	0.539	10.217	40.966	40.98	1.217	1.217	382.59	97.7	0.714	
25	25 13C-2,3,7,8-TCDF	7.86e5	0.77	NO	0.981	10.217	25.395	25.39	1.003	1.003	214.18	109	0.336	
26	26 13C-1,2,3,7,8-PeCDF	6.58e5	1.61	NO	0.792	10.217	29.524	29.55	1.166	1.167	222.28	114	0.764	
27	27 13C-2,3,4,7,8-PeCDF	6.46e5	1.64	NO	0.778	10.217	30.582	30.62	1.208	1.210	222.01	113	0.778	
28	28 13C-1,2,3,4,7,8-HxCDF	4.45e5	0.50	NO	0.954	10.217	33.226	33.23	0.987	0.987	204.85	105	0.742	
29	29 13C-1,2,3,6,7,8-HxCDF	4.56e5	0.49	NO	1.01	10.217	33.357	33.36	0.991	0.991	198.99	102	0.703	
30	30 13C-2,3,4,6,7,8-HxCDF	4.23e5	0.52	NO	0.921	10.217	34.027	34.03	1.011	1.011	201.49	103	0.768	
31	31 13C-1,2,3,7,8,9-HxCDF	3.89e5	0.51	NO	0.803	10.217	35.024	35.02	1.040	1.040	212.40	108	0.880	



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

Last Altered: Monday, November 23, 2020 9:56:08 AM Pacific Standard Time

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Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	13C-1,2,3,4,6,7,8-HpCDF	3.01e5	0.42	NO	0.735	10.217	36.593	36.59	1.087	1.087	179.51	91.7	0.773	
33	13C-1,2,3,4,7,8,9-HpCDF	2.27e5	0.42	NO	0.568	10.217	38.630	38.64	1.147	1.148	175.76	89.8	1.00	
34	13C-OCDF	4.88e5	0.84	NO	0.629	10.217	41.249	41.26	1.225	1.226	340.55	87.0	0.567	
35	37Cl-2,3,7,8-TCDD	2.32e5			1.09	10.217	26.073	26.10	1.030	1.031	89.100	114	0.0673	
36	13C-1,2,3,4-TCDD	4.68e5	0.81	NO	1.00	10.217	25.370	25.31	1.000	1.000	195.76	100	0.335	
37	13C-1,2,3,4-TCDF	7.32e5	0.78	NO	1.00	10.217	23.870	23.82	1.000	1.000	195.76	100	0.329	
38	13C-1,2,3,4,6,9-HxCDF	4.46e5	0.49	NO	1.00	10.217	33.710	33.67	1.000	1.000	195.76	100	0.707	
39	Total Tetra-Dioxins				0.950	10.217	24.620		0.000		2.2806		0.109	2.58
40	Total Penta-Dioxins				0.885	10.217	29.960		0.000		4.7175		0.150	5.94
41	Total Hexa-Dioxins				0.915	10.217	33.635		0.000		41.233		0.295	41.2
42	Total Hepta-Dioxins				0.870	10.217	37.640		0.000		206.01		1.01	206
43	Total Tetra-Furans				0.824	10.217	23.610		0.000		38.128		0.132	39.8
44	1st Func. Penta-Furans				0.963	10.217	26.930		0.000		5.2121		0.0317	5.21
45	Total Penta-Furans				0.963	10.217	29.275		0.000		93.073		0.178	93.1
46	Total Hexa-Furans				0.991	10.217	33.555		0.000		108.61		0.211	109
47	Total Hepta-Furans				0.999	10.217	37.835		0.000		85.451		0.288	85.5

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

Last Altered: Monday, November 23, 2020 9:56:08 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.27	7.836e3	1.036e4	6.747e2	8.728e2	0.77	NO	1.548e3	0.55915	0.55915	0.109
2	Total Tetra-Dioxins	22.64	3.003e3	5.036e3	2.927e2	4.299e2	0.68	NO	7.225e2	0.26107	0.26107	0.109
3	Total Tetra-Dioxins	23.16	3.957e3	3.561e3	2.638e2	3.231e2	0.82	NO	5.868e2	0.21203	0.21203	0.109
4	Total Tetra-Dioxins	24.01	3.457e3	5.271e3	2.654e2	3.827e2	0.69	NO	6.481e2	0.23416	0.23416	0.109
5	Total Tetra-Dioxins	24.22	2.042e3	2.335e3	1.497e2	1.937e2	0.77	NO	3.435e2	0.12410	0.12410	0.109
6	Total Tetra-Dioxins	24.46	3.827e3	5.634e3	2.740e2	3.508e2	0.78	NO	6.248e2	0.22575	0.22575	0.109
7	Total Tetra-Dioxins	25.42	1.881e3	3.062e3	1.503e2	1.759e2	0.85	NO	3.262e2	0.11786	0.11786	0.109
8	Total Tetra-Dioxins	25.83	1.015e4	1.230e4	6.130e2	8.994e2	0.68	NO	1.512e3	0.54646	0.54646	0.109
9	2,3,7,8-TCDD	26.11	5.443e3	1.146e4	3.656e2	7.271e2	0.50	YES	1.093e3	0.00000	0.30368	0.109

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.57	1.857e4	3.020e4	1.224e3	1.984e3	0.62	NO	3.208e3	1.6141	1.6141	0.150
2	Total Penta-Dioxins	29.03	6.117e3	9.342e3	2.924e2	4.056e2	0.72	NO	6.980e2	0.35120	0.35120	0.150
3	Total Penta-Dioxins	29.56	1.569e4	1.565e4	7.345e2	1.049e3	0.70	NO	1.784e3	0.89762	0.89762	0.150
4	Total Penta-Dioxins	29.74	1.363e4	1.854e4	4.544e2	6.646e2	0.68	NO	1.119e3	0.56308	0.56308	0.150
5	Total Penta-Dioxins	29.75	1.005e4	1.441e4	5.357e2	7.979e2	0.67	NO	0.000e0	0.00000	0.67102	0.150
6	Total Penta-Dioxins	30.06	8.611e3	1.426e4	6.372e2	1.011e3	0.63	NO	1.648e3	0.82937	0.82937	0.150
7	1,2,3,7,8-PeCDD	30.83	8.398e3	1.897e4	4.271e2	9.042e2	0.47	YES	1.331e3	0.00000	0.55607	0.150
8	Total Penta-Dioxins	30.87	4.499e3	6.648e3	1.855e2	2.915e2	0.64	NO	4.770e2	0.23999	0.23999	0.150
9	Total Penta-Dioxins	31.18	4.060e3	5.932e3	1.600e2	2.814e2	0.57	NO	4.414e2	0.22212	0.22212	0.150

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

Last Altered: Monday, November 23, 2020 9:56:08 AM Pacific Standard Time

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Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.52	2.079e5	1.656e5	1.042e4	8.554e3	1.22	NO	1.897e4	10.304	10.304	0.295
2	Total Hexa-Dioxins	33.10	1.808e4	1.613e4	1.031e3	8.383e2	1.23	NO	1.869e3	1.0152	1.0152	0.295
3	Total Hexa-Dioxins	33.40	2.858e5	2.348e5	2.045e4	1.649e4	1.24	NO	3.694e4	20.065	20.065	0.295
4	Total Hexa-Dioxins	33.49	1.931e4	1.605e4	9.975e2	7.456e2	1.34	NO	1.743e3	0.94688	0.94688	0.295
5	1,2,3,4,7,8-HxCDD	34.15	1.250e4	1.033e4	6.846e2	5.366e2	1.28	NO	1.221e3	0.65952	0.65952	0.284
6	1,2,3,6,7,8-HxCDD	34.27	9.668e4	8.668e4	6.075e3	5.176e3	1.17	NO	1.125e4	5.7288	5.7288	0.276
7	Total Hexa-Dioxins	34.42	6.997e3	5.584e3	2.990e2	2.409e2	1.24	NO	5.399e2	0.29329	0.29329	0.295
8	1,2,3,7,8,9-HxCDD	34.54	3.654e4	3.210e4	2.348e3	1.951e3	1.20	NO	4.299e3	2.2206	2.2206	0.290

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.00	1.033e6	1.003e6	7.990e4	7.846e4	1.02	NO	1.584e5	113.60	113.60	1.01
2	1,2,3,4,6,7,8-HpCDD	38.02	1.030e6	1.006e6	6.508e4	6.372e4	1.02	NO	1.288e5	92.404	92.404	1.01

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

Last Altered: Monday, November 23, 2020 9:56:08 AM Pacific Standard Time

Printed: Monday, November 23, 2020 9:56:39 AM Pacific Standard Time

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.08	3.294e3	5.469e3	2.774e2	3.828e2	0.72	NO	6.602e2	0.19947	0.19947	0.132
2	Total Tetra-Furans	20.60	4.438e3	5.895e3	4.064e2	5.566e2	0.73	NO	9.629e2	0.29096	0.29096	0.132
3	Total Tetra-Furans	21.40	1.829e4	2.468e4	1.654e3	2.323e3	0.71	NO	3.977e3	1.2016	1.2016	0.132
4	Total Tetra-Furans	22.31	5.290e4	7.451e4	5.097e3	6.976e3	0.73	NO	1.207e4	3.6481	3.6481	0.132
5	Total Tetra-Furans	22.80	2.222e4	2.510e4	1.591e3	2.180e3	0.73	NO	3.771e3	1.1395	1.1395	0.132
6	Total Tetra-Furans	22.90	4.861e3	5.497e3	3.005e2	4.509e2	0.67	NO	7.514e2	0.22705	0.22705	0.132
7	Total Tetra-Furans	23.16	9.802e3	1.456e4	8.147e2	1.100e3	0.74	NO	1.915e3	0.57867	0.57867	0.132
8	Total Tetra-Furans	23.58	2.149e3	2.446e3	1.269e2	1.627e2	0.78	NO	2.896e2	0.087517	0.087517	0.132
9	Total Tetra-Furans	23.67	3.199e3	3.375e3	1.611e2	2.411e2	0.67	NO	4.022e2	0.12153	0.12153	0.132
10	Total Tetra-Furans	23.91	2.119e4	2.921e4	1.449e3	2.032e3	0.71	NO	0.000e0	0.00000	1.0517	0.132
11	Total Tetra-Furans	23.95	1.338e4	1.941e4	8.638e2	1.126e3	0.77	NO	0.000e0	0.00000	0.60125	0.132
12	Total Tetra-Furans	24.40	2.542e5	3.453e5	1.832e4	2.535e4	0.72	NO	4.367e4	13.195	13.195	0.132
13	Total Tetra-Furans	24.74	9.573e3	8.329e3	4.967e2	5.652e2	0.88	NO	1.062e3	0.32085	0.32085	0.132
14	Total Tetra-Furans	25.28	2.187e4	2.661e4	1.239e3	1.652e3	0.75	NO	2.892e3	0.87370	0.87370	0.132
15	2,3,7,8-TCDF	25.42	3.315e5	4.555e5	2.188e4	2.974e4	0.74	NO	5.161e4	15.596	15.596	0.132
16	Total Tetra-Furans	27.34	1.564e4	1.974e4	9.860e2	1.161e3	0.85	NO	2.147e3	0.64879	0.64879	0.132

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.94	1.585e5	1.101e5	1.025e4	6.456e3	1.59	NO	1.671e4	5.2121	5.2121	0.0317



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-11.qld

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Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.41	1.781e4	8.797e3	1.041e3	6.018e2	1.73	NO	1.643e3	0.51266	0.51266	0.178
2	Total Penta-Furans	28.58	5.669e5	3.495e5	3.385e4	2.189e4	1.55	NO	5.574e4	17.390	17.390	0.178
3	Total Penta-Furans	29.21	3.872e4	2.392e4	2.156e3	1.486e3	1.45	NO	3.642e3	1.1363	1.1363	0.178
4	Total Penta-Furans	29.36	1.213e5	7.505e4	6.117e3	3.870e3	1.58	NO	9.987e3	3.1158	3.1158	0.178
5	1,2,3,7,8-PeCDF	29.56	1.384e6	8.947e5	7.644e4	4.891e4	1.56	NO	1.253e5	38.738	38.738	0.177
6	Total Penta-Furans	29.66	2.281e4	1.204e4	9.338e2	6.078e2	1.54	NO	1.542e3	0.48098	0.48098	0.178
7	Total Penta-Furans	29.81	4.561e5	2.675e5	2.372e4	1.488e4	1.59	NO	3.860e4	12.043	12.043	0.178
8	2,3,4,7,8-PeCDF	30.62	7.481e5	4.827e5	4.050e4	2.626e4	1.54	NO	6.676e4	18.946	18.946	0.162
9	Total Penta-Furans	31.56	2.270e4	1.588e4	1.348e3	9.295e2	1.45	NO	2.277e3	0.71046	0.71046	0.178

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.98	6.301e4	4.948e4	3.190e3	2.492e3	1.28	NO	5.682e3	2.6237	2.6237	0.211
2	Total Hexa-Furans	32.15	2.852e5	2.335e5	1.363e4	1.155e4	1.18	NO	2.518e4	11.628	11.628	0.211
3	Total Hexa-Furans	32.56	7.404e3	3.629e3	2.887e2	2.063e2	1.40	NO	4.949e2	0.22852	0.22852	0.211
4	Total Hexa-Furans	32.78	2.490e5	2.068e5	1.261e4	1.084e4	1.16	NO	2.345e4	10.829	10.829	0.211
5	Total Hexa-Furans	33.11	1.021e4	7.273e3	5.604e2	5.061e2	1.11	NO	1.067e3	0.49244	0.49244	0.211
6	1,2,3,4,7,8-HxCDF	33.24	1.128e6	9.661e5	6.257e4	5.246e4	1.19	NO	1.150e5	53.086	53.086	0.188
7	1,2,3,6,7,8-HxCDF	33.38	4.184e5	3.363e5	2.443e4	2.014e4	1.21	NO	4.457e4	18.990	18.990	0.183
8	2,3,4,6,7,8-HxCDF	34.05	9.705e4	7.751e4	6.156e3	5.379e3	1.14	NO	1.154e4	5.3935	5.3935	0.212
9	1,2,3,7,8,9-HxCDF	35.04	6.734e4	5.828e4	1.817e3	1.463e3	1.24	NO	3.280e3	1.7385	1.7385	0.284
10	Total Hexa-Furans	35.06	8.066e4	6.790e4	4.222e3	3.575e3	1.18	NO	7.797e3	3.6001	3.6001	0.211

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.60	3.601e5	3.441e5	2.571e4	2.635e4	0.98	NO	5.206e4	33.944	33.944	0.281
2	Total Hepta-Furans	37.08	4.897e3	6.303e3	4.442e2	4.708e2	0.94	NO	9.149e2	0.67960	0.67960	0.288
3	Total Hepta-Furans	37.34	3.976e5	4.172e5	2.872e4	2.978e4	0.96	NO	5.850e4	43.453	43.453	0.288
4	1,2,3,4,7,8,9-HpCDF	38.65	7.612e4	9.180e4	4.631e3	4.986e3	0.93	NO	9.617e3	7.3735	7.3735	0.265

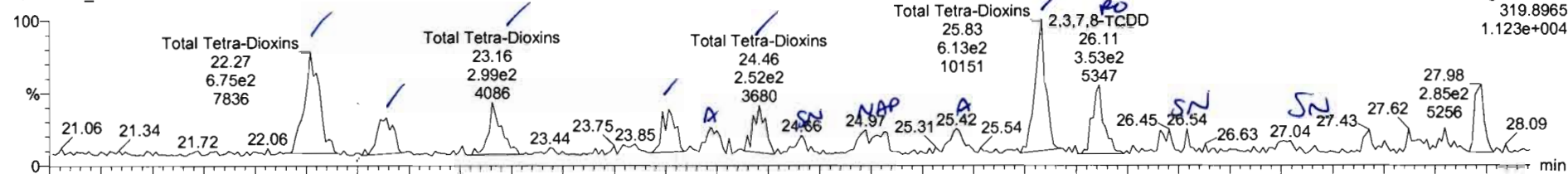
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Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

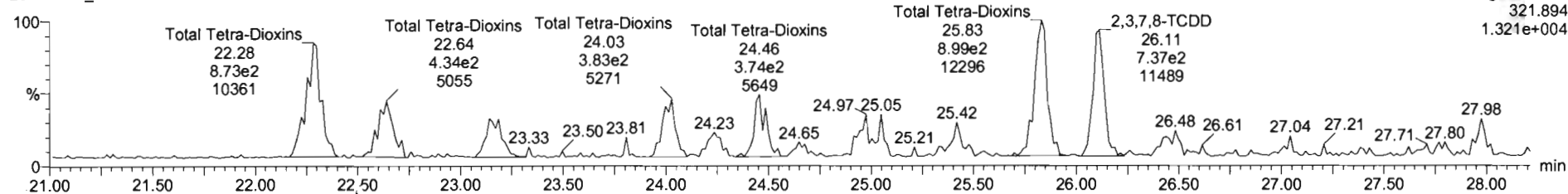
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201120R1\_11



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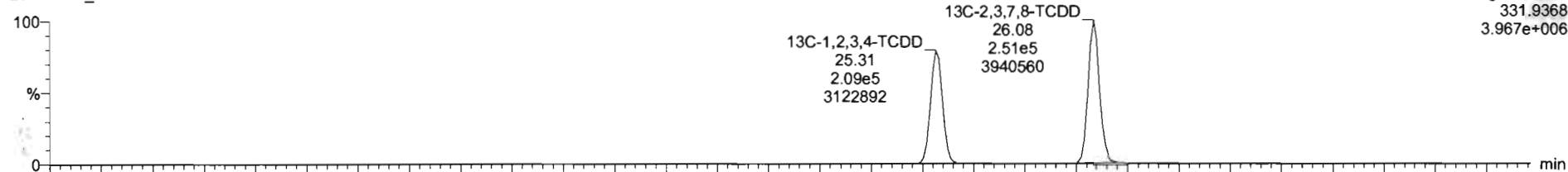
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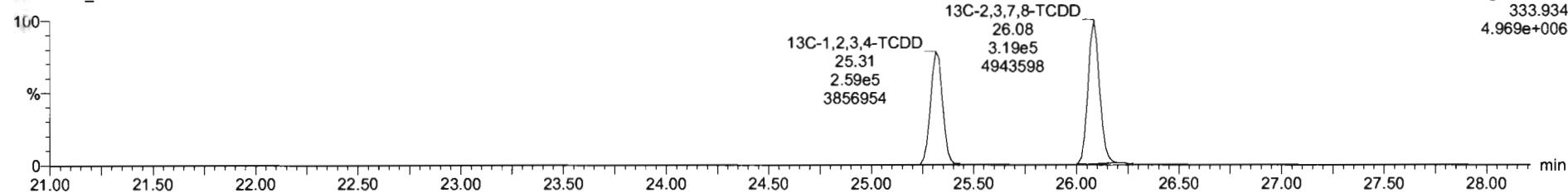
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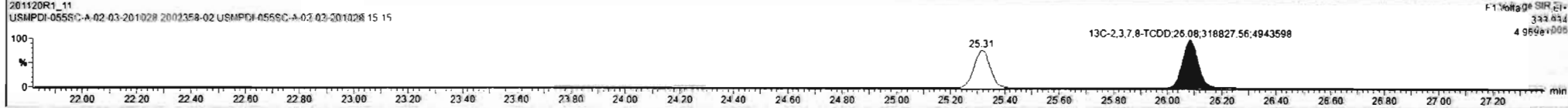
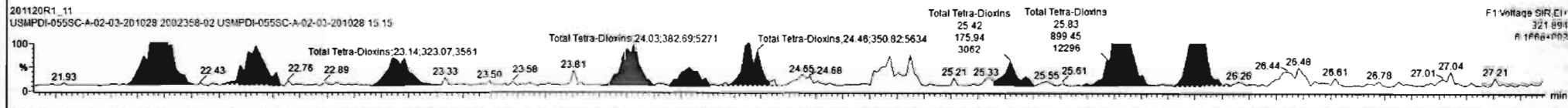
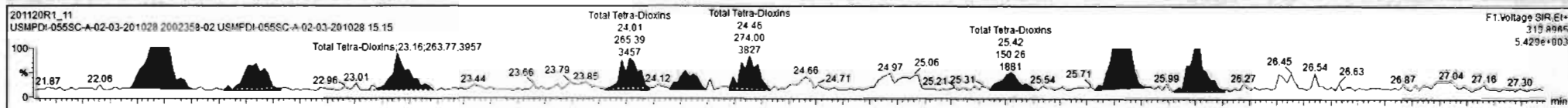
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3.967e+006

201120R1\_11



F1: Voltage SIR, EI+  
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4.969e+006

Name	Resp	RA	rvy	RRP	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
38 13C-1,2,3,4,6,8-HxCDF	4.46e5	0.49	NO	1.0000	10.217	33.87	1.000	196	100	0.707	
39 Total Tetra-Dioxins				0.9626	10.217			2.28		0.199	2.58
40 Total Penta-Dioxins				0.8855	10.217			4.96		0.150	5.81
41 Total Hexa-Dioxins				0.9145	10.217			40.5		0.295	40.5
42 Total Hepta-Dioxins				0.8697	10.217			206		1.01	206
43 Total Tetra-Furans				0.8243	10.217			36.6		0.132	39.4
44 1st Func. Penta-Furans				0.9626	10.217			5.21		0.0317	5.21
45 Total Penta-Furans				0.9626	10.217			90.8		0.178	91.2
46 Total Hexa-Furans				0.9907	10.217			109		0.211	109
47 Total Hepta-Furans				0.9986	10.217			85.0		0.288	85.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											
58 DPE6											



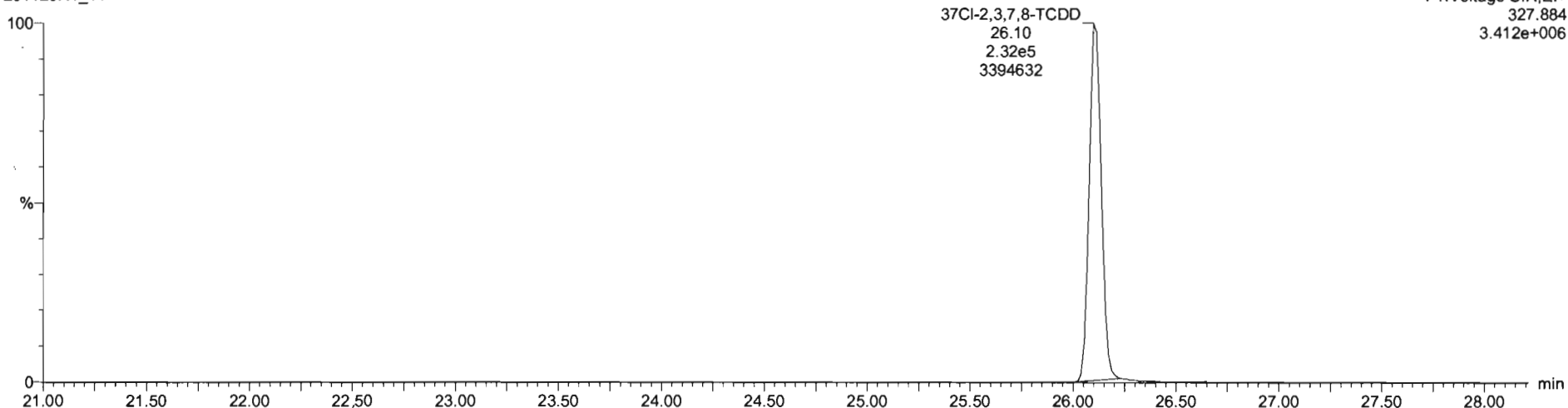
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Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

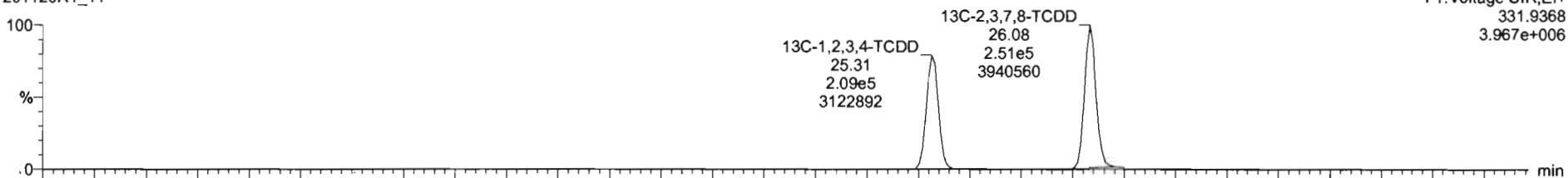
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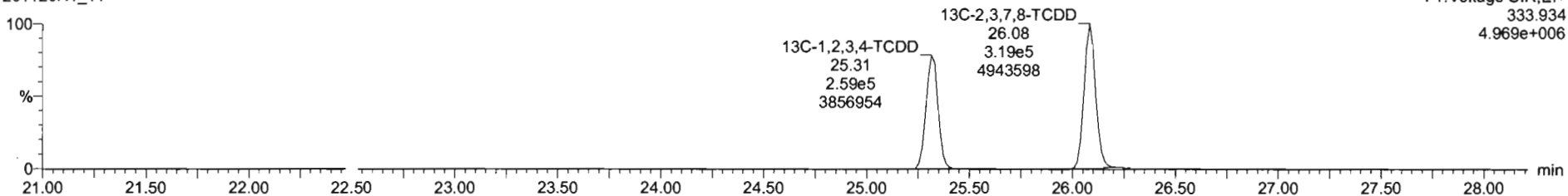


**13C-1,2,3,4-TCDD**

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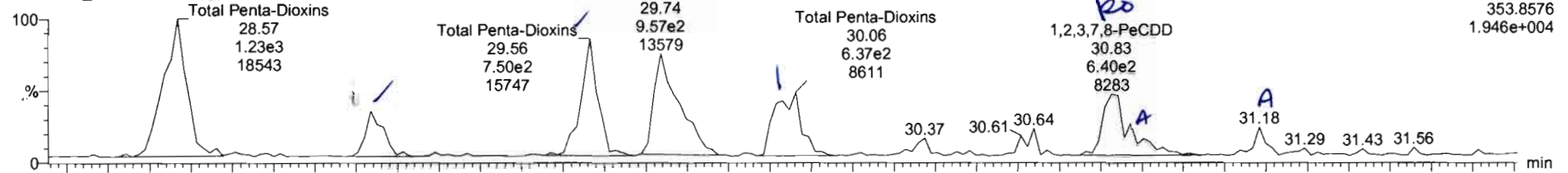
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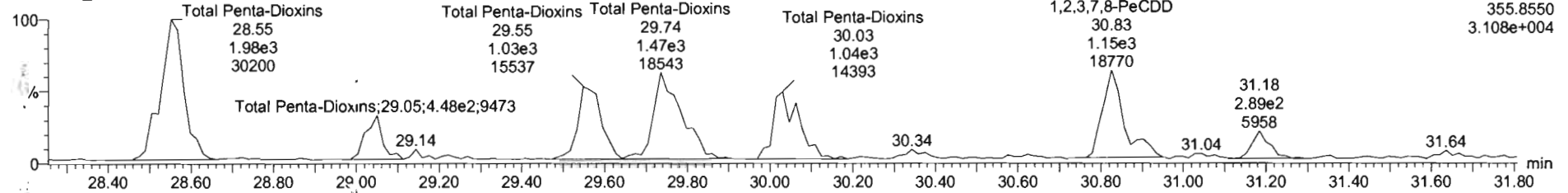
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1,2,3,7,8-PeCDD

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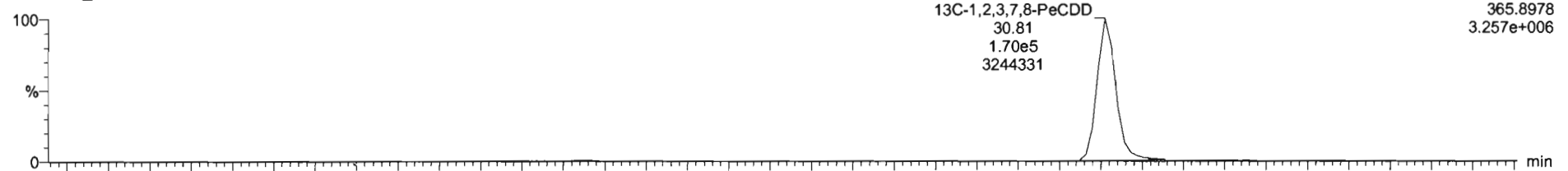


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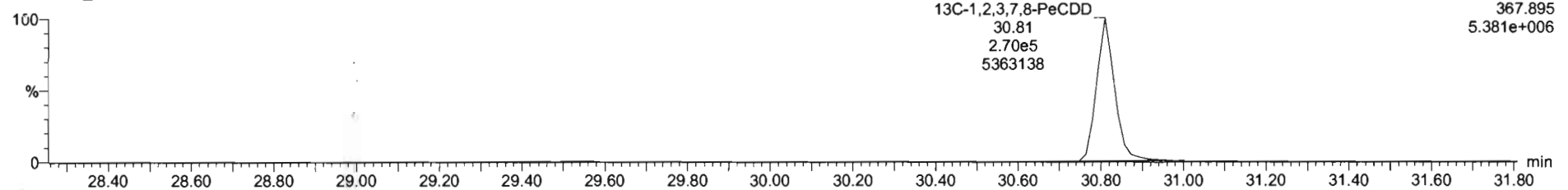


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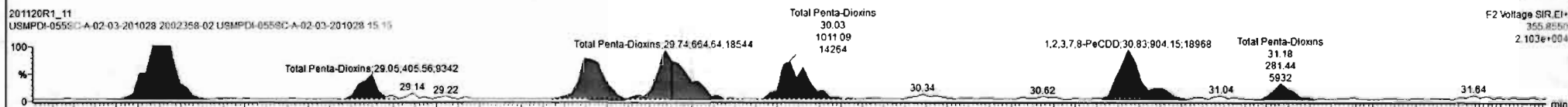
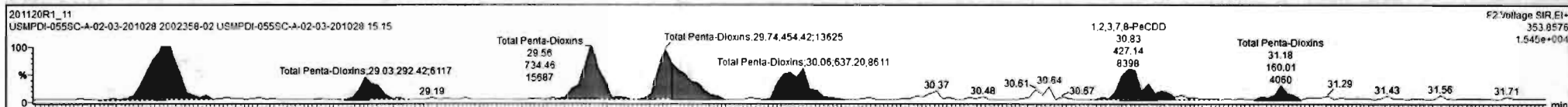
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201120R1\_11



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
38 13C-1,2,3,4,6,9-HxCDF	4.46e5	0.49	NO	1.0000	10.217	33.67	1.000	199	100	0.707	
39 Total Tetra-Dioxins				0.9501	10.217			2.28		0.109	2.58
40 Total Penta-Dioxins				0.8855	10.217			4.72		0.150	5.94
41 Total Hexa-Dioxins				0.9145	10.217			40.5		0.295	40.5
42 Total Hepta-Dioxins				0.8697	10.217			206		1.01	206
43 Total Tetra-Furans				0.8243	10.217			38.6		0.132	39.4
44 1st Func. Penta-Furans				0.9626	10.217			5.21		0.0317	5.21
45 Total Penta-Furans				0.9626	10.217			90.8		0.178	91.2
46 Total Hexa-Furans				0.9907	10.217			109		0.211	109
47 Total Hepta-Furans				0.9986	10.217			85.0		0.286	85.5
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											



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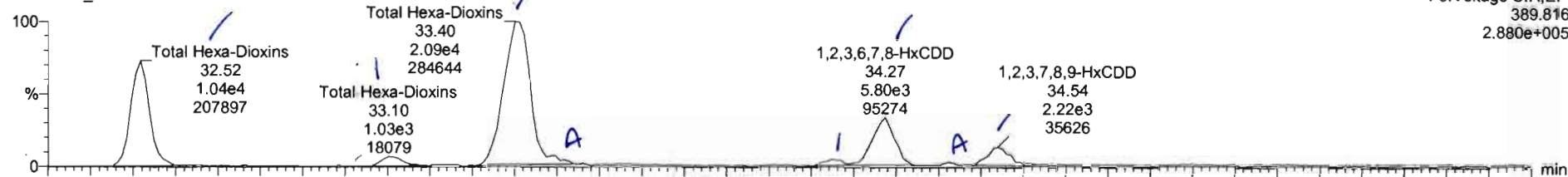
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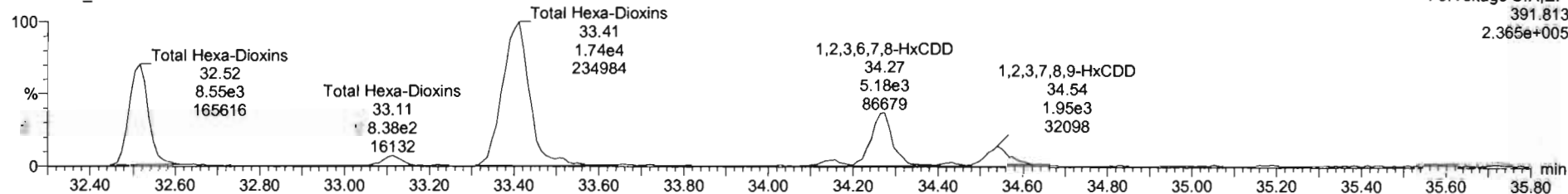
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1,2,3,4,7,8-HxCDD

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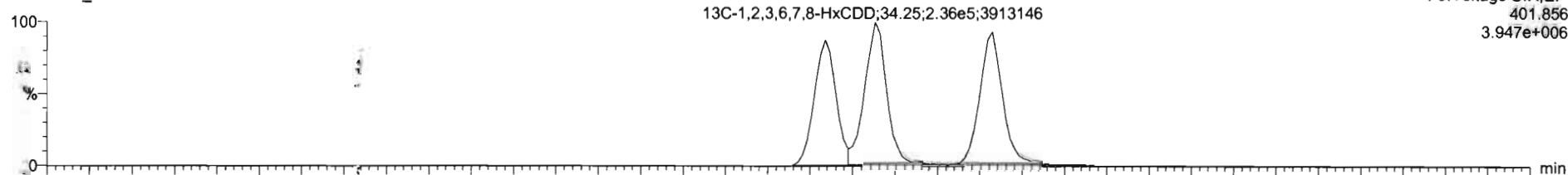


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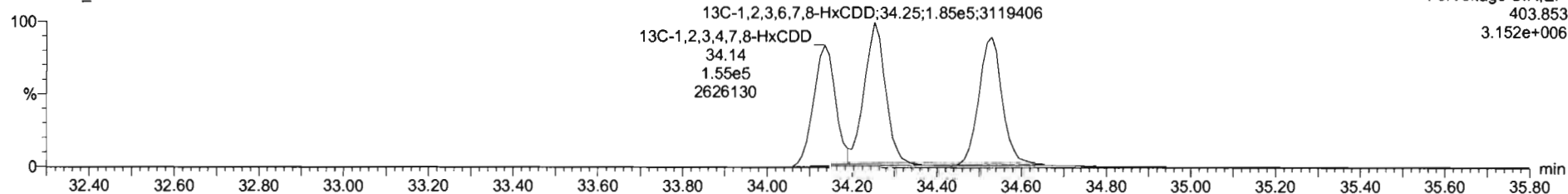


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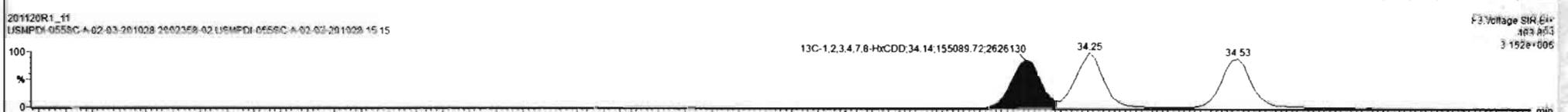
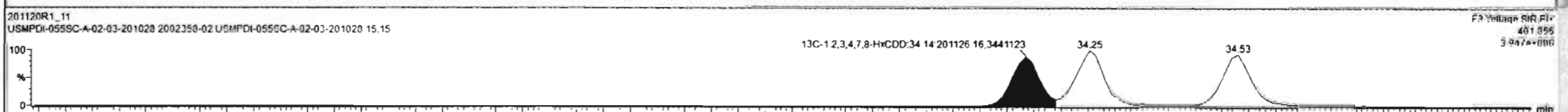
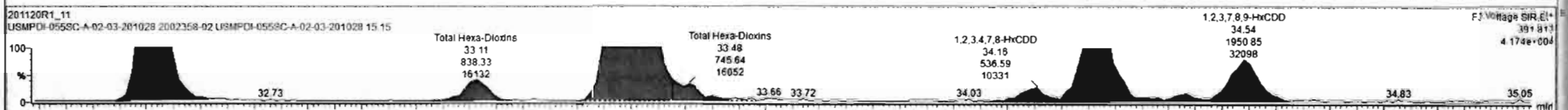
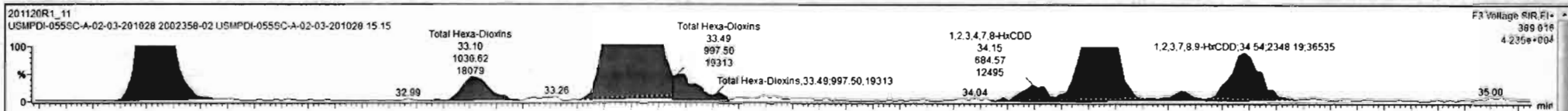


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201120R1\_11 2002358 02 USMPDI 055SC A 02 03 201028 15 15 USMPDI 055SC A 02 03 201028

Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.46e5	0.49	NO	1.0000	10.217	33.67	1.000	196	100	0.707
39	Total Tetra-Dioxins				0.9501	10.217			2.28	0.109	2.68
40	Total Penta-Dioxins				0.8855	10.217			4.72	0.150	5.94
41	Total Hexa-Dioxins				0.9142	10.217			41.2	0.295	41.2
42	Total Hepta-Dioxins				0.8697	10.217			206	1.01	206
43	Total Tetra-Furans				0.8243	10.217			36.6	0.132	39.4
44	1st Fur - Penta-Furans				0.9626	10.217			5.21	0.0317	5.21
45	Total Penta-Furans				0.9626	10.217			90.8	0.178	91.2
46	Total Hexa-Furans				0.9907	10.217			109	0.211	109
47	Total Hepta-Furans				0.9986	10.217			85.0	0.288	85.5
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										





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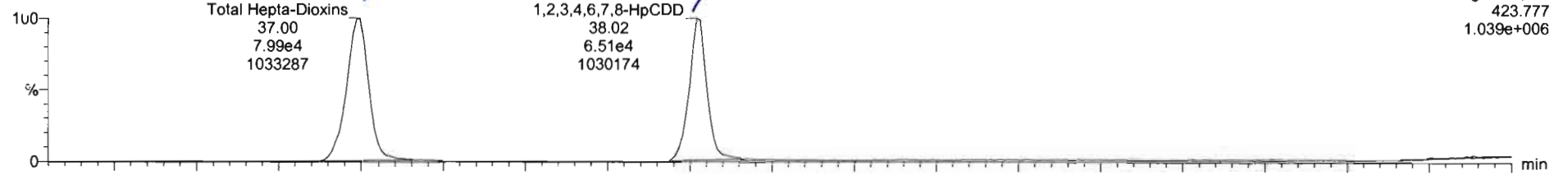
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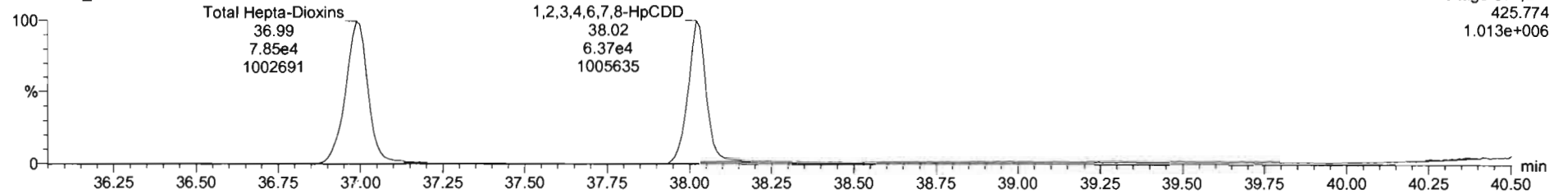
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1,2,3,4,6,7,8-HpCDD

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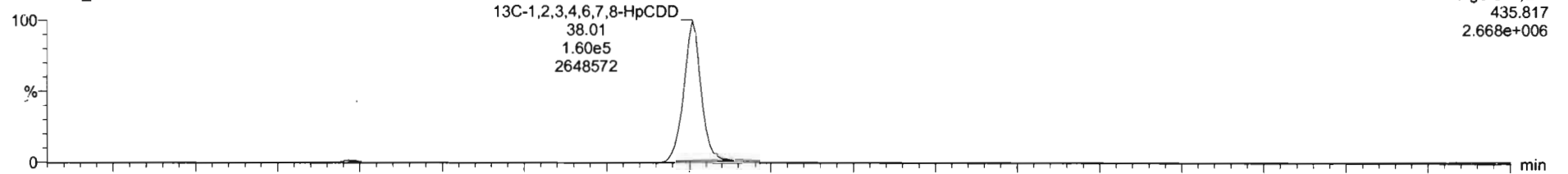


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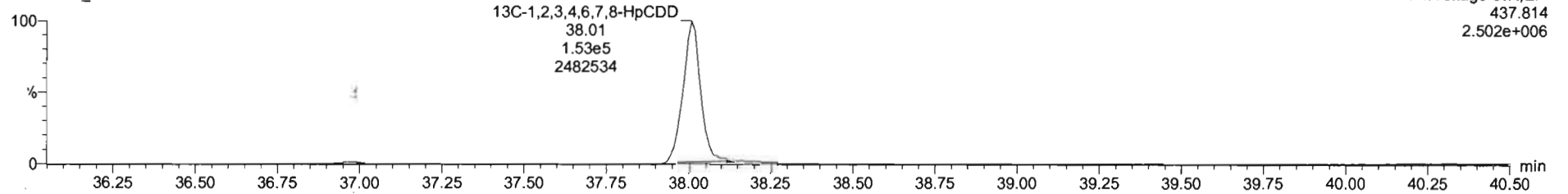


13C-1,2,3,4,6,7,8-HpCDD

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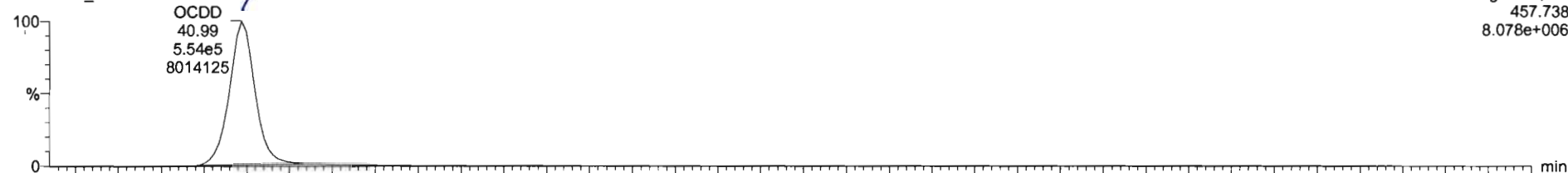
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

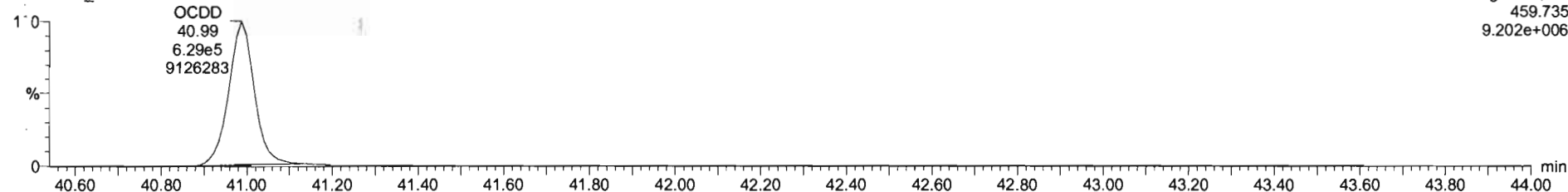
Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**OCDD**

201120R1\_11

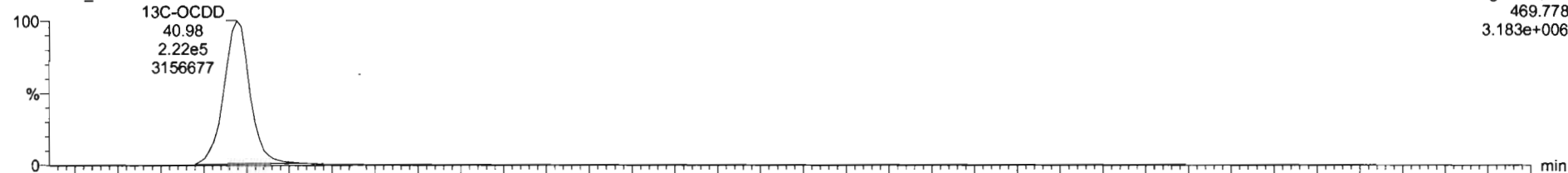


201120R1\_11

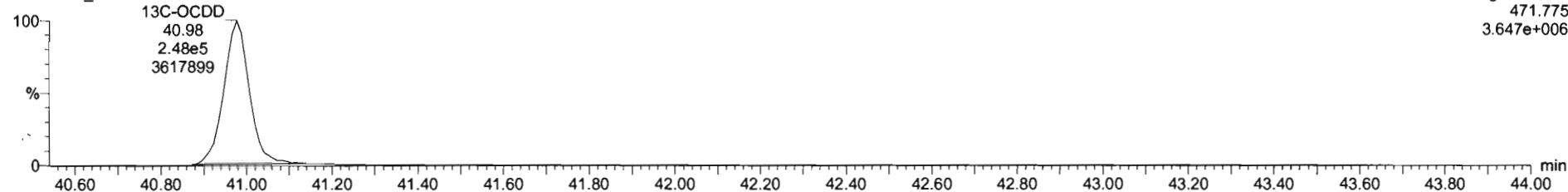


**13C-OCDD**

201120R1\_11



201120R1\_11



Dataset: Untitled

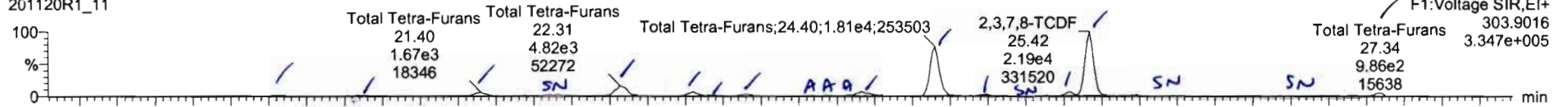
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

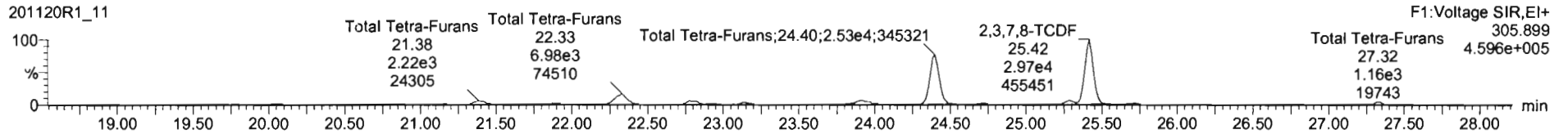
Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**2,3,7,8-TCDF**

201120R1\_11

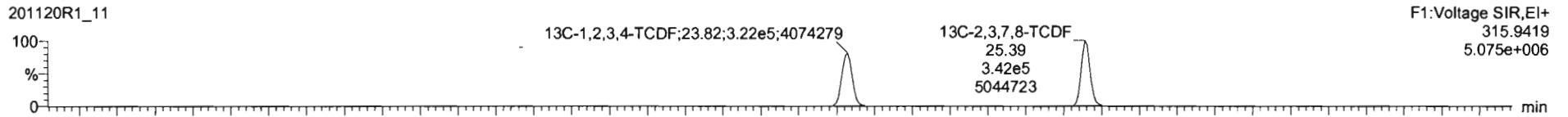


201120R1\_11

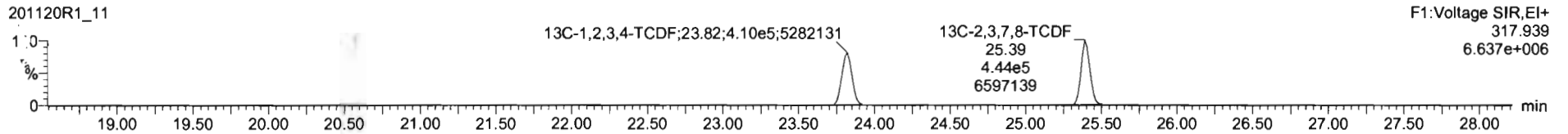


**<sup>13</sup>C-2,3,7,8-TCDF**

201120R1\_11

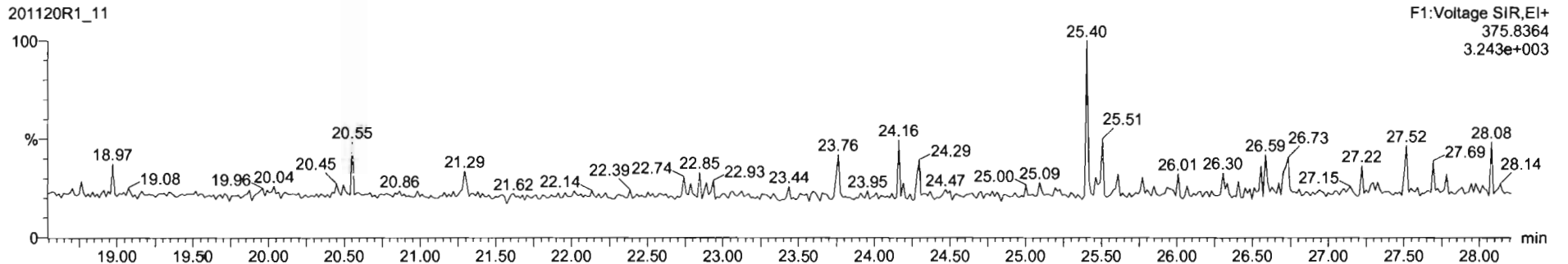


201120R1\_11



**DPE1**

201120R1\_11



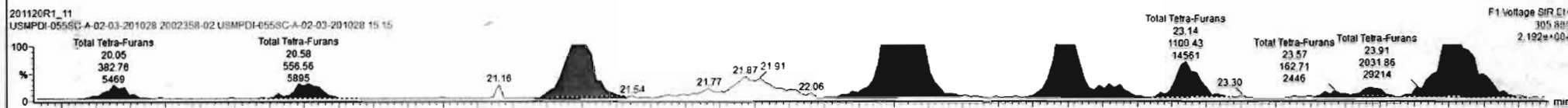
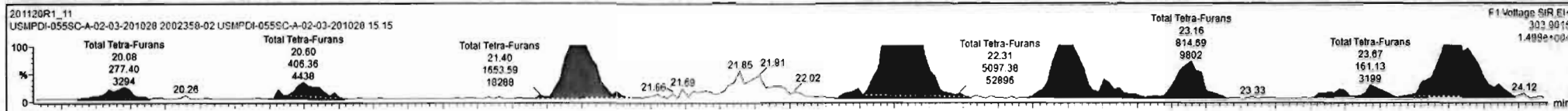


TargetLynx - 201120R1\_11.qtd - [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_11 - 2002358-02 USMPDI-055SC-A-02-03-201028 15 15 - USMPDI-055SC-A-02-03-201028

#	Name	Resp	RA	n/y	RRF	wtVal	RT	RRT	Conc	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.48e5	0.49	NO	1.0000	10.217	33.67	1.000	196	100	0.707	
39	Total Tetra-Dioxins				0.9501	10.217			2.28	0.109	2.58	
40	Total Penta-Dioxins				0.8855	10.217			4.72	0.159	5.94	
41	Total Hexa-Dioxins				0.9145	10.217			41.2	0.295	41.2	
42	Total Hepta-Dioxins				0.9697	10.217			206	1.01	206	
43	Total Tetra-Furans				0.8243	10.217			37.8	0.132	39.8	
44	1st Func. Penta-Furans				0.9626	10.217			5.21	0.0317	5.21	
45	Total Penta-Furans				0.9626	10.217			90.8	0.178	91.2	
46	Total Hexa-Furans				0.9907	10.217			109	0.211	109	
47	Total Hepta-Furans				0.9988	10.217			85.0	0.288	85.5	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											

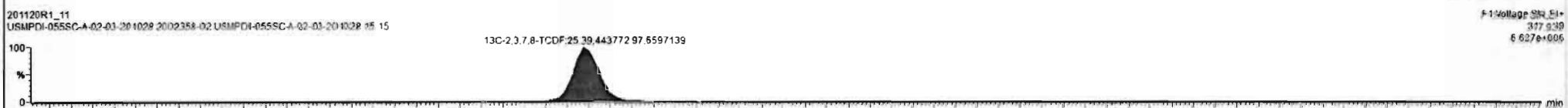
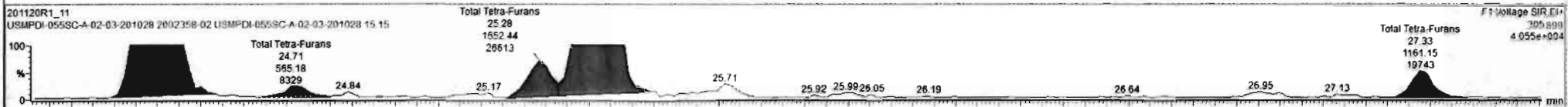
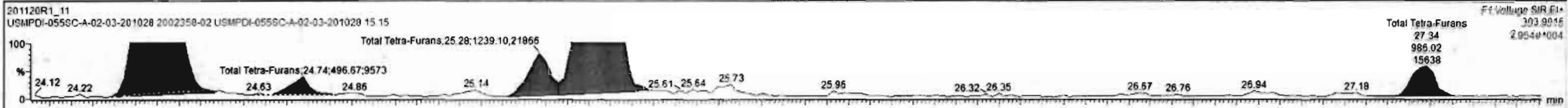


Targetlytics - 201120R1-11.d - [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_11 - 2002358-02 USMPDI-055SC-A-02-03-201028 15 15 - USMPDI-055SC-A-02-03-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
38	13C-1,2,3,4,6,9-HxCDF	4.48e5	0.49	NO	1.0000	10.217	33.67	1.009	196	100	0.707	
39	Total Tetra-Dioxins				0.9501	10.217			2.28	0.109	2.58	
40	Total Penta-Dioxins				0.8855	10.217			4.72	0.150	5.94	
41	Total Hexa-Dioxins				0.9145	10.217			41.2	0.295	41.2	
42	Total Hepta-Dioxins				0.8697	10.217			206	1.01	206	
43	Total Tetra-Furans				0.8243	10.217			38.1	0.132	39.8	
44	1st Func. Penta-Furans				0.9626	10.217			5.21	0.0317	5.21	
45	Total Penta-Furans				0.9626	10.217			90.8	0.178	91.2	
46	Total Hexa-Furans				0.9907	10.217			109	0.211	109	
47	Total Hepta-Furans				0.9986	10.217			85.0	0.288	85.5	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											



Dataset: Untitled

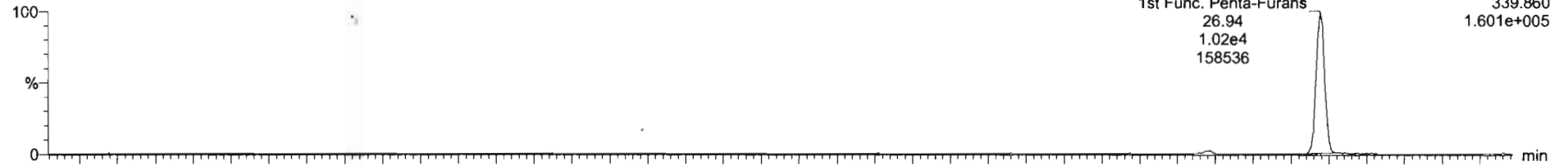
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

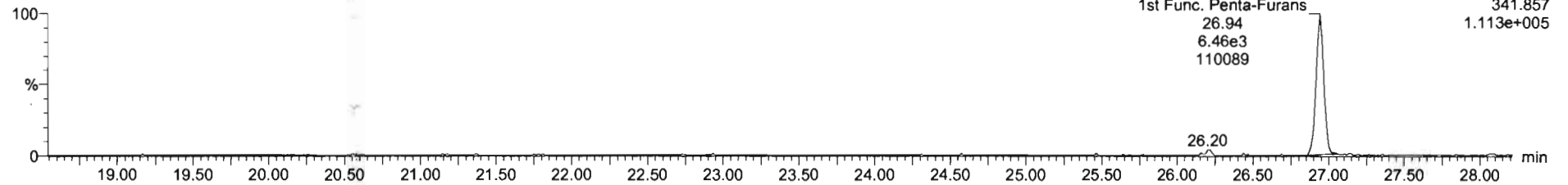
Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

1st Func. Penta-Furans

201120R1\_11

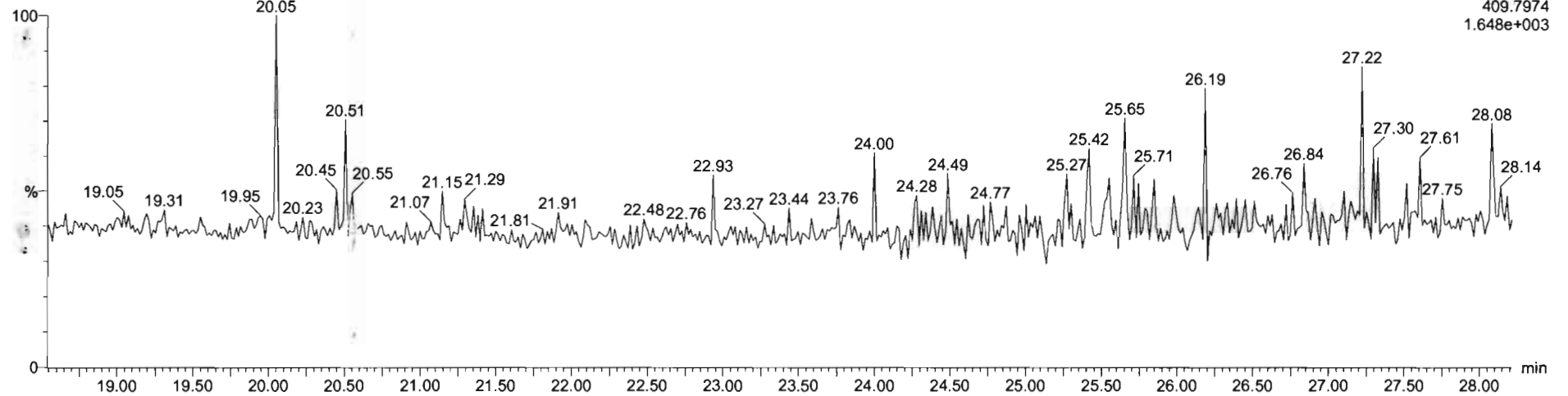


201120R1\_11



DPE6

201120R1\_11

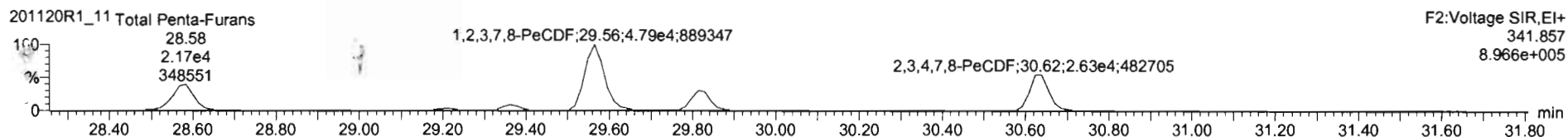
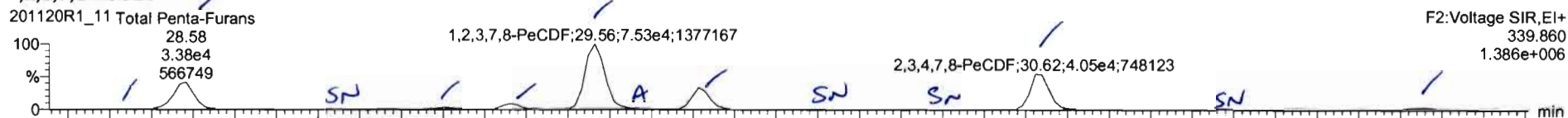


Dataset: Untitled

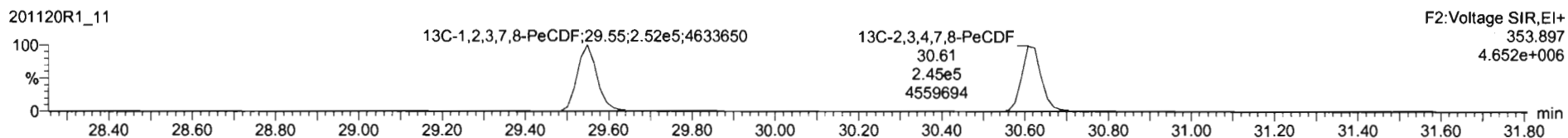
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

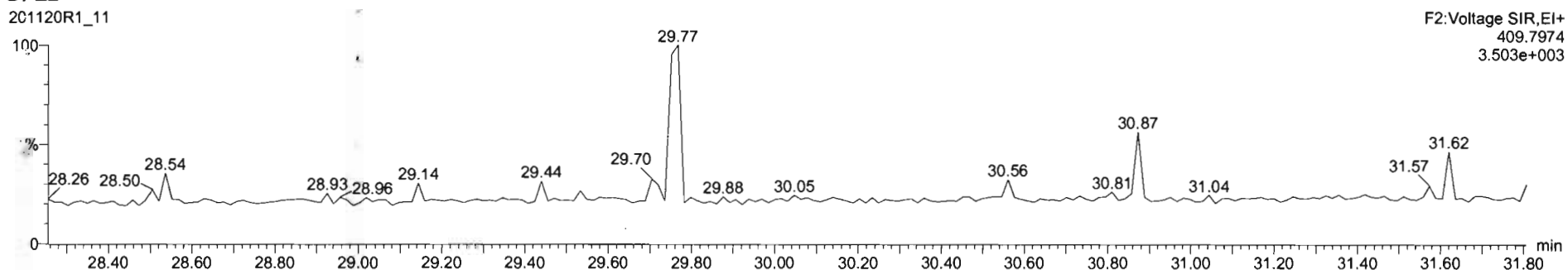
**1,2,3,7,8-PeCDF**



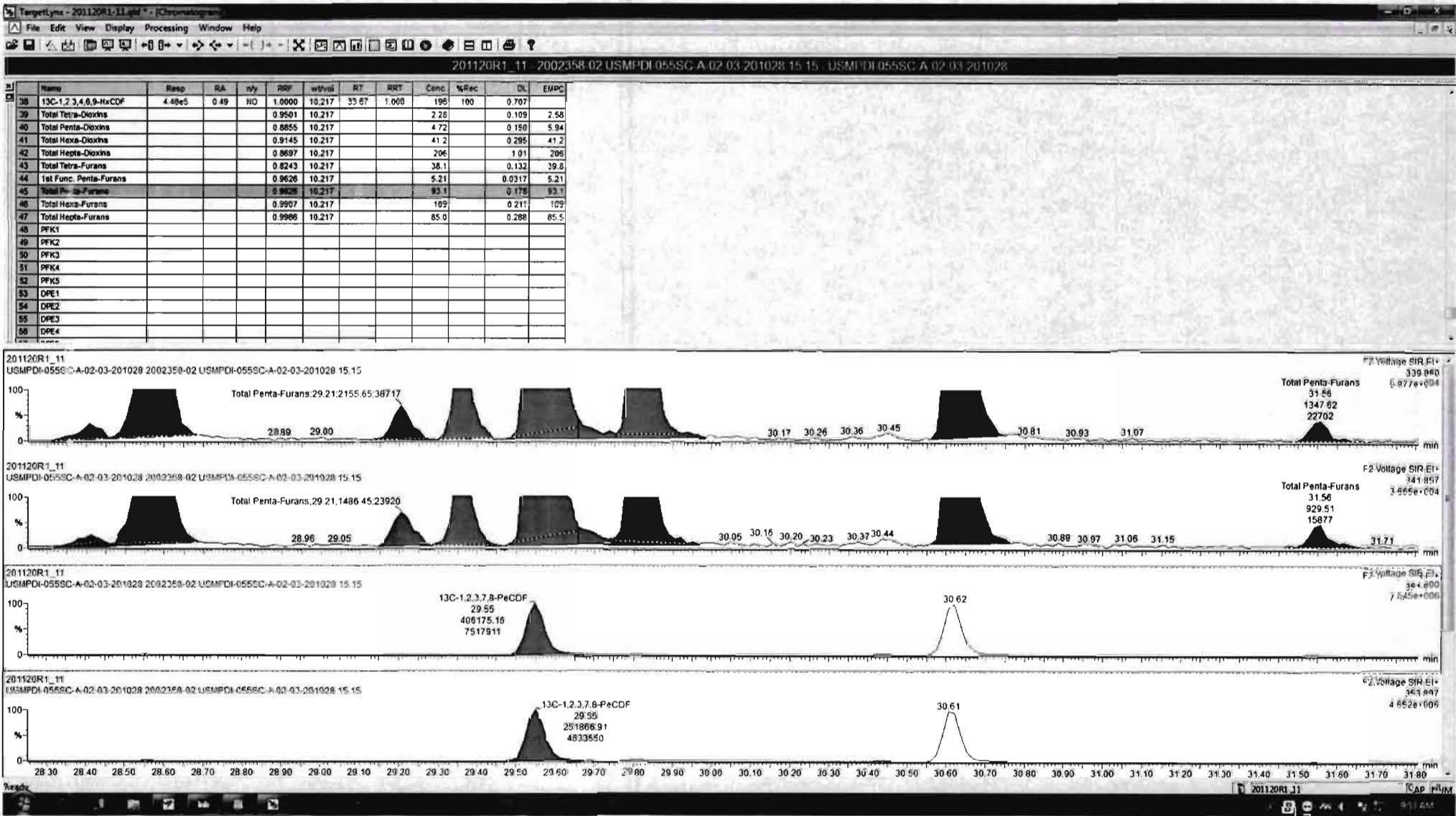
**13C-1,2,3,7,8-PeCDF**



**DPE2**





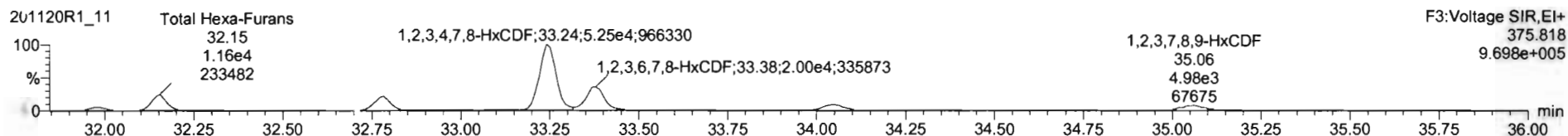
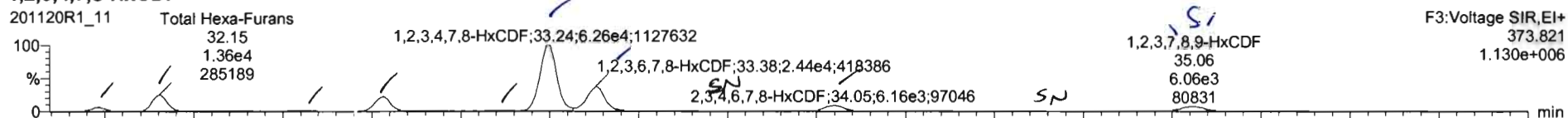


Dataset: Untitled

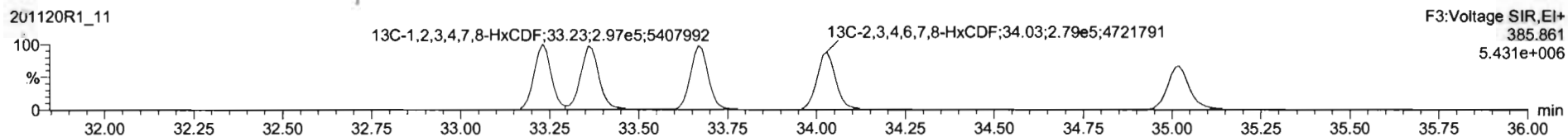
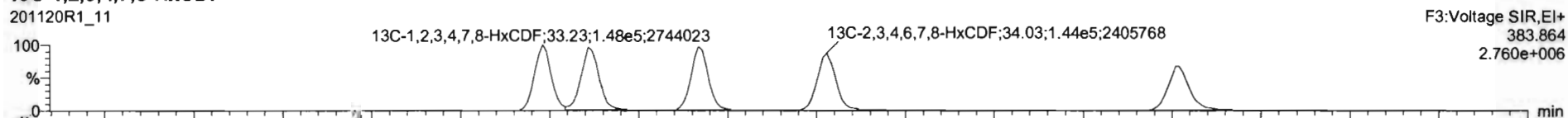
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

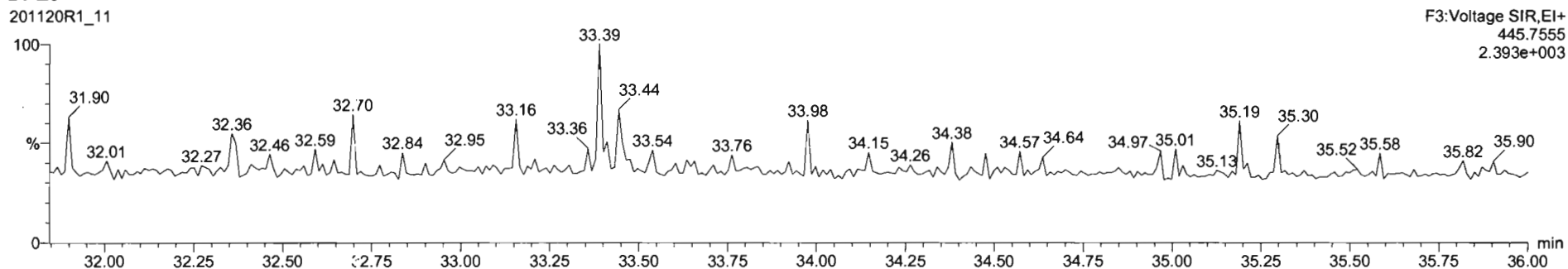
1,2,3,4,7,8-HxCDF

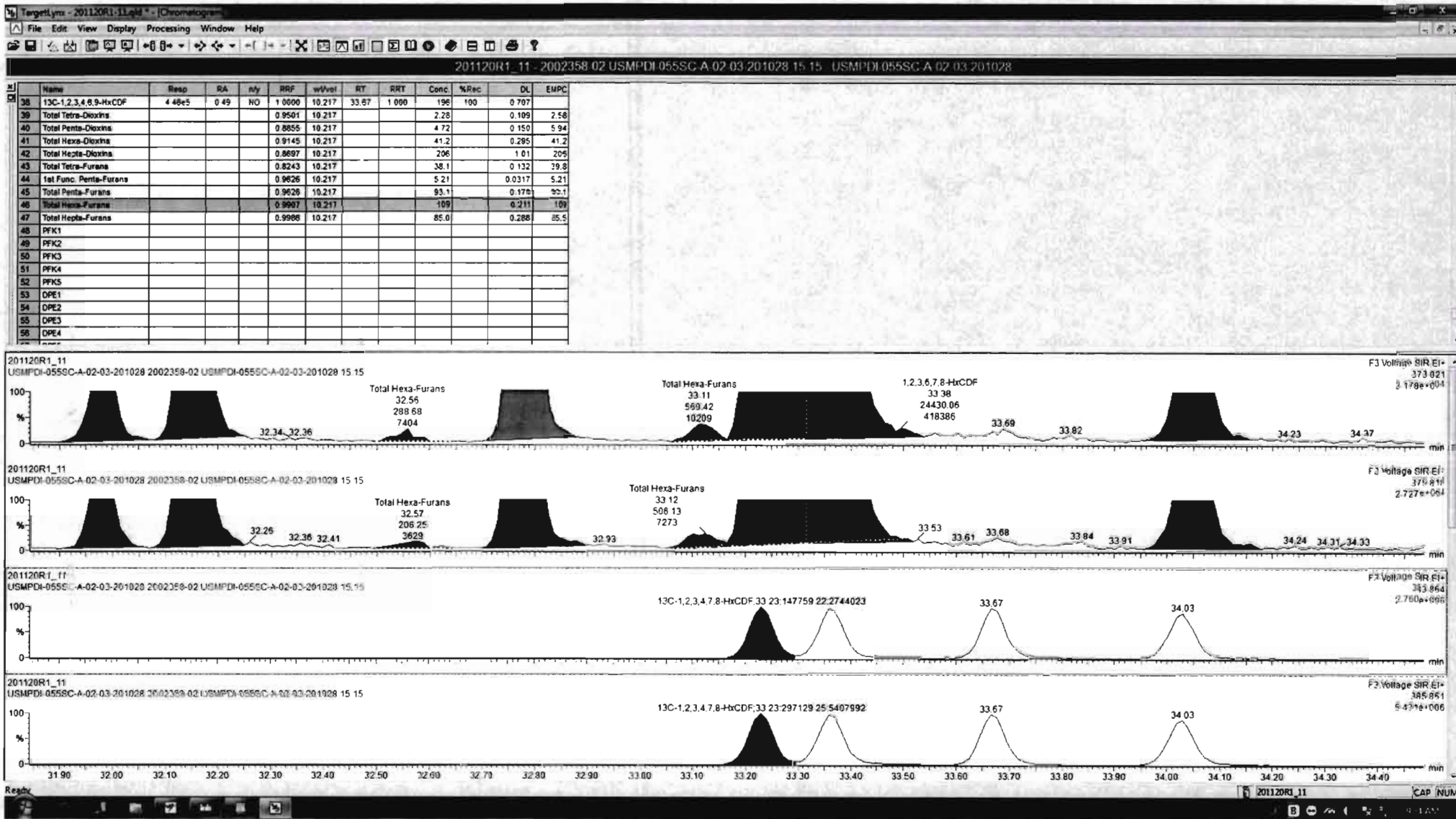


13C-1,2,3,4,7,8-HxCDF



DPE3



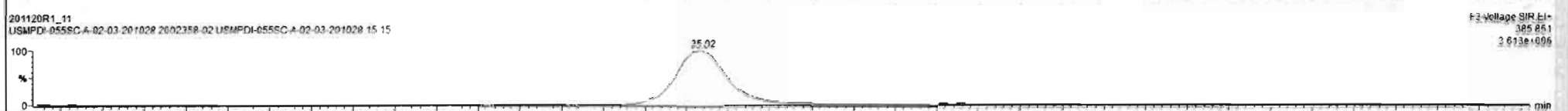
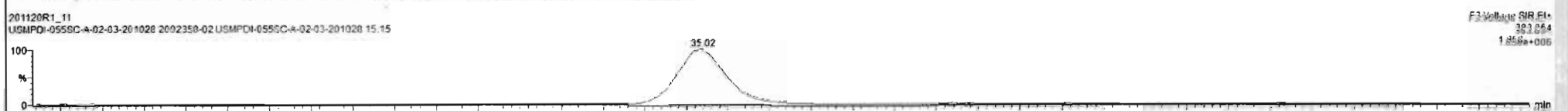
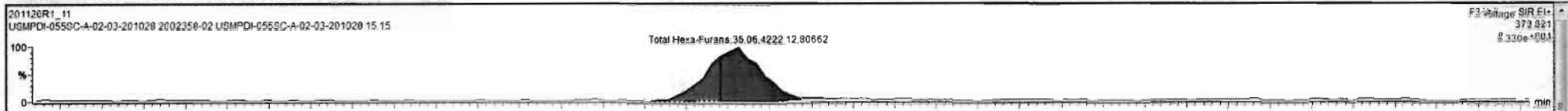




TargetLynx - 201120R1\_11.qld - (Chromatogram)

201120R1\_11 - 2002358 02 USMPDI 055SC A 02 03 201028 15 15 - USMPDI 055SC A 02 03 201028

#	Name	Resp	RA	nly	RRF	wf/vol	RT	RRT	Conc	%Rec	DL	EMPC
38	13C-1,2,3,4,6,8-HxCDF	4.48e5	0.49	NO	1.0000	10.217	33.67	1.000	198	100	0.707	
39	Total Tetra-Dioxins				0.9501	10.217			2.28		0.109	2.56
40	Total Penta-Dioxins				0.8855	10.217			4.72		0.150	5.94
41	Total Hexa-Dioxins				0.9145	10.217			41.2		0.295	41.2
42	Total Hepta-Dioxins				0.8697	10.217			208		1.01	208
43	Total Tetra-Furans				0.8243	10.217			38.1		0.132	39.8
44	1st Func. Penta-Furans				0.9626	10.217			5.21		0.0317	5.21
45	Total Penta-Furans				0.9626	10.217			93.1		0.178	93.1
46	Total Hexa-Furans				0.9907	10.217			109		0.211	109
47	Total Hepta-Furans				0.9986	10.217			85.0		0.288	85.5
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											



Dataset: Untitled

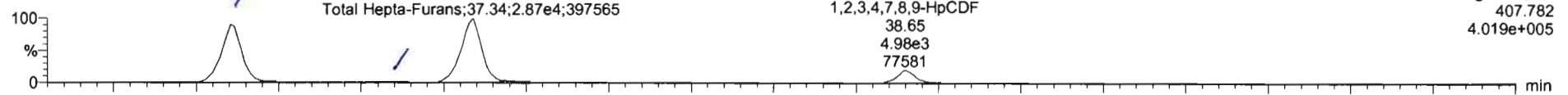
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

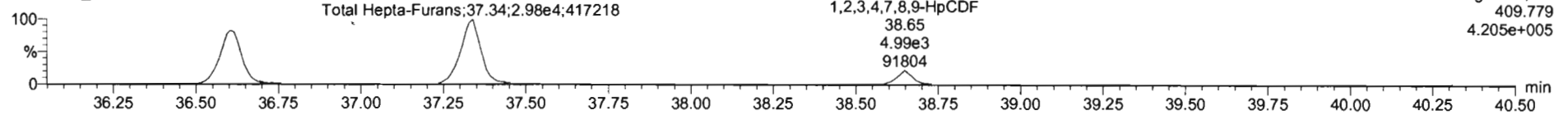
Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

**1,2,3,4,6,7,8-HpCDF**

201120R1\_11

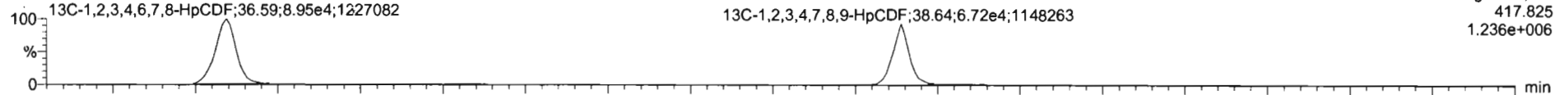


201120R1\_11

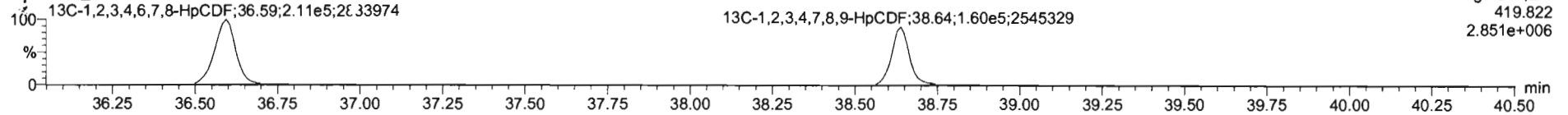


**13C-1,2,3,4,6,7,8-HpCDF**

201120R1\_11

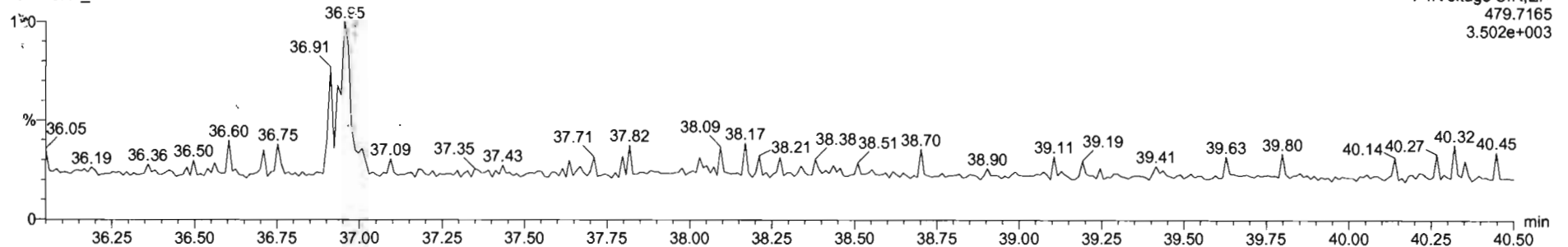


201120R1\_11



**DPE4**

201120R1\_11

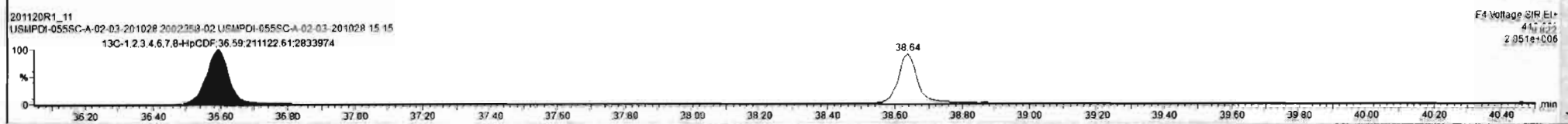
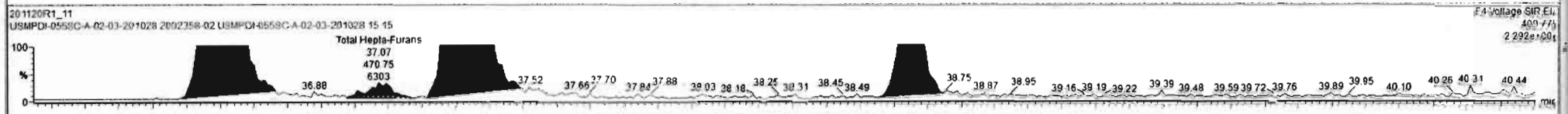
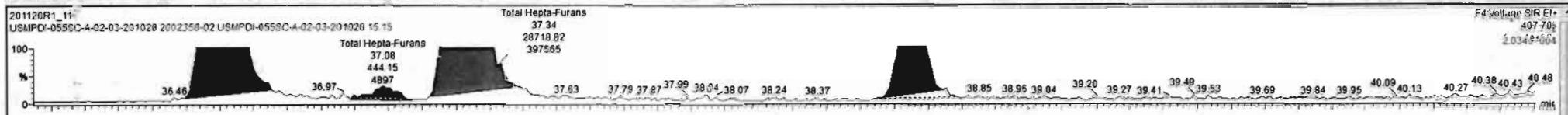


TargetLynx - 201120R1\_11.d - (Chromatogram)

File Edit View Display Processing Window Help

201120R1\_11 - 2002358-02 USMPDI-055SC-A-02-03-201028 15 15 - USMPDI-055SC-A-02-03-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
38	13C-1,2,3,4,6,8-HxCDF	4.46e5	0.49	NO	1.0000	10.217	33.67	1.000	196	100	0.707	
39	Total Tetra-Dioxins				0.9501	10.217			2.28	0.109	2.58	
40	Total Penta-Dioxins				0.8855	10.217			4.72	0.150	5.94	
41	Total Hexa-Dioxins				0.9145	10.217			41.2	0.295	41.2	
42	Total Hepta-Dioxins				0.8697	10.217			206	1.01	206	
43	Total Tetra-Furans				0.8243	10.217			38.1	0.132	39.8	
44	1st Func. Penta-Furans				0.9626	10.217			5.21	0.0317	5.21	
45	Total Penta-Furans				0.9626	10.217			93.1	0.178	93.1	
46	Total Hexa-Furans				0.9907	10.217			109	8.211	109	
47	Total Hepta-Furans				0.9968	10.217			86.5	0.268	86.5	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											

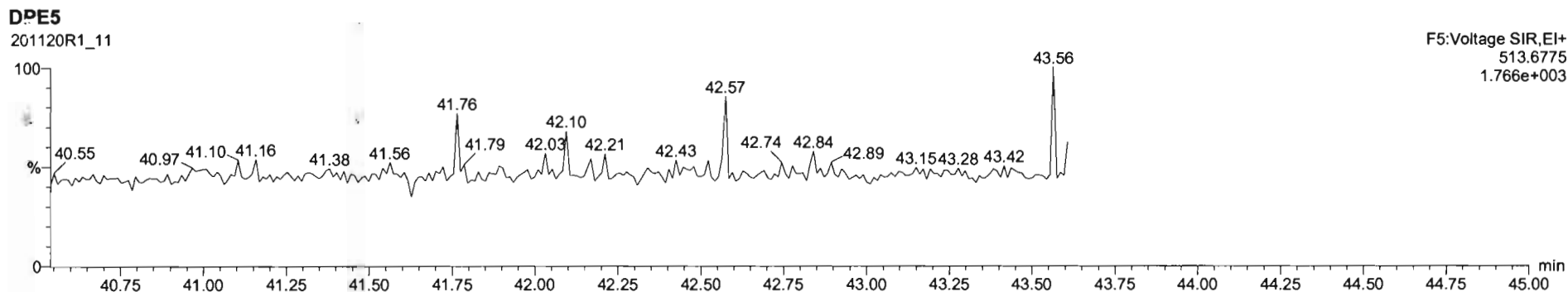
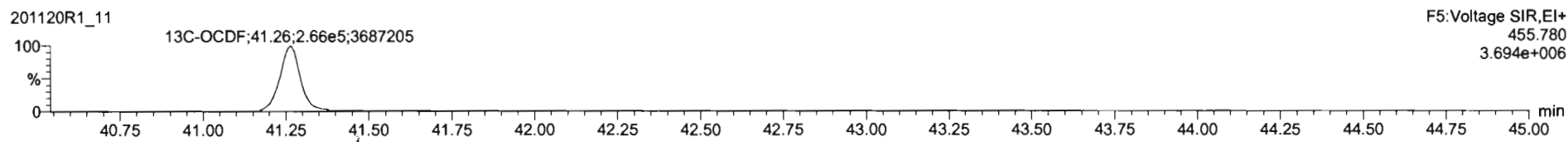
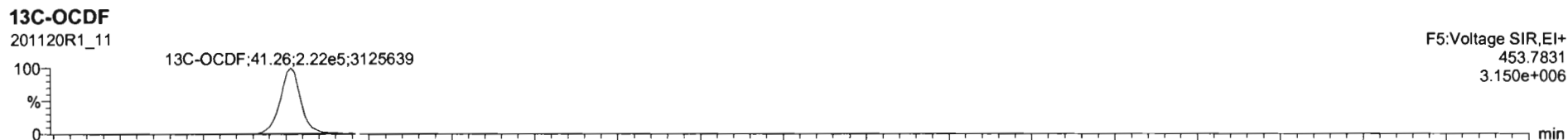
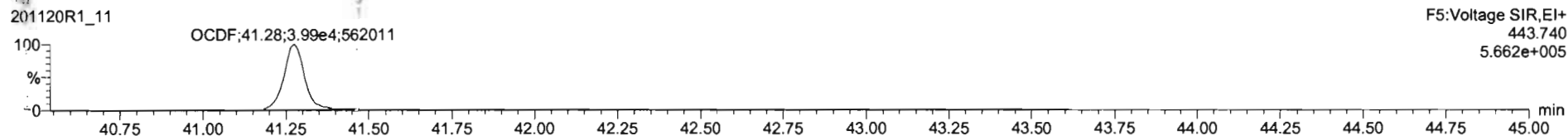
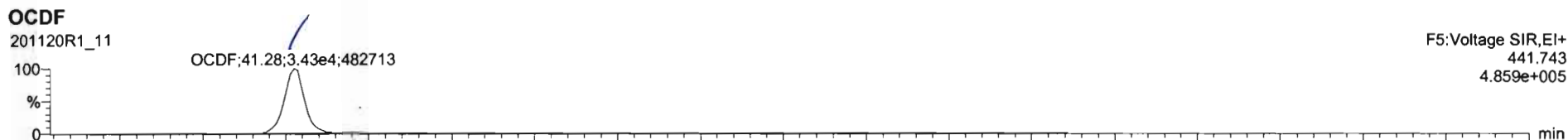


Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028



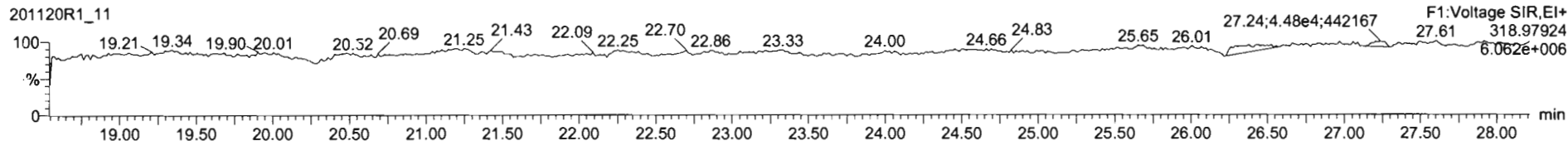


Dataset: Untitled

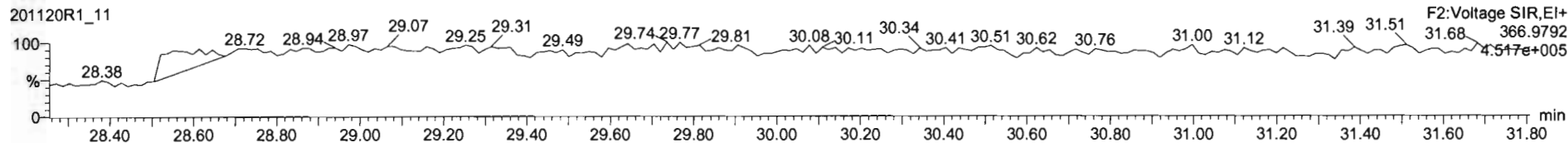
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_11, Date: 20-Nov-2020, Time: 15:22:58, ID: 2002358-02 USMPDI-055SC-A-02-03-201028 15.15, Description: USMPDI-055SC-A-02-03-201028

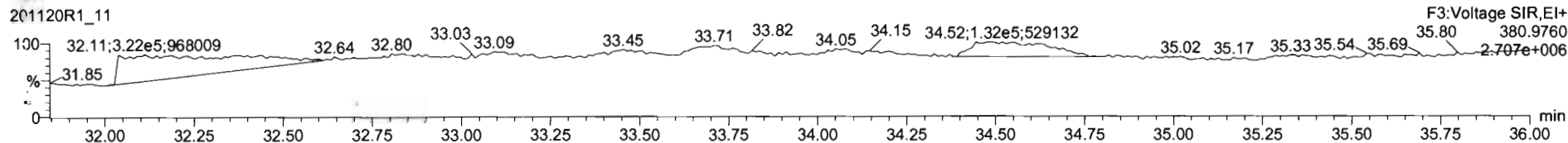
**PFK1**



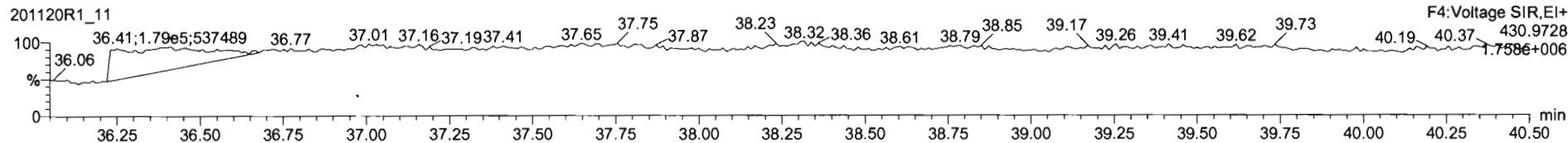
**PFK2**



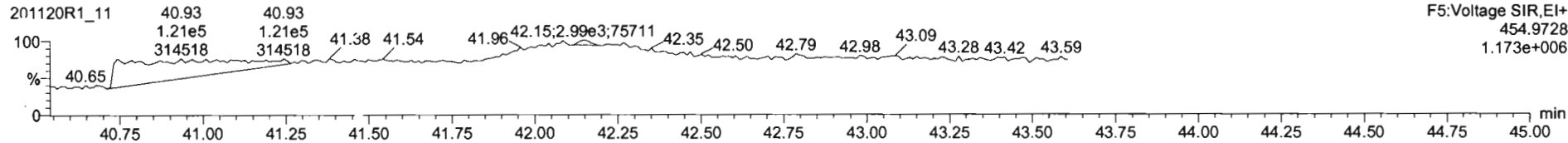
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-12.qld

Last Altered: Monday, November 23, 2020 10:32:42 AM Pacific Standard Time  
Printed: Monday, November 23, 2020 10:37:12 AM Pacific Standard Time

*GPB 11/23/2020*

*GT 11/30/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	7.29e2	0.40	YES	0.950	10.334	26.097	26.08	1.001	1.001	0.28464		0.0609	0.168
2	2 1,2,3,7,8-PeCDD	4.34e2	0.93	YES	0.885	10.334	30.804	30.81	1.000	1.000	0.21652		0.124	0.183
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.334	34.135		1.000				0.132	
4	4 1,2,3,6,7,8-HxCDD			NO	0.915	10.334	34.252		1.000				0.128	
5	5 1,2,3,7,8,9-HxCDD			NO	0.934	10.334	34.529		1.000				0.138	
6	6 1,2,3,4,6,7,8-HpCDD	3.21e3	1.02	NO	0.870	10.334	38.009	38.03	1.000	1.001	2.0854		0.189	2.09
7	7 OCDD	2.29e4	0.88	NO	0.872	10.334	40.966	40.98	1.000	1.000	21.035		0.214	21.0
8	8 2,3,7,8-TCDF	1.03e3	0.79	NO	0.824	10.334	25.396	25.42	1.000	1.001	0.30807		0.0816	0.308
9	9 1,2,3,7,8-PeCDF	2.51e2	1.12	YES	0.963	10.334	29.542	29.56	1.000	1.001	0.078106		0.0250	0.0662
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.334	30.608		1.000				0.0426	
11	11 1,2,3,4,7,8-HxCDF	2.71e2	0.96	YES	0.953	10.334	33.220	33.23	1.000	1.000	0.11751		0.0300	0.104
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.334	33.348		1.000				0.0543	
13	13 2,3,4,6,7,8-HxCDF			NO	0.991	10.334	34.011		1.000				0.0605	
14	14 1,2,3,7,8,9-HxCDF			NO	0.951	10.334	35.009		1.000				0.0859	
15	15 1,2,3,4,6,7,8-HpCDF			NO	0.999	10.334	36.586		1.000				0.0766	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.12	10.334	38.626		1.000				0.0705	
17	17 OCDF			NO	0.868	10.334	41.262		1.000				0.127	
18	18 13C-2,3,7,8-TCDD	5.83e5	0.80	NO	1.11	10.334	26.058	26.07	1.030	1.030	215.53	111	0.295	
19	19 13C-1,2,3,7,8-PeCDD	4.39e5	0.67	NO	0.859	10.334	30.774	30.80	1.216	1.217	209.33	108	0.426	
20	20 13C-1,2,3,4,7,8-HxCDD	3.83e5	1.30	NO	0.700	10.334	34.125	34.13	1.014	1.014	223.43	115	0.786	
21	21 13C-1,2,3,6,7,8-HxCDD	4.46e5	1.28	NO	0.833	10.334	34.263	34.24	1.018	1.017	218.86	113	0.661	
22	22 13C-1,2,3,7,8,9-HxCDD	4.28e5	1.25	NO	0.762	10.334	34.505	34.52	1.025	1.026	229.68	119	0.722	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.42e5	1.07	NO	0.650	10.334	37.989	38.01	1.129	1.129	215.41	111	0.974	
24	24 13C-OCDD	4.84e5	0.90	NO	0.539	10.334	40.954	40.97	1.217	1.217	366.85	94.8	0.712	
25	25 13C-2,3,7,8-TCDF	7.85e5	0.77	NO	0.981	10.334	25.380	25.39	1.003	1.004	215.19	111	0.323	
26	26 13C-1,2,3,7,8-PeCDF	6.63e5	1.57	NO	0.792	10.334	29.506	29.53	1.166	1.167	225.55	117	0.714	
27	27 13C-2,3,4,7,8-PeCDF	6.58e5	1.62	NO	0.778	10.334	30.564	30.61	1.208	1.210	227.74	118	0.726	
28	28 13C-1,2,3,4,7,8-HxCDF	4.69e5	0.50	NO	0.954	10.334	33.216	33.22	0.987	0.987	200.92	104	0.798	
29	29 13C-1,2,3,6,7,8-HxCDF	4.76e5	0.50	NO	1.01	10.334	33.347	33.35	0.991	0.991	193.30	99.9	0.757	
30	30 13C-2,3,4,6,7,8-HxCDF	4.45e5	0.50	NO	0.921	10.334	34.017	34.01	1.011	1.010	197.44	102	0.826	



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-12.qld

Last Altered: Monday, November 23, 2020 10:32:42 AM Pacific Standard Time

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Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	4.09e5	0.50	NO	0.803	10.334	35.013	35.01	1.040	1.040	208.22	108	0.947	
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.23e5	0.42	NO	0.735	10.334	36.582	36.58	1.087	1.087	179.43	92.7	0.710	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.38e5	0.42	NO	0.568	10.334	38.618	38.63	1.147	1.148	171.41	88.6	0.920	
34	34 13C-OCDF	5.03e5	0.88	NO	0.629	10.334	41.237	41.25	1.225	1.226	326.96	84.5	0.502	
35	35 37Cl-2,3,7,8-TCDD	2.33e5			1.09	10.334	26.058	26.10	1.030	1.032	87.873	114	0.106	
36	36 13C-1,2,3,4-TCDD	4.72e5	0.80	NO	1.00	10.334	25.370	25.30	1.000	1.000	193.54	100	0.327	
37	37 13C-1,2,3,4-TCDF	7.19e5	0.78	NO	1.00	10.334	23.870	23.81	1.000	1.000	193.54	100	0.317	
38	38 13C-1,2,3,4,6,9-HxCDF	4.74e5	0.50	NO	1.00	10.334	33.710	33.66	1.000	1.000	193.54	100	0.761	
39	39 Total Tetra-Dioxins				0.950	10.334	24.620		0.000		0.87852		0.0669	1.22
40	40 Total Penta-Dioxins				0.885	10.334	29.960		0.000		0.35298		0.134	1.09
41	41 Total Hexa-Dioxins				0.915	10.334	33.635		0.000		2.6298		0.138	2.63
42	42 Total Hepta-Dioxins				0.870	10.334	37.640		0.000		5.6134		0.189	5.61
43	43 Total Tetra-Furans				0.824	10.334	23.610		0.000		0.51611		0.0816	0.792
44	44 1st Func. Penta-Furans				0.963	10.334	26.930		0.000				0.0160	
45	45 Total Penta-Furans				0.963	10.334	29.275		0.000		0.00000		0.0242	0.0662
46	46 Total Hexa-Furans				0.991	10.334	33.555		0.000		0.00000		0.0347	0.104
47	47 Total Hepta-Furans				0.999	10.334	37.835		0.000				0.0400	

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-12.qld

Last Altered: Monday, November 23, 2020 10:32:42 AM Pacific Standard Time  
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Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.30	1.921e3	1.890e3	1.630e2	1.437e2	1.13	YES	0.000e0	0.00000	0.088833	0.0669
2	Total Tetra-Dioxins	22.61	1.851e3	1.960e3	1.494e2	1.391e2	1.07	YES	0.000e0	0.00000	0.085950	0.0669
3	Total Tetra-Dioxins	23.19	2.247e3	2.384e3	1.792e2	2.076e2	0.86	NO	3.868e2	0.13506	0.13506	0.0669
4	Total Tetra-Dioxins	24.01	9.991e3	1.265e4	7.706e2	8.805e2	0.88	NO	1.651e3	0.57658	0.57658	0.0669
5	Total Tetra-Dioxins	25.39	2.765e3	3.916e3	2.234e2	2.545e2	0.88	NO	4.779e2	0.16688	0.16688	0.0669
6	2,3,7,8-TCDD	26.08	2.951e3	7.801e3	2.094e2	5.198e2	0.40	YES	7.292e2	0.00000	0.16811	0.0669

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.57	4.101e3	3.412e3	2.507e2	2.631e2	0.95	YES	0.000e0	0.00000	0.21365	0.134
2	Total Penta-Dioxins	29.00	6.444e3	8.359e3	2.743e2	4.340e2	0.63	NO	7.084e2	0.35298	0.35298	0.134
3	Total Penta-Dioxins	30.05	2.755e3	7.520e3	1.820e2	3.581e2	0.51	YES	0.000e0	0.00000	0.23468	0.134
4	1,2,3,7,8-PeCDD	30.81	5.506e3	4.888e3	2.088e2	2.253e2	0.93	YES	4.341e2	0.00000	0.18298	0.134
5	Total Penta-Dioxins	31.18	3.847e3	1.986e3	1.113e2	1.355e2	0.82	YES	0.000e0	0.00000	0.11006	0.134

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.51	3.469e4	2.813e4	1.768e3	1.479e3	1.20	NO	3.246e3	1.6402	1.6402	0.138
2	Total Hexa-Dioxins	33.38	1.354e4	1.084e4	1.141e3	8.179e2	1.39	NO	1.959e3	0.98965	0.98965	0.138

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.99	3.303e4	3.749e4	2.706e3	2.721e3	0.99	NO	5.428e3	3.5280	3.5280	0.189
2	1,2,3,4,6,7,8-HpCDD	38.03	2.616e4	2.597e4	1.619e3	1.590e3	1.02	NO	3.208e3	2.0854	2.0854	0.189

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-12.qld

Last Altered: Monday, November 23, 2020 10:32:42 AM Pacific Standard Time

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Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.38	5.140e3	6.832e3	4.672e2	5.214e2	0.90	YES	0.000e0	0.00000	0.27621	0.0816
2	Total Tetra-Furans	24.37	3.648e3	5.479e3	2.541e2	2.921e2	0.87	NO	5.462e2	0.16346	0.16346	0.0816
3	Total Tetra-Furans	25.28	1.203e3	1.353e3	6.727e1	8.169e1	0.82	NO	1.490e2	0.044582	0.044582	0.0816
4	2,3,7,8-TCDF	25.42	6.496e3	1.024e4	4.529e2	5.765e2	0.79	NO	1.029e3	0.30807	0.30807	0.0816

**Penta-Furans function 1**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,7,8-PeCDF	29.56	2.318e3	1.908e3	1.328e2	1.183e2	1.12	YES	2.511e2	0.00000	0.066229	0.0250

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,7,8-HxCDF	33.23	2.449e3	2.502e3	1.329e2	1.385e2	0.96	YES	2.714e2	0.00000	0.10397	0.0300

**Hepta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

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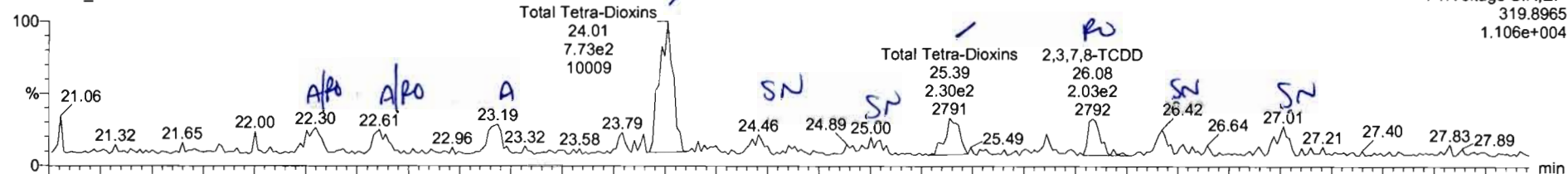
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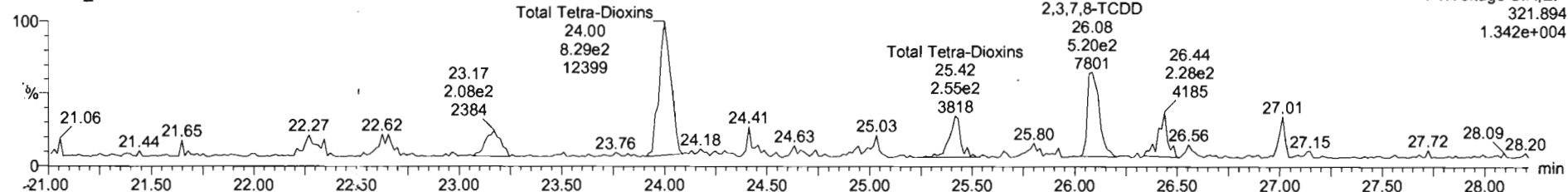
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2,3,7,8-TCDD

201120R1\_12

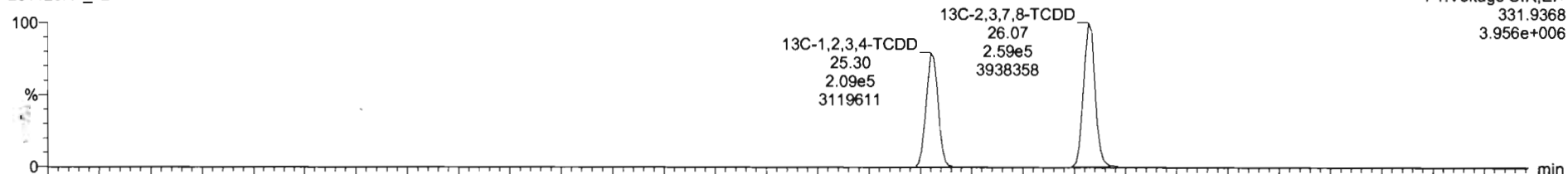


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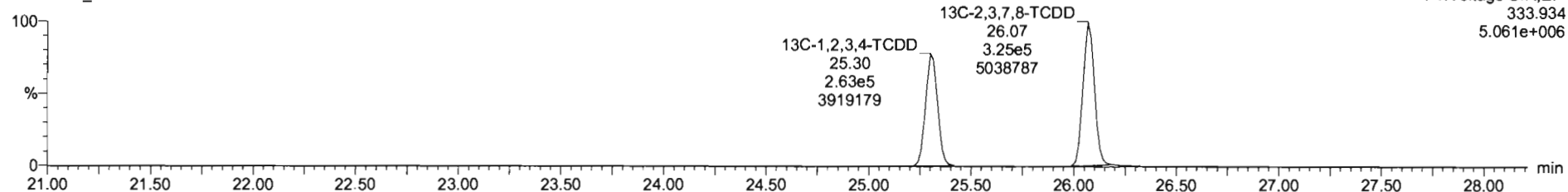


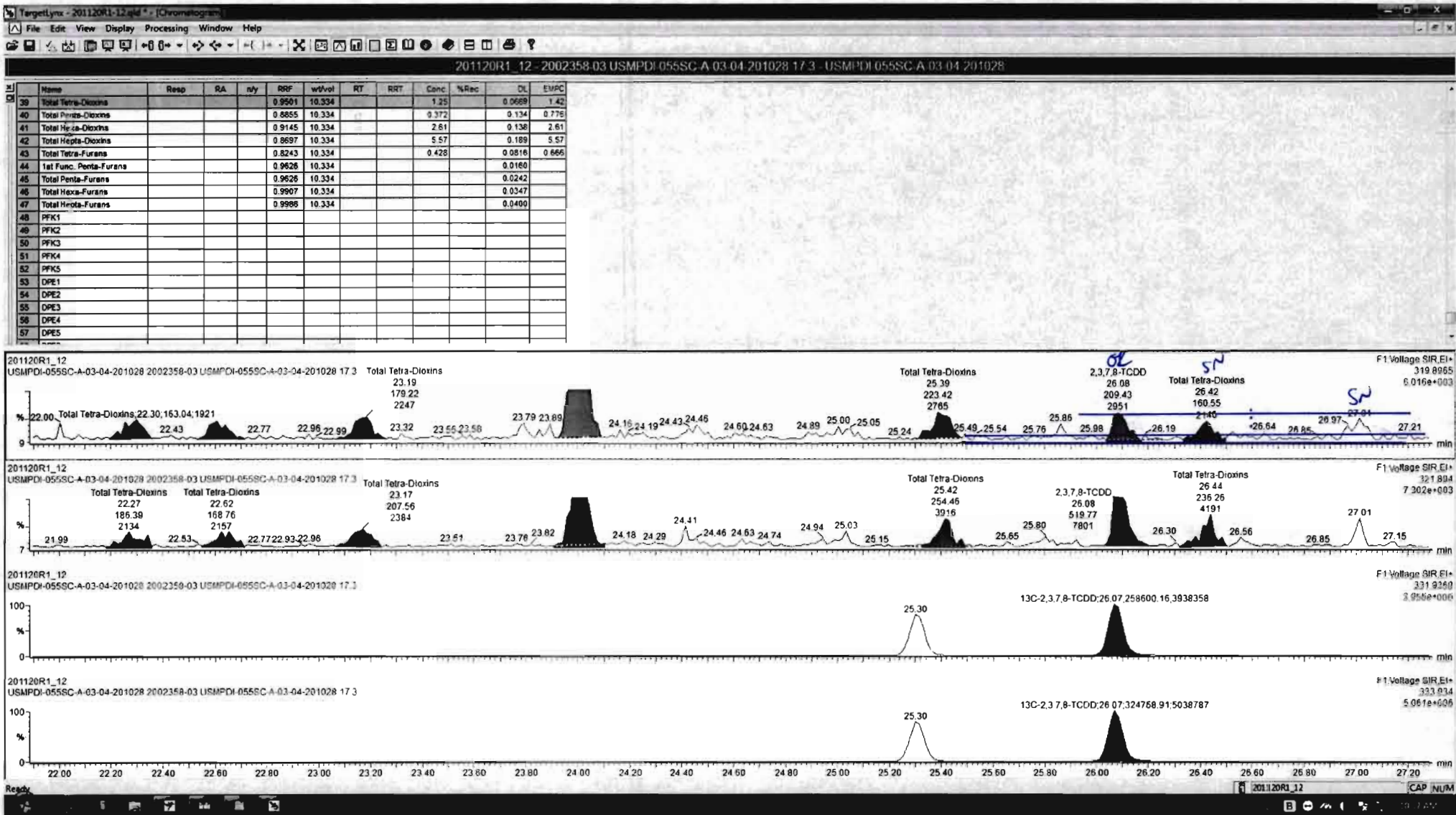
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201120R1\_12



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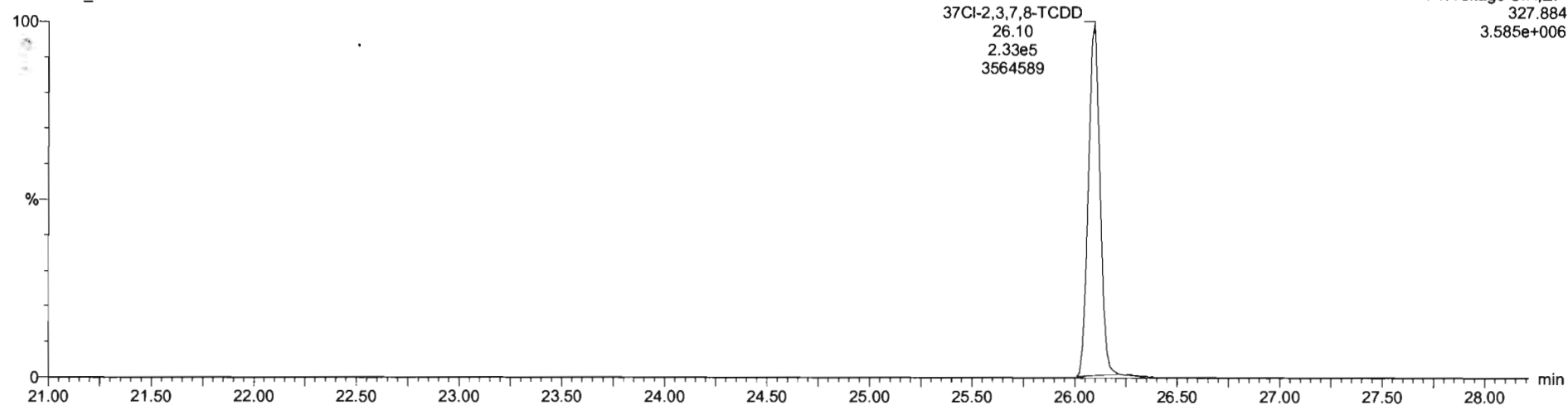
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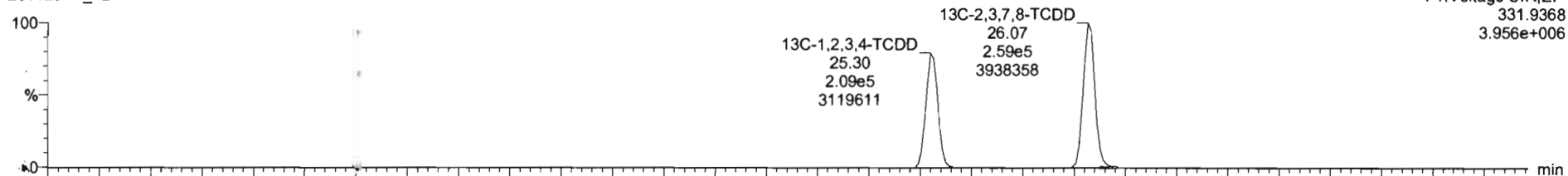
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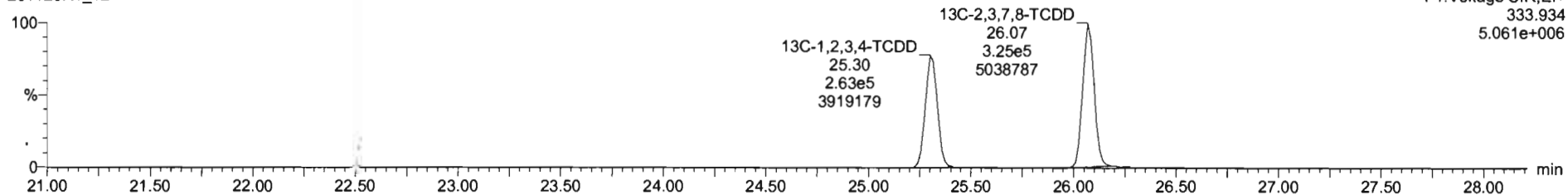


**13C-1,2,3,4-TCDD**

201120R1\_12



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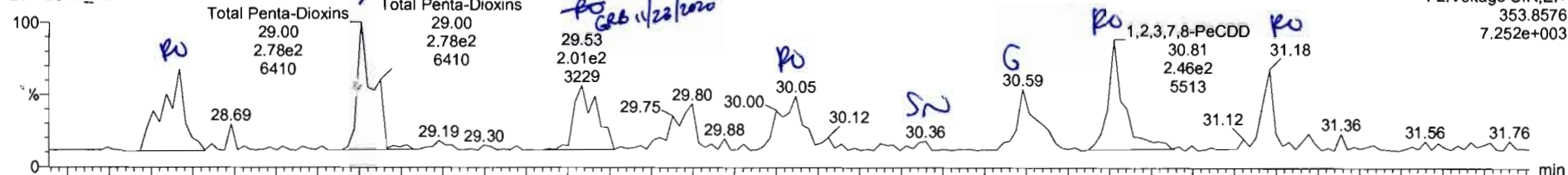
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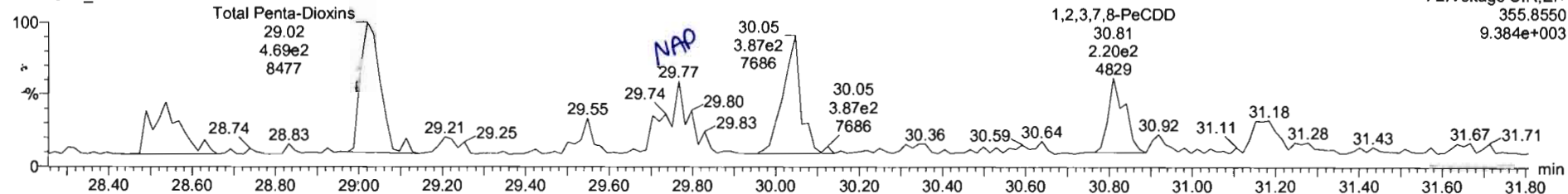
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201120R1\_12



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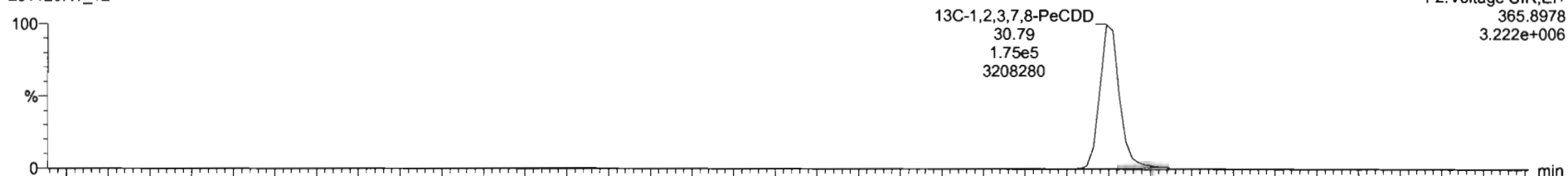
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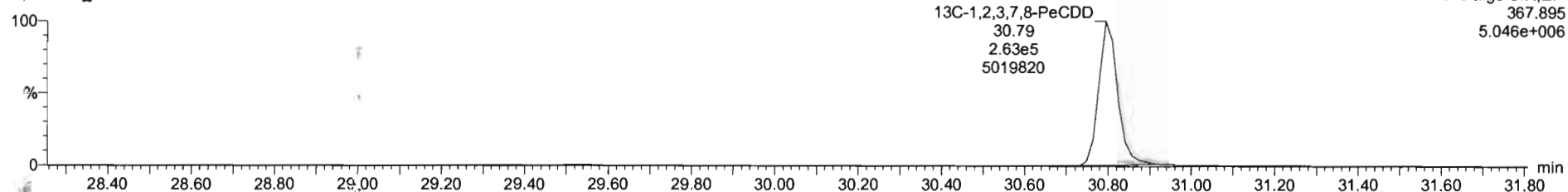
13C-1,2,3,7,8-PeCDD

201120R1\_12



F2:Voltage SIR,El+  
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201120R1\_12



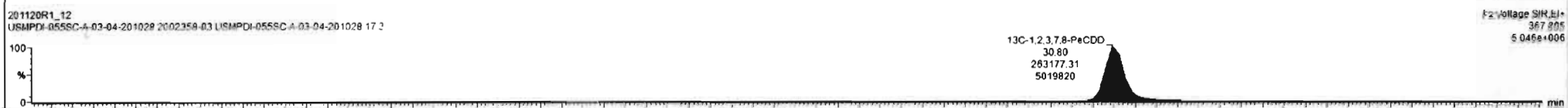
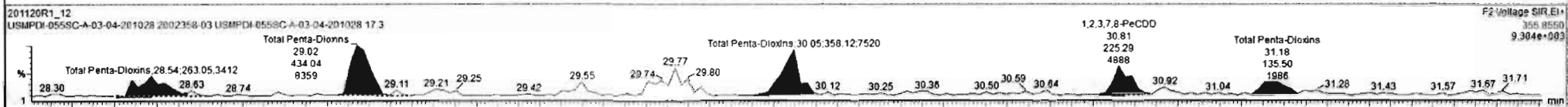
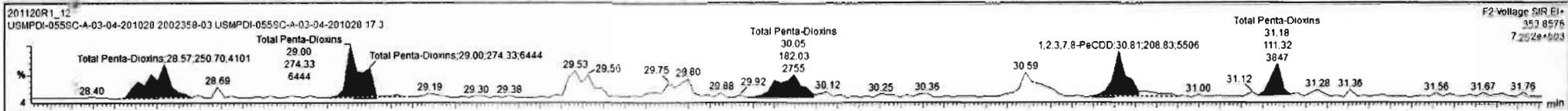
F2:Voltage SIR,El+  
367.895  
5.046e+006

TargetLynx - 201120R1\_12.qtd - [Chromatogram]

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201120R1\_12\_2002358-03 USMPDI-055SC-A-03-04-201028 17.3 USMPDI-055SC-A-03-04-201028

#	Name	Resp	RA	nly	RRF	wtVal	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9501	10.334			1.25	0.0669	1.42	
40	Total Penta-Dioxins				0.8655	10.334			0.353	0.134	1.09	
41	Total Hexa-Dioxins				0.9145	10.334			2.61	0.135	2.61	
42	Total Hepta-Dioxins				0.8697	10.334			5.57	0.189	5.57	
43	Total Tetra-Furans				0.8243	10.334			0.428	0.0816	0.666	
44	1st Func. Penta-Furans				0.9626	10.334				0.0160		
45	Total Penta-Furans				0.9626	10.334				0.0242		
46	Total Hexa-Furans				0.9907	10.334				0.0347		
47	Total Hepta-Furans				0.9986	10.334				0.0400		
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											



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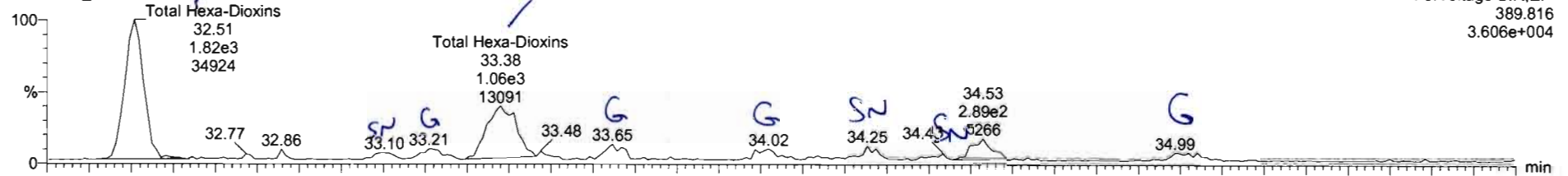
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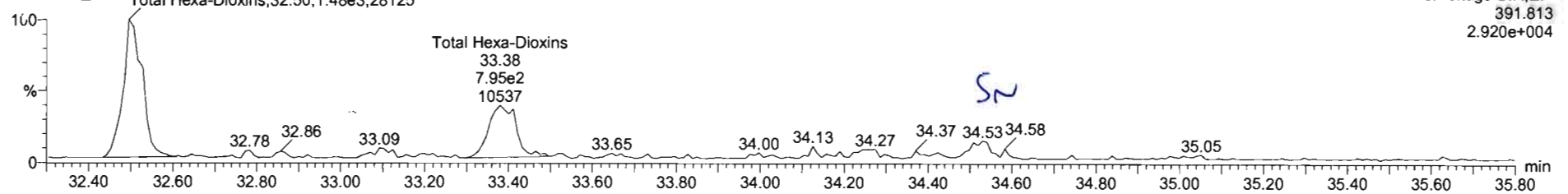
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1,2,3,4,7,8-HxCDD

201120R1\_12

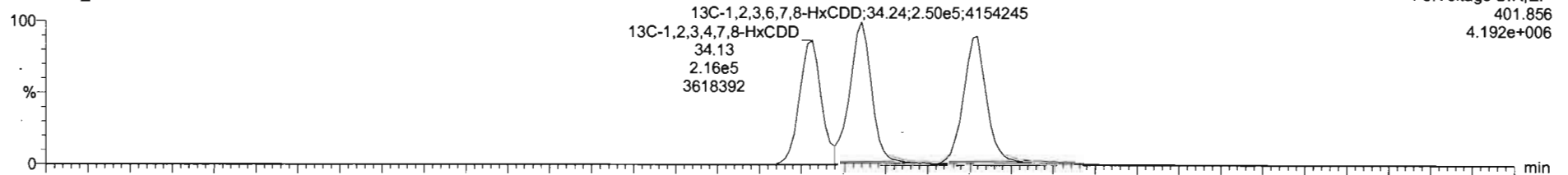


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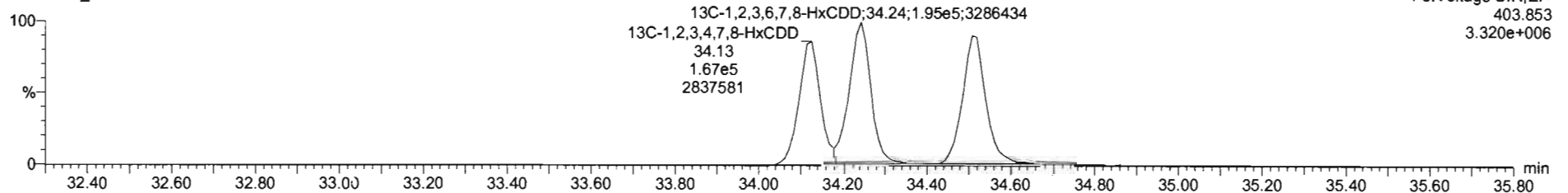


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201120R1\_12



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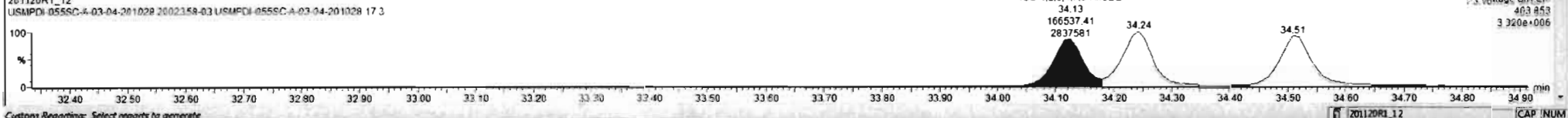
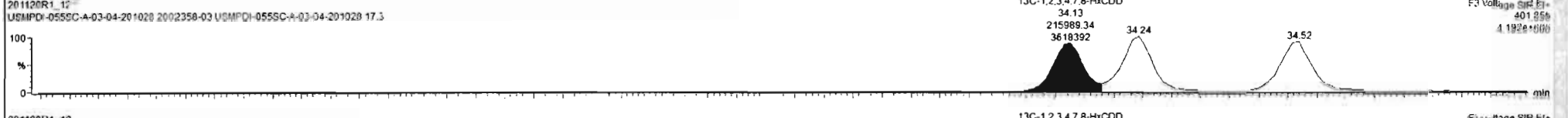
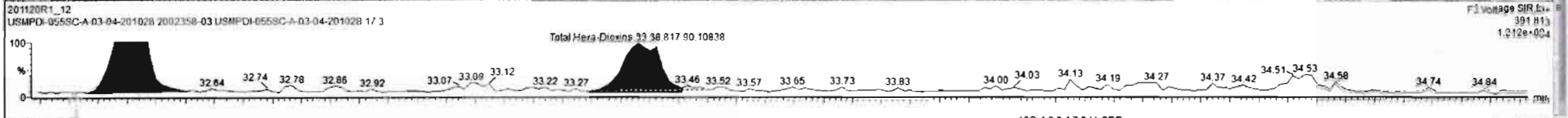
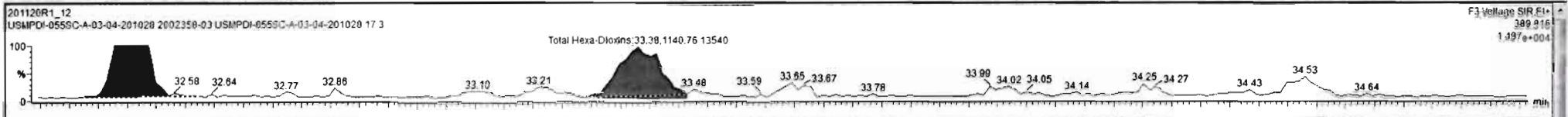


TargetLynx - 201120R1\_12.qtd (Chromatogram)

File Edit View Display Processing Window Help

201120R1\_12 2002358\_03 USMPDI 055SC A 03 04 201028 17 3 USMPDI 055SC A 03 04 201028

#	Name	Resp	RA	ny	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9501	10.334			1.25		0.0669	1.42
40	Total Penta-Dioxins				0.8855	10.334			0.353		0.134	1.09
41	Total Hexa-Dioxins				0.9145	10.334			2.63		0.138	2.63
42	Total Hepta-Dioxins				0.8697	10.334			5.57		0.189	5.57
43	Total Tetra-Furans				0.8243	10.334			0.428		0.0816	0.655
44	1st Func. Penta-Furans				0.9626	10.334					0.0160	
45	Total Penta-Furans				0.9626	10.334					0.0242	
46	Total Hexa-Furans				0.9907	10.334					0.0347	
47	Total Hepta-Furans				0.9986	10.334					0.0400	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											





Dataset: Untitled

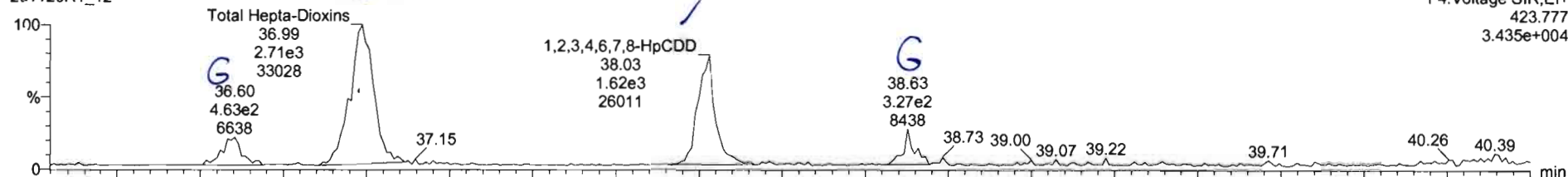
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

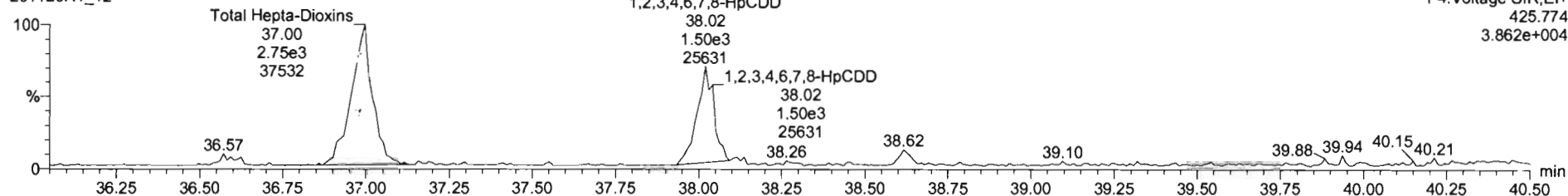
Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**1 2,3,4,6,7,8-HpCDD**

201120R1\_12

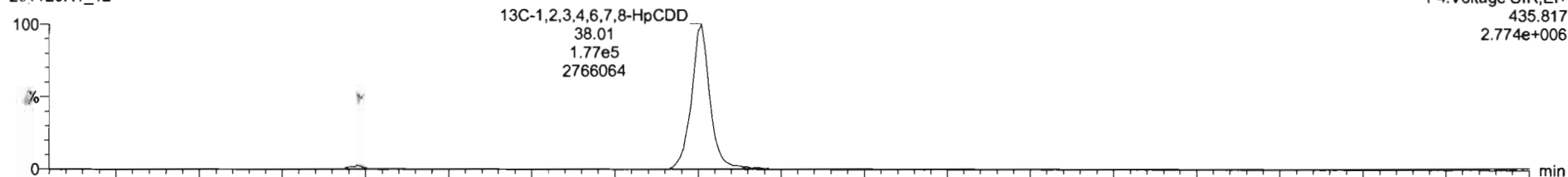


201120R1\_12

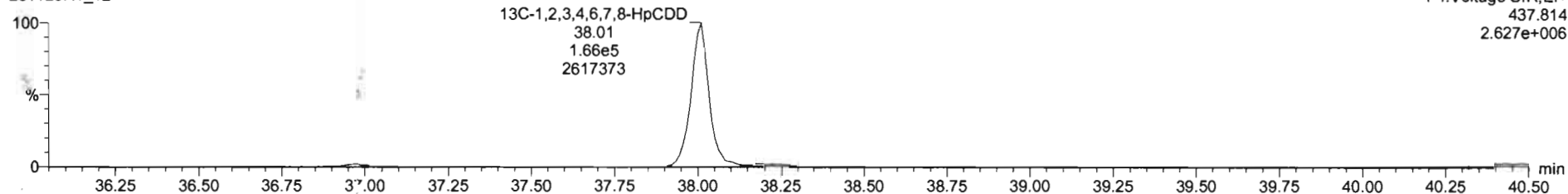


**13C-1,2,3,4,6,7,8-HpCDD**

201120R1\_12



201120R1\_12

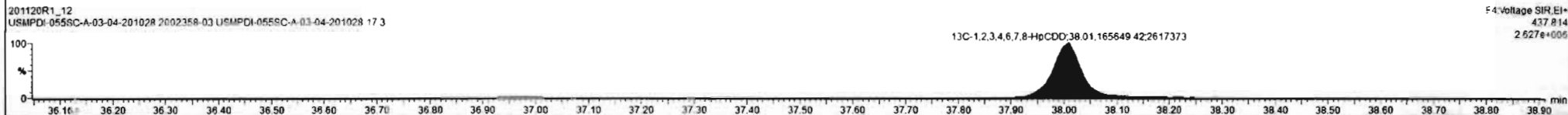
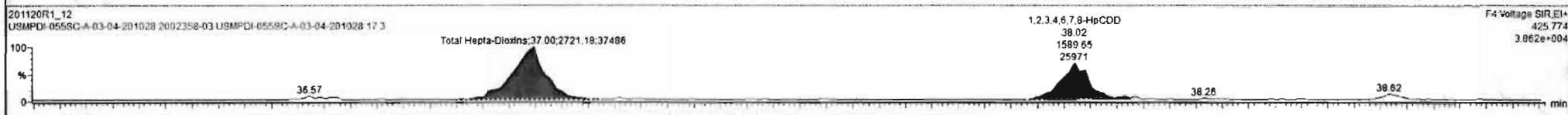
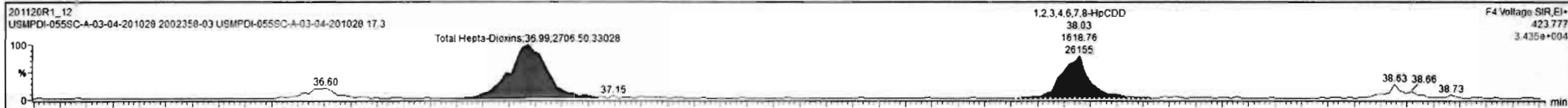


TargetLynx - 201120R1\_12.qld - [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_12 - 2002358-03 USMPDI-055SC-A-03-04-201028-17-3 - USMPDI-055SC-A-03-04-201028

Name	Resp	RA	n/y	RRF	act/val	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tri-oxins				0.9501	10.334			1.25		0.0669	1.42
40 Total Tetra-oxins				0.8855	10.334			0.253		0.134	1.09
41 Total Hexa-Dioxins				0.9145	10.334			2.63		0.136	2.63
42 Total Hepta-Dioxins				0.8697	10.334			5.61		0.189	5.61
43 Total Tetra-Furans				0.8243	10.334			0.428		0.0816	0.666
44 1st Func. Penta-Furans				0.9626	10.334					0.0160	
45 Total Penta-Furans				0.9626	10.334					0.0242	
46 Total Hexa-Furans				0.9907	10.334					0.0347	
47 Total Hepta-Furans				0.9986	10.334					0.0400	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											





Dataset: Untitled

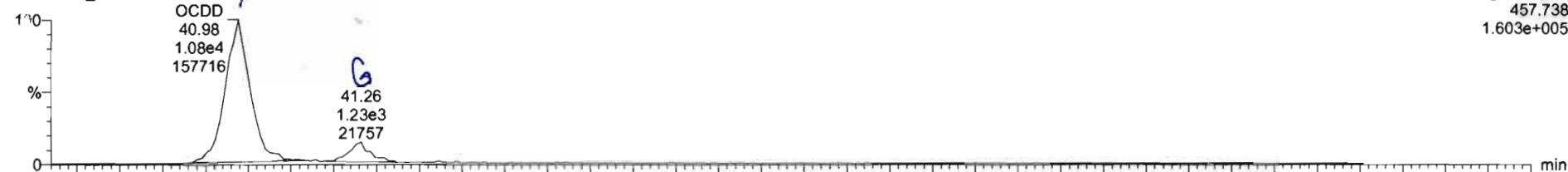
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

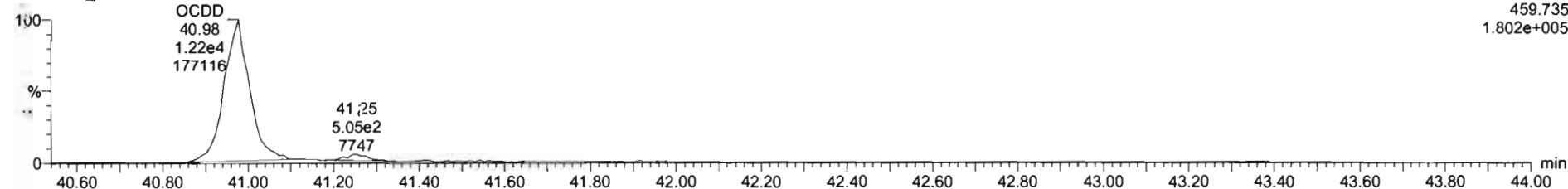
Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**OCDD**

201120R1\_12

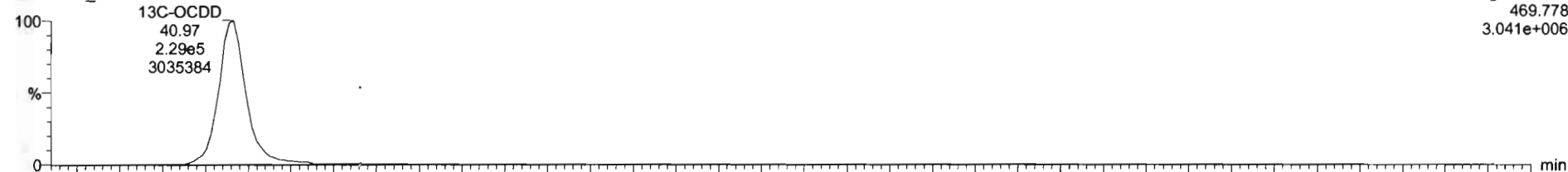


201120R1\_12

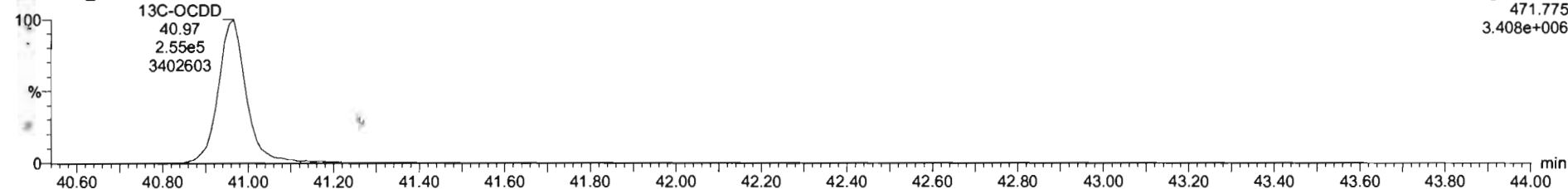


**13C-OCDD**

201120R1\_12



201120R1\_12



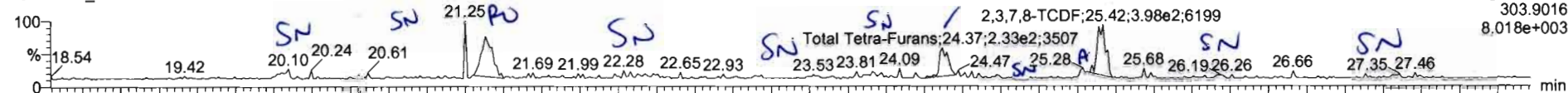
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

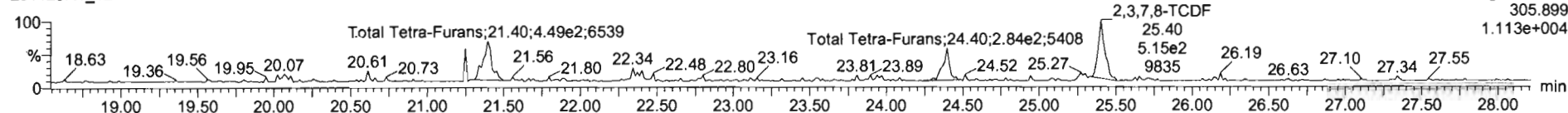
Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**2,3,7,8-TCDF**

201120R1\_12

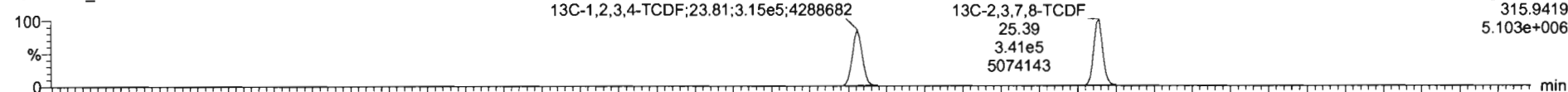


201120R1\_12

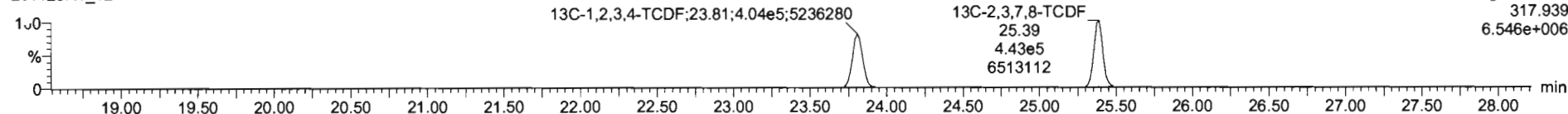


**13C-2,3,7,8-TCDF**

201120R1\_12

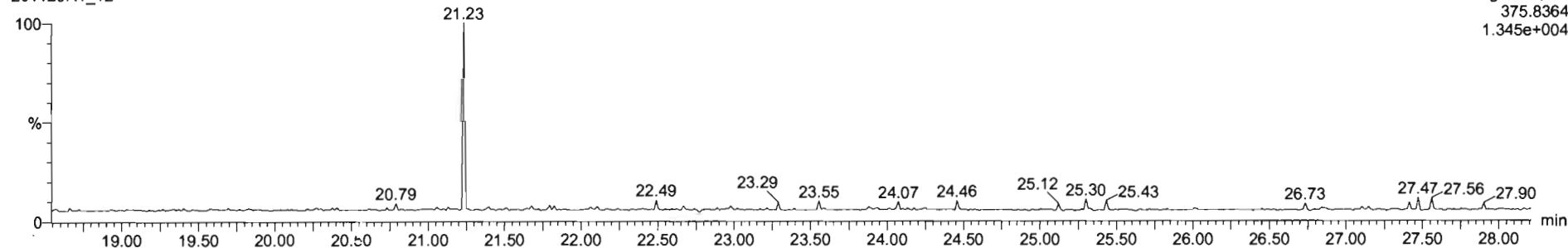


201120R1\_12



**DPE1**

201120R1\_12

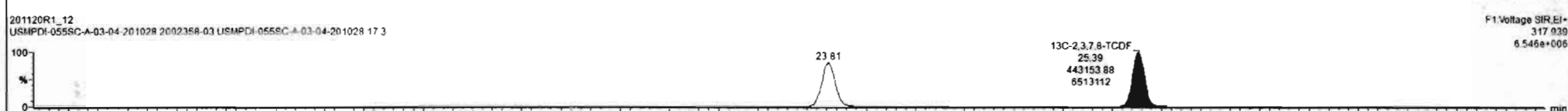
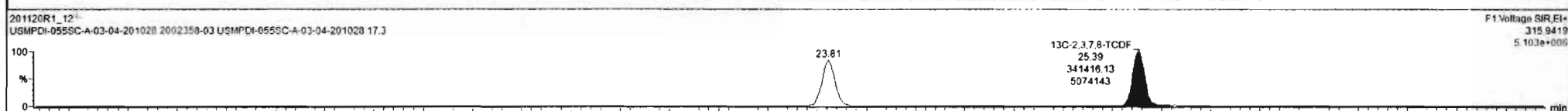
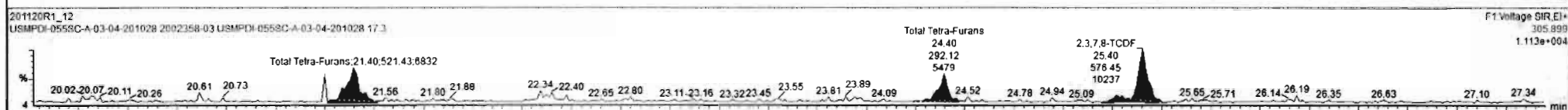
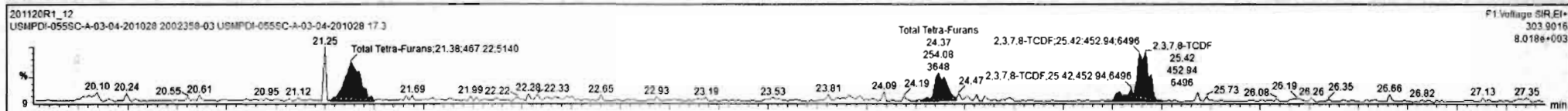


TargetLynx - 201120R1\_12.qld - Chromatogram

File Edit View Display Processing Window Help

201120R1\_12 - 2002358-03 USMPDI-055SC-A-03-04-201028 17.3 - USMPDI-055SC-A-03-04-201028

#	Name	Resp	RA	in/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9501	10.334			1.25		0.0669	1.42
40	Total Penta-Dioxins				0.8855	10.334			0.353		0.134	1.09
41	Total Hexa-Dioxins				0.9145	10.334			2.63		0.138	2.63
42	Total Hepta-Dioxins				0.8697	10.334			5.61		0.189	5.61
43	Total Tetra-Furans				0.8243	10.334			0.516		0.0818	0.792
44	1st Func. Penta-Furans				0.9626	10.334					0.0160	
45	Total Penta-Furans				0.9626	10.334					0.0242	
46	Total Hexa-Furans				0.9907	10.334					0.0347	
47	Total Hepta-Furans				0.9986	10.334					0.0400	
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											



Dataset: Untitled

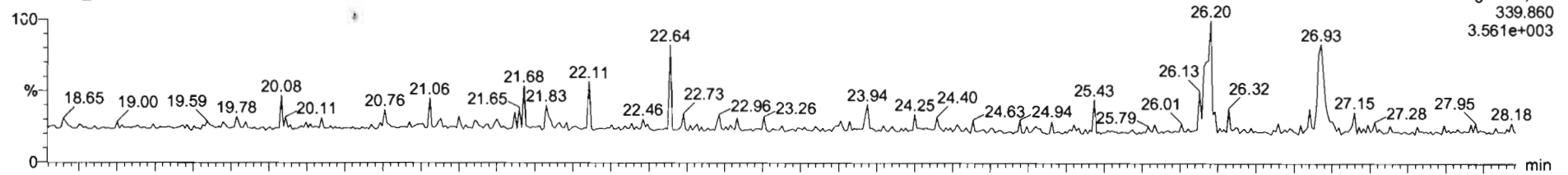
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

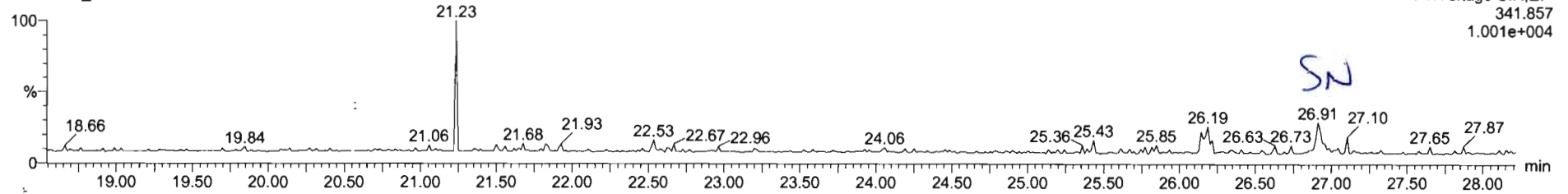
Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

1st Func. Penta-Furans

201120R1\_12

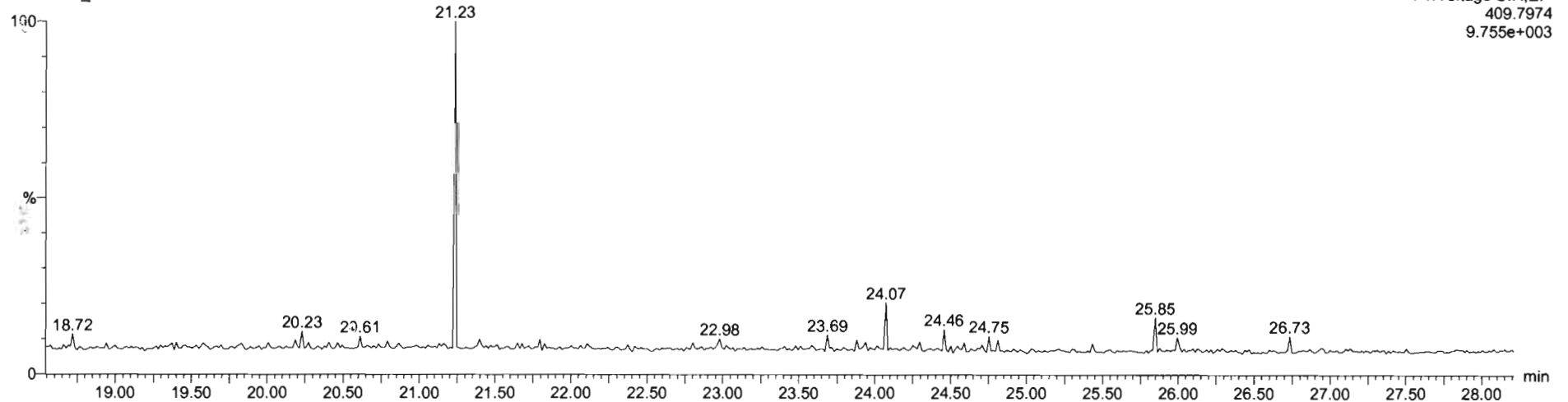


201120R1\_12



DPE6

201120R1\_12



Dataset: Untitled

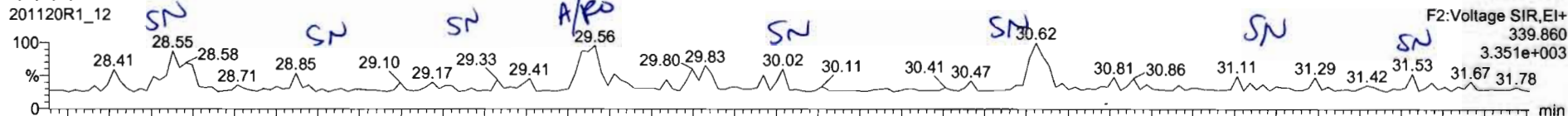
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

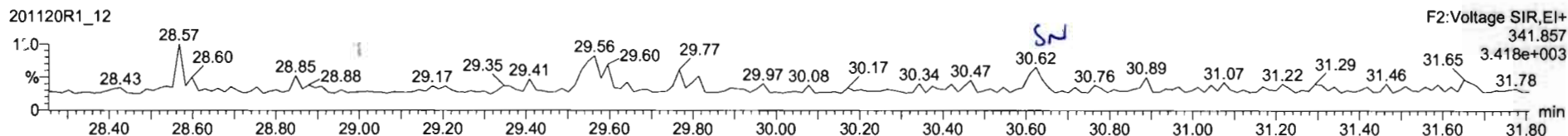
Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

**1,2,3,7,8-PeCDF**

201120R1\_12



201120R1\_12

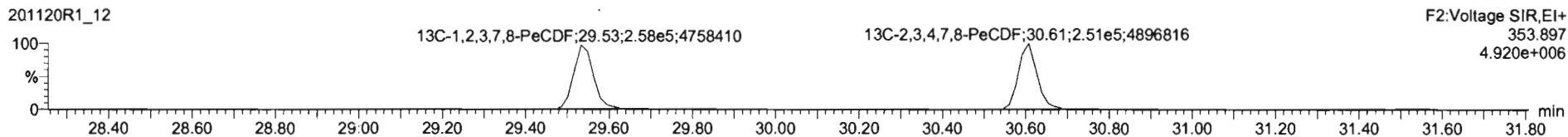


**13C-1,2,3,7,8-PeCDF**

201120R1\_12

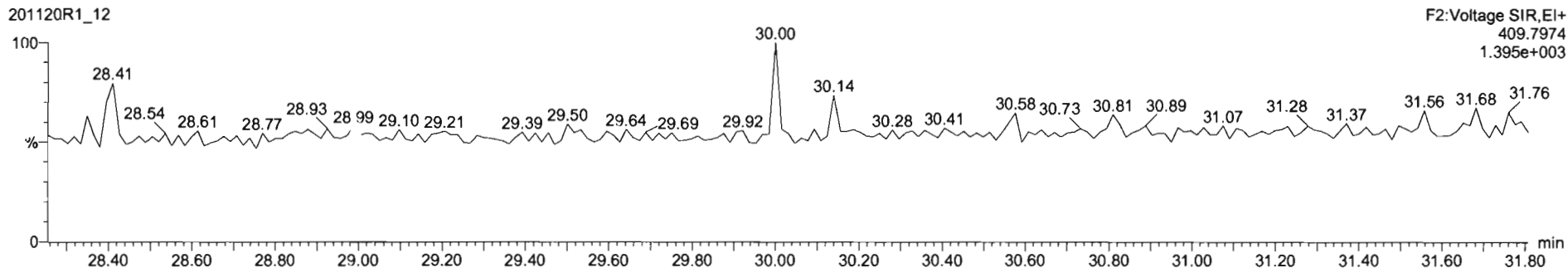


201120R1\_12



**DPE2**

201120R1\_12



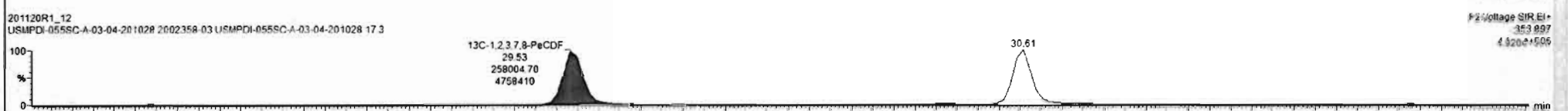
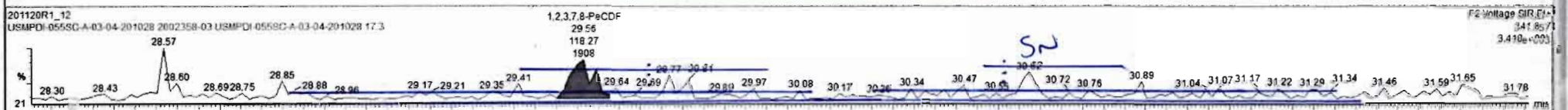
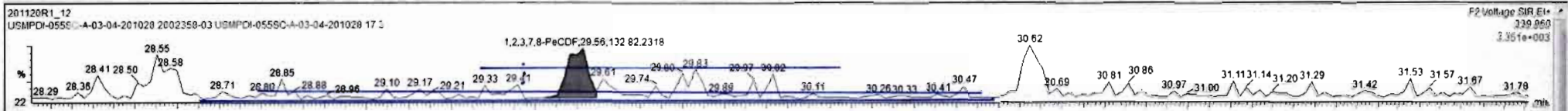


TargetLynx - 201120R1\_12.qld - (Chromatogram)

File Edit View Display Processing Window Help

201120R1\_12\_2002358\_03 USMPDI 055SC A 03 04 201028 17 3 USMPDI 055SC A 03 04 201028

#	Name	Resp	RA	ny	RRF	wtval	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9501	10.334			1.25	0.0669	1.42	
40	Total Penta-Dioxins				0.8855	10.334			0.353	0.134	1.09	
41	Total Hexa-Dioxins				0.9145	10.334			2.63	0.138	2.63	
42	Total Hepta-Dioxins				0.8697	10.334			5.61	0.189	5.61	
43	Total Tetra-Furans				0.8243	10.334			0.516	0.0816	0.792	
44	1st Func. Penta-Furans				0.9626	10.334				0.0160		
45	Total Penta-Furans				0.9626	10.334			0.000	0.0242	0.0662	
46	Total Hexa-Furans				0.9907	10.334				0.0347		
47	Total Hepta-Furans				0.9986	10.334				0.0400		
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	OPE1											
54	OPE2											
55	OPE3											
56	OPE4											
57	OPE5											



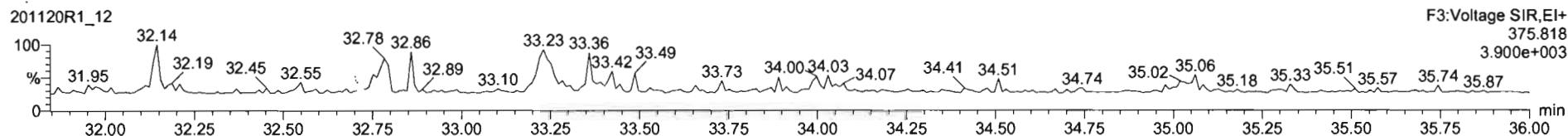
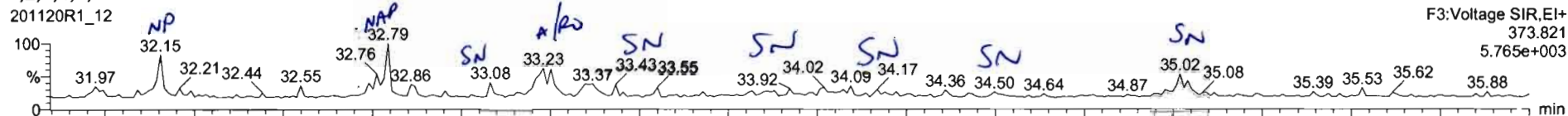


Dataset: Untitled

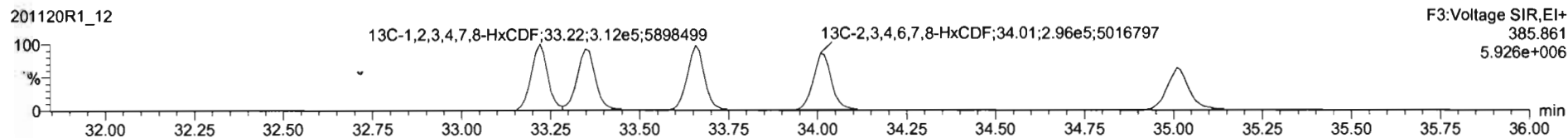
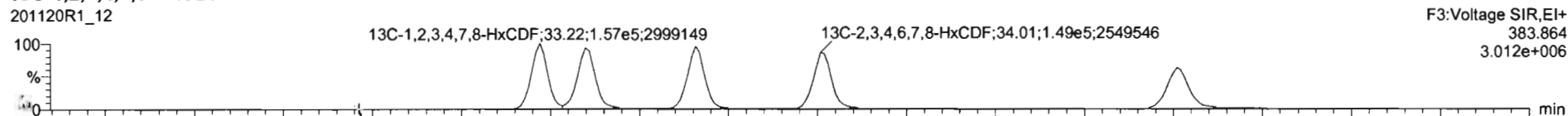
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

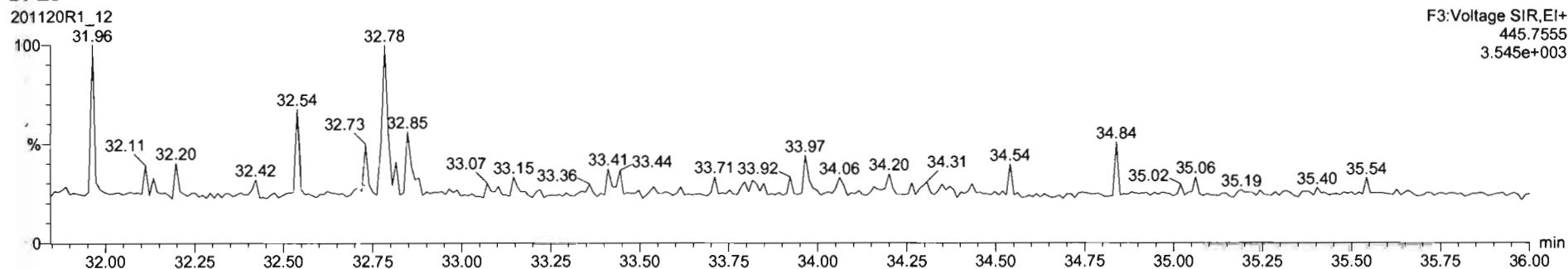
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



DPE3

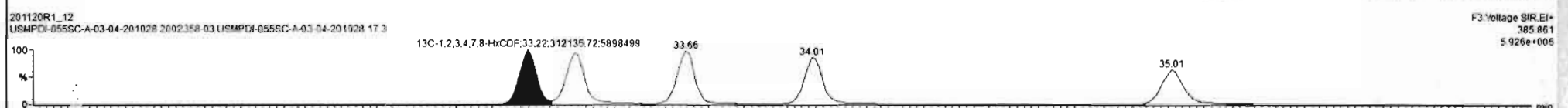
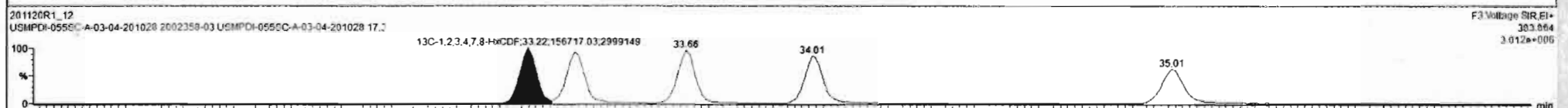
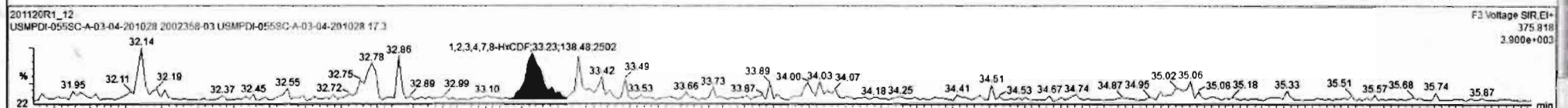
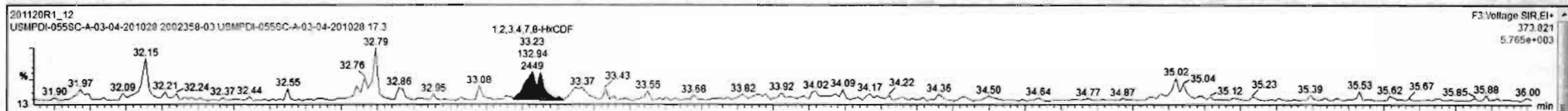


TargetLynx - 201120R1\_12.qld - (Chromatogram)

File Edit View Display Processing Window Help

201120R1\_12 - 2002358-03 USMPDI-055SC A 03-04-201028 17.3 USMPDI-055SC A 03-04-201028

Name	Resp	RA	n/y	RRF	wt/vol	PT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9501	10.334			1.25	0.0669	1.42	
40	Total Penta-Dioxins			0.8855	10.334			0.353	0.134	1.09	
41	Total Hexa-Dioxins			0.9145	10.334			2.63	0.138	2.63	
42	Total Hepta-Dioxins			0.8697	10.334			5.61	0.189	5.61	
43	Total Tetra-Furans			0.8243	10.334			0.516	0.0816	0.792	
44	1st Fur - Penta-Furans			0.9626	10.334				0.0160		
45	Total Penta-Furans			0.9626	10.334			0.000	0.0242	0.0662	
46	Total Hexa-Furans			0.9907	10.334			0.000	0.0347	0.104	
47	Total Hepta-Furans			0.9988	10.334				0.0400		
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										

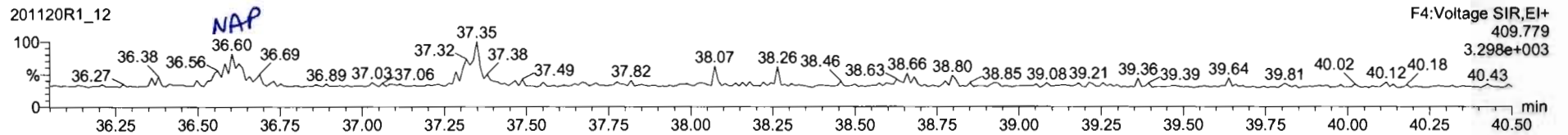
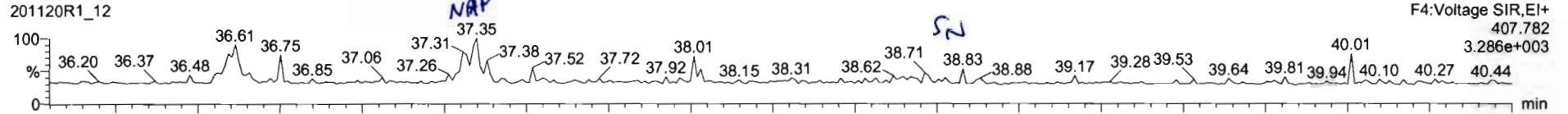


Dataset: Untitled

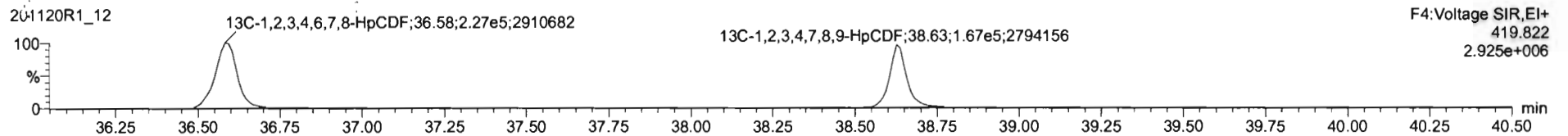
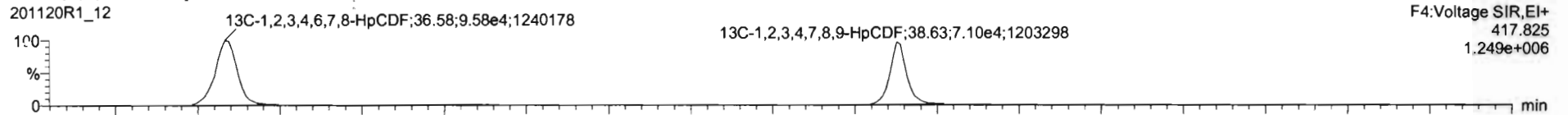
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

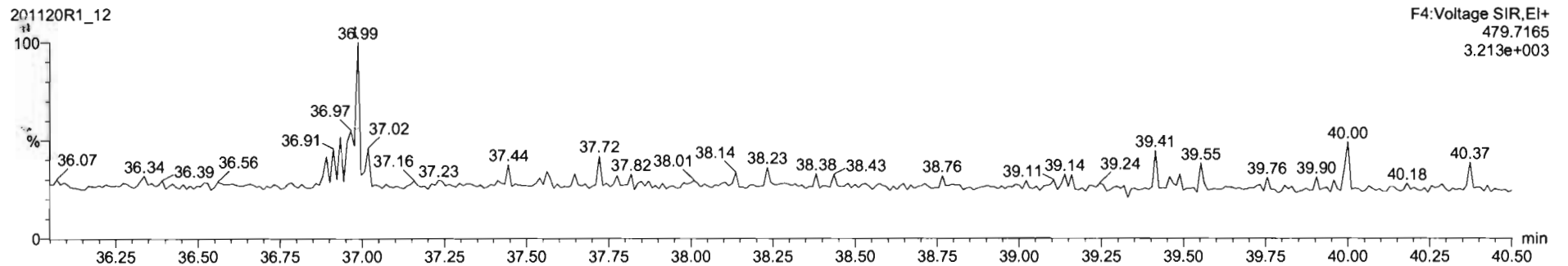
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



DPE4



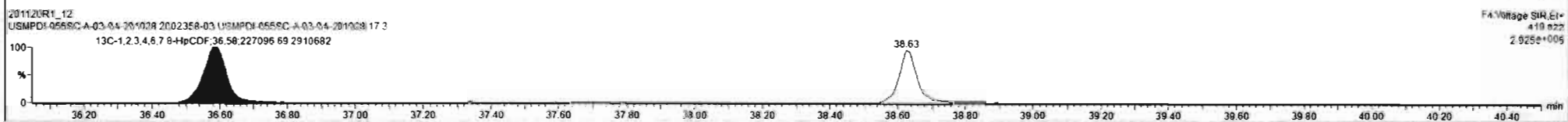
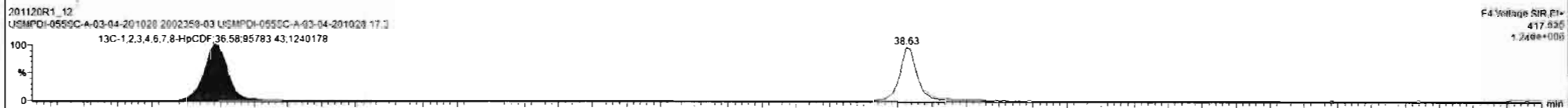
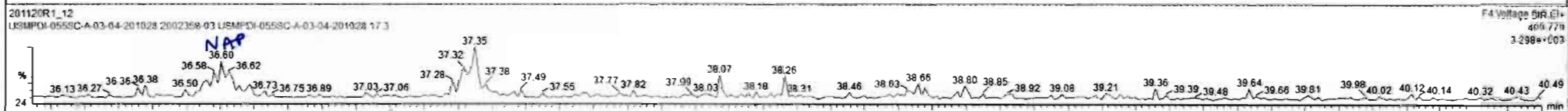
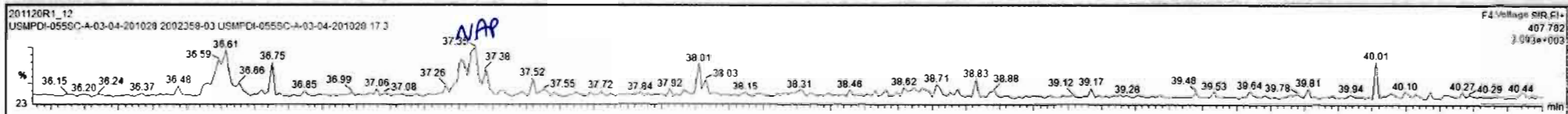


TargetLynx - 201120R1\_12.qtd - Chromatogram

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201120R1\_12 - 2002358-03 USMPDI-055SC-A-03-04-201028 17.3 USMPDI-055SC-A-03-04-201028

#	Name	Resp	RA	ny	RRF	wVvol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9501	10.334			1.25	0.0669	1.42	
40	Total Penta-Dioxins				0.8855	10.334			0.353	0.134	1.09	
41	Total Hexa-Dioxins				0.9145	10.334			2.63	0.136	2.63	
42	Total Hepta-Dioxins				0.8697	10.334			5.61	0.189	5.61	
43	Total Tetra-Furans				0.8243	10.334			0.516	0.0816	0.792	
44	1st Func. Penta-Furans				0.9626	10.334				0.0160		
45	Total Penta-Furans				0.9626	10.334			0.000	0.0242	0.0662	
46	Total Hexa-Furans				0.9907	10.334			0.000	0.0347	0.104	
47	Total Hepta-Furans				0.9998	10.334				0.0400		
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											

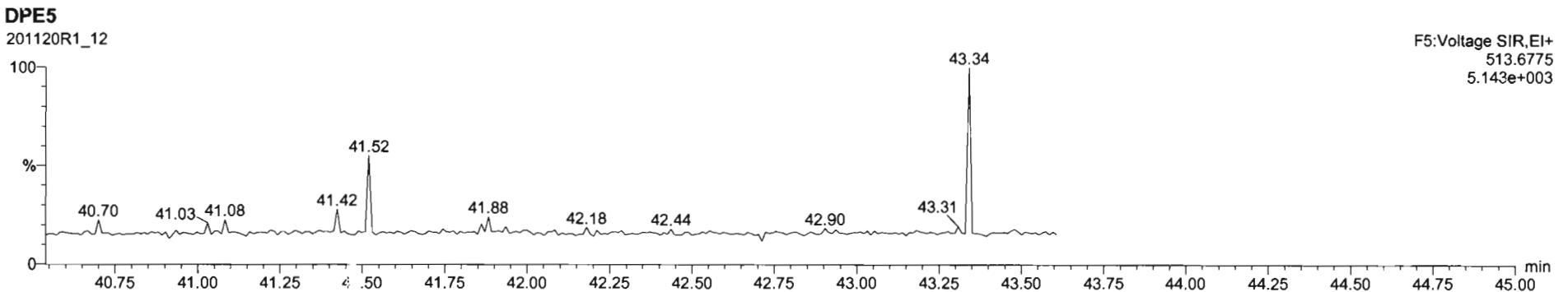
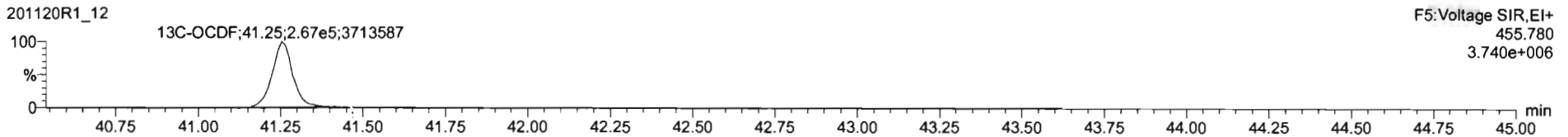
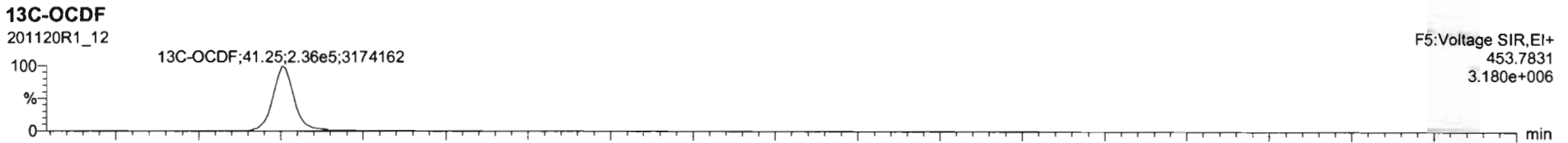
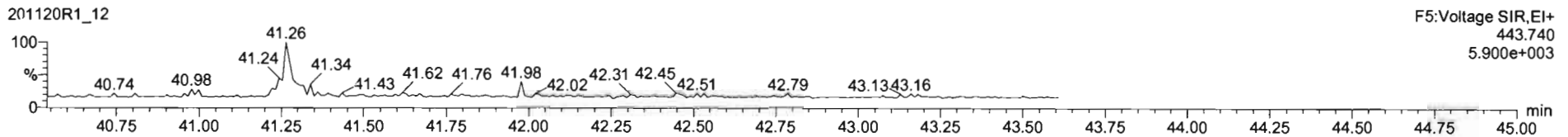
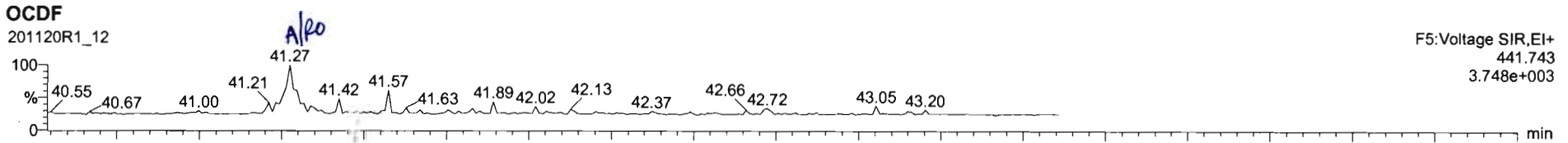


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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

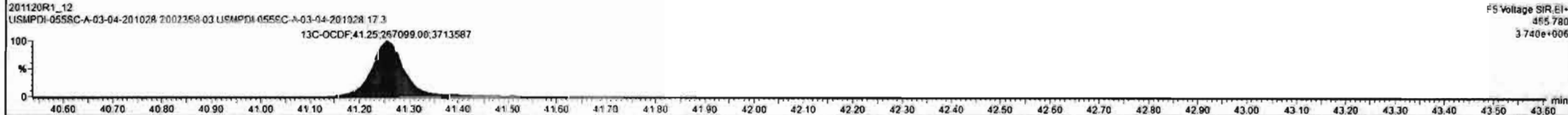
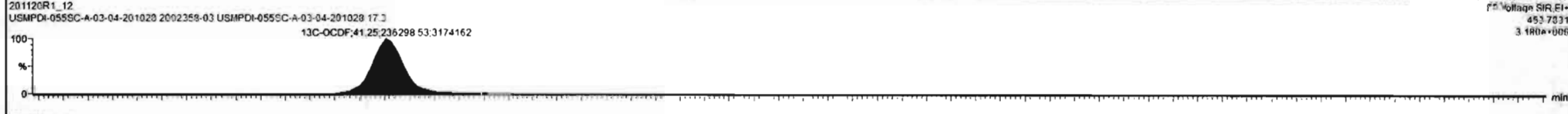
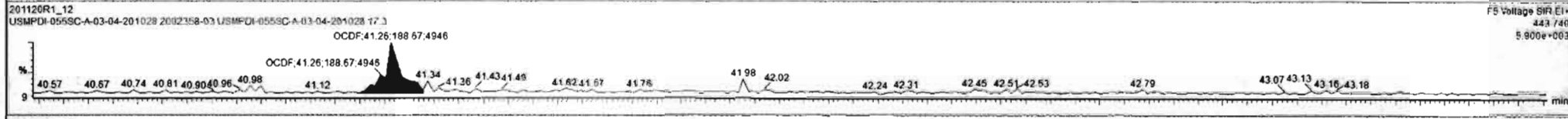
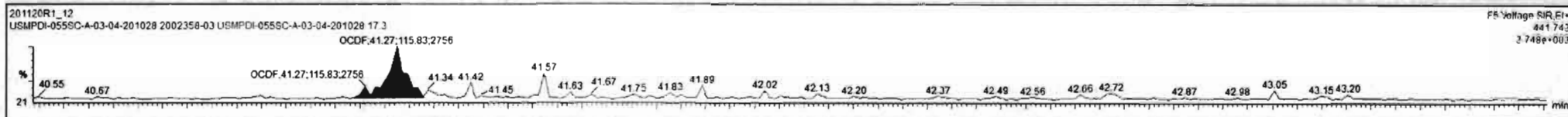


TargetLynx - 201120R1\_12.d - Chromatogram

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201120R1\_12 2002358 03 USMPDI 055SC A 03 04 201028 17.3 USMPDI 055SC A 03 04 201028

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	7.22e2	0.39	YES	0.9501	10.334	26.08	1.001	0.252		0.0669	0.163
2 1,2,3,7,8-PeCDD	4.66e2	1.12	YES	0.8855	10.334	30.81	1.000	0.232		0.134	0.179
3 1,2,3,4,7,8-HxCDD			NO	1.0178	10.334					0.132	
4 1,2,3,6,7,8-HxCDD			NO	0.9145	10.334					0.128	
5 1,2,3,7,8,9-HxCDD			NO	0.9345	10.334					0.138	
6 1,2,3,4,6,7,8-HpCDD	3.12e3	1.07	NO	0.8697	10.334	38.03	1.001	2.03		0.189	2.03
7 OCDD	2.29e4	0.88	NO	0.8717	10.334	40.98	1.000	21.0		0.214	21.0
8 2,3,7,8-TCDF	9.13e2	0.77	NO	0.8243	10.334	25.42	1.001	0.273		0.0816	0.273
9 1,2,3,7,8-PeCDF			NO	0.9626	10.334					0.0507	
10 2,3,4,7,8-PeCDF			NO	1.0684	10.334					0.0428	
11 1,2,3,4,7,8-HxCDF			NO	0.9535	10.334					0.0534	
12 1,2,3,6,7,8-HxCDF			NO	1.0080	10.334					0.0543	
13 2,3,4,6,7,8-HxCDF			NO	0.9907	10.334					0.0605	
14 1,2,3,7,8,9-HxCDF			NO	0.9506	10.334					0.0859	
15 1,2,3,4,6,7,8-HpCDF			NO	0.9986	10.334					0.0766	
16 1,2,3,4,7,8,9-HpCDF			NO	1.1238	10.334					0.0705	
17 OCDF	3.94e2	0.81	YES	0.8682	10.334	41.27	1.001	0.270		0.127	0.218
18 13C-2,3,7,8-TCDD	5.83e5	0.80	NO	1.1089	10.334	26.07	1.039	216	111	0.295	
19 13C-1,2,3,7,8-PeCDD	4.39e5	0.67	NO	0.8585	10.334	30.80	1.217	209	108	0.426	





Dataset: Untitled

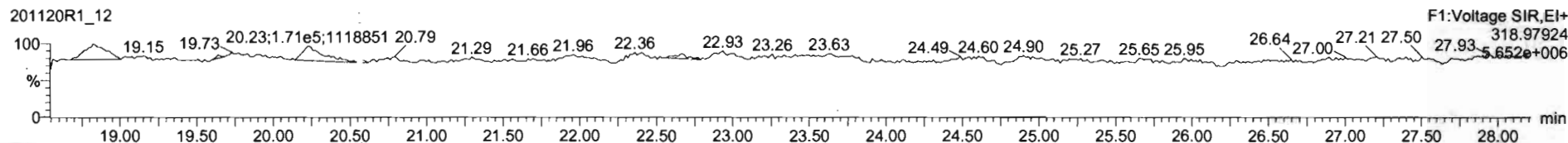
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_12, Date: 20-Nov-2020, Time: 16:07:54, ID: 2002358-03 USMPDI-055SC-A-03-04-201028 17.3, Description: USMPDI-055SC-A-03-04-201028

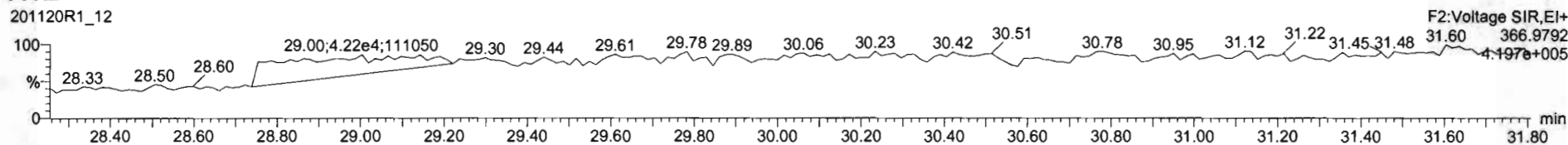
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201120R1\_12



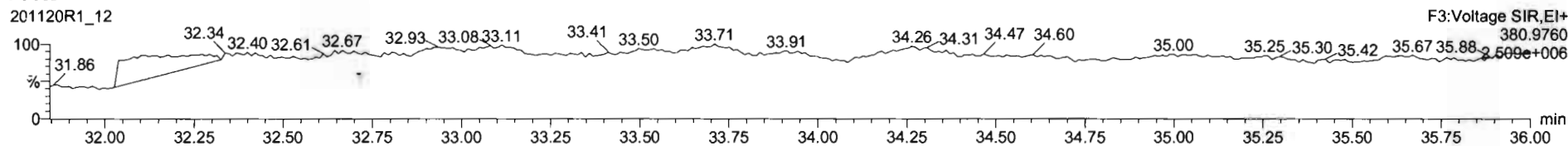
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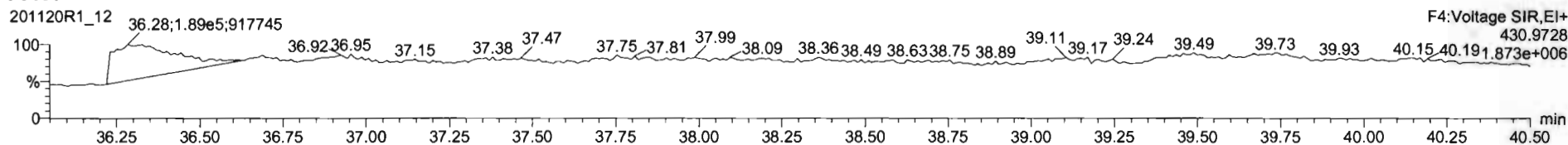
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201120R1\_12



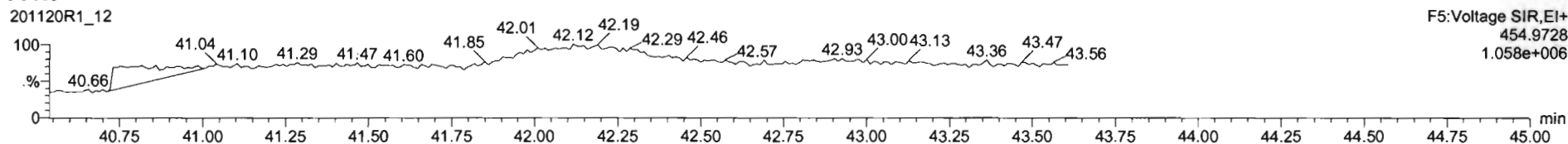
PFK4

201120R1\_12



PFK5

201120R1\_12



Dataset: U:\VG12.PRO\Results\201120R1\201120R1-13.qld

Last Altered: Monday, November 23, 2020 10:51:40 AM Pacific Standard Time

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*GPB 11/23/2020*

*CT 11/30/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.950	10.052	26.112		1.001				0.0569	
2	2 1,2,3,7,8-PeCDD			NO	0.885	10.052	30.819		1.000				0.114	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.052	34.135		1.000				0.0922	
4	4 1,2,3,6,7,8-HxCDD			NO	0.915	10.052	34.263		1.000				0.0933	
5	5 1,2,3,7,8,9-HxCDD			NO	0.934	10.052	34.529		1.000				0.0966	
6	6 1,2,3,4,6,7,8-HpCDD	1.73e3	1.11	NO	0.870	10.052	38.020	38.03	1.000	1.000	1.2536		0.236	1.25
7	7 OCDD	1.12e4	0.93	NO	0.872	10.052	40.977	40.99	1.000	1.000	11.255		0.239	11.3
8	8 2,3,7,8-TCDF	2.80e2	0.86	NO	0.824	10.052	25.396	25.40	1.000	1.001	0.092312		0.0128	0.0923
9	9 1,2,3,7,8-PeCDF	6.34e2	1.33	NO	0.963	10.052	29.558	29.55	1.000	1.000	0.21197		0.0505	0.212
10	10 2,3,4,7,8-PeCDF	2.59e2	1.23	YES	1.07	10.052	30.608	30.64	1.000	1.001	0.078973		0.0398	0.0717
11	11 1,2,3,4,7,8-HxCDF	1.11e3	1.13	NO	0.953	10.052	33.231	33.24	1.000	1.000	0.54536		0.0503	0.545
12	12 1,2,3,6,7,8-HxCDF	5.46e2	1.17	NO	1.01	10.052	33.359	33.37	1.000	1.000	0.24888		0.0478	0.249
13	13 2,3,4,6,7,8-HxCDF			NO	0.991	10.052	34.022		1.000				0.0515	
14	14 1,2,3,7,8,9-HxCDF			NO	0.951	10.052	35.020		1.000				0.0728	
15	15 1,2,3,4,6,7,8-HpCDF	1.12e3	0.88	NO	0.999	10.052	36.597	36.61	1.000	1.001	0.75001		0.157	0.750
16	16 1,2,3,4,7,8,9-HpCDF	3.48e2	1.00	NO	1.12	10.052	38.648	38.66	1.000	1.000	0.27012		0.161	0.270
17	17 OCDF	8.91e2	0.94	NO	0.868	10.052	41.273	41.26	1.000	1.000	0.84560		0.149	0.846
18	18 13C-2,3,7,8-TCDD	5.43e5	0.78	NO	1.11	10.052	26.073	26.08	1.030	1.030	213.97	108	0.266	
19	19 13C-1,2,3,7,8-PeCDD	4.10e5	0.66	NO	0.859	10.052	30.792	30.81	1.216	1.217	208.54	105	0.602	
20	20 13C-1,2,3,4,7,8-HxCDD	3.56e5	1.29	NO	0.700	10.052	34.135	34.13	1.014	1.014	227.52	114	0.732	
21	21 13C-1,2,3,6,7,8-HxCDD	4.08e5	1.28	NO	0.833	10.052	34.273	34.25	1.018	1.017	218.91	110	0.615	
22	22 13C-1,2,3,7,8,9-HxCDD	3.91e5	1.25	NO	0.762	10.052	34.515	34.52	1.025	1.025	229.65	115	0.673	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.15e5	1.04	NO	0.650	10.052	38.000	38.02	1.129	1.129	216.98	109	0.918	
24	24 13C-OCDD	4.53e5	0.90	NO	0.539	10.052	40.966	40.98	1.217	1.217	375.76	94.4	0.786	
25	25 13C-2,3,7,8-TCDF	7.31e5	0.77	NO	0.981	10.052	25.395	25.39	1.003	1.003	209.76	105	0.351	
26	26 13C-1,2,3,7,8-PeCDF	6.18e5	1.61	NO	0.792	10.052	29.524	29.55	1.166	1.167	219.80	110	0.618	
27	27 13C-2,3,4,7,8-PeCDF	6.11e5	1.64	NO	0.778	10.052	30.582	30.61	1.208	1.209	220.95	111	0.629	
28	28 13C-1,2,3,4,7,8-HxCDF	4.26e5	0.51	NO	0.954	10.052	33.226	33.23	0.987	0.987	199.62	100	0.718	
29	29 13C-1,2,3,6,7,8-HxCDF	4.33e5	0.49	NO	1.01	10.052	33.357	33.36	0.991	0.991	192.27	96.6	0.681	
30	30 13C-2,3,4,6,7,8-HxCDF	4.09e5	0.50	NO	0.921	10.052	34.027	34.02	1.011	1.010	198.50	99.8	0.743	

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-13.qld

Last Altered: Monday, November 23, 2020 10:51:40 AM Pacific Standard Time

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Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	3.72e5	0.50	NO	0.803	10.052	35.024	35.02	1.040	1.040	207.26	104	0.852	
32	32 13C-1,2,3,4,6,7,8-HpCDF	2.99e5	0.42	NO	0.735	10.052	36.593	36.59	1.087	1.087	181.57	91.3	0.730	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.28e5	0.41	NO	0.568	10.052	38.630	38.65	1.147	1.148	179.75	90.3	0.946	
34	34 13C-OCDF	4.83e5	0.89	NO	0.629	10.052	41.249	41.26	1.225	1.226	343.03	86.2	0.628	
35	35 37Cl-2,3,7,8-TCDD	2.25e5			1.09	10.052	26.073	26.10	1.030	1.031	90.243	113	0.117	
36	36 13C-1,2,3,4-TCDD	4.56e5	0.80	NO	1.00	10.052	25.370	25.31	1.000	1.000	198.96	100	0.295	
37	37 13C-1,2,3,4-TCDF	7.07e5	0.79	NO	1.00	10.052	23.870	23.82	1.000	1.000	198.96	100	0.344	
38	38 13C-1,2,3,4,6,9-HxCDF	4.45e5	0.51	NO	1.00	10.052	33.710	33.67	1.000	1.000	198.96	100	0.685	
39	39 Total Tetra-Dioxins				0.950	10.052	24.620		0.000		0.22736		0.0319	0.227
40	40 Total Penta-Dioxins				0.885	10.052	29.960		0.000		0.15113		0.0531	0.241
41	41 Total Hexa-Dioxins				0.915	10.052	33.635		0.000		1.2081		0.0980	1.21
42	42 Total Hepta-Dioxins				0.870	10.052	37.640		0.000		3.1427		0.236	3.14
43	43 Total Tetra-Furans				0.824	10.052	23.610		0.000		0.092312		0.0128	0.226
44	44 1st Func. Penta-Furans				0.963	10.052	26.930		0.000				0.00831	
45	45 Total Penta-Furans				0.963	10.052	29.275		0.000		0.32487		0.0474	0.397
46	46 Total Hexa-Furans				0.991	10.052	33.555		0.000		0.96902		0.0541	1.04
47	47 Total Hepta-Furans				0.999	10.052	37.835		0.000		1.5413		0.168	1.54

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-13.qld

Last Altered: Monday, November 23, 2020 10:51:40 AM Pacific Standard Time

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Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.00	2.930e3	5.650e3	2.458e2	3.443e2	0.71	NO	5.901e2	0.22736	0.22736	0.0319

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.00	2.076e3	4.327e3	1.080e2	1.678e2	0.64	NO	2.758e2	0.15113	0.15113	0.0531
2	Total Penta-Dioxins	29.52	3.046e3	2.129e3	1.704e2	1.011e2	1.69	YES	0.000e0	0.00000	0.090281	0.0531

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.52	1.242e4	1.179e4	6.630e2	5.864e2	1.13	NO	1.249e3	0.70584	0.70584	0.0980
2	Total Hexa-Dioxins	33.39	6.760e3	6.550e3	5.029e2	3.861e2	1.30	NO	8.890e2	0.50223	0.50223	0.0980

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.00	1.721e4	1.671e4	1.265e3	1.339e3	0.94	NO	2.604e3	1.8891	1.8891	0.236
2	1,2,3,4,6,7,8-HpCDD	38.03	1.423e4	1.214e4	9.074e2	8.204e2	1.11	NO	1.728e3	1.2536	1.2536	0.236

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.43	7.720e2	1.718e3	9.142e1	1.841e2	0.50	YES	0.000e0	0.00000	0.069349	0.0128
2	Total Tetra-Furans	24.40	4.013e3	1.913e3	1.379e2	1.097e2	1.26	YES	0.000e0	0.00000	0.064076	0.0128
3	2,3,7,8-TCDF	25.40	3.087e3	2.291e3	1.290e2	1.507e2	0.86	NO	2.797e2	0.092312	0.092312	0.0128

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Dataset: U:\VG12.PRO\Results\201120R1\201120R1-13.qld

Last Altered: Monday, November 23, 2020 10:51:40 AM Pacific Standard Time

Printed: Monday, November 23, 2020 10:59:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

Penta-Furans function 1

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1												

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.57	3.289e3	2.286e3	2.061e2	1.295e2	1.59	NO	3.356e2	0.11290	0.11290	0.0474
2	1,2,3,7,8-PeCDF	29.55	8.363e3	4.915e3	3.617e2	2.723e2	1.33	NO	6.340e2	0.21197	0.21197	0.0505
3	2,3,4,7,8-PeCDF	30.64	2.885e3	2.141e3	1.429e2	1.160e2	1.23	YES	2.589e2	0.00000	0.071720	0.0398

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.14	3.435e3	3.508e3	1.971e2	1.597e2	1.23	NO	3.568e2	0.17478	0.17478	0.0541
2	Total Hexa-Furans	32.78	2.458e3	1.653e3	1.055e2	6.213e1	1.70	YES	0.000e0	0.00000	0.068174	0.0541
3	1,2,3,4,7,8-HxCDF	33.24	1.363e4	8.667e3	5.904e2	5.227e2	1.13	NO	1.113e3	0.54536	0.54536	0.0503
4	1,2,3,6,7,8-HxCDF	33.37	5.097e3	4.647e3	2.945e2	2.510e2	1.17	NO	5.456e2	0.24888	0.24888	0.0478

Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.61	7.195e3	7.335e3	5.277e2	5.968e2	0.88	NO	1.125e3	0.75001	0.75001	0.157
2	Total Hepta-Furans	37.35	3.929e3	7.176e3	3.238e2	3.655e2	0.89	NO	6.893e2	0.52121	0.52121	0.168
3	1,2,3,4,7,8,9-HpCDF	38.66	3.326e3	3.648e3	1.740e2	1.743e2	1.00	NO	3.483e2	0.27012	0.27012	0.161



Dataset: Untitled

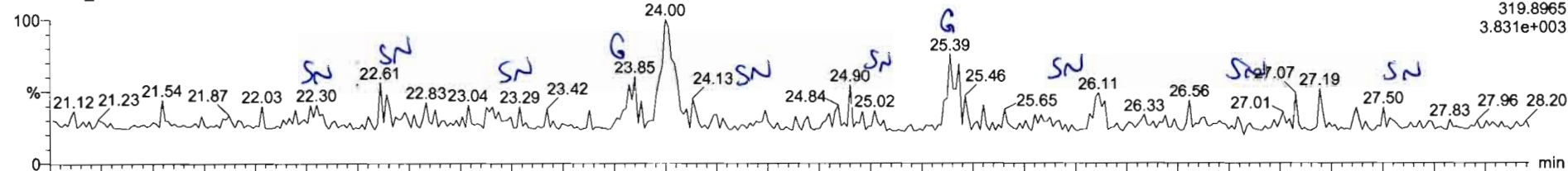
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

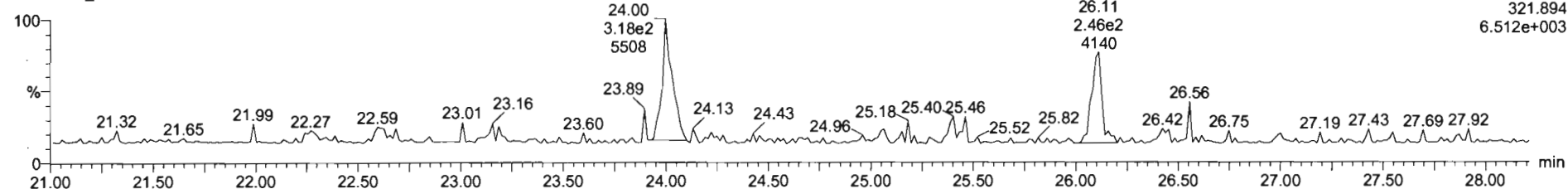
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

**2,3,7,8-TCDD**

201120R1\_13

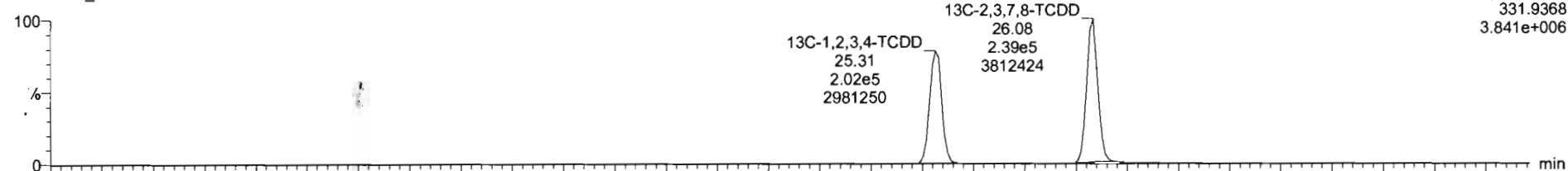


201120R1\_13

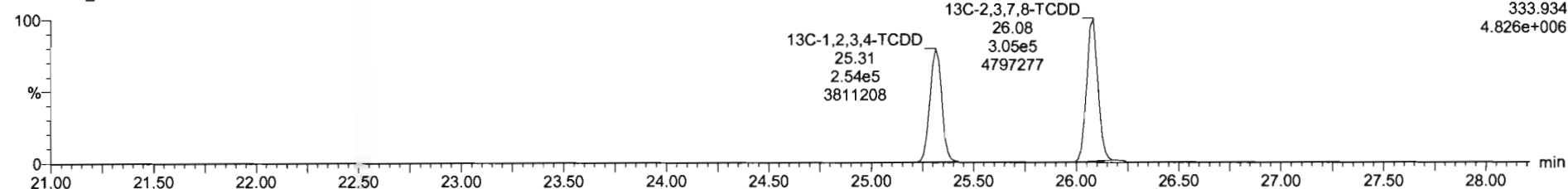


**13C-2,3,7,8-TCDD**

201120R1\_13



201120R1\_13

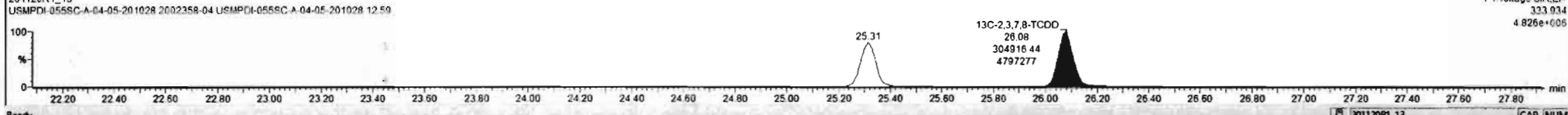
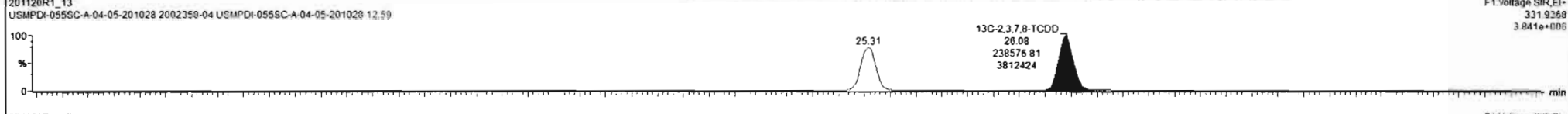
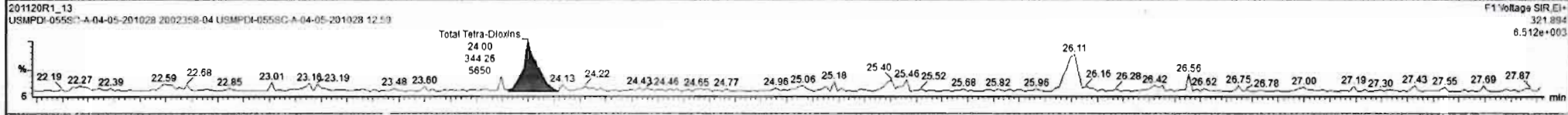
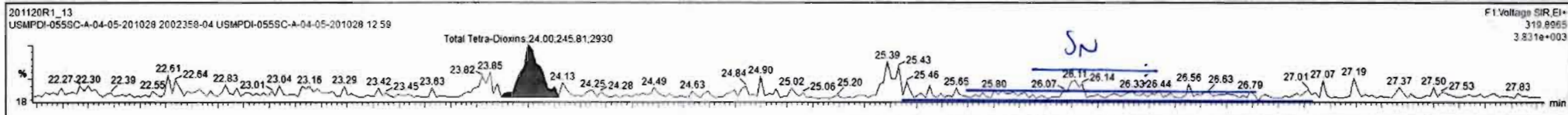


TargetLynx - 201120R1\_13.qld - [Chromatogram]

File Edit View Display Processing Window Help

201120R1\_13\_2002358\_04 USMPDI-055SC-A-04-05-201028 12:59 USMPDI-055SC-A-04-05-201028

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins			0.8855	10.052					0.0531	
41	Total Hexa-Dioxins			0.9145	10.052			1.15		0.0980	1.15
42	Total Hepta-Dioxins			0.8697	10.052			1.86		0.236	2.88
43	Total Tetra-Furans			0.8243	10.052					0.0128	
44	1st Func. Penta-Furans			0.9626	10.052					0.00831	
45	Total Penta-Furans			0.9626	10.052			0.212		0.0474	0.212
46	Total Hexa-Furans			0.9907	10.052			0.794		0.0541	0.794
47	Total Hepta-Furans			0.9986	10.052			0.000		0.0638	1.14
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										



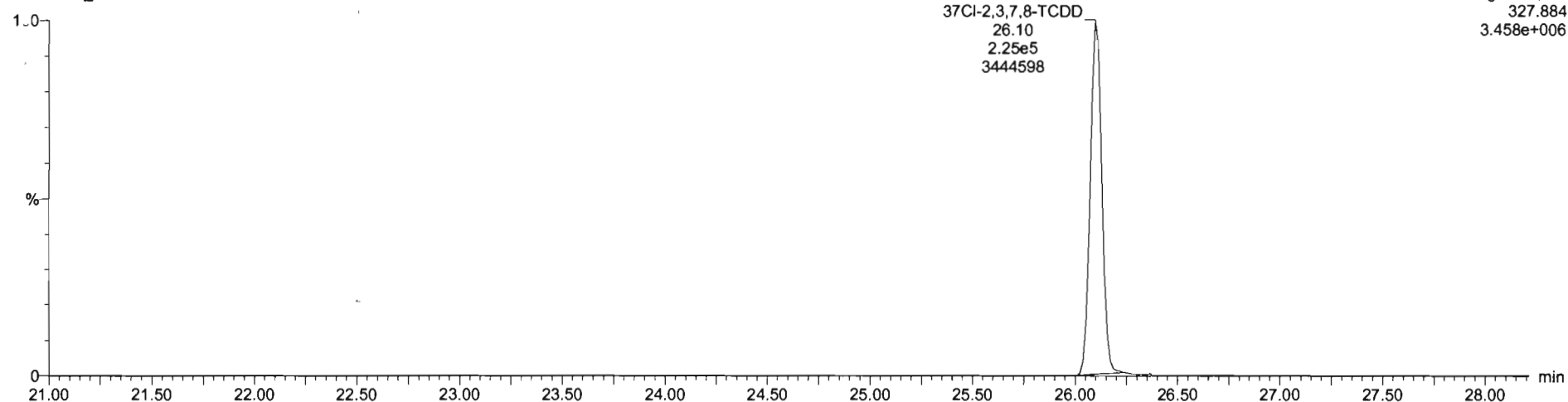
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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

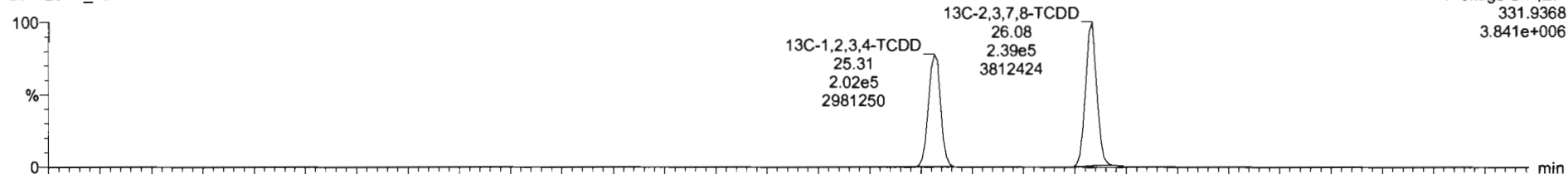
**37Cl-2,3,7,8-TCDD**

201120R1\_13

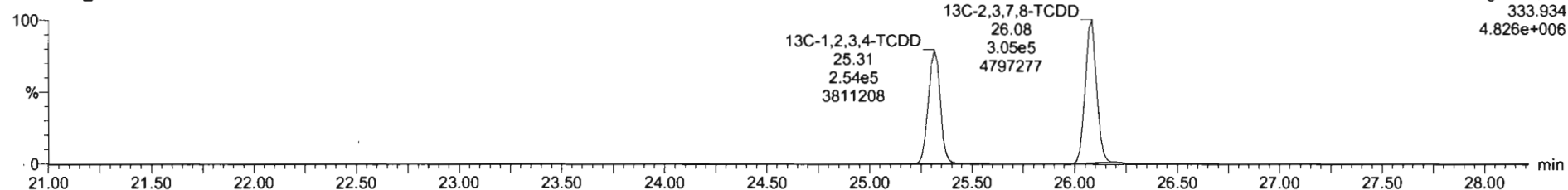


**13C-1,2,3,4-TCDD**

201120R1\_13



201120R1\_13



Dataset: Untitled

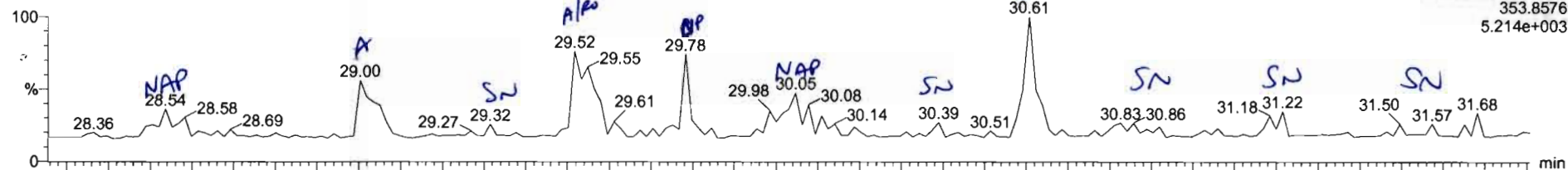
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Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

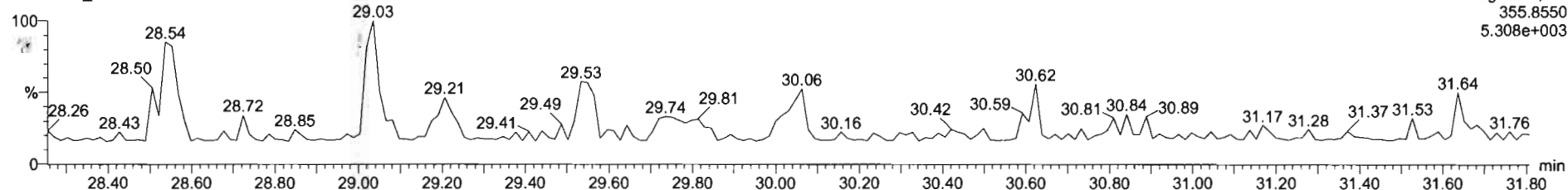
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

1,2,3,7,8-PeCDD

201120R1\_13



201120R1\_13

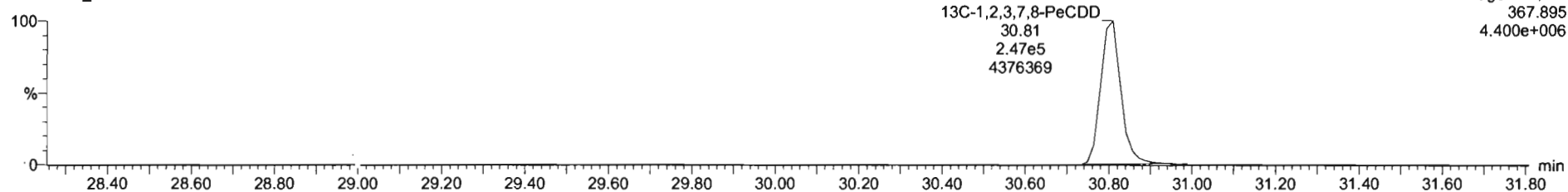


13C-1,2,3,7,8-PeCDD

201120R1\_13



201120R1\_13



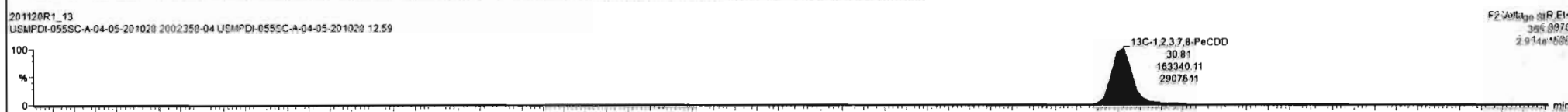
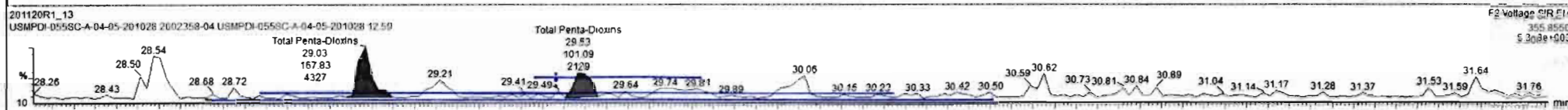
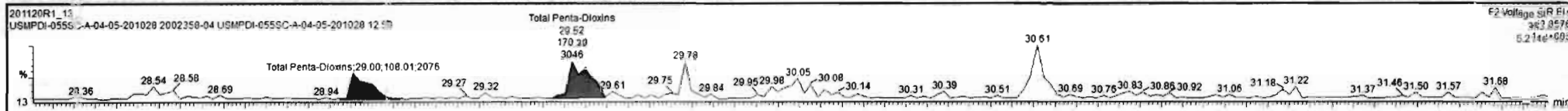


TargetLynx - 201120R1\_13.d [Chromatogram]

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201120R1\_13 - 2002358-04 USMPDI-055SC-A-04-05-201028 12:59 USMPDI-055SC-A-04-05-201028

#	Name	Retp	RA	My	RRF	wtVel	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Te. a-Dioxins				0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins				0.8855	10.052			0.151		0.0531	0.241
41	Total Hexa-Dioxins				0.9145	10.052			1.15		0.0980	1.15
42	Total Hepta-Dioxins				0.8697	10.052			1.86		0.236	2.68
43	Total Tetra-Furans				0.8243	10.052					0.0128	
44	1st Func. Penta-Furans				0.9626	10.052					0.00231	
45	Total Penta-Furans				0.9626	10.052			0.212		0.0474	0.212
46	Total Hexa-Furans				0.9907	10.052			0.794		0.0541	0.794
47	Total Hepta-Furans				0.9988	10.052			0.000		0.0638	1.14
48	PFK1											
49	PFK2											
50	PFK3											
51	PFK4											
52	PFK5											
53	DPE1											
54	DPE2											
55	DPE3											
56	DPE4											
57	DPE5											





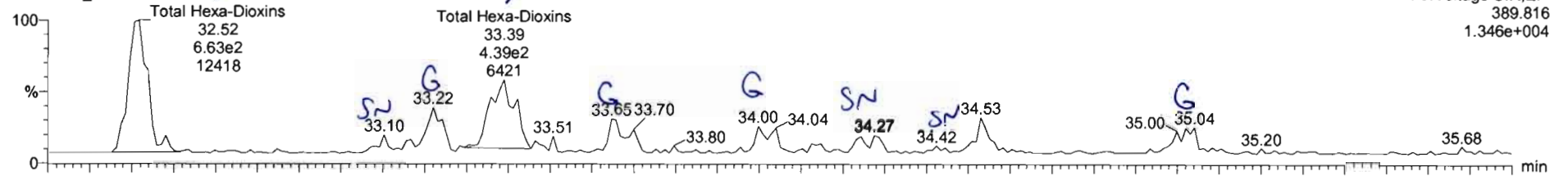
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

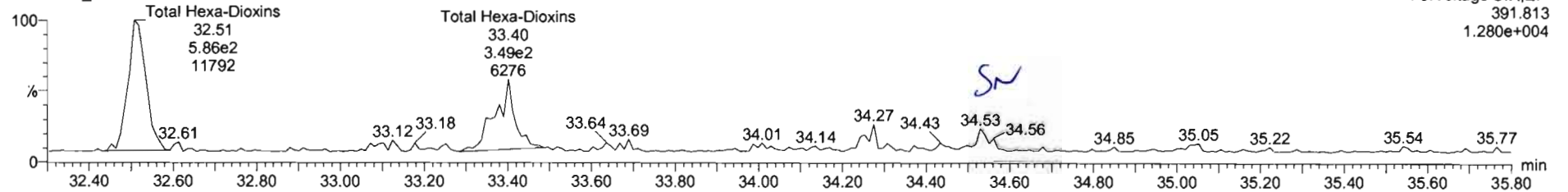
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

1,2,3,4,7,8-HxCDD

201120R1\_13

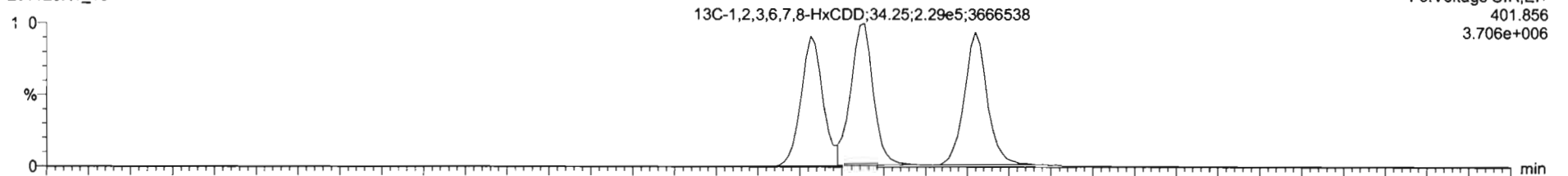


201120R1\_13

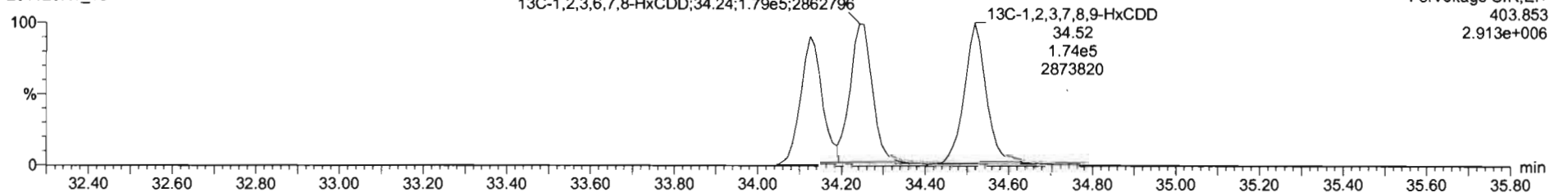


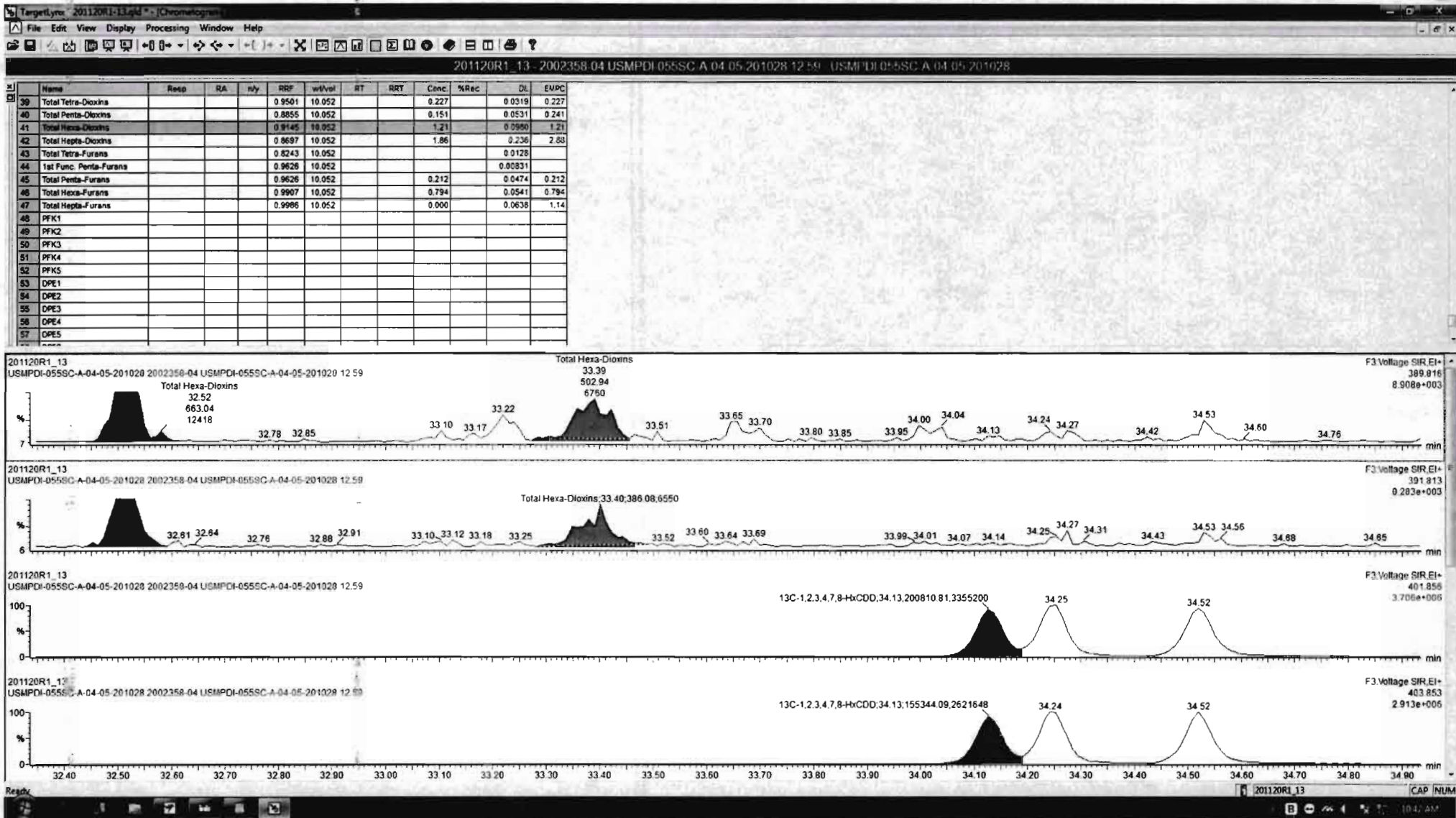
13C-1,2,3,4,7,8-HxCDD

201120R1\_13



201120R1\_13





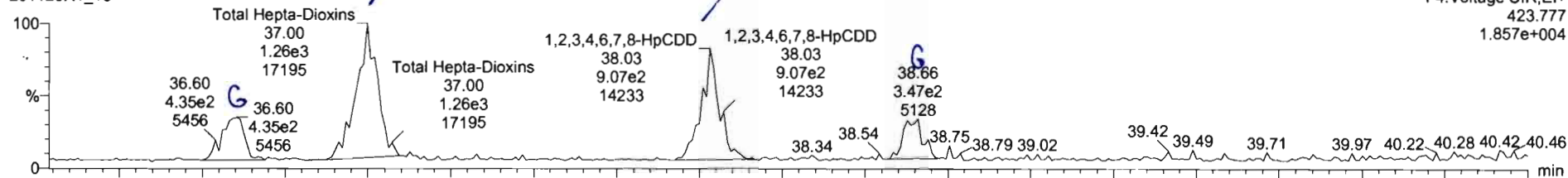
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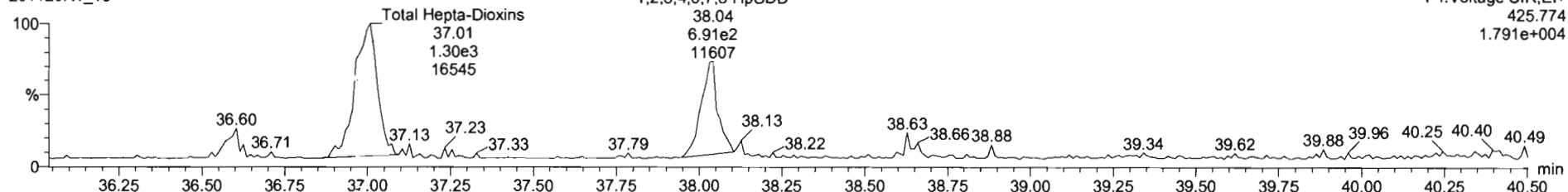
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**1,2,3,4,6,7,8-HpCDD**

201120R1\_13

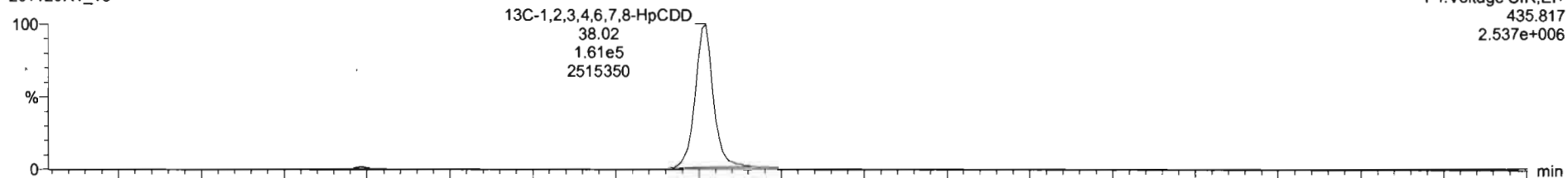


201120R1\_13

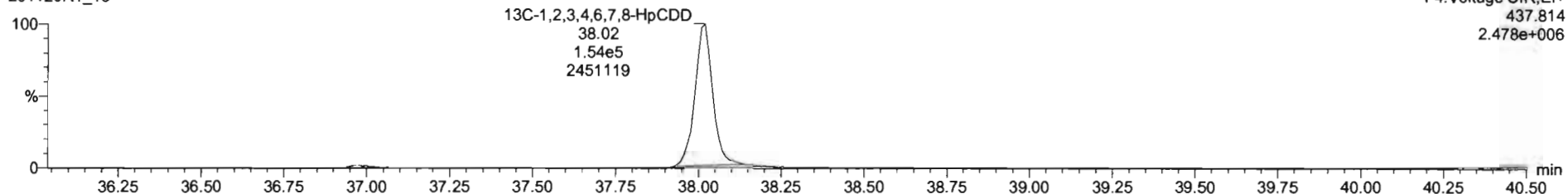


**13C-1,2,3,4,6,7,8-HpCDD**

201120R1\_13



201120R1\_13



TargetLynx - 201120R1\_13.d - [Chromatogram]

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201120R1\_13 - 2002358-04 USMPDI-055SC-A-04-05-201028 12:59 USMPDI-055SC-A-04-05-201028

Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	Wt/Sec	DL	EMPC
39	Total Tetra-Dioxins			0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins			0.8855	10.052			0.151		0.0531	0.241
41	Total Hexa-Dioxins			0.9145	10.052			1.21		0.0980	1.21
42	Total Hepta-Dioxins			0.8997	10.052			3.14		0.236	3.14
43	Total Tetra-Furans			0.8243	10.052					0.0128	
44	1st Func. Penta-Furans			0.9626	10.052					0.00931	
45	Total Penta-Furans			0.9626	10.052			0.212		0.0474	0.212
46	Total Hexa-Furans			0.9907	10.052			0.794		0.0541	0.794
47	Total Hepta-Furans			0.9985	10.052			0.000		0.0638	1.14
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										



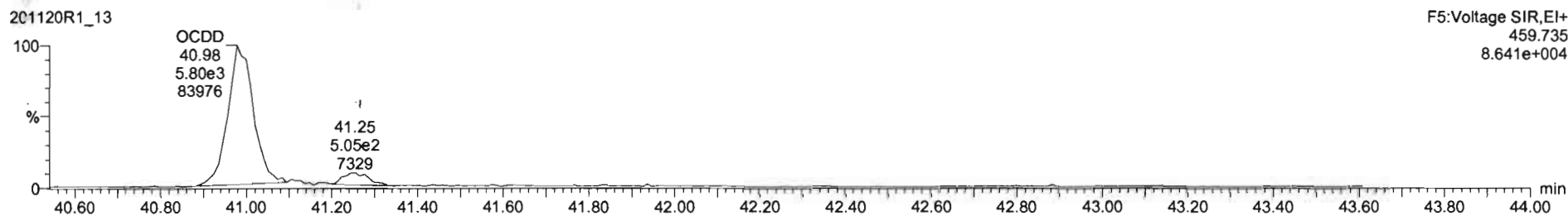
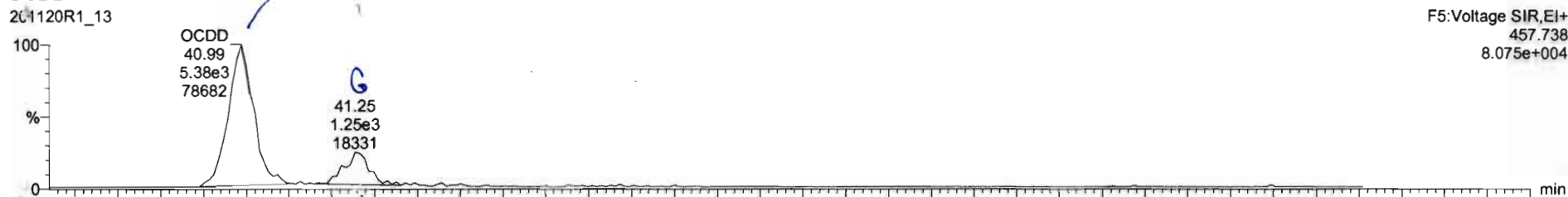


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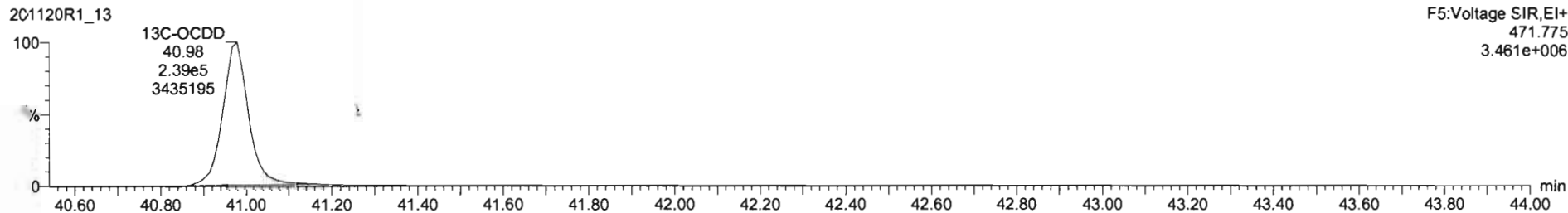
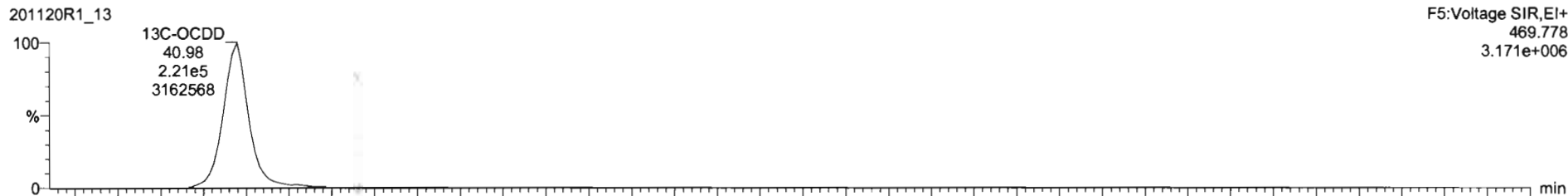
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
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Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

OCDD

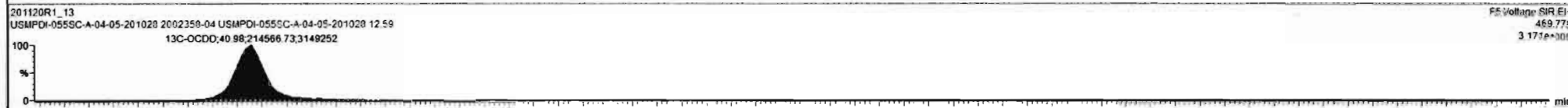


13C-OCDD





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1 2,3,7,8-TCDD			NO	0.9501	10.052					0.0569	
2 1,2,3,7,8-PeCDD			NO	0.8855	10.052					0.114	
3 1,2,3,4,7,8-HxCDD			NO	1.0176	10.052					0.0922	
4 1,2,3,6,7,8-HxCDD			NO	0.9145	10.052					0.0933	
5 1,2,3,7,8,9-HxCDD			NO	0.9345	10.052					0.0966	
6 1,2,3,4,6,7,8-HpCDD	1.60e3	1.31	YES	0.8697	10.052	38.03	1.000	1.16		0.236	1.02
7 OCDD	1.12e4	0.93	NO	0.8717	10.052	40.99	1.000	11.3		0.239	11.3
8 2,3,7,8-TCDF			NO	0.8243	10.052					0.0262	
9 1,2,3,7,8-PeCDF	6.35e2	1.33	NO	0.9826	10.052	29.55	1.000	0.212		0.0505	0.212
10 2,3,4,7,8-PeCDF			NO	1.0684	10.052					0.0398	
11 1,2,3,4,7,8-HxCDF	1.11e3	1.13	NO	0.9535	10.052	33.24	1.000	0.545		0.0503	0.545
12 1,2,3,6,7,8-HxCDF	5.46e2	1.17	NO	1.0080	10.052	33.37	1.000	0.249		0.0478	0.249
13 2,3,4,6,7,8-HxCDF			NO	0.9907	10.052					0.0515	
14 1,2,3,7,8,9-HxCDF			NO	0.9506	10.052					0.0728	
15 1,2,3,4,6,7,8-HpCDF	1.13e3	0.88	YES	0.9986	10.052	36.61	1.001	0.752		0.157	0.690
16 1,2,3,4,7,8,9-HpCDF			NO	1.1238	10.052					0.161	
17 OCDF	7.95e2	0.83	NO	0.8682	10.052	41.28	1.000	0.754		0.149	0.754
18 13C-2,3,7,8-TCDD	5.43e5	0.78	NO	1.1089	10.052	26.08	1.030	214	106	0.266	
19 13C-1,2,3,7,8-PeCDD	4.10e5	0.86	NO	0.8585	10.052	30.81	1.217	209	105	0.602	



Dataset: Untitled

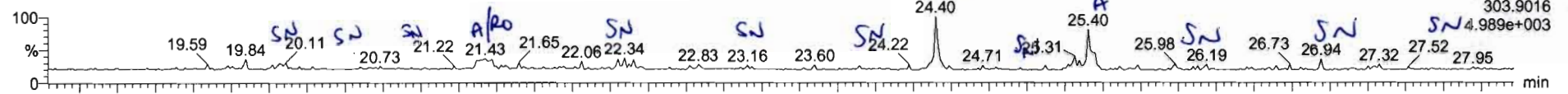
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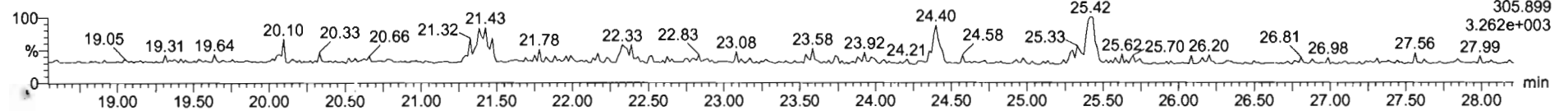
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

**2,3,7,8-TCDF**

201120R1\_13

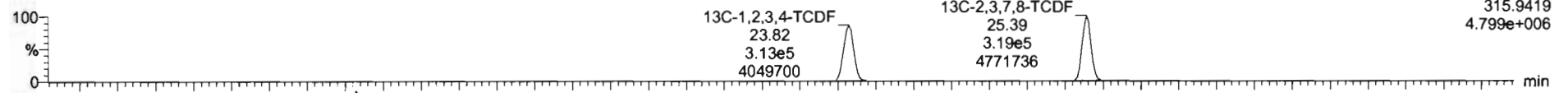


201120R1\_13

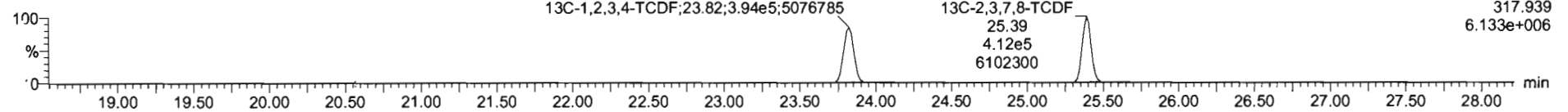


**13C-2,3,7,8-TCDF**

201120R1\_13

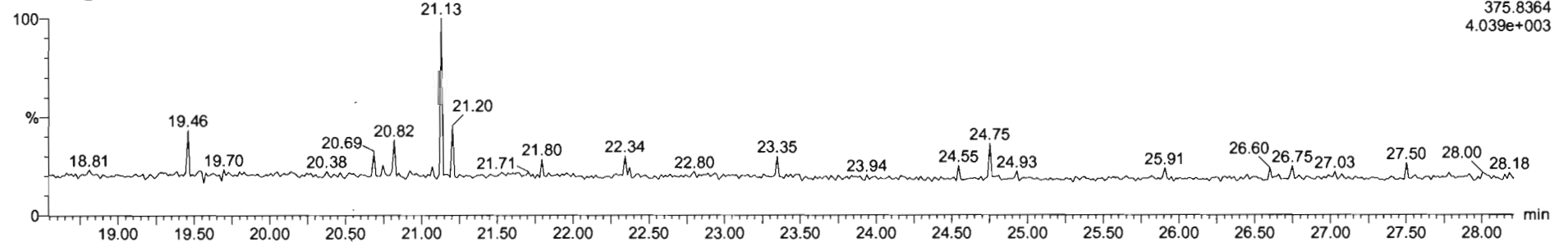


201120R1\_13



**DPE1**

201120R1\_13

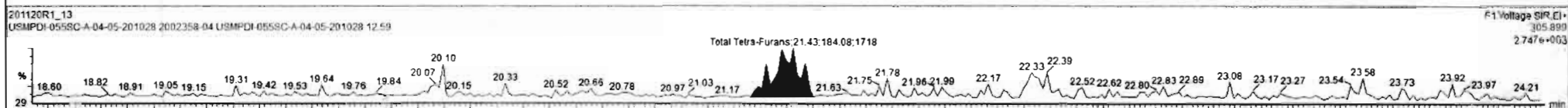
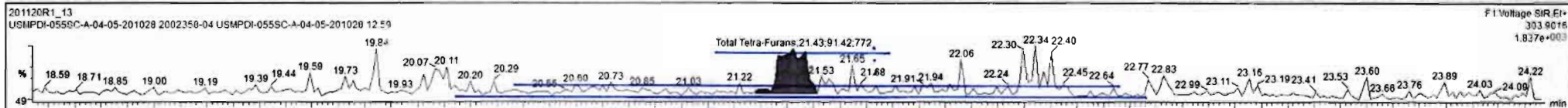


TargetLynx - 201120R1\_13.qld - [Chromatogram]

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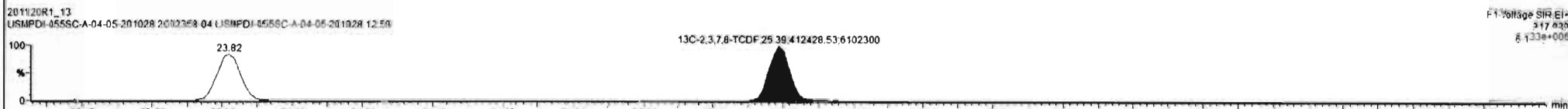
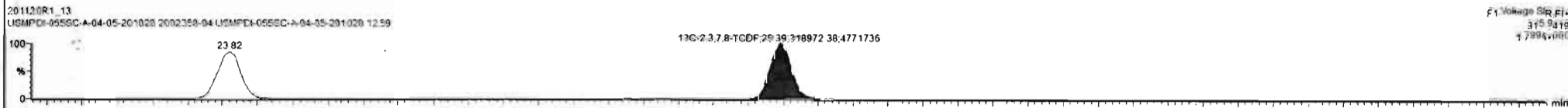
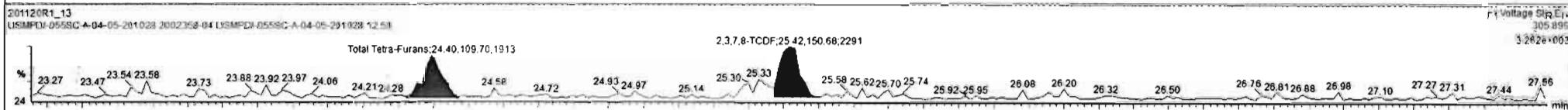
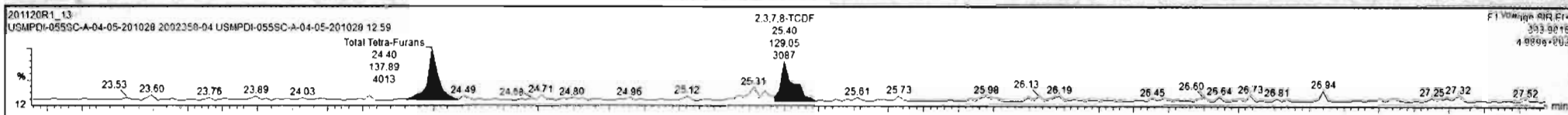
201120R1\_13\_2002358-04 USMPDI-055SC-A-04-05-201028 12:59 - USMPDI-055SC-A-04-05-201028

Name	Retu	RA	n/y	ORF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins			0.8855	10.052			0.151		0.0531	0.241
41	Total Hexa-Dioxins			0.9145	10.052			1.21		0.0980	1.21
42	Total Hepta-Dioxins			0.8697	10.052			3.14		0.236	3.14
43	Total Tetra-Furans			0.8243	10.052			0.000		0.0128	0.0893
44	1st Func. Penta-Furans			0.9626	10.052					0.00331	
45	Total Penta-Furans			0.9626	10.052			0.212		0.0474	0.212
46	Total Hexa-Furans			0.9907	10.052			0.794		0.0541	0.794
47	Total Hepta-Furans			0.9986	10.052			0.000		0.0638	1.14
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										





Name	Resp	RA	n/y	RRF	wtVol	i/T	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9501	10.052			0.227		0.0319	0.227
40 Total Penta-Dioxins				0.8855	10.052			0.151		0.0531	0.241
41 Total Hexa-Dioxins				0.9145	10.052			1.21		0.0980	1.21
42 Total Hepta-Dioxins				0.8697	10.052			3.14		0.236	3.14
43 Total Tetra-Furans				0.8243	10.052			0.0923		0.0128	0.228
44 1st Func. Penta-Furans				0.9626	10.052					0.00831	
45 Total Penta-Furans				0.9626	10.052			0.212		0.0474	0.212
46 Total Hexa-Furans				0.9907	10.052			0.794		0.0541	0.794
47 Total Hepta-Furans				0.9986	10.052			0.000		0.0638	1.14
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											



Dataset: Untitled

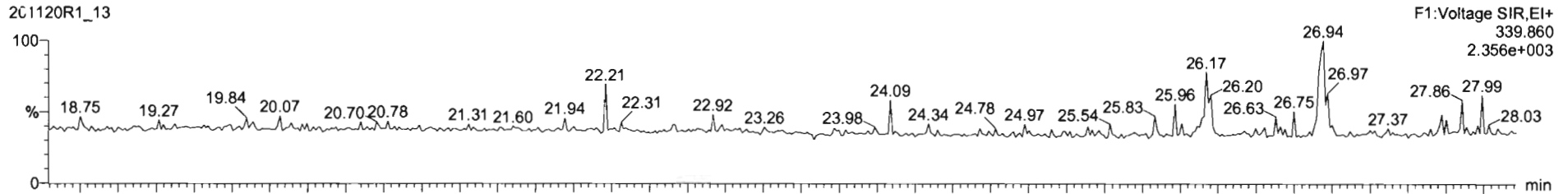
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

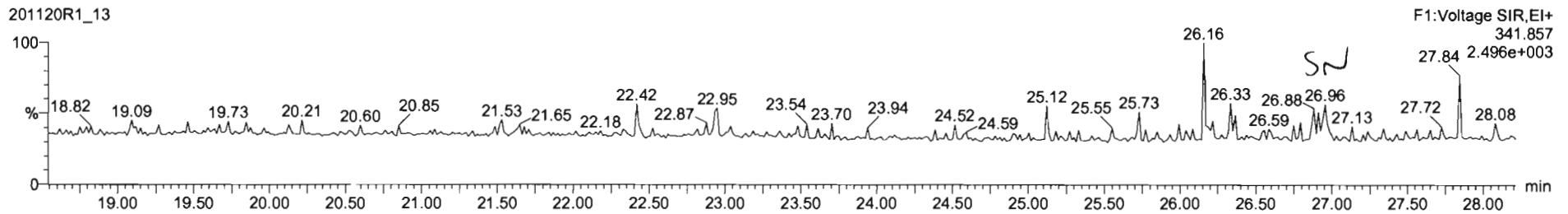
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

1st Func. Penta-Furans

201120R1\_13

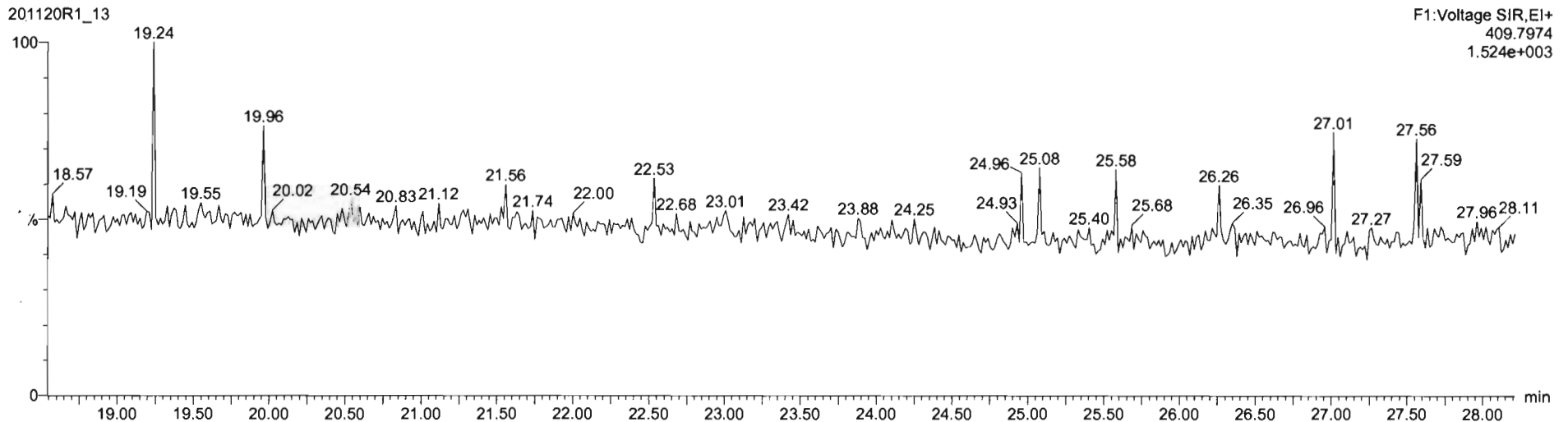


201120R1\_13



DPE6

201120R1\_13



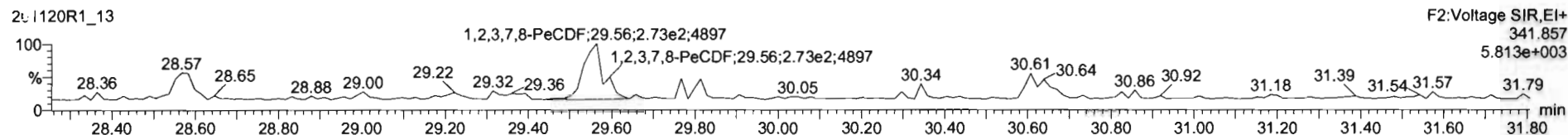
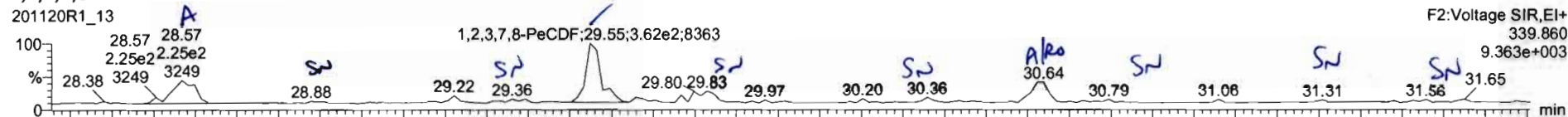


Dataset: Untitled

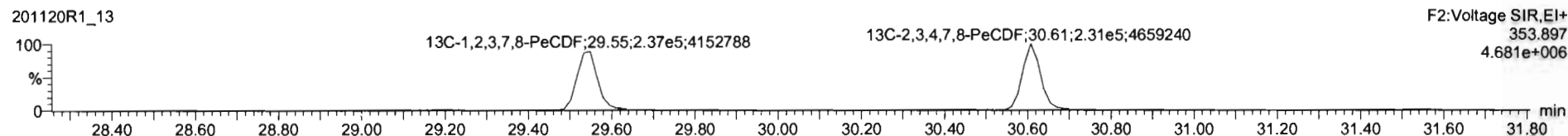
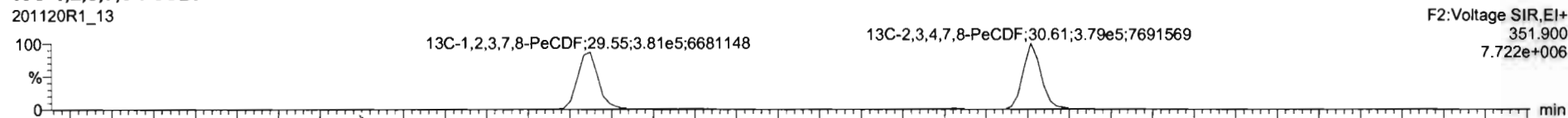
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

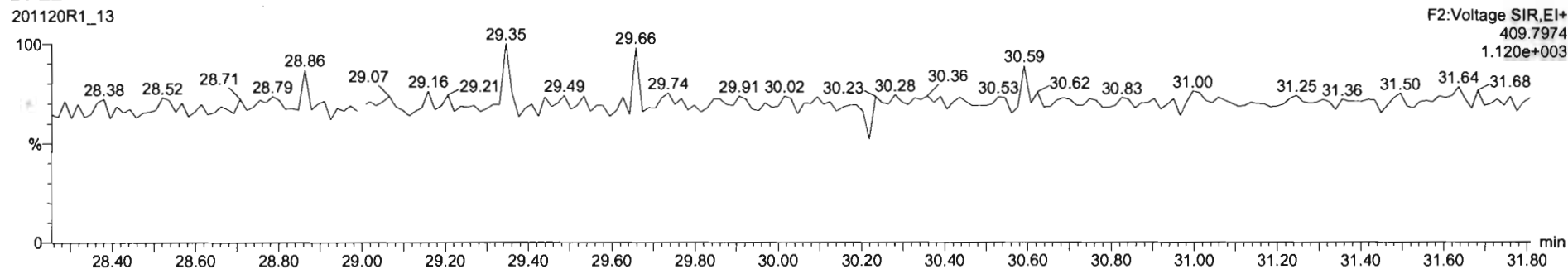
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**

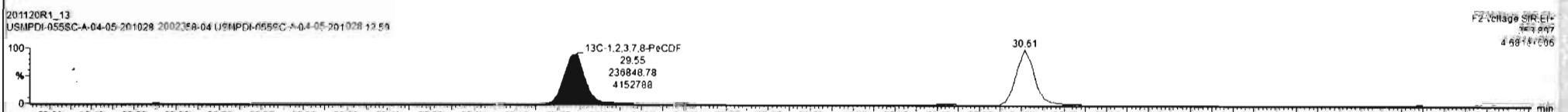
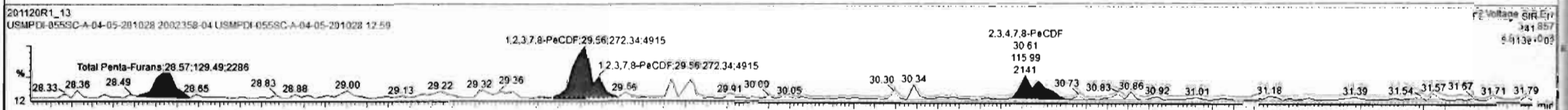


TargetLynx - 201120R1\_13.qtd (Chromatogram)

File Edit View Display Processing Window Help

201120R1\_13 - 2002358-04 USMPDI-055SC-A 04-05-201028 12:59 USMPDI-055SC-A 04-05-201028

Name	Resp	RA	aly	RRF	wtVol	RT	RRT	Conc	%Rec	DI	EMPC
39	Total Tetra-Dioxins			0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins			0.8855	10.052			0.161		0.0531	0.241
41	Total Hexa-Dioxins			0.9145	10.052			1.21		0.0980	1.21
42	Total Hepta-Dioxins			0.8697	10.052			3.14		0.236	3.14
43	Total Tetra-Furans			0.8243	10.052			0.0923		0.0126	0.226
44	1st Func. Penta-Furans			0.9626	10.052					0.00831	
45	Total Penta-Furans			0.9826	10.052			0.325		0.0474	0.307
46	Total Hexa-Furans			0.9907	10.052			0.794		0.0541	0.794
47	Total Hepta-Furans			0.9986	10.052			0.000		0.0636	1.14
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										



Dataset: Untitled

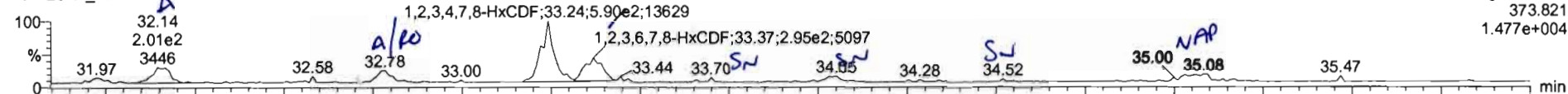
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

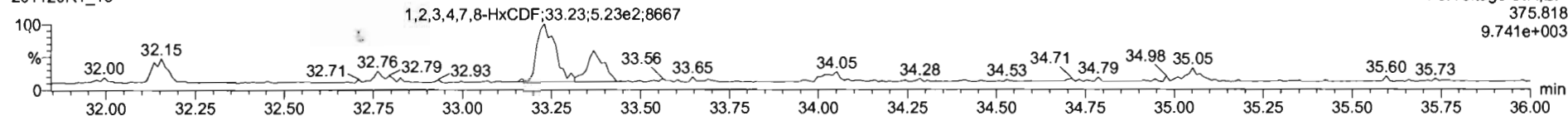
Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

1,2,3,4,7,8-HxCDF

201120R1\_13

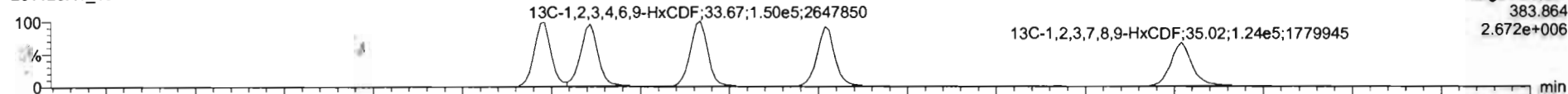


201120R1\_13

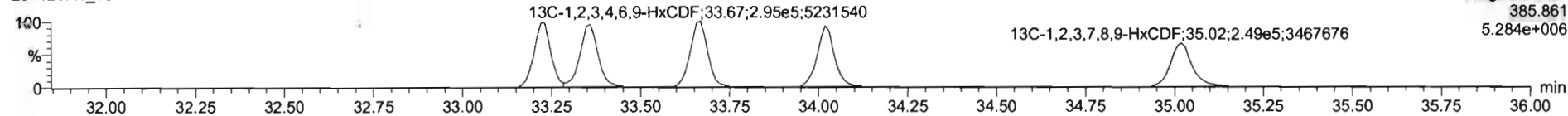


13C-1,2,3,4,7,8-HxCDF

201120R1\_13

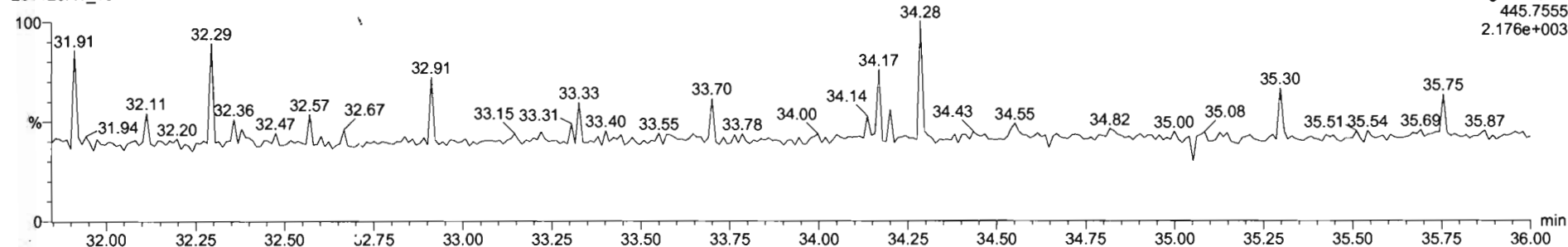


201120R1\_13



DPE3

201120R1\_13



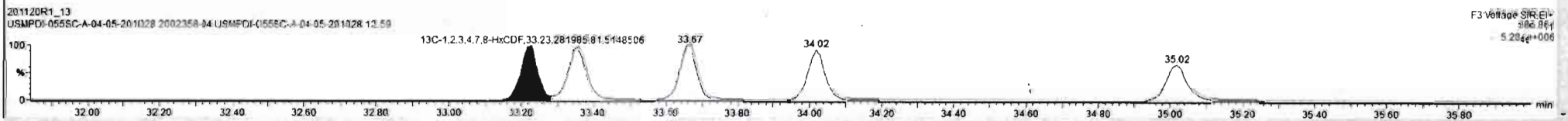
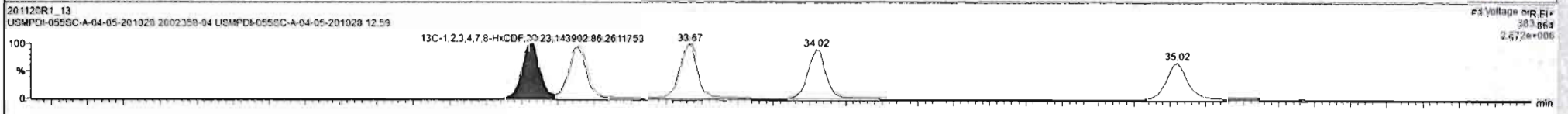
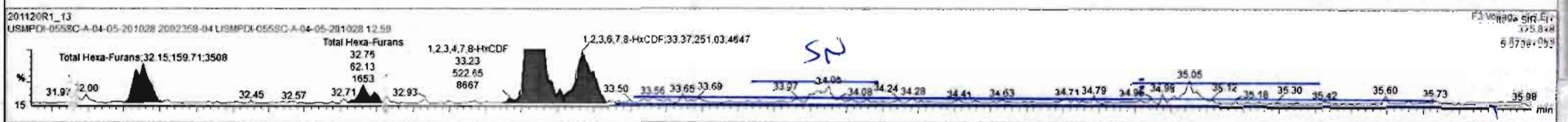
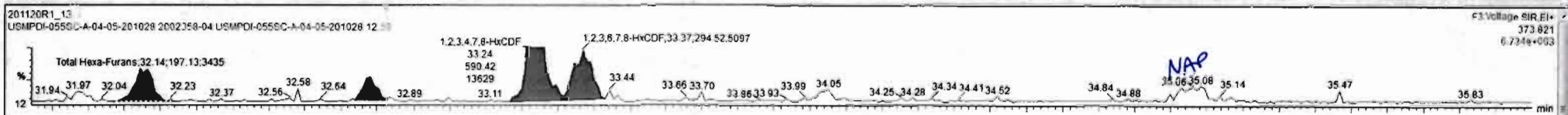


TargetLynx - 201120R1\_13.qtd - Chromatogram

File Edit View Display Processing Window Help

201120R1\_13 - 2002358-04 USMPDI-055SC-A-04-05-201028 12:59 USMPDI-055SC-A-04-05-201028

Name	Reso	RA	n/y	RRP	wt/vol	RT	RRT	Conc.	%dec	DL	EMPC
39	Total Tetra-Dioxins			0.9501	10.052			0.227		0.0319	0.227
40	Total Penta-Dioxins			0.8855	10.052			0.151		0.0531	0.241
41	Total Hexa-Dioxins			0.9145	10.052			1.21		0.0980	1.21
42	Total Hepta-Dioxins			0.8697	10.052			3.14		0.236	3.14
43	Total Tetra-Furans			0.8243	10.052			0.0923		0.0128	0.226
44	1st Func. Penta-Furans			0.9626	10.052					0.09931	
45	Total Penta-Furans			0.9626	10.052			0.325		0.0474	0.397
46	Total Hexa-Furans			0.9907	10.052			0.969		0.0541	1.04
47	Total Hepta-Furans			0.9986	10.052			0.000		0.0638	1.14
48	PFK1										
49	PFK2										
50	PFK3										
51	PFK4										
52	PFK5										
53	DPE1										
54	DPE2										
55	DPE3										
56	DPE4										
57	DPE5										

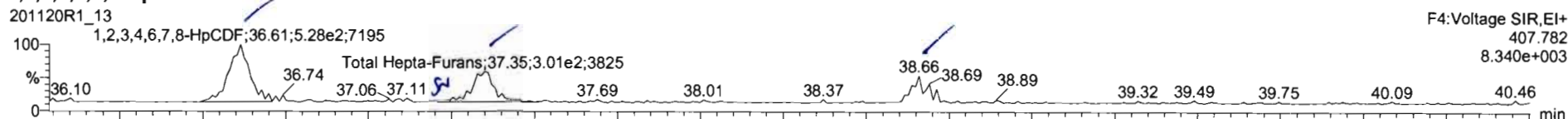


Dataset: Untitled

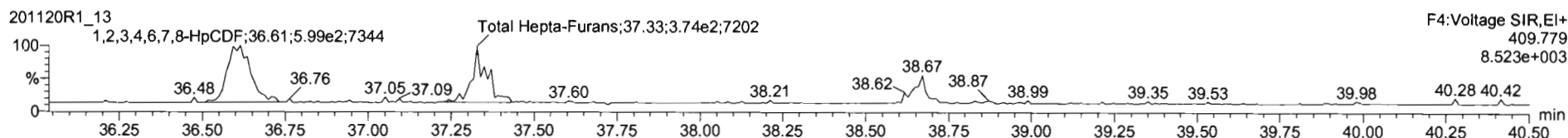
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

**1,2,3,4,6,7,8-HpCDF**

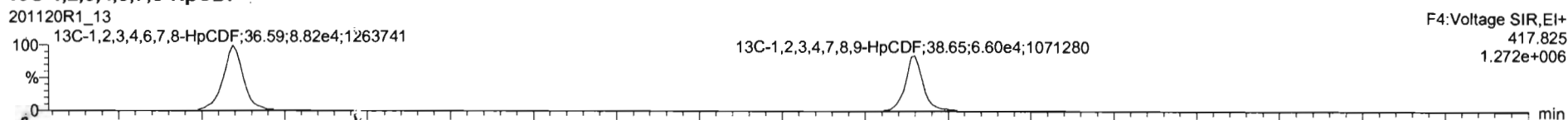


F4:Voltage SIR,EI+  
407.782  
8.340e+003

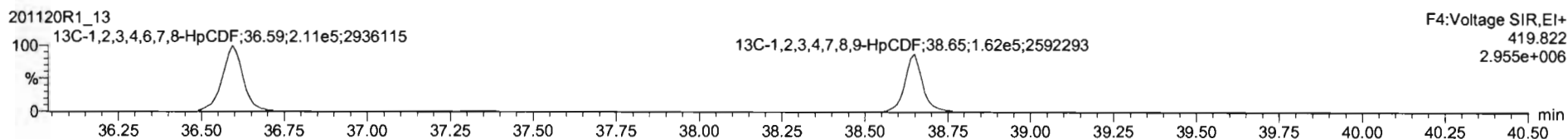


F4:Voltage SIR,EI+  
409.779  
8.523e+003

**13C-1,2,3,4,6,7,8-HpCDF**

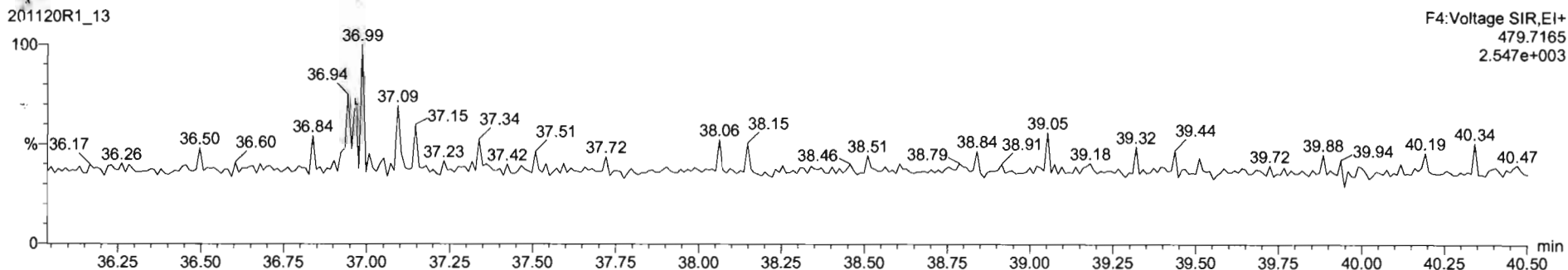


F4:Voltage SIR,EI+  
417.825  
1.272e+006



F4:Voltage SIR,EI+  
419.822  
2.955e+006

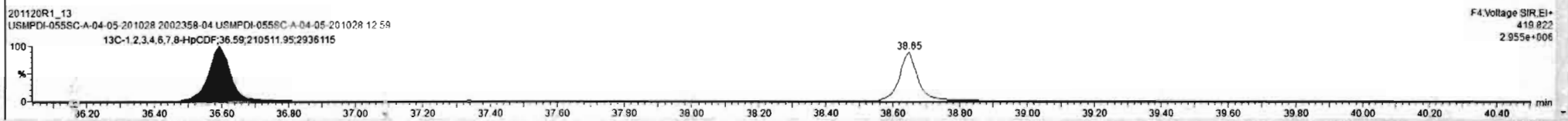
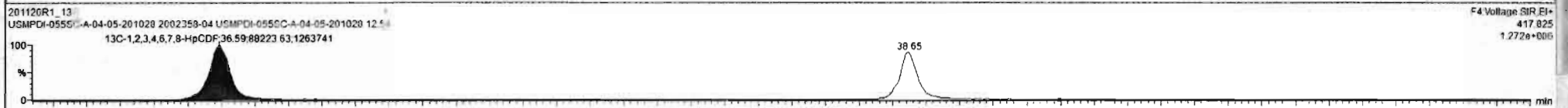
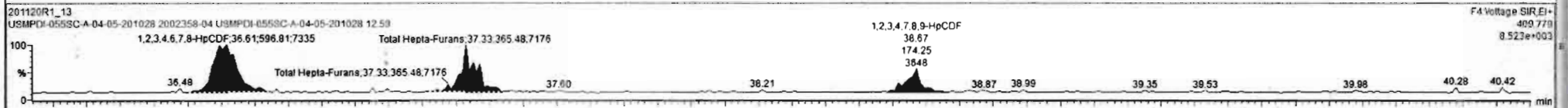
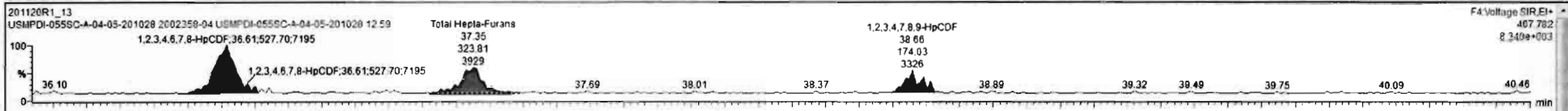
**DPE4**



F4:Voltage SIR,EI+  
479.7165  
2.547e+003



Name	Resp	RA	n/y	RRF	wt/wt	RT	RRT	Conc	%Rec	DL	EUPC
39 Total Tetra-Dioxins				0.9501	10.052			0.227	0.0319	0.227	
40 Total Penta-Dioxins				0.8855	10.052			0.151	0.0531	0.241	
41 Total Hexa-Dioxins				0.9145	10.052			1.21	0.0980	1.21	
42 Total Hepta-Dioxins				0.8697	10.052			3.14	0.236	3.14	
43 Total Tetra-Furans				0.8243	10.052			0.0923	0.0128	0.226	
44 1st Func. Penta-Furans				0.9626	10.052				0.00831		
45 Total Penta-Furans				0.9626	10.052			0.325	0.0474	0.397	
46 Total Hexa-Furans				0.9907	10.052			0.969	0.0541	1.04	
47 Total Hepta-Furans				0.9996	10.052			1.54	0.168	1.54	
48 PFK1											
49 PFK2											
50 PFK3											
51 PFK4											
52 PFK5											
53 DPE1											
54 DPE2											
55 DPE3											
56 DPE4											
57 DPE5											



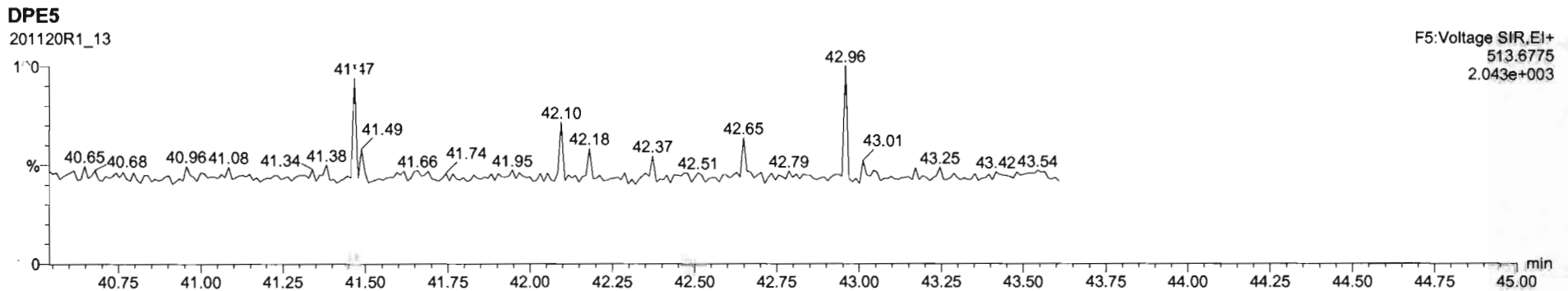
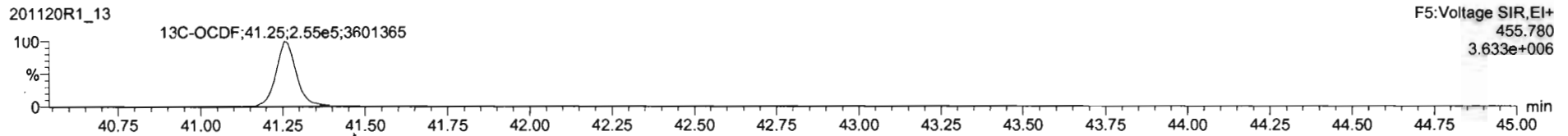
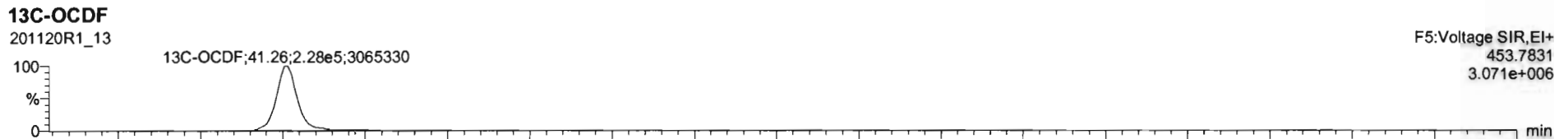
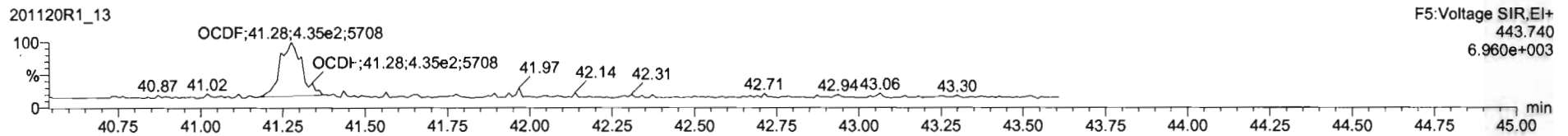
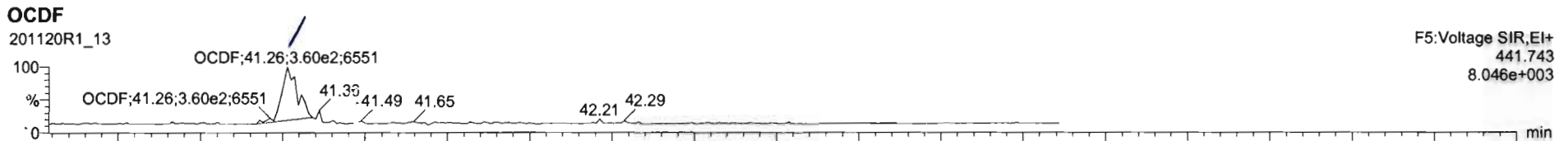
Custom Reporting: Select reports to generate

201120R1\_13 CAP NUM

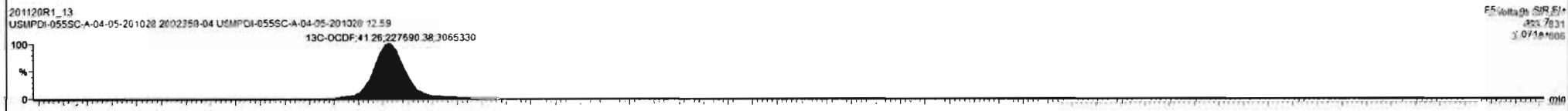
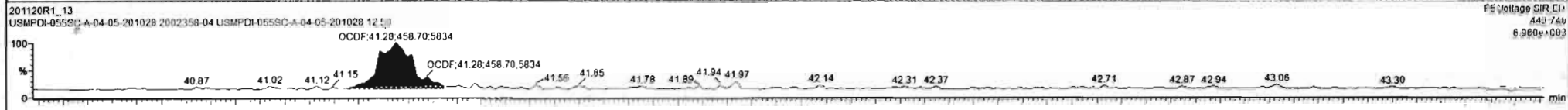
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	0.9501	10.052				0.0569	
2	1,2,3,7,8-PeCDD			NO	0.8855	10.052				0.114	
3	1,2,3,4,7,8-HxCDD			NO	1.0176	10.052				0.0922	
4	1,2,3,6,7,8-HxCDD			NO	0.9145	10.052				0.0933	
5	1,2,3,7,8,9-HxCDD			NO	0.9345	10.052				0.0966	
6	1,2,3,4,6,7,8-HpCDD	1.60e3	1.31	YES	0.8697	10.052	38.03	1.000	1.16	0.236	1.02
7	OCDD	1.12e4	0.93	NO	0.8717	10.052	40.99	1.000	11.3	0.239	11.3
8	2,3,7,8-TCDF			NO	0.8243	10.052				0.0282	
9	1,2,3,7,8-PeCDF	6.35e2	1.33	NO	0.9626	10.052	29.55	1.000	0.212	0.0505	0.212
10	2,3,4,7,8-PeCDF			NO	1.0684	10.052				0.0398	
11	1,2,3,4,7,8-HxCDF	1.11e3	1.13	NO	0.9535	10.052	33.24	1.000	0.545	0.0503	0.545
12	1,2,3,6,7,8-HxCDF	5.46e2	1.17	NO	1.0080	10.052	33.37	1.000	0.249	0.0478	0.249
13	2,3,4,6,7,8-HxCDF			NO	0.9907	10.052				0.0515	
14	1,2,3,7,8,9-HxCDF			NO	0.9508	10.052				0.0728	
15	1,2,3,4,6,7,8-HpCDF	1.13e3	0.88	YES	0.9908	10.052	36.81	1.001	0.752	0.157	0.890
16	1,2,3,4,7,8,9-HpCDF			NO	1.1238	10.052				0.191	
17	OCDF	8.91e2	0.94	NO	0.8682	10.052	41.28	1.000	0.846	0.149	0.846
18	13C-2,3,7,8-TCDD	5.43e5	0.78	NO	1.1089	10.052	26.08	1.030	214	0.286	
19	13C-1,2,3,7,8-PeCDD	4.10e5	0.86	NO	0.8585	10.052	30.81	1.217	209	0.602	



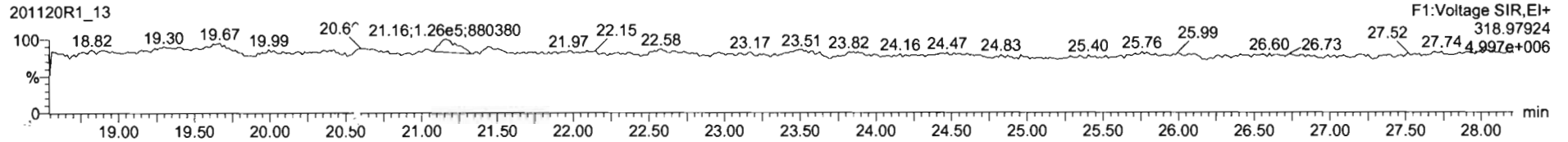
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Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

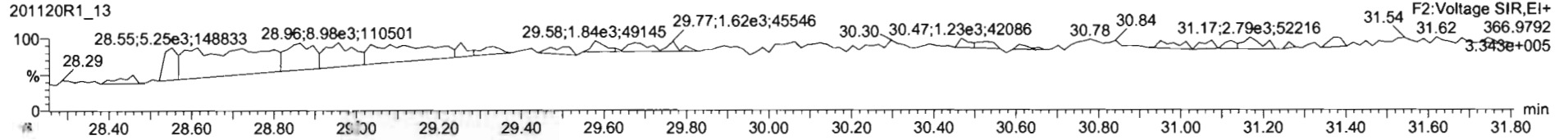
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_13, Date: 20-Nov-2020, Time: 16:52:45, ID: 2002358-04 USMPDI-055SC-A-04-05-201028 12.59, Description: USMPDI-055SC-A-04-05-201028

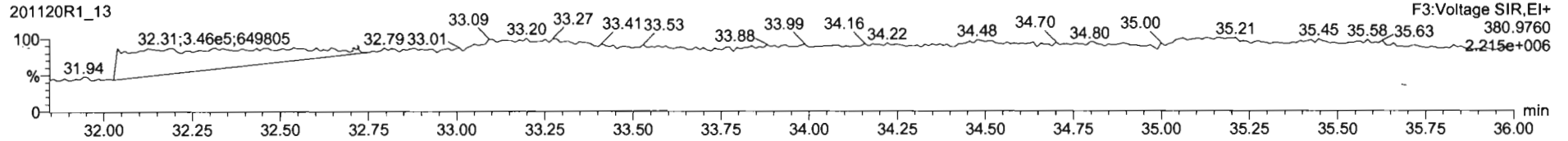
**PFK1**



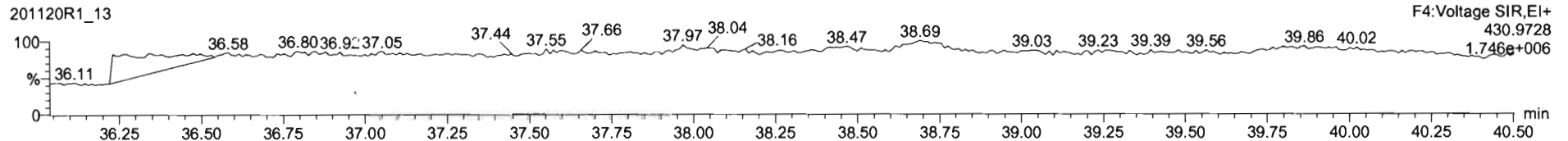
**PFK2**



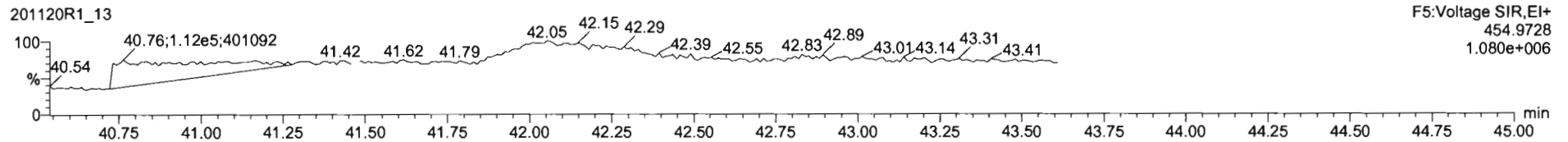
**PFK3**



**PFK4**



**PFK5**



**CONTINUING CALIBRATION**



**HKMS CALIBRATION STANDARDS REVIEW CHECKLIST**

**1**  
Beg. Calibration ID: ST201120R1-2

Reviewed By: HC 11-23-20

*Initials & Date*

End Calibration ID: ST201120R2-1

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentrations within criteria?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Correct ICAL referenced?	<u>GPB</u>	<u>GPB</u>
<u>Run Log:</u>		
- Correct Instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Samples within 12 hour clock?	<input checked="" type="checkbox"/> (Y)	<input type="checkbox"/> (N)
- Bottle position verified?	<u>GPB</u>	

	<u>Beg.</u>	<u>End</u>
Mass resolution ≥	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K 1614    1699    429    1613/1668/8280		
Intergrated peaks display correctly?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GC Break <20%	<input type="checkbox"/>	<input checked="" type="checkbox"/> (NA)
<b>8280 CS1 End Standard:</b>		
- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		<input checked="" type="checkbox"/> (NA)

**Comments:**  
 (R) END RES CHECK FOR ST201120R1 DID NOT PRINT, PRINTED MANUALLY THE NEXT DAY WITH NO CHANGES MADE TO TUNING.  
 \* End res check used 1...m455 under 10K

Dataset: U:\VG12.PRO\Results\201120R1\201120R1-2.qld

Last Altered: Sunday, November 22, 2020 10:13:23 Pacific Standard Time

Printed: Sunday, November 22, 2020 10:13:36 Pacific Standard Time

*GRB 11/22/2020*

*HZ 11.23.2020*

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	5.82e4	5.89e5	0.76	NO	0.950	26.11	26.10	NO	1.001	1.001	10.408	104	NO
2	2 1,2,3,7,8-PeCDD	2.09e5	4.14e5	0.62	NO	0.885	30.80	30.81	NO	1.000	1.000	56.988	114	NO
3	3 1,2,3,4,7,8-HxCDD	1.74e5	3.43e5	1.24	NO	1.02	34.14	34.14	NO	1.000	1.000	49.830	99.7	NO
4	4 1,2,3,6,7,8-HxCDD	1.85e5	4.00e5	1.20	NO	0.915	34.25	34.25	NO	1.000	1.000	50.668	101	NO
5	5 1,2,3,7,8,9-HxCDD	1.78e5	3.81e5	1.20	NO	0.934	34.53	34.53	NO	1.000	1.000	49.996	100	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.29e5	3.09e5	1.00	NO	0.870	38.02	38.03	NO	1.000	1.000	47.922	95.8	NO
7	7 OCDD	2.17e5	4.93e5	0.86	NO	0.872	40.97	40.98	NO	1.000	1.000	101.18	101	NO
8	8 2,3,7,8-TCDF	5.94e4	7.99e5	0.75	NO	0.824	25.40	25.40	NO	1.000	1.001	9.0118	90.1	NO
9	9 1,2,3,7,8-PeCDF	3.21e5	6.42e5	1.55	NO	0.963	29.54	29.55	NO	1.000	1.001	51.941	104	NO
10	10 2,3,4,7,8-PeCDF	3.32e5	6.13e5	1.54	NO	1.07	30.61	30.62	NO	1.000	1.000	50.682	101	NO
11	11 1,2,3,4,7,8-HxCDF	1.85e5	4.19e5	1.19	NO	0.953	33.22	33.24	NO	1.000	1.001	46.231	92.5	NO
12	12 1,2,3,6,7,8-HxCDF	2.04e5	4.37e5	1.18	NO	1.01	33.35	33.36	NO	1.000	1.000	46.252	92.5	NO
13	13 2,3,4,6,7,8-HxCDF	1.84e5	4.05e5	1.20	NO	0.991	34.02	34.03	NO	1.000	1.000	45.895	91.8	NO
14	14 1,2,3,7,8,9-HxCDF	1.57e5	3.61e5	1.24	NO	0.951	35.01	35.03	NO	1.000	1.001	45.599	91.2	NO
15	15 1,2,3,4,6,7,8-HpCDF	1.40e5	3.03e5	0.99	NO	0.999	36.60	36.61	NO	1.000	1.001	46.393	92.8	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.14e5	2.21e5	0.97	NO	1.12	38.64	38.65	NO	1.000	1.000	46.015	92.0	NO
17	17 OCDF	2.10e5	5.10e5	0.87	NO	0.868	41.26	41.26	NO	1.000	1.000	94.978	95.0	NO
18	18 13C-2,3,7,8-TCDD	5.89e5	5.13e5	0.80	NO	1.11	26.07	26.08	NO	1.030	1.030	103.49	103	NO
19	19 13C-1,2,3,7,8-PeCDD	4.14e5	5.13e5	0.65	NO	0.859	30.79	30.80	NO	1.216	1.217	93.995	94.0	NO
20	20 13C-1,2,3,4,7,8-HxCDD	3.43e5	4.40e5	1.28	NO	0.700	34.12	34.13	NO	1.014	1.014	111.48	111	NO
21	21 13C-1,2,3,6,7,8-HxCDD	4.00e5	4.40e5	1.28	NO	0.833	34.26	34.24	NO	1.018	1.017	109.17	109	NO
22	22 13C-1,2,3,7,8,9-HxCDD	3.81e5	4.40e5	1.23	NO	0.762	34.51	34.52	NO	1.025	1.026	113.85	114	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.09e5	4.40e5	1.07	NO	0.650	37.99	38.02	NO	1.129	1.130	108.09	108	NO
24	24 13C-OCDD	4.93e5	4.40e5	0.91	NO	0.539	40.95	40.97	NO	1.217	1.217	208.01	104	NO
25	25 13C-2,3,7,8-TCDF	7.99e5	7.76e5	0.77	NO	0.981	25.40	25.39	NO	1.003	1.003	104.93	105	NO
26	26 13C-1,2,3,7,8-PeCDF	6.42e5	7.76e5	1.59	NO	0.792	29.52	29.53	NO	1.166	1.167	104.46	104	NO
27	27 13C-2,3,4,7,8-PeCDF	6.13e5	7.76e5	1.56	NO	0.778	30.58	30.61	NO	1.208	1.209	101.50	101	NO
28	28 13C-1,2,3,4,7,8-HxCDF	4.19e5	4.40e5	0.50	NO	0.954	33.22	33.22	NO	0.987	0.987	99.857	99.9	NO
29	29 13C-1,2,3,6,7,8-HxCDF	4.37e5	4.40e5	0.49	NO	1.01	33.35	33.35	NO	0.991	0.991	98.877	98.9	NO
30	30 13C-2,3,4,6,7,8-HxCDF	4.05e5	4.40e5	0.50	NO	0.921	34.02	34.02	NO	1.011	1.011	100.01	100	NO

Dataset: U:\WG12.PRO\Results\201120R1\201120R1-2.qld

Last Altered: Sunday, November 22, 2020 10:13:23 Pacific Standard Time  
Printed: Sunday, November 22, 2020 10:13:36 Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
31	31 13C-1,2,3,7,8,9-HxCDF	3.61e5	4.40e5	0.49	NO	0.803	35.01	35.01	NO	1.040	1.040	102.33	102	NO
32	32 13C-1,2,3,4,6,7,8-HpCDF	3.03e5	4.40e5	0.43	NO	0.735	36.58	36.59	NO	1.087	1.087	93.685	93.7	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.21e5	4.40e5	0.41	NO	0.568	38.62	38.64	NO	1.147	1.148	88.627	88.6	NO
34	34 13C-OCDF	5.10e5	4.40e5	0.88	NO	0.629	41.24	41.25	NO	1.225	1.226	184.50	92.2	NO
35	35 37Cl-2,3,7,8-TCDD	6.04e4	5.13e5			1.09	26.07	26.10	NO	1.030	1.031	10.829	108	NO
36	36 13C-1,2,3,4-TCDD	5.13e5	5.13e5	0.79	NO	1.00	25.37	25.31	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	7.76e5	7.76e5	0.78	NO	1.00	23.87	23.81	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	4.40e5	4.40e5	0.51	NO	1.00	33.71	33.66	NO	1.000	1.000	100.00	100	YES <sup>OL</sup>

Dataset: Untitled

Last Altered: Sunday, November 22, 2020 09:24:47 Pacific Standard Time  
Printed: Sunday, November 22, 2020 09:26:01 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Compound name: 2,3,7,8-TCDD

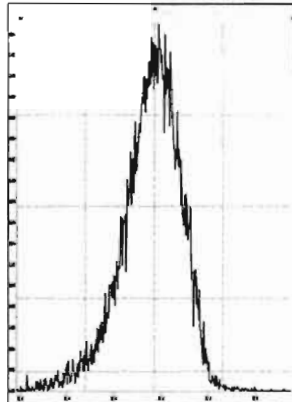
	Name	ID	Acq.Date	Acq.Time
1	201120R1_1 <sup>(B)</sup>	ST201120R1_1 1613 CS3 20F1105	20-Nov-20	07:42:40
2	201120R1_2	ST201120R1_2 1613 CS3 20F1105	20-Nov-20	08:37:44
3	201120R1_3	TCDF CPSM	20-Nov-20	09:23:10
4	201120R1_4	B0K0115-BS1 OPR 10	20-Nov-20	10:08:05
5	201120R1_5 <sup>(A)</sup>			
6	201120R1_6 <sup>(A)</sup>	SOLVENT BLANK	20-Nov-20	11:38:27
7	201120R1_7	B0K0115-BLK1 Method Blank 10	20-Nov-20	12:23:20
8	201120R1_8	2002357-01 NCPDI-007SC-02-03-201027 6.77	20-Nov-20	13:08:16
9	201120R1_9	2002357-02 NCPDI-007SC-03-04-201027 5.93	20-Nov-20	13:53:09
10	201120R1_10	2002358-01 USMPDI-055SC-A-01-02-201028 ...	20-Nov-20	14:38:03
11	201120R1_11	2002358-02 USMPDI-055SC-A-02-03-201028 ...	20-Nov-20	15:22:58
12	201120R1_12	2002358-03 USMPDI-055SC-A-03-04-201028 ...	20-Nov-20	16:07:54
13	201120R1_13	2002358-04 USMPDI-055SC-A-04-05-201028 ...	20-Nov-20	16:52:45
14	201120R1_14	2002409-01 110320 S1-2 16.97	20-Nov-20	17:37:36
15	201120R1_15	2002376-01 DCWWTP Sludge 33.9	20-Nov-20	18:22:27
16	201120R1_16	2002376-05 PGWWTP Sludge 24.77	20-Nov-20	19:07:18
17	201120R2_1	SOLVENT BLANK	20-Nov-20	20:01:12
18	201120R2_2	ST201120R2_1 1613 CS3 20F1105	20-Nov-20	20:46:05
19	201120R2_3	TCDF CPSM	20-Nov-20	21:30:59

(A) INST. PAUSED, SOLVENT BLANK RZ IMMEDIATELY AFTER.  
GRB 11/22/2020  
(B) USED TO ADJUST WINDOWS.  
GRB 11/22/2020

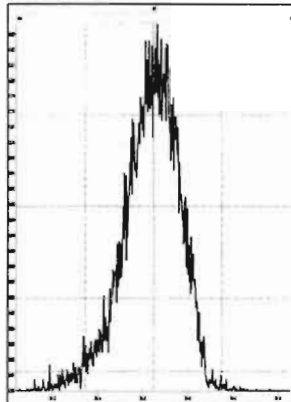
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, November 20, 2020 08:34:44 Pacific Standard Time

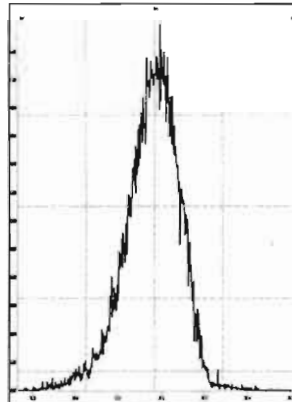
M 292.9824 R 10502



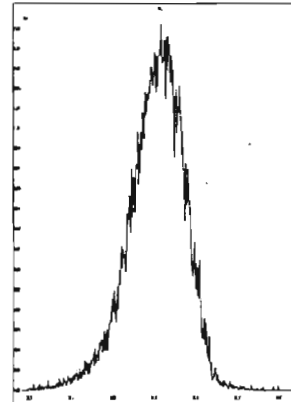
M 304.9824 R 11063



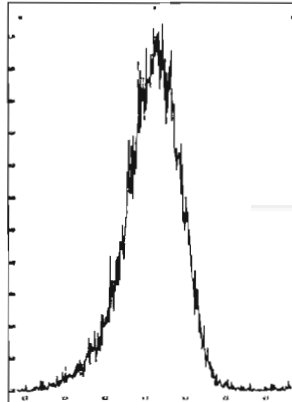
M 318.9792 R 11572



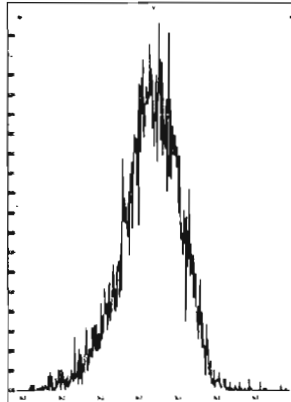
M 330.9792 R 11262



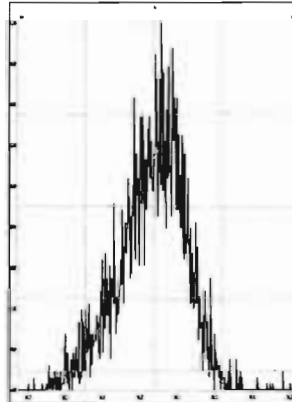
M 342.9792 R 10821



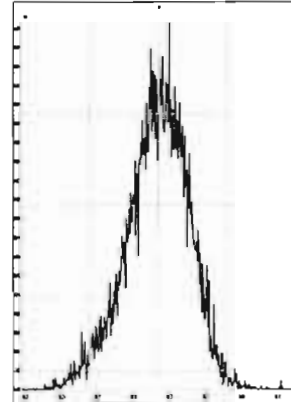
M 354.9792 R 10634



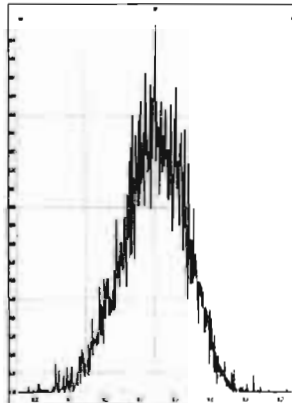
M 366.9792 R 11572



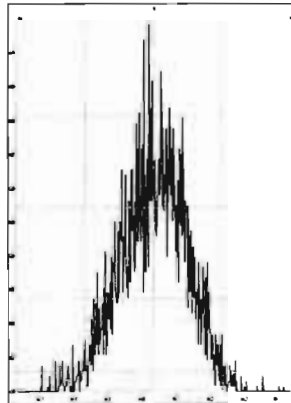
M 380.9760 R 10288



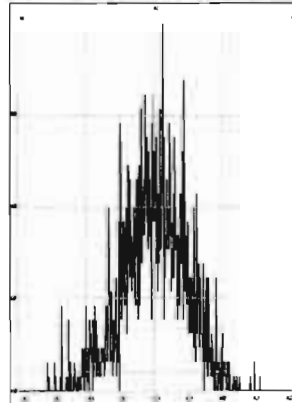
M 392.9760 R 10462



M 404.9760 R 10869



M 416.9760 R 16236

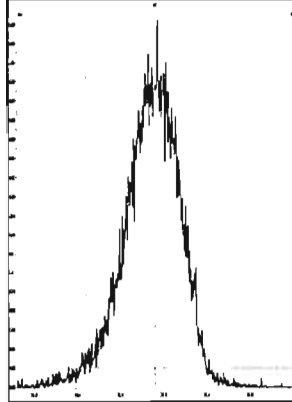




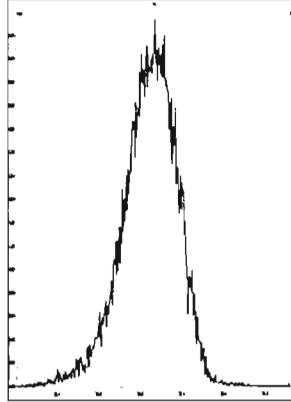
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, November 20, 2020 08:35:38 Pacific Standard Time

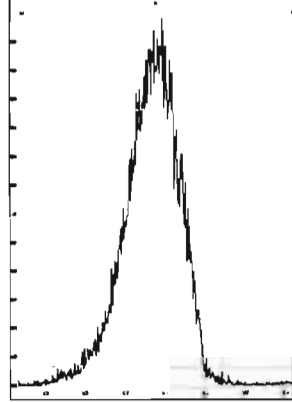
M 318.9792 R 11312



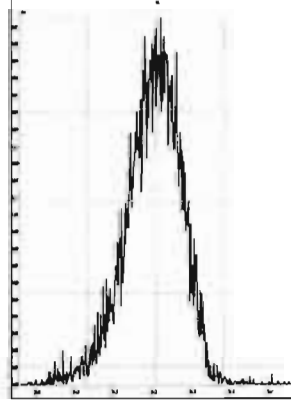
M 330.9792 R 11523



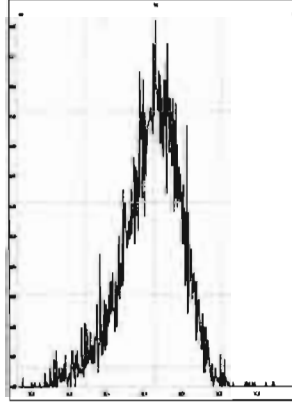
M 342.9792 R 11210



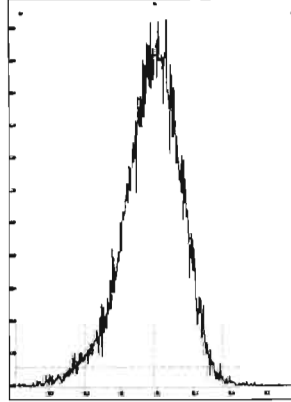
M 354.9792 R 11850



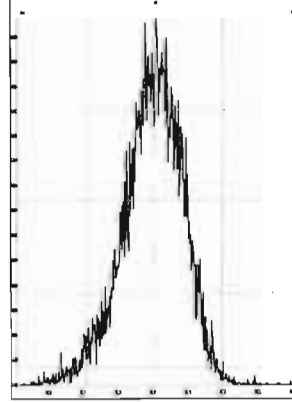
M 366.9792 R 13088



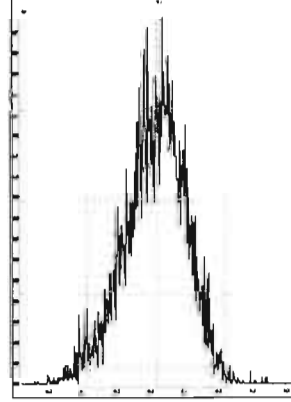
M 380.9760 R 10414



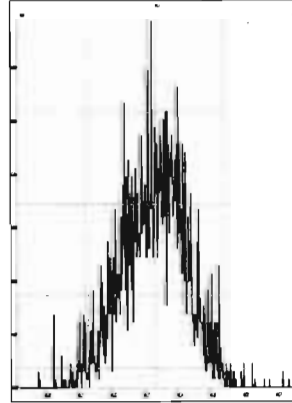
M 392.9760 R 10459



M 404.9760 R 10118



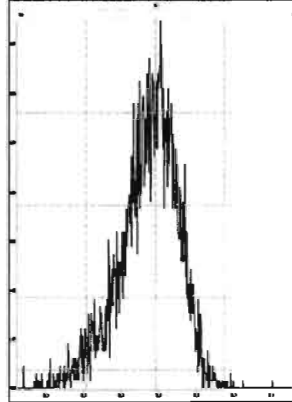
M 416.9760 R 11012



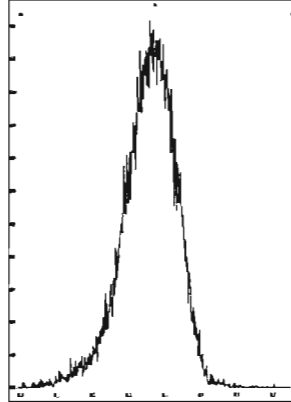
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, November 20, 2020 08:36:01 Pacific Standard Time

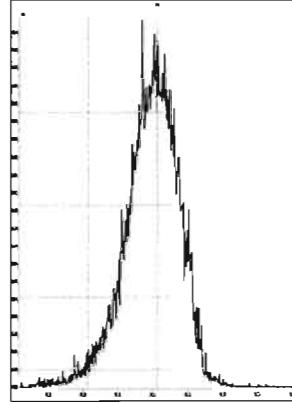
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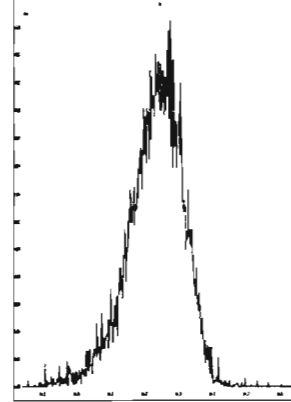
M 380.9760 R 11518



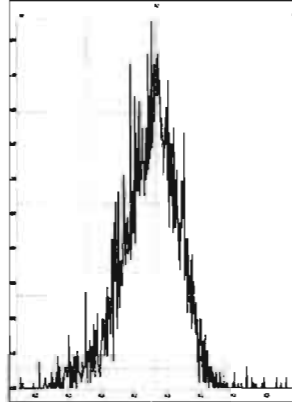
M 392.9760 R 12077



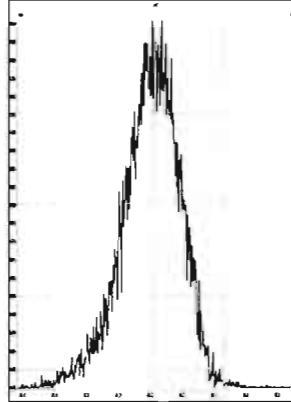
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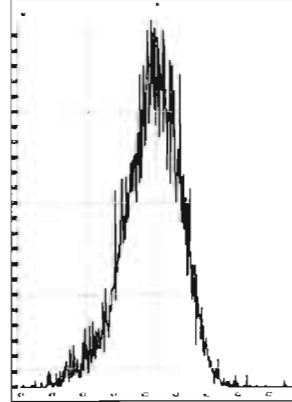
M 416.9760 R 12690



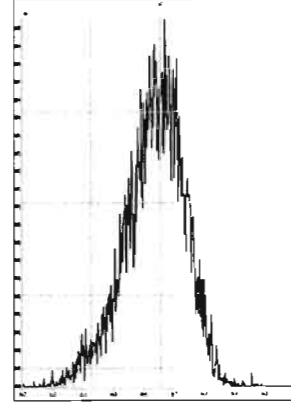
M 430.9728 R 10966



M 442.9728 R 10373



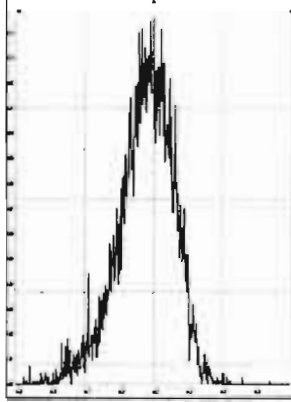
M 454.9728 R 10727



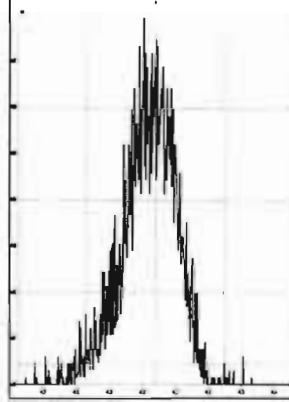
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Printed: Friday, November 20, 2020 08:36:18 Pacific Standard Time

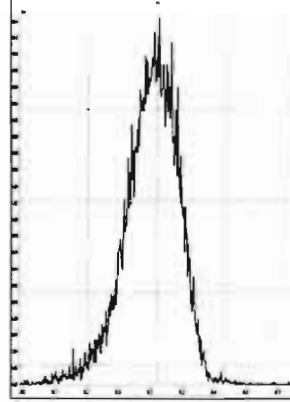
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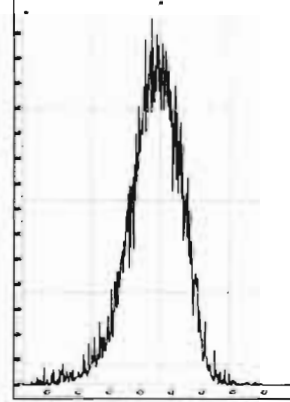
M 416.9760 R 12020



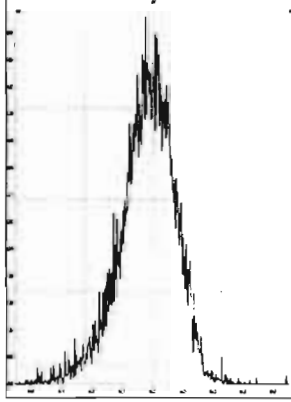
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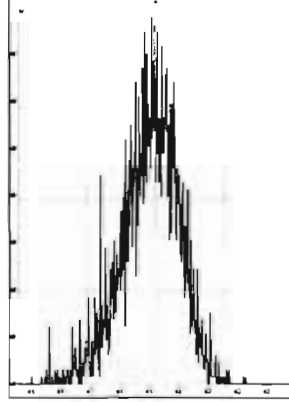
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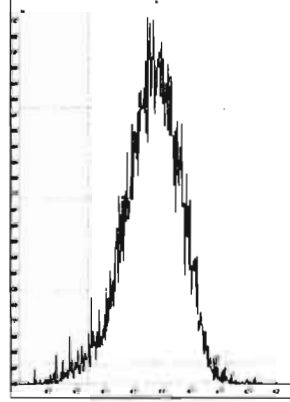
M 454.9728 R 11260



M 466.9728 R 12020



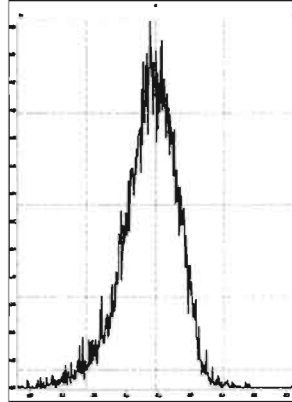
M 480.9696 R 10774



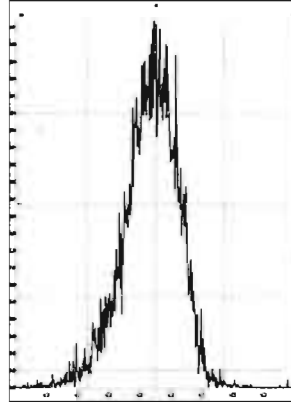
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, November 20, 2020 08:36:40 Pacific Standard Time

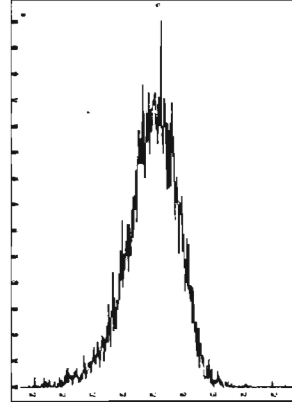
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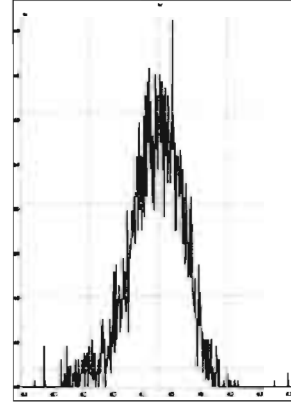
M 442.9728 R 12818



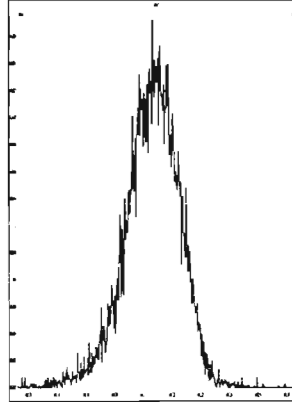
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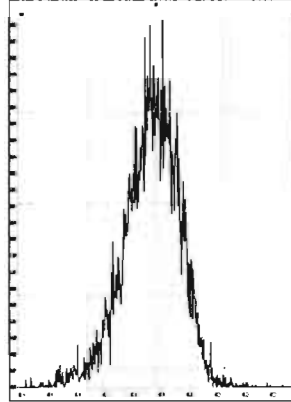
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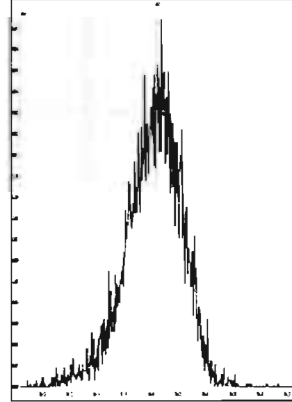
M 480.9696 R 11848



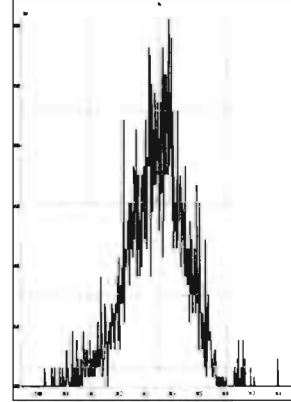
M 492.9696 R 11739



M 504.9696 R 12019



M 516.9697 R 13022



Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Sunday, November 22, 2020 10:11:03 Pacific Standard Time

Printed: Sunday, November 22, 2020 10:11:25 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 10 Nov 2020 10:04:22

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

#	Name	RT
1	1,3,6,8-TCDD (First)	22.27
2	1,2,8,9-TCDD (Last)	27.00
3	1,2,4,7,9-PeCDD (First)	28.55
4	1,2,3,8,9-PeCDD (Last)	31.17
5	1,2,4,6,7,9-HxCDD (First)	32.51
6	1,2,3,7,8,9-HxCDD (Last)	34.53
7	1,2,3,4,6,7,9-HpCDD (First)	36.99
8	1,2,3,4,6,7,8-HpCDD (Last)	38.03
9	1,3,6,8-TCDF (First)	20.05
10	1,2,8,9-TCDF (Last)	27.31
11	1,3,4,6,8-PeCDF (First)	26.88
12	1,2,3,8,9-PeCDF (Last)	31.54
13	1,2,3,4,6,8-HxCDF (First)	31.96
14	1,2,3,7,8,9-HxCDF (Last)	35.03
15	1,2,3,4,6,7,8-HpCDF (First)	36.61
16	1,2,3,4,7,8,9-HpCDF (Last)	38.65



Dataset: Untitled

Last Altered: Sunday, November 22, 2020 10:11:03 Pacific Standard Time  
Printed: Sunday, November 22, 2020 10:11:25 Pacific Standard Time

*GPB 11/22/2020*

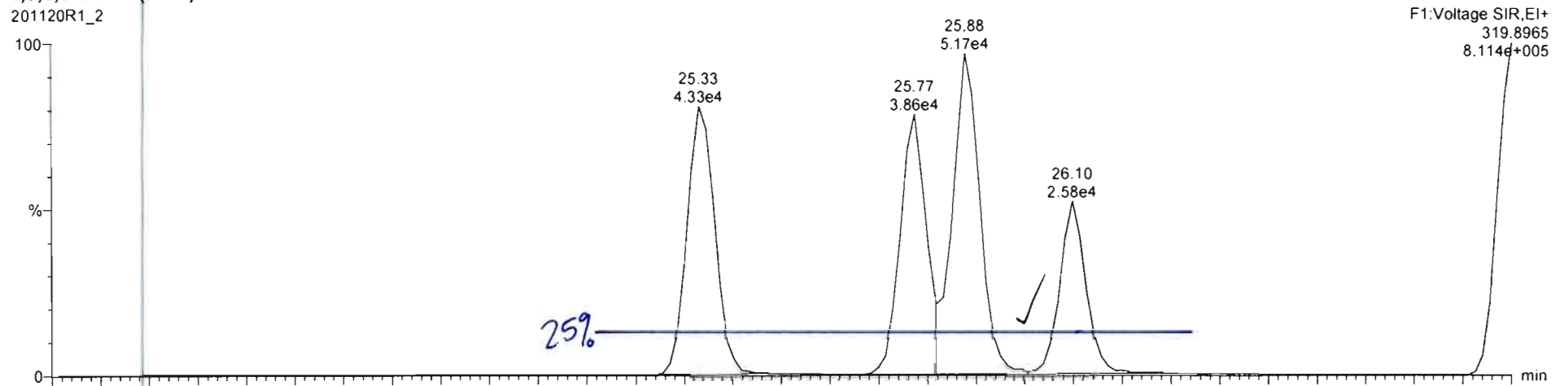
*Hz 11.23.2020*

Method: U:\VG12.PRO\MethDB\CPSM.mdb 10 Nov 2020 10:04:22  
Calibration: U:\VG12.PRO\CurveDB\IdbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

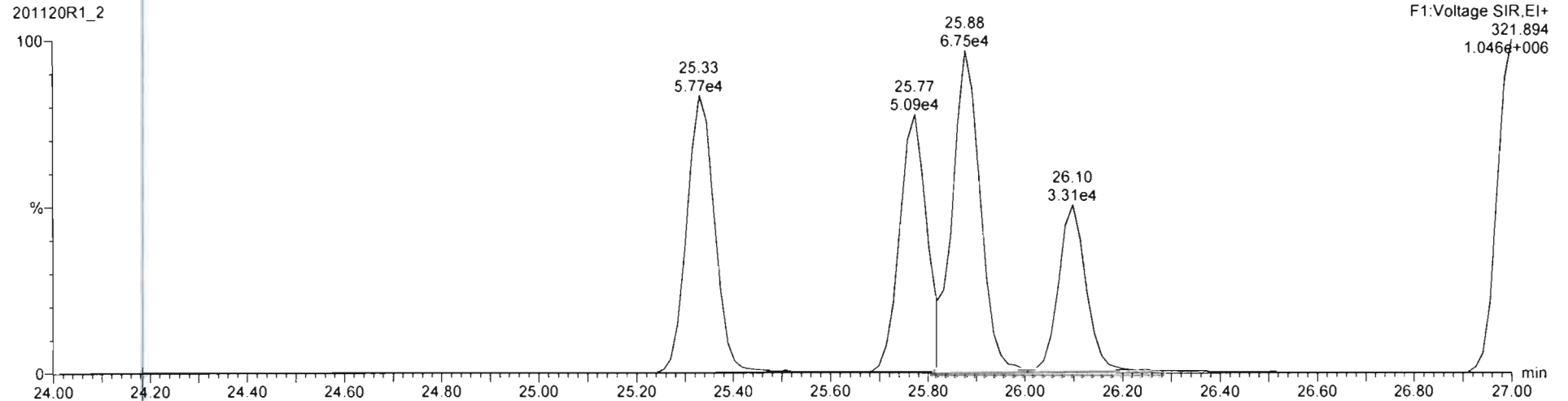
Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,3,6,8-TCDD (First)

201120R1\_2

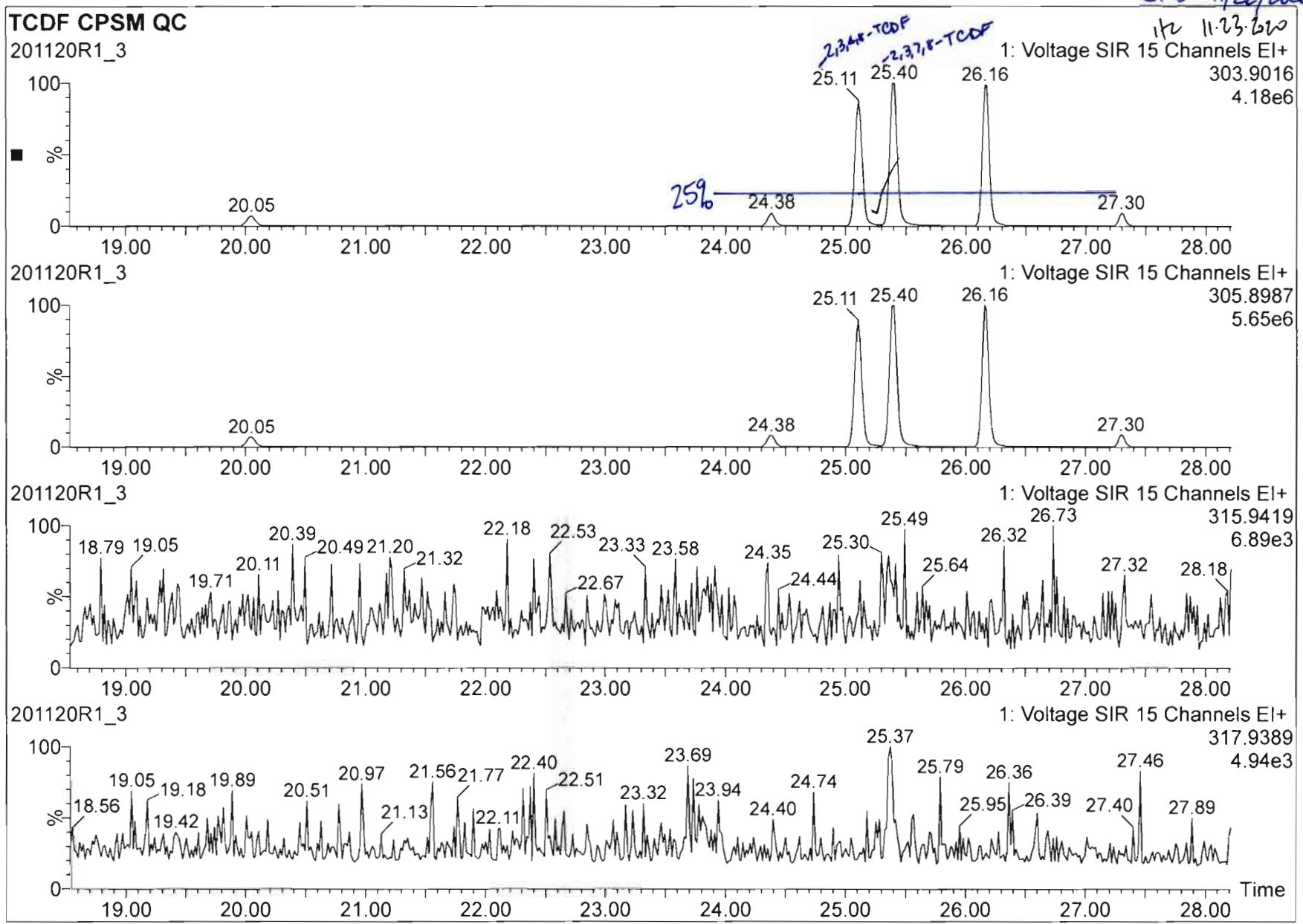


201120R1\_2



GRB 11/22/2020

11/23/2020



Dataset: Untitled

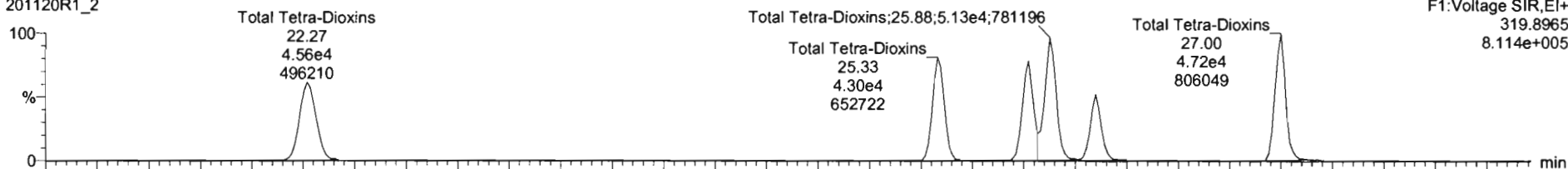
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 13:36:10

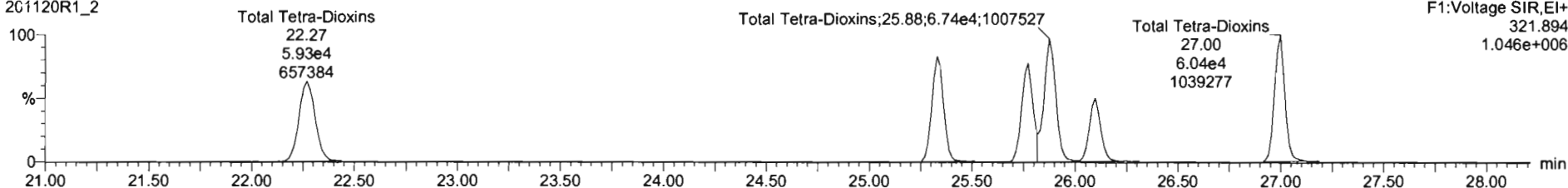
Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

2,3,7,8-TCDD

201120R1\_2

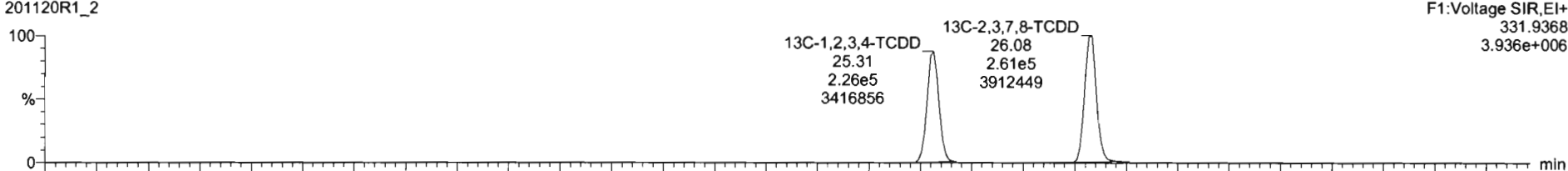


201120R1\_2

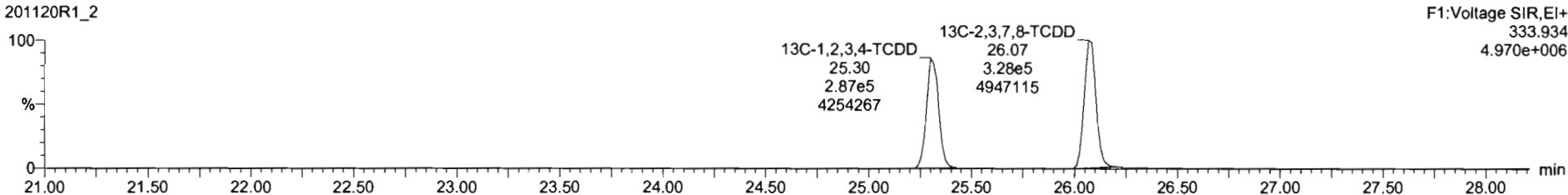


13C-2,3,7,8-TCDD

201120R1\_2



201120R1\_2



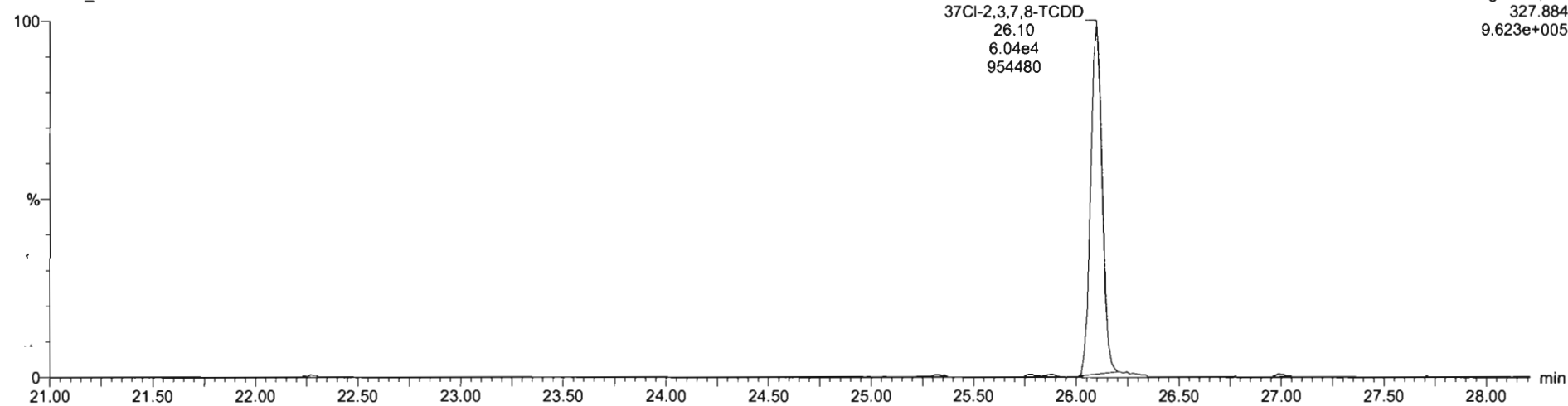
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

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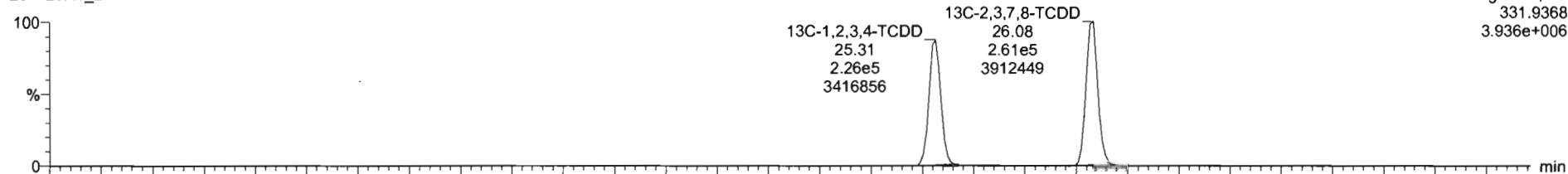
37Cl-2,3,7,8-TCDD

201120R1\_2

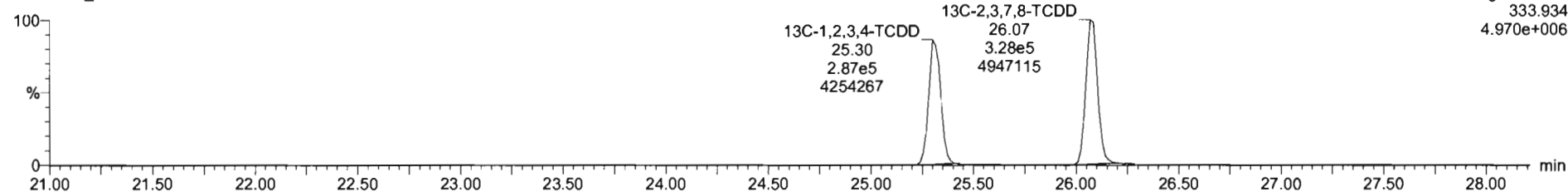


13C-1,2,3,4-TCDD

201120R1\_2



201120R1\_2



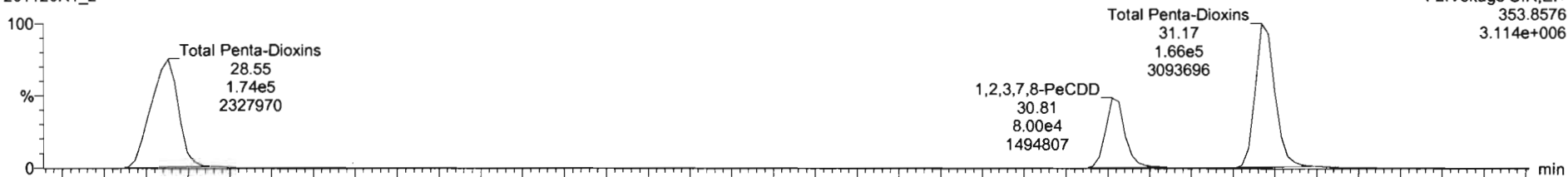
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

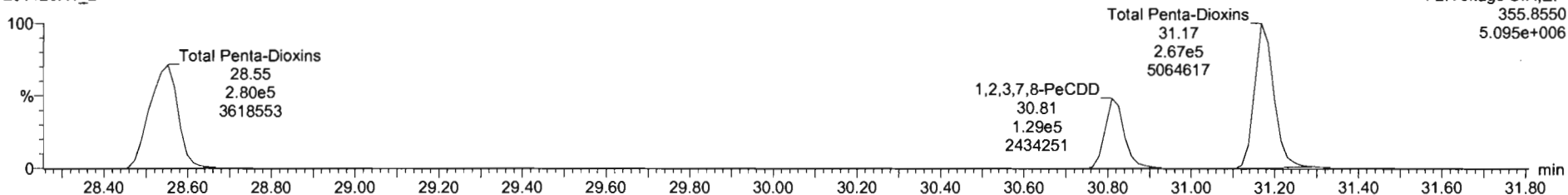
**1,2,3,7,8-PeCDD**

201120R1\_2



F2:Voltage SIR,EI+  
353.8576  
3.114e+006

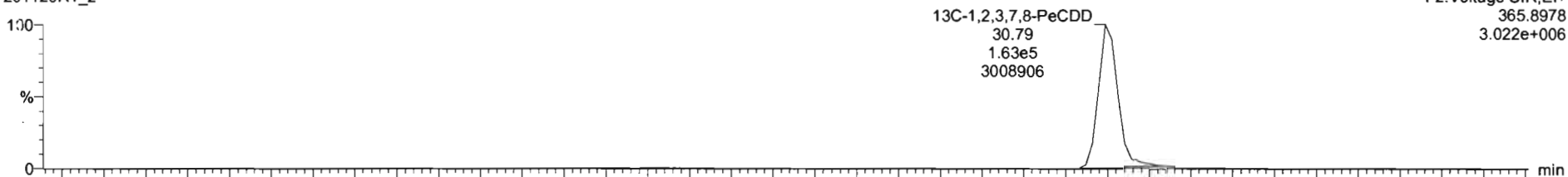
201120R1\_2



F2:Voltage SIR,EI+  
355.8550  
5.095e+006

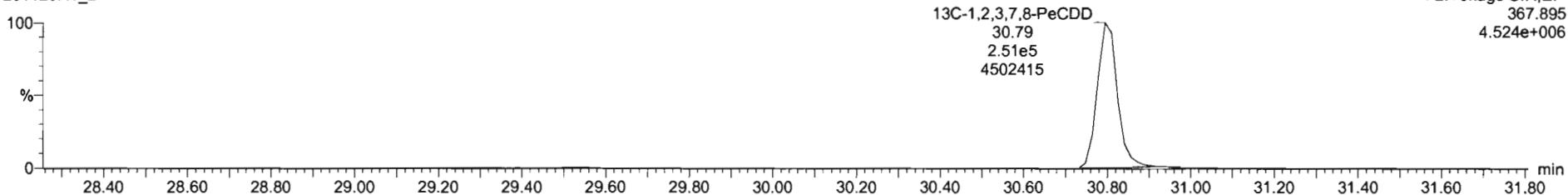
**13C-1,2,3,7,8-PeCDD**

201120R1\_2



F2:Voltage SIR,EI+  
365.8978  
3.022e+006

201120R1\_2



F2:Voltage SIR,EI+  
367.895  
4.524e+006



Dataset: Untitled

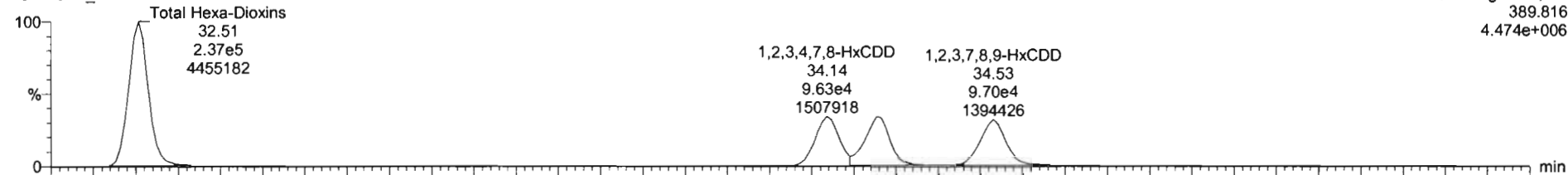
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

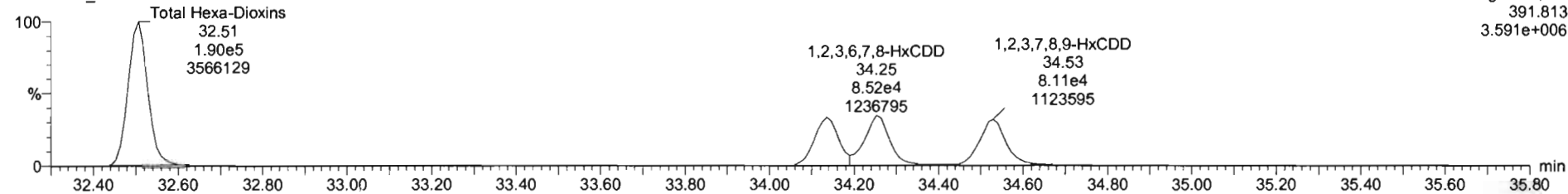
Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**1,2,3,4,7,8-HxCDD**

201120R1\_2

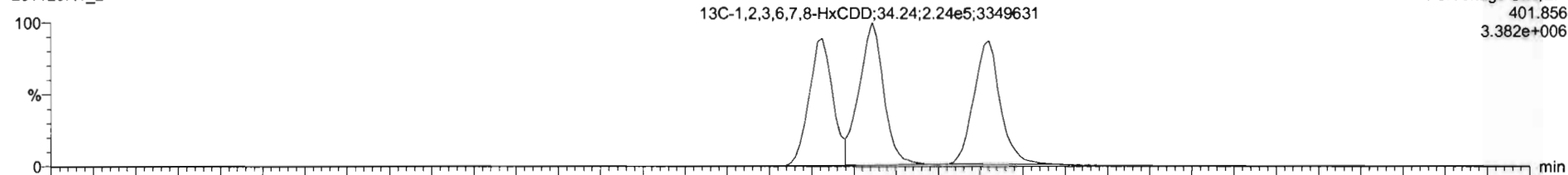


201120R1\_2

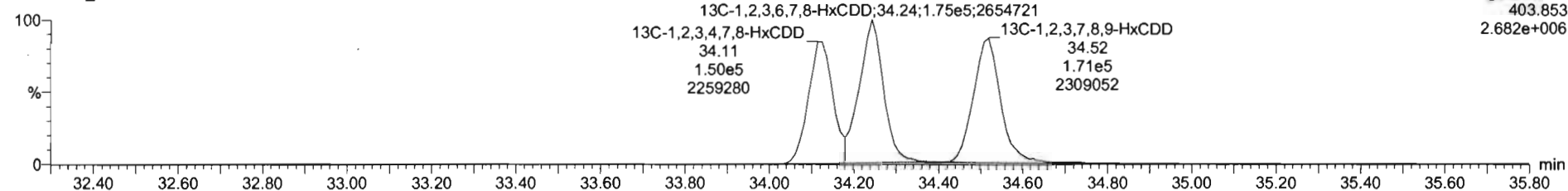


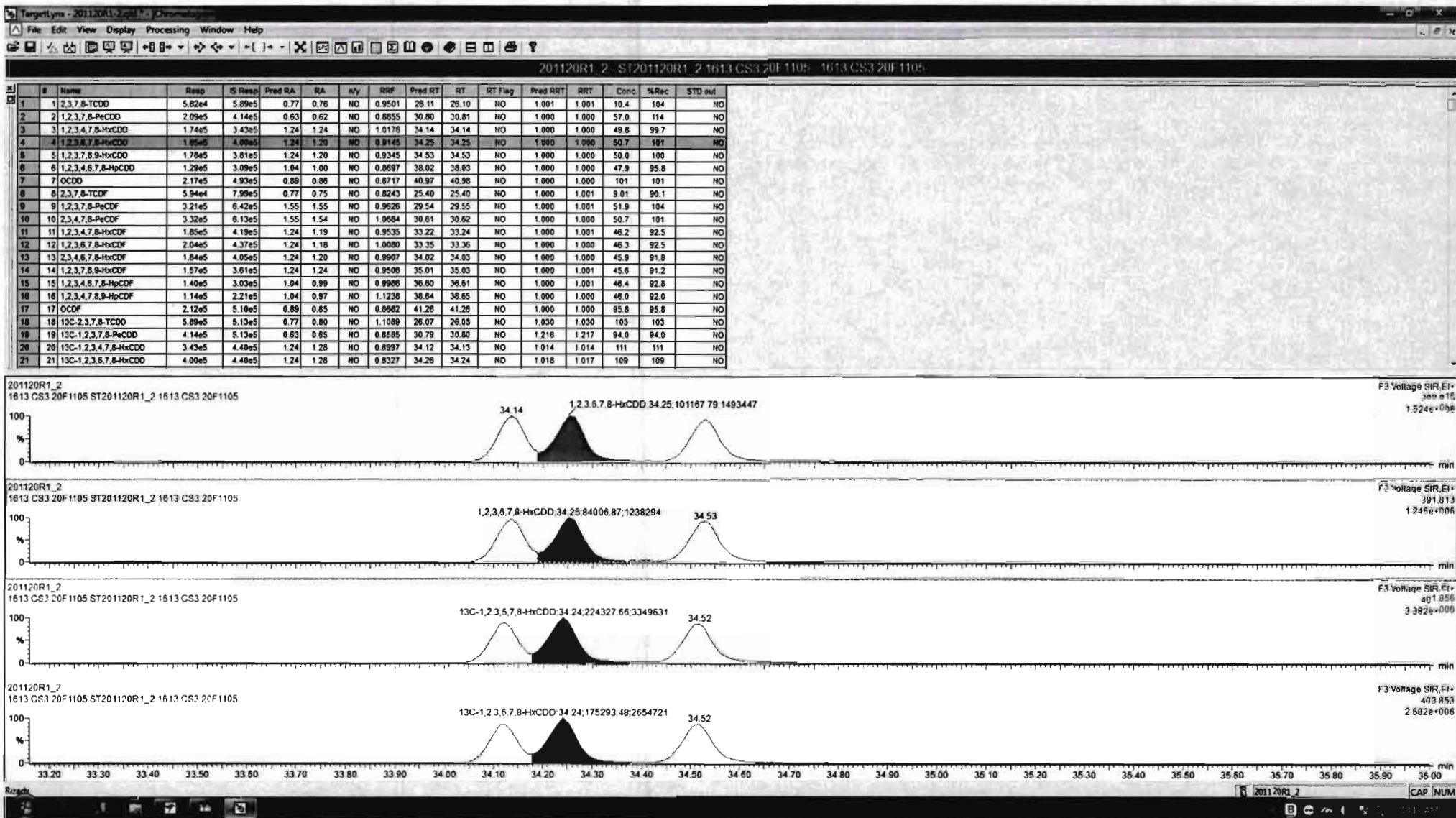
**13C-1,2,3,4,7,8-HxCDD**

201120R1\_2



201120R1\_2





Dataset: Untitled

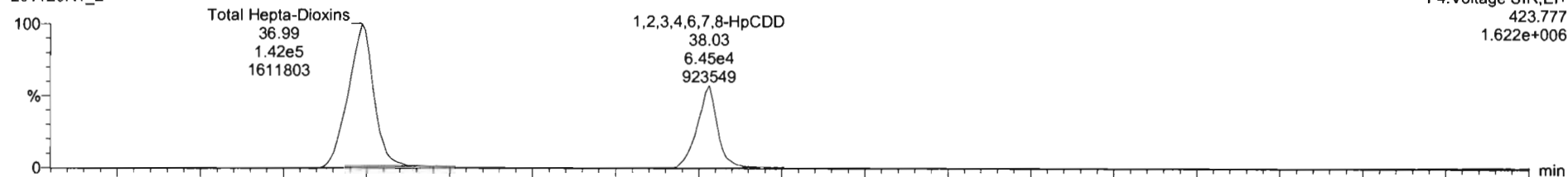
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

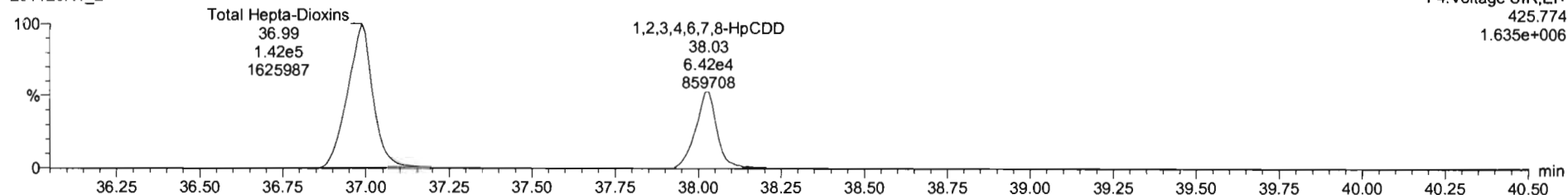
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1,2,3,4,6,7,8-HpCDD

201120R1\_2

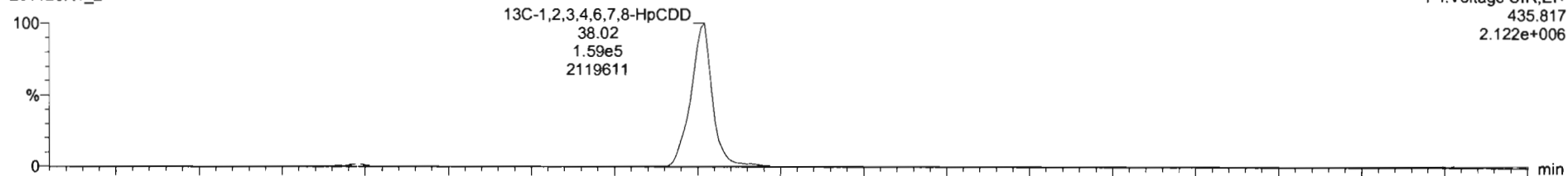


201120R1\_2

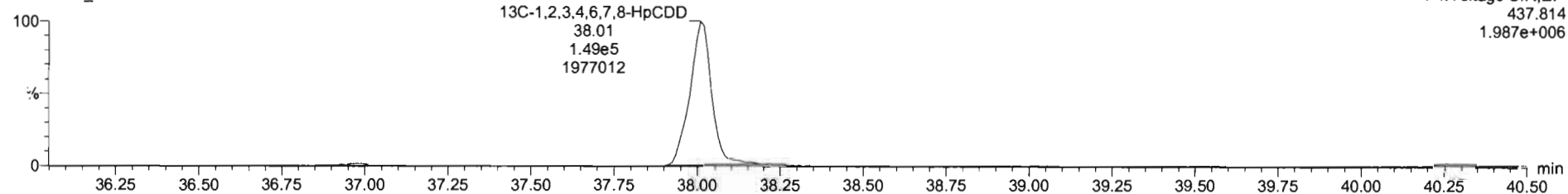


13C-1,2,3,4,6,7,8-HpCDD

201120R1\_2



201120R1\_2



Dataset: Untitled

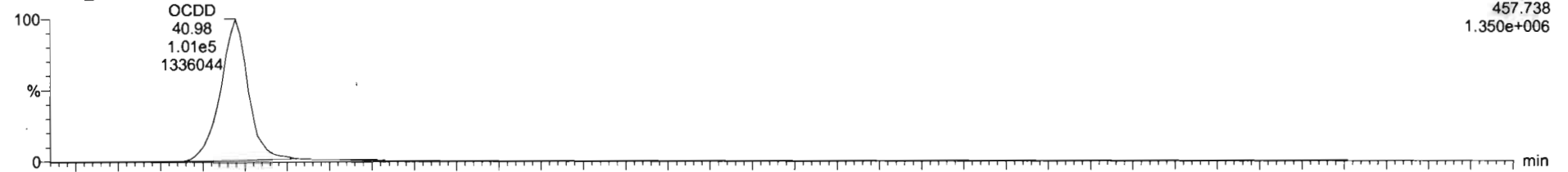
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

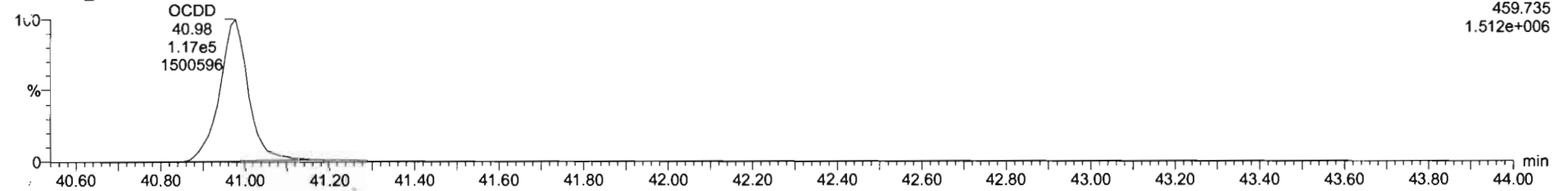
**OCDD**

201120R1\_2



F5:Voltage SIR,EI+  
457.738  
1.350e+006

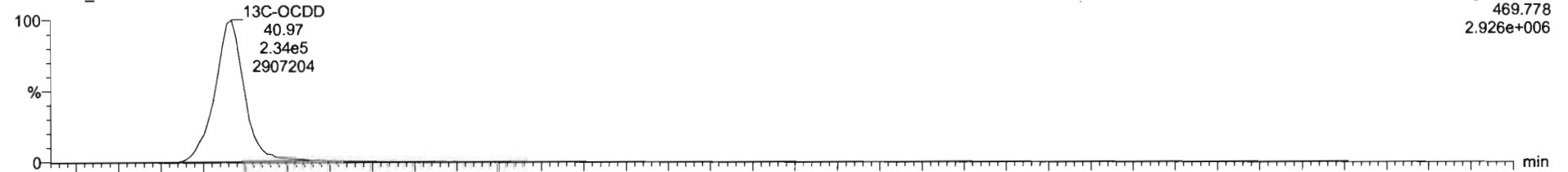
201120R1\_2



F5:Voltage SIR,EI+  
459.735  
1.512e+006

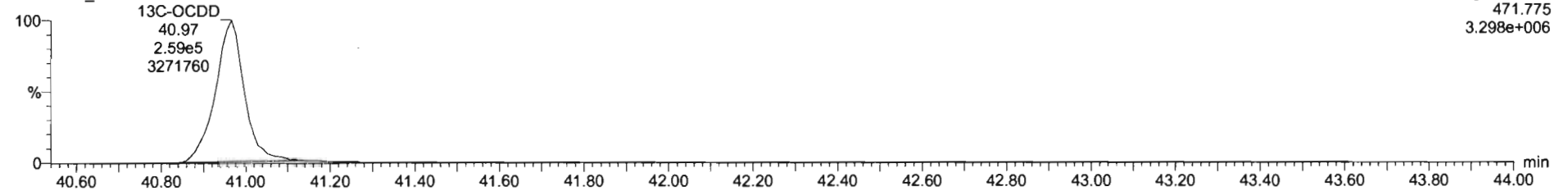
**13C-OCDD**

201120R1\_2



F5:Voltage SIR,EI+  
469.778  
2.926e+006

201120R1\_2



F5:Voltage SIR,EI+  
471.775  
3.298e+006

Dataset: Untitled

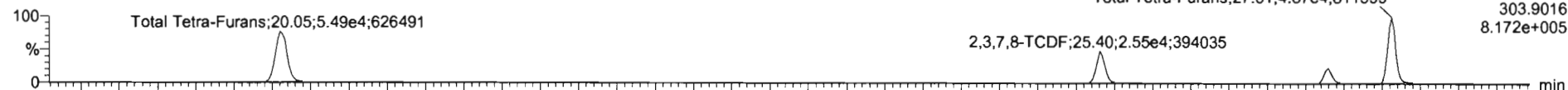
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

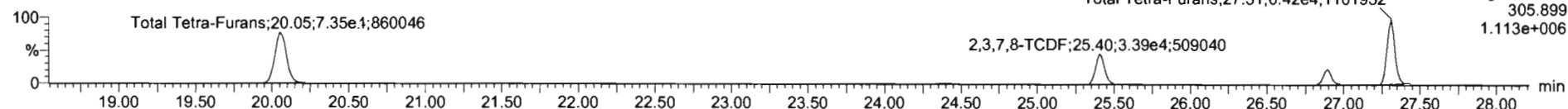
Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**2,3,7,8-TCDF**

201120R1\_2

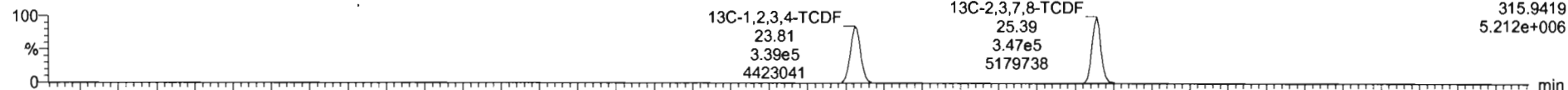


201120R1\_2

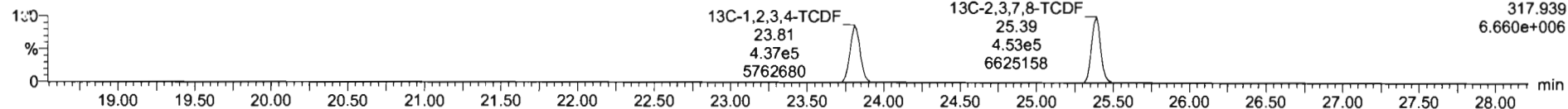


**13C-2,3,7,8-TCDF**

201120R1\_2

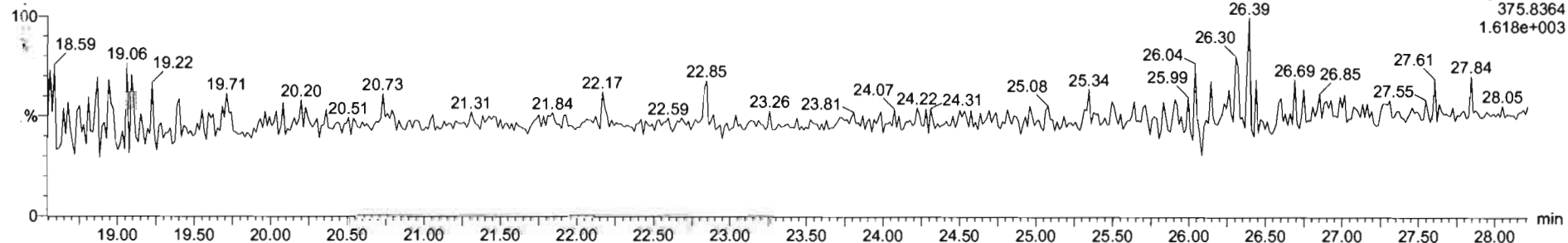


201120R1\_2



**DPE1**

201120R1\_2





Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

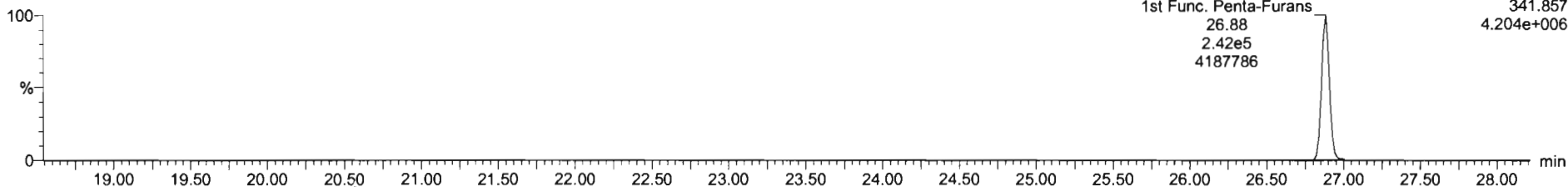
Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1st Func. Penta-Furans

201120R1\_2

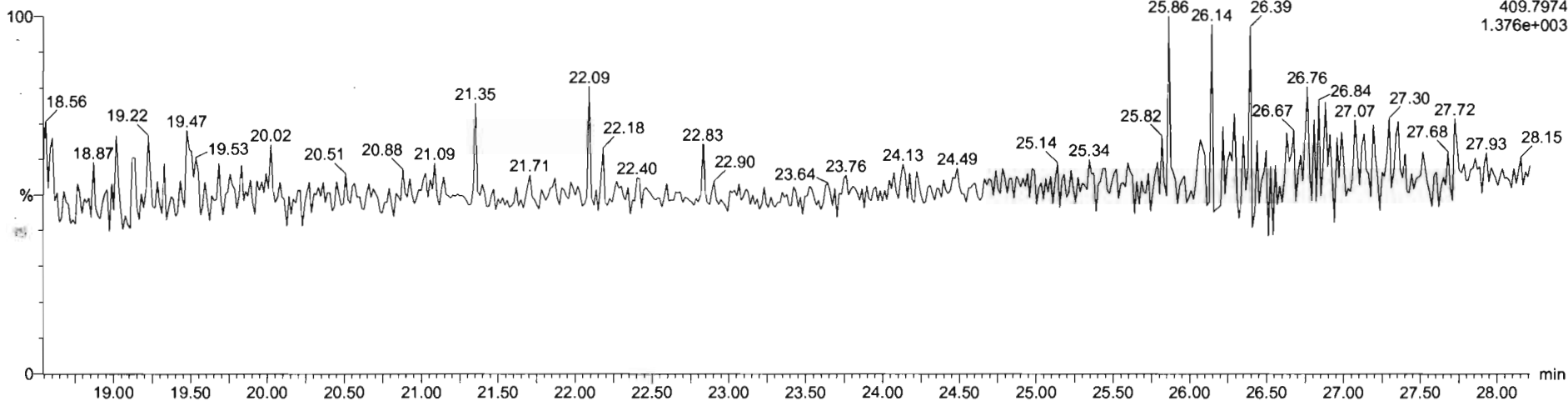


201120R1\_2



DPE6

201120R1\_2



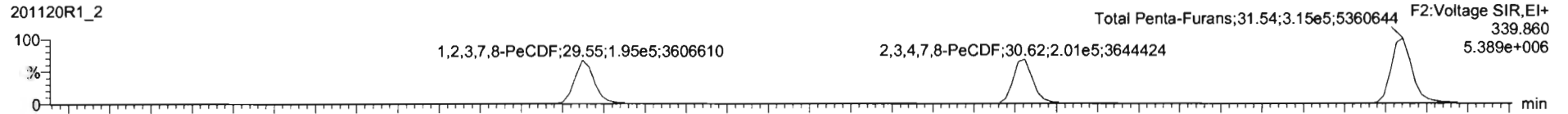
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

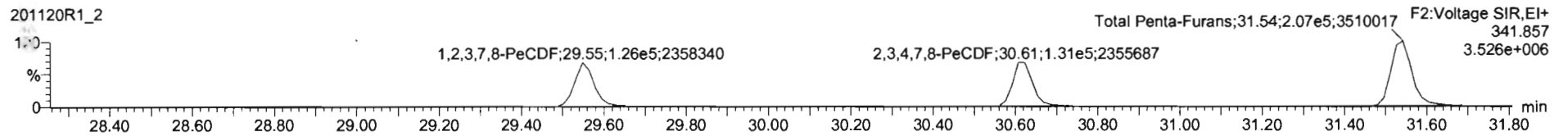
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**1,2,3,7,8-PeCDF**

201120R1\_2

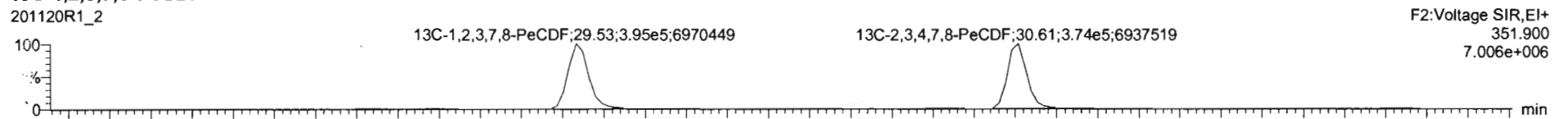


201120R1\_2

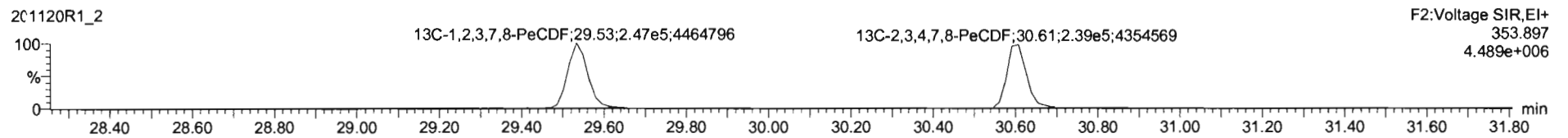


**13C-1,2,3,7,8-PeCDF**

201120R1\_2

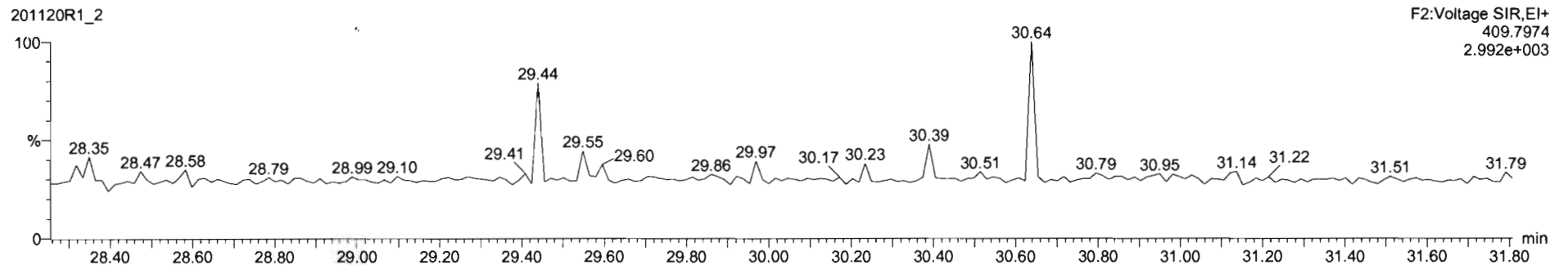


201120R1\_2



**DPE2**

201120R1\_2

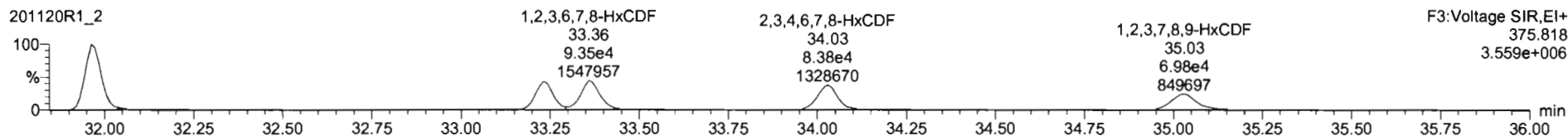
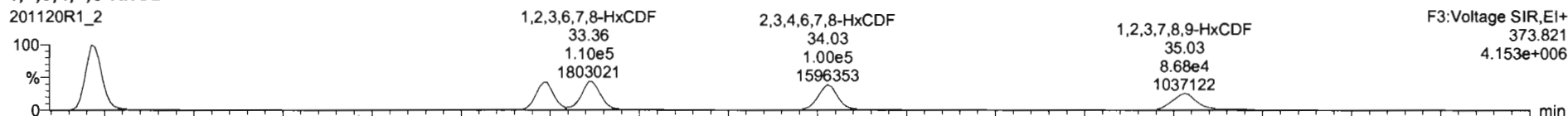


Dataset: Untitled

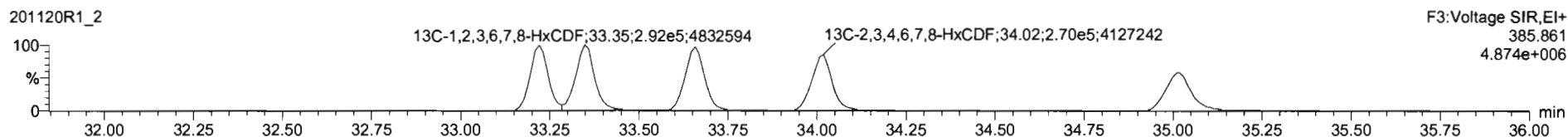
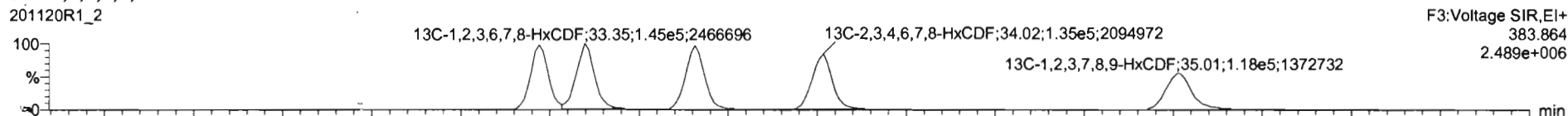
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

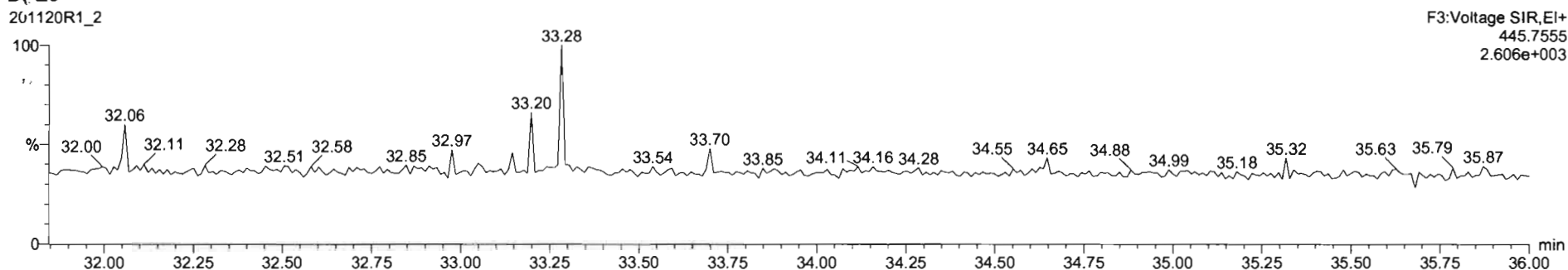
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



D<sub>5</sub>E3

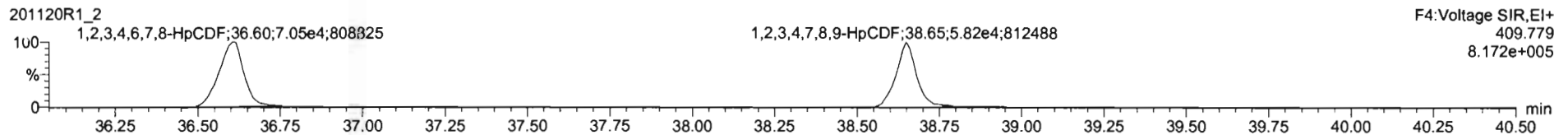
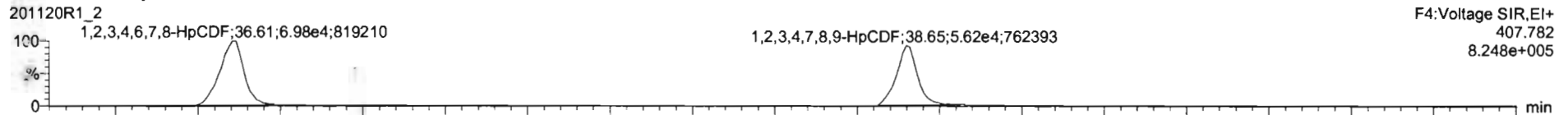


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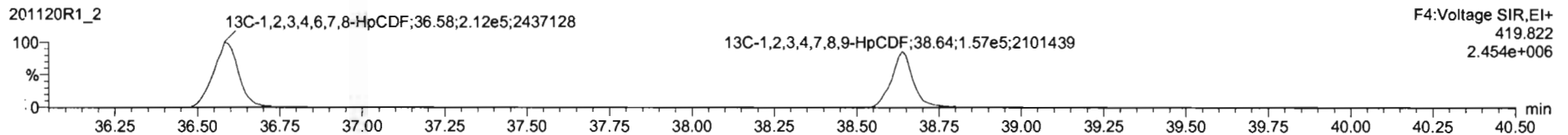
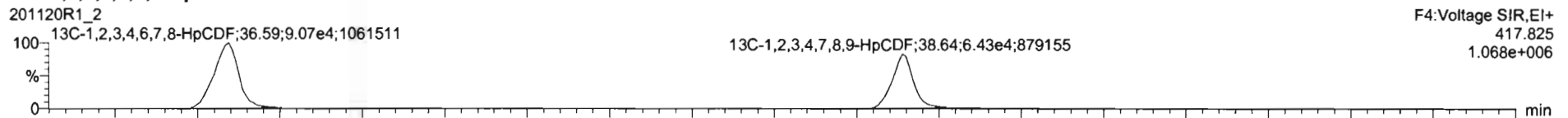
Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time  
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

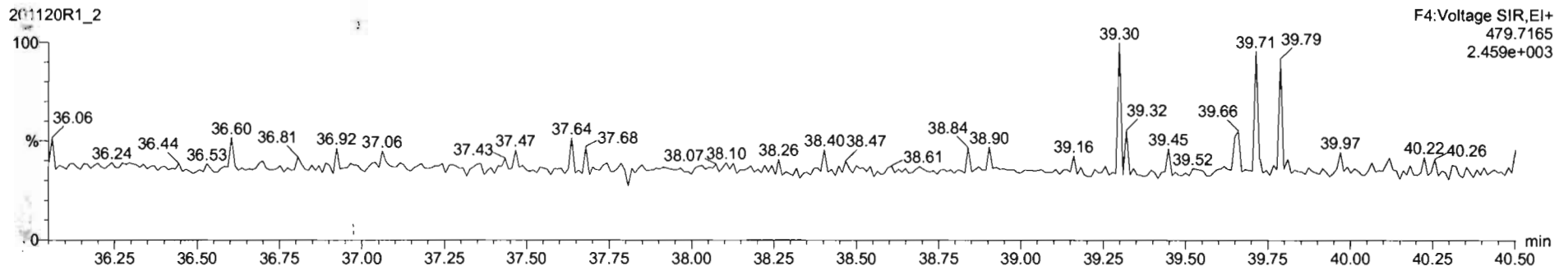
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

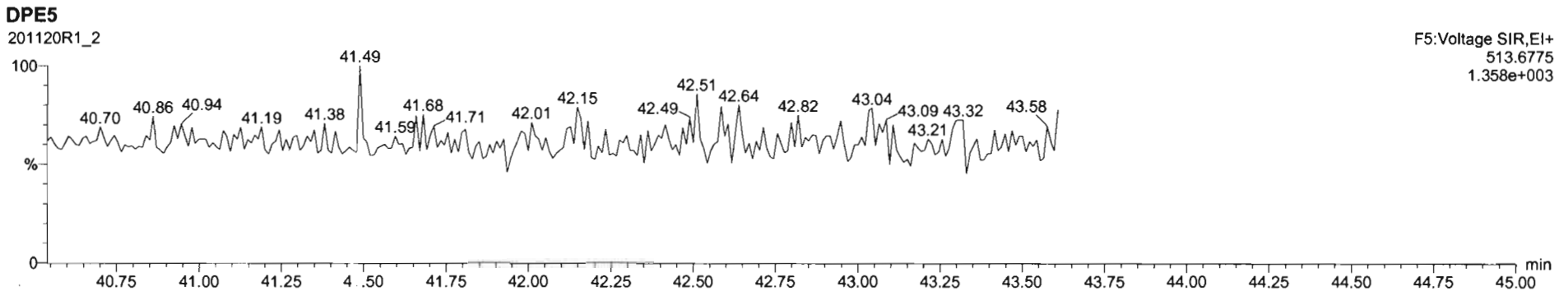
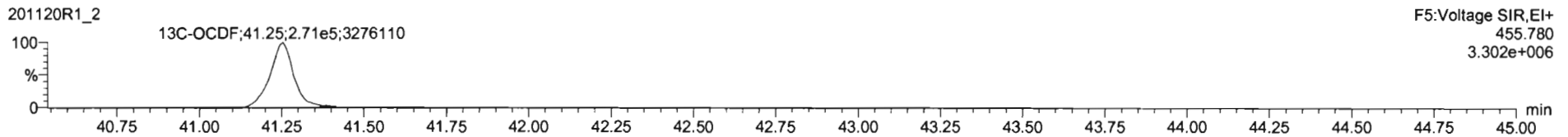
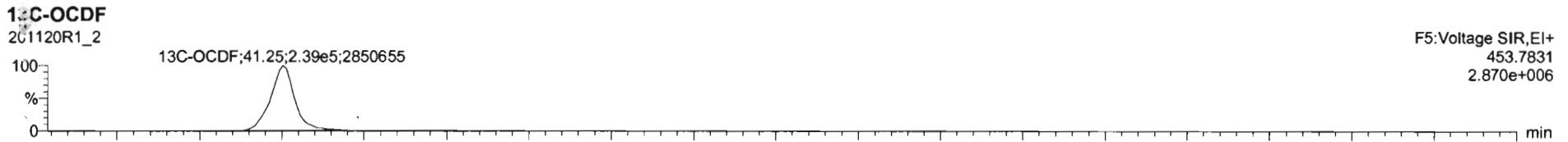
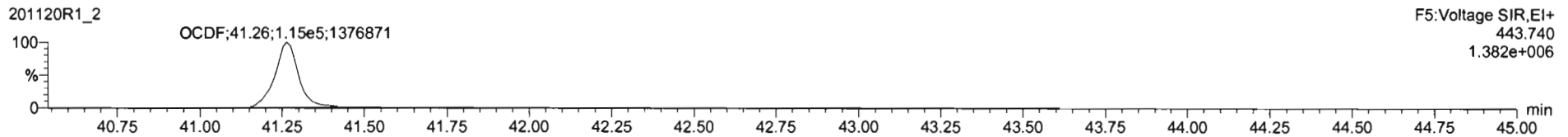
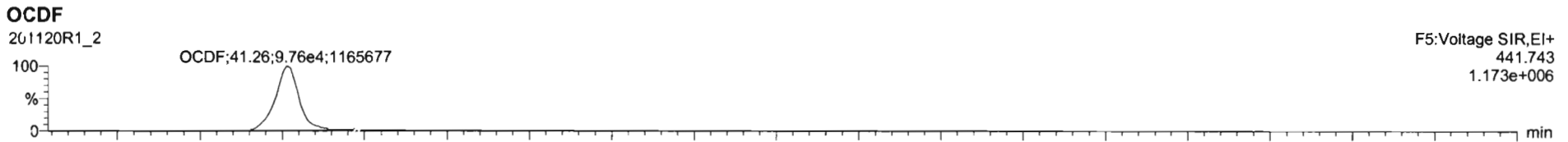


Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

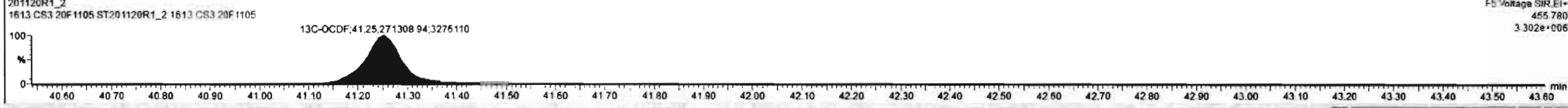
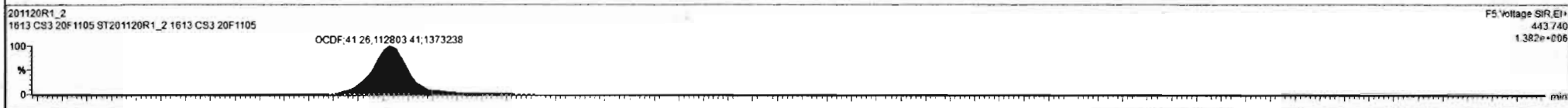
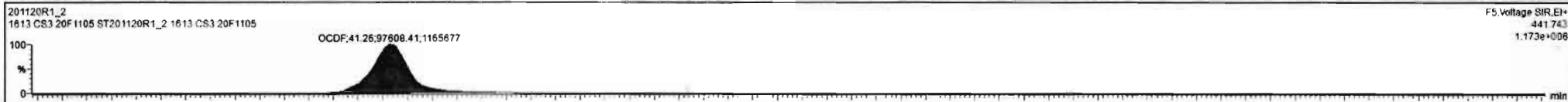
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105





#	Name	Resp	IS Resp	Pred RA	RA	nly	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	2,3,7,8-TCDD	5.82e4	5.89e5	0.77	0.78	NO	0.9501	29.11	29.10	NO	1.001	1.031	10.4	104	NO
2	1,2,3,7,8-PeCDD	2.09e5	4.14e5	0.63	0.62	NO	0.8855	30.80	30.81	NO	1.000	1.000	57.0	114	NO
3	1,2,3,4,7,8-HxCDD	1.74e5	3.43e5	1.24	1.24	NO	1.0176	34.14	34.14	NO	1.000	1.000	49.8	99.7	NO
4	1,2,3,6,7,8-HxCDD	1.85e5	4.00e5	1.24	1.20	NO	0.9145	34.25	34.25	NO	1.000	1.000	50.7	101	NO
5	1,2,3,7,8,9-HxCDD	1.78e5	3.81e5	1.24	1.20	NO	0.9345	34.53	34.53	NO	1.000	1.000	50.0	100	NO
6	1,2,3,4,6,7,8-HpCDD	1.29e5	3.09e5	1.04	1.00	NO	0.8697	38.02	38.03	NO	1.000	1.000	47.9	95.8	NO
7	OCDD	2.17e5	4.93e5	0.89	0.86	NO	0.8717	40.97	40.98	NO	1.000	1.000	101	101	NO
8	2,3,7,8-TCDF	5.94e4	7.99e5	0.77	0.75	NO	0.8243	25.40	25.40	NO	1.000	1.001	9.01	90.1	NO
9	1,2,3,7,8-PeCDF	3.21e5	6.42e5	1.55	1.55	NO	0.9626	29.54	29.55	NO	1.000	1.001	51.9	104	NO
10	2,3,4,7,8-PeCDF	3.32e5	6.13e5	1.55	1.54	NO	1.0684	30.61	30.62	NO	1.000	1.000	50.7	101	NO
11	1,2,3,4,7,8-HxCDF	1.85e5	4.19e5	1.24	1.19	NO	0.9535	33.22	33.24	NO	1.000	1.001	46.2	92.5	NO
12	1,2,3,6,7,8-HxCDF	2.04e5	4.37e5	1.24	1.18	NO	1.0080	33.35	33.36	NO	1.000	1.000	46.3	92.5	NO
13	2,3,4,6,7,8-HxCDF	1.84e5	4.05e5	1.24	1.20	NO	0.9907	34.02	34.03	NO	1.000	1.000	45.9	91.8	NO
14	1,2,3,7,8,9-HxCDF	1.57e5	3.61e5	1.24	1.24	NO	0.9506	35.01	35.03	NO	1.000	1.001	45.6	91.2	NO
15	1,2,3,4,6,7,8-HpCDF	1.40e5	3.03e5	1.04	0.99	NO	0.9986	36.60	36.61	NO	1.000	1.001	46.4	92.8	NO
16	1,2,3,4,7,8,9-HpCDF	1.14e5	2.21e5	1.04	0.97	NO	1.1238	38.84	38.85	NO	1.000	1.000	48.0	92.0	NO
17	OCDF	2.16e5	5.10e5	0.89	0.87	NO	0.8082	41.28	41.28	NO	1.000	1.000	95.8	95.8	NO
18	13C-2,3,7,8-TCDD	5.89e5	5.13e5	0.77	0.80	NO	1.1089	28.07	28.08	NO	1.030	1.030	103	103	NO
19	13C-1,2,3,7,8-PeCDD	4.14e5	5.13e5	0.63	0.85	NO	0.8585	30.79	30.80	NO	1.216	1.217	94.0	94.0	NO
20	13C-1,2,3,4,7,8-HxCDD	3.43e5	4.40e5	1.24	1.28	NO	0.6997	34.12	34.13	NO	1.014	1.014	111	111	NO
21	13C-1,2,3,6,7,8-HxCDD	4.00e5	4.40e5	1.24	1.28	NO	0.8327	34.26	34.24	NO	1.015	1.017	109	109	NO



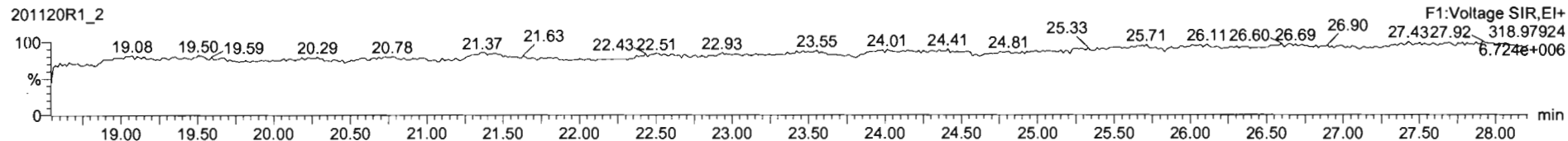
Dataset: Untitled

Last Altered: Saturday, November 21, 2020 9:51:32 AM Pacific Standard Time

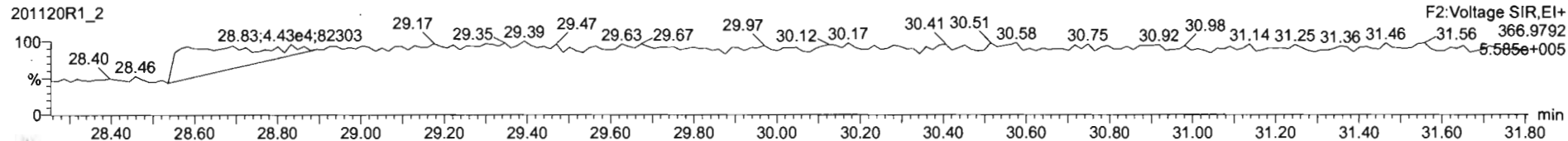
Printed: Saturday, November 21, 2020 9:56:20 AM Pacific Standard Time

Name: 201120R1\_2, Date: 20-Nov-2020, Time: 08:37:44, ID: ST201120R1\_2 1613 CS3 20F1105, Description: 1613 CS3 20F1105

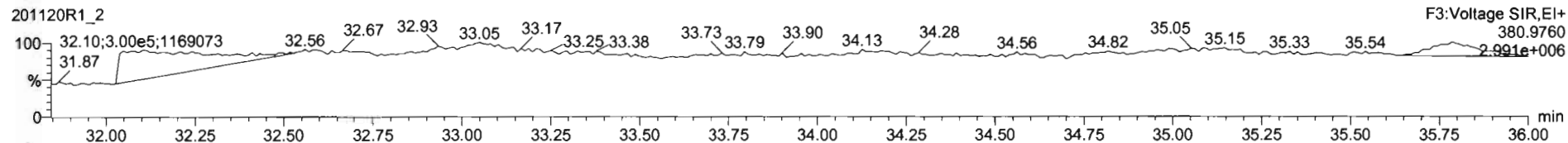
PFK1



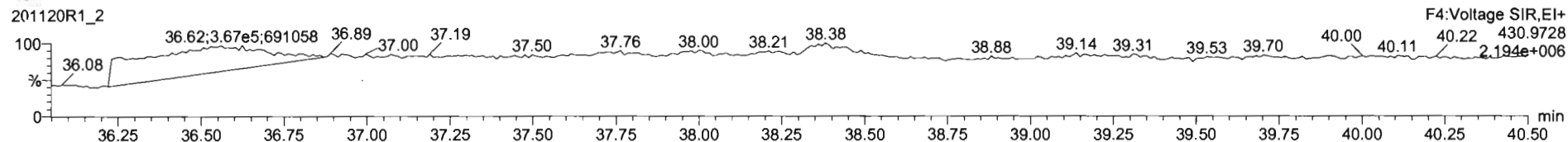
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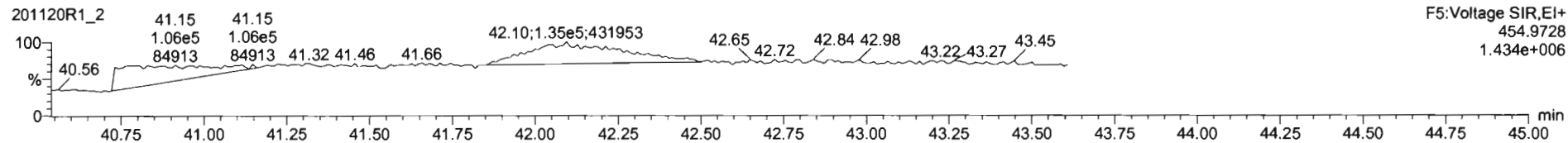
PFK3



PFK4



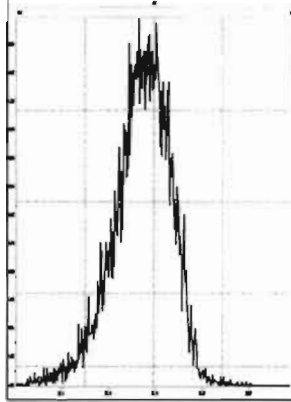
PFK5



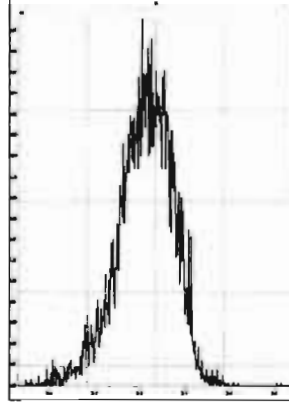
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Saturday, November 21, 2020 09:49:39 Pacific Standard Time

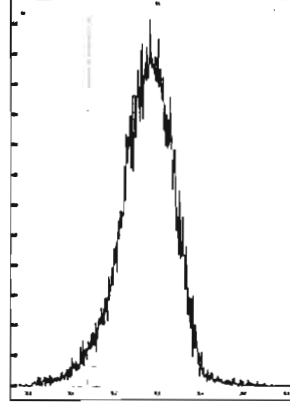
M 292.9824 R 11061



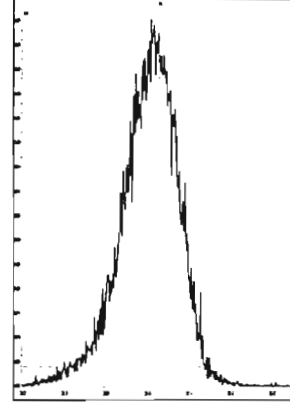
M 304.9824 R 11623



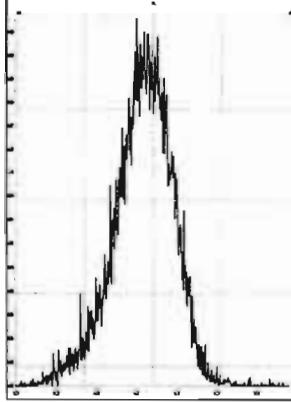
M 318.9792 R 11260



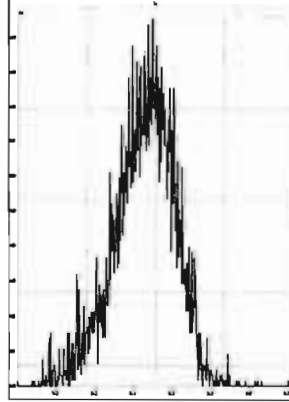
M 330.9792 R 10777



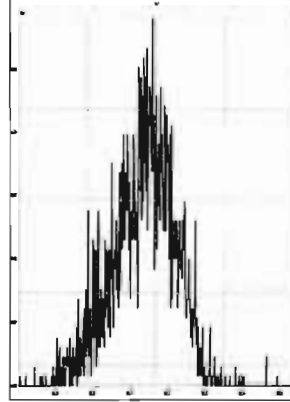
M 342.9792 R 10415



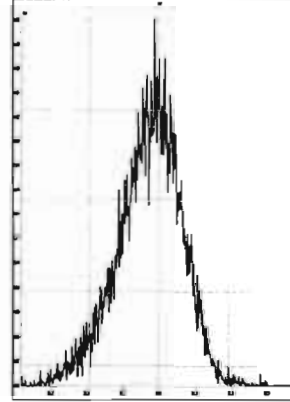
M 354.9792 R 11738



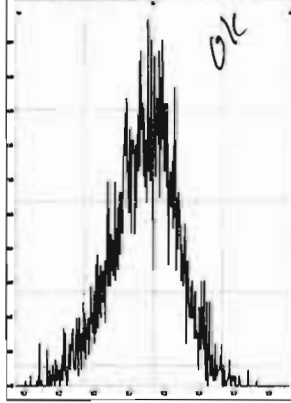
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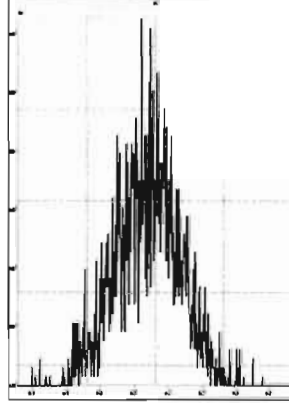
M 380.9760 R 10331



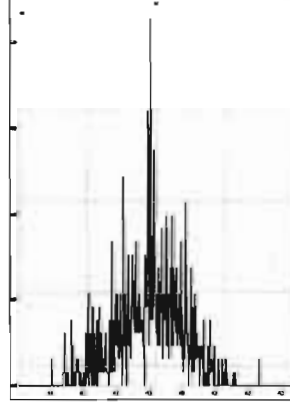
M 392.9760 R 9998



M 404.9760 R 11013



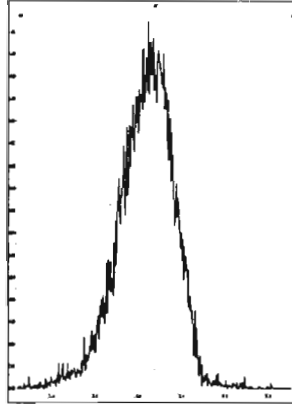
M 416.9760 R 11576



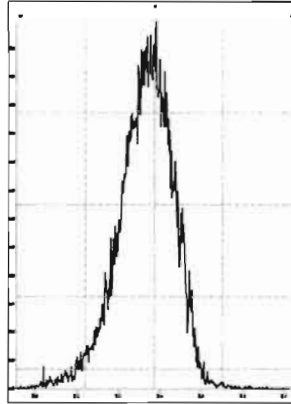
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Saturday, November 21, 2020 09:50:01 Pacific Standard Time

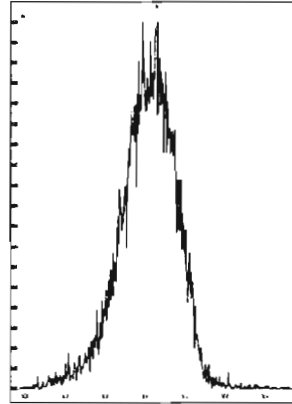
M 318.9792 R 11737



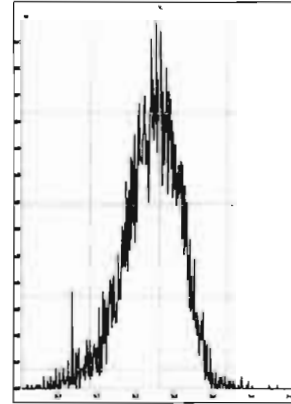
M 330.9792 R 10872



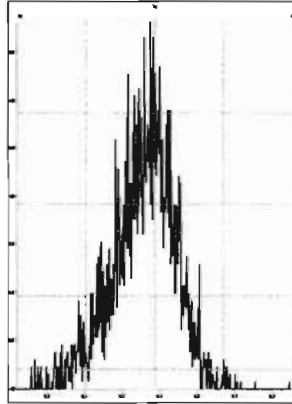
M 342.9792 R 11261



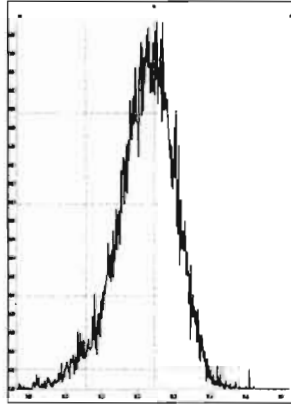
M 354.9792 R 13017



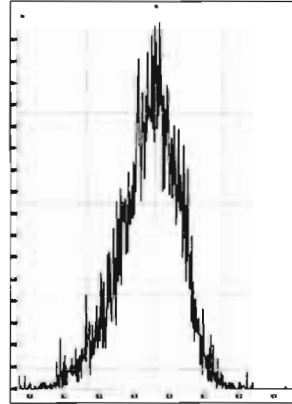
M 366.9792 R 12375



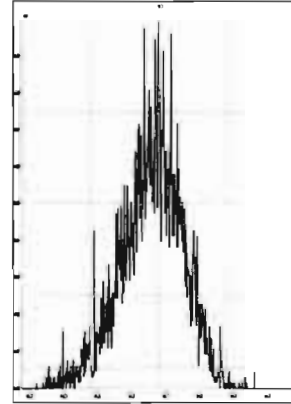
M 380.9760 R 10458



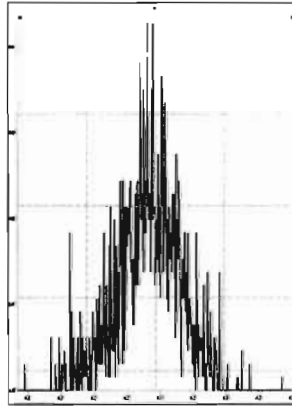
M 392.9760 R 10916



M 404.9760 R 10289



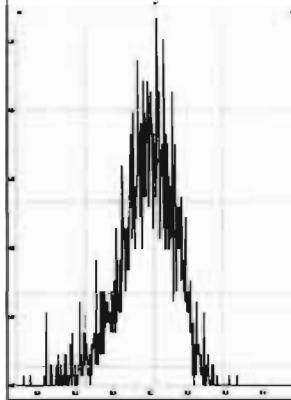
M 416.9760 R 12437



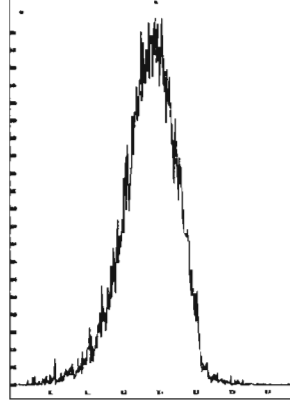
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Saturday, November 21, 2020 09:50:20 Pacific Standard Time

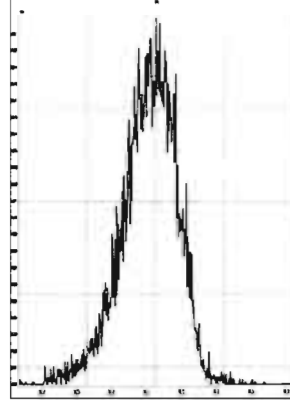
M 366.9792 R 13298



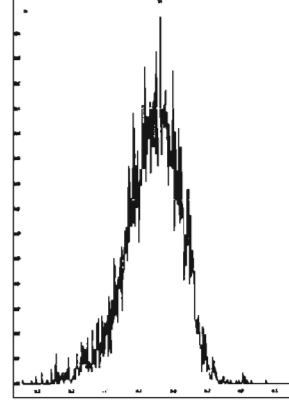
M 380.9760 R 11572



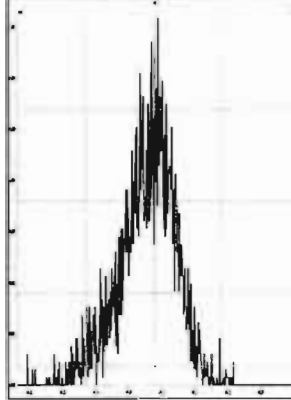
M 392.9760 R 10638



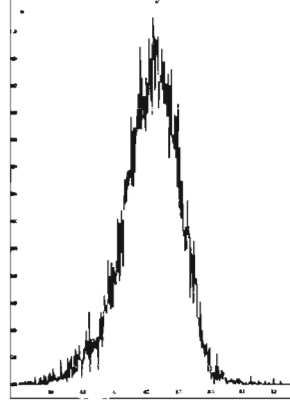
M 404.9760 R 12502



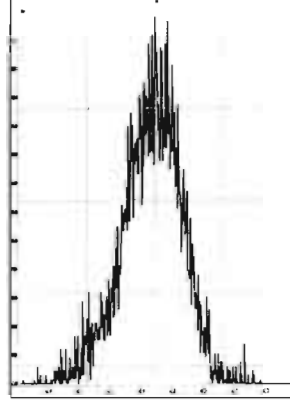
M 416.9760 R 14619



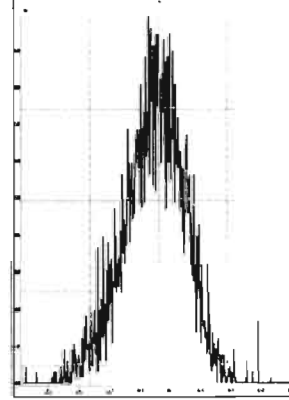
M 430.9728 R 12497



M 442.9728 R 11467



M 454.9728 R 10205

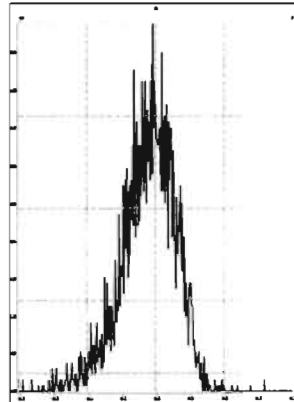




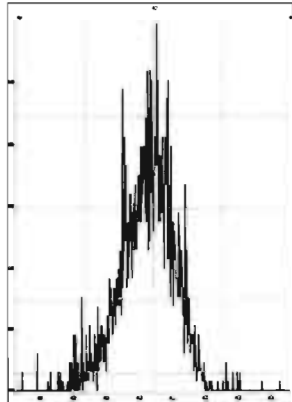
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Printed: Saturday, November 21, 2020 09:50:37 Pacific Standard Time

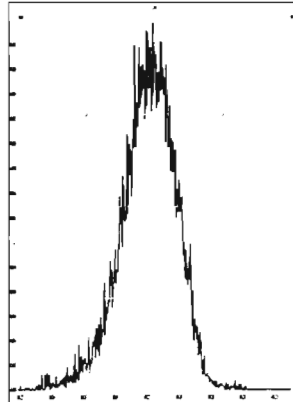
M 404.9760 R 12253



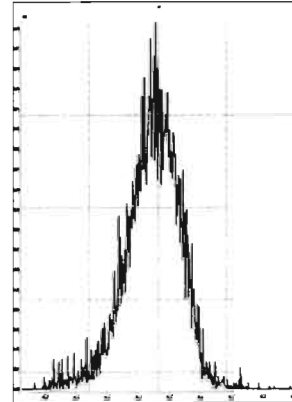
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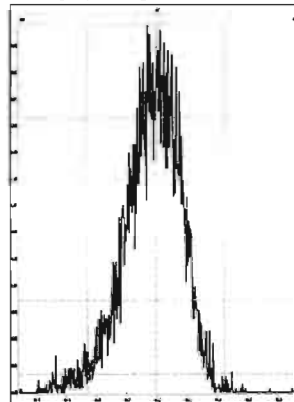
M 430.9728 R 10868



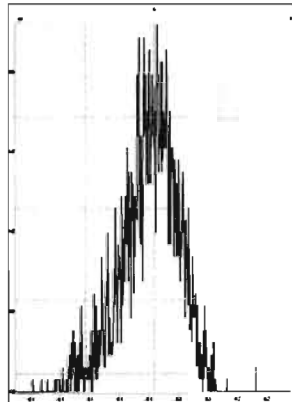
M 442.9728 R 12751



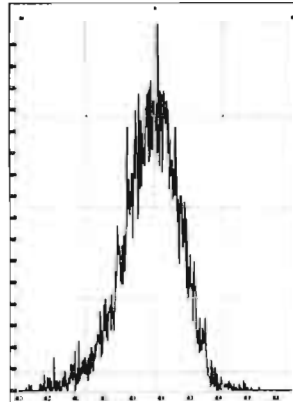
M 454.9728 R 11362



M 466.9728 R 13298



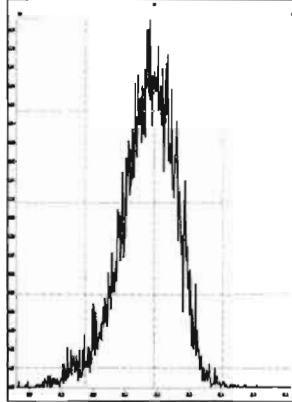
M 480.9696 R 11263



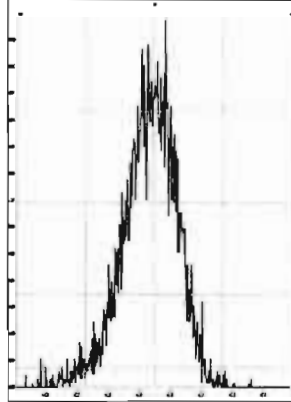
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Saturday, November 21, 2020 09:50:55 Pacific Standard Time

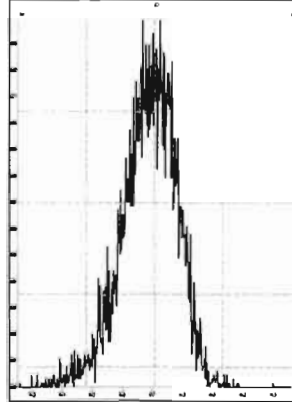
M 430.9728 R 12315



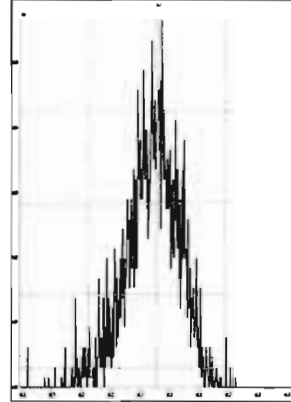
M 442.9728 R 12628



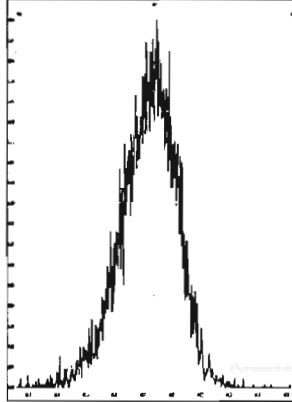
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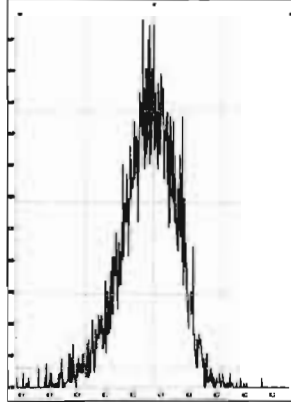
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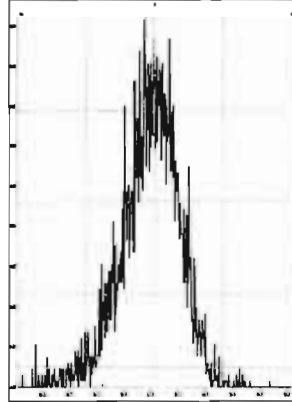
M 480.9696 R 11364



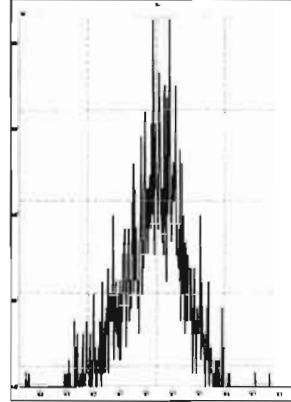
M 492.9696 R 11626



M 504.9696 R 11520



M 516.9697 R 12692



## **INITIAL CALIBRATION**

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

Last Altered: Tuesday, October 20, 2020 14:36:10 Pacific Daylight Time

Printed: Tuesday, October 20, 2020 15:22:41 Pacific Daylight Time

GRB 10/20/20  
HW 10/20/2020

Method: U:\VG12.PRO\MethDB\1613rrt-10-20-20.mdb 20 Oct 2020 10:47:39

Calibration: U:\VG12.PRO\CurveDB\ldbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 14:36:10

Compound name: 2,3,7,8-TCDD

Response Factor: 0.950098

RRF SD: 0.10465, Relative SD: 11.0146

Response type: Internal Std ( Ref 18 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	0.250	0.81	NO	26.29	1.001	2.37e3	1.11e6	0.224	-10.3	0.852	MM
2	201020R1_2	0.500	0.75	NO	26.31	1.001	5.59e3	1.28e6	0.460	-8.0	0.874	bb
3	201020R1_3	2.00	0.75	NO	26.29	1.001	2.28e4	1.32e6	1.82	-8.9	0.866	bb
4	201020R1_4	40.0	0.77	NO	26.32	1.000	3.56e5	8.62e5	43.4	8.6	1.03	bb
5	201020R1_5	300	0.78	NO	26.29	1.001	4.63e6	1.39e6	350	16.7	1.11	bb
6	201020R1_6	10.0	0.76	NO	26.29	1.001	1.18e5	1.22e6	10.2	1.9	0.969	MM

Compound name: 1,2,3,7,8-PeCDD

Response Factor: 0.885499

RRF SD: 0.0848416, Relative SD: 9.58122

Response type: Internal Std ( Ref 19 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	0.59	NO	30.96	1.001	8.54e3	8.68e5	1.11	-11.0	0.788	bb
2	201020R1_2	2.50	0.63	NO	30.96	1.000	1.82e4	9.11e5	2.25	-9.8	0.798	bb
3	201020R1_3	10.0	0.61	NO	30.96	1.001	8.73e4	1.03e6	9.59	-4.1	0.849	bb
4	201020R1_4	200	0.62	NO	30.98	1.001	1.24e6	6.47e5	217	8.5	0.961	MM
5	201020R1_5	1500	0.62	NO	30.98	1.001	1.71e7	1.16e6	1670	11.0	0.983	bb
6	201020R1_6	50.0	0.62	NO	30.96	1.001	4.46e5	9.55e5	52.7	5.5	0.934	bb

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

Last Altered: Tuesday, October 20, 2020 14:36:10 Pacific Daylight Time  
 Printed: Tuesday, October 20, 2020 15:22:41 Pacific Daylight Time

**Compound name: 1,2,3,4,7,8-HxCDD**

Response Factor: 1.01755

RRF SD: 0.10207, Relative SD: 10.0309

Response type: Internal Std ( Ref 20 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.20	NO	34.28	1.000	6.99e3	6.21e5	1.11	-11.5	0.901	bd
2	201020R1_2	2.50	1.26	NO	34.27	1.000	1.48e4	6.65e5	2.19	-12.3	0.892	bd
3	201020R1_3	10.0	1.25	NO	34.28	1.001	7.13e4	7.07e5	9.91	-0.9	1.01	bd
4	201020R1_4	200	1.24	NO	34.29	1.000	1.04e6	4.71e5	218	8.9	1.11	bd
5	201020R1_5	1500	1.23	NO	34.28	1.000	1.49e7	8.81e5	1660	10.7	1.13	bd
6	201020R1_6	50.0	1.27	NO	34.28	1.000	3.59e5	6.72e5	52.5	5.0	1.07	bd

**Compound name: 1,2,3,6,7,8-HxCDD**

Response Factor: 0.914527

RRF SD: 0.0845585, Relative SD: 9.24614

Response type: Internal Std ( Ref 21 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.17	NO	34.41	1.001	7.95e3	7.36e5	1.18	-5.5	0.864	db
2	201020R1_2	2.50	1.28	NO	34.40	1.001	1.57e4	7.73e5	2.22	-11.1	0.813	db
3	201020R1_3	10.0	1.29	NO	34.40	1.001	7.37e4	8.70e5	9.27	-7.3	0.847	db
4	201020R1_4	200	1.25	NO	34.41	1.001	1.17e6	5.87e5	218	8.9	0.996	db
5	201020R1_5	1500	1.24	NO	34.40	1.000	1.55e7	1.02e6	1670	11.1	1.02	db
6	201020R1_6	50.0	1.26	NO	34.41	1.001	3.73e5	7.84e5	52.0	4.0	0.951	db

**Compound name: 1,2,3,7,8,9-HxCDD**

Response Factor: 0.934452

RRF SD: 0.104124, Relative SD: 11.1428

Response type: Internal Std ( Ref 22 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.17	NO	34.67	1.000	6.89e3	6.69e5	1.10	-11.8	0.824	bb
2	201020R1_2	2.50	1.24	NO	34.67	1.000	1.48e4	7.19e5	2.21	-11.8	0.825	bb

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

Last Altered: Tuesday, October 20, 2020 14:36:10 Pacific Daylight Time  
 Printed: Tuesday, October 20, 2020 15:22:41 Pacific Daylight Time

**Compound name: 1,2,3,7,8,9-HxCDD**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	10.0	1.25	NO	34.66	1.000	7.04e4	8.01e5	9.42	-5.8	0.880	bb
4	201020R1_4	200	1.24	NO	34.69	1.000	1.07e6	5.18e5	222	10.9	1.04	bb
5	201020R1_5	1500	1.24	NO	34.67	1.000	1.48e7	9.42e5	1680	12.3	1.05	bb
6	201020R1_6	50.0	1.24	NO	34.67	1.000	3.59e5	7.24e5	53.1	6.2	0.992	bb

**Compound name: 1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.869732  
 RRF SD: 0.101922, Relative SD: 11.7188  
 Response type: Internal Std ( Ref 23 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.01	NO	38.16	1.001	5.19e3	5.60e5	1.07	-14.6	0.742	bb
2	201020R1_2	2.50	1.00	NO	38.14	1.000	1.26e4	6.39e5	2.27	-9.4	0.788	bb
3	201020R1_3	10.0	1.06	NO	38.15	1.000	5.46e4	6.69e5	9.38	-6.2	0.816	bd
4	201020R1_4	200	1.03	NO	38.16	1.000	8.51e5	4.44e5	221	10.3	0.960	bb
5	201020R1_5	1500	1.03	NO	38.16	1.001	1.20e7	8.00e5	1720	14.6	0.997	bb
6	201020R1_6	50.0	1.01	NO	38.16	1.000	2.81e5	6.15e5	52.6	5.2	0.915	bb

**Compound name: OCDD**

Response Factor: 0.871682  
 RRF SD: 0.0918681, Relative SD: 10.5392  
 Response type: Internal Std ( Ref 24 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	2.50	0.91	NO	41.11	1.000	8.88e3	8.86e5	2.30	-8.0	0.802	MM
2	201020R1_2	5.00	0.83	NO	41.10	1.000	2.03e4	1.06e6	4.38	-12.3	0.764	bd
3	201020R1_3	20.0	0.91	NO	41.12	1.000	9.08e4	1.12e6	18.6	-7.0	0.811	bd
4	201020R1_4	400	0.89	NO	41.10	1.000	1.42e6	7.38e5	442	10.4	0.963	bb
5	201020R1_5	3000	0.87	NO	41.13	1.000	2.01e7	1.36e6	3380	12.8	0.983	bb
6	201020R1_6	100	0.88	NO	41.12	1.000	4.65e5	1.02e6	104	4.1	0.907	MM



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**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.824288  
 RRF SD: 0.0905517, Relative SD: 10.9854  
 Response type: Internal Std ( Ref 25 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	0.250	0.75	NO	25.61	1.001	2.81e3	1.53e6	0.223	-11.0	0.734	MM
2	201020R1_2	0.500	0.74	NO	25.61	1.001	6.37e3	1.70e6	0.454	-9.1	0.749	MM
3	201020R1_3	2.00	0.77	NO	25.61	1.001	2.79e4	1.82e6	1.86	-7.2	0.765	bb
4	201020R1_4	40.0	0.75	NO	25.64	1.000	4.26e5	1.19e6	43.4	8.5	0.895	bb
5	201020R1_5	300	0.76	NO	25.61	1.001	5.36e6	1.86e6	349	16.4	0.959	bb
6	201020R1_6	10.0	0.75	NO	25.61	1.001	1.42e5	1.69e6	10.2	2.4	0.844	bb

**Compound name: 1,2,3,7,8-PeCDF**

Response Factor: 0.962587  
 RRF SD: 0.0802385, Relative SD: 8.33572  
 Response type: Internal Std ( Ref 26 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.60	NO	29.71	1.001	1.34e4	1.22e6	1.14	-8.9	0.877	bb
2	201020R1_2	2.50	1.55	NO	29.71	1.001	2.85e4	1.30e6	2.27	-9.4	0.872	bb
3	201020R1_3	10.0	1.60	NO	29.71	1.001	1.32e5	1.42e6	9.68	-3.2	0.932	bb
4	201020R1_4	200	1.56	NO	29.73	1.001	1.94e6	9.55e5	211	5.6	1.02	bd
5	201020R1_5	1500	1.55	NO	29.71	1.000	2.60e7	1.63e6	1660	10.5	1.06	bb
6	201020R1_6	50.0	1.57	NO	29.71	1.001	7.00e5	1.38e6	52.7	5.4	1.01	bb

**Compound name: 2,3,4,7,8-PeCDF**

Response Factor: 1.06841  
 RRF SD: 0.0935936, Relative SD: 8.76011  
 Response type: Internal Std ( Ref 27 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.58	NO	30.76	1.000	1.39e4	1.16e6	1.13	-9.8	0.964	bb
2	201020R1_2	2.50	1.59	NO	30.77	1.001	3.11e4	1.29e6	2.26	-9.6	0.966	bb

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**Compound name: 2,3,4,7,8-PeCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	10.0	1.62	NO	30.75	1.000	1.51e5	1.45e6	9.71	-2.9	1.04	bb
4	201020R1_4	200	1.56	NO	30.77	1.000	2.12e6	9.27e5	214	7.1	1.14	bd
5	201020R1_5	1500	1.55	NO	30.77	1.001	2.83e7	1.59e6	1660	10.9	1.18	bb
6	201020R1_6	50.0	1.55	NO	30.76	1.000	7.58e5	1.36e6	52.1	4.2	1.11	bb

**Compound name: 1,2,3,4,7,8-HxCDF**

Response Factor: 0.953478  
 RRF SD: 0.113056, Relative SD: 11.8572  
 Response type: Internal Std ( Ref 28 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.21	NO	33.37	1.000	8.75e3	8.65e5	1.06	-15.1	0.809	bd
2	201020R1_2	2.50	1.22	NO	33.37	1.000	1.91e4	9.23e5	2.17	-13.2	0.828	bd
3	201020R1_3	10.0	1.23	NO	33.37	1.001	9.24e4	9.76e5	9.93	-0.7	0.947	bd
4	201020R1_4	200	1.22	NO	33.38	1.000	1.33e6	6.36e5	219	9.6	1.05	bd
5	201020R1_5	1500	1.22	NO	33.37	1.000	1.86e7	1.15e6	1690	12.9	1.08	bd
6	201020R1_6	50.0	1.23	NO	33.37	1.000	4.69e5	9.24e5	53.2	6.4	1.01	bd

**Compound name: 1,2,3,6,7,8-HxCDF**

Response Factor: 1.00798  
 RRF SD: 0.112388, Relative SD: 11.1498  
 Response type: Internal Std ( Ref 29 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.18	NO	33.50	1.000	1.00e4	9.15e5	1.08	-13.2	0.875	db
2	201020R1_2	2.50	1.29	NO	33.50	1.000	2.13e4	9.59e5	2.20	-11.9	0.888	db
3	201020R1_3	10.0	1.23	NO	33.50	1.001	1.00e5	1.03e6	9.63	-3.7	0.971	db
4	201020R1_4	200	1.22	NO	33.51	1.000	1.55e6	6.96e5	221	10.5	1.11	db
5	201020R1_5	1500	1.22	NO	33.50	1.000	2.04e7	1.21e6	1680	11.7	1.13	db
6	201020R1_6	50.0	1.23	NO	33.50	1.000	5.13e5	9.53e5	53.3	6.7	1.08	db

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**Compound name: 2,3,4,6,7,8-HxCDF**

Response Factor: 0.990683

RRF SD: 0.116635, Relative SD: 11.7732

Response type: Internal Std ( Ref 30 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.19	NO	34.18	1.001	8.93e3	8.28e5	1.09	-12.9	0.863	bb
2	201020R1_2	2.50	1.24	NO	34.17	1.000	1.87e4	8.79e5	2.15	-13.9	0.853	bb
3	201020R1_3	10.0	1.27	NO	34.17	1.001	9.17e4	9.58e5	9.66	-3.4	0.957	bb
4	201020R1_4	200	1.23	NO	34.18	1.000	1.37e6	6.32e5	219	9.6	1.09	bb
5	201020R1_5	1500	1.22	NO	34.17	1.000	1.87e7	1.11e6	1700	13.3	1.12	bb
6	201020R1_6	50.0	1.22	NO	34.18	1.001	4.65e5	8.75e5	53.6	7.3	1.06	bb

**Compound name: 1,2,3,7,8,9-HxCDF**

Response Factor: 0.950625

RRF SD: 0.11684, Relative SD: 12.2908

Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.23	NO	35.18	1.001	7.16e3	6.87e5	1.10	-12.3	0.834	bb
2	201020R1_2	2.50	1.20	NO	35.18	1.001	1.62e4	7.96e5	2.14	-14.5	0.813	bb
3	201020R1_3	10.0	1.19	NO	35.17	1.001	7.41e4	8.23e5	9.48	-5.2	0.901	bb
4	201020R1_4	200	1.23	NO	35.19	1.001	1.15e6	5.57e5	217	8.6	1.03	bb
5	201020R1_5	1500	1.23	NO	35.18	1.001	1.60e7	9.75e5	1720	14.8	1.09	bb
6	201020R1_6	50.0	1.25	NO	35.18	1.000	3.95e5	7.65e5	54.3	8.6	1.03	bb

**Compound name: 1,2,3,4,6,7,8-HpCDF**

Response Factor: 0.998573

RRF SD: 0.149251, Relative SD: 14.9464

Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	0.94	NO	36.74	1.000	6.80e3	6.49e5	1.05	-16.2	0.837	bb
2	201020R1_2	2.50	0.96	NO	36.73	1.000	1.54e4	7.21e5	2.13	-14.7	0.852	bb

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**Compound name: 1,2,3,4,6,7,8-HpCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	10.0	0.99	NO	36.74	1.000	7.28e4	8.00e5	9.11	-8.9	0.909	bb
4	201020R1_4	200	1.01	NO	36.76	1.000	1.11e6	4.85e5	230	14.9	1.15	bb
5	201020R1_5	1500	1.01	NO	36.76	1.001	1.52e7	8.73e5	1750	16.3	1.16	bb
6	201020R1_6	50.0	1.01	NO	36.76	1.000	3.78e5	6.97e5	54.2	8.5	1.08	bb

**Compound name: 1,2,3,4,7,8,9-HpCDF**

Response Factor: 1.12384  
 RRF SD: 0.136934, Relative SD: 12.1845  
 Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	1.25	1.02	NO	38.77	1.000	5.83e3	4.78e5	1.08	-13.2	0.975	MM
2	201020R1_2	2.50	1.00	NO	38.77	1.000	1.44e4	5.79e5	2.21	-11.4	0.995	MM
3	201020R1_3	10.0	1.02	NO	38.77	1.000	5.99e4	5.77e5	9.23	-7.7	1.04	bb
4	201020R1_4	200	1.01	NO	38.77	1.000	9.50e5	3.83e5	220	10.2	1.24	bb
5	201020R1_5	1500	1.00	NO	38.78	1.000	1.36e7	7.02e5	1720	14.8	1.29	bb
6	201020R1_6	50.0	1.01	NO	38.78	1.000	3.25e5	5.39e5	53.7	7.4	1.21	bb

**Compound name: OCDF**

Response Factor: 0.868237  
 RRF SD: 0.10594, Relative SD: 12.2017  
 Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	2.50	0.84	NO	41.38	1.000	9.82e3	1.05e6	2.16	-13.7	0.749	MM
2	201020R1_2	5.00	0.90	NO	41.39	1.000	2.31e4	1.24e6	4.32	-13.7	0.750	MM
3	201020R1_3	20.0	0.88	NO	41.40	1.000	1.08e5	1.29e6	19.3	-3.6	0.837	bb
4	201020R1_4	400	0.89	NO	41.39	1.000	1.66e6	8.74e5	439	9.7	0.952	bb
5	201020R1_5	3000	0.89	NO	41.41	1.000	2.39e7	1.60e6	3450	14.9	0.998	bb
6	201020R1_6	100	0.87	NO	41.41	1.000	5.43e5	1.18e6	106	6.4	0.924	bb

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**Compound name: 13C-2,3,7,8-TCDD**

Response Factor: 1.10889

RRF SD: 0.0354221, Relative SD: 3.19438

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.79	NO	26.27	1.030	1.11e6	1.05e6	95.9	-4.1	1.06	bb
2	201020R1_2	100	0.79	NO	26.27	1.030	1.28e6	1.12e6	103	2.6	1.14	bd
3	201020R1_3	100	0.79	NO	26.27	1.030	1.32e6	1.18e6	100	0.5	1.11	bb
4	201020R1_4	100	0.78	NO	26.31	1.030	8.62e5	7.98e5	97.4	-2.6	1.08	bb
5	201020R1_5	100	0.79	NO	26.27	1.030	1.39e6	1.20e6	104	4.4	1.16	bb
6	201020R1_6	100	0.78	NO	26.27	1.030	1.22e6	1.11e6	99.1	-0.9	1.10	bb

**Compound name: 13C-1,2,3,7,8-PeCDD**

Response Factor: 0.858504

RRF SD: 0.0583655, Relative SD: 6.79851

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.62	NO	30.94	1.212	8.68e5	1.05e6	96.7	-3.3	0.830	bb
2	201020R1_2	100	0.63	NO	30.96	1.213	9.11e5	1.12e6	94.4	-5.6	0.811	bb
3	201020R1_3	100	0.63	NO	30.94	1.212	1.03e6	1.18e6	101	1.4	0.871	bb
4	201020R1_4	100	0.62	NO	30.96	1.212	6.47e5	7.98e5	94.5	-5.5	0.811	MM
5	201020R1_5	100	0.63	NO	30.96	1.213	1.16e6	1.20e6	112	12.5	0.966	bb
6	201020R1_6	100	0.63	NO	30.94	1.212	9.55e5	1.11e6	100	0.5	0.863	bb

**Compound name: 13C-1,2,3,4,7,8-HxCDD**

Response Factor: 0.699736

RRF SD: 0.0536682, Relative SD: 7.66977

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.28	NO	34.27	1.014	6.21e5	9.36e5	94.9	-5.1	0.664	bd
2	201020R1_2	100	1.27	NO	34.27	1.014	6.65e5	9.80e5	97.0	-3.0	0.679	bd



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**Compound name: 13C-1,2,3,4,7,8-HxCDD**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	100	1.29	NO	34.26	1.014	7.07e5	1.05e6	96.3	-3.7	0.674	bd
4	201020R1_4	100	1.27	NO	34.28	1.014	4.71e5	6.87e5	98.1	-1.9	0.686	bd
5	201020R1_5	100	1.28	NO	34.27	1.014	8.81e5	1.09e6	115	15.4	0.808	bd
6	201020R1_6	100	1.28	NO	34.27	1.014	6.72e5	9.76e5	98.4	-1.6	0.688	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDD**

Response Factor: 0.832718

RRF SD: 0.0561256, Relative SD: 6.74005

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.27	NO	34.38	1.017	7.36e5	9.36e5	94.5	-5.5	0.787	db
2	201020R1_2	100	1.27	NO	34.38	1.017	7.73e5	9.80e5	94.7	-5.3	0.789	db
3	201020R1_3	100	1.29	NO	34.38	1.017	8.70e5	1.05e6	99.5	-0.5	0.829	db
4	201020R1_4	100	1.28	NO	34.39	1.017	5.87e5	6.87e5	103	2.5	0.854	db
5	201020R1_5	100	1.26	NO	34.39	1.018	1.02e6	1.09e6	112	12.2	0.935	db
6	201020R1_6	100	1.27	NO	34.39	1.018	7.84e5	9.76e5	96.5	-3.5	0.803	db

**Compound name: 13C-1,2,3,7,8,9-HxCDD**

Response Factor: 0.761805

RRF SD: 0.0524899, Relative SD: 6.8902

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.24	NO	34.66	1.026	6.69e5	9.36e5	93.9	-6.1	0.715	bb
2	201020R1_2	100	1.21	NO	34.66	1.026	7.19e5	9.80e5	96.3	-3.7	0.733	bb
3	201020R1_3	100	1.23	NO	34.65	1.025	8.01e5	1.05e6	100	0.1	0.763	bb
4	201020R1_4	100	1.27	NO	34.67	1.026	5.18e5	6.87e5	99.1	-0.9	0.755	MM
5	201020R1_5	100	1.24	NO	34.66	1.026	9.42e5	1.09e6	113	13.3	0.863	MM
6	201020R1_6	100	1.25	NO	34.66	1.026	7.24e5	9.76e5	97.4	-2.6	0.742	bb



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**Compound name: 13C-1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.649564  
 RRF SD: 0.0451664, Relative SD: 6.95334  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.05	NO	38.14	1.128	5.60e5	9.36e5	92.1	-7.9	0.598	bb
2	201020R1_2	100	1.09	NO	38.14	1.128	6.39e5	9.80e5	100	0.4	0.652	MM
3	201020R1_3	100	1.04	NO	38.14	1.128	6.69e5	1.05e6	98.2	-1.8	0.638	bb
4	201020R1_4	100	1.07	NO	38.15	1.128	4.44e5	6.87e5	99.4	-0.6	0.646	MM
5	201020R1_5	100	1.07	NO	38.14	1.128	8.00e5	1.09e6	113	12.9	0.733	MM
6	201020R1_6	100	1.04	NO	38.15	1.129	6.15e5	9.76e5	97.0	-3.0	0.630	MM

**Compound name: 13C-OCDD**

Response Factor: 0.539367  
 RRF SD: 0.0489023, Relative SD: 9.06662  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	200	0.92	NO	41.10	1.216	8.86e5	9.36e5	175	-12.3	0.473	bb
2	201020R1_2	200	0.90	NO	41.08	1.216	1.06e6	9.80e5	201	0.4	0.542	bb
3	201020R1_3	200	0.89	NO	41.11	1.216	1.12e6	1.05e6	198	-1.0	0.534	bb
4	201020R1_4	200	0.88	NO	41.08	1.215	7.38e5	6.87e5	199	-0.4	0.537	bb
5	201020R1_5	200	0.89	NO	41.10	1.216	1.36e6	1.09e6	232	15.9	0.625	bb
6	201020R1_6	200	0.89	NO	41.10	1.216	1.02e6	9.76e5	195	-2.6	0.525	bb

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 0.981384  
 RRF SD: 0.0297957, Relative SD: 3.03609  
 Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.78	NO	25.59	1.003	1.53e6	1.65e6	94.6	-5.4	0.928	bb
2	201020R1_2	100	0.77	NO	25.59	1.003	1.70e6	1.75e6	99.3	-0.7	0.974	bb

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

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**Compound name: 13C-2,3,7,8-TCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	100	0.77	NO	25.59	1.003	1.82e6	1.83e6	101	1.3	0.994	bb
4	201020R1_4	100	0.77	NO	25.63	1.003	1.19e6	1.22e6	99.5	-0.5	0.976	bb
5	201020R1_5	100	0.78	NO	25.59	1.003	1.86e6	1.84e6	103	3.0	1.01	bb
6	201020R1_6	100	0.78	NO	25.59	1.003	1.69e6	1.68e6	102	2.3	1.00	bb

**Compound name: 13C-1,2,3,7,8-PeCDF**

Response Factor: 0.791688

RRF SD: 0.0545703, Relative SD: 6.89291

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.58	NO	29.69	1.163	1.22e6	1.65e6	93.5	-6.5	0.740	bb
2	201020R1_2	100	1.58	NO	29.69	1.163	1.30e6	1.75e6	94.3	-5.7	0.747	bb
3	201020R1_3	100	1.61	NO	29.69	1.163	1.42e6	1.83e6	97.5	-2.5	0.772	bb
4	201020R1_4	100	1.61	NO	29.71	1.163	9.55e5	1.22e6	99.0	-1.0	0.784	bd
5	201020R1_5	100	1.58	NO	29.71	1.164	1.63e6	1.84e6	112	11.9	0.886	bb
6	201020R1_6	100	1.59	NO	29.69	1.163	1.38e6	1.68e6	104	3.7	0.821	bb

**Compound name: 13C-2,3,4,7,8-PeCDF**

Response Factor: 0.777714

RRF SD: 0.0578231, Relative SD: 7.435

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	1.59	NO	30.76	1.205	1.15e6	1.65e6	90.1	-9.9	0.701	bb
2	201020R1_2	100	1.61	NO	30.75	1.205	1.29e6	1.75e6	94.8	-5.2	0.737	bb
3	201020R1_3	100	1.62	NO	30.75	1.205	1.45e6	1.83e6	102	1.9	0.793	bb
4	201020R1_4	100	1.60	NO	30.77	1.205	9.27e5	1.22e6	97.8	-2.2	0.761	dd
5	201020R1_5	100	1.60	NO	30.75	1.205	1.59e6	1.84e6	111	11.2	0.865	bb
6	201020R1_6	100	1.60	NO	30.76	1.205	1.36e6	1.68e6	104	4.1	0.810	bb

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

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**Compound name: 13C-1,2,3,4,7,8-HxCDF**

Response Factor: 0.953706  
 RRF SD: 0.0497892, Relative SD: 5.22061  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.51	NO	33.36	0.987	8.65e5	9.36e5	96.9	-3.1	0.924	bd
2	201020R1_2	100	0.51	NO	33.36	0.987	9.23e5	9.80e5	98.8	-1.2	0.942	bd
3	201020R1_3	100	0.51	NO	33.35	0.987	9.76e5	1.05e6	97.5	-2.5	0.930	bd
4	201020R1_4	100	0.51	NO	33.37	0.987	6.36e5	6.87e5	97.1	-2.9	0.926	bd
5	201020R1_5	100	0.51	NO	33.36	0.987	1.15e6	1.09e6	110	10.5	1.05	bd
6	201020R1_6	100	0.51	NO	33.36	0.987	9.24e5	9.76e5	99.3	-0.7	0.947	bd

**Compound name: 13C-1,2,3,6,7,8-HxCDF**

Response Factor: 1.00595  
 RRF SD: 0.0507361, Relative SD: 5.04362  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.50	NO	33.49	0.991	9.15e5	9.36e5	97.2	-2.8	0.978	db
2	201020R1_2	100	0.52	NO	33.49	0.991	9.59e5	9.80e5	97.3	-2.7	0.979	db
3	201020R1_3	100	0.52	NO	33.48	0.991	1.03e6	1.05e6	97.7	-2.3	0.982	db
4	201020R1_4	100	0.51	NO	33.50	0.991	6.96e5	6.87e5	101	0.8	1.01	db
5	201020R1_5	100	0.51	NO	33.49	0.991	1.21e6	1.09e6	110	9.9	1.11	db
6	201020R1_6	100	0.51	NO	33.49	0.991	9.53e5	9.76e5	97.1	-2.9	0.977	db

**Compound name: 13C-2,3,4,6,7,8-HxCDF**

Response Factor: 0.921049  
 RRF SD: 0.0481045, Relative SD: 5.2228  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.52	NO	34.16	1.011	8.28e5	9.36e5	96.1	-3.9	0.885	bd
2	201020R1_2	100	0.51	NO	34.16	1.011	8.79e5	9.80e5	97.4	-2.6	0.897	bb

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**Compound name: 13C-2,3,4,6,7,8-HxCDF**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	100	0.51	NO	34.15	1.010	9.58e5	1.05e6	99.1	-0.9	0.913	bb
4	201020R1_4	100	0.51	NO	34.17	1.011	6.32e5	6.87e5	99.8	-0.2	0.919	bb
5	201020R1_5	100	0.51	NO	34.16	1.011	1.11e6	1.09e6	110	10.3	1.02	bb
6	201020R1_6	100	0.50	NO	34.16	1.011	8.75e5	9.76e5	97.3	-2.7	0.897	bb

**Compound name: 13C-1,2,3,7,8,9-HxCDF**

Response Factor: 0.803358  
 RRF SD: 0.0529087, Relative SD: 6.58594  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.51	NO	35.16	1.040	6.87e5	9.36e5	91.4	-8.6	0.734	MM
2	201020R1_2	100	0.50	NO	35.16	1.040	7.96e5	9.80e5	101	1.1	0.813	bb
3	201020R1_3	100	0.52	NO	35.15	1.040	8.23e5	1.05e6	97.6	-2.4	0.784	bd
4	201020R1_4	100	0.50	NO	35.17	1.040	5.57e5	6.87e5	101	1.0	0.811	bd
5	201020R1_5	100	0.51	NO	35.16	1.040	9.75e5	1.09e6	111	11.3	0.894	bb
6	201020R1_6	100	0.51	NO	35.17	1.041	7.65e5	9.76e5	97.6	-2.4	0.784	bb

**Compound name: 13C-1,2,3,4,6,7,8-HpCDF**

Response Factor: 0.735455  
 RRF SD: 0.0398884, Relative SD: 5.42364  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.42	NO	36.73	1.087	6.49e5	9.36e5	94.3	-5.7	0.694	bb
2	201020R1_2	100	0.44	NO	36.73	1.087	7.21e5	9.80e5	100	0.0	0.736	bd
3	201020R1_3	100	0.41	NO	36.73	1.087	8.00e5	1.05e6	104	3.6	0.762	bb
4	201020R1_4	100	0.43	NO	36.75	1.087	4.85e5	6.87e5	96.0	-4.0	0.706	bb
5	201020R1_5	100	0.44	NO	36.74	1.087	8.73e5	1.09e6	109	8.8	0.800	bb
6	201020R1_6	100	0.43	NO	36.75	1.087	6.97e5	9.76e5	97.2	-2.8	0.715	bb

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

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**Compound name: 13C-1,2,3,4,7,8,9-HpCDF**

Response Factor: 0.567644  
 RRF SD: 0.0450507, Relative SD: 7.93644  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.44	NO	38.76	1.147	4.78e5	9.36e5	90.0	-10.0	0.511	bd
2	201020R1_2	100	0.43	NO	38.76	1.147	5.79e5	9.80e5	104	4.1	0.591	bb
3	201020R1_3	100	0.44	NO	38.76	1.147	5.77e5	1.05e6	96.9	-3.1	0.550	bd
4	201020R1_4	100	0.43	NO	38.76	1.147	3.83e5	6.87e5	98.3	-1.7	0.558	bd
5	201020R1_5	100	0.43	NO	38.77	1.147	7.02e5	1.09e6	113	13.4	0.644	bb
6	201020R1_6	100	0.45	NO	38.77	1.147	5.39e5	9.76e5	97.3	-2.7	0.552	bd

**Compound name: 13C-OCDF**

Response Factor: 0.629245  
 RRF SD: 0.0574861, Relative SD: 9.13572  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	200	0.91	NO	41.38	1.224	1.05e6	9.36e5	178	-11.0	0.560	MM
2	201020R1_2	200	0.87	NO	41.38	1.224	1.24e6	9.80e5	200	0.2	0.630	MM
3	201020R1_3	200	0.90	NO	41.40	1.225	1.29e6	1.05e6	195	-2.5	0.614	bd
4	201020R1_4	200	0.86	NO	41.38	1.224	8.74e5	6.87e5	202	1.1	0.636	bb
5	201020R1_5	200	0.88	NO	41.40	1.225	1.60e6	1.09e6	233	16.5	0.733	bb
6	201020R1_6	200	0.90	NO	41.39	1.225	1.18e6	9.76e5	191	-4.3	0.602	bd

**Compound name: 37Cl-2,3,7,8-TCDD**

Response Factor: 1.08781  
 RRF SD: 0.174332, Relative SD: 16.0259  
 Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	0.250			26.29	1.030	2.24e3	1.05e6	0.197	-21.1	0.858	bb
2	201020R1_2	0.500			26.29	1.030	5.14e3	1.12e6	0.420	-15.9	0.915	bb



Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

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**Compound name: 37Cl-2,3,7,8-TCDD**

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201020R1_3	2.00			26.29	1.030	2.59e4	1.18e6	2.02	0.8	1.10	bb
4	201020R1_4	40.0			26.32	1.031	3.82e5	7.98e5	44.0	10.0	1.20	bb
5	201020R1_5	200			26.29	1.030	3.17e6	1.20e6	243	21.4	1.32	bb
6	201020R1_6	10.0			26.29	1.030	1.26e5	1.11e6	10.5	4.8	1.14	bb

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.78	NO	25.52	1.000	1.05e6	1.05e6	100	0.0	1.00	bb
2	201020R1_2	100	0.79	NO	25.52	1.000	1.12e6	1.12e6	100	0.0	1.00	bb
3	201020R1_3	100	0.78	NO	25.52	1.000	1.18e6	1.18e6	100	0.0	1.00	bb
4	201020R1_4	100	0.77	NO	25.54	1.000	7.98e5	7.98e5	100	0.0	1.00	bb
5	201020R1_5	100	0.78	NO	25.52	1.000	1.20e6	1.20e6	100	0.0	1.00	bb
6	201020R1_6	100	0.79	NO	25.52	1.000	1.11e6	1.11e6	100	0.0	1.00	bb

**Compound name: 13C-1,2,3,4-TCDF**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.80	NO	24.04	1.000	1.65e6	1.65e6	100	0.0	1.00	bb
2	201020R1_2	100	0.79	NO	24.06	1.000	1.75e6	1.75e6	100	0.0	1.00	bb
3	201020R1_3	100	0.79	NO	24.04	1.000	1.83e6	1.83e6	100	0.0	1.00	bb
4	201020R1_4	100	0.79	NO	24.07	1.000	1.22e6	1.22e6	100	0.0	1.00	bb
5	201020R1_5	100	0.79	NO	24.04	1.000	1.84e6	1.84e6	100	0.0	1.00	bb
6	201020R1_6	100	0.79	NO	24.04	1.000	1.68e6	1.68e6	100	0.0	1.00	bb



Dataset: U:\VG12.PRO\Results\201020R1\201020R1-CRV.qld

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Compound name: 13C-1,2,3,4,6,9-HxCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201020R1_1	100	0.51	NO	33.80	1.000	9.36e5	9.36e5	100	0.0	1.00	bb
2	201020R1_2	100	0.52	NO	33.80	1.000	9.80e5	9.80e5	100	0.0	1.00	bb
3	201020R1_3	100	0.51	NO	33.80	1.000	1.05e6	1.05e6	100	0.0	1.00	bb
4	201020R1_4	100	0.51	NO	33.81	1.000	6.87e5	6.87e5	100	0.0	1.00	bb
5	201020R1_5	100	0.51	NO	33.80	1.000	1.09e6	1.09e6	100	0.0	1.00	bb
6	201020R1_6	100	0.52	NO	33.80	1.000	9.76e5	9.76e5	100	0.0	1.00	bd

Dataset: Untitled

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Method: U:\VG12.PRO\MethDB\1613rrt-10-10-20.mdb 12 Oct 2020 11:06:31

Calibration: U:\VG12.PRO\CurveDB\ldbDIOXIN\_1613vg12-10-10-20.cdb 12 Oct 2020 14:50:48

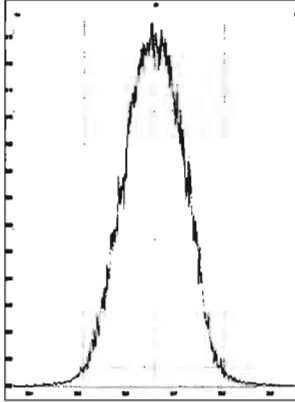
Compound name: 2,3,7,8-TCDD

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2	201020R1_2	ST201020R1_2 1613 CS1 20F1103	20-Oct-20	10:04:05
3	201020R1_3	ST201020R1_3 1613 CS2 20F1104	20-Oct-20	10:48:17
4	201020R1_4	ST201020R1_4 1613 CS4 20F1106	20-Oct-20	11:32:31
5	201020R1_5	ST201020R1_5 1613 CS5 20F1107	20-Oct-20	12:16:56
6	201020R1_6	ST201020R1_6 1613 CS3 20F1105	20-Oct-20	13:01:38
7	201020R1_7	SOLVENT BLANK	20-Oct-20	13:45:46
8	201020R1_8	SS201020R1_1 1613 SSS 20F1108	20-Oct-20	14:29:33
9	201020R1_9	TCDF CPSM	20-Oct-20	15:13:50

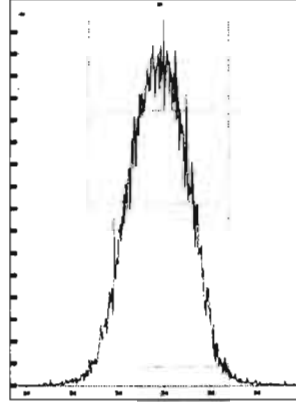
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, October 20, 2020 09:00:19 Pacific Daylight Time

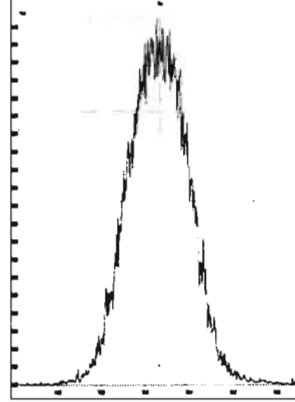
M 292.9824 R 10508



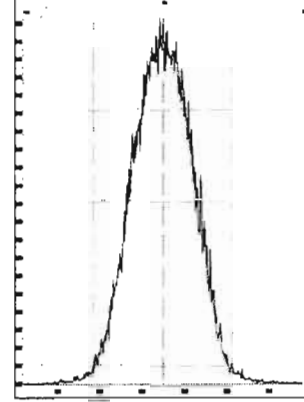
M 304.9824 R 10684



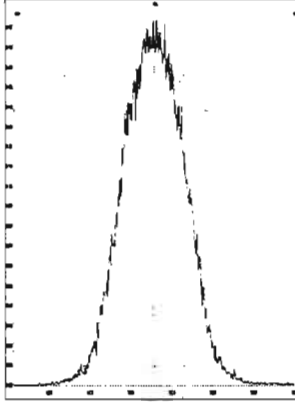
M 318.9792 R 10329



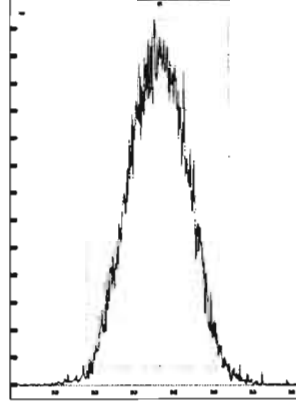
M 330.9792 R 10417



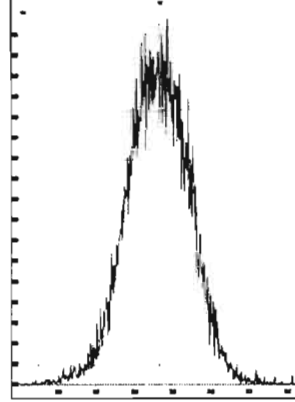
M 342.9792 R 10502



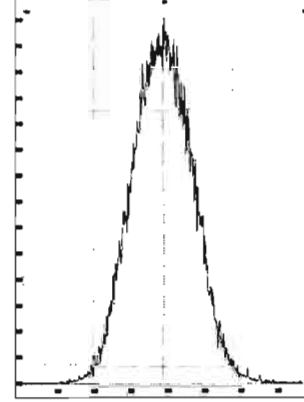
M 354.9792 R 10416



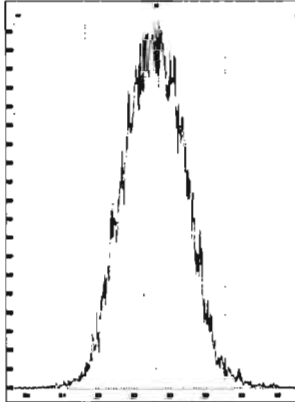
M 366.9792 R 10285



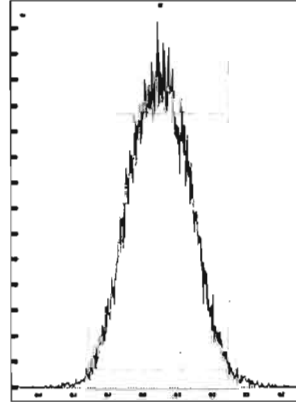
M 380.9760 R 10162



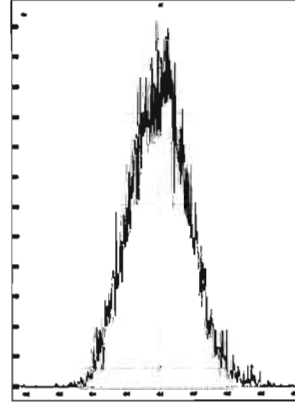
M 392.9760 R 10371



M 404.9760 R 10330



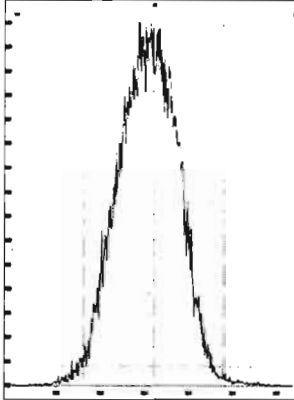
M 416.9760 R 10914



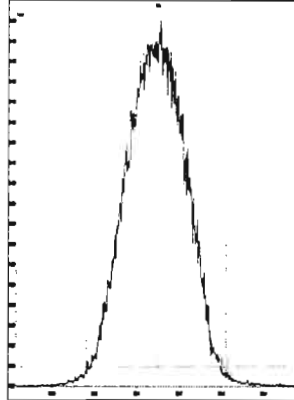
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, October 20, 2020 09:01:23 Pacific Daylight Time

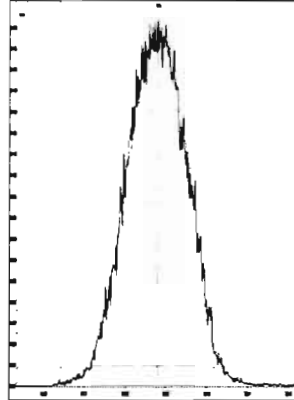
M 318.9792 R 10548



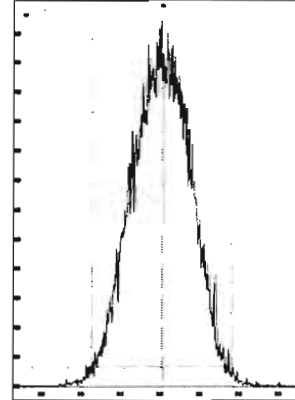
M 330.9792 R 10680



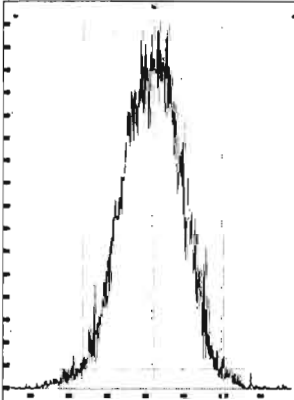
M 342.9792 R 10547



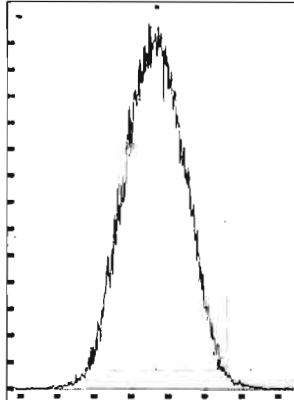
M 354.9792 R 10731



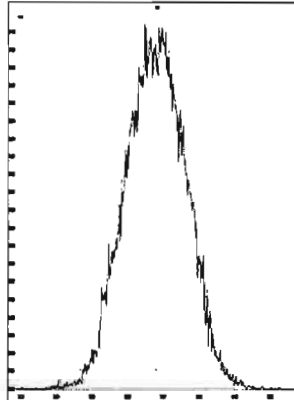
M 366.9792 R 10287



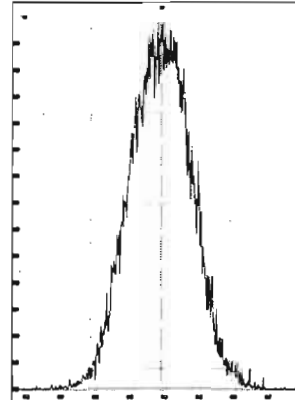
M 380.9760 R 10370



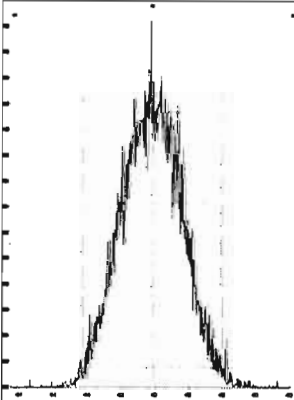
M 392.9760 R 10203



M 404.9760 R 10639



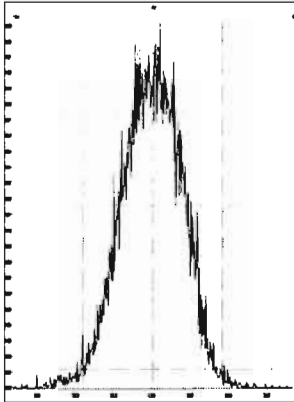
M 416.9760 R 11060



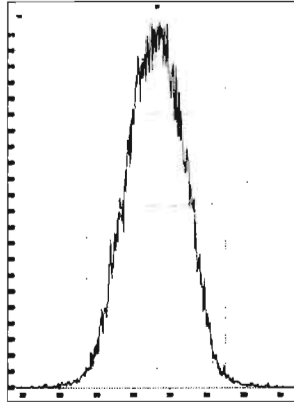
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, October 20, 2020 09:02:28 Pacific Daylight Time

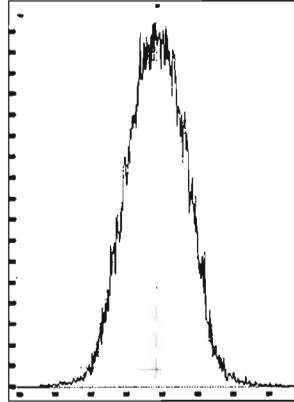
M 366.9792 R 10592



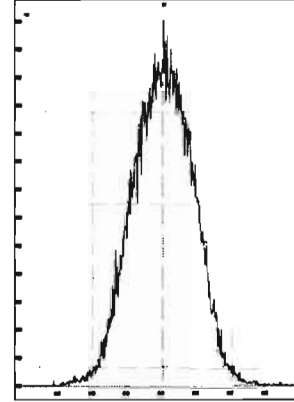
M 380.9760 R 10962



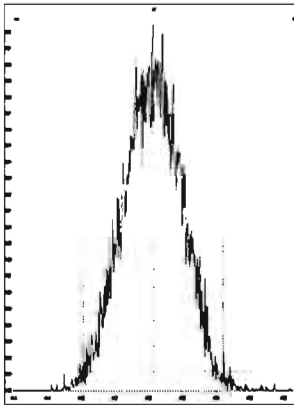
M 392.9760 R 11012



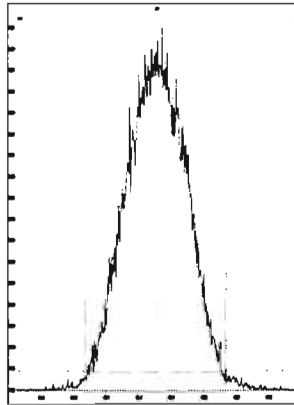
M 404.9760 R 10549



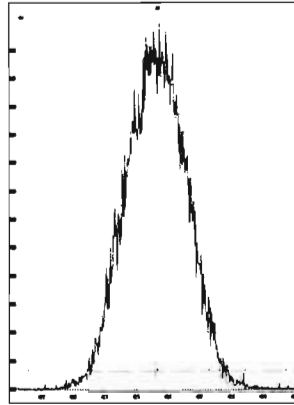
M 416.9760 R 11213



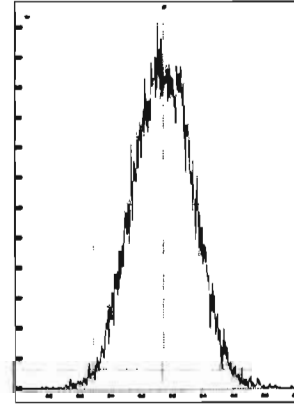
M 430.9728 R 10549



M 442.9728 R 10640



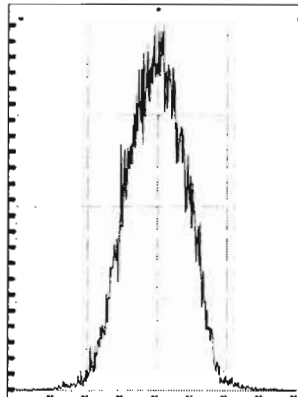
M 454.9728 R 10246



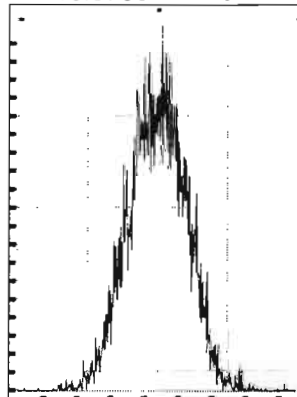
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Printed: Tuesday, October 20, 2020 09:03:26 Pacific Daylight Time

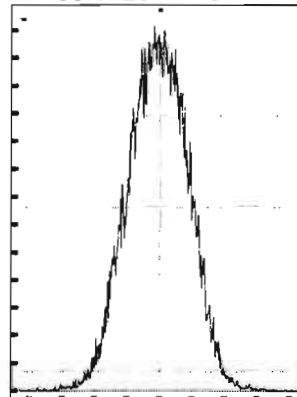
M 404.9760 R 10871



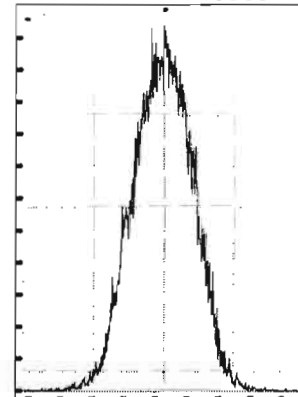
M 416.9760 R 11520



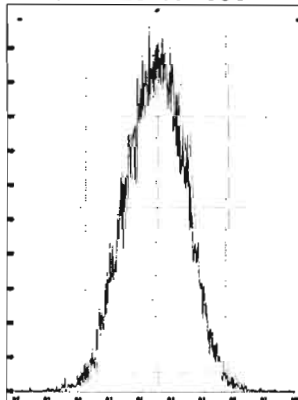
M 430.9728 R 10727



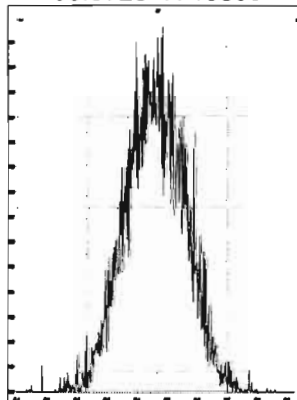
M 442.9728 R 10869



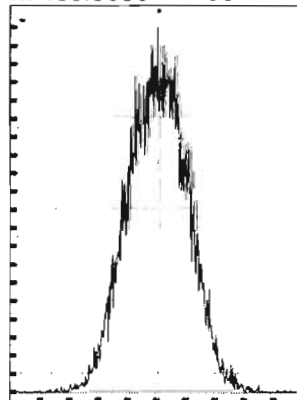
M 454.9728 R 10591



M 466.9728 R 10869



M 480.9696 R 10371

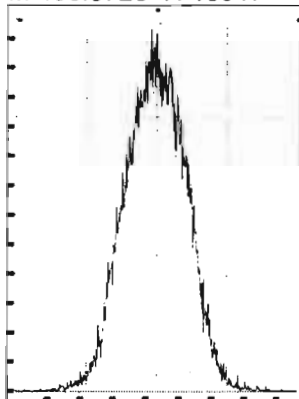




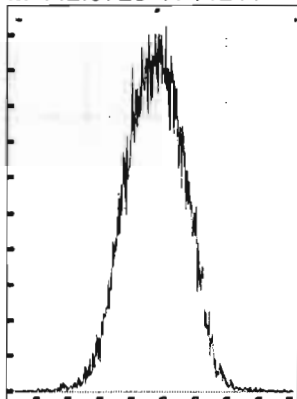
File: Experiment: OCDD\_DB5\_2.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, October 20, 2020 09:04:30 Pacific Daylight Time

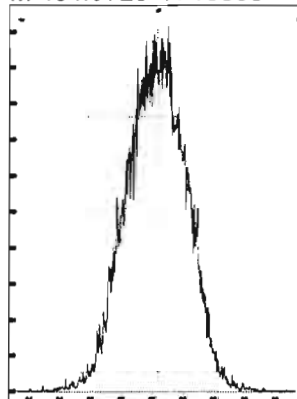
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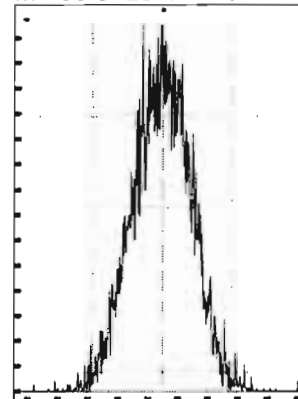
M 442.9728 R 11211



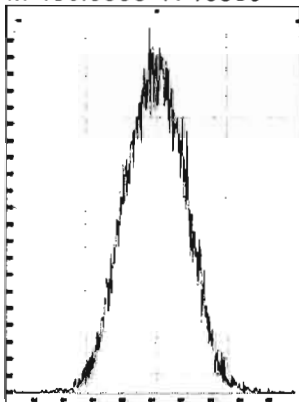
M 454.9728 R 10868



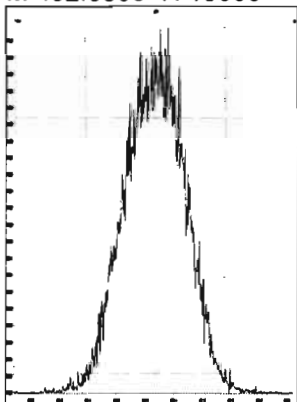
M 466.9728 R 11849



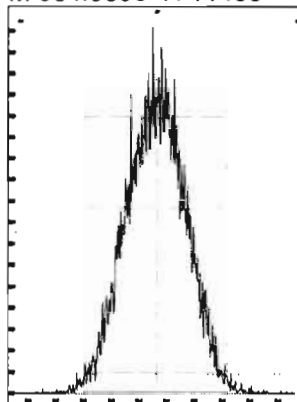
M 480.9696 R 10683



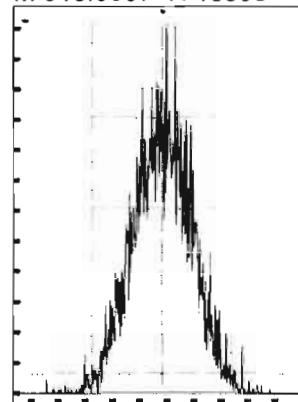
M 492.9696 R 10505



M 504.9696 R 11466



M 516.9697 R 10638



Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 14:59:30 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 14:59:49 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Sep 2020 10:23:28  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-10-20.cdb 12 Oct 2020 14:50:48

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.55
2	2 1,2,8,9-TCDD (Last)	27.18
3	3 1,2,4,7,9-PeCDD (First)	28.70
4	4 1,2,3,8,9-PeCDD (Last)	31.32
5	5 1,2,4,6,7,9-HxCDD (First)	32.63
6	6 1,2,3,7,8,9-HxCDD (Last)	34.67
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.15
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.16
9	9 1,3,6,8-TCDF (First)	20.32
10	10 1,2,8,9-TCDF (Last)	27.49
11	11 1,3,4,6,8-PeCDF (First)	27.06
12	12 1,2,3,8,9-PeCDF (Last)	31.68
13	13 1,2,3,4,6,8-HxCDF (First)	32.10
14	14 1,2,3,7,8,9-HxCDF (Last)	35.18
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.76
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.78

Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 14:59:30 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 14:59:49 Pacific Daylight Time

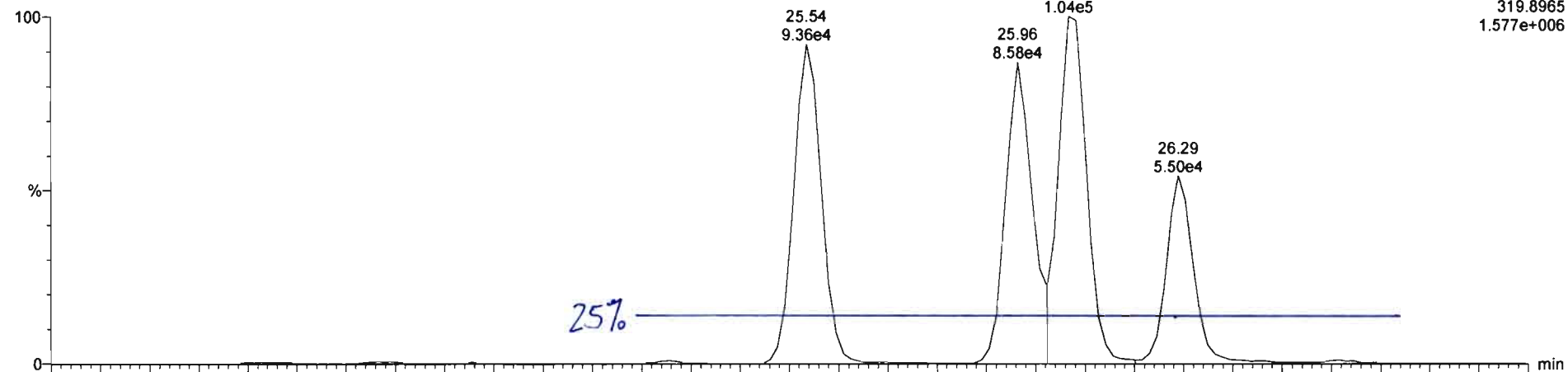
*GRS 10/20/20*  
*HN 10/22/2020*

Method: U:\VG12.PRO\MethDB\CPSM.mdb 20 Sep 2020 10:23:28  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-10-20.cdb 12 Oct 2020 14:50:48

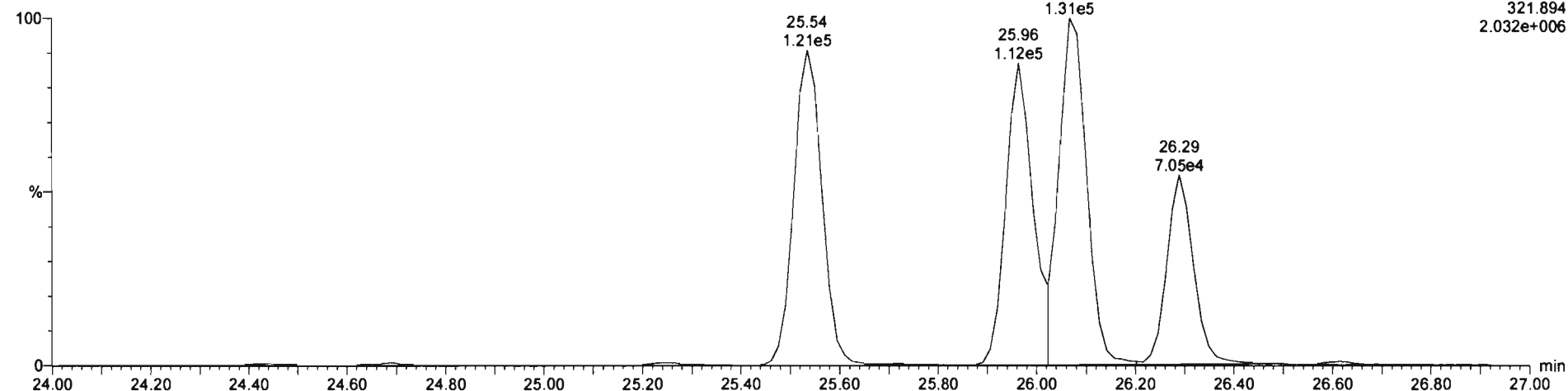
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,3,6,8-TCDD (First)

201020R1\_6



201020R1\_6

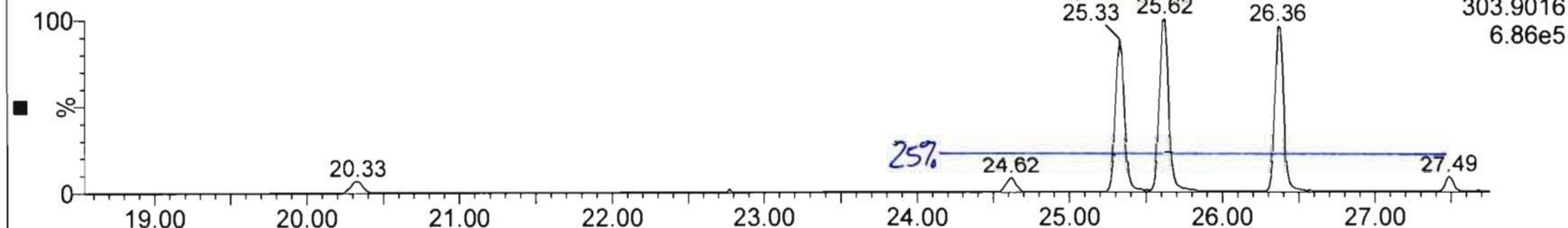


HN 10/22/2020

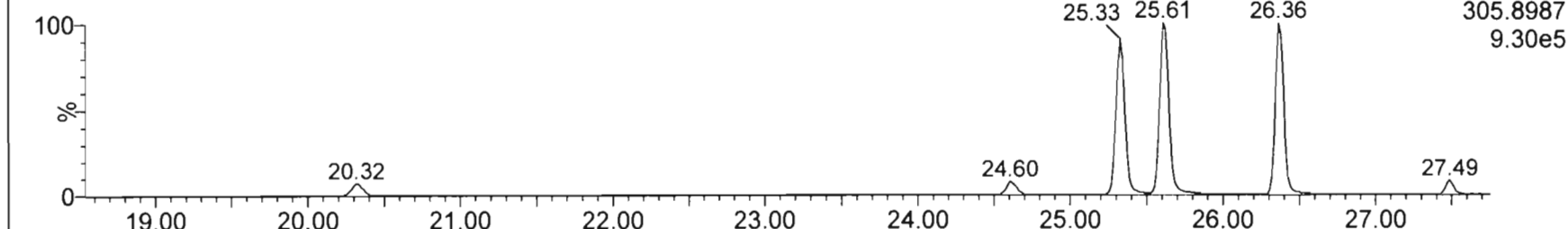
GRB 10/22/2020

### TCDF CPSM QC

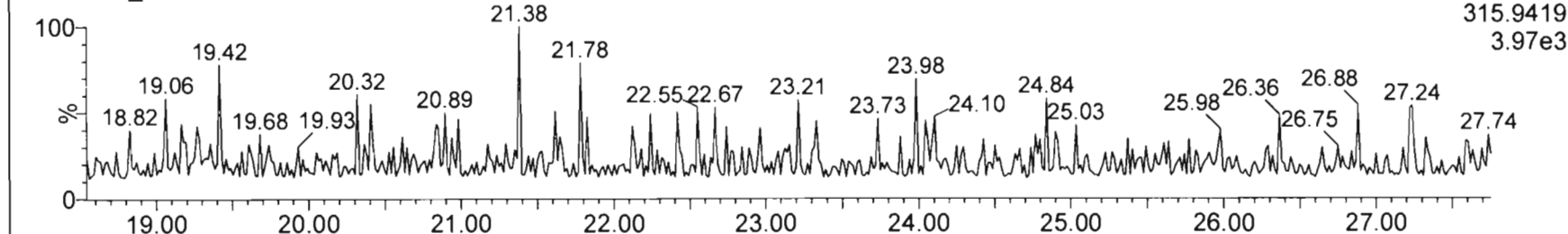
201020R1\_9



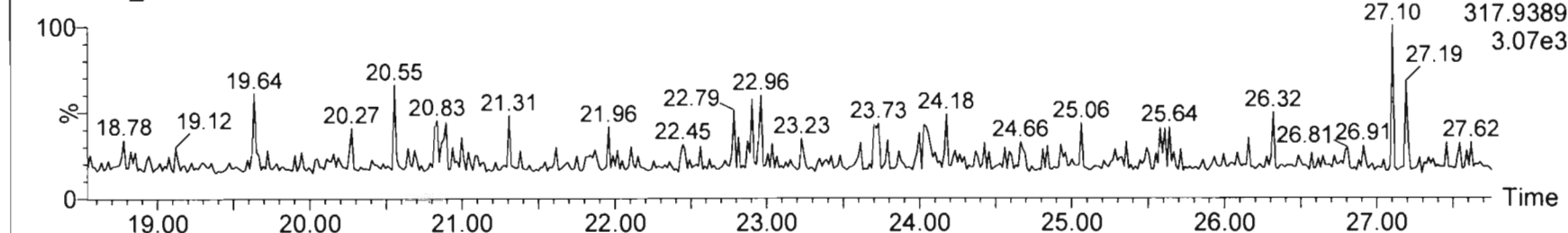
201020R1\_9



201020R1\_9



201020R1\_9



Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time

Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

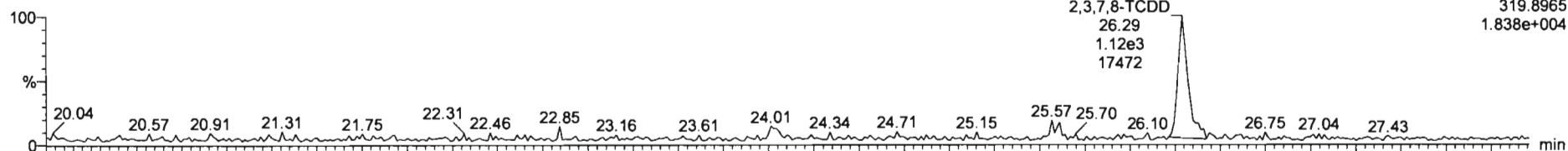
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Calibration: 20 Oct 2020 15:17:40

Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

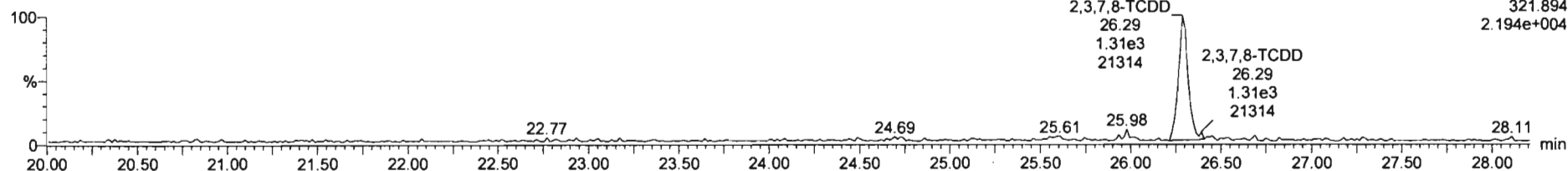
**2,3,7,8-TCDD**

201020R1\_1



F1: Voltage SIR, EI+  
319.8965  
1.838e+004

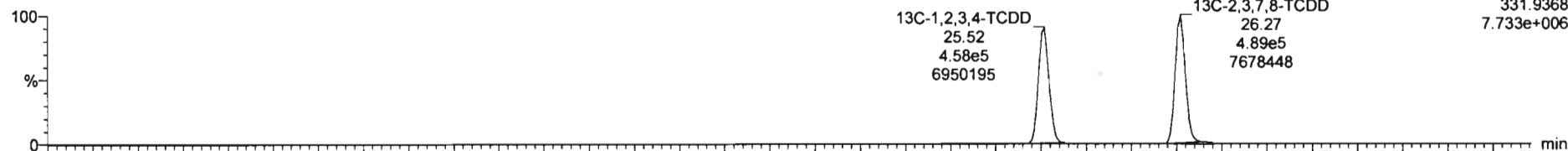
201020R1\_1



F1: Voltage SIR, EI+  
321.894  
2.194e+004

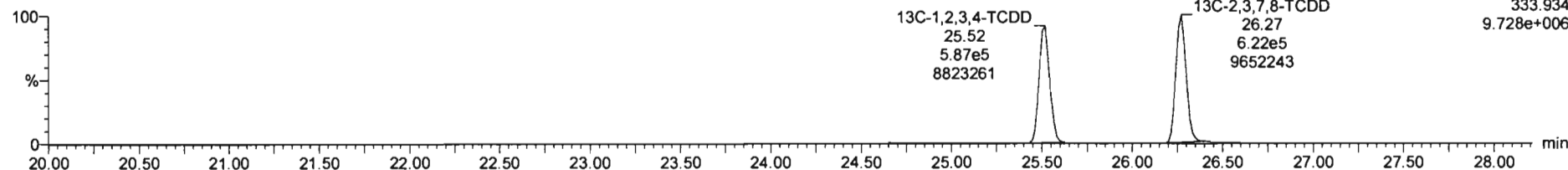
**13C-2,3,7,8-TCDD**

201020R1\_1



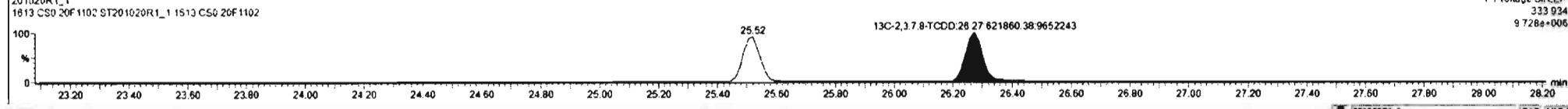
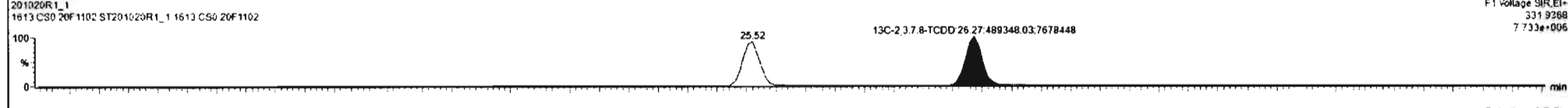
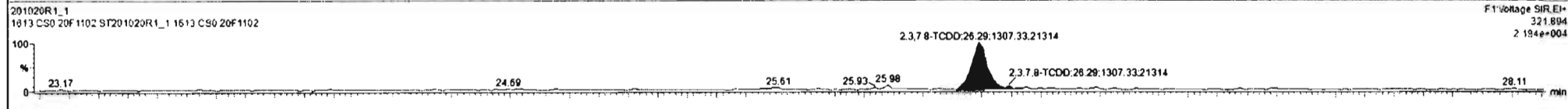
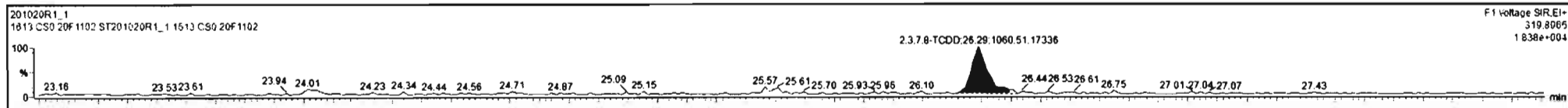
F1: Voltage SIR, EI+  
331.9368  
7.733e+006

201020R1\_1



F1: Voltage SIR, EI+  
333.934  
9.728e+006

#	Name	RT	RA	Yth	Area	IS Area	Std Conc	%Dev	%RSD	RRF M...	RRF SD
1	2,3,7,8-TCDD	26.29	0.811	NO	2.3678e3	1.1112e6	0.250	-10.3	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.96	0.590	NO	8.5438e3	8.6783e5	1.250	-11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.201	NO	6.9948e3	6.2109e5	1.250	-11.5	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.167	NO	7.9514e3	7.3628e5	1.250	-5.5	9.25	0.915	0.0846
5	1,2,3,7,8,9-HxCDD	34.67	1.172	NO	6.8931e3	6.6908e5	1.250	-11.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.16	1.007	NO	5.1934e3	5.5958e5	1.250	-14.6	11.7	0.870	0.102
7	OCDF	41.11	0.907	NO	8.8776e3	8.8555e5	2.500	-8.0	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.746	NO	2.8093e3	1.5316e6	0.250	-11.0	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.684	NO	1.3382e4	1.2209e6	1.250	-8.9	8.34	0.963	0.0602
10	2,3,4,7,8-PeCDF	30.76	1.584	NO	1.3928e4	1.1562e6	1.250	-9.8	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.212	NO	8.7459e3	8.6452e5	1.250	-15.1	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.161	NO	1.0004e4	9.1504e5	1.250	-13.2	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.193	NO	8.8325e3	8.2819e5	1.250	-12.9	11.6	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.232	NO	7.1604e3	6.8684e5	1.250	-12.3	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.945	NO	6.7951e3	6.4927e5	1.250	-16.2	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.017	NO	5.8287e3	4.7816e5	1.250	-13.2	12.2	1.12	0.137
17	OCDF	41.38	0.842	NO	9.8181e3	1.0480e6	2.500	-13.7	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	26.27	0.787	NO	1.1112e6	1.0450e6	100.000	-4.1	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.620	NO	8.6763e5	1.0450e6	100.000	-3.3	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.276	NO	6.2109e5	9.3577e5	100.000	-5.1	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.270	NO	7.3628e5	9.3577e5	100.000	-5.5	6.74	0.833	0.0561





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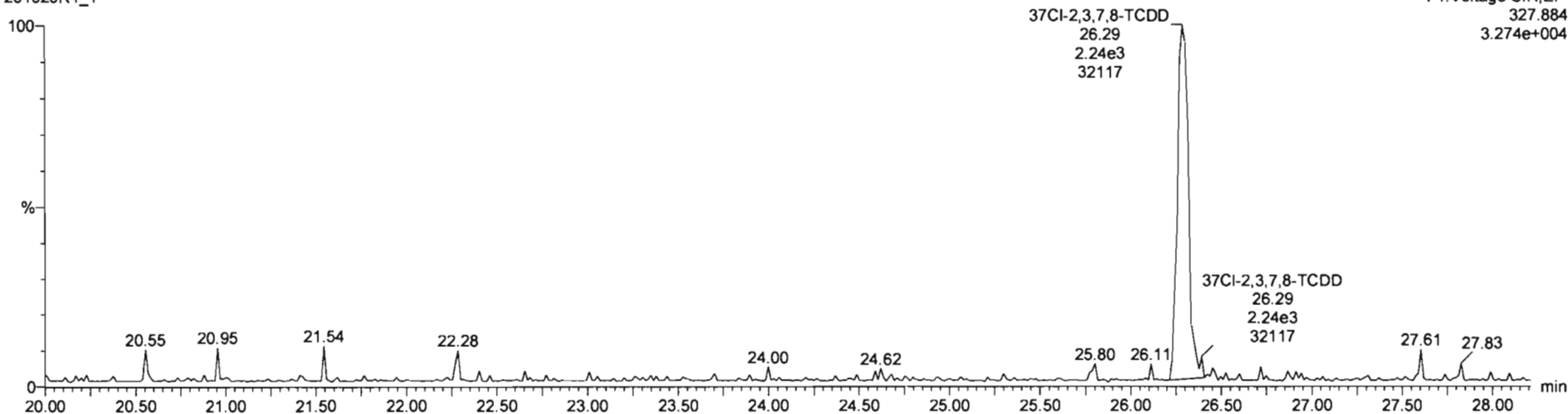
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time

Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

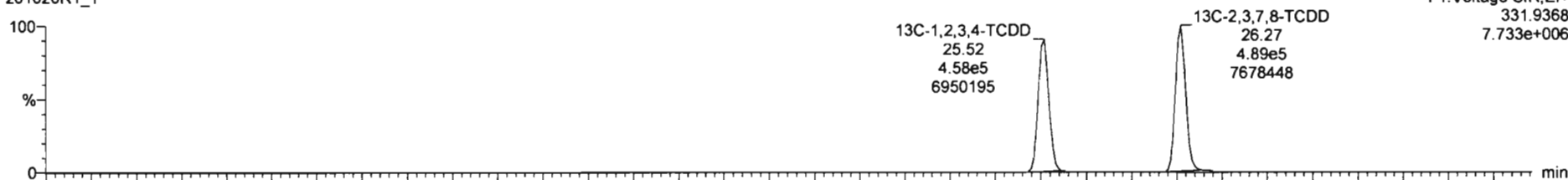
**37Cl-2,3,7,8-TCDD**

201020R1\_1

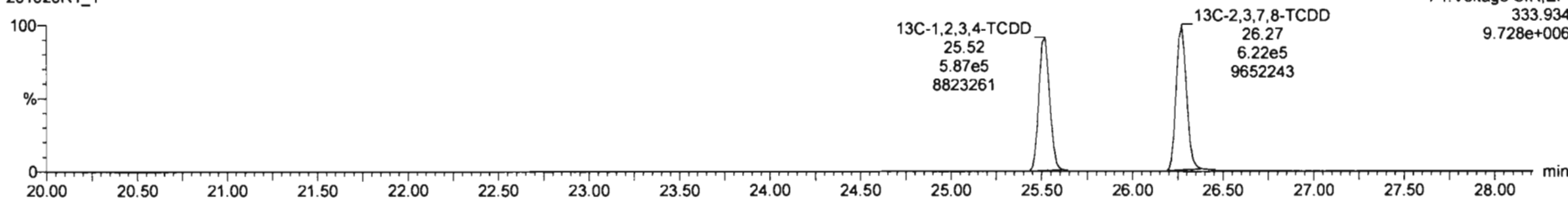


**13C-1,2,3,4-TCDD**

201020R1\_1



201020R1\_1



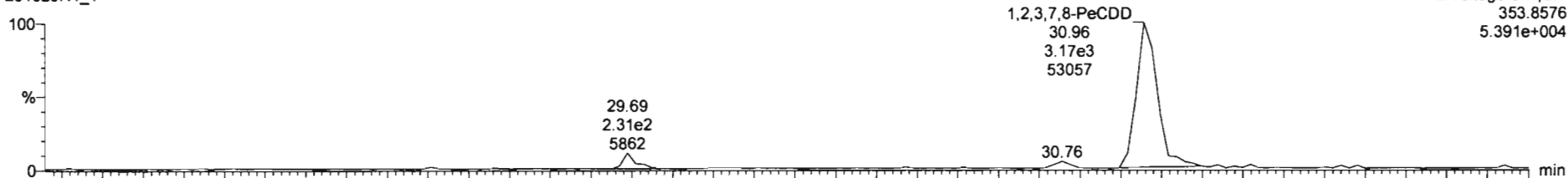
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

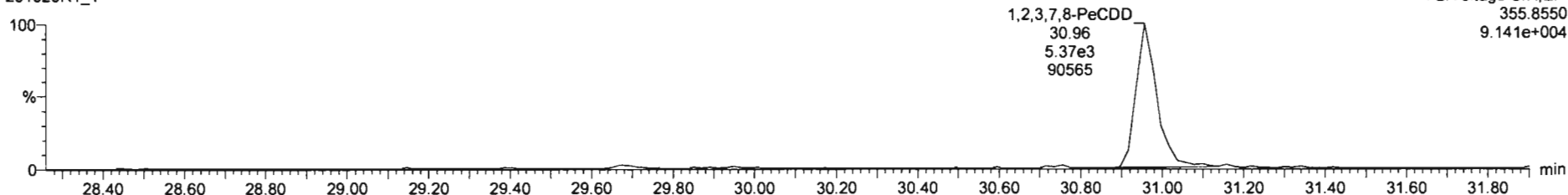
Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

**1,2,3,7,8-PeCDD**

201020R1\_1

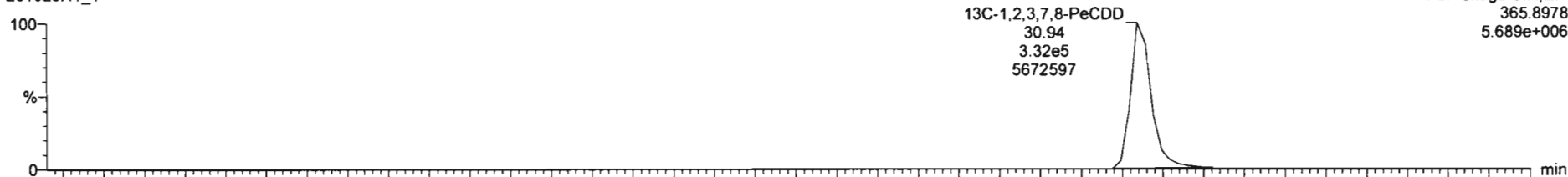


201020R1\_1

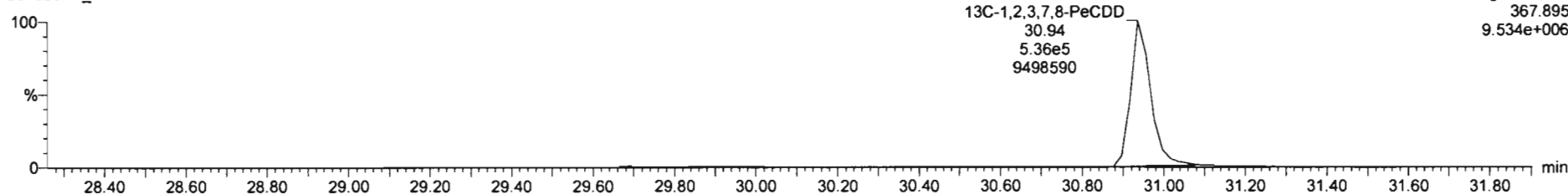


**13C-1,2,3,7,8-PeCDD**

201020R1\_1



201020R1\_1



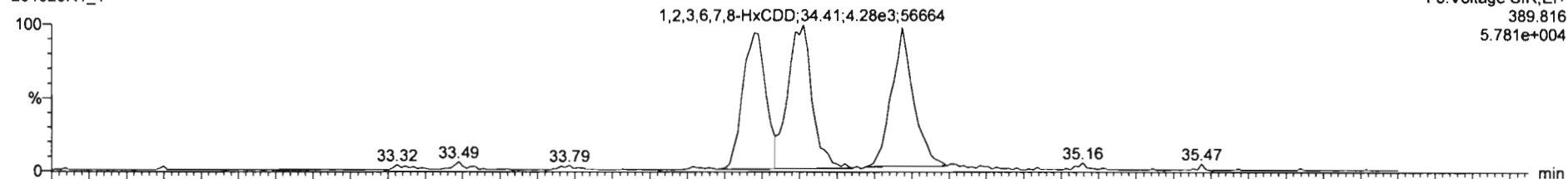
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

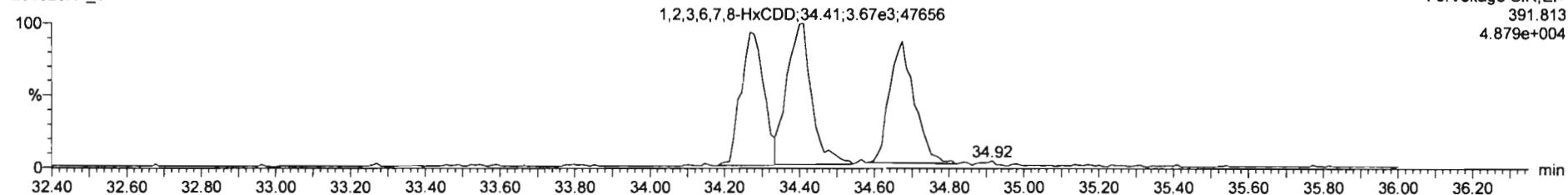
**1,2,3,4,7,8-HxCDD**

201020R1\_1



F3:Voltage SIR,EI+  
389.816  
5.781e+004

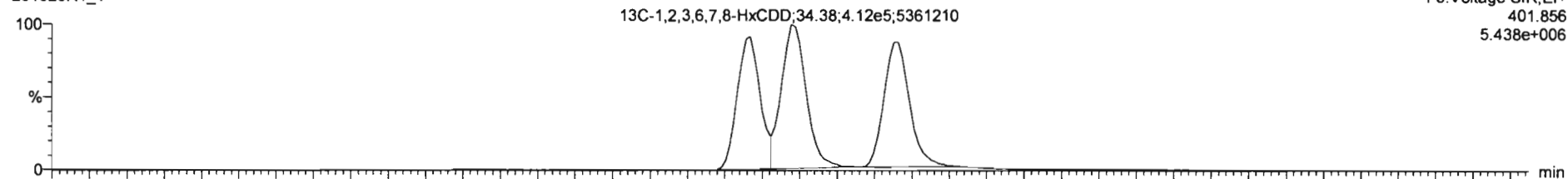
201020R1\_1



F3:Voltage SIR,EI+  
391.813  
4.879e+004

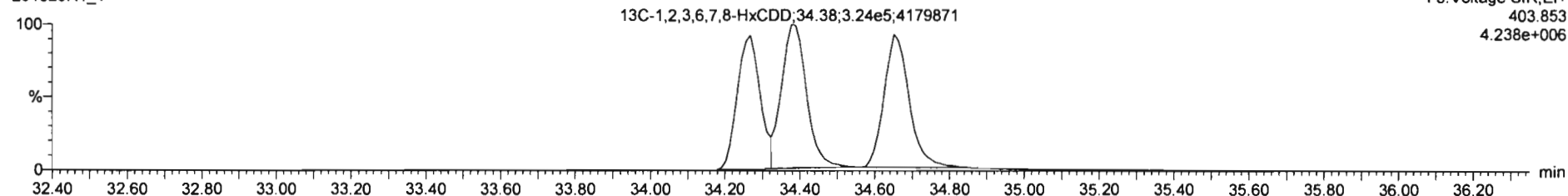
**13C-1,2,3,4,7,8-HxCDD**

201020R1\_1



F3:Voltage SIR,EI+  
401.856  
5.438e+006

201020R1\_1



F3:Voltage SIR,EI+  
403.853  
4.238e+006

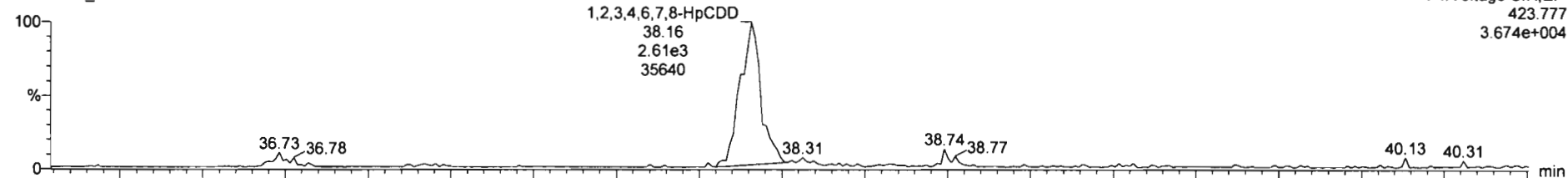
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

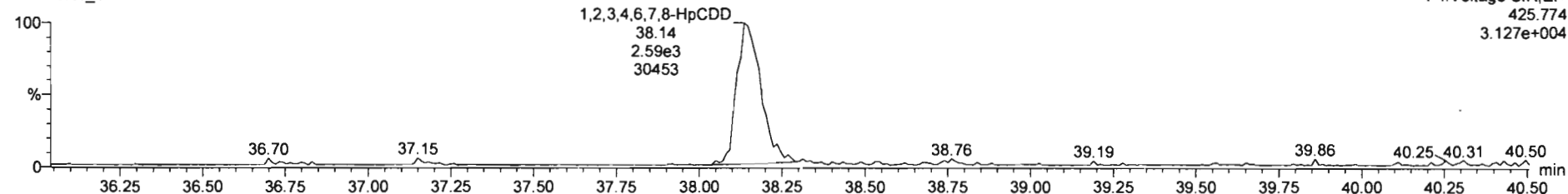
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1,2,3,4,6,7,8-HpCDD

201020R1\_1

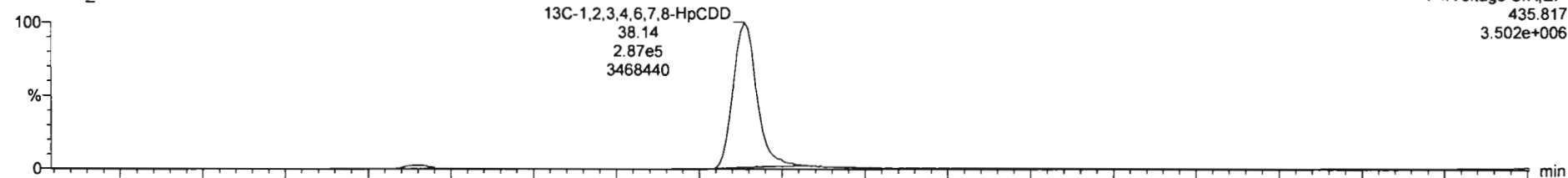


201020R1\_1

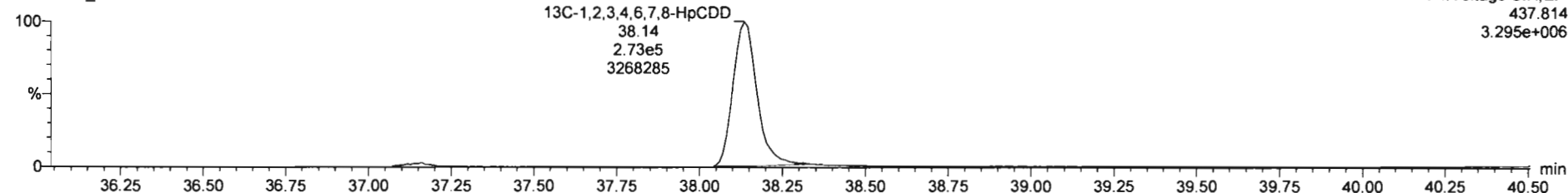


13C-1,2,3,4,6,7,8-HpCDD

201020R1\_1



201020R1\_1



Dataset: Untitled

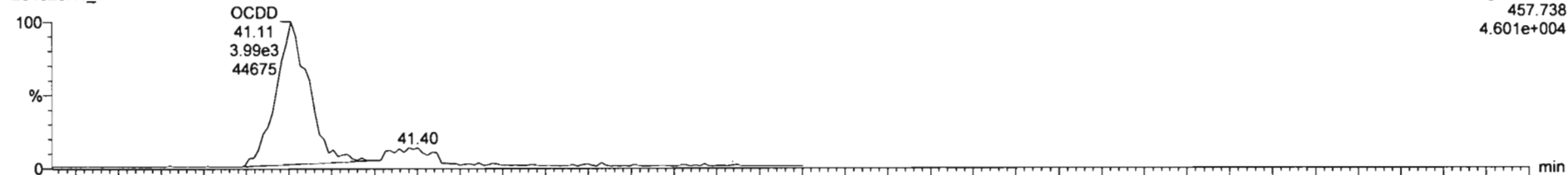
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_1; Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

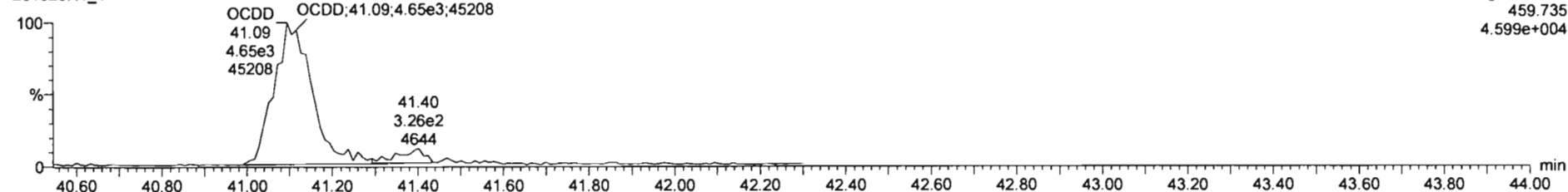
**OCDD**

201020R1\_1



F5:Voltage SIR,EI+  
457.738  
4.601e+004

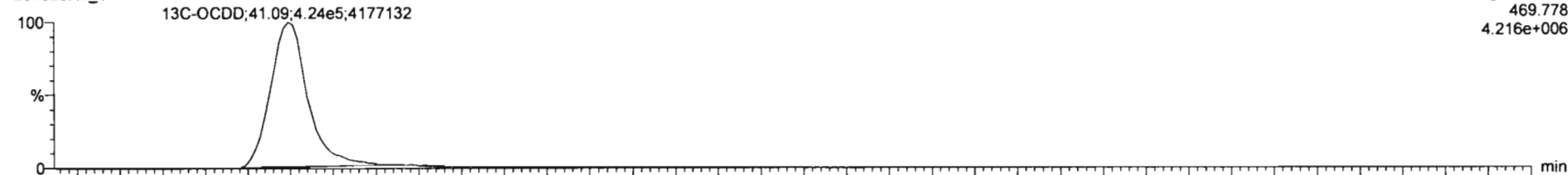
201020R1\_1



F5:Voltage SIR,EI+  
459.735  
4.599e+004

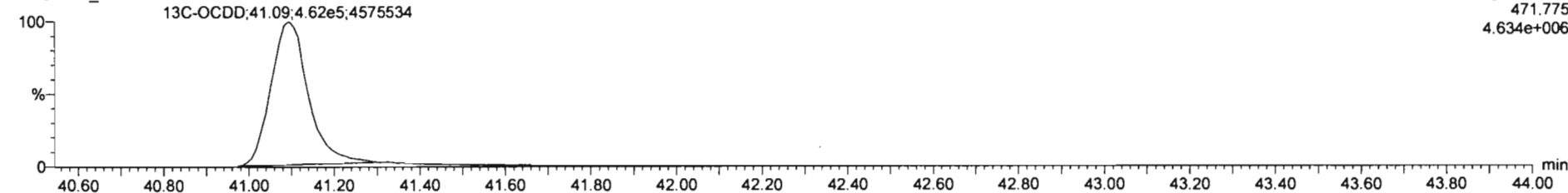
**13C-OCDD**

201020R1\_1



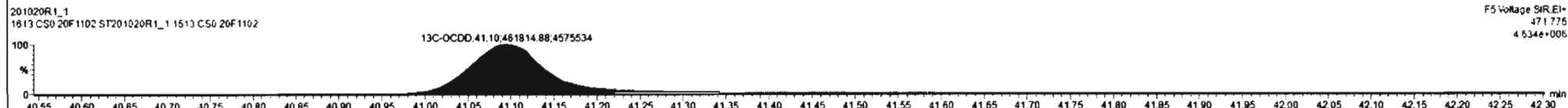
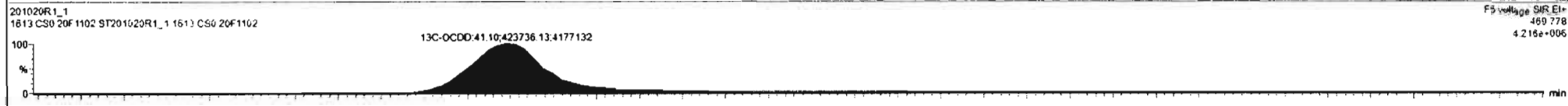
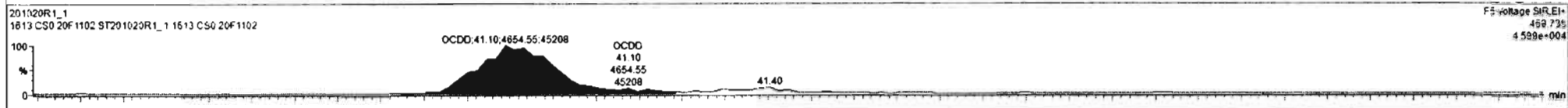
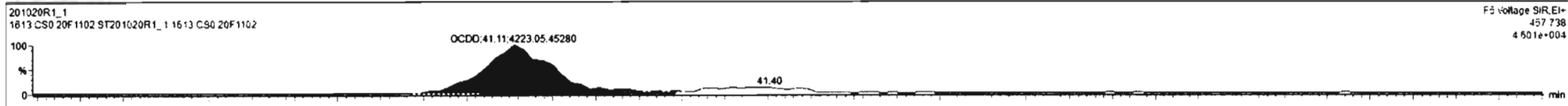
F5:Voltage SIR,EI+  
469.778  
4.216e+006

201020R1\_1



F5:Voltage SIR,EI+  
471.775  
4.634e+006

ID	Name	RT	RA	yth	Area	ISArea	Std Conc	%Dev	MUSD	RRF M...	RRF SD
1	1,2,3,7,8-TCDD	26.29	0.811	NO	2.3678e3	1.1112e6	0.250	-10.3	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.96	0.590	NO	8.5438e3	8.6783e5	1.250	-11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.201	NO	6.9948e3	6.2109e5	1.250	-11.5	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.167	NO	7.9514e3	7.3828e5	1.250	-5.5	9.25	0.915	0.0846
5	1,2,3,7,8,9-HxCDD	34.67	1.172	NO	6.8531e3	6.6908e5	1.250	-11.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.18	1.007	NO	5.1934e3	5.5958e5	1.250	-14.8	11.7	0.870	0.102
7	OCDD	41.11	0.907	NO	8.6776e3	8.8555e5	2.500	-8.9	10.3	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.746	NO	2.6093e3	1.6318e6	0.250	-11.0	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.604	NO	1.3382e4	1.2209e6	1.250	-8.9	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.76	1.584	NO	1.3929e4	1.1562e6	1.250	-9.8	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.212	NO	8.7459e3	8.6452e5	1.250	-15.1	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.181	NO	1.0004e4	9.1504e5	1.250	-13.2	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.193	NO	8.9325e3	8.2819e5	1.250	-12.9	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.232	NO	7.1694e3	6.8684e5	1.250	-12.3	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.945	NO	6.7951e3	6.4927e5	1.250	-16.2	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.017	NO	5.8287e3	4.7816e5	1.250	-13.2	12.2	1.12	0.137
17	OCDF	41.38	0.842	NO	9.8161e3	1.0480e6	2.500	-13.7	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	28.27	0.787	NO	1.1112e6	1.0450e6	100.000	-4.1	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.620	NO	8.6763e5	1.0450e6	100.000	-3.3	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.276	NO	6.2109e5	9.3577e5	100.000	-5.1	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.270	NO	7.3828e5	9.3577e5	100.000	-5.5	6.74	0.833	0.0581





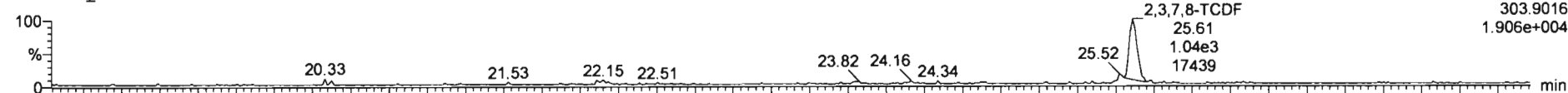
Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

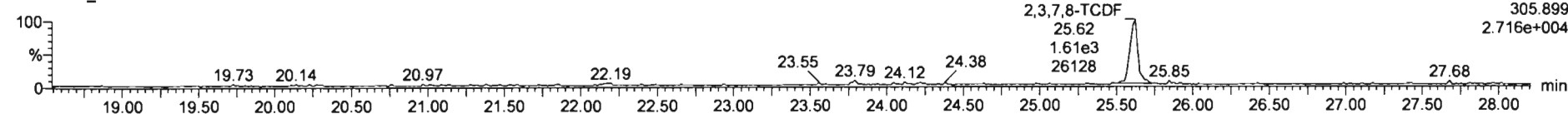
Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

### 2,3,7,8-TCDF

201020R1\_1

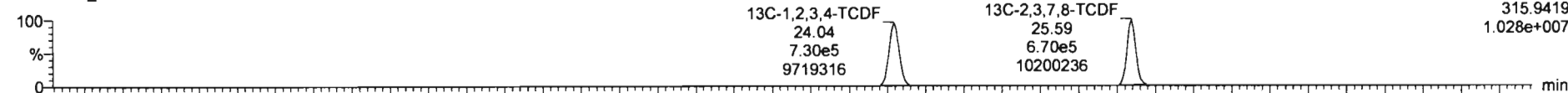


201020R1\_1

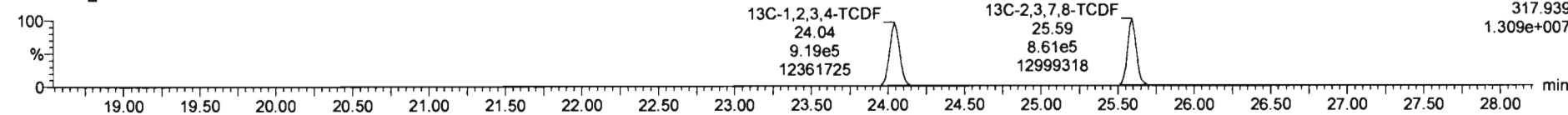


### 13C-2,3,7,8-TCDF

201020R1\_1

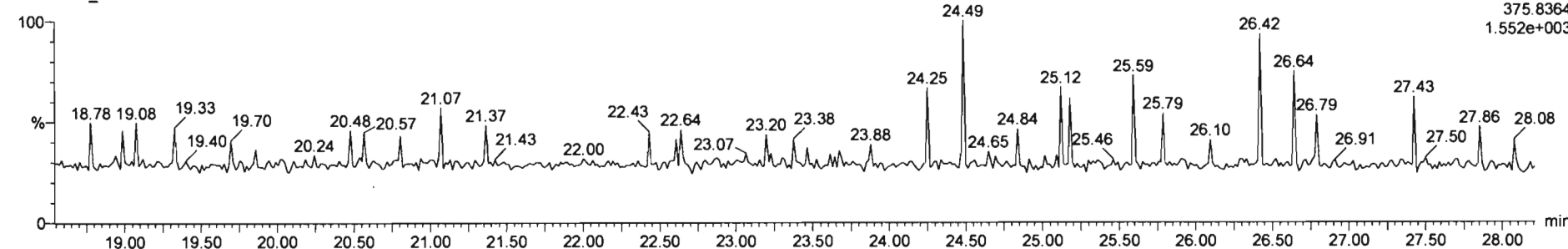


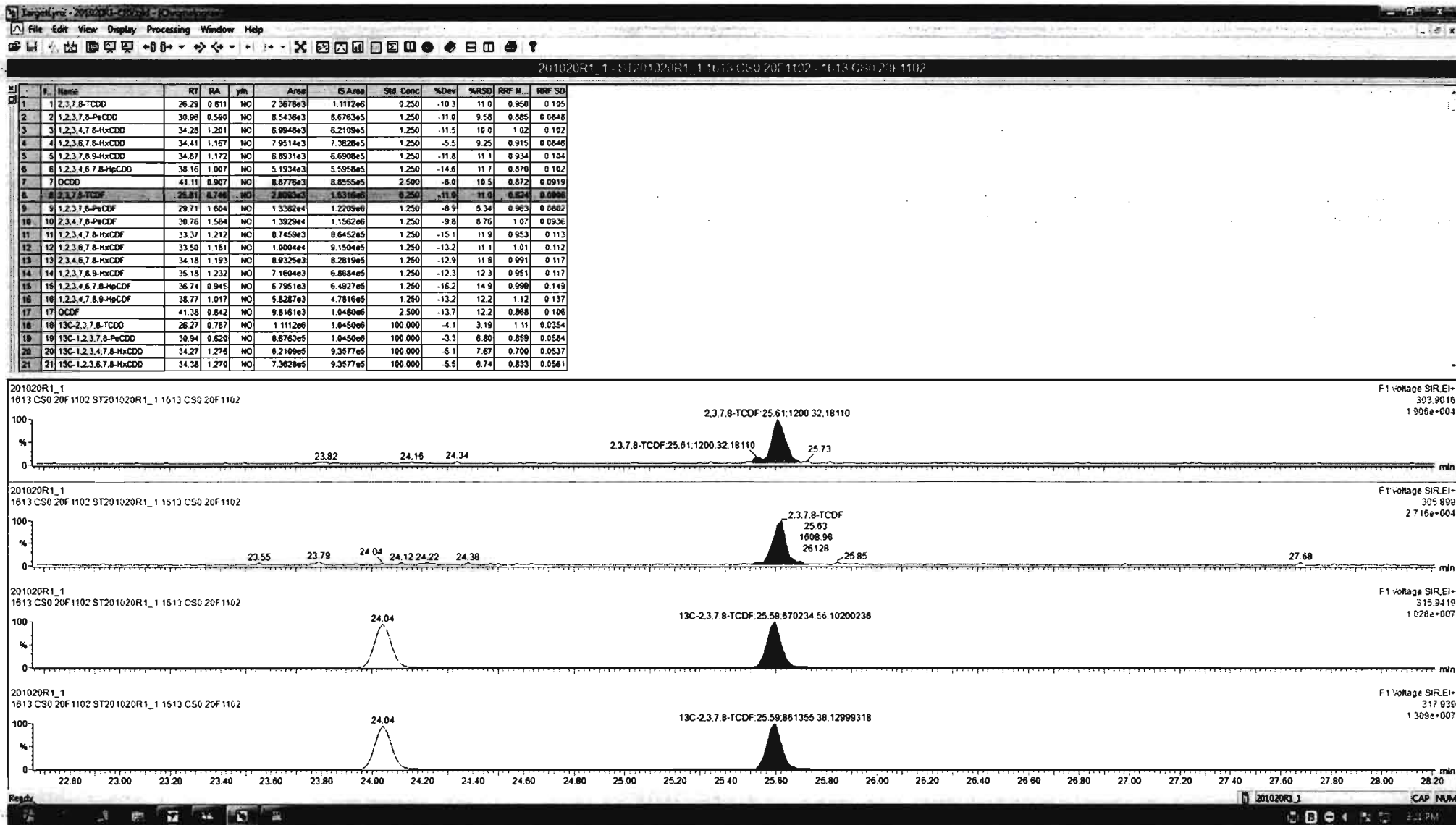
201020R1\_1



### DPE1

201020R1\_1





Dataset: Untitled

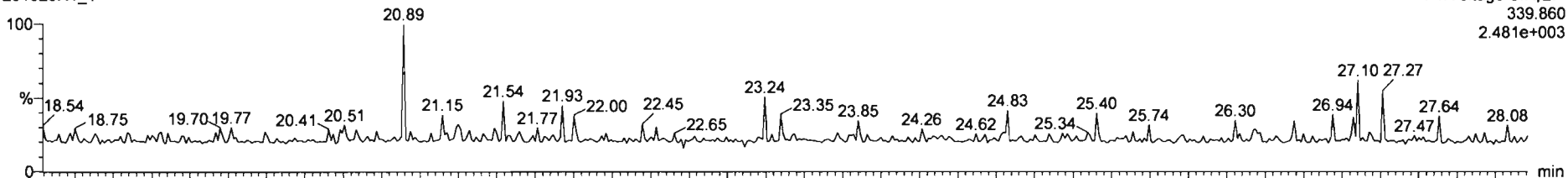
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

1st Func. Penta-Furans

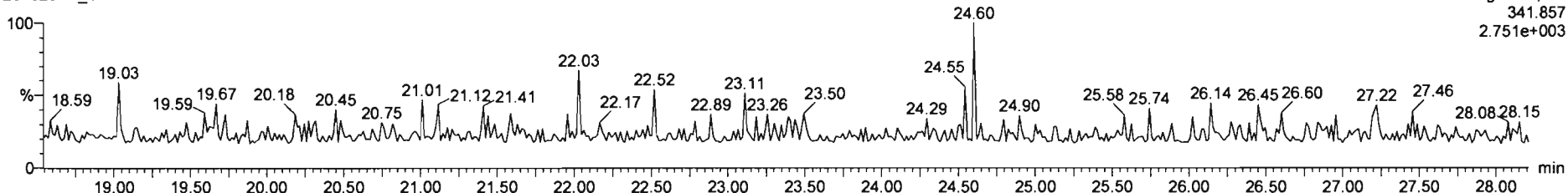
201020R1\_1

F1:Voltage SIR,EI+  
339.860  
2.481e+003



201020R1\_1

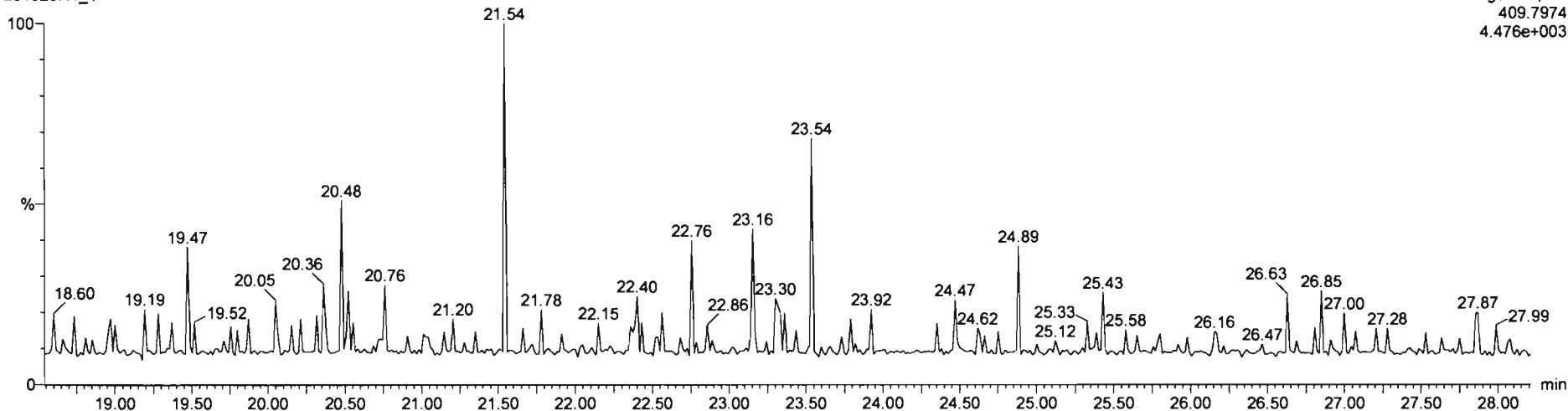
F1:Voltage SIR,EI+  
341.857  
2.751e+003



DPE6

201020R1\_1

F1:Voltage SIR,EI+  
409.7974  
4.476e+003



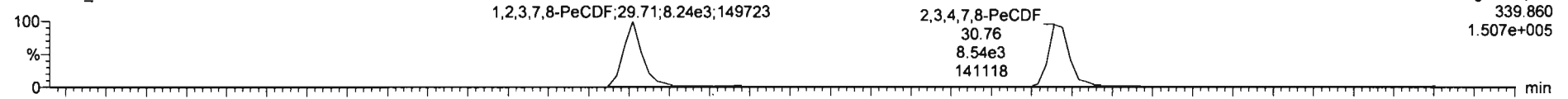
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_1, Date: 20-Oct-2020, Time: 09:17:10, ID: ST201020R1\_1 1613 CS0 20F1102, Description: 1613 CS0 20F1102

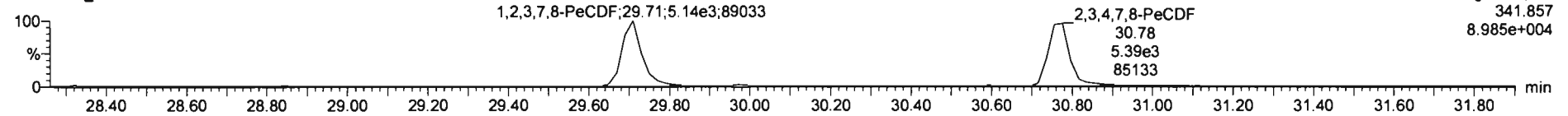
**1,2,3,7,8-PeCDF**

201020R1\_1



F2: Voltage SIR, EI+  
339.860  
1.507e+005

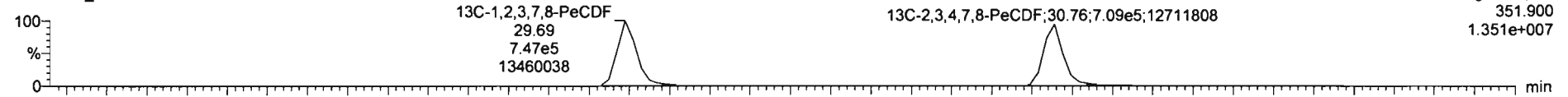
201020R1\_1



F2: Voltage SIR, EI+  
341.857  
8.985e+004

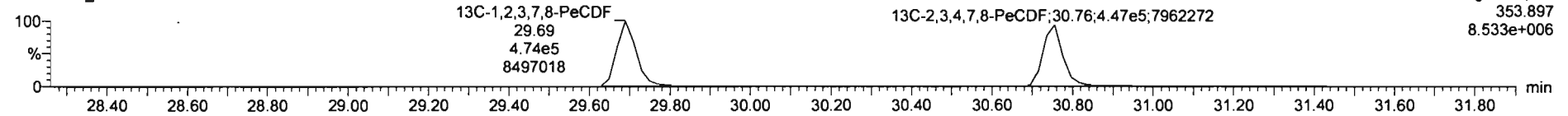
**13C-1,2,3,7,8-PeCDF**

201020R1\_1



F2: Voltage SIR, EI+  
351.900  
1.351e+007

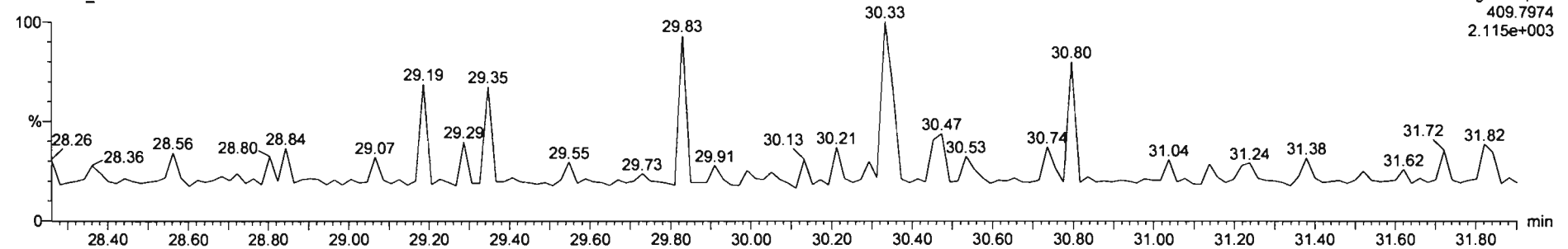
201020R1\_1



F2: Voltage SIR, EI+  
353.897  
8.533e+006

**DPE2**

201020R1\_1



F2: Voltage SIR, EI+  
409.7974  
2.115e+003

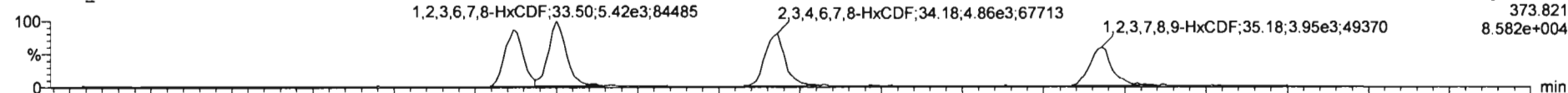
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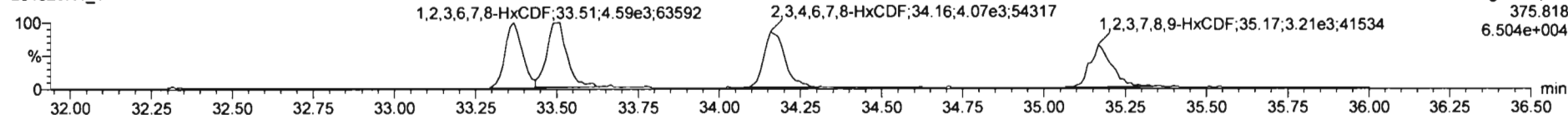
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**1,2,3,4,7,8-HxCDF**

201020R1\_1

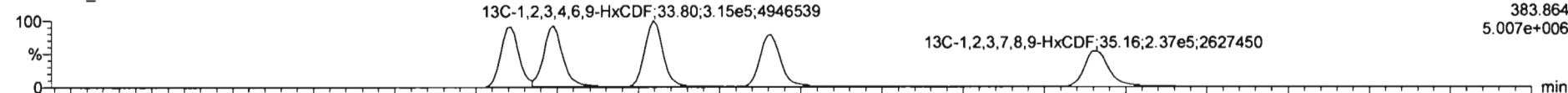


201020R1\_1

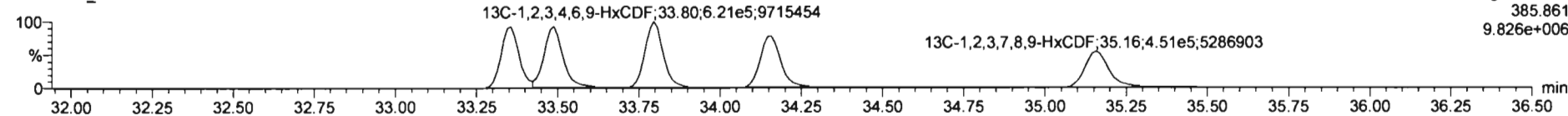


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_1

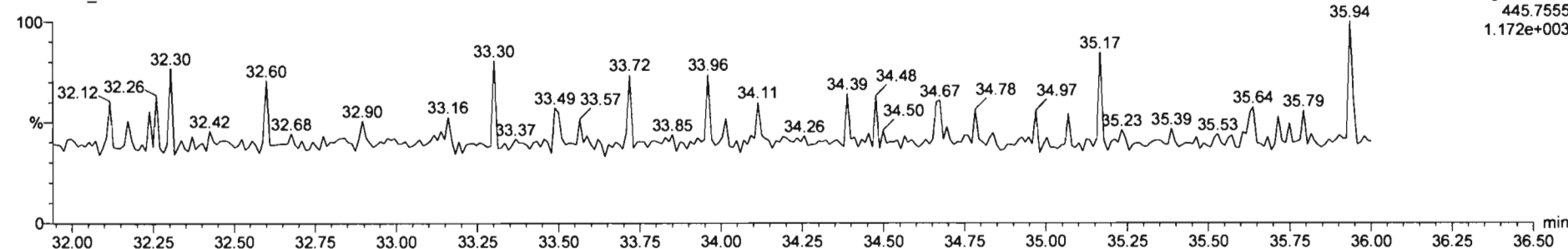


201020R1\_1



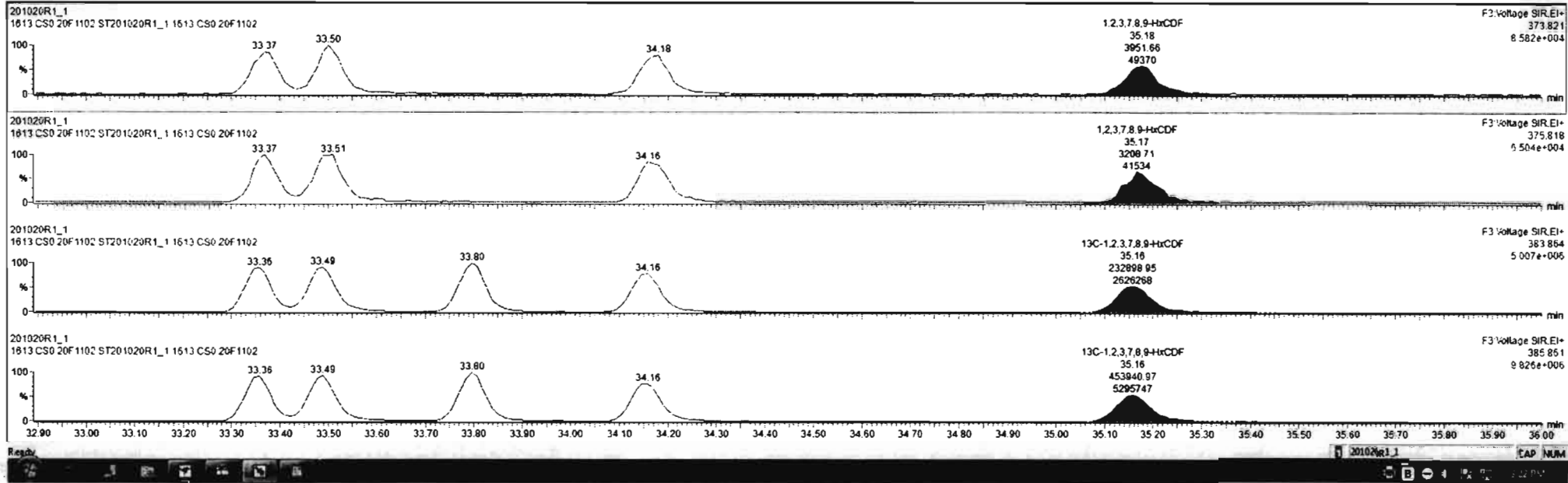
**DPE3**

201020R1\_1



201020R1\_1 - ST201020R1\_1 1613 CS0 20F 1102 - 1613 CS0 20F 1102

#	Name	RT	RA	yth	Area	IS Area	Std. Conc.	%Dev.	%RSD	RFM M.	RFM SD
1	1,2,3,7,8-TCDD	26.29	0.811	NO	2.3678e3	1.1112e6	0.250	-10.3	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.96	0.590	NO	8.5436e3	8.6783e5	1.250	-11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.201	NO	6.9648e3	6.2109e5	1.250	-11.5	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.167	NO	7.9514e3	7.3828e5	1.250	-5.5	9.25	0.915	0.0848
5	1,2,3,7,8,9-HxCDD	34.67	1.172	NO	6.8931e3	6.6908e5	1.250	-11.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.16	1.007	NO	5.1934e3	5.5958e5	1.250	-14.8	11.7	0.870	0.102
7	OCDD	41.11	0.907	NO	8.8778e3	8.8559e5	2.500	-8.0	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.81	0.746	NO	2.8090e3	1.5318e6	0.250	-11.0	11.0	0.824	0.0908
9	1,2,3,7,8-PeCDF	29.71	1.604	NO	1.3382e4	1.2205e6	1.250	-8.9	8.34	0.983	0.0802
10	2,3,4,7,8-PeCDF	30.76	1.584	NO	1.3929e4	1.1562e6	1.250	-9.8	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.212	NO	8.7459e3	8.6452e5	1.250	-15.1	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.181	NO	1.0094e4	9.1504e5	1.250	-13.2	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.193	NO	8.9325e3	8.2819e5	1.250	-12.9	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.232	NO	7.1804e3	8.8884e5	1.250	-12.3	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.945	NO	6.7951e3	6.4927e5	1.250	-16.2	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.017	NO	5.8287e3	4.7816e5	1.250	-13.2	12.2	1.12	0.137
17	OCDF	41.38	0.842	NO	9.8161e3	1.0480e6	2.500	-13.7	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	26.27	0.787	NO	1.1112e6	1.0450e6	100.000	-4.1	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.620	NO	8.6763e3	1.0450e6	100.000	-3.3	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.278	NO	6.2109e5	9.3577e5	100.000	-5.1	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.278	NO	7.3628e5	9.3577e5	100.000	-5.5	6.74	0.833	0.0581



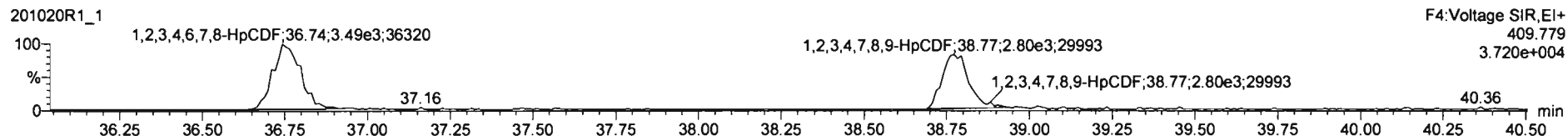
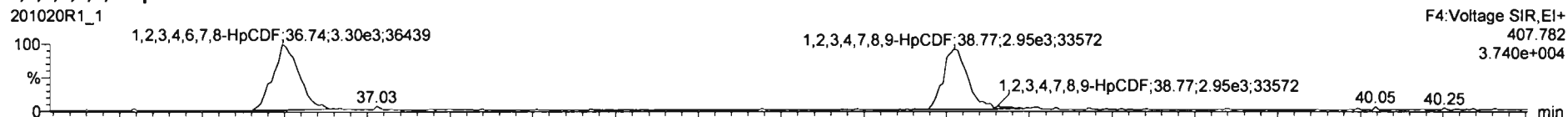


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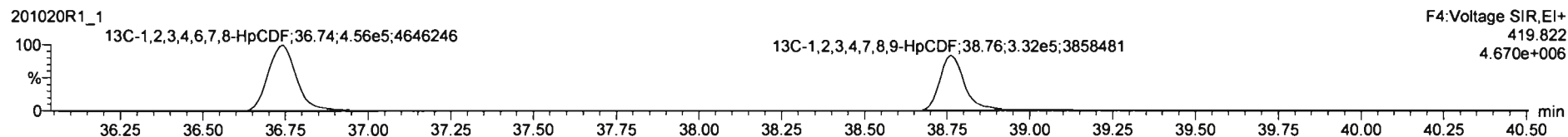
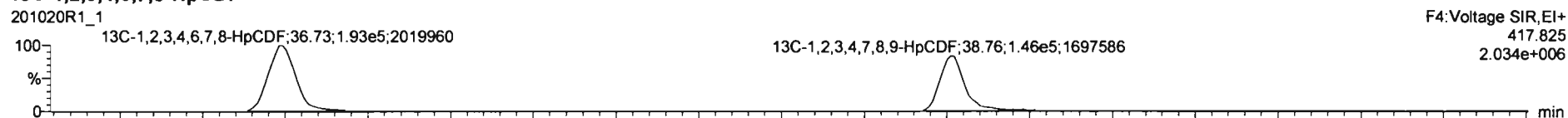
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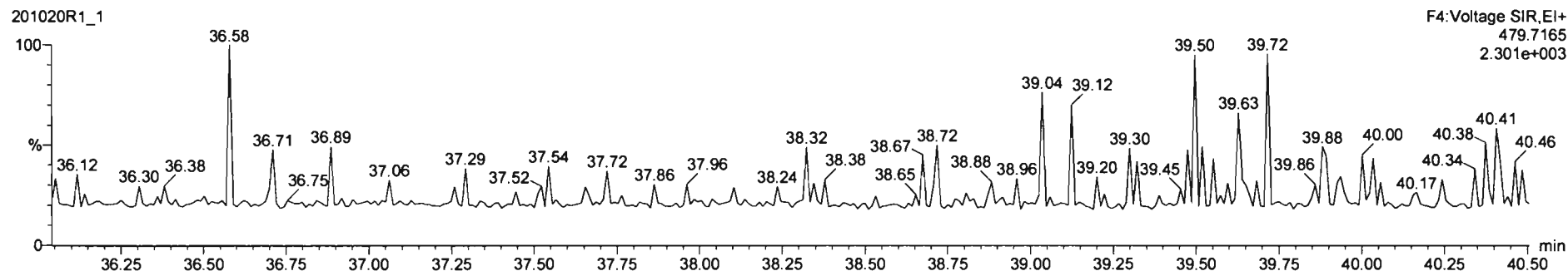
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**

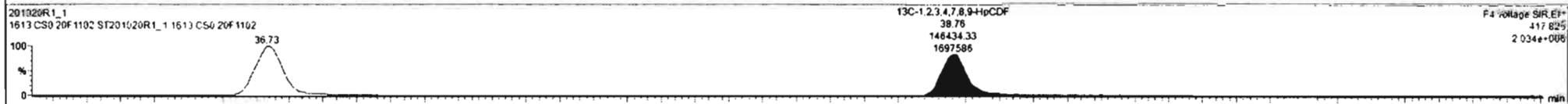
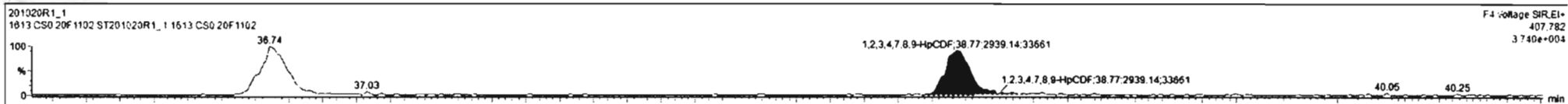


**DPE4**



201020R1\_1 - ST201020R1\_1 1613 CS0 20F 1102 - 1613 CS0 20F 1102

#	Name	RT	RA	Yth	Area	IS Area	Std. Conc	NDev	%RSD	RRF M...	RRF SD
1	1,2,3,7,8-TCDD	26.29	0.811	NO	2.3678e3	1.1112e6	0.250	-10.3	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.96	0.590	NO	8.5436e3	8.6763e5	1.250	-11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.201	NO	8.9948e3	6.2109e5	1.250	-11.5	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.167	NO	7.9514e3	7.3828e5	1.250	-5.5	9.25	0.915	0.0848
5	1,2,3,7,8,9-HxCDD	34.67	1.172	NO	6.8531e3	6.6908e5	1.250	-11.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.16	1.007	NO	5.1934e3	5.5958e5	1.250	-14.8	11.7	0.970	0.102
7	OCDD	41.11	0.907	NO	8.6778e3	8.8555e5	2.500	-8.0	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.746	NO	2.6093e3	1.5316e6	0.250	-11.0	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.604	NO	1.3382e4	1.2205e6	1.250	-8.9	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.76	1.584	NO	1.3929e4	1.1562e6	1.250	-9.8	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.212	NO	8.7459e3	8.6452e5	1.250	-15.1	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.181	NO	1.0004e4	9.1504e5	1.250	-13.2	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.193	NO	8.9325e3	8.2819e5	1.250	-12.9	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.232	NO	7.1604e3	6.8684e5	1.250	-12.3	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.945	NO	6.7951e3	6.4927e5	1.250	-16.2	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.817	NO	5.8077e3	4.7818e5	1.250	-13.2	12.2	1.12	0.137
17	OCDF	41.38	0.842	NO	9.8181e3	1.0480e6	2.500	-13.7	12.2	0.866	0.106
18	13C-2,3,7,8-TCDD	26.27	0.787	NO	1.1112e6	1.0450e6	100.000	-4.1	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.620	NO	8.6763e5	1.0450e6	100.000	-3.3	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.276	NO	6.2109e5	9.3577e5	100.000	-5.1	7.67	0.706	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.270	NO	7.3828e5	9.3577e5	100.000	-5.5	6.74	0.833	0.0561



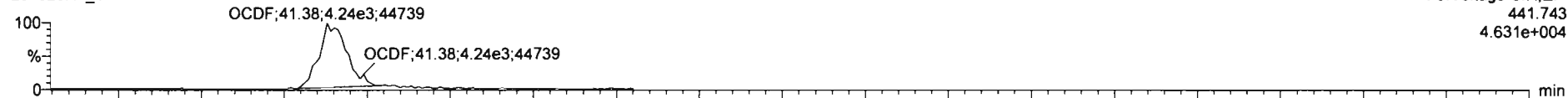
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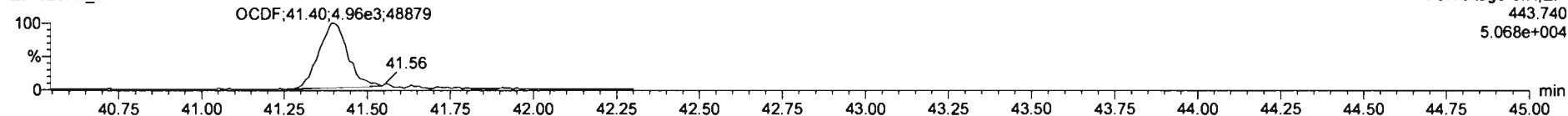
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**OCDF**

201020R1\_1

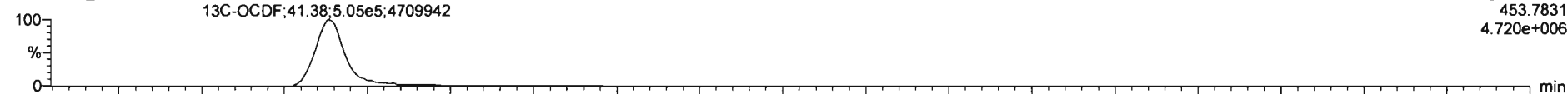


201020R1\_1

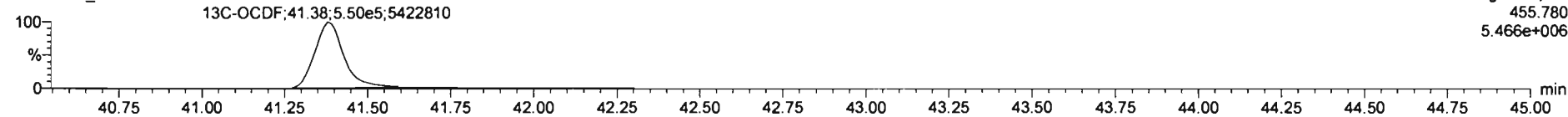


**13C-OCDF**

201020R1\_1

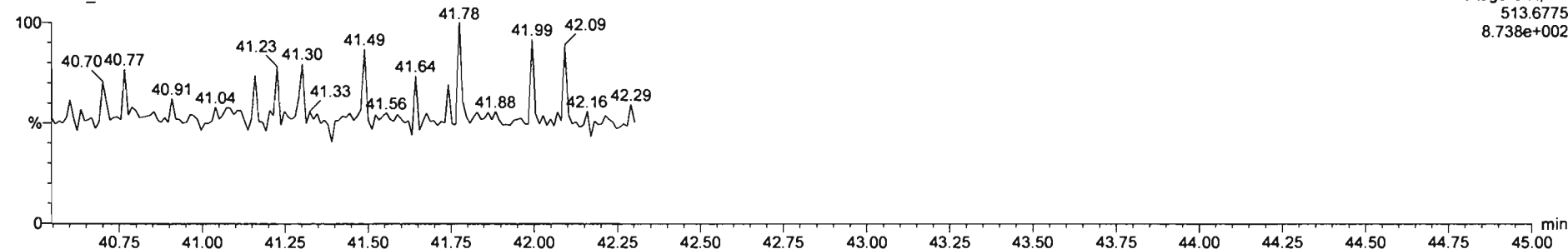


201020R1\_1

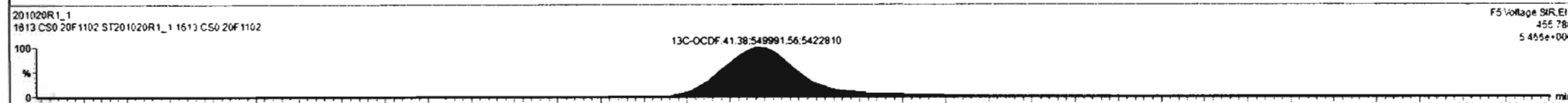
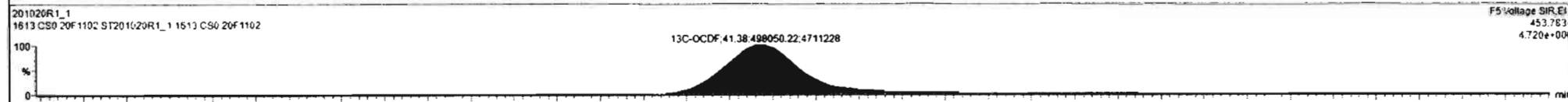
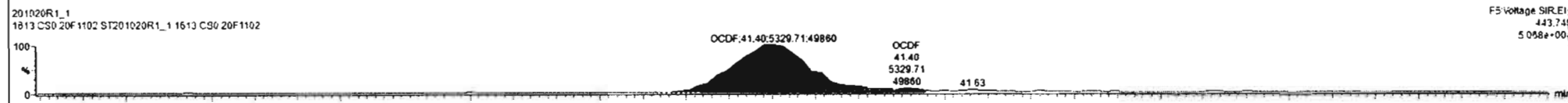
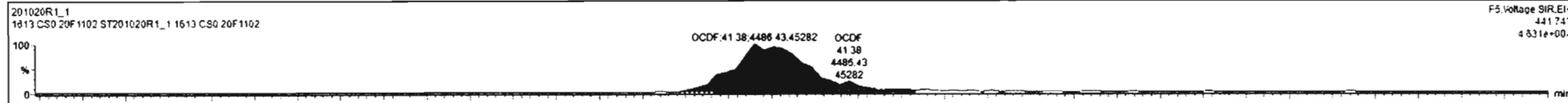


**DPE5**

201020R1\_1



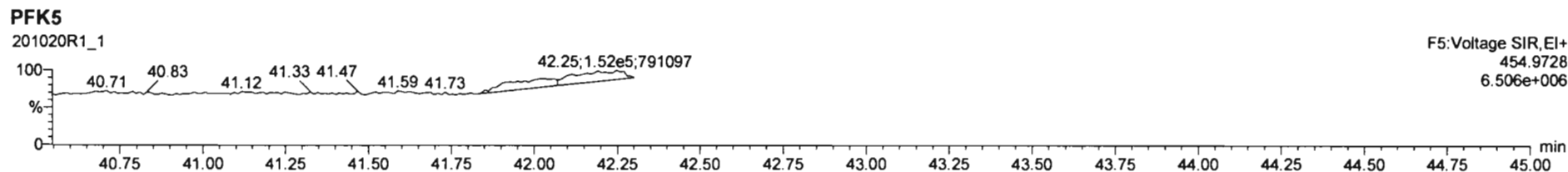
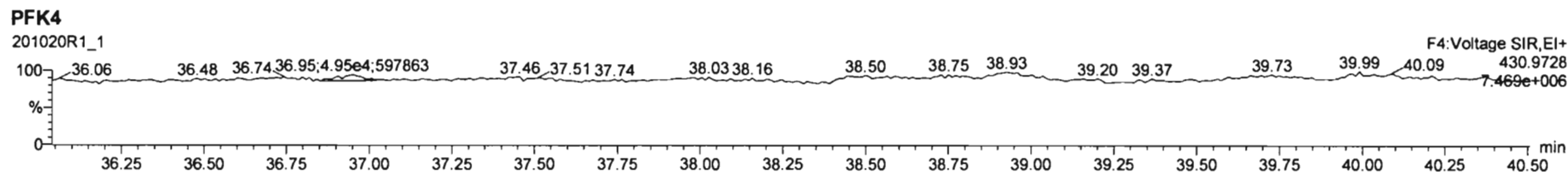
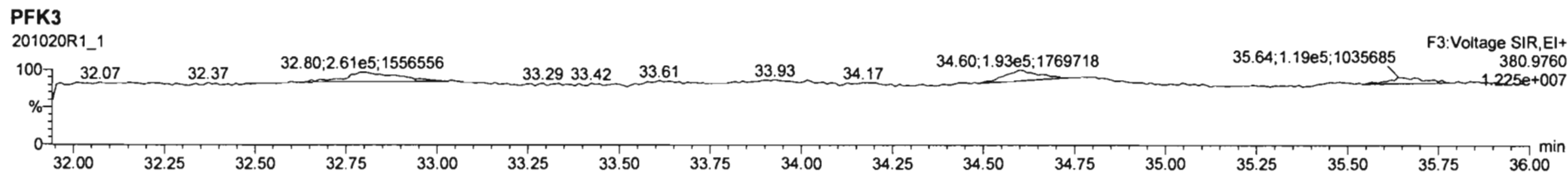
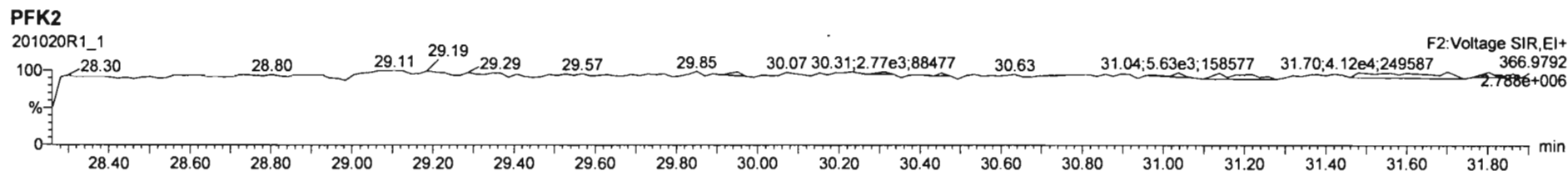
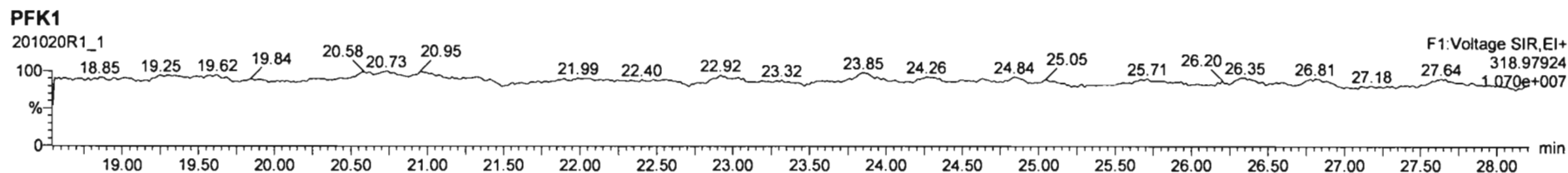
#	Name	RT	RA	Yth	Area	IS Area	Std Conc	%Dev	%RSD	RRF M	RRF SD
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2	1,2,3,7,8-PeCDD	30.96	0.590	NO	8.5436e3	8.6763e5	1.250	-11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.201	NO	6.9948e3	6.2109e5	1.250	-11.5	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.167	NO	7.9514e3	7.3628e5	1.250	-5.5	9.25	0.915	0.0846
5	1,2,3,7,8,9-HxCDD	34.67	1.172	NO	6.8531e3	6.6908e5	1.250	-11.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.16	1.007	NO	5.1934e3	5.5958e5	1.250	-14.6	11.7	0.870	0.102
7	OCDF	41.11	0.907	NO	8.8778e3	8.8555e5	2.500	-8.0	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.746	NO	2.8093e3	1.5316e6	0.250	-11.0	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.604	NO	1.3382e4	1.2209e6	1.250	-8.9	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.76	1.584	NO	1.3929e4	1.1562e6	1.250	-9.8	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.212	NO	8.7459e3	8.6452e5	1.250	-15.1	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.181	NO	1.0004e4	9.1504e5	1.250	-13.2	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.193	NO	8.9325e3	8.2819e5	1.250	-12.9	11.6	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.232	NO	7.1604e3	6.8684e5	1.250	-12.2	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.945	NO	6.7951e3	6.4927e5	1.250	-16.2	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.017	NO	5.8287e3	4.7816e5	1.250	-13.2	12.2	1.12	0.137
17	OCDF	41.38	0.842	NO	8.8161e3	1.9480e6	2.990	-13.7	12.2	0.888	0.106
18	13C-2,3,7,8-TCDD	26.27	0.767	NO	1.1112e6	1.0450e6	100.000	-4.1	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.620	NO	8.6763e5	1.0450e6	100.000	-3.3	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.276	NO	6.2109e5	9.3577e5	100.000	-5.1	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.270	NO	7.3628e5	9.3577e5	100.000	-5.5	6.74	0.833	0.0561



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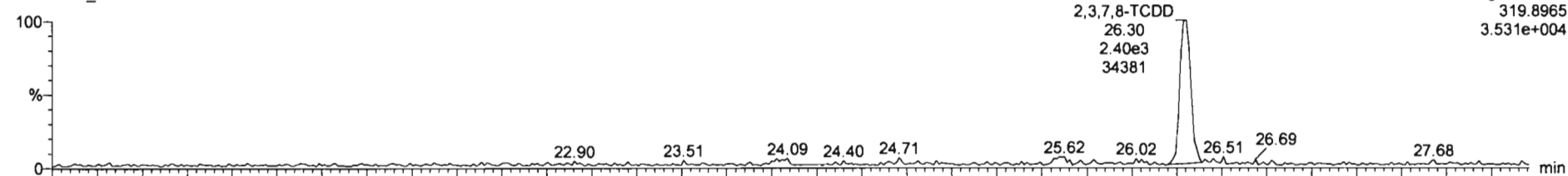
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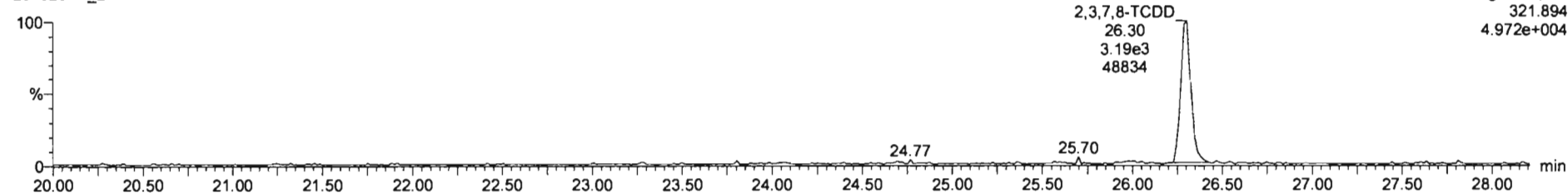
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**2,3,7,8-TCDD**

201020R1\_2



201020R1\_2

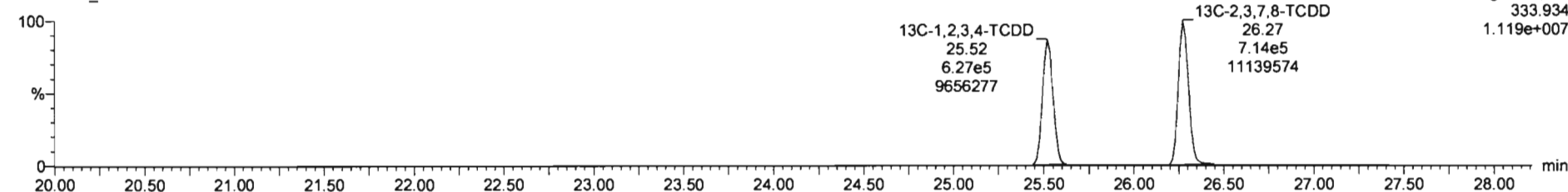


**13C-2,3,7,8-TCDD**

201020R1\_2



201020R1\_2





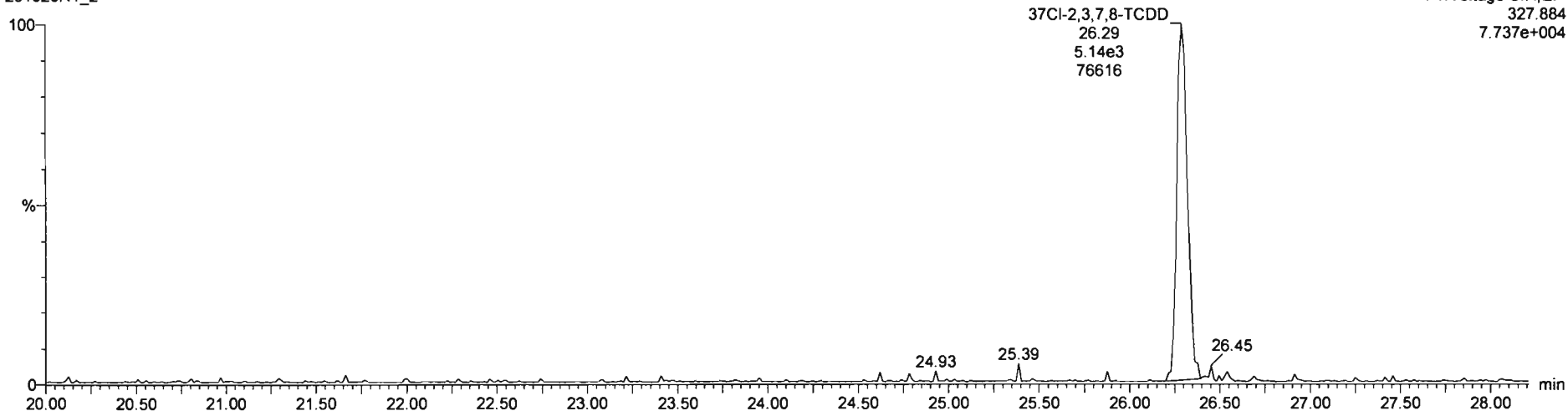
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**37Cl-2,3,7,8-TCDD**

201020R1\_2

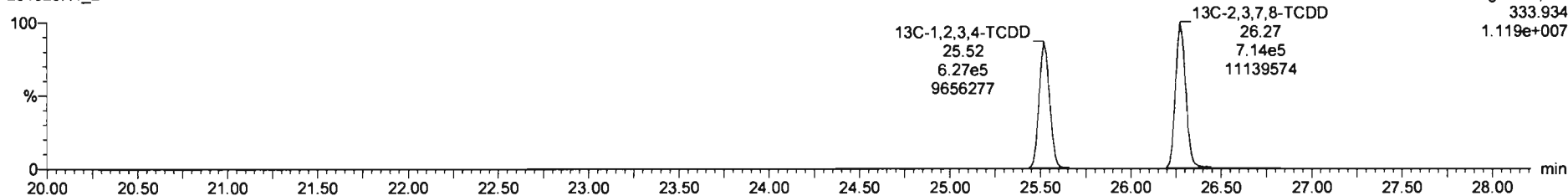


**13C-1,2,3,4-TCDD**

201020R1\_2



201020R1\_2



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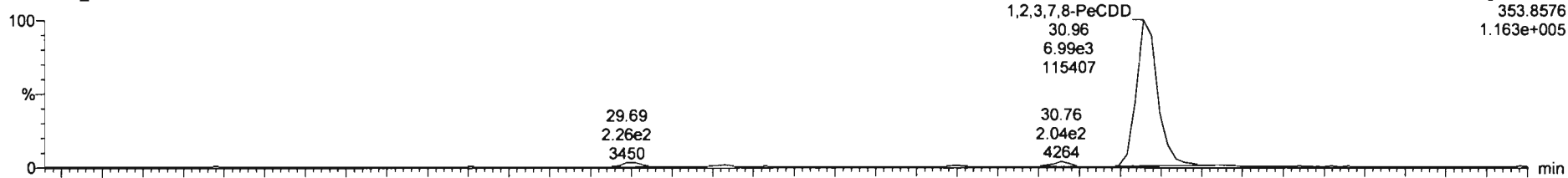
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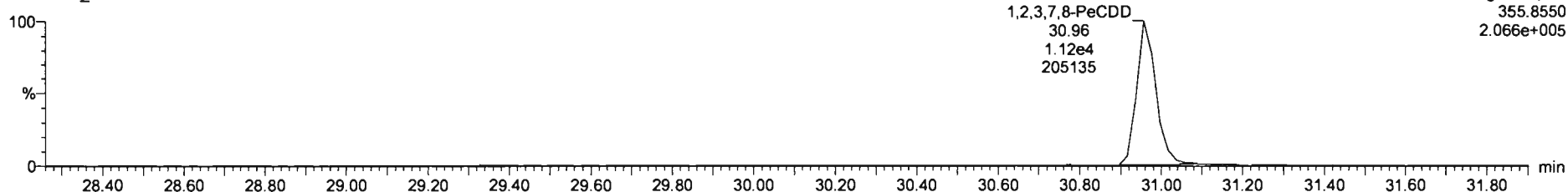
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**1,2,3,7,8-PeCDD**

201020R1\_2



201020R1\_2

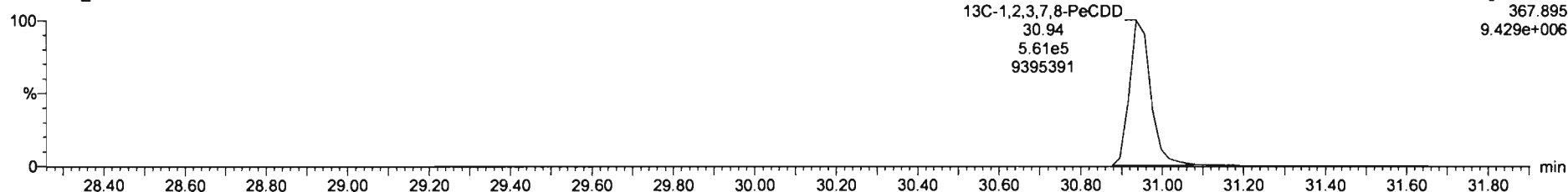


**13C-1,2,3,7,8-PeCDD**

201020R1\_2



201020R1\_2



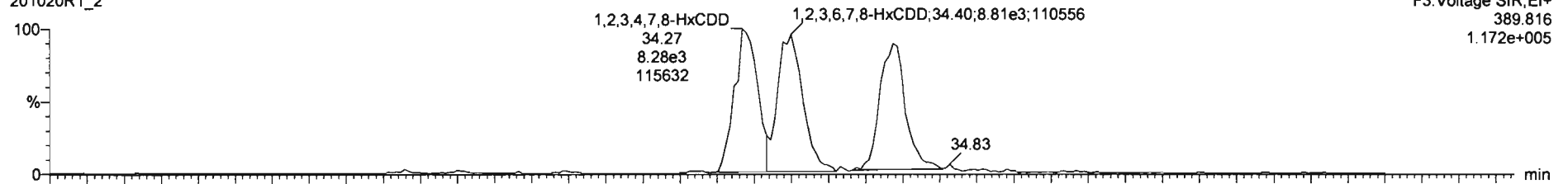
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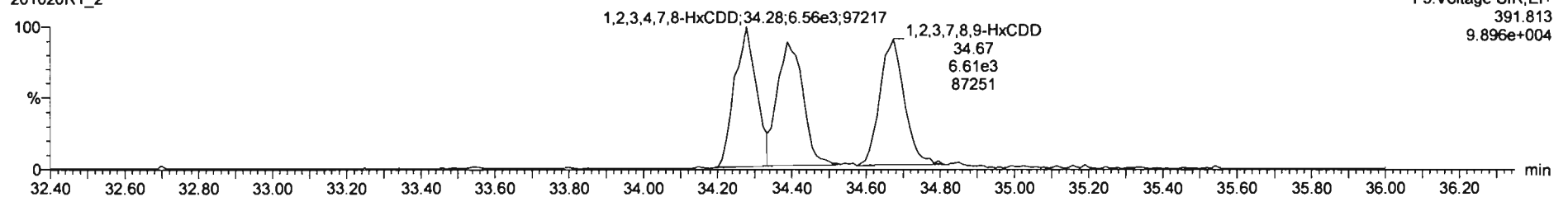
1,2,3,4,7,8-HxCDD

201020R1\_2



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1.172e+005

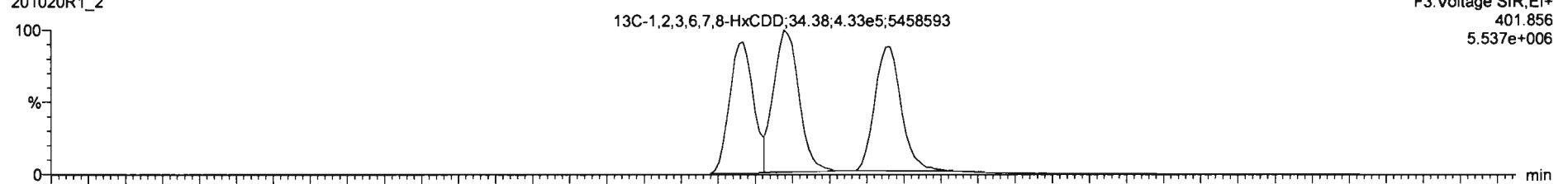
201020R1\_2



F3:Voltage SIR,EI+  
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9.896e+004

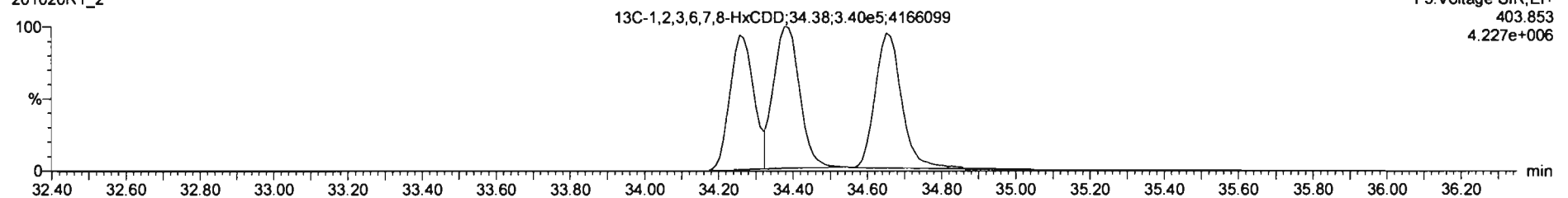
13C-1,2,3,4,7,8-HxCDD

201020R1\_2



F3:Voltage SIR,EI+  
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5.537e+006

201020R1\_2



F3:Voltage SIR,EI+  
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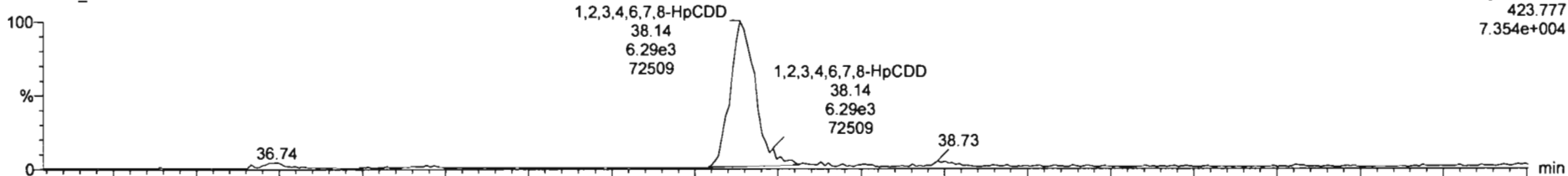
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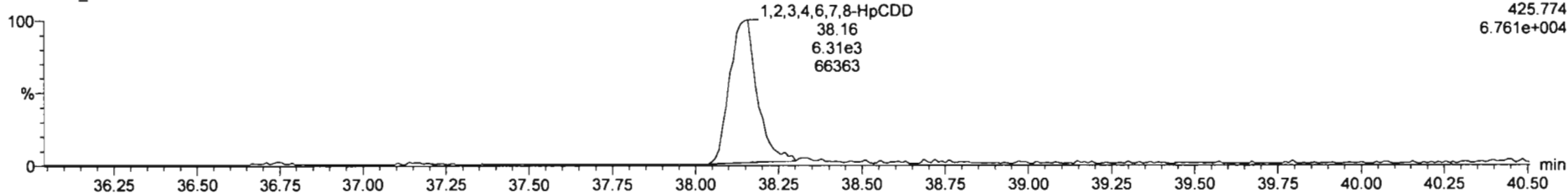
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**1,2,3,4,6,7,8-HpCDD**

201020R1\_2

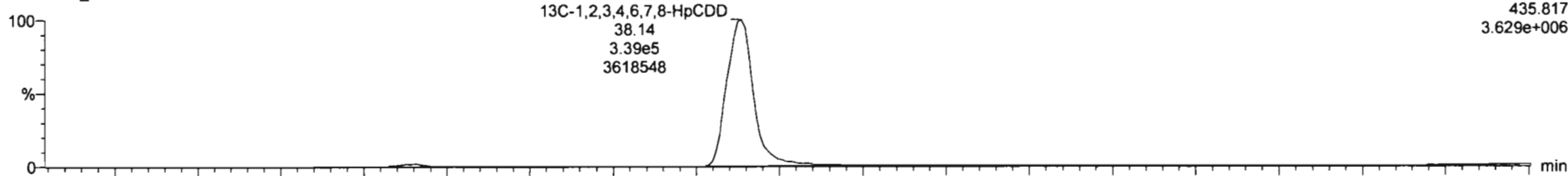


201020R1\_2

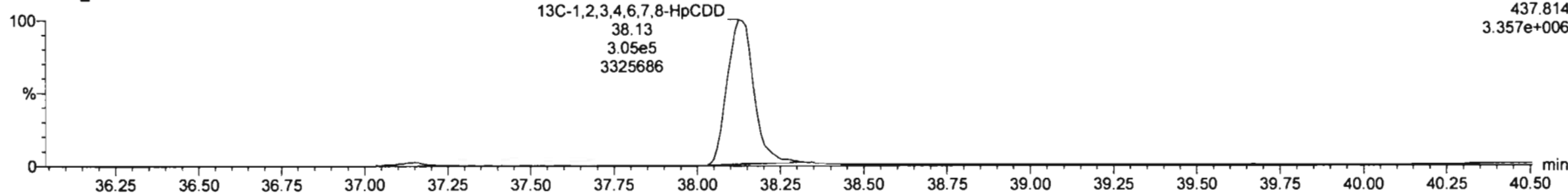


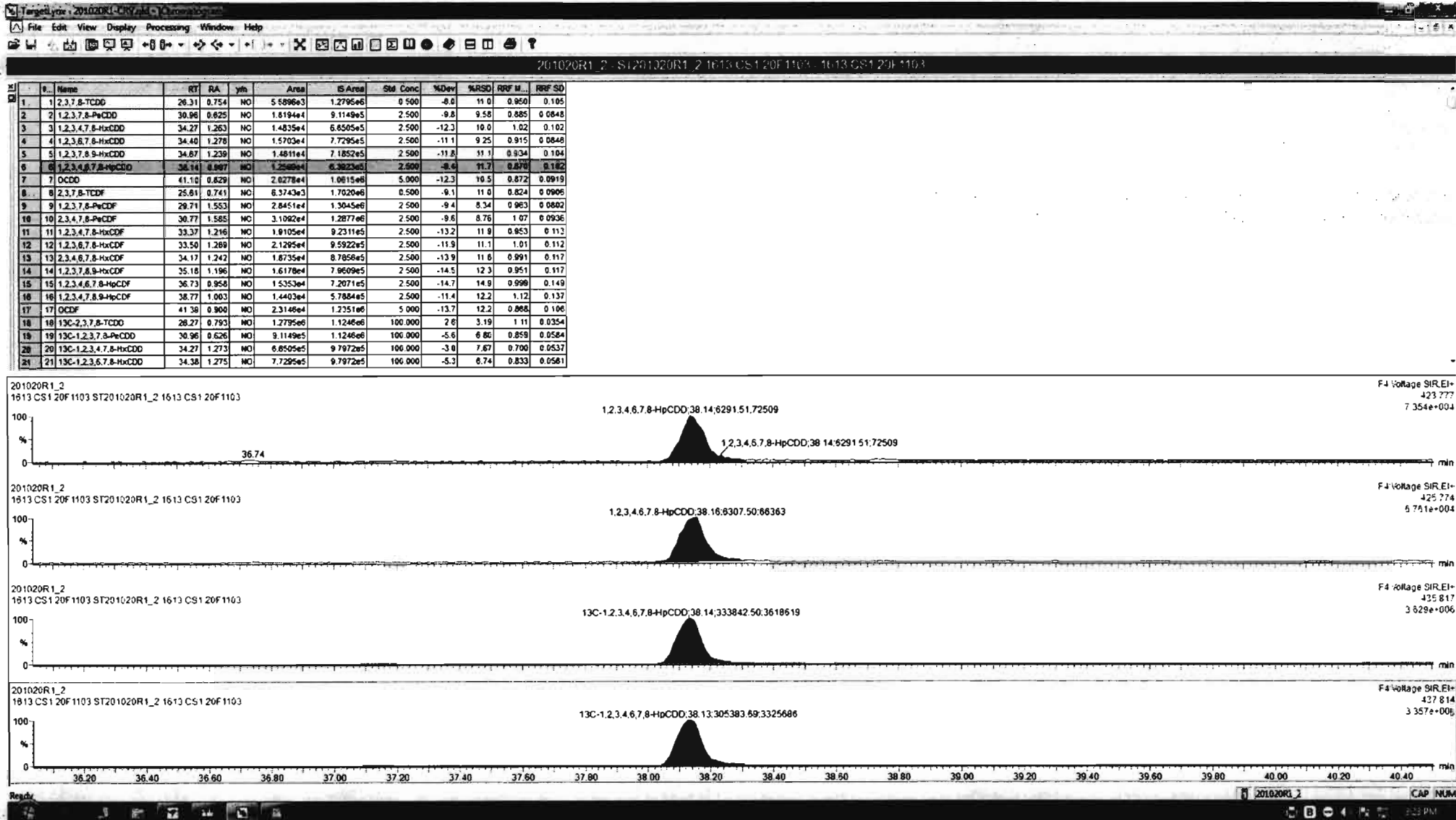
**13C-1,2,3,4,6,7,8-HpCDD**

201020R1\_2



201020R1\_2





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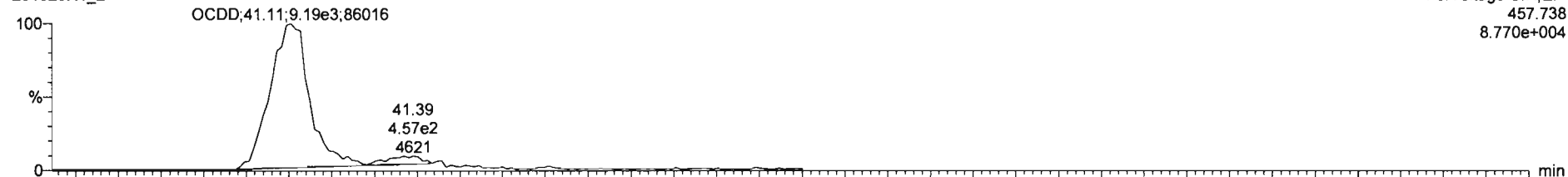
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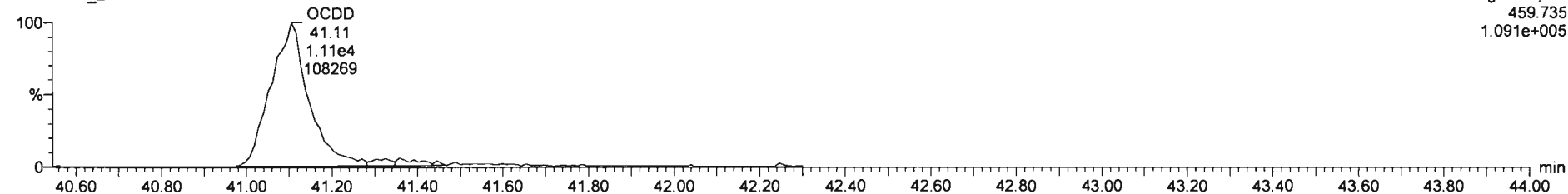
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**OCDD**

201020R1\_2

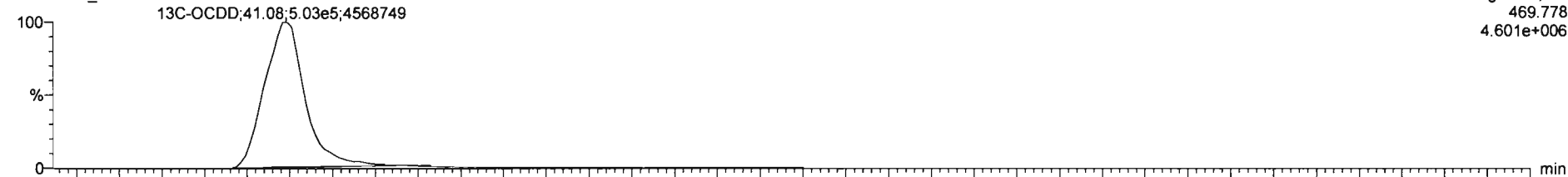


201020R1\_2

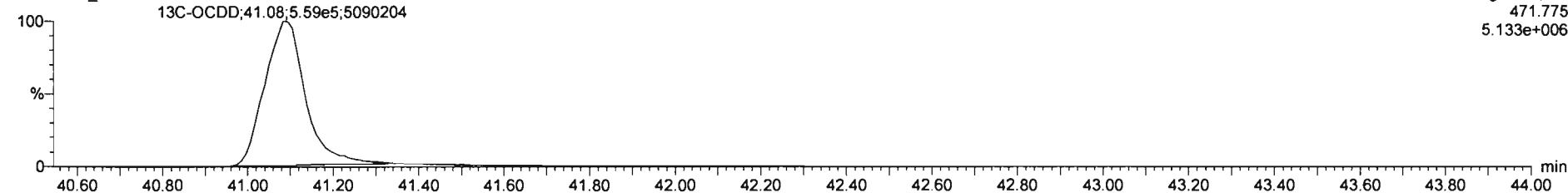


**13C-OCDD**

201020R1\_2



201020R1\_2





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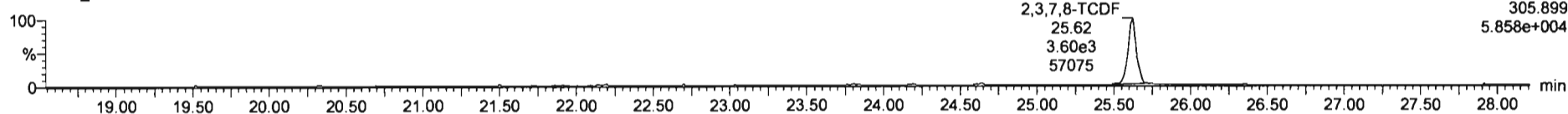
**2,3,7,8-TCDF**

201020R1\_2



F1: Voltage SIR, EI+  
303.9016  
3.959e+004

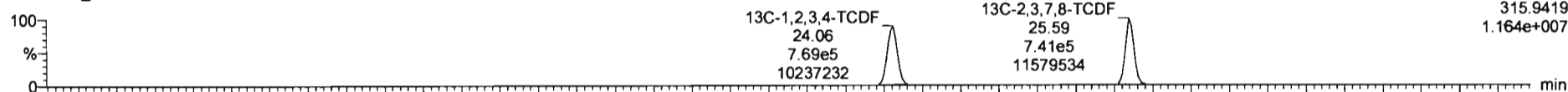
201020R1\_2



F1: Voltage SIR, EI+  
305.899  
5.858e+004

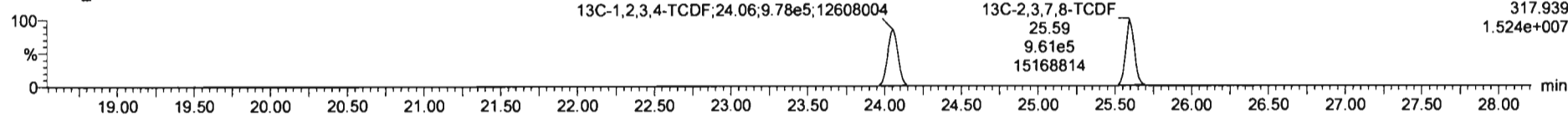
**13C-2,3,7,8-TCDF**

201020R1\_2



F1: Voltage SIR, EI+  
315.9419  
1.164e+007

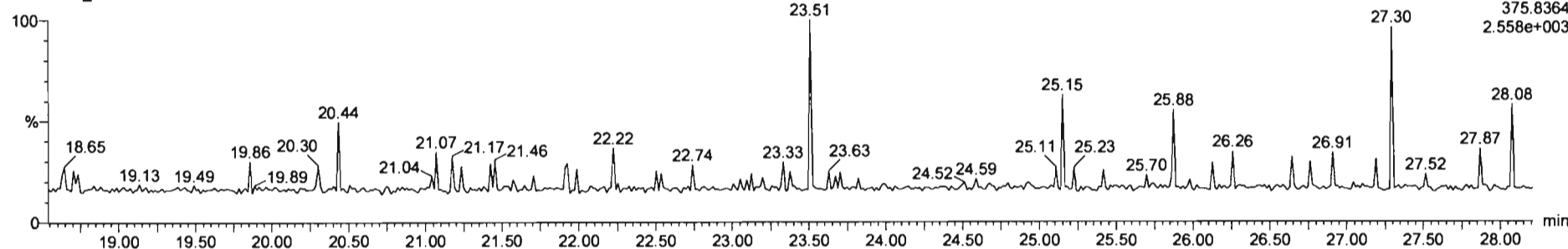
201020R1\_2



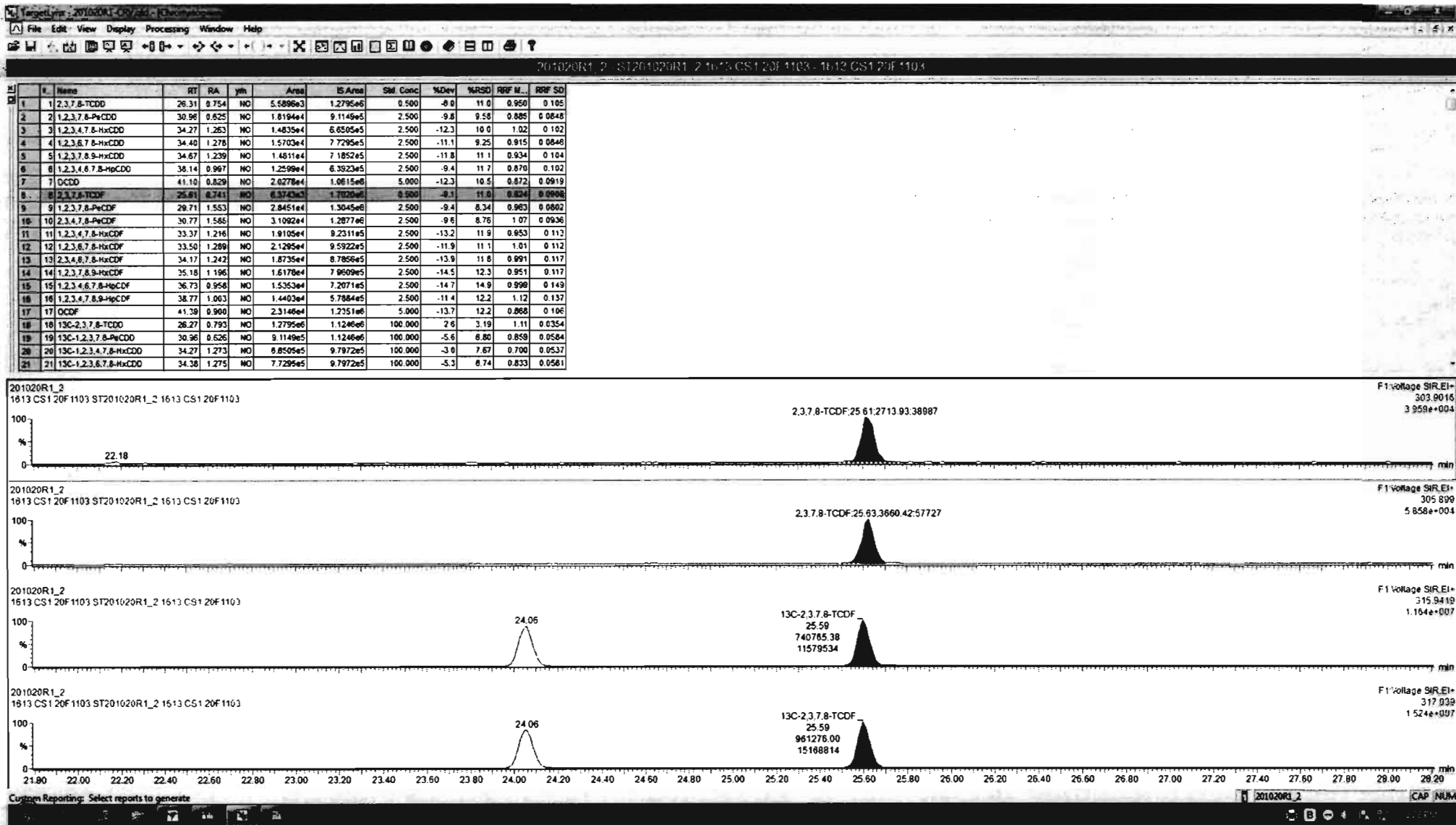
F1: Voltage SIR, EI+  
317.939  
1.524e+007

**DPE1**

201020R1\_2



F1: Voltage SIR, EI+  
375.8364  
2.558e+003



Dataset: Untitled

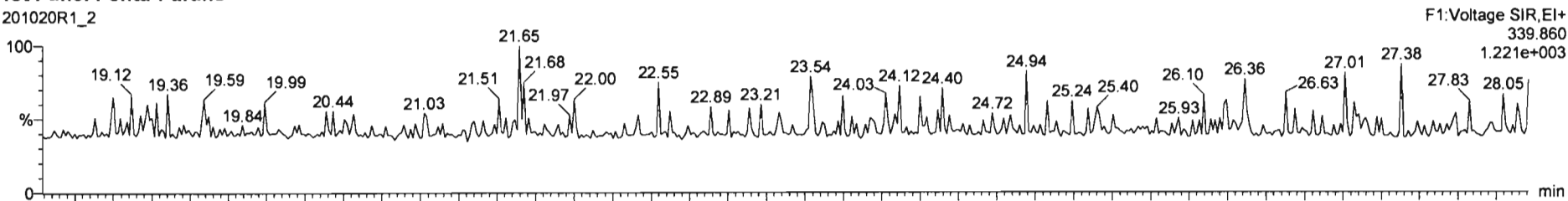
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

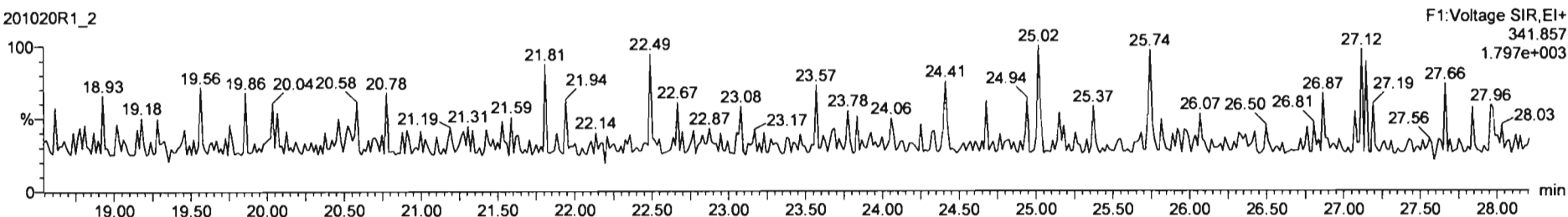
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1st Func. Penta-Furans

201020R1\_2

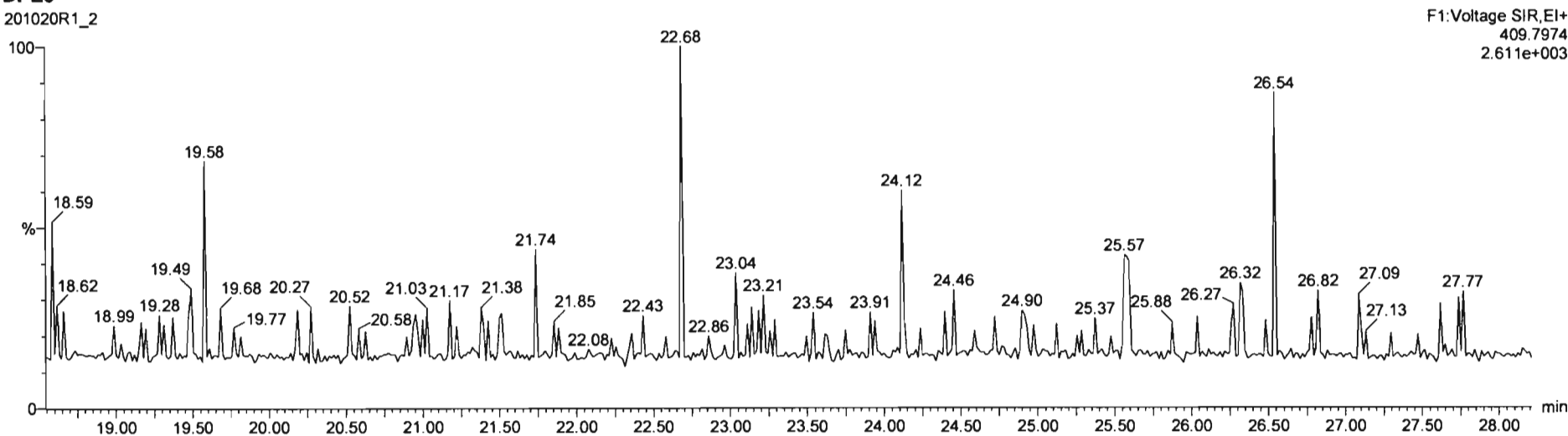


201020R1\_2



DPE6

201020R1\_2



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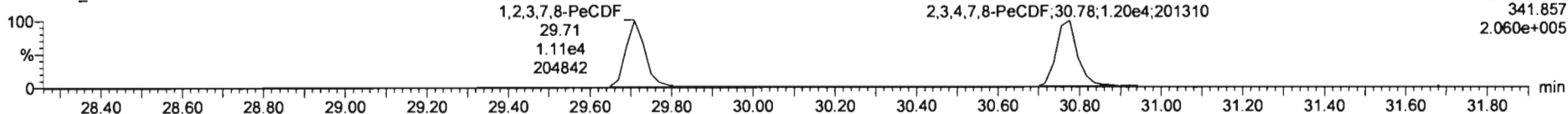
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**1,2,3,7,8-PeCDF**

201020R1\_2

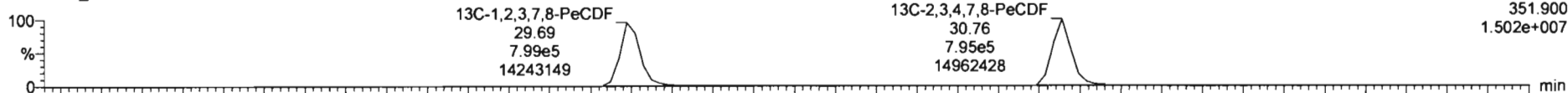


201020R1\_2

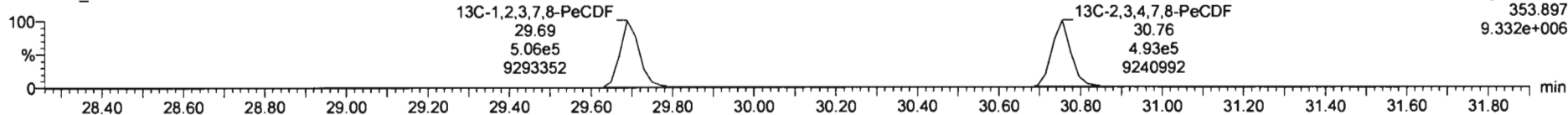


**13C-1,2,3,7,8-PeCDF**

201020R1\_2

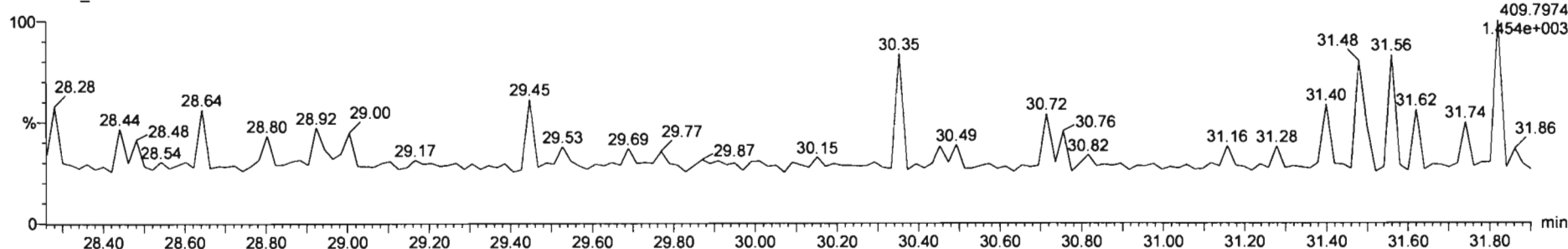


201020R1\_2



**DPE2**

201020R1\_2



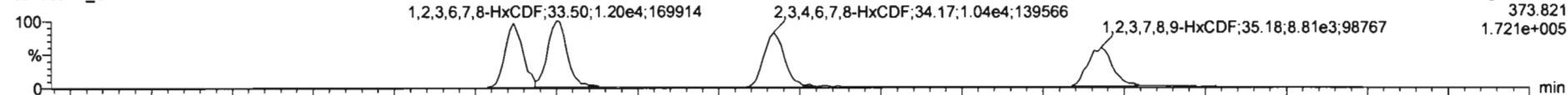
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

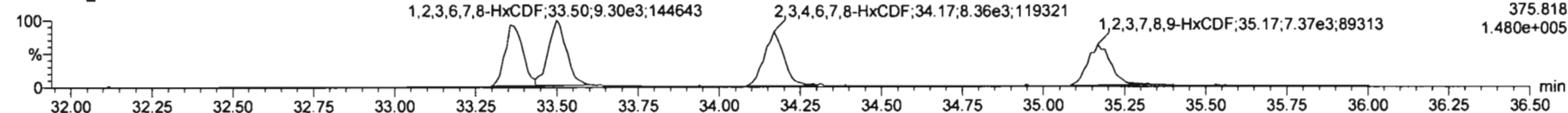
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**1,2,3,4,7,8-HxCDF**

201020R1\_2

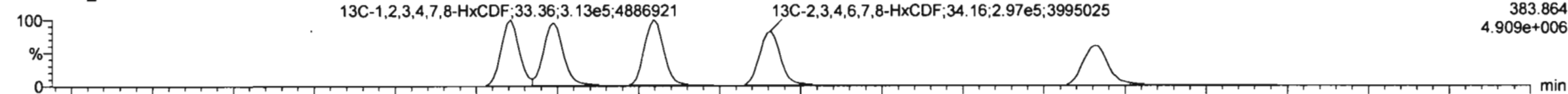


201020R1\_2

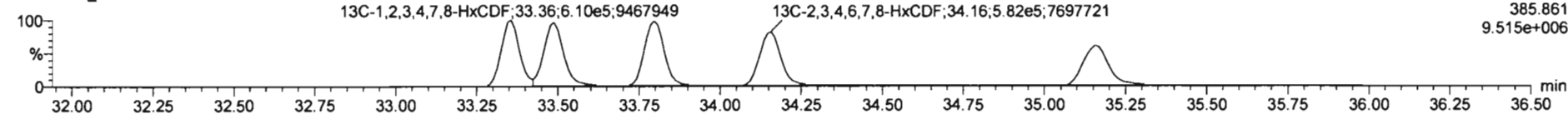


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_2

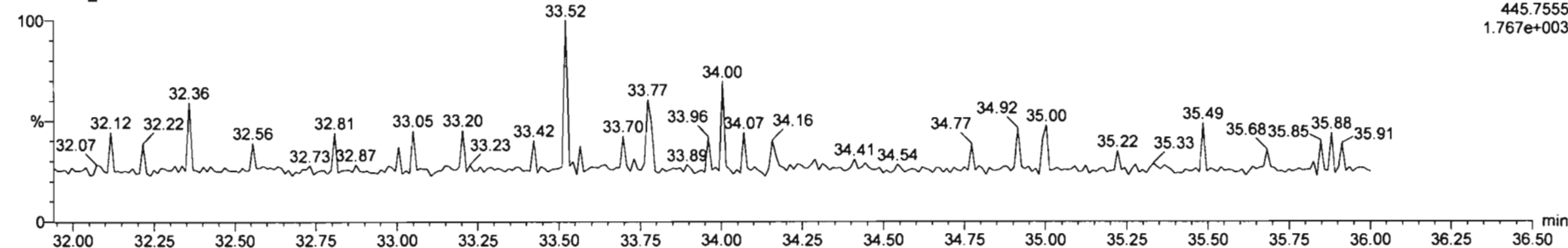


201020R1\_2



**DPE3**

201020R1\_2



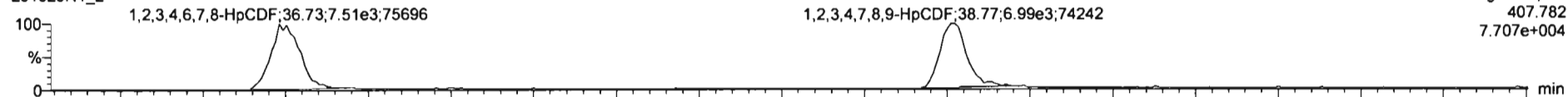
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

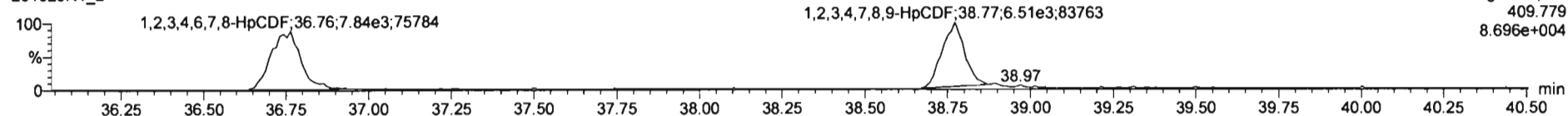
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**1,2,3,4,6,7,8-HpCDF**

201020R1\_2

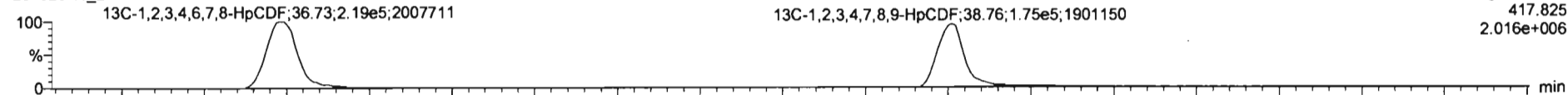


201020R1\_2

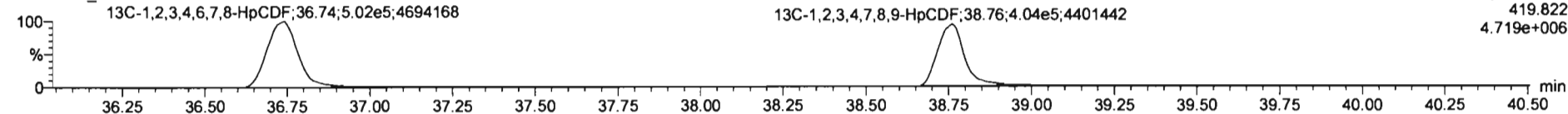


**13C-1,2,3,4,6,7,8-HpCDF**

201020R1\_2

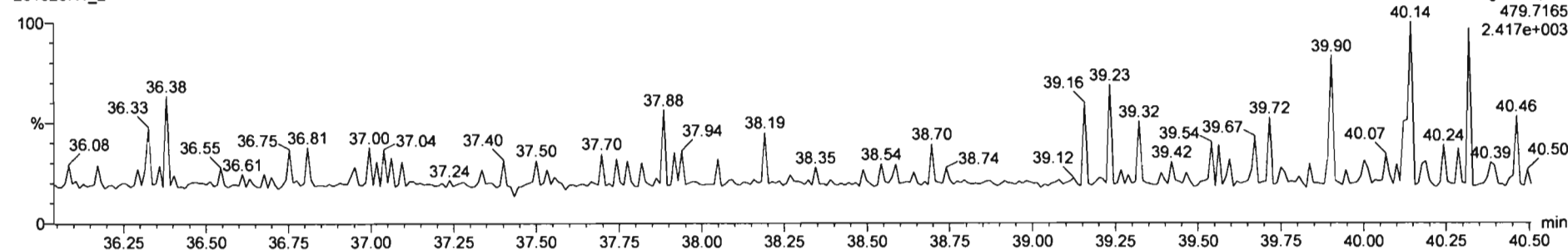


201020R1\_2



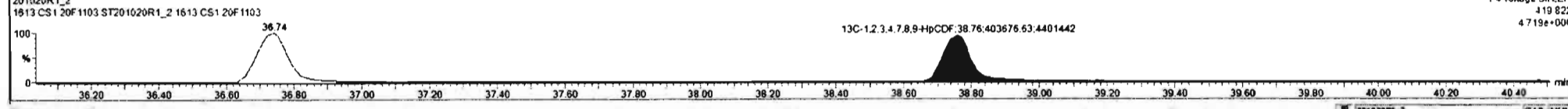
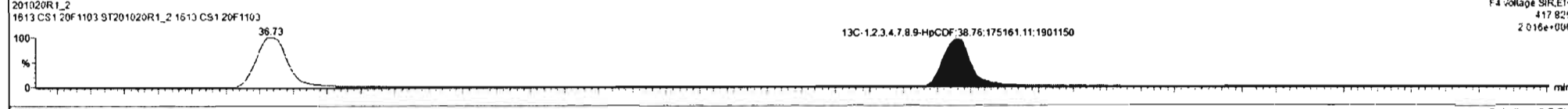
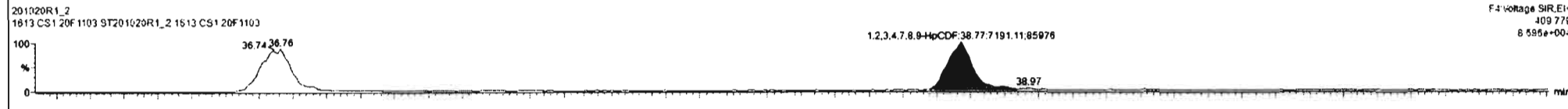
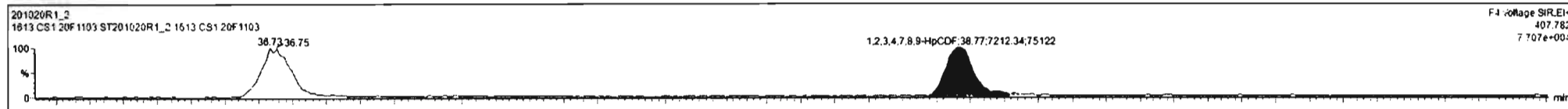
**DPE4**

201020R1\_2





#	Rt	Name	RT	RA	Yn	Area	IS Area	Std Conc	%Dev	%RSD	RRF N...	RRF SD
1	26.31	2,3,7,8-TCDD	0.754	NO	5.5896e3	1.2795e6	0.500	-8.0	11.0	0.950	0.105	
2	30.96	1,2,3,7,8-PeCDD	0.625	NO	1.8194e4	9.1149e5	2.500	-9.8	9.58	0.885	0.0848	
3	34.27	1,2,3,4,7,8-HxCDD	1.263	NO	1.4835e4	6.6505e5	2.500	-12.3	10.0	1.02	0.102	
4	34.40	1,2,3,6,7,8-HxCDD	1.278	NO	1.5703e4	7.7295e5	2.500	-11.1	9.25	0.915	0.0846	
5	34.67	1,2,3,7,8,9-HxCDD	1.239	NO	1.4811e4	7.1852e5	2.500	-11.8	11.1	0.934	0.104	
6	38.14	1,2,3,4,6,7,8-HpCDD	0.997	NO	1.2599e4	6.3923e5	2.500	9.4	11.7	0.870	0.102	
7	41.10	OCDD	0.829	NO	2.0278e4	1.0615e6	5.000	-12.3	10.5	0.872	0.0919	
8	25.81	2,3,7,8-TCDF	0.741	NO	6.3743e3	1.7020e6	0.500	-9.1	11.0	0.824	0.0906	
9	29.71	1,2,3,7,8-PeCDF	1.553	NO	2.8451e4	1.3045e6	2.500	-9.4	8.34	0.963	0.0802	
10	30.77	2,3,4,7,8-PeCDF	1.585	NO	3.1092e4	1.2877e6	2.500	-9.6	8.76	1.07	0.0936	
11	33.37	1,2,3,4,7,8-HxCDF	1.216	NO	1.8105e4	9.2311e5	2.500	-13.2	11.9	0.853	0.113	
12	33.50	1,2,3,6,7,8-HxCDF	1.289	NO	2.1295e4	9.5922e5	2.500	-11.9	11.1	1.01	0.112	
13	34.17	2,3,4,6,7,8-HxCDF	1.242	NO	1.8735e4	8.7856e5	2.500	-13.9	11.6	0.991	0.117	
14	35.18	1,2,3,7,8,9-HxCDF	1.196	NO	1.6178e4	7.9609e5	2.500	-14.5	12.3	0.951	0.117	
15	36.73	1,2,3,4,6,7,8-HpCDF	0.958	NO	1.5353e4	7.2071e5	2.500	-14.7	14.9	0.990	0.149	
16	38.77	1,2,3,4,7,8,9-HpCDF	1.903	NO	1.4402e4	5.7884e5	2.500	-11.4	12.2	1.12	0.137	
17	44.38	OCDF	0.900	NO	2.3148e4	1.2351e6	5.000	-13.7	12.2	0.868	0.106	
18	28.27	13C-2,3,7,8-TCDD	0.793	NO	1.2795e6	1.1246e6	100.000	2.6	3.19	1.11	0.0354	
19	30.96	13C-1,2,3,7,8-PeCDD	0.626	NO	9.1149e5	1.1246e6	100.000	-5.6	6.80	0.859	0.0584	
20	34.27	13C-1,2,3,4,7,8-HxCDD	1.273	NO	6.6505e5	9.7972e5	100.000	-3.0	7.67	0.700	0.0537	
21	34.38	13C-1,2,3,6,7,8-HxCDD	1.275	NO	7.7295e5	9.7972e5	100.000	-5.3	6.74	0.833	0.0561	

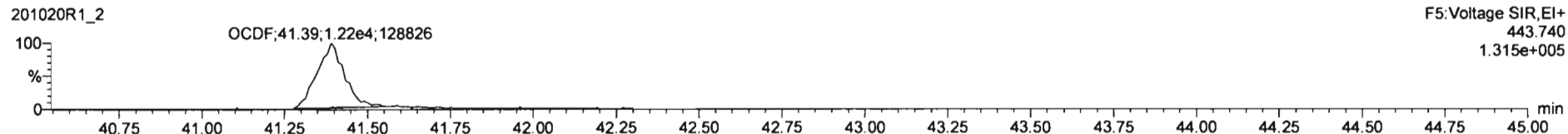
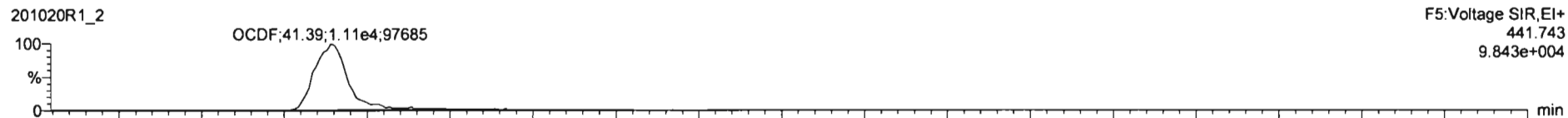


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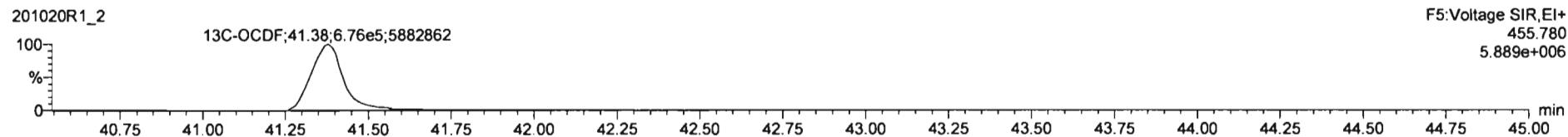
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_2, Date: 20-Oct-2020, Time: 10:04:05, ID: ST201020R1\_2 1613 CS1 20F1103, Description: 1613 CS1 20F1103

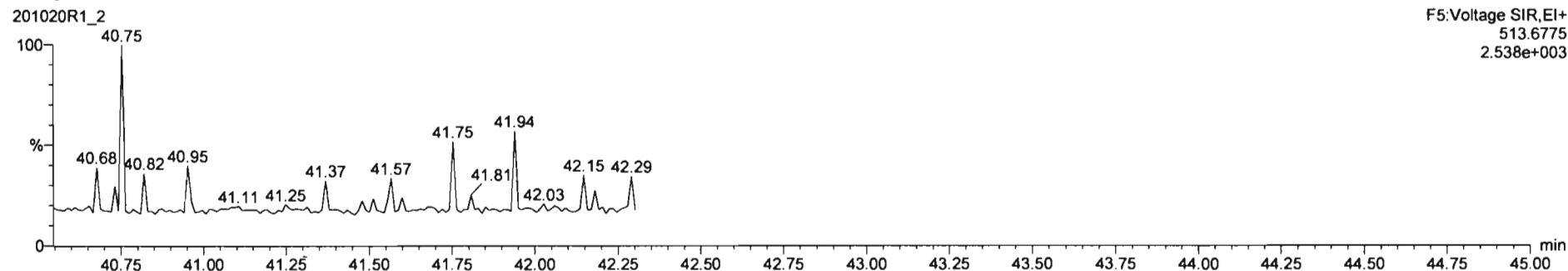
**OCDF**



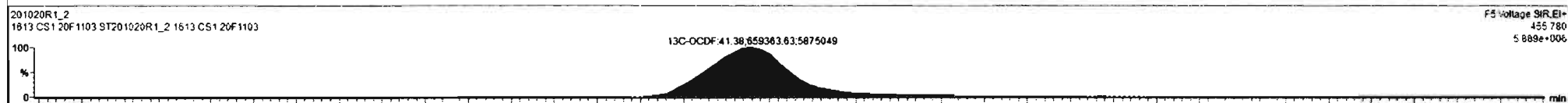
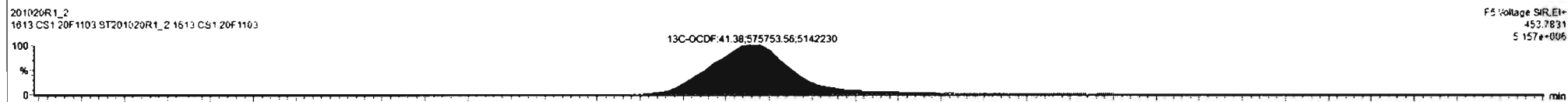
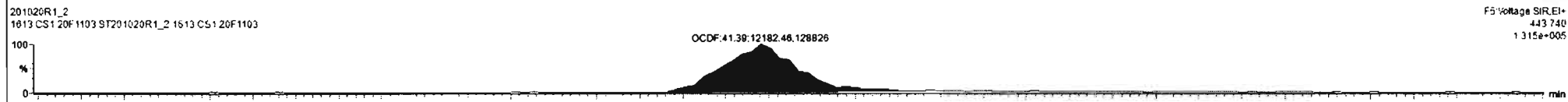
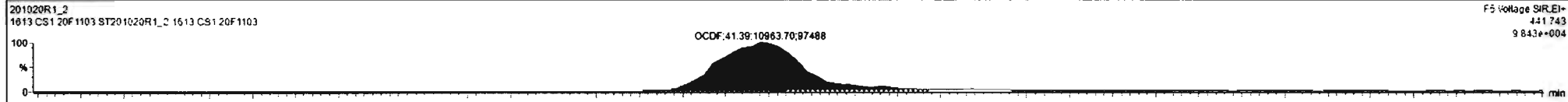
**<sup>13</sup>C-OCDF**



**DPE5**



#	P.	Name	RT	RA	ym	Area	S Area	Std. Conc.	%Dev	%RSD	RRF M...	RRF SD
1	1	2,3,7,8-TCDD	26.31	0.754	NO	5.5896e3	1.2795e6	0.500	-8.0	11.0	0.950	0.105
2	2	1,2,3,7,8-PeCDD	30.96	0.825	NO	1.8194e4	9.1149e5	2.500	-9.8	9.58	0.885	0.0848
3	3	1,2,3,4,7,8-HxCDD	34.27	1.263	NO	1.4835e4	6.6505e5	2.500	-12.3	10.0	1.02	0.102
4	4	1,2,3,6,7,8-HxCDD	34.40	1.278	NO	1.5703e4	7.7295e5	2.500	-11.1	9.25	0.915	0.0648
5	5	1,2,3,7,8,9-HxCDD	34.67	1.239	NO	1.4811e4	7.1852e5	2.500	-11.8	11.1	0.934	0.104
6	6	1,2,3,4,6,7,8-HpCDD	38.14	0.967	NO	1.2598e4	6.3923e5	2.500	-9.4	11.7	0.870	0.102
7	7	OCDD	41.10	0.829	NO	2.0278e4	1.0815e6	5.000	-12.3	10.5	0.872	0.0919
8	8	2,3,7,8-TCDF	25.61	0.741	NO	6.3743e3	1.7020e6	0.500	-9.1	11.0	0.824	0.0906
9	9	1,2,3,7,8-PeCDF	29.71	1.553	NO	2.8451e4	1.3045e6	2.500	-9.4	8.34	0.983	0.0802
10	10	2,3,4,7,8-PeCDF	30.77	1.585	NO	3.1082e4	1.2877e6	2.500	-9.6	8.76	1.07	0.0936
11	11	1,2,3,4,7,8-HxCDF	33.37	1.216	NO	1.8105e4	9.2311e5	2.500	-13.2	11.9	0.853	0.113
12	12	1,2,3,6,7,8-HxCDF	33.50	1.289	NO	2.1285e4	9.5922e5	2.500	-11.9	11.1	1.01	0.112
13	13	2,3,4,6,7,8-HxCDF	34.17	1.242	NO	1.8735e4	8.7856e5	2.500	-13.9	11.8	0.891	0.117
14	14	1,2,3,7,8,9-HxCDF	35.18	1.196	NO	1.6178e4	7.9609e5	2.500	-14.5	12.3	0.951	0.117
15	15	1,2,3,4,6,7,8-HpCDF	36.73	0.956	NO	1.5353e4	7.2071e5	2.500	-14.7	14.9	0.899	0.149
16	16	1,2,3,4,7,8,9-HpCDF	38.77	1.003	NO	1.4403e4	5.7884e5	2.500	-11.4	12.2	1.12	0.137
17	17	OCDF	41.38	0.806	NO	2.3148e4	1.2351e6	5.000	-13.7	12.2	0.898	0.108
18	18	13C-2,3,7,8-TCDD	26.27	0.793	NO	1.2795e6	1.1246e6	100.000	2.8	3.19	1.11	0.0354
19	19	13C-1,2,3,7,8-PeCDD	30.96	0.626	NO	9.1149e5	1.1246e6	100.000	-5.8	6.80	0.859	0.0584
20	20	13C-1,2,3,4,7,8-HxCDD	34.27	1.273	NO	6.8505e5	9.7972e5	100.000	-3.8	7.67	0.700	0.0537
21	21	13C-1,2,3,6,7,8-HxCDD	34.38	1.275	NO	7.7295e5	9.7972e5	100.000	-5.3	6.74	0.833	0.0581

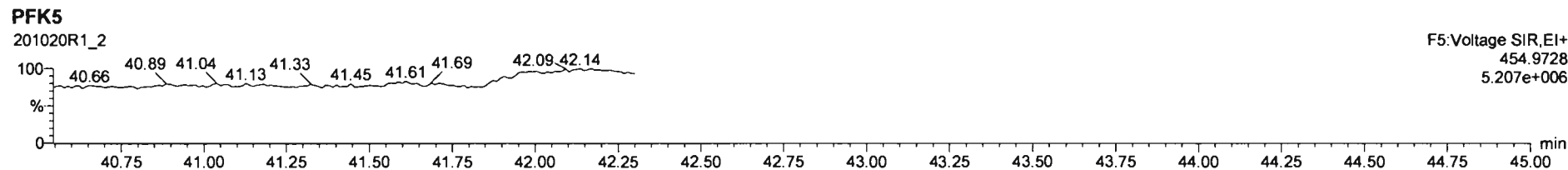
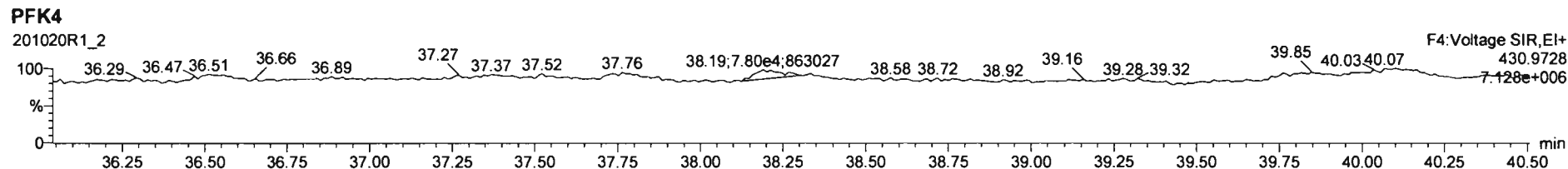
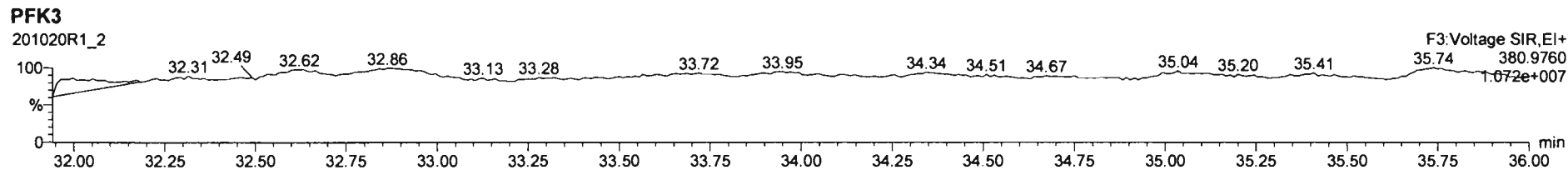
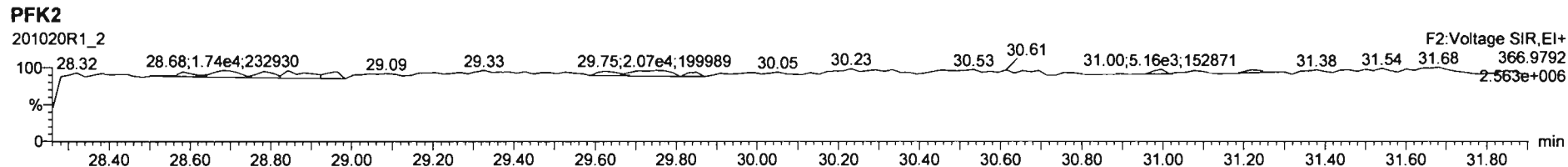
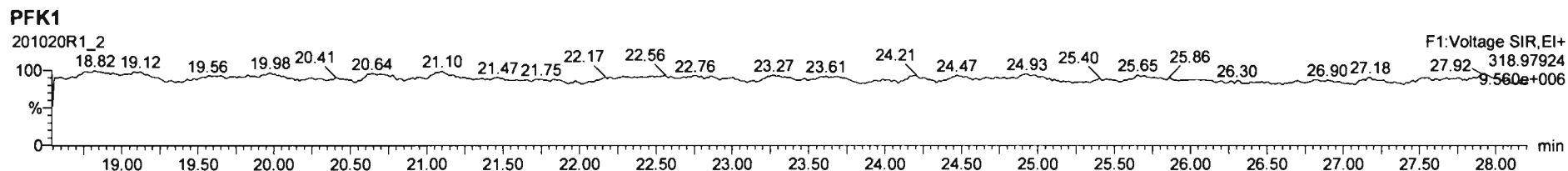


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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_2, Date: 20-Oct-2020, Time: 10:04:05, ID: ST201020R1\_2 1613 CS1 20F1103, Description: 1613 CS1 20F1103



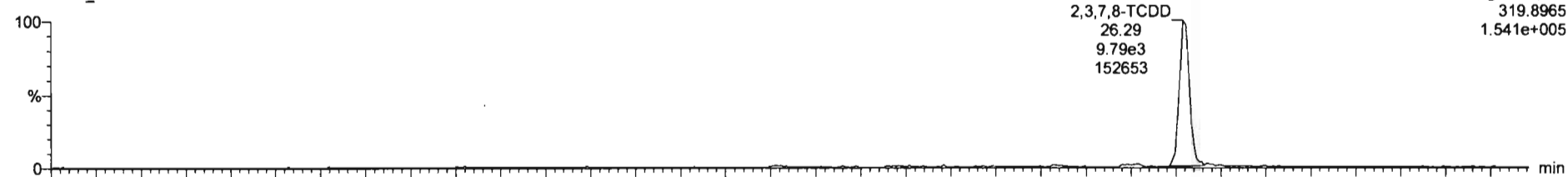
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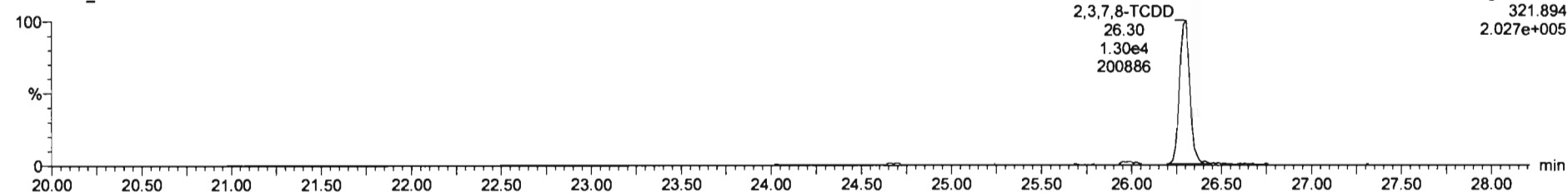
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**2,3,7,8-TCDD**

201020R1\_3

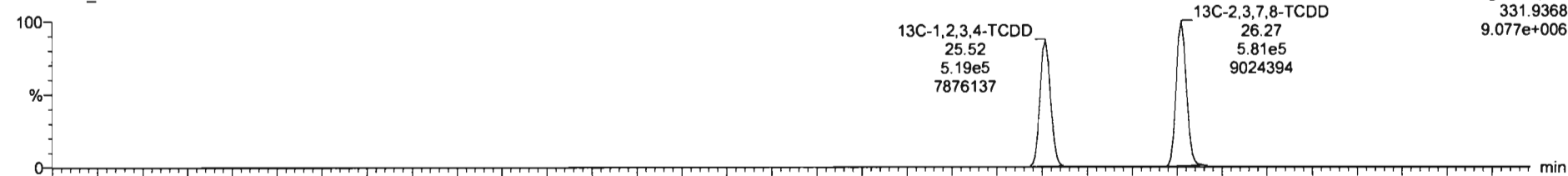


201020R1\_3

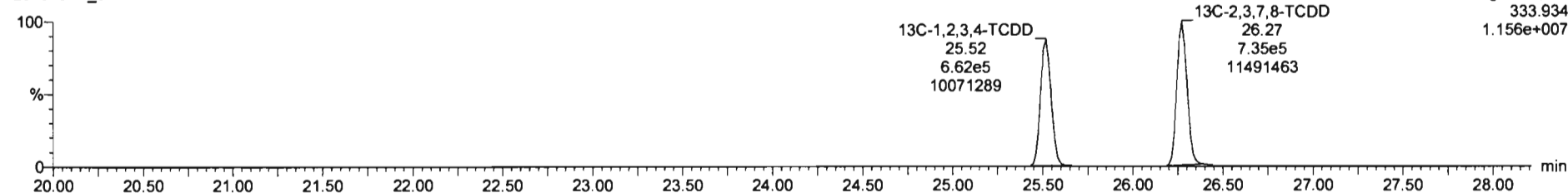


**13C-2,3,7,8-TCDD**

201020R1\_3



201020R1\_3



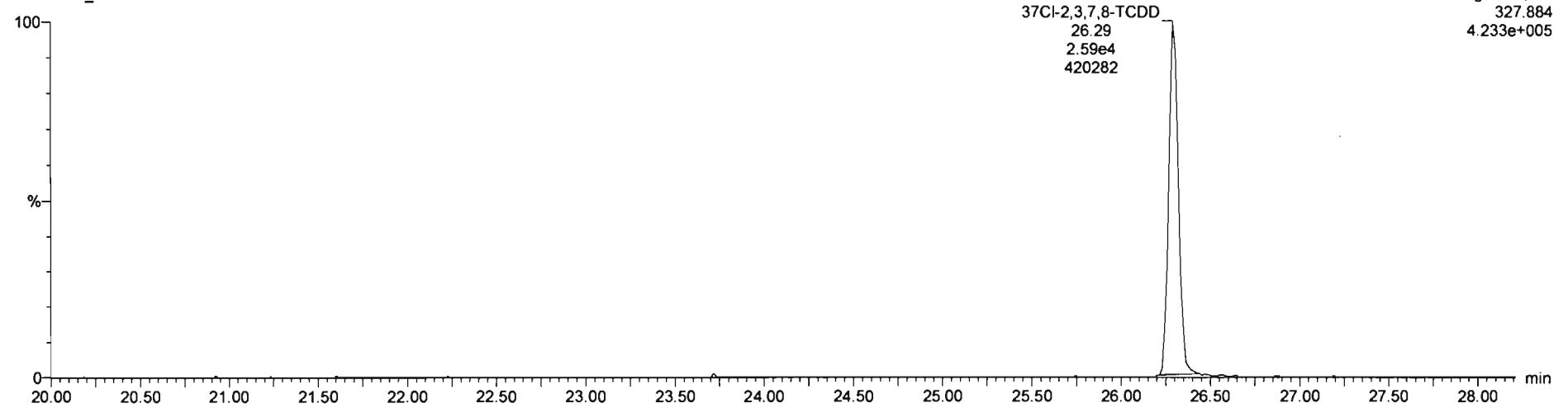
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

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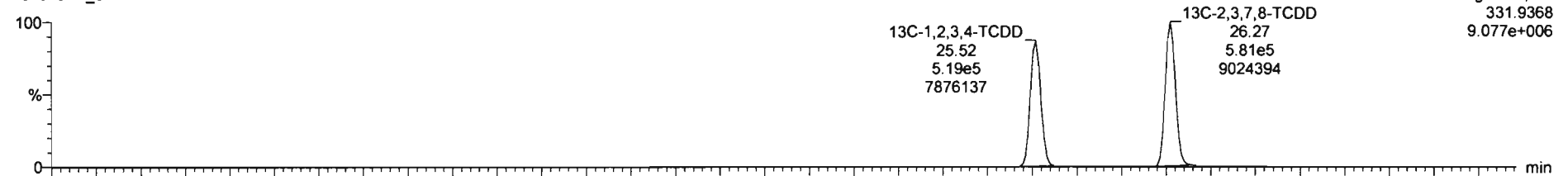
37Cl-2,3,7,8-TCDD

201020R1\_3

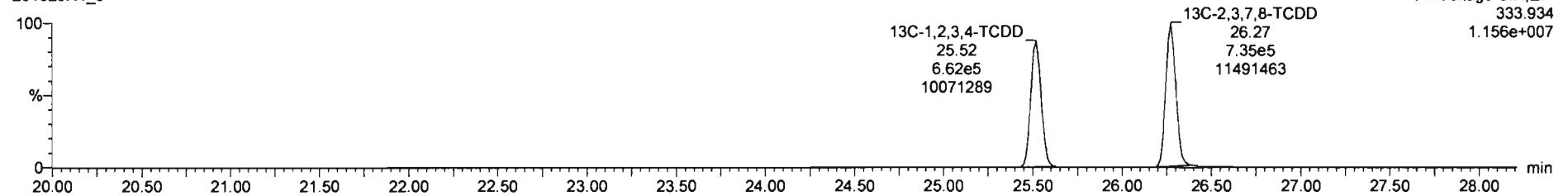


13C-1,2,3,4-TCDD

201020R1\_3



201020R1\_3





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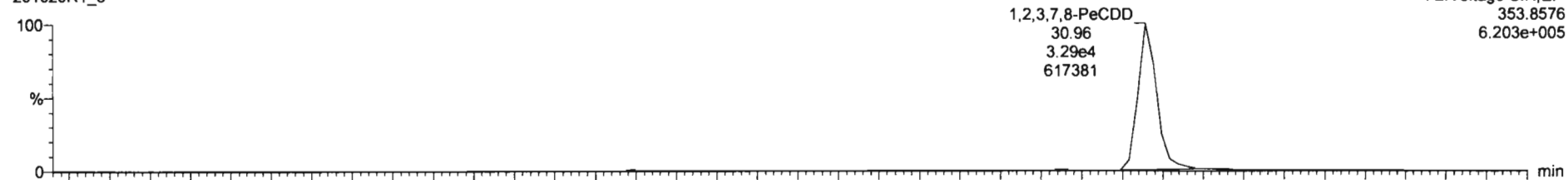
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

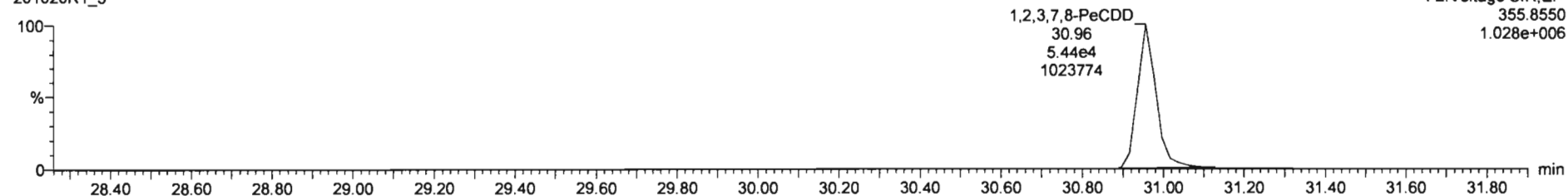
Name: 201020R1\_3, Date: 20-Oct-2020, Time: 10:48:17, ID: ST201020R1\_3 1613 CS2 20F1104, Description: 1613 CS2 20F1104

**1,2,3,7,8-PeCDD**

201020R1\_3

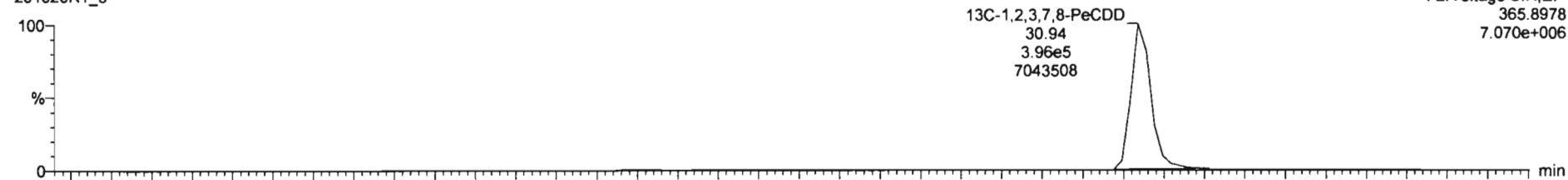


201020R1\_3

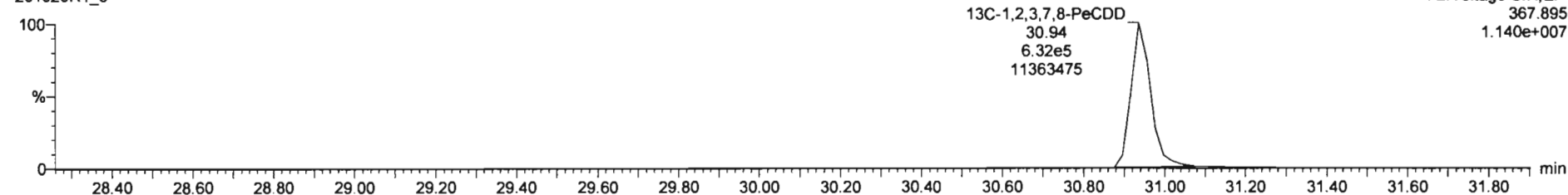


**13C-1,2,3,7,8-PeCDD**

201020R1\_3



201020R1\_3



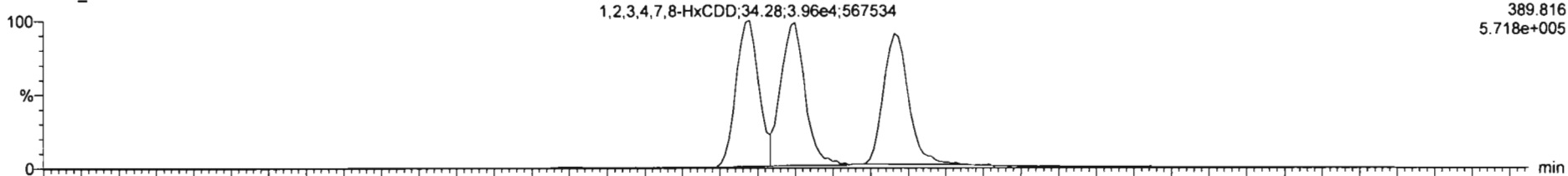
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

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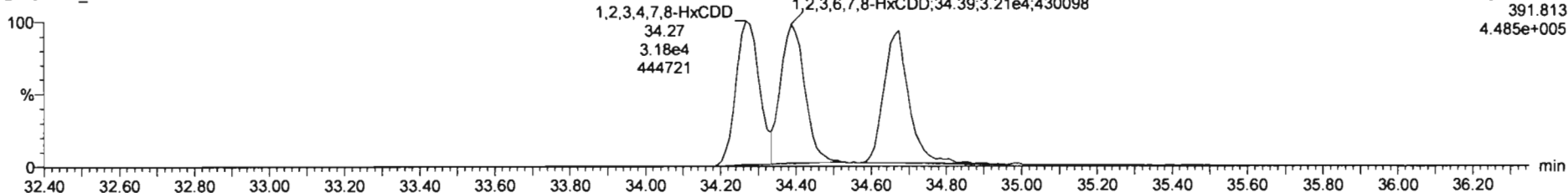
**1,2,3,4,7,8-HxCDD**

201020R1\_3



F3:Voltage SIR,EI+  
389.816  
5.718e+005

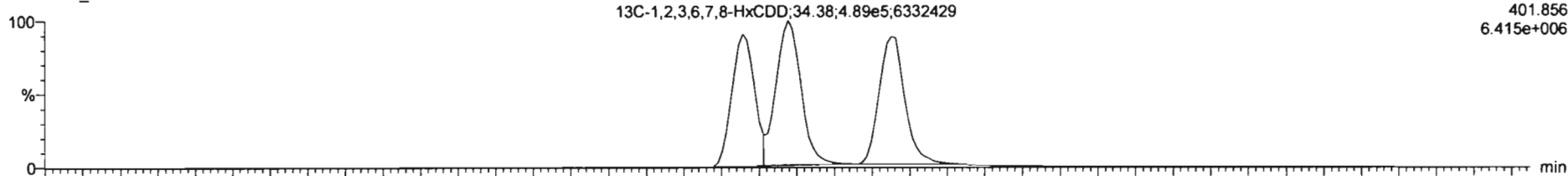
201020R1\_3



F3:Voltage SIR,EI+  
391.813  
4.485e+005

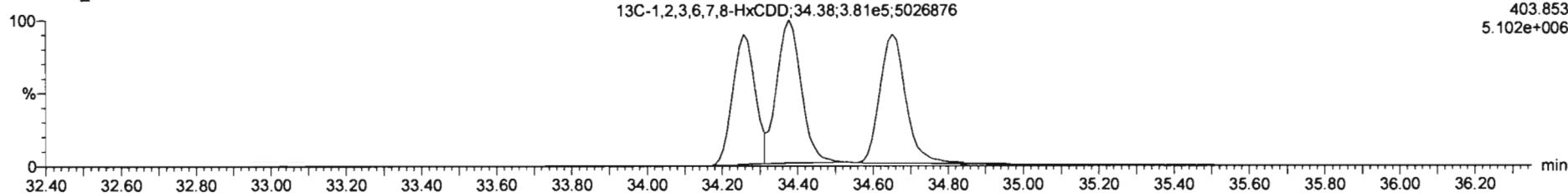
**13C-1,2,3,4,7,8-HxCDD**

201020R1\_3



F3:Voltage SIR,EI+  
401.856  
6.415e+006

201020R1\_3



F3:Voltage SIR,EI+  
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5.102e+006

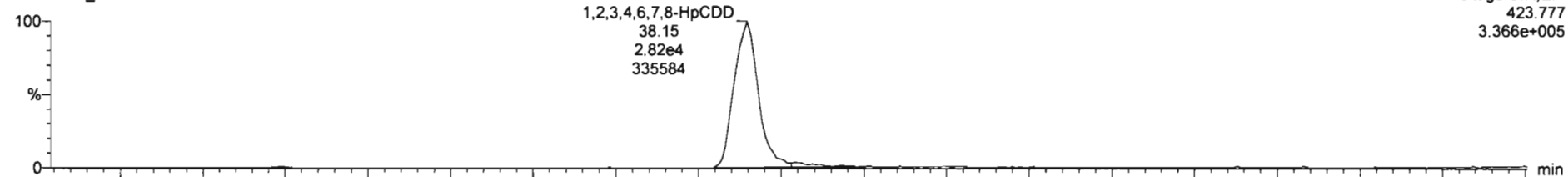
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

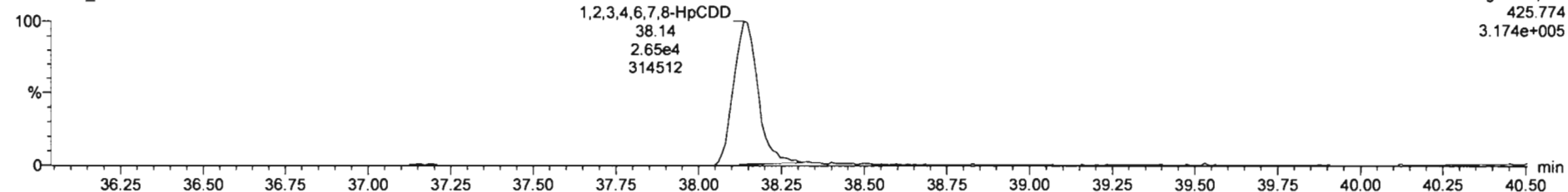
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**1,2,3,4,6,7,8-HpCDD**

201020R1\_3

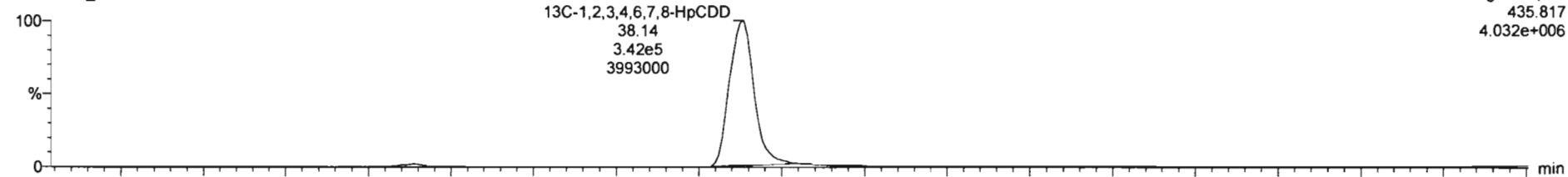


201020R1\_3

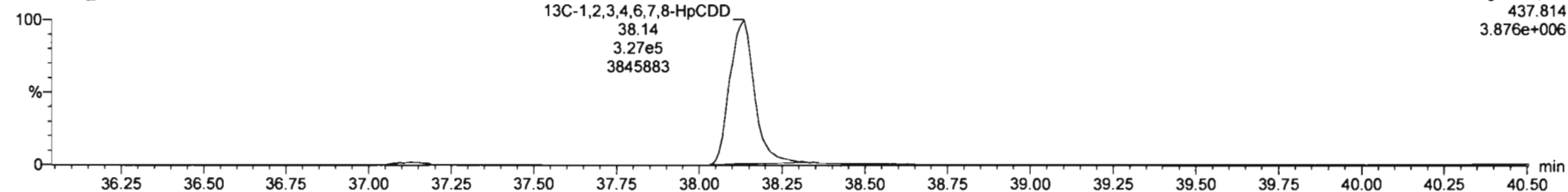


**13C-1,2,3,4,6,7,8-HpCDD**

201020R1\_3



201020R1\_3



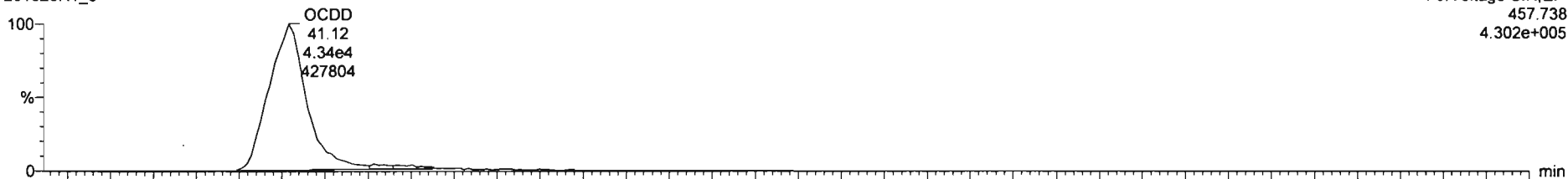
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

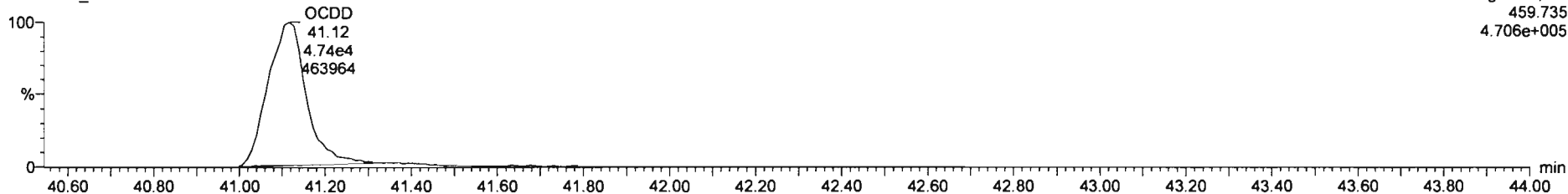
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**OCDD**

201020R1\_3

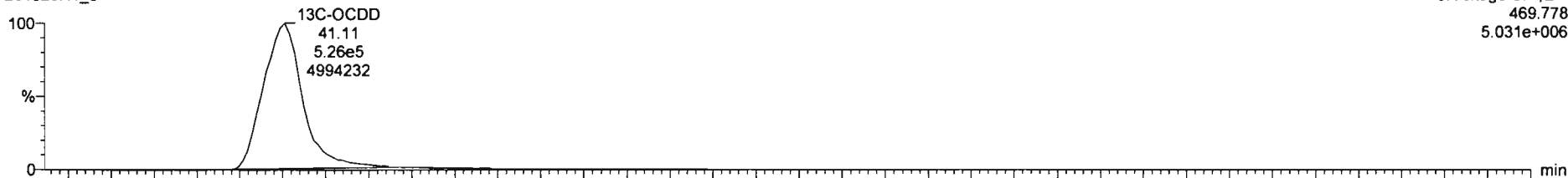


201020R1\_3

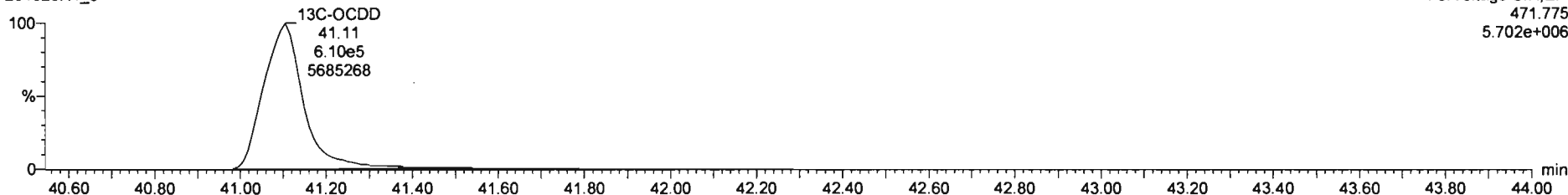


**13C-OCDD**

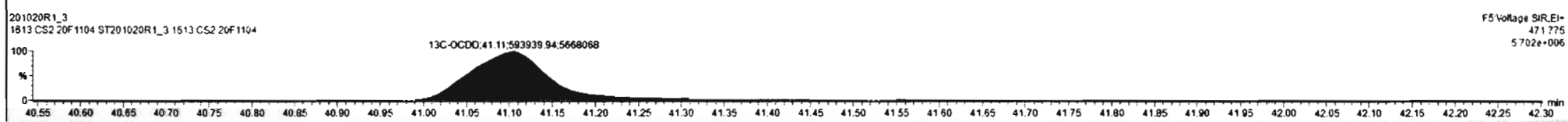
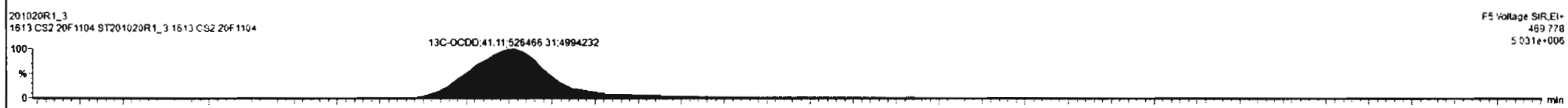
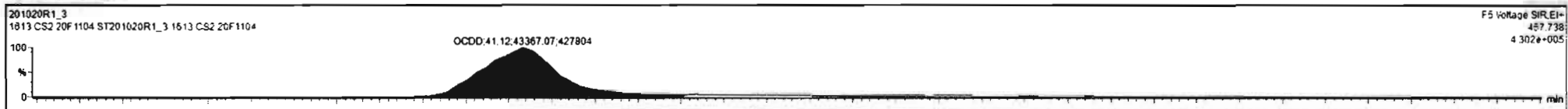
201020R1\_3



201020R1\_3



#	Name	RT	RA	Yth	Area	S Area	Std Conc	%Dev	%RSD	RRF M...	RRF SD
1	1,2,3,7,8-TCDD	26.29	0.754	NO	2.2771e4	1.3154e6	2.000	-8.9	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.96	0.606	NO	8.7271e4	1.0279e6	10.000	-4.1	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.245	NO	7.1328e4	7.0709e5	10.000	-0.9	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.40	1.293	NO	7.3710e4	8.6983e5	10.000	-7.3	9.25	0.915	0.0848
5	1,2,3,7,8,9-HxCDD	34.66	1.247	NO	7.8437e4	8.0052e5	10.000	-5.8	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.15	1.064	NO	5.4834e4	6.6949e5	10.000	-6.2	11.7	0.870	0.102
7	OCDD	41.12	0.814	NO	0.8812e4	1.1204e6	20.000	-7.8	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.769	NO	2.7891e4	1.8231e6	2.000	-7.2	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.596	NO	1.3197e5	1.4163e6	10.000	-3.2	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.75	1.621	NO	1.5088e5	1.4537e6	10.000	-2.9	6.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.227	NO	9.2409e4	9.7566e5	10.000	-0.7	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.228	NO	1.0008e5	1.0311e6	10.000	-3.7	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.17	1.274	NO	9.1698e4	9.5781e5	10.000	-3.4	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.17	1.191	NO	7.4121e4	8.2291e5	10.000	-5.2	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.74	0.994	NO	7.2756e4	7.9997e5	10.000	-8.9	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.022	NO	5.9875e4	5.7733e5	10.000	-7.7	12.2	1.12	0.137
17	OCDF	41.40	0.875	NO	1.0781e5	1.2683e6	20.000	-3.6	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	26.27	0.790	NO	1.3154e6	1.1805e6	100.000	0.5	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.94	0.627	NO	1.0279e6	1.1805e6	100.000	1.4	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.28	1.291	NO	7.0709e5	1.0495e6	100.000	-3.7	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.38	1.266	NO	8.6983e5	1.0495e6	100.000	-0.5	8.74	0.833	0.0561



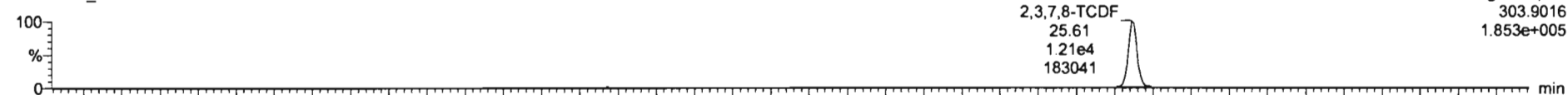
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

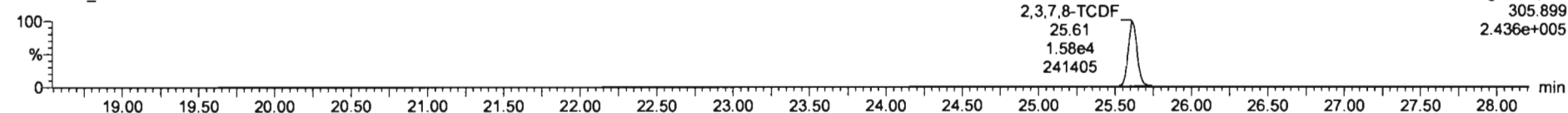
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**2,3,7,8-TCDF**

201020R1\_3

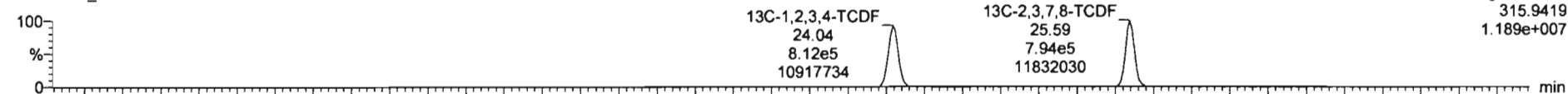


201020R1\_3

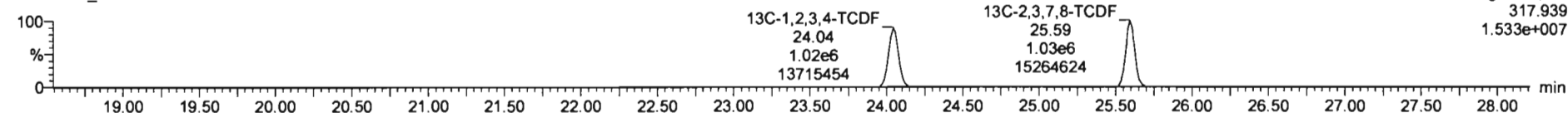


**13C-2,3,7,8-TCDF**

201020R1\_3

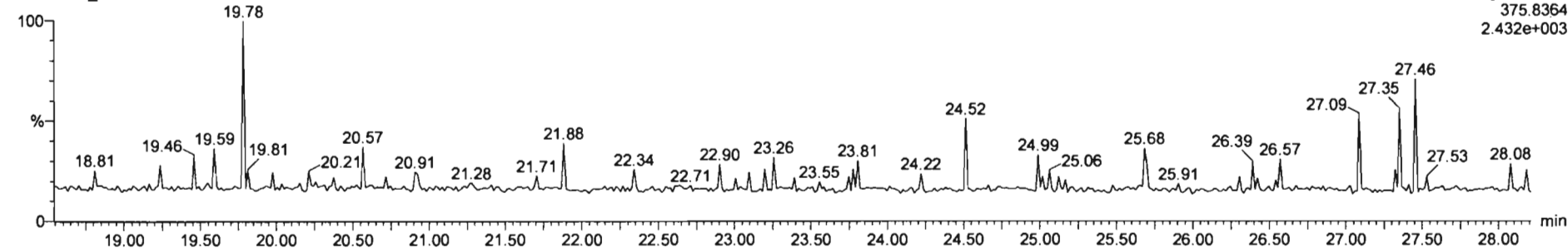


201020R1\_3



**DPE1**

201020R1\_3





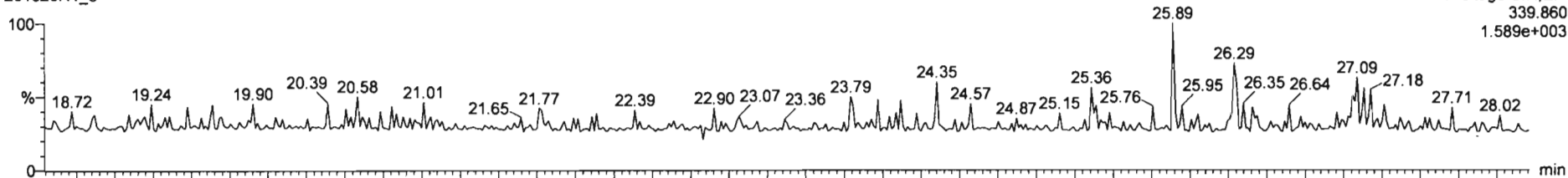
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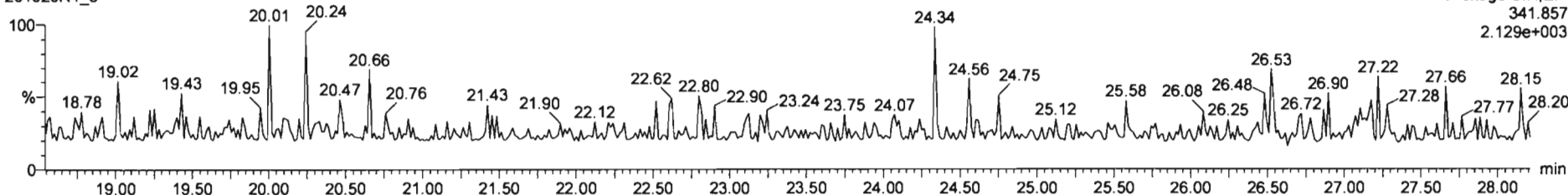
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201020R1\_3

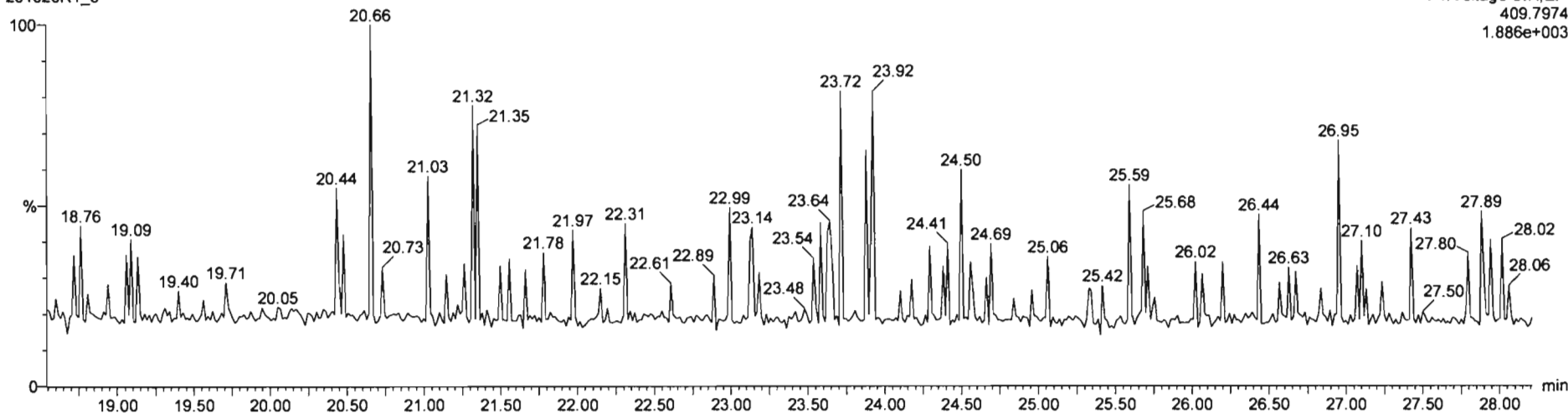


201020R1\_3



DPE6

201020R1\_3



Dataset: Untitled

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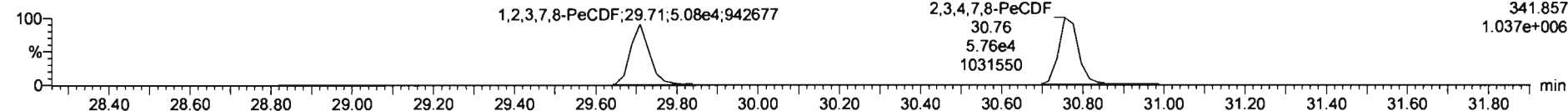
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**1,2,3,7,8-PeCDF**

201020R1\_3

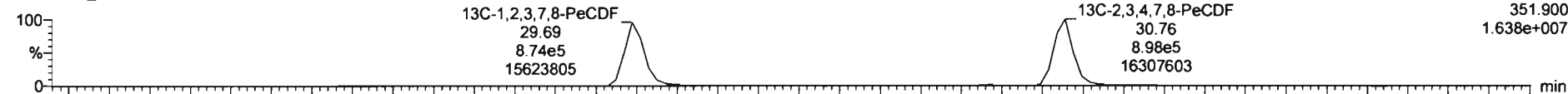


201020R1\_3

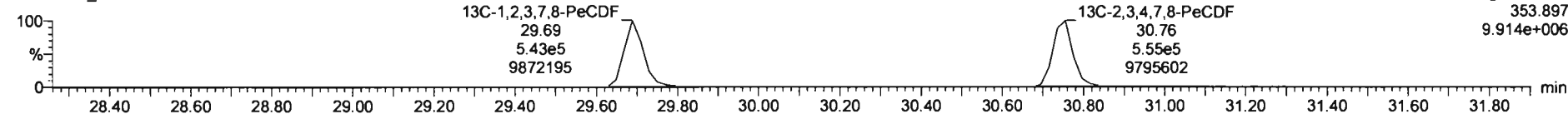


**13C-1,2,3,7,8-PeCDF**

201020R1\_3

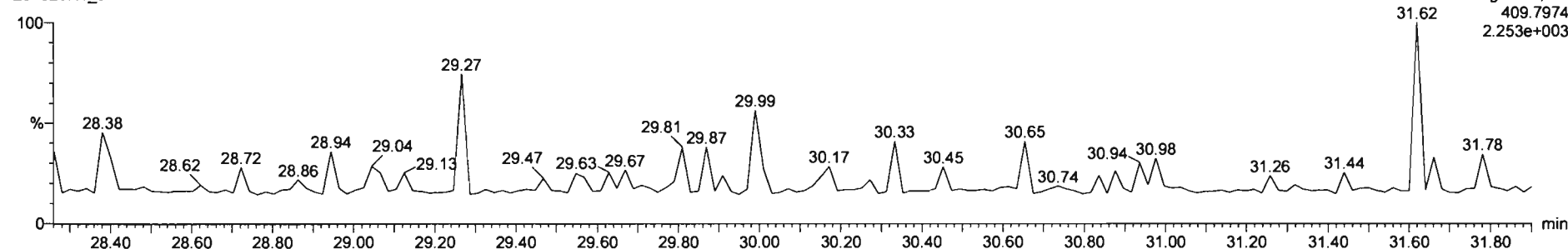


201020R1\_3



**DPE2**

201020R1\_3



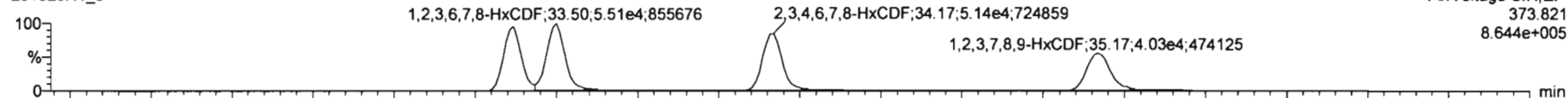
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

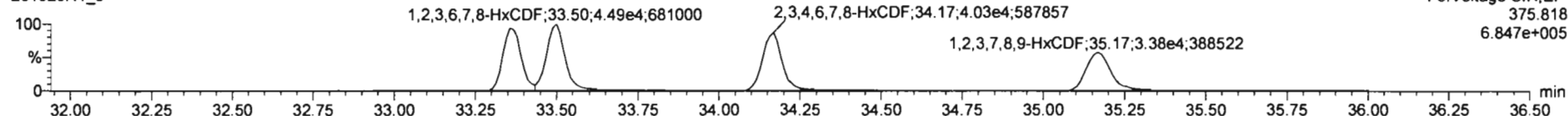
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**1,2,3,4,7,8-HxCDF**

201020R1\_3

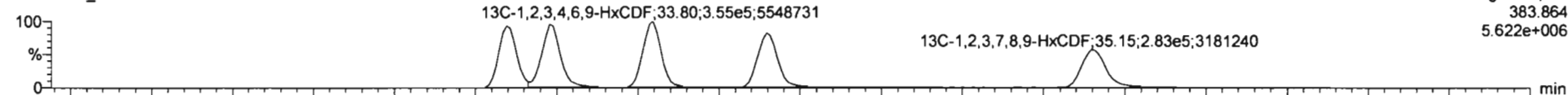


201020R1\_3

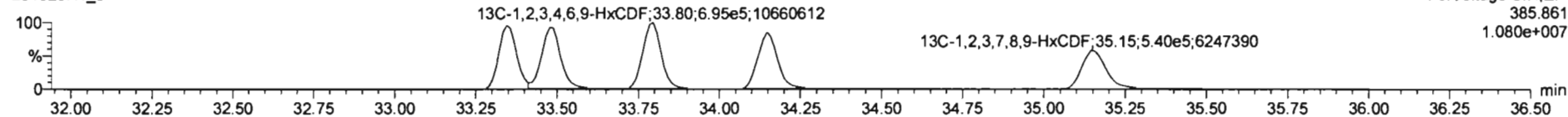


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_3

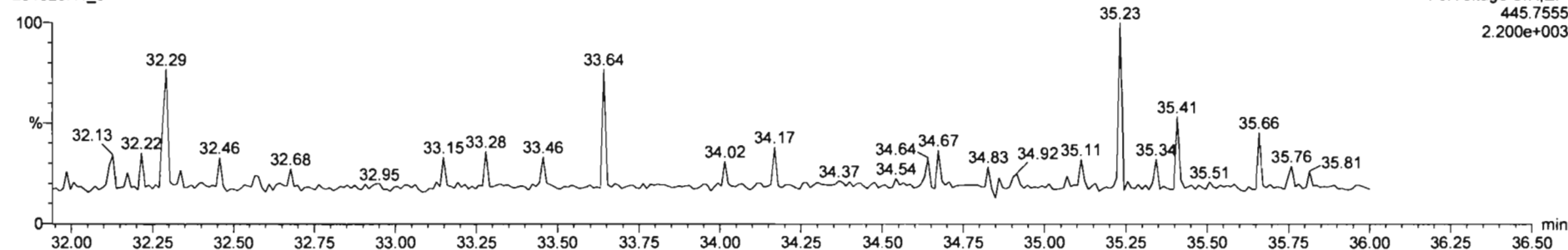


201020R1\_3



**DPE3**

201020R1\_3



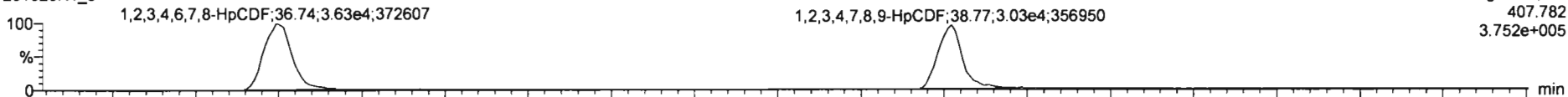
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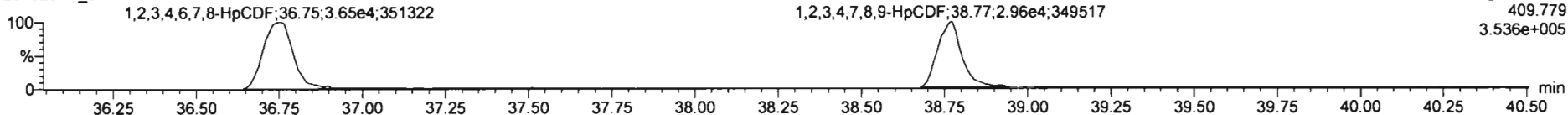
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**1,2,3,4,6,7,8-HpCDF**

201020R1\_3

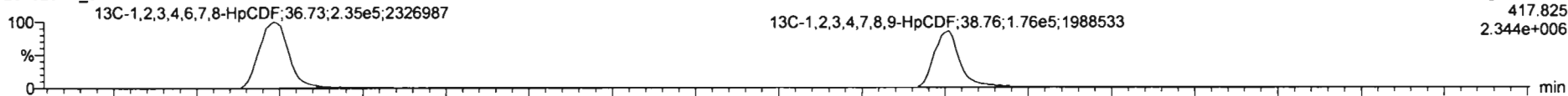


201020R1\_3

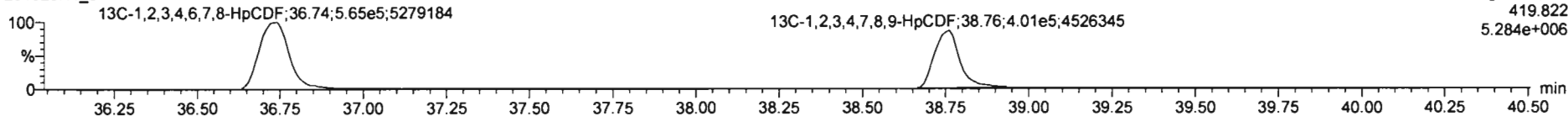


**13C-1,2,3,4,6,7,8-HpCDF**

201020R1\_3

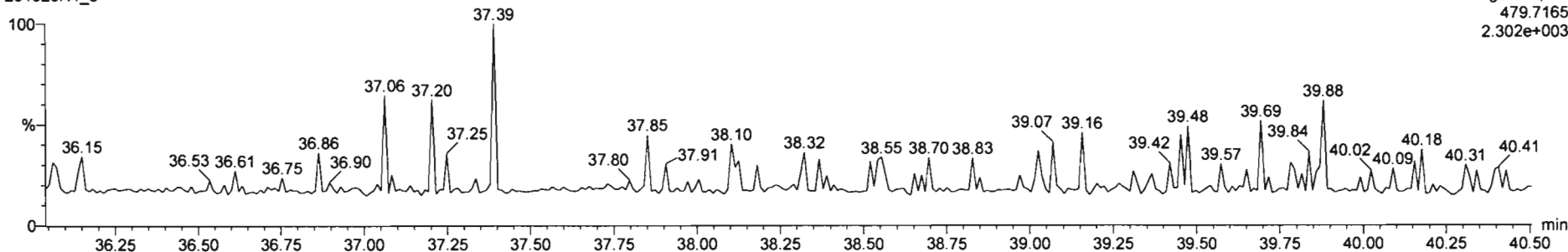


201020R1\_3



**DPE4**

201020R1\_3

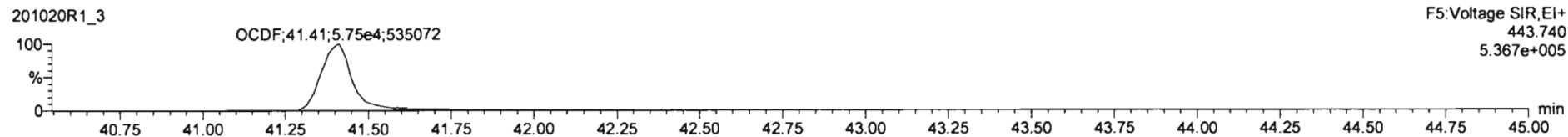
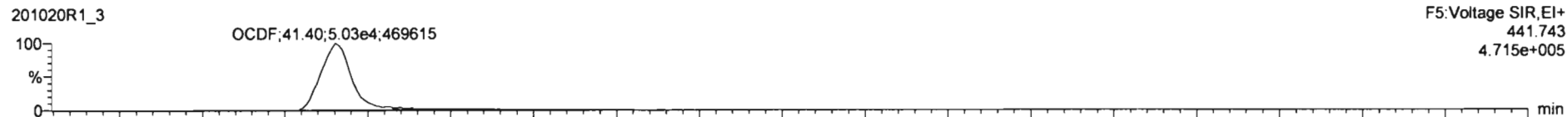


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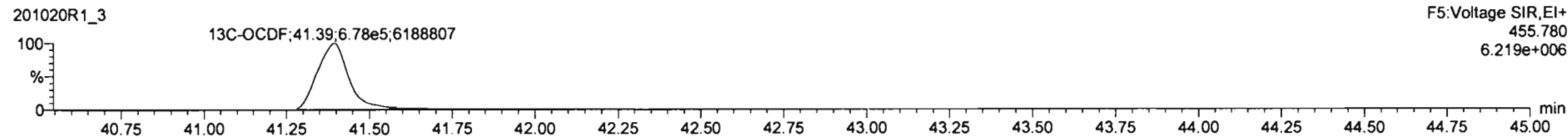
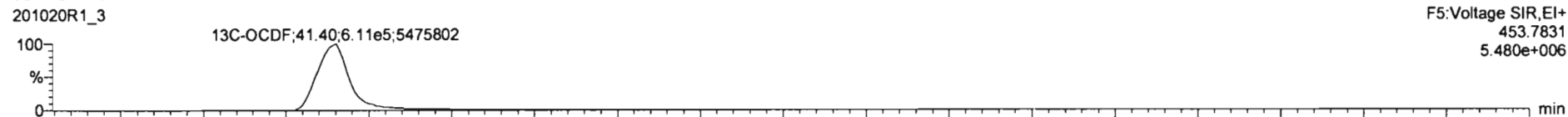
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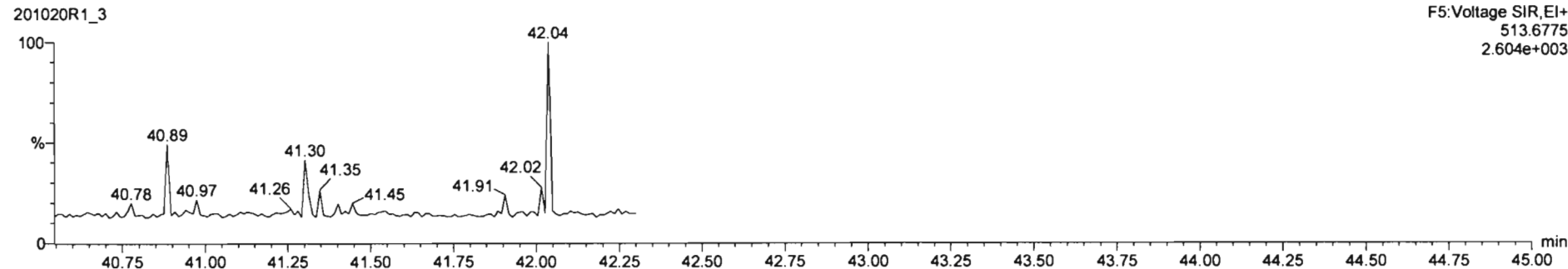
**OCDF**



**13C-OCDF**



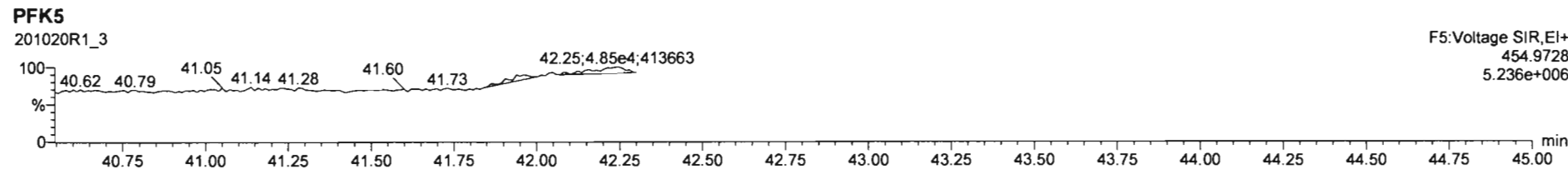
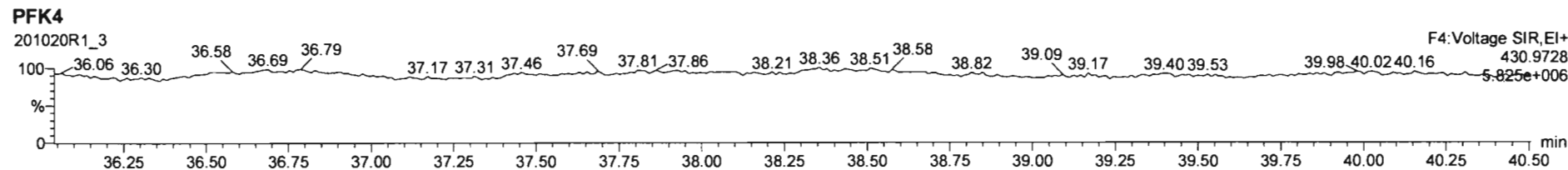
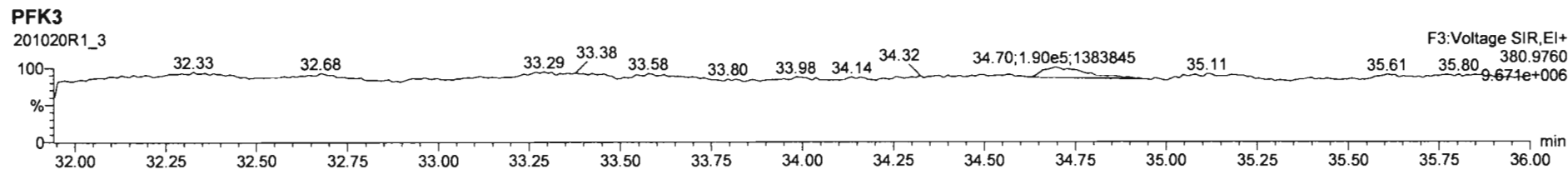
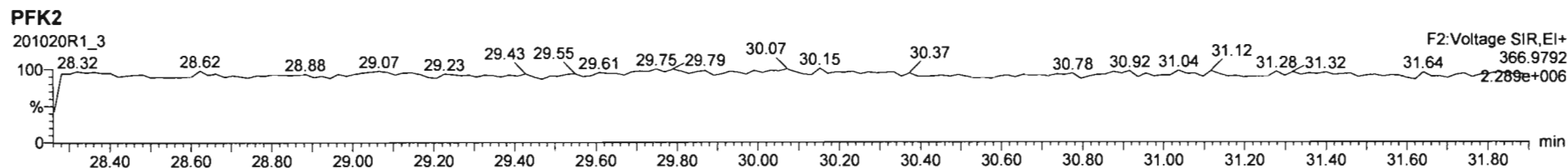
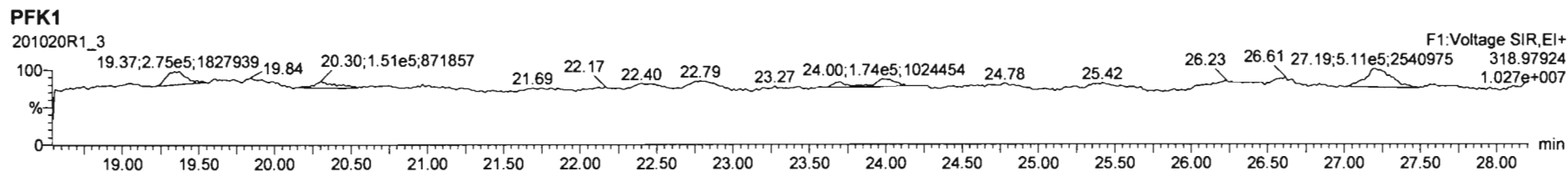
**DPE5**



Dataset: Untitled

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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

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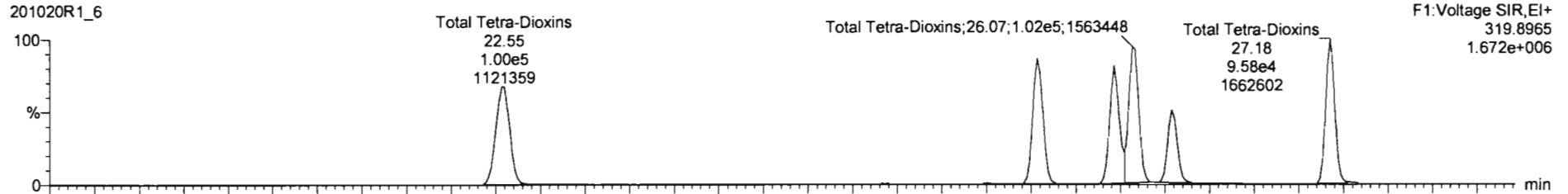
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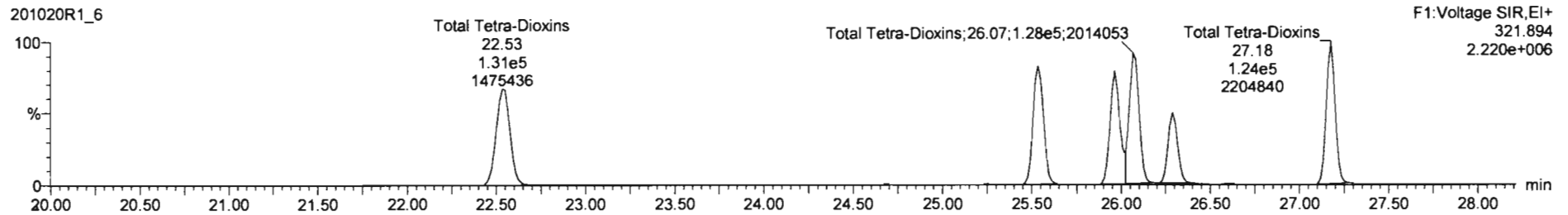
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**2,3,7,8-TCDD**

201020R1\_6

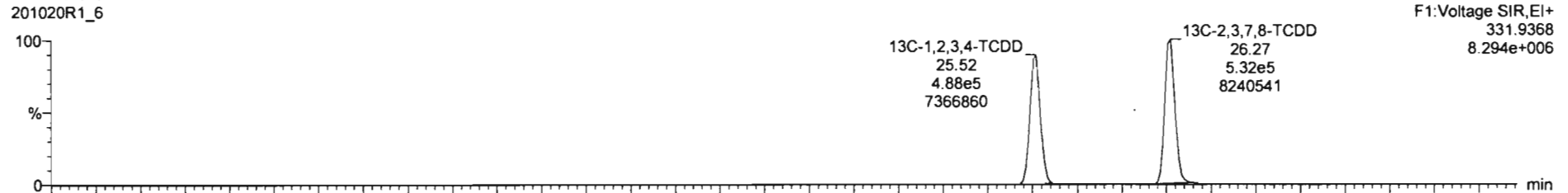


201020R1\_6

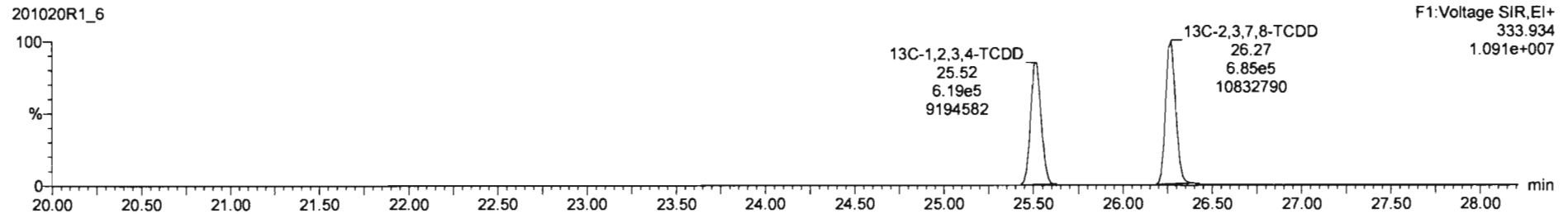


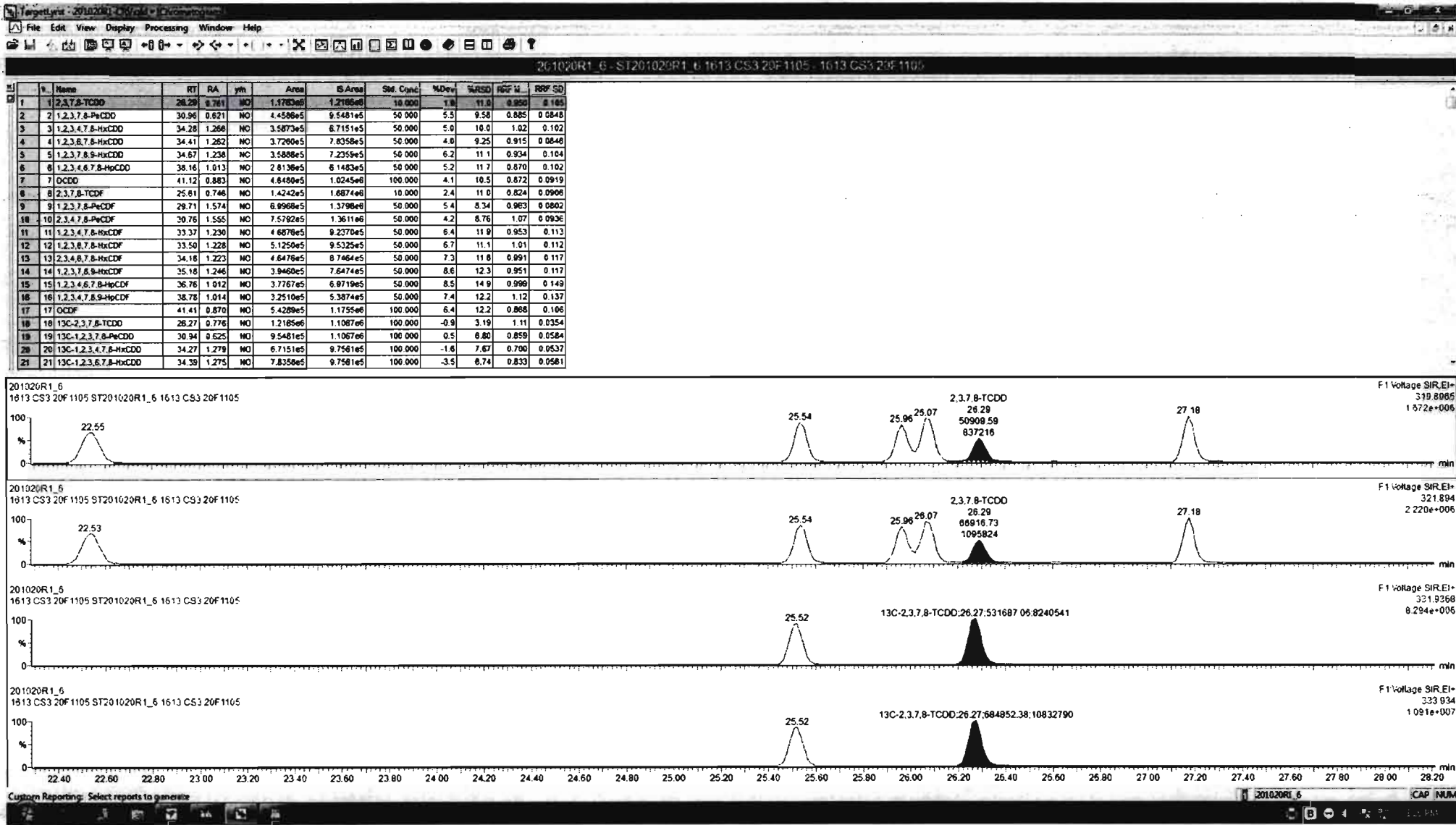
**13C-2,3,7,8-TCDD**

201020R1\_6



201020R1\_6





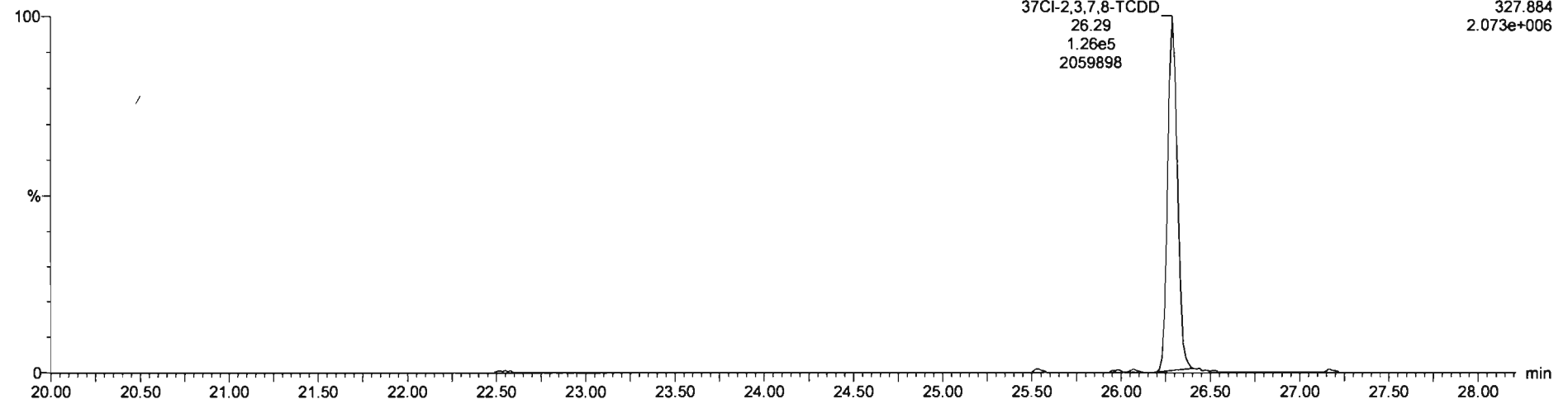
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

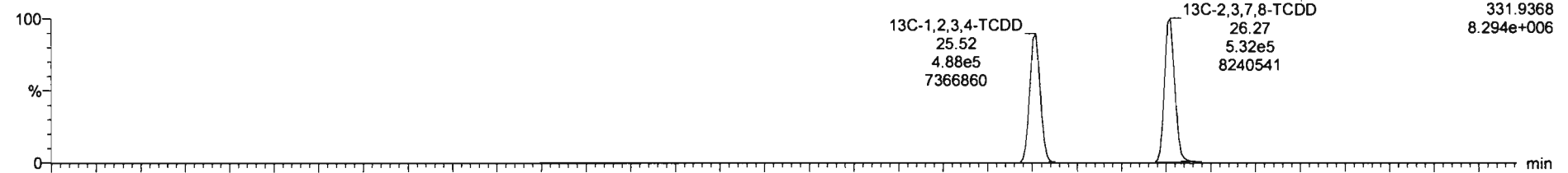
**37Cl-2,3,7,8-TCDD**

201020R1\_6

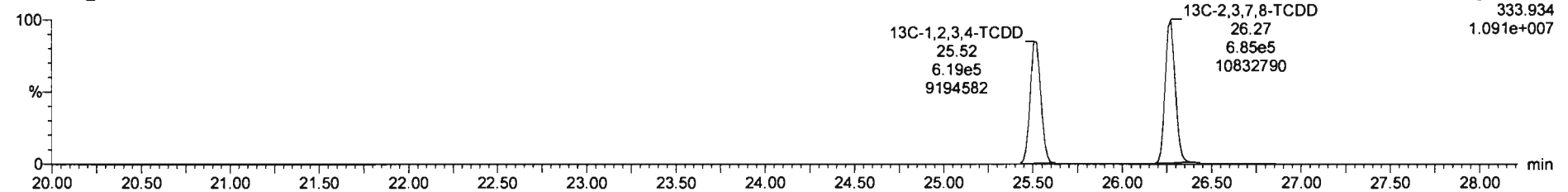


**13C-1,2,3,4-TCDD**

201020R1\_6



201020R1\_6



Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

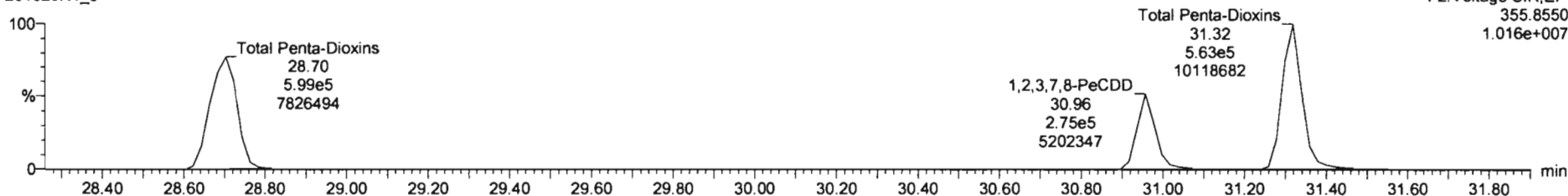
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**1,2,3,7,8-PeCDD**

201020R1\_6

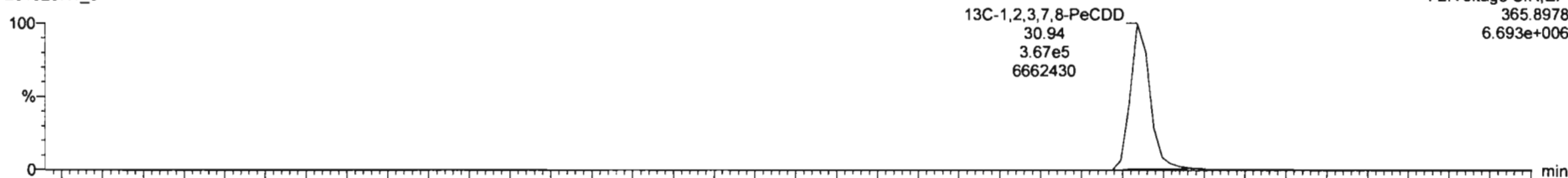


201020R1\_6

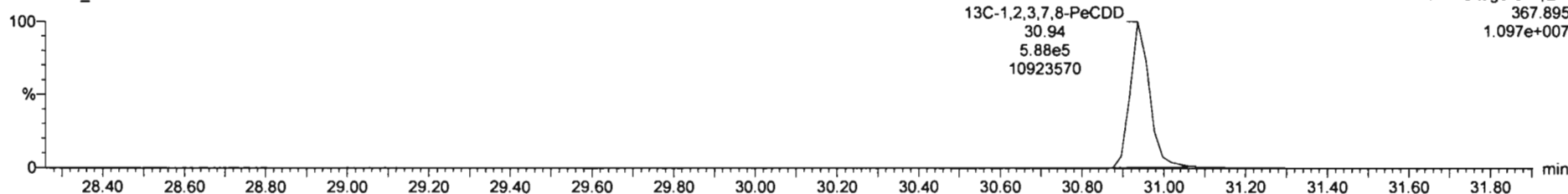


**13C-1,2,3,7,8-PeCDD**

201020R1\_6



201020R1\_6



Dataset: Untitled

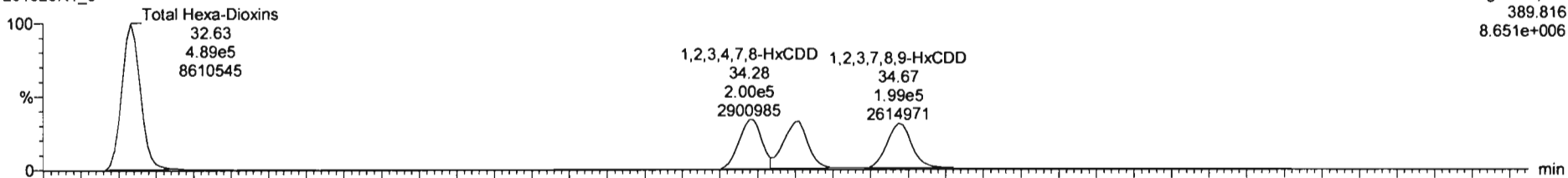
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,4,7,8-HxCDD

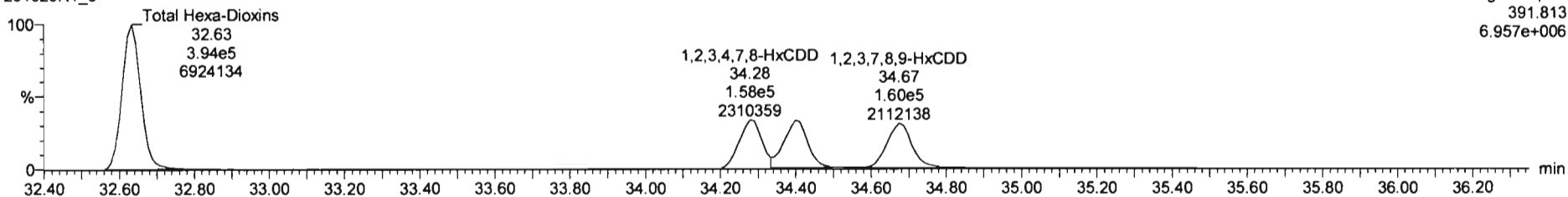
201020R1\_6

F3:Voltage SIR,EI+  
389.816  
8.651e+006



201020R1\_6

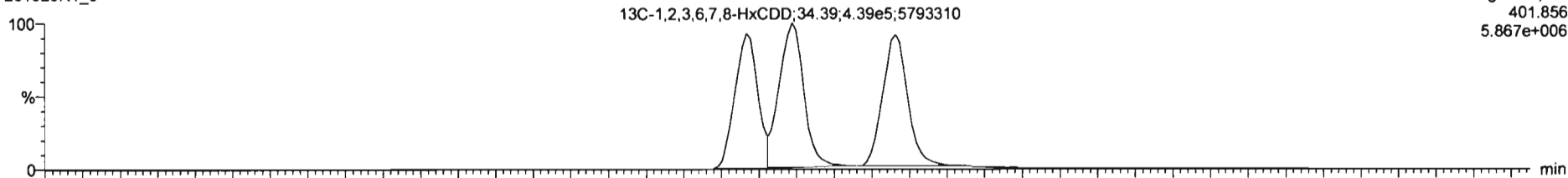
F3:Voltage SIR,EI+  
391.813  
6.957e+006



13C-1,2,3,4,7,8-HxCDD

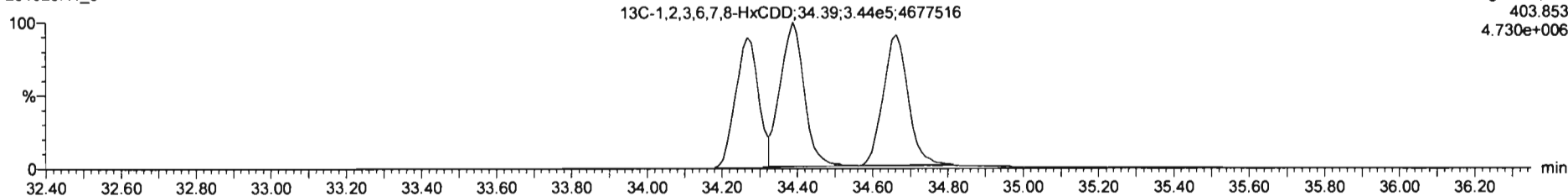
201020R1\_6

F3:Voltage SIR,EI+  
401.856  
5.867e+006



201020R1\_6

F3:Voltage SIR,EI+  
403.853  
4.730e+006



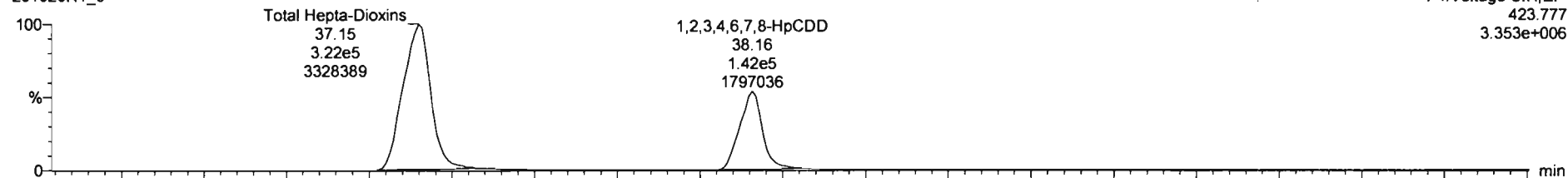
Dataset: Untitled

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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

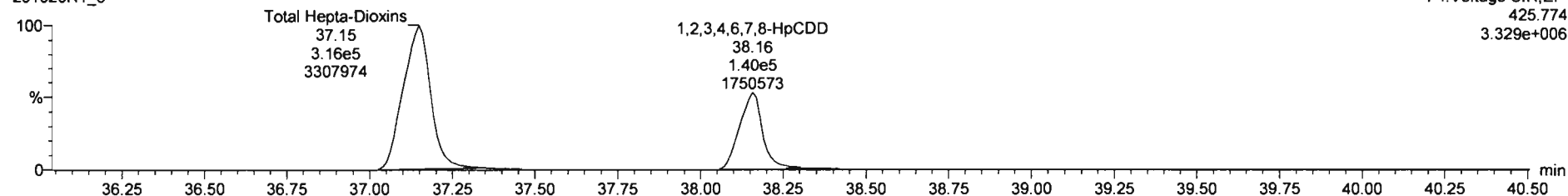
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

1,2,3,4,6,7,8-HpCDD

201020R1\_6

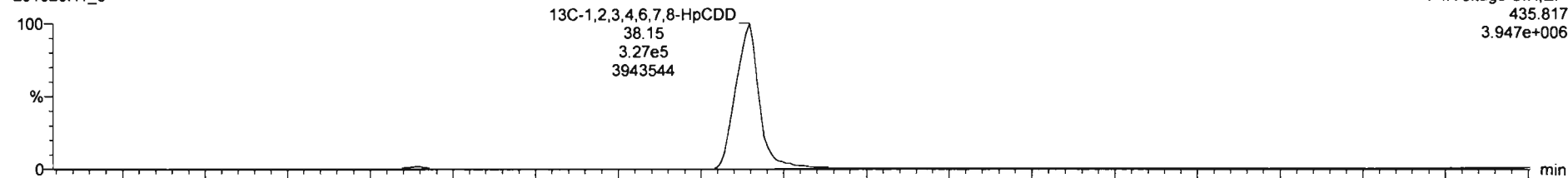


201020R1\_6

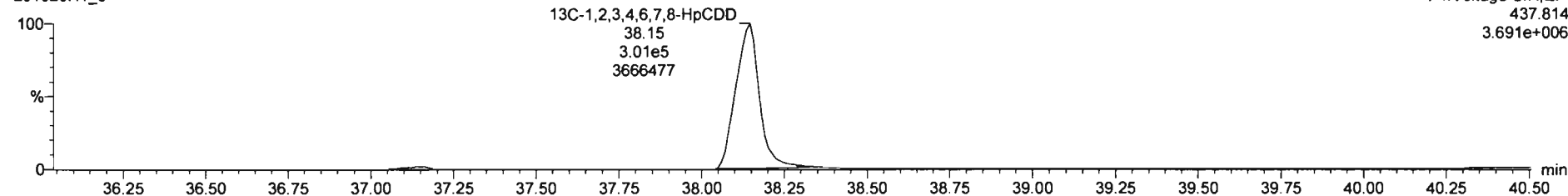


13C-1,2,3,4,6,7,8-HpCDD

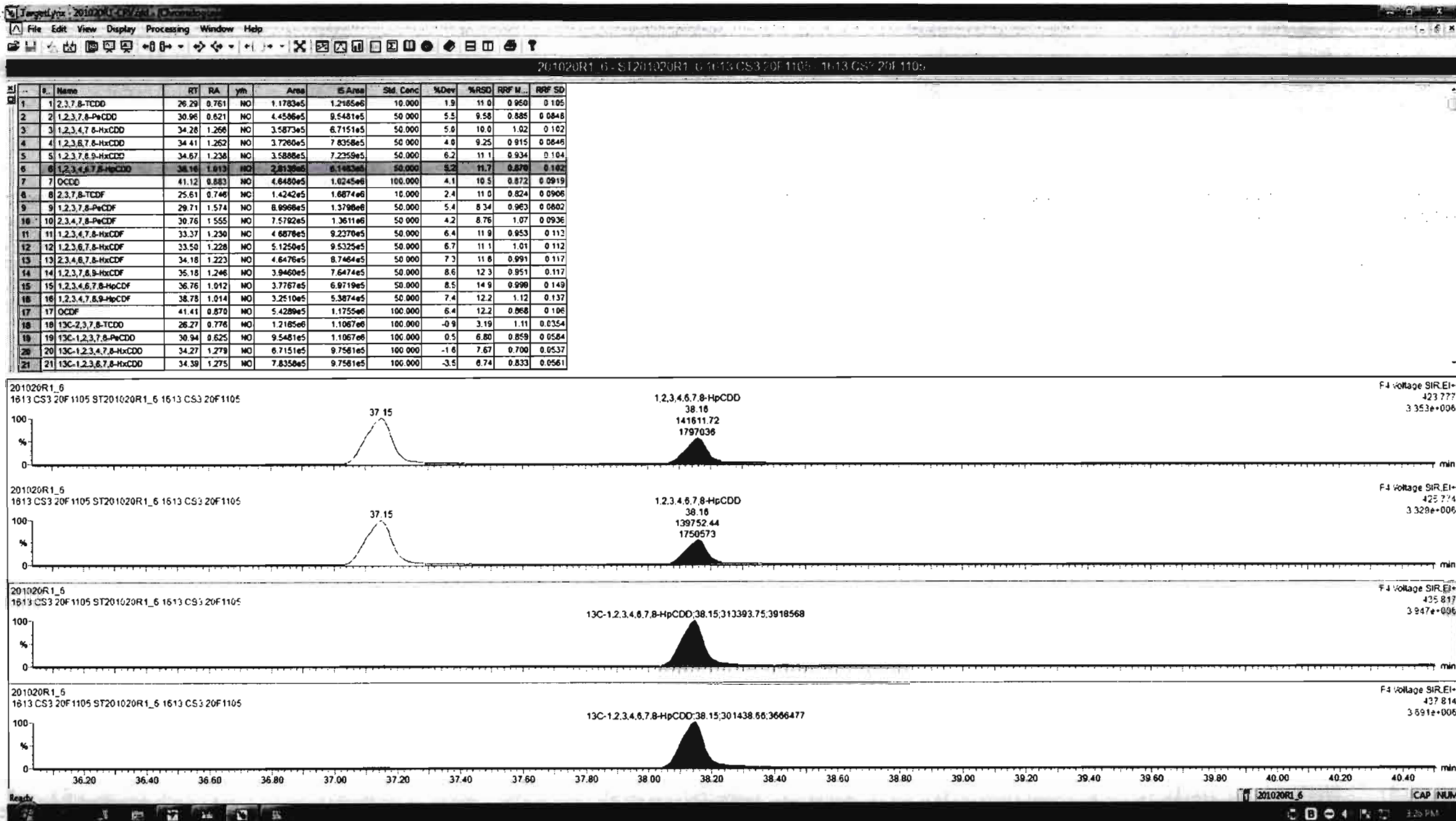
201020R1\_6



201020R1\_6



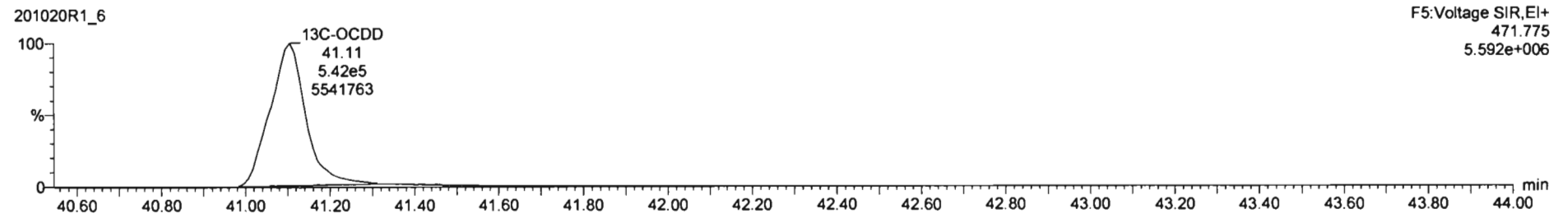
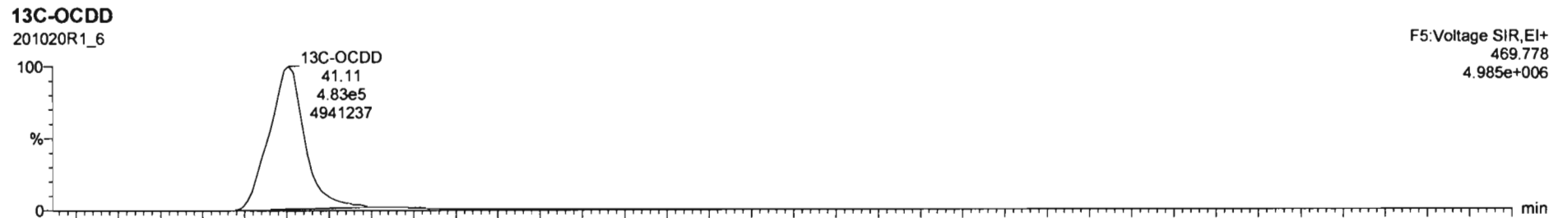
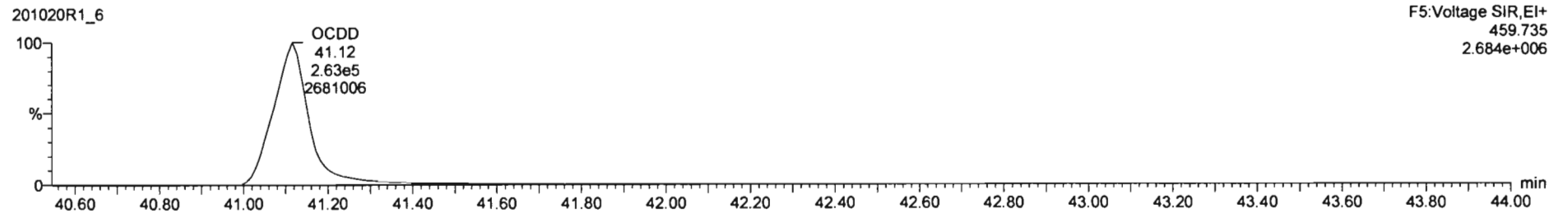
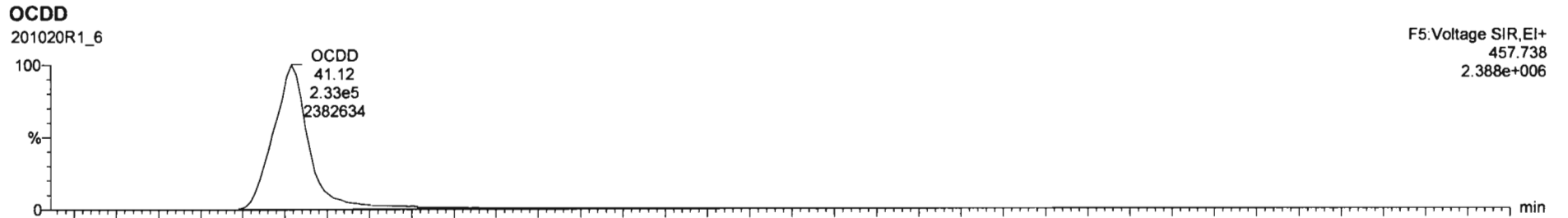


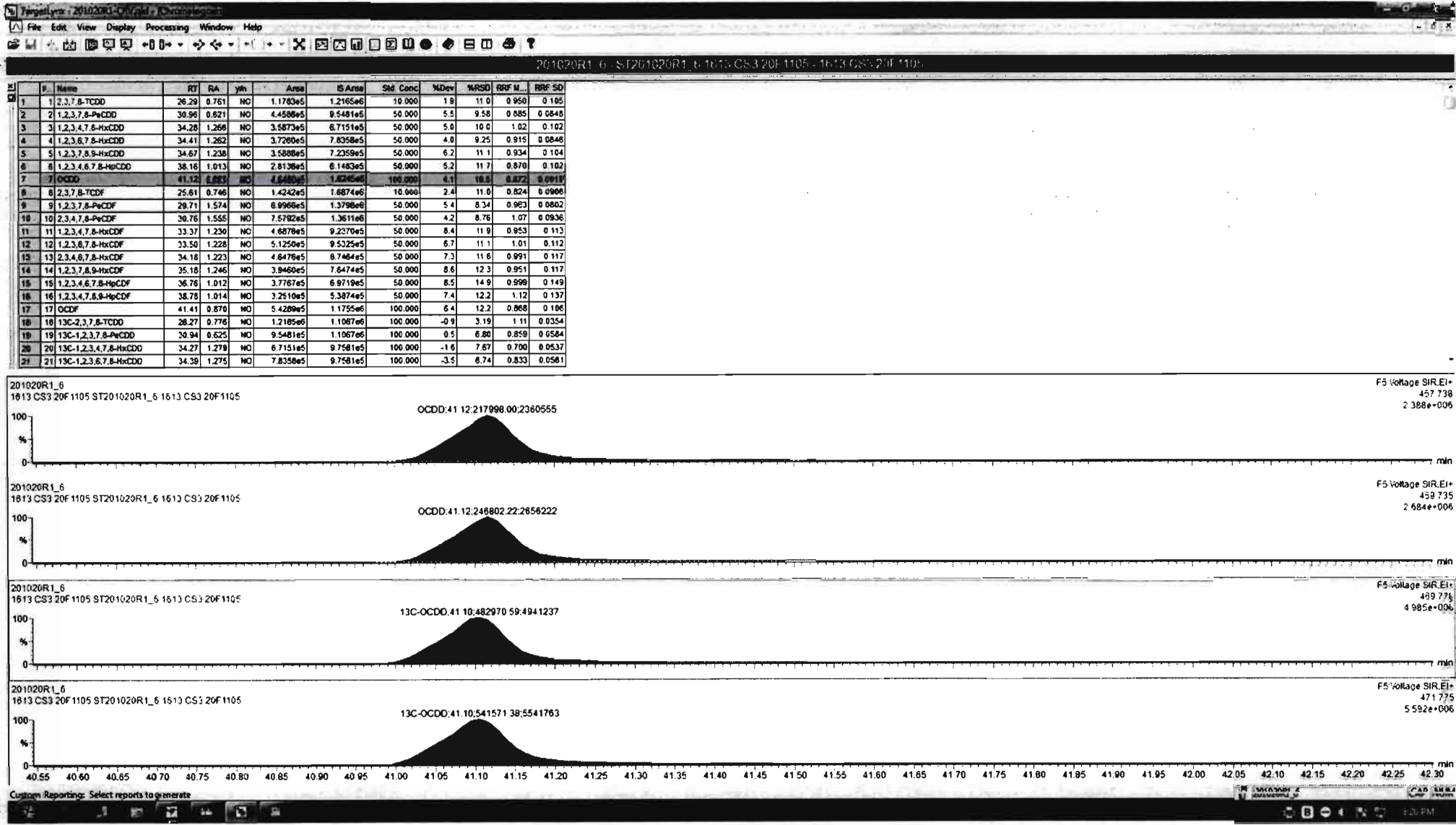


Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105





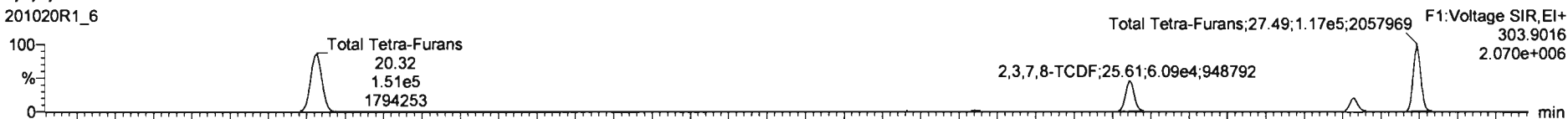
Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

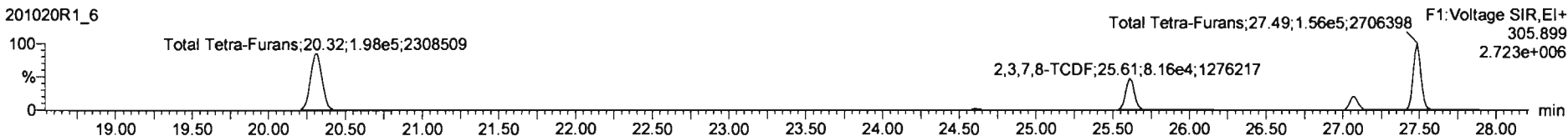
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**2,3,7,8-TCDF**

201020R1\_6

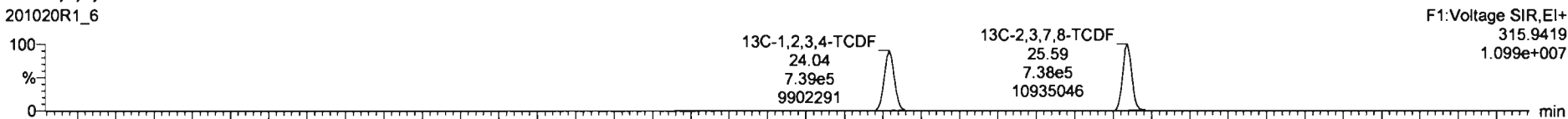


201020R1\_6

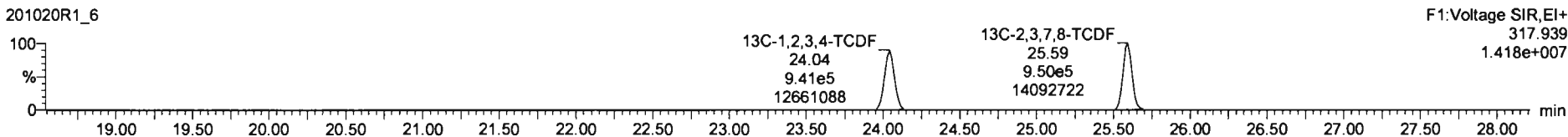


**13C-2,3,7,8-TCDF**

201020R1\_6

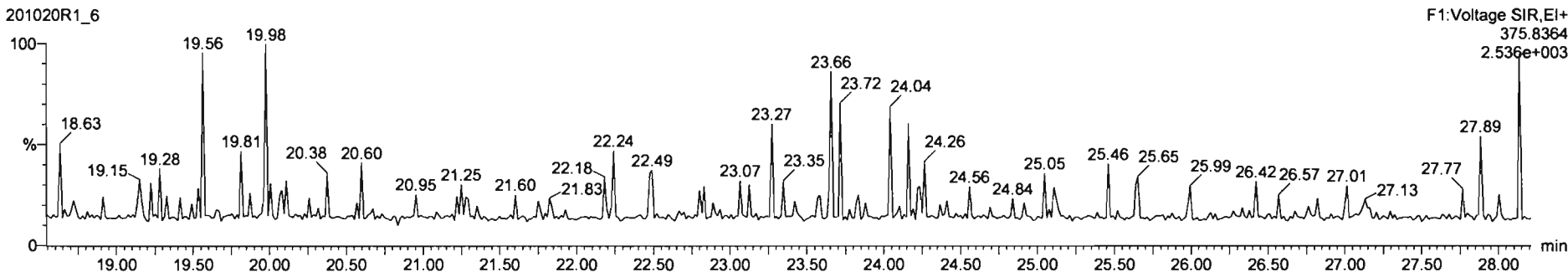


201020R1\_6



**DPE1**

201020R1\_6



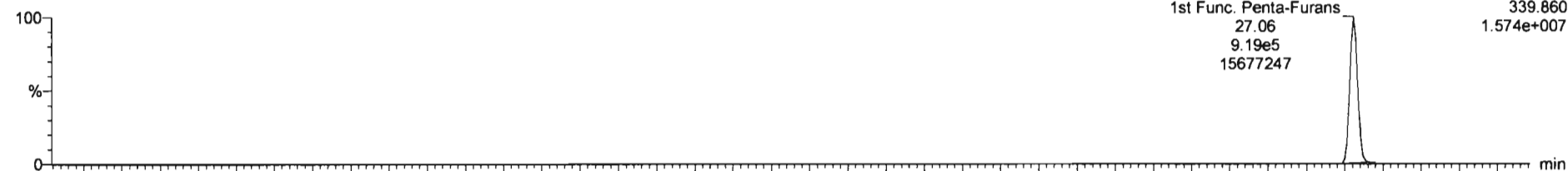
Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

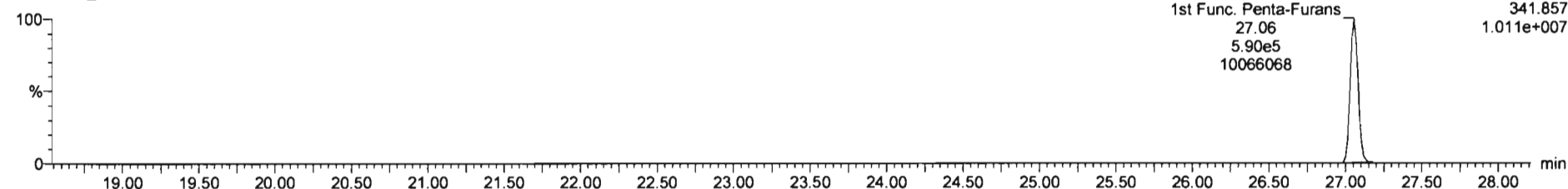
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

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201020R1\_6

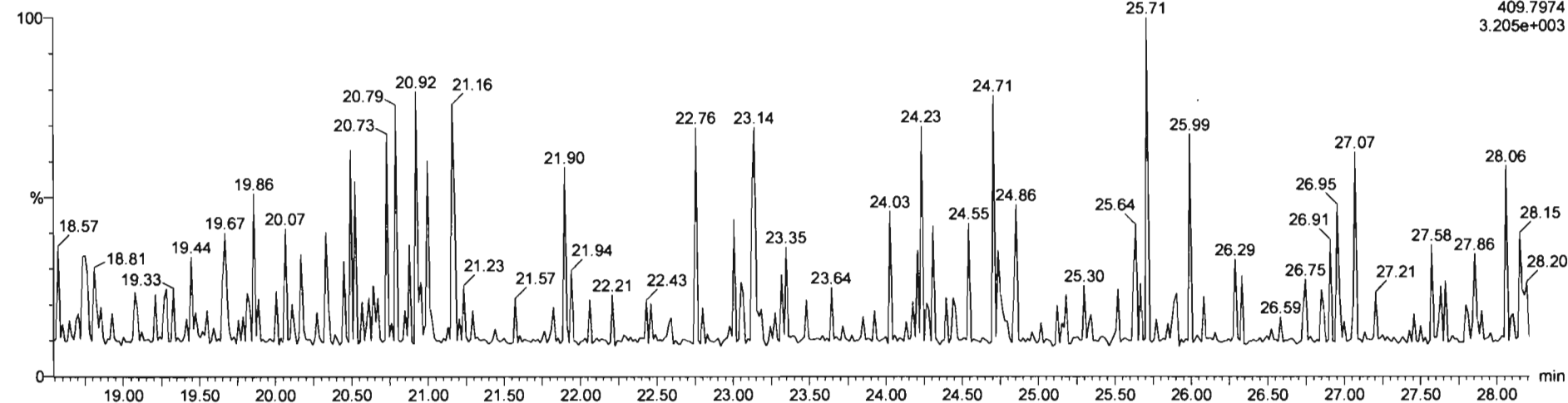


201020R1\_6



DPE6

201020R1\_6



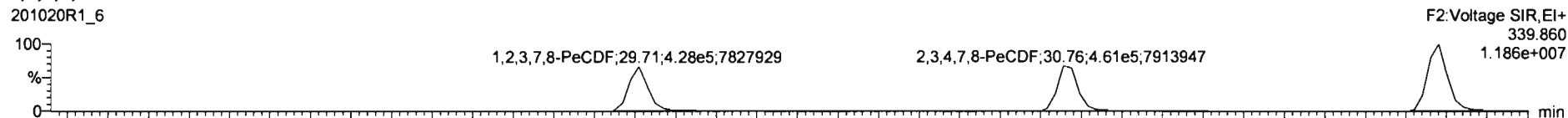
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

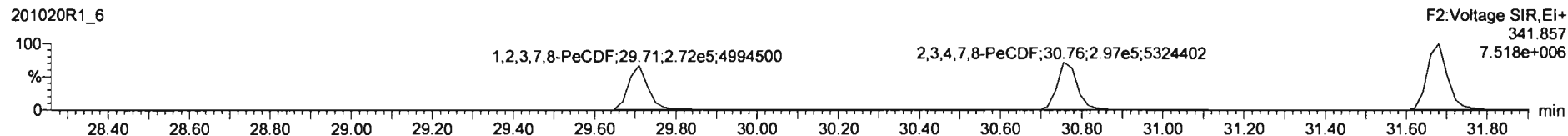
Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

**1,2,3,7,8-PeCDF**

201020R1\_6

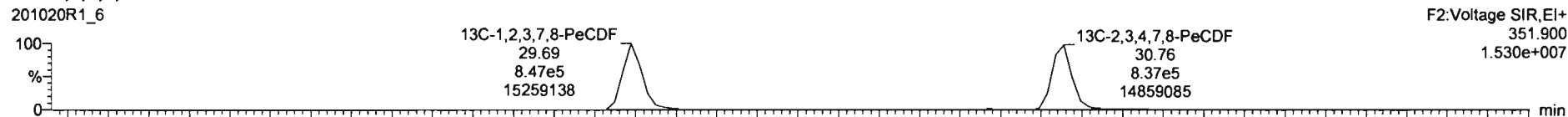


201020R1\_6

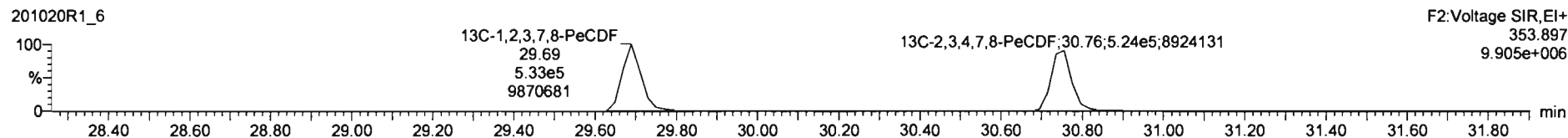


**13C-1,2,3,7,8-PeCDF**

201020R1\_6

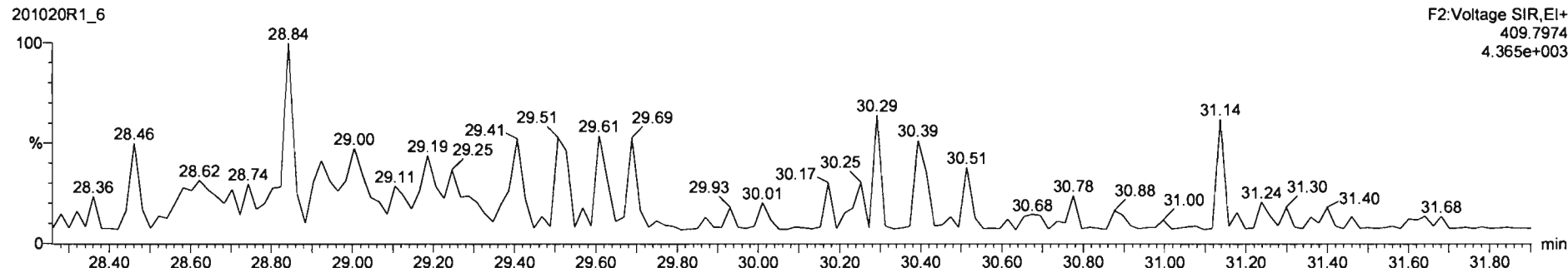


201020R1\_6



**DPE2**

201020R1\_6



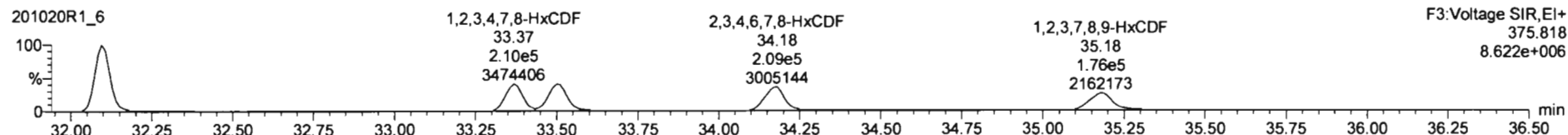
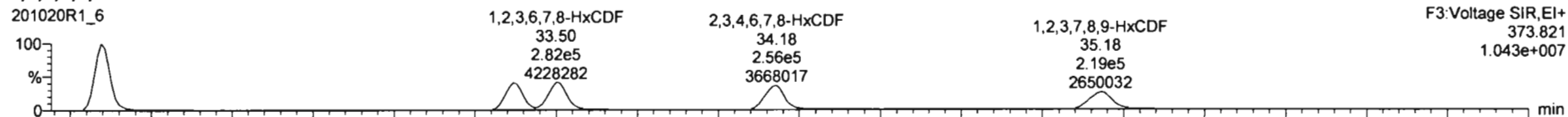


Dataset: Untitled

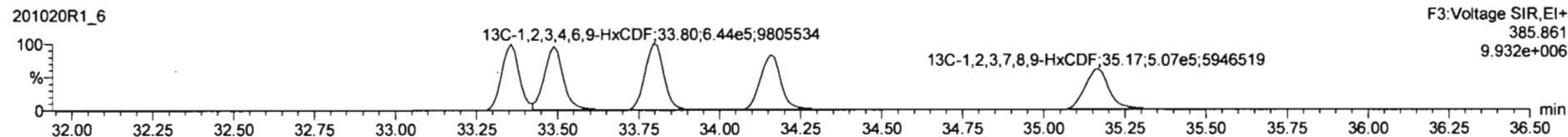
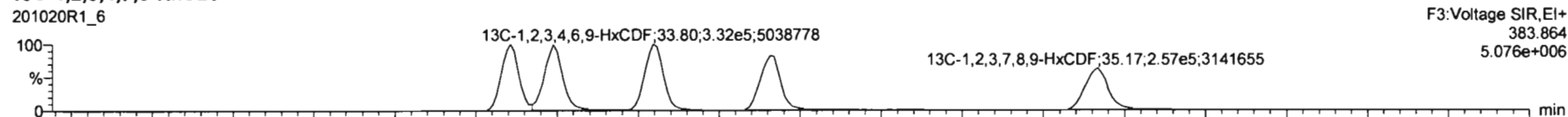
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

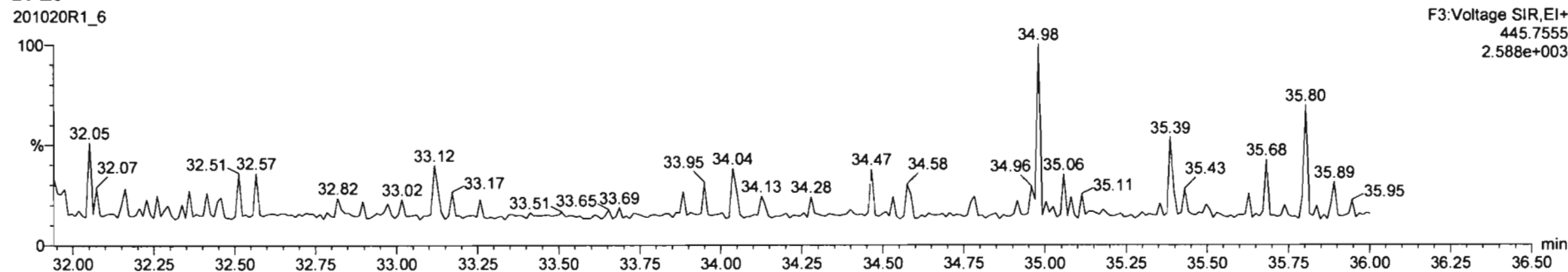
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**

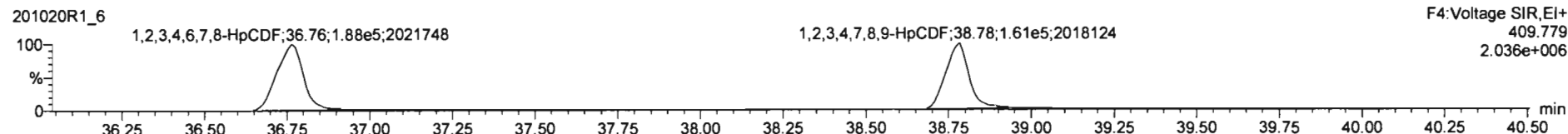
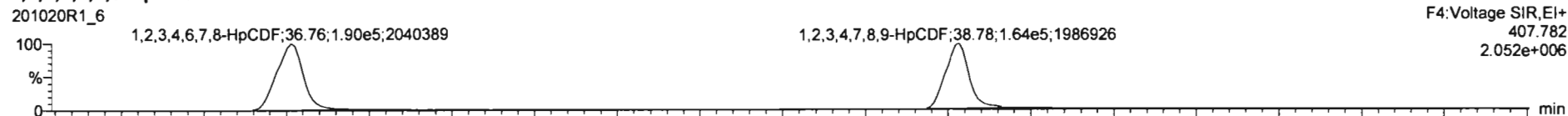


Dataset: Untitled

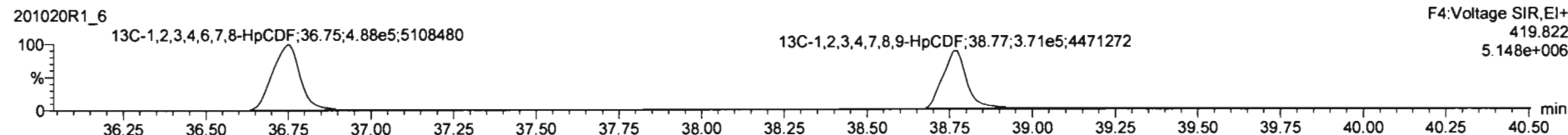
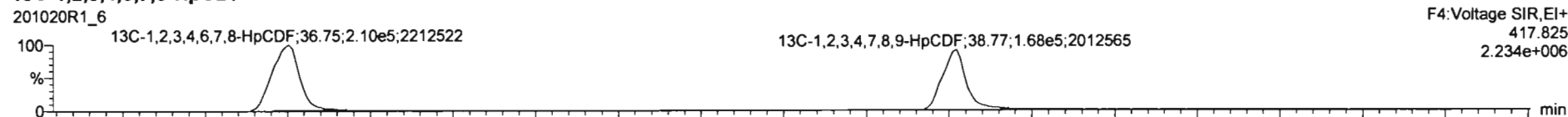
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105

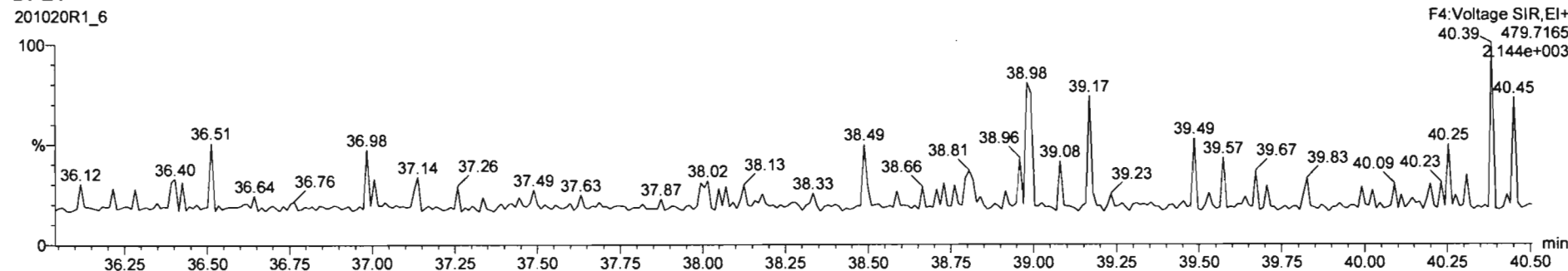
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



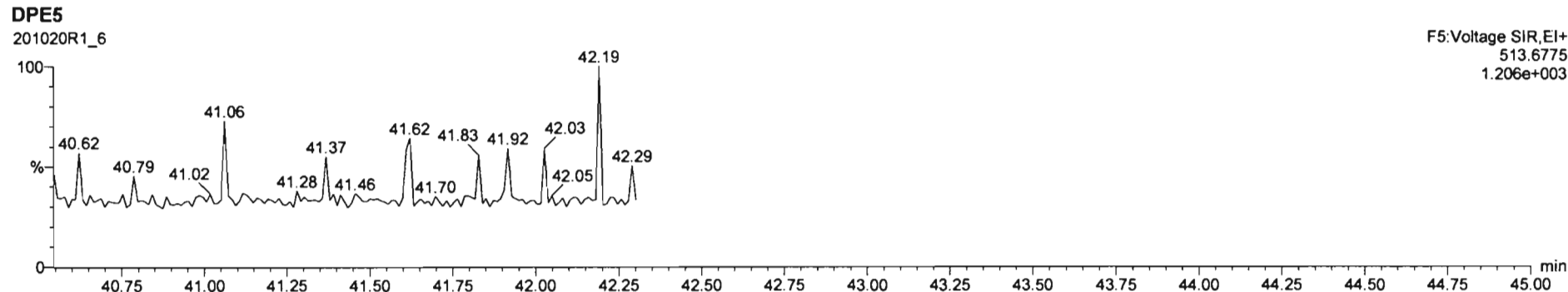
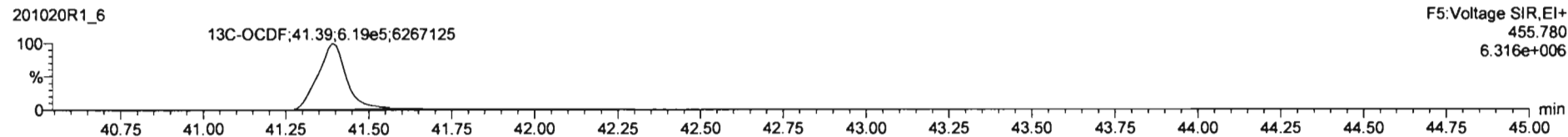
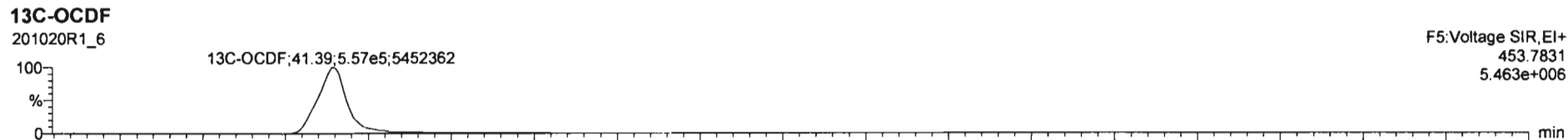
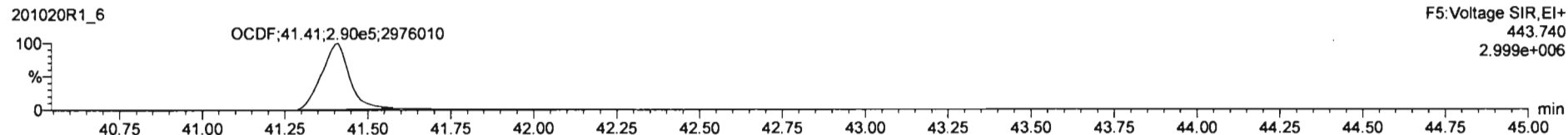
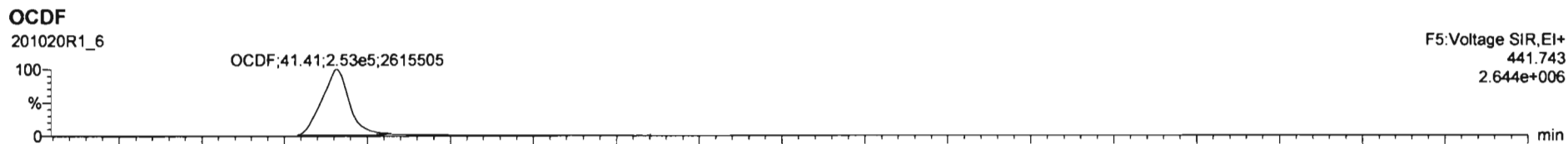
**DPE4**



Dataset: Untitled

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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

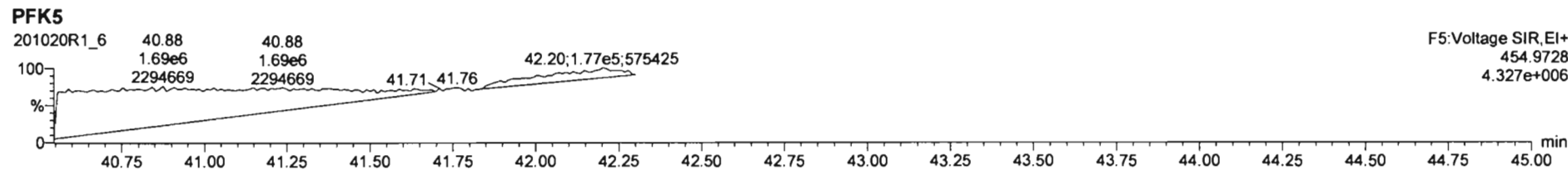
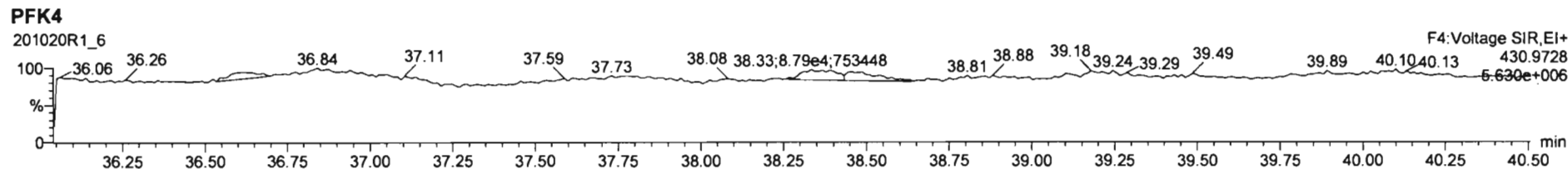
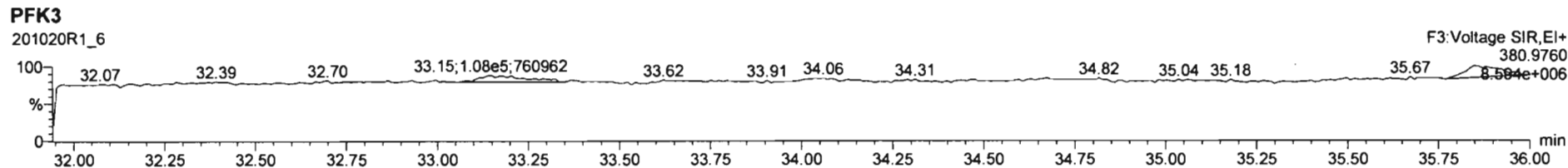
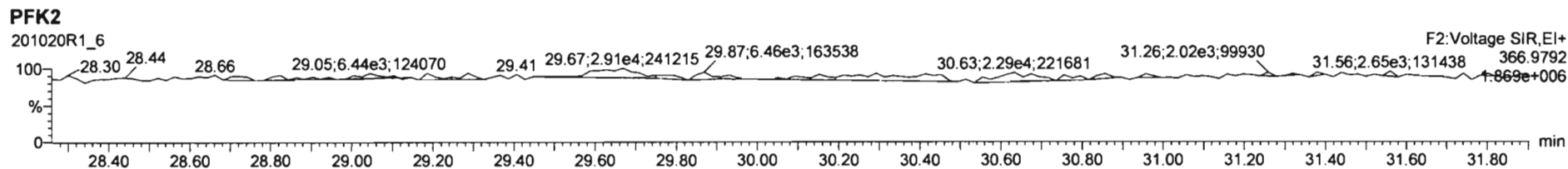
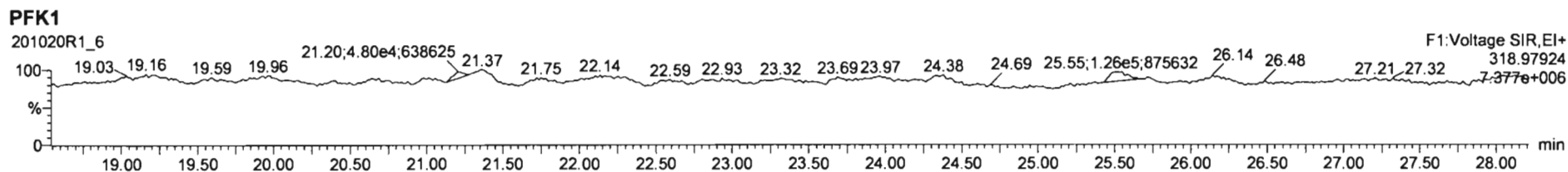
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Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_6, Date: 20-Oct-2020, Time: 13:01:38, ID: ST201020R1\_6 1613 CS3 20F1105, Description: 1613 CS3 20F1105



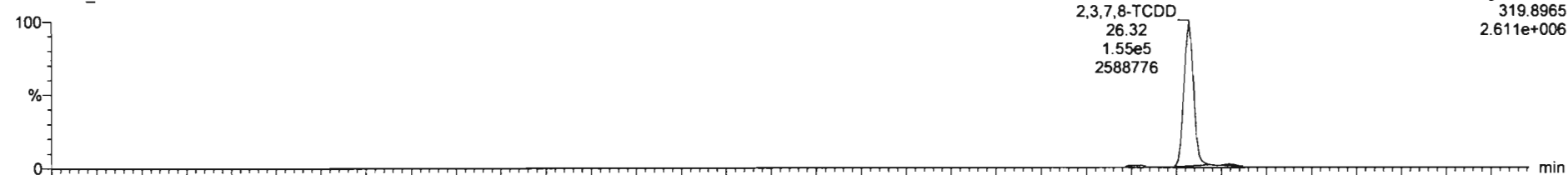
Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

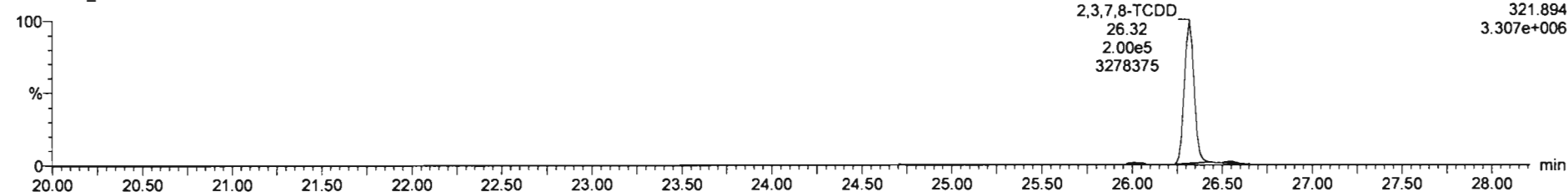
Name: 201020R1\_4, Date: 20-Oct-2020, Time: 11:32:31, ID: ST201020R1\_4 1613 CS4 20F1106, Description: 1613 CS4 20F1106

**2,3,7,8-TCDD**

201020R1\_4

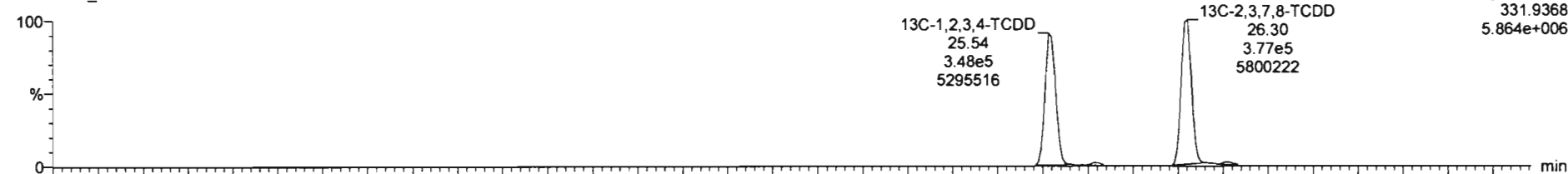


201020R1\_4

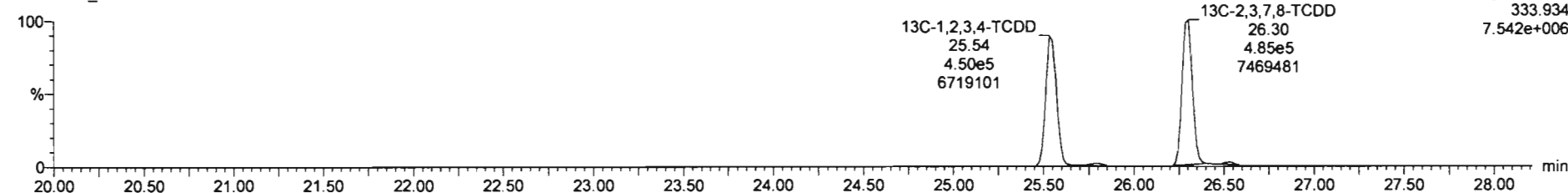


**13C-2,3,7,8-TCDD**

201020R1\_4



201020R1\_4



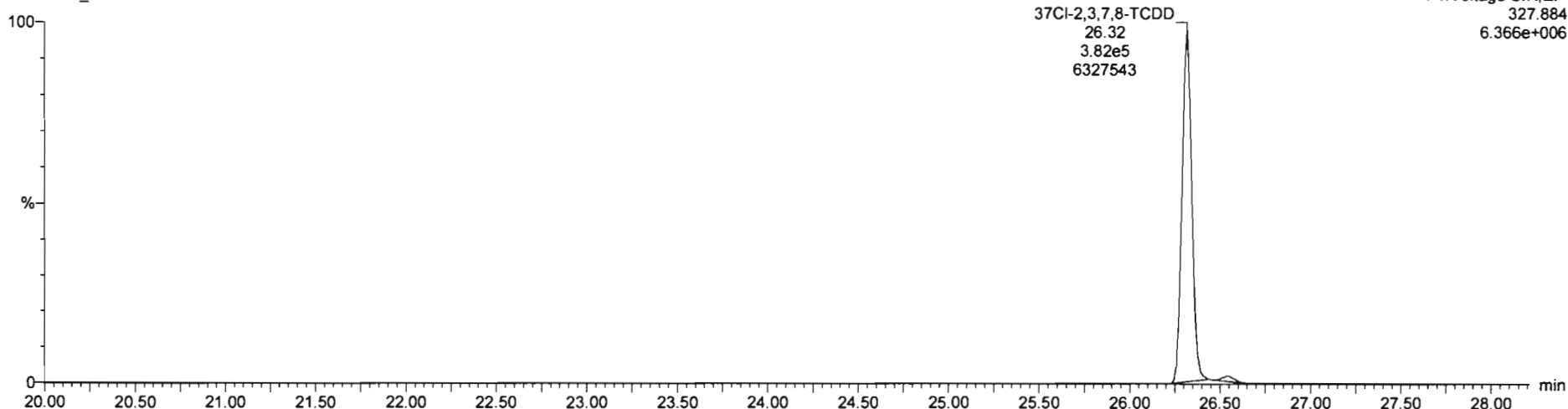
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

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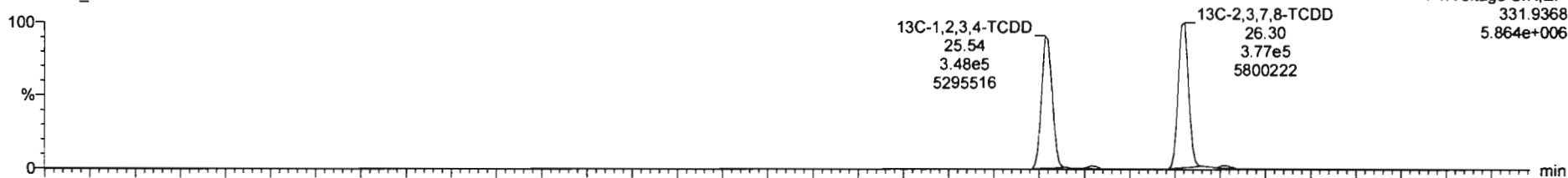
**37Cl-2,3,7,8-TCDD**

201020R1\_4

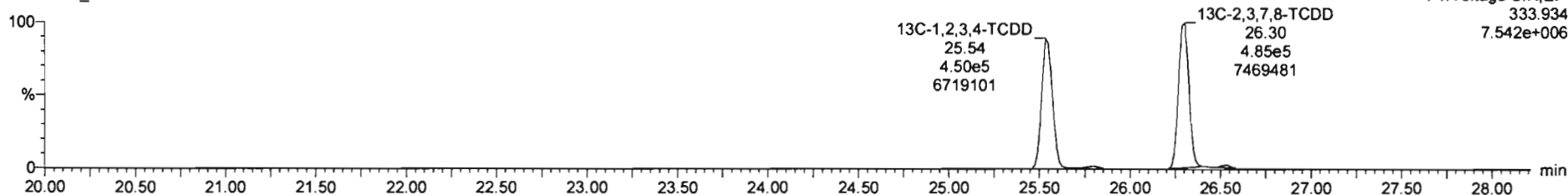


**13C-1,2,3,4-TCDD**

201020R1\_4



201020R1\_4





Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

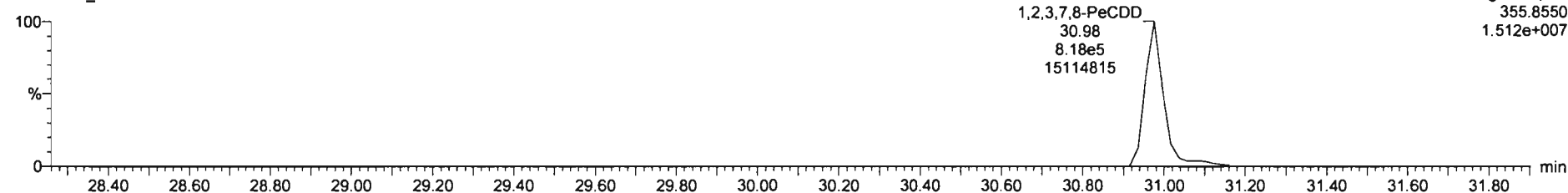
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**1,2,3,7,8-PeCDD**

201020R1\_4



201020R1\_4

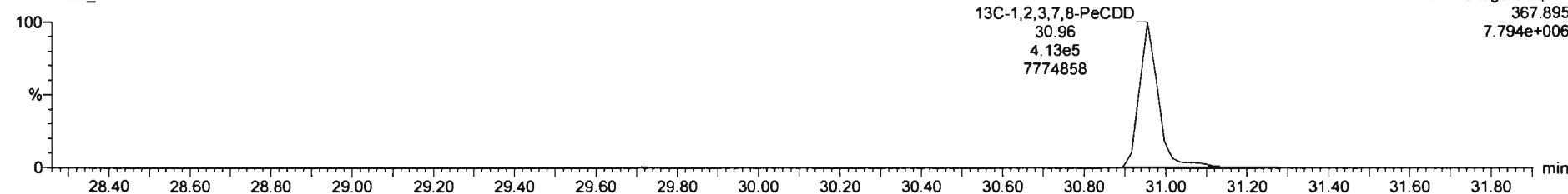


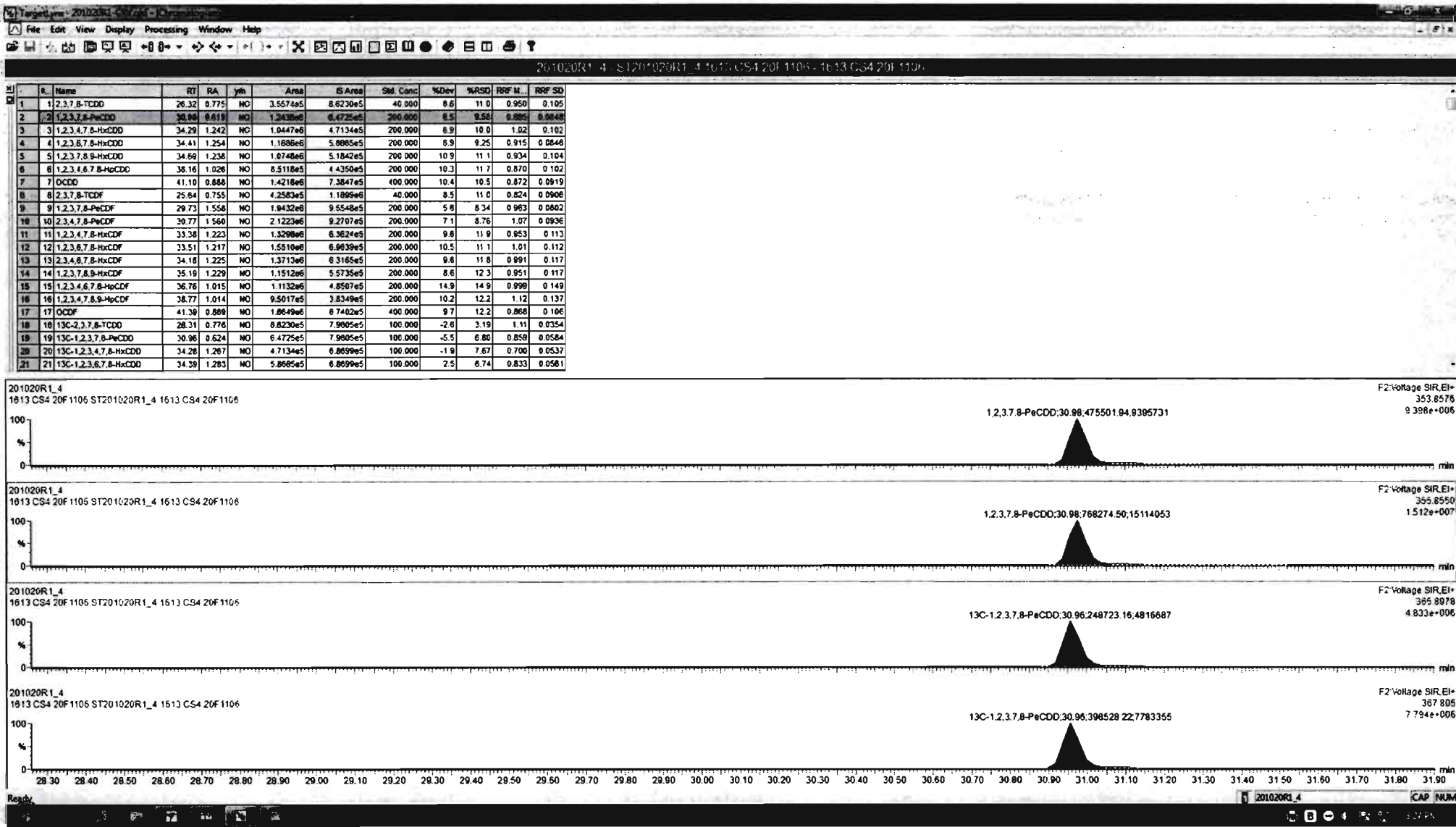
**13C-1,2,3,7,8-PeCDD**

201020R1\_4



201020R1\_4





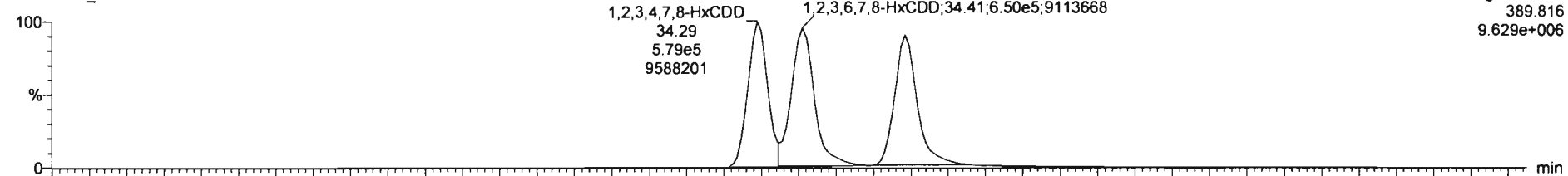
Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

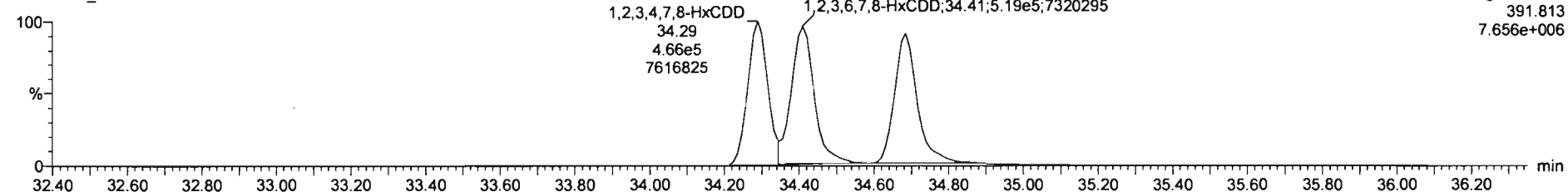
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**1,2,3,4,7,8-HxCDD**

201020R1\_4

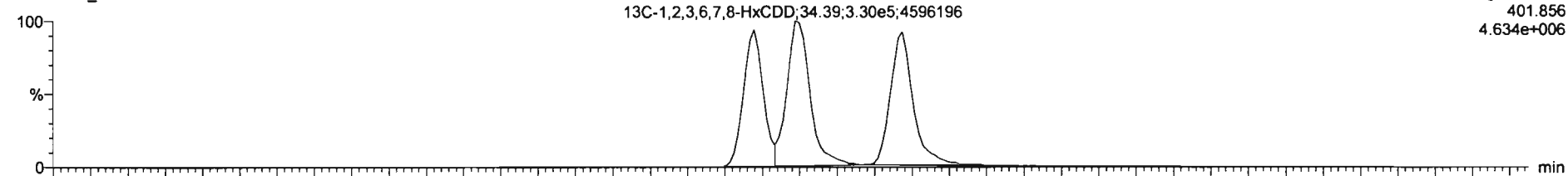


201020R1\_4

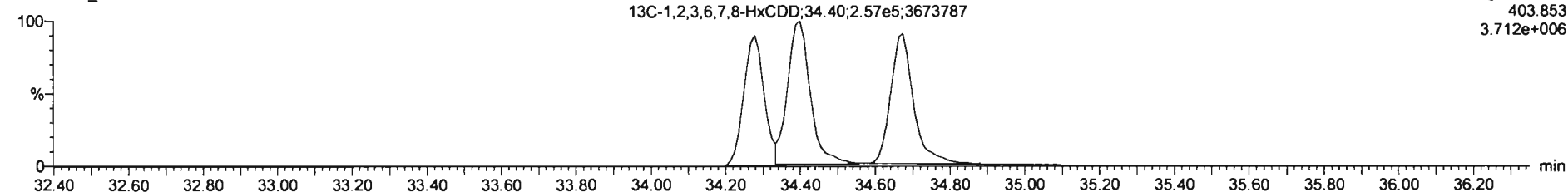


**13C-1,2,3,4,7,8-HxCDD**

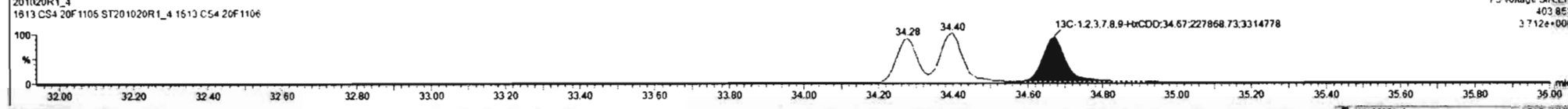
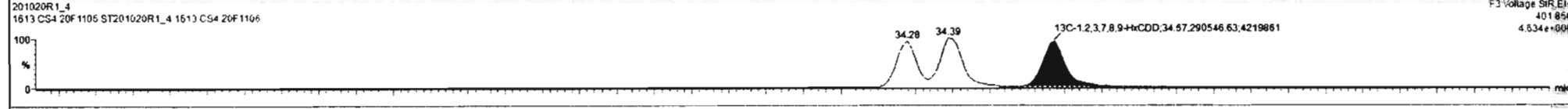
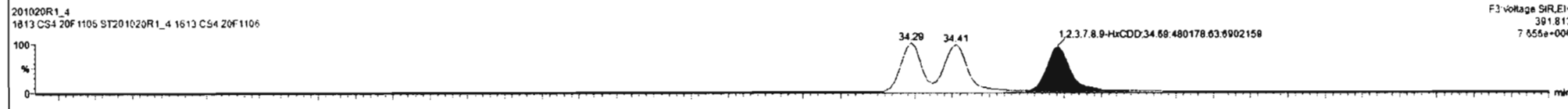
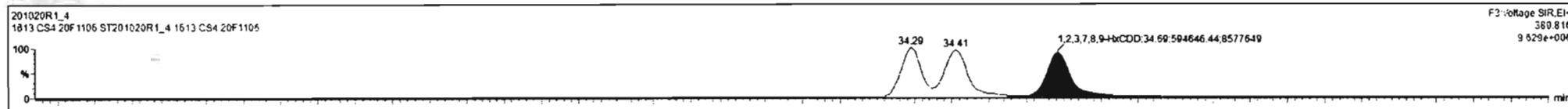
201020R1\_4



201020R1\_4



#	Name	RT	RA	yth	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
1	1,2,3,7,8-TCDD	26.32	0.775	NO	3.5574e5	8.6230e5	40.000	8.6	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.98	0.619	NO	1.2438e6	6.4725e5	200.000	8.5	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.29	1.242	NO	1.0447e6	4.7134e5	200.000	8.9	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.41	1.254	NO	1.1698e6	5.8985e5	200.000	8.9	9.25	0.915	0.0848
5	1,2,3,7,8,9-HxCDD	34.89	1.229	NO	1.8748e6	5.1924e5	200.000	10.8	11.1	0.934	0.1884
6	1,2,3,4,6,7,8-HpCDD	38.16	1.026	NO	8.5118e5	4.4350e5	200.000	10.3	11.7	0.870	0.102
7	OCDD	41.10	0.888	NO	1.4218e6	7.3847e5	400.000	10.4	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.84	0.755	NO	4.2583e5	1.1869e6	40.000	8.5	11.0	0.824	0.0908
9	1,2,3,7,8-PeCDF	29.73	1.556	NO	1.9432e6	9.5548e5	200.000	5.6	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.77	1.560	NO	2.1223e6	9.2707e5	200.000	7.1	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.38	1.223	NO	1.3298e6	6.3624e5	200.000	9.8	11.9	0.953	0.112
12	1,2,3,6,7,8-HxCDF	33.51	1.217	NO	1.5510e6	6.9639e5	200.000	10.5	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.18	1.225	NO	1.3713e6	6.3165e5	200.000	9.6	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.19	1.229	NO	1.1512e6	5.5735e5	200.000	8.6	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.76	1.015	NO	1.1132e6	4.8507e5	200.000	14.9	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.77	1.014	NO	9.5017e5	3.8349e5	200.000	10.2	12.2	1.12	0.137
17	OCDF	41.39	0.889	NO	1.8649e6	8.7402e5	400.000	9.7	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	28.31	0.776	NO	8.8230e5	7.9905e5	100.000	-2.6	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.98	0.624	NO	6.4725e5	7.9905e5	100.000	-5.5	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.28	1.267	NO	4.7134e5	6.8699e5	100.000	-1.9	7.87	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.39	1.283	NO	5.8985e5	6.8699e5	100.000	2.5	8.74	0.833	0.0561



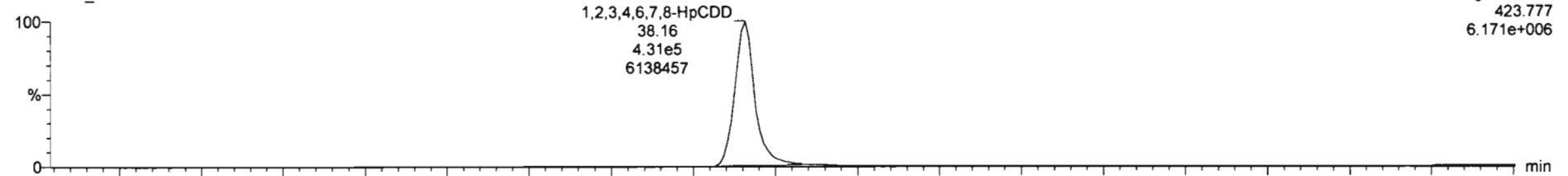
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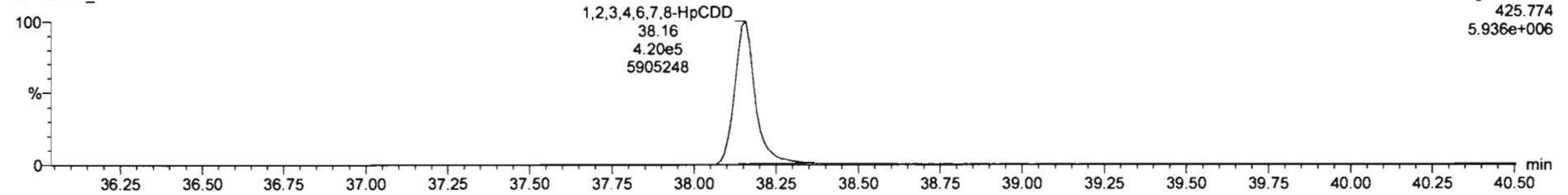
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**1,2,3,4,6,7,8-HpCDD**

201020R1\_4

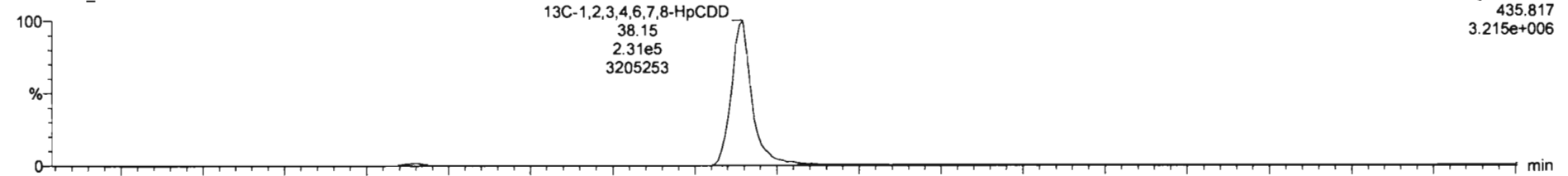


201020R1\_4

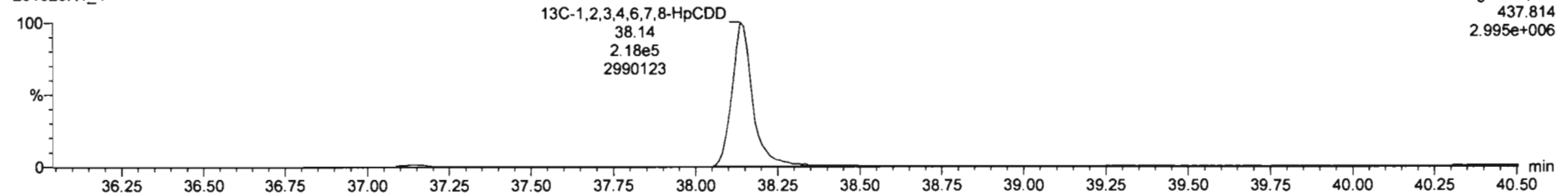


**13C-1,2,3,4,6,7,8-HpCDD**

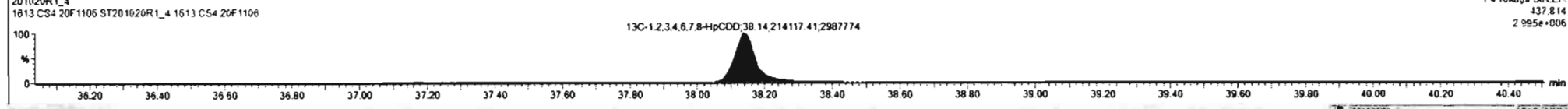
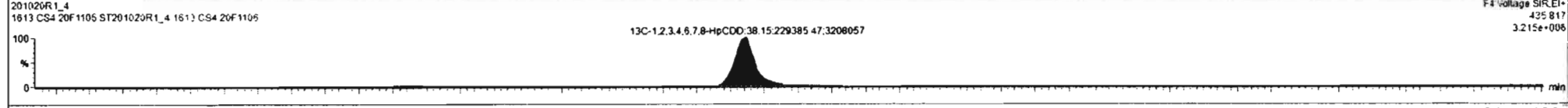
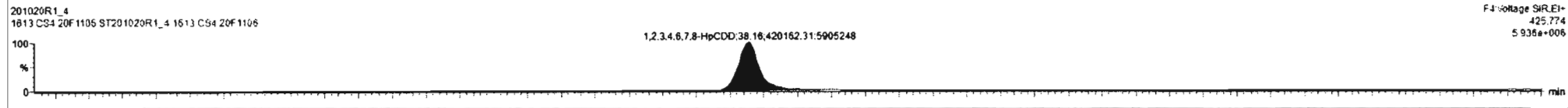
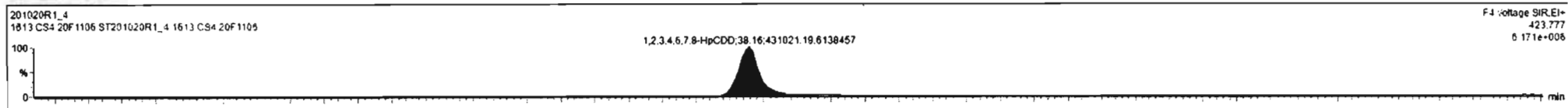
201020R1\_4



201020R1\_4



#	RT	Name	RT	RA	Yth	Area	IS Area	Std Conc	%Dev	%RSD	RRF M.	RRF SD
1	26.32	1,2,3,7,8-TCDD	0.775	NO		3.5574e5	8.6230e5	40.000	8.8	11.0	0.950	0.105
2	30.98	1,2,3,7,8-PeCDD	0.619	NO		1.2438e6	6.4725e5	200.000	8.5	9.58	0.585	0.0648
3	34.29	1,2,3,4,7,8-HxCDD	1.242	NO		1.0447e6	4.7134e5	200.000	8.9	10.0	1.02	0.102
4	34.41	1,2,3,6,7,8-HxCDD	1.254	NO		1.1698e6	5.8685e5	200.000	8.9	9.25	0.915	0.0846
5	34.63	1,2,3,7,8,9-HxCDD	1.238	NO		1.0748e6	5.1842e5	200.000	10.9	11.1	0.934	0.164
6	38.18	1,2,3,4,6,7,8-HpCDD	1.628	NO		8.5118e5	4.4390e5	200.000	10.3	11.7	0.878	0.182
7	41.10	OCDD	8.888	NO		1.4218e6	7.3847e5	400.000	10.4	10.5	0.872	0.0919
8	25.84	2,3,7,8-TCDF	0.755	NO		4.2583e5	1.1899e6	40.000	8.5	11.0	0.824	0.0906
9	29.73	1,2,3,7,8-PeCDF	1.556	NO		1.9432e6	9.5548e5	200.000	5.8	8.34	0.983	0.0802
10	30.77	2,3,4,7,8-PeCDF	1.560	NO		2.1223e6	9.2707e5	200.000	7.1	8.76	1.07	0.0936
11	33.38	1,2,3,4,7,8-HxCDF	1.223	NO		1.3298e6	6.3824e5	200.000	9.8	11.9	0.953	0.113
12	33.51	1,2,3,6,7,8-HxCDF	1.217	NO		1.5510e6	8.9639e5	200.000	10.5	11.1	1.01	0.112
13	34.18	2,3,4,6,7,8-HxCDF	1.225	NO		1.3713e6	6.3165e5	200.000	9.8	11.8	0.991	0.117
14	35.19	1,2,3,7,8,9-HxCDF	1.229	NO		1.1512e6	5.5735e5	200.000	8.6	12.3	0.951	0.117
15	36.76	1,2,3,4,6,7,8-HpCDF	1.015	NO		1.1132e6	4.8507e5	200.000	14.9	14.9	0.998	0.149
16	38.77	1,2,3,4,7,8,9-HpCDF	1.014	NO		9.5017e5	3.6349e5	200.000	10.2	12.2	1.12	0.137
17	41.39	OCDF	8.889	NO		1.8649e6	8.7402e5	400.000	9.7	12.2	0.868	0.106
18	28.31	13C-2,3,7,8-TCDD	0.776	NO		8.6230e5	7.9605e5	100.000	-2.6	3.19	1.11	0.0354
19	30.96	13C-1,2,3,7,8-PeCDD	0.624	NO		6.4725e5	7.9605e5	100.000	-5.5	6.80	0.859	0.0584
20	34.28	13C-1,2,3,4,7,8-HxCDD	1.267	NO		4.7134e5	6.8899e5	100.000	-1.9	7.67	0.700	0.0537
21	34.39	13C-1,2,3,6,7,8-HxCDD	1.283	NO		5.8685e5	6.8899e5	100.000	2.5	6.74	0.833	0.0581





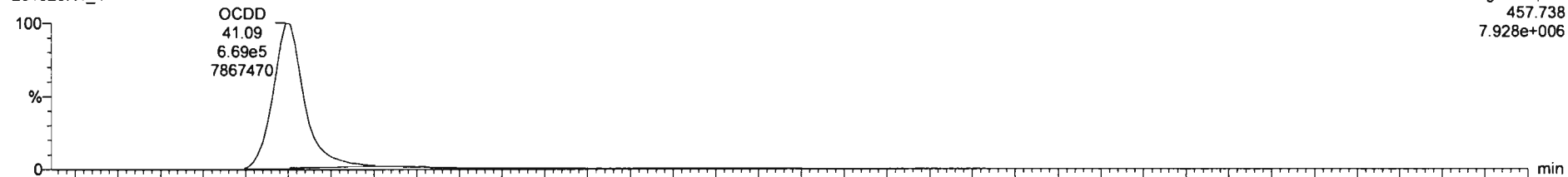
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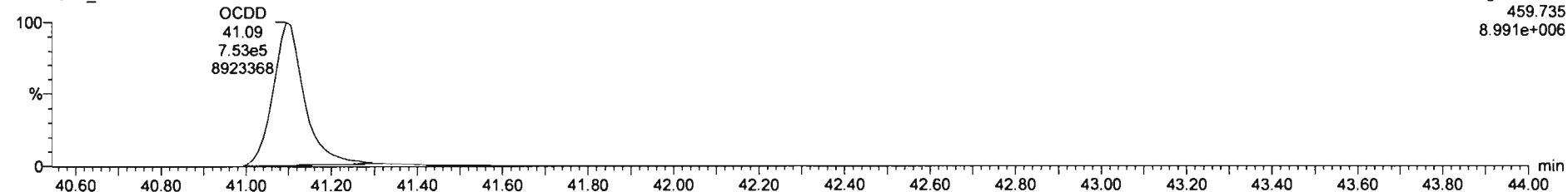
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**OCDD**

201020R1\_4

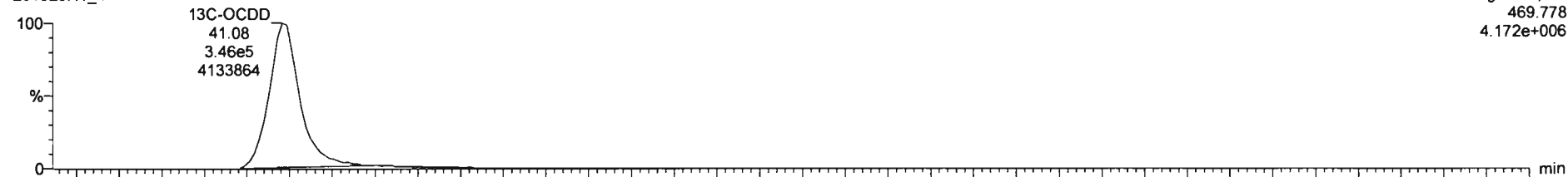


201020R1\_4

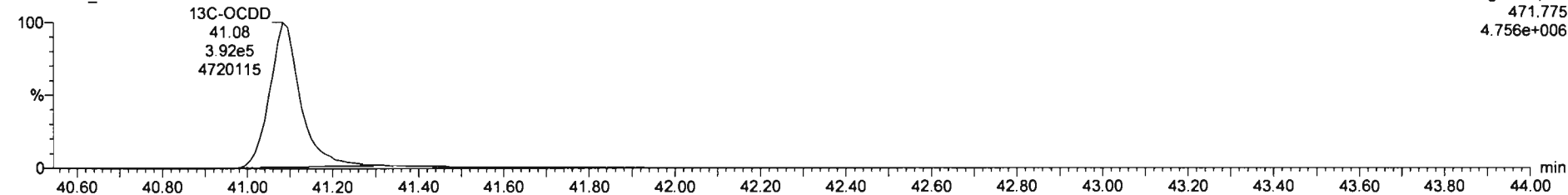


**13C-OCDD**

201020R1\_4



201020R1\_4



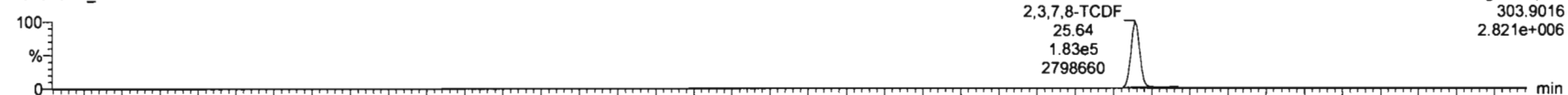
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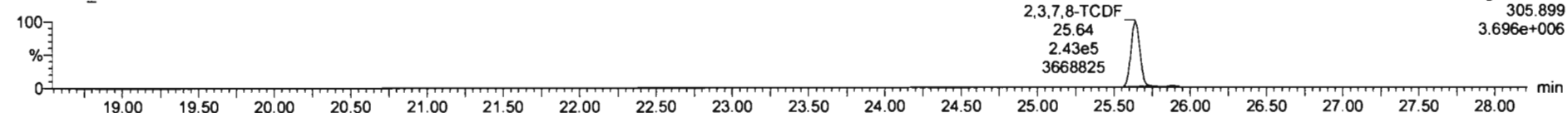
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**2,3,7,8-TCDF**

201020R1\_4

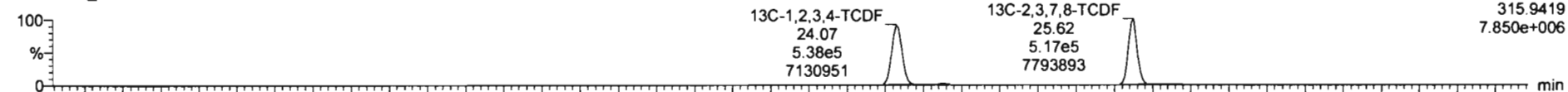


201020R1\_4

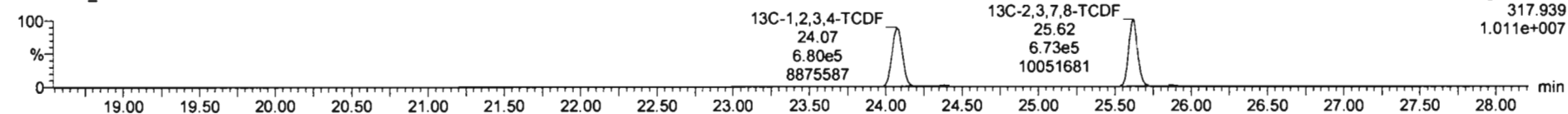


**13C-2,3,7,8-TCDF**

201020R1\_4

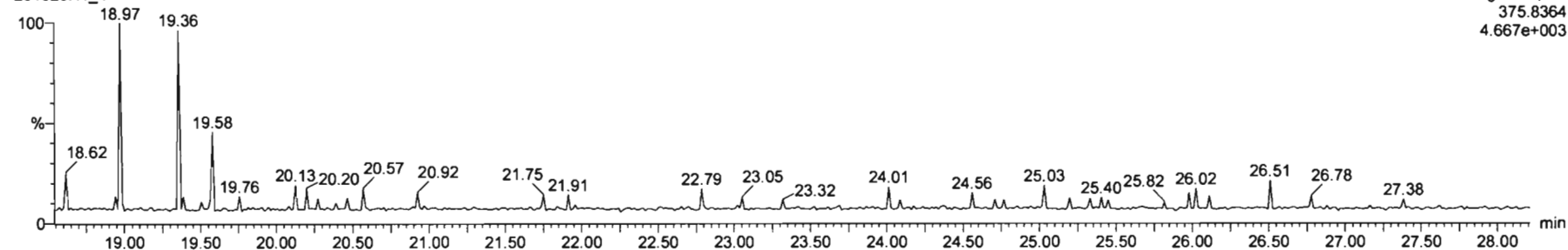


201020R1\_4



**DPE1**

201020R1\_4



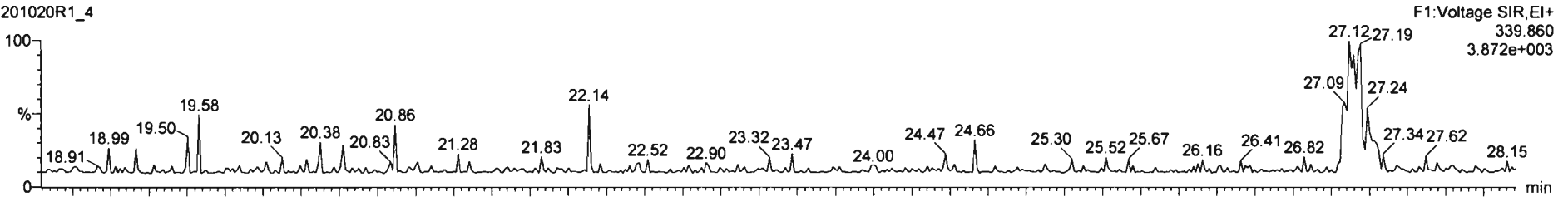
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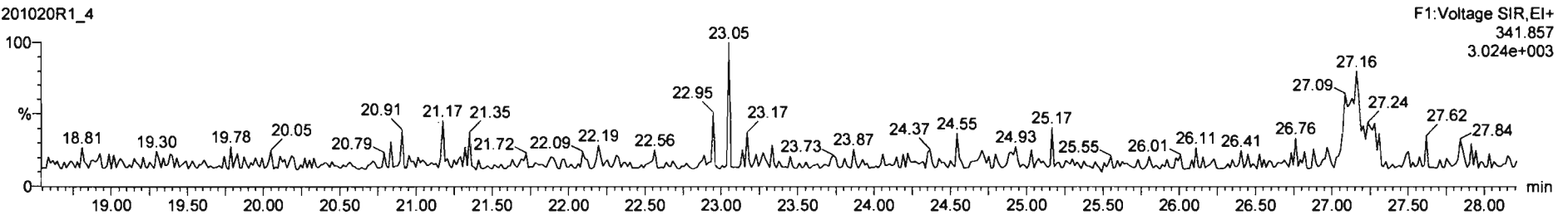
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201020R1\_4

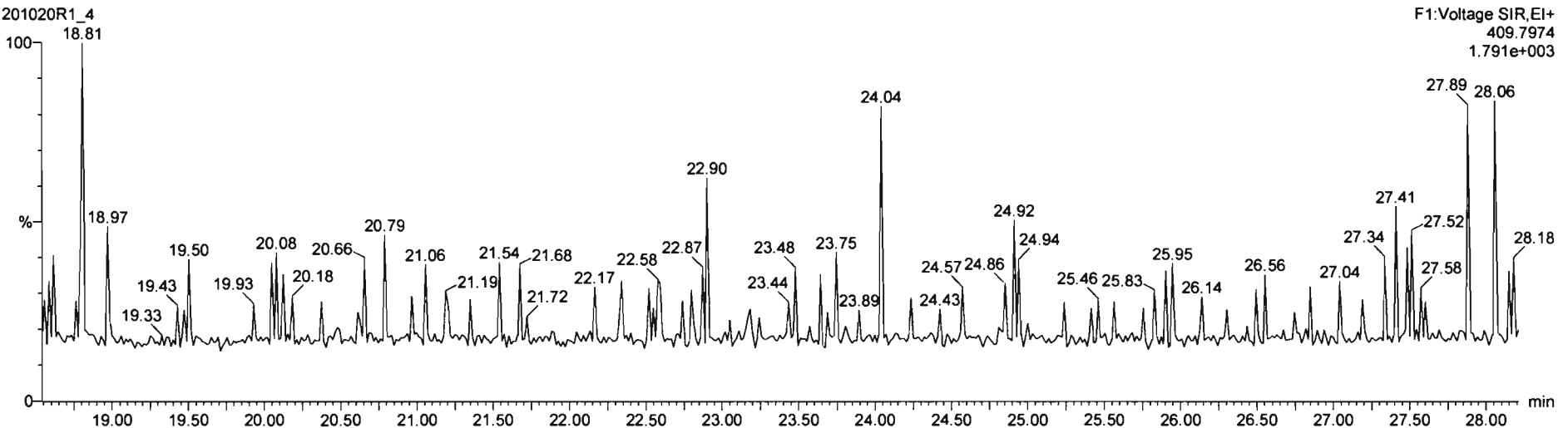


201020R1\_4



DPE6

201020R1\_4



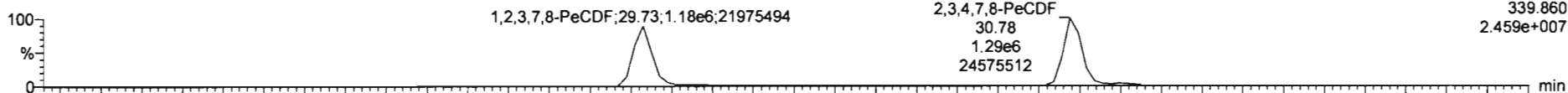
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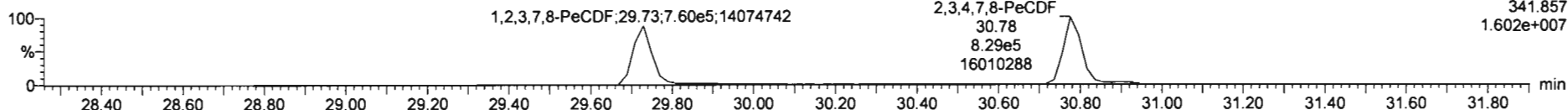
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**1,2,3,7,8-PeCDF**

201020R1\_4

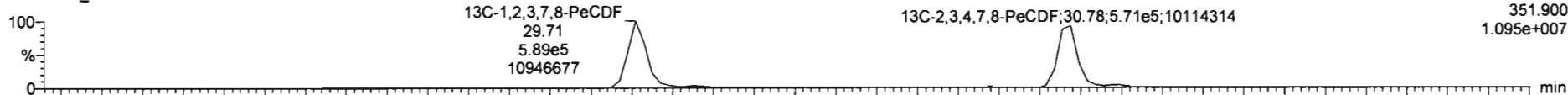


201020R1\_4

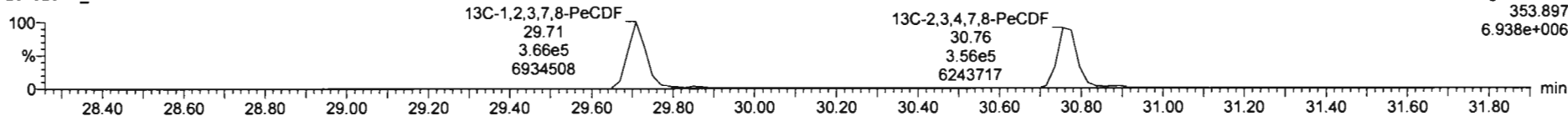


**13C-1,2,3,7,8-PeCDF**

201020R1\_4

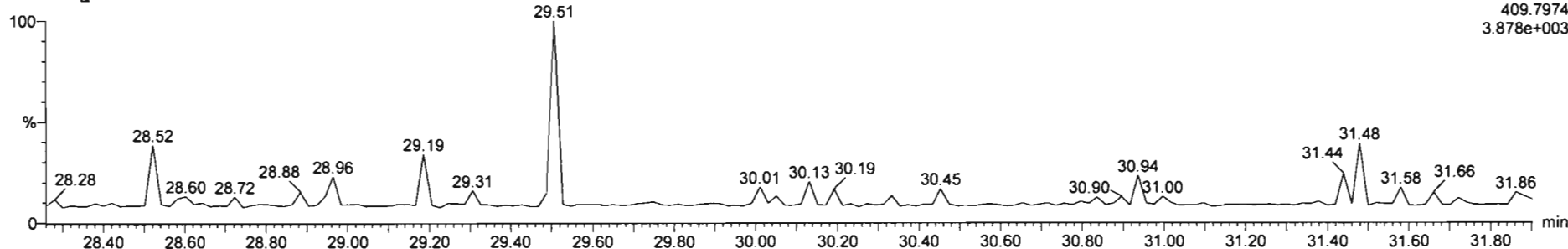


201020R1\_4



**DPE2**

201020R1\_4



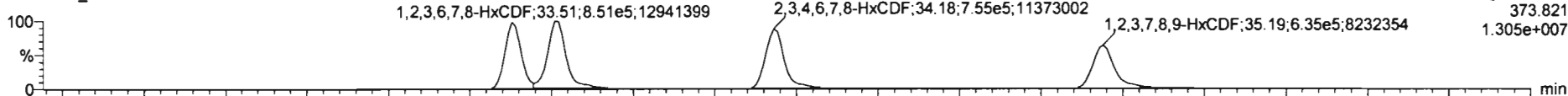
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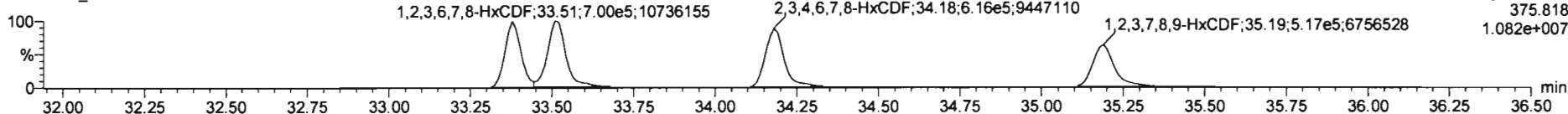
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**1,2,3,4,7,8-HxCDF**

201020R1\_4

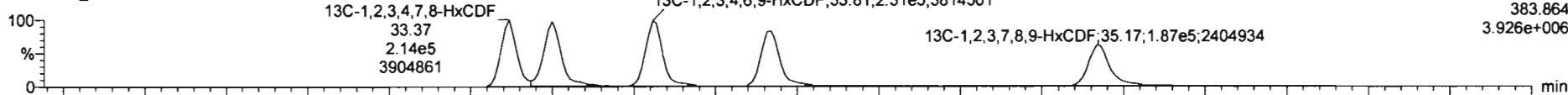


201020R1\_4

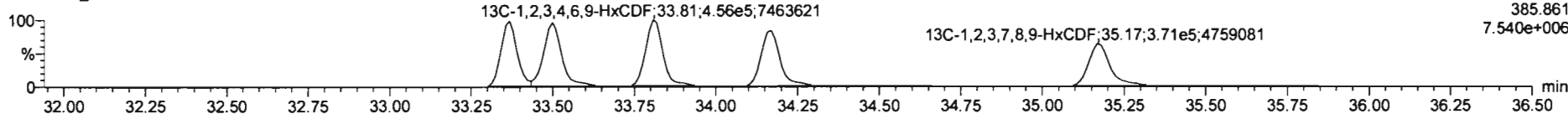


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_4

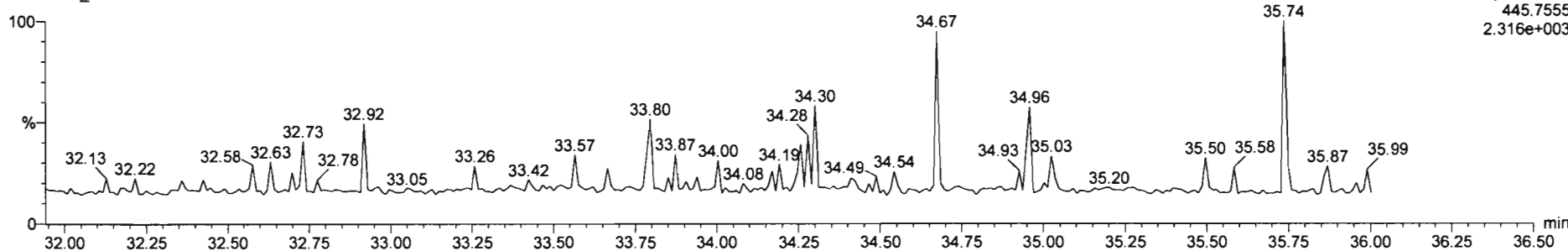


201020R1\_4



**DPE3**

201020R1\_4



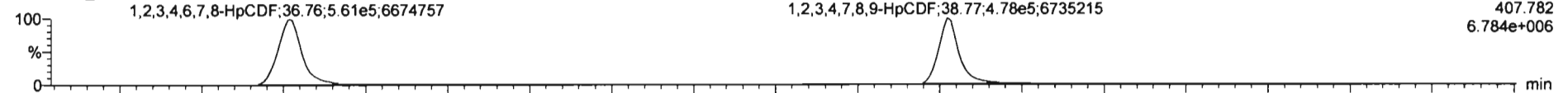
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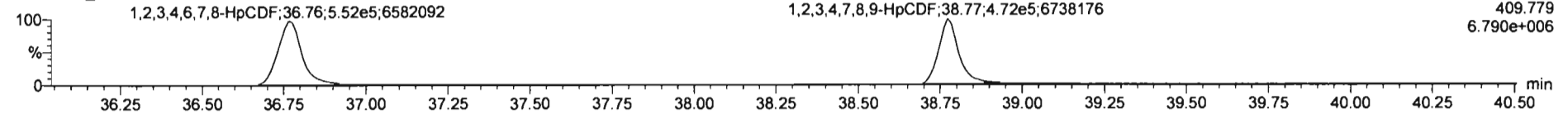
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**1,2,3,4,6,7,8-HpCDF**

201020R1\_4

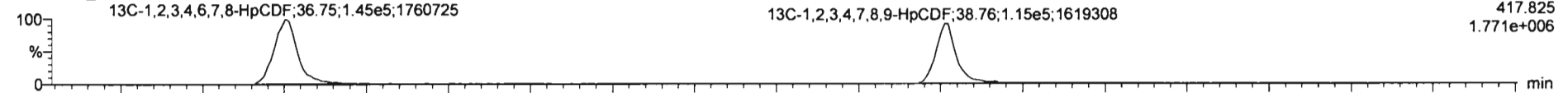


201020R1\_4

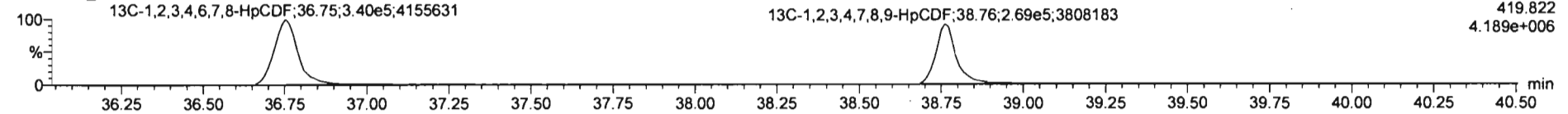


**13C-1,2,3,4,6,7,8-HpCDF**

201020R1\_4

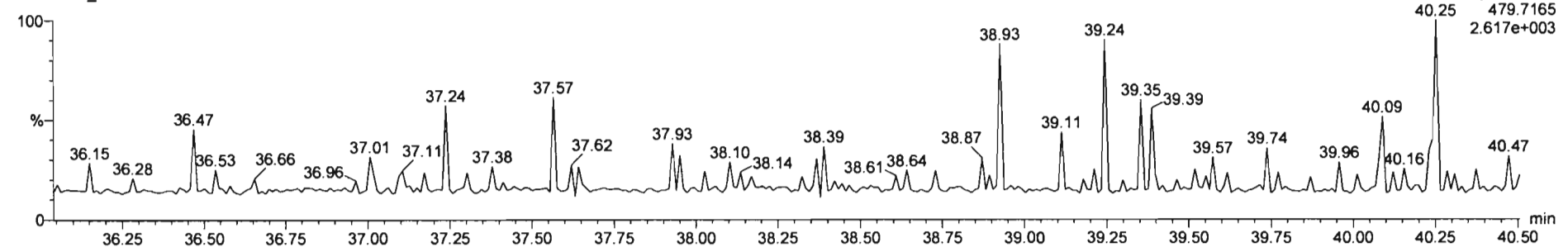


201020R1\_4



**DPE4**

201020R1\_4

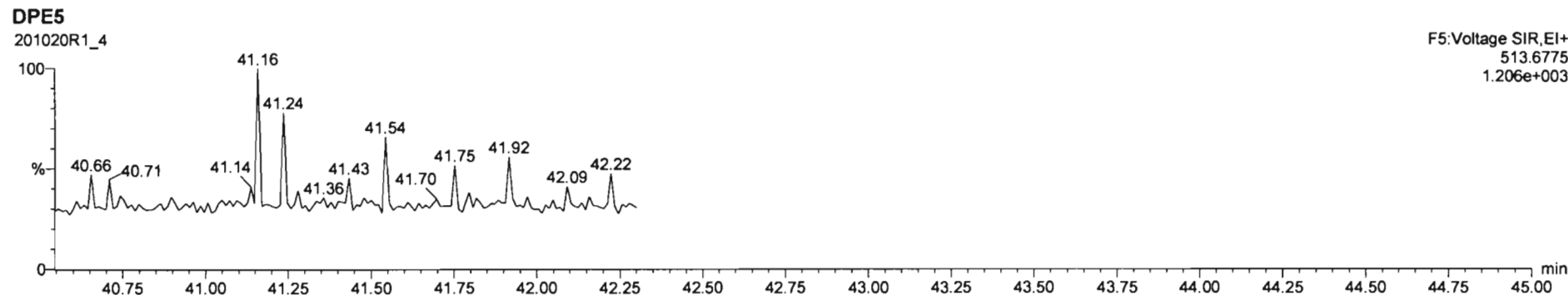
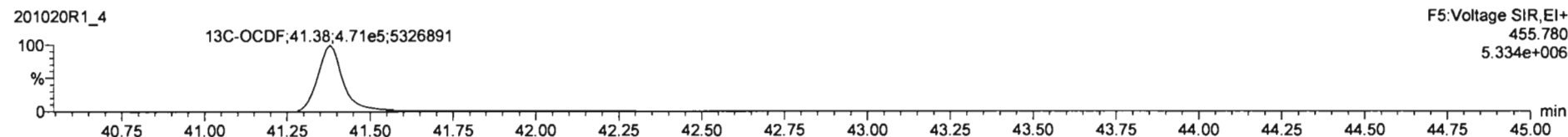
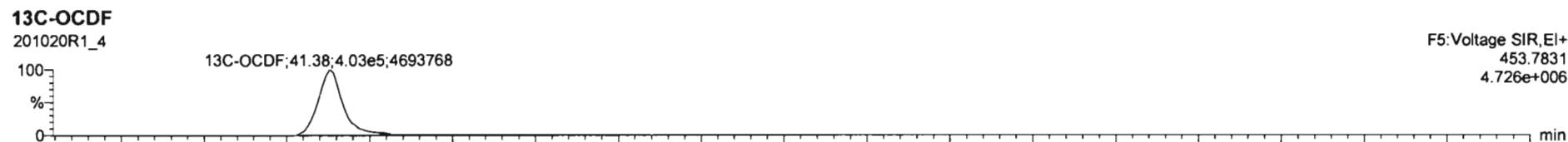
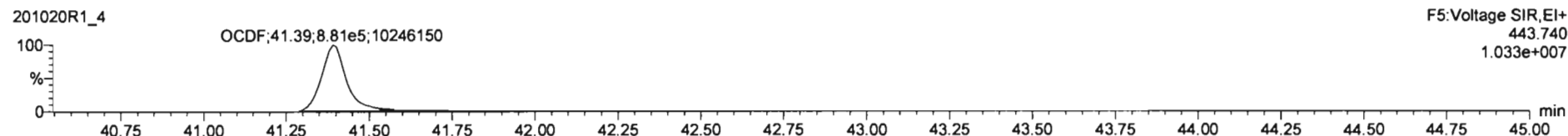
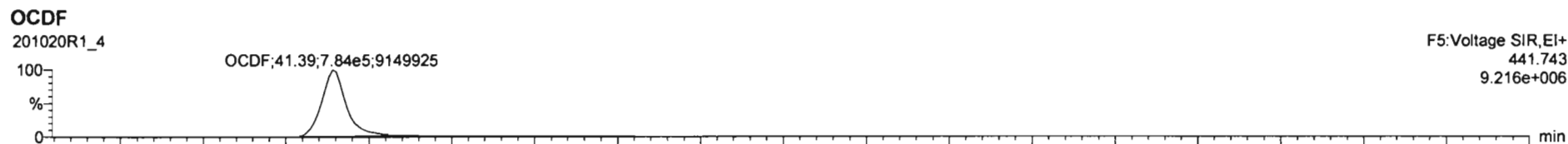




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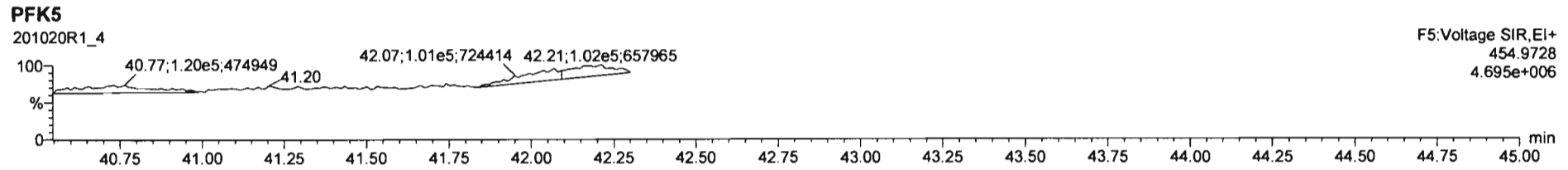
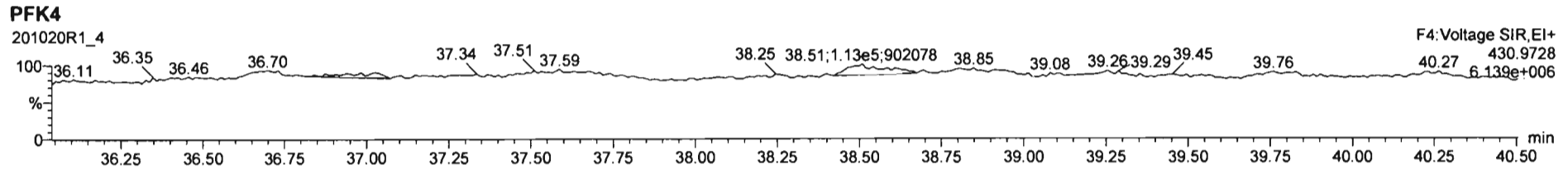
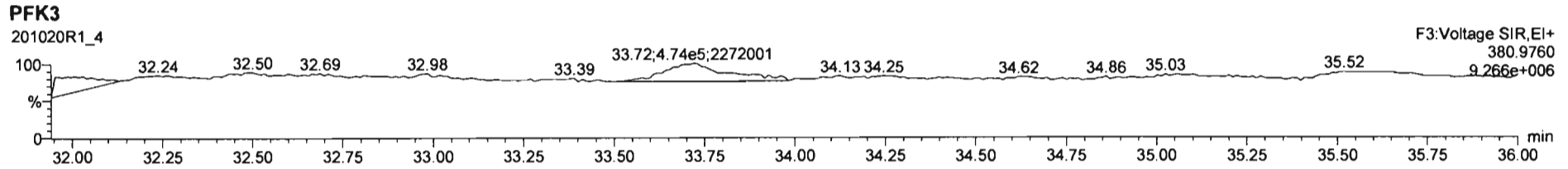
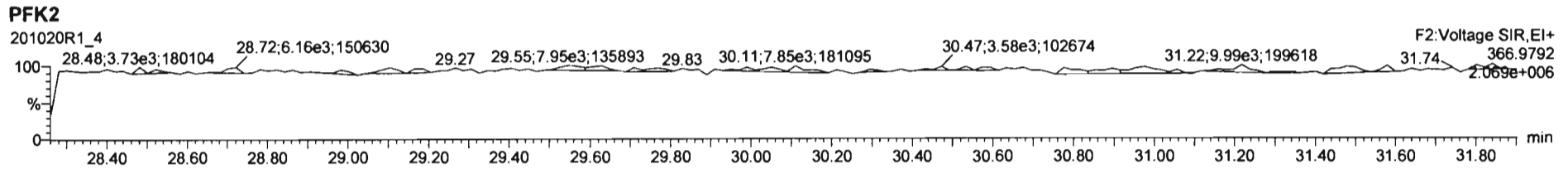
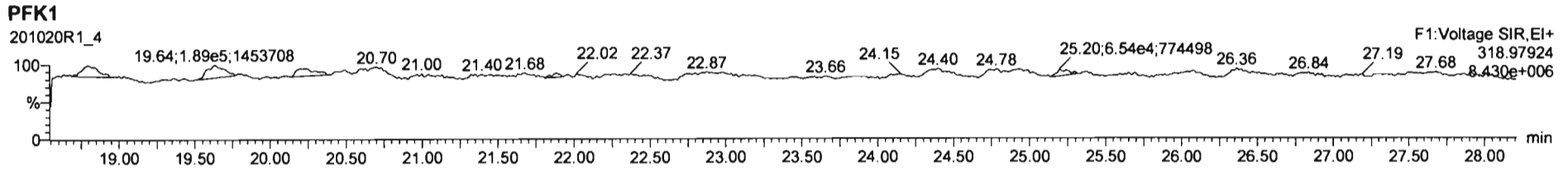
Name: 201020R1\_4, Date: 20-Oct-2020, Time: 11:32:31, ID: ST201020R1\_4 1613 CS4 20F1106, Description: 1613 CS4 20F1106



Dataset: Untitled

Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_4, Date: 20-Oct-2020, Time: 11:32:31, ID: ST201020R1\_4 1613 CS4 20F1106, Description: 1613 CS4 20F1106



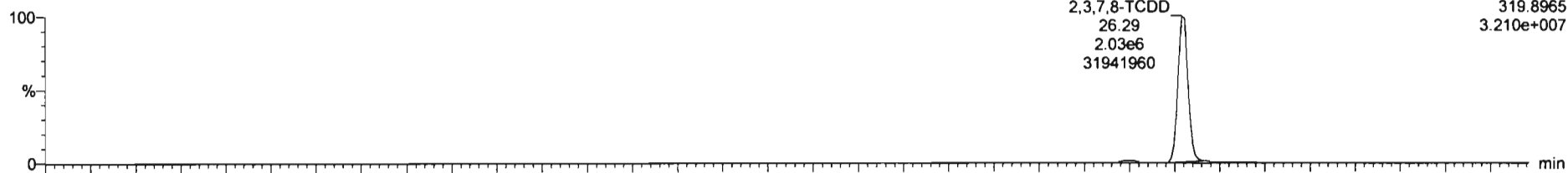
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

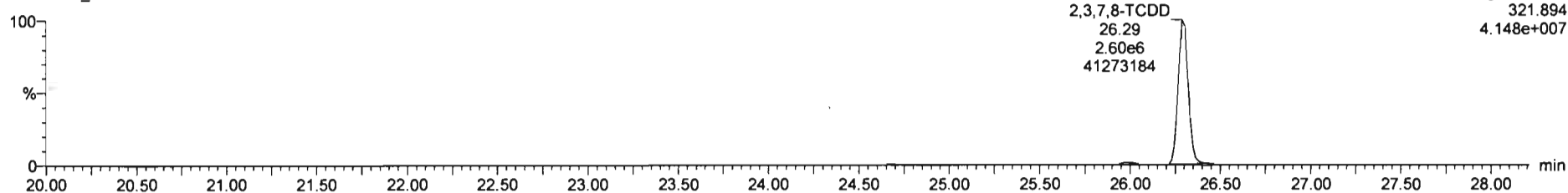
Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

**2,3,7,8-TCDD**

201020R1\_5

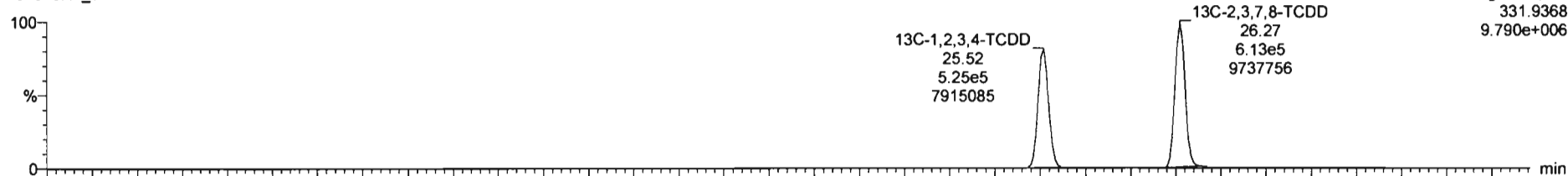


201020R1\_5

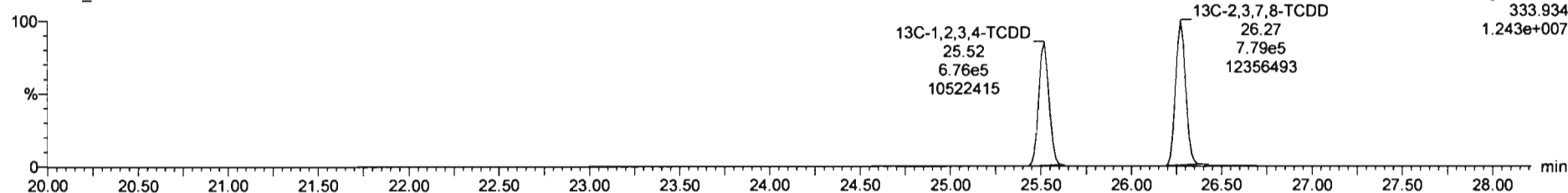


**13C-2,3,7,8-TCDD**

201020R1\_5



201020R1\_5



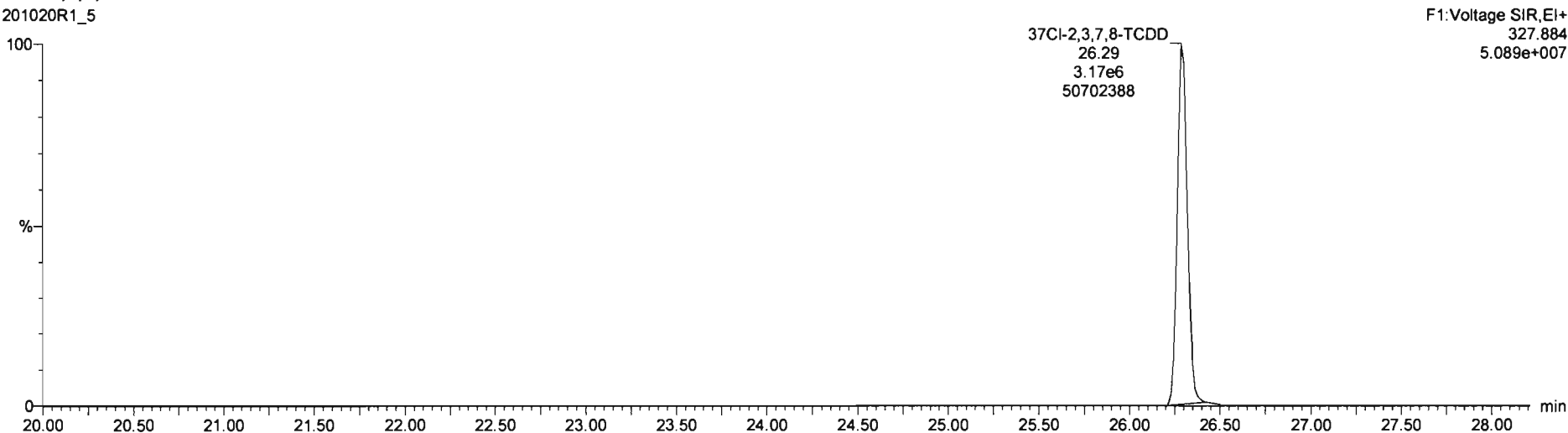
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
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Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

**37Cl-2,3,7,8-TCDD**

201020R1\_5

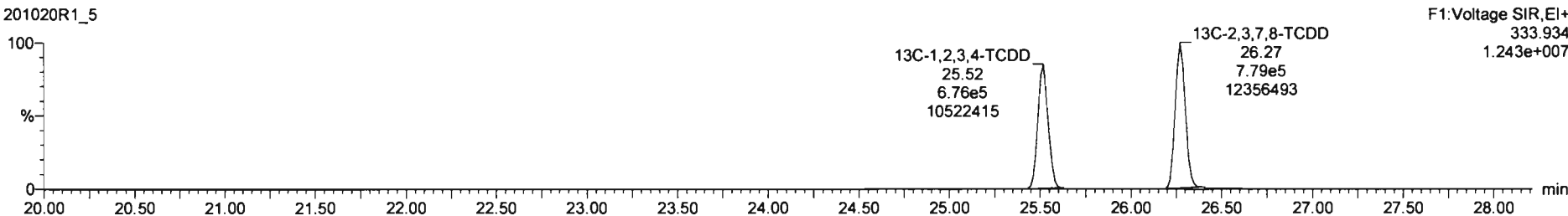


**13C-1,2,3,4-TCDD**

201020R1\_5



201020R1\_5



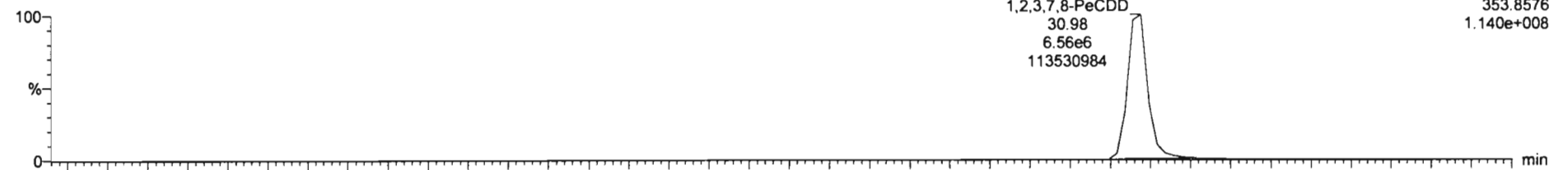
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

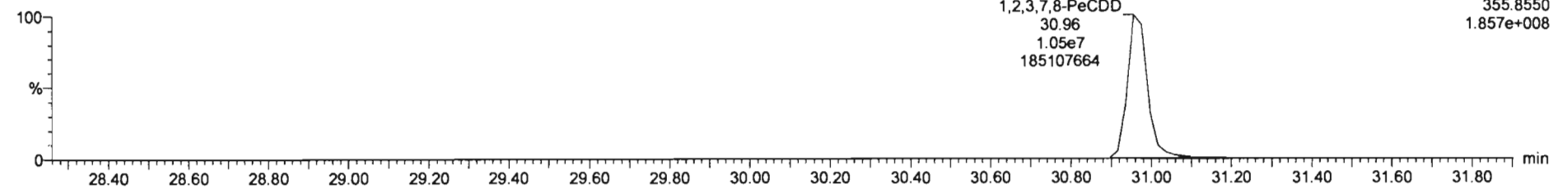
Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

**1,2,3,7,8-PeCDD**

201020R1\_5

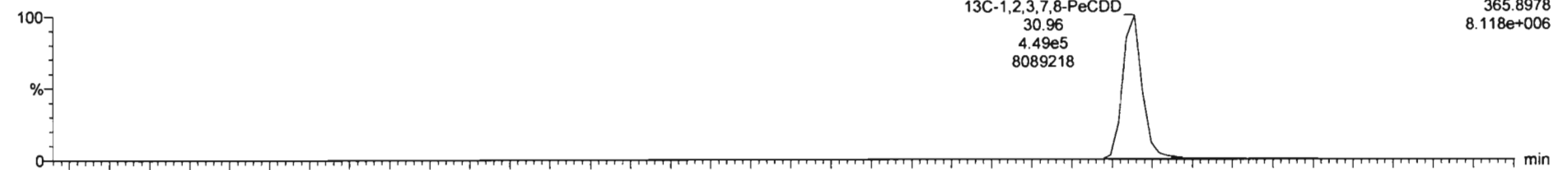


201020R1\_5

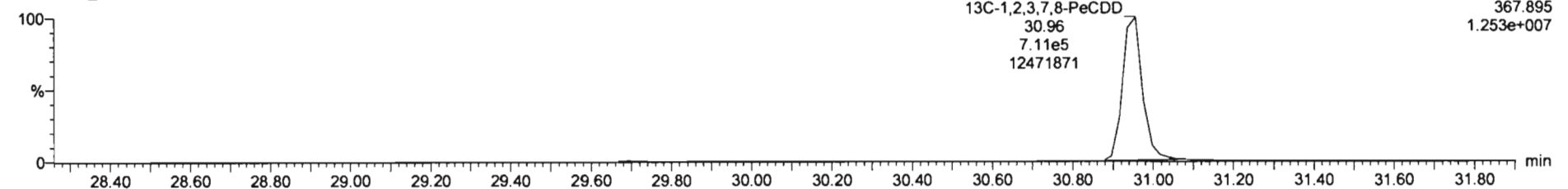


**13C-1,2,3,7,8-PeCDD**

201020R1\_5



201020R1\_5



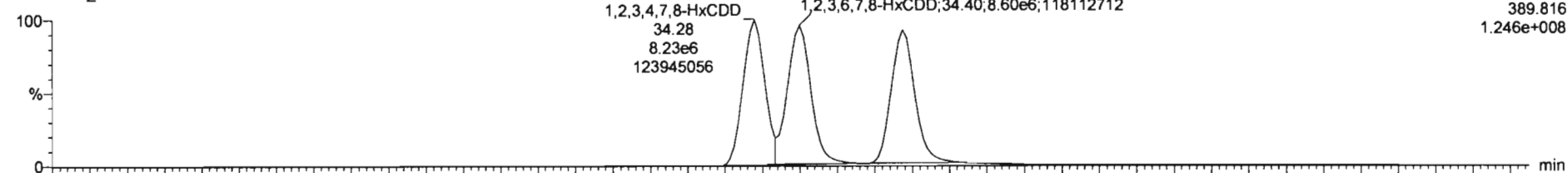
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

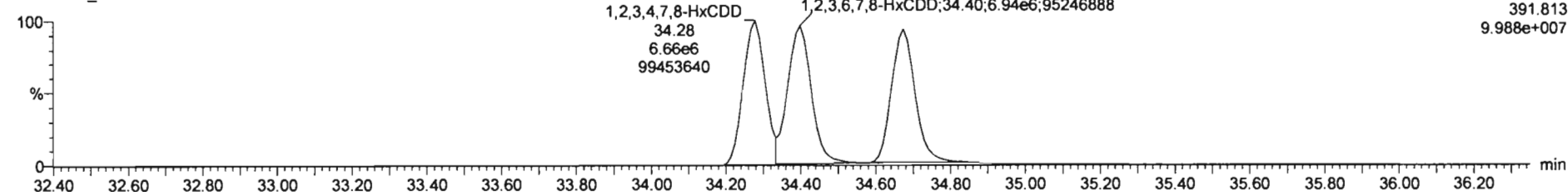
**1,2,3,4,7,8-HxCDD**

201020R1\_5



F3: Voltage SIR, EI+  
389.816  
1.246e+008

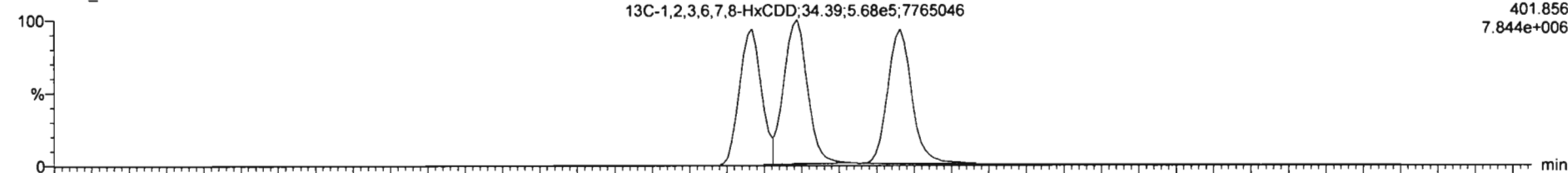
201020R1\_5



F3: Voltage SIR, EI+  
391.813  
9.988e+007

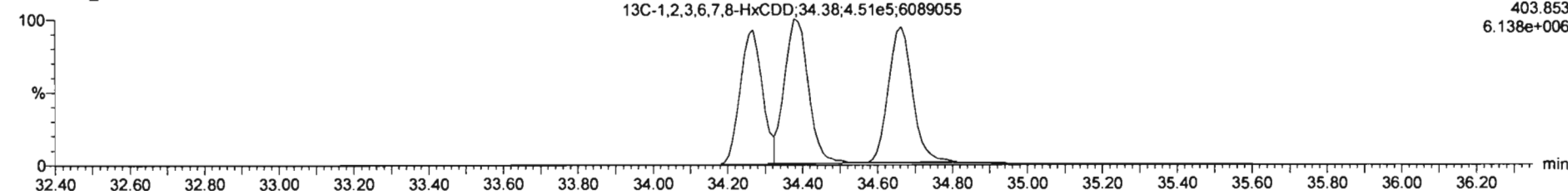
**13C-1,2,3,4,7,8-HxCDD**

201020R1\_5



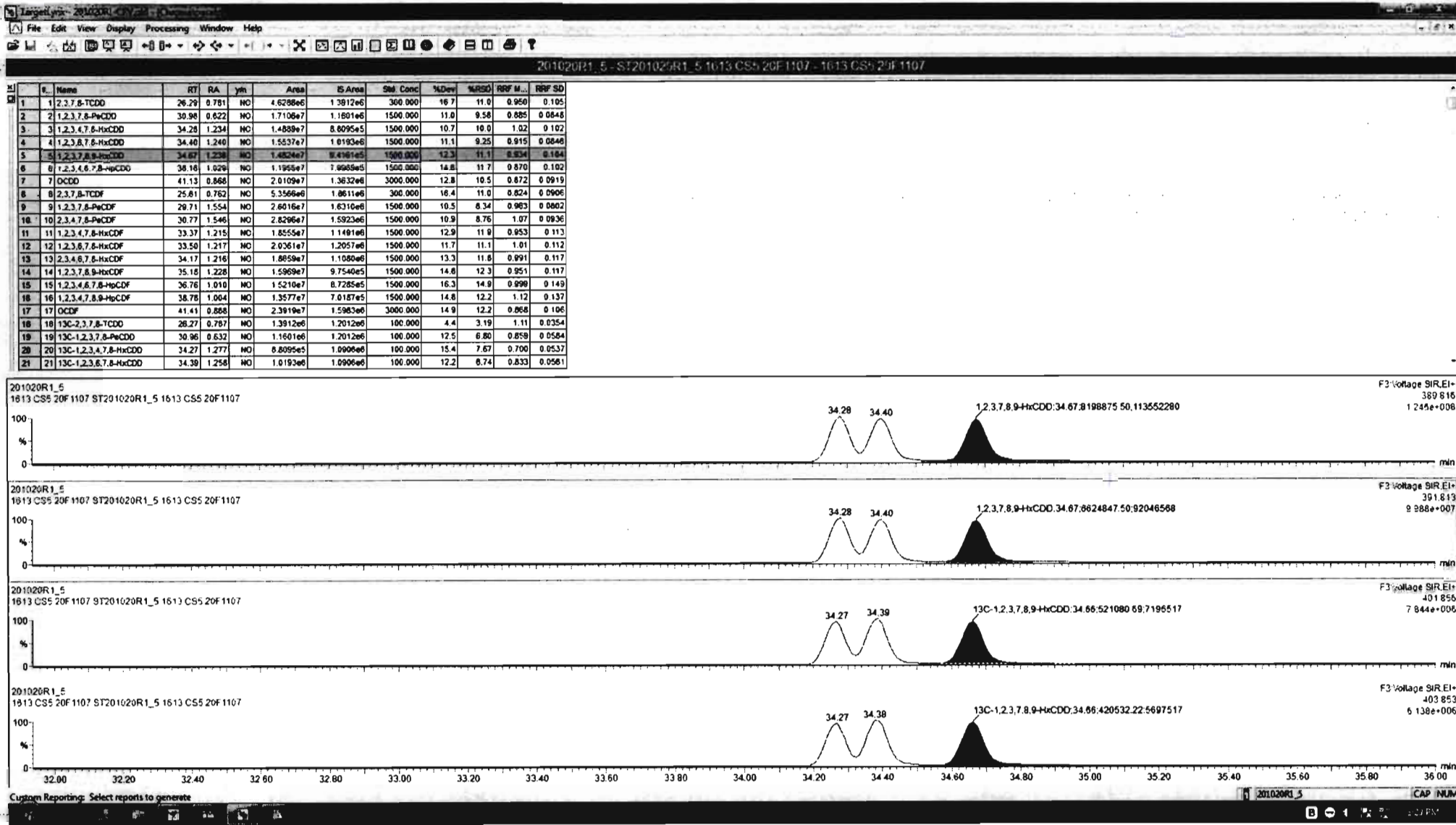
F3: Voltage SIR, EI+  
401.856  
7.844e+006

201020R1\_5



F3: Voltage SIR, EI+  
403.853  
6.138e+006





Dataset: Untitled

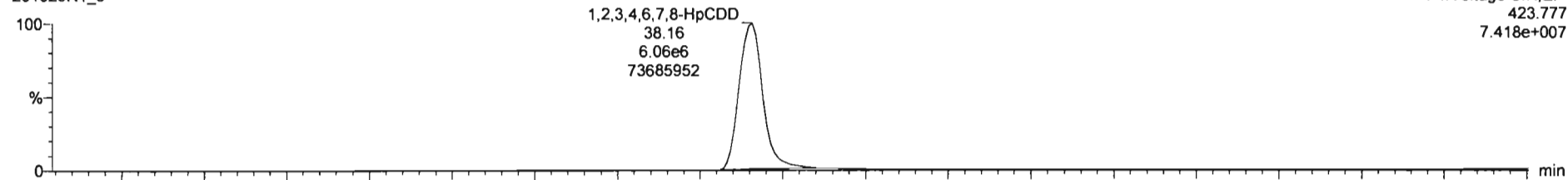
Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time

Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

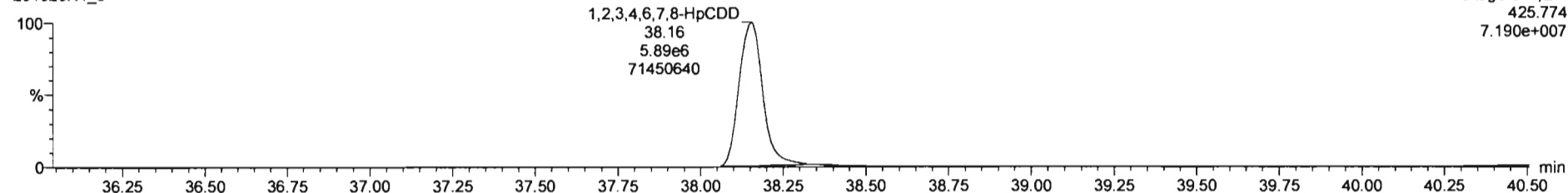
**1,2,3,4,6,7,8-HpCDD**

201020R1\_5



F4:Voltage SIR,EI+  
423.777  
7.418e+007

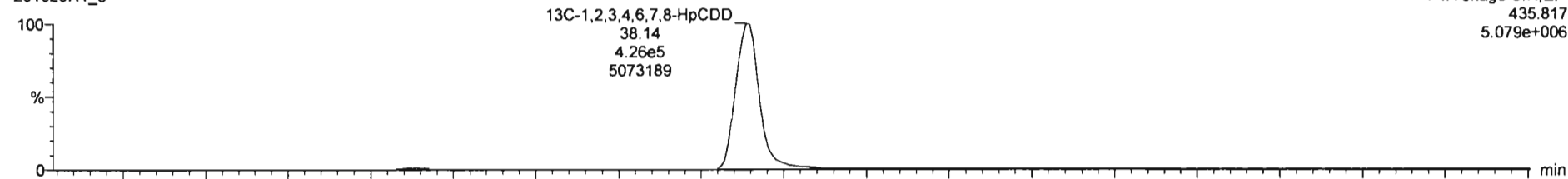
201020R1\_5



F4:Voltage SIR,EI+  
425.774  
7.190e+007

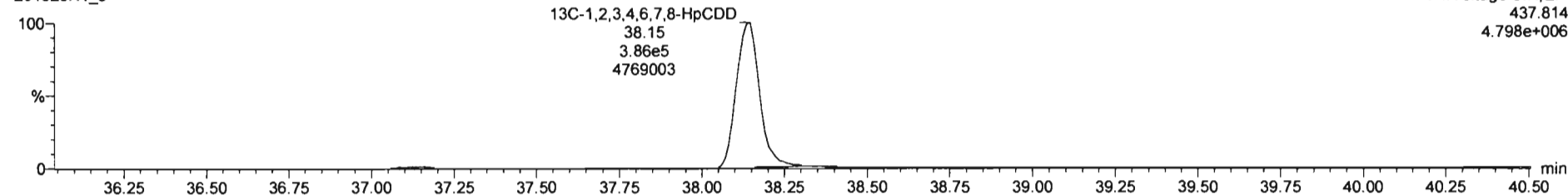
**13C-1,2,3,4,6,7,8-HpCDD**

201020R1\_5



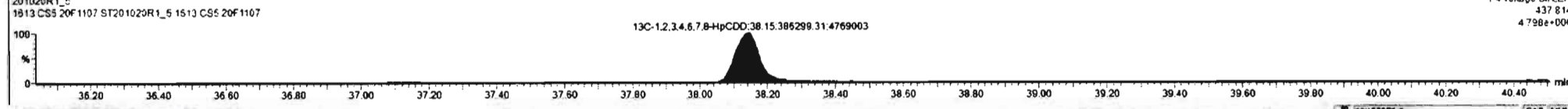
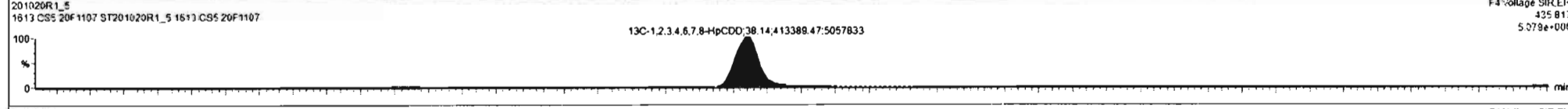
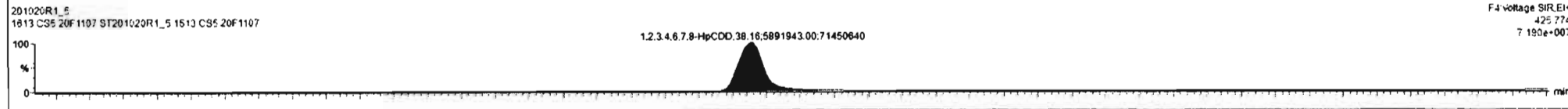
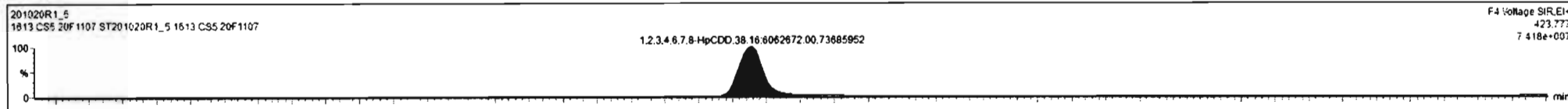
F4:Voltage SIR,EI+  
435.817  
5.079e+006

201020R1\_5



F4:Voltage SIR,EI+  
437.814  
4.798e+006

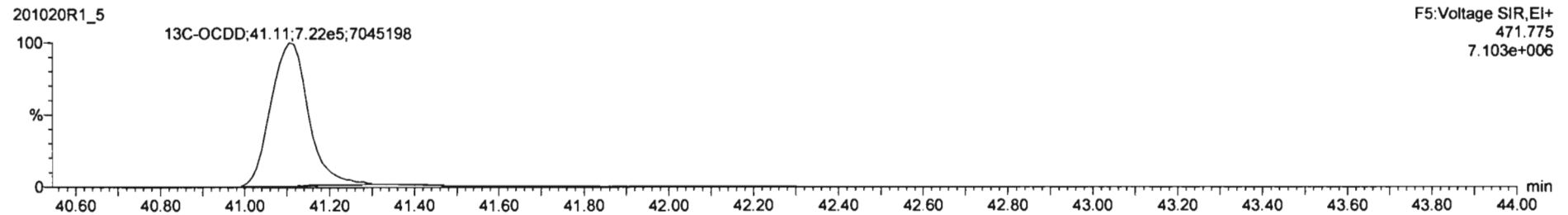
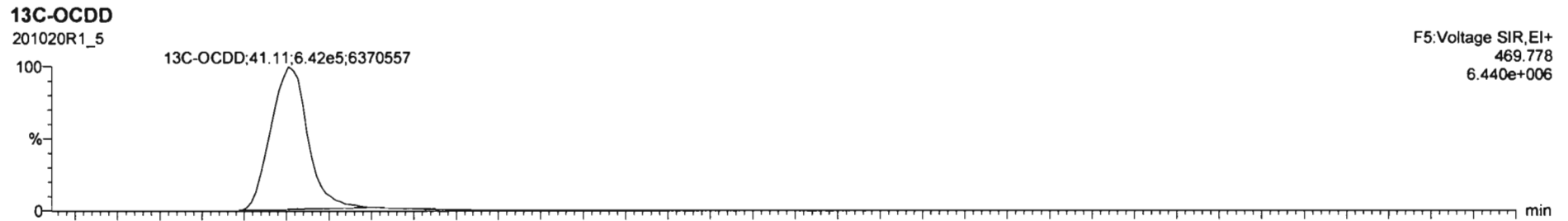
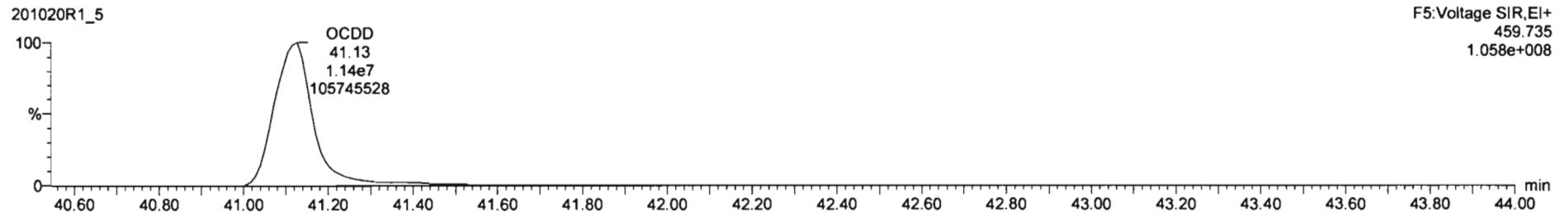
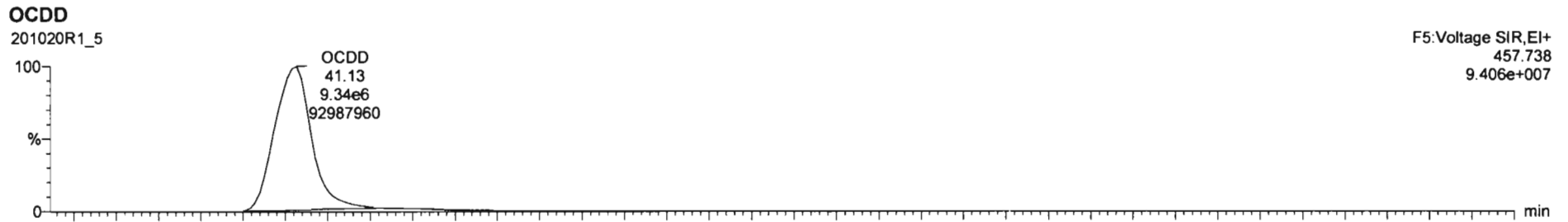
#	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF W.	RRF SD
1	1,2,3,7,8-TCDD	26.29	0.781	NO	4.6288e6	1.3912e6	300.000	16.7	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.98	0.622	NO	1.7108e7	1.1801e6	1500.000	11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.234	NO	1.4888e7	8.8095e5	1500.000	10.7	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.40	1.240	NO	1.5537e7	1.0193e6	1500.000	11.1	9.25	0.915	0.0846
5	1,2,3,7,8,9-HxCDD	34.67	1.238	NO	1.4824e7	9.4161e5	1500.000	12.3	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.18	1.029	NO	1.1925e7	7.8998e5	1500.000	14.8	11.7	0.870	0.102
7	OCDD	41.13	0.868	NO	2.0109e7	1.3832e6	3000.000	12.8	10.5	0.872	0.0919
8	2,3,7,8-TCDF	25.61	0.762	NO	5.3566e6	1.8611e6	300.000	16.4	11.0	0.824	0.0906
9	1,2,3,7,8-PeCDF	29.71	1.554	NO	2.6018e7	1.6310e6	1500.000	10.5	8.34	0.963	0.0802
10	2,3,4,7,8-PeCDF	30.77	1.546	NO	2.8206e7	1.5923e6	1500.000	10.9	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.215	NO	1.8555e7	1.1491e6	1500.000	12.9	11.9	0.953	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.217	NO	2.0361e7	1.2057e6	1500.000	11.7	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.17	1.216	NO	1.8659e7	1.1080e6	1500.000	13.3	11.8	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.228	NO	1.5969e7	9.7540e5	1500.000	14.8	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.76	1.010	NO	1.5210e7	8.7285e5	1500.000	16.3	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.78	1.004	NO	1.3577e7	7.0187e5	1500.000	14.8	12.2	1.12	0.137
17	OCDF	41.41	0.868	NO	2.3919e7	1.5983e6	3000.000	14.9	12.2	0.868	0.106
18	13C-2,3,7,8-TCDD	26.27	0.787	NO	1.3912e6	1.2012e6	100.000	4.4	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.96	0.632	NO	1.1601e6	1.2012e6	100.000	12.5	6.80	0.859	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.277	NO	8.8095e5	1.0906e6	100.000	15.4	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.39	1.258	NO	1.0193e6	1.0906e6	100.000	12.2	6.74	0.833	0.0561



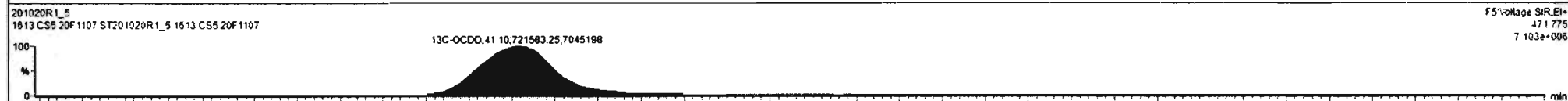
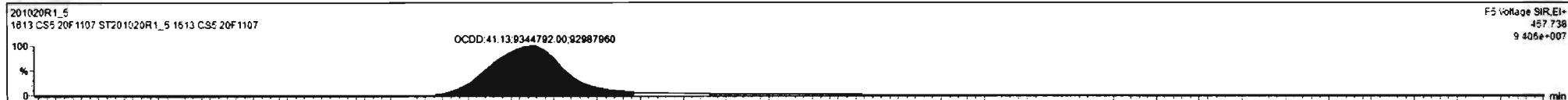
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
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Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107



#	Name	RT	RA	Yth	Area	ISArea	Std Conc	%Dev	%RSD	RRF M	RRF SD
1	2,3,7,8-TCDD	28.29	0.781	NO	4.6288e6	1.3912e6	300.000	16.7	11.0	0.950	0.105
2	1,2,3,7,8-PeCDD	30.98	0.822	NO	1.7106e7	1.1801e6	1500.000	11.0	9.58	0.885	0.0848
3	1,2,3,4,7,8-HxCDD	34.28	1.234	NO	1.4889e7	8.8095e5	1500.000	10.7	10.0	1.02	0.102
4	1,2,3,6,7,8-HxCDD	34.40	1.240	NO	1.5537e7	1.0190e6	1500.000	11.1	9.25	0.915	0.0848
5	1,2,3,7,8,9-HxCDD	34.67	1.238	NO	1.4824e7	9.4161e5	1500.000	12.3	11.1	0.934	0.104
6	1,2,3,4,6,7,8-HpCDD	38.16	1.629	NO	1.1955e7	7.8989e5	1500.000	14.8	11.7	0.870	0.102
7	OCDD	41.13	0.868	NO	2.8188e7	1.3652e6	3000.000	12.8	10.5	0.872	0.0918
8	2,3,7,8-TCDF	25.61	0.762	NO	5.3586e6	1.8611e6	300.000	16.4	11.0	0.824	0.0908
9	1,2,3,7,8-PeCDF	29.71	1.554	NO	2.6018e7	1.6310e6	1500.000	10.5	8.34	0.983	0.0802
10	2,3,4,7,8-PeCDF	30.77	1.546	NO	2.8296e7	1.5923e6	1500.000	10.9	8.76	1.07	0.0936
11	1,2,3,4,7,8-HxCDF	33.37	1.215	NO	1.8555e7	1.1491e6	1500.000	12.9	11.9	0.853	0.113
12	1,2,3,6,7,8-HxCDF	33.50	1.217	NO	2.0361e7	1.2957e6	1500.000	11.7	11.1	1.01	0.112
13	2,3,4,6,7,8-HxCDF	34.17	1.216	NO	1.8959e7	1.1080e6	1500.000	13.3	11.6	0.991	0.117
14	1,2,3,7,8,9-HxCDF	35.18	1.228	NO	1.5989e7	9.7540e5	1500.000	14.8	12.3	0.951	0.117
15	1,2,3,4,6,7,8-HpCDF	36.76	1.010	NO	1.5210e7	8.7285e5	1500.000	16.3	14.9	0.998	0.149
16	1,2,3,4,7,8,9-HpCDF	38.78	1.004	NO	1.3577e7	7.0187e5	1500.000	14.8	12.2	1.12	0.137
17	OCDF	41.41	0.888	NO	2.5919e7	1.5983e6	3000.000	14.9	12.2	0.868	0.108
18	13C-2,3,7,8-TCDD	28.27	0.787	NO	1.3912e6	1.2012e6	100.000	4.4	3.19	1.11	0.0354
19	13C-1,2,3,7,8-PeCDD	30.98	0.632	NO	1.1601e6	1.2012e6	100.000	12.5	6.80	0.858	0.0584
20	13C-1,2,3,4,7,8-HxCDD	34.27	1.277	NO	8.8095e5	1.0906e6	100.000	15.4	7.67	0.700	0.0537
21	13C-1,2,3,6,7,8-HxCDD	34.39	1.258	NO	1.0193e6	1.0906e6	100.000	12.2	6.74	0.833	0.0561



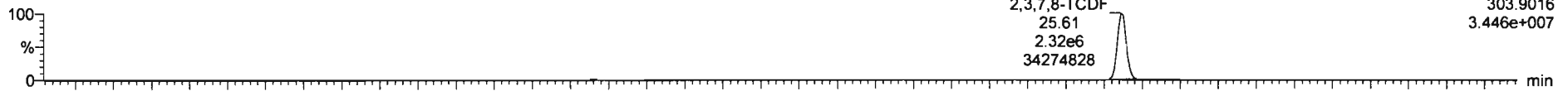
Dataset: Untitled

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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

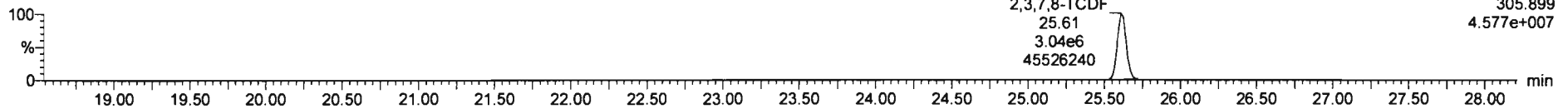
Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

**2,3,7,8-TCDF**

201020R1\_5

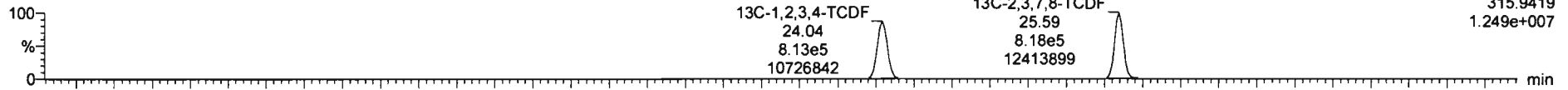


201020R1\_5

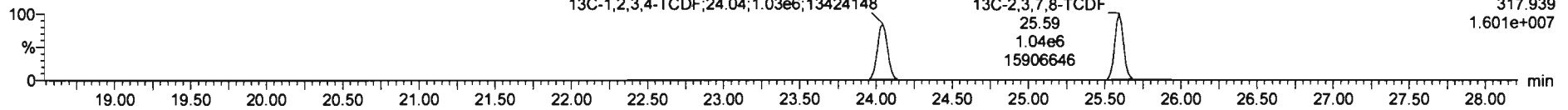


**13C-2,3,7,8-TCDF**

201020R1\_5

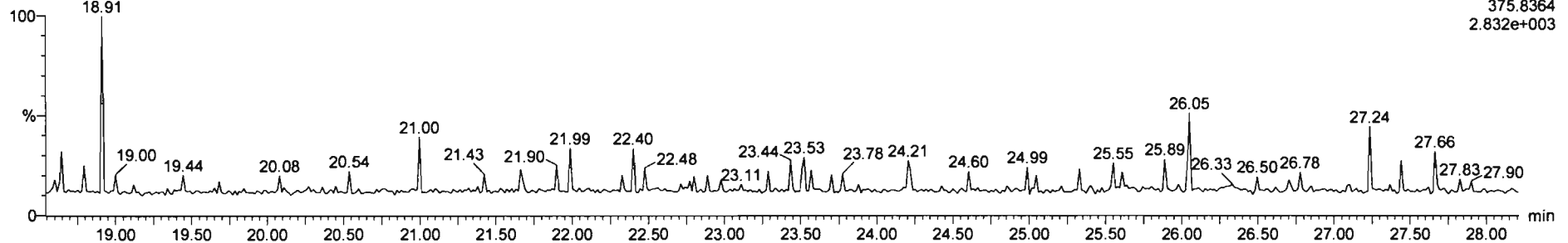


201020R1\_5



**DPE1**

201020R1\_5





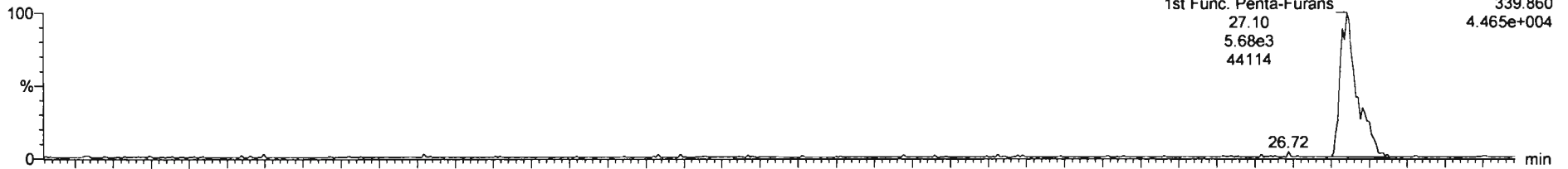
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Last Altered: Tuesday, October 20, 2020 15:17:40 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

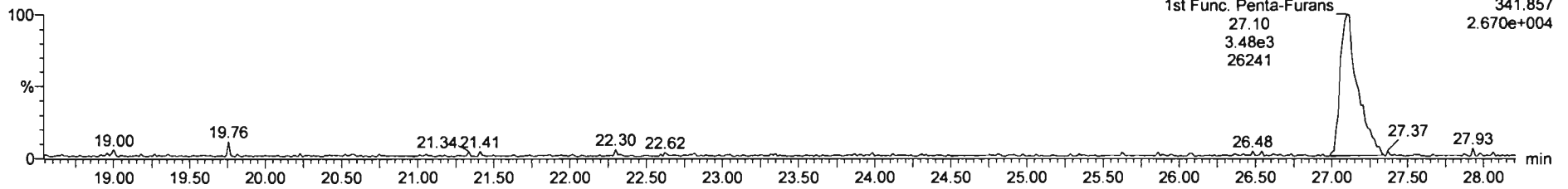
Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

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201020R1\_5

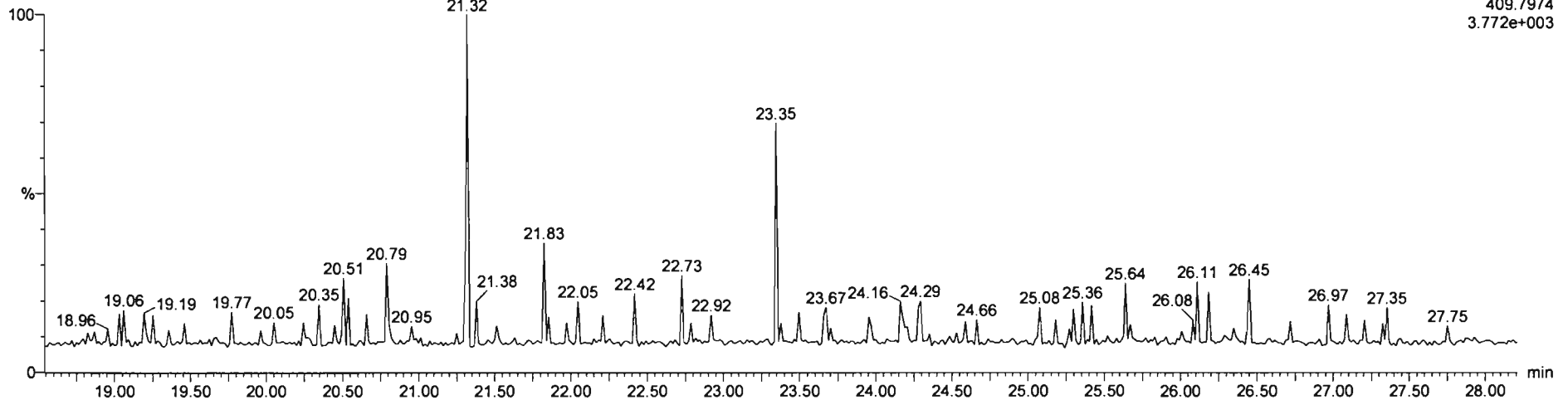


201020R1\_5



DPE6

201020R1\_5



Dataset: Untitled

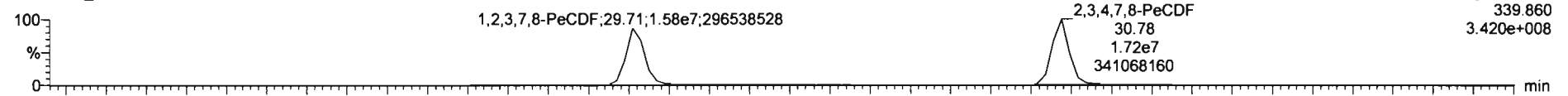
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

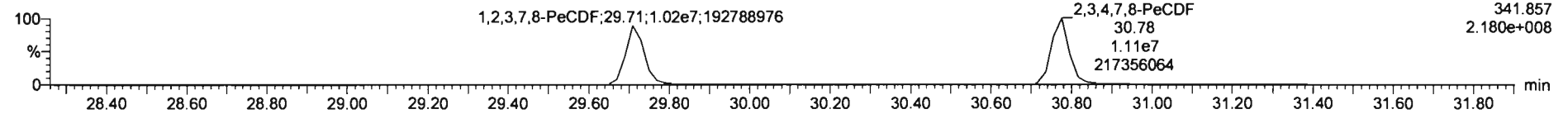
Name: 201020R1\_5, Date: 20-Oct-2020, Time: 12:16:56, ID: ST201020R1\_5 1613 CS5 20F1107, Description: 1613 CS5 20F1107

**1,2,3,7,8-PeCDF**

201020R1\_5

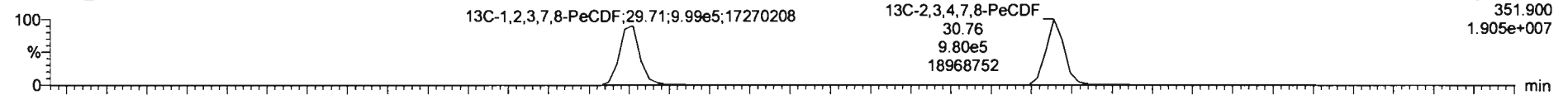


201020R1\_5

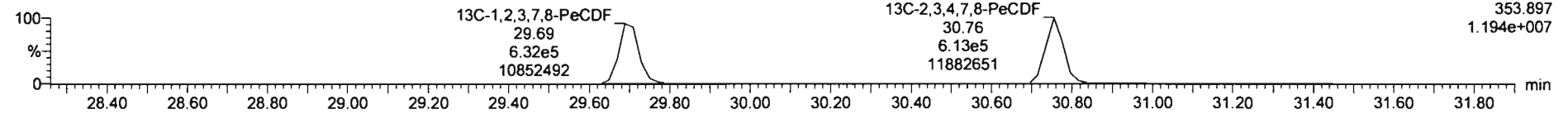


**13C-1,2,3,7,8-PeCDF**

201020R1\_5

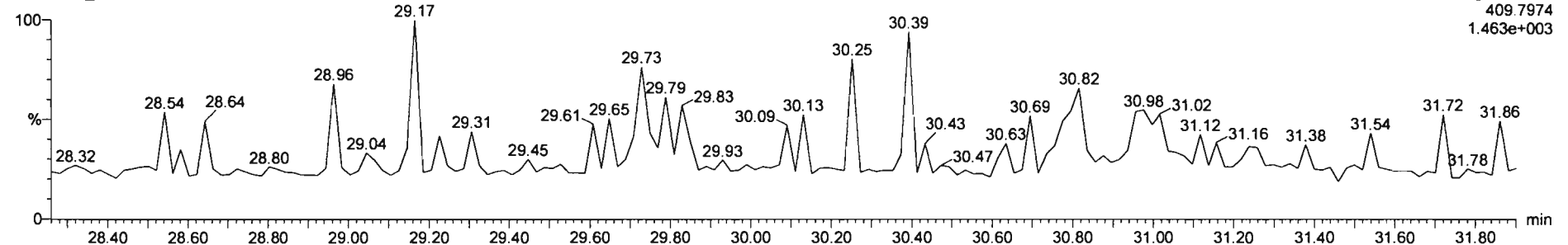


201020R1\_5



**DPE2**

201020R1\_5



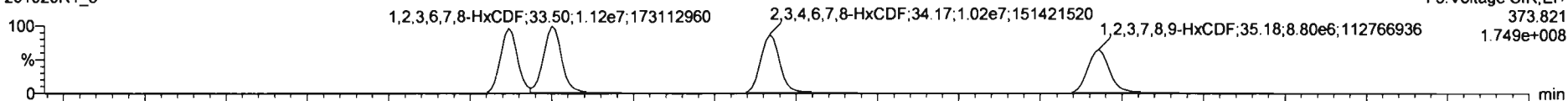
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Printed: Tuesday, October 20, 2020 15:18:47 Pacific Daylight Time

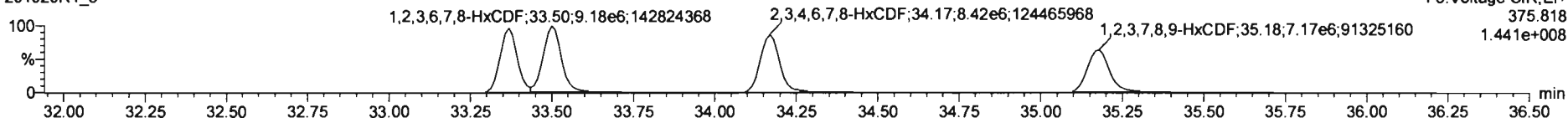
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**1,2,3,4,7,8-HxCDF**

201020R1\_5

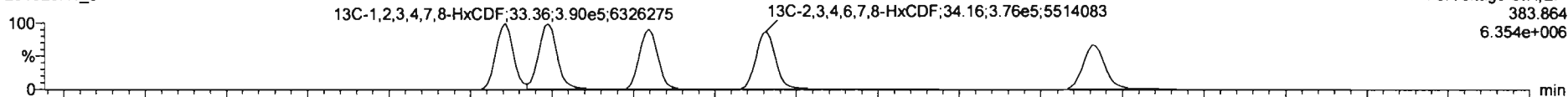


201020R1\_5

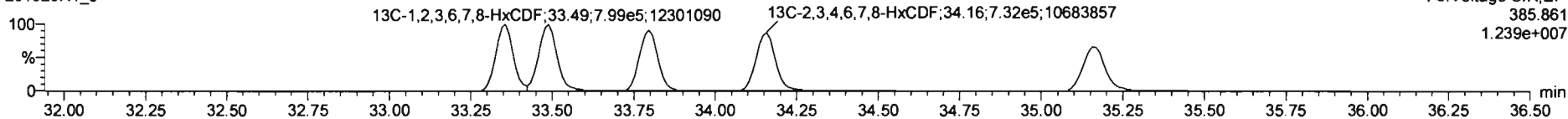


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_5

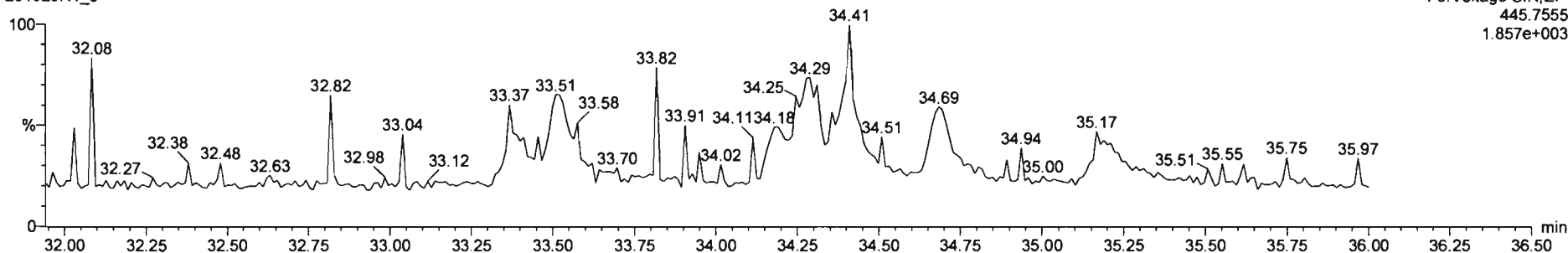


201020R1\_5



**DPE3**

201020R1\_5



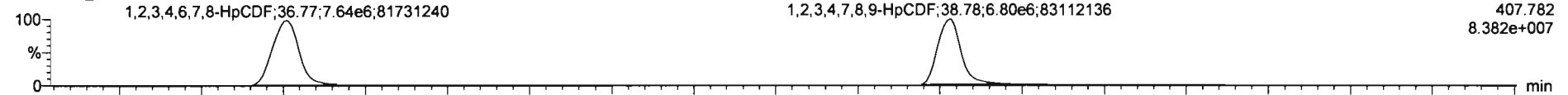
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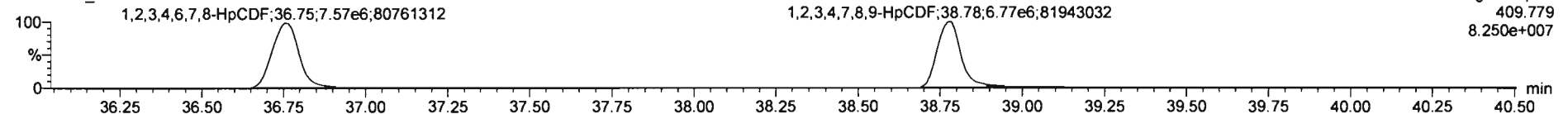
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**1,2,3,4,6,7,8-HpCDF**

201020R1\_5

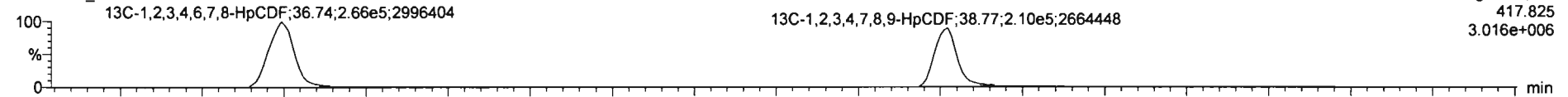


201020R1\_5

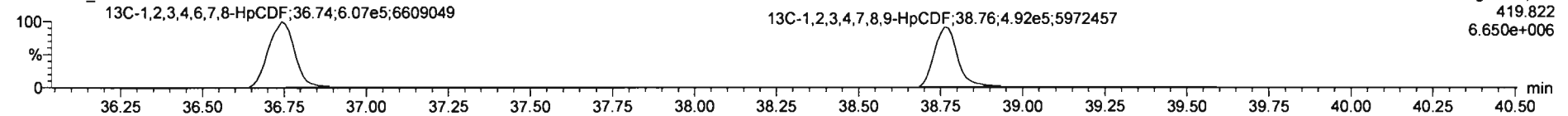


**13C-1,2,3,4,6,7,8-HpCDF**

201020R1\_5

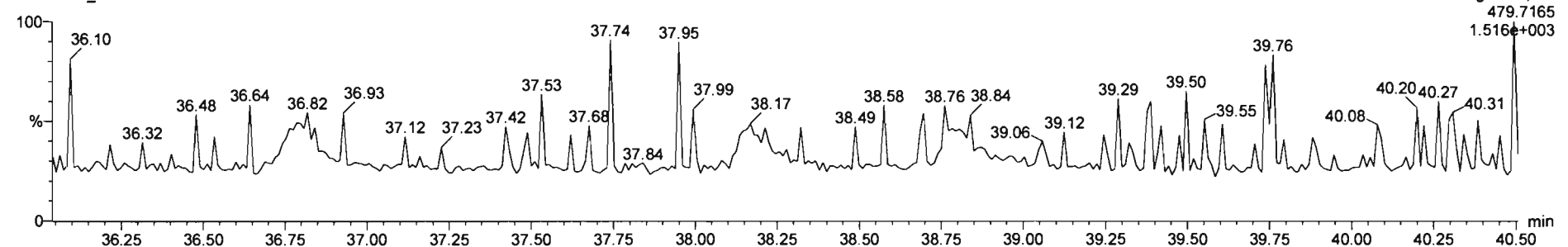


201020R1\_5



**DPE4**

201020R1\_5



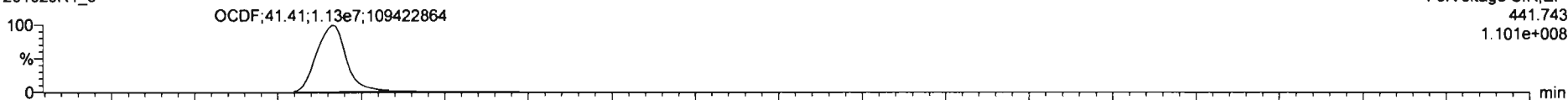
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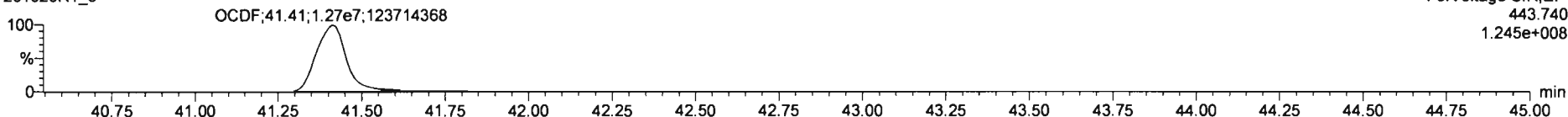
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**OCDF**

201020R1\_5

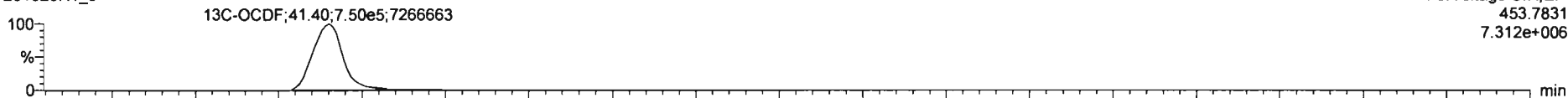


201020R1\_5

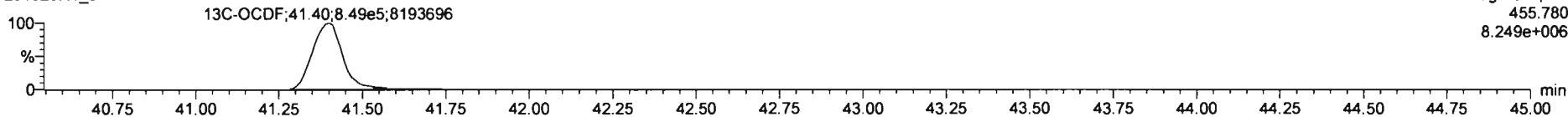


**13C-OCDF**

201020R1\_5

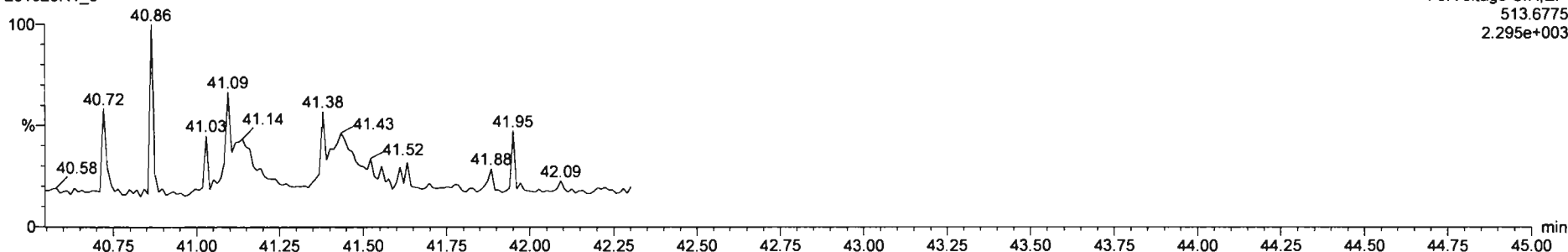


201020R1\_5



**DPE5**

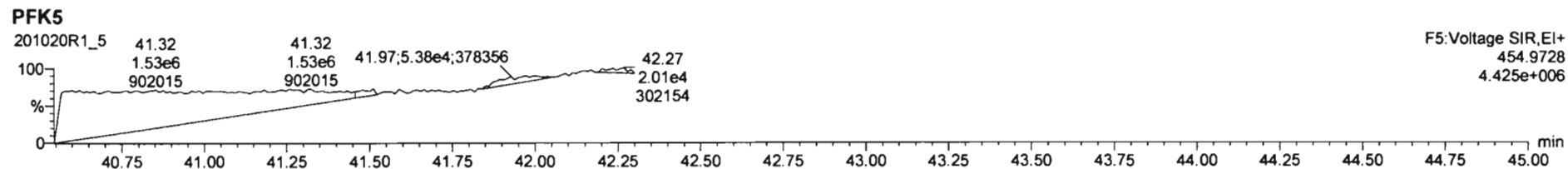
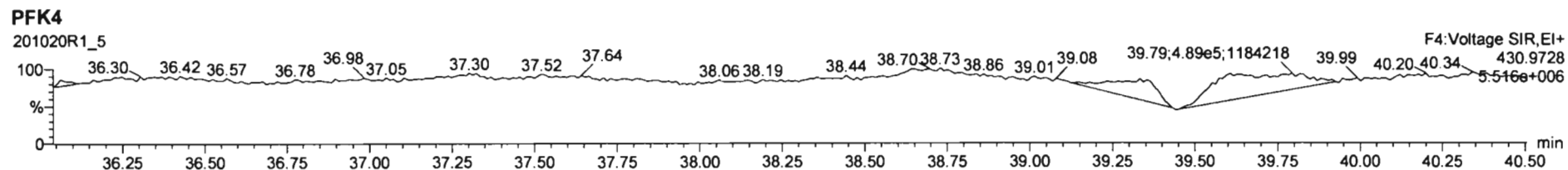
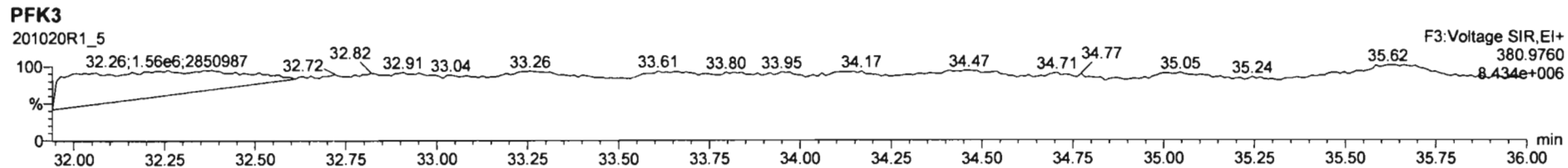
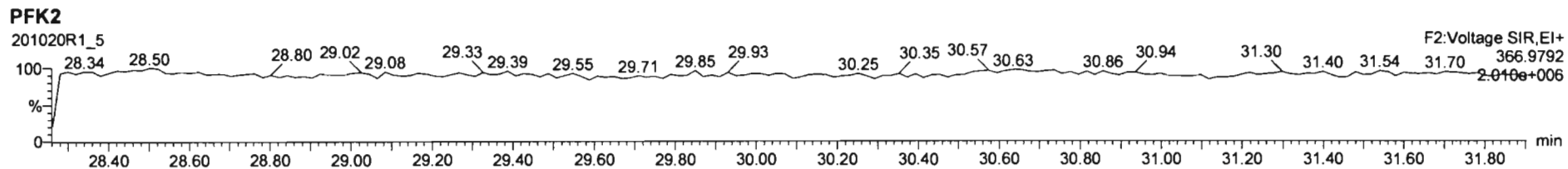
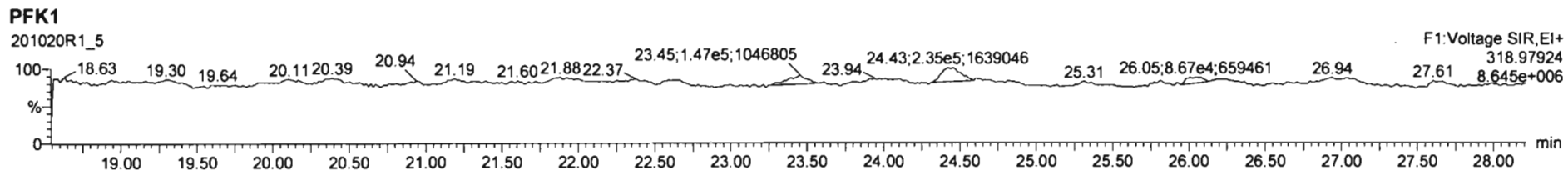
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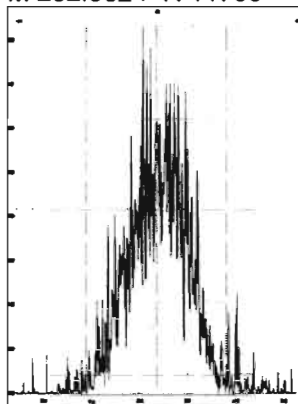
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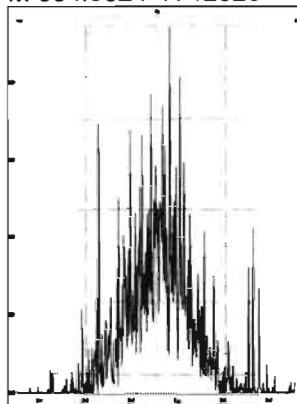


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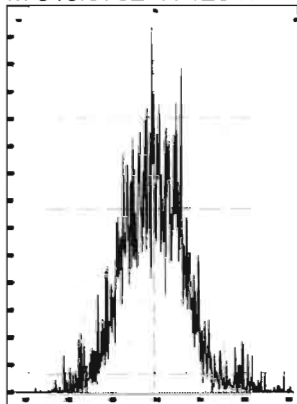
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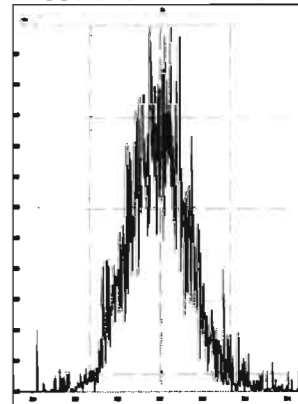
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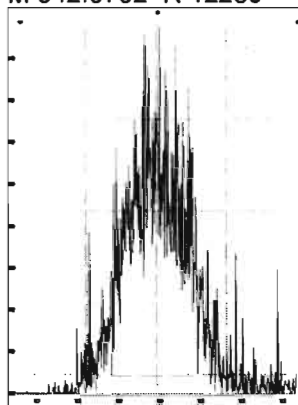
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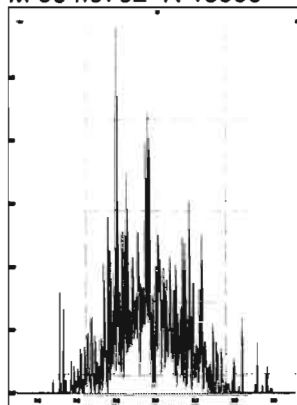
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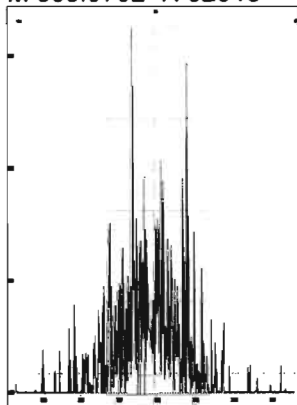
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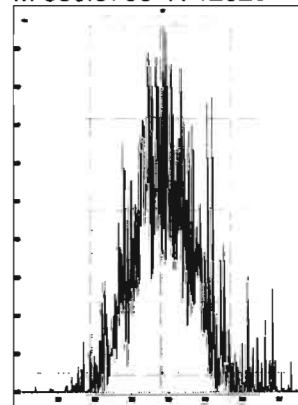
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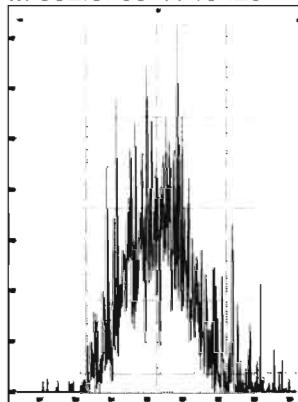
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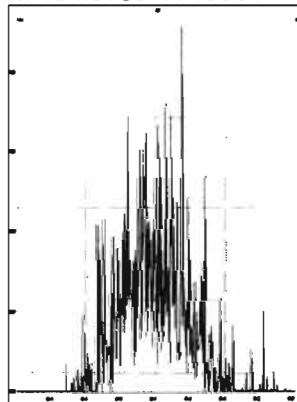
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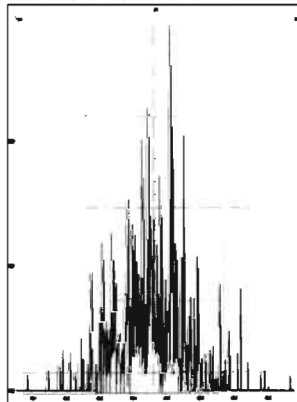
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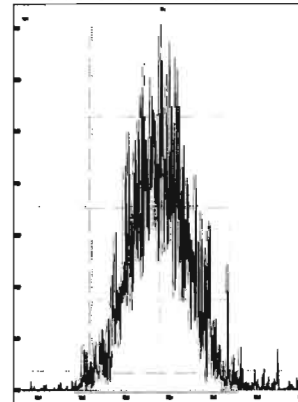
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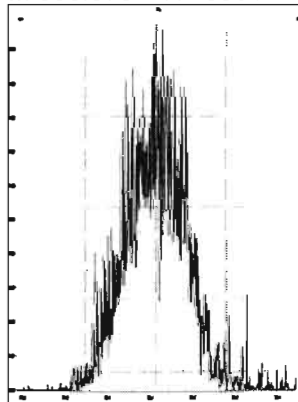
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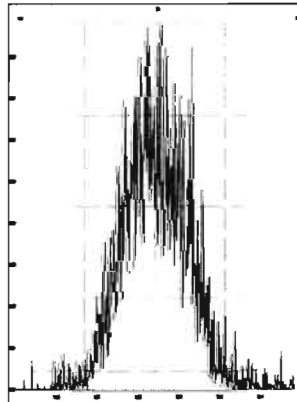
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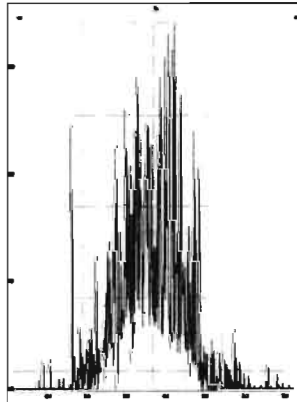
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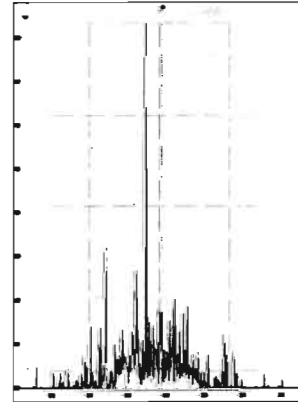
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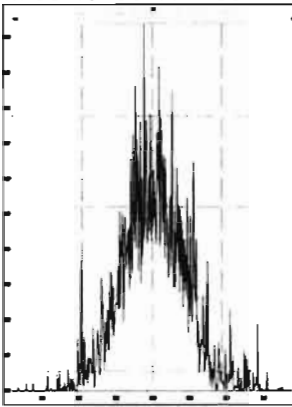


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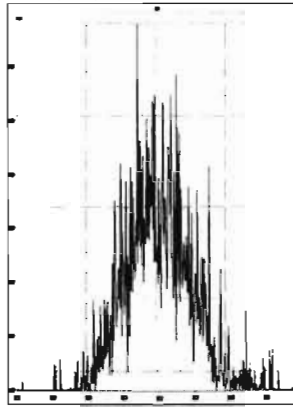


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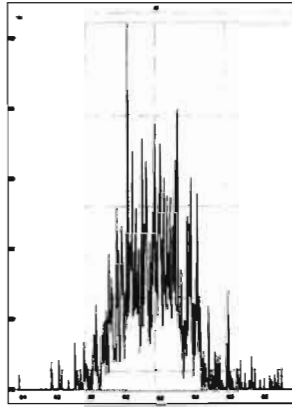
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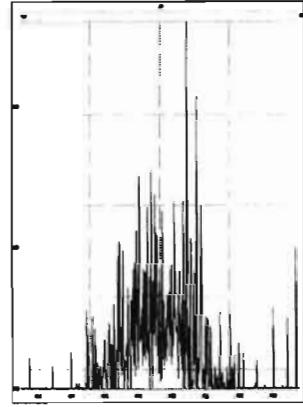
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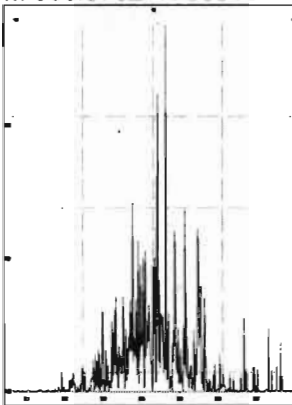
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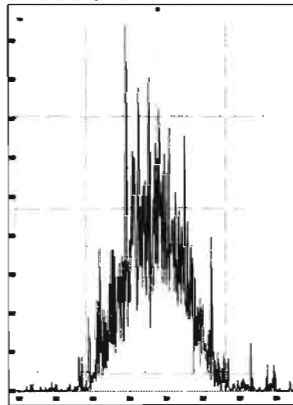
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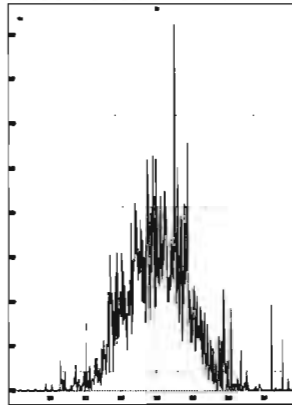
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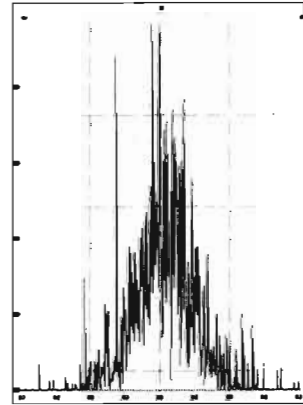
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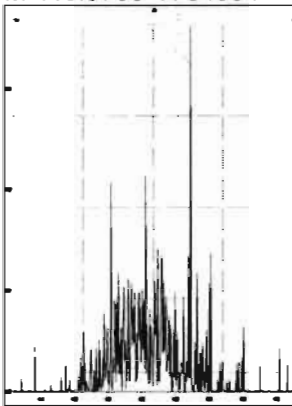
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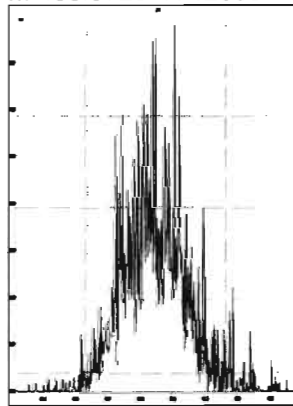
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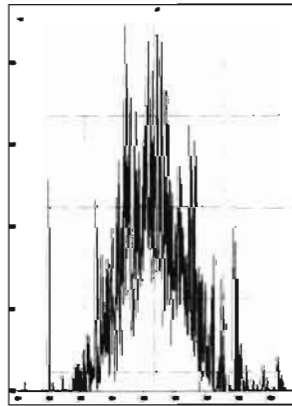
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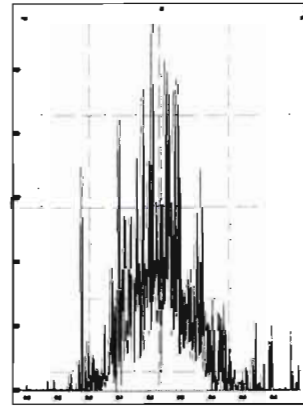
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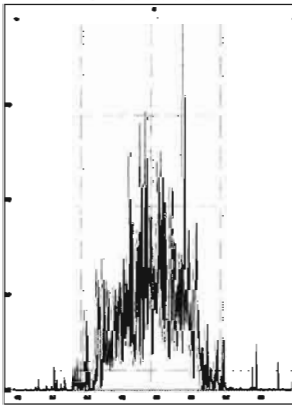
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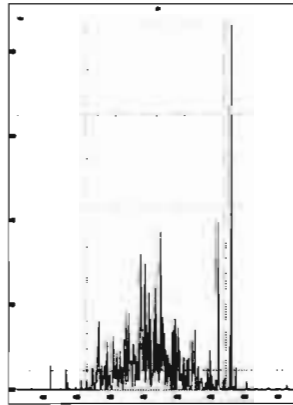
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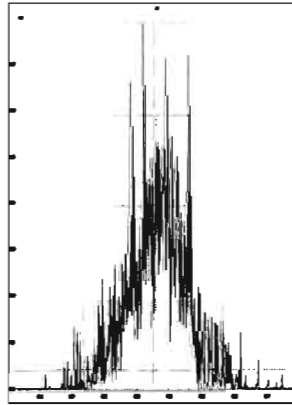
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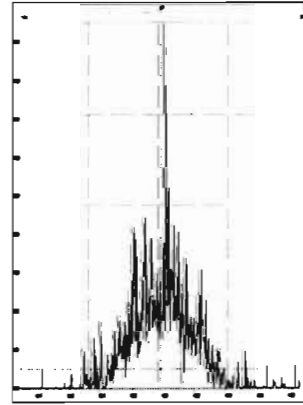
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M 430.9728 R 14329

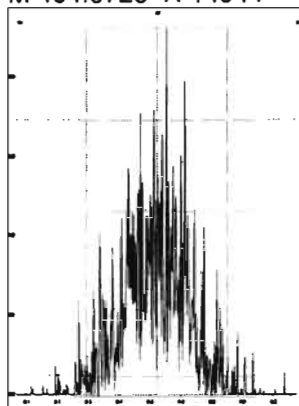


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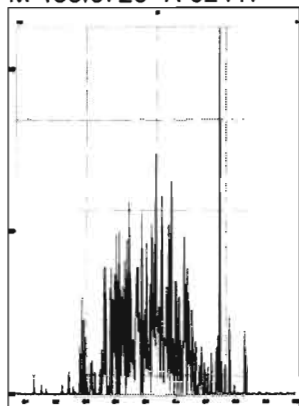


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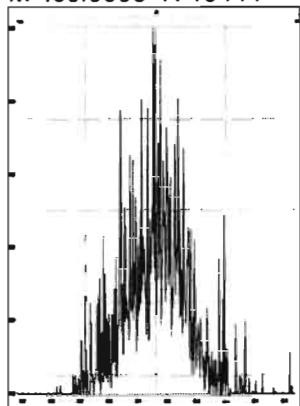
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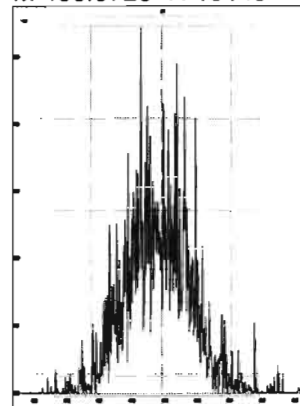
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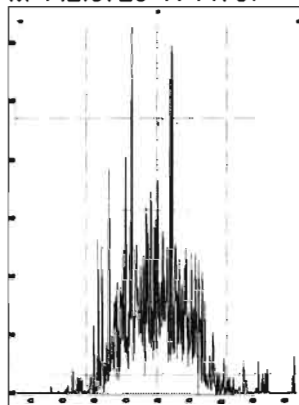
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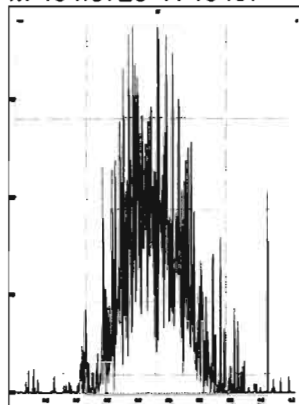
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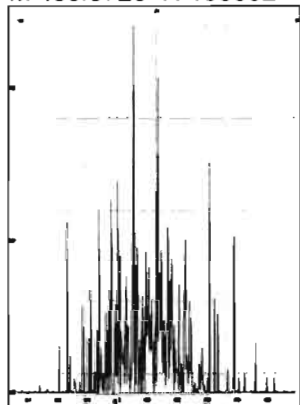
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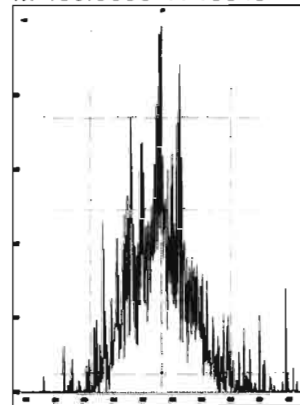
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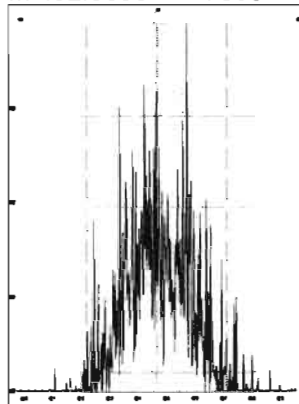
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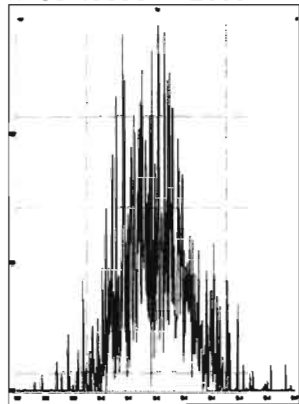
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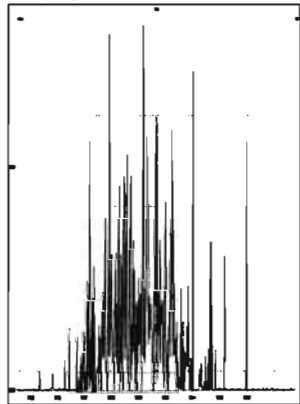
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M 504.9696 R 25584



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Dataset: U:\VG12.PRO\Results\201020R1\201020R1-8.qld

Last Altered: Tuesday, October 20, 2020 15:15:37 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:16:22 Pacific Daylight Time

GRB 10/20/2020  
HN 10/20/2020

Method: U:\VG12.PRO\MethDB\1613rrt-10-20-20.mdb 20 Oct 2020 10:47:39  
Calibration: U:\VG12.PRO\CurveDB\vbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 14:36:10

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	1.37e5	1.40e6	0.74	NO	0.950	26.30	26.30	NO	1.001	1.001	10.363	104	NO
2	2 1,2,3,7,8-PeCDD	4.97e5	1.07e6	0.62	NO	0.885	30.97	30.96	NO	1.000	1.000	52.349	105	NO
3	3 1,2,3,4,7,8-HxCDD	4.14e5	7.58e5	1.30	NO	1.02	34.31	34.29	NO	1.001	1.000	53.693	107	NO
4	4 1,2,3,6,7,8-HxCDD	4.51e5	8.90e5	1.21	NO	0.915	34.40	34.41	NO	1.000	1.001	55.421	111	NO
5	5 1,2,3,7,8,9-HxCDD	4.02e5	8.09e5	1.25	NO	0.934	34.67	34.69	NO	1.000	1.001	53.130	106	NO
6	6 1,2,3,4,6,7,8-HpCDD	3.08e5	6.75e5	1.02	NO	0.870	38.15	38.17	NO	1.000	1.001	52.362	105	NO
7	7 OCDD	5.24e5	1.11e6	0.87	NO	0.872	41.11	41.12	NO	1.000	1.000	108.80	109	NO
8	8 2,3,7,8-TCDF	1.63e5	1.90e6	0.75	NO	0.824	25.60	25.62	NO	1.000	1.001	10.438	104	NO
9	9 1,2,3,7,8-PeCDF	7.63e5	1.57e6	1.57	NO	0.963	29.70	29.71	NO	1.000	1.001	50.613	101	NO
10	10 2,3,4,7,8-PeCDF	8.90e5	1.52e6	1.58	NO	1.07	30.76	30.78	NO	1.000	1.001	54.945	110	NO
11	11 1,2,3,4,7,8-HxCDF	5.48e5	1.04e6	1.22	NO	0.953	33.36	33.38	NO	1.000	1.001	55.545	111	NO
12	12 1,2,3,6,7,8-HxCDF	6.04e5	1.08e6	1.22	NO	1.01	33.50	33.51	NO	1.000	1.000	55.330	111	NO
13	13 2,3,4,6,7,8-HxCDF	5.48e5	1.01e6	1.23	NO	0.991	34.16	34.18	NO	1.000	1.001	54.856	110	NO
14	14 1,2,3,7,8,9-HxCDF	4.44e5	8.60e5	1.23	NO	0.951	35.17	35.18	NO	1.000	1.000	54.262	109	NO
15	15 1,2,3,4,6,7,8-HpCDF	4.29e5	7.84e5	1.01	NO	0.999	36.76	36.77	NO	1.000	1.000	54.767	110	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.47e5	6.01e5	1.01	NO	1.12	38.77	38.78	NO	1.000	1.000	51.464	103	NO
17	17 OCDF	6.03e5	1.28e6	0.88	NO	0.868	41.41	41.41	NO	1.000	1.000	108.21	108	NO
18	18 13C-2,3,7,8-TCDD	1.40e6	1.26e6	0.78	NO	1.11	26.27	26.27	NO	1.029	1.030	100.10	100	NO
19	19 13C-1,2,3,7,8-PeCDD	1.07e6	1.26e6	0.62	NO	0.859	30.91	30.96	NO	1.211	1.213	99.348	99.3	NO
20	20 13C-1,2,3,4,7,8-HxCDD	7.58e5	1.11e6	1.28	NO	0.700	34.26	34.28	NO	1.013	1.014	97.536	97.5	NO
21	21 13C-1,2,3,6,7,8-HxCDD	8.90e5	1.11e6	1.26	NO	0.833	34.39	34.39	NO	1.017	1.017	96.285	96.3	NO
22	22 13C-1,2,3,7,8,9-HxCDD	8.09e5	1.11e6	1.26	NO	0.762	34.66	34.66	NO	1.025	1.025	95.612	95.6	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.75e5	1.11e6	1.05	NO	0.650	38.10	38.15	NO	1.127	1.128	93.625	93.6	NO
24	24 13C-OCDD	1.11e6	1.11e6	0.89	NO	0.539	41.04	41.11	NO	1.214	1.216	184.54	92.3	NO
25	25 13C-2,3,7,8-TCDF	1.90e6	1.96e6	0.78	NO	0.981	25.60	25.59	NO	1.003	1.003	98.983	99.0	NO
26	26 13C-1,2,3,7,8-PeCDF	1.57e6	1.96e6	1.60	NO	0.792	29.66	29.69	NO	1.162	1.163	101.15	101	NO
27	27 13C-2,3,4,7,8-PeCDF	1.52e6	1.96e6	1.59	NO	0.778	30.72	30.76	NO	1.204	1.205	99.698	99.7	NO
28	28 13C-1,2,3,4,7,8-HxCDF	1.04e6	1.11e6	0.50	NO	0.954	33.36	33.36	NO	0.987	0.987	97.788	97.8	NO
29	29 13C-1,2,3,6,7,8-HxCDF	1.08e6	1.11e6	0.50	NO	1.01	33.50	33.50	NO	0.991	0.991	96.967	97.0	NO
30	30 13C-2,3,4,6,7,8-HxCDF	1.01e6	1.11e6	0.52	NO	0.921	34.16	34.16	NO	1.010	1.010	98.529	98.5	NO
31	31 13C-1,2,3,7,8,9-HxCDF	8.60e5	1.11e6	0.51	NO	0.803	35.16	35.17	NO	1.040	1.040	96.452	96.5	NO

Dataset: U:\VG12.PRO\Results\201020R1\201020R1-8.qld

Last Altered: Tuesday, October 20, 2020 15:15:37 Pacific Daylight Time

Printed: Tuesday, October 20, 2020 15:16:22 Pacific Daylight Time

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

#	Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.84e5	1.11e6	0.44	NO	0.735	36.72	36.75	NO	1.086	1.087	96.055	96.1	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.01e5	1.11e6	0.42	NO	0.568	38.71	38.77	NO	1.145	1.147	95.309	95.3	NO
34	34 13C-OCDF	1.28e6	1.11e6	0.89	NO	0.629	41.33	41.40	NO	1.222	1.225	183.63	91.8	NO
35	35 37Cl-2,3,7,8-TCDD	1.45e5	1.26e6			1.09	26.29	26.29	NO	1.030	1.030	10.596	106	NO
36	36 13C-1,2,3,4-TCDD	1.26e6	1.26e6	0.79	NO	1.00	25.59	25.52	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.96e6	1.96e6	0.80	NO	1.00	24.13	24.06	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.11e6	1.11e6	0.51	NO	1.00	33.84	33.81	NO	1.000	1.000	100.00	100	YES <sup>st</sup>

Dataset: Untitled

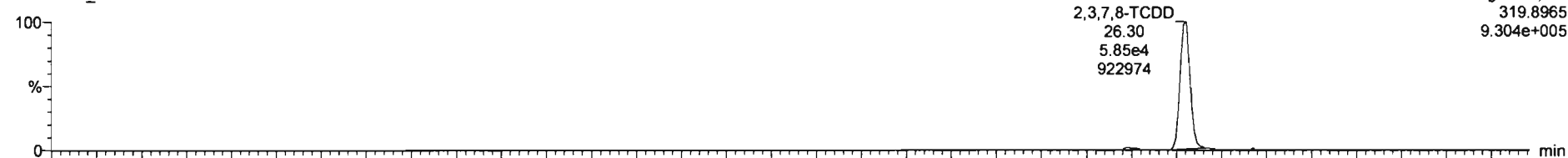
Last Altered: Tuesday, October 20, 2020 15:17:24 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-10-20-20.mdb 20 Oct 2020 10:47:39  
Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN\_1613vg12-10-20-20.cdb 20 Oct 2020 14:36:10

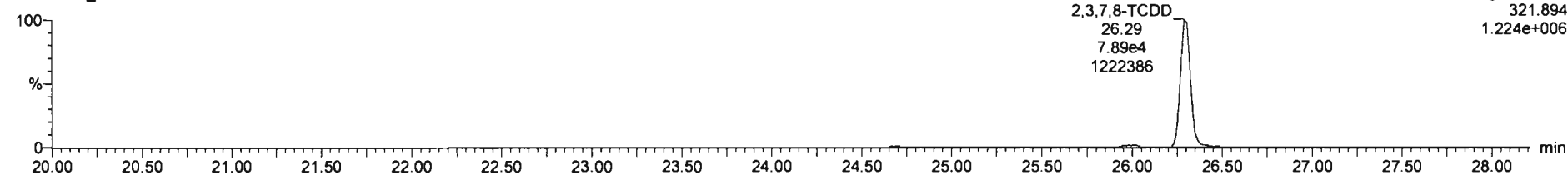
Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

**2,3,7,8-TCDD**

201020R1\_8

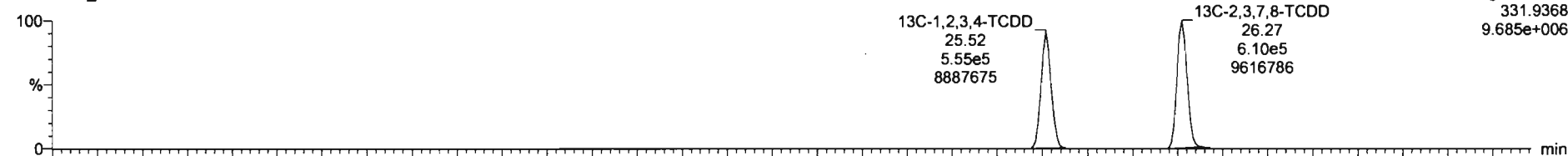


201020R1\_8

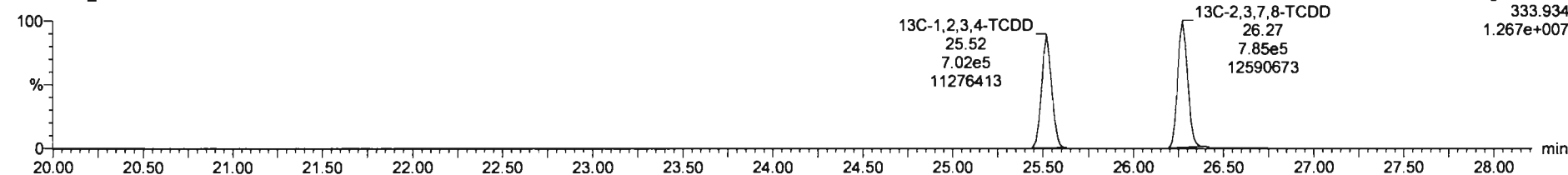


**13C-2,3,7,8-TCDD**

201020R1\_8



201020R1\_8





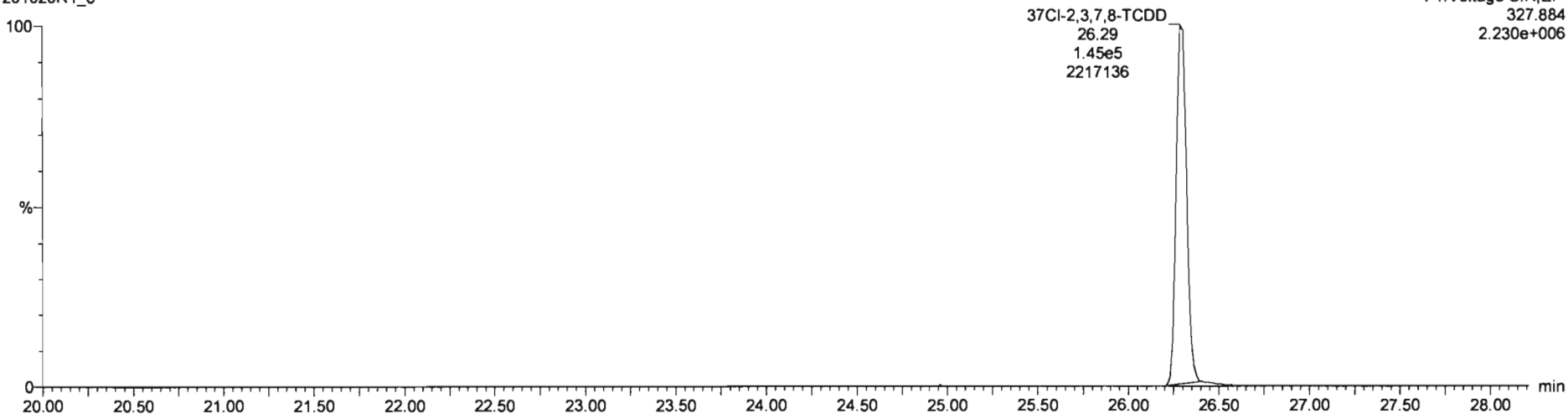
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

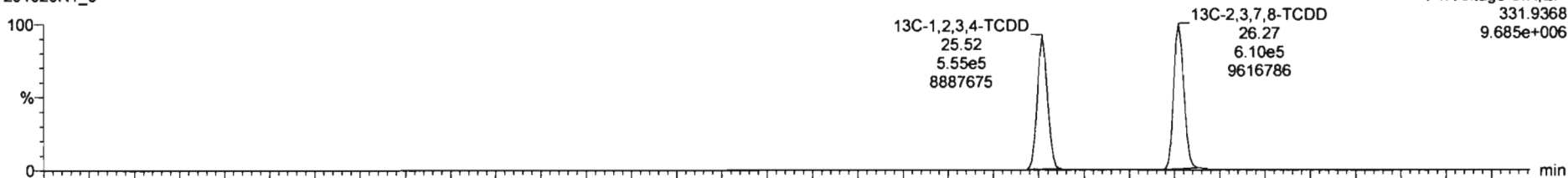
**37Cl-2,3,7,8-TCDD**

201020R1\_8

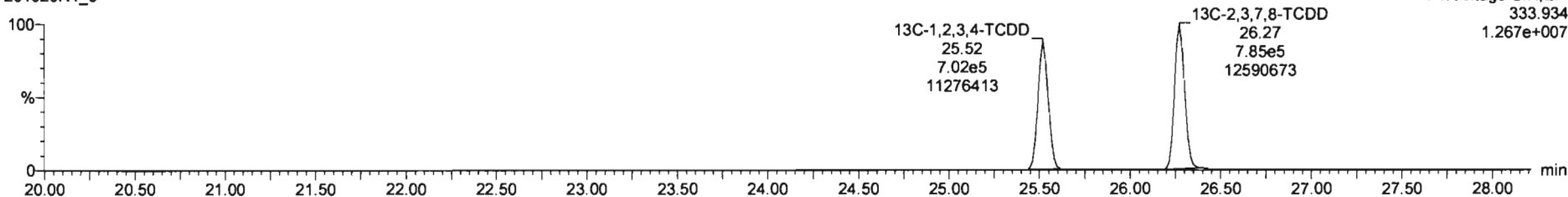


**13C-1,2,3,4-TCDD**

201020R1\_8



201020R1\_8





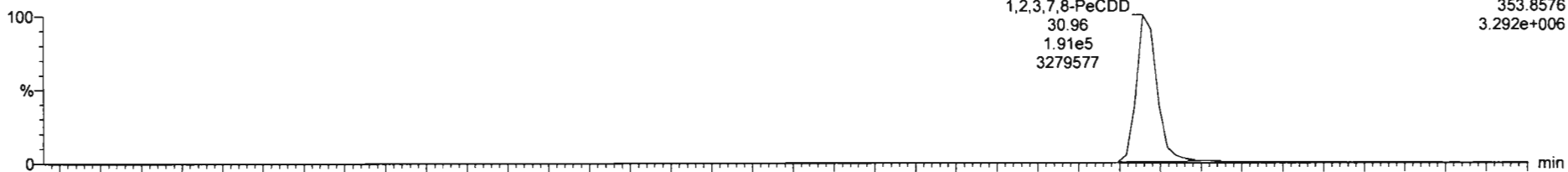
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

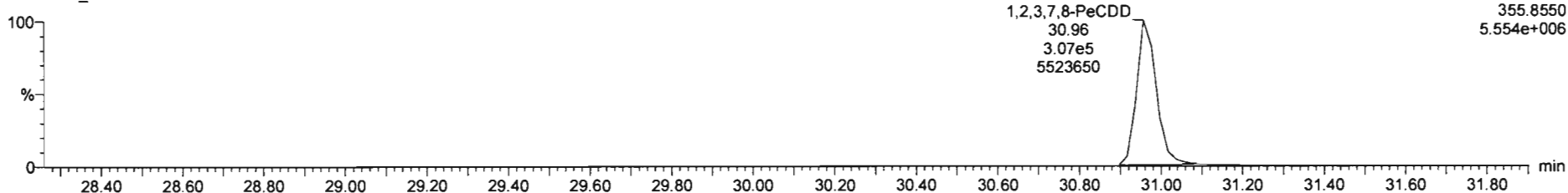
Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

**1,2,3,7,8-PeCDD**

201020R1\_8

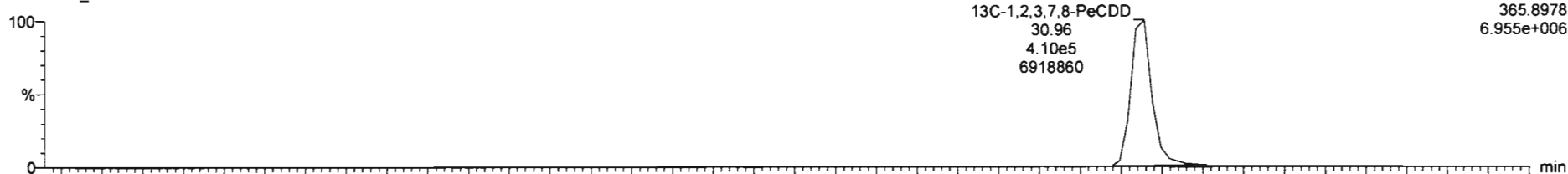


201020R1\_8

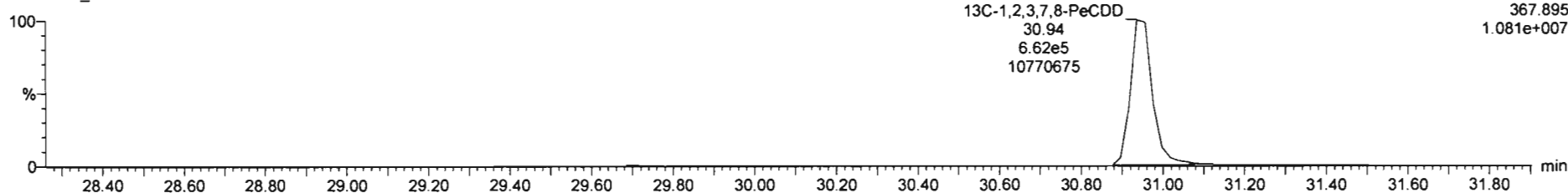


**13C-1,2,3,7,8-PeCDD**

201020R1\_8



201020R1\_8



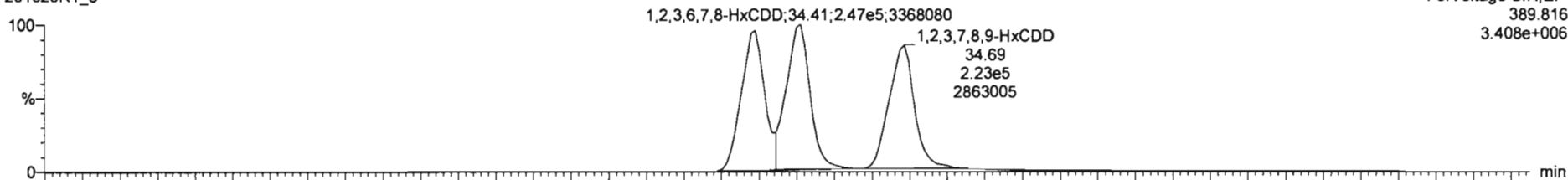
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

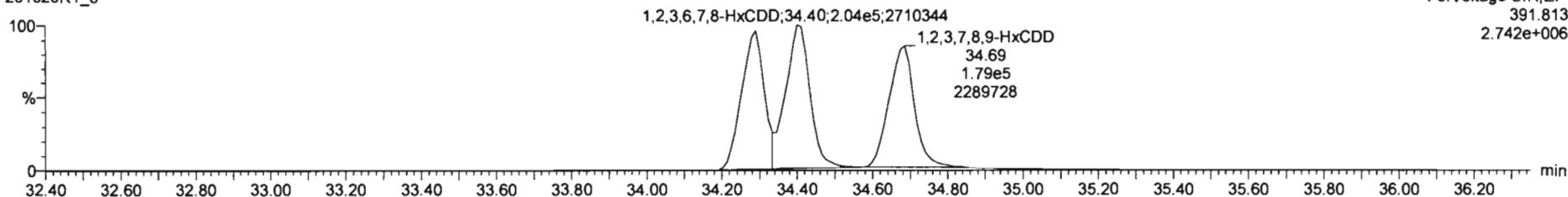
**1,2,3,4,7,8-HxCDD**

201020R1\_8



F3:Voltage SIR, EI+  
389.816  
3.408e+006

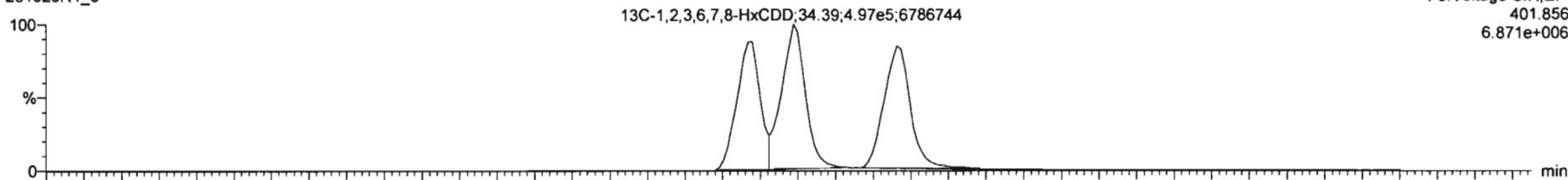
201020R1\_8



F3:Voltage SIR, EI+  
391.813  
2.742e+006

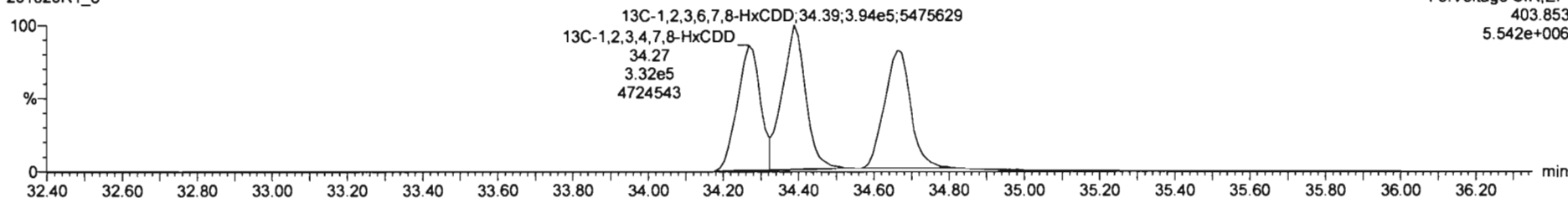
**13C-1,2,3,4,7,8-HxCDD**

201020R1\_8



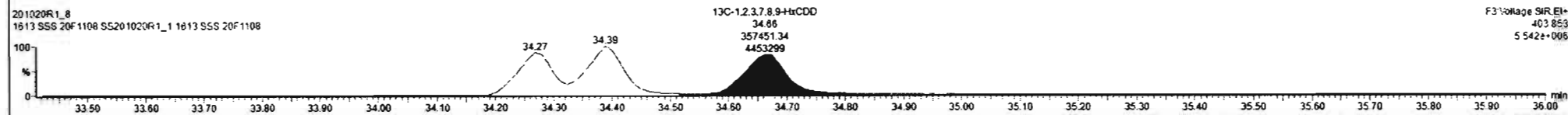
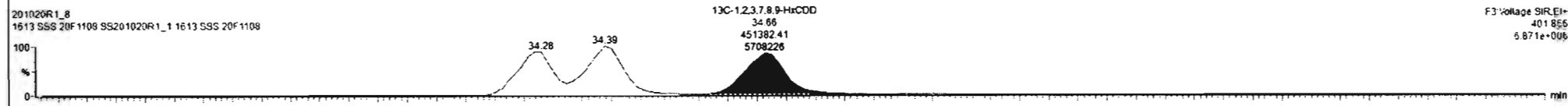
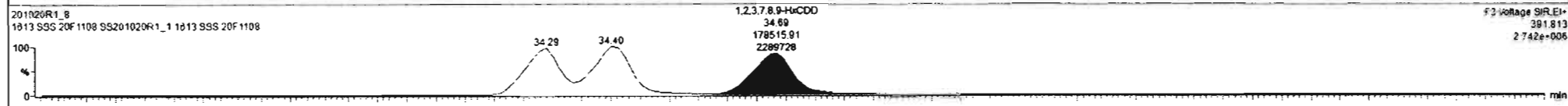
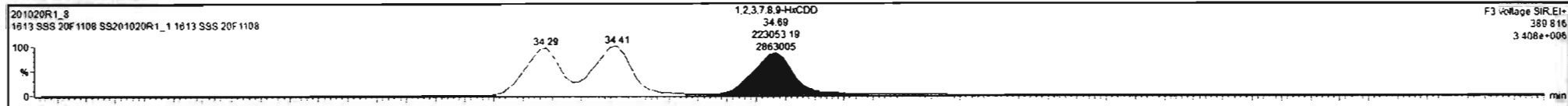
F3:Voltage SIR, EI+  
401.856  
6.871e+006

201020R1\_8



F3:Voltage SIR, EI+  
403.853  
5.542e+006

#	Name	Resp	IS Resp	Pred RA	RA	s/y	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	1.37e5	1.49e6	0.77	0.74	NO	0.9501	26.30	26.36	NO	1.001	1.001	16.4	104	NO
2	1,2,3,7,8-PeCDD	4.87e5	1.07e6	0.63	0.62	NO	0.8855	30.97	30.96	NO	1.000	1.000	52.3	105	NO
3	1,2,3,4,7,8-HxCDD	4.14e5	7.58e5	1.24	1.30	NO	1.0178	34.31	34.29	NO	1.001	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	4.51e5	8.90e5	1.24	1.21	NO	0.9145	34.40	34.41	NO	1.000	1.001	55.4	111	NO
5	1,2,3,7,8,9-HxCDD	4.62e5	8.89e5	1.24	1.25	NO	0.9345	34.67	34.69	NO	1.000	1.001	53.1	106	NO
6	1,2,3,4,6,7,8-HpCDD	3.08e5	8.75e5	1.04	1.02	NO	0.8897	38.15	38.17	NO	1.000	1.001	52.4	105	NO
7	OCDD	5.24e5	1.11e6	0.89	0.87	NO	0.8717	41.11	41.12	NO	1.000	1.000	109	109	NO
8	2,3,7,8-TCDF	1.63e5	1.90e6	0.77	0.75	NO	0.8243	25.60	25.62	NO	1.000	1.001	10.4	104	NO
9	1,2,3,7,8-PeCDF	7.63e5	1.57e6	1.55	1.57	NO	0.9626	29.70	29.71	NO	1.000	1.001	50.6	101	NO
10	2,3,4,7,8-PeCDF	8.90e5	1.52e6	1.55	1.58	NO	1.0684	30.76	30.78	NO	1.000	1.001	54.9	110	NO
11	1,2,3,4,7,8-HxCDF	5.49e5	1.04e6	1.24	1.22	NO	0.9535	33.36	33.38	NO	1.000	1.001	55.5	111	NO
12	1,2,3,6,7,8-HxCDF	6.04e5	1.08e6	1.24	1.22	NO	1.0080	33.50	33.51	NO	1.000	1.000	55.3	111	NO
13	2,3,4,6,7,8-HxCDF	5.49e5	1.01e6	1.24	1.23	NO	0.9907	34.16	34.18	NO	1.000	1.001	54.9	110	NO
14	1,2,3,7,8,9-HxCDF	4.44e5	8.60e5	1.24	1.23	NO	0.9506	35.17	35.18	NO	1.000	1.000	54.3	109	NO
15	1,2,3,4,6,7,8-HpCDF	4.29e5	7.84e5	1.04	1.01	NO	0.9986	36.76	36.77	NO	1.000	1.000	54.8	110	NO
16	1,2,3,4,7,8,9-HpCDF	3.47e5	6.01e5	1.04	1.01	NO	1.1238	38.77	38.78	NO	1.000	1.000	51.5	103	NO
17	OCDF	6.03e5	1.28e6	0.88	0.88	NO	0.8682	41.41	41.41	NO	1.000	1.000	108	108	NO
18	13C-2,3,7,8-TCDD	1.40e6	1.26e6	0.77	0.78	NO	1.1089	26.27	26.27	NO	1.029	1.030	100	100	NO
19	13C-1,2,3,7,8-PeCDD	1.07e6	1.26e6	0.63	0.62	NO	0.6585	30.91	30.96	NO	1.211	1.213	99.3	99.3	NO
20	13C-1,2,3,4,7,8-HxCDD	7.58e5	1.11e6	1.24	1.26	NO	0.6997	34.28	34.28	NO	1.013	1.014	97.5	97.5	NO
21	13C-1,2,3,6,7,8-HxCDD	8.90e5	1.11e6	1.24	1.26	NO	0.6327	34.39	34.39	NO	1.017	1.017	96.3	96.3	NO



Dataset: Untitled

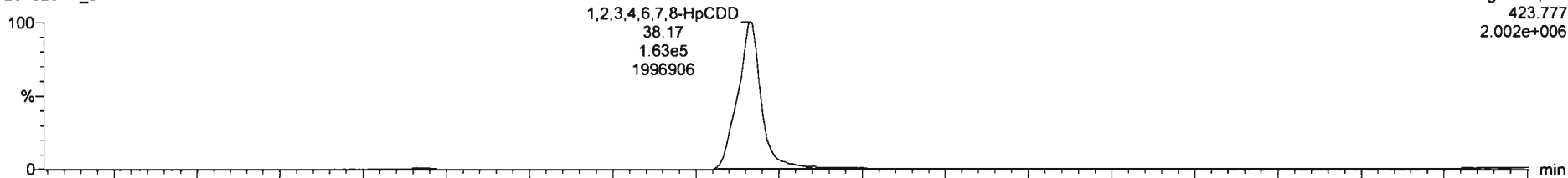
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

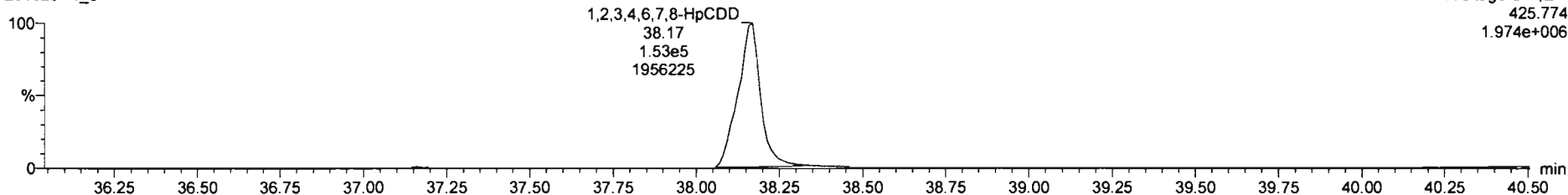
Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

**1,2,3,4,6,7,8-HpCDD**

201020R1\_8

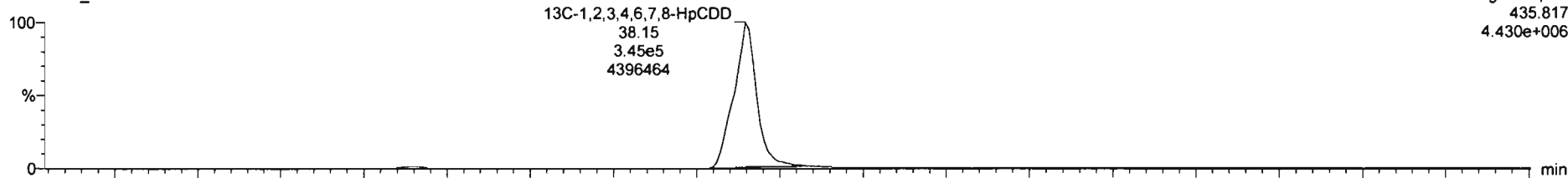


201020R1\_8

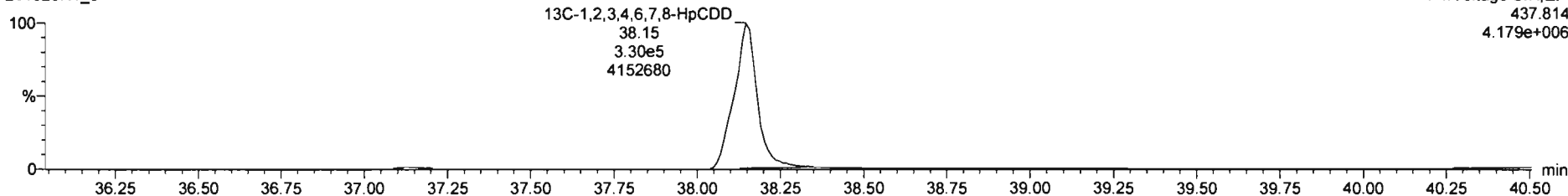


**13C-1,2,3,4,6,7,8-HpCDD**

201020R1\_8



201020R1\_8

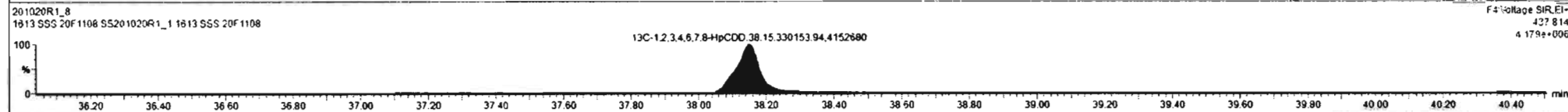
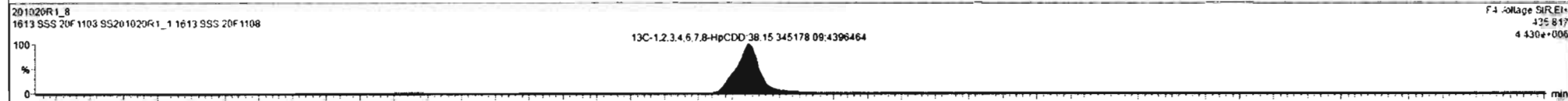
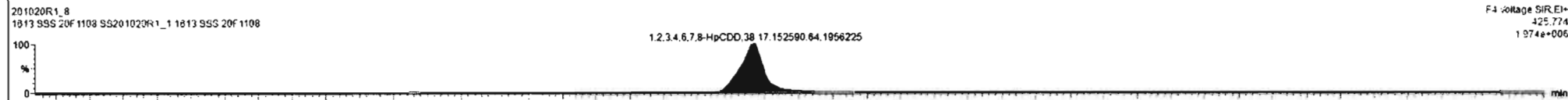
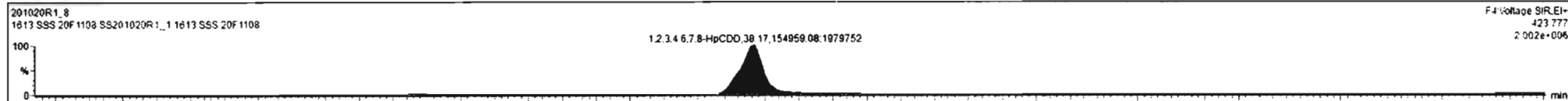


Target: 201020R1\_1 - Chromatogram

File Edit View Display Processing Window Help

201020R1\_8 - SS201020R1\_1 1613 SSS 20F 1103 - 1613 SSS 20F 1108

#	Name	Resp	IS Resp	Pred RA	RA	afy	RRF	Pred RT	RT	RT Flag	Pred IRT	IRT	Conc.	%Rec	STD dev
1	1,2,3,7,8-TCDD	1.37e5	1.49e6	0.77	0.74	NO	0.9561	26.30	26.36	NO	1.001	1.001	16.4	104	NO
2	1,2,3,7,8-PeCDD	4.97e5	1.07e6	0.83	0.62	NO	0.8855	30.97	30.96	NO	1.006	1.000	52.3	105	NO
3	1,2,3,4,7,8-HxCDD	4.14e5	7.58e5	1.24	1.30	NO	1.0178	34.31	34.29	NO	1.001	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	4.51e5	8.90e5	1.24	1.21	NO	0.9145	34.40	34.41	NO	1.000	1.001	55.4	111	NO
5	1,2,3,7,8,9-HxCDD	4.02e5	8.09e5	1.24	1.25	NO	0.9345	34.67	34.69	NO	1.000	1.001	53.1	106	NO
6	1,2,3,4,6,7,8-HpCDD	3.06e5	6.75e5	1.64	1.62	NO	0.6697	38.15	38.17	NO	1.009	1.001	52.4	105	NO
7	OCDD	5.24e5	1.11e6	0.89	0.87	NO	0.8717	41.11	41.12	NO	1.000	1.000	109	109	NO
8	2,3,7,8-TCDF	1.63e5	1.90e6	0.77	0.75	NO	0.8243	25.80	25.82	NO	1.000	1.001	16.4	104	NO
9	1,2,3,7,8-PeCDF	7.83e5	1.57e6	1.55	1.57	NO	0.9626	29.70	29.71	NO	1.000	1.001	50.6	101	NO
10	1,2,3,4,7,8-HxCDF	8.90e5	1.52e6	1.55	1.58	NO	1.0684	30.76	30.78	NO	1.000	1.001	54.9	110	NO
11	1,2,3,4,7,8-HxCDF	5.48e5	1.04e6	1.24	1.22	NO	0.9535	33.36	33.38	NO	1.000	1.001	55.5	111	NO
12	1,2,3,6,7,8-HxCDF	6.04e5	1.08e6	1.24	1.22	NO	1.0080	33.50	33.51	NO	1.000	1.000	55.3	111	NO
13	1,2,3,4,6,7,8-HxCDF	5.48e5	1.01e6	1.24	1.23	NO	0.9907	34.16	34.18	NO	1.000	1.001	54.9	110	NO
14	1,2,3,7,8,9-HxCDF	4.44e5	8.60e5	1.24	1.23	NO	0.9505	35.17	35.18	NO	1.000	1.000	54.3	109	NO
15	1,2,3,4,6,7,8-HpCDF	4.29e5	7.84e5	1.04	1.01	NO	0.9966	36.76	36.77	NO	1.000	1.000	54.8	110	NO
16	1,2,3,4,7,8,9-HpCDF	3.47e5	6.01e5	1.04	1.01	NO	1.1258	38.77	38.78	NO	1.000	1.000	51.5	103	NO
17	OCDF	6.03e5	1.28e6	0.89	0.88	NO	0.8682	41.41	41.41	NO	1.000	1.000	108	108	NO
18	13C-2,3,7,8-TCDD	1.40e6	1.26e6	0.77	0.78	NO	1.1089	26.27	26.27	NO	1.029	1.030	100	100	NO
19	13C-1,2,3,7,8-PeCDD	1.07e6	1.26e6	0.63	0.62	NO	0.6585	30.91	30.96	NO	1.211	1.213	99.3	99.3	NO
20	13C-1,2,3,4,7,8-HxCDD	7.58e5	1.11e6	1.24	1.28	NO	0.6997	34.28	34.28	NO	1.013	1.014	97.5	97.5	NO
21	13C-1,2,3,6,7,8-HxCDD	6.90e5	1.11e6	1.24	1.26	NO	0.8327	34.39	34.39	NO	1.017	1.017	96.3	96.3	NO



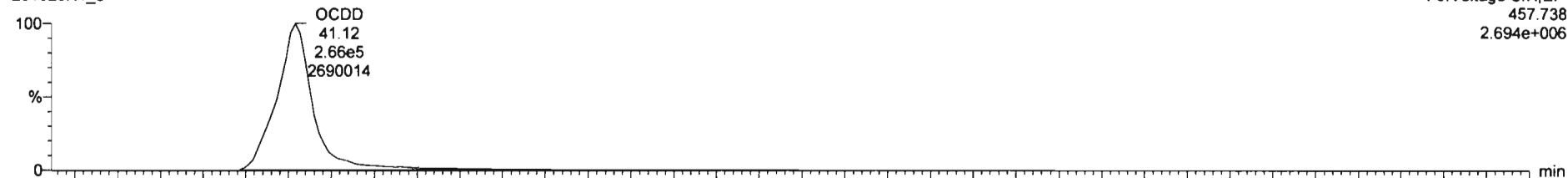
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Last Altered: Tuesday, October 20, 2020 15:17:24 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

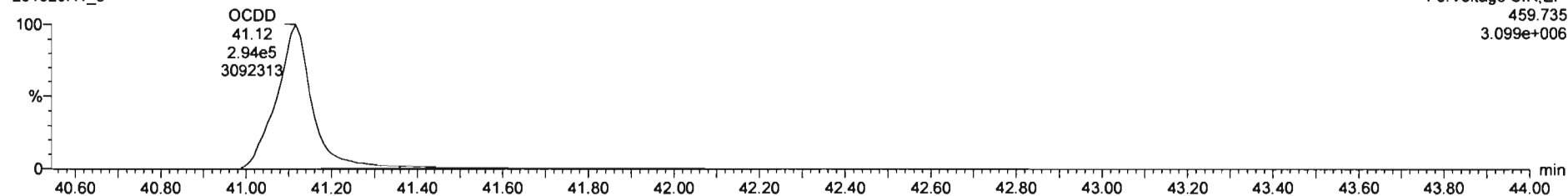
Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

**OCDD**

201020R1\_8

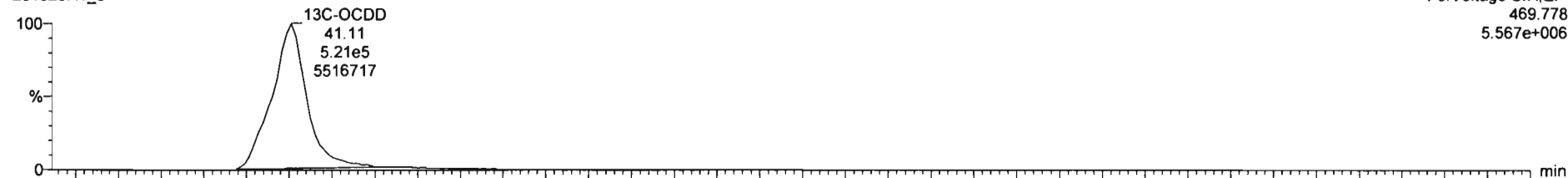


201020R1\_8

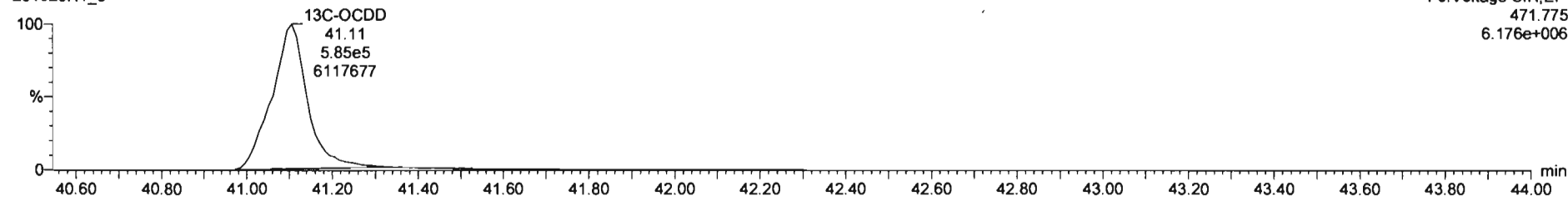


**13C-OCDD**

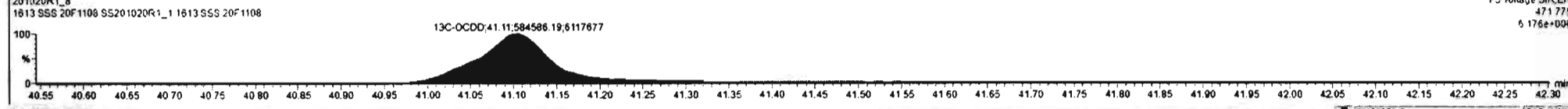
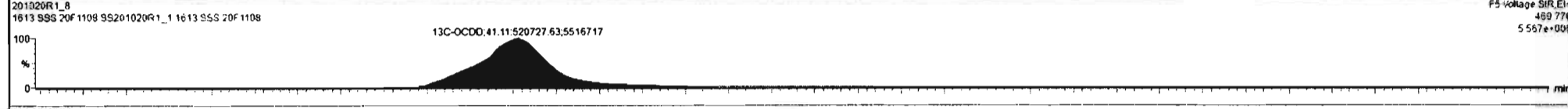
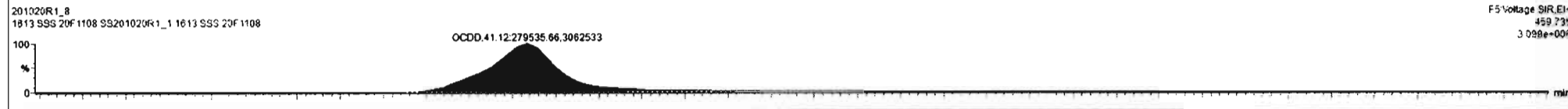
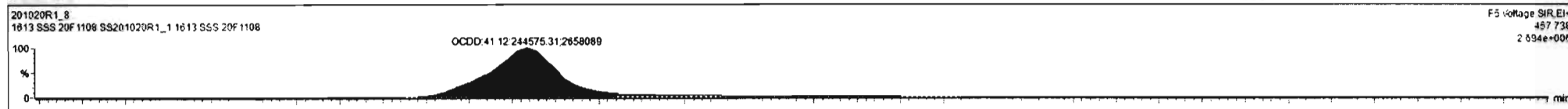
201020R1\_8



201020R1\_8



#	Name	Resp	IS Resp	Pred RA	RA	sfy	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	2,3,7,8-TCDD	1.37e5	1.48e6	0.77	0.74	NO	0.9501	26.36	26.36	NO	1.001	1.001	10.4	104	NO
2	1,2,3,7,8-PeCDD	4.97e5	1.07e6	0.63	0.62	NO	0.8855	30.97	30.96	NO	1.000	1.000	52.3	105	NO
3	1,2,3,4,7,8-HxCDD	4.14e5	7.58e5	1.24	1.30	NO	1.0178	34.31	34.29	NO	1.001	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	4.51e5	8.90e5	1.24	1.21	NO	0.9145	34.48	34.41	NO	1.000	1.001	55.4	111	NO
5	1,2,3,7,8,9-HxCDD	4.02e5	8.09e5	1.24	1.25	NO	0.9345	34.67	34.66	NO	1.000	1.001	53.1	106	NO
6	1,2,3,4,6,7,8-HxCDD	3.08e5	6.75e5	1.04	1.02	NO	0.8697	38.15	38.17	NO	1.000	1.001	52.4	105	NO
7	OCDD	8.26e5	1.11e6	0.89	0.87	NO	0.8717	41.11	41.12	NO	1.000	1.000	100	100	NO
8	2,3,7,8-TCDF	1.63e5	1.90e6	0.77	0.75	NO	0.8243	25.60	25.62	NO	1.000	1.001	10.4	104	NO
9	1,2,3,7,8-PeCDF	7.63e5	1.57e6	1.55	1.57	NO	0.9826	29.70	29.71	NO	1.000	1.001	50.6	101	NO
10	2,3,4,7,8-PeCDF	8.90e5	1.52e6	1.55	1.58	NO	1.0684	30.76	30.78	NO	1.000	1.001	54.9	110	NO
11	1,2,3,4,7,8-HxCDF	5.48e5	1.04e6	1.24	1.22	NO	0.9535	33.36	33.36	NO	1.000	1.001	55.5	111	NO
12	1,2,3,6,7,8-HxCDF	6.04e5	1.08e6	1.24	1.22	NO	1.0060	33.50	33.51	NO	1.000	1.000	55.3	111	NO
13	2,3,4,6,7,8-HxCDF	5.48e5	1.01e6	1.24	1.23	NO	0.9907	34.16	34.18	NO	1.000	1.001	54.9	110	NO
14	1,2,3,7,8,9-HxCDF	4.44e5	8.60e5	1.24	1.23	NO	0.9506	35.17	35.18	NO	1.000	1.000	54.3	109	NO
15	1,2,3,4,6,7,8-HpCDF	4.29e5	7.84e5	1.04	1.01	NO	0.9866	36.76	36.77	NO	1.000	1.000	54.8	110	NO
16	1,2,3,4,7,8,9-HpCDF	3.47e5	6.01e5	1.04	1.01	NO	1.1238	38.77	38.78	NO	1.000	1.000	51.5	103	NO
17	OCDF	6.03e5	1.28e6	0.89	0.88	NO	0.6682	41.41	41.41	NO	1.000	1.000	100	100	NO
18	13C-2,3,7,8-TCDD	1.40e6	1.26e6	0.77	0.78	NO	1.1089	26.27	26.27	NO	1.029	1.030	100	100	NO
19	13C-1,2,3,7,8-PeCDD	1.07e6	1.26e6	0.63	0.62	NO	0.6585	30.91	30.96	NO	1.211	1.213	98.3	99.3	NO
20	13C-1,2,3,4,7,8-HxCDD	7.58e5	1.11e6	1.24	1.26	NO	0.6997	34.26	34.28	NO	1.013	1.014	97.5	97.5	NO
21	13C-1,2,3,6,7,8-HxCDD	8.90e5	1.11e6	1.24	1.26	NO	0.8327	34.39	34.39	NO	1.017	1.017	96.3	96.3	NO





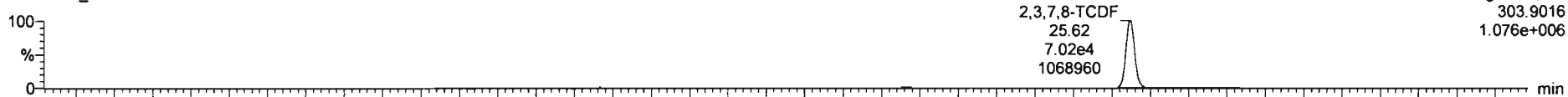
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

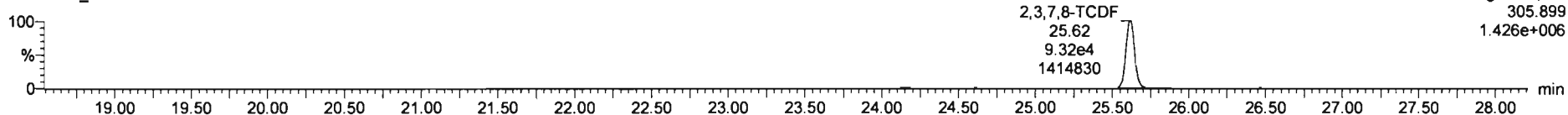
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**2,3,7,8-TCDF**

201020R1\_8

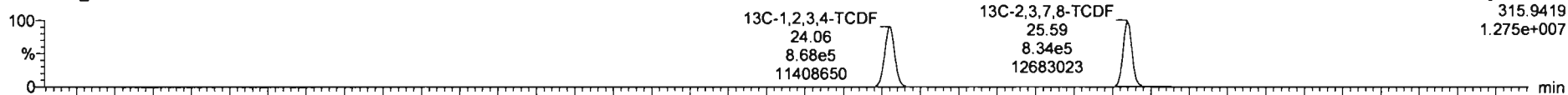


201020R1\_8

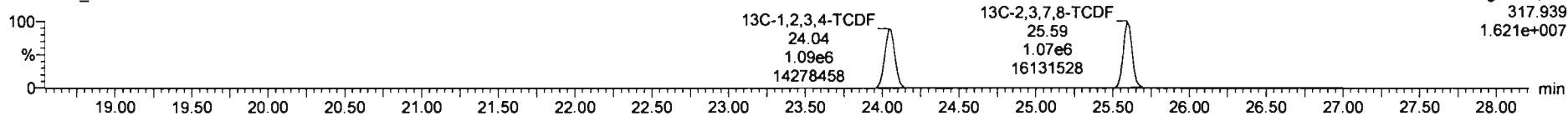


**13C-2,3,7,8-TCDF**

201020R1\_8

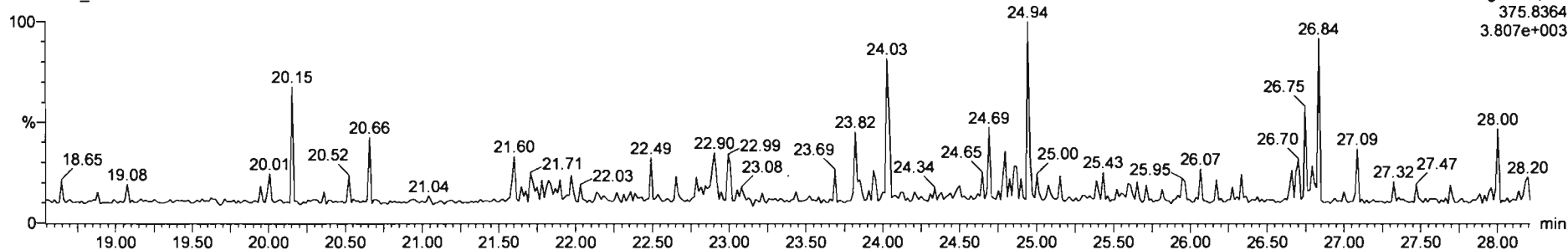


201020R1\_8



**DPE1**

201020R1\_8



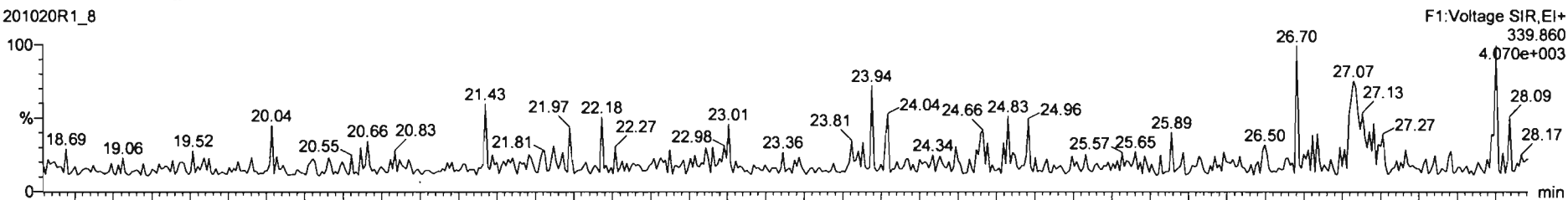
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

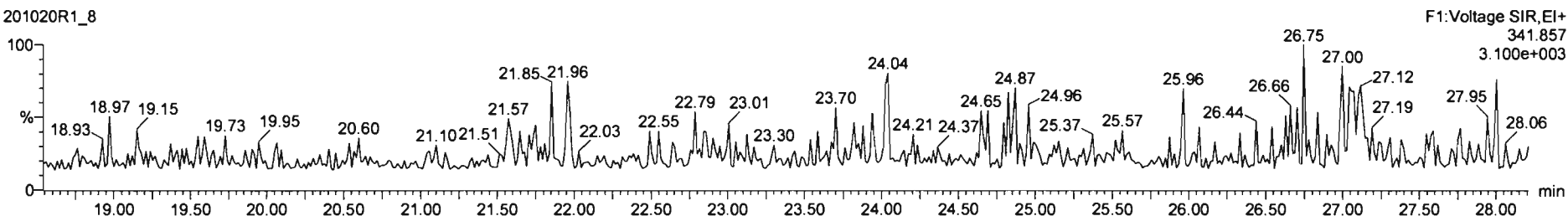
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201020R1\_8



F1:Voltage SIR, EI+  
339.860  
4.070e+003

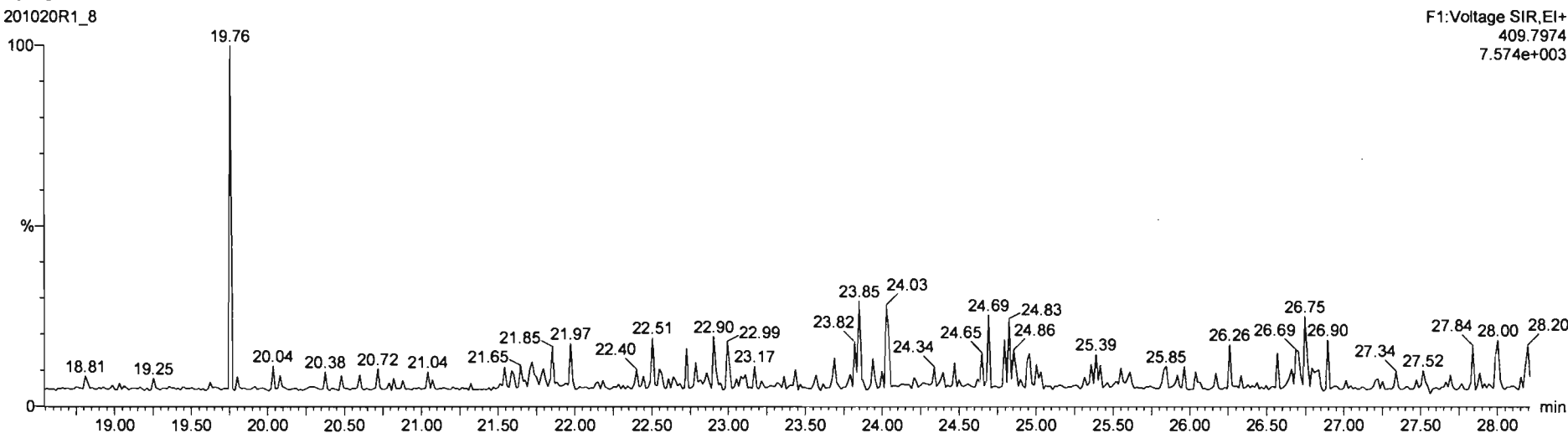
201020R1\_8



F1:Voltage SIR, EI+  
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3.100e+003

DPE6

201020R1\_8



F1:Voltage SIR, EI+  
409.7974  
7.574e+003

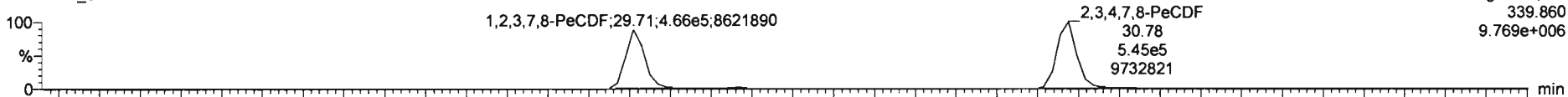
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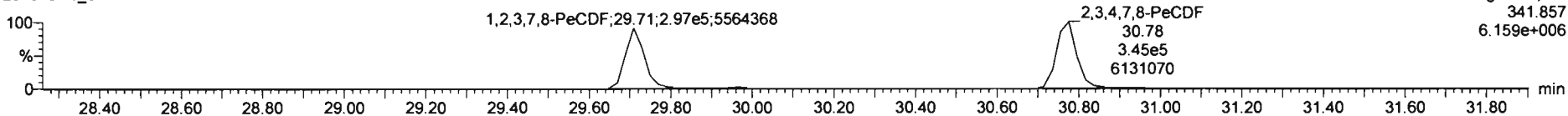
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**1,2,3,7,8-PeCDF**

201020R1\_8

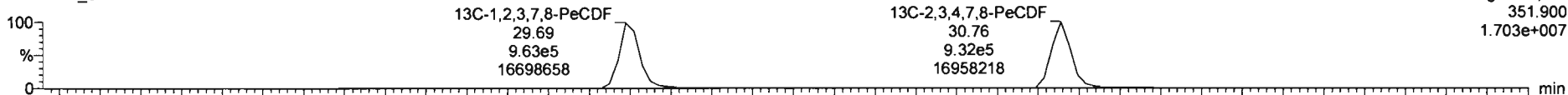


201020R1\_8

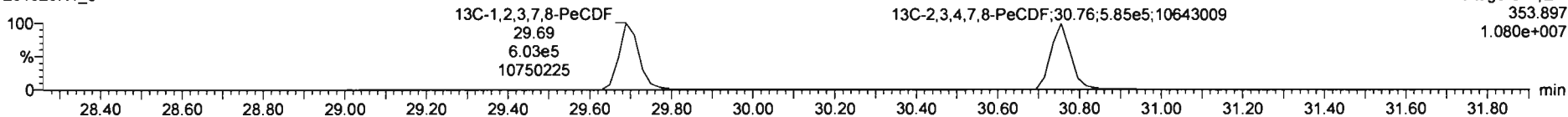


**13C-1,2,3,7,8-PeCDF**

201020R1\_8

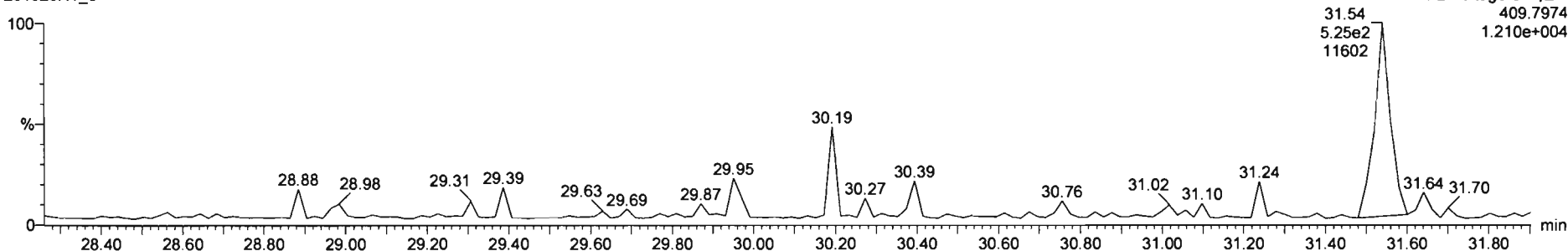


201020R1\_8



**DPE2**

201020R1\_8



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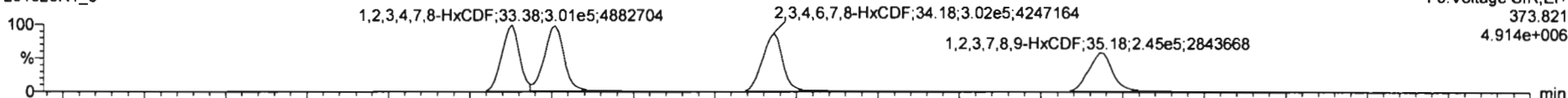
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

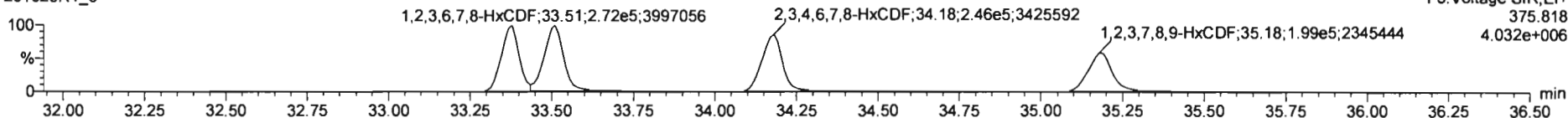
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**1,2,3,4,7,8-HxCDF**

201020R1\_8

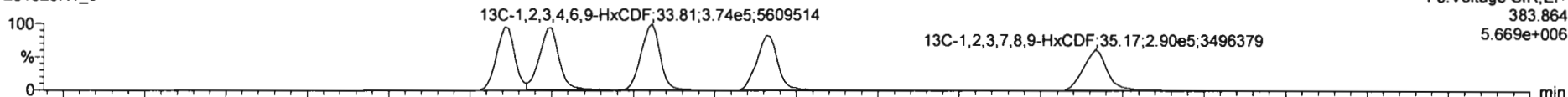


201020R1\_8

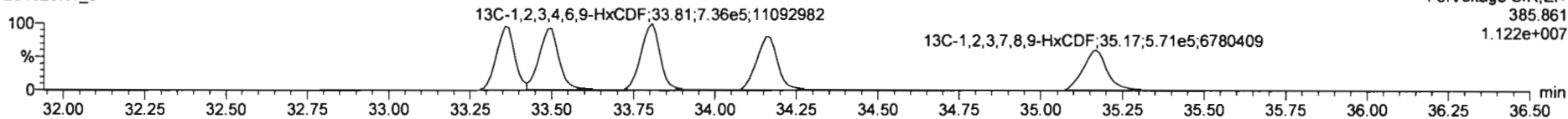


**13C-1,2,3,4,7,8-HxCDF**

201020R1\_8

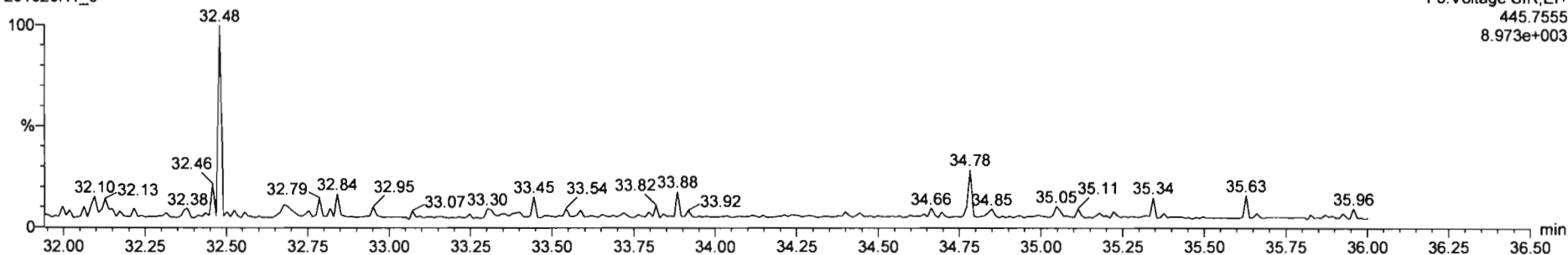


201020R1\_8



**DPE3**

201020R1\_8



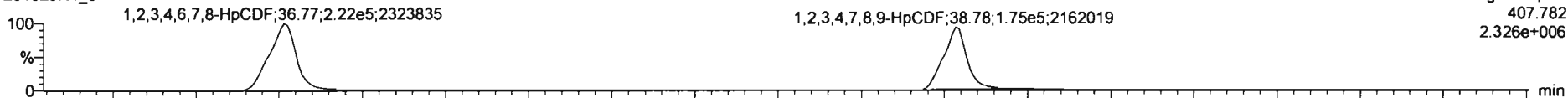
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

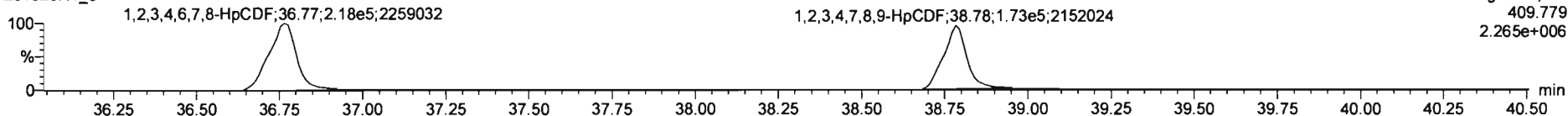
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**1,2,3,4,6,7,8-HpCDF**

201020R1\_8

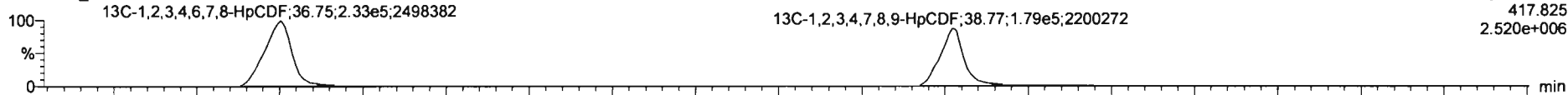


201020R1\_8

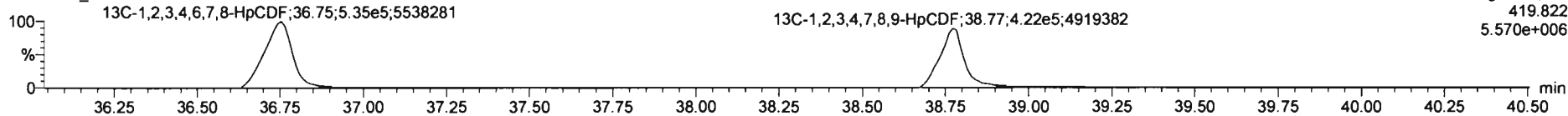


**13C-1,2,3,4,6,7,8-HpCDF**

201020R1\_8

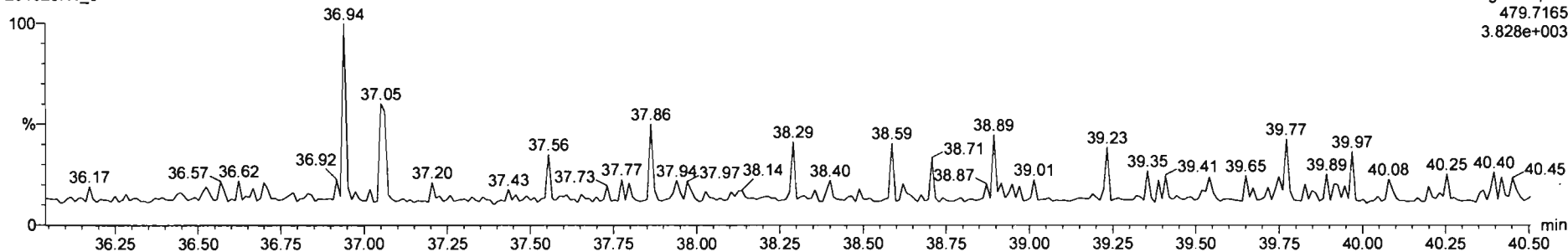


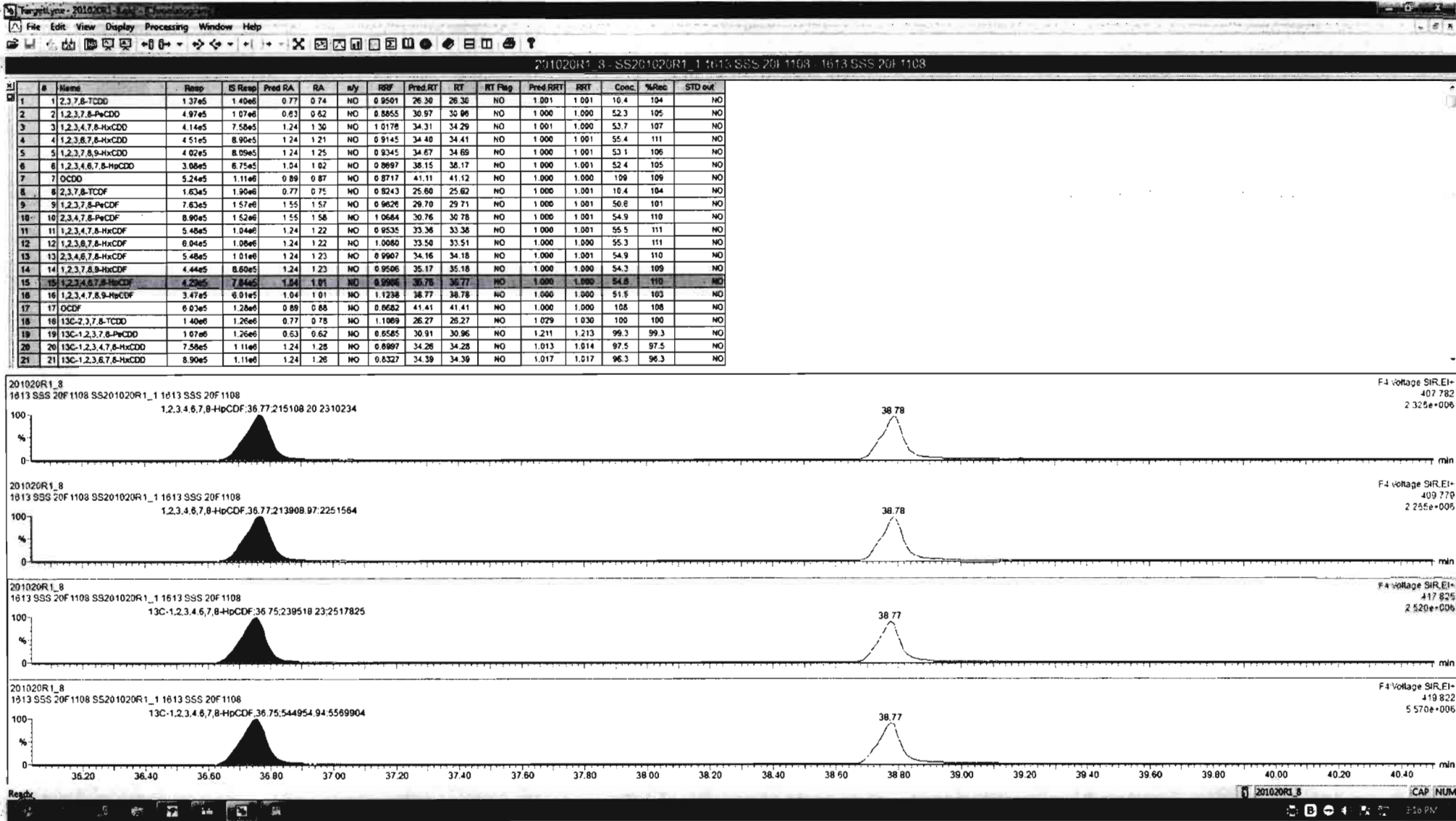
201020R1\_8



**DPE4**

201020R1\_8





Dataset: Untitled

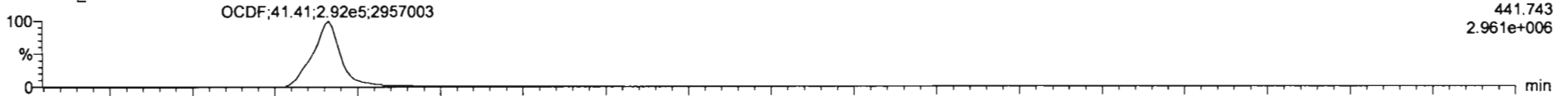
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Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

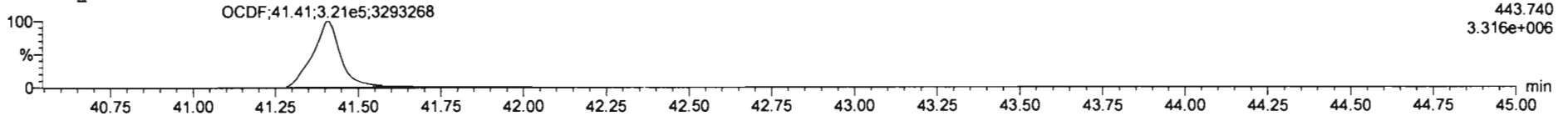
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**OCDF**

201020R1\_8

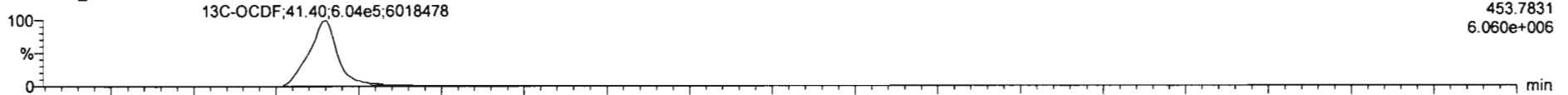


201020R1\_8

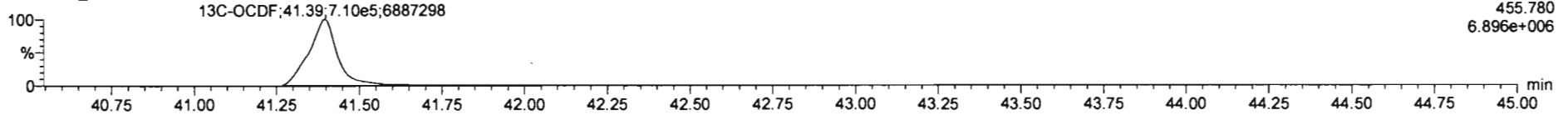


**13C-OCDF**

201020R1\_8

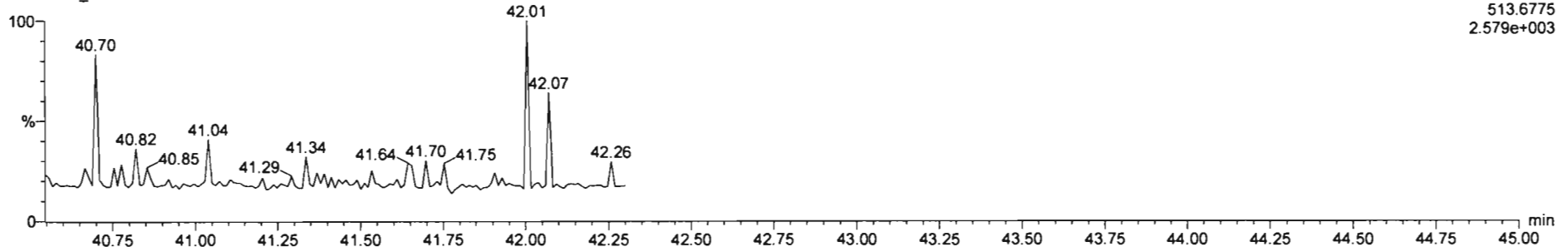


201020R1\_8



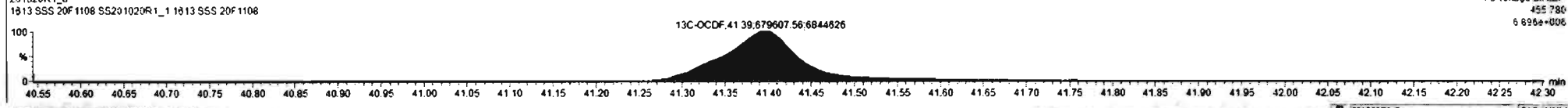
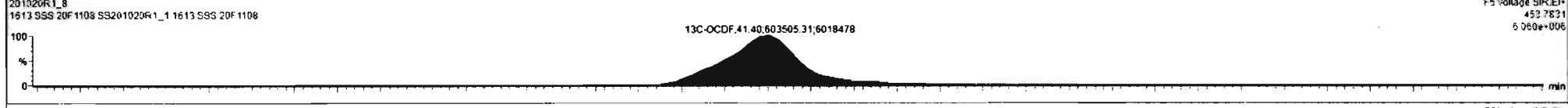
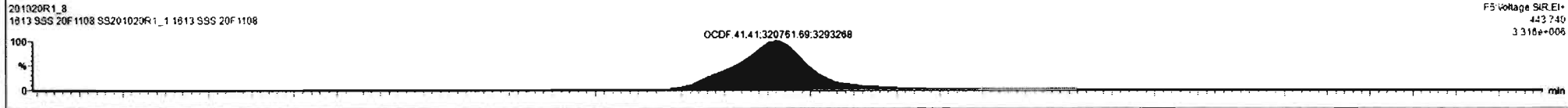
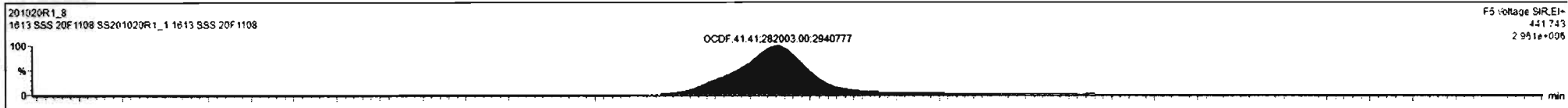
**DPE5**

201020R1\_8





#	Name	Resp	IS Resp	Pred RA	RA	aly	RPF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc.	%Rec	STD out
1	1,2,3,7,8-TCDD	1.37e5	1.40e6	0.77	0.74	NO	0.9501	26.30	26.30	NO	1.001	1.001	16.4	104	NO
2	1,2,3,7,8-PeCDD	4.97e5	1.07e6	0.63	0.62	NO	0.8855	30.97	30.96	NO	1.000	1.000	52.3	105	NO
3	1,2,3,4,7,8-HxCDD	4.14e5	7.58e5	1.24	1.30	NO	1.0178	34.31	34.29	NO	1.001	1.000	53.7	107	NO
4	1,2,3,6,7,8-HxCDD	4.51e5	8.90e5	1.24	1.21	NO	0.9145	34.40	34.41	NO	1.000	1.001	55.4	111	NO
5	1,2,3,7,8,9-HxCDD	4.02e5	8.09e5	1.24	1.25	NO	0.9345	34.67	34.69	NO	1.000	1.001	53.1	106	NO
6	1,2,3,4,6,7,8-HpCDD	3.08e5	6.75e5	1.04	1.02	NO	0.8697	38.15	38.17	NO	1.000	1.001	52.4	105	NO
7	OCDF	5.24e5	1.11e6	0.89	0.87	NO	0.8717	41.11	41.12	NO	1.000	1.000	109	109	NO
8	1,2,3,7,8-TCDF	1.63e5	1.90e6	0.77	0.75	NO	0.8243	25.88	25.62	NO	1.000	1.001	10.4	104	NO
9	1,2,3,7,8-PeCDF	7.63e5	1.57e6	1.55	1.57	NO	0.9826	29.70	29.71	NO	1.000	1.001	50.6	101	NO
10	1,2,3,4,7,8-PeCDF	8.90e5	1.52e6	1.55	1.58	NO	1.0684	30.76	30.78	NO	1.000	1.001	54.9	110	NO
11	1,2,3,4,7,8-HxCDF	5.48e5	1.04e6	1.24	1.22	NO	0.9535	33.36	33.38	NO	1.000	1.001	55.5	111	NO
12	1,2,3,6,7,8-HxCDF	6.04e5	1.08e6	1.24	1.22	NO	1.0080	33.50	33.51	NO	1.000	1.000	55.3	111	NO
13	1,2,3,4,6,7,8-HxCDF	5.48e5	1.01e6	1.24	1.23	NO	0.9907	34.16	34.18	NO	1.000	1.001	54.9	110	NO
14	1,2,3,7,8,9-HxCDF	4.44e5	8.60e5	1.24	1.23	NO	0.9506	35.17	35.18	NO	1.000	1.000	54.3	109	NO
15	1,2,3,4,6,7,8-HpCDF	4.29e5	7.84e5	1.04	1.01	NO	0.9086	36.76	36.77	NO	1.000	1.000	54.8	110	NO
16	1,2,3,4,7,8,9-HpCDF	3.47e5	6.91e5	1.04	1.01	NO	1.1238	38.77	38.78	NO	1.000	1.000	51.5	103	NO
17	OCDF	8.85e5	1.28e6	0.89	0.88	NO	0.8852	41.41	41.41	NO	1.000	1.000	108	108	NO
18	13C-1,2,3,7,8-TCDD	1.40e6	1.26e6	0.77	0.78	NO	1.1089	26.27	26.27	NO	1.029	1.030	100	100	NO
19	13C-1,2,3,7,8-PeCDD	1.07e6	1.26e6	0.63	0.62	NO	0.8585	30.91	30.96	NO	1.211	1.213	96.3	99.3	NO
20	13C-1,2,3,4,7,8-HxCDD	7.58e5	1.11e6	1.24	1.26	NO	0.8997	34.26	34.28	NO	1.013	1.014	97.5	97.5	NO
21	13C-1,2,3,6,7,8-HxCDD	6.90e5	1.11e6	1.24	1.26	NO	0.8327	34.39	34.39	NO	1.017	1.017	96.3	96.3	NO



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Last Altered: Tuesday, October 20, 2020 15:17:24 Pacific Daylight Time  
Printed: Tuesday, October 20, 2020 15:17:27 Pacific Daylight Time

Name: 201020R1\_8, Date: 20-Oct-2020, Time: 14:29:33, ID: SS201020R1\_1 1613 SSS 20F1108, Description: 1613 SSS 20F1108

